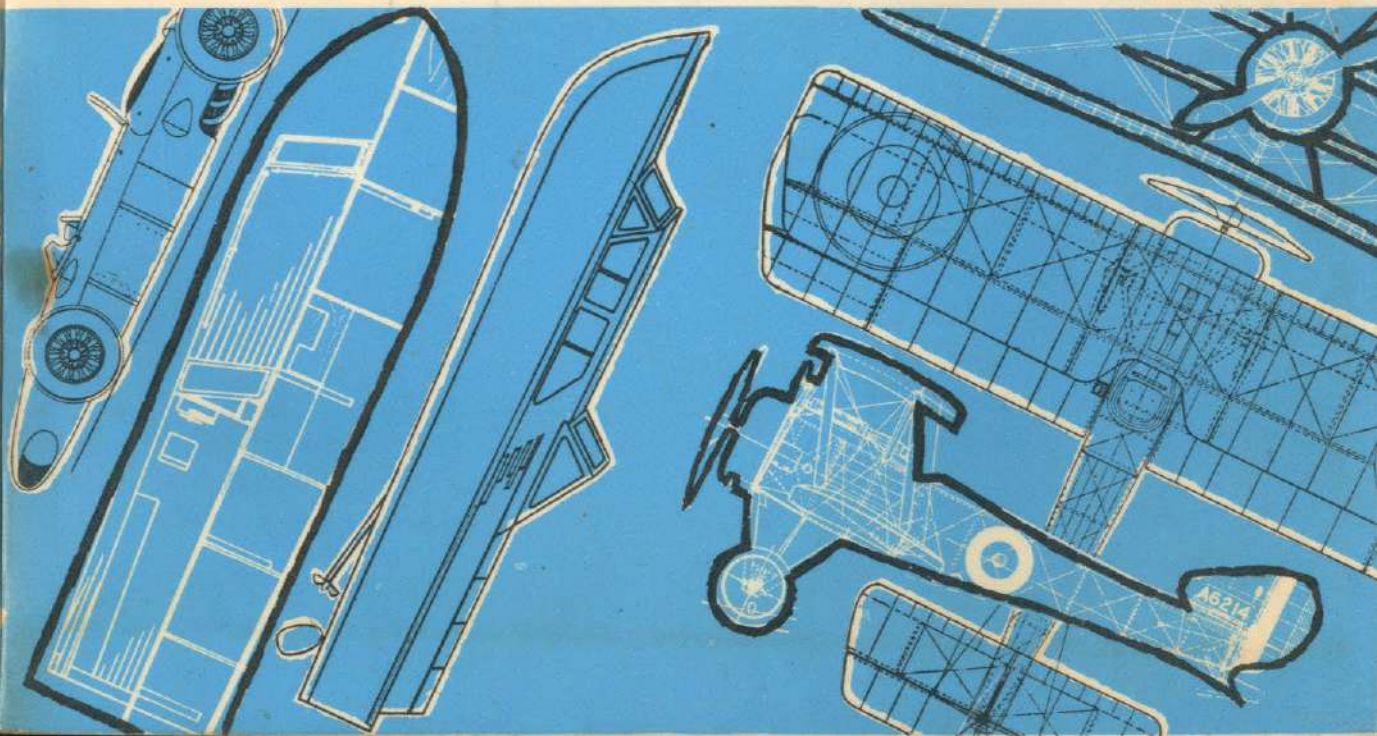
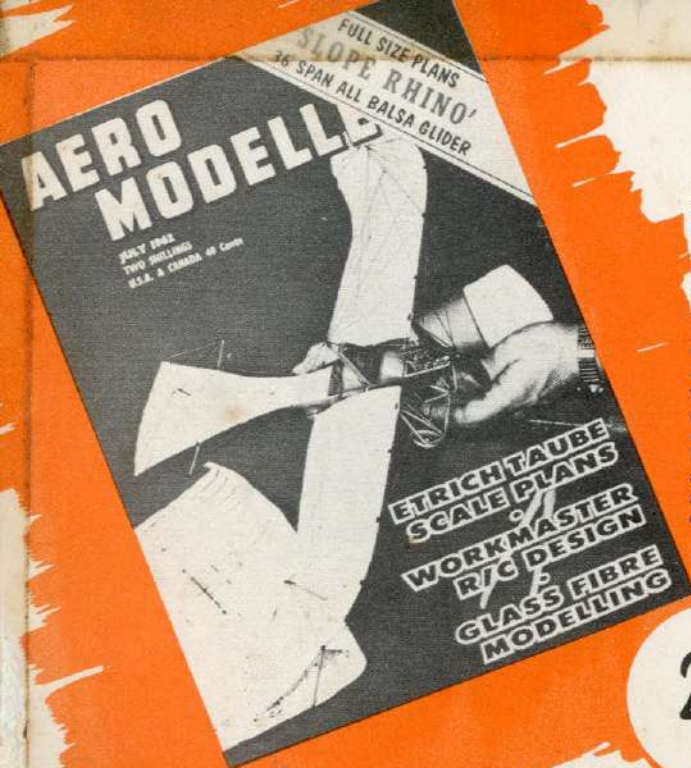


**AEROMODELLER
MODEL MAKER**

PLANS HANDBOOK 2s

PLANS HANDBOOK





World Beater!

The AEROMODELLER—eagerly awaited every month by thousands of enthusiasts all over the globe—is the world's premier model aeronautical magazine. Every issue is packed with information on the latest types of model aeroplanes, whether gliders, diesel-engined, rubber-driven, control-line, or radio-controlled. Up-to-the-minute designs presented in recent editions include deltas, ducted fans, jets, helicopters, world record holders—a host of beautifully-drawn plans enabling anyone to build exact replicas of unusual or winning models. Special articles and designs for beginners are regularly featured, and every issue contains one full-size plan, enabling a model to be built right out of the book. Accurate three-view drawings of latest full-size aircraft, historic aircraft of the two wars and the years between, plus others of special interest, are also featured and enjoy a world-wide reputation amongst experts.

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Articles

Take Your Pick	3	Tapered Wing Ribs	71
Starting a Diesel	11	Boat Radio Control	76
Covering with Silk	18	Scaling Plans Up or Down	84
The Art of Covering	22	F.A.S.T.E. Rat Race Rules	86
Doping and Finishing	23	Auto Rudders	94
International Model Requirements	36	Plastic Moulding	100
Team Racing Requirements	46	Aircraft Radio Control	102
Trimming for Flight	52	Hull Construction	146
Building from Plans	58	Use of Lines	148
Operating Glow Plug Engines	70	D/T Safety Devices	152

Plans

Flying Scale Power	12	Unorthodox Designs	89; 133
Flying Scale Rubber	24	Radio Control Models	91; 96
Flying Scale Gliders and Jetex	29	"Favourite" Series	99
Control Line Scale	30	Racing Yachts	106
Control Line, Stunt	36	Sailing Craft	112
Control Line, Combat	42	Non-Working Ships	113
Control Line, Speed	43	Power Boats	115, 130, 134
Control Line, Team Racers	44	Hydroplanes	126
Control Line, Rat Racers	45	Aircrew Driven Hydroplanes	128
Waterplanes	47	Model Cars	136
Sports F/F Power	49; 54	Space Models	140
Contest F/F Power	59	I.C. Engines	142
Airfoil Sections	64	Steam Engines	142
Open Class Gliders	66	Miscellaneous	142
A/1 Gliders	72	Racing Model Cars	143
A/2 Gliders	73	Prototype Car Plans	144
Rubber Models	78	Norman Ough Warship Drawings	151
Solid Scale Plans	84	Marine Miniatures	153
Tailless Gliders	87	Books for Modellers	154
Autogyros & Helicopters	90	Order Form	159

AEROMODELLER & MODEL MAKER

PLANS HANDBOOK

A FULLY ILLUSTRATED CATALOGUE OF
THE FAMOUS A.P.S. & M.M.P.S. PLANS
TOGETHER WITH INSTRUCTIONAL ARTICLES
TO HELP YOU TO BUILD AND
OPERATE BETTER MODELS

Published by:
MODEL AERONAUTICAL PRESS LTD.

38 Clarendon Road, Watford, Herts.

This catalogue supersedes all previous issues.

OUR SERVICE IS WORLD-WIDE

ONCE again it is our pleasant task to present a revised PLANS HANDBOOK. A number of changes have been made; many new plans have been added to the range and this has meant that some designs offered in previous editions have been omitted where interest in that particular style of model may have waned, or later productions are improved versions which have ousted the original design. However, we would mention that master tracings have been retained and we can always supply virtually any model plan which has ever been in our list. We have also taken the opportunity of adding additional articles of general interest to start our readers on the right lines. The growing interest in radio control has made the somewhat longer features on that subject imperative, whilst a more general use of glow engines in this country (they have

always been the most popular in U.S.A.) has meant that a short introduction to their use should be welcomed. Some other articles are purely pictorial—but tell their stories adequately.

Our plans, books and magazines are in demand throughout the world and we regularly supply enthusiasts everywhere, so that our mail is something of a stamp-collectors' delight. We have added below some of our principal distributors, but we shall be delighted to open accounts with model shops of good standing anywhere in the world where currency regulations permit, or to channel such enquiries to a local main supplier. By and large, this HANDBOOK will go mainly to the ordinary modelling fan, and we would conclude with the advice repeated throughout the book to choose designs within your present ability to be sure of success.

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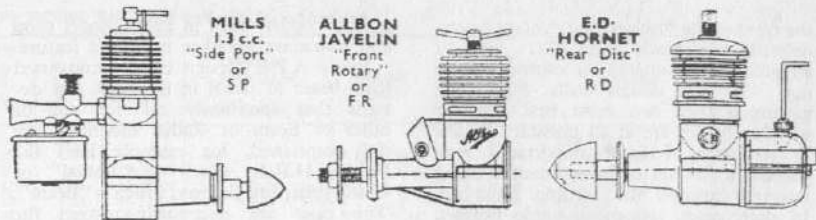
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Take your pick!

Put the *right* engine in your A.P.S. designed model and you will have the perfect combination for many hours of model flying.

Is *YOUR* engine going to help you select your next model?—or are you selecting a design and then buying an engine to suit? Either way, this table of the World's model engines, the majority of which are in full scale production this year, will help you take your pick.

The old scheme of classifying engine utility against its capacity used to serve as a standard yardstick—until engine design unfolded new techniques, new power levels. For example, there are some 1.5 c.c. diesels equal in usefulness to others of 2.5 capacity. Conversely there are 2.5 c.c. engines with "slogging" power at lower revs per minute, that equal much larger engines for use in a sport model, yet fall below requirements for 2.5 c.c. when employed for a contest model.



Grading the World's engines so that due allowance be made for differences in characteristics and power output has meant that no less than fourteen classes are used to segregate the vast range from .15 to 26 c.c. The classes are lettered from **A** to **O** and to find the grading for your particular engine, just follow the line against its name until you reach the "power coding" column.

In each caption to **AEROMODELLER** Plans Service power driven designs, equivalent code letterings are included between the plan number and its price. For example:-

PET 582 **B I - P L A Y** **4/6**
 C, D, E

This is an exceptional example capable of taking a wide range of power units; but we quote it because giving more than one code letter means that *all* engines with these quoted codes will be suitable and capacity is more or less disregarded.

It will be found that many diesels equal glowplug engines of larger capacity, that the "point-five" size diesels are divided, and that the method of mounting is also defined. "Radial" mounting generally implies an engine with a front rotary induction valve via the crankshaft. Such an engine may require slight modification to your A.P.S. selection since the majority of British power units are "Beam" mounted. Alteration is simple in every case when beams are specified on the plan. First measure the distance from the rear of the propeller to the rear face of the "Radial" engine mount and indicate this on the plan with a vertical line on the side view. This will be the position of your new "Radial" bulkhead and the beams should be sawn off flush to allow a key to be made with the $\frac{1}{4}$ -in. plywood radial mount.

Should the design be a profile type, for example **PET 499 STOMPER** a bulkhead can be attached directly to

the front of the fuselage, the existing beams deleted, and block balsa fillers used to streamline and support the engine mounting. If the design calls for radial mounting then one must first consider whether beams are at all possible. A tank or structure of some importance may prevent a full set of beam mounts being inserted through the existing bulkhead. In such cases, use metal angle bearers,

once a popular item in every model shop and nowadays a rather neglected feature.

Every A.P.S. design can be converted from beam to radial in this way, but designs that specifically call for one or other of Beam or Radial mounting are duly captioned, for example **PET 453 Fokker D.R.1**, which is "Radial" or **U.488 Jumping Jiminy**, which is "Beam". This does not necessarily restrict the

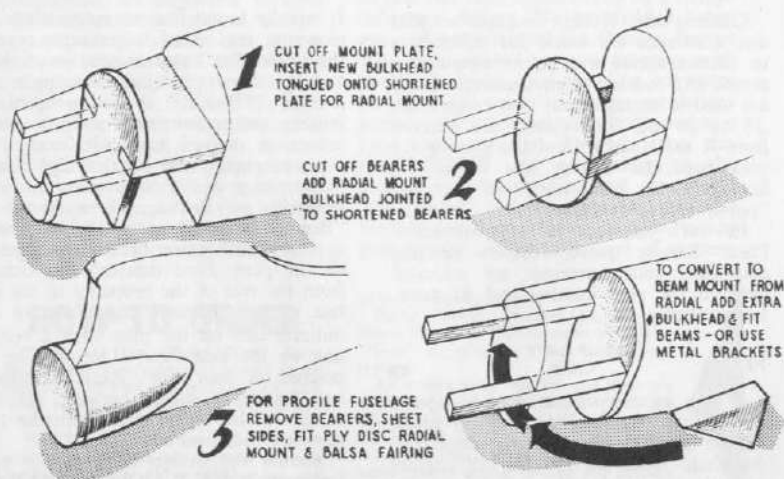
design to that particular mounting, for modification is still possible with a minimum of ingenuity. Likewise, engines with rear disc (R.D.) induction, such as the E.D. 2.46 c.c. "Racer" call for additional clearance immediately behind the engine to allow access to the carburettor.

Propeller Selection

Against each engine there are three sizes of propeller. These are basic dimensions derived from practice in the field, contest flying, sports flying and designer's advice. Use the size given if you have any doubt on your own selection—and remember—large airframes (72 in. for 2.5 c.c.) require an extra inch in prop diameter, keeping advised pitch, and smaller airframes (48 in. for 2.5 c.c.) can be cut by as much as half an inch on diameter.

Gear the pitch of your prop against the rate of climb and engine r.p.m. (4 in. pitch for a fast climbing contest model and 12,000-13,000 r.p.m. engine) or step up the pitch for slower sports models (6 in. pitch for 7,000-9,000 r.p.m.). A good tip is to fit the prop back to front for first test flights when full thrust is not advisable.

Above all: mount your engine firmly, treat it with the respect it deserves and give it a fair chance—you can always rely on the A.P.S. design to make full use of the power it develops.



MODIFICATION RADIAL TO BEAM OR VICE VERSA

WORLD'S MODEL ENGINES (excluding Soviet Products)

ENGINE	DISPLACE- MENT cc. cu. ins.	Cylinder		WEIGHT (ozs)	Useful RPM RANGE	RECOM- MENDED PROPELLER			MOUNT- ING*	Induction	POWER GROUP	ENGINE
		Bore	Stroke			Sport	Contest	C/L				
BRITISH ...												BRITISH ...
Allbon Bambi ...	15 .009	21	.25	.75	10-14000	4x2	—	—	R or B 9/16	FR	A	Allbon Bambi ...
Kalper ...	32 .019	251	.402	.875	9-11000	5x3	—	—	B 11/16	SP	B	Kalper ...
E.D. Baby ...	47 .028	312	.375	1.4	10-12000	5x3	6x3	6x3	B 1/2	FR	B	E.D. Baby ...
Frog 50 ...	49 .030	343	.33	1.25	11-13000	6x3	6x3	6x4	B 1/2	FR	B	Frog 50 ...
Allbon Dart ...	55 .036	35	.35	1.25	9-14000	7x4	6x3	6x4	R or B 11/16	FR	C	Allbon Dart ...
Elfin .5 ...	536 .0327	329	.385	1.5	10-12000	6x4	6x4	6x4	R	FR	B	Elfin .5 ...
A.S. 55 ...	566 .034	350	.356	1.5	6-16000	7x4	5x6	6x4	B 11/16	FR	C	A.S. 55 ...
Cobra 049 ...	798 .0487	406	.376	1 1/2	8-16000	6x4	6x3	6x4	B 1/2	RR	C	Cobra 049 ...
A.M. 049 ...	83 .0506	421	.364	1.75	9-18000	6x4	6x3	6x4	B	FR	C	A.M. 049 ...
D.C. Bantam ...	762 .0465	410	.352	1.5	10-18000	6x3	5x3	6x4	B 11/16	FR	C	D.C. Bantam ...
Frog 049 ...	808 .0492	400	.392	1.8	8-15000	6x4	6x3	6x4	B	FR	C	Frog 049 ...
Frog 80 Mk II ...	80 .049	400	.392	1.9	7-14000	7x4	6x4	6x6	B	FR	C	Frog 80 Mk II ...
Mills P 75 ...	75 .047	335	.516	2	6-12000	8x4	7x4	6x6	B 1/2	SP	C	Mills P 75 ...
Albon Merlin ...	76 .047	375	.420	1.75	9-14000	8x4	7x4	6x6	R or B 13/16	FR	C	Albon Merlin ...
Amco .87 ...	87 .053	375	.5	1.75	7-9000	8x4	8x4	7x6	B 13/16	SP	C	Amco .87 ...
Allbon Spitfire ...	975 .059	425	.42	3	9-12000	9x4	8x4	7x6	R or B 1/2	FR	D	Allbon Spitfire ...
E.D. Bee ...	98 .059	437	.420	2.75	8-11000	9x4	8x4	7x6	B	RD	D	E.D. Bee ...
Frog 100 Mk. II ...	1.02 .062	416	.460	3	6-14000	8x5	8x4	7x5	B	FR	E	Frog 100 Mk. II ...
A.M. 10 ...	1.0 .061	426	.430	3	11-14000	8x4	7x4	7x6	B	FR	E	A.M. 10 ...
M.E. Heron ...	97 .059	424	.420	2.4	7-14000	8x4	7x6	7x6	B	FR	D	M.E. Heron ...
Frog Viper ...	1.48 .09	500	.460	4 1/2	8-16000	9x4	7x4	8x6	B 11/16	RD	F	Frog Viper ...
Frog Venom ...	1.48 .09	500	.460	3.75	8-12000	8x4	7x4	7x6	B 11/16	RD	D	Frog Venom ...
P.A.W. 1.49 ...	1.473 .09	494	.469	3.5	7-18000	9x4	7x4	7x6	B 1/2	FR	F	P.A.W. 1.49 ...
Oliver Tiger Cub II ...	1.46 .089	4659	.523	4 1/2	7-17000	9x4	8x4	8x6	B	FR	F	Oliver Tiger Cub II ...
E.D. Super Fury ...	1.49 .092	500	.462	3.75	8-17000	9x4	7x4	7x6	B	RD	F	E.D. Super Fury ...
Mills I.3 ...	1.33 .081	406	.625	3.25	5-8000	9x5	9x4	8x6	B 1 1/2	SP	E	Mills I.3 ...
E.D. Hornet ...	1.45 .085	531	.4	3.25	9-13000	9x5	8x4	8x6	B	RD	E	E.D. Hornet ...
E.D. Fury ...	1.5 .090	5	.468	3 1/2	8-14000	9x5	8x4	8x6	B	RR	E	E.D. Fury ...
A.M. 15 ...	1.48 .089	517	.430	3	7-15000	9x5	8x4	7x6	B	FR	F	A.M. 15 ...
J.B. Atom ...	1.47 .09	536	.397	3.12	8-10000	8x4	7x4	7x6	R or B 15/16	FR	D	J.B. Atom ...
Frog 149 & 150 ...	1.49 .091	5	.46	3.25	11-14000	9x5	8x4	8x6	R or B 1/2	FR, RR	F	Frog 149 & 150 ...
Elfin 1.49 ...	1.49 .091	503	.466	2.6	11-14000	9x6	8x4	8x6	B	FR	F	Elfin 1.49 ...
Elfin 1.49 BB ...	1.49 .091	503	.46	4	10-15000	9x6	8x4	8x6	B	RR	F	Elfin 1.49 BB ...
Allbon Javelin & Sabre ...	1.49 .091	525	.42	3	10-12000	8x6	8x4	8x6	B	FR	E	Allbon Javelin & Sabre ...
Elfin 1.8 PB ...	1.8 .110	505	.562	3.25	8-12000	10x6	9x4	8x6	R	FR	F	Elfin 1.8 PB ...
Elfin 1.8 BB ...	1.8 .110	503	.562	4.1	8-14000	10x6	8x4	8x6	B	RD	F	Elfin 1.8 BB ...
E.D. Comp. Special ...	2.0 .122	5	.625	5.75	6-8000	10x6	8x6	8x8	B 1 1/2	SP	E	E.D. Comp. Special ...
Allen-Mercury 25 ...	2.4 .147	57	.562	4	10-13000	10x6	8x4	9x6	B 1 1/2	FR	G	Allen-Mercury 25 ...
E.D. Racer ...	2.46 .15	59	.55	5.4	10-15000	10x6	9x4	9x6	B 1 1/2	RD	G	E.D. Racer ...

WORLD'S MODEL ENGINES (excluding Soviet Products)

ENGINE	DISPLACE- MENT cc. cu. ins.	Cylinder		WEIGHT (ozs.)	Useful RPM RANGE	RECOM- MENDED PROPELLER			MOUNT- ING *	* Induction	POWER GROUP	ENGINE
		Bore	Stroke			Sport Contest C/L						
D.C. Allbon Rapier	2.46 .15	.578	.570	5	8-13000	9x6	8x4	9x6	B 1 1/16	RD	G	D.C. Allbon Rapier
Elfin 2.49 PB & BB	2.48 .15	.554	.625	3.4	9-13070	10x6	8x4	8x6	B or R	FR, RD	G	Elfin 2.49 PB & BB
Frog 249	2.49 .151	.58	.568	6	8-16000	11x6	10x4	9x6	B 1 1/16	FR	G	Frog 249
Rivers Sil. Streak II	2.49 .152	.578	.578		8-17000	10x6	9x4	9x6	B	FR	G	Rivers Sil. Streak II
P.A.W. 2.49 III	2.46 .15	.592	.532	5	8-17000	10x6	8x4	9x6	B	FR	G	P.A.W. 2.49 III
Oliver Tiger III	2.424 .1479	.551	.620	5.5	8-16000	9x6	8x4	8x6	B	FR	G	Oliver Tiger III
ETA 15	2.48 .15	.558	.620	5.75	8-18000	9x6	8x4	9x6	B 1/18"	RD	G	ETA 15
P.A.W. 19D	3.128 .1912	.642	.590	5.5	7-16000	10x4	8x4	8x6	B	FR	H	P.A.W. 19D
Rivers Sil. Arrow 3.5	3.46 .211	.607	.642	7 1/2	8-17000	10x6	8x5	9x6	B 1 1/4"	FR	H	Rivers Sil. Arrow 3.5
Frog 3.49	3.43 .209	.666	.600	6.5	8-14000	10x4	9x6	9x6	B 1 1/4"	RD	G	Frog 3.49
ETA 19 Mk 2	3.254 .1985	.640	.617	4.5	9-18000	9x6	8x4	8x6	B	RD	H	ETA 19 Mk 2
D.C. Tornado	4.972 .303	.567	.585	10	8-14000	11x4	9x6	9x8	R		J	D.C. Tornado
Amco 3.5 PB	3.42 .209	.687	.562	4.25	10-12000	11x6	10x4	10x6	R or B 1 1/4"	FR	H	Amco 3.5 PB
Amco 3.5 BB	3.42 .209	.687	.562	5.5	10-13000	11x6	10x4	10x6	B 1 1/4"	RD	H	Amco 3.5 BB
Allen-Mercury 35	3.42 .209	.687	.562	4.5	10-14000	11x5	9x4	9x6	B 1 1/4"	FR	H	Allen-Mercury 35
D.C. Manxman	3.43 .209	.687	.562	5.5	8-11000	11x6	10x6	10x8	B 1 1/4"	FR	H	D.C. Manxman
E.D. Hunter	3.46 .211	.656	.625	6.5	8-11000	12x6	10x5	10x6	B 1 1/4"	RD	H	E.D. Hunter
Miles Special	4.92 .3	.781	.625	10	8-14000	12x6	10x4	10x6	B 1 5/16	RD	J	Miles Special
ETA 29 (glow)	4.95 .3	.75	.672	6.5	10-14000	10x6	9x5	9x6	B 1 1/4"	RD	J	ETA 29 (glow)
Frog 500 (glow)	4.95 .3	.75	.68	7.75	7-11000	11x6	10x4	9x6	R or B 1 1/4"	FR	J	Frog 500 (glow)
Merco 35	5.794 .353	.800	.703	7.5	8-16000	11x6	10x4	10x6	B 1 5/16	FR	L	Merco 35
Taplin Twin	6.920 .420	.656	.621	15	6-10000	10x8	—	10x8	B 1 1/4"	FR	J	Taplin Twin
DUTCH												
Typhoon R250	2.47 .15	.59	.55	4.75	8-13000	11x6	8x4	9x6	B 1"	FR	G	Typhoon R250
Typhoon IV	4.82 .29	.74	.66	8.75	9-14000	12x8	10x4	10x6	B 1 1/4"	RD	J	Typhoon IV
YUGOSLAV												
Oskar 150	1.5 .09	.5	.46	3	9-12000	10x5	8x4	8x6	B 1"	RD	F	Oskar 150
Aero 250	2.47 .15	.59	.55	4.5	8-13000	11x6	9x4	9x6	B 1"	FR	G	Aero 250
ITALIAN												
Super Tigre 28	.5 .030	.33	.33	1.34	10-15000	6x4	6x3	5x6	R	FR	B	Super Tigre 28
Super Tigre 29	.8 .48	.33	.43	1.51	10-14000	6x4	6x4	6x6	R	FR	C	Super Tigre 29
Super Tigre 25	.95 .059	.43	.40	2.5	8-14000	8x4	6x4	6x6	B or R	FR	D	Super Tigre 25
Barbini B.38	.99 .061	.4	.48	2	10-13000	9x4	8x4	6x6	B	FR	D	Barbini B.38
Super Tigre 22	1.23 .072	.495	.395	1.75	7-12000	8x6	7x4	7x6	B	FR	E	Super Tigre 22
Super Tigre 26	1.49 .091	.52	.43	3	8-14000	9x6	8x4	8x6	B or R	FR	E	Super Tigre 26
Super Tigre 20 & 23	2.46 .15	.59	.55	4	8-14000	9x5	8x3 1/2	8x6	B 1"	FR	G	Super Tigre 20 & 23
Super Tigre G20D	2.482 .1514	.591	.552	6	8-16000	10x4	8x4	8x6	B	FR	G	Super Tigre G20D
Barbini B.40	2.47 .15	.57	.59	4	8-12000	9x4	8x3 1/2	8x6	B	FR	G	Barbini B.40
Super Tigre 27	3.28 .19	.59	.64	5.5	8-14000	11x6	10x4	9x6	B or R	FR	H	Super Tigre 27
Super Tigre 19 & 21	4.82 .29	.75	.67	8.5	8-12000	11x6	10x4	9x6	B 1 1/4"	FR	J	Super Tigre 19 & 21
Super Tigre 24	9.81 .604	.98	.79	14	9-16000	14x4	10x6	11x8	B	RD	N	Super Tigre 24
Penna	10.0 .607	1.015	.75	15	9-16000	14x4	10x6	11x8	B	RD	N	Penna

* Definitions: R radial, B beam, FR front rotary, SP sideport, RD rear disc, RR rear need.

Dimensions with B are for distance in inches between bearers (crankcase clearance) for Beam mounting.

WORLD'S MODEL ENGINES (excluding Soviet Products)

ENGINE	DISPLACE- MENT cc. cu. ins.	Cylinder Bore Stroke	WEIGHT (ozs.)	Useful RPM RANGE	RECOM- MENDED PROPELLER Sport Contest C/L	MOUNT- ING*	Induction	POWER GROUP	ENGINE
AMERICAN Cox Tee Dee 010 ...	.163 .010	.237 .226	↓	16-34000	3 1/2" supplied. Cox 3 1/2" x 2 1/2" three Blade or Cox 4"x2 1/2"	R	FR	B	AMERICAN Cox Tee Dee 010 ...
Cox Tee Dee 020 ...	.327 .0199	.300 .282	.85	13-23000	5x2 5x2	R	FR	B	Cox Tee Dee 020 ...
K & B Infant ...	.327 .020	.281 .331	1	12-15000	5 1/2x4 5 1/2x4	R	FR	B	K & B Infant ...
OK Cub ...	.6 .039	.39 .336	1 1/2	11-16000	6x4 6x4	R	FR	A	OK Cub ...
Baby Spitfire ...	.72 .045	.375 .406	1	10-13000	6x4 6x4	R	FR	C	Baby Spitfire ...
OK Cub (glow & D)	.8 .049	.420 .36	1 1/4	9-14000	6x4 5x4	R	FR	C	OK Cub (glow & D)
Atwood ...	.8 .049	.420 .36	1 1/4	9-14000	6x4 5 1/2x3 5 1/2x3	R	FR	C	Atwood ...
Holland Wasp ...	.8 .049	.420 .36	1 1/4	9-14000	6x4 5 1/2x3 5 1/2x3	R	FR	C	Holland Wasp ...
Holland Hornet ...	.795 .048	.422 .35	2	8-15000	6x4 5 1/2x3 5 1/2x3	R	FR	C	Holland Hornet ...
K & B Torpedo ...	.8 .049	.396 .406	1 1/4	10-15000	6x4 5x3 5x3	R	FR	C	K & B Torpedo ...
McCoy Diesel ...	.8 .049	.405 .386	1 1/4	7-15000	7x6 6x4 6x6	R	FR	C	McCoy Diesel ...
Wen-Mac ...	.8 .049	.42 .37	1 1/4	9-16000	6x3 5x3 5x3	R	FR	C	Wen-Mac ...
Thermal Hopper ...	.8 .049	.406 .386	1 1/4	11-18000	6x3 5x3 5x3	R	FR	C	Thermal Hopper ...
Cox Babe Bee ...	.81 .0494	.406 .382	1 1/4	12-16000	6x4 6x4 6x4	R	FR	C	Cox Babe Bee ...
Cox Golden Bee ...	.81 .0494	.406 .382	1 1/4	10-17000	6x4 6x4 6x4	R	FR	C	Cox Golden Bee ...
Royal Baby ...	.8 .049	.396 .406	1 1/4	10-15000	6x4 6x3 6x3	B	FR	C	Royal Baby ...
Allyn Skyfury ...	.8 .049	.420 .36	1 1/4	9-14000	6x4 5 1/2x3 5 1/2x3	R	FR	C	Allyn Skyfury ...
Atwood ...	.83 .051	.420 .37	1 1/4	9-14000	6x4 5 1/2x3 5 1/2x3	R	FR	C	Atwood ...
Royal Spitfire ...	1.06 .065	.44 .420	1 1/2	8-12000	7x4 6x4 6x6	B	FR	D	Royal Spitfire ...
OK Cub ...	1.21 .074	.479 .415	1 1/2	10-13000	7x4 6x4 6x4	B 1/2" or R	FR	D	OK Cub ...
OK Cub (Diesel) ...	1.23 .075	.48 .415	2	7-12000	8x4 7x3 7x6	B 1/2" or R	FR	E	OK Cub (Diesel) ...
OK Cub ...	1.6 .09	.51 .5	2	8-13000	8x4 7x3 7x6	B 1" or R	FR	E	OK Cub ...
McCoy Diesel ...	1.61 .09	.5 .5	2.6	7-12000	9x5 8x4 8x6	B 5/16"	FR	D	McCoy Diesel ...
Arden ...	1.6 .09	.495 .516	2.6	8-12000	8x4 7x4 6x6	R	FR	D	Arden ...
Fox 09 ...	1.639 .099	.530 .453	3	8-16000	7x4 6x4 6x6	R or B	SP	D	Fox 09 ...
Fox 15 ...	2.415 .147	.593 .537	4	9-16000	9x4 8x4 8x6	B 1"	FR	G	Fox 15 ...
K & B 15R ...	2.485 .1516	.599 .537	4.9	10-18000	9x3 8x4 8x6	B 1 1/8"	FR	G	K & B 15R ...
Cox Olympic 15 ...	2.423 .1478	.585 .55	4	10-19000	9x4 8x4 8x6	B 1"	RR	G	Cox Olympic 15 ...
Cox Tee Dee 15 ...	2.449 .1494	.585 .556	4	10-18000	9x4 8x4 8x6	B 15/16"	FR	G	Cox Tee Dee 15 ...
OK Cub ...	2.45 .14	.6 .530	2.75	9-15000	9x3 8x3 7x6	B 1 1/8" or R	FR	F	OK Cub ...
K & B Torpedo ...	2.43 .15	.595 .535	3.75	10-14000	9x3 8x3 7x6	B 1 1/8" or R	FR	G	K & B Torpedo ...
OK Cub ...	3.25 .19	.655 .59	3	11-13000	9x6 8x4 8x6	B 1 1/8" or R	FR	G	OK Cub ...
OK Bantam ...	3.25 .19	.656 .59	3 1/2	9-12000	10x6 9x4 8x6	B 1 1/8"	RD	H	OK Bantam ...
Arden ...	3.25 .19	.635 .625	4.16	8-12000	10x4 8x4 8x6	R	FR	H	Arden ...
Veco ...	3.25 .19	.635 .63	6	11-14000	11x6 9x6 9x8	B	FR	J	Veco ...
K & B Torpedo ...	3.25 .19	.64 .62	5 1/2	11-14000	11x6 9x6 9x8	B 1 1/8"	FR	J	K & B Torpedo ...
McCoy ...	3.25 .19	.625 .630	4	10-14000	11x5 8x4 8x6	B	FR	H	McCoy ...
Cameron ...	3.25 .19	.64 .62	5	6-14000	10x6 9x4 9x6	B 1 1/8"	FR	H	Cameron ...
Fox ...	3.25 .19	.65 .6	4 1/2	11-12000	10x6 9x6 10x6	B 1 1/8"	FR	J	Fox ...
K & B ...	3.75 .23	.68 .62	5.6	11-14000	11x6 9x6 9x8	B 1 3/16"	FR	J	K & B ...
Ohlsson ...	3.75 .23	.687 .625	5	6-12000	11x5 9x4 8x8	B 1 1/4"	FR	H	Ohlsson ...
Fox ...	4.09 .25	.738 .6	4 1/2	8-14000	11x6 10x4 9x6	B	FR	J	Fox ...
Ohlsson ...	4.9 .29	.76 .660	5	7-11000	11x5 10x4 9x6	B	FR	H	Ohlsson ...
K & B Torpedo ...	4.9 .29	.725 .724	7 1/2	8-13000	11x5 10x4 10x6	B 1 1/2"	FR	J	K & B Torpedo ...
McCoy ...	4.9 .29	.75 .672	6	11-14000	10x8 9x6 9x8	B	RD	J	McCoy ...

WORLD'S MODEL ENGINES (excluding Soviet Products)

ENGINE	DISPLACE- MENT		Cylinder		WEIGHT (ozs.)	Useful RPM RANGE	RECOM- MENDED PROPELLER			MOUNT- ING*	Induction	POWER GROUP	ENGINE
	cc.	cu. ins.	Bore	Stroke			Sport Contest C/L						
OK Hothead ...	4.9	29	76	660	7½	6-10000	11x6	10x5	9x8	B	FR	H	OK Hothead ...
Forster ...	4.9	29	75	67	6½	8-13000	12x6	10x6	10x6	B 1 5/16"	FR	J	Forster ...
Veco ...	4.9	29	725	724	7½	11-14000	10x8	9x6	10x6	B 1½"	FR	J	Veco ...
Fox 29 & 29X ...	4.9	29	738	7	5½	10-14000	12x6	10x6	10x6	B 1 3/16"	FR	J	Fox 29 & 29X ...
Dooling ...	4.9	29	8	594	6½	10-16000	10x6	10x4	7x9	B	RD	K	Dooling ...
De Long ...	4.9	30	748	680	8½	8-12000	11x6	10x5	9x6	B	RD	J	De Long ...
Forster ...	5	305	760	672	6½	8-13000	12x6	10x6	10x6	B 1 5/16"	FR	J	Forster ...
Ohlsson ...	5.4	33	687	687	5½	9-14000	12x6	10x6	10x6	B 1½"	FR	J	Ohlsson ...
Fox ...	5.75	35	8	7	5½	10-14000	12x6	10x6	10x6	B 1 3/16"	FR	K	Fox ...
Veco ...	5.75	35	78	725	6½	10-14000	12x6	10x6	10x6	B 1½"	FR	K	Veco ...
K & B ...	5.75	35	79	72	7½	11-15000	11x6	10x6	10x6	B 1½"	FR	K	K & B ...
Veco 35C ...	5.743	3502	785	725	7½	9-15000	10x6	9x6	10x6	B 1 5/16"	FR	K	Veco 35C ...
K & B 35 (61) ...	5.78	3574	790	719	8½	9-17000	11x4	9x6	10x6	B 1 5/16"	FR	K	K & B 35 (61) ...
McCoy 35 ...	5.362	327	775	743	7½	8-15000	12x4	10x4	10x6	B 1½"	FR	K	McCoy 35 ...
Fox 40 ...	6.495	3961	800	788	7½	8-16000	11x4	9x6	10x6	B 1½"	FR	L	Fox 40 ...
Atwood Triumph ...	8	49	89	79	8½	9-13000	14x6	12x6	11x6	B	FR	L	Atwood Triumph ...
Pal Twin ...	9	55	2x 72	6	10	6-10000	14x6	12x6	11x8	B	SP	K	Pal Twin ...
Fox ...	9.75	59	937	860	9½	10-16000	14x6	12x6	11x8	B	RD†	N	Fox ...
Ohlsson ...	9.9	604	937	875	9	6-12000	14x6	12x6	11x8	B	SP†	M	Ohlsson ...
McCoy ...	10.0	607	940	875	14	12-16000	12x8	11x6	11x6	B	RD	N	McCoy ...
Dooling 61 ...	10.0	607	1 015	75	14	11-18000	12x8	10x6	9x11	B	RD	N	Dooling 61 ...
Super Cyclone ...	9.9	604	906	937	9½	6-11000	14x6	12x6	11x8	B	FR	M	Super Cyclone ...
Anderson Spitfire ...	10.6	64	937	937	12	8-14000	14x6	12x8	12x8	B	FR	N	Anderson Spitfire ...
Forster 99 ...	16.4	997	1 062	125	14	3-8000	16x8	14x6	14x8	B	SP	O	Forster 99 ...
OK Twin ...	20	1 208	2x9	95	22	6-8000	16x8	14x6	14x8	B	RR	O	OK Twin ...
Avion Mercury ...	26.25	1 609	1 25	1 312	20	4-6000	16x8	14x6	14x8	B	SP	O	Avion Mercury ...
NORWEGIAN													
David Anderson ...	2.46	.15	551	630	5½	6-12000	11x6	9x4	9x6	B	FR		David Anderson ...
AUSTRALIAN													
Taipan 1.5 ...	1.500	091	511	453	3¾	7-16000	8x4	7x4	7x6	B 2"	FR	E	Taipan 1.5 ...
Burford Sabre 15 ...	1.42	091	503	466	3	8-12000	9x6	8x4	7x6	R	FR	E	Burford Sabre 15 ...
Sabre 250 ...	2.46	.15	55	620	4½	8-14000	10x6	9x4	8x6	B 1" or R	FR	G	Sabre 250 ...
Taipan 2.5 BR ...	2.506	1529	576	587	5½	8-16000	9x4	8x4	8x6	B 1 1/16"	FR	G	Taipan 2.5 BR ...
Glo-Chief 19 ...	3.30	1994	640	620	6½	8-16000	9x6	9x4	9x6	B	FR	H	Glo-Chief 19 ...
Glo-Chief 29 ...	4.92	30	739	700	7½	8-17000	11x4	9x6	10x6	B 1½"	FR	J	Glo-Chief 29 ...
Burford Sabre 19 ...	3.27	.19	64	620	6	9-14000	10x6	9x6	9x8	B	FR	H	Burford Sabre 19 ...
Sabre 49 ...	8.2	.49	89	79	8	9-13000	11x8	10x6	10x6	B	FR	L	Sabre 49 ...

* Definitions: R radial. B beam. FR front rotary. SP sideport. RD rear disc. RR rear reed.
Dimensions with B are for distance in inches between bearers (crankcase clearance) for Beam mounting.

† Also available in FR (Front Rotary) versions.

WORLD'S MODEL ENGINES (excluding Soviet Products)

ENGINE	DISPLACE- MENT cc. cu. ins.	Cylinder Bore Stroke	WEIGHT (ozs)	Useful RPM RANGE	RECOM- MENDED PROPELLER Sport Contest C/L	MOUNT- ING*	Induction	POWER GROUP	ENGINE
GERMAN									GERMAN
Wilo Boy ...	.71 .043	.394 .354	1 1/4	6-12000	8x4 7x4 6x6	R	FR	C	Wilo Boy ...
Webra Piccolo ...	.78 .049	.41 .35	1 1/4	8-14000	8x4 7x4 6x6	R	FR	C	Webra Piccolo ...
WAF I ...	.98 .060	.402 .472	2 1/4	8-12000	8x4 7x4 6x6	B	FR	D	WAF I ...
BWM 100 ...	.98 .060	.433 .405	2 1/4	8-12000	8x4 7x4 6x6	B or R	FR	D	BWM 100 ...
Taifun Hobby & RS	.99 .060	.424 .43	2	7-13000	8x4 7x4 6x4	R	FR, RR	D	Taifun Hobby & RS
Wilo Fox ...	1.36 .082	.472 .472	2 1/4	8-13000	9x6 8x4 7x6	B	FR	E	Wilo Fox ...
Taifun Record ...	1.49 .090	.512 .441	3 1/4	8-12000	9x6 8x4 7x6	B	FR	E	Taifun Record ...
BWM 150 ...	1.49 .090	.5 .461	3 1/4	8-12000	9x6 8x4 7x6	B or R	FR	E	BWM 150 ...
Webra Record ...	1.48 .099	.512 .453	3	8-14000	9x6 8x4 8x6	B or R	FR	F	Webra Record ...
Taifun Hurrikan ...	1.51 .092	.507 .457	3 8	10-14000	8x5 7x4 7x6	B 1/2"	RR	F	Taifun Hurrikan ...
Webra I.7 glow ...	1.7 .10	.513 .515	2 1/4	9-13000	8x4 7x4 7x6	B 15/16"	FR	E	Webra I.7 glow ...
Wilo 245 ...	2.45 .149	.61 .512	3 1/4	7-13000	10x6 9x4 9x6	B	FD	F	Wilo 245 ...
Webra Mach. I	2.47 .15	.61 .51	4 1/4	11-14000	10x6 8x4 8x8	B	RD	G	Webra Mach. I
BWM 250D ...	2.47 .15	.56 .64	5 1/4	8-10000	11x4 10x4 9x6	B	FR	F	BWM 250D ...
Webra Winner ...	2.46 .15	.56 .64	3 1/4	8-12000	10x6 9x4 9x6	B or R	FR	G	Webra Winner ...
Jaguar ...	2.47 .15	.59 .55	5	7-10000	11x4 9x6 9x6	B	FR	F	Jaguar ...
Metro ...	2.47 .15	.59 .55	4	7-10000	11x4 9x6 9x6	B	FR	F	Metro ...
Taifun Tornado ...	2.47 .15	.59 .55	5 1/4	8-14000	10x6 8x4 9x6	B	FR	G	Taifun Tornado ...
Wilo Pony ...	2.47 .15	.59 .55	3 1/4	8-12000	10x6 9x6 9x8	B	FR	G	Wilo Pony ...
Taplin Blizzard	2.477 .151	.593 .547	6 1/4	8-16000	9x6 8x5 8x6	B 1"	RR	G	Taplin Blizzard
Webra Komet ...	2.454 .175	.551 .627	5 1/4	9-15000	9x4 8x6 8x6	B 1 1/4"	FR	G	Webra Komet ...
Webra Bully ...	3.416 .208	.650 .627	5 1/4	8-13000	9x6 9x6 9x6	B 1 1/4"	FR	G	Webra Bully ...
Taifun Bison ...	3.629 .2214	.631 .703	6	8-15000	9x6 9x4 8x6	B	FR	H	Taifun Bison ...
Taifun 3.5 ...	3.44 .210	.65 .61	6 1/4	9-13000	11x6 10x6 9x8	B	FR	H	Taifun 3.5 ...
FRENCH									FRENCH
Micron ...	.8 .04	.4 .4	2	5-10000	8x4 7x4 6x6	B	SP	D	Micron ...
Maraget ...	.9 .053	.406 .48	2	5-10000	8x6 8x4 6x6	B	SP	D	Maraget ...
Maraget Meteor ...	1.5 .093	.51 .48	3 1/4	8-13000	10x5 9x4 8x6	R	FR	E	Maraget Meteor ...
Le Simone HR 15	1.5 .093	.51 .48	2 1/4	6-10000	9x6 8x4 8x6	B 1 1/4" or R	FR	E	Le Simone HR 15
Meteor ...	2.47 .15	.59 .551	4	9-14000	10x6 9x4 9x6	B 1"	FR	G	Meteor ...
REA ...	4.79 .29	.74 .66	6	8-12000	10x6 10x4 9x6	B	FR	H	REA ...
Micron 28 ...	5 .305	.74 .68	6	9-14000	10x6 10x4 9x6	B	FR	H	Micron 28 ...
Micron 29 ...	5 .305	.74 .68	7 1/4	11-14000	10x5 9x5 9x6	B	RD	J	Micron 29 ...
Micron 10 ...	10 .60	.95 .86	8	9-13000	11x6 10x6 10x8	B	FR	K	Micron 10 ...
HUNGARIAN									HUNGARIAN
Alag X-4 ...	1.517 .0925	.512 .044	2 1/4	8-16000	8x4 7x4 7x6	B 3/4"	FR	E	Alag X-4 ...
Moki S-2 ...	2.465 .1503	.590 .550	5	10-19000	9x4 8x4 8x6	B 1 1/4"	FR	G	Moki S-2 ...
SWISS									SWISS
Kastor ...	2.48 .15	.554 .625	5	8-14000	10x6 8x4 8x6	R	FR	G	Kastor ...
Amro ...	10 .607	1.015 .75	14	9-16000	14x6 10x6 11x8	B	RD	N	Amro ...

WORLD'S MODEL ENGINES (excluding Soviet Products)

ENGINE	DISPLACE- MENT		Cylinder		WEIGHT (ozs)	Useful RPM RANGE	RECOM- MENDED PROPELLER			MOUNT- ING*	Induction*	POWER GROUP	ENGINE
	cc.	cu. ins.	Bore	Stroke			Sport Contest C/L						
SPANISH													
Byra	1.5	.091	.494	.455	3½	10-13000	9x4	7x4	7x6	B 15/16"	RD	F	SPANISH
Byra	2.47	.15	.56	.64	4½	8-14000	10x6	9x4	8x6	B 1"	RD	G	Byra
JAPANESE													
Fuji ... ..	.8	.049	.402	.4	1	8-9000	6x4	5½x3	6x4	B or R	FR	B	Fuji
Ko Diesel ... ..	.8	.049	.420	.36	2	9-14000	6x4	5½x3	6x5	R	FR	C	Ko Diesel
Ko Diesel	1.6	.099	.51	.5	3	9-14000	8x4	6x4	6x6	R or B	FR	E	Ko Diesel
OS Diesel	1.5	.095	.5	.49	3	8-12000	8x4	6x4	6x6	B	RD	D	OS Diesel
Fuji	1.6	.099	.5	.5	2½	9-12000	8x4	7x3	7x6	R or B	FR	D	Fuji
Hope ... ..	.16	.099	.5	.5	1½	8-14000	8x4	7x3	7x6	B	FR	D	Hope
KO Glow	1.6	.099	.49	.51	2	8-14000	8x4	7x3	7x6	B	FR	D	KO Glow
Mamiya	1.6	.099	.5	.5	1½	8-14000	8x4	7x3	7x6	B	FR	D	Mamiya
OS Pet	1.61	.098	.529	.448	2½	8-15000	8x4	8x3	7x6	B	FR	E	OS Pet
Enya 09-II	1.60	.0978	.500	.498	3½	7-15000	8x4	7x4	7x6	B	FR	E	Enya 09-II
Enya 15D Mk II	2.448	.149	.589	.547	6½	7-17000	10x6	8x4	8x6	B 1 3/16"	FR	G	Enya 15D Mk II
Max OS	2.5	.15	.597	.540	3½	10-14000	9x4	8x3½	8x6	B 15/16"	FR	G	Max OS
KO Diesel	2.5	.15	.59	.55	4	8-14000	10x6	9x6	9x6	B	FR	G	KO Diesel
Fuji 15	2.5	.15	.59	.55	4	8-14000	10x5	8x4	8x6	B	FR	G	Fuji 15
Mamiya 15	2.5	.15	.577	.56	4	8-14000	10x5	8x4	8x6	B	FR	G	Mamiya 15
Mamiya	3.25	.19	.625	.630	3½	9-15000	10x5	9x4	9x6	B	FR	G	Mamiya
KO	3.25	.19	.625	.630	3½	9-15000	10x5	9x4	9x6	B	FR	G	KO
Hope	3.25	.19	.63	.63	4½	12-16000	10x6	9x4	9x6	B	FR	G	Hope
Enya	3.25	.19	.63	.63	4½	12-16000	10x5	9x4	9x6	B or R	FR	G	Enya
Hope ... ..	.5	.29	.71	.71	5½	8-13000	10x6	9x5	9x6	B	FR	J	Hope
Enya 29-3B	4.94	.3012	.735	.710	6½	9-16000	10x6	9x6	10x6	B 15/16"	FR	J	Enya 29-3B
Fuji ... ..	.5	.29	.75	.67	6½	12-14000	10x6	9x5	9x6	B	FR	J	Fuji
Fuji Racer ... ..	.5	.29	.75	.67	5½	13-16000	11x6	10x4	9x6	B	FR	J	Fuji Racer
OS ... ..	.5	.29	.74	.68	7	8-13000	11x6	10x4	9x6	B	FR	J	OS
Max OS ... ..	.5	.29	.738	.7	6	10-14000	11x6	10x5	9x6	B	FR	J	Max OS
KO ... ..	.5	.29	.74	.68	5½	8-15000	10x6	10x4	9x6	B	FR	J	KO
Mamiya ... ..	.5	.29	.75	.67	6	8-15000	10x6	9x5	9x6	B	RD	J	Mamiya
OS New 36	5.75	.35	.8	.7	6	10-13000	12x6	10x6	10x6	B	FR	K	OS New 36
Max OS	5.75	.35	.8	.7	7	10-14000	12x6	10x6	10x6	B	FR	K	Max OS
Fuji	5.75	.35	.75	.75	6	13-15000	12x6	10x6	10x6	B	FR	K	Fuji
Enya 60 & 63	10	.60	.94	.875	14	10-16000	4x6	12x6	12x8	B	FR	N	Enya 60 & 63
Mamiya	10	.60	.94	.875	16	10-16000	4x6	12x6	9x12	B	RD	N	Mamiya

Starting a Diesel

MOUNT THE ENGINE firmly and fit the propeller on the shaft by slipping it in position, turning the engine until the piston can be moved no further against compression, and tightening the prop nut with the propeller pointing at "twenty-to-two" as on a clock. Left handed people should treat this as "ten-to-four". Now swing the prop over in an anti-clockwise direction. The engine is dry, stiff and there is little "feel" about it. Fill the tank, open the needle valve by unscrewing it the required number of turns from fully closed, and choke the engine. This means placing the spare forefinger over the carburettor, and rotating the prop one turn. Engines with the carb. in front will indicate that fuel is entering the engine as you observe the flow through the tubing. Should there be a conglomeration of bubbles in the pipeline, then we must choke again to get the line full of fuel. Now try another swing at the prop. Don't be afraid of it, it certainly will not fire, as all you are doing is filling the crankcase with a mixture, and creating a fine mist of fuel throughout the moving parts. This little amount of lubrication will change

the engine from a lifeless object to something with the urge to "go", and as you continue to swing the prop, you'll find there is an active "plop" as compression drives the prop over.

Choke again, and repeat the swing at the prop, only this time putting a real effort into it. Start by putting your forefinger against the topmost blade, about halfway along and push the prop over compression with a smart swing of both wrist and arm. At the same time take a firm grip on the compression screw at the cylinder head, and hold this set at the position indicated in the instructions. After a few sharp flicks of the prop, there should be some reaction in the form of a mild firing stroke—or if you are extraordinarily lucky, the engine may burst into full song straightaway.

If the engine refuses to show any inclination to work, look through the exhaust ports and see if the top of the piston is at all wet with fuel. If it is, then use the compression screw as though you have your hand on the pulse of the engine, treat it as you would a human, and raise the compression by screwing in the "vernier" as one maker calls the tommy bar or comp. screw. But do not be a "CC" for over-compression is dangerous, and is signified by a hydraulic lock when it is impossible to rotate the propeller. This also indicates that our choking has been too generous, the cure being to set the piston at the bottom of its stroke, and to

blow hard through the exhausts to clear the excess mixture, and to release compression.

Should the piston be completely dry on inspection through the ports, then the choking has not been sufficient, or the needle valve setting is not open enough. It is better to err on the rich or "open" side for first starts—providing you release the comp. screw when compression seems too great.

After a while, you get into the swing of things, and soon you are rewarded with a start. Once the engine has begun to run, leave it as set for a few seconds and take stock by watching the exhaust and listening to the note. Smoky, rich exhaust is cured by screwing in the needle valve, and a staccato misfire indicates the need for more compression. Most engines start for the first time in this condition, and will not harm themselves if allowed to run rich. Should the note sound laboured, gradually dying off in r.p.m., then the engine is over-compressed to some degree, and the comp. screw must be slackened off.

MODEL AERO ENGINE ENCYCLOPAEDIA

208 Pages, size 8½ x 5½ in., 75,000 words and over 300 illustrations make this the most comprehensive work on all aspects of model aero engines, construction, use, tuning, maintenance, data, tables. Fully cloth bound, 3-colour dust cover.
(Postage and packing inc. 13s. 6d.) Price 12s. 6d.

Flying Scale Power



DE-HAVILLAND D.H. C.2 BEAVER

By A. Moore

A beautiful scale version of an ideal subject for model flying. Slab-sided, with but one wing strut and cantilever undercarriage. Span 60 in.

FSP/388 E, F, G ★ 5/6



AVRO AVIAN SPORTS

By R. Booth

Accurate model of a popular light aircraft of the early '30's and one of the simpler biplane prototypes. Span 35 in.

FSP/468 C, D ★ ★ 6/-



CHRISLEA SUPER ACE

By E. J. Riding

This tricycle undercart, high-wing design lends itself admirably to flying. Simple construction. Span 54 in.

FSP/331 B, C, D ★ ★ 5/6



CHILTON D.W.1

By J. M. Greenland

A sturdy replica of the interesting low-wing monoplane, to 1½ in.-1 ft. scale. Span 36 in.

FSP/340 B, C, D ★ ★ 3/6



HONEY BEE

By W. E. Mooney

Perfect scale model of full-size aircraft with which the designer was closely associated. Tricycle undercarriage and butterfly tail, tongue mounted wings. Span 33½ in. (1/10 full size).

FSP/505 B, C ★ ★ 4/6



CESSNA 172

By W. P. Holland

This 72 in. 1/6th scale model of the popular American lightplane is the answer to those who want an easy to build large model for radio conversion. Knock-off wings and shock absorbing trike u/c.

FSP/668 G, H ★ ★ 10/-

AUSTER A.O.P.9

By R. G. Moulton

36 in. scale version with all sheet fuselage and tail assembly, simple wings. Flies like the real thing, aerobatics or sport flying.

FSP/580 B or C ★ 4/6

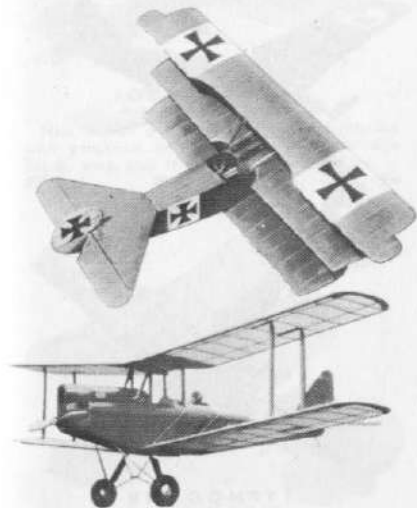


FOKKER DR.I TRIPLANE

By P. E. Norman

World War I favourite in attractive free-flight form. 40½ in. span, with pendulum control and a surprisingly flat glide. To 1/8th scale.

FSP/453 F, G (radial) ★ ★ ★ 6/-



D.H. GIPSY MOTH

A revised plan of an old favourite, and a very successful light radio model, for which details are given. Span 60½ in.

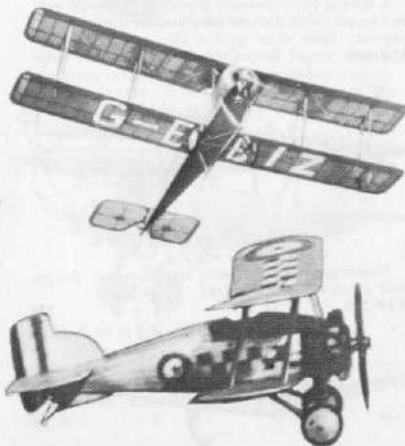
FSP/135 H, J, K (radial) ★ ★ 10/-

AVRO 504K

By R. Booth

This one-twelfth flying scale model is one of the finest designs yet produced. Winner of many contests, the realism of this machine is remarkable. Span 36 in.

FSP/343 C, D ★ ★ 5/6

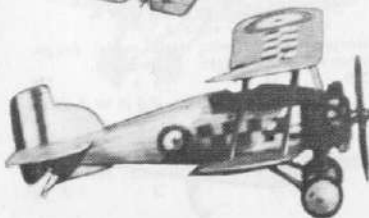


GLOSTER GAMECOCK II

By P. E. Norman

A 36 in. 1/10th scale version of the famous 1926 fighter arranged for free-flight aerobatics by pendulum control. Tough structure and crash-proof design.

FSP/410 F, G (radial) ★ ★ ★ 5/6

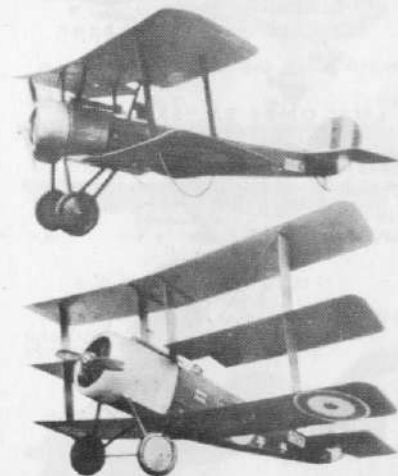


SOPWITH PUP

By G. E. Fisher

One of the best-known W.W.I. scouts. The 40½ in. model has an excellent and extremely stable performance. To 1/8th scale.

FSP/305 D, E ★ ★ 5/6

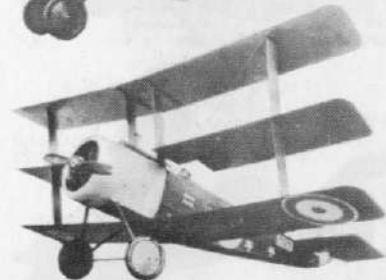


SOPWITH TRIPLANE

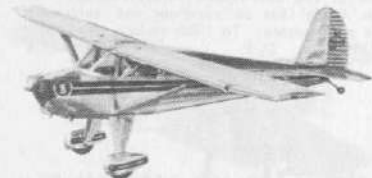
By V. King

35 in. scale model of a famous W.W.I. fighter for builders with a little experience. Features pendulum rudder and complete accuracy. 1/9th scale.

FSP/545 C, D ★ ★ 6/-



Flying Scale Power



LUSCOMBE 8A "SKY PAL"

By F. Lees

A contest winner both for appearance and quality flying. Has many "knock-off" features and can be dismantled for easy transport. Full booklet of gen with each plan of this outstanding 63 in. scale model.

FSP/503 E, F ★ ★ 6/-



ZAUNKOENIG

By J. Greenland

39 in. version of the German experimental parasol lightplane, fully slatted, complete with instructions.

FSP/392 B, C, D ★ ★ 5/6



FOKKER FVIIb 3M SOUTHERN CROSS

A famous between-wars aircraft. The model uses one motor, with dummy airscrews on the outboard engines. Span 40 in.

FSP/445 B ★ ★ 4/-



D.H.C.-1 CHIPMUNK

By J. M. Greenland

Masterpiece of low-wing scale model design, and most realistic in flight. Span 51½ in.

FSP/290 D, E ★ ★ ★ 5/6



MILES HAWK SPEED SIX

By D. P. Golding

A successful low-wing scale power model of one of the outstanding Miles racing designs. Scale flight appearance. Span 52 in.

FSP/434 F, G ★ ★ ★ 6/-

P.Z.L. P-24 FIGHTER

By D. F. Bryant

An inch to the foot version of the gull wing fighter, built for fast flying, with knock-off parts and pendulum elevators. 35 in. span, this model is extremely robust.

FSP/487 E, F ★ ★ 6/-



TYPHOON IB

By P. E. Norman

An unusual type of construction, combined with automatic, pendulum operated elevators, makes this model attractive to the advanced modeller. Span 32 in.

FSP/372 F ★ ★ ★ 5/6

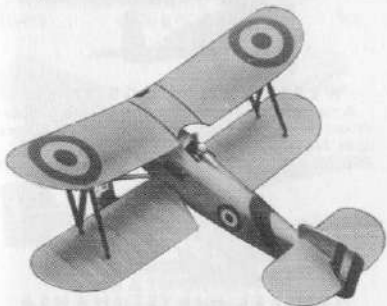


JOEEL D.9 Bebe

By Hoh Fang-Chiun

Neat replica of the famous French lightplane with pendulum or "fixed" rudder. Detachable 38½ in. wing, easy structure and a super flyer.

FSP/591 B, C ★ ★ 4/6



FAIREY FLYCATCHER

By S. B. Perry

The old biplane charm captured by this 29 in. fleet fighter with pendulum rudder control. A model for the vintage enthusiast.

FSP/586 C or D ★ ★ ★ 6/-



F.E.8

By V. King

The "14-18 fighter in miniature. Pusher engine, detachable boom tail supports, pendulum rudder, and high degree of stability are features of the most unusual 39½ in. span scale model.

FSP/495 C ★ ★ 6/-



HAWKER HIND TRAINER

By D. Marsh

The dual-control version of one of the immortal Hart variants. This accurate 38 in. replica is one of the most realistic scale models ever.

FSP/476 C ★ ★ ★ 6/-

SOPWITH SWALLOW

By John Darnell

A fine 1/8th scale version of a little known fighter of 1918, which forms a perfect mate for the other Sopwith types in our range. 41 in. span and with the characteristics of a sport model, it is fine for the beginner scale enthusiast.

FSP/625 E, F ★ ★ 6/6



PRESTWICK PIONEER II

By R. Burns

A 52 in. version of this ideal subject. Robust and very practical design.

FSP/425 F, G ★ ★ 5/6

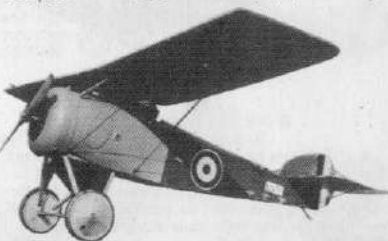


S.P.A.D. S-7CI SCOUT

By L. C. Bagley

A perfect scale version of the attractive 1914-18 fighter. Span 38 in. 1/8th F.S. scale.

FSP/373 D, E ★ ★ ★ 5/6



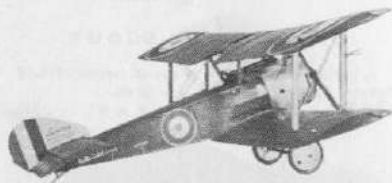


REPUBLIC SEA-BEE

By H. J. Towner

Unusual, yet a good flyer, this model will appeal to the enthusiast who enjoys building as much as flying. Span 53½ in.

FSP/319 D, E, F ★ ★ ★ 7/6



SOPWITH PUP

By K. McDonough

A 1/12th scale model of a famous W.W.I. machine. Full colouring details given on plan. Span 26½ in. Engines 0.5-0.8 c.c. Design by a real enthusiast for scale, who is a stickler for accuracy. One of the most popular free flight scale designs in A.P.S.

FSP/750 B, C ★ ★ 6/6



WESTLAND LYSANDER

A completely redesigned and modernised version of an old favourite, and a most impressive model. Span 60 in. Not recommended for R/C.

FSP/160 G ★ ★ 7/6



MAX HOLSTE 152

By C. E. Read

50 in. version of the French light aircraft with attractive large cabin and twin finned tail unit. A good sport flyer, with knock-off wings.

FSP/593 D, E ★ ★ 6/-



CESSNA BIRD DOG

By E. Fearnley

High wing cabin model of 36 in. span. Pleasing lines are developed from a simple sheet balsa fuselage construction.

FSP/568 B or C ★ 3/-



WESTLAND WIDGEON III

A complete revision of the popular rubber driven design by Eddie Riding for small motors. Span 36½ in.

FSP/211 B, C ★ ★ ★ 3/6



HEINKEL He5 (S5) HANSA

By AEROMODELLER Staff

Unique flying scale subject of a Swedish Air Force floatplane with very simple construction. Can also be flown over grass for smooth landings on its large floats. Wing span 38 in.

FSP/608 C, D ★ ★ 4/6



R.E.8

By D. R. Hughes

Span 43 in., this is a 1/12th scale model of the famous W.W. I "Harry Tate" two-seat observation and reconnaissance aircraft.

FSP/418 C, D, E ★ ★ 4/6



ALBATROS D.V.

By J. D. McHard

Finest of all A.P.S. single-engined scale model plans, this elegant 1/8th scale model of the famous 1917-1918 fighter is extremely accurate and one of the most attractive models in the air. Sheeted fuselage and full colour detail. Span 44 in.

FSP/646 E, F ★ ★ ★ 7/6



H.K.1

By John Coasby

Low-wing authentic scale model of a Finnish home-built lightplane with racy lines. 45 in. span and specially suitable for low power, slow flying.

FSP/637 C, D, E ★ ★ 5/-



BLACKBURN 1912 MONOPLANE

By A. M. Finucane

Perfect 1/8th scale, 48 in. span model of a pioneer monoplane, this "old-timer" will fly as well as any of its modern counterparts.

FSP/567 C or D ★ ★ ★ 6/-

TIGER MOTH

By A/M Staff

A magnificent 44 in. span model of one of the best known aircraft ever. Flies extremely well with magnificent air of realism.

FSP/555 D, E or F ★ ★ 6/-



DART KITTEN

By John Lambie

Easiest to build scale power model in our range, a 32 in. span version of the popular light plane with pendulum rudder.

FSP/497 C, D ★ 3/6



SPITFIRE LF XIV

By P. Whittaker

Near scale version of the famous low altitude Fighter with robust construction, knock-off wings, and engine off-set, cleverly incorporated in construction. Wing span 26½ in.

FSP/607 C, D ★ ★ 4/6

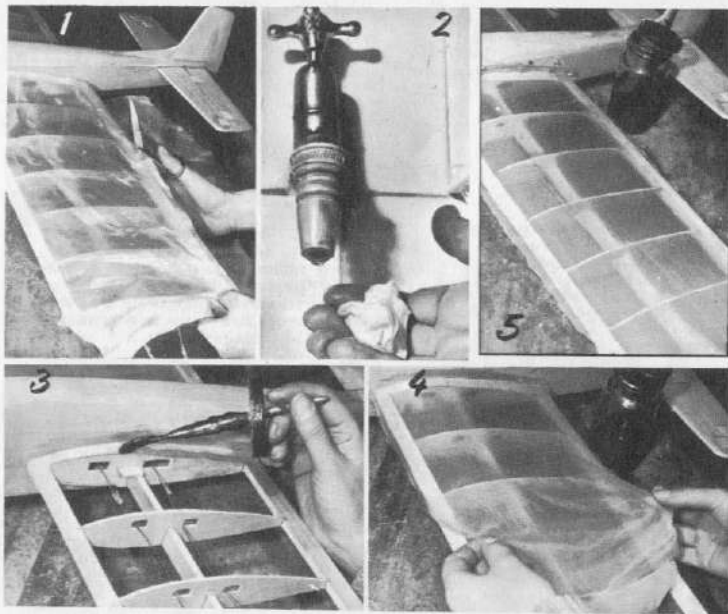


There is no other form of model covering that approaches the strength/weight ratio of silk or nylon, yet very few modellers appear to take advantage of this fact. First thoughts must certainly be for economy in use, and the raw silk is placed over the area to be covered, then trimmed to shape with a pair of sharp scissors, as in picture 1. The overlap allowance need only be a matter of $\frac{3}{8}$ in. all round, since when applied wet, the silk will be pulled larger than when dry.

Next, take the silk to a tap and get it thoroughly wet 2. Then squeeze (do not wring out) the excess moisture by compressing in the palm of the hand, and then spread the dampened silk out flat and hang over a chair-back.

In 3 we are using our favourite pickle jar brush preserver, wherein the brush is permanently mounted in a Bakelite jar top, and the bristles always dope filled in the contents of the jar which are replenished from the less convenient tins sold in the model shop.

We have now made the framework thoroughly gooey—and flop—on goes the root end of the covering as in 4. Support the rest of the damp silk off the frame, then apply, panel by panel, pulling more spanwise than chordwise. When a couple of rib bay panels are done, pin the silk at the root to stop it slipping, and when the last wrapping around the tip is to be made, pull hard spanwise to remove any sag. This will give spanwise wrinkles which are soon removed by work-



in the silk over leading and trailing edges. Application of extra dope here and there, enables one to move the silk quite easily while it is still water-damp.

Final effect is soon observed as in 5, and

any white "blushing" soon disappears when the first heavy coat of shrinking dope is applied to fill the pores. Thereafter, use two or more extra coats of clear dope, as for a tissue covered model.

Covering with Silk



B.E.2e.

By K. McDonough

Lightweight and with large wing area, this 1/12th scale 40½ in. model of the V.W. I reconnaissance aircraft flies slowly and is extraordinarily stable. Copious detail on the plan including the gun and camera!

FSP/721

C, D

★ ★

7/6



FOKKER E.IV

By C. F. Edwards

Accurate 1 in—1 ft. model of the famous Eindecker. Simple construction with excellent flying characteristics. Span 36 in.

FSP/551

B or C

★ ★

4/6



BISHOP'S NIEUPOORT 17c

By L. C. Bagley

One-eighth scale model of the famous French fighter used by R.F.C., etc. For experienced builders, but pendulum rudder makes flying easy. Span 41½ in.

FSP/285

D, E

★ ★ ★

5/6



LUTON MINOR

By E. Fearnley

A large, light scale model of a popular ultralight aircraft, and one of the easiest scale models in the A.P.S. Span 42½ in.

FSP/534

C, D

★

3/-



B.A. SWALLOW

By J. W. Coasby

Authentic 50 in. span model of a popular low-wing lightplane. Pendulum rudder, simple construction and detachable wings.

FSP/560

B, C or D

★ ★

4/6



S.E.5a

By J. D. McHard

Mick Mannock's famous fighter in full detail on specially-printed plan with copious instructions, ten photo illustrations. Fine performer with tough construction. Span 27 in.

FSP/682

B, C

★ ★

3/6



DRUIUE TURBULENT

By Ron Moulton

A French home-built lightplane in miniature. Most realistic in flight, easy to build and foolproof to fly. Wing slots aid stability. Wing span 32 in.

FSP/613

B, C

★ ★

3/-



RYAN NYP

By R. G. Moulton

The famous "Spirit of St. Louis" in perfect scale with rib for rib or alternative simple wing structure; 34 in. span, knock-off wing on what is virtually a square box fuselage.

FSP/663

B, C

★ ★

5/-



SOPWITH CAMEL

By F. C. Saunders

The Camel needs no introduction to flying enthusiasts, and this 25 oz., 42 in. model captures the atmosphere of this historic fighter. 1/8th scale. FSP/441 D, E ★ ★ ★ 6/-



MIG 15

By P. E. Norman

Magnificent ducted fan design by Britain's leading exponent of this exciting method of propulsion. Full details of fan unit, alternative fibre glass or planked method of construction. Span 34½ in. FSP/603 G (radial only) ★ ★ ★ 4/6



SOPWITH TABLOID

By K. McDonough

The diminutive Tabloid makes an ideal scale subject and perfect 1/16th scale Little Free Flyer spanning 25½ inches for .3 to .8 c.c. engines. FSP/810 B, C. ★ ★ 7/6



FIESELER STORCH

By P. L. Whittaker

German observation plane in true scale with characteristic slats, flaps and stiltly u/c. Stringer fuselage construction, detachable wing halves. Span 46½ in. FSP/669 C, D ★ ★ 7/6

GLOSTER GLADIATOR

By J. D. McHard

This 32 in. model is to 1/12th scale, has a wealth of detail on the plan, is authentic to the last rib position and truly deserves a high rating in our range. A scale contest winner that flies just like the real thing. FSP/719 C, D ★ ★ 7/6



HANDLEY PAGE H.P. 42

By Cpl. S. Newton

The fabulous "Hannibal" London-Paris Airliner for either control line or free-flight, 2 or 4 engines. Very detailed drawing for this 65 in. model, makes light work of the involved structure. Recommended for all scale enthusiasts. FSP/615 2x "C, D" (Free flight) ★ ★ ★ 8/6



PIPER SUPER CRUISER

By D. Garrett

A 1 inch to 1 ft. scale, 35 in. span model of a famous American lightplane. Intricate, though not complicated rib for rib structure as something for a "builder" to get his teeth into. For the popular diesels and glow motors of .3-.8 c.c. (.020-.049 cu. in.). FSP/825 B, C. ★ ★ 6/-





FOCKE WULF STOSSER

By B. Barton

Pre-war German trainer has novel insignia, makes a fine, stable flyer with pleasing lines, stringered fuselage, detachable wing halves. Span 42 in.

FSP/617

C, D

★ ★

4/9



AUSTER B4 AMBULANCE

By A. A. Stowell

55 in. span, the roomy fuselage of this ambulance freighter proves excellent for radio-installation. FSP/531

D, E

★ ★

6/-



LUTON MINOR (Prototype)

By Walter E. Mooney

A 22½ in. span replica of a famous lightplane for the diminutive engines. Flies well with Davies Charlton Bambi and Cox Pee Wee engines.

FSP/697

A, B

★ ★

2/6



JUNKERS Ju87 STUKA

By AEROMODELLER Staff

Famous German dive bomber in true scale for free flight or control line. An outstanding design of attractive appearance, using .5 c.c. for free-flight and 2.5 c.c. in C/L version; 34 in. wingspan. FSP/CL/675

B or G

★ ★

5/-



V.A. WALRUS

By AEROMODELLER Staff

38 in. span perfect scale model of famous war-time amphibious pusher. Sheet hull construction and detachable wings make it a tough design for over land or water flying.

FSP/661

C, D

★ ★

7/6



RYAN P.T.20

By G. Cannon

One of America's most popular Service aircraft modelled to 1½ in.—1 ft. scale, 45 in. span, this low-wing design is really easy to handle.

FSP/554

C or D

★ ★ ★

6/-

THE ART OF COVERING

THE COVERING of a model aircraft used to be one of the trickiest parts of the construction; modern materials have largely simplified the process but it still does constitute a major stage in the production of a model and one which, especially in the case of beginners, offers something of a headache. Of the three main covering materials, tissue, silk, and nylon, by far the greatest use is made of the first. Probably 99 out of every 100 models are wholly or partly tissue covered, and there are six main types of tissue for the job.

Lightweight tissues, in order of weight, are (i) hard (or Swedish) tissue, (ii) Japanese tissue, (iii) Lightweight Modelspan. The first of these is a smooth, crackly paper which can be torn with equal strain in any direction and is available in a wide range of colours. It requires dampening (not soaking) with water after application in order to shrink it, and it shrinks evenly

all over once only, *i.e.*, a wrinkle cannot be removed by a second, local shrinkage. Only a small amount of dope is required for air-proofing, and a glossy finish is fairly easy to achieve.

Japanese tissue is nowadays only available on rare occasions. In a good range of colours, it can be distinguished by a visible stripe which runs in one direction through the sheet, and has a definite grain. It will tear fairly easily down the grain but only with reluctance across; in the same way it shrinks more across the grain than along it, so that for best results the grain should always run along the longest length of the area being covered. Shrinking and doping is as for hard tissue.

The first really specialised British covering paper, Modelspan, appeared in a limited range of colours soon after the war and is now extensively used throughout the world. Fibres running in all directions identify the paper, and it will tear (before doping) at any angle. Shrinkage is even in all directions, but local shrinking can be induced after initial shrink. So great is the potential contraction that water-spraying or steaming is entirely unnecessary, and the covering need only be doped to produce a smooth, wrinkle-free surface. Getting a gloss is not difficult.

The only medium weight tissue available is known as rag tissue, and is obtainable only in white. It looks alarmingly weak

before doping, and is soft and non-rustling; its appearance is very much like paper handkerchiefs. Water-shrinking is definitely undesirable, but shrinkage is considerable and strength astonishing after doping.

Two heavyweight tissues are obtainable, Burmese (white only) and heavyweight Modelspan, which can be had in five colours. Both these materials are tough, opaque papers, slightly rough to the touch when undoped. Water-shrinking is advisable before doping, and it is not really easy to obtain a high-gloss finish without adding a fair amount of weight.

All of these tissues may be attached with the same adhesives and the technique of application is generally similar. The most popular adhesive is white photopaste, such as Gripfix or, in tube form, Tissue Paste. The limitation of this material is that it is soluble in water, and trouble can thus arise when a concave surface (*e.g.*, wing undercamber) is water-shrunk; the paste is loosened by the water and the tissue pulls away as it shrinks. In such cases a waterproof adhesive is required, and Tissue Cement, a thinner, slightly slower setting cement than is used for balsa, caters for this. Many builders use this cement for all covering work. Gum or mucilage is also employed, while the use of thick clear dope is becoming more widespread, especially with the more porous papers. Flour paste is sometimes used, but tends to make the

tissue soggy and locally weak.

The secret of covering is to use as large a panel of tissue as can be attached without wrinkling, ending the panels where a definite break of contour appears (e.g., at dihedral breaks). Small pieces must be used for compound curves (e.g., round fuselage noses, etc.). Only the outer edge all round needs to be pasted, except where concave surfaces occur, when the covering must be stuck to each individual member (e.g., each rib on the underside of an undercambered wing). The procedure is: (i) Cut a panel of tissue to the shape of the part, allowing 1 in. extra all round. (ii) Apply paste (or cement) to the framework (edge only, except as above). (iii) Lay the tissue lightly in place, press the centre of one end down, and stretch along the length and press the centre of the other end down. (iv) Stretch the tissue to the full width at the centre of the sides and press down, then work from this point to each end, adjusting the tissue

so that all wrinkles are worked out. (v) Trim off to within $\frac{1}{4}$ in. of the edge and paste the edge down. Completely cover a frame before shrinking, and always cover all woodwork, even sheeting. If water-shrinking is to be used, spray the water on with a Flit gun or similar, and allow to dry naturally over a period of 24 hours. All tissue needs at least one coat of clear dope, except in the case of ultra-light frameworks, when banana oil is used to airproof the covering without shrinking it. Colour dope and fuel proofer should only be applied when the tissue pores are completely filled with clear dope.

Silk or nylon covering is tremendously strong, though a little heavier. The material is best applied wet, i.e., soaked in water, and squeezed out. Ordinary balsa cement, a strong glue, or very thick dope are the usual adhesives, and pins may be used to keep the fabric in position while the glue dries. The same general technique as for tissue is used, and care should be taken to get the warp and weft of the material in line and square. Several coats of clear dope are needed to fill the pores. The frayed edges left when trimming down to final size are easily glass-papered off after the first coat of dope. Successive coats of clear dope should be applied until no pin holes appear in the covering, when colour dope may be applied and rubbed down as detailed above. Silk or nylon, applied properly, are virtually crash-proof.

DOPING & FINISHING

MANY OTHERWISE excellent models are ruined by a poorly-doped covering job, and some even refuse to fly because of over-enthusiastic application, especially of colour. The normal covering materials require, as a rule, no more than three coats of thinned clear dope and *nothing further*. In many cases two coats are sufficient, and when hard or even Japanese tissue is used, one coat is frequently enough.

Dope has two main functions, increasing the efficiency of the model and adding to its aesthetic appeal. Clear dope adequately fulfils the first of these, which may be subdivided into, in order of importance, (i) air-proofing, (ii) strengthening, and (iii) tightening the tissue. Note that the shrinking effect of dope is least important.

Air-proofing of the covering is essential for good performance and the application

To ensure speedy delivery please quote plan number, name and price in your order.

Please ensure that your order is clearly stated and accompanied by the correct remittance and your name and full address in **BLOCK LETTERS**.

of dope accomplishes this by depositing over the pores and fibres of the material a thin skin of cellulose, rather on the lines of a celluloid film laid over the original covering. This film prevents air passing through the material, slightly increasing lift but decreasing drag to an astonishing extent.

Colour dopes are used purely to improve a model's appearance and should be used very sparingly. A coloured model is visible further away, both in the air and on the ground, if the right colours are chosen. A model embodying large areas of colour should use coloured tissue, which is considerably lighter than a doped finish but requires a fraction more care in application. Red, yellow, and orange are the best for visibility, and flying surfaces of this colour with a darker (black, blue, etc.) fuselage are normal practice. Coloured tissues thus improve efficiency. Coloured dopes are pigmented, and thus increase weight tremendously, besides tending to make tissue a little brittle. When used, three thin coats are much better than one "treacly" one, and it is advisable to limit the application of colour to a little decoration, or to the fuselage only. To give depth of colour, it pays to use the nearest-coloured tissue for the covering which is to be doped.

Alternative (and lighter) means of colour-trimming are to cut the trim shapes from coloured tissue and dope them in

position, or to use transfer sheets. Banana oil may be used to protect transfers, etc., and also to give a general gloss to a model, although, again, weight increase is very marked. Fuel-proofers also carries its weight penalty, but is advisable (with glow-plug engines essential) especially around the nose.

Good, soft brushes and a bottle of thinners are essentials for a good finish—a few coppers saved here may ruin an otherwise first-class model. Dope should be flowed on fairly thin, and the brush passed over the surface only once. Allow each coat to dry thoroughly before further applications. When no "pin-holes" or pores can be seen on the tissue surface no further dope is needed.

A concours finish is usually obtained by (i) tissue covering, (ii) clear doping one coat, (iii) applying up to four coats of sanding sealer and rubbing down with the finest flour paper, (iv) applying up to seven coats of thin colour, rubbing down every other coat, (v) rubbing down with metal polish, and, finally, applying a coat of car polish. A sprayed finish offers no real advantage over brushwork when this technique is followed. Trimming is done with ruling pen, compasses and fine brushes, making use of masks. Cellophane tape is excellent for masking; make sure the edge is pressed really well down by running the thumbnail along it. (Some experts even go so far as to clear-dope the edge to prevent colour from creeping.)

Flying Scale Power



BUCKER JUNGMEISTER

By W. Lister & W. Newman

An easy to build 26½ inch span free flight scale model for .5-8 c.c. engines. This is the In-Line engined version of the aircraft, considered to be one of the finest aerobatic mounts available.

FSP/807

C.

★ ★

6/-



BRISTOL MONOPLANESCOUT

By B. Barton

Specifically designed for easy yet true to scale construction, this one-eighth scale fighter from W.W.I. is ideal for 1-1.5 c.c. engines. Very easy to build with scale stringers and rib positions. Building sequence and colour scheme given on plan. Span 46 in. A nice slow flier for calm days.

FSP/759

D, E

★ ★

7/6



PFALZ D.III

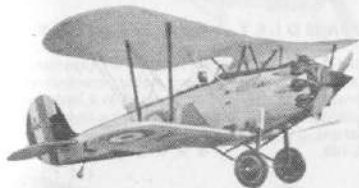
By F. Palmer

Superb details in this German W.W.I. fighter design by Canadian modeller from Calgary. Is a beautiful filer, realistic in every way, yet practical in construction. Ideal project for those who already have other W.W.I. free flight scale models. Span 46½ in. for 1.5 c.c. or low power 2.5 c.c.

FSP/775

F, G

10/-



BRISTOL BULLDOG

By P. J. Allnutt

From Canada comes this 1/12th scale model of the famous "Bulldog". The machine uses some spruce and ply in its rib for rib, stringer for stringer construction. Full colouring and marking details given on plan. Winner of many Canadian scale competitions. Span 33½ in. Engines 1-1.5 c.c.

FSP/762

D, E

7/6

Flying Scale Rubber



POTEZ 75

By Vic Dubery

All balsa sheet model of the French reconnaissance pusher, 21 in. span and though designed for rubber power, could be modified for a Bambi, Hawk or Kalper Diesel.

FSP/581

*

3/-



MILES KESTREL

By H. J. Towner

Fine type of low-wing design, and a tip-top performer as a model. Span 39 in.

FSR/165

3/-



SHORT SCION

By C. R. Moore

An interesting model embodying many novel features and gadgets from this well-known exponent of scale model art. Span 42 in.

FSR/193

4/-



WESTLAND LYSANDER

By H. Boys

Many hundreds of this design have been built and successfully flown. The design lends itself admirably to flying scale work. Span 50 in.

FSR/161

4/-



Flying Scale Rubber

LOCKHEED LIGHTNING

Half-inch to 1 foot version of the famous twin-fuselage fighter. Span 26 in.

FSR/158

★ ★

2/3

Another larger version is also available. Span 42 in.

FSR/159

★ ★

3/-



HEINKEL 51

By G. R. Woollett

Most attractive model of an early W.W.II German fighter. 30 in. Span and extremely elegant.

FSR/141

★ ★ ★

2/9



TAYLORCRAFT AUSTER

A sure flyer, with high performance capabilities. Construction closely follows full-size machine. Span 36 in.

FSR/195

★ ★

2/6



DORNIER 27

By D. Garrett

A 27 ins. span rubber powered scale model of a modern German lightplane for the painstaking enthusiast. Plans include modifications to take 3-75 c.c. engines.

FSR/P/796

B.

★ ★

5/-



BRISTOL F2B

By J. L. Roberts

The machine which contributed so much to Allied air supremacy in W.W.I. A fine replica. Span 26½ in. 1/18th scale.

FSR/111

★ ★

2/6



N. A. NAVION

By H. J. Pridmore

A fine flying example of a well-known American light plane. Scale 1 inch to 1 foot. Span 33½ in.

FSR/264

★ ★ ★

3/-



HANDLEY PAGE HALIFAX

By W. Jones

Model of the well-known bomber, for experienced builders only. One rubber motor crank-driving all props. Span 49½ in. Can be used as a basis for a control-line model with sheet covering and heavier structure.

FSR/140

★ ★ ★ ★

6/-



D. H. MOTH MINOR

By G. W. Day

A handy size low-wing model, well suited for the beginner. Span 35 in.

FSR/168

★ ★

2/9



B.E. 2C

By E. J. Riding

A $\frac{1}{4}$ th inch scale model of the famous 1914-18 biplane. Span 55 in.

FSR/215

7/6



MILES M.48

By H. J. Pridmore

This fine looking low-wing is a good free-flight performer, and is also convertible to control-line. Span 36 $\frac{1}{2}$ in.

FSR/CL/243

**

4/-



D.H. TIGER MOTH

By C. R. Moore

Build a model of this famous training machine. The model is capable of high performance, and a picture in flight. Span 44 in.

FSR/197

**

4/6



FAIRCHILD ARGUS

By E. J. Riding

A simple, high wing model of this popular light aircraft. Good performance and authentic appearance make this a winner. Span 37 in.

FSR/272

**

3/-

HARVARD II

By H. J. Towner

A popular model from the Towner stable—a low-wing trainer. Span 45 in. Can be used as a basis for a control-line model with sheet covering.

FSR/139

4/6



AIRSPEED ENVOY

By H. J. Towner

A well proven model by an acknowledged expert in this sphere of model work. Span 52 in. Can be used as a basis for a control-line model with sheet covering and heavier structure.

FSR/126

3/-



FOKKER D.VII

By D. R. Hughes

Fine flying version of the famous World War I machine. Simple construction and easy trimming. Span 21 in.

FSR/297

**

2/6



BRISTOL BULLET

By E. J. Riding

A super detailed flying model by one of Great Britain's foremost authorities. Span 37 in. With 1 c.c. power conversion.

FSR/226

★★

3/6

AIRACOBRA

By K. H. Hodgson

A spectacular performer at all times, and a delightful exercise in constructional technique. Span 40 inches. Not illustrated

FSR/100

★★★

3/6



S.E.5

By S. L. Spittle

Favourite old-timer in flying scale form, this model is a fine performer and very stable. Span 28 in.

FSR/274

★★★

3/6



FOCKE WULF 190

By K. H. Hodgson

One of our most popular scale designs, and with structural modifications capable of being converted to C/L. Span 36 in.

FSR/129

★★

3/6



D.H. 80A PUSS MOTH

By J. M. Greenland

An accurate replica with scale area tailplane. Excellent performance. Span 30 in.

FSR/756

★★

2/-



WESTLAND WIDGEON III

By E. J. Riding

A first-class flying type with extreme stability. Ideal for the beginner at scale work. Span 36½ in.

FSR/211

★★

3/-



BLERIOT MONOPLANE

By J. M. Greenland

Military version of exceptional charm and fine performance. Complete with "pilot", and true to scale. Span 44 in.

FSR/275

★★★

6/6

STAR PLAN GRADING

To guide modellers in their choice of plan, we have instituted a four star grading system in this catalogue. Beginners can rely upon the single star designs as being simple to construct and easy to operate, whilst the experienced modeller can be assured of advanced design, sometimes calling for plan interpretation in a four star model.

For example:

- ★ Beginner's, or ultra simple design with specific instructions.
- ★★ Advanced over beginner stage, yet still simple in structure.
- ★★★ For more advanced modellers, design calls for practical experience in either construction or operation according to type.
- ★★★★ Very advanced, an "experts" subject, capable of high contest performance.

Flying Scale Gliders



HOTSPUR II

By R. H. Warring and W. Dean

A flying scale model glider with many interesting constructional details. Flies as well as it looks. Span 46 in.

FSG/144

4/-



SLINGSBY TANDEM TUTOR (T.31)

By J. Wilson

A 54 inch scale model of a popular training glider used in many clubs and by the R.A.F. for A.T.C. Cadets. Has good flying qualities although true scale.

FSG/692

**

5/-



BREGUET 901

By A. Millon

Elegant French high performance sailplane with very high aspect ratio 67½-in. wing capable of surprising performance. Planked fuselage.

FSG/680

**

3/6



WACO HADRIAN

By O. J. Lee

A fine flying scale model of the famous troop-carrying glider, and with a superb performance. Span 50 in.

FSG/219

**

2/9

Flying Scale Jetex



D.H.108 (SWALLOW)

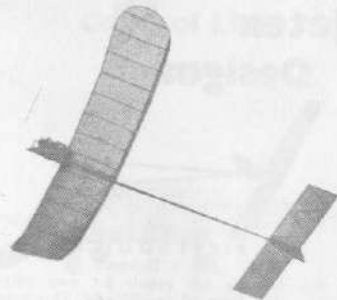
By D. P. Golding

Scale model for Jetex 100 power by a scale expert. Capable of most realistic performance, it closely resembles this full-size high-speed jet plane in every detail and in the air.

J/479

**

3/-



SNOWFLAKE

By R. Armstrong

Unique and inexpensive Jetex 50 design for the contest flyer. Prototype did 1:35 from 10 sec. motor run. Ultra lightweight, ultra simple construction. Surprising performance. Span 15½ in.

J/772

*

2/-



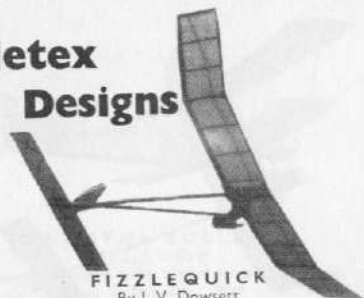
METEOR IV

Twin engined scale model for two "Jetex 100" units—most realistic in flight. Span 21½ in.

J/293

2/-

Jetex Designs



FIZZLEQUICK

By I. V. Dowsett

Plan includes full details for two versions, using either Jetex 50 or 100 unit. This outright contest model has terrific rate of climb and has won several contests.

J/599

★

3/-



ARROW 100

By Ian Dowsett

Contest winner by well-known "Jetex" designer, with one flight of 18 min. O.O.S. to its credit. Quick to build and easy to trim. Span 24 in.

J/511

★

3/-

Licences

Radio control enthusiasts are reminded that a licence is necessary before they may operate transmitting equipment. For details apply: Radio Branch, Radio and Accommodation Department, G.P.O. Headquarters, London, E.C.1.

Control Line Scale



AERO COMMANDER 680 SUPER

By J. D. McHard

A 53½-in. span model of America's famous high wing twin engine executive transport. Plan gives makings for Pres. Eisenhower's own aircraft. Planked fuselage structure, part sheeted wing. For two 1.5 c.c. to 2.5 c.c. engines, side mounted Tricycle undercarriage.

CL/733

E, F, G

★★★

8/6



HAWKER FURY

By Clive Hall

A 20 in. span model of the famous between wars fighter. Spritely performance with moderate stunts make it a most rewarding project for 1.5 c.c. engines. Extensive sheet areas make for easy and quick construction.

CL/745

E, F

★★

3/6



SHACKLETON MR3

By J. M. Bodey

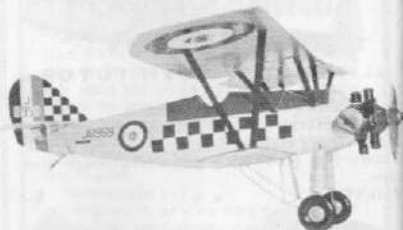
A 61 in. span multi engine model of the famous tricycle undercarriage version of the "Shack". Simplified structure. For any engine combination total of 5-6 c.c. A sure crowd pleaser and a good flier, even after one or two engines have cut out.

CL/746

E, F, G

★★★

8/6



SISKIN

By C. B. Hall

A delightful scale model of the R.A.F.'s first all-metal fighter. Robust construction allows model to take many hard knocks. Simple to build and easy to fly, this model will give hours of pleasure. Span 22½ in. for engines 1-1.5 c.c.

CL/742

D, E

★★

4/-



D.H. MOSQUITO

By A/M Staff

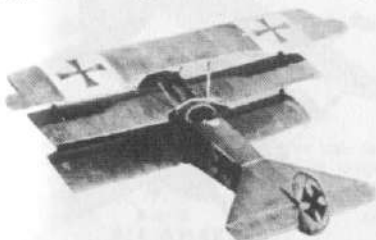
A beautifully accurate scale control-liner of 40 in. span, suitable for any pair of diesels totalling more than 4 c.c. All sheet covered and extremely robust.

CL/570

F, G or H

★ ★

7/6



FOKKER TRIPLANE

By W. Musciano

Simple, foolproof construction includes line-up strutting for wings. The Triplane has a character of its own. 23½ in. span. 1/12th scale.

CL/307

G, H

★ ★

3/6



HUNTING PROVOST

By Clive B. Hall

17½ in. wingspan near scale model of the R.A.F. piston-engine trainer with ultra-simple construction including all sheet wing and tail surfaces. Has an inclined engine mounting at 45 deg. and plan includes full information on a remote-controlled pylon to enable any model of this size to be piloted in true manner from outside the flying circle.

CL/720

B, C

★

3/6



HAWKER HART

By W. Musciano

Rugged scale stunt model, 28 in. span, of a favourite between-wars two-seater maid of all work.

CL/462

H, J

★ ★

4/-

Control Line Scale



PIPER APACHE

By J. Stivala

A 37 in. span model of the famous American executive transport aircraft, featuring planked wing and fuselage and tricycle U/C. Specially created for the scale enthusiast with smaller engines. Marking and colours for a British registered machine given on plan. Engines 1-1.5 c.c.

CL/756

E, F

★ ★

6/6



FOKKER D VII

By R. Ward

An accurate scale stunter by an expert in this branch of C/L flying. Span 29 in., fully stuntable, simple construction. 1/12th scale.

CL/403

H, J

★ ★

3/6

Control Line Scale



LOCKHEED P38 LIGHTNING

By A. Troberg

39 in. span twin for wide range of engines to perfect scale with simple structure and high speed performance.

CL/671 E, F, G ★★ 7/6



VICKERS VISCOUNT 701

By J. M. Bodey

Queen of all the scale control liners, this 1/18th scale, 62½ in. span beauty is a great favourite. Colour livery for BEA, Capital and Air France. Relatively simple structure. For a combination of 7 c.c. in engines. Original used two 2.5, two 1.5 c.c.

CL/701 F, G, H Multi ★★ ★ 8/6



D.H. 88 COMET

By J. Last

Famous England-Australia air racer to 1/18th scale for two .75-1 c.c. engines. Full insignia and cockpit data on a Super detailed plan for this 29½ in. span control liner.

CL/694 C, D ★★ 7/6



SOPWITH 1½ STRUTTER

By B. Sichi

Super semi-scale stunter for big engines that will fly through all manoeuvres with ease. 48 in. span gives generous wing area, gun and marking details on plan.

CL/651 H, J, K ★★ 7/6



TIPSY JUNIOR

By H. G. Hundleby

An ideal design for scale adaptation, this model has swept the board at many meetings. Available in three sizes to suit your engine.

CL/321 28½ in. D, E (radial) 4/6
CL/322 34 in. G, H (radial) 5/6
CL/323 39½ in. H, J, K, L, M (radial) 6/6
★★



CESSNA 310

By E. R. Atkins

Colourful American executive twin for small engines. Full detail on this fine plan for easy construction of this 27 in. miniature. Also cabin interior, and colour pattern.

CL/638 2 engines B, C, D ★★ 4/9

SOPWITH TRIPLANE

French version of the popular British "Tripe", this little machine is delightful to handle. Span 20 in.

CL/361 D, E ★★ 2/6



FOKKER DXVII

By C. Kempen

Between wars biplane fighter with very desirable proportions including long undercarriage. Plan has detail for Dutch Air Force markings. Capable of mild aerobatics. 30 in. wingspan.

CL/712 G ★ ★ 5/-



JUNKERS Ju87 STUKA

By AEROMODELLER Staff

Famous German dive bomber in true scale for free flight or control line. An outstanding design of attractive appearance, using .5 c.c. for free-flight and 2.5 c.c. in C/L version; 34 in. wingspan.

FSP/CL/675 B or G ★ ★ 5/-

FOKKER FVIIb 3M

By L. Ackroyd

True scale 54 in. version of the famous "Southern Cross" with full internal detail. For single engine in nose and two free wheeling props on nacelles. Detachable wing tips, a scale contest winner.

CL/688 G, H, J ★ ★ 7/6

Control Line Scale



DOUGLAS A26 INVADER

By D. Deeley

Accurately-detailed scale model of one of the most attractive W.W.II twins, 46 in. span, for two engines. Speed 55 m.p.h. with two 1.49 c.c.

CL/520 E, F, G, H ★ ★ 6/-



ERCOUPE

By D. Deeley

A scale stunter, accepted for publication after six months development in detail design. Will do all aerobatics except square loops. Span 39½ in., 262 sq. in. area.

CL/385 H, J ★ ★ 5/6



DORNIER 215

By Capt. C. Milani

Connoisseur's model. Most detailed of all A.P.S. scale plans, and a design that will satisfy the most exacting enthusiast. Cabin internal detail, motor throttle control, colouring data and relatively simple construction, for this all-sheet covered 44 in. twin.

CL/627 2 engines G, H ★ ★ ★ 7/6



MESSERSCHMITT Me. 109

By A. D. Kingswood

World War II fighter to 24 in. span with inverted engine, all sheet covered surfaces, tough construction and ideal for sport flying. Original had 1.5 c.c. diesel.

CL/709 E, F ★ 3/6



TEMPEST II

By H. J. Pridmore

Those who prefer scale fidelity with their model work will find this design, with its snappy performance, well to their liking. Span 31 in.

CL/336 G, H ★ ★ 3/6



PIPER COMANCHE

By L. Ackroyd

Winner of the scale event at the 13th New Zealand Championships, this superb 1½ in. to 1 ft. control line replica for 2.5 to 3.5 c.c. motors, features retracting undercarriage, wing flaps and throttle control via J. Roberts Flight Control Line mechanism. 45 ins. Span.

CL/790 G, H ★ ★ ★ ★ 8/6



CURTISS HAWK P-6E

By D. Deeley

Super-scale-model of the famous American "pursuit ship". Fully aerobatic, or perfect as a concours project. Span 36 in.

CL/539 H, J ★ ★ 7/6



LOCKHEED SIRIUS

By W. Musciano

Flying scale model of the famous American machine, this version can be fitted with either floats or wheel undercarriage. Span 32 in.

CL/328 H, J ★ ★ 3/6

WACKETT BOOMERANG

By C. A. Taylor

Popular full-stunt model of a well-known war-time Australian aircraft. Span 38 in.

CL/433 G, H (Radial) ★ ★ 4/-

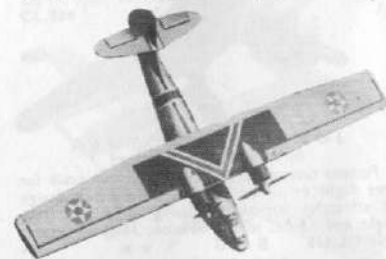


FAIREY GANNET

By J. M. Bodey

A most accurate reproduction of the anti-submarine search aircraft, with drop-off "dolly" undercarriage and all balsa sheet covering. 38 in. span and capable of aerobatics with a good 3.5 c.c. diesel, it is also admirable for conversion to the U.S.A. Carrier Deck Landing type of contest.

CL/631 G, H ★ ★ 6/6



CONSOLIDATED CATALINA

By F. H. Buckland and A. D. Kingswood

Famous wartime amphibian in any of three versions for water or land flying; any combination of engine totalling 4 c.c. or more. Wing span 63 in.

CL/606 G ★ ★ ★ 7/6



FOKKER D.III

By F. Beatty

Unusual World War I biplane fighter to 30½ in. span, and capable of all manoeuvres with a powerful 3.5 c.c. diesel. A most attractive and colourful subject for scale contests.

CL/623

G, H

★★

4/9



SPITFIRE

By G. Pentland

The Mk. VIII Spitfire as used by R.A.A.F. in S.E.A.C. is made semi-scale for full stunt flying on a 29 or 35 engine. Span of 53½ in. offer ample wing area for all aerobatics, is flapped, has all latest design features incorporated by Australian design. Issued by arrangement with Kookaburra Plans Service.

CL/776

J, K, L

★★

10/-



DAKOTA MK.III

By J. Last and J. M. Bodey

A true-scale control-line model of the famous workhorse of the air, for a pair of 1.5 c.c. engines designed by two of the most experienced multi-engined model flyers in this country. Plan gives extensive and exclusive colouring and marking detail. Span 47½ in. A very popular "Twin" with A.P.S. followers.

CL/765

2 off F

★★

8/6



LOCKHEED P2V-7 NEPTUNE

By J. M. Bodey

An exciting and unusual 37½ in. span twin engined scale control line model for two .8-1.5 c.c. engines. Tricycle U/c and all sheet covering.

CL/783 two of C, D, E.

★★

7/6



PIAGGIO P.166

By W. P. Holland

Control line scale model of a famous Italian executive aircraft of most pleasing and out-of-the-rut shape, featuring Gull wing, nosewheel undercarriage, swept fin and twin pusher engines. Span 42 ins. for two 1-1.5 c.c. engines.

CL/824 two D, E, F.

★★

11/-



MACCHI-CASTOLDI MC-72

By E. Bizzozero

A 25½ in. scale model of the world's fastest piston engined float plane and world speed record holder in that class. For 2.5 c.c. engines, the plan incorporates details for a contra-rotating propeller assembly.

CL/788

G.

★★★

7/6

International Model Requirements

The Federation Aeronautique Internationale (F.A.I.) is the international governing body for control of model flying and issues certain specifications to which all models entering international contests or claiming World Records must comply. These specifications are detailed in the F.A.I. Sporting Code, Section 4, Aeromodels.

Wing Area (Total projected area of the horizontal or oblique Wing and Tail surfaces) must be less than, or equal to, 150 dm^2 (16.142 sq. ft.).

Weight—The total weight in flying trim must not exceed 5 kgs. (11.023 lbs.).

Loading—The loading on the supporting surfaces, as defined above must be between . . . 3.93 oz., per sq. ft. and . . . 16.38 oz. per sq. ft., except for control-line models, the maximum being 65.52 oz. per sq. ft. and Radio Control models, the maximum being 24.51 oz., per sq. ft.

Motive Power Permitted—Rubber, Mechanical engine or direct Reaction. In the latter case the weight of the engine should not exceed 0.5 kg. (1.102 lbs.) and the total weight of the model including fuel, 1 kg. (2.205 lbs.).

1. Models with **rubber motors** must conform to the "Wakefield" formula. Total area 17-19 dm^2 (263.5-294.5 sq. ins.). Minimum weight, 230 gms. (8.113 ozs.). Maximum weight of rubber 50 gms. (1.7635 oz.). This latter rule applying from 1958 onwards.

2. Models with **mechanical motors** must conform to the following formula: Power loading, for each 1 c.c. capacity, 300 gms. (10.581 oz.). Max. motor capacity 2.5 c.c. Area loading between 20-50 gms. (.7054-1.76 oz.) per dm^2 (15.5 sq. ins.) or in other words, between 6.59 and 16.35 oz./sq.

ft. Motor run, 10 seconds. These rules applied from 1961 onwards.

3. **Giders** must conform to the "Nordic" formula. Total area: 32 to 34 dm^2 (495 to 525 sq. ins.), minimum total weight 410 gms. (14.5 ozs.), length of launching cable, 50 metres maximum (164 ft.).

For Record purposes in **control-line speed** models, three classes are recognised plus jet speed:

Class I Up to 2.5 c.c., line length 15.92 metres (52 ft. 2 1/2 ins.).

Class II Up to 5 c.c., line length 15.92 metres (52 ft. 2 1/2 ins.).

Class III Up to 10 c.c., line length 19.9 metres (65 ft. 3 1/2 ins.).

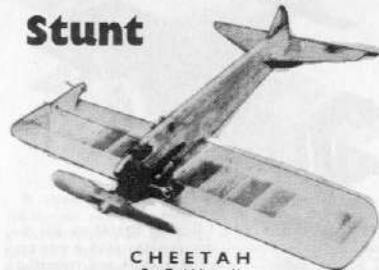
For **World Championships** only Class I speed is used. Models must have a minimum area of 31 sq. ins. per c.c. and not exceed a loading of 32.76 oz./sq. ft.

The F.A.I. **team racing** specification includes the following points:

- A. Maximum engine capacity 2.5 c.c.
- B. Total area (wing and tail) 12 dm^2 min. (186 sq. ins.)
- C. Minimum fuselage dimensions at pilot's position height 100 mms., width 50 mms. (2 x 4 ins.). Minimum cross section 39 sq. cm. (6.045 sq. ins.).
- D. Maximum capacity of fuel tank 10 c.c.
- E. Minimum line diameter 0.3 mm. (0.0118 in.).
- F. Maximum weight 700 gms. (24.6 oz.).

It must be stressed that the foregoing are extracts from the rules, and fuller details are available in the S.M.A.E. Rule Book.

Control Line, Stunt



CHEETAH

By E. Wiggall

"Flatfish" sidewinder stunt machine up to all the tricks. Anti-blanketing tail and stout construction, with folding unbreakable prop. Span 23 in. CL/313

D, E (beam) * *

2/6



LIL' ZOWIE

By B. T. Faulkner

A pleasant to fly, semi-streamlined stunt model. Span 22 in. CL/339

D

* *

2/6



JUGGLER

By C. Bates

A simple stunter, featuring sheet fuselage sides, balloon tank, 270 sq. in. area. Span 38 in.
CL/389 H, J ★ 3/6



CRACKERJACK

By H. G. Hundleby

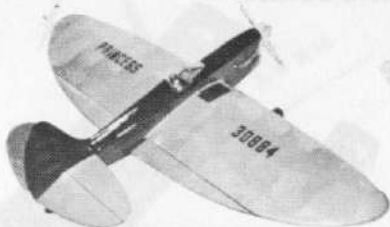
Midwing, American type sidewinder, fully stunt-able, and with drop-off undercart. Span 32 in.
CL/303 E, F, G ★ 3/6



334G

By Peter Russell

Gold Trophy winner in 1956 and a fine stunt model with fighter-like appearance, this was the most popular plan for 1956 in the control-line sphere. Designer can provide moulded canopies for this 42 in. model.
CL/632 G, H ★ ★ 6/-



PRINCESS

By G. Cornell

Elegant, up-to-date and a beauty to fly, this 34 in. elliptical winged model is happy with 1.5 or 2.5 c.c. engines and will go really "square" in the S.M.A.E. Stunt schedule. Extensively detailed plan with many installation sketches.
CL/724 F, G ★ ★ 6/6



ARIEL

By R. J. North

A simple, fully stuntable model suitable for beginners. Easy construction and handling. Span 30 in.
CL/325 F, G (radial) ★ 4/-



VIRAGO

By Vic Smeed

A stunt job with improved looks. Short-coupled and streamlined fuselage, cowled engine. Span 30 in.
CL/350 F, G ★ ★ 3/6

HAPPY HAROLD

By N. J. Butcher

Developed from a number of designs by a team of control-line experts, this model can "go through the book" with the greatest of ease. Span 30½ in.
CL/342 F, G (radial) ★ 3/6



ELF CAT

By J. H. Bailey

Designed to meet the demand for a 1-1.5 c.c. stunter, this 32 in. model has wing flaps, racing lines and easy construction.
CL/703 D, E, F ★ ★ 3/6

Control Line Stunt



U-2

By F. L. Warburton

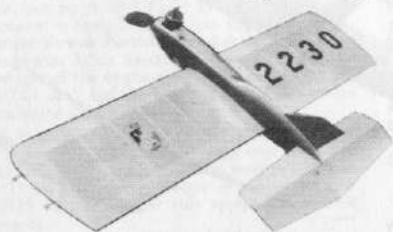
54 in. span full aerobatic controliner for 5 c.c.-8 c.c. engines, by one of Britain's leading aerobatic fliers, based on the headline making Lockheed U-2 aircraft to give a steady line pull throughout all stunt manoeuvres and smooth take-offs and landings.

CL/798

J, K, L.

★★

10/-



BLUE PANTS

By Henri Stouffs

Thick-wing stunt design flown to win the aerobatic class in the 1954 World (control-line) Championships at The Hague. Span 39 in.

CL/574

G, or H

★

4/6



PICADOR

By Fernando Batllo

Semi-scale stunt based upon the Spanish-built Messerschmitt 109 fighter. Has flaps coupled to elevators, detachable wing, simple sheet balsa fuselage construction, is 52½ in. span.

CL/640

H, J, K

★

6/6



AMBASSADOR

By A. Hewitt

Probably one of the best known stunt models ever, and certainly one of the best performers. Span 35½ in. A Gold Trophy winner.

CL/457

G

★★

4/-



SKUA

By D. Christopher

Jet-like lines on the 47½ in. span stunter for 3.5-5 c.c. engines. Coupled flaps and elevators. Long nose for smooth manoeuvres. Follows the 1960 design trend for construction. Will "square" and fly in all conditions.

CL/771

H, J

★★

7/6



STAMPE MONITOR

By F. L. Warburton

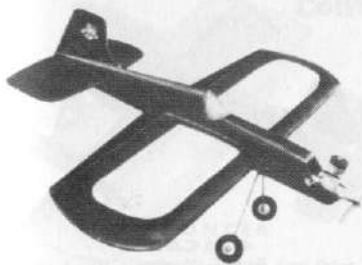
56 in. span semi-scale control line stunt model with 610 sq. ins. wing area for really top class aerobatic performance with large 5 c.c. to 10 c.c. glow motors. A first class design by one of Britain's most expert fliers with all the most modern and desirable features.

CL/820

J, K, L, M.

★★★

10/-



FOXSTUNTER

By J. W. Coasby

A fully flapped stunter capable of very tight manoeuvres and high speed stunting. Span 42 in. Area 350 sq. in.

CL/406 J, K ★ 3/6



HARLEQUIN

By P. Smith

Winner of the 1954 "Gold" Trophy, this 36 in. control-line stunt model uses an inverted engine, stream-lined fuselage, making it one of the handsomest stunt designs produced.

CL/557 G, or H ★ ★ ★ 4/6



METEOR

By K. Muscutt

A 75 m.p.h. stunter. Features sleek lines, out-board wing flaps, cowed motor; area 300 sq. in. Span 38 in.

CL/397 J ★ ★ ★ 5/6



WILDFIRE

By G. Stowers and E. Taylor

A good looking cabin stunt model. Ultra stream-lined, resembles a fighter aircraft. Span is 27½ in., 133 sq. in. area.

CL/364 F, G ★ ★ 2/6



FLICKA

By J. W. Coasby

Fully streamlined stunt model for medium-sized engines. Span 40 in.

CL/363 H, J ★ ★ ★ 3/6



FIREBRAND MK. II

By R. Cooke

An expert's design featuring almost unbreakable fuselage construction of circular form. Span 42½ in. Has won many Northern stunt events. 326 sq. in. wing area.

CL/380 H ★ ★ 3/6

LIL ABNER

By A. E. Burch

A fully flapped stunter that is fast flying and capable of every known manoeuvre.

CL/478 H (radial) ★ 4/6

Control Line Stunt



SHARPOON

By K. Laumer

A 36 inch span aerobatic trainer for 1 c.c. to 1.5 c.c. engines (larger sizes can be used by experienced fliers) that combines good looks with simplicity. Trike undercarriage.

CL/806

D, E, F.

★

5/-



PAGAN

By J. W. Coasby

Elegant high-performance stunt model capable of holding its own with any. Span 46 in.

CL/455

J, K

★★

4/6

Please ensure that your order is clearly stated and accompanied by the correct remittance and your name and full address in **BLOCK LETTERS**.



SIMPLE SIMON

By W. P. Holland

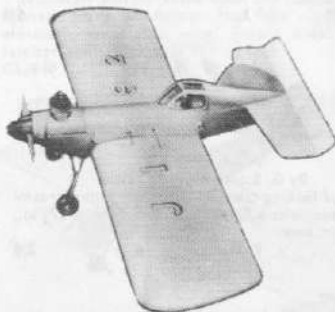
This 28 in. span model for 1.5 c.c. is fully stunt-able, and also makes a neat, easy to build trainer with 1 c.c. Handsome, raked lines are in keeping with latest design trends and the semi-scale appearance leads itself to bright decoration.

CL/773

D, E, F

★

3/-



HOPIT

By E. Hignett

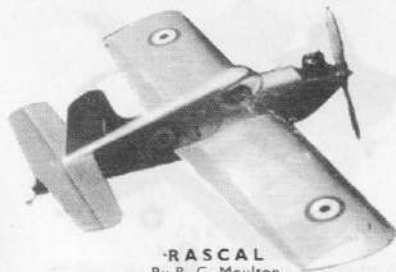
An easy to build cabin stunter. 275 sq. in. wing area. Span 35 in.

CL/417

H, J

★

3/6



RASCAL

By R. G. Moulton

Special stunt trainer will fly the "book" on low power, uses new style thick section, fully detailed, eighteen stage instructions on plan. Ideal for modellers wanting to learn how to loop; the favourite design for 1 c.c. aerobatic flying.

CL/660

D, E, F

★

4/-



THUNDERBOLT

By W. Morley

Large stunter for those who like smooth manoeuvres on long lines. Big 48½ in. wingspan, has flaps and all modern features.

CL/587

H, J, K

★ ★

6/-



Control Line

BOUNCER

By P. Moir

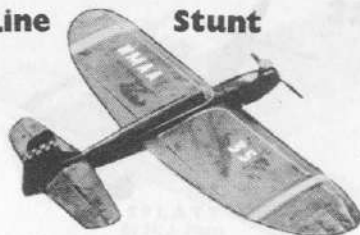
As a first attempt at control line flying this 24 inch trainer for 1-1.5 c.c. engines cannot be beaten. Full instruction sheet included contains details for a "Rigidrist" control line handle to teach correct pilot technique. The ideal trainer.

CL/808

D, E, F.

★

3/6



Stunt

CALAMITY JANE

By P. Weaver

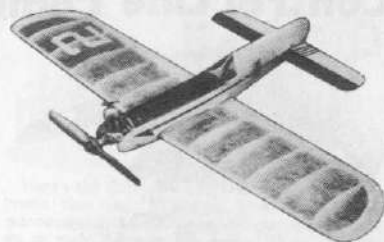
Australian stunt by Queensland's crack stunt flyer. A big model that is a certain "full-stunt" job of top contest standard. Span 50 in. Area 510 sq. in. and weight 28 oz.

CL/489

J, K

★ ★ ★

4/6



CHESHIRE KITTEN

By W. A. Pollard

Very easy to make and surprisingly aerobatic despite the small engines it normally carries, this design is one of the most popular small stunts in our range. Only 21 in. span.

CL/693

B, C, D

★

3/6



COUGAR

By T. W. J. Stoker

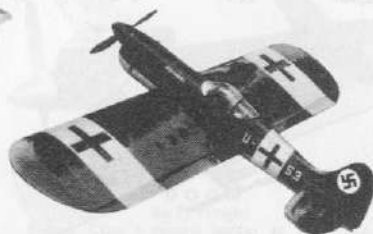
45-in. coupled flap design with easy sheet fuselage assembly and thick wing section. Ideal for stunt beginners.

CL/673

H, J

★ ★

5/-



SKIFFLER

By D. Platt

Streamline semi-scale full aerobatic stunt with coupled flaps and thick wing section for square manoeuvres; 47 in. span; 420 sq. in. wing area.

CL/665

H, J

★ ★

7/6



COY LADY

By R. E. Brown

This 580 square inch stunt for 5 c.c. upwards will fly through all "square" manoeuvres in the latest stunt schedules, and has been designed to incorporate all latest ideas for smooth flying.

CL 727

JK

★ ★

6/-

Control Line Combat



UNLIMITED

By R. Smith

This most unusual flying wing type of control-liner has proven practically indestructible in the hands of absolute novices. Capable of all known stunts, the method of construction is simple yet amazingly rugged. Span 20 in.

CL/369 F, G ★ 2/6

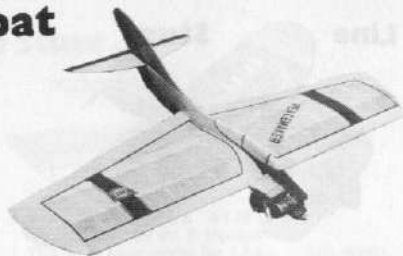


RAZOR BLADE

By P. N. Tribe

Leading British Combat "Wing"—a fast flying and very manoeuvrable model for the up to 3.5 c.c. class. Will withstand loads of punishment. Span 32 in.

CL/729 G, H ★ ★ 3/6

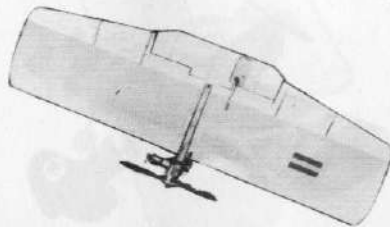


PEACEMAKER

By G. Aldrich

Specially commissioned design for British combat by American champion stunt flyer, has amazing manoeuvrability with radical design approach. Capable of all manoeuvres including square figure eights. Span 36½ in.

CL/687 G, H ★ ★ 5/-



DUELLIST

By Adolpho Tristany

Spanish Combat Champ, will turn on a sixpence, cheap to make, indestructible when silk covered. 32½ in. span for wide variety of motors.

CL/648 G, H ★ 4/6



SWORD

By J. Templeman

All-wing 33-in. span combat design for quick construction and capable of small looping radius. Extremely tough yet light.

CL/674 G, H ★ ★ 5/-

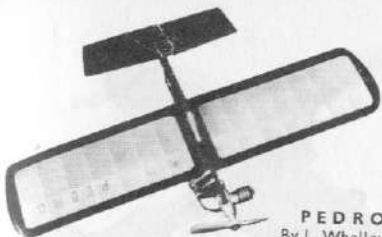


DONGUS

By G. Johnson & D. Pinckert

Join the Combat brigade with this hot design from two leading U.S.A.F.E. flyers. 30½ in. span for 2.5 to 3.5 c.c. motors, designed to be simple to build, but extremely strong. Does 86 m.p.h., using a 3.5 c.c. glow motor.

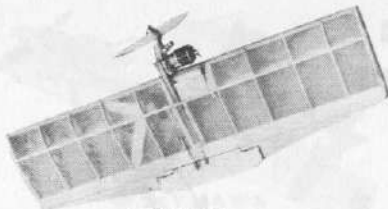
CL/780 G, H ★ ★ 4/6



PEDRO
By L. Whalley

Combat or stunt model of top contest standard all sheet tail and fuselage construction. cheap to make, suitable for experts or beginners. Span 32 in.

CL/704 G, H * 3/6



SPLATT
By M. J. Platts

A "1A Combat" design to meet the growing demand in club competitions, this little simpleton is 7 ozs. of zippy controliner for 1-1.5 c.c. engines. With 20 3/4 in. span, it will fly at over 80 m.p.h. without a streamer.

CL/785 D, E, F. * 2/6



CLEAVER
By G. Copeman

Here's the Combat model with more cuts to its credit than your modelling knife. High speed, manoeuvrability, smoothness of flight, efficient tank go to make a top-knotch design. 35 in. span for 2.5 c.c. to 3.5 c.c. engines.

CL/799 G, H. ** 4/-



DEVIL
By U. Rossi

An F.A.I. class speed model from Italy, with exceptional contest record, including first place at the 1959 Criterium of Aces in Brussels and 1960 World Championships. Model has done 145 m.p.h. Simple to build. Span 21 1/2 in. Engines 2.5 c.c. Based on the Italian light alloy speed pan, marketed by Rossi.

CL/749 G ** 3/6



GOOK
By P. Wright

British Class I record holder at 111.8 m.p.h. Combined Metal, Balsa and Hardwood construction.

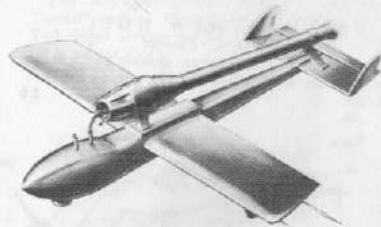
CL/501 G ** 3/6

FLASH

By J. G. Carter

Class III speed model. Has done 110.7 m.p.h.

CL/375 G, H ** 2/6



JET TRAINER
By R. C. Jude

A simply constructed basic trainer. Span 30 in.

CL/318 ** 3/6



Control Line Team Racers



PERCIVAL NEW GULL

By H. C. Thomas

Accurate scale Team Racer, capable of 75 m.p.h. with a plain bearing engine. Wing span 24½ in. CL/600 G. ★ ★ ★ 3/6



CUPID

By Ron Moulton

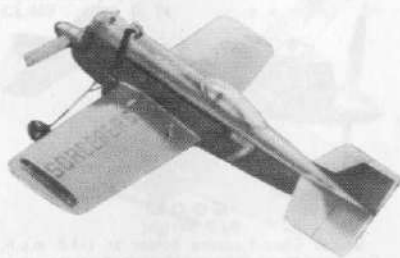
Near-scale lines of this small Team Racer make it suitable for pure sport flying as well as contest work. 20-in. span, with novel wing construction in sheet, and neat u/c it flies at 70 m.p.h. with A.M.15. CL/708 D.E. ★ ★ 3/6



TIME TRAVELLER

By Dick Edmonds

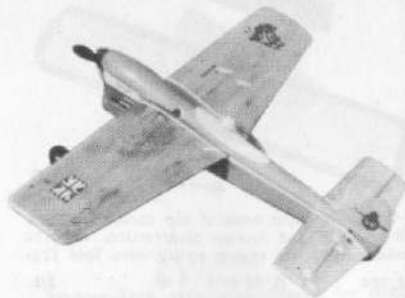
The famous team race winner, built to original F.A.I. specification. Has many new features; extremely easy to make, is 26½ in. span, flies at 85 m.p.h. with an Oliver Tiger. CL/642 G. ★ ★ 3/-



SORCERERS' APPRENTICE

By N. Butcher

All-sheet model by one of the leading experts in team race circles. 75 m.p.h. with E.D. 2.46, and a regular winner. CL/515 G. ★ 3/-



FOOTPRINT

By P. Smith

International team race winner, able to maintain 82 m.p.h. for 40 laps on 10 c.c. of fuel. Span 23½ in. CL/589 G. ★ ★ 3/-



BLACK CHIFFON

By C. M. Milford

Team racer, 22 in. span and approximately 13 oz. weight. Easy to construct, easy to fly—and very easy on the eye! CL/486 F.G. ★ ★ 3/6



T.K.4 TEAM RACER

By R. G. Moulton

Two racers on the same plan, capable of 90 m.p.h. with a 5 c.c. racing motor. A semi-scale version of the famous De Havilland Racer. 70 or 125 sq. in.

CL/411 G.J. ★ ★ ★ 3/6



JABBERWOCKY

By W. Hume

Team racer of unconventional lines, but excellent performance. Developed while serving with the R.A.F. in Egypt.

CL/514 G. ★ 3/-



SKYHAWK

By L. Ellis

New look in team racers with delta wing from Canada; trike u/c and very simple construction, meets the S.M.A.E. Class A specification. 18-in. span.

CL/678 G. ★ 3/6



DALESMAN

By K. Long

A very successful S.M.A.E. class B team racer. First class contest record including placings in most of the big competitions throughout the country, and first in the 1960 National Championships. Embedded metal motor mount, and fuel tank detail. Span 33½ in. for 5 c.c. engines, particularly the ETA 29.

CL/763 J ★ ★ 4/6

PACEMAKER

By S. Rymill

Very fast racer with out-of-the-rut appearance and first-class contest record. Span 25 in.

CL/509 G. ★ ★ 4/6



SUPERMOUSE

By K. A. Day

Rat Racing remains unhindered by detailed rules, and will appeal to the many individualists.

Top line performance does not necessitate "tuned" engines. Models are easy to build and fly. This larger version for 5 c.c. is 27 in. span, flies at 80 m.p.h. or more.

CL/823 G. H, J, K. ★ ★ 4/6



MINI-MOUSE

By K. A. Day

For the smaller engines 1.5 to 2.5 c.c. this mini-rat-racer fills the bill ideally for those who want quick (and cheap) results. Span is 22 in.

CL/825 E, F, G. ★ 3/-

BRITISH TEAM RACING REGULATIONS

(SUMMARY OF S.M.A.E. RULES)

1. A Team Race shall consist of two or more models, each made to the correct specification, flown at the same time, in the same circle over a predetermined distance. The winner shall be the first to cover the required distance from the standing start. All models must start at the same time and be flown in an anti-clockwise direction.
2. No entrant may enter more than one model in each class per meeting.
3. Models shall be either scale or semi-scale in appearance and if semi-scale must have a raised windshield or cabin.
4. Team racing is divided into three classes, according to the engine capacity, i.e., Class $\frac{1}{4}$ A, Class A and Class B.
5. **Class $\frac{1}{4}$ A**
 - (a) Maximum engine capacity 1.5 c.c.
 - (b) Minimum projected wing area 90 sq. ins.
 - (c) Maximum fuel capacity 6 c.c.
 - (d) Minimum fuselage dimensions $1\frac{1}{2} \times 3$ ins.
 - (e) Minimum wheel diameter 1 in.
 - (f) Distance between centre of control handle and centre of model, 46 ft. 8 ins.
 - (g) Minimum line diameter 0.010 ins.
6. **Class A Specification. (F.A.I. Spec.)**
 - (a) Maximum engine capacity 2.5 c.c.
 - (b) Minimum effective total area 186 sq. ins.
 - (c) Maximum fuel capacity 10 c.c.
 - (d) Minimum fuselage dimensions at pilot's position, height 4 ins., width 2 ins. Minimum cross-section 6.045 sq. ins.
 - (e) Minimum landing wheel diameter shall be 1 in.
 - (f) Distance between centre of control handle

and centre line of model in flight shall be 52 ft. 3 in., line thickness 0.0118 ins.

- (g) Maximum weight 24.6 ozs.
7. **Class B.**
 - (a) Engine capacity 2.51 c.c. to 5 c.c.
 - (b) Minimum effective wing area 133 sq. in.
 - (c) Maximum fuel capacity 30 c.c.
 - (d) Minimum width of fuselage at cockpit shall be 2 in.
 - (e) Minimum depth of fuselage from top of cabin to bottom of fuselage or in the case of an open cockpit made from the top of pilot's head to bottom of fuselage shall be 4 in. Engine cowling extending below the cockpit shall not be included in fuselage depth.
 - (f) Minimum landing wheel diameter shall be 1 in.
 - (g) Distance between centre of control handle and centre line of model shall be 60 ft. Minimum line diameter 0.0124 in.
8. In the case of Class $\frac{1}{4}$ A and Class B, a 6 ft. radius circle plus a further clearly marked circle of a radius of 10 ft. must be clearly marked for the pilots and a further clearly marked circle of a radius of 10 ft. greater than the distance specified for the flying lines, must be provided. No pilot shall leave the 20 ft. circle once a race has commenced until directed to do so by the starter. In the case of the International Class the radius of the flight circle must be at least 62 ft. 4 ins. The radius of the pilot circle must be at least 9 ft. 10 ins. The pilot's flying area shall also be clearly marked at a radius of 6 ft.



SUPER SAINT

By K. Marsh

Upright motor and top-class performance characterise this Class B racer which has won the Davies Trophy. 29 in. span.

CL/465

J.

★ ★

3/-



SORCERER

By P. Cameron

Ten final placings in twelve major contests make this an outstanding Class "B" racer. Easy but rugged construction, fast and stable flight. Span 27½ in.

CL/544

J.

★

4/6

Always quote plan number, name and price in your order and use an order form if possible.



TIGRESS

By Ken Long

One of Britain's most successful current rule F.A.I. class team racers. The design has been thoroughly and practically tested over a long period by the Wharfedale team. First in the 1960 British team selections and placed 4th in 1960 World Championships, has beaten 5 mins. for the 10 kilometer distance many times. Span 38½ in. for 2.5 c.c. engines.

CL/741

G ★★

5/-



RAZZAMACHAS

By C. Taylor

Fast, monowheel Class B racer delivers top line performance with a standard unreworked ETA .29. Plan incorporates the all-important prototype tank detail. Span 30½ in. for 5 c.c. engines.

CL/803

J, K.

★★

4/6

MISS F.A.I.

By Kjell Rosenlund

Beautifully proportioned F.A.I. class Team Racer by Sweden's master of the art and winner of the 1961 Criterium of Aces in Brussels. A genuine 100 m.p.h. plus racer. High aspect ratio, 35½ in. span elliptical wing.

CL/776

G.

★★

5/-



AQUARIUS

By W. B. Heginbotham

An angular but attractive design. Robust and well proved by hours of over-water flying. Span 51½ in.

WP/423

E, F, G

★★

5/6



KARORO

By J. Sheppard

A proven floatplane with consistent performance and splendid water stability. Simple construction, ideal for the novice. Span 40 in.

PET/496

D, E

★★

4/6



Waterplanes



LOENING OL-9

By C. F. Stuby

Unusual 47 in. 1/12th scale biplane flying boat of pre-war U.S. Navy, simple construction with detachable wings.

WP/650

E, F

★★★

7/6



DUCK FOOT

By R. Swindon

A true amphibian with high mounted engine and reversible wheel position for "up or down". Takes off equally well from land or water. Wing span 32 in.

WP/611

B, C

★★

4/6



MERMAID

J. F. P. Forster

A rugged 72 in. flying boat for open sea flying with a wealth of experience behind it. Recommended for more advanced builders.

WP/162 H, J ★ ★ ★ 7/6



MIRANDA

By W. P. Holland

Amphibious model, with a detachable plug-in undercarriage. Large cabin and streamline engine nacelle make this a most attractive design. Wing span 49 in.

WP/605 C, D ★ ★ 4/6

SEA NYMPH

By Vic Smeed

Small flying boat, featuring simplified hull construction and high wing mounting. Takes off in 25 to 40 feet; affords a pleasant change in both construction and flying. Span 36 in.

WP/542 C, D ★ 5/-



SKIP

By D. C. Macvean

A novel gull-wing machine for the smallest engines. "Skip" bears the lines of a pre-war fighter. Simple construction, and very rewarding performance. Both land and waterplane versions given on plan. Span 25½ in. Engines 0.16 c.c.-0.44 c.c. Original would take a Bambi or a Pee-Wee.

WP/758 A, B ★ ★ 4/-



SEA KING

By L. Ellis

Remarkable delta for over land or water flying, using slotted propeller on mid-mounted engine. Detachable tail and wing surfaces for transport, hull permits rough ground landings. Span 44½ in.

WP/689 E, F ★ ★ 10/-



Waterplanes



KITTIWAKE

By A. R. Parker

Holder of the British waterplane duration record, this twin-motored flying boat is simple to build, yet offers hours of fun. Counter rotating props., snappy take off. Novel centre boom for flotation. Span 45 in.

WR/757 ★ ★ 5/-



TOMBOY

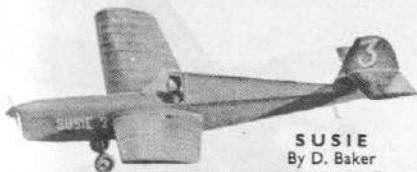
By Vic Smeed

Most popular beginner's sport model in A.P.S. Simple cabin power model designed especially for the beginner. Either 36 in. or 44 in. span, both on plan. Seaplane version also given.

PET/398 C, D, E ★ 3/6

Sport

Power



SUSIE

By D. Baker

An "out of the rut" sport design with knock-off qualities, enabling model to be packed away in small box. Both wings and tail removable. Wing has tongue and box fitting, and whole model is very robust. A design to be recommended for the "get it in the air" modeller. Span 44 in.

PET/737 C, D ★ ★ 5/-



BOWDEN CONTEST

By C. E. Bowden

A really long-life sport design which can easily be converted for radio control. Features slotted wings. 68 in. span.

PET/225 G, H, J ★ ★ 7/6

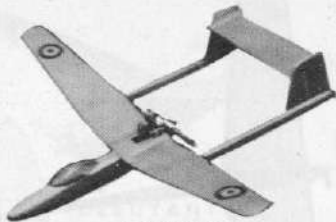


TERRIER

By Brian Lewis

Quick building, strength and attractive lines ensure popularity for this 33 in. span design. Excellent for the newcomer to power flying.

PET/553 B or C ★ 4/6



VAMPIE

By Lt.-Cmdr. T. E. Naughten

All sheet balsa and practically unbreakable. Pusher engine saves props. one-piece construction, is incredibly strong. 36 in. span, a fast and thrilling flyer.

PET/619 C, D ★ 3/-



CHERUB

By Vic Smeed

An aptly named "baby". All sheet fuselage and simple wing construction make it an ideal model for any beginner. Span 30 in.

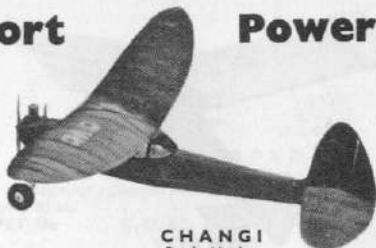
PET/485 B, C ★ 4/6

CHLOE

By R. Darr

Struts give a semi-scale appearance to this easy-to-build streamlined 36 in. sports model. Specially created to pack away into a small space.

PET/678 B, C ★ ★ 3/6



CHANGI

By A. Healey

Developed while serving with the R.A.F. in Singapore, this high wing sport design brings back the curvaceous elegance of many an old stager, and performance matches looks. Span 38 in. for engines .75-1 c.c.

PET/743 C, D ★ 5/-



PEREGRINE

By R. Twomey

A realistic sports model embodying many smart constructional features, and a certain concours winner. Pendulum rudder incorporated.

PET/547 C, D ★ ★ 4/6





TOMBOY

By Vic Smeed

Most popular beginner's sport model in A.P.S. Simple cabin power model designed especially for the beginner. Either 36 in. or 44 in. span, both on plan. Seaplane version also given.

PET/398

C, D, E ★

3/6



PEE WIT

By P. Gasson

An interesting 21½ in. span free flighter for .020 glow motors (.3 c.c.) or up to .46 c.c. diesels. A fast climber.

PET/779

B. ★★

3/6



BROOK'S BIPLANE

By B. Brooks

No biplane was ever more famous than this one the prototypes of which have flown for hundreds of airborne hours. Amazingly stable and realistic. Ideal for radio conversion. span 66 in.

PET/492

G, H

★★

8/6



DOOHICKY

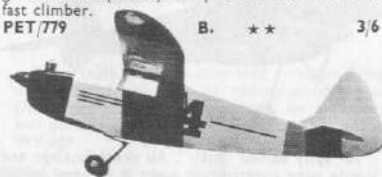
By John Swift

Diminutive biplane, with a sparkling performance. Only 25 in. span, it can be dismantled and carried about in a small case.

PET/565

B or C ★★

3/-



SHARP SCOOTER

By K. Laumer

A slick 29 inch span sport free flighter for .5 to .8 c.c. engines, the Sharp Scooter has eye appeal from every angle. Simplest possible structure enables the modeller to put this model in the air with a minimum of delay.

PET/804

B, C. ★

4/6



MADCAP

By Vic Smeed

Beginner's power model with alternative fuselages, profile contest or cabin sports. Very tough and virtually fool and crashproof. Span 45½ in.

PET/470

D, E

★

4/6



POPSIE

By Vic Smeed

Rugged sports model, 38½ in. span, capable of accommodating lightweight radio-control and absorbing a tremendous amount of punishment.

PET/460 C, D, E ★ ★ 6/-

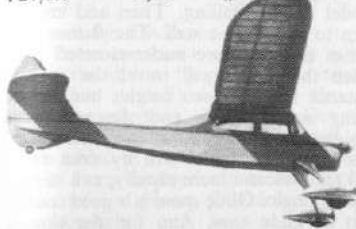


APOLLO

By I. Edlin

A 36 inch span all sheet balsa model for tethered flying as described in AEROMODELLER MAY 1962 or general sport free flight. For up to .46 c.c. diesels or .010-.020 cu. in. glow plug motors.

PET/819 A, B. ★ 4/-



EROS

By J. W. Coasby

Robust semi-scale model, 84 in. span, with excellent performance. Only slight modification required for radio conversion.

PET/280 H, J ★ ★ 7/6



DEBUTANTE

By Vic Smeed

As the name implies, a pretty model with high performance and unblemished character. Specially printed plans include full photo detail and instructions for this 40 in. cabin sports job.

PET/493 C, D, E ★ 2/6



MERCURY IV

By Mick Smith

A Concours d'Elegance winner with excellent flying characteristics. Two huge plans measuring 132 in. x 38½ in. and special instructions for this 8-foot beauty. An ideal subject for the connoisseur and "big stuff" radio-control enthusiasts.

PET/504 J, K, L, M ★ ★ ★ 12/6



LITTLE VAGABOND

By G. W. W. Harris

A beginner's model with a good performance.

Span 45 in. PET/136 C, D, E ★ ★ 3/6



FRANKENSTEIN

By M. W. Thompson

Easily constructed slab-sided power model, designed for precision flying. Span 50 in.

PET/346 D, E ★ ★ 3/6



SPITFIRE II

By J. F. P. Forster

Low-wing model based on the famous British fighter. Span 63 in.

PET/194 H, J ★ ★ ★ 8/9

TRIMMING FOR FLIGHT

ALL FREE-FLIGHT MODELS require a certain amount of individual trimming, first to establish a satisfactory glide and then, in the case of rubber- or engine-driven aircraft, to stabilise the "power on" flight. Warps or mal-alignment of the wings and tail surfaces should be corrected before taking a model out for its initial test flights. Also it should be checked to see that the balance point is close to the specified design position. Lacking any information balance the model at mid-chord position.

Hand launched glide tests, carried out in calm weather, provide a rough check on

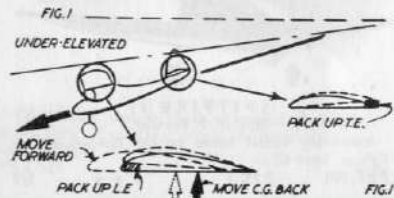
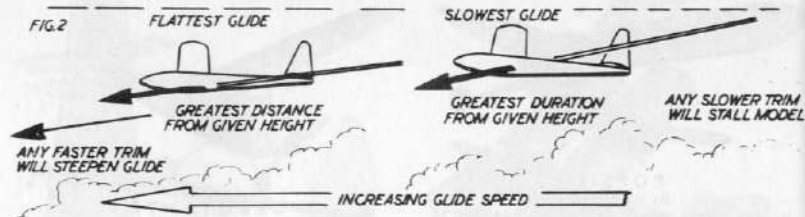
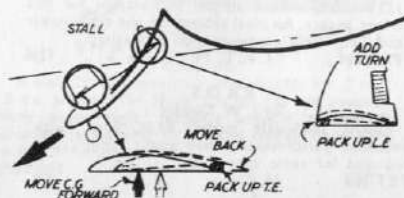


FIG.1



the glide trim. Correct by *one* of the methods shown in Fig. 1, depending on whether the model appears over- or under-elevated. Use the method which is easiest to apply, or seems most logical. Make only small adjustments at a time, and only one adjustment at a time. Then you can observe the effect of each change.

If wing or tailplane settings are adjusted, remember that the smaller the angle between the wing and tailplane settings the smaller the resulting longitudinal stability. The wing should *always* have a greater angle of incidence.



The glide trim can only be finally adjusted by getting the model up to a height (e.g., under a short power run, or by tow launching) and observing the glide path which it enters from true free flight. Fine adjustments can be made at this stage to get the glide trim right, which is very important in the case of a contest model.

For maximum glide duration the model should be trimmed out to fly nearly on the stalling point. This can be achieved by correcting for under-elevation until the model is just stalling. Then add enough turn to correct the stall. The *flattest glide* comes from a more under-elevated trim, when the model will travel the greatest distance from a given height, but will be flying much faster and descend more rapidly.—Fig. 2. If under-elevated from this trim, the model will fly even faster still and descend more rapidly, at a steeper gliding angle. Glide speed is a good indication of glide trim. Aim for the slowest

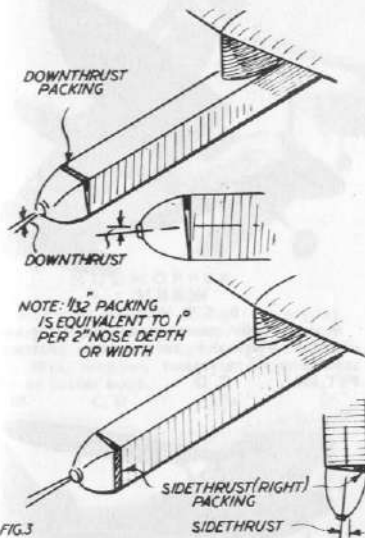


FIG. 3

speed for maximum duration.

Power-on trim is achieved by adjusting the thrust line by packing the noseblock (rubber models) or slewing the motor (power models).—Fig. 3. Downtrust prevents stalling under power and should be added as required, once the glide trim has been finalised. It is not necessarily wasteful of power, provided it is not used excessively.

Torque reaction tends to turn a model to the left. All rubber models benefit from turning to the *right* under power, which calls for right sidethrust, or packing the noseblock around to the right. Right sidethrust may also be used to straighten out or turn power models to the right. Some power models, however, are flown to the left under power, when little or no sidethrust may be used.

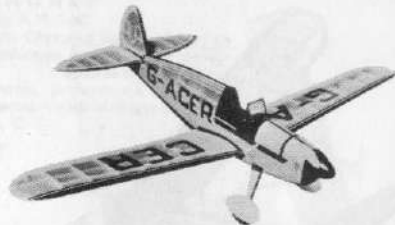
Only small amounts of sidethrust should be used as any amount in excess of about $2\frac{1}{2}$ degrees tends to produce spiral instability. Remember, too, that adding a turn is one method of curing over-elevation. Hence with sidethrust less *downtrust* is required.

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PINKY

By C. Read

Unusually smart little low wing sports free flighter of $35\frac{1}{2}$ inches wing span .5-.8 c.c. powered. Completely stable in flight and offers to any modeller a great deal of enjoyment.

PET/813

C.

★ ★

5/-



KWOD

By E. Clutton

Novelty is the key to this quadraplane design, though not without purpose, for it can be flown within the boundaries of a small field. Span 20 ins. for .5-.8cc engines.

PET/787

C.

★

4/6



SHRIMP

By G. D. Pike

High wing slabside cabin model with parallel chord wings. For small engines. Span 25½ in.

PET/300 B, C ★ ★ 2/6



H.V. 450

By Henri Varache

Magnificent design by world record holder. Radio Control conversion sheet is included with plan at no extra cost. On two sheets. Span 72 in.

PET/262 J, K, L, M ★ ★ ★ 7/6



SNOW WHITE

By M. Bridge

Attractive 40 in. Sport flyer suitable for beginners. All-sheet fuselage and simple tapered wing construction with constant thickness ribs.

PET/585 C, D or E ★ 4/6

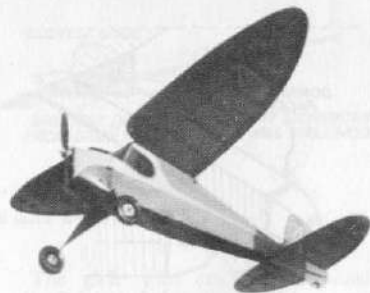


LINNET

By R. Woollett

Lightweight low-wing design, 42½ in. span, with tricycle gear and other semi-scale features. Easy to build and fly.

PET/537 C, D ★ ★ 4/6



WREN

By G. R. Woollett

A sturdy cabin power model employing semi-elliptical wing and tail surfaces. Attractive appearance, 42 in. span.

PET/308 C, D ★ ★ 3/6



ROARING 20

By B. A. Striegler

Nifty sport biplane of very attractive and practical lines and high degree of stability. 28½ in. wingspan, sheet fuselage sides, easy-to-build and a sure flyer.

PET/695 B, C ★ ★ 3/6



MUDHOPPER

By J. C. Trinder

Low-wing sport design for .75 c.c.-1 c.c. engines and having a near-scale appearance. Gets its name for ability to withstand rough landings on bad terrain. 48 in. wingspan, two-piece wings, open cockpit or bubble hood.

PET/705 C, D ★ ★ 5/-



CYRANO

By K. Laumer

The pert little cabin design for small motors is perfect for small field flying. High tail deep cabin and distinctive nose give the machine an exclusive air. Very easy to build. Span 29½ in. Engines .5-.8 c.c.

PET/760 B, C ★ 4/-

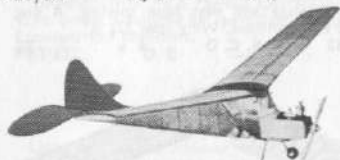


ENVOY

By C. A. Shaw

Cabin tricycle model of pretty appearance and good performance. Extremely safe to fly. Span 40 in.

PET/461 C, D ★ ★ 4/-



PARAGON

By S. Qureshi

Beginner's design for Pakistan, this is a perfect "first try" at power modelling. Simple, easy to build design. Span 38½ in. Engines .75 c.c.-1 c.c. A very docile model to trim.

PET/754 C, D ★ 4/-



COQUETTE

By Vic Smeed

Trim cabin Biplane with round top fuselage and realistic lines, span 30 in.

PET/384 D, E ★ ★ 3/6

COURIER

By J. B. Cracknell

Novel fuselage cross-section with turbo-jet lines and trike u/c make this an advanced design, yet easy to construct on basic fuselage crutch; 42 in. span with all sheet tail surfaces.

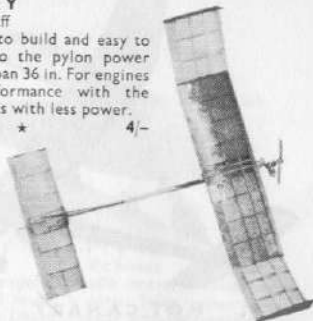
PET/662 B, C, D ★ ★ 4/-

CHUNKY

By A.M. Staff

A beginners design. Cheap to build and easy to fly. A perfect introduction to the pylon power model. Very tough. Span 36 in. For engines .5-.8 c.c., gives contest performance with the "hot" .049's or moderate flights with less power.

PET/768 B, C ★ 4/-





HOT CANARY

By W. A. Edwards

A consistent, strong model, suitable for younger modellers. Span 34 in.

PET/525 D ★ 3/-



MAM'SELLE

By Vic Smeed

Most attractive cabin sport plane with elliptical section fuselage and neat nose cowl. A fine flyer in all conditions. Wing span 37½ in.

PET/612 B, C, D ★ ★ 3/-

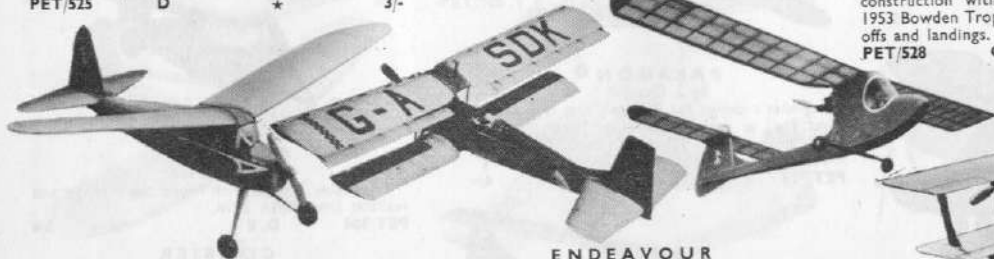


BLACK MAGIC

By F. Hemsall

Elegance of appearance and performance make this one of the most popular power models in our range. Span 60 in.

PET/268 F, G, H ★ ★ 5/6

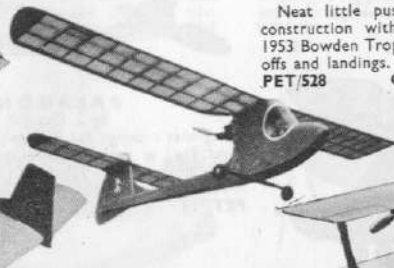


ETHEREAL LADY

By Vic Smeed

Cabin contest power model, elliptical fuselage, parallel chord wings with elliptical tips. Scale appearance. Span 48 in.

PET/291 E, F ★ ★ 3/6



ENDEAVOUR

By S. Kemp

Good looking semi-scale biplane for .55-.9 c.c. engines. Sound design, developed over a long period. Leading and trailing edge slots, give an air of realism. Span 35 in. Engines .55-.98 c.c.

PET/769 C, D ★ ★ 6/-



VENTURE

By M. Campbell

Semi-scale, open cockpit biplane for inverted motors. Span 42 in. Great for precision flying.

PET/391 E, F, G ★ ★ 5/6



SPORTY

By J. Humphreys

Highly successful biplane design that has felt competition performance. Span 30 in. Very robust, flies like a fighter.

PET/367 C, D ★ 3/6



PAAGEBOY

By Vic Smeed

To Aeromodeler 1 c.c. Payload specifications, this 42 in. model is suitable for sport flying or contests. Excellent for beginners.

PET/522 D, E ★ 4/6



CHATTERBOX

By Vic Smeed

For pure sport, or radio control this smart 30 in. span cabin model is ideal. Takes escapement or "Galloping Ghost" control with light weight radio equipment.

PET/RC715 B, C ★ 3/-



SCYTALE

By R. A. Chivral

Large near-scale model for sport or radio control conversion. Voluminous cabin permits use of bulky R/C equipment and well spaced structure makes it an easy model to build. Two plan sheets give full detail for this 78 in. beauty.

PET/636 G, H, J ★★★ 12/6

BI-PLAY

By W. P. Holland

Sport Biplane with a sleek cabin, four separate wing halves, easy construction and for a wide power range. Sheet fuselage and torsion bar undercarriage. Span 45 in.

PET/582 C, D, E ★ ★ 4/6

PROP-SECRET

By W. P. Holland

Large pseudo-jet Airliner with the airscrew operating through a slot amidships. A fine novelty subject with excellent flight characteristics. Wing span 54 in.

U/604 E, F ★ ★ 4/6



Join a Club

Modellers, no matter what their experience or interests, can do no better than join their nearest model club and enjoy the operation of their models with like-minded companions.

The Society of Model Aeronautical Engineers is the controlling body for all clubs in the British Isles, and membership of this society automatically entails insurance for all types of models, as well as many other benefits obtained by a centralised controlling body.

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BUILDING FROM PLANS

WITH OUR Plans Service continuing to expand there must always be new builders taking advantage of our wide range, many of whom may not have worked from a plan before and who may therefore be unaware of the odd hints which make the work much easier. These notes are written for such modellers, but old hands may find them useful.

General Use

Most builders like to preserve their plans, and since many parts are actually built over the drawing there is always the danger that the cement used will run and stick the plan to the framework. Even if a modeller doesn't mind his plan getting into a mess, the bits of paper have to be sanded off the model, so that it is a good idea to prevent this adhesion if possible. Covering the part of the plan in use with waxed or greaseproof paper is one method; alternatively, the drawing can be rubbed with a stump of candle or a piece of soap wherever a joint occurs. Either system means that the completed framework can be lifted off cleanly and easily. A separate board for cutting out parts is also useful;

it need only be a small sheet of ply and it will save the plan from being cut.

Tracing

There are several ways of transferring drawn-out parts to the wood from which they must be cut. These are (i) lay tracing paper over the plan and carefully trace the outline with a soft pencil, ensuring that the plan is lying on a smooth, hard surface. Turn the tracing paper over on to the wood and go over the lines from the back, which will transfer the original tracing. (ii) Slip carbon paper under the plan and align the material by feel; go over the drawing very carefully with a hard pencil.

(iii) Place the wood under the plan and pin-prick carefully round the outline, remove the plan and connect up the marks in the wood with a hard pencil. (iv) If you do not require the plan to be kept in good condition, cut out the drawn parts and paste them direct on the wood. This is not recommended for components longer than 12 inches since distortion occurs during the paste-down. When several identical pieces are required (e.g., wing ribs) paste the cutting on thin ply or aluminium to make a template. Time can be saved by numbering or identifying parts as cut.

Occasionally, due to price or convenience of production, only one wing half can be shown. This is rare, but when it is done the second wing half is normally superimposed over the first. In one or

two instances, however, this proves impossible, and in such cases the second half can be shown by (i) slipping carbon paper *face up* under the plan and then carefully going over the drawing; this produces a reverse half on the back of the plan. (ii) Pin the plan against a window, face to glass, and trace the drawing through on to the back of the plan. (iii) If you do not wish to keep the plan, damp the required parts lightly with paraffin, which renders the paper transparent, enabling the second half to be built on the back. The paraffin will dry out and the plan become once more opaque after, about three weeks.

Flying Scale Power



TIPSY NIPPER

By C. C. Badger

Free-flight; but capable of C/L or even R/C conversions, this simplified version of the Topsy prototype has perfect modelling proportions. Span 37 in., detachable wing halves.

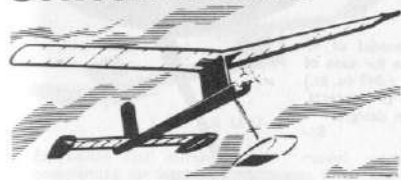
FSP/731

C, D

★ ★

5/-

Contest Power



SPLITTER

By T. Strasberger

A small power duration model by a leading Yugoslavian designer. Light weight gives fantastic performance. Details of floats or normal undercarriage on plan. Span 33½ in.

PET/635 B, C ★ 4/-

PULTERI

By O. Niemi

F.A.I. Power design from Finland. Simple to build and easy to trim. Flat bottomed wing section for fast climbing. Many contest successes in Finland and the Nordic Countries, including 2nd Nordic Countries Championships, 1960. Span 60 in., for 2.5 c.c. engines in F.A.I., or 3.5 c.c. if flown in open contests.

PET/764 G ★★ 7/6



PEE WEE CREEP

By Pete Muller

Diminutive 18½ in. span "contest" type model for the U.S. Pee Wee .020 engine. Climbs like a rocket!

PET/732 A, B ★★ 2/6



ATLANTIS

By L. Piesk

Most impressive model at the 1958 World F/F Champs., this F.A.I. rule model of 50 in. span for 1.5 c.c. engines, has a startling rate of climb and magnificent glide. The performance is there . . . the rest is up to you!

PET/747 E, F ★★ 5/-



GOSSAMER

By K. L. Stothers

An extremely neat, high-performance machine that will please both the sport and contest flyer. Span 32 in.

PET/327 C, D ★★ 3/6

CELERITAS

By T. Strassberger

29 in. span, this model is designed by a top Yugoslavian modeller. Suitable for a beginner's first contest machine.

PET/527 C ★ 3/-

Contest Power



HI-LINER

By K. Hoover

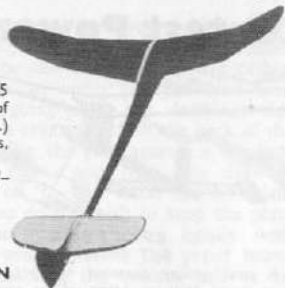
Radical departure from the conventional free flight power layout, this $\frac{1}{2}$ A or open contest design has high thrust line and low wing with Jedelsky all-sheet section construction. Three versions for .8 to 1 c.c. motors. Largest version, 51 ins. span.
PET 793 C, D. ★★ 6/6



DYNAMO

By A. Young

Contest winning $\frac{1}{2}$ A free flight model of 45 inches wingspan and simple as can be for ease of construction and flying. Suits all .8 c.c. (.049 cu. in.) motors. Placings in a whole string of contests, prove this to be a tip-top competition design.
PET 812 C, D. ★★ 5/-



OLYMPIAN

By L. Barr

58 in. span open free flight power design, employing new construction system of light weight to take full advantage of the high power to weight ratio of the latest glow motors, though it suits any 2.5-3.5 c.c. engines.
PET 789 G, H. ★★★ 7/6



EUREKA

By N. G. Marcus

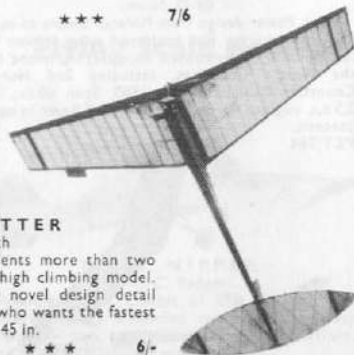
Hot contest model, winner of many important events, and rated the fastest climbing model in the 2.5 class. Built-up profile fuselage, multi-spar wings, warp resistant construction. 50½ in. wingspan, airframe weight 12 oz.
PET 711 F, G ★★★ 5/-



ACHILLES

By E. Frest

Winner of Yugoslavian national land and sea-plane contests, with a three-year record of competition successes. Fits all F.A.I. requirements. Span 46 in.
PET 543 G ★★★ 6/-



FRIED FRITTER

By T. Smith

Tom Smith's design represents more than two years' intensive study of the high climbing model. Ultra light construction and novel design detail make it a model for the man who wants the fastest possible rate of climb. Span 45 in.
PET 563 For G ★★★ 6/-

Contest Power

LIL' AUD

By J. A. Gorham

Extremely fast climbing F.A.I. model, not recommended for beginners in contest flying but potent for the more advanced. Span 40 in.

PET/446 E, F ★ ★ 4/-

STOMPER

By George Fuller

Slab-sided contest power model with prize-winning performance. Very easy and inexpensive to build. Span 48 in.

PET/499 E, F (Beam) ★ 4/-

HI-BALL

By P. Neate

A super performance contest model with high pylon wing fixing. Span 36 in.

PET/271 D, E ★ ★ 3/-

ELIMINATOR

By B. Wheeler

One-time World Championships winner. Side-mounted motor and 52% tail-plane. Wings may be made in two halves, when model will pack in 8 x 8 x 33 inches box. Span 45½ in.

PET/510 E, F ★ ★ 4/6

Y-BAR

By A. J. Brooks

Profile fuselage contest winning pylon design with large tailplane and rear mounted fin, for F.A.I. or Open events. Span 40 in.

PET/590 E, F ★ 4/6

STAR DUST

By W. B. Hart

Unique swept forward wing and other novel design features on this 40-in. span model make it an inexpensive experiment for sport or contest performance.

PET/667 D, E ★ ★ 7/-

IOTA

International class power model with twin fins and boom type fuselage. Excellent performance with small motors. Span 39 in.

PET/452 D ★ ★ 3/-

Contest Power



NIG-NOG

By Tom Smith

One of Britain's fastest climbing open power models, the 1960 record holder and winner of Shelley, Hamley and Frog Senior Trophies. 66 in. span polyhedral wing. For the experienced power flier only. 3.5-5 c.c.

PET/781

H, J.

8/6



FLAMINGO

By R. A. Collins

An elegant contest design which includes detachable wing halves, etc., for easier transportation. Span 60 in.

PET/377

H

5/6



ELF AXE

By John Lamble

High thrust line contest power model. Span 46 in. with wing area 329 sq. in.

PET/473

E, F (Beam) **

4/6



PYLONIUS

By P. Christianson

A simple contest pylon model by a leading Danish designer. Features large wing area and generous tail surfaces. Span 51 1/2 in.

PET/402

G (radial)

**

3/6



KOMET

By G. Schmid

Powered sailplane type of contest model, with safe climb and magnificent glide. Second place at 1952 World Championships. Span 74 in.

PET/508

G, H

**

6/-

EUREKA MK.2

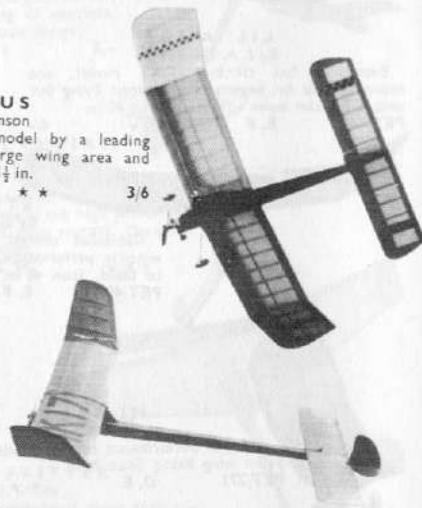
By G. Stringwell

Competition free flight power model for open class contests and modified version of Norman Marcus's original Eureka. High performance with both light glow engines and heavier diesels. Span 49 ins. for 2.5-3.5cc. engines. A very fast climber, very stable.

PET/711

G, H.

5/-



CREEP

By B. Eggleston

High performance contest winning design for F.A.I. or open events, especially suitable for vertical take-off. Wing span 50 in.

PET/609

G

**

6/-

Contest Power

SWISS MISS

By Lanfranchi and Collinson

This "model of the year" for 1954 placed 2nd in both the European and World Championships. Easy to build and fly, is 58 in. span.

PET/571

G, H or J ★ ★

6/-

CLUBMAN

By G. Gunter

A larger contest model for open events, and noted for a very rapid climb. Span 50 in.

PET/419

H

★ ★ ★

3/6

DREAM WEAVER

By D. Posner

Outstanding fast climber for F.A.I. or Open events, with tremendous contest record, achieving 116 mins. out of possible 136 mins. during 1956. Will handle up to 6 c.c. power in expert hands. Span 56 in.

PET/653

G, H

★ ★ ★

7/6

SLICK STICK

By P. Buskell

Outstanding F.A.I. contest design has a string of major contest successes gained over the past three seasons. Span 56½ in.

PET/550

G, or H ★ ★ ★

6/-

HEATWAVE

By M. Green

British Nationals winner in open power, 1957, this 55½ in. high climber can be ballasted to meet weight requirement for 1958 F.A.I. rules. Diagonal ribs, sheet covered fuselage and pylon.

PET/686

G, H

★ ★

6/-

STAR PLAN GRADING

To guide modellers in their choice of plan, we have instituted a four star grading system in this catalogue. Beginners can rely upon the single star designs as being simple to construct and easy to operate, whilst the experienced modeller can be assured of advanced design, sometimes calling for plan interpretation in a four star model.

For example:

- ★ Beginner's, or ultra simple design with specific instructions.
- ★ ★ Advanced over beginner stage, yet still simple in structure.
- ★ ★ ★ For more advanced modellers, design calls for practical experience in either construction or operation according to type.
- ★ ★ ★ ★ Very advanced, an "experts" subject, capable of high contest performance.

The only comprehensive selection of airfoil sections in the world is at your service—forty-eight of the most useful sections, covering all types of models. Sheets 1—36 each give 31 accurate profiles in steps of 1/5 in. from 3 in. up to 9 in. Sheets 37—48 each give 41 steps from 4 in. up to 12 in. chord.

All sections are printed in solid black on white and may be pasted direct on to sheet and cut out for use as permanent templates. No more tedious plotting and risk of inaccuracy in drawing your own sections—make your choice and build with ease and confidence!

4^d per sheet,
plus 2½d. post.
Or set of 48
sheets post
free

15/-

64

3/6

N.A.C.A. 4415	-	-	-	-	-	-	-	S/14
N.A.C.A. 6409	-	-	-	-	-	-	-	S/15
N.A.C.A. 6412	-	-	-	-	-	-	-	S/16
N.A.C.A. 6512	-	-	-	-	-	-	-	S/17
N.A.C.A. 6712	-	-	-	-	-	-	-	S/18
U.S.A. 5	-	-	-	-	-	-	-	S/19
U.S.A. 27	-	-	-	-	-	-	-	S/20
U.S.A. 35B	-	-	-	-	-	-	-	S/21
EFFEL 400	-	-	-	-	-	-	-	S/22
EFFEL 431	-	-	-	-	-	-	-	S/23
GRANT X-8	-	-	-	-	-	-	-	S/24
GOTTINGEN 387	-	-	-	-	-	-	-	S/25
GOTTINGEN 398	-	-	-	-	-	-	-	S/26
GOTTINGEN 413	-	-	-	-	-	-	-	S/27
GOTTINGEN 426	-	-	-	-	-	-	-	S/28
GOTTINGEN 436	-	-	-	-	-	-	-	S/29
GOTTINGEN 532	-	-	-	-	-	-	-	S/30
GOTTINGEN 602	-	-	-	-	-	-	-	S/31
SIKORSKI GS-1	-	-	-	-	-	-	-	S/32
N.22	-	-	-	-	-	-	-	S/33
N.60	-	-	-	-	-	-	-	S/34
C.72	-	-	-	-	-	-	-	S/35
MARQUARDT S-2	-	-	-	-	-	-	-	S/36
N.A.C.A. 0018	-	-	-	-	-	-	-	S/37
CURVED PLATE 417a	-	-	-	-	-	-	-	S/38
DAVIS (A-9; B-1)	-	-	-	-	-	-	-	S/39
SIGURD ISAACSON 53009	-	-	-	-	-	-	-	S/40
SIGURD ISAACSON 53507	-	-	-	-	-	-	-	S/41
DAVIS (A-.93; B-.17)	-	-	-	-	-	-	-	S/42
JOUKOWSKI	-	-	-	-	-	-	-	S/43
DAVIS (A-1; B-2)	-	-	-	-	-	-	-	S/44
LDC-2	-	-	-	-	-	-	-	S/45
60% CLARK Y	-	-	-	-	-	-	-	S/46
N.A.C.A. 4612	-	-	-	-	-	-	-	S/47
60% R.A.F. 30	-	-	-	-	-	-	-	S/48

S/1	R.A.F.15	S/17	N.A.C.A.6512	S/33	N-22
S/2	R.A.F.19	S/18	N.A.C.A.6712	S/34	N-60
S/3	R.A.F.30	S/19	U.S.A.5	S/35	C-72
S/4	R.A.F.31	S/20	U.S.A.27	S/36	MARQUARDT S-2
S/5	R.A.F.32	S/21	U.S.A.356	S/37	N.A.C.A. 0018
S/6	R.A.F.33	S/22	EIFFEL 400	S/38	CULVER PLAT 417A
S/7	CLARK Y	S/23	EIFFEL 421	S/39	DAVIS (A-9, B-1)
S/8	CLARK Y.H.	S/24	GRANT X8	S/40	S.I. 53009
S/9	N.A.C.A.97	S/25	GÖTTINGEN 387	S/41	S.I. 53507
S/10	N.A.C.A.98	S/26	GÖTTINGEN 398	S/42	DAVIS (A-93, B-17)
S/11	N.A.C.A.4309	S/27	GÖTTINGEN 413	S/43	JOUKOWSKI
S/12	N.A.C.A.4409	S/28	GÖTTINGEN 426	S/44	DAVIS (A-10, B-02)
S/13	N.A.C.A.4412	S/29	GÖTTINGEN 436	S/45	L.D.C. 2
S/14	N.A.C.A.4415	S/30	GÖTTINGEN 532	S/46	60% CLARK Y
S/15	N.A.C.A.6409	S/31	GÖTTINGEN 602	S/47	N.A.C.A. 4612
S/16	N.A.C.A.6412	S/32	SIKORSKY C5-1	S/48	60% R.A.F. 30

Open Class Gliders



AEGEUS

By R. H. Warring

A glider for the beginner, with an advanced performance. Simple construction. Span 42 in.
G/106 ★ 2/6



ARNHEM

By T. Hervey

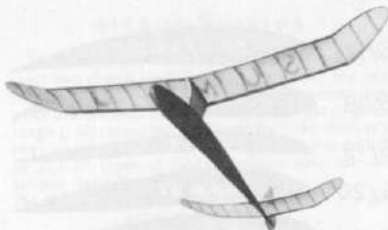
Designed for the younger modeller, with all-sheet sides and simple construction, yet with realistic appearance. Span 30 in.
G/263 ★ 1/6



IVORY GULL

By R. F. L. Gosling

Probably the most popular glider in our range, many hundreds of this model have been built and successfully flown. First-class performance. Span 50 in.
G/148 ★ ★ 2/3



MICK FARTHING GLIDER

A lightweight glider by an acknowledged expert in this class. Span 40 in.
G/228 ★ ★ 2/6



FUGITIVE MK. I

By D. C. Butler

Lightweight sailplane, one-time winner of the Pilcher Cup. Easy construction with all-sheet fuselage and semi-pylon wing. 50 in. span.
G/258 ★ ★ 3/6



CRACOW

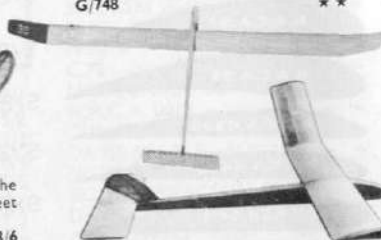
By L. G. Temple

A super contest type model from the Temple stable. Sturdy yet light construction makes this ideal for contest work. Span 72 in.
G/119 ★ ★ ★ 3/6

DAEDALUS

By O. Roser

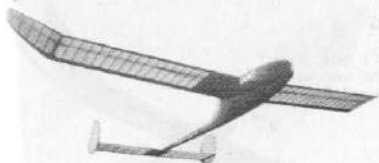
A Hungarian design featuring Jedelsky all sheet wing structure, of high aspect ratio. World Championship class performance. Span 88½ in., was flown in the 1959 Internationals.
G/748 ★ ★ 5/-



WOODFORD SPECIAL

By R. Firth

A "quickie" model of high performance. Lightweight construction gives it every advantage for the "open" type of contest. Span is 58½ in. and wing area 292 sq. in.
G/491 ★ ★ 4/6



SAINT

By M. Richards

A high performance "suitcase" type sailplane, of easy construction and ideal for contest use. Span 51 in.

G/302

★ ★

3/6



IGO

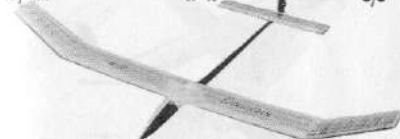
By G. W. W. Harris

An ideal machine for contest flying, the original made one flight of over 80 miles. Span 60 in.

G/222

★ ★

3/6



NUMBER 96A

St. Albans M.A.C.

Standard St. Albans club "open" glider design, a "bigger" machine evolved from the combined experience of five of Britain's leading contest fliers. Span 84 inches.

G/814

★ ★

9/-



WALTHAM GLIDER

By R. Scott

A novice's first glider, this model has simple yet strong construction. Span 29 in.

G/341

★

2/6



FIGHTER GLIDER

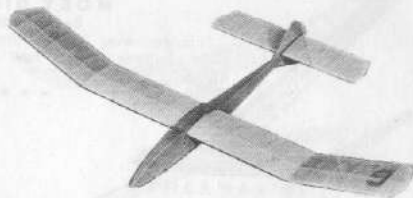
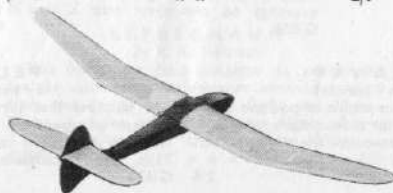
By D. M. Dent

An interesting glider based on a fighter design outline. Very realistic in flight. Span 42 in.

G/107

★ ★

2/9



LULU MK.II

By J. Barker

A high-performance sailplane of extremely simple construction, and an ideal beginner's model. Span 50 in.

G/338

★

3/6



EVANDER

By D. R. Murrin

Robustly constructed model for the enthusiast. Has fine flying qualities. Span 66 in.

G/224

★ ★

3/6

SUNCLIPPER

By A. J. Smith

Theory into practice. A simple high-performance design by the author of "Simple Aerodynamics". Span 60 in.

G/192

★ ★

3/6

MOBY DICK

By E. Smith

Shoulder wing high-performance contest sailplane, utilising laminar flow wing section. Span 82½ in.

G/310

8/6

HOVERKING

By P. Gilbert

Slope soarer by one of Britain's most expert sailplane builders. Simple structure, neat appearance, has been used with towline and R/C. Span 72 in.

G/379

**

4/-

ARCHANGEL

By L. Gabriels

ruggedly-designed sailplane, ready to stand up to hard knocks in rough weather flying. High performance. Span 72 in.

G/368

**

5/6

PERES I

By Dr. Ing. Piatelli

This leading Italian expert has here designed a high aspect ratio sailplane of outstanding performance. Span 120 in.

G/242

6/6

TWENTY-SIX SAILPLANES

For full-size sailplane enthusiasts we have drawn up twenty-six of the world's leading sailplanes to a scale of one-hundredth. Each sailplane is drawn as a complete three-view, and the whole sheet offers an interesting study in full-size design, etc. All twenty-six drawings on one sheet size 25 in. x 38 in.

G/558

4/6

SAILAWAY

By Vern Clements

A 15 in. chuck glider in profile or pod and boom form and a little glider for indoor work, only 6 in. span. An ideal plan to introduce the novice to this type of flying.

G/730

*

2/6

PELICAN

By Jim Waldron

A sailplane that turns beginners into experts. Winner of countless contests, designed for all weather conditions and quite easy to build. 73 in. span. Detachable wing halves.

G/622

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6/6

MEANDERER

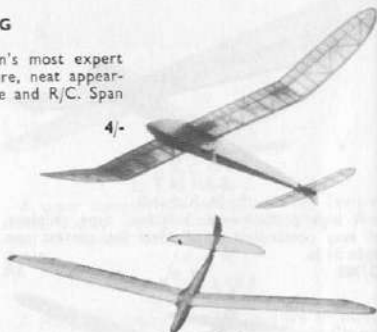
By J. Baguley

96-in. span, large lightweight, can meet F.A.I. rules, has fine contest record, very simple construction, two-piece wing. Averages 2:50 from 164-ft. line.

G/683

**

7/6





WHIZZLER

By Captain K. Laumer

For the "pocket-money" restricted youngster of seven to 12 years of age, this is a perfect hand launch (throw) glider introduction to our fascinating hobby. It takes little money and skill to produce a Whizzler capable of providing endless fun. A real toughie 24 inches.

G/791

★

2/6



SUNSPOT

By R. Yeabsley

Outsize ultra-lightweight sailplane of easy construction, and holder of many contest honours. (Weight 2½ lb.) Span 120 in.

G/283

★ ★

8/6



THERMALIST

By R. Minney

Largest size sailplane to F.A.I. limits. Cabin type slabsider, even chord wings with elliptical tips. Span 137 in.

G/306

★ ★

13/6



ARIES

By G. Upson

Designed specifically for slope soaring with radio control, this glider has many unique and practical features to commend it as an ideal model for the purpose. 72 in. span, takes all forms of radio gear, original used the Hill set with Mighty Midget servo.

G/RCC98

★ ★

6/6



LEPRECHAUN

By R. A. Twomey

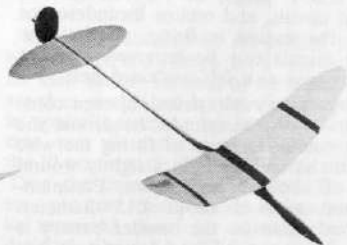
This low-aspect ratio sailplane is remarkable for the astounding performance achieved straight from the design board. First flight was 20 min. 20 sec., and the original has more flights of over ¼ hour than under to its credit. Span 103 in.

G/370

★ ★ ★

11/-

Open Class Gliders



YELLOW BIRD 13 & 20

By A. Webber

For maximum enjoyment from a minimum outlay, the humble Chuck-Glider cannot be beaten. A really high performance example in 13 in. and 20 in. versions, the plan includes full building information, trimming and launching technique.

G/805

★

3/6

Operating Glow Plug Engines

THE glowplug form of ignition for an internal combustion engine is one of the very original principles, used before either diesel or the spark ignition systems.

Our glow is provided by a wire element, usually platinum, which becomes incandescent when short circuited in a 1.5 volt (for U.S.A. plugs) or 2.2 volt (British plugs) circuit, and retains incandescence once the engine is firing, so that the short circuit can be removed and the engine runs as a self-contained unit.

Plugs vary in construction, even come integral with the cylinder head, and the most common means of fitting the wire element is to have it in a tightly wound coil of about 5 to 7 turns, Platinum-Iridium wire of about .015 diameter. Current drain on the booster battery is high, being around 2 to 5 amps, so it is better to remove the battery terminal connection as soon as the engine fires, or for any period when the engine is not actually being flick started. Dry batteries of the large bell-cell type, arranged in parallel pairs, are satisfactory.

To set the engine ready for starting, mount it securely in a test stand, arrange

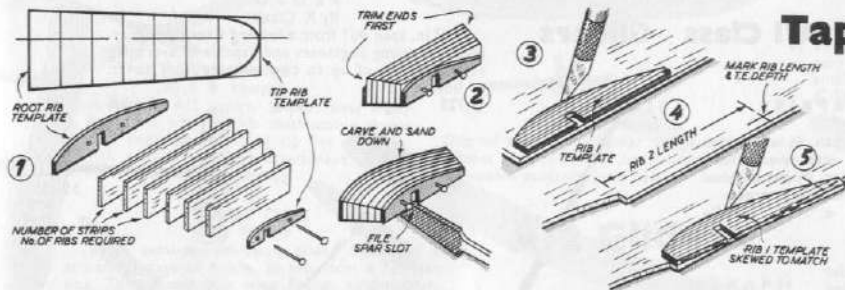
a fuel supply with the tank on a level with the crankcase, and fit a prop at the "quarter to three" position as on a clockface, securely tightening the prop-nut. Now blow through the fuel supply tube with it connected only to the needle valve body, and adjust the needle valve control until a steady hiss is heard at the jet in the centre of the intake tube.

Next remove the plug, and connect with the battery. One lead to the top of the plug, the other to the plug body, or earth if the plug is left resting by its body on the engine cylinder head. There is no need for concern over polarity, just as long as one lead cannot touch the other, and that the alligator clips are safely spaced on the plug, then the element should glow bright orange. Dull red will indicate a poor contact, low battery or current leak in the circuit. If the plug glows rapidly to white heat, disconnect immediately as it is most probable that there is too much current going through the element and there is a danger of blowing out and fusing unless a resistance is fitted. American plugs on lead acid accumulators are specially susceptible. Once satisfied that the blow is present, we should inject a little of the special fuel through the plug hole, fit the plug and flick over a few times without connecting the plug. A drop of fuel in the intake also helps this way to free up the engine ready for a quick start and the lubrication helps to seal the piston fit

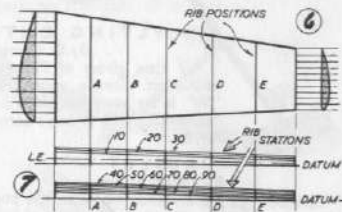
When thoroughly prepared and ready to start, connect the fuel line to the tank which should be filled, do not choke the carburettor and then hook up the plug immediately prior to flicking over. Now flick hard: the engine should fire, continue to run, sucking fuel through the tube from the tank and giving the impression of running rich. Allow to pick up for five seconds or so, disconnect the lead off the top of the glowplug (the other can be more or less permanent for test purpose on a mounting lug or other convenient earthing point), then watch the characteristics.

The engine should be rather rich for the first run, not two-stroking but nevertheless operating smoothly with copious fumes from the exhaust and lots of noise. To get the engine to two-stroke, simply lean out the mixture by screwing the needle valve into its body, quarter turn at a time and waiting a moment between adjustments to check the effect in revolutions per minute. To stop the engine, simply screw the needle valve fully home and the effect will be that the engine speeds up to a peak speed, dies off and stops fairly abruptly through the fuel starvation. This will give the experience needed to identify too lean a fuel setting.

Run the engine rich for the first 30 minutes of its life, and after the first minute or so, stop it and tighten the head bolts while still warm.



Tapered Wing Ribs



The simplest way of cutting a set of tapered wing ribs is by the "sandwich" technique (1). Templates of the root and tip ribs are cut from $\frac{1}{8}$ in. ply or similar hard material, the number of ribs required then being cut oversize as rectangles of balsa. The balsa strips are then stacked, preferably rubbed over a sheet of sandpaper to make sure that all the bottom edges are level, and the "sandwich" completed by fitting the two ply templates at each end, holding together with pins.

The ends of the "sandwich" are then trimmed to shape (2), when the balsa strips are simply carved and sanded down to shape the individual ribs. Ribs slots should be cut or filed before separating the stack. For a set of ribs for the opposite wing, the "sandwich" is assembled the other way round.

A better method where the taper is

sharp and only a few ribs are required, is to use only one template corresponding to the largest rib and cut the taper ribs individually. The first rib (rib 1) is cut directly from the template (3). On the balsa sheet then mark the exact length of rib 2 and the trailing edge depth required (4). The rib 1 template is then lined up over these markings—it will be "skew" to the edge of the sheet—and rib 2 cut. Rib 3 is cut in a similar manner by first marking out and "skewing" the template still more, and so on to complete the set of ribs required (5).

The geometric method of marking out individual ribs for a taper wing is tedious, but is the most accurate and the only method really suited to plotting ribs for compound or curved tapered planforms. In this case the individual ribs are all drawn out and cut to these outlines.

Only the root and tip rib profiles need be calculated and plotted (6). The ordinates for each station for each of the other ribs are then established by drawing the wing in spanwise section, joining the 10 per cent. root rib station ordinate (height) to the 10 per cent. tip rib ordinate, and so on. Thus the corresponding 10, 20, 30, 40, etc., per cent. chord station ordinates can be measured direct for plotting the individual ribs, and will be accurate for both equal and unequal rib spacing. To avoid confusion, ordinate lines forward of the deepest part of the section are best plotted on one drawing, and ordinates aft of this on a second drawing (7). Instead of straight lines, of course, these ordinate lines can be curved, such as required to give true elliptic taper on an elliptic planform wing.

A/I Class Gliders

FLYING ENTERPRISE

By C. Campbell

A/I class glider of 52½ in. span by a Scottish enthusiast. Simple structure, with even chord "W" brace wing rib pattern wing. Makes an ideal "second" glider in one's aero-modelling career.

G/786

★

4/-

AIGLET

By Martin Bridge

Refined high performance model to the popular class of small glider. Plan includes photo of finished model and complete instructions. Span 45½ in. U.S. Nationals winner and holder of several duration records.

G/643

★

3/6

LA MOUETTE

By R. Cizek

Czech expert, Rad Cizek is renowned for his clever, high performance, contest models and this one is no exception. The A/I class, which it meets admirably (Span 47 in.) is likely to become widely adopted. Already include in U.S.A. and European contests programmes, it will be a perfect event for La Mouette.

G/774

★ ★

3/-

SIESTA

By P. Gasson

To A/I specification, this novel 48 in. span glider has all-sheet construction and can be built ready to fly in an afternoon! Elegant lines and good performance.

G/696

★

PLUTO

By R. Cizek

A 47 in. span A/I from a leading Czech designer. Ideal for young beginners and capable of averaging regular flights of up to two minutes from 164 ft. of line.

G/723

★ ★

3/6

MINI-EGAL

By R. Hyvarinen

A 55 inch span A/I glider from Finland featuring Jedelsky aerofoil all-sheet balsa wing for rugged "all weather" performance (capable of a 2 minute average) and the advantage of no tissue covering.

G/822

★

5/-

GOLDEN WINGS

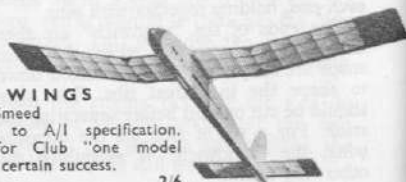
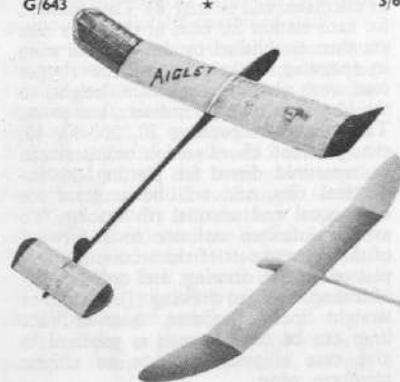
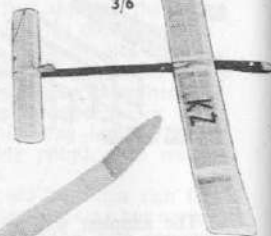
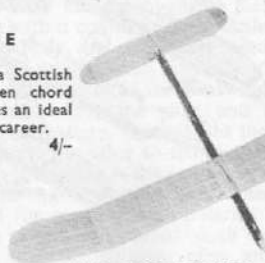
By Vic Smeed

Simple 44½ in. design to A/I specification. Already very popular for Club "one model contests" this design is a certain success.

G/594

★

2/6





TOPSCORE

By J. B. Hannay

British leading A/2 design, proven over many years. A contest winner with construction simple enough for beginners. Unusual tip fins on 73-in. wing with tongue and box attachment. Placed 8th in 1957 World Championships.

G/684

★ ★

5/-

TADPOLE

By P. Law

78½ in. semi-pod-and-boom glider capable of a still-air average of 4 min. 20 sec. from a 328-foot line. Tongue and box wing fitting, auto-rudder, etc.

G/519

★ ★

5/-



FINNAIR

By I. Hahtela

Contest winning 51½ in. span A/1 design from Finland, capable of high performance, yet easy to build. Mixed hardwood and balsa construction.

G/672

★ ★

4/6



QUICKIE

By R. Monks

One of the most popular and successful A/2 sailplanes ever; simple construction, has won innumerable contests. Span 66½ in.

G/517

★

6/-

A/2 Gliders



SERAPH

By D. E. Butler

This pod and boom, long moment arm A/2 design is the culmination of a series of gliders on similar lines, and capable of near-maximums in still air from a 164-foot line. 64 in. span.

G/533

★ ★



ALTAIR

By G. T. Lefever

High aspect ratio A/2 design which placed top in the 1955 British Trials. A fine all-weather flyer, this model has been developed through four flying seasons. Wing span 79 in.

G/602

★ ★

6/-



G.B.I.X

By G. Brewin

Leading British A/2 design in 1957 U.K. Team Trials has sheet diamond fuselage, drooped T.E. section and tip fins for shallow dihedral on 66-in. two-piece wing.

G/676

★

5/-



SHORTY

By J. Hancock

Ultra short nose A/2 for thermal sniffling. Successes include several wins at big rallies; easy construction allows for breaking down to small parts for transport. 65 in. span.

G/583

★ ★

4/6

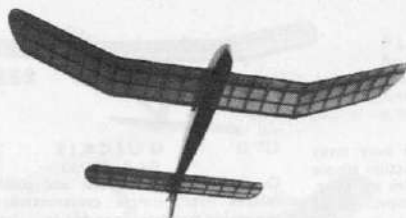
LUCIFER

By Bob Amor

Second place in 1956 World Championship gained by this outstanding 75-in. span British design with latest style thin wing section and slender fuselage. An efficient all-weather design. G/645

★

6/-



CORSAIR

By R. Holt

Very simple beginners A/2 model with top class performance. Winner of Thurston Trophy and many high placing in other national competitions. Span 48 in.

G/516

★

4/6

NEBULA

By R. Yeabsley

International specification glider design by Roy Yeabsley. Simple construction with a first-class performance. Span 72 in.

G/552

★ ★

6/-



B.G.44

By Bora Gunic

A World's Championship Holder, this is the "cream" among A/2 class gliders. Ultra short nose and special wing section; not easy to build; but certainly one of the best. Span 66 in.

G/498

★ ★

6/-

WALTHAM A/2

By Roland Scott

A design for beginners, to Nordic specifications. Very simple construction and a fine flier. 50 in. span.

G/426

★

3/6

A/2 Gliders

PATCHES

By G. Kinney

Leading U.S.A. A/2 glider of 72 inches span, with emphasis on rigidity, strength and flight stability. Complicated though warp free structure, is not one for beginners. Original made seven consecutive maximums under contest conditions.

G/817

★ ★ ★

7/-



SATAN

By W. Pullen

Longer tail moment version of the famous Altair with other features from Lucifer, by another South Essex clubman. Simple to build and with two-piece wings measuring 76 in. span, it boasts high performance for little constructional effort.

G/717

★



5/-



OMEGA

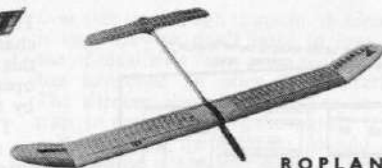
By D. Aldridge

The 1955 Queen's Cup Winner, a very simple A/2 with excellent contest record. Constant chord wings make it suitable for beginners. Wing span 64 in.

G/614

★

4/-



ROPLANO

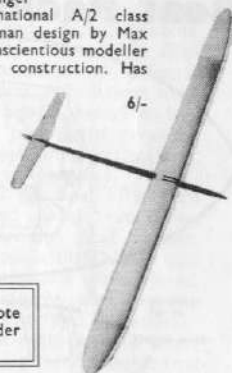
By C. P. Varetto

Winner of the 1960 "Europa Cup" International in the Saar, this leading Italian A/2 mixes the well proven features of several well-known designs with the elegance of the designer's own original ideas. 72 in. span.

G/782

★★★

7/6



M.P.12

By Max Hacklinger

The elite amongst International A/2 class gliders, this 86 in. span German design by Max Hacklinger will reward the conscientious modeller who likes intricate detail in construction. Has many novel features.

G/573

★★★

6/-



SANS EGAL

By R. Hyvarinen

Nordic countries Championship winner, a super job in all respects with admirable all-weather performance. 80 in. wingspan with detachable halves, hardwood wisely used for spars and longerons.

G/725

★★★

7/6



AQUILA

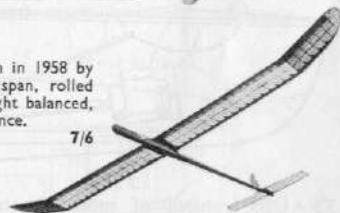
By H. Thomann

Europe's most advanced A/2 design in 1958 by Swiss expert aerodynamicist; 80-in. span, rolled sheet fuselage boom, asymmetric weight balanced, turbulated wing. Very high performance.

G/681

★★★

7/6



MIGRATOR

By E. Avory

A 74 inch span A/2 glider from Canada featuring simple outlines and easy to build airframe. Sheeted upper surface to wing leading edge and dowel-and-tube wing fixing.

G/826

★★

6/-



NORDIC TERN

By R. F. L. Gosling

An A/2 design by an expert at model sailplanes. Features automatic ailerons and a wealth of practical ideas developed during the designer's long experience. Span 66 in.

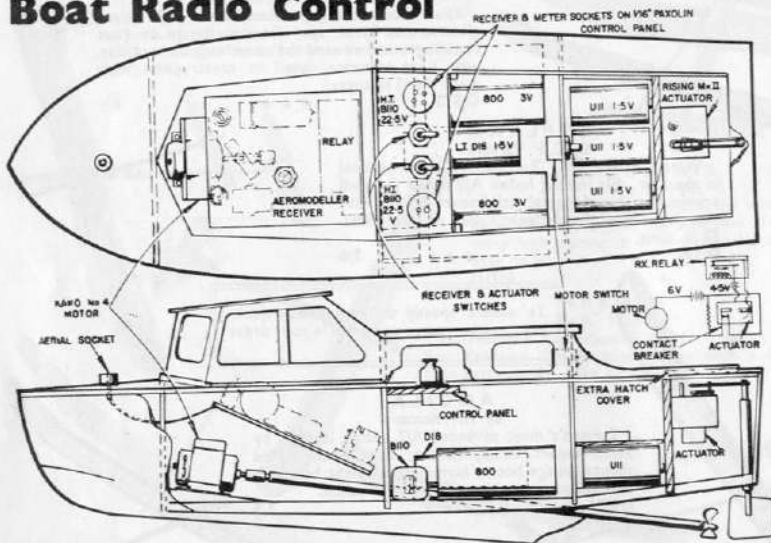
G/374

★★

5/6

To ensure speedy delivery please quote plan number, name and price in your order

Boat Radio Control



RADIO control of model boats is probably the most rapidly expanding branch of both radio and model power boats, since there are so many advantages and so few snags. Weather is far less of a consideration than it is for aircraft, space required is far less, and many stretches of water are to be found in or near

towns which are excellent for boating and do not involve long trips. In addition, equipment weight is not so critical (except where high speeds are the aim) and a failure or loss of control does not so often result in a lost or broken model.

Radio, in itself, is divided into single channel and multi-channel equipment.

The simplest and least expensive is single channel, and in its most basic application this gear is used just as a switch to operate a sequence of rudder movements by means of an escapement or actuator.

The sketch shows a typical installation in an electric powered 20 in. launch, using two No. 800 batteries for the main motor and 3 U11 cells for the clockwork actuator, which is a clockwork escapement with the addition of a contact breaker to give stop (or half speed) in one of the neutral positions. This contact breaker could be a contact *maker* used to switch another escapement in. Several operations can, in fact, be introduced by such additions, but the limiting factor is usually the memory of the operator or the number of turns possible on the clockwork motor.

Electric escapements (or actuators) are available, which do the same job. Care must be taken in selecting equipment, however, since some electric actuators will not work from—or will damage—all-transistor relayless receivers. Transistor receivers, too, may be sensitive to interference from motor sparking, and may not work if mounted close to the main motor as is the receiver drawn. Your dealer should be able to advise on suitable equipment.

Rudder movement is divided into four classes—sequential, (sometimes called “escapement-only” or, more simply, “bang-bang rudder”), optional or selec-

tive (full rudder, left or right at will), progressive (the rudder moves gradually and may be stopped at any intermediate position; this is usually movable in either direction, i.e. optional progressive), and proportional, in which the rudder "follows" the control exactly and can be moved to any position from any position.

The average boat, especially as used in competition, is fitted with four-channel radio. In normal multi-channel equipment the single-channel carrier wave is sent continually and when a control is selected, a "tone" is superimposed on the carrier. Up to ten different tones can be sent with most model radio outfits but with a four-channel set provision for selecting only four is made. The receiver responds to the appropriate tone sent, and the four tones normally provide progressive left and right rudder and progressive open and close throttle.

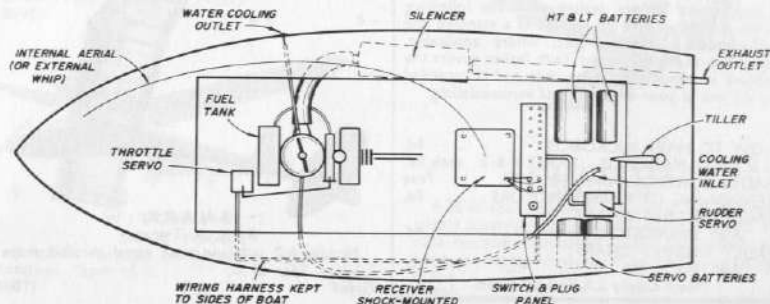
The second sketch shows a typical installation for a four-channel receiver in a model fitted with an i.c. engine with throttle, and most of the important points are illustrated. On the engine side, note fuel tank—ahead of but close to the motor, fuel level when full approximately level with intake spray-bar. This position is the best under normal circumstances. Note water tubes, from intake behind prop, through cylinder jacket, and out

over side or through transom. A silencer is essential—we don't want to lose the use of ideal sites from noise nuisance, as has happened so often with aircraft. The silencer also should act as an oil trap, to prevent fouling the water.

Radio-wise, the receiver should be mounted on a block of foam rubber or suspended by springs or rubber bands, so that high frequency vibration is damped out. Everything should be slightly off the floor of the boat to prevent damage from water in the bilges. Invisible soldered joints, such as under the switch panel etc., should be boxed in to prevent splashing and subsequent corrosion. Wires should be anchored near joints, so that an inadvertent pull is not taken by the joint. All wires should be braided or slipped through tubing and tucked neatly out of the way along the sides of the boat. A

whip aerial is slightly more efficient, but less convenient; keep the aerial away from HT wires and electric motors. Insulation is desirable between the tiller and the rudder actuator or servo, a plastic link being best. Adjustment must be provided in the tiller linkwork so that the rudder can be neutralised precisely. A clutch on rudder and, particularly, throttle servo is an advantage.

Clean and check the boat after each day's running, and check everything immediately before the next outing, particularly batteries—a little damp can ruin a battery or corrode a vital contact. By following these simple rules, plus the rules of good soldering and the instructions supplied by the radio manufacturer, you can expect long and trouble-free service and many hours of enjoyable running.





JADER 60

By D. Butler

An all purpose contest glider with details of special tailplane for A/2 version. Winner of many contests, this sailplane is easy to build and simple to fly.

G/475

★ ★

6/-

AEROMODELLER INFORMATION SERVICE

Informative leaflets dealing with the following subjects are available on receipt of a stamped and self-addressed envelope plus, where applicable, stamps to the value shown. Each leaflet covers the subject as completely as possible and is intended to aid you in your enjoyment of aeromodeling.

HOW TO MAKE MICROFILM	...	...	6d.
U.S. NAVY MARKINGS. PARTS 1 & 2	each	6d.	
RADIO CONTROL SUPPLIERS LIST	...	Free	
TENSIONING OF RUBBER MOTORS	...	6d.	
FAULT FINDING CHART:			
A/M TRANSISTOR Rx	...	...	6d.
FAULT FINDING CHART:			
A/M No. 1 Rx	...	...	6d.
Please supply S.A.E. in all cases.			



PJERRI

By B. Hansen

Tough structure on this all-weather A/2 design by Danish Champ. Model has a long pedigree of contest success. Simple to build, very strong. Span 69 in. Uses Hansen's own special airfoils.

G/767

★ ★

7/-



SNARK

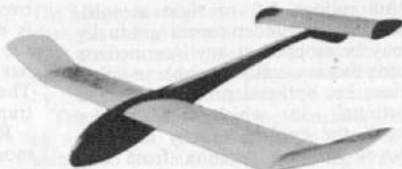
By R. A. Twomey

Nordic A/2 sailplane with novel aerofoil shape fuselage. Span 63 in.

G/469

★ ★

6/-



TONTO

By G. Mellar

Concours winning slab-sider. Sheet sided fuselage and simple wing construction make this an A/2 for the tyro. Uses the M.V.A. 301 section and is 69½ in. span.

G/500

★

6/-



K.R.-56

By K. Rechner

Nordic type sailplane of Danish design. Streamlined fuselage and fully modern lines. Span 65 in.

G/359

★ ★

3/6

Rubber Powered Designs



URCHIN
By E. Black

A successful culmination of a long line of open class rubber models. Capable of a maximum time without thermal aid, and can manage $4\frac{1}{2}$ mins. Span 40 in. Has many contest wins to its credit in the hands of its Scottish designer.

D/751

★ ★

5/-



THE NEW A/M CABIN DURATION
By Bill Dean

Revival of one of our most popular little rubber-driven models in a new and up-to-date form. A truly perfect little flyer, and very pretty to watch in flight. Plans contain fully illustrated building instructions. 20 in. wingspan.

D/494

★

2/6



CABIN BIPLANE

By R. Downes

A neat, handy little model with fine flight capabilities. Span 29 in.

D/115

★ ★

1/9



PANDORA

By L. Roberts

In the British team at the 1959 World Champs., this Wakefield is an outstanding design. Features hinged fuselage, the rear section tips up to form a D/T and whole model breaks down into six pieces for easy transport in a box 7 in. x 8 in. x 27 in.—complete with reserve model! Span 50 in. Winner of many rally and gala day events.

D/755

★ ★

5/-



WITCH MK. I

By G. Woolls

A robust duration model with a high average duration. Span 45 in.

D/371

★ ★

3/6



J.B.3

By J. Bessemer

An extremely stable model, well suited for the novice. Large tip dihedral prevents many initial troubles in trimming. Span 36 in.

D/149

★

1/9



SURE FLYER

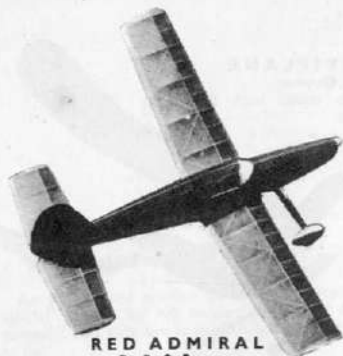
By K. Laumer

A 30 in. span rubber driven model with especially simple construction to set the beginner on the way to a successful modelling career. Sure Flyers will teach the basic techniques and provide a great deal of fun.

D/800

★

4/-



RED ADMIRAL

By R. S. Brewer

Neat 32 in. low-wing design for sport flying with sheet type fuselage sides and easy assembly. A fine flyer for club one-model events.

D/718

★ ★

3/6



FLUTTERBUS

By K. Laumer

Intended as a minimum-cost introduction to rubber power flying to teach the youngest modelers the intricacies of power adjustment, this 18 in. span flit-about is a perfect follow-on from Capt. Laumer's Whizzler throw glider.

D/797

★

2/6



FIREFLY

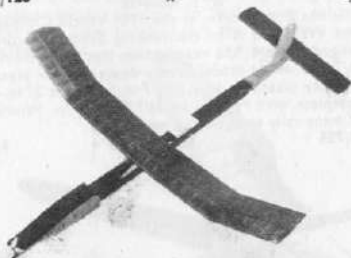
By F. J. Rogerson

A Canadian designed stick type model with a terrific performance. Span 34 in.

D/128

★

2/6



TRIP STICK

L. Barr

39 inch span high performance Open Rubber class model for local field flying or major contests. Simple construction make this design quite suitable for the novice, and high performance will reward the effort put into building.

D/818

★★

6/-



JEOP

By C. A. Shaw

A good general purpose model with consistent performance. Span 28 in.

D/152

★

1/9



GARTER KNIGHT

By D. Morley

Introduction to the Popular "Coupe D'Hiver" continental rubber driven class and provides a fine starting point as a "first" rubber-powered model. A sound introduction to the contest type model and contest practices. Span 39 ins. with only 10 grams of rubber motor.

D/809

★

3/6



ESTRELLITA

By G. Woolls

30 in. low wing that makes a fine sport model for small field flying. Two-piece wing, special laminated prop, full dethermaliser details.

D/616

★ ★



SKYRANGER

By B. Cracknell

Pert little 30 in. rubber model capable of extremely good performance. Simple and inexpensive to build and fly, pleasing appearance, semi-scale.

D/541

★ ★

JUNIOR MISS

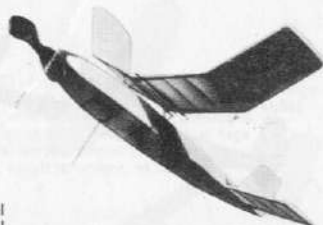
By Vic Smeed

Lightweight rubber model. Suitable for beginners, quick and easy to build. Span 20 in.

D/449

★

Always quote plan number, name and price in your order and use an order form if possible.



WALTHER RUBBER MODEL

By R. Scott

A perfect beginner's model, diamond fuselage, parasol wing, simple construction. Span 29½ in. Performance guaranteed.

D/390

★



TALISMAN MK. II

By L. W. V. Turner

A diamond F.A.I. design with pylon mounted wing and streamlined nose. Span 37 in.

D/382

★ ★

3/-



3/-



ARISTOCRAT

By E. Stoffel

High wing, semi-streamlined cabin Wakefield size model with exceptional good looks and performance. Span 43½ in.

D/311

★ ★ ★

3/6



LITTLE AUK

By J. Trinder

30 in. amphibious design can be fitted with floats or normal u/c for excellent contest performance in club events. Free wheeling prop. Sturdy yet simple construction.

WR/685

★

5/-

Rubber Powered Designs



RAFF V

By N. G. Marcus

A slabsided, lightweight contest model with single bladed folding prop and single wire undercart. Span 32 in.

D/253

★ ★

3/-



YARDSTICK

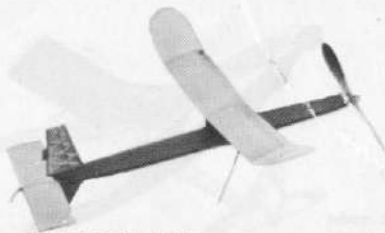
By B. T. Faulkner

36 in. lightweight rubber model conforming to 1/3 rubber weight rules. Easy to handle and capable of regular 2½ minute flight.

D/529

★ ★

4/6



BORDERLINE

By J. O'Donnell

Open contest design suitable for Wakefield events with ballast. An outstanding performer in either category. Span 42 in.

D/512

★ ★ ★

4/6



UPSTART

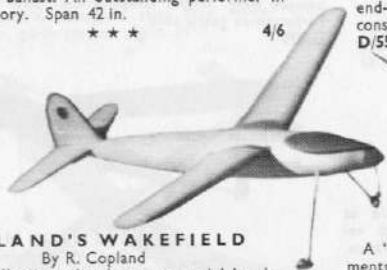
By George Woolfs

This 36 in. span light-weight rubber-driven model features diamond fuselage, wing and tail end-plates, and single-bladed folding prop. Simple construction and fast climb.

D/556

★ ★

4/6



COPLAND'S WAKEFIELD

By R. Copland

A beautifully streamlined contest model by the accepted British expert in this field of aeromodelling. Span 44 in.

D/121

★ ★ ★

4/6



BAZOOKA

By N. G. Marcus

A "hot" contest model built to F.A.I. requirements, and winner of many contests. High flight times on every flight. Span 29½ in.

D/348

★ ★

3/6

HEREWARD

By Norman Marcus

A very successful design already victor of many contests, including a third place at the Irish Nationals and 10th in British Nationals. Span 42 in.

D/416

★ ★

3/6





O.H.I.G.O.

By G. Reich and Joe Elgin

Two U.S.A. experts of the renowned Cleveland Model Club designed this Wakefield as a high performance model for the novice. Extra plan detail for difficult parts, tough structure, 44 inch span.

D/726

★

5/-

WARRING'S LIGHTWEIGHT

By R. H. Warring

A simple, shoulder wing style contest model in typical Warring fashion. Span 38½ in.

D/294

★★

3/6



ZOMBIE

By R. H. Warring

Highly efficient shoulder wing design by foremost British expert. A really high-performance contest model. Span 44 in.

D/316

★★

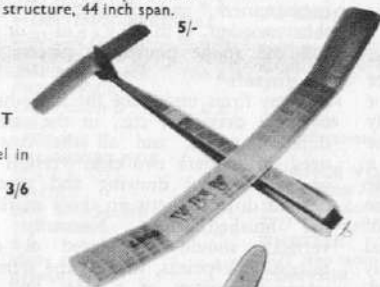
5/6

51 in. Wakefield of attractive lines and with a great reputation for high performance. Suited to current 50 gramme rules, has been in the Czechoslovakian team many times.

D/690

★★

5/-



XL 56b

By Radoslav Cizek

GREENGAGE

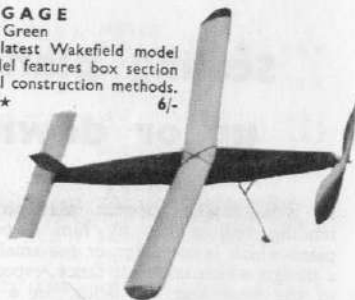
By M. G. Green

A design to meet the latest Wakefield model rules. Of 44 in. span, model features box section fuselage and many practical construction methods.

D/561

★★

6/-



STAR PLAN GRADING

To guide modellers in their choice of plan, we have instituted a four star grading system in this catalogue. Beginners can rely upon the single star designs as being simple to construct and easy to operate, whilst the experienced modeller can be assured of advanced design, sometimes calling for plan interpretation in a four star model.

For example:

- ★ Beginner's, or ultra simple design with specific instructions.
- ★★ Advanced over beginner stage, yet still simple in structure.
- ★★★ For more advanced modellers, design calls for practical experience in either construction or operation according to type.
- ★★★★ Very advanced, an "experts" subject, capable of high contest performance.

Scaling plans up or down

IT SOMETIMES happens that an intending builder has by him a power plant which is too large or too small for a design which takes his fancy, especially in the boat and car fields. In a case such as this, there is no objection to a plan being increased or decreased in size to suit individual requirements. There are two ways of producing a drawing of a different size, to re-draw the essential parts to the desired size, or alternatively to have them photostatically reproduced.

Re-drawing

A straight-edge, a set-square, a pair of compasses, a rule, a protractor, and a spline for curves, plus some ability for mental arithmetic, are the basic requirements for scaling a plan up or down. When an awkward conversion factor is involved (e.g., 2.65 x full-size) an elementary knowledge of the slide-rule or a pair of proportional dividers are a great help. Frequently only a few parts require drawing (frames and keel for example in a model boat) and other components can be worked direct from the

original plan. The basic step is to draw in a datum line on the plan, and work from a similar line on the fresh drawing. Simple geometry, including accurate measurement of distances and angles, does the rest. If curves are to be reproduced, plot several points in by measurement, and connect up with a thin wooden ($\frac{1}{8}$ in. by $\frac{1}{4}$ in.) or stiff celluloid spline pinned in place.

Photostats

Many firms undertake the reproduction of large drawings, etc., in the same or different scales, and all the customer need do is mark two clear vertical lines on his original drawing and give the desired distance between those marks for the finished print. Normally these verticals should be placed at easily recognisable points, such as the stem and stern extremities of a boat hull, etc. For a very large reproduction, the finished print may be in two or more sheets which require fitting together before use. The obvious advantage of this system is that every detail is enlarged (or reduced) to the same scale with no possibility of error.

Fully detailed drawings of the **S.E.5a** (Hispano Suiza engine), on three large sheets, to 1/10th scale.

Price 9/- per set.

Fokker D.VII to 1/10th scale, showing full constructional detail of the full-size aircraft.

Price 9/- per set.

Perfect for the ardent scale modeller.

Scale Drawings

Renowned for their accuracy, the famous A.P.S. range of highly detailed 3-view scale plans are produced especially for the builder of "solid" models, and find an increasing interest among the ranks of full-size aviation enthusiasts.

The following schedule of designs gives (a) the reference number under which the required drawing should be ordered, also (b) the code letters denoting the scale sizes in which the design is produced.

Please note that we cannot supply designs other than those listed, and each design is available only in the scale categories indicated by the code letter. It is totally uneconomic to both the customer and ourselves to produce single items to a special scale.

This list is added to monthly as new designs are produced in the **AEROMODELLER**. Make sure you obtain your copy regularly each month in order to be aware of the full range of these accurate drawings.

PRICE 2s. 6d. per design pack

(Each pack comprises drawings to two scales, and in the majority of cases, statistical information and photographs invaluable to the builder and/or collector.)

Code V	...	...	...	...	1/240th Scale
Code N	...	...	...	...	1/144th Scale
Code O	...	...	...	...	1/96th Scale
Code J, L, M, S	...	...	...	...	1/72nd Scale
Code A, B, C, D, E, T	...	...	...	...	1/48th Scale
Code K, F	...	...	...	...	1/36th Scale
Code U	...	...	...	...	1/32nd Scale
Code G, H	...	...	...	...	1/24th Scale

"J", "L" and "N" Plans are fine-line block printed; others are dye-line printed.

It is essential that the correct reference numbers are quoted on all orders.

*2679 Spad XIII	H only	DANISH
†2693 Mystere Series	S & T	2637 KZIII Lark
2695 Nord Griffon	A & J	POLISH
2720 SE.5003 Baroudeur	A & J	2733 PZL Pilc
2728 Nieuport 17c	B & L	RUSSIAN
2750 Dassault Mirage III	B & L	MIG

SWEDISH

2660 Saab 32A Lansen	A & J
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BELGIAN

2711 Hanriot HD.1	A & J	2678 Fokker DRI Triplane
2721 Topsy Nipper	K & J	2746 Albatros DII

DANISH

2637 KZIII Lark

POLISH

2733 PZL Pilc

RUSSIAN

MIG

2644 Mig 15

GERMAN

2691 Fokker D.VII

2667 Fokker D.VIII

2678 Fokker DRI Triplane

2746 Albatros DII

2676 Albatros D.III & D.Va	H only
2705 Albatros C.3	A & J
2563 Klemm L25/IA	A & J
2666 Messerschmitt Me. 109E	A & J
2580 Zaunkönig	F & J
2687 Junkers Ju. 87D & G L & B	A & J
2712 Bucker Jungmeister	A & F
2697 Pfalz Dr. I	A & J
2719 Roland D VIB	A & J
2737 Hannover	A & J
2749 Dornier Do 28	A & J
2756 Etrich Taube	A & J

Line Length—60 ft. plus or minus 6 in.

Line Diameter—.014 in. minimum.

Pull Test—30 lbs. min.

1. Models shall have a fixed two-wheel, conventional undercarriage.
2. There shall be no restrictions placed on wing area, fuselage cross section or fuel tank capacity.
3. Models shall be arranged for counter clockwise flying.
4. Models shall pass a general safety inspection prior to each race or heat.
5. Team will consist of one pilot, two pit crew.

RACES

1. 70 Lap Heat—one refuelling stop is mandatory. Motor must be completely stopped for refuelling. Best times go forward.
2. 140 Lap Final—two refuelling stops mandatory.
3. Failure to make necessary pit stops will result in disqualification.

PROCEDURE

1. Teams will be called to the racing area 5 minutes prior to the start of the race.
2. Recommended number of aircraft constituting a race shall be four (4).
3. There shall be a minimum of 15 ft. separation between aircraft in starting position.
4. Two minutes warm-up time shall be allowed each team.
5. Mechanical starters will not be permitted.

CANADIAN

2633 Avro Canada CF.100B

2652 D.H. Otter

B & L

B & L

ITALIAN

2674 Fiat CR.42

2715 Fiat G.91

A only

A & J

* Drawings marked thus are those featured in the Aeromodeller "Famous Biplanes" series.

GLIDERS

2682 R.A.F. Training Gliders,

Cadet 1, 2, 3, Eton,

Prefect, Sedburgh N only

G.558 26 High - performance

Sailplanes 1/100th scale

4/6

† Drawings marked thus are those featured in the Aero-

modeller "Aircraft in

Service" series.

F.A.S.T.E. Rat Race Rules

OBJECTIVE. It is the purpose of the following rules and regulations to give modellers a simplified form of team racing; therefore, rules are kept to a minimum.

GENERAL. All S.M.A.E. regulations covering the flyer, the model, and the flight, shall be applicable, except as specified below.

AGE CLASSIFICATION

JUNIOR—Contestants of 18 years of age and under.

All members of the R/R Team (pilot and two pit crew members), will be 18 years of age and under.

OPEN—Contestants of 19 years of age and over.

MODEL CLASSIFICATIONS

CLASS I

Engine displacement .000—.201 cu. in. (or to 3.293 c.c.).

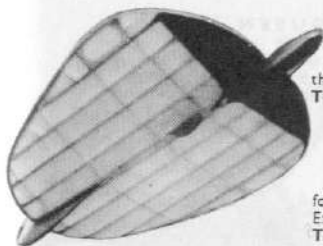
Line Length. From centre line of handle to centre line of model—52 ft. 2 ins.

Line Diameter. .012 in. minimum.

Pull Test. 15 lbs. min.

CLASS II

Engine Displacement—.000—.40 cu. in. (00—6.55 c.c.).



FLOATING KIDNEY

By F. G. Birden

An out-of-the-rut all-wing design resembling the mythical "flying saucer". Span 15½ in.

TG/251

★★

3/- TG/298

BUZZARD II

By C. S. West

An unusual design in which the wings have forward sweep, and a high fin. Span 48 in.

★★

2/6

CROWFLY

By S. R. Crow

A recognised English expert is responsible for this unique and extremely stable model. Excellent duration ensured. Span 32 in.

TG/241

★★★

3/-

SPARROW

By R. W. Roeser

Advanced 87 in. swept-forward tailless design of most attractive modernistic lines.

TG/458

★★★

6/-

Tailless Gliders



PENUMBRA

By J. S. Osborne

A very successful tailless design to International (F.A.I.) specification. Designed by a Dutch winner of many national and international competitions. A thoroughbred. Span 80 in., very stable on the towline.

U/739

★★★

7/6



DACTYL

By C. M. Holden

True flying wing glider without centre pod fuselage, and elevator controlled. Span 60 in.

TG/326

★★

3/6



A.V.10

By Guy Borge

This machine, designed by a French expert, is of especially easy construction, and ideal for the beginner. Span 40 in.

TG/240

★★

3/-



XERNES

By L. C. Harris

An all-wing sailplane of futuristic lines with excellent flying characteristics. Span 84 in.

TG/394

★★

3/6



STRUJKPLANK

By T. van Tennenboeck

This Dutch designed "flying ironing board" is of simple construction, and has fine flying characteristics. Span 60 in.

TG/345

★★

3/6

CUTLASS

By G. Bravey

Easy to build and fly, this flying wing power model offers a refreshing change from the conventional. Span 29 in.

U/559 Beam only: F.R/S.P.: B, or C. ★ 3/6

CLYWD QUEEN

By H. F. Wilde

A universal 63 in. span tailless model that can be either power or glider. British record holder in two classes, simple construction, all ribs drawn for section change.

U/630

★ ★

4/9

JAVAHAWK

By P. E. Norman

Unique ducted fan design by Britain's recognised expert in this field. Ply formed fuselage gives very strong yet light structure. Full details for building model and fan are given on plan. This model climbs fast! For 1.5 c.c. engines. Span 27½ in.

U/740

E, F

★ ★ ★

7/6

PETE'S PLANK

By P. B. Wyatt

Flying wing power model. 650 sq. in. area. Span 54 in. Remarkably stable.

U/429

D, E.

★ ★

3/6

DELTA I

By J. N. Lancaster

A real delta model with all the full-size delta characteristics. Perfectly stable at all speeds and remarkably hard to stall. 35 in. span.

U/490

C, D.

★

4/6

COCCINELLE

By H. E. Males

Interesting machine for those keen on unusual multi-engined F/F models. Has two rear mounted engines after the style of modern jet airliners. Simple construction. Span 48½ in. for two engines .5-.8 c.c., will fly equally well on one engine after the other has failed, remarkably stable in windiest conditions.

U/752

B, C

★ ★

6/6

VULTAN

By L. E. Ellis

One of the most successful F/F delta designs, and tremendously popular. The eighth of a development series, super-stable and very robust. 43½ in. span.

V/538

D, E.

★ ★

6/-

MANX ARROW

By G. S. West

High aspect ratio flying wing power assisted glider. Span 66 in. Fascinating to watch in the air with slow elegant flight.

U/407

A B

★ ★

2/6

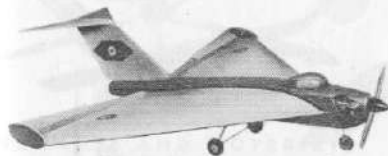


ACE OF DIAMONDS

By G. Woolls

Remarkable model design based on concepts of Norman Hall-Warren. Unique stability factors allow it to fly in all conditions. Plan gives full detail of the 36 in. span diamond wing and attractive cabin fuselage.

U/707 B,C. ★ ★ 5/6

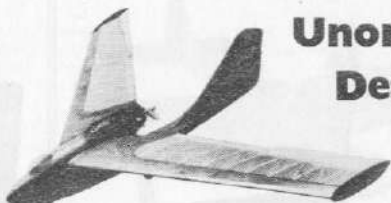


JAVELAN

By Laurie Ellis

A 34 in. delta with a tailplane, not unlike the Gloster fighter, with same appearance and flying characteristics. For a new thrill in sport flying, this model is the tops.

U/579 C. ★ 3/-

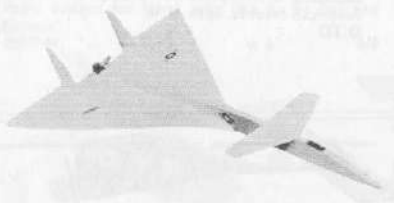


CHERPAA

By Laurie Ellis

Unorthodox tailless with a fantastic power range and suitable for sport flying, PAAload or Radio Control conversion. Pusher engine, two-piece wings of extra strong construction, 60 in. span.

U/618 D,E,F,G ★ ★ 6/6



B-70 VALKYRIE

By Bob Linn

Ultra modern "low budget" semi-scale delta of 23 in. span for .8 c.c. motors, which will run in a clockwise direction if a pusher propeller is unobtainable. A thriller to fly. All sheet construction, very easy to build.

U/784 C,D. ★ 4/6

Unorthodox Designs

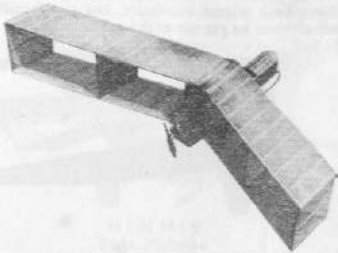


PTERANODON

By R. A. Guntrip

A twin engine free flight model of highly experimental layout. Flies tail first, is a splendid performer on one or two engines and has 55 in. wing span. Breaks down into many components for easy transport.

U/624 2 engines D,E,F. ★ ★ ★ 7/6

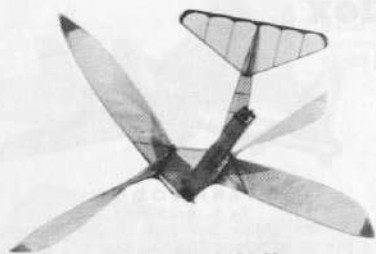


DUNNE BIPLANE

By H. E. Males

Made almost entirely of 1/8 sq. balsa, this ultra-simple tailless pusher is an easy-to-build novelty with terrific flight stability. Dismantles for easy transport and packing. Span 37 1/2 in. Designed for Allbon Dart.

U/652 B,C. ★ ★ 3/-



DRAGONFLY

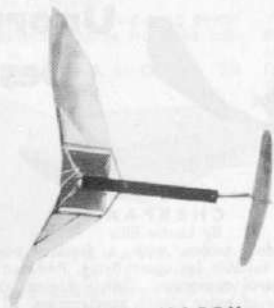
By J. S. White

Completely new ornithopter conception employing double sets of wings, and holder of the British Record for this type of machine. Can be flown both in and out-doors, and is a fascinating opportunity to get out of the rut.

U/562

★ ★

4/6



FLAP HAPPY

By P. Schoenky

This most unusual model is one of the few really successful ornithopters yet produced. Holder of American records, Span 41 in.

D/333

★ ★

3/6



SKEETER

By D. Cooper and R. Coles

The Ideal introduction to autogiro flying. The sixteenth in a line of experiments, success is guaranteed. 32 in. dia. rotor.

U/532

D.E.

★ ★

4/6



PEGASUS

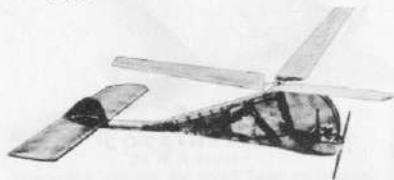
By G. H. Harrison

A tail-first or canard rubber driven model, capable of averaging regular 1 min. 30 secs. flights. Seventh in the line of tail first models and a guaranteed performer. Span 34 in.

U/396

★ ★ ★

3/6



JUMPING JIMINY

By Ron Moulton

Simple construction, easy to fly, virtually crash-proof. The thrills of autogiro flights are as yet little known; but Jiminy can help to introduce you to this fascinating side of aeromodeling. Maximum rotor size 30 in. dia.

U/488

C.

★ ★

3/-



RO-DART

By D. Neale

Simple power driven autogiro for small motors. Most amusing and instructive to fly. Quick construction.

U/456

C.

★

3/-



CONTRA-GYRO

By Laurie Ellis

Twin rotor autogyro completely eliminates torque troubles and enables the model to be trimmed for flight direction. Flies well in all weathers, particularly in strong wind.

U/644

C.D.

★★

3/6

Helicopters



SYCAMORE AND HOVERFLY

By F. G. Boreham

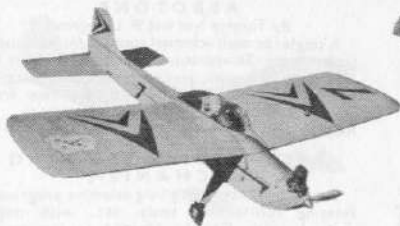
Three-in-one plans for easily made Helicopters by Britain's leading exponent of the type, also a full-size Helicopter expert. 21 in. diameter for .5 c.c. and 31 in. dia. for .75 c.c. plus a scale Bristol Sycamore profile fuselage.

U/713

B.C.

★★

4/-



GASSER

By Ken Willard

Leading American single-channel radio design by the leading expert in this field. Designed as a pylon racer, but equally spectacular as an aerobatic machine. Simple to build, and sparkling performance. Not recommended as a first R/C model. Span 40 in. For engines 1.5-2.5 c.c., most popular of all radio designs for those who like to fly fast and furious!

RC/744

F, G

★★

6/6



TWIDDLER

By E. R. E. Morse

Very successful helicopter powered by two Jetex 50b units, only 15 in. diameter and with very simple sheet construction. Will soar to great height and safely descend under auto-rotation.

J/702

★

2/6



Radio Control

BEACONEER

By R. Godden

Simple 63 in. slope soarer for Radio Control operation. Will accommodate all types of R/C gear. Details on plan for Wright Relaytor and standard Rx/actuator systems. Detachable wing halves, specially strengthened fuselage with ply nose doublers. Single channel only.

RC/770

★★

7/6



MINNIE

By H. McEntee

Diminutive all-sheet lightweight for transistorized receivers, and escapements Radio equipment should not weigh more than 3½ oz. with batteries. Designed by an expert for relatively inexperienced modellers to enjoy miniature R/C model flying with Cox Pee Wee power. Span 24 in.

RC/766

B

★★

4/-

Radio Control

RADIO CONTROL WITH VIBRATING REEDS

A reprint booklet of the series of step by step articles featured in MODEL MAKER in 1958 under the same title. These detailed instructions enable even the inexperienced to build a satisfactory transmitter and receiver for up to six channels. Reference number MM/608, price 3/9 inc. post.

RECEIVER FOR RADIO-CONTROL

By F. C. Judd (G2BCX)

Based on Ultraudion oscillator as a super-regenerative detector. XFGL valve used with a relay in the anode circuit to control selector. Weight approximately 3½ oz. Suitable boats, cars, model aircraft. Parts easily obtainable. On one sheet size 17 x 21 in.

MM/238 ★ ★ 2/6

HILL 2-VALVE RECEIVER

By E. R. Hill

Eight-page booklet gives full constructional data for both standard and miniature versions of most successful carrier-wave set for aircraft, current rise 0.4 mA to 4.0 mA.

RC/664 ★ ★ 2/-

AEROMODELLER TRANSISTOR Rx

By Tommy Ives

Popular carrier wave set for small models, follows fast pulsing has lightweight and low battery drain virtues.

RC/736 ★ ★ ★ 2/-

AEROTONE

By Tommy Ives and P. Lovegrove

A single- or multi-channel tone set for modulated transmitters. Temperature stable, can be built for £4, weighs 2½ ounces, needs only two small batteries and measures 3 in. x 1½ in. Current rise from 0.2 mA to 4 mA.

RC/728 ★ ★ 2/-

PROGRESSIVE STEERING MECHANISM

Simply built actuator giving selective progressive steering control for boats, etc., with single-channel radio. Can be adapted to incorporate normal aircraft type escapement.

MM/344 ★ ★ 2/-

AM/IVY TONE TRANSMITTER

By T. H. Ives

An inexpensive Tone modulated, hand-held transmitter employing printed circuit baseboard for ease of construction. Circuit employs a single 3A5 valve. Full descriptive construction data.

RC/801 ★ ★ 2/-

HILL TRANSMITTER

By E. Hill

A ground based transmitter to last a modelling life-time. Starting with the basic carrier wave unit, a newcomer can add single channel tone and finally a control box for tuned reed multi-channel operation. Frequency is crystal stabilised.

RC/802 ★ ★ 2/-

PRINTED CIRCUIT PANEL FOR TOMITOR MONITOR

The 27 m/c waveband monitor published in Radio Control Models & Electronics March 1962 will be invaluable to R/C modellers to detect "Pirate" transmissions. We offer etched and drilled printed circuit base panel boards ready for circuit assembly.

RC/816 7/6

GALLOPING GHOST and pulse proportional data

All published information on single channel proportional radio control summarised in special booklet to cover the fascinating subject. Includes topline U.S.A. and British expert advice with installation circuits for pulsed rudder, Galloping Ghost Rudder/Elevator with or without engine control and simple dual proportional. A reference book "must" for R/C fans.

RC/735 3/6

TRANSMITTER FOR RADIO-CONTROL

By F. C. Judd (G2BCX)

27 MC/S. Design. Based on Ultraudion oscillator, this transmitter uses two valves and will operate to maximum input of 5 watts. Made from easily obtainable commercial parts. On one sheet, size 17 x 21 in.

MM/234 ★ ★ 2/6

AM/IVY TRANSMITTER

By T. H. Ives

Revised and modernised version of a well known set for Carrier Wave operation. Intended for the beginner to radio control work where low cost is so often all important, the circuit uses one valve only. Simplified "tag-board" construction. Full pictorial wiring diagram and stage by stage instruction in non-technical language. A hand-held unit.

RC/794 2/-

AM/IVY RECEIVER

By T. H. Ives

A carrier wave operated receiver to match the AM-Ivy Transmitter and designed to the same specification for simplicity and ease of construction. For relay or relayless operation with additional transistor switcher unit of equal simplicity. Base size 3½" x 2½".

RC/795 ★ ★ 2/-

Radio Control Models



BLISTER

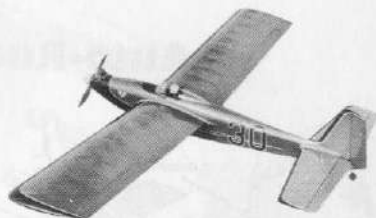
By P. E. Norman

Designed by one of Britain's most ingenious modellers to AEROMODELLER specification for good looking, near unbreakable thrilling sports radio control model to suit 2.5 c.c. engines. Span 42½ inches.

RC/815

G, H.

10/6



GEE STRING

By Bob Palmer & Dick Larsen

A 70 ins. span multi-channel radio control aerobatic design with attractive appearance. Will fly inverted with little down trim. For 6 to 10-channel radio equipment and 6 to 10 c.c., .35 to .60 cu. in. motors. A favourite in many countries.

RC/792

K, L, M, N. **

10/-



WORKMASTER

By R. G. Moulton

Beginner's semi-scale tough radio control model for simple single channel systems. Airframe is designed to give the greatest possible strength and still provide an easy to build model of light weight. Span 47½ ins. for 1-1.5 c.c. engines.

RC/821

D, E, F.

★ ★

6/6



TIMBER

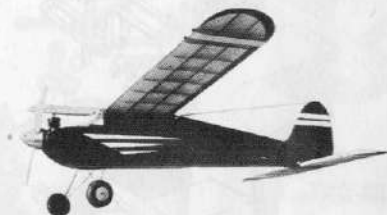
By W. P. Holland

A "quickie" Radio Control trainer for single channel rudder-only systems, this 36 ins. span 1-1.5 c.c. model features all balsa sheet covered wing and nose-wheel undercarriage for pleasant take-offs. A real "toughie".

RC/811

D, E, F.

6/6



BAND BOY

By Vic Smeed

A pleasant pure sport or radio control model for simple single channel radio systems of light weight. Perfect for the "Sunday Afternoon" flying session. Spans 36 in. for 1-1.5 c.c. engines.

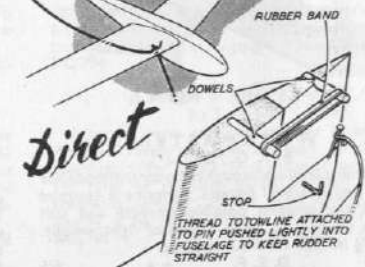
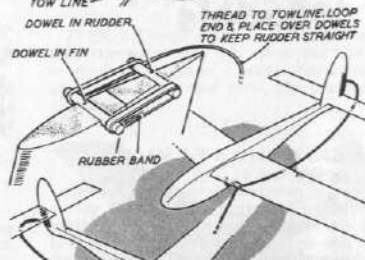
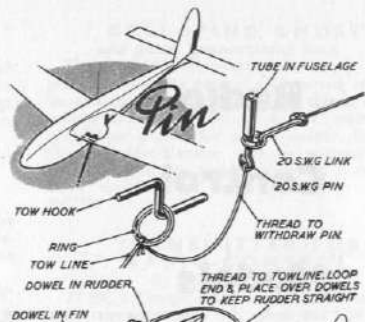
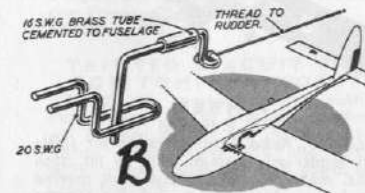
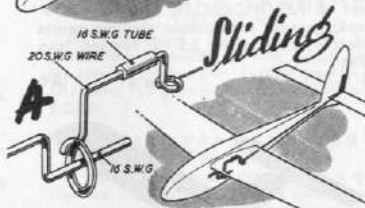
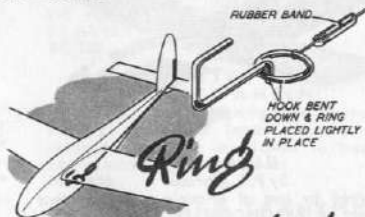
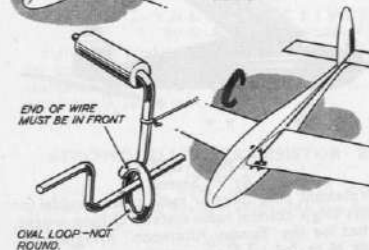
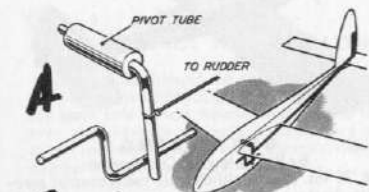
RC/777

D, E.

★

6/6

Auto-Rudders



World's Only

Radio Control Model Magazine

RADIO CONTROL MODELS AND ELECTRONICS was started in response to a questionnaire circulated to potential enthusiasts all over the world, and is now settling down in its third year to supplying exactly what its readers want. Month by month it brings the world's most interesting new equipment to its pages with practical comment, offers the latest in circuits, practical articles on installation, control systems and the like. Basic theory is also covered together with occasional more advanced material for those able to appreciate it. By and large, however, it aims to express its contents in terms within the enjoyment of the average enthusiast. Beginners' articles appear every month. Step-by-step construction of receivers, transmitters and accessories have already led to a number of valuable manufacturer-magazine tie-ups whereby parts and kits are readily available. All types of radio control models are featured, including aircraft, boats, yachts and land vehicles. If you are interested in radio control this is your magazine—there isn't anything like it anywhere else in the world!

52 pages size $8\frac{1}{2} \times 5\frac{1}{2}$ ins. (handy pocket size) on good quality paper. Copiously illustrated with photos, circuit drawings, point-to-point wiring diagrams, dimensioned panels and printed circuit boards. Single copies 2s. Published on 2nd Friday of the month prior to cover date.

Price in U.S.A. and Canada 40 cents. \$4.00 per year by post.



2/-

Radio Control Models



R-6-B

By Allan Rowe

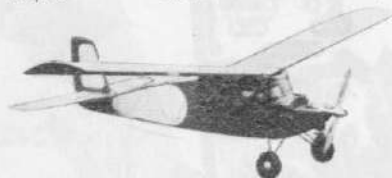
A 60 in. contest winner in New Zealand and a perfect trainer for beginners, this unusual pusher design takes many of the risks out of one's first R/C venture. Glider type structure eliminates undercarriage, etc.

RC/578

E, F, or G.

★

6/-



ROHMA

By S. Miller

A rugged R/C model for general flying or, without radio, an excellent sports design. Suitable for R/C beginners and will take most radio equipment. 64 in. span.

RC/546

H.

★

6/-



SPARKY

By H. G. Hundleby

Highly manoeuvrable 48 in. radio control stunt model of simple, very sturdy construction and breath-taking performance.

RC/447

E, F.

★ ★

4/-



SMOG HOG

By H. Bonner

America's Champion multi-channel design, capable of inverted flying, loops, bunts, controlled take-offs. Rugged construction, 74 1/2 in. span, semi-symmetrical wing.

RC/659

H, J, K.

★ ★

7/6



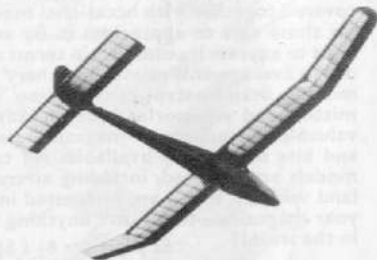
ASTRO HOG

By F. Dunn

Outstanding multi-channel 72 in. low-wing that has won all major events throughout the world. Aileron, motor, rudder and elevator control detailed in precise high standard drawings covering no less than three large sheets.

RC/699

K, L, M, N ★ ★ ★ ★ 15/-



ARIES

By G. Upson

Designed specifically for slope soaring with radio control, this glider has many unique and practical features to commend it as an ideal model for the purpose. 72 in. span, takes all forms of radio gear, original used the Hill set with Mighty Midget servo.

G/RC698

★ ★

6/6



WAVEGUIDE

By F. Burton

American style design for radio-controlled aerobatics, able to stand up to the rough and tumble of a heavy landing. Span 62 in. Capacious fuselage will take any receiver.

RC/592

G,H.

★ ★

6/-



CHATTERBOX

By Vic Smeed

For pure sport, or radio control, this smart 30-in. span cabin model is ideal. Takes escapement or "Galloping Ghost" control with lightweight radio equipment.

PET/RC 715

B—C

★

3/-



RUDDER-BUG

By Dr. Walter Good

The result of years of development work by one of the world's recognised experts. Of simple construction, the design is an outstanding, stable model of ample dimensions to house most types of equipment. Span 72 in.

RC/366

H,J.

★ ★

11/-



GOLIATH

By G. W. W. Harris

Semi-scale high-wing power model, cabin type based on the Auster. Suitable for Radio-control Span 108 in.

RC/312

K,L,M.

★ ★ ★

18/6



GUIDATO

By B. Sichi

Simple design for radio beginners with handy access to cabin and practical design features. Trike u/c, 65½-in. span.

R/C677

G,H.

★ ★

8/6



Radio Control Models

QUEEN BEE

By P. Grimwade

A small but very efficient R/C model. Suitable for lightweight receivers of all makes. Span 48 in.

RC/376

D,E.

★ ★

3/6



JUNE BUG

By N. W. Davis

Tubby biplane for radio control or sport flying with many attractive features, flight proven over several years; has enclosed cowled engine. 48-in. span.

RC/670

G,H.

★ ★

7/6

Radio Control Models



DELTA 707

By W. Blesterfeld

Radio "model of the year 1956", this 36-in. Delta, also suitable for sport F/F, is very easy to build despite its attractive streamline shape. For pusher engines.

RC/649 E.F. ★ ★ ★ 6/-

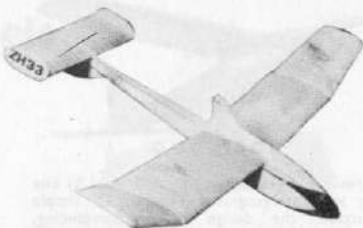


ELECTRA

By Vic Smeed

Designed as a stable and rugged model for beginners in radio flying. 54 in. span. Up to 14 oz. of radio gear. Ultra-simple construction.

RC/506 G.H. ★ 5/-



BICKI

By Alfred Bickel

Outstanding design that has won highest International honours two years in succession. Swiss Nats. winner, both in glider and power versions as detailed in this plan. Will tow to 650 ft. altitude or more, a fine R/C subject for the radio beginner. 85 in. span.

RC/628 C.D.E. ★ ★ 7/6



UPROAR

By C. Olsen

Symmetrical wing and small size make this a fully aerobatic design for multi-channel in the "hot-stuff" class. Simple construction aimed for easy repair work and inexpensive outlay. Winner of several British contests, and the outstanding R/C design of 1958. Span is 72 in.

RC/710 H,J radial only ★ ★ ★ ★ 8/6



RATTLER

By Charles Riall

56-inch miniature of Smog Hog specially designed for Galloping Ghost control. Superb plan detail includes wiring data and many practical features for crashworthiness. Highly recommended design for all pulse-proportional enthusiasts—offers "poor man's multi" control advantages with most manoeuvres possible, also a fast pylon racer.

RC/734 E F G ★ ★ ★ 8/6

Beginners Please Note

If you have never built a radio control model before, choose a proved design and fit rudder control only. Every radio flyer, including experienced pilots, has found rudder control quite enough to cope with at first; the next step, engine control, can follow when you have a few hours' experience.

The Favourite Series

—mixed plans for popular small models

JETEX QUADS—



JETEX QUADS

A duration design or the 50 unit, the "Ukkie" is a Dutch design which comes with a profile plan for the Swedish "SAAB J29" for Atom 35, the French "SIPA MiniJet" for a 100, or the famous "Folland Midge" for either the 50b or 100 units. Four really first-class jetex models, with the SAAB specially advised for the beginner.

U/597

★ ★

2/6

FOUR SOME for 1 c.c. Control-line

A complete course in control-line for beginners. "Scatterbrain" takes any .8 c.c.-1.5 c.c. engine as a simple trainer, then one can progress to the novel "T-Tray" stunter, or "Gnat" Team Racer for the 1/4 A class or to the scale "Hawker" Tempest for either team race or sport flying.

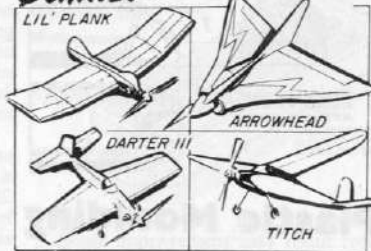
U/596

C.D.

★

2/6

QUARTET—



QUARTET for point-five c.c.

Includes the delta controliner "Arrowhead" and stunter "Darter" which has coupled flaps and elevators and all the latest control-line features. Straightforward free-flying cabin duration design "Titch" and novel flying wing the "Lil' Plank", make up a perfect quartet to suit any small engine.

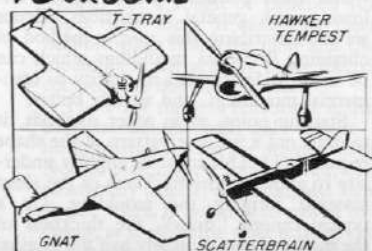
U/595

B.C.

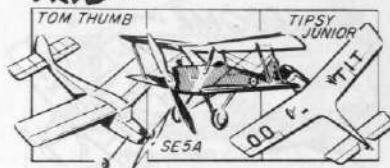
★

2/6

FOURSOME—



TRIO—



TRIO

Three designs for the popular .15 c.c. Bambi diesel. SE5a and Topsy Junior are scale models of famous W.W.I. Fighter and Belgian lightplane designs, Tom Thumb a specially created sports cabin type model, 22-in. span. These fine models can also be flown by other engines of up to .32 c.c. including the Kalper and American K & B Infant. Thoroughly recommended to all owners of these miniature engines.

U/656

A only

★ ★

2/6

TWOSOME—



TWOSOME

A pair of free-flight models designed for the E.D. Baby diesel or any engine of up to .5 c.c. Fokker D.VIII is a 22-in. scale version of famous W.W.I. Fighter with unique detachable wings, sheet construction fuselage. Mimi is only 16-in. span, extremely simple to build with fool-proof stage-by-stage constructional illustrations.

U/655

B.C.

★ ★

2/6

THREESOME--



THREESOME

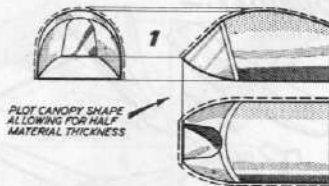
Three attractive rubber-driven models including two scale types of the Piper Pacer and Max Holste MH.152, plus Rigid Midget, a novel racy free-lance design. All about 21-in. span, these designs are inexpensive to build and cater for the commercially-produced plastic propellers. Recommended for indoor R.T.P. Speed and Scale Contests. U/658 ★ ★ 2/6

Not Illustrated

OCTET

Eight all-balsa chuck gliders including scale versions of the famous Hawker Hunter, Sabre and Super Sabre designs in a complete course of flying with this type of model. Perfect for club groups, this inexpensive introduction to aeromodelling takes one from the elementary stage up to the high performance American record-holding all-balsa chuck glider design. U/657 ★ 2/6

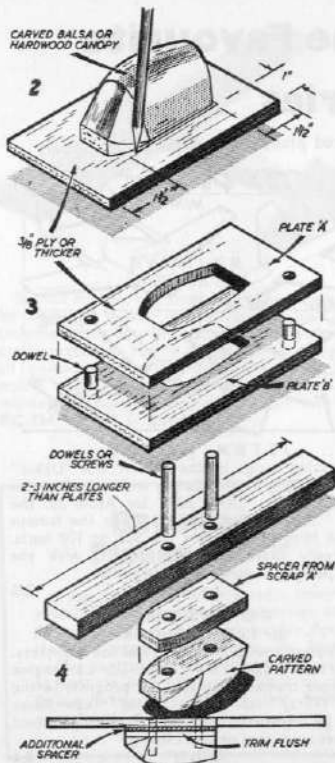
Please ensure that your order is clearly stated and accompanied by the correct remittance and your name and full address in **BLOCK LETTERS.**



Plastic Moulding

The general method of moulding cockpit covers, etc., from transparent plastic sheet has been described many times in the past. The process of heating the sheet to a "plastic" state and then forcing over a suitable male pattern (or forcing the mould into the heated sheet) is capable of giving excellent results. Without the required "know-how", though a lot of time—and sheet plastic!—can be wasted following such general instructions. Hence we are describing this *specific* method of obtaining first-class mouldings which can be made at least equal in quality to commercial mouldings, and usually better.

Starting point, as in other methods, is to draw out a full size pattern of the shape required (1). This must be slightly undersize to allow for the thickness of the sheet material forming the moulding. On a typical canopy "draw", the thickness of the moulded part is usually half the original

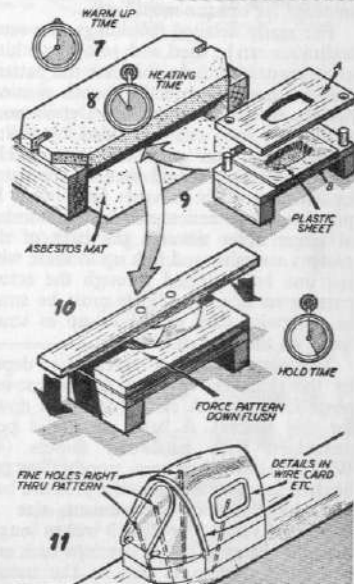
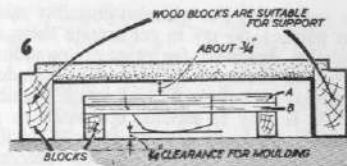
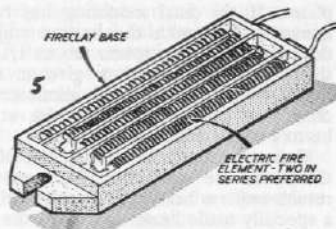


thickness of the plastic sheet—this thinning down being inevitable since the original sheet is expanded in *area* during moulding and since it does not change in volume, must lose *thickness*. Bear this in mind when deciding what thickness of canopy you want and start with sheet twice as thick.

The pattern can be carved from balsa or hardwood. The former material is quite suitable for drawing one or two off. Hardwood is better where a fair number of identical mouldings are required. This pattern need *not* be finished perfectly smooth and free from grain marks for ordinary mouldings.

The next step is to cut two identical ply plates appreciably larger than the base of the pattern (2). Plate B, which becomes the bottom plate, is cut out to take the pattern with a clearance all round equal to the plastic sheet thickness. Plate A is cut out in similar fashion, but with a more generous clearance. The clearance on plate B is not critical provided a moulding "tight" to the bottom edge of pattern is not required, but it must be large enough not to jamb the sheet in the final moulding process. In other words, it can be oversized without giving trouble, other than an exaggerated "draft" on the bottom edge of the moulding. The two plates are conveniently located and locked together with a couple of dowels (3).

If the material is too rigid to form properly at stage (10), then most probably



the heating time has been too short. Some improvement may result from pre-heating the pattern by laying on top of the heater. The same is true if the moulding tears. If the finished moulding has bubbles in it, or has a rough surface, then the plastic has been overheated. If the material looks overheated but is very difficult to mould (i.e. requires extreme pressure at stage (10)), then increase the clearance on plate B. If the bottom of the moulding (top when removed from the mould) has a rough or flattened surface, check that there is sufficient clearance between plate B and the table and that the moulding is not actually being forced into contact with the table surface.

The other thing to remember is that the best mouldings will only result from using plastics *suitable for pressure moulding*. Not all plastic sheet moulds well, or gives satisfactory results. Celluloid, and standard acetate sheet, is not easy to mould in deep draws, as the heating time is quite critical. If overheated, it bubbles, if underheated

it may draw, but will also go milky white in patches. So try to get acetate sheet, or similar, specified for pressure moulding. Perspex sheet will break or tear if underheated; or bubble if overheated. Flexible PVC is easy to mould, but tends to go cloudy (and, of course, gives a flexible moulding). Rigid PVC is an excellent material for opaque mouldings.

For really detailed mouldings, the same technique can be used with some reworking of the pattern (11). In this case the pattern *must* be finished perfectly smooth as every surface mark will show up. Details such as frames, etc., can be added by fitting wire, card, thin ply strips, etc. (11). Each panel area should then be ventilated by drilling with a very fine hole. In practice, it is easiest to drill a number of larger holes through the back of the pattern assembly and link up to these with the fine holes drilled through the actual pattern surface. The holes must be small as otherwise they will show up as small 'pips' on the final moulding.

The pattern itself is increased in depth by the thickness of plate A (the cut-out piece from plate A can be trimmed down for this spacer). A balsa pattern is best assembled with hardwood dowels (4). With a hardwood pattern, woodscrews can be used for assembling on the pressure bar. The latter is any convenient size of hardwood strip some 2 to 3 inches longer than the plates so that it overlaps each end when the pattern is laid in the mould

plates. If the final moulding has to be trimmed flush with the bottom edge of the pattern, another spacer (about 1/16 in. thick) should be fitted to give an extra depth of draw. This will eliminate the chance of getting a curled edge at the bottom of the trimmed moulding.

Various methods of heating the plastic sheet can be used but for consistent results *uniform* heating is essential. Hence a specially made heater is usually the best proposition, rather than using an electric fire or gas fire, cooker oven, etc. A proper heater also enables the moulding operation to be properly timed.

A suitable heater is easily made by fitting a standard electric fire element in a conventional ceramic mount (5). A single, continuous element rated for the mains voltage applicable will give strong heating but best results are usually obtained by joining *two* elements in series, so that the heater operates at dull red heat (or almost 'black'). This increases the heating time required but is virtually equivalent to infra-red heating, as used in industrial processes.

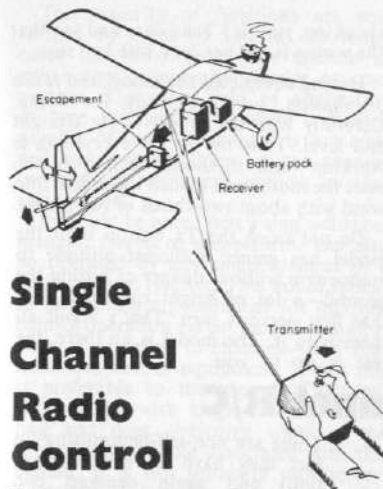
The heater can be supported, upside down, on wooden blocks (6) or on any suitable stand. Leads should be taken out well away from the front of the unit and completely insulated. The height of mounting is decided by first finding what height plate B has to be blocked up for the finished moulding to have about a ¼ in. clearance. Blocks can then be fitted to

plate B to give this clearance, making sure that they are well clear of the cut-out portion. Then arrange the height of the heater so that the top of plate A is about ¾ in. below the level of the heating elements.

The complete moulding cycle is then shown in steps (7), (8), (9) and (10). First of all the heater must be switched on and sufficient time allowed for it to heat up to maximum, uniform temperature. With twin elements this may take up to twenty minutes.

The plastic sheet is cut to size and sandwiched between the two mould plates A and B (9). The sheet should overlap at least one inch all round the cut-out. Make sure, too, that the sheet is clean and free from scratch marks. When sure that the heater has reached constant temperature, slide the plates underneath and start a watch to check the heating time (8).

The heating time required will depend on both the type of plastic and its thickness. It is best determined by experiment with a few trial runs. The plate unit can be withdrawn at regular intervals and the state of the plastic observed. It is ready for moulding when it is showing definite signs of deformation or slight sagging, or is plastic enough to be pushed out of shape readily with a blunt piece of wood. As a rough guide, heating time required is usually of the order of 1 to 1½ minutes with 30/1,000 in. plastic with 'dull' heating, and proportionately longer or shorter for thicker or thinner material, respectively.



Single Channel Radio Control

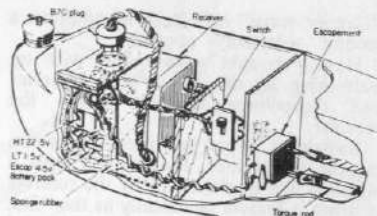
THERE WAS A TIME when it was an embarrassment to recommend a *reliable* set of R/C equipment for the beginner, because there was no such thing. Radio was not only ultra-sensitive to tune, it rendered the operator super-sensitive. Nowadays, however, there are many reliable sets on the market and unerring radio is the rule rather than the exception.

Any expert will tell you that he started with single channel—this is the only way, so let us list the things required for that first R/C flight.

Firstly, one needs an easy-to-tune radio set. Transmitter should never need tuning once it has been tested at the factory and the average commercial receiver should be very simple to tune, with a wide band. That is to say, there should be a wide (1-2 turns) tolerance on the ferrite tuning coil slug; through which the Rx should have the necessary current rise to operate the relay or, if no relay, the escapement. But we will deal with this later.

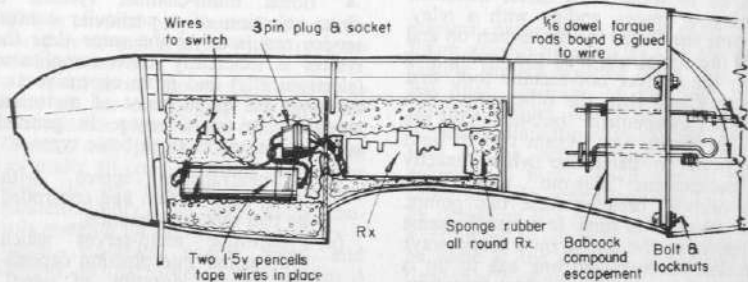
Secondly, one needs a robust, smoothly functioning, rubber-driven escapement. This should operate on 3-4½ volts.

Thirdly, one needs a model. This should be a docile, stable flyer with robust construction. Pay particular attention to the choice of motor for the model, this should be flexible, with no tendency to excessive vibration. Ideally, a first model should be about 48 in.-54 in. span,



with a 1.5 or 2.5 c.c. motor. This is large enough for R/C installation and not excessively expensive to construct.

When choosing radio gear, remember these points. A "tone" or "modulated" Rx needs only one tuning control, which is the tuning slug, and nowadays does not call for a meter to register current rise when tuning. On the other hand, the less expensive, but usually heavier



"Carrier wave" sets have in addition a second sensitivity control.

Having bought your radio, wire up everything *on the bench*, with batteries and escapement hooked up to the receiver.

Switch on. When you press the button on the transmitter, the Tx will emit a signal which is picked up by the receiver at what is known technically as the "first stage". This signal is converted, and amplified by succeeding stages into an *electrical* current strong enough to induce the necessary magnetic field in the relay coil to "pull in" the relay armature (or escapement if a relay is not utilised). The relay is in fact a switch and its contacts are used to activate the escapement circuit. Nowadays the most common Receiver circuits use a miniature valve for the "first stage", followed by two, or in some cases three, transistor amplifying stages, ending with a relay. To tune the Rx to the Tx, switch on and hold the signal on. Dial the tuning slug using the correct non-metalic tool, first one way and then the other, until you hear the escapement "pull-in". You are now in rough tune. Again dial in both directions to determine where exactly the escapement "falls-out", and set the slug midway between these two points. You are now on tune. It is just the same as operating the tuning on a sound wave domestic receiver—all one has to do is to find the optimum for best reception.

Repeat the process at a distance of 100 ft. to make sure of the range.

When you have built your model, transfer the radio from the bench and decide on the layout. A study of the typical layout illustrated will give an idea of what is required. The escapement can be mounted to a bulkhead. The Rx and batteries should be shock-mounted in foam rubber, with the heavier batteries in front of the Rx. Do not use foam *plastic* for mounting, it telescopes to nothing and has little in the way of protective qualities. Support all wiring well, remembering just *one* broken wire in flight can cause the complete destruction of your equipment and model—

shocking, isn't it? Take care and see that the wiring is 100 per cent. safe and sure.

Having completed the model and radio installation, you are ready for flying. Carefully trim the model to fly straight and level. Tune the Rx. If everything is working (and it should be!) you can start the motor and launch the model into wind with about two-thirds of full power.

Do not touch the Tx button until the model has gained sufficient altitude to manoeuvre without danger of hitting the ground—a lot of height can be lost in that first nervous turn. That's about all there is to it. The model is up there, the rest is up to you.

Multi-Channel R/C

THE particular advantage of conventional multi-channel systems is *direct* selection of a particular control service required. At the same time the system is inherently more complicated (electronically) and more expensive and demands the employment of motorised actuators or multi-servos. In general, such servos are of three basic types—

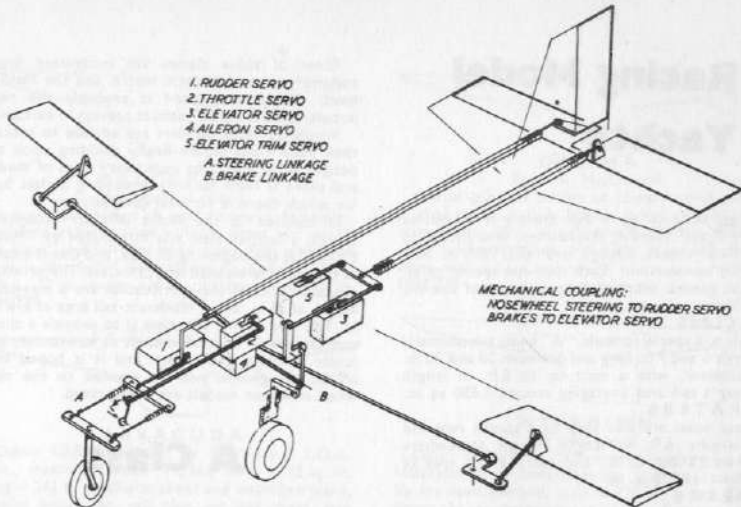
- (i) Self-neutralising servos with 'bang-bang' action and controlled by two separate channels.
- (ii) Progressive multi-servos which are 'inched' into position depending on the duration of signal.

These are non-self-neutralising (in fact they have no neutral position) and again demand two separate signalling channels to drive in either direction.

- (iii) Sequence switches (or motorised servos) which will respond to one channel and give either step-by-step sequence movements or progressive movement up to a limit, according to the duration of signal. In the latter case a spring return is normally necessary (although return to neutral can be provided by switchgear and a second battery with reverse polarity).

The majority of functions are performed by types (i) and (ii). In many cases the same servo can operate as either type, simply by change or connection. The main field of application of type (iii) servos is where a limited number of control channels is available and sequence switching on one channel can provide additional services on that one channel.

It should be noted that a single-channel actuator (servo or escapement) can also be operated by any single channel of a multi-channel receiver. This would appear to have distinct possibilities for multiple control operation via compound actuators using a minimum of channels—and thus minimum cost of equipment. Whilst this is preferable to the use of 'Cascaded' escapements with single-channel signalling and does overcome some of the 'time delay' trouble associated with this system, it is not generally satisfactory. Certainly it is inferior to true multi-channel operation in practice and a true multi system, even with limited control channels, can generally produce a superior performance. The principle use of single-channel actuators with multi-channel equipment is, in fact, virtually limited to engine speed control, giving a 'changeover' throttle movement (self-neutralising actuator) or three-position sequence throttle (four-position, non-neutralising actuator). This makes it possible to operate the throttle control



off one channel only instead of two (as would be normal practice with a progressive multi-servo).

It is far more important, however, to cover all the *main flying first* in order to obtain complete control of the aircraft. This not only permits of adequate control under all conditions but enables the design to be 'tailored' for maximum manoeuvrability. The main flying controls *essential* for complete control are—rudder, elevators, engine speed and ailerons, in that order. Elevator trim is

another particularly useful control for flying smooth manoeuvres and for maintaining smooth inverted flight. Anything less than coverage of the four main control surfaces, independently selected, represents limitations to the system and thus to the performance that can be achieved in flight. To a certain extent some of these limitations can be offset by designing the model particularly for a certain set of controls, but this can only be done at the expense of loss of performance in other respects.

Racing Model Yachts

Model yacht racing in this country is controlled by the Model Yachting Association, who recognize six official classes, though one, the 12M, is now virtually non-existent. Each class has special rules, but the general characteristics in order of size are as follows:

"A" CLASS

Built to a special formula, "A" boats are normally between 6 and 7 ft. long and between 50 and 70 lb. displacement, with a mast up to 8 ft. in length carrying a sail area averaging around 1,650 sq. in.

10 RATERS

These boats are also built to a special rule and approximate 6 ft. in length, weigh somewhere between 25 and 30 lb., and carry a sail area of roughly 11-1,200 sq. in.

6 METRE

Very popular in Scotland, these boats are the nearest approach to scale model yachts and are built to rather an involved rule. Length is normally a little over 5 ft., displacement in the order of 32 or 33 lb., plus a crew weight of 2 lb., carrying somewhere between 11 and 1,200 sq. in. of sail.

MARBLEHEAD

Of American origin, Marbleheads are built to the simplest specification, the main features of which are a maximum length of 50 in., and a maximum sail area of 800 sq. in. Displacement is normally between 20 and 24 lb.

36 in. RESTRICTED

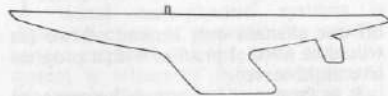
The smallest recognised class, the basic rules being that the hull must fit into a box 36 x 9 x 11 with a maximum displacement of 12 lb. Sail area is unlimited.

Three of these classes are recognised internationally, the "A", the 6 metre, and the Marblehead; the last-mentioned is probably the most popular class of model yacht at present in existence.

Would-be yacht builders are advised to contact their local clubs before finally deciding upon the design, since few clubs race every class of model, and there is little point in producing a class boat for which there is no local competition.

In addition to the above officially recognised classes, a further class was introduced by "Model Maker" at the beginning of 1955, and this is known as the Half-Marblehead or M.M. class. The principal characteristics of the specification are a maximum length of 25 in. and a maximum sail area of 216 sq. in. The idea behind this class is to provide a cheap and easily-built boat of interest to newcomers and junior yachting enthusiasts, and it is hoped that official recognition will be granted to the class when sufficient models are being raced.

A Class



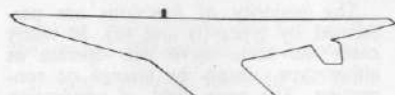
HIGHLANDER

By B. H. Priest, M.I.Mar.E.

The 1957 National and International "A" class champ. incorporating some remarkable characteristics and an excellent sailer under all conditions. Particularly easy to handle during racing. L.O.A. 79 in., L.W.L. 54 in., beam 13½ in., displacement 52 lb., sail area 1,550 sq. in. Fullsize lines throughout.

MM/482

21/-



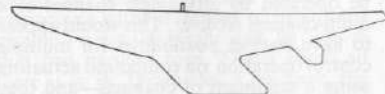
SAXON

By B. H. Priest, M.I.Mar.E.

Full-size lines drawing for an A-class yacht equal to any contemporary. Developed over seven years' hard racing. L.O.A. 81 in., L.W.L. 55 in., L.W.L. beam 14.6 in., sail area 1,560 sq. in., displacement 56.5 lb. One of the finest "A" boats ever.

MM/452

15/-



WINDFLOWER

By H. B. Tucker

"A" class of boat moderate beam and round easy section. L.O.A. 78.4 in., L.W.L. 56 in., displacement 57½ lb., sail area 1,479 sq. in. Three sheet plans giving all lines, full-size sections, dimensioned sail plan, etc.

MM/320

15/-



CIRRUS

By S. Witty

An attractive "A" class design featuring narrow beam. L.O.A. 78 in., L.W.L. 54 in., beam 14 in., displacement 53 lb. Designed for good all-round performance but at best in light weather.

MM/464

12/6



BOLERO

By H. E. Andrews

A proved full-keel "A" Class yacht of most attractive appearance; one of the few successful full-keelers L.W.L. 54.2 L.O.A. 39½ in. Max beam 15.2 in., displacement 55.5.

MM/559

★★★★ 12/6



MOONSHINE

By J. Lewis

An extremely powerful "A" Class design of very handsome lines, employing many of this designer's successful 10-R features. L.O.A. 84 in. L.W.L. 55 in. Draught 12.2. Displacement 59½ lbs.

MM/606

★★★★ 15/-

10-Raters



SORCERESS

By S. Witty

Lightweight 10-rater of attractive lines. L.O.A. 73½ in., L.W.L. 54 in., beam 11.6, displacement 25 lb. Full-size body plan and fin lines, half-size sheer and water lines, etc.

MM/427

★★★★ 8/6



HALCEYON

By John A. Lewis

A successful design on latest modern principles. Complete drawing with half-size sheer and waterline plans, and full-size body plan. Sail plan with three suits fully dimensioned. L.O.A. 69 in., L.W.L. 52 in., beam 11½ in., displacement 30.6 lb.

MM/229

★★★★

12/6



BARRACUDA

Classic 10-Rater design by S. Witty. L.O.A. 72 in., maximum beam 11½ in., S.A. 1,142 sq. in. Weight 26½ lb. Half-size sheer and waterline plans, full-size body plan, sail plan, on one sheet, size 38 x 28 in.

MM/313

★★★★

9/6



IMPALA

By S. Witty

An elegant 10-rater with a displacement of 28½ lbs. and draught 14 in. Performs well under all conditions. L.O.A. 73 in. L.W.L. 54 in. Beam 11.1 in.

MM/565

★★★★

8/6



DECIMA

By D. A. MacDonald

A dual purpose design to 10-rater or American X class rules. L.O.A. 80½ in., L.W.L. 60 in., maximum beam 10 in., displacement 28½ lb. Half-size sheer and waterlines, full body plan, sail dimensions, etc.

MM/329

★★★★

9/6



HYPERION

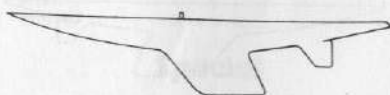
By John Lewis

Long water-line 10-rater developed from Halceyon; fully contemporary and easy to build by any usual method. L.O.A. 72½ in., L.W.L. 55 in., beam 11½ in., displacement 28½ lb. Full body plan, other lines half-size.

MM/336

★★★★

6/-



TOLTEC

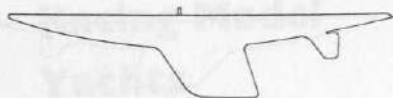
By S. Witty

54-in. waterline 10-rater displacing 28½ lb. Beam 12 in., L.O.A. 76½ in., sail area 1,110 sq. in. A straightforward design embodying all proved desirable features. Half size sheer and waterlines, fullsize body plan and fin lines.

MM/479

★★★★

9/6



BLUE FIN

By S. Witty

74 in. overall 10-rater with 54 in. waterline and 30.2 lb. displacement. Features a shallow hull section on 12 in. beam.

MM/547 ★ ★ ★ ★ 10/-

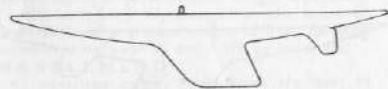


WHIRLWIND

By J. Lewis

A development from a long and famous line of 10-R's. Powerful low bilged sections give an attractive and fast craft. L.O.A. 72.3 L.W.L. 55. Beam on W.L. 11.3. Displacement 31.3 lbs.

MM/582 ★ ★ ★ ★ 10/6

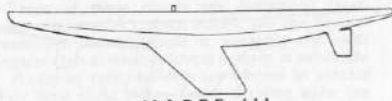


SIX-FIVE

By S. Witty

A pleasing 10-rater on conventional lines, but embodying all known advances. L.O.A. 75.35 in., W.L. 55.5 in., beam 11.1 in., displacement 30 lb.

MM/515 ★ ★ ★ ★ 10/-



MAREE III

A 10-rater sharpie which has won many races. Extremely simple construction and particular emphasis on portability with split mast, detachable keel, etc. Complete fullsize drawings with structural detail, L.O.A. 66½ in., L.W.L. 52 in., displacement 23½ lb.

MM/504 ★ ★ ★ 12/6

6 Metre



WINDSTAR

By H. B. Tucker

The only post-war new 6 M. design, up-to-date in every respect. L.O.A. 62 in., L.W.L. 42.5 in., Beam 11½ in., draught 9½ in., displacement 34½ lb. Half-size sheer and waterlines, full-size body plan; sail plan and all design information on one large sheet.

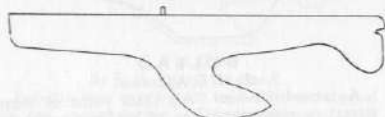
MM/364 ★ ★ ★ ★ 12/6

MERLIN

Marblehead Racing Yacht. L.O.A. 50 in. Maximum beam 9.92 in. Displacement 17.6 lbs. Designed on metacentric shelf principles based on Admiral Turner's theoretical balance equations. Complete with all hull lines, half-sail plan for three suits.

MM/106 ★ ★ ★ ★ 10/6

Marbleheads

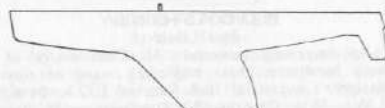


SUN KISS

By A. R. Lassell and T. Thorsen

A Champion American design with full details of unique sliding rig and the designer's own sailing instructions. Sliding rig details full-size as are all other drawings for the hull. Sailplan reduced size with 2nd and 3rd suit areas given. Beam 9.7 in., displacement 18.75 lbs.

MM/268 ★ ★ ★ ★ 9/6

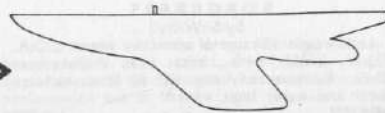


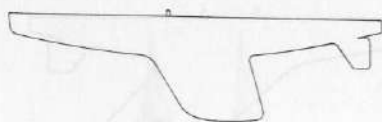
TONGA BELLE

By John A. Lewis

Marblehead design to advanced principles, employing high aspect ratio sails, thick fin, etc. 10.6 beam, 22.4 lbs., displacement. Full-size lines and reduced sail plan complete on one sheet.

MM/323 ★ ★ ★ ★ 9/6



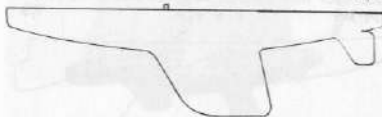


MANTA

By S. Witty

A 22-lb. Marblehead of narrow beam (9.4 in.) and medium/heavy displacement of 22 lb. Draft is unusually deep at 11.6 in.

MM/551 * * * * 10/6

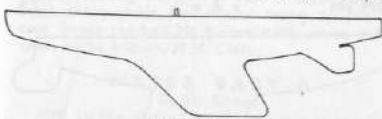


WASP

By S. Witty

A design developed from the popular "Hornet". An attractive craft of good all-round performance. L.O.A. 50 in. L.W.L. 48½ in. Beam 10.1. Displacement 21 lbs.

MM/574 * * * * 10/6



SAIDA

By D. A. McDonald

An excellent Marblehead 50/800 design, well suited to beginner or expert. A reliable performer under all conditions. Full-size hull lines, reduced sail plans. Beam 10 in., displacement 20½ lbs.

MM/295 * * * * 7/6

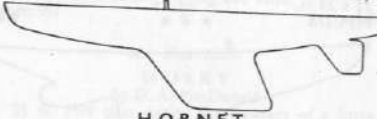


WITCHCRAFT

By B. H. Priest

Winner of the 1954 Model Maker Trophy on its first outing, and a Marblehead to satisfy experienced skippers. Features seal-flipper fin, forward flare, aft tumblehome. L.W.L. 47 in., maximum beam 11 in., displacement 22 lb.

MM/342 * * * * 10/6

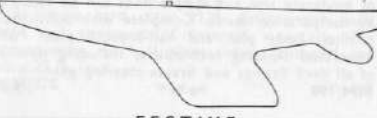


HORNET

By S. Witty

A modern and attractive Marblehead with design features to assist planing in hard weather. Commercial glassfibre hulls are available. Beam 10.3 in., displacement 21 lb.

MM/472 * * * * 10/6

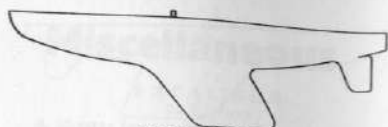


FESTIVE

By W. J. Daniels

Complete with full-size hull lines, reduced size sailplans for three suits, and 12-page illustrated instruction booklet. Beam 10 in., displacement 20 lbs. (Note special Vane Gear suitable for this yacht is also available.)

MM/201 * * * * 10/-

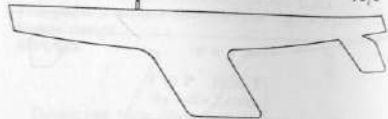


MITHRAS

By D. A. Macdonald

A tried and proved heavyweight Marblehead with top-class performance in any weather, for planked or carved construction. Full-size waterline, sheer, and body plans, etc. Beam 11 in., displacement 23½ lb.

MM/408 * * * * 10/6



WITCH

By B. H. Priest

An attractive Marblehead of very modern design featuring flattish floors and powerful sections, specially suited to sliding rig, L.W.L. beam 10½ in., displacement 23½ lb. Full-size body, sheer and waterline plans with reduced sail plan on one sheet.

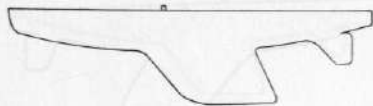
MM/462 * * * * 10/-

Special

RIGGING AND FITTINGS

A sheet of fullsize rigging and fittings for Marblehead yachts, also suitable for many 10-raters, etc. Fullsize booms, etc., drawn with all fittings, plus reduced deck plan, etc., to show location of remaining items, especially suitable for China Boy.

MM/503 * * 4/6

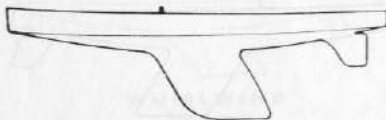


DYNAMO

By S. Witty

A powerful Marblehead of attractive shape. 22½ lb. displacement, 10.1 in. beam. Keynote of design is careful attention to dynamic balance.

MM/508 ★ ★ ★ ★ 10/6



CHINA BOY

By D. A. Macdonald

A top performing sharpie (hard chine) Marblehead which has won many regattas and is also excellent for radio control. All construction detail included on the plan. Beam 11½ in., displacement 16½ lb.

MM/501 ★ ★ ★ 10/6

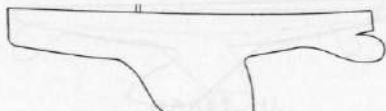
36in. Restricted

LANCET

By T. J. Lance

36-in. Restricted Class Hard Chine Sharpie. Capable of meeting the best racing today, and an economical boat to build. Intended for kit production, parts are few and together with sails and fittings can be obtained at competitive prices. Complete with building instructions on two sheets, size 40 x 30 in. and 20 x 15 in.

MM/266 ★ ★ 9/6

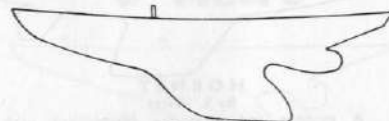


HARLEQUIN

By Bernard Reeve, M.S.N.R.

A 36-in. Restricted Class Yacht of experimental design that finished fourth in 1953 Nationals. For "bread-and-butter" type construction. On two sheets, including sailplan with three suits, and all fittings details, size 47 x 28 in. and 33 x 29 in.

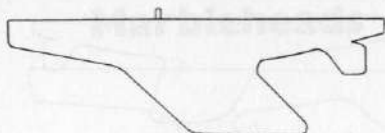
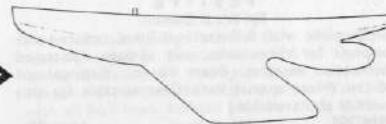
MM/276 ★ ★ ★ 9/6



LADY BETTY

A 36 in. Restricted Class Racing Yacht, designed by one of the leading experts. Construction is on "bread-and-butter" principles, and in view of moderate size and simple lines can be tackled by comparative novice. Complete with hull lines, profiles, body plan and half-breadth plan. Full illustrated building instructions including details of all deck fittings and Braine steering gear.

MM/190 ★ ★ 9/6

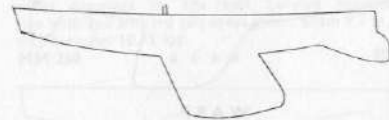


WINDBIRD

By H. B. Tucker

Low free-board and easy lines characterise this design which exploits to the full the M.Y.A. 36 in. rule. Excellent for bread-and-butter construction. Details for four suits of sails, full-size lines, etc.

MM/349 ★ ★ ★ ★ 9/6

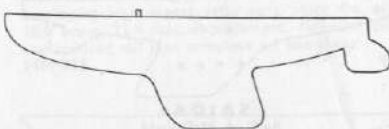


RAZORBILL

By W. J. Daniels

A new 36 in. Restricted Class Yacht designed as a hard chine sharpie for easy construction. Full size lines, detailed step-by-step instructions and sailplan. One one sheet, size 47 x 36 in.

MM/284 ★ ★ ★ ★ 7/6



LEO

A simple 30 in. yacht by W. J. Daniels, for those wanting a small sailing craft for pleasure sailing. Beam 7½ in., displacement 8½ lb.

MM/511 ★ ★ 5/-



MM Class

This is a new yacht class introduced by "Model Maker", to encourage the newcomer and junior in the yachting world. The rule is based roughly upon the popular Marblehead racing divided by two, hence the half Marblehead, 4M, or, as it has come to be known, M.M. Class.

WATER BABY A

By Vic Smeed

MM1 in the above illustration, this is the first boat to the MM 25 in. class. Can be built in several ways, plan A showing all details for bread-and-butter (balsa or hardwood) or glass fibre construction. Everything—including all rigging, vane gear, etc.—fully detailed. Displacement 55 ozs.—a genuine racing model in miniature.

MM/354

4/6

WATER BABY B

Exactly as above—the same boat, but giving full details for rib and plank construction, again in balsa or hardwood. Please ensure that your order clearly states code A or B to ensure correct plan being despatched.

MM/355

*

4/6

SEA URCHIN

By Vic Smeed

Illustrated (MM2) with Water Baby above, this is a hard chine boat to the MM 25 in. class, suitable for ply or all-balsa construction. Full details given for all parts, including rigging and vane.

MM/361

*

4/6

Not Illustrated.

HUSKY

By D. A. MacDonald

25 in. MM class design for builders of a little experience. Partly based on circular arc principles and an excellent all-weather design. Full hull lines, sail suits, explanatory details for building from lines.

MM/366

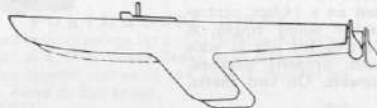
4/6

DRAKE

A simple hard chine M.M. design with bulb keel and minimum of internal structure. Ply construction, all hull parts shown, reduced sail plan. 25 in. l.o.a.

MM/376

4/6



Miscellaneous

EXCALIBUR

By S. Witty

A 10-rater featuring a flying fin and a choice of two hulls. Length o.a. 74½ in., l.w.l. 54½ in., beam 11½ in. or 12 in., displacement 21 or 23 lbs.

MM/637

10/-

RED HERRING

By John Lewis

A very fine 10-rater of 34.4 lbs. displacement on a w.l. of 55 ins. and beam of 11.4 ins. L.o.a. 76 ins. This yacht is a close sister to the highly successful Sirocco design.

MM/663

12/6

TOP HAT

By John Lewis

Developed from Moonshine, incorporating modifications learned from a season's racing with this top class A design. L.o.a. 81½ in., l.w.l. 55 in., displacement 60 lbs. on l.w.l. beam of 14½ in.

MM/670

15/-

VITAL SPARK

By John Lewis

54 in. W.L. A class of 51.7 lbs. displacement. W.L. beam 13.6, l.o.a. 79.5, sail area 1545 sq. ins. Maximum sail area for minimum waterline and displacement.

MM/684

15/-

SEA MEW

By Vic Smeed

36 in. racing catamaran for vane steering. Simple construction, principally of ply, twin round bilge hulls, overall beam 18 in. The first "serious" catamaran design for model yachtsmen.

MM/533

**

8/6

CARIBBEE

A 1/24th scale ocean racing yawl with excellent sailing characteristics. Length 29 in. Bread-and-butter hull with "centreboard". On three completely detailed sheets.

MM/403

★ ★

15/-

MOTH—SINGLE SHEET SCOW

Scale model of popular American—and British—one-design class racing yacht. 1/4th full-size. L.O.A. 16½ in. Beam 6 in. Of balsa and plywood construction and capable of amusing sailing. On one sheet, size 29 x 28 in.

MM/258

★ ★

ARGUS

By H. E. Andrews

A near scale wishbone schooner with a 30 in. hull length, for builders with a little experience. One of the most attractive models in our range.

MM/405

★ ★ ★

7/6

Scale Sailing Models

DUTCH AUXILIARY

16½ in. L.O.A. 13½ in. L.W.L. Beam 7 in. A 1/12th scale model of typical Dutch sailing yacht with auxiliary engine, suitable for sail and model electric, clockwork or sub-miniature (.5 c.c.) diesel engine. On one sheet, size 36 x 28 in.

MM/240

★ ★

3/6

DINGHY

21 in. scale model based on a 14-foot centreboard gaff-rigged, half-decked sailing dinghy. A really detailed model. Centreboard lifts in scale fashion, hull is clinkerbuilt, properly clenched, with watertight compartments. On two sheets, each 40 x 30 in.

MM/153

★ ★ ★

7/6

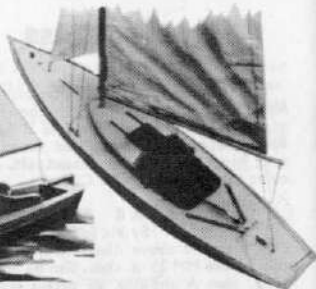
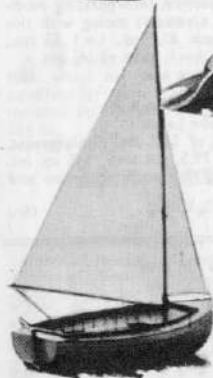
BLUEBOTTLE

A magnificent 1/10 scale model of the Royal Dragon class yacht. Length 35 in., beam 8 in. On one sheet, size 64 x 22 in.

MM/293

★ ★ ★ ★

7/6





STAR CLASS YACHT

A pleasing 20 in. L.O.A. scale Star class boat, with hard chine construction. Braine steering, all constructional details. An inexpensive little model, excellent for beginners.

MM/346

★

3/-

YACHTING SKIFF

By H. B. Tucker

Fullsize 11 ft. skiff designed expressly for open water model yacht sailing, but also excellent for fishing, etc. Seats three with comfort. Simple economical construction, finished weight approximately 110 lb. Complete drawings on two sheets.

MM/439

★ ★

15/-

BERMUDAN SLOOP

24 in. overall hull length. A one-inch to the foot model, 4-ton Thames measurement centre-board, hard chine cabin boat that should be of particular appeal to enthusiasts requiring an elegant scale model. On two sheets, size 40 x 32 in., and 40 x 24 in.

MM/152

★ ★

7/6

SANDPIPER

Semi-scale auxiliary engine twin masted sailing craft of sketch-schooner type. L.O.A. 24 in. Beam 6½ in. For simple construction by the novice. Will sail under canvas or powered by small electric motor. On two sheets, size 32 x 26 in. and 25 x 13 in.

MM/274

★ ★

4/6

PORTUGUESE DORY

Authentic drawings for a 1/10 full-size exhibition model of a 17 ft. Grand Banks hand fishing boat. All equipment carried in the boat is detailed on plan, down to bait knife!

MM/563

★ ★ ★

10/6

Non-working Models

MAYFLOWER

By R. J. Collins

A beautiful ship model typical of the *Mayflower* type by a well-known authority on period ships. Authenticity of detail makes this model a real museum piece. On two sheets. Overall length 21 in.

MM/444

★ ★ ★

9/-



Please quote plan number,
name & price in your order

WILL EVERARD

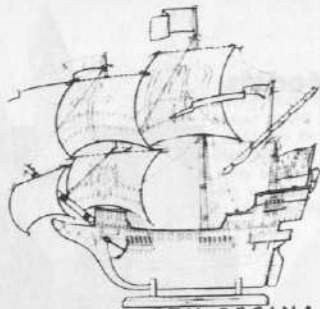
A really authentic ¼-in. to the foot model of one of the famous Everard Fleet of Coastal Sailing Barges. Drawn with co-operation of the owners from the ship's actual lines and sail plan, it includes 16-page comprehensive step-by-step building instructions, complete with scrap sketches of principal fittings and all information necessary to complete exhibition model. Detailed drawings on four sheets 29 x 22 in. and a fifth sheet (sail plan) 38 x 37 in.

MM/189

★ ★ ★

20/-





ELIZABETH REGINA

A decorative galleon of the Tudor period, circa 1580, designed by a specialist in this class of historical model. Fully detailed drawings of hull, sails and fittings. One sheet, size 28½ x 21 in.

MM/135

★ ★

2/6

SEA HAWK

By R. J. Collins

Colourful Barbary Pirate Xebec, 29 in. in length and 18 in. high. Plans and instructions enable a museum standard model to be produced; also suitable prototype for conversion to sailing.

MM/481

★ ★ ★

7/6



SAILING GALLEON

Practical model, approximately 24 in. overall length, of a typical galleon of the Armada period. Bread and butter construction, simplified rigging with interlocked yard bracing for quick trimming.

MM/641

★ ★ ★

8/6

Getting Started with Boats

Model boating, sail or power, is increasing in popularity month by month. Our range of plans, already the finest in the world, is continually expanding to meet the demand with a carefully balanced programme designed to cater for both beginner and expert. If you are thinking of building a boat for the first time, may we suggest the following:

Sail—Sea Urchin, Water Baby A or B, Lancet, or Lady Betty.

Power—Waterbug, Mistral, or Moonmist for electric power, Kingfisher or Scudabout for electric or small diesels, Lorette or Lorelei for larger diesels.

Scale Types—Bustler or Silver Mist for electric, Lorusa or Thornycroft MTB for diesel.

We are sure that, if starting from scratch, you will find the book "Boat Modelling", at only 5/- worth its weight in gold.

STAR PLAN GRADING

In order to help you in your choice of plan, a grading system is employed to give some idea of the degree of complication or ease of construction. At the bottom of each caption will be found one, two, three, or four stars, with the following meanings:

★ A simple design with sufficient detail and explanation for the complete beginner; also suitable for anyone requiring an easily-built model.

★ ★ Slightly more advanced, for the average modeller or beginners with some modelling experience in other fields.

★ ★ ★ For modellers of some experience, or those who have built one or two similar models or are prepared to read up constructional technique.

★ ★ ★ ★ For the expert able to interpret drawings (e.g., hull lines drawings) and decide his own constructional methods; also used for designs where workshop equipment is called for.



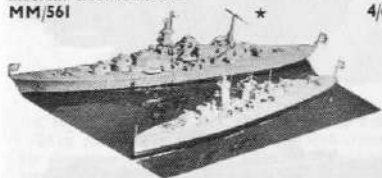
TOD BOAT

A 16 in. miniature of balsa and ply construction, based on the Tod Tuna. Powered by any small or medium electric motor.

MM/561

★

4/6



SCHARNHORST

A simple 30 in. all-balsa model of the famous German battle-cruiser. Powered by Kako 4 or similar electric motor. Suitable for radio control.

MM/572

★★

6/-

ADMIRAL GRAF SPEE

A 24 in. model of the notorious German pocket battleship with a beam of 23 in. All balsa construction. Simple construction for rubber or electric drive. To same scale as Scharnhorst.

MM/613

★★

4/6

VOSPER PL4

By Vic Smeed

An attractive scale model of sleek lines suitable for 3½ c.c. or over. Ply and hardwood construction. Glass fibre hull is commercially available. Length 46 in., beam 9½ in.

MM/560

★★

10/-



DARK CLASS MTB

A detailed model of a fast post-war ML, suitable for 1½-2½ c.c. motors. Detail drawn in outline only—suitable only for experienced modellers. Length 31 in.

MM/564

★★★★

6/6



TINTAGEL

Simply-built lightweight motor yacht, 24 in. in length, for electric power or up to 2 c.c. engines. Either balsa or ply construction, depending on power.

MM/556

★★

6/-



CERVIA

By Vic Smeed

A well-known Thames tug in ¼ in. scale, giving 28 in. hull with 6½ in. beam. For electric or steam drive, excellent for R/C. With instruction booklet, but not for beginners.

MM/567

★★★

8/6



THEODOR HEUSS

An unusual 1/25th scale German rescue boat with round bilge hull and after flooding well carrying a smaller power boat. Parent length 36½ in. For electric propulsion. A fascinating R/C project.

MM/568

★★★★

15/-



Model Power Boats



ADMIRAL'S BARGE
L.O.A. 33½ in. Beam 9½ in. A scale Naval Pinnace
built specially for radio-control for 2-2½ c.c.
MM/242 ★ ★ ★ 10/-

BRITISH POWER BOAT A.S.R.L.

31½ in., half-inch to the foot version of the popular A.S.R.L. Rakish pleasing lines, clear swept decks. One of the best for radio-control installation owing to absence of "bitty" detail. For any form of power.

MM/102 ★ ★ 10/-

WALTON THAMES A.S.R.L.

32½ in., half-inch to the foot model of 65 ft. Walton Thames A.S.R.L. Spacious cabin accommodation. For diesels of up to 5 c.c. or other motive power.

MM/103 ★ ★ 10/-

VOSPER ROYAL BARGE

By Vic Smeed

30 in. (½ in. to 1 ft.) model of the barge carried on "Britannia" and used on many Royal occasions. A superb, colourful model, authentic and fully detailed, for the craftsman. Electric or 1 c.c. drive, with or without radio.

MM/356 ★ ★ ★ 7/6

THORNYCROFT A.S.R.L.

31½ in., half-inch to the foot. Revolving gun-turret. Cabin, control room and twin dinghies installed. Suitable for any form of power.

MM/104 ★ ★ 10/-

TELECTRA

Semi-scale 30 in. police or customs launch of remarkable strength and high performance. Adequate room for R/C. All balsa construction, for up to 3.5 c.c. diesels.

MM/417 ★ ★ 6/-



Model Power Boats



CHRIS-CRAFT COMMANDER

24 in. scale model of an attractive cabin cruiser, for electric or up to .75 diesel power. Easy construction using balsa and ply.

MM/318

★

3/6



PARKER BELL FOURTEEN SIX

A large-scale model, 2 in.-1 ft., of a popular runabout launch. With a 12 in. beam and 28 in. length and very roomy cabin, this model is ideal for R/C with electric or 1.5 c.c. drive.

MM/326

★ ★

6/-



MISTRAL

By Vic Smeed

All-balsa electric semi-scale model of a typical 30-36 ft. day cruiser, with forward cabin and open well. Total cost of materials approximately 5/-, excluding motor and shaft. Length 18 in., any 4½-9 v. motor.

MM/348

★

3/-



R.M.S. EMPRESS OF BRITAIN

By Vic Smeed

An authentic 1/200 scale model of the Canadian Pacific liner which made its maiden voyage in 1956. B. and b. hull, 38½ in. l.o.a., for builders with a little previous experience.

MM/445

★ ★

7/6



ELEKTRA

A 21 in. O.A. length Cabin Cruiser of ply construction, using a Bassett-Lowke electric motor, and run off batteries. Simple to build but "big" looks. Could also be powered by 1 c.c. or smaller diesel.

MM/269

★ ★

3/6

DEGLET NOUR

One-tenth scale replica of full-size Cabin Cruiser prepared from designer's drawings and the actual full-size craft. Length O.A. 36 in. Suitable for radio control with either i.c. or electric power. On four sheets, including alternative "economy" building method.

MM/231

★ ★ ★

15/-



IONIA

By Arthur O. Pollard Jr.

Scale model ($\frac{1}{2}$ in.—1 ft.) of a tug built in 1960, 24 $\frac{1}{2}$ in. length, 6 $\frac{1}{2}$ in. beam. Lines drawing of hull, superstructure outlines. For electric drive.

MM/634

8/6

ROYAL YACHT "BRITANNIA"

Detailed working model, complete with ship's boats, etc., for electric or steam propulsion. Six-page instruction leaflet with 17 sketches and four photos. Available in two sizes.

Electric version, L.O.A. 23 $\frac{1}{2}$ in., on one sheet 34 x 25 in.

MM/303

5/-

Steam version, L.O.A. 46 $\frac{1}{2}$ in., on two sheets, 50 x 39 in. and 39 x 25 in.

MM/314

15/-

SIRIUS STAR

By Max Coote

Based on a full-size prototype but given a hard-chine hull, this 41 $\frac{1}{2}$ in. boat is one of the most successful radio-controlled models produced. For 3.5-15 c.c. motors, with speed control details, etc.

MM/332

10/-

LORELEI

By Vic Smeed

Simple cabin cruiser for 1-3.5 c.c. diesels or electric propulsion by ace model aircraft designer, L.O.A. 34 in. Beam 7 $\frac{1}{2}$ in. Of obeche and ply construction, suitable for novices.

MM/267

*

7/6

RIVER CRUISER "DUBARRY"

28 in. hull length. A perfect detailed model of a typical Thames cruiser, complete with centre cabin and deck fixtures. Performs well with 1.3 c.c. diesel engine. On three sheets.

MM/154

15/-



Model Power Boats



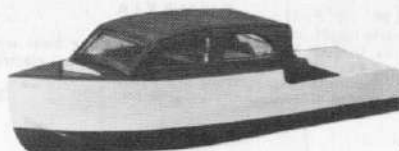
FLYING FISH

20 in. runabout, designed primarily for outboard motors, but suitable for small inboard diesels. Cabin and open cockpit versions shown, plus all installation details.

MM/410

★ ★

4/9



AUDREY VII

Simple all balsa cabin cruiser, 14 in. in length, for any miniature electric motor.

MM/423

★ ★

2/6



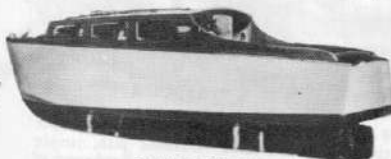
ROCKET CLASS FRIGATE

Simplified scale model of a well-known type of anti-submarine warship, using all balsa construction. For any small electric motor, 24 in. L.O.A.

MM/400

★

3/-



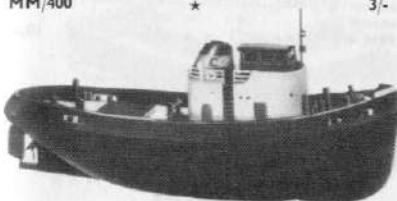
CHIQUITA

24 in. hull length. Smart looking hard chine cabin cruiser, suitable for a beginner to tackle. No complications. Suitable for operation by electric motor, petrol or diesel engine.

MM/156

★ ★

5/-



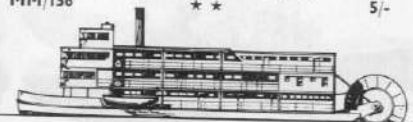
RIVER TUG

A 12½ in. scale model Dutch river tug, beam 3½ in., for any small electric motor. Simple planked construction in balsa.

MM/451

★ ★

1/6



CLEOPATRA

An unusual semi-scale stern-wheel paddler, as used on the Nile or in the Yukon, for electric drive. Simple, all-balsa construction, belt-drive paddle. A good performer, but restricted to calm weather. L.O.A. 27 in., Beam 7 in.

MM/319

★ ★

5/-



CULLAMIX—¾ in. SCALE TUG

By Bernard Reeve, M.S.N.R.

L.O.A. 39½ in. Beam 10 in. Depth 9½ in. A superb model based on one of the Cement Tug fleet and authentic in every detail. Suitable for radio-control and steam, or larger i.c. engines, etc. Built on "bread-and-butter" principle.

MM/256

★ ★ ★

15/-



TORNADO

Attractive little semi-scale patrol launch, 15 in. in length, for Tornado or other small motor. Balsa construction, cheap to build and operate.

MM/422

★ ★

3/-



P.S. ROYAL FALCON

By Vic Smeed

A simplified 24 in. model based on the famous Thames estuary pleasure boats, employing paddles belt-driven from a small electric motor. Very easy and inexpensive construction.

MM/381

★ ★

3/6

CUMBRIA

By G. H. Deason

19 in. model of old-time paddle tug built with gum strip paper hull, card paddles, etc., electric-powered, very strong and light.

MM/468

★ ★

3/6



H.M.S. COSSACK

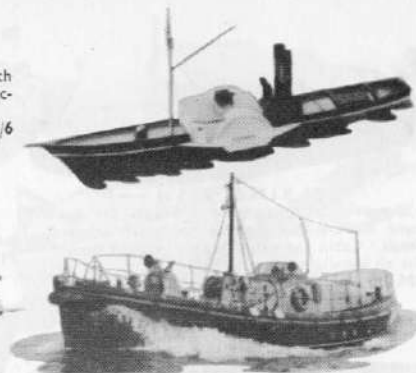
By Vic Smeed

38 in. model of the famous Tribal class destroyer of the Altmark incident. Detailed plan, simple construction in balsa and ply, or hardwood if preferred. For electric power, large enough for small radio control equipment.

MM/500

★ ★

5/-



R.N.L.B. PLYMOUTH

By Vic Smeed

Barnett-Stromness type lifeboat, modelled at 3 in.-1 ft. (39 in. l.o.a., 11 in. beam) for advanced builders. Bread-and-butter construction, large amount of detail. Authentic drawings on two large sheets.

MM/418

★ ★ ★ ★

10/-



LIVERPOOL TYPE LIFEBOAT

By Vic Smeed

A 2 1/2 ft. model of a well-known type of lifeboat in current use. A model for experienced builders. 26 1/2 in. L.O.A. for electric power.

MM/374

★ ★ ★

5/-



NAUTILUS

A novel rubber-powered submarine with automatic diving gear. Overall length 28 in. Simple construction and very detailed drawing.

MM/285

★ ★

5/-



SARDINE

All-metal (tinplate) submarine of very simple construction for .5 to 1.5 c.c. diesels. Overall length 48 in., automatic resurfacing, etc., using schnorkel tube when submerged.

MM/485

★ ★

7/6



TYPE IX U-BOAT

A scale U-boat for twin electric motors or equivalent, with or without radio control. L.O.A. 45 in.; balsa or obechi bread-and-butter construction.

MM/471

★ ★

7/6



ROYAL DAFFODIL

One of the best-known Mersey ferries, now named St. Hilary, at 1/72 scale, 26 in. l.o.a. A model for the detail lover; outlines and body plan only.

MM/664

★★★★

5/-



RANGE SAFETY LAUNCH

By Vic Smeed

1 in.-1 ft. scale model of latest Thornycroft R.A.F. launch, length 43 in., beam 12½ in. Suitable for 2.5 c.c. diesels upwards, excellent for radio control. Completely detailed on two large sheets.

MM/412

★★

12/6



S.S. PAINTED LADY

By Vic Smeed

Intriguing 36 in. raised quarter-deck coaster built of gummed paper strip over a simple balsa frame. For electric drive and up to 6 lb. of radio gear. Can be built conventionally if preferred.

MM/442

★★

7/6



GRAF ZEPPELIN

A 34½ in. near-scale model of Germany's only aircraft carrier. Scale is 25 ft.—1 in. and hull is slightly simplified in shape without affecting appearance afloat. Balsa construction, electric power.

MM/676

★★

5/-

U.S.S. NEWPORT NEWS

64 in. Model of an American heavy cruiser. The original was of all metal construction, but can equally well be built in wood; for steam or electric drive with or without R/C.

MM/382

★★★★

12/6



MIS'DEEDS

by Vic Smeed

Thames holiday cruiser to ½ in. scale, 12½ ins. length. Includes notes on clinker building or flush planking. Any small electric motor; has even been built as a cigarette box!

MM 483

2/6



M.V. ARRAN

By Vic Smeed

31 in. electric powered model of British Railways Clyde ferry 18 in 4 mm. scale, i.e., can be built for 00 layouts. Balsa/ply construction, authentic detail.

MM/415

5/-



SEA FALCON

All-balsa 18 in. cabin cruiser using all-commercial fittings etc. and any of a wide range of electric motors. Suitable for miniaturised radio.

MM/632

**

3/6



LORETTE

By Vic Smeed

Roomy semi-scale two-berth cruiser, 34 in. L.O.A., suitable for R/C and electric, steam, or 1-3.5 diesel drive. Simplified lines for easy building, well within the scope of a beginner.

MM/370

*

6/-



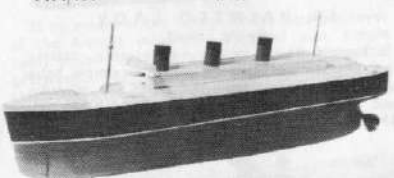
VOSPER A.S.R.L.

36 in., half-inch to the foot version of the 72 ft. prototype. Of light construction, may be used with rubber drive, giving a speed of about 4 knots. Fully detailed decking.

MM/101

**

10/-



QUEEN MARY

By C. R. and M. Moore

Semi-scale model, 22½ in. L.O.A. employing rubber drive. Normal cruise 200 yds. in 3½ mins. Simple construction and fun to operate.

MM/317

**

2/6

NAUTILUS

By Christian Tavad

Outline drawings of the fullsize atomic-powered American submarine to a scale of 1/100 (36 in.). Not plans for a model, but can be easily adapted.

MM/433

3/-



H.M.S. WOLVERTON

A remarkably fine fully detailed freelance cruiser, 5 feet length overall. Designed for electric power, and with full radio-control circuits and diagrams for operation of steering gear, complete with deck fittings, funnels, superstructure, guns, etc. On two sheets, size 78 x 35 in. and 76 x 35 in.

MM/286

15/-



WATER BUG

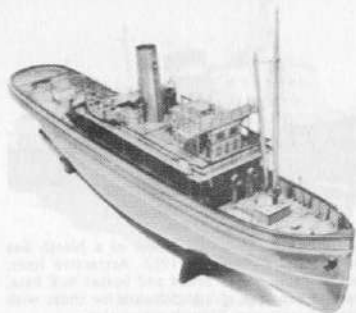
By Vic Smeed

The smallest boat in our range, this 13 in. model is an excellent performer with an Ever Ready TG18 or similar small motor. Very simple, all-balsa construction and neat appearance.

MM/357

*

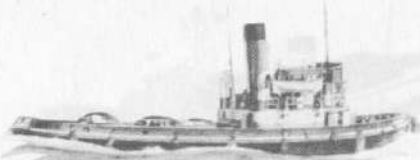
1/6



BLAZER

Large tug model for steam or electric, capable of taking heavy radio gear. Total displacement 23 lb., length 42½ in., bread-and-butter construction; for builders with a little experience.

MM/487 ★ ★ ★ 10/-

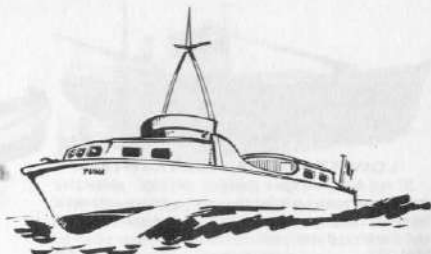


BUSTLER

By Vic Smeed

An 18 in. model of a harbour tug, very close to scale but extremely simple and inexpensive to build. All-balsa construction, any 3-6 v. electric motor. Full detailed plan, with colour scheme, etc. A most popular model.

MM/363 ★ 3/-



TUNA

34 in. freelance patrol boat designed to employ commercial glassfibre hull, but with full hull details for wooden hull shown on plan. For 1-3.5 c.c. engines, excellent for radio control.

MM/505 ★ ★ 8/6



M.V. PATEKE

Scale shelter-deck type cargo vessel for more experienced builders. Length 50 in., beam 7 in. (½ in. scale). Hull lines, etc., and superstructure outlines on one sheet.

MM/424 ★ ★ ★ 7/6



PATHFINDER

By Vic Smeed

Authentic ½ in. scale (45 in.) model of Trinity House pilot tender of simple construction. Two sheet plans include all details. For electric or steam drive with or without radio.

MM/393 ★ ★ 15/-



TARPON

A really lovely Italian-designed cabin cruiser, 35 in. in length, for electric or up to 2½ c.c. motors. Planked construction, fully detailed plan. Excellent for radio.

MM/494 ★ ★ ★ 12/6



LOWESTOFT DRIFTER-TRAWLER

30 in. L.O.A. scale model of this attractive double-purpose craft for those who desire authentic finish to their working models. For electric motor and battery propulsion.

MM/282 ★ ★ ★

7/6



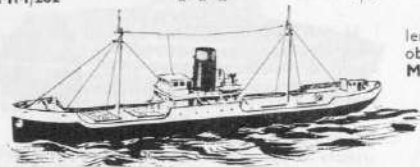
CYGNET

Electric-powered model of steam yacht, 29½ in. length using planked construction with ¼ in. obechi frames and 1/16 in. obechi planking.

MM/478

★ ★

5/-



HOBO

By Vic Smeed

A simple 24 in. model of a typical small tramp steamer built either in balsa laminations or on the gummed paper system. An attractive little model suitable for beginners. Any small electric motor.

MM/465

★

3/-



RUNABOUT

18 in. sporty speedboat based on a Chris-Craft design. Ideal for towing small-scale water-skiers. Just large enough for miniature R/C. Ply construction.

MM/480

★ ★

3/6



BARDIC FERRY

By Vic Smeed

A 42½ in. (½ in.—1 ft.) model of a North Sea vehicle ferry launched in 1957. Attractive lines, plenty of detail work. Bread and butter hull base, composite topsides, straightforward for those with previous experience. Electric propulsion.

MM/636

★ ★ ★

12/6



S.T.S. DILYSIA

By Vic Smeed

37 in. model of modern 18,000-ton tanker to 1/150 scale. Bread-and-butter bow and stern with planked midships; for electric power.

MM/470

★ ★

6/-



BILL BAILEY— FREE LANCE TRAWLER

L.O.A. 27 in. Beam 6 in. Attractive scale type model electric powered and intended for radio control or free sailing. Simple construction.

MM/252

★ ★ ★

5/-



THORNYCROFT M.T.B.

By Vic Smeed

An extremely popular model, this ½ in.—1 ft. (36½ in.) scale M.T.B. is absolutely authentic and fully detailed. For electric or 1-3.5 c.c. motors; R/C can easily be fitted. Ideal for exhibitions or regattas.

MM/337

★ ★

7/6



MAGGA DAN

By Vic Smeed

A $\frac{1}{4}$ in. to the foot ($30\frac{3}{8}$ in.) scale model of a famous prototype used for polar transport, etc., a model incorporating much detail, just large enough for R/C if desired. Electric motors only.
MM/456 * * * 8/6



VOSPER R.T.T.L.

By Vic Smeed

$\frac{1}{4}$ in. scale model of the latest Vosper Rescue and Target Towing Launch, length 34 in., beam $9\frac{1}{2}$ in., for $1\frac{1}{2}$ to $3\frac{1}{2}$ c.c. diesels, or electric drive. Suitable for radio. Ply construction, authentic full-size detail.
MM/530 * *



P.S. DUCHESS OF FIFE

An accurate scale 54 in. paddle steamer for either metal or timber hull construction, and suitable for radio control. All details for articulated paddles, etc., on drawing. Electric drive.
MM/528 * * * * 10/-



COLUMBINE

A simple 26 $\frac{1}{2}$ in. cabin launch for up to $1\frac{1}{2}$ c.c. diesels or electric drive, employing mostly balsa construction, but with some ply parts.
MM/520 * * 5/-



KINGFISHER

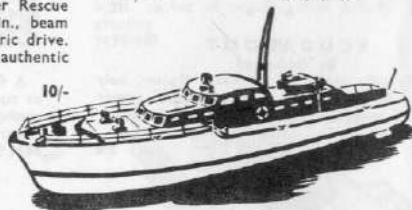
By Vic Smeed

22 in. model specially designed for maximum strength with all balsa structure. For .5 to 1.5 c.c. diesels, can be used for radio.
MM/516 * 5/-

LOROSA

By Vic Smeed

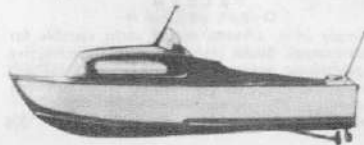
A small two-berth cabin cruiser which, although only 24 in. in length, is large but nevertheless attractive. For 1 to $1\frac{1}{2}$ c.c. motors, all-ply construction.
MM/506 * * 5/-



LORRAINE

By Vic Smeed

A really elegant 54 in. motor yacht with 12 in. beam, suitable for electric or large i/c propulsion, and excellent for radio. Ingenious construction giving choice of methods and either hard chine or rounded hull, fully explained on plan.
MM/512 * * 10/-





SPERANZA

By Vic Smeed

Scale model 1 in. to 1 ft. of a fast small motor yacht. Length 38½ in., beam 12½ in. A most attractive model for diagonal plank construction, engines of 2½ to 10 c.c.

MM/550

10/-

SCUDABOUT

By Vic Smeed

A really nifty miniature fast cabin cruiser, only 16½ in. in length, for up to .8 c.c. diesel power or electric motors. Ply construction, room for radio control.

MM/535

**

3/6



VELETA

By Vic Smeed

Simple 24 in. all-balsa motor yacht suitable for radio control. Builds into an extremely attractive model. Novel construction with sheet sides and laminated bottom to give round bilge hull. For medium-size electric motors.

MM/575

*

3/6



SILVER MIST

By Vic Smeed

A 21 in. round bilge motor vessel of most attractive shape for electric propulsion, and suitable for miniature radio. Balsa planked hull with ply decks, etc.

MM/524

**

3/6

LORENA

By Vic Smeed

A 42 in. small motor yacht for either hard chine or round bilge construction offering six or seven methods of building, all explained on plan. For electric or up to 10 c.c. engines.

MM/526

10/-



SLIPPER

By Vic Smeed

Simple 11 in. near-scale outboard racing hydroplane for small and medium electric outboard motors. All-balsa. With fully illustrated step-by-step instructions.

MM/518

*

2/-

Hydroplanes



2 ½ c.c. HYDROPLANE

Three-point suspension and ultra-simple construction are features of this fast R.T.P. model.

MM/301

**

2/-



RACING HYDROPLANE

By J. Benson

Modern high-speed craft based on designer's famous 30 c.c. boat Orthon (illustrated). For 5 c.c. or 10 c.c. engines, tethered operation only.

MM/440

3/6



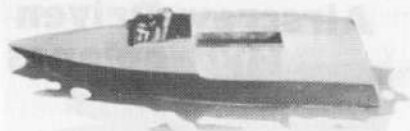
SCAMPI

A simply-built hydroplane for commercial 5 c.c. engines. Suitable for a beginner to gain experience. Capable of 35 m.p.h. up with non-racing 5 c.c. engines.

MM/509

**

3/6



STEPLESS HYDROPLANE

24 in. hull length. A freelance design based on the type of hydroplane popular in the Lake District. It is of easy construction, having no step, and broad in beam. For Mills 1.3 c.c. or similar engine.

MM/150

★ ★

7/6



PHANTOM II

Overall length 21 ³/₈ in.; Beam 7 ¹/₂ in. A delightful miniature racing hydroplane for 5 c.c. engines. Designed by Norwegian expert, who enjoyed wide contest success.

MM/183

★ ★

7/6



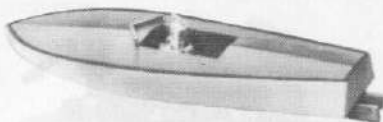
HIAWATHA

36 in. hydroplane for radio-control, employing two 2 c.c. motors synchronised and driving twin screws. Simple ply and balsa construction. On one sheet.

MM/289

★ ★ ★

5/-



JALLOPY

Hydroplane 16 in. L.O.A. Beam 6 in. Specially designed for the under 1 c.c. engines, in particular 5 c.c. Frog or similar. For free running or circular tethered work. Suitable for novices.

MM/241

★

2/6

Hydroplanes



SEA FOAL

Baby hydroplane for up to 1.5 c.c. motors, capable of very high speeds. Sponson type design, all ply construction, strictly for tethered running only.

MM/339

★ ★

2/6



KWIK-KWAK

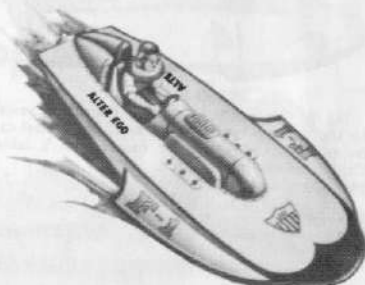
By G. H. Deason

Rubber-driven hydroplane, 8 in. length, of simplest construction; two can be built from a 6d. packet of suitable balsa offcuts. Fast and amusing.

MM/449

★

1/6



ALTER EGO

By Vic Smeed

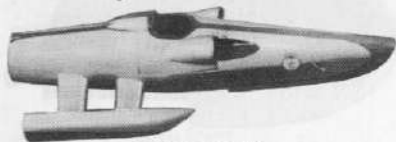
Scale model of the 4 ¹/₂ L world speed record holder, for up to 1.5 c.c. engines on tether, or suitable for free running with smaller motors. Simple ply/balsa construction.

MM/377

★ ★

3/-

Jetex Designs



CRUSADER

Scale model of John Cobb's ill-fated contender for world speed records, for Jetmaster 150. Simple all balsa construction.

MM/426

★ ★

2/6



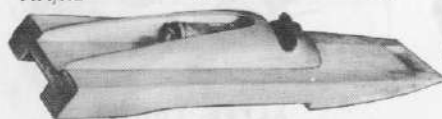
HYDROJET

16½ in. hull length. A modern design for power by the popular Jetex 350 jet unit. The model can be run free or on circular course with a cable. Capable of very high speeds.

MM/172

★ ★

2/6



PIP

By A. F. Palmer

Simple all-balsa hydroplane for 100, 200, or Jetmaster. Tunnelled hull to reduce step suction, etc. Very fast and easy to build.

MM/316

★

2/-



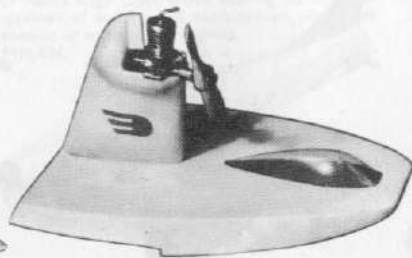
RUN-A-BOAT

Airscrew-driven hydroplane, 18 ins. x 9 ins., for 1 c.c. engines. Simple construction excellent for small radio equipment, positions etc. of which are given on drawing.

MM 706

★

3/6



SKIPPER

By Vic Smeed

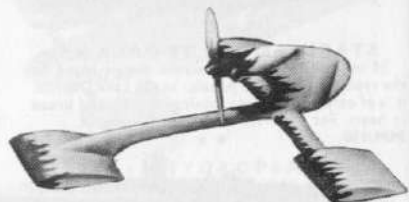
Skimming dish type of air-driven hydroplane of ultra-simple construction and suitable for motors of up to .75 c.c. A quick to build model which will give hours of fun on the water.

MM/308

★

2/-

Airscrew-Driven Hydroplanes



SKATER

By Vic Smeed

Three-float air-driven hydroplane of advanced design, but straightforward construction, using balsa and ply. For very fast free-running with 1-2 c.c. motors.

MM/312

★ ★

2/6



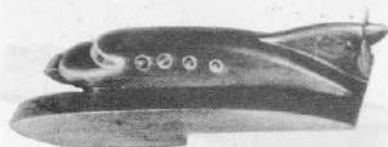
BALLERINA

Unorthodox airscrew-driven hydroplane, capable of up to 75 m.p.h. with up to 2½ c.c. motors. Length 24 in., for tethered running only. Straightforward construction from standard materials.

MM/350

★ ★ ★

2/6



SCUDDER

By Vic Smeed

Large twin pontoon hydroplane, for up to 3.5 c.c. The simplest form of boat for radio-control, which can be easily accommodated in the spacious cabin. Length 24 in. Beam 15 in. Balsa and ply construction.

MM/311

★ ★

3/6



SHALIN

Attractive airscrew-driven hydroplane for .5 to 1.5 c.c. constructed in 1/32 and 1/16 ply, overall length 22 in.

MM/475

★ ★

3/6



SCOOTER

22 in. A.S.D.H. for .5-1.5 engines, employing pusher propeller and outrigger rear stabilisers. All balsa construction.

MM/435

★ ★

3/-

Airscrew-Driven

Hydroplanes



SKIMMER

By Vic Smeed

A twin pontoon airscrew-driven hydroplane of the simplest possible construction, capable of excellent performance with up to 1 c.c. motors.

MM/310

★

2/-



HOT FOOT

By Peter Holland

Most unusual three point hydrofoil airscrew driven boat for up to 1.5 c.c. Extremely fast for tethered or free running, simple balsa construction, overall length 15 in.

MM/476

★ ★

3/6



SKIDDER

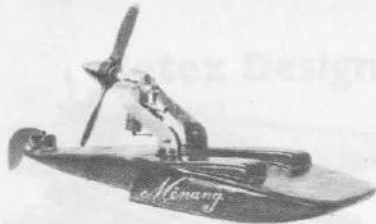
By Vic Smeed

Air-driven hydroplane of rather more advanced construction, but still within the scope of the beginner. Designed for tethered running at very high speeds with 1.5 to 3.5 c.c. motors; or free-running with 1.5 max.

MM/309

★ ★

2/6



MENANG

L.O.A. 15½ in. Beam 5½ in. Simply propelled hydroglider capable of fairly high speeds powered by diesels of up to 1 c.c.

MM/235

3/-



SPINDRIFT

A 19 in. airscrew driven hydroplane for free or tethered running. High speed achieved with engines up to 1½ c.c.

MM/612

**

3/6



AVOCET

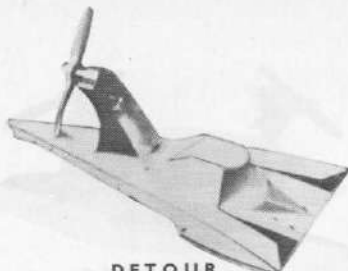
By J. M. Drinkwater

A 17½ in. long airscrew-driven amphibian model, capable of fast running on land and water with .75-1.5 c.c. motors. Unusual but handsome appearance, ply/balsa construction.

MM/627

**

3/6



DETOUR

An unusual triangular airscrew hydroplane with a vented step etc., suitable for up to 1½ c.c. free-running. Mainly balsa construction, requires pusher propeller.

MM/650

**

3/-



H.M.S. KING GEORGE V

This 37 in. model (1/20 in.) battleship makes an extremely interesting project for the slightly more advanced modeller. Powered by any medium sized electric motor. Suitable for R/C.

MM/590

**

6/6



H.M.S. JERSEY

A 1/20 in. scale model warship, using gum paper strip construction for the hull and balsa or obechi for the superstructure. Any small electric motor; can be built for little more than 10/- including motor. L.O.A. 17½ in.

MM/586

**

3/-

Model Power Boats



FAIRMILE TYPE "C" M.L.

By Vic Smeed

A ½-in.-1 ft. scale model of a wartime "little ship"; length 55 in., beam 8½ in. Good performance with 2½-3½ c.c. engines or a combination of two or three electric motors. Plan includes simplified method of construction and a true scale body plan for those who require complete authenticity.

MM/585

10/-



H. M.S. BITTERN

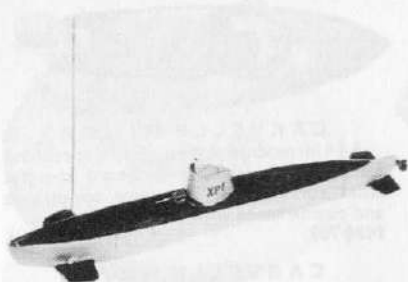
A 1/20 in. scale warship using gum paper strip construction for the hull and a balsa or obechi superstructure. Powered by any small electric motor, costs little more than 10/- to build including motor. Length 14½ in.

MM/587

**

3/-

To ensure speedy delivery please quote plan number, name, and price in your order.



SPRAT

By Vic Smeed

One sheet of $\frac{1}{2}$ in. balsa and a short length of 1 in. square builds this simple high-speed miniature submarine, which uses a Mabuchi/Orbit 205 or similar small electric motor. Length 15 in., automatic diving.

MM/624

★

2/6



MOONMIST

By Vic Smeed

An extremely attractive, 21 in. cruiser which can be built from only four sheets of balsa. An ideal beginners' model; plan includes sketches of construction and all full-size parts separately drawn. Can be built for less than 15/- complete. Suitable for small and medium sized electric motors, will take miniature R/C.

MM/610

★

3/6



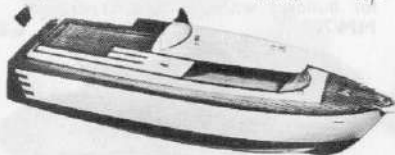
BRAVE BORDERER

A 36 in. ($\frac{3}{4}$ in.-1 ft.) model of Vosper's fastest patrol boat, for diesel or electric power. A single rudder and screw arrangement is shown on the plan together with a triple arrangement for those who prefer absolute authenticity.

MM/609

★★★

10/-



PIRANA

By Vic Smeed

A 28 in. express cruiser for medium/large electric motors or up to 2½ c.c. Advanced hull form with convexed sections for very fast R/C performance, simplified hull also detailed for easier construction. 10 in. Beam, roomy for radio, one-piece superstructure.

MM/620

★★

7/6



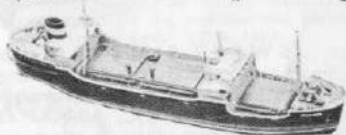
M.Y. PATRICIA

An attractive model of all balsa construction, gives an excellent performance with any medium sized electric motor. Suitable for R/C. L.O.A. 21 in. Beam 4 in.

MM/617

★

3/6



M.V. STEYNING

A delightful 23 in. near scale model collier of balsa and ply construction. A fairly simple model although some previous experience is necessary. For electric power only.

MM/601

★★★

5/-



H.M.S. RODNEY

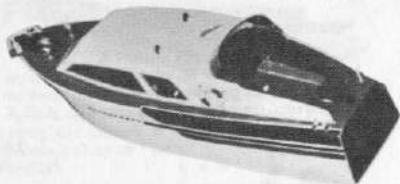
A 35½ in. (1/20 in.-1 ft.) model of effective lines suitable for R/C. Although balsa and ply construction makes this model comparatively simple, some previous experience is desirable. Powered by any medium sized electric motors.

MM/603

★★

6/6

Model Power Boats



SWEET SIXTEEN

Smart little cabin cruiser, 16 in. in length and $5\frac{3}{4}$ in. beam, capable of accommodating simple transistorised R/C. All-balsa construction, small to medium electric motors.

**

3/6



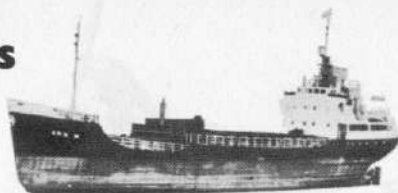
FAIRACRE II

Thames luxury cabin cruiser, 30 in. in length, ply or balsa construction, for 1— $1\frac{1}{2}$ c.c. diesel or electric drive. Light construction, suitable for R/C. Hull shape is similar to Vosper Royal Barge (MM356).

MM/709

**

5/6



ANN M

Largest merchant ship model in Plans Service, this modern motor coaster has a particularly clean deck and is a most practical prototype for a working model. Length $57\frac{1}{2}$ in.

MM/708

15/-

PRINZ EUGEN

Well-known German heavy cruiser of World War II modelled to a length of 44 in. Hull lines and superstructure outlines only, for builders with previous experience.

MM/700

6/6



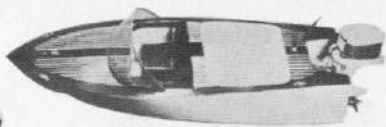
SIROCCO

Handsome 39 in. cabin cruiser for $2\frac{1}{2}$ —8 c.c. engines or large electric motors. Straightforward ply construction, modern styling. Excellent for radio control.

MM/704

**

7/6



CARVELLE MINOR

A 14 in. modern-style outboard speedboat for use with electric outboard motors. Balsa construction, attractive appearance and performance.

MM/703

*

3/6

CARVELLE MAJOR

Larger version of Carvelle Minor, 21 in. length, balsa/ply construction, for glowplug or diesel outboards up to $1\frac{1}{2}$ c.c. or larger electric units.

MM/702

**

5/-



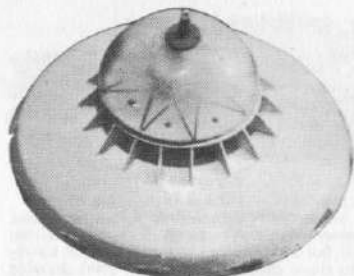
FAIREY HUNTSMAN

By Vic Smeed

A $1\frac{1}{2}$ in.—1 ft. model of one of the best-known fast sea-going small cruisers, 42 in. in length for up to 15 c.c. engines. Hull form is steeply V'd monohedron. Ply construction.

MM/680

12/6



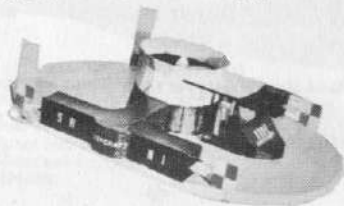
ORBIT

A revolutionary spin-stabilised electric hovercraft for tethered running. All balsa construction, an interesting and attractive model of "flying saucer" appearance. 8 in. Diameter.

MM/614

★★

2/6



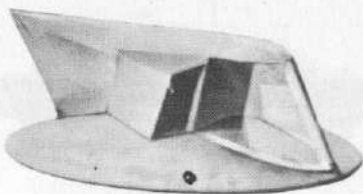
S.R.N.-I

A semi-scale model hovercraft. Powered by any 2½-3½ c.c. engine. The model gives a spectacular performance over land or water, hovering at 1-2 in., while moving forward at 5-10 m.p.h. Suitable for R/C. Size 40 in. x 30 in., all-balsa.

MM/583

★★

7/6



HOVERER

A model of futuristic design employing balsa for the main structure with ply engine mount, etc. Suitable for diesel and glow engines of 1½-3½ c.c. Diameter 24 in.

MM/591

★★

5/-



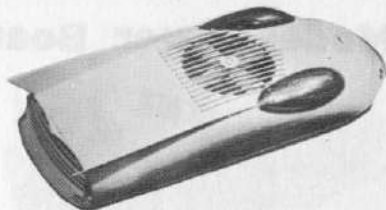
HUMMING BIRD

Radio controlled or free running hover vehicle. Simple construction of balsa with hardwood mounts, etc. Any engine of .5-1 c.c. Basic size 10 in. square. R/C if required carried on outriggers. Lifting capacity 27 ozs.

MM/570

★★

4/6



BUZZIN BEE

A simple all-balsa hovercraft for tethered running, using a 12 v. electric OO railway motor. An attractive project for the modeller who prefers the unusual type of model. L.O.A. 14½ in.

MM/602

★

3/6

Unorthodox Designs



SCUTTLE

By Vic Smeed

Unusual airscrew driven car for .5-1 c.c. motors, using all-balsa-ply construction and any 2-2½ in. wheels. Speeds up to 40 m.p.h. on tethered circuit.

MM/325

★

2/-

Model Power Boats



VIVACITY

By Vic Smeed

Largest power boat in plans range, 54 in. length and 17 ins. beam, suitable for up to 35 c.c. engines or very large electric motors. A nice-handling model for R/C steering competitions etc. Straightforward construction.

MM/652

★★

10/6



BOSTON ARROW

Modern trawler model 36½ in. length, 5/16 in.—1 ft. scale. Bread and butter construction, accurate detail. Outlines and body plan only, for experienced modellers.

MM/666

★★★★

8/6



PILOT II

By Vic Smeed

A distinctive small pilot launch, ¾ in.—1 ft., length 24 ins., scaled from a Universal Shipyard aluminium hull. Largely balsa construction, planked round bilge hull, electric power, suitable for small R/C

MM/645

★★★

5/-



QUERIDA

By Vic Smeed

A fast 40 in. competition model for 2½—15 c.c. motors. Simple but handsome lines, one-piece detachable superstructure, glass-fibre hulls available at time of going to press.

MM/640

★★

8/6



OLAN

By Arthur O. Pollard Jr.

Thames waterman's launch, ¾ in. scale, 21 in. length, featuring double chine hull (may be simplified to single chine as indicated on plan). Suitable for smaller diesels (up to 1 c.c.) or electric power.

MM/662

★★★

4/6



BISMARCK

Model of one of Germany's most famous warships, 55½ ins. in length (1/175 scale) drawn in outline only (with hull cross-sections) and suited only to builders of experience.

MM/644

★★★★

7/6



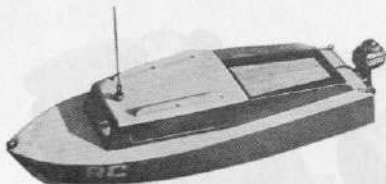
H.M.S. HOOD

The famous battle-cruiser to a scale of 1/16 in.—1 ft., giving a length of 54 in. and a displacement of 14½ lbs. Bread and butter hull construction, ply etc. superstructure. For electric power.

MM/672

★★

10/-



CHIRPY

Electric outboard model, 18 in. in length, all balsa construction, designed for radio control with commercial German actuator. Very simple structure can be free run.

MM/626

★

4/-



STEAM PINNACE

Naval pinnace, 24 in. length, for small steam units or electric propulsion. Carved or bread and butter hull construction. An unusual model of an almost defunct type of boat.

MM/699

★★★

5/-

SPURTSTER

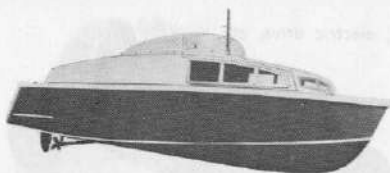
By Vic Smeed

Unusual 27 in. model designed round the Taplin Baker Hydrojet unit with $1\frac{1}{2}$ —5 c.c. engines. Simple all-ply construction, excellent performance with this novel form of propulsion.

MM/695

★★

5/6



FURY

An attractive model, basically a scaled-up Scudabout, which gives an extremely nippy performance on $1\frac{1}{2}$ c.c. engines. Length is 29 in., construction straightforward, excellent for radio.

MM/646

★★

6/-



ADRIAN M

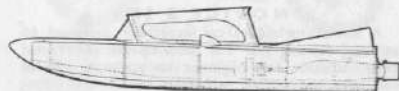
By Arthur O. Pollard Jr.

Modern coastal motor tank to $\frac{1}{8}$ in. scale, length 27 ins., beam 4 in. Hull shown as lines drawing, superstructure and deck detail in outline. For electric power.

MM/682

★★★

6/-



E. BOAT

By Vic Smeed

Scale $\frac{3}{8}$ in.—1 ft., length 35 in. beam $5\frac{1}{2}$ in., this model is of a German S-boat as used in W.W.II. Round bilge hull, simple construction, balsa can be used. For electric propulsion or up to $1\frac{1}{2}$ c.c.

MM/667

★★

8/6



CONAKRY

Unusual 21 in. all-balsa model of a push-tug used on the African coast. Plan includes step-by-step assembly sketches for this quite out-of-the-rut design.

MM/651

★★

5/-

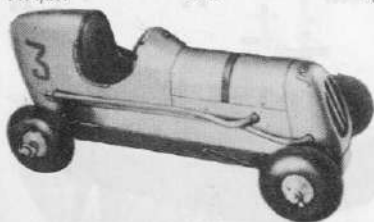
Model Cars

For rubber, diesel, electric drive, etc.



M.G. MIDGET TD SERIES

Scale model of a popular car designed for 1½ c.c. engines. Wheelbase 7½ in., track 3½ in. Fully detailed with development of metal bodywork. Bevel drive to rear wheel, with clutch detail.
MM/277 ★ ★ 5/-



SKIRROW—MIDGET SPEEDWAY CAR

Overall length 12¼ in.; Overall width 6½ in.; Wheelbase 8½ in.; Track 5½ in.; Tyres 2½ in. dia. Popular British speedway design of all wood body construction. Final drive by friction. Can be adapted for engines 1-3 c.c.
MM/165 ★ 2/6



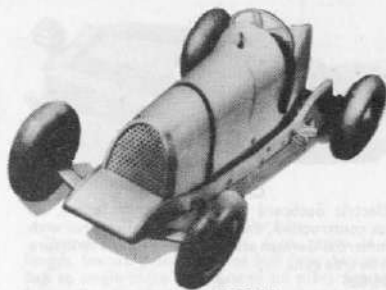
OFFENHAUSER SPEEDWAY CAR

Overall length 15 in.; Overall width 7¼ in.; Wheelbase 9 in.; Track 6½ in.; Tyres 3 in. dia. Built for M.G.M. Film Model Building Contest. Elegant finish, clutch driven. For E.D. Bee 1 c.c. or similar engines.
MM/199 ★ ★ 2/6



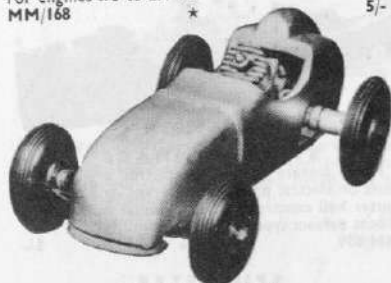
NOVICE'S 50

A miniature model car especially designed to utilise ½ c.c. engines. For cable operation. Wood body, suitable for beginner to attempt. With two-page instruction leaflet.
MM/255 ★ 2/6



THE KITTEN

Overall length 12½ in.; Overall width 6½ in.; Wheelbase 9½ in.; Track 5 in.; Tyres 2½ in. dia. For engines .75 to 2.4 c.c.
MM/168 ★ 5/-



DAT PRINCE

A very simple race car design of Japanese origin for Javelin or similar 1-1½ c.c. motors. Commercial parts for motor adaptation are available, pan and body, etc., are all wood.
MM/385 ★ 2/6



B.R.M.

By Ken Procter

Designed for 2½ c.c. twin-shaft engines (Oliver, etc.) A "kitchen table" version of this British Racing design. Wooden body. Simple construction for those lacking workshop facilities.

MM/209

3/6



LOTUS Mk. 9

By Vic Smeed

1/12 scale model for ½-1½ c.c. engines, for rail or cable track. Simple construction with wooden body and dural sheet chassis. Drive through bevel gears.

MM/434

**

3/6



LE MANS TD MG MIDGET

By G. H. Deason

A scale model car for .75 c.c. or similar engines that can win Concours d'Elegance and put on a good track performance.

MM/232

**

5/-



1898 BENZ DOGCART

By G. H. Deason

A simple card and balsa working model employing any stock small electric motor. Entirely self-contained and amusing both in construction and performance.

MM/387

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2/6

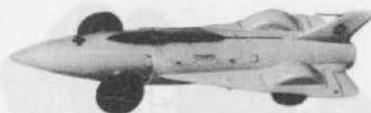


1900 DE DION

A really outstanding working model veteran car for .5 c.c. diesels. All metal construction, entailing some brazing, etc.

MM/375

3/6



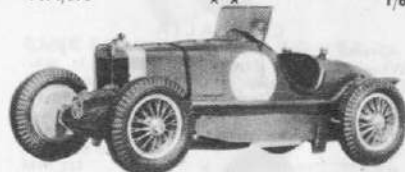
G. M. FIREBIRD

A simple 12 in. model of this intriguing jet powered car, constructed from hollow block balsa and accommodating a Jetex 50 and augments tube. Speeds of up to 20 m.p.h. tethered or free.

MM/378

**

1/6



M.G. MAGNETTE

Overall length 15 in.; Overall width 7 in.; Wheelbase 10 in.; Track 6 in.; Tyres 3 in. dia. An intermediate model based on Bira's racing car used in 1934. Simple construction. For engines 1-2 c.c.

MM/164

5/-



JETMOBILE

Overall length 11½ in.; Overall width 5½ in.; Track 4 in.; Wheelbase 7 in.; Tyres 2 in. dia. Jetex propelled. Fast and simple to build.

MM/167

**

2/6



CISITALIA

Overall length 16½ in.; Overall width 8½ in.; Wheelbase 12 in.; Track 7½ in.; Tyres 3½ in. dia. Employs rubber drive. Ideal for beginners or those without engines available. Cheap to build, easy to construct and run.

MM/158

★

2/6



QUICKIE

An all-balsa race car for 1 c.c. engines, this simple model can be confidently tackled by a beginner and serves as a useful introduction to the racing car world. All parts easily obtainable commercially.

MM/305

★

3/-



SCORCHER

By Vic Smeed

An ultra-simple car model for 1-1.5 c.c. engines, using Meccano gears and inexpensive wheels. Total cost (less engine) roughly 30/-.

MM/448

★

3/-



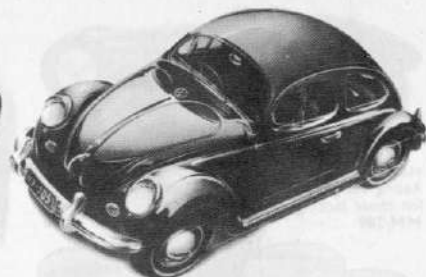
MERCEDES 2½ c.c.

Both Rheims and Nurburg type Mercedes in the same scale on the same plan. Simple construction with any standard bevel gears, etc. Both models complete on one drawing.

MM/391

★ ★

4/6



VOLKSWAGEN

Simple all-wood scale-model of the well-known German car, designed for electric propulsion. Block balsa body-work, etc. 15 in. overall length.

MM/299

★ ★

2/6



AUSTIN SINGLE SEATER

Overall length 12½ in.; Overall width 5½ in.; Wheelbase 8½ in.; Track 4½ in.; Tyres 2½ in. dia. Easily built and satisfactory to run. For engines 1-3 c.c.

MM/166

★ ★

2/6



DELLOW TYPE SPORTS CAR

Miniature electrically powered model, highly authentic detail, realistic operation. Soldered tinplate construction. Length 6½ in.; Overall width 2½ in.

MM/253

★★

3/-



LE MANS JAGUAR D

Scale model for up to 2½ c.c. motors using easily obtained commercial clutch and rear axle unit. Wooden body clipped to aluminium chassis, needs no workshop equipment.

MM/367

★★

4/6



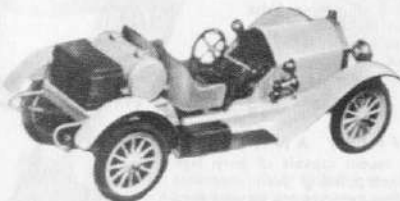
AUSTIN A90 SALOON

Length 14½ in.; Overall width 5½ in.; Wheelbase 8 in.; Track 4½ in.; Wheels 2 in. dia. One-twelfth scale, electrically powered model.

MM/248

★★

5/-



STUTZ BEARCAT

Simplified scale model of a popular vintage American roadster. Excellent as a decoration to be incorporated with a table-lamp, etc.

MM/324

★★

2/-

CHEVROLET CORVETTE

An all-balsa electrically propelled model of a smart modern car, 13½ in. in length. Simple construction, uses 3-6 v. motors.

MM/353

★★

3/-

Model Cars



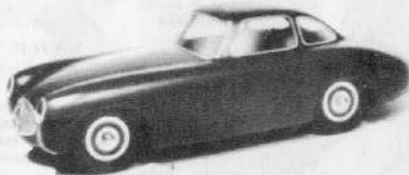
ELECTRIC REMOTE CONTROL CHASSIS

An ingenious unit which will fit many of the Prototype Parade drawings; gives full hand steering, reverse, stop and headlights, etc. Easily built and great fun to operate. Suitable body construction suggested on plan.

MM/369

★★

2/6



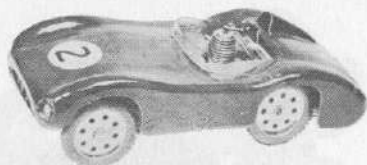
MERCEDES BENZ 300-SL

A radio-controlled scale car using a belt-drive 2.5 c.c. motor, may also be electric-powered. Radio installation details (not circuit) illustrated on plan. Sheet metal pan, balsa coachwork. Length 17 in.

MM/322

★★★

3/6



MECCANO CHASSIS

A simple plan showing the construction of a chassis from standard Meccano parts to suit up to 1 c.c. diesel. An Aston Martin body to fit (length 10½ in.) is also detailed on the plan. For tethered or, where space permits, free running.

MM/592

★

2/6

THE SLIDER AND THE FLY

An ingenious pair of models of simple balsa construction. *Slider* being an airscrew driven hydroplane for up to 1 c.c. motors to which is attached an identical hull fitted with an autogyro unit. This rises clear of the water when the model is in action.

MM/454

★

3/6

SAND FAIRY ANN

Smart land yacht model capable of very high performance and incorporating such ingenious devices as a crew ballast swinging out to windward by an amount proportional to wind pressure on the sail. Simplified vane gear, easy and very inexpensive construction, length over all 17 in., height 30 in.

MM/466

★★

4/6



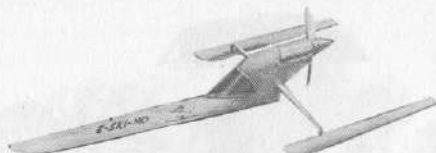
RECOVERY

An unusual amphibian model with both wheels and waterscrew continually driven with 1-2 c.c. motor. Construction mostly from sheet balsa. Suitable for radio control adaptation. L.o.a. 19 in.

MM/554

★★

5/-



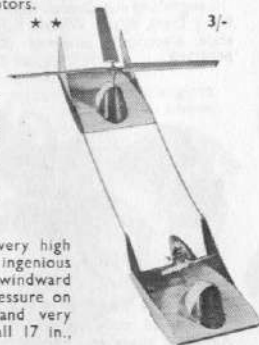
E-SKI-MO

An airscrew-driven ice sled comprising one central ski with outriggers. Can be used on snow, ice, water, or even wet grass! Balsa construction. For up to 1 c.c. motors.

MM/450

★★

3/-



FLOPALONG

An ingenious boat propelled by vibrating plate, which is quite capable of holding its own against normal propulsion. All balsa construction, for small electric motors, length 19 in.

MM/402

★

3/-



PLUTONIAN PLATE

This saucer is amphibious and will perform equally well on land or water. Simple construction, mainly of balsa. 13 in. in diameter, for up to 75 c.c. motors.

MM/390

★

2/6





SNOOPER

This remarkable 3-wheeler finds its way around obstacles, and resumes its original course once clear. Easy to build, using any small electric motor.
MM/436

★

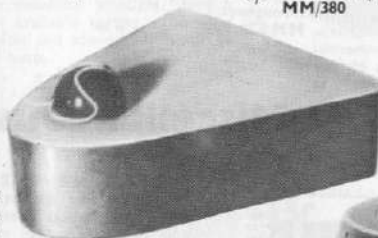
2/6

TEAL

Described as a Tripedal Electronic Ambulatory Locomotive, this is a futuristic space model powered by a small electric motor, and it actually walks. Simple construction with wire cranks, etc.
MM/380

★

2/-



CAMEL

Cosmic Ambulatory Medium Elevation Look-out for survey on other planets. Inexpensive model, using simple and ingenious rubber drive mechanism, walks 50 yards on one winding. Bristol board and balsa construction.

MM/394

★

2/-



SLITHA

A track-laying vehicle which shoots its track forward, lowers it in place, runs forward, lifts the track and repeats. Any small electric motor, balsa construction.

MM/420

★

3/-



MR. ROBOT-HAM

An ingenious 2 ft. high walking robot, powered by two small electric motors (TG18 or similar). Balsa and card construction; causes a sensation whenever it appears in public!

MM/406

★

4/6

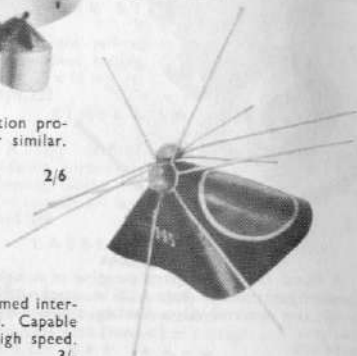
TURTLE

Novel tricycle vehicle employing reaction propulsion obtained with T.G.18 motor or similar. Balsa and card construction.

MM/419

★

2/6



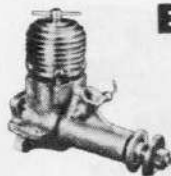
SPIDER

Unusual model running on two six-armed intermeshing rotors, employing rubber drive. Capable of covering considerable distances at high speed.

MM/413

★

3/-



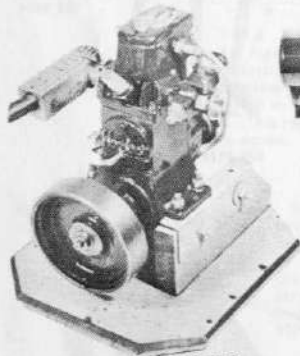
Engines

SUGDEN SPECIAL

By D. C. Sugden

Developed through seven engines, this design is the ultimate in plain bearing 2.5 c.c. diesels, having higher power output than many commercial ball-race products. Made entirely on a Myford ML7, the prototype peaked with .24 B.H.P. at 12,700 R.P.M. Die-cast crankcases ready for machining are available with the drawing at 12/6d. inclusive or 8/- each, separately.

588 ★ ★ ★ Drawing only ... 4/6



OTTER

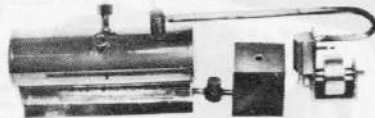
By L. V. R. Haydock

A 15 c.c. O.H.V. four-stroke engine of straight-forward construction. Bore 1.125 in., stroke 0.875. Single cam operated valves. Castings available from designer.

MM/589

★ ★ ★

7/6



Not illustrated

1 c.c. COMPRESSION IGNITION ENGINE

Designed for construction from the solid without use of castings. Drawings twice full-size and fully dimensioned, together with very detailed 6-page 4,000-word step-by-step instruction leaflet. Suitable for model cars, boats, etc., and within skill of average small lathe operator.

MM/251

★ ★ ★

5/-

SIOUX

A straightforward 3 c.c. diesel engine using the well-tried sideport induction.

MM/507

★ ★ ★ ★

6/6

SNO-CAT

By Peter Holland

Unusual caterpillar model of Trans-Antarctic Expedition vehicle, using simple electric drive and suitable for miniaturised radio. Scale $\frac{1}{4}$ in. to the foot, length 14 in. Simple construction throughout.

MM/529

★ ★

3/6



Miscellaneous

MARINE STEAM PLANT

Single cylinder oscillating steam engine, $\frac{1}{2}$ in. bore x $\frac{3}{8}$ in. stroke, complete with boiler and spirit lamp. Requires minimum tools for construction and would power boats approximately 30 in. in length.

MM/546

★ ★ ★

3/6



SIMPLICITY

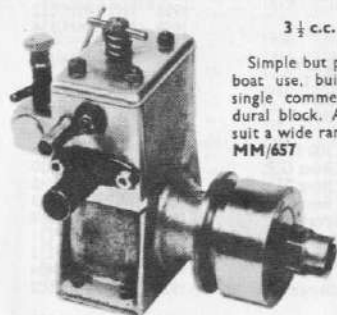
By G. H. Deason

Novel electric powered traction engine to freelance design, using Mighty Midget or similar motor. Overall length 10 $\frac{1}{2}$ in. All card construction.

MM/392

★ ★

3/6



3 1/2 c.c. MARINE DIESEL

By C. Starnes

Simple but practical 3 1/2 c.c. (.20 cu. in.) diesel for boat use, built on monobloc principle, using a single commercially available casting or a solid dural block. A flexible and economical motor to suit a wide range of boats.

MM/657

★★★★

4/6

BEAVER

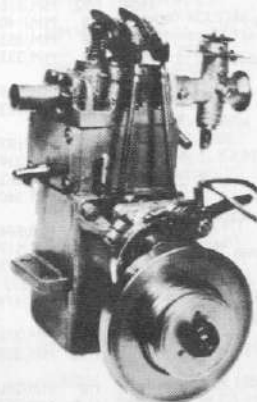
By L. V. R. Haydock

Marine 10 c.c. o.h.v. four-stroke for which castings are commercially available. Bore 1 in., stroke 1/2 in. An interesting project for the amateur lathe user; suits hulls of up to 40 in. by 12 in. beam.

MM/692

★★★★

7/6



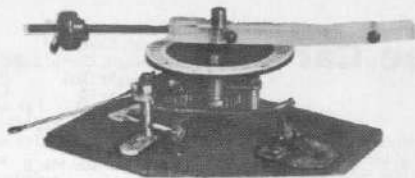
SQUIB

A very simple air screw driven car for up to 1 c.c. engines using Meccano wheels, etc. Capable of a good turn of speed. Exceptionally strong.

MM/553

*

2/6



Vane Gears

MOVING CARRIAGE VANE GEAR

By A. Wilcock

An ingenious vane steering mechanism whose tack and tack motion comprises sun and planet gears in a movable carriage. Straightforward to make, reliable and precise in action.

MM/631

★★★

3/6

A LIGHT VANE GEAR

Designed specially for MODEL MAKER'S Marblehead design Festive, but equally suitable for any modern design where rudder pintle comes very close to transom. On one sheet, size 32 x 17 in.

MM/245

★★★★

2/6

VANE STEERING GEAR

By S. Elphée

A simple self-tacking gear that requires no independent setting. On one sheet (twice full-size), 20 x 15 in.

MM/225

★★★★

1/6

SIMPLE VANE GEAR

By J. Weeks

A fully detailed and dimensioned drawing enabling anyone to construct an efficient Vane Steering Gear. "M" class dimensions given, but also suitable for larger models.

MM/398

★★★

2/6

LASSEL SELF-TACKING VANE GEAR

By A. R. "Gus" Lassel

The foremost Vane Gear in the world in plan form for home construction. On one sheet, complete with Elements of Linkage, size 25 x 19 in.

MM/270

★★★★

2/6

Prototype Car Plans

This series covers a representative selection of classic and modern racing and sports-racing cars. Interesting modern, vintage and veteran types to suit all tastes. Plans comprise accurate scale three- or four-view outline drawings and are particularly suitable for the solid scale enthusiast.

Price 2/6 per plan unless otherwise noted.

CAR	Approx. Date	Scale	Ref.
A.C. Acea	1955	1/8	MM/438
Alfa Romeo Disco Volante	1953	1/8	MM/283
Alfa Romeo P3 Monoposto	1932	1/8	MM/132
Alfa Romeo 158	1946	1/8	MM/184
Alfa Romeo 6c Gran Sport	1925	1/12	MM/397
Allard J2X Comp. 2-Str.	1952	1/10	MM/227
Alta G.P.	1949	1/8	MM/139
Amilcar G.6	1926	1/8	MM/160
Aston Martin Ulster	1936	1/8	MM/207
Aston Martin DB2 Saloon	1949	1/10	MM/224
Aston Martin DBR1/300	1958	1/10	MM/527
Aston Martin G.P. DBR 4/250	1959	1/12	MM/562
Austin 744 c.c. O.H.C.	1936	1/8	MM/205
Austin Ulster	1929	1/12	MM/288
Austin Healey	1955	1/12	MM/341
Auto Union G.P.	1938	1/8	MM/134
Auto Union 6L Type C	1934	1/12	MM/559
Bentley 4½ L. Le Mans	1928	1/10	MM/202
Bluebird C.N.7	1960	1/10	MM/618
B.M.W. Record Sidecar	1955	1/10	MM/425
B.R.M.	1950	1/8	MM/196
B.R.M.	1956	1/8	MM/453
B.R.M.	1959	1/12	MM/555
B.R.M. F1 (Rear Engined)	1960	1/12	MM/615
Bugatti 358	1927	1/8	MM/128
Bugatti 40	1927	1/8	MM/210
Bugatti 3.3 L. G.P.	1934	1/8	MM/243

Citroen Cloverleaf	1922	1/10	MM/411
Connaught Comp. 2-Str.	1949	1/8	MM/194
Connaught Dart	1957	1/12	MM/557
Connaught F2	1952	1/12	MM/246
Cooper Climax	1958	1/12	MM/514
Cooper Record Car	1951	1/10	MM/230
Cooper Bristol	1952	1/12	MM/249
Cooper Bristol Mk. II	1953	1/12	MM/280
Cooper Norton Mk. VII	1953	1/12	MM/287
Cooper 1100	1955	1/8	MM/421

D.A. Lubricant Special	1958	1/12	MM/558
Daimler	1886	1/12	MM/477
Darracq	1904	1/12	MM/315
Delage 1½ L. G.P.	1925	1/8	MM/140
Dellow Mk. V	1954	1/8	MM/383
Dyna Panhard Junior	1954	1/9	MM/333

E.R.A. D Type	1938	1/10	MM/129
E.R.A. E Type	1938	1/8	MM/133

Ferrari 125 G.P.	1949	1/8	MM/197
Ferrari 4½ L.	1950	1/12	MM/239
Ferrari F.2	1952	1/12	MM/262
Ferrari 2½ L. G.P.	1955	1/10	MM/360
Dino Ferrari Standard Model	1958	1/12	MM/584
Ferrari Testa Rossa	1958	1/12	MM/517
Ford Zephyr	1953	1/10	MM/275
Ford Model T.	1922	1/12	MM/373
Fordson Major Tractor	1955	1/10	MM/414

G.M. Firebird	1955	1/10	MM/371
Gordini 2 L.	1952	1/12	MM/259

H.R.G. 1½ L.	1937	1/8	MM/200
H.W.M. F.2	1951	1/12	MM/257

Jaguar 3½ L. Mk. VII	1950	1/12	MM/298
Jaguar XK 120	1948	1/8	MM/171
Jaguar D Type	1957	1/10	MM/519

Kieft 1½ L. Sports	1953	1/12	MM/290
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Lago Talbot 4½ L. G.P.	1947	1/8	MM/179
Lancia Ferrari F.1	1956	1/12	MM/509
Lotus F.1	1958	1/12	MM/532
Lotus XV	1958	1/12	MM/534

Maserati 1½ L. 6c	1936	1/8	MM/145
Maserati 4CLT	1948	1/8	MM/177
Maserati 250F	1957	1/12	MM/548
Mercedes Benz 1½ L.	1939	1/8	MM/149
Mercedes	1908	1/10	MM/186
Mercedes 300 SL	1955	1/12	MM/388
Mercedes Benz G.P.	1938	1/8	MM/130
Mercedes Benz 2½ L. G.P.	1954	1/12	MM/345
Mercedes Benz 163	1939	1/12	MM/623
Mercedes Raceabout	1910	1/12	MM/368
M.G. Gardner Record Car	1939/46	1/10	MM/131
M.G. Midget T.D.	1950	1/8	MM/213
M.G.A.	1955	1/8	MM/404
Morris Bullnose	1924	1/12	MM/502

Novi Special	1947	1/12	MM/379
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Pegaso	1953	1/12	MM/328
Porsche Spyder	1958	1/12	MM/525
Porsche F.2	1959	1/12	MM/571
Railton Special	1938	1/16	MM/192
Reo	1904	1/12	MM/399
Rhindo Trimax	1950	1/8	MM/198
Rolls Royce Silver Ghost	1907	1/12	MM/291
Brooklands Riley	1927	1/12	MM/233

Scarab F.1	1960	1/12	MM/604
Sunbeam G.P.	1924	1/8	MM/273
Sunbeam Rapier	1956	1/8	MM/441
S.S. 100	1937	1/12	MM/193
Sunbeam Talbot 90	1951	1/12	MM/237
Sunbeam Alpine Sports	1953	1/12	MM/297
Sunbeam 350 h.p.	1924	1/12	MM/163

Triumph T.R.2	1955	1/8	MM/359
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Vanwall	1956	1/8	MM/446
Vanwall	1958	1/12	MM/552

Vauxhall	1905	1/12	MM/474
Vauxhall 30/98E	1913	1/12	MM/351
Aston Martin DB4	1958	1/10	MM/628
Bugatti 251 F.I.	1956	1/10	MM/633
Cisitalia G.P.	1948	1/12	MM/691
Daimler S.P. 250	1960	1/12	MM/639
Ferguson F.I.	1961	1/12	MM/661
Ferrari F.I.	1961	1/10	MM/658
Ferrari 555 Super Squalo	1955	1/12	MM/707
Jaguar Type E	1961	1/12	MM/643
Lotus 20	1961	1/12	MM/668
Maserati Type 61 Birdcage	1960	1/16	MM/697
Mercedes Benz W.196	1954	1/12	MM/674
Mercedes Benz 300 SLR	1955	1/12	MM/648
M.G. EX181	1957	1/8	MM/671
Sunbeam Alpine	1959	1/8	MM/681
Triumph T.R.4	1962	1/8	MM/710

Prototype Car Plans

The following drawings are produced at 1/32nd scale for the benefit of the many electric rail racer enthusiasts who employ this scale, and other car modellers who may care to work to this convenient small size for static models. Once again, the plans are merely outline drawings of the fullsize cars and do not show structure for a model. Note that each sheet consists of two cars.

MM/457	M.G. Type M.G.A.
MM/458	Mercedes Benz 300 SL
	Triumph TR.2
MM/459	Austin Healey 100
	B.R.M. 2½ L. G.P.
	Cooper 1100 Mk. I
MM/460	Ferrari 2½ L. G.P.
	Mercedes Benz 2½ L. G.P.
MM/461	Vanwall
	Connaught F.2

MM/484	1904 Darracq
	Ford Model T
MM/488	H.W.M. F.2
	Lago Talbot 4½ L. G.P.
MM/489	Mercedes 1938 G.P.
	Auto Union 1938 G.P.
MM/490	Era D Type
	Alfa Romeo 158
MM/491	Bugatti 3.3 L. G.P.
	H.R.G. 1½ L.
MM/492	Maserati 1½ L. G.P.
	Alfa G.P.
MM/493	Ferrari 4½ L.
	Maserati 4CLT/48
MM/495	Alfa Romeo P3 Monoposto
	Bugatti 35B
MM/496	Sunbeam G.P.
	Delage 1½ L. G.P.
MM/497	Rolls-Royce Silver Ghost
	Mercedes Raceabout
MM/498	Vauxhall 30/98E
	Bentley 4½ L. Le Mans
MM/499	Novi Special
	Gordini 2 L.
MM/521	Ferrari Dino 246
	Lancia Ferrari F.I.
MM/522	Cooper Climax
	Lancia D.50 F.I.
MM/593	Aston Martin DBR 1/300
	Porsche Spyder 718
MM/595	Auto Union 6 L. Type C 1938
	Porsche F.2 1958
MM/594	Ferrari Dino 246 1958
	Lotus F.I. 1958
M/M596	Cooper Climax 1958
	Aston Martin F.I. 1959
MM/597	Jaguar Type D
	Ferrari Testa Rossa
MM/598	D.A. Lubricant Special
	B.R.M. 1959
MM/599	Vanwall 1958
	Ferrari Dino (basic) 1958

MM/605	B.R.M. 1956
	Connaught Dart
MM/678	F. I. Ferguson
	1961 Lotus 20
MM/685	1961 Ferrari F.I.
	Bugatti 251
MM/686	F.I. Scarab
	1960 B.R.M.
MM/687	Aston Martin DB4
	Daimler S.P. 250
MM/688	Ferrari Berlinetta
	E Type Jaguar

SPECIAL FOR OLD TIME CAR FANS 1891 PEUGEOT

By CHRISTIAN TAVARD

Special drawings of a grand old vehicle which in many ways was years ahead of its time. These drawings give all the details for the construction of a museum piece at 1/10th scale, and are of considerable historical interest to all car lovers.

MM/467

3/6

SCENIC BACKGROUNDS

These are 30 x 40 in. sheets which, when cut in half, form 6 ft. 8 ins. of background for electric car circuits, etc. Each sheet has drawn outlines and details plus full colouring instructions.

Price is 5/- per sheet.

Sheet A—Hilly country with pine trees, no figures, suitable for railway or car layouts.

MM/675

Sheet B—Rolling typical countryside with car race spectators, advertisements, etc. MM/679

Sheet C—40 in. of background with spectators, etc., plus plans for Marshal's Shelter and Electric Scoreboard

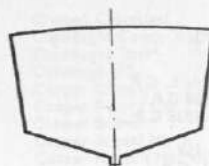
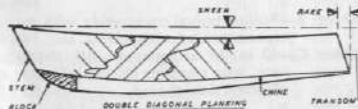
MM/689

Hull Construction

BOAT HULLS are divided into two primary categories which refer to their actual cross-sections. The first and simplest of the two is the **hard chine** hull, where definite "corners" exist between the sides and bottom panels; in such a boat the sides and bottom panels are virtually flat for all or most of the length, although varying in angle throughout. The **round bilge** hull, on the other hand, curves gently from gunwale to keel, with no suggestion of a "corner", and calls for rather different constructional methods.

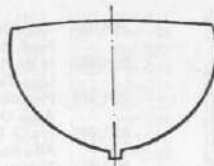
HARD CHINE HULLS

This type of hull is most often built on permanent frames or bulkheads which remain part of the finished hull. Occasionally, however, "shadows" are used, removable after completion, especially where light weight is desirable. The



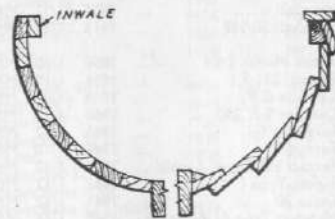
HARD CHINE

*PLY SKINNING
DIAGONAL PLANK
SHEET METAL*



ROUND BILGE

*BREAD & BUTTER
RIB AND PLANK
CARVEL
CLINCHER*



CARVEL BUILD

CLINCHER BUILD

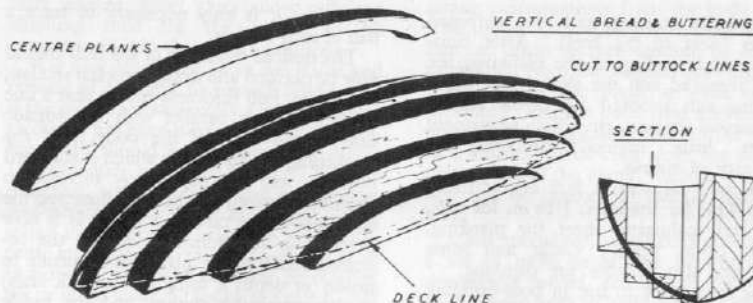
frames or shadows are shaped and fitted to a jig which, in power boats especially, may be the actual keel. Longitudinal strips are then affixed to form the inwale and chine, and sometimes additional stringers are added as stiffeners. The planking is then fitted to these strips. The planking is frequently sheets of ply, etc., which cover the whole side or half the bottom in one piece; sometimes diagonal planking is used, when narrow strips of ply, etc., are fitted along the sides and bottom at an angle of 45 deg. to the centre line. In the latter case, double diagonal planking is frequently specified; this means that a second skin of narrow strips is laid over the first, sloping at 45 deg. in the opposite direction. At the bow, a block or blocks may be called for, to simplify construction by obviating that part of the skinning which would need a very sharp change in angle. The transom,

or stern end, is usually a flat plate built in as a bulkhead. Skinning is carried out with the hull upside down, and on completion the hull is strong enough to be removed from the jig (if an external one is used) and the shadows (if any) knocked out. Interior details and deck, etc., are then added.

Most modelling materials lend themselves to this type of hull, and balsa, obeche, spruce, or birch are often used. The most frequent material specified, however, especially for skinning, is resin-bonded plywood, which is easily available in all sizes from 1/32 in. thickness upward.

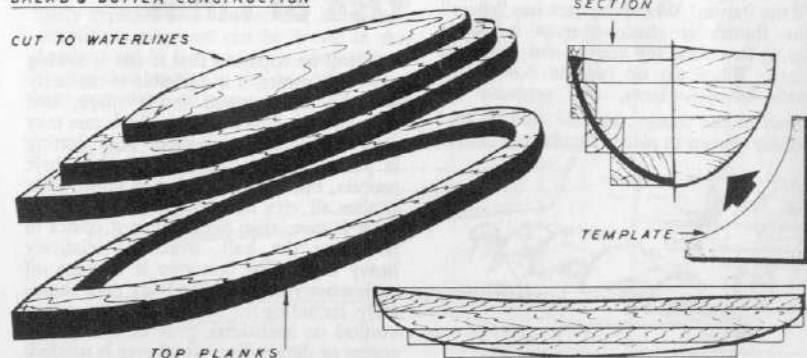
ROUND BILGE HULLS

The simplest form of construction for hulls of this type is to carve the whole unit from the solid, using a timber such as pear, holly, lime, yellow pine, or obeche.



This is an expensive and wasteful means, apart from the difficulty of obtaining good quality material in sufficiently large sizes, and as a result "bread-and-butter" building is employed. In this system the "bread" is the timber and the "butter" the glue used to bond the planks together. It has the advantage of being less wasteful and of rendering hollowing much easier. The hull profile and cross-section are first divided off on the plan into slices of the thickness of the planks available, and the top line of each division is used to mark off the outline for each slice on the timber—there is after all, little point in making a low "slice" the same size as the top one when it will have to be carved down anyway. Inside the outline a second shape is drawn and this shape is also sawn out and removed, thus considerably

BREAD & BUTTER CONSTRUCTION



reducing the amount of internal hollowing to be done. After glueing the planks together, the outside is carved to its finished contours, using templates traced from the drawing, before completing the internal hollowing. Ribs, bulkheads, and other interior details are added after the hull shell is completely finished.

An alternative system becoming popular is "bread-and-buttering on the buttock lines", which entails the use of vertical planks.

The most common material for bread-and-butter construction is obeche, which is available at most timber yards and model shops. Sugar pine, yellow pine, mahogany, and red cedar are also excellent

timbers for this job, though more difficult to obtain.

Planked hulls, either clincher (overlapping) or carvel (flush) built, are constructed in two ways, depending on whether permanent frames are fitted. Procedure is much the same, except that permanent frames are cut to the cross-section of the hull less the thickness of the planking, while in the other case, the temporary frames ("moulds" or "shadows") are cut to finished cross-section less the thickness of the planking and the ribs. The cut frames can be fitted with a square piece of timber running along one side of their top edges and screws passed through the jig plank into these fillets, or slots can be cut in the jig to accept the top edges of the frames. Where the deck has "sheer" the frames or shadows must be made up so that their top edges form a straight line. When set up (upside down), the keel, inwales, stern, and transom are fitted to the frames, and the ribs (if any) lightly pinned in place. Planking is carried

out, usually starting with the garboard strakes (next to the keel). After completion and sanding of the planking, the jig is removed and the shadows or other building aids knocked out before adding the internal timbers, etc. With permanent frames little internal timbering is necessary of course.

Materials for such a hull are normally ply, 1/4 in. for shadows, 1/16 in. for ribs, etc., and mahogany sheet for planking, up to 1/8 in. thick. Cedar and some pines are also suitable for planking.

The best glues to use in boat-building are the gap-filling resin glues such as Cascamite "One-Shot", Aerolite 306, Beetle, etc.

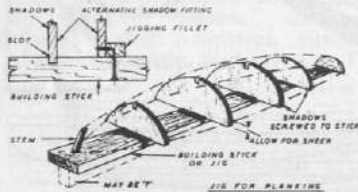
Use of Lines

It will be apparent that if one is sawing away the insides, it is desirable to cut fairly close to the required inside shape, and therefore the inside line to which one may safely cut should be plotted. This plotting is perhaps the longest job in the whole process, but the time taken in doing what is after all very light and quite interesting work is more than saved when it comes to hollowing the hull, which is relatively heavy work. The first step is to trace off each cross section of the body plan separately, including the lamination lines, either vertical or horizontal, plus of course, the centre or datum line, whichever is needed.

Note that it is only necessary to trace a half of each section.

The desired thickness of the hull should now be decided and drawn on each section, i.e., a 3/8 in. hull thickness means that a line must be drawn parallel with the outside line around most of the body, plus the thickening for the inwale which is standard practice, and of course, any increase in thickness desired in the hull floor for the lead keel in the case of a yacht. It is now possible to see from any section the required width of any plank from outside to inside (or depth if using the buttock lines) at that particular station, and the inside points can be stepped off on to the timber and joined in a smooth curve. It is advisable to leave a 1/16 in. or so of timber when cutting to the line, just to be on the safe side. When the block is now glued together very little work will be required to complete the internal hollowing, and in many instances, for example where a hull is not required to be ultra-light, no hollowing at all may be needed, the inside laminations being left as a series of steps.

Gluing the block up under pressure is an operation which has frequently been described and offers no great problems, and it is hardly necessary to say that the position of each lamination must be completely accurate in the fore-and-aft direction, where slight misplacement can escape notice. To this end the separate planks should be placed on the drawing and the positions of the next lowest plank care-



fully marked. Most glues allow sufficient shuffling time for the planks to be manoeuvred into their exact positions.

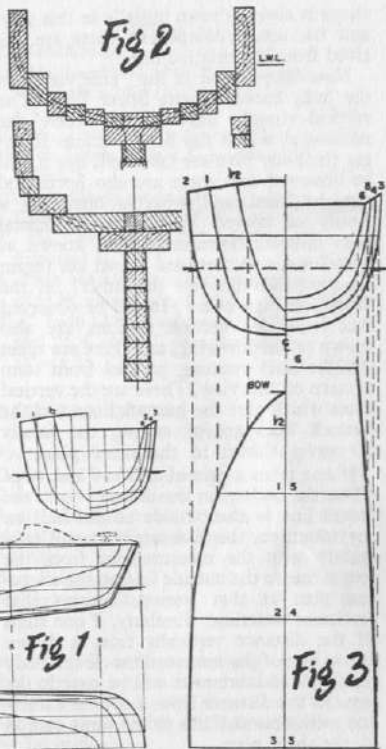
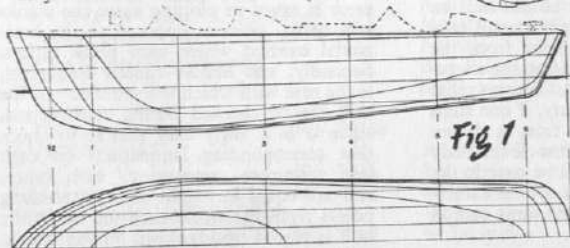
It is now possible to carve the inside and outside of the hull to smooth shape, and if the planks are absolutely accurate and no thickness has been taken up by glue layers, the result should be the exact hull shape. Unfortunately some builders tend to leave it at that, with the result that a boat may be oversize or inaccurate in its lines due to minor inaccuracies in assembly, glue thickness, etc. For this reason, a template at each station should be cut from, preferably, ply or metal sheet, although at a pinch, stiff card could be used. These should be full templates, i.e., one half should be traced and then reversed to obtain the complete shape. The centre line should be clearly marked, as should the deck level. Now when these templates are offered to the hull it will be apparent that any high spots, etc., will be easily discovered. The careful builder starts checking with templates when he still has at least $\frac{1}{8}$ in. of material to remove.

Before leaving the subject of laminated hulls, let us consider the man who wants to scale a design up or down. Even scaling ($\times 2$, $\times \frac{1}{2}$, etc.) is simple with dividers, but for an odd scale the easiest method is photostatic enlargement or reduction. What is not realised is that it is only necessary to have the body plan photostated to the required size and the planks can be laid out direct onto the wood by

taking measurements from the body plan. The timber should be marked out with a line at each section station (a simple calculation from the original drawing) and the width of the plank at each station measured from the body plan and marked on the wood. A spline to connect the points in a smooth curve then gives the outside cutting line of the plank; the inside cutting line can be marked in exactly the same way.

Many modellers, when confronted with a set of naval architect's drawings, are completely baffled, and do not know how to use these lines to build a hull. Once the idea has been explained to them the whole thing becomes ridiculously simple.

In the first place, then, let us look at a set of these lines. Figure 1 shows something fairly typical in this direction, but rather simplified; any boat can be drawn in this fashion, and in fact usually is, even though the finished result (in the case of models) may not show all these lines. (The hull



shape is always drawn initially in this way, and the actual component parts are derived from the original lines.)

Now take a look at the "side view" of the hull, known as the Sheer Plan. The vertical straight lines are of course the stations at which the body sections forming the body plan are taken off, but it will be observed that there are also horizontal straight lines, and what is obviously a family of curved lines. The horizontal lines indicate horizontal slices, known as waterlines, and these are drawn out (again superimposed one on the other) on the Waterline Plan below. It will be observed that the cross section stations are also shown on this drawing, and there are again straight lines running parallel from stern to stern on this view. These are the vertical slices which give the buttock lines and the buttock lines are of course, the family of curves shown in the sheer plan.

If one takes a pair of dividers and steps off on the body plan the distance from the centre line to the outside of the hull on any waterline, this measurement will tally exactly with the measurement from the centre line to the outside line on the waterline plan at that station, and at that particular waterline. Similarly, if one steps off the distance vertically from a datum line to any of the intersections on the body plan, this measurement will be exactly the same as the distance from a similar datum line to the buttock line at the same station on the sheer plan.

Now having studied the fundamental ideas behind composition of the lines, how can we use them to produce a model? Well, there are two basic methods of building a hull, either by carving from solid timber or a solid block made up by laminations (bread-and-buttering) or by making a framework which can be planked to produce the desired shape.

Let us take the simpler of these two first, *i.e.*, the bread-and-butter method. This can be sub-divided into two approaches, bread-and-buttering on the waterlines or bread-and-buttering on the buttock lines. With our previous knowledge we see instantly that the first of these means using horizontal laminations, and the second vertical laminations. The method of building is very similar for either approach, though for a good many years horizontal laminating was standard practice, and few people realised the advantages offered by vertical laminac. The chief among these advantages is that work is saved in plotting since the planks will be in pairs as opposed to the horizontal method where each plank differs. Secondly, and almost equally important, is the ease with which the symmetry of the hull can be checked during construction, since it is a fairly easy matter to check that corresponding laminations on each side terminate opposite to each other, and are equal in height at corresponding points from the workbench top when the hull is placed upside down on the bench.

The first stage of construction is to obtain timber finished to the exact thickness of the water or buttock line spacings. Where this proves impossible, timber of constant thickness can be employed, and the body plan ruled off accurately by pencil lines into laminations of the actual timber thickness. It is then a simple matter to transfer the point of intersection of the pencil lines and the existing cross-section lines on to the sheer or waterline plan at each station, giving a set of points which, when connected up, give new buttock or waterlines to which the timber may be cut. This is an easy matter if a spline of say $\frac{1}{8}$ -in. sq. timber is used to connect the points, and any inaccuracy or mistakes in transferring the points will show up instantly, since the new curves drawn will not fit in with the "family" already existing.

If the timber is now cut to the lines and assembled into a block, the result will be an embryo hull needing very little carving to outside shape. It will be, however, completely solid, and to reduce the amount of work entailed in hollowing the hull, most builders cut away part of the inside of each plank before gluing the laminations together.

Further constructional notes can be found in *Boat Modelling* and *Power Model Boats* as listed in the book section of this handbook.

WARSHIP DRAWINGS

by NORMAN A. OUGH

By special arrangement with Norman A. Ough these magnificent drawings of British Warships—unquestionably the finest in the world—are now available through Model Maker Plans Service. Every possible detail of the full-size ship is accurately shown. The drawings available are as follows:

PLEASE NOTE: Some of these plans have the "Lines" drawing separate.

(Whole Hull and full detail)

Enlarged Detail is on all 1/16" Scale Drawings and is to the scale of 1"=8'.

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 Lines, body plan and plating 10/- 9001a
 H.M.S. *Warspite* (Scale 1"=16') as in 1928 with trunked funnel ... £1/-/- 9002
 Lines Plan for 1914 and 1930 10/- 9002a

BATTLE CRUISER

- H.M.S. *Lion* (Scale 1"=16') as at Jutland ... £1/-/- 9003
 "Lines" only ... 10/- 9003a

FRIGATES

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 H.M.S. *Hedingham Castle* (Scale 1"=8') ... £1/-/- 9005

CRUISERS

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 H.M.S. *Matabele* (Scale 1"=16') 1936 "Tribal" class ... £1/-/- 9012
 H.M.S. *Cadiz* (Scale 1"=16') "Battle" class ... £1/-/- 9013
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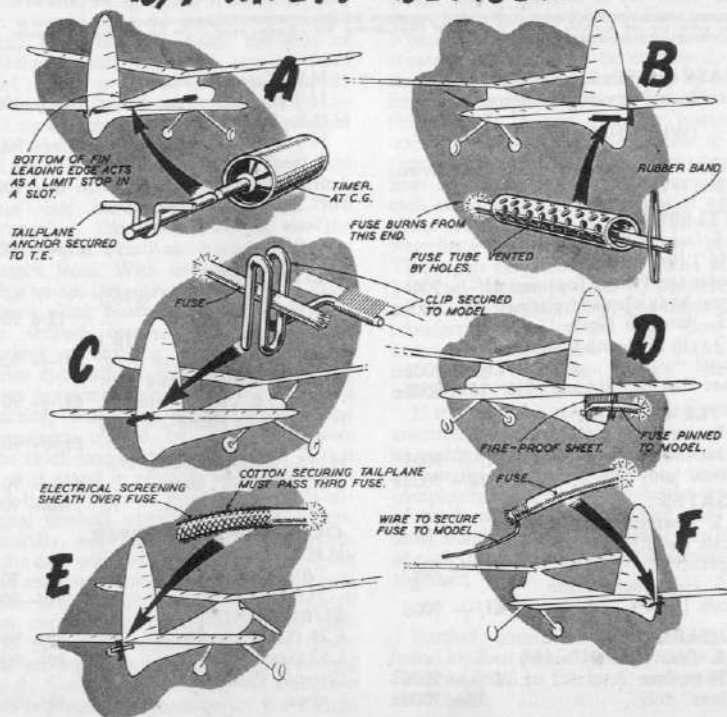
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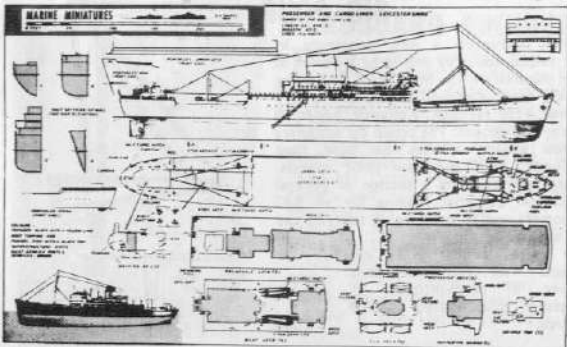
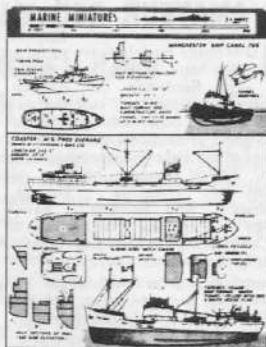
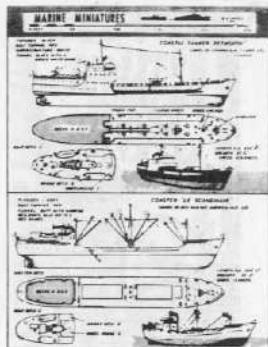
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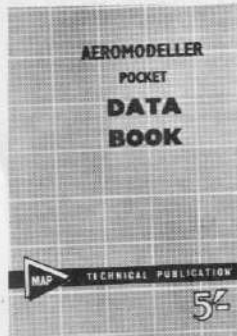
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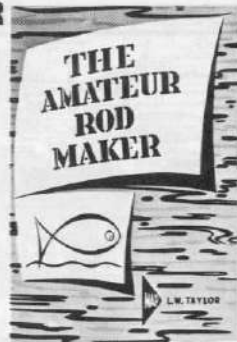
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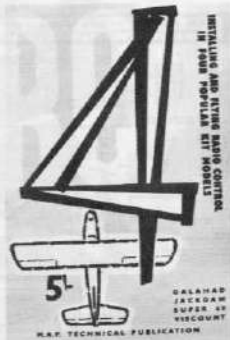
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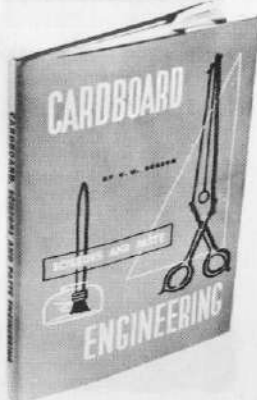


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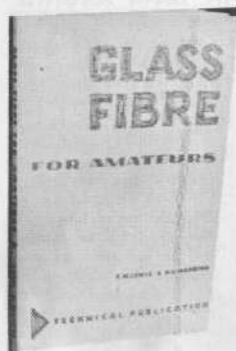
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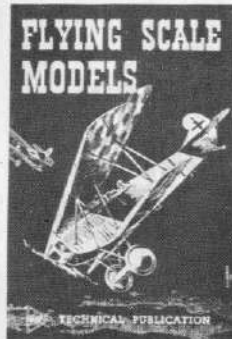
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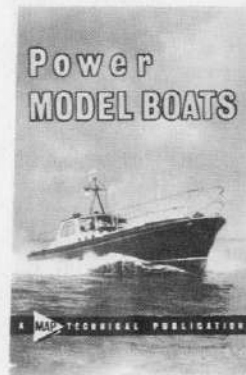
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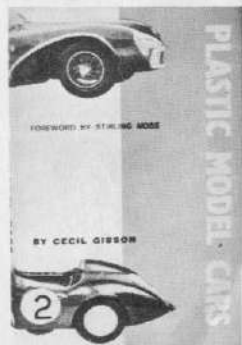
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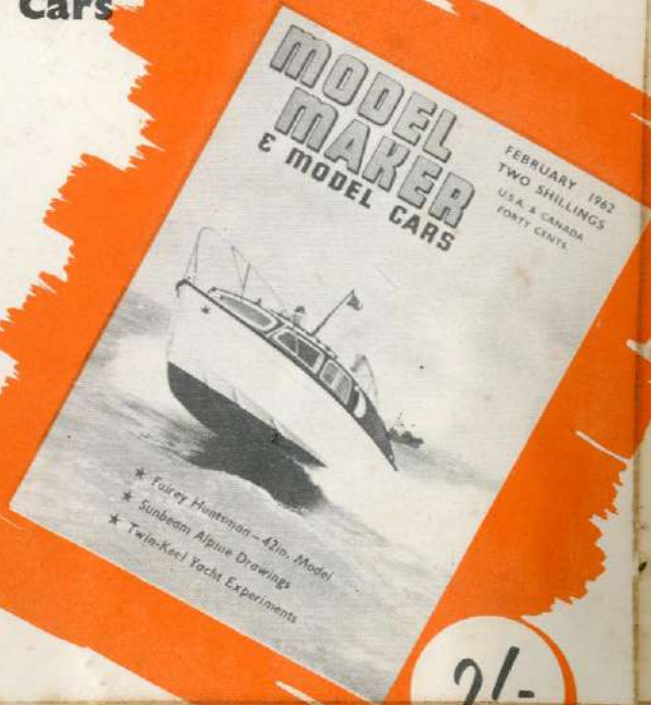
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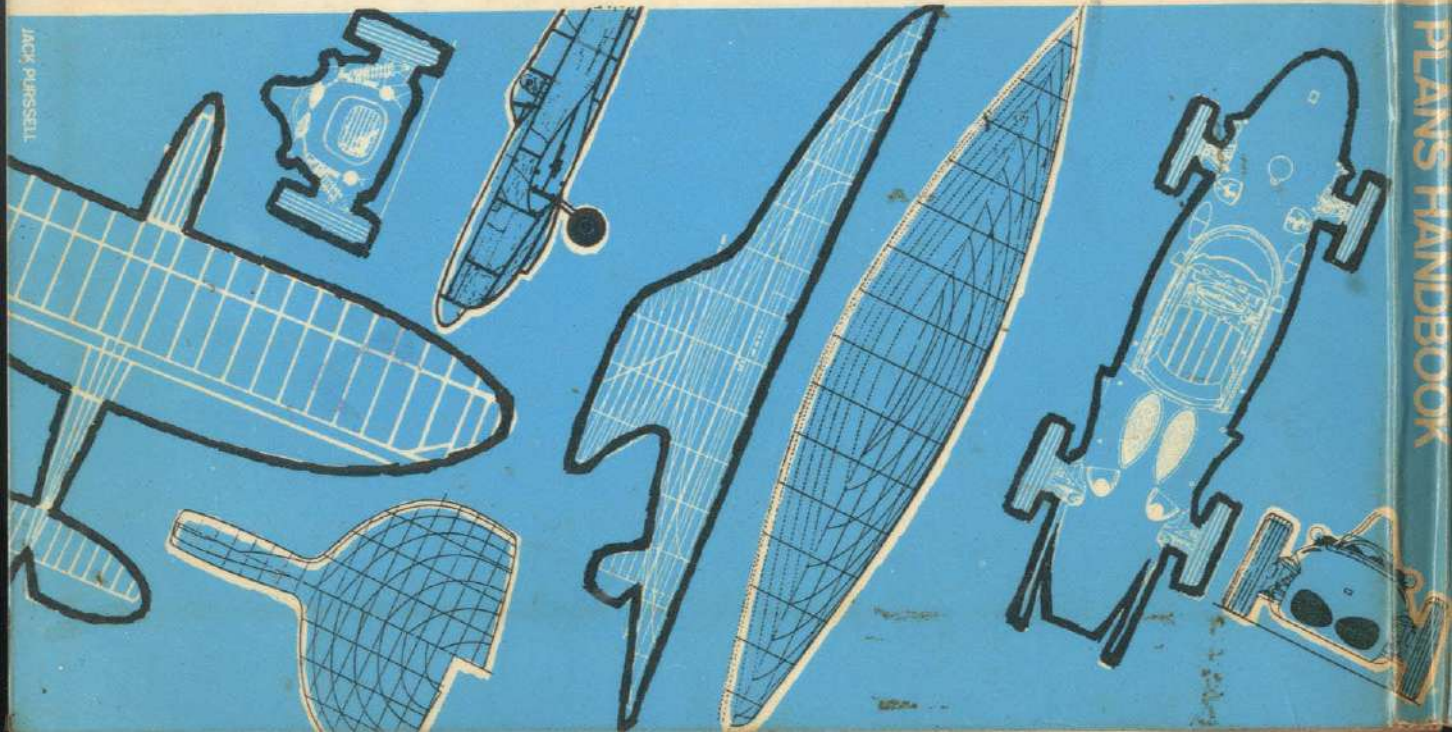


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