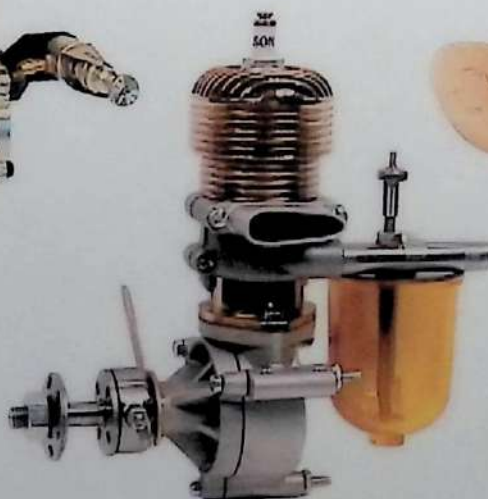


American Model Airplane Engines

1911 - 2005

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Collectible Model Airplane Engines



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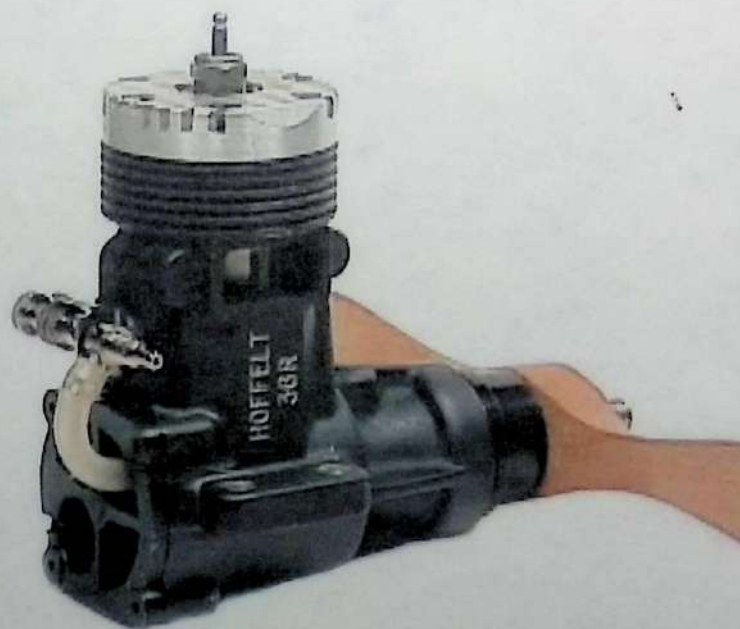
More Than 1500 Model Engine Listings and over 900 Pictures

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Pricing is based on the bi-monthly MECA Swap Sheet plus the most
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A HISTORY OF THE AMERICAN MODEL AIRPLANE ENGINE





POWER BY
Hoffelt 36 R
Including 40R & 41R

FRANK H. ANDERSON

817 9th LINE, INNISFIL, ONTARIO, CANADA L9S 3Y2 - TEL/FAX-705-436-1970

Email: fvanderson@sympatico.ca Website: www.andersonsbluebook.com

"Anderson's Blue Book" and the "Golden Age of Model Airplanes"

Re: Anderson's Blue Book 4th Edition

Nine (9) years ago, in 1996, we surprised the 'World' of model engine collectors with the First Edition of Anderson's Blue Book which included a smattering of 'averaged' model airplane engine prices based on a bimonthly Model Engine Collectors' Association (MECA) Swap Sheet.

We've now evolved through two more editions (2nd and 3rd) which have included Asking prices from the MECA Swap Sheets and Sold prices on eBay (Internet) for American engines from 1911 to 1965.

Our 4th Edition covers the time period of 1911 to 2005 40 more years of engines and manufacturers !

We've dropped 1/2A engines (about 300) for a proposed new 1/2A book in 2007.

Our new Blue Book has a numbering system which allows for expansion to accommodate more engines (insertions) and make it very easy to locate an engine without a tedious cross-referencing..

This 4th Edition is now the single reference for all American model airplane engines produced from 1911 to 2005 NOW !

Note: Our New Number System

Example:

Fox produced both R/C and Non-R/C engines (U-Control or Free Flight) in the same cases, so we did NOT provide a separate number for an R/C or U/C version. We considered these to essentially be the same engine; i.e. Fox 36 RC "B#557" (this engine evolved from the 36 B/B Combat Special) and FOX stated that this R/C engine was "easily converted to a Super Combat engine" for U-Control with no R/C carburetor !

To advertise this engine as a U-Control version we'd recommend as follows;

Fox 36 U/C "B#557" (and its' condition)

Or as an R/C version as follows; Fox 36 R/C "B#557" (and its' condition)

K&B also produced both R/C and U-Control/ Free Flight engines in the same cases and we did NOT provide separate numbers for these engines, i.e. K&B 15 R/C Series "72 B#831" and the U-Control version had a regular rear intake with needle valve assembly for either U-Control/ Free Flight the basic engine remains the same so in our opinion the number should remain the same with buying or selling referenced as we have for the Fox engines, above.

Now you know what engines you are selling or buying with our New Numbering System.

Enjoy our 4th Edition and note that we've added more than 30 manufacturers such as Conley, Fitzpatrick, Hoffelt, Quadra, Wahl, Wiley and more.

Our Best Wishes,

Frank & Vicki

WELCOME TO MECA

We are the **MODEL ENGINE COLLECTORS ASSOCIATION (MECA)**

As the name implies, our International membership consists of individuals from around the world who engage in some form of model engine collecting.

When dealing with a fellow MECA member you can do so with confidence.

Our 15 day rule protects both the buyer and seller by providing a means to settle trade disputes.

Through our publication a combined Swap Sheet and news Bulletin you will be able to learn about and contact people with similar interests that will be able to help you:

- . Obtain engines to use in models or for your collection
- . Locate missing parts for engines you have
- . Locate services that are available to aid in repair or restoration of your engines
- . Dispose of your duplicate or unwanted engines
- . Learn the history of many lines of engines
- . Find out about MECA swap meets ("COLLECTOS") THAT TAKE PLACE WORLDWIDE THROUGH OUT THE YEAR

Be sure to attend our annual EXPO

-DETACH HERE AND MAIL-

THE MODEL ENGINE COLLECTORS ASSOCIATION

MEMBERSHIP APPLICATION

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MECA Pledge:

I, the undersigned, does agree to uphold and practice the Model Engine Collectors Association code of ethics and fair dealing as follows:

1. To protect the interest of fellow members.
2. To be honest in my dealings. My word is my bond!

A complete copy of MECA rules is available by request.

Signed _____ Date _____

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MODEL AIRPLANE ENGINE COLLECTOR'S LISTINGS
AND PRICE GUIDE, WITH PHOTOS AND DRAWINGS

ANDERSON'S BLUE BOOK

American Model Airplane Engines
1911 - 2005

by Frank H. Anderson

4 TH EDITION

INCLUDES MECA ASKING PRICES
PLUS
INTERNET EBAY SOLD PRICES

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(Except for purposes of review)
from Frank H. Anderson

Dedicated to my wife Vicki, my closest friend Co-Writer/Author
for over 40 years without whom most of this wouldn't have happened.

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Front Cover - Engines

Top Left - 1997 K&B .48 R/C
Top Right - 1990 Fox 50th Anniversary
Center - 1982 Wahl-Ohlsson .56 Miniature - Gold Plated
Bottom Left - 1990's Jett Sport .40 R/C
Bottom Right - 1995 Nelson Formula .40
- from a variety of collections

Rear Cover - Hoffelt 36R

Mike Hoffelt's highly modified K&B 40S (see listing)

INTRODUCTION by DARREL E. PEUGH - Engine Collector Since 1943

I want to repeat some of my Introduction from the 3rd Edition of the Blue Book:

Since its' introduction in 1996, Anderson's Blue Book has become recognized worldwide as the "Bible" for American model engines prior to 1965. The Second Edition built on that base by correcting errors in the First Edition, filling in holes, particularly in the early part of the century, and updating and increasing the coverage of the price guide. The Third Edition further increases the accuracy and scope by correcting errors in some of the listings and by adding to the listing some newly identified engines. In addition more and better pictures have been provided in a number of cases.

Anderson's Blue Book has been found to be valuable to a wide variety of users:

For the collector who knows everything about all engines, it provides a check on what others think.

For the experienced collector who has a lot of knowledge and files where he can find information, it provides a convenient, time-saving reference for identification and pricing.

For the beginning collector, it has proven to be an invaluable reference as an introduction to what engines to look for and their value.

For those saddled with the task of disposing of a collection due to death, change of interest, or financial necessity it provides the basis for realizing the true value of the collection.

For the collector who needs to protect his investment, it provides, together with a meticulous inventory, documentation of value for insurance purposes.

In my case, I have found the Blue Book to be the single most important document to assist me in evaluating my collection and providing a quick reference for identification.

Now let's get on with my Introduction to this 4th Edition of the Blue Book:

This edition of Anderson's Blue Book has two significant additions over and above the expected update of the eBay and M.E.C.A. pricing information.

First, the North American engines produced from 1965 to 2005 have been added. This is another forty years of coverage from the last edition. As a result, for the first time there is a single reference for all engines produced from 1911 to 2005.

Second, each engine has been given a unique number. The numbering system allows for expansion to accommodate insertions and to make it easy to locate the engine from the number without a tedious cross-reference table.

It is hoped that the numbers associated with each entry will be adopted as a quick means of providing a unique identification for engines in much the same way as the Scott stamp catalogue number has become for stamps.

This has the potential of providing a unique identification for the use of buyers and sellers with only the condition of the engine left for description.

This book has been a growing work right up to date (2005) and will continue to be a dynamic, growing work which will only get better as the users provide more and better information.

June 29, 2005

FOREWORD FOURTH EDITION by FRANK ANDERSON

One of the most important change for our 4th Edition is the addition of 40 more years of engines above 1965 right up to 2005 ! We have dropped 1/2A Engines since we believe they should be in a separate book with more 1/2A information. We expect to do a 1/2A book possibly in early 2006.

The next most important item is our total numbering system making it extremely easy to buy or sell a specific engine because each engine may be 'specifically identified' MECA Swap Sheets continuously show that many Sellers have no idea what Fox or K&B (etc.) they are selling and Buyers have no idea what they're buying !

Many ignition engine collectors also don't seem to be aware of what pre-war, or even post-war, Ohlsson 19's or 23's they were selling and at 'collectos', what they were buying. Did you know there were 5 - O&R 23's before World War II, not differentiated by simple things such as drive washers or other minutiae !

Using our **B#** makes buying/selling so much easier (ie, '39 Gold Seal Ohlsson .56 is B#1090 and a '46 Orwick .64 is B#1211) !

Perusing the collector's Swap Sheets we get the impression that few post 1965 engines are offered there lots more are offered on eBay, on the Internet, and many R/C engine 'Users' look up R/C Universe on the 'Net', plus any other Internet source that tempts sellers and buyers. The ages of the retirees seem now to be much younger (at least than we are !) and their golden age of engines runs to interests in glow engines (i.e. Nelson, Ross, Fitzpatrick, etc.), rather than the old ignition types they probably flew those glow engines, specially Fox R/C or K&B R/C !

'Buyer beware on eBay', I'm told; however after more than 35 years, 'Someone' in North Carolina still tries to hook honest collectors and he's still not identified by the Model Engine Collector's Association. I'm told that even the postal authorities won't bother because there's not enough money involved. Thank goodness there are still mostly honest people out there on eBay or in MECA land.

Many of those who purchase our Blue Book seem to be non-members of MECA and we're not sure why this is, but maybe because MECA members get their free ads in the Swap Sheet they don't think they need our 'expensive' guidance ! There are Blue Books in use in more than 30 countries throughout the world. When you're reading this, be aware you're part of that more knowledgeable group of collectors.

We must repeat ourselves again, after watching collectors pass away without any real information on just how valuable their collection is to their beneficiaries, one collector has told us that he "doesn't give a darn what they do with it" !, make sure your estate knows what you've got; list it all.

Value ? Most Racing Engines have gained, 'specially those manufactured in the 40's thru 70's. Ohlssons, Vivells, Delongs and other less popular engines seem to be lower; probably there are still some quite rare ones out there such as Ohlsson Miniatures and Gold Seals; even the Custom '60s with the Eagle are doing well. Unique engines such as Kopper Kings, Aeros and some other one-off engines are climbing. Multi-cylinder engines are always a good bet and the more recent Ross and Herb Wahl engines are climbing.

It's like the stock market, pick one and it could be a winner, at least better than the banks. Certainly, engine collecting hasn't been acknowledged by T.V's Antiques Road Show in the U.S. or in England (according to Ron Moulton). One supposes it will eventually click on a Show and then watch prices go out of sight (we hope). In any case it's great fun engines don't usually cost what Formal Antiques do.

NAME	PAGE	REFERENCE
CHEMINOL CORP.	81	OHLSSON & RICE MFG. CO.
CHUM	15	CHUNN MFG.
CHUNN MFG.	15	
CHURCH ENGINES	15	
CIE -COMPRESSION IGNITION ENGS.	15	
CIRCLE 30	15	
CLAUDE C. SLATE CO.	28	FOX
CLEVELAND MODEL & SUPPLY	101	TOM THUMB
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COBEY-WAITE, CO.	16	
COBRA '45'	11	SEE AIR-O-COBRA BY BUNCH MOTOR CO.
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CONQUEROR	73	MORTON AIRCRAFT CORP.
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DALLAIRE MODEL AIRPLANE CO.	87	PEE WEE
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MIGHTY MIDGET	11	BUNCH MOTOR CO.
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PHANTOM MOTORS	88	
PHANTOM SPECIAL (RACE CAR)	88	PHANTOM (WASP)
PHANTOM P-30	88	PHANTOM MOTORS
PIERCE INDUSTRIES	89	
PIONEER BROWN	89	
PIONEER MODEL CRAFT	86	PAGCO
PITTSBURGH BRASS MFG. CO.	16	CONDOR MIDGET MOTORS
POGO/PAGCO	86	PAGCO
POWER MODEL ENGINE CO.	61	KNIGHT
PRECISION MACHINE WORKS	89	
PRECISION MOTORS	90	RANGER
PREDATOR	17	CONLEY PRECISION ENGINES INC.
PRICE MIDGET MOTORS	89	
PRODUCTION & TOOL CO. (CDN.)	47	HURRICANE
PURPLE CROWN	4	ATWOOD
QUEEN BEE (CANADIAN)	89	
QUEEN OF THE AIR	6/23	BABY/ DYNAMIC MFG. CO.
QUICKEE (FOX)	40	FOX MANUFACTURING CO.
QUICKEE (JETT)	50	JETT ENGINEERING INC.
QUICKEE (NELSON)	74	NELSON COMPETITION ENGINES
QUICKIE	58	K&B MFG. CO.
R.A.F. - ROSSELLE & FRYE	90/36	ROSSELLE & FRY/ FOX
RACEWAY MARINE	82	O.K. ENGINES
RADIAL ENGINE TECHNOLOGIES INC.	90	
RAM (CANADA)	90	
RAM (JUDCO)	52	JUDSON CO.
RAM (ROGERS)	94	ROGERS MOTOR CO.
RANGER	90	
RATTLER	91	
RAY DAY PISTONS INC.	8	BAT
R. B. SPECIAL	91	R. B. STEEL MACHINE CO.
R. B. STEELE MACHINE CO.	91	
REBEL	15	CHUNN
RED CROWN CHAMPION	4	ATWOOD
RICHMOND HOBBYCRAFT	4	ATOMIC
RIGHTER MANUFACTURING	21	DENNY (REGINALD) INDUSTRIES
R.J.L. INDUSTRIES	91	MAKES ALMOST EVERYTHING
RMC - 2	93	ROGERS MOTOR CO.
ROBAR	93	

NAME	PAGE	REFERENCE
ROB ROY CO.	16	CONDOR MIDGET MOTORS
ROCKET (FOX)	31	FOX
ROCKET (60)	93	
ROCKET (65)	93	
ROCKET (MAY MOTORS)	93	
RODZY	17/13	COX (L.M.) MFG. CO./ CAMERON
ROGERS MOTOR CO.	93	
ROJETT	51	JETT ENGINEERING INC.
ROSS POWER INC.	94	
S.A.S. (STEGENS, ASHER, SMITH)	96	
SABER	96	
SALONEN BROTHERS	89	QUEEN BEE
SAMSON	89/96	PIERCE
SAVAGE	1	AERO RESEARCH & DEV. CO. INC.
SCARABE	97	
SCOTT MOTORS, INC.	101	THUNDERBIRD/HAYWARD CONNELLY
SCOUT (RACING .60's)	97	
SCOUT TWIN (WASP)	107	WASP TWINS
SCRAPPER	97	
SHILEN AERO SPORTS	97	
SILVER CROWN	4	ATWOOD
SILVER KING	93	ROCKET
SKY CHIEF	97	AMERICAN SUPERCRAFT CORP.
SKY DEVIL	43	EDCO/ HASSAD
SKY KING	16	CLIPPER
SKYCHARGER	21	DENNY INDUSTRIES
SKYLARK	2	APEX MOTORS
SMITH 16	90	RANGER
SNYDER-BLITZEN	97	
SOUTHERN MODEL ENGINEERS	98	ALSO SEE CHUNN
SPEED DEMON	98	
SPEEDWAY	12	BUNCH MOTOR CO.
SPENCE INDUSTRIES	99	SWIFT AIR ASSOC.
SPIELMAKER ENGINES	98	
SPITFIRE (ANDERSON)	2/65	ANDERSON SPITFIRE/ McCORD
SPITFIRE (BARKER)	8	BARKER ENGINEERING CO.
SPORTSMAN (COX)	17	COX (L.M.) MFG. CO.
SPORTSMAN (McCOY JR. & SR.)	66	McCOY PRODUCTS
SPORTSTER	59	K&B MFG. CO.
SPRINGFIELD	98	
STALLION	55	K & B MFG. CO.
STANLEY MACHINE & TOOL CO.	43	GREMLIN
STENMOOR MFG. CO.	9	BOBCAT
STINGER	98	
STRATO (CANADIAN)	98	
SUPER ACE	101	TLUSH SUPER ACE MOTOR CO.
SUPER ATOM	4	ATOM
SUPER BLITZEN	97	SNYDER-BLITZEN
SUPER CHAMPION	5	ATWOOD
SUPER CYCLONE INC.	19	CYCLONES (BABY & SUPER)
SUPER DEVIL	99	
SUPER HURRICANE	47	HURRICANE
SUPER MOTORS, INC.	20	DELONG
SUPER SCRAPPER	97	SCRAPPER
SUPER STUNT	48	McCOY PRODUCTS
SUPERCHARGER 'A'	87	PERKY
SUPERCHARGER 'B'	87	PERKY
SUPERCHARGER 'C'	87	PERKY
SUPER THOR	101	THOR ENGINE DIV.

NAME	PAGE	REFERENCE
SUPER WASP TWIN	107	WASP TWINS
SWIFT AIR ASSOCS. ENGINE DIV.	99	
SYNCRON DEVICES INC.	99	
T.W.A. & PERFORMANCE MODEL PARTS	99	
TWA	3	ARM
TALISMAN	100	
TARZAN	100	
TECHNOPOWER II INC.	100	
TEE DEE (T/D)	17	COX (L.M.) MFG. CO.
TESTORS	65	McCOY PRODUCTS
THERMITE	51	JIM BROWN ENGINES
THIMBLEDROME	13/17	CAMERON/ COX
THOR ENGINE DIV.	101	
THUNDERBIRD	101	SCOTT MOTORS, INC.
THUNDERBOLT	101	
THUNDERHEAD (GILBERT)	42	GILBERT (A.C.)
THUNDERHEAD (POGO)	86	PAGCO (POGO)
TIGER AERO	12	BUNCH MOTOR CO.
TIGER MARINE	12	BUNCH MOTOR CO.
TIGER SPEEDWAY	12	BUNCH MOTOR CO.
TLUSH SUPER ACE MOTOR CO.	101	
TOM THUMB (REBRANDED BUNCH)	101	CLEVELAND & WARREN
TORNADO (OK)	82	O.K. ENGINES
TORNADO (ORR)	84	ORR ENGINES INC.
TORPEDO (PHANTOM)	87	PHANTOM MOTORS
TORPEDO (SHILEN)	97	SHILEN AERO SPORTS
TORPEDO (K & B)	53	K & B MANUFACTURING
TORPEDO SPECIAL (TWIN STACK)	72	MINIATURE MOTORS INC.
TRIDENT	102	
TRIUMPH (ATWOOD)	5	ATWOOD
TRIUMPH (BATZLOFF)	8	BATZLOFF
TROJAN MINIATURE PRODUCTS	102	
VANGUARD	73	MORTON AIRCRAFT CORP.
VECO PRODUCTS CORP. (HECO)	102	(VECO BECAME K&B)
VICTOR	93	ROCKET
VICTORY MACHINE & TOOL CO.	87	PERKY
VIKING TWINS	104	
VIVELL MOTORS	104	
WAHL'S MODEL MOTORS	106	
WARREN SALES & SERVICE	101	TOM THUMB
WARRIOR	11	BUNCH MOTOR CO.
WART	3	ARM
WASP	64	MADEWELL MFG. CO.
WASP MODEL SUPPLY	88	PHANTOM MOTORS DISTR. CO.
WASP TWINS	107	
WATER Nymph	48	INTERNATIONAL MODELS CO.
WEISS/ LOUTREL	63	LOUTREL MOTORS
WEISS MFG. CO./ BABY	6	BABY/ WEISS/ GOLIATH
WENSEN	107	
WERNER	107	COX PARTS
WESTCHESTER HOBBIES	43	HASSAD
WHIRLWIND (1936 JR & SR)	72	MINIATURE AIRCRAFT OF N.Y.
WHIRLWIND (HURRICANE)	47	HURRICANE
WILEY (BILL WILEY)	107	
WILLARD	107	
WIZARD (TWIN)	104	VIKING TWINS
WOODBIDGE MFG. CO.	97	SCRAPPER
WORLD WIDE DISTRIBUTORS	21	DEMON
YELLOW JACKET	108	

PRICE GUIDE Ebay INTERNET ONLINE AUCTIONS

If you already have a computer and able to go on the Internet, the first thing you should do is spend a little money and purchase a book for \$14. called "Kovels' Bid, Buy, and Sell Online" © 2001 !

The Kovels (Ralph and Terry) have authored more than 80 books and although they've never touched on model engine collecting, they can put you onto any auction site to buy or sell anything with the least amount of effort!

We bought our "Kovels" at one of Barnes and Noble's book stores while perusing many other books on collectibles but found this book to be eminently suited to our purposes.

'Kovels' is broken into 4 parts; 1. - Guide for Computer Neophytes; 2. - Buying on the Internet; 3. - Selling on the Internet; 4. - Online Hotline all of this will change your life with eBay the other auction sites, at this writing, seem to be a waste of your time.

Some of the special engine search items we use are as follows;

1. Search for "model airplane engine" or 'engines', plural. Experiment on your own, try other items such as 'model engines' or perhaps 'model airplane plans', or 'model airplane kits' great fun !
2. Selling on eBay with lots of 'words' identifying the subject engine is important when you write up an engine look carefully at it and identify it using your Blue Book for the year and other interesting notes, by laying your book open in front of you don't leave anything to chance and when you identify it, be sure you comment on anything such as lug holes drilled out, cracked case or fins, shaved exhausts and any engine discoloration and don't forget comments on any repro parts. If you don't picture the engine accurately then you will have problems in possible returns or future sales.

Don't ever count on engines selling for more on eBay rather than through MECA, or even decide to sell it at a particular time of the year; neither may work however on eBay we recommend you list your engine auction on Thursday, so that it gets 10 days of viewing, 'til a week the following Sunday so it gets two (2) weekends in the viewing period Read Kovels book !

Remember, you ask 10 people, you'll get 10 different opinions and maybe they'll convince you to put your 'stuff' on the auction for only 5 or 7 days ... trust me, they will usually be wrong !!

We research 'eBay' and 'R/C Universe' for SOLD engine prices on a regular basis. We also carefully check out every picture and the sellers information on each listing before adding the price to our Blue Book. This research takes up more time than you can imagine, but does result in more accurate pricing for our Blue Book.

PRICE GUIDE MECA MODEL ENGINE COLLECTOR'S ASSOCIATION

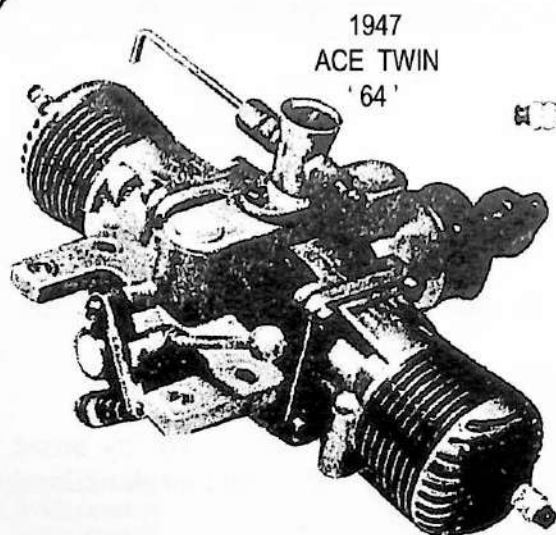
It's now 2 ½ years later and we've used the time to again research MECA Swap Sheets to determine Average Market Values or Asking Prices for this 4th Edition. Very Good or Excellent under MECA Prices Prototype or Rare can be any Price !!

We have also decided to use 'Single Prices' under the MECA listing, ie Excellent (or New), with New In Box also identified, rather than our old listings of Very Good and Excellent. This should make it easier when pricing because you'll eventually have a 'Single Asking Price' from MECA and a 'Single Sold Price' from eBay.

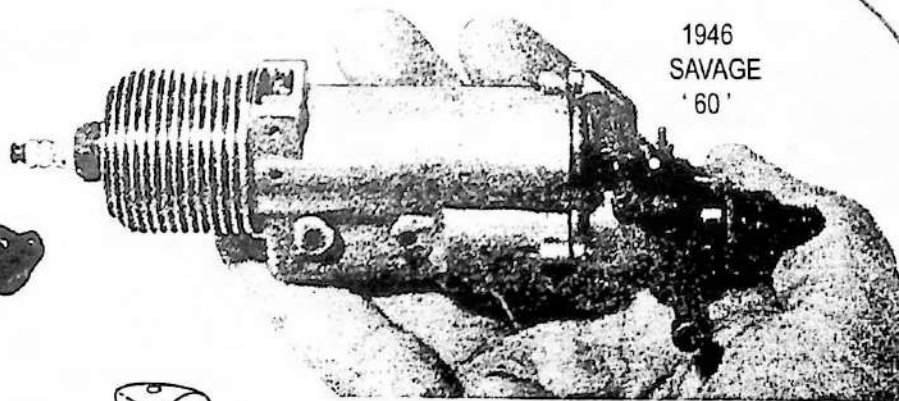
Note: We've added 40 years of engines to our 3rd Edition (up 'til 1965) and in this, our 4th Edition added engines up 'til 2005; **so we haven't been able to price everything** maybe later in addendums we can issue on a yearly basis.

Price Codes

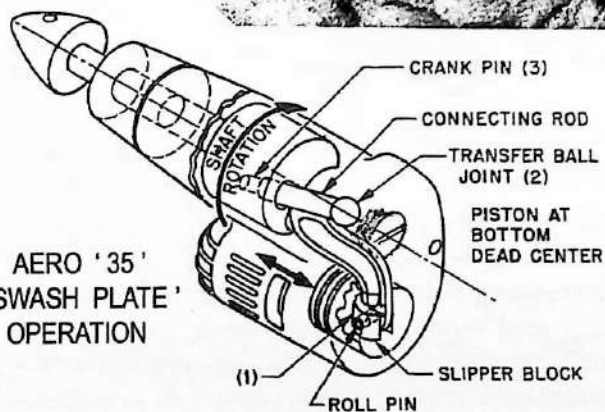
N - \$ New	NIB - \$ New In Box	R - \$ Repro/Replica
LN - \$ Like New	VG - \$ Very Good	SOLD - \$ Reported to Us
LNIB - \$ Like New In Box	WC - \$ Water Cooled	O - \$ Brown Original #1



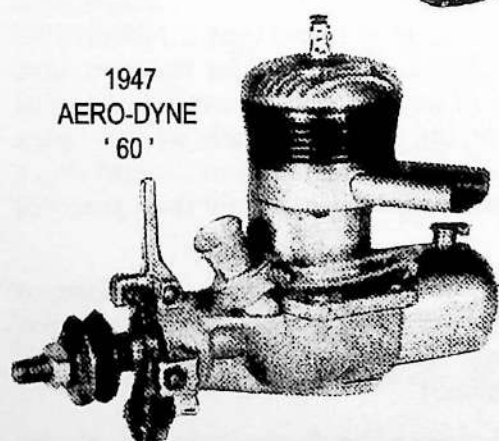
1947
ACE TWIN
'64'



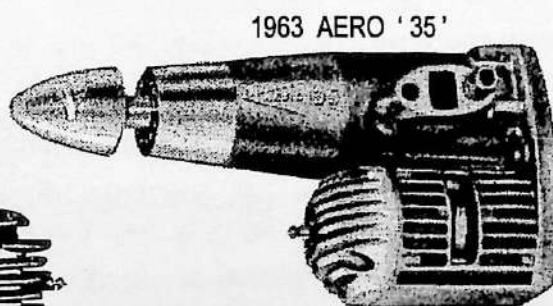
1946
SAVAGE
'60'



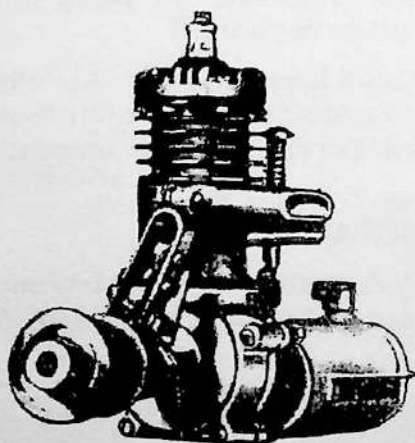
AERO '35'
'SWASH PLATE'
OPERATION



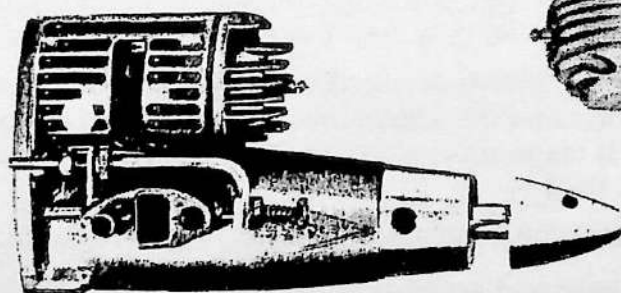
1947
AERO-DYNE
'60'



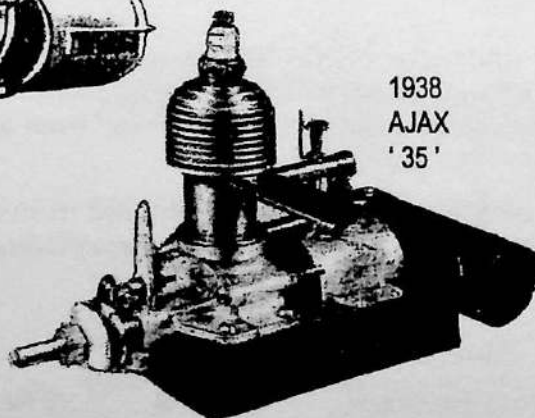
1963 AERO '35'



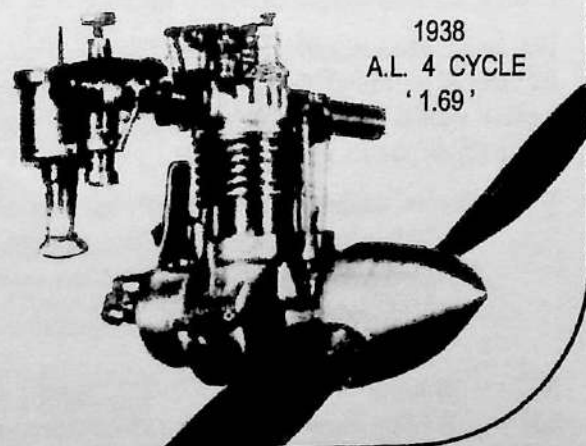
1937
AJC
'60'



1964 AERO '35' R/C

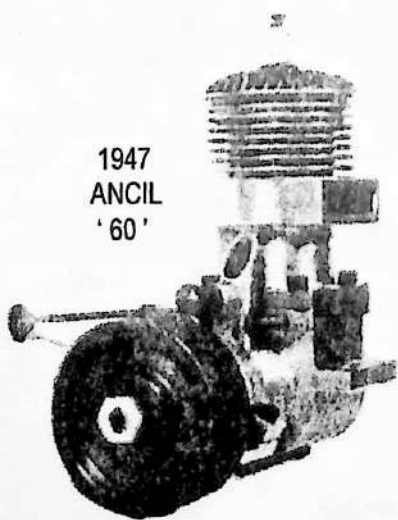


1938
AJAX
'35'

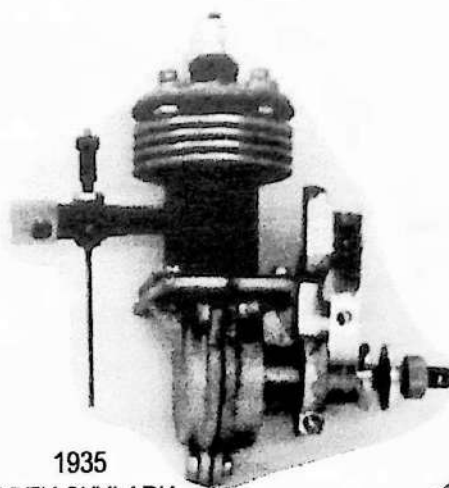


1938
A.L. 4 CYCLE
'1.69'

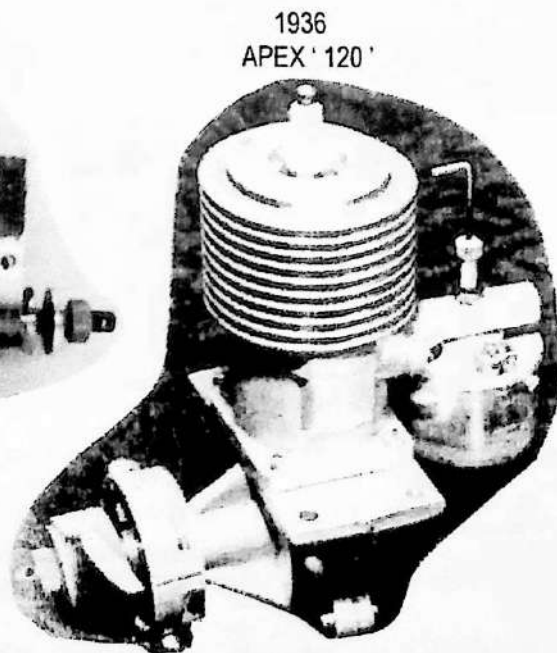
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
ACE (JOHN KRAMER & SAM GROW)	---	--	-----	-----	MFD. BY KRAMER-GROW MACHINE CO. (ALSO PRODUCED PARTS FOR EDCO & MADE DOOLING PISTONS) - EDCO FAILURE HELPED 'KRAMER-GROW' TO GO OUT OF BUSINESS			
"	'45	I	TWIN	0.619	OPPOSED TWIN/ REAR FACING RINGED PISTONS/ PROTOTYPES HAD REAR LOCATED INTAKES	1200		1
"	'47	I	TWIN	0.643	AS PREV./ SINGLE CENTERED CARBURETOR ORTHO- DOX PLUGS/ SIMILAR TO VIKING TWIN/ RINGED PISTONS/ TIMER AT REAR/ APPROX. 100 MFG.	900		2
AERO DYNE	'47	I	SINGLE CYL. PROTOTYPE	0.451	SAND CAST/ INTEGRAL FINS ON LINER/ BAR STOCK HEAD & BACKPLATE/ FRONT INTAKE/ OPEN TIMER/ 4 MACHINED (ONE COMPLETED ?)	PROTO		3
" "	'47	I	AERO 60	0.597	SANDCAST CASE/ STEEL CYLINDER WITH SLANTED EXHAUST/ OPEN TIMER/ FRONT INTAKE/ METAL TANK/ BRONZE BUSHED CON ROD	RARE		4
AERO RESEARCH & DEVELOPMENT (AUGIE SAVAGE & JOHN PISTON)	'41	I	SAVAGE 60	0.607	HORIZONTAL ENGINE SIMILAR TO AERO 35 SWASH PLATE OPERATION/ PRE-PRODUCTION MODELS ONLY - AT LEAST 12 MADE	PROTO		5
" "	'47	I	SAVAGE 45/29 PROTOTYPE		EXPERIMENTAL HORIZONTAL ENGINES SIMILAR TO 60/ REDUCED DISPLACEMENT/ PRE- PRODUCTION ONLY	PROTO		6
" "	'63	G	AERO '35"	0.347	'SWASH-PLATE' ENGINE IN PRODUCTION/ RINGS/ BALL BEARINGS/ WEAR ADJUSTMENT SCREW IN REAR OF RADIAL MT. FOR TRANSFER BALL JOINT	550 490	475-NIB	7
" "	'63	G	AERO '35"	0.347	AS PREV./ INTERNAL MODIFICATIONS INCREASED PERFORMANCE AS MUCH AS 1,000 RPM (NETZEBAND IN AMERICAN MODELER JAN. 1964) NO KNOWN EXTERNAL DIFFERENCES	475		8
" "	'64	G	AERO '35" R/C	0.347	AS PREV./ R/C/ SLIDE VALVE R/C CARBURETOR THROTTLE ADDED	750-NIB	550	9
A. J. C. MOTORS	'36	I	'AJC 60"	0.601	SAND CAST CASE/ NO HEAD FINS/ LAPPED PISTON/ RADIAL MOUNT/ METAL TANK	RARE		10
" " "	'37	I	'AJC 60"	0.601	AS PREV./ PISTON RINGS/ RADIAL MOUNT METAL TANK/ FINNED HEAD/ ASSEMBLED OR KIT	RARE		11
AJAX MOTORS (CANADIAN)	---	---	-----	-----	SUPPLIED BY ST. JOHNS HOBBY SHOP/ WINNIPEG			
" "	'38	I	AJAX 35	0.359	RADIAL OR BEAM MOUNTING/ FINS FROM EX- HAUST UP TO 'V' PLUG/ TAPERED HOR. HEAD FINS	RARE		12
" "	'40	I	AJAX 35	0.359	AS PREV./ V-2 PLUG REVISION	RARE		13
A. L. ENGINES	'38	I	A.L. 4 CYCLE	1.687	SAND CAST CASE/ 4-CYCLE/ REAR OVERHEAD OPEN VALVES/ OVERHEAD SIDE MOUNTED CARBURETOR/ REAR ENCLOSED TIMER	RARE		14
ANCIL MOTORS (ANCIL ROUCH)	'46	I	ANCIL AIRCRAFT	0.604	SAND CAST CASE/ LAPPED PISTON/ 8 CYL. FINS/ HIGH FRONT INTAKE/ REAR COVER REMOVE- ABLE/ SPOOL PROP DRIVE & IGNITION TIMER AS McCOY/ VR-2 PLUG IN SMOOTH HEAD	1000		15
" "	'46	I	RACE CAR	0.604	AS PREV./ FLYWHEEL MTD. ON FRONT OF SHAFT	1000		16
" "	'47	I	ANCIL 65 VARIATIONS	0.647	BOTH AIRCRAFT & CAR ENGINES MFD. TO THIS DISPL./ BETTER CRANK BAL./ 7 CYLINDER FINS/ BYPASS INCREASED/ RINGED PISTONS/ APPROX- IMATELY 250 TOTAL PRODUCTION ALL ENGINES	1000		17
ANDERSON (MALCOLM)	'47	G	COMPETITION	?	MANUFACTURED IN HAYWARD-FREMONT, CALIF. AREA AFTER WORLD WAR II/ NUMEROUS DISPLACEMENT CUSTOM BUILT ENGINES	RARE		18



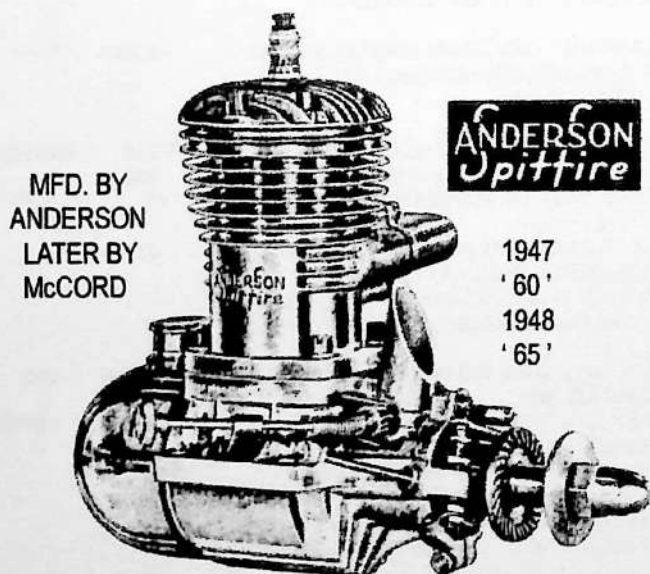
1947
ANCIL
'60'



1935
APEX SKYLARK
'56'



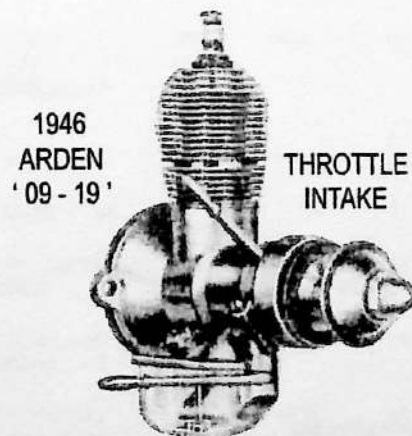
1936
APEX '120'



MFD. BY
ANDERSON
LATER BY
McCord

ANDERSON
Spitfire

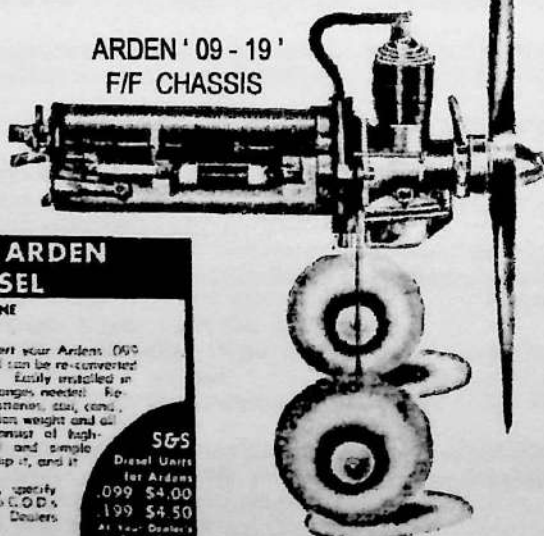
1947
'60'
1948
'65'



1946
ARDEN
'09 - 19'

THROTTLE
INTAKE

ARDEN '09 - 19'
FIXED DIESEL HEADS



ARDEN '09 - 19'
F/F CHASSIS

CONVERT YOUR ARDEN ENGINES TO DIESEL
AND HAVE A TWO-IN-ONE ENGINE FOR 1946 AND 1947 MODELS

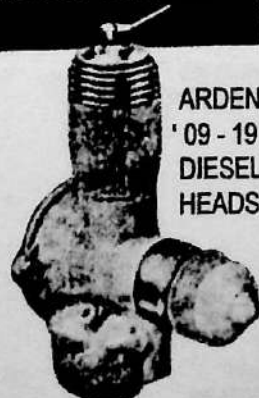
S&S Diesel units are designed to convert your Arden '09' and '19' to efficient Diesel engines and can be re-converted to gas, giving you a two-in-one outfit. Easily installed in 5 minutes. No measuring or engine changes needed. Requires only fuel to operate. Needs no batteries, coil, cond., plug, wires or points, saving 5 lbs. of ignition weight and all troubles due to ignition. Diesel units consist of high-compression head, Diesel jet, governor, fuel and sample instructions. Nothing else needed. Choose it, fix it, and it starts. Enjoy the thrill of Diesel flying today.

How to order: Clearly print name and address, specify '09' or '19'. Send check or money order. Sorry, no C.O.D.'s or over-shipments. Shipped via express only. Dealers write.

S&S
Diesel Units for Arden
..... \$4.00
..... \$4.50
At Your Dealer's or Direct

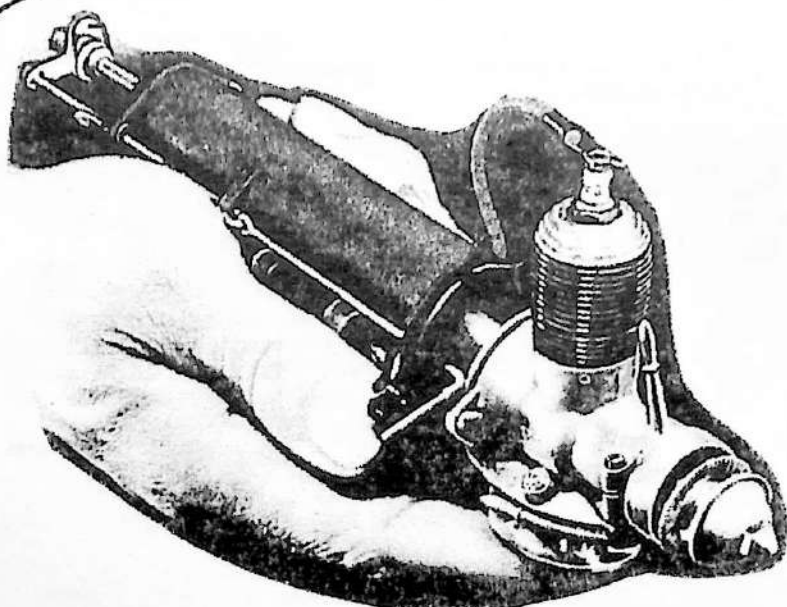
S & S ENGINEERING CO. 310 74 St. Brooklyn 9, N. Y.

NEW! Variable
Compression
D-E Arden
Diesel Conversion

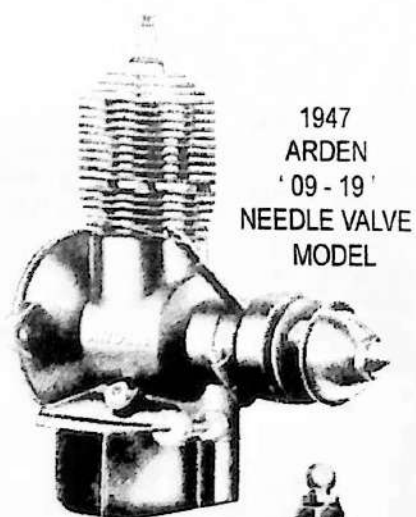


ARDEN
'09 - 19'
DIESEL
HEADS

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
ANDERSON MFG. (MEL ANDERSON)	---	--	-----	----	ALSO SEE McCORD PRECISION (1958) AND 1/2A BOOK-ALSO DESIGNED SUPER CYCLONES AND EARLIER ONE-OFF ENGINES STARTING IN '32.			
"	'47	I	ANDERSON SPITFIRE	0.604	DIE CAST/UNCOLORED/ RINGED OR LAPPED PISTON MODELS	250 295-N	275	19
"	'48	I	ANDERSON SPITFIRE	0.645	AS PREVIOUS/ STROKED/ EXTERNAL DIFFERENCE WITH 4 INDUCTION HOLES IN CYLINDER BASE JUST BELOW FINS	250	250	20
NOTE:	*	--	-----	----	IN 1950 THE COMPANY FILED BANKRUPTCY & K&B PURCHASED THE ASSETS. SOME ANDERSONS WERE ASSEMBLED BY JOHN BRODBECK JR. (STILL IN HIGH SCHOOL) AND LEW MAHIEU (ORIGINATOR OF SUPERSONIC FUELS). K&B TRADED ANDERSON'S TOOLING & DIES TO MAHIEU WHO LATER SOLD ANDERSON PROJECT TO McCORD. IT EVENTUALLY WOUND UP IN RALPH MROCH'S HANDS (REMCO). IN EARLY '80'S THESE DIES WERE SOLD TO KARL CARLSON OF REPLICA ENGINES IN CALIFORNIA.			
"	'53	G	SPITFIRE HORNET MODIFIED	0.091	ADVERTISED ONLY/ SEE 1/2A BOOK/ SAND CAST PROTOTYPES EXIST/SCALED-UP .065/ FRED DUNN REDESIGNED FOR 'POGO'/ NEW CASE PLUS EXISTING PARTS ASSEMBLED BY PAGLIUSO ENGINEERING	PROTO		21
NOTE:	---	--	-----	----	BLUE 'DENVER' HEADS (HI-COMPRESSION) (DEVELOPED BY DENVER RACE CAR CLUB FOR PER FORMANCE AT DENVER'S 5000 FT. ALTITUDE) SUPPLIED AS ACCESSORIES.			
McCORD/REMCO	'58/70	--	SPITFIRES	----	SEE McCORD/ REMCO '70			
APEX MOTORS	'36	I	APEX SKYLARK	0.562	KIT/ SAND CAST HEAD, TIMER & SPLIT 3 BOLT CASE/ LAPPED PISTON/ INTAKE BRAZED TO CYLINDER/ MACHINED ALUMINUM FINS SHRUNK ON CYLINDER/ 4 BOLTS IN HEAD	450 500	406	22
"	'36	I	APEX 120	1.208	SAND CAST CRANKCASE/ SIMILAR TO FORSTER 99/ BYPASS CAST INTO CYLINDER	400		23
ARDEN (RAY ARDEN)	---	--	-----	----	MFD. BY MICRO-BILT INC.			
"	'46	I	ARDEN .099PB	0.099	PLAIN BEARING/ LEVER THROTTLE INTAKE/ CLEAR PLASTIC TANK/ MAGNESIUM DIE CAST CASE	90	120	24
"	'46	I	ARDEN .099BB	0.099	BALL BEARING/ LEVER THROTTLE INTAKE/ CLEAR PLASTIC TANK/ MAGNESIUM DIE CAST CASE	90	160-NIB	25
"	'46	I	ARDEN .199PB	0.198	PLAIN BEARING/ LEVER THROTTLE INTAKE/ CLEAR PLASTIC TANK/ MAG. DIE CAST CASE/ FEW MADE	130	140	26
"	'46	I	ARDEN .199BB	0.198	BALL BEARING/ LEVER THROTTLE INTAKE/ CLEAR PLASTIC TANK/ MAGNESIUM DIE CAST CASE	140 165	135	27
"	NOTE:	'47	--	DIESEL HEADS	----	AFTER-MARKET FOR BOTH .09 AND .19		
"	'47	--	BLACK GLO-TANKS		PRODUCED BY ARDEN FOR THE LEVER THROTTLE INTAKE TO USE GLOW PLUG ALCOHOL FUELS			
"	'47	I	ARDEN .099PB NEEDLE VALVE	0.099	PLAIN BEARING/ NEEDLE VALVE WITH UP-DRAFT ALUMINUM INTAKE/ ALUMINUM DIE CAST CASE/ BLACK TANK/ FEW MADE	90		28
"	'47	I	ARDEN .099BB NEEDLE VALVE	0.099	BALL BEARING/NEEDLE VALVE WITH UP-DRAFT ALUMINUM INTAKE/ ALUMINUM DIE CAST CASE/ BLACK TANK	115		29
"	'47	I	ARDEN .199BB NEEDLE VALVE	0.198	BALL BEARING/ NEEDLE VALVE WITH UP-DRAFT ALUMINUM INTAKE/ ALUMINUM DIE CAST CASE/ BLACK TANK	165 150	222-NIB	30
"	NOTE:	'47	--	PLAIN BEARING	----	NO MORE 19 PLAIN BEARING ENGINES MFD. AFTER EARLY 1947		



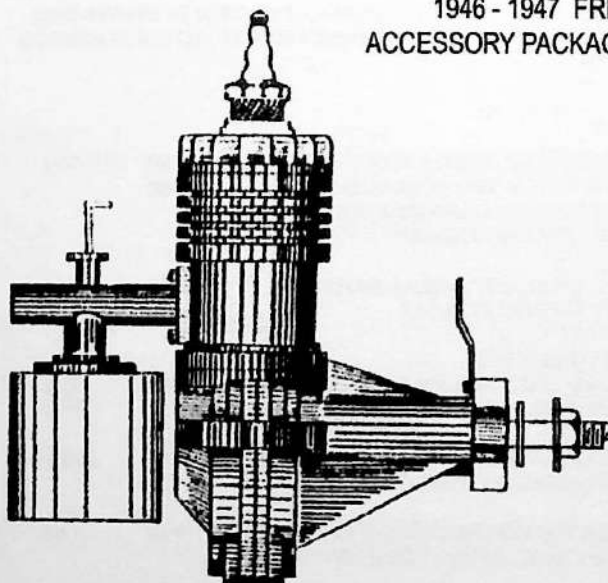
1946 - 1947 FREE FLIGHT
ACCESSORY PACKAGE CLOSEUP



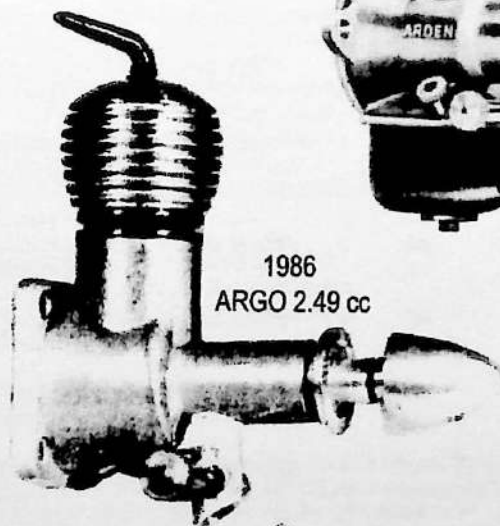
1947
ARDEN
'09 - 19'
NEEDLE VALVE
MODEL



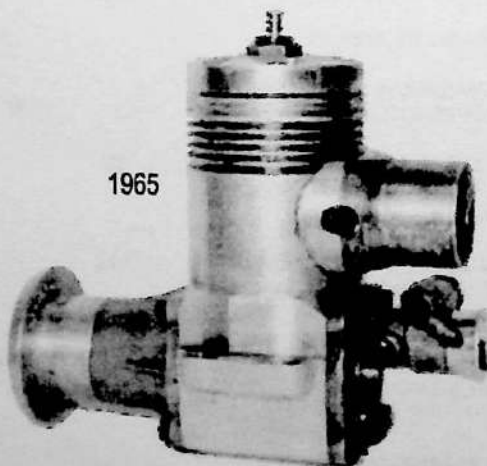
1949
ARDEN
'09 - 19'
GLOW MODEL



1948 ARLINGTON '48'

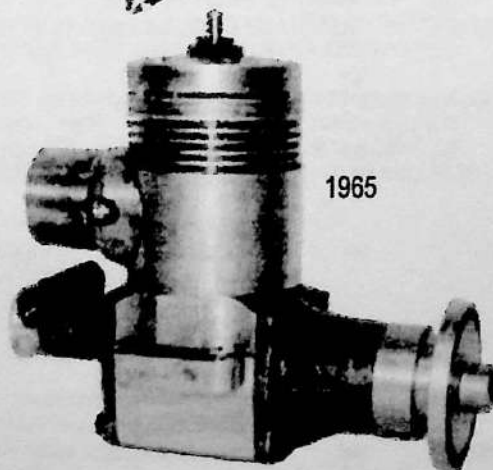


1986
ARGO 2.49 cc



1965

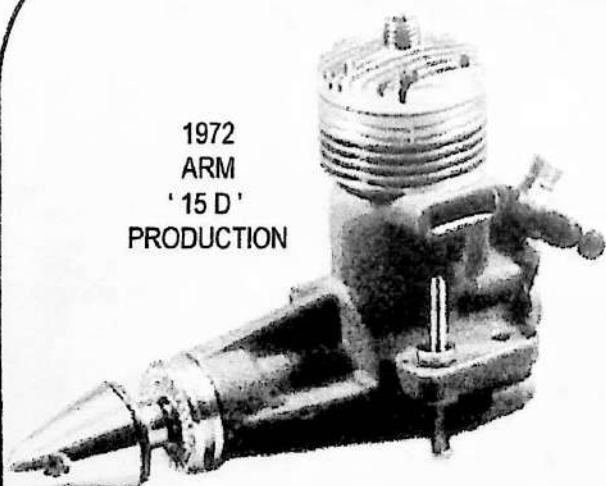
RARE VIEWS
OF
TWA
'15'
PROTOTYPE



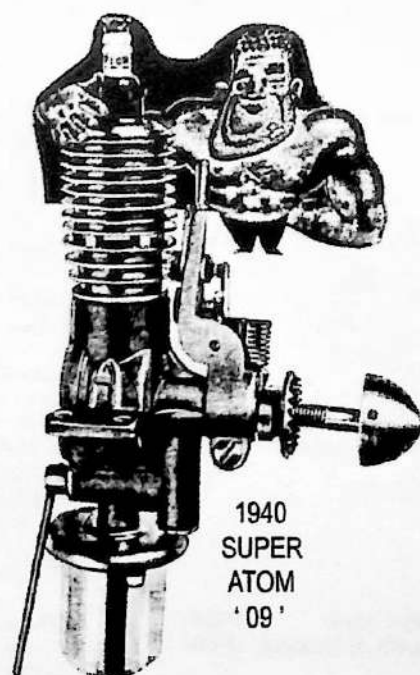
1965

MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
ARDEN	NOTE: '47	—	BLACK GLO-TANKS	----	PRODUCED BY ARDEN FOR THE LEVER THROTTLE INTAKE TO USE GLOW PLUG ALCOHOL FUELS ... BEFORE THE UPDRAFT INTAKE		
•	NOTE: '46/47	—	ALL MODELS F/F CHASSIS ACCESSORY PACKAGE	—	120	131	
•	NOTE: '47	—	RAY ARDEN INTRODUCES 1ST GLOW PLUG	----	GLOW PLUG - M. SCHINDLER INDICATED IN DEC. '69 (#30) MECA BULLETIN THAT THE GERMANS & THE FRENCH HAD A SIMILAR PRODUCT AS EARLY AS 1942 OR EARLIER !		
•	'49	G	ARDEN .099PB NEEDLE VALVE	0.099	PLAIN BEARING/ ALUMINUM CAP ON SHAFT HOUSING	75	31
•	'49	G	ARDEN .099BB NEEDLE VALVE	0.099	BALL BEARING/ ALUMINUM CAP ON SHAFT HOUSING	90	155-NIB 32
•	'49	G	ARDEN .199BB NEEDLE VALVE	0.198	BALL BEARING/ ALUMINUM CAP ON SHAFT HOUSING	100	33
•	NOTE: —	—	PRE-PRODUCTION ENGINES	—	AMA WAS MADE AWARE IN 1985 OF ARDEN ENGINES HELD BY HIS GRAND-DAUGHTER AFTER HIS DEATH. SHE TOLD AMA SHE WANTED HER CHILDREN TO BE ABLE TO 'PLAY WITH THEM' !! ONE PRE-PRODUCTION ENGINE SURFACED IN THE EARLY '70's - FOUND BY JERRY GREAVES (MECA) - A .29 CIRCA 1939- TYPICAL ATOM-ARDEN 'AIR-THROTTLE'-RADIAL MOUNTED ... OTHERS STILL EXIST !		
ARGO - USA (JOHN A. TARGOS)	—	—	—	—	IN 1987 IT WAS ADVERTISED 'EVERYTHING FOR THE VINTAGE MODELER' AND THE FOLLOWING WERE IDENTIFIED: ORWICK 64 & 73 REPLICAS; BATTLEAXE DIESEL ENGINES; 4 STROKE GLOW ENGINES; SPARK PLUGS, MOTOR MOUNTS & ACCESSORIES.		
•	'86	D	ELFIN 2.49cc	.150	REPLICA MADE IN THE USA OF A VERY POWERFUL 1949 BRITISH DIESEL/ UPDRAFT VENTURI/ PLAIN BEARING/ SQUARE RADIAL 4-POINT MOUNTING/ ARDEN-TYPE EXHAUST/ MUCH BETTER THAN ORIGINAL WITH COUNTER-BALANCED ONE PIECE CRANKSHAFT		35
•	NOTE: 2005	—	—	—	UNFORTUNATELY JOHN PASSED AWAY AND THE ENGINES HAVE NOT BEEN CONTINUED; HOWEVER, WE BELIEVE THE ESTATE HAS ALL THE TOOLS AND DIES AVAILABLE FOR SALE.		
ARLINGTON MOTOR	'46	I	ARLINGTON	0.485	KIT/ MACHINED KIT/ FEW ASSEMBLED		34
ARM (AMERICAN RACING MACHINES)	—	—	—	—	ROGER THEOBALD WAS ASSOCIATED WITH JOHN BARR IN DESIGNING AND PRODUCING TEAM RACE DIESELS (WART) AND GLOW ENGINES WITH HELP (AS WELL AS ON HIS OWN) FROM WISNIEWSKI WHILE AT K&B FROM 1965 THROUGH 1974. HE WENT TO KRAFT TO DESIGN AND PRODUCE THE VERY SUCCESSFUL KRAFT .61 INTRODUCED IN 1975.		
•	NOTE: —	—	—	—	JIM DUNKIN'S BOOK OF INTERNATIONAL .15 ENGINES REFERENCES AND DISPLAYS SOME 14 K&B - TWA - CUSTOM BUILT .15 DIESEL & GLOW RACING ENGINES. WE HAVE DATA AND A PICTURE OF THE FIRST TWA PROTOTYPE .15 GLOW RACING ENGINE — (COURTESY GLEN LEE) AS FOLLOWS:		
•	'65	G	TWA 15 PROTOTYPE	0.149	BAR STOCK CRANKSHAFT AND HEAD/ BOLT-ON ROUND EXHAUST HEADER INTERNALLY THREADED FOR A TUNED PIPE/ FRONT AND BACK END ARE FROM 1961 K&B .15R/ SCHNIERLE PORTING/ APPROX. 32 MADE WITH DIFFERENT BYPASSES, CYL PORT SHAPES, ETC. (REFERENCED BY J. DUNKIN)		36
•	'66	D	WART 15D DIESEL	0.149	SANDCAST DESIGN MADE FROM A K&B WART GLOW ENGINE & IT BECAME FIRST EXPERIMENTAL EXPERIMENTAL TEAM RACE 'DIESEL' BY JOHN AND ROGER THEOBALD		37

1972
ARM
'15 D'
PRODUCTION



1939
MIGHTY
ATOM
'09'

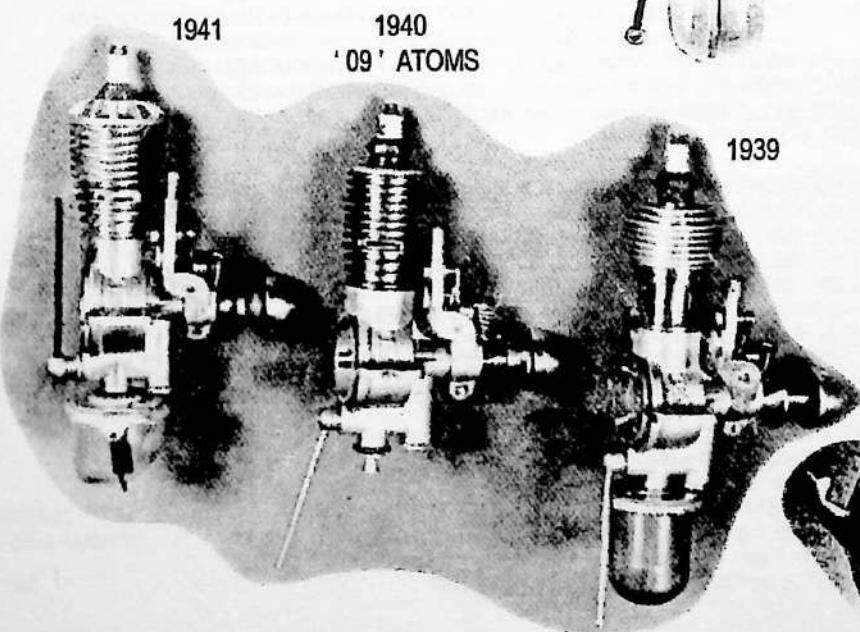


1940
SUPER
ATOM
'09'

1941

1940
'09' ATOMS

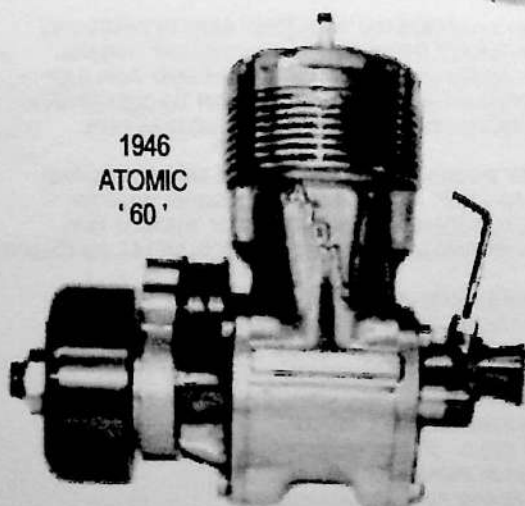
1939



1941
SUPER
ATOM



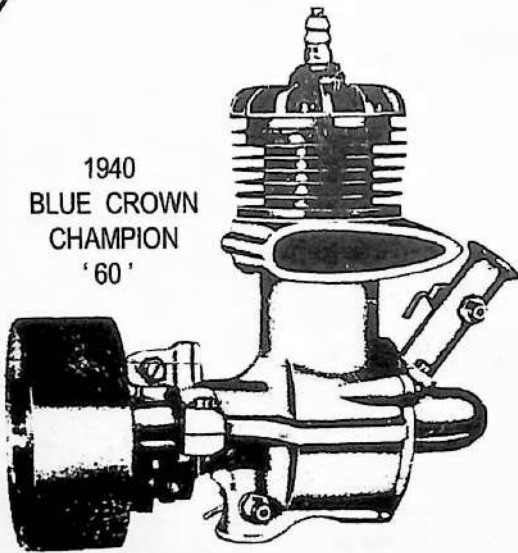
1946
ATOMIC
'60'



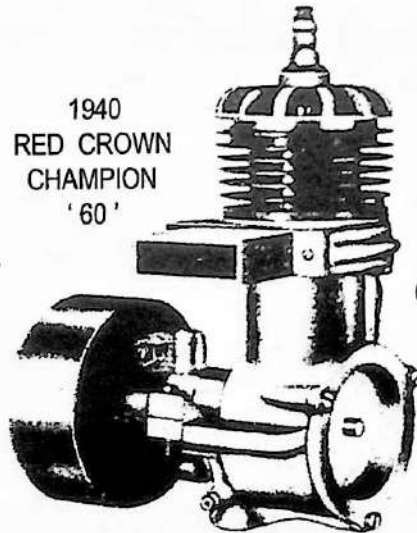
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
ARM	'69	D	ARM 15D DIESEL PROTOTYPE #1	0.149	SANDCAST DESIGN HAS '15' OVER 'D' ON THE LEFT SIDE AND 'ARM' ON THE RIGHT SIDE THERE ARE 4 MORE ARM ENGINES	PROTO		38
* NOTE:	'72	D	ARM 15D PRODUCTION	---	THIS PRODUCTION MODEL BY THEOBALD WAS AN EARLY DEVELOPMENT FOR K&B .15 GLOW AND MOST OF 100 UNITS WERE SOLD BY HENRY NELSON (REF. J. DUNKIN)		85	
ATOM MICRODYNE ENGINES AND POLK BROTHERS (RAY ARDEN)	---	---	---	---	MFD. BY BARD-PARKER CO., DANBURY CT. EXHAUST PORTS ROUND HOLES/ GROOVED PISTON/ MAGNESIUM CASE/ BULB SHAPED CYLINDER FINS/ UNIQUE SUB-PISTON PORTING/ SERIAL #'s STAMPED REAR OF CYLINDER BOSS	170 175	190 172	39
*	'39 *	I	MIGHTY ATOM	0.097				
*	'40	I	SUPER ATOM	0.097	AS PREV./ LOWER END/ STRAIGHT & SLIGHTLY TAPERED CYLINDER FINS PROFILE/ 360°PORTS/ MAGNESIUM CASE/ SERIAL # SIDE OF MTG. LUG	175		40
*	'40	I	SUPER ATOM	0.097	AS PREV./ KNOB ON THROTTLE ARM & WIRED TANK AS LATER ATOMS (REF. 'JOURNAL')	150		41
*	'41	I	SUPER ATOM	0.098	NEW ENGINE/ ALUMINUM CASE/ TAPERED CYL. PROFILE/ SPOKE FINS ON HEAD/ SMOOTH PISTON	165	173 182	42
*	'42	I	ATOM CONVERSION	0.098	REPLACEMENT UNIT OFFERED FOR \$5 TO CONVERT OLD ATOMS INTO '42 SUPER ATOM/ INCLUDED MULTI-FINNED CYLINDER HEAD/ STEEL CYLINDER, LAP PISTON WITH SUB PISTON & CONNECTING ROD			43
* NOTE:	'42	I	ATOM TWIN	0.196	IN MARCH '42, MICRODYNE HAD A CLASS 'A' TWIN PLUS A .29 AND A 'C' ENGINE IN EXPERI- MENTAL STAGE AND ON DRAFTING BOARD TO BE PRODUCED AFTER WAR.	PROTO 995-N		44
*	'46	I	SUPER ATOM	0.098	AS PREV./ MAGNESIUM CASTINGS/ SERIAL #'s ABOVE 30,000 (REF. 'JOURNAL') TAPERED CYLINDER FINS UNPLATED/ POOREST WORKMANSHIP OF ALL AND DOOMED FUTURE ATOMS	150-N	160	45
* NOTE:	---	---	PRE- PRODUCTION	---	SEE NOTES ON PRE-PRODUCTION ENGINES OF RAY ARDEN IN ARDEN NOTE			
ATOMIC (BILL CUBBITT)	---	---	---	---	DISTR. BY RICHMOND HOBBYCRAFTS AS HORNET .60/ UNUSUAL 3 BOLT TRIANGULAR FRONT AND REAR CASE COVERS/ 'ATOMIC' ON BYPASS/ HORNET TYPE OPEN TIMER/ BACK PLATE SLOTTED TO ALLOW SLIGHT ROTATION - OPTIMIZE TIMING/ ALSO BULGE BYPASS MODEL	RARE 1400		46
ATWOOD (BILL ATWOOD) CHAMPION PRODUCTS COMPANY	---	---	---	---	SEE PHANTOM MOTORS FOR HI-SPEED/ BULLET/ TORPEDO/ & ALSO SEE '1/2A BOOK' FOR CARS/ 2 INTAKES - FRT. UPDRAFT INTAKE WITH N.V. PLUS REAR 45°DOWN-DRAFT INTAKE W/N.V./ SPOKE HD./ ADDED ROUND PLATE ON BYPASS WITH 'MFD. BY BILL ATWOOD'/ SAND CAST CASE			
	'40	I	BLUE CROWN CHAMPION	0.603		RARE		47
	'40	I	RED CROWN CHAMPION	0.603	FOR CARS/ SINGLE FRONT UPDRAFT INTAKE/ SPOKE RED HEAD/ FLYWHEEL	RARE		48
*	'40	I	GREEN CROWN CHAMPION	0.603	AS RED CROWN/ FOR AIRPLANES/ BACK-PLATE- TANK/ SPOKE GREEN HEAD	RARE		49
*	'40	I	PURPLE CROWN CHAMPION	0.603	AS RED CROWN/ FOR BOATS/ DUAL CARBURETORS MOUNTED OVER SHAFT/ PURPLISH SPOKE HEAD	RARE		50
*	'40	I	SILVER CROWN CHAMPION	0.900	AS RED CROWN/ KIT ENGINE/ SOME ASSEMBLED/ FOR BOATS/ DUAL CARBS. MTD. OVER SHAFT/ LARGE SWEEP EXHAUST STACKS/ PARALLEL HEAD FINS/ ALSO SOLD WITH MINOR VARIATIONS	RARE		51

ATWOODS

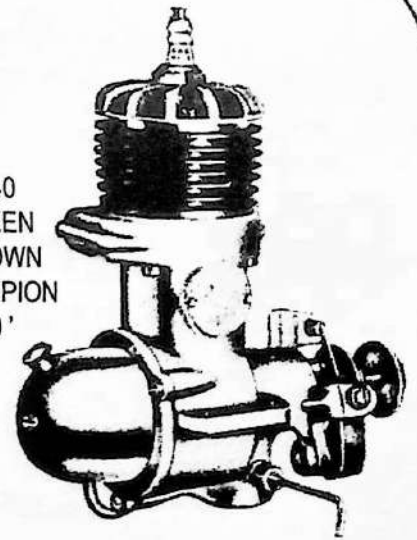
1940
BLUE CROWN
CHAMPION
'60'



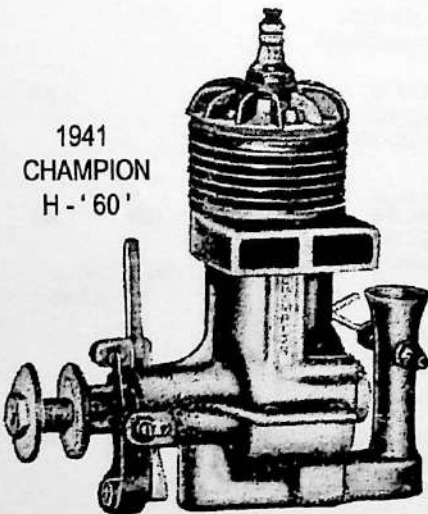
1940
RED CROWN
CHAMPION
'60'



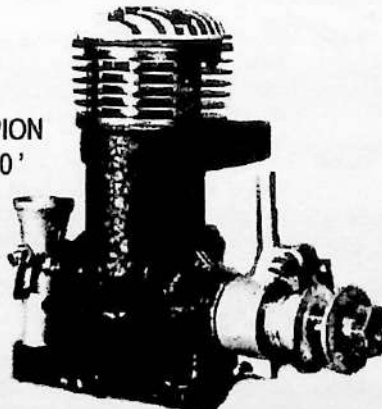
1940
GREEN CROWN
CHAMPION
'60'



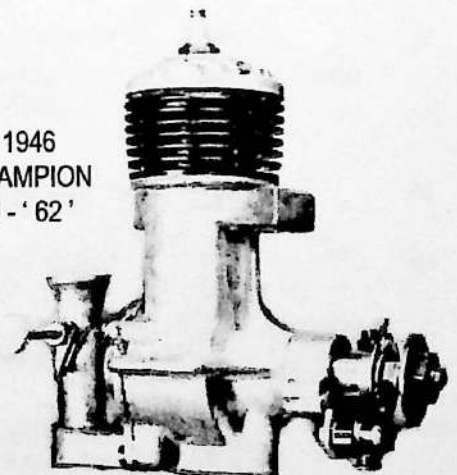
1941
CHAMPION
H - '60'



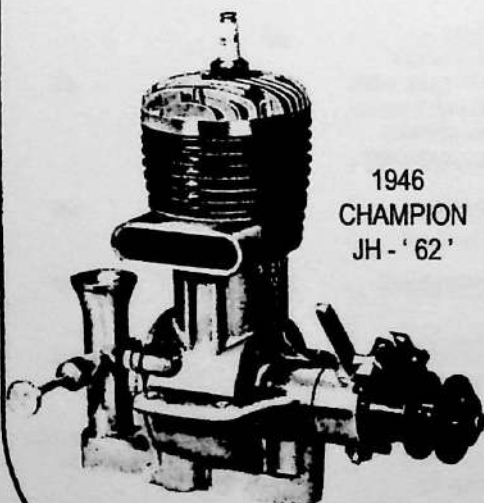
1946
CHAMPION
H - '60'



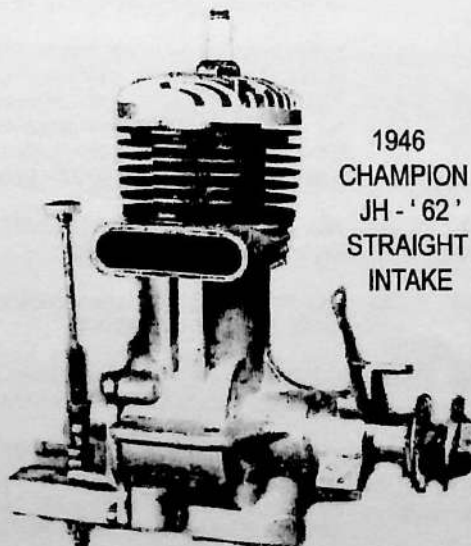
1946
CHAMPION
J - '62'



1946
CHAMPION
JH - '62'



1946
CHAMPION
JH - '62'
STRAIGHT
INTAKE

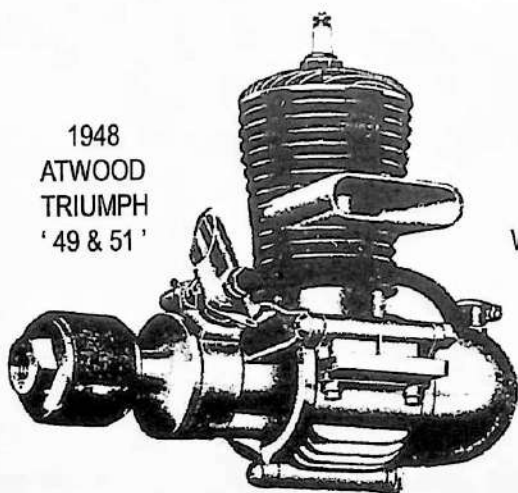


1948
GLO-DEVIL
GD / GR
'62'



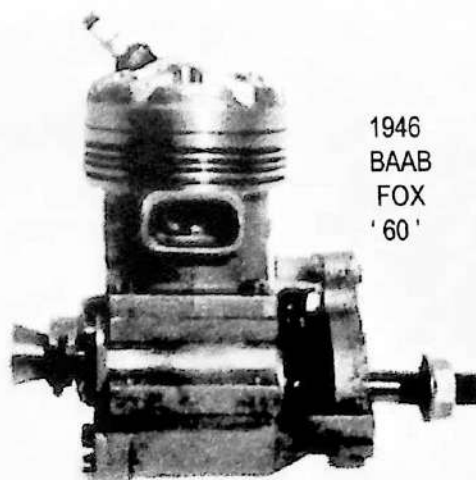
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
ATWOOD	'41	I	CHAMPION MODEL H	0.603	SPOKE HEAD FINS/ TWIN COUPLED INTAKES/ ONE NEEDLE VALVE ON REAR DOWNDRAFT INTAKE/ NATURAL FINISH/ LAPPED PISTON	165		52
*	'45	I	CHAMPION MODEL H	0.603	SPOKE HEAD FINS AS PREV./ 'H' APPEARS ON CASTING MAGNESIUM AND ALUMINUM	165		53
ATWOOD & ADAMS MFG. COMPANY	'46	I	CHAMPION MODEL J	0.624	AS '41 MODEL H/ NATURAL FINISH/ PARALLEL HEAD FINS/ BLACK CYLINDER FINS/ RINGED PISTON - MANY MINOR CHANGES	160 190-N	229	54
*	'46	I	CHAMPION MODEL J	0.603	AS PREVIOUS/ LAPPED PISTON	140		55
*	'46	I	CHAMPION MODEL H	0.603	AS '41 MODEL H/ PARALLEL HEAD FINS/ BLACK WRINKLE PAINTED CASE/ HEAD & INTAKE STACK UNPAINTED/ 'H' ON CASTING/ LAPPED PISTON	135	164	56
*	'46	I	CHAMPION MODEL H	0.624	AS PREVIOUS/ RINGED PISTON	135	143	57
* NOTE:	---	---	-----	---	NEW CASES ALL EXHAUSTS NOW ON RIGHT SIDE			
*	'46	I	CHAMPION MODEL JH	0.624	AS PREV. 'H'/ 'JH' ON BYPASS/ EXHAUST ON OPPOSITE SIDE OF PREVIOUS/ PLAIN FINISH REAR DOWNDRAFT INTAKE/ RINGED PISTON	130	126	58
*	'46	I	MODEL JH	0.624	AS PREVIOUS/ PLAIN FINISH/ STRAIGHT-IN REAR INTAKE/ RINGED PISTON	130		59
*	'47	I	MODEL J	0.603/ 0.624	AS PREV. '46 MODEL J / RINGED OR LAPPED PISTON/ BLACK WRINKLE FINISHED CASE	225		60
*	'47	I	SUPER CHAMP MODEL JH	0.624	AS PREV. JH/ 'SUPER CHAMPION' ON BYPASS/ RINGED PISTON	130		61
ATWOOD MFG. COMPANY	'47	I	SUPER CHAMP MODEL DR	0.624	AS PREV. JH/ BYPASS AND EXHAUST ENLARGED/ RINGED PISTON/ 'JH' OR 'GD' ON CASE	130		62
*	'48	G	GLO-DEVIL MODEL GD MODEL DR	0.624	AS PREV. 'DR'/'GD' ON CASE/NOT MACHINED FOR TIMER BUT SOME MODELS FACTORY MACHINED AND SOLD WITH TIMER	135	179	63
* NOTE:	'48	---	-----	---	SOME CONFUSION EXISTS ON ATWOOD MODELS WITH GD/JH/DR IDENTITIES ON IGNITION AND GLO MODELS BECAUSE THE COMPANY WAS WINDING DOWN PRODUCTION & SALES IN THE NEW GLOW-PLUG ERA			
*	'48	I	TRIUMPH .49	0.491	NEW DESIGN 2 PIECE DIE CAST CASE-SPLIT UNDER MOUNTING LUGS/ FRONT ROTARY VALVE/ TANK OR NO TANK ON BACKPLATE/ ENCLOSED TIMER/ STAMPED '49' ON TOP OF MOUNTING LUG	155	238 125	64
*	'48	I	TRIUMPH .51	0.503	AS 49/ STAMPED 51 ON MOUNTING LUG/ BORE INCREASED	120	106 100	65
*	'48	G	TRIUMPH .49	0.491	AS IGNITION /CASE NOT MACHINED FOR TIMER	110	115	66
*	'48	G	TRIUMPH .51	0.503	AS IGNITION/ CASE NOT MACHINED FOR TIMER	120 165	87	67
*	'53	G	ATWOOD .15	0.149	AS ATWOOD .049/ ENLARGED/ DID NOT COMPARE TO K & B .15 AND WAS DROPPED/ VERY FEW MANUFACTURED	PROTO		68
AVION AIRCRAFT (A.C. POTHIER)	---	---	-----	---	ENGINES KNOWN AS 'AVION MERCURY' RIBS ON CRANKCASE FRONT COVER/ MAGNESIUM AND ALUMINUM CASTINGS	875 975		69
*	'46	I	MERCURY 45	1.609	SMOOTH CRANKCASE FRONT COVER/ MAGNESIUM AND ALUMINUM CASTINGS	1200		70

1948
ATWOOD
TRIUMPH
'49 & 51'

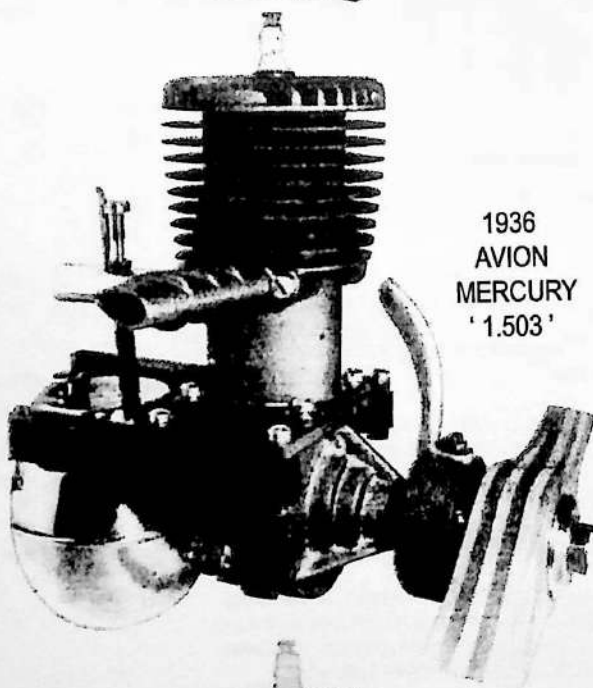


SOLD
WITH
AND
WITHOUT
TANKS

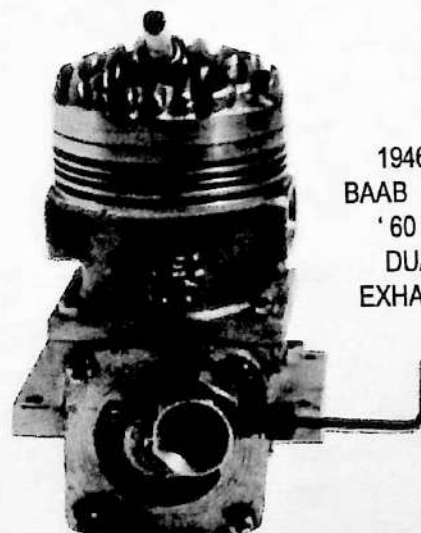
1946
BAAB
FOX
'60'



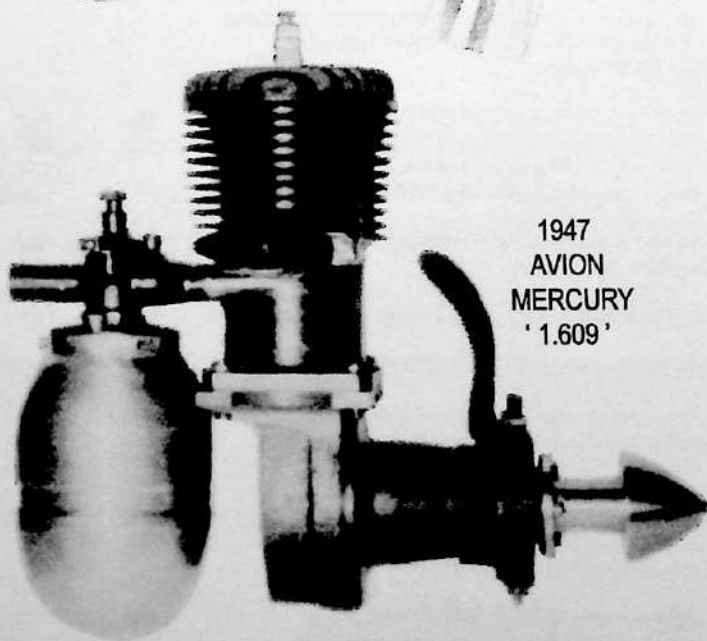
1936
AVION
MERCURY
'1.503'



1946
BAAB FOX
'60'
DUAL
EXHAUST



1947
AVION
MERCURY
'1.609'



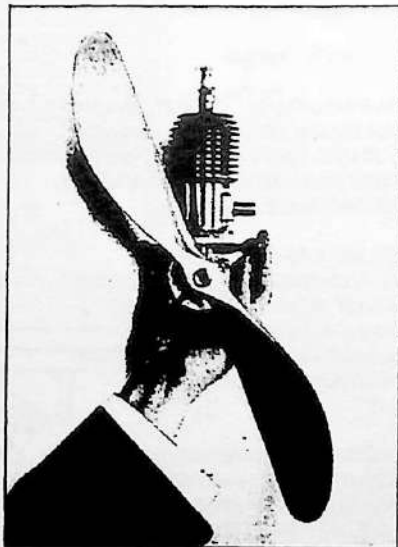
1911
BABY AERO
ENGINE
'2.65'



See next picture
pages for more

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
AVION AIRCRAFT	'47	I	MERCURY 45M	1.609	AS PREV./ WATER JACKET AROUND CYLINDER/ HEAVY CAST BRASS CRANKCASE	1150		71
" "	'47	I	MERCURY 45	1.609	AS '46 MODEL/ VARIATIONS IN MAGNESIUM AND ALUMINUM CRANKCASES	900	NIB 656 TANK DAMAGED	72
" "	'47	I	MERCURY TWIN	3.060	PRE-PRODUCTION PARTS OF TWINS EXISTED			73
" "	'47	I	MERCURY 99	---	PRE-PRODUCTION PARTS EXISTED			74
BAAB MODEL PRODUCTS (LLOYD BAAB & CLIFF FOX)	'46	I	BAAB FOX 60	0.604	SAND CAST SQUARISH CASE & CYLINDER/ REAR ROTARY RACE CAR ENGINE/ RESEMBLES HORNET/ DUAL EXHAUST/ PLUGS SWEEP BACK IN FINNED HEAD/ CRANKCASE/ BAAB MODEL PRODUCTS ON REAR OF ENGINES AND HAVE SERIAL #'s	1700		75
BABY AERO ENGINE (ECKERT BROS. STAMFORD, CONN.)	1911/ 1912	I	BABY	2.65	SEE 'MIDGET' FOR SIMILAR SIZE & TYPE SPLIT SAND CAST ALUMINUM CRANKCASE/ CAST IRON CYLINDER/ CAST IRON PISTON - 3 RINGS - 2 REGULAR AND ONE ON PISTON SKIRT/ STEEL CRANKSHAFT/ BRONZE CON. ROD/ CARBURETOR WITH FLOAT/ 5/8" SPARK PLUG/ 3 1/2 LBS/ ASSEMBLED OR KIT	RARE		76
" "	1912	I	BABY MULTI CYL.	---	AS PREV. CONSTRUCTION/ SHOWN IN 1912 ARTICLE AS AVAILABLE IN 2,3 AND 4 CYL. INLINE CONFIGURATIONS/ UNKNOWN PRODUCTION/ SEE DYNAMIC MFG. CO., IN THIS LISTING AND 'DYNAMIC' ON PAGE 21	RARE		77
(WEISS MFG. CO. TORRINGTON, CONN.)	1913/ 1919	I	WEISS (BABY CONTINUATION)	2.65	AS PREVIOUS WITH SOME DIFFERENCES IN SIZE & FEATURES - SHORTER - SIMPLER CARBURETOR - 1/2" PLUG, ETC./ ASSEMBLED OR KIT	RARE		78
AERO ENGINE CO. (HARRY AITKEN)	1913/ 1919	I	MIDGET	2.780	SEE PAGE 48 FOR SIMILAR ENGINE TO BABY/ CLOSE COMPETITOR OF WEISS AT 1 LB. LESS WEIGHT			79
(GOLIATH - BY WEISS MFG. CO.)	?	I	GOLIATH (?)	2.65	SIMILAR TO WEISS (BABY CONTINUATION ?) BUT AS STATIONARY ENGINE UNUSABLE FOR AIRCRAFT - ONLY BOATS	RARE		80
" " NOTE:	---	---	---	---	THERE WAS LITTLE DOCUMENTATION ON WHAT WAS BEING SOLD IN THE U.S. FROM ENGLAND IN THE EARLY 1900'S. THE 3 HP SINGLE CYLINDER BOAT ENGINE BY GRAY MOTOR CO. (ENGLAND) WAS BEING ADVERTISED IN THE JUNE 1912 ISSUE OF OUR AMERICAN BOY MAGAZINE FOR \$55. APPEARS QUITE SIMILAR TO THE GOLIATH HOWEVER AMERICAN THREAD SIZES PROBABLY PRECLUDES THIS POSSIBILITY. SOME OF THE INFORM- ATION AND DRAWINGS ON BABY/ WEISS AND GOLIATH ENGINES WAS MADE AVAILABLE EVAN I. TOWNE OF HUNTINGTON INDIANA.			
MODERN ENGINE & SUPPLY CO. (CHICAGO)	1919	I	BABY (COPY)	2.65	KITS AND COMPLETED ENGINES WEIGHING APPROX. 3 LBS. MORE THAN THE BABY WHICH WAS CATALOGED ONLY AS A '1/2 HP ENGINE'/ PROVEN AS A 'BABY' COPY AND PROBABLY MFD. IN DIFFERENT MATERIALS, I.E. CAST IRON CYLINDER & CASE COMPONENTS RATHER THAN ORIGINAL ALUMINUM RESULTING IN THE HEAVIER WEIGHT AT 6 1/2 LBS.	RARE		81
DYNAMIC MFG. (CHICAGO - SEE PAGE 23)	'29/30	I	DYNAMIC BABY (SINGLE, TWIN & FOUR)	2.65	APPARENTLY THE BABY ENGINES (ALL ALUMINUM) WERE BROUGHT BACK & SOLD AS 'METALUMEN' - 'AEREQUINE' AND 'QUEEN OF THE AIR' ENGINES - IN BOTH SINGLE AND MULTI-CYLINDER TYPES	RARE		82
BALL (HENRY BALL)	'46	I	BALL	0.604	MFD. BY B & D RACING LABORATORY TWIN EXHAUST STACKS ON SAME SIDE OF CYLINDER/ LONG FRONT INTAKE/ SAND CAST RACE CAR ENGINE/ SPOKE HEAD FINS	650		83
"	'47	I	BALL	0.604	AS PREV. DIE CAST/ PARALLEL HEAD FINS	650	575	84

The BABY ENGINE



3 3/4 lbs.
1/2 H.P.

"A Bird in the Hand"

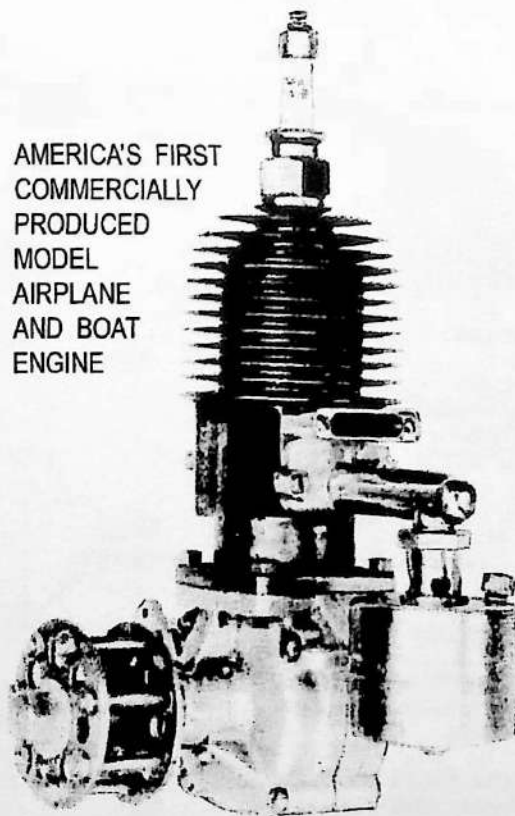
Turns the 18 in. diameter 13 in. pitch propeller shown in cut 2300 R.P.M. developing a full 1/2 H.P. It's 3 3/4 lbs. of weight include the engine, commutator, special spark plug, aluminum carburetor, gasoline tank and 18 in. aluminum propeller.
The engine is valveless and has only three moving parts.

\$35.00

Send for complete illustrated catalogue

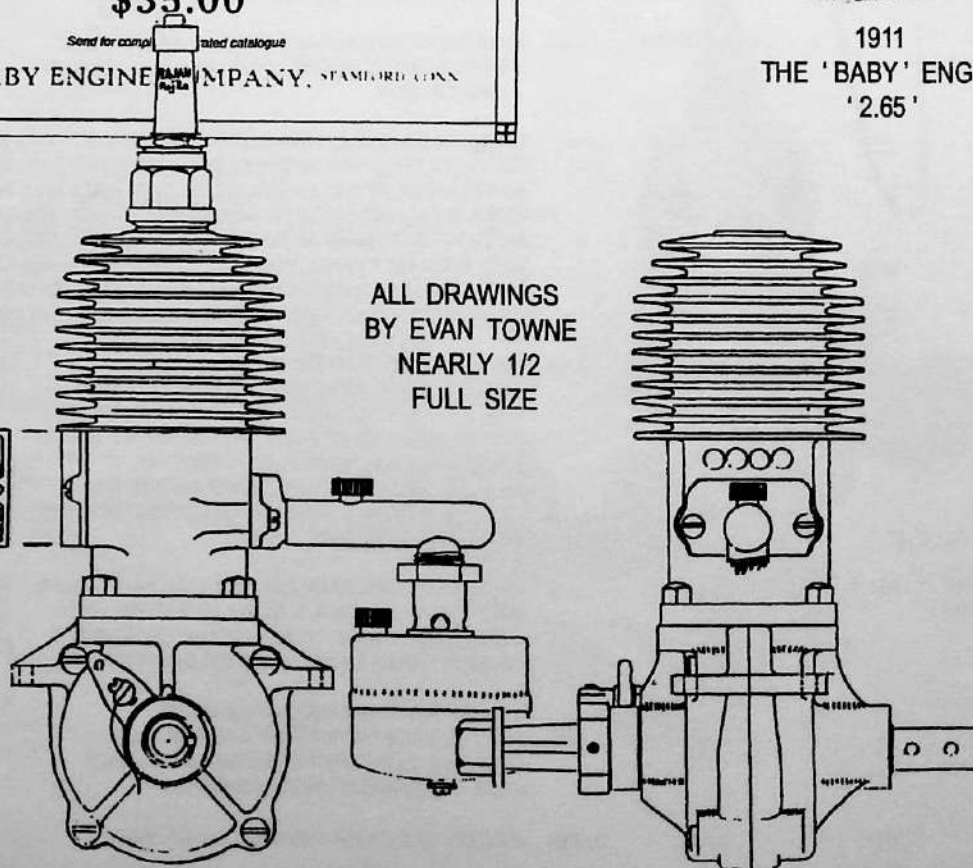
THE BABY ENGINE COMPANY, STAMFORD, CONN.

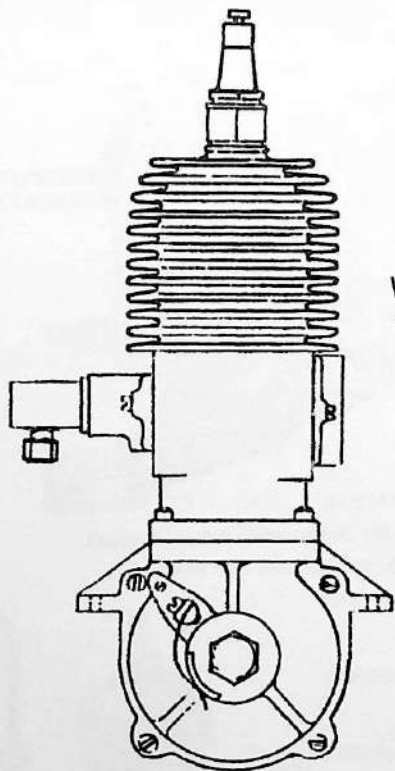
AMERICA'S FIRST
COMMERCIALY
PRODUCED
MODEL
AIRPLANE
AND BOAT
ENGINE



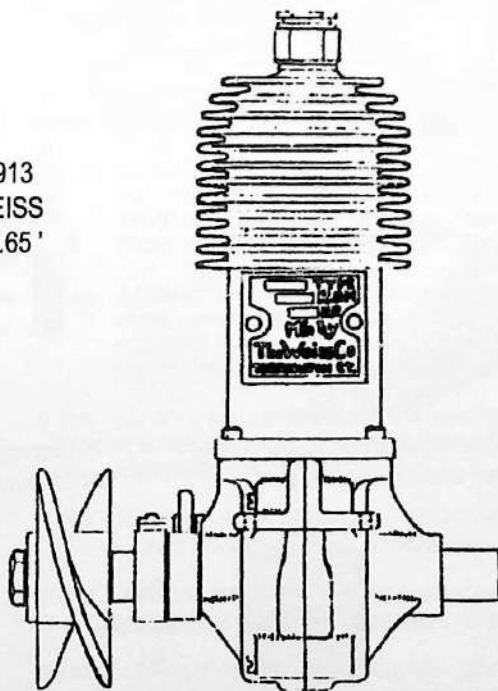
1911
THE 'BABY' ENGINE
'2.65'

ALL DRAWINGS
BY EVAN TOWNE
NEARLY 1/2
FULL SIZE

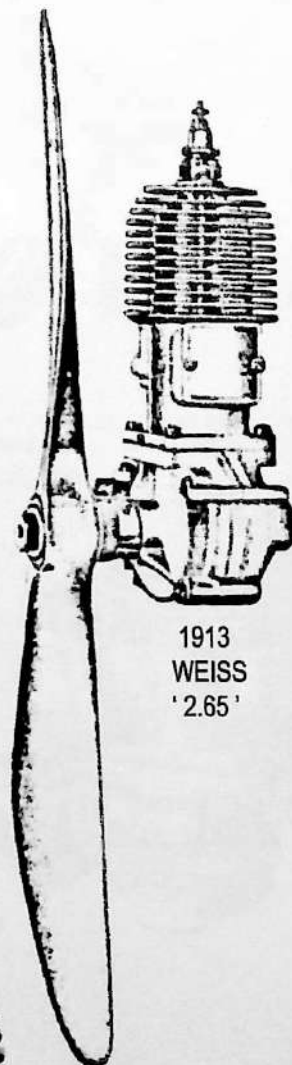




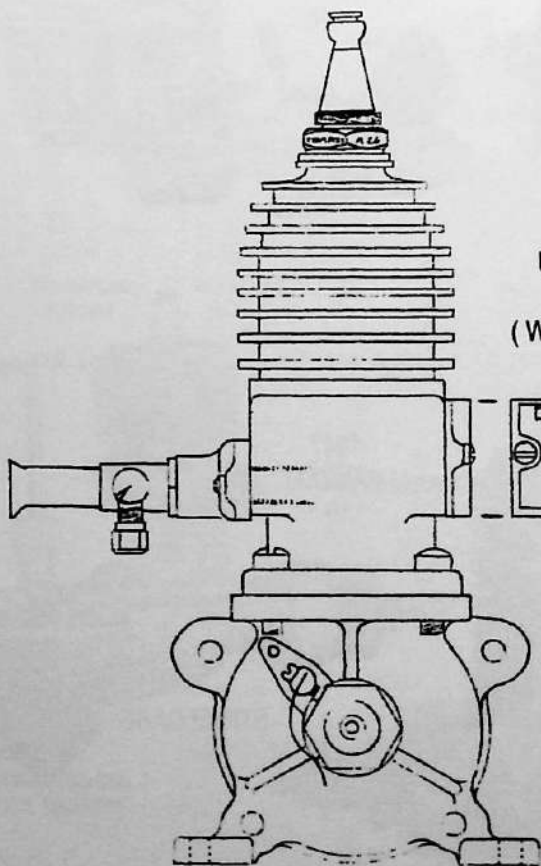
1913
WEISS
'2.65'



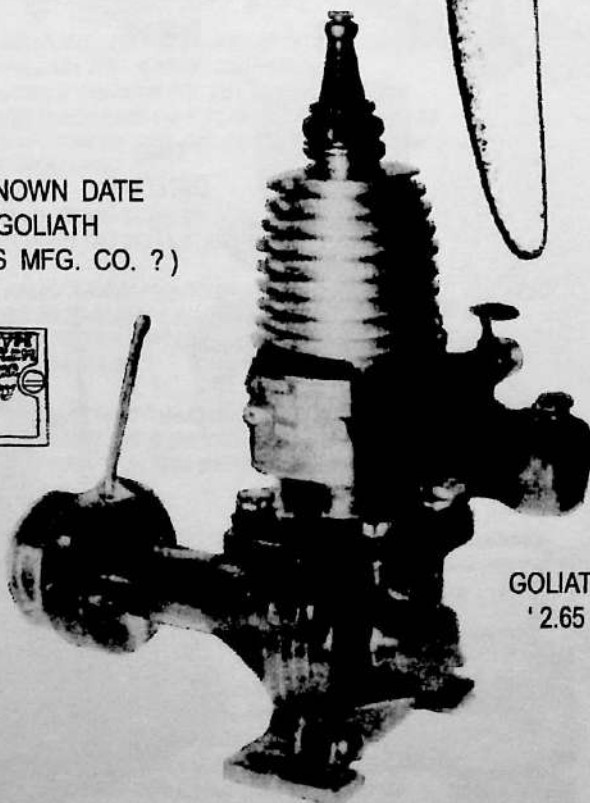
ALL DRAWINGS BY
EVAN TOWNE
NEARLY 1/2 FULL SIZE



1913
WEISS
'2.65'

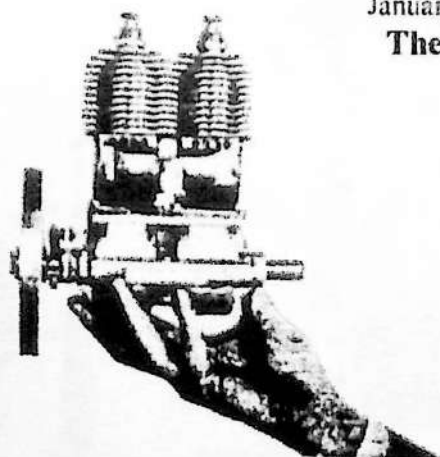


UNKNOWN DATE
GOLIATH
(WEISS MFG. CO. ?)

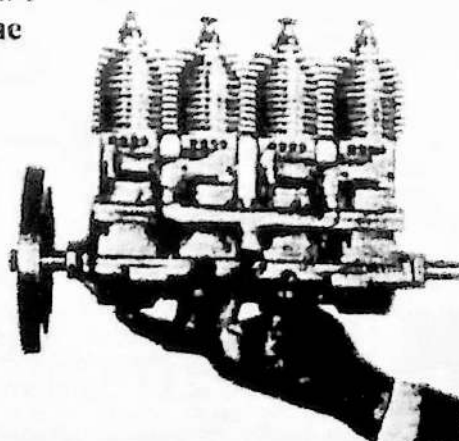


GOLIATH
'2.65'

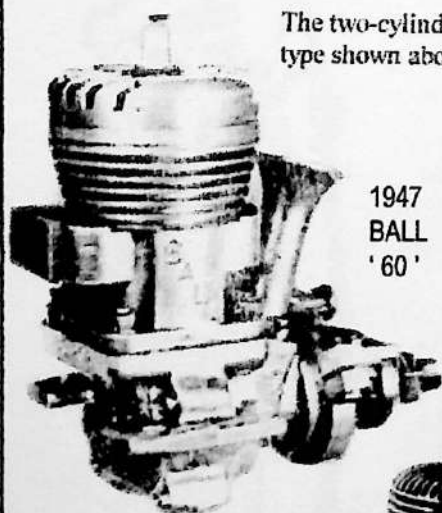
From a 1912 Article and advertised in
January 1912 AIRCRAFT
The BABY Engine



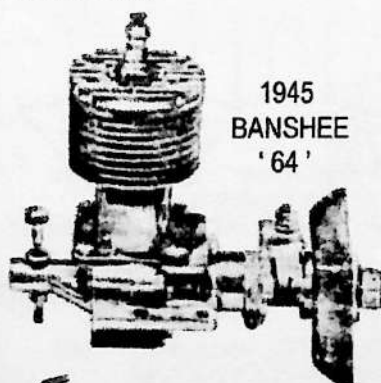
The two-cylinder model of the same
type shown above developing 1 h.p.



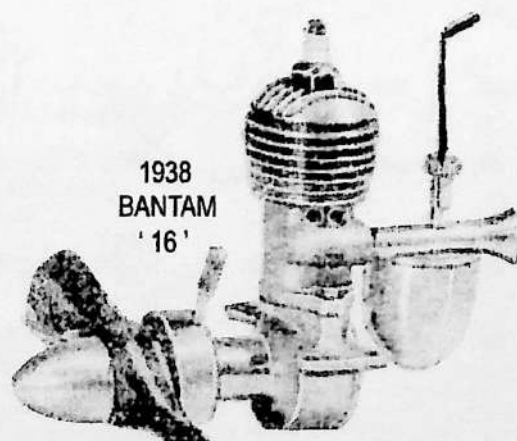
A four-cylinder motor with a total weight
of 10 pounds, suitable for use in canoes.



1947
BALL
'60'



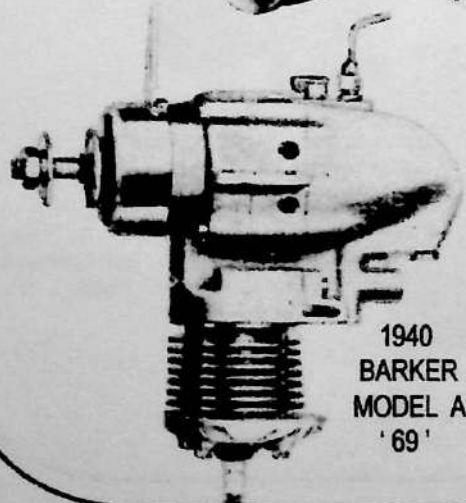
1945
BANSHEE
'64'



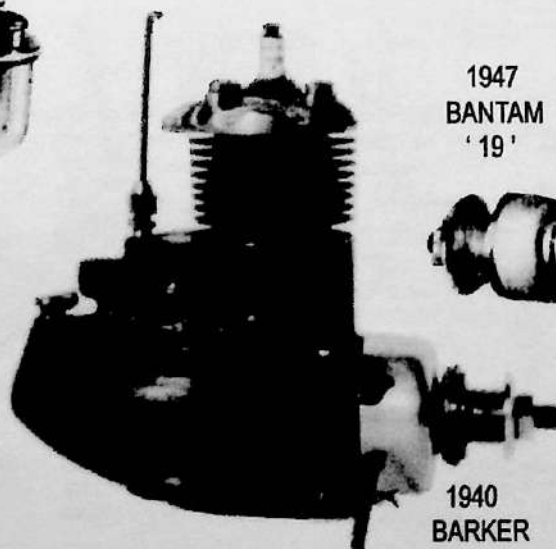
1938
BANTAM
'16'



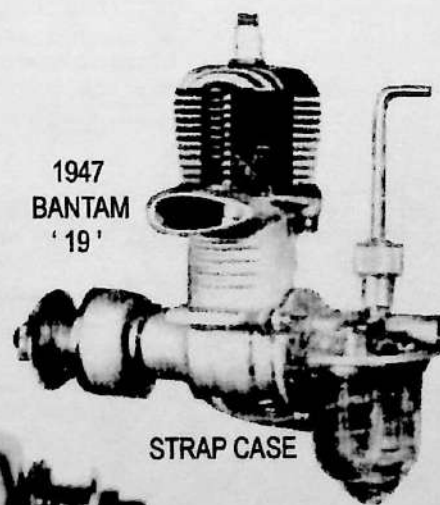
1940
BANTAM
'19'



1940
BARKER
MODEL A
'69'



1940
BARKER
MODEL B
'69'

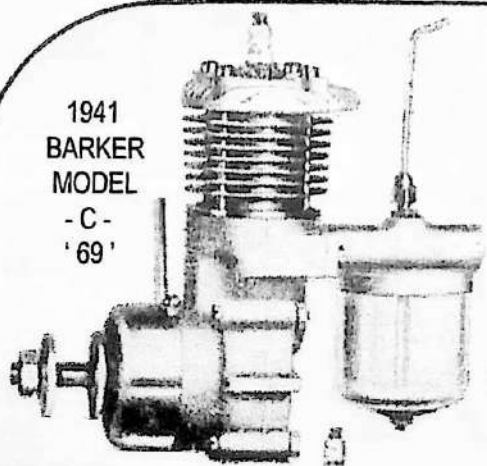


1947
BANTAM
'19'

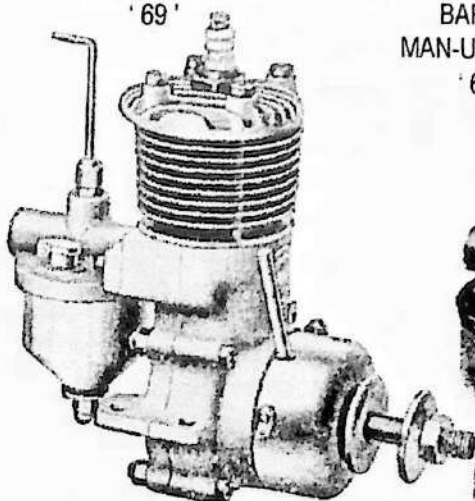
STRAP CASE

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
BANSHEE (CANADIAN)	'45	I	BANSHEE	0.638	MFD. BY BARRETT ENGINES RACING/ AIRCRAFT/ REAR ROTARY INTAKE ALUMINUM ALLOY CAST/ MACHINED CYLINDER AND FINS -SHORT HEAD FINS	550		85
BANTAM PRODUCTS (BEN SHERESHAU)	---	---	-----	---	MFD.BY BANTAM PRODUCTS AND SOLD BY MINIATURE MOTORS THEN ASSEMBLED AND SOLD BY O.K.			
" "	'38	I	NEW BANTAM	0.164	SAND CAST/ SIDE PORT/ FOUR (4) ROUND HOLES FOR EXHAUST/ MATTE FINISH/ PISTON RINGS/ KNURLED ALUMINUM TANK BOWL/ CLOSED TIMER/ HORIZONTAL HEAD FINS/ 7 CYLINDER FINS	250		86
" "	'39	I	NEW BANTAM	0.164	AS PREV./ TWO (2) ROUND HOLES FOR EXHAUST/ MORE HEAD FINS MACHINED & POLISHED/ TIMER HOUSING MACHINED/ CLEAR PLASTIC TANK/ PISTON RINGS/ 10 CYLINDER FINS	250		87
" "	'39	I	BANTAM	0.199	1ST REAR ROTARY BANTAM/ LAPPED PISTON/ MAGNESIUM CASE/ UNPAINTED CYLINDER FINS/ ROUNDED HEAD PROFILE	110	187-NIB 104	88
" "	'40 *	I	BANTAM	0.199	AS PREV./ ALUMINUM CASE/ SHORT VENTURI HIGHER ROUNDED HEAD PROFILE/ STEEL BEARINGS	135	127	89
" "	'40 *	I	BANTAM	0.199	AS PREV./ALUMIUM CASE/ LONGER FLARED VENTURI/ BLACK OXIDE FINISHED CYLINDER FINS	130	163	90
" "	'40 *	I	BANTAM	0.192	AS PREV./ MAGNESIUM CASE/ BLACK OXIDE FINISH/ THIN CLOSELY SPACED CYLINDER FINS/ HEAD PROFILE FLATTENED	115	104	91
	'44	I	BANTAM	0.601	SANDCAST CASE/ DISC VALVE TYPE/ RATED 1 1/4 HP/ NO PRODUCTION	PROTO		92
BANTAM PRODUCTS	'46	I	BANTAM (STRAPCASE)	0.199	AS PREVIOUS .19/ EXTRA METAL 'STRAP' UNDER CRANKCASE FOR FUTURE CRANKSHAFT STROKING/ PRELUDE TO .201 OR .21 BANTAM - BANTAM ADVERTISED FOR FREE FLIGHT - BUT NO PRODUCTION OF .201 OR .21/ BLACK CYLINDER AND HEAD FINS	165	229-N	93
MINIATURE MOTORS	'47	I/G	-----	---	ENGINES BEING SOLD BY MINIATURE MOTORS THEN SOLD OFF TO O.K. ENGINES IN SAME YEAR			
O.K. ENGINES	'47	I	'OK'-BANTAM	0.199	AS PREV./ EARLY MODELS MAGNESIUM CASES/ LATER ALUMINUM USING UP PARTS & RIGHTS PURCHASED BY 'OK' HERKIMER/ STILL HAD THE FLARED VENTURI	115	148	94
" "	'47	I	'OK' BANTAM	0.199	AS PREV./ ALUMINUM CASE/ SHORT INTAKE OR LONGER FLARED INTAKE AND HAS 'OK' NEEDLE VALVE/ SERIAL #20006 THROUGHT #28230- E.J.C. REF.	115	138	95
" "	'48	G	BANTAM G	0.199	GLOW MODEL AS PREV./ NO CAM ON SHAFT/ NO TIMER ARM GROOVE/ HOT FUEL TANK/ PROP DRIVE SCEWS INTO SHAFT/ SOME MODIFIED & SOLD WITH TIMERS AS PRODUCTION AND INVENTORY WOUND DOWN	95		96
BARKER ENGINEERING CO. (P.E. BARKER)	'40	I	MODEL A (INVERTED)	0.691	SAME AS MOD. B WITH NEEDLE VALVE COMING OUT BOTTOM OF TANK FOR INVERTED USE ONLY/ ELLIPTICAL TANK FAIRED INTO CRANKCASE/ MANY EXAMPLES IN BLACK OR SILVER - WITH RED HEADS (MOST SILVER & RED PAINT HAS LONG SINCE VANISHED FROM MAGNESIUM CASES)	1250		97
" "	'40	I	MODEL B (UPRIGHT)	0.691	SAND CAST VERTICALLY SPLIT CASE/ ELLIPTICAL TANK INCLUDING VENTURI FAIRED INTO CRANK- CASE	1050		98

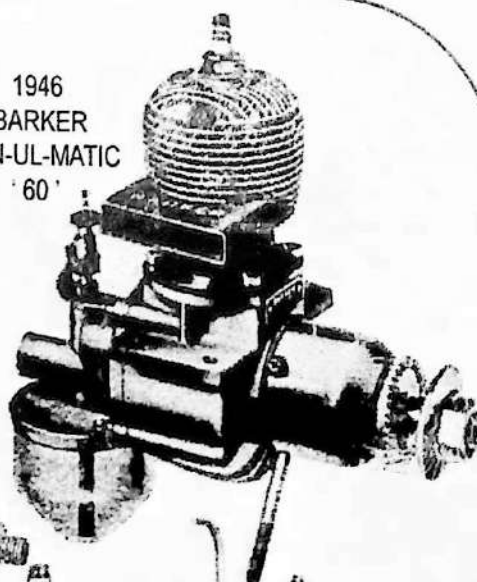
1941
BARKER
MODEL
- C -
' 69 '



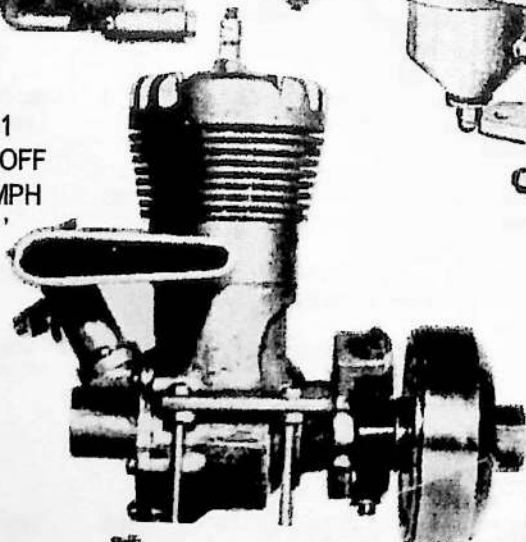
1941
BARKER SPITFIRE
' 69 '



1946
BARKER
MAN-UL-MATIC
' 60 '



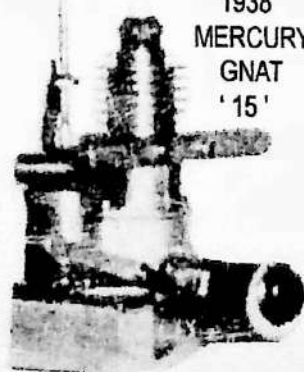
1941
BATZLOFF
TRIUMPH
' 60 '



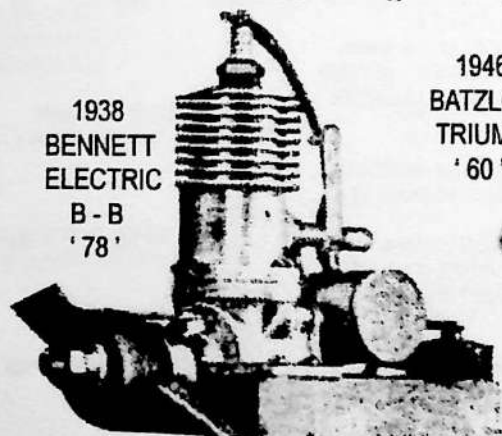
1938
BAT
' 19 '



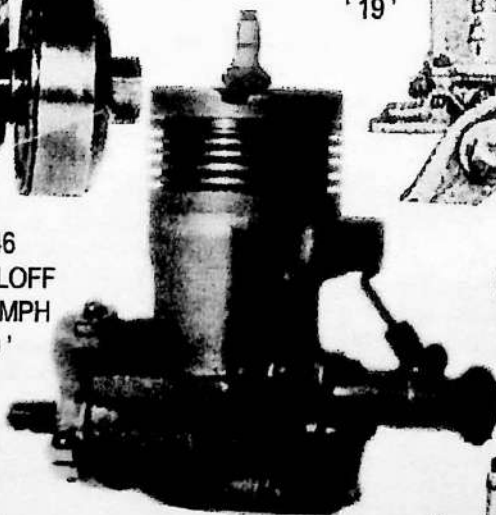
1938
MERCURY
GNAT
' 15 '



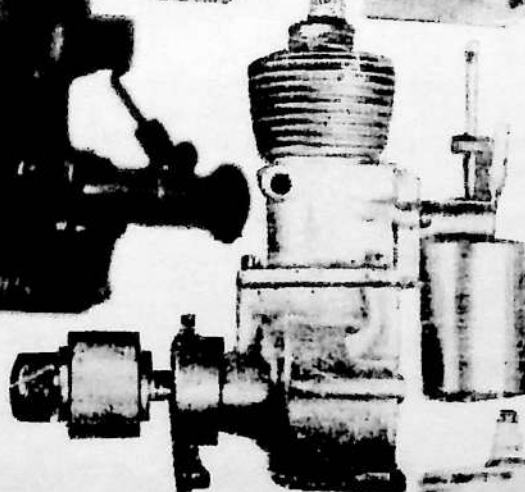
1938
BENNETT
ELECTRIC
B - B
' 78 '



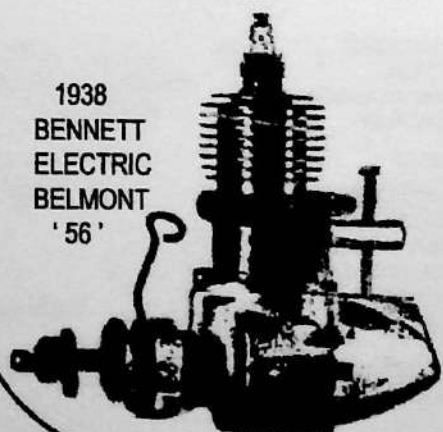
1946
BATZLOFF
TRIUMPH
' 60 '



1939
BELMONT
MOTORS
' 56 '



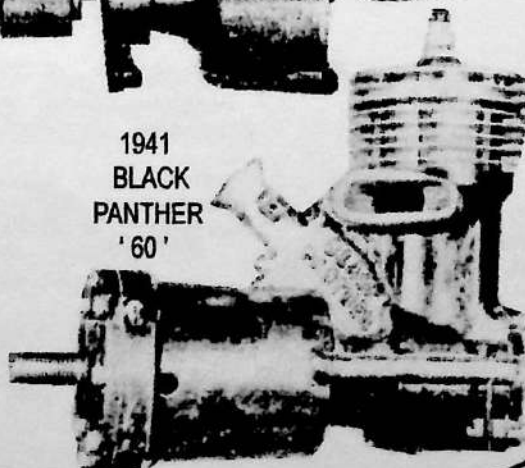
1938
BENNETT
ELECTRIC
BELMONT
' 56 '



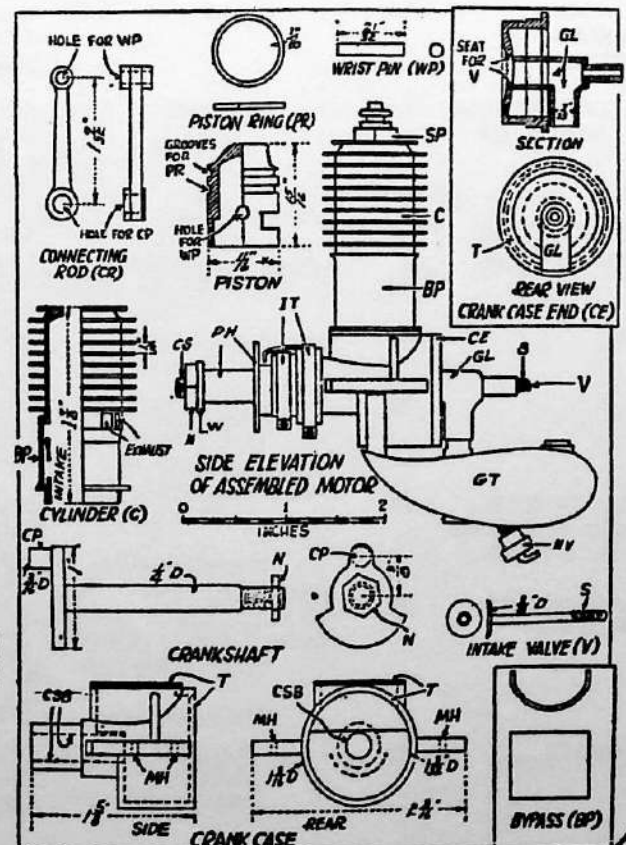
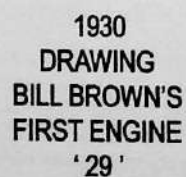
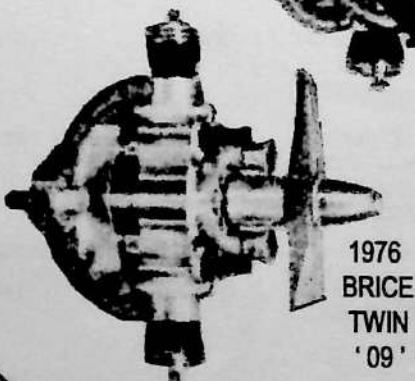
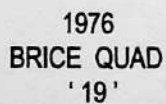
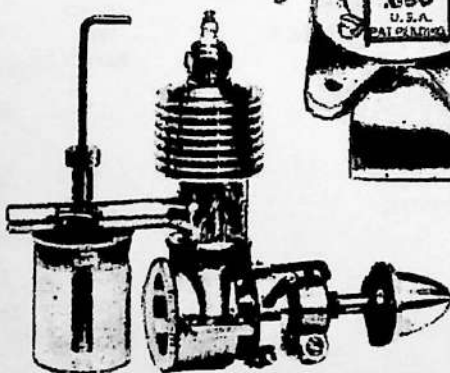
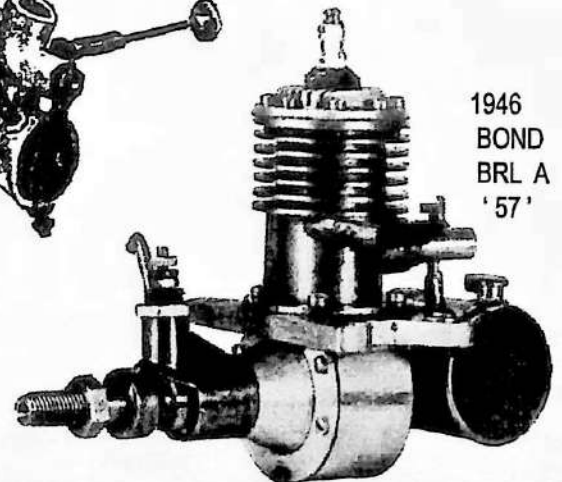
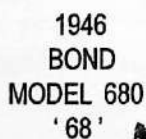
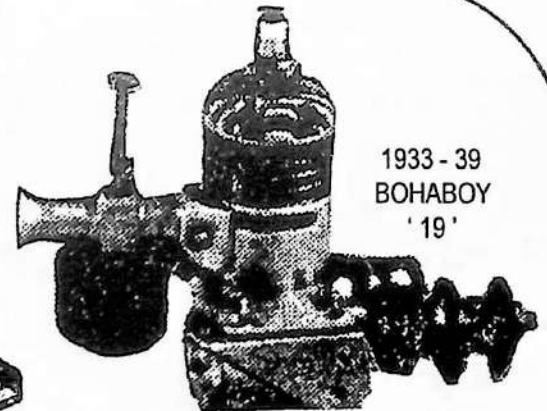
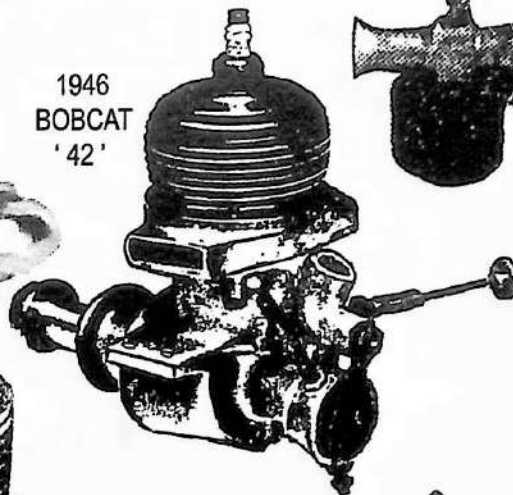
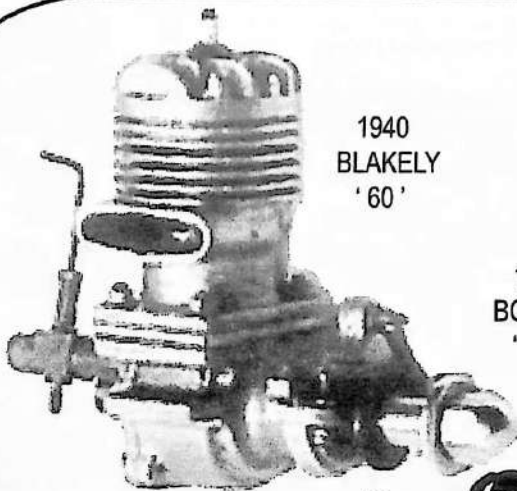
1938
BESSETT
GNOME
' 60 '



1941
BLACK
PANTHER
' 60 '



MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION --- ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
BARKER ENGINEERING CO.	'40	I	MODEL C	0.691	AS PREVIOUS BUT WITH TRANSPARENT FUEL TANK ON REAR INTAKE/ SAND CAST MAG. CASTINGS WITH CASE SHAVED AT REAR/ TEARDROP SHAPED FINNED HEAD BOLTED TO ROUND CYLINDER	1050		99
" "	'41	I	SPITFIRE	0.691	AS 'C' MODEL REAR INTAKE CASE/ SPUN METAL-CONE SHAPED HANG TANK/ EARLY TANK PRESSED - THEN LATER TANK WAS SPUN ALUMINUM	1050		100
" "	'46	I	M.U.M.	0.604	NEW DESIGN REAR ROTARY/ NAME PLATE ON MAGNESIUM CASE/ BLACK PAINTED CYLINDER AND HEAD FINS BOLTED TO CASE/ BOLT-ON RECTANGULAR EXHAUST	250 475-N	375 330	101
BAT / HUSKY	---	--	-----	----	MFD. BY RAY DAY PISTONS INC. - PIRATED DESIGN FROM HUSKY MINIATURE MOTOR CO.			
"	'38	I	BAT	0.192	SAME AS HUSKY JR. /NAME SHAVED OFF CYLINDER/ 4 BOLT SANDCAST CASE/ BOLT ON EXHAUST	575		102
"	'38	I	BAT	0.192	NEW 3 BOLT PERMANENT MOLD CASTINGS/ NAME ON FRONT CASE/ EXHAUST CAST AS PART OF CYLINDER/ 3 BOLT CASE/ CHROME PLATED CYLINDER LINER	575		103
BATZLOFF (BILL BATZLOFF)	'41	I	BATZLOFF TRIUMPH	0.596	AS HASSAD EXCEPT 45 DOWNDRAFT REAR CARBURETOR / LAPPED DOMED PISTON (ONE ENGINE HAD RINGS)/ APPROX. 12 MANUFACTURED BY FRIEND OF IRA HASSAD	1700	1500 REPRO 700 REPRO	104
"	'46	I	BATZLOFF TRIUMPH	0.596	CASTING KITS & PLANS (7-3-46)/ STANDARD HORNET TYPE/ LONG REAR FLARED INTAKE	RARE		105
BELMONT MINIATURE MOTORS	'39	I	BELMONT .56	0.562	SIMILAR TO '38 MODEL BENNET ENGINE/ RATCHET NEEDLE VALVE/ CYLINDRICAL METAL TANK	1150		106
MERCURY MODEL AIRPLANE CO.	'39	I	MERCURY GNAT	0.152	SAND CAST ALUM. CASE/SAND CAST IRON CYLINDER/ FRONT EXHAUST WITH TUBULAR EXHAUST SWEEP BACK/ INTAKE BOLTED TO REAR OF CYLINDER/ FIXED TIMER	1050		107
BENNETT ELECTRIC MACHINE WORKS	---	--	-----	----	MERCURY MODEL AIRPLANE CO. - ALSO SOLD MERCURY GNAT FROM BELMONT DIE CAST/ 'CAN' FUEL TANK/ BROWN TYPE/ 'FACTORY TESTED'/ SOLD ALSO IN KIT AS 'LEWIS ENGINE' (REF. 'JOURNAL')/ CAME WITH EITHER FIXED OR MOVABLE POINTS			
"	'38	I	B - B	0.781		1250		108
"	'38	I	BELMONT 56	0.562	SAND CAST ALUM. CASE/ 'WIRE' TIMER ARM/ CAST STREAMLINED TANK BOLTED TO REAR OF CRANKCASE/ EXHAUST STACKS EXTRA	1250		109
BESSETT-GNOME MODEL ENG. WORKS (I.J. BESSETTE)	'37	I	'60'	0.601	CAST ALUMINUM CASE/ TALL CYLINDER/ 2PISTON RINGS/ TANK SEPARATE/ HIGH COMPRESSION HEAD EXTRA/ APPROX. 300 MFD. - PER BESSETTE	1350		110
BLACK PANTHER ENGINE CO.	'41	I	BLACK PANTHER (RACE CAR)	0.604	AS EDCO SKY DEVIL/ BLACK MAG. CASE/ VERY LARGE FRONT END WITH ENCL. FLYWHEEL AND TIMER/ 'RIP-OFF' OF HASSAD DESIGN AND WERE 'PERSUADED' BY HASSAD LAWYER TO STOP PRODUCTION - FEW MANUFACTURED	2100 RARE	NOT SOLD 3000 RESERVE	111
BLAKELY	'40	I	BLAKELY (RACE CAR & BOATS)	0.604	HORNET TYPE/ SHORTENED SHAFT/ NAME ON REAR COVER/ ROUGH ALLOY CASTINGS/ BRASS NEEDLE VALVE ASSEMBLY AND INTAKE	850		112



MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
BOBCAT	---	--	-----	----	MANUFACTURED BY STENMOOR MFG. CO. (STARTED BY 'SCRAPPER' MANUFACTURING AFTER BANK SHUT THEM DOWN - REF.E.C.J.)			
"	'46	I	BOBCAT	0.421	ROUGH SAND CAST CASE WITH DOUBLE SWEEP BACK EXHAUST/ REAR 45° DOWNDRAFT DRUM INTAKE/ REAR TIMER/ FEW MANUFACTURED MORE ASSEMBLED LATER FROM PARTS	1050		113
BOHABOY (ANTON BOHABOY)	'33/'39	I	BOHABOY	0.199	FROM ANTON'S ORIGINAL COLLECTION/ ALL MACHINED/ SIDE PORT/ HANG TANK/ FINNED HEAD/ POSSIBLE PRE-PRODUCTION	RARE		114
"	'33/'39	I	"69" MARINE	0.686	VERTICAL SPLITS SANDCAST CASE/ MACHINED CYLINDER FINS/ SIDEPORT/ AJD. CAST TIMER WITH ARM/ 'BOHABOY' ON BYPASS AND FLYWHEEL/ VARIOUS ONE - OFFS - REFERENCE E.C./ CRANKSHAFT RUNS THROUGH SPLIT CASE WITH FLYWHEEL ON ONE END AND TIMER ON OPPOSITE END/ SIMILAR TO G.H.Q. STYLE BUT HAS FINNED BOLT-ON-HEAD - NOT SPOKE HEAD	RARE		115
"	'33/'39	I	1.8 MARINE	1.812	SIMILAR TO PREVIOUS	RARE		116
BOND RESEARCH LAB.	'46	I	BOND BRL. A (MODEL 1)	0.571	SAND CAST CASE/ CYLINDER BRAZED/ NAME ON BYPASS/ LONG REAR INTAKE W/ 'CAN' FUEL TANK	325	286	117
"	'46	I	BOND BRL. A (MODEL 2)	0.571	AS PREV./ CHANGED CRANKSHAFT/ HOLE IN TIMER HOUSING TO ADJUST POINT GAP	281		118
"	'46	I	MODEL 680	0.679	SIMILAR TO PREV. - LARGER/ NAME ON BYPASS/ SHORT REAR INTAKE/ FEW MFD.	425		119
BONNEY	'39	I	"B"	0.276	(REF. 'JOURNAL') NONE SEEN ?	RARE ?		120
"	'39	I	"C"	0.488	(REF. 'JOURNAL') NONE SEEN ?	RARE ?		121
"	'39	I	SUPER "C"	0.687	(REF. 'JOURNAL') NONE SEEN ?	RARE ?		122
BRADLEY	'46	I	CLASS C	0.609	(REF. 'JOURNAL') NONE SEEN ?	RARE ?		123
BRAT (JACK KEENER)	---	--	-----	----	MFD. BY KEENER AIRCRAFT INDUSTRIES & DISTR. BY JAY'S MODEL AIRCRAFT CO. LIKE MINI BROWN/ HEX HEAD/ METAL TANK/ SPINNER OVER PROP NUT/ NO NAME ON ENGINE	285-R 450		124
"	'37	I	BRAT	0.138	AS PREV./ ROUND FINNED OR FLAT HEAD/ BOTH PLUG SIZES/ NAME ON BYPASS	450		125
"	'38	I	BRAT	0.152	SIMILAR TO PREVIOUS/PERMANENT MOLD CASE/ NAME IN OVAL ON CYLINDER FRONT	750		126
BRICE MACHINE SPECIALTIES	'76	G	BRICE TWIN	0.098	2 CYLINDER OPPOSED/ GEAR DRIVEN WITH 1:1 RATIO/ TWIN VENTURI MIXTURE CONTROL/ SIMULTANEOUS FIRING/ LOOKS LIKE COX CYLS. USED/ FRONT & REAR BALL BEARING/ MOUNTING FLANGE/ MUFFLERS INSTALLED			127
"	'76	G	BRICE QUAD	0.196	4 CYLINDER OPPOSED. GEAR DRIVEN WITH 1:1 RATIO/ TWIN VENTURI MIXTURE CONTROL/ ALTERNATING SIMULTANEOUS FIRING/ LOOKS LIKE COX CYLINDERS USED/ FRONT & REAR BALL BEARING/ MOUNTING FLANGE. MUFFLERS INSTALLED			128
BROWN ENGINES (BILL BROWN)	---	--	-----	----	SOME MFD. BY HURLEMAN AND THEN BY JUNIOR MOTORS CORPORATION			
"	'30/'31 *	I	BROWN	0.291	FIRST ENGINE/ PRE-PRODUCTION/ STEEL WITH WELDED AND SOLDERED PARTS	300-R 7500-O	630-R	129

BROWN MOTOR

GASOLINE ENGINE

FOR

Model Plane Builders

Planes powered with this motor
carried off the first place honors in

The Moffett International Contest,
The Mulvihill outdoor event,
The Stout outdoor event, and
The Texaco Trophy at the National Meet
at Roosevelt Field, L. I., last June.

The Improved Model of this motor,
which now holds the official world's
record, is in production.

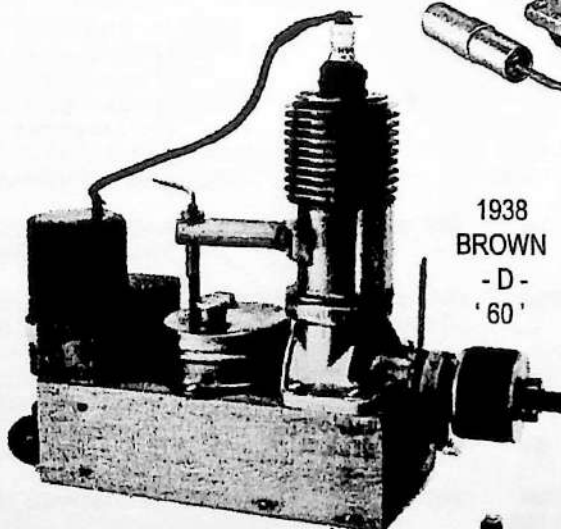
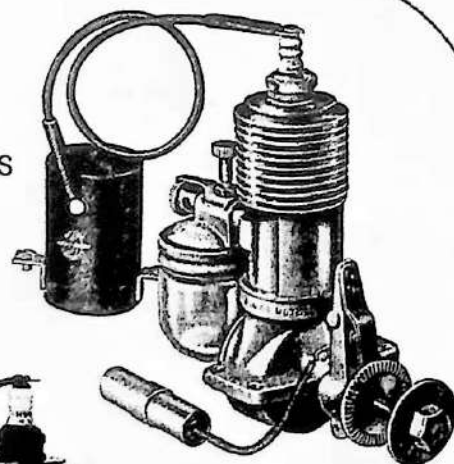
For full particulars communicate with
JUNIOR MOTORS CORP.
BROAD STREET STATION BLDG.,
PHILADELPHIA, PA.

BROWNS

1934
FIRST
BROWN
AD

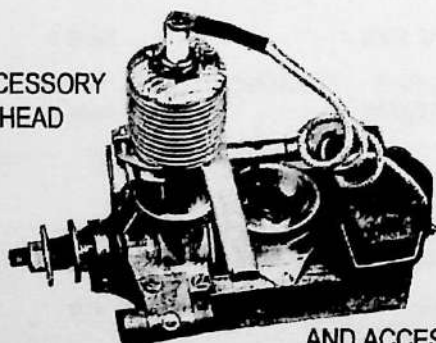
1941
BROWNS

- B -
- C -
- D -
' 60 '



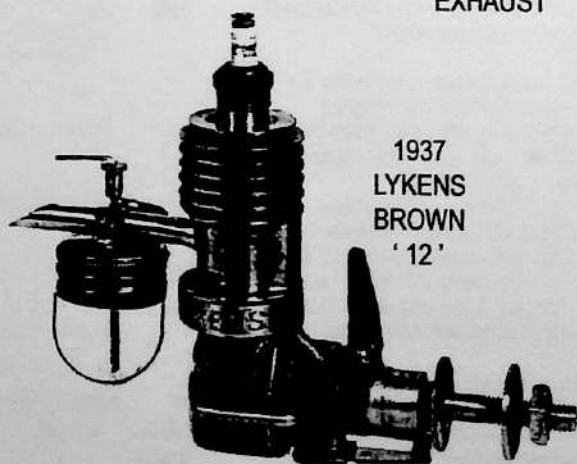
1938
BROWN
- D -
' 60 '

ACCESSORY
HEAD



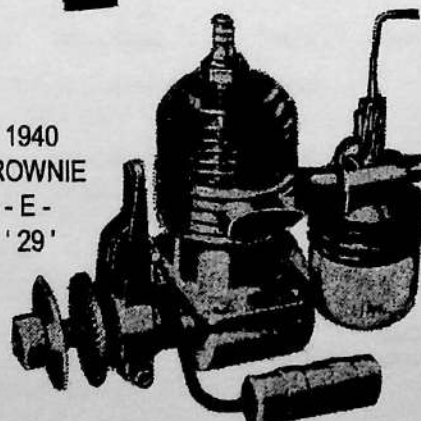
AND ACCESSORY
EXHAUST

1938
BROWN
- M -
' 60 '



1937
LYKENS
BROWN
' 12 '

1940
BROWNIE
- E -
' 29 '



MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
BROWN ENGINES	'31	I	BROWN	0.601	SECOND ENGINE (3) / PRE-PRODUCTION			130
PRE-PRODUCTION								
* FROM #A1	'32	I	BROWN A	0.601	SAND CAST CASE & COVER/ LAPPED PISTON	425		131
	*				SAME TIMER TIL '39 (15 BLT. BY BROWN) LONG			
					BRASS TANK, TWIN EXHST STACKS/ REF. R. SCARSDALE			
* TO #A50	'33	I	BROWN A	0.601	SAME/ 35 BLT. BY BROWN & HURLEMAN/ LONG	425		132
	*				BRASS TANK & TWIN EXHAUST STACKS - SLIGHT			
					DIFFERENCES BETWEEN HURLEMAN - BROWNS			
					BROWN - BUILT - BROWNS/ REF. BOB SCARSDALE			
(SERIAL #'s BELOW)	---	---	MODELS & VARIATIONS		BY REUTER ('71) REVISED BY COWLES ('72)			
* #B1 - B1000	'34	I	BROWN B	0.601	DIE CAST CASE & COVER/ INTAKE WITH CHOKE	275	300	133
START OF BROWN					NUT/ .090" THICK MOUNTING LUG (APPROX. 1000			
PRODUCTION ENGS.					BUILT)/ LONG BRASS TANK/ NO EXHAUST STACKS			
* #B1001 - B4000	'35	I	BROWN B	0.601	SAME/ MOUNTING LUG .125" THICK (3000 BLT.)	608		134
* NO SERIAL NOS.	'35	I	MARINE B	0.601	STEEL BRAZED WATER JACKET/ SOME USED	300		135
					BRASS JACKETS & .165" MTG. LUGS			
* NOTE:	---	---	LYKENS REPRO	---	A FEW ATTEMPTS AT REPRODUCING THIS ENGINE			
					ARE ON RECORD			
* #1 - 100 LYKENS	'37	I	LYKENS BROWN	0.121	MINI BROWN/ CHROME PLATED CYLINDER/ SOME	1195		136
(MFD. BILL BROWN			(MK I & MK II)		BUILT WITH FIXED TIMERS (12 ?)/ BALANCE USED			
DIST. BY MEGOW					MOVEABLE TIMER/ SCREW ON PLASTIC TANK			
MODELS FOR SHORT					(100 - ? - BUILT)/ HEAVY SUPPORTING FIN UNDER			
TIME - NO CONNECTION					FRONT HOUSING/ FLAT TOPPED CAST IRON PISTON/			
JUNIOR MOTORS)					HAD A VERY SPECIAL LIGHT WEIGHT COIL BUILT			
					ONLY FOR THE LYKENS			
* #B4001 - B5550	'37	I	BROWN B	0.601	AS '35B WITH UPRIGHT BRASS TANK CAD PLATED	245		137
					(1550 BUILT) LOWER CYLINDER FIN SMALL/	800-NIB		
					BYPASS TACKWELDED ON			
* #C10,000 - C12,500	'37	I	BROWN C	0.601	AS '37B/ ALUMINUM PISTON WITH RINGS/ N.V.	295		138
					IS A BENT WIRE AT END OF INTAKE (2500 BLT.)			
* #B5551 - B7600	'38	I	BROWN B	0.601	AS '37B/ WITH MOUNTING LUG INCREASED TO	245	250	139
					.165"/ WITH CAST ZINC TANK TOP AND PLASTIC		178	
					TANK/ LAPPED PISTON (2050 BUILT)			
* #C12,501 - C13,000	'38	I	BROWN C	0.601	AS '37C WITH MOUNTING LUG INCREASED TO	245		140
					.165"/ LAST ONES STANDARD N.V. & CAD. PLATED			
					CYLINDER/ WITH CAST ZINC TANK TOP AND			
					PLASTIC TANK/ LAPPED PISTON (500 BUILT)			
* #D1 - D13,5000	'38	I	BROWN D	0.601	AS '38C WITH ALUM.CONROD & RINGED PISTON/	225	234	141
('D' AFTER #					SOME USED OLD .125" LUGS/ LAST ONES HAD		213	
ON FEW)					STANDARD NEEDLE VALVE AND CADMIUM			
					PLATED CYLINDER (13,500)			
* #M1 - M600	'38	I	BROWN M	0.601	AS '38D WITH FLYWHEEL (600 BUILT)/ TANK CAST	350		142
					ZINC TOP PLATED/ WITH PLASTIC LOWER TANK			
* #B7601 - 38,999	'39	I	BROWN B	0.601	AS '38B WITH CAST ZINC TANK TOP WITH STEEL	250		143
					RING & PLASTIC TANK/ ALSO CAST ZINC TIMER			
					BRKT. & REAR ACTING CAM/ CADMIUM PLATED			
					CYLINDER (5400 BUILT)			
* #1C1 - 24C00	'39	I	BROWN C	0.601	AS '39B/ ALUMINUM PISTON WITH RINGS (3400)	250	178	144
					TANK AS BROWN 'B'			
* #1D1 - 65D99	'39	I	BROWN D	0.601	AS '39C WITH NO CHOKE NUT & RETAINER/	225		145
					ALUM. ROD & CAST IRON SHAFT (16,600 BLT)			
* #1M1 - 1M600	'39	I	BROWN M	0.601	AS '39D WITH FLYWHEEL & CHOKE NUT (600)	225		146

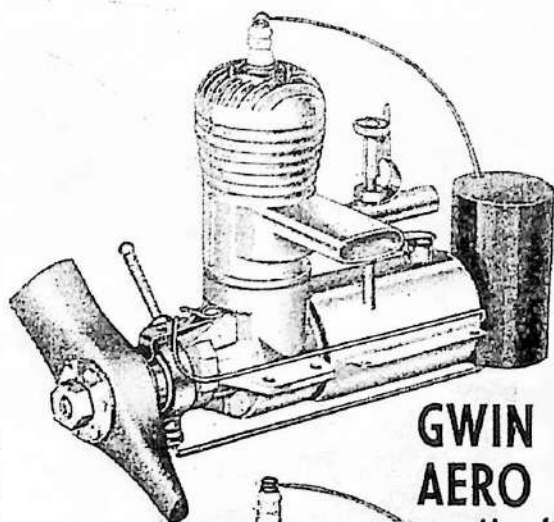
THE MORE A MAN KNOWS
ABOUT ENGINES • THE MORE
HE WILL APPRECIATE
BUNCH motors

WHY

are Bunch Engines being chosen by those best qualified by experience to select the *best* motors?

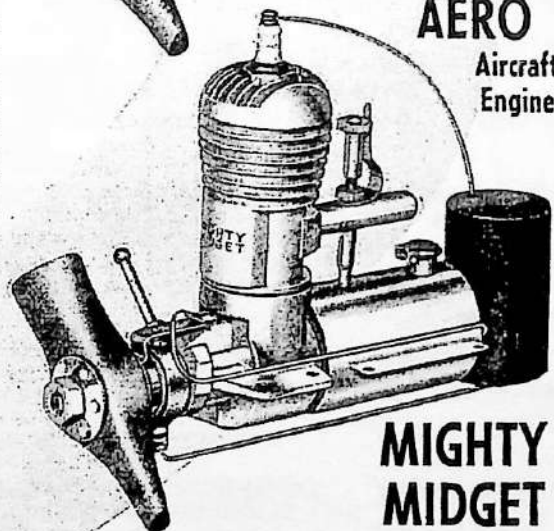
To the practiced eye each feature of these most modern engines is significant. It is apparent why there is no "wear-out" or "life limit" with the new Bunch engines. The development and use of Bunch "square-section" piston rings; light weight piston and all steel, one piece cylinder make possible perfect performance as long as the engine is kept in service.

Continuous research and testing by the industry's most noted staff of motor experts, assures the dependability and efficiency of Bunch motors—engines that *improve* with service. Bunch engines *alone* have been accorded this signal distinction.



**GWIN
AERO**

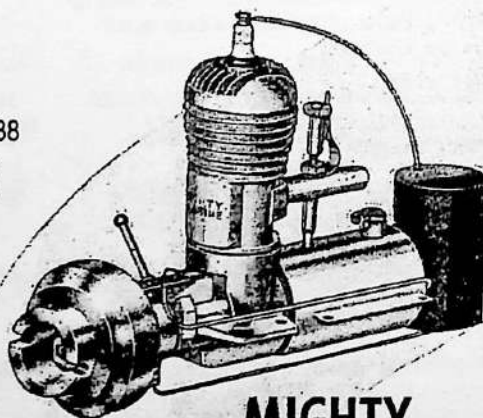
Aircraft
Engine



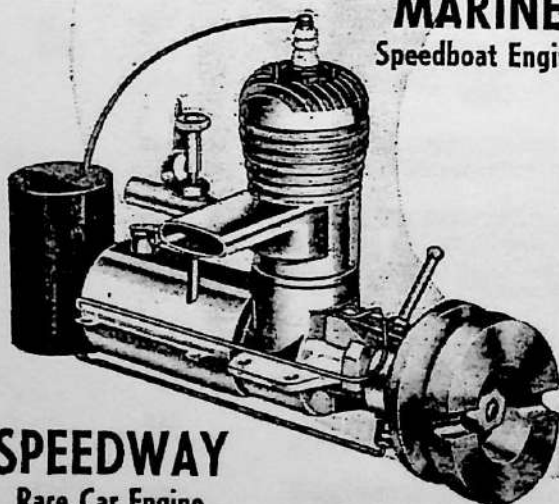
**MIGHTY
MIDGET**

Aircraft Engine

1937 - 1938
BUNCH
'45's'



**MIGHTY
MARINE**
Speedboat Engine



SPEEDWAY
Race Car Engine

NOT the biggest in size but the BIG leaders in performance. Bunch motors are leading in popularity everywhere. This position among all model motors did not just happen but is an earned reward achieved through progressive engineering to produce superior engines.

Owners know each type Bunch motor gives greater performance for a longer period. Reliable, lasting, troublefree service in operation is the keynote for Bunch design and production.

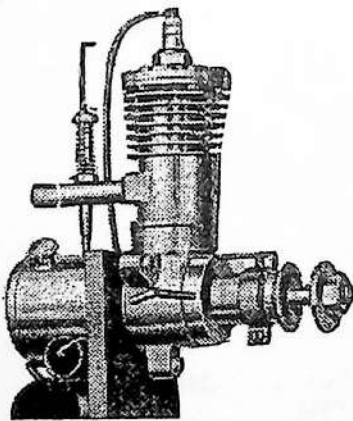
The necessity of SPECIAL engines for airplanes, for race cars and for speedboats is obvious to Bunch engineers and is your assurance in securing the correct motor. Use an engine PROVEN best — a new Bunch motor.

OLD MAGAZINE AD

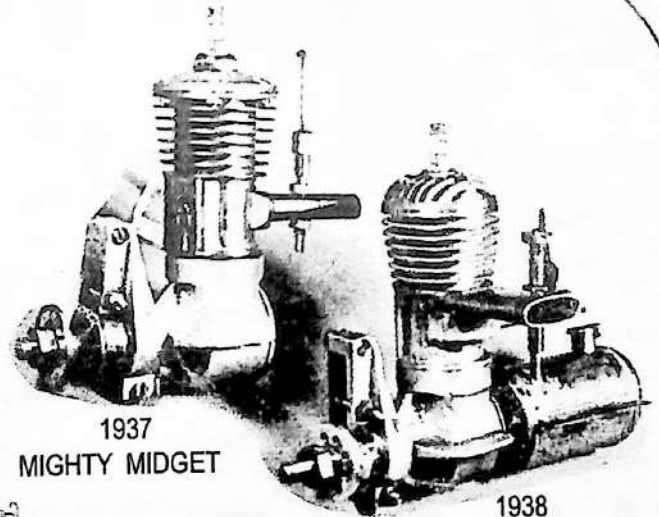
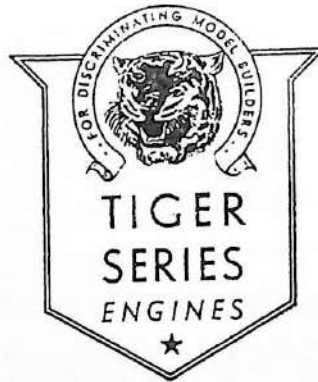
BUNCH MODEL
AIRPLANE
COMPANY

5009 So. Hoover Street
Los Angeles, California

MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
BROWN ENGS- CONT * #E1 - 94EXX	'40	I BROWNIE E	0.299	DIFFERENT DESIGN/ BYPASS PORTS IN CRANK CASE CASTING WITH TIMER ASSEMBLY SAME AS ON '39 - 60'S/ WITH 2 DIFFERENT (PRODUCTION) MINOR TIMER DIFFERENCES - REF. C. LEE/ 2 - DIFFERENT MACHING OF HEAD FINS ALSO VISIBLE / 10,500 BUILT AND ESTIMATES ARE SUBSEQUENTLY UPWARDS OF 17,000	125 120	121 103	147
* #10B00 - 22B00	'41	I BROWN B	0.601	AS '39B WITH SERIAL # ON SIDE OF LUG	225		148
* #40C00 - 40C99	'41	I BROWN C	0.601	AS '39C W/SERIAL # ON SIDE OF LUG (FEW BUILT)	225		149
* #80D1 - 97D99	'41	I BROWN D	0.601	AS '39D WITH SERIAL # ON SIDE OF LUG	225		150
WM. L. BROWN 3RD COMPANY	'46	I BROWN 'B'	0.601	AS '39B WITH SERIAL # ON SIDE OF LUG/ CAD-MIUM PLATED MFD.BY W.M.L. BROWN 3RD CO.	225		151
WM. L. BROWN 3RD COMPANY	'46	I BROWN 'D'	0.601	AS '46B WITH LAPPED PISTON/ MANUFACTURED BY W.M.L. BROWN 3RD CO./ SERIAL # ON SIDE LUG	229		152
* NOTE:	—	— TANKS, MOUNTS, EXH. STACKS,	—	ADD 20% MORE FOR BROWN'S INCLUDING SEPARATE FUELTANKS PLUS ANOTHER 15% FOR ORIGINAL DISPLAY MOUNTS - ALSO ADD FOR MORE BROWN ITEMS.			
BUNCH MOTOR CO. (EARLY BUNCH'S ASSEMBLED OR KIT)	'36	I GWIN AERO	0.401	DIRECT SALES BY BUNCH AND BY AIR-O-MODEL SUPPLY CO.1945 & LATER SAND CAST CASE/ NAME PLATE ON CYL./ SCREW IN PLAIN HEAD/ LAPPED PISTON MADE FROM 5 PIECES BRAZED TOGETHER/ HORIZONTAL SHEET METAL TANK/ THIS ENGINE PROBABLY NOT DESIGNED BY DAN BUNCH	245		153
(INDIANA PRODUCTION) (DAN BUNCH)	'36	I MIGHTY MIDGET	0.421	AS PREV. GWIN AERO/ NO NAME ON BYPASS/ LAPPED PISTON/ 4 BOLT FINLESS HEAD	170		154
*	'37	I MIGHTY MIDGET	0.488	AS PREV./ BORE INCREASED/ PISTON RINGS	170		155
*	'37	I MIGHTY MIDGET	0.488	AS PREV./ PISTON RINGS/ 6 BOLT FINLESS HEAD/ NOW A NAME ON BYPASS/ ANOTHER SIMILAR MODEL HAS FLAT TOPPED PISTON	190 175	141	156
*	'37	I GWIN AERO	0.488	AS PREV. GWIN AERO/ EXHAUST ON RIGHT SIDE/ PISTON RINGS/ 6 BOLTS FINNED HEAD	170		157
*	'37	I GWIN AERO	0.488	AS PREV./ HAS HIGH DOME RINGED PISTON	170		158
*	'37	I GWIN AERO INVERTED	0.488	AS PREV.NAME STAMPED "UPSIDE DOWN" ON INVERTED ENGINE	200		159
*	'37	I MIGHTY MIDGET INVERTED	0.488	AS PREV./ FINLESS 6 BOLT-ON HEAD/ NAME "UPSIDE DOWN"	200		160
*	'37	I MIGHTY MARINE	0.488	AS PREV. MIGHTY MIDGET/ BOLT-ON FINNED HEAD/ FLYWHEEL ATTACHED	170		161
START OF CALIF. PRODUCTION BUNCH MODEL AIRPLANE CO.	'37	I WARRIOR	0.488	NEW ENGINE/ 3 BOLT RADIAL MOUNT/ 2 PISTON RINGS/ ODD TIMER UP CLOSE TO CRANKCASE/ METAL TANK/ "W" ON CYLINDER/ CRANKCASES SUBJECT TO EARLY BREAKAGE	825		162
*	'38	I MIGHTY MIDGET	0.488	AS PREVIOUS/ DIE CAST CASE/ BRAZED-ON TAPERED ROUND PROFILE CYL. FIN & HEAD/AS CONTESTOR D60's/ FRONT BYPASS WITH NAME	180 170 200		163
*	'38	I MIGHTY MIDGET INVERTED	0.488	AS PREVIOUS '38 MIGHTY MIDGET/ NAME STAMPED "UPSIDE DOWN" ON INVERTED ENGINE/ METAL TANK	200		164
* NOTE:	—	—	—	TRANSPARENT TANKS FOR AIRCRAFT ENGINES METAL TANKS FOR CAR & BOAT ENGINES			



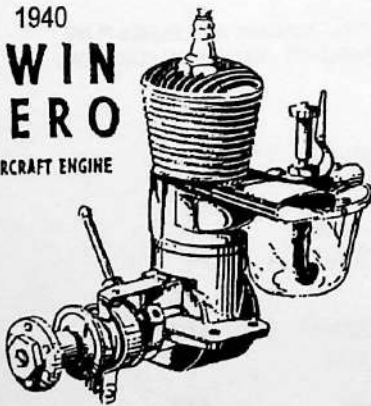
1937 WARRIOR



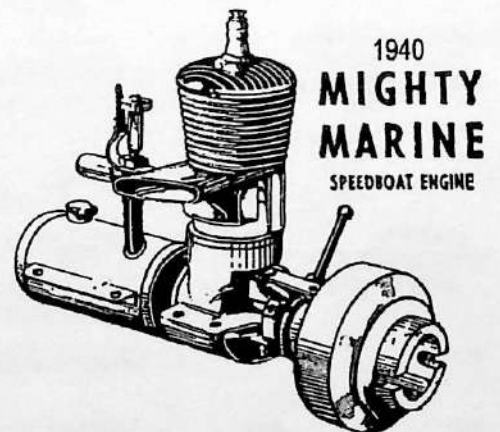
1937
MIGHTY MIDGET

1938
SPEEDWAY

1940
**GWIN
AERO**
AIRCRAFT ENGINE

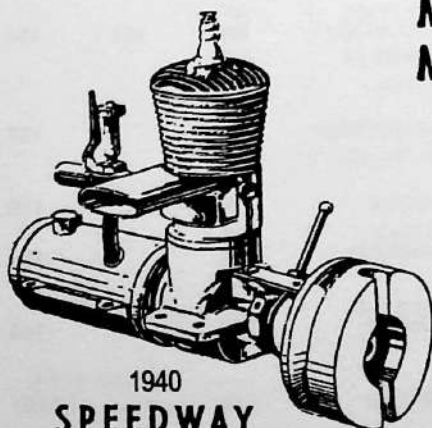


**TIGER
AERO**
1940

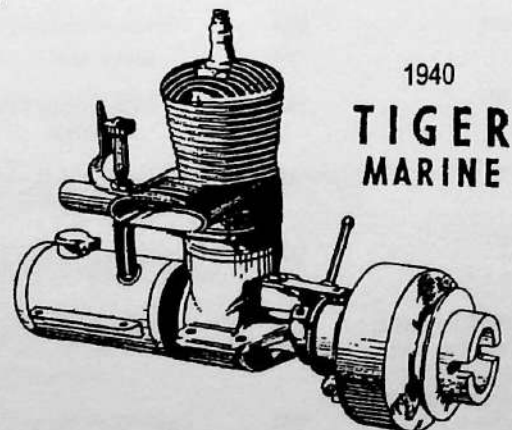


1940
**MIGHTY
MARINE**
SPEEDBOAT ENGINE

**MIGHTY
MIDGET**
AIRCRAFT ENGINE
1940

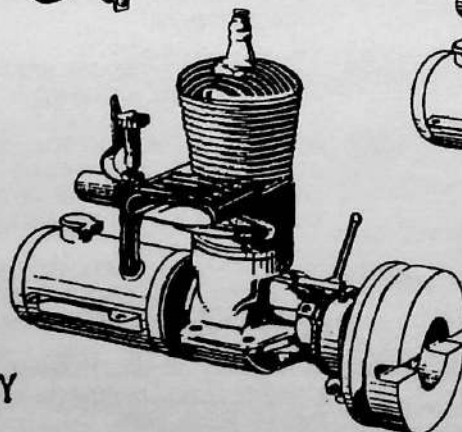


1940
SPEEDWAY
RACE CAR ENGINE



1940
**TIGER
MARINE**

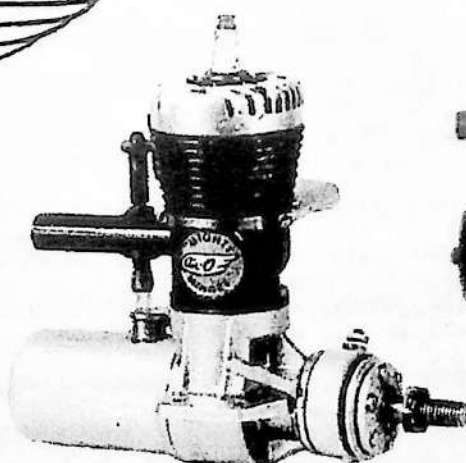
1940
**TIGER
SPEEDWAY**
RACE CAR ENGINE



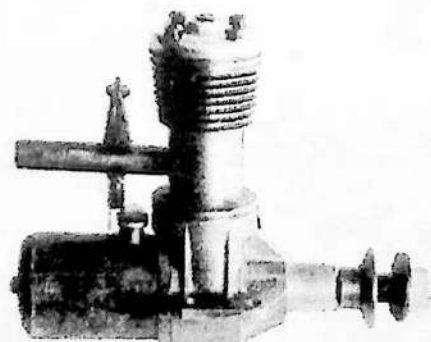
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
BUNCH MOTOR CO.	'38	I GWIN AERO	0.488	AS PREVIOUS/ DIE CAST CASE/ BRAZED-ON EXHAUST ON RIGHT SIDE/ NAME ON LEFT/ ROUND PROFILE FINNED HEAD	300		165
"	'38	I GWIN AERO INV.	0.488	AS PREV. NAME STAMPED "UPSIDE DOWN"	200		166
"	'38	I MIGHTY MARINE	0.488	AS '38 MIGHTY MIDGET BUT WITH FLYWHEEL	170		167
"	'38	I SPEEDWAY	0.488	AS PREV. GWIN AERO/ EXHAUST ON LEFT SIDE/ FLYWHEEL/ 'SPEEDWAY' ON BYPASS	225		168
"	'40	I MIGHTY MIDGET	0.451	AS PREV./ 'BUNCH' CIRCLED ON BYPASS	170		169
"	'40	I M.M. INVERTED	0.451	AS PREVIOUS NAME "UPSIDE DOWN"	200		170
"	'40	I GWIN AERO	0.451	AS PREV./ 'BUNCH' NAME IN CIRCLE ON BYPASS SHALLOW FINNED HEAD	170		171
"	'40	I GWIN AERO INV.	0.451	AS PREV. NAME STAMPED "UPSIDE DOWN"	200		172
"	'40	I MIGHTY MARINE	0.451	AS '40 MIGHTY MIDGET/ WITH FLYWHEEL	170		173
"	'40	I SPEEDWAY	0.451	AS GWIN AERO/ EXHAUST ON LEFT SIDE/ SHALLOW FINNED HEAD/ PORTHOLE IN CYLINDER/ FLYWHEEL	250		174
"	'40	I TIGER AERO	0.451	NEW CASE CASTING WITH 2 RIBS ABOVE OVAL-ENDED EXHAUST STACK ON LEFT SIDE/ CADMIUM PLATED CYLINDER	235 250	173 196	175
"	'40	I TIGER MARINE	0.451	AS TIGER AERO WITH FLYWHEEL/ CYLINDER PAINTED BLACK/ RIBS ON EXHAUST	170		176
"	'40	I TIGER SPEEDWAY	0.451	AS TIGER MARINE/ FLYWHEEL HAS CORD GROOVE IN MAIN DIAMETER OF WHEEL/ CUT BACK EARS ON FUEL TANK MOUNTS	225		177
"	'40	I MIGHTY MIDGET	0.451	AS PREVIOUS MIGHTY MIDGET/ BYPASS IN FRONT/ EXHAUST AT REAR	170		178
"	'40	I GWIN AERO	0.451	AS PREV. TIGER AERO/ BYPASS AND EXHAUST REVERSED/ NO RIBS ON EXHAUST	170		179
"	'40	I MIGHTY MARINE	0.451	AS PREV. MIGHTY MARINE/ EXHAUST ON LEFT/ FLYWHEEL	170		180
"	'40	I SPEEDWAY	0.451	AS MIGHTY MARINE/ PORT HOLE IN FRONT OF CYLINDER	225		181
INVERTED NOTE:	—	— ALL MODELS	—	MODELS MARKED WITH NAMES INVERTED HAVE BEEN GENERALLY ADVERTISED IN BUNCH CATALOGS OR LITERATURE.			
* AIR-O NOTE: MODEL SUPPLY	—	—	—	POST WORLD WAR II CONTINUATION OF BUNCH BY AIR-O-MODEL SUPPLY (MOST HAD METAL TANKS)			
"	'45	I TIGER AERO	0.451	AS 1940 TIGER AERO/ SPUN ALUM. TANK POST WAR USE OF PARTS/ SQUARE ENDED EXHAUST STACK/ BLACK PAINTED CYLINDER FINS	300 225		182
"	'45	I AIR-O MIGHTY MIDGET (TWO-SPEED)	0.451	AS PREV./ DOUBLE IGNITION TIMERS MOUNTED ON FRONT OF ENGINE FOR 2-SPEED/ ALSO 2 - SPEED TIGERS HAD EXTENSIVE USE IN U/C (JIM WALKER U-REELY)	185		183
"	'45	I TIGER AERO	0.451	AS PREV. TIGER AERO/ STRAIGHT CYLINDER FINS	225 170		184
"	'46	I AIR-O MIGHTY MIDGET	0.451	AS 1940 MIGHTY MIDGET/ SPUN ALUMINUM REAR TANK/ BLACK CYLINDER FINS/ FINNED HEAD BOLTED ON	170		185

Air-O

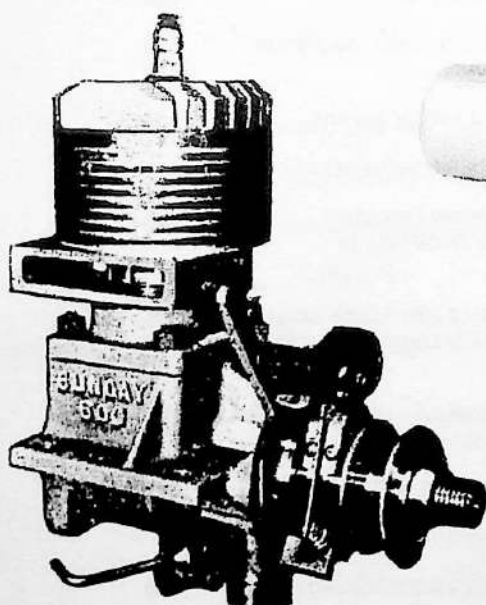
POST WAR PRODUCTS



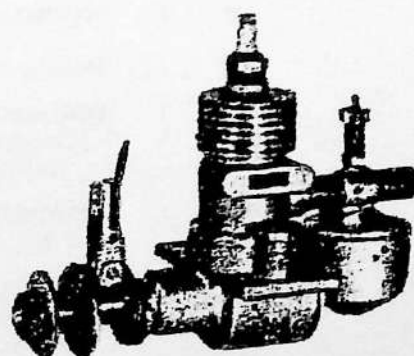
1946 AIR-O
MIGHTY MIDGET
'45'



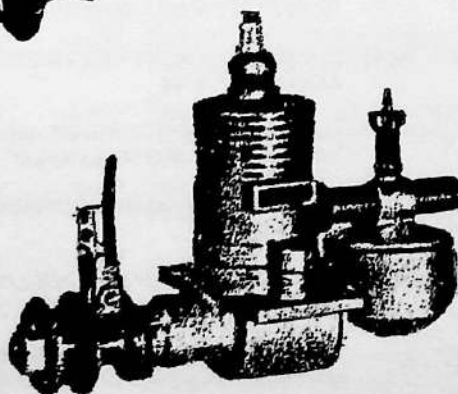
1947 AIR-O
DIESEL
'27'



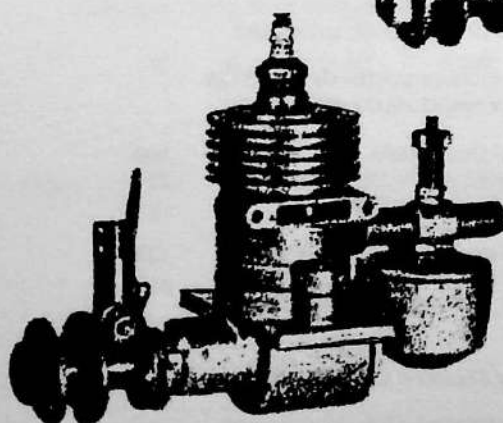
1948 BUNGAY 600



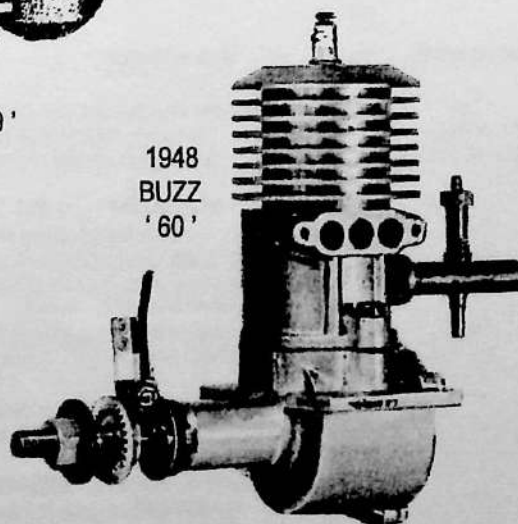
1948 BUZZ
'19'



1948 BUZZ '29'



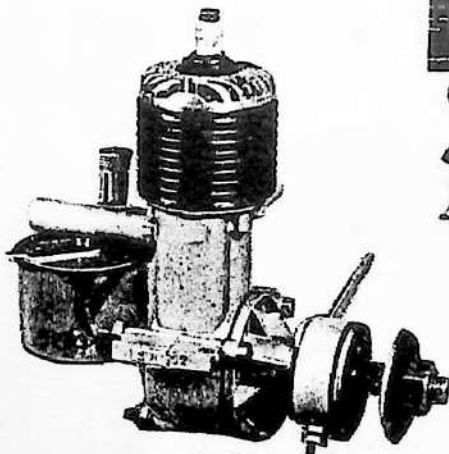
1948 BUZZ '35'



1948
BUZZ
'60'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
BUNCH MOTOR CO.	'46 *	I	AIR-O-MIGHTY MIDGET	0.601	SIMILAR TO M/M CASE WITH METAL TANK/ EXPERIMENTAL/ OPEN TIMER/ REF. G. WILES	RARE		186
"	'47	D	AIR-O DIESEL	0.278	SIMILAR TO STANDARD BUNCH TYPE/ VARIABLE COMPRESSION/ ALLEN KEY HEAD/ NO HEAD FINS/ TANK MOUNTED TO REAR BACKPLATE	250		187
"	'47	D	AIR-O RACE CAR DIESEL	0.278	AS PREV./ ONE ENGINE LUG CUT OFF/ HOR. NEEDLE VALVE/ MOUNTING HOLES DRILLED OR NOT DRILLED ON MOUNTING LUG	300		188
"	'48	G	AIR-O MIGHTY MIDGET	0.451	FINLESS HEAD/ NO TIMER/ BOLT-ON HEAD/ GLOW VERSION	150		189
"	'48	I	AIR-O COBRA	0.451	SAME AS BUNCH TIGER AERO/ CAD. PLATED CYLINDER/ 3/8" PLUG/ BACK PLATE MOUNTED TANK/ NO NAME IN CIRCLE ON BYPASS	165		190
"	'48	I	AIR-O COBRA	0.451	AS PREVIOUS/ 1/4" PLUG	155		191
"	'48	I	AIR-O COBRA	0.451	AS PREVIOUS/ BLACK PAINTED CYLINDER	155		192
"	'49	G	AIR-O COBRA	0.451	AS PREV./ NO TIMER OR TANK/ GLOW	155		193
"	'49	G	COBRA 45	—	ONE REBRANDED FOR BERKELY MODELS AS 'COBRA 45'	255		194
BUNGAY BROTHERS	'48	I	BUNGAY 600	0.607	RACING ENGINE/FRONT UPDRAFT INTAKE/ SQUARED OFF CASTINGS - ENGINE SALE DISCONTINUED IN LATE '49	1050		195
BUZZ	—	—	—	—	MANUFACTURED BY JUDSON CO. FOR AMERICAN'S HOBBY CENTER INC.			
"	'48	I	"A .19"	0.199	ROGER'S STYLE/ SLAG CONSTRUCTION (NO CYLINDER LINER)/ WITH TANK	50 100		196
"	'48	I	"B .29"	0.292	'ROGERS' STYLE/ SLAG AS PREVIOUS/ WITH LARGER CYLINDER CASTING	50		197
"	'48	I	"C .35"	0.342	'ROGERS' STYLE/ SLAG AS PREVIOUS/ WITH LARGER CYLINDER CASTING/ BOLT ON EXHAUST	50		198
"	'48	I	"D .60"	0.609	ORIGINAL/DIFFERENT CASTINGS/ NO TANK/ 3 HOLE EXH. (BEST OF BUZZ BUT FEW MFD.)	275		199
"	'49	G	"A .19"	0.199	AS IGNITION/ CASE NOT MACH. FOR TIMER	45		200
"	'49	G	"B .29"	0.292	AS PREVIOUS .19	45		201
"	'49	G	"C .35"	0.342	AS PREVIOUS .29	45		202
"	'49	G	"D .60"	0.609	AS IGNITION/ CASE NOT MACHINED FOR TIMER/ NONE SUPPOSEDLY SOLD THROUGH A.H.C. - SEEN IN BUFFALO, CIRCA 1980 & HAS BEEN REPRODUCED !	200	183	203
CAMERON BROS.	—	—	—	—	CAMERON PRECISION ENGINEERING CO.			
"	'46	I	"23" - L	0.231	GRAY HAMMERTONE PAINTED CASE/ SIMILAR TO OHLSSON & RICE .23/ BLIND BORED CYLINDER	160	168	204
"	'46	I	"23"	0.231	CAST IRON CYLINDER BOLTS TO CRANKCASE/ BOLT-ON FINNED HEAD	160	165	205
"	NOTE:	—	—	—	CHAMPION- LIGHTNING BUG/ DOODLE BUG AND RODZY ARE FOR COX THIMBLEDROME CARS - MANUFACTURED BY CAMERON.			
"	'48 *	G	CHAMPION RODZY 15	0.153	CAR ENGINE BUILT FOR COX/ MOUNTING LUGS UNDRILLED/ VERTICAL CYLINDER FINS/ FRONT INTAKE/ RINGED PISTON/ SEE COX AND SEE PICTURE/ NOTE EXHAUST CUT BACK AT ANGLE	80		206

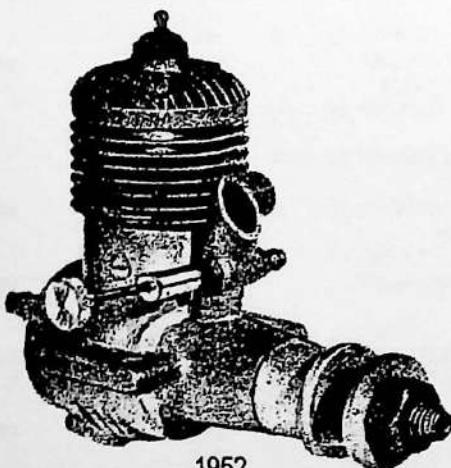
CAMERON



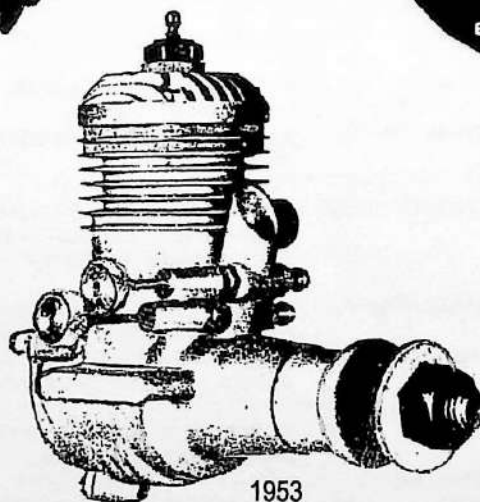
1946
CAMERON
'23'



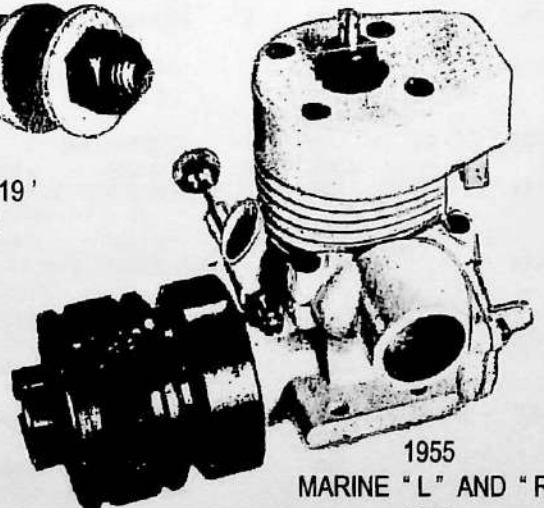
1949
MANUFACTURED FOR
COX THIMBLEDROMES
'09 - 15 - 19'



1952
MODEL "L" AND "R"
'19'

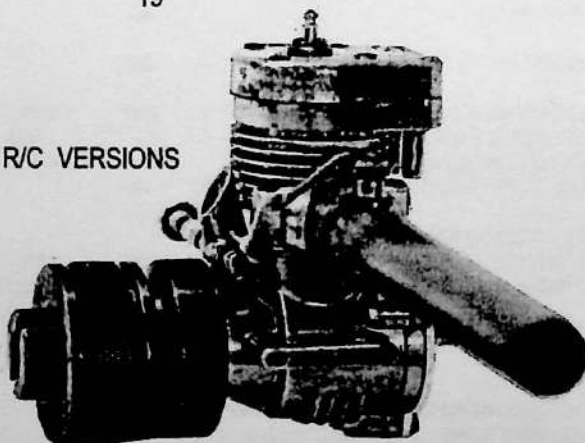


1953
CAMERON '19'
2 SPEED

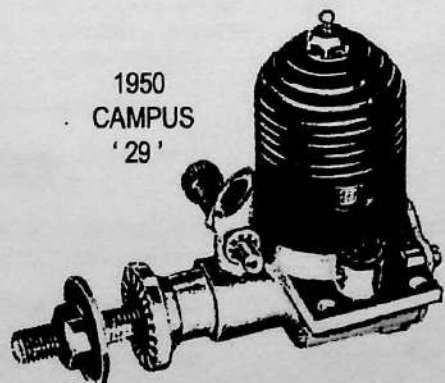


1955
MARINE "L" AND "R"
'19'

R/C VERSIONS

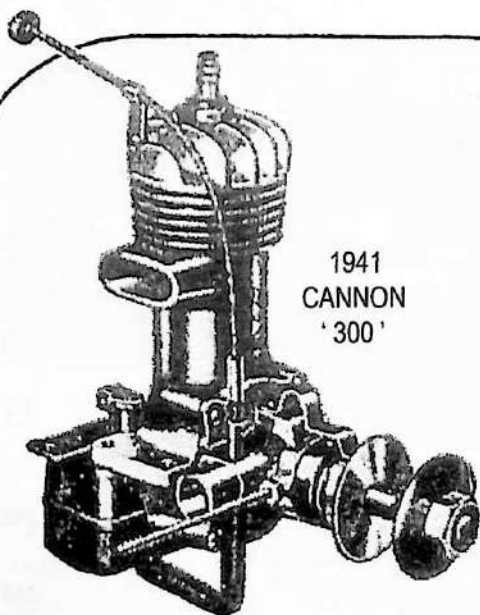


1960 '15 AND 19'

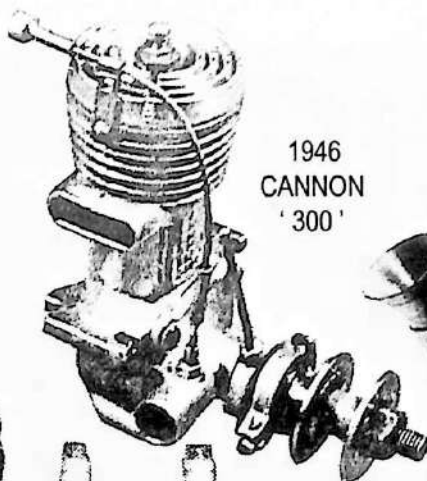


1950
CAMPUS
'29'

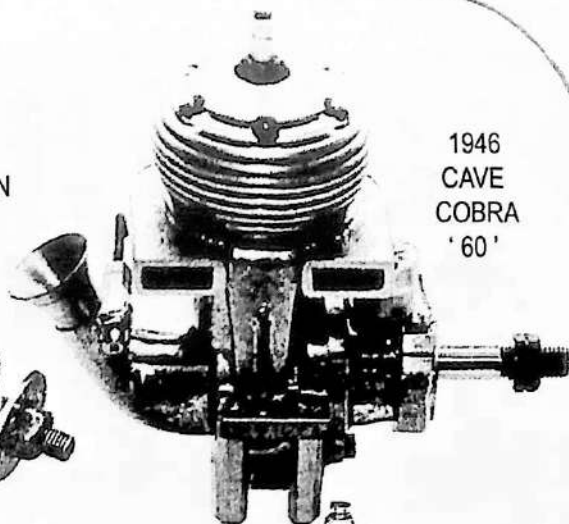
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
CAMERON BROS.	'49 *	G LIGHTNING BUG RODZY 19	0.199	AS PREVIOUS/ INCREASED DISPL./ LAPPED PISTON/ FOR COX THIMBLEDROME CARS	80		207
" "	'49 *	G DOODLE BUG RODZY 09	0.098	AS PREVIOUS/ SMALLER OVERALL/ LAPPED PISTON/ FOR COX THIMBLEDROME CARS	80		208
" "	'52	G "19 - L"	0.193	DIE CAST CASE/ FRONT ROTARY/3 BOLT BACKPLATE/ LAPPED FLAT PISTON WITH BAFFLE	80		209
" "	'52	G "19 - R"	0.199	AS PREVIOUS/ RINGED HIGH DOME PISTON (NOTE: RINGS ALSO FIT MCCOY .19)	80		210
" "	'53	G 09 SPECIAL MARINE	0.098	SAME AS ENGINE SOLD FOR USE BY COX (OR CAMERON ?) AS RODZY/ FLYWHEEL FOR BOAT/ WATER COOLED BACKPLATE	80		211
" "	'53	G 19 "L2"	0.193	AS 19-L/ TWIN NEEDLE VALVES/LAPPED FLAT PISTON WITH BAFFLE	80		212
" "	'54	G .09 RACE CAR-L	0.098	OVAL CYLINDER/ VERTICAL FINS/ SINGLE NEEDLE VALVE WITH INTAKE BUTTERFLY VALVE	80		213
" "	'54	G .09 MARINE L2	0.098	AS CAR ENG./ 2 SPEED/ TWIN NEEDLE VALVES AND BUTTERFLY VALVE/ FLYWHEEL/ WATER COOLED BACKPLATE/ 4" EXHAUST EXTENSION	80		214
" "	'55	G 19 MARINE-R	0.199	WATER COOLED/ ROUND EXHAUST/ PISTON RINGS/ BUTTERFLY VALVE/ FLYWHEEL	80		215
" "	'55	G 19 MARINE-L	0.193	AS PREVIOUS/ LAPPED PISTON	80		216
" "	'55	G 19 MARINE-R	0.199	AS RING PISTON MODEL/ 2 NEEDLE VALVES	90		217
" "	'55	G 19 MARINE-L	0.193	AS PREV./LAPPED PISTON/2 NEEDLE VALVES	90		218
" "	'59	G 15 MARINE-L	0.153	AS .19L / WATER COOLED JACKET/ STROKE REDUCED	85		219
" "	'59	G 15-L	0.153	AS .19L/ LAPPED PISTON/ STROKE REDUCED	60	39	220
" "	'60	G 15 RC-L	0.153	AS .19L WITH UNUSUAL COUPLED INTAKE AND TUBULAR EXHAUST THROTTLE	90		221
" "	'60	G 19 RC-L	0.193	AS 19L WITH UNUSUAL COUPLED INTAKE AND TUBULAR EXHAUST THROTTLE	60-NIB		222
" "	'62 *	G 15-M	0.153	AS 15L STANDARD AND VARIABLE SPEED MARINE ENGINES	60		223
" "	'65	G 23"	0.231	AS PREV. 1946 - 23/ NO IGNITION PROVISION	135 125	120-NIB	224
CAMPUS INDUSTRIES INC. (BILL BROWN)	—	—	—	UNIVERSITY OF PENNSYLVANIA ENGINEERING PROJECT UNDER BILL BROWN -INSTRUCTOR			
" "	'50	I/G "29"	0.292	RESEMBLES BROWNIE/ FRT.&REAR BYPASS/ FRONT INTAKE/ BUZZ TYPE CRANKCASE/ STEEL CYLINDER/ (APPROXIMATELY 50) MACHINED FOR TIMERS	150		225 225.5
CANNON MFG. CO. (DELONG & STEELE - SOLD DESIGN RIGHTS TO CANNON)	—	—	—	SEE DELONG & STEELE-PRE-'40 CANNON			
" "	'41	I "300"	0.299	SAND CAST/ FRONT INTAKE ON RIGHT SIDE OF SHAFT/ PARALLEL HEAD FINS	175		226
" "	'41	I "358"	0.358	AS 300/ PARALLEL HEAD FINS/ STROKED/ EARLY PREPRODUCTION MANUFACTURED IN 1940	175-N 175		227
" "	'46	I "300"	0.299	AS 300/ DIE CAST/ CIRCULAR HEAD FINS	140	171	228
" "	'46	I "358"	0.358	AS 358/ DIE CAST/ DOMED HEAD W/CIR.FINS	150	160 125	229
" "	'46	I "300"	0.299	AS PREVIOUS .299/ 'STRATO' TIMER	160	163	230



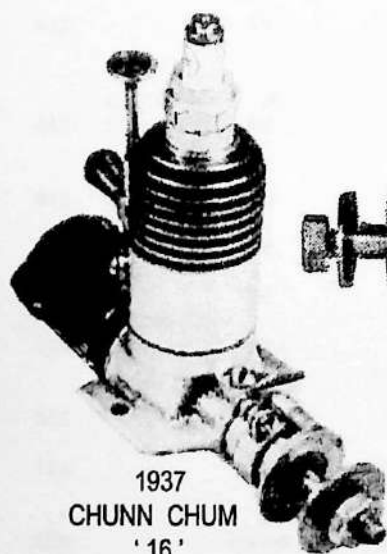
1941
CANNON
'300'



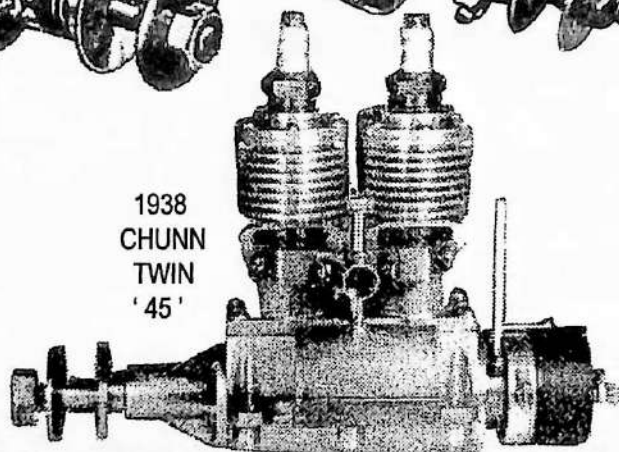
1946
CANNON
'300'



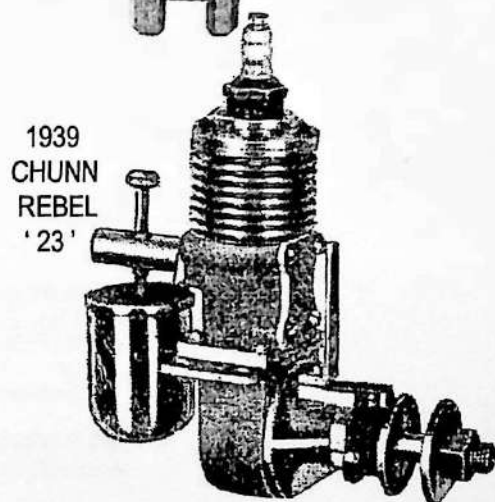
1946
CAVE
COBRA
'60'



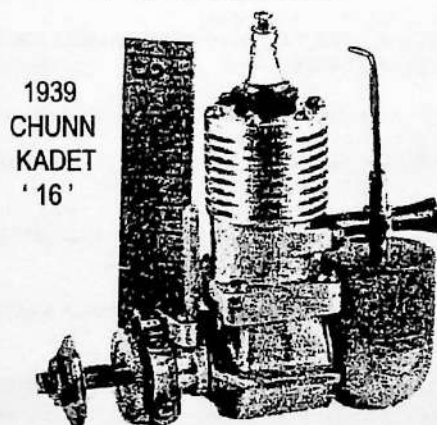
1937
CHUNN CHUM
'16'



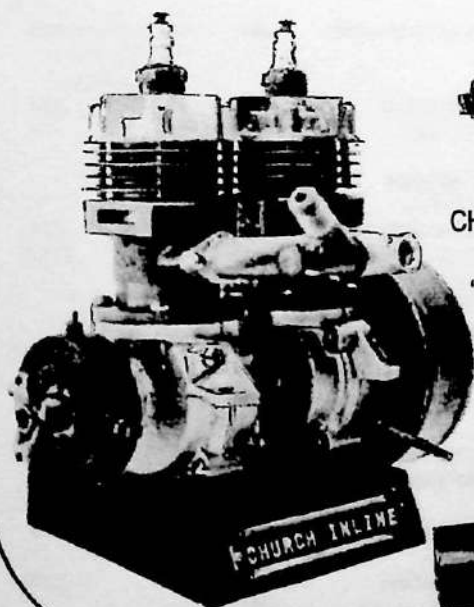
1938
CHUNN
TWIN
'45'



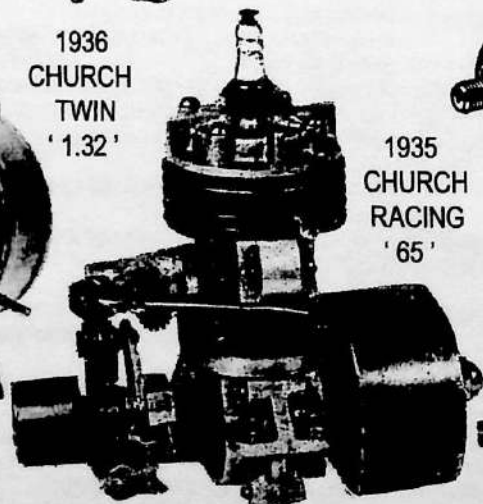
1939
CHUNN
REBEL
'23'



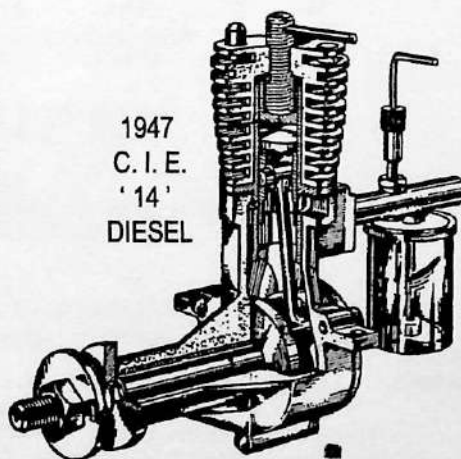
1939
CHUNN
KADET
'16'



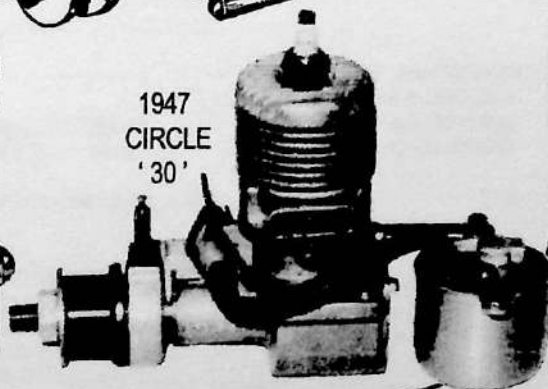
1936
CHURCH
TWIN
'1.32'



1935
CHURCH
RACING
'65'

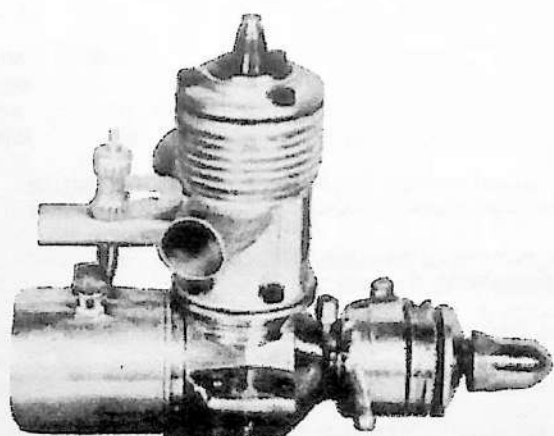


1947
C. I. E.
'14'
DIESEL

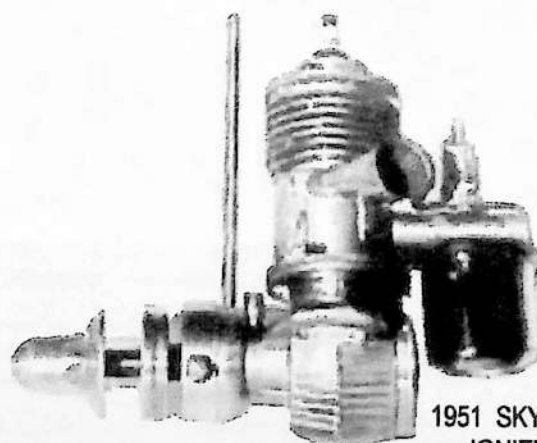


1947
CIRCLE
'30'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #	
CANNON MFG. CO.	'46	I	"358"	0.358	AS PREVIOUS/ 'STRATO' TIMER/ DOMED HEAD	160		231	
CAVE COBRA (W. CAVE - ONE OF THE HORNET DESIGNERS)	'46 *	I	COBRA 60 RACE CARS	0.601	BRASS FLARED REAR INTAKE/ CASE CASTING INCLUDES DUAL RECTANGULAR EXHAUST SAME SIDE/ 50 MFD/ REPRODUCED IN 80's AND 2001. ALSO ADDITIONAL PARTS ALLOWED 25 MORE TO BE MFD.	900	500 REPRO 426 REPRO	232	
CHUNN MFG. (BOB CHUNN)	---	--	-----	----	SOLD BY KENWOOD CARTERS HOBBY SHOP & LATER DISTRIBUTED BY KAYDET HOBBIES FROM '39-ALSO SOLD PRIVATELY BY CHUNN				
"	'37	I	CHUM	0.163	SANDCAST CASE/ SINGLE RING PISTON/ FIXED TIMER PLUS VARIATIONS WITH WIPE TIMER	325		233	
"	'37	I	CHUM	0.163	AS PREVIOUS/ LAPPED PISTON (EXCELLENT REPROS WITH BRASS TANK CURRENTLY ON MARKET AT APPROXIMATELY \$200)	325		234	
"	NOTE: (SEE SOUTHERN MFG.)	-- *	-----	---	ONLY APPROXIMATELY 150 ENGINES OF BOTH 1937 CHUNN ENGINES MFD. AND SOLD				
"	'38 *	I	TWIN	0.326	ALTERNATE FIRING TWIN (APPROX. 50 MFD.) CYLINDERS ARE MODIFIED '37 CHUM WITH DIFFERENT PLUG AND HEAD COMBOS/ FIXED AND ADJUSTABLE TIMERS	950	777 770	235	
"	KAYDET HOBBIES	'39	I	KAYDET	0.163	REAR PORT/ OPEN TIMER/ METAL TANK/ SAND CAST CASE & UPPER CYLINDER WITH MACHINED FINS/ NO HEAD FINS	450 495		236
"	'39	I	REBEL	0.230	SAND CAST CASE/SIDEPORT/BYPASS WITH NAME PLATE ON CYLINDER FRONT/ ADJUSTABLE TIMER/ UNIQUE REPLACEABLE COPPER MTG.PLATE/ APPROX. 300 MANUFACTURED AND SOLD	275		237	
CHURCH ENGINES (R.M. CHURCH)	---	--	-----	---	DIVISION OF MODEL CRAFT	RARE			
"	'34	I	RACING OUTBOARD KIT	0.589	SAND CAST/ SPLIT CASE/ SPOKE HEAD/ LOWER UNIT/ TIMER IN FLYWHEEL/ SOLD INITIALLY BY BY CHURCH	2650		238	
"	'35	I	RACING 65 (BOAT)	0.651	SAND CAST SPLIT CASE - SPOKE HEAD/ IRON CYLINDER/ LIKE LOUTREL	1650		239	
"	'36	I	INLINE TWIN (BOAT)	1.320	TWIN RACING 65/FLYWHEEL/ TEE'D INTAKE (R. McCLELLAND COLLECTION)	2950		240	
C. I. E. (COMPRESSION IGNITION ENGINES)	---	--	-----	---	DIVISION OF MODEL CRAFT				
"	'46	D	10 DIESEL	0.103	SIDE PORT/ONE PIECE CRANKCASE/ BACK COVER SCREWED-IN/ CLEAR PLASTIC HANG TANK FLARED INTAKE	140		241	
"	'47	D	14 DIESEL	0.144	SIDE PORT/ 3 BOLT CRANKCASE WITH ATTACHED BACK COVER/ CLEAR PLASTIC HANG TANK	140		242	
"	'47	D	15 DIESEL	0.147	AS PREV./ LARGER BORE/ NO FUEL TANK/ STRAIGHT VENTURI/ SOME USED FOR RACE CARS HAD MOUNTING LUGS ROUGHLY SAWED OFF AT FACTORY/ 'CIE' STAMPED ON FRONT BYPASS WITH 'HY PRO' STAMPED UNDER IT	140		243	
CIRCLE 30 (GENE LASKIN)	---	--	-----	---	MFD. BY LASKIN MFG. CO.				
"	'47	I	CIRCLE 30	0.299	DIE CAST CASE & TWIN EXHAUSTS/ QUICK CONNECT TIMER/ SEPARATE METAL TANK	600-NIB 400		244	
CLIPPER MFG. CO. (HUGH GUNTER, DESIGNER)	'38	I	RLIDD - PRE- PRODUCTION	0.381	SAND CAST CASE/ BLIND BORED CYLINDER AND HEAD	PROTO		245	
"	'51	I	"XX770"	0.381	DIE CAST CASE/ STEEL CYLINDER/ DUAL SWEPT BACK EXHAUST/ DECAL NAME ON FRONT BY- PASS/ SPUN METAL BACKPLATE AND TANK/ SOME MODELS HAD SELF-CONTAINED 'FIRING HEAD'/ BUILT IN PHENOLIC INSULATED PLUG	650		246	



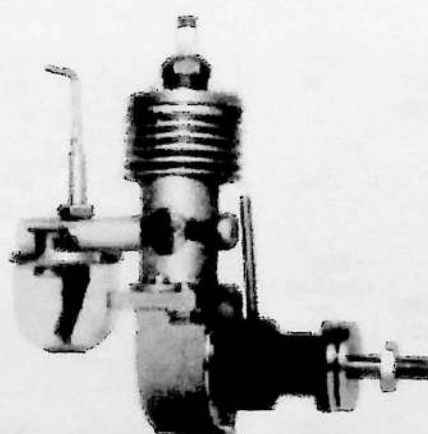
1951 CLIPPER
XX770 '38'



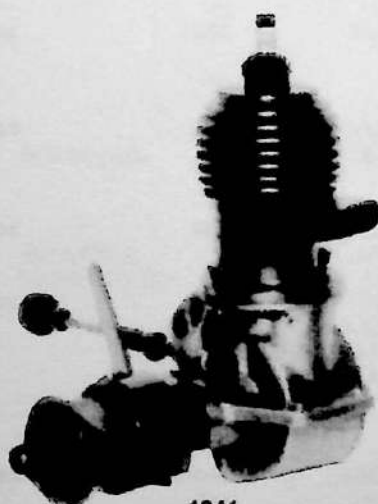
1951 SKY KING
IGNITION
'38'



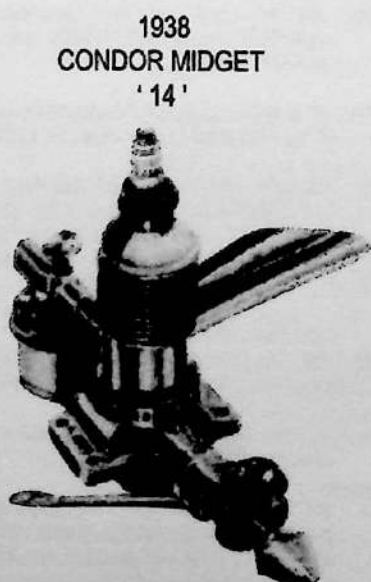
1946
COBEY-WAITE
MODEL '1470'



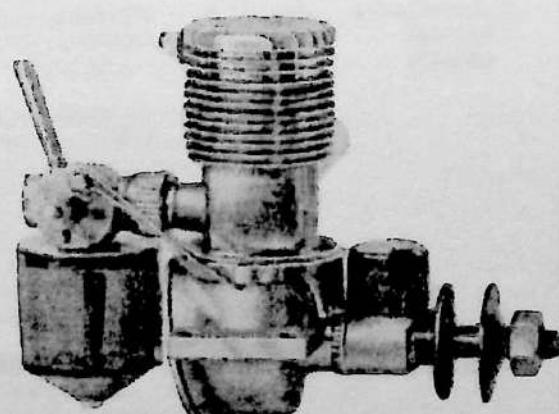
1946 COBEY-WAITE
BRONZE EMBLEM INSERTED



1941
COMET
'35'

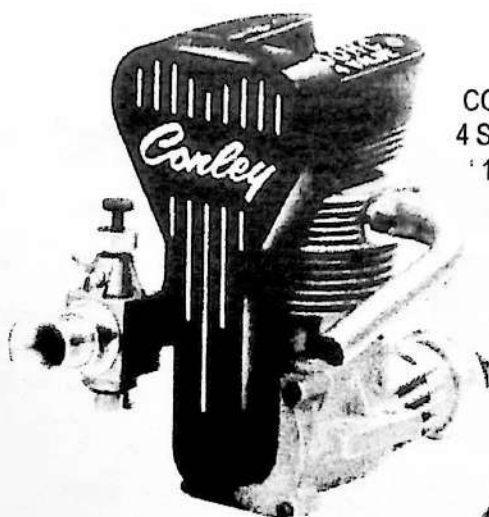


1938
CONDOR MIDGET
'14'



1941 - 1945
CONDOR KOPPER KING
'60'

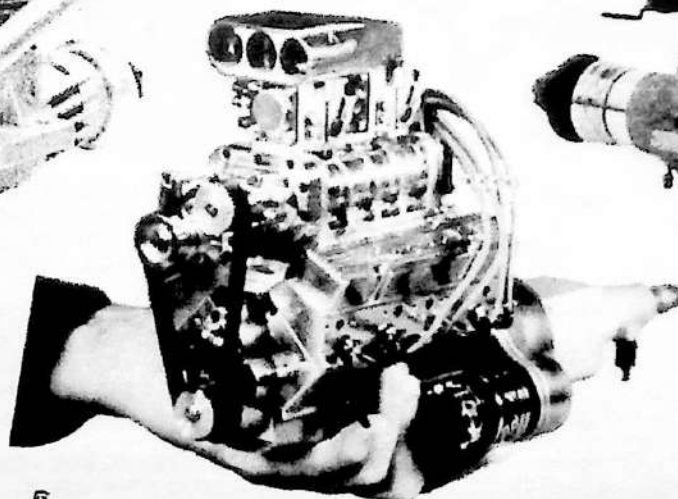
MFR./ENG. NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
CLIPPER MFG. CO.	'51	I	GENERATOR CLIPPER (XX770)	0.381	AS PREVIOUS/ GENERATOR ATTACHED BEHIND TANK/ BUILT FROM PARTS AFTER PROJECT COLLAPSED (BY J. KRICKEL)	RARE		247
"	'51 *	I/G	SKY KING IGNITION/GLOW	0.381	REGULAR TIMER HOUSING FOR IGNITION MODEL DUMMY TIMER HOUSING FOR GLOW MODEL/ IDENTICAL TO XX770 WITH PLASTIC TANK AND BRASS TOP UNDER VENTURI/ BUILT FROM PARTS AFTER PROJECT COLLAPSED (BY J. KRICKEL)	600	1204 IGNITION MODEL	248 248.5
"	'51	G	GLOW CLIPPER	0.381	XX770 / NO TANK/ FINNED HEAD/ GREEN WRINKLE PAINTED CASE/ DUMMY TIMER/ BUILT FROM PARTS AFTER PROJECT COLLAPSED (KRICKEL)	300		249
COBEY-WAITE (GEORGE WAITE)	— '46	— I	— MODEL 1470	— 0.147	MFD. BY MOLDED INSULATION CO. POSTWAR VERSION OF MADEWELL MITE/ MATTE FINISH/ PLASTIC TIMER FRAME/ 1980's REPOS (20-25) BY MIKE DROZDA/ PRIMARILY ORIG.PARTS	300		250
"	" NOTE:	—	—	—	SOME WITH BRONZE EMBLEM INSERTED INTO INTO IMPRESSION ON BY-PASS SIDE - GEORGE FINATO COLLECTION ONE SEEN WITH COBEY- WAITE 'SCOUT' ON FRONT BYPASS ... OTHERS ?			
COMET MODEL AIRPLANE CO. (HARRY SHARMAN)	'41 *	I	COMET 35	0.351	PERMANENT MOLDED CASE/ONE PIECE CYLINDER & HEAD/ FORE-RUNNER OF VIVELL 35/ PLASTIC TANK/ 'COMET' ON BYPASS/ HAD BOTH SLOPED AND SQUARED OFF INTAKE/ LATER BECAME VIVELL 35 WITH NEW CYLINDER AND HEAD	250	190	251
CONDOR MIDGET MOTORS (LLOYD & ROBERT GARDINER)	— '38	— I	— MIDGET	— 0.140	MANUFACTURED BY PITTSBURG BRASS CO. SOLD BY AEROCRAFTERS AFTER W.W. II SANDCAST CASE/ STEEL CYL./ LARGE FLARED EXHAUST/ SIDEPORT/ TANK TOP CAST INTO VEN- TURI/ 4 MODELS ALL SIMILAR/ HAND MADE/ HD. SLOPED TO PLUG/ FIRST MODELS HAD 3/8" PLUG - LATER HAD 1/4" / DIFFERENT HEADS/ (ACTUAL 9/16 X 9/16 BORE/STROKE = .139 DISPLACEMENT)	RARE 1st Model & 2nd Model		252 252.5
"	'38	I	MIDGET	0.180	AS PREVIOUS DIE CAST CASE (SERIAL #4-674)	RARE		253
"	'39	I	MIDGET	0.140	SIMILAR TO PREVIOUS/ NO BEAM MOUNT/ HAS TUBULAR RADIAL MOUNT	RARE		254
"	'39	I	FLEA	0.092	1/2 SIZE COPY OF CONDOR MIDGET/FEW MFD.	RARE		255
"	'39	I	CONDOR '60'	0.678	SIMILAR TO KOPPER KING/ LAPPED PISTON/ PRODUCED BY LLOYD & GARDINER (UNDER NAME ROB ROY COMPANY IN 1942) NONE SEEN	RARE		256
ROB ROY CO.								
"	'41	I	KOPPER KING	0.604	DIE CAST CASE/ STEEL CYLINDER BRASS PLATED/ 5/16" SHAFT/ SIDEPORT/ TIMER LINKED TO BARREL THROTTLE TO ADVANCE & RETARD SPEED/ PLUG HORIZONTAL FROM BACK OF HEAD/ PRE-WAR & POST-WAR ALMOST SAME/ LAPPED PISTON/ PITTSBURGH BRASS MFG. CO. BOUGHT RIGHTS FOR MFG./ APPROX. 100 ENGINES PRODUCED/ DISTINGUISHED BY SHINY 'COPPER' COLORING/ PREWAR MODELS HAD SINGLE 'A' PREFIX	850		257
"	'46	I	KOPPER KING	0.604	AS PREVIOUS/ 1/4" SHAFT/ SIDE SLANTED PLUG (EARLY KOPPER KINGS HAD BRONZE ROD - LATER MODELS HAD FORGED STEEL ROD) FEW PRODUCED POST '45 HAD 2 LETTER 'AT' PREFIX TO SERIAL #'s	750		258
"	NOTE:	—	—	—	MILLER MACHINE OWNED 'RIGHTS' IN 1946			



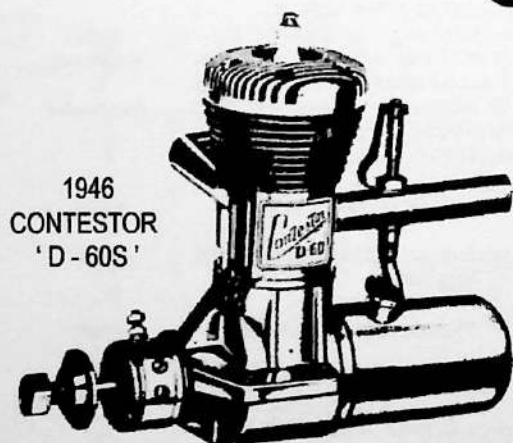
CONLEY
4 STROKE
'1.200'



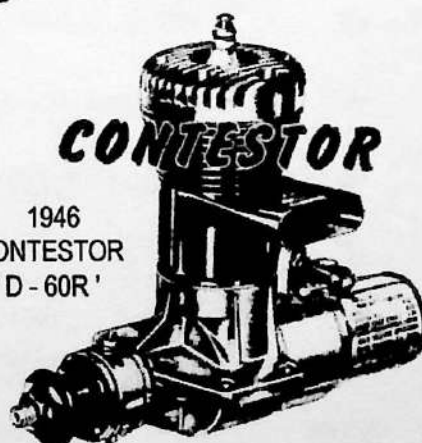
ABITAR
4 STROKE
'1.200'



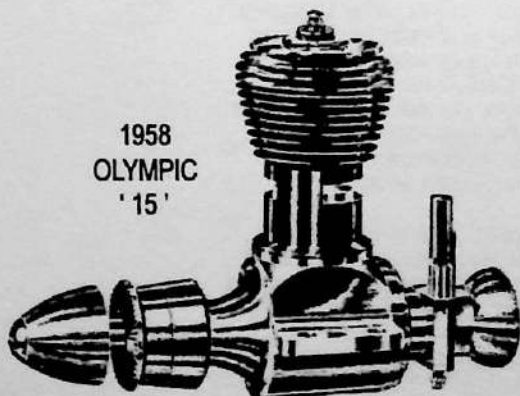
CONLEY
'V-8'
SEEN AT
TOLEDO 2005



1946
CONTESTOR
'D-60S'

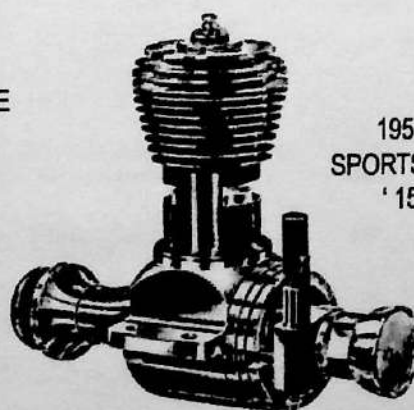


1946
CONTESTOR
'D-60R'



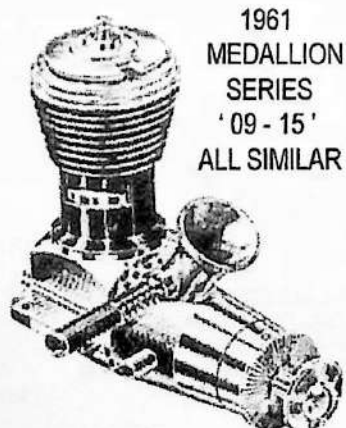
1958
OLYMPIC
'15'

SEE SEPARATE
BOOK FOR
ALL
COX 1/2 A
ENGINES



1959
SPORTSMAN
'15'

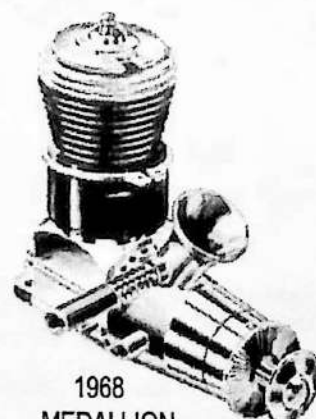
MFR./ENG. NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
CONLEY PRECISION ENGINES INC. (GARY CONLEY)	---	---	---	MANUFACTURED AND SOLD DIRECTLY FROM PRECISION ENGINES INC. IN LOMBARD IL.			
	'88	G 4 STROKE	1.200	RARE HI-TECH 4 VALVE/ BELT DRIVEN OVERHEAD CAM/ HARD CHROMED CYLINDER/ 10 BALL BEARINGS (CAM & IDLER BEARINGS/ CAST IRON RING IN ALUMINUM PISTON/ BAKED ENAMEL ON ALUMINUM CAST CASE	400	399 510-N	259
NOTE:	---	---	---	PERRY PUMPS & CARBS PLUS REMOTE SMOKE VALVES ETC. ALL NOW (2005) PRODUCED BY CONLEY PRECISION ENGINES			
ABITAR PRECISION ENGINES INC.	---	---	---	ORIGINAL FINANCIERS OF CONLEY APPARENTLY PULLED PLUG AND REINVENTED THE CONLEY AS THE PREDITOR BY ABITAR IN MINNETONKE MN.			
	'91	G PREDATOR 4 STROKE	1.200	SAME AS CONLEY WITH MINOR FINISH CHANGES (I.E. BELT-DRIVEN COVERPLATE WITH ABITAR NAME AND NEW FINISH)	400	424 539-NIB	260
NOTE:	2005	---	---	COME TO THE TOLEDO SHOW IN 2006 AND SEE THE FANTASTIC ULTIMATE MODEL V-8 ENGINES HE DISPLAYS. SEE OUR V-8 PICTURE ... PLUS CARB/PUMP SYSTEMS, PERRY CARBURETORS, MIXTURE CONTROL, SMOKE SYSTEMS ETC., DON'T MISS HIS BOOTH.			
CONTESTOR (DAN BUNCH)	---	---	---	MFD. BY LUCAS & SMITH			
	'46	I CONTEST.D-60S	0.596	SIDEPORT/ VERY DEEP HEAD FINS/ BLACK PAINTED CYLINDER FINS	179	195	261
	'46	I CONTEST.D-60R	0.596	REAR ROTARY DRUM VALVE, DOWN AND THRU' REAR FUEL TANK	185 190-N	260	262
COX (L.M.)MFG.CO. (LEROY COX) ALL RODZY ENGINES BY CAMERON	---	---	---	SEE 1/2A BOOK FOR ALL SMALL COX ENGINES			
	'48	G CHAMPION 15 RODZY	0.147	CAR ENGINE/ MADE BY CAMERON/RINGS	80		263
	'49	G LIGHT'NG BUG 15 RODZY	0.199	CAR ENGINE/ MADE BY CAMERON/ LAPPED	80		264
	'49	G DOODLE BUG 09 RODZY	0.098	CAR ENGINE/ MADE BY CAMERON/ LAPPED	80		265
	'58	G OLYMPIC	0.149	REAR REED VALVE/ BLUE PROP DRIVER/ BALL BEARINGS/ LARGE .049 SPACE HOPPER/ RED ANODIZED REAR END	95	140 133 129-NIB	266
	'59	G SPORTSMAN 15	0.149	SPORT OLYMPIC .15/ NO BALL BEARING/ ALSO USED IN READY-FLY MODELS/ DROPPED IN '63	75	125 115	267
	'59	G CONCEPT 35	0.349	SPECIAL ATWOOD PROTOTYPE	PROTO		268
	'60	G OLYMPIC DRUM VALVE	0.149	CUSTOM BUILT BY BILL ATWOOD WITH 45° DOWNDRAFT REAR VENTURI FEEDING A DRUM VALVE RUN BY A SPECIAL CRANKSHAFT/ HI- COMPRESSION HEAD/ GIVEN TO SPEED FLYERS '60 DALLAS NATS/ 20 MFD./ 2 VERSIONS	RARE		269
	'61	G TEE DEE 09	0.099	LARGE TEE DEE .049/ (SEE 1/2A LIST) WITH BLACK PLASTIC FRONT END/ SCREWED-IN INTAKE W/N.V.	50 60-N	46-N 52-NIB	270
	'61	G TEE DEE 15	0.152	LARGER TEE DEE .099/ BALL SOCKET EQUIPPED PISTON/ DUAL BYPASS AND EXHAUST PORTS	50	87 142	271
	'61	G MEDALLION 09	0.099	SIMPLIFIED TEE DEE .099/ RED PLASTIC FRONT HOUSING WITH INTEGRAL INTAKE	35	61-NIB 35-NIB	272
	'62	G MEDALLION 15	0.152	LARGER VERSION MEDALLION .09/ SPORT	45	67 52	273
	'62	G MEDAL. 09 R/C	0.099	STD. 09 MEDALLION W/EXHAUST THROTTLE ONLY	35		274
	'62	G TEE DEE 15	0.152	AS PREV./ THICKER LINER/ BIGGER BYPASS PORTS/ STAMPED ALUM. CON ROD AND WRIST PIN	50	87 75	275



1961
MEDALLION
SERIES
'09 - 15'
ALL SIMILAR

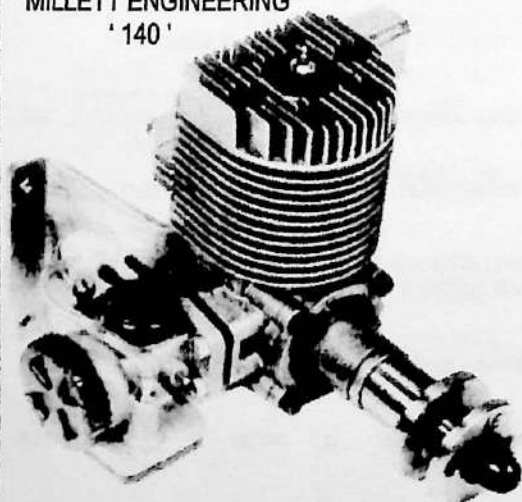


1961
TEE DEE
& SPECIALS
'09 - 15'
ALL SIMILAR

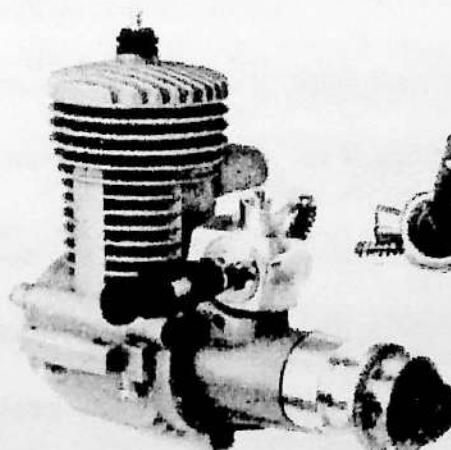


1968
MEDALLION
'09 R/C EXHAUST'

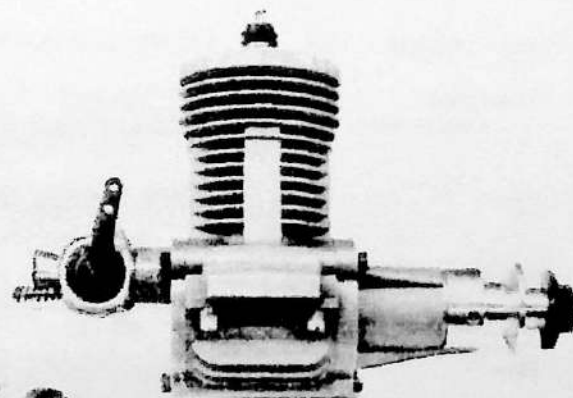
COX INDUSTRIAL
MILLETT ENGINEERING
'140'



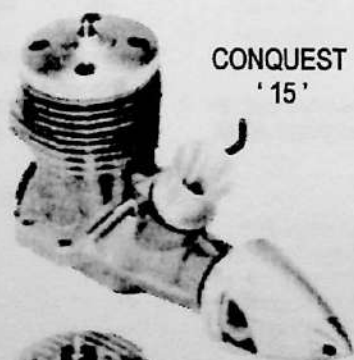
COX



COX CONCEPT II
FRONT ROTARY
'35 R/C'



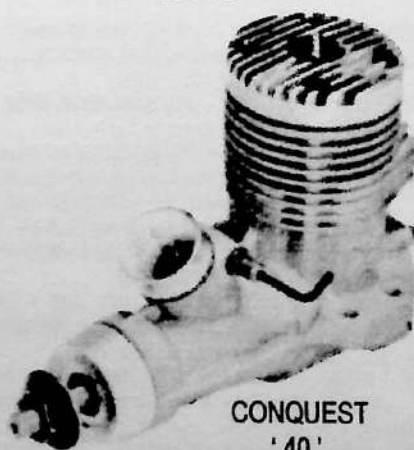
COX CONCEPT II
REAR ROTARY
'40 R/C'



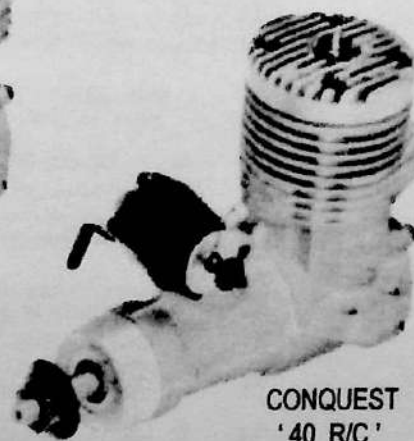
CONQUEST
'15'



CONQUEST
'15 R/C'

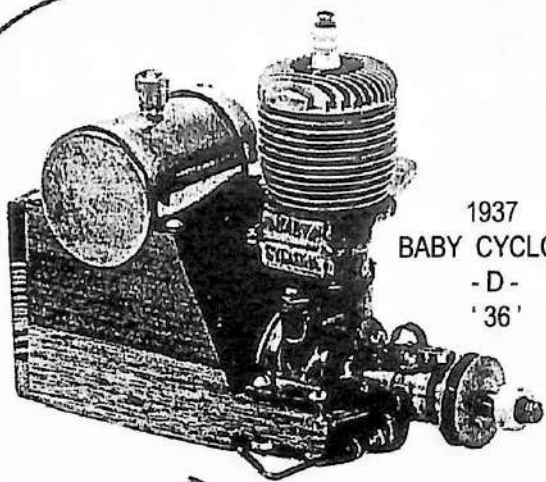


CONQUEST
'40'



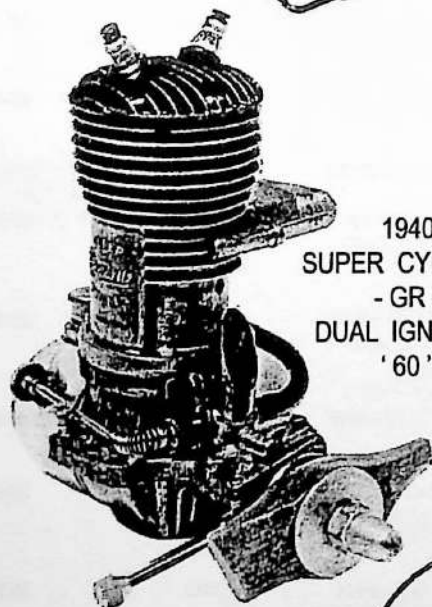
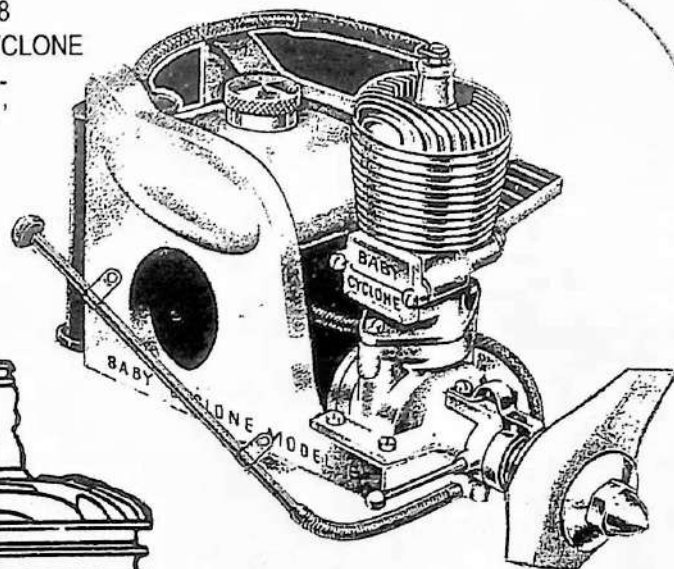
CONQUEST
'40 R/C'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
COX	'62	G	COMPETITION SPECIAL 15	0.152	COMPETITION MODIFIED '62 TEE DEE .15/ SPECIAL PORTING/ SILVER CASE	79	128	276
*	*					162		
*	'64	G	MEDALLION .09 R/C	0.099	STANDARD MEDALLION WITH R.C. COUPLED EXHAUST & INTAKE THROTTLE	35	36	277
*	'64	G	MEDALLION .15 R/C	0.152	LARGER VERSION MEDALLION .09/ SPORT	50	72	278
*	'65	G	COMPETITION SPEC. 15 MK II	0.152	INTERNAL MODS. OF '62 COMP. SPECIAL/ GOLD ANODIZED CRANKCASE/ SINGLE EXHAUST/ TUNED FOR F.A.I. FREE FLIGHT FLIERS/ FEW MADE	170	212	279
						168		
	'68	G	COMPETITION SPEC. 15 MK II	0.152	AS '65 COMPETITION SPECIAL WITH ADDITION OF BOOST PORTS TO SPECIAL MK II (ADVERT. AAM '68)			280
*	'68	G	MEDALLION 15 R/C EXH.	0.152	AS PREVIOUS '62 MEDALLION .15 WITH NEW COX EXHAUST THROTTLE MOUNTED	100-NIB		281
*	'68	G	MEDALLION 09 R/C EXH.	0.099	AS PREVIOUS '62 MEDALLION 09 WITH NEW COX EXHAUST THROTTLE MOUNTED	35	30	282
*	'68	G	TEE DEE .09 R/C	0.099	AS PREVIOUS T/D .09 WITH NEW COX THROTTLE	60	105-NIB	282.5
MILLET ENGINEERING (COX INDUSTRIAL CONVERSIONS)	'68	G	INDUSTRIAL 140	1.400	INDUSTRIAL COX 140 ENGINE CONVERTED BY MILLET ENGINEERING, SANTA ANA, CA INTO BOTH AIRCRAFT AND MARINE VERSIONS			283
*	'68	G	MODEL 100	1.398	3 LBS/ RADIAL MOUNT/ TWIN NEEDLE BEARING ON CRANKSHAFT/ MULTI-SPEED CARB & ALL POSITION DIAPHRAGM WITH FUEL PUMP			284
*	'68	G	MODEL 200 MARINE	1.398	AS PREVIOUS WITH WATER JACKET FOR MARINE			285
*	'68	G	CONCEPT II SPORT 35	0.349	FRONT ROTARY/ SIDE EXHAUST/ FEW MADE/ PLAIN BEARING/ NO R/C CARB./ ALL CONCEPTS REF. COX 1969 CATALOG	PROTO		286
*	'68	G	CONCEPT II FR 35 R/C	0.349	FRONT ROTARY/ SIDE EXHAUST/ DOUBLE BALL BEARING/ VERY FEW MADE/ R/C CARB./ NO LINER/ CHROMED DEPOSITED CASTING	PROTO		287
*	'68	G	CONCEPT II FR 40 R/C	0.398	FRONT ROTARY/ SIDE EXHAUST/ DOUBLE BALL BEARING/ FEW MADE/ R/C CARBURETOR	PROTO		288
*	'68	G	CONCEPT II RR 40 R/C	0.398	REAR ROTARY/ SIDE EXHAUST/ DOUBLE BALL BEARING/ FEW MADE/ RC CARBURETOR/ SPECIAL FLOW THRU TUNED MUFFLER INCLUDED	PROTO		289
NOTE:	—	—	—	—	ALL CONCEPTS HAVE ATWOOD INFLUENCE. SOME CONCEPT ENGINES HANDED OUT TO A FEW TOP COMPETITION FLIERS IN CALIFORNIA IN '70's, ADS MENTIONED WINNERS (NOV.'76 F/F CHAMPS)			
*	'76	G	CONQUEST 15 F/F/ OR U/C	0.149	FRONT INTAKE/ REAR EXHAUST DUAL BALL BRG. NO RC CARB/ SMOOTH COX GLOW HEAD WITH TRUMPET COMBUSTION CHAMBER	115	103	290
						125-NIB	96	
*	'76	G	CONQUEST 15 R/C	0.0149	AS PREVIOUS/ REAR EXHAUST WITH MUFFLER/ RC PERRY CARB/ HEAD FINNED & OF CONVENTIONAL DESIGN WITH REMOVABLE GLOW PLUG	53-N	73	291
						95-NIB		
*	'76	G	CONQUEST 40 SPEED	0.396	SIMILAR IN APPEARANCE TO CONQUEST .15/ ONE PIECE ALUM. CASE WITH SQUARE BACKPLATE/ CRANKSHAFT OF HIGH TEST ALLOY STEEL AND COUNTER-BALANCED WITH TUNGSTEN CARBIDE WEIGHTS/ PRECISION HEAVY DUTY BALL BRGS./ SPECIAL ALLOY CYLINDER LINER AND PISTON/ SCHNIERLE TRANSFER SYSTEM/ FORGED ALUM. ALLOY CON ROD HAS BRONZE BUSHINGS/ VERY FEW PRE-PRODUCTION ENGINES ONLY	PROTO		292

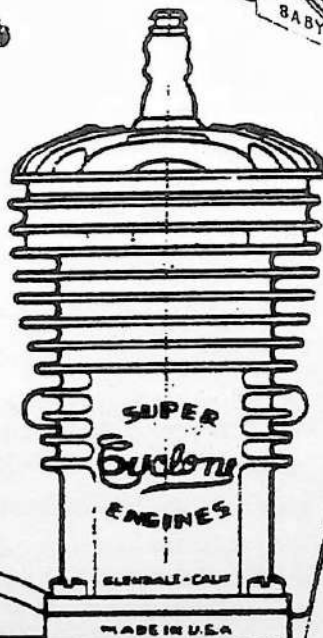


1937
BABY CYCLONE
- D -
'36'

1938
BABY CYCLONE
- F -
'36'

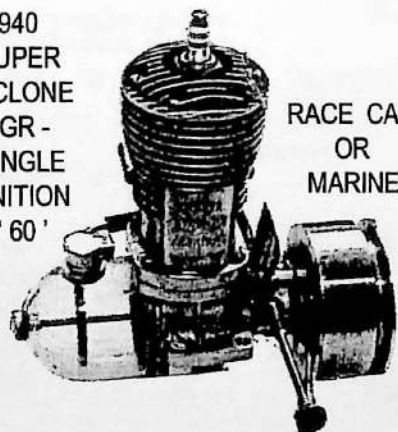


1940
SUPER CYCLONE
- GR -
DUAL IGNITION
'60'



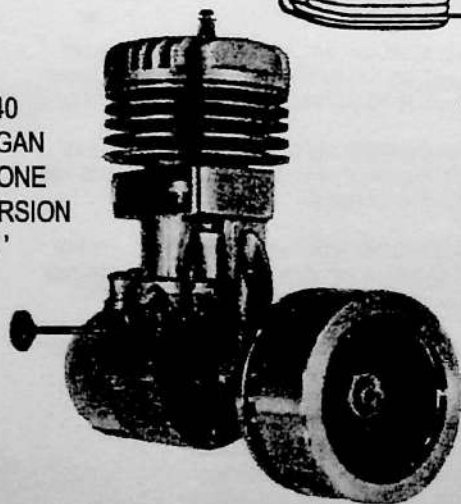
FULL SIZE
SUPER CYCLONE
'G -

1940
SUPER
CYCLONE
- GR -
SINGLE
IGNITION
'60'

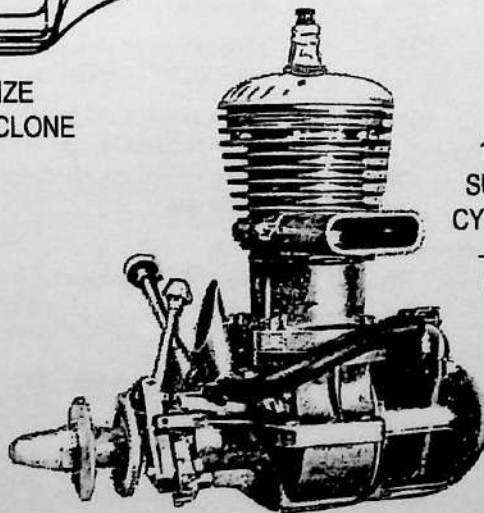


RACE CAR
OR
MARINE

1940
MORGAN
CYCLONE
CONVERSION
'60'

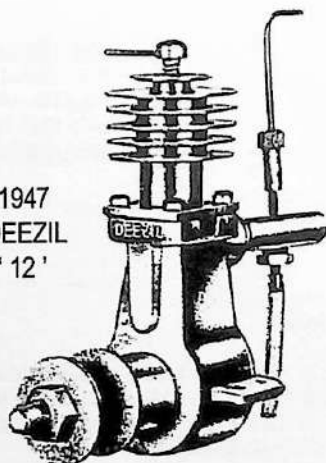


1946
SUPER
CYCLONE
- GR -
'60'

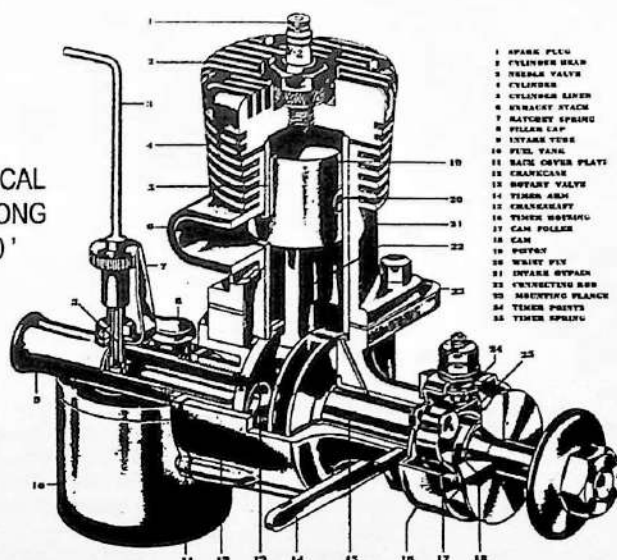


MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
COX	'76	G	CONQUEST 40 R/C	0.396	AS CONQUEST 40 SPEED WITH PERRY CARB/ MUFFLER SIMILAR TO PREV. CONQUEST 15 R/C/ VERY FEW PRE-PRODUCTION ENGINES ONLY	PROTO		293
• NOTE:	'77	--	-----	----	THERE WERE PROBABLY NOT MORE THAN A DOZEN CONQUEST 40's PRODUCED AND SOME WERE PROVIDED TO PYLON RACERS (D. SHADEL ET AL) WITH ADJUDICATION OF THE RESULTS. WE UNDERSTAND THE DIES, ETC. ARE IN THE HANDS OF R.J.L. (MECOA) WHO CURRENTLY PRODUCE AND SELL THE CONQUEST .15's. COX CONTINUED ONLY WITH 1/2A ENGINES BEYOND THIS DATE.			
HORNER SALES (BEECHER, ILL)			SELL-OFF COX INDUSTRIAL CONVERSIONS		PACKAGES OF ORIGINAL COX 140 ENGINES COMPLETE WITH MAGNETOS, RECOIL STARTERS AND MUFFLER AS SELL-OFF			
•	'77	I/G	COX 140	1.398	ORIGINAL COX 140 INDUSTRIAL ENGINE TO BE CONVERTED TO GLOW BY CUSTOMER			294
• NOTE:	'82	--	-----	----	K&B MFG. & COX HOBBIES WERE BOTH DIVISIONS OF LIESURE DYNAMICS AT THIS TIME. SINCE K&B HAD THE EXPERTISE, AND SPECIALIZED IN HIGH PERFORMANCE ENGINES. IT WAS DECIDED THAT THEY WOULD TAKE OVER MANUFACTURING OF THE COX CONQUEST ENGINE.			
CYCLONES (BABY CYCLONE DESIGNS BY ATWOOD)	---	--	-----	----	MFD. BY AIRCRAFT INDUSTRIES - OTHER COMPANY NAMES ARE GRAND CENTRAL AIRPORT CO. AND CAL-AERO TECH. INSTITUTE (FORMERLY CURTISS WRIGHT TECH.)			
•	'35	I	BABY CYC - X	0.359	7 FINS/ FIXED POINTS (ATWOOD DESIGN) ROUND 'CAN' FUEL TANK/ NO HEAD FINS/ CYLINDER MFD. OF 'FURNACE ALLOY' IRON W/ MACHINED FINS/ BLUE-GRAY PAINTED CRANKCASE	475		295
•	'36	I	BABY CYC - X	0.359	AS PREVIOUS/ 7 CYLINDER FINS MACHINED ALUMINUM & THREADED OVER IRON CYLINDER	375		296
•	'36	I	BABY CYC - A	0.359	AS 'X'/ 11 FINS/ BLUE-GRAY PAINTED CRANKCASE/ CRANKSHAFT COUNTER BALANCED	325	650	297
•	'36	I	BABY CYC - B	0.359	AS 'A'/ 11 FINS/ NO PAINT/ 6 HOLES IN TOP OF CYLINDER MUFF	175		298
•	'36	I	BABY CYC - C	0.359	AS 'B'/ 6 HOLES IN CYLINDER MUFF/ ALUMINUM PROP NUT/ INTERNAL PORTING CHANGES	175		299
•	'37	I	BABY CYC - D	0.359	AS 'C'/ FIRST WITH MOVABLE TIMER POINTS	175		300
•	'38	I	BABY CYC - E	0.359	TAPERED CYLINDER FIN PROFILE/ HEAD FINS HELD IN PLACE WITH PLUG/ STEAMLINE FUEL TANK/ SHORT NEEDLE VALVE	175		301
•	'38	I	BABY CYC - F	0.359	SAME AS 'E' EXTERNALLY/ LONG FLEXIBLE NEEDLE VALVE/ CAD PLATED STEEL TANK	175	290 322	302
SUPER CYCLONES DESIGNED BY MEL ANDERSON	'39	I	SUPER CYC - G	0.647	NEW ENGINE DESIGN SINGLE SPARK PLUG/ THIN MOUNTING LUGS/ 3 ROUND DIE MARKS ON LOWER END OF BYPASS/ 3 ROUND DIE MARKS ON EXHAUST STACK/ ALL PREWAR CASTINGS IDENTIFIED BY DIE MARKS/ CLEAR PLASTIC TANK/ VERY FIRST MODELS DID NOT HAVE TIMER CLAMP - ONLY HAD PRESSURE FROM METAL SPRING RING	225	180	303
•	'39	I	SUPER CYC - G DUAL PLUGS	0.647	AS PREV. TWIN SPARK PLUGS/ WITH OR WITHOUT FLYWHEEL	225	268 210	304
•	'40	I	SUPER CYC - GR DUAL & SINGLE PLUGS	0.603	SIMILAR / NEW CASE/ SINGLE PLUG OR DUAL/ NO BULGE FOR BACKPLATE/ THICK MOUNTING AND CYLINDER FLANGES/ SUB-PISTON PORTS DRILLED IN FRONT & BACK OF CYLINDER/ CLAMP TYPE TIMER/ AMBER PLASTIC TANK	225	310-DUAL 227-DUAL	305 305.5
•	'40	I	SUPER CYC - GR RACE CAR	0.603	WITH FLYWHEEL AND HEAD FINS CROSSWAYS	225		306

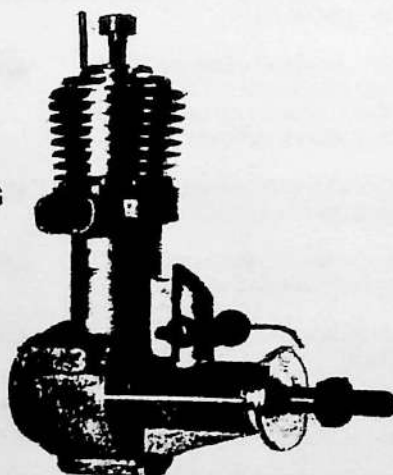
1947
DEEZIL
'12'



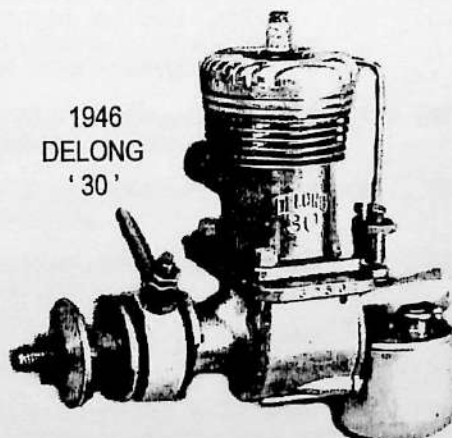
TYPICAL
DELONG
'30'



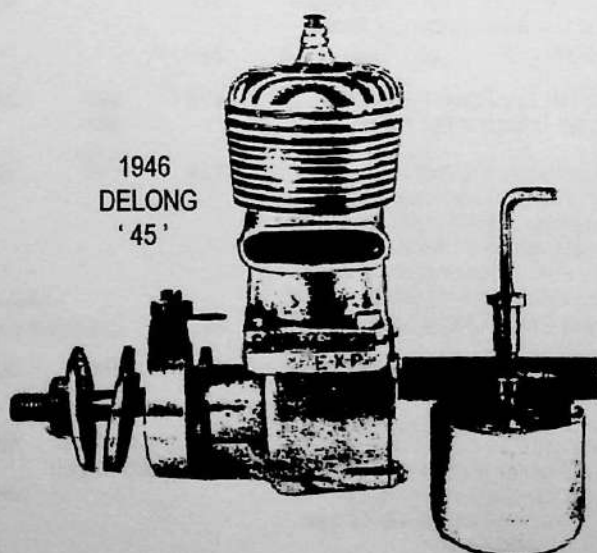
1947
DELONG
DIESEL
'29'



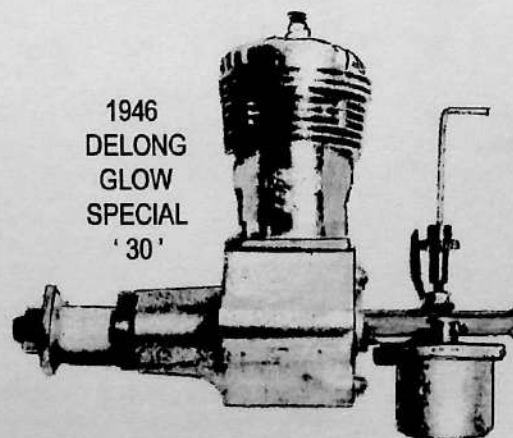
1946
DELONG
'30'



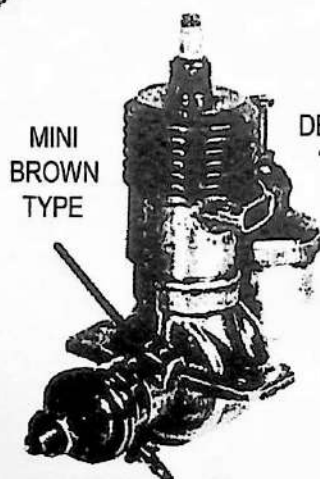
1946
DELONG
'45'



1946
DELONG
GLOW
SPECIAL
'30'

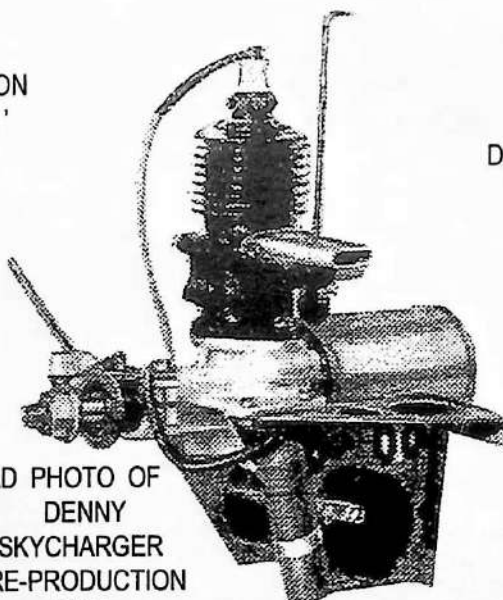


MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
CYCLONES MORGAN SUPPLY (OUTSIDE MFG.)	'42	---	MORGAN CYCLONES	0.603	CONVERSIONS OF CYCLONES BY MORGAN - WITH NEW SANDCAST CASES, CYLINDERS AND HEADS FOR RACE CAR USE UNTIL RACE CAR ENGINES APPEARED AFTER WORLD WAR II/ CONSIDERABLE VARIATIONS	275		307
SUPER CYCLONE INC. (POST WORLD WAR II)	'46	I	SUPER CYC - GR	0.603	SIMILAR TO PREVIOUS CYCLONES/ NEW CASE NO DIEMARKS AS PREVIOUSLY NOTED/ LAST AIR- CRAFT INDUSTRIES MADE ENGINE	225	279 464-NIB	308
* NOTE:	'47	---	-----	---	SPECIAL HEAD/ CLEMENS 'INFERNO' HEAD FOR HOT FUELS			
* NOTE:	---	---	REPRISED ORIGINALS	---	DIES OBTAINED AND SUPER CYCLONES BUILT BY APOLLO MOTORS ... ALSO BY OTHERS			
DAVIES	'39	I	DWARF	0.255	FRONT ROTARY VALVE/UPDRAFT CARB./ NAME ON CRANKCASE UNDER EXHAUST/ (ON RIGHT) ALUMINUM FINS/ OPEN TIMER	650		309
*	'40	I	DWARF	0.255	AS PREV./ NO NAME ON CASE/ SOME KNOWN WITH 'DWARF' ON BYPASS/ CLEANER CASTING/ STEEL CYLINDER LINER & FINS/ BLIND BORED WITH FINNED HEAD/ SERIAL NUMBERS ON LUG	650		310
DEEZIL *	---	---	-----	---	DISTRIBUTED BY GOTHAM HOBBY CORP. ROUGH CASTING/ NO TANK/ SIMILAR TO EUROPEAN 'DYNO'- (FIRST PROD. DIESEL) - ORIGINALLY ADVERTISED AT \$12.95 FINALLY SOLD FOR \$1.95/ KIT OR ASSEMBLED	65	68 62	311
	'47	D	DEEZIL 'A'	0.125				
	'48	D	DEEZIL 'A'	0.125	ADVERTISED AS PREV. WITH BALL BEARING SHAFT/ UNKNOWN IF PRODUCED	PROTO		312
*	'49	D	DEEZIL 'A'	0.125	PRESSURE DIE CAST CASE/ REMAINDER OF ENGINE IS SAME AS ORIGINAL	55		313
DELONG & STEELE (JOE DELONG & R. BOB STEELE)	'39	I	D & S 29	0.298	SANDCAST/ UPDRAFT FRONT INTAKE/ SPOKE HEAD/ OVAL EXHAUST/ NAME IN REAR OF CASE/ 4 CYLINDER FINS	325		314
* *	'39	I	D & S 35	0.331	AS PREVIOUS/ BORED OUT	325		315
* *	'40	I	D & S 29	0.309	SAND CAST/ PARALLEL HEAD FINS/ VENTURI ON RIGHT SIDE OF SHAFT/ BEAM MOUNTING ON SHAFT CENTERLINE	325		316
* *	'40	I	D & S 60	0.605	LARGE VERSION OF LAST 29/ BEAM MOUNTING RAISED ABOVE SHAFT CENTER-LINE/ FEW MADE AS PRE-PRODUCTION	PROTO		317
* NOTE:	---	---	-----	---	CANNON MFG. CLAIMED D & S WAS THE PRE- DECESSOR TO CANNON MFG. PRODUCTS IN JUNE 1941 M.A.N. ... DELONG & STEELE SPLIT TO DEVELOP DELONG MOTORS & R.B. SPECIALS, RESPECTIVELY			
DELONG (JOE DELONG)	---	---	-----	---	MFD. BY SUPER MOTORS INC. SAND CAST PARTS/HAND STAMPED NAME OF 'SUPER MOTORS INC.' UPRIGHT ON FRONT OF LOWER CASE ADJACENT TO MTG. LUGS	110	95 110	318
	'45	I	DELONG 30	0.299				
*	'46	I	DELONG 30	0.299	DIE CAST PARTS/ DELONG NAME ON BY-PASS & 'SUPER MOTORS INC.' STAMPED UPSIDE DOWN ON FRONT OF LOWER CASE ADJACENT TO MTG. LUGS/ FLARED VENTURI/ STAMPED OR SPUN TIMER CASE	125 190-NIB	158-NIB 129	319

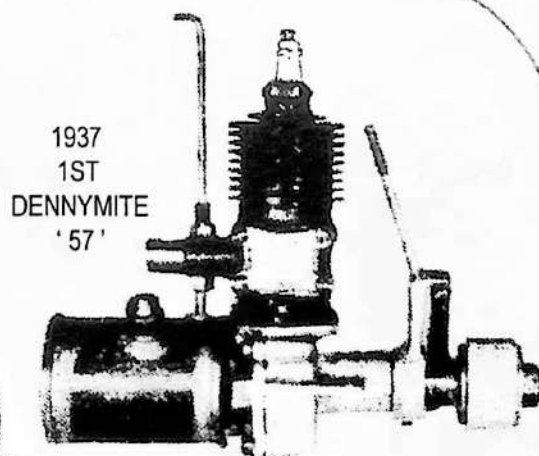


MINI
BROWN
TYPE

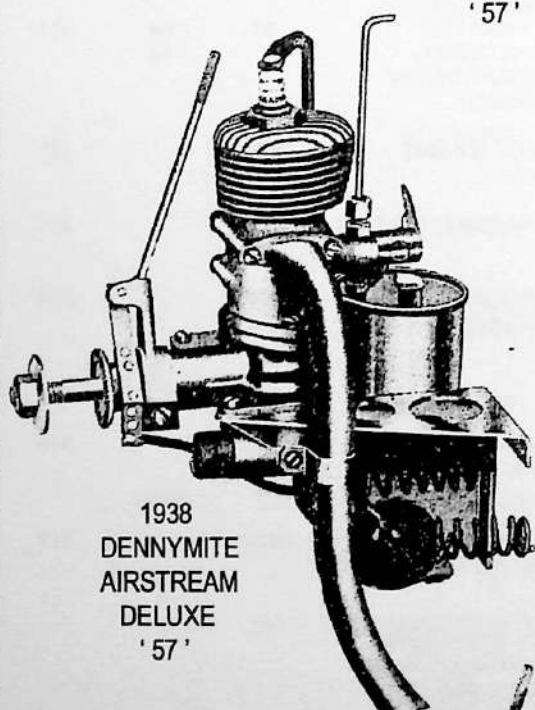
DEMON
'15'



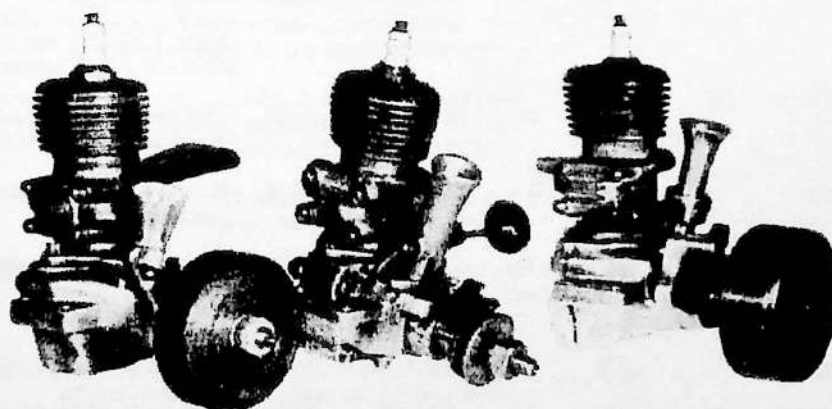
AD PHOTO OF
DENNY
SKYCHARGER
PRE-PRODUCTION
'57'



1937
1ST
DENNYMITE
'57'

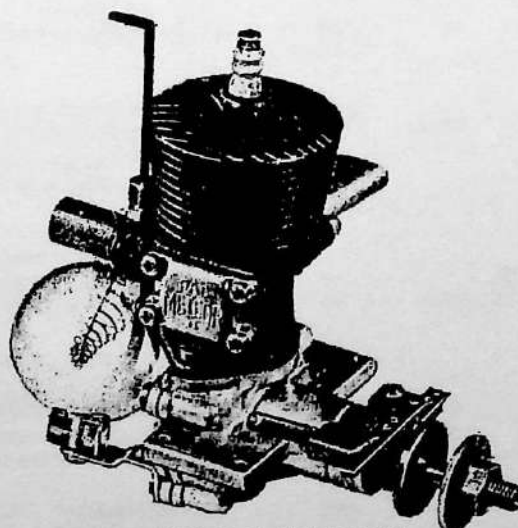
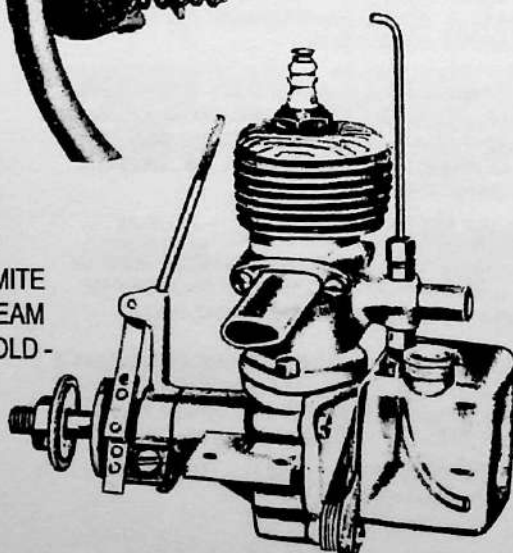


1938
DENNYMITE
AIRSTREAM
DELUXE
'57'



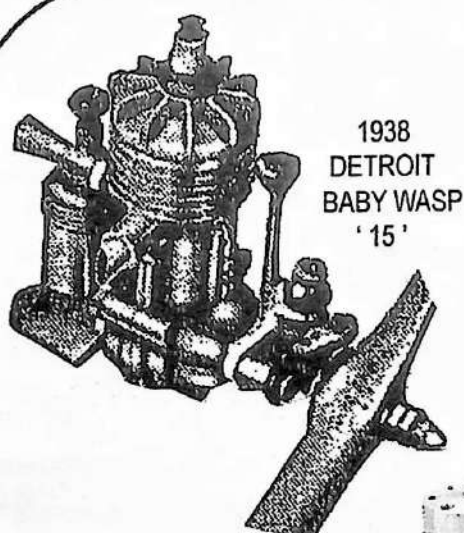
1940 DENNYMITE RACE CAR "BERG" CONVERSIONS

1940
DENNYMITE
AIRSTREAM
- PERMOLD -
'57'

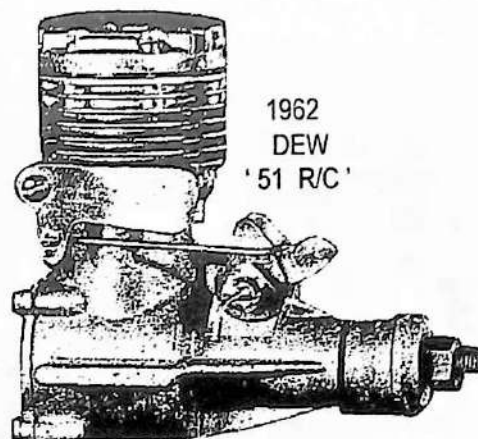


1947 DENNYMITE METEOR '60'

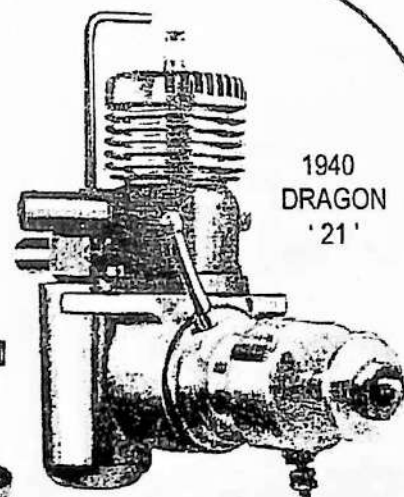
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
DELONG	'46	I	DELONG .45	0.454	SANDCAST CRANKCASE W/BALL BEARING SHAFT/ CON ROD HAS NEEDLE BEARINGS ON BIG END/ STANDARD .30 UPPER PARTS WITH LARGER BORE & LONGER STROKE ADVERTISED IN A/T DEC. '46	PROTO?		320
"	'46	I	DELONG 60	0.604	NO INFORMATION/ ADVERTISED IN AIR TRAILS DECEMBER 1946	PROTO?		321
"	'47	D	DELONG DIESEL	0.292	VARIABLE COMP./ DIE CAST /FRONT ROTARY/ BEAM MOUNTING ABOVE SHAFT CENTER-LINE/ ARTICLE IN 1948 M.A.N.	375		322
"	'49	G	GLOW PLUG SPECIAL 30	0.299	NEW SAND CAST CASE WITH BALL BEARING SHAFT/ CON. ROD HAS NEEDLE BEARINGS/ NO TANK/ OTHER UPPER PARTS SAME AS PREVIOUS 30/ BEAM MOUNTING ON SHAFT C/L	200	207	323
DEMON (LOUIS FEDDERMAN)	'39	I	DEMON	0.154	SOLD BY WORLD WIDE DISTRIBUTORS LIKE A MINIATURE 'BROWN'/ SAND CAST CYLINDER AND EXHAUST/ CAST METAL TANK & TANK TOP UNDER REAR INTAKE/FEW MADE	RARE 1250		324
DENNY (REGINALD) INDUSTRIES (WALTER RIGHTER)	'36	I	SKYCHARGER PRE-PRODUCTION	0.573	MFD.BY RIGHTER MFG.CO. (1937-1940) & PACIFIC AIRMOTIVE CORP.1946 ON SAND CAST/ 9 ROUNDED CYLINDER FINS/ HORIZONTAL 'CAN' TANK/ FLARED REAR (SIDEPORT) INTAKE/ NAME CAST INTO BACKPLATE/ OPEN TIMER/ LAPPED PISTON 10 SAMPLES ONLY/ BLACK PAINTED TOP END	PROTO		325
"	'37	I	DENNYMITE	0.573	AS PREVIOUS/ 9 ROUNDED CYLINDER FINS/ THIN MOUNTING LUGS/ NO SUPPORT UNDER SHAFT/ EXH. STACK WELDED TO FLANGE & BOLTED ON	325	432	326
"	'37	I	DENNYMITE	0.573	AS PREVIOUS/ 8 CYLINDER FINS/ THICK MTG. LUGS/ VERTICAL 'CAN' TANK/ BLACK PAINTED TOP END	325		327
"	'38	I	AIRSTREAM STANDARD	0.573	CAST IRON CYLINDER WITH TEAR DROP FINS/ NO BLACK PAINT/ ALUMINUM FLATTENED CADMIUM PLATED EXHAUST TUBE/ 'TIN CAN' TANK	325	200	328
"	'38	I	AIRSTREAM DELUXE	0.573	AS PREV. AIRSTREAM/ LONG CURVED EXHAUST/ SPRING LOADED CHOKE/ METAL MOUNT WITH WIRED C & C	250		329
"	NOTE:	—	ALL AIRSTREAMS	—	DELUXE - W/OUTSIDE EXH. - DURAL MOUNTS - COIL & CONDENSOR & CONTROL CHOKE/ STANDARD - WITH COIL & CONDENSOR ONLY/ NO CHOKE OR MOUNTS			
"	'40	I	DENNYMITE-BERG RACE CAR (BERG CONVERSION)	0.573	AS AIRSTREAM/ NOT REGULAR PRODUCTION UNIT PROVIDED BY JOHN BERG/ 'BERG' STAMPED INTO HEAVY REAR CRANKCAST COVER/ FRONT ROTARY VALVE WITH A NEW CASE-SHAFT AND HIGH INTAKE	325		330
"	'40		J.L.S. CONVERSION	—	J.L.S. ROTARY VALVE FOR DENNYMITE ENGINE/ ATTACHED BY REMOVING REAR COVER AND REPLACED WITH CONVERSION			
"	NOTE:	*	—	—	OTHER CONVERSIONS ALSO EXIST			
"	'40	I	AIRSTREAM (PERMOLD)	0.573	AS AIRSTREAM STANDARD/ PERMANENT MOLD CASTING/ SQUARE AMBER PLASTIC TANK WITH MOUNTING LUGS CAST INTO BOTTOM OF TANK	225	300 198 202	331
(PACIFIC AIRMOTIVE CORP.)	'46	I	AIRSTREAM	0.573	AS PREV./ DIE CAST CASE - TIMER FRAME AND FLARED EXH./ PL. TANK HAS METAL BRACKETS	250	292 250	332



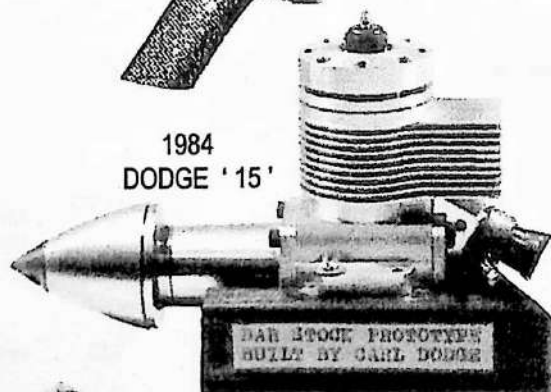
1938
DETROIT
BABY WASP
'15'



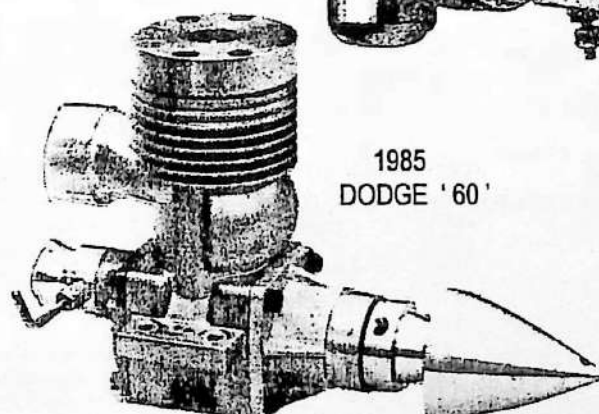
1962
DEW
'51 R/C'



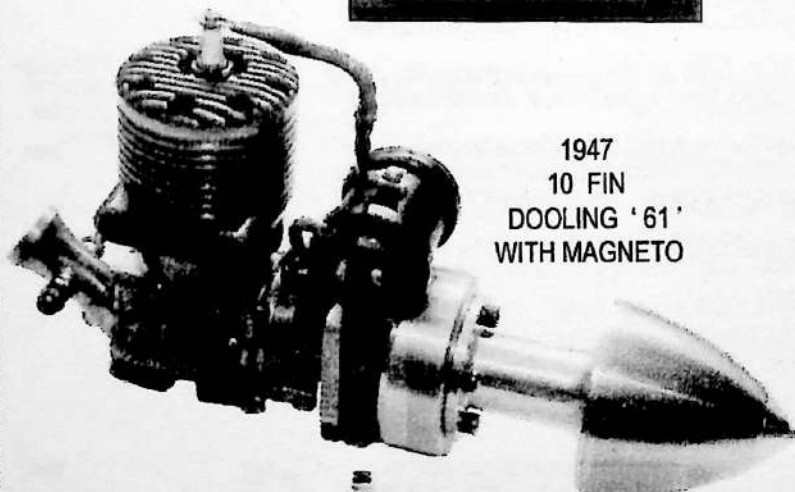
1940
DRAGON
'21'



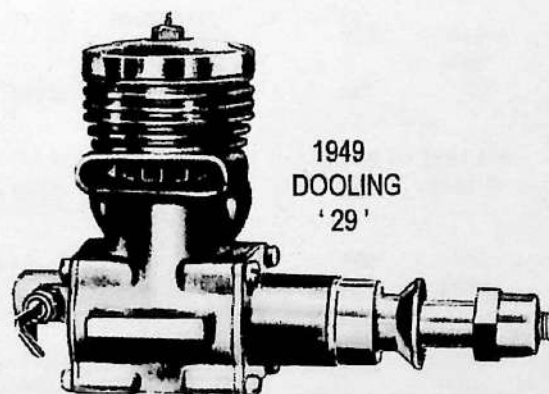
1984
DODGE '15'



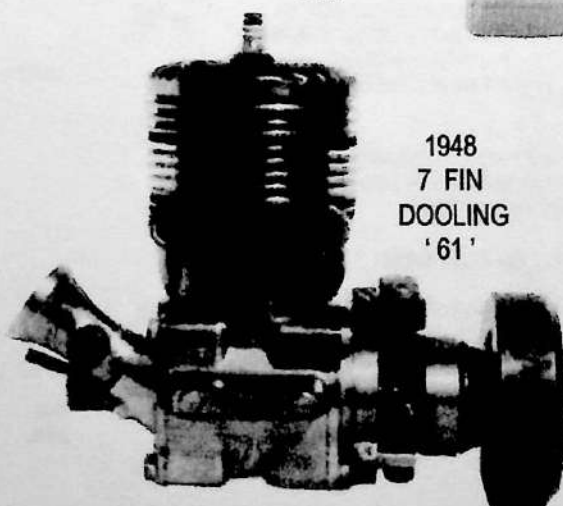
1985
DODGE '60'



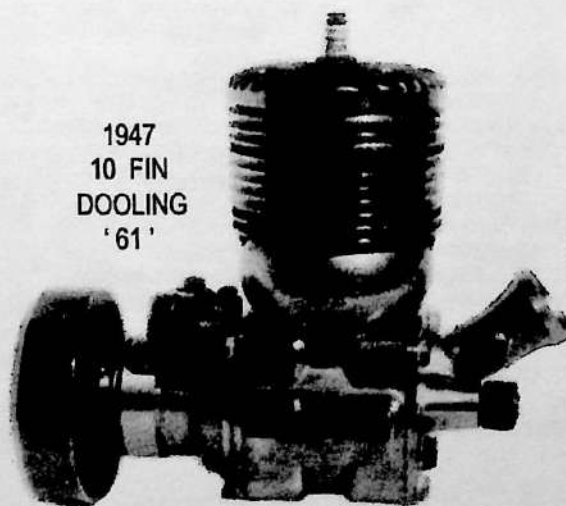
1947
10 FIN
DOOLING '61'
WITH MAGNETO



1949
DOOLING
'29'



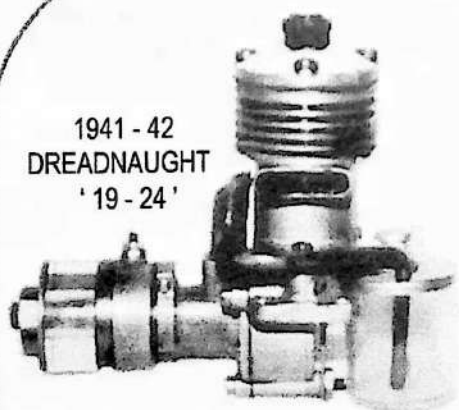
1948
7 FIN
DOOLING
'61'



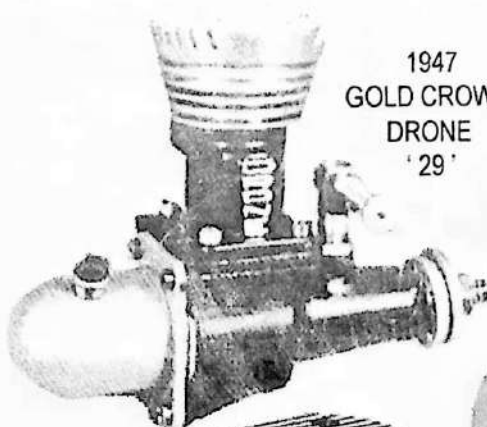
1947
10 FIN
DOOLING
'61'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
DENNY INDUSTRIES	'47	I	METEOR	0.588	PRE-PRODUCTION/ SQUARE TANK/ ROUNDED CADMIUM PLATED CYLINDER AND 4 BOLT HEAD/ UNKNOWN # MFD./ METEOR FORERUNNER	RARE		333
"	'47	I	METEOR	0.588	ROUND CYLINDER/ DIECAST/ COPPER PLATED OR BLACK OXIDE CYLINDER/ ROUNDED PLASTIC TANK/ METEOR ON BYPASS	375	456	334
(OHLSSON & RICE SALES)	'47	I	AIRSTREAM	0.573	AS PREV. AIRSTREAM MODEL/ ASSEMBLED BY OHLSSON & RICE/ REAR COVER HOLES DRILLED THROUGH CRANKCASE BOSSES/ SERIAL #'S STAMPED ON EDGE OF MOUNTING LUG/ LONGER INTAKE	200		335
DETROIT MODEL AERO WORKS	'38	I	BABY WASP	0.149	KIT ENGINE/ SOME ASS'B/ LIKE MINI GHQ WITH SPOKE HEAD FINS/ NONE SEEN	RARE		336
DEW CORP. (DALE E. WOOD) (KUSTOM IN 1965)	---	---	---	---	SOLD TO ANOTHER COMPANY - NAME CHANGED TO KUSTOM ENGINES IN '65			
"	'62	G	DEW 51 R/C	0.513	APPEARANCE SIMILAR TO VECO BUT SQUARE CARBURETOR IS PART OF VENTURI/ CONNECTED EXHAUST BAFFLE/ UNAVAILABLE LESS CARB	110		337
"	'62	G	DEW 45 R/C	0.451	AS PREVIOUS/ ONLY ONE PROTOTYPE PRODUCED	PROTO		338
DODGE ENGINES (CARL DODGE)	'84	G	DODGE 15 F.A.I. SPEED	0.149	BUILT BY CARL DODGE, A SPEED ENTHUSIAST, MEMBER F.A.I. SPEED TEAM IN 1985/ UNUSUAL MACHINED CASE, HEAD, FRONT & REAR COVERS/ A COUPLE OF DIFFERENT FUEL INTAKES WERE TRIED	RARE		339
"	'85	G	DODGE 60	0.598	CAST CASE, FRONT AND REAR COVERS/ SOLID MACHINED HEAD/ REAR INTAKE AND REAR EXHAUST DESIGNED FOR TUNED PIPE			339.5
DOOLING (TOM SR. - TOM JR. - RUSSELL & HARRIS DOOLING)	'47	I	DOOLING '61"	0.605	DOOLING BROTHERS SHINY DIE CAST CASE/ BASICALLY FOR RACING CARS/ 10 CYLINDER FINS/ NEEDLE BEARINGS ON CRANK PIN/ NAME ON BYPASS APPROXIMATELY 1000 MANUFACTURED	975	1544-NIB 1300	340
"	'48 *	I	DOOLING '61"	0.605	SHINY DIECAST CASE/ AS PREVIOUS - FOR RACING CARS/ 7 CYLINDER FINS/ BYPASS OPENED UP/ LIGHTER ROD AND WRIST PIN	900	1581-NIB 1300-N	341
"	'49	I	DOOLING '61"	0.605	MATTE DIECAST CASE/ AS PREV./ NO FIN AROUND SIDE OF HEAD/ HIGH COMPRESSION HEAD MODELS HAD B SUFFIX ON SERIAL NO'S.	900	1500 982	342
"	'49	G	DOOLING '29"	0.298	MATTE DIECAST CASE - PRIMARILY SPEED U-CONTROL/ MINI-61/ NAME ON BYPASS	225	350-NIB 188 242-N	343
"	'50/'77		YELLOW JACKETS		SEE 'YELLOW JACKET' BY MODEL POWER CO.			
NOTE:	---	---	---	---	TOM SR. AND THE DOOLING BROTHERS INITIALLY BUILT SOME 5,000 RACE CARS PRE WORLD WAR II AND DURING THE WAR WORKED DIRECTLY FOR SCIENTISTS AT THE CALIFORNIA INSTITUTE OF TECHNOLOGY IN PASADENA. MANY EXPERIMENTAL ENGINE DESIGNS IN BOTH 2 STROKE AND 4 STROKE AREAS ALONG WITH SUPERCHARGERS WERE DEVELOPED. THERE WERE MANY DOOLING EXPERIMENTAL ENGINES DISPLAYED AT THEIR OFFICES, 10 ARE IN THE AMA MUSEUM, MUNCIE INDIANA. THIS AUTHOR ALSO HAS A 1/2A PRODUCTION PROPELLER STAMPED 'DOOLING', OBTAINED FROM TED MACIAG (AMRCA) WHO MENTIONED HIS PERSONAL CONTACT WITH DOOLING BROS. AND INDICATED THEY HAD BEEN PREPARING A NEW 1/2A.			
DRAGON (HAL M. ATKINS)	'40	I	DRAGON	0.211	NEARLY IDENTICAL TO TROJAN JR. OF .192 DISPLACEMENT/ CAST IRON BLACK PAINTED CYLINDER/ SWEEP BACK REAR TUBULAR EXHAUST STACK/ BALL BEARING SHAFT/ SPUN METAL TANK	325	158 REPRO	344

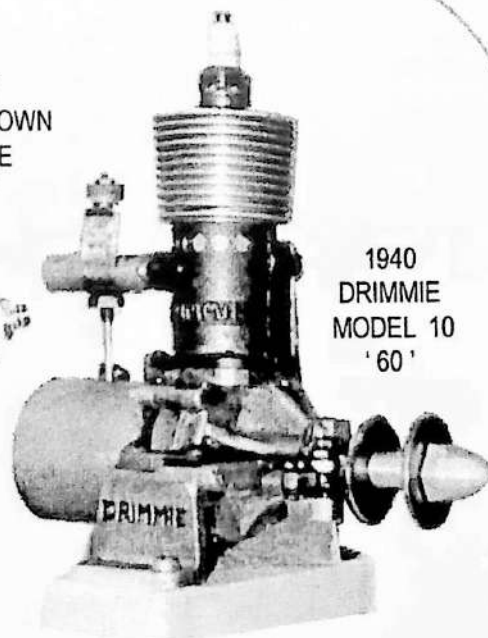
1941 - 42
DREADNAUGHT
'19 - 24'



1947
GOLD CROWN
DRONE
'29'



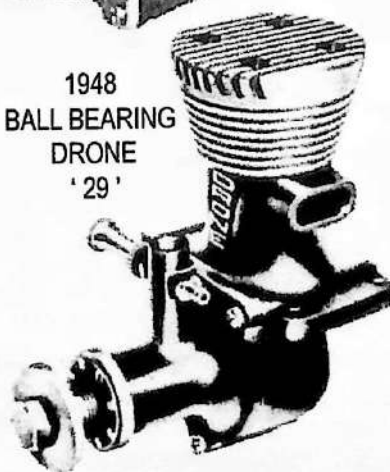
1940
DRIMMIE
MODEL 10
'60'



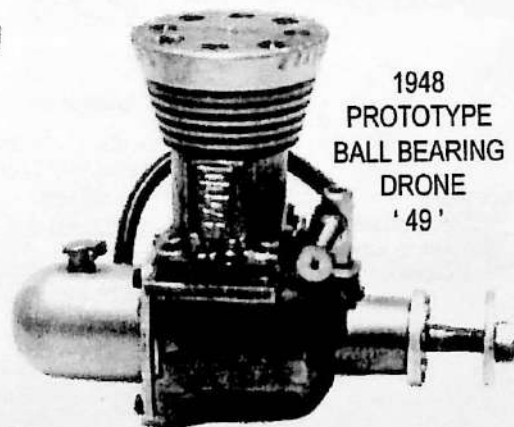
PROTOTYPE
DRONE
USED FOR
ADVERTISING



1948
BALL BEARING
DRONE
'29'



1948
PROTOTYPE
BALL BEARING
DRONE
'49'



Real Gas Engine Flies Model Airplanes

Here is a wonderful example of engineering ingenuity. A real gasoline engine that weighs only three pounds, yet develops $\frac{1}{2}$ h.p. It is a 2 cycle, 3 port air cooled aluminum alloy engine with $1\frac{1}{2}$ " bore and $1\frac{1}{2}$ " stroke. It is 6" high and $2\frac{1}{4}$ " in outside diameter. This engine is perfected and is not an experiment.

9 Ft. Model Plane Flies One Mile

And climbs 200 feet when equipped with this motor. It has many uses such as running an ordinary canoe, small row boat and light motor-cycles.

It is just what model plane builders have been looking for. It is an engine that will make their models fly.

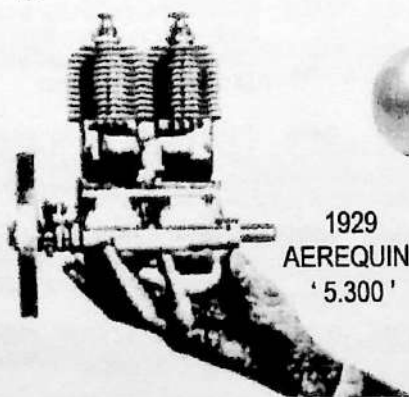
Send at once for complete information and Bulletin No. 46 which describes this motor.

DYNAMIC MFG. CO.

Dept. 104

Monadnock Building Chicago, Illinois

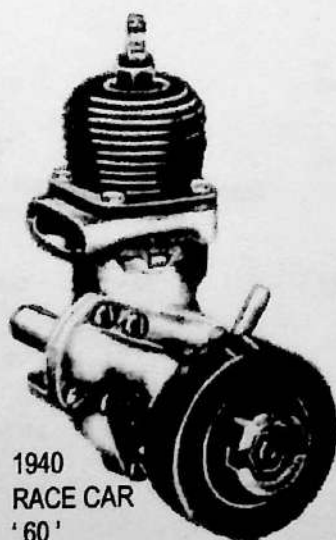
1929
AEREQUINE
'5.300'



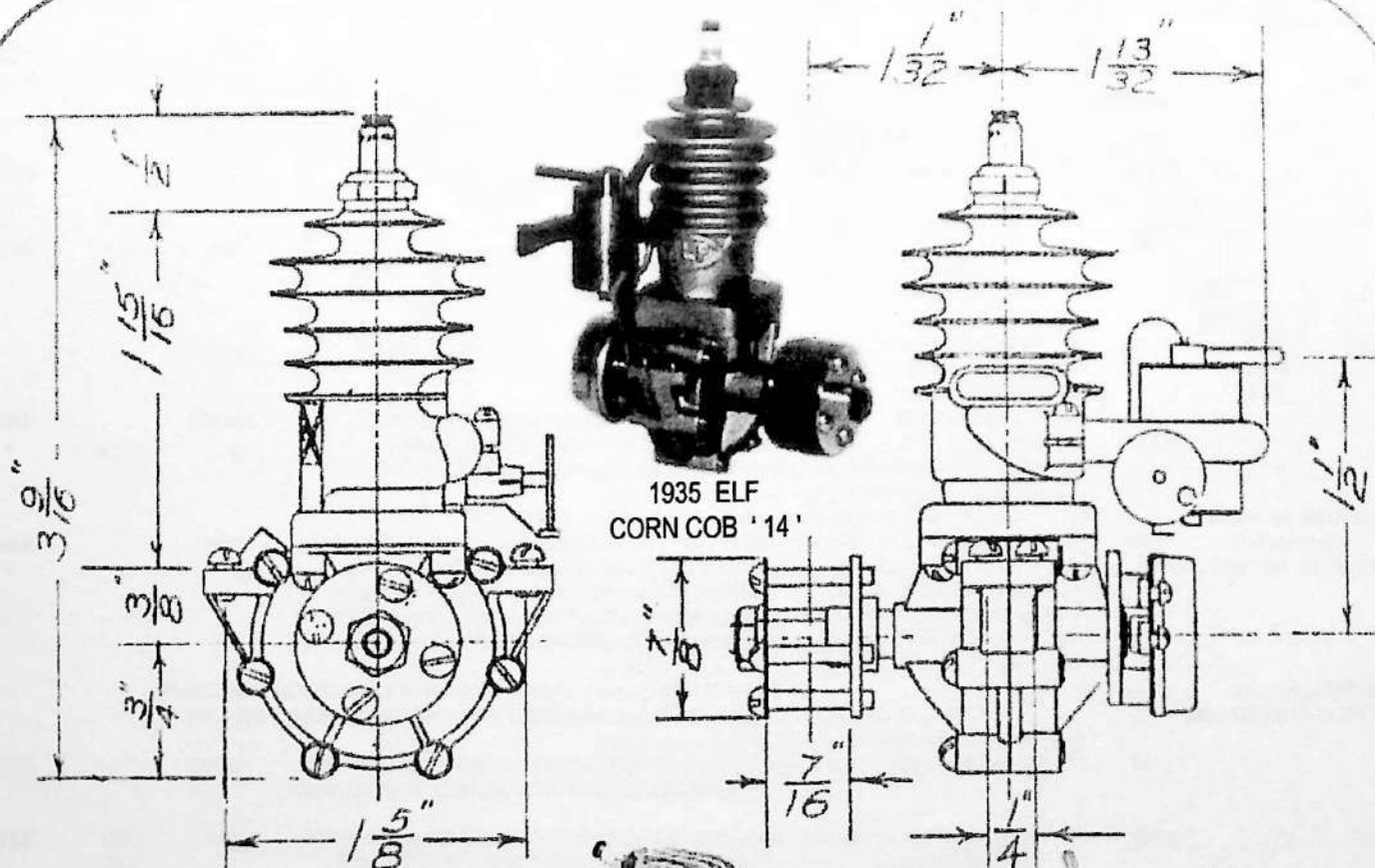
1929
QUEEN OF AIR
'10.600'



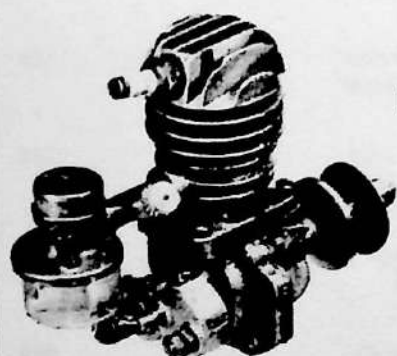
1940
RACE CAR
'60'
BY DUESENBERG



MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
DREADNAUGHT MOTOR COMPANY (JACK KEENER DESIGN INFLUENCE)	'41	I	DRDNHT. 19	0.198	SANDCAST CASE/ LARGE DIAMETER HEAD FINS/ INFLUENCED CANADIAN HURRICANE (EARLY) BUT HAS SCREWED-IN FRONT INTAKE/ PLASTIC HANG TANK/ SHORT FRONT CASE/ OPEN TIMER	325		345
"	'41	I	DRDNHT. 19	0.198	AS PREVIOUS/ LONGER FRONT CASE/ CLOSED TIMER CASE	325		346
"	'42	I	DRDNHT. 24 'SUPER'	0.243	AS PREV. 19/ BORED OUT CYLINDER/ HIGHER DOMED HEAD PROFILE/PLASTIC HANG TANK/ LETTER 'S' PRECEDES SERIAL #	325		347
" NOTE:	---	---	DISPLACEMENTS	---	SOME DISPLACEMENTS DIFFER ON PHYSICAL SAMPLES EXAMINED.			
"	'43	I	DRDNHT. 60	0.601	ROUGH SAND CAST/REAR ROTARY/DOUBLE BALL BEARING SHAFT/TIMER TYPICAL OF HORNET - McCOY/ 4 BUILT/ EXPERIMENTAL	PROTO		348
DRIMMIE MOTORS (CANADIAN) (PAUL DRIMMIE)	---	---	---	---	H. DRIMMIE & SON - TORONTO SANDCAST COPPER-ALUM. ALLOY CRANKCASE/ CAST IRON CYLINDER/ ALUM. CYLINDER FINS/ LAPPED PISTON/ MACHINED TANK ATTACHED WITH EARS BY BACKPLATE BOLTS/ NAME CAST INTO CYLINDER/ SPECIAL MOUNTING LUGS	550		349
DRONE ENG.CO. (LEON SHULMAN)	---	---	---	---	DESIGN ORIGINALLY TAKEN FROM FRENCH MICRON FIXED HEAD DIESEL: DRONE CONVERTED TO A VARIABLE HEAD TOO LATE			
"	'47	D	DRONE 'B'ee	0.297	PRE-PRODUCTION/ SHORT VENTURI PART OF CASE CASTING/ NO PRODUCTION SAMPLE FOR AD ONLY	PROTO		350
"	'47	D	DRONE 29 GOLD CROWN	0.297	GOLD HEAD/ VENTURI SCREWS INTO CASE FIXED COMPRESSION/ CYLINDER BOLTED TO LOWER CASE/ PRESSED TANK FLANGE CLAMPED WITH BACKPLATE/ PLAIN BEARING	125	140 125	351
"	'48	D	DRONE 29 BALL BEARING	0.299	CASE CONTOURS VERY SMOOTH/ VENTURI PART OF CASE/ BALL BEARING/ FIXED COMPRESSION/ GOLD HEAD	125 150	140	352
"	'48	D	DRONE 49 (VARI-COMPR.)	0.499	PRE-PRODUCTION/ ONLY ONE PRODUCED AND IN HANDS OF LEON SHULMAN/ TEST FLOWN BY HAROLD DEBOLT IN A VARIETY OF MODELS	PROTO		353
"	'48	D	DRONE 29 (VARI.-COMPR.)	0.299	AS PREV. .29/BALL BEARING TYPE/ VARIABLE COMPRESSION HEAD-SOLD AS COMPLETE ENGINE AS WELL AS ACCESSORY HEAD	125		354
"	'49	G	DRONE 29 (GLOW)	0.299	AS PREV. .29/ HAS GOLD GLOW HEAD - ALSO THE GOLD HEAD WAS SOLD AS ACCESSORY	135		355
"	'49	D	DRONE 29 BALL BEARING OVERSEAS	0.299	AS PREV. .29/ COMPANY CHANGED HANDS/ MANY DRONES SOLD TO USE UP EXISTING PARTS/ NOTABLY - FRONT ENDS WITHOUT BLACK FINISH WERE SHIPPED ON ENGINES SENT OVERSEAS	125		356
DUESENBERG (A.C.) DUESENBERG MODEL CO. (ALSO MINIATURE RACE CARS)	'40	I	RACE CAR ENGINE	0.604	SAND CAST CASE/ SEMI-NICKEL CHROME STEEL CYLINDER BOLTED TO CASE ABOVE EXHAUST/ ROTARY VALVE/ ALUMINUM RINGED PISTON/ OILITE BRGS./ DESIGNED & MANUFACTURED BY A.C. DUESENBERG/ ADVERTISED BY MEGOW	RARE 2950		357
DYNAMIC MFG. CO. (CHICAGO - SEE LISTING PAGE 6)	'29/30	I	DYNAMIC METALUMEN (BABY COPY)	2.650	ADVERTISED SINGLE CYLINDER & MULTI CYLINDER ENGINES IN '29 AND '30 - DYNAMIC PURCHASED BABY TOOLING I.E. METALUMEN - AIREQUINE - QUEEN OF THE AIR/ SEE 'BABY' LISTINGS	RARE		82
"	'29/30	I	TWIN	5.300	TWIN BABY AS ORIGINAL (AIREQUINE)	RARE		358
"	'29/30	I	FOUR	10.600	4 CYLINDER BABY AS ORIGINAL (QUEEN OF AIR)	RARE		359

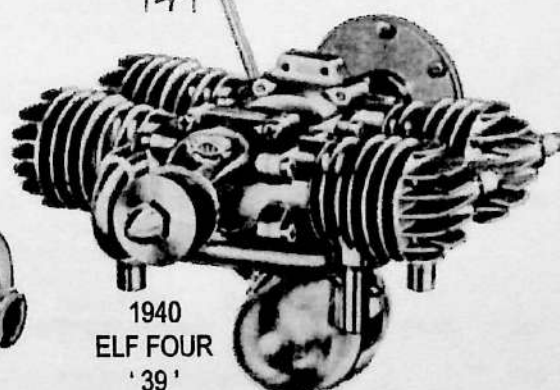
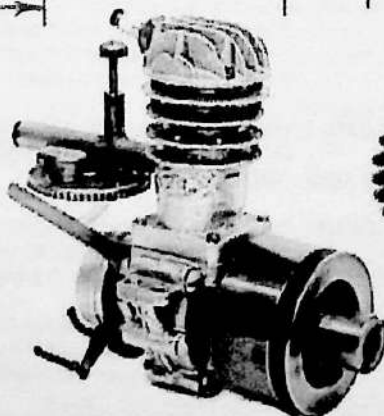


1935 ELF
CORN COB '14'

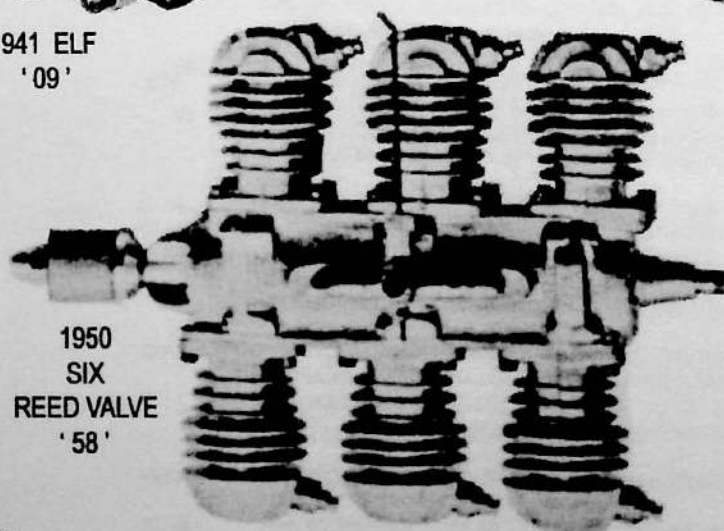


1941 ELF
'09'

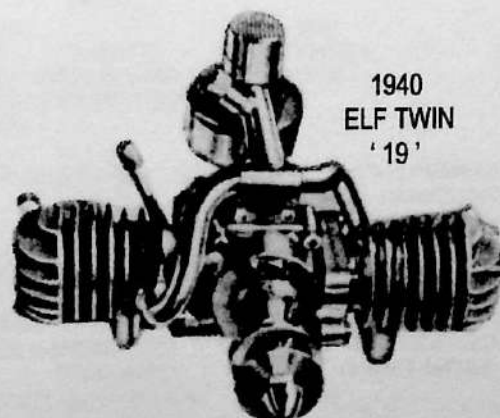
1939
ELF
MARINE
PROTO
'14'



1940
ELF FOUR
'39'



1950
SIX
REED VALVE
'58'

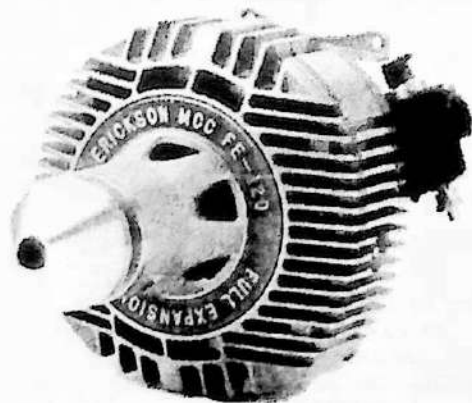


1940
ELF TWIN
'19'

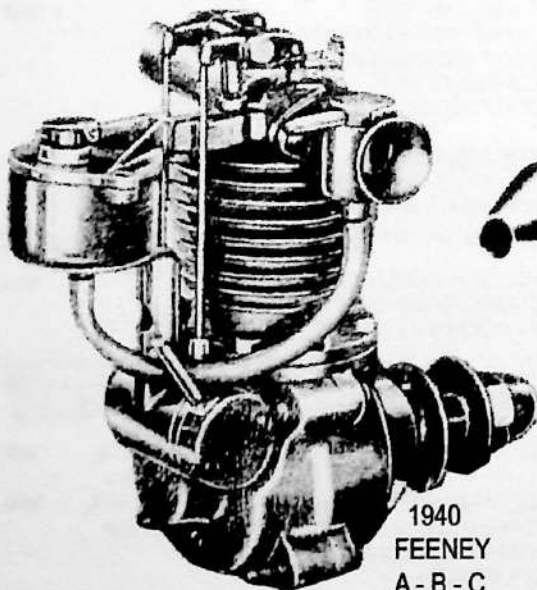
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
ELF ENGINE CO. (DAN CALKIN)	---	--	-----	----	SOLD BY ELF BUT ALSO BY THE MINIATURE AIRCRAFT COMPANY			
" "	'28	I	BOAT ENGINE	0.330	SAND CAST CASE/ MACH. STEEL CYL./ 2 RINGS/ CALKIN NAME ON INTAKE PORT COVER/ MORE PROTOTYPE ENGINES PRODUCED AT M.I.T. AND UNIVERSITY OF WASHINGTON BEFORE 1932	PROTO		360
" "	'32	I	ELF SINGLE	0.139	NO SPECIFIC DATA/ ASSUME SIMILAR TO '36 ELF/ NOTED AS FIRST CLASS "A" MOTOR OF RECORD/ FEATURED IN RIPLEY'S "BELIEVE IT OR NOT" 12/27/32 & GAINED NATION WIDE REPUTATION.	PROTO		361
" "	'35	I	ELF SINGLE (CORN COB) MODEL 1	0.139	FAMOUS "CORNCOB" MODEL/ VERTICAL PLUG/ FLOAT CARB./ 4 SCREWS THRU PROP/ ALUM. SAND CAST CASE SPLIT VERTICALLY/ NAME ON BYPASS	725	506 421-R 1240	362
" " NOTE:	'38	—	PLUGS	----	DAN CALKIN MFD. HIS OWN ELF PLUGS USING INSULATORS BOUGHT FROM CHAMPION UNTIL '38 WHEN CHAMPION PLUGS BECAME AVAILABLE. THIS AUTHOR HAS ONE OF THE ORIGINALS.	RARE		
" "	'39	I	ELF SINGLE (SWEPT PLUG)	0.097	NEW SAND CAST VERTICAL SPLIT CASE WITH BOLT ON CYL. & HEAD/ CYL. FINS NOT MACHINED/ PLUG SWEPT BACKWARD/ TANK UNDER INTAKE/ SMOOTH (NO WEB) SHAFT HOUSING/ HORI- ZONTAL MOUNTING LUGS/ "ELF" NAME ON FRONT	525		363
" "	'39 *	I	ELF SINGLE MARINE PROTOTYPE	0.139	SIMILAR TO PREVIOUS MODEL 1/ HAS CASE MACHINED FOR SWEPT PLUG MODEL HEAD/ USED BY CALKIN FOR HIS PERSONAL BOAT / 3 MFD.? VERY RARE/ SEE PICTURE			364
" "	'40	I	ELF TWIN	0.194	OPPOSED TWIN USING SINGLE "ELF" PARTS/ NO WEBS ON SHAFT HOUSING/ LITTLE TANK/ TOP MOUNTED MANIFOLD/ CYL. FINS NOT MACHINED	950		365
" "	'41	I	ELF SINGLE	0.097	AS PREVIOUS/ MOUNTING NOW VERTICAL/ WEBS ADDED TO SHAFT HOUSING/ ALSO 1944-1945	550	405-R 1075-NIB	366
" "	'41	I	ELF TWIN	0.194	AS PREV./ WEBS ADDED TO SHAFT HOUSING	1000	750-R 1025	367
" "	'41 *	I	ELF FOUR (GOOSE EGG)	0.388	4 CYLINDER OPPOSED/ BOTTOM MOUNTED MANIFOLD/ 3 PIECE EGG SHAPED CELLULOID TANK/ CAST TIMER/ NEW DISTRIBUTOR BEHIND REAR TIMER/ USES OLD ELF CYLINDERS	2350	2026-R 1950	368
" "	'45	I	ELF SINGLE	0.097	AS PREVIOUS 1941/ MACHINED CYLINDER FINS	525	570-R	369
" "	'46	I	ELF TWIN	0.198	AS 1941 TWIN / MACHINED CYLINDER FINS/ CAST TIMER/ ROUND TIMER LATER	950		370
" "	'46	I/G	ELF SINGLE	0.097	AS PREVIOUS/ ROUND TIMER	525 GLO LESS \$		371
" "	'47	I	ELF FOUR	0.396	AS PREWAR/ ROUND TIMER/ MANIFOLD ABOVE ENGINE/ LARGE PLASTIC TANK ON VERY LONG INTAKE WITH AIR CLEANER	2250		372
" " NOTE:	'49	—	METAL TANKS	----	OPTIONAL METAL TANKS FOR ALCOHOL FUELS			
" "	'50	G	ELF SINGLE	0.097	SIMILAR TO 1946 SINGLE/ NO TIMER/ VARIOUS CARBS WITH METAL TANK * TANKLESS WITH AIR FILTERS * TANKLESS WITH BELL-MOUTHED INTAKE	375		373
" "	'50	G	ELF TWIN	0.198	SIMILAR TO '46 TWIN/ TANKLESS WITH AIR FILTER/ OR BELL-MOUTHED INTAKE	750		374
" "	'50	G	ELF FOUR	0.396	AS PREVIOUS 1947 FOUR/ NO TIMER OR TANK/ MANIFOLD ON TOP WITH INTAKE AND FILTER OR BELL-MOUTHED INTAKE	1850		375



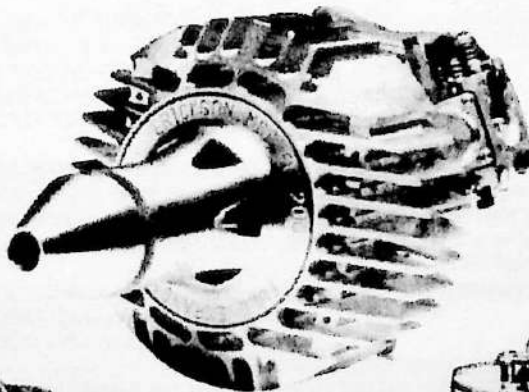
1996 ERICKSON
MCC FE 120



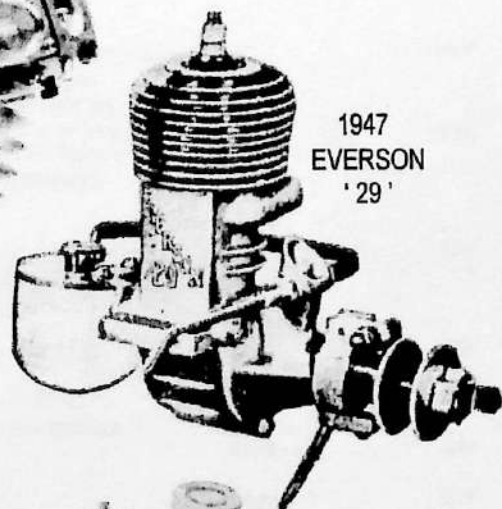
1997 ERICKSON
MCC FE 120



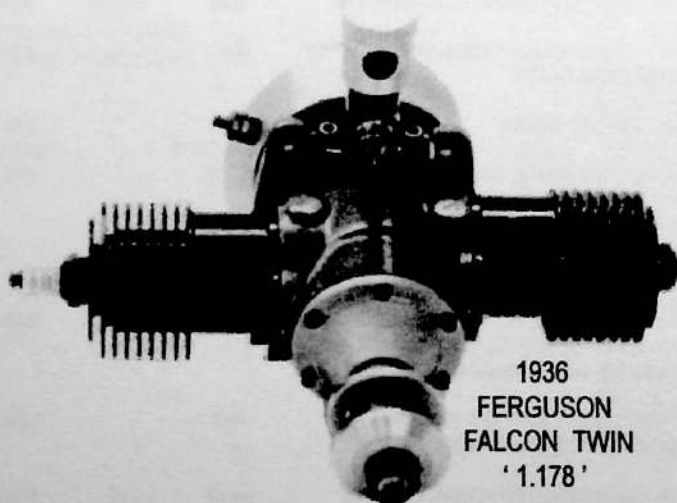
1940
FEENEY
A-B-C



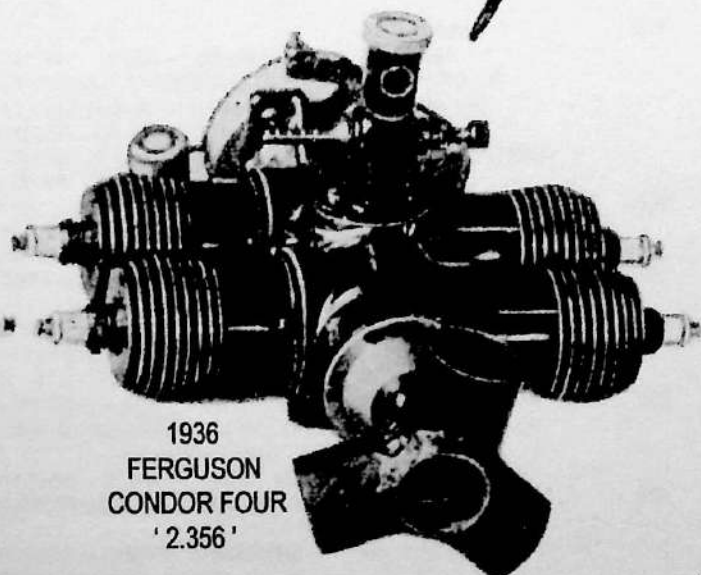
1998 ERICKSON
MCC FE 200



1947
EVERSON
'29'

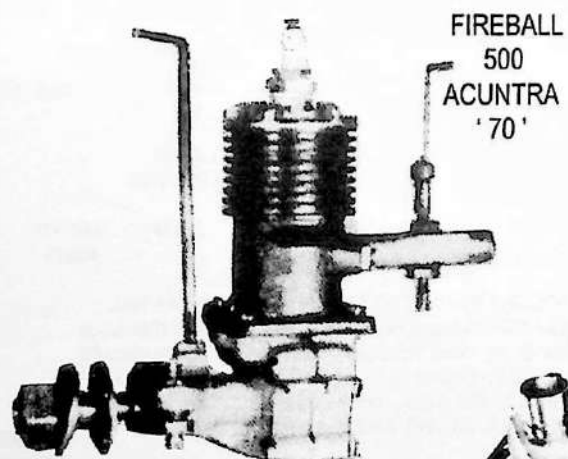


1936
FERGUSON
FALCON TWIN
'1.178'

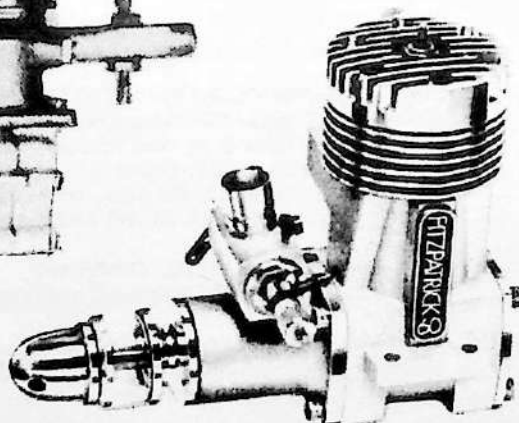


1936
FERGUSON
CONDOR FOUR
'2.356'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
ELF ENGINE CO.	'50	I/G	ELF SINGLE REED VALVE	0.097	AS PREV. 1950 / NEW CASE WITH REAR DOWN-DRAFT INTAKE IN REAR HOUSING WITH REED VALVE/ ROUND TIMER - CAST TIMER OR NONE	375		376 376.5
" "	'50	I/G	ELF TWIN REED VALVE	0.198	AS PREV./ NO MANIFOLD/ SINGLE VERTICAL INTAKE/ ROUND TIMER - CAST TIMER OR NONE	875		377 377.5
" "	'50	I/G	ELF FOUR REED VALVE	0.396	SIMILAR TO NEW CASE ON LAST TWIN ROUND OR CAST TIMER OR NONE	2550 1950-NIB		378 378.5
" "	'51	G	ELF SIX REED VALVE	0.582	SIMILAR TO NEW CASE ON FOUR/ SINGLE DOWN-DRAFT INTAKE FEEDS 3 PAIRS OF REED VALVES	3400	3440-N 4060	379
ERICKSON MOTORS	—	—	—	—	ORIGINALLY INTRODUCED IN 1991 TO MODEL AVIATION AS THE MIGRATING COMBUSTION CHAMBER ENGINE AND PRESENTED AS A POTENTIAL 1.2 ENGINE AT 1996 TOLEDO SHOW (& IN ANDERSON'S FIRST BLUE BOOK) UNDER ENGINE RESEARCH ASSOCIATED, INC. NOW MANUFACTURED & SOLD IN 2 FORMS BY ERICKSON MOTORS IN FORT WAYNE, INDIANA, AT THE ORIGINAL ADDRESS.			
" "	'96	G	MCC FE 120	1.200	EARLY BAR STOCK CASE/ SELF-CONTAINED EXHAUST/ RADIAL MOUNT/ SQUARE APPEARANCE			380
" "	'97	G	MCC FE 120	1.200	MACHINED CAST CASE/ CASE HARDENED CRANKSHAFT/ 3 BALL BEARINGS/ PISTON DIRECT CONNECTION WITH NO CON ROD			381
" "	'98	G	MCC FE 200	2.000	EARLY BAR STOCK/ LATER MACHINED CAST CASE/ LARGER/ SHOWN AT 1997 TOLEDO SHOW			382
EVERSON BROS.	'47	I	EVERSON 29	0.291	SAND CAST 3 BOLT MATTE CASE/ NAME ON BYPASS/ FRONT INTAKE/ OPEN TIMER/ HEAD IS MACHINED BAR STOCK/ PLASTIC TANK ATTACHED TO BRACKET AT REAR	700		383
FEENEY ENGINE CO. (CASIMIR LEJA-DESNR.) (JACK FEENEY - MFR.)	'38	I	SINGLE	0.687	SAND CAST/ OPEN VENTUR/ I SPLIT CASE WITH BOLT ON CAST CYLINDER/ 4-CYCLE O-H VALVES/ IGNITION AT REAR/ REGULAR CARBURETOR	1600	1675	384
"	'39	I	TWIN	1.374	AS PREV./ COMPLEX SPLIT CASE/ 4 CYCLE	2250		385
"	'40	I	MODEL A	1.176	LARGE VERSION OF '38 SINGLE/ 4- CYCLE	RARE		386
"	'40	I	MODEL B	0.914	SMALLER VERSION OF 'A'	RARE		387
"	'40	I	MODEL C	0.687	SMALLER VERSION OF 'B'	RARE		388
FERGUSON MOTORS (JOHN T. FERGUSON)	—	—	—	—	MFD. & SOLD BY JOHN T. FERGUSON CO. MORE RECENTLY KARL CARLSON & DICK DWYER OF REPLICA ENGINES OBTAINED THE ORIGINAL PATTERNS FOR THE FALCON & CONDOR AND OFFERED ALUM. CASTINGS TO THOSE DESIROUS OF BUILDING THESE ENGINES.			
"	'36	I	EAGLE	0.589	SINGLE CYLINDER/ NO HEAD FINS/ AS EARLY O.K./ PRODUCTION UNKNOWN	RARE		389
"	'36	I	FALCON	1.178	TWIN CYLINDER SAND CAST CASE - CYLINDER AND HEADS AS EARLY O.K. 's/ ASSEMBLED OR A PARTIALLY MACHINED KIT/ REAR MOUNTED DISTRIBUTOR AND LARGE HIGH INTAKE AND CHOKE	1260		390
"	'36	I	CONDOR	2.356	AS PREV. FOUR CYLINDER/ ASSEMBLED OR KIT/ REAR MOUNTED DISTRIBUTED/ BALL RACES FOR SHAFT/ OPPOSED CYL. FIRE ALTERNATELY IN PAIRS	1840		391
"	'36	I	CONDOR	2.356	AS PREVIOUS - WATER COOLED WITH JACKETS	2150		392
" NOTE:	'36	—	ADVERTISING	—	FEB. '36 MAN AD CALLS BORE 7/8" STROKE 5/8" = .376 SINGLE FOR THE EAGLE			
BUELL MFG.	'38	I	ALL MODELS	—	CONTINUATION OF FOREGOING MODELS ADVERTISED - NONE MANUFACTURED ?	RARE		

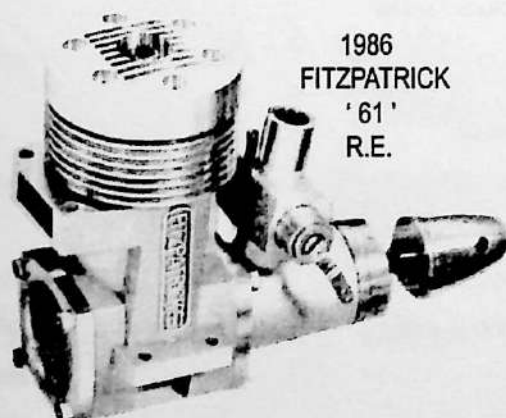
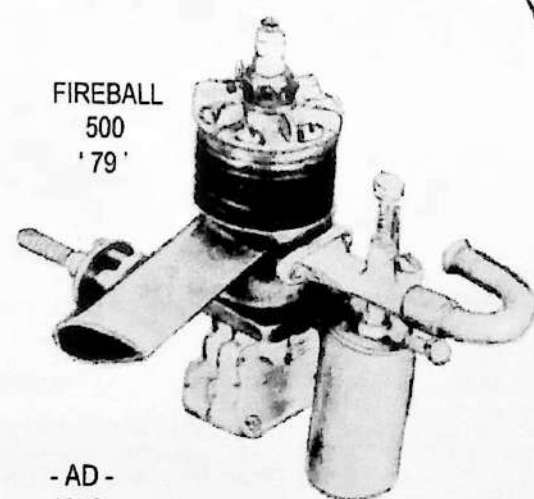


FIREBALL
500
ACUNTRA
'70'

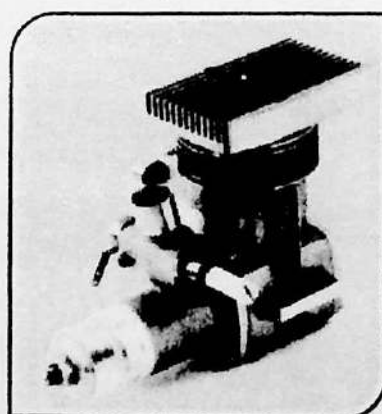


FIREBALL
500
'79'

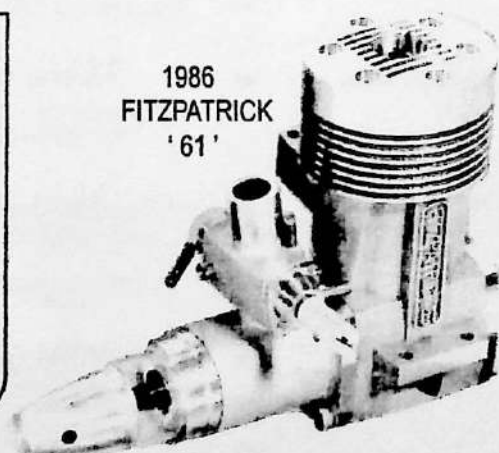
- AD -
1978
FITZPATRICK
'61'



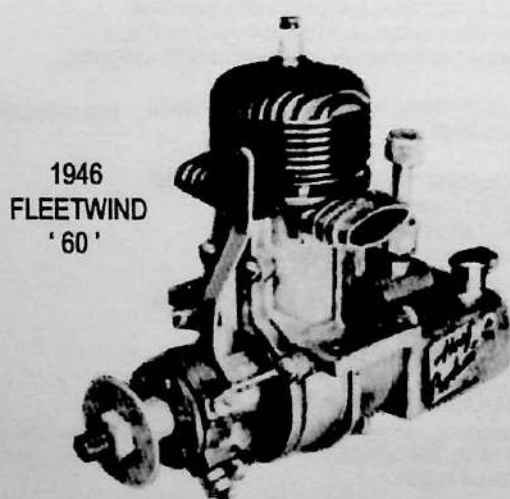
1986
FITZPATRICK
'61'
R.E.



1986
FITZPATRICK
HELICOPTER
'61'



1986
FITZPATRICK
'61'



1946
FLEETWIND
'60'



EARLY
FORSTER
METAL TANK

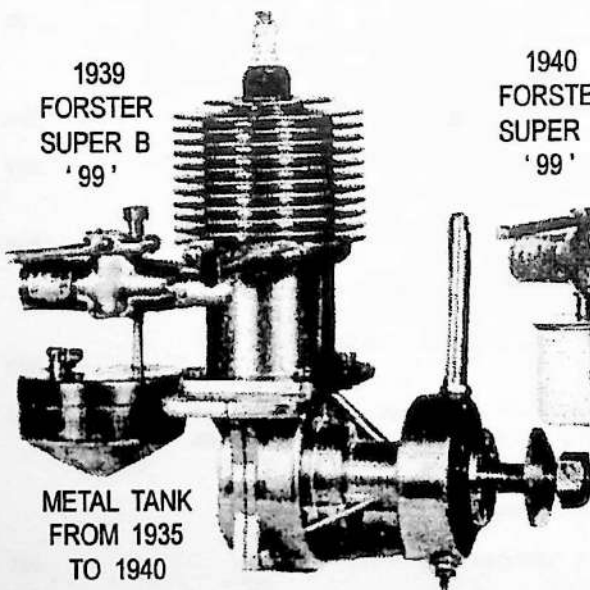


1935
FORSTER
LITTLE
HERCULES
'99'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FIREBALL	---	---	-----	----	MFD. BY DEMCO			
	'35	I	FIREBALL	0.588	DATA AND PRODUCTION UNKNOWN/ NO RELATION TO FIREBALL 500	RARE		393
FIREBALL 500	---	---	-----	----	MFD. BY ACUNTRA TOOL & DIE CO. OF N.Y.			
" "	'37	I	ACUNTRA	0.687	CONTINUATION OF KNIGHT - SEE LISTING	875		394
" "	'38	I	FIREBALL 500	0.789	SIDE PORT/SPLIT CASE/ CAST IRON CYLINDER SPOKE HEAD REAR INTAKE HAS CURVED FORWARD EXTN./ LONG STREAMLINED EXHAUST	1250		395
" "	'38	I	FIREBALL 38	0.375	AS PREVIOUS/ MINIATURE OF 500	750		396
" "	'40	I	V-TWIN	1.569	AS PREV. FIREBALL 500/ SIMULTANEOUS FIRING/ BRASS HEADS/ NONE SEEN	RARE		397
" "	'41/45	I	MARVEL	0.608	DATA AND PRODUCTION UNKNOWN	RARE		398
FITZPATRICK ENGINES USA	---	---	-----	----	MANUFACTURED AND SOLD DIRECTLY FROM FITZPATRICK ENGINES USA IN WEST LOS ANGELES, CALIFORNIA. ALL KNOWLEDGE OBTAINED FROM EARLY U/C SPEED DAYS.			
" "	'78	G	FITZPATRICK 61	0.609	ADVERTISED IN 1978 R.C.M.			399
" "	'86	G	FITZPATRICK 61	0.609	AEROSPACE INVESTMENT CAST ALUMINUM CRANKCASE/ OVERBORE ABC PISTON & SLEEVE/ PHENOLIC CAGE BALL BRGS/ CHROMED PLATED SCREWS/ CARB CAST IN WITH ENGINE FRONT PLATE/ SIDE EXHAUST/ COMPLETE WITH UNIQUE MUFFLER	250-NIB 475-NIB 145	399-NIB 475-NIB 300	400
" "	'86	G	FITZPATRICK 61	0.609	AS PREVIOUS/ HEAD & PROP DRIVE CHANGED			401
" "	'86	G	FITZPATRIC 61 HELICOPTER	0.609	AS PREVIOUS/ NO MUFFLER/ INCLUDES ADAPTER PLATE INTENDED FOR OS 61SF-H HELICOPTER ENGINE MUFFLERS			402
" "	'86	G	FITZPATRICK 61 REAR EXHAUST	0.609	AS PREVIOUS/ REAR EXHAUST ENGINE MODEL/ ONLY A FEW MADE IN PRE-PRODUCTION FORM	RARE		403
NOTE:	'93	--	FITZPATRICK 61		IN CANADA AFTER A MANUFACTURING HIATUS			
FLEETWIND	---	---	-----	----	MFD. BY HOOFF PRODUCTS CO.			
ADDISON HOOFF & V.S. JENNINGS	'46	I	FLEETWIND	0.603	TWIN EXHAUST STACKS/ DIE CAST/ FRONT AND REAR BYPASS/ REAR DISC ROTARY INTAKE/ RECT. METAL TANK/ DEEP DRAWN PISTON/ THIS ENGINE REPLACED DUE TO PISTON PROBLEM	250	416	404
"	'46	I	FLEETWIND	0.603	AS PREVIOUS/ TINY VERTICAL WEBS ABOVE MTG. LUGS GROUND DOWN TO CASE/ CAST IRON PISTON WAS REPLACEMENT FOR FIRST MODEL	200	246-NIB 178	405
"	NOTE:	'47	---	---	'MODERNIZATION' KIT/ UPDATE ORIGINAL ENGINE			
FORSTER BROTHERS	---	---	-----	----	ALSO MFD. UNDER FORSTER MFG. INC. & FORSTER APPELT - EARLY APEX 120 (1936) ALMOST SAME AS FORSTER			
" "	'34	I	"A"	0.997	SAND CAST/ CHOKE-NUT ON VENTURI /BALL BEARING SHAFT/ 2 PISTON RINGS - SEE ALSO 'APEX' (COPY ?) - METAL TANKS VARY	950		406
" "	'34	I	"A"	0.997	AS PREV./ TANK INTEGRAL REAR OF CASE	950		407
" "	'34	I	"AW"	0.997	AS PREV./ WATER COOLING JACKET ON CYLINDER	450		408
" "	'34	I	"C"	0.884	AS PREV./ SMALLER 1" BORE/ AIR COOLED	450		409
" LITTLE HERCULES FIRST USED IN 1934	'34	I	LITTLE HERCULES "CW"	0.884	AS PREVIOUS WITH SMALLER 1" BORE/ WATER COOLED	450		410
" "	'35	I	LITTLE HERCULES	0.997	AS PREVIOUS SAND CAST/ MOUNTING LUGS RAISED/ AIR OR WATER COOLED	450 475-W.C.		411 411.5

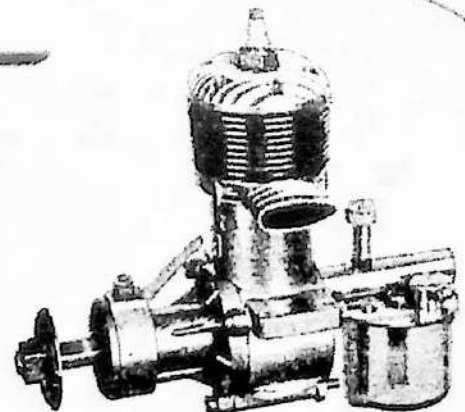
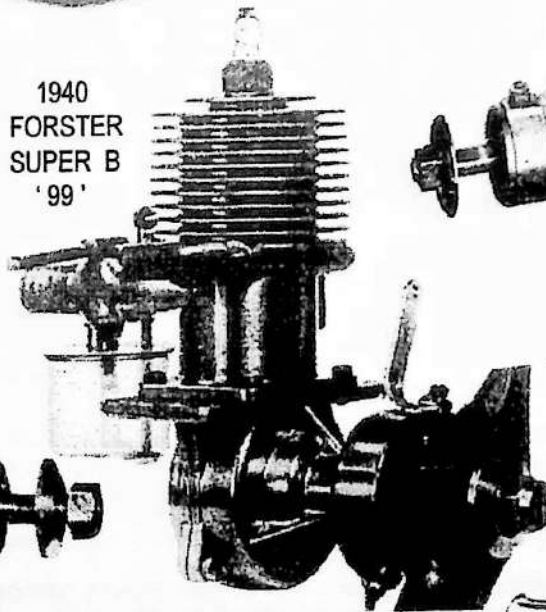


1939
FORSTER
SUPER B
'99'



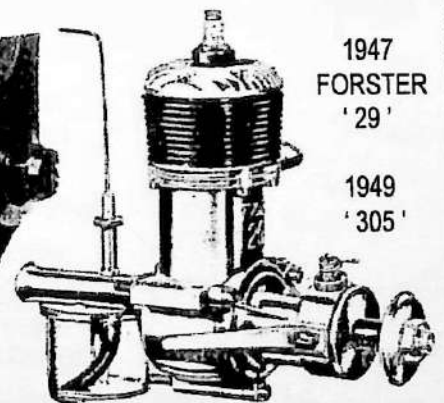
METAL TANK
FROM 1935
TO 1940

1940
FORSTER
SUPER B
'99'

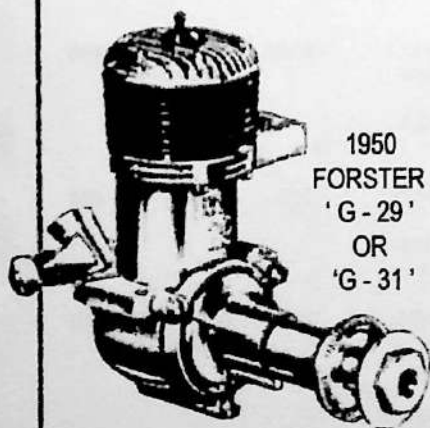


1940 FORSTER '29'

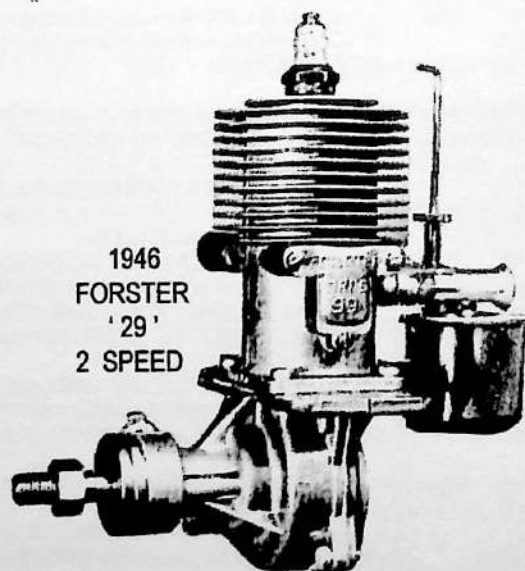
1947
FORSTER
'29'



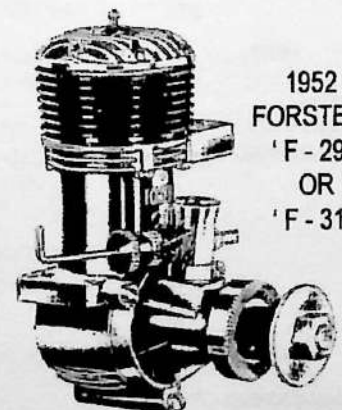
1949
'305'



1950
FORSTER
'G-29'
OR
'G-31'

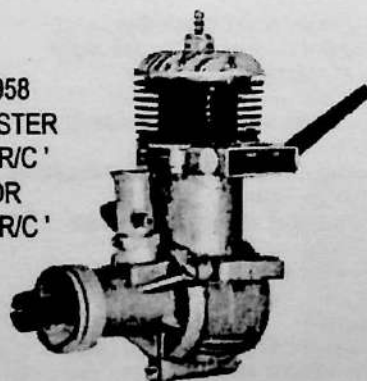


1946
FORSTER
'29'
2 SPEED



1952
FORSTER
'F-29'
OR
'F-31'

1958
FORSTER
'29 R/C'
OR
'35 R/C'

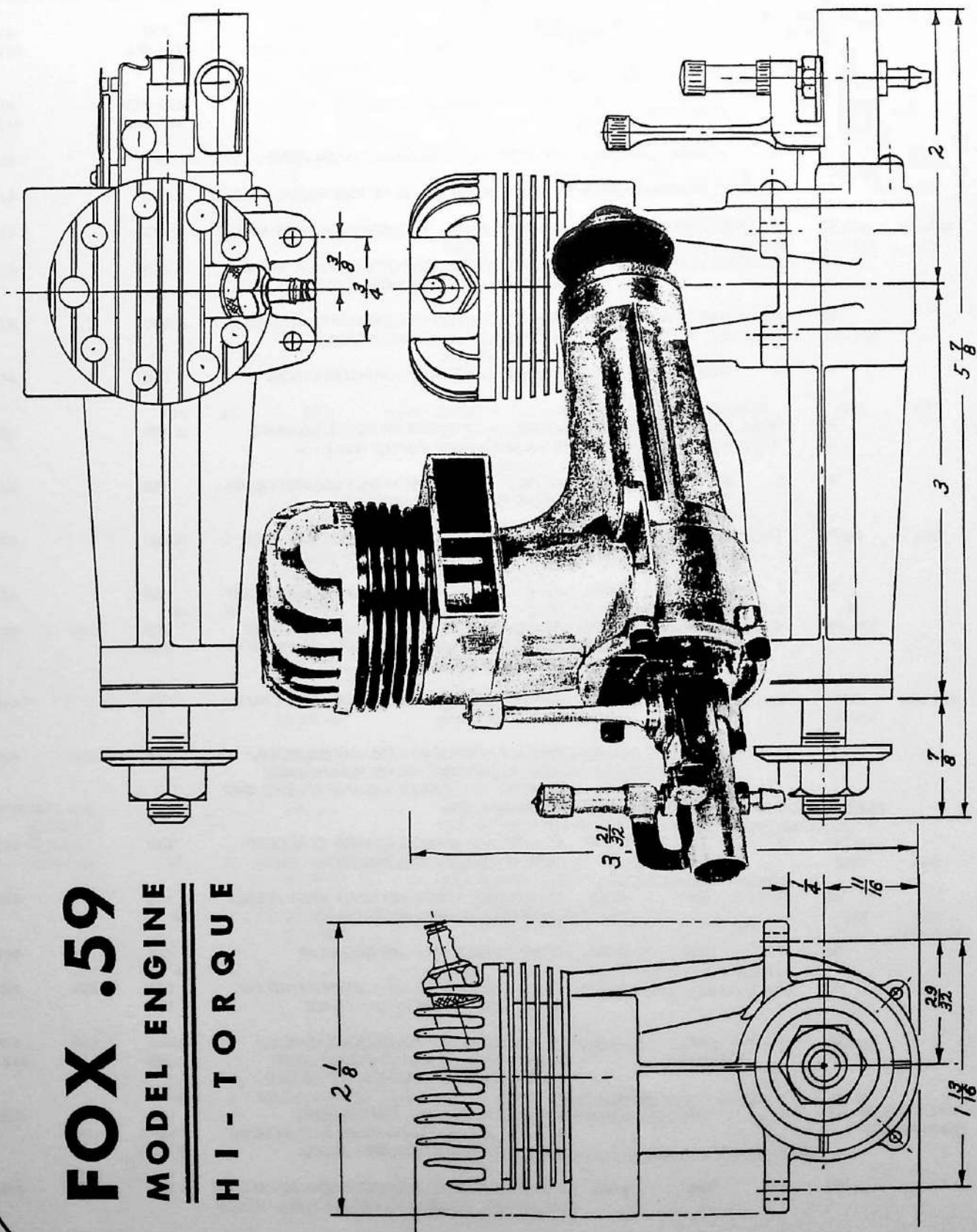


1958
FORSTER
'29 R/C W'
OR
'35 R/C W'



MFR./ENG.NAME FORSTER BROTHERS	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
* NOTE:	'36	I KITS & PLANS	----	KITS OF FINISHED PARTS - CASTINGS & PLANS	RARE		
* *	'36	I "A" AIR OR WATER COOLED	0.997	DIE CAST/ BOLT-ON BYPASS/ CYLINDRICAL METAL TANK/ 4 STYLES - AIR - WATER - BALL OR PLAIN BEARING - ALL OPTIONAL	450 475-W.C		412 412.5
* *	'36	I "C" SEE MODEL "A"	0.884	AS PREV./ SMALLER BORE/ 4 STYLES	275-325 375-W.C		413 413.5
* *	'37	I LITTLE HERCULES	0.997	AS PREV./ CROSS MOUNTED METAL TANK	275		414
* *	'37	I LITTLE HERCULES	0.997	AS PREV./ BEAM MTS. REMOVED/ RADIAL MT. ENG.	275		415
* *	'37	I LITTLE HERCULES	0.997	AS PREV./ RADIAL WITH BEAM MOUNTS ADDED	275		416
* *	'38	I LITTLE HERCULES	0.997	AS PREV./ BEAM MOUNTS ONLY/ NEW METAL TANK/ NO BENT WIRE NEEDLE VALVE AS ADV.	275		417
* *	'39	I MODEL B	0.997	AS PREV./ DIFFERENCES UNKNOWN/ FIRST AD REFERENCE TO "B" MODEL BY FORSTER	250		418
* *	'39	I MODEL C	0.884	AS PREV. LARGE PORTS/ SMALLER 1" BORE	250		419
* *	'39 *	I SUPER B	0.997	AS PREV. B/ THROTTLE INTAKE/ PLAIN OILITE BEARINGS/ LARGE 2-SPEED TIMER	250		420
* *	'39	I SUPER BB	0.997	AS PREV. SUPER B / WITH BALL BEARING CRANK SHAFT/ PLAIN OILITE BEARINGS	250		421
* *	'39	I SUPER C	0.884	DIE CAST/ THROTTLE INTAKE/ DOUBLE ENDED SHAFT/ FLYWHEEL	400		422
* *	'39	I SUPER CW	0.884	AS PREV. SUPER C WITH WATER COOLED JACKET	450		423
* *	'40	I SUPER B	0.997	AS PREV. SUPER B/ REGULAR INTAKE/ PLASTIC TANK/ OILITE PLAIN BEARINGS/ AIR OR WATER COOLED/ THROTTLE ACCESS	265 250	203	424
* *	'40	I SUPER BB	0.997	AS PREV. SUPER B/ WITH BALL BEARING CRANK SHAFT	265		425
* *	'40	I "29"	0.297	DIE CAST ALUMINUM CASE/ LAPPED PISTON/ STEEL ROTARY DISC VALVE/ PLAIN BRONZE BEARING/ 10 CYLINDER FINS AND 15 HEAD FINS/ TO SERIAL #3900	145		426
* *	'41	I "29"	0.297	AS PREVIOUS/ REINFORCED WEBS IN REAR OF CASE/ FROM 3400 TO SERIAL #4000	145		427
* *	'42	I "29"	0.297	AS PREVIOUS/ INTAKE BEVELLED/ STEEL NEEDLE VALVE/ SERIAL FROM #4001 - 5000	145	140	428
* *	'42	I "305"	0.305	AS 29/ MARKED 305/ 200 PRODUCED	175		429
* *	'46	I "29"	0.297	AS PREVIOUS PREWAR 29/ ALUMINUM NUT ON INTAKE/ SERIAL FROM #5000 - 12,400	145 185	255	430
* *	'46	I "99" 2 SPEED R/C	0.997	AS '39 MODEL/ 3/8" PLUG/ LARGE OVAL EXHAUST/ FLARED END VENTURI/ 2-SPEED IGNITION/ AIR OR WATER COOLED (JACKET)	265 250	140	431 431.5
(FORSTER-APPELT) (JOHN APPELT)	'47	I "29"	0.297	AS PREVIOUS PRE-WAR/ STRENGTHENED CASTINGS/ FLARED END VENTURI/ BALL BEARING SHAFT/ SERIAL FROM #12,400 - 33,000	110 199-N 215-NIB	175 139	432
* *	'49	I "305"	0.305	AS POST WAR "29/ BORED-OUT CYLINDER/ METAL TANK/ SERIAL #19,400 - 22,000 & #31,800 -32,900	140	152	433

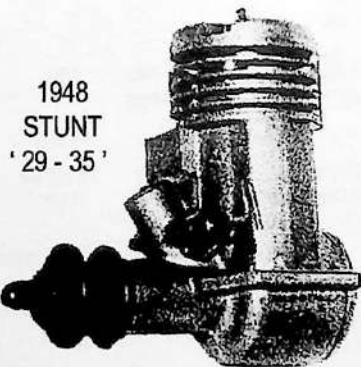
HI-TORQUE



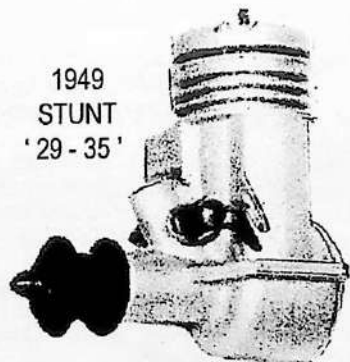
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FORSTER BROTHERS	'50	G	"G-29"	0.297 SIMILAR TO PREVIOUS/ UPSLANTED REAR INTAKE/ LONG PROP DRIVE SPOOL WITH 'SLEEVE' PROP NUT/ BALL BEARING SHAFT	120-NIB 125-NIB	103 127-NIB	434
" "	'50	G	"G-31"	0.305 SIMILAR TO PREVIOUS G-29 EXCEPT UPSLANTED REAR INTAKE/ SPOOL & SLEEVE NUT/ BALL BEARING SHAFT/ BORED OUT CYLINDER/ .31 STAMPED INTO MILLED SPACE ON .29	105		435
" "	'52	G	"F-29"	0.297 SIMILAR TO PREV./ FRONT ROTARY VALVE/ SHORTENED DRIVE/ PROP NUT ON SHAFT/ PLAIN BEARING SHAFT/ RINGED PISTON	150-NIB 175-NIB	101	436
" "	'52	G	"F-31"	0.305 SIMILAR TO PREV. F-29 CASE/ FRONT ROTARY VALVE/ SHORTENED DRIVE/ PROP NUT ON SHAFT/ PLAIN BEARING SHAFT/ BORED OUT/ .31 STAMPED INTO MILLED SPACE ON .29	135-N 165-NIB	165-NIB 113	437
" "	'55	G	"F-35"	0.349 SIMILAR TO PREV. F-31/ FRONT ROTARY VALVE/ SHORTENED DRIVE/ PROP NUT ON SHAFT/ PLAIN BEARING SHAFT/ BORED AND STROKED/ LAPPED PISTON	85 125-NIB		438
" "	'55 *	I/G	"99" 2 SPEED R/C W/C	0.997 AS PREVIOUS/ REPRISED FROM '46 MODEL FOR R/C'ers/ STRENGTHENED CASE/ 1/4" PLUG/ ALSO WATER COOLED VERSION AND GLOW VERSION/ BUILT THROUGH 1963	200	205	439 439.2 439.5
" "	'56	I	"99" 2 SPEED SUPER CW	0.997 SIMILAR TO PREVIOUS 1939 SUPER C DOUBLE-ENDED CRANK SHAFT AND MODIFIED CASE/ WATER COOLED	300	142	440
" "	'58	G	"29R-W" "29 R/C-W"	0.297 AS PREVIOUS/ FRONT ROTARY VALVE/ PROP STUD (NUT)/ 29 R/C HAS EXH. THROTTLE/ 29 R-W HAS WATER JACKET/ 29 R/C-W HAS THROTTLE AND WATER JACKET	40 50-W.C		441 441.5
" "	'58	G	"35R-W" "35 R/C-W"	0.349 AS PREV. 29R/ FRONT ROTARY VALVE/ PROP STUD (NUT)/ 35R-W & 35 R/C-W	40 50-W.C	208-NIB	442 442.5
" NOTE:			ALL MODELS AVAILABLE	R-W & R/C-W & OTHERS INCL. '99' MODELS AVAILABLE FROM RJL IND. THRU YR. 2005			
FOX MFG. CO. (DUKE FOX) CLAUDE C. SLATE CO.	—	—	—	— ALSO MFD. UNDER CLAUDE C. SLATE CO.; FOX ENGINEERING LABORATORY AND ARNOLD AND FOX ENGINEERING CO.			
"	'46	I	FOX59 HI-TORQ. 'D' STUNT	0.599 LAPPED PISTON/ BALL BEARINGS/ LONG CRANKSHAFT/ PLUG OFFSET/ 2 DIFFERENT HEADS	650	666	443
"	'48	I	FOX59 HI-SPEED 'D' STUNT	0.599 AS PREVIOUS/ PISTON RINGS	650	776 440-NIB-R	444
" NOTE:	*	—	—	TOTAL OF BOTH 59 MODELS MFD/ EARLY MODELS HAD 9 HEAD SCREWS/ LATER HAD 7 HEAD SCREWS IN BOSSES/ 1300+			
"	'48	I	FOX49 HI-TORQ. PROTOTYPE	0.499 AS 59 WITH SHORTER STROKE/ LAPPED PISTON/ NONE SEEN	RARE		445
"	'48	I	FOX49 HI-SPEED	0.499 AS 59 WITH SHORTER STROKE PISTON RINGS/ FEW MANUFACTURED NONE SEEN	RARE		446
" NOTE:	*	—	—	TOTAL OF BOTH .49 MODELS MFD. '20' FOR U/C SPEED			

FOX

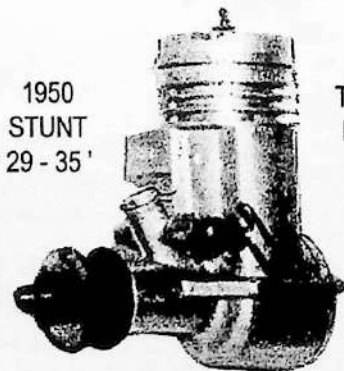
FOX 2 BOLT CRANKCASES



1948
STUNT
'29 - 35'



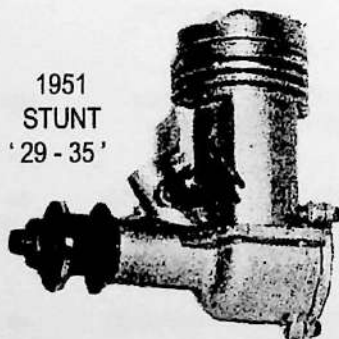
1949
STUNT
'29 - 35'



1950
STUNT
'29 - 35'

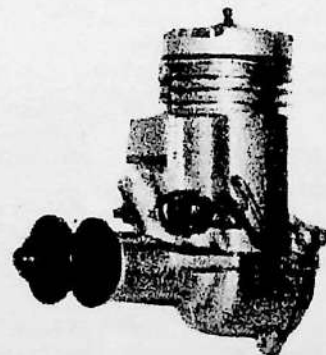
THICK
HEAD

FOX 3 BOLT CRANKCASES



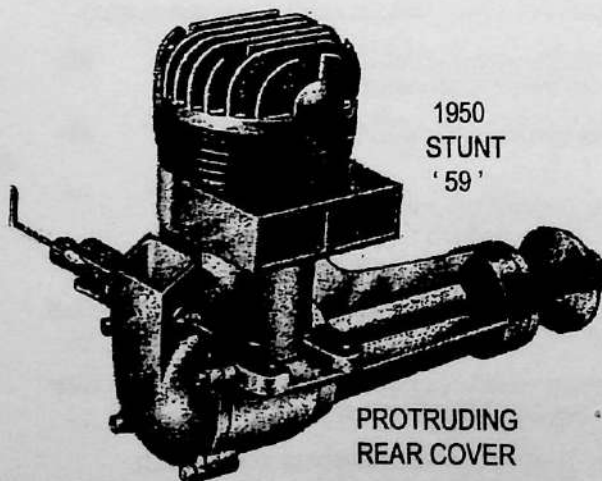
1951
STUNT
'29 - 35'

SANDCAST CASE



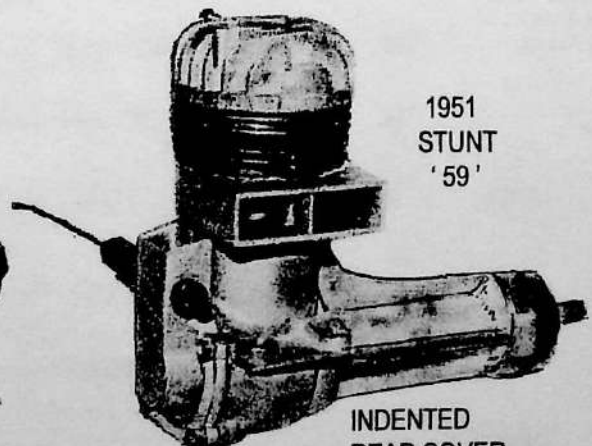
1951
'29R'
RACING
SPECIAL

DIECAST CASE



1950
STUNT
'59'

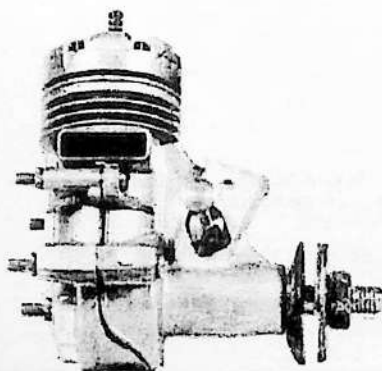
PROTRUDING
REAR COVER



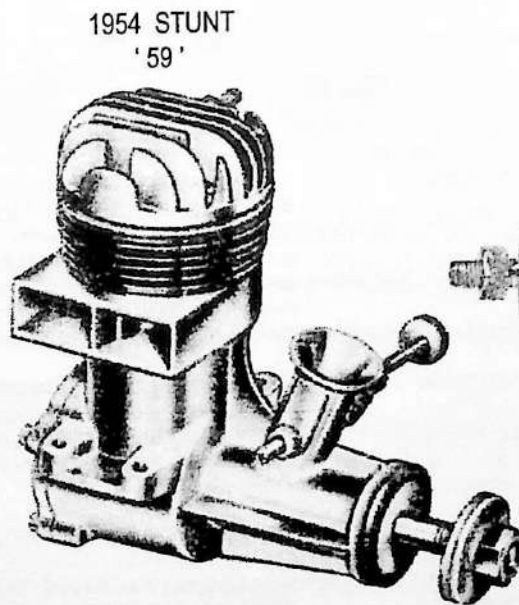
1951
STUNT
'59'

INDENTED
REAR COVER

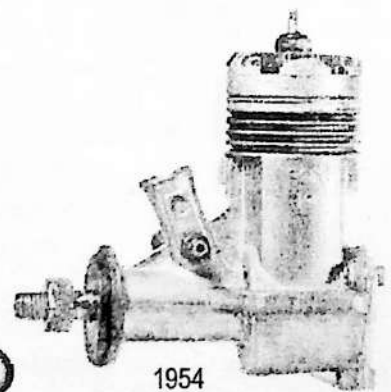
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX ENGINEERING LAB.	'48	G '35" STUNT	0.352	SAND CAST CASE/ 2 BOLT BACKPLATE COVER/ NO MARKINGS ON ENGINE/ CAST CYLINDER FINS UNMACHINED/ 4 BOLT THIN HEAD - SEVERAL VERSIONS/ NO WEB BETWEEN VENTURI & CASE/ BRASS WRIST PIN/ NARROW LIP ON CYLINDER LINER/ INITIALLY USED 'AUSTIN CRAFT' NEEDLE VALVE/ TAPERED DRIVE WASHER ON CRANK (200 - 250 MANUFACTURED)	145		447
.	'49	G '29" STUNT	0.299	AS PREVIOUS/ '29" ON EXHAUST STACK/ 2 BOLT BACKPLATE COVER/ 4 BOLT THIN HEAD/ 35 MFD.	RARE		448
NOTE:	*	—	—	29 & 35's HEADS WERE REPLACED BECAUSE THEY WARPED AND ENGINE BLEW HEAD GASKETS VARIOUS MINOR DIFFERENCES ON EARLY ENGINES. HEADS MFD. FROM MELTED WARTIME RIVETS.			
ARNOLD & FOX	'49 *	G '35" STUNT	0.352	AS PREVIOUS 1ST FOX/ MACHINED CYLINDER AND HEAD FINS/ 2 BOLT BACKPLATE COVER/ 4 BOLT THIN HEAD/ WEB BETWEEN VENTURI & CASE/ STEEL WRIST PIN/ WIDER LIP ON CYLINDER LINER/ CORK GASKETS	135		449
.	'49	G '29" STUNT	0.299	AS PREVIOUS/ MACHINED CYLINDER FINS	135	104	450
.	'50	G '29R" RACING SPECIAL (EARLY BY MOIR)	0.299	AS PREVIOUS/ SAND CAST/ MARKED 29R/ 4 BOLT THICK HEAD/ 2 BOLT BACKPLATE COVER/ CAST CYLINDER FINS UNMACHINED/ LARGER OVAL CRANKSHAFT AND CYLINDER PORTS ... GEORGE MOIR BUILT .29's FOR TEAM RACING ... HE BE- CAME A FACTORY EMPLOYEE AFTER FOX MOVED TO ARKANSAS IN 1955	155		451
.	'50	G 29/35		AS PREVIOUS / 4 BOLT THICK HEADS/ 2 BOLT BACKPLATE COVER/ MANY MINOR VARIATIONS	135		452 452.5
.	'50	G '59" STUNT	0.602	NEW .59/ DIE CAST CASE/ LARGE SQUARE REAR VENTURI CAST INTO PROTRUDING REAR COVER/ LAPPED PISTON/ CHANGED BORE AND STROKE/ OFFSET PLUG IN ORIGINAL 59 HEAD	450	775	453
.	'51	G '59" STUNT	0.602	AS PREVIOUS/ SMALLER REAR DOWNDRAFT VENTURI CAST INTO INDENTED REAR COVER/ TOTAL GLOW 59's MANUFACTURED 1000 - 2000	225	231 188	454
NOTE:	—	—	—	NEW .35 & .29 - 3 BOLT CRANKCASES AND BACKPLATE COVERS START HERE			
.	'51	G '29" STUNT	0.299	AS PREVIOUS/ NEW SAND CAST CASE/ 3 BOLT REAR COVER/ 4 BOLT HEAD	110		455
.	'51	G '29R" RACING SPECIAL	0.299	AS PREVIOUS '29"/ MARKED 29R	155		456
.	'51	G '35" STUNT	0.352	AS PREVIOUS/ NEW SAND CAST CASE/ 3 BOLT REAR COVER/ 4 BOLT HEAD/ BORED OUT CYL.	110	75 90	457
.	'52 *	G '29" STUNT	0.299	NEW DIE CAST 3 BOLT CASE AND 6 BOLT HEAD 29 STAMPED IN RAISED CIRCLE ON BYPASS	90		458
.	'52 *	G '35" STUNT	0.354	NEW DIE CAST 3 BOLT CASE AND 6 BOLT HEAD 35 STAMPED IN RAISED CIRCLE ON BYPASS	50 65	61-NIB 83	459
NOTE:	'52	—	—	FIRST FOX DESIGNED NEEDLE VALVE FOR 29/35's PLUS SPLINED CUT-OUT PROP DRIVE WASHERS			
.	'53	G '19" (SPLIT CASE)	0.198	COMPLEX VERTICALLY SPLIT CRANKCASE/ SQUARE VENTURI/ MFR. ASKED ENGINES BE RE- TURNED/ \$1 FOR EXCHANGE ON NEW .19 ENGINE THIS ENGINE COULD NOT KEEP GASKETS BETWEEN SPLIT CASE/ VERY FEW SOLD - MANY RETURNED	175 225	138 113	460



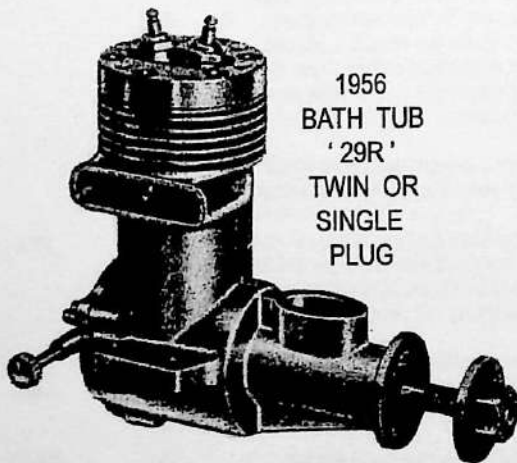
1953
SPLIT CASE
'19'



1954 STUNT
'59'



1954
'19'



1956
BATH TUB
'29R'
TWIN OR
SINGLE
PLUG

FLASH! FOX

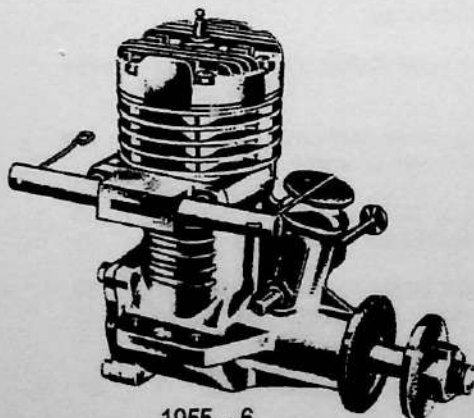
POWERS NEW
SPEED RECORD!

★ JAMES PAYSON

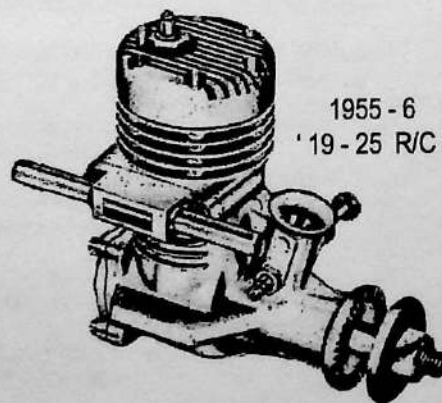
turns 148.09 MPH for New B Record
and First Place at Nationals

★ DALE BIGGS

turns 111.62 MPH to win
Proto Speed Event



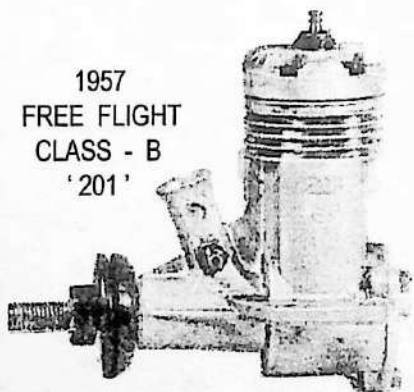
1955 - 6
'29 - 35 R/C'



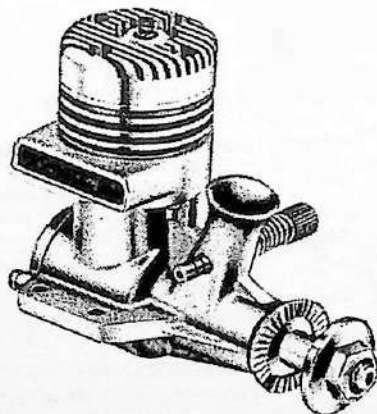
1955 - 6
'19 - 25 R/C'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG.CO.	'53	G	"19" R/C	0.198	AS PREVIOUS WITH SECOND N.V. ABOVE ORIGINAL	175		461
"	* '54	G	(SPLIT CASE) "19"	0.198	CONVENTIONAL DESIGN CASE/ CURVED BAFFLE ON PISTON WITH MATCHING HEAD	75		462
"	'54	G	"19" R/C	0.198	AS PREVIOUS WITH SECOND N.V. ABOVE ORIGINAL	75		463
"	* '54	G	"59" STUNT	0.599	NEW CASE FRONT ROTARY VALVE/ SHORT SHAFT/ OFFSET PLUG IN HEAD SIMILAR TO PREVIOUS '59'/ LAPPED PISTON	105		464
"	'54	G	"29" STUNT	0.299	NEW STYLE FOX LETTERING ON CASE	50		465
"	* '54	G	"35" STUNT	0.354	NEW STYLE FOX LETTERING ON CASE	50	49-NIB 44	466
"	* '54	G	"25"	0.257	BORED-OUT 19/ "25" MARKED ON BYPASS	65		467
FOX MFG.CO. ARKANSAS	'55	—	—	—	FOX MOVED TO ARKANSAS			
"	'55 *	G	"29" STUNT	0.299	AS PREVIOUS/ NEW DIE OF CRANKCASE WITH SMALL WEB ADDED TO LOWER SIDE FOR CRANK- SHAFT SUPPORT/ COMBUSTION CHAMBER NOW TYPICAL FOX WEDGE SHAPE	50	39	468
"	'55 *	G	"35" STUNT	0.354	AS PREVIOUS/ NEW DIE AS IN 29/ COMBUSTION CHAMBER NOW WEDGE SHAPE AS .29	50		469
"	'55	G	19-1 OR 2 SPEED	0.199	NEW CASE .19/ 1 OR 2 N.V.'s/ HIGH INTAKE	40		470
"	'55	G	25-1 OR 2 SPEED	0.257	AS PREVIOUS .19/ 1 OR 2 N.V.'s/ HIGH INTAKE	40		471
"	'55	G	29-1 OR 2 SPEED	0.299	NEW CASE 29 STUNT/ 1 OR 2 N.V.'s/ HIGH INTAKE	45		472
"	'55	G	35-1 OR 2 SPEED	0.352	AS PREV. 29 STUNT/ 1 OR 2 N.V.'s/ HIGH INTAKE	45		473
"	'55	G	59-1 OR 2 SPEED	0.602	TWIN NEEDLE VALVES/ MANY MINOR VARIATIONS THROUGH TO 1973	110		474
"	'55 *	G	ACCESSORY		HI COMPRESSION HEAD FOR FOX .35 REPLACED STANDARD HEAD (REF. AD BY NATIONAL HOBBY DIST.)			475
"	'56	G	"29R" BATHTUB	0.299	HUGE BATHTUB FRONT INTAKE/ TWIN PLUG HEAD WITH FINS/ REAR MOUNTED NEEDLE VALVE	200	158	476
"	NOTE: '56		"29R" BATHTUB		SOLD ORIGINALLY WITH TWIN PLUG HEAD NO FINS/ FOX ADDED FINS & EVENTUALLY RECOM- MENDED RETURNING TWIN PLUG HEAD TO FACTORY FOR SINGLE PLUG HEAD IN RETURN/ ORIGINAL OVERHEATED IN TWIN PLUG VERSION.			
"	'56	G	"35" COMBAT SPECIAL	0.353	DIE CAST CASE/ 4 SCREW REAR COVER/ ROUND INTAKE/ BUSHING BEARINGS/ HOLE IN REAR OF CRANKCASE FOR WRIST PIN REMOVAL/ BLACK HIGH COMPRESSION HEAD	75	98 71	477
"	'56	G	"19"	0.199	AS PREV.19/ SPLINED SHAFT & PROP DRIVER	35		478
"	'56	G	"19" R/C	0.199	SPEED CONTROL VIA EXHAUST THROTTLE	35		479
"	'56	G	"25" R/C	0.256	AS "19"/ BORED OUT	35		480
"	'56	G	"29" R/C	0.299	AS '55 .29 / EXHAUST & INTAKE THROTTLE	40		481
"	'56	G	"35" R/C	0.352	AS PREVIOUS "29" R/C	40		482
"	'57	G	"19"	0.199	WIDE MOUNTING LUGS/ STANDARD PISTON BAFFLE WITH MATCHING HEAD	30		483

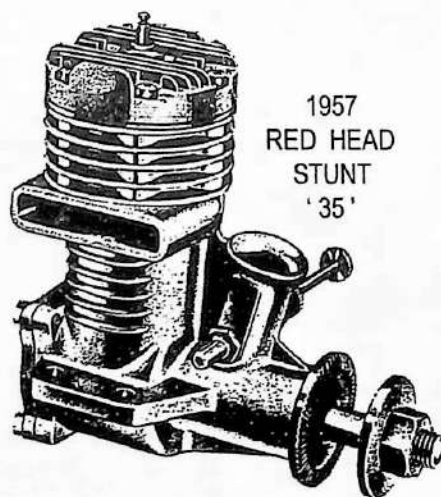
1957
FREE FLIGHT
CLASS - B
'201'



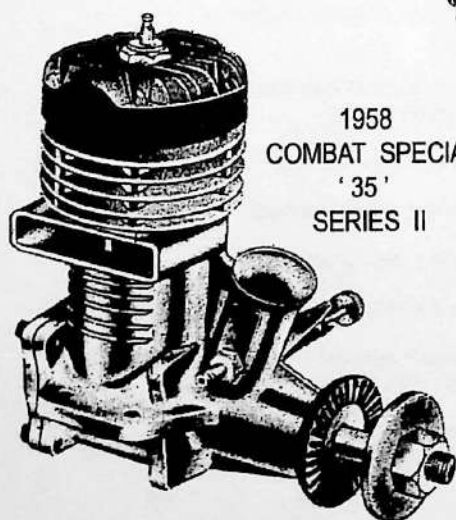
1958
ROCKET
'15'



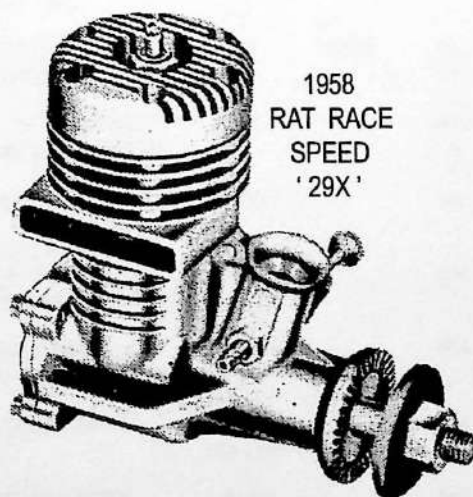
1957
RED HEAD
STUNT
'35'



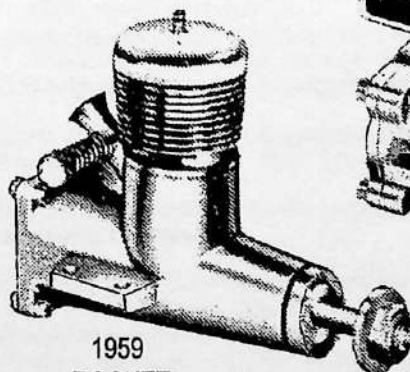
1958
COMBAT SPECIAL
'35'
SERIES II



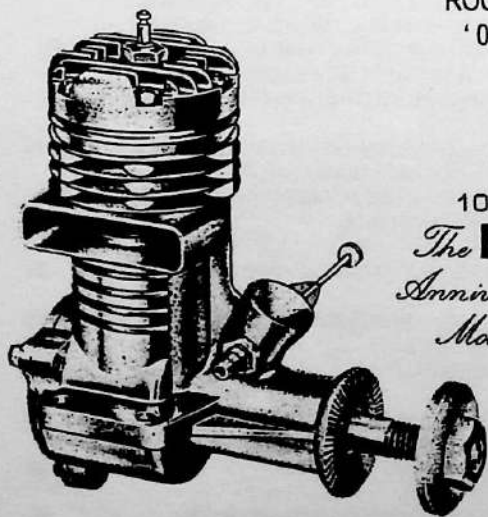
1958
RAT RACE
SPEED
'29X'



1959
ROCKET
'09'



1959
STUNT
'35'



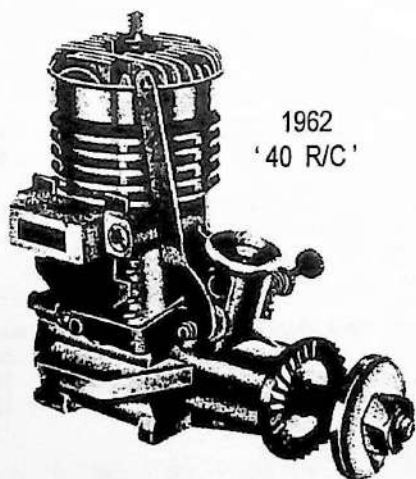
10TH
The **FOX**
Anniversary
Model

1960
COMBAT SPECIAL
'35'
SERIES III



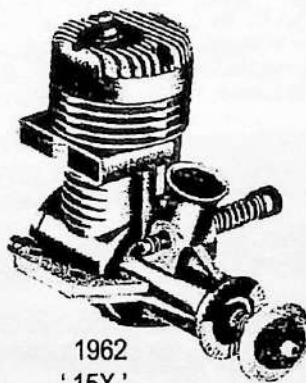
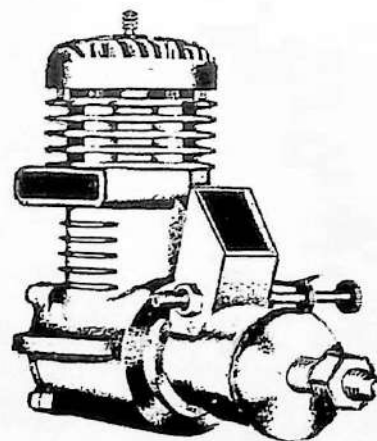
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG.	'57 *	G 201	0.201	AS PREVIOUS 19/ .010 MORE STROKE/ STANDARD PISTON BAFFLE/ ENGINE MFD. FOR CLASS B FREE FLIGHT (APPROX. 500 MFD. PER D. FOX)	100	130	484
*	'57	G "25"	0.256	WIDE MOUNTING LUGS/ AS STANDARD '19"	35	51	485
*	'57	G "35" RED HEAD	0.352	AS PREV. 1955 CASE/ HEAD PAINTED RED	40		486
*	'58	G "35" COMBAT SERIES II	0.352	AS PREV. COMBAT 35/ BLACK PAINTED HEAD/ IMPROVED PORTING	50	63 58	487
*	'58 *	G "35" R/C	0.354	CASE AS PREVIOUS COMBAT 35 II/ HAS ROTARY EXHAUST VALVE ADDED/ MACHINED FIN HEAD WITH GLOW PLUG SET AT REAR/ WORDS FOX ON BYPASS WITH 35 IN CIRCLE	50		488
*	'58	G ROCKET "15"	0.145	NEW FRONT ROTARY VALVE/ SMOOTH CASE	30	61-NIB 35-N	489
*	'58	G "29X" RAT RACE	0.299	RAT-TEAM RACE-SPEED/ HEAD SCREWS GO THRU. CYLINDER FINS/ .010 ALUMINUM GASKET CHANGES TIMING BETWEEN CYLINDER SLEEVE AND CRANKCASE/ MACHINED HEAD FINS	100	125 104	490
*	'58 *	G "35" STUNT	0.354	AS PREVIOUS STUNT 35/ 3 WEBS ON CRANKCASE NOSE/ 35 STAMPED IN RAISED CIRCLE ON BYPASS	40	53-N	491
*	'58 *	G "29" STUNT	0.299	AS PREVIOUS STUNT 29/ 3 WEBS ON CRANKCASE NOSE/ 29 STAMPED IN RAISED CIRCLE ON BYPASS	40		492
*	'58 *	G "59" R/C	0.599	SPEED CONTROL VIA EXHAUST THROTTLE/ ON PREVIOUS SHORT SHAFT 59	105		493
*	'59 *	G "59"	0.599	NEW SHORT SHAFT 59/ SOME WITH BLACK HEAD/ 3 WEBS ON CRANKCASE NOSE/ 59 CAST ON BYPASS	105		494
*	'59	G ROCKET .099	0.098	UPSLOTTED REAR INTAKE (SIDEPORT TYPE)/ GLOW HEAD/ BUILT-IN TANK/ BEAM OR RADIAL MOUNT	25		495
*	'59	G "35" STUNT 10TH ANNIV.	0.352	AS PREVIOUS/ MARKED 10TH ANNIVERSARY MODEL	50 60-LNIB	73	496
*	'59 *	G "29" STUNT 10TH ANNIV.	0.299	AS PREV./ MARKED 10TH ANNIVERSARY MODEL	RARE		497
*	'60	G "59" MARK IV PRE-PRODUCTION	0.602	NEW CASE & HEAD/ 2 BALL BEARING SHAFT/ WEB IN EXHAUST/ ADVERTISED - NONE MANUFACTURED	PROTO		498
*	'60	G "35" COMBAT SPEC.SERIES III	0.352	DIE-CAST SILICON ALUMINUM ALLOY CASE/ REMOVEABLE FRONT AND REAR COVERS/ 12-1 COMPRESSION RATIO/ NEW BALANCED SHAFT/ 'SWIRL-QUENCHED' HEAD CHAMBER/ TWIN NEEDLE BEARINGS ON SHAFT	60		499
*	'60	— KART MOTOR	11.500	INTRODUCED FOR KART RACING	RARE		500
*	'60	G RED HEAD ROCKET .35	0.352	AS PREV. RED HEAD .35/ 'ROCKET' ON BY-PASS	40	57 86	501
*	'60 *	G "29X"	0.299	CRANKCASE SAME AS '60 - ROCKET 35/ ROCKET EMBLEM ON CASE/ FRONT OF SHAFT HOUSING MACHINED OFF/ FRONT & REAR NEEDLE BRGS.	100		502
*	'61/62	G HUSTLER R/C (2 MODELS)	0.101	TRIAL MARKETING BY 'FAKE' MAIL ORDER COMPANY/ NO FOX NAME OR GUARANTEE/ R/C CONTROL BY EXHAUST BAFFLE/ SCREW-IN OR 2 BOLT BACKPLATE ?	25		503
*	'61/62	G HUSTLER	0.101	AS R/C MODEL - NO BAFFLE/ SEE 1/2A BOOK	20		504
*	'61	G KIT .35	0.352	AS PREV. ROCKET WITHOUT RED HEAD OR ROCKET ON BY-PASS/ SOLD BY BERKELY IN BAG FOR \$6.95	35		505

FOX



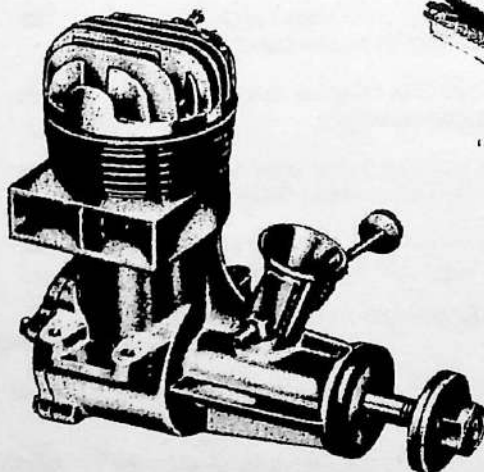
1962
'40 R/C'

1962
GOLDEN
RAT RACE
'40 B/B'

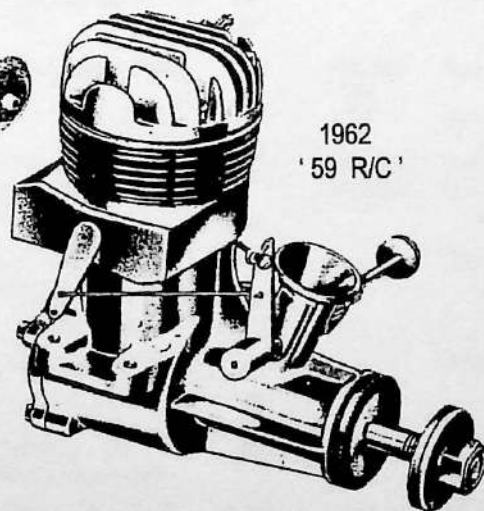


1962
'15X'

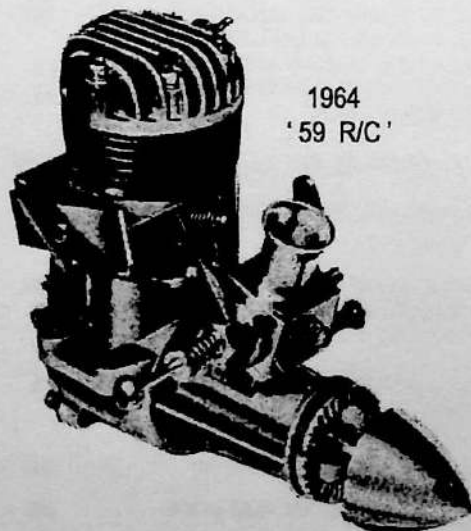
1962
STUNT
'54'



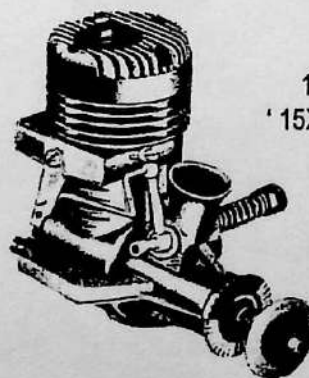
1962
'59 R/C'



1964
'59 R/C'

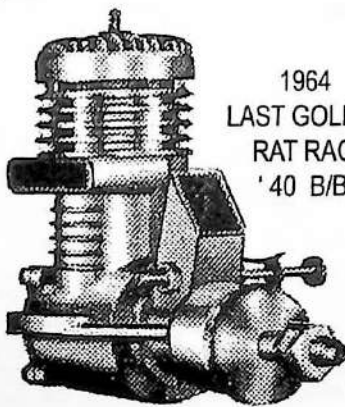


1962
'15X R/C'

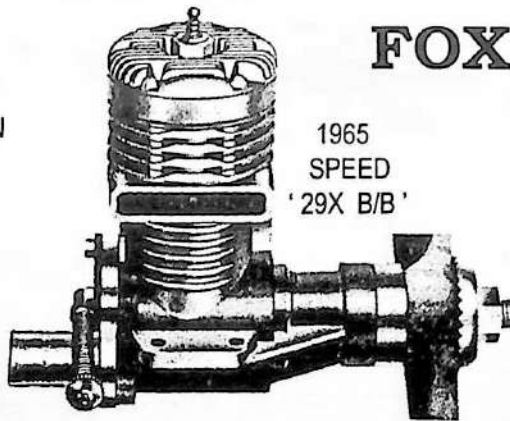


MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG. CO	'61	G	'35 X' BLUE RIBBON	0.352	'BLUE-RIBBON' LOW PRICE MODEL/ CASE CHANGES AS LATER GOLDEN B/B 40 BUT NO GOLD COLOR/ SQUARE INTAKE/ NEEDLE BEARINGS FRONT & REAR	75	78 68	506
.	'62 *	G	'40" R/C	0.399	ROCKET & COMBAT 35 PARTS/ COUPLED INTAKE EXHAUST/ IMPROVED CARBURETOR WITH LONG ARM/ LAPPED PISTON/ BRONZE PLAIN BEARING	50	58 31	507
.	'62	G	FOX '10" R/C	0.101	SAME AS 'HUSTLER' WITH FOX NAME ON CASE EXHAUST BAFFLE R/C CONTROL	40	48 44	508
.	'62	G	FOX '10"	0.101	AS PREVIOUS/ NO EXHAUST BAFFLE	30	37 31	509
.	'62	G	'15 X"	0.145	SUPERCEDES ROCKET 15/ TILTED PLUG/ 'FINS' AND BUMPS NEW CASE/ LOW PRICED MODEL	30	46 34	510
.	'62	G	'15 XX"	0.145	COMP. VERSION OF 15X/ HEAD GASKET GONE LIGHTENED PISTON & MATCHING SLEEVE/ LOWERED HEAD/ 'XX' STAMPED ON LUG OR BYPASS/ RED ANODIZED BARSTOCK HEAD	50	105	511
.	'62	G	'15 XXX"	0.145	SPEC. FACTORY MOD. RACE VERSION/ FEW MFD. FOR COMPETITION FLYERS/ 'XXX' ON LUG OR BYPASS/ RED ANODIZED BAR STOCK HEAD	75		512
.	'62	G	'15 X" R/C	0.145	AS 15X/ COUPLED ROTATING INTAKE BUTTERFLY VALVE WITH EXHAUST WIPE BAFFLE	35		513
.	'62	G	'29 X"	0.299	INTERNAL MODS. 1958 - 29X/ 2 NEEDLE BEARINGS	80	168-NIB 80	514
.	'62	G	'59" STUNT	0.585	AS '62 R/C/ NEW CASE/ NO R/C	80	93	515
.	'62	G	'40BB" RAT RACE (GOLDEN)	0.397	GOLD COLORED/ 35X CASE/ RAT RACE MODEL/ BALL BEARING MAIN AND NEEDLE BEARING FRONT END/ THICK LIP ON LINER	125	263-NIB 150-NIB	516
.	'62 *	G	'59" R/C	0.585	AS PREV. 59 STUNT WITH COUPLED WIPE/ BAFFLE EXHAUST AND BUTTERFLY INTAKE (LATER MODEL HAS CARBURETOR CHANGE)	80		517
.	'62	G	'19" R/C	0.199	AS 1956/57 .19/ WITH COUPLED EXHAUST WIPE BAFFLE AND BUTTERFLY INTAKE	35		518
.	'62 *	G	'35X" BLUE RIBBON	0.352	AS PREV. 35X/ NEEDLE BEARINGS/ ALSO AS GOLDEN B/B 40 BUT NO COLOR	65		519
.	'63	G	'35" STUNT 15TH ANNIV.	0.352	AS PREVIOUS 10TH ANNIVERSARY MODEL/ GOLD COLORED CASE	60 50-N	78	520
.	'63 *	G	'35 X"	0.352	SIMILAR TO '62 BLUE RIBBON 35X/ WEBS ADDED TO CRANKCASE NOSE/ ONLY ONE REAR NEEDLE BRG./ FOX WITH RAISED 35 IN CIRCLE ON BYPASS	65		521
.	'63 *	G	'40" RAT RACE (GOLDEN)	0.399	BASED ON '62 BLUE RIBBON .35/ CRANKCASE HAS LARGE SQUARE CUT VENTURI AND NO WEBS ON NOSE/ REAR SHAFT BRG. IS BALL BRG. WITH FRONT NEEDLE BRG./ HAS BLUE BACKGROUND STICKER WITH 'FOX 40BB RAT RACE' COVERING RAISED FOX AND 35 IN CIRCLE BELOW IT/ HEAD SAME AS '62 MODEL WITH STRAIGHT PLUG CENTERED	105		522
.	'64	G	'36 X"	0.359	'65 MODEL/ ANGLED PLUG/ WIDER EXHAUST INCREASED CRANK THROW/ PORTED FOR HI-NITRO (FOX 'BLAST')/ NEEDLE BEARINGS	85	188-NIB 110	523
.	'64	G	'59" R/C	0.585	AS 1962 .59 R/C/ '3-JET' METERED CARBURETOR THROTTLE-COUPLED EXHAUST BAFFLE/ ALUM- INUM PISTON AND RINGS/ PLAIN BEARING	80 55	100 191-NIB	524

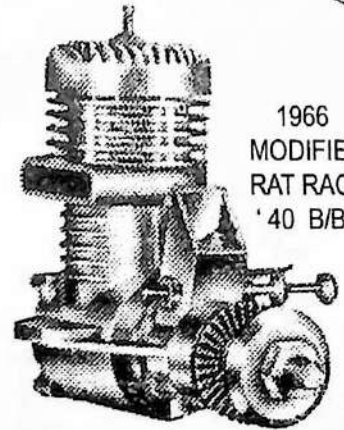
FOX



1964
LAST GOLDEN
RAT RACE
'40 B/B'

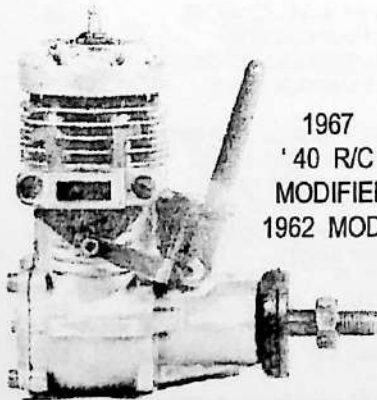


1965
SPEED
'29X B/B'

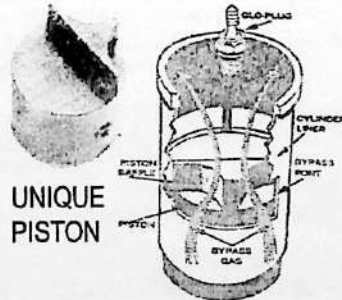


1966
MODIFIED
RAT RACE
'40 B/B'

LARGER SHAFT



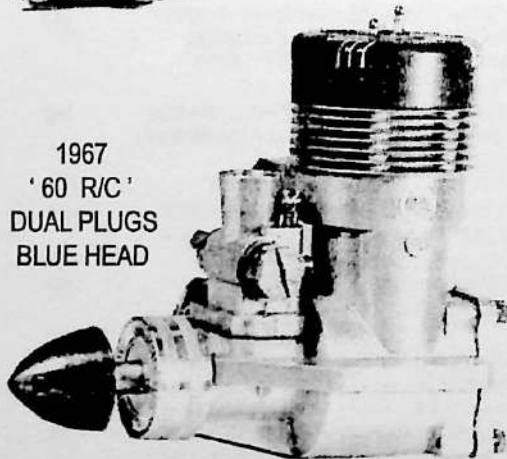
1967
'40 R/C'
MODIFIED
1962 MODEL



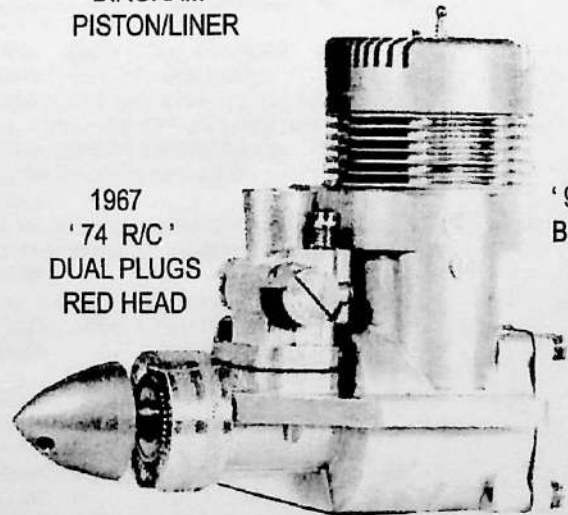
UNIQUE
PISTON

DIAGRAM
PISTON/LINER

NEW PISTON AND HEAD
SPLITS INCOMING FUEL
INTO TWO STREAMS TO
DEFLECT FUEL TO EITHER
SIDE OF GLOW PLUG

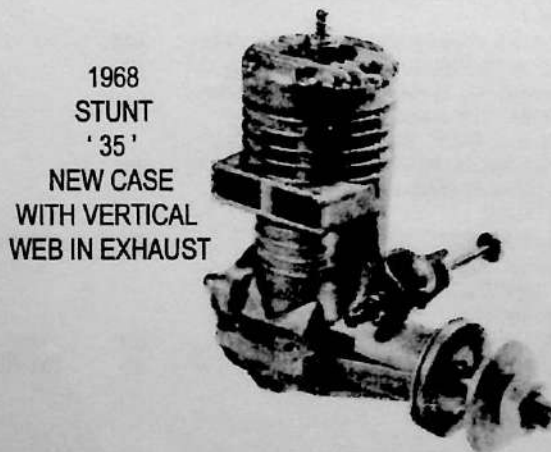


1967
'60 R/C'
DUAL PLUGS
BLUE HEAD

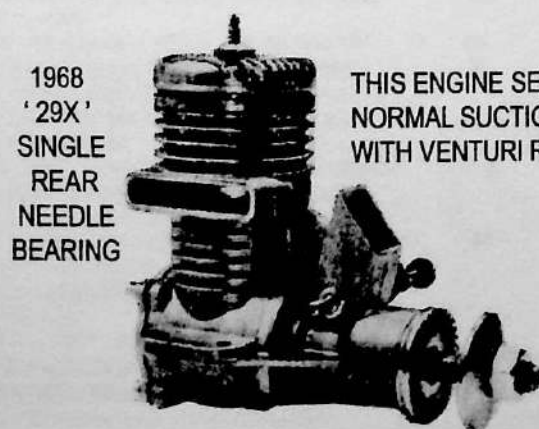


1967
'74 R/C'
DUAL PLUGS
RED HEAD

1969
'90 R/C'
BUILT IN
THIS
CASE



1968
STUNT
'35'
NEW CASE
WITH VERTICAL
WEB IN EXHAUST

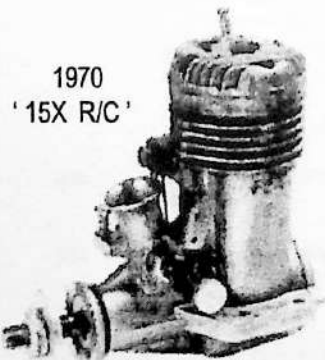


1968
'29X'
SINGLE
REAR
NEEDLE
BEARING

THIS ENGINE SET UP FOR
NORMAL SUCTION FEED
WITH VENTURI RESTRICTOR

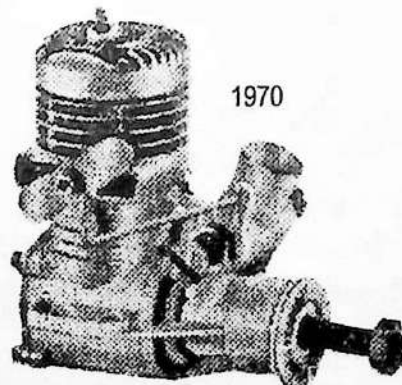
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG. CO	'64	G '15" R/C	0.145	AS PREV. 15 R/C/ '3-JET' METERED CARBURETOR THROTTLE-COUPLED EXHAUST BAFFLE	30		525
"	'64 *	G '40BB' RAT RACE (GOLDEN)	0.397	AS PREV. 40 BB/ LAST OF THE GOLD COLOR/ SPECIAL FACTORY RAT RACE MODEL- HIGH COST	100	93	526
"	'65	G '29 X' BB SPEED	0.299	29X CASE-MOD. FOR 3/8" REAR INDUCTION/ MACHINED REAR COVER WITH LARGE STUB INTAKE/ HARDENED STEEL DISC. VALVE/ TWO BALL BEARINGS/ EXTRA WIDE EXHAUST	100		527
"	'65 *	G '36 X' BLUE RIBBON	0.352	AS PREVIOUS 35X WITH ANGLED PLUG/ SINGLE BEARING/ WEBS ON CRANK HOUSING	55	105	528
"	'65	G '36 X' BB	0.359	CUSTOM VERSION OF 36X/EXTRA HOP-UP MODS. FOR COMBAT/ 2 NEEDLE BEARINGS/ STRGT. PLUG	95	120	529
"	'65	G '29 X'	0.299	AS '62 - 29X/ NEEDLE BEARINGS/ CENTER EXHAUST SPACER/ LARGER BOSS IN BACKPLATE/ SHAFT AND CASE STAMPED .29	100		530
"	NOTE:	'66 — — — — —	—	ALMOST ALL FOX R/C ENGINES FROM THIS POINT ON WERE AVAILABLE FOR U-CONTROL OR FREE FLIGHT WITHOUT THE R/C CARBURETORS.			
"	'66	G '40BB' RAT RACE MOD. VERSION	0.397	AS PREV. '64/ LARGER 19/32" SHAFT/ ADDED WRIST PIN KEEPERS/ MODIFIED TIMING	100		531
"	'66	G '60" R/C	0.605	NEW DESIGN/ DUAL PLUGS - SHORT AND LONG/ DUAL BALL BEARINGS/ DUAL NEEDLE BEARINGS ON ROD/ NITRIDED STEEL LINER/ CAST ALUMINUM PISTON & 2 RINGS/ FOX CARB/ FACTORY RUN-IN OF 1 HOUR/ MUFFLER OPTIONAL			532
"	'67	G '40" R/C MOD. '62	0.399	REPRISED '62 - 40 RC/ ONLY HEAD CHANGE; UNORTHODOX PISTON CROWN; BAFFLE IS HIGHER THAN PREVIOUS & MACHINED ON TRANSFER SIDE TO SPLIT INCOMING GAS INTO TWO STREAMS; NORMAL FOX WEDGE PATTERN MODIFIED			533
"	'67	G '60" R/C BLUE HEAD	0.605	AS PREV/ ANODIZED BLUE HD/ IMPROVED CYL. PORTING/ DUAL GLOW PLUGS - SHORT & LONG		122-N	534
"	'67	G '74" R/C RED HEAD	0.736	SIMILAR TO 60 RC/ LARGER AND HEAVIER ANODIZED RED HEAD/ DUAL GLOW PLUGS - SHORT AND LONG			535
"	'68	G '29X'	0.299	AS PREV. '65 - 29X/ FOR OPERATION ON NORMAL SUCTION FEED WITH VENTURI RESTRICTOR/ REAR SINGLE NEEDLE BEARING/ PISTON & CYLINDER LINER SAME AS 29X-BB/ MUCH MORE EXPENSIVE		138	536
"	'68	G '35" STUNT	0.352	AS PREVIOUS 35 STUNT/ ONLY ADDED VERTICAL WEB IN EXHAUST	45		537
"	'69	G '90" R/C	0.899	BUILT IN 74 RC CASE/ APPEARANCE ALMOST SAME/ UNBLISHED ALUM CON ROD/ PROMOTED TO BOAT USERS AS 15cc ('69 FOX CATALOG)			538
"	'70	G '36X' BB	0.359	AS PREV./ SUPER PERFORMANCE MODIFICATIONS/ NO APPARENT EXTERNAL CHANGES/ CRANK PORT REAMED & MILLED/ HONED PISTON/ CASE MILLED TO RELIEVE EXHAUST PORT/ HEAD MILLED FOR HIGHER COMPRESSION & TRUE GASKET SURFACE / EACH MOTOR RUN-IN AT FACTORY BEFORE SHIPPING	175	234	539
"	'70	G '15X'	0.148	SIMILAR TO '62 - 15X/ FOX OVER 15 ON BYPASS/ LATER IN YEAR CASE CHANGED TO PROVIDE CASE WITH VERTICAL MUFFLER ATTACHMENTS			540

FOX



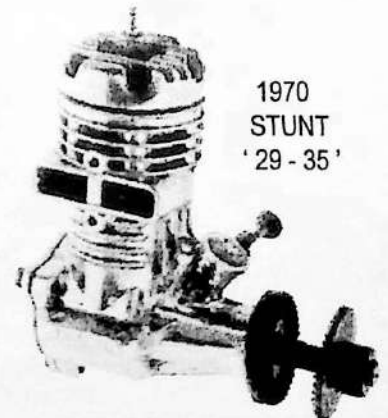
1970
'15X R/C'

NOTE HEAD WITH
TILTED PLUG



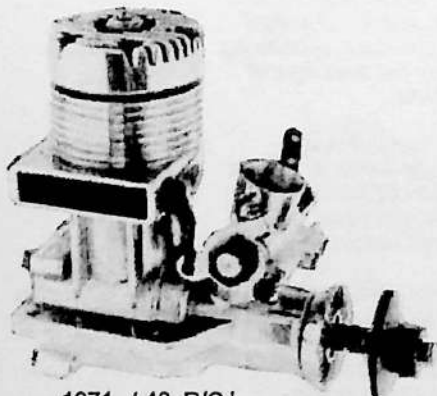
1970

'29X - 29X R/C - 36X R/C'

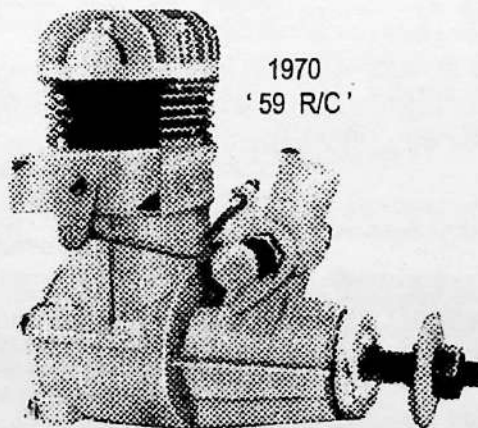


1970
STUNT
'29 - 35'

ADDED EXHAUST LUGS
FOR MUFFLER

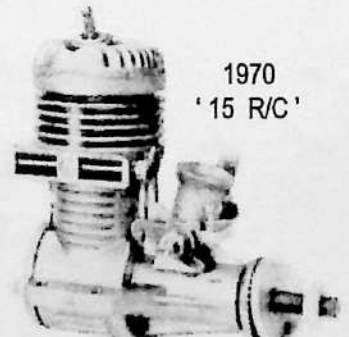


1971 '40 R/C'



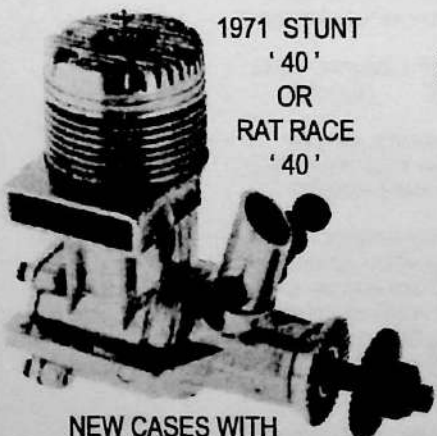
1970
'59 R/C'

1970 '59' ORIGINALLY
FOR U/C AEROBATICS



1970
'15 R/C'

NEW FINNED
CRANKCASE



1971 STUNT
'40'
OR
RAT RACE
'40'

NEW CASES WITH
PLAIN BEARING OR
BALL BEARINGS



UNAVAILABLE
UNTIL 1973

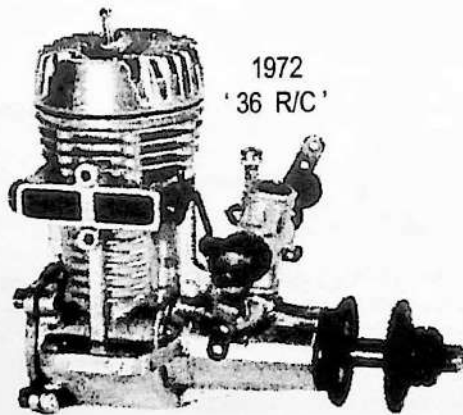
1972
'19 R/C'
AND
'25 R/C'



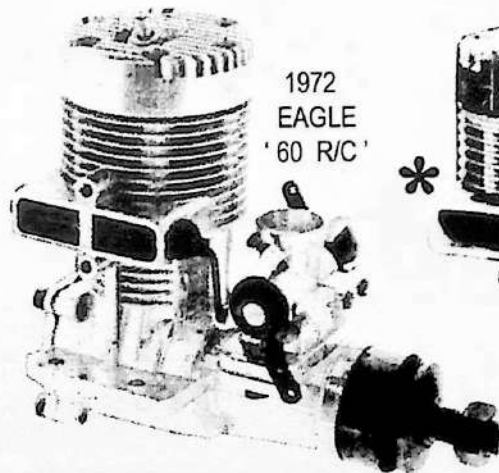
NEW CASE
1972
'29 R/C'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG. CO	'70	G	*15X R/C	0.148	SIMILAR TO '62 - 15 R/C WITH EXHAUST WIPE BAFFLE REPLACED BY ROTARY EXHAUST VALVE/ HAS A 40 THOU. HEAD SPACER/ TILT PLUG		38	541
"	'70	G	*29X	0.299	AS PREV. '68 - 29X/ EXCEPT VERTICAL WEB IN EXHAUST/ BULGE BYPASS HAS FOX OVER 29 STAMPED IN CIRCLE BELOW		110	542
"	'70	G	*29X R/C	0.299	AS PREV '68 - 29X/ ONE PIECE CRANKCASE/ LINER WITH LAPPED MEEHANITE PISTON/ TRIPLE JET FULL SUCTION FOX CARB/ BAFFLE EXHAUST VALVE CONNECTED TO CARB/ NEEDLE MAIN BRG		85	543
"	'70	G	*36X R/C	0.359	SIMILAR TO PREV 29X RC/ LARGER BORE & STROKE			544
"	'70	G	*35 STUNT	0.352	AS PREVIOUS 1968 - 35 STUNT/ ONLY ADDED MTG LUGS FOR VERTICAL MUFFLER ATTACHMENTS/ IN 1972 THESE LUGS WERE TAPPED		45	545
"	'70	G	*29 STUNT	0.299	AS PREVIOUS 1959 - 29 STUNT/ ONLY ADDED MTG. LUGS FOR VERTICAL MUFFLER ATTACHMENTS			546
"	'70	G	*59 R/C	0.585	IMPROVED '64 59 RC/ NEW FOX 2 JET CARBURETOR COUPLED TO EXHAUST BAFFLE/ MORE RIGID CASE/ THICKER HEAD/ STRONGER CON ROD	55		547
"	'70	G	*59 STUNT	0.585	SAME BASIC CASE AS RC/ THIS ENGINE ORIGINALLY DESIGNED FOR UC AEROBATICS/ SMALL INTAKE INSERT/ RUNS ON LOW NITRO FUELS	50		548
"	'70	G	*15 R/C	0.148	IMPROVED '69 15 RC/ 2 JET FOX CARB CONNECTED TO ROTARY EXH VALVE/ NEW FINNED CRANKCASE			549
"	'71	G	40 R/C	0.399	LOW PRICE MODEL WITH DIFFERENT HEAVY CASE FROM USUAL FOX DESIGNS/ MACHINED CYLINDER FINS/ STRAP-ON CYLINDER TYPE MUFFLER/ FOX 2 JET CARB AND ROTARY EXHAUST BAFFLE/ PLAIN BEARING MAIN SHAFT/ LONG MOUNTING LUGS		53	550
"	'71	G	*40 U/C STUNT	0.397	NEW CASE/ 9/16" DIA. PLAIN MAIN BEARING/ LONG MTG LUGS/ LAPPED MEEHANITE PISTON	50		551
"	'71	G	*40 U/C RAT RACE	0.397	AS PREVIOUS WITH NEEDLE BEARING/ PROMOTED FOR RAT RACING/ LONG MOUNTING LUGS		56	552
NOTE:	—	—	—	—	MOST FOX R/C ENGINES ARE NOW AVAILABLE FOR C/L OR F/F WITHOUT R/C CARBURETOR			
"	'72	G	*15 R/C	0.148	LOW PRICE MODEL WITH NEW CASE/ WITH OR WITHOUT RC FOX 2 JET CARB & ROTARY EXHAUST BAFFLE/ VERTICAL MUFFLER ATTACHMENT/ PLAIN BEARING MAIN SHAFT			553
"	'72	G	*19 R/C	0.189	LOW PRICE MODEL WITH NEW CASE/ WITH OR WITHOUT RC FOX 2 JET CARB & ROTARY EXHAUST BAFFLE/ VERTICAL INTAKE STACK BOLT-ON TO FLANGE/ VERTICAL MUFFLER ATTACHMENT/ PLAIN BEARING MAIN SHAFT/ UNAVAILABLE UNTIL 1973 (PER E.C.J.)		34	554
"	'72	G	*25 R/C	0.247	LOW PRICE MODEL WITH CASE SAME AS .19 RC ABOVE/ LONGER STROKE/ EXTRA CYLINDER FIN			555
"	'72	G	*29 R/C	0.287	LOW PRICE MODEL WITH NEW CASE/ LARGER CRANKSHAFT/ FITTED WITH OR WITHOUT FOX 2 JET CARB & ROTARY EXHAUST BAFFLE/ VERTICAL MUFFLER ATTACHMENT/ U-CONTROL MODEL HAS CAST IN INTAKE AND N.V. ASSY/ PLAIN BEARING MAIN SHAFT/ HIGH HEAD FINS		29-C/L 35	556

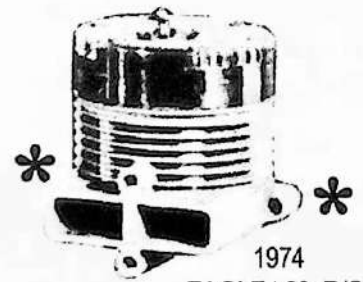
FOX



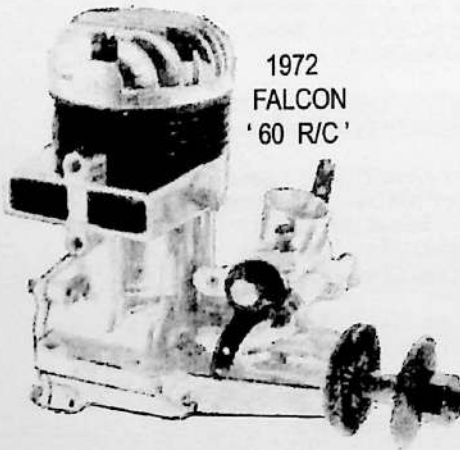
1972
'36 R/C'



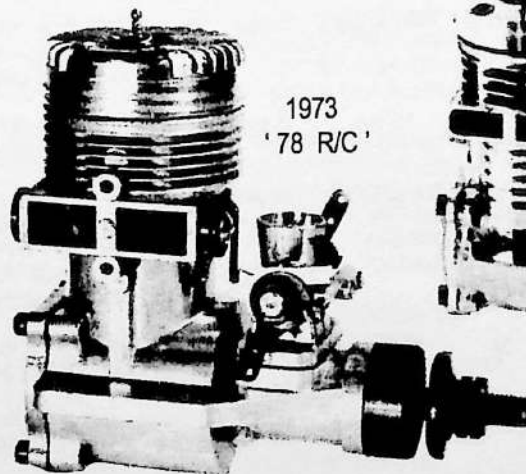
1972
EAGLE
'60 R/C'



1974
EAGLE '60 R/C'
NEW CASE WITH
ADDED MUFFLER
EARS EACH SIDE



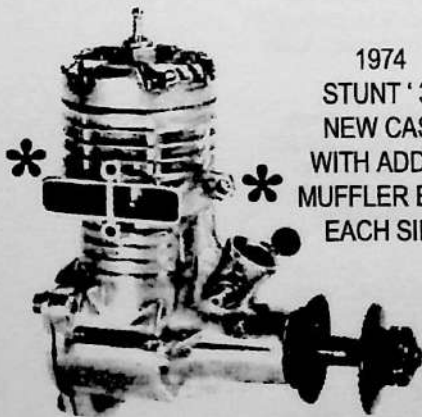
1972
FALCON
'60 R/C'



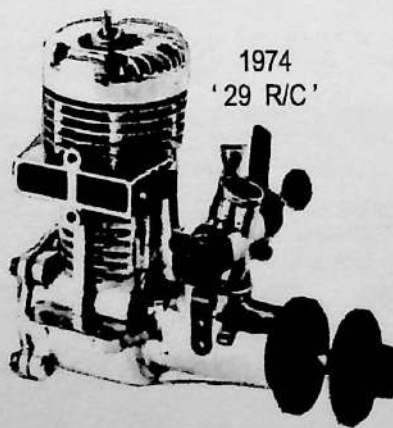
1973
'78 R/C'



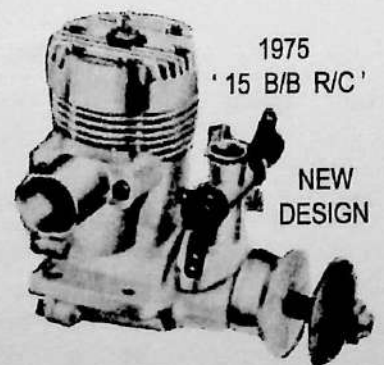
1974
COMBAT
SPECIAL
'36'
MK II



1974
STUNT '35'
NEW CASE
WITH ADDED
MUFFLER EARS
EACH SIDE



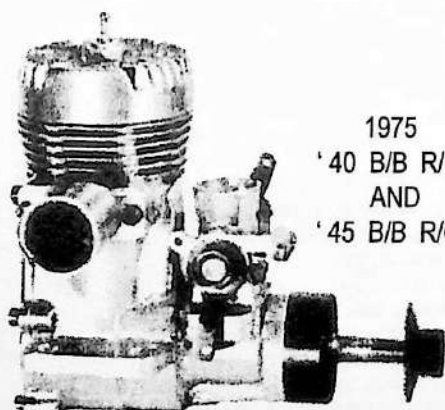
1974
'29 R/C'



1975
'15 B/B R/C'
NEW
DESIGN

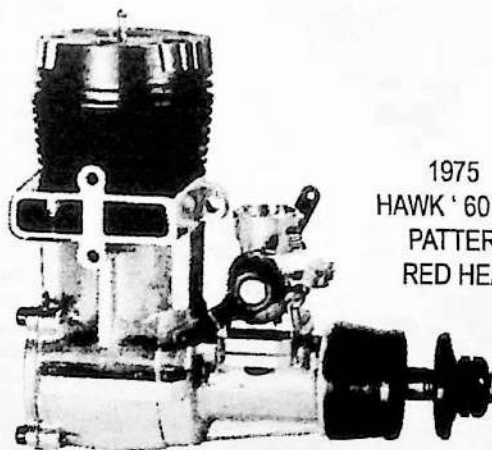
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG. CO	'72	G "36" R/C	0.359	LOW PRICE MODEL WITH NEW CASE/ LARGE CRANKSHAFT/ FITTED WITH OR WITHOUT FOX 2 JET CARB & ROTARY EXHAUST BAFFLE/ VERTICAL MUFFLER ATTACHMENT/ PLAIN BEARING MAIN SHAFT/ U-CONTROL VERSION EVOLVED FROM 36X BB COMBAT SPECIAL WITH NEW SLEEVE BEARING CRANKCASE FOR SLOW COMBAT/ EASILY CONVERTED TO SUPER COMBAT ENGINE/ HIGH HEAD FINS/ OPTIONAL PATTERN OR RACING CARBURETOR	45-N		557
"	'72	G "78" R/C RED HEAD	0.785	LARGE FOX EVOLVED FROM EARLY FOX 74/ DUAL GLOW PLUG HEAD/ FOX 2 JET CARB/ NO SPECIAL MUFFLER MOUNTING/ ANODIZED RED HEAD/ UNBUSHED ALUMINUM ROD	70-NIB		558
"	'72	G EAGLE "60" R/C (FIRST)	0.604	LOWER PRICED MODEL WITH NEW CASE AND VERTICAL MUFFLER ATTACHMENT/ SINGLE PLUG HEAD/ NEW EAGLE 2 JET CARB WITH THROTTLE ARMS EACH SIDE CONNECTED TO ROTARY EXH. BAFFLE/ SIX BOLT MOUNTING HOLE PATTERN/ PLAIN BEARING MAIN SHAFT/ U-CONTROL HAS STANDARD BOLT-ON VENTURI WITH N.V. ASSY./ U.S. FLAG ON CRANKCASE BYPASS		124-N	559
"	'72	G FALCON "60" R/C	0.585	LOWEST PRICE MODEL/ SIMILAR TO '64 - .60/ NO EXHAUST BAFFLE/ USED VERTICALLY ATTACHED MUFFLER FOR 'BACK PRESSURE' IN IDLE/ DUAL RING PISTON/ FOX 2 JET CARB/ LIGHTEST WEIGHT 60/ U-CONTROL HAS STD. BOLT-ON VENTURI WITH NEEDLE VALVE ASSY.	50-NIB	65	560
"	'73	G "78" R/C	0.785	IMPROVED '72 -.78 RC/ SINGLE PLUG HEAD/ NEW EAGLE 2 JET CARB WITH THROTTLE ARMS EACH SIDE/ VERTICAL MUFFLER ATTACHMENT/ NEW PORTING FOR PROPS USED ON '60's/ CON ROD HAS CAST BRONZE BRG. LOWER END/ U-CONTROL HAS STD. BOLT-ON VENTURI WITH N.V. ASSEMBLY		72	561
"	'74	G COMBAT "36" SPECIAL MK II	0.359	REVISED COMBAT SPECIAL VERY SHORT FRONT END/ NO FIN HEAD/ DUAL BALL BEARINGS/ ADVERTISED IT WOULD 'TAKE ALL THE NITRO YOU CAN FEED IT' / NOT A MOTOR FOR BEGINNERS		139	562
"	'74	G EAGLE II "60" R/C	0.604	AS '72 EAGLE 60/ NEW CASE WITH TWO (2) EARS ON BYPASS SIDE FOR ADDITIONAL MUFFLER MOUNT ALLOWING ANOTHER TYPE OF MUFFLER TO BE REMOVED WITHOUT REMOVING ENGINE FROM AIRCRAFT/ VERTICAL MOUNTING FOR FOX MUFFLER STILL ON EXHAUST SIDE/ CHANGED FROM PLAIN BEARING TO DUAL BALL BEARINGS ON MAIN SHAFT/ SOME MODELS IN EARLY PROD. HAD THICKER HEAD FINS/ TUMBLED PARTS	75-NIB		563
"	'74	G "35" STUNT	0.352	SIMILAR TO PREV/ REBUILT CRANKCASE DIE TO ACCEPT HORIZONTAL MUFFLER ATTACHMENT WITH EARS AT SIDES OF EXHAUST		45-NIB	564
"	'74	G "29" R/C	0.299	AS PREV./ NEW AND EASIER TO ADJUST 2 JET CARB ADDED WITH ROTARY EXHAUST BAFFLE/ U-C MODEL HAS CAST-IN INTAKE & N.V. ASSEMBLY/ PLAIN BEARING MAIN SHAFT	43-NIB		564
"	'75	G "15BB" R/C	0.15	NEW FOX 15BB/ UNUSUAL RIGID STRUCTURE/ FLANGED TYPE CARB ALLOWS VARIED TYPES/ EXTREMELY LARGE MAIN SHAFT (.450") / REAR USES UNIQUE BALL BEARING WITH CAST BRONZE BUSH AT FRONT/ UNIQUE PRIMARY BYPASSES (2)/ SET UP FOR SUCTION-PRESSURE OR SPORT AND RACING CARBS/ SHORT TUBULAR BOLT-ON EXH.			566

FOX

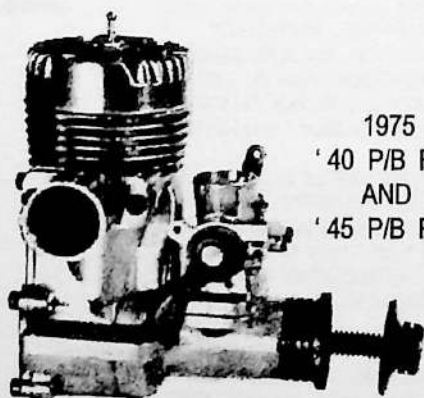


1975
'40 B/B R/C'
AND
'45 B/B R/C'

THIS TYPE CRANKCASE
USED FOR ALL B/B MODELS

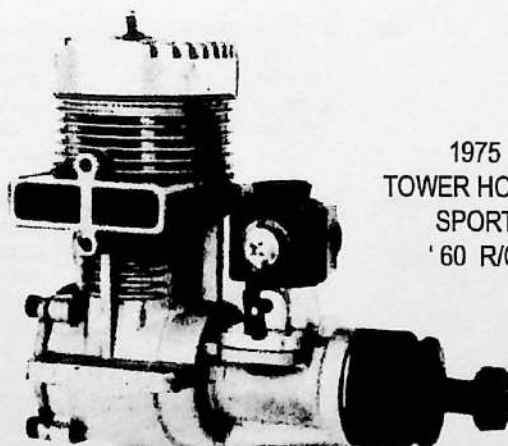


1975
HAWK '60 R/C'
PATTERN
RED HEAD



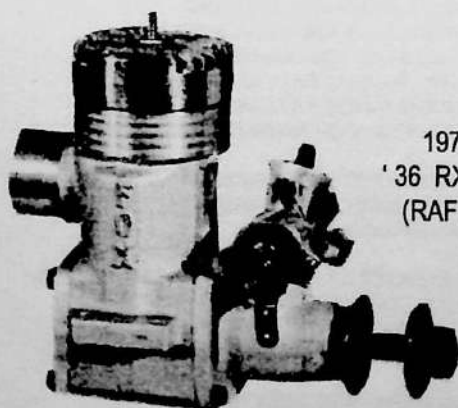
1975
'40 P/B R/C'
AND
'45 P/B R/C'

THIS TYPE CRANKCASE USED
FOR ALL PLAIN BEARING MODELS

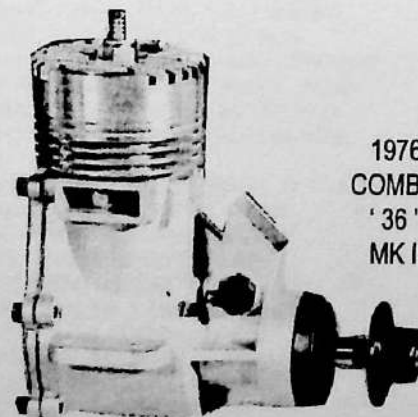


1975
TOWER HOBBIES
SPORT
'60 R/C'

BUILT BY FOX EXCLUSIVELY
FOR TOWER HOBBIES



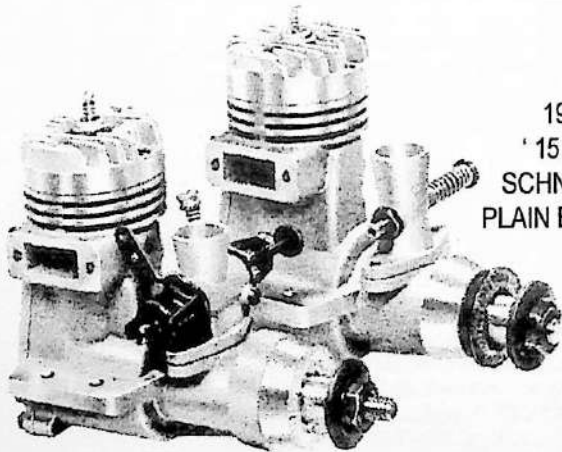
1976
'36 RX R/C'
(RAF 36)



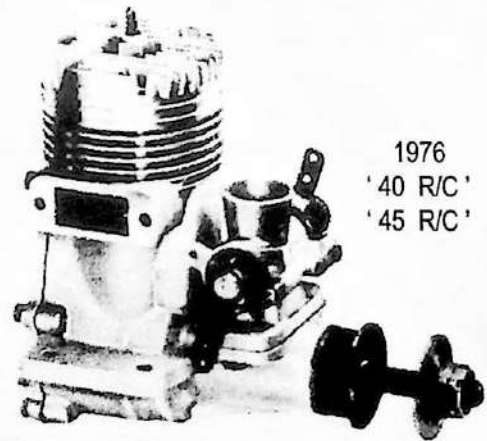
1976
COMBAT
'36'
MK III

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG. CO	'75	G	'40BB' R/C	0.399	UNIQUE DESIGN OFFERING A CHOICE OF CYLINDER OPTIONS - NORMAL WITH SINGLE RING ALUM. PISTON AND NITRIDED CYLINDER; SOFT STEEL OR BRASS CYLINDERS ON ORDER; ALSO ABC TYPE ALUM. PISTONS/ .590 DIA. CRANKSHAFT/ MOST MODERN SCHNURLE CYLINDER PORTING/ FLANGED BOLT SET UP FOR SUCTION-PRESSURE OR PATTERN AND RACING CARBS/ SHORT TUBULAR BOLT-ON EXHAUST/ EXTENDED HIGH BACK COVER INCREASES BY-PASS FRONT AND REAR	66 85-NIB		567
.	'75	G	'45BB' R/C	0.448	SIMILAR TO '75 - 40 BB RC/ HAS LARGER PISTON AND CYLINDER/ SAME CASE AS 40	68		568
.	'75	G	HAWK '60' R/C PATTERN RED HEAD	0.604	NEW .60/ CYLINDER HEAD FROM BARSTOCK ANODIZED RED/ STEEL FINNED CYLINDER NITRIDED/ SPECIAL LOW EXPANSION HARD ALUM. PISTON/ MACHINED ROD WITH BRONZE BEARINGS/ SET UP FOR SUCTION OR PATTERN & RACING CARBS/ DUAL BALL BEARINGS/ VERTICAL MUFFLER ATTACHMENT/ TWO EARS ON BYPASS SIDE FOR ADDITIONAL MUFFLER MTG./ 'FOX HAWK 60' OVER 'AMERICAN FLAG/ 3 MOUNTING HOLES EACH SIDE	80-NIB	76-N	569
.	'75	G	'45BB' R/C	0.448	NEW CASE FOR PATTERN .45/ EXTENDED HIGH CRANKCASE REAR COVER/ FLANGED BOLT-ON SET UP FOR SUCTION-PRESSURE OR PATTERN AND RACING CARBS/ CAST ALUM. PISTON WITH SINGLE HI-TENSION RING/ DUAL BALL BEARINGS/ SHORT BOLT-ON TUBULAR EXHAUST		72	570
.	'75	G	'45' R/C	0.448	AS PREVIOUS/ WITH PLAIN BEARING CASE/ SHORT TUBULAR BOLT-ON EXHAUST/ EXTENDED HIGH CRANKCASE REAR COVER	44		571
.	'75	G	'40' R/C	0.399	AS PREVIOUS .40 BB/ WITH PLAIN BEARING CASE/ SHORT TUBULAR BOLT-ON EXHAUST/ EXTENDED HIGH CRANKCASE REAR COVER			572
.	'75	G	TOWER HOBBIES SPORT '60' R/C	0.604	SIMILAR TO '74 EAGLE II .60 RC/ PERRY CARB ATTACHED TO FOX CARB ADAPTER/ DUAL BALL BEARINGS/ VERTICAL MUFFLER ATTACHMENT/ LOW PRICE LEADER FOR TOWER HOBBIES			573
.	NOTE:	—	—	—	R.A.F. WAS THE DESIGNATION FOR 'ROZELLE AND FRYE' WHO PRODUCED A COMPETITION 36 WHICH WON THE '75 NATS PROFILE CARRIER EVENT. WE'RE NOT FAMILIAR WITH ALL THE FINANCIAL DEALINGS BUT DUKE FOX BOUGHT ALL RIGHTS AND EQUIPMENT TO WHAT APPEARED TO BE A WINNING DESIGN THAT WAS ACTUALLY A HAND-BUILT COMPETITION ENGINE. DUKE CHANGED THE CASE DIES TO IDENTIFY IT AS FOX AND INTRODUCED IT IN 1976.			
.	'76	G	'36RX' R/C (RAF 36)	0.359	THIS WAS ORIGINALLY THE R.A.F. 36 REAR EXH/ NOW HAS FOX DESIGNATION/ SAND CAST CRANKCASE/ LAPPED ALUM. PISTON/ HEAD HAS BUTTON GLOW PLUG CONCEPT/ IN 4 CONFIGURATIONS U/C STUNT - PROFILE CARRIER SPECIAL - FREE FLIGHT SPECIAL - R/C/ CONFIGURATION/ A VARIETY OF LOW, MEDIUM. HI-COMPRESSION HEADS/ BALL BRGS. IN FREE FLIGHT & R/C CONFIGURATION/ MEEHANITE BEARINGS IN U/C STUNT & PROFILE CARRIER CONFIGURATIONS/ SPECIAL FOX 'CAN' MUFFLERS AVAILABLE FOR REAR EXHAUST IN 1980	65 65	38 40	574
.	'76	G	COMBAT '36' SPECIAL MK III	0.359	NEW CRANKCASE WITH EXTENDED HIGH CRANKCASE REAR COVER/ 1/2" DIA. STEEL CRANKSHAFT WITH 2 BALL BEARINGS/ MACHINED HARDENED MECHANITE PISTON/ LIGHT WEIGHT		100-NIB 55-VG	575

FOX

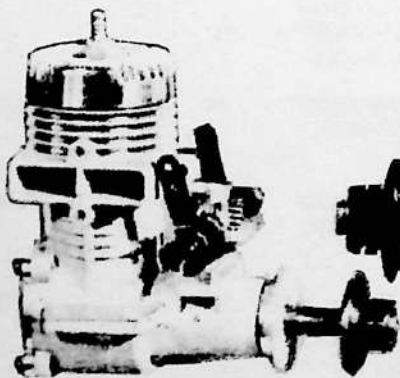


1976
'15 R/C'
SCHNUERLE
PLAIN BEARING



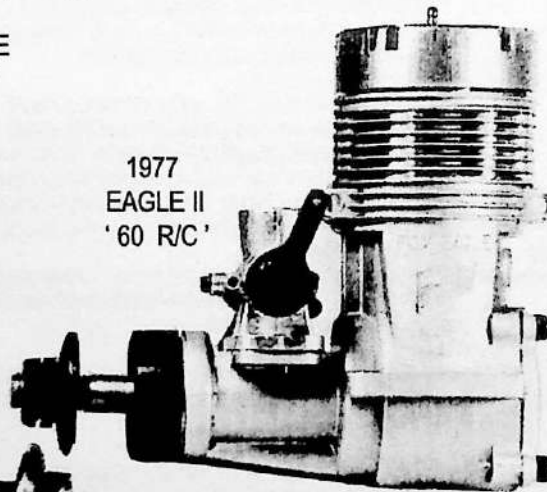
1976
'40 R/C'
'45 R/C'

1976
'15 R/C' SCHNUERLE
BALL BEARING 1977

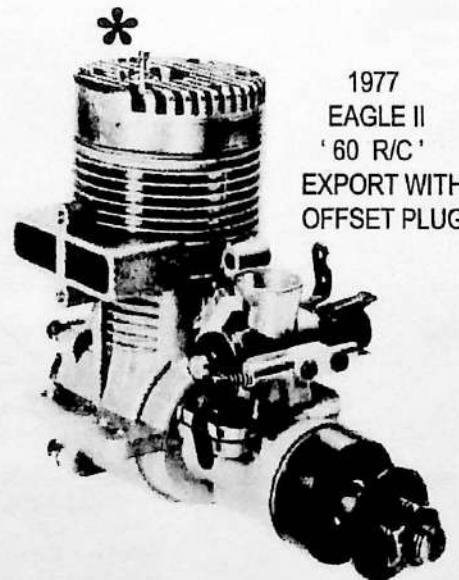


1977 '19 R/C'

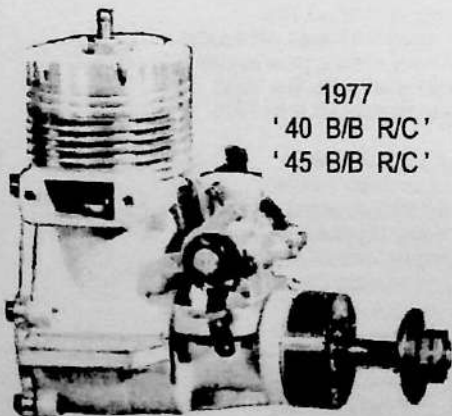
1977
EAGLE II
'60 R/C'



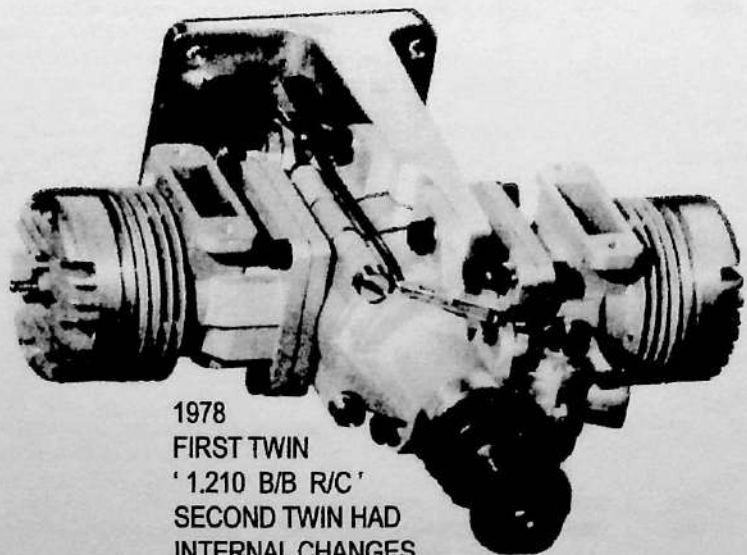
CRANKCASE BEAD BLASTED
HEAD POLISHED



1977
EAGLE II
'60 R/C'
EXPORT WITH
OFFSET PLUG

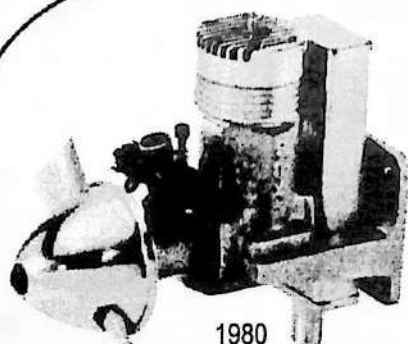


1977
'40 B/B R/C'
'45 B/B R/C'



1978
FIRST TWIN
'1.210 B/B R/C'
SECOND TWIN HAD
INTERNAL CHANGES

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG. CO.	'76	G	"15BB" R/C SCHNURLE	0.150	NEW CRANKCASE WITH EXPENDED HIGH CRANKCASE REAR COVER/ FLANGED SET-UP FOR R/C OR SUCTION CARB./ 2 HORIZONTAL HOLES AT EXH. FOR MUFFLER/ DUAL 10MM BALL BEARINGS	58		576
"	'76	G	"15" R/C SCHNURLE PLAIN BEARING	.150	SIMILAR CRANKCASE WITH BRONZE MAIN BEARINGS & EXTENDED HIGH CRANKCASE REAR COVER/ FLANGED SET-UP FOR R/C OR SUCTION CARB./ 2 HORIZONTAL HOLES AT EXHAUST FOR MUFFLER	56		577
"	'76	G	"40" R/C AND WATER COOLED VERSION	0.399	AS PREVIOUS '75-40 WITH PLAIN BRGS./ SHORT TUBULAR EXHAUST GONE/ 2-TAPPED HOLES AT EXH. FOR MUFFLER/ EXTENDED HIGH CRANKCASE REAR COVER/ FLANGED BOLT-ON CARB SET-UP/ MACHINE TURNED CYLINDER FINS & GLASS BEAD CASTING FINISH/ LIGHTER WEIGHT MEEHANITE PISTON/ IMPROVED HEAD CONFIGURATION/ WATER COOLED CYLINDER FOR MARINE USE			578
"	'76	G	"45" R/C	0.448	AS PREVIOUS '75-.45 WITH PLAIN BRGS./ SHORT TUBULAR EXHAUST GONE/ 2-TAPPED HOLES AT EXHAUST FOR MUFFLER/ ALL FEATURES AS PREV. 40 R/C EXCEPT ALUMINUM PISTON IN THIS .45			579
"	'77	G	HAWK '60" R/C	0.606	AS PREVIOUS '75- HAWK .60/ ABC TYPE PISTON WITH ONE RING IS NEW	63		580
"	'77	G	"15" (SINGLE BYPASS)	.150	AS '62-15/ CASE REVISED TO HAVE VERTICAL MUFFLER ATTACHMENT PLUS 2 EARS ON BYPASS FOR ALTERNATIVE MUFFLER/ MACHINED MEEHINITE PISTON AND CYLINDER FROM LEADED STEEL			581
"	'77	G	"19" R/C	0.189	SIMILAR TO '72-19 RC/ CASE CHANGED WITH ADDED EARS ON BYPASS FOR ALTERNATIVE MUFFLER PLUS ORIGINAL VERTICAL MUFFLER ATTACHMENT/ IMPROVED CARB/ ROD AND CRANKSHAFT BEEFED UP/ CASE CLEANED UP			582
"	'77	G	EAGLE II '60" R/C	0.604	AS '74-EAGLE 60 RC/ CRANKCASE LOWER END ENLARGED PROVIDING HEAVIER WALLS AND CLEARANCE FOR A STURDIER ROD/ CRANKSHAFT BORE IS STEP BORED PROVIDING A CLOSER FITTING SEAL AREA FORWARD OF THE CARB/ CRANKCASE BEAD BLASTED & HEAD IS POLISHED/ FOR RC OR CL	82-NIB 95-N	105	583
"	'77	G	EAGLE II '60" R/C EXPORT	0.604	AS PREVIOUS/ MODIFIED FOR 'EXPORT'/ CARB MODIFICATION IS SIMPLY A NARROWER METERING SLOT ON THE THROTTLE BARREL TO PREVENT ENGINE FROM RUNNING TOO RICH IN MID-RANGE/ HEAD MODIFICATION WAS MOVING GLOW PLUG TO A NEW UPRIGHT POSITION FAR OVER ON EXHAUST SIDE OF CYLINDER/ FOREGOING DONE DUE TO LACK OF NITRO IN EUROPEAN FUELS			584
"	'77	G	"45BB" R/C	0.448	NEW CASE/ SCHNURLE PORTED/ 15MM CRANKSHAFT/ DUAL BALL BEARINGS/ ALUMINUM PISTON AND FULL FLOATING RING/ BUTTON STYLE GLOW PLUG HEAD/ 2 HOLES AT EXHAUST PORT FOR MUFFLER MOUNTING	55	50	585
"	'77	G	"40BB" R/C	0.399	SIMILAR FEATURES TO PREVIOUS 45 BB R/C BUT IN .40 SIZE	39		586
"	'78	G	"20cc" R/C TWIN BB	1.210	OPPOSED TWIN/ SIMULTANEOUS FIRING/ SCHNURLE PORTING/ GLASS HARD CYLINDERS/ PISTONS USED HARDEST ALLOY/ HARDENED STEEL CRANKSHAFT/ DUAL CARBURETOR/ EACH TWIN FACTORY RUN/ SECOND MODEL CHANGED BYPASS/ MUCH BETTER IDLE AND CARBURETOR RESPONSE	265 350	210 350	587



1980
'36X' MUFFLER

FOX
NEW MK-X
Carburetor



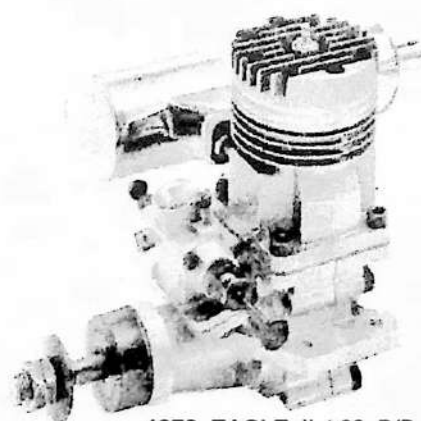
\$13⁹⁹

Bolts right on your old Fox engine.

Hi-spiral cam groove gives precise control mixture. Specify engine when ordering.

MK-X A for .40-.45
MK-X B for .60 & Twin
MK-X C for use with Robert Pump

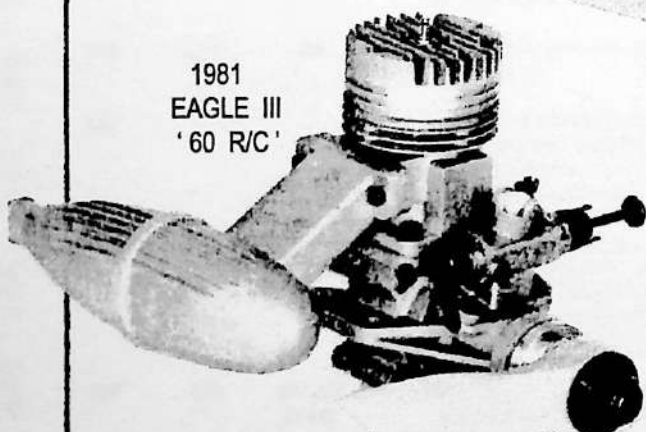
1980 SUCCESSFUL
R/C CARBURETOR



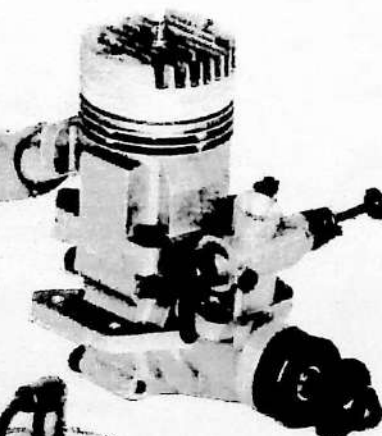
1979 EAGLE II '60 B/B R/C'
PATTERN SIDE OR REAR EXHAUST
AND RACING OR MARINE

1980
EAGLE II
'60 B/B R/C'
WITH TUNED PIPE

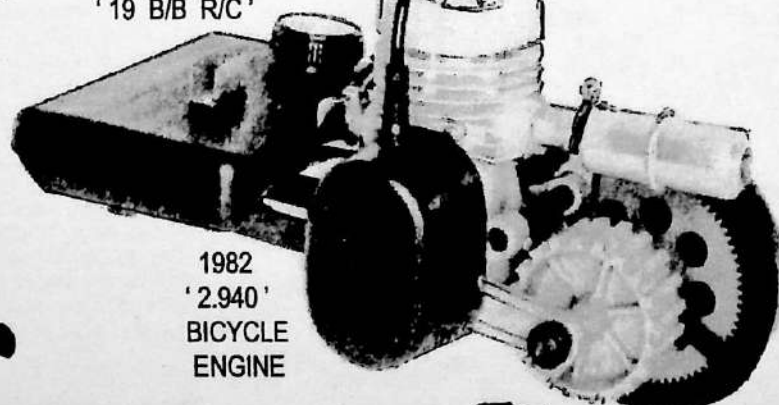
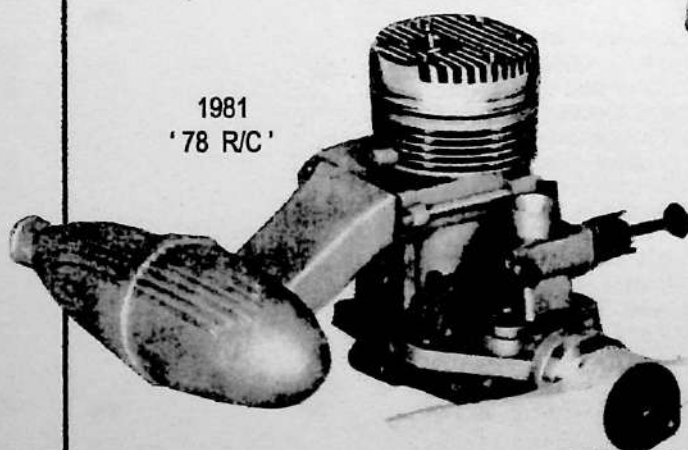
1981
EAGLE III
'60 R/C'



1982
'19 B/B R/C'



1981
'78 R/C'



1982
'2.940'
BICYCLE
ENGINE

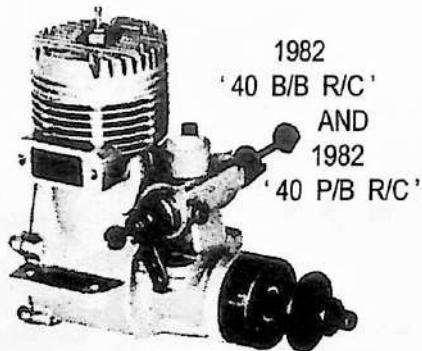
1982
COMBAT SPECIAL
'36 MK IV'



Shown installed on a 26" BMX bicycle

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG. CO.	'79	G	EAGLE II BB '60" R/C SIDE EXHAUST REAR EXHAUST RACING MARINE	0.604	NEW CASE/ HAS NEW MK X-C CARBURETOR/ CUSTOM DUAL BALL BRGS/ HARDENED CYLINDER/ PISTON HI-SILCON ALLOY & SINGLE RING/ CON ROD BUSHED BOTH ENDS/ REMOVABLE GLOW PLUG HEAD BUTTON SHAPES COMBUSTION CHAMBERS FOR 3 CONFIGURATIONS/ RACING, REAR INTAKE AND EXHAUST - PATTERN, SIDE EXHAUST - MARINE	110		588
NOTE:	---	---	1980	---	VERY SUCCESSFUL NEW MK-X CARB NOW BEING SOLD AS REPLACEMENT FOR ALL OLD FOX ENGINES HAVING FLANGED CARB ATTACHMENT IN MODELS AS FOLLOWS: MK X-A FOR .40 - .45 MK X-B FOR .60 & TWIN MK X-C FOR USE WITH ROBERT PUMP			
	'80	G	EAGLE II '60" R/C	0.604	AS PREVIOUS WITH MINOR MODS/ MARK X CARB ADDED/ HEAD HAS OFFSET PLUG AND DESIGNED FOR NO NITRO/ 2 RING PISTON		110-NIB	589
	'80	G	EAGLE II BB PIPED '60" R/C	0.604	SAME AS PREVIOUS WITH REAR EXHAUST TUNED PIPE ALTERNATIVE/ UNIQUE BOLT-ON CYLINDER HEADS ALLOWS A SUPERIOR BYPASS CON- FIGURATION/ MK X-C CARBURETOR INCLUDED/ TUNED PIPE EXTRA COST	110	128	590
NOTE:	---	---	'36" RX MUFFLER	---	FOX PROVIDES IN 1980 WHAT WAS CALLED THE 'TIN CAN' MUFFLER FOR THE REAR EXHAUST 36 RX. THIS FITS BETWEEN THE ENGINE MOUNTS AT THE REAR OF THE ENGINE.			
	'80	G	'40BB" R/C	0.399	AS '77- 40BB RC/ MINOR MODS/ IMPROVED BYPASS/ BETTER BALANCING/ MK X CARBURETOR/ LONGER CRANKSHAFT		55	591
	'80	G	'45BB" R/C	0.448	AS '77 - 45 BB RC/ MINOR MODS/ ALL SAME AS PREVIOUS .40 BB R/C	60		592
NOTE:	---	---	1981	---	VERY SUCCESSFUL NEW MK-X CARB. AS REPLACEMENT NOW BEING SOLD FOR REMAINDER OF OLD FOX ENGINES HAVING FLANGED CARBURETOR ATTACHMENT.			
	'81	G	'78BB" R/C	0.785	SMILAR TO PREVIOUS '73 - 78 RC/ NO ROTARY EXHAUST BAFFLE/ VERTICAL MUFFLER ATTACH- MENT REMAINS AND NEW CASE PROVIDES 2 EARS ON BYPASS FOR ALTERNATE STYLE MUFFLER/ MK-X CARBURETOR/ NITRIDED CYLINDER/ BALL BEARINGS/ OTHER MINOR MODIFICATIONS	65-NIB		593
	'81	G	EAGLE III '60" R/C	0.604	AS '79 EAGLE II/ SCHNURLE PORTING/ SIDE EXH. AND TAPPED HOLES PROVIDED FOR 'DROOP' STYLE MUFFLER/ BEEFED UP PISTON/ MK-X CARBURETOR	93-NIB 65	49	594
	'82	G	'19BB" R/C	0.89	NEW CASE/ DUAL BALL BEARINGS/ OLDER STYLE R/C CARB. WITH NO FLANGED ATTACHMENT/ APPARENTLY DESIGNED FOR 'NO NITRO' FUEL/ ROTATABLE UPPER CASE/ EXHAUST CAN ROTATE			595
	'82	G	'36" MK IV COMBAT SPECIAL	0.359	NEW CASE/ WRAP-AROUND PROP THRUST WASHER/ REMOVABLE CARB. INSERTS/ HIGHER INTAKE/ SHIMS PROVIDED FOR OPTIONAL PORT POSITIONING	100-NIB	77-NIB	596
	'82	G	BICYCLE ENGINE '49cc"	2.940	SPECIALLY DESIGNED ENGINE TO ATTACH TO A BICYCLE COMPLETE WITH MOUNTING HARDWARE/ ALL UP PACKAGE ADDS 14.5 LBS. TO BIKE WEIGHT/ MOTORCYCLE CONTROLS/ LARGE DIA. CLEATED ROLLER AND SWING ARM DESIGN SOLVED RAPID TIRE WEAR PROBLEM/ USED 2 CYCLE GAS/OIL MIXTURE/ FOX DESIGNED MAGNETO/ SCHNURLE PORTING/ REMOVABLE CAST IRON LINER/ NEEDLE BEARINGS/ MASSIVE CYLINDER AND HEAD FINS/ CARB IS SIMPLE, MODEL ENGINE TYPE	495-NIB 570-NIB		597

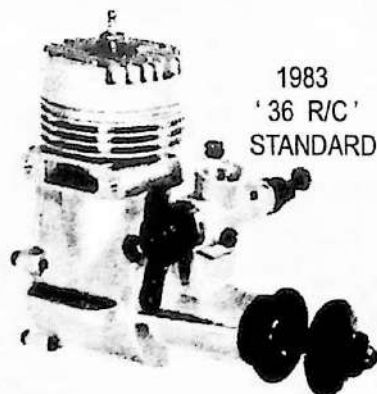
FOX



1982
'40 B/B R/C'
AND
1982
'40 P/B R/C'



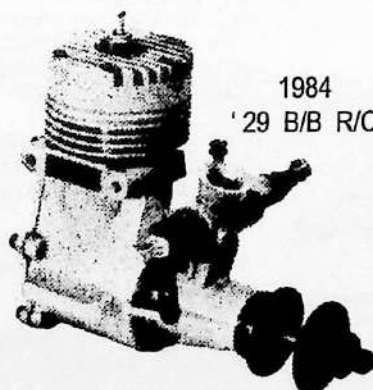
1982
'19 & 25 R/C'
MK X
CARB ADDED



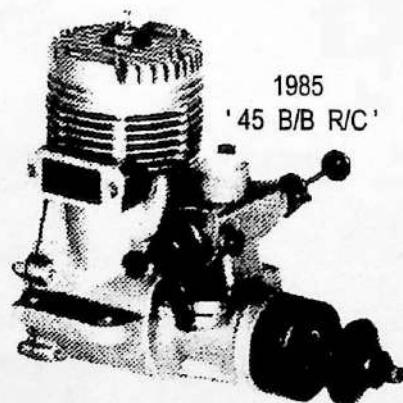
1983
'36 R/C'
STANDARD



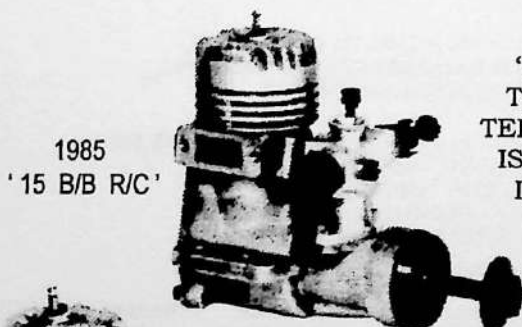
1983
'40 R/C'
COMPACT



1984
'29 B/B R/C'

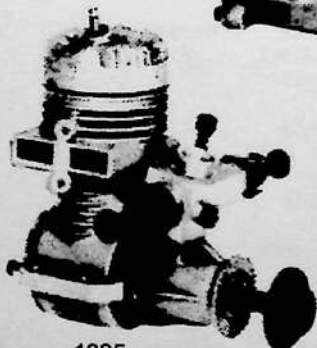


1985
'45 B/B R/C'

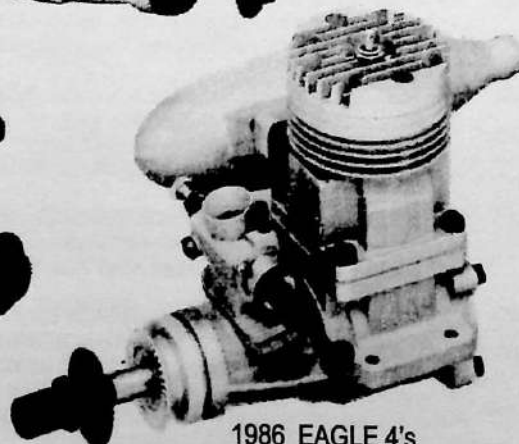


1985
'15 B/B R/C'

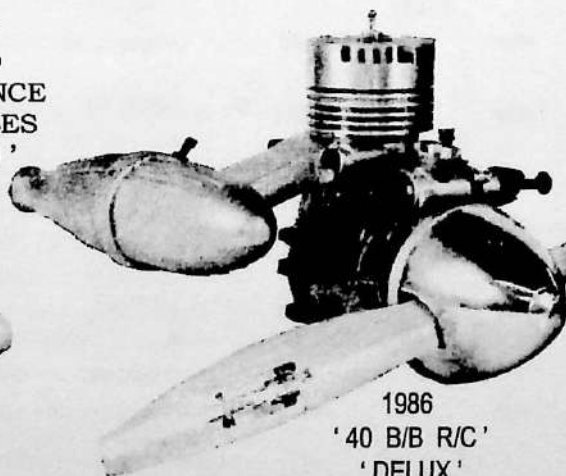
THE EAGLES
'HAVE ARRIVED'
THE ONLY WAY TO
TELL THE DIFFERENCE
IS 3 EXHAUST HOLES
IN LINER FOR '60'
AND 4 HOLES
IN EAGLE '74'



1985
'15X R/C'



1986 EAGLE 4's
'60 R/C'
'74 R/C'



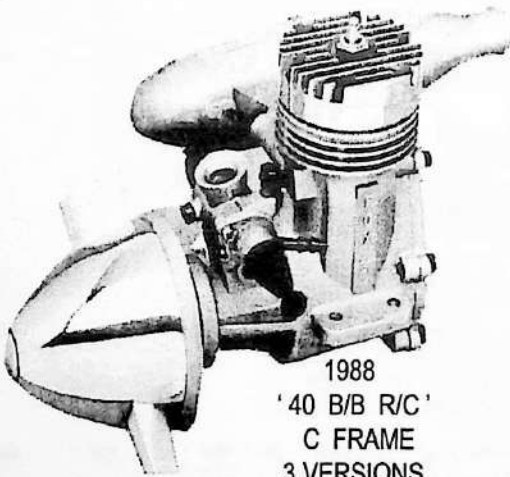
1986
'40 B/B R/C'
'DELUX'
WITH SPINNER



NEW FOX MK X 2-NEEDLE CARBURETOR

MFR./ENG.NAME	YR		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG. CO.	'82	G	"40BB" R/C	0.448	AS PREV. '77 - 40 BB RC/ CARB NOW MK X/ OTHER MINOR MODS/ DUAL BALL BEARINGS	58		598
"	'82	G	"40" R/C	0.448	AS PREV. '76 - 40 RC/ CARB NOW MK X/ OTHER MINOR MODS./ PLAIN MAIN BEARING			599
"	NOTE: 1	---	---	1982	---	EAGLE III 60 'IDLEMASTER HEAD' WAS ADDED TO THE EAGLE FOR POWER AND RELIABLE IDLE AT 2,000 RPM THEN TAKES FULL THROTTLE WITHOUT HESITATION. THIS 'HEAD' CAN BE RETROFITTED ON EARLIER EAGLE II & III.		
"	NOTE: 2	---	---	1982	----	19 R/C & 25 R/C WITH PLAIN BUSHED MAIN BEARINGS HAVE HAD MK X TYPE CARBURETORS ADDED.		
"	'83	G	"36" R/C STANDARD R/C	0.359	AS '76 COMBAT 36 SPECIAL CONVERTED TO STND 36 R/C WITH MK-X TYPE CARBURETOR/ SCHNURLE PORTED PLUS HEAD MODS TO GET THIS TO RUN ON NO NITRO FUEL/ SINGLE MAIN BALL BEARING	62		600
"	'83	G	"40" R/C COMPACT	0.396	A SMALLER MORE LIGHTWEIGHT .40 BUILT ON WHAT APPEARS TO BE THE PLAIN BEARING CASE OF PREVIOUS 36 R/C PLUS A BALL BEARING MAIN		53	601
"	'84	G	"29BB" R/C	0.299	REPLACEMENT FOR '74 - .29 RC/ BUILT ON WHAT APPEARS TO BE THE PLAIN BEARING CASE OF THE PREVIOUS 36 R/C PLUS A BALL BEARING MAIN/ SCHNURLE PORTED			602
"	'85	G	"45BB" R/C	0.448	NEW 45 RC/ DUAL BALL BEARINGS/ BUSHED ROD/ ALUMINUM PISTON WITH FREE FLOATING RING/ SCHNURLE PORTED	68		603
"	NOTE:	---	---	1985	---	FOX IS OFFERING UPTILT OR DOWNTILT MUFFLERS AS AN OPTION		
"	'85	G	"15X" R/C	.150	AS '77 - 15/ REINTRODUCED WITH MK-X CARB/ HAS VERTICAL MUFFLER ATTACHMENT PLUS 2 EARS ON BYPASS FOR ALTERNATE MUFFLER ATTACHMENT			604
"	'85	G	"15BB" R/C	.150	AS '76 - 15 BB RC/ CHANGED CARB. TO MK X/ OTHER ITEMS SAME	50-NIB	55	605
"	'86	G	EAGLE 4 "60" R/C	0.604	ALTERNATIVE ORDERING IN 3 CONFIGURATIONS; RING PISTON - ABC CYLINDER & PISTON - ABC PORTED FOR TUNED PIPE/ STURDIER CASE/ LARGER CRANKSHAFT/ MK X 2 NEEDLE CARB BOLTED ON/ TOP END ALLOWS EXHAUST TO FACE LEFT, RIGHT OR REAR/ RING PISTON & STEEL SLEEVE OR ABC VERSIONS	110-NIB	56	606
"	'86	G	EAGLE 4 "74" R/C (FIRST)	0.736	ALL FEATURES OF EAGLE 60 R/C EXCEPT LARGER BORE/ SAME LOWER CASE/ RING PISTON & STEEL SLEEVE OR ABC VERSIONS	115-NIB 115-LNIB	68 52	607
"	'86	G	"40BB" DELUX R/C	0.396	UNUSUAL 40/ ALUM. SPINNER INCLUDED WITH ENGINE/ EVERY ENGINE HAS BEEN CHECK RUIN AND MK X CARB NEEDLES PRE-SET/ 2 PIECE HEAD BUTTON/ BRASS CYLINDER WITH HARD CHROME/ COMPOSITE PISTON DESIGN/ 8620 ALLOY STEEL CRANKSHAFT CARBO-NITRIDED/ 2 BALL BEARINGS	40		608
"	'87	G	"45BB" R/C	0.448	AS '85 - 45 BB RC/ CHANGES PRIMARILY INTERIOR/ 1/4" CRANKPIN/ 7/32" TUBULAR WRIST PIN/ STURDIER ROD/ NEW ALUMINUM PISTON/ NEW WRIST PIN RETAINER/ NEW MUFFLER TILT UP OR DOWN/ APPEARANCE DRESS-UP		62	609
"	'88	G	"40PB" R/C ('C' FRAME) STANDARD 3 VERSIONS	0.396	PRODUCED IN 3 CONFIGURATIONS ON THIS LIGHT-WEIGHT 'C' FRAME/ R/C PLAIN BRG. WITH MUFFLER/ R/C BALL BRG. WITH IRON PISTON & MUFFLER/ R/C WITH ABC PISTON & CYLINDER WITH MUFFLER & SPINNER/ UC ENGINES SIMILAR/ PICS NEXT PAGE		40-R/C 69-NIB C/L	610 610.4 610.5

FOX

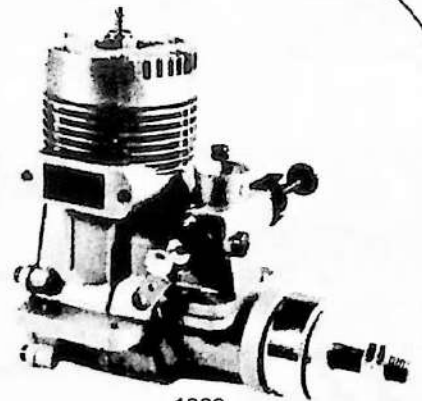


1988
'40 B/B R/C'
C FRAME
3 VERSIONS

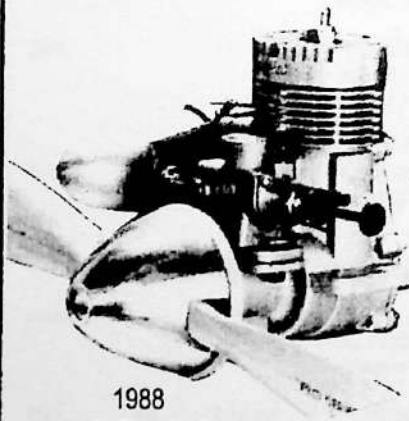


QUICKEE
500
LINER

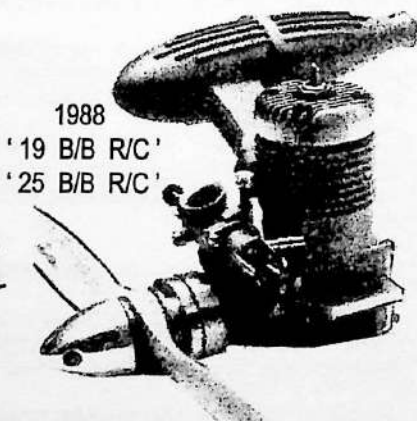
UNIQUE MOD. IN
TRANSFER PORTS
DONE WITH A 1/2"
END MILL CUTTER.
REFERENCE C. LEE RCM



1988
'40 B/B R/C' B FRAME
QUICKEE 500 RACER & SPORT

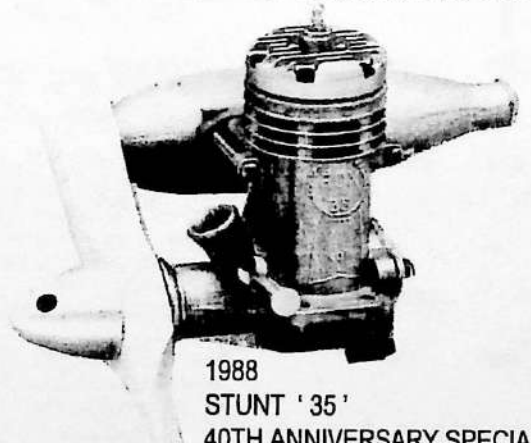


1988
'45 B/B R/C'
'50 B/B R/C'
B FRAME

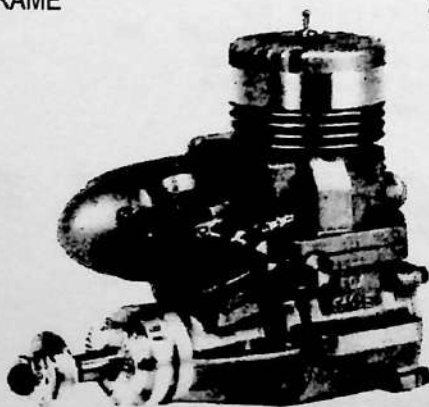


1988
'19 B/B R/C'
'25 B/B R/C'

NOTE: C FRAME ENGINES ARE
LIGHTER (ABOUT 3 OZ.)
THAN B FRAME ENGINES

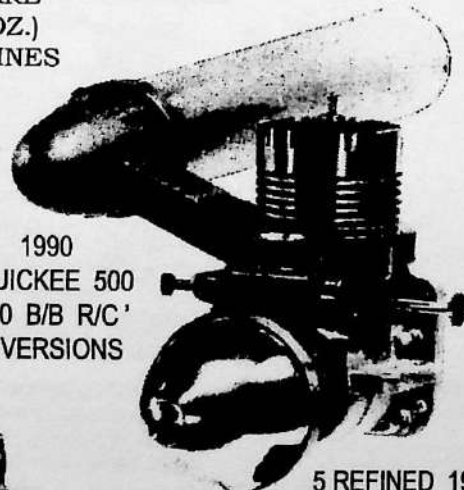


1988
STUNT '35'
40TH ANNIVERSARY SPECIAL



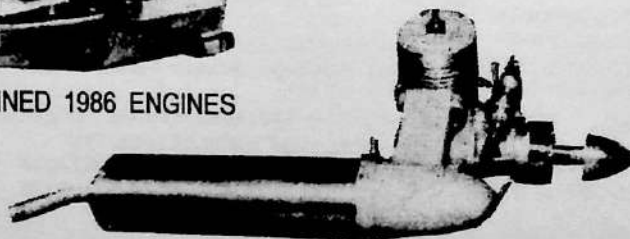
TWO REFINED 1986 ENGINES

1989
EAGLE 4
'60 R/C'
'74 R/C'



1990
QUICKEE 500
'40 B/B R/C'
5 VERSIONS

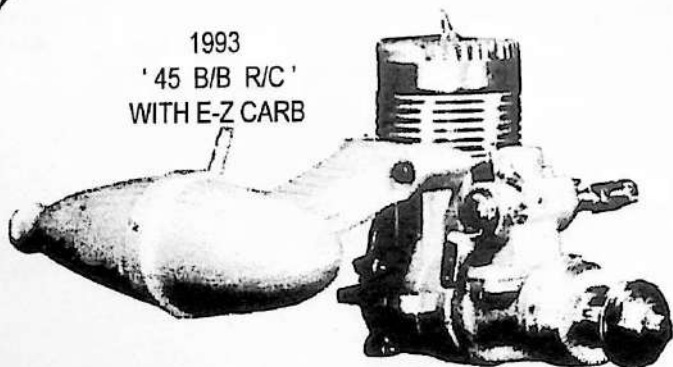
5 REFINED 1988
QUICKEE 500 ENGINES



1ST OF NEW 'QUIET' MUFFLERS FOR
REDUCTION OF NOISE TO 89 db
NO APPRECIABLE RPM LOSS

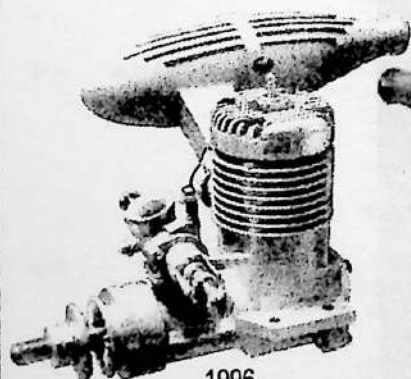
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG. CO.	'88	G	"40BB" R/C ('C' FRAME) STANDARD 3 VERSIONS	0.399	NEW LOW COST ENGINE/ 2 BALL BEARINGS/ ALL FACTORY TESTED/ CLAIMS THIS IS IDENTICAL TO .40 DELUX LESS THE SPINNER/ STEEL LINER AND IRON PISTON/ LARGER DIA. WRIST PIN/ PRODUCED IN 3 CONFIGURATIONS ON THIS LIGHT-WEIGHT C FRAME/ R/C PLAIN BEARING & MUFFLER - R/C BALL BEARINGS & IRON PISTON WITH MUFFLER - R/C WITH ABC PISTON & CYLINDER WITH MUFFLER & SPINNER/ SIMILAR WITH U-CONTROL ENGINES		25	611 611.3 611.5
.	'88	G	"40BB" R/C QUICKEE 500 RACER & SPORT ('B' FRAME) 2 VERSIONS	0.398	TWO ENGINES IN SAME CASES/ DUAL BALL BRGS./ 2" DIA. CAST ALLUM. SPINNER INTERLOCKS ON BACKPLATE WHICH REPLACES THRUST WASHER/ 2 PIECE GLOW PLUG HEAD BUTTONS/ "RACER" HAS ABC CYLINDER & PISTON - NO SPINNER - SPECIAL MUFFLER/ "SPORT" HAS IRON-STEEL PISTON & CYLINDER - WITH SPINNER - CON- VENTIONAL MUFFLER/ ENGINES HAVE .800 BORE		68	612 612.5
.	'88	G	"45BB" R/C ('B' FRAME)	0.448	NEW 45 BB RC/ SAME APPEARANCE AS QUICKEE SPORT/ INCLUDES 2" SPINNER/ ONLY DIFFERENCE FROM .40 APPEARS TO BE LARGER BORE - .850			613
.	'88	G	"50BB" R/C ('B' FRAME)	0.501	NEW 50 BB RC/ SAME APPEARANCE AS QUICKEE SPORT/ INCLUDES 2" SPINNER/ ONLY DIFFERENCE FROM 40 APPEARS TO BE LARGER BORE - .906	50-VG	57	614
.	'88	G	"19BB" R/C	0.189	SIMILAR TO '82 - 19BB RC/ ONLY CARB CHANGED TO NEWER MK-X/ FRONT BEARING SHIELDED WITH WRAP-AROUND TYPE THRUST WASHER TO KEEP OUT DIRT/ MUFFLER AS TEAR-DROP TILT-UP OR DOWN/ SCHNURLE PORTING/ IRON PISTON & STEEL LINER/ CYLINDER MAY BE ROTATED BY UNDOING 4 SCREWS AND ROTATING CYLINDER	50	44-NIB	615
.	'88	G	"25BB" R/C	0.247	IN .19BB R/C CASE FROM '82/ DIFFERENT BORE AND STROKE FROM EARLIER 19 RC/ MK-X CARBURETOR INCLUDED/ WRAP-AROUND DRIVE WASHER AS .19/ MUFFLER IN TEAR-DROP TILT-UP OR DOWN/ SCHNURLE PORTING/ IRON PISTON AND STEEL LINER/ CYLINDER MY BE ROTATED BY UNDOING 4 SCREWS AND ROTATING CYLINDER		47	616
.	'88	G	"35" STUNT 40TH ANNIV. SPECIAL	0.352	MARKING 40TH YEAR OF FOX STUNT 35 IN CONTINUOUS PRODUCTION/ ONLY IN U/C FORM/ MINOR CHANGES OVER YEARS SUCH AS BYPASS EARS TO PROVIDE MUFFLER ATTACHMENT/ NATURAL ALUMINUM CASTINGS/ BYPASS HAS RAISED LETTERS & WINNER'S RIBBON SYMBOLS	65-NIB 45-NIB		617
.	'89	G	EAGLE 4 60 R/C EAGLE 4 74 R/C	0.604 0.736	REFINED 1986 ENGINES & TOUTED AS "EAGLES HAVE ARRIVED" IN 1990 ADS/ MK X CARB HAS BEEN IM- PROVED/ TILT UP OR DOWN MUFFLER/ 'F' SIZE CARB HAS AN INTAKE DIA. OF .350 TO BE USED WITH AFTER-MARKET PUMPS/ BUTTON GLOW PLUG HDS.			618 619
.	'90	G	QUICKEE 500 "40" R/C RACER 5 VERSIONS	0.397	AS '88 - 40 QUICKEE/ IMPROVED CYLINDER LINER WITH LARGER PORTS FOR POWER/ NEWLY DESIGNED QUICKEE MUFFLER LARGER "CAN" TYPE REAR END/ 5 VERSIONS/ BUSHED MAIN/ BB MAIN/ BB ABC/ SPORT/ QUICKIE 500 SPECIAL		154-NIB 95	620 620.2 620.4 620.5 620.6
.	'90	G	"40" R/C	0.399	AS '76 - 40 RC/ SOLD AS "NEW BUSHING MAIN" 40 R.C - SAME EXCEPT ADDITION OF MK-X CARB.			621
NOTE:	'92	-	—	—	NEW "QUIET" MUFFLERS FOR B & C FRAME ENGINES TO REDUCE NOISE TO A STEADY 89 db WITH NO APPRECIABLE RPM LOSS.			
NOTE:	'92	-	—	—	FOX REINTRODUCES "AIR-BLEED" IDLE CARB. AS "ULTRA E-Z CARBURETOR" ONLY FOR FOX C FRAME .45 THRU .74 WITH SMALLER SIZES LATER.			

1993
'45 B/B R/C'
WITH E-Z CARB

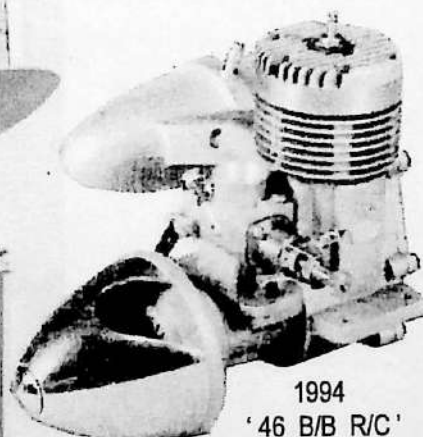


1993 FOX
ULTRA E-Z CARBURETOR

1999 STUNT '35' - 50TH ANNIVERSARY

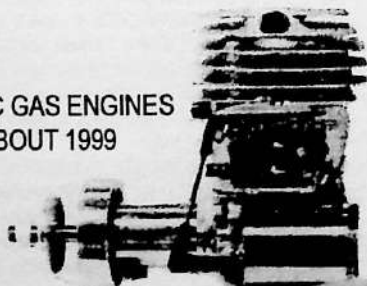


1996
'25 B/B R/C'

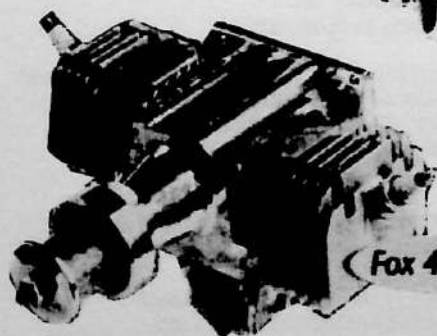


1994
'46 B/B R/C'
ABC SCHNUEERLE

ELECTRONIC GAS ENGINES
SINCE ABOUT 1999

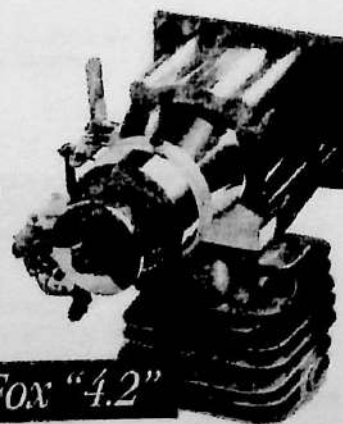


Fox 3.2 Engine



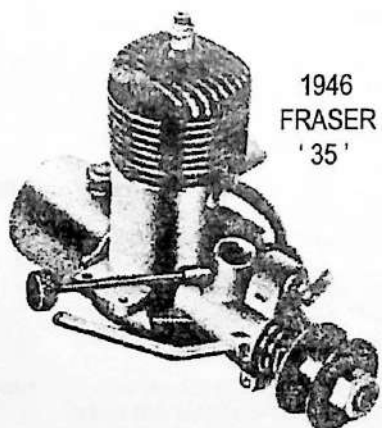
Fox 4.8 Twin

AUTO SPARK ADVANCE
SYSTEMS WITH
CH ELECTRONIC
IGNITION AND
WALBRO CARBS
DRILLED & TAPPED
FOR SMOKE

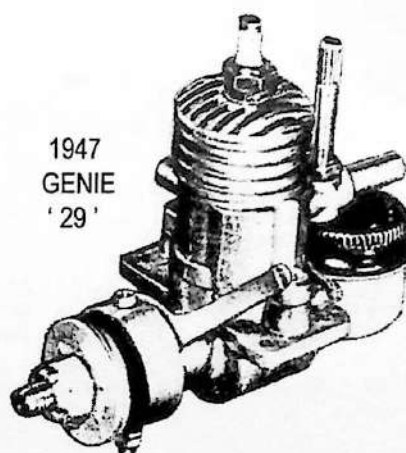


Fox "4.2"

MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FOX MFG. CO.	'93	G *45BB" R/C	0.448	AS '88 - 45 BB RC/ SAME ENGINE NOW EQUIPPED WITH FOX SINGLE NEEDLE E-Z CARBURETOR			622
"	'94	G *46BB" R/C ABC SCHNURERLE	0.459	AS PREV 45 BB RC/ DUAL BALL BRGS./ 8620 STEEL CRANKSHAFT/ CON ROD EXTRA RUGGED & BUSHED TOP AND BOTTOM WITH PHOSPHOR BRONZE BUSHINGS/ FOX E-Z CARB./ WITH 2" DIA. SPINNER	75-NIB		623
"	'96	G *36BB" DELUX R/C	0.359	SIMILAR TO '86 - 40 BB DELUX RC/ SAME STROKE AND REDUCED BORE TO .800" FROM .840"/ NO OTHER CHANGES/ INCLUDES MUFFLER & 2" SPINNER	38		624
"	'96	G *25BB" R/C	0.247	NEW CASE WITH TOP ROTATABLE FOR SIDE OR REAR EXHAUST/ DUAL BALL BEARINGS/ SCHNURERLE PORT/ SINGLE NEEDLE E-Z CARBURETOR		42	624.5
"	'99	G *35" STUNT 50TH ANN. SPECIAL (BLACK)	0.352	50TH YEAR OF FOX STUNT 35 CONTINUOUS PRODUCTION/ BLACK COATED CRANKCASE/ 24K GOLD PLATED SCREWS, PROP NUT, PROP WASHER, NEEDLE VALVE ASSY, GOLDEN GLOW PLUG/ ENGINES HAVE SERIAL NUMBERS & MATCHING NUMBERED CERTIFICATE WITH GOLD SEAL, SIGNED BY MRS. FOX PLUS NOTARY SIGNATURE & SEAL ASSURING AUTHENTICITY/ ONLY AVAILABLE FROM FACTORY IN LIMITED EDITION	175-NIB		625
"	—	— 1999 - 2005	—	THE FOLLOWING GLOW ENGINES HAVE BEEN AND ARE STILL IN PRODUCTION AS OF TOLEDO 2005			
			C/L ↓	15010 - FOX 15 BB CONTROL LINE 25012 - FOX 25 BB SCHNURERLE C/L 35015 - FOX 35 STUNT C/L 40014 - FOX 40 SPORT C/L 40010 - FOX 40 STANDARD C/L 40016 - FOX 40 DELUX C/L 45010 - FOX 45 C/L 46016 - FOX 46 BB-ABC C/L 60010 - FOX 60 C/L 74010 - FOX 74 C/L			
			R/C ↓	15020 - FOX 15 BB R/C 25022 - FOX 25 BB SCHNURERLE R/C 40024 - FOX SPORT R/C 40020 - FOX 40BB STANDARD R/C 40026 - FOX 40 BB DELUX R/C 45020 - FOX 45 BB RING R/C 46026 - FOX 46 BB ABC R/C 60027 - FOX 60 EAGLE 4 RING R/C 60026 - FOX 60 EAGLE 4 ABC R/C 74027 - FOX 74 RING R/C			
"	—	— 1999 - 2005 ELECTRONIC IGNITION GAS ENGINES		THE FOLLOWING ELECTRONIC IGNITION GAS ENGINES STARTED BEING PRODUCED ABOUT 1999 & HAVE CONTINUED THROUGH TO THE TOLEDO SHOW APRIL 2005: SINGLE CYLINDER 2.4 CU.IN. " " 3.2 CU.IN. " " 4.2 CU.IN. " " 5.8 CU.IN. " " 4.8 CU.IN. TWIN " " 6.4 CU.IN. TWIN THESE SINGLE CYLINDERS ALL HAVE: NIKASIL LINED CYLINDER & PISTON ASSEMBLY BY MAKITA-DOLMAR, USA - CANTILEVER CRANKSHAFT WITH SINGLE BOLT PROP HUB; AUTO SPARK ADVANCE SYSTEM WITH CH ELECTRONIC IGNITION; WALBRO CARB, DRILLED AND TAPPED FOR SMOKE. TWINS HAVE FOREGOING PLUS A WALBRO CARB - SINGLE CARB WITH BOYESSEN REED. SEE ALL FOREGOING UNDER GIANT ENGINES. CONCLUDING IN 2005 WITH THE FOX WEB-SITE WWW.FOXMANUFACTURING.COM			

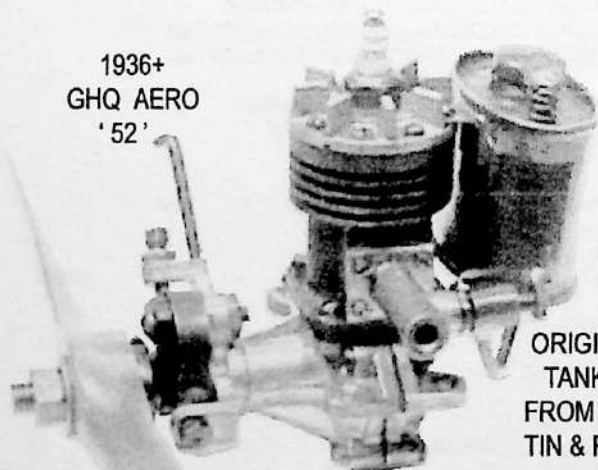


1946
FRASER
'35'



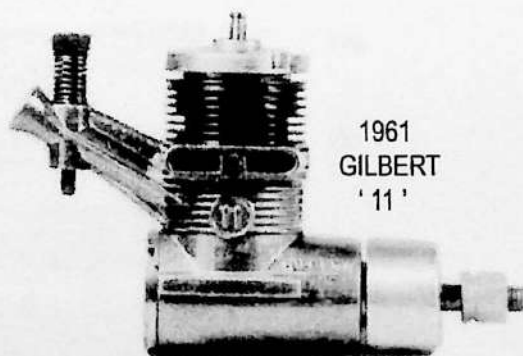
1947
GENIE
'29'

1936+
GHQ AERO
'52'



ORIGINAL FUEL
TANK MADE
FROM CLEANING
TIN & REPAINTED

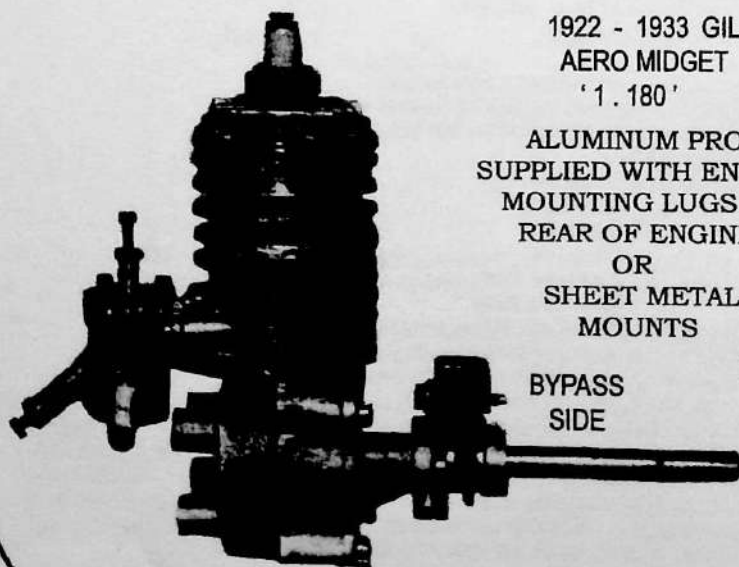
L.H. ALUMINUM PROP
FOR CLOCKWISE
OPERATION



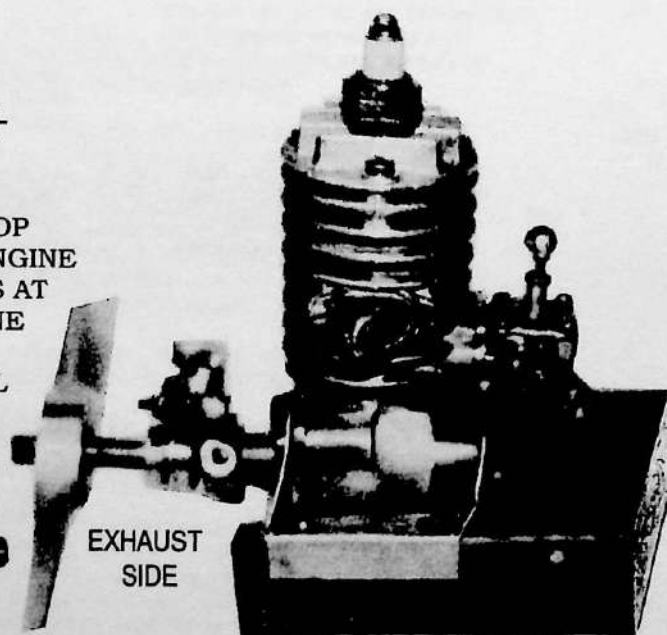
1961
GILBERT
'11'

1922 - 1933 GIL
AERO MIDGET
'1.180'

ALUMINUM PROP
SUPPLIED WITH ENGINE
MOUNTING LUGS AT
REAR OF ENGINE
OR
SHEET METAL
MOUNTS

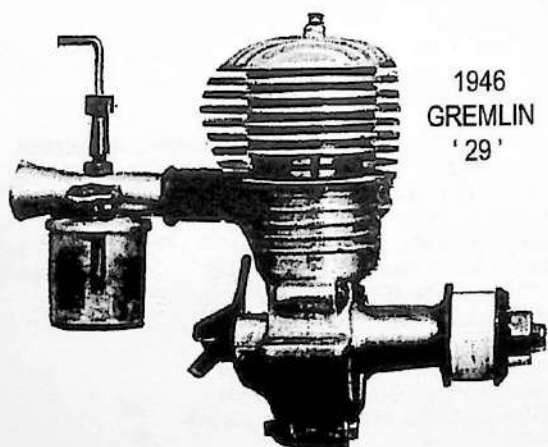


BYPASS
SIDE

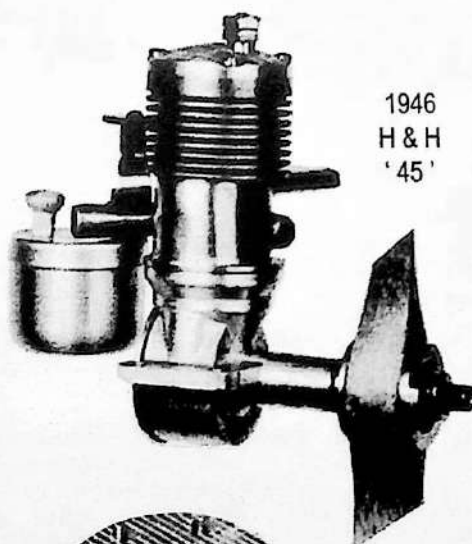


EXHAUST
SIDE

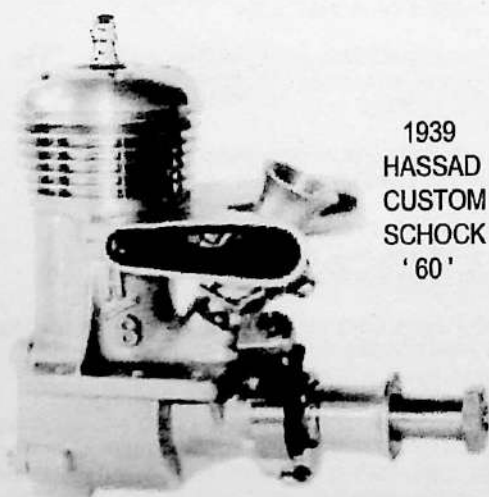
MFR./ENG. NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
FRASER MFG. CO.	'46 *	I	FRASER	0.351	FRONT INTAKE/ PLAIN BEARING/ CLOSED TIMER/ ATTACHED CYLINDRICAL TANK/ IN COLLECTION OF BURNIS RAY	RARE		626
GENIE MODELS	'47	I	GENIE 29	0.292	MODIFIED THOR WITH OHLSSON TYPE TIMER/ CYLINDER FINS MACHINED ROUND/ ASSEMBLED OR KIT/ SLAG CONSTRUCTION - NO CYL. LINER	85	105	627
GHQ MODEL AIRPLANE CO. (LOUIS LOUTREL DESIGNED ORIGINAL)	---	---	---	----	GHQ IS AMERICA'S HOBBY CENTER - BUILT AS LOUTREL FROM 1934 TO 1936... LOUIS LOUTREL WORKED AT AMERICA'S HOBBY CENTER CENTER A SHORT TIME AFTER SELLING DESIGN.			
	'36 *	I	GHQ AERO	0.519	NO MAJOR CHANGES 'TIL '48/ ORIGINAL ROUGHLY 'CAST' THEN DIE CAST/ ALUMINUM FACTORY PROP SET FOR CLOCKWISE OPERATION, THEN CHANGED/ ASS'D OR KIT/ SANDCAST CASE/ IRON CYLINDER BARREL/ 'AERO' ON DIECAST DIECAST BYPASS COVER/ METAL TANK SEPARATE - MADE FROM 2 OZ. RIFLE BORE CLEANING TIN CAN AND REPAINTED/ LATER HAD DIECAST CASE AND 3/8" DIA. MACHINED & COUNTER BALANCED CRANKSHAFT	125	142 141 128-NEW	628
"	'38 *	I	GHQ AERO	0.519	AS PREVIOUS/ STAMPED AND DRAWN STEEL PISTON/ FORGED CRANKSHAFT 5/16"	125	128	629
"	'40	I	GHQ 'M'	0.519	AS PREV./ 'M' STAMPED ON REAR/ SOLD AS AIR- COOLED MARINE WITH MARINE ACCESSORIES (PER D.DREPS, FLORIDA)	175		630
"	'41	I	GHQ 'M' +	0.519	AS PREVIOUS/ HAS STEEL MARINE JACKET FROM FACTORY (PER D. VINCENT, FLORIDA)	175		631
"	NOTE:	---	GHQ PARTS	---	A VARIETY OF PISTON/ LINER SETS WERE USED OVER THE YEARS PRE-W.W. II, THRU IT, & POST WAR SO IT BECAME DIFFICULT SWAPPING PARTS			
"	NOTE:	---	---	---	A TWICE SIZE PARTS GHQ, CLOSER TO LOUTREL, WAS DISCOVERED YEARS AGO IN A.H.C.'s BASE- MENT. IT WAS PUT TOGETHER BY T.ENTICKNAP.	PROTO		
GIL MFG. COMPANY (M.E. ANDRADE, SALES MGR.)	---	---	---	---	APPARENTLY ADVERTISED & SOLD FROM 1922 THROUGH THE EARLY '30's ORIGINALLY SOLD WITH A MINIATURE TREMBLER COIL (2.50 EXTRA) AND A BOSCH 7-C AND THEN THE BOND 3/8" COMMERCIAL PLUG - PICS FROM NICHOLS AND DANIELS IN '66 E.C.J AND CURRENT PICS FROM JERRY BURK & FRED LORD ALL APPEAR TO HAVE SAME SPARK PLUG (NO MARKINGS).			
"	1922/	I	GIL AERO MIDGET	1.180	SANDCAST CYL. & CRANKCASE - 1 PIECE WITH SEPARATE FRT. CASE COVER (NAME ON FRT) & SHAFT BEARING - SEPARATE 4 BOLT FINNED HD./ PISTON OF 'LIONITE' W/ 2 RINGS/ CON ROD OF 'SEMI-ALLOY' CRANKSHAFT BUILT UP & GROUND/ OPEN TIMER - NOT AS IN AD./ 12" ALUM. PROP SUPPLIED WITH ENGINE/ 4 MTG. LUGS AT REAR OF CRANKCASE OR SHEET METAL MOUNTS	RARE 1200 1100 1500		632
"	NOTE:	1926	AERO MIDGET VARIATIONS		AS PREVIOUS/ VARIATIONS - NO NAME ON FRONT CRANKCASE COVER - LONG 'PIN' CRANKSHAFT ETC. - BASIC CASTINGS SAME FOR ALL MODELS.			
"	NOTE:	1932	1/2 HP - MORE VARIATIONS	---	ADVERTISED BY MINIATURE AIRCRAFT IN 1932 POPULAR AVIATION AS MIDJET	RARE		
GILBERT, A.C., COMPANY MFD. BY GILBERT DESIGNED BY BOB HOLLAND & BILL EFFINGER	'61	G	THUNDERHEAD II	0.119	AMERICAN FLYER CO. UPSLANTED REAR INTAKE/ SIDE PORT TYPE/ TWIN MUFFLERS/ SUPPLIED FOR READY FLY- ALSO WITHOUT MUFFLERS/ 'II' IN CIRCLE ON CASE/ SOLD AS FLIP OR RECOIL START/ THIS ENGINE HAD LONG AND SHORT MUFFLER VERSIONS	18	22	633
"	'61	G	THUNDERHEAD II	0.119	AS PREVIOUS/ 'II' ON CASE NO CIRCLE/ SEE .07 - THUNDERHEAD IN 1/2A BOOK	18		634



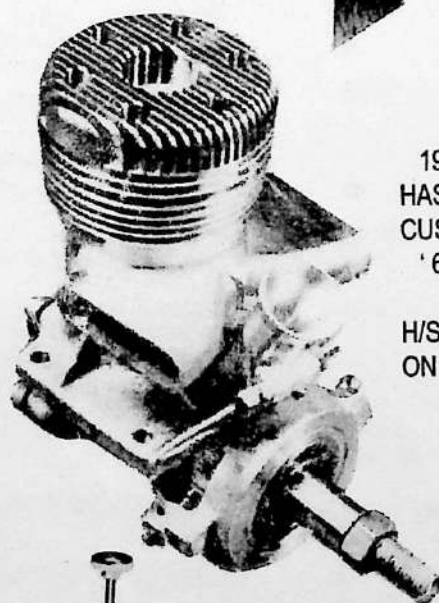
1946
GREMLIN
'29'



1946
H & H
'45'

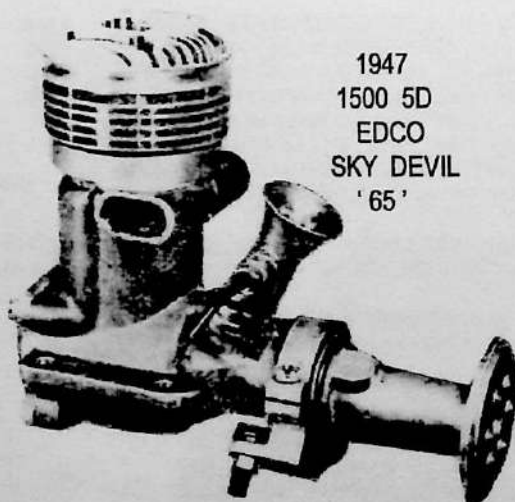


1939
HASSAD
CUSTOM
SCHOCK
'60'

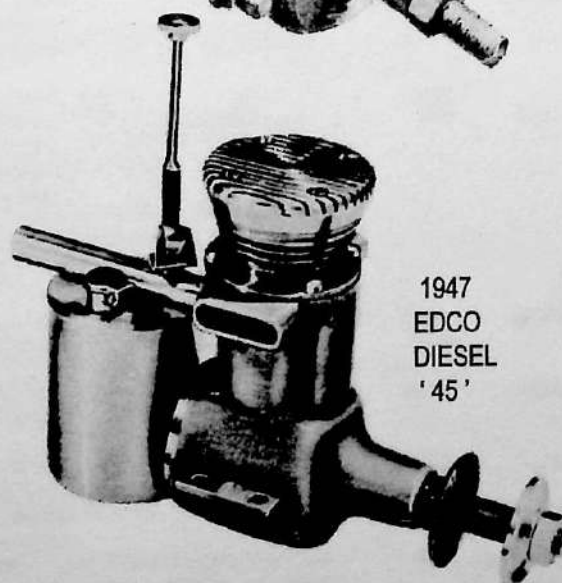


1941
HASSAD
CUSTOM
'61'

H/S NOT
ON CASE

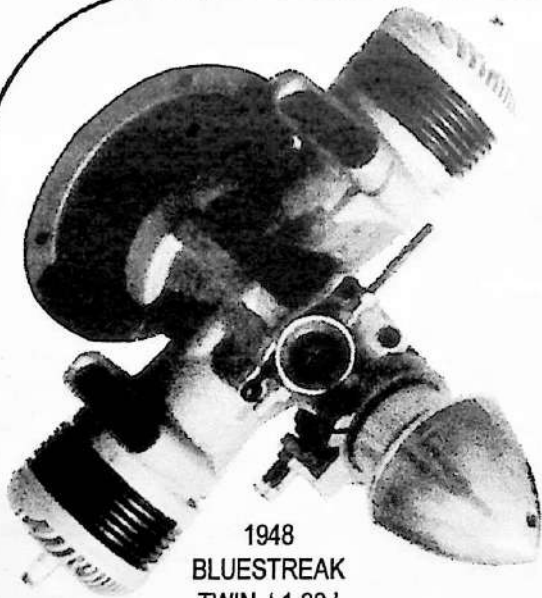


1947
1500 5D
EDCO
SKY DEVIL
'65'



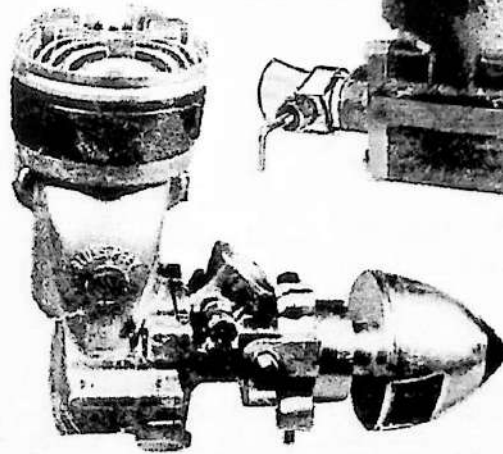
1947
EDCO
DIESEL
'45'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
GREMLIN	---	---	-----	----	MFD. BY STANLEY MACHINE & TOOL CO.			
"	'46	I	GREMLIN "B"	0.294	LAPPED PISTON/ SIDEPORT/ VERTICAL SPLIT ALUM. (MACHINED CASTING) CRANKCASE - 3 SCREWS/ LUCITE FUEL TANK/ TIMER AT REAR/ UNUSUALLY SHAPED ELLIPTICAL CYLINDER FINS ABOVE EXH. AND ROUND TINY FINS BELOW EXHAUST/ ADVERTISED BRONZE CON. ROD AND MAIN BEARING/ 3 PIECE CRANKSHAFT/ NO EXHAUST STACK/ IN COLLECTION OF G. WILES	RARE		635
"	*							
H & H MODEL MOTORS (HOWIE & HEUR)	'45	H/C	HOWIE TWIN	0.389	DIRECTLY OPPOSED FLAT TWIN/ALTERNATE FIRING/ SINGLE CARB. FEEDS EACH OF TWIN PIPES IN REAR OF EACH CYL. AS SIDE PORT/ 'SCOTCH YOKE' CONNECTING ROD/ UNIQUE/ FEW SEEN	RARE		636
"	'46	H/C	H & H 45	0.451	FIRST TRUE GLOW PLUG ENGINE/ PLUG ELEMENT BUILT INTO HEAD/ HOT-COIL IGNITION-PATENTED/ OVAL EXHAUST	425 500-N		637
"	'46	H/C	H & H 45	0.451	AS PREV./ RECTANGULAR EXHAUST/ REMOVABLE HEAD GLOW PLUG/ APPROX. 150 ENGINES MFD/ BALANCE MELTED DOWN IN FOUNDRY!	425	1186-NIB	638
"	*							
HASSAD (HASSAD & SCHOCK)	---	---	-----	----	SOLD BY H & H MODEL CRAFT AND WESTCHESTER HOBBIES UNTIL 1947			
"	'39	I	HASSAD CUSTOM SCHOCK	0.604	H/S ON CASE/ 'S' FOR SCHOCK-FRIEND OF IRA HASSAD/ BASICALLY A CAR & BOAT ENGINE/ BOLT-ON EXHAUST STACK ACROSS FRONT/ PLAIN BRONZE BEARING/ SMOOTH HEAD/ LAPPED PISTON/ 5 BOLT BACKPLATE	1125		639
"	'39	I	HASSAD PRE-PROD.	0.610	SIMILAR/REAR ROTARY DISC VALVE/ 'HRE' ON ENGINE/ ONLY 2 PRE-PRODUCTION	PROTO		640
"	'41	I	HASSAD CUSTOM	0.610	H/S DROPPED OFF CASE/ MINOR VARIATIONS/ SOLID OR FINNED HEADS/ OFFSET PLUG AND STRAIGHT PLUG/ RINGED PISTON/ BALL RACE SHAFT/ 4 OR 5 BOLT BACKPLATES	950		641
"	'41	I	HASSAD CUSTOM	0.649	AS PREVIOUS/ LAPPED PISTON	950 1400-NIB		642
"	'41	I	BATZLOFF 60 TRIUMPH		SEE 'BATZLOFF'- CUSTOM HASSAD VARIATION (SEE PAGE 8)			104
"	'41	I	BLACK PANTHER		SEE 'BLACK PANTHER' - 'RIP-OFF' OF HASSAD (SEE PAGE 8)			111
"	'46	I	HASSAD CUSTOM	0.610	AS PREV./RINGED PISTON/ 4 OR 5 BOLT BACKPLATE/ HIGH POLISHED CRANKCASE/ APPROXIMATELY 125 MANUFACTURED	950	1251	645
EDCO (ENGINEERING & DEVELOP.CORP.) (IRA HASSAD)	---	---	-----	----	SKY DEVIL WAS MASS-PRODUCED VERSION OF HASSAD CUSTOM WHICH HAD BEEN SOLD UNDER SKY-DEVIL NAME IN WESTCHESTER HOBBY SHOP IN NEW YORK			
"	'47	I	SKY DEVIL 1500 SD	0.649	DULL RED ANOD. CASE/ RACING/ FRONT INTAKE BOLTED ON/ ALMOST SAME AS HASSAD CUSTOM EXCEPT LG. EXH. STACKS REMOVED & FRONT BEARING REDUCED/ 4 BOLT CRANKCASES ONLY	250		646
"	'47	I	SKY DEVIL 1500 SD RACE CAR	0.609	AS PREV./ RED CASE/ THICK SLEEVE/ RACING CAR VERSION -APPROXIMATELY 1500 TOTAL MFD./ BORE DECREASED FOR RACE CAR RULES	300		647
"	'47	D	EDCO DIESEL	0.451	MASSIVE ALUMINUM DIE CAST RED ANODIZED CASE/ FIXED COMPRESSION/ PISTON HARDENED & GROUND/ POLISHED ALUMINUM BACKPLATE SPUN ALUMINUM TANKS/ TWIN EXHAUST STACKS/ VERY FEW MFTD./ REPRO BY R.J.L.	425		648

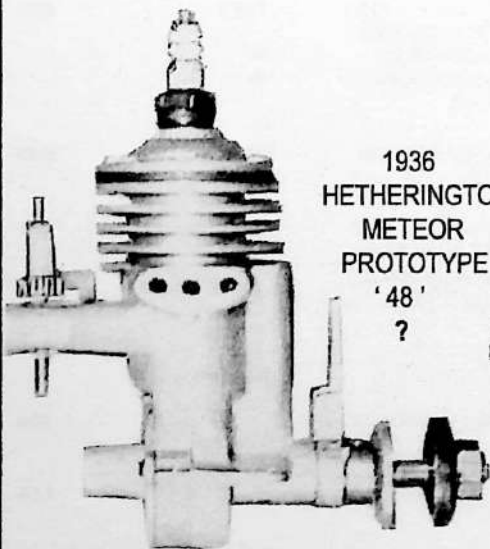
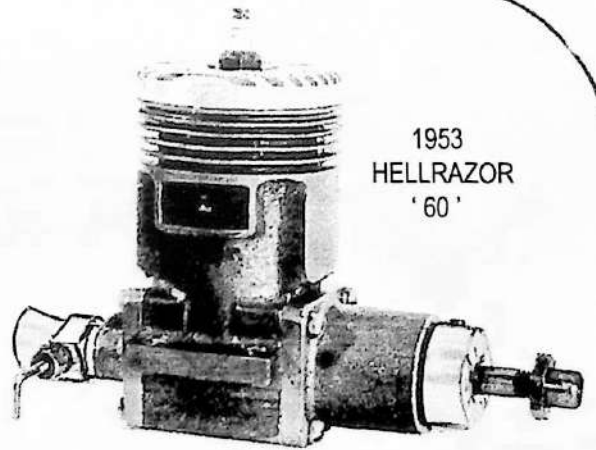


1948
BLUESTREAK
TWIN '1.30'

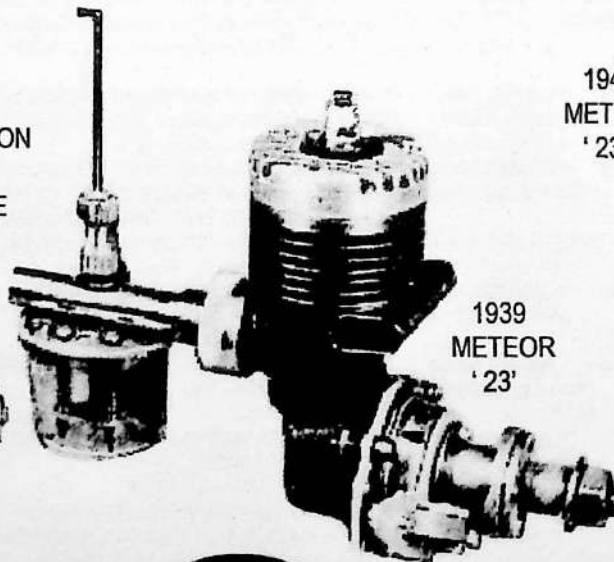
1948
BLUESTREAK
'65'



1953
HELLRAZOR
'60'

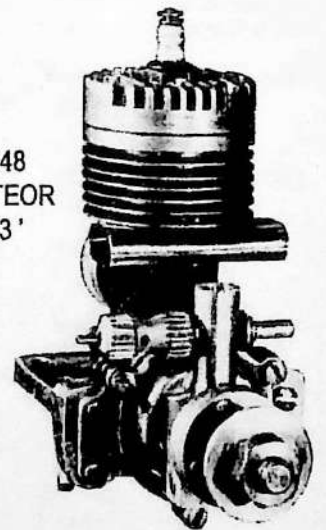


1936
HETHERINGTON
METEOR
PROTOTYPE
'48'
?

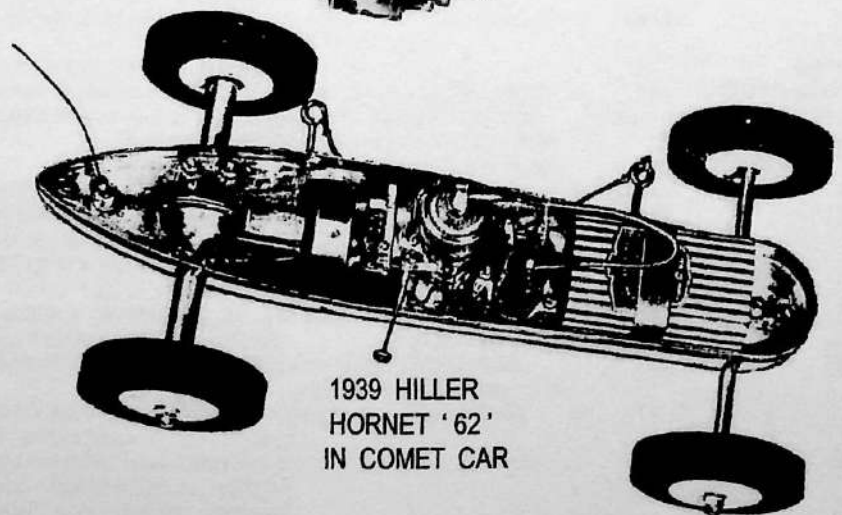


1939
METEOR
'23'

1948
METEOR
'23'

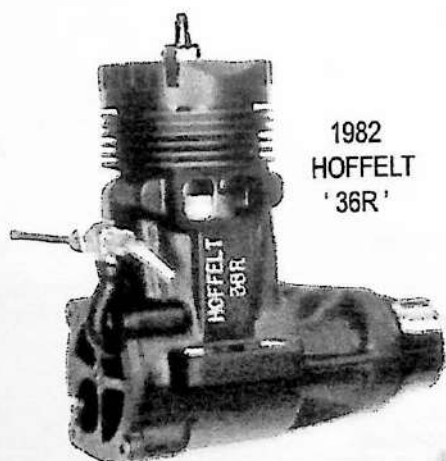


1937
HILLER
HORNET
'62'

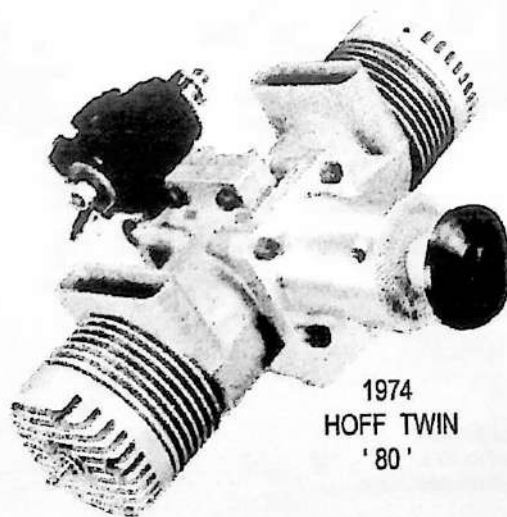


1939 HILLER
HORNET '62'
IN COMET CAR

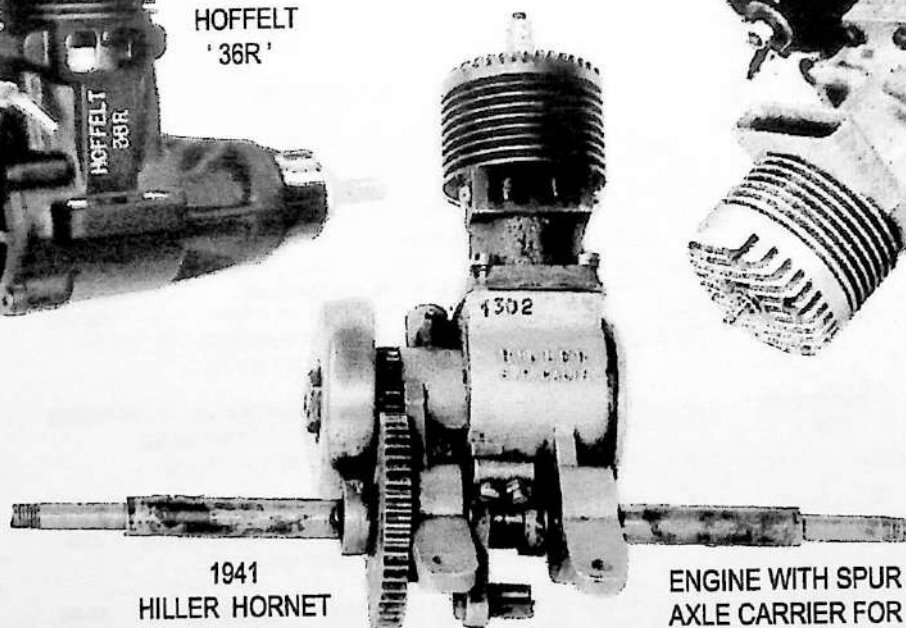
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
HASSAD	---	---		----	MFD. BY INTERNATIONAL TOOL			
BLUESTREAK (IRA HASSAD)	'48	I	BLUESTREAK 647	0.647	HASSAD DESIGNED NEW SMOOTH CASE WITH EXHAUST ON LEFT SIDE - SKY DEVIL INTERNALS USED/ BLUE ANODIZED CYLINDER FINS/ VERY SHORT INTAKE/ OPEN TIMER	325 475-NIB 390-NIB	282	649
"	'48	I	BLUESTREAK TWIN 1.3	1.295	PRE-PRODUCTION/ NEW CASE BASED ON PREVIOUS/ RADIAL MOUNT/ BLUE CYLINDER/ 3 MANUFACTURED (J. WILES)	PROTO		650
"	'49	G	BLUESTREAK	0.647	AS IGNITION MODEL/ NO TIMER PROVISION	225		651
HELL RAZOR (MAX BIEDERMAN & ART HASSELBACH)	'53	G	HELLRAZOR 60 & OTHER PROTOTYPES	0.607 0.499 0.901	7 DIFFERENT MODELS/ FRONT&REAR ROTARY/ SANDCAST CASE/ MACHINED ALUMINUM HEAD/ TWIN TRANSFER PORTS/ TWIN EXHAUST PORTS/ 1/4" SHAFT/ SINGLE RING/ PHENOL RESIN ROTOR/ UNKNOWN PRODUCTION	PROTO		652
HETHERINGTON (ROBERT J. HETHERINGTON)	'32	I	PROTOTYPE	0.601	ORIGINALLY STARTED WITH AIR ENGINES (FIRST ENGINE BUILT AS PROTOTYPE IN 1932) 7/8" X 1" BORE AND STROKE-LATER WERE .488 AND .232 DISPLACEMENTS	PROTO		653
" NOTE:	'34/35	I	PROTOTYPE SIZE ?	?	NAME METEOR ADOPTED AND OTHER DESIGNS TRIED/ BORE RETAINED AT 7/8" BUT STROKE REDUCED TO 13/16" UNTIL .19"s & .23"s DESIGNED/ V-1 PLUG	PROTO		654
"	'36 *	I	'METEOR' PROTOTYPE	?	SANDCAST CASE/ OPEN TIMER/ HEIGHT 4.5 INCHES/ 1.6" HEAD DIA/ MACHINED CYLINDER FINS/ METEOR NAME ON FRONT OF BYPASS/ D.PEUGH COLL.	PROTO 425		655
"	'37	I	METEOR	0.232	SANDCAST CASE AND TIMER FRAMES/ LARGE EXHAUST HOLE WITH SMALL SLOT EXHAUST IN CYLINDER LINER/ WITH AND WITHOUT RINGS/ REED VALVE INTAKE IN CENTER OF BACKPLATE/ SOME ALSO BUILT AS SIDEPORT ENGINE/ 50 MFD.	RARE 375		656
"	'38	I	METEOR	0.488 AND 0.562	SANDCAST ALUMINUM CASE, REAR COVER AND TIMER FRAME/ FLUTTER VALVE IN REAR INTAKE/ STAMPED STEEL PISTON/ CYLINDER WITH FINS SCREWED TO CRANKCASE/ HEAD FINS/ OPEN TIMER/ 85 MANUFACTURED.	RARE 375		657
"	'39	I	METEOR	0.232	'FLUTTER OR REED VALVE' IN REAR VENTURI/ ALL MAIN ENGINE COMPONENTS FABRICATED FROM 30 SHEET METAL STAMPINGS-UNIQUE / ALL BRAZED TOGETHER IN AN EXCELLENT MANNER/ SIMILAR CONFIGURATION TO PREVIOUS MODEL/ LAPPED PISTON/ 225 MANUFACTURED.	250 300-NIB	240	658
"	'39	I	METEOR	0.198	AS PREV./ PROBABLY PROTOTYPE FOR SMALLER DISPLACEMENT / 6 MANUFACTURED	PROTO		659
"	'48	I	METEOR	0.232	AS PREV. 23/ FRONT ROTARY VALVE MOUNTED ON FRONT OF CASE/ SAME 'FLUTTER' VALVE/ 3-PROTOTYPES MFD./ BALANCE ARE MFD. FROM PARTS LEFT OVER & SOLD THRU INTO THE 1980's	175		660
" NOTE:	1950 1974	G	METEOR	0.232	HETHERINGTON SAID HIS ENGINES ALL RAN BETTER ON GLOW THAN ON IGNITION AND ASSEMBLED SOME .23's ON GLOW IN 1950 - SOLD ONE GLOW 23 TO BOB ARTHUR IN 1974 ... SHINY BLACK PAINT ON MOST CASES	165		661
HILLER INDUSTRIES (STANLEY HILLER OF HILLER HELICOPTERS)	'37	I	HILLER HORNET	0.620	SAND CAST ALUMINUM CASE/ CAST IRON VERTICAL CYLINDER/ FRONT ROTARY/ NO HEAD FINS/ 3 PISTON RINGS	575		662
"	'39	I	HILLER HORNET COMET CAR	0.620	AS PREV./ VERTICAL CYLINDER/ BUILT INTO CAR	575		663



1982
HOFFELT
'36R'

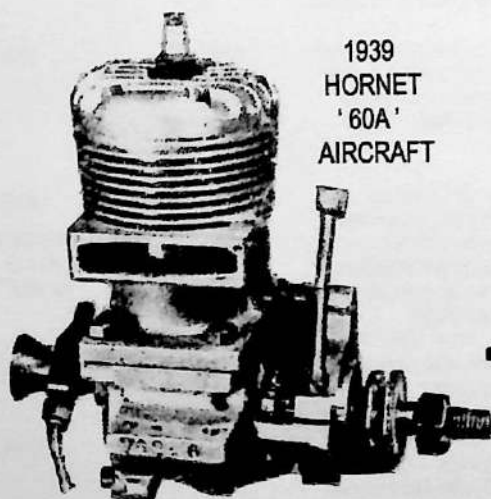


1974
HOFF TWIN
'80'

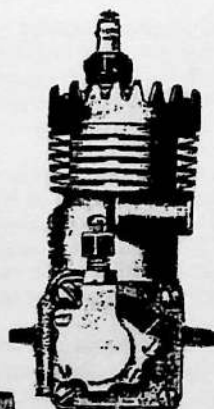


1941
HILLER HORNET

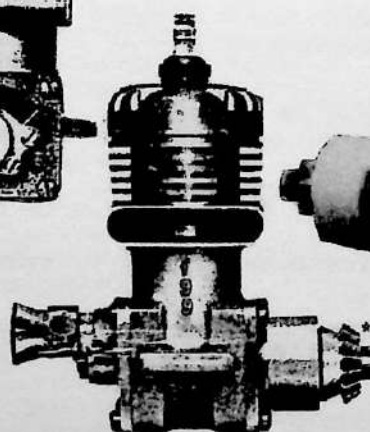
ENGINE WITH SPUR GEAR AND
AXLE CARRIER FOR COMET CAR



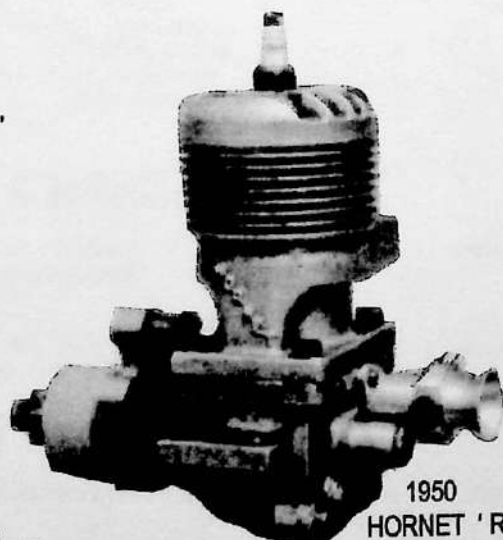
1939
HORNET
'60A'
AIRCRAFT



1950
HORNET '19'
WITH SMALL
GEAR PUMP



1950 HORNET '19'

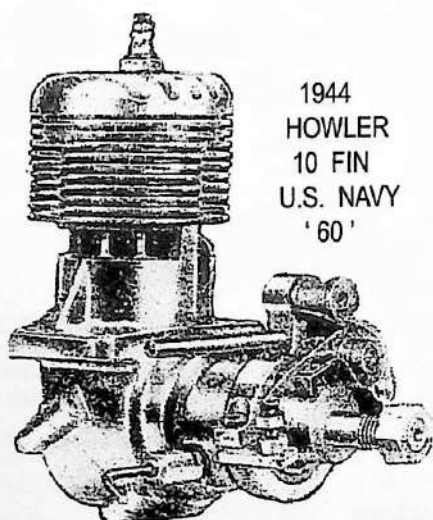


1950
HORNET 'R'
BULGE
'61'

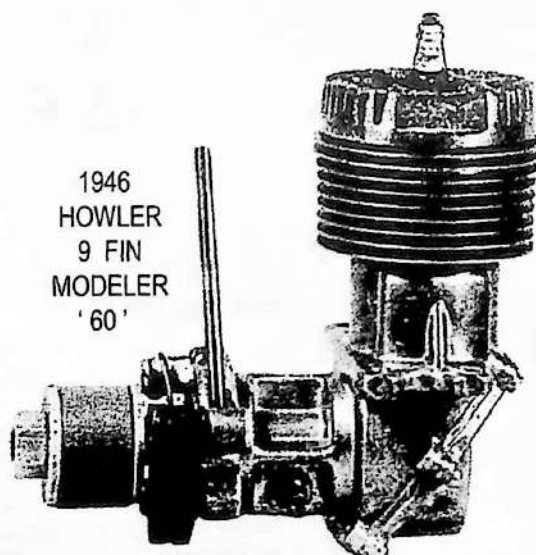
RACE
CAR
GEAR



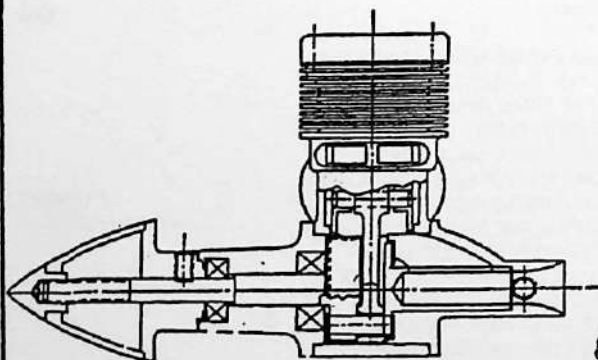
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
HILLER INDUSTRIES	'41	I	HILLER HORNET COMET CAR	0.620	NEW DIE CAST ALUMINUM CASE PLUS SPUR GEAR & AXLE CARRIER/ SLANTED ENGINE/ MACHINED CROSS HEAD FINS/ SWEEP EXHAUST ADDED	525	500	664
HOFF ENGINEERING (DICK HOFF)	---	---	-----	----	HAND MADE ENGINES BUILT ONLY TO ORDER EXCLUSIVELY FOR GMC MODELS IN CAIFORNIA			
"	'74	G	HOFF TWIN 80	0.798	CUSTOM TWIN WITH OPPOSED CYLINDERS/ 3 BALL BEARINGS/ CHROMED SLEEVES AT EXTRA COST/ 2 RIGHT ANGLE EXHAUST STACKS/ BEAM MOUNTED/ REAR ROTOR WITH PERRY CARB/ USED K&B .40 PARTS/ ALL TEST RUN AT SHOP BEFORE SHIPPING	275		665
HOFFELT GROUP (MIKE HOFFELT)					MIKE HOFFELT PRODUCED A SMALL NUMBER OF VERY HIGHLY MODIFIED K&B .40 ENGINES, TURNING THEM INTO SUPER PERFORMANCE COMBAT AND FREE FLIGHT ENGINES. READ HIS OWN STORY OF HOW HE PRODUCED \$265. COMBAT AND FREE FLIGHT ENGINES IN HIS OWN STORY IN THE BACK OF THIS BOOK.			
"	'82-'86	G	HOFFELT 36R COMBAT	0.359	HIGHLY MODIFIED K&B .40S	175		666
"	'82-'86	G	HOFFELT 40R 'C' FREE FLIGHT	0.399	HIGHLY MODIFIED K&B 40S			667
"	'82-'86	G	HOFFELT 41R 'D' FREE FLIGHT	0.409	HIGHLY MODIFIED K&B 40S			668
					THE FOREGOING ENGINES WERE HIGHLY MODIFIED BY HOFFELT AS FOLLOWS: TAPERED AIRCRAFT ALLOY PISTON/ CUSTOM FITTED DYKES RING/ HARD CHROMED, LAPPED, TAPER HONED, STEEL SLEEVE/ RODS MACHINED FROM HIGH TENSILE AIRCRAFT ALUMINUM ALLOY AND SHOT PEENED FOR FATIGUE RESISTANCE/ RODS HAVE PRICISE BRONZE BUSHINGS BOTH ENDS/ COMPLETE ENGINE BLACK ANODIZED/ UNIQUE FUEL METERING SYSTEM WHERE REAR- MOUNTED NEEDLE VALVE ROUTES PRESSURIZED FUEL DIRECTLY INTO THE CRANKCASE WITH NO VENTURI FOR FLUSH COMBAT-FIREWALL MOUNTING/ ORIGINAL ENGINE REDUCED TO 9.2 OZ./ THIS ENGINE USED 74% NITRO AND 10% PROPYLENE OXIDE PLUS 11% KLOTZ WITH 6% CASTOR OIL - USING GLOBEE PLUGS WITHOUT SELF DESTRUCTING.			
NOTE:	---	---	-----	----	THE ENGINE SHOWN ON THE BACK COVER HAS A SILVER HEAD, IS AN EARLY .41 DISPLACEMENT. IT HAS #41 ON THE TOP OF THE MTG. LUG.			
HORNET MOTORS (ANDERSON-CAVE- SNOW & CLARK)	'32/46	I	A-C SPECIALS PROTOTYPE	0.607	RACE CAR SPECIALS/ 3 PROTOTYPES MANU- FACTURED FOR HORNET/ NO PROP WASHER/ FLYWHEEL ATTACHED/ 3/8" PLUG	PROTO		669
"	'39	I	HORNET '60A' AIRCRAFT	0.607	SAND CAST CASE/ AIRPLANE TYPE PROP DRIVE/ MACHINED ROD & SHAFT/ 3/8" PLUG	310 350	501 450	670
"	'39	I	HORNET '60B' MARINE	0.607	AS PREV./ MARINE TYPE/ FLYWHEEL/ 3/8" PLUG	350	443 380	671
"	'39	I	HORNET '60R-C' RACE CAR	0.607	AS PREV./ FLYWHEEL/ DOWEL PIN HOLES IN LUGS/ 3/8" PLUG	350	352 210 797	672
"	NOTE:	*	---	PRE-WAR SERIAL #'S	MATCHING ON CASE AND REAR COVER. APPROX. 5,000 HORNETS MFD. PRIOR TO 1941			
"	'46	I	HORNET 'V'	0.607	AS PREV./ IRREG. CAST EXH./ POST WAR 'V' IN ALL SERIAL #'S/ FORGED ROD & SHAFT/ 1/4" PLUG	425 400-N	360 285	673
.19 DATA FROM ED ALLSMAN PLANT MGR.(FRESNO)	'50	G	HORNET '19' RACE CAR	0.199	DIE CAST CASE - AS McCOY. 19/ RACE CAR GEAR/ PISTON RINGS/ REGULAR REAR INTAKE/ 200 SOLD	275	285	674
"	'50	G	HORNET '19'	0.199	AS PREV./ ADDED SMALL GEAR PUMP ON RACE COVER/ 3 MANUFACTURED	PROTO		675



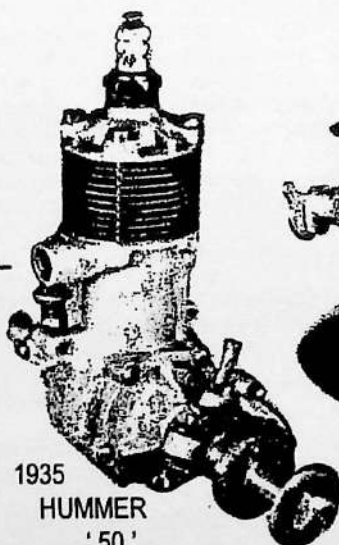
1944
HOWLER
10 FIN
U.S. NAVY
'60'



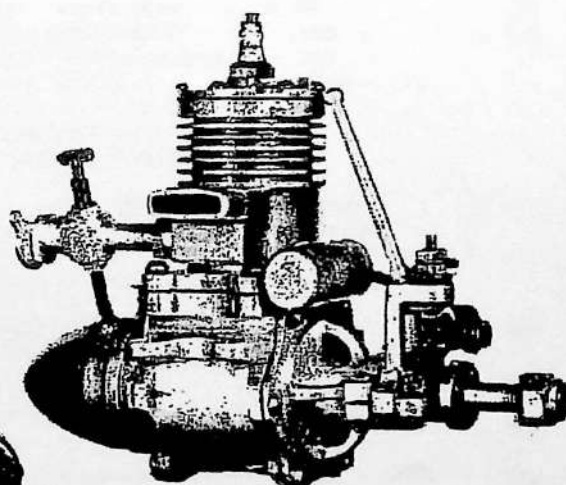
1946
HOWLER
9 FIN
MODELER
'60'



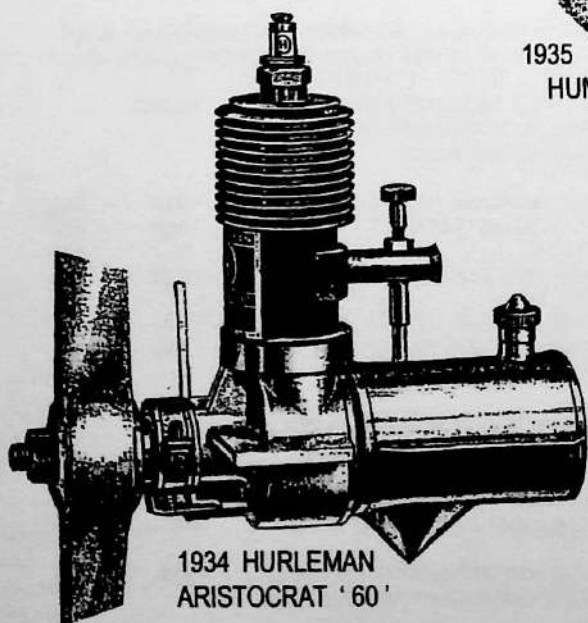
1962 (ASHER) HOWLER '15'



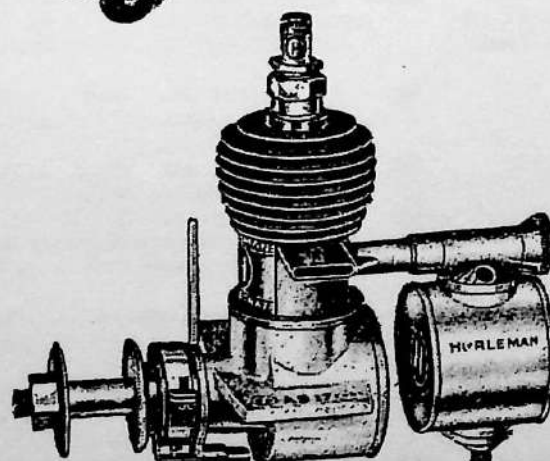
1935
HUMMER
'50'



1946 HUMMINGBIRD '78'



1934 HURLEMAN
ARISTOCRAT '60'



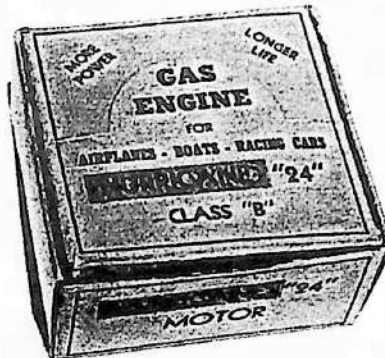
1938 HURLEMAN
ARISTOCRAT '49'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
HORNET	'50	I	HORNET 'R' (BULGE)	0.607	AS PREVIOUS 60A/ BULGE BYPASS/ DIE CAST VENTURI/ BIG SHAFT/ 1/4" PLUG	550 700		676
* NOTE:1	---	--	MAGNETOS	----	HORNET OFFERED BOTH AN AERO AND RACE CAR MAGNETO IGNITION			
* NOTE:2	'39/46	--	VARIATIONS	0.607	DIFFERENT CASES/ SHAFTS/ FOR CARS & PLANES			
* NOTE:3	---	--	MODIFICATIONS	----	CONVERSION KIT HAD MOD.CYLINDER JACKET- BACK COVER - CARB. WITH 3/8" BORE OVER STD. 5/16"/ALSO BIGGER LINERS WITH 'FLYWHEEL' PISTONS-INCREASED DISPLACEMENT TO .65			
HORVATH HORVATH BROTHERS	'49	I&G	HORVATH 60 SPEED	0.608	SAND CAST CASE/ REAR ROTOR/ ROLL BEARINGS/ 3 KNOWN INCLUDING A .90			677
HOWLER (H. LEE FOWLER)	---	--	-----	---	MFD.BY BONE TOOL & GAUGE CO. ORIGINALLY DESIGNED TO FLY MODEL HELICOPTERS AS RESCUE MARKERS FOR U.S.NAVY LIFE BOATS			
*	'44	I	HOWLER (U.S. NAVY)	0.604	NO AIR INTAKE AT NEEDLE VALVE/ AIR INTAKE ONLY THROUGH SUB-PISTON INDUCTION/ 10 CYLINDER FINS/ HORNET TYPE HEAD/ ALSO SOLD TO PUBLIC (D. PEUGH)	RARE		678
*	'46	I	HOWLER	0.604	SMALL AIR INTAKE AT NEEDLE VALVE TO SUPPLEMENT AIR INDUCTION (ATTEMPT TO SELL SPECIAL ENGINES POST WAR - FEW SOLD) SIMILAR SHAPE/ DIFFERENT CASE - 9 CYL. FINS/ DIFFERENT HEAD - MORE FINS - SQUARED OFF/ DESIGN CHANGED TO AVOID GOVT. CONFLICT	700 750 775-N		679
HOWLER (CRAIG ASHER)	---	--	-----	---	CRAIG ASHER WAS CUSTOM SPEED (15) ENGINE BUILDER AND ASSOCIATED WITH BOTH BOB LAUDERDALE (FLIER) IN 1964 AND CARL SPIELMAKER (ANOTHER WELL KNOWN ENGINE BUILDER) IN '65 AND SOLD KITS OF HIS ENGINES AS LATE AS 1995.			
*	'62	G	HOWLER 15 F.A.I. SPEED	0.149	SAND CAST CRANKCASE WITH EXHAUST ON RIGHT SIDE/ REAR ROTOR DISK VALVE INTAKE/ MACHINED FRONT END			680
*	'62	G	HOWLER 29	0.298	AS 15/ LARGER	165		681
*	'62	G	HOWLER 65	0.647	AS 29/ LARGER	175		682
*	'65	G	HOWLER 15 F.A.I. SPEED	0.149	SAND CAST CRANKCASE WITH EXHAUST ON LEFT SIDE/ REAR ROTOR DISK VALVE INTAKE/ HOWLER MARKING ON BULGE BYPASS/ CRAIG ASHER WORKED AT WORLD ENGINES AT THIS TIME AND PRODUCED CASTING KITS			683
* NOTE:	---	--	-----	---	LATER ENGINES WERE BUILT FROM OLD CASTING KITS AND ALSO FROM WORLD ENGINES PLANS.			
HUMMER (ED LANDGRAF)	'35/'36	I	HUMMER 50	0.528	MFD. BY MECHANICAL DEVELOPMENT CO. ALUMINUM SAND CAST/ ROTARY - DRUM - REED VALVE INTAKE/ IRON CYLINDER AND FINS/ SINGLE RING PISTON/ 8 MANUFACTURED	RARE		684
HUMMINGBIRD ENGINE CO. (GEO. H. BROWN)	'46	I	HUMMINGBIRD PROTOTYPE	0.785	SIDE PORT/ MECHANICALLY DRIVEN SUPER- CHARGER/ OPEN TIMER/ STREAMLINED TANK AT REAR/ 3 HAND MADE PROTOTYPES ONLY/ NO PRODUCTION BUT ADVERTISED	PROTO		685
HURLEMAN DISTR. COMPANY (WALTER J. HURLEMAN)	'34	I	ARISTOCRAT	0.601	LATER MFD. BY J.B.L. INSTRUMENT CO. SIMILAR TO BROWN .60/ SAND CAST/ LAPPED PISTON/ (2 - MODELS ?)/ FLARED INTAKE	1150		686
*	'38	I	ARISTOCRAT C	0.488	COLLAR TYPE FUEL ADJUSTER INSTEAD OF NEEDLE VALVE WITH FRICTION SPRING & CLICK ADJUST/ SINGLE EXHAUST/ SMALL BYPASS WITH 'HURLEMAN' NAME ON BYPASS	375	870-NIB	687

HURRICANES

WHIRLWIND BOX
OVERPRINTED HURRICANE

1942
1ST
HURRICANE
- ORIGINALLY
WHIRLWIND -
'24'



1944
HURRICANE
'24'



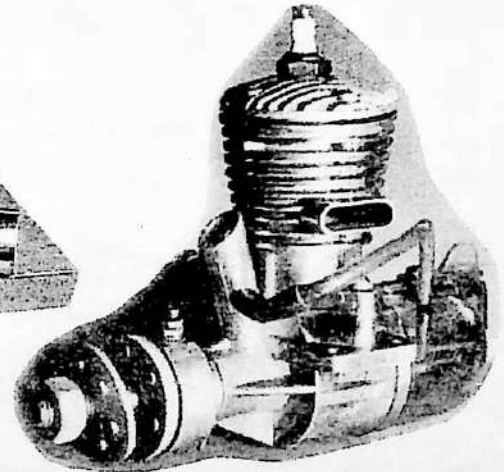
1945
HURRICANE
'19'



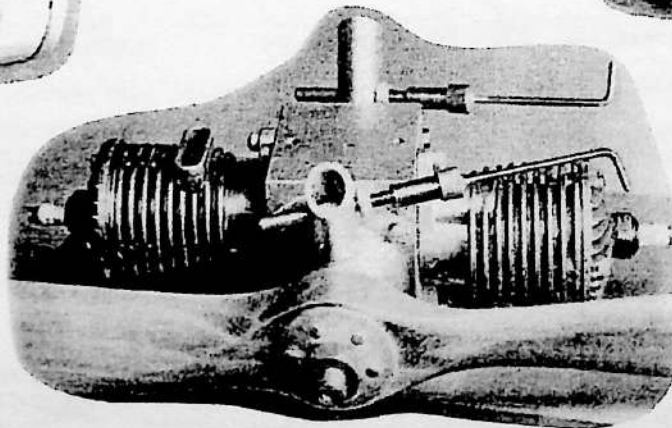
PARTS FROM
WHIRLWIND
'60'



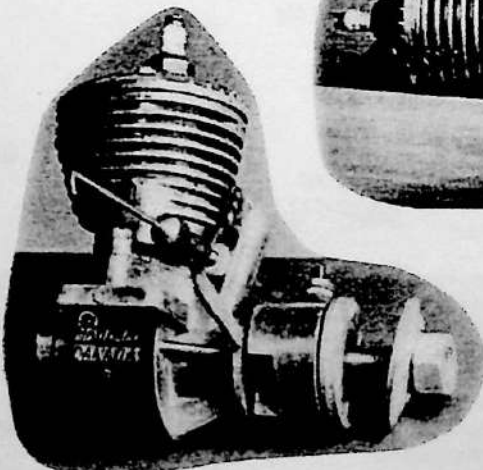
1946 HURRICANE '24'



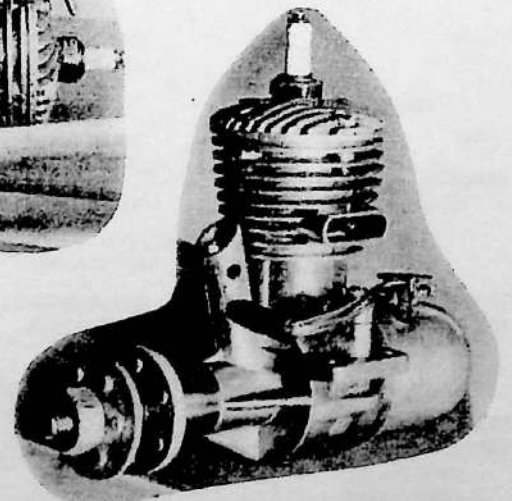
1946 HURRICANE
EXPERIMENTAL
TWIN '49



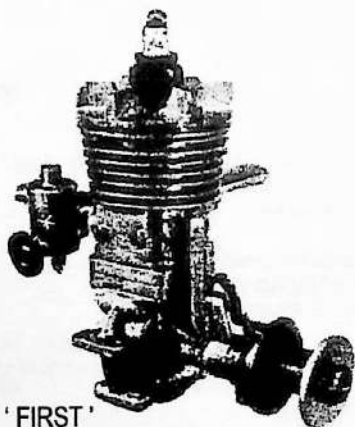
1948 SUPER HURRICANE '24'



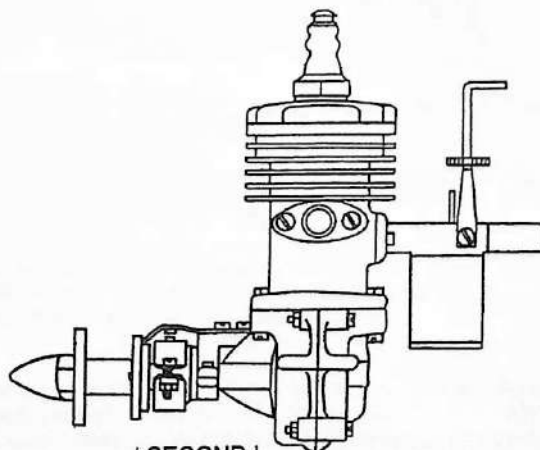
1949 HOT TOP '24'



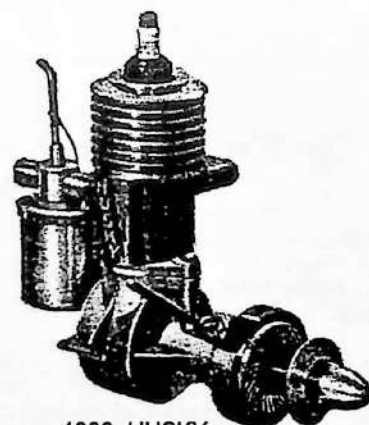
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
HURLEMAN	'39	I ARISTOCRAT C	0.488	AS PREV./ ENLARGED SINGLE EXHAUST AND MFD. WITH DIFFERENT FUEL TANKS 'HURLEMAN' NAME GONE FROM BYPASS/ REPLACED BY 'H' IN WING DESIGN ON FRONT OF CRANKCASE	375 325-NIB 475-NIB	REPRO 250	688
.	'46	I ARISTOCRAT C	0.488	AS '39/ SMALLER HEAD FINS/ DUAL EXHAUST SOLD IN LIMITED QUANTITIES	325-375		689
NOTE:	'72	-- TWIN	----	HURLEMAN TWIN .976 WAS NOT ORIGINAL BUT BUILT BY HERB WAHL IN 1972 AFTER PARTIALLY COMPLETED ORIGINAL TWIN PARTS FOUND IN HURLEMAN PARTS CLEAN OUT. SEE WAHL'S MODEL MOTORS PAGE 106.			
HURRICANE (CANADIAN) (RAY HUNTER)	—	—	----	MFD. BY PRODUCTION & TOOL CO. PRODUCTION CONTINUED IN CANADA AS EDUCATIONAL TOOLS THROUGH WAR YEARS ORIGINALLY CALLED 'WHIRLWIND'/ CURTIS-WRIGHT CANADA LTD., DEMANDED NAME CHANGE			
.	'42	I HURRICANE 24 (WHIRLWIND)	0.243	SAND CAST/ THIN FRONT HOUSING FLANGE WITH INTEGRALLY CAST INTAKE & TINY SUPPORT WEBS/ CYL. FINS STOP AT EXH./ PLASTIC HANG TANK	325		690
.	'44	I HP WHIRLWIND EXPERIMENTAL	0.601	EXPERIMENTAL FOR TARGET DRONES/ SAND CAST CASE/ MACHINED CASE FINS AND HEAD OPEN TIMER (6 BUILT)	PROTO		691
.	'44	I HURRICANE 24	0.243	AS '42/ THICKER FRONT HOUSING FLANGE WITH INTEGRALLY CAST INTAKE & LARGER SUPPORT WEBS	160	165	692
.	'45	I HURRICANE 24	0.243	AS '44/ NEW CYLINDER WITH FINS TAPERED - TO BELOW EXHAUST	160		693
.	'45	I HURRICANE 19 EXPERIMENTAL	0.199	EXPERIMENTAL/ '46 MODEL CYLINDERS/ WITH MODIFIED LOWER CASE FOR REDUCED CRANK THROW (8 BUILT)	PROTO		694
.	'46	I SUPER HURRICANE 24	0.244	ALL NEW DIECAST CRANKCASE - CYLINDER HEAD AND TIMER/ NEW SHORTER AND FATTER MOLDED HANG TANK/ TEARDROP CASE AND HEAD/ INTEGRALLY CAST INTAKE	150 125 235-NIB 240-NIB	300 128	695
.	'46	I SUPER HURRICANE 24	0.244	AS NEW DESIGN '45/ MOLDED CLEAR STREAMLINED PLASTIC TANK ADDED	150	213	696
.	'46	I EXPERIM. TWIN	0.488	EXPERIMENTAL/ 3 DIFF. MODELS (7 BUILT)	PROTO		697
.	'47	I SUPER HURRICANE 24	0.244	AS '46/ FINS SHAPED FROM CONSTANT TAPER TO ROUNDED OFF BELOW HEAD	150 195-NIB	150 133	698
.	'48 *	I SUPER HURRICANE 24	0.244	AS '47 WITH OHLSSON TYPE TIMER WITH TWO SCREW HOLES IN BACK OF ROUND TIMER AND OHLSSON TYPE ARM	125		699
.	'49	G HOT TOP 24	0.244	AS '46& '47 LESS TIMER WITH FRONT BEARING REPLACED BY STREAMLINED BRONZE NOSE BOSS AND STREAMLINED METAL TANK	125		700
NOTE:		I/G VARIATIONS	0.244	MANY MINOR VARIATIONS/ THIN AND THICK HEADS/ EARLY PISTONS WITH OIL GROOVES REPLACED BY FACTORY WITH SMOOTH PISTONS BETWEEN 1947 AND 1950.			
HUSKY MINIATURE MOTOR COMPANY (HOMER CONKLIN & STUART FINELY)	—	—	—	MFD. BY DOUGLAS MODEL AIRCRAFT CO. AND BAINBRIDGE MACHINE CO.			
.	'37	I HUSKY "JR."	0.192	SAND CAST CYLINDER WITH FINS TAPERED FROM HEAD DOWN TO EXHAUST/ OPEN TIMER/ SPLIT CASE/ BOLT ON BYPASS & STACK/ SPOKE HEAD FINS/ NO NAME/ APPROXIMATELY 25 BUILT	625		701
.	'37	I HUSKY "JR."	0.192	NEW SPLIT CASE/ NAME ON FRONT OF CYLINDER/ 6 FIN HEAD AND 3/8" PLUG	625		702



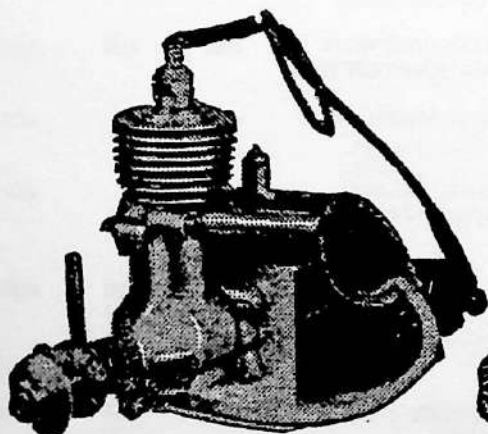
'FIRST'
1937 HUSKY 'JR-10'



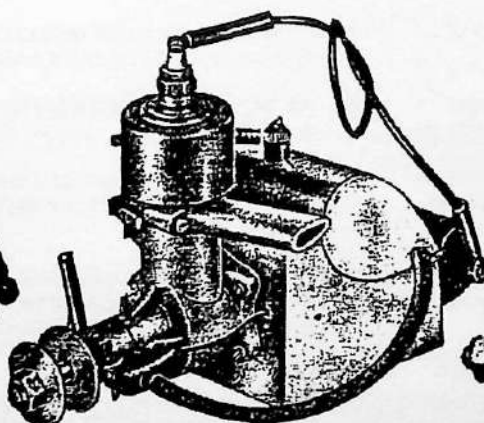
'SECOND'
1937 HUSKY 'JR-19'



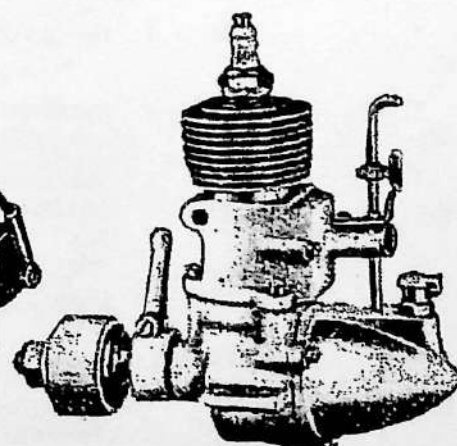
1939 HUSKY
'NEW JV-19'



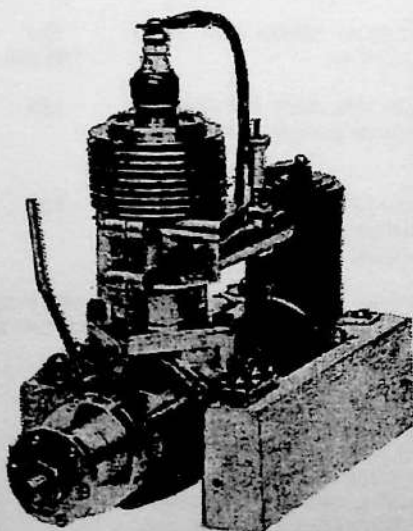
1938 INTERMOTE '37'



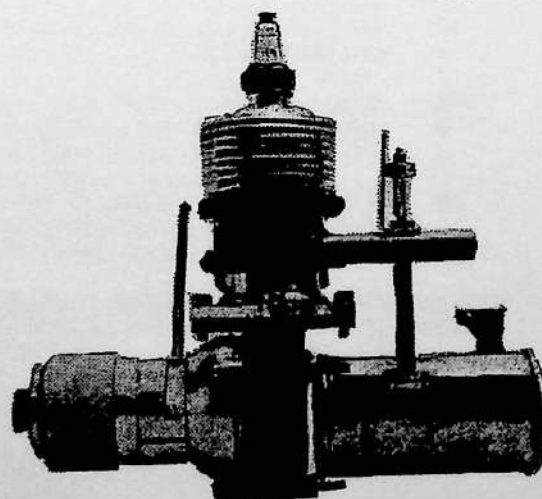
1938 WATER Nymph '37'



1938 IMP 'G-9'

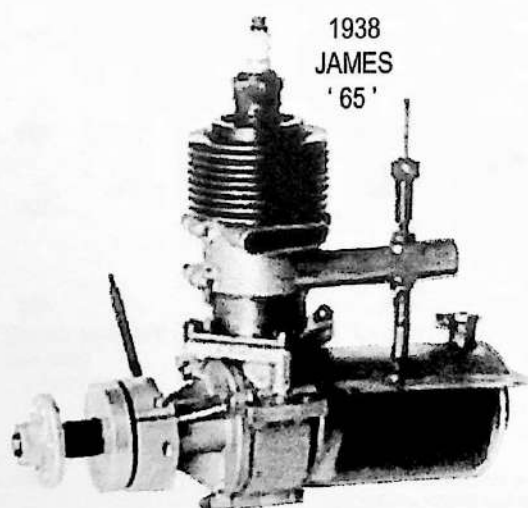


1938 JAMES '64'

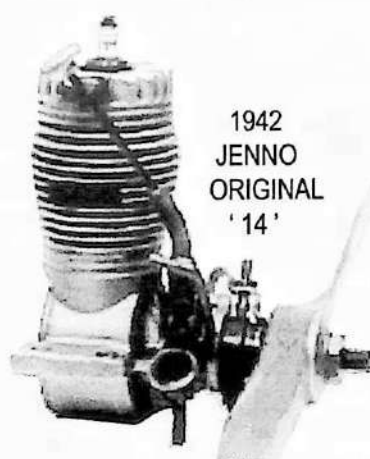


1945 (JAMES) ROCKET '65'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
HUSKY MINIATURE	'38	I	HUSKY "JV"	0.192	PERMANENT MOLD CASTINGS/ NO HEAD FINS/ CAST TANK TOP/ 4 VARIATIONS OF TIMERS COULD REFERENCE DIFFERENT MODELS/ LAST MODEL HAD NAME ON BYPASS	625		703
"	'39	I	HUSKY "NEW JV"	0.199	AS PREV. CADMIUM PLATED CYLINDER/ INTAKE COMES DIRECTLY OUT BACK OF CYL./ BENT WIRE NEEDLE VALVE/ LARGER BORE/ NAME ON BYPASS	625		704
"	'39	I	HUSKY JV "B"	0.205	SAME AS "NEW JV"/ INCREASED BORE/ NAME ON BYPASS/ (APPROXIMATELY 200 BUILT)	625		705
"	'46	I	HUSKY "JV"	0.199	AS '39 MODEL/ FLARED VENTURI/ INTAKE AND TANK TOP CAST IN ONE PIECE/ OPEN VERTICAL TIMER SIMILAR TO DENNYMITE/ NAME ON BYPASS	625		706
IDEAL AEROPLANE AND SUPPLY CO.	1912	I	1 H.P.	?	MOTORBIKE - MOTORCYCLE ENGINE FOR "MODEL AEROPLANES" WITH 24 INCH WOOD PROPELLER/ CATALOGED IN 1912/ NO FURTHER DATA AVAIL.	RARE		707
INTERNATIONAL MODELS CO. (imp) (GLEN MORTON)	---	---	---	---	FIRST TWO MFD. BY MORTON BROS. FOR INTERNATIONAL MODELS CO. & THE G-9 IS PROBABLY A RE-BRAND BELMONT			
"	'38	I	INTERMOTE (CHALLENGER)	0.375	ALUMINUM CAST/ RADIAL MOUNTING/ UPDRAFT FRONT ROTARY/ LAPPED PISTON/ FIXED IGNITION/ BOLT ON EXHAUST AND BYPASS/ SEPARATE METAL TANK MADE FROM SMALL RETAIL TIN CAN PAINTED/ ENGINE SAME AS MORTON CHALLENGER/ EXHAUST IS A SLOT	935		708
"	'38	I	WATER Nymph (CHALLENGER)	0.375	AS INTERMOTE/ WATER JACKET/ RADIAL MOUNTING/ METAL TANK/ EXHAUST 4 ROUND HOLES	935		709
"	'38	I	IMP "G-9"	0.564	TWIN EXHAUST/ CADMIUM PLATED CYLINDER/ STREAMLINED METAL TANK/ RATCHET NEEDLE VALVE/ ROGERS TYPE TIMER WITH CAST ARM (PROBABLY WAS A RE-BRAND BELMONT) VARIATIONS ON ALL ENGINES	935		710
INVADER (BERT "SPEED" HANNIGAN)	---	---	---	---	INFO FROM CLARENCE LEE (RCM) PROVIDED FOLLOWING FROM R.C.M. FEB. '78 ISSUE.			
"	'47	I	INVADER 45	0.449	SANDCAST CASE/ DUAL REAR SWEEP EXHAUSTS SCREWED ON/ BOLT ON HEAD CONFORMING TO UNIQUE HEAD OF PISTON HAVING VOLCANO SHAPED OPENING ON TOP/ TOP OF PISTON IS FLOOR OF VOLCANO SHAPE W/ 4 PORT WINDOWS SPACED AROUND HD. OF PISTON/ PORT WINDOWS MATCH UP WITH CORRESPONDING PORT WINDOWS IN LINER THAT IS FED FUEL FROM THE CRANKCASE BY FOUR CHANNELS IN CRANKCASE/ COMBUSTION CHAMBER SHAPE OF HD. MATCHES TOP OF PISTON WITH SPARK PLUG EXTENDING HOLE IN HEAD OF PISTON/ 2 PISTON SPLIT RINGS FIT INTO SINGLE PISTON GROOVE/ REAR INTAKE/ REAR MTD. IGN. TIMER/ CLARENCE KNEW OF 5 ENGINES/ 1 ENGINE HAD SERIAL #013 IN CLARENCE LEE'S COLLECTION			711
JAMES MOTORS (HARRY RICE)	---	---	---	---	MFD. BY HARRY RICE BEFORE JOINING OHLSSON - SOLD BY THE GREAT WESTERN AIRPLANE CO. - NAMED "JAMES" BY RICE FOR HIS SON			
"	'38	I	JAMES	0.647	LOOKS LIKE "GOLD SEAL"/ BEAM OR RADIAL MOUNT THIN LUGS/ 9 CYLINDER FINS/ LAPPED PISTON CLOSED TIMER/ SQUARE LINER PORTS ARE VARIED TO ALSO INCLUDE "KEY HOLE" SHAPE ON ENGINES SOLD IN ENGLAND AS THE "FLEET" ENGINE	RARE		712
"	'38	I	JAMES	0.604	AS PREV./ THICKER MOUNTING LUGS/ 7-9 CYLINDER FINS/ 5-ROUND (DRILLED) EXHAUST PORTS/ RINGED PISTON	750		713



1938
JAMES
'65'



1942
JENNO
ORIGINAL
'14'

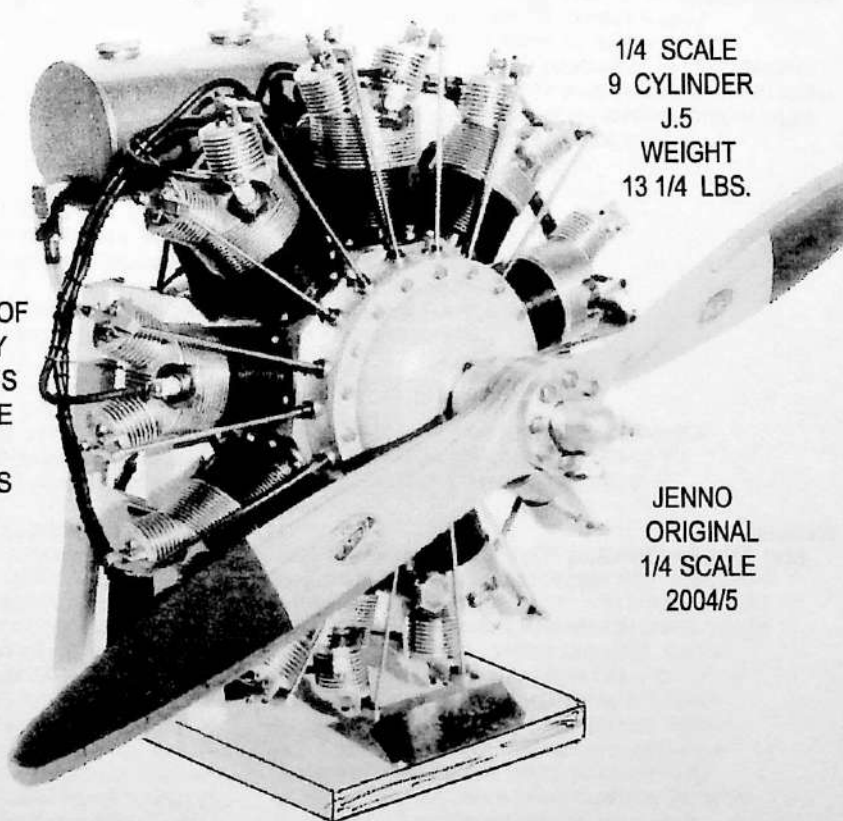


1998+
JENNO
ORIGINAL
'19 OR 21'



JENNO
HASSAD SCHOCK
REPRO
'60'

A FEW OF
LARRY
JENNO'S
ENGINE
ART
WORKS

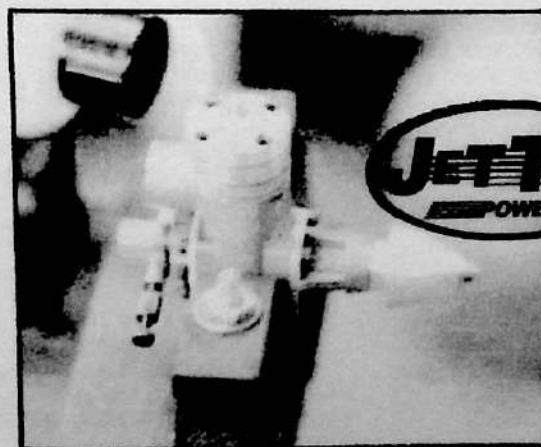


1/4 SCALE
9 CYLINDER
J.5
WEIGHT
13 1/4 LBS.

JENNO
ORIGINAL
1/4 SCALE
2004/5

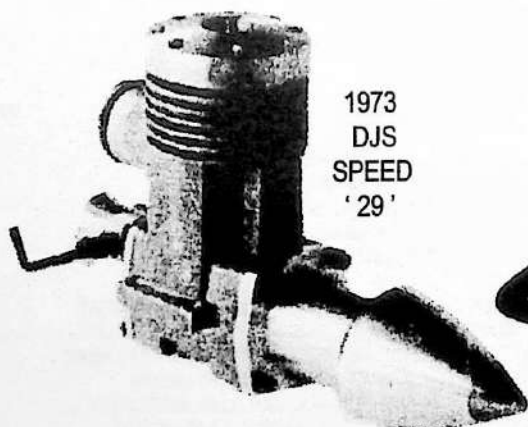
JETT ENGINEERING INC.

This is a photograph of the DJS .049, developed in 1977 by Dub Jett and John Shannon. It sold for \$300.00 (yes in 1977 U.S. dollars). This engine held the CL 1/2A speed record for several years, but the real prize was the .15 size that held the record for an amazing 11 years! DJS engines were the first to break 200 mph in class B, 180 in class A and 130 in class 1/2 A.

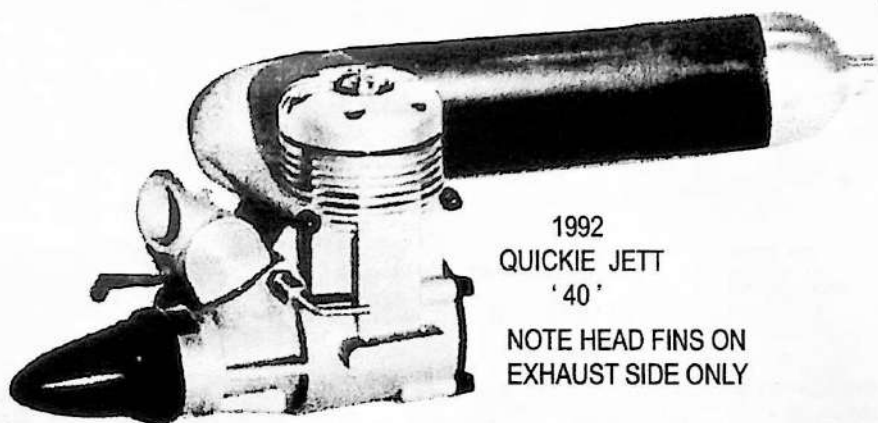


MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION --- ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
JAMES MOTORS	'38	I	JAMES	0.647	AS PREV./ LARGER INTAKE TUBE/ 4-ROUND EX - HAUST PORTS/ 9 FIN CYLINDER/ LAPPED PISTON	750		714
" "	'39 *	I	JAMES	0.647	AS PREV./ 3-ROUND EXHAUST PORTS/ NEW CYLINDER BASE BRAZED TO CYLINDER/ PROBABLY SOLD IN ENGLAND WITH STRAIGHT TIMER ARM & NUT/ LAPPED PISTON/ ENGINE COLLECTOR'S JOURNAL CALLS THIS A PHONY ENGINE	RARE		715
" "	'39	I	JAMES	0.604	AS PREV./ 4 EXHAUST PORTS/ RINGED PISTON	750		716
" NOTE:	'45	I	JAMES ROCKET SEE LISTING FOR 'ROCKET 65'	0.647	LIMITED PRODUCTION BY AMERICAN MODEL IND./ AS PREVIOUS/ ROUNDED 8 CYLINDER FIN PROFILE/ CASE AND MANIFOLDS ANODIZED OLIVE DRAB/ SPUN ALUMINUM COVER PLATE OVER BEARING HOUSING/ ENCLOSED TIMER/ LAPPED PISTON			
JENNO ANTIQUE ENGINES (LARRY JENNO)	--	--	-----	----	<p>LARRY WAS FLYING U-CONTROL IN THE LATE 40'S AND TRIED TO BEAT HAROLD deBOLT FOR A NUMBER OF YEARS AND PRODUCED A HALF DOZEN '60'S FOR HIMSELF AND A FEW FRIENDS. WE'VE KNOWN LARRY SINCE THE 60'S WHEN HE WAS THE J OF JZ ZINGER WOOD PROPS WHICH ARE USED TODAY (NO LONGER CONNECTED) AND WATCHED HIS PROGRESS FROM HIS OLD ORIGINAL 1942 JENNO .14 IGNITION (PICTURED HERE) TO THE PRODUCTION OF THE FOLLOWING REPOS:</p> <p>500+ TORP 24/29/32'S FOR ED SHILEN 300 SUPER CYCLONES (IGNITION) 75 ORR .65'S (IGNITION) 100 OHLSSON .12'S (IGNITION) IN CLEAR CASES 4 ARGO PROTOTYPE DIESELS 35 JENNO 19 & 21'S (IGNITION) 2 HASSAD REPOS (SCHOCK & CUSTOM) 12 BROWN JR. REPOS 1/4 SCALE 9 CYLINDER WRIGHT J5</p>			
NOTE:	--	--	-----	----	<p>THIS LAST 9 CYLINDER MINIATURE MODEL (?) ENGINE IS UNBELIEVABLE IN DETAIL AND OUR SMALL PICTURE REALLY DOESN'T DO JUSTICE TO THIS MARVELOUS PIECE OF ART ! INTERESTED IN COLLECTING IT, CONTACT THIS PUBLICATION.</p>			
JETT ENGINEERING INC (DUB JETT)	--	--	-----	----	<p>LOTS OF MODELLING HISTORY BELONGS TO DUB JETT AND WE'D LIKE TO EXPAND ON IT HERE: AS A JUNIOR IN 1959, DUB WON HIS FIRST NATIONAL TROPHY AND SET A NEW AMA CLASS A RECORD WITH A \$6.95 FOX .15 AT 103 MPH ! HE WAS OVERALL SENIOR NATIONAL CHAMPION THREE YEARS RUNNING '64-'66 AND HELD ALL U-CONTROL SPEED RECORDS, EXCEPT JET, SIMULTANEOUSLY, SEVERAL TIMES; PLUS HOLDING OPEN CLASS 'A' SPEED RECORD FOR 13 YEARS FROM '79-'91 ! IN MORE RECENT TIMES HE'S BEEN N.M.P.R.A. HIGH POINTS CHAMPION IN '84-'85 AND 1993; WORLD F.A.I. PYLON CHAMPION IN 1991 AND FORMULA 1, QUARTER MIDGET & F.A.I. PYLON NATIONAL CHAMPION TWICE IN EACH EVENT (DATA PER CLARENCE LEE, R.C.M. MAGAZINE'S ENGINE GURU). NOW IN LATE DEC. 2004, AT THE N.M.P.R.A. CHAMPIONSHIPS IN ORLANDO FLORIDA, DUB JETT WON THE Q-40 NATIONAL CHAMPIONSHIP RACE; PLUS WAS HONORED WITH A UNIQUE AWARD FOR HIS LONG AND FAITHFUL MEMBERSHIP & ACCOMPLISHMENTS IN N.M.P.R.A. (NATIONAL MINIATURE PYLON RACING ASSOCIATION). IT'S VERY DIFFICULT TO IDENTIFY ALL HIS ENGINE ACCOMPLISHMENTS, HERE'S MOST OF IT:</p>			
" "	'73	G	DJS 29 SPEED	0.288	REAR INTAKE & REAR EXHAUST/ INVESTMENT CAST CRANKCASE/ MACHINED HEAD, FRONT COVER & REAR COVER/ K&B & SUPER TIGRE PARTS USED INTERNALLY/ DUB JETT & JOHN SHANNON SET A 'B' SPEED RECORD OF MORE THAN 200 mph IN 1977/ APPARENTLY ABOUT 50 DJS 29'S WERE BUILT AND SOLD			717
" "	'77	G	DJS 049 SPEED	0.049	REAR INTAKE & REAR EXHAUST/ APPARENTLY INVESTMENT CAST CRANKCASE/ CAST FRONT COVER & MACHINED REAR COVER/ DUB JETT AND JOHN SHANNON SET CLASS '1/2A' SPEED WHICH HELD FOR SEVERAL YEARS/ VERY FEW WERE SOLD			718

JETT

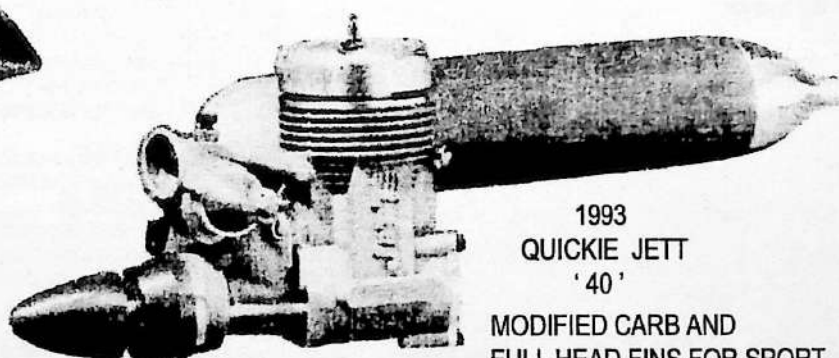


1973
DJS
SPEED
'29'



1992
QUICKIE JETT
'40'

NOTE HEAD FINS ON
EXHAUST SIDE ONLY

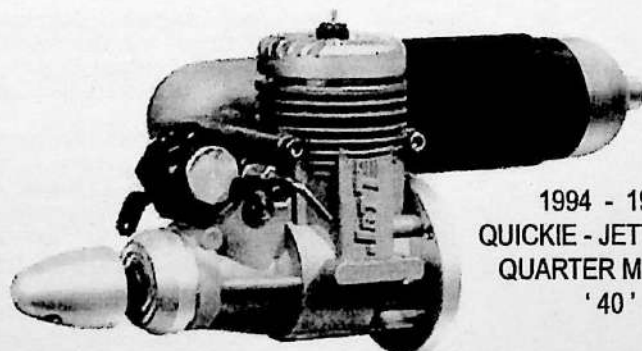


1993
QUICKIE JETT
'40'

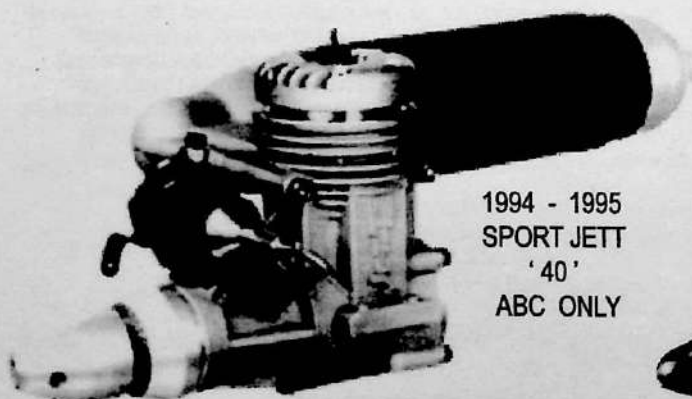
MODIFIED CARB AND
FULL HEAD FINS FOR SPORT



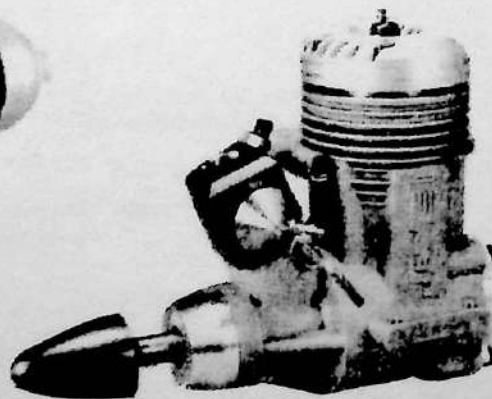
1994
SPORT JETT
'40'



1994 - 1995
QUICKIE - JETT (F.A.I.)
QUARTER MIDGET
'40'

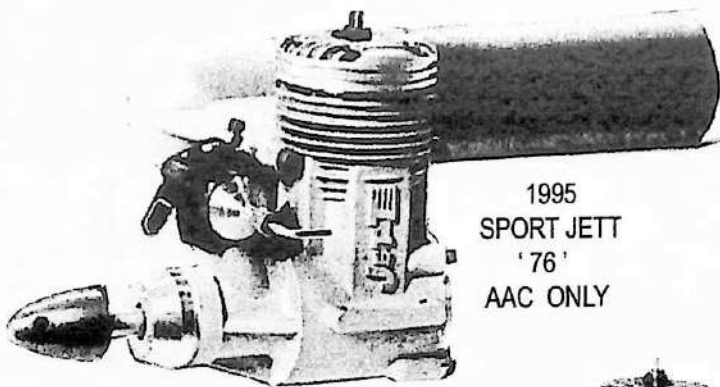


1994 - 1995
SPORT JETT
'40'
ABC ONLY

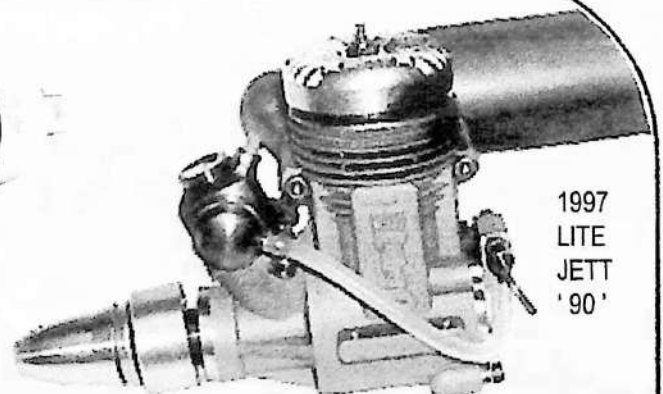


1995
SPORT JETT
'65'
AAC ONLY

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION --- ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
JETT ENGINEERING	'77	G	DJS 15 SPEED	0.149	AS DJS 29/ HELD SPEED RECORD FOR 11 YEARS			719
NOTE:	1977 TO 1980 TO 1991	--	-----	----	D.J.S. ENGINES WERE FIRST TO BREAK 200 MPH IN CLASS 'B' ; 180 IN CLASS 'A' ; 130 IN CLASS '1/2A' ! VERY LITTLE HAS BEEN DISCOVERED ABOUT NEW ENGINES DURING THIS PERIOD BUT WORK OBVIOUSLY HAD BEEN CONTINUED BECAUSE DUB JETT AND JOHN SHANNON WON THE 1991 F.A.I. F3D (PYLON) WORLD CHAMPIONSHIP WHICH OBVIOUSLY LED TO THE FIRST QUICKEE-JETT.			
.	.	'92	G	QUICKEE JETT 40	0.398	NEW QUICKEE-JETT 40 FOR AMA QUICKEE 500 PYLON RACING ENGINE/ HEAD HAS FINS ONLY ON EXHAUST SIDE/ COMPLETE WITH TUNED MUFFLER/ AIR VALVE SHUT-OFF	135	720
.	.	'93	G	MOD. QUICKIE	0.398	CARB MODIFIED FOR SPORT R/C OPERATION		720.5
.	.	'94	G	SPORT JETT 40	0.398	SIMILAR TO QUICKEE-JETT 40/ HAS 'JETT' ON BY- PASS/ HEAD HAS NORMAL FINS/ ADDITION IS RAM-JETT CARB FOR SMOOTH IDLE/ COMPLETE WITH TUNED EXHAUST JETT MUFFLER		721
NOTE:	'94-'95	--	-----	----	SUBSTANTIAL NUMBER OF JETT ENGINES IDENTIFIED ON '95 PRICE LIST AS FOLLOWS:			
.	.				QUICKEE-JETT .40 AAC or ABC			722
.	.				QUICKEE-JETT .40 (F.A.I.) AAC or ABC	125		723
.	.				QUARTER MIDGET-JETT .40 AAC or ABC			724
.	.				SPORT JETT .40 ABC ONLY			725
.	.				SPORT JETT .40 CONTROL LINE-NO MUFFLER			726
.	.				SPORT JETT .46 ABC ONLY			727
.	.				SPORT JETT .50 AAC ONLY	125		728
.	.				SPORT JETT .65 AAC ONLY	150		729
.	.				SPORT JETT .76 AAC ONLY		300-NIB	730
.	.				SUPER-SPORT .40/46/50			731
.	.				JETT .40 RF ABC or AAC			732
.	.				JETT .40 RR (F-1) AAC or ABC			733
.	.				JETT .40 RR (F.A.I.) AAC or ABC			734
.	.				JETT .40 FIRE (F-1) AAC or ABC			735
					FOREGING ENGINES BASED ON SIMILAR CRANK- CASES AND ARE NOW IDENTIFIED ON EACH ENGINE			
NOTE:	'96	--	-----	----	ADDITIONAL ENGINES ADDED TO THE '96 PRICE LIST AS FOLLOWS:			
.	.				HELICOPTER VERSIONS OF .40 - .90			736
.	.				JETT-FIRE .40/46/50			737
.	.				FAN-JETT .50			738
NOTE:	'97	--	-----	----	ADDITIONAL ENGINES ADDED AS FOLLOWS:			
.	.				90 LITE-JETT		200	739
.	.				90 TORQUE-JETT			740
.	.				105 JETT			741
.	.				120 JETT			742

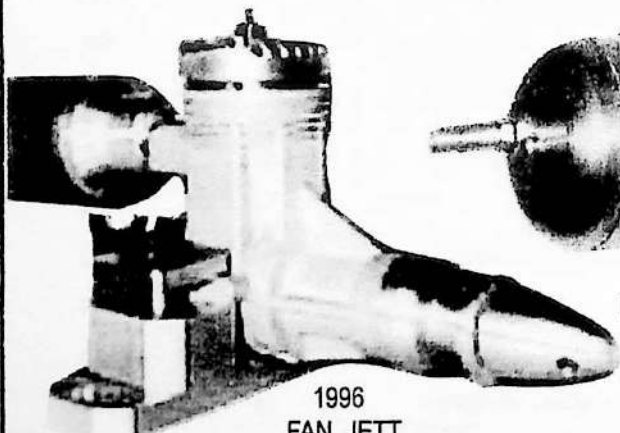


1995
SPORT JETT
'76'
AAC ONLY

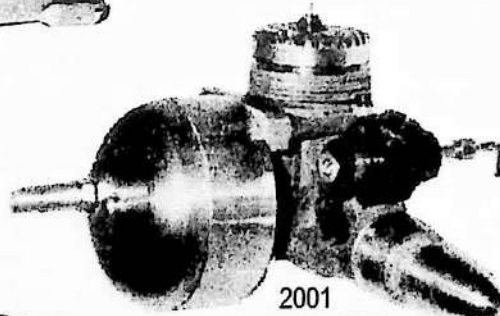


1997
LITE
JETT
'90'

REMOTE NEEDLE VALVE ASSEMBLY



1996
FAN JETT
'50'

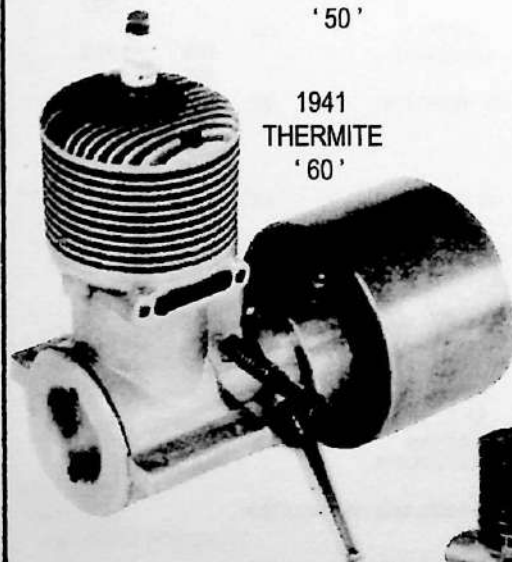


2001
TURBO - JETT
IN-COWL MUFFLER

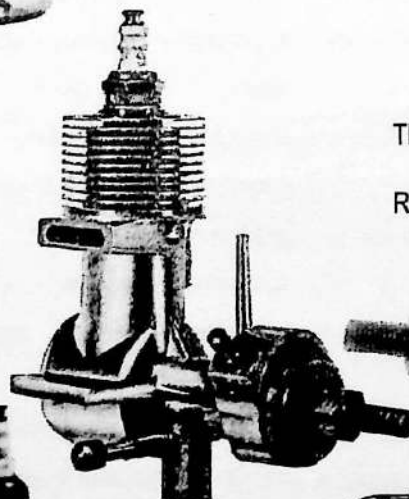


2003
BSE
COMBAT
'30'

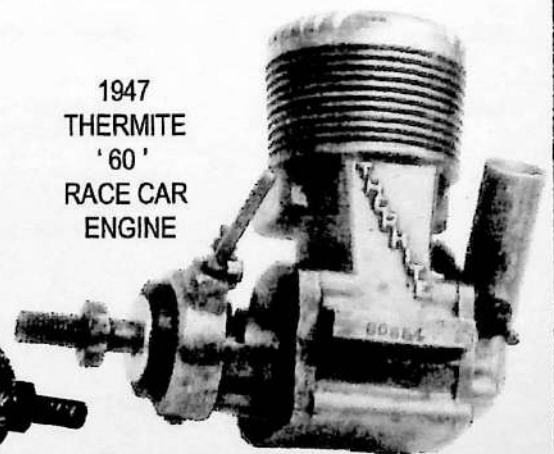
SPORT ENGINE



1941
THERMITE
'60'



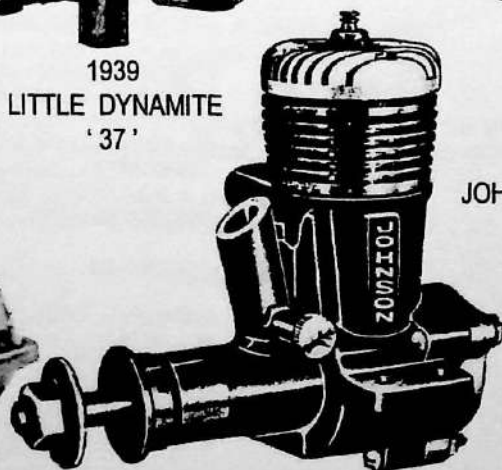
1939
LITTLE DYNAMITE
'37'



1947
THERMITE
'60'
RACE CAR
ENGINE

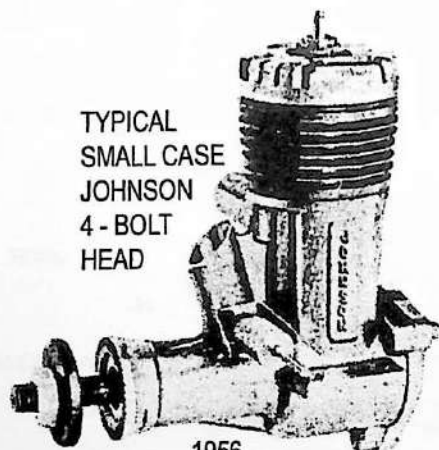


1940
THERMITE
'49'



1955
JOHNSON (ORWICK)
'29'
GREEN CASE

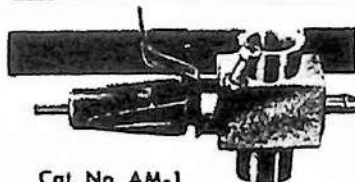
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
JETT ENGINEERING NOTE:	2001	--	----	ADVERTISED THE TURBO-JETT IN COWL MUFFLERS. CLAIMED INCREASE HP BY 25%. AVAILABLE FOR MOST 2-CYCLE ENGINES .30 TO 2.0 CU.IN.			
" "	2003	G BSE COMBAT 30 SPORT ENGINE	0.299	BAR STOCK C.N.C. MANUFACTURED ENGINE/ FINNED HEAD & PROVISION FOR MUFFLER AND RED-JETT CARBURETOR			743
" "	2005	G 40 & 65 ROJETT	----	THESE ARE SPECIAL STUNT ENGINES IN BOTH SIDE EXHAUST & REAR EXHAUST VERSIONS BEING DEV- ELOPED BY RICHARD OLIVER AND DUB JETT. WE HAVEN'T SEEN AN EXAMPLE BUT EXPECT IT TO BE UP TO THE EXCELLENT QUALITY OF JETT ENGINEERING WATCH FOR IT IN YOUR MAGAZINE.			744
" NOTE:	2005	--	----	WEBSITE - WWW.JETTENGINEERING.COM - IDENTIFIES 'BSE' SIGNATURE SERIES SIDE EXHAUST AND REAR EXHAUST; IN ALL PREVIOUS SIZES. WE SPOKE TO DUB JETT AT THE 2005 TOLEDO SHOW AND HE SAID HE "COULDN'T BELIEVE HOW BUSY HE WAS."			
JIM BROWN ENGS. (JIM BROWN)	--	--	----	SOLD BY BROWN AND ALSO DISTR. BY OFFENBACKS' HOBBY SUPPLY IN 1939			
" "	'37	I LITTLE DYNAMITE	0.374	SANDCAST/ UPDRAFT FRONT ROTARY INTAKE/ LARGE SEMI-ENCLOSED TIMER/ EARLIEST MODELS HAD OPEN TIMER	795	465	745
" "	'39	I LITTLE DYNAMITE	0.374	AS PREVIOUS/ ENCLOSED TIMER/ INTAKE MOVED BACK/ FEWER MANUFACTURED THAN PREVIOUS	650		746
" "	'39	I THERMITE '60'	0.588	SAND CAST CASE/ FRONT ROTARY-UPDRAFT INTAKE/ LARGE SEMI-ENCLOSED TIMER/ APPROXIMATELY 20 MANUFACTURED	RARE	1050	747
" "	'39	I LITTLE DYNAMITE '49'	0.489	AS PREV./ FRONT ROTARY UPDRAFT INTAKE/ SEMI-ENCLOSED TIMER	650		748
" "	'40	I LITTLE DYNAMITE	0.374	AS PREV./ NEW CASE CASTING INCLUDING BYPASS AND EXHAUST CYLINDER BOLTS TO CASE	650		749
MFG. BY BROWN MODEL GAS ENGINE CO.	'40	I THERMITE '49'	0.489	PRE VIVELL 49/ LARGE SEMI-ENCLOSED TIMER/ FIRST NORMAL FRONT ROTARY DOWN DRAFT INTAKE/ STEEL CYLINDER/ FLAT HEAD	650		750
" "	'41	I THERMITE '36'	0.355	AS PREV. 49/ SMALLER	650		751
" "	'41	I THERMITE '60'	0.588	LARGER VERSION OF '49/ STEEL CYLINDER WITH ALUMINUM CYLINDER FINS & ALUM. HEAD FINS	1200-NIB 750		752
" NOTE:	'41/45	I ALL MODELS	---	MANUFACTURED WHEN MATERIALS AVAILABLE AND TO CUSTOMER ORDER REQUEST			
" "	'47	I THERMITE RACE CAR ENGINE	0.607	SAND CAST CASE-FRONT & REAR COVERS- HEAD/ UNIQUE REAR ROTARY DRUM VALVE WITH HIGH SLANTED LONG INTAKE	1700		753
JOHNSON PRODUCTS (HIRAM 'H' JOHNSON)	--	--	----	FORMERLY "ORWICK ENGINES" - BOUGHT FROM HENRY ORWICK'S WIDOW BY HI JOHNSON THEN MFD. BY DYNAMIC MODELS INC.			
"	'55	G JOHNSON .29 ORWICK PARTS	0.291	MINI-ORWICK IRIDESCENT GREEN CASE/ RADIAL OR BEAM MTG./ FRONT ROTARY PLAIN BEARING	175	215-NIB	754
"	'55	G JOHNSON .32 ORWICK PARTS	0.317	BORED OUT/ AS PREVIOUS/ IRIDESCENT GREEN CASE	165	130	755
"	'55	G JOHNSON .35 ORWICK PARTS	0.349	BORED AND STROKED/ AS PREVIOUS/ IRIDESCENT GREEN CASE	160	165	756
"	'55	G JOHNSON .64 ORWICK PARTS	0.647	AS ORWICK 64/ WITH BEAM MOUNTS/ IRIDESCENT GREEN CASE	235		757



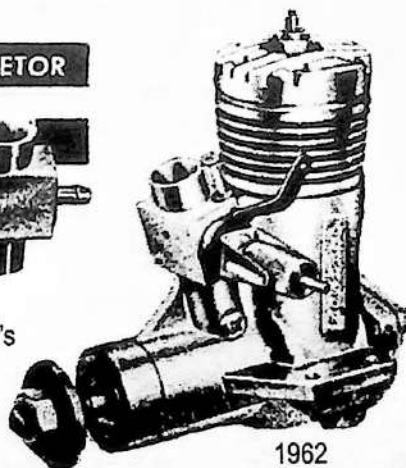
TYPICAL
SMALL CASE
JOHNSON
4 - BOLT
HEAD

1956
JOHNSON
'29 - 32 35'

JOHNSON AUTO MIX CARBURETOR

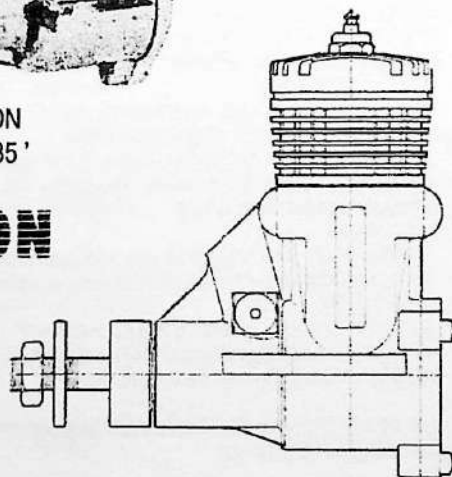


Cal. No. AM-1
USED IN MANY R/C
ENGINES IN EARLY 60's



1962
JOHNSON
'J - 36 R/C'

JOHNSON
Engines



TYPICAL
POST 1959
JOHNSON
LARGE
CASE
ENGINE
6 - BOLT
HEAD



The INSIDE STORY

● LARGE EXHAUST STACK

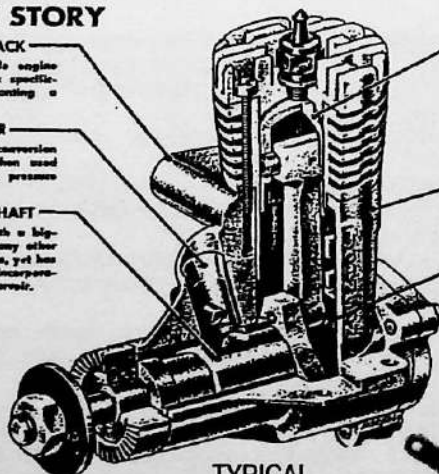
The only American made engine having an exhaust stack specifically designed for mounting a suppressing hood.

● VENTURI RESTRICTOR

Removable to allow for conversion to a "Hop-Up" job, when used with the new fuel tank pressure outlet.

● ENLARGED CRANKSHAFT

$\frac{1}{8}$ " outside diameter with a bigger valve opening than any other engine of comparable size, yet has less friction area due to incorporation of a lubrication reservoir.



● SEALED DOME PISTON

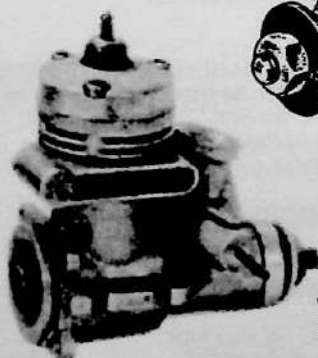
Made lighter, faster and stronger by infiltration of a new non-ferrous material. New design incorporates a relief port which allows a greater volume of fuel to enter the combustion chamber. This greatly increases the compression & power output.

● CRANKCASE DESIGN

Incorporates larger venturi and log webs. Six screws hold head, cylinder and crankcase together as one rugged unit.

● FUEL TANK PRESSURE OUTLET

Increases hi-speeds and ensures a steady unvarying flow of fuel to the engine during violent maneuvers.



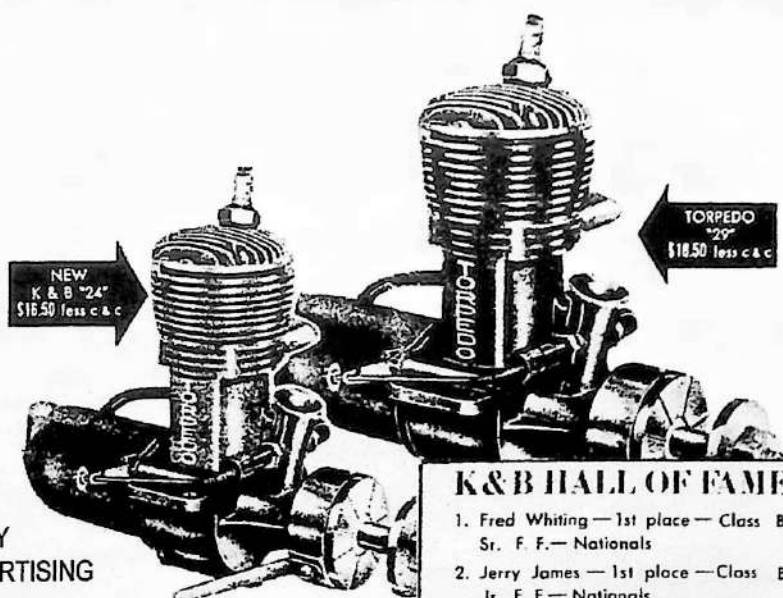
1953
JOHNSON
BULLDOG
'09'

TYPICAL
POST 1959 JOHNSON
(LARGE CASE)



1953
JOHNSON
BULLDOG
'09 R/C'

MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
JOHNSON	'56	G JOHNSON .29 (FIRST JOHNSON)	0.291	NEW 'SMALLER' CASE/ THINNER CASE AT REAR COVER MOUNTING/ LARGER CRANKSHAFT DIAMETER AND PLAIN BEARING/ SUPPORT WEB AT INTAKE TO CASE/ NATURAL FINISH	75 95-NIB	212-NIB 118	758
"	'56	G JOHNSON .32	0.317	AS PREV.29 / BORED OUT (FOR FREE FLIGHT)	95		759
"	'56	G JOHNSON .35	0.349	AS PREV.29 / BORED & STROKED/ NATURAL FINISH ALSO PRODUCED WITH GREEN FINISH PER ORWICK ON A FEW ENGINES	95	125 153	760
"	NOTE:	—	—	PRE '57 - 4 BOLT HEADS/ POST '57 - 6 BOLT HEADS			
"	'59	G JOHNSON STUNT R/C	0.358	AS PREV./ RE-PORTED & TIMED FOR R/C WITH UNIQUE 'AUTOMIX' AM-1 CARBURETOR - BEST R/C CARBURETOR AT THIS TIME AND ALSO SOLD AS ACCESSORY FOR OTHER ENGINES	100		761
"	'59	G JOHNSON 35 (SPORT)	0.349	AS PREVIOUS STANDARD .35/ SPORT MODEL/ 6 BOLT HEAD	85		762
"	NOTE:	—	—	POST '59 - LARGE CASES			
"	'60	G JOHNSON 35 C/S (COMBAT)	0.358	NEW 'LARGER' CASE/ COMBAT SPECIAL PRESSURE BLEED IN CASE/ BORED OUT FOR COMBAT & RAT-RACE RULES (UP TO .36)	120 100	316-NIB 306-NIB 168	763
"	'60	G JOHNSON 35S/S (STUNT SUPREME)	0.348	AS PREV.STUNT R/C/ NO CARBURETOR/ RE-PORTED FOR HI-TORQ-LOW SPEED STUNT	120 109	153 264	764
"	'60	G JOHNSON 29R	0.289	AS PREV./ BIG CRANKSHAFT - 5/8" O.D./ MODIFIED FOR SPEED	120 100-NIB	206 153	765
"	'62	G JOHNSON 36BB J - R/C	0.358	AS PREVIOUS/ NEW CASE FOR TWO BALL BEARINGS/ 'AUTOMIX' AM-1 CARB.	120 100-NIB	120-NIB	766
"	'62	G JOHNSON 36BB J	0.358	AS PREVIOUS/ DOUBLE BALL RACE CASE/ NO R/C CARBURETOR	120	315-NIB	767
"	'63	G JOHNSON 36B SPECIAL J	0.358	AS PREVIOUS 36BB/ CUT DOWN VENTURI WITH ALUMINUM INSERT/ HEAD SLIGHTLY DOMED/ HAS LARGE SHAFT BALL BEARING (RED INNER PART) AND PRESSED-IN FRONT SHAFT PLAIN BEARING PLUGS/ PISTON HAS CUTAWAYS ON BOTH SIDES OF PISTON SKIRT	120	155 105	768
"	'63	G JOHNSON 36B R/C	0.358	AS PREVIOUS/ INCLUDES RED AUTOMIX CARBURETOR/ HAS SAME MAIN BALL BEARING BUT USES CASE AS FRONT SHAFT PLAIN BEARING FOR LOWER PRODUCTION COST	120	130	769
"	'63	G JOHNSON SPORT SPECIAL	0.322	AS PREVIOUS CASE STYLE/ PLAIN BEARINGS FOR MUCH LOWER PRODUCTION COST	75 100-NIB		770
"	NOTE:	—	—	LAST ENGINES SOLD AS CHEAPER SPORT ENGINES WHEN COMPANY SHUTTING PRODUCTION DOWN			
"	'63	G BULLDOG 09	0.092	HEAVY CAST CASE/ MASSIVE CRANKSHAFT/ SPECIAL 'HONELAP' PISTON-LINER FIT/ DESIGNED FOR PROPOSED F.A.I. 1.5 CC CLASS IN '64	40	70	771
"	'63	G BULLDOG 09RC	0.092	AS PREV./ WITH JOHNSON 'AUTOMIX' AM-2 R/C CARB. WITH COUPLED EXHAUST RESTRICTORS	40	102-NIB	772
JUDSON CO. JUDSON WILLIAMS	—	—	—	MFD.VARIETY OF REBRANDED ENGINES FOR SALE BY OTHERS (I.E.BUZZ-ROGERS)			
"	'47	I JUDCO RAM OR 'B'	0.292	SIMILAR TO 'BUZZ'/ LARGER DIAMETER CYLINDER FINS/ SLAG CONSTRUCTION/ ASSEMBLED OR KIT	50		773



1948
EARLY
ADVERTISING

*We will NOT sacrifice
QUALITY to lower our prices*

Precision engineering, Highest quality material
and skilled workmanship have made K & B
engines the great champions they are. We will
continue to produce quality not quantity.

K & B HALL OF FAME

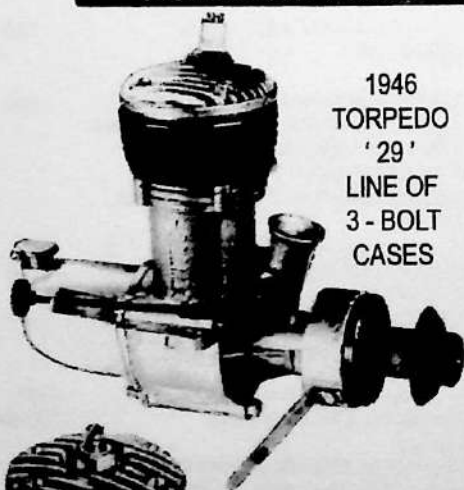
1. Fred Whiting — 1st place — Class B
Sr. F. F. — Nationals
2. Jerry James — 1st place — Class B
Jr. F. F. — Nationals
3. Don Newberger — 1st place (120 mph)
Class 3 Speed-Open — 10/18/47
4. Lew Mahieu — 1st place (117.64 mph)
Senior Class 3 Speed — 10/18/47
5. Ray Acord — Official AMA Record —
32:02.6 mins. Free Flight-open
6. Paul Conrad — Official AMA Record —
98.97 mph — Class 3 Jr. U-Control Speed

WATCH THIS GROW

K & B MANUFACTURING COMPANY

6901 EASTERN AVENUE • BELL GARDENS, CALIFORNIA

EARLY
K & B
WINNERS



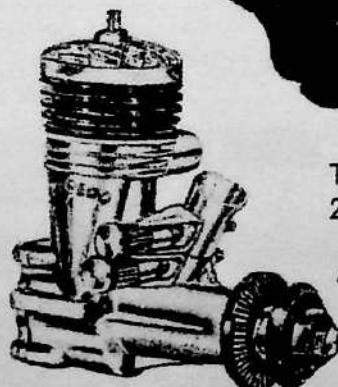
1946
TORPEDO
'29'
LINE OF
3 - BOLT
CASES



1948
GLO - TORP
'29'
LINE OF
3 - BOLT
CASES



1951 +
TORPEDO
LINE OF
4 - BOLT
CASES



1951 +
TORPEDO
2 - SPEED
LINE OF
4 - BOLT
CASES

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
JUDSON CO.	'47	I	"C"	0.601	HIGH FRONT INTAKE/ RACING STYLE/ STEEL CYLINDER LINER/ PISTON HAS 4 RINGS	RARE		774
	NOTE:	---	---	---	"C" ENGINE VARIATIONS USED AS POWER UNIT FOR ELECTRIC GENERATORS IN FIELD TELEPHONES USED BY SERVICEMEN DURING WORLD WAR II AND WAS FOUND IN ARMY SURPLUS STORES			
K & B MFG. CO. (LUD KADING & JOHN BRODBECK)	---	---	---	---	ORIGINALLY PURCHASED RIGHTS AND INVENTORY FROM BILL ATWOOD FOR PHANTOM MOTORS HI-SPEED DIVISION "TORPEDO" WHICH WAS APPARENTLY ALSO SOLD TO MINIATURE MOTORS AT THE SAME TIME I (LAW SUIT FOLLOWED) - MERGED AS K&B ALLYN PRODUCTS IN '55 - BECAME SUBSIDIARY OF AURORA PLASTICS IN '60 THEN REVERTED BACK TO ORIGINAL NAME			
• • •	'46	I	TORPEDO 'B'	0.299	DIE CAST 3 BOLT CRANKCASE/ THIN ROUNDED, FINNED HEAD/ 'TORPEDO' ON CASE/ LAPPED PISTON/ PLUG OFFSET./ 8 CYLINDER FINS/ PLASTIC OR MAGNESIUM TANKS/ CLOSED TIMER/ AUSTIN CRAFT NEEDLE VALVE/ PROD. RUN APPROX. 100	150		775
• • •	'46	I	TORPEDO 'B'	0.299	AS FIRST MODEL/ MAGNESIUM AND PLASTIC (ALUMINUM LATER) TANKS/ WEB ADDED TO TANK SCREW BOSS IN REAR COVER/ BLACK CYLINDER HEAD/ 3 BOLT CRANKCASE/ THIN, ROUNDED, FINNED HEAD/ OTHER MINOR CHANGES/ PROD. SERIAL #'s TO APPROXIMATELY 2500	125		776
• • •	'47	I	TORPEDO 24	0.249	AS PREVIOUS .29/'249' ON LUG/ LATE '47 IGNITION ADDITION/ SHORT RUN AS IGNITION ENGINE UNTIL GLO-TORP CAME OUT IN EARLY '48	125	225	777
• • •	'47	I	TORPEDO 'B'	0.299	AS PREV./ 7 CYLINDER FINS/ SOME HAD K & B STAMP ON LUGS/ SER.#'s TO APPROX. 7500	110	70	778
• • •	'47	I	TORPEDO 'B-32'	0.319	SHORT RUN OF MOD.29's AS PRE-PRODUCTION GLO TORP 32 FREE FLIGHT ENGINES/ BLACK CYLINDER HEAD/ '32' STAMPED ON CASE/ 12 MANUFACTURED	PROTO		779
• • •	'48	G	GLO-TORP 29	0.299	AS TORP 'B'/NO TIMER CAM ON SHAFT/ NATURAL CYLINDER/ NO TANKS SUPPLIED BUT SOME BACK COVERS HAD A THREADED BOSS/ SHINY FINISH ON CASE/ PLAIN CYLINDER HEADS/ LATE '48 MODELS HAD GREEN HEADS	75		780
• • •	'48	G	GLO-TORP 24	0.249	AS GLO-TORP 29/ '249' ON LUG/ PLAIN CYLINDER HEAD/ LATE '48 MODELS HAD GREEN HEADS	75	48	781
• • •	'48	G	GLO-TORP 32	0.319	AS GLO-TORP 29/ '32' ON CASE/ PLAIN CLYINDER HEAD/ LATE '48 MODELS HAD GREEN HEADS	75		782
• • •	NOTE:	1950	---	---	K & B's WITH 3 BOLT CASES WERE STILL MANU - FACTURED AND SOLD ON INTO '50's WITH GREEN HEADS AS THEY WERE POPULAR WITH FREE FLIGHT MODELERS			
• • •	'51	G	TORPEDO 19	0.199	FIRST 4 BOLT CASE/MTG.LUGS IN LINE WITH THRUST LINE/ PLUG VERTICAL / PLAIN FINNED HEAD/ GREEN HEAD ONLY FROM '52	35	66 121-NIB	783
• • •	'51	G	TORPEDO 29	0.297	AS PREV. 19/ 4-BOLT CASE/ PLUG STRAIGHT UP/ PLAIN FINNED HEAD/ GREEN HEAD ONLY FROM '52	35	50	784
• • •	'51	G	TORPEDO 32	0.319	AS PREV. 19/ 4-BOLT CASE/PLUG STRAIGHT UP/ PLAIN FINNED HEAD/ GREEN HEAD ONLY FROM '52	35	88 78	785
• • •	'51	G	TORP 19 2-SPEED	0.199	AS PREV.19/ 4-BOLT CASE/ PLUG STRAIGHT UP/ 2 NEEDLE VALVES/ SPECIAL VENTURI INSERT FOR 2ND NEEDLE VALVE/ PLAIN FINNED HEAD/ GREEN HEAD ONLY FROM '52	50	160 96-NIB	786

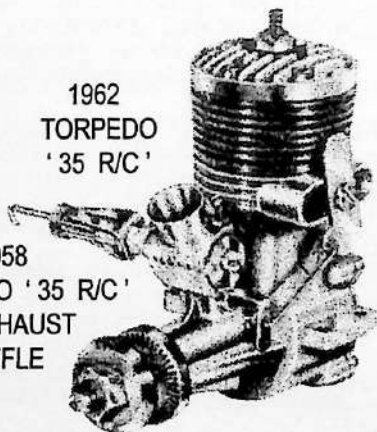


1953
TORPEDO
'09'
ADVERTISED
ONLY

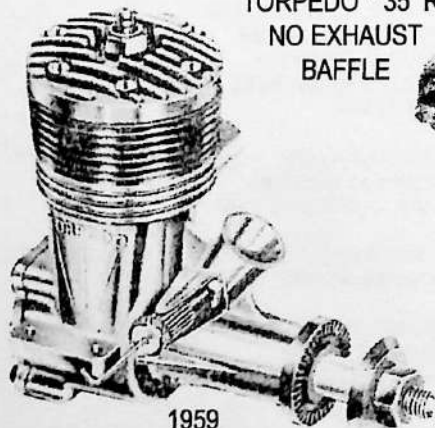
K&B TORPEDO



1953
TORPEDO
'23'



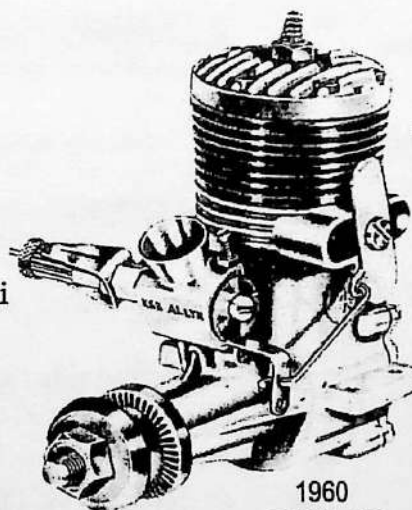
1962
TORPEDO
'35 R/C'



1959
TORPEDO
STUNT '45'

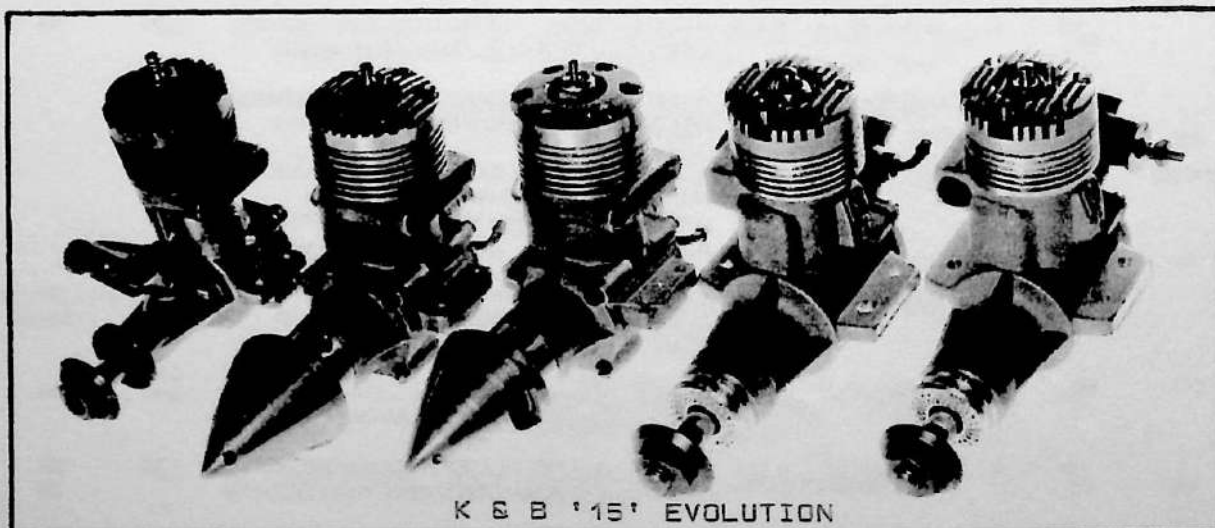
1958
TORPEDO '35 R/C'
NO EXHAUST
BAFFLE

1960 - Ed Kazmirski
became Aerobatic
World Champion
in Dubendorf
Switzerland, using
a Torpedo 45 R/C
... providing K & B
with World recognition.



1960
TORPEDO
'45 R/C'

1959
TORPEDO
'45 R/C'
NO
EXHAUST
BAFFLE



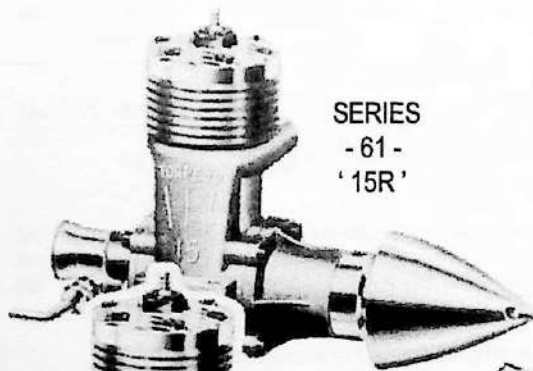
K & B '15' EVOLUTION

1952 '61 SERIES '64 SERIES '66 SERIES '66 SERIES 1/4 MIDGET

MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
K&B - NOTES:	1951	--	-----	---- LUD KADING LEFT K & B IN LATE '51			
...	1952	--	-----	---- K & B's WITH 4 BOLT CRANKCASES SOLD WITH BOTH GREEN AND NATURAL HEADS FROM 1952			
...	'52	G	TORPEDO 15	0.146 AS 4-BOLT 19/ GREEN HEAD/ '15' ON CASE	40	91	787
...					60-NIB		
NOTE:	'53	G	TORPEDO 09	0.098 ADVERTISED BUT NOT RELEASED 'TIL 1956 ...	-----	-----	
...	'53	G	TORPEDO 23	0.227 AS PREV. 19/ GREEN HEAD/ '23' ON CASE	55	41	788
...	'53	G	TORPEDO 23	0.227 AS PREV./ MODIFIED VENTURI/ 2 NEEDLE VALVES/ GREEN HEAD/ '23' ON CASE	55	35	789
...	'54	G	TORPEDO 35	0.353 LARGER CASE SIMILAR TO SUBSEQUENT 29R	50	72	790
...	'54	G	TORPEDO 15	0.146 AS PREV./ MODIFIED VENTURI/ 2 NEEDLE VALVES/ GREEN HEAD/ '15' ON CASE	50	52	791
						45	
K & B ALLYN CO.	---	---	-----	---- MAY 1955 - K & B MFG. & ALLYN SALES MERGED			
...	'55	G	TORPEDO 29R (RACING)	0.299 AS PREV. 29/ NEW CASE CASTING/ STRAIGHT FIN PROFILE/ DESIGNATED '29R' / FACTORY MODIFIED FOR SPEED USE/ LARGE BORE/ SHORTER STROKE/ NATURAL HEAD	70	82	792
						169-NIB	
...	'56	G	TORPEDO 09	0.098 MINI-TORPEDO/ GREEN HEAD/ NO WEB IN EXHAUST PORT/ 09 ON CASE	55	203-NIB	793
						41	
...	'57	G	TORPEDO 19	0.199 AS PREV. 19/ GREEN HEAD/ WEB IN EXHAUST PORT/ VENTURI RESTRICTOR ADDED	45	157-NIB	794
...	'57	G	TORPEDO 29S (STUNT)	0.299 AS PREV. 29R - NEW CASE - STRAIGHT FIN PROFILE/ GREEN HEAD/ DESIGNATED '29S' - SPECIAL STUNT ENGINE	50	103	795
						61	
...	'57	G	TORPEDO 09	0.098 AS PREV./ WEB IN EXHAUST PORT/ VENTURI RESTRICTOR ADDED LATER IN '57	35	61	796
						25	
...	'58	G	TORPEDO 35RC	0.353 CASE AS 29S/ WEB IN EXHAUST PORT/ NO EXHT. BAFFLE/ 'MULTI-SPEED' CARBURETOR/ SMALL INTAKE PORT/ IMPROVED CRANK BALANCING/ NEW TYPE K & B 'IDLEBAR' GLOW PLUG/ GREEN HD	35	66	797
...	'58	G	TORPEDO 19RC	0.199 AS PREV. 19/ MULTI-SPEED CARBURETOR/ DE-TUNED SHAFT-ROUND PORT/ GREEN HEAD/ NO BAFFLE	45		798
...	'59	G	TORPEDO 35C (COMBAT)	0.353 AS PREV. '54-'55/ 'C' ON BEEFED UP CASE MOD. FOR COMBAT/ HEAVY SHAFT/ GREEN HEAD	45		799
...	'59	G	TORPEDO 45 (STUNT)	0.454 SAME CASE AS 35 WITH SLIGHT INCREASE AROUND CYLINDER/ ALL FUTURE 35 & 45 CASES SAME/ NO WEB IN EXHAUST/ OIL GROOVES IN PISTON/ COUNTER WEIGHTED CRANKSHAFT/ NATURAL HEAD	55	71	800
						86	
...	'59	G	TORPEDO 45R/C	0.454 AS PREV. 45/ PLUS 'MULTI-SPEED' CARBURETOR	65	68	801
* AURORA PLASTICS	'60	---	-----	---- JOINED AURORA PLASTICS. RETURNED TO K & B NAME - DROPPED ALLYN NAME			
...	'60	G	TORPEDO 201	0.201 NEW CRANKSHAFT TO CONVERT .19 FOR FREE FLIGHT COMPETITION/ '201' ON CASE BELOW EXHAUST/ NATURAL HEAD	90	123	802
...	'60	G	TORPEDO 45R/C	0.454 AS PREV. 45/ PLUS COUPLED EXHAUST BAFFLE	55	57	803

K & B Mfg. Corp.

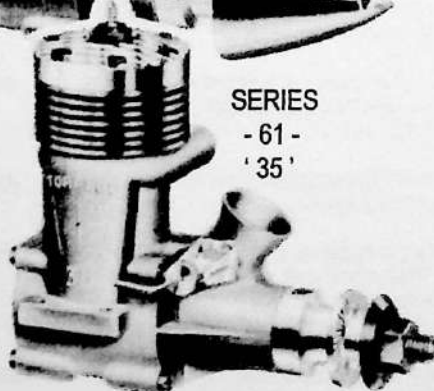
SERIES
- 61 -
' 15R '



SERIES
- 61 -
' 29R '



SERIES
- 61 -
' 35 '

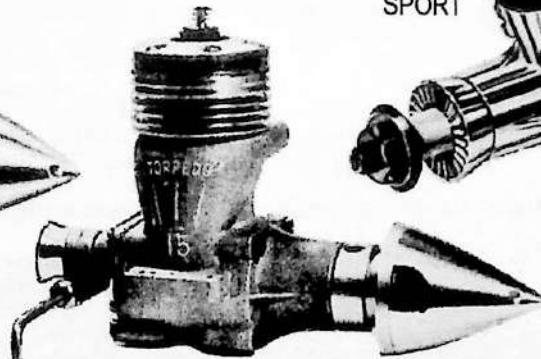


1963
STALLION
' 35 '
SPORT

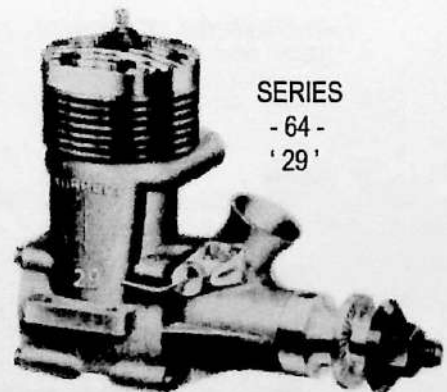


STALLIONS SOLD
THRU 'TILL LATE
' 70's WITH NEW
CASES IN 1973

SERIES - 64 -
' 15R '
WITH LARGE
BYPASS AND
INTERNAL
MODIFICATIONS



SERIES
- 64 -
' 29 '



NOTE: Popularity of Green Head 4 - Bolt Case 'Torps '
continued into the Late '60's

SERIES
- 64 -
' 35 R/C '



SERIES
- 66 -
' 40 '
RAT RACE



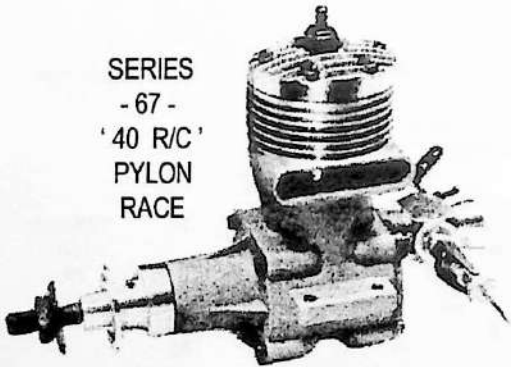
SERIES
- 66 -
' 40 R/C '



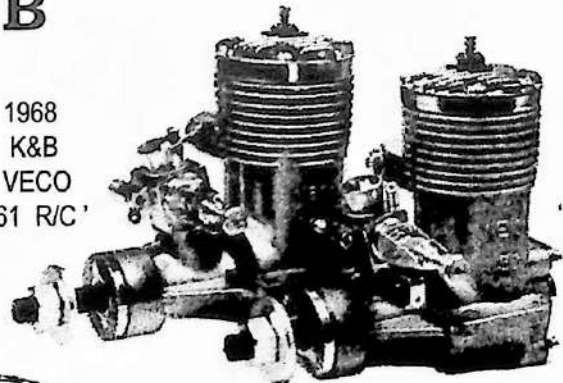
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
K&B * * HEAD COLOR	---	---	---	NO GREEN HEADS USED ON K & B's FROM SERIES '61 HOWEVER GREEN HEAD TORPS WERE BUILT AND SOLD THROUGH INTO MID '60's			
* * *	'61	G 15R - SERIES '61	0.149	NEW CASE DESIGN FOLLOWING McCOY- HORNET- DOOLING STYLE/ REAR ROTARY VALVE/ MATTE FINISH/ SHINY CAST FINNED HEAD/ LAPPED PISTON/ 2 BALL BEARING SHAFT/ ALUMINUM SPINNER ASSEMBLY	85	179-NIB 83	804
* * *	'61	G 29R - SERIES '61	0.298	AS 15R/LARGER/ '29' ON CASE/ SHINY CAST FINNED HEAD-DOMED COMBUSTION CHAMBER	75	178-NIB 118 79	805
* * *	'61	G 35 - SERIES '61	0.353	AS 29R/ FRONT ROTARY/ 35 ON CASE	40	42	806
* * *	'62	G TORPEDO 35R/C	0.353	AS PREV. 35/ R.C./ WEB IN EXHAUST PORT/ EXHAUST WIPE BAFFLE RESTRICTOR CONNECTED TO R.C. CARBURETOR/ GREEN HEAD	45		807
* * *	'62	G TORPEDO 19R/C	0.199	AS PREV. 19 RC/ PLUS COUPLED EXHAUST BAFFLE/ GREEN HEAD	40		808
* * *	'63	G STALLION 35 SPORT/STUNT	0.353	DISTINCTLY DIFFERENT 4-BOLT CASE/ 1/2" DIAM. SHAFT/ LAPPED PISTON/ FRONT ROTARY/ REPLACEABLE PROP SHAFT STUD/ 'STALLION 35' ON CASE/ SHINY FINISH BUT MATTE FINISH ON CASTINGS ONLY DONE IN '68/ SHINY HEAD BUT '70's MODEL OCCASIONALLY SEEN W/RED HEAD	35	48 33	809
* * *	NOTE:	---	---	STALLION WAS POPULAR INTO EARLY 1970's. MODIFIED VECO CARB WAS ADDED WITH EXHAUST PLATE BAFFLE PLUS OTHER MINOR CHANGES ... ALSO SOLD AS STUNT ENGINE WITH EXHAUST WEB UNDRILLED (CIRCA '73) REF. D. SITTER			
* * *	'64	G 15R SERIES '64	0.149	SIMILAR TO SERIES '61/ FINLESS HEAD WITH SQUISH BAN COMBUSTION CHAMBER/ MORE BYPASS BULGE/ INTERNAL MODIFICATIONS FOR F.A.I. SPEED	55 65-NIB	61	810
* * *	'64	G 29R SERIES '64	0.298	AS PREV. 15R/LARGER/ FINLESS MACHINED BAR STOCK HEAD WITH SQUISH BAND COMBUSTION CHAMBER/ MORE BYPASS BULGE/ INTERNAL MODIFICATIONS FOR 'SPEED'	65		811
* * *	'65	G 29F SERIES '64	0.298	SIMILAR TO SERIES '61 - 35/ FRONT ROTARY/ STRAIGHT BYPASS/ NO WEB IN EXHAUST/ THINNER CAST FINNED HEAD	60		812
* * *	'65	G 35 - SERIES '64	0.353	ALMOST SAME AS SERIES '61 - 35/ CAST FINNED HEAD WITH WEDGE COMBUSTION CHAMBER/ NO VENTURI RESTRICTOR	70		813
* * *	'65	G 35R/C-SERIES '64	0.353	AS SERIES '64 - 35/ VENTURI MODIFIED FOR K & B 'MULTI-SPEED' CARBURETOR/ NO EXHAUST BAFFLE	65		814
* * *	'65	G 35R/C-SERIES '64	0.353	AS PREVIOUS/ PLUS EXHAUST BAFFLE	75		815
* * *	'65	G 40 - SERIES '66 RAT RACE	0.399	SIMILAR TO SERIES '64 - 35/ FIRST K & B WITH SINGLE 'DYKES' RING PISTON/ FRONT ROTARY/ .40 ON BYPASS/ PRESSURE FITTING IN CENTER OF BACK COVER PLATE/ SPLIT HOLLOW PIN THRU SHAFT AND PROP DRIVE	65		816
* * *	'66 *	G 40R/C-SERIES '66	0.399	AS PREV. 40/ SMALL K & B 'MULTI SPEED' CARB. WITH BASE SHIMMED TO FIT LARGE VENTURI	60	56 44-NIB	817
* * *	NOTE:	'67 *	---	GIL HENRY TRANSFERRED ALL VECO PRODUCTS ENGINES AND ACCESSORIES TO K&B IN FALL 1967			

K & B

SERIES
- 67 -
'40 R/C'
PYLON
RACE

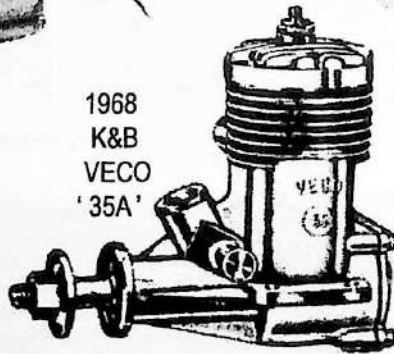


1968
K&B
VECO
'61 R/C'

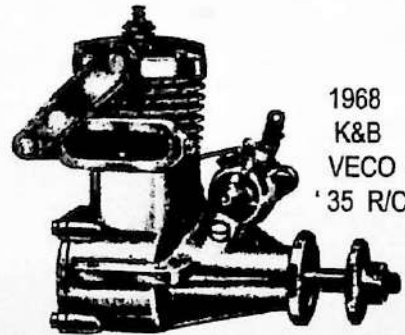


1968
K&B
VECO
'50 R/C'

1968
K&B
VECO
'35A'



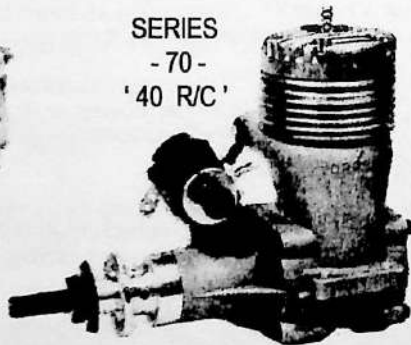
1968
K&B
VECO
'35 R/C'



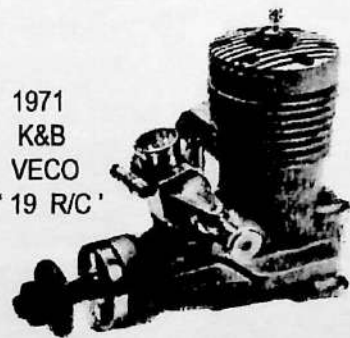
1969
K&B
VECO
'61 R/C'



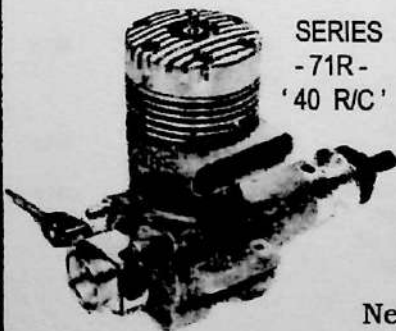
SERIES
- 70 -
'40 R/C'



1971
K&B
VECO
'19 R/C'

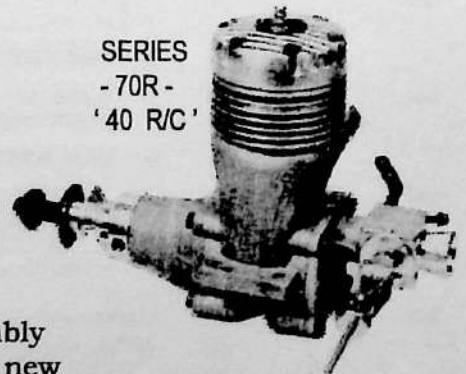


SERIES
- 71R -
'40 R/C'



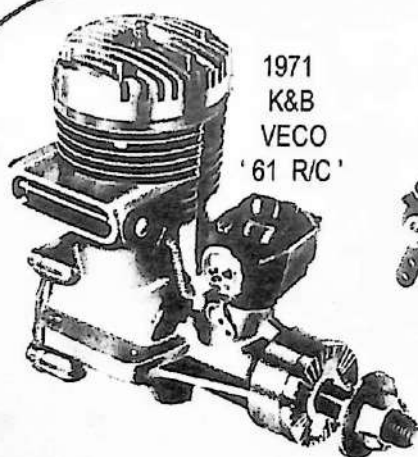
New Series 71 Cylinder and Piston Assembly (right) compared with previous type. This new assembly is used by 1971 front intake engines as well as rear rotary valve engines.

SERIES
- 70R -
'40 R/C'

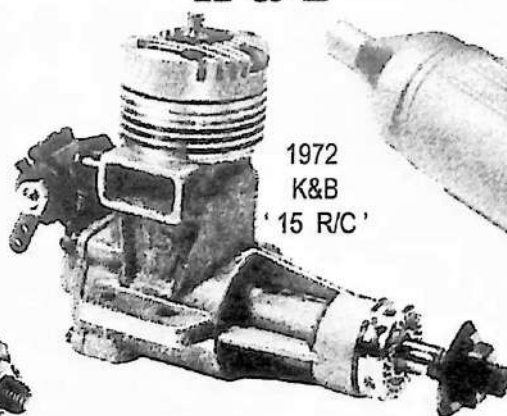


MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
K&B - NOTE:	'66	---	----	ALMOST ALL K&B R/C ENGINES FROM THIS POINT ON WERE AVAILABLE FOR U-CONTROL OR FREE FLIGHT WITHOUT THE R/C CARBURETORS.			
...	'67	G TORPEDO 40 'SERIES 67' RAT RACE	0.399	THIS IS BASICALLY THE EVOLUTION OF THE CONTEST OR SPEED TYPE INTRODUCED IN '61 WITH TWIN BALL BEARINGS THRU SERIES '64 AND '66 MODELS/ STANDARD REAR INTAKE VENTURI/ WITH NEEDLE VALVE ASSY/ SINGLE DYKES RING CON- TINUED FROM SERIES '66/ METHOD OF FIXING PROP DRIVER TO CRANKSHAFT REPLACED BY ROLL PIN/ FINNED HEAD IS PRESSURE DIE-CAST ALUMINUM ALLOY AND ATTACHED TO MAIN CASE CASTING WITH 6 SCREWS NO GASKET/ HEAD HAS WEDGE COMBUSTION CHAMBER ON EXHAUST SIDE	125-NIB		818
...	'67	G TORPEDO 40 R/C 'SERIES 67' PYLON RACE	0.399	AS PREVIOUS RAT RACE ENGINE WITH A 'MULTI- SPEED' K&B CARB IN THE REAR VENTURI REPLACING THE U/C VENTURI AND N.V. ASSY/ EXTREMELY SUCCESSFUL IN PYLON RACING FOR 2 YRS/ JOE FOSTER WAS U.S. '67 NATIONALS GOODYEAR CHAMPION.	75	77	819
...	'68	G K&B/VECO 50 R/C	0.498	SIMILAR TO ORIGINAL 1962 VECO .45 WITH BORE INCREASED TO PROVIDE LARGER DISPLACEMENT/ LEE DESIGNED CARB. CONNECTED TO ROTARY EXHAUST VALVE AND LATER FITTED WITH NEW PERRY CARBURETOR		55-NIB	820
...	'68	G K&B/VECO 61 R/C	0.611	SIMILAR TO ORIGINAL 1966 VECO 61 NOW UNDER K&B MFG/ LEE DESIGNED CARB CONNECTED TO ROTARY EXHAUST VALVE/ ADVERTISED AS K&B- VECO IN 1968		37	821
...	'68	G K&B/VECO 35A	0.348	SIMILAR TO ORIGINAL 1959 VECO 35A STUNT NOW UNDER K&B MFG/ ADVERTISED AS K&B-VECO IN 1968			822
...	'68	G K&B/VECO 35 R/C	0.348	SIMILAR TO ORIGINAL 1958 VECO 35RC/ RADIO CONTROL AIR BLEED CARB CONNECTED TO EXHAUST WIPE/ ADVERTISED AS K&B-VECO IN '68			823
...	'69	G K&B/VECO 61 R/C	0.608	AS PREV/ FITTED WITH NEW PERRY CARB LINKED TO ROTARY EXHAUST BAFFLE/ ATTEMPTS MADE BY USERS TO ELIMINATE EXHAUST BAFFLE AND INSTALL MUFFLERS/ SINGLE DYKES RING ON PISTON	62		824
...	'70	G K&B 40 R/C SERIES 70 TORPEDO F.1	0.399	AS PREVIOUS FRONT INTAKE/ FITTED WITH NEW PERRY CARB LINKED TO INSET COUPLED EXHAUST BAFFLE SO A MUFFLER COULD BE ATTACHED WITHOUT REMOVING BAFFLE			825
...	'70	G K&B 40 R/C SERIES 70R TORPEDO F.1	0.399	AS PREVIOUS 67 SERIES REAR INTAKE/ FITTED WITH K&B BARREL THROTTLE/ COMBUSTION CHAMBER CHANGED/ SLIGHT ROTOR TIMING CHANGES	76		826
...	'71	G K&B 40 R/C SERIES 71R TORPEDO F.1	0.399	AS PREVIOUS 'SERIES 70R' REAR INTAKE/ FITTED WITH NEW K&B FUEL SHUT-OFF/ NEWLY PORTED PISTON AND LINER - SEE PICTURES	82		827
...	'71	G K&B 40 R/C SERIES 71 TORPEDO	0.399	AS PREVIOUS SERIES 70 FRONT INTAKE/ FITTED WITH NEW PERRY CARB/ HAS SAME NEWLY PORTED PISTON AND LINER - SEE PICS - HARDLY SEE EXTERIOR DIFFERENCE BETWEEN 71 AND 70		72	828
...	'71	G K&B/VECO 19 R/C SERIES 71	0.199	AS PREVIOUS GP 19RC SERIES 200/ NEW MACHINED HEMI-HEAD FROM SOLID ALUM BAR STOCK/ EXTRA DEEP FINS/ NO HEAD GASKET/ COUPLED ROTARY EXHAUST BAFFLE AND LINKED CARB/ BALL BRGS./ NEW, BIGGER CRANKSHAFT WITH A LARGER FAFNIR REAR BEARING THAN PREVIOUS/ HEAD MAY BE OBTAINED WITH HEAD FINS RUNNING CROSS- WISE FOR MODEL RACE CAR USE	75-NIB 35		829

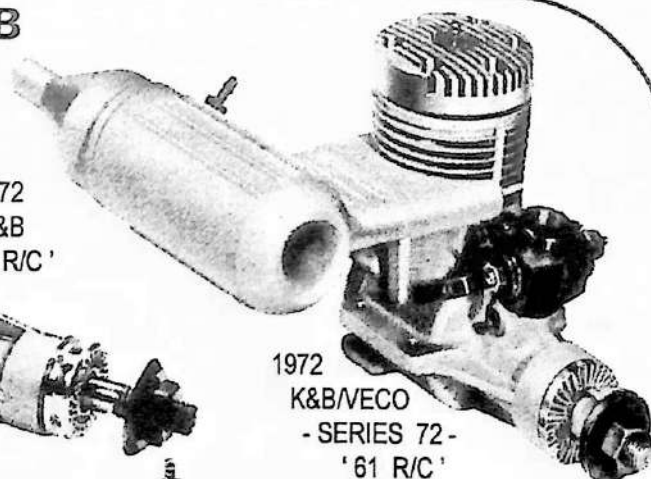
K & B



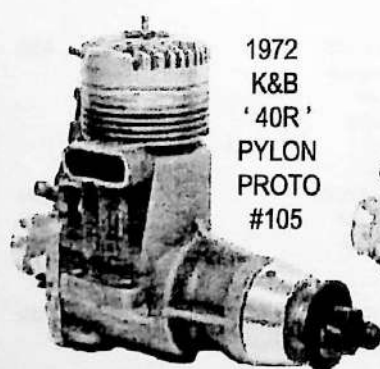
1971
K&B
VECO
'61 R/C'



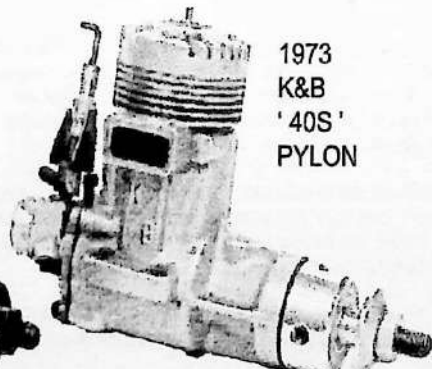
1972
K&B
'15 R/C'



1972
K&B/VECO
- SERIES 72 -
'61 R/C'



1972
K&B
'40R'
PYLON
PROTO
#105

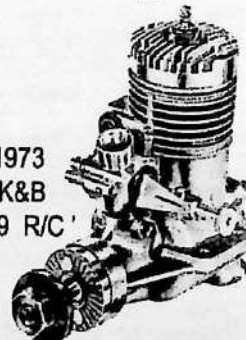
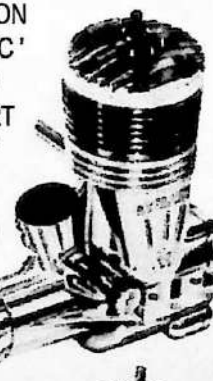


1973
K&B
'40S'
PYLON

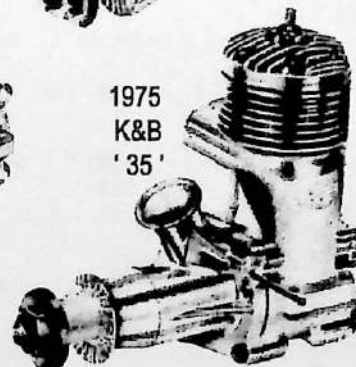
Both engines made history for K & B



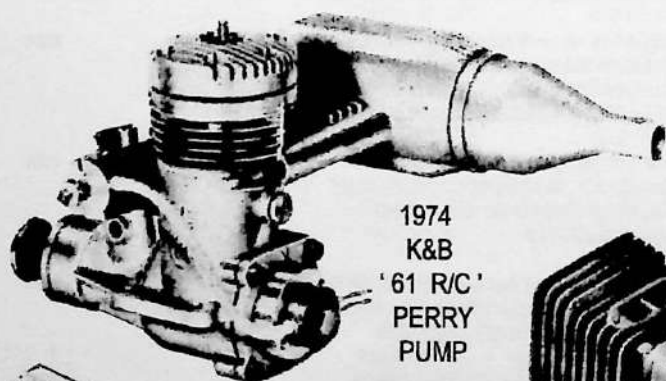
1973
STALLION
'35 R/C'
AND
SPORT
'35'



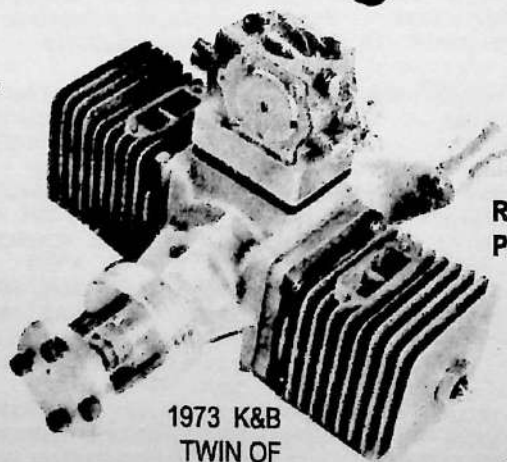
1973
K&B
'19 R/C'



1975
K&B
'35'

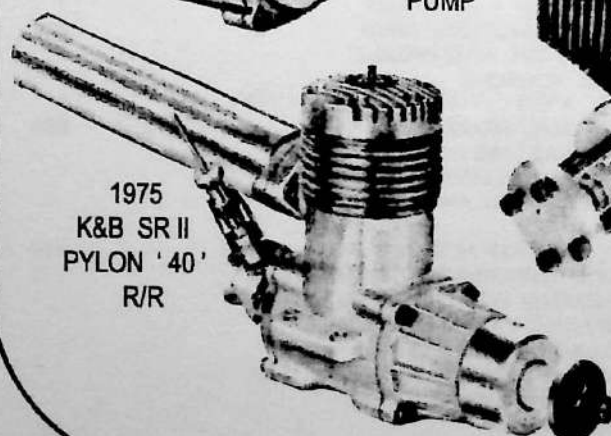


1974
K&B
'61 R/C'
PERRY
PUMP

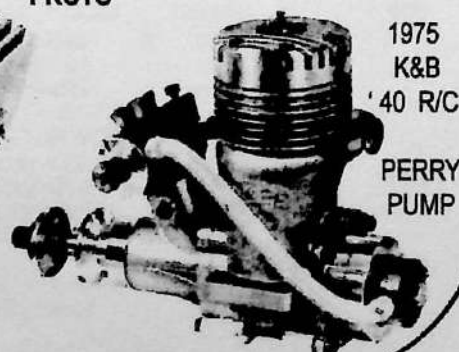


1973 K&B
TWIN OF
4.0 CU.IN.
DEVELOPED FOR
SAKERT-RIGGS
AIRTECH R.P.V.

RARE
PROTO



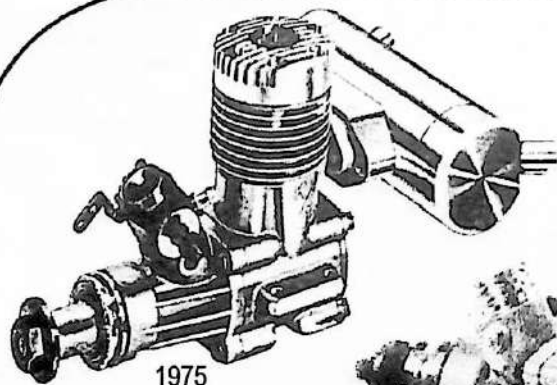
1975
K&B SR II
PYLON '40'
R/R



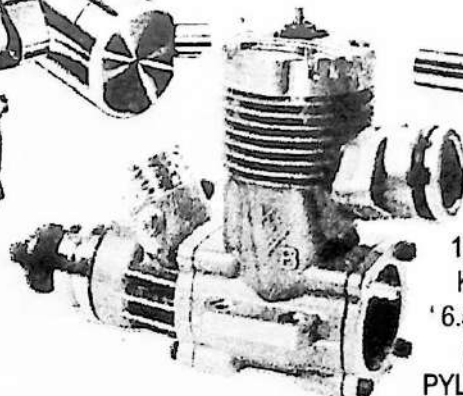
1975
K&B
'40 R/C'
PERRY
PUMP

MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
K&B	'71	G K&B/VECO 61 R/C	0.608	AS PREVIOUS '69 VECO/ NEW CRANKSHAFT, CRANKCASE, PISTON/ MACHINED HEAD/ PERRY CARB LINKED TO ROTARY EXHAUST BAFFLE	119	59	830
...	'72	G K&B 15 R/C SERIES 72	0.149	NEW SAND CAST CASE/ LATER MODELS GRAVITY CAST CASE/ SCHNUEERLE LOOP SCAVENGED SYSTEM/ TWIN BALLBEARINGS/ DRUM ROTARY VALVE/ LARGER CHOKE IN PERRY CARB/ CRANK- SHAFT HAS PRESSED-IN CRANKPIN AND INTERNAL COUNTER BALANCING/ REGULAR REAR INTAKE AND N.V. ASSY FOR U/C AND FREE FLIGHT	75-NIB		831
...	'72	G K&B/VECO 61 R/C SERIES 72 WITH MUFFLER	0.608	AS PREVIOUS '71 VECO 61 R/C WITH K&B FLO-THRU MUFFLER/ NEW HEAD, PISTON RING, ROD, PORT TIMING AND CHANGED CYLINDER BY-PASS/ PERRY CARB NOT LINKED TO NON-EXISTING EXH ROTOR	75-NIB 55		832
NOTE:	---	---	---	TORPEDO NAME THAT SURVIVED SINCE 1946 - DROPPED			
...	'72	G K&B 40R PROTOTYPE PYLON	0.399	A PILOT HAND BUILT RUN OF ABOUT 110 SCHNUEERLE (SEE PHOTO OF #105) K&B 40R's WERE BUILT TO MEET AMA/NMPRA SPECS FOR FORMULA ONE PYLON RACING (OVER 100 PRODUCTION ENGINES)/ SAND CAST CRANKCASES/ ENGINES RELEASED TO SELECT K&B USERS TO EVALUATE THIS DESIGN IN COMPETITION	250-NIB		833
...	'73	G K&B 40S PYLON	0.399	PRODUCTION RUN OF 2 VERSIONS OF THE 40S/ PYLON RACING MODEL WITH A FUEL SHUT-OFF DEVICE/ STANDARD MODEL FOR U/C & F/F HAD SAME TYPE OF INTAKE VENTURI AS PREVIOUS STANDARD REAR-INDUCTION K&B RACING .29's AND 40's WHERE FUEL IS FED TO SIX SURFACE JETS IN EXTERNAL COLLAR WITH N.V. ASSY./ COUNTER- BALANCED ROTARY VALVE ALUM. DISK RATHER THAN PHENOLIC MATERIAL FOUND TO DISTORT WITH HIGH NITRO FUELS/ CASE GRAVITY CAST ALUMINUM ALLOY	110-NIB 100	160 53	834
...	'73	G K&B STALLION SPORT 35 R/C	0.353	ADVERTISED AS CONTINUATION OF '63 STALLION SPORT WITH K&B CARB LINKED EXHAUST BAFFLE/ STALLION NAME ON BYPASS SIDE/ SOLD AS CHEAPER K&B RC/ EXHAUST IS ON RIGHT SIDE	35-NIB		835
...	'73	G K&B STALLION STANDARD 35	0.353	ADVERTISED AS CONTINUATION OF '63 STALLION STUNT/ NEW CASE	30 40		836
...	'73	G K&B 19 R/C ADVERTISED NOT VECO	0.199	SIMILAR TO '71 VECO 19RC WITH STANDARD RC CARB LINKED TO ROTARY EXHAUST VALVE/ ADDITION OF K&B MUFFLER DESIGNED FOR 19 RC			837
...	'73	G K&B TWIN 4.0	4.000	BIG ENGINE DEVELOPED FOR SAKERT RIGGS AIRTECH R.P.V.			
...	'74	G K&B 61 R/C ADVERTISED NOT VECO	0.608	SIMILAR TO '72 VECO/ WITH K&B FLO THRU MUFFLER/ PLUS PERRY PUMP REGULATOR SYSTEM INCLUDING A LARGER PERRY CARBURETOR		110-NIB	838
...	'75	G K&B 35 SERIES 75	0.353	SIMILAR TO EARLIER K&B FRONT INTAKE ENGINES BUT WITH EXHAUST ON RIGHT SIDE SIMILAR TO STALLIONS/ SQUISH BAND HEAD/ STANDARD PLAIN BEARING ENGINE FOR COMPETITIVE U-C/ SAFETY CRANK STUD ELIMINATES BENT OR BROKEN SHAFTS/ DYKES PISTON RING/ K&B MUFFLER EXTRA	100-NIB		839
...	'75	G K&B SR II PYLON 40 R/R	0.396	NEW 40 SIZE TO REPLACE '73 K&B 40S/ ABC PISTON & LINER/ NEW PORTING/ HI-DENSITY ALUMINUM CAST CRANKCASE/ REAR INTAKE AND EXHAUST	195-NIB 125-NIB 90-N		840
...	'75	G K&B 40 R/C PERRY PUMP	0.399	SIMILAR TO K&B 'SERIES 71' 40 RC FRONT INTAKE/ PLUS PERRY PUMP SYSTEM INCLUDING LARGER PERRY CARBURETOR			841

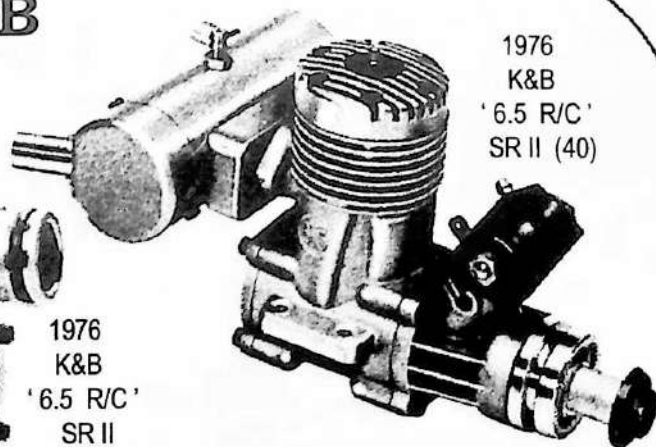
K & B



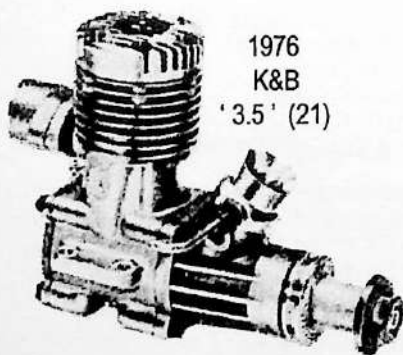
1975
K&B
'3.5 R/C' (21)



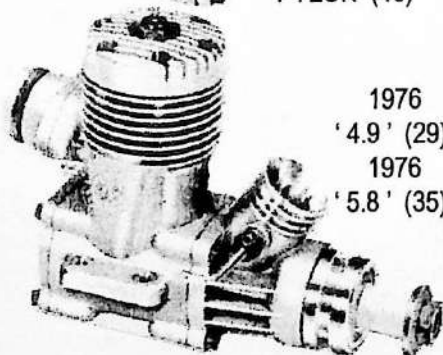
1976
K&B
'6.5 R/C'
SR II
PYLON (40)



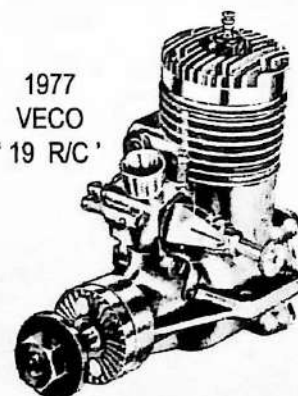
1976
K&B
'6.5 R/C'
SR II (40)



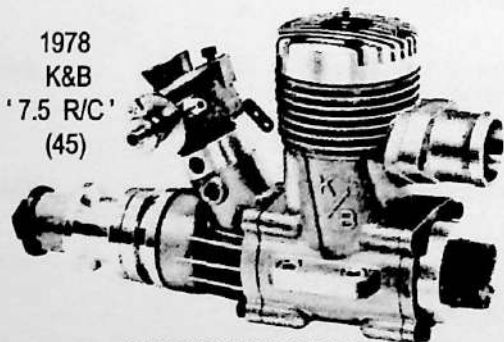
1976
K&B
'3.5' (21)



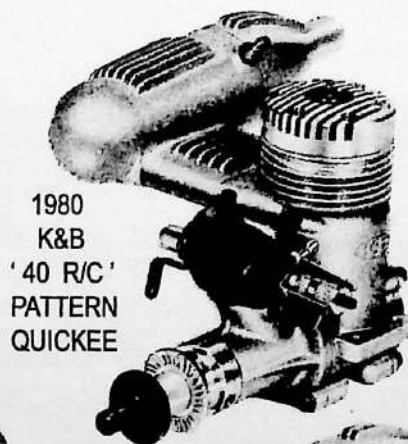
1976
'4.9' (29)
1976
'5.8' (35)



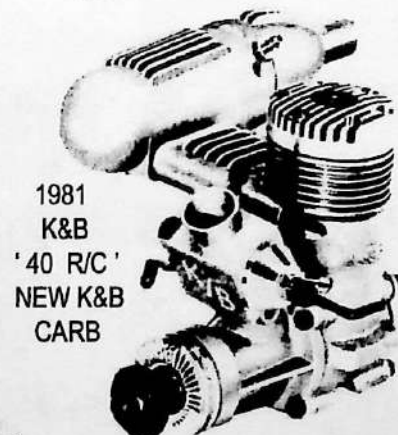
1977
VECO
'19 R/C'



1978
K&B
'7.5 R/C'
(45)



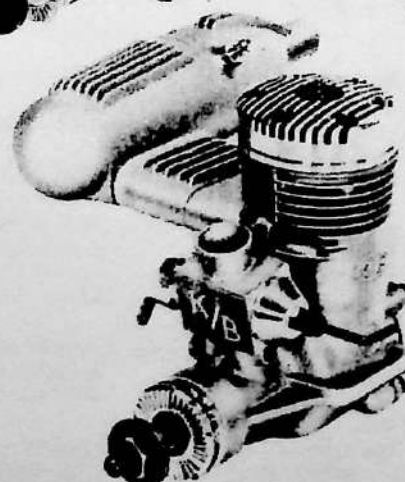
1980
K&B
'40 R/C'
PATTERN
QUICKEE



1981
K&B
'40 R/C'
NEW K&B
CARB

DUCTED FAN ENGINE
WITH PERRY PUMP

1982
K&B/COX
CONQUEST
'15 R/C'
3-VERSIONS

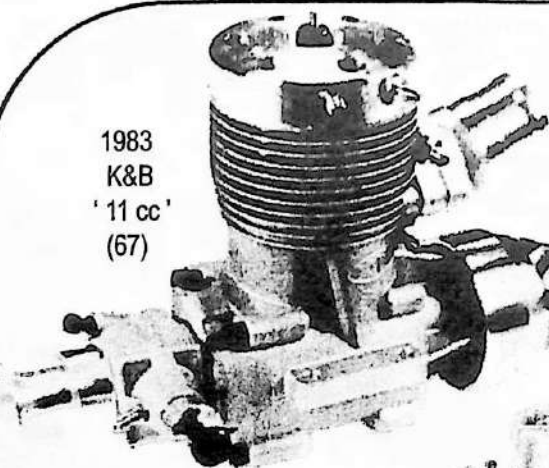


1982
K&B
'61 R/C'
NEW K&B
CARB

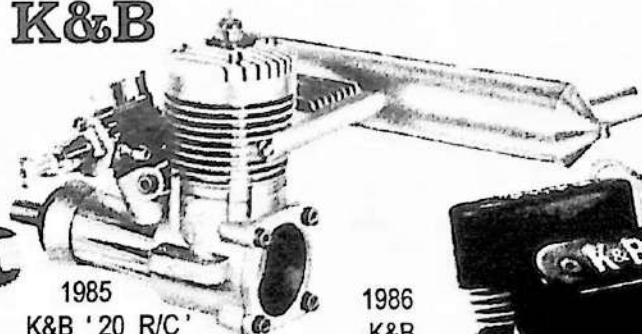
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
K&B	'75	G K&B 3.5 R/C (21)	0.209	NEW FRONT INTAKE/ REAR EXHAUST R/C COMPETITION IN CARS AND BOATS	70 75		841.5
...	'76	G K&B 6.5CC SR II F.I.R.E.	0.396	NEW FRONT INTAKE REAR EXHAUST/ ABC/ AVAILABLE AS PYLON VERSION OR WITH PERRY CARB & TRANSVERSE MUFFLER FOR R/C PATTERN	150-NIB 90-NIB	41	842
...	'76	G K&B 3.5CC (21)	0.209	FRONT INTAKE F-F & U-C/ REAR EXHAUST/ STANDARD VERSION OF 3.5cc RC/ DEVELOPED FOR COMPETITION CLASSES/ I.e. RACE CARS & BOATS	100-NIB 90-NIB		843
...	'76	G K&B 3.25CC (19)	0.199	AS PREV. 3.5cc/ DESTROYED FOR AMA CLASS 'A' FREE FLIGHT	150-NIB		844
...	'76	G K&B 4.9CC (29)	0.298	FRONT INTAKE F-F & U-C/ REAR EXHAUST/ NEW CASE/ SCHNURLE TYPE PORTING/ DEVELOPED FOR TOP OF AMA CLASS 'B' F/F & OTHER U/C CLASSES	100 195-NIB	102-N	845
...	'76	G K&B 5.8CC (35)	0.351	FRONT INTAKE F-F & U-C/ REAR EXHAUST/ BUILT IN SAME NEW CASE AS 4.9cc (.29)/ SCHNURLE TYPE PORTING/ DEVELOPED FOR U/C COMBAT	195-NIB 150-NIB		846
NOTE:	'77	—	—	K&B HAS RETURNED 19 TO VECO NAME.			
...	'77	G VECO/K&B R/C (19)	0.199	AS K&B .19 R/C - '73/ VECO NAME/ ALSO STD. VERSION			846.5
...	'78	G K&B 7.5CC (45) DUCTED FAN PERRY PUMP	0.449	SIMILAR IN APPEARANCE TO '76 K&B 6.5cc SR II/ PERRY PUMP & CARB/ FRONT INTAKE & REAR EXH./ CHROMED BRASS SLEEVE WITH ALUM. PISTON/ CON ROD MACHINED & BUSHED BOTH ENDS/ DUAL PRECISION BALL BEARINGS/ HIGH PERFORMANCE HEAD MACHINED FROM SOLID ALUM. STOCK/ K&B's NEW QUINTUPLE PORTING	110	108	847
NOTE:	'79	—	—	STILL SELLING OLD K&B 40 R/C WITH COUPLED EXH. & PERRY CARB.			
...	'80	G K&B 40 R/C PATTERN QUICKIE	0.399	SIMILAR TO K&B 40 R/C SERIES 70 CASE/ MODIFIED TO ELIMINATE ROTATING EXHAUST THROTTLE AND FEATURE A 'BOLT-ON' MUFFLER CANNOT BE USED ON EXISTING K&B 40's (8011) USES PERRY CARB	62		848
...	'81	G K&B 40 R/C F.I.S.E	0.399	OLD RELIABLE K&B 40 OVERDUE FOR CHANGE WAS CHANGED/ FRONT INTAKE AND SIDE EXHAUST NEW K&B CARB/ NEW CRANKSHAFT/ K&B's 'SUPER BEARINGS'/ MACHINED CON ROD WITH BUSHINGS BOTH ENDS/ PISTON WRIST PIN HOLE HAS BRONZE BUSHINGS/ MACHINED HEAD	120-NIB 60-NIB		849
...	'81	G K&B 3.5CC 21	0.209	SIMILAR TO '76 - 3.5cc/ IDENTIFIED INTERNAL MODS FOR CAR COMPETITION/ MOUNTING LUGS WEBBED FOR EXTRA STRENGTH		125 105-NIB	850
NOTE:	'82	—	—	1981 K&B MFG. & COX HOBBIES WERE BOTH DIVISIONS OF LIESURE DYNAMICS AT THIS TIME. SINCE K&B HAD THE EXPERTISE, AND SPECIALIZED IN HIGH PERFORMANCE ENGINES, IT WAS DECIDED THAT THEY WOULD TAKE OVER MANUFACTURING OF THE COX CONQUEST ENGINE.			
...	'82	G K&B/COX R/C CONQUEST 15 3 MODELS	0.149	ORIGINAL COX (SEE COX HOBBIES) UPDATED BY K&B/ NEW MACHINED ROD WITH BUSHED LOWER END/ NEW CAST IRON MACHINED PISTON/ COPPER SHIMS AND GASKETS/ MANUFACTURED AS A SPORT ENGINE AND MUFFLER ... F.A.I. FREE FLIGHT U-CONTROL & QUARTER MIDGET RACING WITH PERRY CARBURETOR	110 90	91 68	851
...	'82	G K&B 61 R/C	0.608	AS '74 - 61 RC/ NEW K&B ALL METAL CARB./ NEW CRANKCASE/ SUPER BRG. ON REAR/ SQUISH-BAND HEAD/ BOLT-ON MUFFLER WITH PRESSURE TAP		105	852

K&B

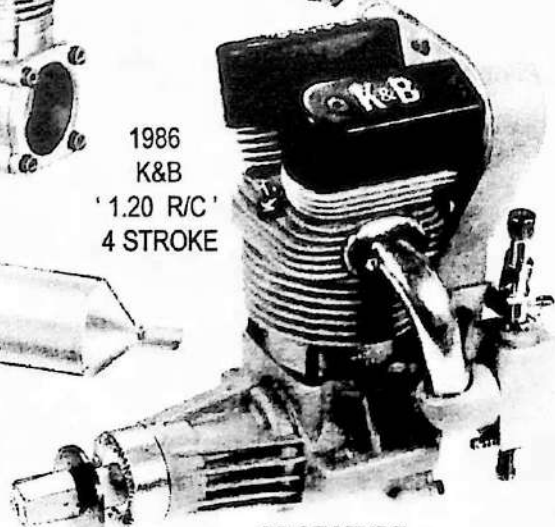
1983
K&B
'11 cc'
(67)



1985
K&B '20 R/C'
SPORTSTER

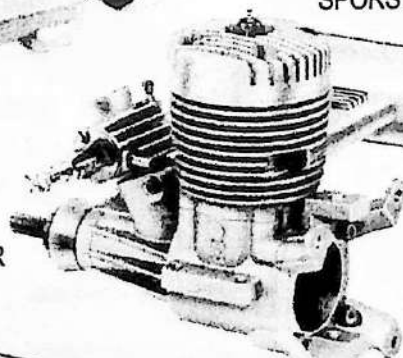


1986
K&B
'1.20 R/C'
4 STROKE

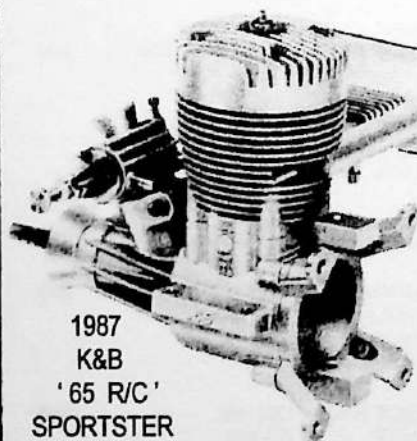


PROTOTYPE

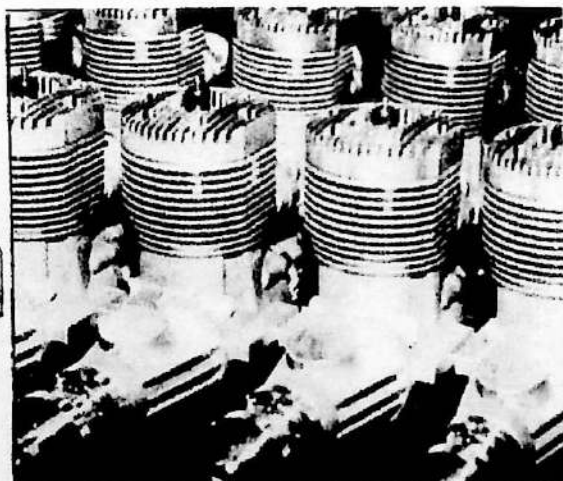
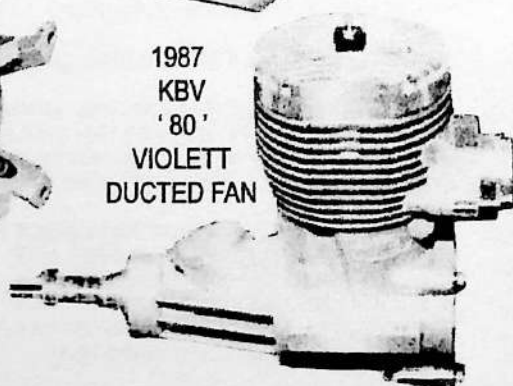
1986
K&B
'45 R/C'
SPORTSTER



1987
K&B
'65 R/C'
SPORTSTER



1987
KBV
'80'
VIOLETT
DUCTED FAN



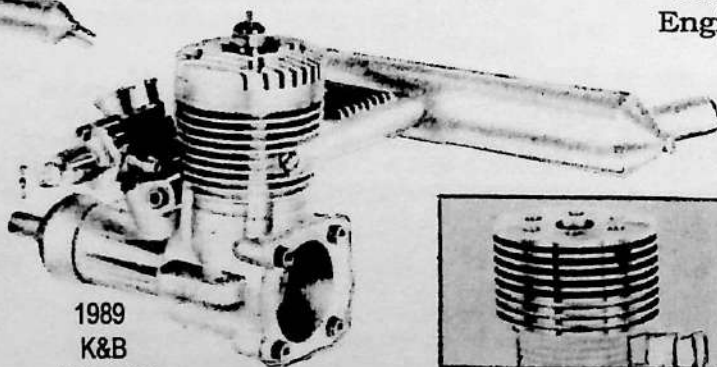
Custom made KBV '80' Ducted Fan
Engines made for Bob Violet Models

RADIAL MOUNT

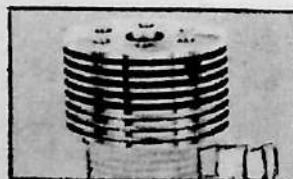
Pre-
Drilled
for nose
wheel
steering
landing
gear.



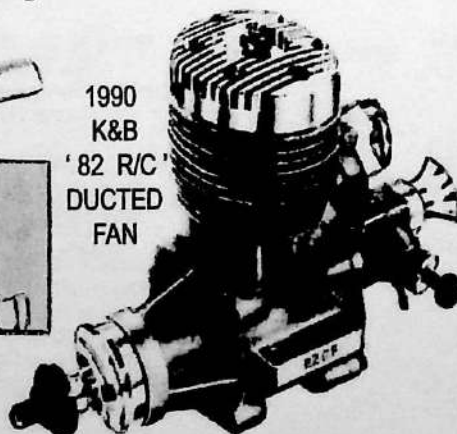
1989
K&B
'28 R/C'
SPORTSTER



BYRON HEAD
FOR K&B
'82 R/C'



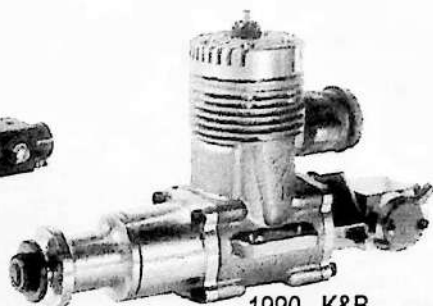
1990
K&B
'82 R/C'
DUCTED
FAN



MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
K&B	'83	G K&B 11CC MARINE	0.67	WE DON'T COVER MARINE ENGINES BUT THIS IS THE FIRST OF THE 'BIG' ENGINES/ CLARENCE LEE ACTUALLY FLEW ONE OF THE FIRST PROTOTYPE OF THE AIRCRAFT ENGINE AROUND 1976!	PROTO		853
NOTE:	---	---	---	1983 - JOHN BRODBECK SR. ACQUIRED K&B BACK FROM LIESURE DYNAMICS AND PURCHASED TWO (2) NEW CNC MACHINES FOR BETTER FUTURE ENGINE MFG.			
...	'85	G K&B 20R/C SPORTSTER	0.197	NEW 'SPORT & ECONOMY' PLAIN BEARING 'STATE OF THE ART' ENGINE/ A.A.C. CYLINDER & PISTON/ SCHNIERLE PORTING/ O-RING HEAD SEAL/ HARDENED STEEL CRANKSHAFT/ MUFFLER WITH ROTATABLE EXHAUST OUTLET/ RADIAL MOUNT PRE-DRILLED TO TAKE NOSE WHEEL STEERING LANDING GEAR/ K&B CARBURETOR	90-NIB 65	55-NIB 33	854
...	'86	G K&B 1.20 R/C 4 STROKE PROTOTYPE	1.190	DUAL OVERHEAD CAM 4 STROKE W/BELT DRIVEN OVERHEAD CAM/ RIBBED FRONT END CRANKCASE SUPPORT INDICATED SIMILARITY TO MORE CURRENT K&B ENGINES (I.E. .61 R/C, PYLON 40's AND DUCTED FAN ENGINES/ BRODBECK SR. DECIDED IT WAS TOO EXPENSIVE FOR K&B TO PRODUCE AND DEALT IT BACK TO GARY CONLEY, WHO HAD DESIGNED IT SEE VARIATION UNDER CONLEY/ABITAR	PROTO		855
...	'86	G K&B 45 R/C SPORTSTER	0.447	AS K&B 20 R/C SPORTSTER/ A.A.C. CYLINDER AND PISTON/ SCHNIERLE PORTING/ 6 PORTS	50-NIB	45-N 41-NIB	856
...	'86	G KBV 72 VIOLETT DUCTED FAN	0.718	SPECIAL DUCTED FAN ENGINE FOR B. VIOLETT MODELS/ FRONT INTAKE & REAR EXHAUST/ RUN OF 100 ENGINES/ DECIDED NEEDED MORE POWER AND BECAME A SPECIAL IN FOLLOWING YEAR	90	120	856.5
...	'87	G K&B 65 R/C SPORTSTER	0.647	FURTHER EVOLUTION OF THE 20 & 45 SPORTSTER/ ALL OF THEIR CHARACTERISTICS IN LARGER SIZE/ NOW OFFERING 'UNLIMITED WARRANTY', K&B TO REPAIR OR REPLACE ENGINE WITHOUT CHARGE IF PROPERLY USED/ THE CATCH HERE WAS THAT IT DID NOT COVER DAMAGE FROM A CRASH OR 'FRIED ENGINE' CAUSED BY SUBSTANDARD FUEL		50-N 76-NIB 80-NIB 60	857
...	'87	G KBV 80 VIOLETT DUCTED FAN	0.798	SPECIAL DUCTED FAN ENGINE DEVELOPED FOR BOB VIOLETT MODELS/ FRONT INTAKE AND REAR EXHAUST/ FIRST RUN WAS 100 ENGINES/ SECOND RUN WAS 500 ENGINES WITH MINOR CHANGES IN SHAPE OF COMBUSTION CHAMBER/ SUBSEQUENT MINOR CHANGES HAVE BEEN IN MINOR SLEEVE AND CARB IMPROVEMENTS/ ALL ENGINES WERE TEST RUN AT BVM SHOP AND APPARENTLY RAN WITHIN 300 RPM's OF EACH OTHER	125	146	858
...	'89	G K&B 28 R/C SPORTSTER	0.277	EVOLUTION OF 20 SPORTSTER WITH AN INCREASE OF .08 DISPLACEMENT FOR THE MODELERS NEEDING A 'LITTLE' MORE POWER & PERFORMANCE/ ALL THE FEATURES OF THE 20/45/65 SPORTSTER		45	859
...	'90	G K&B .82 DUCTED FAN R/C UNIVERSAL & BYRON	0.8155	SUBSEQUENT TO THE VIOLETT D.F. ENGINE, IT WAS DECIDED THAT K&B NEEDED TO HAVE IT'S OWN DUCTED FAN ENGINE & THIS REAR INTAKE, REAR EXHAUST HIGH PERFORMANCE ENGINE WAS IT/ ABC PISTON & SLEEVE/ HARDENED STEEL CRANKSHAFT/ MACHINED CON ROD BUSHED BOTH ENDS/ K&B QUINTUPLE PORTING (5 PORT)/ MACHINED STEEL ROTOR DISC, CHROMED/ K&B SUPER BALL BEARINGS THAT WILL NOT SHED RETAINERS/ EXHAUST ADAPTER FOR TUNED PIPE/ RATED H.P. IS 4.2 AT 23,000/ 'HEAT SINK' HEAD IS THE PERFECT POWER PLANT FOR BYRON DUCTED FAN MODELS		265 175 193-NIB	860

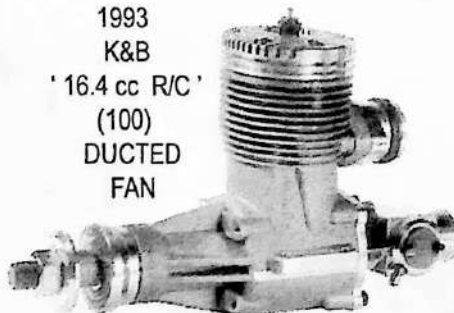
K & B

1990
K&B
'3.5 cc R/C'
(21)
DUCTED FAN

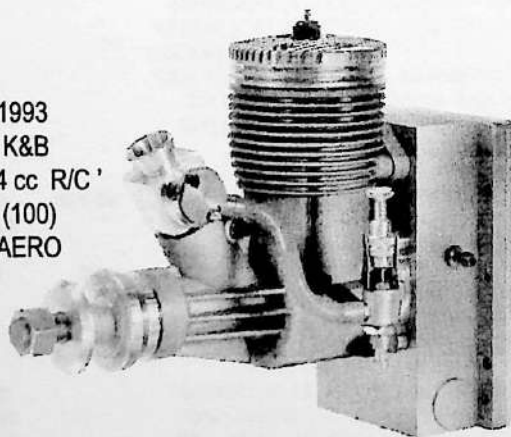


1990 K&B
'7.5 cc R/C' (45)
DUCTED FAN

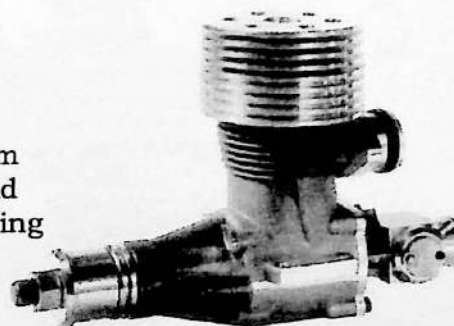
1993
K&B
'16.4 cc R/C'
(100)
DUCTED
FAN



1993
K&B
'16.4 cc R/C'
(100)
AERO

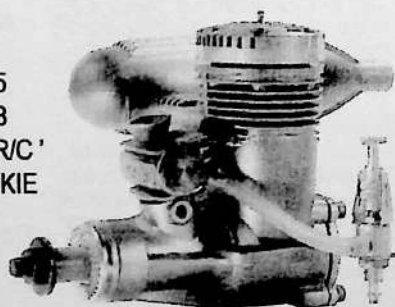


Sold with
muffler system
vertical behind
engine including
a mounting
system for
this rear
exhaust engine.

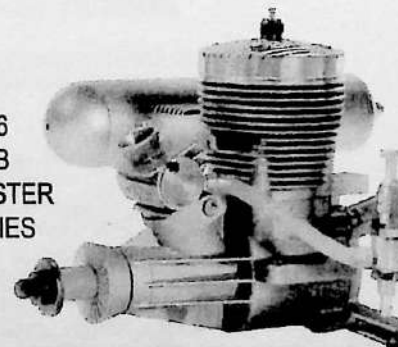


1993 K&B '16.4 cc R/C' (100)
DUCTED FAN WITH HEAT SINK HEAD

1995
K&B
'40 R/C'
QUICKIE

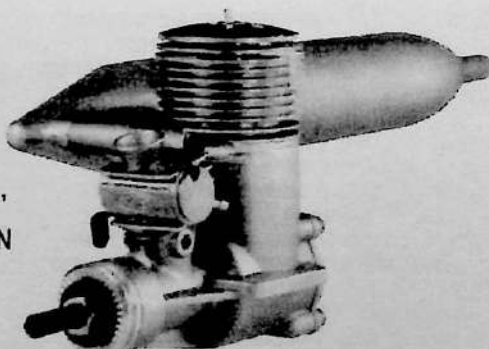


1996
K&B
SPORTSTER
SERIES

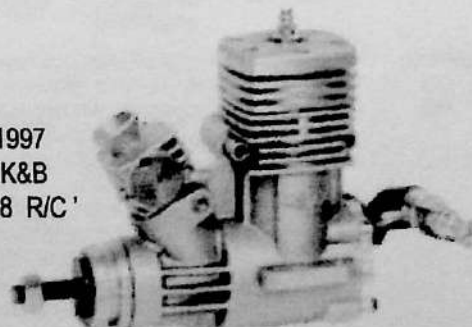


TYPICAL WITH REMOTE CARB
AND BRONZE BUSHED CASE

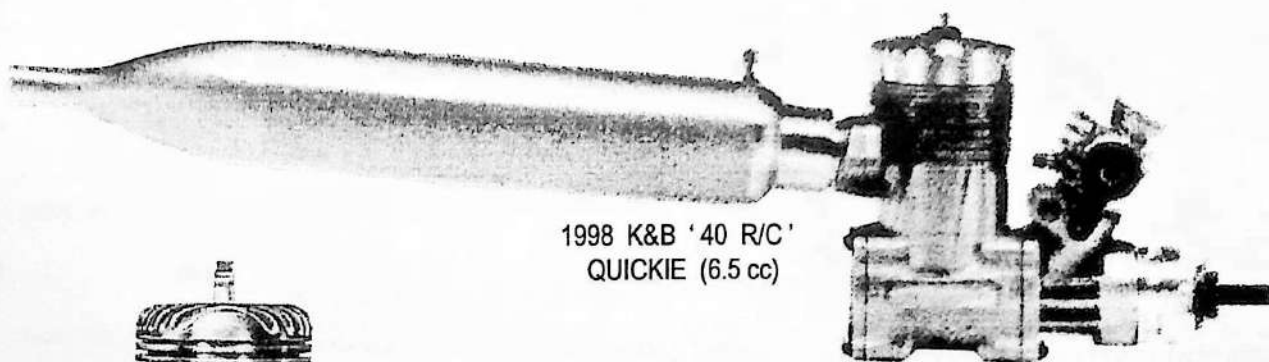
1997
K&B
'61 R/C'
TWIST ON
HEAD



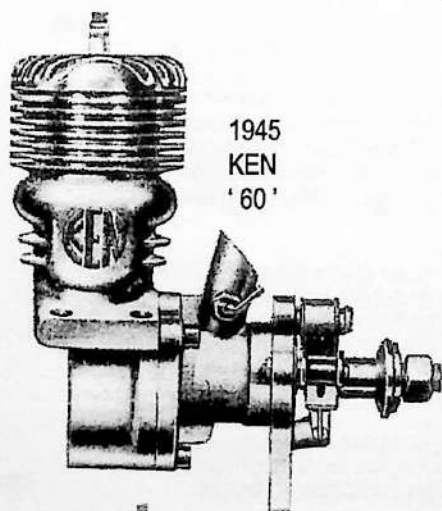
1997
K&B
'48 R/C'



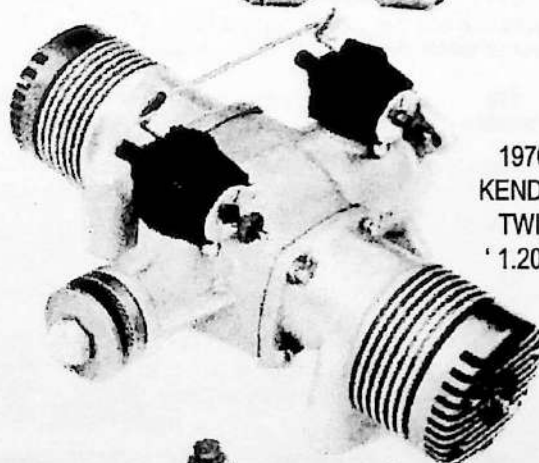
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
K&B	'90	G K&B 3.5CC DUCTED FAN R/C	0.209	AS 3.5cc R/C - 75/ NEWLY MACHINED FRONT END AND REAR ROTARY ADDED TO ORIGINAL/ MINI DUCTED FAN ENGINE			860.5
. . .	'90	G K&B 7.5CC DUCTED FAN R/C DRUM ROTOR	0.449	A REVISED K&B 7.5cc DUCTED FAN ENGINE WITH DRUM ROTOR/ ABC PISTON & SLEEVE/ K&B ALL METAL CARB/ K&B QUINTUPLE PORTING/ K&B SUPER BEARINGS/ HARDENED STEEL CRANKSHAFT/ MACHINED FRONT END	195-NIB	75-N 95	861
. . .	'93	G K&B 16.4CC 100 R/C DUCTED FAN REGULAR HEAD AND HEAT SINK HEAD ENGINE	1.000	DEVELOPED FROM THE SUCCESS OF THE K&B .82 DF/ REAR DRUM ROTOR VALVE INDUCTION/ ABC PISTON & CYLINDER/ NEW DESIGNED CON ROD BUSHED BOTH ENDS/ NEW DESIGN CARB WITH REMOTE NEEDLE VALVE CONTROL/ SCHNURLE, 5 PORT DESIGN/ INVESTMENT CAST CRANKCASE/ EXHAUST ADAPTER FOR PIPE COUPLING/ HEAD COMPRISES 2 PARTS; REGULAR HEAD AND HEAT SINK VERSION	160		862
. . .	'93	G K&B 16.4CC AERO 100 R/C	1.000	DEVELOPED FOR PATTERN FLIERS REQUIRING A HIGH POWER TO WEIGHT RATIO ENGINE/ MANY FEATURES COMMON TO THE DUCTED FAN 100 AS PREVIOUSLY/ FRONT ROTOR INDUCTION/ THE K&B MUFFLER IS VERTICAL BEHIND THE ENGINE INCLUDING A MTG. SYSTEM FOR THIS REAR EXHAUST ENGINE		136	863
. NOTE:	---	---	---	1995 THE K&B 61 R/C HAD BEEN IN CONTINUOUS PRODUCTION FOR 31 YEARS WITH ONLY MINOR MODIFICATIONS SINCE DESIGNED IN 1964 BY CLARENCE LEE			
. . .	'95	G K&B 40 R/C QUICKIE	0.399	INTRODUCTION OF NEW 40 R/C WITH TUNED MUFFLER & REMOTE NEEDLE VALVE ASSY/ TRUE ABC WITH HARD CHROME CYLINDER & SILICON ALUMINUM PISTON/ CON ROD BUSHED BOTH ENDS/ REDESIGNED K&B CARB. FOR REMOTE	110	136	864
. . .	'96	G K&B R/C SPORTSTER SERIES 20/28/45/65		ALL SPORTSTER ENGINES NOW HAVE BRONZE BUSHED CRANKCASES AND REMOTE NEEDLE VALVE ASSEMBLIES			865 865.1 865.2 865.3 866
. . .	'97	G K&B 61 R/C TWIST-ON HEAD	0.611	INTRODUCTION OF A NEW 61 R/C W/TWIST-ON HEAD/ STANDARD 61 R/C WILL BE CONTINUED/ COMES WITH A TUNED MUFFLER PIPE/ THIS NEW 61 USES SAME OLD 61 CASE WITH FINS MACHINED OFF & REMAINING CYLINDER THREADED FOR MACHINED & GOLD ANODIZED FINNED-HEAD UNIT/ MODIFIED CRANKSHAFT WITH PROP STUD/ HIGH SILICON CONTENT ALUM. PISTON AND A HARD CHROME PLATED BRASS SLEEVE (ABC), PINNED TO PROVIDE EXACT ALIGNMENT WHEN TIGHTENING TWIST-ON HEAD/ NEW K&B CARB. FOR REMOTE NEEDLE VALVE ASSEMBLY		137-NIB	
. . .	'97	G K&B 48 R/C	0.481	COMPLETELY NEW SCHNURLE SCAVENGED, ABC ENGINE/ PRESSURE DIE CAST CRANKCASE/ SQUARE SHAPED HEAD (GOLD ANODIZED) MATCHES THE SQUARE SHAPE OF THE CYLINDER FINS/ CARB DESIGN UTILIZES LATEST ROTATING BARREL, FUEL METERING TYPE WITH REMOTELY MOUNTED NEEDLE VALVE ASSEMBLY/ CLARENCE LEE'S TESTS INDICATE THIS K&B 48 IS ONLY ENGINE HE'S TESTED WHICH BREAKS 13,000 RPM WITH AN 11X6 PROP/ CLARENCE LEE'S ENGINE REVIEW IN R.C.M. JUNE 1999 CALLED IT K&B'S SCREAMIN' 48	115	125-NIB 123 135	867
. . .	'97	G K&B 61 R/C	0.611	OLD RELIABLE '61 NOW WITH ABC PISTON & LINER/ REMOTE NEEDLE VALVE AND TUNED MUFFLER/ NO MAJOR EXTERNAL APPEARANCE DIFFERENCE FROM PREVIOUS ENGINE		127	867.5



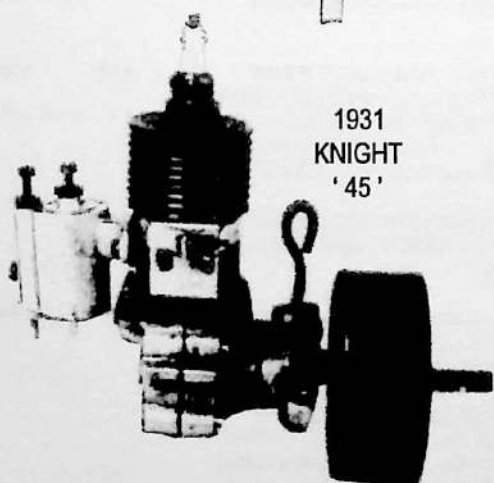
1998 K&B '40 R/C'
QUICKIE (6.5 cc)



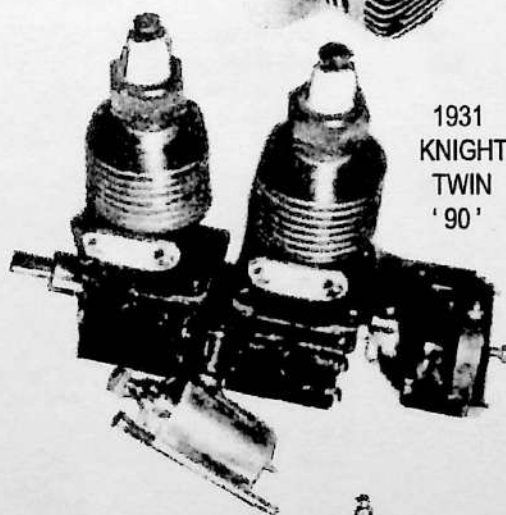
1945
KEN
'60'



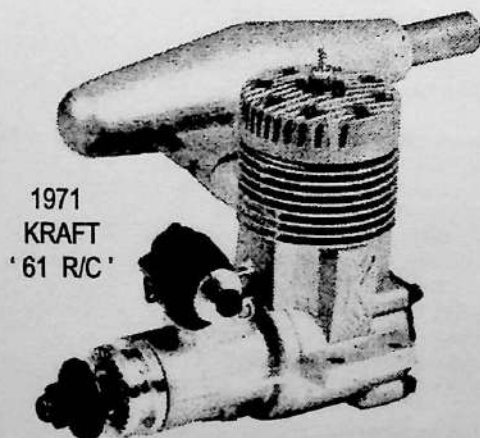
1976
KENDEL
TWIN
'1.200'



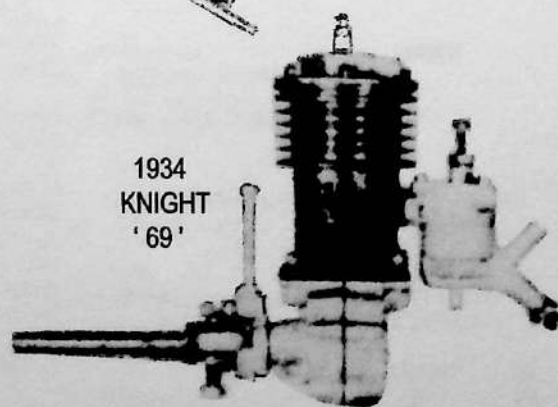
1931
KNIGHT
'45'



1931
KNIGHT
TWIN
'90'

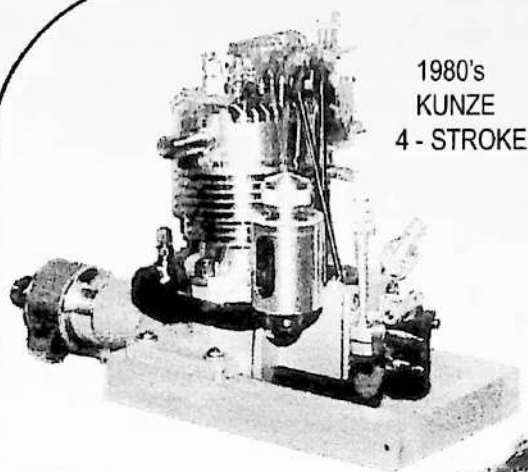


1971
KRAFT
'61 R/C'

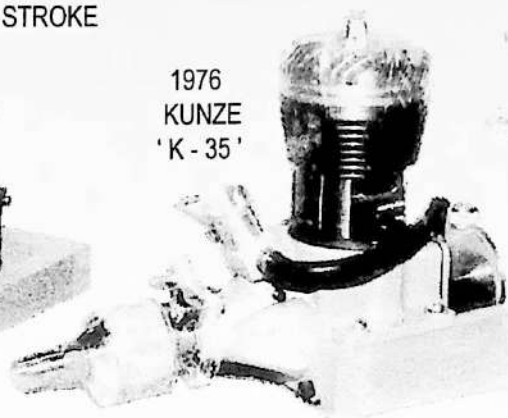


1934
KNIGHT
'69'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION --- ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
K&B	'98	G	K&B 40 R/C QUICKIE 6.5CC	0.396	AS PREVIOUS 1976 K&B 6.5 FRONT INTAKE, REAR EXHAUST WITH A TUNED PIPE MUFFLER/ TURNED 9X6 PROP @ 19,500 RPM FOR QUICKIE COMPETITION APPEARS TO BE LAST DITCH EFFORT FOR K&B WITH INEXPENSIVE \$75. ENGINE & \$40. OPTIONAL TUNED MUFFLER AS A DIRECT TO CONSUMER SALES EFFORT		115	868
* NOTE: #1	'99	--	-----	----	MANY K&B ENGINES WERE BEING SOLD OFF THROUGH 'MODELER DIRECT' IN NEEDLES CALIFORNIA. MODELER DIRECT DOES NOT APPEAR TO HAVE ANY CONNECTION WITH R.J.L. INDUSTRIES WHO PURCHASED ALL K&B ASSETS DURING THIS TIME.			
* NOTE: #2	2000 2005	--	-----	----	R.J.L. INDUSTRIES PURCHASED ALL K&B ASSETS AND MACHINERY LATE IN 1999 AND ESTABLISHED A NEW IDENTITY FOR K&B - IT IS 'K&B MODEL PRODUCTS, INC.' IN CALIFORNIA. CURRENT K&B ENGINES ARE ALL CURRENTLY AVAILABLE AND SEEN WITH RANDY J. LINSALATO AT THE TOLEDO SHOW IN APRIL 2005			
KENCRAFT CO.	'45	I	KEN	0.604	RACING/ UNIQUE FRONT DISC INTAKE/ BALL BEARINGS/ 'IMPELLOR' FUEL INDUCTION/ RINGED OR LAPPED PISTON/ NAME ON BYPASS	575 695-N	537 360	869
*	'47 *	D	KEN DIESEL	0.604	CASE/ CYLINDER AND FRONT END SAME/ FIXED COMPRESSION DIESEL VERSION WITH MACHINED FLAT 6-BOLT HEAD/ KIT AND ASSEMBLED	SOLD 700		870
KENDEL MODEL ENGINES (KEN TUROCY & GENE DELLISANTI)	'76	G	KENDEL TWIN	1.200	MANUFACTURED AND SOLD BY KENDEL MODEL ENGINES IN ELYRIA, OHIO OPPOSED TWIN/ BALL BRG CRANKSHAFT/ DUAL SEPARATE PERRY CARBS/ FORGED RODS BRONZE BUSHED BOTH ENDS/ CHROMED CYL LINERS/ BLACK FINISH OPTIONAL	200		871
KNIGHT (GILBERT NELSON)	'31	I	SINGLE	0.451	MFD. BY POWER MODEL ENGINE CO. SAND CAST CASE/ CAST IRON CYLINDER WITH BLIND BORED HEAD/ SIDE PORT/ SPLIT CASE/ ACTUAL CARBURETOR USED/ NO HEAD FINS/ KIT OR ASSEMBLED	950		872
*	'31	I	TWIN	0.902	INLINE TWIN OF PREV./ COUPLED INTAKES/ SAME CARBURETOR/ CAST IRON CYLINDERS AVAILABLE/ KIT OR ASSEMBLED	1400		873
*	'34	I	SINGLE	0.687	AS PREV. SINGLE/ LARGER BORE/ BOLT-ON SPOKE HEAD WITH 4 FINS/ DIFFERENT CARBURETOR/ SIMILAR TO ACUNTRA & GHQ WITH CARBURETOR AT REAR/ ALLOY OR CAST IRON CYLINDERS	875		874
*	'37	--	-----	----	SEE ALSO FIREBALL 500 ON PAGE 26 WHICH IS A CONTINUATION OF KNIGHTS BY ACUNTRA TOOL & DIE CO. OF N.Y.			
* NOTE:	---	--	-----	----	OTHER ENGINES WERE DEVELOPED: 4 - STROKE .90 IN 1935 ... EXISTING ENGINES REDESIGNED IN 1936 ... 3 EXPERIMENTAL RACING MARINE .90 ENGINES SIMILAR TO ATWOOD MARINES IN 1940	PROTO		
*	'36	I	-----	0.462 0.687 0.902	AS PREV./ MODIFIED '31 ENGINE WITH LIGHT-WEIGHT ALLOY CASTINGS/ NONE SEEN	QUESTIONABLE PRODUCTION		
KRAFT SYSTEMS INC. (ROGER THEOBALD)	'75	G	KRAFT 61 R/C	0.607	KRAFT ENGINE DESIGNER ROGER THEOBALD. KRAFT SYSTEMS INC. MANUFACTURED THE ENGINE & DISTRIBUTED IT THROUGH THEIR REGULAR RADIO SYSTEMS OUTLETS. FIRST PROTOTYPE AT TOLEDO '74/ DOUBLE BALL BEARINGS/ SCHNURLE PORTING WITH BOOST PORT/ NEW DESIGN OF CARB & ALTERNATED WITH USING PERRY CARBURETOR	125-NIB 76	60 50	875



1980's
KUNZE
4 - STROKE



1976
KUNZE
'K - 35'

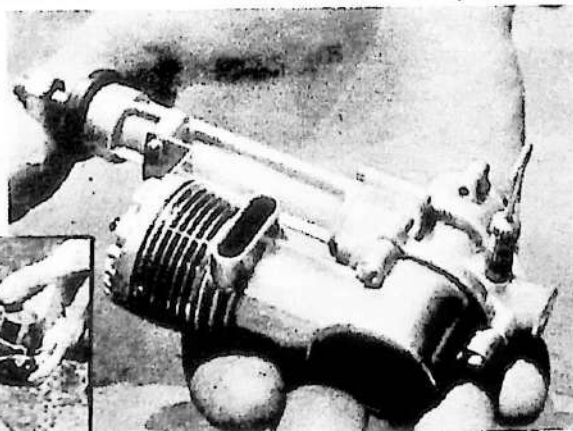


1990's
KUNZE
5 - CYLINDER



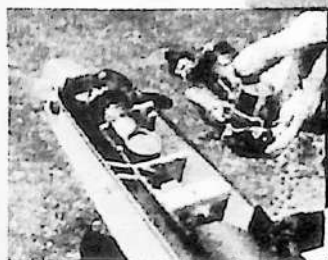
1965
KUSTOM
'45 - 51 R/C'
MODIFIED
DEW

Demonstrated at Los Alamitos Stunt Competition 1953



GLENN LEE
SPEED
F.A.I. '15'

1952 - 4
CLARENCE LEE
INLINE
'29'
SIDEWINDER

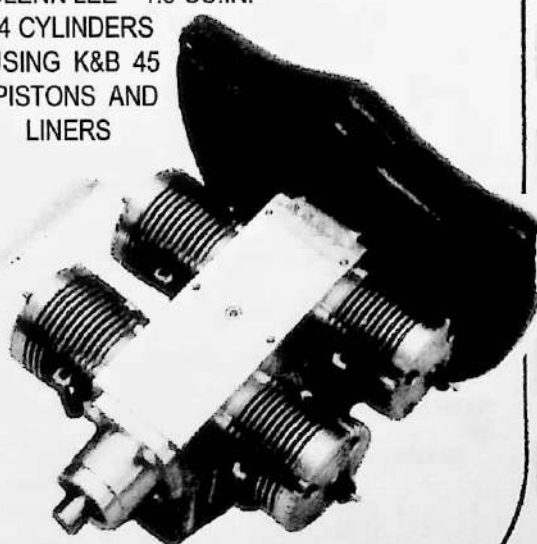


GLENN LEE '1.8 CU.IN.'
4 CYLINDERS
USING K&B 45
PISTONS AND
LINERS

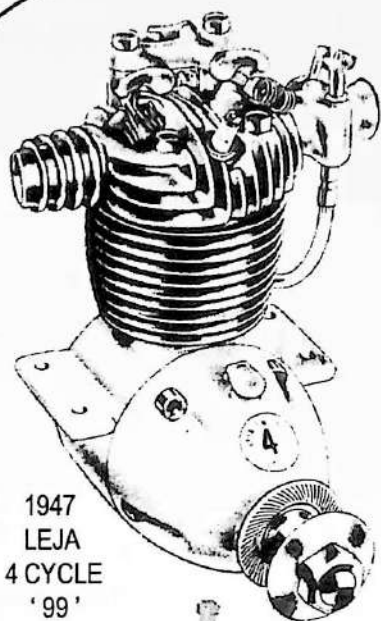


GLENN LEE
'3.37 CU.IN.'
3 TIMES COPY
OF AERO '35'

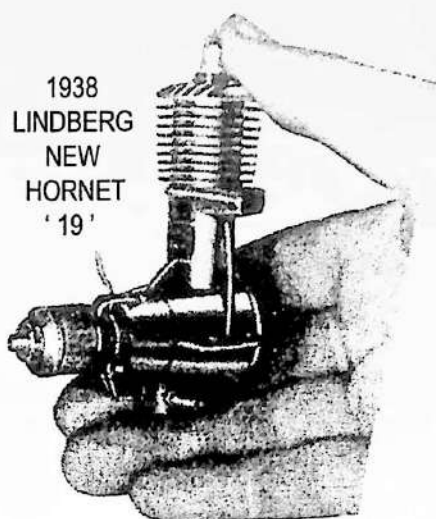
GLENN LEE
'1.3 CU.IN.'
TWIN USING
K&B 65
PISTONS & LINERS



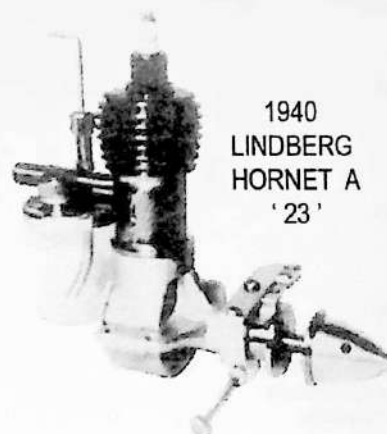
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
KUNZE ENGINES (FRED KUNZE)	---	--	-----	----	FRED KUNZE OF BELLEVIEW, WASHINGTON IS NOW A RETIRED BOEING MACHINIST AND SINCE THE '70's HAS BEEN BUILDING NUMEROUS MODEL ENGINES; PROBABLY MORE THAN SOME OF OUR EARLY 'MANUFACTURERS' ! HE DESERVES THIS ACKNOWLEDGMENT, AND HIS K-35 IS THE MOST FAMOUS. IT HAS BEEN BUILT IN ABOUT 3-4 CONFIGURATIONS. THESE K-35's SHOW UP ON OCCASION AT COLLECTOS AND IN THE MECA SWAP SHEETS. IN ADDITION HE ALSO PRODUCED REPRODUCTIONS OF THE ELF EARLY SINGLE (CORNCOB); BRAT; MIGHTY MIDGET AND POSSIBLY OTHERS. THE FOREGOING INFO AND PICTURES COURTESY OF DALE JORDAN.			
• •	'70/ '80's	I	K-35	0.349	CAST CRANKCASE/ CYLINDER AND HEAD MACHINED/ BRASS FUEL TANK/ OPEN TIMER/ BRONZED MAIN BEARING/ MADE IN A VARIETY OF FRONT AND REAR INTAKES/ NUMBER OF COMPLETED ENGINES UNKNOWN			876
KUSTOM ENGINES (RAY KESTEROOT- OWNER)	---	--	-----	----	PURCHASED DIES-TOOLING-INVENTORY FROM 'DEW' & REINTRODUCED AS 'KUSTOM' DEW MOD: APPLICATION OF BLACK FINISH TO CYLINDER HEAD - GROUND 'DEW' OFF SOME CASTINGS AND MODIFIED OLD PATTERNS TO REMOVE 'DEW' NAME/ AND APPLIED COLORFUL STICKER/ SOME HAD RED-ORANGE BACKPLATES AND HEADS ANODIZED RED OR BLUE/ SAME SQUARE CARBURETOR/ RINGED PISTON/ DIE CAST ALUMINUM FINISH OR MATTE/ 3 ENGINES WERE GOLD PLATED !	125		877
• •	'65	G	KUSTOM 51 R/C	0.511				
• •	'65	G	KUSTOM 61 R/C	0.609	SIMILAR TO 51/ THINNER SLEEVE/ 40 BUILT	125		878
• •	'65	G	KUSTOM 40 R/C PROTOTYPE	0.399	3 PROTOTYPES OF RACING 40 BUILT/ LAPPED PISTON/ THICKER SLEEVE/ SAME CASE	PROTO		879
• •	'65	G	KUSTOM TWIN PROTOTYPE	1.020	1 - PROTOTYPE SIMULTANEOUS FIRING TWIN - NO DETAILS	PROTO		880
LEE (CLARENCE LEE - DESIGNER & CURRENT ENGINE ANALYST - 30+ YRS. IN IN R.C.M. MAG.)	'52	G	IN-LINE SINGLE I PROTOTYPE	0.299	CYLINDER PARALLEL TO SHAFT/ SIDE EXHAUST VECO .32 CASE - K&B PISTONS/ DRIVE DIREC - TION CHANGED BY GEARS	PROTO		881
	'54 *	G	IN-LINE SINGLE II PROTOTYPE	0.320	AS PREV. WITH EXHAUST ON BOTTOM/ ONLY 4 OF BOTH INLINES BUILT (NAMED 'SIDEWINDERS' BY J.WAGNER)/ BUILT BY VECO 31 CASE	PROTO		882
•	'59	G	LEE '45'	0.451	SIMILAR TO VECO/ CUSTOM MADE FOR R/C COMPETITION/ WHITE SAND CAST CASE/ BALL BEARINGS/ CARBURETOR, BACK COVER AND FRONT HOUSING POLISHED/ PURPLE ANODIZED HEAD/ 26 BUILT	175		883
*	'63	G	LEE '49'	0.499	ENLARGED BORE VERSION OF LEE .45	175		884
*	'63	G	LEE '51'	0.511	ENLARGED BORE LEE .45/ 5 BUILT	185		885
•	NOTE:	---	-----	----	TOTAL OF 41 LEE ENGINES BUILT TO DATE. LEE CONSULTED WITH VECO AND THE VERY SUCCESSFUL VECO/ K&B 45 WAS A MAJOR RESULT OF LEE'S WORK PLUS CURRENT REWORK OF K & B's ALL THE WAY INTO 2005			
	*							
LEE (GLEN LEE)	---	--	-----	----	BUILT ENGINES FOR F.A.I. WORLD SPEED CHAMPIONSHIPS AND U.S. SPEED EVENTS. HAS BEEN A MEMBER OF U.S. F.A.I. TEAM. HERE'S ONE ENGINE TAKEN AT TOLEDO 2005. GLEN IS WELL KNOWN FOR HIS GREAT ARTICLES ON TWO-CYCLE ENGINES IN MODEL AVIATION JAN. & FEB. 1979 AND SHOULD HAVE DISPELLED ANY MYSTERY ON THE NEWEST INNOVATIONS SUCH AS SCHNURLE PORTING, ABC, DYKES RINGS, ABCD, EXHAUST TIMING, SQUISH BAND, BOOST PORTS GLEN IS STILL THE MAN TO BEAT IN U-CONTROL SPEED. HERE'S THREE MORE PICS OF UNIQUE ENGINES WHICH GLEN DESIGNED & BUILT; SORT OF SETTING A STANDARD.			



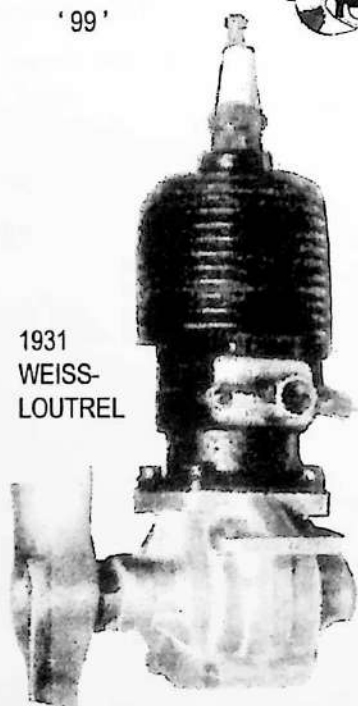
1947
LEJA
4 CYCLE
'99'



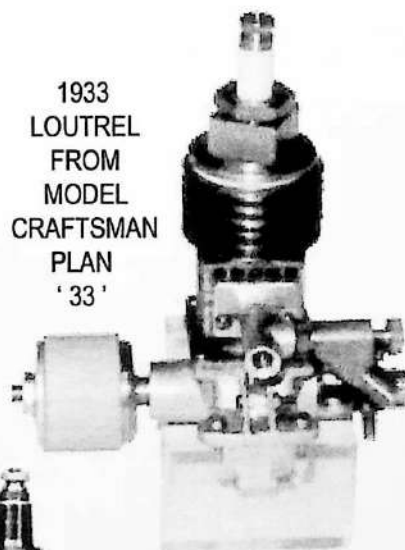
1938
LINDBERG
NEW
HORNET
'19'



1940
LINDBERG
HORNET A
'23'



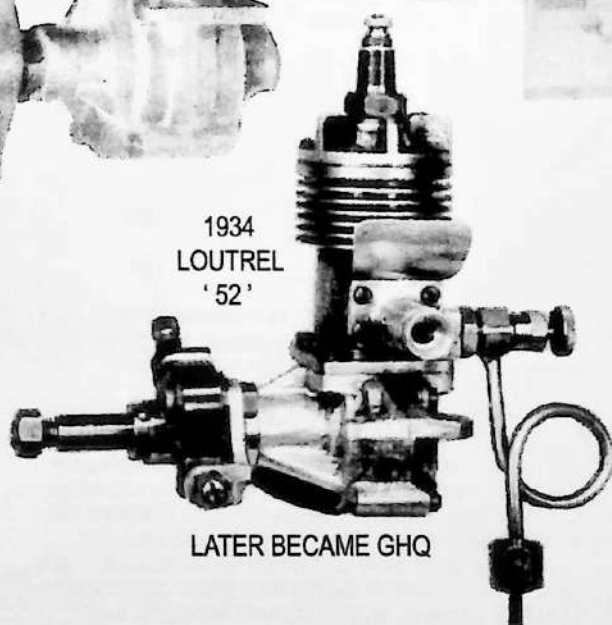
1931
WEISS-
LOUTREL



1933
LOUTREL
FROM
MODEL
CRAFTSMAN
PLAN
'33'

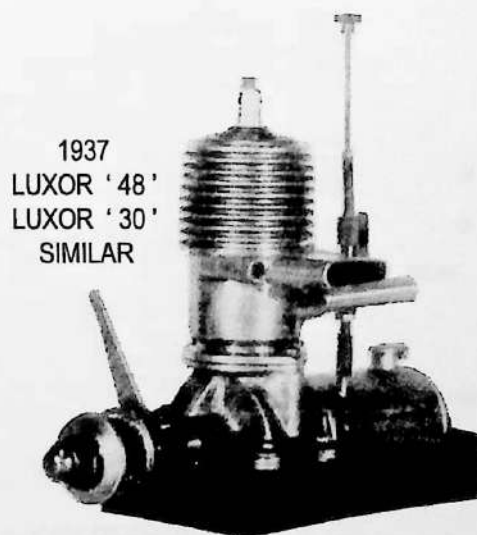


1946
LINDBERG
HORNET
'60'



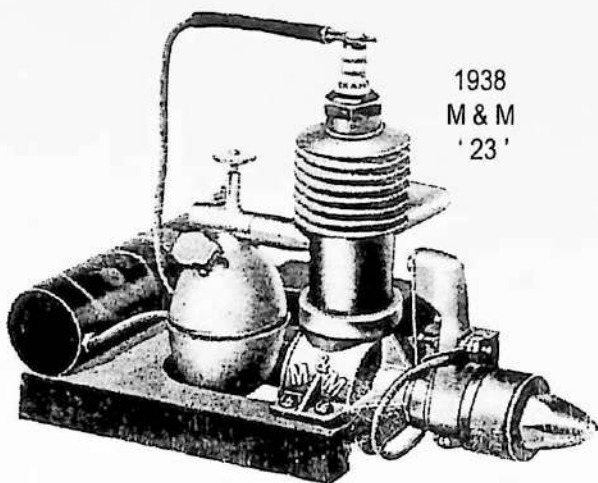
1934
LOUTREL
'52'

LATER BECAME GHQ

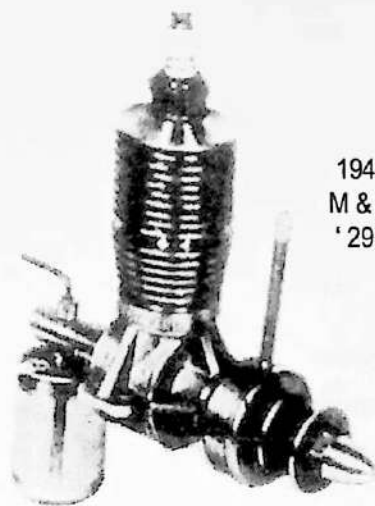


1937
LUXOR '48'
LUXOR '30'
SIMILAR

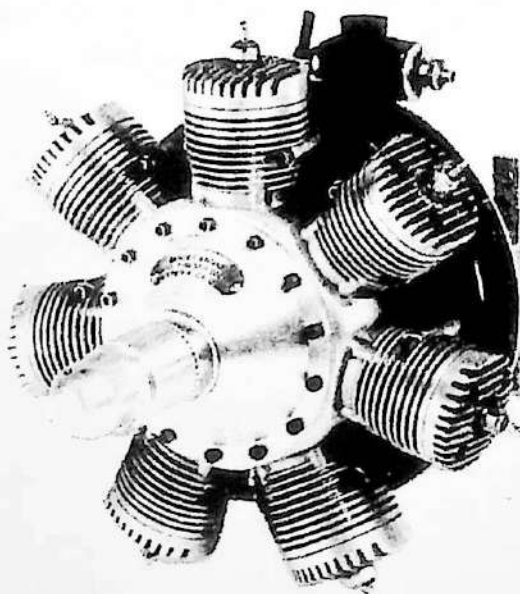
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
LEJA ENGINES INC. (CASIMIR LEJA)	'47	I 4 CYCLE 99	0.994	SEE ALSO 'FEENEY ENGINE CO.' DIE-CAST/ 4 CYCLE O.H.V./ TIMER AT REAR/ 10 BUILT/ SEEN AT '47 NATS AND REPORTED ON BY AIR TRAILS MAGAZINE	1250	REPRO 1100	886
LINDBERG (PAUL W. LINDBERG)	'38	I NEW HORNET	0.199	AVIATION PRODUCTS CO. ONE PIECE CASE OF 'MONA-DURALUMIN'/ UPDRAFT FRONT ROTARY/ CLOSED TIMER/ KITS & MAGAZINE PLAN IN POPULAR AVIATION 1938/ SOME PROTOTYPES	KIT(?) PROTO		887
"	'40	I HORNET A	0.231	SIDEPORT/ SANDCAST CASE/ MACHINED LINER WITH BLIND BORED HEAD/ PLASTIC TANK/ OPEN TIMER KITS AND SOME PROTOTYPES	KIT(?) PROTO		888
"	'46	I HORNET 60	0.601	PRE-PRODUCTION FRONT INTAKE/ SANDCAST CASE/ CYLINDER BOLTED TO CASE WITH MACHINED INTEGRAL FINS/ 6 BOLT ALUMINUM FINNED HEAD/ 3 ENGINES MADE FOR TEST WITH 2 DISASSEMBLED FOR INSPECTION/ ONE SURVIVED AND GIVEN TO EDWARD P. BOJAN	PROTO		889
LOUTREL SPECIALTY CO. (LOUIS P. LOUTREL)	'31	I WEISS/LOUTREL	(?)	LOUTREL SOLD 1934 ENGINE DESIGN TO G.H.Q. (AHC) IN 1936 AND DID NOT MAKE HIS BORED AND STROKED .60 SIMILAR TO THE 1913 WEISS (BABY) ENGINE/ SMALLER/ SAND CAST SPLIT CASE/ CYLINDER BOLTED TO CASE/ REAR TIMER/ (PHOTO R. McCLELLAND)/ 1/2 SIZE OF BABY	RARE		890
"	'33	I LOUTREL	0.331	PLAN IN APRIL 1933 MODEL CRAFTSMAN MAGAZINE/ ALSO KIT AND ASSEMBLED	RARE		891
"	'34	I LOUTREL	0.518	SPLIT CASE & CYLINDER SAND CAST/ LATER MFD. WITH MINOR MODIFICATIONS BY GHQ/ EXCELLENT INTERNAL CONSTRUCTION ON ORIGINAL/ HAD EXHAUST DEFLECTOR/ EXCELLENT STARTING - NOT LIKE GHQ !	2650		892
"	NOTE: '36	I PRE-PROD.	0.609	AS PREVIOUS/ APPARENTLY THIS SLIGHTLY LARGER ENGINE ONLY PRE-PRODUCTION --	PROTO		893
"	NOTE: —	— SPECIAL PROP	—	LOUTREL ALSO DEVELOPED AND SOLD A VARIABLE PITCH PROP IN 1932 !			
LUXOR (FEILOR)	'37	I LUXOR 48	0.489	SOLD BY BRIDGEPORT MODEL SHOP APPEARANCE ALMOST SAME AS BROWN JR. BUT SLIGHTLY SMALLER/ CAST ALUMINUM CASE AND HEAD WITH 2 BOLTS ATTACHING/ LAPPED PISTON/ OPEN TIMER/ 2 OZ. TIN PLATE TANK/ APPROX. 36 MANUFACTURED AND 33 SOLD THROUGH SHOP	RARE SOLD 1200		894
"	'37	I LUXOR 30	0.298	AS PREVIOUS 48/ SMALLER CYLINDER BOLTS TO SAME CASE/ APPROXIMATELY 15 MFD.	RARE SOLD 1300		895
M & M MODEL WHEEL CO. (CLAYTON MERRY & FRANK MERZ)	'37	I M & M 'BEE'	0.249	SAND CAST CASE/ SIDEPORT/ 'BEE' ON BYPASS/ 4 SEPARATE MOUNTING LUGS/ SCREW-IN HEAD	675		896
"	'37	I M & M 'BEE'	0.249	AS PREV./ REGULAR MTG. LUGS/ BOLT-ON HEAD	675		897
"	'38	I M & M 23	0.233	SAND CAST CASE/ SIDEPORT/ UNUSUAL OPEN TIMER/ ELLIPTICAL SPUN COPPER TANK/ NO M & M INITIALS ON CASE	675		898
"	'38	I M & M 23	0.233	AS PREV./ HAS INITIALS ON CASE/ PLATED TANK/ WITH OR WITHOUT EXHAUST STACK	675		899
NEPTUNE UNKNOWN MFR. IF NOT IN M & M FAMILY	'39 ?	I NEPTUNE 2 MODELS	?	PREVIOUS ASSUMED M & M PRE-PRODUCTION. PERMOLD CASE/FLUTTER VALVE INTAKE SUB-PISTON PORTING OR REGULAR BYPASS MODEL/ OPEN TIMER/ 3/8" PLUG (D. LUTZ)	RARE		900



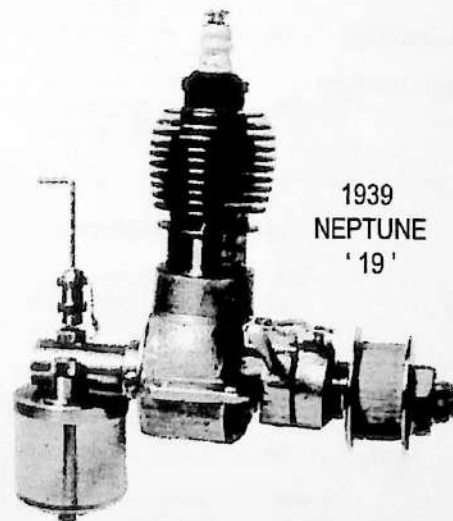
1938
M & M
'23'



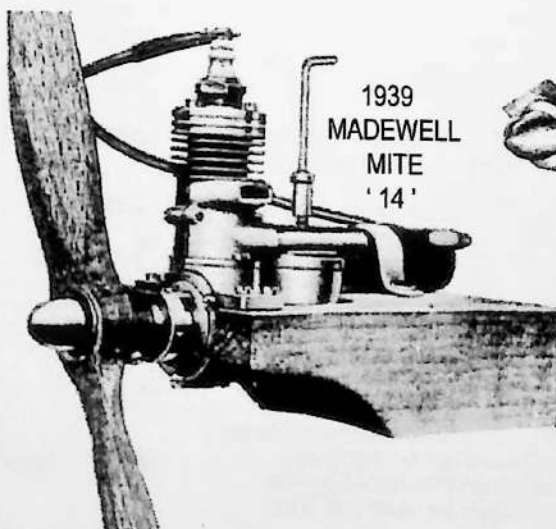
1940
M & M
'29'



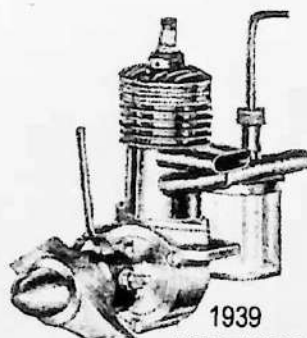
1997
BERGER
7 CYLINDER
2 STROKE
'1.965'



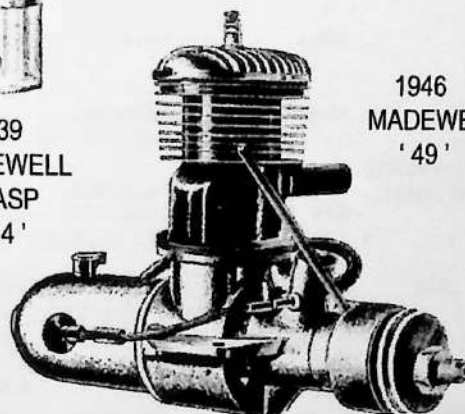
1939
NEPTUNE
'19'



1939
MADEWELL
MITE
'14'

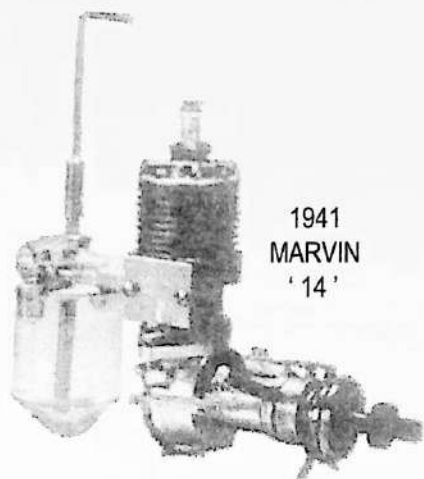


1939
MADEWELL
WASP
'14'

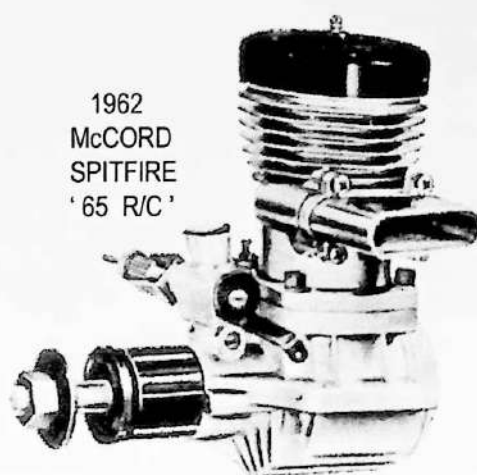


1946
MADEWELL
'49'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
M & M MODEL WHEEL CO.	'39 ?	I	NEPTUNE (PISTON PORT)	0.19	VARIATION/ FLUTTER VALVE/ SUB-PISTON PORTING (D. LUTZ)	RARE		901
"	" '39	I	M & M 29 (PISTON PORT)	0.292	PERMANENT-MOLD CASE WITH INITIALS/ 'FLUTTER VALVE' IN INTAKE-PERKY STYLE/ SUB- PISTON PORTING AS ATOM / FULL DEPTH CYLINDER FINS	675		902
"	NOTE:	---	-----	----	M & M's SUBPISTON PORTING CREATED A LAW SUIT BETWEEN M & M & RAY ARDEN (ATOM DESIGNER)			
"	" '40	I	M & M 29 HIGH SPEED	0.292	AS PREV./ ALUMINUM COVER SLEEVE BELOW EXHAUST/ 360°PORTING/ NO SUB PISTON	650		903
"	" '40	I	M & M TWIN	0.556	INLINE TWIN (EXPER.) NO PRODUCTION ?	PROTO		904
"	" '40	I	M & M 6 CYL.	1.662	6 CYL. RADIAL (EXPER.) REF. ED SOLENBERGER	PROTO		905
"	" '46	I	M & M 29	0.292	POST WORLD WAR II/SAME AS 1940 - .29 HIGH SPEED - NO APPARENT MARKINGS	650		906
MACHINE SPECIALTIES (LEE BERGER)	---	---	-----	----	MANUFACTURED AND SOLD DIRECT BY LEE BERGER, MACHINE SPECIALTIES, HESPERIA CA CRANKCASE CHARGED SYSTEM WITH 7 - K&B .28 PISTONS & CYLINDERS (TURNED 90°) WITH EXHAUST FACING REAR/ SPECIAL WRIST PINS/ MULTI-CYL. 2 STROKE RADIAL ENGINE W/ CYLINDERS SHARING COMMON CRANKCASE/ UNIQUE DESIGN IS PATENT APPLIED FOR/ LEE REVIEW RCM-DEC. 1997			907
MADEWELL MFG.CO. (J. KEENER - J. BROWN - HARRY SHARMAN - CHARLEY POTTET & AL HOUSEPIAN II)	'38	I	BERGER 7 CYL 2 STROKE	1.965	ALSO REFERENCED AS MADEWELL MOTORS INC. SANDCAST CASE/ CAST BYPASS AND EXHAUST CLAMPED TO CYLINDER/ NO HEAD FINS/ 3/8" PLUG/ OPEN TIMER/ METAL 'BOWL TYPE' TANK	375		908
"	'39	I	WASP	0.147	PERMANENT MOLD CAST AS PREV./ INTAKE AND BYPASS BRAZED TO CYLINDER/ METAL 'BOWL TYPE' TANK/ 3/8" PLUG/ NO EXHAUST STACK/ THIS MODEL BECAME POST WAR COBEY-WAITE	375		909
"	'39	I	WASP	0.147	SIMILAR TO PREV./ LIGHTER CASE/ NO HEAD FINS/ OVAL EXHAUST BRAZED TO CYLINDER/ 3/8" PLUG/ METAL 'BOWL TYPE' TANK/ OPEN TIMER/ NO NAME ON BYPASS	350		910
"	NOTE:	---	-----	----	AS THESE ENGINES WERE BEING MFD., THERE WERE A NUMBER OF MINOR VARIATIONS. SOME MODELS HAD SPLINED SHAFTS FOR PROP DRIVE WASHERS, SOME HAD PUSHED ON PROP DRIVE WASHERS, ETC.			
"	'39	I	WASP '14'	0.147	AS PREVIOUS/ 1/4" PLUG/ TALL PLASTIC TANK/ OVAL EXHAUST/ NAME ON BYPASS	265		911
"	'39	I	'14'	0.147	AS PREV./ HEAD FINS/ 1/4" PLUG/ TALL PLASTIC TANK/ ELIPTICAL OR SLIGHTLY TEAR DROPPED EXHAUST	595		912
"	'40	I	'14'	0.147	AS PREVIOUS/ CAST FRONT PLATE/ ENCLOSED TIMER	375		913
"	'46	I	MADEWELL '49'	0.488	SAME CASE AS LAST VIVELL 35/ SAME ENCLOSED TIMER/ FLEX-CABLE NEEDLE VALVE	225-N 185-LN	164	914
"	'46	I	MADEWELL '49'	0.488	AS PREV./ LUGS EXTEND TO REAR OF CASE/ LARGER EXHAUST STACK	150 140	107 108	915
"	NOTE:	'47	---	---	CLEMENS HEAD SPECIAL HEAD/ CLEMENS 'INFERNO' HEAD FOR HOT FUEL			



1941
MARVIN
'14'

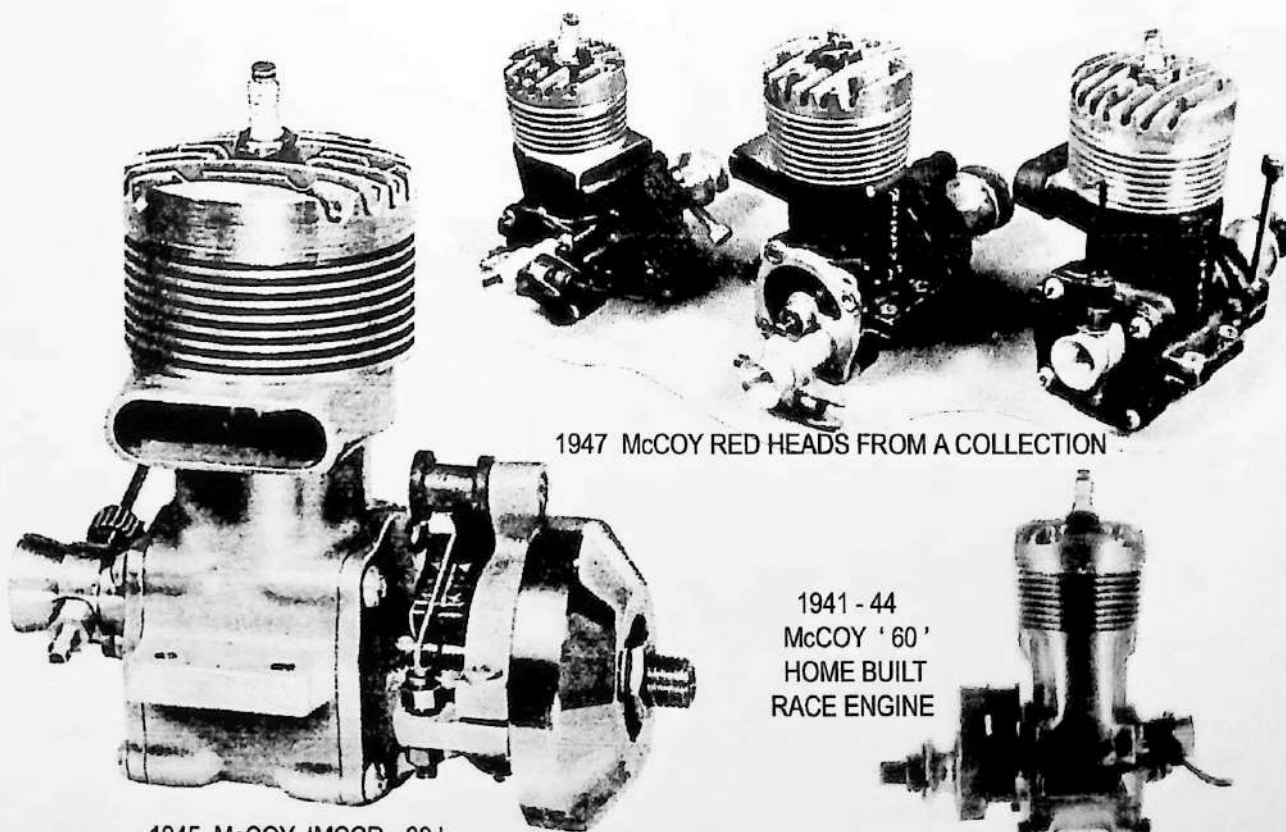


1962
McCORD
SPITFIRE
'65 R/C'



Checkered Flag Line

DURO-MATIC PRODUCTS COMPANY
HOLLYWOOD 38, CALIFORNIA



1947 McCOY RED HEADS FROM A COLLECTION

1945 McCOY 'MCCR - 60'

1941 - 44
McCOY '60'
HOME BUILT
RACE ENGINE

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
MADEWELL MFG.	'48	G	MADEWELL 49G	0.488	AS PREV./ CASE NOT MACHINED FOR TIMER	100		916
"	'48	G	MADEWELL TWIN	0.976	OFFSET FLAT TWIN/ SIDE PORT	PROTO		917
MARVIN MFG. CO. JOE DALLAIRE - DESIGN MFD. BY WARD MARVIN	'40	I	MARVIN	0.138	AS LAST MODEL DALLAIRE 'PEE WEE'/ FLAT HEAD/ OPEN TIMER/ TINY NEEDLE VALVE BODY/ BOLT ON EXHAUST STACK/ STRAIGHT VERTICAL CYLINDER FINS WITH 2 HOLES IN HEAD FOR WRENCH/ FLAT BACK PLATE	375		918
"	'41	I	MARVIN	0.138	AS PREVIOUS/ SPOKE FIN HEAD/ EXHAUST STACK/ LARGER VENTURI/ SAME STRAIGHT VERTICAL CYLINDER FINS	375		919
"	'46	I	"JR. A"	0.138	AS PREV./ PARALLEL FIN HEAD CAST WITH VERTI- CAL TAPERED CYLINDER FINS/ O&R TYPE NEEDLE VALVE ASSEMBLY/ NAME ON BYPASS COVER	375		920
"	'46	I	"JR. A"	0.138	AS PREV./ ADVERTISED 1946 WITH ENCLOSED TIMER/ NONE SEEN	QUESTIONABLE PRODUCTION		921
McCord Precision Products	—	—	—	—	PRODUCED ANDERSON SPITFIRE ENGINES FROM ORIGINAL DIES AND PARTS LATER ENGINES WERE SOME STRICTLY McCORD MODELS FROM 1958 - 1964, ADDED MULTI-SPEED K&B CARBURETORS			
"	'58	I	SPITFIRE 65	0.647	SAME AS ANDERSON SPITFIRE 65/ RINGS/ HEAD DIE CAST/ PLASTIC CAM COVER AND TANK	225		922
"	'58	G	SPITFIRE 65	0.647	AS PREVIOUS/ NO TIMER OR TANK/ BLUE ANODIZED HEAD	200		923
"	'58	I	SPITFIRE 65	0.647	AS PREVIOUS LAPPED OR RINGED PISTONS/ BLUE ANODIZED MACHINED HEAD/ IGNITION TIMER	225 320		924
"	'62	G	SPITFIRE 65 R/C	0.647	AS PREVIOUS WITH K & B MULTI-SPEED CARBURETOR/ RINGED OR LAPPED PISTON/ MACHINED HEAD	200		925
McCOY PRODUCTS (DICK McCOY DESIGNER)	—	—	—	—	MFD. BY DURO-MATIC PRODUCTS CO. THEN BY TESTORS AFTER THEY NEGOTIATED FOR PURCHASE OF DURO-MATIC IN 1955			
"	'41/'44	—	REAL McCOYS FOR RACE CARS	0.607	ACTUAL PRE-PRODUCTION RACE CAR 60's WERE MADE ON A HOME LATHE BY DICK McCOY BEFORE DURO-MATIC SIGNED CONTRACT WITH DICK ... APPROXIMATELY 35 MANUFACTURED	RARE		926
"	'45	I	McCOY 'MCCR' (RACE CAR)	0.607	SANDCAST/ MATTE FINISH/ FLUSH BYPASS/ NO SHAFT OR FLYWHEEL KEYWAY/ NO TIMER ARM/ RINGED PISTON/ SMALL 'McCOY' ON BYPASS/ 'DUROMATIC' ON LEFT LUG/ SERIAL # ON RT. LUG	350		927
"	'45	I	McCOY 'MCCA' (AIRCRAFT)	0.607	AS PREV./ PLUS SHAFT KEYWAY FOR AND INCLUDING 1" PROP SPOOL WITH 'SLEEVE' PROP NUT AND WASHER/ HAS TIMER ARM	350		928
"	'46	I	McC. 'SUPER 60' (AIRCRAFT)	0.607	AS PREV./ KEYWAY IN SHAFT-PROVIDING FOR 7/8" PROP SPOOL WITH 'SLEEVE' PROP NUT AND WASHER/ HAS TIMER ARM	350		929
"	'46	I	McC. 'SUPER 60' (RACE CAR)	0.607	SIMILAR TO PREV./ NEW SAND CASTINGS WITH RAISED BYPASS/ NO SHAFT OR FLYWHEEL KEYWAY/ NO TIMER ARM/ LARGER 'McCOY' LETTERS	350		930
"	'47	I	McC. 'RED HEAD' (AIRCRAFT)	0.607	AS PREV./ BLACK ANODIZED CASE - TIMER - FRONT AND BACK PLATE/ KEYWAY IN SHAFT - 7/8" PROP SPOOL WITH 'SLEEVE' PROP NUT AND WASHER/ HAS TIMER ARM	350 450	395-NIB 531	931
"	'47	I	McC. 'RED HEAD' (RACE CAR)	0.607	AS PREV./ BLACK ANODIZED CASE-TIMER-FRONT & BACK PLATE/ EARLY SHAFTS & FLYWHEELS NO KEYWAY - LATER ONES HAD KEYWAY	350		932

DURO-MATIC

Sportsman

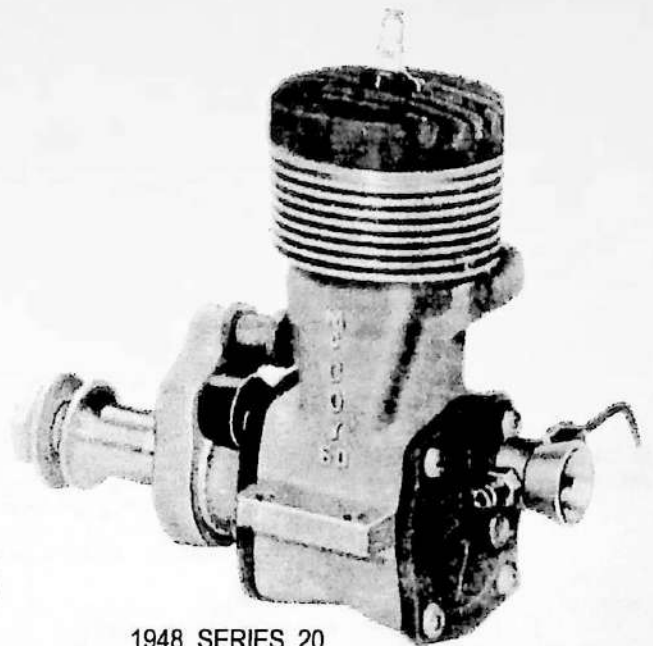
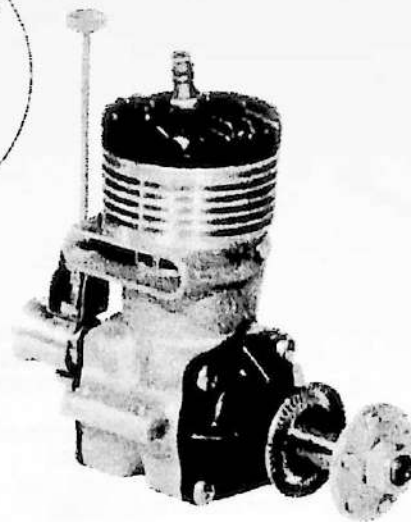
"JR." AND "SR." SPORT FLYING ENGINES

Hot-Point

WIRELESS IGNITION

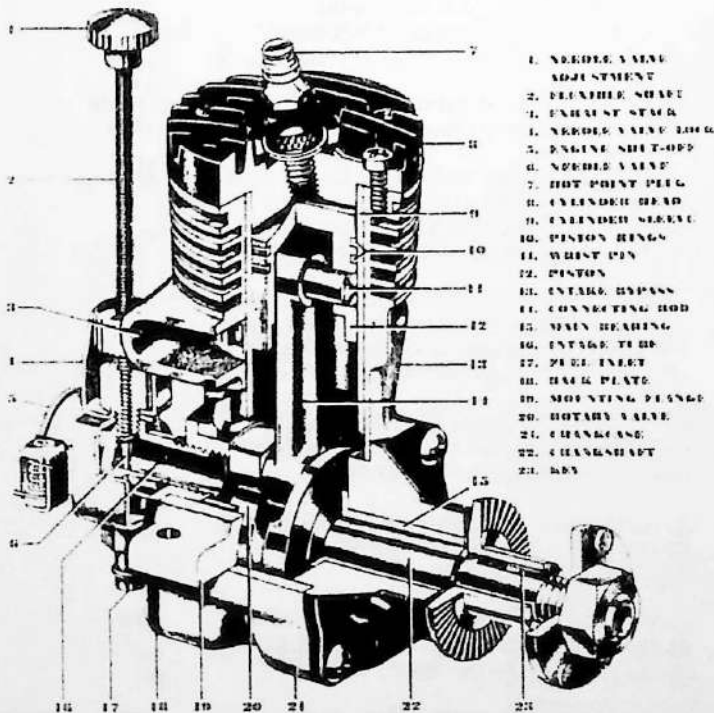
At last! A wireless ignition
engine for the Sportsman
flyer. The Hot-Point
ignition system is a
simple and reliable unit
which will give you
the most efficient
performance.

1948
'JR' AND 'SR'
SPORT
'36 AND '55'



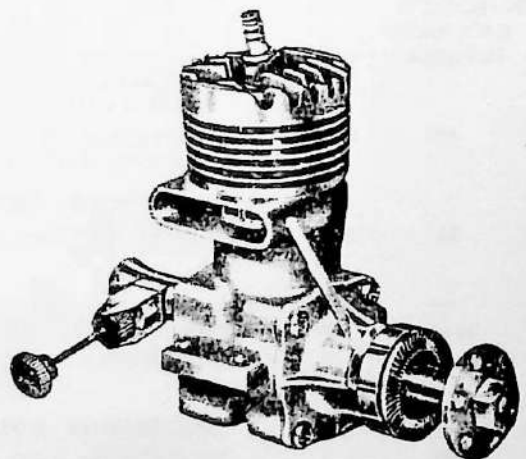
1948 SERIES 20

Red Head "60"



1. NEEDLE VALVE ADJUSTMENT
2. FLEXIBLE SHAFT
3. EXHAUST STACK
4. NEEDLE VALVE LOCK
5. ENGINE SHUT-OFF
6. NEEDLE VALVE
7. HOT POINT PLUG
8. CYLINDER HEAD
9. CYLINDER SLAVE
10. PISTON RINGS
11. CRANK PIN
12. PISTON
13. INTAKE BYPASS
14. CONNECTING ROD
15. MAIN BEARING
16. INTAKE TUBE
17. FUEL INLET
18. FUEL PLATE
19. MOUNTING FLANGE
20. ROTARY VALVE
21. CRANKCASE
22. CRANKSHAFT
23. KEY

1948 SPORTSMAN '36 AND '55'



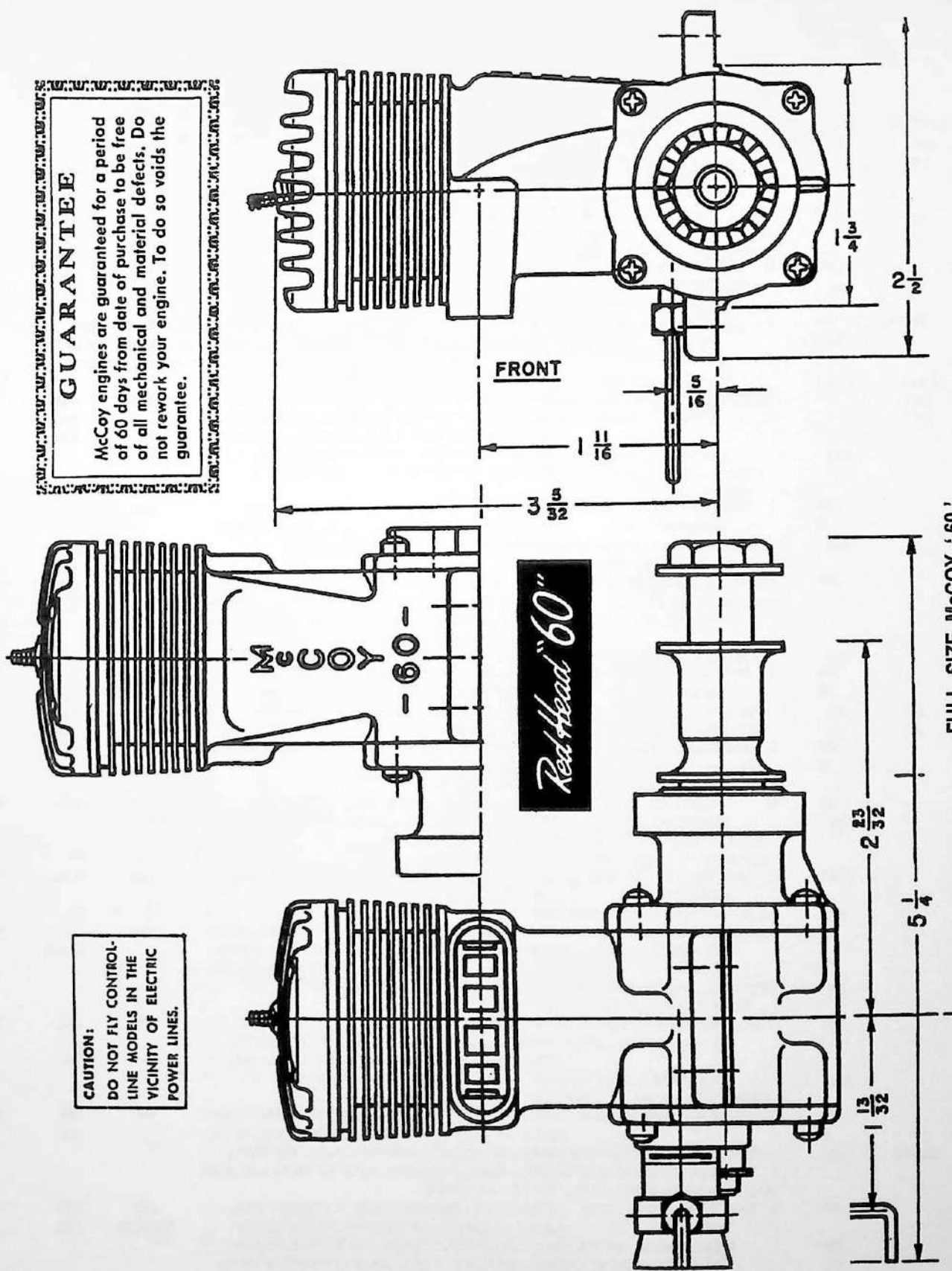
1948 MCCOY RED HEAD '19'
LATER MODELS ALSO HAVE
CAST-IN REAR INTAKES

MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
McCOY PRODUCTS	'47	I McC.'RED HEAD' JR.' (AIRCRAFT)	0.499	SMALLER VERSION OF PREVIOUS .60/ '49' BELOW NAME ON BYPASS/ BLACK AS PREVIOUS	280	292 381	933
*	'47	I McC.'RED HEAD' 29	0.299	AN EVEN SMALLER VERSION OF PREV. 60/ '29' BELOW NAME ON BYPASS/ BLACK AS PREVIOUS	175	188 163	934
* NOTE:	---	---	ALL McCOYS	----- NO NEW McCOYS WITH BLACK CASES - BUT WERE SOLD THROUGHOUT 1948			
*	'48 (LATE) *	G 'SPORTSMEN JR.' BLACKHEAD 36	0.349	SIMILAR TO PREV./ '36' ON BYPASS/ CASE ANODIZED CLEAR (SILVER) / FIRST PLAIN BEARING FRONT END/ FRONT & REAR COVERS AND HEAD PAINTED BLACK	150	178 114	935
*	'48	G 'SPORTSMEN SR.' BLACKHEAD 55	0.549	AS PREVIOUS/ LARGER/ '55' ON BYPASS	175	405 191	936
* NOTE:	'48 (LATE)	I SPORTSMEN MODELS		ONLY EXPERIMENTAL FACTORY MODELS HAD IGNITION FRONT-ENDS - NO PRODUCTION BUT FACTORY PERSONNEL EXPERIMENTED AND DICK McCOY SOLD CONVERSION KITS THAT INCLUDED McCOY 29 OR McCOY 49 TIMERS			
*	'48	I McC.'RED HD.'60 SERIES 20	0.607	NEW CASTINGS/ 60 BELOW NAME/ ANODIZED CLEAR (SILVERY)/ THICK FRONT PLATE AND REAR COVER PAINTED RED-REAR LATER RED ANODIZED/ SLIGHTLY ROUNDED HEAD ANODIZED RED/ EARLY ENGINES HAD SERIAL #'s - LATER NONE	325	416 381 243	937
*	'48 *	I McC.'RED HD.'49 SERIES 20	0.499	AS PREV.BLACK CASE/ TWO BALL BEARINGS CASE ANODIZED CLEAR/ FRONT & REAR COVER PAINTED RED/ HEAD ANODIZED RED	250		938
*	'48	I McC.'RED HD.' 19	0.195	CANDY APPLE PAINTED RED HEAD/ SHINY CASE/ SERIAL # ON RIGHT LUG/ RINGED PISTON/ 'BUMP' LUGS/ MAIN BALL BEARING/ CLOSED TIMER/ REAR INTAKE CAST STRAIGHT INTO CASE	175	290 223	939
*	'48 *	I McC.'RED HD.'29 SERIES 20	0.299	SAME CASTINGS AS BLACK 1947/ CLEAR ANODIZED CASE/ FRONT & BACK COVERS PAINTED RED/ HEAD ANODIZED RED	175	173 355 156	940
*	'49 *	G McCOY 19	0.195	AS PREV./ ALUMINUM COVER REPLACES TIMER MOUNT/ NATURAL HEAD	120	129	941
*	'49	G McCOY 19 (RACE CAR)	0.195	AS PREV./ CRANK-COVER MACHINED FROM STOCK - 2 BALL BEARINGS/ BEVEL GEAR ON SHAFT / NATURAL HEAD	165	191	942
*	'49	G McC.'RED HD.'19 (RACE CAR)	0.195	AS PREVIOUS/ ROUNDED HEAD PAINTED CANDY APPLE RED	150	128	943
*	'49	G SPORTSMAN 29 (UPSLANTED INTAKE)	0.295	SHINY CASE/ UP-SLANTED REAR VENTURI CAST IN CASE/ SINGLE MAIN BALL BEARING/ UNPAINTED HEAD/ 'McCOY SPORTSMAN' ON BYPASS/ SERIAL NUMBER ON RIGHT BUMP LUG	125	77 133-N	944
*	'49	G McCOY '9'	0.098	FIRST FRONT ROTARY/ SHINY CASE/ ROUNDED HEAD/ PLAIN BEARING/ NO SERIAL #'s/ METAL TANK/ SINGLE PISTON RING/ BUMP LUGS/ PHILIPS SLOT FILLISTER HEAD PROP SCREW	65	80 59 46	945
*	'49 *	G 'DUROGLOW 9'	0.098	SAME AS PREV./ GLOW ELEMENT BETWEEN TWO HEAD GASKETS/ RED ANODIZED PLUG REPLACED STANDARD GLOW PLUG/ NO SERIAL NUMBERS/ PISTON RINGS/ VERY FEW SOLD W/ RED PLUG & HD	90	74 51	946
*	'49	G McC.'RED HD.'29 SERIES 20	0.299	AS PREVIOUS .29 WITH CLEAR ANODIZED CASE/ 2 BALL BEARINGS/ NO PROVISION FOR TIMER/ FRONTSAND REAR COVER PAINTED BROWNISH-RED / HEADANOD.RED/ BACK COVER HAS EXTRA SUPPORT FOR VENTURI/ HAS SERIAL #'s	150 300-NIB	183 123	947

CAUTION:
DO NOT FLY CONTROL-
LINE MODELS IN THE
VICINITY OF ELECTRIC
POWER LINES.

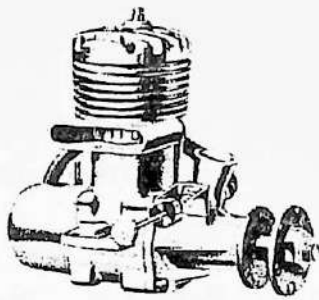
GUARANTEE

McCoy engines are guaranteed for a period of 60 days from date of purchase to be free of all mechanical and material defects. Do not rework your engine. To do so voids the guarantee.



FULL SIZE MCCOY '60'
1949

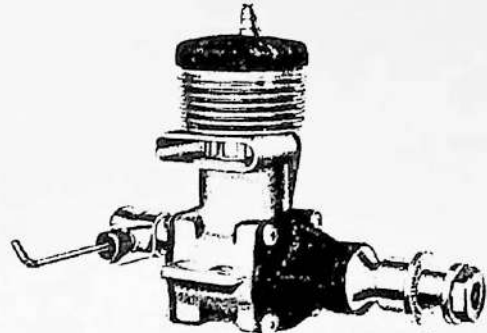
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
McCOY - NOTE:	---	--	SERIAL #'S	----	NO FURTHER SERIAL #'S ON McCOY's			
.	'49	G	McC.'RED HD. '49 SERIES 20	0.499	AS PREV.IGNITION 49/ NO PROVISION FOR TIMER FRONT AND REAR COVERS PAINTED BROWNISH- RED/ ROUNDED HEAD ANODIZED RED	190		948
.	'49 *	G	McC.'RED HD. '60 SERIES 20	0.607	AS 1948 IGNITION SERIES 20/ NO PROVISION FOR TIMER/ ROUNDED HEAD ANODIZED RED/ NEW DARKER ANODIZED RED FRONT COVER/ FLAT BYPASS/ RED PAINTED BACKPLATE	325	635-NIB 368 381	949
.	'50	G	McCOY 9	0.098	AS PREV.09/ MATTE FINISH/ LESS ROUNDED HEAD THIN FRONT COVER FLANGE/ 'BUMP'LUGS/ PROP SCREW/ EARLY ENGINES RINGED & LATER LAPPED	60	68 42	950
.	'50	G	McCOY 19 STUNT	0.195	SIMILAR TO McCOY 9'S/ FRONT ROTARY/ MATTE CASE/ 'BUMP'LUGS/ PISTON RINGS/ REAR SCREW MOUNTED TANK/ ONE MAIN BALL BEARING/ ROUNDED NATURAL HEAD	45		951
.	'50	G	McC. 19 RED HEAD	0.195	SIMILAR TO PREV. 1948 19's/ MATTE CASE/ ROUNDED HEAD CANDY APPLE RED/ BALL BRGS./ FRONT BROWNISH-RED/ RINGS	110	214-E 133 174	952
.	'50	G	McC.'RED HD. '19 (RACE CAR)	0.195	SIMILAR TO PREV. 1948 19's/ REAR VENTURI MATTE CASE/ ROUNDED HEAD PAINTED CANDY APPLE RED/ PISTON RINGS/ 2 BALL BEARINGS/ SPECIAL PINION GEAR	165		953
.	'50	I	McC.'RED HD. '29	0.299	PRODUCED USING SPORTSMAN 29 MACHINED TO TAKE SERIES 20 IGNITION 29/ FRONT & REAR COVERS/ 'SPORTSMAN' TAKEN OFF CASE/ MATTE CASE/ PAINTED CANDY APPLE RED HEAD/ COVERS AND TIMER PAINTED RED/ PISTON RINGS	160	153	954
.	'50	G	McC.'RED HD. '29	0.299	SAME AS PREV. IGNITION / USES SERIES 20 FRONT AND REAR COVERS	140		955
.	'50	G	McCOY 29 STUNT	0.299	SPORTSMAN 29 DIE MOD. TO INCLUDE WEB IN BACK OF CASE FOR TANK MOUNTING/ INVERTED TRIANGLE ON BYPASS TO REPLACE SPORTSMAN NAME/ ONE MAIN BALL BEARING/ MATTE CASE AND NATURAL HEAD/ 'BUMP' LUGS/ METAL TANK	65	71 34	956
.	'50	G	McC.'RED HD. '29	0.299	STUNT '29' MOD. CASE CASTING WITH END MACHINED FROM REAR ROTARY/ FRONT & REAR COVERS PAINTED BROWNISH-RED/ CANDY APPLE RED HEAD/ BALL BEARINGS	75		957
.	'51	G	McCOY 19 STUNT	0.195	AS PREV. 1950 STUNT/ NARROWER BYPASS/ HEAD SCREW LUGS IN CYLINDER FINS/ PLAIN BEARING/ TANK/ MATTE FINISH/ NATURAL HEAD	50		958
.	'51	G	McC.'RED HD. '19 RACE	0.195	SIMILAR TO PREV. 1950 FRONT INTAKE 19/ EXCEPT REAR VENTURI/ MATTE FINISH CASE CASTINGS (A FEW 'DULL')/ BROWNISH-RED PAINTED FRONT COVER/ CANDY APPLE RED ROUNDED HEAD	65		959
.	'51	G	McC.'REDHD. '19 RACE CAR	0.195	AS PREV. 19 RED HEAD/ 2-BALL BEARINGS/ CANDY APPLE RED HEAD/ A FEW RED ANODIZED MACHINED FRONT COVERS/ BEVEL GEAR ON SHAFT	100		960
.	'51	G	McCOY 9	0.098	AS PREVIOUS 9/ LAPPED PISTON/ THICK FRONT HOUSING/ HEAVY MOTOR MOUNTS/ MATTE FINISH/ NO 'BUMP' LUGS/ REGULAR CRANKSHAFT WITH PROP NUT	35	67-VG	961
.	'52	G	McCOY 29 STUNT	0.299	AS PREV. 1950 STUNT 29/ NO 'BUMP' LUGS/ KNOCKOUT DIE MARK ON LEFT LUG/ PLAIN BEARINGS/ A FEW WITH BALL BRG. FRONT PLATE	60 75		962 962.5



McCoy "9"-"19"-"29"
FRONT ROTOR SPORT ENGINES
 The World's MOST EASY STARTING Model Engines

- "9" Complete with integral gas tank \$7⁹⁵
- "19" Complete with integral gas tank \$9⁹⁵
- "29" Complete with integral gas tank \$11⁹⁵

1951



McCoy Red Head
WORLD'S FASTEST RACING ENGINES

- "19" Glo-ignition \$10⁹⁵
- "29" Glo-ignition \$14⁹⁵
- "49" Glo-ignition \$19⁹⁵
- "60" Glo-ignition \$22⁵⁰

1949 - 1951

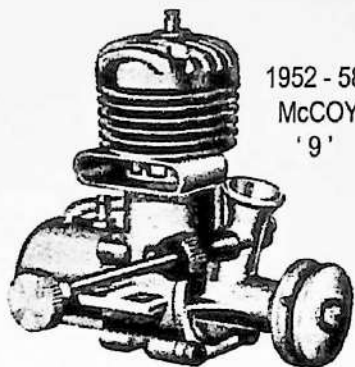
The new Super Stunt McCoy 29 front rotor engine was developed for the young beginner and expert flyer alike. Its easy starting, smooth running, and dependable performance under all conditions are unsurpassed. You will find it a rugged power plant for your trainer or advanced stunt model. Field tests have proven its larger crankshaft, new front rotor timing, super finished slug piston give trouble free performance for many hours of flying fun. For the best in trainers, free flight, control line stunt, team racing, and radio control... fly the real McCoy Super Stunt 29.

1953 - 1954
 Super Stunt
McCoy "29"

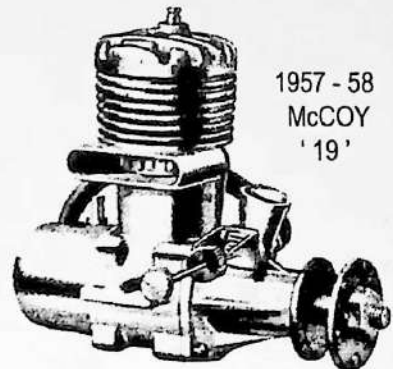
GUARANTEE
 McCoy engines are guaranteed for a period of 60 days from date of purchase to be free of all mechanical and material defects. Do not rework your engine. To do so voids the guarantee.

Engines returned to factory for repair should be sent to
 Duro-matic Products Co.
 8509 Higuera Street
 Culver City, California

MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
McCOY PRODUCTS	'52	G McCOY 29 STUNT	0.299	AS PREV. STUNT 29/ LARGER CRANKSHAFT IN LONGER FRONT COVER W/WEBS/ MATTE FINISH/ NATURAL HEAD/ METAL TANK/ PLAIN BEARING	60		963
*	'52	G McC.'RED HD. '29	0.299	REAR ROTARY OF 1952 STUNT 29/ SHINY CASE (SOME DULL)/ THICK LUGS (NO 'BUMPS')/ FRONT AND REAR COVERS PAINTED ORANGE-RED/ HEAD PAINTED RED/ BALL BEARINGS	75		964
* NOTE:	'53	G McCOY 60	0.607	ADVERTISED MARCH '53/ PRODUCED 1958	-----		
* NOTE:	— *	-- COLORED HDS.	----	HI - LO - MEDIUM COMMPRESSION HEADS IN COLORS OF BLUE - BLACK - & RED BY DICK McCOY			
*	'53	G McCOY 29 STUNT	0.299	AS PREV. 1952 STUNT/ NEW CASE/ THICK LUGS/ 3-KNOCKOUT DIE MARKS ON LEFT LUG/ McCOY .29 ON WIDER BYPASS/ METAL TANK	50		965
*	'53	G McC.'RED HD. '29	0.299	NEW NATURAL FINISH SAND CAST CASE/ REGULAR McCOY 'RACE' LAYOUT/ INCREASED & ROUNDED BYPASS/ ROUNDED HEAD/ FRONT AND REAR COVERS PAINTED BRIGHT RED/ BALL BRGS.	150	315	966
*	'54	G McCOY 19 SUPER STUNT	0.195	AS PREV. 1951 STUNT 19/ THICK LUGS WITH NO BUMPS/ KNOCKOUT DIE MARK/ HEAD SCREW LUGS IN CYLINDER FINS/ PLAIN BEARING	40		967
*	'54	G McC.'RED HD. '19	0.195	AS PREV. 1951 RED HEAD 19/ DIE CAST MATTE FINISH/ FRONT COVER PAINTED BROWNISH-RED/ ROUNDED RED HEAD/ BALL BEARINGS	110	153-N	968
*	'54	G McC.'RED HD. '19 (RACE CAR)	0.195	AS 1950 RACE CAR 19/ THICK LUGS/ ONE KNOCK-OUT DIE MARK/ FRONT COVER MACHINED FROM DIE CAST./ ROUNDED HEAD PAINTED RED/ BALL BRGS.	150		969
*	'54	G McCOY 29 SUPER STUNT	0.299	AS 1953 STUNT 29/ MATTE FINISH/ NATURAL HEAD/ THIN LUGS - NO 'BUMPS'/ 'McCOY 29' LIGHTLY ON WIDE BYPASS/ LARGE DIAMETER SHAFT IN LONG PLAIN BEARING/ METAL TANK	50	52 35	970
*	'54	G McC.'RED HD. '29	0.299	REAR ROTARY VERSION OF 1954 SUPER STUNT/ DULL CASE FINISH/ ORANGE-RED HEAD/ 2-BALL BEARINGS/ PISTON RINGS	85		971
*	'54	D McC. '9' DIESEL (RED HEAD)	0.099	'DIESEL'/ LARGE VERSION OF 1953 .049 (SEE 1/2A BOOK)/ SHINY CASE/ BEAM MOUNTS/ REAR COVER MOUNTED TANK/ RED ANODIZED HEAD	60	59 51	972
*	'54	G McCOY 9	0.098	AS PREV. 1950 '9' MATTE FINISH/ SHINY AND NATURAL FINISH/ THIN OR THICK HEAD/ NO 'BUMP' LUGS/ HEAVY LUGS/ METAL TANK	40	118 43	973
*	'55	G McCOY 19 SUPER STUNT	0.195	AS 1954 SUPER STUNT 19/ SHINY FINISH/ LONGER INTAKE/ SQUARISH NATURAL FINISHED HEAD/ THICK LUGS WITH NO BUMPS/ PLAIN BEARING	45		974
*	'55	G McCOY '9'	0.098	AS '55 SUPER STUNT 19/ SIMILAR TO PREV.09's	35	86	975
*	'55	G McC.'RED HD. '19	0.195	AS 1954 RED HEAD 19/ SHINY FINISH/ REAR VENTURI/ ORANGE-RED HEAD/ BALL BEARINGS	45	46 35	976
*	'55	G McC.'RED HEAD' (RACE CAR)	0.195	AS PREV. RACE CAR .19/ SHINY CASE/ NARROW BYPASS/ HEAD SCREW LUGS IN CYLINDER FINS/ THICK MOUNTING LUGS/ BALL BEARINGS	135		977
*	'55	G McC.'RED HD. '29	0.299	AS 1954 RED HD.29/ SHINY CASE/ 'McCOY' ON WIDE BYPASS WITH 29 ON RAISED CIRCULAR PAD BELOW NAME	75		978

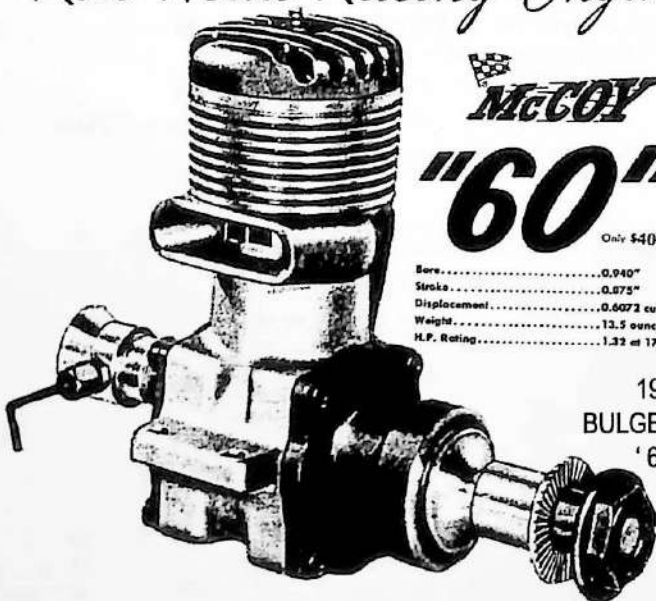


1952 - 58
McCOY
'9'



1957 - 58
McCOY
'19'

Red Head Racing Engine

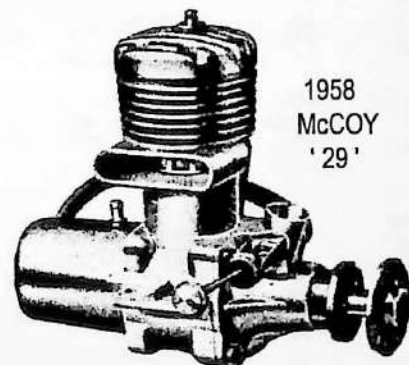


McCOY
"60"

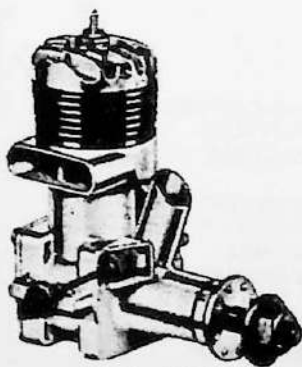
Only \$49.00

Bore.....0.940"
Stroke.....0.875"
Displacement.....0.6072 cu. in.
Weight.....13.5 ounces
H.P. Rating.....1.32 at 17,000

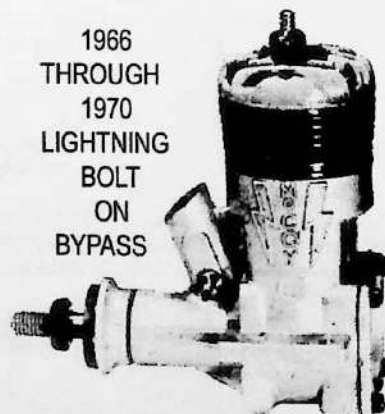
1958
BULGE BYPASS
'60'



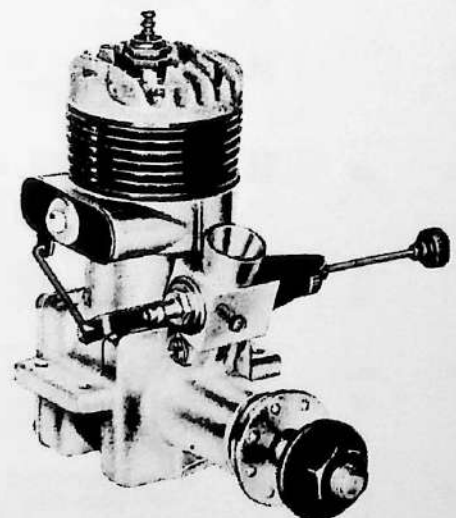
1958
McCOY
'29'



1957 - 1961
TESTORS RED HEAD
STUNT ENGINES



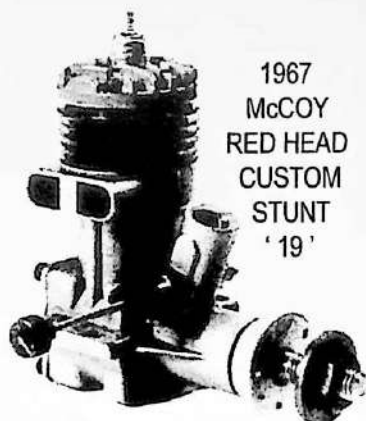
1966
THROUGH
1970
LIGHTNING
BOLT
ON
BYPASS



TESTORS McCOY ENGINES
ALL SIMILAR

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
McCOY PRODUCTS	'55	G	McCOY 29 SUPER STUNT	0.299	AS 1954 SUPER STUNT .29/ SHINY CASE 'McCOY' ON WIDE BYPASS WITH 29 ON RAISED CIRCULAR PAD BELOW NAME/ METAL TANK/ PISTON RINGS OR LAPPED (MOST)/ THICK LUGS WITH NO BUMPS	50	36	979
*	'55 *	G	McCOY 36 SUPER STUNT	0.354	AS PREV. SUPER STUNT .29/ 'McCOY' ON WIDE BYPASS WITH '36' ON PAD/ FIRST MODEL .36	50	53	980
*	NOTE:	'55	ALL ENGINES		LAST DURO-MATIC NAME. BUILT ENGINES WERE BEING SOLD IN 'TESTORS' PACKAGES AFTER TESTORS PURCHASED DURO-MATIC IN 1955			
*	'57	G	McC.'RED HD. '35	0.349	COMPLETELY NEW DESIGN/ '35' IN CIRCLE UNDER 'McCOY' ON BYPASS/ FRONT ROTARY INTAKE IS PART OF CASE WITH REMOVABLE BACKPLATE/ NO FLATS ON VENTURI/ RECESSED WEB IN EXHAUST/ PAINTED RED HEAD	35		981
*	'58	G	McC.'RED HD. '35	0.349	AS 1957 RED HEAD 35/ FLATS ON VENTURI/ NO DIE MARKS IN BACK COVER/ RED PAINTED HEAD	60	114-NIB	982
	'58	G	McC.'RED HD.'29	0.299	AS PREV. 1958 RED HEAD 35/ '29' ON CASE	40	41	983
*	'58	G	McC.'RED HD. '19	0.199	AS PREVIOUS .29/ SMALLER VERSION/ NO 'WEB' IN EXHAUST/ '19' ON CASE	40	45 36	984
*	'58	G	McC.'RED HD.'60 BULGE BYPASS	0.607	AS 1949 SERIES 20/ NEW SANDCAST CASE, 8 BOLT HEAD, FRONT COVER AND PISTON/ BULGE BYPASS/ RED ANODIZED HEAD & FRONT COVER/ DIE CAST REAR COVER PAINTED RED	350 425-NIB	775-NIB 537 368	985
*	'59	G	McC.'RED HD. '19	0.199	AS 1958 RED HEAD 19/ DIE MARKS IN BACK COVER/ SMALL RAISED 'WEB' IN EXHAUST	35	34 33	986
*	'61	G	McCOY 29 STUNT	0.299	AS 1958 RED HEAD 29/ DIE MARKS IN BACK COVER/ RESTRICTOR IN VENTURI	45	86-N 47	987
*	'61	G	McC.'RED HD. '35 STUNT	0.349	AS PREV. McCOY 35/ DIE MARKS IN BACK COVER/ GLOW-PLUG HOLE OFFSET TOWARDS FRONT AND EXHAUST SIDE & SCREWED INTO LARGE RAISED BOSS/ RED HEAD	45	53 47	988
*	'64	G	McC.'RED HD. '40 STUNT	0.398	AS PREV. McCOY 35 STUNT/'40' ON CASE/ FRONT MOUNTING HOLES OPEN SLOTS/ RED HEAD	45		989
*	'64 *	G	McC.'RED HEAD' 19 R/C	0.199	AS PREV.McCOY 19/ COUPLED EXHAUST AND THROTTLE/ RED HEAD/ PLUG IN CENTER ON LARGE RAISED BOSS	35		990
*	'64 *	G	McC.'RED HEAD' 35 R/C	0.349	AS PREV.McCOY 35/ COUPLED EXHAUST AND THROTTLE/ RED HEAD/ PLUG OFFSET TOWARDS FRONT & EXHAUST ON LARGE RAISED BOSS	45	46	991
*	'65 *	G	McC.'BLUE HD.' 19 R/C	0.199	AS PREV. 19 R/C/ COUPLED EXHAUST AND THROTTLE/ BLUE HEAD/ PLUG CENTERED ON LARGE RAISED BOSS	50	45 51	992
*	'65 *	G	McC.'RED HEAD' 35 STUNT	0.349	AS PREV.McCOY 35 STUNT/ HEAVY FLUSH WEB IN EXHAUST/ RED HEAD/ PLUG MOUNTING OFFSET TO FRONT AND EXHAUST ON LARGE RAISED BOSS	48	143 45	993
*	'65 *	G	McC. BLUE HEAD 35 R/C	0.349	AS PREV.McCOY 35 R/C/ COUPLED EXHAUST AND THROTTLE/ BLUE HEAD/ PLUG OFFSET TO FRONT AND EXHAUST ON LARGE RAISED BOSS	45	39 53	994
*	'65 *	G	McC.'RED HEAD' 40 STUNT	0.398	AS PREV.McCOY 40 STUNT/ HEAVY FLUSH WEB IN EXHAUST/ FRONT MTG.HOLES ARE OPEN SLOTS/ RED HEAD/ PLUG OFFSET TO FRONT AND EXHAUST ON LARGE RAISED BOSS	60	91	995

McCOY



1967
McCOY
RED HEAD
CUSTOM
STUNT
'19'



1967
McCOY
BLUE HEAD
CUSTOM
'19 R/C'

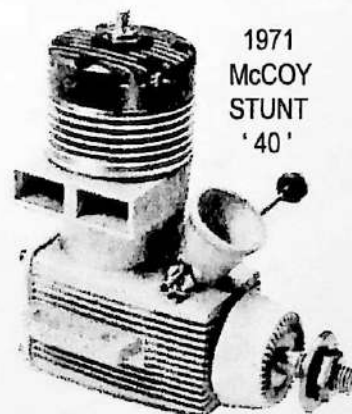
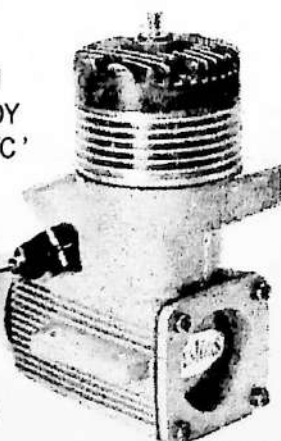


1968
McCOY
BLUE HEAD
CUSTOM
'19 R/C'

THE FOLLOWING ENGINES ARE SERIES '21'

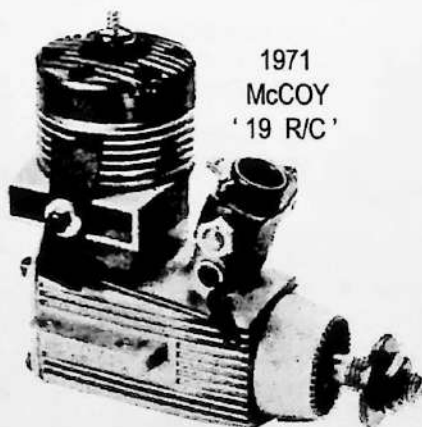


1971
McCOY
'40 R/C'



1971
McCOY
STUNT
'40'

NOTE TESTOR'S
STICKER IN REAR



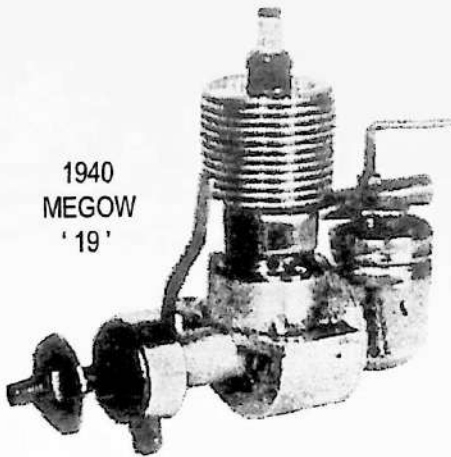
1971
McCOY
'19 R/C'



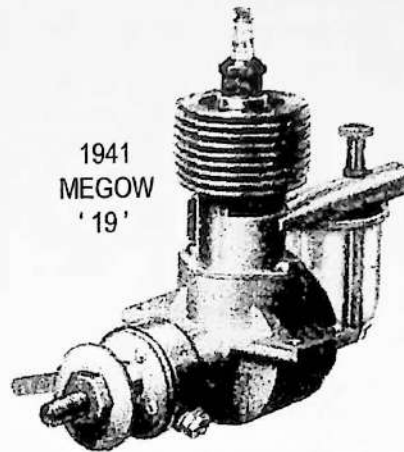
1971
McCOY
STUNT
'40'

MFR./ENG.NAME	YR.		ENG. NAME	DSIP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
McCOY PRODUCTS	'65 *	G	McC.'BLUE HD.' 40 R/C	0.398	AS PREV.McCOY 40 STUNT/ COUPLED EXHAUST & THROTTLE/ FRONT MOUNTING HOLES SLOTS/ BLUE HEAD/ PLUG OFFSET TO FRONT AND EXHAUST ON LARGE RAISED BOSS	50	55	996
* NOTE:	'66	G	ALL McCOYS	----	HAD LIGHTNING BOLT AND McCOY NAME ON BYPASS FROM 1966 UP TO 1971			
*	'67	G	McC.'REDHEAD' CUSTOM STUNT	0.199	SIMILAR TO PREVIOUS .19/ REVISED MAIN CASTING/ MATTE CASE/ PLUG IN CENTER OF RED HEAD ON RAISED BOSS/ LIGHTNING BOLT DESIGN ON BYPASS/ ELONGATED FRONT MOUNTING HOLES	60-NIB 50-NIB 45		997
*	'67	G	McC.'BLUE HD' CUSTOM R/C 19	0.199	AS PREVIOUS STUNT/ COUPLED CARB & EXHAUST BAFFLE/ PLUG IN CENTER OF BLUE HD. ON RAISED BYPASS/ ELONGATED FRONT MOUNTING HOLES			998
*	'67	G	McC.'RED HEAD' CUSTOM STUNT	0.299	.29 SIMILAR TO PREVIOUS .19/ .29 SIZE			999
*	'67	G	McC.'BLUE HD' CUSTOM R/C 29	0.299	SIMILAR TO PREVIOUS .19 RC/ .29 RC SIZE			1000
*	'67	G	McC.'RED HEAD' CUSTOM STUNT	0.349	.35 SIMILAR TO PREVIOUS .29/ .35 SIZE			1001
*	'67	G	McC.'BLUE HD' CUSTOM R/C 35	0.349	SIMILAR TO PREVIOUS .29 RC/ .35 RC SIZE			1002
*	'68	G	McC.'RED HEAD' CUSTOM STUNT	0.398	.40 SIMILAR TO PREVIOUS .35/ .40 SIZE			1003
*	'68	G	McC.'BLUE HD' CUSTOM R/C 40	0.398	SIMILAR TO PREVIOUS .35 RC/ 40 RC SIZE			1004
* NOTE:	—	—	—	----	BILL NETZEBAND WAS CHIEF DEVELOPMENT ENGINEER AT TESTOR CORP. DURO-MATIC AT THIS TIME.			
*	'71	G	McCOY STUNT .19 SERIES 21	0.199	NEW DESIGN/ HEAVIER RECTANGULAR RIBBED MATTE FINISHED CRANKCASE/ TESTORS NAME STUCK ON BACKPLATE/ McCOY NAME AND DIS- PLACEMENT ON EXHAUST SIDE EDGE OF MTG. LUG/ ALUM. PISTON WITH SINGLE DYKES RING/ CYLINDER HAS INTEGRAL COOLING FINS ZINC PLATED/ BLACK ANODIZED FINNED HEAD/ HEAD HAS SHALLOW HEMI SHAPE INTERNALLY WITH A NARROW SQUISH BAND	45-NIB 45		1005
*	'71	G	McCOY 19 R/C SERIES 21	0.199	SAME AS PREVIOUS STUNT .19/ WITH PERRY CARB AND COUPLED EXHAUST BAFFLE	45-NIB	23	1006
*	'71	G	McCOY STUNT .29 SERIES 21	0.299	SIMILAR TO STUNT .19/ .29 SIZE	45-NIB		1007
*	'71	G	McCOY R/C 29 SERIES 21	0.299	SAME AS PREVIOUS STUNT .29/ WITH PERRY CARB AND COUPLED EXHAUST BAFFLE	45-NIB		1008
*	'71	G	McCOY STUNT .35 SERIES 21	0.349	SIMILAR TO STUNT .29/ .35 SIZE	45-NIB		1009
*	'71	G	McCOY R/C .35 SERIES 21	0.349	SAME AS PREVIOUS STUNT .35/ WITH PERRY CARB AND COUPLED EXHAUST BAFFLE	45-NIB 36		1010
*	'71	G	McCOY STUNT .40 SERIES 21	0.399	SIMILAR TO STUNT .35/ .40 SIZE	45-NIB	37-VG	1011
*	'71	G	McCOY R/C .40 SERIES 21	0.399	SAME AS PREVIOUS STUNT .40/ WITH PERRY CARB COUPLED EXHAUST BAFFLE	45-NIB	42	1012

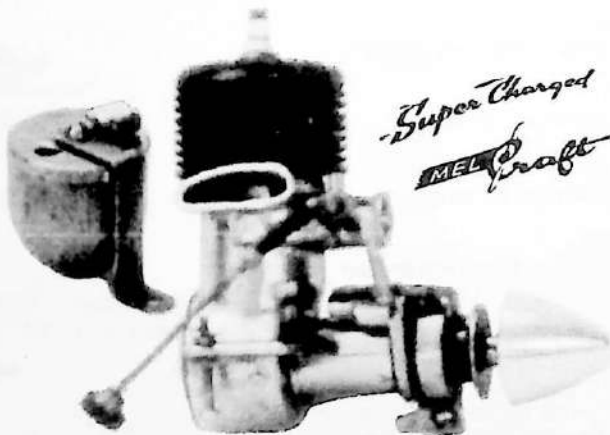
1940
MEGOW
'19'



1941
MEGOW
'19'

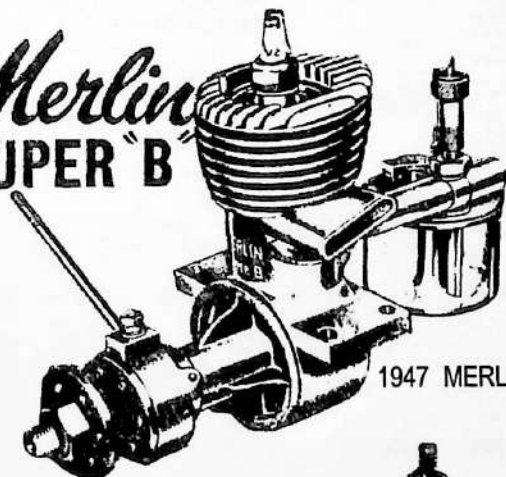


Super Charged
MELCRAFT



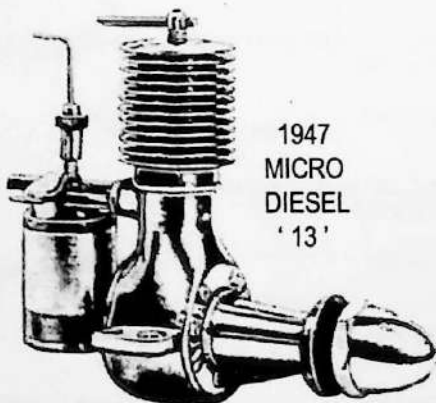
1946 MELCRAFT '29'

Merlin
SUPER "B"

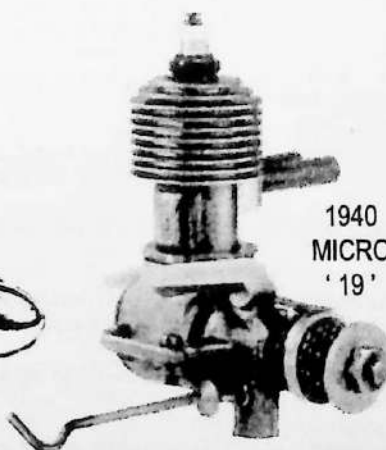


1947 MERLIN '23'

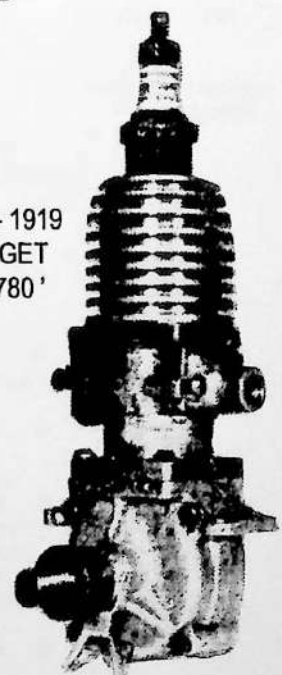
1947
MICRO
DIESEL
'13'



1940
MICRO
'19'



1913 - 1919
MIDGET
'2.780'



MFR./ENG.NAME	YR.		ENG. NAME	DSIP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
MEGOW MODELS	'40	I	MEGOW 19	0.191	DIE CAST/ CYLINDER & HEAD INTEGRAL/ NO EXHAUST STACK/ FLAT HEAD/ CLOSED TIMER	425 595		1013
"	'41	I	MEGOW 19	0.191	AS PREV./ OPEN TIMER/ SLIGHTLY DOMED HEAD	400		1014
MELCRAFT (MEL BLUMLIEN & MEL SCHMIDT)	'43	I	MEL/MEL (MELCRAFT)	0.287	MELCRAFT MACHINE & MTORS EARLY SIDEPORT ENGINE/ LOOKS LIKE TROJAN .19/ BYPASS WAS A SPLIT CASTING SCREWED TOGETHER/ REAR INTAKE SCREWED IN	225		1015
"	'45	I	MELCRAFT BLUESTREAK 29	0.287	ROUGH CAST CASE DARK BROWNISH OR BLUE CYLINDER/ STRAIGHT FORWARD VENTURI FROM CRANKCASE/ RIGID NEEDLE VALVE/ WITH OR WITHOUT UNPLATED TANK/ DULL AND SHINY FINISHES/ SHORT AIRFOILED EXHAUST/ SERIAL #'s UP TO 2000			1016
"	'45	I	MELCRAFT BLUESTREAK 29	0.287	AS PREV./ FLEXIBLE NEEDLE VALVE / LONGER EXHAUST TAPERED FRONT TO BACK/ SERIAL #'s 2000 - 3000	325-N 240		1017
"	'46	I	MELCRAFT SUPER CHARGED 29	0.287	SIMILAR TO PREVIOUS/ BYPASS IS CURVED/ SMOOTHER CASTING/ BLACKISH CYLINDER/ PLATED TANK/ LONGER ANGLED EXHAUST/ SHINY CASE/ TIMER - ADDED FLAT SPRING TO POINT TO RESIST FLOAT/ SERIAL #'s ABOVE 3000	175	175	1018
MERLIN MINIATURES INC. (CANADIAN)	---	---	---	---	ORIGINATED BY SAM ALTBaum OF CANADIAN HOBBYCRAFT (STILL OPERATED BY 1 OF 2 SONS)			
"	'44	I	MERLIN SUPER B	0.232	UNIQUE SINGLE UNIT CRANKCASE/ CYLINDER HEAD PLUG IS SCREWED INTO TOP OF CRANK- CASE/ SOME ENGINES HAD 2 WRENCH HOLES IN HEAD INSERT/ FRONT END SCREWED INTO MAIN CASE/ 'MADE IN CANADA' ON CASE WITH SERIAL #'s/ SQUARED EXHAUST	125 175-N		1019
MERLIN MINIATURES INC., NEW YORK	'46	I	MERLIN SUPER B	0.232	AS CANADIAN MODEL WITHOUT 'MADE IN CANADA' / WITH SERIAL NUMBERS/ EDGE OF CYLINDER HEAD PLUG INSERT SERRATED	100		1020
"	'47	I	MERLIN SUPER B	0.232	AS PREV./ EXHAUST STACK CUT ON SLANT/ SERIAL #'s ON INTAKE TUBE	100	108	1021
MICRO-DIESEL COMPANY	'47	D	DIESEL	0.132	SIDEPORT/ONE PIECE CAST ALUMINUM CASE/ SCREWED IN BACKPLATE/ METAL HANG TANK/ NAME ON FRONT OF CASE/ VARIABLE COMPR.	95-NIB	150-NIB REPRO	1022
MICRO-MODEL COMPANY (HOVSEPIAN BROS.)	'39	I	MICRO 19	0.208	ROUGH CAST CASE/UP DRAFT FRONT INTAKE/ OPEN TIMER/ALUM.FINS SHRUNK ON STEEL CYLINDER/ NAME ON BYPASS/ 2-LONG BRASS TUBE EXHAUSTS/ CYLINDER SCREWED INTO CASE	425		1023
"	'40	I	MICRO 19	0.191	AS PREV./ PERM. MOLD ALUMINUM CASE/ MACHINED REAR COVER/ BRAZED ON BYPASS	425		1024
"	'40	I	MICRO 24	0.244	AS PREV./ EXHAUST STACK BRAZED TO CYLINDER	425		1025
MIDGET (HARRY W.AITKEN - DESIGNER)	1913/ 1919	I	MIDGET	2.780	AERO ENGINE CO. (BOSTON) SEE ALSO THE "BABY" ENGINE SANDCAST ALUMINUM CRANKCASE, CYLINDER, INTAKE MANIFOLD/ CAST IRON PISTON WITH 3 RINGS - 1 ON PISTON SKIRT, RIDING IN AN ALUM- INUM LINER/ HOLLOW STEEL WRIST PIN/ BRONZE CON. ROD ATTACHED TO THE ONE PIECE STEEL CRANKSHAFT WITH A BRONZE STRAP/ ENCLOSED TIMER/ BRONZE MAIN BEARING/ 1 LB. LESS THAN "WEISS" AND APPEARS TO BE A CLOSE COMPETITIVE COPY	RARE		1026

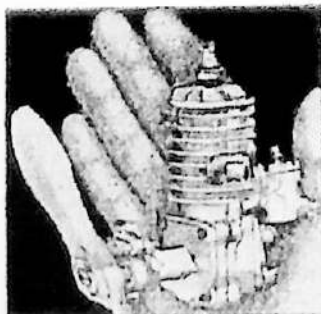


1936
MINIATURE
WHIRLWIND JR.
'12'



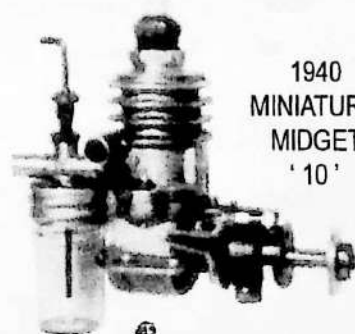
1936
MINIATURE
WHIRLWIND SR.
'33'

1932 DECEMBER POPULAR AVIATION 1/2 HP (GIL?)



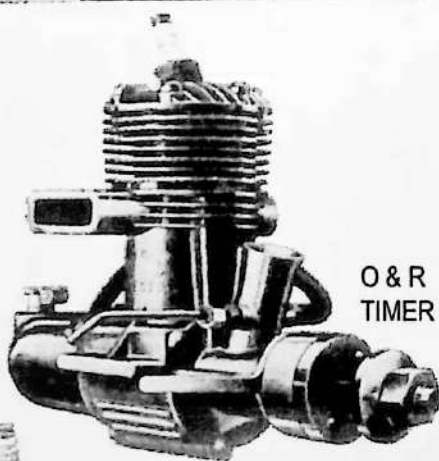
1/2 H. P. MODEL GAS MOTOR
This smooth-running gas motor, specially made for model airplanes, comes complete ready to run, with carburetor, gas tank, coil, battery, ignition points, propeller and wiring. Price, ready to run, \$35.00.

Models from 1 to 8 feet
Catalogue, 5c, illustrated
MINIATURE AIRCRAFT CORP.
83 Low Terrace, New Brighton, N.Y.



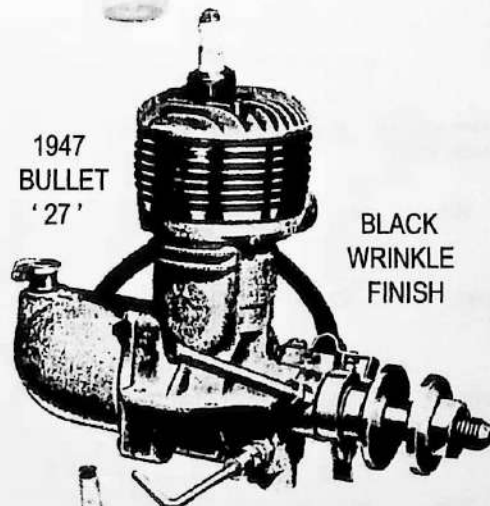
1940
MINIATURE
MIDGET
'10'

1946
TORPEDO
TWIN STACK
'29'



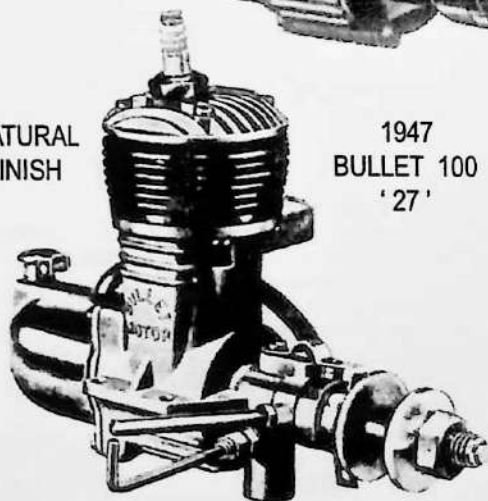
O & R
TIMER

1947
BULLET
'27'



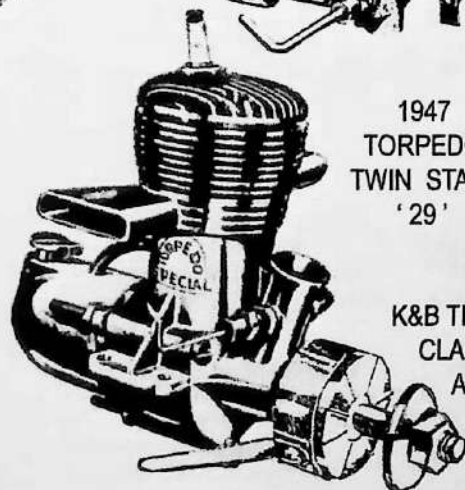
BLACK
WRINKLE
FINISH

NATURAL
FINISH



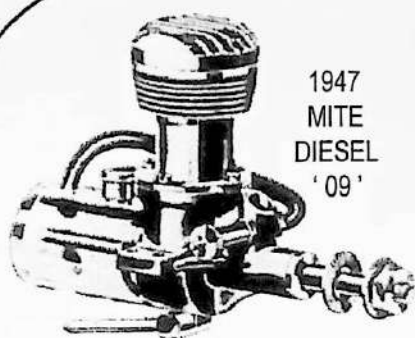
1947
BULLET 100
'27'

1947
TORPEDO
TWIN STACK
'29'

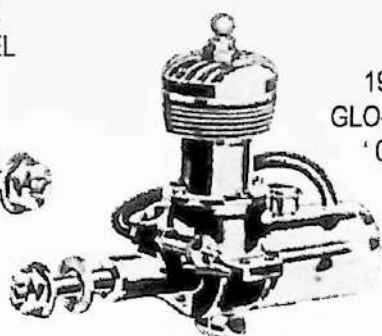


K&B TIMER
CLAIMED
AS FALSE
NOT ORIGINAL

MFR./ENG.NAME	YR.		ENG.NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
MILLER (JOHN MILLER)	'46	I	MILLER	0.576	SIMILAR TO FORSTER (TYPE) 4 PROTOTYPE MFD.	PROTO		1027
MINIATURE AIRCRAFT OF NEW YORK	'32	I	* 1/2 HP * (GIL)	?	ADVERTISED IN POPULAR AVIATION DEC. 1932 AT \$35.00/ RADIAL MOUNT/ SPLIT CASE/ BOLT ON HEAD WITH FINS/ BOLT ON SIDE EXHAUST/ REAR METAL TANK	950		1028
* NOTE: SEE GIL	---	I	GIL *	----	THE ADVERTISING PICTURE WITH ENGINE HELD IN HAND IS EXACTLY SAME AS 'GIL' ENGINE PHOTO IN A 'HAND' EXCEPT THIS PIC SHOWS ACTUAL OPEN TIMER AND DIFFERS FROM 'GIL' PRICE (\$22.50) ON THIS BROCHURE WHICH IS \$35.00 I	RARE 1200 1100 1500		632
*	'36	I	WHIRLWIND JR.	0.123	HEX HEAD/ 3/8" PLUG/ SIDE PORT/ STEEL CYLINDER WITH IRON PISTON/ CLAIMED BY MINIATURE AS 'SMALLEST GAS MOTOR EVER MADE' IN 1936 !	RARE		1029
*	'36	I	WHIRLWIND SR.	0.331	SAND CAST CASE/ REAR EXHAUST PORTS/ BOLT ON FINLESS HEAD/ STEEL CYLINDER WITH IRON PISTON/ BRAZED CYLINDER ASS'Y/ ALUMINUM CARBURETOR .SCREWS ONTO CYLINDER INTAKE	RARE		1030
*	'36	I	WHIRLWIND SR. MARINE	0.331	AS PREVIOUS/ WATER COOLING JACKET	RARE		1031
*	'39 *	I	MINIATURE MIDGET	0.110	ALL SAND CAST (LIKE ELF) 2 PC. CRANKCASE SPLIT HORIZONTALLY/ OPEN TIMER/ GLASS SCREW-ON TANK/ PREVIOUSLY IN 'MODEL CRAFTSMAN' MAG. AS 'MIDGET' PLAN/ ALSO ADVERTISED & KNOWN AS 'MINIATURE' GAS MOTOR (DESIGNED BY A. TED WESTLAKE)	RARE	SOLD 2500	1032
*	'43	I	WHIRLWIND	0.243	ADVERTISED BUT NONE SEEN - QUESTIONABLE PRODUCTION			1033
MINIATURE MOTORS COMPANY INC.	---	---	-----	----	SEE PHANTOM MOTORS CO. INC. BEFORE '41 AND SEE BANTAM PRODUCTS FOR BANTAM - NOTE: SOME CONFUSION STILL EXISTS ON VARIOUS BULLETS AND TORPEDOS			
*	'46	I	BULLET	0.275	AS 1940 BULLET (PHANTOM MOTORS)/ NEW 4 BOLT MAGNESIUM CASE/ NATURAL FINISH	150	202	1034
(ZIP GRANDELL DESIGNER OF TWIN STACK)	'46	I	TORPEDO SPEC. (TWIN STACK)	0.298	SIMILAR TO PHANTOM HI-SPEED TORPEDO/ TWIN STACKS/ ALL TIMERS PURCHASED FROM O & R/ NO DIES FOR ORIGINAL TIMERS EVER MADE/ STEEL CYLINDER FINS/ NATURAL FINISH/ VARIATIONS EXIST ON THIS ENGINE	120		1035
*	'47	I	BULLET	0.275	AS PREV. BULLET/ ALUMINUM CASE/ BLACK WRINKLE PAINT ON REMAINDER/ OPEN TIMER	120	128	1036
*	'47	I	BULLET MODEL 100	0.275	NEW ALUM. CASTINGS THROUGHOUT/ NATURAL FINISH/ OPEN TIMER/ 'MODEL 100' STAMPED UNDER ENGINE IN MOST CASES	110	103 110	1037
* NOTE:	'47	---	-----	----	SPECIAL HEAD/ BY BULLET FOR IGNITION TO GLOW CONVERSION			
BANTAMS	'47	I/G	BANTAM G	0.199	BANTAM PRODUCTS SOLD TO M/M & THEN RESOLD TO O.K. MOTORS IN SAME YEAR/ RETAILED BY MINIATURE MOTORS FOR A SHORT PERIOD UNTIL O.K. BOUGHT OUT INVENTORY AND DESIGN RIGHTS	125 IGNITION 85 GLOW		1038 1038.5
*	'49	G	BULLET MODEL 100	0.275	AS PREV. IGNITION BULLET/ NO PROVISION FOR TIMER OR CAM ON SHAFT	85		1039
*	'49	G	TORPEDO SPEC. TWIN STACK	0.298	AS PREVIOUS IGNITION TORPEDO/ NO PROVISION FOR TIMER OR CAM ON SHAFT/ STEEL CYLINDER FINS	100	100	1040



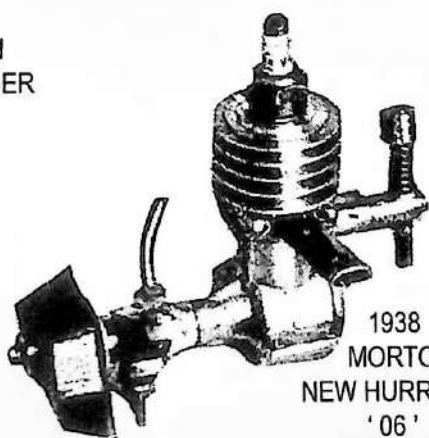
1947
MITE
DIESEL
'09'



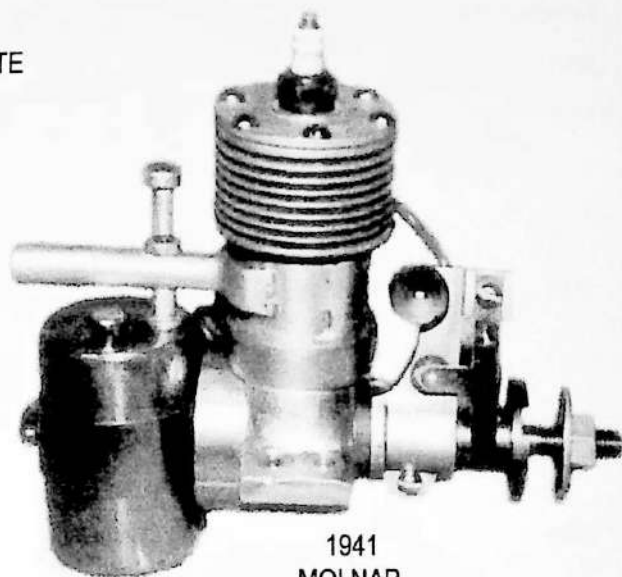
1948
GLO-MITE
'09'



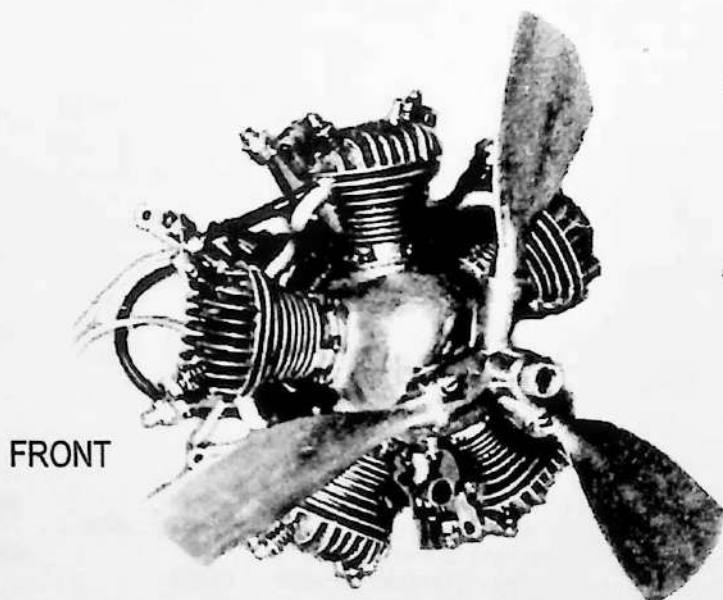
1937
MORTON
CHALLENGER
'37'



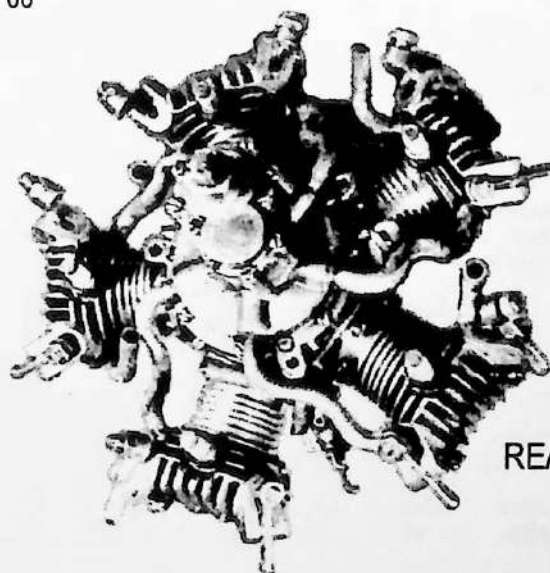
1938
MORTON
NEW HURRICANE
'06'



1941
MOLNAR
'78'



FRONT



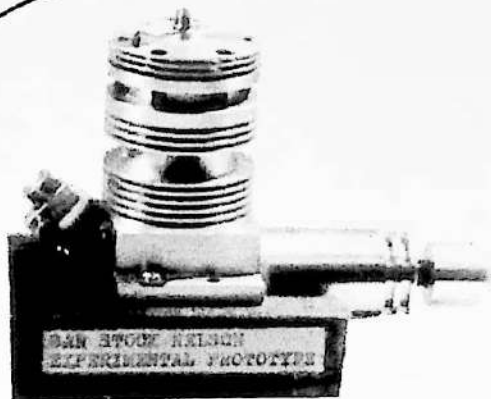
REAR

MORTON M - 5

A REAL AIRPLANE ENGINE BUILT IN MINIATURE

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
MINIATURE MOTORS	'49	G	TORPEDO SPEC. (TWIN STACK)	0.298	AS PREV. ONLY DIFFERENCES ARE ALUMINUM CYLINDER FINS (REFERENCE DAVE KEATS)	80	77	1041
MITE MFG. CO. (HOWARD MANDEVILLE)	---	---	-----	---	SOLD BY EAGLE MODELS			
	'47	D	MITE DIESEL	0.098	DIE CAST MAG.CASE/ FIXED COMPRESSION/ CRANKCASE RELIEF LEVER/ PLASTIC FUEL TANK ATTACHED AT REAR	175		1042
"	'48	G	GLO-MITE	0.098	AS DIESEL/ HEAD HAD GLOW PLUG/ NO TANK	110		1043
"	'48	G	GLO-MITE	0.098	AS GLOW/ FINLESS MAG.OR ALUM.HEAD/ LONG ALUMINUM TANK/ TOTAL OF ALL MITES MANUFACTURED - 5 TO 6,000	150		1044
"	NOTE:	---	-----	---	MANDEVILLE HAD VARIABLE COMPRESSION DIESEL AS PRE-PRODUCTION MODEL			
MOLNAR MOTOR MFG. (JOSEPH F. MOLNAR)	'41	I	MOLNAR	0.992	SIDE PORT/ SCREWED ON FLAT HEAD/ LARGE VERTICAL METAL 'CAN' TANK/ OPEN TIMER/ CHOKE THROTTLE AT END OF INTAKE/ MOLNAR '99' ON FRONT BYPASS/ LAPPED PISTON/ 6 CYLINDER HEAD SCREWS/ 7 CYLINDER FINS	400		1045
"	'41	I	MOLNAR	0.785	AS PREV./ SMALLER/ PISTON RINGS/ MOLNAR '78' ON FRONT BYPASS/ SAME # CYLINDER FINS AND HEAD SCREWS AS .99	400 425	305	1046
MONARCH (CANADIAN)	'41/47	I	MONARCH 60	0.604	SAND CAST BLACK WRINKLE FINISHED CASE/ RACE TYPE AS HORNET & McCOY ETC./ VARIOUS MODELS MFD. IN THE TORONTO AREA/ FEW MANUFACTURED (AUTHOR OWNED ONE!)	650		1047
MORTON AIRCRAFT CORP. (MORTON BROTHERS) (GLEN MORTON)	---	---	-----	---	M-5's SOLD BY MORTON, BY BURGESS BATTERY (HANDICRAFT DIV.) AND M & S ENGINEERING CO. - INTERMOT AND CHALLENGER ALSO MADE FOR INTERNATIONAL MODELS COMPANY (Imp)			
"	'36	I	CHALLENGER (INTERMOT) (CONQUEROR)	0.375	ALUMINUM CAST/ RADIAL MOUNTING/ UPDRAFT FRONT ROTARY/ LAPPED PISTON/ FIXED IGNITION/ 9 CYLINDER FINS/ BOLT ON EXHAUST & BYPASS/ EXHAUST IS SLOT	1200		1048
"	'37	I	CHALLENGER (VANGUARD)	0.375	AS PREV./ MOVEABLE IGNITION/ FINS ON CASE SUPPORT SHAFT BEARINGS/ 8 CYLINDER FINS	1295		1049
"	'37	I	CHALLENGER-M MARINE	0.375	AS PREVIOUS/ CHALLENGER WATER JACKET OVER CYLINDER ON BOTH 1936 & 1937 MODELS/ EXHAUST IS 4 ROUND HOLES	1200		1050
(SOLD BY AVIATION INDUSTRIES & HUNGERFORD)	'38	I	NEW HURRICANE	0.066	DESIGNED BY GLEN MORTON OF MORTON BROS. & SOLD BY AVIATION INDUSTRIES & HUNGERFORD/ ZINC ALLOY CASE/ SIDEPORT/ BRASS INTAKE & TANK/ OPEN TIMER/ ASSEMBLED & KIT	RARE		1051
"	'44	I	M-4/2 PLANS/PARTS	0.744	PLANS EXIST FOR 4 CYLINDER INLINE & 2 CYLINDER INLINE/ VARIOUS PARTS AND PLANS	PROTO		1052
"	'45	I	MORTON M-5	0.922	5 CYL./ 4 CYC. RADIAL/ NO ROCKER FILLETS/ BAR STOCK CRANKSHAFT/ HAD ONLY POWER OF .29	2200	2250 2254	1053
"	'45	I	MORTON M-5	0.922	AS PREVIOUS/ FORGED CRANKSHAFT	2200		1054
"	NOTE:	---	SERIAL #'s	---	SERIAL #'s BELOW 1000 ARE MFD. BY MORTON WITH SERIAL #'s BY BURGESS INDIFFERENT PLACES			
"	'45	I	MORTON 29	0.295	SINGLE CYLINDER DIE CAST/ UPDRAFT FRONT ROTARY/ HORIZONTAL REAR PLUG/ M-5 TIMER	RARE		1055
BURGESS BATTERY	'47	I	BURGESS M-5	0.922	AS MORTON M-5/ HAS FILLETS ON ROCKER ARMS/ SOLD BY BURGESS	2200		1056

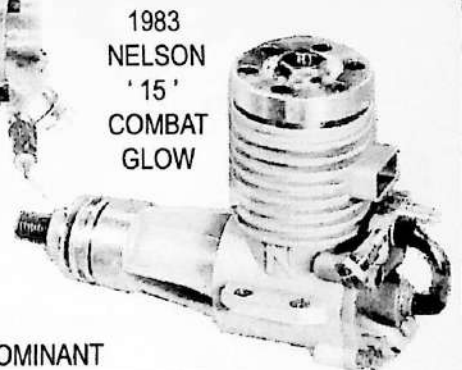
NELSON



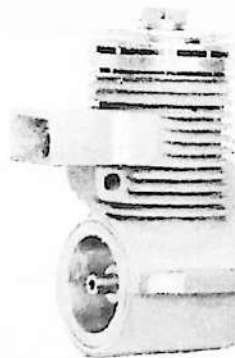
1970's EXPERIMENTAL '15D'



1976
NELSON
'15D'
TEAM RACE



1983
NELSON
'15'
COMBAT
GLOW



1988

THESE
NELSON

DIESELS

WERE

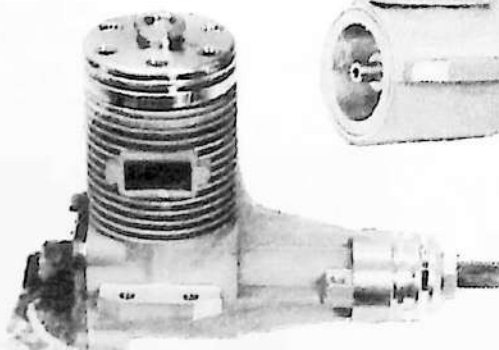
DOMINANT

CHOICES

FOR

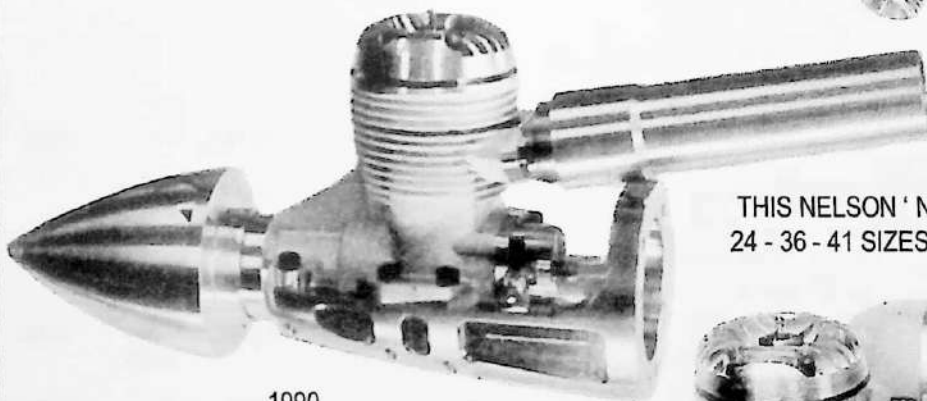
TEAM

RACE

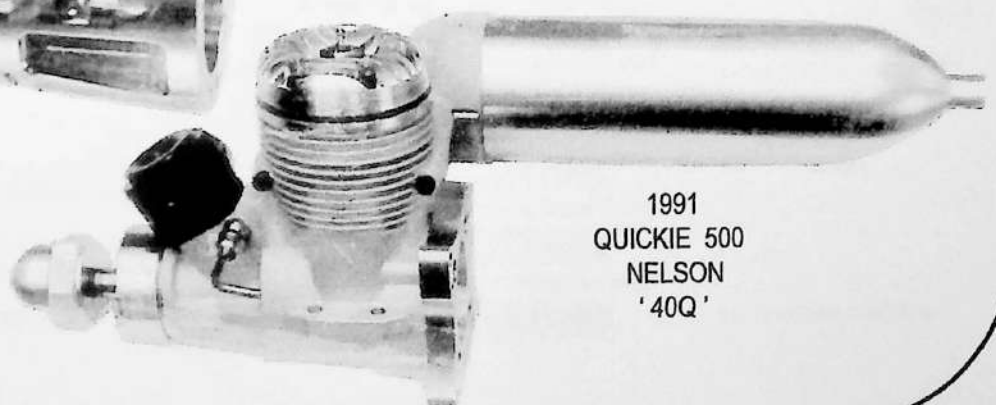


1989 NELSON '15D'

THIS NELSON 'N 40' IS AVAILABLE IN
24 - 36 - 41 SIZES FOR OTHER EVENTS



1990
PYLON SPECIAL
NELSON
'N 40'

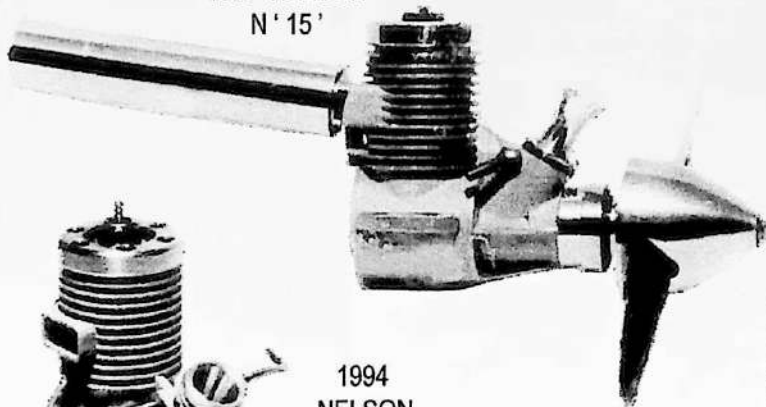


1991
QUICKIE 500
NELSON
'40Q'

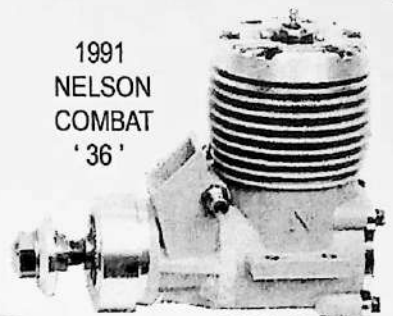
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
M & S ENG. WILLIS HANNING & ED SAWUSCH	'50	I	BURGESS M-5	0.922	AS PREV./ NEW CASE CASTINGS WITH 8 EVENLY SPACED CYLINDER FINS/ LONG BARREL CARB./ SINGLE ADJUSTABLE JET/ DULL FINISH/ 30 MANI- FACTURED AND SOLD BY M & S ENGINEERING		1057
NELSON COMPETITION ENGINES	---	---	-----	----	HENRY NELSON IS ONE OF VERY FEW 'BEST' ENGINE BUILDERS IN THE WORLD. HE INITIALLY BUILT SOME 24 (APPROX.) PROTOTYPE .15 SIZE ENGINES (PRIMARILY DIESEL FOR U/C TEAM RACE INITIALLY, AND EVENTUALLY FOR U/C COMBAT). FROM AROUND 1970 THROUGH 1995. IN 1983 HE BUILT A PRODUCTION COMBAT GLOW .15 FOLLOWED IN 1989 BY A COMBAT GLOW .15 SHORT SHAFT. IN 1990 HE STARTED BUILDING MORE .15's WHICH ARE MORE RECOGNIZABLE WHITE (PICKLED) INVESTMENT CAST CASES, ALONG WITH HIS FAMOUS .40 PYLON RACING ENGINES. ONE MAY REVIEW SOME MORE PICTURES OF THESE UNIQUE .15's IN JIM DUNKIN'S EXCELLENT REFERENCE BOOK OF INTERNATIONAL .15 MODEL AIRPLANE ENGINES		
• •	'76	D	NELSON 15D TEAM RACE	0.149	USED BY DUNKIN-WRIGHT AT '76 WORLD CHAMPS/ INVESTMENT CAST CASE/ 1973 K&B .15 INTERIOR PARTS MODIFIED BY NELSON/ PRODUCTION VERSION HAD 'N' CAST ON LEFT SIDE OF CASE		1058
• •	'81	G	NELSON 15 QUARTER MIDGET & FREE FLIGHT	0.149	NEW FRONT INTAKE AND REAR EXHAUST/ HOLES EACH SIDE OF EXHAUST FOR MUFFLER OR PIPE ADD-ON/ APPEARS TO HAVE PERRY CARB/ PRESSURE TAP IN REAR CRANKCASE COVER/ SET UP FOR QUARTER MIDGET RACING/ ALSO SOLD BY KUSTOM KRAFTMANSHIP SET-UP FOR FREE FLIGHT		1059
• •	'83	G	NELSON 15 COMBAT GLOW	0.149	THIS IS THE F.A.I. F2D COMBAT GLOW VERSION OF THE TEAM RACE DIESEL		166-N 1060
• NOTE:	'88	---	-----	----	ANY ONE OF HENRY'S .15D DIESELS WAS A PRE- DOMINATE CHOICE FOR TEAM RACE & APPARENTLY A GOOD START WAS 115 MPH AND 34 LAPS. HENRY NELSON & JED KUSIK WERE ON THE F.A.I. TEAM FOR '86.		
• NOTE:	---	---	-----	----	MANY OTHER DIESEL/GLOW .15 PROTOTYPES WERE PRODUCED THROUGHOUT THE PERIOD AS NOTED		
• •	'89	G	NELSON 15D	0.149	NEW INVESTMENT CASTING BEFORE IT WAS PICKLED/ HAS 6 MOUNTING LUGS/ MAGNESIUM BACKPLATE/ ALL NELSON DIESELS USE PUSH-PULL COMPRESSION ADJUSTMENTS INSTEAD OF ALLEN SET SCREWS PREVIOUSLY/ NEW VERTICAL WEB REINFORCEMENT OVER SHAFT HOUSING/ FINS THINNER/ EXHAUST/ ON RIGHT SIDE HAS LUG AT EACH END FOR EXHAUST OR MUFFLER EXTENSION		1061
• •	'90	G	PYLON SPECIAL NELSON N40 ALSO-29 -36 -41	0.398	FIRST TOTALLY NEW PYLON RACING ENGINE IN BOTH F.A.I. & FORMULA 1/ INCLUDES INTEGRAL DRIVE WASHER-SPINNER COMBO FOR FORM 1 & F.A.I. INCLUDES TUNED PIPE & SPINNER/ ALSO AVAILABLE IN 29-36-41 SIZES FOR OTHER EVENTS		150 200 1062 200 220 1062.2 1062.3 1062.5
• •	'91	G	QUICKIE 500 NELSON 40Q	0.398	FRONT INTAKE/ SIDE EXHAUST/ AMA QUICKIE 500 VERSION/ ONE PIECE INVESTMENT CAST CRANK- CASE/ CAUSTIC ETCH FINISH PROVIDES WHITE SATIN FINISH/ MACHINED ALUMINUM HEAD, BACKPLATE AND PROP DRIVE/ CRANKSHAFT HAS GIGANTIC .437" DIA. GAS PASSAGE/ TRUE ABC PISTON SLEEVE/ MODIFIED SCHNEURLE PORTING PLUS BOOST PORTS/ UNIQUE NELSON HEAD DESIGN WITH DOUBLE BUBBLE COMBUSTION CHAMBER PLUS A .375" WIDE FLAT SQUISH BAND/ NELSON CARB IS ONLY A PLASTIC BODY WITH ROTATING BARREL - ONLY USED AS SHUT-OFF		1063

NELSON

1991 NELSON
N '15'

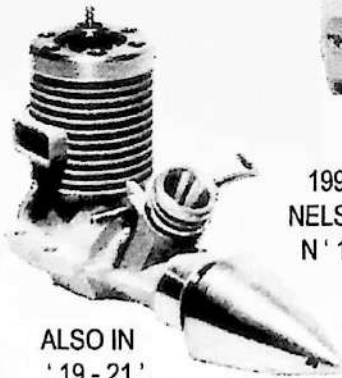


1991
NELSON
COMBAT
'36'



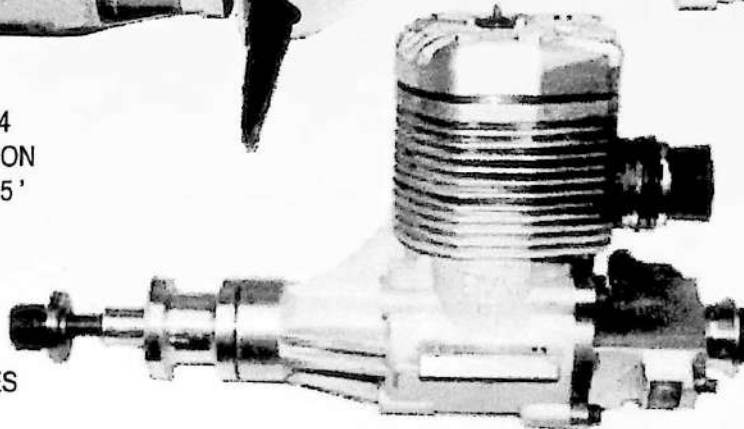
ALSO IN
'29 - 41'

1994
NELSON
N '15'

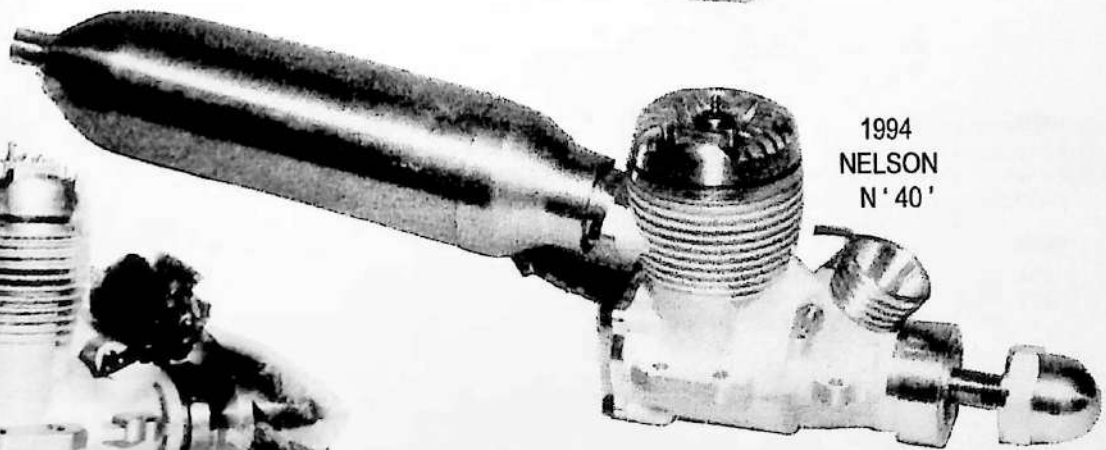


ALSO IN
'19 - 21'
CONSISTS OF
4 BASIC CRANKCASE TYPES

1992
NELSON
BVM '91'



1993
NELSON
BVM '96'



1994
NELSON
N '40'

N '40' COME WITH AAC OR
ABC PISTON AND CYLINDERS

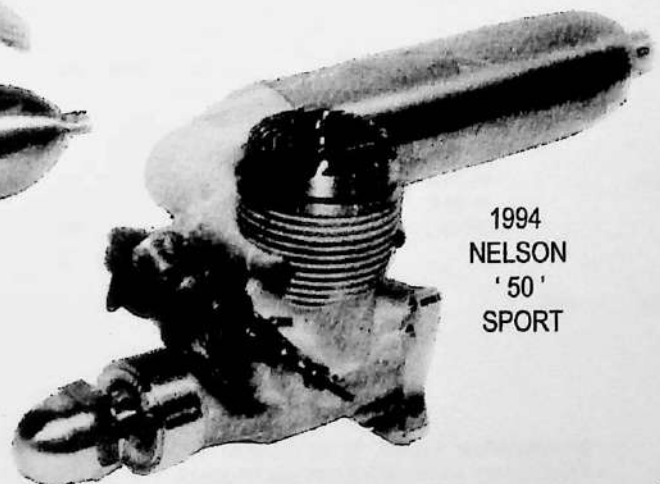
1994 NELSON N '40'
WITH PERRY CARBURETOR



1994
NELSON
QUICKEE 500
MODIFIED
'40'

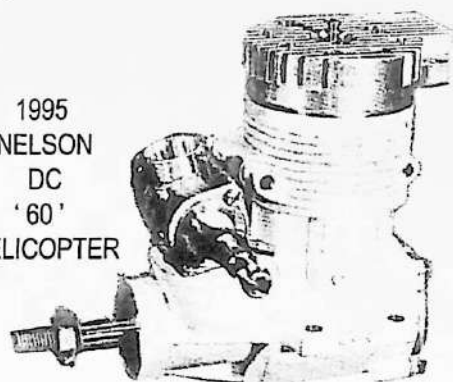


1994
NELSON
'50'
SPORT



MFR/ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
NELSON	---	---	---	DURING THIS PERIOD, CLARENCE LEE TESTED THE NELSON 40Q AS THE STRONGEST RUNNING FRONT INTAKE, SIDE EXHAUST, NON-PIPED .40 HE'D HAD OCCASION TO TEST (MAY '92)			
NOTE: 1							
NOTE: 2				NELSON HAS DESIGNED HIS OWN "FUNNY" GLOW PLUG WITH AN 11/32"-32 THREAD WITH NO COPPER GASKET. IT HAS A TAPER CUT ON BOTTOM EDGE OF THREADS AND MATES WITH A TAPERED SEAT AT BOTTOM OF GLOW PLUG HOLE. THIS PLUG DESIGN IS APPARENTLY GOOD FOR 300-400 RPM OVER A STANDARD GLOW PLUG !			
	'91	G NELSON N15 QUARTER MIDGET FAI FREE FLIGHT	0.159	FRONT INTAKE REAR EXHAUST/ USED PRIMARILY FOR F.A.I. FREE FLIGHT OR QUARTER MIDGET/ 15 mm DIA. CRANKSHAFT - LARGER THAN .21's/ ALSO AVAILABLE IN DIESEL FORM			1064
	'91	G QUICKIE 500 WEST COAST NELSON 40	0.398	SLIGHTLY MODIFIED FRONT INTAKE. REAR EXHAUST QUICKIE 500 FOR SPECIALIZED RACING EVENTS SUCH AS IN CALIFORNIA AND ARIZONA			1065
NOTE:				NELSON ENGINES ARE HANDLED BY F.A.I. WORLD CHAMPION DAVE SHADEL, PERFORMANCE SPECIALTIES			
	'91	G NELSON 36 COMBAT (29 & 41)	0.359	PRE-PRODUCTION NELSON "SHORT STROKE" COMBAT ENGINES TOOK 2ND & 3RD PLACE IN FAST COMBAT AT THE 1991 AMA NATIONALS. ADDITIONAL SIZES .29 & .41 FOR FREE FLIGHT/ D. GALBREATH PRODUCED 3 SIZES OF SPECIAL MOTOR MOUNTS (PER NFFS DIGEST 1998)	225-N	160	1066 1066.2 1066.5
NOTE:				NUMEROUS F.A.I. PYLON AND FORMULA 1 AND/OR QUARTER MIDGET ENGINES WERE BUILT THROUGH - OUT THE LATER 90'S AND EARLY IN THE MILLENNIUM 2000'S BUT VERY LITTLE NOTES HAVE BEEN APPARENTLY KEPT SO THE HISTORY IS A LITTLE DARK IN THIS AREA BECAUSE NELSON ESSENTIALLY DOESN'T ADVERTISE VERY OFTEN. THE FOLLOWING HELPS HISTORICALLY.			
	'92	G NELSON BVM 91	0.908	EXCLUSIVELY FOR BOB VIOLETT MODELS AS DUCTED FAN ENGINE/ REAR INTAKE & REAR EXHAUST WITH SPECIAL CARBURETOR FOR NEEDS OF DUCTED FAN OPERATION		275 175	1067
	'93	G NELSON BVM 96	0.958	DEVELOPED AS AN IMPROVEMENT OVER INTIAL DUCTED FAN ENGINE/ LIMITED PRODUCTION			1067.5
	'94	g NELSON N15 19 & 21	0.159 0.189 0.208	SIMILAR TO '91 - 15N/ 4 BASIC CRANKCASES - REAR INTAKE - SIDE OR REAR EXHAUST, FRONT INTAKE - SIDE OR REAR EXHAUST/ VARIETY OF PISTON AND CYLINDERS/ GLOW OR DIESEL			1068 1068.2 1068.5
	'94	G NELSON N40 FIRE	0.398	COMBINES BEST OF BOTH '91 NELSON 40Q AND QUICKIE 500 IN DIFFERENT CONFIGURATION/ FRONT INTAKE & REAR EXHAUST/ PERRY CARB OR STRAIGHT VENTURI/ AAC OR ABC PISTON & CYL.	200 100-VG		1069
	'94	G NELSON 50 SPORT	0.498	SPORT/ COMPETITION ENGINE BASED ON 1992 N40Q THAT WAS THE AMA QUICKIE RECORD HOLDER/ WITH CHOICE OF O.S. SUPER TIGRE OR PERRY R/C CARBURETOR/ MUFFLER INCLUDED	285-N 345-N 165-VG		1070
	'94	G QUICKIE 500 MOD. NELSON 40	0.398	AS PREV. '91 - 40Q/ REVISED PORTING/ A.A.C. PISTON & CYLINDER/ NEW MUFFLER PROVIDES SUBSTANTIAL BOOST IN POWER/ NEW BLACK AIR VALVE CARB IN COMPLIANCE WITH RULES AND PROVIDES CHEAP REPLACEMENT FOR CRASHES		300	1071
NOTE:	'94			NELSON INTRODUCED A LINE OF 'NELSON ULTRA THRUST MUFFLERS FOR A GAIN OF UP TO 1500 RPM OVER STOCK MUFFLERS ON 40 -50 ENGINES WITH SPORTPROPELLER.			

1995
NELSON
DC
'60'
HELICOPTER



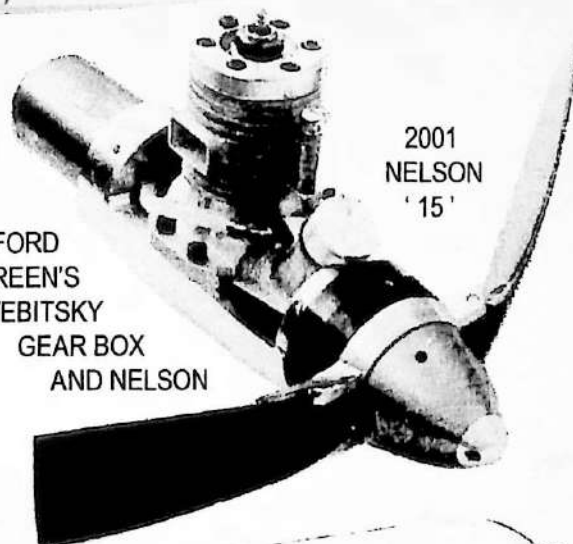
LATER THIS CASE USED FOR
OTHER F/F OR U/C PURPOSES

GALBREATH
- KECK
GEAR DRIVE



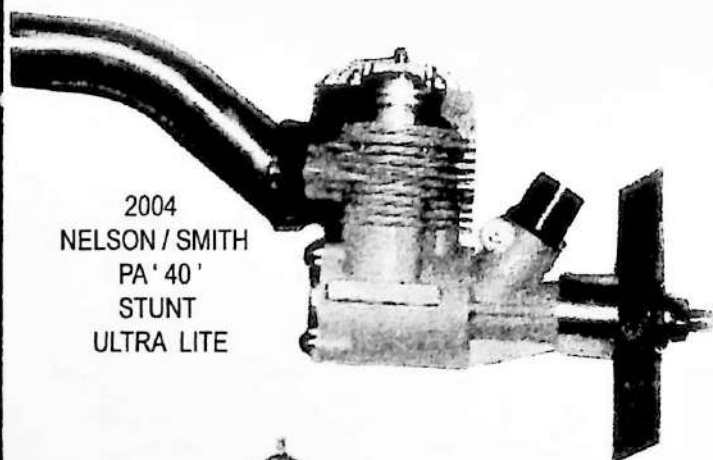
2001
NELSON
'15'
HUMMER

(BRIT.)
STAFFORD
SCREEN'S
VEBITSKY
GEAR BOX
AND NELSON



2001
NELSON
'15'

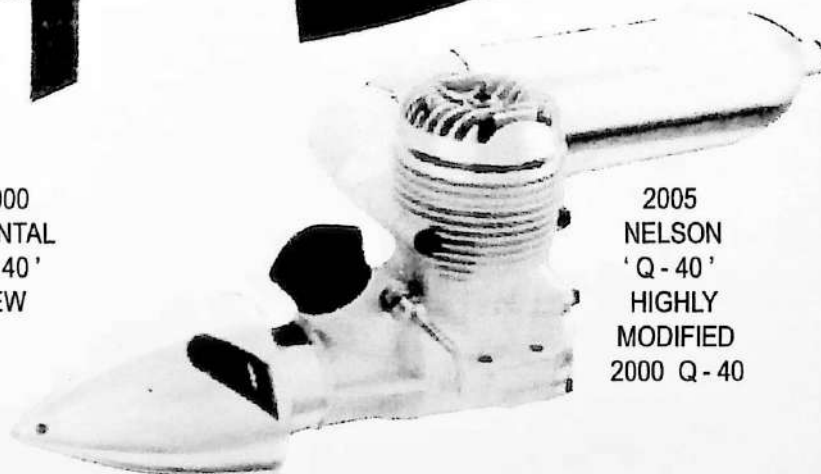
2004
NELSON / SMITH
PA '40'
STUNT
ULTRA LITE



POST 2000
EXPERIMENTAL
NELSON '40'
REAR VIEW



2005
NELSON
'Q - 40'
HIGHLY
MODIFIED
2000 Q - 40



RARE
POST 2000
EXPERIMENTAL
NELSON '40'



REAR INTAKE / REAR EXHAUST

RARE
POST 2000
EXPERIMENTAL
NELSON '40'

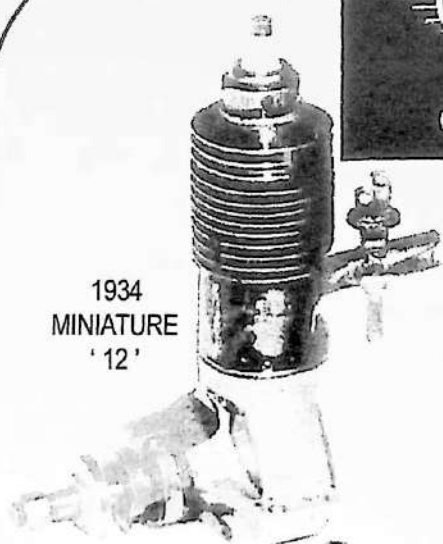


FRONT INTAKE / REAR EXHAUST

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
NELSON	'95	G	NELSON DC 60 HELICOPTER	0.599	PRODUCED BY NELSON IN CO-ORDINATION WITH DON CHAPMAN DESIGN CORP. FOR HIGH END HELICOPTER COMPETITION/ INVESTMENT CAST CRANKCASE/ OFFSET HEAD SINK CYLINDER HEAD/ CARBURETOR OFFSET TO LEFT OF CENTERLINE/ UNIQUE BALANCING/ CHROMED ALUM. LINER & ALUM. PISTON/ WAYNE MANN FLEW DC 60 TO THIRD PLACE AT WORLD CHAMPIONSHIPS			1072
*	'97	G	NELSON DC60 F/F -U/C -R/C	0.599	SIMILAR TO HELICOPTER 60/ HEAD CHANGED AND SHIMS PROVIDED FOR DECK CLEARANCE/ SOLD WITH OR WITHOUT R/C CARBURETOR./ FEW SOLD	270-NIB 325-NIB		1072.2 1072.5
*	NOTE:	'98	---	---	NELSON '91 COMBAT 36 IS NOW IN 19 & 41 SIZES FOR F/F FLIERS PER D. GALBREATH IN NFFS DIGEST OCT.'98.			
*		2000	G NELSON 40 Q-40		THIS IS A HIGHLY COMPETITIVE QUARTER MIDGET WITH MUFFLER FOR PYLON RACING		137-VG	1073
*		2000 2005	D NELSON 40 I BIGBORE F1 F.A.I. PYLON		FRONT INTAKE/ REAR EXHAUST / MASSIVE VENTURI HOLE PLUS LARGE WINDOW OR HOLE IN CRANK- SHAFT/ HOLE AT REAR OF CRANKSHAFT IS OFFSET TO MISS CRANKPIN/ HOLE IS RUNNING ECCENTRIC/ IT TOOK 2ND PLACE AT 2001 WORLD CHAMPION- SHIPS FOR F.A.I. PYLON (REF. E.SMITH AT PYLON WORLD CHAMPS). THIS CASE HAS REMAINED RELATIVELY CONSTANT WITH MANY INTERNAL REFINEMENTS TO DATE. WE HAVE THE OPPORTUNITY OF SEEING ONE REFINEMENT OF THE ACTUAL CASE - IT WAS DISMISSED.			1074
*		2001	NELSON 15 HUMMER	0.149	NEW FRONT INTAKE SIDE EXHAUST ENGINE DEVELOPED TO RUN AT MORE THAN 30,000 RPM WITH A PLANETARY GEARBOX DRIVING A LARGE FOLDING PROP/ THIS EXTREMELY POWERFUL NELSON WAS USED ON THE VERBITSKY 'REDUCTOR' ENGINE UNIT/ NELSONS WITH A STRENGTHENED CRANKCASE INCORPORATING A 'CAST IN' BACK- PLATE ARE USED IN THE G K HUMMER DEvised BY AMERICANS DOUG GALBREATH & ED KECK (BOTH ARE STATE OF THE ART F.A.I. FREE FLIGHT FLIERS)/ THESE LATER NELSONS FEATURED ADDITIONAL MOUNTING LUGS LOCATED JUST BEHIND THE GEAR- BOX/ AT END OF THE RUN BY 'FLOOD-OFF', THE EXCESS FUEL COOLS THE GEARBOX/ THE BRITS ARE WELL INTO THIS & HAVE MATED A STANDARD (IS THERE ANY SUCH THING ?) NELSON TO A VERBITSKY GEARBOX/ RESULTS WILL BE SEEN AND REPORTED IN THE FREE FLIGHT PRESS			1075
*	NOTE:	---	---	---	THE FAMOUS ED KECK PASSED AWAY IN 2004 TO THE DISMAY OF ALL HIS FRIENDS, INCLUDING THIS AUTHOR. IT WILL BE INTERESTING TO SEE HOW THE G K HUMMER CONTINUES EVOLVING.			
*		2004	G NELSON/SMITH PA 40 STUNT ULTRA LITE		LIGHT WEIGHT 8 OUNCE REAR EXHAUST SPECIALLY DEVELOPED STUNT ENGINE/ FOR USE IN CLASSIC & MODERN STUNT MODELS/ MILDLY TIMED, AAC PISTON & LINER/ DUAL HIGH SPEED BALL BRGS/ TRUE VENTURI/ FOR USE WITH HEADER MUFFLER/ HAND ASSEMBLED/ BLUE-PRINTED & BALANCED/ COMBINED EFFORT BY RANDY SMITH AND HENRY NELSON/ CURENT PRICE APPROX. \$350. - CHECK OUT AT WWW.AEROPRODUCT.NET			1076
*		2005	G NELSON Q-40		THE 2000 NELSON Q-40 HAS BEEN USED FOR BOTH QUICKIE & Q-40 RACING WITH A VARIETY OF RE- FINEMENTS SUCH AS STIFFENING CASE WEBS, TALLER VENTURI AND MUCH INTERIOR REFINEMENT RESULTING IN THIS 2005 NELSON Q-40			1077



1934
MINIATURE
'12'



NEW OHLSSON SPARK PLUG
ONE PIECE
STEEL CYLINDER

DROP-FORGED DURAL
I BEAM CONNECTING
ROD BRONZE BUSHED

NEW REINFORCED
FRONT END
NEW ENCLOSED
ADJUSTABLE
TIMER

SPLINED SHAFT &
PROPELLOR DRIVE

FULLY
COUNTER BALANCED CRANKSHAFT

INTEGRAL FINNED HEAD

* NEW MONOSTEEL
HARDENED PISTON

MANIFOLD
EXHAUST

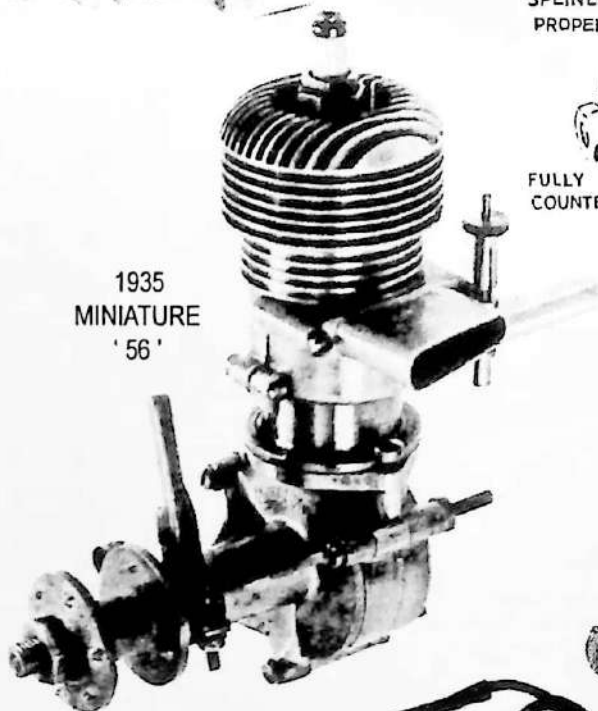
SUPERIOR COIL

METAL
ENCLOSED
CONDENSER

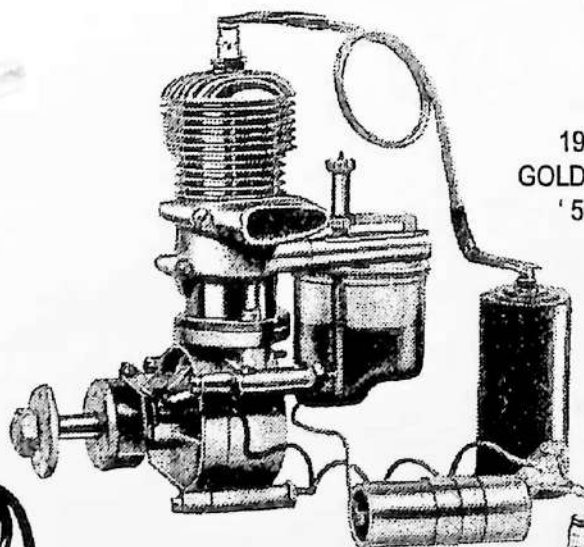
ALL ALUMINUM
DIE CASTING

RADIAL OR LUG MOUNTING

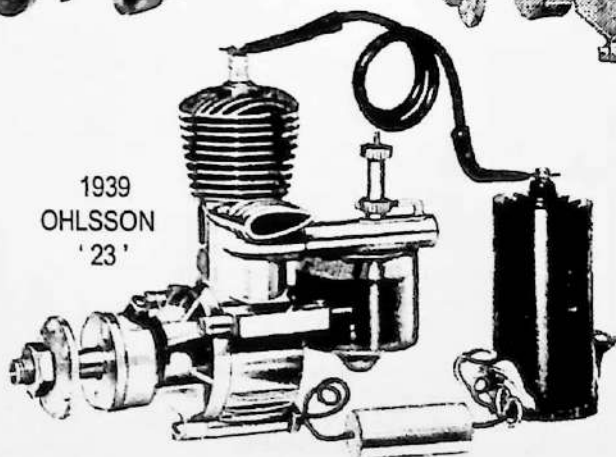
1935
MINIATURE
'56'



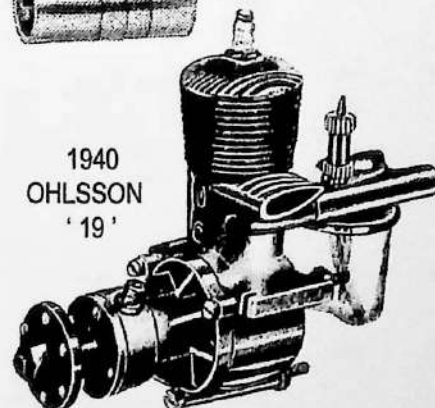
1939
GOLD SEAL
'56'



1939
OHLSSON
'23'



1940
OHLSSON
'19'

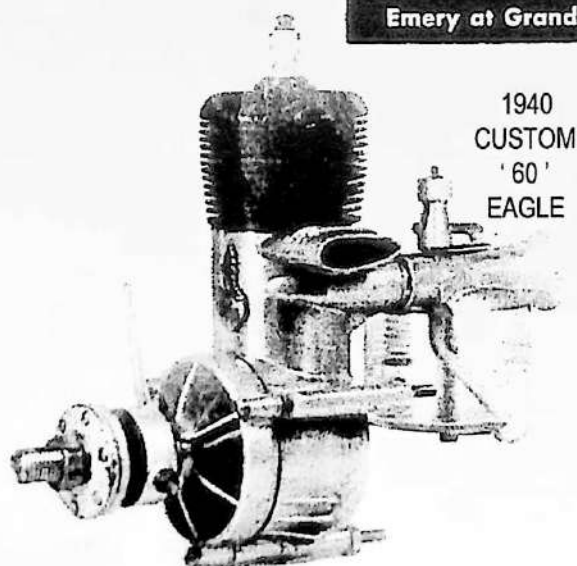


THIS COMPANY BECAME OHLSSON & RICE IN 1940

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
OHLSSON MINIATURES (IRWIN OHLSSON)	---	--	-----	----	EARLY OHLSSON TO 1940 THEN ADDED RICE			
	'34	I	MINIATURE	0.121	BEGINNING OF OHLSSONS/ SANDCAST CASE/ STEEL CYLINDER & BRAZED BYPASS/ SIDEPORT/ ONE OR 2 PROTOTYPES/L. JENNO AUTHORIZED BY IRWIN OHLSSON TO MAKE 1ST PRODUCTION RUN OF 100 WITH SER. #'s & OHLSSON CERTIFICATE	375-R PROTO		1078
*	'35 *	I	MINIATURE	0.562	DIE CAST CASE/ STEPPED CYLINDER FINS/ OPEN TIMER/ LARGE HORIZONTAL METAL 'FLOAT TYPE' TANK/ OHLSSON ON FRONT CRANKCASE COVER/ 3 BOLT RADIAL MOUNTING ONLY/ ALUM. HEAD	450		1079
*	'37 *	I	MINIATURE	0.562	AS PREV./ NEW CYL WITH FINS & MTG FLANGE ENLARGED TO MATCH CRANKCASE/ OPEN TIMER	465	255	1080
*	'37 *	I	MINIATURE	0.562	AS PREV./ 2 ADDED SCREWS IN MANIFOLD/ OPEN TIMER	465		1081
*	'38 *	I	GOLD SEAL	0.562	AS PREV./ NAME ON BYPASS/ CLOSED TIMER/ FRONT COVER HAS HEAVY RIM & 6 WEBS/ BEAM MTG LUGS ADDED/ NEW SHAFT SPLINED TO FIT 3 SPOT DRIVE WASHERS/ TANKS AS ON MINIATURE	400		1082
	'38 *	I	GOLD SEAL	0.562	AS PREV. EXCEPT FOR NEW DEEP (1-1/2") BOWL TANK HUNG UNDER INTAKE WITH NEEDLE VALVE BODY THROUGH INTO TANK	400	511	1083
*	'38	I	'23" (FIRST)	0.232	SIMILAR TO PREVIOUS/ FORERUNNER OF 'SMALLER' BORE ENGINE/ DIE CAST/ '23' ON FRONT OF CASE/ 6 WEB FRONT COVER WITH NO PROVISION FOR TIMER RETENTION BALL/ ALUM. SHAFT BEARING IS PRESSED INTO CASE COVER WITH TIMER HOUSING GROOVES/ TAPERED CRANKSHAFT IS HOLLOW WITH HOLLOW CRANK PIN/ 9 OR 10 BLACK UNPAINTED CYLINDER FINS	130		1084
*	NOTE:	---	-- SHAFT BEARINGS	----	ALL 19 & 23 SHAFTS RUN IN CRANKCASE COVER WITH TAPERED BRG. UNTIL '41 - 19 & 23's			
*	'38 *	I	GOLD SEAL	0.562	AS PREV./ NEW SHORTER FUEL TANK WITH FLAT BOTTOM & SUMP WITH STRAIGHT PICK UP TUBE	300		1085
*	'39	I	'23"	0.232	AS PREVIOUS/ BALL THRUST BEARING ADDED TO TAPERED SHAFT	130		1086
*	'39	I	'19" (FIRST)	0.199	AS 23 WITH '19' ON CASE/ 10 UNPAINTED CYLINDER FINS/ SHORTER STROKE/ (SERIAL #670 PER L. ALONZO IS EXAMPLE)	130	130	1087
*	'39 *	I	GOLD SEAL	0.562	AS PREV./ BULGE ADDED TO SHAFT HOUSING FOR BALL BEARING THRUST WASHER/ SAME TANK	300		1088
*	'39	I	'23"	0.232	AS PREV./ 10 CYL. FINS/ 3 STIFFENING WEBS ADDED TO INTAKE BOSS	130	87 84	1089
*	'39 *	I	GOLD SEAL	0.562	AS PREV./ NEW CYLINDER WITH STRAIGHT TAPER OF FINS/ ALUMINUM TIMER PARTS STARTED WITH THIS RUN/ SAME TANK AND ALSO SOLD BY HURLEMAN WITH HURLEMAN TANK (1940)	300	228	1090
*	'40	I	'23"	0.232	AS PREV./ NEW 'JIFFY FILL' TANK ASSEMBLY/ POSSIBLE BLACK PAINTED CYLINDER	135	179 168	1091
*	'40	I	'19"	0.199	AS-23 WITH '19' ON CASE/ 10 CYLINDER FINS/ SPARK PLUG BOSS CUT LOWER-MATCHING SHORTER STROKE/ BLACK PAINTED CYLINDER	130	123	1092

Ohlsson & Rice

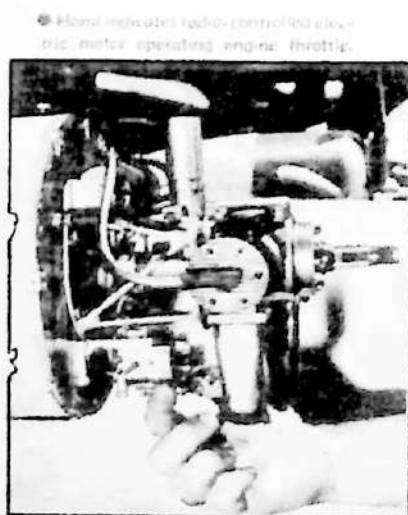
Emery at Grande Vista, Los Angeles 23, Calif.



1940
CUSTOM
'60'
EAGLE

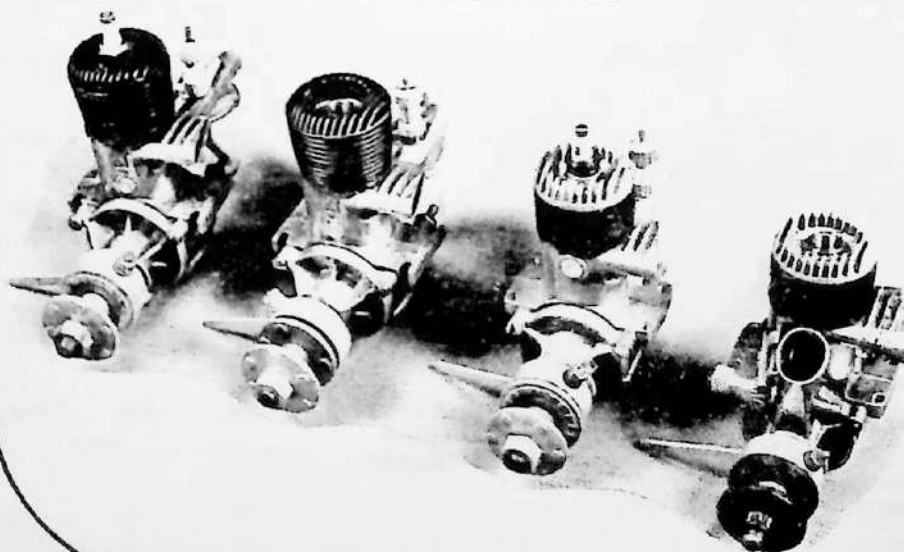
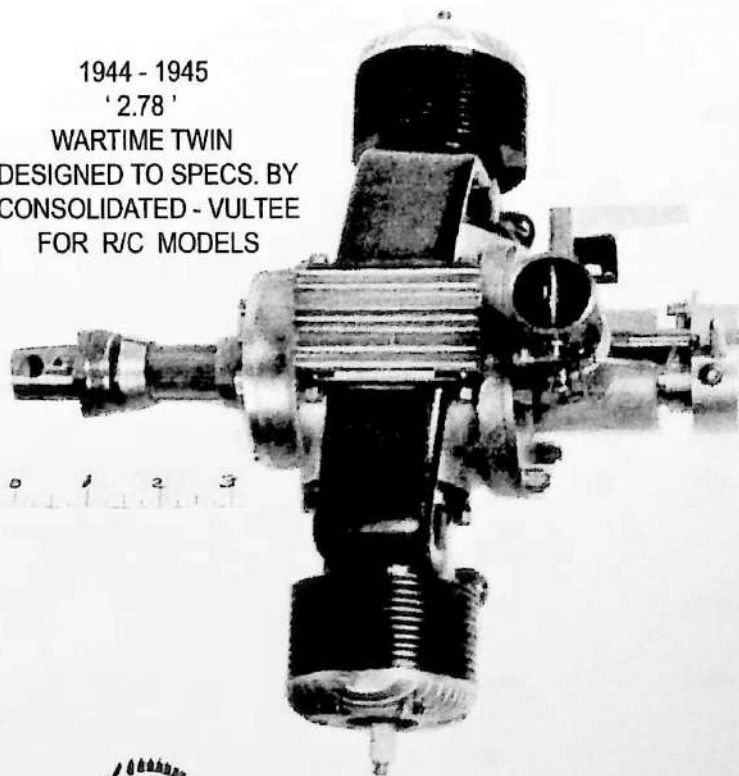


1941
SPECIAL
'60'
UNPAINTED
CYLINDER
FINS



Hand indicates radio-controlled electric motor operating engine throttle.

1944 - 1945
'2.78'
WARTIME TWIN
DESIGNED TO SPECS. BY
CONSOLIDATED - VULTEE
FOR R/C MODELS

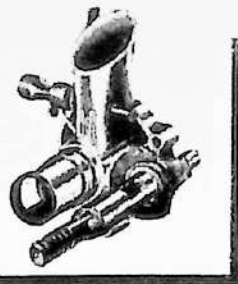


EVOLUTION OF OHLSSON
'23's' FROM A COLLECTION

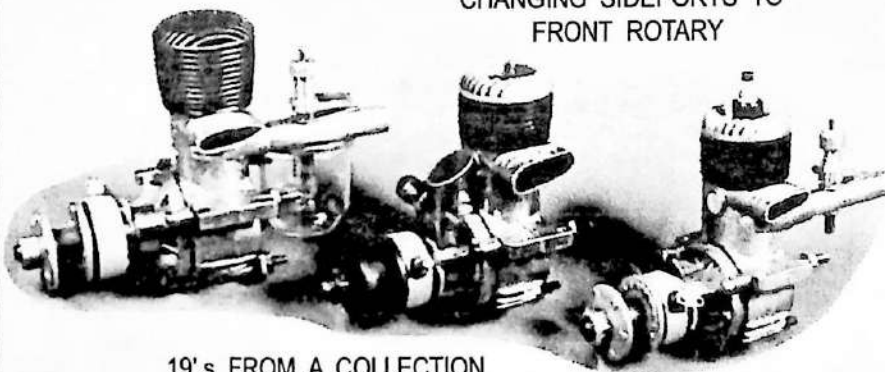
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
OHLSSON & RICE MFG. CO. (IRWIN OHLSSON & HARRY RICE)	'40	I	CUSTOM '60' EAGLE (FIRST)	0.604	SIMILAR TO '23' STYLE/ O & R 'EAGLE' ON FRONT OF CASE/ CAST FLARED VENTURI WITH TANK TOP/ BLACK PAINTED CYLINDER FINS/ FRONT WEB HIDING BALL THRUST & ROLLER BEARING WITH ALUMINUM MAIN BEARING/ 1/4" PROP SHAFT/ 1/4" PLUG/ SLOTTED MOUNTING LUGS	210		1093
" "	'40	I	CUSTOM '60' EAGLE	0.604	AS PREV.60/ NEW CYLINDER ASSEMBLY WITH 3/8" PLUG/ DRAWN STEEL PISTON/ BLACK PAINTED CYLINDER	210	228	1094
" "	'40	I	"19"	0.199	'LIGHTWEIGHT' AS PREV./ SMALL DIAMETER UNPAINTED CYLINDER & LOW HEAD FINS	125	130	1095
" "	'40	I	CUSTOM '60' EAGLE	0.604	AS PREVIOUS/ 3/8" PLUG/ BRONZE MAIN BEARING/ EARLIER CUSTOM '60's' REWORKED FOR 3/8" PLUG/ LAPPED CAST IRON PISTON/ BLACK PAINTED CYLINDER	210	194	1096
"	NOTE:	---	---	---	REFERENCE YATES BOOK 'MODEL GASOLINE ENGINES' 1941: CUSTOM '60 ENGINES WITH SERIAL #'s BELOW 2000 MAY HAVE BEEN SOLD AS CAR/BOAT ENGINES & WERE NOT PROVIDED WITH BALL THRUST OR ROLLER BEARINGS - ONLY PLAIN BEARINGS			
" "	'41	I	"23" START OF NEW BRONZE BEARINGS	0.232	AS PREV./ NEW CYLINDER WITH BLACK PAINTED TAPER FIN PROFILE/ INTAKE CAST IN PLACE/ START OF BRONZE CRANKSHAFT BEARINGS/ CRANKSHAFT TAPER ELIMINATED FOR 19/23's	65	75	1097
" "	'41	I	"19" NEW BEARINGS	0.199	AS PREV. 23 EXCEPT NEW 9 FIN UNPAINTED CYLINDER WITH INCREASED HEIGHT/ FLATTER HD.	65		1098
" "	'41	I	'60' SPECIAL	0.604	ECONOMY CUSTOM/ NO ROLLER BEARING/ NO EAGLE/ '60' STAMPED ON FRONT/ UNPAINTED CYLINDER/ LARGER '23' TANK/ NO FLARED INTAKE/ 1/4" SHAFT	185 225	265 170	1099
" "	'41	I	CUSTOM '60' EAGLE	0.604	AS PREVIOUS CUSTOM/ 5/16" SHAFT/ BLACK PAINTED CYLINDER	250	270 255	1100
" "	'41	I	'60' SPECIAL	0.604	AS PREVIOUS SPECIAL/ 5/16" SHAFT/ NO PAINT	110	112	1101
" "	'42	I	'60' SPECIAL	0.604	AS PREV. SPECIAL/ CYLINDER PAINTED BLACK	110	118	1102
" "	'42	I	"23"	0.232	AS PREV. '41 - '23'/ THICK CYLINDER FINS/ LESS POLISHED CASTINGS/ MOLD LINE ON BYPASS/ DULL NICKLE PLATED INTAKE TUBE/ NO PAINT WARTIME MODEL	75	72	1103
" "	'42	I	"19"	0.199	SIMILAR TO PREVIOUS '23'/ NO PAINT WARTIME MODEL	85		1104
" "	'42	I	'60' SPECIAL	0.604	SIMILAR TO OTHER/ 60 STAMPED IN FRONT WELD SPOT/ NO PAINT/ INCLUDING ROUGH CASTINGS WARTIME MODELS	110		1105
"	NOTE:		ALL MODELS		OTHER WARTIME MODELS/ SLIGHT VARIATIONS WITH MATERIALS WHEN AVAILABLE			
" "	'44/45	I	WARTIME TWIN	2.780	CAST ALUM. CRANKCASE/ REAR DISC ROTARY/ AUTOMOTIVE TIMER/ STEEL CYLINDER/ BALL BEARINGS/ NEW OHLSSON DESIGN/ FOR HYDRO- DYNAMICS GROUP OF CONSOLIDATED VULTEE/ AIRPLANE WAS TWIN ENGINE VXP4Y-1/ 26 MFD.	RARE	SOLD 3000	1106
" "	'45/46	I	"23"	0.232	AS PREV. PRE-WARTIME -23/ NEW FRONT COVER WITH VERTICAL WEBS/ ALUMINUM INTAKE TUBE AND TIMER HOUSING/ POLISHED CASE	75	83	1107

INSTRUCTIONS FOR ROTARY VALVE AND TANK INSTALLATION

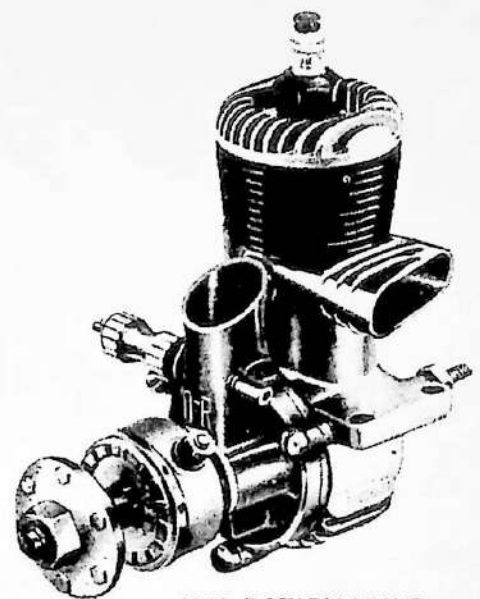
Ohlsson & Rice 19, 23 and 60 Side Port Engines may be converted by using the O & R Rotary Valve Conversion Unit, available for upright or inverted operation. For accessibility to the rotary valve venturi tube, the special inverted unit is available. This consists of a special ported crankshaft and a regular rotary valve front section.



CHANGING SIDEPORTS TO FRONT ROTARY

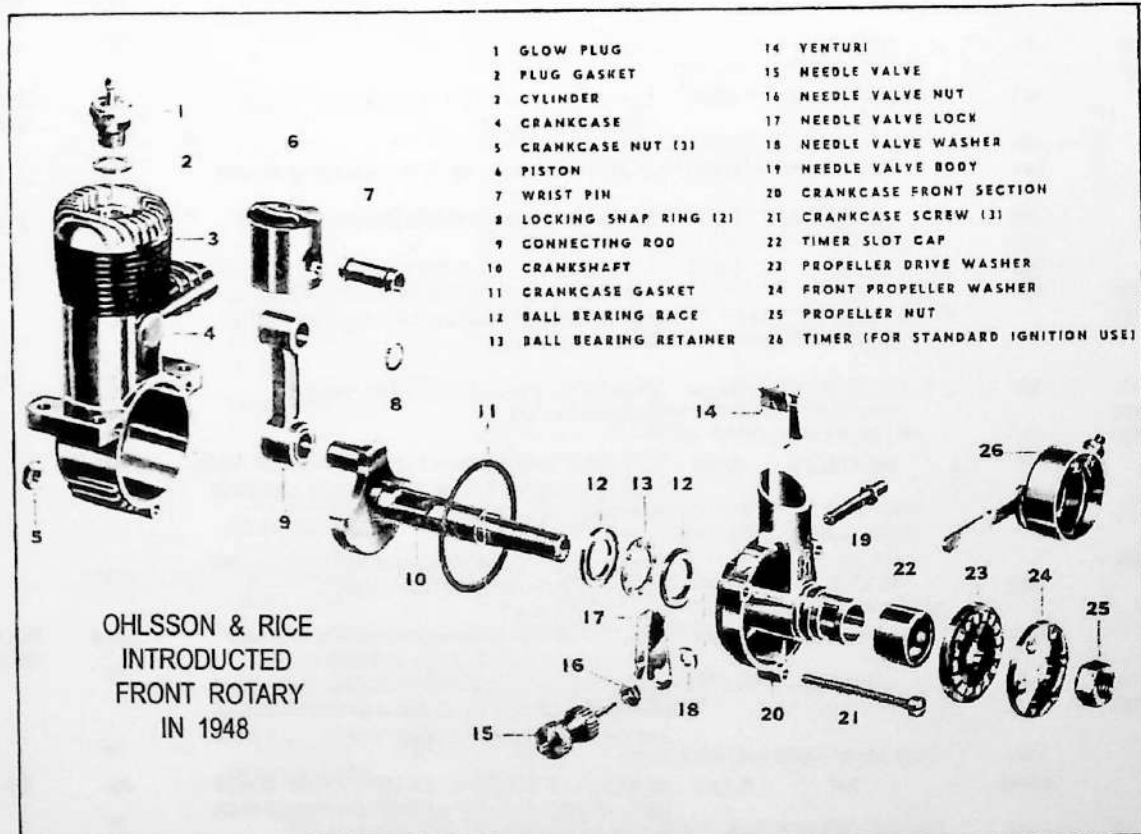


19's FROM A COLLECTION



1948 ROTARY VALVE
'19's AND 23's'

ENGINEER'S EXPLODED DRAWING OF "23" ENGINE SHOWING COMPLETE PARTS AND ASSEMBLY.



MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
OHLSSON & RICE	'46	I	'19'	0.199	AS PREVIOUS WARTIME - 19/ NEW FRONT COVER WITH VERTICAL WEB/ UNPOLISHED CASTINGS/ BARE BRASS INTAKE TUBE/ CYLINDER PAINTED BLACK/ SHORT RUN	110	125	1108
" "	'45/46	I	'60' SPECIAL	0.604	AS PREV./ BULLS EYE IN FRONT WELD SPOT	150	178	1109
" "	'46	I	'60' SPECIAL	0.604	AS PREV. '42- '60' BLACK CYLINDER MODEL/ NEW VERTICAL WEB IN FRONT COVER/ EARLY ENGINES HAD BARE BRASS & LATER MODELS HAD ALUMINUM INTAKE TUBES	150	153 104	1110
"	NOTE:	—	—	—	VARIATIONS PROLIFERATED DURING RUSH BACK TO PRODUCTION AFTER WORLD WAR II			
" "	'47	I	'23" (RADIAL MT.)	0.232	SIMILAR TO PREV./ NEW RADIAL MOUNTED CRANKCASE/ 10 HEAVY COOLING FINS ON BOTTOM/ STYLIZED '23' ON FRONT OF CASE/ HIGHLY POLISHED ENGINE	90	150 100 92	1111
" "	'47	I	'19" (RADIAL MT.)	0.199	SAME AS PREV.23/ STYLIZED '19' ON CASE RADIAL MOUNTING ONLY/ POLISHED ENGINE	95	90 210	1112
" "	'47	I	'19" (RADIAL MT.)	0.199	AS PREV. 19/ 19 EMBLEM CHANGED TO A RECOGNIZEABLE '19'/ UNPOLISHED ENGINE	100		1113
"	'47	I	'60' SPECIAL (RADIAL MT.) (LARGE EXH.)	0.604	SIMILAR TO FRONT ROTARY VALVE 23/ LARGE OVAL EXHAUST 7/16" INTAKE TUBE/ RADIAL MOUNTING ONLY/ 10 COOLING FINS ON BOTTOM	135	154 193 139	1114
"	SPECIAL:	'47	DENNYMITE AIRSTREAM	0.573	PARTS PURCHASED FROM PACIFIC AIR-MOTIVE CORP. & ASSEMBLED BY O & R - IDENTICAL TO P.A.C. DENNY EXCEPT REAR COVER MOUNTING HOLES ARE DRILLED THROUGH CRANKCASE BOSSES/ SERIAL #s STAMPED ON MOUNTING LUGS/ LONG INTAKE TUBE	200		1115
" "	'48	I	'23'	0.232	SIMILAR TO PREVIOUS .23/ NEW UNMARKED BRIGHT SATIN CRANKCASE/ BEAM MOUNTS WITH HOLES INSTEAD OF SLOTS	75	86 75	1116
" "	'48	G	'23'	0.232	AS PREV.23/ 8 FIN CYLINDER WITH FIRST STAKED-ON ALUMINUM 15 OR 13 FIN HEAD	80		1117
" "	'48	I	'19'	0.199	AS PREV. 23/ SMALLER DIAMETER 7 FIN CYLINDER WITH STAKED-ON ALUMINUM HEAD	100 90		1118
" "	'48	I	'60' SPECIAL WITH TANK (LARGE EXH.)	0.604	SIMILAR TO '47 NEW CRANKCASE - '60' SPECIAL/ BEAM MOUNTING WITH HOLES INSTEAD OF SLOTS '60' CAST IN CRANKCASE ABOVE WELD SPOT	125	105 155	1119
" "	'48	I	'23" FRONT ROTARY	0.232	NEW FRONT ROTARY VALVE DESIGN WITH O & R STYLING BEAM & RADIAL MOUNT CASE WITH LARGE OVAL EXHAUST/ 8 FIN CYLINDER/ SATIN FINISH ON CASTINGS	90	97 154 107	1120
" "	'48	G	'23" GLOW FRONT ROTARY	0.232	NEW FRONT ROTARY VALVE DESIGN WITH CAD PLATED CAP OVER CASE/ COVERS TIMER SLOT	85	51	1121
" "	'48	I	'60' SPECIAL WITH TANK	0.604	AS '48-60/ O&R INITIALS ADDED TO REAR OF CASE/ BEAM MOUNTING WITH HOLES/ '60' CAST IN CRANKCASE ABOVE WELD SPOT	125		1122
" "	'48	I	'23" FRONT ROTARY	0.232	AS PREV. 23/ NEW FRONT COVER WITH BALL DETENT FOR NEW TIMER	75	77 69	1123
" "	'48	G	'23" GLOW FRONT ROTARY	0.232	AS PREV. 23/ CAD PLATED CAP OVER TIMER SLOT THAT EXISTS	60		1124
" "	'48	I	'19" FRONT ROTARY	0.199	SAME CASTINGS AS PREV. IGNITION 23/ SMALLER DIA. HEAD WITH 7 FINS/ STAKED ALUM. HEAD	85	57	1125

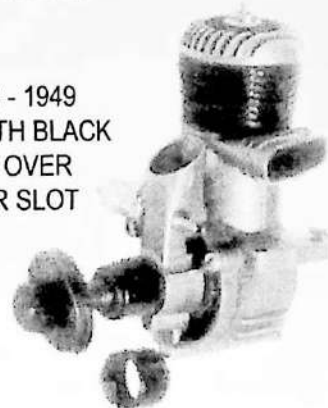
Ohlsson & Rice

Emery at Grande Vista, Los Angeles 23, Calif.



1948 FRONT ROTARY VALVE
'23' WITH ACCESSORY TANK

1948 - 1949
'23' WITH BLACK
CAP OVER
TIMER SLOT

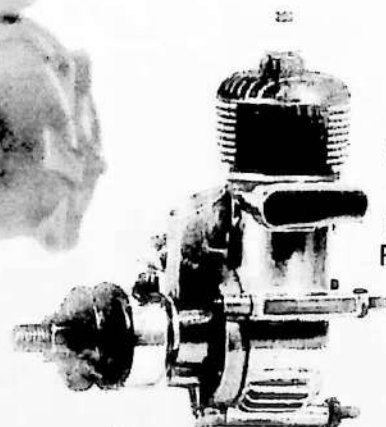


1949
STANDARD
'23'
NO TIMER SLOT
& NO CAP

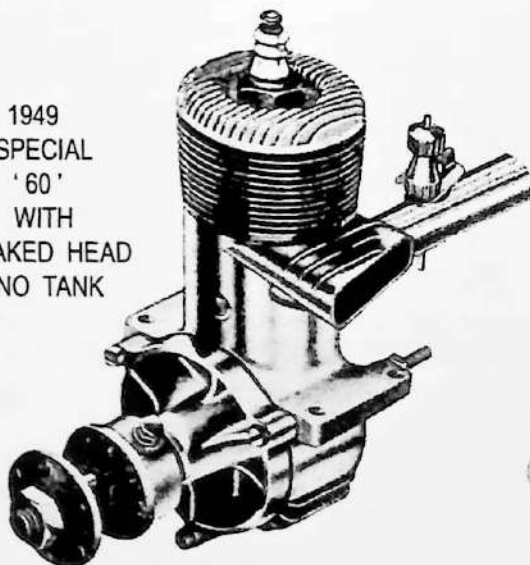


1948 SPECIAL '60'
WITH ACCESSORY TANK

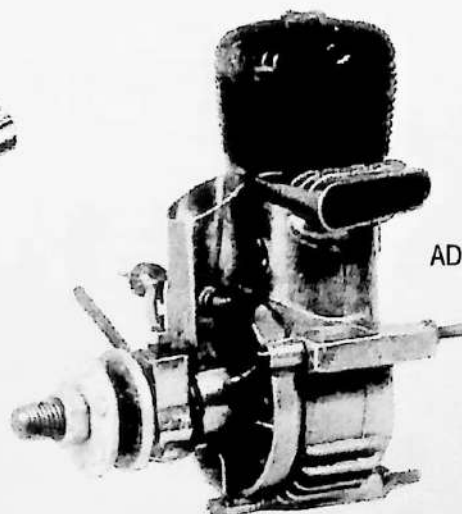
1948
O & R
'23'
FRONT
ROTARY



1949
SPECIAL
'60'
WITH
STAKED HEAD
NO TANK

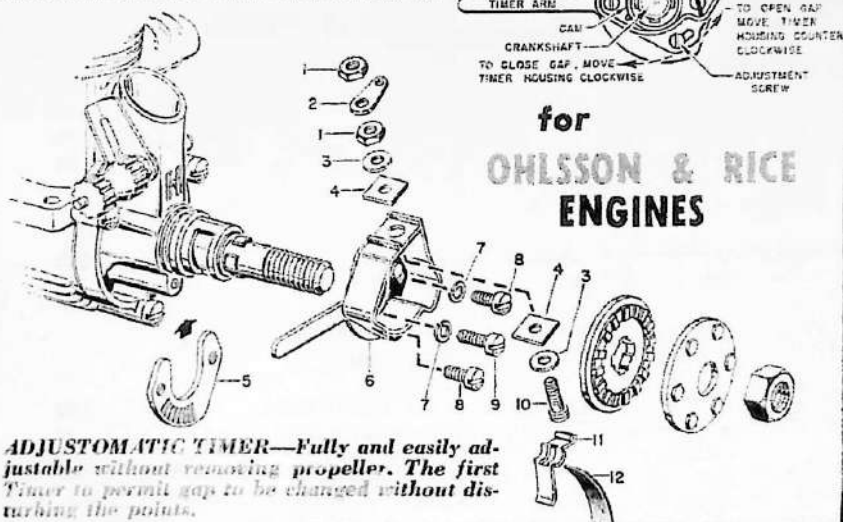


1950
SPECIAL
'60'
WITH
ADJUSTOMATIC
TIMER



MFG./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
OHLSSON & RICE	'48 *	G	'19" GLOW FRONT ROTARY	0.199	AS PREV. IGNITION .19/ CAD PLATED CAP OVER EXISTING TIMER SLOT	70	119	1126
" "	'49	I	"23"	0.232	IGNITION SIDEPORT-AGAIN/ NEW FRONT COVER WITH TIMER BALL DETENT/ TANK OR NO TANK/ STAKED ALUMINUM HEAD	85	102	1127
" "	'49	I	"19"	0.199	IGNITION SIDEPORT-AGAIN/ NEW FRONT COVER WITH TIMER BALL DETENT/ TANK OR NO TANK/ STAKED ALUMINUM HEAD	85		1128
" "	'49	I	"60" SPECIAL NO TANK	0.604	IGNITION SIDEPORT-AGAIN/ NEW FRONT COVER WITH TIMER BALL DETENT/ STAKED ALUMINUM HEAD/ BEAM MOUNTING WITH HOLES/ O&R INITIALS ON REAR OF CASE	135	173 124	1129
" "	'49 *	G	60"	0.604	AS PREVIOUS .60/ SERIAL # ON REAR OF CASE/ CAD PLATED CAP OVER IGNITION AREA	125	133	1130
"	NOTE:		ALL MODELS FRONT ROTARY FROM HERE		LAST SIDEPORTS MANUFACTURED IN 1949 AND SOLD UNTIL SIDEPORT INVENTORY GONE			
" "	'49	I	"29" DELUXE ADJUSTOMATIC TIMER	0.299	O&R STYLE/ NEW ENGINE/ 8 FIN CYLINDER WITH STAKED ALUM. HEAD/ PAINTED CYLINDER FINS/ FRONT COVER WITH '29' ON INTAKE/ ROLLER BEARINGS/ BALL DETENT FOR O&R 'ADJUSTO- MATIC' TIMER/ POLISHED CASTINGS/ EXTERIOR STEEL PARTS HAVE BLACK FINISH/ TANK SEPARATE	115	183 135	1131
" "	'49	G	"29" DELUXE GLOW	0.299	AS PREVIOUS .29/ BLACK CAP OVER TIMER LOCATION	75 60	48 79	1132
" "	'49	I	"23" DELUXE ADJUSTOMATIC TIMER	0.232	AS PREV.FRONT ROTARY '23'/ REAR OF CRANKCASE MOD./ ROLLER BEARING FRONT COVER/ NEW STAKED ALUM.HD. WITH 12 FINS/ CASTINGS POLISHED/ EXTERNAL STEEL PARTS BLACK/ TANK SEPARATE/ ADJUSTOMATIC TIMER	100	128	1133
" "	'49	G	"23" DELUXE GLOW	0.232	AS PREVIOUS '23' DELUXE/ BLACK CAP OVER EXISTING TIMER SLOT	65		1134
" "	'49	I	"23" ROUND TIMER	0.232	STANDARD MODEL '23'/ CASTINGS NOT POLISHED/ BRONZE BEARING IN FRONT COVER/ NO ROLLER BEARINGS/ NO TANK	85		1135
" "	'49	G	"23" GLOW	0.232	AS PREVIOUS 23 IGNITION/ GLOW MODEL/ PLATED CAP OVER TIMER SLOT LOCATION	75	82	1136
" "	'49	I	"19" DELUXE ADJ./TIMER	0.199	AS PREV. FRONT ROTARY '19'/ MODIFIED AS '23' DELUXE/ NO TANK/ ADJUSTOMATIC TIMER	125	139	1137
" "	'49	G	"19" DELUXE GLOW	0.199	AS PREVIOUS DELUXE '19'/ BLACK CAP OVER TIMER SLOT LOCATION	75		1138
" "	'49	G	"29" GLOW RACE CAR	0.299	AS '29' GLOW/ NEW DOUBLE END CRANKCASE CASTING WITH NO TAPER ON EXHAUST/ NICKEL PLATED FLYWHEEL/ FRONT COVER SUPPORTS REDUCTION GEAR IN WHEEL 'DRUM BRAKE'/ ALUMINUM HEAD ROTATED 90 AND STAKED ON	125		1139
" "	'50	I	"33" ADJUSTOMATIC TIMER	0.329	SIMILAR TO .29 IGNITION/ STROKED/ 8 FIN CYLINDER/ RED ANODIZED HEAD/ '29' EMBLEM MILLED OFF/ NO TANK/ ADJUSTOMATIC TIMER	160	152 127	1140
" "	'50	G	"33" GLOW	0.329	AS '33' IGNITION/ BLACK CAP OVER TIMER SLOT LOCATION	130	153	1141

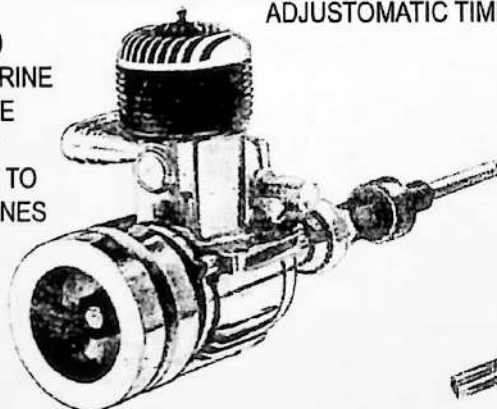
Perfect Timing Adjustment



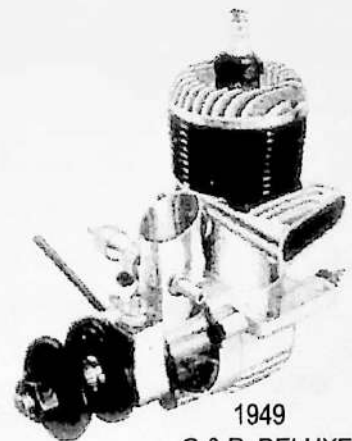
ADJUSTOMATIC TIMER—Fully and easily adjustable without removing propeller. The first timer to permit gap to be changed without disturbing the points.

ADJUSTOMATIC TIMER DETAILS

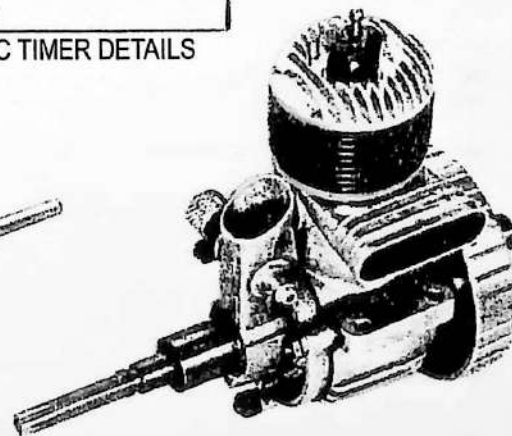
1950
O & R MARINE
ENGINE
'29'
SIMILAR TO
CAR ENGINES



1949
O & R DELUXE
'29'
WITH ADJUSTOMATIC TIMER

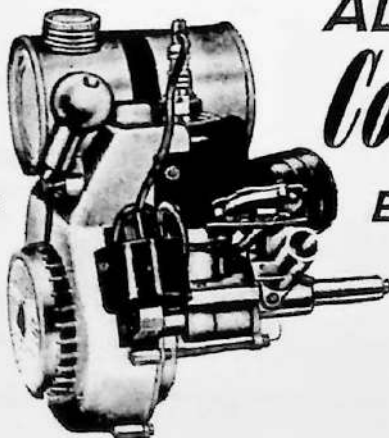


1949 - 1950
O & R CAR
ENGINE
'29'
WITH HEAD
ROTATED 90°



ALL NEW *Compact* ENGINE

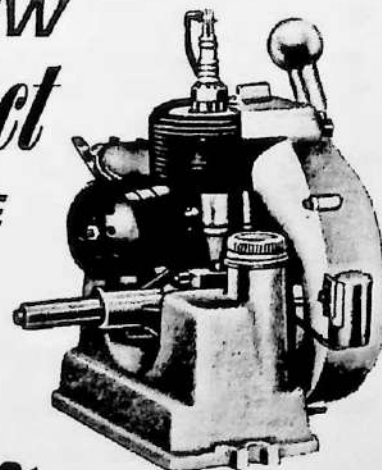
1960
Harry Rice
became sole
Owner and
developed
Industrial
Engines for
the Home
Owner.



MODEL A



Ohlsson & Rice

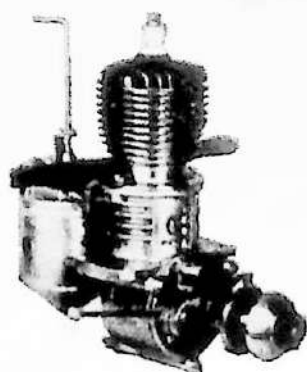


MODEL B

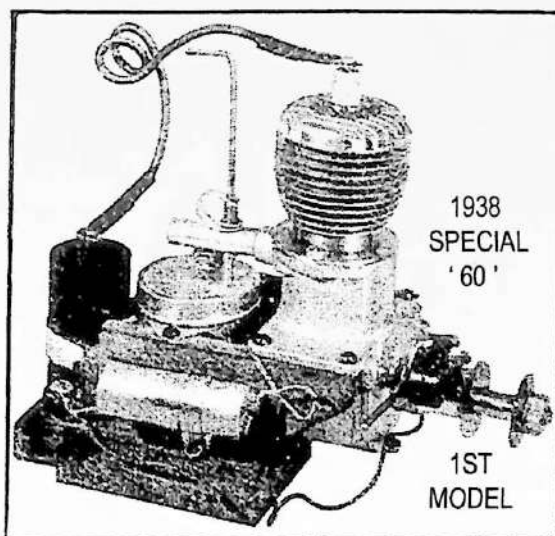
1960 - 61
These were
only two of
the Compacts.
They were used
in early Dubro
Helicopters and
Racing Hydros.

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
OHLSSON & RICE	'50	I	'60" SPECIAL ADJUSTOMATIC TIMER	0.604	10 COOLING FINS ON BOTTOM/ CASE MODIFIED TO ELIMINATE SIDEPORT BOSS/ STAKED ALUM- INUM HEAD/ ROLLED BEARING/ BALL DETENT FOR TIMER/ POLISHED CASTINGS/ STEEL PARTS BLACK/ NO TANK/ O&R INITIALS ON REAR OF CASE	180	178 153	1142
" "	'50	G	'60" GLOW SPECIAL	0.604	AS PREV. IGNITION '60"/ BLACK CAP OVER TIMER SLOT LOCATION	125	112	1143
" "	'50	G	'29" GLOW MARINE	0.299	BASED ON '29" RACE CAR CASTINGS/ POLISHED/ BLUE HEAD/ BLACK STEEL FLYWHEEL	125		1144
" "	'50	I	'29" ('51 MODEL) ADJ./TIMER	0.299	AS PREV. '49 - .29/ BLUE CYLINDER HEAD/ ADJ. TIMER/ CRANKCASE REINFORCED AS FAIRING TO BYPASS/ NICKEL PLATED BRASS TANK SEPARATE	150	203	1145
" "	'50	G	'29" GLOW ('51 MODEL)	0.299	AS PREV. IGNITION '29"/ BLACK CAP OVER TIMER LOCATION/ NICKEL PLATED BRASS TANK SEPARATE/ BLUE HEAD	85	56	1146
" "	'50	I	'33" ('51 MODEL) ADJ./TIMER	0.329	AS PREV.IGNITION '33"/ CYLINDER ASS'Y.SEATED ON 2 ALUMINUM WASHERS/ CRANKCASE REINFORCED AS FAIRING TO BYPASS/ NICKEL PLATED BRASS TANK SEPARATE/ ADJ. TIMER	160	100	1147
" "	'50	G	'33" GLOW ('51 MODEL)	0.329	AS PREV. IGNITION '33"/ BLACK CAP OVER TIMER LOCATION/ NICKEL PLATED BRASS TANK SEPARATE/ SEEN WITH LARGER BYPASS ON GLOW VERSIONS	130		1148
" "	'50	G	'29" GLOW COMP.RACE CAR ('51 MODEL)	0.299	AS PREV. '29" RACE CAR ENGINE/ DIRECT DRIVE/ SOLD WITH 4-SEMI-PNEUMATIC TIRES AND HUBS/ FLYWHEEL/ SOME WITH LARGER BYPASS	135		1149
O & R CHEMINOL CORP. (HARRY RICE ONLY FROM 1951)	1951	--	-----	----	OHLSSON SOLD HIS INTEREST TO RICE & IT WAS RE-ORGANIZED AS 'CHEMINOL CORP.' BY HARRY RICE WHO CONTINUED PRODUCTION OF O&R ENGINES			
"	'52	I	'60" SPECIAL ADJ./TIMER	0.604	AS PREV. '60"/ CYL. HEAD ANODIZED PURPLE/ ADJUSTOMATIC TIMER	275		1150
"	'52	G	'60" GLOW	0.604	AS PREV. IGNITION '60"/ BLACK CAP OVER TIMER LOCATION/ CYLINDER HEAD ANODIZED PURPLE	175		1151
"	'52	I	'19" DELUXE ADJ./TIMER	0.199	AS PREV. DELUXE IGNITION '19"/ CYLINDER HEAD ANODIZED GOLD/ ADJUSTOMATIC TIMER	135		1152
" NOTE:	---	--	-----	----	OTHER THAN GOLD AND PURPLE HEADS, RICE SAID SOME HEADS WERE ANODIZED GREEN			
"	'52	G	'19" DELUXE GLOW	0.199	AS PREV. IGNITION '19"/ BLACK CAP OVER TIMER LOCATION	120	107	1153
" NOTE:	---	--	MINOR VIATIONS	----	MANY VARIATIONS IN DRIVE WASHERS AND NEEDLE VALVES - SOME WERE PLATED			
"	1960 *	I	'COMPACT' INDUSTRIAL (WITH MAGNETO)	1.260	DIE CAST CASE - INDUSTRIAL - ENGINE/ PULL START/ MAGNETO IGNITION/ 5-1 COMPRESSION RATIO/ MODELS 'A' THROUGH 'L' SOME WITH AND WITHOUT CLUTCH	125	53	1154
"	1960 *	I	COMPACT II' A/B/C	1.26	AS PREV./ .85 HP MODEL 7-1 COMPRESSION RATIO/ DIFFERENT CYLINDER IMPROVED PORTING	125		1155
"	1961	I	'COMPACT III' BOATS & HELI'S	1.345	AS PREV./ 8:1 COMP. RATIO/ USED IN OCTURA 'WHITE HEAT X' R/C RACING MODEL HYDROS/ LATER IN MODEL HELICOPTERS/ DIFFERENT CYLINDER AND MORE IMPROVED PORTING	125	158	1156
"	1961	I	COMPACT I' WATER COOLED	1.5	WATER COOLED FOR BOATS BY OCTURA PRODUCTS	135		1157

ANNOUNCING "O.K."



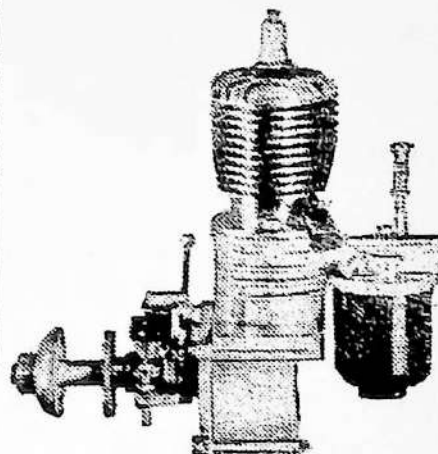
1938 DELUXE
AND STANDARD
'60'



1938
SPECIAL
'60'

1ST
MODEL

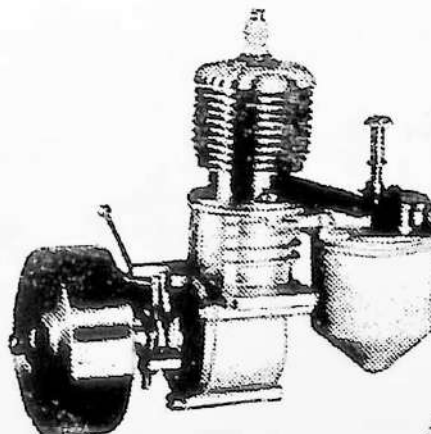
**AN EASY STARTER!
A CONSISTENT PERFORMER!**



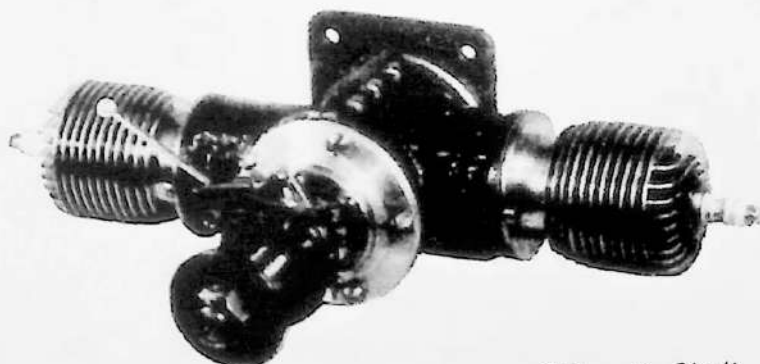
1940
STANDARD
'60'



1938
SPECIAL
'60'

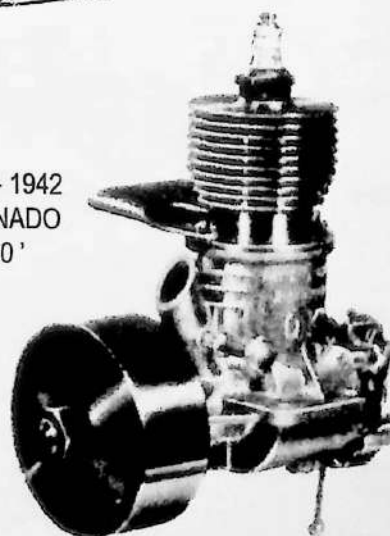


1940
RACEWAY
MARINES
'60'



1939 TWIN - 500
'1.208'

1941 - 1942
TORNADO
'60'



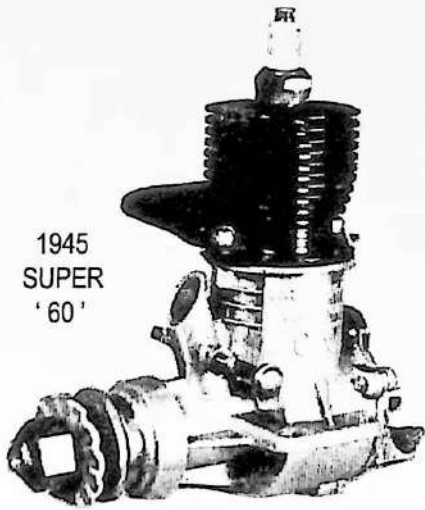
A Snap to Start!



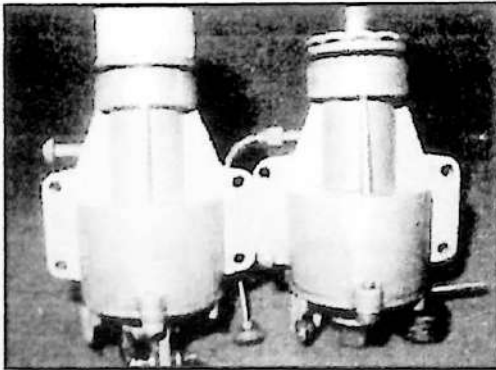
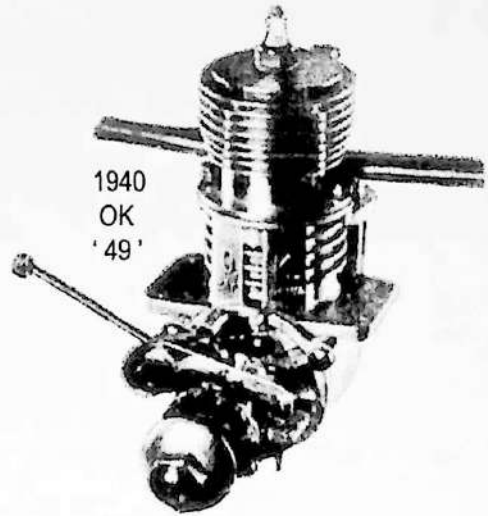
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
O K ENGINES (CHARLES BREBECK)	---	-----	----	MFD.BY HERKIMER TOOL & MODEL WORKS			
				TED BREBECK (GRANDSON OF ORIGINAL BREBECK) CLAIMS SOME OK ENGINES HAVE BEEN CHANGED BY COLLECTORS. - COMPANY RECORDS ARE ALSO SUSPECT DUE TO SHORTAGES, ETC.CAUSING A NUMBER OF MINOR VARIATIONS (MAINLY 1/2A's) PRODUCED			
*	'38	I OK SPECIAL 60 (SIDEPORT)	0.616	SAND CAST CASE & FRONT COVER/ REAR INTAKE/ CRUDELY WELDED 3 PIECE CRANKSHAFT/ MILLED BRASS TIMER AND STEEL ARM/ BLIND BORED CYLINDER/ HEAD FINS	225		1158
*	'38	I OK DELUXE 60	0.616	DIE CAST CASE/ EXHAUST STACK/ HEAD FINS/ METAL TANK	225		1159
*	'38	I OK STANDARD 60 (SIDEPORT)	0.616	DIE CAST CAST/ 'PATENT PENDING' ON CASE/ FINNED HEAD/ 'CAN' TANK WITH GITS CAP FILLER/ DIE CAST TIMER FRAME WITH STEEL ARM/ NO EXHAUST STACK/ MACHINED CRANKSHAFT	225	229	1160
*	'38	I OK DELUXE 60 (SIDEPORT)	0.604	AS PREV. STANDARD '60'/ EXHAUST STACK/ GREY CADMIUM PLATED STEEL PARTS/ STEEL 'CAN' TANK/ INTAKE CHOKE/ CRANK MACHINED AND BALANCED/ LAPPED PISTON/ SHORTER STROKE	225		1161
*	'38	I OK SPECIAL 60	0.604	AS PREV. STANDARD .60/ NO HEAD FINS/ NO EXHAUST STACK	225		1162
*	'39	I OK TWIN T-500	1.208	SAND CAST BLACK CASE/ FINNED HEADS/ TURNED ALUMINUM FRONT & REAR COVER/ CENTER SPLIT CASE/ METAL 'CAN' TANK/ NO PATENT #'s/ NO EXHAUST STACKS	650		1163
	'40	I OK STANDARD 60 (2ND MODEL)	0.604	AS PREV. '38 - STANDARD '60'/ CRANKCASE NOW SHOWS PAT.#'s/ RED BAKELITE TANK WITH SLIDE OVER TANK FILLER/ SMALL CARB. - NO CHOKE	225		1164
*	'40	I OK SPECIAL 60 (2ND MODEL)	0.604	AS PREVIOUS 1938 - SPECIAL '60'/ DOMED FLAT HEAD/ NEW VENTURI	200		1165
*	'40	I OK DELUXE 60	0.616	AS PREVIOUS STANDARD '60'/ BORED OUT	200		1166
*	'40	I OK RACEWAY MARINE	0.616	AS PREV. DELUXE '60'/ OLDER METAL TANK/ FLYWHEEL AND SPECIAL THRUST WASHER	225		1167
*	'40	I OK TWIN (2ND MODEL)	1.120	DIE CAST CASE/ PAT. #'s ON CASE/ DIE CAST CASE COVERS - TIMER - CARBURETOR/ ACCESSORY EXHAUST STACKS	500	549 514	1168
*	'40	I OK 49 (SIDEPORT)	0.493	SOLD HERE & HEAVILY IN FOREIGN MARKETS/ SAME AS PREVIOUS STANDARD '60' SIZE/ ALUMINUM CON. ROD/ DOMED FLAT HEAD ON CYLINDER /'49' ON LUG/ EXHAUST STACK	250	293	1169
*	'41/'42	I OK TORNADO 60 (FRONT ROTARY) SPECIAL FOR RACE CARS AND BOATS & AIRCRAFT VERSION	0.604	NEW CASE/ FIRST FRONT ROTARY/ BALL BEARING SUPPORTED SHAFT/ DOMED HEAD/ 3 DIE MARKS ON LEFT SIDE/ SEPARATE BRASS TANK/ FORGED STEEL CONNECTING ROD/ FLYWHEEL ON MARINE & CAR ENGINE/ PROP DRIVE ON AIRCRAFT ENGINE CONTINUED/ 3 CRANKCASE FINS ON BYPASS SIDE & NO NAME I.D./ 4 - SMALL HOLES DRILLED IN CRANKCASE JUST BELOW EXHAUST MANIFOLD	350		1170
*	'44	I OK SUPER 60	0.604	IDENTICAL TO TORNADO '60'/ IMPRINTED 'SUPER 60' ON CASE/ TIMER BRACKET ARM ALUMINUM/ ACCESSORY TANK RED OR WHITE	140	164 125	1171
*	'45	I OK SUPER 60	0.604	AS PREV. SUPER .60/ CRANKCASE WEBS TO FRONT BEARING HOUSING	140 150	179 148	1172



1945
SUPER
'60'



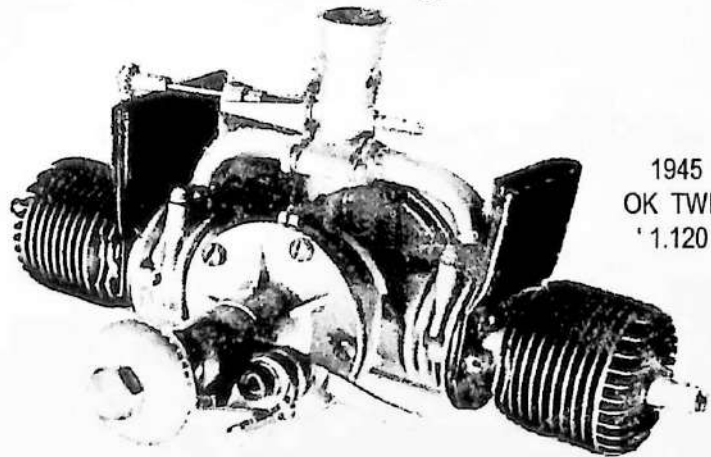
1940
OK
'49'



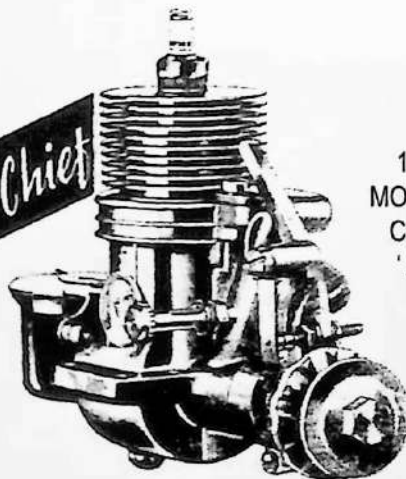
1944 OK '60'

1945 OK '60'

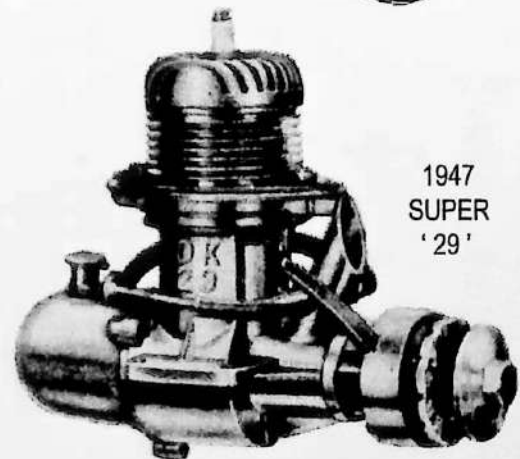
1945
OK TWIN
'1.120'



1947
MOHAWK
CHIEF
'29'

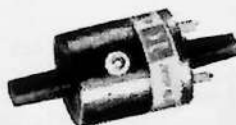


1947
SUPER
'29'

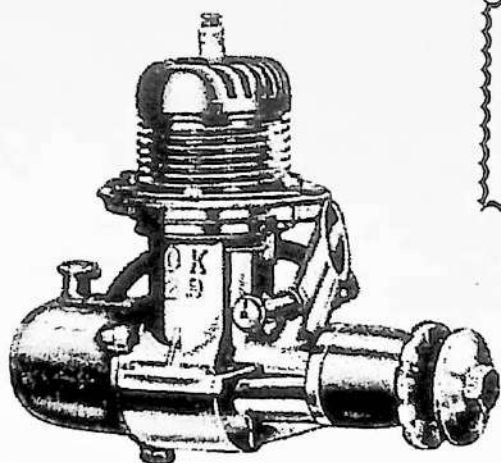


1949 -
OK (HERKIMER)

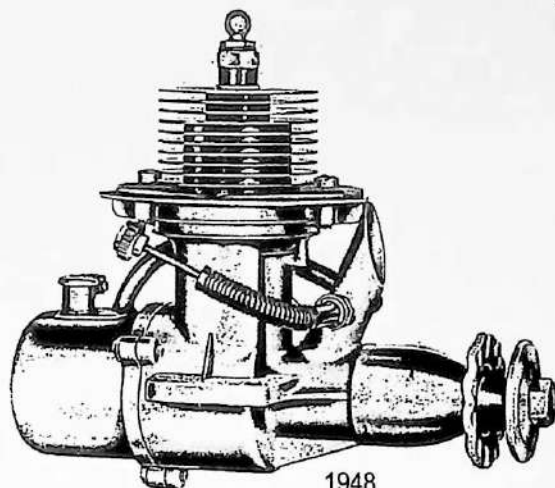
was the only Company that produced their own Coils for their Ignition Engines due to their need for a Twin Coil and they also produced their own Glow Plugs.



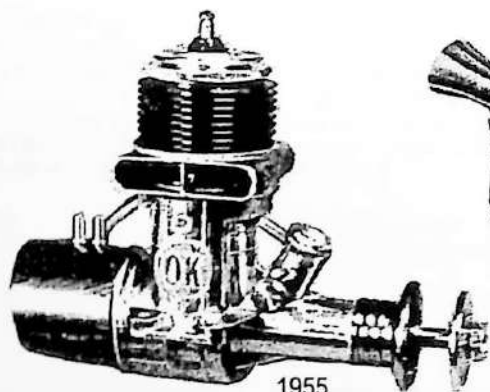
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
O K ENGINES	'45	I	OK TWIN	1.120	AS PREV. PREWAR TWIN/ ALUMINUM TIMER FRAME/ SMALLER INTAKE/ ALUM. CON RODS	500 550-N	514-N	1173
"	'45	I	OK TWIN MARINE	1.120	AS PREV. OK TWIN/ FLYWHEEL ATTACHED/ NO RADIAL MOUNTING ON REAR	400	440	1174
"	'46	I	OK SUPER 60 MARINE	0.604	AS SUPER '60'/ NO FLAT ON CRANKSHAFT/ FITTED KEYWAY/ CHROME PLATED V-BELT FLYWHEEL	225		1175
"	'46 *	I	OK B-29	0.299	AS MINI SUPER '60'/ FLAT RED HEAD/ BAKELITE TANK/ ALSO SOLD WITH 2 SPEED TIMER AND VARIOUS EXHAUSTS	125	280-VG 511-NIB	1176
"	'47	I/G	OK SUPER 29	0.299	AS PREV. '29'/ GOLD ANODIZED HEAD AND ACCESSORY TANK/ BLACK OXIDE CYLINDER/ FORGED ALUMINUM CON ROD/ LATER GLO MODEL SILVER HEAD AND SILVER COVER OVER IGNITION AREA	120	148 125	1177 1177.5
" (MOHAWK ENGINEERING)	'47	I	MOHAWK CHIEF "29"	0.299	SAME AS B-29 EXCEPT 'ROCKET' TYPE TIMER WITH 'MOHAWK CHIEF' AND AN INDIAN HEAD ON CASE/ SOLD FROM 'FAKE' COMPANY - 'MOHAWK ENGINEERING' - NO GUARANTEES	100	61	1178
"	NOTE:	---	---	---	ALL OK 29's AND MOHAWK CHIEF PARTS ARE INTERCHANGEABLE			
"	BANTAM	'47	G OK BANTAM 19	0.199	O.K. PURCHASED DIES & INVENTORY FROM MINIATURE MOTORS/ AS PREVIOUS BANTAM/ METAL TANK/ OK STYLE BRASS NEEDLE VALVE/ CAST LIGHTWEIGHT CON.ROD/ FRONT AND REAR PROP DRIVES BY O.K.	90	93	1179
"	'48 *	G	OK HOTHEAD '29'	0.299	SAME AS PREV. SUPER '29'/ GOLD TANK & NEW NOSE COVER/ BLIND BORED BLACK OR PLAIN CYL	75	75	1180
"	'48	I	OK BANTAM 19	0.199	ALL DIES & INVENTORY PURCHASED BY OK/ IGNITION VERSION SAME AS MINIATURE MOTORS/ BOX FOR ENGINE IDENTIFIES OK	75		1181
"	'48	G	OK BANTAM 19	0.199	AS PREVIOUS/ GLOW VERSION SAME AS MINI- ATURE MOTORS/ BOX FOR ENGINE IDENTIFIED OK	65		1182
"	'49	G	OK CUB .099	0.099	LARGE CASE/ BEAM MOUNT ONLY/ EARLY MODELS HAD SERIAL #'s	35	77-NIB 37 40	1183
"	'49	I	OK SUPER 60 GOLD HEAD	0.604	BLACK CYLINDER/ GOLD ANODIZED FINNED HEAD/ ORIGINALLY DISPLAY MODELS FOR DEALERS ONLY/ BLACK CYLINDER/ SHINY CASE	175	195 184	1184
"	'49	G	OK SUPER 60	0.604	AS PREV. 1944 - .60/ NEW BACKPLATE DESIGN/ NO TIMER ASSEMBLY AND NO SHAFT PROVISION FOR IGNITION/ FINNED HEAD	100	149 91	1185
"	'49	G	OK SUPER 60	0.604	AS PREVIOUS GLOW .60/ FINLESS HEAD	100	110	1186
"	'50	I	OK TWIN	1.120	SAME AS PREV. O.K. TWIN/ FLAT HEADS/ INNER CYLINDER DOMED	550		1187
"	'50	I	OK TWIN GOLD HEADS	1.120	AS PREV./ BLACK CYLINDER/ STAKED ON GOLD ANODIZED FINNED HEADS/ ORIGINALLY DISPLAY MODELS FOR DEALERS ONLY	650		1188
"	'50	I	MOHAWK CHIEF	0.299	AS PREV. MOHAWK CHIEF/ BLUE TANK AND TIMER CAM COVER/ BLACK CYLINDER	95	108 103	1189
"	'50	G	MOHAWK CHIEF	0.299	AS PREV. 29/ NO TIMER/ BLUE NOSE COVER/ LATER MODELS HAD GOLD TANK & NOSE	95	100 61	1190



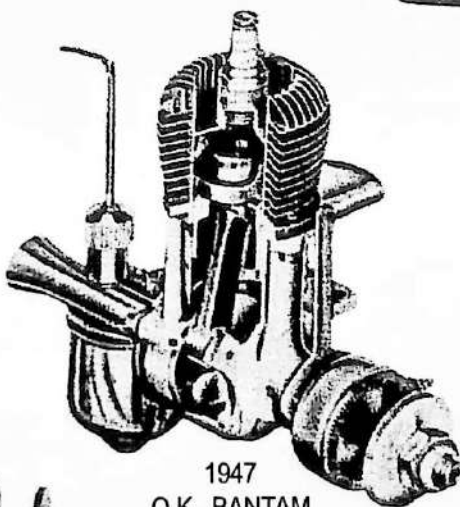
1947
SUPER GLOW
'29'



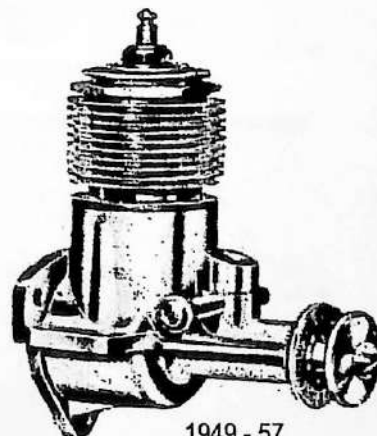
1948
HOTHEAD
'29'



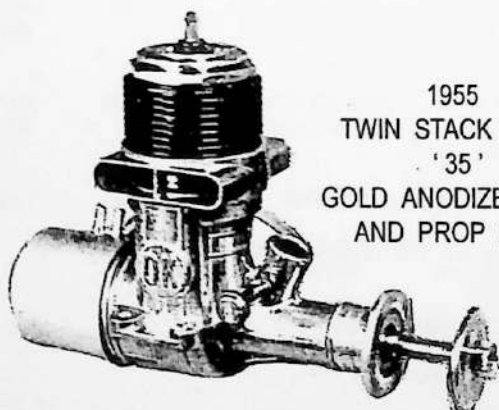
1955
TWIN STACK CUB
'29'
RED TANK AND PROP DRIVE



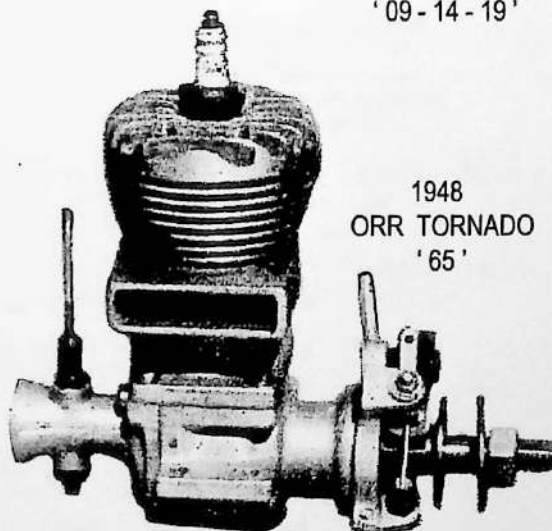
1947
O.K. BANTAM
'19'



1949 - 57
CUB
'09 - 14 - 19'



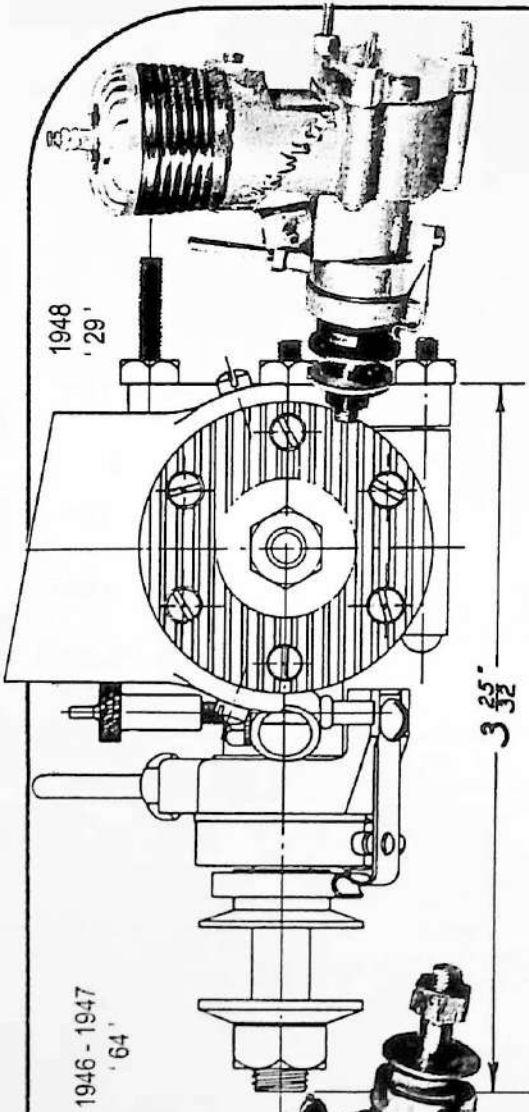
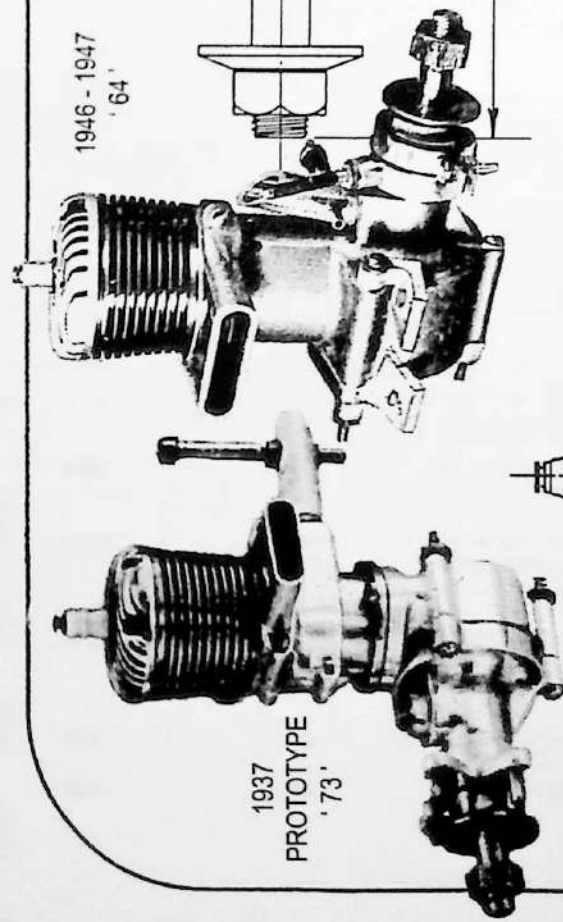
1955
TWIN STACK CUB
'35'
GOLD ANODIZED TANK
AND PROP DRIVE



1948
ORR TORNADO
'65'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
O K ENGINES	'52 *	G	OK CUB .14	0.149	ENLARGED .099 CUB/ BEAM OR RADIAL MTG./ RED TANKS SUPPLIED ON LATER MODELS/ FIRST U.S. ENGINE DEVELOPED FOR NEW F.A.I. CLASSIFICATION	40	68 61	1191
"	'54 *	G	OK CUB .19	0.199	AS CUB 14/ RADIAL OR BEAM MOUNTS/ USES BORED-OUT CUB '14' CASE/ STAMPED '19'/ WITH .149 MACHINED OFF BOTTOM OF CASE/ SAME RED TANK USED AS ON .14/ FEW SOLD WITH TANK	30	53 42	1192
"	'54	D	OK CUB .15 DIESEL	0.149	DIESEL VERSION OF OK CUB '14'/ VARIABLE COMPRESSION	65		1193
"	'55	G	OK CUB .29 (TWIN STACK)	0.299	HOT HEAD VERSION/ MAJOR DESIGN CHANGE/ FLOATING PISTON WITHOUT PIN/ RED TANK AND PROP DRIVE/ BLACK OXIDE CYLINDER/ SEPARATE HEAD AND GLOW PLUG (8 CYLINDER FINS)	100	155-NIB 130-NIB	1194
"	'55	G	OK CUB .15	0.149	AS PREV. CUB 14/ EXPERIMENTAL PUSHER PROP SHAFT AT REAR	PROTO		1195
"	'55	G	OK CUB .35 (TWIN STACK)	0.349	LARGEST OK 'CUB' ENGINE/ AS PREV. '29' CUB/ BORED OUT/ GOLD ANOD.TANK & PROP DRIVE/ LATER MODELS HAD PLAIN TANK (9 CYL. FINS)	75	53	1196
"	'57	G	OK CUB .09-S	0.099	AS PREVIOUS WITH RECOIL STARTER	20	21	1197
"	'58	G	OK CUB .09-MS	0.099	AS PREVIOUS MARINE/ FLYWHEEL RECOIL STARTER	20		1198
"	'58	G	CUB .099	0.099	CUB 099 1953/ HAS SQ. CRANKCASE REAR WITH ROUND 'SCREW-IN' BACKPLATE & RED ANOD. TANK	45	53	1199
ORR ENGINES INC. (WILFRED 'FRED' ORR)	'38	I	ORR '65' PROTOTYPE	0.647	SAND CAST/HORIZONTAL NEEDLE VALVE/3/8" PLUG/ REAR ROTARY INTAKE/ 6-PROTOTYPES	PROTO		1200
"	'48	I	TORNADO '65'	0.647	AS PREV./ CASE BEEFED UP/ VERTICAL NEEDLE VALVE/ 3/8" & 1/4" PLUGS/ APPROXIMATELY 200 MANUFACTURED/ SERIAL #'s START @ 1000 ON SIDE OF MOUNTING LUG	500	596 425-NIB	1201
"	'60	I	TORNADO '65' FROM PARTS (PER E. TOWNE)	0.647	GLEN WARWASHANA PURCHASED REMAINING PARTS/ HAD APPROX. 70 NEW ENGINES MFD./ ART DEKALB FINALLY PRODUCED 150 CASTING KITS/ #'s ON FRONT OF CASE			1202
ORWICK ENGINES (HENRY ORWICK)	---	--	-----	----	ORWICK MANUFACTURING WAS TERMINATED LATE '46 WITH CUNNINGHAM TAKING OVER PRODUCTION 'TIL EARLY 1948 WHEN CUNNINGHAM DIDN'T PAY SUPPLIERS. ONE SUPPLIER OBTAINED A JUDGEMENT. FROM THIS THIS POINT ON ORWICK RESUMED PRODUCTION & HAD NO FURTHER ASSOCIATION WITH CUNNINGHAM.			
"	'37	I	"73" PROTOTYPE	0.731	EARLY OHLSSON 'MINIATURE' TYPE/ SAND CAST CASE/ HEAD AND LINER INTEGRAL/ NO PAINT/ 3 BOLT CASE/ RADIAL MOUNTING/ SIDEPORT	PROTO	1225	1203
"	'37	I	"73" PROTOTYPE	0.731	AS PREV./ BOLT ON HEAD/ PLUGGED FRONT ROTARY/ POLISHED/ PROTOTYPE	PROTO	1225	1204
"	'40	I	"73" PROTOTYPE	0.731	FIRST ORIGINAL ORWICK DESIGN NEW SIDEPORT PROTOTYPE/ AS LATER ORWICKS/ FLARED REAR INTAKE/ NO MOUNTING BRACKETS/ ONLY 1 BUILT	PROTO		1205
"	'41	i	"73"	0.731	SAND CAST/ FRONT ROTARY/ FLAT BOLT-ON EXHAUST/ HEAD AND LINER INTEGRAL/ 3 BOLT CASE / NO PAINT/ FACTORY POLISHED	550	620	1206
"	'42	I	"73"	0.731	AS PREV./ REMOVABLE HEAD/ MOST UNPAINTED	400		1207
"	'45	I	"73"	0.731	AS PREV./ DULL GREEN WRINKLE PAINT	400		1208

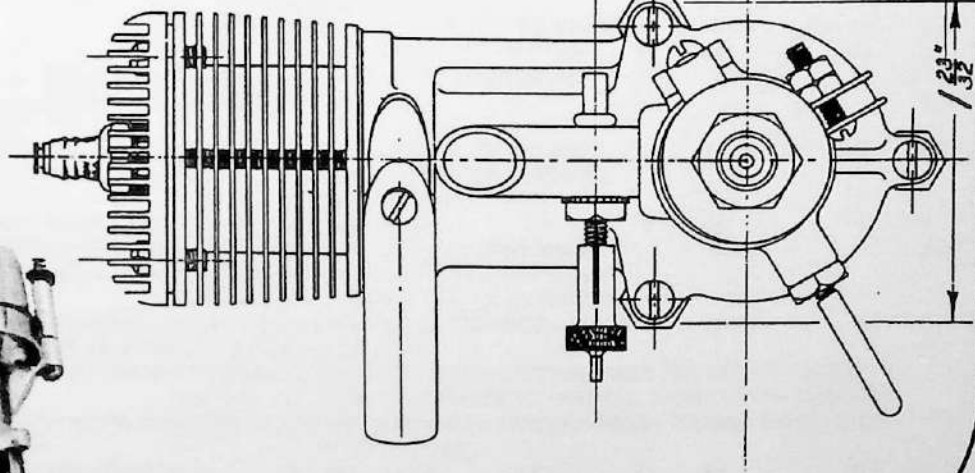
1937
PROTOTYPE
'73.



3 $\frac{25}{32}$ "

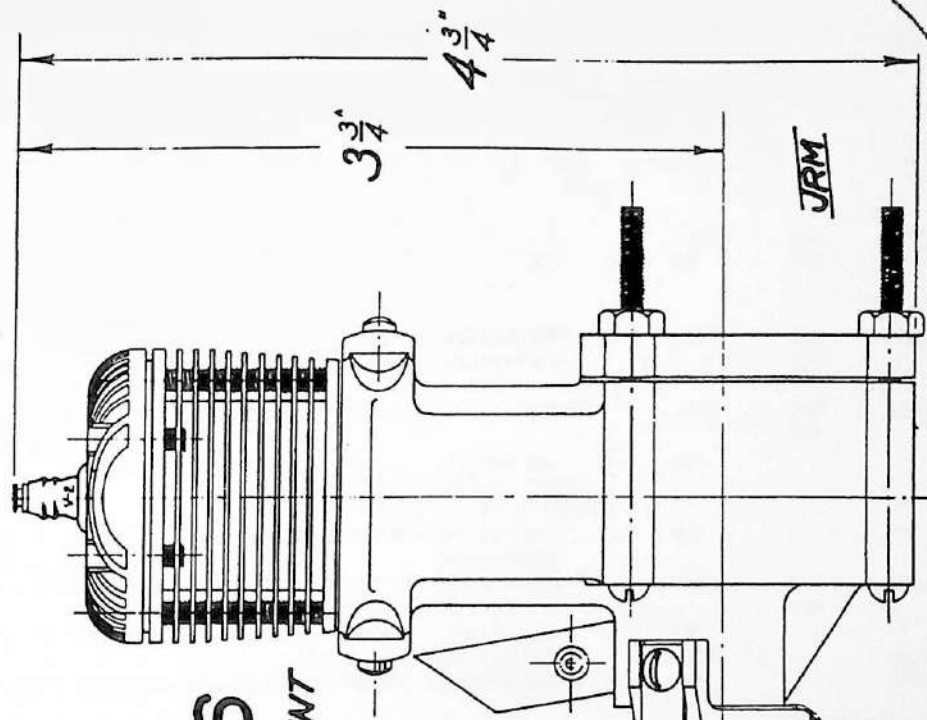
ORWICK ENGINES

.64 CU. IN. DISPLACEMENT



1 $\frac{13}{15}$ "

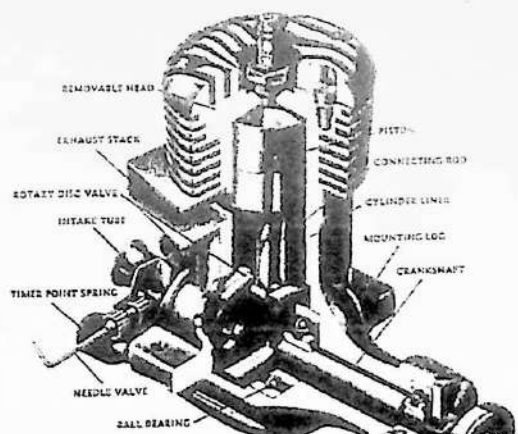
5" $\frac{1}{16}$ DIA.



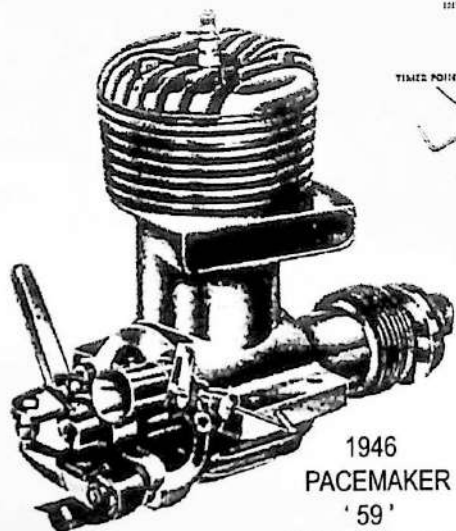
4 $\frac{3}{4}$ "

JRM

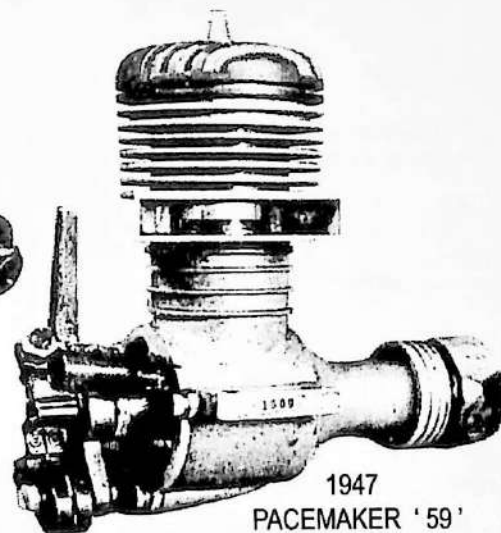
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. 4	MECA	EBAY	B #
ORWICK ENGINES	'45	I	'64' PROTOTYPE	0.647	USED 73' CASE FOR PROTOTYPE/ ROUGH TEXTURED CASE - FACTORY SANDED (?) BOLT HOLES FOR EXHAUST EXTENSION/ NO PAINT/ 11 CYL. FINS/ SEEN AT TOLEDO 1999	RARE	1010	1209
"	"	'46	I	'64'	0.647	AS PREV./ SMALLER '64 CASE/ SMOOTH GREEN PAINT/ THINNER HEAD	265 195 557	1210
"	"	'46	I	'64'	0.647	AS PREV./ WRAP-AROUND EXHAUST STACK SCREWED ON/ GREEN WRINKLE PAINT/ FLAT TIMER BOSS/ THINNER HEAD	325 342 328	1211
" CUNNINGHAM PRODUCTION	'46	I	'64'	0.647	AS PREV./ ROUND TIMER ARM BOSS/ GREEN WRINKLE PAINT	265	482 350	1212
"	"	'47	I	'64'	0.647	AS PREV./ THICK HEAD/ GREEN HAMMERTONE PAINT	325 350 551	1213
"	NOTE:	---	---	---	IN LATE 1947 A SUPPLIER OBTAINED A JUDGEMENT AGAINST CUNNINGHAM & HENRY ORWICK RESUMED PRODUCTION IN 1948			
"	"	'48	I	'29'	0.291	SMALLER VERSION '64'/ MID-GREEN FINISH/ WITH '64' SIZE TIMER AND LONG INTAKE	275 516 585	1214
"	"	'48	I	'32'	0.317	AS .29/ LONGER STROKE/ SEE GROOVE INSIDE CRANKCASE FOR LONGER CONNECTING ROD	275	1215
"	"	'48	I	'23'	0.237	NEW/ SMALLER CASE - CYLINDER - HEAD - SHAFT THAN .29/ VARIOUS COLORS OR NO PAINT/ MANY SILVER-GREEN HAMMERTONE	275 175	1216
"	"	'48	I	BLUESTREAK 65	0.647	SIMILAR TO PREVIOUS .64 WITH NEW CASE BEAM MOUNTS & INTEGRAL INTAKE/ BLUE HAMMERTONE PAINT/ 2 SPEED OFFERED	300	1217
"	"	'48	I	'64'	0.647	AS PREV.64/ 9 CYLINDER FINS/ THICK HEAD/ GREEN FINISH - HAMMERTONE AND WRINKLE PAINT	300	1218
"	NOTE:	---	---	BE CAREFUL	EXCELLENT ORWICKS REPRO'D BY DUNHAM IN ENGLAND		
" P & S CO. (PIERSON & STEFFAN) SALES ONLY	'48	G	GLOW STREAK '65'	0.647	AS BLUE STREAK CASE/ NO TIMER PROVISION/ MACHINED FINLESS HEAD	175		1219
"	"	'50	G	'29' GLOW	0.291	AS PREV. 29/ INTEGRAL EXHAUST STACK & INTAKE/ DULL DARK GREEN ANODIZED/ NO MACHINING FOR TIMER/ ORWICK PROVIDED IGNITION ON SPECIAL ORDER - HAD 'S' SER.# FOR IGNITION MODELS	250 434 300	1220
"	"	'50	I	'29' IGNITION	0.291	AS PREV. 29 GLOW/ ORWICK PROVIDED IGNITION ON SPECIAL ORDER - HAD 'S' SERIAL # FOR IGNITION MODELS (I.E. S-106 ON ENGINE IN ENTICKNAP COLLECTION)	350 405-LN	1221
"	"	'51	G	'29' GLOW	0.291	AS PREV. 29/ NEW ALUMINUM PROP DRIVE/ LIGHT GREEN IRIDESCENT ANODIZED/ ORWICK PROVIDED IGNITION ON SPECIAL ORDER	200	1222
"	"	'51	G	'32' GLOW	0.317	AS PREV. 29/ LONGER STROKE/ SEE GROOVE INSIDE CASE FOR ROD/ LIGHT BLUE OR GREEN ANODIZED/ LAST ENGINE PRODUCED BY HENRY ORWICK - IGNITION SPECIAL ORDER	200	1223
"	NOTE:	---	---	ORWICK 'PAINT' 'COLORS' CRACKLE ? OR WRINKLE	---	ORWICK COLORS CANNOT BE DEFINITIVE BECAUSE OLD REFERENCES USE 'CRACKLE', OR SOME OTHER VERSION. 'WRINKLE' IS ONE OF THE CURRENT PAINT FINISHES WHICH MATCHES ORWICK'S FINISH. TO HELP THOSE WHO NEED TO REPAINT OR REFRESH.		



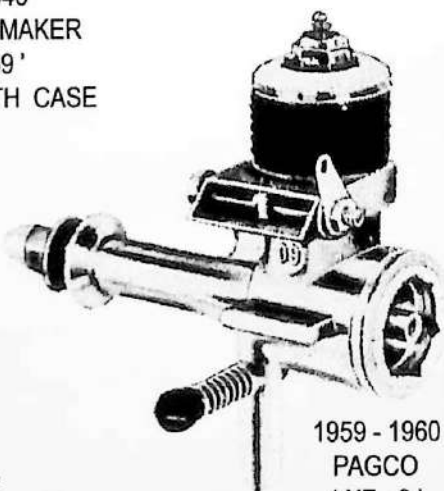
PACEMAKER
CUT - AWAY



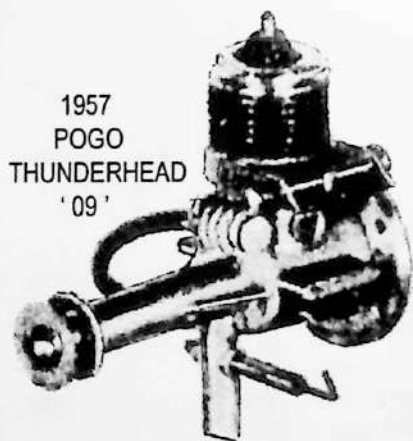
1946
PACEMAKER
'59'
SMOOTH CASE



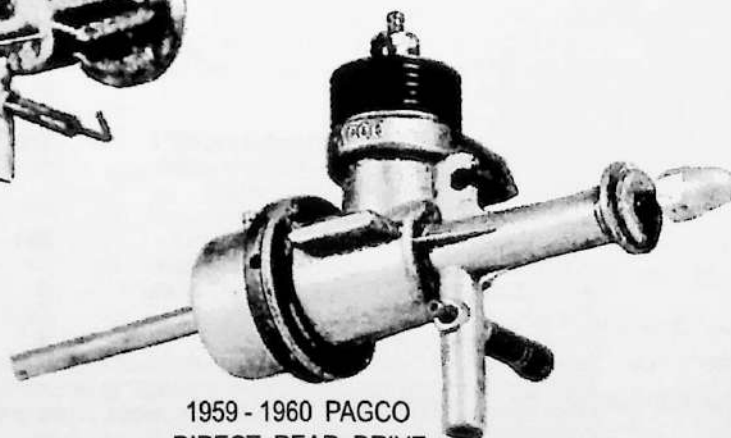
1947
PACEMAKER '59'
RIBBED CASE



1959 - 1960
PAGCO
'XF - 9'



1957
POGO
THUNDERHEAD
'09'



1959 - 1960 PAGCO
DIRECT REAR DRIVE
'09'

PAGCO SETS THE PACE!

**PAGCO
XF-9
ENGINE**
.09 Displacement
with
**THROTTLE
CONTROL!**

Model 2508

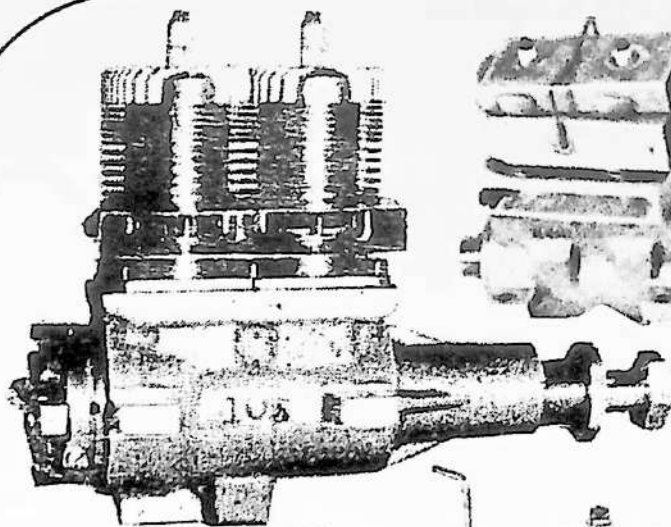
A top quality performer at a moderate price! Has exhaust stack, and valve for throttle control...ideal for RC or third control line. Easily adapted to all model planes, race cars, or boats. Looks and performs like engines selling for twice the price!

\$5.95
Retail

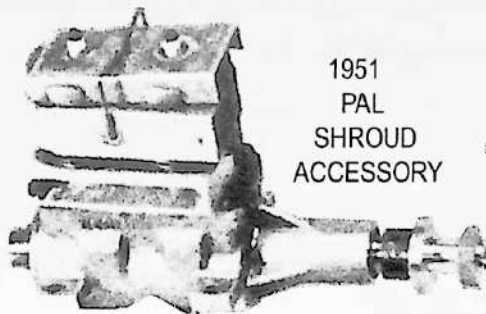
PAGLIUSO ENGINEERING COMPANY
113 West Harvard St., Glendale 4, California

PAGCO ADVERTISING

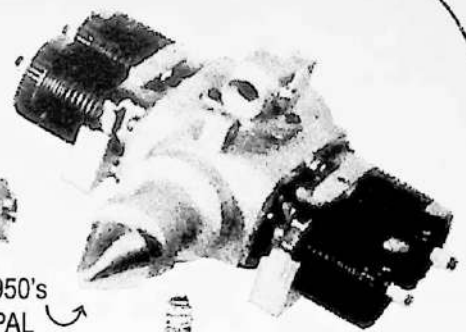
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
ORWICK ENGINES * NOTE:	'55 *	ORWICK/ JOHNSON		BOTH GLOW & A FEW IGNITION ENGINES PRODUCED UNTIL 1955 WHEN ORWICK WAS SOLD TO HI JOHNSON BY ORWICK'S WIDOW AND CHANGED NAME TO JOHNSON - THEN A LIMITED NUMBER OF ORWICK/JOHNSONS APPEARED, ALONG WITH SUCH ENGINES AS THE CUSTOM MUIR ETC. UNTIL JOHNSON SET THE PACE			
PACEMAKER ENGINES INC. (BILL SEIDLER)	---	---	---	FIRST MFD. BY CAPITAL MFG. CO. CLOSE-OUT SALE IN '48 BY GOTHAM HOBBY CO.			
*	'46	I	PACEMAKER	0.594 SAND CAST MAGNESIUM/ SMOOTH EXTERIOR CASE/ REAR TIMER AND CARB./ BALL BEARING CRANK/ NAME DIAGONALLY ON BYPASS	300		1224
*	'47	I	PACEMAKER	0.594 SIMILAR TO PREV. DIE CAST LIGHT GRAY MAGNESIUM ALLOY WITH RIBS ON CASE & FRONT FRONT BEARING/ HOUSING NAME VERTICALLY ON CASE/ SHORT HEAD FINS	325		1225
*	'47	I	PACEMAKER	0.594 ALL AS PREV./ LARGER DIAMETER CYLINDER FINS & HIGHER HEAD FINS/ SERIAL # PRECEDED BY #2 APPARENTLY ORIGINAL PACEMAKER DIDN'T HAVE SUFFICIENT COOLING AND DIES WERE REWORKED	325		1226
*	'47	D	PACEMAKER DIESEL	0.594 AS PREVIOUS IN DIESEL KIT FORM/ NONE SEEN	PROTO		1227
*	'48	I/D &G	PACEMAKER KIT	0.594 ALL PREVIOUS/ GLOW, IGNITION AND DIESEL ENGINE SELL-OFF BY GOTHAM HOBBY CO. & MENTIONED IN ADS WERE ENGINE KITS	I-175 G-150		1228 1228.5
PAGCO (MEL ANDERSON DESIGNER) POGO	---	---	---	ALL MFD. BY PAGLIUSO ENGINEERING FROM 'ANDERSON' HORNET .09 DESIGN (POGO AND PAGCO) POGO WAS FOR ATHEARN AND SOLD BY PIONEER MODEL CRAFT IN REGULAR AIRCRAFT VERSION (APPROXIMATELY 1100 POGO'S BUILT)			
*	'57	G	POGO .09 R/C	0.091 FROM MOD. SPITFIRE 'HORNET' DIES/ FOR PLASTIC READY FLY/ 'POGO' NAME/ THROTTLE IN EXHAUST/ NO MOUNTING LUGS	35		1229
*	'57	G	POGO .09 R/C (THUNDERHEAD)	0.091 AS PREV./ BEAM MOUNTS/ REGULAR PLUG/ EXHAUST THROTTLE/ SOLD BY PIONEER	35	50	1230
*	'57 *	G	POGO .09 (THUNDERHEAD)	0.091 AS PREV./ NO EXHAUST THROTTLE/ SOLD BY PIONEER	35		1231
*	'57 *	G	PAGCO CAR	0.091 DIRECT DRIVE & FLYWHEEL ON SHAFT/ ONE MOUNTING LUG GROUND OFF/ MOUNTING WITH PLATE CLAMPED TO BACKPLATE/ 'PAGCO' NAME	35		1232
*	'57 *	G	'XF-D9'	0.091 AS ATHEARN 'POGO'/ 'PAGCO' NAME/ THREADED CRANKSHAFT	35		1233
*	'57 *	G	PAGCO XF 9 R/C	0.091 MOD. FROM POGO/ PAGCO NAME ON EXHAUST THROTTLE/ BEAM MOUNTS/ ALUMINUM FLAT HEAD	35	57	1234
*	'59 *	G	PAGCO XF 9 R/C	0.091 REDESIGNED POGO/ ANDERSON SPITFIRE 'HORNET' HEAD/ PAGCO NAME	35		1235
*	'59 *	G	PAGCO XF 9 R/C	0.091 DOMED & BLUE STEEL PLUG IN TOP OF CYLINDER	35		1236
*	'60 *	G	PAGCO	0.091 AS PREV./ BLUE OR NATURAL ALUM. HEAD INSERT	35		1237
*	'60 *	G	PAGCO	0.091 AS PREV./ SHORTENED INTAKE/ COMBO STEEL CYLINDER AND HEAD	35		1238
*	'61 *	G	PAGCO XF 9 R/C	0.091 DOMED ALUMINUM PLUG IN CYLINDER HEAD	35		1239
* NOTE:	'62 *	G	PAGCO XF 9 R/C	0.091 NUMBER OF MODS/ BEAM & RADIAL MOUNTING			



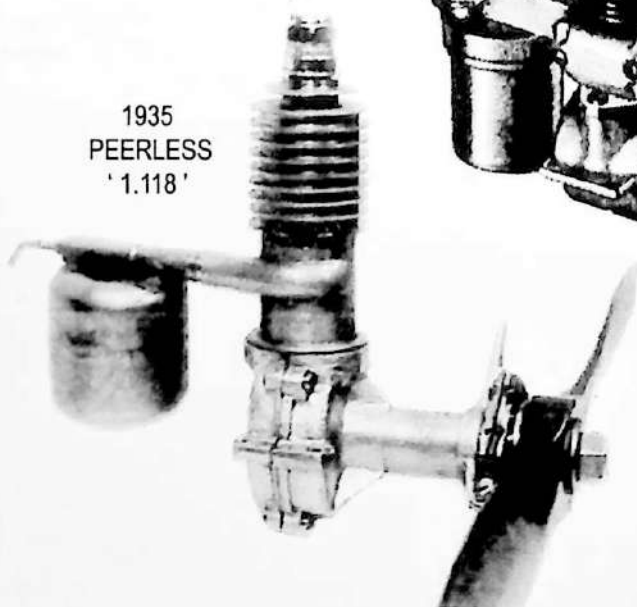
1948 PAL '55'



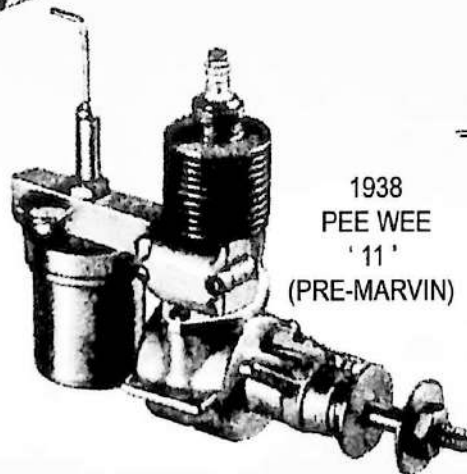
1951
PAL
SHROUD
ACCESSORY



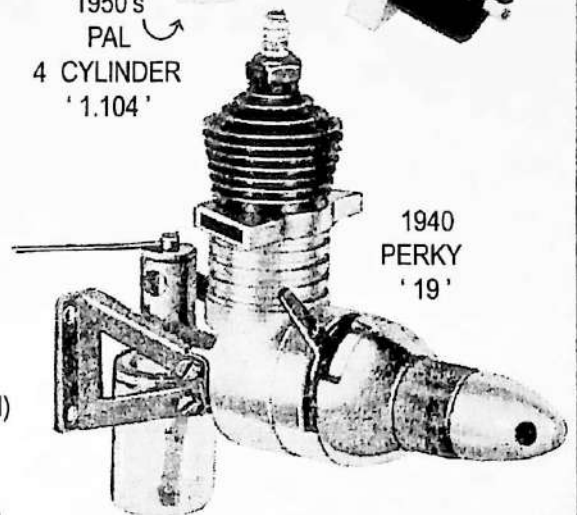
1950's
PAL
4 CYLINDER
'1.104'



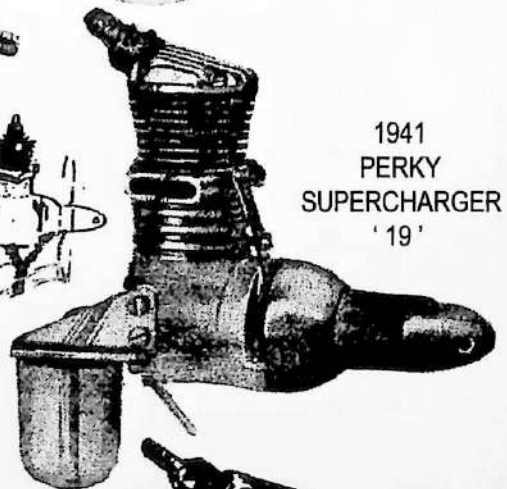
1935
PEERLESS
'1.118'



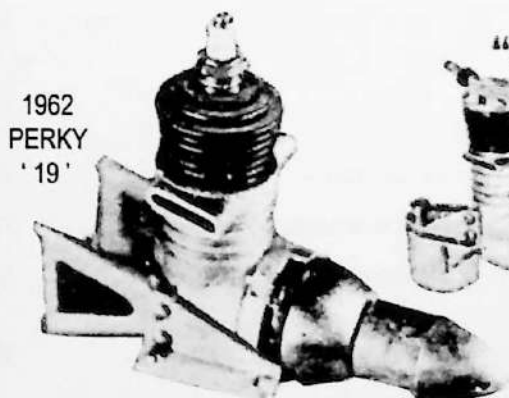
1938
PEE WEE
'11'
(PRE-MARVIN)



1940
PERKY
'19'



1941
PERKY
SUPERCHARGER
'19'

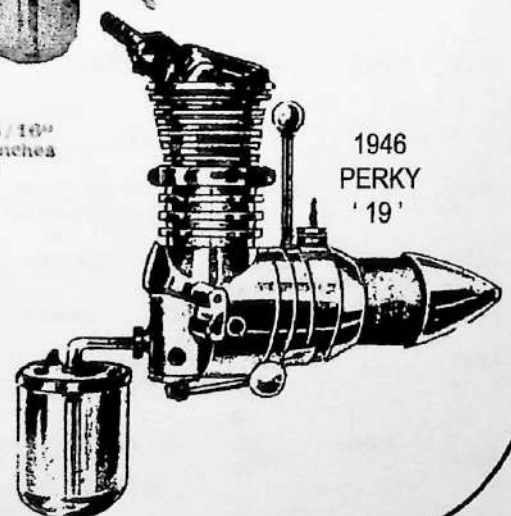


1962
PERKY
'19'



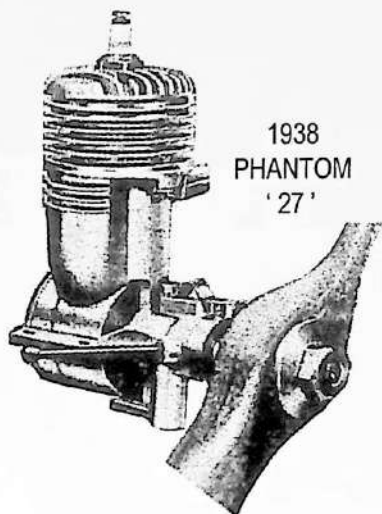
"C" SUPERCHARGER "C"
Weight 7.5 ounces
Bore .20 .32" . . . stroke 15/16"
Displacement .610 cubic inches
R.P.M. 900 to over 15,000
Horsepower 1/4 at 7,000
Compression ratio is 9
to 1

ADVERTISED
NONE SEEN



1946
PERKY
'19'

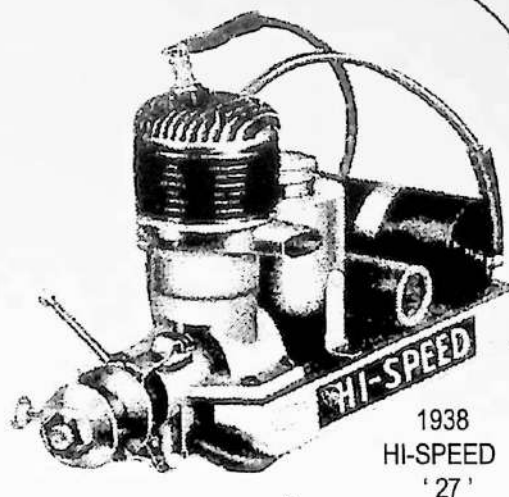
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
PAL ENGINEERING . LTD. (PAUL LEBEDA)	---	--	-----	----	ORIGINAL DESIGNS DRAWN UP IN 1941-1942 AND PAL ENGINES WERE MFD. FROM CASTINGS AS LATE AS 1981			
" "	'48	I	PAL '55'	0.552	SAND CAST CASE/ INLINE ALTERNATE FIRING TWIN/ REAR IGNITION/ APPROX. 50 MFD./ LAPPED PISTON	375		1240
" "	'51	G	"55" G	0.552	AS PREVIOUS/ IGNITION REMOVED/ SHROUD ACCESSORY TO PREVENT SEIZING UP/ 20 MFD.	350		1241
" "	'51	G	"55" G R/C	0.552	AS PREVIOUS/ THROTTLE CONTROL CARBURETOR ADDED/ FEW SOLD	350		1242
" "	'53	G	"110"	1.104	4 CYLINDER/ 2 CYCLE/ SHROUD ACCESSORY SOLD TO PREVENT REAR CYLINDERS OVERHEATING	PROTO		1243
" "	'53	G	55 MARINE	0.552	INLINE TWIN/ WATER COOLING JACKET	PROTO		1244
" "	'54	G	PAL 4 MARINE	1.104	4 CYLINDER/ WATER COOLING JACKET	PROTO		1245
" " NOTE:	'72		PAL TWINS & FOURS	----	'72 -MAY-JUNE MECA 'BULLETIN' SHOWED OPPOSED & INLINE TWINS PLUS OPPOSED AND INLINE 4's - PRE-PRODUCTION ONLY			
PEERLESS MODEL AIRPLANE CO. (GEO. WOODS)	---	--	-----	----	ORIGINALLY MFD. IN GIRARD PA. BY WOODS MFG. RIGHTS SOLD TO THE PEERLESS MODEL AIRPLANE CO. OF LAKEWOOD OHIO INCLUDING ALL CASTINGS AND DIES.			
" "	'35 *	I	PEERLESS	1.118	SPLIT LOWER CASE WITH 'MODEL MOTOR, GIRARD PA. " CAST INTO REAR CASE/ TALLISH BLIND BORED CYLINDER AND HEAD/ OPEN EXHAUST/ RINGED PISTON/ SIDEPORT WITH CURVED REAR INTAKE/ METAL FUEL TANK ATTACHED TO INTAKE/ OPEN TIMER/ ONLY 3 COMPLETE & 2 PARTS ENGS. KNOWN VARIATIONS WERE 1/4" & 5/16" CRANKSHAFTS REF. DIDELOT/ IN COLLECTION D. PEUGH	3200		1246
PEE WEE (FRANK & JOE DALLAIRE)	---	--	-----	----	MFD. BY DALLAIRE MODEL AIRCRAFT FORERUNNER OF MARVIN/ SAND CAST ALUM - INUM CASE-VENTURI AND TIMER/ IRON CYLINDER/ MACHINED ALUMINUM TANK/ 3/8" PLUG	325		1247
" "	'38	I	PEE-WEE	0.110				
" "	'38	I	PEE-WEE B	0.141	BORED OUT VERSION OF PREVIOUS PEE WEE TRANSPARENT TANK/ 1/4" PLUG	325		1248
" "	'39	I	PEE-WEE B	0.141	PERMANENT MOLD CASE AND VERTURI/ BACKPLATE BOLTS ON/ NO HEAD FINS	325		1249
" " NOTE:	'40	--	-----	----	CONTINUATION OF PEE-WEE UNDER 'MARVIN MANUFACTURING COMPANY'			
PERKY	---	--	-----	----	MFD. BY BAYCRAFT MINIATURE MOTORS AND VICTORY MACHINE & TOOL CO. VERTICAL SPARK PLUG/ UNIQUE VERTICAL SPECIAL METAL MOUNTS/ CLAPPER OR 'FLUTTER VALVE' INSERTED INSIDE CRANKCASE ATTACHED TO UN- USUAL DOWNDRAFT CARB./ AIR BLEED THROTTLE	200	223	1250
" "	'40	I	PERKY	0.191				
" "	'41	I	SUPERCHARGER 'A'	0.191	AS PREVIOUS/ BACKSWEEP SPARK PLUG UPDRAFT AIR BLEED WITH DIFFERENT CARB. ARRANGEMENT	295-N		1251
" "	'41	I	SUPERCHARGER 'B'	0.232	AS 'A' WITH LONGER STROKE/ NONE SEEN	PROTO		1252
" "	'41	I	SUPERCHARGER 'C'	0.609	SCALED UP VERSION OF 'A'/ NONE SEEN	PROTO		1253
" "	'46	I	PERKY '19'	0.191	AS SUPERCHARGER 'A'/ IMPROVED TIMER WITH TIMER & THROTTLE ARMS HAVING BALL ENDS OF PLASTIC	175		1254
" J.A. THOMPSON SALES	'62	I	PERKY '19'	0.191	SOLD BY J.A. THOMPSON N.Y. SAME AS 'SUPERCHARGER A'/ VERTICAL PLUG AND HEAD OF 1940 TYPE/ 'T.A.-2' ON CASE	175		1255



1938
PHANTOM
'27'



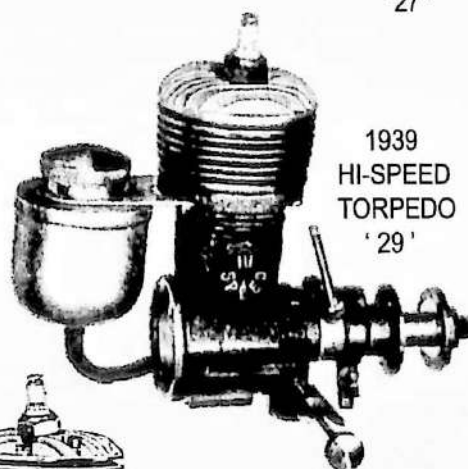
1939
PHANTOM
SPECIAL
'27'



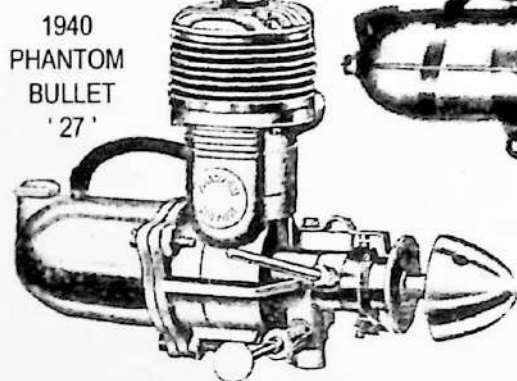
1938
HI-SPEED
'27'



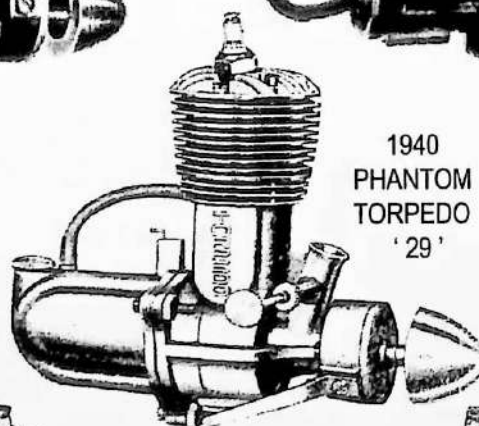
1939
HI-SPEED
TORNADO
'29'



1939
HI-SPEED
TORPEDO
'29'



1940
PHANTOM
BULLET
'27'



1940
PHANTOM
TORPEDO
'29'



1941
PHANTOM
'P-30'

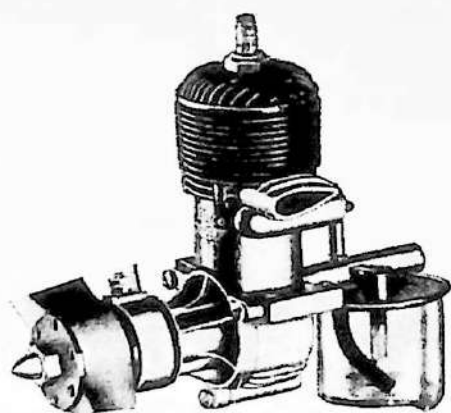


1946
PHANTOM
'P-30'



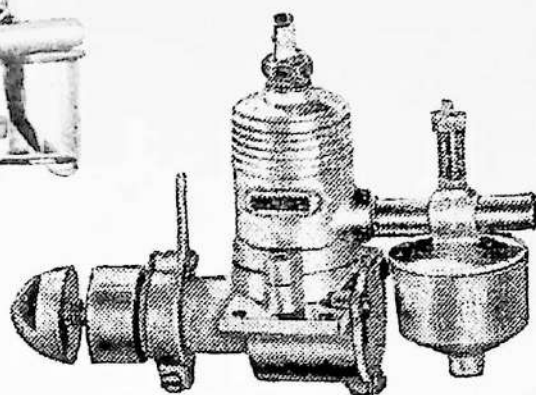
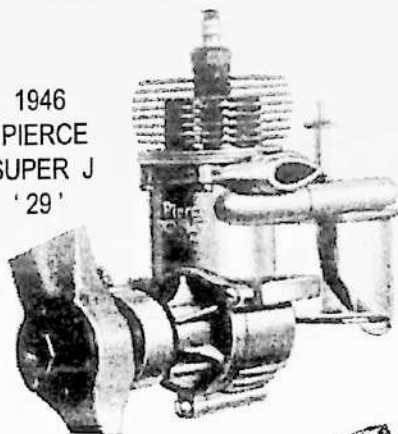
1947
PHANTOM
'P-30'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
PERKY	'62	I	PERKY '19'	0.191	SAME AS 'SUPERCHARGER A' - 1940 WITH SLANT PLUG HEAD/ T.B. -2' ON CASE	175		1256
" "	'62	I	PERKY '19"	0.191	SAME AS 1946 PERKY WITH T.C.-2' ON CASE	175		1257
PHANTOM MOTORS DIST. CO. HI-SPEED DIVISION ATWOOD DESIGNS)	---	---	-----	---	ALSO KNOWN AS HI-SPEED MOTORS - HI-SPEED DIV.- MUCH CONFUSION STILL EXISTS IN ENGINE MODELS			
" "	'38	I	PHANTOM	0.275	ORIGINAL 'BULLET' ROUND BACKPLATE/ 2 BOLT CYLINDER ATTACHMENT/ ROUND EXHAUST PORT/ SERIAL # ON CRANKCASE/ SEPARATE PLATED TANK/ 3 CYLINDER FINS	200		1258
" "	'38	I	PHANTOM	0.275	AS PREV./ 2 BOLT CYLINDER ATTACHED/ AIRFOILED EXHAUST/ 4 CYLINDER FINS	150		1259
" "	'38	I	PHANTOM	0.275	AS PREV./ 4 BOLT CYLINDER ATTACHED (G - SERIAL #)	150		1260
" "	'38	I	HI-SPEED	0.275	AS PHANTOM/ 'HI-SPEED' CAST INTO BYPASS/ PLUG OFFSET & ANGLED/ BLUE PAINTED CASE ON SOME/ 2 BOLT CYLINDER ATTACHMENT	150		1261
(WASP MODEL SUPPLY)	'39	I	PHANTOM SPECIAL FOR RACE CAR	0.275	CAR PHANTOM/ SIMILAR TO '38 PHANTOM/ FRONT ROTARY UPDRAFT INTAKE EXTENDED ALONG BOTTOM OF CASE TO THE REAR/ FLYWHEEL INCLUDED	200		1262
" "	'39	I	HI-SPEED	0.275	AS PREV. 'HI-SPEED'/ 4 BOLT CYL. ATTACHMENT	125		1263
" "	'39	I	HI-SPEED 'TORPEDO'	0.298	NEW CASE/ FRONT ROTARY/ BLACK WRINKLE PAINT/ 3 BOLT CASE COVER/ 'TORPEDO' ON BY- PASS/ 4 HEAD BOLTS - 8 BOLTS ON LAST OF RUN	125		1264
" "	'39	I	HI-SPEED BULLET - 'D'	0.275	AS PREV.HI-SPEED/ UPDRAFT FRONT ROTARY/ BLACK OR RED WRINKLE PAINT/ TANK MOUNTED FROM BRACKET ATTACHED AT BOTTOM OF CYLINDER FINS/ 'HI-SPEED' ON BYPASS	125		1265
" "	'39	I	PHANTOM -'G'	0.275	SIMILAR TO PREV. BULLET 'D'/ 'PHANTOM MOTORS' ON BYPASS	125		1266
" "	'40	I	PHANTOM 'BULLET'	0.275	AS PHANTOM-G/ 'PHANTOM MOTORS' ON BYPASS/ TANK ATTACHES TO MOUNTING RING BETWEEN CASE & REAR COVER/ BLACK OR RED WRINKLE PAINT - ALSO UNPAINTED LATER IN SAME YEAR	110		1267
" "	'40	I	PHANTOM 'TORPEDO'	0.298	AS PREV.TORPEDO/ TANK MOUNTS AS PREVIOUS BULLET/ TANK FLOAT & GUAGE/ 8 BOLT HEAD/ BLACK OR RED WRINKLE PAINT - ALSO UNPAINTED/ SOME LATE MODELS HAD WEB BETWEEN CASE AND MOUNTING LUGS	110		1268
" NOTE:	---	---	BULLET/TORPEDO	---	MANUFACTURED BY MINIATURE MOTORS CO. INC. -1946 - 1950			
" "	'41	I	PHANTOM 'P-30'	0.295	SINGLE DETACHABLE EXHAUST STACK/ FLAT PIS- TON - NO DEFLECTOR/ 'A' SERIES ENGINES HAD ALUM. CASE/ 'AA' HAD HEAVY POT METAL CASE	200 275	178	1269
" NOTE:	'44	---	-----	---	ENTIRE STOCK OF P-30 PARTS SOLD TO 'HOBBY- CRAFTS' BY WETZEL MOTORS OF L.A. IN MID-1940			
" "	'46	I	PHANTOM 'P-30'	0.295	AS PREVIOUS/ TWIN TUBULAR DIE CAST BOLT ON STACKS/ BORE CHANGED/ SERIAL #'s START WITH 'B'/ (SOME 'AA' OVERSTRUCK)	150		1270
" "	'47	I	PHANTOM 'P-30'	0.295	AS PREVIOUS/ TWIN TUBULAR STACKS PERMANENTLY BRAZED ON/ ALUM.CASE/ SPINNERS SPUN OR DIE CAST ALUM./ SHINY BLACK PAINT ON CYLINDER	150 145 285-N		1271

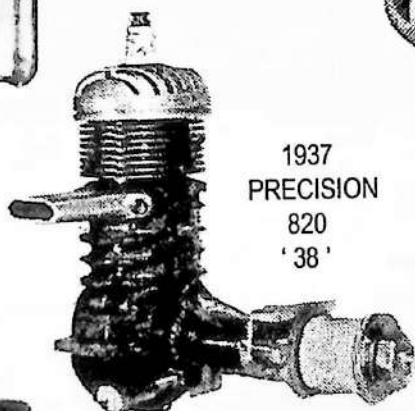


1947 PIERCE R '29'

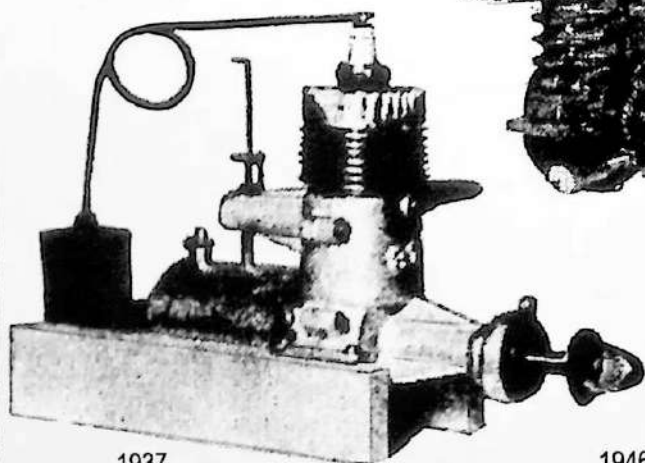
1946
PIERCE
SUPER J
'29'



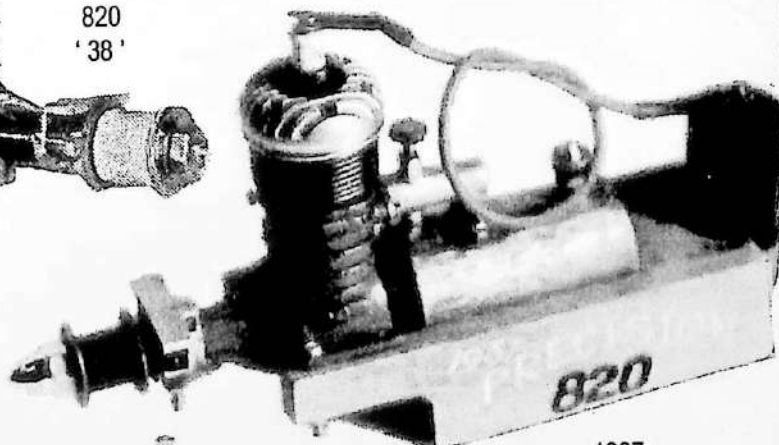
1941 PIONEER BROWN '29'



1937
PRECISION
820
'38'

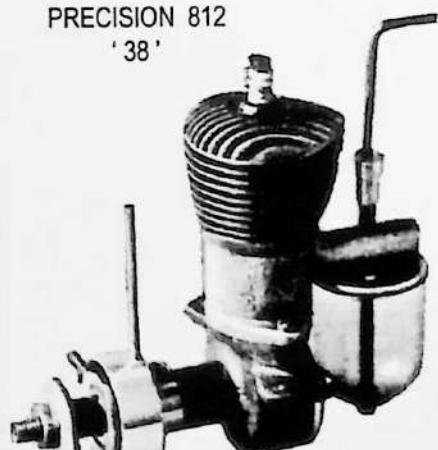
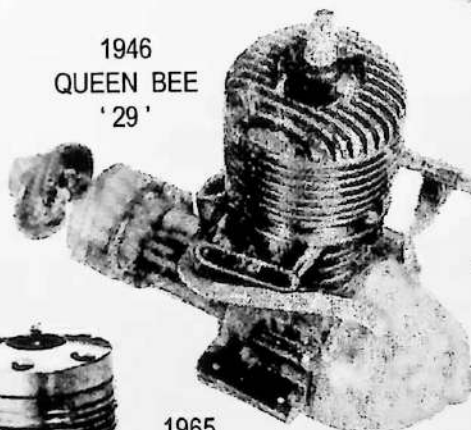


1937
PRECISION 812
'38'

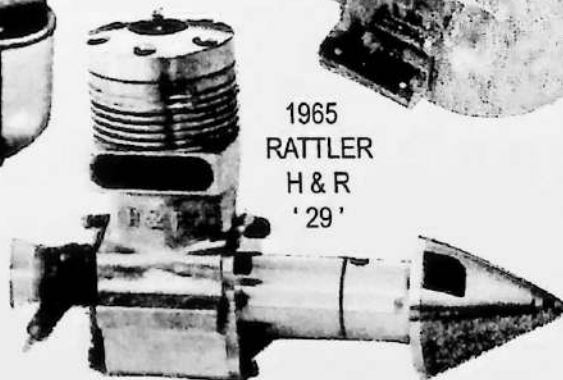


1937
PRECISION 820
'38'

1946
QUEEN BEE
'29'



1940
PRICE MIDGET
'24'

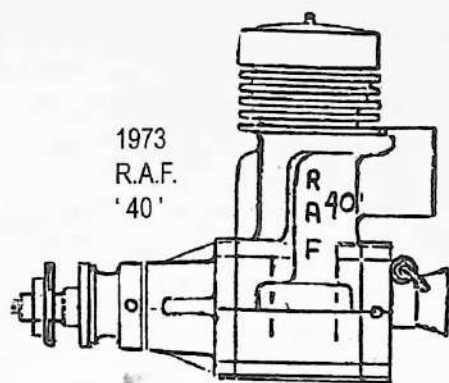


1965
RATTLER
H & R
'29'

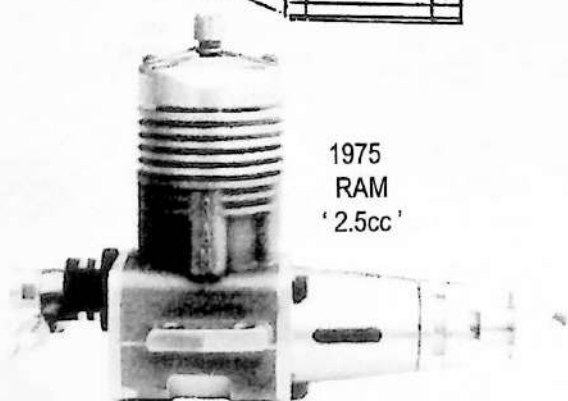


1946
RB SPECIAL
'29'
AND
'36'

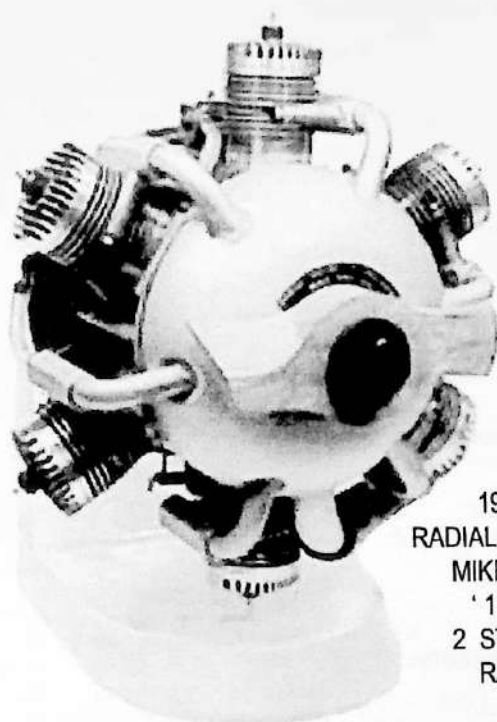
MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
PIERCE INDUSTRIES	---	-----	----	(LOOK-A-LIKE TO FORSTER 29 WITH PIERCE NAME STAMPED ON FRONT) GLO-CHAMP DISTRIBUTED BY MERCURY MODEL AIRPLANE CO.			
" "	'46	I PIERCE 29R	0.297	REAR ROTARY/ UNPAINTED FINS/ BLACK PAINTED HEAD/ ENCLOSED TIMER/ SIDEPORT BOSS/ 'PIERCE' NAME ON FRONT	160		1272
" "	'46	I PIERCE SUPER J	0.297	SIDEPORT/ MADE FROM SAME CASE CASTING NO HEAD FINS/ ENCLOSED TIMER/ PLASTIC FORSTER 99 SIZE TANK UNDER INTAKE	170 180-N		1273
" "	'47	I PIERCE J	0.297	AS PREV. SIDEPORT/ BLACK HEAD AND FINS KIT OR ASSEMBLED	200 225		1274
" "	'47	I PIERCE R	0.297	AS '46 MOD. R/ REAR ROTARY WITH HEAD FINS/ KIT/ ALSO MODEL WITH 2-SPEED TIMER	150 180-N		1275
MERCURY MODEL AIRPLANE CO.	'48	I/G PIERCE GLO-CHAMP	0.297	AS PREV./ ONE PIECE CYLINDER/ SIDEPORT/ METAL TANK/ KIT OR ASSEMBLED/ IGNITION OR GLOW	100 80		1276
UNKNOWN MFR. SEE SAMSON	'51 *	I SAMSON 30	0.298	SEMI CUSTOM/ USING PIERCE CRANKCASE WITH 2 -INTAKES - UPPER & LOWER/ CUSTOM CYLINDER PISTON, HEAD & TIMER (FEW BUILT ON 'R' CASES)	RARE	300-N SOLD	1277
PIONEER BROWN (WM. BROWN - BILL BROWN'S FATHER)	'41	I PIONEER BROWN	0.292	SOLD BY BROWN SR. OUTSIDE JUNIOR MOTORS JUDSON MFD. ENGINE/ KIT OR ASSEMBLED/ 'PIONEER BROWN' STAMPED ON CYLINDER HEAD AND REAR CRANKCASE COVER	135 120-VG		1278
PRECISION MACHINE WORKS	'37	I PRECISION 812	0.387	NOT CALLED PRECISION MOTORS SQUARE FIN HEAD/MTG. RADIAL OR LUGS/ SIDEPORT/ DIE CAST VERTICAL SPLIT ALUMINUM CASE/ STEEL CYLINDER AND MACHINED FINS/ METAL 'CAN' TANK/ 2 VERSIONS SEEN (D.PEUGH)	RARE		1279
"	'37	I PRECISION 820	0.387	ROUNDED HIGH FINNED BOLT-ON HEAD/ SIDE-PORT/ BEAM MOUNTING/ VERTICALLY SPLIT GREEN CASE/ SEMI-ENCLOSED TIMER/ ALLOY MACHINED FINNED CYLINDER (FEW MFD.)	RARE SOLD 1500		1280
"	'37	I PRECISION 820 FRONT INTAKE	0.387	PHOTO IDENTIFIES PRECISION 820 'TYPE' WITH WITH UPDRAFT FRONT ROTARY/ GREEN/ ORIGINAL SEEN IN EARL VIVELL OLD COLLECTION	RARE		1281
"	NOTE:	---	----	SEE RANGER, ON FOLLOWING PAGE			
PRICE MIDGET MOTORS	'40	I MIDGET	0.243	SAND CAST BLACK MAG. CASE/ STREAMLINED CYLINDER & HEAD FINS-POLISHED/ SIDE PORT/ ROUNDED EXHAUST HOLES/ SIMILAR TO EARLY BANTAM	475		1282
QUEEN BEE (CANADIAN) (SALONEN BROS.)	* '45	I 'QUEEN BEE' 24	0.247	MFD. BY SALONEN BROS.,VANCOUVER TOTAL PRODUCTION OF QUEEN BEES LESS THAN 400 LOOKS LIKE K&B-3 BOLT CASEWITH RADIAL AND BEAM MOUNTING LAPPED PISTON// EXHAUST PORT PART OF CASE/ COMPOSITE MEEHANITE LOWER SECTION WITH ALUMINUM UPPER SECTION AND FINNED HEAD ATTACHED TO CASE WITH 2 BOLTS/ APPROXIMATELY 50 MANUFACTURED/ REAR MOUNTED PLASTIC TANK/ NO SERIAL #'s	250		1283
" "	'46	I 'QUEEN BEE' 29	0.298	AS PREV./ INCREASED STROKE/ CASE DIAMETER INCREASED/ BYPASS ENLARGED/ SQUARED OFF HEAD/ SERIAL #'s TO 150/ BALANCE HAD NO SERIAL #'s/ WEST COAST SPEED RECORD HELD BY SALONEN OVER 100 MPH IN 1947	225		1284
" "	'47	G 'QUEEN BEE'	0.298	AS PREV./ MACHINED ALUMINUM COLLAR REPLACED TIMER/ THREADED POCKET FOR TANK MOUNTING ELIMINATED	225		1285



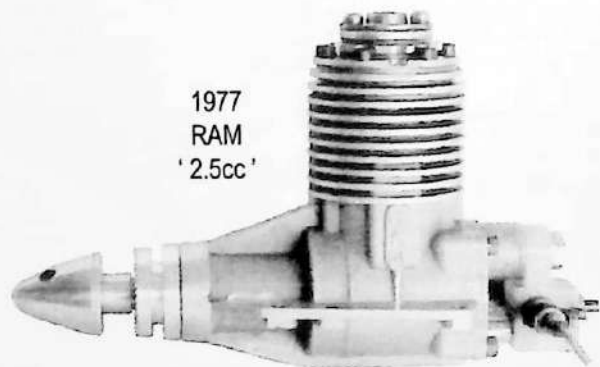
1973
R.A.F.
'40'



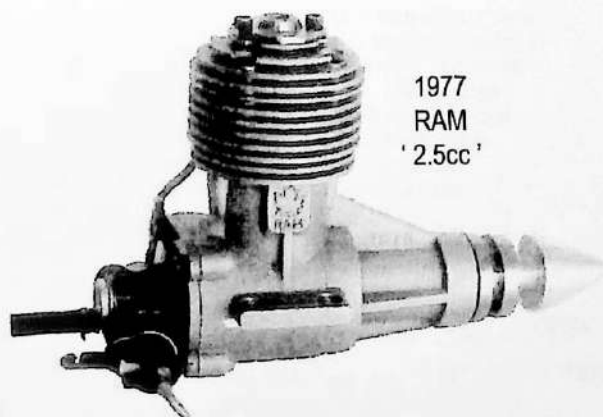
1975
RAM
'2.5cc'



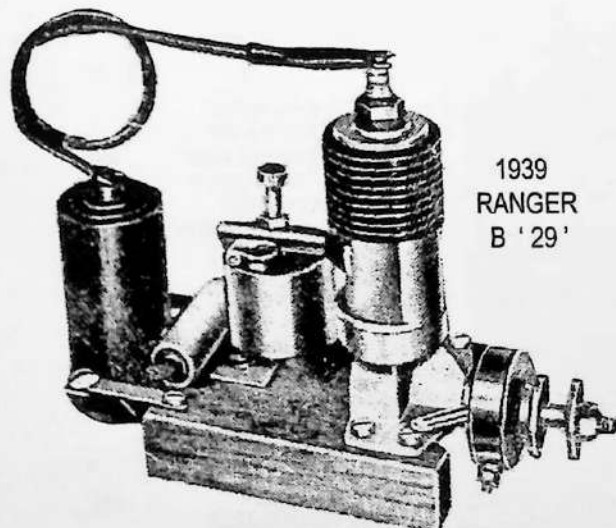
1989
RADIAL ENGINES
MIKE GR6
'1.20'
2 STROKE
RADIAL



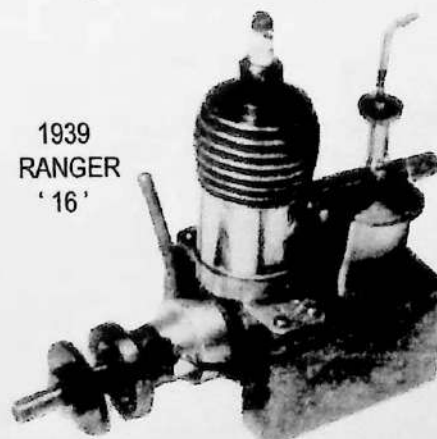
1977
RAM
'2.5cc'



1977
RAM
'2.5cc'



1939
RANGER
B '29'



1939
RANGER
'16'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
QUEEN BEE	'47	G	'QUEEN BEE'	0.398	AS PREV./ SPECIAL ORDER 1 ONLY	PROTO		1286
* NOTE 1			DIESELS PROTOTYPES		5 PROTOTYPES - ONLY (R. POLGLASE COLLECTION)	PROTO		
* NOTE 2			IGN.& GLOW 60 PROTOTYPES	0.607	2 - PROTOTYPES ONLY/ ONE OF EACH (R. POLGLASE COLLECTION)	PROTO		
R.A.F. (ROSSELLE & FRYE)	---	---	-----	---	ROSELLE AND FRYE WERE A COMPETITION TEAM WHICH VERY SUCCESSFULLY COMPETED IN CARRIER, RAT RACE, AND PROVIDED PYLON COMPETITORS WITH ENGINES BASED ON RAF .40's. SHORT RUNS DIDN'T MAKE THEM FINANCIALLY SOLVENT SO THEY SOLD OFF ALL DIES AND PARTS TO DUKE FOX.			
*	'73	G	RAF 40/36 CARRIER RAT RACE PYLON	0.398 0.359	SAND CAST CRANKCASE/ UNIQUE ABCD LINER AND PISTON HAD DYKES RING/ FRONT OR REAR INTAKE AND REAR EXHAUST/ MACHINED PISTON, ROD AND HEAD FROM BAR STOCK 2024-T4 ALUMINUM/ F.A.I. OR PYLON VERSION INCLUDES SEPARATE SPECIAL EXHAUST PIPE	65	89	1287 1287.5
RADIAL ENGINE TECHNOLOGIES INC. (M. GOLDOWSKY)	---	---	-----	---	INTRODUCED, RAN AND SOLD THEM AT BOTH WRAMS & TOLEDO SHOWS IN 1990			
	'89	G	MIKE GR6 120/ 2 STROKE	1.274	6 GEARED K&B SPORTSTER .21 ENGINES WITH 8 STAINLESS BALL BEARINGS ADDED/ HARDENED GEARS IN ENCLOSED GEARBOX AT REAR OF ENGINE/ SINGLE NEEDLE VALVE & THROTTLE/ INTEGRAL MOUNT AND MUFFLER		900	1288
*	'89	G	MIKE GR6 170/ 2 STROKE	1.684	PRE-PRODUCTION, AS PREVIOUS, USING 6 GEARED K&B SPORTSTER .28 ENGINES (.2807 CU. IN.)			1289
RAM (CANADA) (KEN PARENT & BRIAN FAIREY)	---	---	-----	---	THESE ARE TEAM RACE DIESELS BUILT IN CANADA FOR F.A.I. TEAM RACE FLIERS AT THE WORLD CHAMPIONSHIPS (I.E. RAF WOODVALE ENGLAND IN 1978). KEN PARENT HAD TEAMED WITH FLYER DAVE KELLY; BRIAN FAIREY HAD TEAMED WITH HIS SON I WE UNDER- STAND THERE WERE ABOUT A TOTAL OF 30 ENGINES PRODUCED AND WE'RE UNSURE OF HOW MANY DIFFERENT DESIGNS WERE PRODUCED. WE HAVE PICTURES ON 3 OF THESE VERY RARE CANADIAN ENGINES (TWO PICS FROM THE COLLECTION OF RICK BARLOW AND ONE '76 PIC FROM THE AUTHOR).			
*	'75	D	RAM 2.5CC	0.148	EARLY INVESTMENT CAST CASE/ UNIQUE REAR INTAKE/ SIDE EXHAUST/ MACHINED FRONT & REAR CASES/ DOUBLE BALL BEARING/ MACHINED AND FINNED LINER/ MACHINED HEAD			1290
*	'77	D	RAM 2.5CC	0.148	INVESTMENT CAST CASE/ UNIQUE REAR INTAKE/ SIDE EXHAUST/ CAST REAR COVER WITH INTAKE/ DOUBLE BALL BEARING/ FINS ON CAST CASE/ DROP-IN LINER/ MACHINED HEAD			1291
*	'77	D	RAM 2.5CC	0.148	AS PREVIOUS. ANOTHER VARIATION OF DESIGNS/ VERY COMPETITIVE			1292
RANGER (JERRY SMITH)	---	---	-----	---	SOLD BY RANGER MODEL SUPPLY HEATH, BAY RIDGE, PLUS NEW CYCLONE AIRCRAFT CO. THIS ENGINE IS USUALLY CONFUSED WITH PRECISION MACHINE WORKS BECAUSE IT WAS ADVERTISED UNDER 'PRECISION MOTORS'			
*	'39	I	RANGER 'A'	0.208	UNKNOWN INFORMATION OR PRODUCTION	PROTO		1293
*	'39	I	RANGER 'B'	0.295	VERY CLOSELY COPIED BROWN IN MINIATURE/ ENCLOSED TIMER/ SPUN ALUMINUM TANK MOUNTED UNDER INTAKE/ SAND CAST CASE/ NICKEL STEEL LAPPED PISTON/ CHROMED STEEL LINER	450		1294
*	'39	I	RANGER 'C'	0.363	SIMILAR TO 'B'/ BORED & STROKED	325		1295
*	'43	I	RANGER '16' (SMITH '16')	0.164	SIMILAR TO 'LYKENS BROWN' - SMITH HAD HELPED BROWN ASSEMBLE 'LYKENS'	325		1296

K&B Model Products and MECOA are subsidiaries of
R.J.L. INDUSTRIES

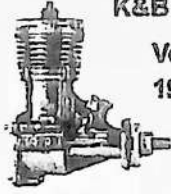


K&B Manufacturing 1946

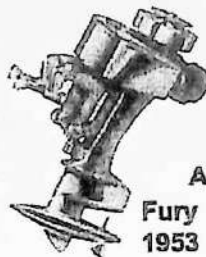
Veco
1950



Torpedo
1946

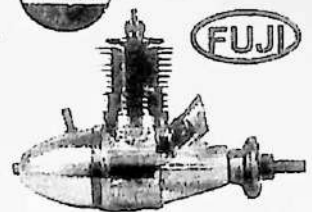


Aurora
1960



Allyn 1953

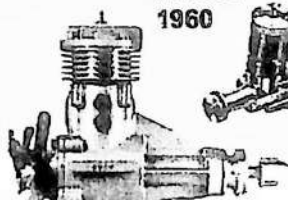
Fury
1953



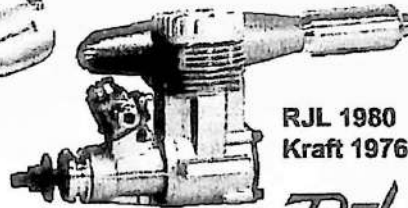
Fuji 1949



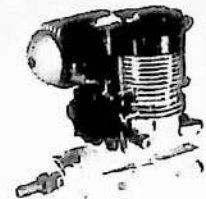
Stallion 1963



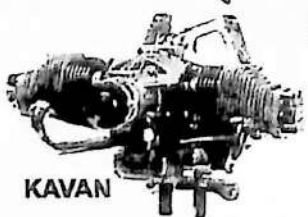
HP 1968



R.J.L. 1980
Kraft 1976



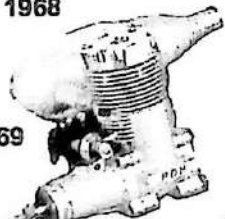
MECOA
1992



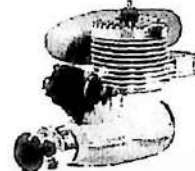
KAVAN



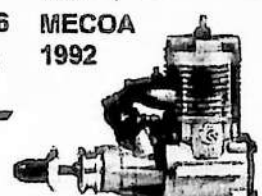
HB 1969



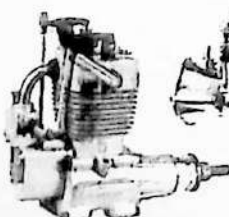
Conquest 1977



McCoy Series 21 1971



Taipan .40 1975



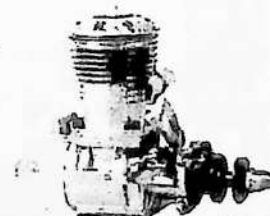
Kalt 1976



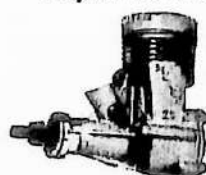
Atwood 1946



HGK 1980



Anderson Spitfire 1947



Merco
1959



Remco 1972



Hassad
Bluestreak
1948



BUCO
1980



Gilbert 1961



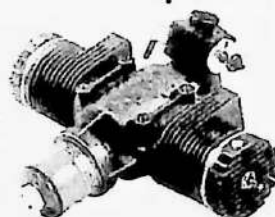
Edco
Sky Devil
1946



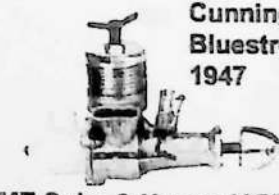
Holland
Hornet
1957



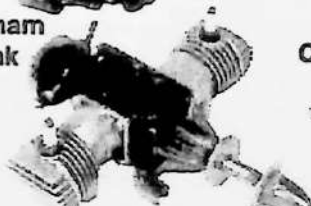
Ross
1970



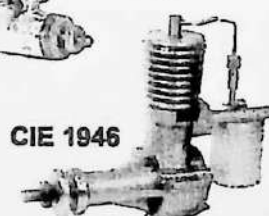
Forster 1936



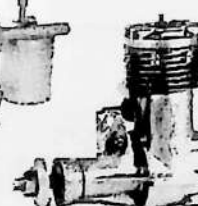
Cunningham
Bluestreak
1947



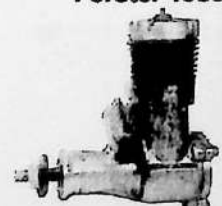
Viking Twin 1946



CIE 1946



DEW Kustom 1955



Johnson 1955

ME Snipe & Huron 1955

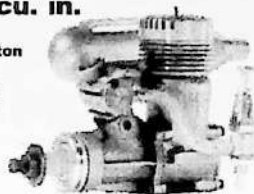
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION --- ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
RANGER	'46	I	RANGER FRONT INTAKE	0.363	<i>SIMILAR TO PREWAR WITH FRONT INTAKE/ SPLIT CASE/ NO DISTINGUISHING MARKS/ ORIGINALLY IN EARL VIVELL COLLECTION</i>	275		1297
.	'46	I	RANGER 'B'	0.292	<i>SAME AS PREWAR MODEL NO DISTINGUISHING MARKS/ PIC OPPOSITE PG. 90</i>	275		1298
RATTLER (BILL HUSTED & LUKE ROY)	---	---	-----	----	ALL ENGINES PRODUCED BY LUKE ROY WITH HELP OF BILL HUSTED.			
	'65/68	G	H&R 29	0.298	<i>HIGHLY POLISHED SANDCAST CRANKCASE WITH K&B AND SUPER TIGRE INTERNALS/ HEAD AND FRONT END MACHINED/ BACKPLATE & VENTURI FROM K&B/ 30 ENGINES PRODUCED/ 20 CASES SOLD TO OTHER RACERS/ PIC OPPOSITE PG. 89</i>			1299
R. B. STEELE MACHINE CO. (STEELE IS 'S' OF PREWAR DELONG&STEELE ENGINES) (RALPH STEELE)	---	---	-----	----	ALSO SOLD BY CENTAVE MFG. FROM 1952			
	'46	I	RB SPECIAL SPEED	0.299	<i>SIDE DRAFT INTAKE LIKE CANNON/ BALL BRGS. ON SHAFT/ SHEET METAL TIMER ON REAR OF SAND CAST CASE/ (PICS OPPOSITE PG 89)</i>	200	188	1300
.	'47	I	RB - C	0.362	<i>SIMILAR TO RB SPECIAL/ BORED OUT 29</i>	275		1301
.	'50	G	RB SPECIAL	0.299	<i>AS PREV. 29RB LESS TIMER/ FEW PRODUCED</i>	265		1302
.	NOTE:	---	-----	----	ONE-OFFS PRODUCED FOR VARIOUS MODELERS - DEBOLT REMADE ONE INTO RINGED MODEL FOR SPEED - HE OWNED 3 - ONE IN THE MODEL - ONE ON THE WAY TO THE FACTORY - ONE ON THE WAY BACK FROM THE FACTORY - TOTAL MFD. OF ALL R - B's APPROXIMATELY 400			
R.J.L. INDUSTRIES (RANDY LINSALATO) MODEL ENGINE CO. K&B MODEL PRODUCTS INC.	---	---	1977 TO 2005	----	RANDY LINSALATO IS ONE OF THE MOST PROLIFIC ENGINE MANUFACTURERS IN AMERICA. HE HAS BEEN DEDICATED TO BUYING UP THE RIGHTS, TOOLING, AND PARTS TO A NUMBER OF OUR OWN HOMETOWN AMERICAN ENGINES, PLUS A NUMBER OF FOREIGN ENGINES. PERUSING A CATALOG PRODUCED IN 1977 AS THE 'MODEL ENTHUSIAST', PROVIDED SOME REALLY STUNNING INFORMATION COVERING THE TOP NOTCH EQUIPMENT AT THE R.J.L. CALIFORNIA FACILITY. R.J.L. IS QUITE CAPABLE OF PRODUCING VIRTUALLY ANY MODEL ENGINE DESIRED, PLUS A WHOLE LOT MORE. THE FOLLOWING ENGINES ARE WHAT WE KNOW AND THERE'S PROBABLY MUCH THERE AT R.J.L. WE DON'T KNOW.			
.	---	---	1977 TO 1987	----	THIS IS A RELATIVELY UNKNOWN PERIOD TO THE AUTHOR AND RANDY SAID HE WILL COMPLETE SOME PROMISED INFORMATION FOR AN ADDEMDUM TO THE FOLLOWING :			
.	'80	G	KRAFT 61	----	<i>PURCHASED/ AS MANUFACTURED BY KRAFT SYSTEMS IN 1975 INCLUDING MUFFLER/ EVERYONE WAS SO PLEASED THAT A 'CUP' WAS PRODUCED WHEN THE ENGINE CASE HAD R.J.L. ON IT</i>			1303
.	'87	I	REMCO 29 REMCO 35 1972 MODEL	----	<i>PURCHASED/ IGNITION ENGINE/ ORIGINALLY BY RALPH E. MROCK OF DENVER CO/ FOLLOWED K&B TORPEDO .29 INFLUENCE/ CLOSED TIMER/ CLEAR REAR TANK/ REMCO 29 OR 35 ON BYPASS SIDE OF CASE</i>	90		1304
.	'88	G&I	FORSTER 29/35 1952 MODELS	----	<i>PURCHASED/ GLOW VERSIONS NO TANK/ IGNITION VERSION HAS ORIGINAL STYLE FORSTER TIMER AND CLEAR PLASTIC TANK</i>	89		1304.5
.	'88	I	FORSTER 99 1955 MODEL	----	<i>PURCHASED/ IGNITION HAS 2-SPEED TIMER AND CLEAR PLASTIC TANK</i>			1305 1306
.	'88	G	CONQUEST 15 COX/K&B	----	<i>PURCHASED/ HAVING COME FROM K&B, SOME PARTS DON'T FIT OLDER COX/ U-CONTROL-FREE FLIGHT- R-C VERSIONS ALL PROVIDED BY R.J.L. INCLUDING REAR EXHAUST SIDE EXIT MUFFLERS</i>			1307 1308

K & B AERO ENGINES

K&B .40 cu. in.

Item #4011
with ringed piston

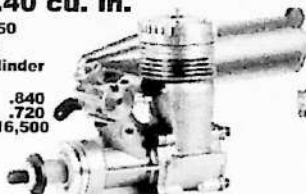
Bore .840
Stroke .720
1 HP @ 13,000



K&B .40 cu. in.

Item #4050
with ABC
piston/cylinder

Bore .840
Stroke .720
1.2 HP @ 16,500

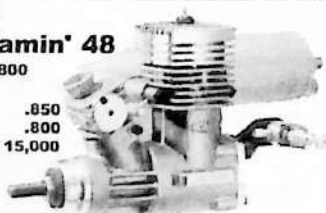


K&B

Screamin' 48

Item #4800

Bore .850
Stroke .800
2.0 HP @ 15,000



K&B .61 cu. in.

Item #6550
with ringed piston

Bore .940
Stroke .875
1.2 HP @ 13,000

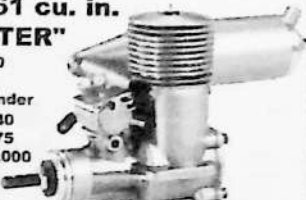
This engine, originally designed by engine expert Clarence Lee, has been in production longer than any other .61 cu. in. engine.



K&B .61 cu. in. "TWISTER"

Item #6170
with ABC
piston/cylinder

Bore .940
Stroke .875
1.8 hp @ 15,000



K&B 100 AERO 1.00 cu. in.

Item #9500

Bore 1.100
Stroke 1.060
4.6 HP @ 22,000

Perfect for
scale
applications.
Muffler acts as
a motor mount.



K&B 1.50 Ringed

rear exhaust (shown)

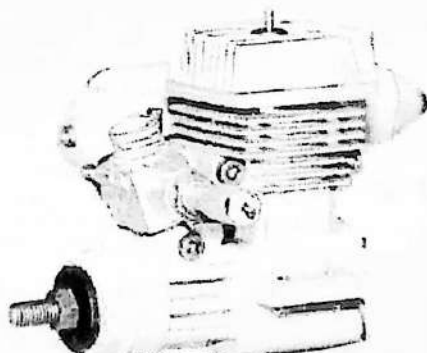
Item #1500

&
side exhaust
Item #1525



R.J.L. INDUSTRIES

1990's
R.J.L. PROTO
'60'



2002 K&B '18'
AERO VERSION



2002 K&B '18'
CAR VERSION



2002 K&B '18'
MARINE VERSION

K & B DUCTED FAN ENGINES

K&B 3.5cc DF (.21 cu. in.)

Item #8910

Bore .650
Stroke .640
1.2 HP @ 25,000



K&B 7.5cc DF (.45 cu. in.)

Item #9101

Bore .870
Stroke .760
2.2 HP @ 25,000



K&B .48 cu. in. DF

Item #4825

Bore .850
Stroke .800
3.0 HP @ 25,000



K&B .82 cu. in.

Item #5300

Bore 1.040
Stroke .960
4.2 HP @ 23,000



K&B .82 cu. in.

with Heat Sink Head
Item #5299

Bore 1.040
Stroke .960
4.2 HP @ 23,000



K&B 100 DF

1.00 cu. in.

Item #9550

Bore 1.100
Stroke 1.060
4.6 HP @ 22,000



K&B 100 DF

1.00 cu. in.

with Heat Sink Head

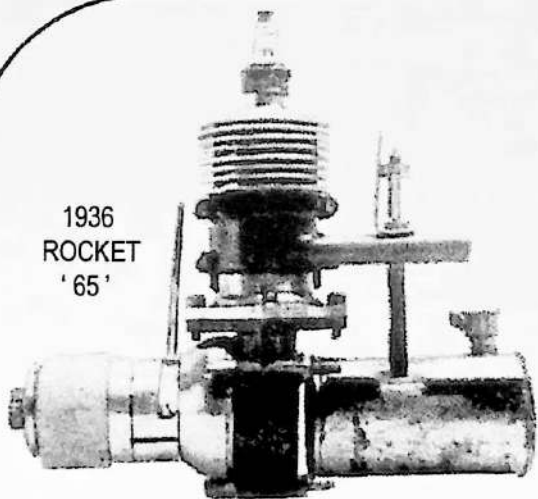
Item #9549

Bore 1.100
Stroke 1.060
4.6 HP @ 22,000

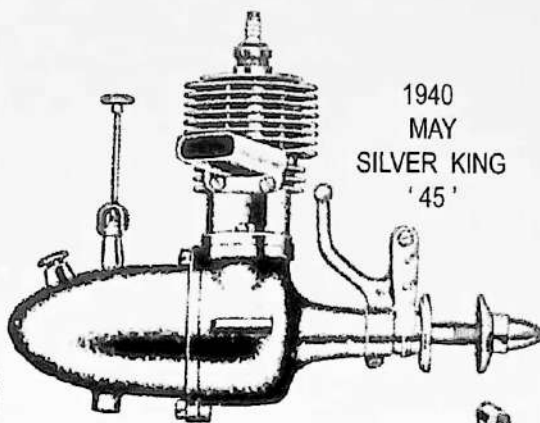


MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
R.J.L. INDUSTRIES " CATALOG	'97	G&I	MAMMOTH 3.7 PROTOTYPE GLOW & IGNITION	----	DEVELOPED/ 3.7 CU.IN. ORIGINAL QUARTER SCALE GLOW ORIGNITION/ WALBRO PUMPER CARB/ ELECTRONIC ADVANCE IN BACK COVER OF IGNITION MODEL/ FORGED STEEL CON ROD WITH NEEDLE BEARINGS BOTH ENDS/ HARD CHROME PLATED CYLINDER/ SHOCK MOUNTING SYSTEM			1309 1309.5
" CATALOG	'97	G	MECOA 40/46	----	.40 & 46 PLUS .46 HELI VERSIONS/ CLAIMED AS AMERICAN MADE SERIES/ ONE PIECE CASE/ BUSHED CON ROD/ DOUBLE BALL BEARINGS/ HARD CHROME ABC CYLINDER/ ONE PIECE CRANKSHAFT WITH REMOVABLE PROP STUD/ SCHNEURLE PORTS/ BAFFLED MUFFLER WITH PRESSURE TAP			1310
" CATALOG	'97	I	SKY DEVIL 65 '47 HASSAD/EDCO	----	PURCHASED/ INVESTMENT CAST CASE/ OTHERS PER ORIGINAL COMPONENTS/ FOR 'SAM' CONTESTS OR DISPLAY			1311
" CATALOG	'97	I	BLUESTREAK 65 '48 HASSAD	----	PURCHASED/ THIS IS THE LAST HASSAD RACING ENGINE NOT TO BE CONFUSED WITH THE ORWICK CONFIGURATION ALSO NAMED BLUESTREAK			1312
" CATALOG	'97	D	HASSAD-EDCO '47 DIESEL	----	PURCHASED/ PRODUCED IN U.S. IN VERY LIMITED QUANTITY/ FIXED COMPRESSION/ ALUMINUM DIE CAST RED ANODIZED CASE/ TWIN EXHAUST STACKS/ SIDEPORT WITH TANK HUNG ON REAR INTAKE TUBE			1313
" CATALOG	'97	D	C.I.E. 14 '47 DIESEL	----	PURCHASED/ AN APPARENT REPRODUCTION OF A VARIABLE COMPRESSION DIESEL/ SIDEPORT WITH CLEAR TANK HUNG ON REAR INTAKE TUBE			1314
" CATALOG	'97	G&I	BLUESTREAK 65 ORWICK/ CUNNINGHAM '48 GLOW & IGN	----	PURCHASED/ HAS THE CASE WITH BEAM MOUNTS/ IGNITION VERSION COMES WITH ORWICK STYLE TIMER OR OPTIONAL ORIGINAL STYLE TIMER/ SLIGHT INTERNAL VARIATIONS FROM ORIGINAL/ BLUE FINISH			1315 1316
" CATALOG	'97	G	HOLLAND HORNET 049 '63 DYNAMIC	----	PURCHASED/ ORIGINAL CASTING DIES AND PRODUCES REMAINDER ON C.N.C. MACHINERY			1317
" CATALOG	'97	--	-----	----	OTHER AMERICAN ENGINES WERE IDENTIFIED/ MENTIONED SUCH AS VIKING TWIN 65 AND A MINI SKY DEVIL 19 BUT ARE UNKNOWN EXCEPT IN POSSIBLE PRE-PRODUCTION STAGES. ALSO TESTOR/MCCOY SERIES 21 PARTS.			
" CATALOG	'97	--	-----	----	FOREIGN ENGINES WERE IDENTIFIED/MENTIONED SUCH AS AUSTRIAN HP 2 STROKE ENGINES (ENTIRE LINE), HP 2 STROKE ENGINES (.21 & .49) OLD AUSTRIAN HP .61 WITH REAR R/C CARBURETOR; BRITISH ELFIN DIESELS; ISLE OF MAN HERON AND SNIPE; ALL GERMAN HB ENGINES; MECOA ENGINES BY GMS; GERMAN KAVAN 50cc FOUR CYCLE TWIN; JAPANESE SOPHIA TURBINE J450 TURBO-JET FROM JAPAN IN 2002.			
" CATALOG	'97	--	-----	----	DIESEL HEAD CONVERSIONS BY RJL/MECO; PLUS NUMEROUS ENGINE PARTS, GET THE CATALOG OR SEE MECOA WEBSITE AT WWW.MECO.COM			
" "	2000	--	-----	----	K&B MODEL PRODUCTS, INC. IS NEW CORPORATE NAME FOR ALL K&B ENGINES & PRODUCTS MANUFACTURED UNDER THE K&B MANUFACTURING INC. NAME THAT WAS PURCHASED BY R.J.L./MECOA AND MOVED FROM LAKE HAVASU CITY AZ BACK TO RJL'S FACILITY IN MONROVIA, CALIFORNIA.			
" "	2001	G	K&B 18	0.178	K&B 1.8 IS THE FIRST NEW ENGINE TO COME FROM K&B SINCE THE TAKEOVER BY THE NEW OWNERS. AVAILABLE IN R/C AIRCRAFT, MARINE AND CAR VERSIONS WITH PULL START FOR THE LATTER. PLUS WATER COOLING & HEAT SINK HEADS AS NEEDED. DOUBLE BALL BEARINGS, ABC PISTON AND SLEEVE. THIS ENGINE DEVELOPED TO REPLACE OTHER .12 OR .15 ENGINES FOR ADDITIONAL ZIP.			1318

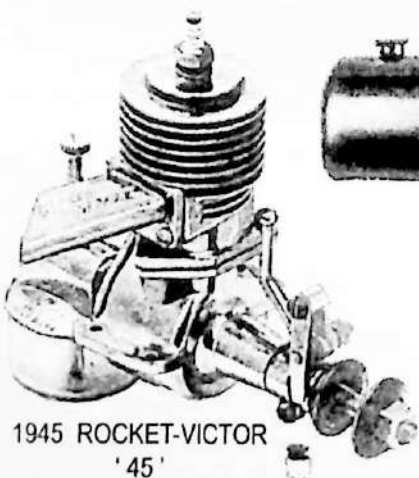
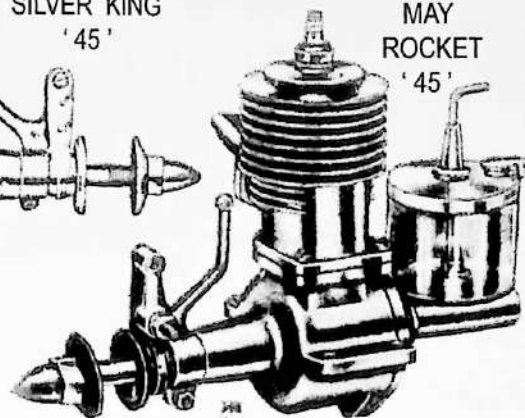
1936
ROCKET
'65'



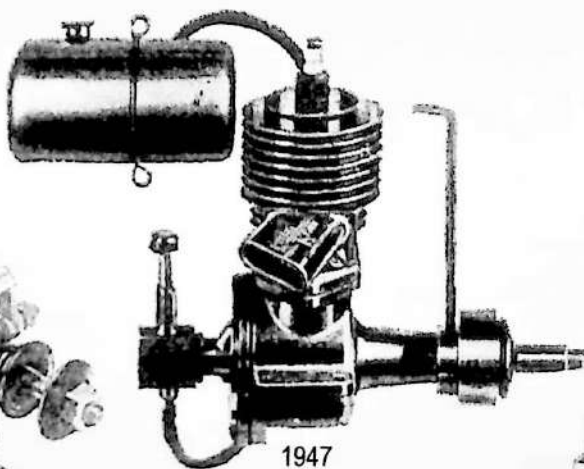
1940
MAY
SILVER KING
'45'



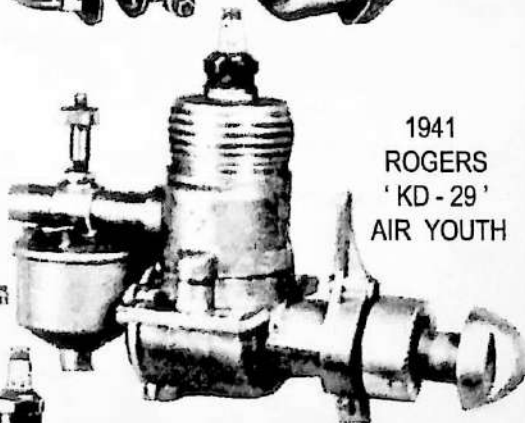
1941
MAY
ROCKET
'45'



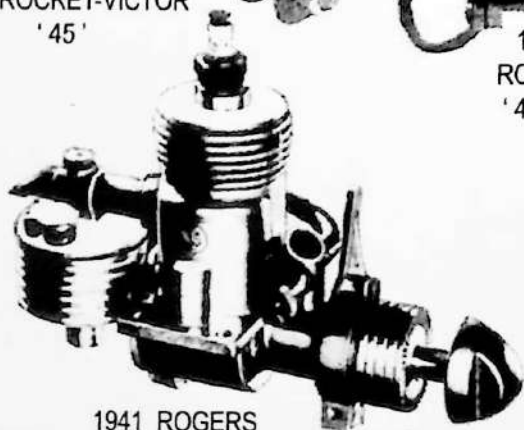
1945 ROCKET-VICTOR
'45'



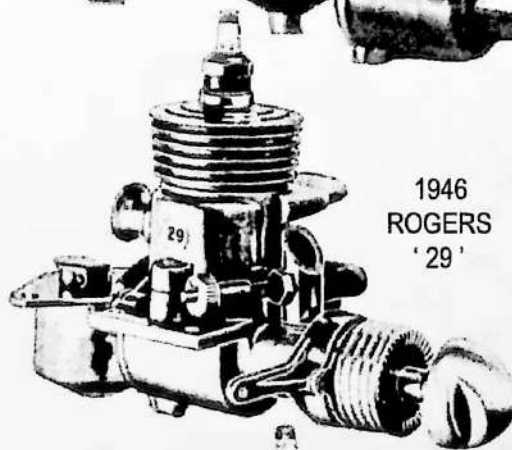
1947
ROCKET
'4610'



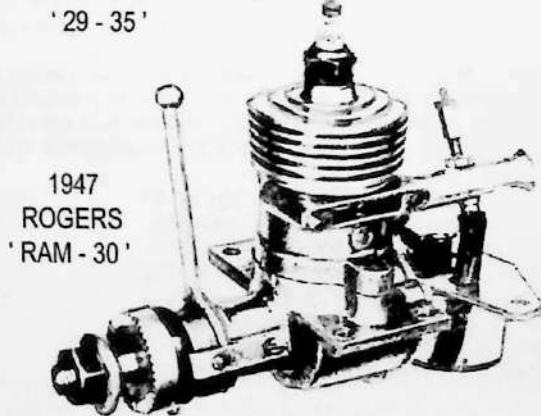
1941
ROGERS
'KD-29'
AIR YOUTH



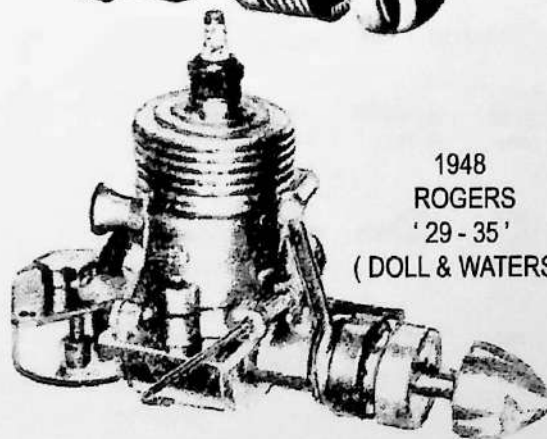
1941 ROGERS
'29-35'



1946
ROGERS
'29'



1947
ROGERS
'RAM-30'



1948
ROGERS
'29-35'
(DOLL & WATERS)

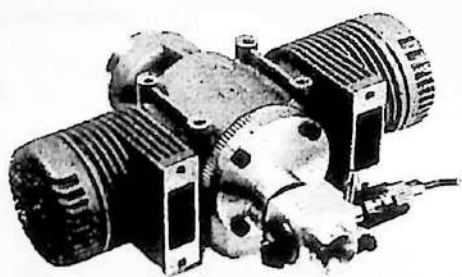
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
R.J.L. INDUSTRIES	2004	G&I	ANDERSON SPITFIRE 60/65 GLOW & IGN.	----	THE LATEST ADDITION TO THE R.J.L./MECOA LINE OF ENGINES WAS THIS FAMOUS 1947 ANDERSON 60/65 LINE OF ANTIQUE/ COLLECTIBLE ENGINES (SEE OUR ANDERSON LISTING). THIS WAS ONE OF THE BEST DESIGNED & PERFORMANCE ENGINES OF ITS' TIME/ CURRENTLY DESIRED BY SAM FLYERS.			1319 1320
* NOTE:	2005	--	-----	----	VISIT THE R.J.L./MECOA/K&B WEBSITE FOR CURRENT PRODUCTION AND SALES - WWW.MECO.COM AND WWW.MODELENGINE.COM			
ROBAR (ROWE & BARTELS)	'52	G	ROBAR '60'	0.605	MFD.(?) BY AERO TOOL CO.- DRWGS. ONLY RACING/ SIMILAR TO HORNET/ SLEEVE VALVE UNIQUE MEGAPHONE EXHAUST/ NONE KNOWN	PROTO		1321
ROCKET (65) (JAMES TYPE)	'45	I	ROCKET '65'	0.647	AMERICAN MODEL INDUSTRIES LIMITED PRODUCTION/ AS '39 JAMES/ ROUNDED 8 CYLINDER FIN PROFILE/ CASE AND MANIFOLDS ANODIZED OLIVE DRAB/ SPUN ALUMINUM COVER PLATE OVER BEARING HOUSING/ ENCLOSED TIMER/ LAPPED PISTON	RARE		1322
ROCKET (60)	'46	I	ROCKET '60' (HORNET TYPE)	0.605	AS EARLY HORNET .60 CASE WITH 'ROCKET' CAST INTO CRANKCASE REAR COVER/ NONE SEEN	PROTO		1323
ROCKET MAY MOTORS	---	--	-----	----	MFD. BY MAY MOTORS '40-'45 AND CORP. PROD. '47 (SOLD OFF VICTOR MODEL IN '52 BY LITTLE MIKE MARK TOY CO. AT \$3.95)			
*	'39	I	MAY MOTOR	0.273	SAND CAST/ SMALL SINGLE HOLE MOUNTING LUGS/ NO EXHAUST STACK/ STREAMLINED TANK ATT - ACHED TO BACKPLATE WITH 2 SCREWS/ 3/8 PLUG	375		1324
*	'40	I	SILVER KING	0.453	VENTURI INSIDE TANK TO PROMOTE CLAIM OF 'LIQUID COOLED CARBURETION'/ 'MAY MOTORS' ON EXHAUST STACK/ AIR INTAKE IN BOTTOM OF STREAMLINED TANK/ FIRST ACTUAL 'ROCKET' STYLING/ VARIOUS NEEDLE VALVES	300		1325
*	'40	I	SILVER KING 'H' RACE CAR	0.453	AS PREV./ EXHAUST STACKS POINT FORWARD/ SMALL BRASS CARB. - NO TANK/ FLYWHEEL	300		1326
*	'40	I	SILVER KING 'G' MARINE	0.453	AS PREVIOUS/ WATER COOLING JACKET AROUND CYLINDER	325		1327
*	'41	I	SILVER KING 'H' RACE CAR	0.453	AS PREVIOUS 'H'/ THICKER MOUNTING LUGS	300		1328
*	'41	I	SILVER KING 'G' MARINE	0.453	AS PREVIOUS 'G'/ THICKER MOUNTING LUGS/ NO WATER JACKET	300		1329
*	'41	I	MAY ROCKET	0.453	AS PREV. SILVER KING/ PLASTIC TANK ON TOP OF MACHINED VENTURI/ SMALL WEB ELIMINATED IN TOP CYLINDER FIN	300		1330
*	'45	I	MAY ROCKET	0.453	AS PREV. 'MAY MOTORS' ON EXHAUST STACK/ AMBER PLASTIC TANK BELOW DIE CAST VENTURI	275		1331
* CORP. PRODUCTS CO.	'45	I	ROCKET- VICTOR	0.453	AS PREV./ PLASTIC TANK UNDER VENTURI/ 'ROCKET MOTORS' ON EXHAUST STACK/ SOME MODELS HAVE SET-SCREW IN BOTTOM OF CASE TO RETAIN MAIN BEARING	130 150-N 199-N	183-N 154-N 142	1332
*	'47	I	ROCKET 4610	0.461	ENCLOSED TIMER/ TANK SEPARATE - USED CAR CARBURETOR FLOAT BY AUTOLITE/ LARGE BORE HEXAGON CARBURETOR HOUSING FOR VENTURI	160 190	150 120	1333
ROGERS MOTOR CO. (CLIFFORD W. ROGERS)	'41	I	'KD-29' 'AIR-YOUTH' 29	0.292	ROGERS MOTOR CO., PHILADELPHIA SIDEPORT/ASSEMBLED & KIT/ SLAG CONSTRUC - TION - ALUMINUM PISTON RUNNING IN ALUM - INUM CASTING (SPLIT HORIZONTALLY) WITH BULB SHAPED CYLINDER AND HEAD	110	101 60	1334



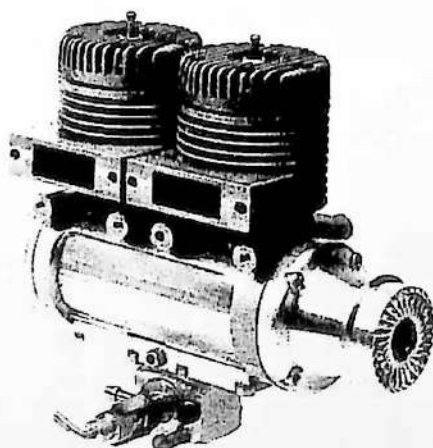
ROSS
INSIGNIA



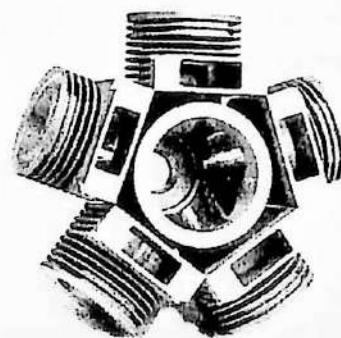
FIRST LOU ROSS
ENGINE '26' - 1967



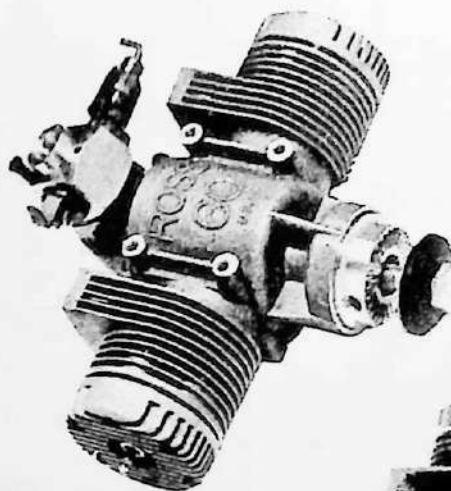
ROSS TWIN REED VALVE
EXPERIMENTAL



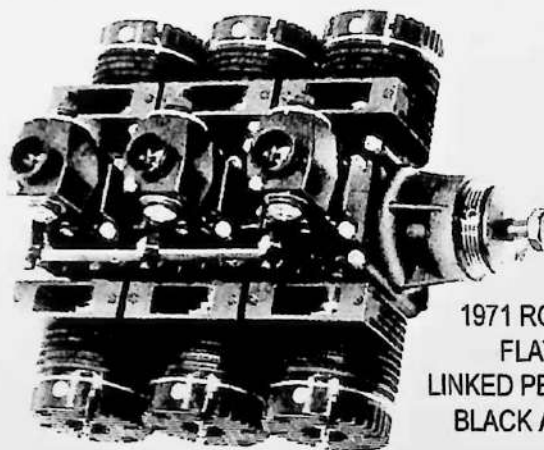
ROSS '88'
VERTICAL TWIN
EXPERIMENTAL



ROSS 5 CYLINDER
EXPERIMENTAL



1970 ROSS '60'
FLAT TWIN
KAVAN CARB
MATTE FINISH (EARLY)

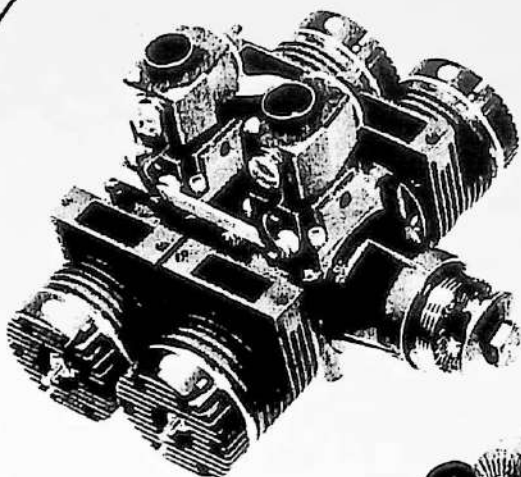


1971 ROSS '180'
FLAT SIX
LINKED PERRY CARBS
BLACK ANODIZED

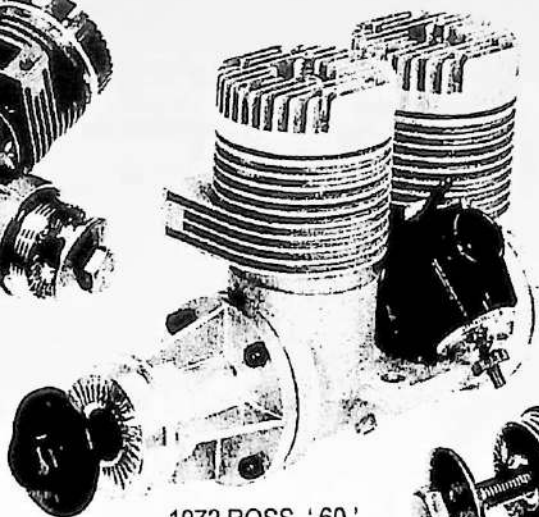


1970 ROSS '60'
FLAT TWIN
PERRY CARB
BLACK ANODIZED (LATE)

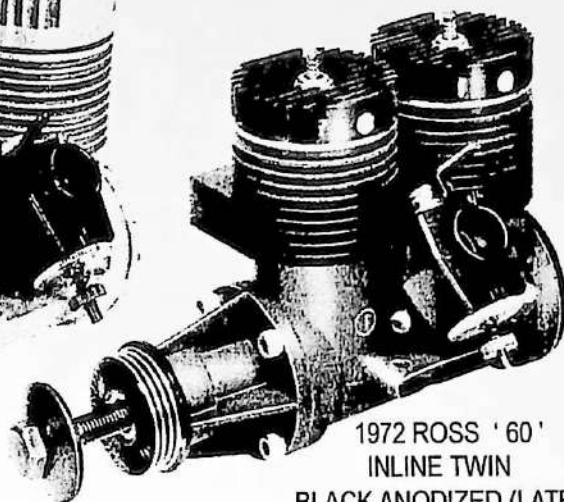
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
ROGERS MOTOR CO.	'41	I	"29"	0.292	SIMILAR TO KD-29-NEW LOWER CASE FRONT ROTARY/ TANK ON FAKE SIDEPORT INTAKE/ '29' ON BYPASS/ MACHINED FINS ON TANK	120	66	1335
"	'41	I	"35"	0.352	AS PREV. '29'/ '35' ON BYPASS/ BORED OUT	65	109	1336
"	'42	I	"RMC-2"	0.292	IDENTICAL TO KD-29 EXCEPT 'RMC-2' STAMPED ON BYPASS & 'A2' ON ONE LUG/ ASSEMBLED/ NO FINS ON TANK OR PROP DR.	65		1337
" NOTE: 1	'42	I	PROTOTYPE	0.60	ROGERS DEMONSTRATED A .60 WITH 1/2" SHAFT, FRONT ROTARY/ DUAL BYPASS/ NO PRODUCTION	PROTO		
" NOTE: 2	—	—	SERIAL NUMBERS	—	PRE WORLD WAR II ENGINES HAVE SERIAL #'s ON EXHAUST SIDE AND POST WAR ENGINES HAVE #'s ON BYPASS SIDE			
(ROGERS MOTOR CO DETROIT, MICHIGAN)	'46	I	"29"	0.292	AS .29/FRONT ROTARY/ STUB REAR AIR INTAKE - FLARED/ 'WIPE' TIMER/ NEW CYLINDER FIN SHAPE/ SEPARATE PLASTIC TANK	65		1338
"	'47 *	I	"RAM"	0.292	AS PREV. PRE-WAR KD .29/ LONG REAR VENTURI - FLARED INTAKE/ MAKE & BREAK TIMER WITH 'BAT-HANDLE' ARM/ 'RAM' STAMPED ON BYPASS	65		1339
DOLL & WATTERS MFG. CO., PINCKNEY, MICH.)	'48	I	"29"	0.292	AS '46-29/ OHLSSON TYPE TIMER	65		1340
"	'48 *	I	"35"	0.352	AS LAST '29' WITH OHLSSON TYPE TIMER/ '35' ON CASE/ BORED OUT	65		1341
"	'48	I	"RAM"	0.292	AS LAST RAM/ NEW TIMER ASSEMBLY	65		1342
ROSS POWER INC.	---	---	-----	-----	THE INITIAL MANUFACTURER OF ROSS TWINS WAS BY CONCORD AND WEST MFG. CORP. DESIGNED BY AND UNDER THE DIRECTION OF LOU ROSS. THERE ARE A FEW CORP. NAME CHANGES. PETER CHINN WROTE ABOUT THE PROTOTYPE AND EXPERIMENTAL ENGINES IN R.C.M. & E (BRITISH) IN APRIL 1971 AND THEY ARE IDENTIFIED IN THE FOLLOWING SHORTENED FORMAT:			
CONCORD & WEST MFG.CORP (NORTHFIELD-ROSS) (NORTHFIELD PRECISION INSTRUMENT CORP.) (AMERICAN ENERGY MANAGEMENT CORP.) (ROSS & SONS IN TUCSON, AZ) LOU ROSS DESIGNER			PRIOR TO AND INCLUDING 1971	1.	EARLY SINGLE CYLINDER .26 CU.IN. (SEE PIC)			
				2.	FIRST OF PROJECTED BH SERIES ROSS 60 TWIN			
				3.	SIMILAR TO ALL PREVIOUS ROSS TWINS EXCEPT REAR ROTARY-VALVE REPLACED BY REED-VALVE			
				4.	EXPERIMENTAL ROSS 80 TWIN BUILT AROUND THE ROSS 60 MAIN CASTINGS WITH STROKE LENGTHENED			
				5.	EXPERIMENTAL ROSS 88 TWIN HONED OUT FROM 80/ K&B HEADS			
				6.	EXPERIMENTAL ROSS 93 TWIN CYLINDERS BORED OUT			
				7.	PROTYPE ROSS 120 HORIZONTALLY-OPPOSED FOUR CYLINDER WITH TWIN PERRY CARBS			
				8.	EXPERIMENTAL ROSS 3 CYLINDER 2-STROKE RADIAL			
				9.	EXPERIMENTAL ROSS 3 CYLINDER 2-STROKE RADIAL WITH BLOWER COMPONENTS			
				10.	PROJECTED ROSS 5 CYLINDER 2-STROKE RADIAL BEING PARTIALLY PRODUCED UNTIL 3 CYLINDER DEVELOPED			
				11.	EXPERIMENTAL 1.20 90° VEE-FOUR WITH LINKED PERRY CARBS; TOO COMPLICATED FOR PRODUCTION			
			NOTE:	THE FOREGOING ARE THE EASIEST EXPERIMENTAL OR PROTOTYPICAL MOTORS TO IDENTIFY WHILE MANY OTHERS HAD MINOR DETAILS CHANGED.				
"	'70	G	ROSS 60 FLAT TWIN	0.603	MODEL CHANGED FROM THE MANUFACTURERS INITIAL ADVERTISEMENTS/ I.E. INVESTMENT CASTINGS OF CRANKCASE AND TWO CYLINDER CASINGS/ BLACK ANODIZED/ EARLY ONES HAD PLAIN MATTE FINISH/ ONE PIECE TWO-THROW CRANKSHAFT AND SPLIT BIG-ENDS/ ADOPTION OF KAVAN CARB EARLY & LATER PERRY AS ADVERTISED/ CON RODS HAVE DETACHABLE BIG-END CAPS/ 2 LARGE JOURNALS RUNNING IN 3 BALL BRGS./ ALUM. PISTONS HAVE SINGLE DYKES RINGS/ REAR CRANK-CASE COVER INCORPORATES INTAKE HOUSING WITH ROTARY VALVE PORT IN REAR SHAFT JOURNAL	199 171 261 331		1343



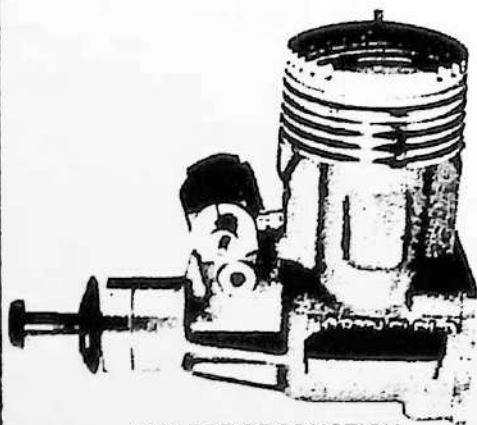
1971 ROSS '1.20'
FLAT 4 - LINKED PERRY CARBS
BLACK ANODIZED



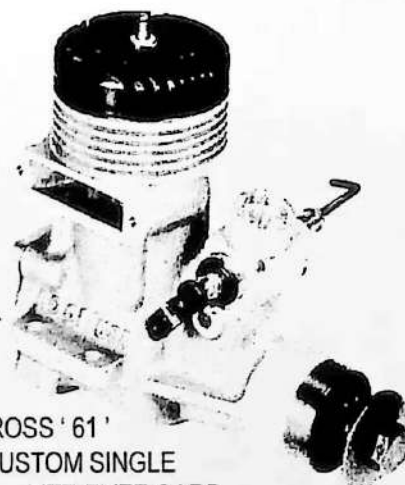
1972 ROSS '60'
INLINE TWIN
MATTE FINISH (EARLY)



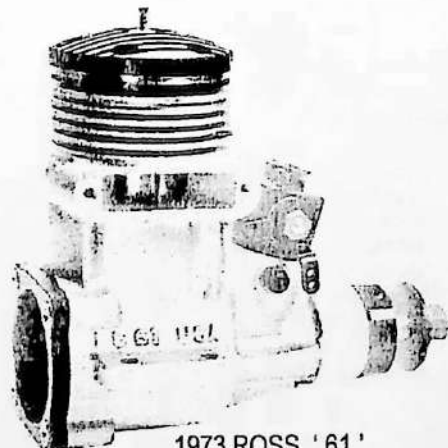
1972 ROSS '60'
INLINE TWIN
BLACK ANODIZED (LATE)



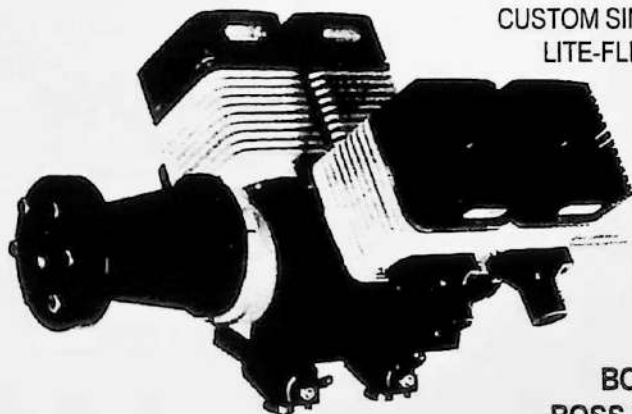
1973 PRE-PRODUCTION
ROSS '61' SINGLE



1973 ROSS '61'
CUSTOM SINGLE
LITE-FLITE CARB

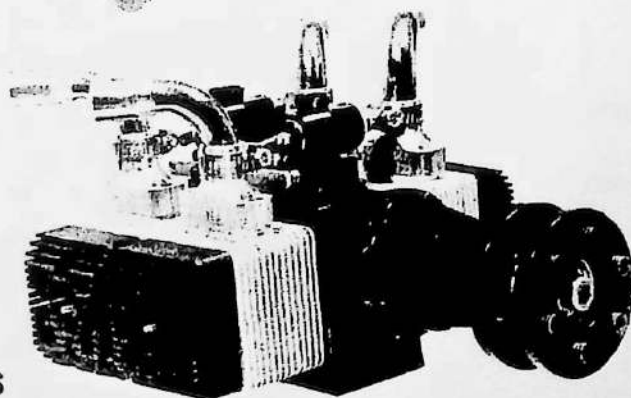


1973 ROSS '61'
CUSTOM SINGLE
PERRY CARB



ROSS 90° V FOUR '2.66'
DIRECT DRIVE OR WITH
REDUCTION GEAR

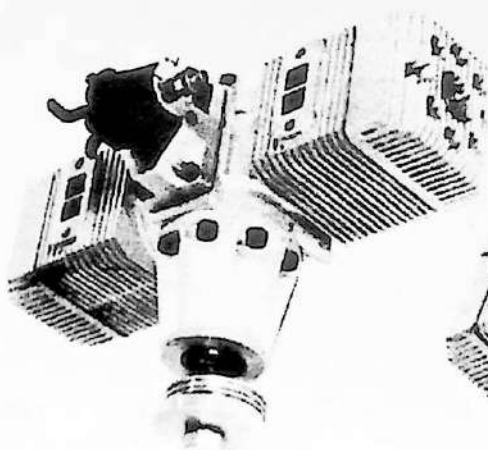
**BOTH
ROSS ENGINES
SEEN AT 1982 QSAA**



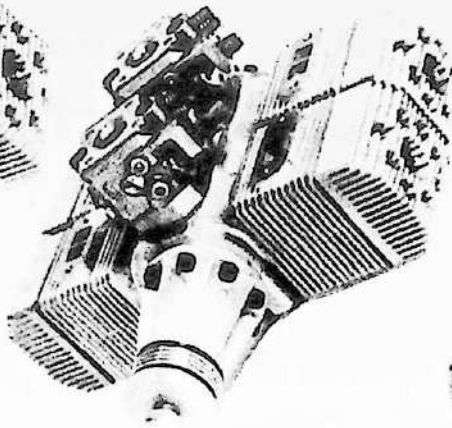
ROSS HORIZONTAL FLAT FOUR
WITH EXHAUST HEADERS AND
LINKED PERRY CARBS

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
ROSS POWER INC.	'71	G	ROSS 180 FLAT 6	1.810	<i>SIMILAR IN CONSTRUCTION TO TWIN (INVESTMENT CASTINGS ETC.) / 3 PERRY CARBS WITH LINKED THROTTLES MOUNTED ON TOP OF ENGINE FEEDING 3 CRANK CHAMBERS BY A REED VALVE / 6 THROW CRANKSHAFT IS SUPPORTED IN 5 BALL JOURNAL MAIN BEARING / CYLINDER HEADS ARE MACHINED FROM SOLID AND FITTED WITH FOX GLOW PLUGS / BLACK ANODIZED AND BLACK ENAMEL / NATURAL ALUMINUM TRIMMING</i>	1200		1344
• •	'71	G	ROSS 120 FLAT 4	1.206	<i>SIMILAR IN CONSTRUCTION TO FLAT TWIN & FLAT SIX (INVESTMENT ETC.) / USE OF NON-STAGGERED CYLINDERS AND UPWARD FACING EXHAUSTS AND CARBS ALLOWED A SUBSTANTIALLY REDUCED OVERALL ENGINE LENGTH / 4 BALL BEARINGS / PERRY CARBS LINKED TOGETHER / BLACK ANODIZED WITH NATURAL ALUMINUM TRIM OR MATTE FINISH</i>	900		1345
• •	'72	G	ROSS 60 INLINE TWIN	0.603	<i>SIMILAR IN CONSTRUCTION TO FLAT TWIN (INVESTMENT CASTINGS ETC.) / DESIGNED FOR SCALE WITH SMALL FRONTAL AREA / SINGLE PERRY CARB / 4 CAGED ROLLER BEARINGS PLUS A THRUST BEARING / BLACK ANODIZED OR MATTE FINISH</i>	285	350-N 285-N	1346
• •	'72	G	ROSS 60 7 VARIANTS FLAT TWIN	0.603	<i>THE FIRST PRODUCTION TWIN IS NOW MADE IN 7 VARIANTS / MATTE OR BLACK ANODIZED / REAR-ROTARY VALVE ENGINE WITH EXHAUST DUCTS ON TOP OR BELOW CYLINDERS / OR WITH REED VALVE INDUCTION & A HORIZONTAL INTAKE CARB. WITH UPWARD, REARWARD FOR HORIZONTAL INTAKE CARB</i>			1347
• •	'73	G	ROSS 61 SINGLE PRE-PROD.	0.610	<i>FIRST PRE-PRODUCTION ROSS SINGLE CYLINDER / MASSIVE SAND CAST CASE / ALL ALUM. FINISH / 'NORTHFIELD' CAST INTO CASE UNDER BYPASS / PERRY CARB / SMALL QUANTITY PRODUCED / ALL OF THIS ENGINES FEATURES PLUS MORE INTRODUCED IN THE ROSS CUSTOM .61</i>			1348
• •	'73	G	ROSS 61 CUSTOM SINGLE	0.610	<i>MASSIVE SANDCAST CASE / ALUMINUM FINISH / 'ROSS' CAST INTO CASE BELOW BYPASS / PERRY CARB OR ROSS MAXI FLITE LINEAR TYPE CARB / BLACK ANODIZED HEAD AND PROP DRIVE / SOME ENGINES HAD MACHINED BACK PLATE W/ BLACK ANODIZING AND SOME CLEAR / CYLINDER LINER PLATED WITH PATENTED 'OIL RETENTION CHROME' / NEW DYKES RING PINNED / PISTON SKIRT PORTED TO REDUCE WEIGHT ETC. / WRIST PIN RETAINED BY 'TRUE ARC' SNAP RINGS / WRIST PIN END OF ROD HAS LEADED PHOSPHOR BRONZE BUSHINGS AND CRANK END OF ROD HAS TWO FULL FLOATING HARDENED 'TIMKEN' STEEL BEARINGS / PROP BOLT THREADED INTO CRANK / INDUCTION IS SCHNURLE</i>	110	100-NIB	1349
• •	'73	G	ROSS 81 CUSTOM SINGLE	0.809	<i>SIMILAR TO ROSS 61 CUSTOM / PERRY CARB (REF. JIM JOHNSON, CALIFORNIA)</i>	155		1350
• •	'73	G	ROSS 91 CUSTOM SINGLE	0.909	<i>SIMILAR TO ROSS 61 CUSTOM / PERRY CARB (REF. MIKE CLANFORD'S BOOK)</i>			1351
• •	'73	G	ROSS 61 BLACK DEMON SINGLE	0.610	<i>BASICALLY SAME AS CUSTOM WITH MINOR INTERIOR MODS / CHANGED CARB FROM PERRY TO MAXI FLITE / BLACK ANODIZED WITH PRANCING HORSE ON BYPASS FOR VERY DISTINCTIVE APPEARANCE</i>	135		1352

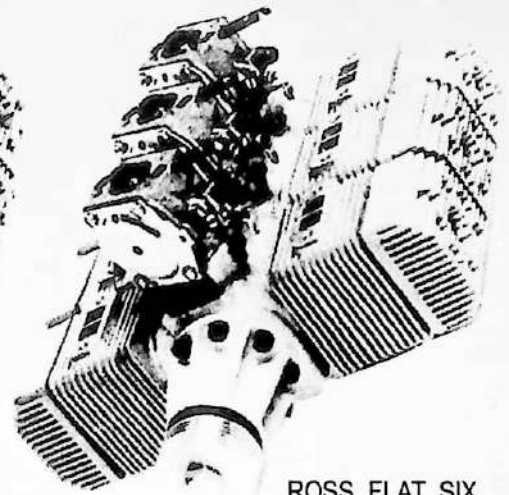
THREE ROSS ENGINES SEEN AT 1982 QSAA



ROSS FLAT TWIN
WITH PERRY CARB AND
REED VALVE INDUCTION



ROSS FLAT FOUR
WITH TWIN WALBRO CARBS

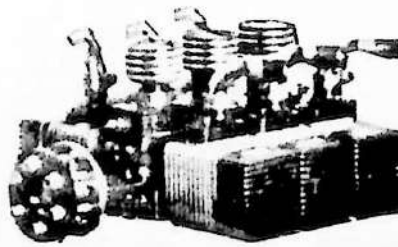


ROSS FLAT SIX
WITH THREE
TILLOTSON CARBS

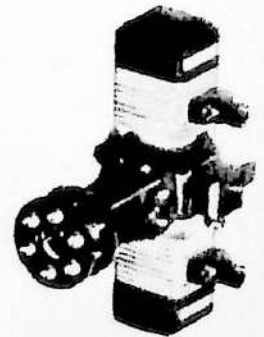
BELOW ARE A FEW OF ROSS & SONS R&D ENGINES
FOR INDUSTRIAL AND GOVERNMENT



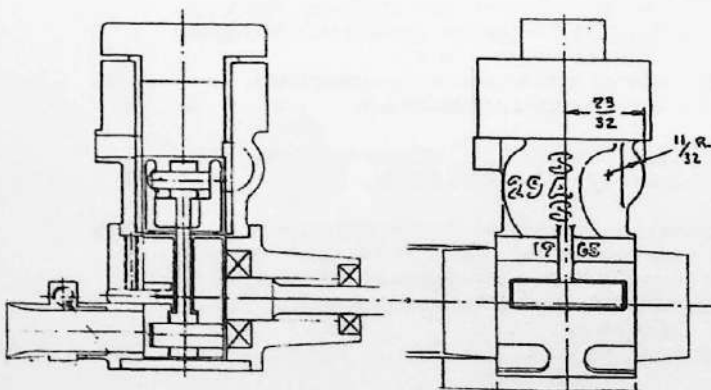
'61.' CU. IN.
ROSS R-1 FLAT FOUR
127 LBS - 75 TO 95 HP



OPPOSED SIX



OPPOSED TWIN



S.A.S. - STEGENS / ASHER / SMITH
1965 SAS '29' SPEED

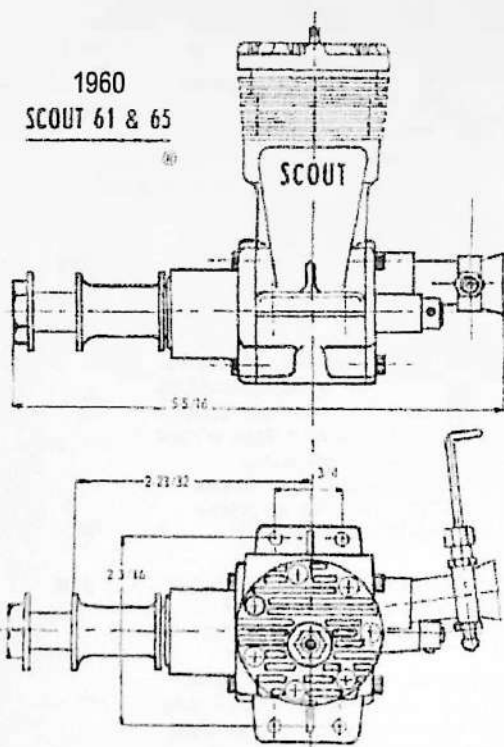


1951
SAMSON
'30'

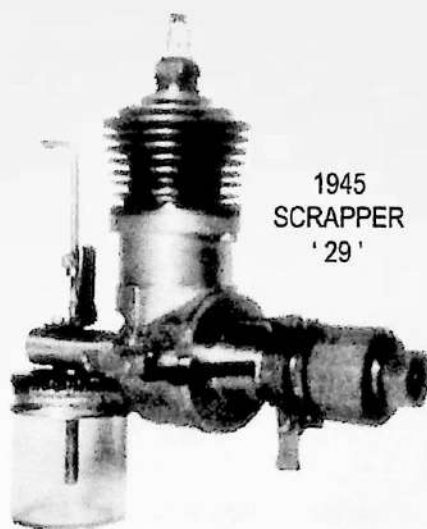
SEE 'PIERCE INDUSTRIES'

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
ROSS POWER INC.	'73		ROSS MUFFLERS		ROSS POWER MUFFLERS WERE DEVELOPED IN 3 VARIATIONS FOR SINGLE CYLINDER ENGINES: 1. LITE FLITE VENTURI TYPE WHICH IS A NO-NO IN CURRENT PRACTICE 2. AIR FLITE MUFFLER TO MEET NEW FAI & AMA NOISE SPECS. 3. OIL SEPARATION MUFFLER (PATENTED) FOR SUPERIOR SOUND REDUCTION BUT PROVED TO GENERALLY HAVE TOO MUCH BACK PRESSURE FOR AN ALMOST 8 db OF SOUND REDUCTION !			
	'75	G	ROSS .60 FLAT TWIN	0.603	<i>SIMILAR TO LAST OPPOSED FLAT TWIN/ MINOR VARIATIONS/ BLACK ANODIZED WITH GOLD ANODIZED HEADS/ PERRY CARB</i>	175		1353
NOTE: 1	'78		PURCHASE OF ROSS MODEL ENGINES BY J. ROBERTSON		LOU ROSS WAS 'SORT OF' FINISHED WITH MODEL ENGINES BY LATE '78 AND ALL OF HIS REMAINING PRODUCTS, PARTS, MOLDS, DIES AND JIGS WERE PURCHASED BY JIM ROBERTSON WHO HAD ROGER THEOBALD (THE 'T' IN TWA) ASSEMBLING REMAINING ENGINES. NO MORE ROSS MODEL ENGINES WERE PRODUCED WHEN ROBERTSON SOLD REMAINING ROSS MODEL ENGINES.			
	'78	G	ROSS 61 MKII ROBERTSON RED HEAD	.610	<i>SIMILAR TO BLACK DEMON ROSS 61/ ALL BLACK ANODIZED WITH RED ANODIZED HEAD/ MAXI FLITE CARBURETOR/ ONLY BY JIM ROBERTSON</i>	110		1354
NOTE: 2	'82		LAS VEGAS QSAA FLY-IN LARGE CUSTOM BUILT ENGINES FOR MODELERS		LOU ROSS SURFACED IN 1982 (WORKING FROM TUSCON, AZ) AT THE '82 LAS VEGAS QSAA FLY-IN AND IDENTIFIED LARGER CUSTOM BUILT ENGINES FOR NUMEROUS GIANT SCALE MODELERS AS FOLLOWS: 2CYL OPPOSED 1.2 CU.IN.; 4 CYLINDER OPPOSED 2.4 CU.IN.; 6 CYL OPPOSED 3.6 CU.IN. AND 90°V-4 CYLINDER 2.66 CU.IN. AVAILABLE AS DIRECT DRIVE OR GEARED.			
NOTE: 3	'82		ROSS & SONS DIVERSE ENGINE DESIGNS FOR INDUSTRIAL & GOVERNMENT		ROSS & SONS WITH ENERGY MANAGEMENT WERE DEVELOPING SOME 'DIVERSE ENGINE DESIGNS' FOR INDUSTRY & GOVERNMENT APPLICATIONS. I.E. ROSS HORIZONTAL OPPOSED 2, 4 & 6 CYLINDER ENGINES; ROSS 90°V-4 CYLINDER; PLUS A LARGE 61 CU.IN. ROSS ENGINE MODEL R-1, OPPOSED 4 CYLINDER.			
NOTE: 4	'83		ROSS PRODUCTION OF MODEL AIRPLANE ENGINES BY R.C.M.		RADIO CONTROL MODELER MAGAZINE STAFF WROTE UP REPORT ON ROSS MODEL ENGINES IN APRIL '83 AND NOTED THE FOLLOWING ROSS PRODUCTION NUMBERS: LESS THAN 50 - 6 CYLINDER ENGINES 92 - 4 CYLINDER ENGINES 195 - 2 CYLINDER INLINE TWINS 1300 - OPPOSED TWINS			
S.A.S. STEGENS ASHER SMITH	---	---	---	---	U-CONTROL SPEED ENTHUSIASTS AL STEGENS, CRAIG ASHER AND JOHN SMITH, BUILT A COUPLE OF ENGINES SOMEWHAT BASED ON ASHER'S 'HOWLER' EXPERIENCE AS FOLLOWS:			
	'65	G	S.A.S. 15 SPEED	0.149	<i>'HOWLER' REPRISED WITH MODIFICATIONS</i>			1355
	'65	G	S.A.S. 29 SPEED	0.299	<i>BASED ON SIMILAR EARLY SAND CAST CASE/ MOUNTING LUGS SET UP TO BE A REPLACEMENT FOR K&B RACING ENGINE/ HUGE REAR INTAKE/ BYPASS SEEMS TO FAVOR THE LARGE EXTERIOR BALL SHAPE INITIALLY DEVELOPED BY ASHER AND ALSO OTHERS SUCH AS DOOLING 61's ETC.</i>			1356
SABER (CALIF.)	'48	I	4 CYCLE	'C'	<i>BALL BEARING/ FLYWHEEL/ ADVERTISED ONCE/ NONE SEEN</i>	PROTO		1357
SAMSON (PIERCE)	'51	I	SAMSON 30 (SEE PIERCE)	0.297	<i>MADE WITH PIERCE CRANKCASES (GREY)/ SIDEPORT & REAR DISK ROTARY/ FEW MFD.</i>	RARE	300-N SOLD	1277

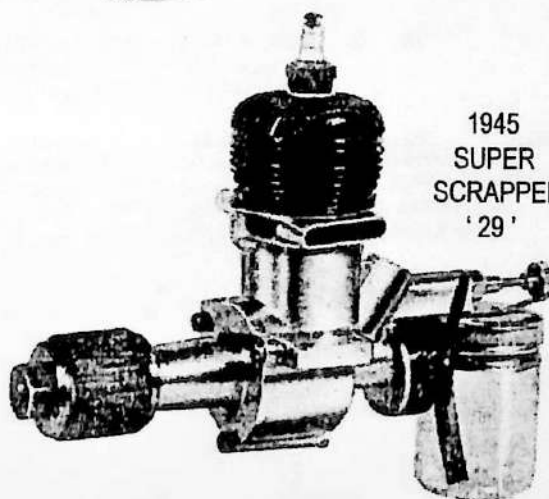
1960
SCOUT 61 & 65



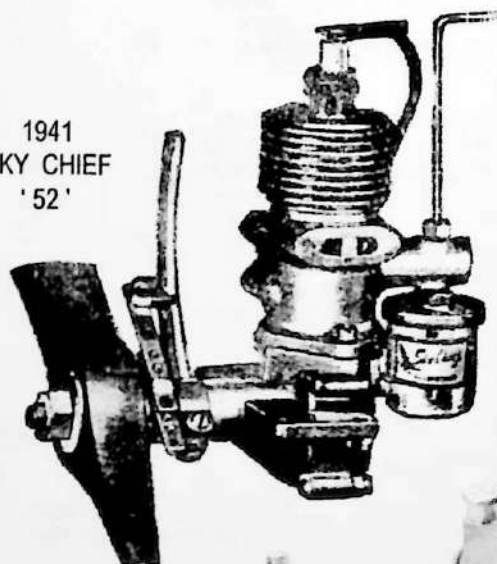
1945
SCRAPPER
'29'



1945
SUPER
SCRAPPER
'29'



1941
SKY CHIEF
'52'



1992
SHILEN
TORPEDO
'24 - 29 - 32'



1995
SHILEN
OLD TIMER
'19'

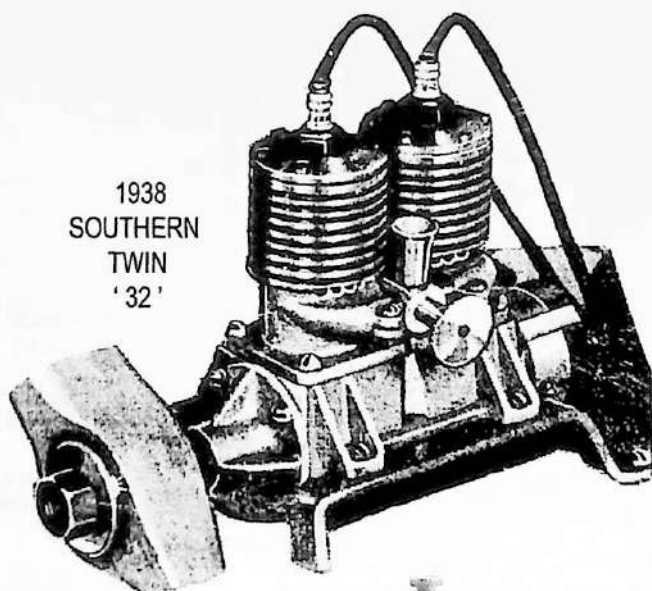


1939
SUPER
BLITZEN
'29'

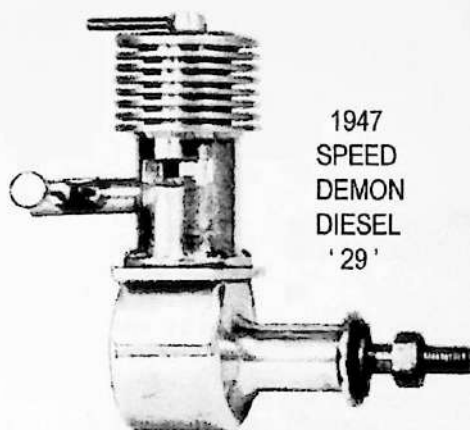


MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
SCARABE *	--- '40	--- I "29"	--- 0.299	MFD. BY CENTURY PACIFIC CO. PRODUCTION UNKNOWN/ ADVERTISED	PROTO		1358
SCOUT (JOE HORVATH) *	--- '60	--- I SCOUT 61	--- 0.609	MFD. AND ADVERTISED IN AMERICAN MODELER 1963 BY GARFIELD PROGRESSIVE DIE CORP. LATER TRIED TO SELL TOOLING ORIGINALLY TO BE PRODUCED FOR TETHERED RACING SPEED BOATS & U.C. CARRIER/ SAND CAST/ REAR ROTARY VALVE/ PROTOTYPES ONLY	PROTO		1359
*	'60	I SCOUT 65	0.649	AS PREVIOUS/ LARGER BORE/ PROTOTYPES ONLY	PROTO		1360
SCRAPPER *	--- '45	--- I SCRAPPER	--- 0.291	MFG. BY WOODRIDGE MFG. CO. SAME OWNER STARTED STENMOOR MFG. CO. (BOBCAT) AFTER BANK CLOSED WOODRIDGE (REF. 'E.C.J.')			
*	'45	I SCRAPPER	0.291	SAND CAST CASE AND FRONT END/ FRONT OPEN TIMER/ BLIND BORED CYLINDER AND HEAD/ PLASTIC TANK UNDER REAR INTAKE/ APPROX. 2000 MANUFACTURED/ MOST SCRAPPED	RARE 700	1100 SOLD	1361
*	'45	I SUPER SCRAPPER	0.291	REAR TIMER/ HEAD FINS/ BLACK CYLINDER WITH 7 CYLINDER FINS/ UNIQUE REAR INTAKE SYSTEM - APPEARS TO BE A PERKY 'FLUTTER VALVE'/ 12 MANUFACTURED/ MOST RETURNED TO COMPANY DUE TO TIMER NOT WORKING AND HEADS BLOWING OFF/ ONLY 1 SEEN	PROTO		1362
SHILEN AERO SPORTS * *	--- '92	--- I TORPEDO 24 IGNITION	--- 0.249	ED SHILEN, OF SHILEN RIFLES INC., ENNIS TEXAS, PURCHASED THE TOOLING & PARTS TO REPRODUCE THE SUCCESSFUL REPRO TORPEDO 24, 29 AND 32's BEING PRODUCED BY LARRY JENNO. ENGINES BE- CAME AVAILABLE IN NEVADA 1991. ALL ARE EXTREMELY WELL MADE AND ARE APPROVED FOR 'SAM' USE. REPRODUCTION OF THE 1947 K&B TORPEDO 24 IGNITION ENGINE WITH TANK/ MUCH BETTER MATERIALS			1363
* *	'92	I TORPEDO 29 IGNITION	0.299	REPRODUCTION OF THE 1946 K&B TORPEDO 29 IGNITION ENGINE WITH TANK/ MUCH BETTER MATERIALS	70 195-N	173-NIB	1364
* *	'92	I TORPEDO 32 IGNITION	0.319	REPRODUCTION OF THE 1947 K&B TORPEDO 29 IGNITION ENGINE WITH TANK/ MUCH BETTER MATERIALS			1365
* *	'95	I SHILEN 19 OLD TIMER IGNITION	0.199	ORIGINAL/ LOOKS LIKE AN 'OLD-TIME' ENGINE/ SIMILAR CHARACTERISTICS TO TORPEDOS/ IT WAS APPROVED FOR 'SAM' USE			1366
* NOTE:	2005	---	---	ALL FOUR (4) ENGINES CURRENTLY AVAILABLE, INCL. SPARK PLUGS FOR SALE.			
SKY CHIEF *	--- '39 *	--- I SKY CHIEF	--- 0.526	MFD. BY AMERICAN SUPERCRAFT CORP. SINGLE EXHAUST HOLE IN DUAL EXHAUST PORTS/ LAPPED PISTON SIMILAR TO 1ST MODEL DENNYMITE/ DIE CAST CASE/ PLASTIC TANK UNDER VENTURI/ UNMARKED BYPASS (MOULD MARK UNDER EXHAUST PORT IS #9A)	200		1367
*	'40	I KLOUD KLIMER	0.526	AS SKY CHIEF EXHAUST PORTS NOTICEABLY LARGER THAN SKY CHIEF/ NO SKY CHIEF DECAL ON TANK/ FOR SALE IN 'SEARS'/ NO NEEDLE VALVE TENSIONER (MOULD MARK UNDER EXHAUST PORT IS #11)	200		1368
*	'41 *	I SKY CHIEF	0.526	DOUBLE EXHAUST HOLE IN 1 EXHAUST PORT/ SINGLE RINGED PISTON/ VARIATIONS SEEN	200	186	1369
SNYDER-BLITZEN (MALCOLM 'EARL' SNYDER)	'39	I SUPER BLITZEN	0.292	SAND CAST CASE/ INTAKE ON THE SIDE -STRAIGHT OUT/ STREAMLINED METAL TANK UNDER INTAKE/ STEEL CYLINDER WITH 'STAKED ON' ALUM. HEAD/ HURLEMAN TIMER/ 3 BOLT RADIAL MOUNT	1200	SOLD 1250	1370

1938
SOUTHERN
TWIN
'32'



1947
SPEED
DEMON
DIESEL
'29'

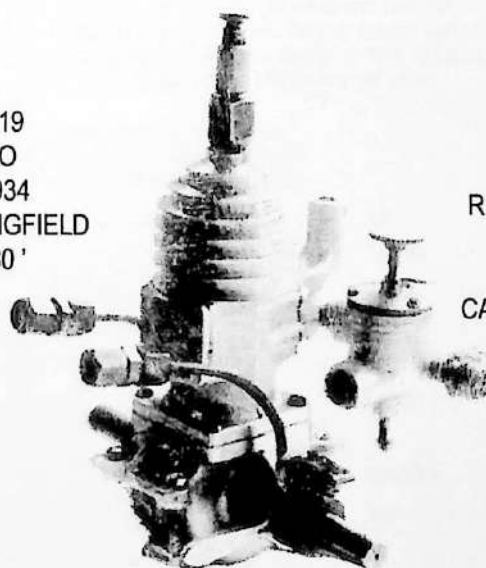


LEFT SIDE
EXHAUST
AND
CARBURETOR

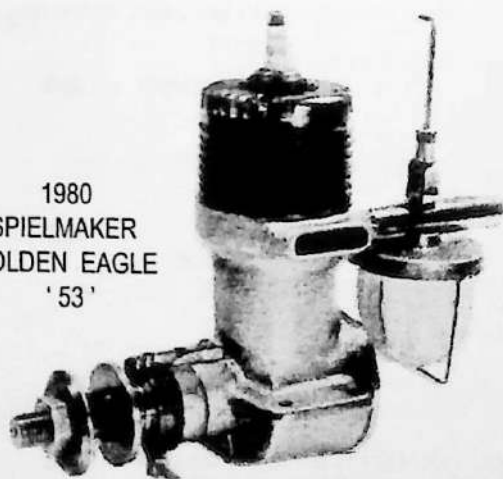


1919
TO
1934
SPRINGFIELD
'80'

RIGHT SIDE
BYPASS
AND
CARBURETOR



1980
SPIELMAKER
GOLDEN EAGLE
'53'

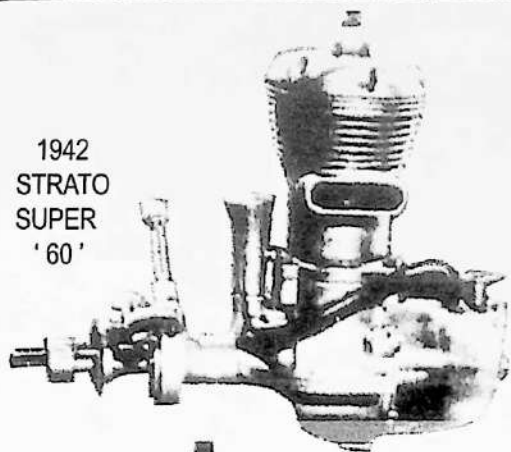


70's
STINGER
'29'
RACING

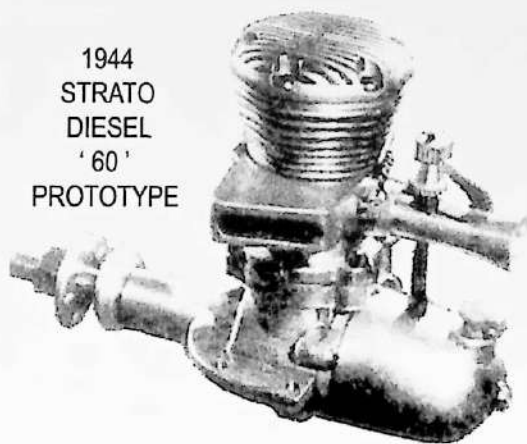


MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
SNYDER-BLITZEN	'39	I	SUPER BLITZEN 35	0.343	AS PREVIOUS/ INTAKE LARGER/ BORED OUT/ NAME VERTICAL ON BYPASS - BOTH MODELS	1200		1371
* NOTE:	---	---	-----	----	PROBABLY LESS THAN 2 DOZEN TOTAL MFD.			
SOUTHERN MODEL ENGINEERS (BOB CHUNN, DESIGNER)	---	---	-----	----	SEE ALSO CHUNN MANUFACTURING UPRIGHT IN-LINE TWIN ALL SAND CAST/ SIDE PORT/ CENTER CARBURETOR/ REAR TIMER/ CYLINDER AS '38 CHUNN 'CHUM' WITH LAPPED PISTONS/ 2 DIFFERENT HD DESIGNS/ VERTICAL INTAKE UNLIKE CHUNN TWIN/ TIMERS FIXED & VARIABLE WIPE	950	750	1372
SPEED DEMON *	---	---	-----	----	MFD. BY EASTERN MODEL ENGINEERING ALUMINUM MACHINED FROM BAR/ UNIQUE COMPRESSION CHANGED WITH SLIDING SLEEVE BY LEVER ROTATING ANTI-CLOCKWISE/ NO CASTINGS/ SOME MANUFACTURED AS .27 DISPLACEMENT/ SOME HAVE BEEN REPRODUCED	RARE 500	650 SOLD	1373
SPIELMAKER ENGINES (KARL SPIELMAKER)	---	---	-----	----	IN THE PAST, KARL HAS DONE NUMEROUS REPRODUCTIONS SUCH AS: EDCO DIESEL, MEGOW 19 ETC. THIS BLUE BOOK WOULDN'T BE COM- PLETE WITHOUT COVERING AT LEAST ONE OF THE FINE ORIGINAL ENGINES PRODUCED, IN A SHORT RUN, BY THE VERY POPULAR KARL SPIELMAKER, A WELL KNOWN ANTIQUE ENGINE BUFF. KARL HAS HAS ALSO BEEN VERY HELPFUL TO OTHER 'WOULD-BE' ENGINE MANUFACTURERS. THE ENGINE THAT WE SEE IN THE SWAP SHEET MOST OFTEN SEEMS TO BEST REPRESENT HIS WORK IS THE 'GOLDEN EAGLE' AND WE AWAIT THE LATEST FROM HIS SHOP IN 2005.			
* *	'80	I	GOLDEN EAGLE 53	0.530	SANDCAST CASE/ CLEAR PLASTIC TANK/ OPEN POINTS/ POLISHED BRASS INTAKE TUBE & TIMER ARM/ CYLINDER HEAD GOLD ANODIZED/ CAME IN COLORFUL BOX			1374
SPRINGFIELD (ROY E. McADAMS)	1919/ 1934	I	SPRINGFIELD 80	0.804	SPLIT LOWER SANDCAST CASE & BOLT ON UPPER CYLINDER WITH HORIZONTAL FINS UP TO PLUG/ SIDEPORT COMBO INTAKE AND EXHAUST/ 3 RING PISTON/ FRONT & REAR BEARING/ FRONT TIMER/ (B. BRAUTLECHT PICTURES)	RARE		1375
*	1919/ 1934	I	SPRINGFIELD 99 1	0.997	AS PREVIOUS SANDCAST - UNIQUE BOLT ON INTAKE AND EXHAUST - ALSO KITS	RARE		1376
* NOTE:	---	I	TWIN & RADIAL	?	A TWIN AND 5 CYLINDER RADIAL WERE AD- VERTISED BUT PROBABLY NEVER PRODUCED - HOWEVER DAN CALKIN, ELF DESIGNER, APPARENTLY OWNED TWO !	PROTO		
STINGER (GEORGE MUELLER) *	---	---	-----	----	ALL ENGINES MANUFACTURED AND SOLD BY GEORGE MUELLER OF PHEONIX, AZ. CRANKCASE MACHINED FROM BAR STOCK INCLUDING FRONT END REAR CASE COVERS/ HEAD HAS MACHINE CUT FINS/ CASE IS POLISHED/ REAR ROTOR INTAKE (REF. J. DUNKIN)			1377
*	'60's	G	STINGER 15 RACING	0.149				
*	'70's	G	STINGER 29 RACING	0.299	RED ANODIZED CASE WITH NAME ENGRAVED ON BYPASS/ REAR ROTOR/ 2 BALL BEARINGS/ FOX PARTS/ REMAINDER MACHINED FROM BAR STOCK/ FEW MADE			1378
*	'70's	G	STINGER 19 & .60 (RACING)	0.194 0.601	SIMILAR TO PREVIOUS/ FEW MADE			1379
STRATO (CANADIAN) (RANDALL BAINBRIDGE) *	---	---	-----	----	PRODUCTION CONTINUED IN CANADA AS 'EDUCATIONAL TOOLS' DURING WORLD WAR II YEARS - 4 IN SERIES			
*	'41	I	SUPER 60	'604	ALUMINUM MAGESILUM ALLOY IN PERM. MOLD/ SPOKE FIN HEAD/ LIKE AIR-O M.M./ SIDEPORT FLARED INTAKE/ 'DELCO' TIMER/ CAST IRON CYLINDER & HEAD/ ROUND EXHAUST PORTS	450		1380

1942
STRATO
SUPER
'60'

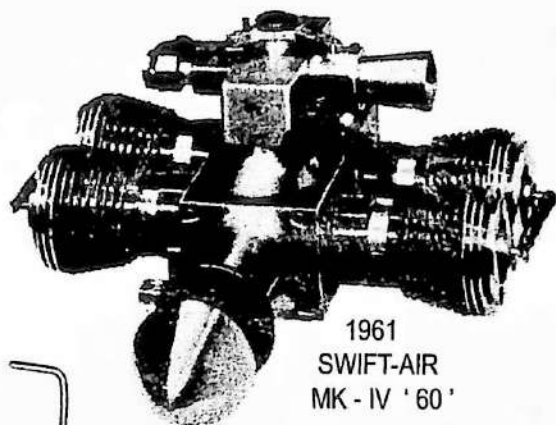
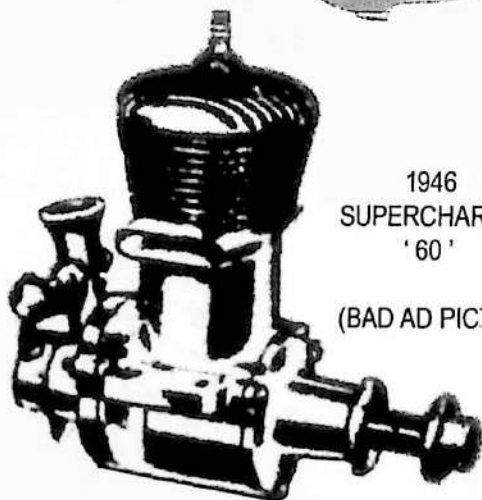


1944
STRATO
DIESEL
'60'
PROTOTYPE



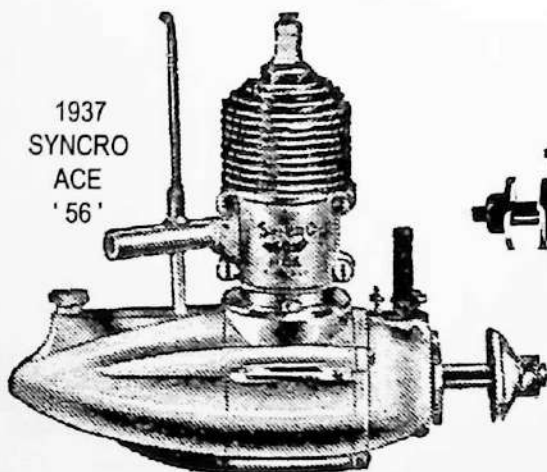
1946
SUPERCHARGER
'60'

(BAD AD PICTURE)

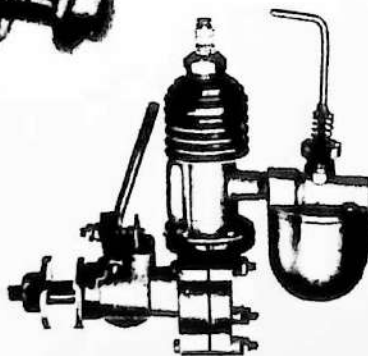


1961
SWIFT-AIR
MK - IV '60'

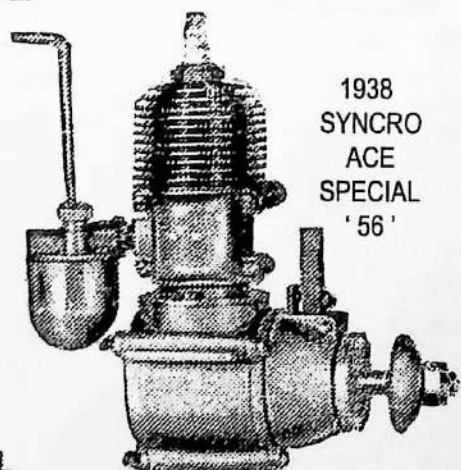
1937
SYNCRO
ACE
'56'



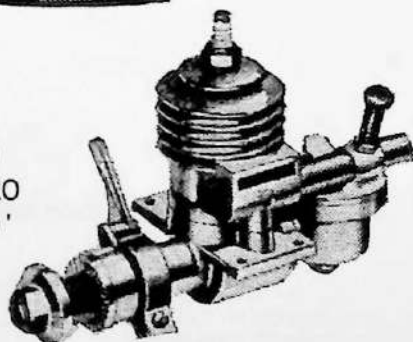
1938
SYNCRO BEE
'12'



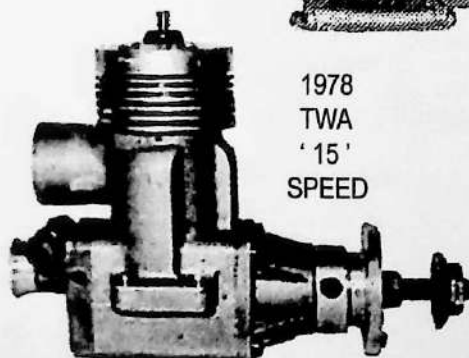
1938
SYNCRO
ACE
SPECIAL
'56'



1940
SYNCRO
'B - 30'

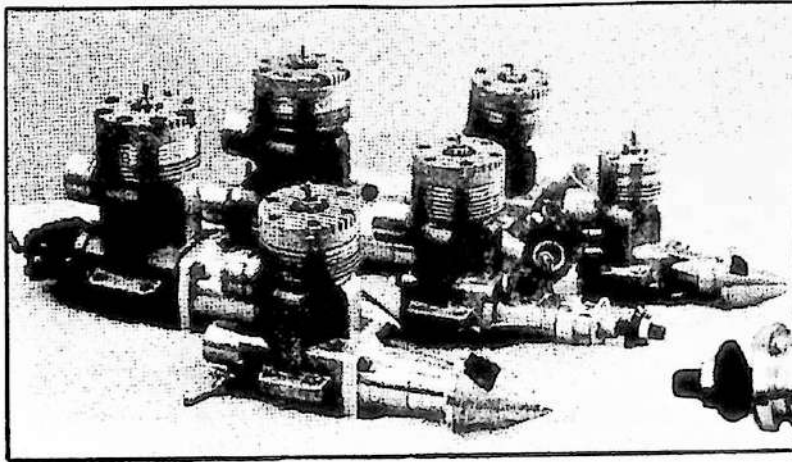


1978
TWA
'15'
SPEED

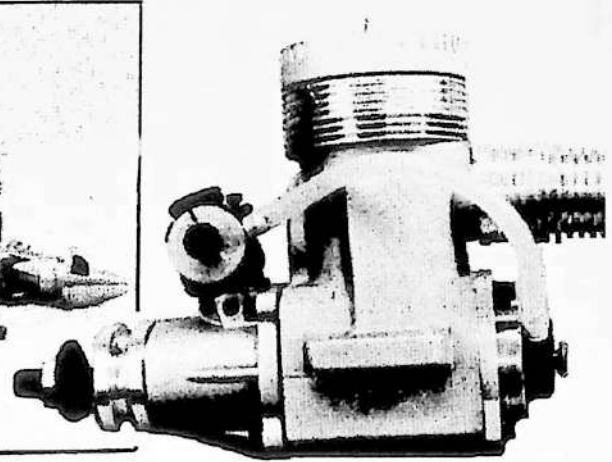


MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
STRATO	'42	I	SUPER 60	0.604	AS PREV./ ALLOY CYLINDER AND HEAD / FINNED HEAD	450		1381
"	'43	I	SUPER 60 PROTOTYPE	0.604	SIMILAR TO PREV./ FRONT ROTARY/ FEW MANUFACTURED	PROTO		1382
"	'44	D	DIESEL PROTOTYPE	0.604	SIMILAR TO IGNITION/ SIDEPORT/ WITH CRANK-CASE RELEASE/ RECTANGULAR DETACHABLE EXHAUST STACK/ FEW MADE	PROTO		1383
SUPER DEVIL	'46	I	SUPERCHARGER 60	0.604	SIMILAR TO HORNET .60-LAPPED PISTON/ V' PLUG/ HORNET & McCOY TIMERS DON'T FIT (REFERENCE HERB DIRKS)	PROTO		1384
SWIFT AIR ASSOCIATES ENGINE DIV.	— *	— G	— MK IV-4 CYL. (THROTTLE)	— 0.602	ORIGINALLY DESIGNED & SOLD BY SPENCE INDUSTRIES - ROTO VALVE ENGINE DIV. OPPOSED 4 / BAR STOCK CASE/ COX .15 LINERS AND HEADS/ GOLD ANODIZED	200		1385
" "	'61	G	MK 3 - 2 CYL. (THROTTLE)	0.301	OPPOSED TWIN/ BAR STOCK CASE/ COX .15 LINERS AND HEADS/ GOLD ANODIZED	125		1386
" "	'62	G	MK 2 - 4 CYL. (THROTTLE)	0.362	OPPOSED 4/ BAR STOCK CASE/ COX .09 LINERS AND HEADS/ GOLD ANODIZED	200	250	1387
" "	'62	G	MK 1 - 2 CYL. (THROTTLE)	0.181	OPPOSED TWIN/ BAR STOCK CASE/ COX .09 LINERS AND HEADS/ GOLD ANODIZED	125		1388
SYNCHRO DEVICES INC. (JOHN L.DOLL-NOTE 'ROGERS' - DOLL & WATERS)	'37	I	ACE 56	0.562	DIE CAST STREAMLINED ENGINE/ REAR TANK INTEGRAL WITH CASE/ SIDEPORT/ BOLT-ON EXHAUST STACK/ CLOSED TIMER	425 675		1389
" "	'38	I	BEE 12	0.122	VERTICAL SPLIT DIE CAST CASE/ OPEN TIMER/ SMALL DIE CAST METAL TANK HUNG ON REAR INTAKE/ OPEN TIMER	650		1390
" "	'38	I	ACE SPECIAL 56	0.562	SIMILAR TO ACE WITH SMALL DIE CAST METAL TANK HUNG ON REAR INTAKE/ 'SPECIAL' STAMPED ON MOUNTING LUG	325		1391
" "	'40	I	"B-30"	0.292	PRE ROGERS-BUZZ/ 1ST ROGERS-TYPE 'SLAG' CONSTRUCTION/ LGE. CASTING BELOW EXHAUST CARRIES SIDEPORT VENTURI/ TANK OFFSET PLACING IT CENTERED ON REAR OF ENG./ LAPPED PISTON OR PISTON WITH ONE OR TWO RINGS	100 80-VG 70	76 67	1392
" "	'40	I	"PC-2" 29	0.292	SIDEPORT/ KIT ONLY AS B-30 - SLAG ENGINE LAPPED PISTON/ STAMPED BACKPLATE	65(KIT)		1393
T.W.A. AND PERFORMANCE MODEL PARTS (GLEN DYE)	—	—	—	—	TWA ORIGINALLY STOOD FOR THE THEOBALD AND WISNIEWSKI ASSOCIATION. ENGINE DESIGNS WERE APPARENTLY SOLD TO DYE WHO THEN BUILT CUSTOM PERFORMANCE AIRCRAFT, MARINE AND RACE CAR ENGINES. ALL OF THESE WERE FOR A VARIETY OF HIGH PERFORMANCE MODEL EVENTS. IN AN INTERVIEW BY DICK BRADFORD OF RCM IN '78, DYE SAID 'TO PRODUCE HORSEPOWER, IT'S EITHER CUBIC INCHES OR CUBIC MONEY THAT COUNTS'; GLEN BELIEVED CON RODS WERE ONE OF THE WEAKEST POINTS & HIS OWN COST \$50., 4 HOURS FROM A SOLID CHUNK OF TITANIUM AT AT \$10. PER POUND !			
"	'78	G	TWA 15 SPEED	0.149	SANDCAST CASE/ TITANIUM CON ROD/ ABC/ REAR EXHAUST AND INTAKE			1394
"	NOTE:	—	—	—	MOST OF THESE TWA ENGINES HAVE A SIMILAR CRANKCASE APPEARANCE (SEE THE .60 R/C PIC)			
"	'78	G	TWA 40 PYLON	0.398	SANDCAST CASE/ TITANIUM CON ROD/ ABC PLUS RINGED ALLOY PISTON/ SCHNEURLE PORTING/ REAR ROTOR AND EXHAUST			1395

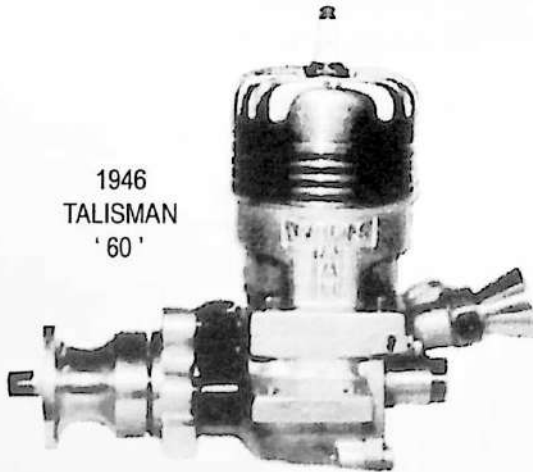
THE LINE OF T.W.A. ENGINES



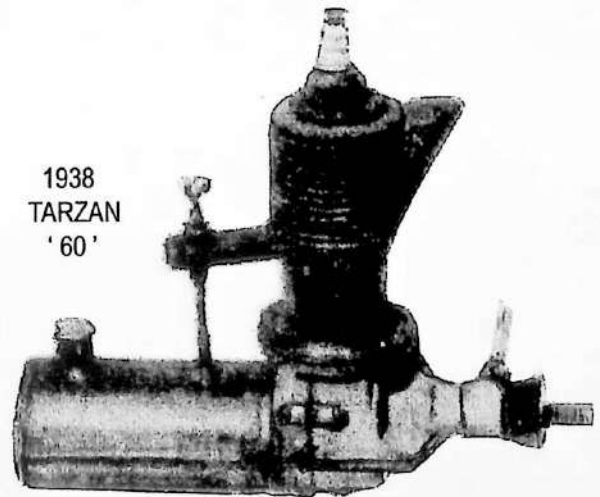
1978 TWA '60'



1946
TALISMAN
'60'



1938
TARZAN
'60'



TECHNOPOWER 1978 THROUGH 2005 AND BEYOND

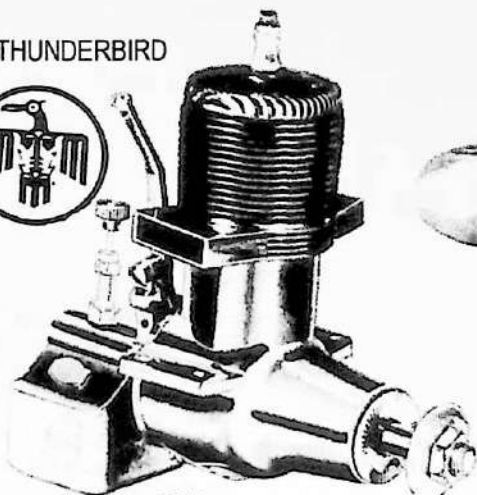


**"Real airplanes have two wings
and round engines"**

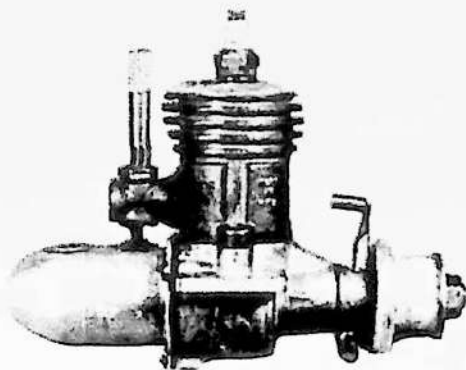
TECHNOPOWER ENGINES ARE TRUE PIECES OF MODEL ENGINE ART

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
T.W.A. AND PERFORMANCE MODEL PARTS	'78	G	TWA 40 RIRE MARINE RACE CAR	0.398	AS PREVIOUS/ MARINE HEAD/ FLYWHEEL/ RACE CAR VERSION HAS NO MARINE HEAD/ BOTH MODELS HAVE PIPED EXHAUST			1396
*	'78	G	TWA 40 FIRE R/C	0.398	AS PREVIOUS BUT FRONT INTAKE WITH REAR EXHAUST/ PERRY CARB & PUMP/ PIPED EXHAUST			1397
*	'78	G	TWA 45 FIRE R/C	0.448	AS PREVIOUS .40 MODELS/ STROKED CRANKSHAFT/ PERRY CARB AND PUMP AS REQUIRED			1398
*	'78	G	TWA 60 FIRE R/C (PATTERN)	0.601	SANDCAST CASE/ TITANIUM ROD/ ABC PLUS RINGED ALLOY PISTON/ SCHNIERLE/ PERRY CARB AND PUMP/ PIPED EXHAUST/ CLAIMED 4+ HP			1399
NOTE: #1	---	---	-----	----	DYE ALSO PRODUCED NEEDLE VALVES, CARBS, AIR FILTERS, VENTURI INSERTS, ABC PISTONS AND SLEEVES, RODS & PINS, AS WELL AS MEGAPHONE EXHAUSTS FOR MASS PRODUCED ENGINES IN USE DURING THIS TIME PERIOD.			
NOTE: #2	---	---	-----	----	* "T" OF TWA IS ROGER THEOBALD (WELL KNOWN IN U-CONTROL SPEED CIRCLES) WHO WORKED ON K&B's SCHNIERLE .15 & THE DESIGN OF THE SIDE EXHAUST PYLON 40S; LEFT K&B TO DESIGN AND SET UP PRODUCTION OF KRAFT 61'S. FROM KRAFT SYSTEMS HE WENT TO COX AND CON- SEQUENTLY BECAME RESPONSIBLE FOR HANDLING FINAL MACHINING AND ASSEMBLY OF ROSS ENGINES FOR JIM ROBERTSON WHO TOOK OVER THE LAST OF ROSS' MODEL ENGINES. * "W" OF TWA IS THE FAMOUS BILL WISNIEWSKI WHO DOESN'T NEED MUCH INTRODUCTION AS HE IS ONE OF THE SENIOR WHIZ'S OF MODEL ENGINE DESIGN AND STAYED WITH K&B AFTER BRODBECK HAD GONE, AND UNTIL IT WAS WRAPPED UP IN 1999.			
TALISMAN (BILL CUBITT)	'46	I	TALISMAN 60	0.604	SAND CAST/ REAR ROTARY/ HORNET STYLE/ NAME ON BYPASS/ APPROXIMATELY 10 BUILT (REF. 'E.C.J')/ APPROX. 100 KITS WERE SOLD PLUS ADDITIONAL KITS IN RECENT YRS. BY K. CARLSON	RARE 450(KIT)		1400
TARZAN (TONY GRISH)	'38	I	TARZAN	0.601	SAND CAST TIMER FRAME & CASE/ FABRICATED CYLINDER - COPPER PLATED/ NAME ON EXHAUST STACK/ 50 BUILT - (REF. 'JOURNAL')	1250		1401
TECHNOPOWER II INC. (EXECUTIVE ENGINES CO.) (U.K. DESIGNER)			1978 THRU 2005		DESIGNED BY A UNITED KINGDOM DESIGNER & MANUFACTURED UNDER 'EXECUTIVE ENGINES'. INITIALLY PRODUCED USING STUDENTS TO ASS- SEMBLE THE ORIGINAL ENGINES. COMPANY OWNER CHANGED HANDS OVER THE YEARS. THE MECHANICS ON THESE MULTI CYLINDER ENGINES WERE BASED ON A FULL SIZE PRE-WAR ARMSTRONG-SIDDELEY 100-hp 5 CYLINDER AIRCRAFT ENGINE. IT IS NOT APROPOS FOR US TO TRY TO IDENTIFY ALL DIFFERENT MINOR POINTS OF IMPROVEMENT DURING 25+ YEARS OF MANUFACTURING THESE ENGINES SINCE THEY ARE CLEARLY NOT ORDINARY MODEL ENGINES. PETER CHINN SAID, 'THEY ARE NOT FOR THE MODELLER WHO LOOKS UPON AN ENGINE SIMPLY AS A MEANS OF HAULING A MODEL THROUGH THE AIR AND TO WHOM THE IDEAL POWERPLANT IS ONE THAT HE CAN JUST FIT AND FORGET.' TECHNOPOWER RADIALS ARE, IN FACT, STRICTLY FOR SCALE BUFFS AND OTHERS WHO CAN DELIGHT IN THE SIGHT AND SOUND OF THEM. ALL HAVE BEEN CONSIDERABLY IMPROVED OVER THE YEARS IN POWER. DURABILITY PLUS REDUCED WEIGHT.			
1/6TH SCALE		G	7 CYLINDER	1.35	6" DIAMETER			1402
		G	5 CYLINDER	1.39	6" DIAMETER (BIG BORE)			1403
		G	7 CYLINDER	2.00	6-5/8" DIAMETER (BIG BORE)			1404
		G	9 CYLINDER	2.50	7-1/16" DIAMETER (BIG BORE)			1405
1/5TH SCALE		G	3 CYLINDER	1.35	8" DIAMETER 'C' SERIES			1406
		G	5 CYLINDER	2.26	9" DIAMETER 'C' SERIES		708	1407
		G	7 CYLINDER	3.16	9" DIAMETER 'C' SERIES		911-NIB	1408
		G	9 CYLINDER	4	9" DIAMETER 'C' SERIES			1409

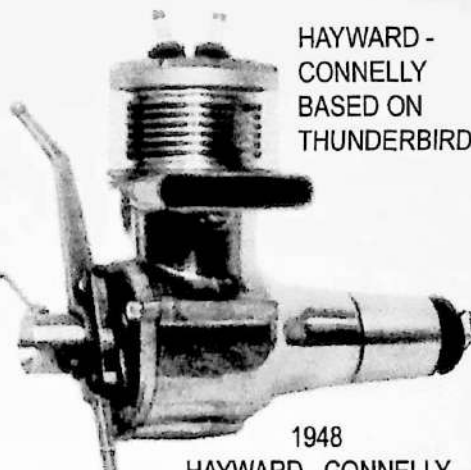
THUNDERBIRD



1946
SUPERCHARGED
THUNDERBIRD
'64'

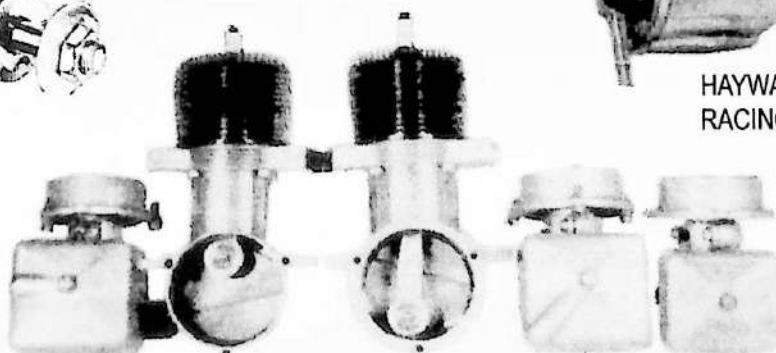


1946
SUPER THOR
'29'

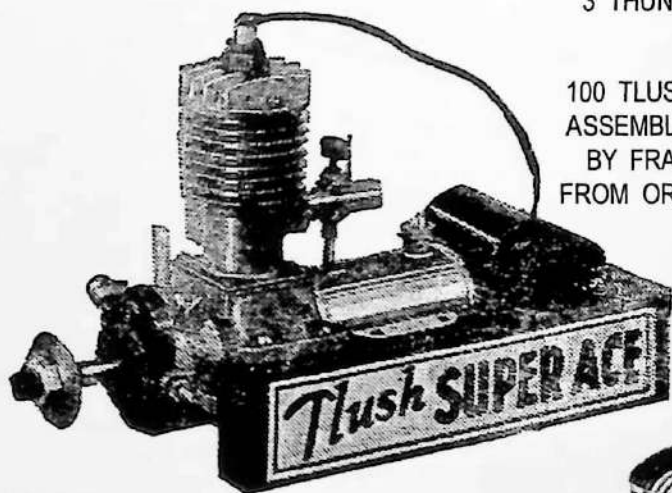


HAYWARD -
CONNELLY
BASED ON
THUNDERBIRD

1948
HAYWARD - CONNELLY
RACING THUNDERBIRD
'60'

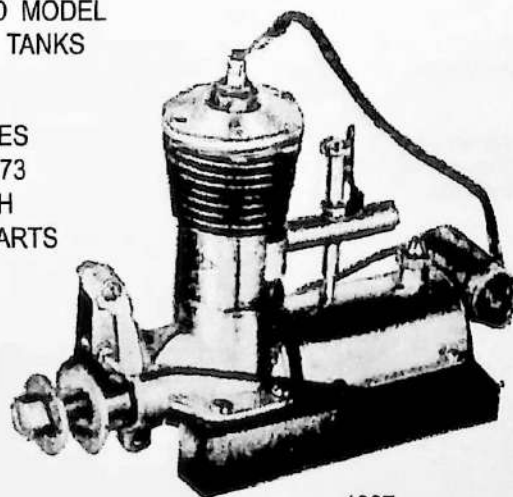


1ST MODEL 2ND MODEL
3 THUNDERBIRD TANKS



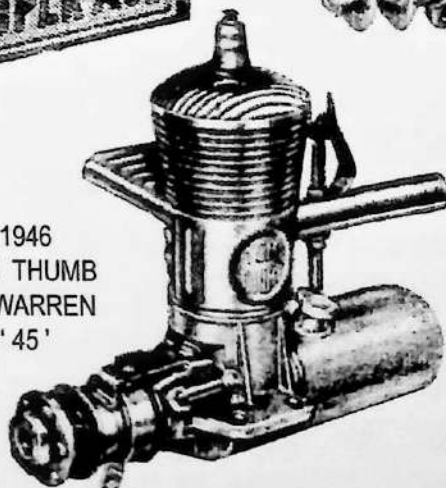
1937 TLUSH SUPER ACE '60'

100 TLUSH ENGINES
ASSEMBLED IN 1973
BY FRANK TLUSH
FROM ORIGINAL PARTS



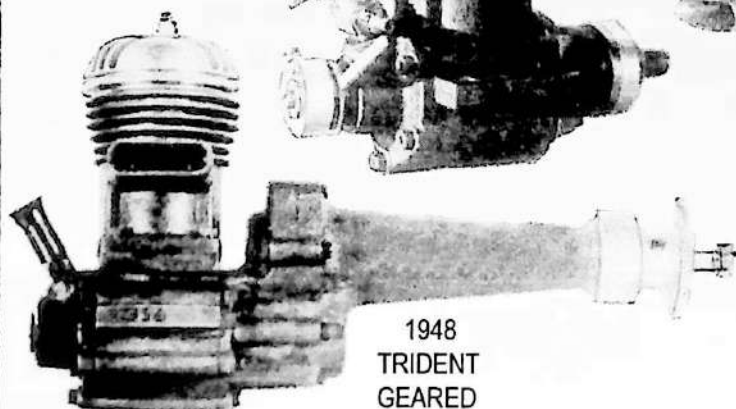
1937
TOM THUMB
BY CLEVELAND
'48'

1946
TOM THUMB
BY WARREN
'45'

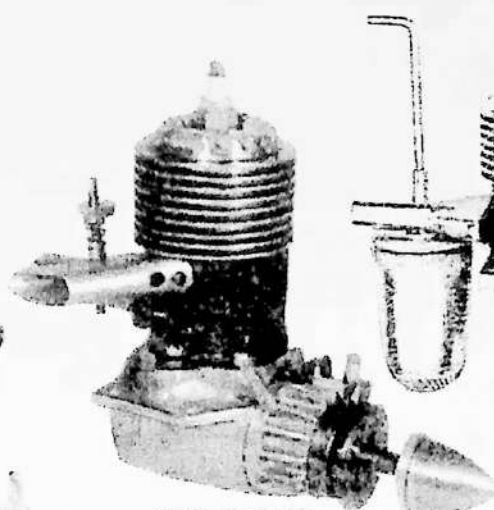


MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
TECHNOPOWER II INC. NOTE:	---	---	---	---	ANY ENGINE MAY BE BLACK ANODIZED. ALL ENGINES REQUIRED A GROUND POWER UNIT. AS AUTHORS, WE CONSIDER THESE MULTI-CYLINDER ENGINES TRUE PIECES OF MODEL ENGINE ART.			
THOR ENGINE DIVS. OF AMERICA'S HOBBY CENTER	'46	I	THOR 'B'	0.292	DIE CAST CASE & STREAMLINED CYLINDER/ 'SLAG' ENGINE/ SHEET METAL TIMER/ METAL TANK/ KIT OR ASSEMBLED	60	89 61	1410
" "	'46	I	THOR 'B'	0.292	AS PREV./ LONG THIN NEEDLE VALVE AND SLIMMER TANK/ HEAVIER TIMER	60	71 56	1411
" "	'46	I	SUPER THOR	0.292	SIMILAR TO PREV./ NEW CYLINDER WITH FILLETS AT INTAKE/ DARKER COLOR (REF. 'E.C.I.')	60	45	1412
" "	'49	G	SUPER THOR	0.292	AS PREV./ 'GLO THOR' ON BACKPLATE/ PER D.KEATS	50		1413
THUNDERBIRD (JOHN CONNELLY & LELAND HAYWARD)	'46	I	THUNDERBIRD C	0.604	MFD. BY SCOTT MOTORS, INC. CRANKCASE DIE CAST WITH TWIN STACKS/ SUPERCHARGER IMPELLER/ SPARK AND MIXTURE CONTROLS AT REAR/ FEW MFD.	RARE		1409
"	'46 *	I	SUPERCHARGED THUNDERBIRD (SPECIAL)	0.647	AS PREV./ THIN WALLED SLEEVE/ BORED OUT/ 'SUPERCHARGED THUNDERBIRD' IN RAISED PRINT ON FUEL TANK	425 495		1414
" NOTE:	---	--	TANKS	---	THERE ARE 3 TYPES OF FUEL TANKS			
" NOTE:	---	--	RACING THUNDERBIRD	---	SCOTT MOTORS ADVERTISED A 'RACING THUNDERBIRD' NO SUPERCHARGER FAN AND SMALLER DISPL. FOR U-CONTROL SPEED RULES - NOTED IN MAGAZINES WAS 'WATCH FOR THE RACING THUNDERBIRD'.			
" NOTE:	---	--	PRE-PROD.	---	THE RACING THUNDERBIRD IN PRE-PRODUCTION FORM HAS APPEARED (REFERENCED BY ART SWIFT WITH A SLIGHTLY MODIFIED THUNDERBIRD)			
HAYWARD- CONNELLY	'48	I	H - C - RACING THUNDERBIRD	0.601	NEW DIE CAST CRANKCASE/ SHORT INTAKE/ NO TANK/ DUAL AND SINGLE PLUGS/ DIE CAST ALUMINUM CRANKCASE/ SAND CAST RINGED PISTON/ FORGED DURAL ROD WITH ROLLER BEARING ON BIG END	500	475 482 635-N	1415
"	'49	G	H - C - RACING THUNDERBIRD	0.601	AS PREV./ NO TIMER/ SINGLE GLOW PLUG/ DIE CAST RINGED AND REINFORCED PISTON	425 700		1416
" NOTE:	---	--	---	---	FACTORY BURNED DOWN BEFORE HAYWARD- CONNELLY ENGINES COULD BE MFD. IN QUANTITY - PARTS ASSEMBLED IN MORE RECENT YEARS BY JIM NIGHTENGALE (U/C SPEED GURU)			
THUNDERBOLT "	'47	I	THUNDERBOLT	0.647	ACRO TOOL AND DIE WORKS DIE CAST/ ROTARY VALVE - SLOPED DOWNDRAFT INTAKE/ 'SQUARE' BORE AND STROKE/ ENCLOSED TIMER	PROTO		1417
TLUSH MOTOR COMPANY (FRANK & CHARLIE TLUSH)	'37	I	SUPER ACE	0.601	TALL THIN HEAD FINS/ SPL. LIGHTENED FORD TIMER/ HORIZONTAL 'CAN'TANK WITH 'V' BOTTOM/ CAST MAG.CASE & CYL.HEAD/ CAST IRON CYLINDER/ SERIAL # ON BYPASS COVER	800		1418
" " NOTE:	'73	I	SUPER ACE	0.601	SOME ASSEMBLED IN '70's BY FRANK TLUSH BUT VIRTUALLY INDISTINGUISHABLE/ 100 MADE FROM ORIGINAL PARTS/ SERIAL #'s- I.E.'73-51 ETC./ ON BYPASS	450 700-NIB		1419
TOM THUMB "	'37	I	TOM THUMB	0.488	REBRANDED BY BUNCH FOR CLEVELAND MODELS & WARREN SALES AND SERVICE/ MODELS IDENTICAL TO BUNCH MODELS OF SAME YEAR AS '37 BUNCH MIGHTY MIDGET WITH 6 BOLT HEAD EXCEPT DIAMOND CLEVELAND EMBLEM STAMPED ON BYPASS FRONT OF ENGINE	325		1420

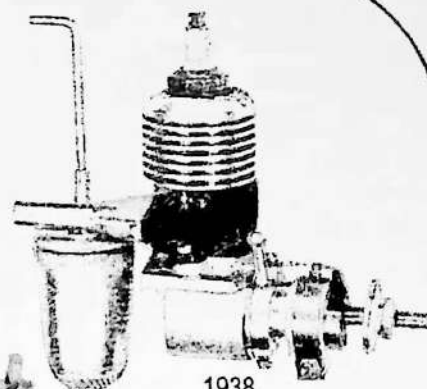
1946
TRIDENT
'65'



1948
TRIDENT
GEARED
'65'



1938 TROJAN
SR '98'



1938
TROJAN
JR '19'



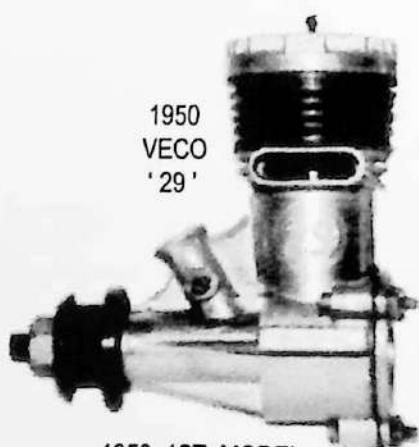
HENRY ENGINEERING CO.
Burbank, California

The ONLY engine that has

TCC*

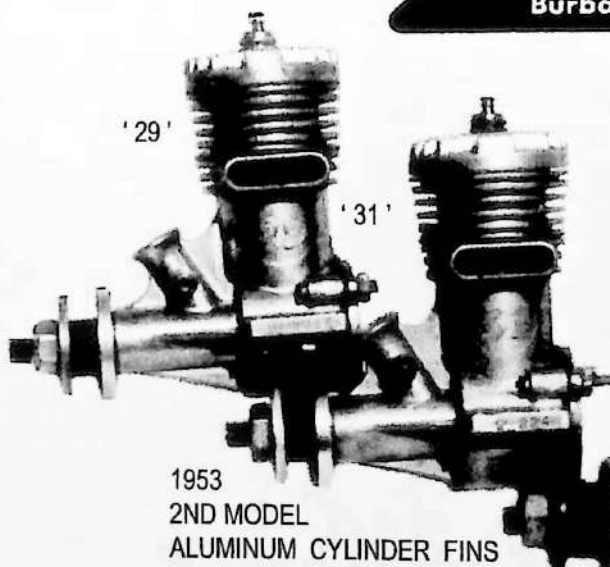
*TEMPERATURE CONTROLLED CLEARANCE

1950
VECO
'29'



1950 1ST MODEL

'29'

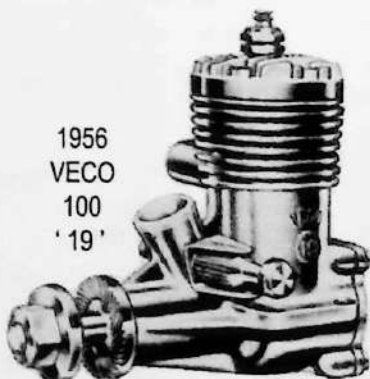


1953
2ND MODEL
ALUMINUM CYLINDER FINS

'31'

'35'

1956
VECO
100
'19'



Veco
* .35



Veco
* .29

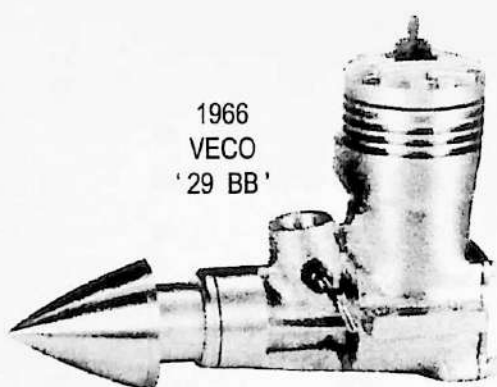


Veco
* .19

1956 - 1959 VECO SERIES

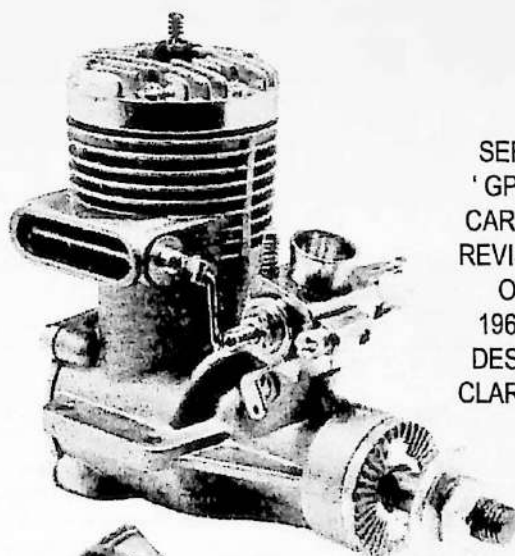
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
TOM THUMB	'38	I	TOM THUMB	0.488	AS PREVIOUS TOM THUMB/ 'TOM THUMB' ON BYPASS FRONT (CLEVELAND OR WARREN)	325		1421
" "	'38	I	T.T. INVERTED	0.488	AS PREVIOUS/ NAMES UPSIDE DOWN	325		1422
" "	'46	I	TOM THUMB	0.451	AS '46 BUNCH TIGER AERO (WARREN)	325		1423
TRIDENT (ZIP GRANDELL)	'46	I	TRIDENT 65	0.647	REAR ROTARY & TIMER/ TWIN STACK EXHAUST/ SAND CAST CASE/ PROTOTYPE MFD.BY ZIP GRANDELL EX MINIATURE MOTORS/ ALSO SHOWS RESEMBLANCE TO EARLY HASSADS WITH 5-BOLT REAR COVER FASTENING/ ALL VERY WELL MADE/ BLACK WRINKLE PAINT	PROTO		1424
"	'48	G	TRIDENT 65	0.647	AS PREVIOUS/ NO TIMER PROVISION/ GLOW	800	2100	1425
"	'48	G	TRIDENT GEARED	0.647	AS PREV./ PLUS CASE ADAPTATION FOR REDUCTION GEAR HOUSING/ BLACK WRINKLE PAINT/ POLISHED HEAD & DRIVE/ 1 PROTO. MFD.	PROTO		1426
TROJAN MINIATURE PRODUCTS (HAL M. ATKINS)	'37	I	TROJAN JR.	0.192	SAND CAST CASE/ BRAZED CYLINDER/ ALUM - INUM CYLINDER FINS / FLAT HEAD/ ROLLER BEARING SHAFT/ NO EXHAUST STACK/ 3/8" PLUG/ RED PAINTED CYLINDER/ METAL HANG TANK	425		1427
" "	'38	I	TROJAN JR.	0.192	AS PREV./ MACHINED HEAD FINS/ 1/4" OR 3/8" PLUG/ PLASTIC TANK OPEN TIMER	425		1428
" "	'38	I	TROJAN SR.	0.982	SAND CAST FINNED CASE/ BALL & ROLLER BEARINGS/ SWEEP EXHAUST/ METAL TANK/ CYLINDER & REAR COVER PAINTED DARK BLUE	RARE		1429
" "	'39	I	TROJAN 23	0.232	AS 'JR'/ SLIGHTLY LARGER/ BLUE PAINTED CYL. SCREW-IN TUBUL. EXHAUST/ ENCLOSED TIMER	425		1430
VECO PRODS. CORP. SUBSIDIARY OF HENRY ENGINEERING CO. (GIL HENRY - OWNER)	---	--	-----	----	EARLY VECO'S BUILT BY K & B MFG. LATER MFD.BY VECO - ABSORBED BY K & B IN 1968			
"	'50	G	VECO '29'	0.297	SIMILAR TO K & B - 29/ STEEL CYLINDER WITH MACHINED FINS /MOTOR MOUNTING ON THRUST LINE/ SMALLER EXHAUST/ SQUARISH HEAD FINS/ HEAVIER THAN K & B	75	75	1431
"	'50	G	VECO '31'	0.319	AS '29'/ '31' ON CASE/ MOUNTING INTERCH.	75		1432
"	'51	G	VECO '19'	0.199	ADV. IN '51 A/T ANNUAL - NONE SEEN	PROTO		1433
" NOTE:	*	--	-----	----	START OF HECO MFG. NO MORE K&B MFG. - MEL ANDERSON DESIGNED ONLY VECO 100 SERIES & LEFT			
"	'53	G	29 T.C.C.	0.298	NEW 3-BOLT CASE WITH CYLINDER FINS AS A SEPARATE ALUMINUM DIE-CAST SECTION ABOVE EXHAUST BETWEEN CRANKCASE AND HEAD/ STEEL CYLINDER LINER	75	80	1434
"	'53	G	31 T.C.C.	0.319	AS PREV. 29/ '31' ON CASE/ MTG. INTERCH.	75		1435
"	'54	G	35 T.C.C.	0.348	AS PREV. 29/ '35' ON CASE/ MTG. INTERCH.	75	100 79	1436
" NOTE:	'54	*	-----	----	VECO ADVERTISED A RETURN OF OLD ENGINES TO FACTORY FOR AN UPGRADE TO CURRENT DESIGN FOR A NOMINAL FEE.			
" NOTE:	*	--	-----	----	MEL ANDERSON DESIGNED ALL 'SERIES 100'			
"	'56	G	SERIES 100 - 19	0.199	NEW 4-BOLT ONE PIECE CASE W/BACKPLATE/ PLAIN BEARING SHAFT/ FINS CAST WITH CASE/ EXHAUST NOW ON RIGHT SIDE/ OPPOSITE TO PREVIOUS ENGINES	50 50-NIB	86-NIB 62	1437
"	'57	G	SERIES 100 - 29	0.298	LARGER/ AS '19'/ '29' ON CASE	50	101	1438

MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
VECO PRODS. CORP.	'57	G SERIES 100 - 35	0.348	LARGER/ AS '19'/ '35' ON CASE	50	36	1439
" "	'58	G SERIES 100 - 35	0.348	AS PREVIOUS 35/ HAS A BARREL CARBURETOR WITH NO EXHAUST BAFFLE OR WIPE	50	203-NIB 78	1440
" "	'58	G SERIES 100-19RC	0.348	AS PREVIOUS '19'/ BARREL CARBURETOR THROTTLE COUPLED TO EXHAUST WIPE RESTRICTOR	60	77 36	1441
" "	'58	G SERIES 100-29RC	0.298	AS PREV. '29'/ THROTTLE & EXHAUST WIPE AS '19'	60		1442
" "	'58	G SERIES 100-35RC	0.348	AS PREV. 35/ THROTTLE & EXHAUST WIPE AS '19'	60		1443
" "	'58	G SERIES 100 - 35C (COMBAT)	0.348	VECO 'COMBAT'/ 'C' UNDER 35 ON CASE/ FACTORY PRESSURE TAP IN UPPER (BYPASS) LEFT SIDE OF BACKPLATE/ INTERNAL TIMING AND OTHER MODIFICATIONS	60		1444
" "	'58	G GP 29R (RAT RACE) SERIES 100	0.299	VECO 'RAT RACE'/ 'R' UNDER '29' ON CASE/ REDESIGNED CRANKSHAFT	60		1445
" "	'59	G GP 35A SERIES 100	0.348	VECO 'STUNT'/ RE-PORTED/ NEW VENTURI	80	100-NIB	1446
" "	'59	G GP 29A SERIES 100	0.299	VECO .29 'SPORT STUNT'/ AS '35A'	70		1447
" "	'61 *	G GP 19A SERIES 100	0.199	AS '56 - 19/ INTERNAL POWER MODS/ HAS RECOGNIZABLE HIGHER INTAKE	40-VG		1448
" "	'61 *	G GP 201 SERIES 100	0.201	AS '61 - GP 19A/ PROVIDED IN LIMITED QUANTITY FOR FREE FLIGHT (APPROX. 200 MFD.)	60		1449
" "	'61 *	G GP 19A R/C SERIES 100	0.199	AS '61 - GP 19A/ MODS AND HIGHER INTAKE WITH BARREL CARB. AND EXHAUST WIPE RESTRICTOR	50		1450
" LEE	NOTE: ---	---	---	CLARENCE LEE WAS A CONSULTANT TO VECO (HECO) AND DEVELOPED ALL SUBSEQUENT VECO ENGINES AND MAINTAINED A RELATIONSHIP WITH K & B THAT LASTED WELL INTO THE '70's - PLUS REWORKING K&B's LASTING BEYOND 2005.			
" "	'62	G GP 45 R/C SERIES 200	0.465	RE-DESIGNED 'BARREL' CARBURETOR WITH NEW ROTATING EXHAUST RESTRICTOR/ THIS WAS A HIGH POINT IN R.C. DESIGN BY 'CLARENCE LEE' WHEREIN THIS ENGINE BECAME VIRTUALLY THE 'INTERNATIONAL STANDARD' FOR COMPETITION PATTERN FLYERS/ ALL BUT 2 OF FIRST 10 PLACES IN 1963 WORLD R/C CHAMPIONSHIPS	55	58 51 47 40	1451
" "	'62 *	G GP 45 STUNT SERIES 200	0.465	AS 45 RC/ ALUMINUM VENTURI INSERT/ BECAME U/C STUNT WINNER AS SOON AS RELEASED	50	52	1452
" "	'63 *	G GP 35 R/C SERIES 100	0.348	NEW BEEFED-UP CASE/ SIMILAR TO '58 - 35 RC/ IMPROVED BARREL CARB WITH EXHAUST WIPE RESTRICTOR (REF. AM. MOD. ANNUAL)		33	1453
" "	'63	G GP 35C SERIES 200 COMBAT	0.348	NEW 'COMBAT'/ NEW BEEFED-UP CASE/ CRANK TO 3/4"/ WEB IN EXHAUST/ BRONZE PLAIN BEARING/ INTERNAL MODIFICATIONS INCLUDES HARDER MODIFIED MEEHANITE CAST-IRON PISTON/ VAPOR BLASTED FINISH	80	153-NIB 103-NIB	1454
" (NOW K&B MFG.)	'64	G GP 19 SERIES 200 (STUNT)	0.199	SIMILAR TO PREV. 19/ HEAVIER CASE-EXTRA MATERIAL AROUND EXHAUST (FOR R/C EXHAUST RESTRICTOR)/ 2 BALL BRG ON SHAFT/ LEE DESIGN	40	42-N 48	1455
" "	'64	G GP 19 R/C SERIES 200	0.199	AS PREV. 19/ NEW CARBURETOR AND EXHAUST RESTRICTOR AS 45 R/C/ LEE DESIGN/ WINNER IN EARLY R/C PYLON RACING	60 65 70		1456

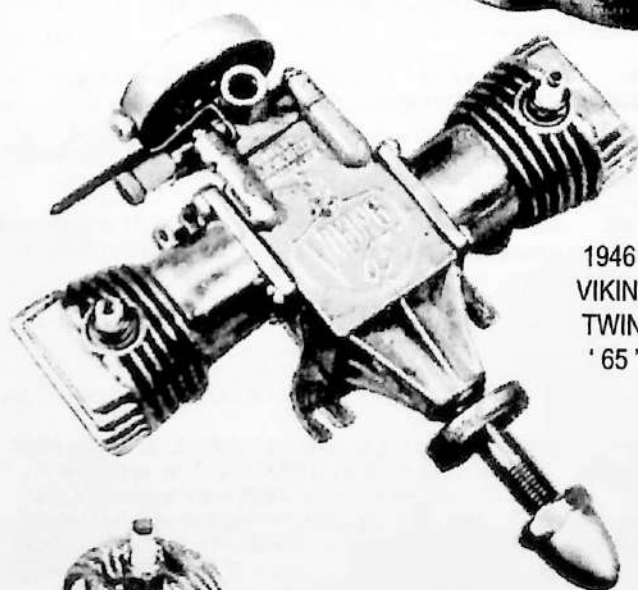


1966
VECO
'29 BB'

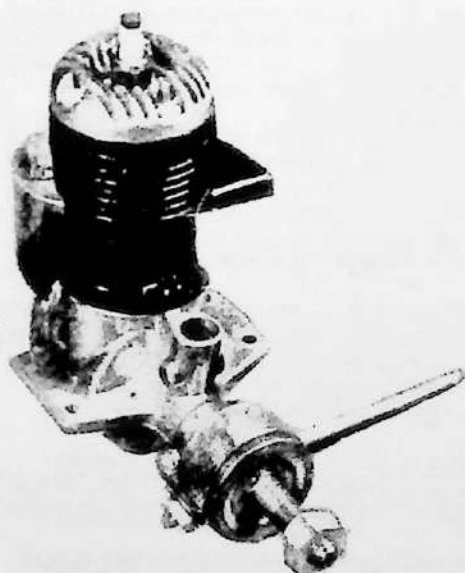
NEW PROTOTYPE BY
CLARENCE LEE FOR
SPEED U-CONTROL



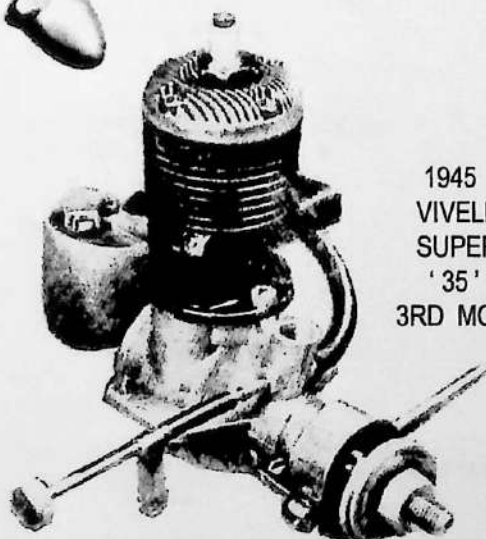
1966
SERIES 200
'GP - 61 R/C'
CARBURETOR
REVISED FROM
ORIGINAL
1965 - 61 R/C
DESIGNED BY
CLARENCE LEE



1946
VIKING
TWIN
'65'



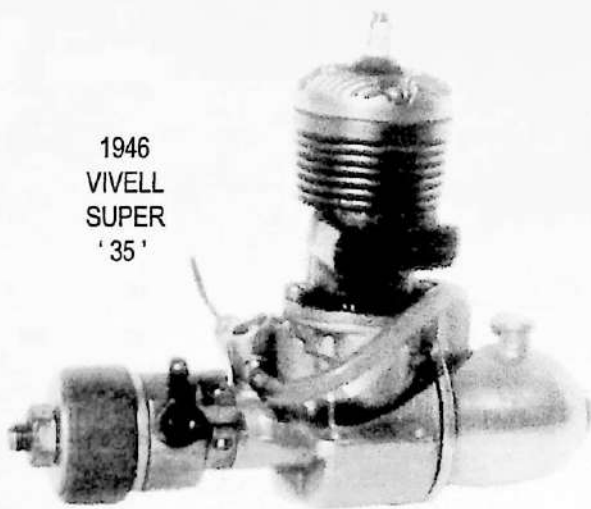
1945
VIVELL
'35'
2ND MODEL



1945
VIVELL
SUPER
'35'
3RD MODEL

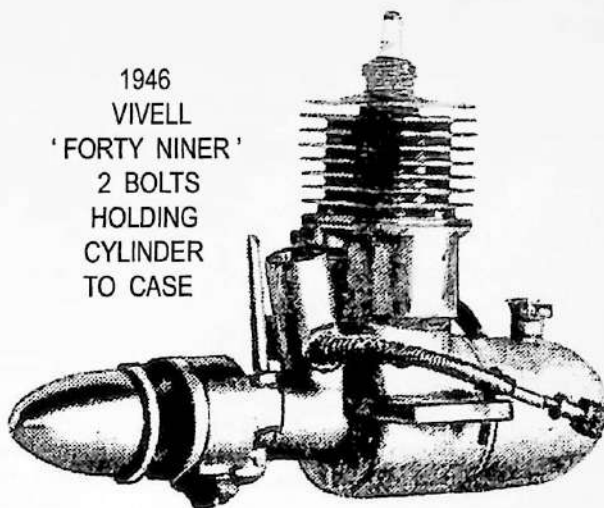
MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
VECO PRODS. CORP.	'64	G	GR 19 SERIES 150	0.199	CASE SIMILAR TO SERIES 200/ PLAIN BEARING/ LOW COST ENGINE	35	43	1457
" "	'64	G	GR 19 R/C SERIES 150	0.199	CASE SIMILAR TO SERIES 200/ PLAIN BEARING WITH R/C CARBURETOR/ LOW COST ENGINE	45 45-VG		1458
" "	'65 *	G	GP 61 R/C SERIES 200	0.611	SIMILAR TO 45 R/C / SCALED UP IN APPEARANCE/ INTERNAL DESIGN CHANGES INCLUDES 2 PISTON RINGS/ MORE COMPLEX CARBURETOR WITH AIR- BLEED CONTROL COMBINED WITH 'AUTOMIX TYPE' CARB. BARREL/ HARD CHROMED CYLINDER SLEEVE/ BRONZE BUSHED CON ROD LOWER END DESIGNED BY CLARENCE LEE & A FEW GIVEN TO COMPETITION FLIERS IN 1965 - THEN DELIVERED TO ALL MODELERS IN 1966.	60	58 36	1459
" "	'66	G	GP 61 SERIES 200	0.611	AS 61RC/ NO R/C CARBURETOR/ BUILT FOR U/C STUNT/ A SHORT RUN OF 200 MANUFACTURED	50	39	1460
" "	'66 *	G	29 BB PROTOTYPE	0.298	NEW PROTOTYPE BY CLARENCE LEE/ SANDCAST CASE/ DUAL BALL BRGS./ MACHINED CYLINDER FINS/ PROBABLY STD. VECO HEAD/ AT A LATER TIME, FEW MORE CASTINGS WITH LARGER BYPASSES PRODUCED/ TOOL MAKERS AT VECO COMPLETED 2-3 MORE ENGINES/ GLEN LEADY SET NEW PROTO- TYPE RECORD OF 124+ MPH/ VECO WAS SOLD TO K&B WHO ALREADY HAD THEIR OWN .29 RACING ENGINE SO PROJECT ENDED	PROTO		1461
" "	'66	G	GP 45 R/C SERIES 200	0.465	AS PREV./ CARB. BROUGHT UP TO 61 STANDARD WITH AIRBLEED MIXTURE ADJUSTABLE	75		1462
" NOTE:	'67	--	K&B/VECO	----	GIL HENRY TRANSFERRED ALL VECO PRODUCTS, ENGINES & ACCESSORIES TO K & B IN FALL 1967			
VIKING (TWIN)	---	---	-----	----	MFD. BY MacVAL ENGINEERING			
"	'46	I	VIKING 65 (TWIN)	0.647	ALUMINUM DIE CAST RED ENAMEL CASE/ RED ANODIZED TIMER/ SIMULTANEOUS FIRING/ 2 SMALL HOLES IN BOTH FRONT & REAR OF OFF- SIDE CYLINDER PROVIDING SUB-PISTON INDUC- TION FOR THIS CYLINDER TO GO LEANER AND EQUALIZE MIXTURE/ ONE PIECE CYLINDER & HD.	300	306-N 511	1463
"	'48	G	WIZARD 65 (TWIN)	0.647	AS VIKING/ POLISHED CASE AND IGNITION REMOVED/ PARTS ADDED LATER FOR IGNITION	210		1464
" LATER ASS'Y FROM PARTS	'64	I	VIKING 65(TWIN) & WIZARD 65 (TWIN)	0.647	ASSEMBLED BY D.SITTER FROM PARTS/ MODELS HAVE SLIGHT VARIATIONS AND COLOR CHANGES	210		1465
VIVELL MOTORS (EARL VIVELL, JACK KEENER, & JIM BROWN)	'44 *	I	VIVELL "35" CLASS C	0.347	CONTINUATION OF 'COMET 35' DESIGN/ FRONT INTAKE/ CADMIUM PLATED CYLINDER/ STAMPED TIMER HOUSING & STAMPED ARM/ LATER PRO- DUCTION HAD MACHINED TIMER HOUSING / METAL HANG TANK/ ROUNDED & SHAPED HEAD WITH 9 FINS/ MANY MINOR VARIATIONS - TIMERS AND NEEDLE VALVES AND SMALLER DIAMETER CYLINDER FINS ETC.	155 200-NIB		1466
" "	'45 *	I	VIVELL "35"	0.347	AS PREV./ BLACK CYLINDER/ SMALL EXH STACK NEW 'OVEN BRAZED' CYL. WITH BAKED VARNISH COAT/ MINOR VARIATIONS I.E. CAST TIMER AND BAFFLED PISTON/ 10 FIN HD/ METAL HANG TANK	135 150		1467
" "	'45 *	I	VIVELL "35" (SUPER)	0.347	AS PREV./ BLACK CYLINDER/ LARGE EXHAUST STACK/ SHAPED BYPASS/ NEW CASE/ NEW CYL. ASSEMBLY HAS EXTRA FIN	125 150	153	1468

1946
VIVELL
SUPER
'35'

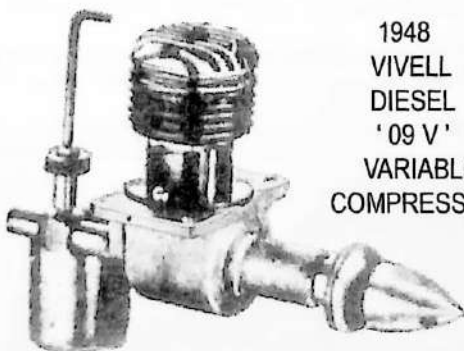


5TH MODEL

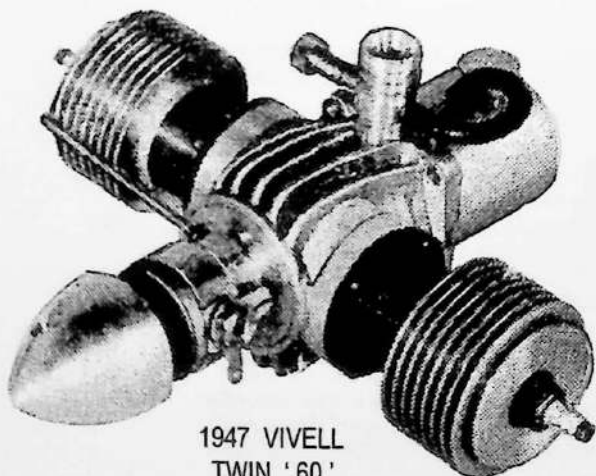
1946
VIVELL
'FORTY NINER'
2 BOLTS
HOLDING
CYLINDER
TO CASE



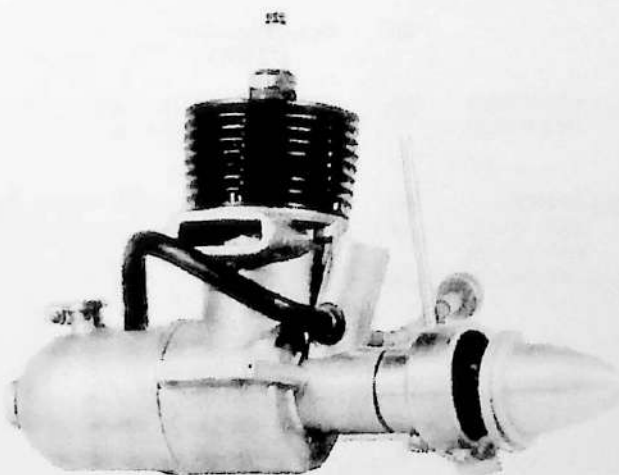
OTHER
'09' DIESEL
FIXED
COMPRESSION
AND OTHER
'09' GLOWS
SIMILAR



1948
VIVELL
DIESEL
'09 V'
VARIABLE
COMPRESSION



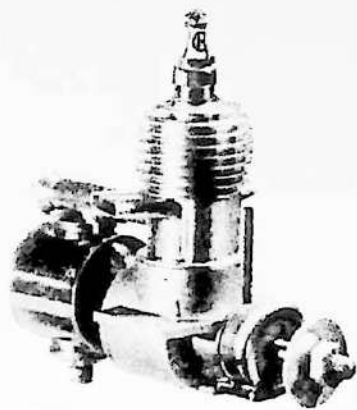
1947 VIVELL
TWIN '60'



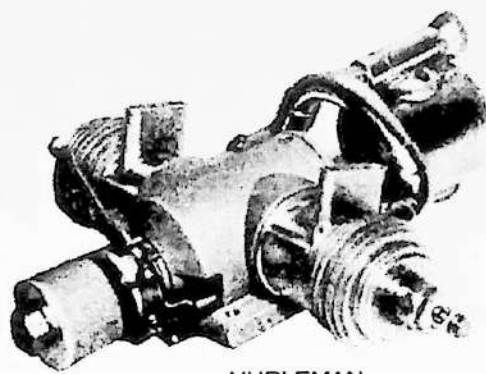
1946 VIVELL 'FORTY NINER'
4 BOLTS HOLDING CYLINDER
TO CASE

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
VIVELL MOTORS	'46 *	I	VIVELL "35" (SUPER)	0.347	AS PREV./ BLACK CYLINDER/ LARGE EXHAUST/ STREAMLINED TANK MOUNTED ON BACK COVER WITH SCREW/ NEW CYLINDER HEAD WITH 19 FINE FINS AND A VARIATION WITH 15 HEAD FINS	125	125 121	1469
• •	'46	I	VIVELL "35" (SUPER)	0.347	AS PREVIOUS/ INTAKE CUT AT ANGLE	125		1470
• NOTE:	---	---	-----	----	"SUPER" COMPANY DESIGNATION ONLY.			
	'46	I	VIVELL FORTY-NINER	0.489	JIM BROWN DESIGN/ FLAT TOPPED 1 PC CYLINDER & HEAD/ 2 BOLTS HOLD CYLINDER TO CASE/ SIMILAR TO THERMITE .49 BY JIM BROWN	275		1471
• •	'46	I	VIVELL FORTY-NINER	0.489	JIM BROWN DESIGN/ AS PREVIOUS/ 4 BOLTS HOLD CYLINDER TO CASE/ REVISED 8 CYLINDER FINS AS TOP 2 FINS COUNT AS SINGLE FIN/ (EC)	275 375-NIB		1472
• •	'46	I	VIVELL TWIN 60	0.596	DEEP CRANKCASE CYLINDER FINS/ FLAT HEAD & CYLINDER FINS SCREW ONTO CYL. LINERS/ OPEN TIMER/ REAR MOUNTED DOWNDRAFT 1/2" DIA. CARBURETOR/ OPEN TIMER/ METAL TANK/ 4 BOLT MOUNTING CYLINDERS TO CRANKCASE	900	889-N	1473
• NOTE:	---	---	MAGNETOS	----	VIVELL HAD MAGNETO EQUIPPED ENGINES; .35 - .49 & TWIN .60 DEVELOPED BY HENRY HUGHES AND PROBABLY DESIGNED BY EMIL VOLLENWEIDER (DESIGNER OF 'SCINTILLA' AIRCRAFT MAGNETOS)			
• •	'47 *	I	VIVELL "35" (SUPER)	0.347	LARGE BYPASS & EXHAUST/ MUCH LARGER BYPASS AND EXHAUST	120	133-NIB	1474
• •	'47	I	VIVELL TWIN 60	0.596	AS .60 TWIN/ CLOSED TIMER	900		1475
• •	'48	I	VIVELL TWIN 60	0.596	AS PREVIOUS TWIN .60 WITH MODERNIZED BLACK CYLINDER & BOLT ON ALUMINUM FINNED HEADS/ CLOSED TIMER/ WITH OR WITHOUT TANK	900		1476
• •	'48	D	VIVELL DIESEL 09F	0.098	SAND CAST CASE & FRONT END/ FIXED COMPRESSION/ REAR ROTARY	115		1477
• •	'48	D	VIVELL DIESEL 09 V	0.098	VARIABLE COMPRESSION/ WITH CONTRA PISTON IN HEAD INSTEAD IN UPPER CYLINDER LINER (AS RECENT DAVIS DIESEL HEAD TYPE)/ REAR ROTARY/ 'ALLEN KEY' ADJUSTMENT	115		1478
• •	'48	I	VIVELL FORTY-NINER	0.489	AS PREV. 49/ LARGER EXHAUST/ VARIATIONS INCLUDES FINNED & FLAT HEADS - DIFFERENT TIMERS/ (REF. 'E.C.J.')	250		1479
• •	'49	G	VIVELL .09 G	0.098	AS .09 DIESEL/ FIXED COMPR.HEAD DRILLED AND TAPPED FOR GLOW PLUG/ REAR ROTARY	115		1480
• •	'49	D	VIVELL .09 G/II	0.098	AS PREV. GLOW/ REUSED CRANKCASE AND SHAFT/ FRONT ROTARY COVER SCREWS INTO CRANKCASE/ REAR ROTARY PORT CLOSED (FACTORY PRODUCTION UNKNOWN)	PROTO		1481

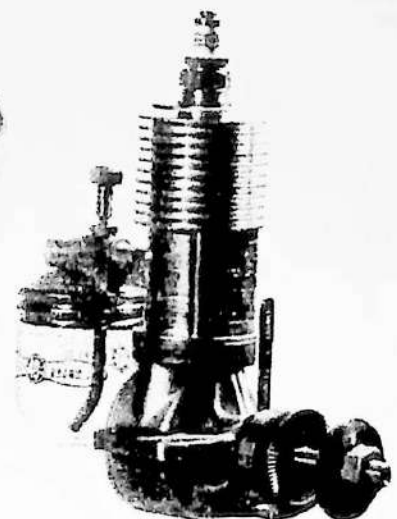
HERB WAHL'S MODEL MOTOR REPRODUCTIONS



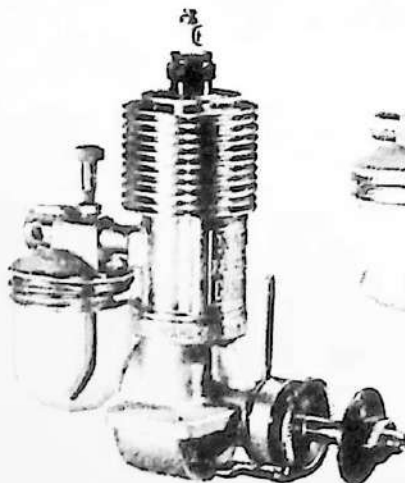
HURLEMAN TWIN



HURLEMAN
OPPOSED TWIN



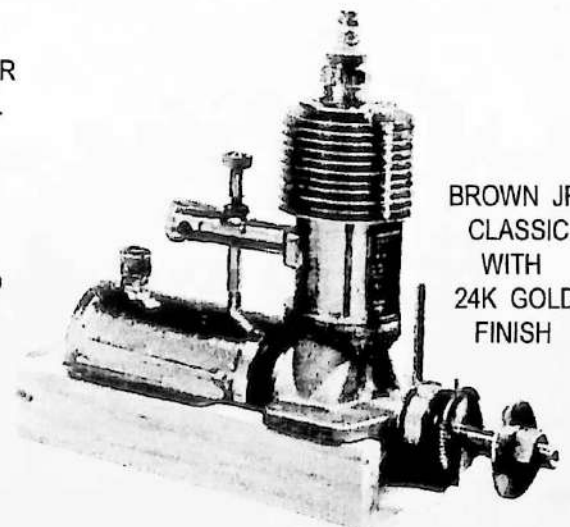
BROWN JR 40TH ANNIVERSARY



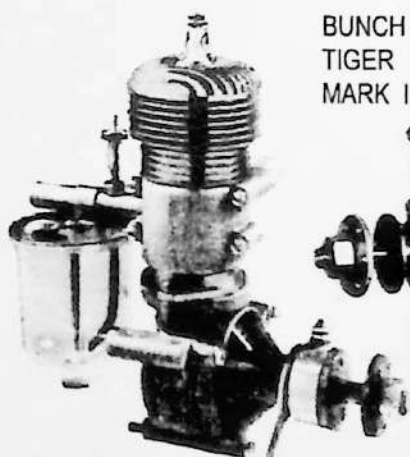
BROWN JR CUSTOM



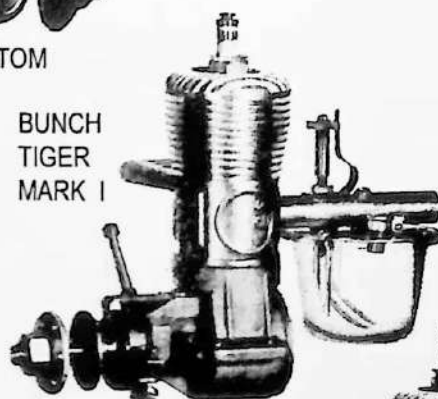
BROWN JR
SPECIAL



BROWN JR
CLASSIC
WITH
24K GOLD
FINISH



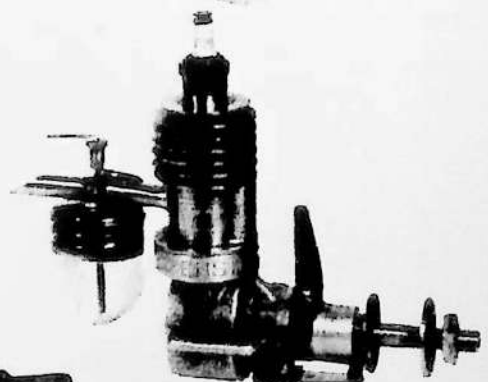
OHLSSON
GOLD SEAL
COMMEMORATIVE WITH
24K GOLD FINISH OR
PLAIN FINISH



BUNCH
TIGER
MARK I

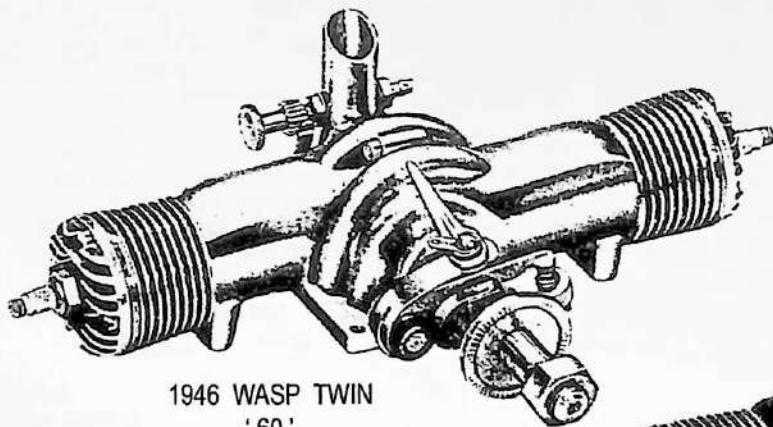


BUNCH
TIGER
MARK II



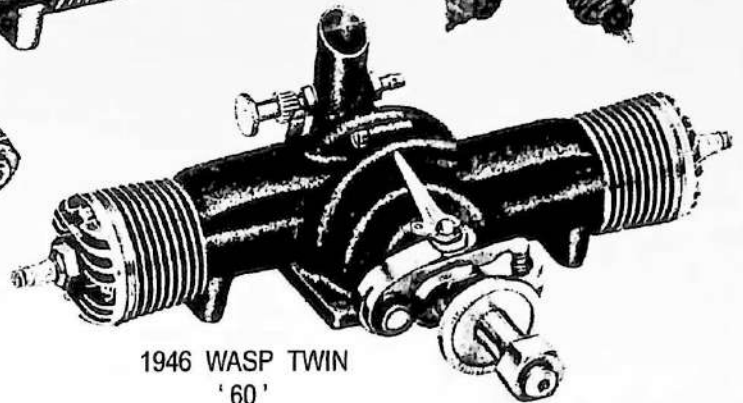
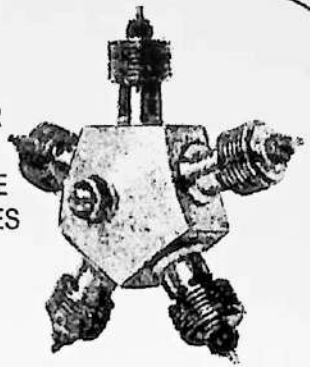
LYKENS - BROWN

MFR./ENG.NAME	YR.	ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
WAHL'S MODEL MOTORS (HERB WAHL)	---	-----	----	HERB WAHL IS A UNIQUE INDIVIDUAL WHO WAS IN THE MODEL ENGINE BUSINESS IN PENNSYLVANIA FOR MORE THAN 20 YEARS, FROM 1965 THROUGH 1988. HE PRODUCED WHAT WE CONSIDER TO BE REPRODUCTIONS OR SEMI-REPRO ENGINES IN MUCH GREATER QUANTITIES THAN MANY OF HIS EARLY CONTEMPORARIES THAT WE CONSIDER AS REGULAR MANUFACTURERS. THESE ENGINES HERB WAHL PRODUCED WERE ALL OF SUPERIOR QUALITY IN BOTH APPEARANCE AND PERFORMANCE. AS A KID HE HAD THE OPPORTUNITY OF PEEKING OVER BILL BROWN'S WORKBENCH AND BECAME FRIENDS WITH HIM AT AN EARLY AGE. MUCH LATER (IN '65) HE DISCOVERED A BATCH OF RUSTING HURLEMAN ENGINE PARTS WHICH HE CLEANED UP, TURNING THESE INTO THE FIRST ENGINES HE SOLD AND THEN CONTINUED AS FOLLOWS:			
"	'66		1)	.48 HURLEMAN TWIN EXHAUST ENGINE	325-N		1482
"	'68		2)	.96 HURLEMAN OPPOSED HORIZONTAL TWIN	495-N		1483
"	NOTE:	---	----	PARTS OF BOTH HURLEMANS HAD BEEN STORED FOR ABOUT 25 YEARS & NUMEROUS NEW PARTS HAD TO BE PRODUCED; THESE PARTS THEN BECAME A SMALL BUSINESS IN THEMSELVES, WHICH LED TO THE WAHL-BROWNS OHLSSONS AND WAHL-BUNCHES AS FOLLOWS:			
"	'75		3)	WAHL-BROWN JR. 40TH ANNIVERSARY (400 MADE)	375-NIB 275-NIB	290-NIB	1484
"	'78		4)	WAHL-BROWN JR. CUSTOM/ PLASTIC TANK/ FULL FIN COOLING	265-NIB 245-NIB	173	1485
"	'78		5)	WAHL-BROWN JR. SPECIAL/ PLASTIC TANK/ STEP FIN COOLING	365-N 250-NIB 265-NIB		1486
"	'78		6)	WAHL-BROWN JR. CLASSIC/ LONG METAL TANK/ 24K GOLD FINISH	195		1487
"	NOTE:	---	----	THE PREVIOUS WAHL-BROWNS WERE MADE FROM 1970 THROUGH 1977			
"	'82-84		7)	.56 OHLSSON GOLD SEAL COMMEMORATIVE/ 24K GOLD FINISH/ 800+ MADE	375-NIB 300-NIB	300	1488
"	'85		8)	.56 OHLSSON GOLD SEAL COMMEMORATIVE/ PLAIN FINISH/ APPROX. 50 MADE	350-N 275-NIB	290-NIB	1489
"	'87		9)	.45 WAHL-BUNCH TIGER MKI/ OPEN TYPE TIMER	300-NIB 275-NIB		1490
"	'87		10)	.45 WAHL-BUNCH TIGER MKII/ CLOSED TYPE TIMER	275-NIB 300		1491
"	'88		11)	.12 LYKENS-BROWN/WAHL WAS SUPPOSED TO ONLY ASSIST BILL BROWN IN A LIMITED RUN OF LYKENS-BROWNS; THE PROJECT EVENTUALLY WAS SOLD TO WOODY BARTELT			1492
"	NOTE: 1	---	----	ALL SPARK PLUGS WERE PRODUCED BY HERB WAHL.			
"	NOTE: 2	---	----	BROWN WAS OFFERED & HAD RECEIVED \$3. AN ENGINE FOR PERMISSION TO REPRODUCE BROWNS & OHLSSON WAS OFFERED \$3. AN ENGINE FOR HIS PERMISSION, BUT SAID "SEND IT TO THE ACADEMY (AMA)!"			
CONCLUSION:	---	---	----	THERE COMES A TIME WHEN MAKING REPRODUCTIONS, TAKING ORDERS, RUNNING LATE, FIELDING COMPLAINTS BECOMES TIRESOME AND IT DID IN 1988. SPEAKING TO HERB WAHL RECENTLY WE FOUND HIM IN RELATIVELY GOOD HEALTH, NOW, HE'D HAD A HEART ATTACK IN SEPT. 2004 BUT WHEN HE TOLD HIS DOCTOR HE WAS GOING TO GO BACK TO TEACHING BALLROOM DANCING, THE DOCTOR SAID "GO FOR IT!" HIS RECORD COLLECTION IS WELL OVER 1,000 AND HE ALSO ENJOYS EARLY JAZZ. THE ONLY THING HE HASN'T BEEN DOING IS FLY-FISHING. AS HE APPROACHES HIS 80TH BIRTHDAY THIS AUTHOR REALLY WISHES HIM WELL. NOTE: WE USED THIS AUTHORS WAHL .56 OHLSSON GOLD COMMEMORATIVE ENGINE ON OUR COVER AS A CENTERPIECE.			



1946 WASP TWIN
'60'
NATURAL FINISH

1960
WERNER
5 CYLINDER
'24'
PROTOTYPE
USING COXES

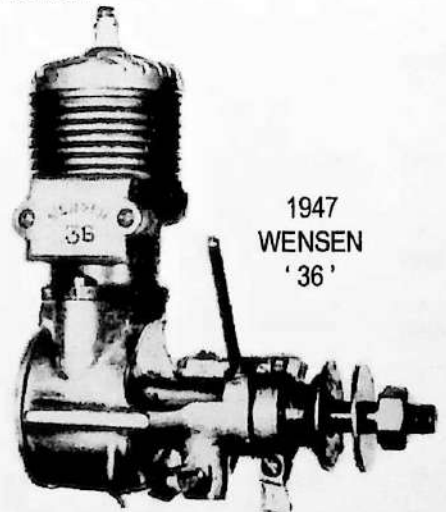


1946 WASP TWIN
'60'
BLACK WRINKLE FINISH

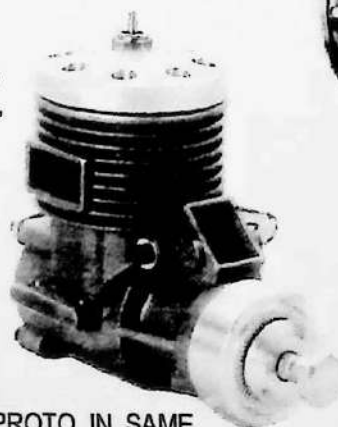
1947 SUPER WASP
TWIN '64'



1947
WENSEN
'36'

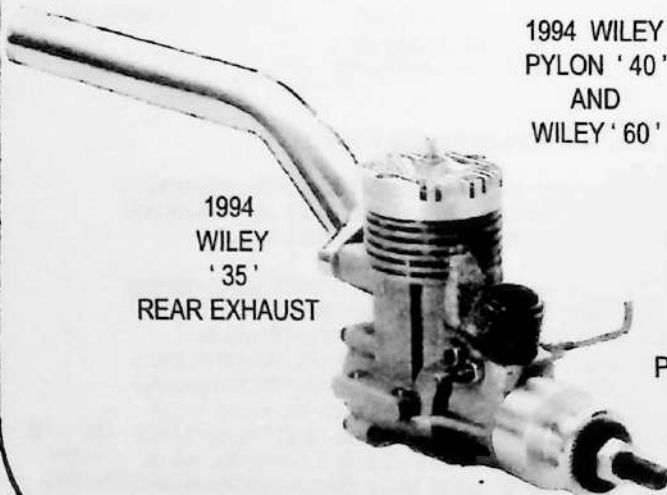


1994 WILEY
PYLON '40'
AND
WILEY '60'

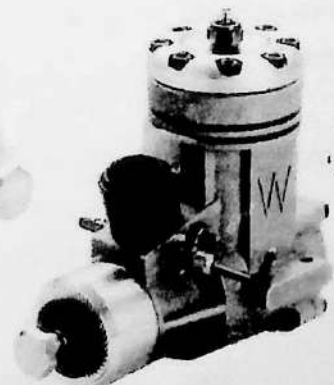


PROTO IN SAME
CASE

1994
WILEY
'35'
REAR EXHAUST

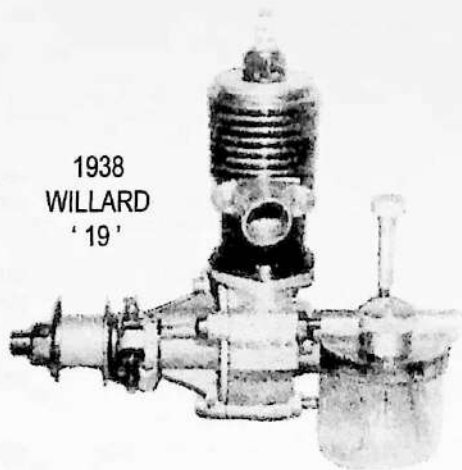


1994
WILEY
'29 / 25'

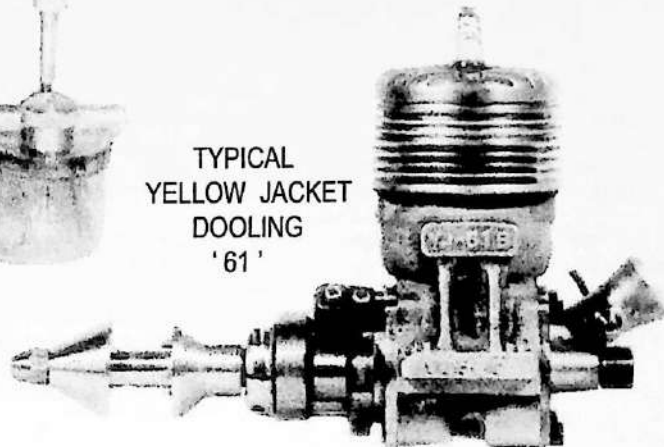


MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
WASP TWINS (DEWITT T. ROSS JR. & JOHN L. ROSS)	'44/45	I	PROTOTYPE	0.604	MFD. BY MICRO-MODEL COMPANY MODIFIED FIRST MODEL VIVELL .35 CYLINDERS/ HEADS/ PISTONS/ WRIST PINS/ TIMER ASSEMBLY - BALANCE FROM BAR STOCK AND AUSTIN CRAFT NEEDLE VALVE ASSEMBLY	PROTO		1493
" "	'46	I	WASP TWIN	0.604	OFFSET OPPOSED TWIN/ CASE SPLIT ON SHAFT CENTER LINE/ 5 BOLT CRANKCASE/ BOLT-ON HEADS/ REAR INTAKE/ FRONT TIMER/ NAT.FINISH	400 450	325 381	1494
" "	'46 *	I	WASP TWIN	0.604	AS PREVIOUS/ EARLY CASES HAD NO PAINT AND LATER BLACK WRINKLE PAINT ON SOME 6 BOLT CRANKCASES	325 375	255 281	1495
" "	'46	I	WASP TWIN SPECIAL	0.604	AS PREVIOUS/ BLACK WRINKLE PAINT/ 10 BOLT CRANKCASE	325	338 365	1496
" SOLD BY MODERN MODELS	'47	I	SCOUT TWIN	0.604	AS WASP/ RED-ORANGE CASE/ FOR MAIL ORDER ONLY/ 24 SOLD	525		1497
" "	'47	I	SUP.WASP TWIN	0.645	DIRECTLY OPPOSED CYLINDERS/ NEW ONE PIECE CASE CASTING/ NO PAINT CLEAR FINISH/ REAR FACING PLUGS/ RECTANGULAR EXHAUST PORTS/ RADIAL MOUNTING	700 800	820	1498
WASP TWINS - CONT	'48	G	WASP TWIN G	0.604	A FEW OF 6 & 10 BOLT TWINS MFD. AS GLOW/ NO TIMER PROVISION/ MACHINED HEADS FROM BAR STOCK	250		1499
" "	'48	I	SUP.WASP TWIN	0.645	AS PREVIOUS SUPER TWIN/ NEW CASE CASTING WITH OVAL EXHAUST PORTS/ SHAPED BYPASS/ APPROXIMATELY 10 BUILT	750		1500
WENSEN HAROLD WENDELL	'46 *	I	WENSEN '36'	0.359	SAND CAST ALUMINUM CRANKCASE/ POST-WAR IMPROVED COPY OF BABY CYCLONE MADE IN LIMITED QUANTITIES	280 350 360		1501
"	'47	I	WENSEN '36'	0.359	AS PREV./ NEW HEAVIER CASE CASTING AND CAST IRON CYLINDER/ NEW TIMER	275		1502
WERNER	'60	G	5 CYL. RADIAL EXPERIMENTAL USING COXES	0.245	5 CYLINDER RADIAL/ FROM 5 - 049 COX PISTON & CYLINDERS/ UNIQUE CRANKCASE/ PRODUCTION UNKNOWN/ MADE NO. OF EXPERIMENTAL ENGS.	PROTO		1503
WILEY (BILL WILEY)	—	—	—	—	BILL WILEY WAS INTERESTED IN U-CONTROL STUNT, COMBAT & CARRIER. HE PUT IN TIME MAKING FOX'S RUN BETTER & APPARENTLY WORKED WITH DUB JETT TO LEARN MORE. HE PRODUCED THE FOLLOWING ENGINES ON A CUSTOM-BUILT BASIS. TEAMED WITH SHILEN AERO- SPORTS (TORPEDO REPROS) BUT THESE FINE ENGINES WERE NOT ABLE TO BE BUILT ECONOMICALLY & FURTHER PRODUCTION CEASED (APPROX. 200 MADE). TOOLING FOR SALE BY ED SHILEN AT 903-882-9702.			
"	'94	G	WILEY .29 AND WILEY .35	0.289	LARGE INVESTMENT CAST CASE/ VERY SHORT COUPLED/ MACHINED HEAD AND BACKPLATE/ HUGE INTAKE/ DOUBLE BALL BEARINGS			1504 1504.5
"	'94	G	WILEY .35 R/E	0.349	SIMILAR TO PREV/ REAR EXH./ FOR COMBAT WITH PIPE			1505
"	'94	G	WILEY .40 PYLON	0.399	LARGER CASE FOR PYLON/ LRG FRT INTAKE & SIDE EXH.			1506
"	'94	G	WILEY .60	0.598	AS PREV. PYLON 40 CASE/ EXPERIMENTAL 60 BUILT	PROTO		1506.5
WILLARD WILLAR HUNGERFORD	— '34/'37 *	I	EXPERIMENTAL	.14-.45	SOLD BY HUNGERFORD SMALL BORE ENGINES			1507
"	'38	I	MIGHTY MIDGET (NEW HURRICANE)	0.066	SAND CAST REAR ROTARY/ SEE 'NEW HURRICANE' UNDER MORTON AIRCRAFT CORPORATION/ REBRANDED FOR HUNGERFORD HOBBIES	RARE		1508

1938
WILLARD
'19'



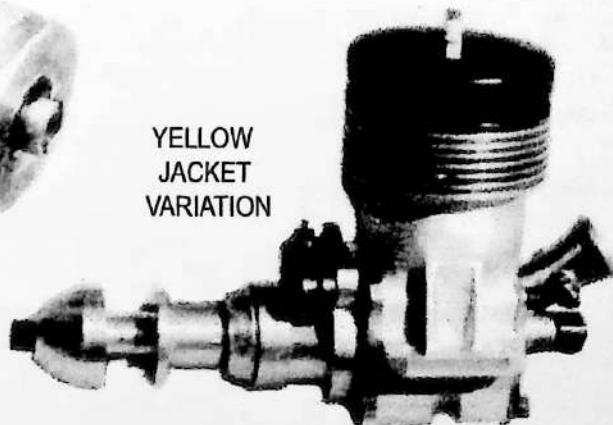
TYPICAL
YELLOW JACKET
DOOLING
'61'



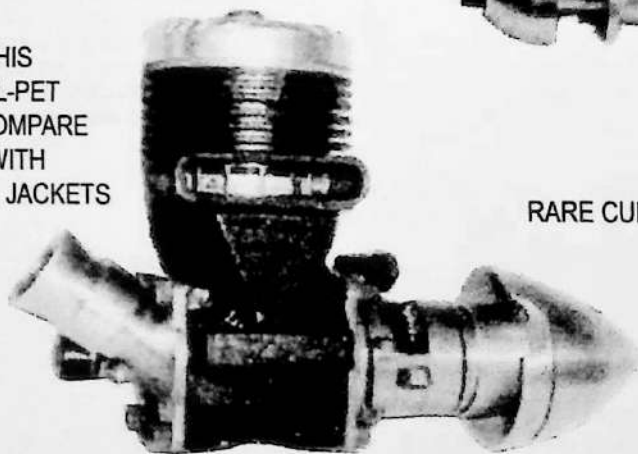
YELLOW JACKET
DOOLING
MARINE
'61'



YELLOW
JACKET
VARIATION



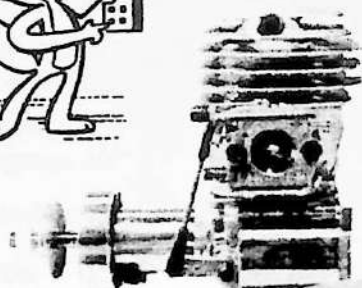
THIS
CUL-PET
TO COMPARE
WITH
YELLOW JACKETS



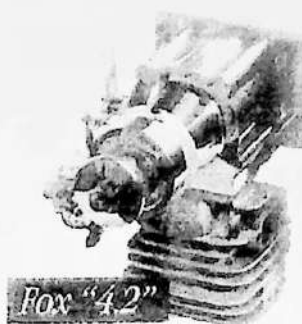
RARE CUL-PET: Hand built as the Yellow Jacket to stop Dooling cases from blowing under high Nitro. Dooling front and rear ends and head mated to beefed up case. Painted in Black Wrinkle paint - Unknown Builder.

MFR./ENG.NAME	YR.		ENG. NAME	DISP.	DESCRIPTION --- ENGINE PRICES IN U.S. \$	MECA	EBAY	B #
WILLARD	'38	I	WILLARD 19	0.198	REAR DISC ROTARY/ UNIQUE PRE-CORED BYPASS IN CASE/ IRON CYLINDER/ BOLT-ON EXHAUST STACK/ OTHER ENGINES WITH VARIATIONS/ VERY FEW MANUFACTURED	PROTO 1050		1509
YELLOW JACKET (BRUCE UNDERWOOD)	---	---	---	---	MFD. BY MODEL POWER COMPANY & YELLOW JACKET - NAMES ADOPTED MARCH 23, 1944			
"	'46	I	YELLOW JACKET YJ - C60 PROTO	0.601	SERIAL # U8 BAR STOCK/ FRONT ROTARY/ TANK IN CRANKCASE/ PERMENANT MOULD TANK COVER - PISTON AND CARBURETOR BODY	RARE		1510
"	'46	I	YELLOW JACKET YJ - C60 PROTO	0.604 4-CYL.	SERIAL # U20 ALL BAR STOCK/ PERMANENT MOLD PISTON/ .938 X .875/ 9 - 5 OZ.	RARE		1511
"	'46	I	YELLOW JACKET YJ - C60 PROTO	0.601	SERIAL # U27 SAME AS FIRST Y.J. EXCEPT SHORTER ROD AND NO FUEL TANK	RARE		1512
"	'47	CO-2	TURBINE YJ - 08 PROTO	0.080	ROTARY VANE ENGINE FOR CO-2/ RUNS WELL ON AIR OR STEAM	RARE		1513
"	'47	AIR STEAM	EXPANSION YJ - 04 PROTO	0.041	EXPANSION ENGINE/ UPSIDE DOWN CYLINDER WITH HEAD AT CRANKSHAFT FOR SHORT PASSAGE FROM ROTARY VALVE/ RUNS WELL ON AIR OR STEAM	RARE		1514
"	'55	G	YELLOW JACKET YJ - 61 PROTO	0.609	INFO. ONLY THAT THIS WAS 'MUSHROOM' SCAVENGED AND HAD A REED VALVE INTAKE/ 4 UNITS STARTED BUT INCOMPLETE.	PROTO		1515
"	1955/ 1967	G	YELLOW JACKET DOOLING .61 BLOCKS YJ - 61 A THRU X		NUMEROUS RANGE OF REPLACEMENT CYLINDER BLOCKS/ INITIALLY MADE FROM BAR STOCK - THEN CAST - FOR DOOLING 61's/ ALSO SOME MACHINED FOR WATER JACKETS	RARE 2000	NOT SOLD RESERVE AT 5000	1516
"	NOTE: 1967/ 1970's	---	YELLOW JACKET COMPLETE ENGINES		SUBSEQUENT TO OUR 3RD BLUE BOOK END DATE OF 1965, BRUCE UNDERWOOD MADE TREMENDOUS STRIDES IN CUSTOM ENGINES INTO '70's			
		I	YELLOW JACKET	0.607	COMPLETE YJ WITH UNDERWOOD #'s ON ALL PARTS AND TYPICAL YJ BLOCK	2800		1517
		I	YELLOW JACKET DOOLING	0.607	UNDERWOOD YJ BLOCK WITH DOOLING PARTS AND YJ PARTS, MIXED	1800	2650 910-R	1518

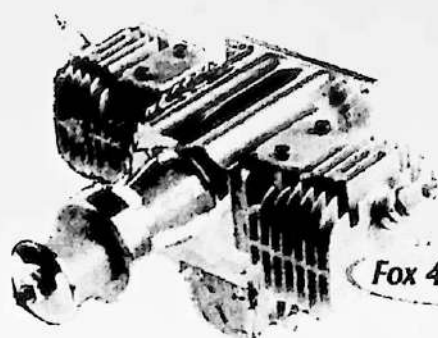
HENRY NELSON IS ONE OF VERY FEW 'BEST' ENGINE BUILDERS IN THE WORLD. HE INITIALLY BUILT SOME 24 (APPROX.) PROTOTYPE .15 SIZE ENGINES (PRIMARILY DIESEL FOR U/C TEAM RACE INITIALLY, AND EVENTUALLY FOR U/C COMBAT). FROM AROUND 1970 THROUGH 1995. IN 1983 HE BUILT A PRODUCTION COMBAT GLOW .15 FOLLOWED IN 1989 BY A COMBAT GLOW .15 SHORT SHAFT. IN 1990 HE STARTED BUILDING MORE .15's WHICH ARE MORE RECOGNIZABLE WHITE (PICKLED) INVESTMENT CAST CASES, ALONG WITH HIS FAMOUS .40 PYLON RACING ENGINES. ONE MAY REVIEW SOME MORE PICTURES OF THESE UNIQUE .15's IN JIM DUNKIN'S EXCELLENT REFERENCE BOOK OF INTERNATIONAL .15 MODEL AIRPLANE ENGINES



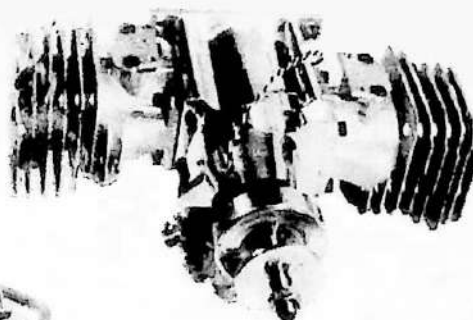
Fox 3.2 Engine



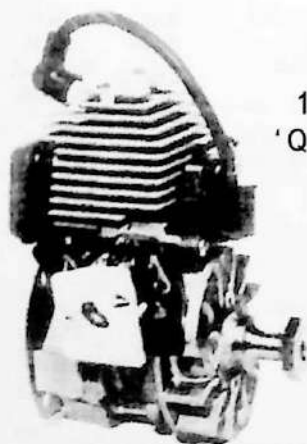
Fox 42



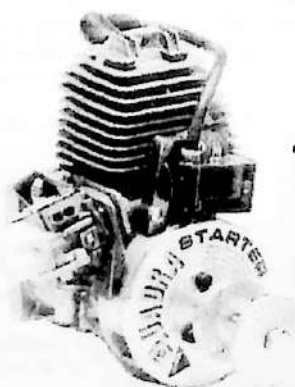
Fox 4.8 Twin



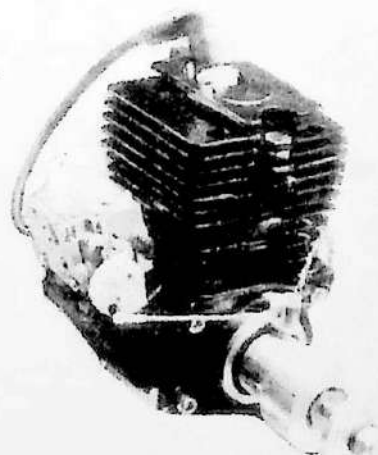
FOX 6.4 TWIN



**1975
'Q-35'**



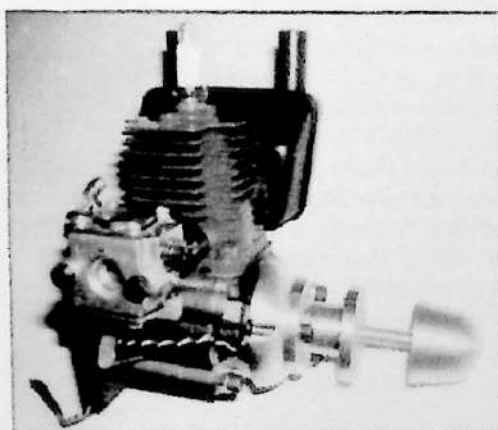
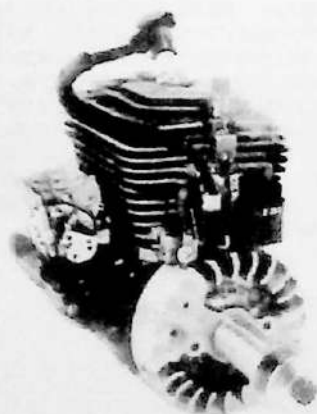
**1978
'Q-42'**



**1991
'A-70'**

QUADRA
ARROW

**1984
'Q-82'**



**2003
Q 250B
1.52 CD
'25.1 cc'**

GIANT ENGINES

Radio Control Modelers have been building increasingly larger and larger model airplanes for the last 20 years. Bigger engines were needed and created a growth in both import and home grown 'Giant' engines.

Our own American engines are Fox and Quadra.

Quadra has been around since 1975 and has shown great growth in both the sport and racing fraternity. Originally manufactured in Canada, it is now produced here in the U.S., and seems quite healthy with a large number of models shown at the Toledo 2005 Show.

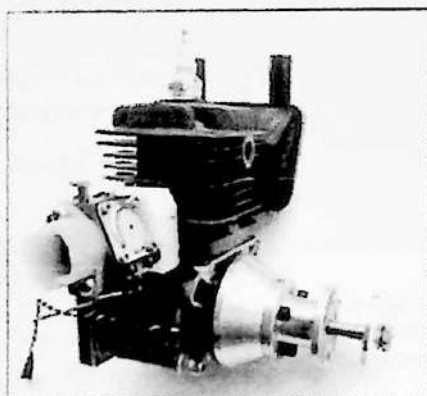
Fox started around 1999, much later than Quadra, even though producing regular model engines since 1946. Their showing at the same Toledo 2005 Show indicated their obvious commitment to the 'Giant' model enthusiast.

To the best of our knowledge, Fox and Quadra are the only two American manufacturers currently producing 'Giant' model engines and are identified as follows:

MFR./ENG.NAME	YR.	ENG.NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$	USED PRICES
FOX MFG. CO.		1999 - 2005 ELECTRONIC IGNITION GAS ENGINES		THE FOLLOWING ELECTRONIC IGNITION GAS ENGINES STARTED BEING PRODUCED ABOUT 1999 THROUGH TO 2005 AND CONTINUING ON	
. . .				SINGLE CYLINDER 2.4 CU.IN.	
. . .				SINGLE CYLINDER 3.2 CU.IN.	
. . .				SINGLE CYLINDER 4.2 CU.IN.	
. . .				SINGLE CYLINDER 5.8 CU.IN.	
. . .				TWIN CYLINDER 4.8 CU.IN.	
. . .				TWIN CYLINDER 6.4 CU.IN.	
				2005 SINGLE CYLINDERS ALL HAVE: NIKASIL LINED CYLINDER & PISTON ASSEMBLY BY MAKITA-DOLMAR, USA. CANTILEVER CRANKSHAFT WITH SINGLE BOLT PROP HUB; AUTO SPARK ADVANCE SYSTEM WITH CH ELECTRONIC IGNITION; WALBRO CARBURETOR DRILLED AND TAPPED FOR SMOKE. THE TWINS HAVE FOREGOING PLUS A WALBRO CARBURETOR WITH A BOYESEN REED. WATCH THE FOX WEB-SITE FOR NEW ADDITIONS: WWW.foxmanufacturing.com	
QUADRA (1976)	---	-----	----	THE ORIGINAL QUADRA 35 WAS DESIGNED AS A CHAIN-SAW ENGINE. RON SHETTLER, A CANADIAN, SAW THE POTENTIAL FOR MODEL AIR- CRAFT USE AND MADE A DEAL WITH THE MANUFACTURER TO SELL 'MODIFIED' VERSIONS ADAPTED FOR MODEL AIRCRAFT (AND BOATS) USE. THE 'MODIFIED' VERSION WAS SIMPLY A 'GO-NO-GO' GLUING PROCESS ON COMPONENTS THAT THIS AUTHOR HAD THE OPPOR- TUNITY OF VIEWING AT THE PLANT. LATER, KLAUS NOWAK TOOK OVER SALES AND THEN THE ACTUAL MANUFACTURING & ASSEMBLY AT QUADRA AERO (AERROW) ENGINES IN UXBRIDGE, ONTARIO. ACCORDING TO CLARENCE LEE (RCM JAN.'86) QUADRA HAD ESTA- BLISHED A REPUTATION FOR GOOD POWER, RELIABILITY & ECONOMY, MUCH LATER, QUADRA ADDED TO THEIR NAME RECOGNITION BY BY HAVING MANY ENGINES IN MODIFIED FORMS RACED IN THE WEST COAST MADERA (GIANT) SCALE RACING EVENTS.	
TRINDEN MFG. LTD. ONTARIO, CANADA (RON SHETTLER KLAUS NOWAK) U.S.Q. AERO, INC.(2005) 400 CHERYL AVENUE MECHANICSBURG, PA					
	'75	1	Q-35	2.100 QUADRA 35 IGNITION/ ALL QUADRAS WERE SCHNIERLE PORTED & HAD PISTON PORT INDUCTION	150 195-NIB

QUADRA

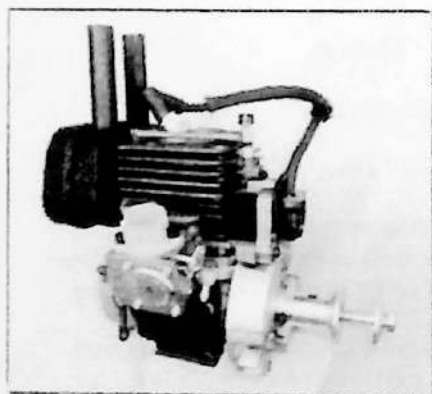
AERROW



US Q 57B '57 CC'



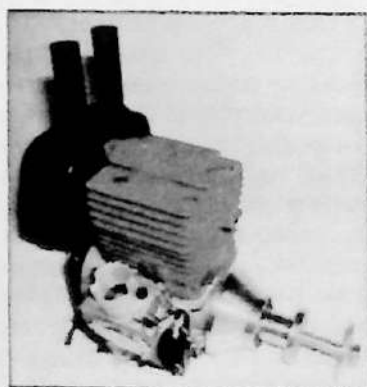
Q 100M '98 cc'



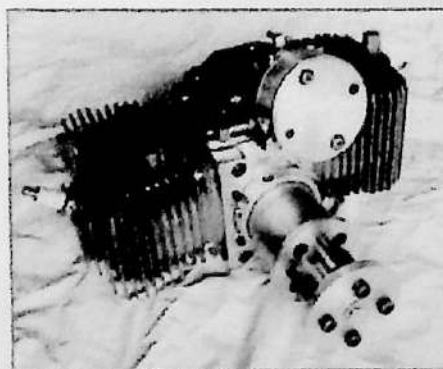
Q 75M '72 cc'



Q 1000B '105 cc'



Q 75B / Q 75RSS '72 cc'



A 200RSS TWIN '196 cc'

MFR./ENG.NAME	YR.		ENG.NAME	DISP.	DESCRIPTION — ENGINE PRICES IN U.S. \$
QUADRA	'84	I	Q-50	3.100	QUADRA 50 IGNITION/ AS PREVIOUS/ LARGER/ RETROFITS Q-35/ PRODUCING 3.6 TO 4 HP @ 8000 RPM
.	'84	G	Q-35X	2.100	QUADRA 35X GLOW VERSION PROVIDING 20% MORE H.P./ AS PREVIOUS
.	'84	G	Q-50S	3.100	QUADRA 50S AS PREVIOUS/ BUILT IN SPRING STARTER/ IMPROVED SCHNURLE SCAVENGING/ PLUS A 50X GLOW VERSION (FEW MADE)
.	'86	I	Q-82	5.000	QUADRA 82 IGNITION/ AS PREVIOUS

NOTE:

— — '90's THRU 2005

— QUADRA 100 & TWINS/ SIMILAR CASE & CYLINDER DESIGNS CONSTANTLY REVISED & UPDATED FOR MADERA RACING & VERY LARGE MODEL AIRCRAFT - SEE PICS INCLUDING Q-100 AND A-200 RSS

NOTE:

2005 —

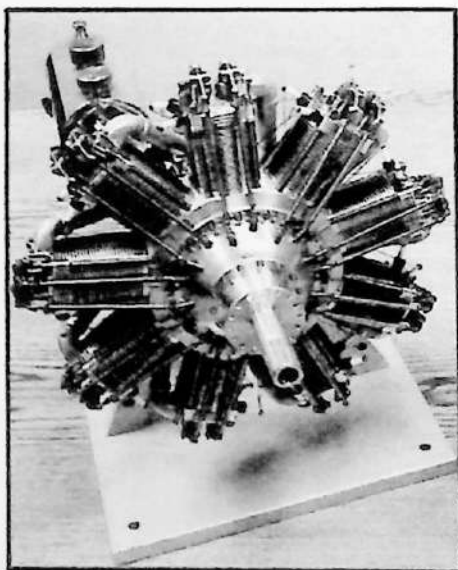
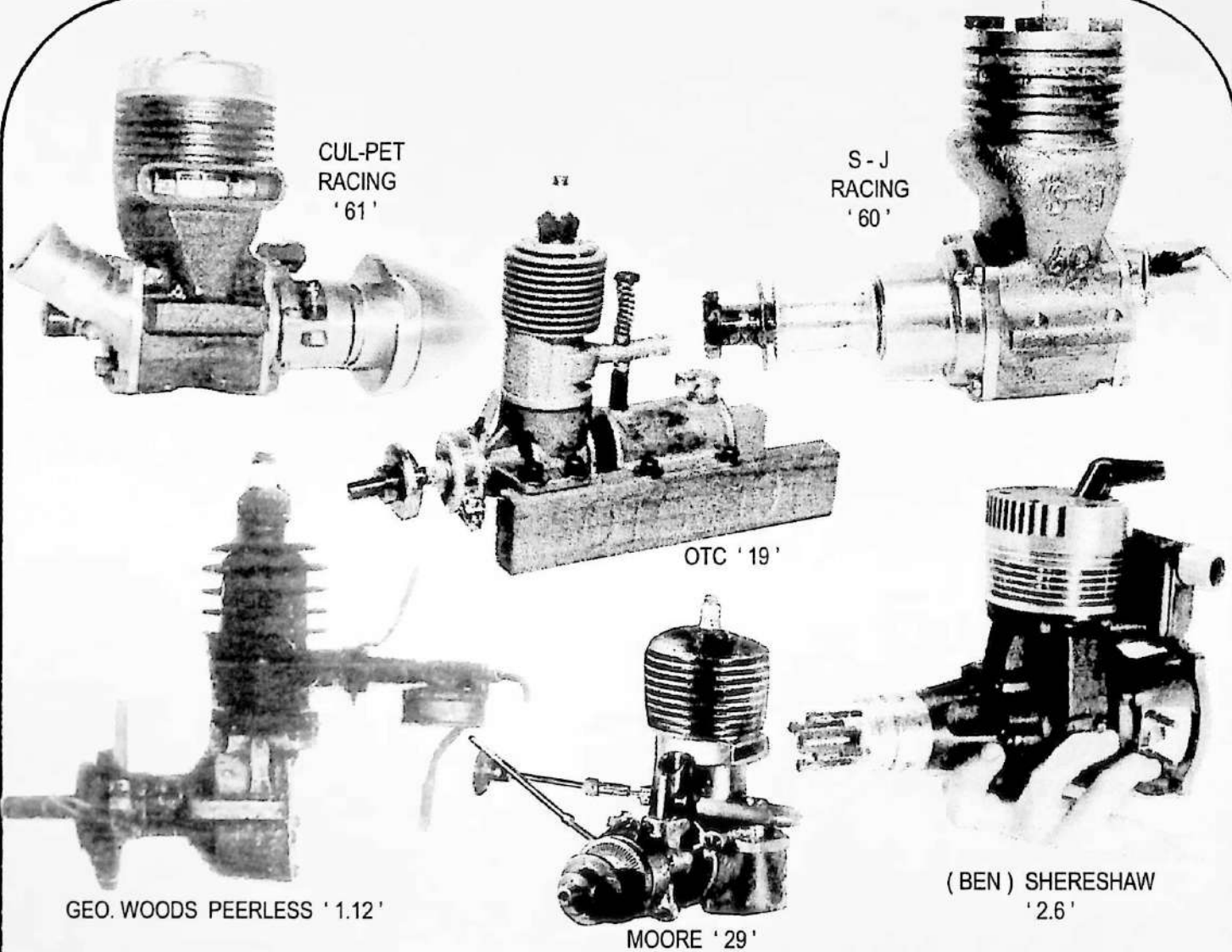
— QUADRA ENGINES HAVE BEEN UNDER THE GUIDANCE OF HANSPETER NAEF OF U.S. QUADRA AND NOW PROVIDE 20 DIFFERENT U.S. QUADRAS AS OF 2005 TOLEDO SHOW. SEE U.S. QUADRA WEBSITE FOR MORE INFORMATION: WWW.usqengines.com

ADDITIONAL PRICES

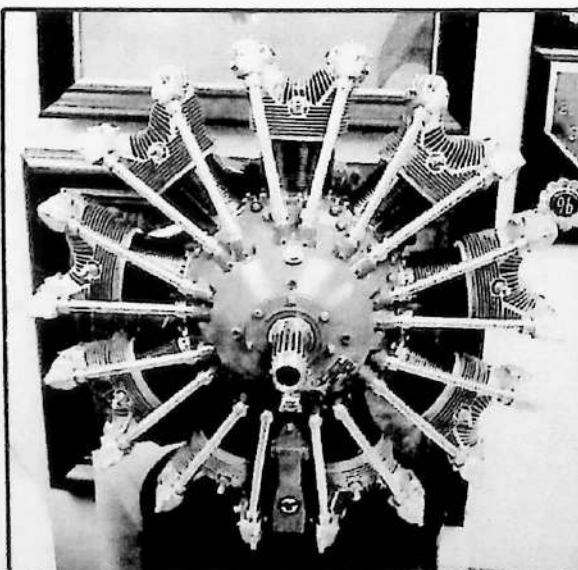
GIANT ENGINES NOT IDENTIFIED IN FOREGOING:

Q-42	230
Q-75	450
AERROW Q-100 B	695-NIB
AERROW Q-200 TWIN	1200

USED
PRICES
175
225



KNAPP - BENTLEY BR2 9 CYLINDER
1/4 SCALE



KNAPP - PRATT & WHITNEY 9 CYLINDER
1/4 SCALE

ADDITIONAL ENGINES

These are a few engines we heard about, didn't have enough information on, or for other odd reasons didn't include and are as follows:

- CUL-PET .61:** Racing .61 similar to Dooling 61; unknown maker; also see on Yellow Jacket picture page opposite 108.
- KLEIN .65:** Racing Engine (ref. Gus Munich); came in .61 and .65 sizes; some used McCoy .61 Series 20 front ends and shafts; backplates were standard McCoy die cast or from bar stock; heads from bar stock.
- MOORE .29:** Late 1944 by Ralph Moore (Canadian).
- O.T.C. .19:** Brown miniature replica; produced by students at: Ozarks Technical College in Springfield Mo. headed up by Scott Beshears, Machine Shop Instructor.
- PEERLESS 1.12:** 7" high, hand built; typical sideport with screw on fuel tank; originally by George Woods sold to Peerless Model Airplane Co. (Collection of V. Didelot deceased).
- SHERESHAW :** (1965) Bronner Mfg. & Tool Co.; Bantams .15 - .30 - .60
(1967) Bronner Mfg. & Tool Co.; Bantam Twin .60
(1983) B & D Engines; Bantam Twin .60 Glow or Ignition
(1983) Bantam 2.6; large gas burning 2 stroke by Ben Shereshaw
- SIMPLEX:** MK II .25 and Hornet .19; originally designed by Louis Garami in 1947 M.A.N.; produced in late '80's by John Morill, El Segunda California (approx. 50 built).
- S - J .60:** Unknown mfr.; sandcast case with machined front and rear covers, side exhaust and rear intake, used McCoy prop and spool drive, bulge bypass (collection of C. Murphy).
- YANCZER .61:** Racing Engines; castings produced with Dooling .61 as guide, shape altered for combustion chamber and bypass shape (A.M. Mag. Jan. 59)
- PAUL KNAPP:** Bentley BR2 Rotary Aero 9 Cylinder 1/4 scale. It measures approx. 11 5/8" Dia. and produces about 14 HP on spark ignition with unleaded gasoline and a pressurized oil system.
- PAUL KNAPP:** Pratt & Whitney 9 Cylinder 1/4 scale. It measures approx. 11 1/2" Dia. and produces about 10 HP on spark ignition with unleaded gasoline and a pressurized dry-sump lubrication system.


Original Hornets were manufactured in 1940's and are now quite rare. They were precision-made in every detail, assembled by experts; started, run and checked carefully at the factory before going into the field.

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Aircraft \$389⁵⁰




Hornet 29
\$349⁵⁰



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Aircraft \$429⁵⁰



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DAVIS MODEL PRODUCTS

(Rob Davis)

Prologue: The Author of this Blue Book became involved with British and other Foreign Diesels at a very early age and was introduced to Rob Davis by Frank Ehling, a diesel enthusiast, at the 1975 Dayton U.S. Nationals. We became fast friends and I worked on some racing diesel heads with him in the late '70's. Since that time we believe that Rob Davis has provided the American modeler with a useful product, reprising the world diesel evolution, with a unique American Invention. Bolt-on Power Davis Diesel heads belong right here and we asked Rob to express his thoughts as follows:

1975 - 2005

The creators of this Blue Book provide a valuable resource to the modeling public and have given me this opportunity to express my thoughts with all of you that share this wonderful hobby. Let me thank those tens of thousands of modelers throughout the world that believe in and subsequently enjoy our Diesel Systems.

Back in 1948 a company 20 miles west of us in Danbury Connecticut run by the famous modeler Ray Arden gave the hobby the glow plug. For less then a dollar you could screw in this new plug, fill your tank with this different fuel and you had converted your gasoline engine to a diesel-like system of ignition and for a bonus you also got more power. The glow plug did away with coils, points, condensers, and batteries. If you wanted the available diesel engines of the day you had to buy the whole engine and that wasn't cheap.

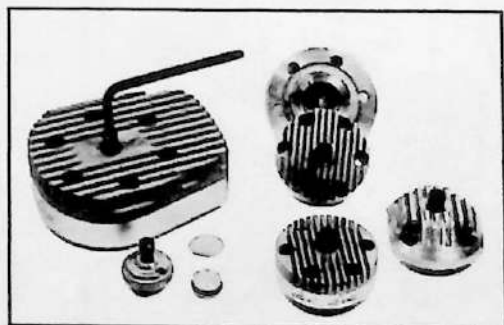
In 1975 we introduced the diesel converter for the most popular engine the Cox .049 at the Dayton Ohio AMA nationals. All you had to do was drop in a little Teflon wafer then screw down your Davis diesel head, fill up the tank with this funny smelling fuel and suddenly you had a diesel; it produced more power to boot. As one of our advertisements at the time said "Fuel it, Flip it and Fly it." The first big engine we made a diesel conversion head for was the OS .40 FSR. This OS was the first in a long line of modern designed schnuerle ported engines we made heads for. We were very fortunate to have both our little dieselized Cox .049 as well as the larger more mainstream OS 40 diesel reviewed by the world famous writer and model engine expert Peter Chinn. Peter wrote for Aeromodeler Magazine from England and the U.S. Model Airplane News. Those reviews really lit a fire under sales of our diesel systems as well as caused a resurgence in demand for diesel in general.

Our website: <http://www.davidisdieseldevelopment.com>, lists the vast array of engines we currently make diesel converters for these days. The smallest available today is the little Cox Pee Wee .020 and the largest single cylinder engine is the Super Tiger 45 cc. In the twin category we made conversions for the Cannon .30 opposed twins and the HP 1.2 inline twin. In the largest sizes we also make them for the Super Tiger 60 cc and Moki 60 cc Inline Twins.

One of the best parts of this hobby is the vast variety of choices. Modelers who have used the same brand of engine in the same size and the same types of aircraft are really missing out! The greater number of new things one tries, the greater the potential fun derived. The most completely rounded modeler is the one who found his niche after sampling a potpourri of choices this hobby presents.

Over these past thirty years we have heard all the excuses for not trying something different. Well, diesel is certainly different and that word could have killed it right off the bat when we first brought it to market, but fortunately there are enough modelers that want be the first guy on the block to give it a try. Most were pleasantly surprised with the results. All those horrific stories they had heard turned out to be untrue. Most had heard they were hard to start, have high vibration, poor idling as well as low on power. It turned out not just to be untrue but the 'results were just the opposite'.

I believe it is fair to state after 30 years, we here at Davis Diesel don't make engines; we make systems that make your engine better.



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25 to a 40 cu. in.
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.60 to a .90
.90 to a 1.20



Mike Hoffelt's Own Story On His (back cover) Combat 36R

Duke Fox had a fondness for Control Line Combat from the very beginning of the event. When no one else would, Duke always provided a 35, and later, a great 36 Combat Special that anybody could buy in any Hobby Shop.

By 1970 Super Tigre G-21 .35 had eclipsed the performance of Fox's baffle piston Combat Specials. The Tigre had a trick, the flat top, no baffle piston allowed a compact combustion chamber with an uninterrupted squish band. It was this single design element, not the apparent build quality, that accounted for the horsepower advantage.

Fox struck back in 1974 with his MKII Combat Special Semi-Schnuerle. It looked good on paper but was a disaster in application, the hopelessly fragile crankshaft, insufficient piston support, and poor balance doomed it.

Duke wasn't through, in '76 he presented the MKIII Combat Special. This was a new, fresh design, very powerful, and it out powered the G-21 .35 Super Tigre with authority.

It was for this engine I designed the AMA fast Combat version of the 'Monoboom' high aspect ratio Combat airplane.

I wanted extraordinary power to showcase the Mono's performance, but continuing tuning efforts with the Fox MKIII soon revealed serious structural deficiencies. At high power levels the crankshaft easily fractured. There were constant failures of piston pin circlips and stock con rods. In northern California Rich Brasher and Norm McFadden colluded to produce the Brasher crank, this fine after-market component allowed higher power, but on high nitro fuels the cast iron piston would fail at the piston crown. Faced with the prospect of never ending band-aid solutions, I embarked on another approach - The 36 R.

It was obvious that a large increment in horse-power was possible with a properly arranged and crafted power-plant. The European .15 contest engines, developed for F.A.I. Speed and Free Flight, were producing 30% more power per cubic inch than the Fox was capable of even in competently tuned form. I only wanted to produce a few engines but not enough to justify tooling a new crankcase. I needed an existing casting that could be filled with appropriate high precision bits. It had to be a rear rotary valve, side exhaust, schnuerle configuration.

Recent years had seen a torrid development pace in the .40 Formula One Pylon engines. They were producing the power and R.P.M. levels wanted but had morphed into bulky, heavy, rear exhaust configurations, not suitable for light weight Combat planes.

There was one exception, in 1972, in answer to Super Tigre G-40 dominance in Formula One, Bill Wisniewski, John Brodbeck Sr., and others at K&B produced the K&B .40R. This limited edition homologation special (only about 110 were made) which incorporated the best of current knowledge, and trounced the Tigre G-40. The production version of the K&B .40S, was even better but was only offered for about a year.

This was the crankcase I wanted. A call to Wisniewski confirmed that yes, a supply of the old cases were still there, an order was placed, and the development was on.

Work on the engine progressed throughout '81. I wanted to get the horsepower peak circa 24,000 R.P.M. as apposed to the Fox's 20k. The big .40 bore was retained to maximize port areas and the stroke reduced to lower piston speeds. Tim Gillot, who had done extensive 40S development for his nationals winning "Shark" Rat Racer produced a batch of super precision Dykes rings.

Hoffelt continues :-

Special heavy duty pistons were made, crankshafts for 36, 40, and 41 displacements crafted. Parts were hard chromed, fitted, and many combinations tried and tested.

To fit the engine into a typical Combat mounting arrangement the venturi was eliminated and a timed crankcase injection metering system perfected. Surprisingly this produced more power than the conventional set up, in use for forty years !

By the summer of '82 the power and durability were there. The only 40S parts remaining were the crankcase and cylinder liner, both in highly modified, refined form, and weight had been reduced to 9.0 ounces, a few grams less than the current Fox.

I had been working for weeks finalizing combustion chamber geometry and port heights, the 36R was tuned to the teeth but had never been in an airplane. I didn't have a 'Monoboom' with 36R motor mount completed yet.

Greg Hill, local nationals winning combat flyer and primary test pilot for the F.A.I. and AMA Monobooms, had followed the 36R project with interest. Greg had a big, black, heavy airplane, built for a K&B 5.8 which shared the same bolt pattern. The fastest that airplane had ever gone was 108 M.P.H. But in the crisp San Diego ocean air, drinking 40% nitro and howling at 24k, that prototype 36R went 132 M.P.H. !

I was ecstatic, Greg was in shock and awe, but before we packed up he wrote a check for \$265.00 and became the first 36R owner.

In following years we ran the Combat Top Speed Challenge competition, at the Nationals, and other combat money meets. The 36R won every one, out speeding the best tuned Foxes by 15 M.P.H. or more.

There were about seventy engines made, including the 36R Combat Specials and the derivative .40 and .41 Free Flight versions. Now, nearly a quarter century later they have become prized collector items.

It was a pivotal development for these events, the first of the high precision, high dollar power plants, and broke the ice for all that followed.

POSTSCRIPT

There is a new class of materials now emerging, ceramic matrix carbon composites. This exotic material exhibits hardness twice that of heat treated stainless, with a density 35% less than aluminum. It has vastly greater hot tensile and compressive strength than even the best aluminum alloys. It is impossibly expensive for a production engine, but doable for limited specialty components.

I have about fifty crankcase castings left and am going to do a final rendition of the R motors in innovative format, with AAC, ceramic bearings, carbon rod, rotor, and high alloy super-light crank. Weight is currently 7.7 ounces, but 7.3 is achievable. The light weight reciprocating components allow tuning for 32-34 k R.P.M.

This is the R.P.M. range currently achieved with F.A.I. Combat and Pylon engines. It requires composite, thin chord props to get adequate disc area, but the delivered horse-power is immense.

Best wishes to engine enthusiasts everywhere !

Michael Scott Hoffelt
LaJolla, CA 2005

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