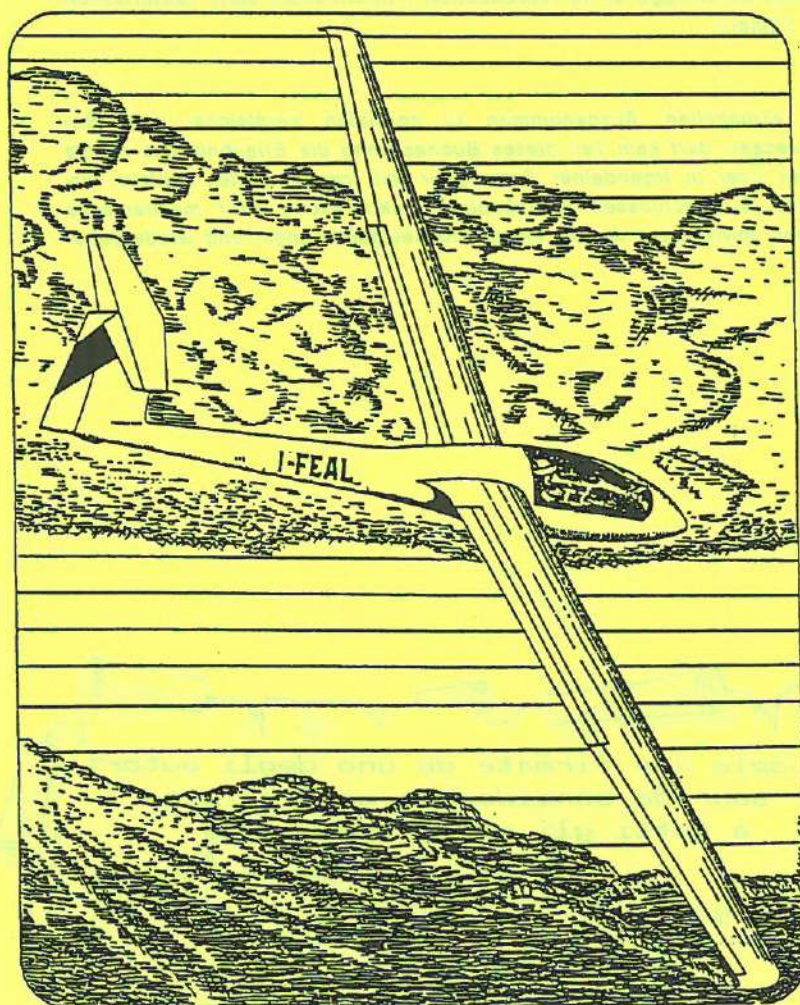


ALIANTE NEL MONDO



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Ferdinando Gale'

Aldo Calza

ALianti NEL MONDO



AL I A N T I N E L M O N D O

L'indice generale si trova alla fine



PREMESSA

I costruttori di modelli volanti e gli appassionati d'aviazione sono, in genere, grandi ammiratori dei veleggiatori "full size": le linee aggraziate di queste agili macchine volanti esercitano un fascino innegabile.

Anni fa, una pubblicazione analoga alla presente [1], trovo' notevole successo in Italia ed all'estero.

Da cio' incoraggiati, gli autori [entrambi aeromodellisti che hanno iniziato la loro attivita' anteriormente alla Seconda Guerra Mondiale], hanno unito i loro sforzi per compilare questa rassegna, che spazia dal periodo pionieristico dell'aviazione sino ai nostri giorni.

Sono qui presentati oltre 550 trittici provenienti da 27 paesi del mondo: sono stati accuratamente ridisegnati in grande scala. Dati tecnici essenziali e considerazioni pratiche, che possono interessare i costruttori di riproduzioni in scala radioguidate, sono presentate in modo semplice, con l'ausilio di numerose tabelle ed esempi pratici.

I trittici, presentati in formato UNI A4 (cioe' notevolmente superiore a quanto normalmente avviene per le riviste specializzate), possono essere agevolmente ingranditi fotograficamente, allo scopo di tracciare piani costruttivi di riproduzioni radioguidate.

Gli autori auspicano che questa rassegna, corredata da numerosissimi dati tecnici e relative considerazioni applicative possa interessare, oltre agli aeromodellisti, anche agli appassionati di volo a vela e dell'aviazione in genere.

Gli autori sono grati ad un gran numero di persone, che hanno inviato disegni ed informazioni, oppure hanno suggerito dove trovarli, oppure hanno fornito utili consigli.

Tra essi ricordiamo, con animo riconoscente:

Carlo Casale [Somma Lombardo, VA]
Ing. Bruno Calza [Napoli]
Janos Cserjesi [Kaposvar, Ungheria]
Ing. Giorgio Frailich, Milano]

Angelo Gialanella [Napoli]
 Serban Ionescu [Bucarest, Romania]
 Imer Isella, [Intra, NO]
 Ferenc Juhasz [Budapest, Ungheria]
 Bill e Bunny Kuhlman [Olalla, Wa, USA]
 Mario Marengo [Sesto Calende, VA]
 Dr. Manlio Parte [Napoli]
 Ing. Luigi Pascale [Napoli]
 Davide Pattina [Bresso, MI]
 Vincenzo Pedrielli, [Desio, MI]
 Franco Piantanida [Somma Lombardo, VA]
 Nunzio Pompele [Milano]
 Giorgio Rabaglio [Bergamo]
 Jaroslav Rybak [Svitavy, Repubblica Ceca]
 Paul Schweizer [Elmira, NY, USA]
 Woodrow Wilson [Georgetown, TX, USA]

Le principali organizzazioni ed aziende dedicate alla progettazione e costruzione di alianti sono elencate a parte: gli autori sono grati a quelle contrassegnate con un asterisco (*), che hanno fornito generosamente disegni ed informazioni.

Meritano una particolare menzione anche i *Gruppi di Volo* di parecchie universita' tedesche [*Akademische Fliegergruppe, Akaflieg* in breve]; sono riuniti nell'organizzazione IDAFLIEG [*Interessengemeinschaft Deutscher AKAFLIEG*], che e' stata ed e' molto attiva nello sviluppo di alianti e delle relative tecnologie.

Va ricordato che molti famosi progettisti di alianti, quali - ad esempio - Stender, Waibel, Lemke, Holighaus, Kaiser, Dirks, iniziarono la loro attivita' come membri di Akafliegs.

Brevissima nota storica: dopo la *Prima Guerra Mondiale*, il volo a motore fu proibito in Germania.

Gruppi di studenti ingegnosi decisero allora di dedicarsi al volo senza motore, iniziando cosi' il grande movimento volovelistico di questo secolo, anche se sporadici tentativi erano gia' stati compiuti da isolati pionieri in diversi paesi del mondo.

Nel 1924 gli Akafliegs decisero di formare l'Idaflieg, allo scopo di scambiarsi esperienze e cognizioni: e' una organizzazione molto efficiente: gli autori hanno ritenuto opportuno citarla come esempio per i piu' attivi ed avanzati gruppi di aeromodellisti.

F. Gale' A. Calza

Febbraio 1994

[1] ALIANTI-SOARERS-PLANEURS-SEGELFLUGZEUGE, F. Gale', 1978

Gli autori, F. Gale' ed A. Calza, sono
 particolarmente grati alle rispettive
 mogli Pia e Floriana, per il loro
 costante aiuto ed incoraggiamento.



PRIMA PARTE

L'aeromodellismo, inteso come progettazione, costruzione e volo di modelli volanti, ha preceduto di parecchio, nella storia dell'umanità, l'aviazione in scala uno ad uno.

I pionieri dell'aviazione, prima di essere costruttori di aeroplani, furono costruttori di modelli volanti.

Sorta e sviluppata l'aviazione, l'aeromodellismo ne ha seguito il progresso passo per passo, utilizzando, di volta in volta, ogni soluzione o idea che potesse essere adattata alla realizzazione di modelli volanti.

Profili alari impiegati su aeroplani ed alianti del periodo compreso tra il 1900 ed il 1950 circa, sono stati utilizzati per decenni nella realizzazione di aeromodelli.

Taluni lo sono tuttora, quali - ad esempio - i profili sottili a forte curvatura, impiegati su taluni aeromodelli per volo libero; esaminati accuratamente, molti di questi profili - sovente presentati come innovazioni - risultano essere rielaborazioni delle sezioni alari di velivoli della prima guerra mondiale.

I profili impiegati per le ali degli alianti si possono riferire, grossolanamente, a due periodi: il primo, dalle origini dell'aviazione alla fine della seconda guerra mondiale, il secondo, dagli anni 50 sino ai nostri giorni.

Nel primo periodo, come appare evidente dalla **TABELLA 1** furono impiegati prevalentemente profili a forte curvatura della linea mediana e spessore rilevante (sino al 20% in certi casi), con naso bene arrotondato (allo scopo di addolcire e ritardare lo stallo). Quasi tutti questi profili furono sviluppati al Laboratorio Aerodinamico di Gottinga (Germania), oppure furono da questi derivati.

Raro fu l'impiego di profili sottili (con spessore inferiore al 12%): e' questo il caso degli alianti *D-28 WINDSPIEL* (1932), *SO-P1* (1940), *HABICHT* (1936).

Nel dopoguerra si cominciò ad adottare profili *laminari*, aventi lo strato limite laminare esteso sino al 40% (circa) della corda (ed oltre nei tipi modernissimi), sia di derivazione americana (NACA), sia sviluppata in Europa, a Gottinga, a Stoccarda ed altrove, come la serie dei profili *Wortmann*: alcuni sono indicati nella **TABELLA 2**.

Sovente, in aeromodellismo, si usano profili sviluppati dai costruttori stessi, in base a personali regole empiriche; a volte viene usato il metodo grafico *Joukowski*; a volte vengono semplicemente modificati profili esistenti.

Attualmente sono disponibili parecchi programmi per elaboratori elettronici, mediante i quali e' agevole produrre rapidamente una miriade di profili, sovente definiti "laminari".

TABELLA 1

SAILPLANE AIRFOILS/PROFILI ALIANTI [Before WW II/Prima della II Guerra mondiale]		
1921	VAMPYR	Goettingen 441
1922	DARMSTADT D-9 KONSUL	Goettingen 535
1923	DARMSTADT MARGARETE	Goettingen 533
1926	DARMSTADT D-1	Goettingen 535
1927	DARMSTADT D-2	Joukowski
1928	PROFESSOR	Goettingen 549 mod.
1929	WIEN	Goettingen 549 mod.
1930	FAFNIR 1	Goett. 652-535, Clark Y
1930	CW-5	Goettingen 652
1930	TERN	Goettingen 549
1930	BOWLUS ALBATROSS	Goettingen 549
1931	FALKE	Goettingen 535 mod.
1931	GRUNAY BABY 1	Goettingen 535
1931	GOLDEN WREN	Goettingen 535
1931	AUSTRIA	Goettingen 652
1931	SPYR	Goettingen 535
1931	M-22	Goettingen 535
1932	STAKHANOVETS	TSAGI R-III [15.6% - 13%]
1932	FVA-10 B RHEINLAND	Joukowski 433, Goett.532
1932	SG-3	WARSAW 192
1932	SCUD 2	Goettingen 535
1932	RHOENADLER	Goettingen 652
1932	CONDOR 2	Goettingen 532
1932	D-28 WINDSPIEL	Goettingen 535 [10% - 8%]
1933	D-30 CIRRUS	NACA 2414-4412
1933	HUETTER H-17	Goettingen 535, NACA M-6
1933	FAFNIR 2 SAO PAULO	DFS Special
1933	KOMAR	Goettingen 535-549
1933	MOAZAGOTL	Goettingen 535
1933	RHOENBUSSARD	Goettingen 535
1934	MÜ-10 MILAN	Scheibe
1934	HJORDIS	Goettingen 652, RAF 32
1934	GN-7	Goettingen 549
1935	SGS 2-8 TG-2	NACA 4412
1935	SCUD 3	Baynes
1935	RHOENSPERBER	Goettingen 535-409
1935	WOLF	Goettingen 535
1935	GÖ-3 MINIMOA	Goettingen 681-693
1935	KIRBY KITE	Goettingen 535
1935	KRANICH	Goettingen 535
1935	MOSWEY	Goettingen 535
1935	MU-13 ATALANTE	Scheibe
1935	HUETTER H-28	Joukowski
1936	SG-3 bis/36	Goettingen 549
1936	SPERBER SENIOR	Goettingen 757-767
1936	SPERBER JUNIOR	Goettingen 535-409
1936	MINIMOA 38	Goettingen 681-693
1936	KADET	Goettingen 426
1936	HABICHT	Clark Y
1936	SALAMANDRA	Goettingen 387
1936	ZANONIA	NACA 2418-2412
1936	REIHER	Goettingen 549-676
1937	KING KITE	NACA 23021-4415
1937	BABY ALBATROSS	Goettingen 535
1937	KIRBY GULL	NACA 4416, RAF 34
1937	SPALINGER S-18	Goettingen 535
1937	GOLDEN EAGLE	Goettingen 535, Clark YH
1938	KIRBY PETREL	Goettingen 652, Clark YH
1938	SUPER ALBATROSS	Goettingen 549
1938	GÖ-4 GOEVIER	Joukowski
1938	WEIHE	Goettingen 549, NACA M-12
1938	VIKING	Goettingen 535
1939	PELLICANO	NACA 24 [Series]
1939	MEISE	Goettingen 549-676
1940	SO-P1	SNCASO Special
1941	PRATT-READ G-1	GS-4, GS-M, GS-1
1941	YANKEE DOODLE	NACA 4418-4409
1942	LK-10 A	NACA 4413-4409

TABELLA 2

SAILPLANE AIRFOILS/PROFILI ALIANTI [After WW II/ Dopo la II Guerra mondiale]		
1951	KRANICH III	Goettingen 549
1951	BERGFALKE II	Muenchen 14%
1952	BOCIAN	NACA 43018A-012A
1952	LO 100	CLARK Y
1953	HKS I	NACA 65 -714
1955	HKS III	NACA 65 -1116
1955	Ka 6-E	NACA 63 -618,614 mod.
1956	BLANIK	NACA 63 -615A
1957	ZUGVOGEL	NACA 63 -616/614
1957	PHOENIX T	EC 86(-3)-914
1957	Ka 7	Goettingen 535/549[mixed],532
1958	ZEFIR	NACA 65 -515 mod.
1958	Ka 8-B	Goettingen 533[16,7%]-532
1958	AUSTRIA STANDARD	NACA 65 -416
1959	SB 5-B	NACA 63 -618
1960	FOKA 4	NACA 63 -618-4415
1961	VASAMA	WORTMANN FX 05-188 [14%]
1961	SB-6	STE 871-514
1962	SB-7B	FX 62-163[over]/E 306 [under]
1962	BS-1	EPPLER 348-K
1964	DARMSTADT D-36	WORTMANN FX 62-K-31,60-126
1964	PHOEBUS B-1	EPPLER 403
1964	LIBELLE H-301	HUETTER
1965	ASK 13	Goettingen 535-539 [mixed]
1965	SHK	EPPLER 266
1965	ELFE STANDARD	WORTMANN FX 61-163,FX 60-126
1965	ASW-12	WORTMANN FX 62-K-131, 60-126
1966	B-4	NACA 64-618
1967	CIRRUS B	WORTMANN FX 66-196, FX 66-161
1967	PHOEBUS C	EPPLER 403
1967	SB-8	FX 62-K-153/131, FX 60-126
1967	DIAMANT 18	WORTMANN FX 62-K-153 nmod.
1967	LIBELLE STANDARD	WORTMANN FX 66-17A II-182
1967	LS-1C	WORTMANN FX 66S-196 mod.
1968	FK-3	WORTMANN FX 62-K-153
1968	KESTREL 401	FX 67-K-176/17, 67-K-150/17
1968	ASW 15-B	WORTMANN FX 61-163, 60-126
1968	FS-25	FX-S-196/184/168/147,60-126
1969	SB-9	FX 62-K-153/131, 60-126
1969	NIMBUS II	FX 67-K-170/17, 67-K-150/17
1969	CIRRUS STANDARD	FX S-02-196, 66-17 A II-182
1970	F-101 SALTO	WORTMANN FX 66-17A-182
1970	CALIF	FX 67-K-170, 60-126
1970	KESTREL 604	FX 67-K-170/17, 67-K-150/17
1971	ASW 17	FX 62-K-131 [14.4%], 60-126
1971	SIGMA	WORTMANN FX 67-VC-170/136
1972	DARMSTADT D-38	WORTMANN FX 61-184, 60-126
1972	LSD-ORNITH	WORTMANN FX 66-S-196 mod.
1972	SB-10 [29 m]	FX 62-K-153/131
1972	BS-10 [26 m]	FX 62-K-153/131, 60-126
1973	JANTAR STANDARD	NN-8
1973	PIK 20-D	WORTMANN FX 67-K-170/150
1973	AN 66-C	EPPLER 562/569
1974	JANUS	WORTMANN FX 67-K-170/150
1974	LS-1F	WORTMANN FX 66-S-196 VI
1974	DG-100	WORTMANN FX 61-184, 60-126
1974	ASTIR CS	EPPLER 603
1974	HORNET	WORTMANN FX 66-17AII-182
1975	ASW 19	FX 61-163, FX 60-126
1975	FS-29	FX 73-170, FX 73-K-170/22
1976	LS-3	WORTMANN FX 67-K-170/150
1976	MOSQUITO	WORTMANN FX 67-K-150
1976	MINI NIMBUS	WORTMANN FX 67-K-150
1976	DG-200	WORTMANN FX 67-K-170 mod.
1976	TWIN ASTIR	EPPLER 603
1977	GLOBETROTTER	EPPLER 603
1977	B-12	WORTMANN FX 67-K-170/150
1977	ASW 20	WORTMANN FX 62-K-131 [14.4%]
1978	SPEED ASTIR	EPPLER 662
1978	SB-11	HQ 144-39 F3
1978	SFH	WORTMANN FX 61-184, FX 60-126
1979	ASK 21	FX 602-196, FX 60-126
1979	MU 27	WORTMANN FX 67-VC-170/130

La loro superiorita', rispetto a quelli tradizionali, espressa dai dati ricavati all'elaboratore, e' lungi dall'essere confermata dalle scarse prove alla galleria del vento.

La ragione di cio' e' abbastanza semplice e ben definita, anche se sulle pubblicazioni specializzate raramente questo argomento viene dibattuto: a bassi *Numeri di Reynolds*, come quelli che si riscontrano in aeromodellismo, la formazione della cosiddetta *bolla laminare* e' cospicua e facilmente rilevabile, con diversi sistemi (visuale, acustico, ecc.).

Sfortunatamente, non si e' ancora trovato un modello matematico che rappresenti la bolla laminare ed il suo evolversi: conseguentemente non si sa quali istruzioni inserire nell'elaboratore elettronico, onde ne tenga conto nel calcolare le prestazioni.

Infatti, in tutti i sopracitati programmi, la bolla laminare viene ignorata: la conseguenza e' un anomalo aumento di resistenza, come indicato nell'esempio tipico della FIG.1.

ESEMPIO: supponiamo di impiegare il profilo *E 205* a $CL=0.5$, con un *Numero di Reynolds* $Re=100.000$.

La curva *A* (*teorica, elaborata al computer*) da' una efficienza $E=CL/CD=0.5:0.0137=36.5$.

Il grafico *B* (*ricavato alla galleria del vento*) da' invece $E=CL/CD=0.5:0.02=25$, che e' un valore notevolmente piu' basso.

Se poi il *Numero di Reynolds* scendesse a $Re=60.000$, (Valore tipico di molti veleggiatori radioguidati di medie dimensioni), il risultato sarebbe ancora peggiore; infatti si avrebbe $E=CL/CD=0.5:0.028=17.85$.

Se decidessimo di aumentare l'incidenza d'impiego, in modo da avere $CL=0.75$ circa, l'efficienza peggiorerebbe notevolmente, cioe' $E=CL/CD=0.74:0.044=16.81$.

Un altro esempio e' indicato nella FIG.2: la differenza tra la polare teorica (*A*) e la polare ricavata alla galleria del vento (*B*) e' macroscopica e non puo' essere ignorata.

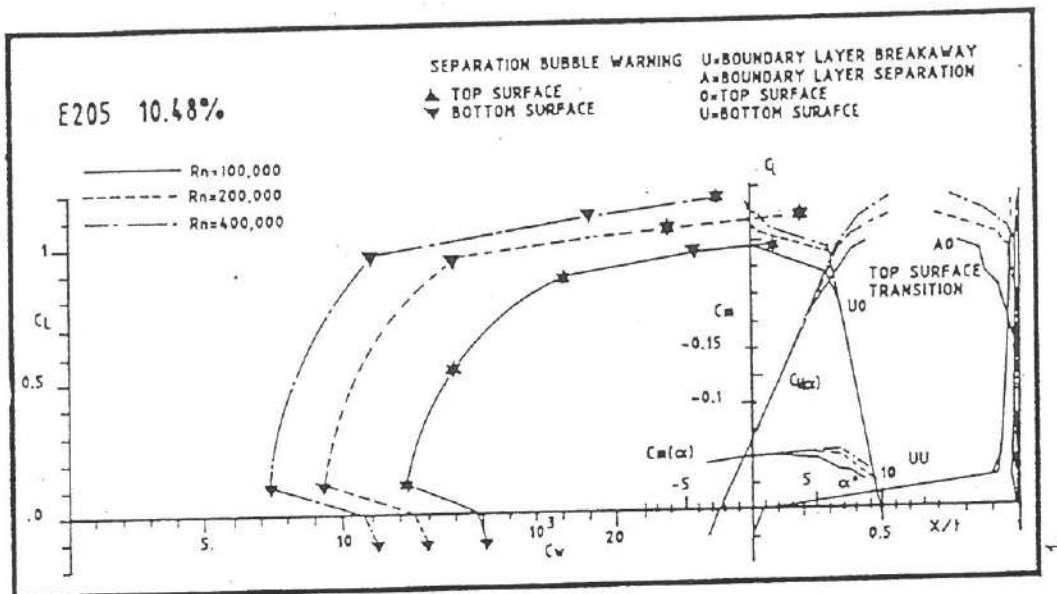
Allo stesso modo non puo' essere ignorata la regola empirica, secondo la quale l'efficienza aerodinamica, $E=CL/CD$, si riduce a circa la meta', passando dal profilo, (*sperimentato alla galleria del vento*) al modello volante.

In pratica cio' significa che, se il profilo da noi scelto presenta un rapporto di planata di 1:24, difficilmente il modello volante arrivera' ad 1:12.

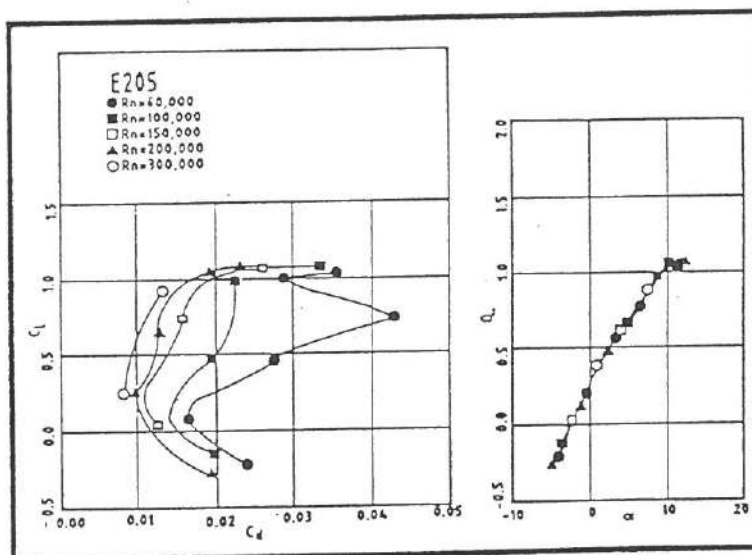
Qualche volta, in aeromodellismo si "*inventano*" profili alari, adottando la curva dorsale di un profilo, e quella ventrale di un altro: tipico e' il caso del generico profilo concavo-convesso, che viene appiattito per semplicita' costruttiva, ovviamente a scapito della prestazione aerodinamica.

Qualcosa di simile e' stato fatto anche per gli alianti: ad esempio nell'aliante *BS-1* (1962) il profilo alare ha il dorso del *Wortmann FX 62-163* ed il ventre dell'*Eppler 306*.

Nel volo a vela, le gare di durata sono state abbandonate da tempo, ed i primati di durata non vengono piu' omologati dalla *Federation Aeronautique Internationale*; infatti si e' verificato uno straordinario miglioramento delle caratteristiche degli alianti (FIG.8-B), cosicche', in certe condizioni atmosferiche, la durata dei voli va oltre i limiti delle possibilita' fisiche dei piloti.



A



B

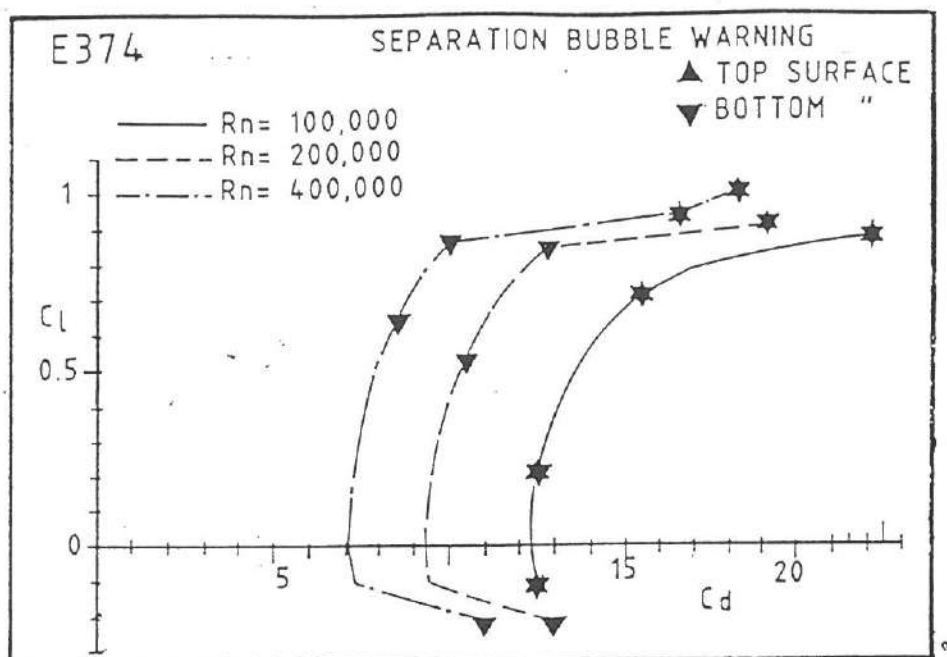
FIG. 1

Theoretical and measured airfoil polars
Polari di profili, teoriche e misurate

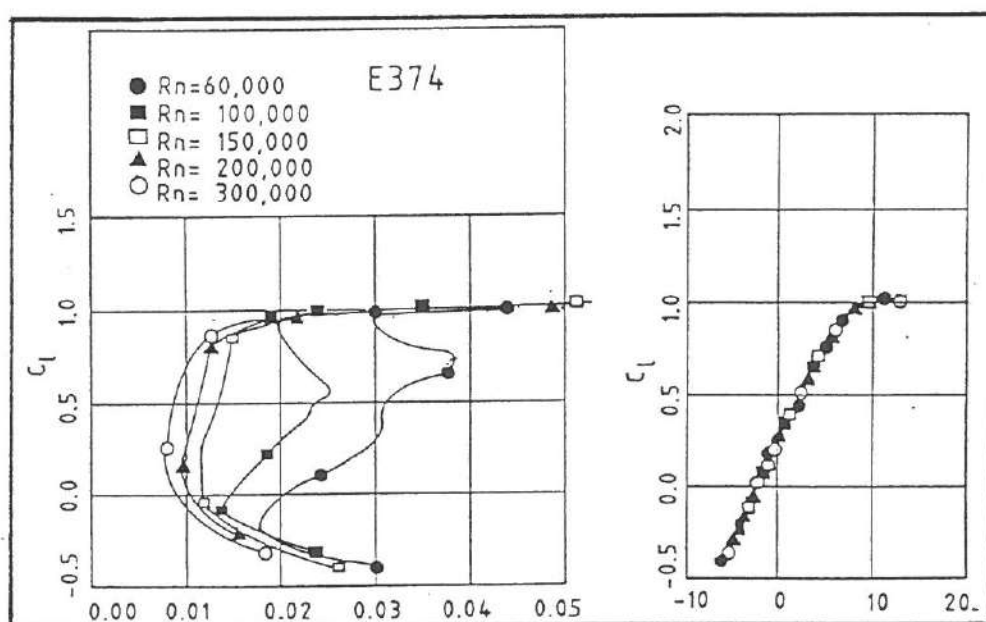
....."Ora, siamo tutti convinti che
l'aeromodellismo sia un hobby piacevole che dura tutta
la vita.....Ebbene, trattiamolo come se fosse un
caro compagno di tutta una vita".....

Frank Zaic

(Lansdowne, Pennsylvania, 1961)



A



B

Theoretical and measured airfoil polars
Polari di profili, teoriche e misurate

FIG.2

Fatte le debite proporzioni, i requisiti progettuali degli
alianti contemporanei sono confrontabili con quelli dei moderni

veleggiatori radioguidati, per volo in pianura ed in pendio, secondo le diverse categorie regolamentate dalle norme della *Federation Aeronautique Internationale*.

Conseguentemente, molti aeromodellisti esaminano, con occhio critico, i trittici e le caratteristiche degli alianti "full size", sia contemporanei sia d'epoca, non solo per riproduzioni radioguidate in scala, ma anche per trovare spunti utili per la progettazione aeromodellistica, sia aerodinamica che strutturale.

Il confronto tra alianti e modelli di alianti che il lettore puo' fare utilizzando le informazioni di questo testo, riguarda anzitutto il dimensionamento geometrico.

Inoltre, dall'esame dei piani di centinaia di alianti si possono dedurre alcune semplici considerazioni, che possono interessare gli aeromodellisti.

A questo proposito immaginiamo di focalizzare la nostra attenzione su tre date, che caratterizzano la storia dello sviluppo degli alianti, e precisamente 1938, 1960, 1980 (e oltre): i parametri e le informazioni essenziali sono sintetizzate nella seguente TABELLA 3.

TABELLA 3

	1938	1960	1980
Max. Wing loading Carico alare max. Kg/m	12 - 20	18 - 32	42 - 50
Max. speed Velocita' max. Km/h	150 - 180	200 - 250	250 - 300
Wing airfoils Profili alari	Goettingen Joukowski	NACA Eppler	Wortmann DFVLR HQ
Wing planform Pianta alre [FIG.6-A]	RT	RT DT	RT DT PT
Examples Esempi	FAFNIR II MOAZAGOTL MINIMOA SPYR III MU 13 REIHER	ZEFIR SKYLARK PHOENIX ELFE M Ka 6 FOKA	NIMBUS 3 ASW 20 DG 202 LS-4 JANTAR DISCUS
Construction Costruzione	Wood/Legno Steel/Acciaio	GRP/Vetrores. Light alloy Lega legg.	CRP/Vetro- carbonio
Water ballast Zavorra [acqua] Kg	50 - 80	100	350

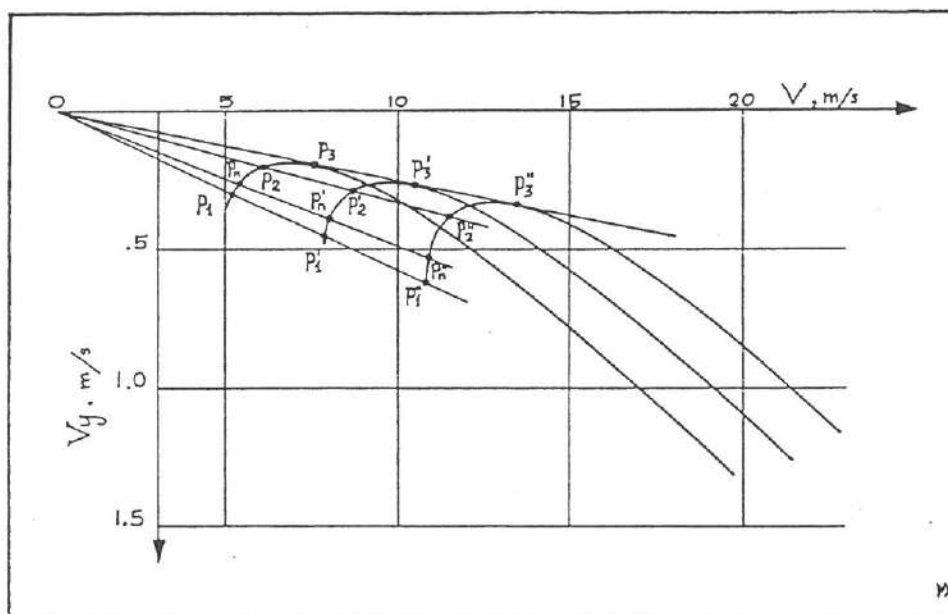
Un altro utile insegnamento si puo' trarre dai dati della TABELLA 4, che riassume le prestazioni di alcuni alianti moderni.

Appare evidente che la minima velocita' di caduta, V_y , e' ottenuta ad una velocita' di traslazione, V e con un carico alare, W/S , inferiori a quelli necessari per ottenere la massima efficienza aerodinamica, $E=CL/CD=L/W=D/H$ (FIG.9).

TABELLA 4

	Minimum Sink Speed Velocita' Minima di Caduta	At / a	With Wing Loading Con Carico Alare	Best Glide Ratio Miglior Rapporto di Planata	At / A	With Wing Loading Con Carico Alare	Max. Speed [VNE] Velocita' Max.
Sailplane / Aliante	m/s	Km/h	Kg/m ²	E	Km/h	Kg/m ²	Km/h
DG-101/100 [Glaser Dirks]...	0.59	74	28.0	39.0	105	38.0	260
ASW 19 B [Schleicher].....	0.62	72	30.0	38.5	112	41.0	255
LS-4 [Schneider].....	0.60	82	33.0	40.5	118	45.0	270
JANTAR 2 STANDARD 48-1[SZD]..	0.65	77	34.7	39.5	130	48.8	280
DG-202 [Glaser Dirks].....	0.59	80	32.0	42.5	110	45.0	270
304 [Glasflugel].....	0.57	77	31.0	43.0	116	45.5	250
Mini-Nimbus [Schempp-Hirth]..	0.60	85	34.5	41.6	112	45.0	250
Mini-Nimbus C [Schempp-Hirth]	0.53	80	33.0	42.0	120	51.0	250
Ventus a [Schempp-Hirth].....	0.55	80	33.0	44.0	120	45.0	250
ASW 20 [Schleicher].....	0.59	84	32.0	42.0	115	43.0	265
LS 3a [Schneider].....	0.60	80	33.0	41.8	100	33.0	270
Nimbus 2 B [Schempp-Hirth]...	0.48	80	30.0	49.0	110	40.0	270
Nimbus 2 C [Schempp-Hirth]...	0.47	80	30.0	49.0	115	45.0	270
Nimbus 3 [Schempp-Hirth].....	0.44	62	30.0	55.0	125	46.0	270
ASW 17 [Schleicher].....	0.56	77	33.0	49.0	105	33.0	270
JANTAR 2 B- 42-2 [SZD].....	0.46	75	32.0	50.3	102	45.0	250
ASW 22 [Schleicher].....	0.41	80	32.0	60.0	115	45.9	270
LAK 12 Lietuva [LAK].....	0.48	79	31.0	48.0	95	43.0	250
Diamant 18 [FFA].....	0.52	69	30.5	45.0	95	28.0	270
G 102 [Grob].....	0.60	75	30.6	37.5	85	36.0	250
G 103 [Grob].....	0.64	80	26.0	36.0	105	33.0	250
G 103 Twin III [Grob].....	0.64	73	27.0	38.0	109	35.0	280
SZD-42 Jantar 2 "AMBER".[SZD]	0.46	75	32.5	47.0	102	41.6	250
SB-9.[Akaflieg Braunschweig].	0.44	75	27.7	48.0	110	28.6	180
SB-11.[Akaflieg Braunschweig]	0.67	85	27.5	48.0	104	44.5	265
SZD-55-1.[SZD].....	0.54	79	31.0	44.1	119	50.0	180
Discus.[Schempp-Hirth].....	0.59	80	29.5	42.4	105	50.0	180
SF-26.[Scheibe].....	0.70	70	22.1	30.0	80	25.1	-
SB-12.[Glasflugel].....	0.59	80	31.0	41.0	98	45.0	-
Phoebus C.[Bolkow-Laupheim]..	0.63	83	23.0	39.0	93	32.6	-
LS 7.[Rolladen-Schneider]....	0.58	80	32.0	43.0	105	50.0	-
Mistral.[Strauber-Frommhold].	0.59	83	32.9	39.0	98	32.9	-
L-10 Libelle.[Bitz-Linner-Z.]	0.65	65	22.4	28.0	70	24.0	-
Glasflugel 304.[Glasflugel]..	0.57	77	33.9	42.7	96	45.6	-
fs-32.[Akaflieg Stuttgart]....	0.60	85	35.7	43.0	105	50.3	-
Elfe S 4.[Oerlinghausen].....	0.59	79	27.1	37.0	90	29.7	-
AK-5.[Akaflieg Karlsruhe]....	0.58	85	30.0	39.0	105	28.4	-
Lo 150.[Wolf Hirth].....	0.68	86	28.4	34.0	105	28.4	200
Janus.[Schempp-Hirth].....	0.58	83	30.0	43.5	95	36.5	250
Cirrus 75 [16 m].[Schempp-H.]	0.60	78	29.8	38.0	88	30.0	200

Questo conferma quanto si apprende studiando le polari odografiche di qualsiasi aliante. Si veda, ad esempio la FIG.3, tratta dal Rif.3.



Speed polars
Polari odografiche

FIG.3

I punti P_1 , P'_1 , P''_1 , corrispondono alla minima velocità di caduta, V_y .

Tracciando una tangente alle curve polari, partendo dal polo O, si determinano i punti P_3 , P'_3 , P''_3 , corrispondenti alla massima efficienza aerodinamica $E=CL/CD$, per tre diversi carichi alari, W/S .

Aumentando il carico alare, aumentano sia la velocità sulla traiettoria, V , sia la velocità di caduta, V_y : quanto più quest'ultima è ridotta, tanto più elevate sono le prestazioni (salita) in termica, mentre l'efficienza, E , ci indica la distanza percorribile in planata, a parità di quota di sgancio.

ESEMPIO: un aliante in scala, avente una efficienza $E=20$, sganciato ad una quota di 100 metri, può percorrere fino a 2000 metri in planata rettilinea, in assenza di vento e di azionamento delle superfici di comando (alettoni, timoni, flaps).

Se questo aliante avesse una velocità di caduta, V_y , di 0.50 m/s, salirebbe con velocità di circa 1.50 m/s qualora incappasse in una corrente ascensionale termica con una velocità di 2.00 m/s.

Lezione da imparare: per alianti radioguidati, che devono anche veleggiare in termica, il carico alare va ridotto al minimo compatibile con la necessaria robustezza strutturale.

Le strutture alari vanno quindi dimensionate con una certa accuratezza (Rif.18).

Per il progetto aerodinamico, e, soprattutto per la scelta dei profili per l'ala e per gli impennaggi, e' indispensabile ricordare le specifiche condizioni d'impiego dei modelli volanti, caratterizzate da un *Numero di Reynolds* piuttosto basso.

Completiamo ora le considerazioni sui profili da adottare per veleggiatori radioguidati, che siano perfette riproduzioni in scala di alianti "full size".

Anzitutto occorre spendere qualche parola sul concetto di "scala".

Dato che veleggiatori radioguidati si muovono nell'aria come i loro fratelli maggiori, gli alianti, e' logico ricorrere al principio della "similitudine dinamica".

Evitando elocubrazioni teoriche, facciamo un pratico esempio: diciamo infatti che costruiamo un aeromodello in scala 1:5 quando una sua dimensione lineare caratteristica risulta uguale ad 1/5 dell'analogia dimensione dell'aeroplano "full size".

ESEMPIO: se un aliante ha un'apertura alare di 15 m, la sua riproduzione in scala 1:5 avra' un'apertura di $m\ 15:5 = 3$.

Il numero 5 rappresenta quindi il "fattore di riduzione in scala", di solito indicato con la lettera F.

Sin qui', tutto e' liscio.

Consideriamo ora una superficie piana qualsiasi, per esempio un quadrato avente lato di 10 dm: la sua area risulta quindi di $10 \times 10 = 100\ dm^2 = 1\ m^2$.

Volendo riprodurlo in scala 1:10, il lato del quadrato ridotto risulta di $10\ dm:10 = 1\ dm$.

Adesso viene il bello! La superficie del modello ridotto in scala 1:10 risulta pari a $1 \times 1 = 1\ dm^2$, che e' 100 volte inferiore a quella del quadrato originale.

Ripetendo lo stesso ragionamento per un cubo avente spigolo di 10 dm, si trova che il volume del modello ridotto, in scala 1:10 risulta 1000 volte piu' piccolo.

Analoghi ragionamenti, che qui sono omessi, in quanto esulano dagli scopi di questo libro, consentono di stabilire alcune semplici regole, necessarie per la perfetta realizzazione in scala di modelli dinamici, come le riproduzioni in scala di alianti (e di altre aerodine, ovviamente).

Queste regole sono normalmente seguite quando si vuol passare dall'originale (in grandezza naturale) ad un modello in scala ridotta oppure ingrandita. Quest'ultimo e' il caso di macchine volanti, che si possono realizzare come modelli radiocomandati, prima della effettiva costruzione; il passaggio attraverso la fase del modello radioguidato sostituisce le prove alla galleria del vento, per quei costruttori aeronautici, (non solo amatoriali) che non possono permettersi di ricorrere ai costosi laboratori aerodinamici.

La TABELLA 5 riassume queste semplici regole.

[continua]

A titolo d'esempio, proviamo ad applicarle all'elegante aliante oldtimer MINIMOA, del quale si intende costruire un modello radioguidato in scala 1:5. Si ottiene:

Originale				Modello
Apertura alare, b,	m	17		3.4
Superficie alare, S,	m ²	19	(19:25)	0.76
Corda media, c,	m	1.12		0.224
Peso, W,	Kg	350		2.8
Carico alare, W/S,	Kg/m ²	18.42		3.73
Velocita', V,	Km/h	100 (27.7 m/s)		44.72 (12.4 m/s)

TABELLA 5

To convert full scale values to apply to a model constructed to a scale ratio of F to 1, divide by the factors shown:

Per convertire valori in scala reale per applicarli a modelli costruiti secondo un rapporto di scala di F:1, dividere per i fattori qui elencati:

Type of units/ Tipo di unita'	Factor/Fattore
Linear dimension/Dimensione lineare	F
Area/Area	F ²
Volume/Volume	F ³
Weight/Peso	F ³
Force/Force	F ³
Work or Energy/Lavoro o Energia	F ⁴
Torque/Coppia	F ⁴
Moment (static)/Momento (statico)	F ⁴
Moment of inertia/Momento d'inerzia	F ⁵
Strength of materials/Resistenza materiali	1/F
Time/Tempo	√F
Speed/Velocita'	√F
Linear acceleration/Accellerazione lineare	1
Angular acceleration/Accellerazione angolare	1/F
Horsepower/Potenza	F ³ * √F
Power loading/Potenza unitaria	1/√F
RPM/Giri/minuto	1/√F
Angles and revolutions/Angoli e rotazioni	1
Wing loading/Carico alare	F ³ /F ² = F

To convert observed or measured values of the model to full scale values, multiply by the factors above.

Per convertire in scala reale i valori osservati o misurati relativi al modello, moltiplicare per i suddetti valori.

Prima considerazione: sara' molto difficile contenere il peso del modello entro il limite fissato dalla regola di "vera scala"; verosimilmente, il peso sara' di circa **Kg 4**, aumentando cosi' il carico alare a circa **53 g/dm²**.

Per la scelta del profilo dovremo considerare il *Numero di Reynolds*, che - come e' indicato in qualsiasi testo di aerodinamica applicata - e' dato dalla relazione

$$Re = V * c * [\rho/\mu] \quad [1]$$

nella quale

V = velocita', m/s

c = corda alare, m

ρ = (rho) densita' dell'aria = 0.125

μ = (mu) viscosita' dell'aria

In pratica, quindi, bisogna moltiplicare tra di loro la velocita' **V**, la corda alare, **c**, ed il rapporto ρ/μ (ρ/μ), il cui valore dipende dalle unita' di misura, come indicato nella **TABELLA 6**.

TABELLA 6

	METRIC SYSTEM SISTEMA METRICO Kg-m-sec	BRITISH SYSTEM SISTEMA INGLESE Lb-ft-sec	ρ/μ	SPEED VELOCITA'	CHORD CORDA
ρ	0.125 Kg·m ³ /s ³ ▲	0.0002378 lb·ft ³ /s ³ ▲	69'000	m/s	m
V	m/s	ft/s	690	m/s	cm
l	m	ft	192	Km/h	cm
μ	1.81·10 ⁻⁴ Kg·s/m ² *	0.3728·10 ⁻⁶ lb·s/ft ² *	6378	ft/s	ft
			9354	miles/h	ft

* = TEMP: 15°C
PRESS: 760 mm Hg ▲ = AT 0 ALTITUDE
A QUOTA 0

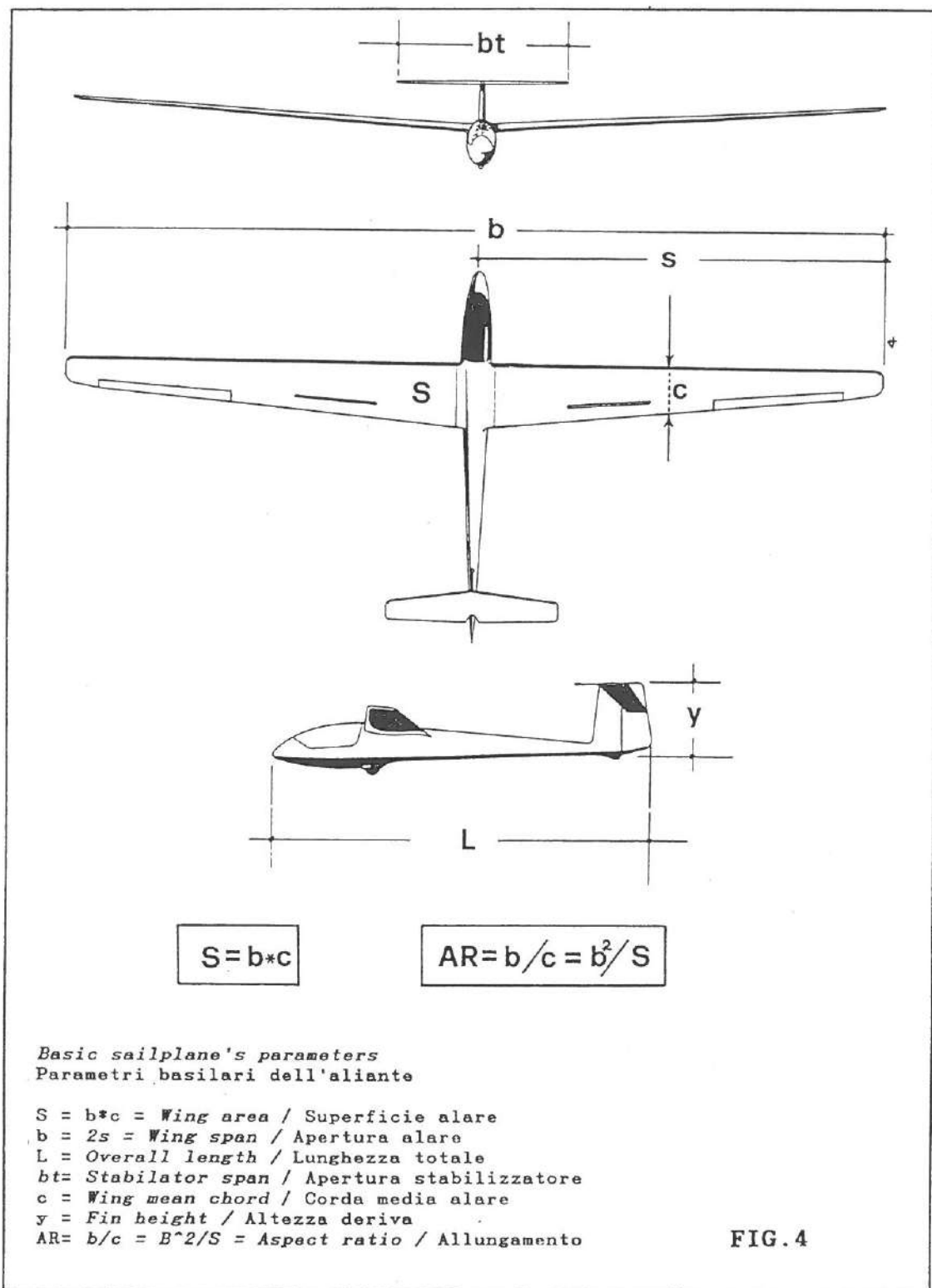
1 mile = 1609.32 m 1 ft = 30.48 cm

Nel nostro caso avremo

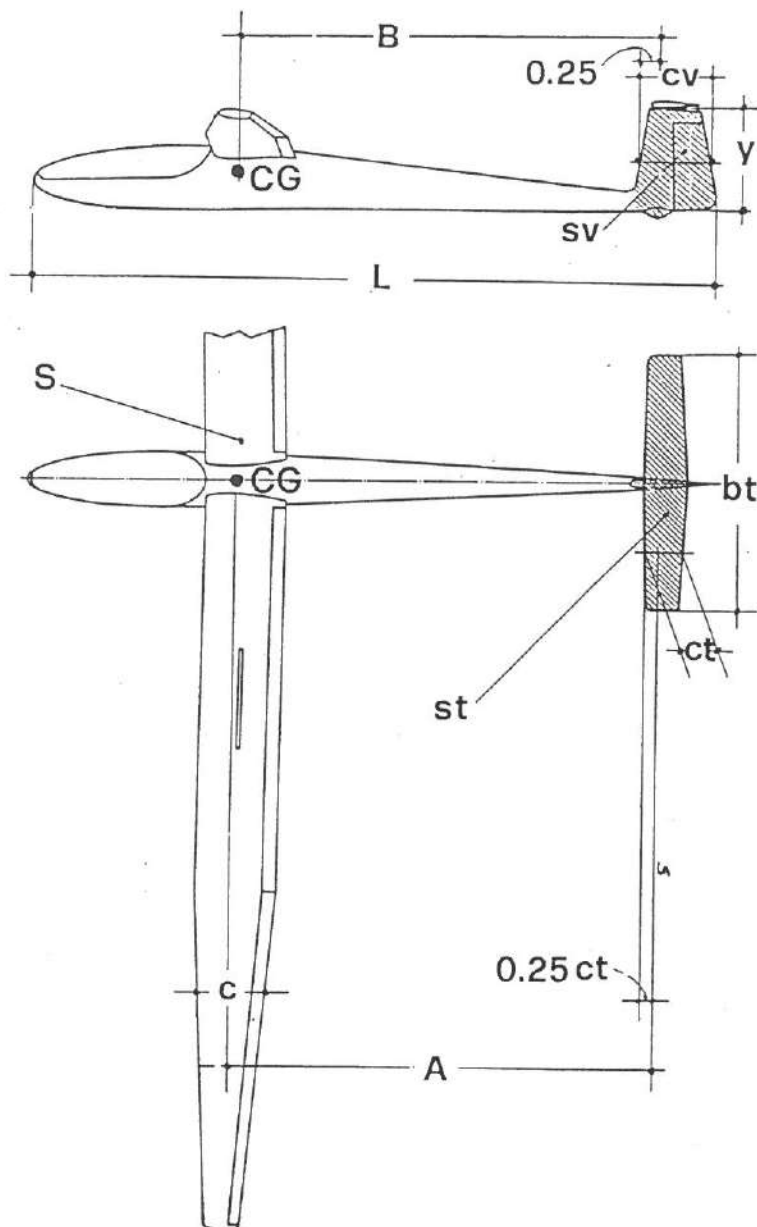
aliante: 27.7*1.12*69.000 = 2.140.656

modello: 12.4*0.224*69.000= 191.654

Seconda considerazione: in queste condizioni e' ovvio che non si possono impiegare sui modelli in scala i profili alari impiegati sull'originale, perche' sono troppo spessi: la resistenza sarebbe troppo elevata, ed il rapporto di planata sarebbe troppo penalizzato.



I dati caratteristici di una serie significativa di alianti d'epoca e contemporanei sono elencati nella TABELLA 7 (alla fine del testo), mentre la definizione dei termini e' riassunta nelle FIG.4, 5, 6, 7.



$$TVC = \frac{st \cdot A}{S \cdot c}$$

$$VVC = \frac{B \cdot sv}{S \cdot b}$$

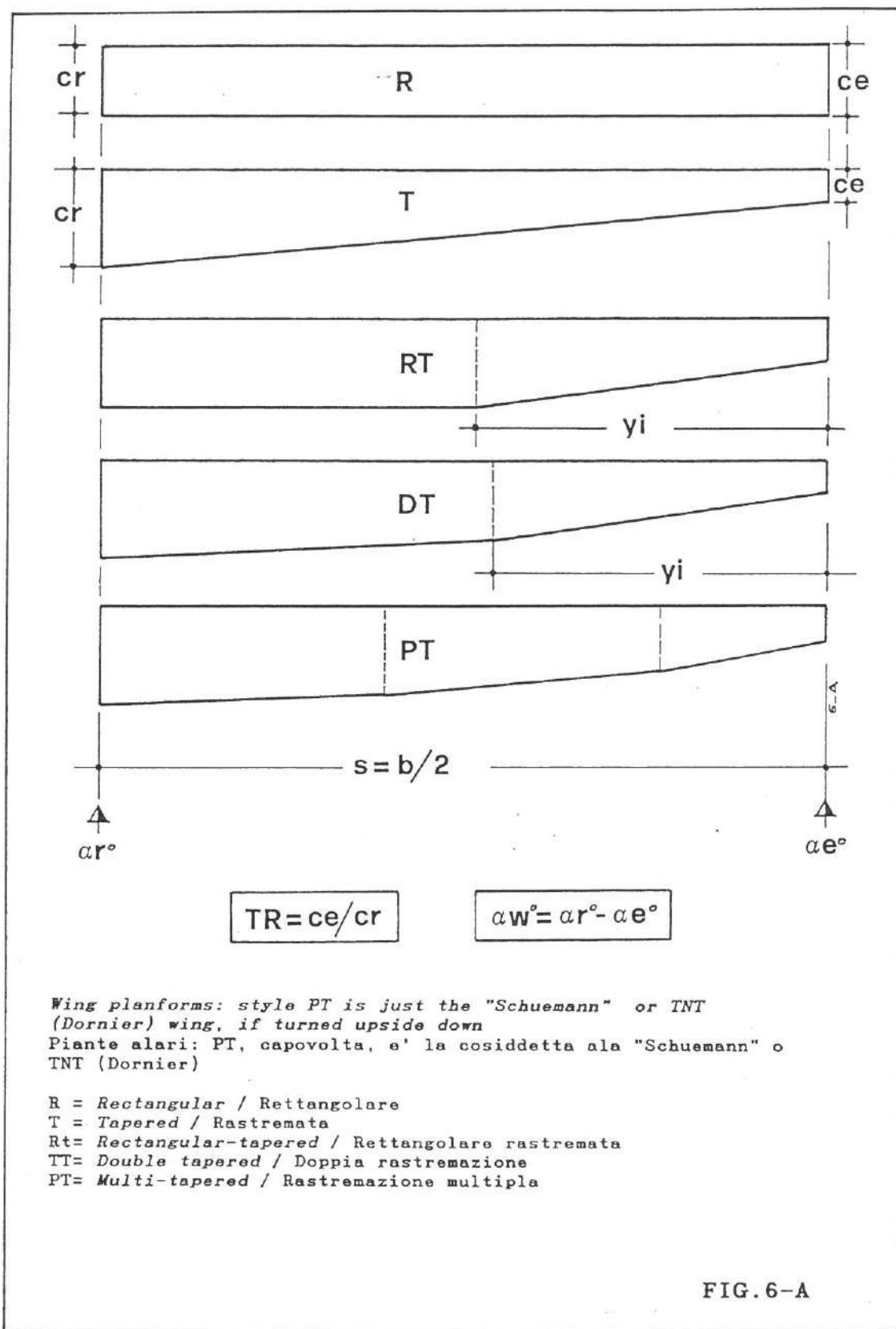
Tail volume coefficients
Rapporti volumetrici di coda

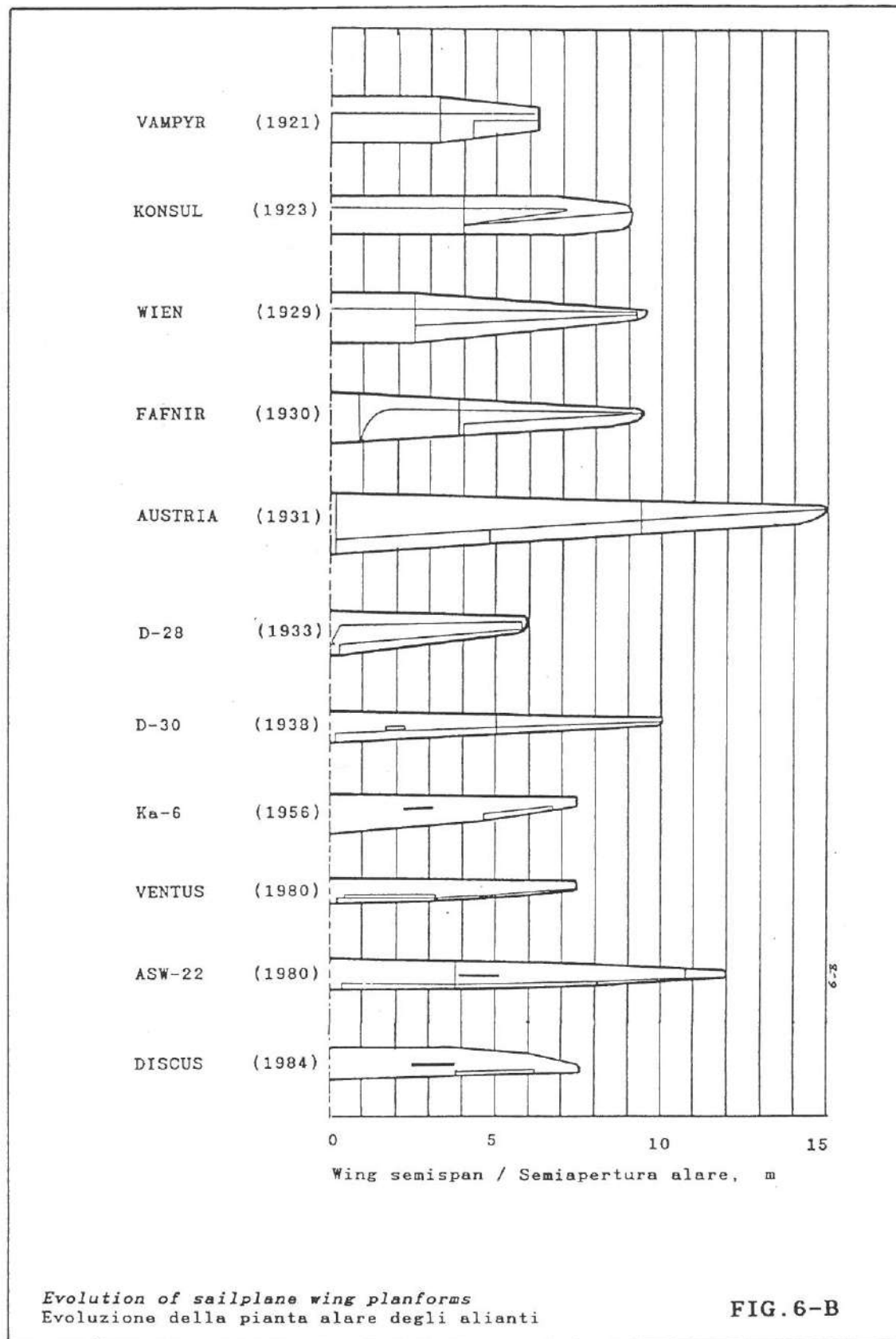
S = Wing area / Superficie alare
A = Stabilator arm / Braccio di leva stabilizzatore
B = Rudder arm / Braccio di leva direzionale
st = Stabilator area / Superficie stabilizzatore
sv = Vertical tail area / Superficie deriva
ct = Stabilator mean chord / Corda media stabilizzatore
cv = Vertical tail mean chord / Corda media deriva

FIG. 5

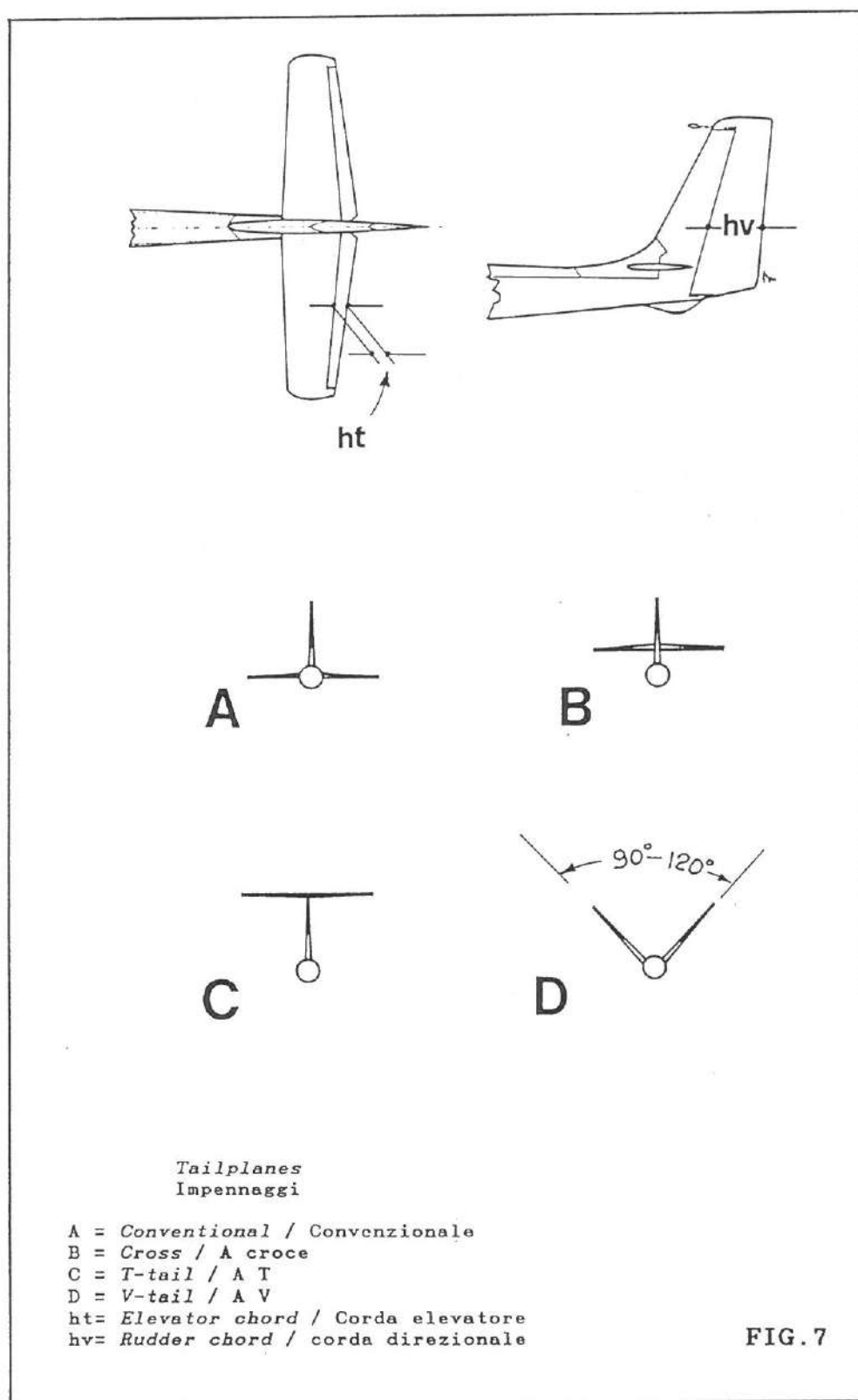
L'evoluzione della forma in pianta dell'ala, dalle origini del volo a vela ai nostri giorni, e' illustrata nella FIG.6-B.

La FIG.8-A mostra l'andamento tendenziale dell'efficienza aerodinamica, $E=CL/CD$, in funzione dell'allungamento alare, AR, confermando quanto si apprende in qualsiasi corso di aeromodellismo:





per Numeri di Reynolds paragonabili, il rapporto portanza/resistenza (cioe' l'angolo di planata) migliora con l'aumentare dell'allungamento alare, a causa della riduzione della resistenza indotta.



La FIG.8-B mostra invece l'incremento dell'efficienza aerodinamica, E, degli alianti, dalle origini dell'aviazione ai nostri giorni.

In pratica, come si e' gia' visto, l'efficienza, E indica la distanza percorsa in planata, in funzione della quota di partenza (FIG.9).

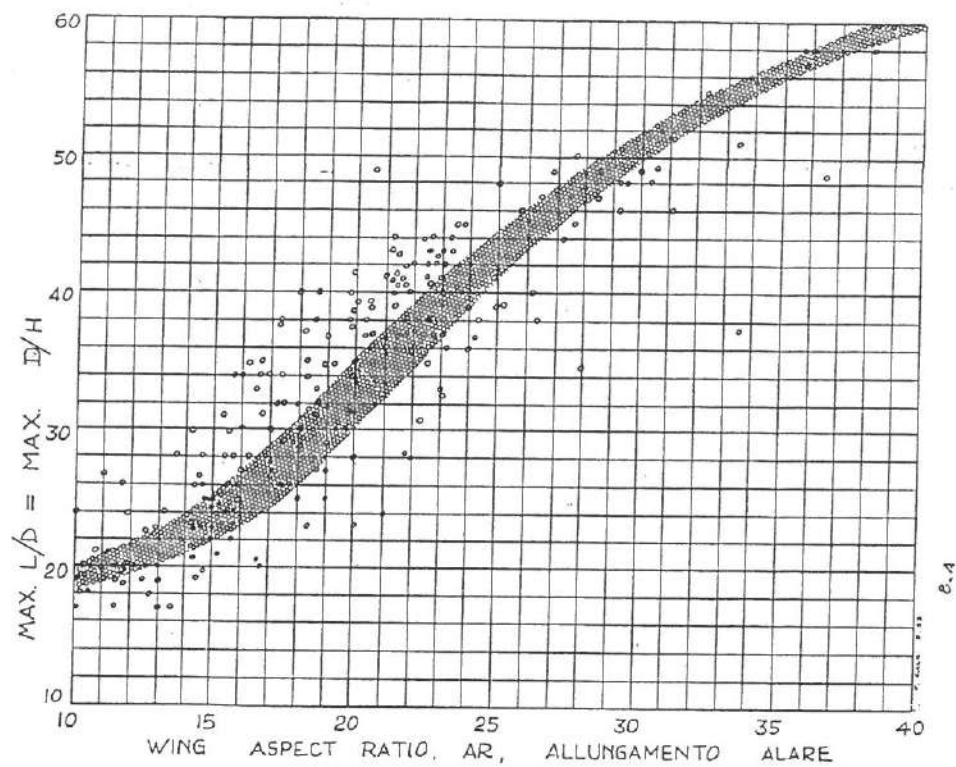
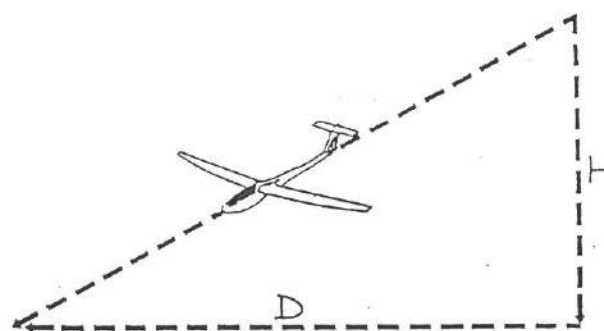


FIG. 8-A

Lift/drag ratios vs. Aspect Ratio, AR
Efficienza secondo l'allungamento, AR

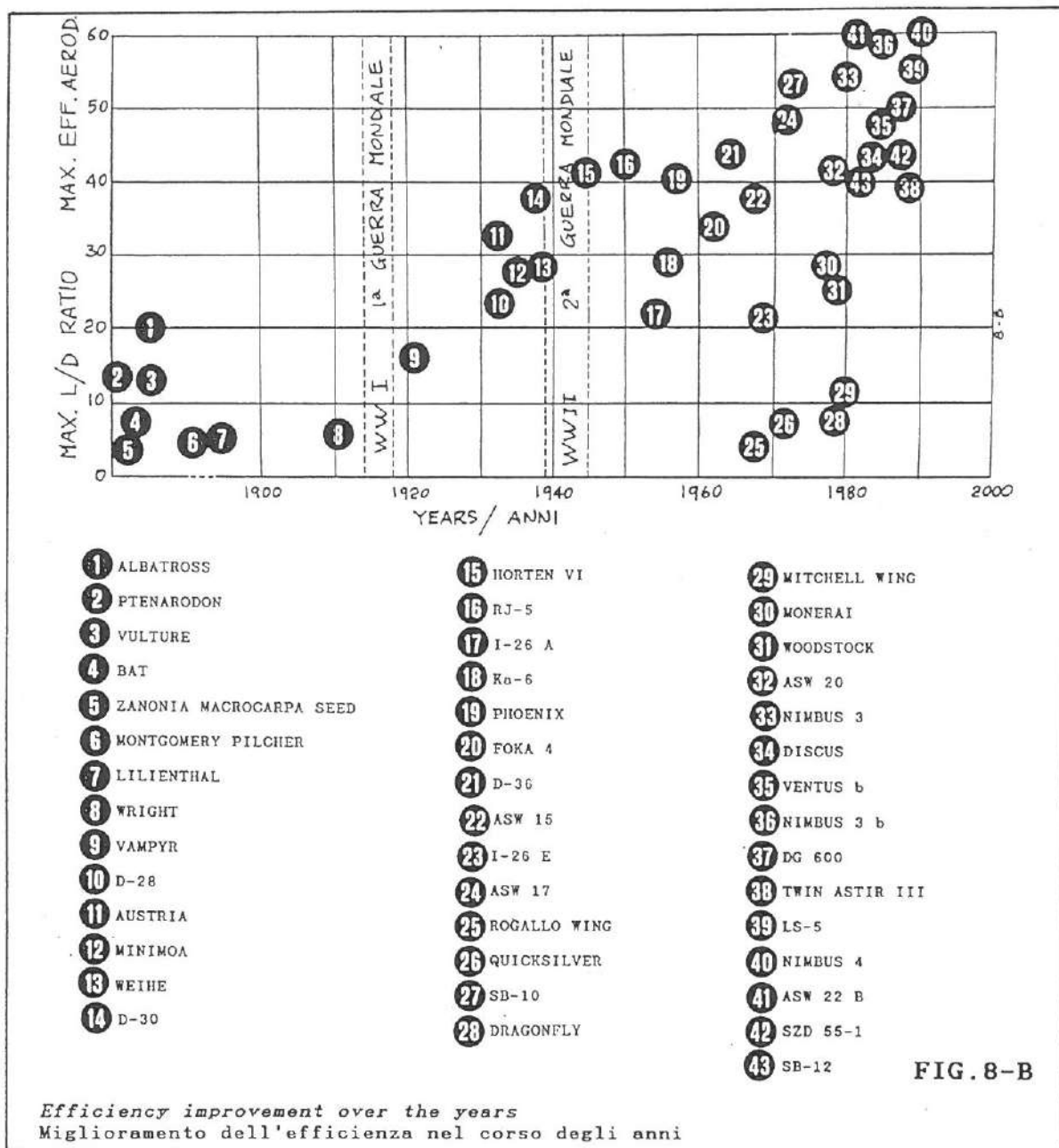
FIG. 8-A

FIG. 9



Glide path definition
Definizione del rapporto di planata

$$E = CL/CD = D/H$$



In aeromodellismo, l'aumento dell'allungamento va praticato "*cum granu salis*", in quanto l'eccessiva riduzione della corda media alare e di quella d'estremità, comporta un peggioramento delle caratteristiche, sia per la riduzione del *Numero di Reynolds*, sia per la maggior imprecisione nella riproduzione esatta del profilo su corde molto piccole.

Il rapporto volumetrico di coda (orizzontale), TVC e' uno dei parametri fondamentali, che definiscono la *stabilità longitudinale statica*: esso e' dato dalla relazione

$$TVC = [st/S]*[A/c] \quad [2]$$

nella quale:

st = superficie stabilizzatore orizzontale.
A = braccio di leva ala-stabilizzatore,
S = superficie alare,
c = corda media alare.

Similmente, il rapporto volumetrico di coda, VVC (verticale), e' uno dei parametri che definiscono la *stabilità direzionale statica* di qualsiasi aerodina (modello volante o aeroplano che sia).

Il rapporto VVC e' dato dalla relazione

$$VVC = [sv/S]*[B/b] \quad [3]$$

nella quale:

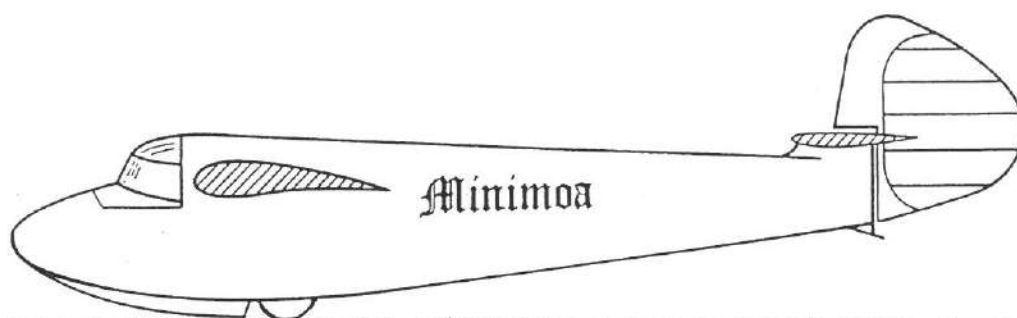
B = braccio di leva ala-impennaggio verticale,
sv = superficie impennaggio verticale,
S = superficie alare,
b = apertura alare

I rapporti volumetrici sopracitati, TVC (*longitudinale*) e VVC (*direzionale*), vengono sovente definiti, in talune pubblicazioni aeromodellistiche, "*indici di stabilità statica*". In effetti, essi entrano nelle formule relative al *coefficiente di momento longitudinale* ed al *coefficiente di momento laterale*, riportate in ogni testo di aerodinamica applicata. Una dettagliata trattazione a livello aeromodellistico e' riportata nel Rif.2.

Normalmente i rapporti TVC e VVC sono compresi entro i seguenti limiti:

	TVC	VVC
Modelli alianti	0.30 - 0.75	0.035 - 0.080
Alianti "full size"	0.35 - 0.55	0.045 - 0.065

La tecnica costruttiva di taluni alianti (moderni e d'epoca) puo' offrire spunti interessanti per applicazioni aeromodellistiche; tuttavia, una analisi dettagliata, intesa ad individuare particolari di possibile impiego sui modelli volanti, esula dai limiti e dagli scopi di questa semplice rassegna.



		FULL SIZE ORIGINALE	1:5 SCALE MODEL MODELLO IN SCALA 1:5
b	[m]	17.00	3.40
S	[m ²]	19.00	0.76
sL	[m ²]	1.98	0.079
A	[m]	4.13	0.82
sv	[m ²]	1.20	0.048
B	[m]	5.40	1.08
c	[m]	1.12	0.224
W	[Kg]	350	4.00 → 5.65 *
TVC	[-]	0.38	0.38
VVC	[-]	0.02	0.02
W/S	[Kg/m ²]	18.42	5.26 → 7.43 *

* = BALLAST ADDED / AGGIUNTA ZAVORRA

A scale reduction example
Esempio di riduzione in scala

FIG. 10

Una regola fondamentale, per la realizzazione di un veleggiatore radioguidato intrinsecamente "buono" suggerisce che la zavorra, (aggiunta nel muso per portare il baricentro, CG, al punto giusto) non deve superare il 10% del peso totale; il caso contrario significa che c'è qualcosa che non va, o nel progetto o nella costruzione.

Per esempio, se la zavorra supera 200 grammi in un aliante radioguidato che pesa 2000 grammi, la fusoliera può essere troppo corta anteriormente all'ala, oppure il braccio di leva tra ala ed impennaggi è troppo lungo, oppure gli impennaggi sono costruttivamente troppo pesanti.

Nel caso di *riproduzioni in scala* di alianti il problema sopra descritto - che è abbastanza comune - risulta amplificato per una ragione semplicissima, basata sull'entità percentuale del "carico pagante" (Pilota, negli alianti, radio nelle riproduzioni in scala).

Il "carico pagante", sia negli alianti, sia nei modelli volanti è collocato, di regola, davanti all'ala: negli alianti esso rappresenta, comodamente, dal 20% al 30% del peso totale, mentre nei modelli volanti, razionalmente realizzati, difficilmente raggiunge il 10%, grazie all'impiego di servocomandi e ricevitori sempre più miniaturizzati e leggeri.

Riprendiamo in esame l'aliante MINIMO del quale si intende realizzare un riproduzione in scala 1:5. Per quest'ultima assumiamo un peso di Kg 4, realisticamente ottenibile, anziché quello teorico di Kg 2.8, basato sulle regole della "vera scala" (FIG.10).

Assumiamo ora che, sia sull'originale, sia sulla riproduzione in scala, si verifichino le seguenti condizioni:

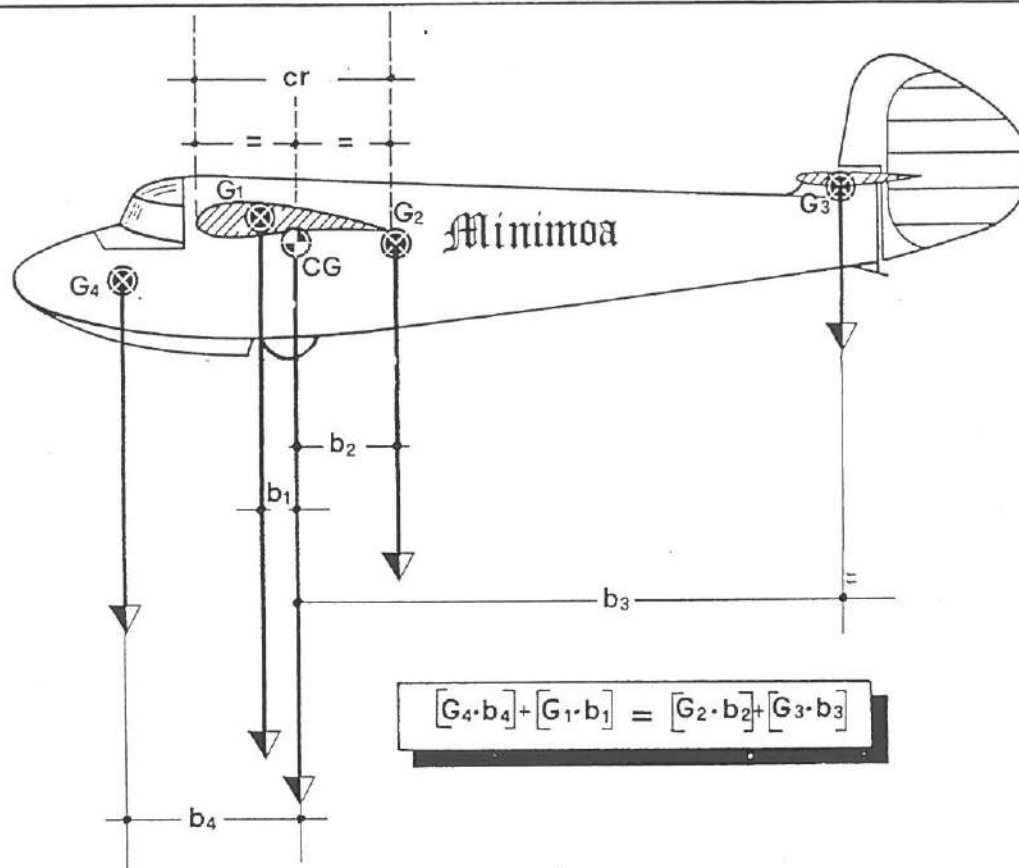
1) - Il baricentro, CG, cade (all'incirca) nella stessa posizione, cioè al 30% della corda media alare; data la particolare configurazione della pianta alare, ciò equivale al 50% della corda alla radice, cr.

2) - I pesi dei singoli componenti (ala, fusoliera con deriva, stabilizzatore) sono percentualmente uguali;

3) - Il baricentro dei componenti si trova nella stessa posizione.

Applicando le regole della TABELLA 5 si ottengono i seguenti pesi parziali:

	% Originale	Modello
G1 - Ala.....58	145	2.118
G2 - Fusoliera + impennaggio...38	95	1.392
G3 - Stabilizzatore orizz.4	10	0.140
W-G4 - Peso totale a vuoto.....100	250	3.650
G4 - Carico pagante.....100		0.350
W - Peso al decollo.....350		4.000



$G_1 = W_w$
 $G_2 = W_f$
 $G_3 = W_t$

SEE TABULATION 7
 VEDERE TABELLA 7

FULL SCALE ORIGINALE	MODEL MODELLO
-------------------------	------------------

WEIGHTS / PESI, Kg.

G1	WING / ALA	145	2.118
G2	FUSELAGE + VERT. TAIL / FUSOLIERA + IMPENNAGGIO	95	1.392
G3	STABILATOR / STABILIZZATORE	10	0.140
W-90 Kg =	EMPTY WEIGHT / PESO A VUOTO	250	3.650

LEVER ARMS / BRACCI DI LEVA m

b1	G1 LEVER ARM / BRACCIO DI LEVA DI G1	0.18	0.036
b2	G2 LEVER ARM / BRACCIO DI LEVA DI G2	0.79	0.246
b3	G3 LEVER ARM / BRACCIO DI LEVA DI G3	4.05	0.810

G4	PAYLOAD / "CARICO PAGANTE"	Kg	100	0.350
b4	G4 LEVER ARM / BRACCIO DI LEVA DI G4	m	0.65	0.13 → 0.28

Example of balance calculations
 Esempio di calcolo per bilanciamento

FIG. 11

A questo punto, effettuiamo una semplice verifica, calcolando i momenti di ogni peso parziale, rispetto ad una retta qualsiasi (FIG.11): per comodità di ragionamento, scegliamo la verticale *y-y*, passante attraverso il *baricentro* CG dell'aliante completo.

Alla destra di tale retta agiscono i momenti

$$G2 \cdot b2 = 95 \cdot 0.8 = 74.1$$

$$G3 \cdot b3 = 4 \cdot 4.25 = 17.0$$

$$\text{Totale} = 91.1 \text{ Kg} \cdot \text{m}$$

Alla sinistra, invece, agiscono i seguenti momenti

$$G1 \cdot b1 = 145 \cdot 0.18 = 26.1$$

$$G4 \cdot b4 = 100 \cdot 0.65 = 65.0$$

$$\text{Totale} \quad 91.1 \text{ Kg} \cdot \text{m}$$

L'aliante *MINIMOA*, col pilota a bordo, risulta perfettamente equilibrato.

Nel caso della riproduzione in scala 1:5, la situazione è ben diversa.

Infatti, alla destra della *y-y* agiscono i momenti

$$G2 \cdot b2 = 1.392 \cdot 0.246 = 0.472$$

$$G3 \cdot b3 = 0.140 \cdot 0.81 = 0.113$$

$$\text{Totale} \quad 0.585 \text{ Kg} \cdot \text{m}$$

mentre alla sinistra agiscono i momenti

$$G1 \cdot b1 = 2.118 \cdot 0.036 = 0.0762$$

$$G4 \cdot b4 = 0.350 \cdot 0.13 = 0.0455$$

$$\text{Totale} \quad 0.1217 \text{ Kg} \cdot \text{m}$$

La riproduzione in scala del *MINIMOA* è quindi completamente sbilanciata; per riportare il *baricentro* al punto giusto è indispensabile aggiungere zavorra nel muso della fusoliera. Quanta

Quanta? Se si collocasse la zavorra in *G4*, dove è sistemato l'apparato radio, la quantità necessaria sarebbe

$$\text{zavorra } a = [0.5850 - 0.1217] : 0.13 = 0.4633 : 0.13 = 3.56 \text{ Kg.}$$

Cio' equivarrebbe, in pratica, a raddoppiare il peso del modello; si cerca quindi di sistemare la zavorra il più lontano possibile dal *baricentro*, CG, onde massimizzare il momento ad esso relativo.

Nel nostro esempio è ragionevole ipotizzare che la zavorra possa essere collocata a circa 0.28 m da CG: in tal caso la quantità necessaria diventa

$$(0.5850 - 0.1217) : 0.28 = 1.65 \text{ Kg}$$

Fortunatamente, nelle realizzazioni aeromodellistiche, accorti costruttori riescono fare molto meglio di quanto è stato ipotizzato nell'esempio teorico sopracitato.

Ad esempio, l'aeromodellista milanese *Nunzio Pompele* ha realizzato un *MINIMOA* radioguidato, in scala 1:3.95, ottenendo le

seguenti caratteristiche:

$b = 4.30 \text{ m}$, $S = 1.18 \text{ m}^2$, $c = 0.28 \text{ m}$, $W = 5.10 \text{ Kg}$, $W/S = 4.32 \text{ Kg/m}^2$

I pesi parziali risultano pari a

ala.....	2.000
stabilizzatore.....	0.124
fusoliera con impennaggio.....	2.178
radio.....	0.400
zavorra.....	0.400

Come si vede, la distribuzione dei pesi parziali e' assai diversa nel modello in scala rispetto al MINIMO A originale; probabilmente anche la posizione dei baricentri parziali G1, G2, G3, G4 e' diversa, consentendo il centraggio con soli 400 grammi di zavorra.

Anche nel modello MINIMO A di Pompele il baricentro, CG, si trova al 50% della corda alla radice, cr, corrispondente al 33% della corda media alare, esattamente come nell'aliante originale.

Questo, modello, qui' citato come esempio di buona riproduzione in scala, soddisfa anche la precitata regola d'oro, secondo la quale la zavorra non deve superare il 10% del peso complessivo; anche il carico alare e' leggermente inferiore a quello derivato dalle regole della "vera scala".

Da questa semplice esercitazione numerica emerge la considerazione fondamentale: il peso della parte posteriore del modello, dietro al baricentro, deve essere il piu' ridotto possibile.

Questa esigenza inderogabile influenza la scelta della tecnica costruttiva, tenendo presente che ogni grammo di piu' in coda richiede - grosso modo - cinque grammi di zavorra nel muso.

Idealmente quindi, per le riproduzioni in scala, soprattutto per alianti d'epoca, e' preferibile la costruzione tradizionale in legno (balsa e compensato), con centine e ordinate, e copertura leggera.

Sovente per la fusoliera si preferisce la costruzione monoguscio in vetroresina, che e' molto piu' resistente all'impatto, visto che gli atterraggi dei modelli volanti sono, a volte, piuttosto movimentati.

A livello aeromodellistico, le fusoliere monoguscio risultano, in coda, troppo pesanti, a causa dello spessore: nella migliore delle ipotesi, lo spessore risulta identico lungo tutta la lunghezza, mentre secondo la scienza delle costruzioni, dovrebbe essere maggiore dove la fusoliera ha grande sezione maestra.

L'abbondanza di materiale in coda deve essere equilibrato da zavorra nel muso: non dimentichiamolo!

Il suggerimento logico, che deriva da tutte queste considerazioni e' quello di realizzare fusoliere piuttosto allungate nella parte anteriore all'ala, per minimizzare l'aggiunta di zavorra: ovviamente cio' si puo' fare solo per alianti radioguidati, che NON siano perfette riproduzioni in scala.

-idaflieg		F.V.A. Aachen, Templergraben 55, 5100 Aachen
		Akaflieg Berlin, Strasse der 17 Juni 135 1000 Berlin 12
		Akaflieg Braunschweig, Akafliegheim Flughafen, 3300 Braunschweig
		Akaflieg Darmstadt, Technische Hochschule, 6100 Darmstadt
		Akaflieg Erlangen, Erwin-Rommel-Strasse 60, 8520 Erlangen
		Flug.Arbeit.Schaft Esslingen, Kanalstrasse 33, 7300 Esslingen
		Akaflieg Hannover, Welfengarten 1a, 3000 Hannover
		Akaflieg Karlsruhe, Kaiserstrasse 12, 76128 Karlsruhe
		Akaflieg Muenchen, Arcisstrasse 21, 8000 Muenchen
		Akaflieg Stuttgart, Pfaffenwaldring 35, 7000 Stuttgart

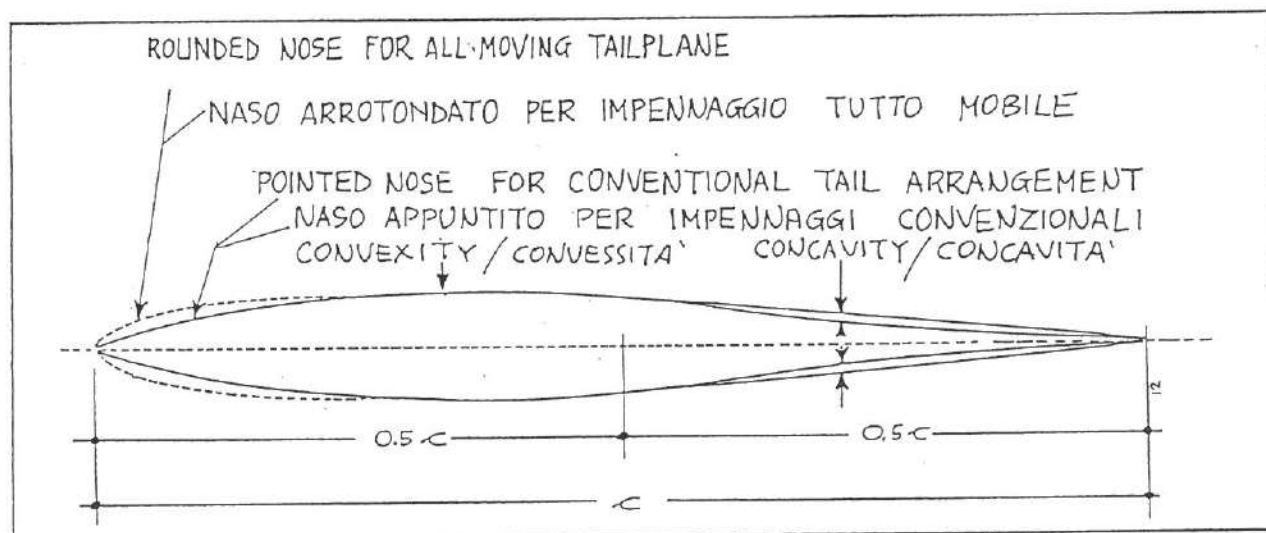
Questi gruppi di studenti universitari progettano e costruiscono alianti speciali, come attivita' nel tempo libero; di solito, viene realizzato un solo prototipo, senza scopi commerciali.

Benche' non siano impegnati in alcuna produzione industriale, questi gruppi di appassionati studenti svolgono un ruolo importante nel costante sviluppo del movimento volovelistico in Germania.

Come e' logico aspettarsi, i rapporti volumetrici di coda, precedentemente citati, rimangono costanti nella riduzione in scala, come si puo' vedere dall'esempio di FIG.10. A volte puo' accadere che il rapporto volumetrico di coda TVC, risulti troppo piccolo, e quindi la stabilita' longitudinale statica risulta inadeguata, soprattutto a bassa velocita'.

Il rimedio piu' semplice e' quello di aumentare del 10% - 15% la superficie S_t dello stabilizzatore orizzontale, violando cosi' i regolamenti di gara per le riproduzioni in scala.

Alternativamente, si puo' usare un profilo "biconcavo-convesso", del quale la FIG.12, mostra un esempio: profili di questo tipo, assai comuni nei moderni alianti da competizione, ma pressocche' ignorati in aeromodellismo, sono caratterizzati da elevati coefficienti di momento, anche per piccole deflessioni.



Example of "bi-concave" airfoil
Esempio di profilo "biconcavo"

FIG.12

La loro azione stabilizzante e' assai superiore a quella prodotta dai classici profili biconvessi simmetrici del tipo NACA 0006, 0009, ecc.

Ali a geometria variabile sono state sperimentate in alianti "full size", allo scopo di soddisfare i diversi requisiti del volo in termica, del volo in virata, del volo veloce.

Fatte le debite proporzioni, questi requisiti sussistono anche per i veleggiatori radioguidati.

Ci sono diverse soluzioni al problema della geometria variabile, intesa ad incrementare la superficie alare, in modo che il carico alare risulti diminuito:

A) - Variando (cioe' aumentando) l'apertura alare, il profilo ed il massimo coefficiente di portanza non cambiano. Solo l'allungamento alare AR e la superficie portante, S, aumentano.

E' questo il caso dell'aliante FS-29, realizzato dall'*Akaflieg Stuttgart*: e' munito di ala telescopica (FIG.13-A).

A parte l'estrema complessita' della costruzione, che non e' duplicabile a livello aeromodellistico, il principale problema di questa soluzione e' costituito dalla lentezza dell'operazione, nonche' dalla quantita' di energia richiesta per estendere e ritrarre l'ala durante il volo.

B) - Un'altra possibilita' e' quella di variare (cioe' di aumentare) la corda alare: al riguardo sono stati sperimentati due sistemi:

1) - Mediante un deflettore di curvatura a scorrimento, lungo tutta (o quasi) l'apertura alare, come nel caso degli alianti SB-1, *Milomei M-2*, *Sigma* (FIG.13-B e FIG.14-D).

2) - Mediante deflettore triangolare, che si estende per buona parte dell'apertura alare. Questa soluzione e' stata sperimentata sull'aliante D-40 (FIG.13-C), realizzato dall'*Akaflieg Darmstadt*.

Con questa soluzione, si aumenta la superficie alare, mentre la resistenza indotta aumenta, a causa della riduzione dell'allungamento.

In definitiva, peggiora l'efficienza aerodinamica, E, mentre si riduce il carico alare, W/S, e quindi anche la velocita' di caduta verticale, Vy.

Senza ripetere qui dettagliate considerazioni aerodinamiche, che si trovano su ogni testo di aerodinamica applicata, ricordiamo solo che la velocita' di caduta verticale, Vy, di ogni aliante (modello volante oppure "full size") e' determinata dalla relazione

$$V_y = 4 \sqrt{W/S * C_D^2 / C_L^3} \quad [4]$$

nella quale

Vy = velocita' di caduta, m/s

W = peso, Kg

S = superficie portante, m²

CD = coefficiente di resistenza dell'intera aerodina

CL = coefficiente di portanza dell'intera aerodina.

Si noti che i coefficienti CD e CL sono riferiti all'intero aliante e non al profilo alare.

ESEMPIO: S=0.76 m², W=2.8 Kg, CD=0.06, CL=0.8,
E=0.8/0.06=13.33.

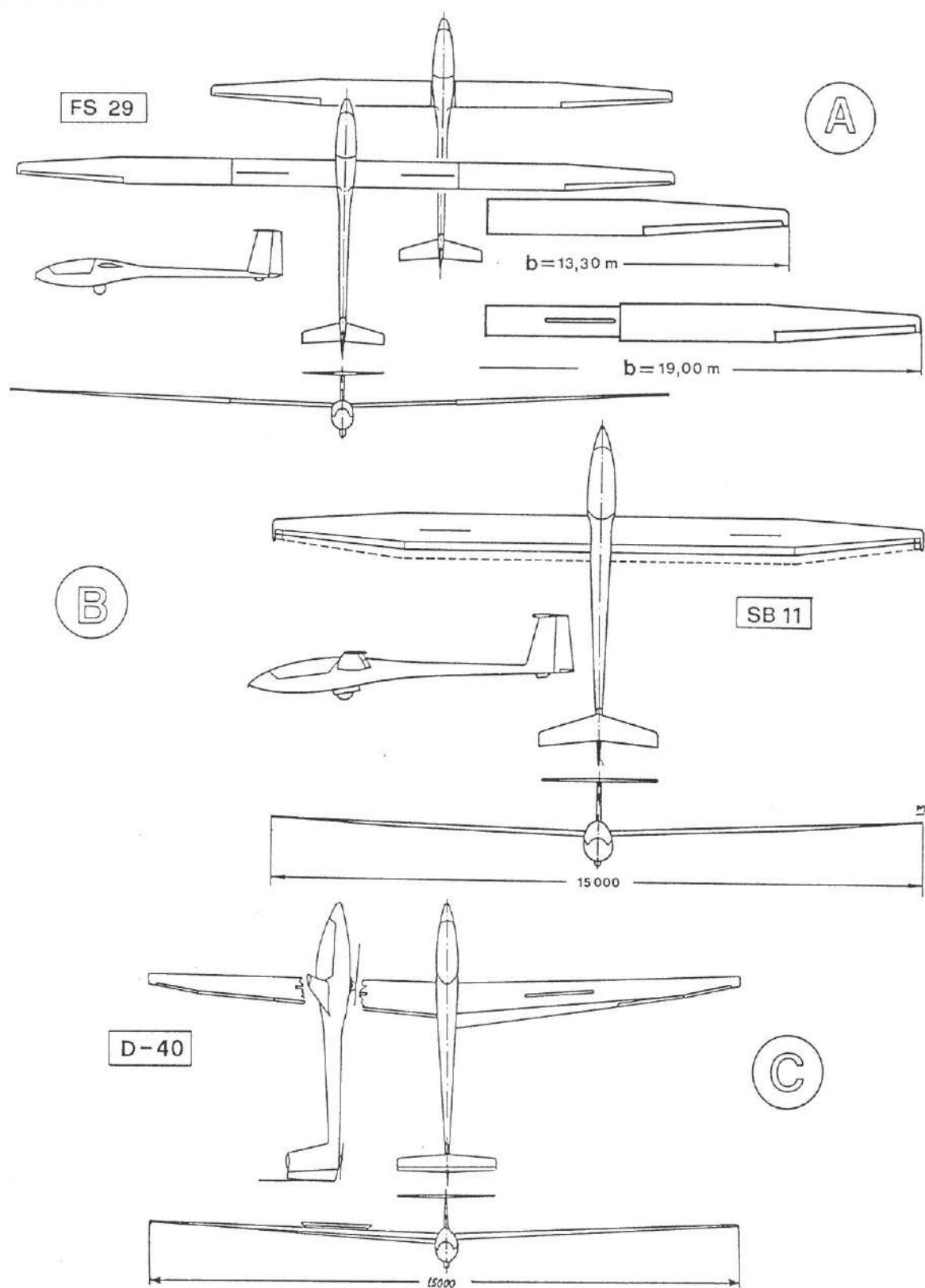


FIG. 13

Variable geometry wings
 Ali a geometria variabile

- A = Telescopic wing / Ala telescopica
- B = Extensible flap / Flap estensibile
- C = Triangular extensible flap / Flap triangolare estensibile

La velocità di caduta risulta uguale a

$$V_y = 4 \sqrt{[2.8/0.76] \cdot [0.06/0.8]} = 0.64 \text{ m/s}$$

Aggiungendo zavorra per il centraggio, si aumenta il carico alare: conseguentemente anche la velocità di caduta peggiora.

Al riguardo vale la semplice relazione

$$V_y' = V_y \sqrt{[W'/W]} \quad [5]$$

nella quale

W = peso originale

W' = peso con aggiunta di zavorra

ESEMPIO: aumentando a Kg 4 il peso dell'esempio precedente, aggiungendo zavorra, la velocità di caduta diventa

$$V_y' = 0.64 \sqrt{[4/2.8]} = 0.76 \text{ m/s}$$

L'esigenza di una maggiore superficie alare è tanto più rilevante quanto più il raggio di virata in termica è ridotto.

Le soluzioni sopracitate, a parte le complicazioni costruttive, non sono prive di inconvenienti funzionali: per esempio, con i flaps abbassati al massimo, gli alettoni non sono più efficaci.

Infatti i coefficienti dei momenti di imbardata e di rollio sono proporzionali al quadrato del coefficiente di portanza, che viene aumentato enormemente dai flaps abbassati.

Consequentemente bisogna adottare un grande timone direzionale, onde sopperire all'azione insufficiente degli alettoni.

Inoltre l'aumento del coefficiente di portanza, CL, ottenuto mediante deflessione dei flaps, arretra - di fatto - il punto di massima curvatura della linea mediana del profilo.

Questo richiede una maggior correzione con l'elevatore.

Tuttavia la soluzione che prevede un grande deflettore (FIG.14-A) è facilmente adottabile sui modelli volanti.

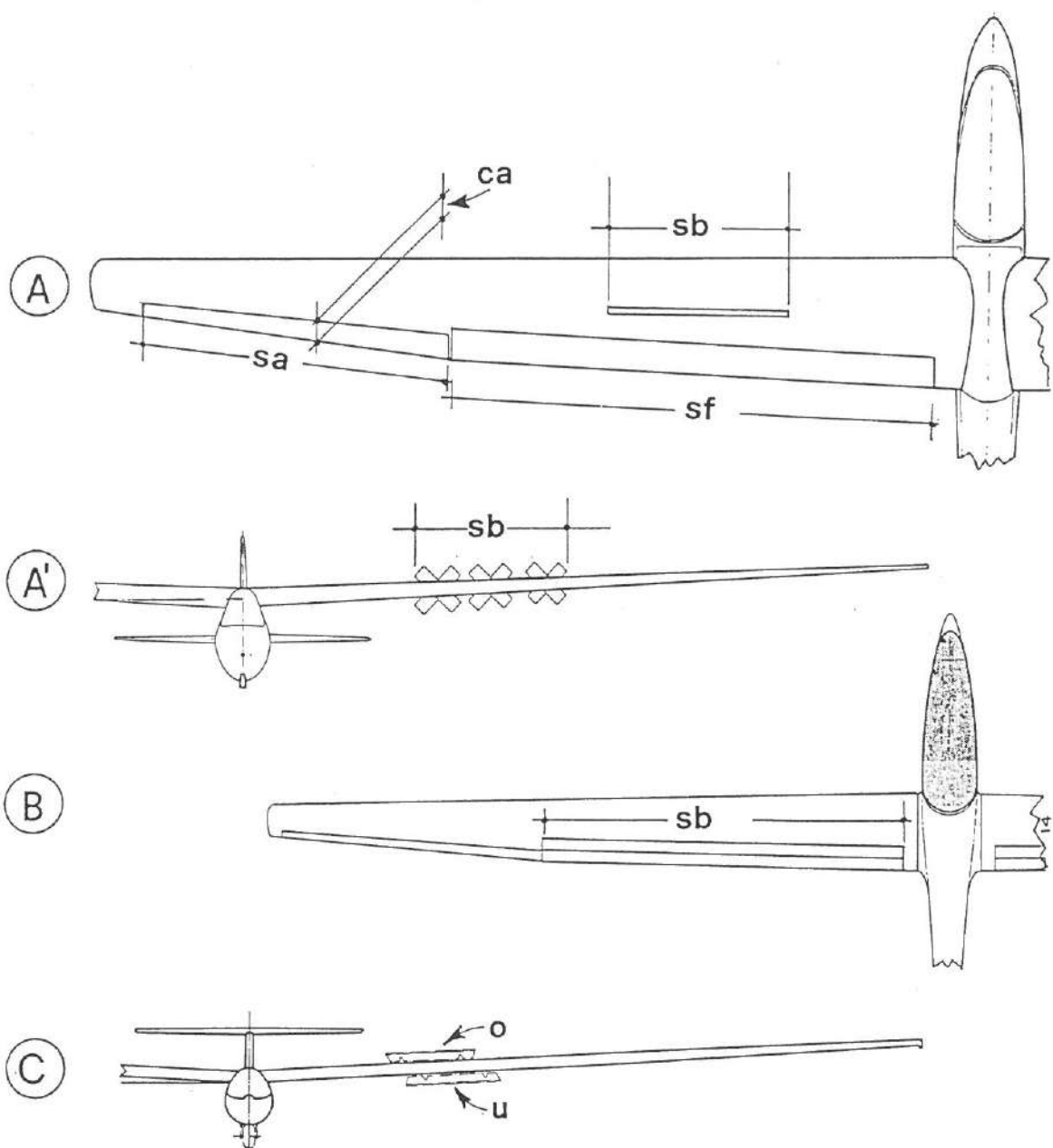
Per ridurre la velocità terminale (VNE), superando la quale le strutture si possono deformare in modo irreversibile, sono normalmente impiegati gli aerofreni.

La letteratura aeronautica ne descrive parecchi tipi: si veda per esempio il Rif.19; per quanto riguarda gli alianti ("full size" e modelli volanti), gli aerofreni si possono ricondurre a due famiglie fondamentali:

a) - dorsali e ventrali, situati di solito presso il punto di maggior spessore del profilo alare;

b) - al bordo d'uscita.

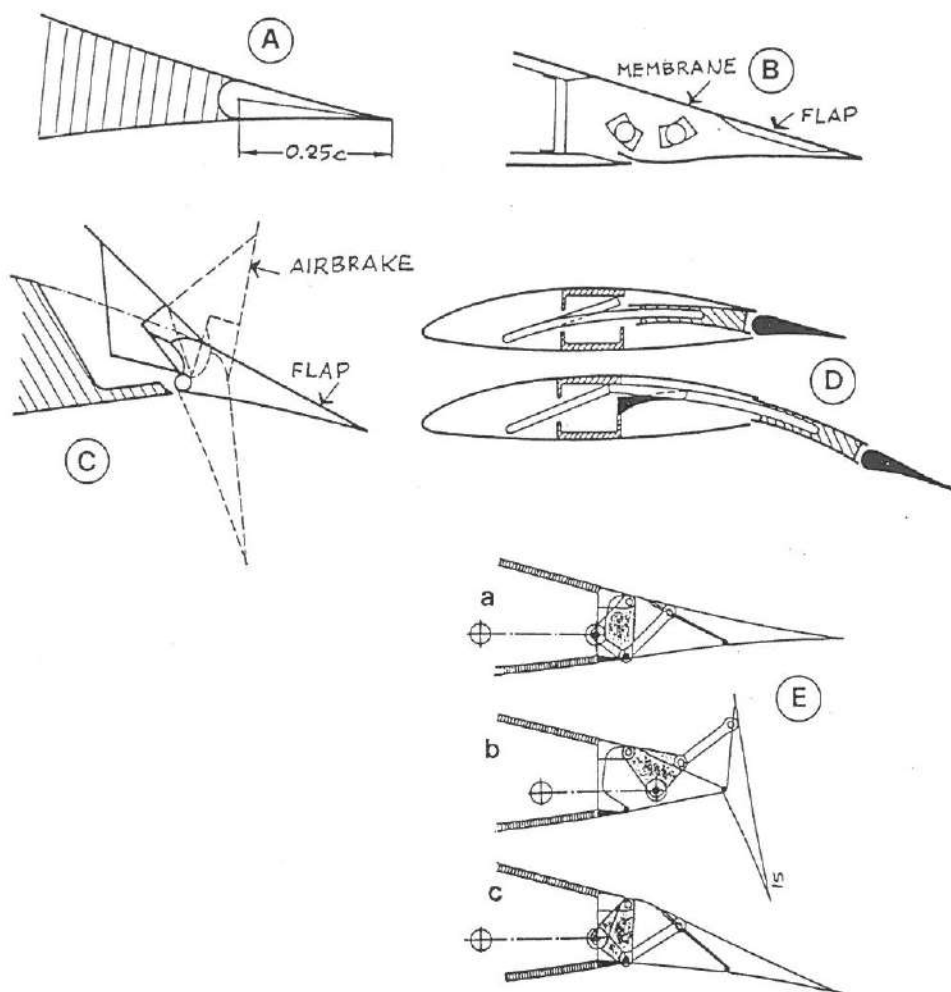
I diruttori del tipo a) furono i primi ad essere adottati sugli alianti (FIG.15).



Airbrakes and hi-lift devices
Aerofreni ed ipersostentatori

- sf = Flap span / Apertura deflettore
 sa = Aileron span / Apertura alettone
 ca = Aileron mean chord / Corda media alettone
 sb = Spoiler (airbrake) span / Apertura diruttore (aerofreno)
 o = Upper spoiler / Diruttore superiore
 u = Lower spoiler / Diruttore inferiore

FIG. 14



Airbrakes, spoilers, flaps
Aerofreni, diruttori, flaps

- A = Plain flap / Flap normale
B = Elastic flap / Flap elastico [Speed Astir]
C = Flap-airbrake / Flap-aerofreno [Mini Nimbus]
D = Extensible flap / Flap estensibile [SB 11]
E = Flap-airbrake / Flap-aerofreno [Windex 1200]

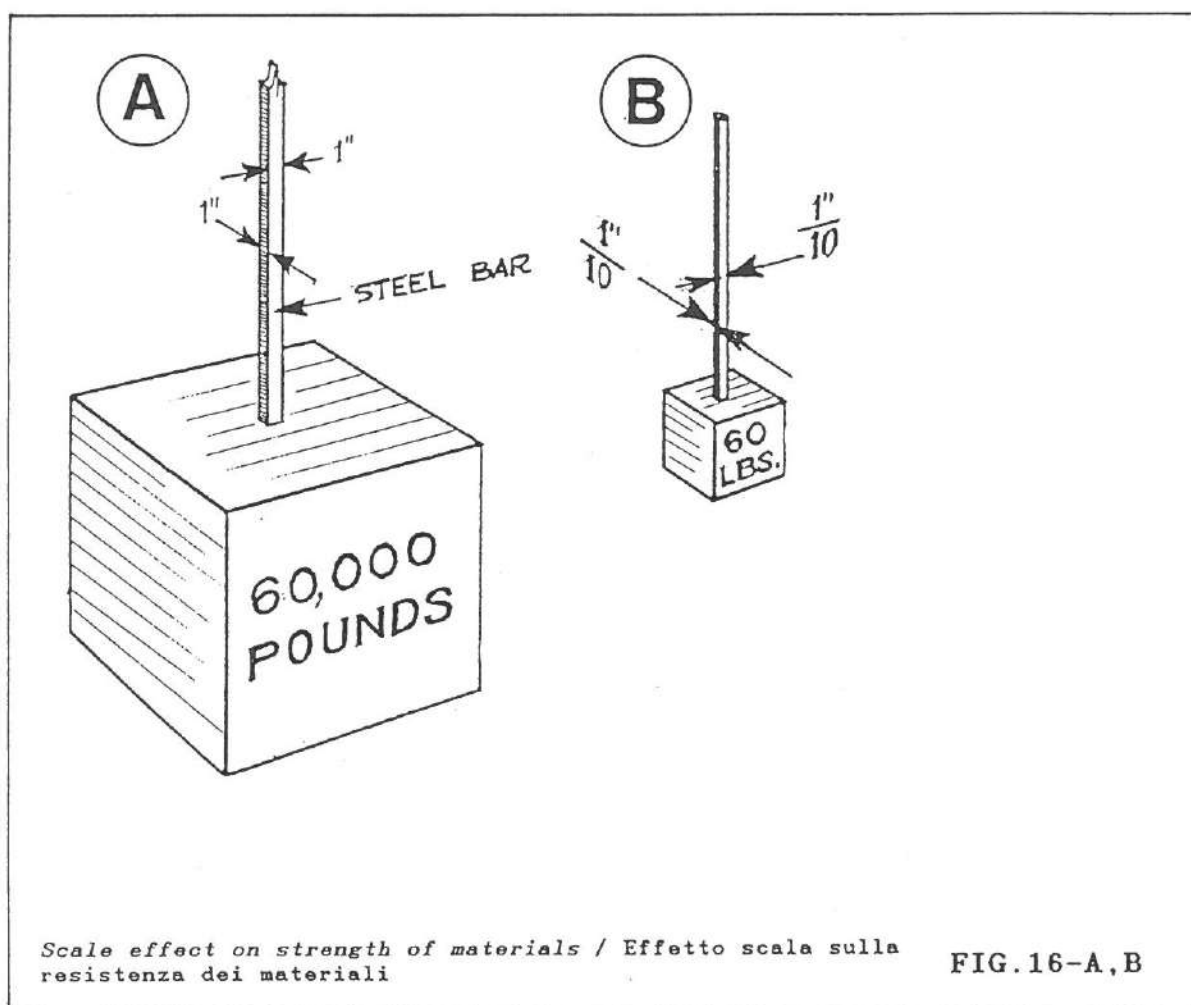
- a = Zero flap, airbrake closed / Zero flap, freno chiuso
b = Zero flap, max. airbrake / Zero flap, freno tutto aperto
c = 15° flap, airbrake closed / Flap 15° , freno chiuso

FIG.15

Questi aerofreni, interrompendo il flusso sulle superfici alari, provocano una grande *resistenza*, e quindi rallentano la velocità: tuttavia il loro effetto più rilevante è quello di rendere più ripida la *rampa di planata*.

La riduzione di velocità da essi provocata sui modelli volanti non è - in genere - molto rilevante.

A livello aeromodellistico, l'unico criterio valido per il loro dimensionamento è la loro apertura, *sb* (FIG.15).



Nei dispositivi del tipo **b)** sono combinati un deflettore vero e proprio ed un diruttore: la FIG.14-C ed E mostra due soluzioni realizzate su alianti "full size".

E' cosi' possibile ottenere un effettivo rallentamento della velocita' di volo, in quanto si incrementa la resistenza, ma anche la portanza.

Questi dispositivi, opportunamente semplificati, sono stati adottati su veleggiatori radioguidati; la loro diffusione, tuttavia, e' tuttora assai scarsa, a causa delle difficolta' costruttive.

Volendo ispirarsi agli alianti "full scale" per dimensionare aerofreni e flaps, puo' essere utile la TABELLA 8, che fornisce le specifiche tecniche complete dell'aliante polacco SZD-42-2 "JANTAR" -AMBER".

In aeromodellismo, raramente vengono presi in considerazione due elementi, che sono collegati alla "**similitudine dinamica**": la velocita' e la resistenza (o robustezza) dei materiali.

Anche per le cosiddette categorie di modelli veloci, sia radioguidati, sia in volo vincolato (con la sola eccezione della velocita' in VVC), le graduatorie sono basate sul tempo impiegato a coprire un determinato percorso, oppure un certo numero di basi, mai sulla velocita' (anche approssimata).

Conseguentemente gli aeromodellisti sono normalmente nel buio quasi completo, quando si tratta di considerazioni relative alle velocita' dei loro modelli.

L'unica eccezione a questa prassi consolidata e' il revival del Trofeo Schneider, che si svolge annualmente sul Lago Havasu in Arizona (USA).

Qui, riproduzioni in scala degli idrocorsa che gareggiarono per il Trofeo Schneider dal 1912 al 1931, devono percorrere una determinata base (andata e ritorno) a velocita' in scala.

Per quanto concerne le riproduzioni in scala degli alianti, ci sono quattro valori della velocita', che interessano il modellista attento:

a) Velocita' per il miglior angolo di planata, V_e , alla quale si verifica la piu' elevata efficienza aerodinamica, L/D .

b) La piu' bassa velocita' di caduta, V_y .

c) La velocita' di stallo.

d) La velocita' limite, VNE (superando la quale le strutture si deformano in modo irreversibile).

Uno sguardo alla polare delle velocita' (odogramma) di qualsiasi aliante (sia modello, sia "full size"), ci dice immediatamente che V_e (velocita' corrispondente alla miglior planata) e V (velocita' che assicura la discesa piu' lenta), sono ben distanziate tra di loro: la prima e' sempre superiore alla seconda.

Ad esempio, nel caso dell'aliante SZD-42-Jantar 2 "AMBER", il miglior angolo di planata si verifica a 88 Km/h, mentre la minima discesa verticale si ottiene a 75 Km/h: vedere la TABELLA 8.

TABELLA 8

SZD-42 JANTAR 2 - "AMBER"			
Complete Specifications / Specifiche Complete			
Wing span / Apertura alare.....	b	m	20.5
Wing root chord / Corda alare alla radice.....	cr	m	0.90
Wing tip chord / Corda alare alla radice.....	ce	m	0.395
Wing mean chord / Corda media alare.....	c	m	0.731
Wing aspect ratio / Allungamento alare	AR	-	29.2
Length overall / Lunghezza fuori tutto	L	m	7.11
Stabilator span / Apertura stabilizzatore	bt	m	2.60
Height over tail / Altezza alla deriva	y	m	1.76
Wing area / Superficie alare	S	m	14.25
Ailerons area (total) / Superficie alettoni (totale) ..	aa	m	1.15
T.E. flaps area (total) / Superficie flaps B.U.....	fa	m	1.38
Spoilers area (total) / Superficie diruttori (totale) ..	ba	m	0.69
Fin area / Superficie deriva fissa		m	0.72
Rudder area / Superficie direzionale		m	0.48
Tailplane area / Superficie piano orizzontale.....	st	m	1.35
Elevator area / Superficie elevatore		m	0.38
Empty weight / Peso a vuoto	We	Kg	343
Max. take off weight / Peso massimo al decollo [**]..	W'	Kg	593
Max. take off weight / Peso massimo al decollo [*]...	W	Kg	463
Max. wing loading / Carico alare massimo [**].....	W'/S	Kg/m	41.6
Max. wing loading / Carico alare massimo [*].....	W/S	Kg/m	32.5
Best glide ratio / Miglior rapp. di planata.[**].....	1:47	@ 102 Km/h	
Best glide ratio / Miglior rapp. di planata.[*].....	1:46	@ 88 Km/h	
Min. sink speed / Minima vel. di caduta .[**].....m/s	0.54	@ 87 Km/h	
Min. sink speed / Minima vel. di caduta .[*].....m/s	0.46	@ 75 Km/h	
Stalling speed / Velocita' di stallo .[**].....		80 Km/h	
Stalling speed / Velocita' di stallo .[*].....		65 Km/h	
Max.speed (smooth air) / Vel.max. (aria calma).[**]..		165 Km/h	
Max.speed (rough air) / Vel.max. (aria perturb.)[**].		140 Km/h	
Max.speed (smooth air) / Vel.max. (aria calma).[*]...		250 Km/h	
Max.speed (rough air) / Vel.max. (aria perturb.)[*]..		160 Km/h	
Max.aero-tow speed / Vel.max. di traino.....		140 Km/h	
G-limits / Limiti di carico .[**].....	g	+4 -1.5	
G-limits / limiti di carico .[*].....	g	+5.3 -2.65	
[**] = With (water) ballast / Con zavorra (acqua)			
[*] = Without (water) ballast / Senza zavorra (acqua)			



Di tanto in tanto, le pubblicazioni aeromodellistiche citano esempi di costruttori, che si sono cimentati, con mezzi piu' o meno elaborati, nei rilevamenti delle velocita' e degli angoli di planata dei loro modelli: sfortunatamente, questa prassi e' ben lungi dall'essere diffusa.

Ad ogni modo, procediamo con un ipotetico esempio di calcolo della *velocita' in scala*: la nostra "*cavia*" e' ancora l'aliante MINIMO della FIG.10.

Applicando le regole dell'autentica *riproduzione in scala* (TABELLA 5), si ottiene:

		Scala 1:1	Scala 1:5
a) V_e (miglior planata)	Km/h	70	31.3
b) V_y (discesa minima)	m/s	0.70	0.31
c) V (per discesa minima)	Km/h	60	26,8
d) V (VNE)	Km/h	200	89.5

La sola velocita' che non e' realisticamente ottenibile e' la *velocita' di caduta*, V_y ; il valore di 0.31 m/s e' stato e sara' sempre il sogno di una notte di mezz'estate per ogni serio vololibberista.

Le possibilita' di raggiungere questo basso valore di V_y sono praticamente nulle per qualsiasi veleggiatore radioguidato.

L'altro elemento, per il quale madre natura si rifiuta ostinatamente di collaborare con noi, allo scopo di conseguire la completa "*similitudine dinamica*" e' la *resistenza dei materiali*, che e' legata alle forze molecolari interne.

Queste forze rimangono immutate nei componenti in scala geometrica.

Come risultato pratico, nella riduzione in scala, ogni materiale e' relativamente molto piu' robusto, di fronte alle sollecitazioni che deve sopportare.

Questa constatazione, che a prima vista puo' sorprendere, puo' essere agevolmente verificata con un esempio pratico.

Immaginiamo un cubo di acciaio, pesante 60.000 libbre e sospeso - come un pendolo stazionario - mediante una barra d'acciaio avente la sezione quadrata di 1 pollice di lato.

Assumiamo ora che il carico di rottura della barra d'acciaio sia di poco superiore a 60.000 libbre/pollice quadrato: in altre parole, la barra e' sollecitata con un carico appena appena inferiore a quello di rottura (FIG.16-A).

Il peso addizionale di un trancio di pizza, messo sul cubo, farebbe rompere la barra.

Osserviamo ora il modello in scala 1:10 del sistema cubo-barra (FIG.10-B), anche se lo schizzo non e' stato eseguito in perfetta scala, per ragioni di presentazione.

La barra in scala, ovviamente, ha una sezione trasversale di $0.1" \times 0.1"$, cioè $1/100$ di pollice quadrato.

La resistenza alla rottura dell'acciaio del modello cubo-barra è sempre di 60.000 libbre/pollice quadrato: pertanto il carico estremo (di rottura) della barra del modello è pari ad $1/100$ di 60.000, cioè 600 libbre.

Tuttavia il peso del cubo-modello è pari a $0.1 \times 0.1 \times 0.1 \times 60.000$ libbre, cioè 60 libbre!

La barra in scala 1:10 può quindi sopportare dieci volte il peso del cubo (pure in scala 1:10).

Conclusione: la resistenza dei materiali, in qualsiasi modello in scala ridotta, aumenta secondo il fattore di riduzione in scala, che è stato indicato con F nella TABELLA 5.

Questo spiega, ad esempio, come sia possibile realizzare modelli volanti balsa, legno che è del tutto inadatto per aeroplani in grandezza naturale: si fa riferimento, ovviamente a strutture resistenti.

Infatti, nelle costruzioni ingrandite in scala, accade esattamente l'opposto, cioè la resistenza dei materiali diminuisce secondo il fattore F.

Quanto sopra esposto, spiega anche la apparente forza erculee di taluni insetti (formiche, per esempio), che portano normalmente carichi equivalenti a parecchie volte il proprio peso, sopportando sollecitazioni enormi.

Una formica può cadere da un alto edificio senza soffrire alcun danno: il suo rapporto F è enormemente elevato, rispetto alla resistenza strutturale dell'uomo!

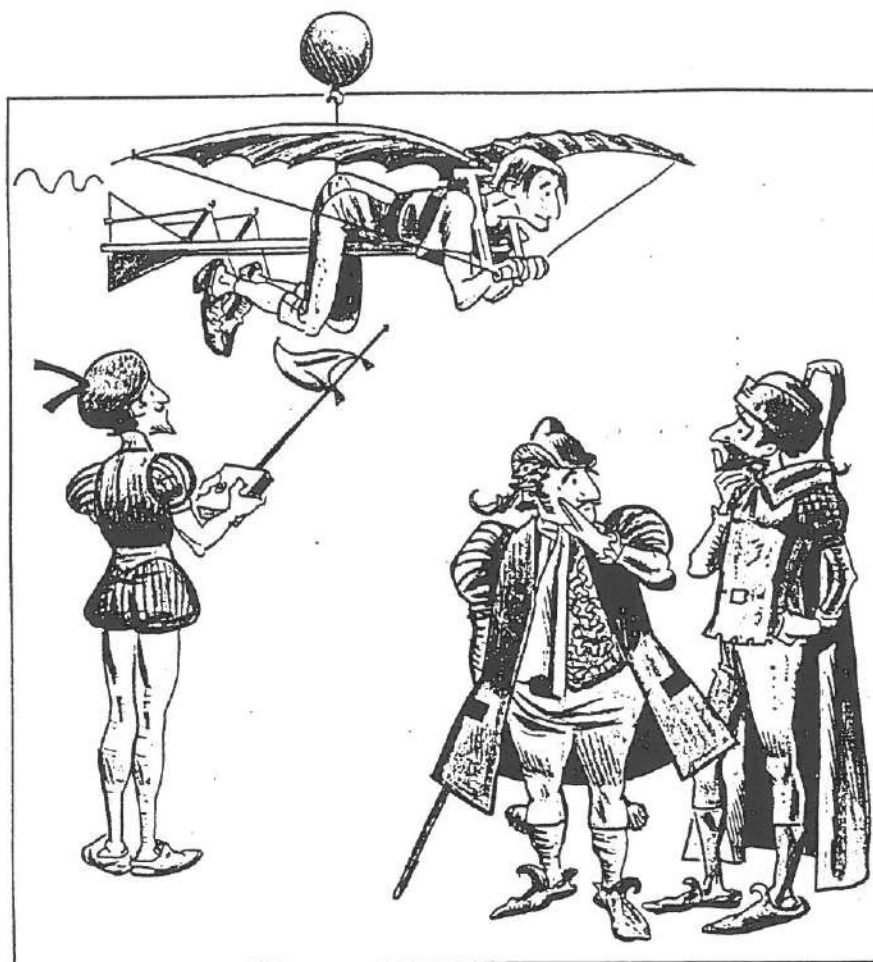
Tutto ciò può sembrare una specie di esercitazione accademica, ma può servire da spunto per utili considerazioni per modellisti attenti, soprattutto per coloro, i quali affermano che anche le strutture delle loro riproduzioni sono "in scala": ciò significa che hanno usato molto più materiale del necessario!

[continua]

..... "Tutti noi che costruiamo e facciamo volare aeromodelli abbiamo in comune una eredità".....
..... Una eredità che risale all'indietro nel tempo, quando il primo uomo sconfisse la gravità, lanciando una foglia da un dirupo and osservandola mentre saliva in alto verso le aquile".....

Frank Zaio

(Northridge, California, 1965)



AVIO-HUMOUR

"Messer Lionardo da Vinci s'ha da convincere che,
con il solo direzionale, il tonneau non lo fara' mai !"

SERVIZIO DISEGNI

Sovente gli aeromodellisti incontrano difficolta' nel procurarsi disegni di alianti, dei quali vorrebbero costruire una riproduzione in scala (radioguidata).

Per parecchi alianti compresi in questa selezione, sono disponibili [al costo di riproduzione piu' spese postali], copie fotostatiche dei piani in grande scala, preparati dalle case costruttrici.

Inviare due IRC
elenco completo e prezzi, a:

per

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CANADA

TABELLA 7/1 [I]

REMARKS	NOTE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
** = FUSELAGE PLUS VERTICAL TAIL FUSOLIERA PIU' CODA VERTICALE	FIRST FLIGHT	TAKE OFF WEIGHT *	MAX. TAKE OFF W. PESO MAX. DECOLLO	WING WEIGHT PESO ALA	FUSELAGE WEIGHT *	STABILATOR WEIGHT PESO STABILIZZATORE	BALLAST WATER ZAVORRA ACQUA	OVERALL LENGTH LUNGHEZZA F.T.	WING SPAN APERTURA ALARE	ASPECT RATIO ALLUNGAMENTO	WING AREA SUPERFICIE ALARE	MIN. WING LOADING CARICO ALARE MIN.	MAX. WING LOADING CARICO ALARE MAX.	MEAN WING CHORD CORDA MEDIA ALARE	ROOT WING CHORD CORDA ALARE: RADICE	TIP WING CHORD CORDA ALARE: ESTR.	WING PLANFORM PIANTA ALARE	TAPER RATIO RAPP. RASTREMAZ.	TAPER POINT INIZIO RASTREM.	WING TWIST SVERGOLAM. ALA	
* = EMPTY WEIGHT PLUS 50 KG PESO A VUOTO PIU' 50 KG	YEAR	W	W'	Ww	Wf	Wt	Wb	L	B=2b	AR	S	W/S	W/S	c	-cr	ce	Fig. 6	TR	yi	α_w	
* = METAL CONSTR. COSTRUZ. METALLICA	ANNO	[Kg]	[Kg]	[Kg]	[Kg]	[Kg]	[Kg]	[m]	[m]	[-]	[m ²]	[Kg/m ²]	[Kg/m ²]	[m]	[m]	[m]		[ce/α]	[°]		
VAMPYR	1921	210	210	-	-	-	-	5.00	12.6	10.0	16.0	13.1	13.1	1.27	1.35	0.76	RT	0.56	0.54	-	
FAFNIR	1930	290	315	-	-	-	-	7.76	19.0	20.0	18.6	15.6	16.9	0.98	1.63	0.41	T	0.27	-	0	
GRUNAU BABY IIB	1933	239	250	85	57	7	-	6.05	13.6	13.0	14.2	16.8	17.6	1.04	1.18	0.49	RT	0.42	0.53	-3.5	
MINIMOIA	1935	340	350	145	95	10	-	7.00	17.0	15.2	19.0	17.9	18.4	1.12	1.30	0.75	RT	0.58	0.58	-2	
WEIHE 50	1938	335	335	140	93	12	-	8.14	18.0	17.7	18.34	18.3	18.3	1.02	1.56	0.43	T	0.28	-	-6.5	
HKS I	1953	540	588	250	183	17	-	8.30	19.0	20.3	17.79	30.4	33.1	0.94	1.27	0.59	T	0.47	-	0	
HKS III	1955	389	410	173	109	17	75	7.16	17.2	20.8	14.23	27.3	28.8	0.83	1.23	0.54	T	0.44	-	0	
ZUGVOGEL III	1957	335	365	150	88	7	-	7.10	17.0	20.1	14.37	23.3	25.4	0.85	1.16	0.38	DT	0.33	0.52	0	
ZEFIR	1958	385	415	185	103	7	-	7.07	17.0	20.6	14.0	27.5	29.6	0.82	0.96	0.34	RT	0.36	0.56	0	
SHK	1965	350	370	164	87	11	-	6.30	17.0	19.7	14.65	23.9	25.3	0.86	1.20	0.51	T	0.43	-	0	
FK 3 *	1968	364	400	152	113	9	50	7.22	17.4	21.9	13.8	26.4	29.0	0.79	0.87	0.30	T	0.34	-	0	
MEISE	1939	250	255	82	71	7	-	7.27	15.0	15.0	15.0	16.7	17.0	1.00	1.45	0.55	T	0.38	-	0	
Ka 6 E	1955	281	300	116	69	6	-	6.70	15.0	18.1	12.4	22.7	24.2	0.83	1.17	0.37	DT	0.32	0.61	-2	
Ka 8 B	1958	281	310	110	74	7	-	7.00	15.0	15.5	14.5	19.4	21.4	0.97	1.30	0.49	DT	0.38	0.60	-4	
STANDARD AUSTRIA	1958	298	323	122	78	8	-	6.20	15.0	16.7	13.5	22.1	23.9	0.90	1.20	0.60	T	0.50	-	-1.5	
SB 5B	1959	293	300	122	69	12	-	6.50	15.0	17.3	13.0	22.5	23.1	0.87	1.00	0.56	RT	0.56	0.54	0	
FOKA 4	1960	335	385	130	107	8	-	7.00	15.0	18.5	12.16	27.5	31.7	0.81	1.22	0.38	T	0.31	-	0	
VASAMA	1961	303	300	124	83	6	-	5.97	15.0	19.1	11.75	25.8	26.5	0.78	1.08	0.40	DT	0.37	0.62	0	

TABELLA 7/1 [II]

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
	AILERON SPAN APER. ALETT.	AIL. MEAN CHORD CORDA MEDIA AL.	EMPU. ARCAN. SIST. IMPELV.	STABILATOR SPAN APER. STABIL.	STABILATOR AREA SUP. STABILIZ.	STABILATOR AR ALLUG. STAB	STAB. MEAN CHORD CORDA MEDIA STA.	ELEVATOR CHORD CORDA ELEVATORE	ELEV. LEVER ARM BRACCIO ELEV.	TAIL VOL. COEFF. RAPP. VOLUMETR.	FIN HEIGHT ALTEZZA DERIVA	TOTAL FIN AREA SUP. TOT. DERIVA	FIN ASPEC. R. ALLUG. DERIVA	FIN MEAN CH. CORDA M. DERIVA	RUDER CHORD CORDA DIREZ.	RUDER L. ARM BRACCIO DIR.	TAIL VOL. COEFF. RAPP. VOLUM.	SPOILERS ARR. SIST. DIRUTT.	AIR BRAKE SPAN APER. DIRUTT.
* = FLEXIBLE FLAPS FLAPS ELASTICI W _{EC} = WOOD AND CALICO CONSTRUCTION = COSTRUZIONE IN LEGNO E TELA W _{EC-15} = WOOD AND CALICO CONSTRUCTION 15 m CLASS = COSTRUZIONE IN LEGNO E TELA 15 m	sa	ca	Fig. 7	bt	st	ART	ct	ht	A	TVC	y	sv	ARv	cv	hv	B	VVC	Fig. 15	sb
	[%]	[m]		[m]	[m ²]	[-]	[m]	[%ct]	[m]	[-]	[m]	[m ²]	[-]	[m]	[%cd]	[m]	[-]		[m]
VAMPYR	32	0.46	A	2.50	1.88	3.33	0.75	100	3.40	0.31	0.90	1.28	0.63	1.42	38	2.50	0.016		
FAFNIR			A	3.50							1.66								
GRUNAU BABY II b	52	0.32	A	2.90	2.32	3.63	0.80	47	3.45	0.40	1.20	0.81	1.78	0.68	91	3.90	0.016	C	0.72
MINIMO A	58	0.40	A	3.00	1.98	4.55	0.66	41	4.13	0.38	1.94	1.20	3.14	0.62	100	4.50	0.017		
WEIHE 50	64	0.33	A	3.50	2.25	5.44	0.64	55	4.70	0.56	1.15	1.27	1.04	1.10	69	5.00	0.019	C	0.89
HKS I	*	*	D	2.70	1.97	3.70	0.73	44	4.72	0.56	1.13	1.65	3.10	0.73	44	4.72	0.023	A	1.30
HKS III	*	*	D	2.45	1.39	4.32	0.57	44	4.00	0.47	1.03	1.17	3.63	0.57	44	4.00	0.019	A	1.30
ZUGVOGEL III	32	0.23	A	2.60	1.81	3.73	0.70	46	4.28	0.63	1.50	1.37	1.64	0.91	59	4.66	0.026	C	1.11
ZE FIR	42	0.17	A	2.40	1.28	4.50	0.53	44	4.45	0.50	1.34	0.99	1.81	0.74	44	4.10	0.017	A	
SHK	38	0.18	D	2.73	1.94	3.84	0.71	100	3.73	0.57	1.32	1.87	3.73	0.71	100	3.73	0.028	C	1.79
FK 3	32	0.14	B	2.80	1.28	6.13	0.46	45	3.95	0.46	1.68	1.35	2.09	0.80	51	4.20	0.023	C	1.50
MEISE	30	0.20	A	2.90	2.35	3.58	0.81	40	4.13	0.65	1.40	1.07	1.83	0.76	67	4.53	0.022	C	0.88
Ka 6E	29	0.20	A	2.80	1.61	4.87	0.58	100	3.75	0.59	1.43	1.15	1.78	0.80	55	3.95	0.024	C	1.01
Ka 8B	32	0.23	A	2.80	1.95	4.02	0.70	49	3.82	0.53	1.50	1.40	1.61	0.93	54	4.18	0.027	C	1.01
STANDARD AUSTRIA	28	0.20	D	2.60	2.00	3.38	0.77	100	3.80	0.62	1.30	2.00	3.38	0.77	100	3.80	0.037	C	1.76
SB 5B	36	0.25	D	2.80	1.70	4.61	0.61	41	3.96	0.60	0.98	1.20	3.20	0.61	41	3.96	0.024	C	0.98
FOKA 4	40	0.15	A	2.70	1.40	5.21	0.52	40	4.00	0.55	1.20	0.98	1.47	0.82	45	3.80	0.020	C	1.06
VASAMA	32	0.18	B	2.20	1.27	3.81	0.58	50	3.65	0.50	1.35	1.10	1.66	0.81	50	3.80	0.024	C	0.95

TABELLA 7/2 [1]

REMARKS NOTE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	FIRST FLIGHT PRIMO VOLO	TAKE OFF WEIGHT * PESO AL DECOLLO	MAX TAKE OFF W. * PESO MAX. DECOLLO	WING WEIGHT PESO ALA	FUSELAGE WEIGHT * PESO FUSOLIERA	STABILATOR WEIGHT PESO STABILIZZATORE	BALLAST WATER ZAVORRA ACQUA	OVERALL LENGTH LUNGHEZZA F.T.	WING SPAN APERTURA ALARE	ASPECT RATIO ALLUNGAMENTO	WING AREA SUPERFICIE ALARE	MIN. WING LOADING CARICO ALARE MIN.	MAX. WING LOADING CARICO ALARE MAX.	MEAN WING CHORD CORDA MEDIA ALARE	ROOT WING CHORD CORDA ALARE: RADICE	TIP WING CHORD CORDA ALARE: ESTR.	WING PLANFORM PIANTA ALARE	TAPER RATIO RAPP. RASTREMAZ.	TAPER POINT INIZIO RASTREM.	WING TWIST SVERGOLAM. ALA
	YEAR	W [Kg]	W' [Kg]	Ww [Kg]	Wf [Kg]	Wt [Kg]	Wb [Kg]	L [m]	B=2b [m]	AR [-]	S [m ²]	W/S [Kg/m ²]	W/S [Kg/m ²]	c [m]	cr [m]	ce [m]	Fig. o	TR [ce/cr]	yi [%>]	α_w [°]
STANDARD ELFE	1965	234	350	147	89	8	-	7.30	15.0	19.0	11.86	23.2	29.5	0.79	0.90	0.37	RT	0.41	0.57	0
	1957	269	300	96	75	8	-	6.90	16.0	17.8	14.36	18.7	20.9	0.81	1.25	0.53	T	0.42	-	-2
PHÖNIX T	1961	350	350	145	119	6	-	7.50	18.0	24.9	13.00	26.9	26.9	0.72	0.90	0.48	DT	0.53	0.66	0
SB 6	1962	390	390	181	112	7	-	7.08	17.0	22.8	12.65	30.8	30.8	0.74	0.92	0.37	RT	0.36	0.41	
SB 7 B	1962	425	500	192	134	9	-	7.58	18.0	22.8	14.20	29.9	35.2	0.79	0.99	0.40	DT	0.41	0.56	0
BS 1	1964	375	401	166	110	9	-	7.35	17.8	24.8	12.80	29.3	31.3	0.72	0.95	0.34	DT	0.36	0.60	-3
D 36	1965	409	430	194	117	8	-	7.35	18.3	25.8	13.00	31.5	33.1	0.71	0.76	0.26	DT	0.34	0.59	-3
ASW 12	1967	366	400	165	104	7	100	7.20	17.7	24.9	12.60	29.0	31.7	0.71	0.87	0.35	DT	0.40	0.58	-2
CIRRUS B	1967	333	459	176	85	9	-	6.98	17.0	20.6	14.06	23.7	32.6	0.83	1.21	0.37	T	0.31	-	
PHOEBUS C	1967	301	334	129	76	6	-	7.70	18.0	23.0	14.10	21.3	23.7	0.78	0.97	0.45	DT	0.46	0.62	-3
SB 8	1967	385	440	182	105	8	-	7.72	18.0	22.7	14.28	27.0	30.8	0.79	0.93	0.36	RT	0.39	0.56	
DIAMANT 18	1968	362	400	149	115	8	50	6.72	17.0	25.0	11.58	32.3	34.5	0.68	0.71	0.32	DT	0.45	0.59	0
KESTREL 401	1969	415	421	218	100	7	100	7.50	22.0	31.3	15.48	26.8	27.2	0.70	0.97	0.25	DT	0.26	0.51	-1.5
SB 9	1969	446	580	230	120	6	150	7.28	20.3	28.6	14.41	31.0	40.2	0.71	0.76	0.27	DT	0.36	0.57	0
NIMBUS II	1970	551	650	294	159	8	100	7.56	22.0	29.8	16.23	33.9	40.0	0.74	0.98	0.40	DT	0.41	0.68	
KESTREL 604	1971	495	570	266	127	11	180	7.55	20.0	27.0	14.84	33.4	38.4	0.74	0.94	0.40	DT	0.43	0.61	0
ASW 17	1972	647	897	419	127	11	100	10.36	29.0	36.7	22.90	28.3	39.0	0.79	0.97	0.29	DT	0.80	0.30	-1.5
SB 10	1975	458	461	241	121	6	(70)	7.16	19.0	28.5	12.65	36.2	36.4	0.67	0.73	0.49	RT	0.40	0.54	-1.5
FS 29																				

TABELLA 7/2 [II]

W/C - 15 m	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
	AILERON SPAN APER. ALETT.	AIL. MEAN CHORD CORDA MEDIA AL.	EMPH. ARROW SIST. IMPENN.	STABILATOR SPAN APER. STABIL.	STABILATOR AREA SUP. STABILIZZ.	STABILATOR AR ALLUG. STAB	STAB. MEAN CHORD CORDA MEDIA STA.	ELEVATOR CHORD CORDA ELEVATORE	ELEV. LEVER ARM BRACCIO ELEV.	TAIL VOL. COEFF. RAPP. VOLUMETR.	FIN HEIGHT ALTEZZA DERIVA	TOTAL FIN AREA SUP. TOT. DERIVA	FIN ASPEC. R. ALLUG. DERIVA	FIN MEAN CH. CORDA M. DERIVA	RUDDER CHORD CORDA DIREZ.	RUDDER L. ARM BRACCIO DIR.	TAIL VOL. COEFF. RAPP. VOLUM.	SPOILERS ARR. SIST. DIRUTT.	AIR BRAKE SPAN APER. DIRUTT.
W/C - 15 m	32	0.18	A	2.90	1.45	5.80	0.50	100	4.27	0.66	1.43	1.05	1.94	0.74	40	4.33	0.025	C	1.11
GRP - F	29	0.12	C	3.20	1.55	6.61	0.48	35	4.04	0.54	0.95	1.21	0.75	1.27	58	4.33	0.022		
STANDARD ELFE	28	0.13	B	2.60	1.20	5.63	0.46	100	4.47	0.57	1.50	1.27	1.77	0.85	40	4.51	0.024	A	
PHÖNIX T	35	0.12	C	2.50	1.05	5.95	0.42	100	4.10	0.46	1.35	1.00	1.82	0.74	37	4.12	0.019	C	
SB 6	39	0.14	C	3.00	1.33	6.77	0.44	100	4.53	0.54	1.35	1.33	1.37	0.99	40	4.66	0.024	C	
SB 7 B	38	0.14	C	2.30	1.00	5.29	0.43	21	3.89	0.42	1.57	1.27	1.94	0.81	52	4.02	0.022	C	
BS 1	37	0.15	C	2.50	1.00	6.25	0.40	35	4.17	0.45	1.50	1.20	1.88	0.80	50	4.30	0.022	A	
D 36	37	0.15	B	2.50	1.05	5.95	0.42	28	4.16	0.49	1.48	1.15	1.90	0.78	45	4.30	0.022	C	
ASW 12	32	0.16	C	3.20	1.56	6.56	0.49	100	4.24	0.57	1.20	1.16	1.24	0.97	49	4.28	0.020	C	
CIRRUS B	34	0.15	C	2.70	1.30	5.61	0.48	30	4.65	0.55	1.45	1.30	1.62	0.90	35	4.72	0.024	C	
PHOEBUS C	41	0.16	C	2.80	1.19	6.59	0.43	100	4.67	0.49	1.32	1.01	1.73	0.77	59	4.63	0.018	C	
SB 8	39	0.09	C	2.85	1.28	6.35	0.45	19	3.76	0.61	1.30	1.00	1.69	0.77	35	3.85	0.020	C	
DIAMANT 18	43	0.15	C	2.70	1.30	5.61	0.48	30	4.40	0.53	1.40	1.30	1.51	0.93	43	4.65	0.018	C	
KESTREL 401	38	0.12	C	2.40	1.02	5.65	0.43	100	4.60	0.46	1.27	1.24	1.30	0.98	38	4.46	0.019	Fig. 15	
SB 9	30	0.09	C	3.55	1.50	8.40	0.42	50	4.40	0.55	1.35	1.29	1.42	0.95	30	4.45	0.016		
NIMBUS II	37	0.12	B	2.90	1.43	5.88	0.49	30	4.22	0.55	1.70	1.44	2.01	0.84	51	4.43	0.021	Fig. 15	
KESTREL 604	68	0.16	B	3.30	1.47	7.41	0.45	41	5.74	0.47	2.40	2.61	2.20	1.09	49	6.14	0.024	B _u	
ASW 17	46	0.24	C	2.40	1.03	5.59	0.43	100	4.54	0.54	1.27	1.24	1.30	0.98	38	4.49	0.023	A	
SB 10 [29 m]																			
FS 29 [13 m]																			
	32																		

TABELLA 7/3 [I]

REMARKS NOTE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	FIRST FLIGHT PRIMO VOLO	TAKE OFF WEIGHT * PESO AL DECOLLO	MAX TAKE OFF W. * PESO MAX. DECOLLO	WING WEIGHT * PESO ALA	FUSELAGE WEIGHT * PESO FUSOLIERA	STABILATOR WEIGHT * PESO STABILIZZATORE	BALLAST WATER * ZAVORRA ACQUA	OVERALL LENGTH * LUNGHEZZA F.T.	WING SPAN * APERTURA ALARE	ASPECT RATIO * ALLUNGAMENTO	WING AREA * SUPERFICIE ALARE	MIN. WING LOADING * CARICO ALARE MIN.	MAX. WING LOADING * CARICO ALARE MAX.	MEAN WING CHORD * MEDIA ALARE	ROOT WING CHORD * CORDA ALARE: RADICE	TIP WING CHORD * CORDA ALARE: ESTR.	WING PLANFORM * PIANTA ALARE	TAPER RATIO * RAPP. RASTREMAZ.	TAPER POINT * INIZIO RASTREM.	WING TWIST * SVERGOLAM. ALA
** = FUSELAGE PLUS VERTICAL TAIL FUSOLIERA PIU' CODA VERTICALE	YEAR	W [Kg]	W' [Kg]	W _w [Kg]	W _f [Kg]	W _t [Kg]	W _b [Kg]	L [m]	B=2s [m]	AR [-]	S [m ²]	W/S [Kg/m ²]	W/S [Kg/m ²]	c [m]	cr [m]	ce [m]	Fig. 6	TR [ce/σ]	y _i [%σ]	α _w [°]
* = EMPTY WEIGHT PLUS 90 KG PESO A VUOTO PIU' 90 KG	ANNO	380	465	163	117	10	-	7.70	18.00	14.3	22.70	16.7	20.5	1.26	1.60	0.61	RT	0.38	0.33	-
* = METAL CONSTRUCTION = COSTRUZ. METALLICA	1935	325	410	122	102	11	-	6.24	14.84	11.6	19.00	17.1	21.6	1.28	1.45	0.56	RT	0.39	0.37	0
KRANICH II	1951	410	520	204	105	11	-	9.10	18.10	15.6	21.06	19.5	24.7	1.16	1.75	0.58	T	0.33	-	-8
GOEVIER	1951	349	440	152	97	10	-	7.88	16.60	15.6	17.70	19.7	24.9	1.07	1.51	0.91	T	0.40	-	0
KRANICH III	1951	349	440	152	97	10	-	7.88	16.60	15.6	17.70	19.7	24.9	1.07	1.51	0.91	T	0.40	-	0
BERGFALKE II/55	1952	423	510	166	155	12	-	8.00	18.11	16.4	20.00	21.2	25.5	1.10	1.60	0.53	T	0.33	-	-2
BOCIAN	1952	423	510	166	155	12	-	8.00	18.11	16.4	20.00	21.2	25.5	1.10	1.60	0.53	T	0.33	-	-2
BLANIK *	1956	382	500	172	106	14	-	8.40	16.20	13.7	19.15	19.9	26.1	1.18	1.67	0.70	T	0.42	-	-3
Ka 7	1957	382	480	162	120	10	-	8.10	16.00	14.6	17.50	21.8	27.4	1.09	1.50	0.61	T	0.41	-	-4
ASK 13	1965	408	480	161	147	10	-	8.18	15.95	14.5	17.50	23.3	27.4	1.10	1.50	0.61	T	0.41	-	-4
CALIF	1970	532	644	257	169	16	-	7.74	20.38	25.7	16.19	32.9	39.8	0.79	0.90	0.68	RT	0.36	0.63	0
SB 10 [26 m]	1972	708	889	397	211	10	100	10.36	26.00	31.0	21.80	32.4	40.8	0.84	0.97	0.77	RT	0.80	0.34	-5
LSD- ORNITH	1972	377	450					7.50	18.00	26.1	12.40	29.0	36.3		0.96					
JANUS	1974	472	620	220	154	8	-	8.57	18.20	20.0	16.60	28.4	37.3	0.91	1.20	0.48	DT	0.40	0.59	0
TWIN ASTIR	1976	495	650	194	196	15	100	8.10	17.50	17.1	17.90	27.7	36.3	1.05	1.30	0.66	DT	0.51	0.58	0
GLOBETROTTER	1977	498	600					7.66	17.00	18.1	15.72	31.7	35.2		1.30		DT			0
B-12	1977	492	582					8.67	18.20	20.0	16.60	29.6	35.1	0.91	1.20	0.48	DT	0.40	0.59	0
SFH 34	1978	390	490					7.50	15.80	17.0	14.80	26.4	33.1	1.07			T			
ASK 21	1979	440	550					8.35	17.00	16.1	17.95	24.5	30.6	1.06			T			
PHOEBUS B 1	1964	314	350					6.98	15.0	17.2	13.11	24.0	26.7	0.87	1.21		DT			

TABELLA 7/3 [II]

TWS = TWIN SEAT SAILPLANES = ALIANTI BIPOSTO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
* = METAL CONSTRUCTION = COSTRUZ. METALLICA	AILERON SPAN APER. ALETT.	AIL. MEAN CHORD CORDA MEDIA AL.	EMPU. ARCAN. SIST. IMPENN.	STABILATOR SPAN APER. STABIL.	STABILATOR AREA SUP. STABILIZ.	STABILATOR AR ALLUNG. STAB	STAB. MEAN CHORD CORDA MEDIA STA.	ELEVATOR CHORD CORDA ELEVATORE	ELEV. LEVER ARM BRACCIO ELEV.	TAIL VOL. COEFF. RAPP. VOLUMETR.	FIN HEIGHT ALTEZZA DERIVA	TOTAL FIN AREA SUP. TOT. DERIVA	FIN ASPEC. R. ALLUNG. DERIVA	FIN MEAN CH. CORDA M. DERIVA	RUDER CHORD CORDA DIREZ.	RUDER L. ARM BRACCIO DIR.	TAIL VOL. COEFF. RAPP. VOLUM.	SPOILERS ARR. SIST. DIRUTT.	AIR BRAKE SPAN APER. DIRUTT.
	% Δ	ca ⁻ [m]	Fig. 7	lt [m]	st [m ²]	art [m]	ct [m]	ht [%ct]	A [m]	TVC [—]	y [m]	st [m ²]	ARV [—]	cv [m]	hv [%cv]	B [m]	VVC [—]	Fig. 15	Ab [m]
KRANICH II	69	0.40	A	3.00	2.20	4.09	0.73	45	4.35	0.33	1.58	1.36	1.82	0.86	73	4.78	0.016	C	1.97
GOEVIER	61	0.34	A	3.18	2.64	3.83	0.83	42	4.26	0.46	1.74	1.72	1.76	0.99	64	4.64	0.028	C	0.90
KRANICH III	46	0.37	A	3.50	2.32	5.28	0.66	41	4.70	0.45	1.26	1.68	0.95	1.33	82	5.00	0.022	C	1.21
BERGFALKE II/55	46	0.26	A	2.80	2.00	3.92	0.71	46	4.11	0.43	1.27	1.09	1.48	0.86	77	4.87	0.018	C	1.10
BOCIAN	48	0.34	A	3.85	2.80	5.29	0.73	45	4.35	0.52	1.63	1.51	1.76	0.93	60	4.85	0.020	C	1.18
BLANIK *	42	0.34	A	3.45	2.66	4.47	0.77	42	4.76	0.56	1.53	1.61	1.46	1.05	56	4.74	0.024	C	
Ka 7	37	0.27	A	3.00	2.55	3.53	0.85	42	4.43	0.59	1.45	1.34	1.57	0.92	58	4.95	0.024	C	1.47
ASK 13	37	0.27	A	3.00	2.55	3.53	0.85	42	4.40	0.58	1.45	1.21	1.74	0.83	57	5.05	0.022	C	1.47
CALIF	28	0.18	C	3.15	1.70	5.84	0.54	20	5.08	0.68	1.95	1.34	2.84	0.69	47	4.92	0.020	B	3.50
SB 10 [26 ^m]	64	0.16	B	3.30	1.47	7.43	0.44	41	5.74	0.46	2.40	2.61	2.20	1.09	49	6.14	0.028	B ^u	1.20
LSD-ORNITH			C	2.30	0.84	6.30	0.37	100			1.30	1.20	1.41	0.92					
JANUS	37	0.15	C	2.70	1.24	5.88	0.46	100	5.39	0.44	1.30	1.24	1.36	0.95	30	5.25	0.021	C	1.21
TWIN ASTIR	36	0.18	C	3.30	2.05	5.31	0.62	27	4.81	0.52	1.60	1.43	1.79	0.89	38	4.68	0.021	C	1.40
GLOBETROTTER			C	2.75	1.47	5.14	0.53				1.20	1.00	1.44	0.83				C	
B-12	37	0.15	B	3.28	1.44	7.47	0.44				1.79	1.46	2.19	0.82				C	1.21
SFH 34			C					25							40			C	1.40
ASK 21			C															C	
PHOEBUS B1	32	0.17	C	3.20	1.56	6.56	0.49	100	4.24		1.20	1.16	1.24	0.97	49	4.28	0.045	C	1.51

TABULATION / TABELLA 7/4 [I]

REMARKS NOTE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	FIRST FLIGHT PRIMO VOLO	TAKE OFF WEIGHT * PESO AL DECOLLO	MAX. TAKE OFF W. PESO MAX. DECOLLO	WING WEIGHT PESO ALA	FUSELAGE WEIGHT * PESO FUSOLIERA	STABILATOR WEIGHT PESO STABILIZZATORE	BALLAST WATER ZAVORRA ACQUA	OVERALL LENGTH LUNGHEZZA F.T.	WING SPAN APERTURA ALARE	ASPECT RATIO ALLUNGAMENTO	WING AREA SUPERFICIE ALARE	MIN. WING LOADING CARICO ALARE MIN.	MAX. WING LOADING CARICO ALARE MAX.	MEAN WING CHORD CORDA MEDIA ALARE	ROOT WING CHORD CORDA ALARE: RADICE	TIP WING CHORD CORDA ALARE: ESTR.	WING PLANFORM PIANTA ALARE	TAPER RATIO RAPP. RASTREMAZ.	TAPER POINT INIZIO RASTREM.	WING TWIST SVERGOLAM. ALA
	YEAR	W	W'	W _w	W _f	W _t	W _b	L	b=2s	AR	S	W/S	W/S	c	-cr	ce	g	TR	y _i	α _w
	ANNO	[Kg]	[Kg]	[Kg]	[Kg]	[Kg]	[Kg]	[m]	[m]	[-]	[m ²]	[Kg/m ²]	[Kg/m ²]	[m]	[m]	[m]	[m]	[ce/α]	[%]	[°]
LS 1 C	1967	293	312	107	91	5	-	7.20	15.0	23.1	9.74	30.1	32.0	0.65	0.85	0.32	DT	0.38	60	-2
STANDARD LIBELLE	1967	289	350	108	84	7	50	6.20	15.0	23.0	9.80	29.5	35.7	0.65	0.88	0.35	DT	0.40	58	-2.5
FS 25	1968	238	250	78	66	4	-	6.48	15.0	26.3	8.54	27.9	29.3	0.57	0.76	0.24	DT	0.32	74	0
ASW 15 B	1968	324	408	135	90	9	82	6.48	15.0	20.5	11.00	29.5	37.1	0.73	0.91	0.38	DT	0.42	59	-2
STANDARD CIRRUS	1969	302	390	110	95	7	60	6.35	15.0	22.4	10.04	30.1	38.8	0.67	0.92	0.35	DT	0.38	60	-0.75
D 38	1972	306	360	118	91	7	40	6.92	15.0	20.5	11.0	27.8	32.7	0.73	0.94	0.37	DT	0.40	60	-2.6
STANDARD JANTAR	1973	340	440	136	106	8	100	7.11	15.0	21.1	10.66	31.9	41.3	0.71	0.95	0.45	T	0.47	-	-3
LS 1 f	1974	317	390	119	102	6	90	6.70	15.0	23.1	9.75	32.5	40.0	0.65	0.84	0.32	DT	0.38	60	-2
DG 100	1974	316	418	120	98	8	100	7.00	15.0	20.5	11.0	28.7	38.0	0.73	0.94	0.38	DT	0.40	60	-1.8
ASTIR CS	1974	342	450	138	105	9	100	6.47	15.0	18.1	12.4	27.6	36.3	0.83	1.00	0.45	DT	0.45	60	0
HORNET	1974	334	420	124	112	8	100	6.40	15.0	23.0	9.8	34.1	42.9	0.65	0.88	0.35	DT	0.40	58	-2.5
ASW 19	1975	344	408	140	104	10	120	6.80	15.0	20.5	11.0	31.3	37.1	0.73	0.91	0.38	DT	0.42	59	-2
LIBELLE H-301	1964	275	300	105	75	5	-	6.18	15.0	23.7	9.5	28.9	31.6	0.63	0.94	0.33	T	0.35	-	0
PIK 20 D	1973	338	450	140	102	6	140	6.45	15.0	22.5	10.0	33.8	45.0	0.67	0.90	0.36	DT	0.40	60	
LS 3	1976	370	472	158	115	7	150	6.86	15.0	21.4	10.5	35.2	45.0	0.70	0.97	0.46	T	0.47	-	-
MOSQUITO	1976	332	450	134	102	6	125	6.40	15.0	23.0	9.8	33.9	45.9	0.65	0.84	0.40	DT	0.48	47	0
MINI NIMBUS	1976	326	450	130	99	7	140	6.41	15.0	22.7	9.9	32.9	45.5	0.66	0.87	0.42	DT	0.48	47	0
DG 200	1976	331	450	126	108	7	110	7.00	15.0	22.5	10.0	33.1	45.0	0.67	0.84	0.33	DT	0.40	68	0

TAB. 7/4 - I

GRP - S

GRP - 153

GRP-S = GLASS REINFORCED CONSTRUCTION, STANDARD CLASS = COSTRUZIONE IN VETRORESINA, CLASSE STANDARD	GRP-15 = GLASS REINFORCED CONSTRUCTION, 15 M CLASS = COSTRUZIONE IN VETRORESINA, CLASSE 15 M	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
		AILERON SPAN APERTE ALETT.	AIL. MEAN CHORD CORDA MEDIA AL.	EMPH. ARROW SIST. IMPENN.	STABILATOR SPAN APERTE STABIL.	STABILATOR AREA SUP. STABILIZZ.	STABILATOR AR ALLUNG. STAB.	STAB. MEAN CHORD CORDA MEDIA STA.	ELEVATOR CHORD CORDA ELEVATORE	ELEV. LEVER ARM BRACCIO ELEV.	TAIL VOL. COEFF. RAPP. VOLUMETR.	FIN HEIGHT ALTEZZA DERIVA	TOTAL FIN AREA SUP. TOT. DERIVA	FIN ASPECT. R. ALLUNG. DERIVA	FIN MEAN CH. CORDA M. DERIVA	RUDER CHORD CORDA DIREZ.	RUDER L. ARM BRACCIO DIR.	TAIL VOL. COEFF. RAPP. VOLUM.	SPOILERS ARR. SIST. DIRUTT.	AIR BRAKE SPAN APERTE DIRUTT.
LS 1 C		35	0.14	C	2.30	0.84	6.30	0.37	100	4.05	0.54	1.30	1.00	1.69	0.77	35	4.10	0.028	C	0.93
STANDARD LIBELLE		39	0.10	B	2.50	1.16	5.39	0.46	21	3.65	0.66	1.19	0.78	1.82	0.66	40	3.59	0.019	C	1.20
FS 25		36	0.11	C	2.00	0.72	5.56	0.36	100	4.05	0.60	1.20	0.72	2.00	0.60	40	4.05	0.023	B	1.20
ASW 15 B		33	0.17	B	2.62	1.15	5.97	0.44	100	3.45	0.49	1.48	1.13	1.94	0.76	47	3.66	0.025	C	1.00
STANDARD CIRRUS		33	0.12	C	2.40	1.02	5.65	0.43	100	3.85	0.58	1.20	0.95	1.52	0.79	35	3.79	0.024	C	1.20
D 38		35	0.17	C	2.30	1.00	5.29	0.43	100	4.27	0.53	1.25	0.92	1.98	0.63	40	4.29	0.021	C	1.35
STANDARD JANTAR		32	0.11	C	2.60	1.35	5.01	0.52	29	3.92	0.45	1.35	1.10	1.66	0.81	42	3.98	0.027	C	1.33
LS 1f		35	0.14	C	2.20	0.98	4.94	0.45	25	3.95	0.61	1.15	0.90	1.47	0.78	35	3.99	0.025	C	1.35
DG 100		35	0.17	C	2.30	1.00	5.29	0.43	100	4.29	0.53	1.24	0.92	1.67	0.74	50	4.29	0.024	C	1.34
ASTIR CS		33	0.18	C	2.80	1.50	5.23	0.54	25	4.05	0.59	1.22	0.96	1.55	0.79	30	4.04	0.021	C	1.21
HORNET		39	0.10	C	2.50	1.15	5.43	0.46	25	3.74	0.68	1.15	0.89	1.49	0.77	30	3.73	0.023	B	3.72
ASW 19		33	0.15	C	2.50	1.10	5.68	0.44	30	3.82	0.52	1.25	1.00	1.56	0.80	30	3.84	0.023	C	1.20
LIBELLE H-301		44	0.12	B	2.50	1.00	6.25	0.40	25	3.62	0.60	1.19	0.78	1.82	0.66	40	3.50	0.019	C	1.20
PIK 20D		94	0.13	C	2.00	1.00	4.00	0.50	23	3.66	0.55	1.20	0.93	1.55	0.78	31	3.60	0.022	C	1.20
LS 3		95	0.16	C	2.20	0.89	5.44	0.40	25	3.95	0.48	1.32	1.00	1.74	0.76	35	3.90	0.025	C	1.38
MOSQUITO		45	0.11	C	2.50	1.15	5.43	0.46	25	3.88	0.70	1.40	0.90	2.18	0.64	30	3.90	0.024	B	3.20
MINI NIMBUS		45	0.11	C	2.40	1.02	5.65	0.43	100	3.91	0.61	1.15	0.95	1.39	0.83	30	3.76	0.024	B	3.20
DG 200		40	0.09	C	2.24	0.95	5.30	0.42	27	4.23	0.60	1.21	0.88	1.66	0.73	50	4.24	0.025	C	1.46

TAB. 7/4 - II

TABULATION / TABELLA 7/5 [I]

REMARKS NOTE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
** = FUSELAGE PLUS VERTICAL TAIL FUSOLIERA PIU' CODA VERTICALE * = EMPTY WEIGHT PLUS 50 KG PESO A VUOTO PIU' 50 KG	FIRST FLIGHT PRIMO VOLO	TAKE OFF WEIGHT * PESO AL DECOLLO	MAX TAKE OFF W. PESO MAX. DECOLLO	WING WEIGHT PESO ALA	FUSELAGE WEIGHT * PESO FUSOLIERA	STABILATOR WEIGHT PESO STABILIZZATORE	BALLAST WATER ZAVORRA ACQUA	OVERALL LENGTH LUNGHEZZA F.T.	WING SPAN APERTURA ALARE	ASPECT RATIO ALLUNGAMENTO	WING AREA SUPERFICIE ALARE	MIN. WING LOADING CARICO ALARE MIN.	MAX. WING LOADING CARICO ALARE MAX.	MEAN WING CHORD CORDA MEDIA ALARE	ROOT WING CHORD CORDA ALARE: RADICE	TIP WING CHORD CORDA ALARE: ESTR.	WING PLANFORM PIANTA ALARE	TAPER RATIO RAPP. RASTREMAZ.	TAPER POINT INIZIO RASTREM.	WING TWIST SVERGOLAM. ALA
	YEAR	W [Kg]	W' [Kg]	W _w [Kg]	W _f [Kg]	W _t [Kg]	W _b [Kg]	L [m]	B=2Δ [m]	AR [-]	S [m ²]	W/S [Kg/m ²]	W/S [Kg/m ²]	c [m]	c _r [m]	c _e [m]	Fig. g	TR [ce/c _e]	y _i [%Δ]	α _w [°]
ASW 20	1977	335	454	134	102	9	120	6.82	15.0	21.4	10.5	31.9	43.3	0.70	0.70	0.30	DT	0.43	63	0
SPEED ASTIR	1978	365	515	134	119	11	140	6.68	15.0	19.6	11.47	31.8	44.9	0.76	1.03	0.50	T	0.49	-	0
AN 66 C	1973	510	650	300			120	8.10	23.0	33.8	16.0	31.9	40.6	0.74			RT			
SIGMA	1971	697	703					8.81	21.0	27.6	19.2	26.2	33.9	0.84			RT		35	
SB 11	1978	360	470	169	95	6	100	7.40	15.0	26.8	16.5	42.2	42.6	0.79	0.80	0.32	RT	0.40	60	0
MÜ 27	1979							10.30	22.0	21.3	10.36	34.1	44.5	0.70	1.00	0.40				
Lo 100	1952	258	265	80	80	8	-	6.15	10.0	27.5	17.6								30	-3
B 4	1966	314	350	121	93	10		6.57	15.0	20.2	23.9	23.7	24.3	1.09	1.30	0.56	RT	0.43	59	0
SALTO	1970	259	270	86	75	8		5.90	13.6	21.5	8.6	30.1	31.4	0.63	0.86	0.36	DT	0.42		-2

TAB. 7/5 - 1

AS → VGR → GRP - 15 m →

	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
	AILERON SPAN APER. ALET.	AIL. MEAN CHORD CORDA MEDIA AL.	ENPENN. ARCAN. SIST. IMPENN.	STABILATOR SPAN APER. STABIL.	STABILATOR AREA SUP. STABILIZ.	STABILATOR AR ALLUNG. STAB	STAB. MEAN CHORD CORDA MEDIA STA.	ELEVATOR CHORD CORDA ELEVATORE	ELEV. LEVER ARM BRACCIO ELEV.	TAIL VOL. COEFF. RAPP. VOLUMETR.	FIN HEIGHT ALTEZZA DERIVA	TOTAL FIN AREA SUP. TOT. DERIVA	FIN ASPEC. R. ALLUNG. DERIVA	FIN MEAN CH. CORDA M. DERIVA	RUDER CHORD CORDA DIREZ.	RUDER L. ARM BRACCIO DIR.	TAIL VOL. COEFF. RAPP. VOLUM.	SPOILERS ARR. SIST. DIRUTT.	AIR BRAKE SPAN APER. DIRUTT.
GRP-15 = GLASS REINFORCED CONSTRUCTION 15 m CLASS IN = COSTRUZIONE IN VETRORESINA CLASSE 15 m	36	0.09	C	2.20	1.00	4.85	0.45	32	3.89	0.53	1.25	1.00	1.57	0.80	30	3.88	0.024	C	1.40
WGV = VARIABLE GEOMETRY WING = ALA A GEOMETRIA VARIAB.	47	0.13	C	3.00	1.44	6.25	0.48	28	3.87	0.64	1.09	0.98	1.21	0.90	30	3.75	0.022	C	1.50
AS = AEROBATIC SAILPLANES = ALIANTI ACROBATICI			B																
ASW 20			C	2.59	1.12	5.99	0.43				1.83	1.44	2.33	0.79					
SPEED ASTIR	41	0.14	C	2.70	1.24	5.88	0.46	100	4.55 4.50	0.76 0.51	1.27	1.17	1.38	0.92	40	4.45 4.40	0.033 0.028	C	1.20
MÜ 27																			
LO 100	56	0.24	B	2.70	1.00	7.29	0.37	42	3.24	0.27	1.10	0.78	1.55	0.71	63	3.74	0.027	B	2.30
B 4	37	0.19	C	3.08	1.71	5.56	0.55	33	3.83	0.50	1.32	1.22	1.70	0.85	34	3.38	0.020	C	1.31
SALTO	43	0.10	D	2.14	1.09	4.20	0.51	38	3.61	0.73	0.91	0.46	3.60	0.51	38	3.61	0.028	B	1.30

TAB. 7/5 - 11



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- 25) 1974 SAILPLANE DIRECTORY, SSA, (USA)
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- 27) OSTIV PUBLICATION XIII, Waikerie, 1974 (AUS)
- 28) THE WORLD'S SAILPLANES, OSTIV, 1958 (CH)

PERIODICALS / PERIODICI

USA: MODEL AVIATION

MODEL BUILDER

R/C MODELER

FLYING MODELS

MODEL AIRPLANES NEWS

SPORT AVIATION

SOARING

TECHNICAL SOARING

RADIO CONTROL SOARING DIGEST

SAILPLANE

EUROPE: MODELLISTICA (I)

AEROMODELLER (UK)

RADIO CONTROL MODELS & ELECTRONICS (UK)

RADIO MODELLER (UK)

RADIO CONTROL MODEL WORLD (UK)

SILENT FLIGHT (UK)

RADIOMODELISME (F)

AERO REVUE (CH)

LE MODELE REDUIT D'AVION (F)

MODELAR (CZ)

MODELARZ (Poland)

SAILPLANE AND GLIDING (UK)

AEROPLANE MONTHLY (UK)

VOLO A VELA (I)

PRINCIPALI AZIENDE ED ORGANIZZAZIONI
IMPEGNATE NELLA PROGETTAZIONE E
NELLA REALIZZAZIONE DI ALIANTI



Alexander Schleicher,
Huhrain, P.O.Box 60,
6416 Poppenhausen, Germany

Burkhardt Grob,
P.O.Box 1257,
8948 Mindelheim, Germany



URSULA HÄNLE
doktor fiberglas

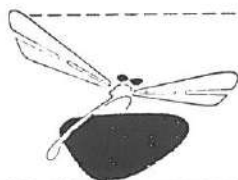
Doktor Fiberglas, Ursula Haenle,
P.O.Box 1112,
5438 Westenburg, Germany

FFA Flugzeugwerke,
9423 Altenrhein,
Switzerland



FFT, Flugplatz Mengen,
7947 Mengen,
Germany

Glaser-Dirks,
Im Schollengarten 19-20,
7520 Bruchsal, Germany



Glasfaser-Hansjorg Streifeneder,
Hofener Weg,
7431 Grabenstetten, Germany

ISF Strauber-Frommhold,
Wilhelm-Leuschner-Strasse 13,
6140 Bensheim-Auerbach, Germany



Issoire Aviation,
P.O.Box 1,
63501 Issoire Cedex, France

Kaunas University of Technology,
Aer.Laboratory, Kestucio 27.
3004 Kaunas, Lithuania



LET,
Uh. Hradiste-Kunovice,
PSC 68604, Czech Republic

LSF,
P.O.Box 644,
799 Friedrichshafen, Germany



Pilatus,
6370 Stans,
Switzerland

PZL-BIELSKO [SZD],
Ulica Cieszyńska 325,
43-300 Bielsko-Biala, Poland



PZL-SWIDNIK,
Al.Lotnikow Polskich 1,
21-045 Swidnik, Poland

Rolladen-Schneider,
Muehlstrasse 10, P.O.Box 1130,
6073 Egelsbach, Germany





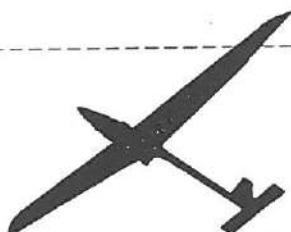
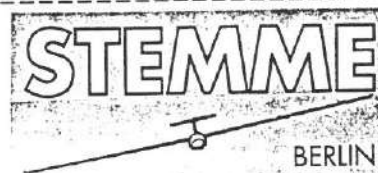
Scheibe Flugzeugbau,
August-Pfaltz-Strasse,
8060 Dachau, Germany

Schempp-Hirth,
Krebenstrasse 25, P.O.Box 1443,
7312 Kirchheim-Teck, Germany



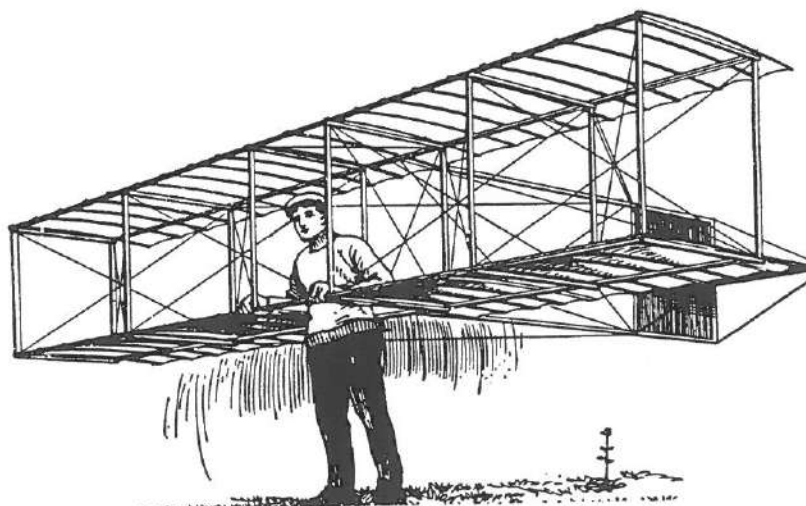
Schweizer Aircraft,
P.O.Box 147,
Elmira, NY 14902, USA

Stemme,
Gustav-Meyer-Allee 25,
1000 Berlin 65, Germany



Warsaw University Aer.Institute,
Ul. Nowowiejska 22/24,
00-665 Warsaw, Poland

Wolf Hirth,
7312 Kirchheim/Teck-Nabern,
Germany



Altre pubblicazioni di F.Gale':

MANUALE DI TECNICA AEROMODELLISTICA, Vol.I
Milan, 1947

MANUALE DI TECNICA AEROMODELLISTICA, Vol.II
Milan, 1953

APPUNTI SUL PROGETTO AERODINAMICO DI MODELLI VOLANTI
Abbiategrosso, 1973

ALIANTI-SOARERS-PLANEURS-SEGELFLUGZEUGE [*]
Milan, 1978

AERODYNAMIC DESIGN OF RADIOGUIDED SAILPLANES [**]
Baveno, 1989

IDROVOLANTI RADIOGUIDATI
Baveno, 1989

BIPLANI RADIOGUIDATI
Baveno, 1989

AEROMODELLI STOL RADIOGUIDATI
Baveno, 1989

DIMENSIONAMENTO STRUTTURALE DI AEROMODELLI RADIOGUIDATI
Baveno, 1989

ELICOTTERI RADIOGUIDATI
Baveno 1989

PROGRAMMI IN BASIC PER AEROMODELLISMO
Baveno, 1990

300 PROFILI PER MODELLI VOLANTI
Baveno, 1990

AEROMODELLISMO D'EPOCA IN ITALIA-Parte I- MOTOMODELLI
Baveno, 1990

GUIDA PRATICA ALL'AEROMODELLISMO RADIOGUIDATO
Baveno, 1991

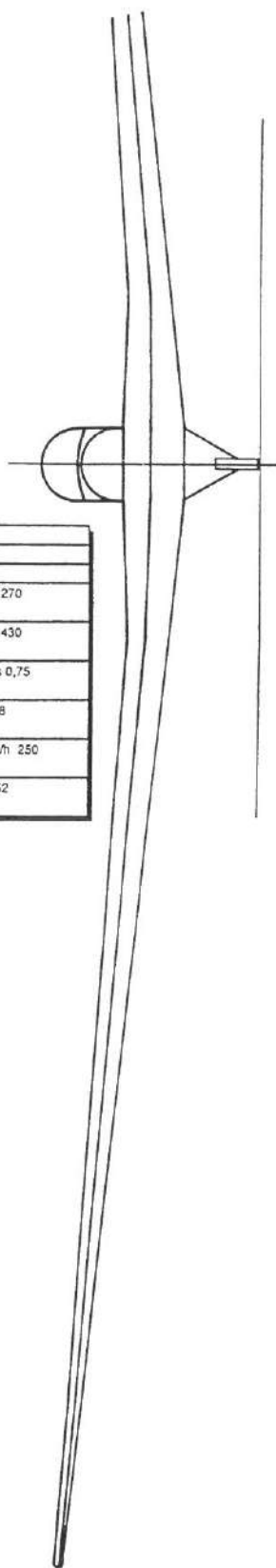
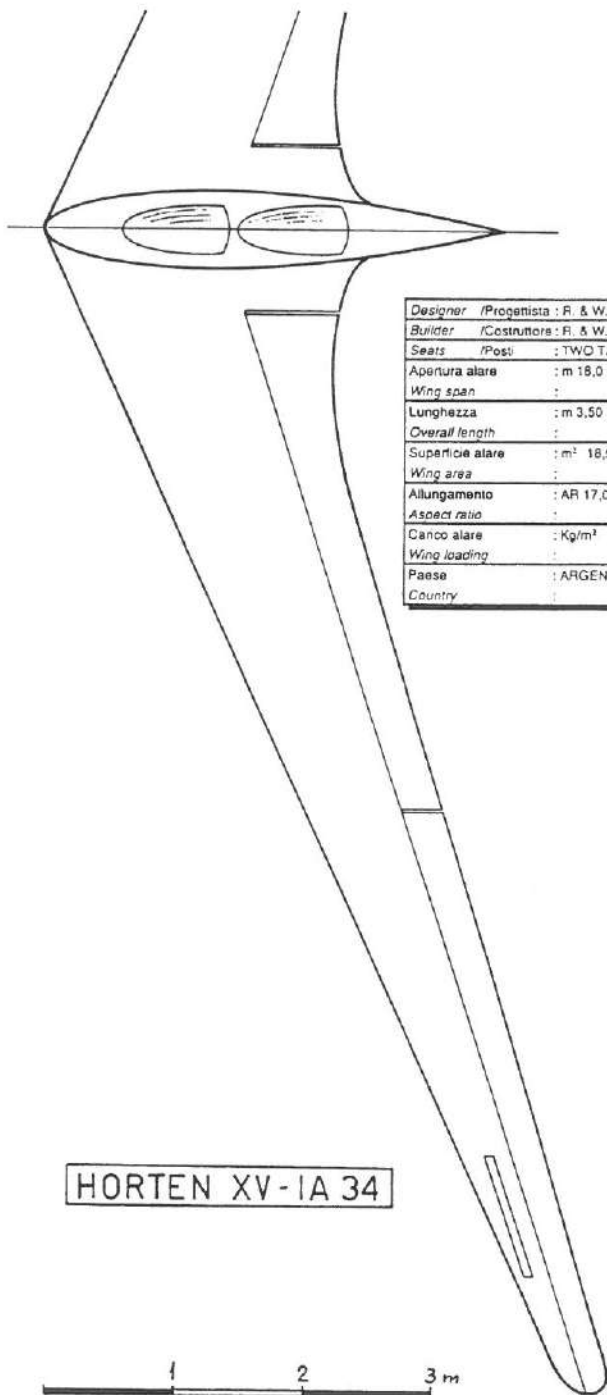
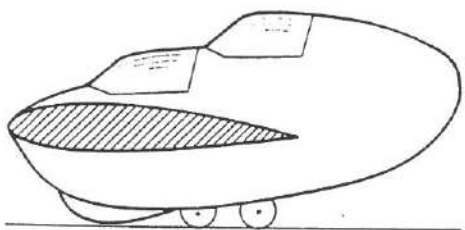
TAILLESS TALE [***]
Olalla, USA, 1991

PICCOLI AEROMODELLI RADIOGUIDATI
Baveno, 1992

STRUCTURAL DIMENSIONING OF RADIOGUIDED AEROMODELS [***]
Olalla, USA, 1993

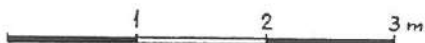
PROGETTO AERODINAMICO DI ALIANTI RADIOGUIDATI
Baveno, 1993

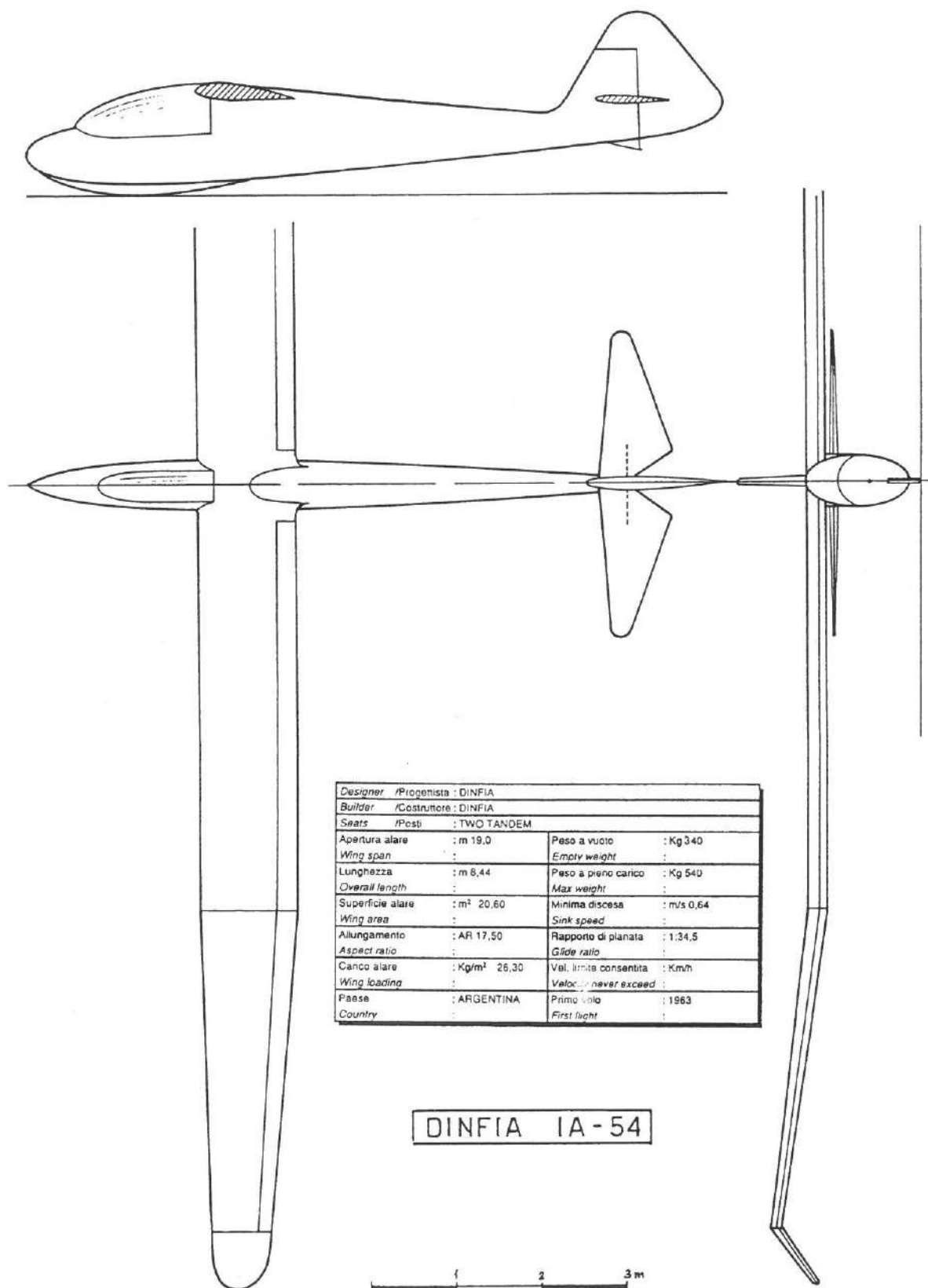
[*] = Testo in Italiano, Inglese, Tedesco e Francese
[**] = Testo in Italiano ed Inglese
[***] = Testo in Inglese



Designer / Progettista	R. & W. HORTEN		
Builder / Costruttore	R. & W. HORTEN		
Seats / Posti	TWO TANDEM		
Apertura alare	: m 18,0	Peso a vuoto	: Kg 270
Wing span	:	Empty weight	:
Lunghezza	: m 3,50	Peso a pieno carico	: Kg 430
Overall length	:	Max weight	:
Superficie alare	: m ² 18,90	Minima discesa	: m/s 0,75
Wing area	:	Sink speed	:
Allungamento	: AR 17,0	Rapporto di planata	: 1:28
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ² 22,70	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: ARGENTINA	Primo volo	: 1952
Country	:	First flight	:

HORTEN XV-1A 34

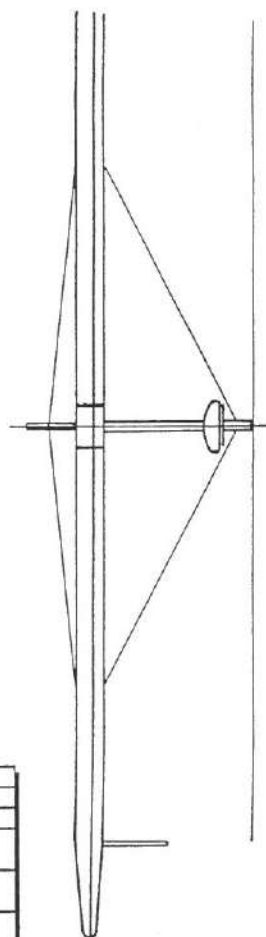
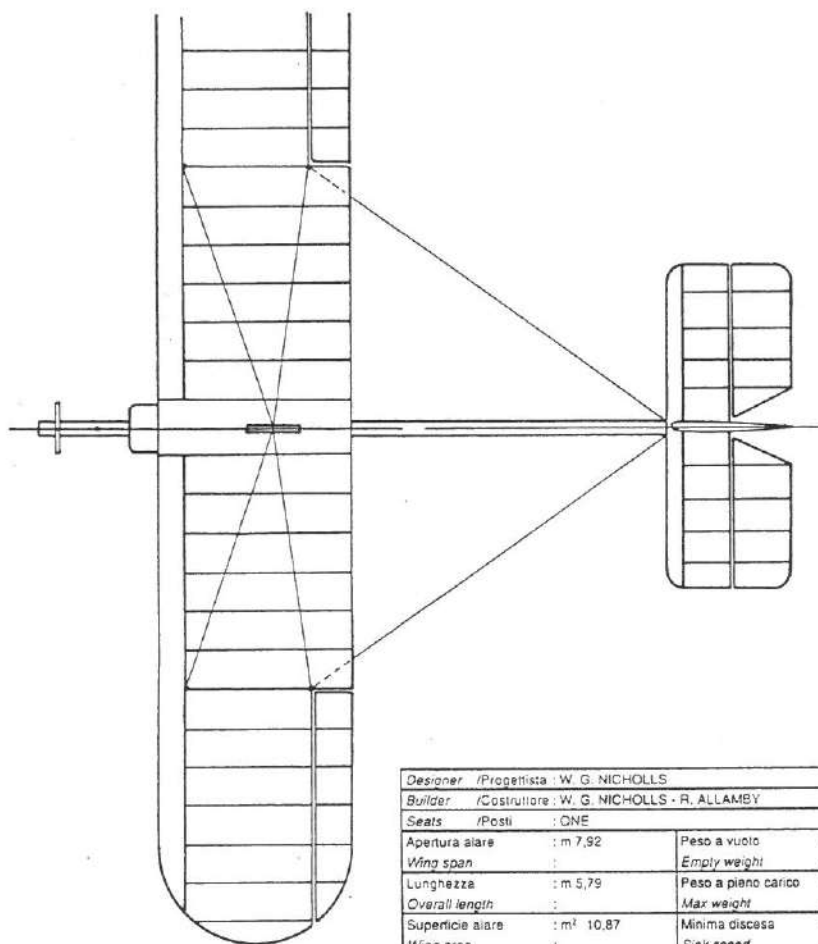
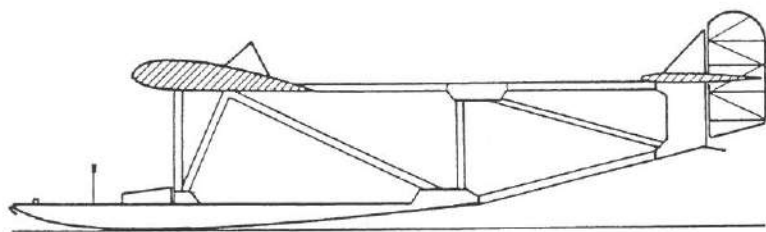




Designer /Progettista :	DINFIA			
Builder /Costruttore :	DINFIA			
Seats /Posti :	TWO TANDEM			
Apertura alare :	m 19,0	Peso a vuoto :	Kg 340	
Wing span :		Empty weight :		
Lunghezza :	m 8,44	Peso a pieno carico :	Kg 540	
Overall length :		Max weight :		
Superficie alare :	m ² 20,60	Minima discesa :	m/s 0,64	
Wing area :		Sink speed :		
Allungamento :	AR 17,50	Rapporto di planata :	1:34,5	
Aspect ratio :		Glide ratio :		
Carico alare :	Kg/m ² 26,30	Vel. limite consentita :	Km/h	
Wing loading :		Velocity never exceed :		
Paese :	ARGENTINA		Primo volo :	1963
Country :			First flight :	

DINFIA IA-54

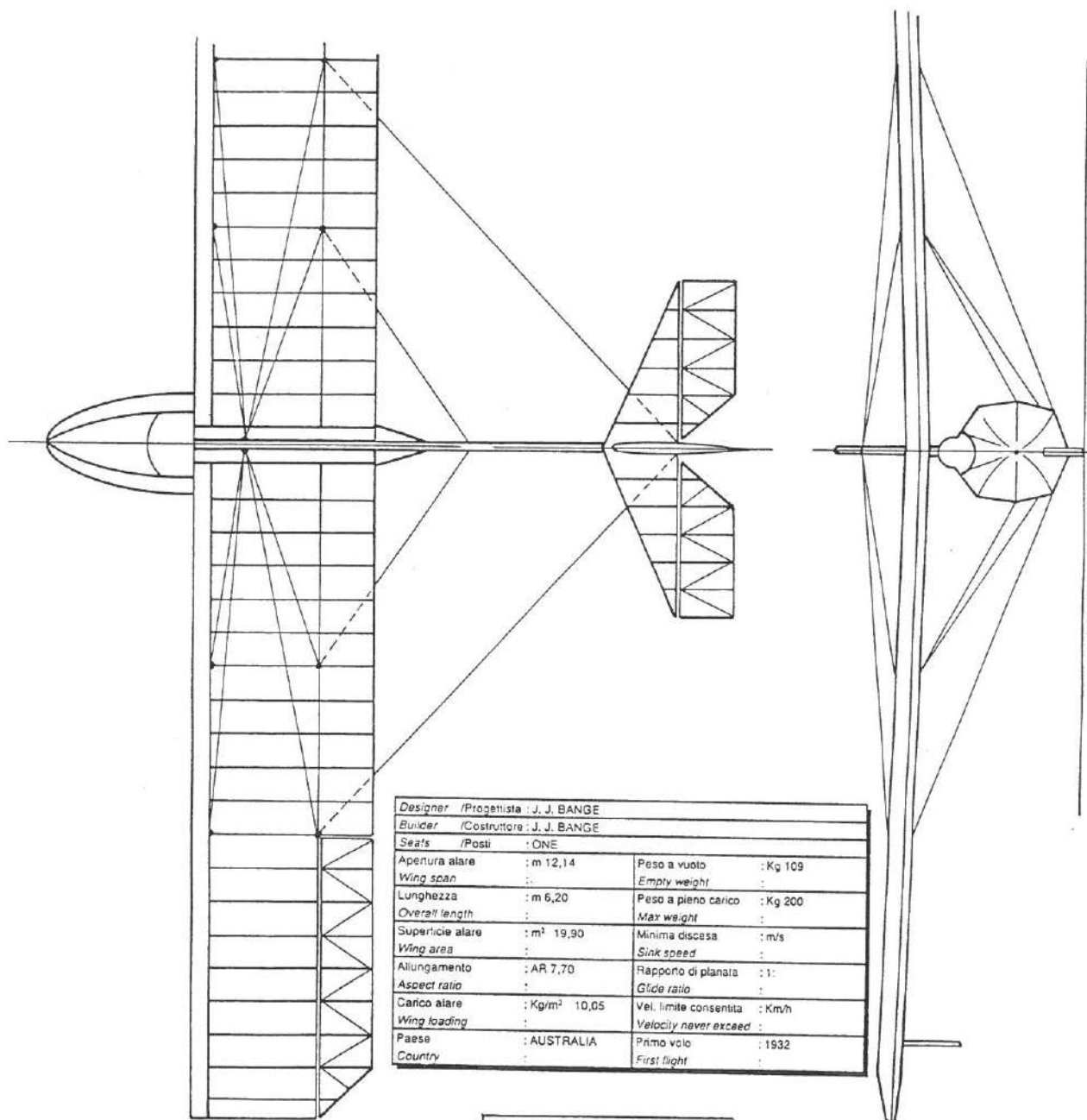
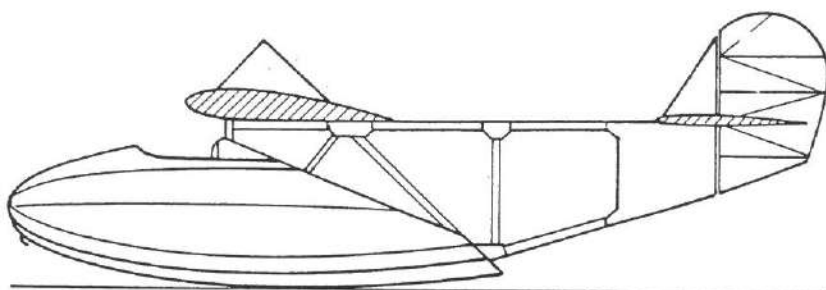
1 2 3 m



Designer / Progettista : W. G. NICHOLLS			
Builder / Costruttore : W. G. NICHOLLS - R. ALLAMBY			
Seats / Posti : ONE			
Apertura alare	: m 7,92	Peso a vuoto	: Kg 41
Wing span	:	Empty weight	:
Lunghezza	: m 5,79	Peso a pieno carico	: Kg 104
Overall length	:	Max weight	:
Superficie alare	: m ² 10,87	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 5,78	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 9,56	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRALIA	Primo volo	: 1931
Country	:	First flight	:

ALBATROSS-26

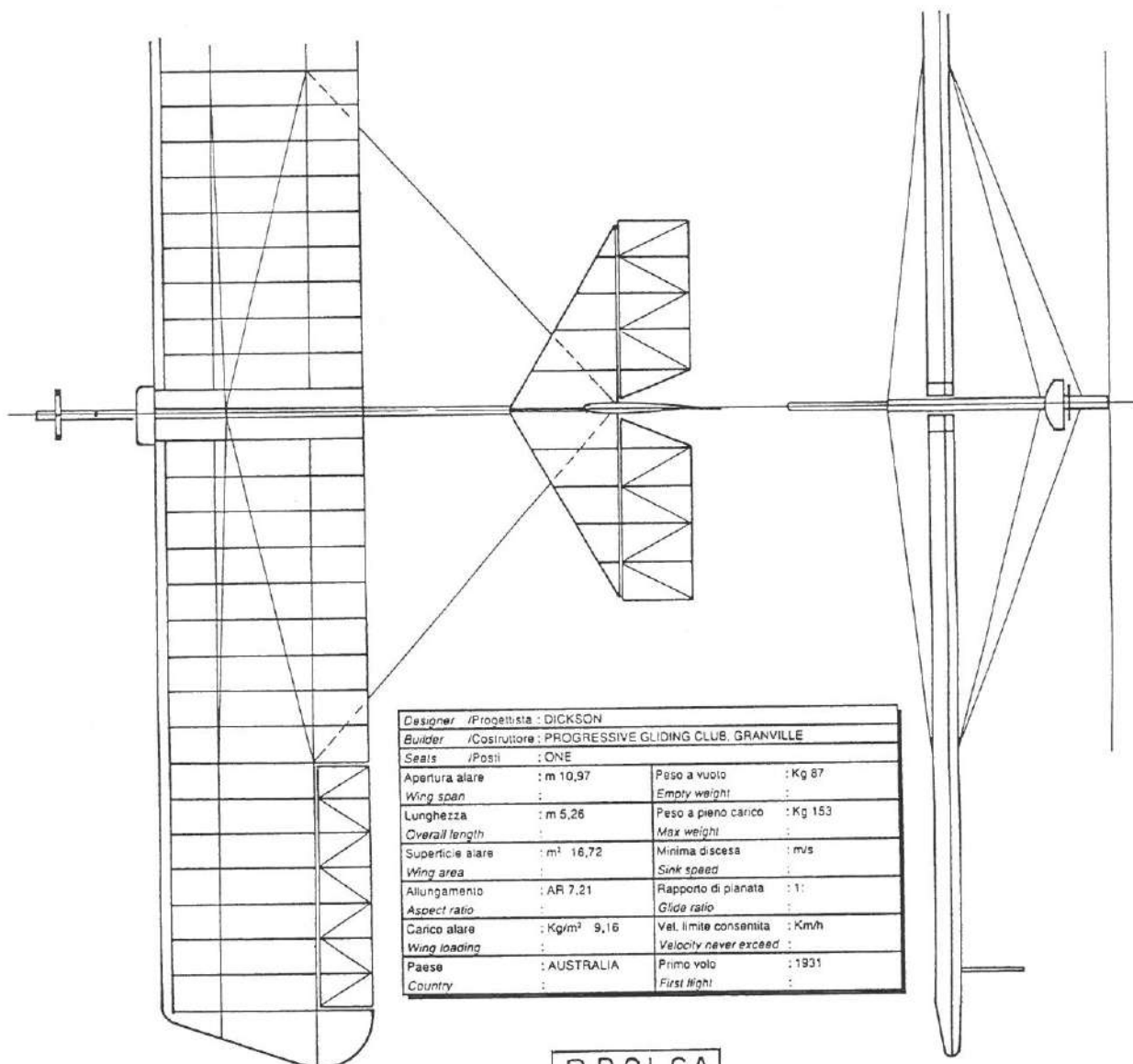
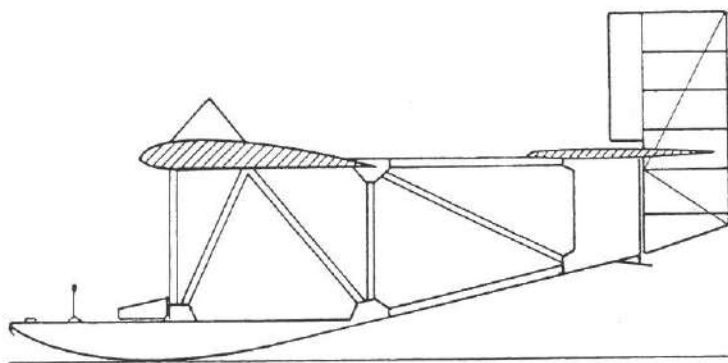




Designer / Progettista	: J. J. BANGE		
Builder / Costruttore	: J. J. BANGE		
Seats / Posti	: ONE		
Apertura alare	: m 12,14	Peso a vuoto	: Kg 109
Wing span	:	Empty weight	:
Lunghezza	: m 6,20	Peso a pieno carico	: Kg 200
Overall length	:	Max weight	:
Superficie alare	: m ² 19,90	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 7,70	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 10,05	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRALIA	Primo volo	: 1932
Country	:	First flight	:

AZURE STAR

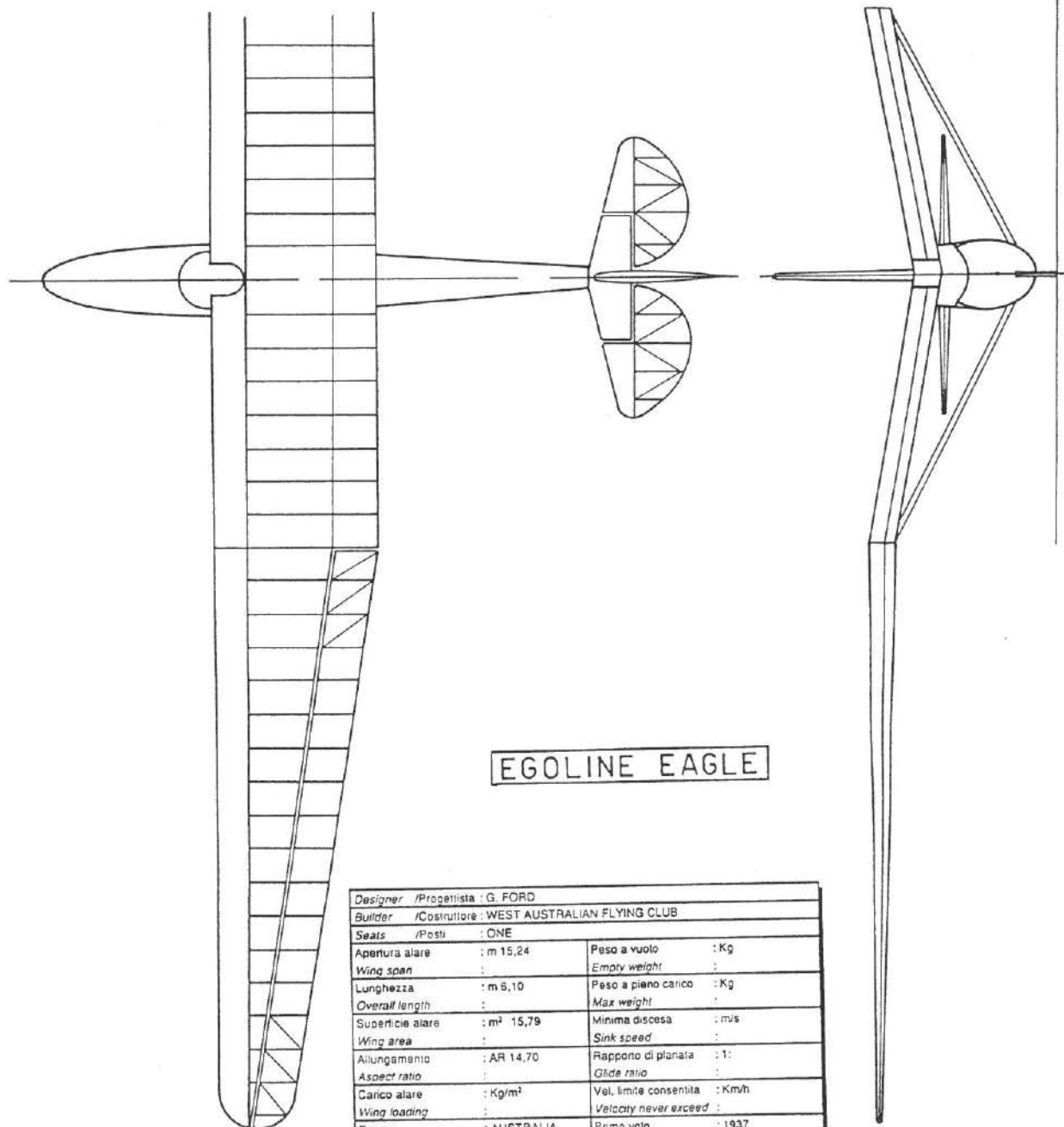
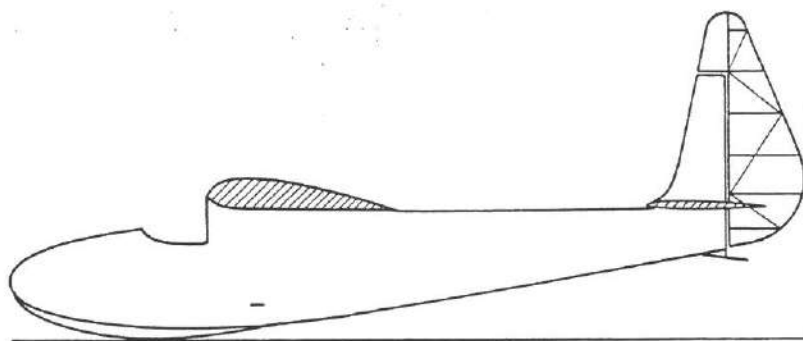




Designer / Progettista	: DICKSON		
Builder / Costruttore	: PROGRESSIVE GLIDING CLUB, GRANVILLE		
Seals / Posti	: ONE		
Apertura alare	: m 10,97	Peso a vuoto	: Kg 87
Wing span	:	Empty weight	:
Lunghezza	: m 5,26	Peso a pieno carico	: Kg 153
Overall length	:	Max weight	:
Superficie alare	: m ² 16,72	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 7,21	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 9,16	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRALIA	Primo volo	: 1931
Country	:	First flight	:

BROLGA

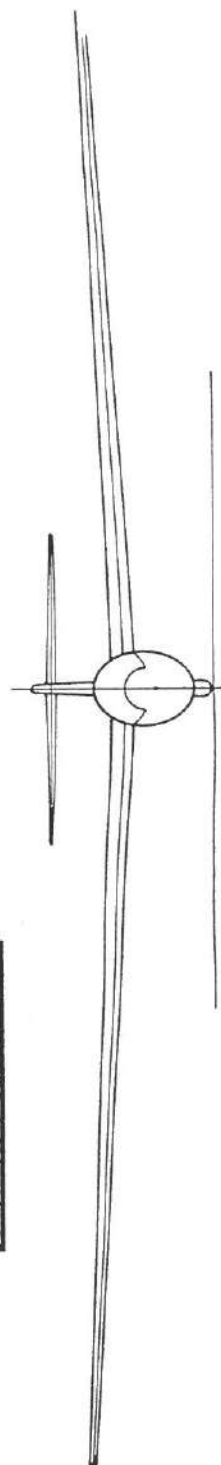
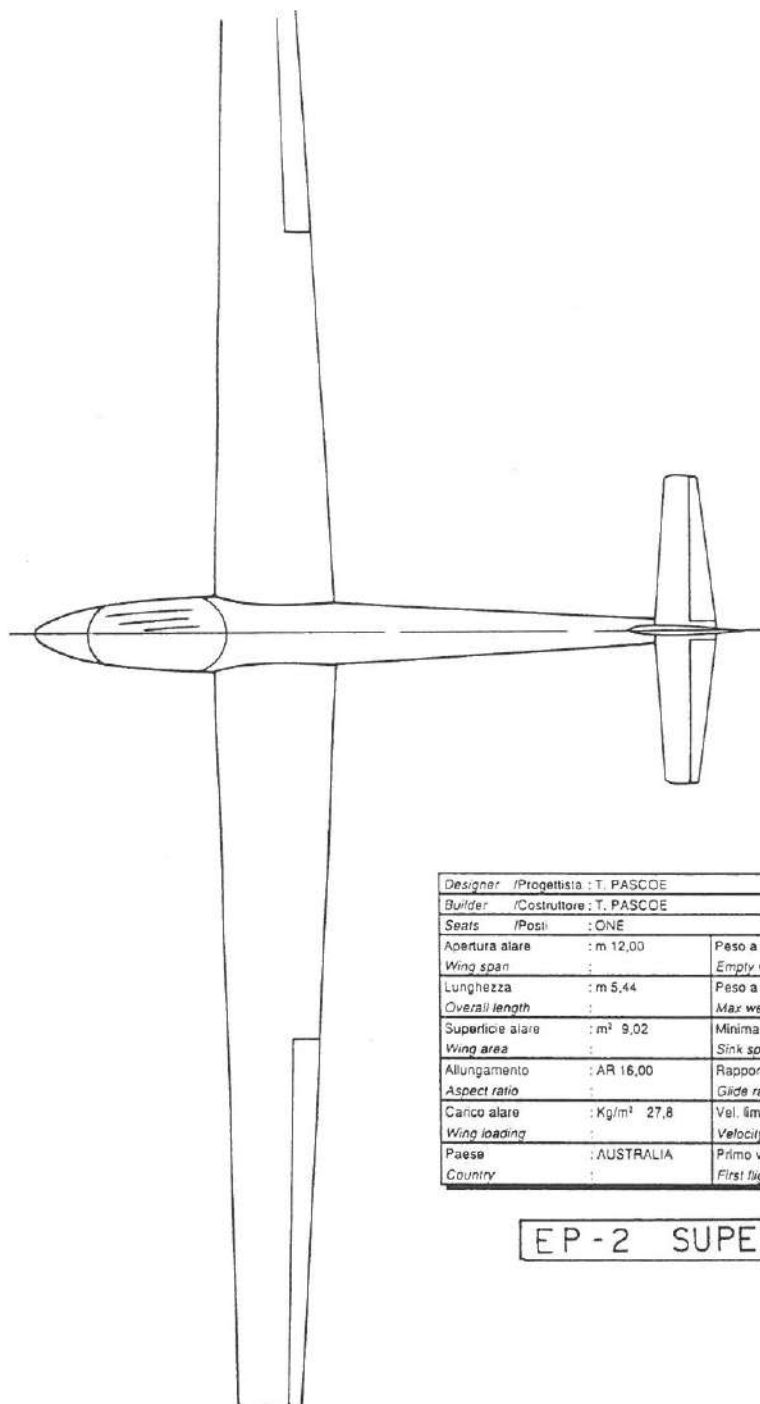
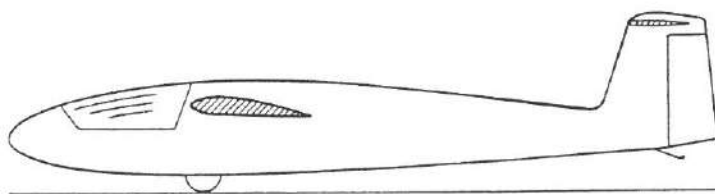




EGOLINE EAGLE

Designer / Progettista	: G. FORD		
Builder / Costruttore	: WEST AUSTRALIAN FLYING CLUB		
Seats / Posti	: ONE		
Apertura alare	: m 15,24	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 6,10	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 15,79	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 14,70	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRALIA	Primo volo	: 1937
Country	:	First flight	:

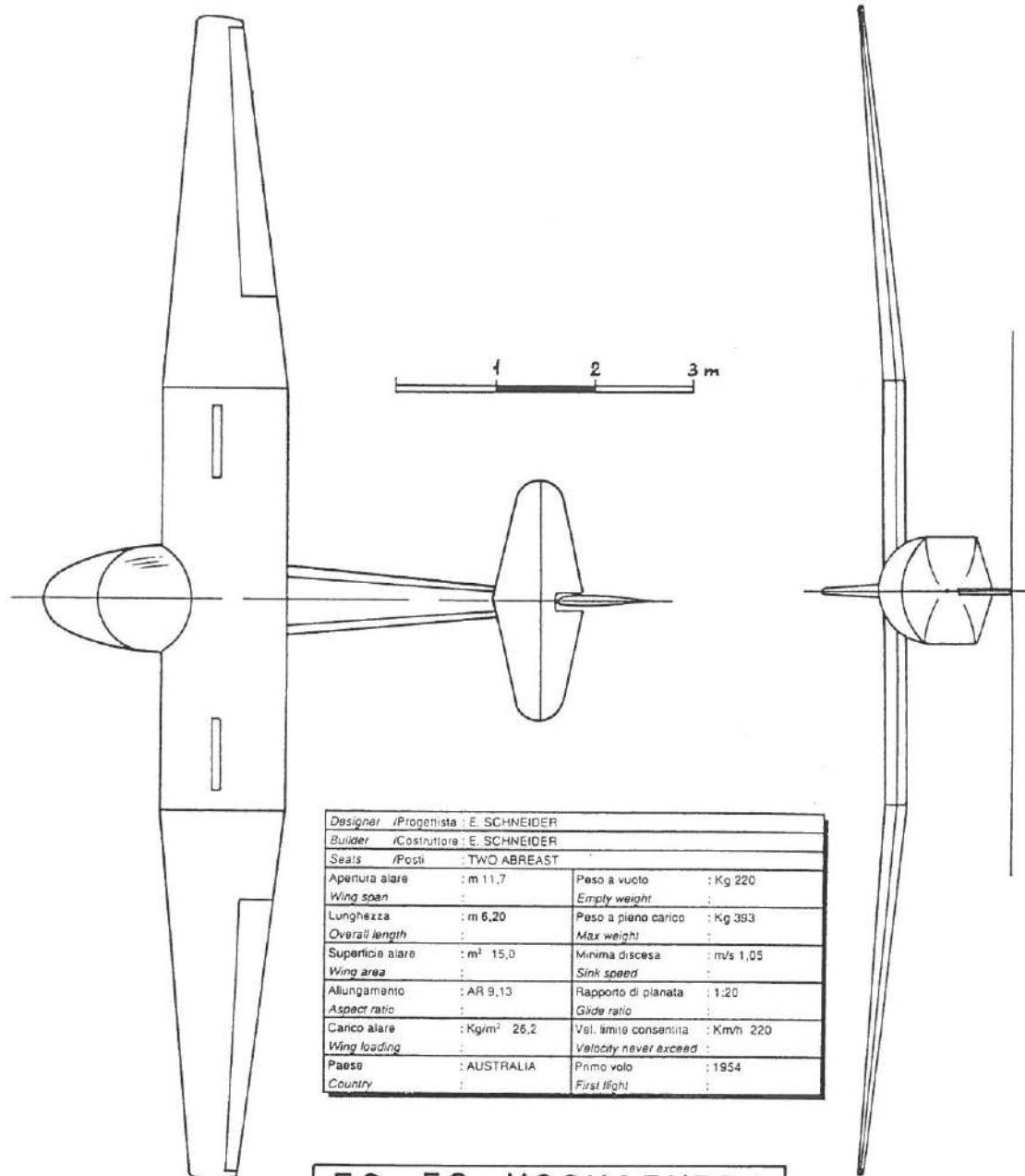
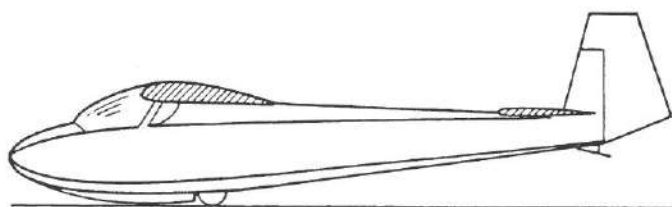
1 2 3 m



Designer / Progettista : T. PASCOE	
Builder / Costruttore : T. PASCOE	
Seats / Posti : ONE	
Apertura alare : m 12,00	Peso a vuoto : Kg 162
Wing span :	Empty weight :
Lunghezza : m 5,44	Peso a pieno carico : Kg 252
Overall length :	Max weight :
Superficie alare : m ² 9,02	Minima discesa : m/s 0,76
Wing area :	Sink speed :
Allungamento : AR 16,00	Rapporto di planata : 1:31
Aspect ratio :	Glide ratio :
Carico alare : Kg/m ² 27,8	Vel. limite consentita : Km/h 184
Wing loading :	Velocity never exceed :
Paese : AUSTRALIA	Primo volo : 1969
Country :	First flight :

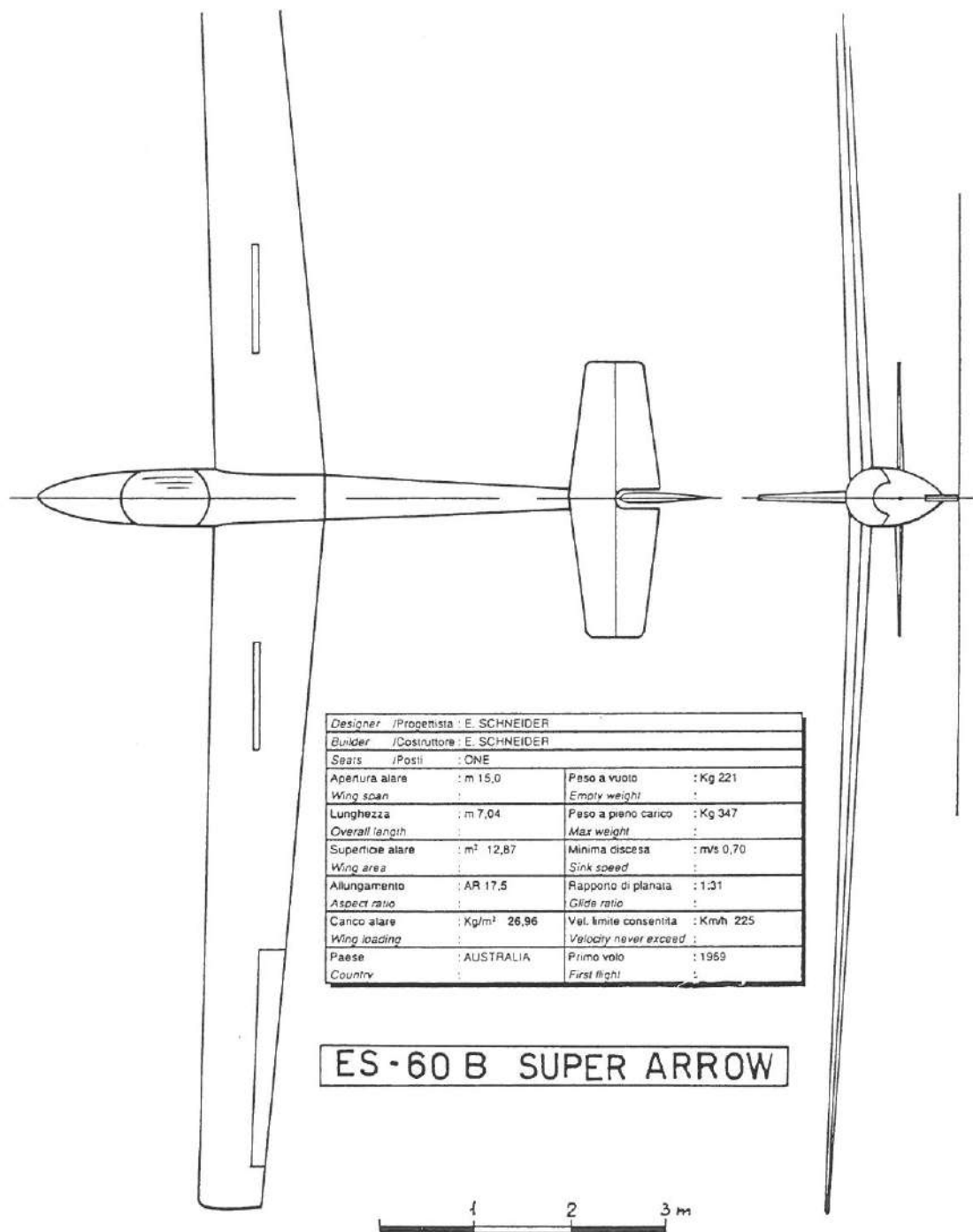
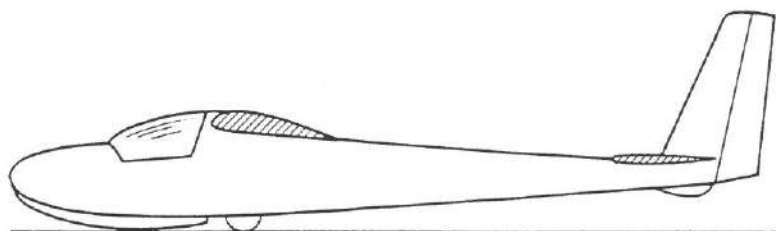
EP-2 SUPER GOOSE

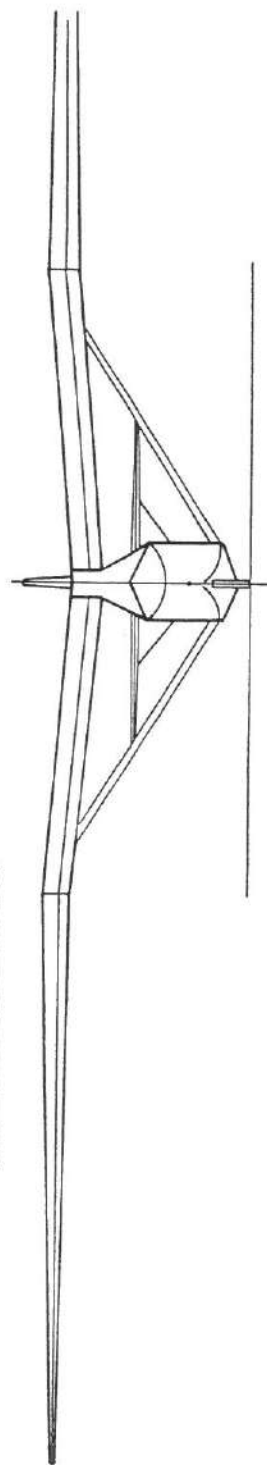
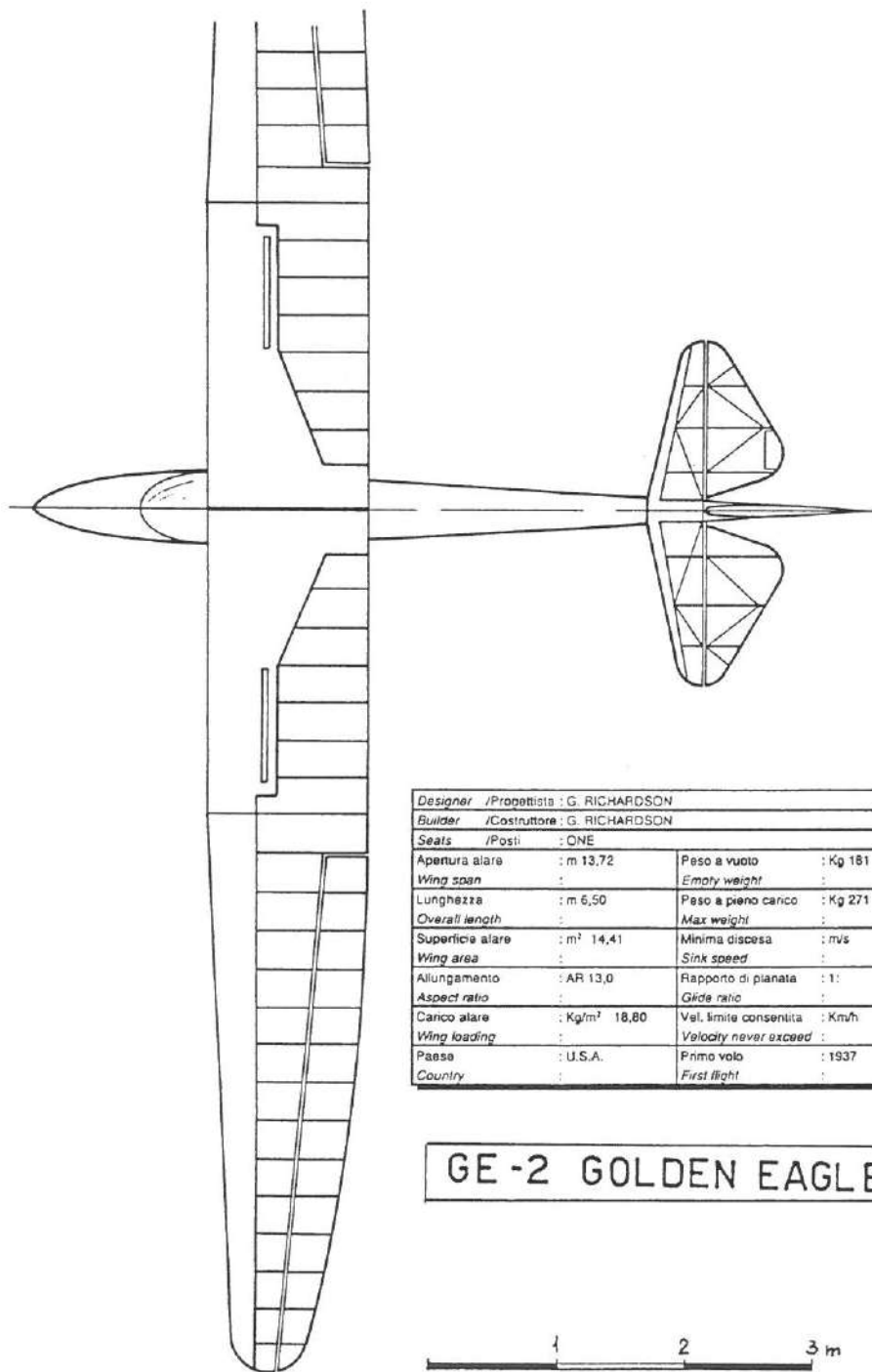
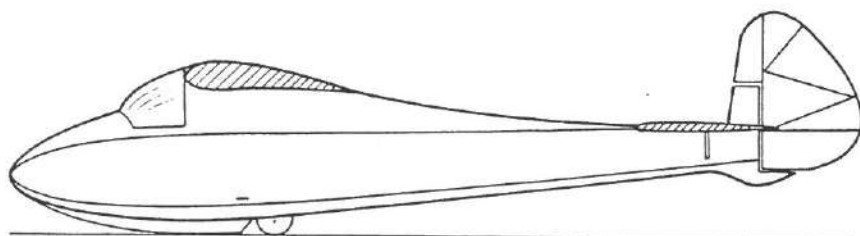




Designer / Progettista : E. SCHNEIDER			
Builder / Costruttore : E. SCHNEIDER			
Seats / Posti : TWO ABREAST			
Apertura alare	: m 11,7	Peso a vuoto	: Kg 220
Wing span	:	Empty weight	:
Lunghezza	: m 6,20	Peso a pieno carico	: Kg 393
Overall length	:	Max weight	:
Superficie alare	: m ² 15,0	Minima discesa	: m/s 1,05
Wing area	:	Sink speed	:
Allungamento	: AR 9,13	Rapporto di planata	: 1:20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,2	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRALIA	Primo volo	: 1954
Country	:	First flight	:

ES - 52 KOOKABURRA

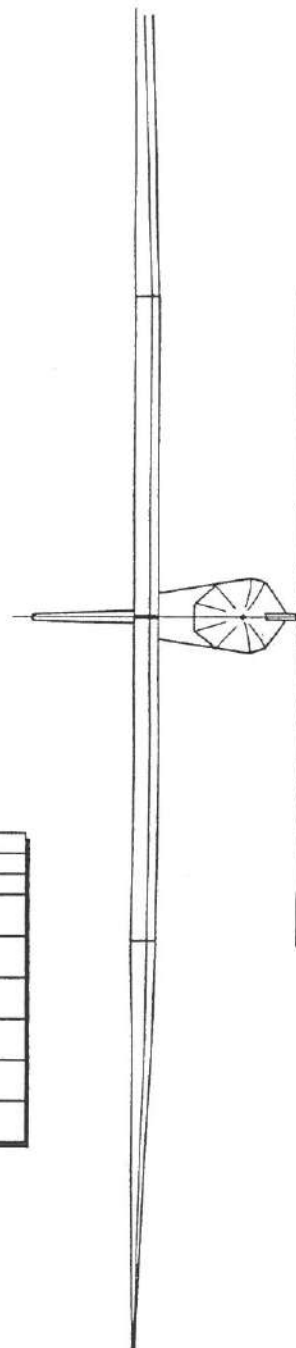
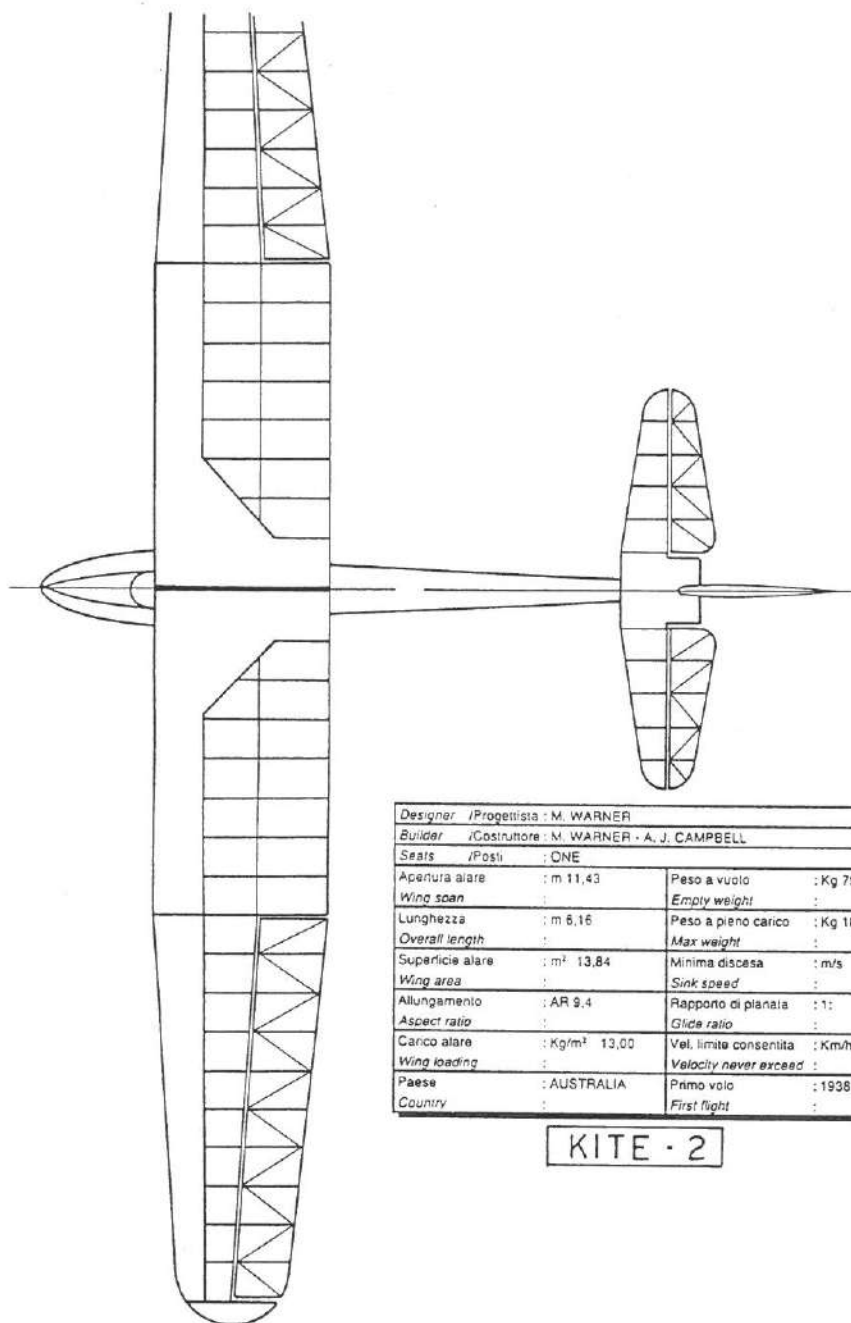
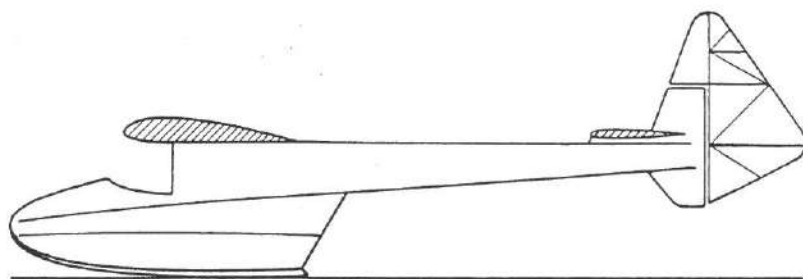




<i>Designer / Progettista</i> : G. RICHARDSON			
<i>Builder / Costruttore</i> : G. RICHARDSON			
<i>Seats / Posti</i> : ONE			
<i>Apertura alare</i>	: m 13,72	<i>Peso a vuoto</i>	: Kg 181
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 6,50	<i>Peso a pieno carico</i>	: Kg 271
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 14,41	<i>Minima discesa</i>	: m/s
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 13,0	<i>Rapporto di planata</i>	: 1:
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 18,80	<i>Vel. limite consentita</i>	: Km/h
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: U.S.A.	<i>Primo volo</i>	: 1937
<i>Country</i>	:	<i>First flight</i>	:

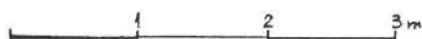
GE-2 GOLDEN EAGLE

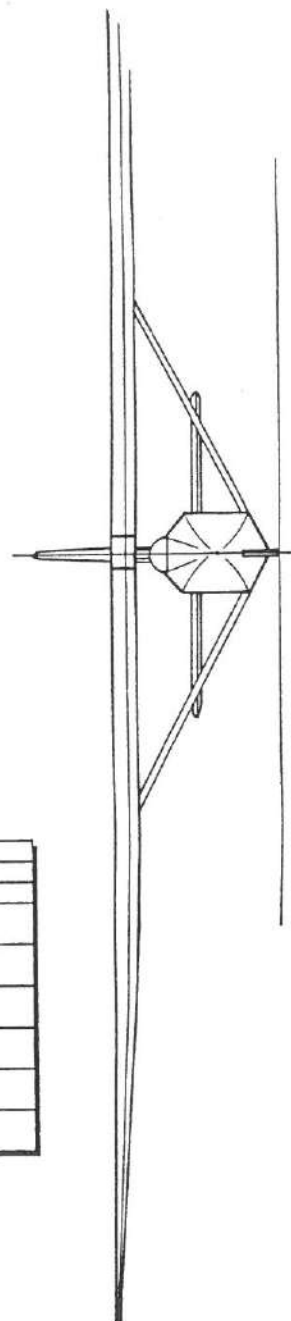
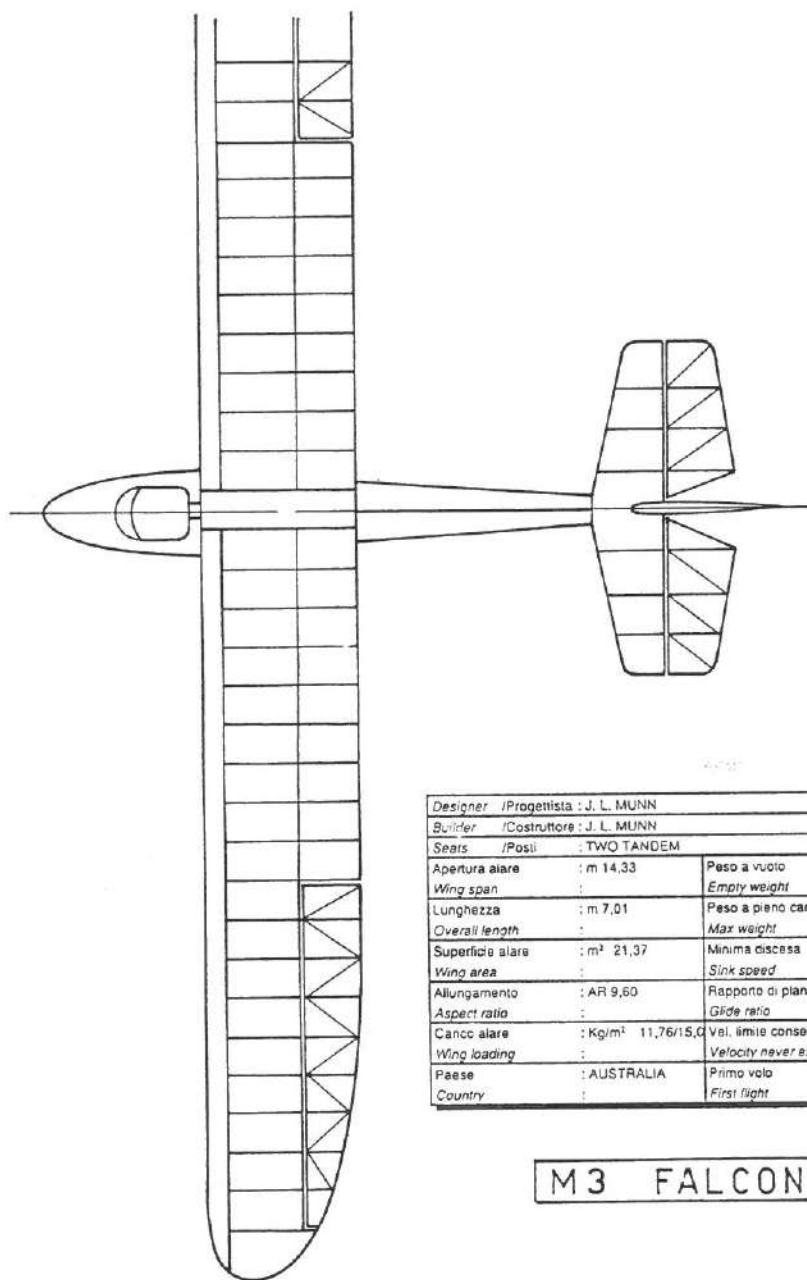
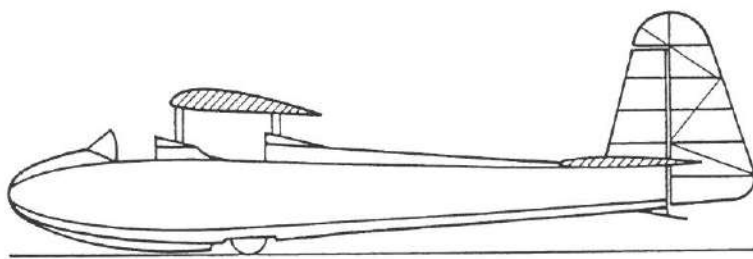




Designer / Progettista : M. WARNER			
Builder / Costruttore : M. WARNER - A. J. CAMPBELL			
Seats / Posti : ONE			
Apertura alare	: m 11,43	Peso a vuoto	: Kg 79
Wing span	:	Empty weight	:
Lunghezza	: m 6,16	Peso a pieno carico	: Kg 180
Overall length	:	Max weight	:
Superficie alare	: m ² 13,84	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 9,4	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 13,00	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRALIA	Primo volo	: 1938
Country	:	First flight	:

KITE - 2

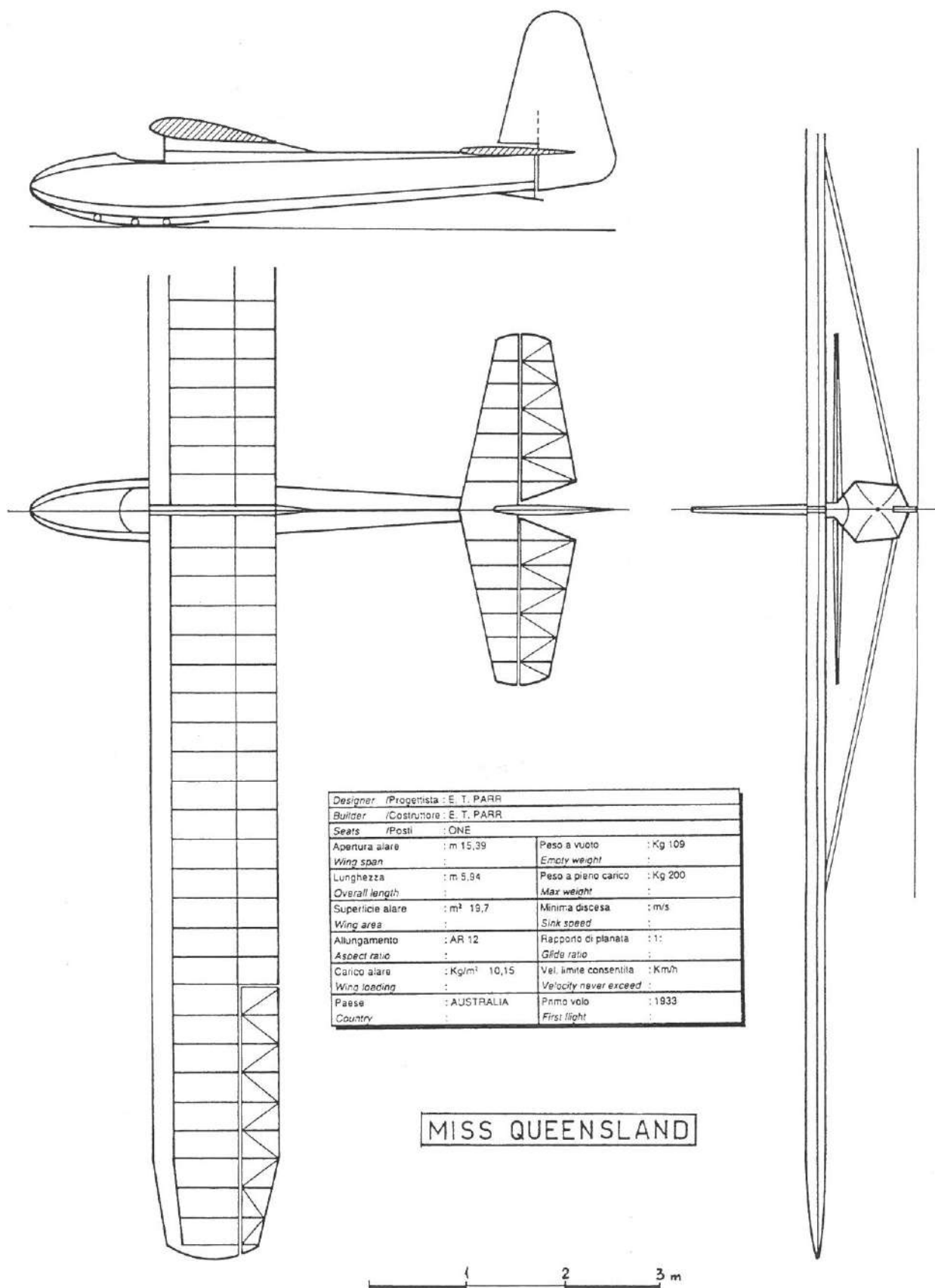




Designer /Progettista : J. L. MUNN			
Builder /Costruttore : J. L. MUNN			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 14,33	Peso a vuoto	: Kg 186
Wing span	:	Empty weight	:
Lunghezza	: m 7,01	Peso a pieno carico	: Kg 251/321
Overall length	:	Max weight	:
Superficie alare	: m ² 21,37	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 9,60	Rapporto di planata	: 1:18
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 11,76/15,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRALIA	Primo volo	: 1942
Country	:	First flight	:

M3 FALCON

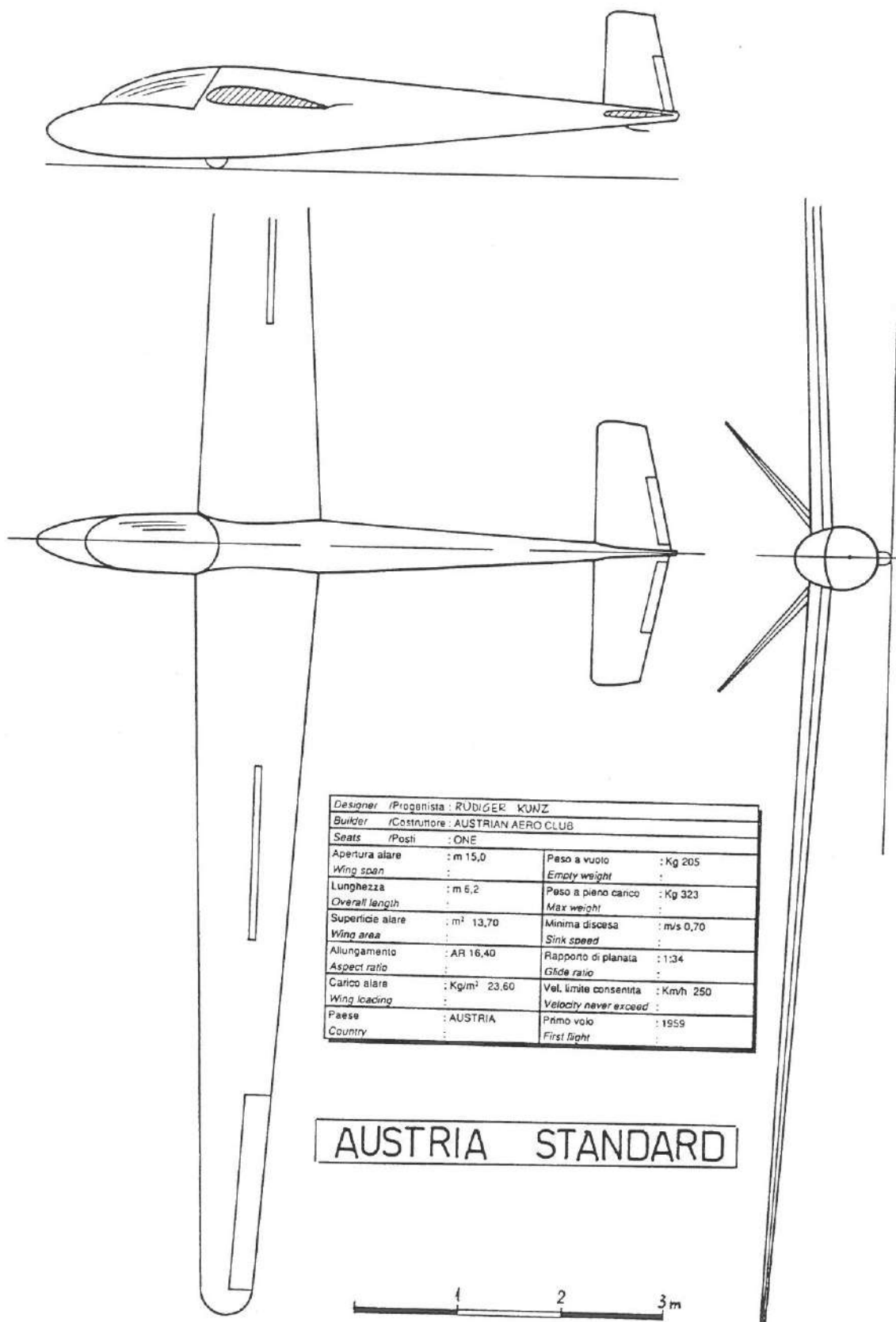




Designer /Progettista :	E. T. PARR		
Builder /Costruttore :	E. T. PARR		
Seats /Posti :	ONE		
Apertura alare	: m 15,39	Peso a vuoto	: Kg 109
Wing span	:	Empty weight	:
Lunghezza	: m 5,94	Peso a pieno carico	: Kg 200
Overall length	:	Max weight	:
Superficie alare	: m ² 19,7	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 12	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 10,15	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRALIA	Primo volo	: 1933
Country	:	First flight	:

MISS QUEENSLAND

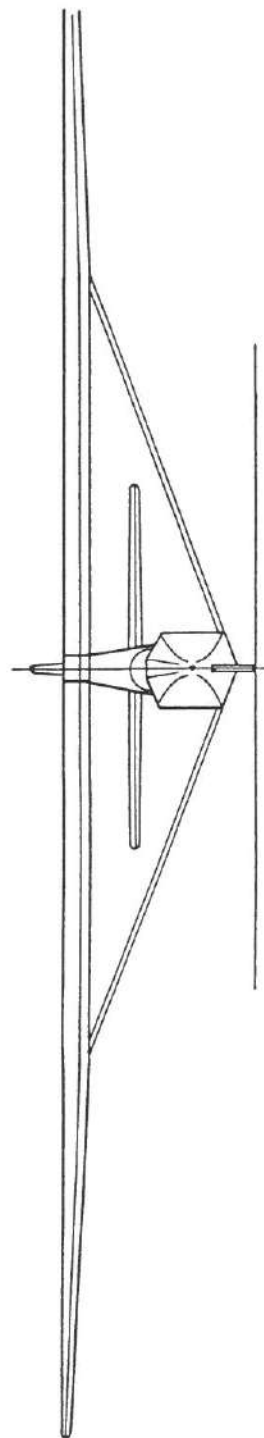
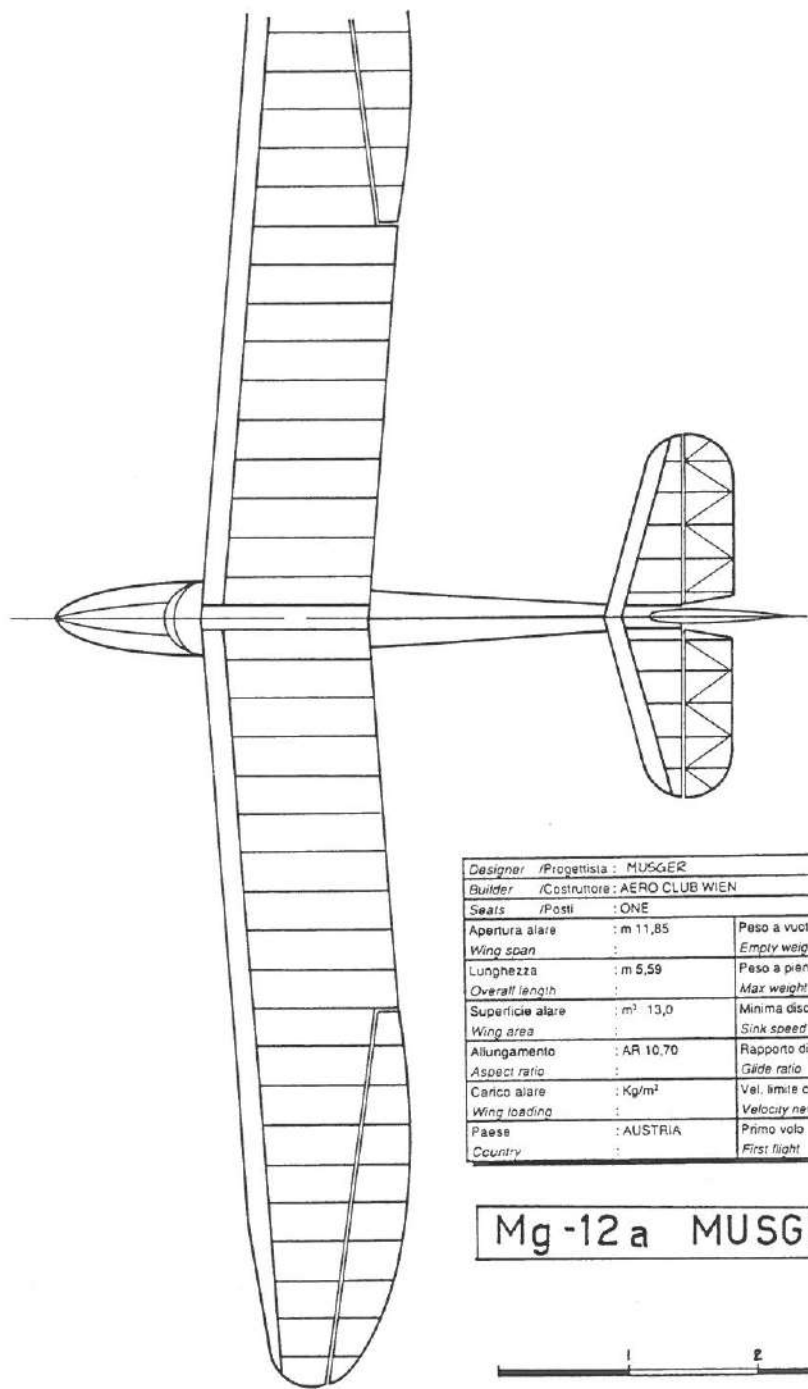
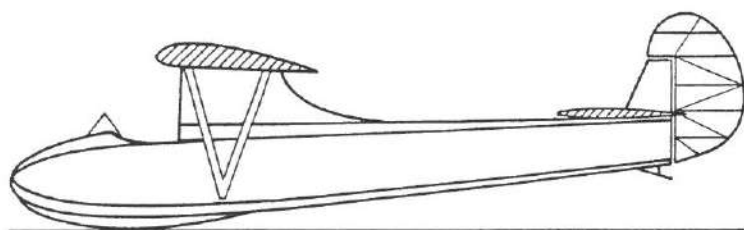
1 2 3 m



Designer / Progettista	RÜDIGER KUNZ		
Builder / Costruttore	AUSTRIAN AERO CLUB		
Seats / Posti	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 205
Wing span	:	Empty weight	:
Lunghezza	: m 6,2	Peso a pieno carico	: Kg 323
Overall length	:	Max weight	:
Superficie alare	: m ² 13,70	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 16,40	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,60	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRIA	Primo volo	: 1959
Country	:	First flight	:

AUSTRIA STANDARD

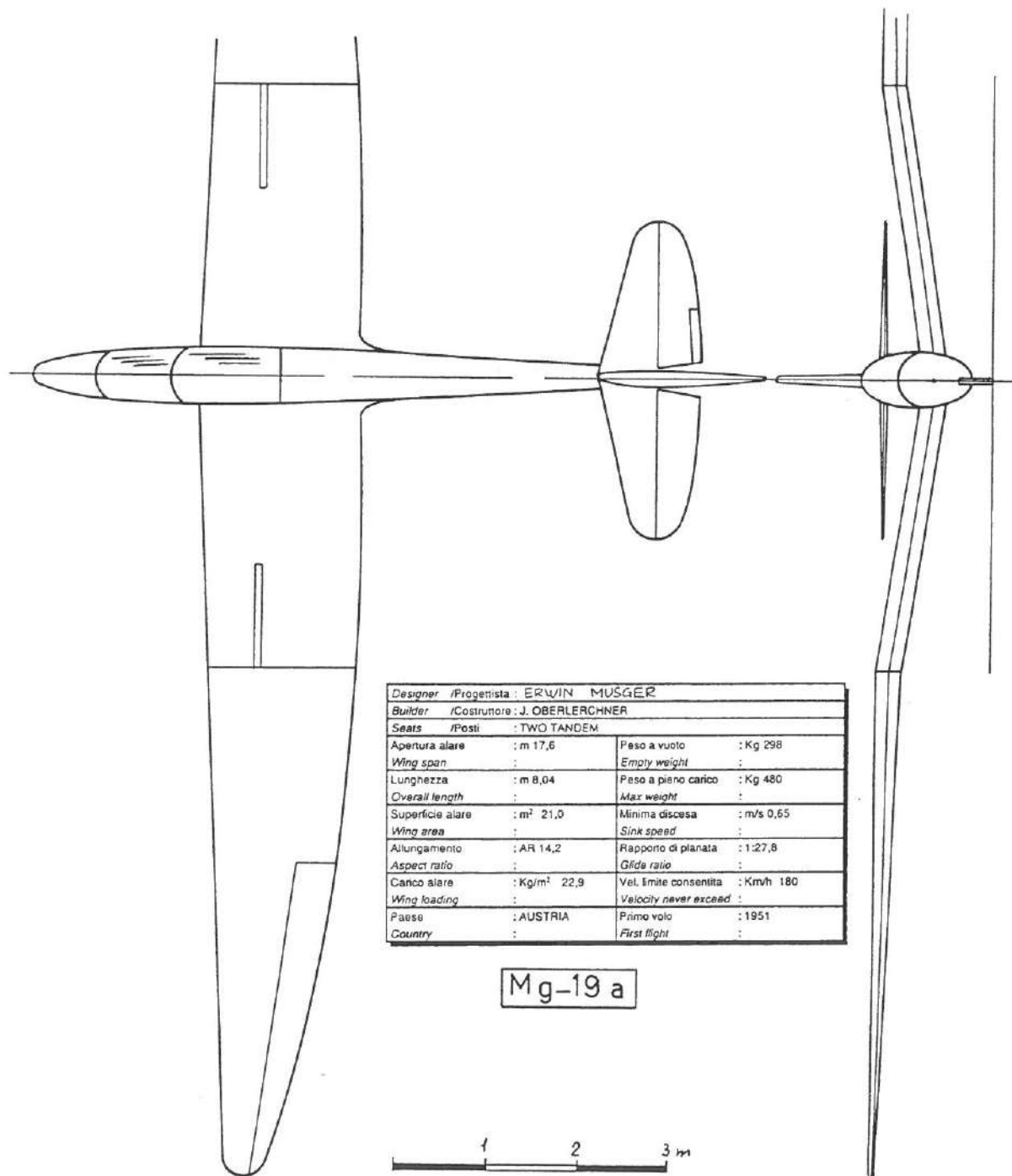
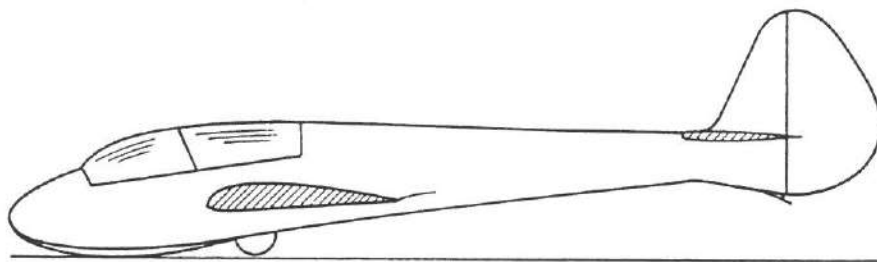
1 2 3m



Designer / Progettista : MUSGER			
Builder / Costruttore : AERO CLUB WIEN			
Seats / Posti : ONE			
Apertura alare	: m 11,85	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 5,59	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 13,0	Minima discesa	: m/s 1,0
Wing area	:	Sink speed	:
Allungamento	: AR 10,70	Rapporto di planata	: 1:15
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRIA	Primo volo	: 1938
Country	:	First flight	:

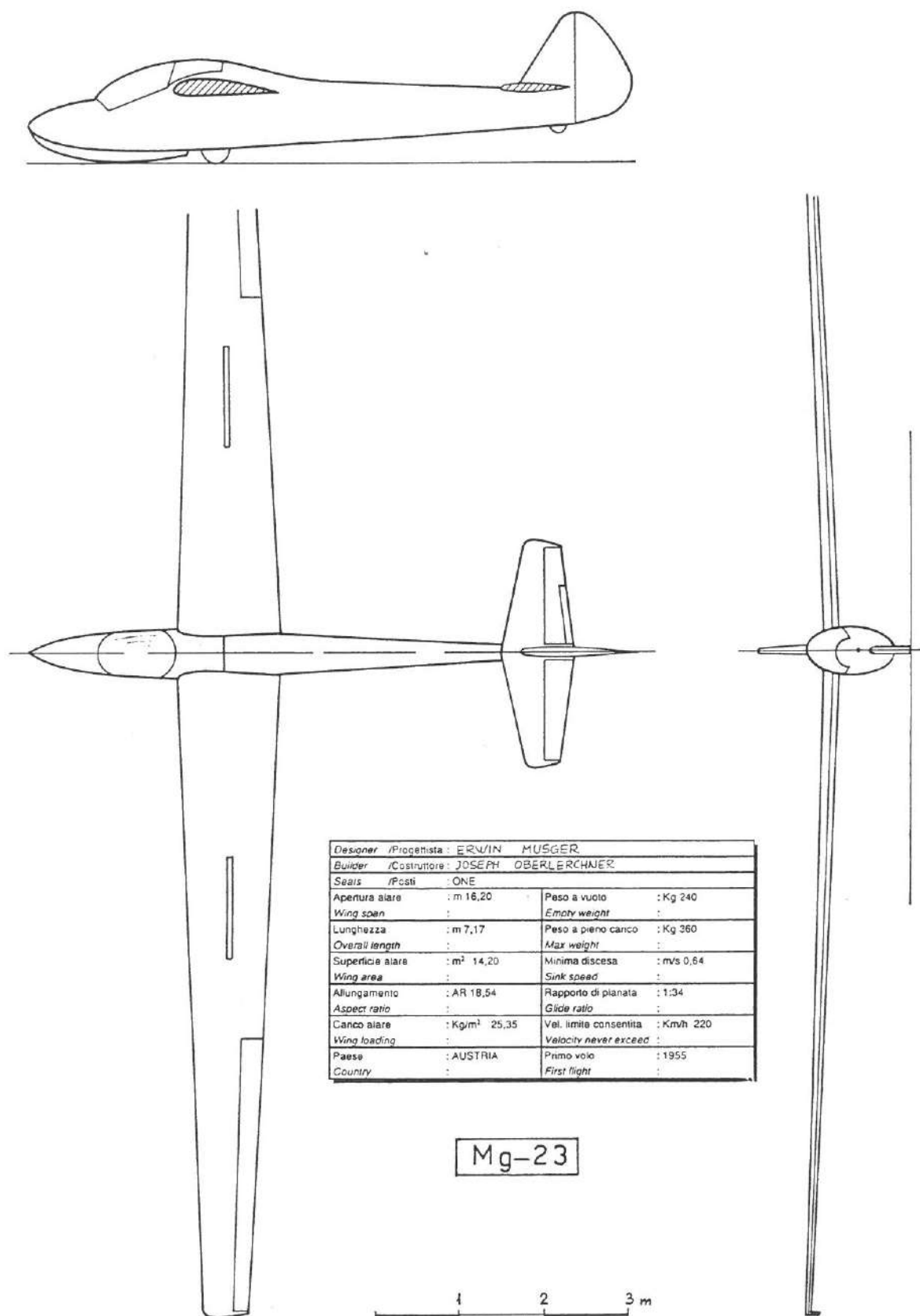
Mg-12a MUSGER





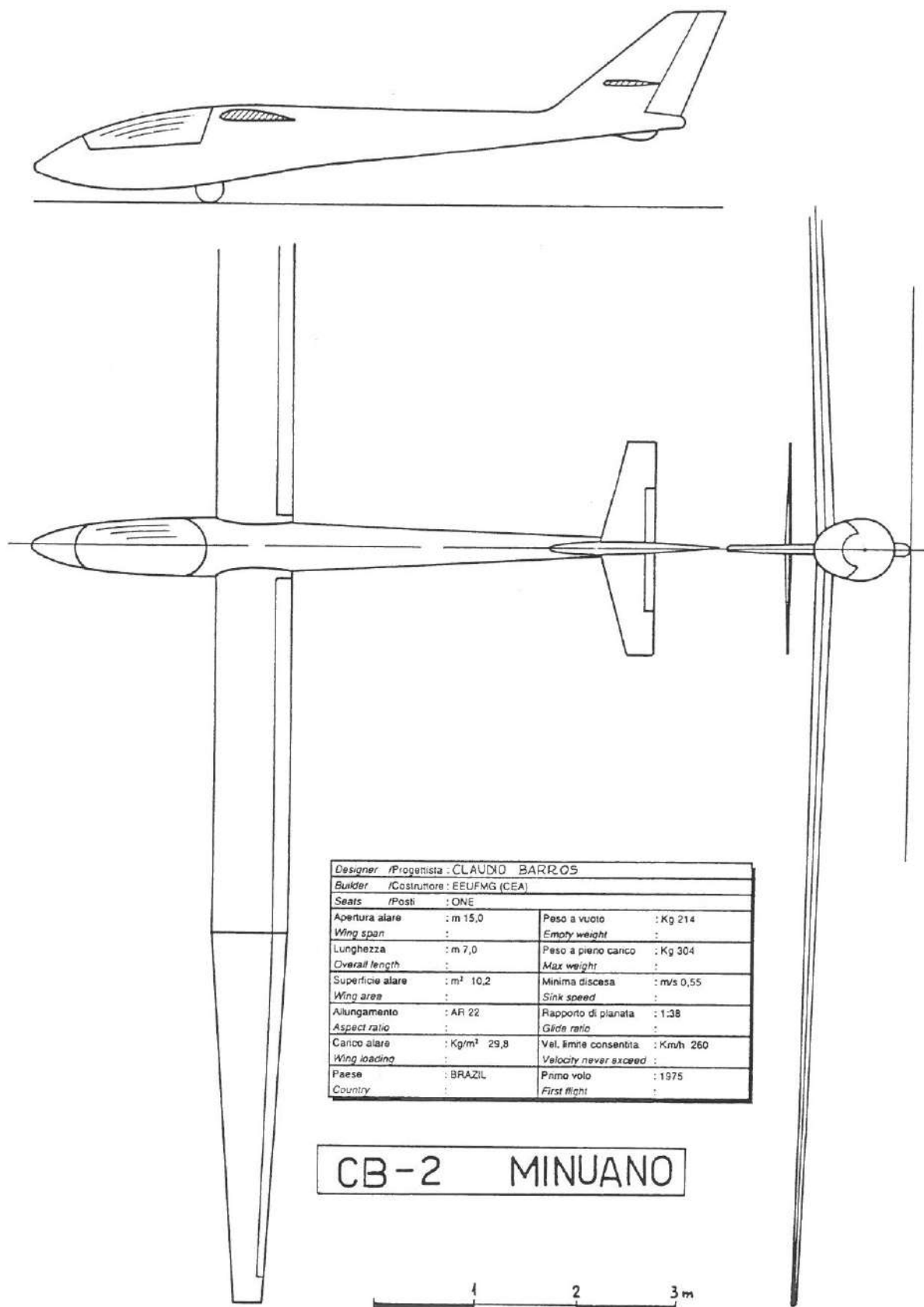
Designer /Progettista : ERWIN MUSGER			
Builder /Costruttore : J. OBERLERCHNER			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 17,6	Peso a vuoto	: Kg 298
Wing span	:	Empty weight	:
Lunghezza	: m 8,04	Peso a pieno carico	: Kg 480
Overall length	:	Max weight	:
Superficie alare	: m ² 21,0	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 14,2	Rapporto di planata	: 1:27,8
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,9	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRIA	Primo volo	: 1951
Country	:	First flight	:

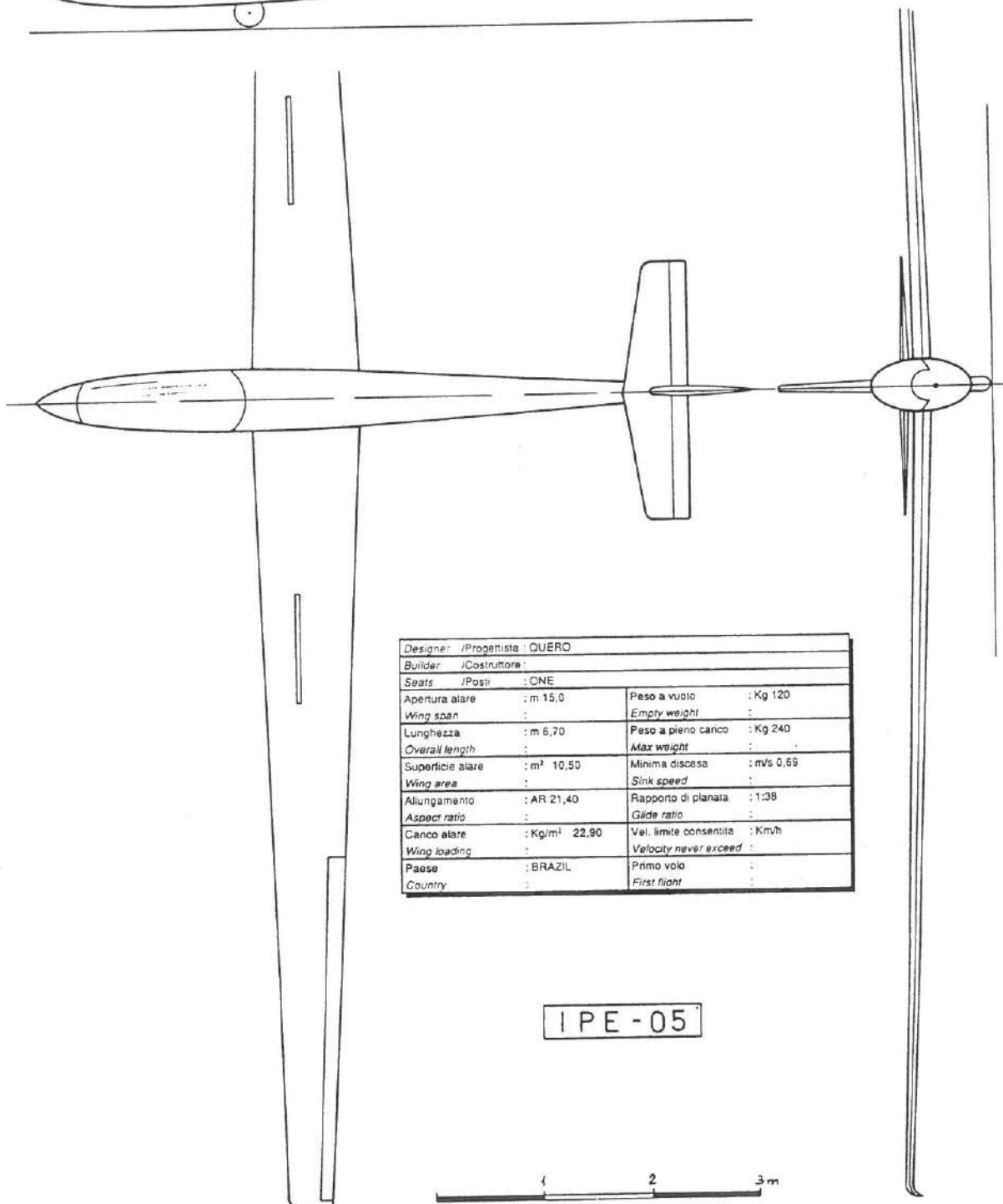
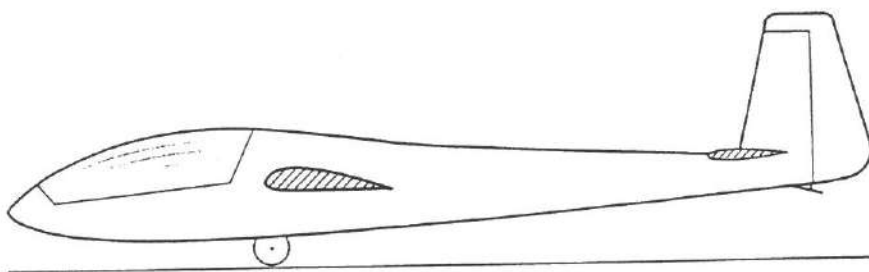
Mg-19 a



Designer /Progettista	ERVIN MUSGER		
Builder /Costruttore	JOSEPH OBERLERCHNER		
Seals /Posti	ONE		
Apertura alare	: m 16,20	Peso a vuoto	: Kg 240
Wing span	:	Empty weight	:
Lunghezza	: m 7,17	Peso a pieno carico	: Kg 360
Overall length	:	Max weight	:
Superficie alare	: m ² 14,20	Minima discesa	: m/s 0,64
Wing area	:	Sink speed	:
Allungamento	: AR 18,54	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 25,35	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: AUSTRIA	Primo volo	: 1955
Country	:	First flight	:

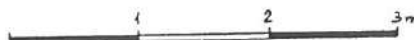
Mg-23

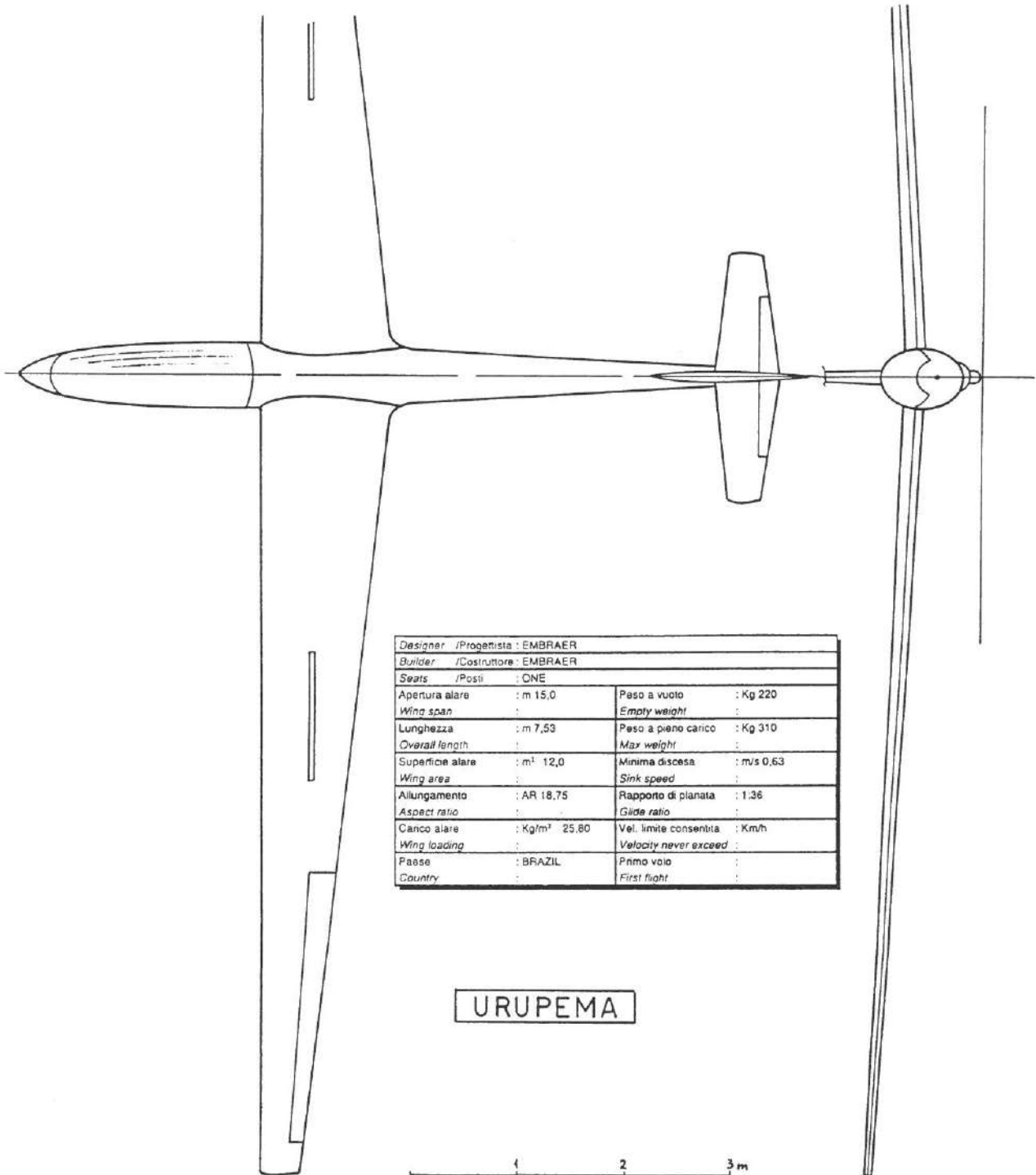
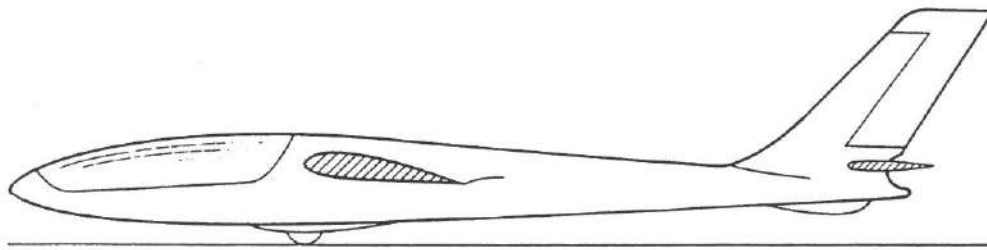




Designer	/Progettista : QUERO		
Builder	/Costruttore :		
Seats	/Posti : ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 120
Wing span	:	Empty weight	:
Lunghezza	: m 6,70	Peso a pieno carico	: Kg 240
Overall length	:	Max weight	:
Superficie alare	: m ² 10,50	Minima discesa	: m/s 0,69
Wing area	:	Sink speed	:
Allungamento	: AR 21,40	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Cenico alare	: Kg/m ² 22,90	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: BRAZIL	Primo volo	:
Country	:	First flight	:

IPE-05

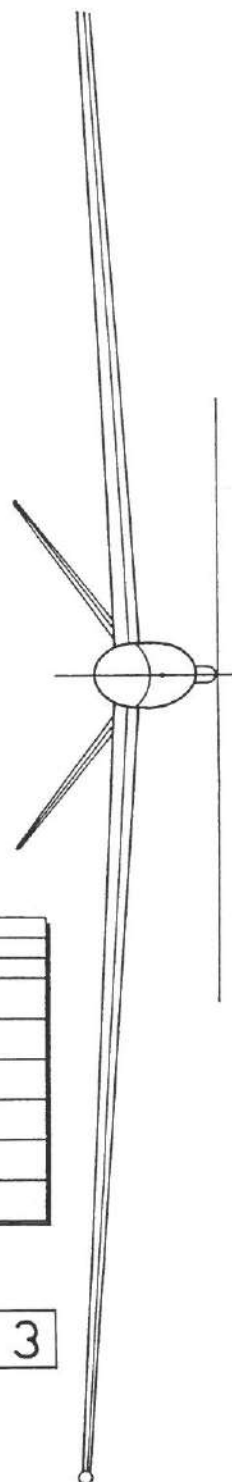
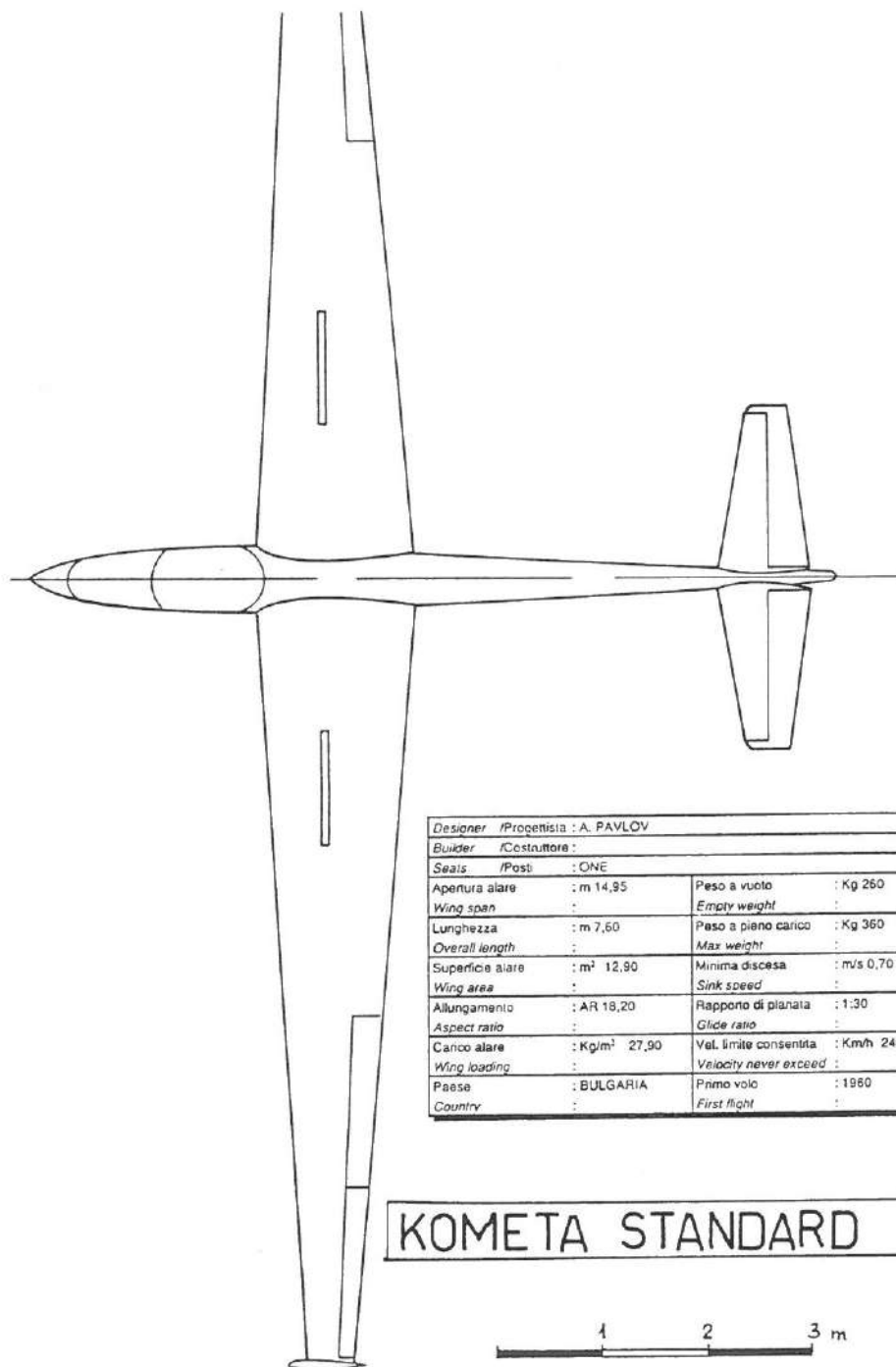
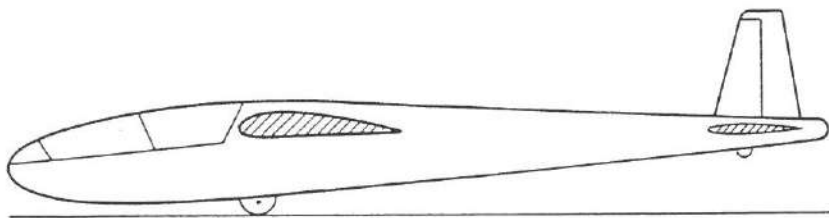




Designer /Progettista : EMBRAER			
Builder /Costruttore : EMBRAER			
Seats /Posti :		ONE	
Apertura alare	: m 15,0	Peso a vuoto	: Kg 220
Wing span	:	Empty weight	:
Lunghezza	: m 7,53	Peso a pieno carico	: Kg 310
Overall length	:	Max weight	:
Superficie alare	: m ² 12,0	Minima discesa	: m/s 0,63
Wing area	:	Sink speed	:
Allungamento	: AR 18,75	Rapporto di planata	: 1,36
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 25,60	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: BRAZIL	Primo volo	:
Country	:	First flight	:

URUPEMA

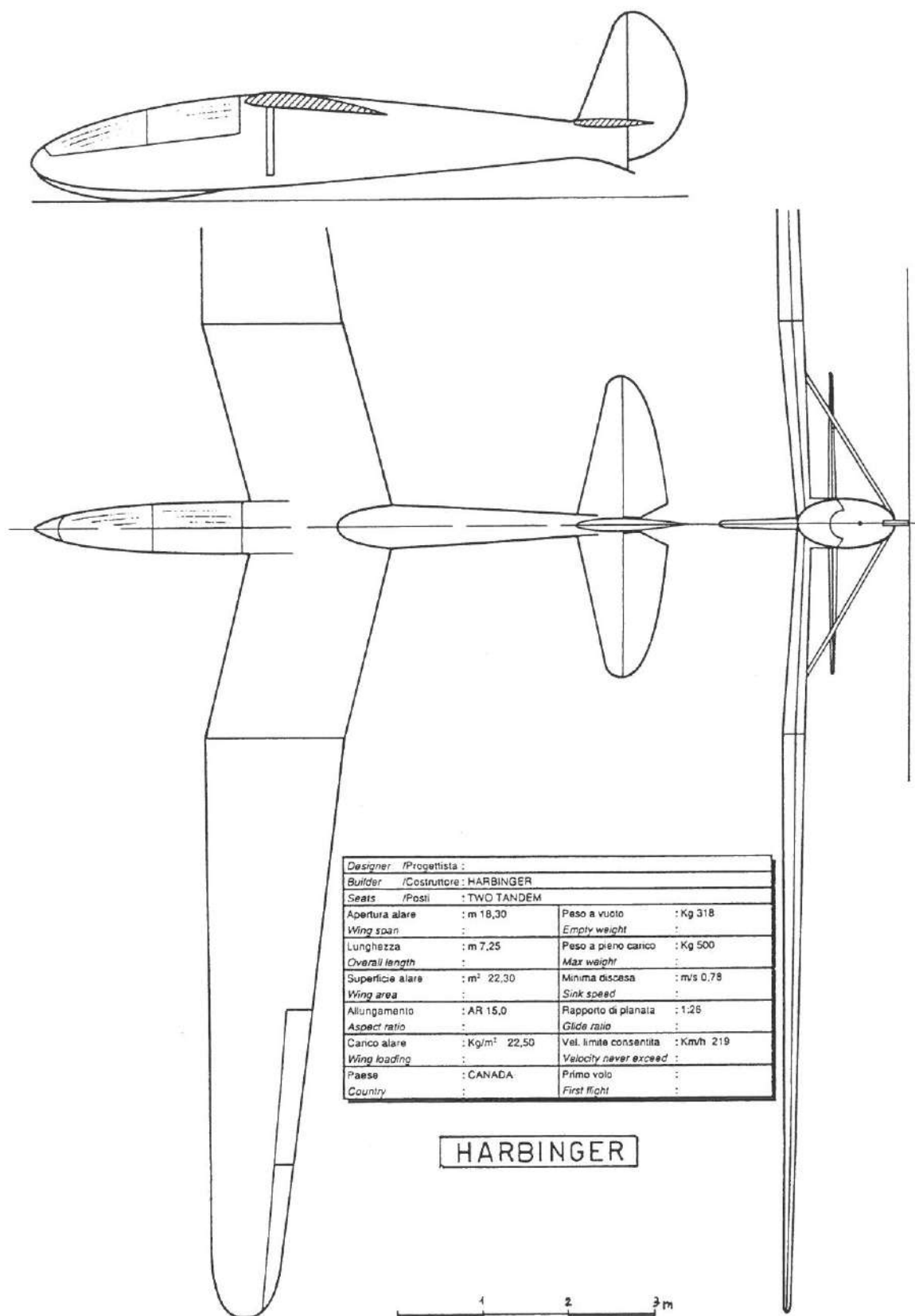




Designer / Progettista : A. PAVLOV			
Builder / Costruttore :			
Seals / Posti : ONE			
Apertura alare	: m 14,95	Peso a vuoto	: Kg 260
Wing span	:	Empty weight	:
Lunghezza	: m 7,50	Peso a pieno carico	: Kg 360
Overall length	:	Max weight	:
Superficie alare	: m ² 12,90	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 18,20	Rapporto di planata	: 1:30
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,90	Vel. limite consentita	: Km/h 240
Wing loading	:	Velocity never exceed	:
Paese	: BULGARIA	Primo volo	: 1960
Country	:	First flight	:

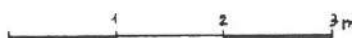
KOMETA STANDARD 3

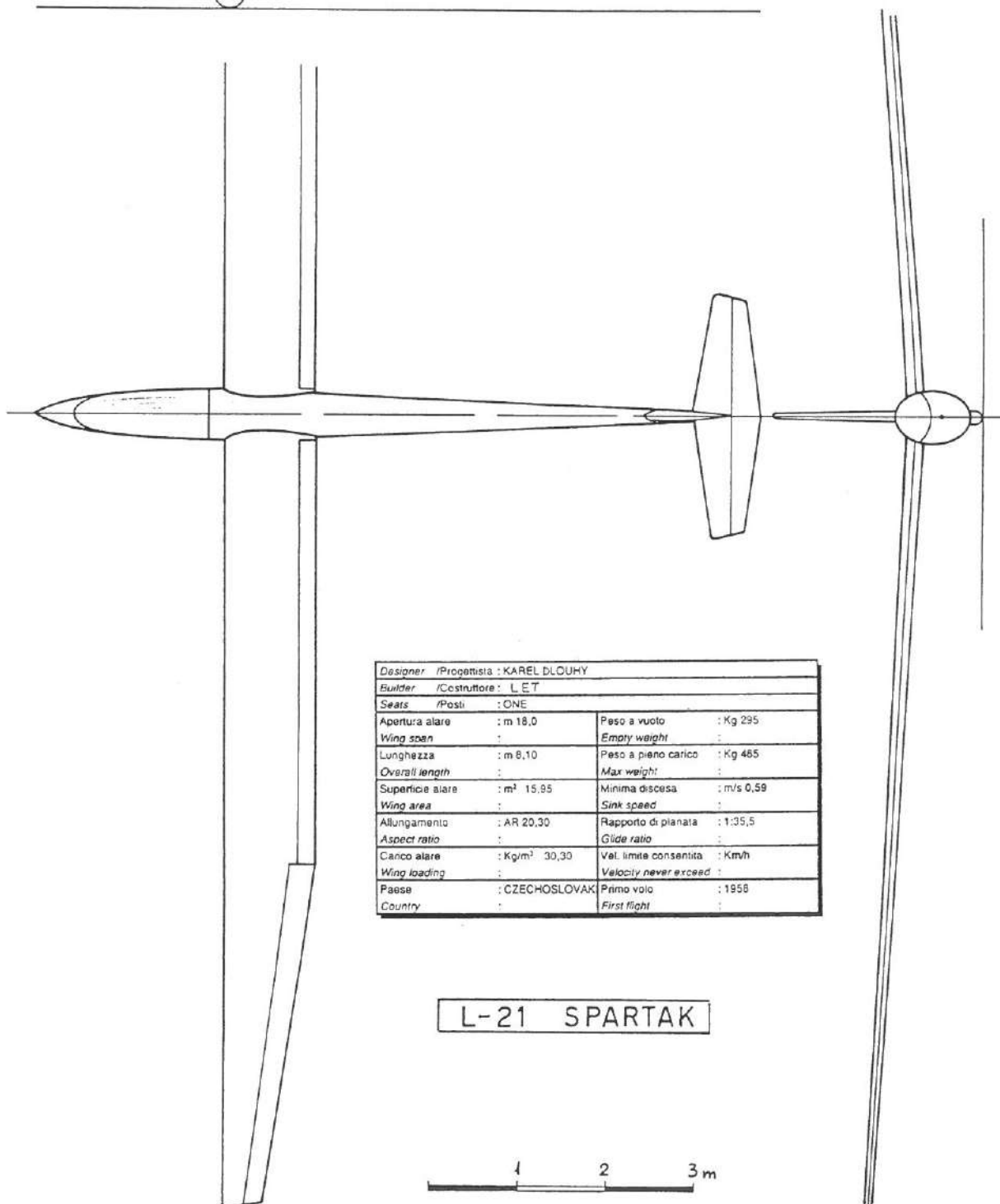
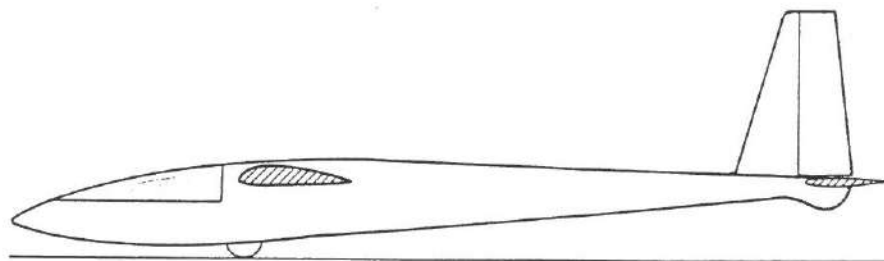




Designer / Progettista :			
Builder / Costruttore : HARBINGER			
Seats / Posti : TWO TANDEM			
Apertura alare	: m 18,30	Peso a vuoto	: Kg 318
Wing span	:	Empty weight	:
Lunghezza	: m 7,25	Peso a pieno carico	: Kg 500
Overall length	:	Max weight	:
Superficie alare	: m ² 22,30	Minima discesa	: m/s 0,78
Wing area	:	Sink speed	:
Allungamento	: AR 15,0	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,50	Vel. limite consentita	: Km/h 219
Wing loading	:	Velocity never exceed	:
Paese	: CANADA	Primo volo	:
Country	:	First flight	:

HARBINGER

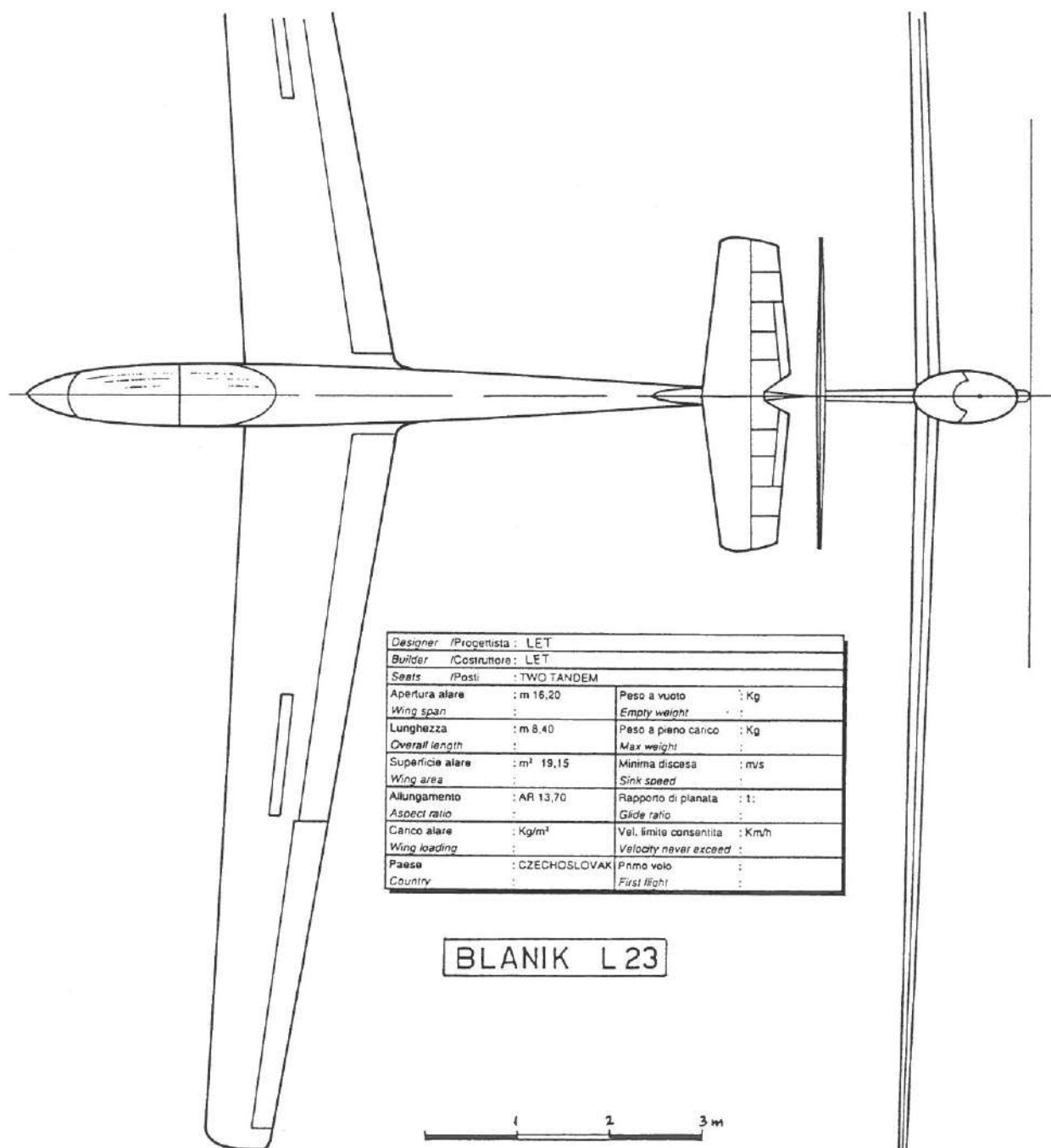
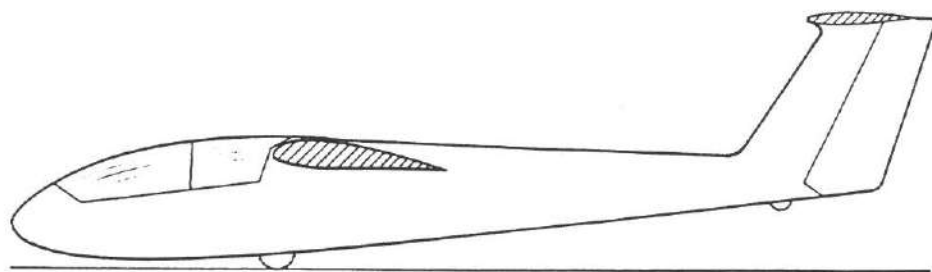




Designer /Progettista : KAREL DLOUHY			
Builder /Costruttore : L.E.T			
Seats /Posti : ONE			
Apertura alare	: m 18,0	Peso a vuoto	: Kg 295
Wing span	:	Empty weight	:
Lunghezza	: m 8,10	Peso a pieno carico	: Kg 465
Overall length	:	Max weight	:
Superficie alare	: m ² 15,95	Minima discesa	: m/s 0,59
Wing area	:	Sink speed	:
Allungamento	: AR 20,30	Rapporto di planata	: 1:35,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 30,30	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: CZECHOSLOVAK	Primo volo	: 1958
Country	:	First flight	:

L-21 SPARTAK

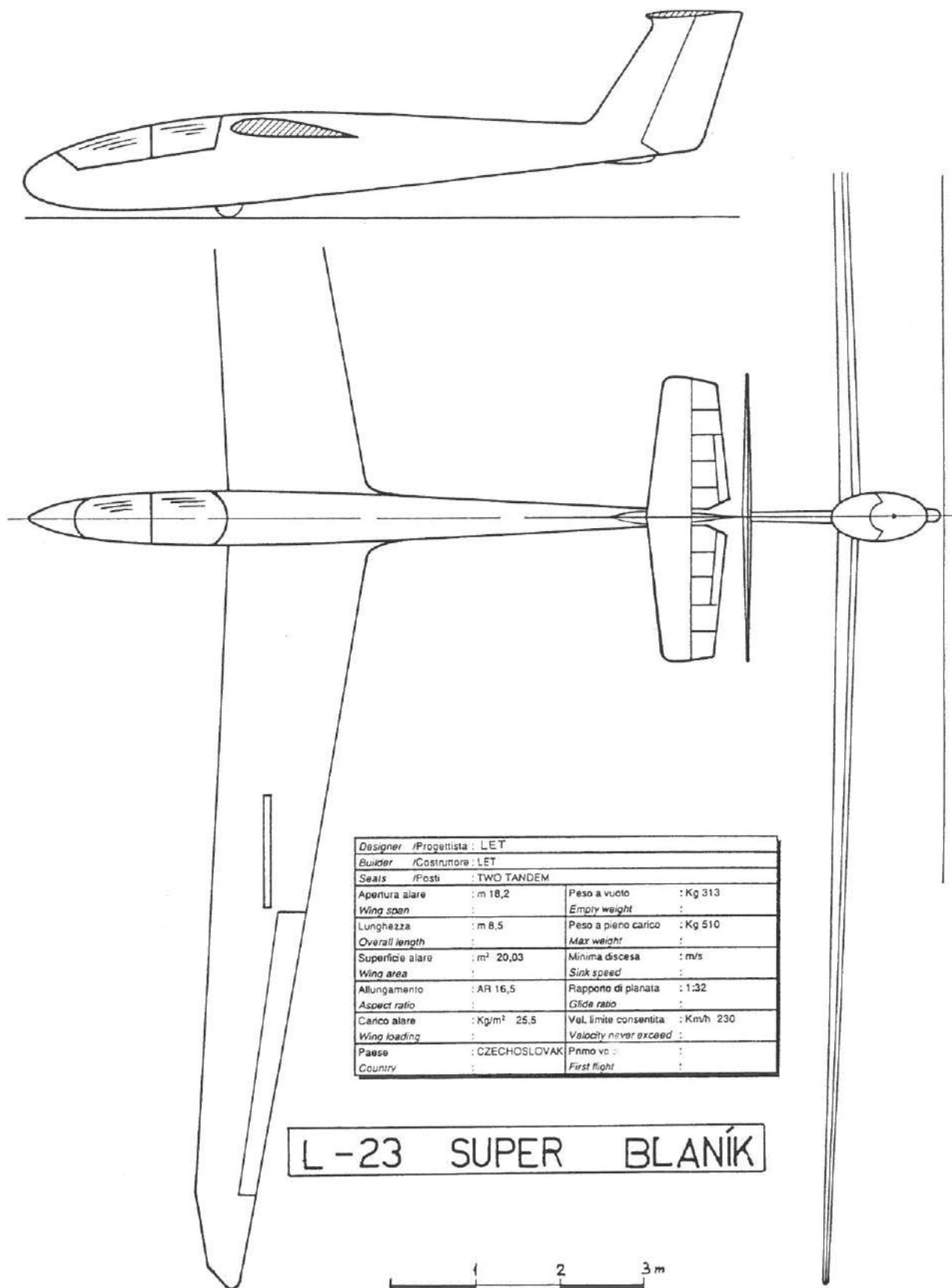




Designer /Progettista : LET			
Builder /Costruttore : LET			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 16,20	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 8,40	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 19,15	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 13,70	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: CZECHOSLOVAK	Primo volo	:
Country	:	First flight	:

BLANIK L23

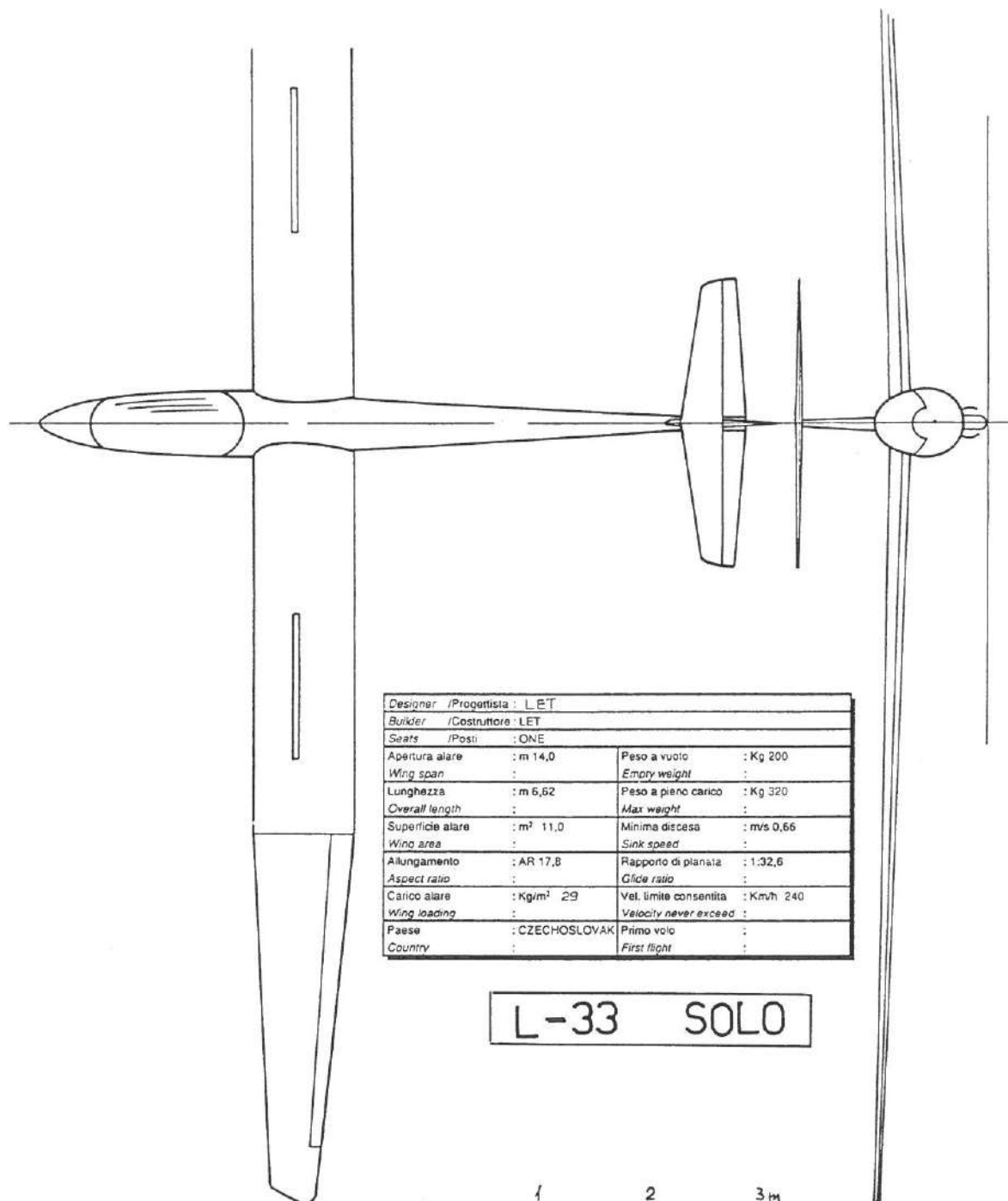
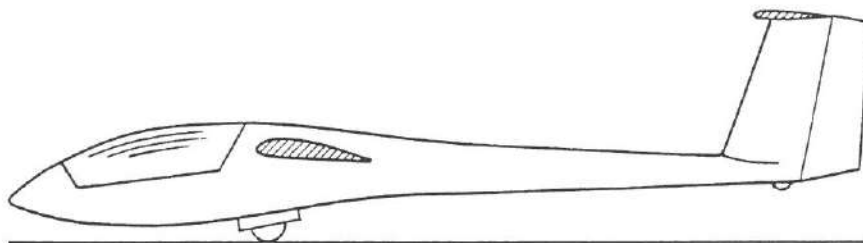
1 2 3 m



Designer /Progettista :	LET	
Builder /Costruttore :	LET	
Seats /Posti :	TWO TANDEM	
Apertura alare	: m 18,2	Peso a vuoto : Kg 313
Wing span	:	Empty weight :
Lunghezza	: m 8,5	Peso a pieno carico : Kg 510
Overall length	:	Max weight :
Superficie alare	: m ² 20,03	Minima discesa : m/s
Wing area	:	Sink speed :
Allungamento	: AR 16,5	Rapporto di planata : 1:32
Aspect ratio	:	Glide ratio :
Carico alare	: Kg/m ² 25,5	Vel. limite consentita : Km/h 230
Wing loading	:	Velocity never exceed :
Paese	: CZECHOSLOVAK	Primo volo :
Country	:	First flight :

L-23 SUPER BLANÍK

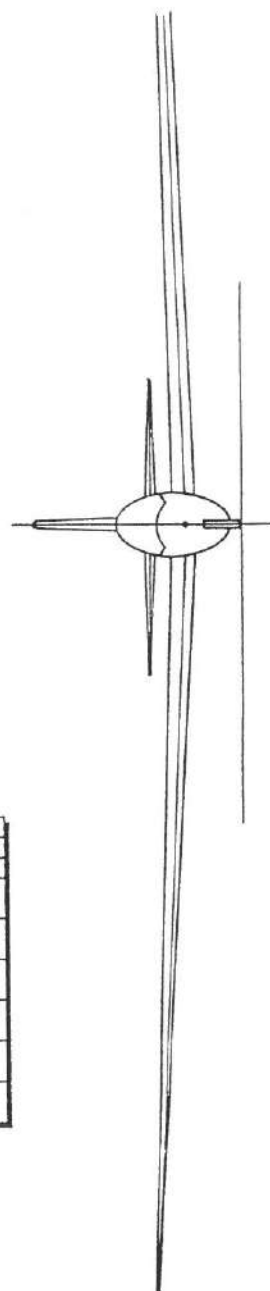
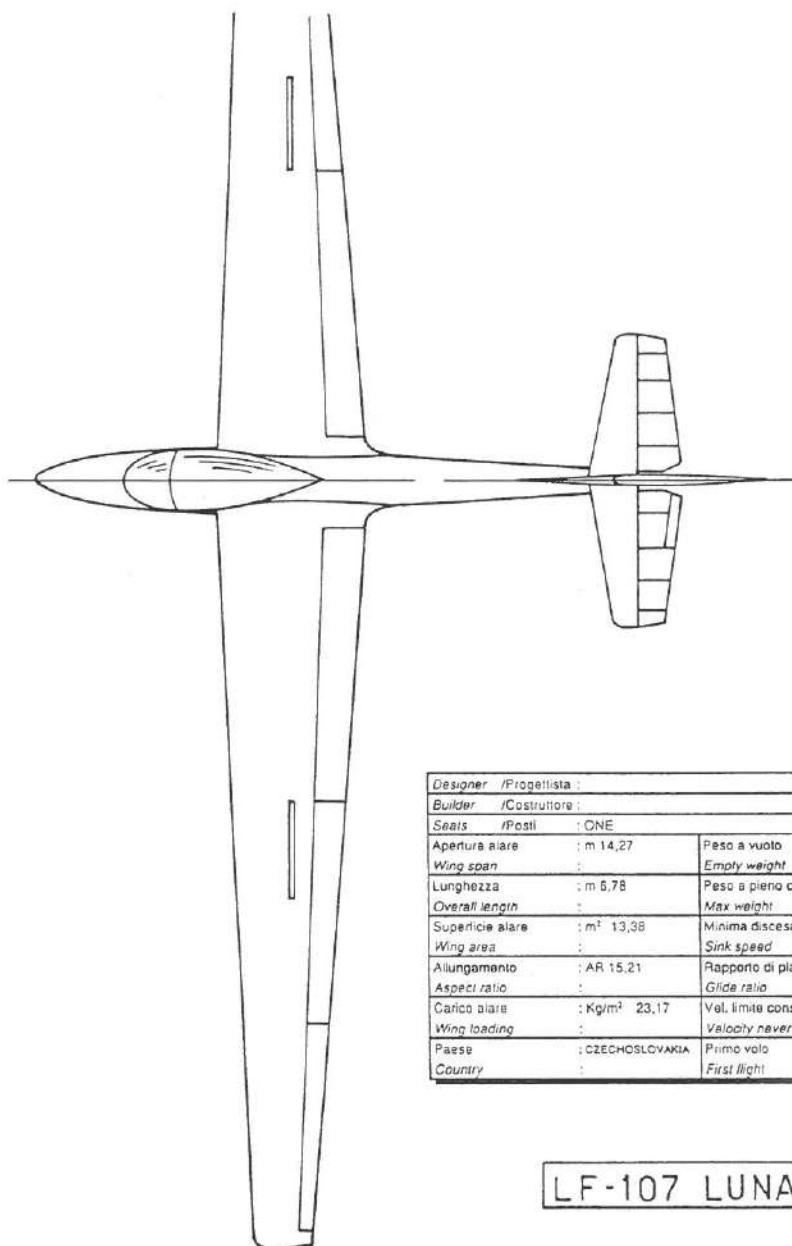
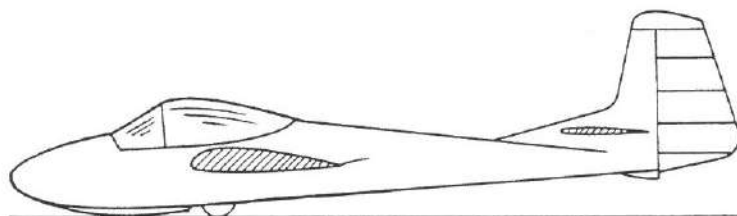
1 2 3 m



Designer / Progettista : LET			
Builder / Costruttore : LET			
Seats / Posti : ONE			
Apertura alare	: m 14,0	Peso a vuoto	: Kg 200
Wing span	:	Empty weight	:
Lunghezza	: m 6,62	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 11,0	Minima discesa	: m/s 0,66
Wing area	:	Sink speed	:
Allungamento	: AR 17,8	Rapporto di planata	: 1:32,6
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 29	Vel. limite consentita	: Km/h 240
Wing loading	:	Velocity never exceed	:
Paese	: CZECHOSLOVAK	Primo volo	:
Country	:	First flight	:

L-33 SOLO

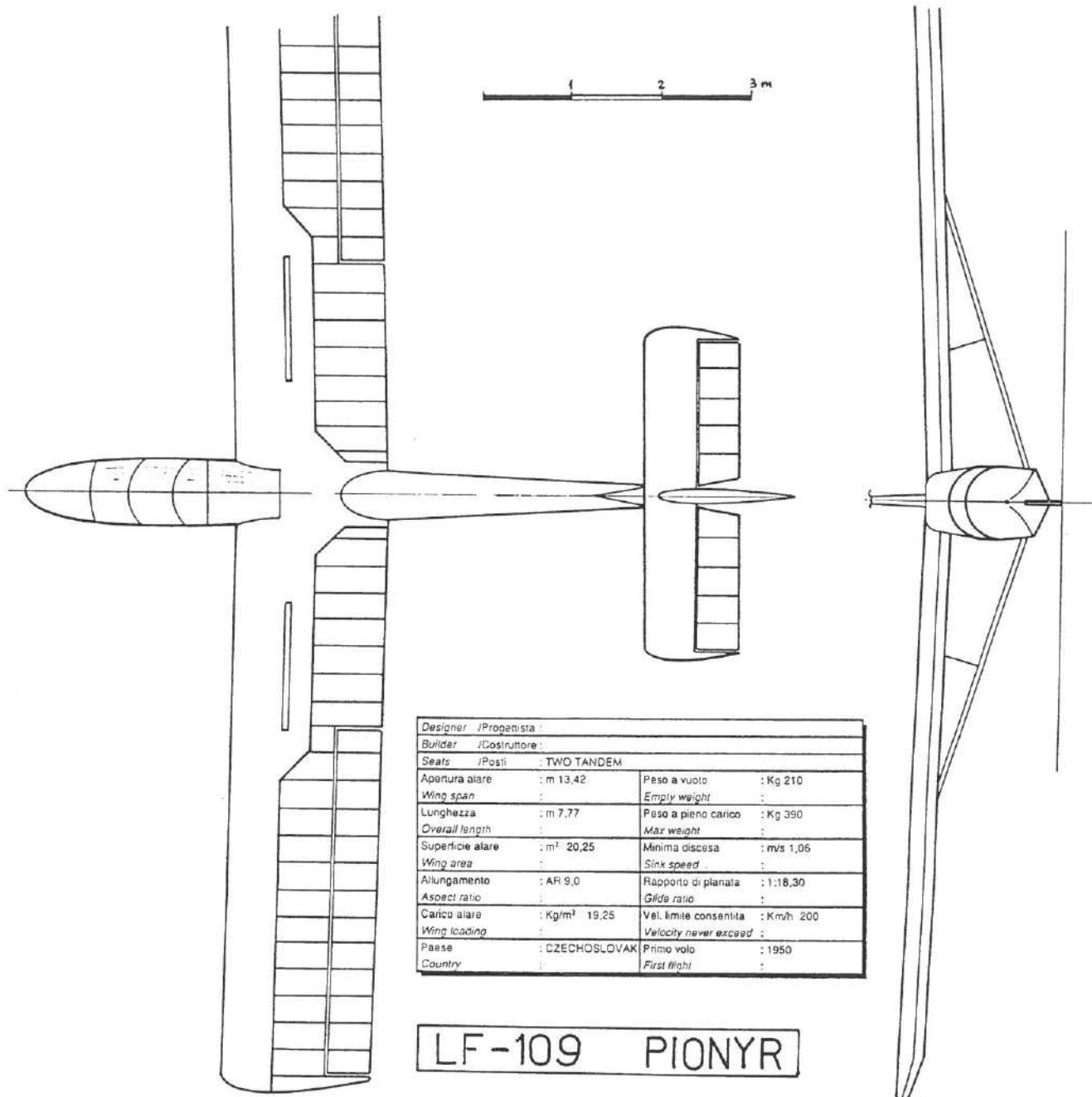
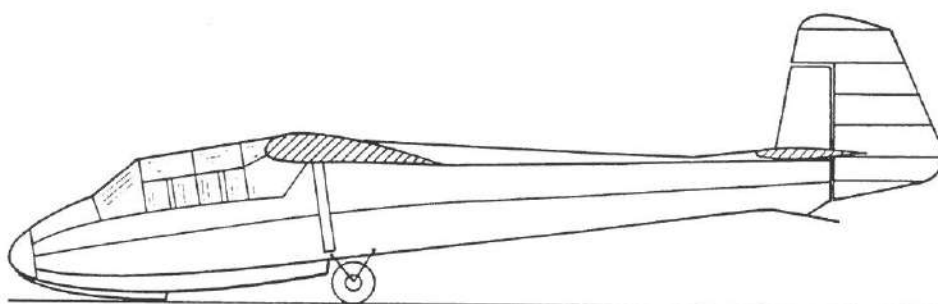




Designer /Progettista :			
Builder /Costruttore :			
Seats /Posti : ONE			
Apertura alare	: m 14,27	Peso a vuoto	: Kg 205
Wing span	:	Empty weight	:
Lunghezza	: m 5,78	Peso a pieno carico	: Kg 310
Overall length	:	Max weight	:
Superficie alare	: m ² 13,38	Minima discesa	: m/s 0,85
Wing area	:	Sink speed	:
Allungamento	: AR 15,21	Rapporto di planata	: 1:24
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,17	Vel. limite consentita	: Km/h 300
Wing loading	:	Velocity never exceed	:
Paese	: CZECHOSLOVAKIA	Primo volo	:
Country	:	First flight	:

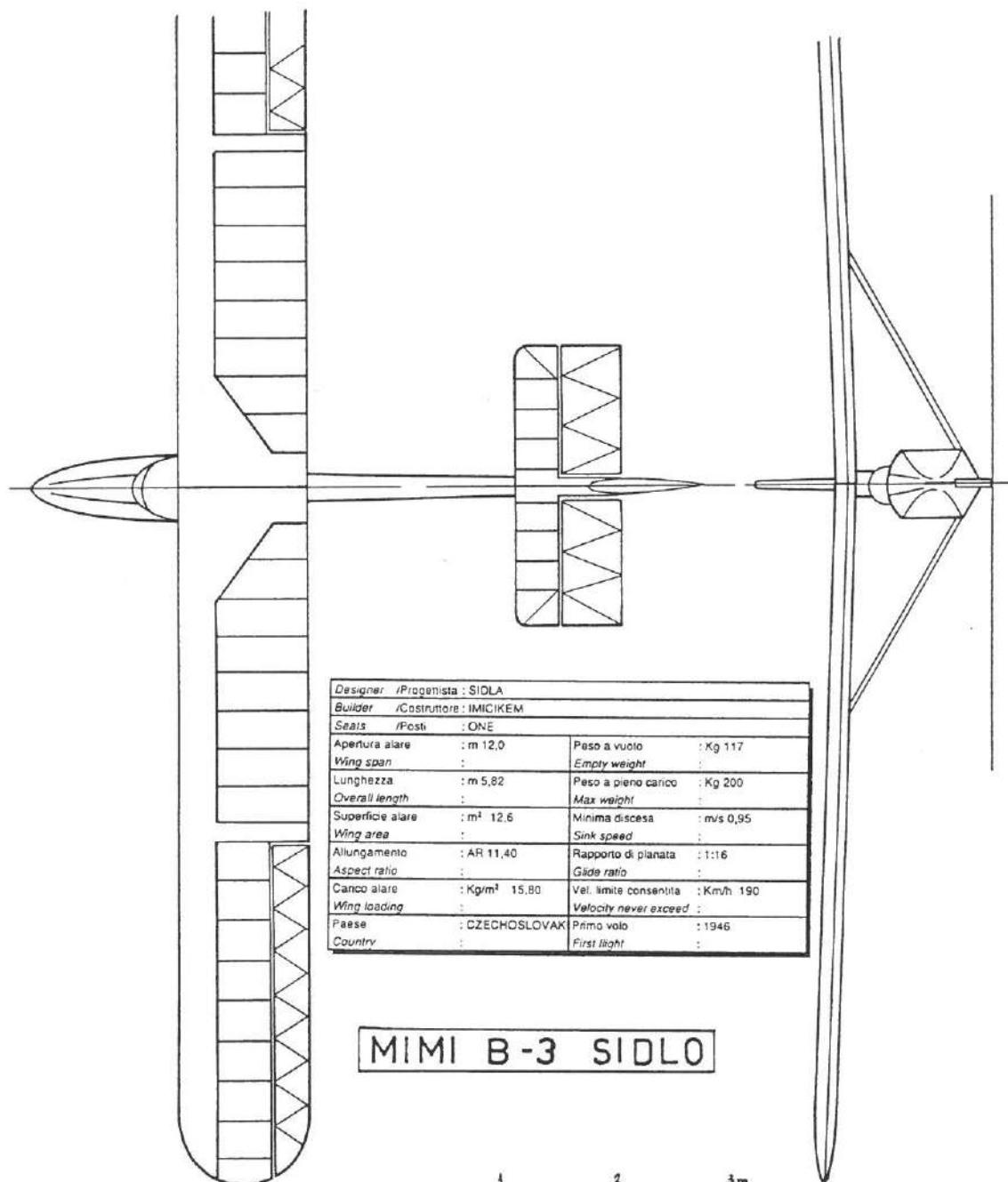
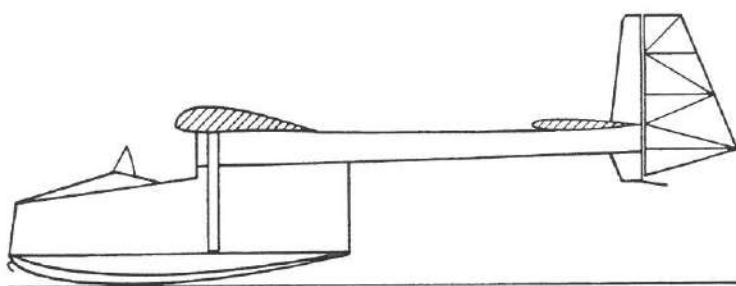
LF-107 LUNAK





Designer / Progettista :		
Builder / Costruttore :		
Seats / Posti :	TWO TANDEM	
Apertura alare :	m 13,42	Peso a vuoto : Kg 210
Wing span :		Empty weight :
Lunghezza :	m 7,77	Peso a pieno carico : Kg 350
Overall length :		Max weight :
Superficie alare :	m ² 20,25	Minima discesa : m/s 1,06
Wing area :		Sink speed :
Allungamento :	AR 9,0	Rapporto di planata : 1:18,30
Aspect ratio :		Glide ratio :
Carico alare :	Kg/m ² 19,25	Vel. limite consentita : Km/h 200
Wing loading :		Velocity never exceed :
Paese :	CZECHOSLOVAK	Primo volo : 1950
Country :		First flight :

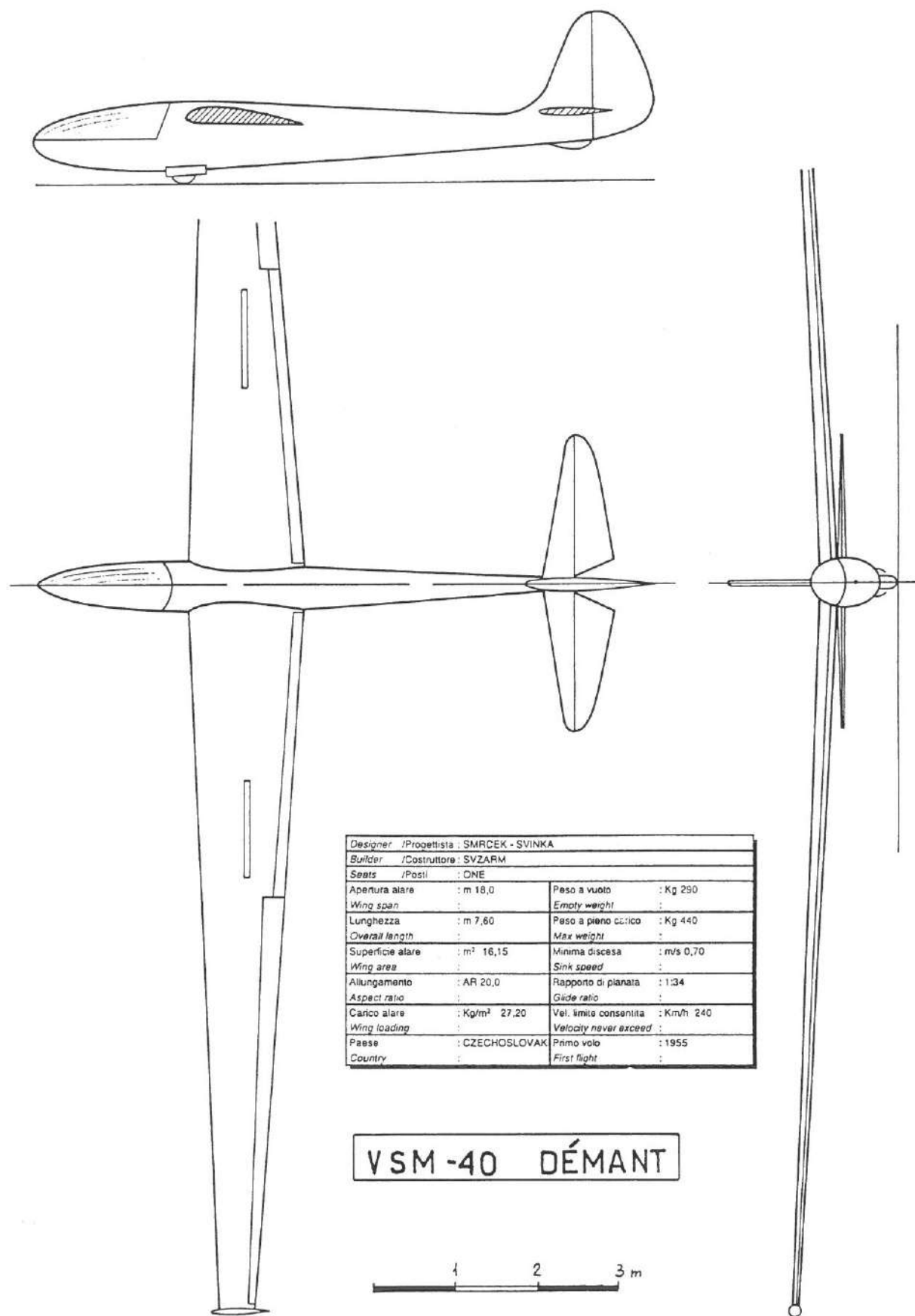
LF-109 PIONYR



Designer / Progettista : SIDLO			
Builder / Costruttore : IMICKEM			
Seats / Posti : ONE			
Apertura alare	: m 12,0	Peso a vuoto	: Kg 117
Wing span	:	Empty weight	:
Lunghezza	: m 5,82	Peso a pieno carico	: Kg 200
Overall length	:	Max weight	:
Superficie alare	: m ² 12,6	Minima discesa	: m/s 0,95
Wing area	:	Sink speed	:
Allungamento	: AR 11,40	Rapporto di planata	: 1:16
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15,80	Vel. limite consentita	: Km/h 190
Wing loading	:	Velocity never exceed	:
Paese	: CZECHOSLOVAK	Primo volo	: 1946
Country	:	First flight	:

MIMI B-3 SIDLO

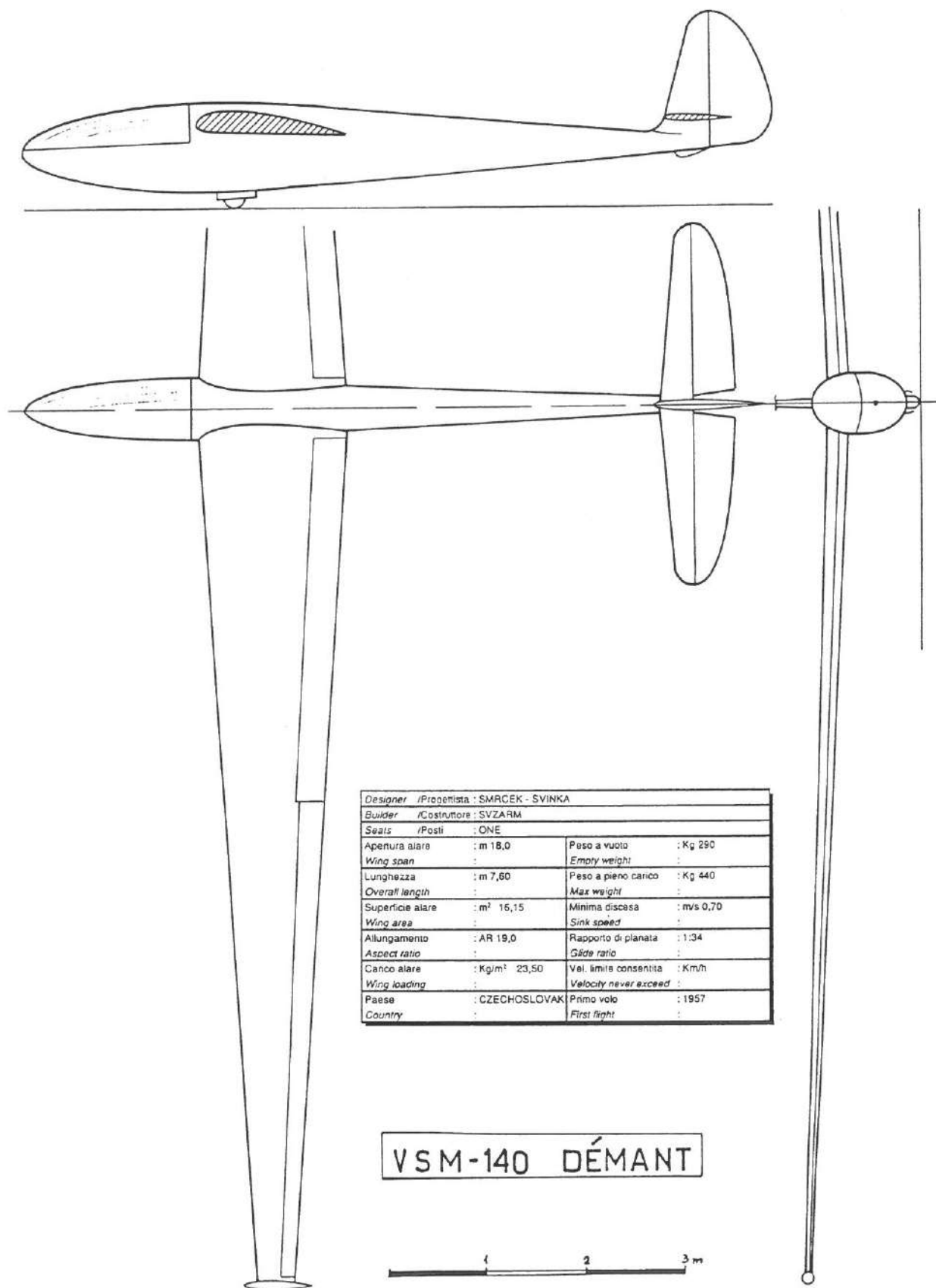




Designer /Progettista : SMRCEK - SVINKA			
Builder /Costruttore : SVZARM			
Seats /Posti : ONE			
Apertura alare	: m 18,0	Peso a vuoto	: Kg 290
Wing span	:	Empty weight	:
Lunghezza	: m 7,60	Peso a pieno carico	: Kg 440
Overall length	:	Max weight	:
Superficie alare	: m ² 16,15	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 20,0	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,20	Vel. limite consentita	: Km/h 240
Wing loading	:	Velocity never exceed	:
Paese	: CZECHOSLOVAK	Primo volo	: 1955
Country	:	First flight	:

VSM-40 D  mant

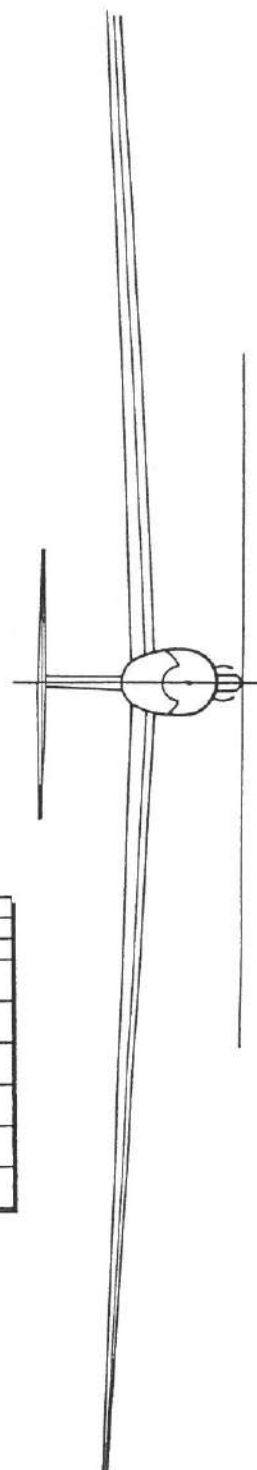
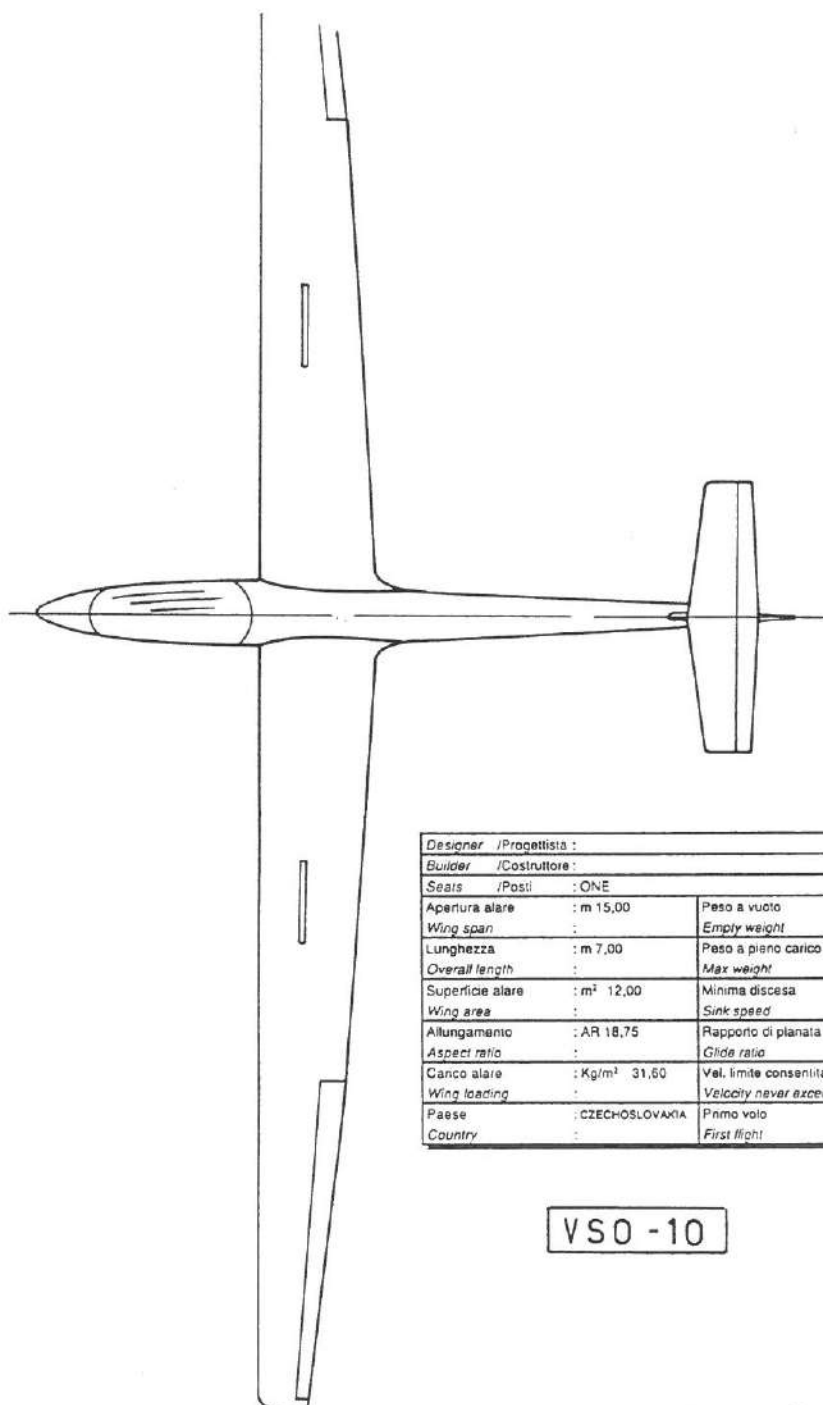
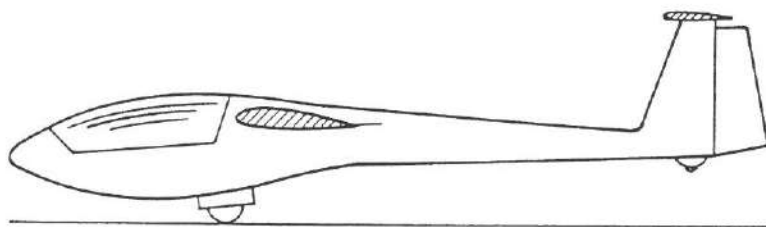
1 2 3 m



Designer / Progettista : SMRCEK - SVINKA			
Builder / Costruttore : SVZARM			
Seats / Posti	ONE		
Apertura alare	: m 18,0	Peso a vuoto	: Kg 290
Wing span	:	Empty weight	:
Lunghezza	: m 7,60	Peso a pieno carico	: Kg 440
Overall length	:	Max weight	:
Superficie alare	: m ² 16,15	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 19,0	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,50	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: CZECHOSLOVAK	Primo volo	: 1957
Country	:	First flight	:

VSM-140 D  mant

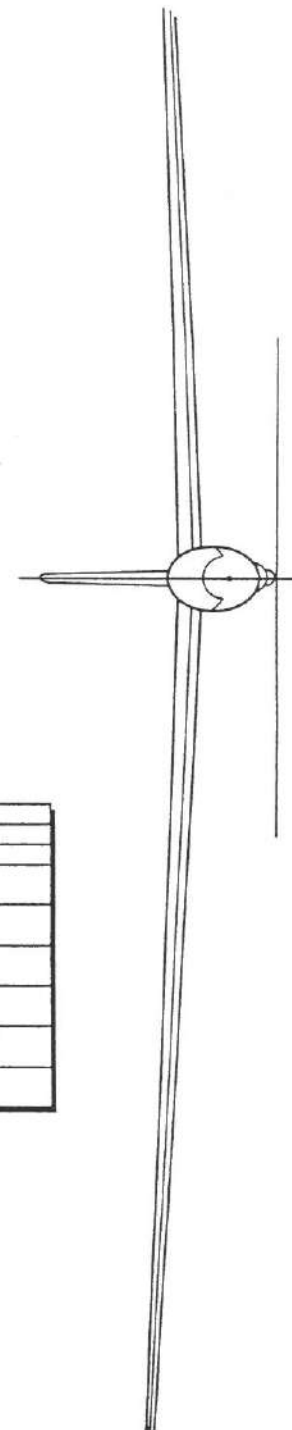
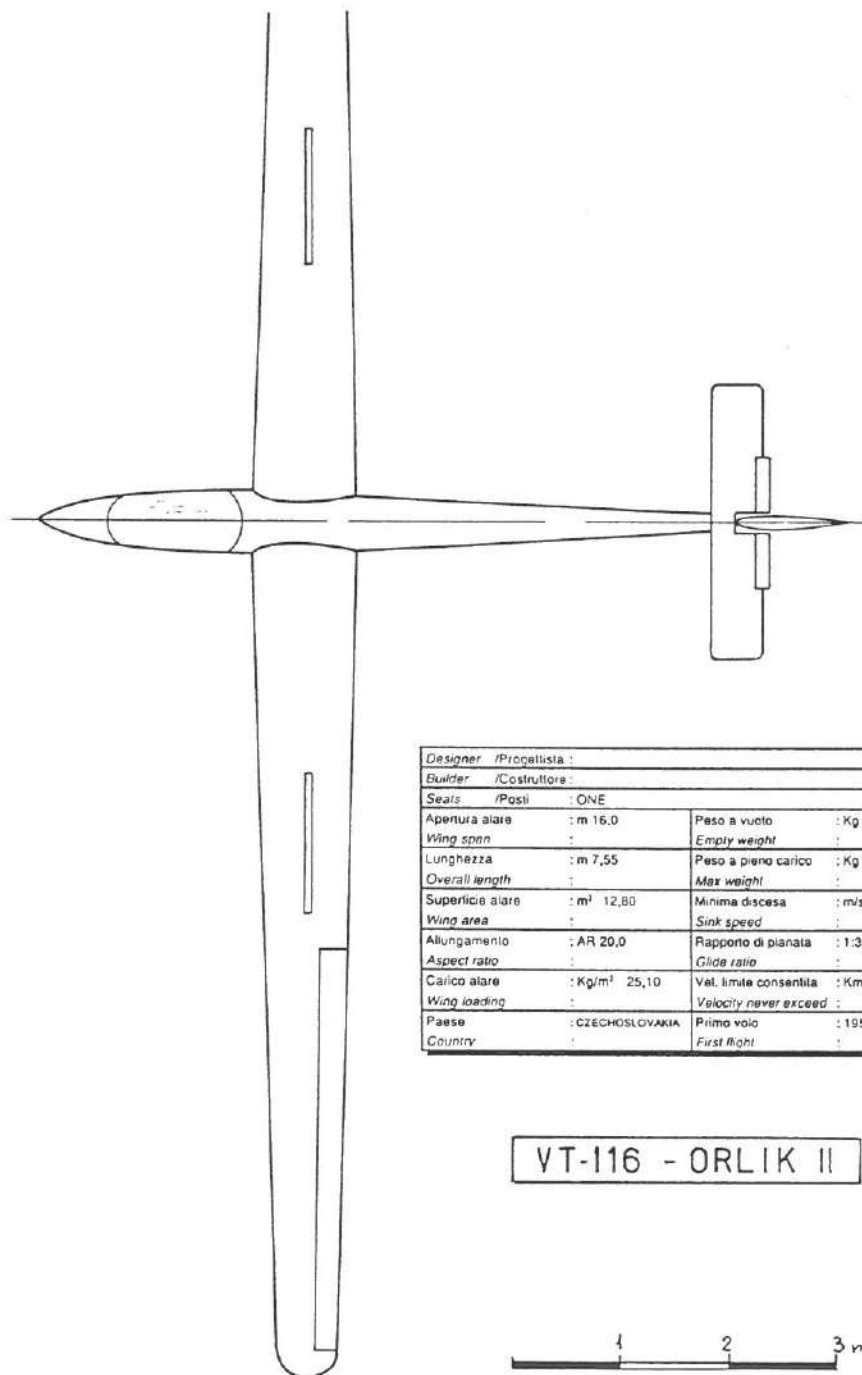
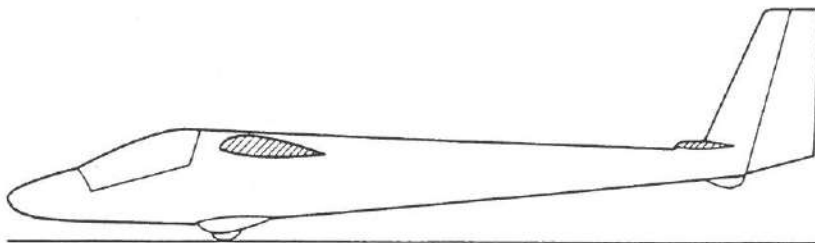




Designer / Progettista :			
Builder / Costruttore :			
Seats / Posti :	ONE		
Apertura alare :	m 15,00	Peso a vuoto :	Kg 250
Wing span :		Empty weight :	
Lunghezza :	m 7,00	Peso a pieno carico :	Kg 380
Overall length :		Max weight :	
Superficie alare :	m ² 12,00	Minima discesa :	mvs 0,75
Wing area :		Sink speed :	
Allungamento :	AR 18,75	Rapporto di planata :	1,36
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 31,50	Vel. limite consentita :	Km/h 260
Wing loading :		Velocity never exceed :	
Paese :	CZECHOSLOVAKIA	Primo volo :	
Country :		First flight :	

VS0 - 10

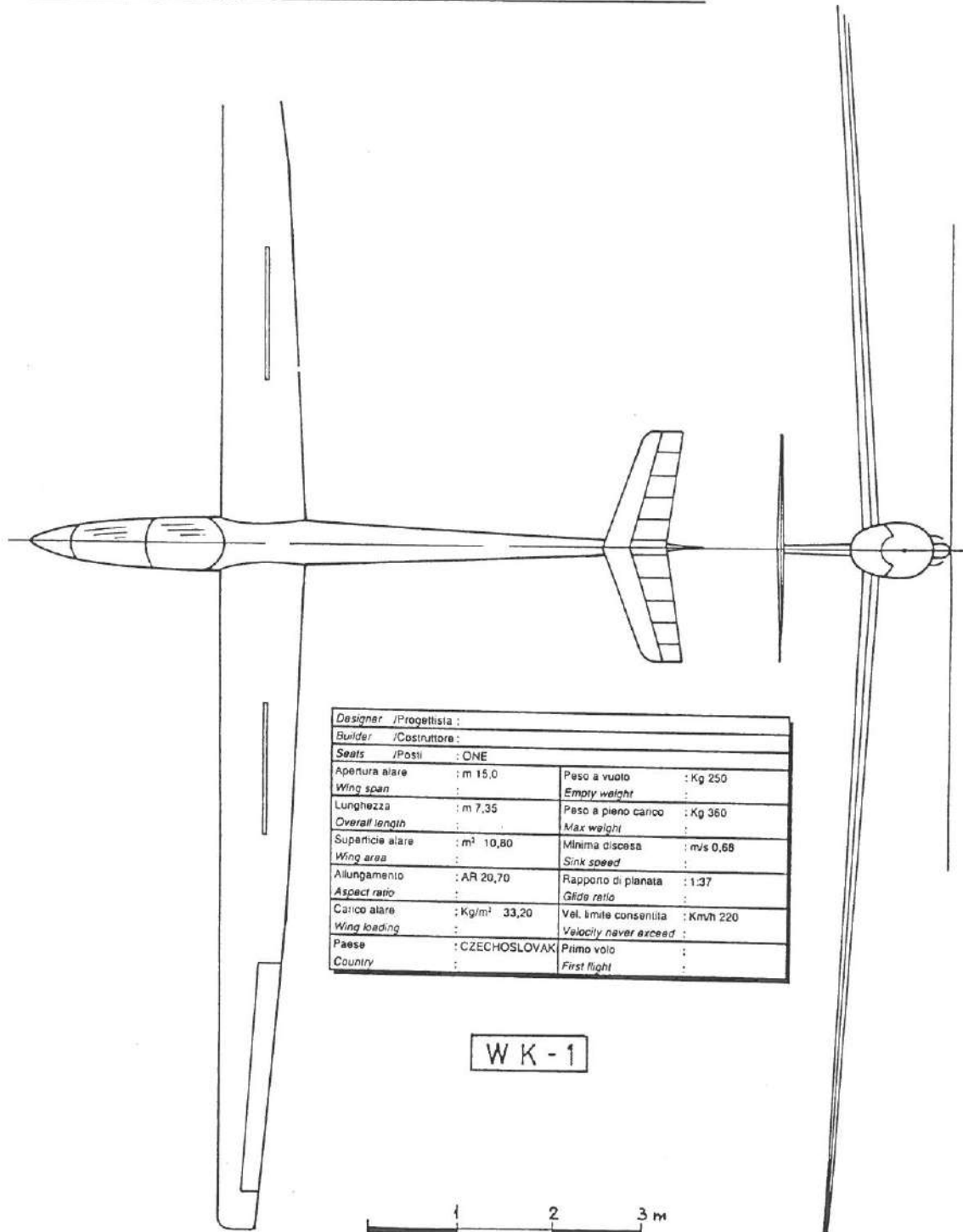
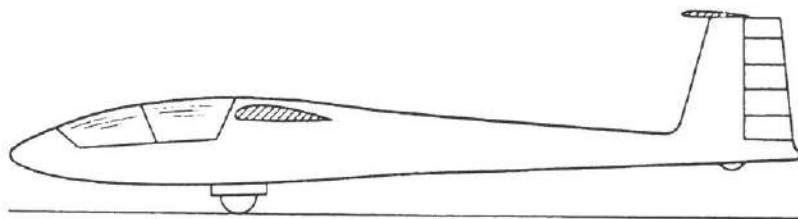




Designer /Progetlista :			
Builder /Costruttore :			
Seats /Posti :	ONE		
Apertura alare :	m 16,0	Peso a vuoto :	Kg 220
Wing span :		Empty weight :	
Lunghezza :	m 7,55	Peso a pieno carico :	Kg 320
Overall length :		Max weight :	
Superficie alare :	m ² 12,80	Minima discesa :	m/s 0,60
Wing area :		Sink speed :	
Allungamento :	AR 20,0	Rapporto di planata :	1:33
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 25,10	Vel. limite consentita :	Km/h 210
Wing loading :		Velocity never exceed :	
Paese :	CZECHOSLOVAKIA	Primo volo :	1959
Country :		First flight :	

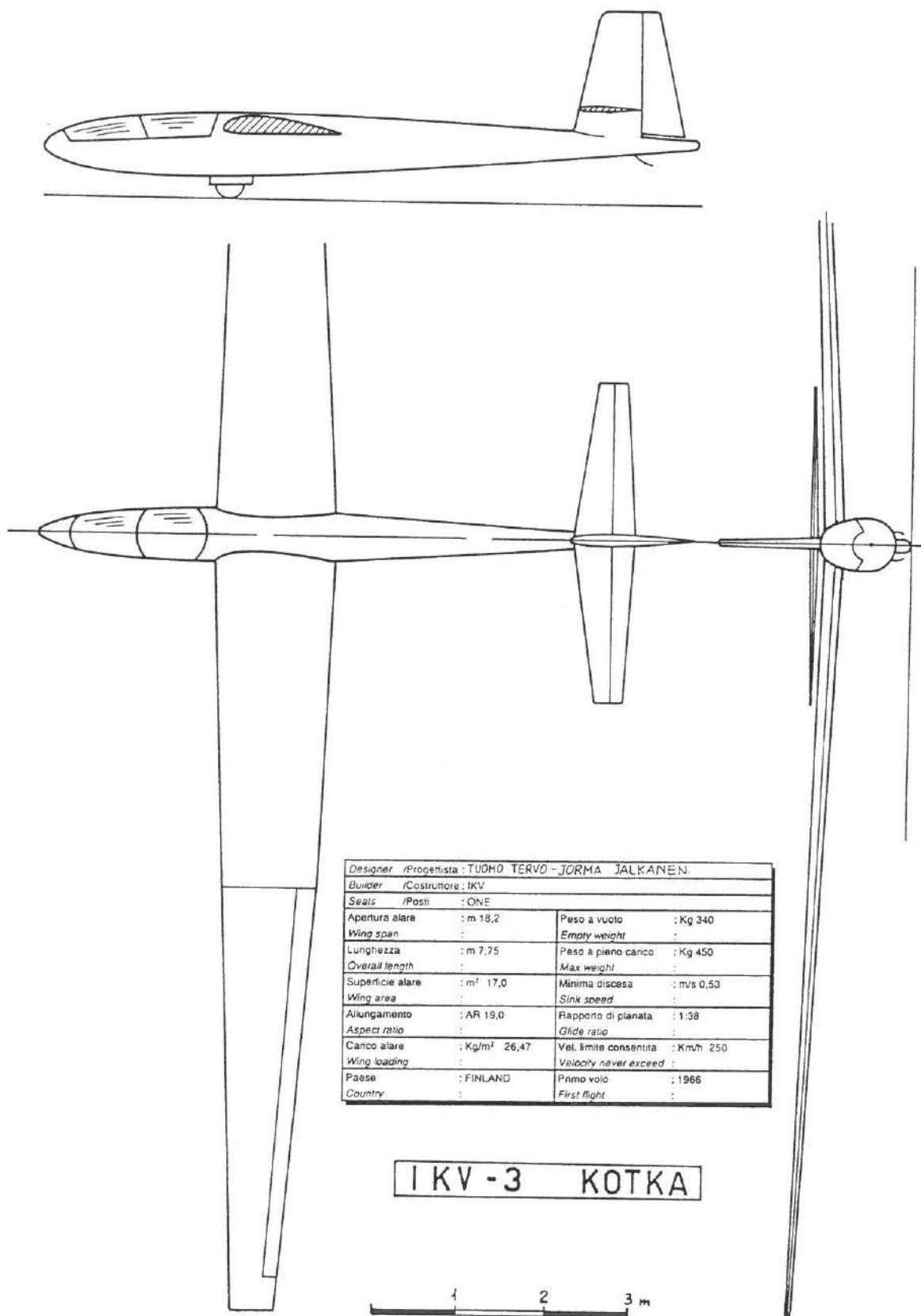
VT-116 - ORLIK II





W K - 1

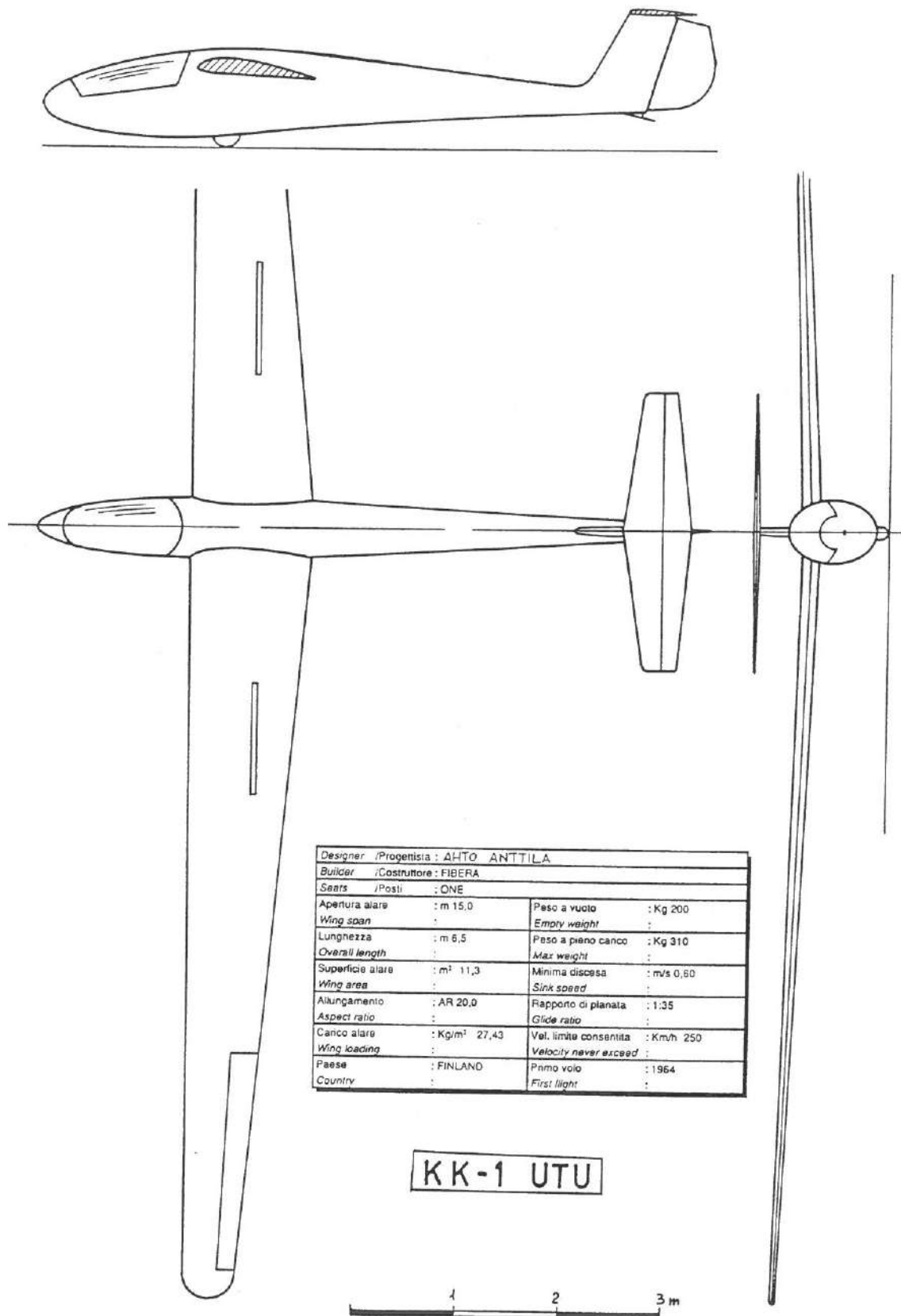




Designer /Progettista:	TUOMO TERVO - JORMA JALKANEN.		
Builder /Costruttore:	IKV		
Seats /Posti:	ONE		
Apertura alare	: m 18,2	Peso a vuoto	: Kg 340
Wing span	:	Empty weight	:
Lunghezza	: m 7,75	Peso a pieno carico	: Kg 450
Overall length	:	Max weight	:
Superficie alare	: m ² 17,0	Minima discesa	: m/s 0,53
Wing area	:	Sink speed	:
Allungamento	: AR 19,0	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,47	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: FINLAND	Primo volo	: 1966
Country	:	First flight	:

IKV-3 KOTKA

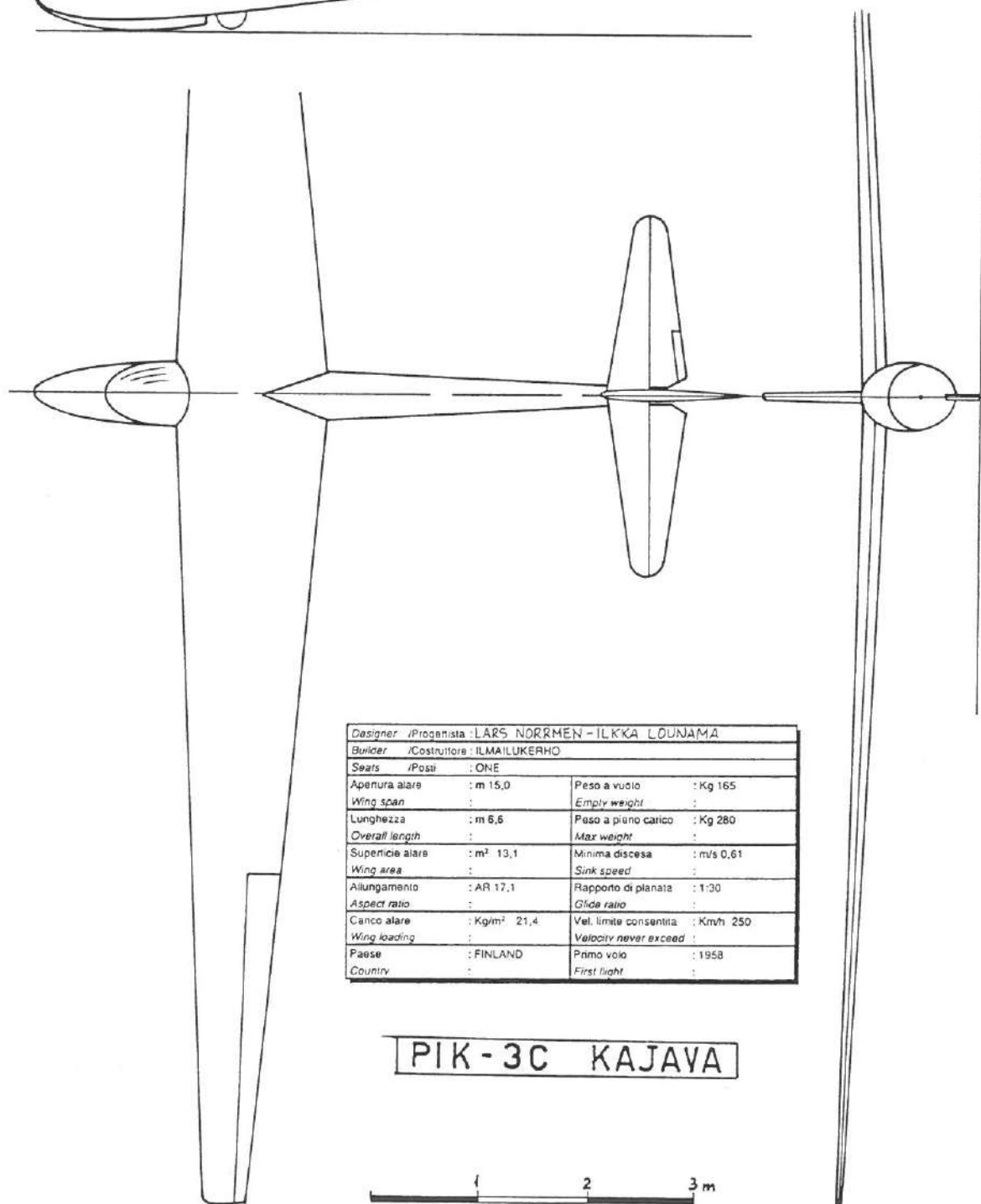
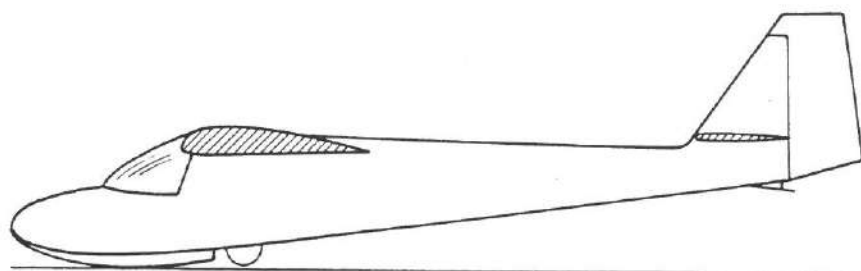




Designer	Progenisla : AHTO ANTILA		
Builder	Costruttore : FIBERA		
Seats	Posti : ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 200
Wing span	:	Empty weight	:
Lunghezza	: m 6,5	Peso a pieno carico	: Kg 310
Overall length	:	Max weight	:
Superficie alare	: m ² 11,3	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Alungamento	: AR 20,0	Rapporto di planata	: 1:35
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,43	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: FINLAND	Primo volo	: 1964
Country	:	First flight	:

KK-1 UTU

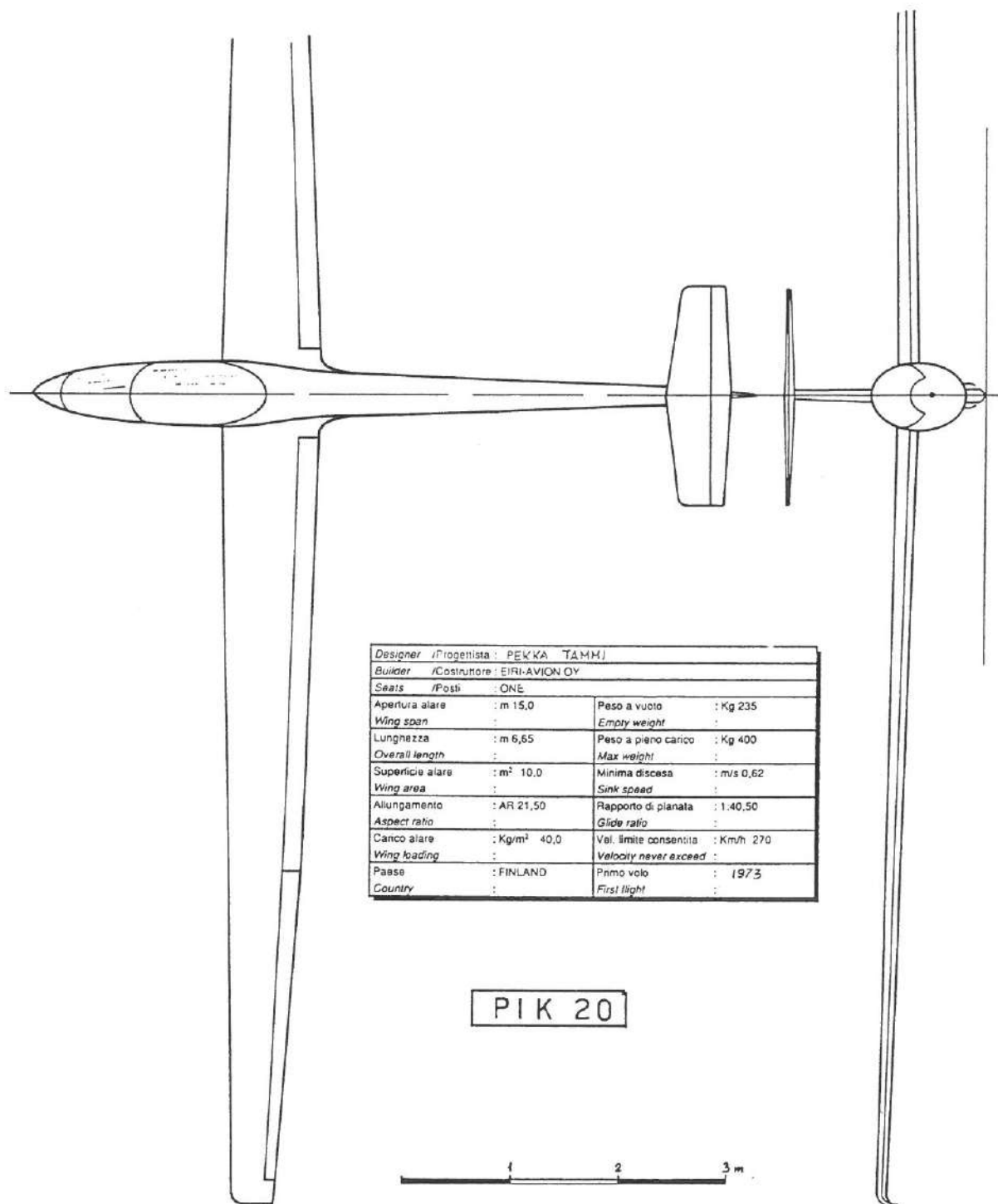
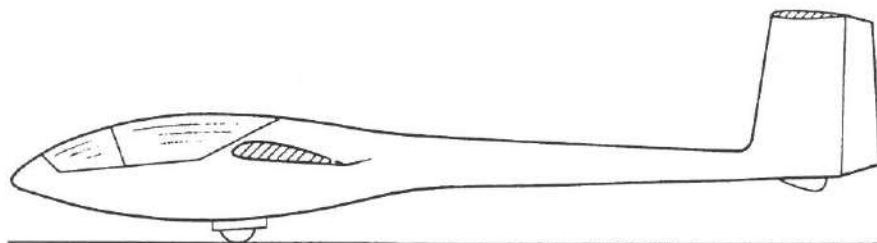
1 2 3 m



Designer	iProgettista : LARS NORRMEN - ILKKA LONNAMA				
Builder	iCostruttore : ILMAILUKERHO				
Seats	iPosti	: ONE			
Apertura alare	: m	15,0	Peso a vuoto	: Kg	165
Wing span	:		Empty weight	:	
Lunghezza	: m	6,6	Peso a pieno carico	: Kg	280
Overall length	:		Max weight	:	
Superficie alare	: m ²	13,1	Minima discesa	: m/s	0,61
Wing area	:		Sink speed	:	
Allungamento	: AR	17,1	Rapporto di planata	: 1:30	
Aspect ratio	:		Glide ratio	:	
Carico alare	: Kg/m ²	21,4	Vel. limite consentita	: Km/h	250
Wing loading	:		Velocity never exceed	:	
Paese	:	FINLAND	Primo volo	:	1958
Country	:		First flight	:	

PIK-3C KAJAVA

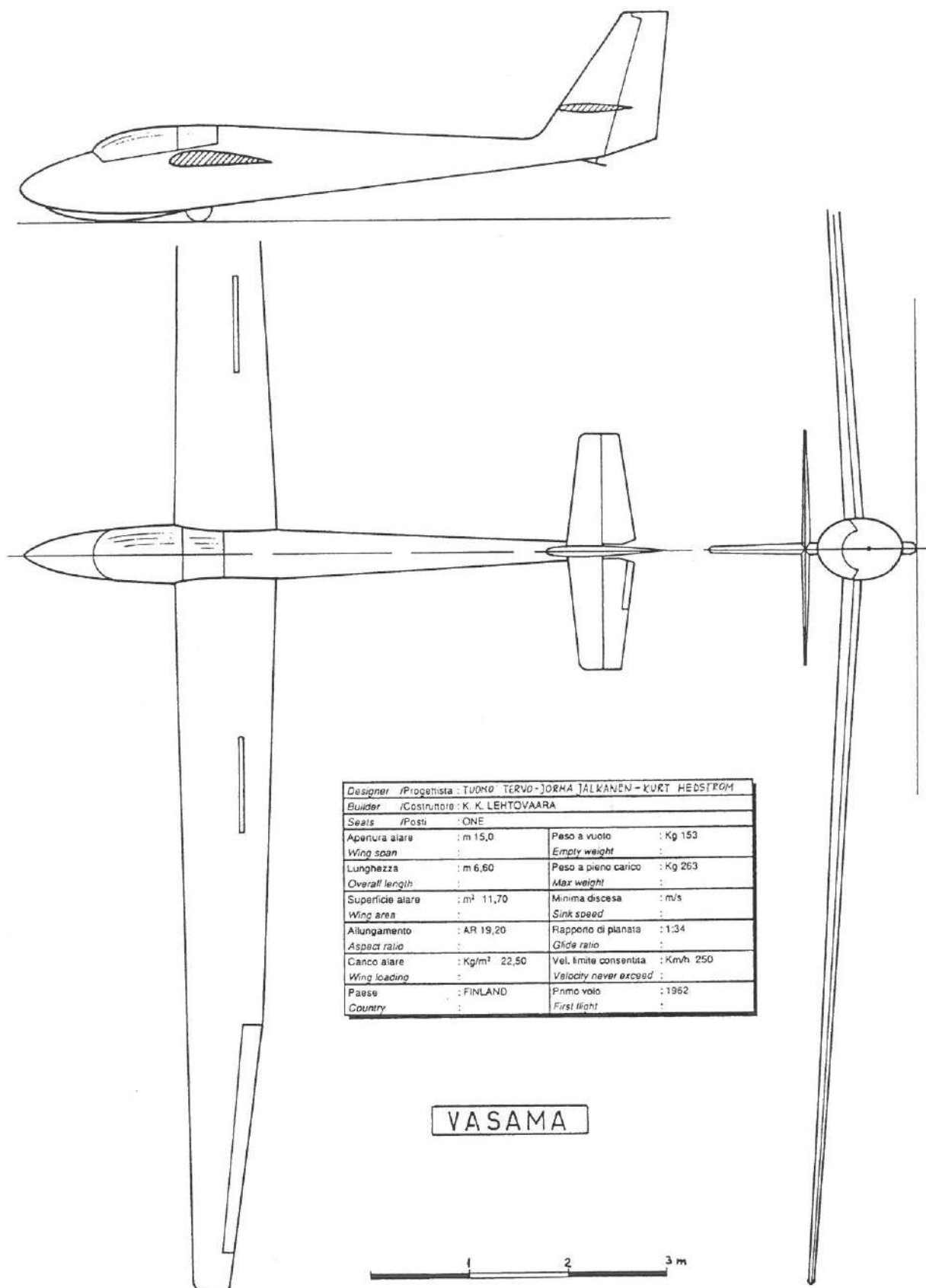




Designer /Progettista : PEKKA TAMMI			
Builder /Costruttore : EIRI-AVION OY			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 235
Wing span	:	Empty weight	:
Lunghezza	: m 6,55	Peso a pieno carico	: Kg 400
Overall length	:	Max weight	:
Superficie alare	: m ² 10,0	Minima discesa	: m/s 0,62
Wing area	:	Sink speed	:
Allungamento	: AR 21,50	Rapporto di planata	: 1:40,50
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 40,0	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: FINLAND	Primo volo	: 1973
Country	:	First flight	:

PIK 20

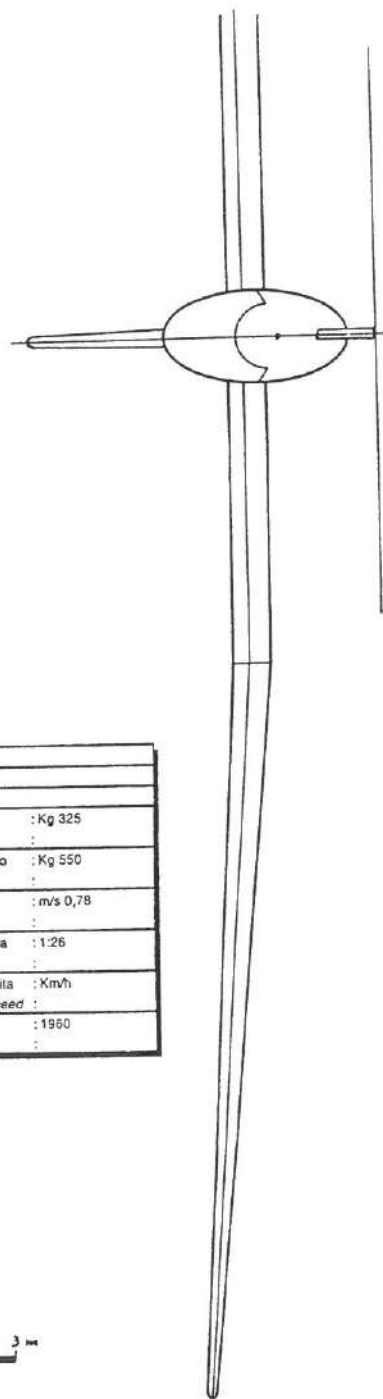
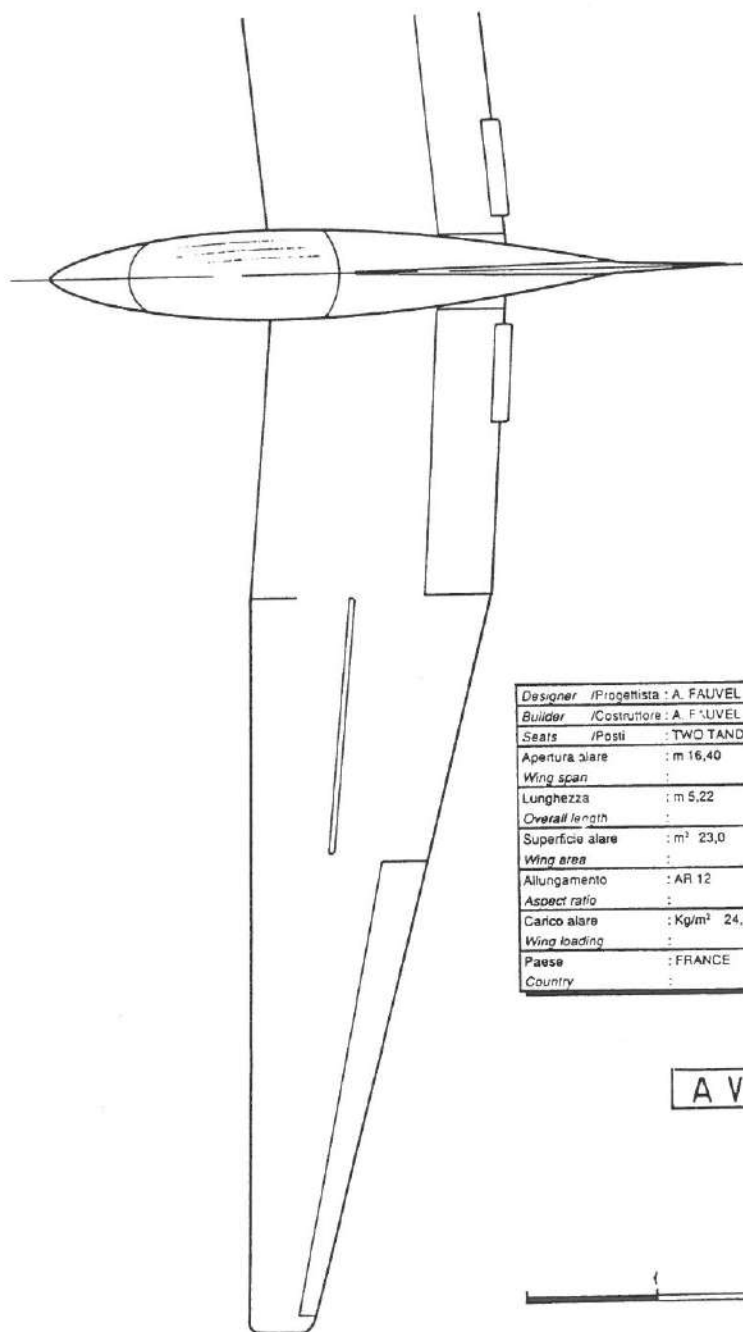
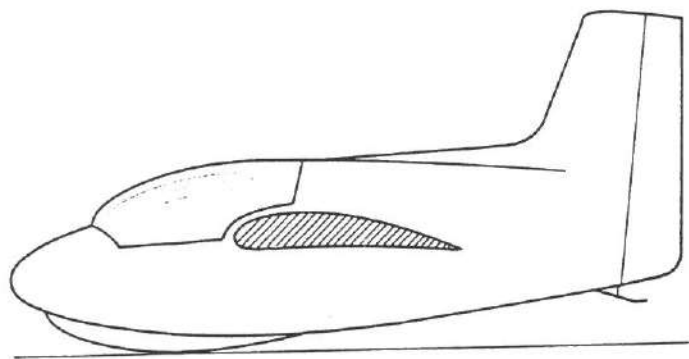




Designer /Progettista	TUOMO TERVO - JORMA JÄLKÄNEN - KURT HEDSTRÖM		
Builder /Costruttore	K. K. LEHTOVAARA		
Seats /Posti	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 153
Wing span	:	Empty weight	:
Lunghezza	: m 6,60	Peso a pieno carico	: Kg 263
Overall length	:	Max weight	:
Superficie alare	: m ² 11,70	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 19,20	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,50	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: FINLAND	Primo volo	: 1962
Country	:	First flight	:

VASAMA

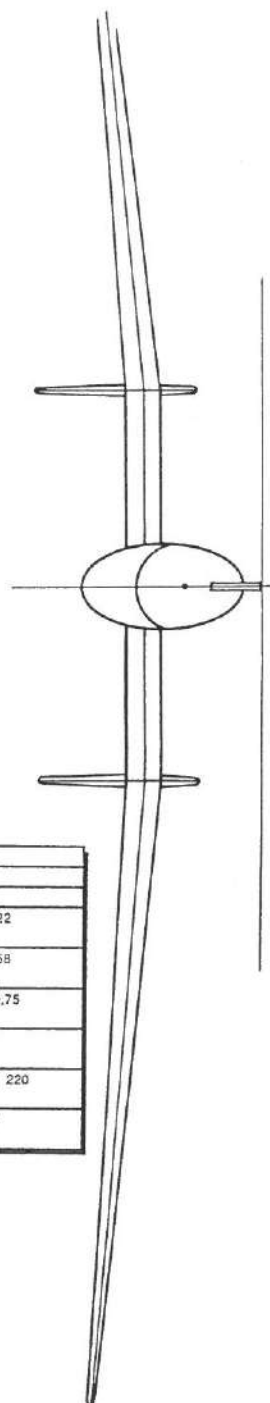
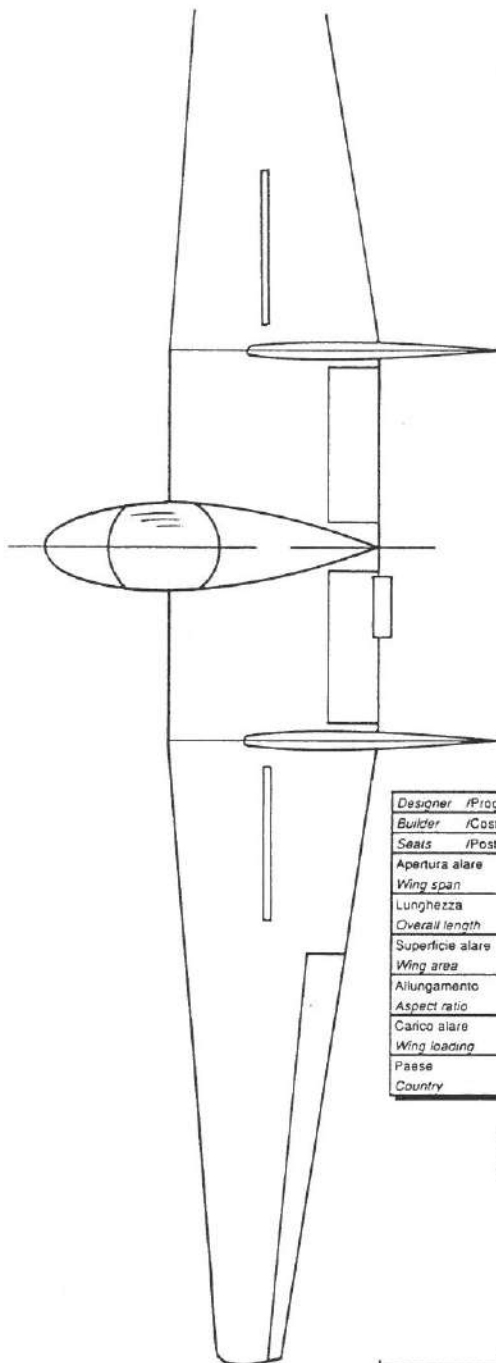
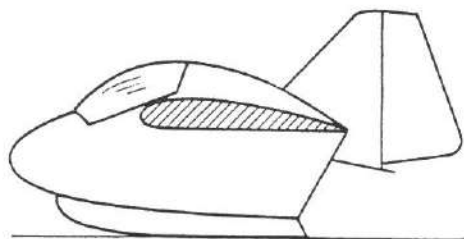
1 2 3 m



Designer / Progettista : A. FAUVEL			
Builder / Costruttore : A. FAUVEL			
Seats / Posti	TWO TANDEM		
Apertura alare	: m 16,40	Peso a vuoto	: Kg 325
Wing span	:	Empty weight	:
Lunghezza	: m 5,22	Peso a pieno carico	: Kg 550
Overall length	:	Max weight	:
Superficie alare	: m ² 23,0	Minima discesa	: m/s 0,78
Wing area	:	Sink speed	:
Allungamento	: AR 12	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 24,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1960
Country	:	First flight	:

AV-22

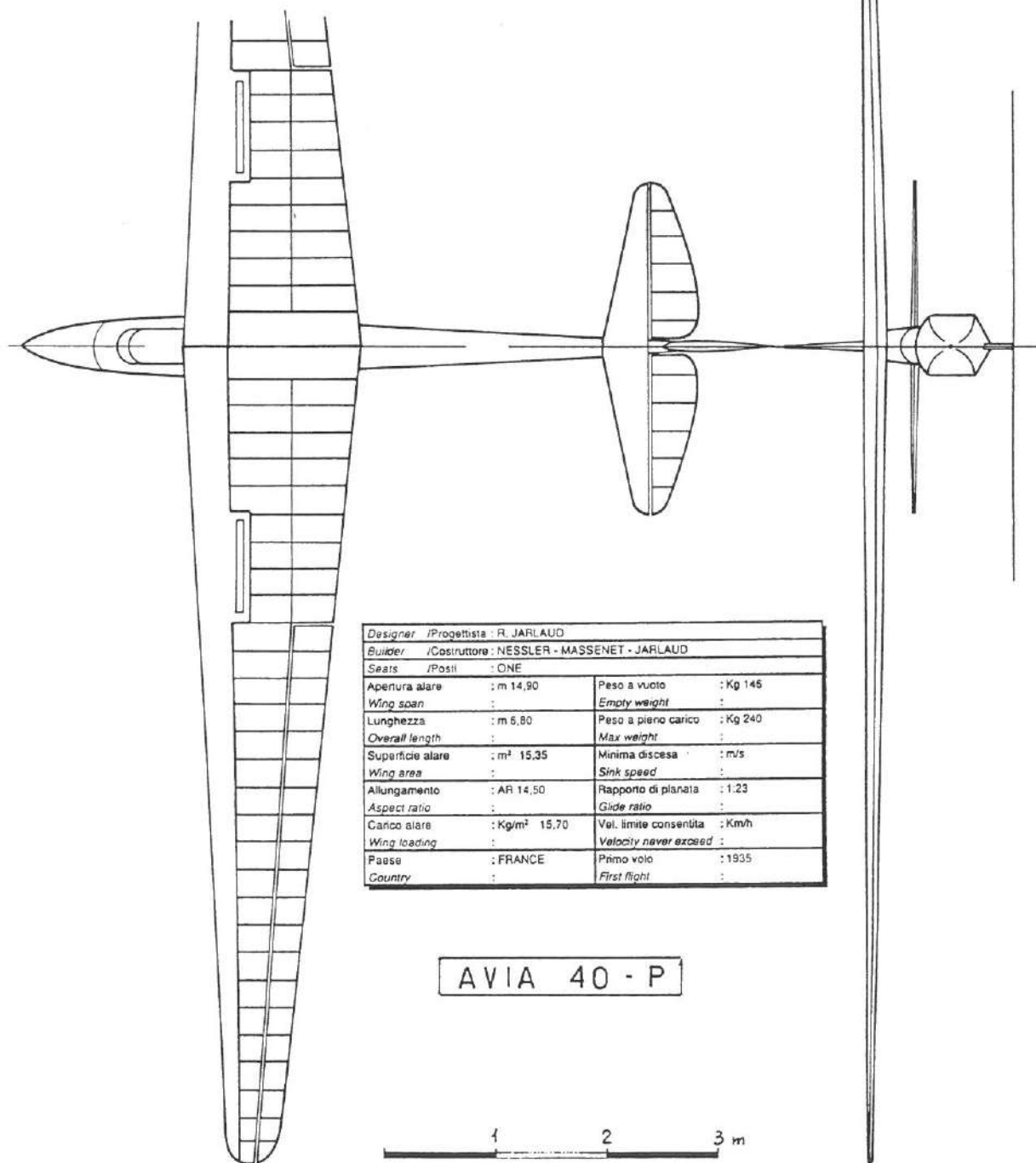
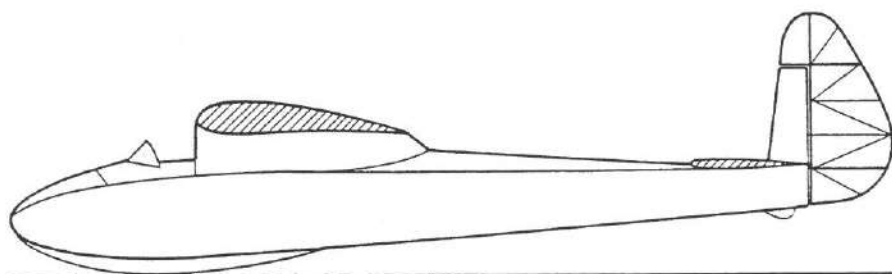




Designer /Progettista :	CHARLES FAUVEL		
Builder /Costruttore :	FAUVEL		
Seats /Posti :	ONE		
Apertura alare /Wing span :	m 12,78	Peso a vuoto /Empty weight :	Kg 122
Lunghezza /Overall length :	m 3,24	Peso a pieno carico /Max weight :	Kg 258
Superficie alare /Wing area :	m ² 14,6	Minima discesa /Sink speed :	m/s 0,75
Allungamento /Aspect ratio :	AR 11,4	Rapporto di planata /Glide ratio :	1:26
Carico alare /Wing loading :	Kg/m ² 17,67	Vel. limite consentita /Velocity never exceed :	Kmh 220
Paese /Country :	FRANCE	Primo volo /First flight :	1960

AV - 361

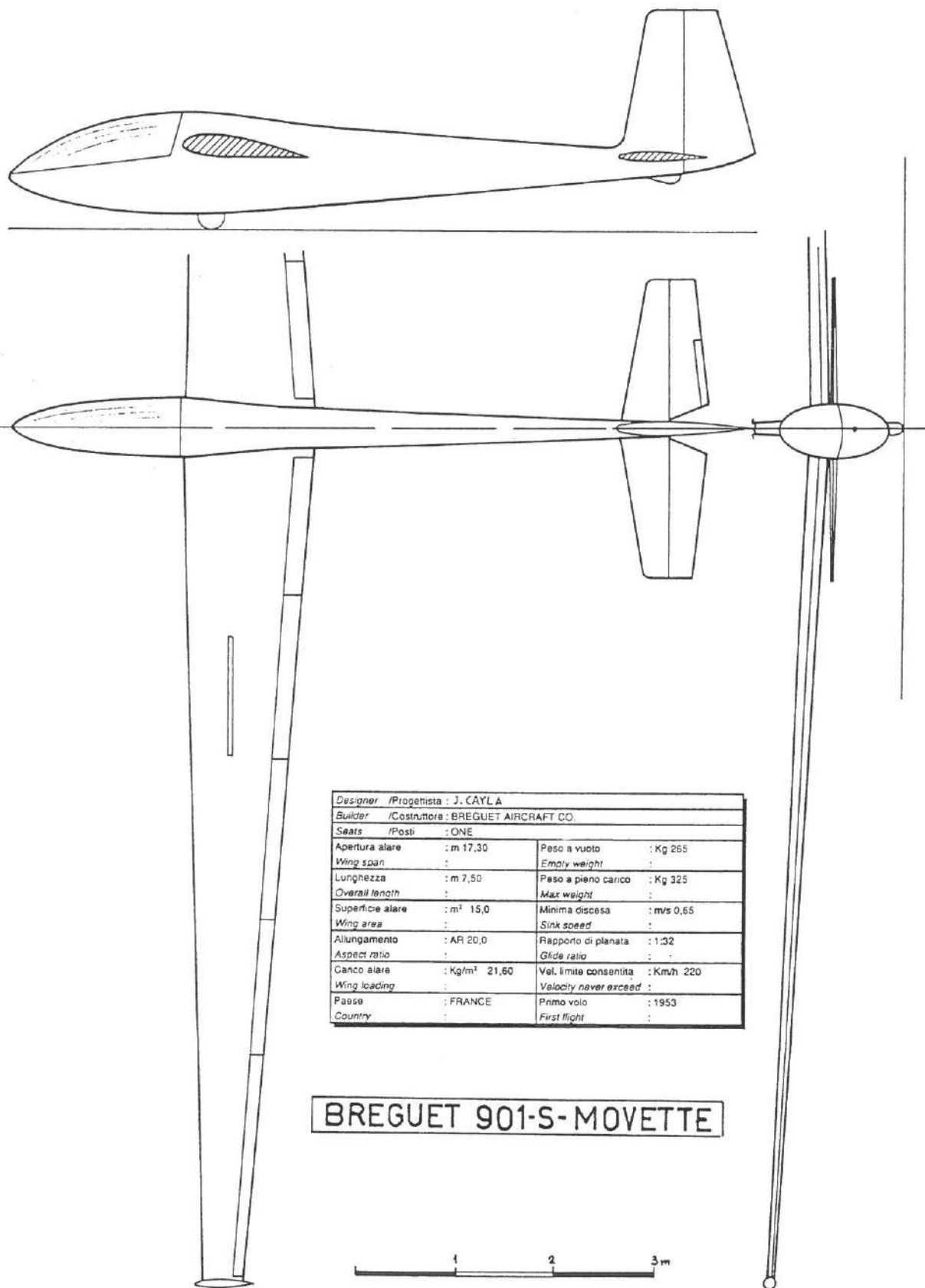




Designer / Progettista : R. JARLAUD			
Builder / Costruttore : NESSLER - MASSENET - JARLAUD			
Seats	/ Posit	: ONE	
Apertura alare	: m	14,90	Peso a vuoto : Kg 145
Wing span	:		Empty weight :
Lunghezza	: m	6,80	Peso a pieno carico : Kg 240
Overall length	:		Max weight :
Superficie alare	: m ²	15,35	Minima discesa : m/s
Wing area	:		Sink speed :
Allungamento	: AR	14,50	Rapporto di planata : 1:23
Aspect ratio	:		Glide ratio :
Carico alare	: Kg/m ²	15,70	Vel. limite consentita : Km/h
Wing loading	:		Velocity never exceed :
Paese	:	FRANCE	Primo volo : 1935
Country	:		First flight :

AVIA 40 - P

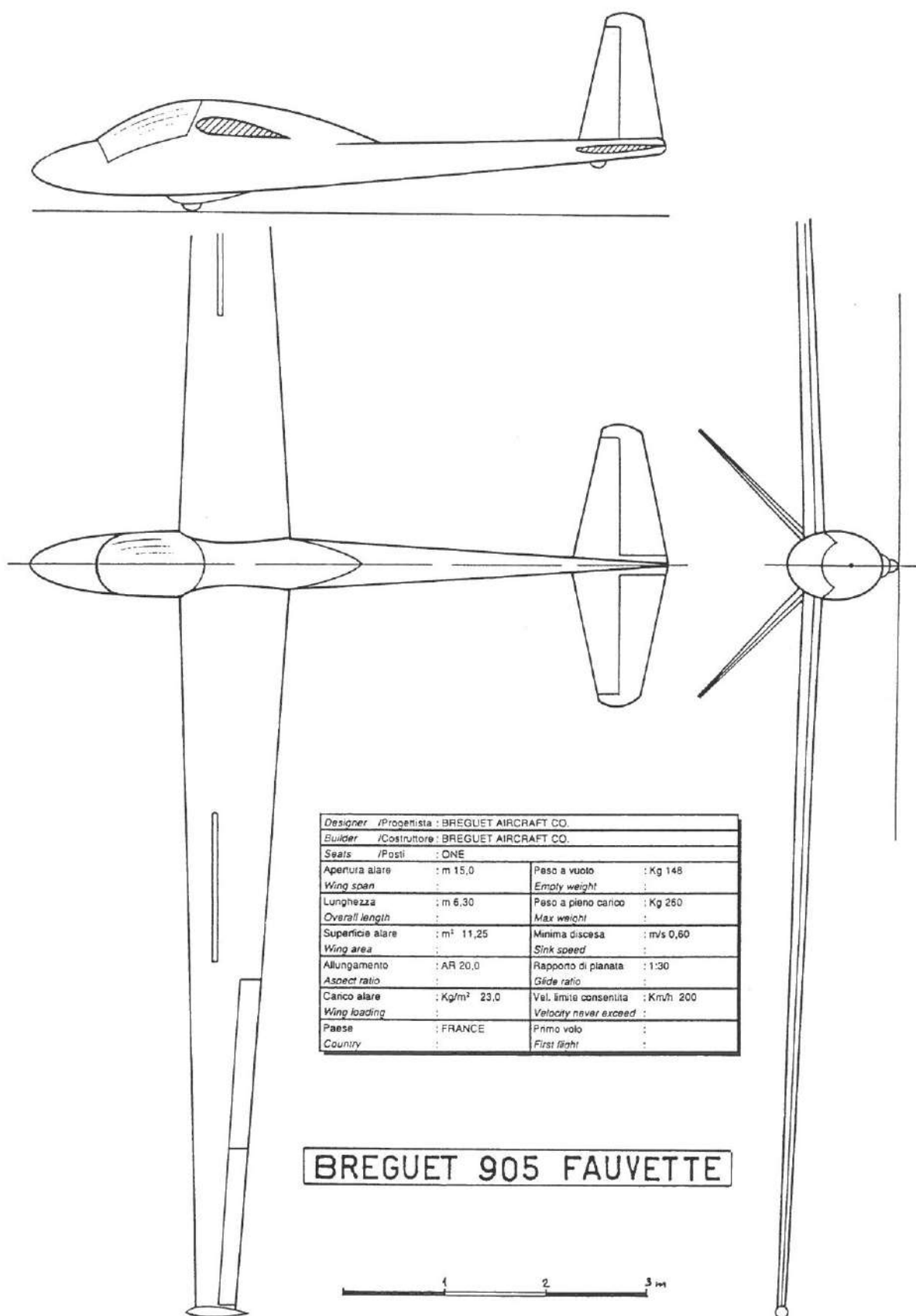
1 2 3 m



Designer /Progettista : J. CAYLA			
Builder /Costruttore : BREGUET AIRCRAFT CO.			
Seats /Posti	: ONE		
Apertura alare	: m 17,30	Peso a vuoto	: Kg 265
Wing span	:	Empty weight	:
Lunghezza	: m 7,50	Peso a pieno carico	: Kg 325
Overall length	:	Max weight	:
Superficie alare	: m ² 15,0	Minima discesa	: mvs 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 20,0	Rapporto di planata	: 1,32
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ² 21,60	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1953
Country	:	First flight	:

BREGUET 901-S-MOVETTE

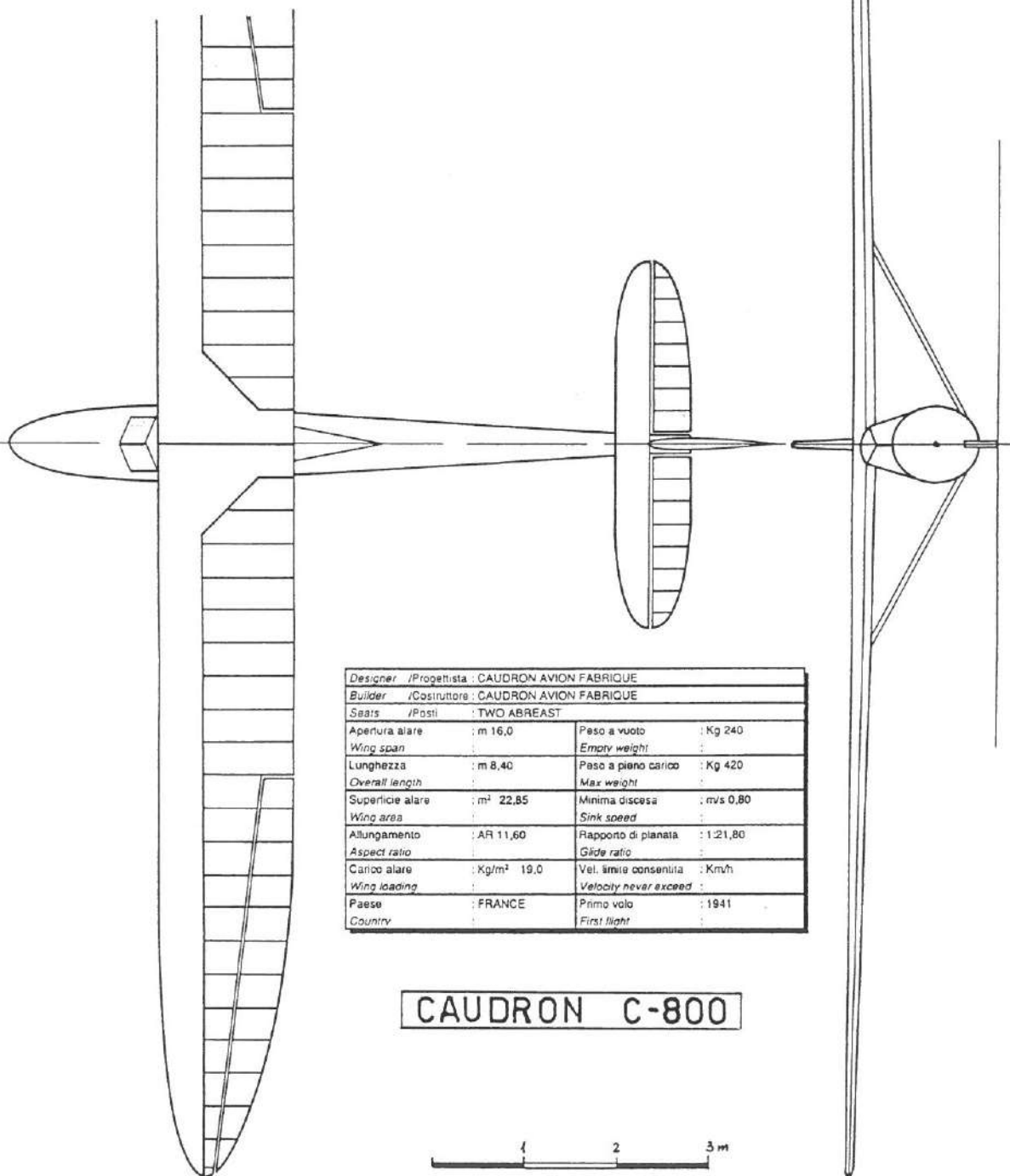
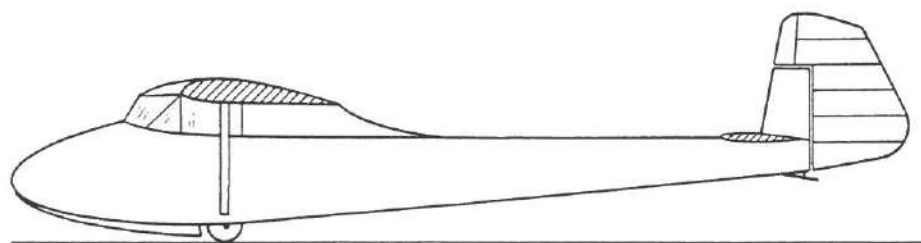




Designer /Progettista : BREGUET AIRCRAFT CO.			
Builder /Costruttore : BREGUET AIRCRAFT CO.			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 148
Wing span	:	Empty weight	:
Lunghezza	: m 6,30	Peso a pieno carico	: Kg 260
Overall length	:	Max weight	:
Superficie alare	: m ² 11,25	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 20,0	Rapporto di planata	: 1:30
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,0	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	:
Country	:	First flight	:

BREGUET 905 FAUVETTE

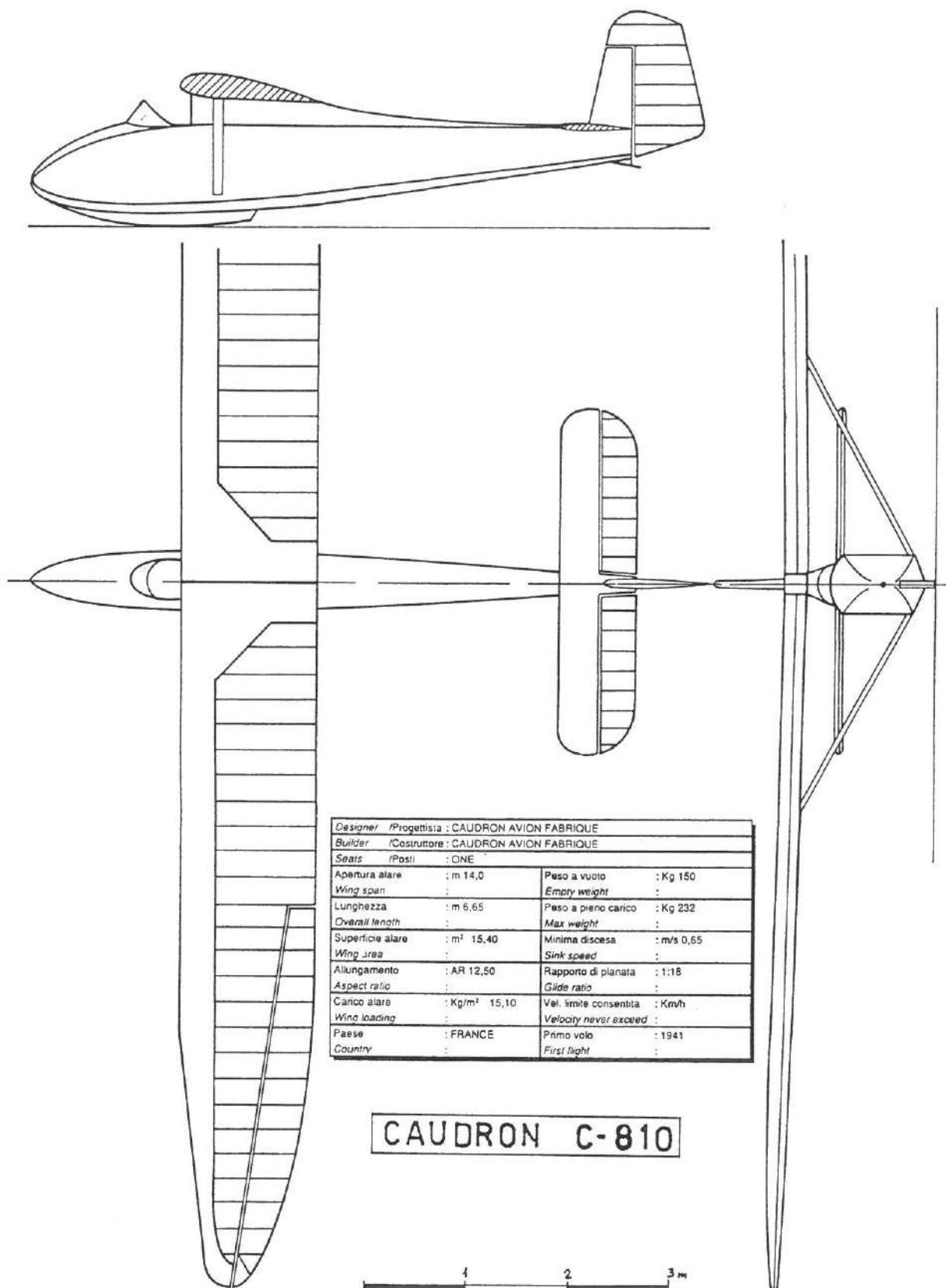
1 2 3 m

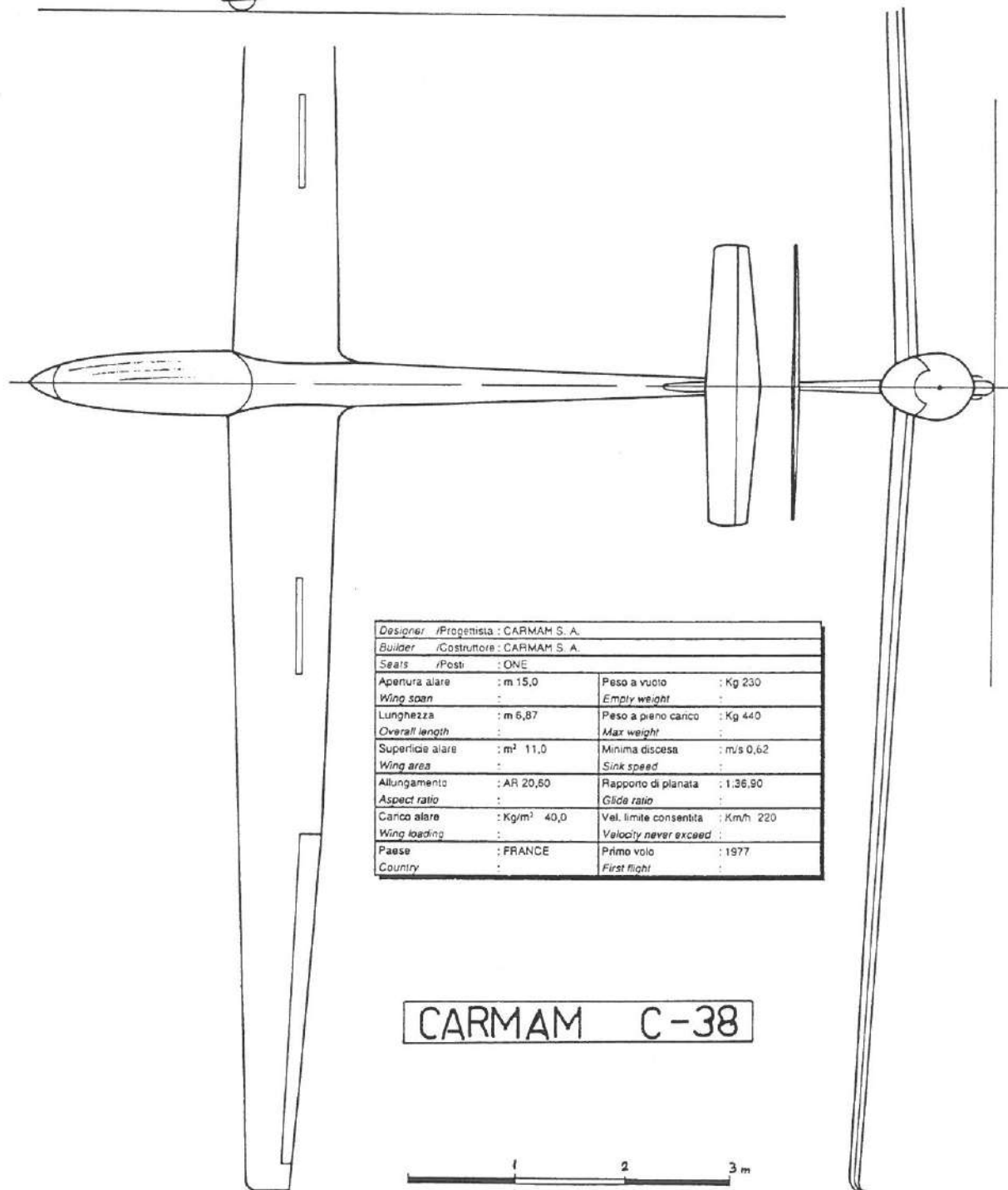
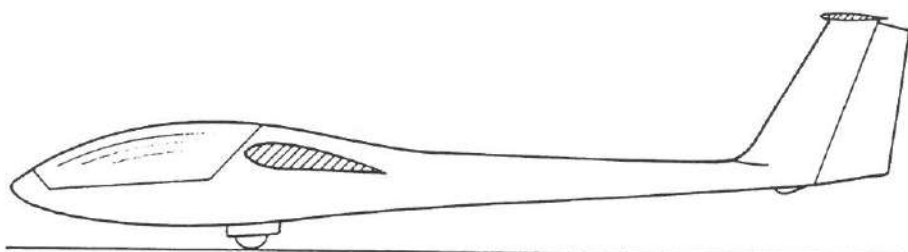


Designer / Progettista	CAUDRON AVION FABRIQUE			
Builder / Costruttore	CAUDRON AVION FABRIQUE			
Seats / Posti	TWO ABREAST			
Apertura alare	: m 16,0	Peso a vuoto	: Kg 240	
Wing span		Empty weight		
Lunghezza	: m 8,40	Peso a pieno carico	: Kg 420	
Overall length		Max weight		
Superficie alare	: m ² 22,85	Minima discesa	: m/s 0,80	
Wing area		Sink speed		
Allungamento	: AR 11,60	Rapporto di planata	: 1:21,80	
Aspect ratio		Glide ratio		
Carico alare	: Kg/m ² 19,0	Vel. limite consentita	: Km/h	
Wing loading		Velocity never exceed		
Paese	: FRANCE	Primo volo	: 1941	
Country		First flight		

CAUDRON C-800

1 2 3 m

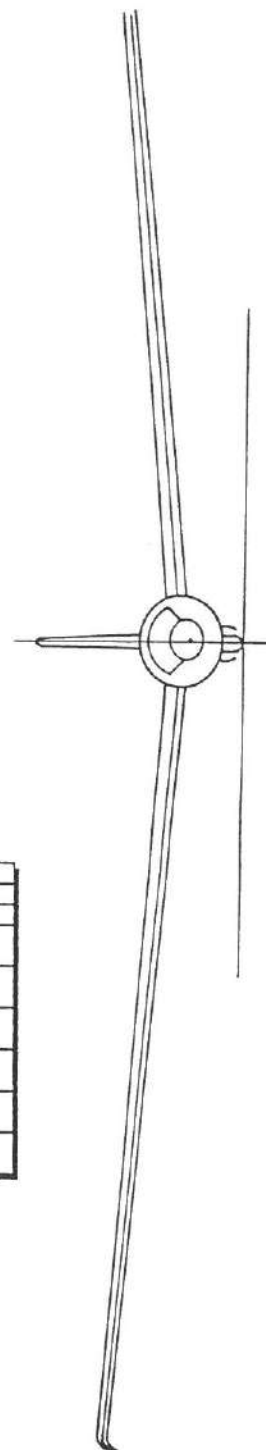
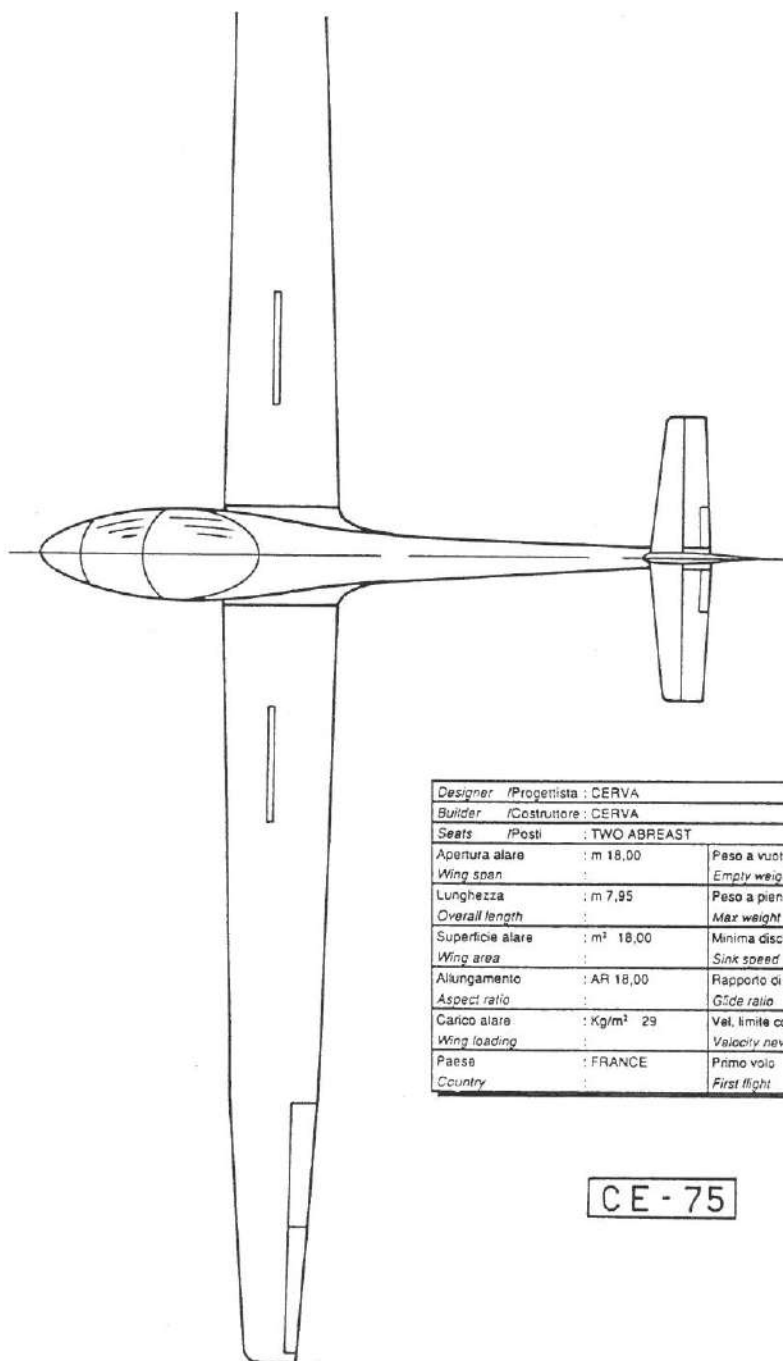
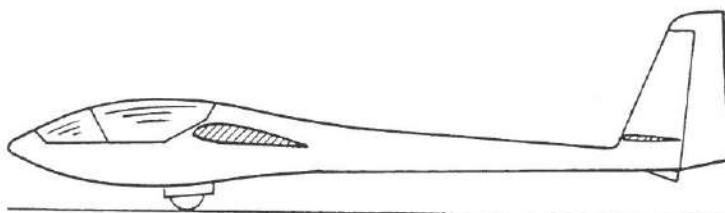




Designer / Progettista : CARMAM S. A.			
Builder / Costruttore : CARMAM S. A.			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 230
Wing span	:	Empty weight	:
Lunghezza	: m 6,87	Peso a pieno carico	: Kg 440
Overall length	:	Max weight	:
Superficie alare	: m ² 11,0	Minima discesa	: m/s 0,62
Wing area	:	Sink speed	:
Allungamento	: AR 20,50	Rapporto di planata	: 1.36,90
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 40,0	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1977
Country	:	First flight	:

CARMAM C-38

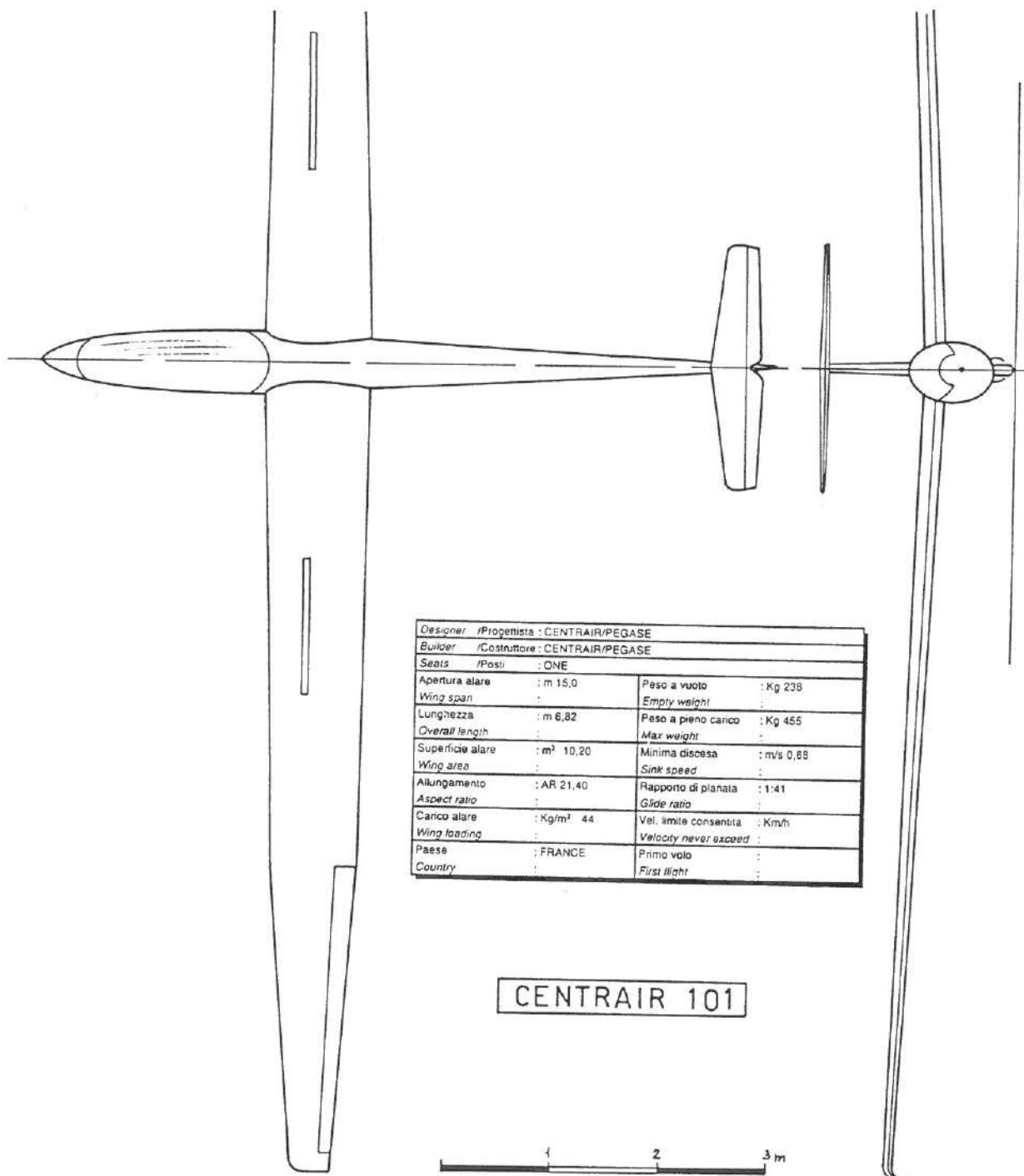
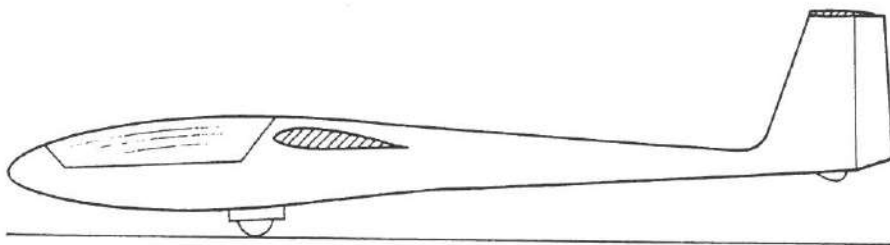




Designer / Progettista :	CERVA		
Builder / Costruttore :	CERVA		
Seats / Posti :	TWO ABREAST		
Apertura alare :	m 18,00	Peso a vuoto :	Kg 322
Wing span :		Empty weight :	
Lunghezza :	m 7,95	Peso a pieno carico :	Kg 522
Overall length :		Max weight :	
Superficie alare :	m ² 18,00	Minima discesa :	mvs 0,67
Wing area :		Sink speed :	
Allungamento :	AR 18,00	Rapporto di planata :	1:38
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 29	Vel. limite consentita :	Km/h 150
Wing loading :		Velocity never exceed :	
Paese :	FRANCE	Primo volo :	
Country :		First flight :	

CE - 75

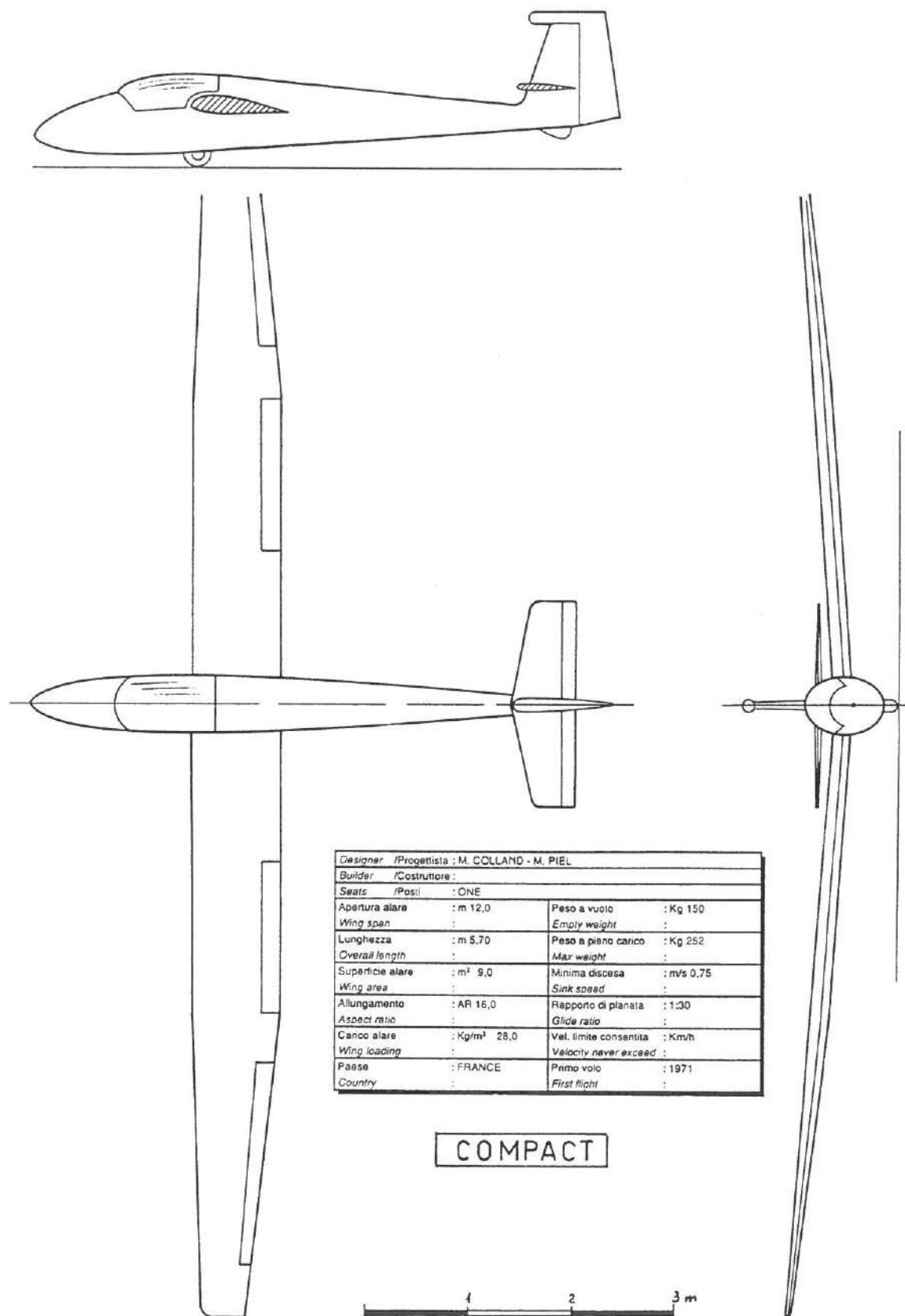


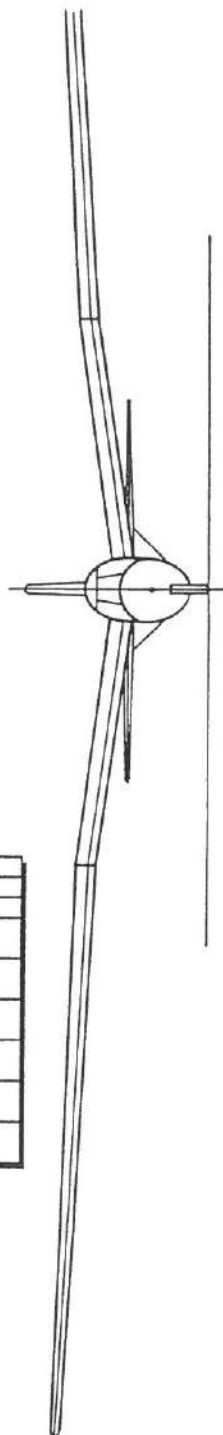
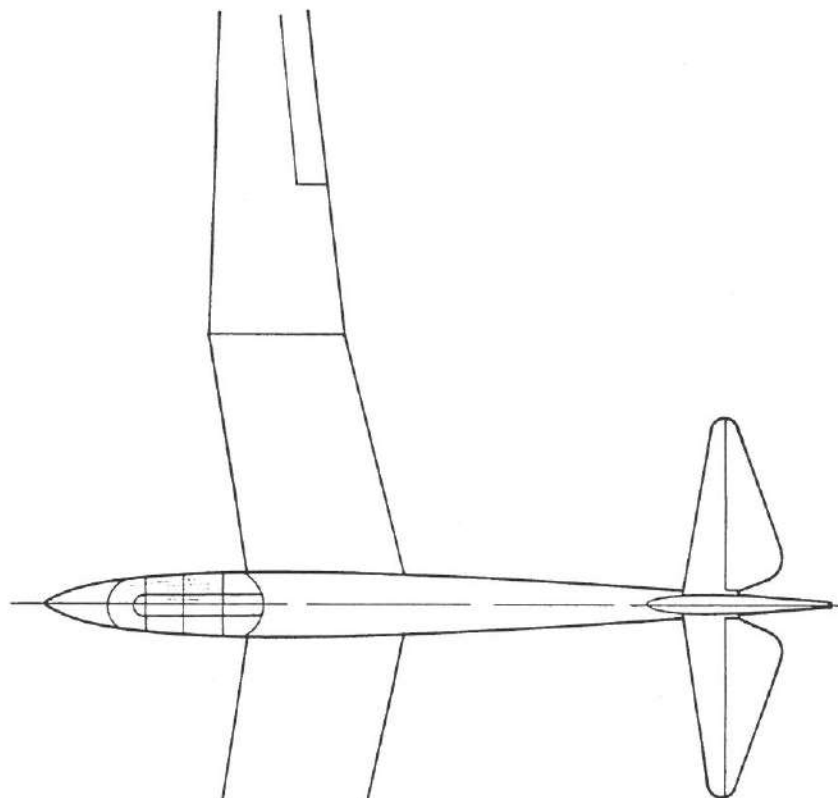
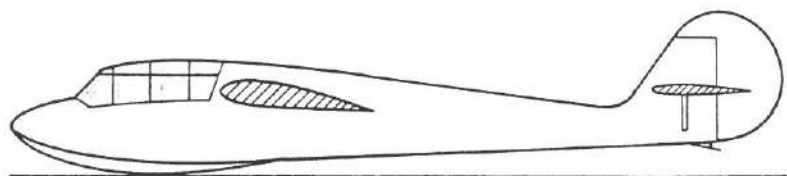


Designer /Progettista : CENTRAIR/PEGASE			
Builder /Costruttore : CENTRAIR/PEGASE			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 238
Wing span	:	Empty weight	:
Lunghezza	: m 6,82	Peso a pieno carico	: Kg 455
Overall length	:	Max weight	:
Superficie alare	: m ² 10,20	Minima discesa	: m/s 0,88
Wing area	:	Sink speed	:
Allungamento	: AR 21,40	Rapporto di planata	: 1:41
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 44	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	:
Country	:	First flight	:

CENTRAIR 101



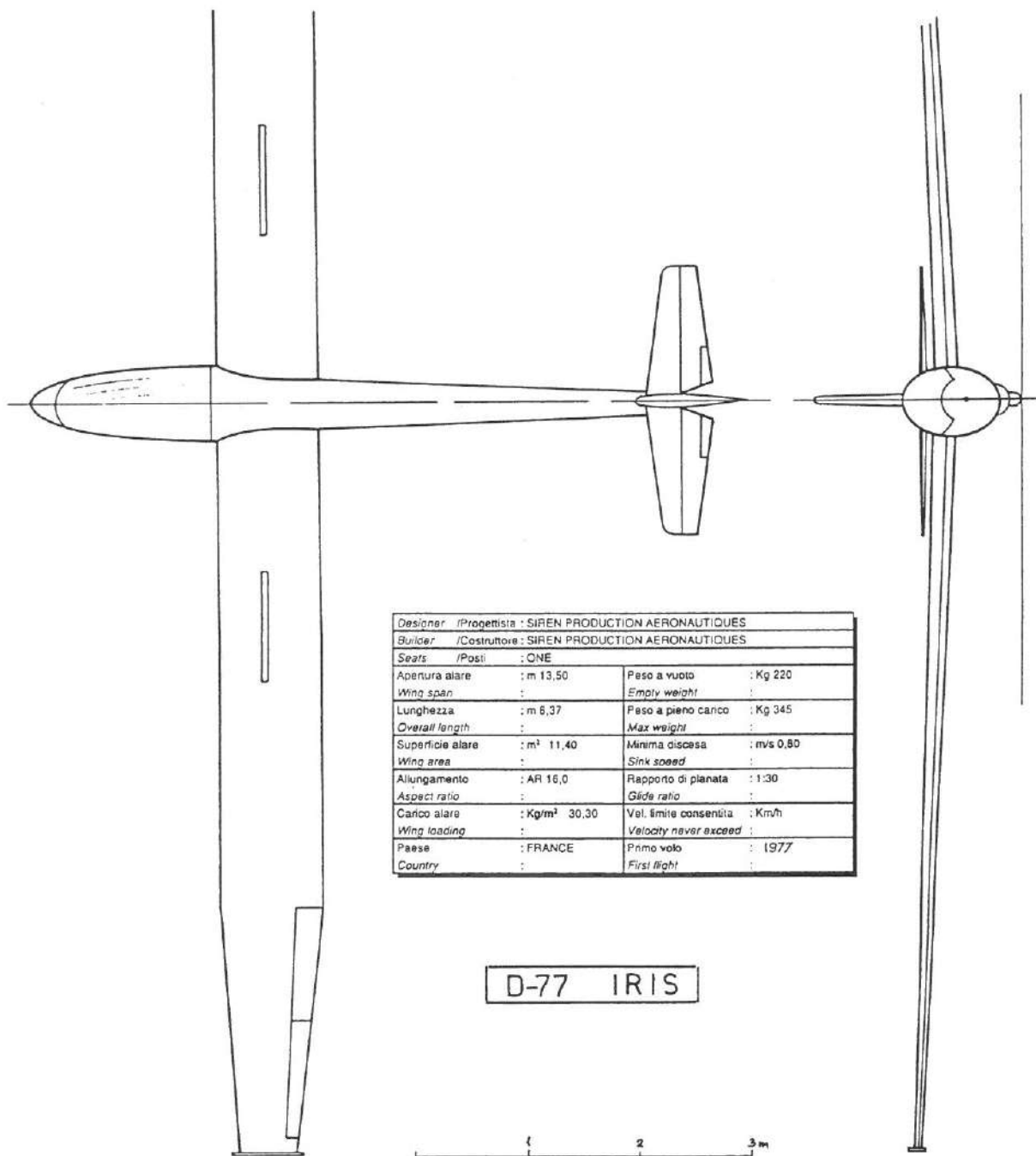
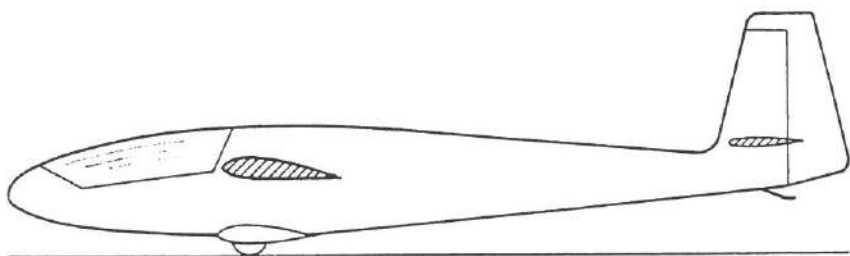




Designer /Progettista	: DELANNE		
Builder /Costruttore	: DELANNE		
Seats /Posti	: TWO TANDEM		
Apertura alare	: m 18,90	Peso a vuoto	: Kg 240
Wing span	:	Empty weight	:
Lunghezza	: m 8,70	Peso a pieno carico	: Kg 420
Overall length	:	Max weight	:
Superficie alare	: m ² 22,16	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 15,0	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 19,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1938
Country	:	First flight	:

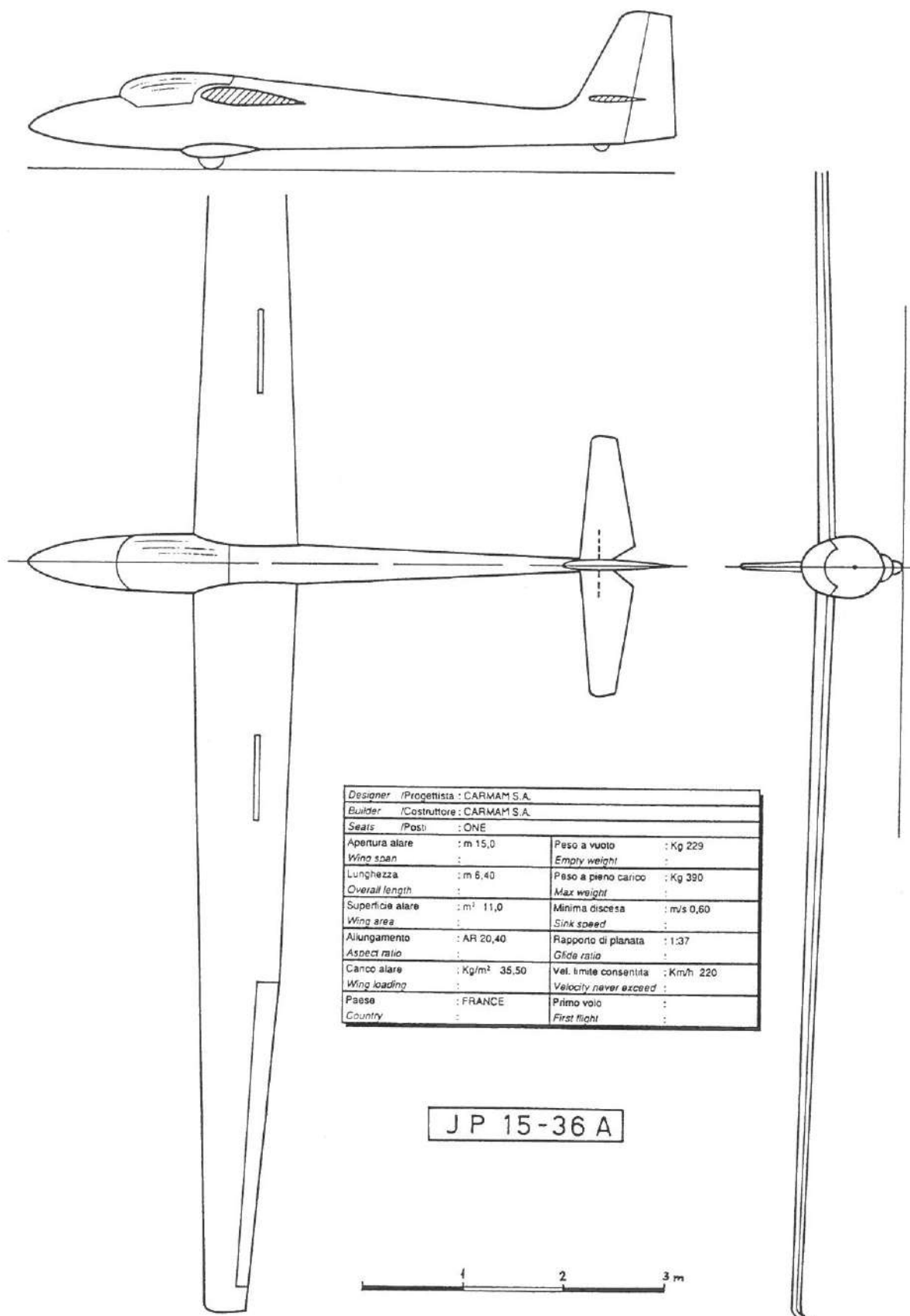
DELANNE 30-P2

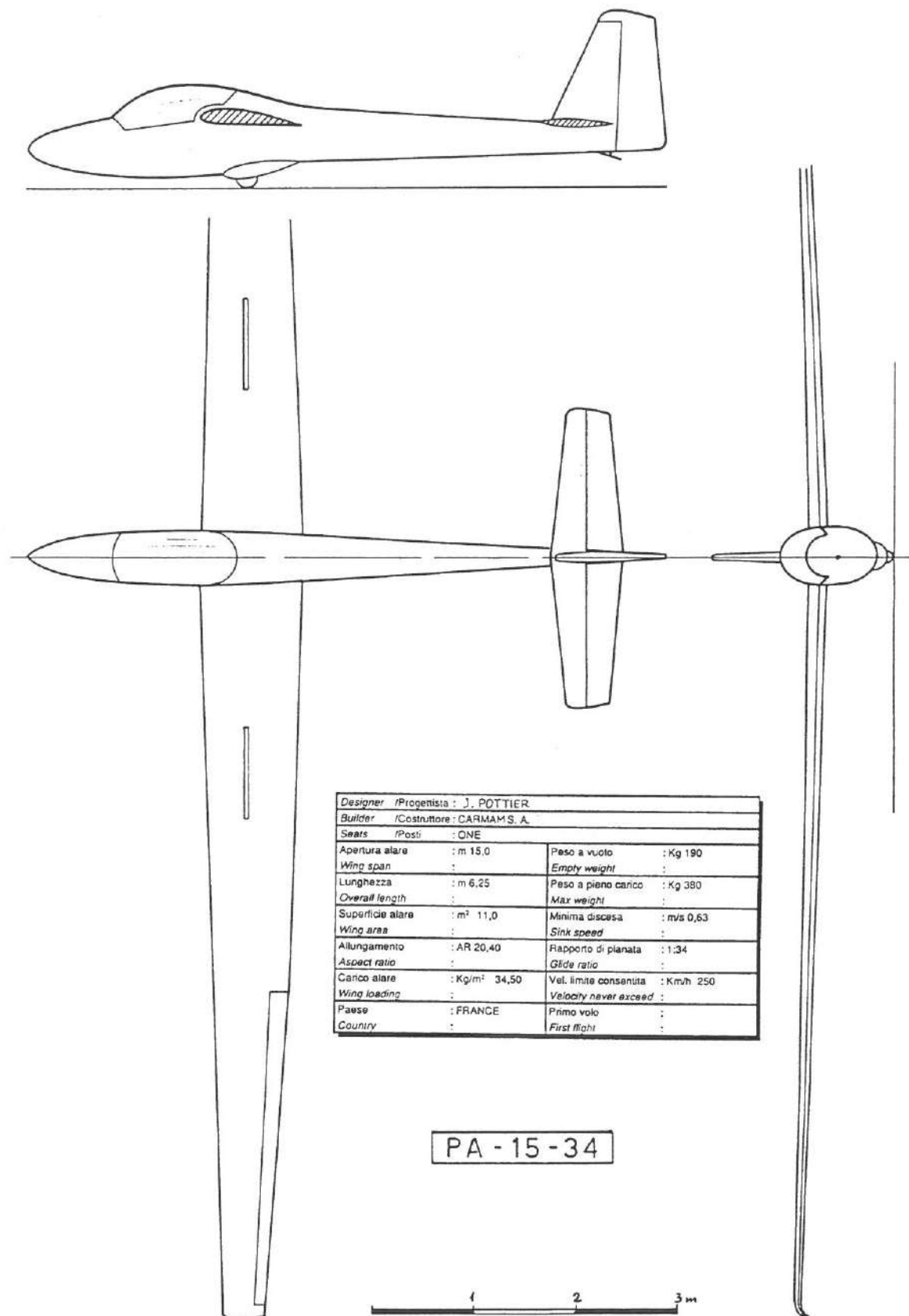




Designer /Progettista : SIREN PRODUCTION AERONAUTIQUES			
Builder /Costruttore : SIREN PRODUCTION AERONAUTIQUES			
Seats /Posti : ONE			
Apertura alare	: m 13,50	Peso a vuoto	: Kg 220
Wing span	:	Empty weight	:
Lunghezza	: m 6,37	Peso a pieno carico	: Kg 345
Overall length	:	Max weight	:
Superficie alare	: m ² 11,40	Minima discesa	: mvs 0,80
Wing area	:	Sink speed	:
Allungamento	: AR 16,0	Rapporto di planata	: 1:30
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 30,30	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1977
Country	:	First flight	:

D-77 IRIS

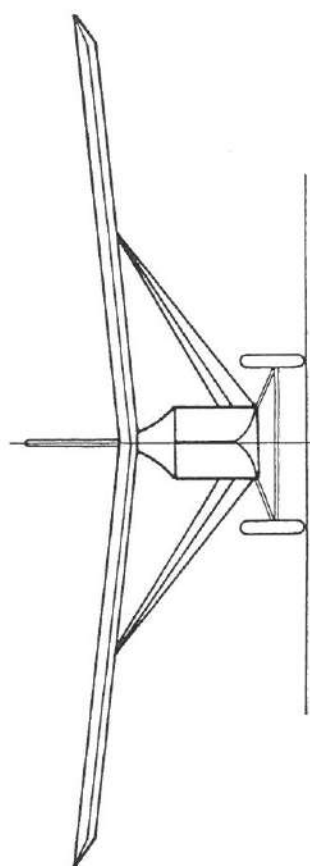
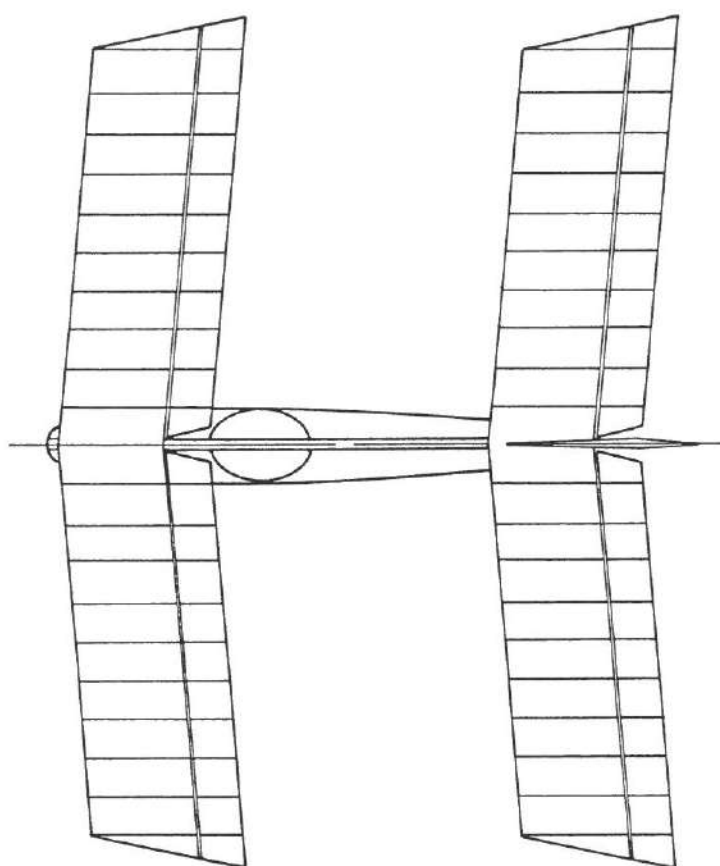
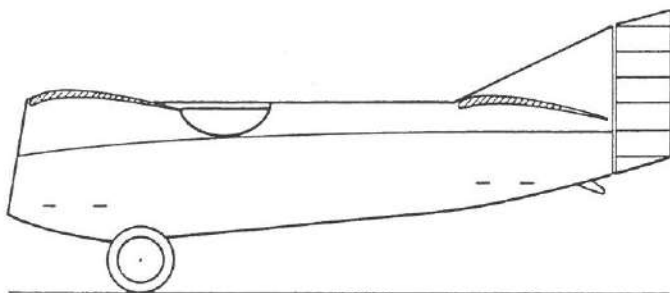




Designer / Progettista : J. POTTIER			
Builder / Costruttore : CARMAM S. A.			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 190
Wing span	:	Empty weight	:
Lunghezza	: m 6,25	Peso a pieno carico	: Kg 380
Overall length	:	Max weight	:
Superficie alare	: m ² 11,0	Minima discesa	: m/s 0,63
Wing area	:	Sink speed	:
Allungamento	: AR 20,40	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 34,50	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	:
Country	:	First flight	:

PA - 15 - 34

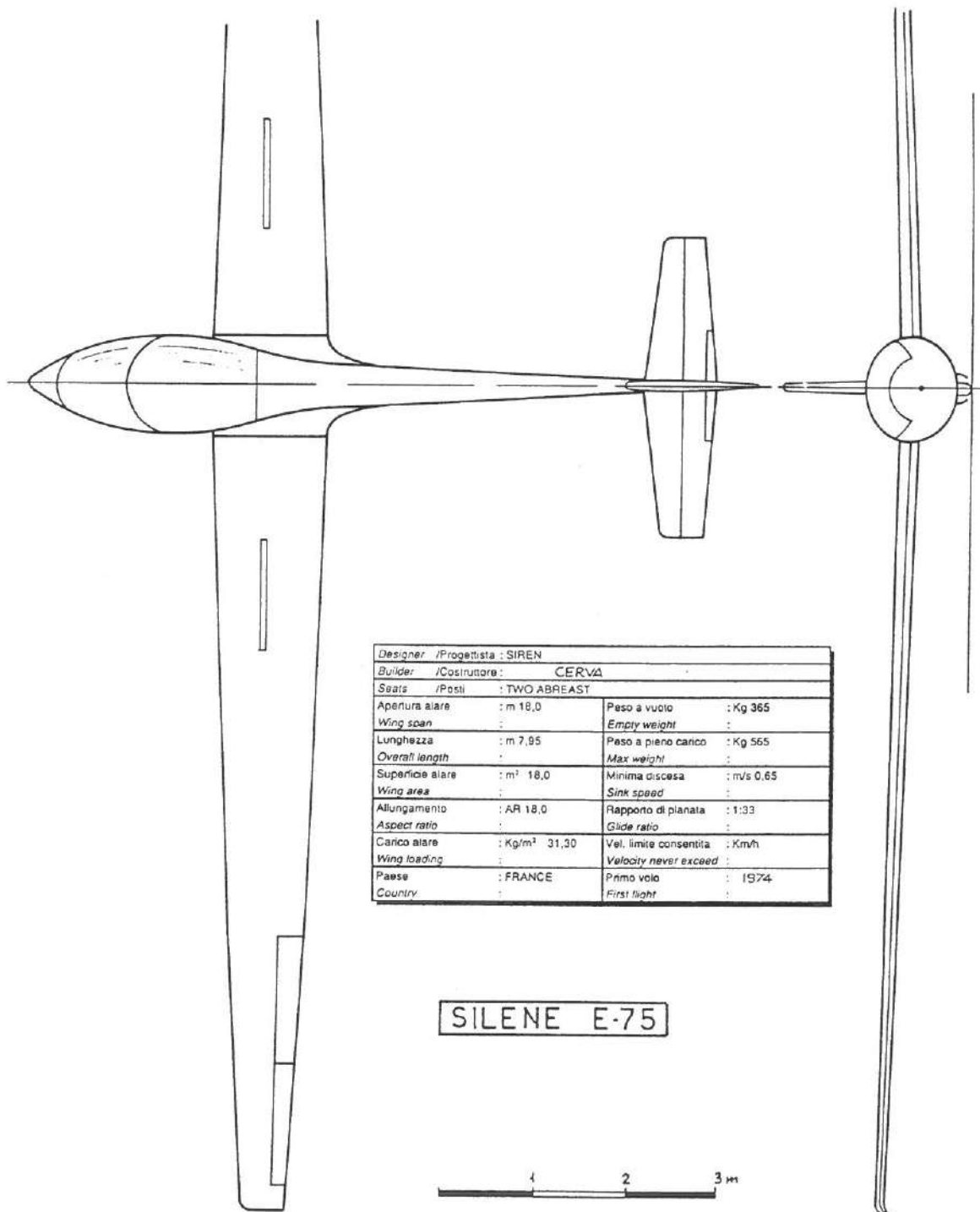
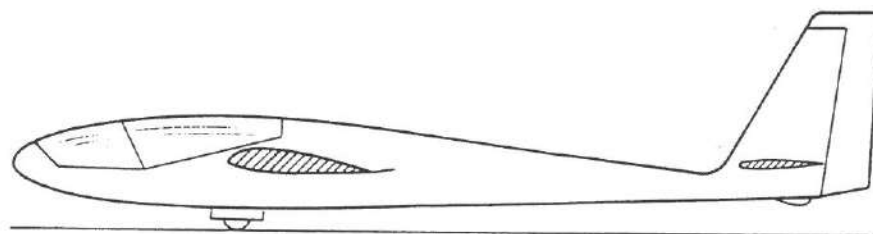
1 2 3 m



Designer /Progettista : L. PEYRET			
Builder /Costruttore : L. PEYRET			
Seats /Posti : ONE			
Apertura alare	: m 6,80	Peso a vuoto	: Kg 60
Wing span	:	Empty weight	:
Lunghezza	: m 5,0	Peso a pieno carico	: Kg 135
Overall length	:	Max weight	:
Superficie alare	: m ² 14,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 6,22	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 9,65	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1922
Country	:	First flight	:

PEYRET TANDEM

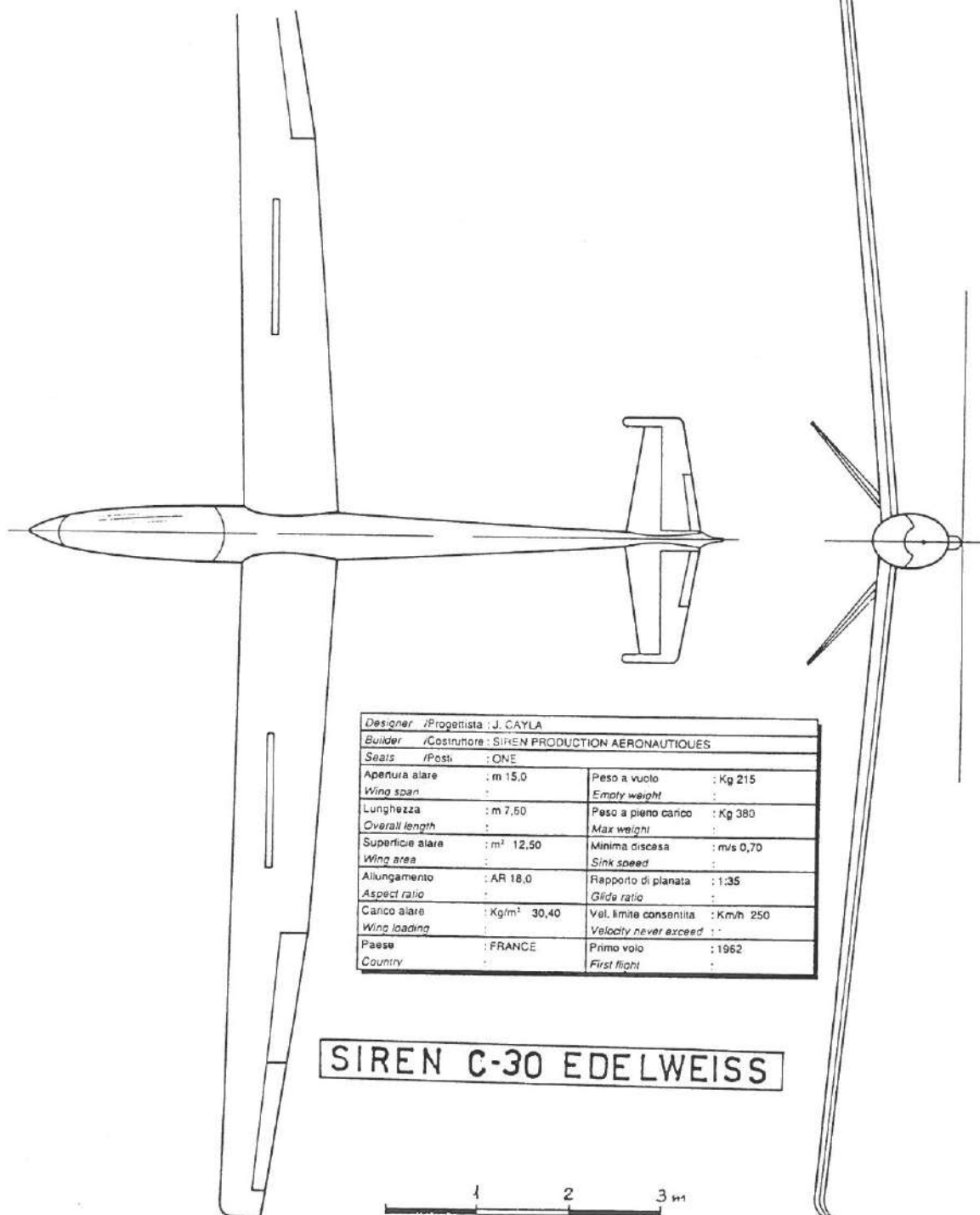
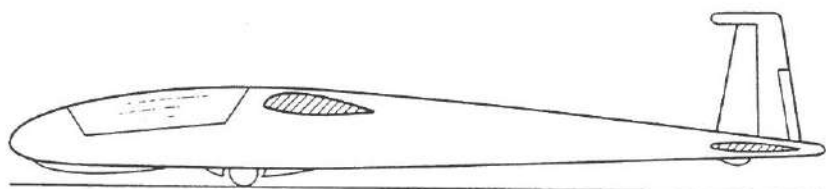




Designer /Progettista : SIREN			
Builder /Costruttore : CERVA			
Seats /Posti : TWO ABREAST			
Apertura alare	: m 18,0	Peso a vuoto	: Kg 365
Wing span	:	Empty weight	:
Lunghezza	: m 7,95	Peso a pieno carico	: Kg 565
Overall length	:	Max weight	:
Superficie alare	: m ² 18,0	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 18,0	Rapporto di planata	: 1:33
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 31,30	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1974
Country	:	First flight	:

SILENE E-75

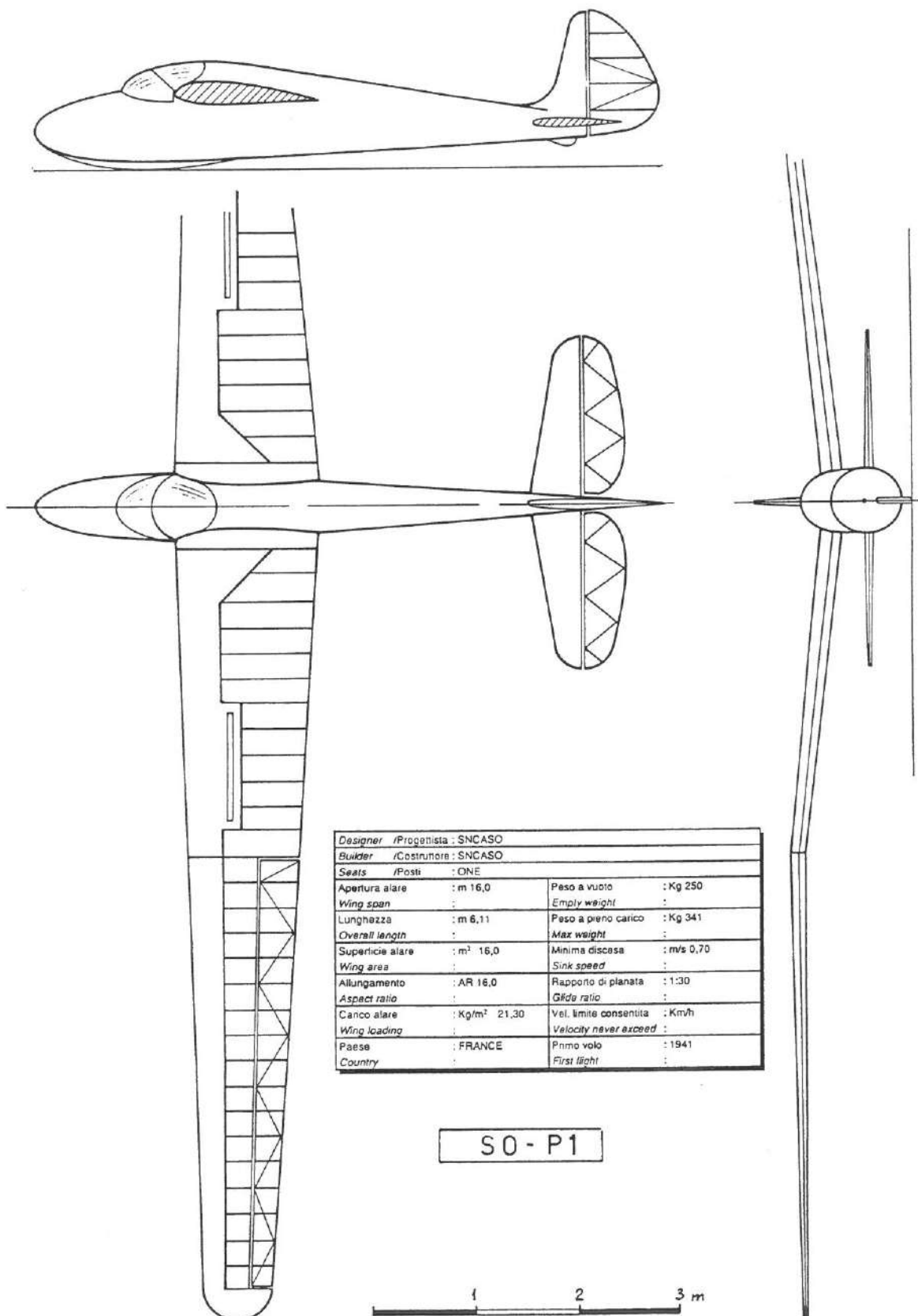




Designer / Progettista	: J. CAYLA		
Builder / Costruttore	: SIREN PRODUCTION AERONAUTIQUES		
Seats / Posti	: ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 215
Wing span	:	Empty weight	:
Lunghezza	: m 7,50	Peso a pieno carico	: Kg 380
Overall length	:	Max weight	:
Superficie alare	: m ² 12,50	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 18,0	Rapporto di planata	: 1:35
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 30,40	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1962
Country	:	First flight	:

SIREN C-30 EDELWEISS

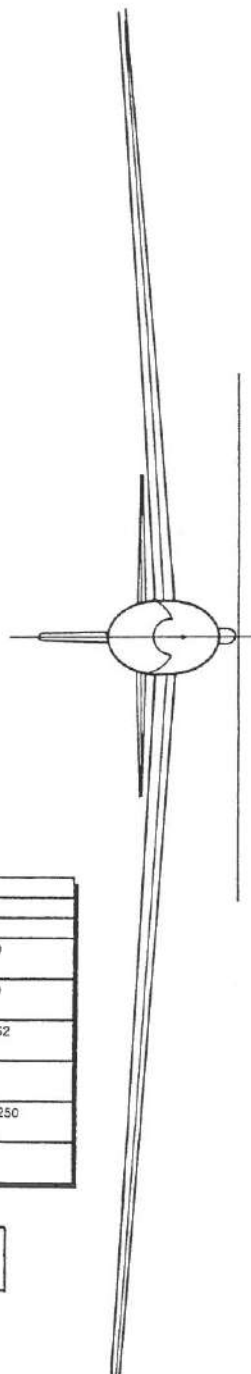
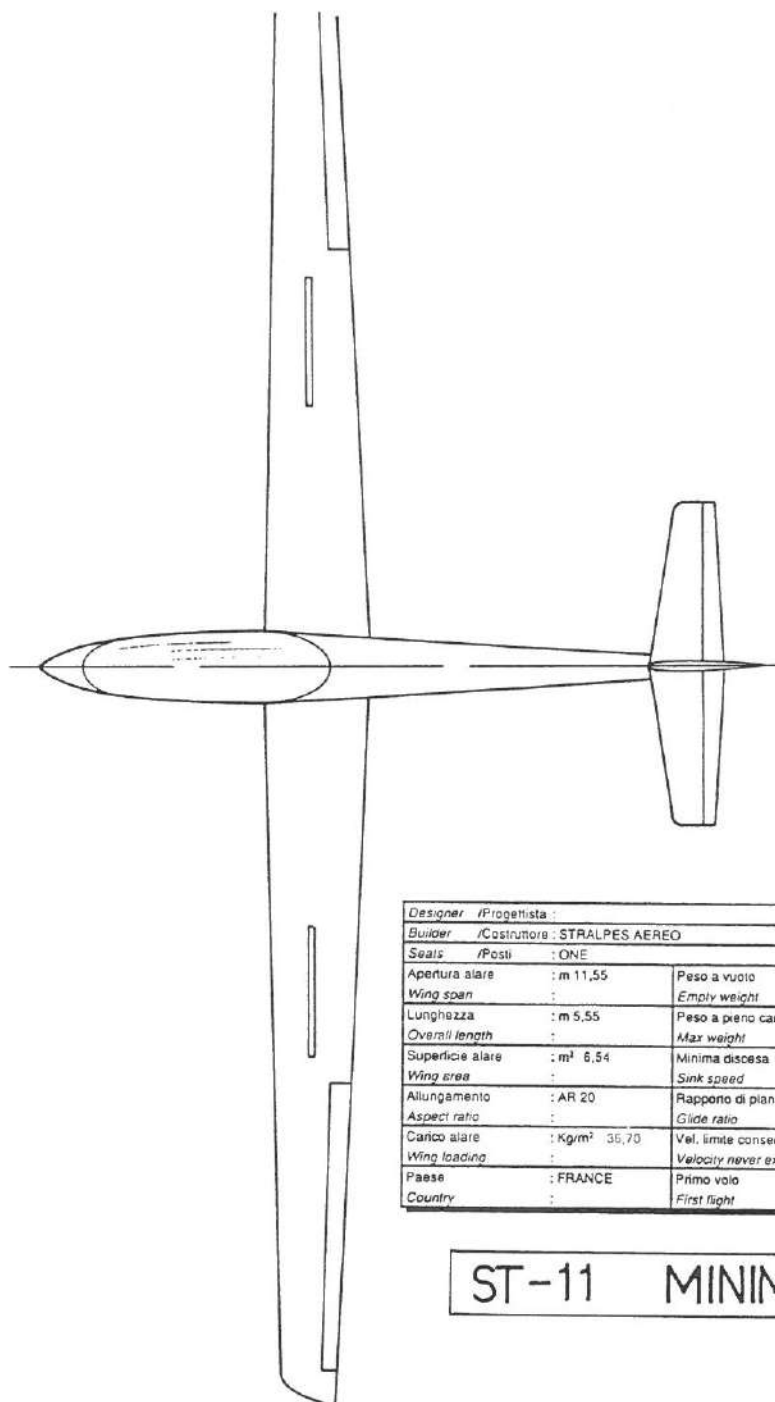
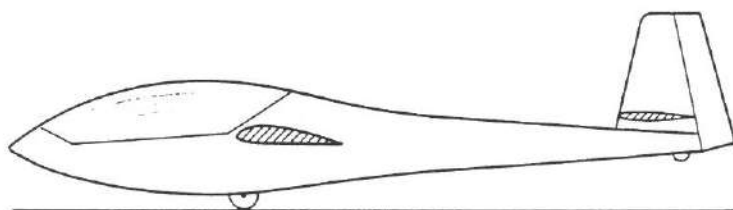




Designer /Progettista :	SNCASO		
Builder /Costruttore :	SNCASO		
Seats /Posti :	ONE		
Apertura alare	: m 16,0	Peso a vuoto	: Kg 250
Wing span	:	Empty weight	:
Lunghezza	: m 6,11	Peso a pieno carico	: Kg 341
Overall length	:	Max weight	:
Superficie alare	: m ² 16,0	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 16,0	Rapporto di planata	: 1:30
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ² 21,30	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1941
Country	:	First flight	:

S0 - P1

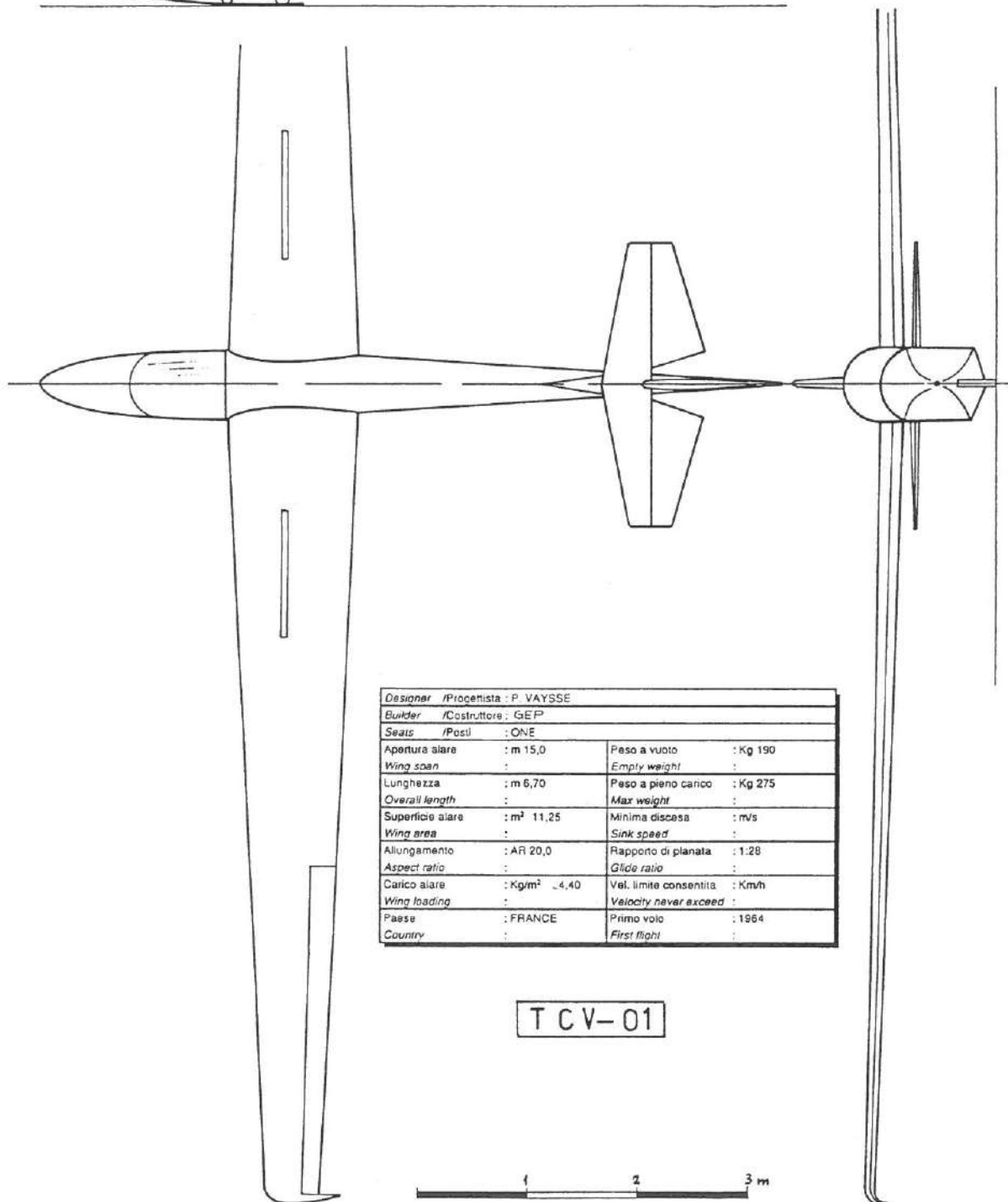
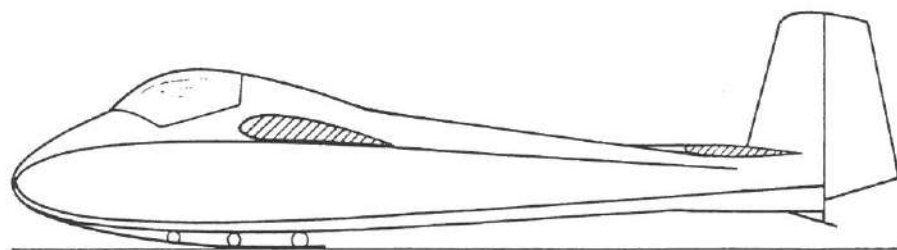
1 2 3 m



Designer /Progettista :			
Builder /Costruttore : STRALPES AEREO			
Seats /Posti : ONE			
Apertura alare	: m 11,55	Peso a vuoto	: Kg 110
Wing span	:	Empty weight	:
Lunghezza	: m 5,55	Peso a pieno carico	: Kg 240
Overall length	:	Max weight	:
Superficie alare	: m ² 6,54	Minima discesa	: m/s 0,62
Wing area	:	Sink speed	:
Allungamento	: AR 20	Rapporto di planata	: 1,35
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 35,70	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1982
Country	:	First flight	:

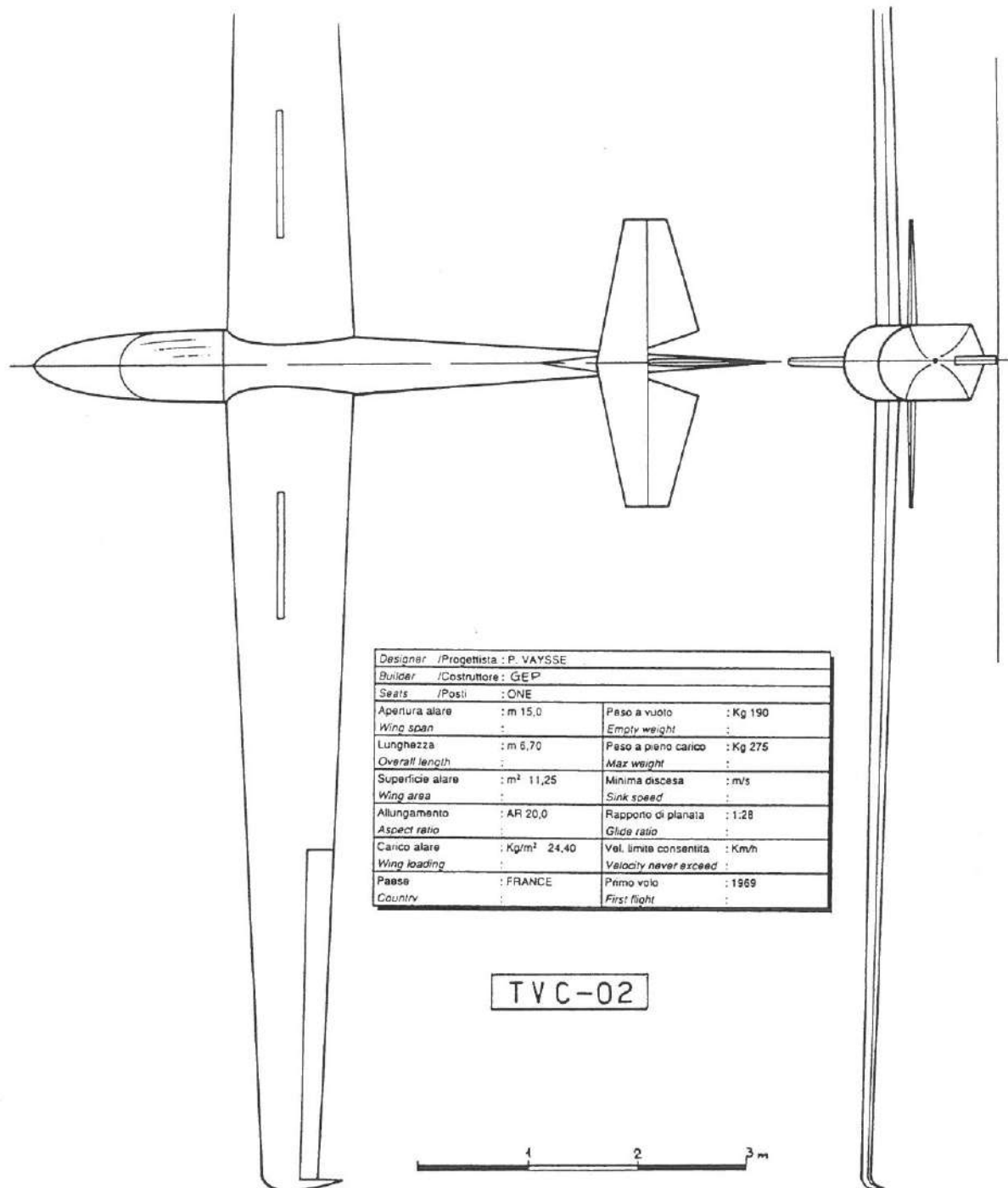
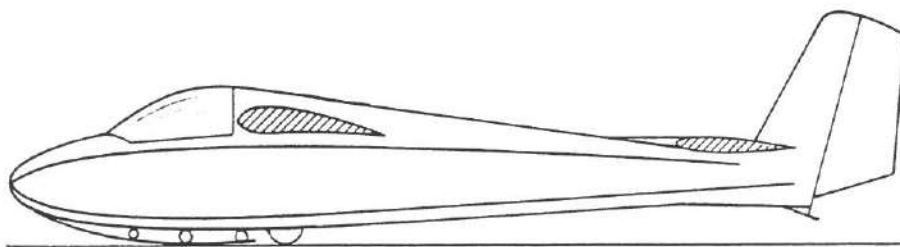
ST-11 MINIMUS





<i>Designer / Progettista</i> : P. VAYSSE			
<i>Builder / Costruttore</i> : GEP			
<i>Seats / Posti</i> : ONE			
<i>Apertura alare</i>	: m 15,0	<i>Peso a vuoto</i>	: Kg 190
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 6,70	<i>Peso a pieno carico</i>	: Kg 275
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 11,25	<i>Minima discesa</i>	: m/s
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 20,0	<i>Rapporto di planata</i>	: 1:28
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² ~4,40	<i>Vel. limite consentita</i>	: Km/h
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: FRANCE	<i>Primo volo</i>	: 1964
<i>Country</i>	:	<i>First flight</i>	:

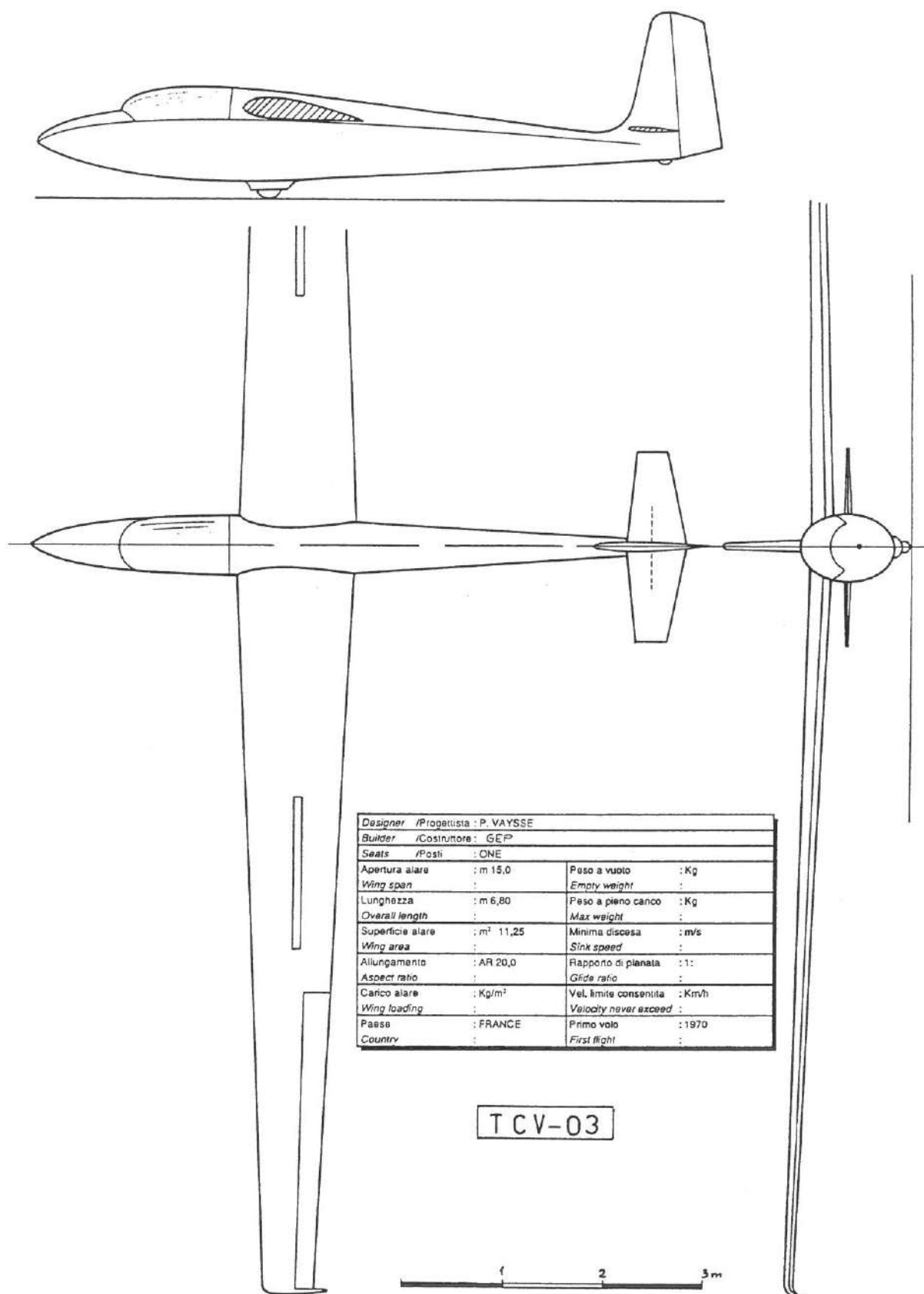
TCV-01



Designer / Progettista : P. VAYSSE			
Builder / Costruttore : GEP			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 190
Wing span	:	Empty weight	:
Lunghezza	: m 6,70	Peso a pieno carico	: Kg 275
Overall length	:	Max weight	:
Superficie alare	: m ² 11,25	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 20,0	Rapporto di planata	: 1:28
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 24,40	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1969
Country	:	First flight	:

TVC-02

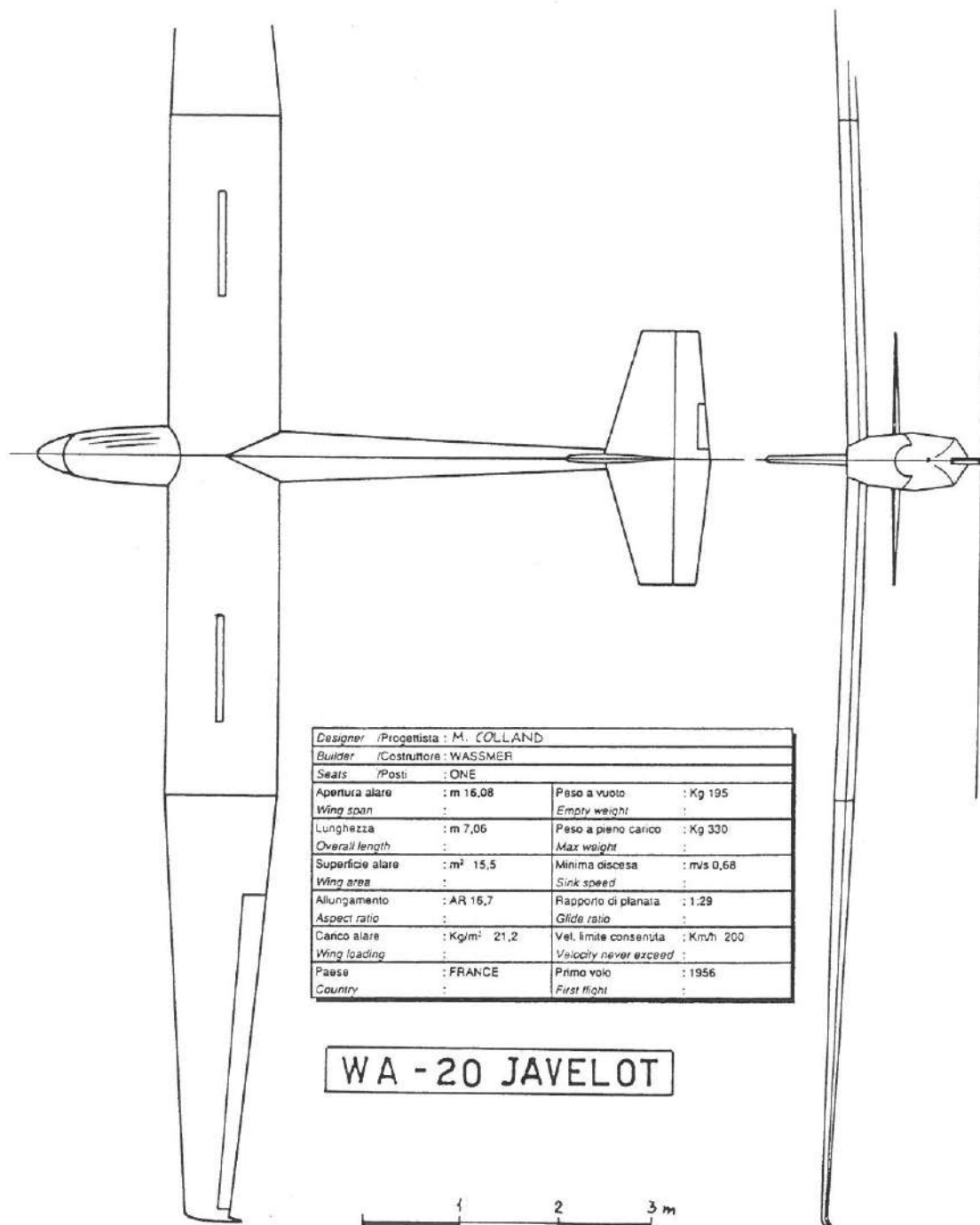
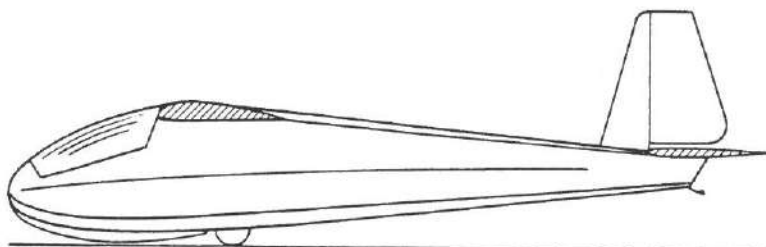




Designer /Progettista : P. VAYSSE			
Builder /Costruttore : GEP			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 11,25	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 20,0	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1970
Country	:	First flight	:

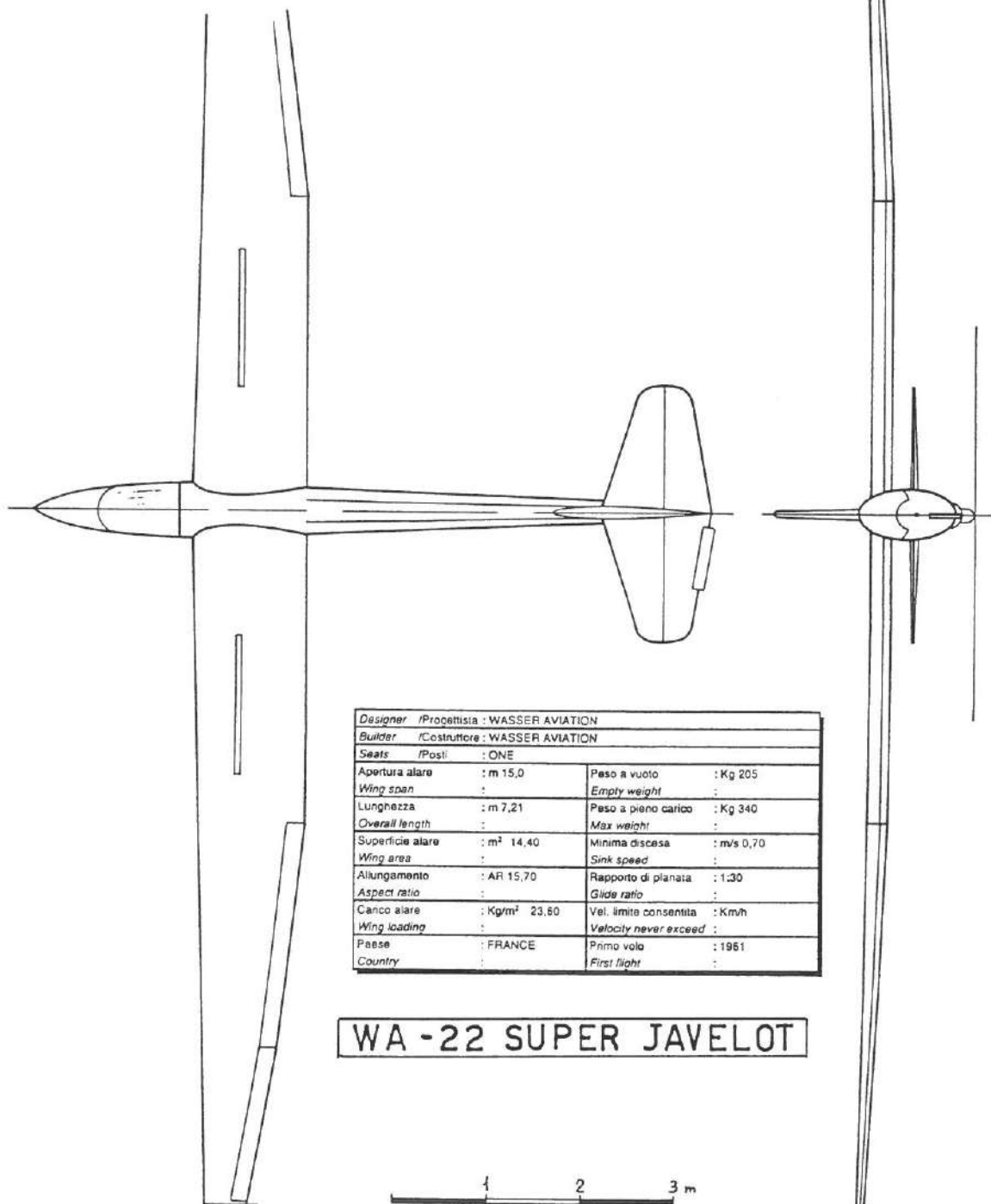
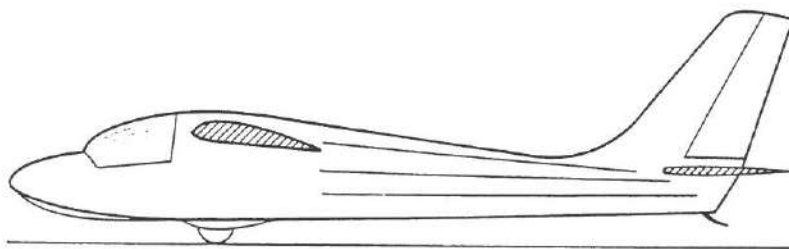
TCV-03

1 2 3 m



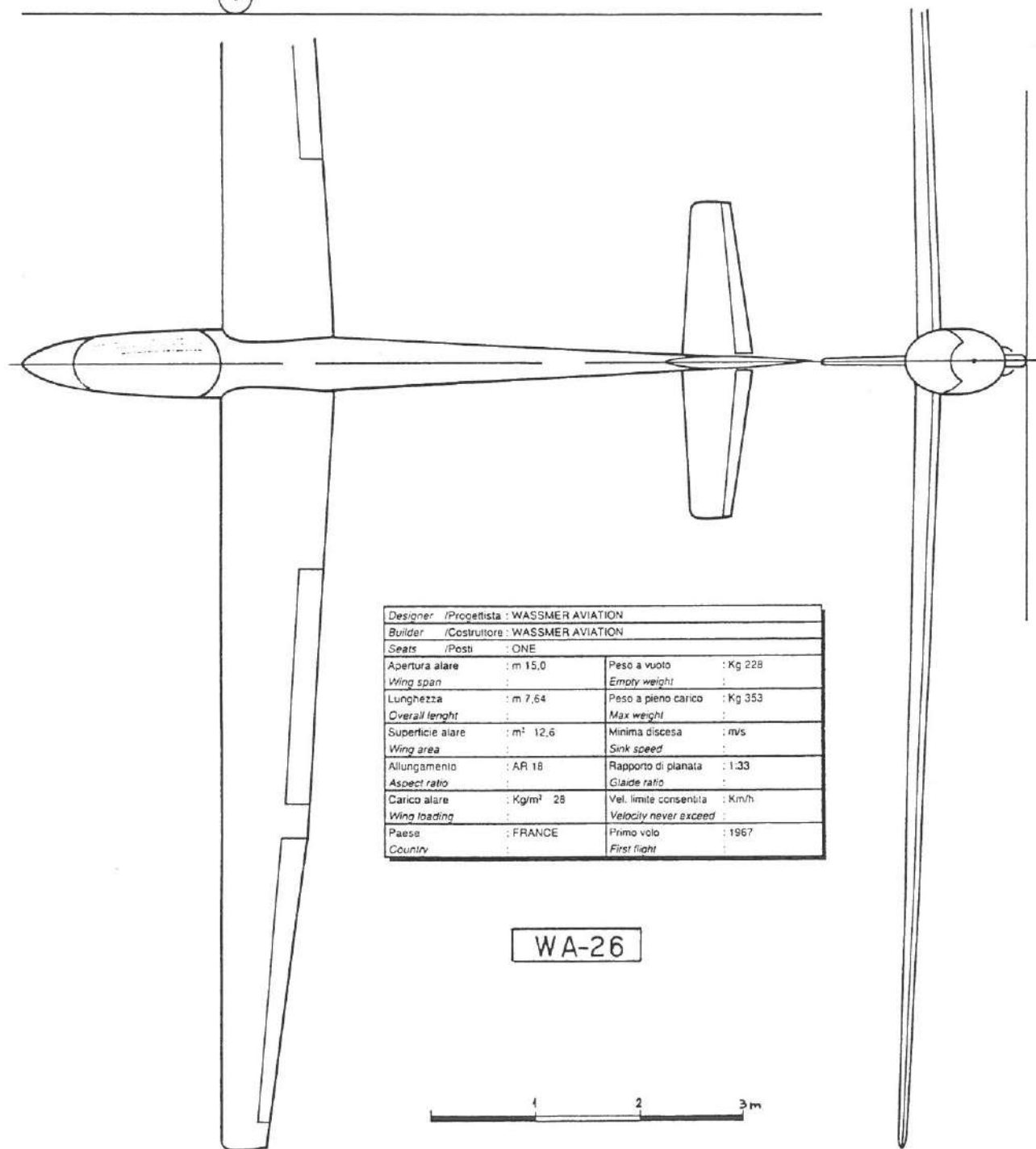
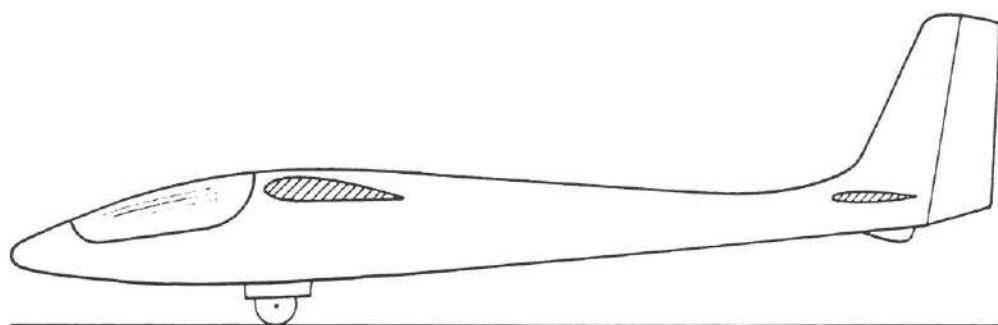
Designer / Progettista :	M. COLLAND		
Builder / Costruttore :	WASSMER		
Seats / Posti :	ONE		
Apertura alare	: m 16,08	Peso a vuoto	: Kg 195
Wing span	:	Empty weight	:
Lunghezza	: m 7,06	Peso a pieno carico	: Kg 330
Overall length	:	Max weight	:
Superficie alare	: m ² 15,5	Minima discesa	: mvs 0,68
Wing area	:	Sink speed	:
Allungamento	: AR 16,7	Rapporto di planata	: 1:29
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 21,2	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1956
Country	:	First flight	:

WA - 20 JAVELOT



Designer / Progettista : WASSER AVIATION			
Builder / Costruttore : WASSER AVIATION			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 205
Wing span	:	Empty weight	:
Lunghezza	: m 7,21	Peso a pieno carico	: Kg 340
Overall length	:	Max weight	:
Superficie alare	: m ² 14,40	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 15,70	Rapporto di planata	: 1:30
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,60	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1961
Country	:	First flight	:

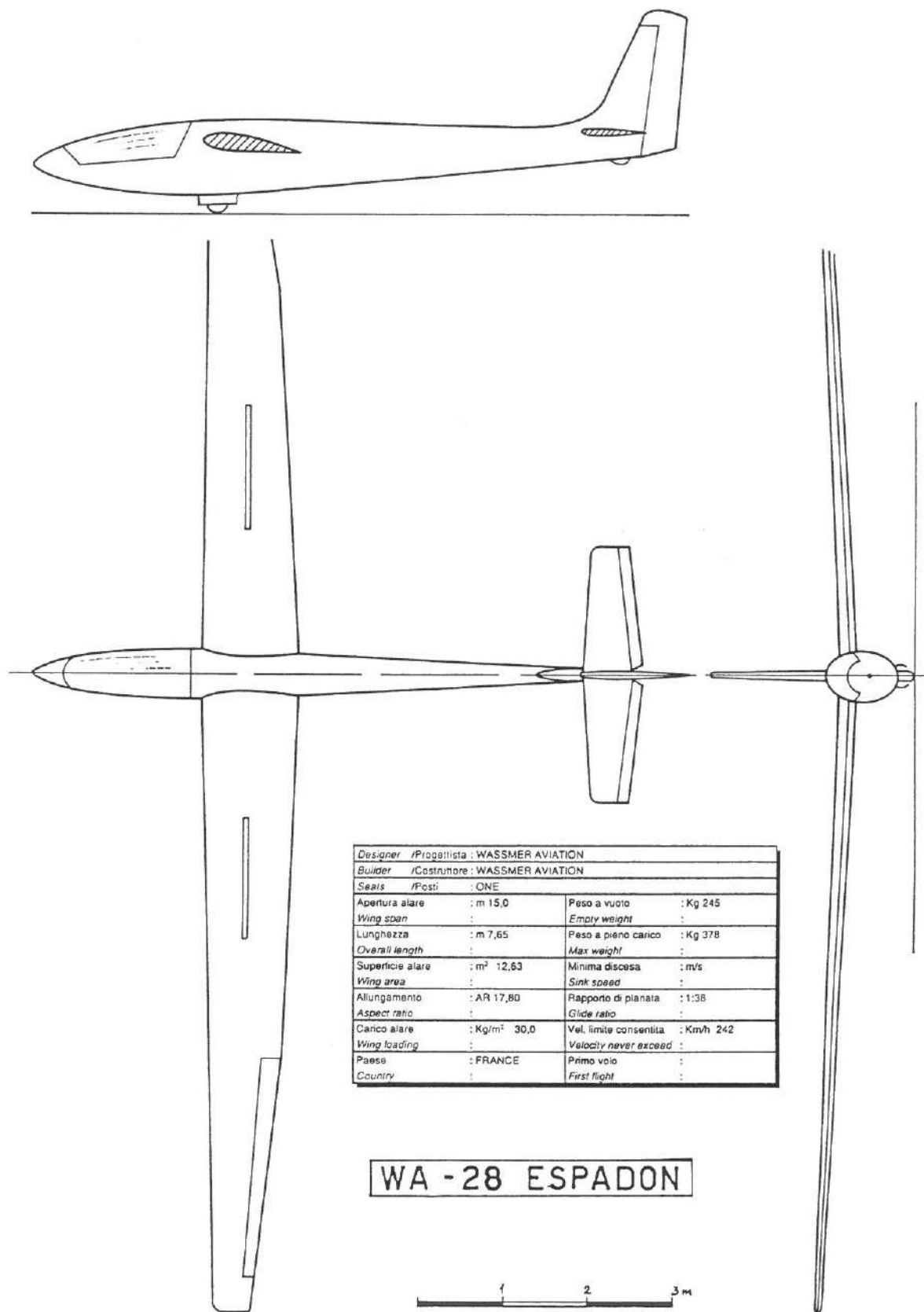
WA-22 SUPER JAVELOT



Designer	Progettista : WASSMER AVIATION		
Builder	Costruttore : WASSMER AVIATION		
Seats	Posti : ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 228
Wing span	:	Empty weight	:
Lunghezza	: m 7,64	Peso a pieno carico	: Kg 353
Overall length	:	Max weight	:
Superficie alare	: m ² 12,6	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 18	Rapporto di planata	: 1,33
Aspect ratio	:	Glaide ratio	:
Carico alare	: Kg/m ² 28	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	: 1967
Country	:	First flight	:

WA-26

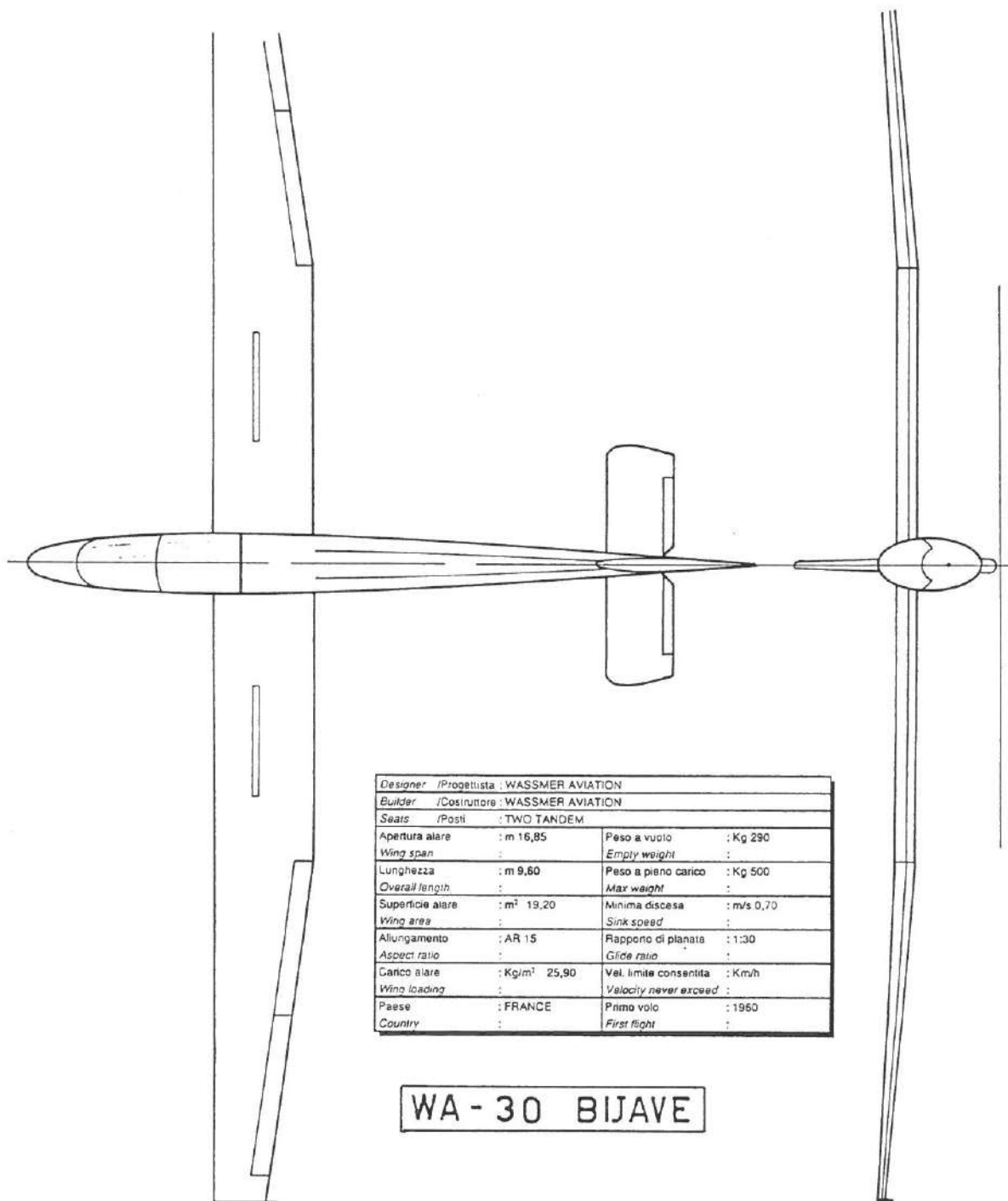
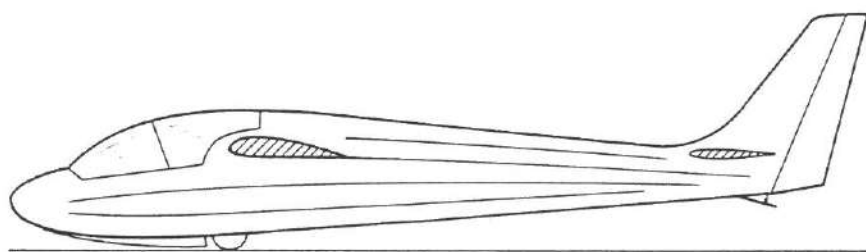




Designer /Progettista : WASSMER AVIATION			
Builder /Costruttore : WASSMER AVIATION			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 245
Wing span	:	Empty weight	:
Lunghezza	: m 7,65	Peso a pieno carico	: Kg 378
Overall length	:	Max weight	:
Superficie alare	: m ² 12,63	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 17,80	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 30,0	Vel. limite consentita	: Km/h 242
Wing loading	:	Velocity never exceed	:
Paese	: FRANCE	Primo volo	:
Country	:	First flight	:

WA - 28 ESPADON

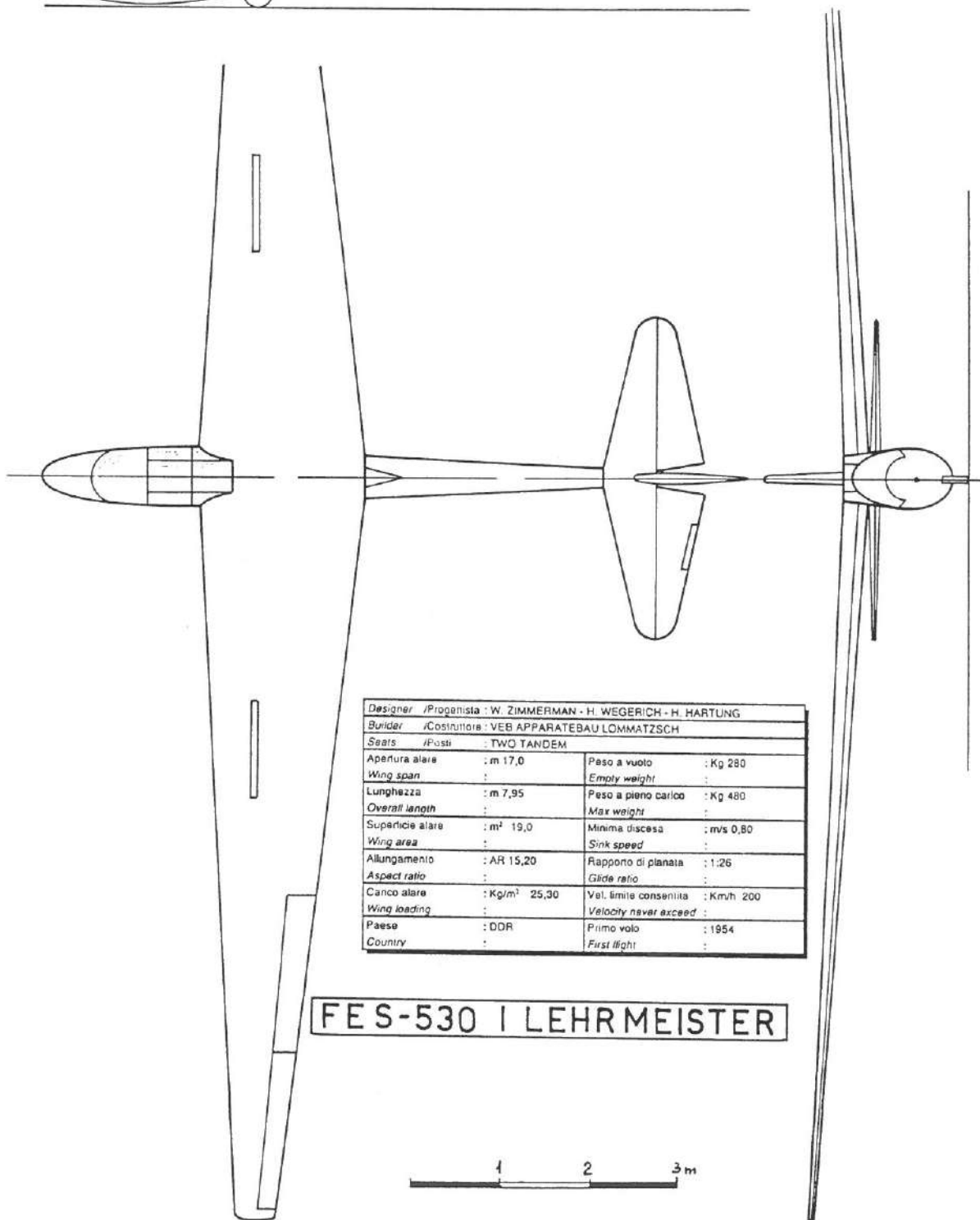
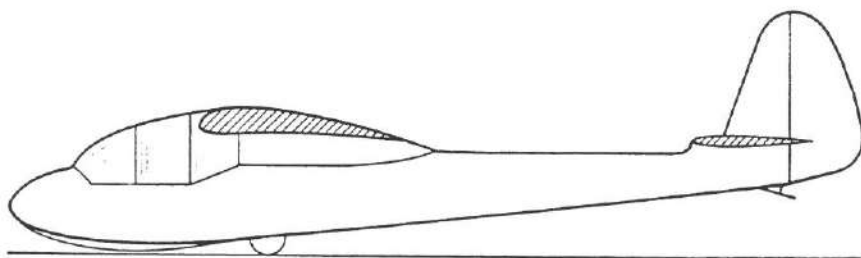


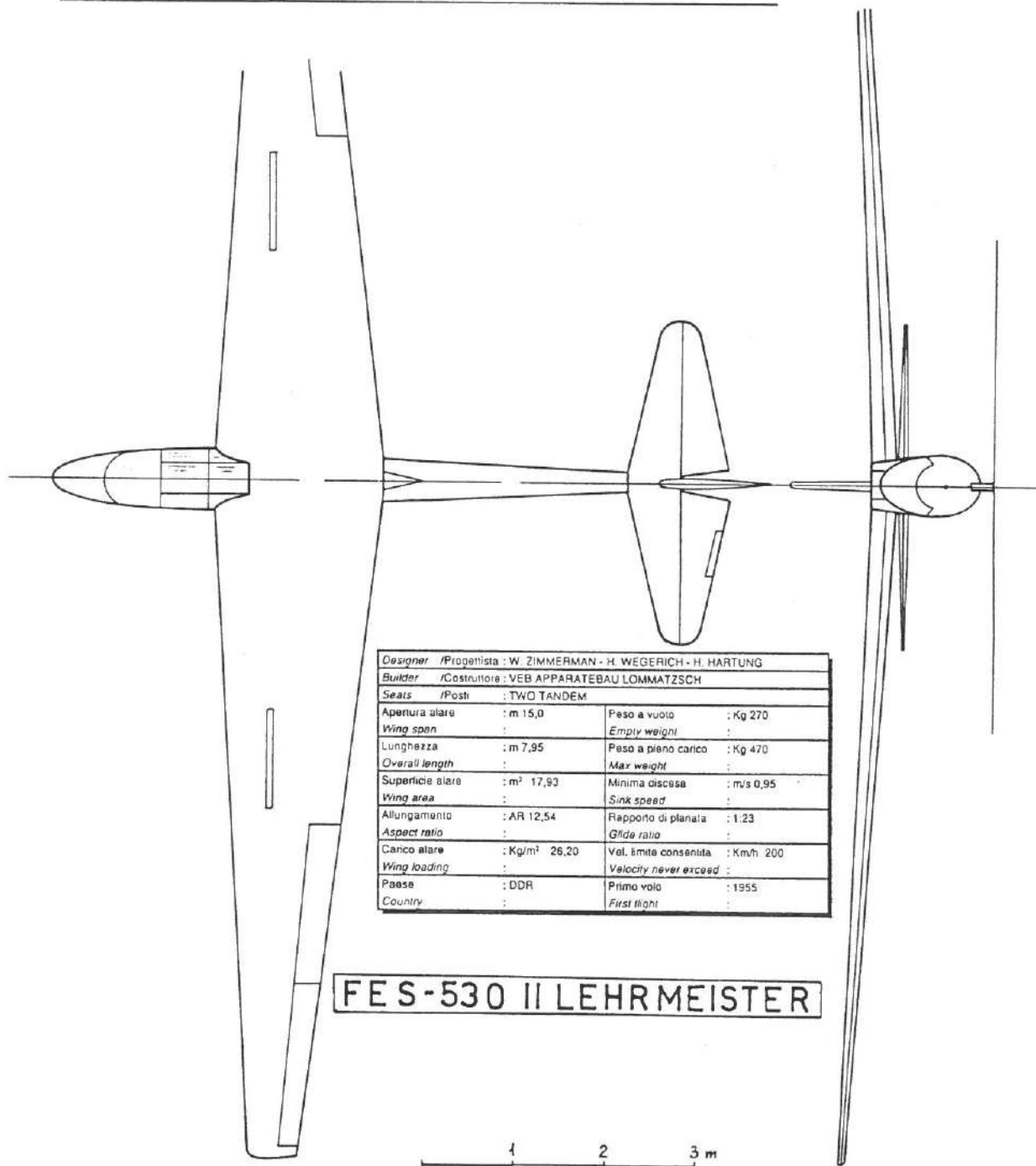
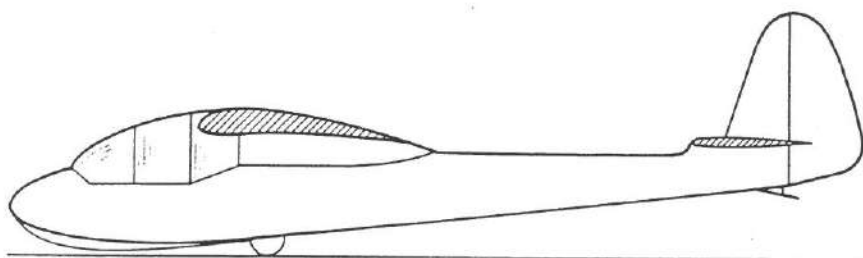


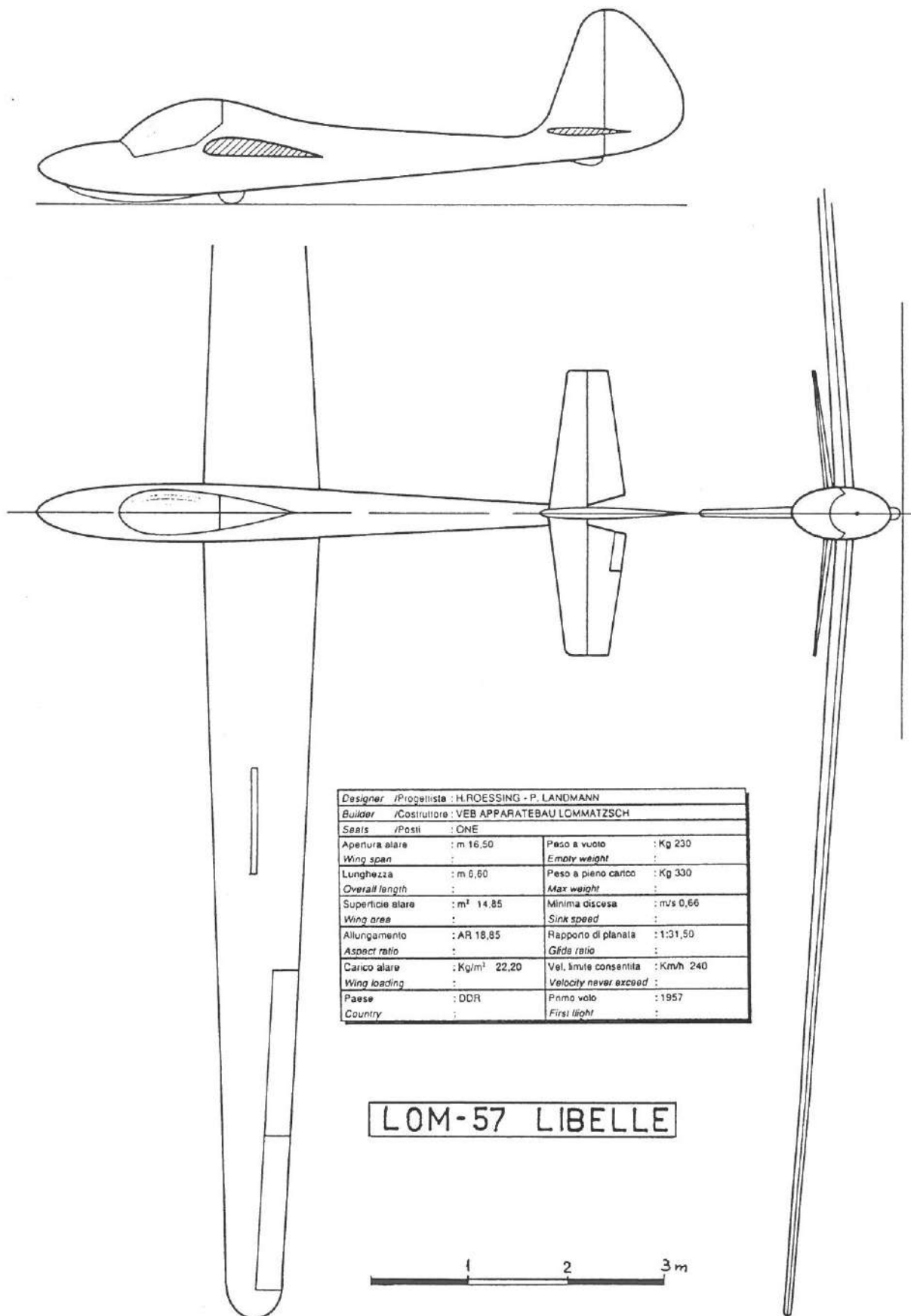
Designer / Progettista :	WASSMER AVIATION		
Builder / Costruttore :	WASSMER AVIATION		
Seats / Posti :	TWO TANDEM		
Apertura alare :	m 16,85	Peso a vuoto :	Kg 290
Wing span :		Empty weight :	
Lunghezza :	m 9,60	Peso a pieno carico :	Kg 500
Overall length :		Max weight :	
Superficie alare :	m ² 19,20	Minima discesa :	m/s 0,70
Wing area :		Sink speed :	
Allungamento :	AR 15	Rapporto di planata :	1:30
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 25,90	Vel. limite consentita :	Km/h
Wing loading :		Velocity never exceed :	
Paese :	FRANCE	Primo volo :	1960
Country :		First flight :	

WA - 30 BIJAVE





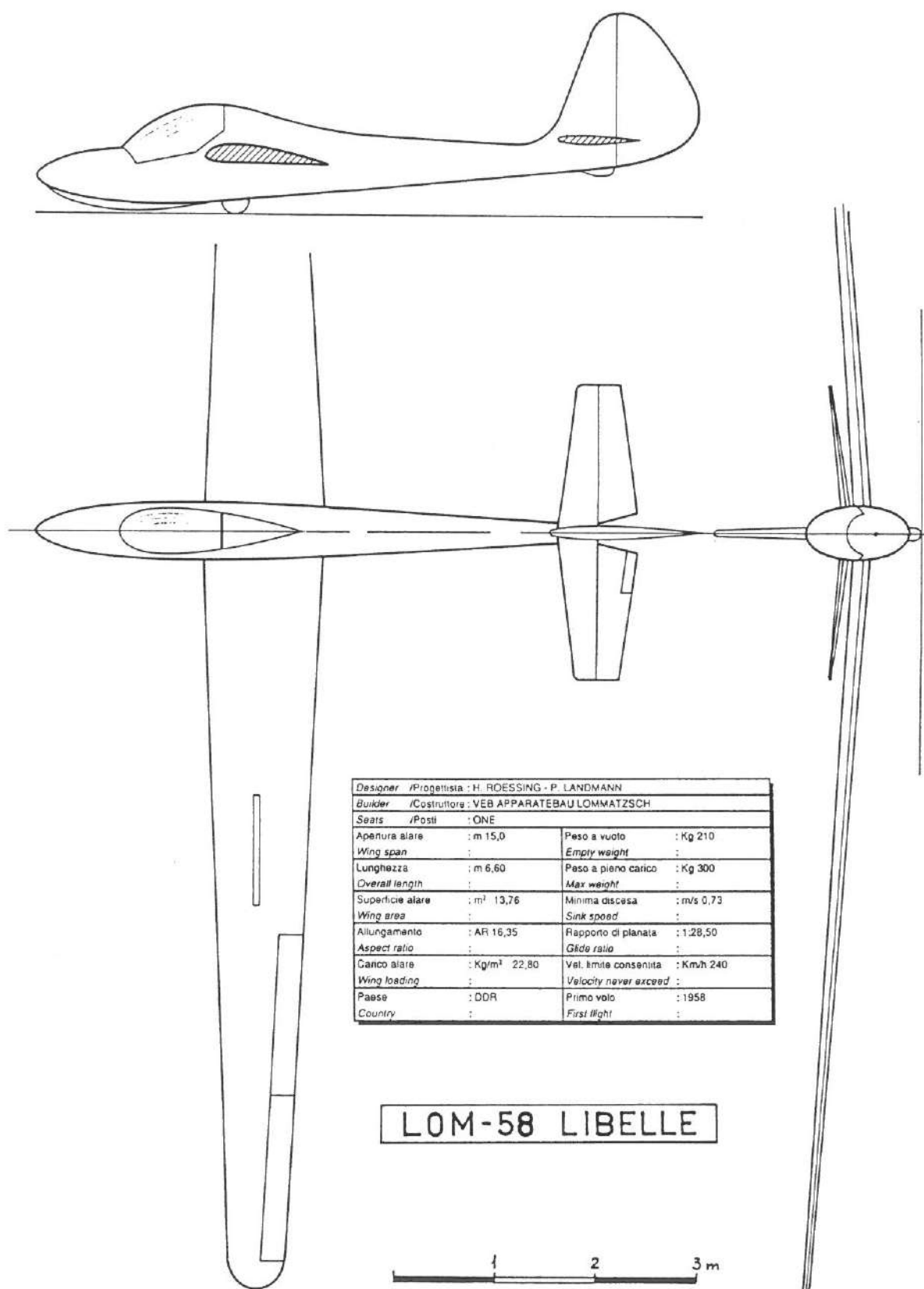




Designer /Progettista	: H. ROESSING - P. LANDMANN		
Builder /Costruttore	: VEB APPARATEBAU LOMMATZSCH		
Seats /Posti	: ONE		
Apertura alare	: m 16,50	Peso a vuoto	: Kg 230
Wing span	:	Empty weight	:
Lunghezza	: m 6,60	Peso a pieno carico	: Kg 330
Overall length	:	Max weight	:
Superficie alare	: m ² 14,85	Minima discesa	: m/s 0,66
Wing area	:	Sink speed	:
Allungamento	: AR 18,85	Rapporto di planata	: 1:31,50
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,20	Vel. limite consentita	: Km/h 240
Wing loading	:	Velocity never exceed	:
Paese	: DDR	Primo volo	: 1957
Country	:	First flight	:

LOM-57 LIBELLE

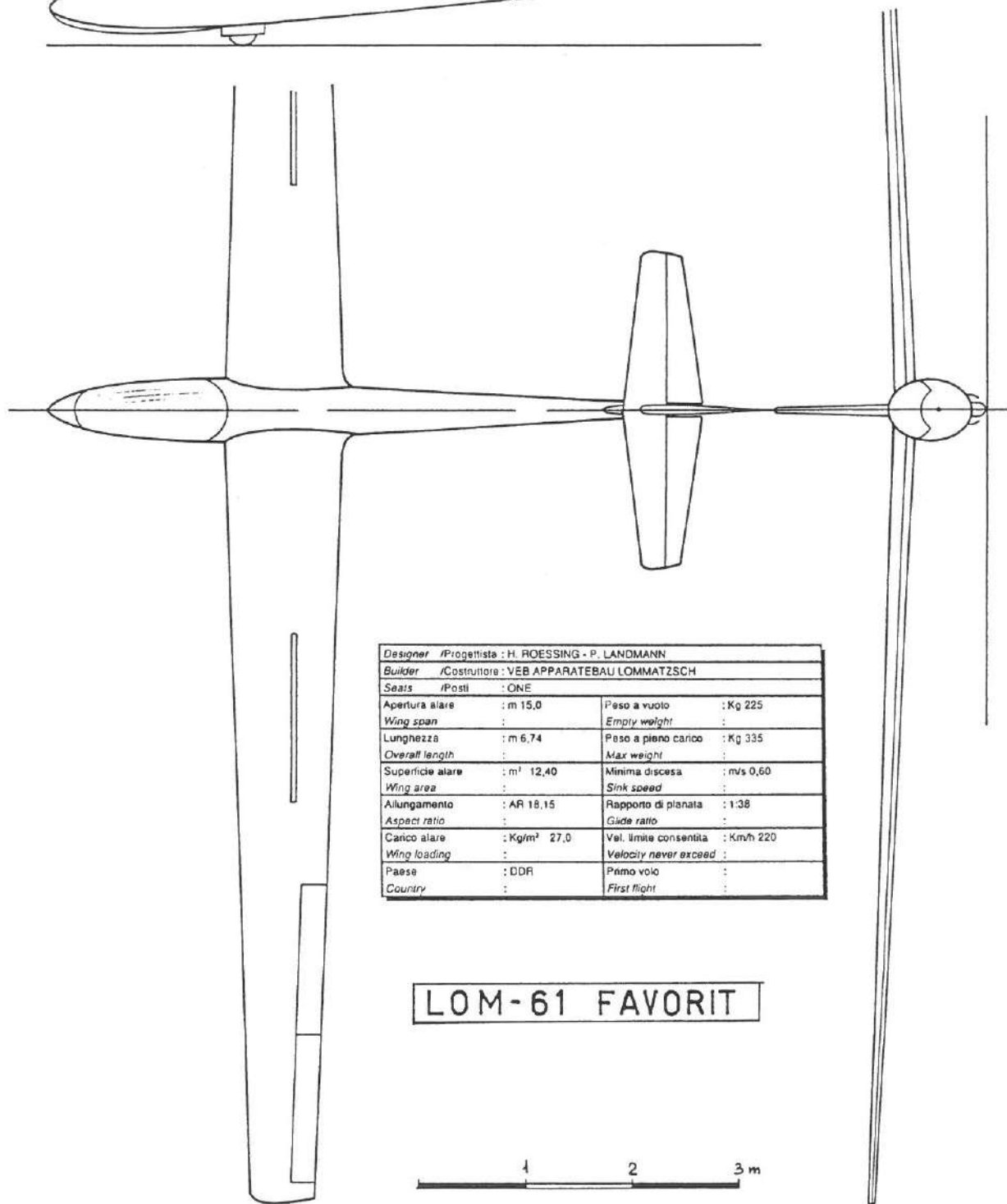
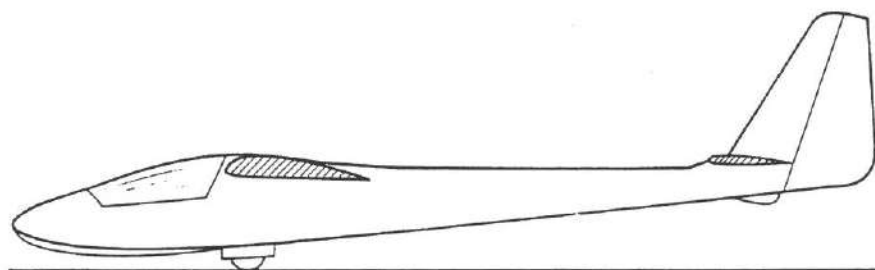
1 2 3 m



Designer /Progettista : H. ROESSING - P. LANDMANN			
Builder /Costruttore : VEB APPARATEBAU LOMMATZSCH			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 210
Wing span	:	Empty weight	:
Lunghezza	: m 6,60	Peso a pieno carico	: Kg 300
Overall length	:	Max weight	:
Superficie alare	: m ² 13,76	Minima discesa	: m/s 0,73
Wing area	:	Sink speed	:
Allungamento	: AR 16,35	Rapporto di planata	: 1,28,50
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,80	Vel. limite consentita	: Km/h 240
Wing loading	:	Velocity never exceed	:
Paese	: DDR	Primo volo	: 1958
Country	:	First flight	:

LOM-58 LIBELLE

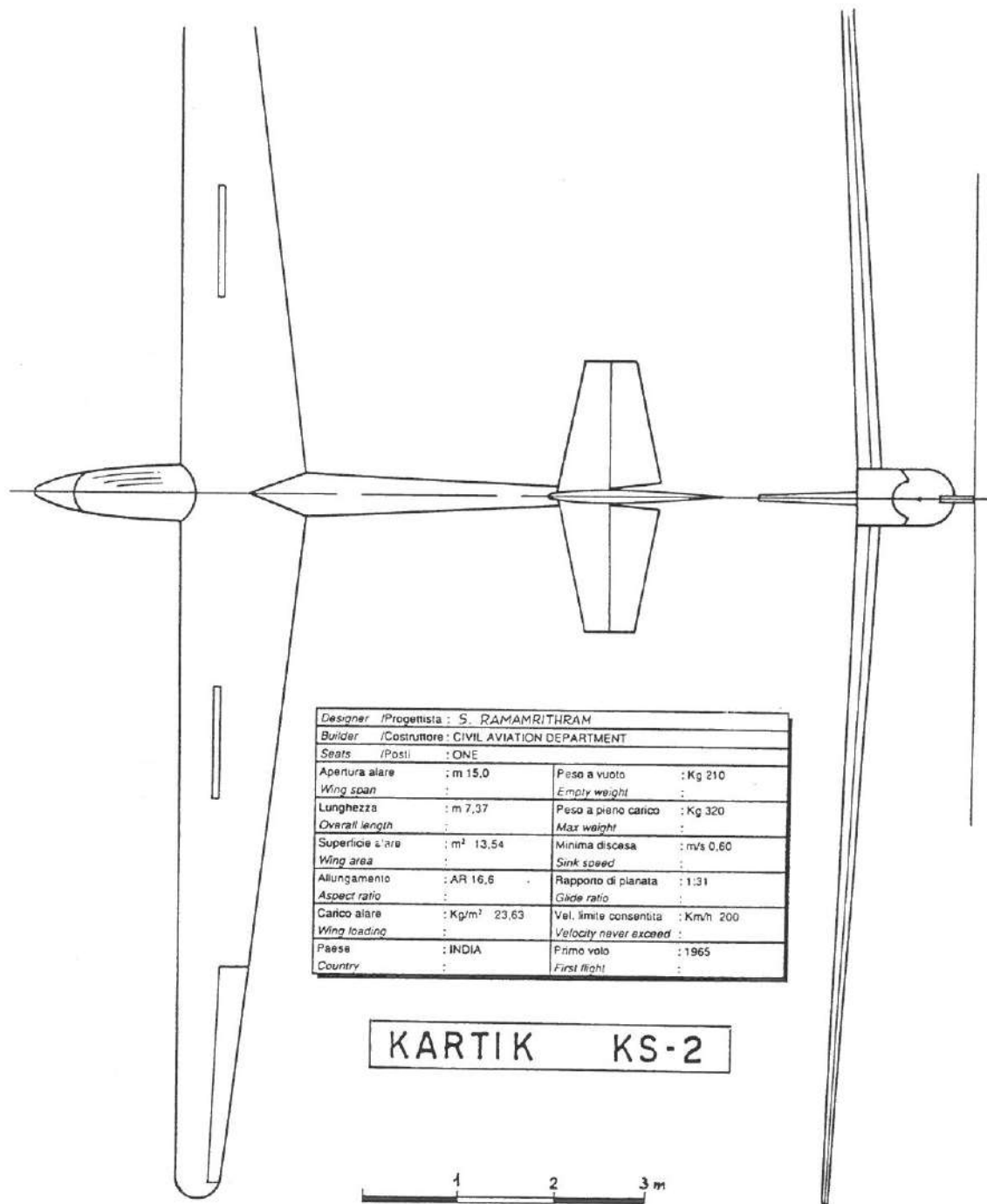
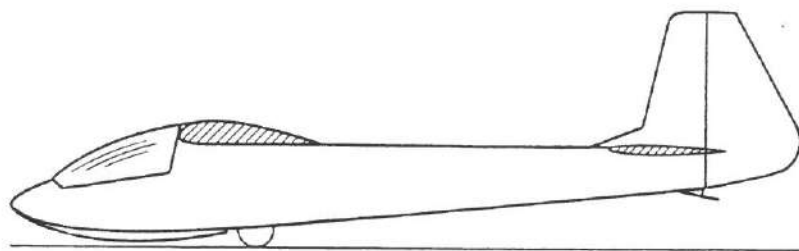
1 2 3 m



Designer /Progettista : H. ROESSING - P. LANDMANN			
Builder /Costruttore : VEB APPARATEBAU LOMMATZSCH			
Seats /Posti	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 225
Wing span	:	Empty weight	:
Lunghezza	: m 6,74	Peso a pieno carico	: Kg 335
Overall length	:	Max weight	:
Superficie alare	: m² 12,40	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 18,15	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m² 27,0	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: DDR	Primo volo	:
Country	:	First flight	:

LOM-61 FAVORIT

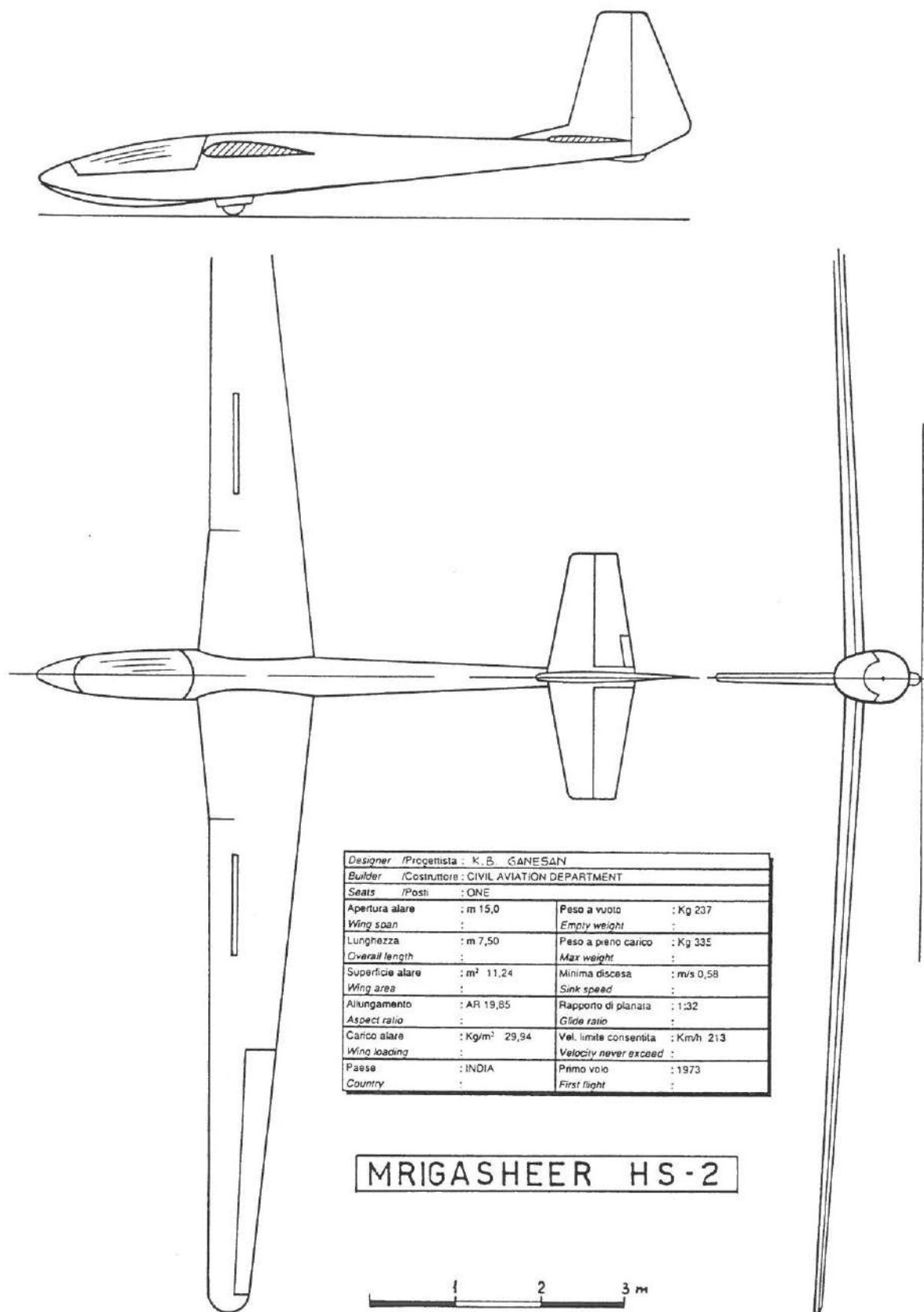




Designer /Progettista : S. RAMAMRITHRAN			
Builder /Costruttore : CIVIL AVIATION DEPARTMENT			
Seats /Posti	: ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 210
Wing span	:	Empty weight	:
Lunghezza	: m 7,37	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 13,54	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 16,6	Rapporto di planata	: 1:31
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,63	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: INDIA	Primo volo	: 1965
Country	:	First flight	:

KARTIK KS-2

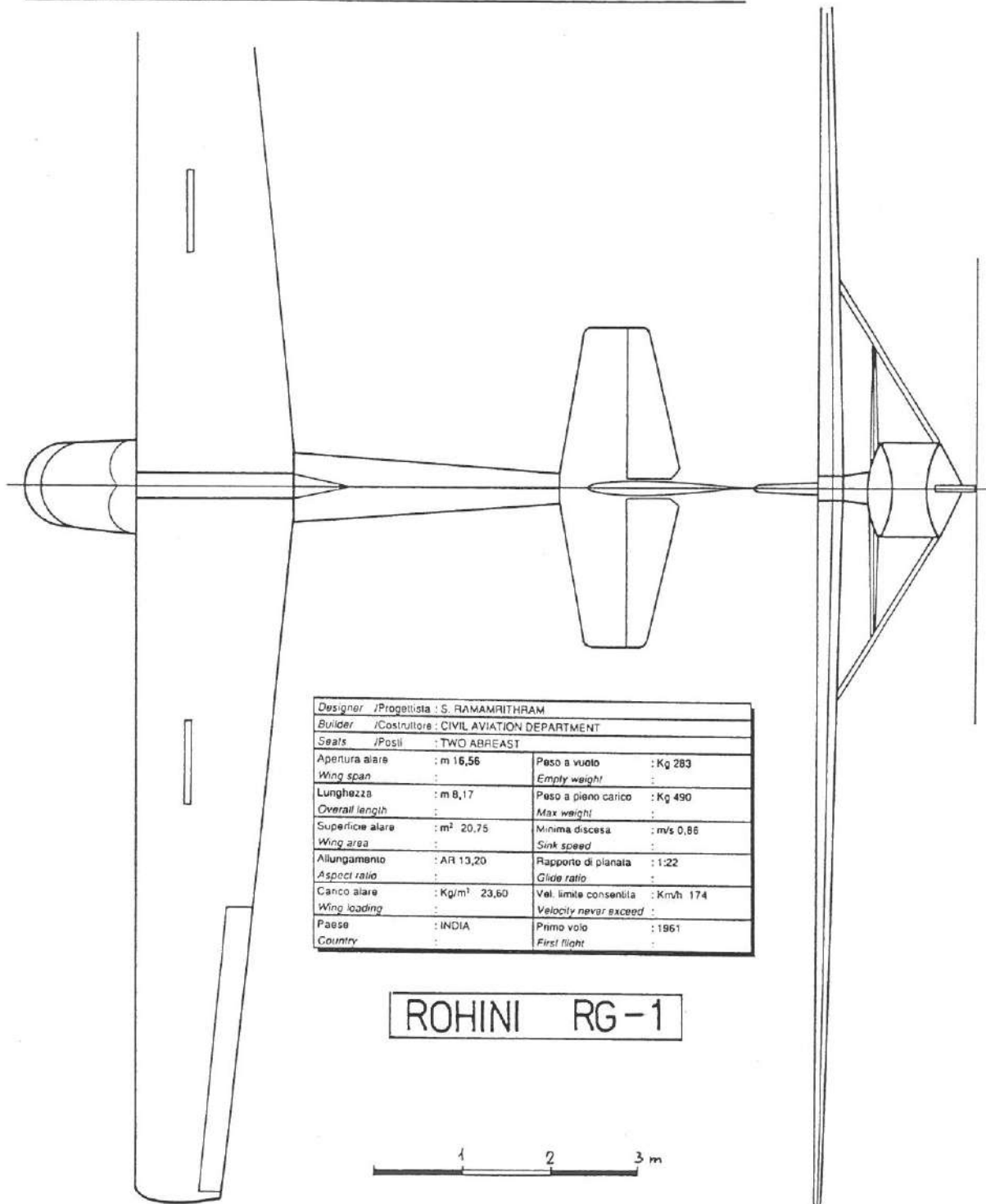
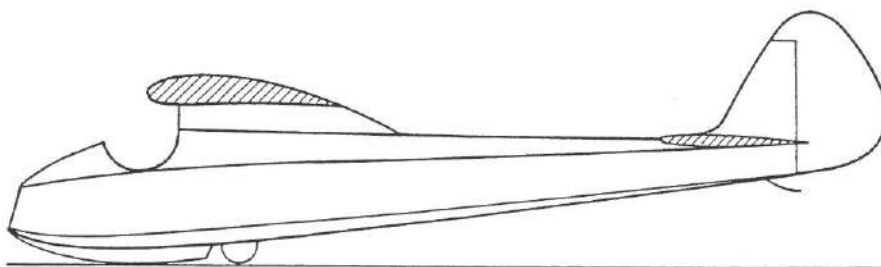
1 2 3 m



Designer / Progettista : K. B. GANESAN			
Builder / Costruttore : CIVIL AVIATION DEPARTMENT			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 237
Wing span	:	Empty weight	:
Lunghezza	: m 7,50	Peso a pieno carico	: Kg 335
Overall length	:	Max weight	:
Superficie alare	: m ² 11,24	Minima discesa	: m/s 0,58
Wing area	:	Sink speed	:
Allungamento	: AR 19,85	Rapporto di planata	: 1:32
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 29,94	Vel. limite consentita	: Km/h 213
Wing loading	:	Velocity never exceed	:
Paese	: INDIA	Primo volo	: 1973
Country	:	First flight	:

MRIGASHEER HS-2

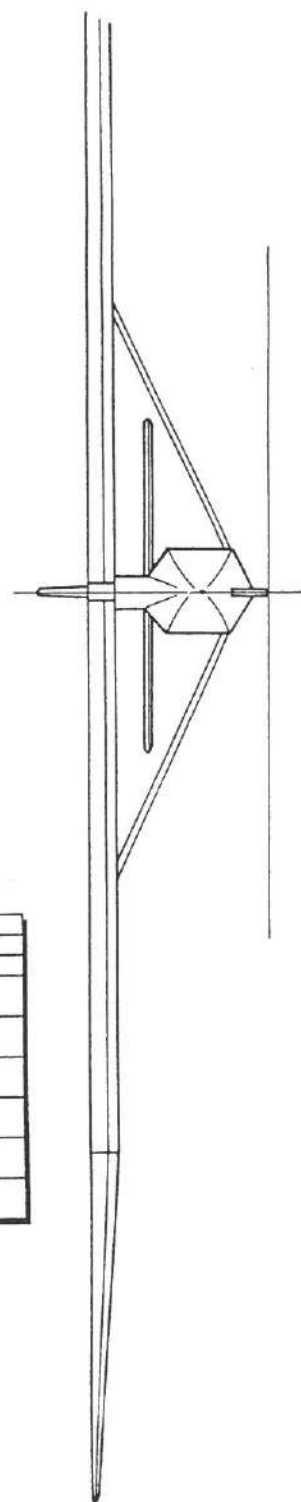
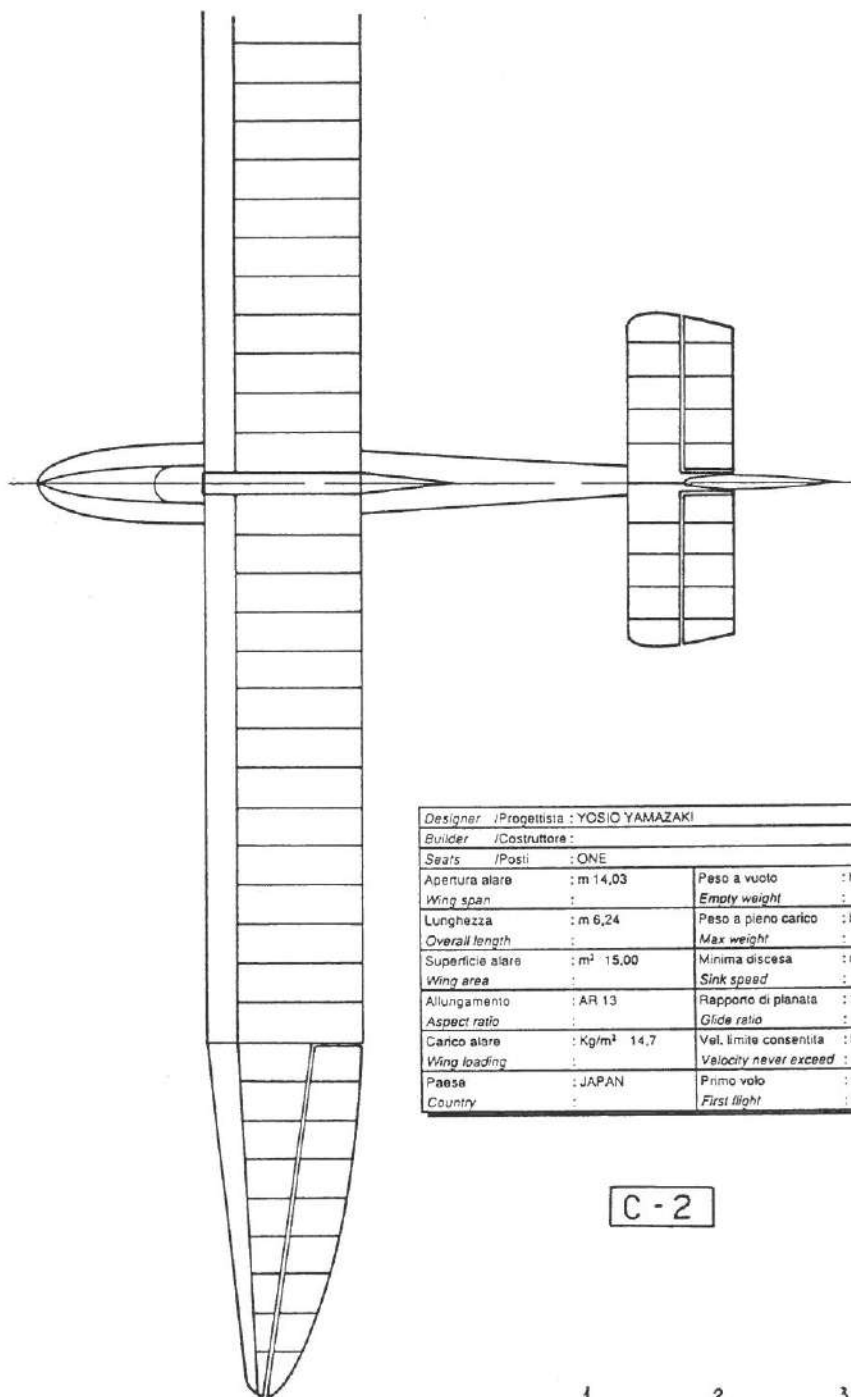
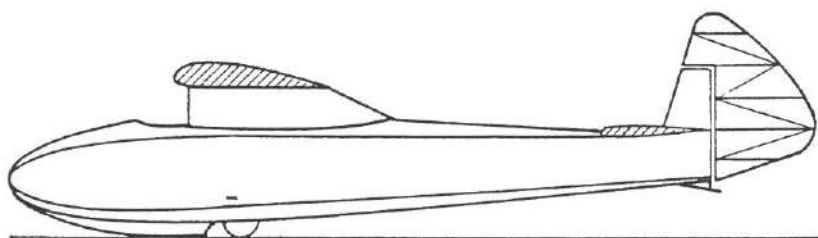




Designer / Progettista	S. RAMAMRITHRAM		
Builder / Costruttore	CIVIL AVIATION DEPARTMENT		
Seats / Posti	TWO ABREAST		
Apertura alare	: m 16,56	Peso a vuoto	: Kg 283
Wing span	:	Empty weight	:
Lunghezza	: m 8,17	Peso a pieno carico	: Kg 490
Overall length	:	Max weight	:
Superficie alare	: m ² 20,75	Minima discesa	: m/s 0,86
Wing area	:	Sink speed	:
Allungamento	: AR 13,20	Rapporto di planata	: 1:22
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,60	Vel. limite consentita	: Km/h 174
Wing loading	:	Velocity never exceed	:
Paese	: INDIA	Primo volo	: 1961
Country	:	First flight	:

ROHINI RG-1

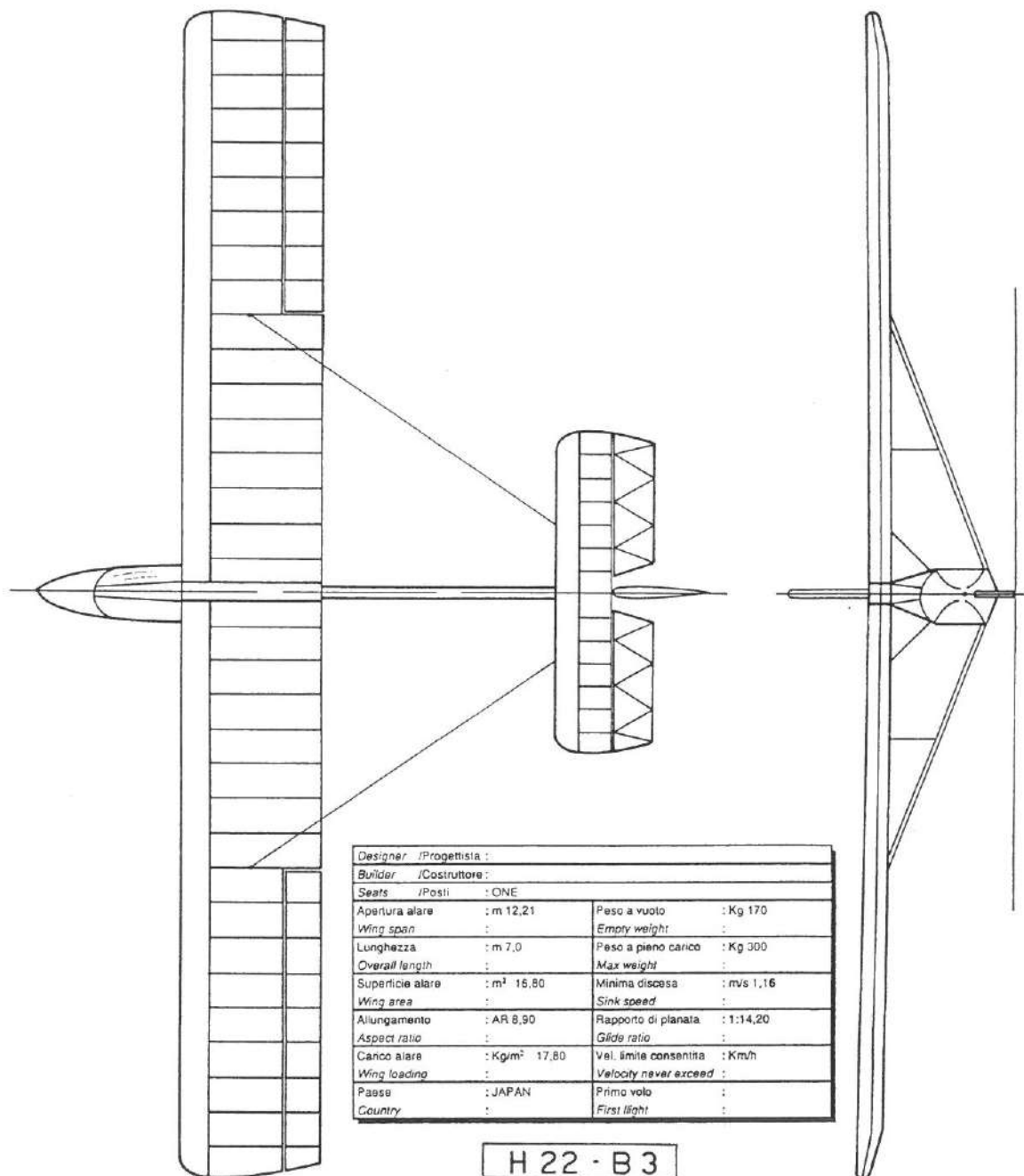
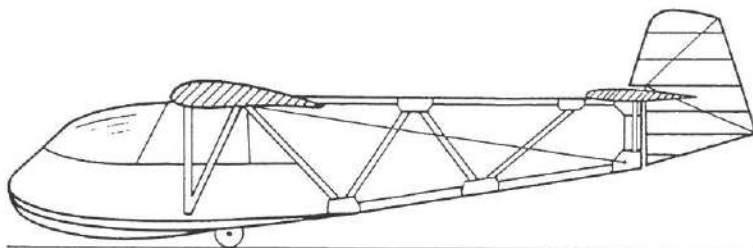




Designer / Progettista : YOSIO YAMAZAKI			
Builder / Costruttore :			
Seats / Posti : ONE			
Apertura alare	: m 14,03	Peso a vuoto	: Kg 150
Wing span	:	Empty weight	:
Lunghezza	: m 6,24	Peso a pieno carico	: Kg 220
Overall length	:	Max weight	:
Superficie alare	: m ² 15,00	Minima discesa	: m/s 0,90
Wing area	:	Sink speed	:
Allungamento	: AR 13	Rapporto di planata	: 1:19
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 14,7	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: JAPAN	Primo volo	: 1938
Country	:	First flight	:

C - 2

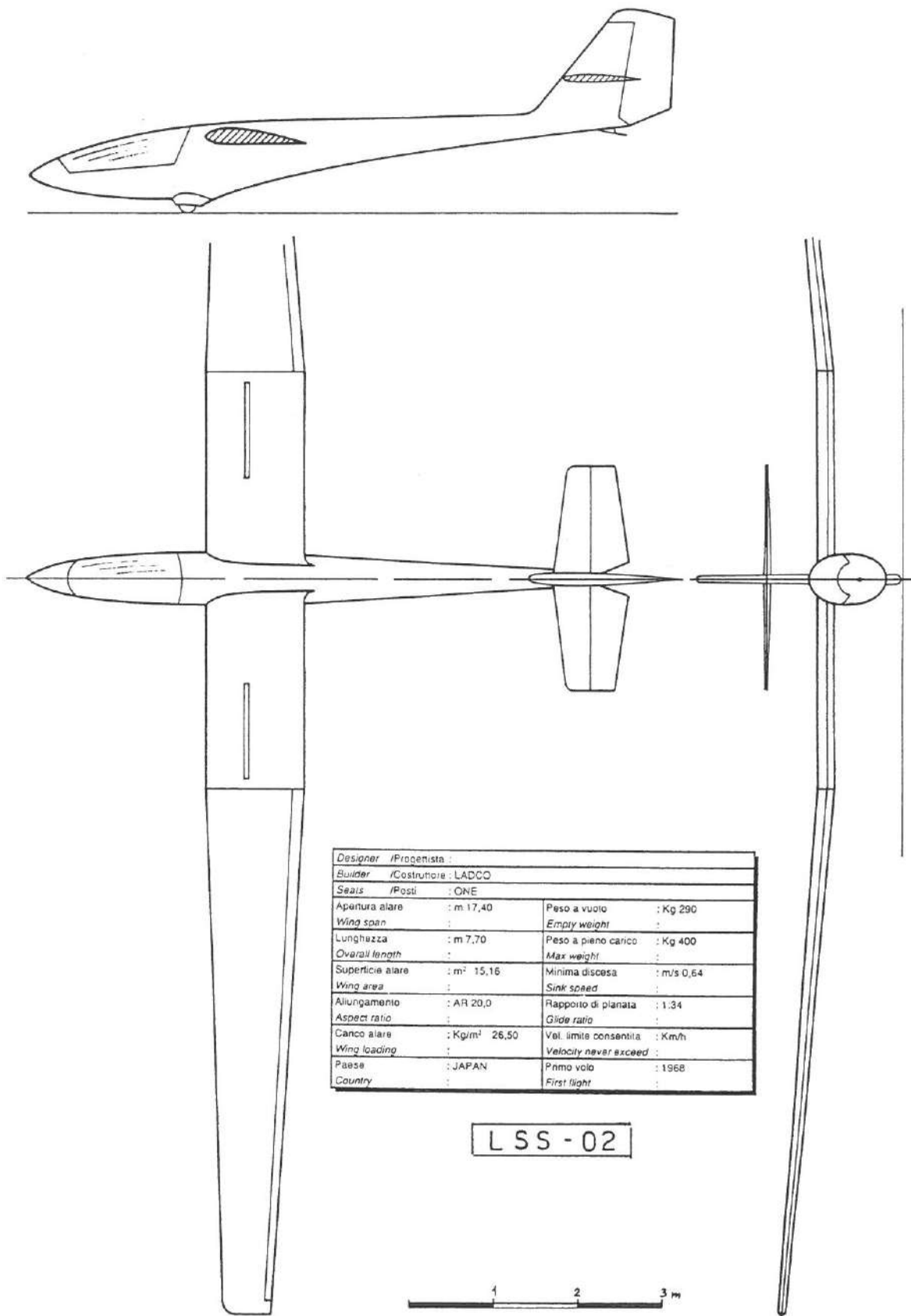




Designer / Progettista :			
Builder / Costruttore :			
Seats / Posti :	ONE		
Apertura alare :	m 12,21	Peso a vuoto :	Kg 170
Wing span :		Empty weight :	
Lunghezza :	m 7,0	Peso a pieno carico :	Kg 300
Overall length :		Max weight :	
Superficie alare :	m ² 16,80	Minima discesa :	m/s 1,16
Wing area :		Sink speed :	
Allungamento :	AR 8,90	Rapporto di planata :	1:14,20
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 17,80	Vel. limite consentita :	Km/h
Wing loading :		Velocity never exceed :	
Paese :	JAPAN	Primo volo :	
Country :		First flight :	

H 22 - B 3

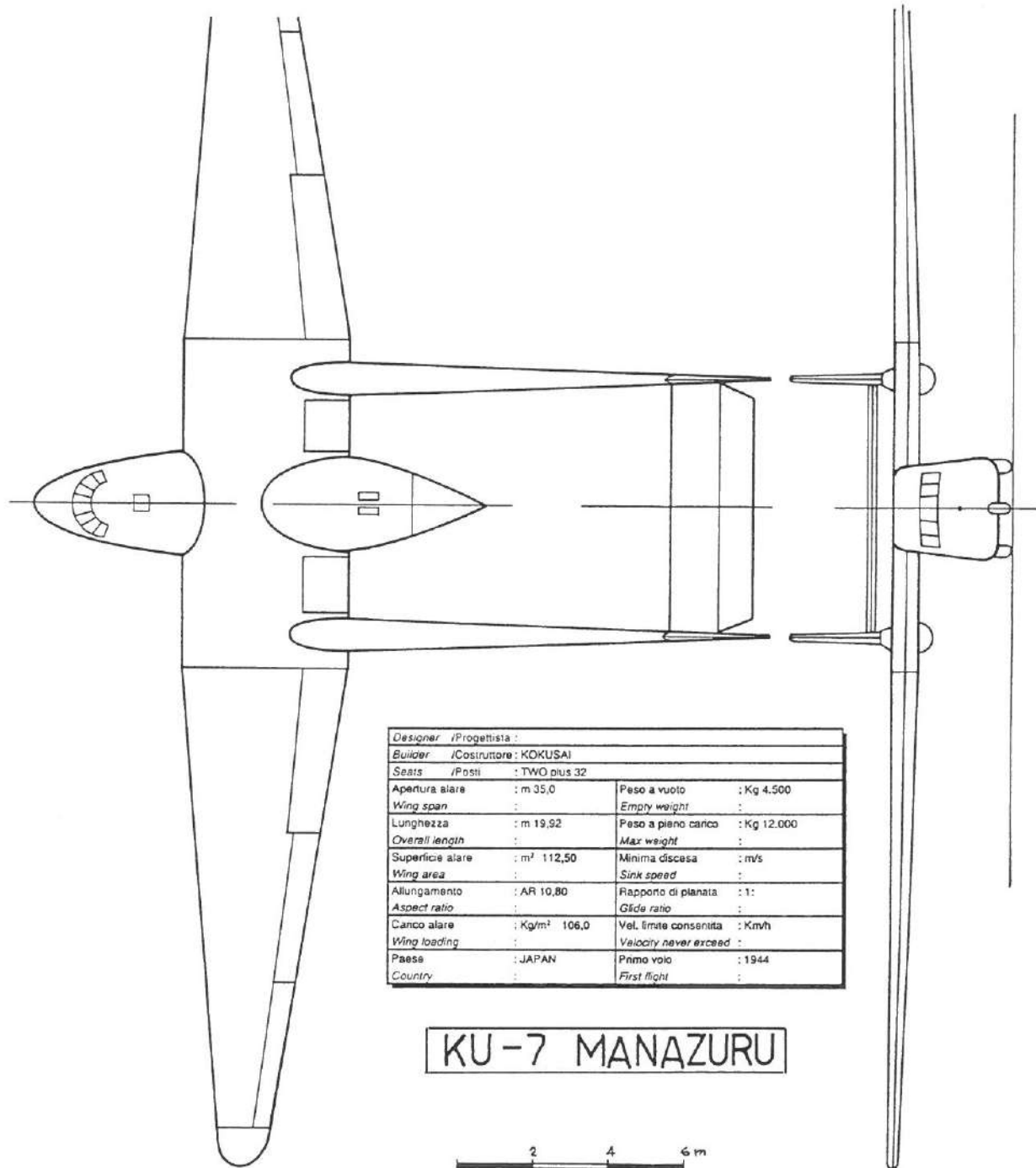
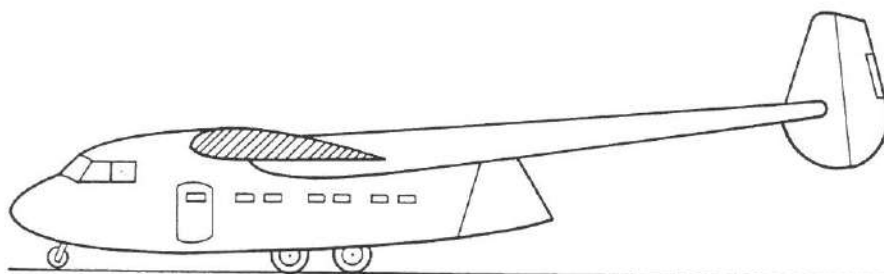




Designer /Progettista :			
Builder /Costruttore : LADCO			
Seals /Posti : ONE			
Apertura alare	: m 17,40	Peso a vuoto	: Kg 290
Wing span	:	Empty weight	:
Lunghezza	: m 7,70	Peso a pieno carico	: Kg 400
Overall length	:	Max weight	:
Superficie alare	: m ² 15,16	Minima discesa	: m/s 0,64
Wing area	:	Sink speed	:
Allungamento	: AR 20,0	Rapporto di planata	: 1,34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,50	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: JAPAN	Primo volo	: 1968
Country	:	First flight	:

LSS - 02

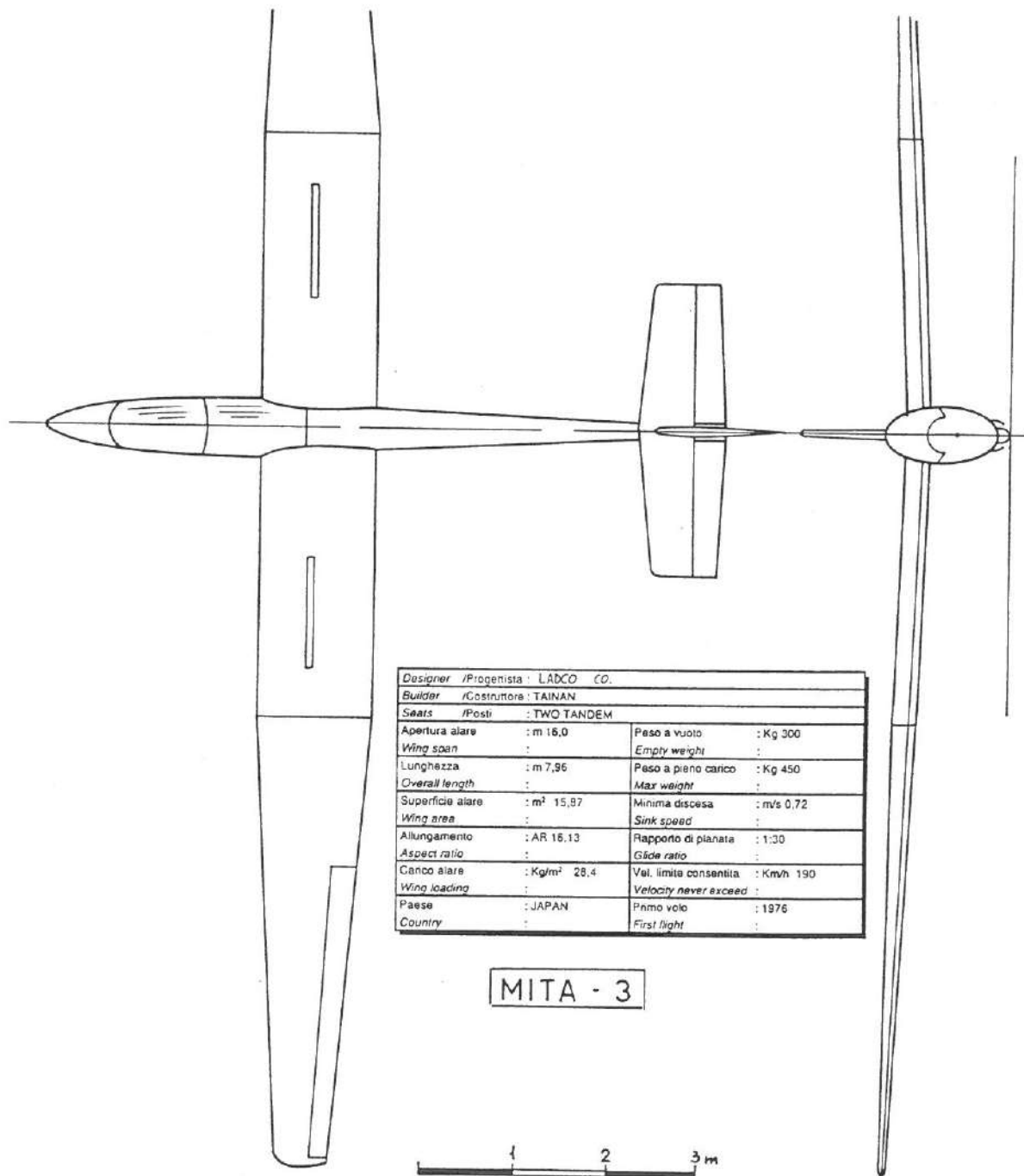
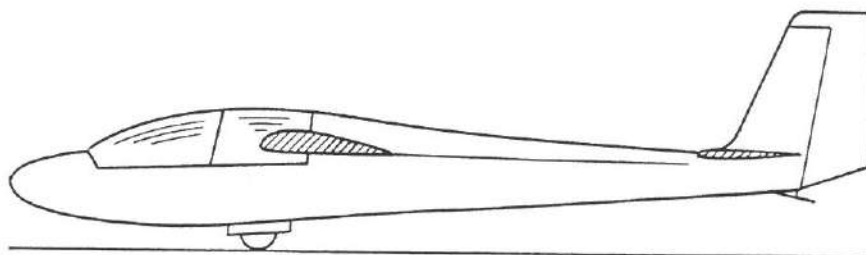




Designer / Progettista :	
Builder / Costruttore :	KOKUSAI
Seats / Posti :	TWO plus 32
Apertura alare :	m 35,0
Wing span :	
Lunghezza :	m 19,92
Overall length :	
Superficie alare :	m ² 112,50
Wing area :	
Allungamento :	AR 10,80
Aspect ratio :	
Carico alare :	Kg/m ² 106,0
Wing loading :	
Paese :	JAPAN
Country :	
Peso a vuoto :	Kg 4.500
Empty weight :	
Peso a pieno carico :	Kg 12.000
Max weight :	
Minima discesa :	m/s
Sink speed :	
Rapporto di planata :	1:
Glide ratio :	
Vel. limite consentita :	Kmh
Velocity never exceed :	
Primo volo :	1944
First flight :	

KU-7 MANAZURU

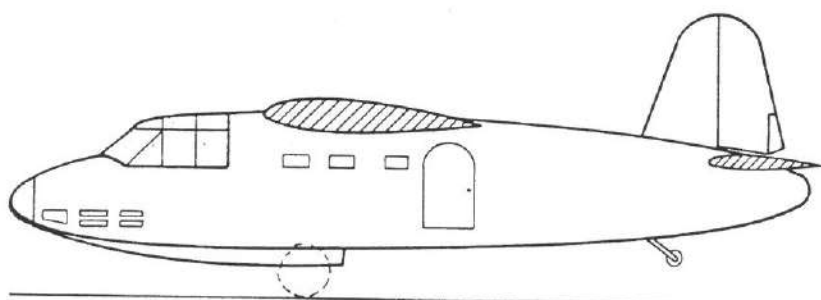




Designer / Progettista : LADCO CO.			
Builder / Costruttore : TAINAN			
Seats / Posti : TWO TANDEM			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 300
Wing span	:	Empty weight	:
Lunghezza	: m 7,96	Peso a pieno carico	: Kg 450
Overall length	:	Max weight	:
Superficie alare	: m ² 15,97	Minima discesa	: m/s 0,72
Wing area	:	Sink speed	:
Allungamento	: AR 16,13	Rapporto di planata	: 1:30
Aspect ratio	:	Glide ratio	:
Cenico alare	: Kg/m ² 28,4	Vel. limite consentita	: Km/h 190
Wing loading	:	Velocity never exceed	:
Paese	: JAPAN	Primo volo	: 1976
Country	:	First flight	:

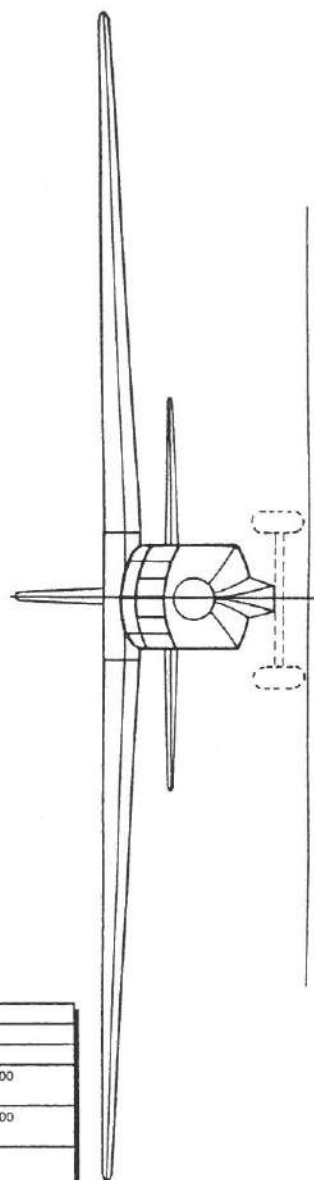
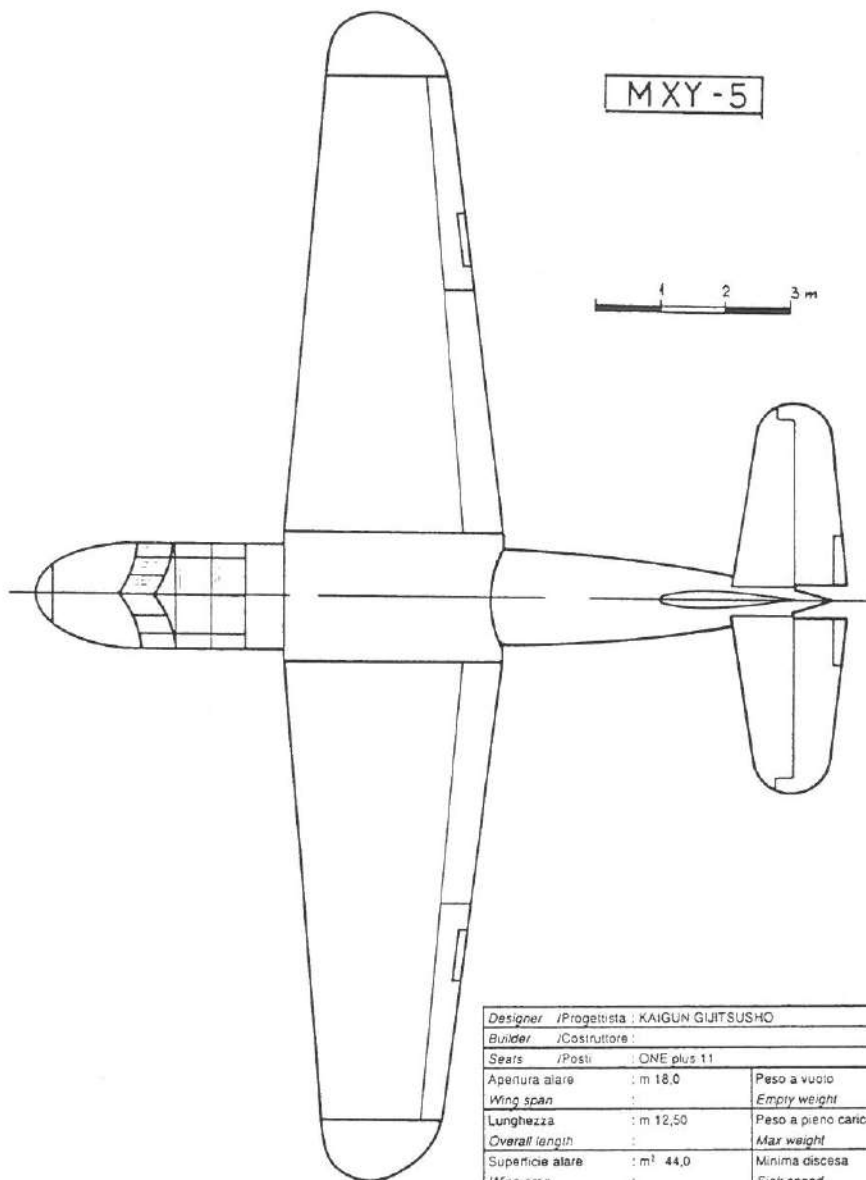
MITA - 3



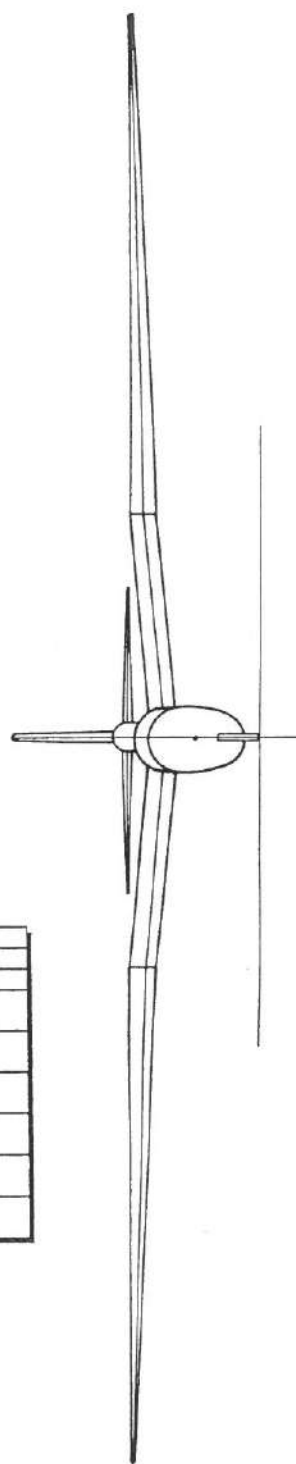
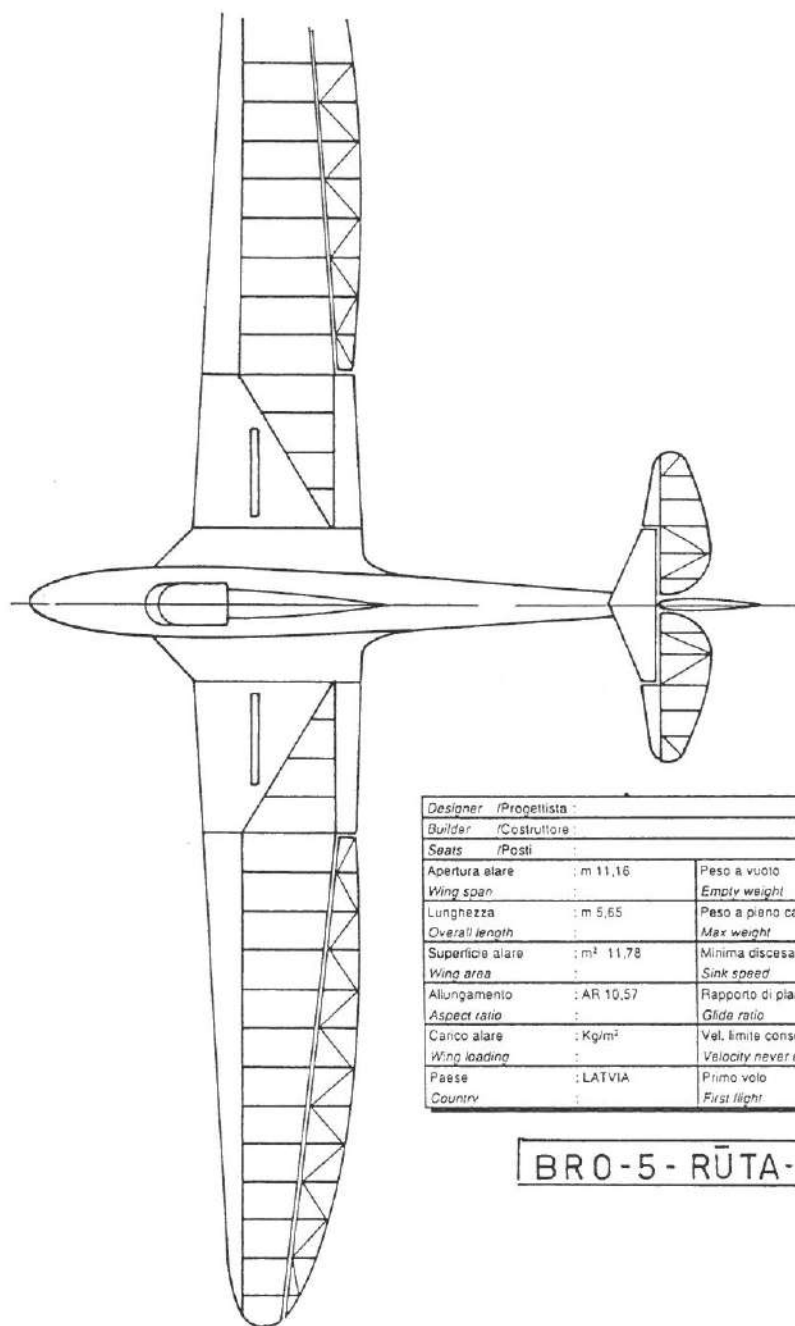
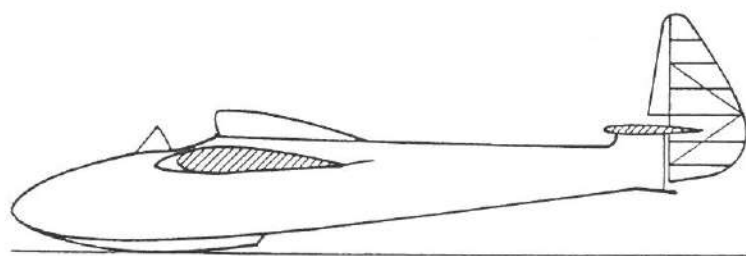


MXY-5

1 2 3 m



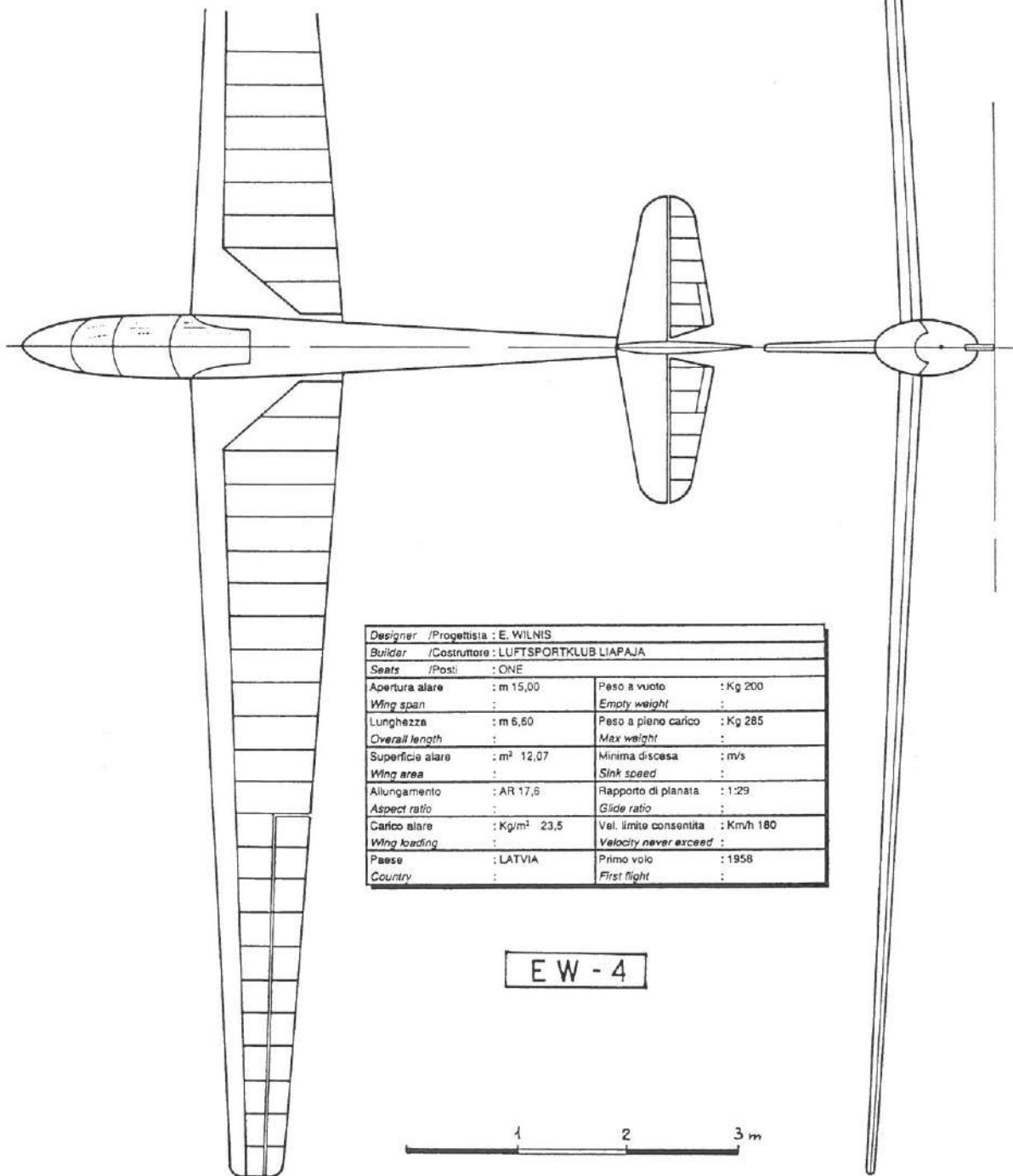
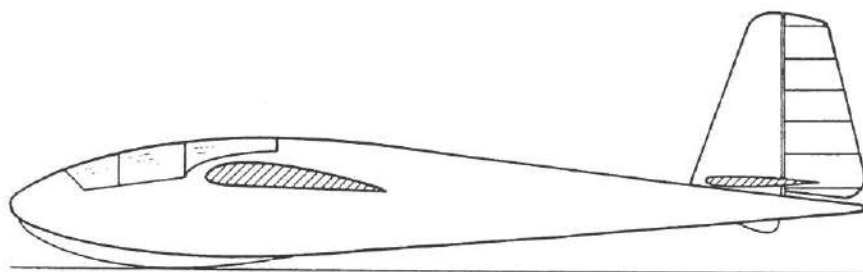
Designer	/Progettista : KAIGUN GIJITSUSHO		
Builder	/Costruttore :		
Seats	/Posti : ONE plus 11		
Apertura alare	: m 18,0	Peso a vuoto	: Kg 1.600
Wing span	:	Empty weight	:
Lunghezza	: m 12,50	Peso a pieno carico	: Kg 2.700
Overall length	:	Max weight	:
Superficie alare	: m ² 44,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 7,4	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 62,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: JAPAN	Primo volo	: 1942
Country	:	First flight	:



Designer /Progettista :			
Builder /Costruttore :			
Seats /Posti :			
Apertura alare	: m 11,16	Peso a vuoto	: Kg 365
Wing span	:	Empty weight	:
Lunghezza	: m 5,65	Peso a pieno carico	: Kg 455
Overall length	:	Max weight	:
Superficie alare	: m ² 11,78	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 10,57	Rapporto di planata	: 1:36,60
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h 210
Wing loading	:	Velocity never exceed	:
Paese	: LATVIA	Primo volo	: 1938
Country	:	First flight	:

BRO-5 - RŪTA-2

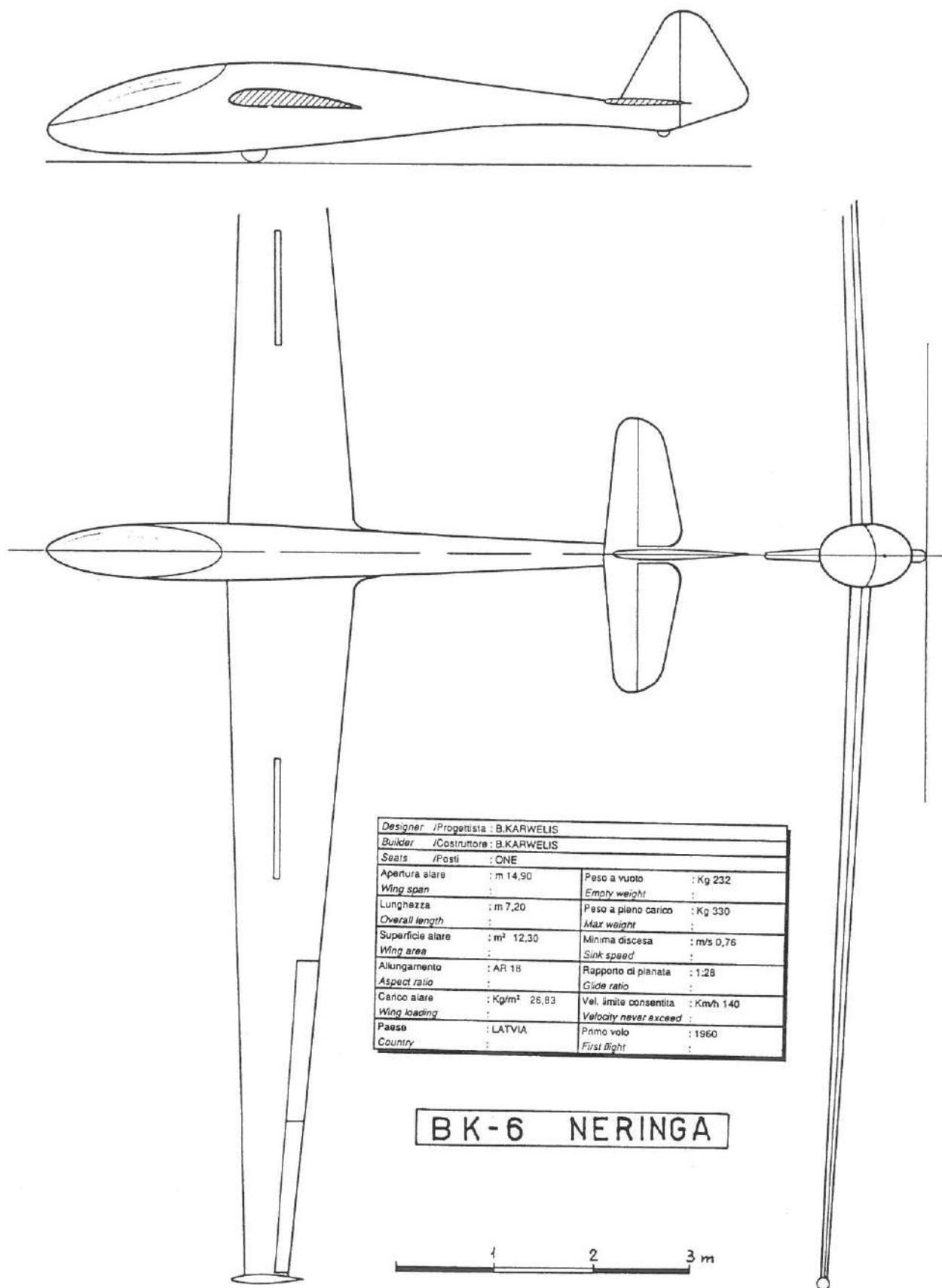




Designer / Progettista : E. WILNIS			
Builder / Costruttore : LUFTSPORTKLUB LIAPAJA			
Seats / Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 200
Wing span	:	Empty weight	:
Lunghezza	: m 6,60	Peso a pieno carico	: Kg 285
Overall length	:	Max weight	:
Superficie alare	: m ² 12,07	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 17,6	Rapporto di planata	: 1:29
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,5	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: LATVIA	Primo volo	: 1958
Country	:	First flight	:

EW - 4

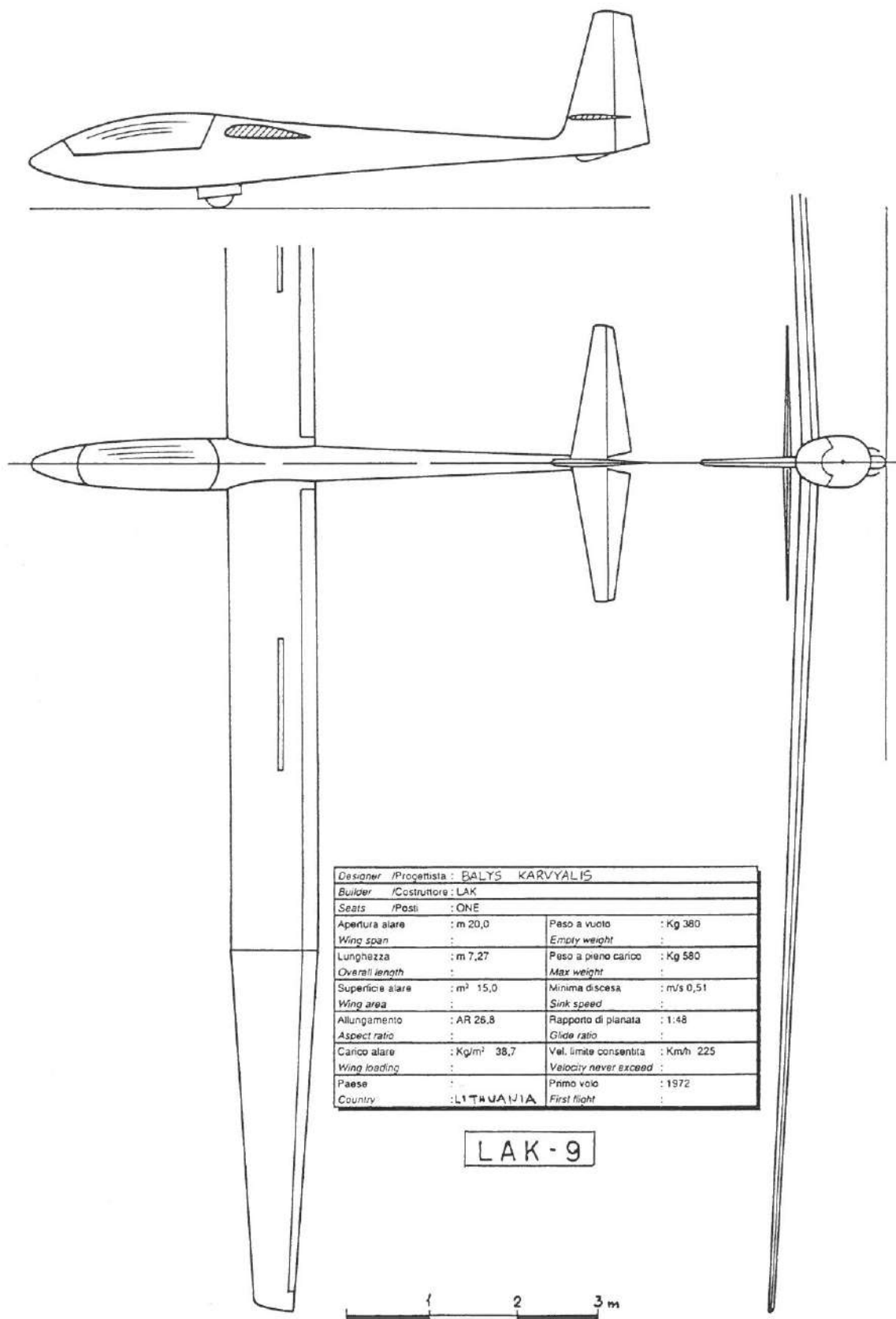


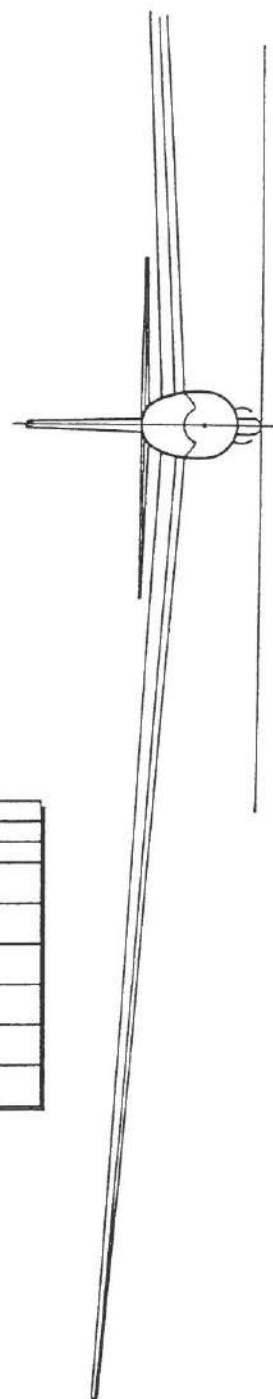
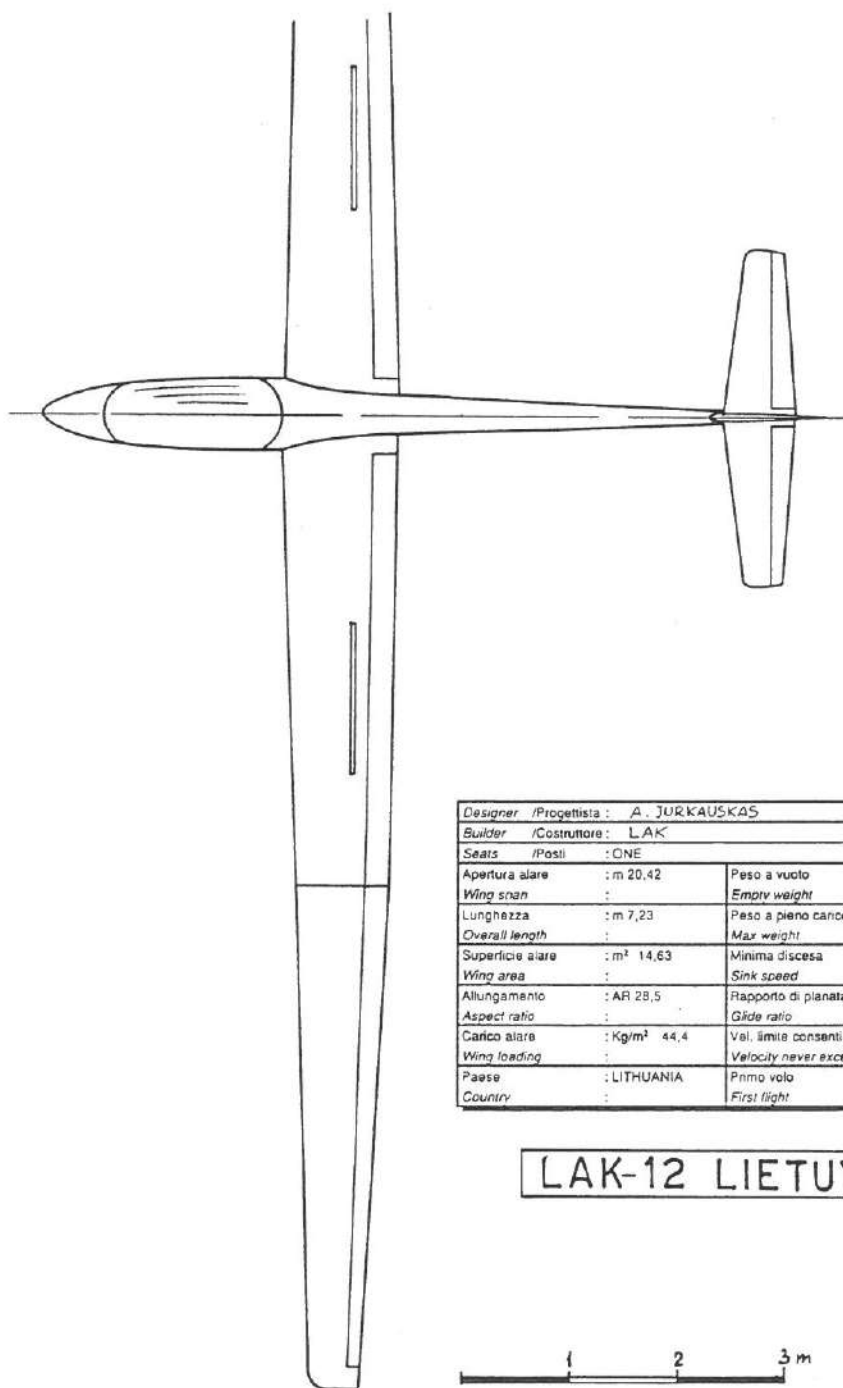
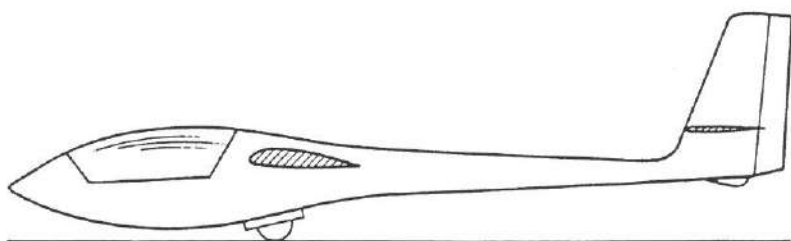


Designer / Progettista : B.KARWELIS			
Builder / Costruttore : B.KARWELIS			
Seats / Posti : ONE			
Apertura alare	: m 14,90	Peso a vuoto	: Kg 232
Wing span	:	Empty weight	:
Lunghezza	: m 7,20	Peso a pieno carico	: Kg 330
Overall length	:	Max weight	:
Superficie alare	: m ² 12,30	Minima discesa	: m/s 0,76
Wing area	:	Sink speed	:
Allungamento	: AR 18	Rapporto di planata	: 1:28
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,83	Vel. limite consentita	: Km/h 140
Wing loading	:	Velocity never exceed	:
Paese	: LATVIA	Primo volo	: 1960
Country	:	First flight	:

BK-6 NERINGA

1 2 3 m

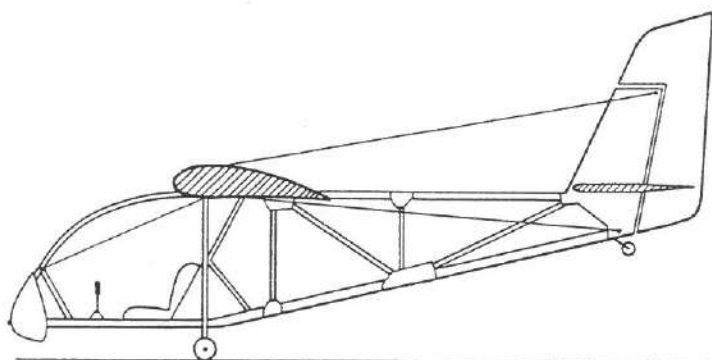




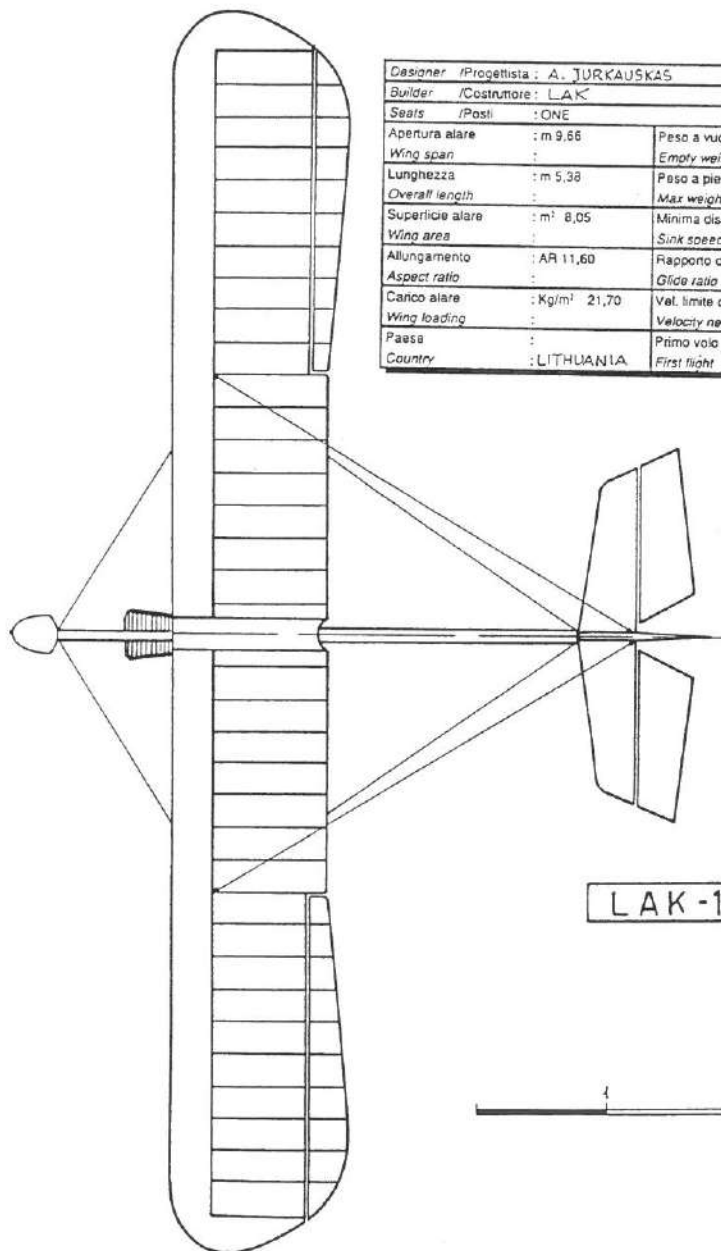
Designer /Progettista : A. JURKAUSKAS			
Builder /Costruttore : LAK			
Seats	/Posti	: ONE	
Apertura alare	: m	20,42	Peso a vuoto : Kg 360
Wing span	:		Empty weight :
Lunghezza	: m	7,23	Peso a pieno carico : Kg 650
Overall length	:		Max weight :
Superficie alare	: m ²	14,63	Minima discesa : m/s 0,58
Wing area	:		Sink speed :
Allungamento	: AR	28,5	Rapporto di planata : 1:47
Aspect ratio	:		Glide ratio :
Carico alare	: Kg/m ²	44,4	Vel. limite consentita : Km/h 250
Wing loading	:		Velocity never exceed :
Paese	: LITHUANIA		Primo volo :
Country	:		First flight :

LAK-12 LIETUVA

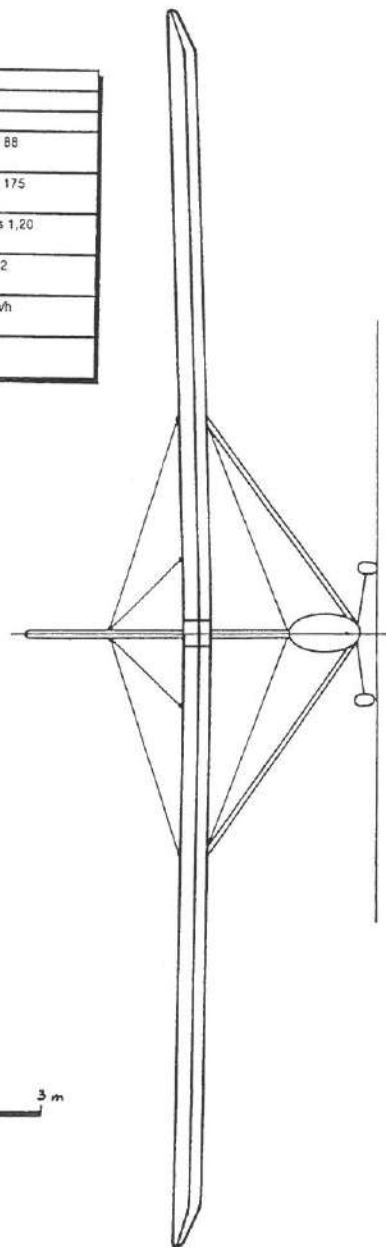


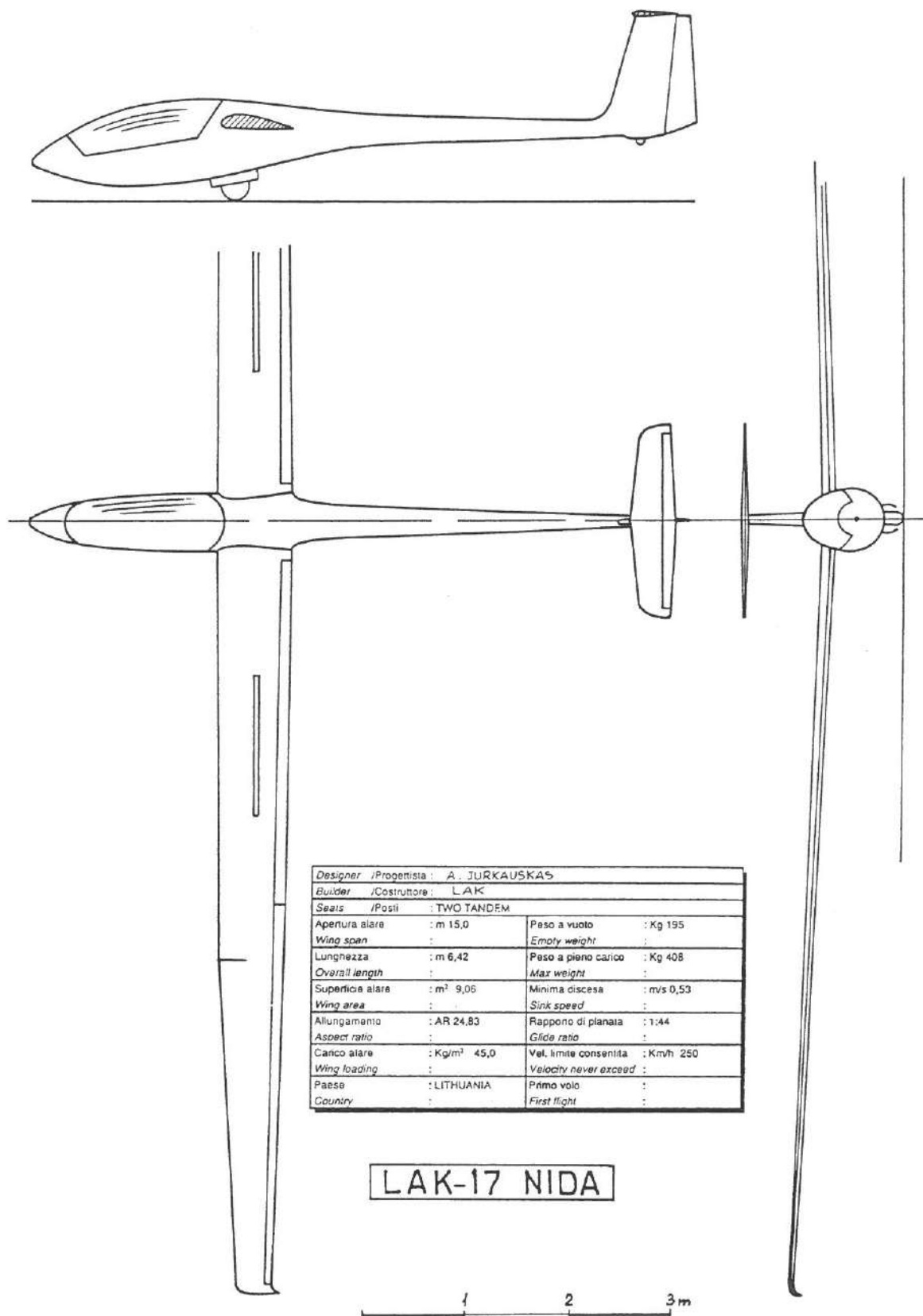


Designer /Progettista :	A. JURKAUSKAS		
Builder /Costruttore :	LAK		
Seats /Posti :	ONE		
Apertura alare	: m 9,88	Peso a vuoto	: Kg 88
Wing span	:	Empty weight	:
Lunghezza	: m 5,38	Peso a pieno carico	: Kg 175
Overall length	:	Max weight	:
Superficie alare	: m ² 8,05	Minima discesa	: m/s 1,20
Wing area	:	Sink speed	:
Allungamento	: AR 11,60	Rapporto di planata	: 1:12
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 21,70	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	:	Primo volo	:
Country	: LITHUANIA	First flight	:



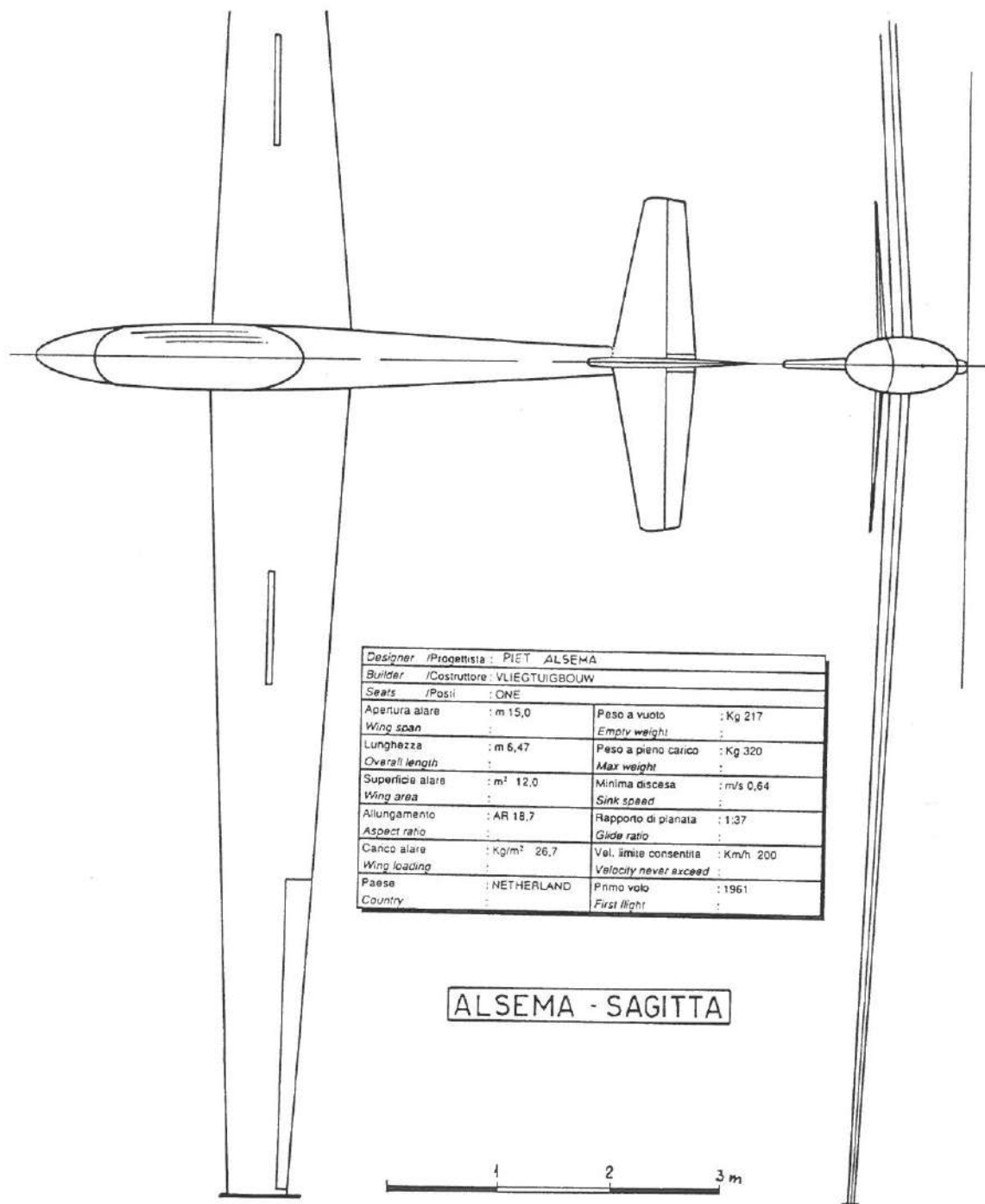
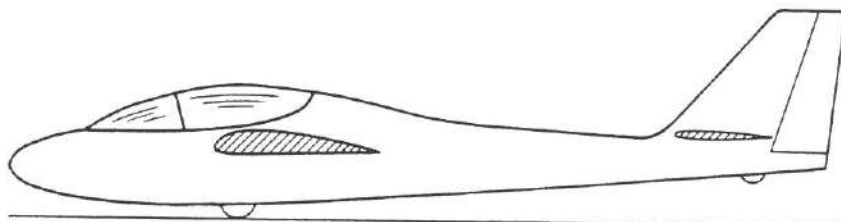
LAK-16





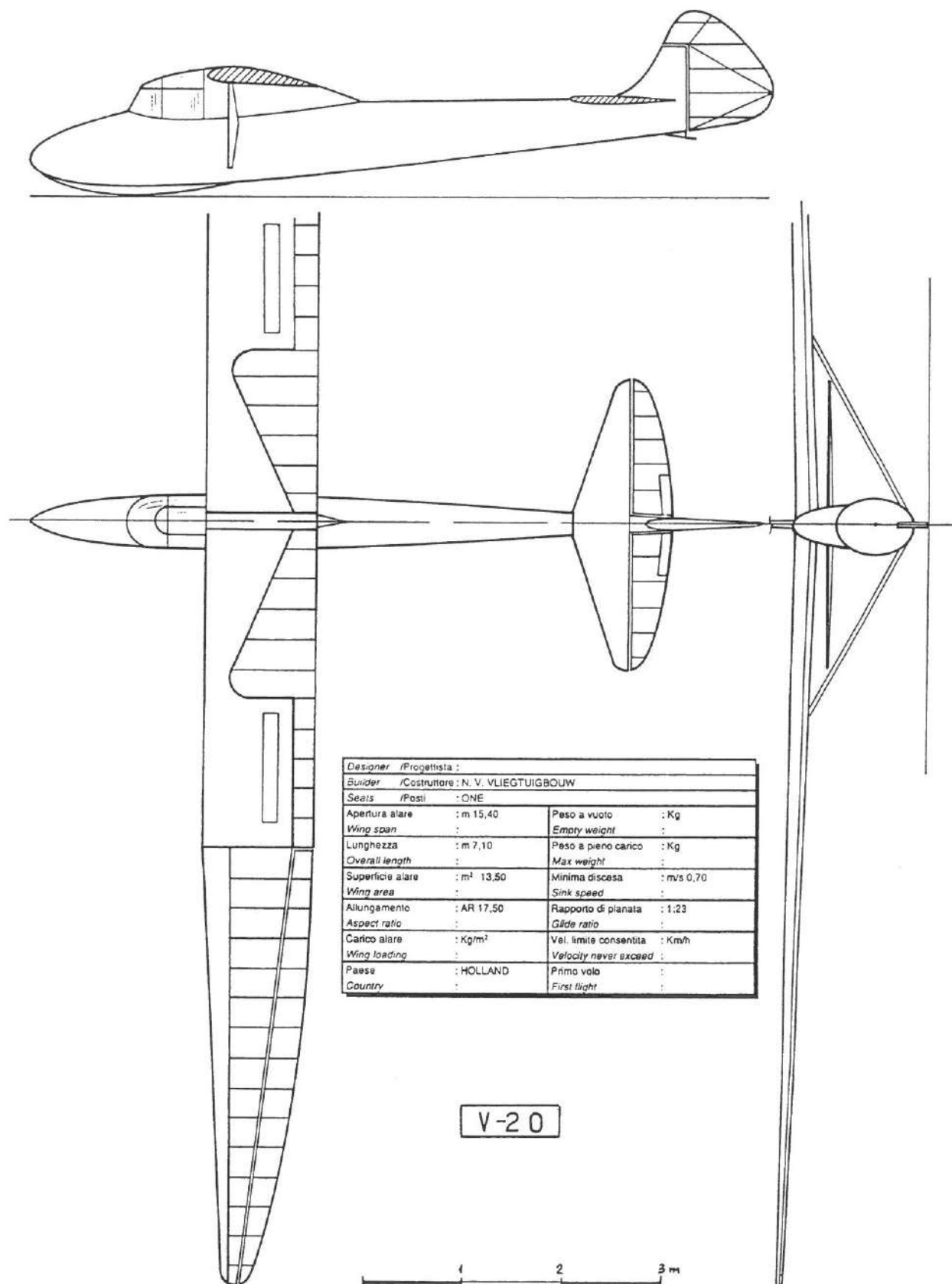
Designer / Progettista :	A. JURKAUSKAS		
Builder / Costruttore :	LAK		
Seats / Posti :	TWO TANDEM		
Apertura alare :	m 15,0	Peso a vuoto :	Kg 195
Wing span :		Empty weight :	
Lunghezza :	m 6,42	Peso a pieno carico :	Kg 408
Overall length :		Max weight :	
Superficie alare :	m ² 9,06	Minima discesa :	m/s 0,53
Wing area :		Sink speed :	
Allungamento :	AR 24,83	Rapporto di planata :	1:44
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 45,0	Vel. limite consentita :	Kmh 250
Wing loading :		Velocity never exceed :	
Paese :	LITHUANIA	Primo volo :	
Country :		First flight :	

LAK-17 NIDA



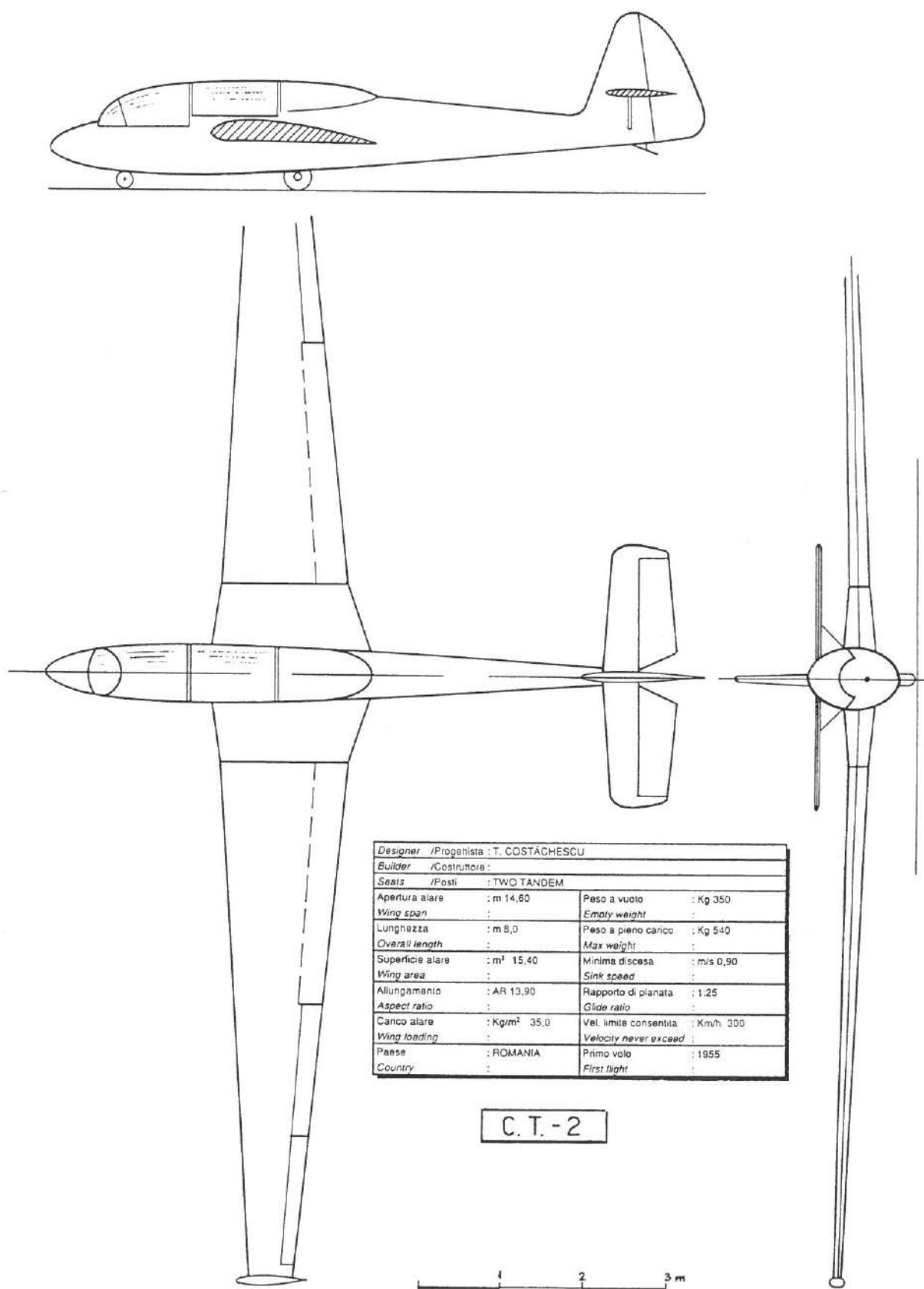
Designer /Progettista :	PIET ALSEMA		
Builder /Costruttore :	VLIETUIGBOUW		
Seats /Posili :	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 217
Wing span	:	Empty weight	:
Lunghezza	: m 6,47	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 12,0	Minima discesa	: m/s 0,64
Wing area	:	Sink speed	:
Allungamento	: AR 18,7	Rapporto di planata	: 1:37
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,7	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: NETHERLAND	Primo volo	: 1961
Country	:	First flight	:

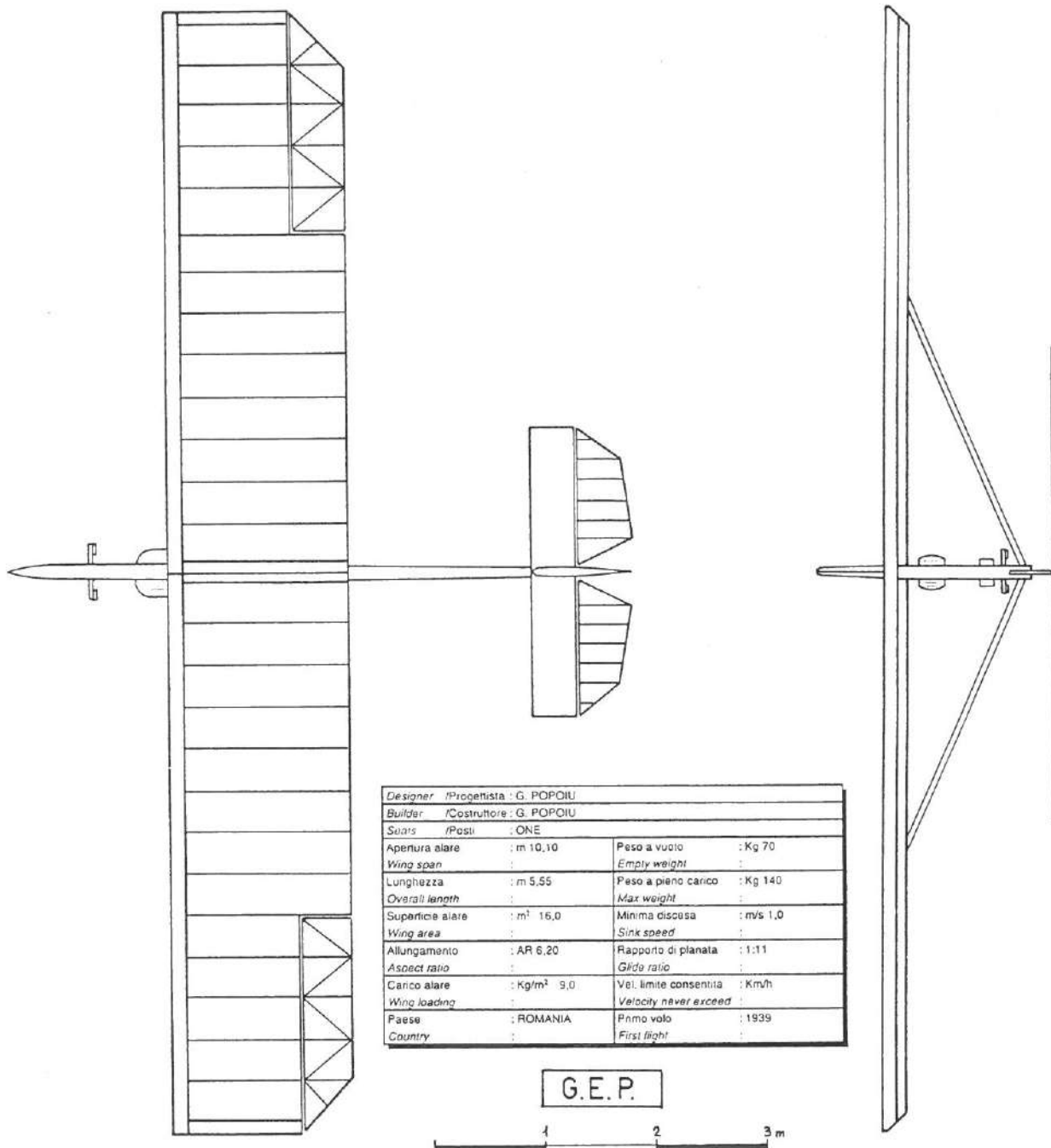
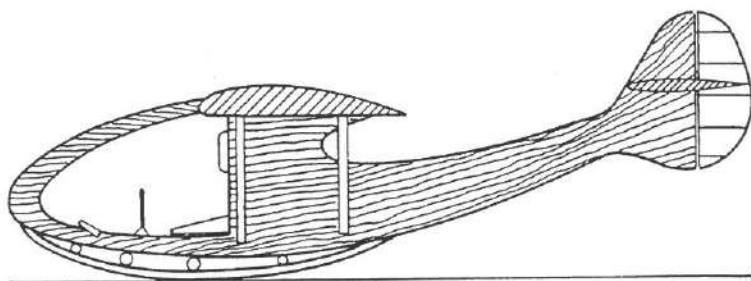
ALSEMA - SAGITTA



Designer /Progettista :			
Builder /Costruttore : N. V. VLIEGTUIGBOUW			
Seats /Posti : ONE			
Apertura alare	: m 15,40	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 7,10	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 13,50	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 17,50	Rapporto di planata	: 1:23
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: HOLLAND	Primo volo	:
Country	:	First flight	:

V-20

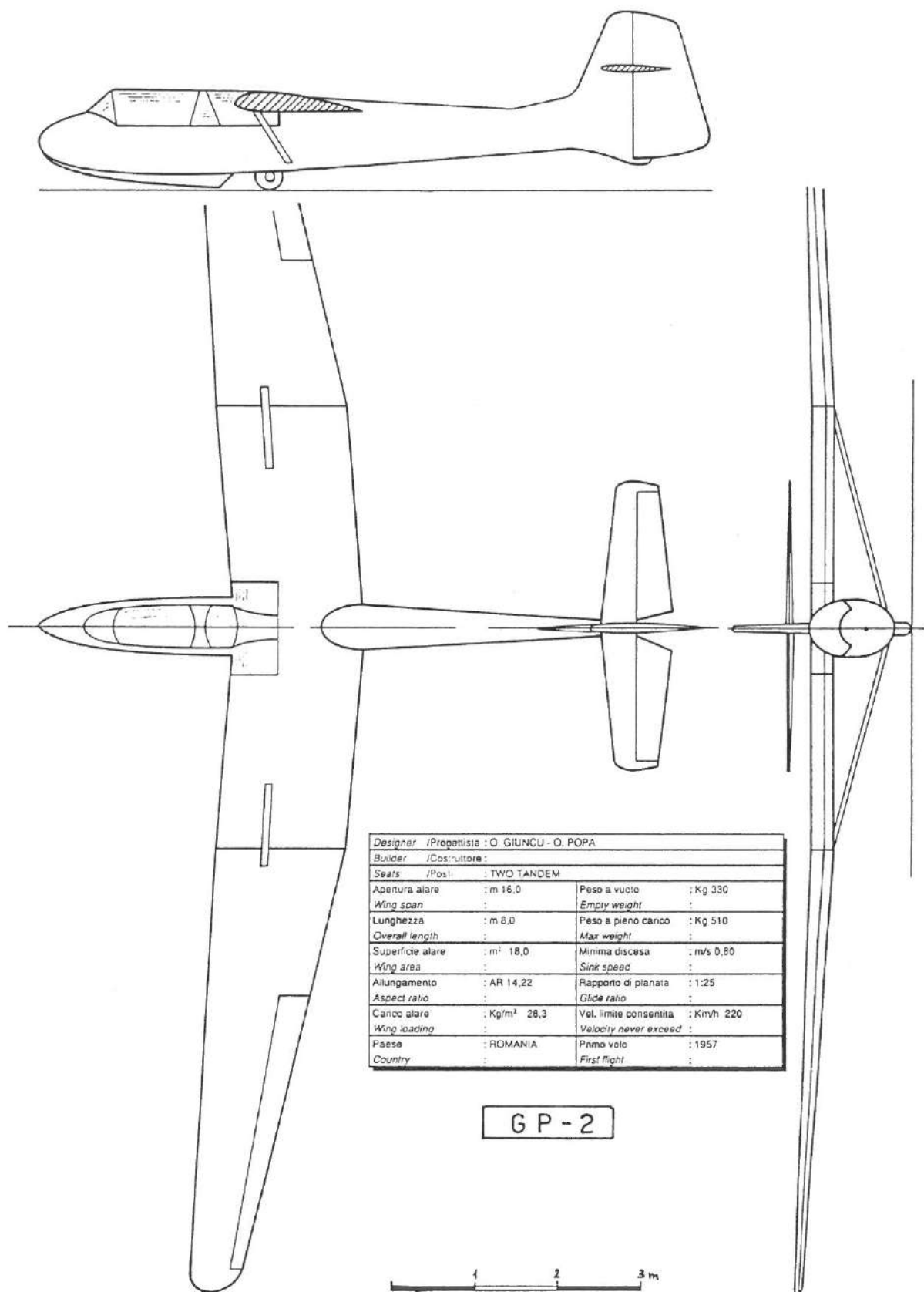


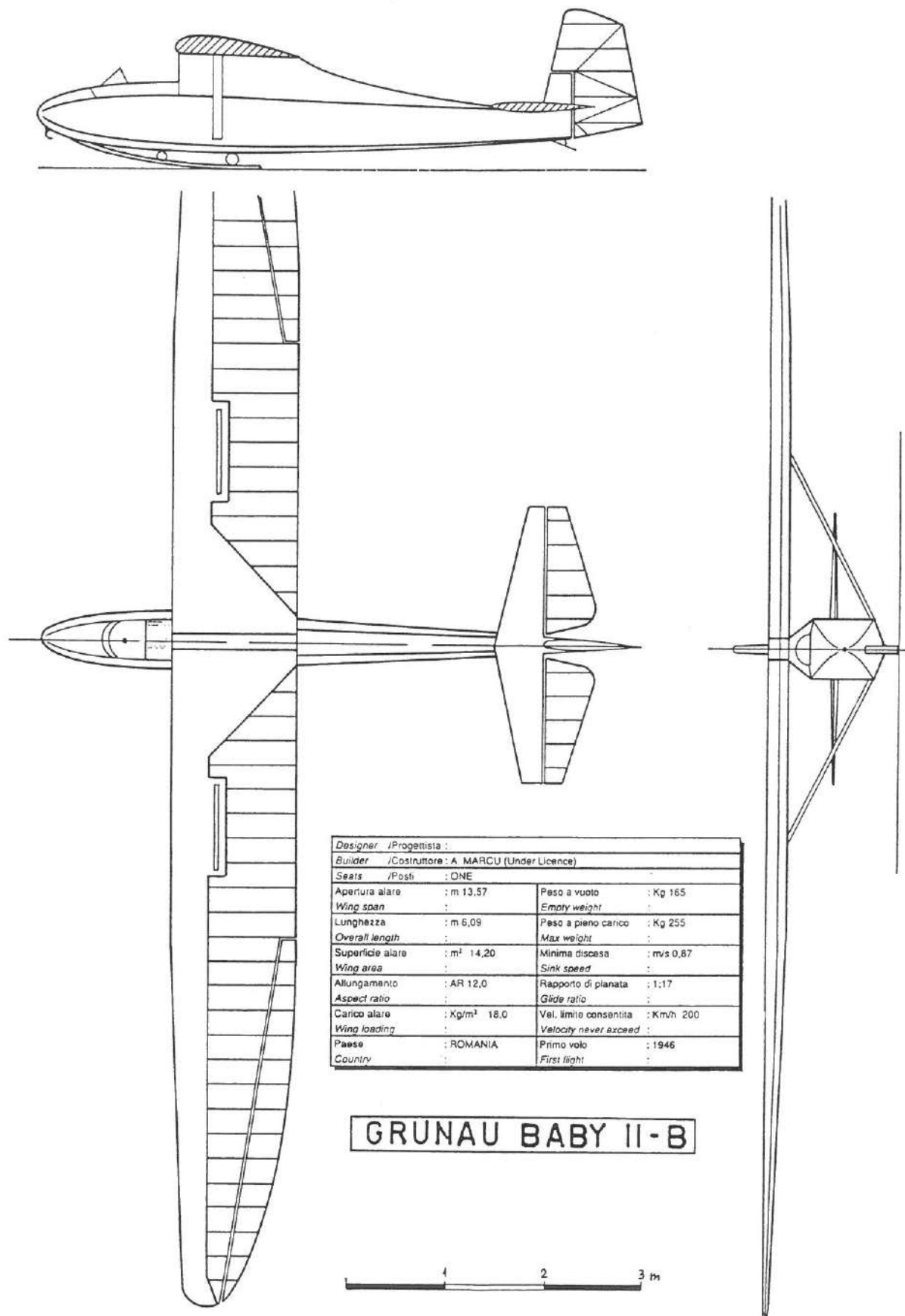


Designer / Progettista : G. POPOIU			
Builder / Costruttore : G. POPOIU			
Seats / Posti : ONE			
Apertura alare	: m 10,10	Peso a vuoto	: Kg 70
Wing span		Empty weight	
Lunghezza	: m 5,55	Peso a pieno carico	: Kg 140
Overall length		Max weight	
Superficie alare	: m ² 16,0	Minima discesa	: m/s 1,0
Wing area		Sink speed	
Allungamento	: AR 6,20	Rapporto di planata	: 1:11
Aspect ratio		Glide ratio	
Carico alare	: Kg/m ² 9,0	Vel. limite consentita	: Km/h
Wing loading		Velocity never exceed	
Paese	: ROMANIA	Primo volo	: 1939
Country		First flight	

G.E.P.



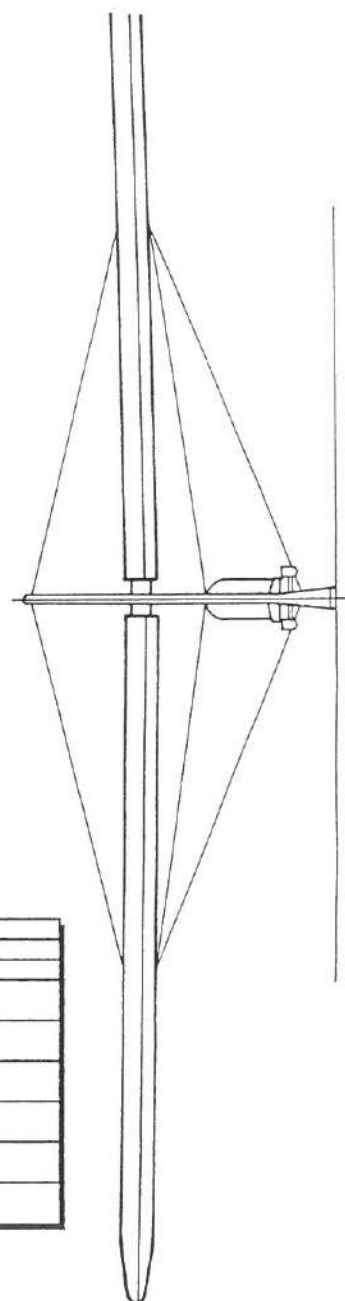
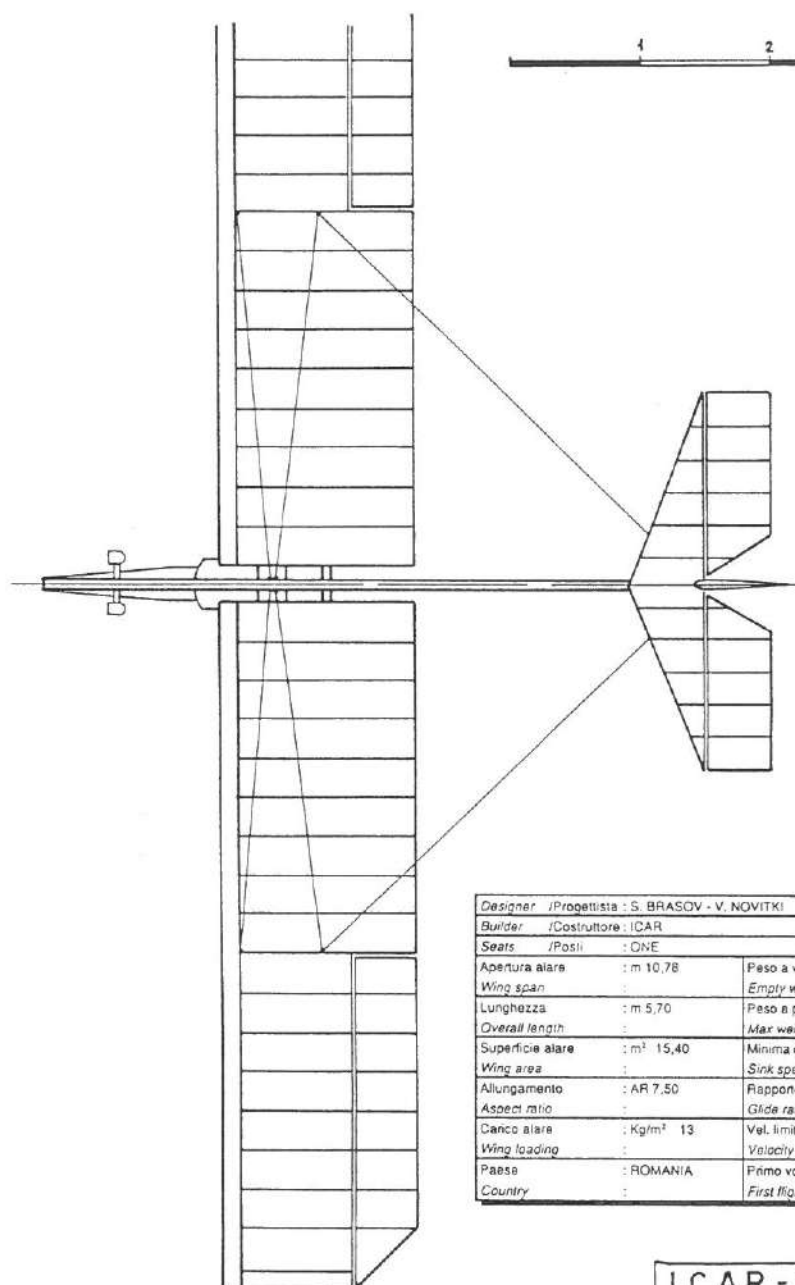
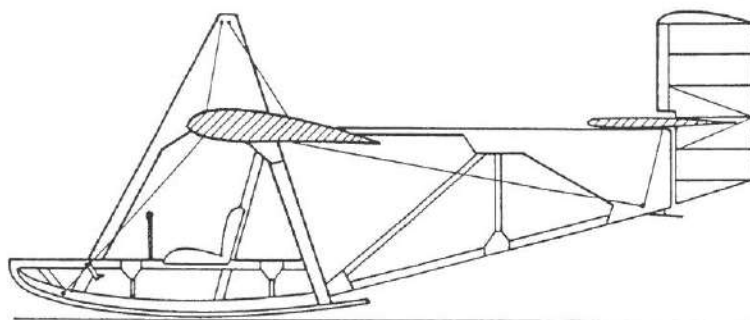




Designer /Progettista :			
Builder /Costruttore : A. MARCU (Under Licence)			
Seats /Posti :	ONE		
Apertura alare :	m 13,57	Peso a vuoto :	Kg 165
Wing span :		Empty weight :	
Lunghezza :	m 6,09	Peso a pieno carico :	Kg 255
Overall length :		Max weight :	
Superficie alare :	m ² 14,20	Minima discesa :	m/s 0,87
Wing area :		Sink speed :	
Allungamento :	AR 12,0	Rapporto di planata :	1:17
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 18,0	Vel. limite consentita :	Km/h 200
Wing loading :		Velocity never exceed :	
Paese :	ROMANIA	Primo volo :	1946
Country :		First flight :	

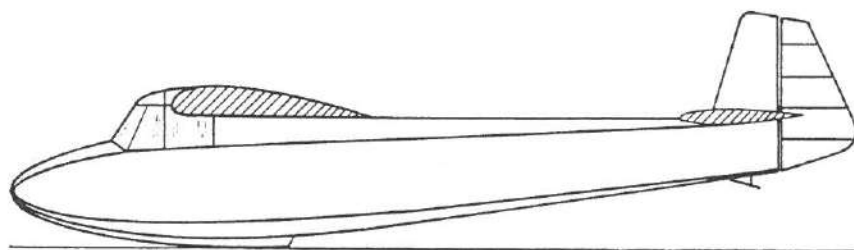
GRUNAU BABY II-B

1 2 3 m

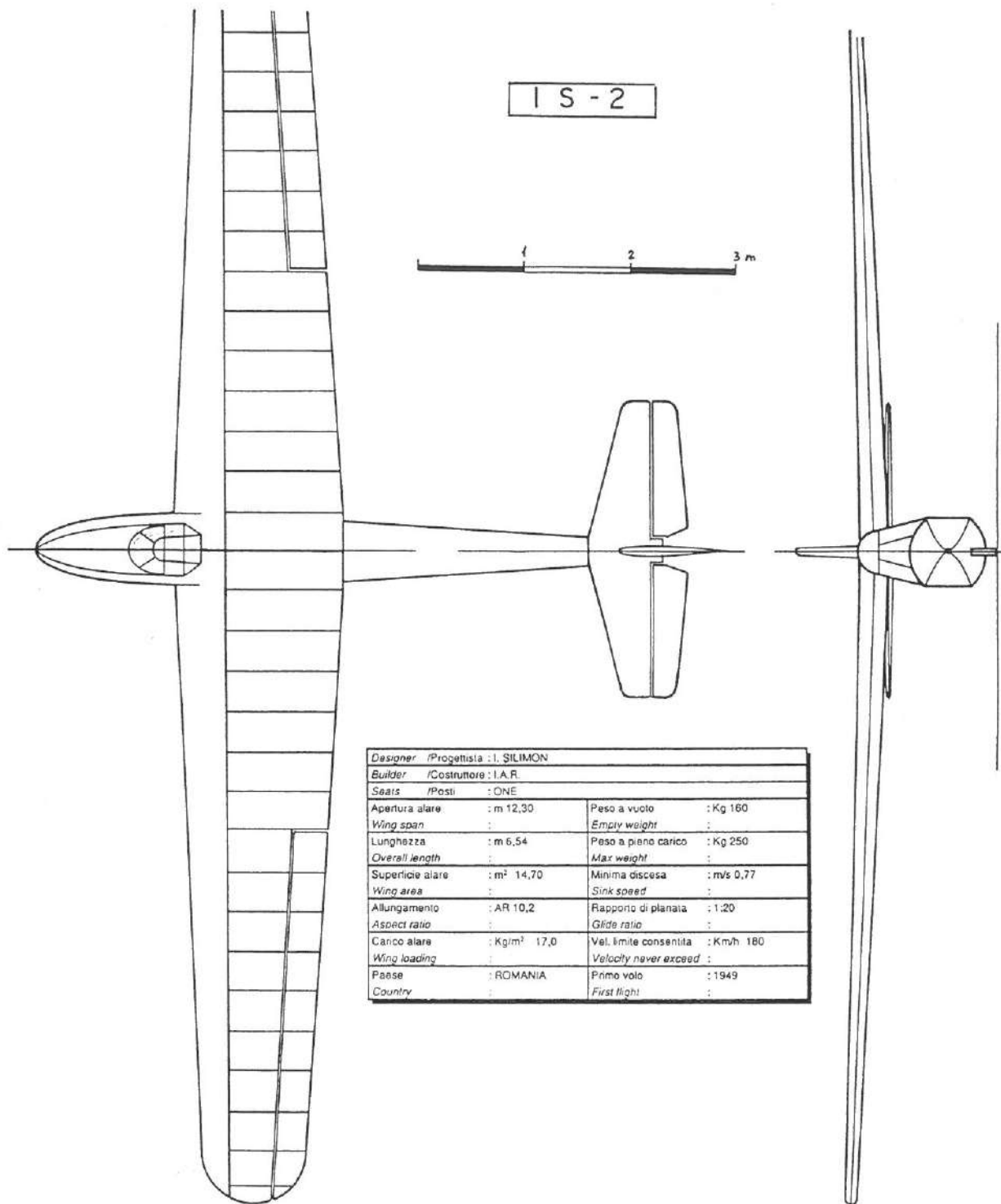


Designer / Progettista : S. BRASOV - V. NOVITKI			
Builder / Costruttore : ICAR			
Seats / Posti : ONE			
Apertura alare	: m 10,78	Peso a vuoto	: Kg 115
Wing span	:	Empty weight	:
Lunghezza	: m 5,70	Peso a pieno carico	: Kg 200
Overall length	:	Max weight	:
Superficie alare	: m ² 15,40	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 7,50	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 13	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1941
Country	:	First flight	:

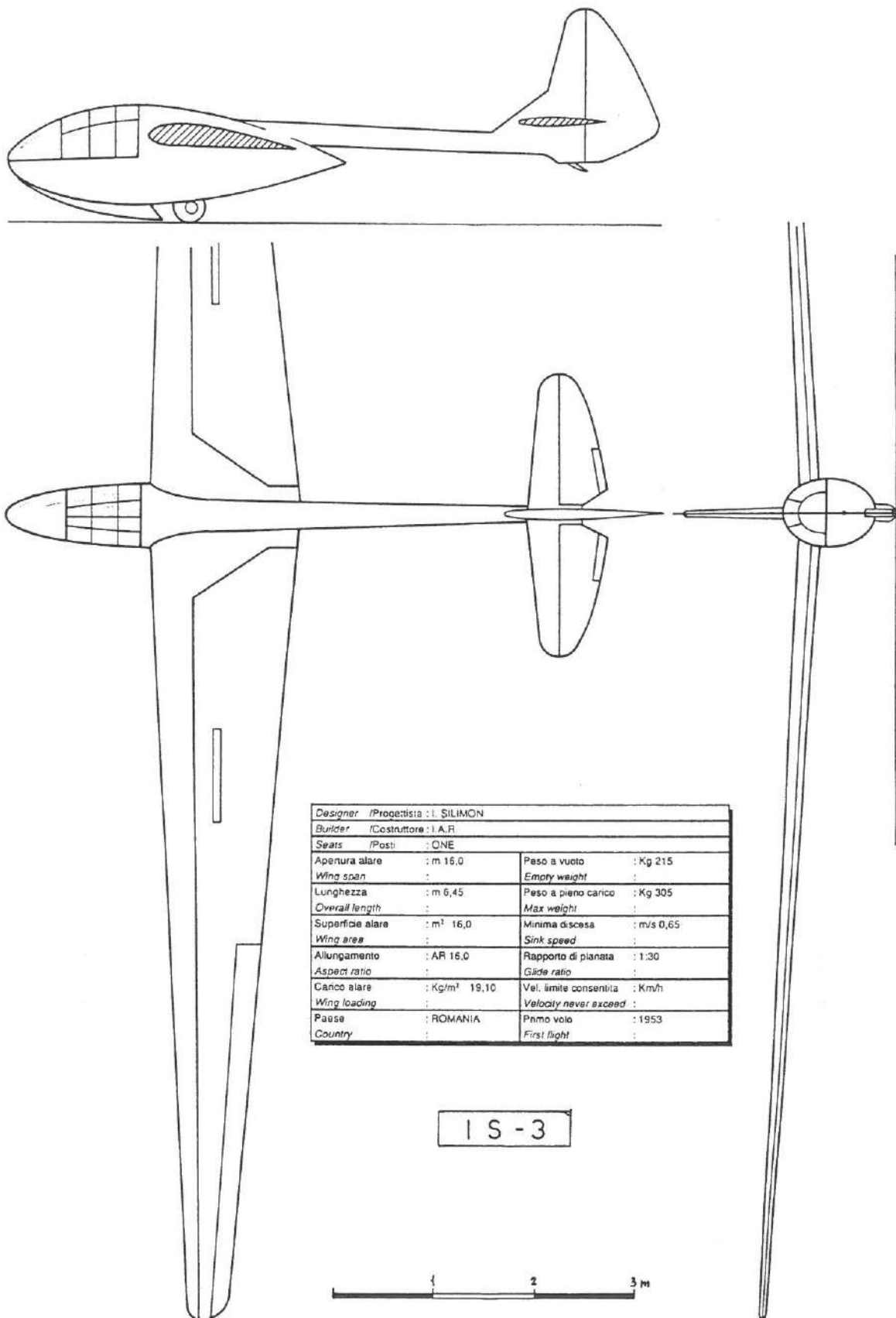
ICAR-1



IS - 2

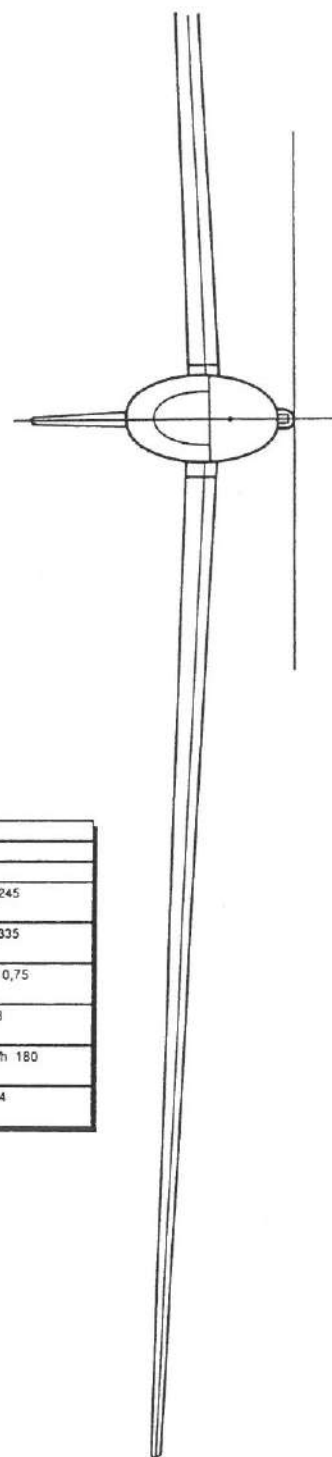
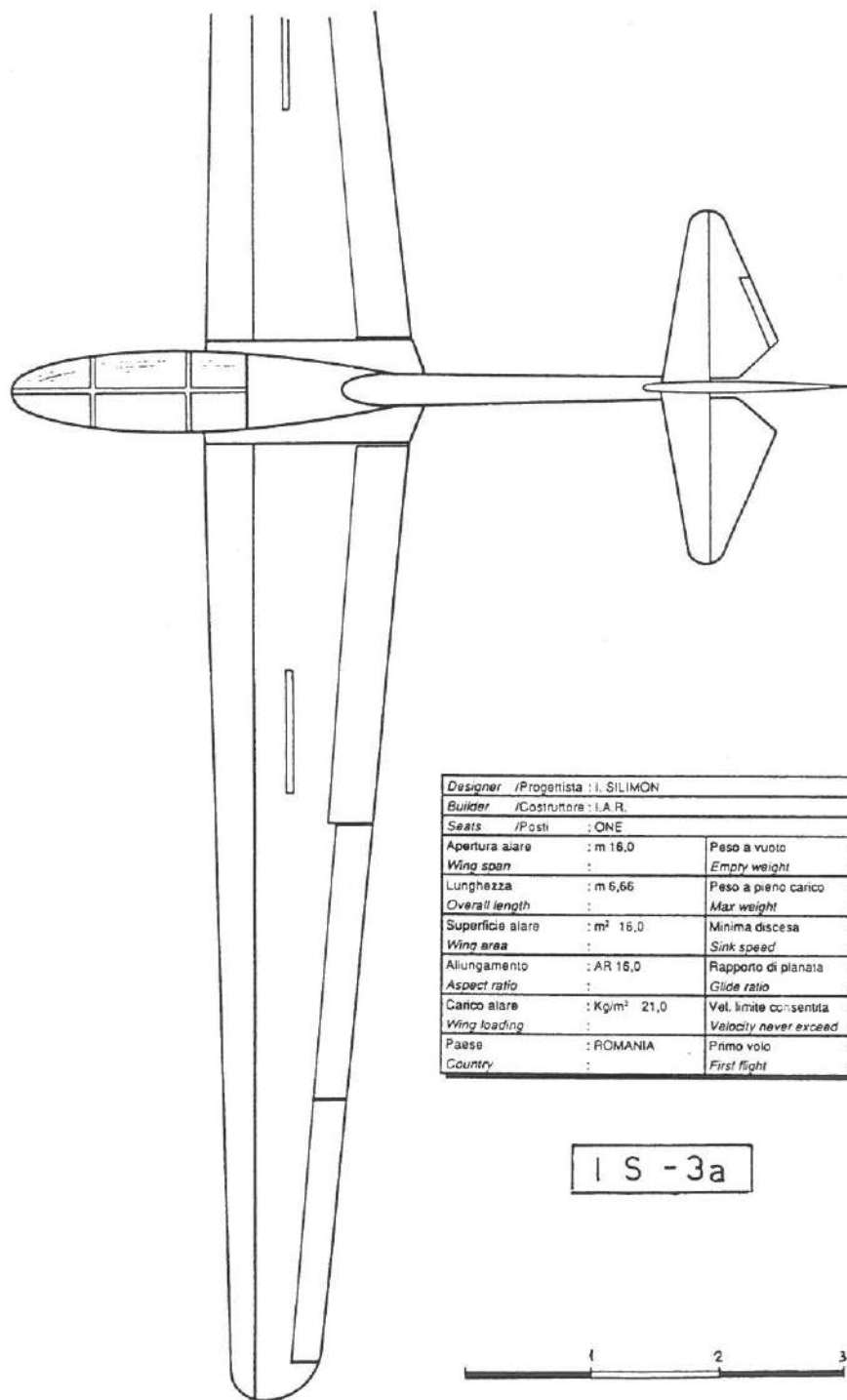
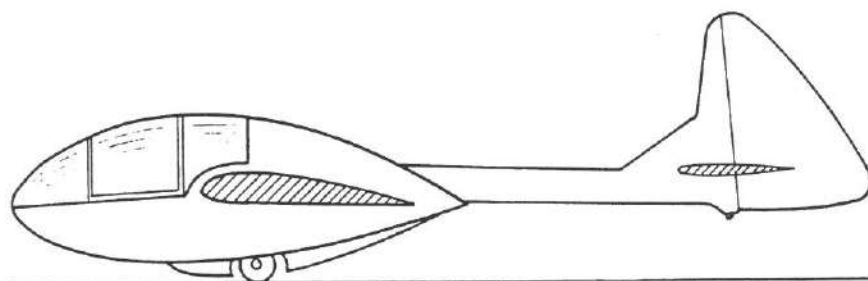


Designer	Progetista : I. SIMON		
Builder	Costruttore : I.A.R.		
Seats	Posti : ONE		
Apertura alare	: m 12,30	Peso a vuoto	: Kg 160
Wing span	:	Empty weight	:
Lunghezza	: m 6,54	Peso a pieno carico	: Kg 250
Overall length	:	Max weight	:
Superficie alare	: m ² 14,70	Minima discesa	: mvs 0,77
Wing area	:	Sink speed	:
Allungamento	: AR 10,2	Rapporto di planata	: 1:20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 17,0	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1949
Country	:	First flight	:



Designer /Progettista :	I. SILIMON		
Builder /Costruttore :	I.A.R.		
Seats /Posti :	ONE		
Apertura alare	: m 16,0	Peso a vuoto	: Kg 215
Wing span	:	Empty weight	:
Lunghezza	: m 6,45	Peso a pieno carico	: Kg 305
Overall length	:	Max weight	:
Superficie alare	: m ² 16,0	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 16,0	Rapporto di planata	: 1:30
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 19,10	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1953
Country	:	First flight	:

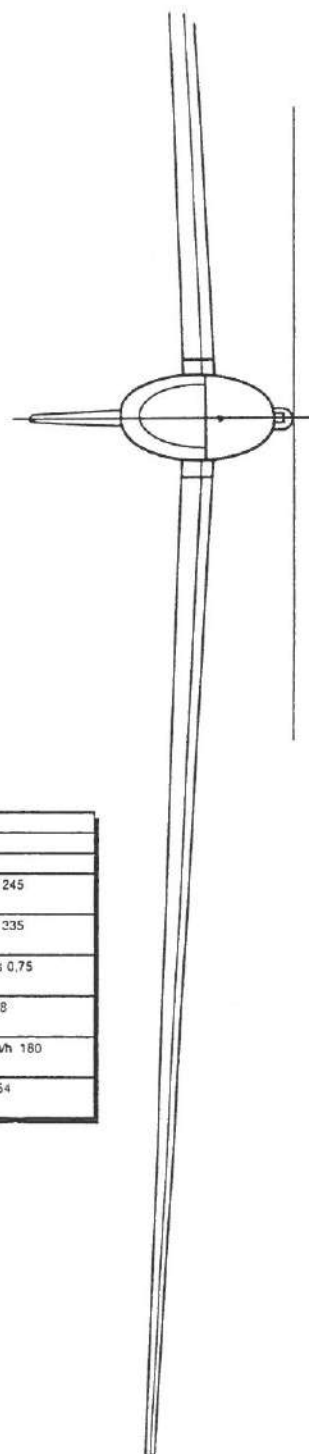
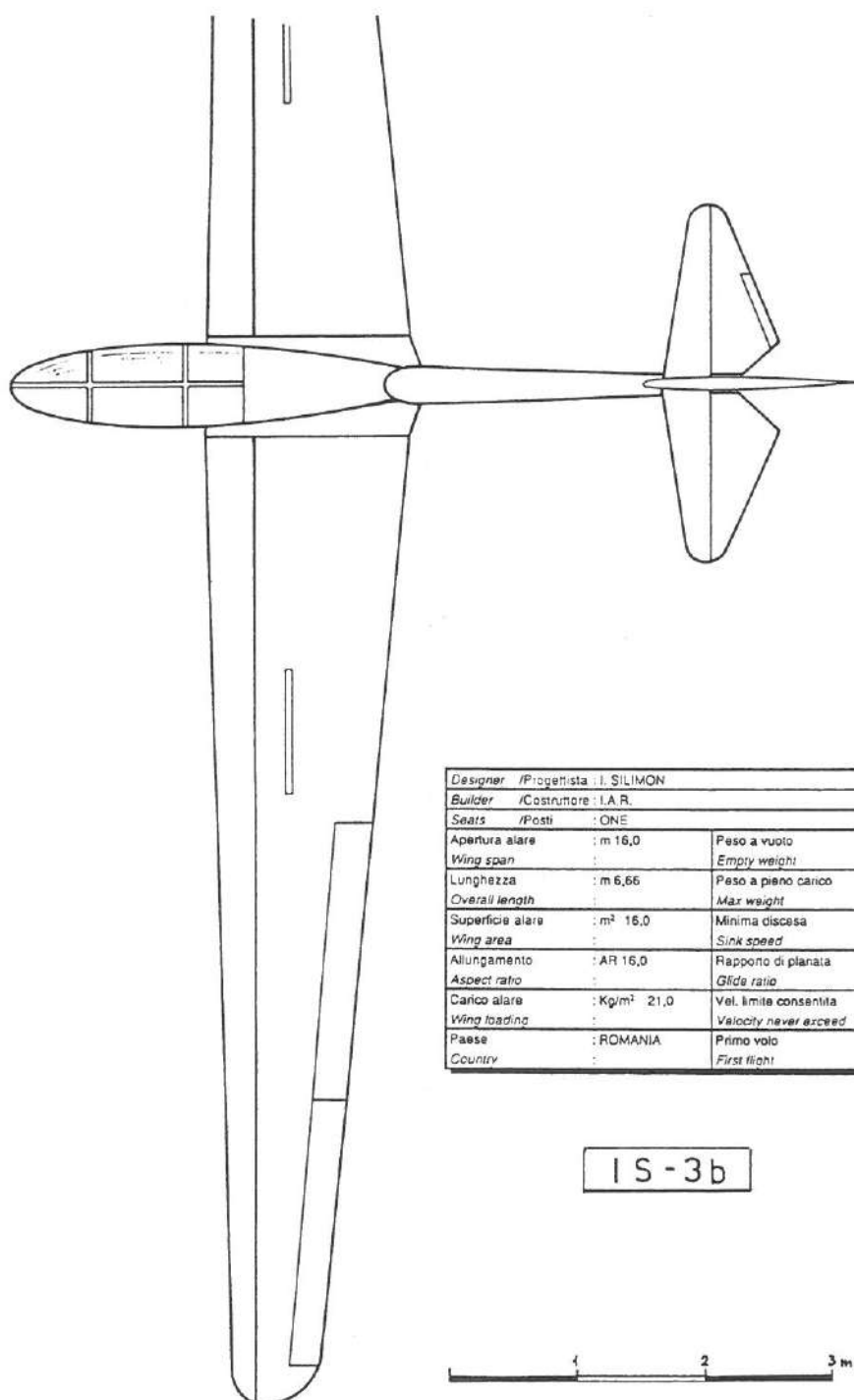
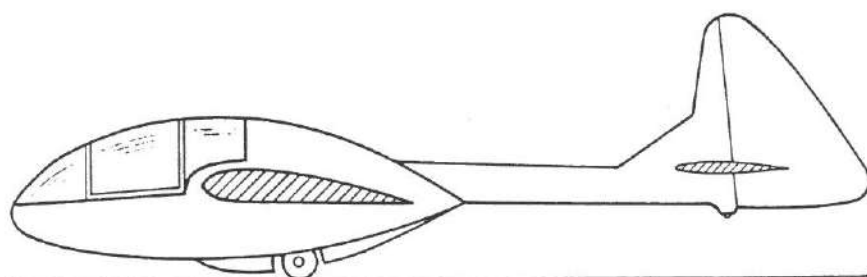
IS-3



<i>Designer / Progettista</i> : I. SILIMON			
<i>Builder / Costruttore</i> : I.A.R.			
<i>Seats / Posti</i> : ONE			
<i>Apertura alare</i>	: m 16,0	<i>Peso a vuoto</i>	: Kg 245
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 6,66	<i>Peso a pieno carico</i>	: Kg 335
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 16,0	<i>Minima discesa</i>	: m/s 0,75
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 16,0	<i>Rapporto di planata</i>	: 1:28
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 21,0	<i>Vel. limite consentita</i>	: Km/h 180
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: ROMANIA	<i>Primo volo</i>	: 1954
<i>Country</i>	:	<i>First flight</i>	:

I S - 3a

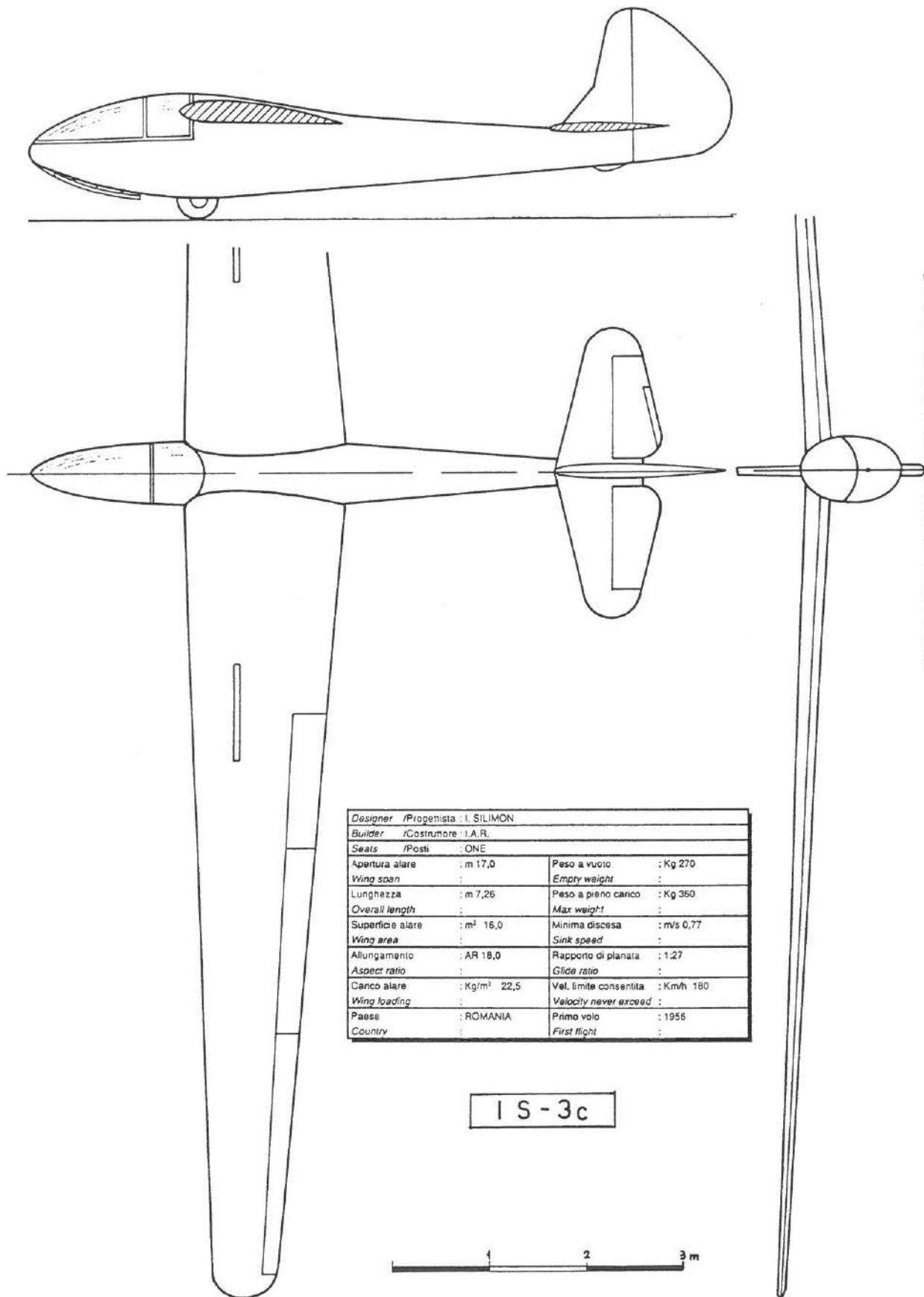




Designer /Progettista : I. SILIMON			
Builder /Costruttore : I.A.R.			
Seats /Posti : ONE			
Apertura alare	: m 16,0	Peso a vuoto	: Kg 245
Wing span	:	Empty weight	:
Lunghezza	: m 6,66	Peso a pieno carico	: Kg 335
Overall length	:	Max weight	:
Superficie alare	: m ² 16,0	Minima discesa	: m/s 0,75
Wing area	:	Sink speed	:
Allungamento	: AR 16,0	Rapporto di planata	: 1,28
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 21,0	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1954
Country	:	First flight	:

IS-3b

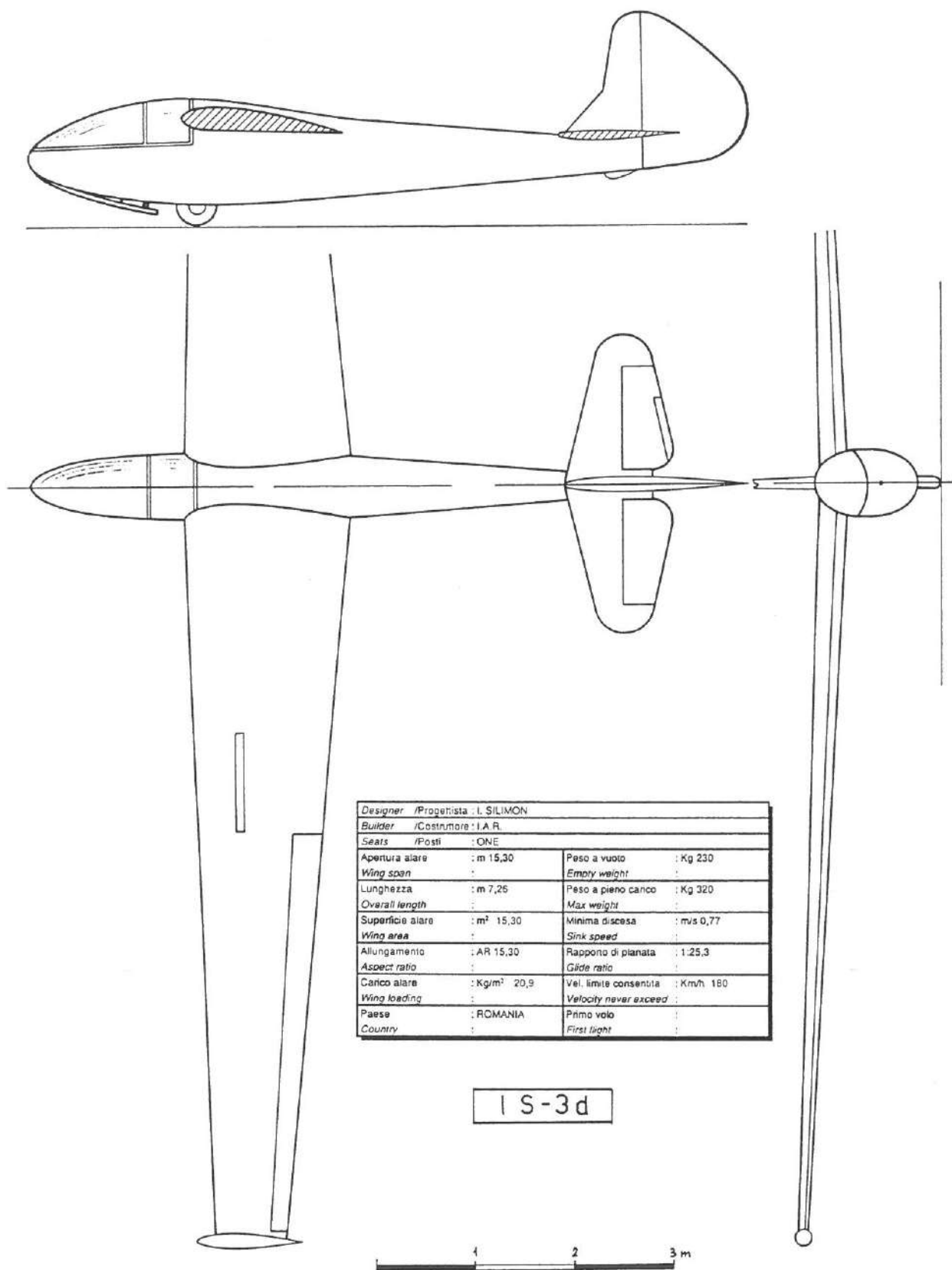




Designer	/Progettista : I. SILIMON		
Builder	/Costruttore : I.A.R.		
Seats	/Posti	: ONE	
Apertura alare	: m	17,0	Peso a vuoto : Kg 270
Wing span	:		Empty weight :
Lunghezza	: m	7,26	Peso a pieno carico : Kg 360
Overall length	:		Max weight :
Superficie alare	: m ²	16,0	Minima discesa : m/s 0,77
Wing area	:		Sink speed :
Allungamento	: AR	18,0	Rapporto di planata : 1:27
Aspect ratio	:		Glide ratio :
Carico alare	: Kg/m ²	22,5	Vel. limite consentita : Km/h 180
Wing loading	:		Velocity never exceed :
Paese	:	ROMANIA	Primo volo : 1956
Country	:		First flight :

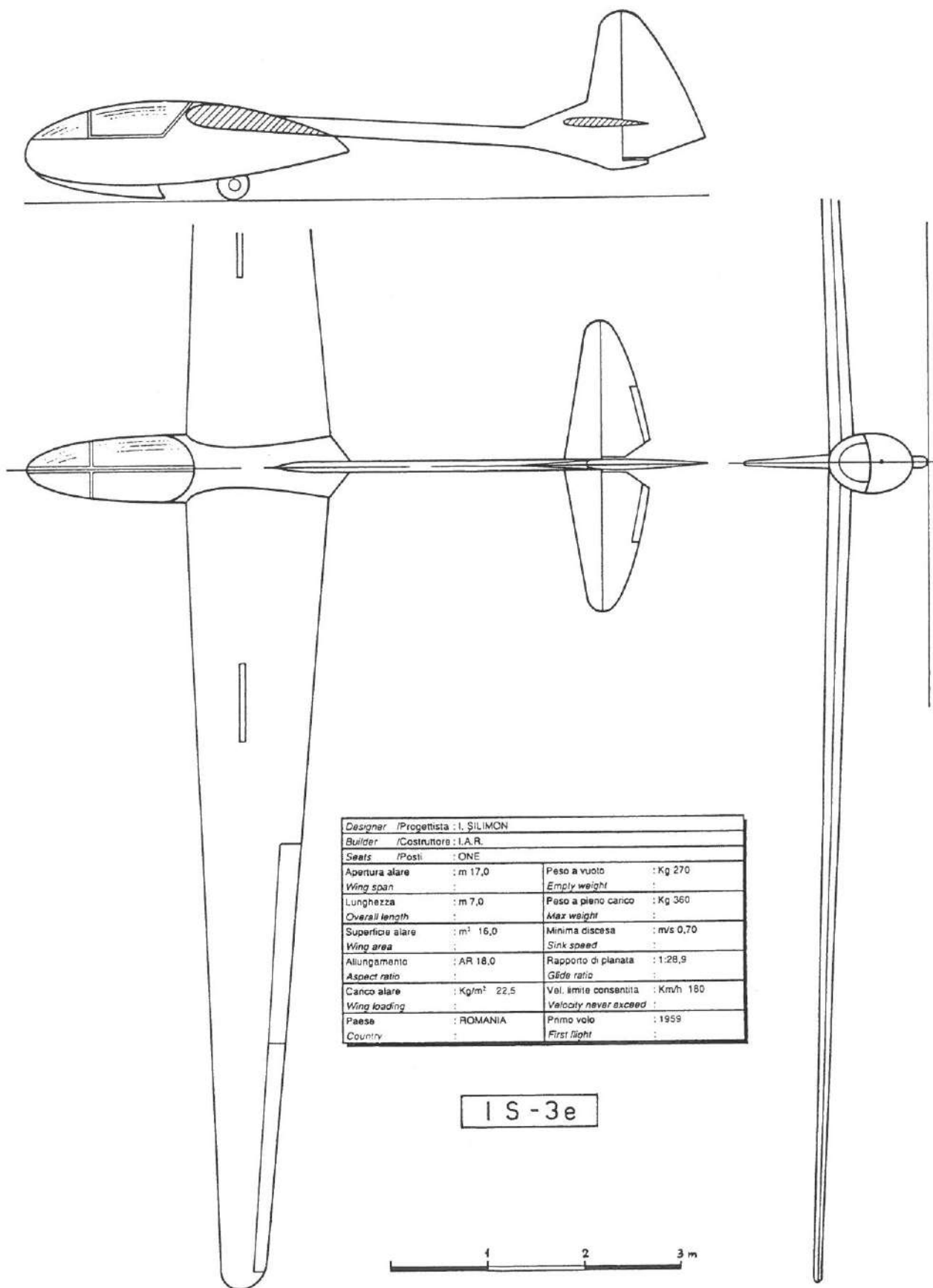
I S - 3c

1 2 3 m



Designer /Progetista : I. SILIMON			
Builder /Costruttore : I.A.R.			
Seats /Posti : ONE			
Apertura alare	: m 15,30	Peso a vuoto	: Kg 230
Wing span	:	Empty weight	:
Lunghezza	: m 7,25	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 15,30	Minima discesa	: mvs 0,77
Wing area	:	Sink speed	:
Allungamento	: AR 15,30	Rapporto di planata	: 1.25,3
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 20,9	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	:
Country	:	First flight	:

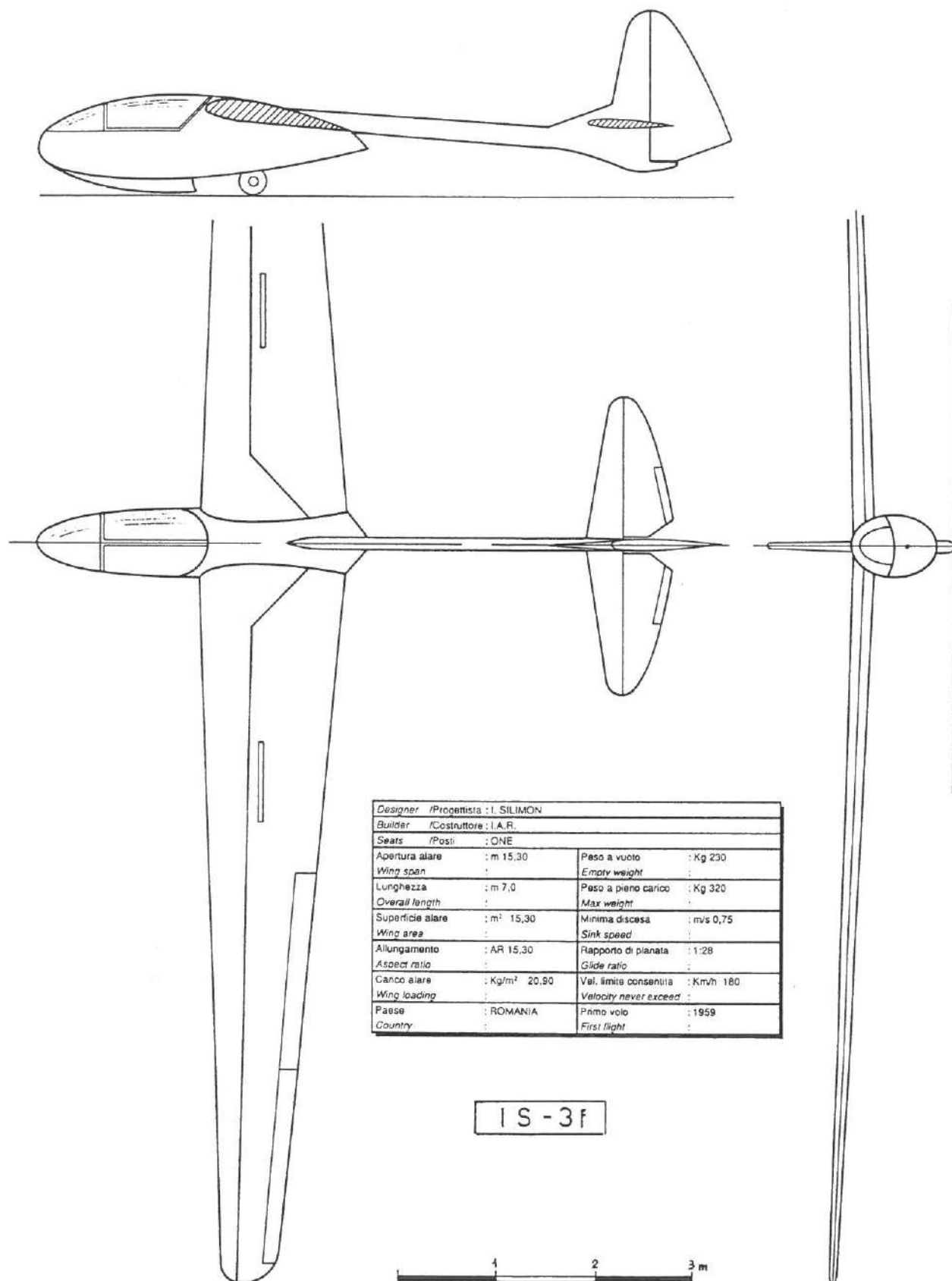
IS-3d



Designer /Progettista : I. SILIMON			
Builder /Costruttore : I.A.R.			
Seats /Posti : ONE			
Apertura alare	: m 17,0	Peso a vuoto	: Kg 270
Wing span	:	Empty weight	:
Lunghezza	: m 7,0	Peso a pieno carico	: Kg 360
Overall length	:	Max weight	:
Superficie alare	: m ² 16,0	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 18,0	Rapporto di planata	: 1:28,9
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,5	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1959
Country	:	First flight	:

I S - 3e

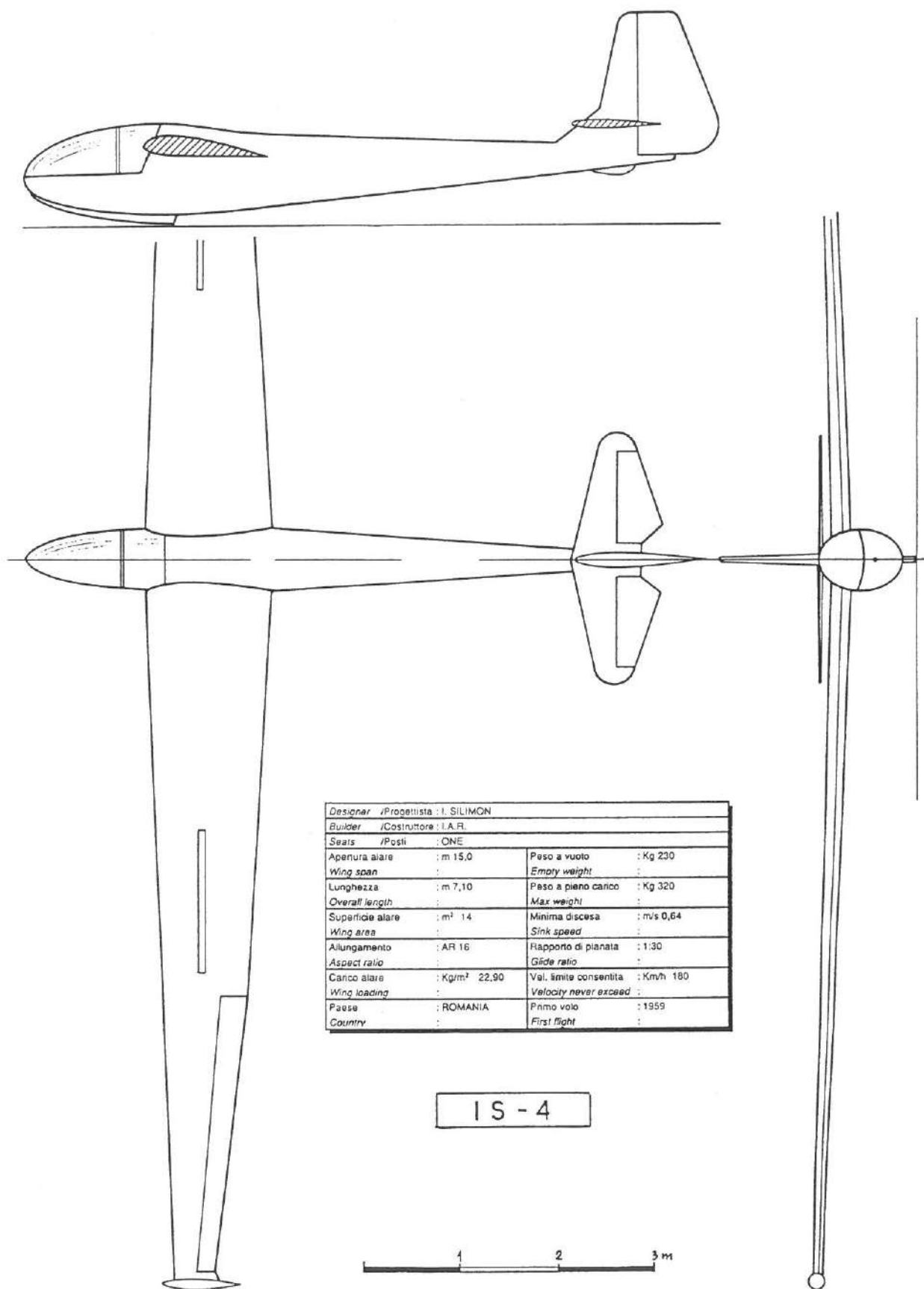
1 2 3 m



Designer / Progettista	: I. SILIMON		
Builder / Costruttore	: I.A.R.		
Seats / Posti	: ONE		
Apertura alare	: m 15,30	Peso a vuoto	: Kg 230
Wing span	:	Empty weight	:
Lunghezza	: m 7,0	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 15,30	Minima discesa	: m/s 0,75
Wing area	:	Sink speed	:
Allungamento	: AR 15,30	Rapporto di planata	: 1:28
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 20,90	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1959
Country	:	First flight	:

IS-3f

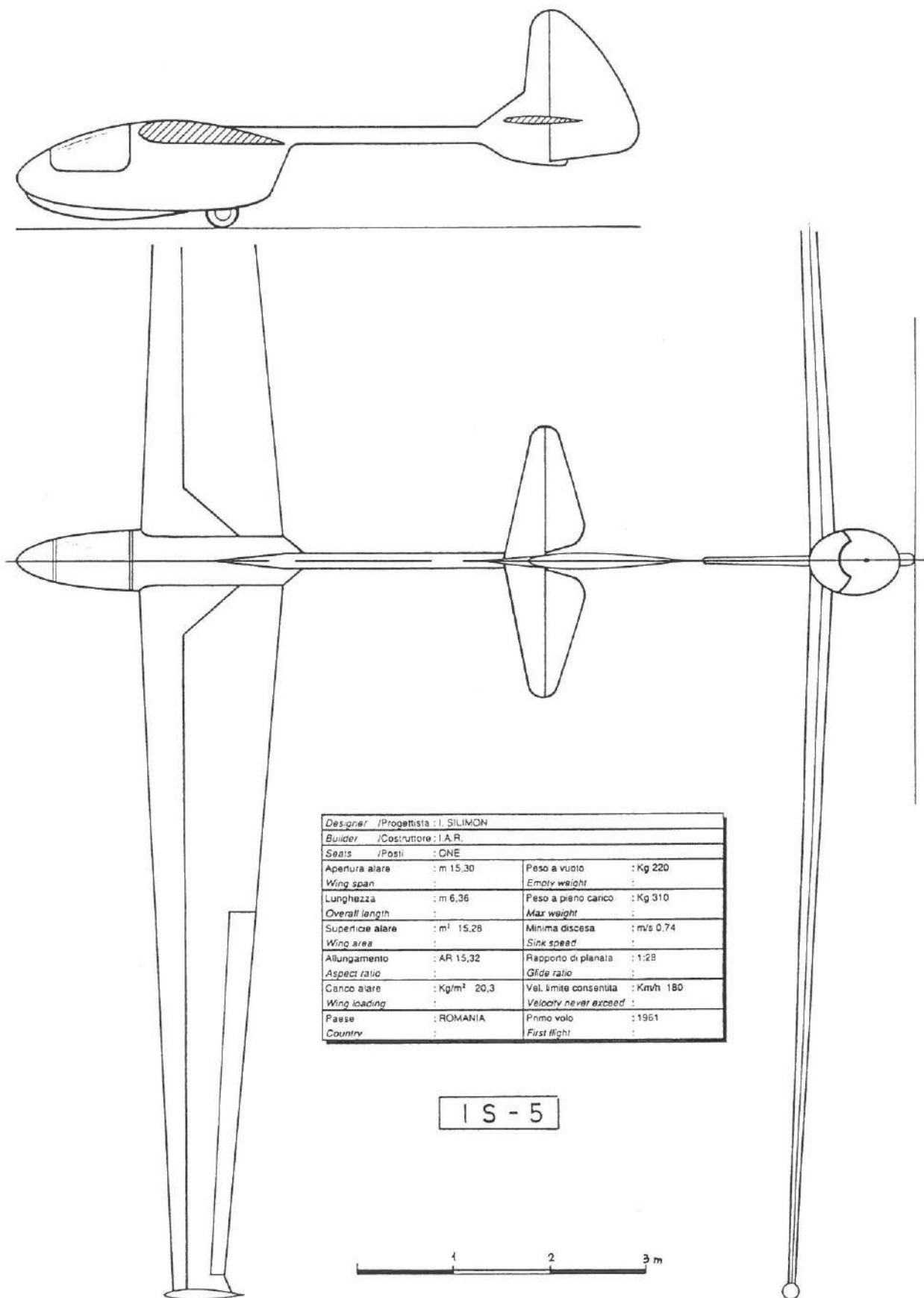
1 2 3 m



Designer /Progettista	: I. SILIMON		
Builder /Costruttore	: I.A.R.		
Seats /Posti	: ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 230
Wing span	:	Empty weight	:
Lunghezza	: m 7,10	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 14	Minima discesa	: m/s 0,64
Wing area	:	Sink speed	:
Allungamento	: AR 16	Rapporto di planata	: 1:30
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,90	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1959
Country	:	First flight	:

IS - 4

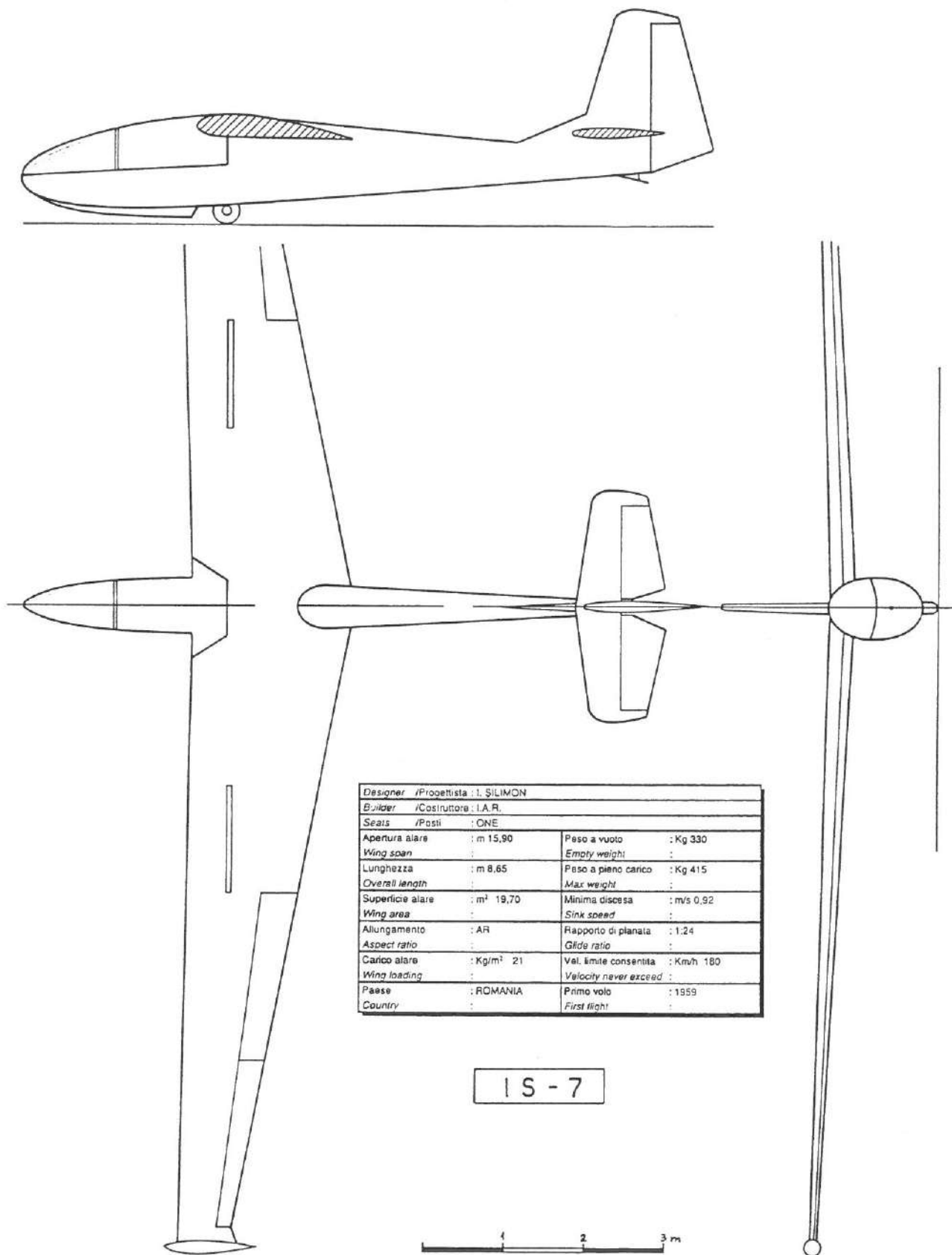
1 2 3 m



Designer	Progettista : I. SILIMON		
Builder	Costruttore : I.A.R.		
Seats	Posti	ONE	
Apertura alare	: m	15,30	Peso a vuoto : Kg 220
Wing span	:		Empty weight :
Lunghezza	: m	6,36	Peso a pieno carico : Kg 310
Overall length	:		Max weight :
Superficie alare	: m ²	15,28	Minima discesa : m/s 0,74
Wing area	:		Sink speed :
Allungamento	: AR	15,32	Rapporto di planata : 1,28
Aspect ratio	:		Glide ratio :
Carico alare	: Kg/m ²	20,3	Vel. limite consentita : Km/h 180
Wing loading	:		Velocity never exceed :
Paese	: ROMANIA		Primo volo : 1961
Country	:		First flight :

IS - 5

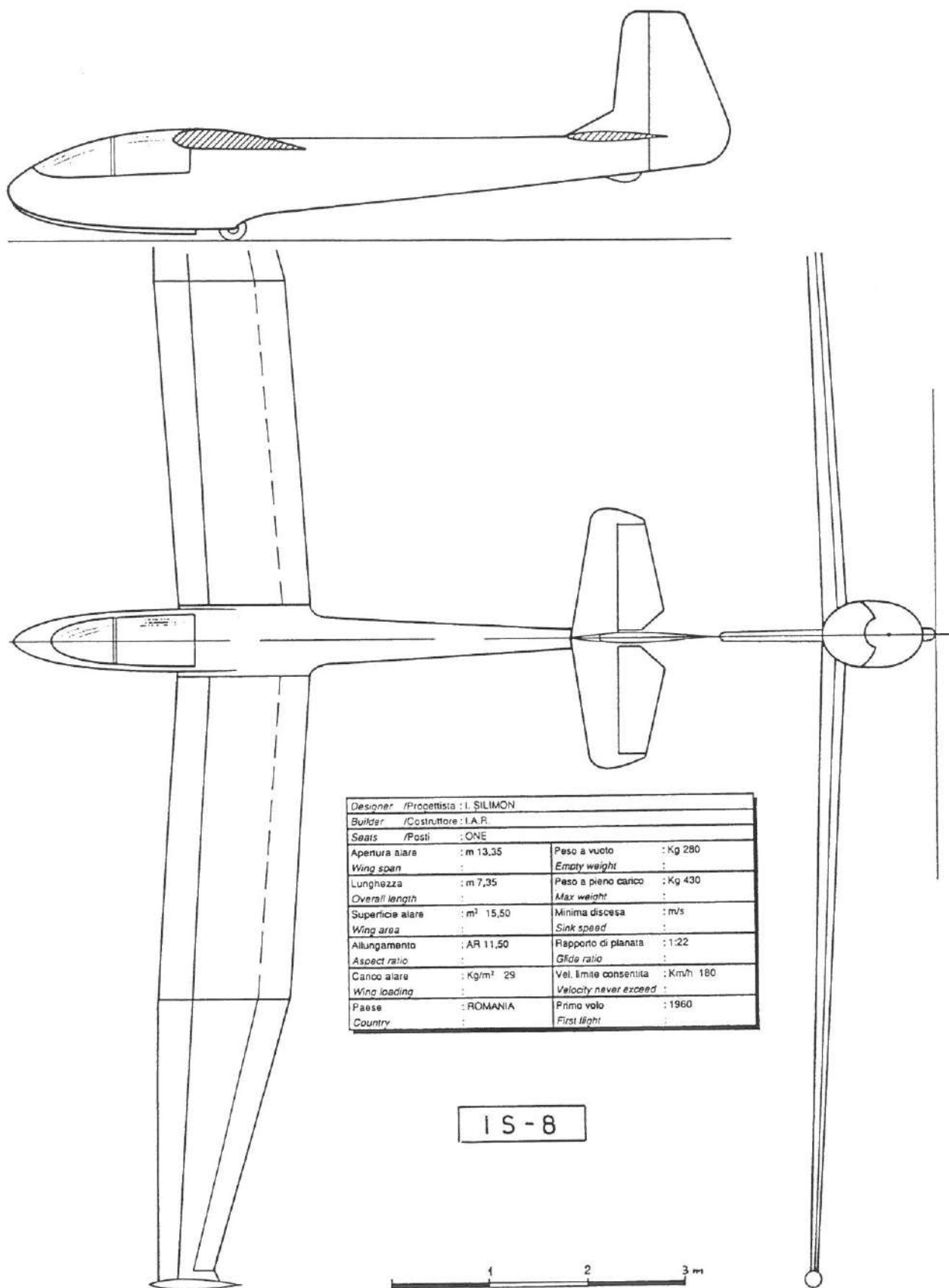
1 2 3 m



Designer /Progettista :	I. SILIMON		
Builder /Costruttore :	I.A.R.		
Seats /Posti :	ONE		
Apertura alare	: m 15,90	Peso a vuoto	: Kg 330
Wing span	:	Empty weight	:
Lunghezza	: m 8,65	Peso a pieno carico	: Kg 415
Overall length	:	Max weight	:
Superficie alare	: m ² 19,70	Minima discesa	: m/s 0,92
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:24
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 21	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1959
Country	:	First flight	:

IS - 7

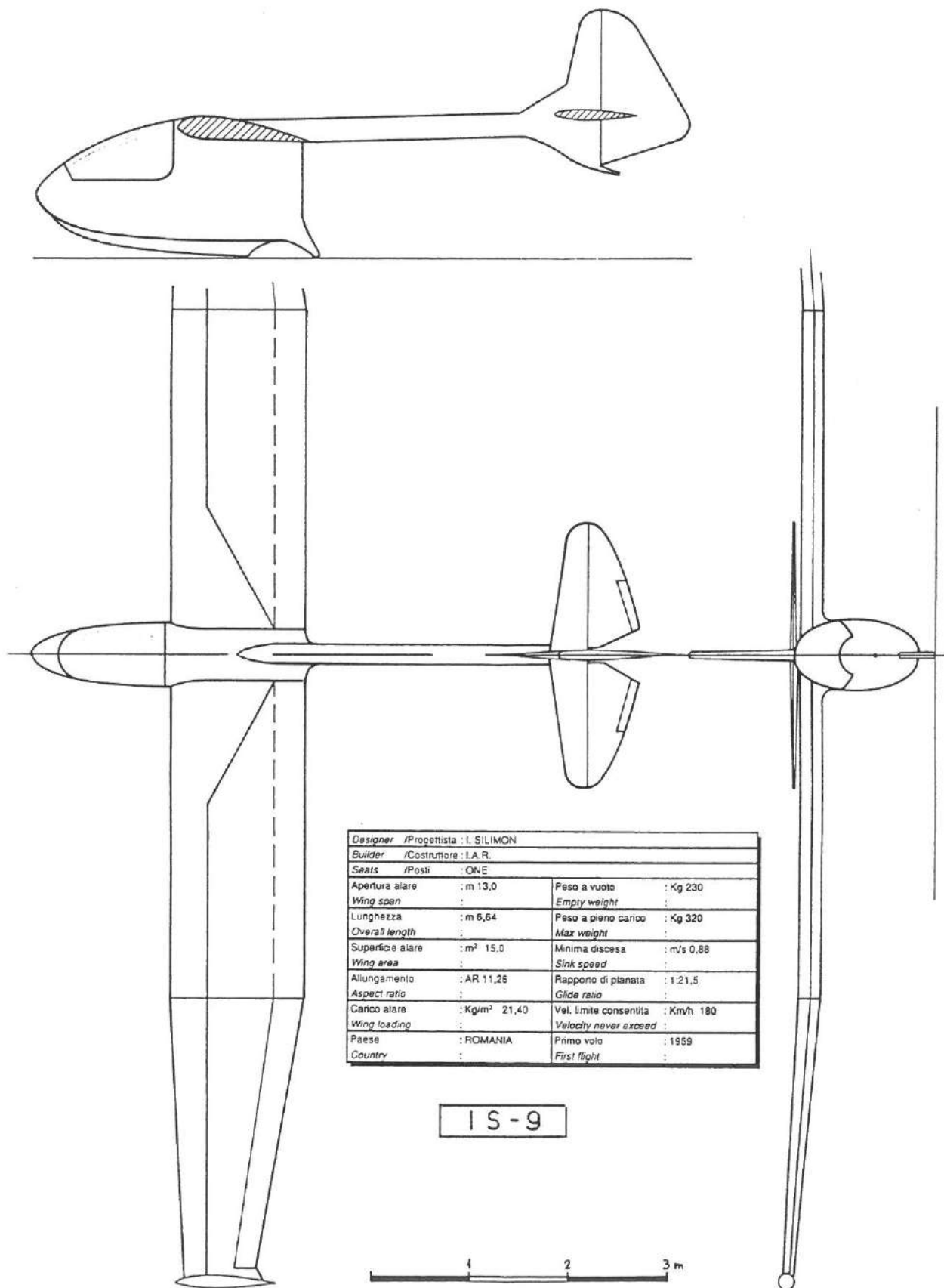
1 2 3 m

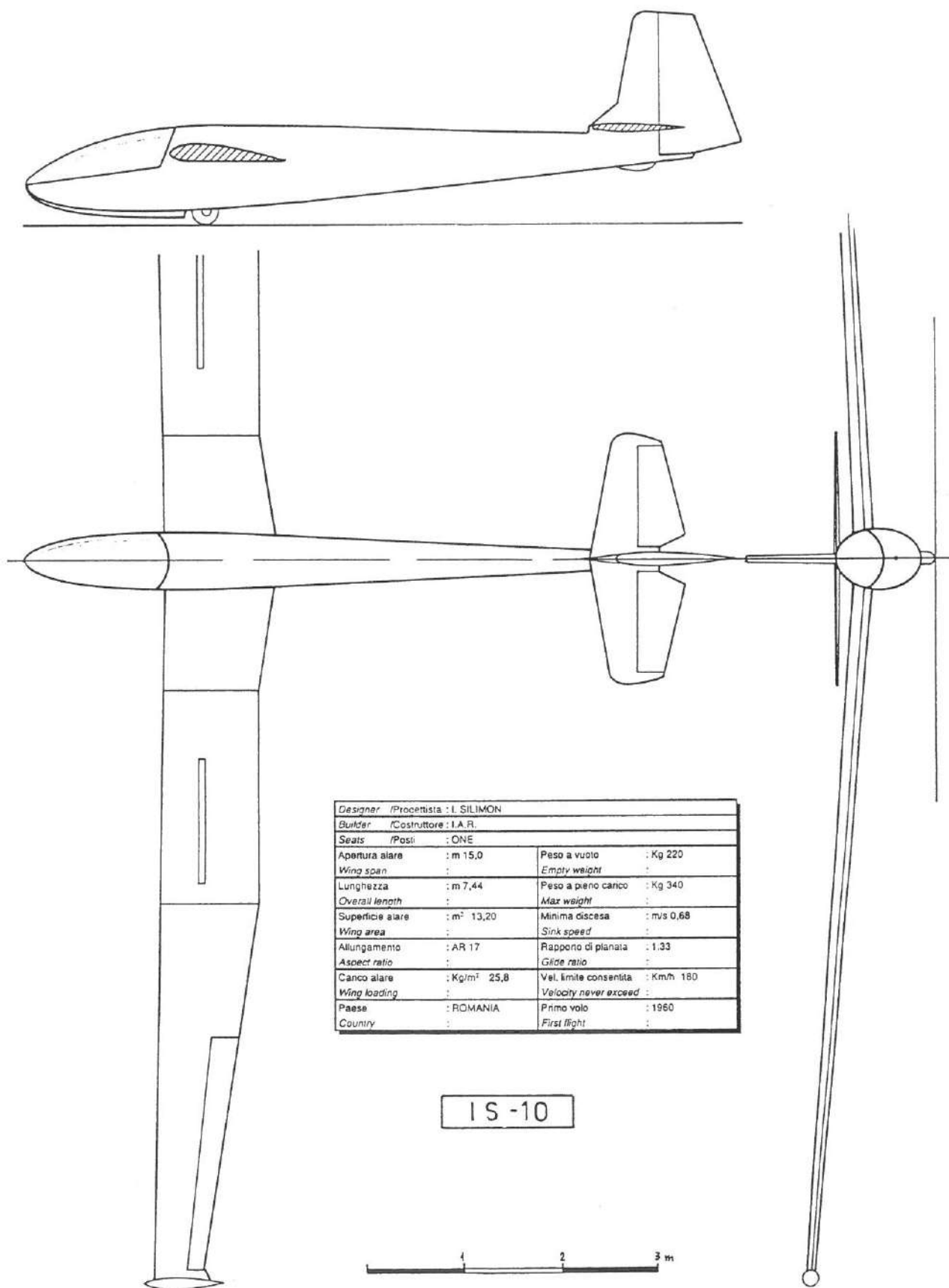


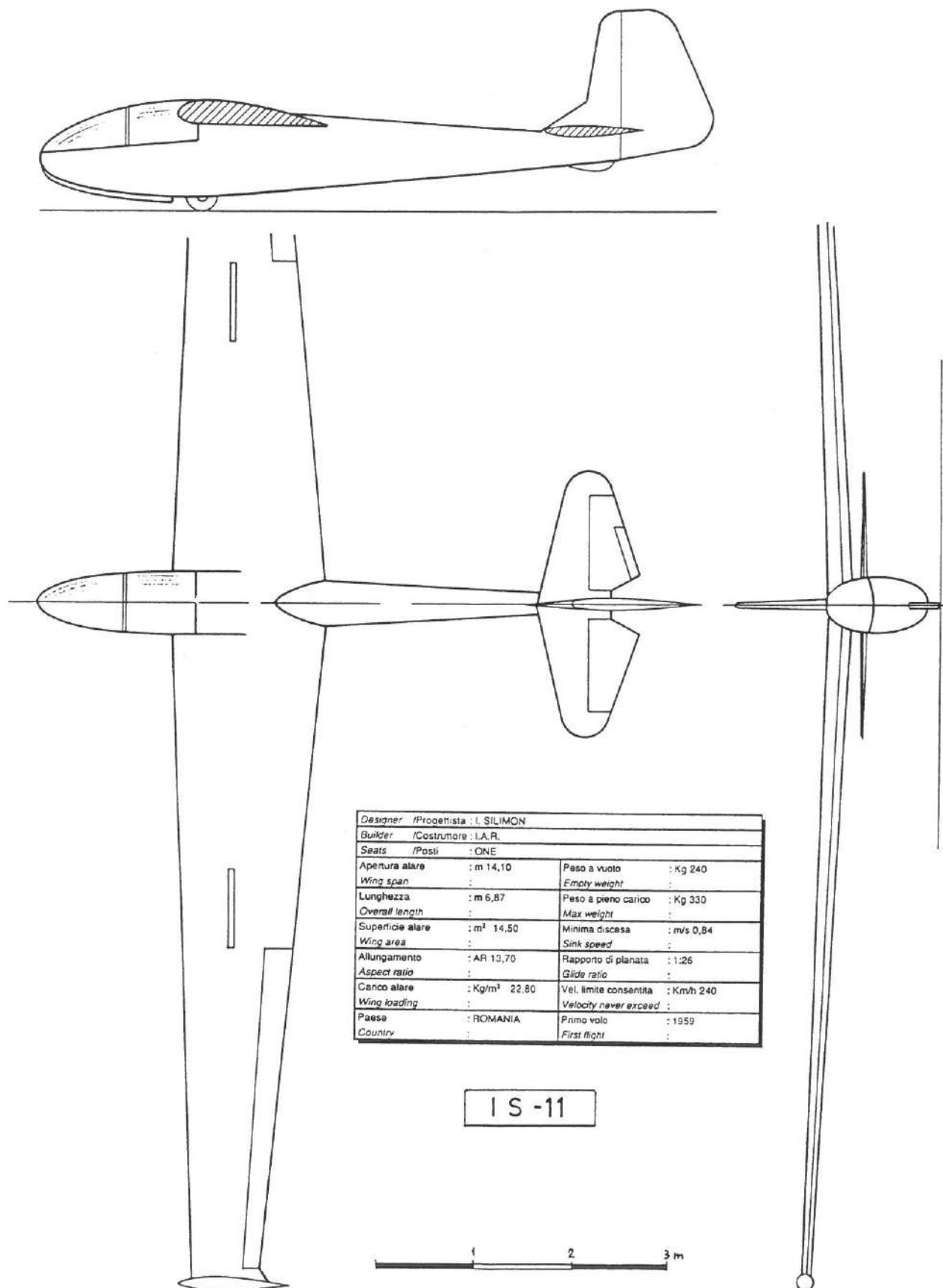
Designer / Progettista : I. SILIMON			
Builder / Costruttore : I.A.R.			
Seats / Posti : ONE			
Apertura alare	: m 13,35	Peso a vuoto	: Kg 280
Wing span	:	Empty weight	:
Lunghezza	: m 7,35	Peso a pieno carico	: Kg 430
Overall length	:	Max weight	:
Superficie alare	: m ² 15,50	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 11,50	Rapporto di planata	: 1:22
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 29	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1960
Country	:	First flight	:

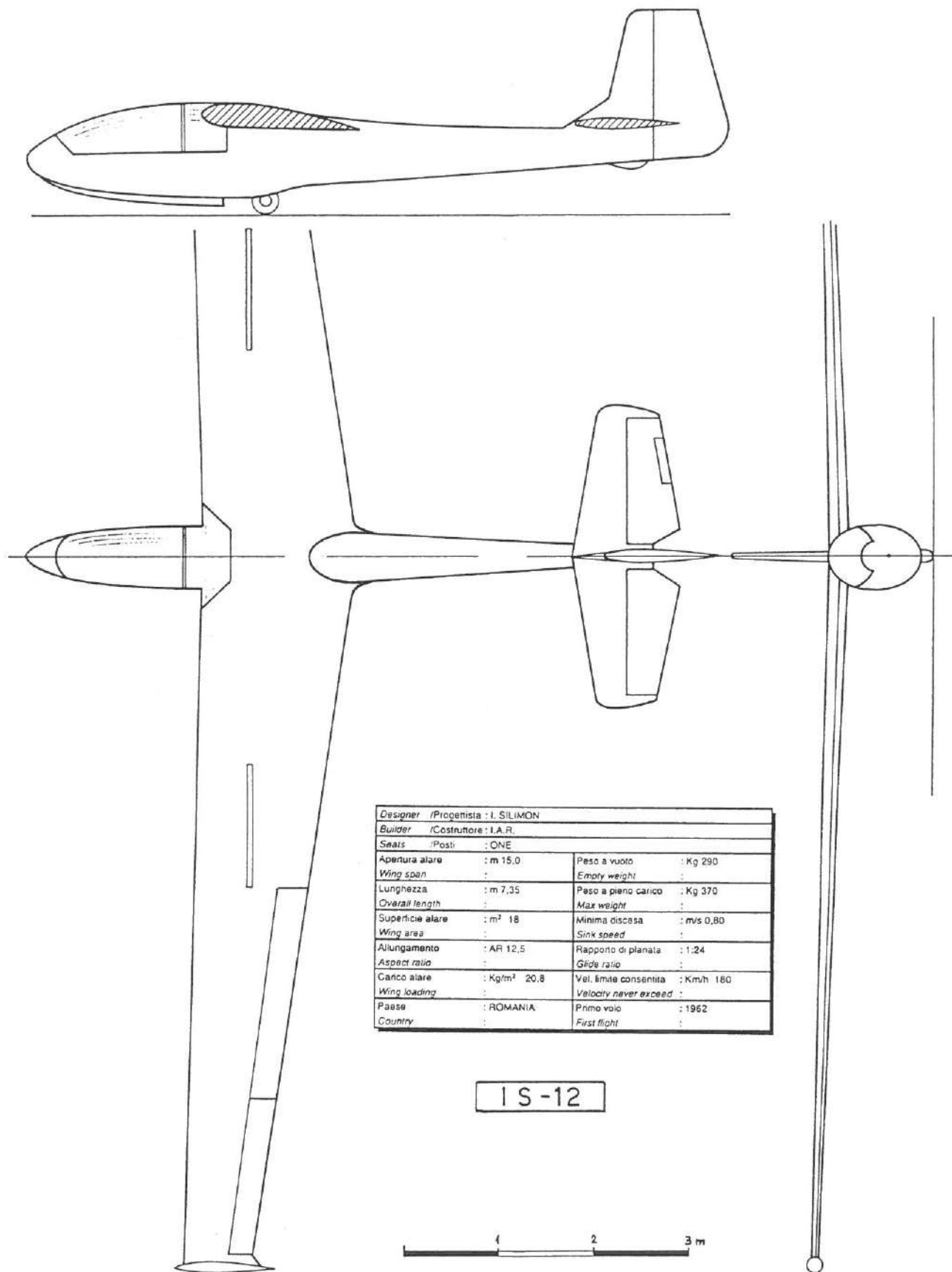
IS-8

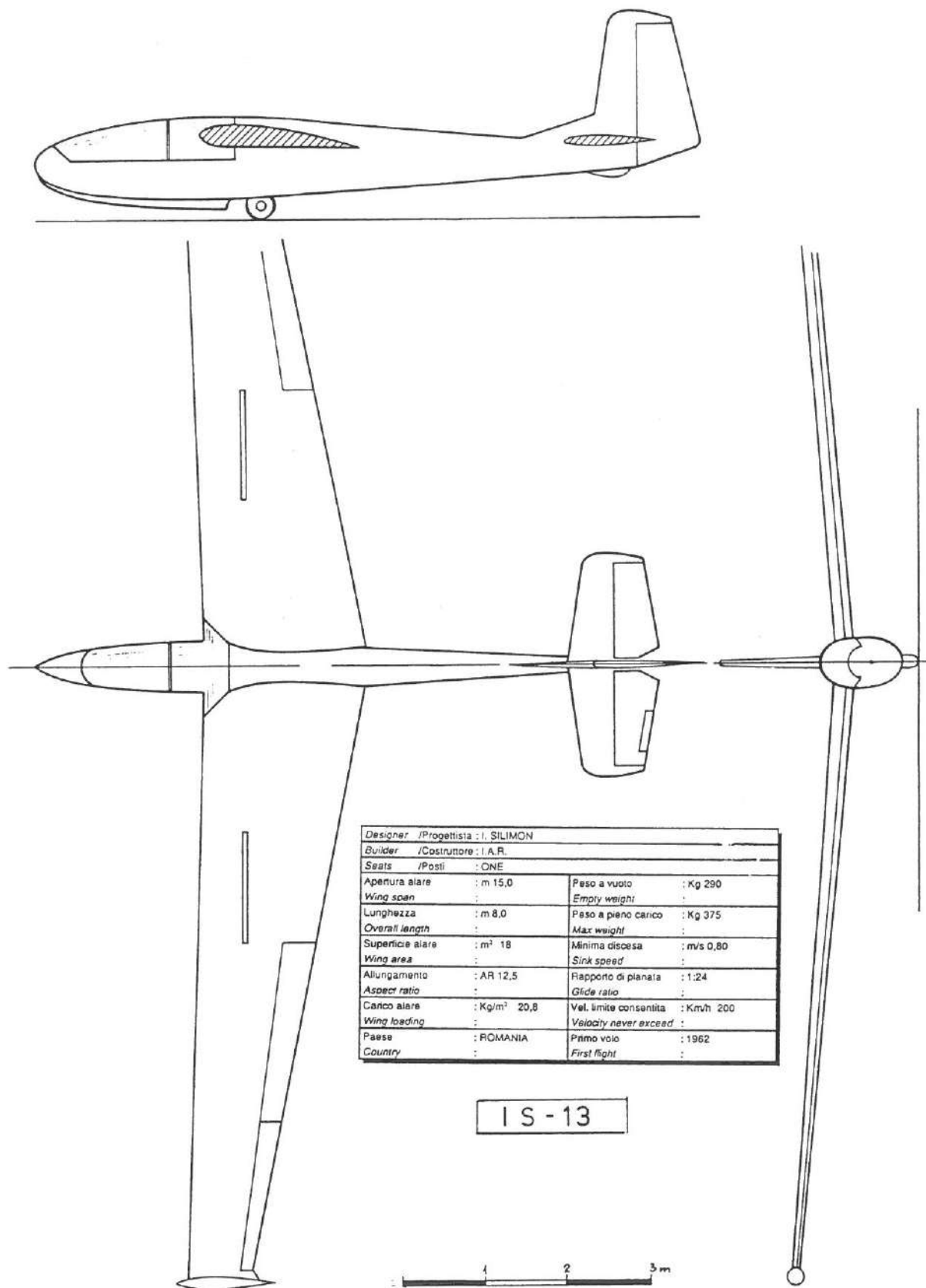
1 2 3 m

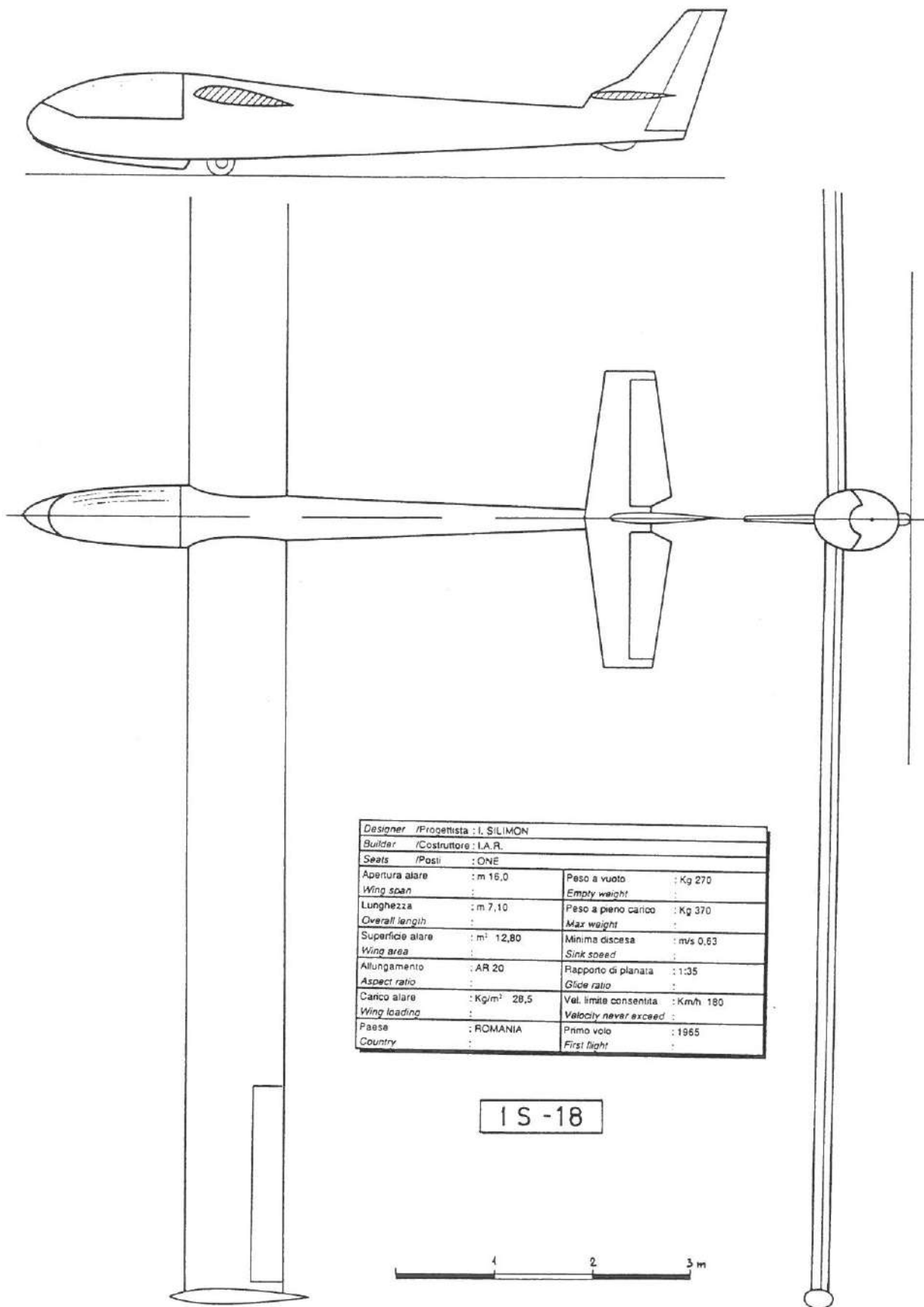








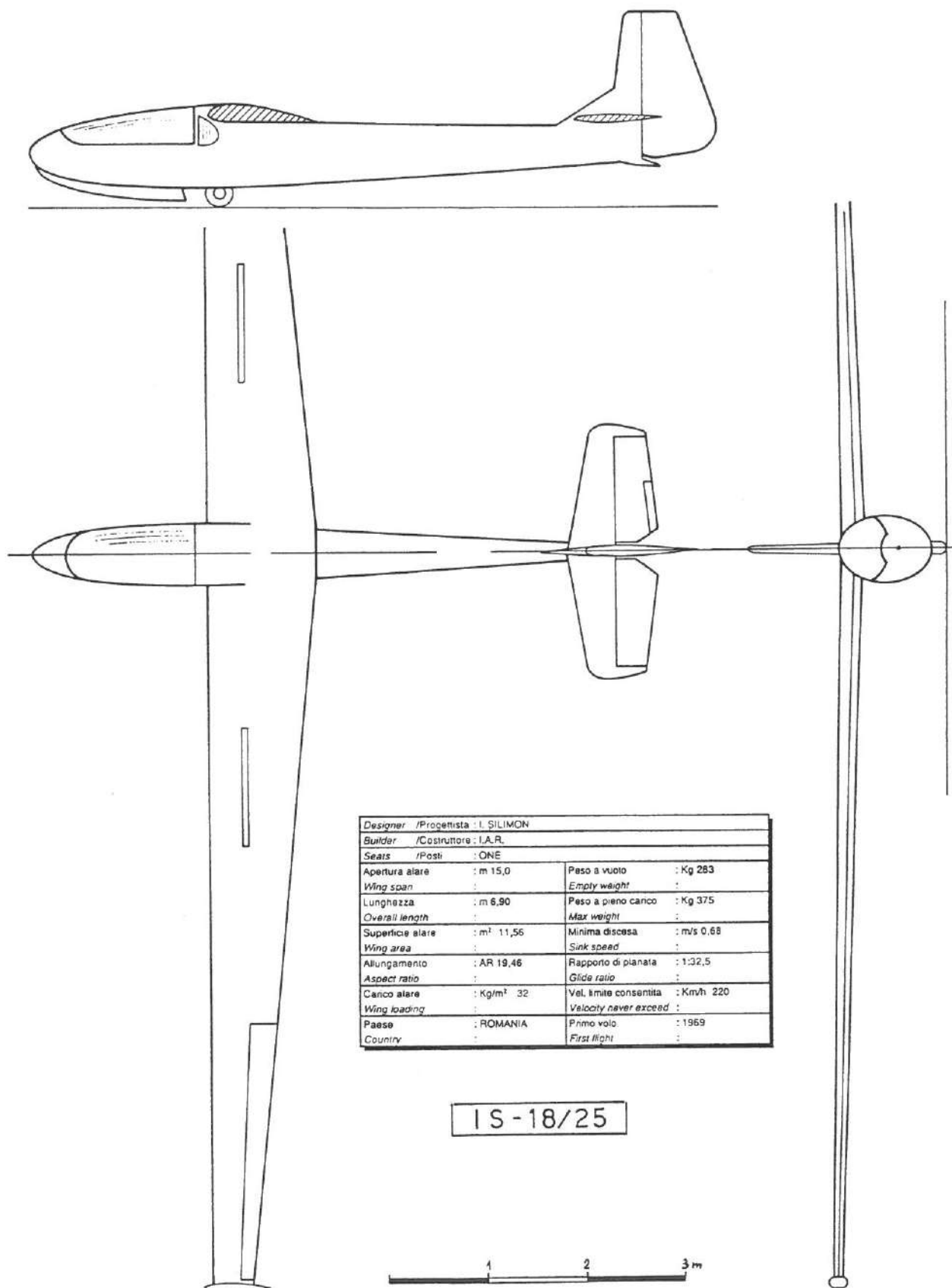




Designer /Progettista : I. SILIMON			
Builder /Costruttore : I.A.R.			
Seats /Posti : ONE			
Apertura alare	: m 16,0	Peso a vuoto	: Kg 270
Wing span	:	Empty weight	:
Lunghezza	: m 7,10	Peso a pieno carico	: Kg 370
Overall length	:	Max weight	:
Superficie alare	: m ² 12,80	Minima discesa	: m/s 0,63
Wing area	:	Sink speed	:
Allungamento	: AR 20	Rapporto di planata	: 1:35
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 28,5	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1965
Country	:	First flight	:

I S -18

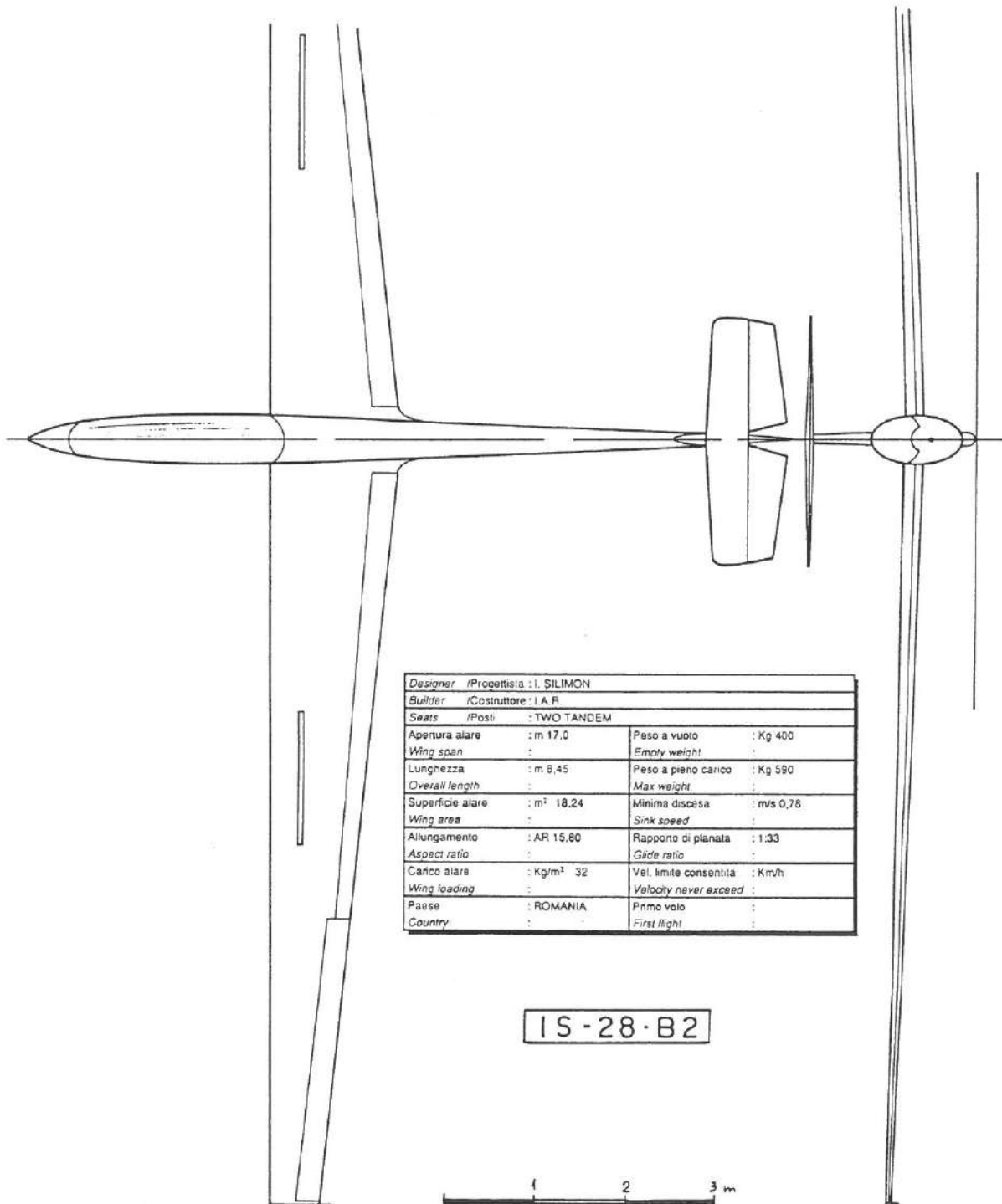
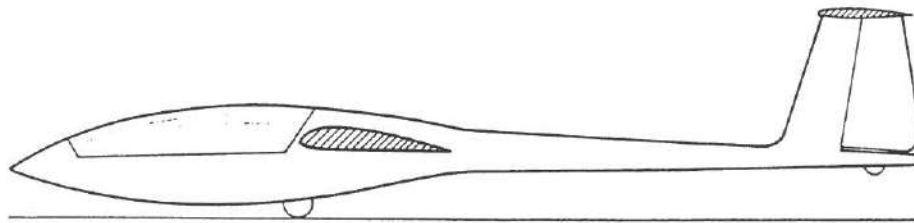




Designer /Progettista : I. SILIMON			
Builder /Costruttore : I.A.R.			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 283
Wing span	:	Empty weight	:
Lunghezza	: m 6,90	Peso a pieno carico	: Kg 375
Overall length	:	Max weight	:
Superficie alare	: m ² 11,56	Minima discesa	: m/s 0,68
Wing area	:	Sink speed	:
Allungamento	: AR 19,46	Rapporto di planata	: 1:32,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 32	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1969
Country	:	First flight	:

IS-18/25

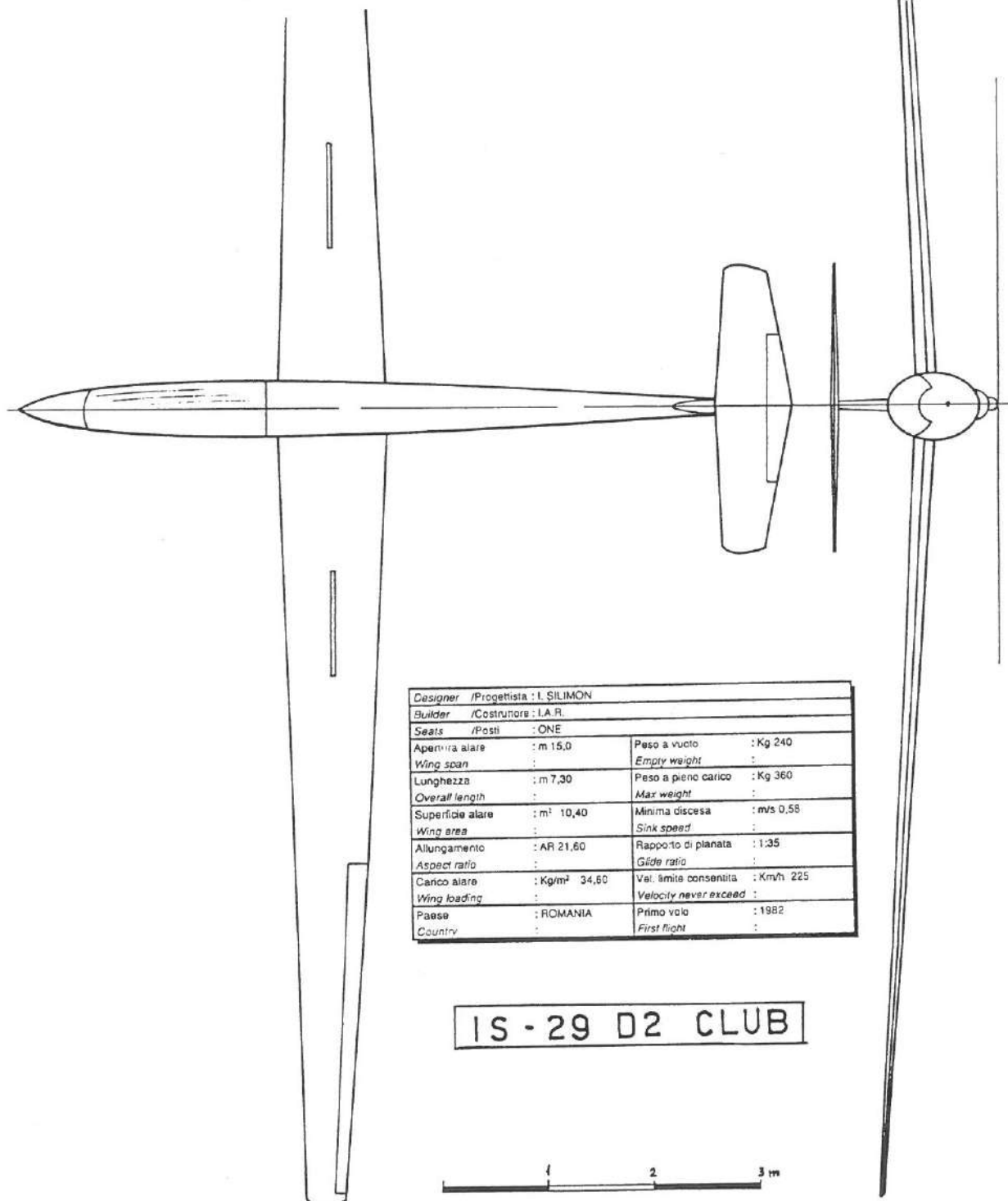
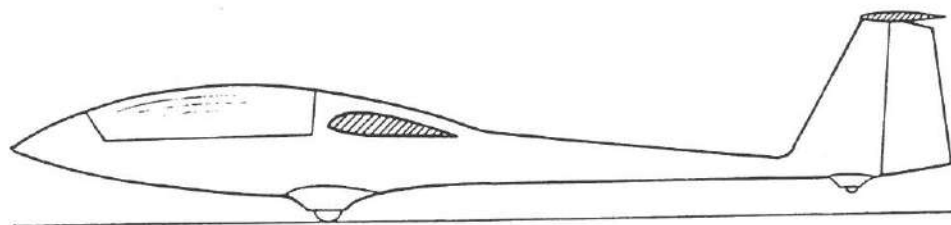
1 2 3 m



Designer /Progettista : I. SILIMON			
Builder /Costruttore : I.A.R.			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 17,0	Peso a vuoto	: Kg 400
Wing span	:	Empty weight	:
Lunghezza	: m 8,45	Peso a pieno carico	: Kg 590
Overall length	:	Max weight	:
Superficie alare	: m ² 18,24	Minima discesa	: m/s 0,78
Wing area	:	Sink speed	:
Allungamento	: AR 15,80	Rapporto di planata	: 1:33
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 32	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	:
Country	:	First flight	:

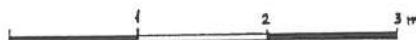
IS-28-B2

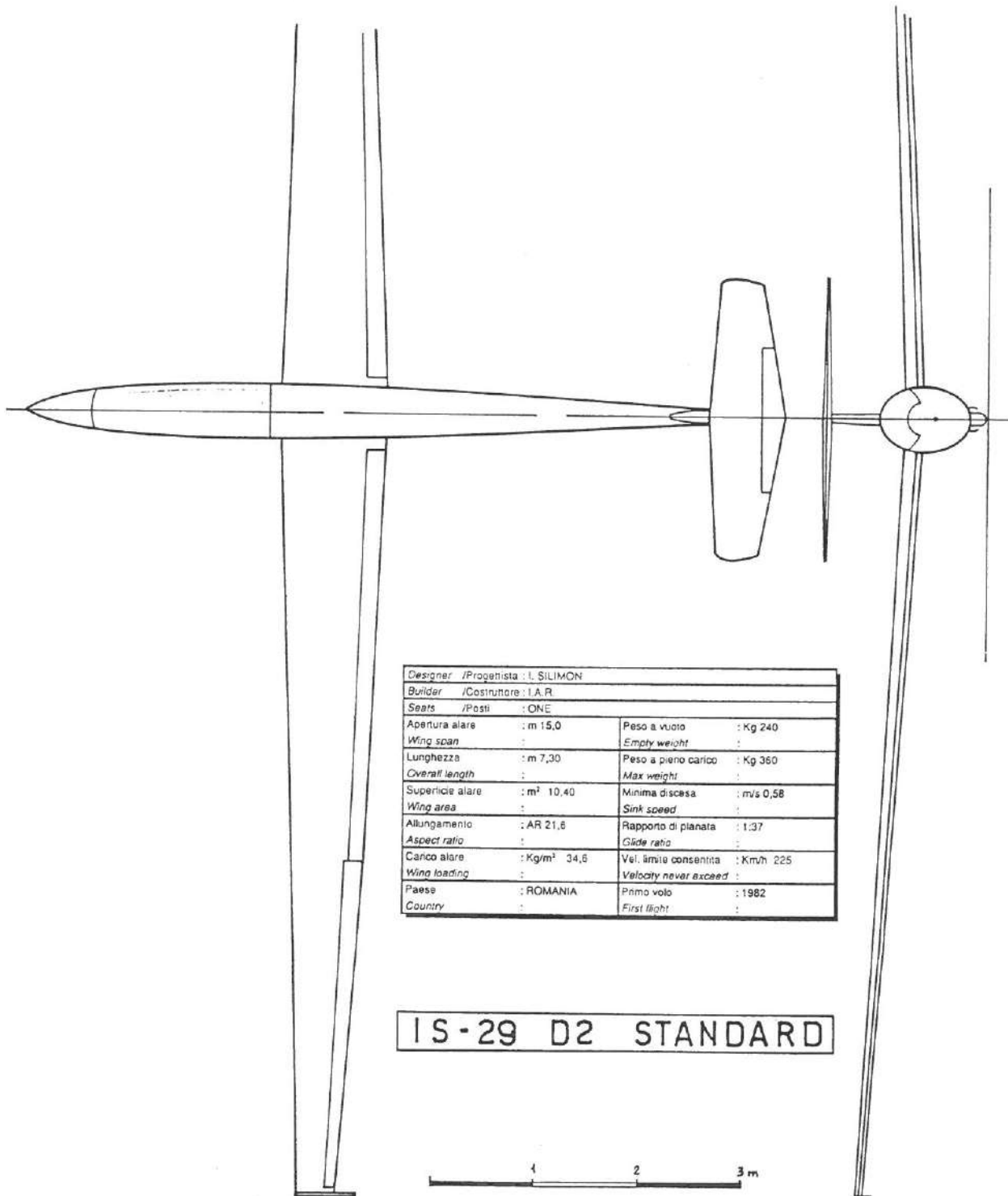
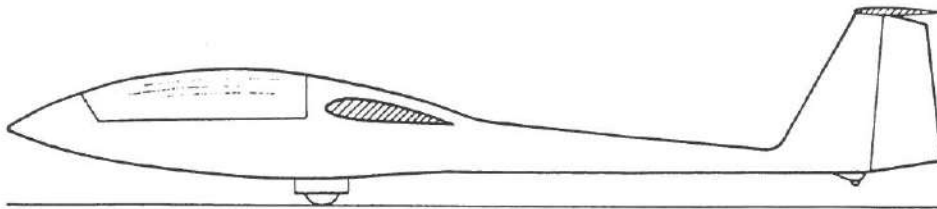




Designer /Progettista :	I. SILIMON		
Builder /Costruttore :	I.A.R.		
Seats /Posti :	ONE		
Apertura alare :	m 15,0	Peso a vuoto :	Kg 240
Wing span :		Empty weight :	
Lunghezza :	m 7,30	Peso a pieno carico :	Kg 360
Overall length :		Max weight :	
Superficie alare :	m ² 10,40	Minima discesa :	m/s 0,58
Wing area :		Sink speed :	
Allungamento :	AR 21,60	Rapporto di planata :	1:35
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 34,60	Vel. limite consentita :	Km/h 225
Wing loading :		Velocity never exceed :	
Paese :	ROMANIA	Primo volo :	1982
Country :		First flight :	

IS - 29 D2 CLUB

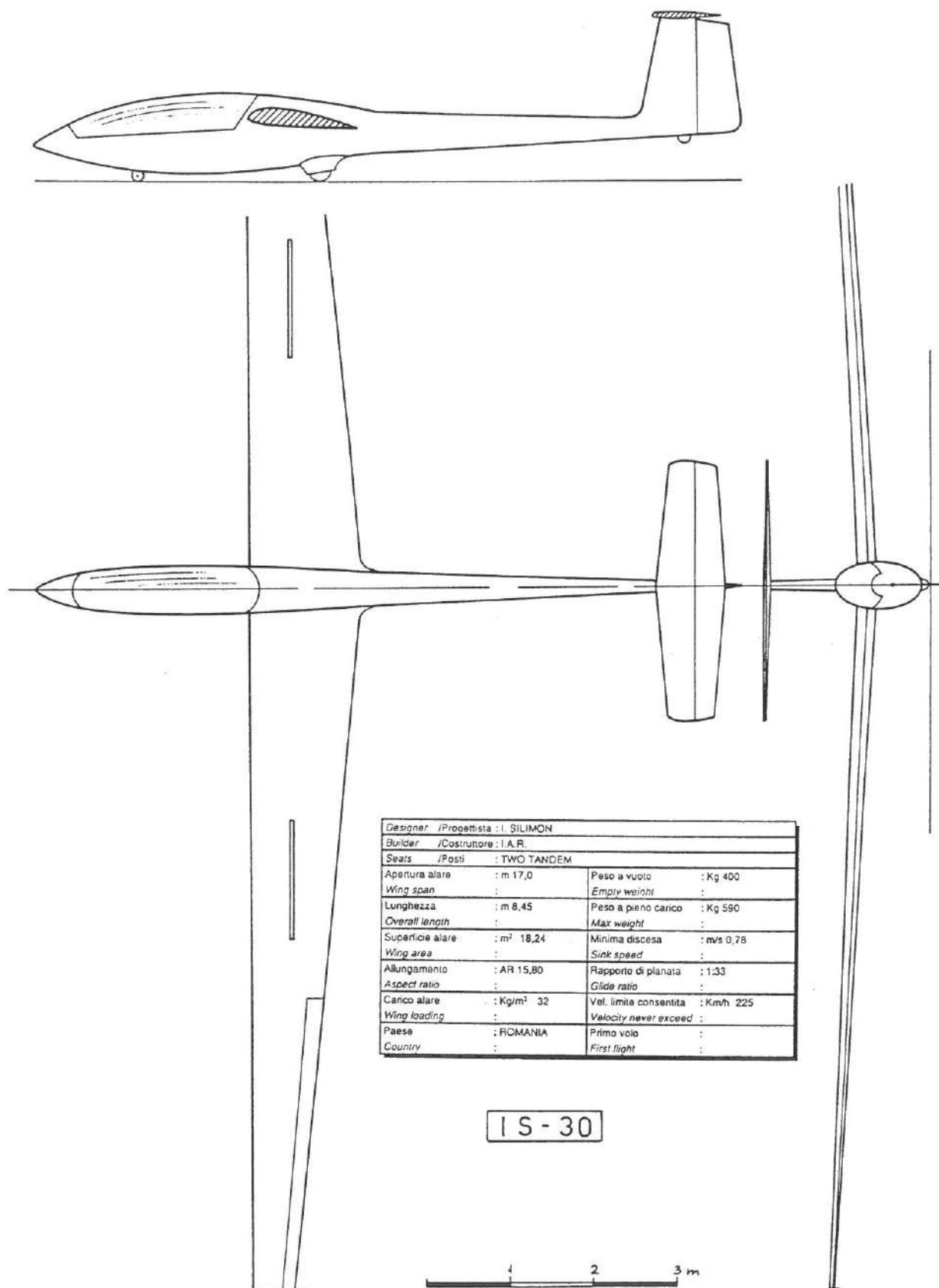




Designer / Progettista : I. SILIMON			
Builder / Costruttore : I.A.R.			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 240
Wing span	:	Empty weight	:
Lunghezza	: m 7,30	Peso a pieno carico	: Kg 360
Overall length	:	Max weight	:
Superficie alare	: m ² 10,40	Minima discesa	: m/s 0,58
Wing area	:	Sink speed	:
Allungamento	: AR 21,6	Rapporto di planata	: 1,37
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 34,6	Vel. limite consentita	: Km/h 225
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1982
Country	:	First flight	:

IS-29 D2 STANDARD

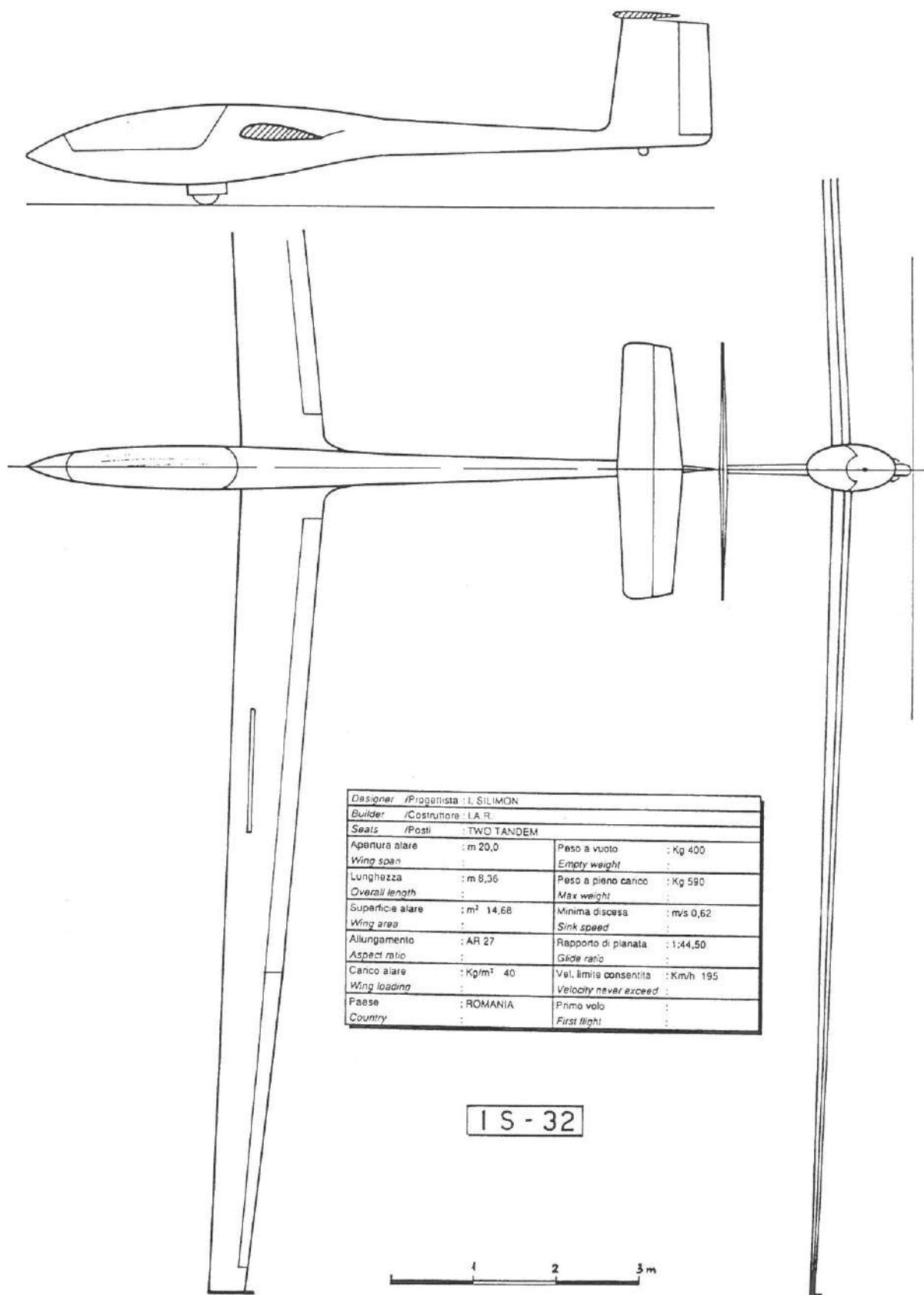




Designer / Progettista : I. SILIMON			
Builder / Costruttore : I.A.R.			
Seats / Posti : TWO TANDEM			
Apertura alare	: m 17,0	Peso a vuoto	: Kg 400
Wing span	:	Empty weight	:
Lunghezza	: m 8,45	Peso a pieno carico	: Kg 590
Overall length	:	Max weight	:
Superficie alare	: m ² 18,24	Minima discesa	: mvs 0,78
Wing area	:	Sink speed	:
Allungamento	: AR 15,80	Rapporto di planata	: 1,33
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 32	Vel. limite consentita	: Km/h 225
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	:
Country	:	First flight	:

IS - 30

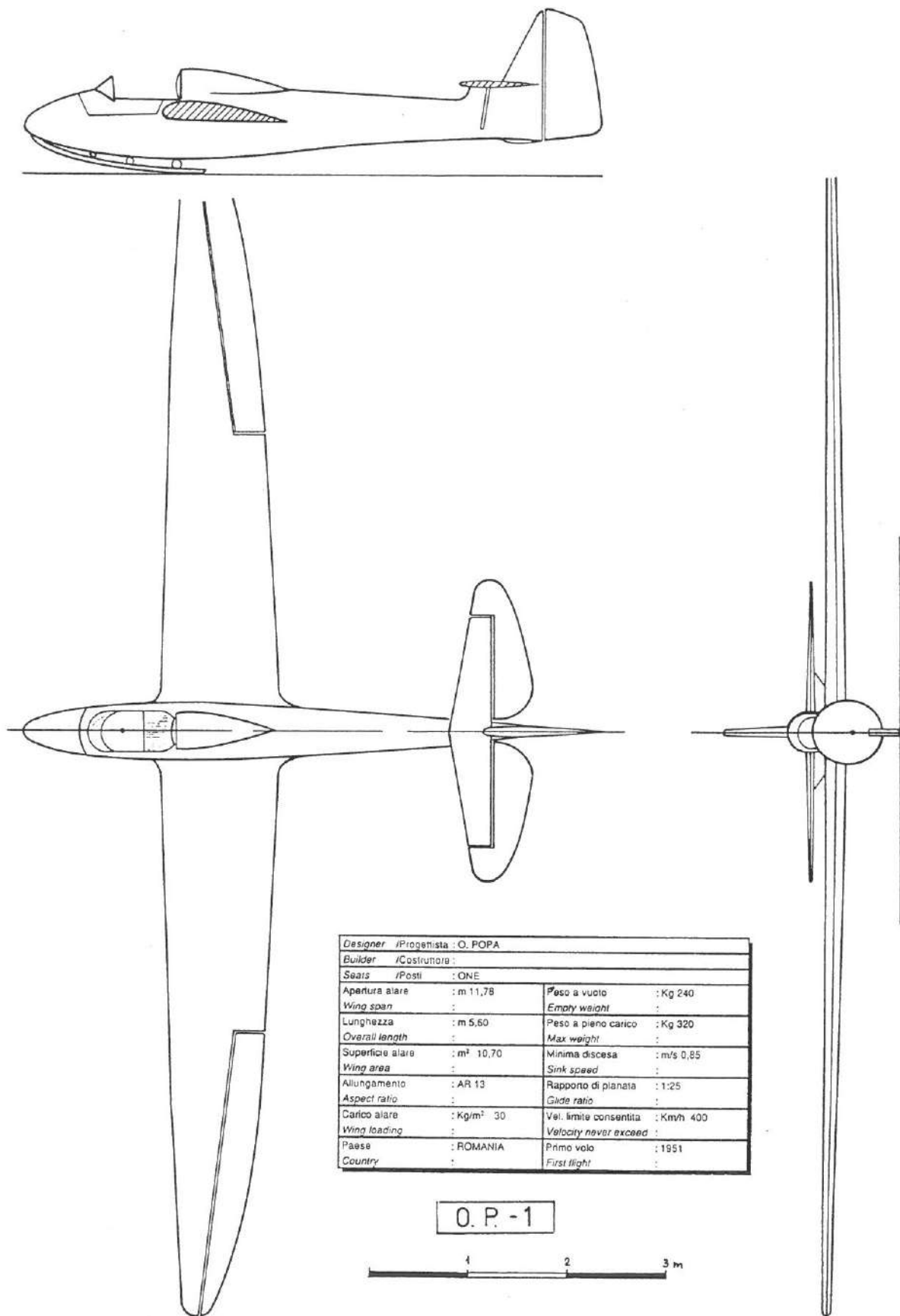
1 2 3 m



Designer /Progettista : I. SILIMON			
Builder /Costruttore : I.A.R.			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 20,0	Peso a vuoto	: Kg 400
Wing span	:	Empty weight	:
Lunghezza	: m 8,36	Peso a pieno carico	: Kg 590
Overall length	:	Max weight	:
Superficie alare	: m ² 14,68	Minima discesa	: m/s 0,62
Wing area	:	Sink speed	:
Allungamento	: AR 27	Rapporto di planata	: 1:44,50
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ² 40	Vel. limite consentita	: Km/h 195
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	:
Country	:	First flight	:

I S - 32

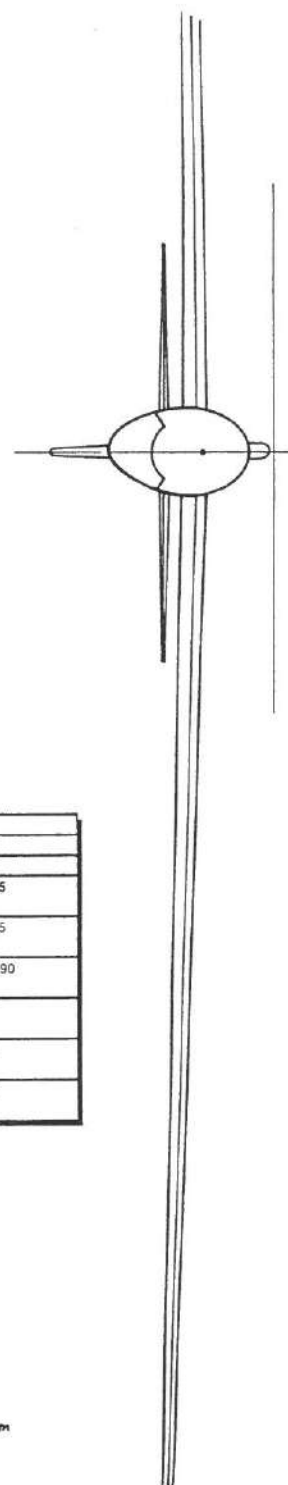
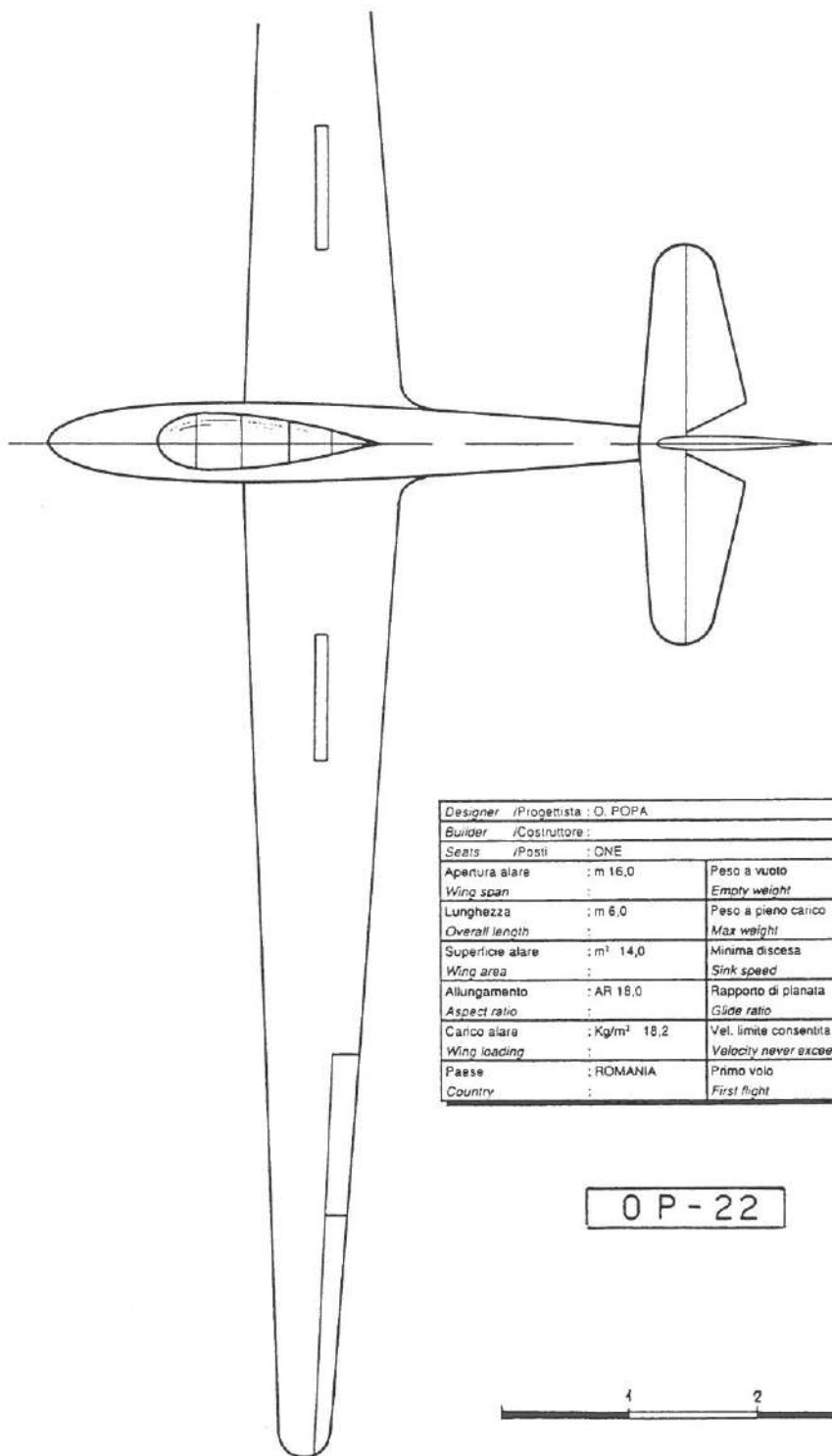
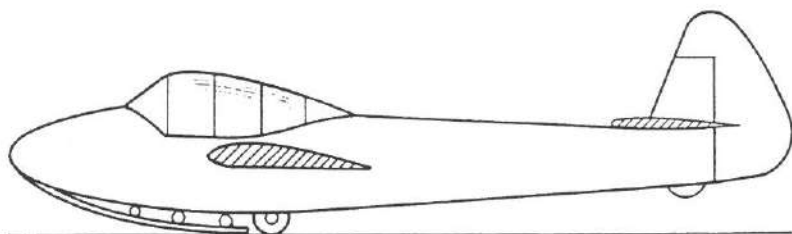
1 2 3 m



Designer / Progettista : O. POPA			
Builder / Costruttore :			
Seats / Posti : ONE			
Apertura alare	: m 11,78	Peso a vuoto	: Kg 240
Wing span	:	Empty weight	:
Lunghezza	: m 5,60	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 10,70	Minima discesa	: m/s 0,85
Wing area	:	Sink speed	:
Allungamento	: AR 13	Rapporto di planata	: 1:25
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 30	Vel. limite consentita	: Km/h 400
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1951
Country	:	First flight	:

O. P. - 1

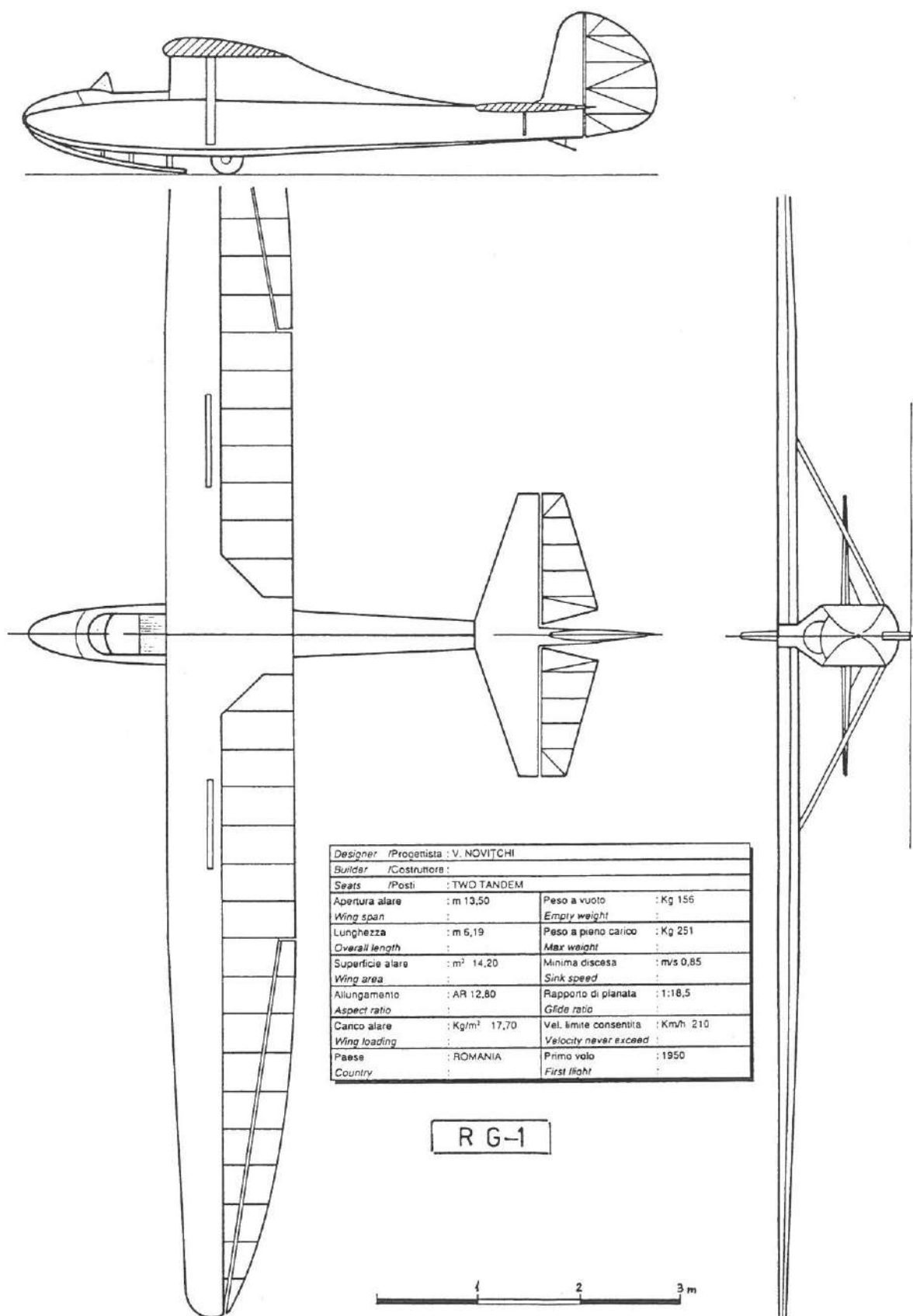


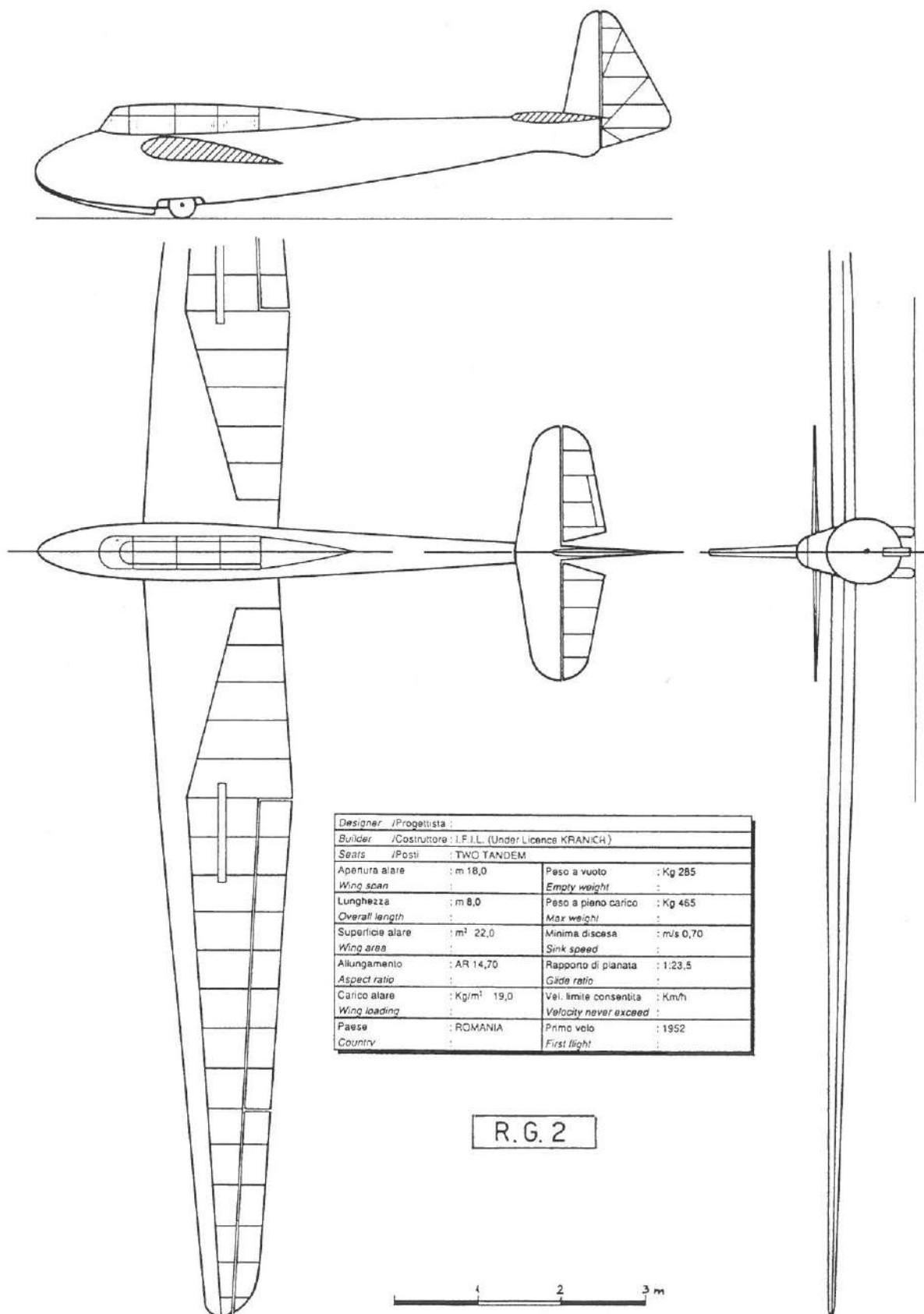


Designer /Progettista : O. POPA			
Builder /Costruttore :			
Seats /Posti : ONE			
Apertura alare	: m 16,0	Peso a vuoto	: Kg 165
Wing span	:	Empty weight	:
Lunghezza	: m 6,0	Peso a pieno carico	: Kg 255
Overall length	:	Max weight	:
Superficie alare	: m ² 14,0	Minima discesa	: m/s 0,90
Wing area	:	Sink speed	:
Allungamento	: AR 18,0	Rapporto di planata	: 1:31
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,2	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1955
Country	:	First flight	:

OP-22

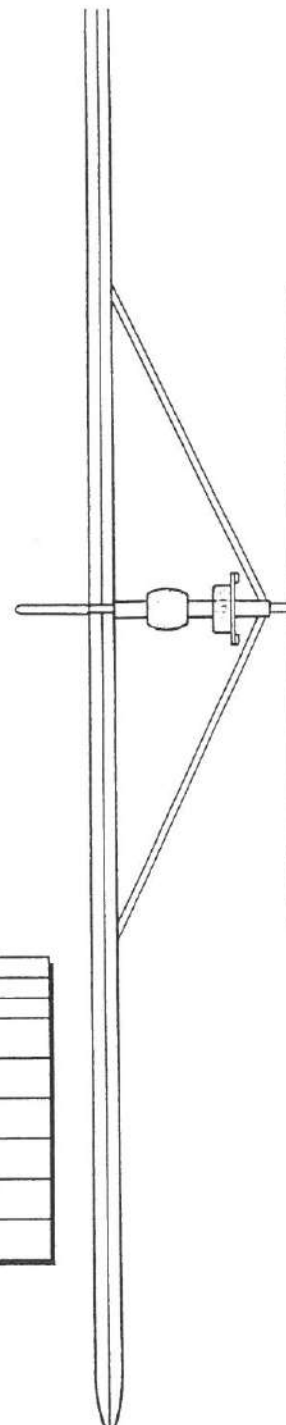
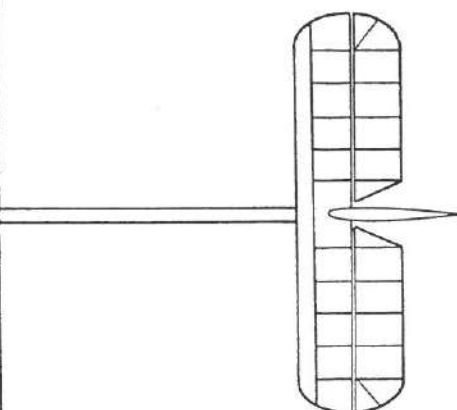
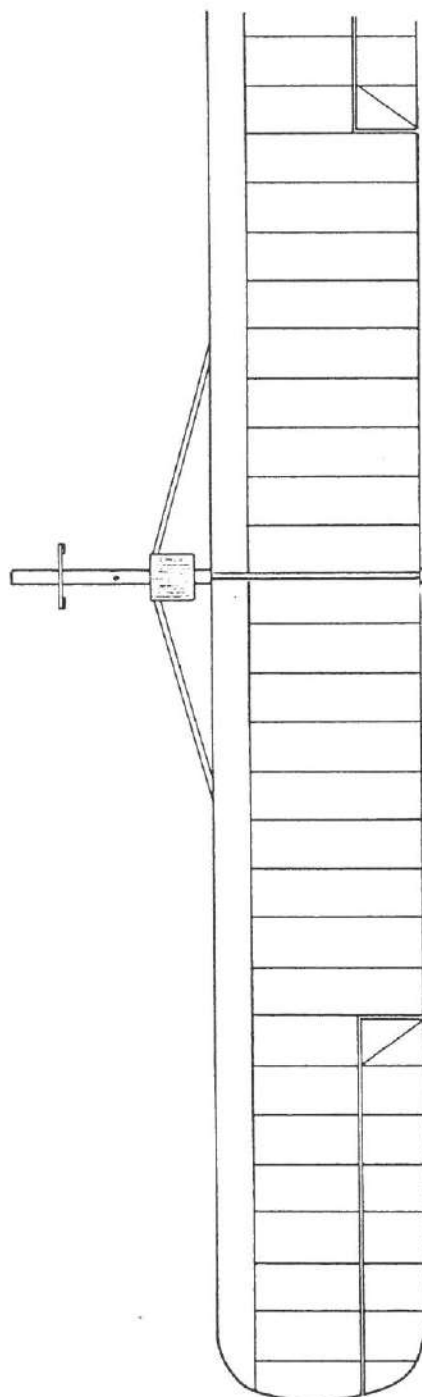
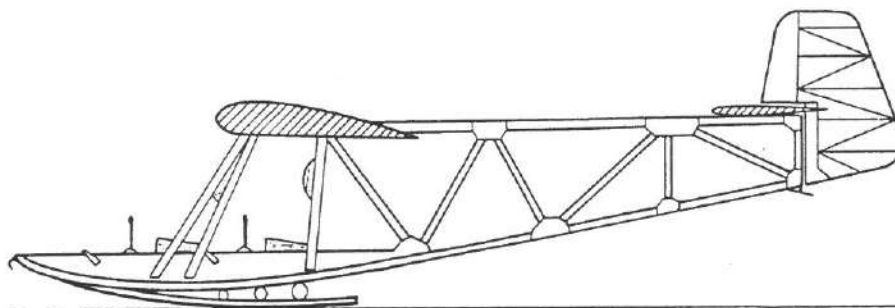






Designer /Progettista :			
Builder /Costruttore : I.F.I.L. (Under Licence KRANICH)			
Seats /Posti :	TWO TANDEM		
Apertura alare /Wing span :	m 18,0	Peso a vuoto /Empty weight :	Kg 285
Lunghezza /Overall length :	m 8,0	Peso a pieno carico /Max weight :	Kg 465
Superficie alare /Wing area :	m ² 22,0	Minima discesa /Sink speed :	m/s 0,70
Allungamento /Aspect ratio :	AR 14,70	Rapporto di planata /Glide ratio :	1:23,5
Carico alare /Wing loading :	Kg/m ² 19,0	Vel. limite consentita /Velocity never exceed :	Km/h
Paese /Country :	ROMANIA	Primo volo /First flight :	1952

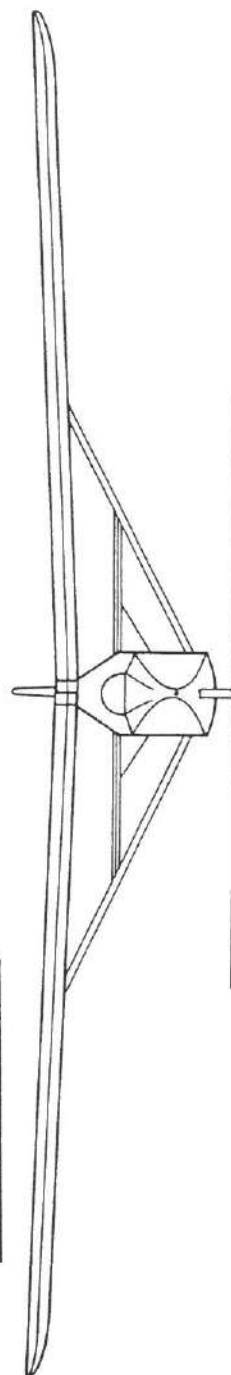
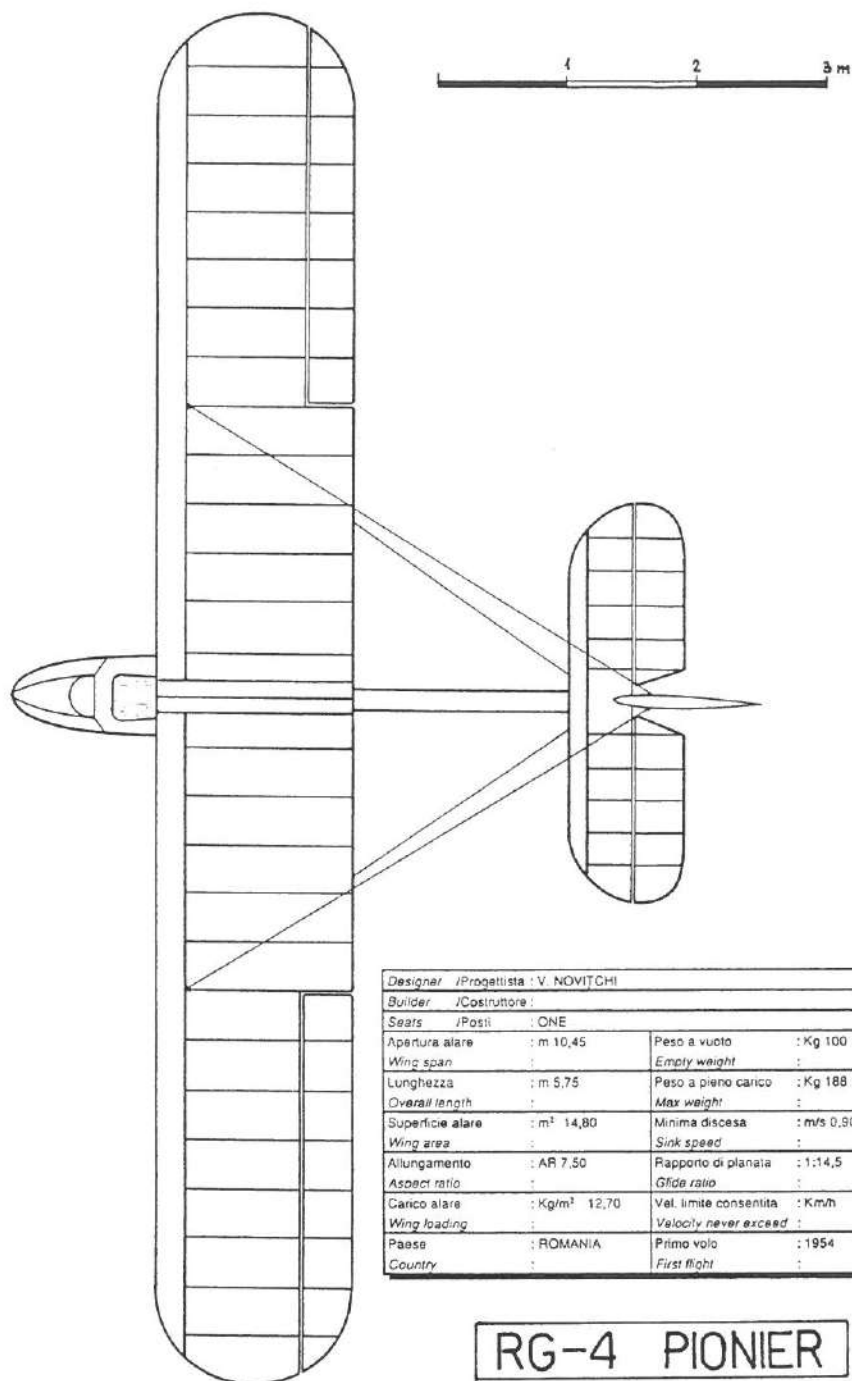
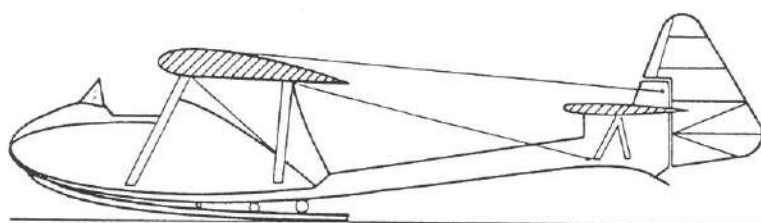
R. G. 2



Designer / Progettista :	V. NOVITCHI		
Builder / Costruttore :			
Seats / Posi :	TWO TANDEM		
Apertura alare	: m 12,60	Peso a vuoto	: Kg 150
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg 310
Overall length	:	Max weight	:
Superficie alare	: m ² 19,90	Minima discesa	: m/s 1,0
Wing area	:	Sink speed	:
Allungamento	: AR 8,0	Rapporto di planata	: 1:16
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 14,40	Vel. limite consentita	: Km/h 165
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1953
Country	:	First flight	:

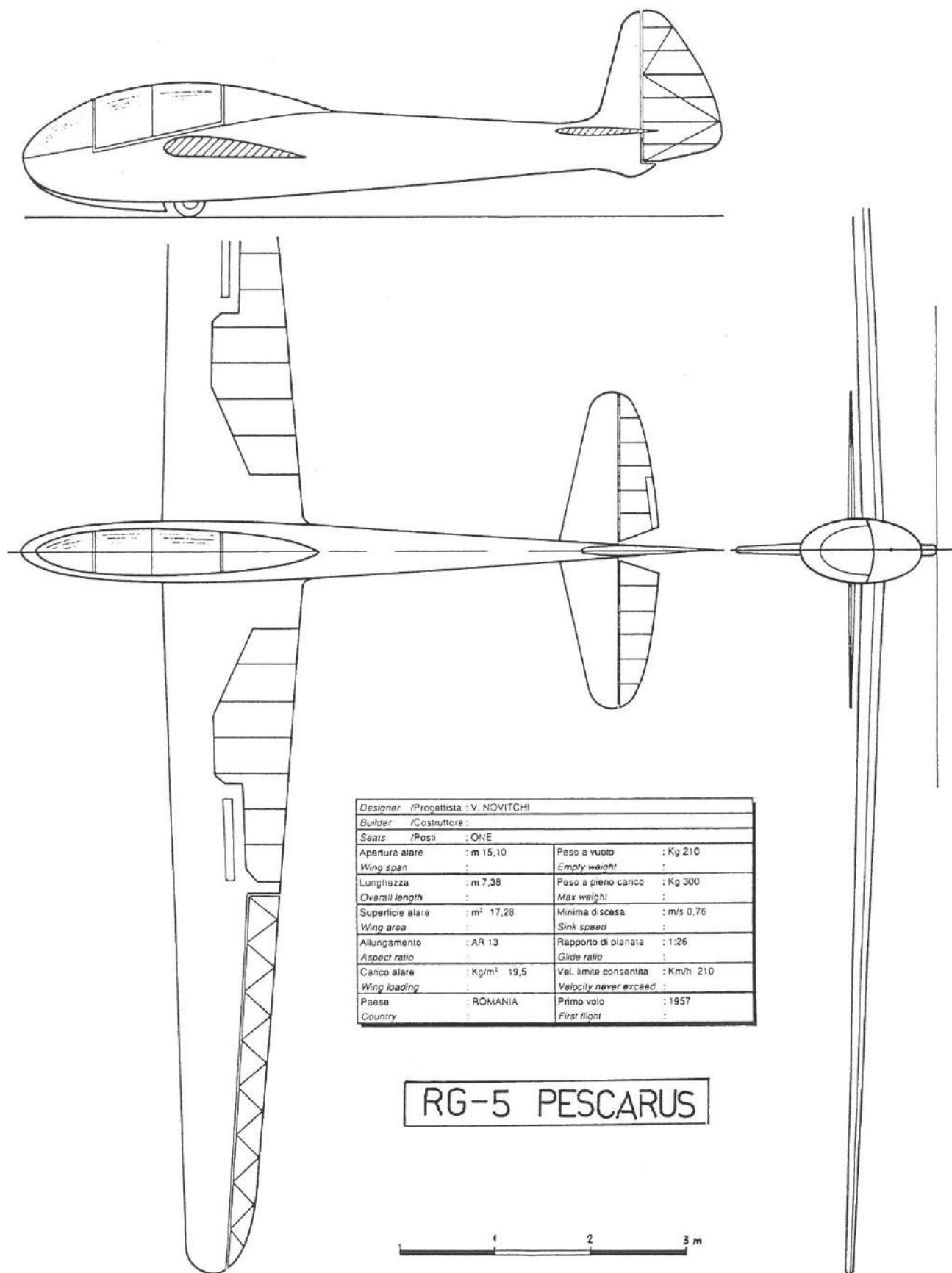
R.G. - 3





Designer /Progettista : V. NOVITCHI			
Builder /Costruttore :			
Seats /Posti : ONE			
Apertura alare	: m 10,45	Peso a vuoto	: Kg 100
Wing span	:	Empty weight	:
Lunghezza	: m 5,75	Peso a pieno carico	: Kg 188
Overall length	:	Max weight	:
Superficie alare	: m ² 14,80	Minima discesa	: m/s 0,80
Wing area	:	Sink speed	:
Allungamento	: AR 7,50	Rapporto di planata	: 1:14,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 12,70	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1954
Country	:	First flight	:

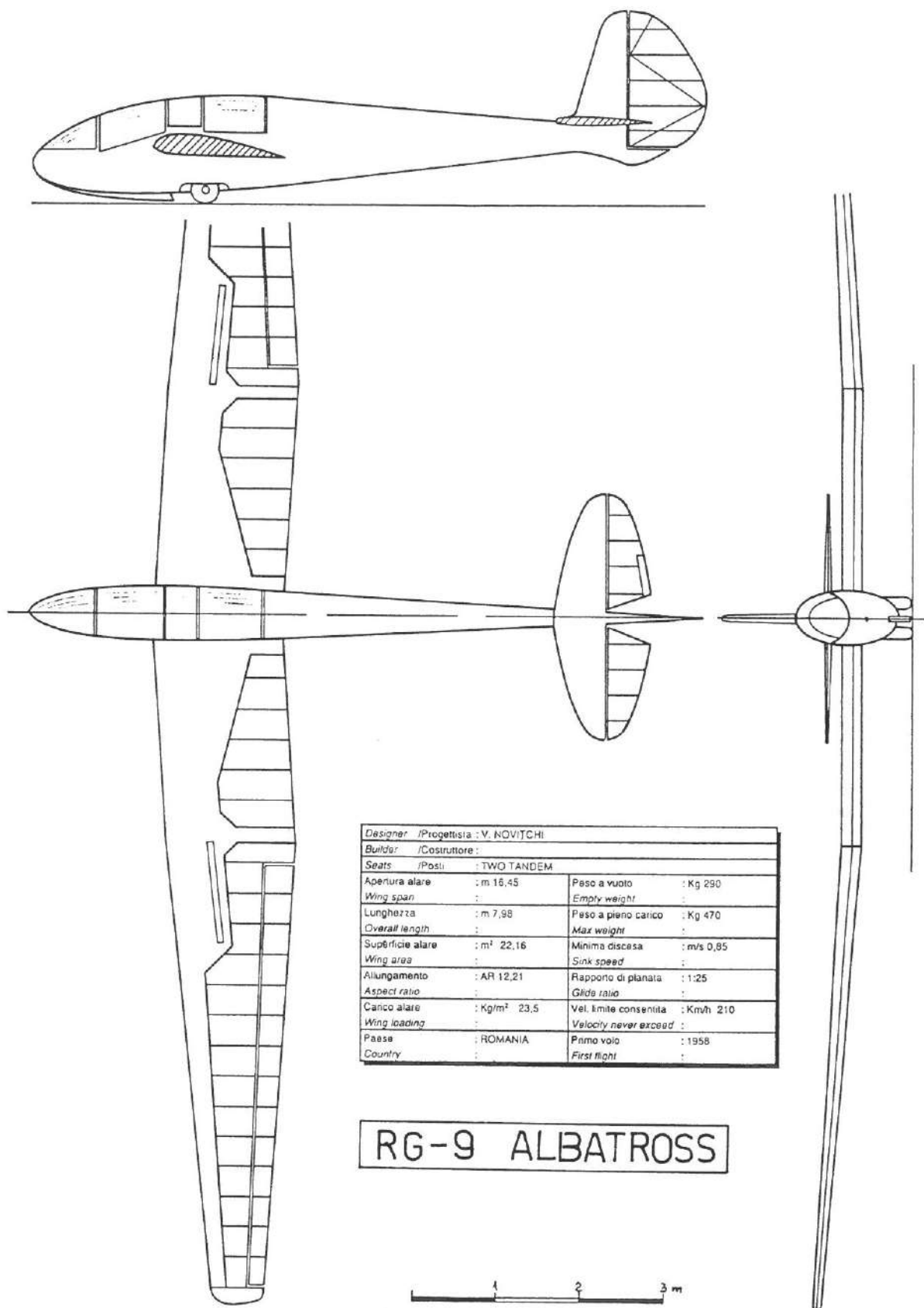
RG-4 PIONIER



Designer / Progettista :	V. NOVITCHI		
Builder / Costruttore :			
Seats / Posti :	ONE		
Apertura alare	: m 15,10	Peso a vuoto	: Kg 210
Wing span	:	Empty weight	:
Lunghezza	: m 7,38	Peso a pieno carico	: Kg 300
Overall length	:	Max weight	:
Superficie alare	: m ² 17,28	Minima discesa	: m/s 0,76
Wing area	:	Sink speed	:
Allungamento	: AR 13	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 19,5	Vel. limite consentita	: Km/h 210
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1957
Country	:	First flight	:

RG-5 PESCARUS

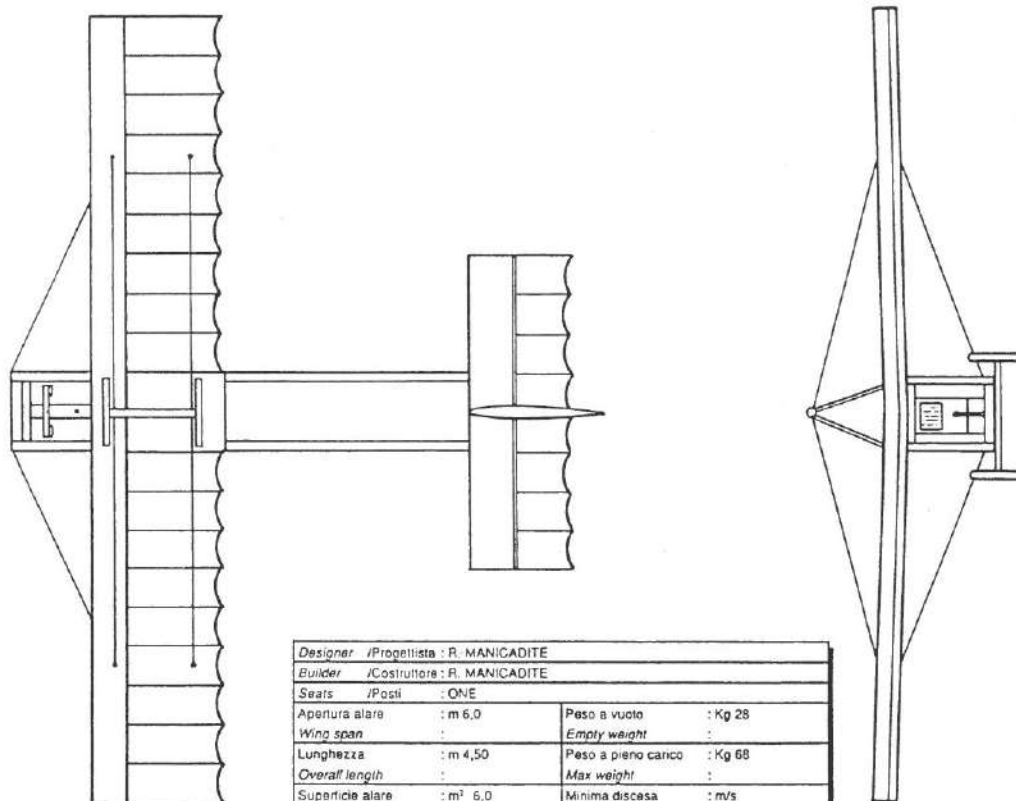
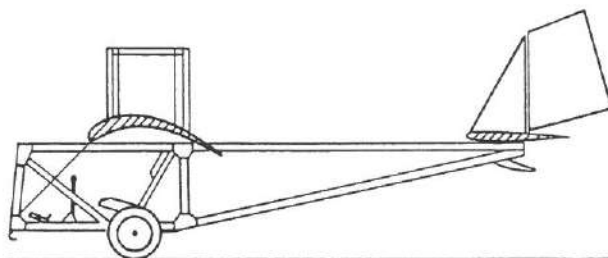
1 2 3 m



Designer / Progettista :	V. NOVITCHI		
Builder / Costruttore :			
Seats / Posti :	TWO TANDEM		
Apertura alare :	m 16,45	Peso a vuoto :	Kg 290
Wing span :		Empty weight :	
Lunghezza :	m 7,98	Peso a pieno carico :	Kg 470
Overall length :		Max weight :	
Superficie alare :	m ² 22,16	Minima discesa :	m/s 0,85
Wing area :		Sink speed :	
Allungamento :	AR 12,21	Rapporto di planata :	1:25
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 23,5	Vel. limite consentita :	Km/h 210
Wing loading :		Velocity never exceed :	
Paese :	ROMANIA	Primo volo :	1958
Country :		First flight :	

RG-9 ALBATROSS

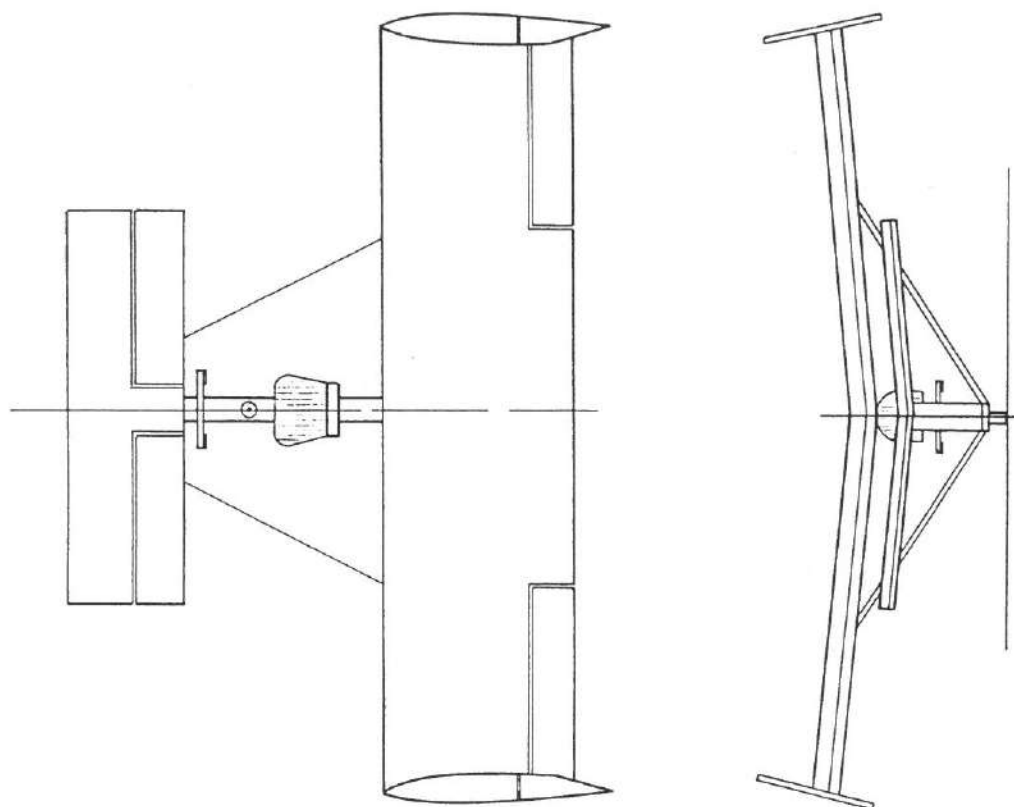
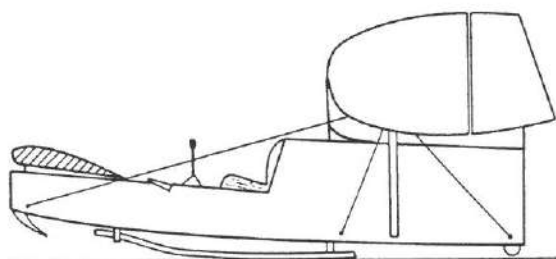
1 2 3 m



Designer / Progettista : R. MANICADITE			
Builder / Costruttore : R. MANICADITE			
Seats / Posti	ONE		
Apertura alare	: m 6,0	Peso a vuoto	: Kg 28
Wing span	:	Empty weight	:
Lunghezza	: m 4,50	Peso a pieno carico	: Kg 68
Overall length	:	Max weight	:
Superficie alare	: m ² 6,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 11,3	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1926
Country	:	First flight	:

RM-1

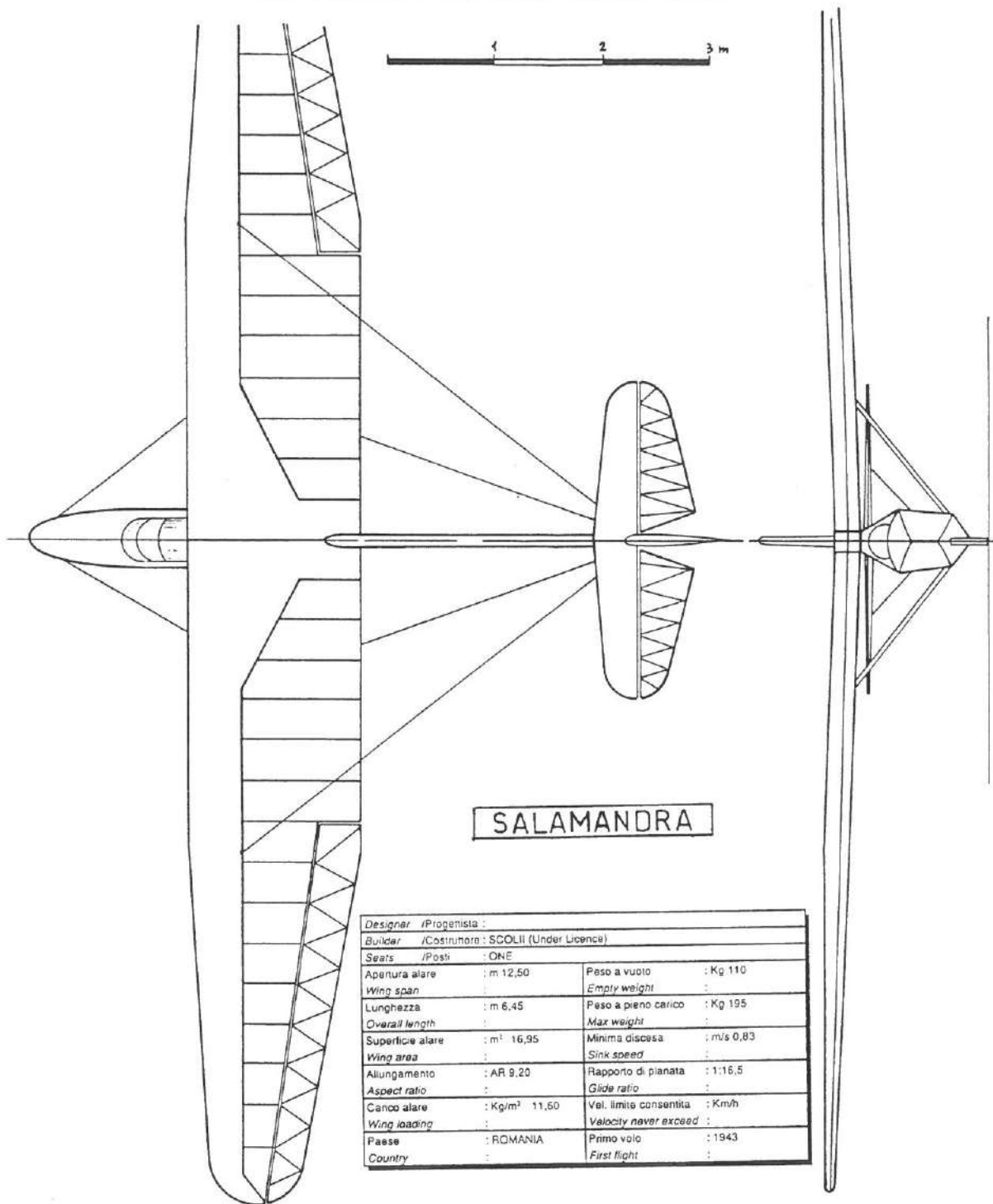
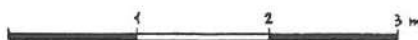
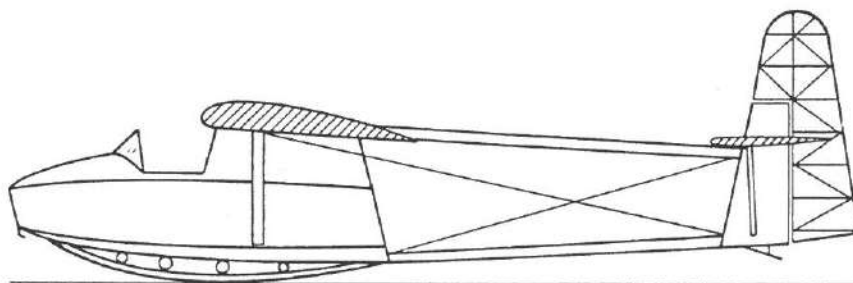




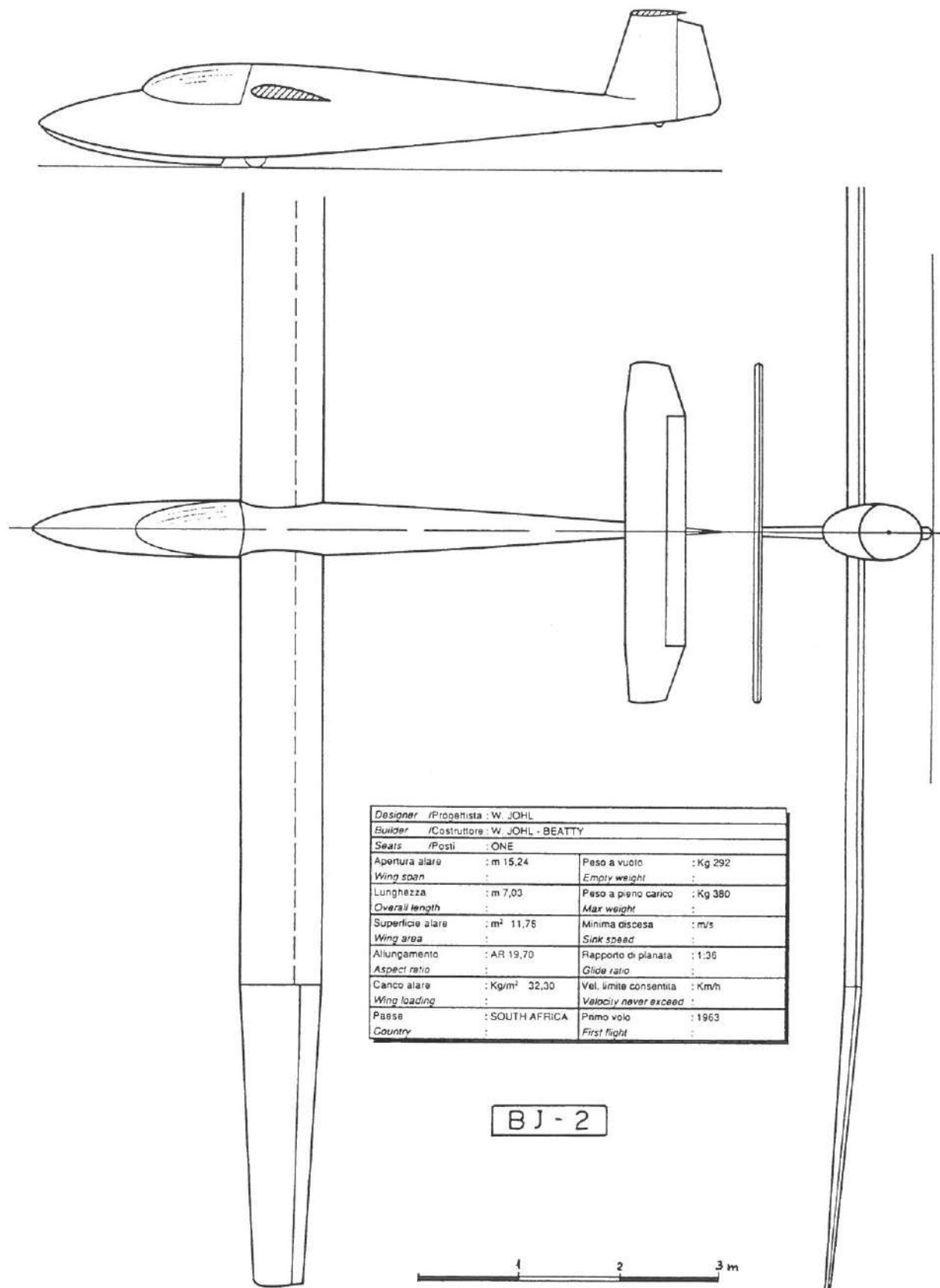
Designer /Progettista : R. MANICADITE			
Builder /Costruttore : R. MANICADITE			
Seats /Posti	ONE		
Apertura alare	: m 6,0	Peso a vuoto	: Kg 60
Wing span	:	Empty weight	:
Lunghezza	: m 4,32	Peso a pieno carico	: Kg 130
Overall length	:	Max weight	:
Superficie alare	: m ² 9,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 14,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ROMANIA	Primo volo	: 1943
Country	:	First flight	:

R.M.-10





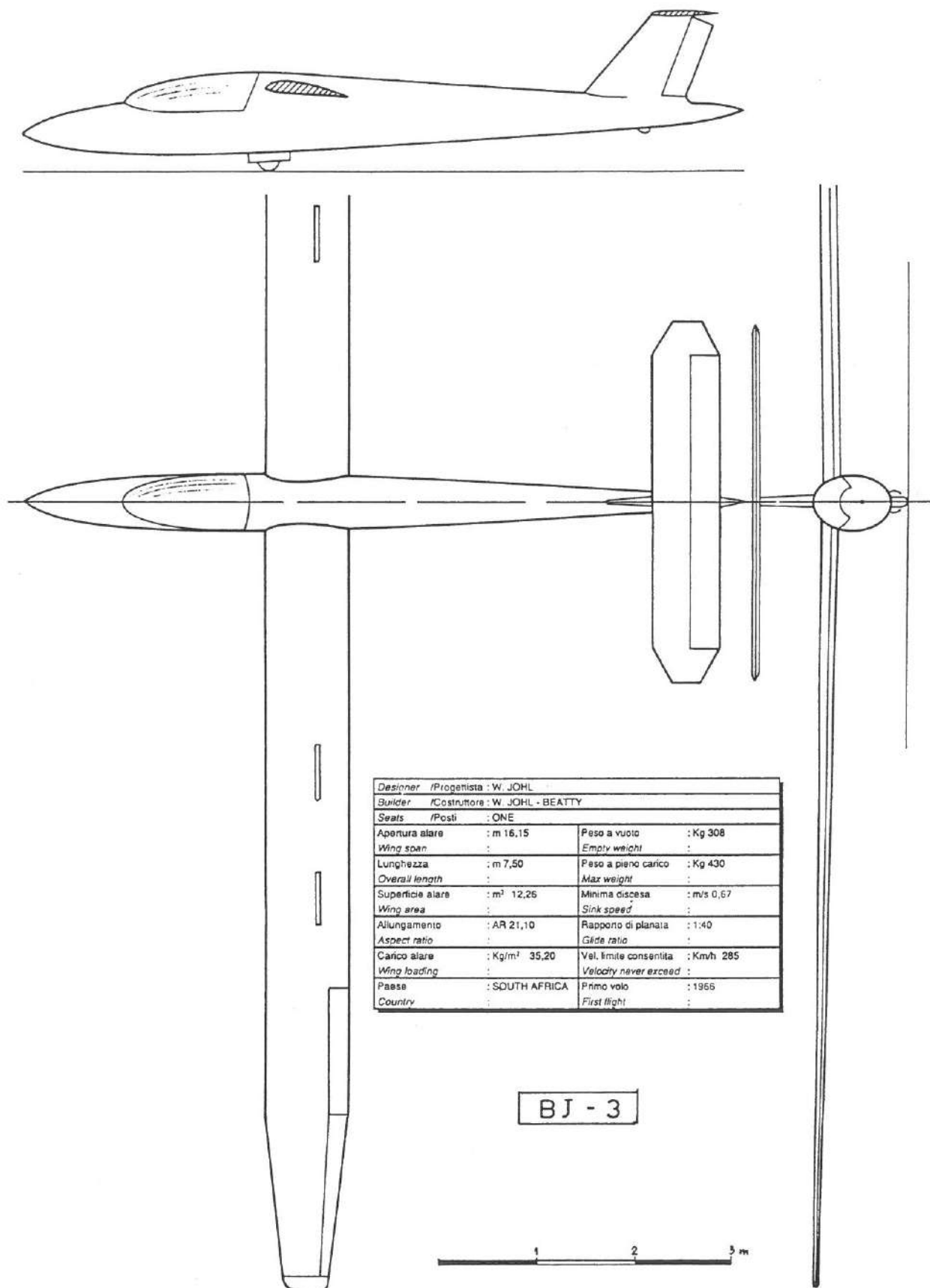
Designer / Progettista :			
Builder / Costruttore : SCOLII (Under Licence)			
Seats / Posti :	ONE		
Apertura alare :	m 12,50	Peso a vuoto :	Kg 110
Wing span :		Empty weight :	
Lunghezza :	m 6,45	Peso a pieno carico :	Kg 195
Overall length :		Max weight :	
Superficie alare :	m ² 16,95	Minima discesa :	m/s 0,83
Wing area :		Sink speed :	
Allungamento :	AR 9,20	Rapporto di planata :	1:16,5
Aspect ratio :		Glide ratio :	
Canco alare :	Kg/m ² 11,50	Vel. limite consentita :	Km/h
Wing loading :		Velocity never exceed :	
Paese :	ROMANIA	Primo volo :	1943
Country :		First flight :	



Designer	/Progettista : W. JOHL		
Builder	/Costruttore : W. JOHL - BEATTY		
Seats	/Posti : ONE		
Apertura alare	: m 15,24	Peso a vuoto	: Kg 292
Wing span	:	Empty weight	:
Lunghezza	: m 7,03	Peso a pieno carico	: Kg 380
Overall length	:	Max weight	:
Superficie alare	: m ² 11,75	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 19,70	Rapporto di planata	: 1:36
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 32,30	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: SOUTH AFRICA	Primo volo	: 1963
Country	:	First flight	:

BJ - 2

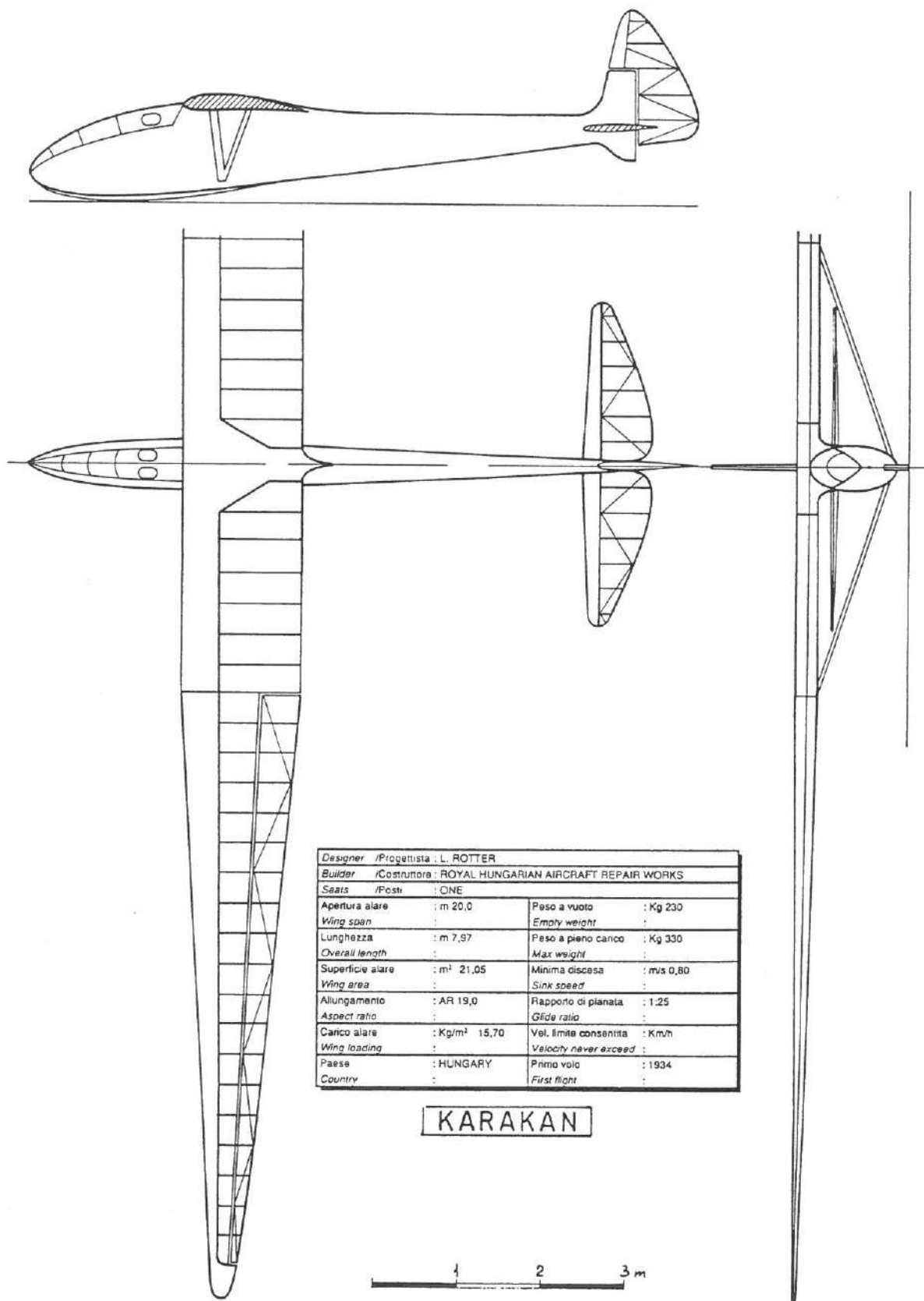
1 2 3 m



Designer / Progettista : W. JOHL			
Builder / Costruttore : W. JOHL - BEATTY			
Seats / Posti : ONE			
Apertura alare	: m 16,15	Peso a vuoto	: Kg 308
Wing span	:	Empty weight	:
Lunghezza	: m 7,50	Peso a pieno carico	: Kg 430
Overall length	:	Max weight	:
Superficie alare	: m ² 12,26	Minima discesa	: m/s 0,67
Wing area	:	Sink speed	:
Allungamento	: AR 21,10	Rapporto di planata	: 1:40
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 35,20	Vel. limite consentita	: Km/h 285
Wing loading	:	Velocity never exceed	:
Paese	: SOUTH AFRICA	Primo volo	: 1956
Country	:	First flight	:

BJ - 3

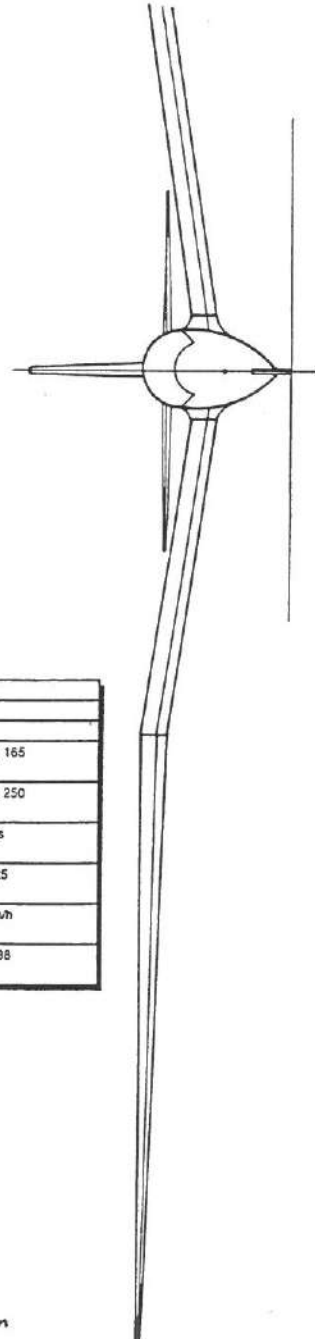
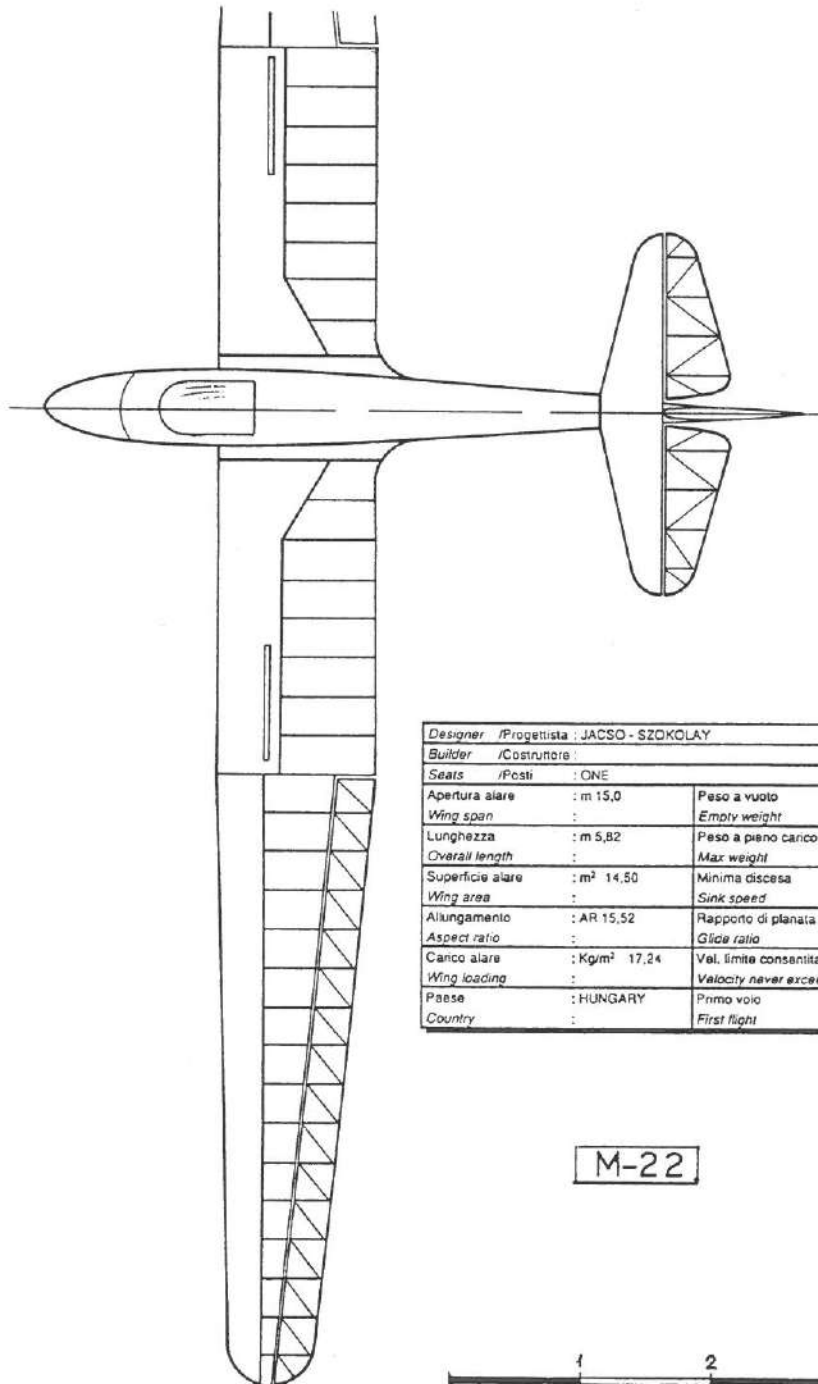
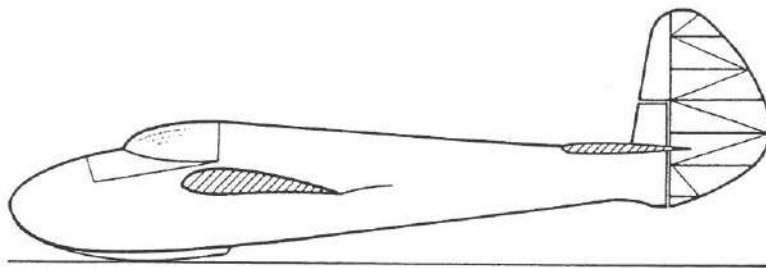
1 2 3 m



Designer /Progettista : L. ROTTER			
Builder /Costruttore : ROYAL HUNGARIAN AIRCRAFT REPAIR WORKS			
Seats /Posti : ONE			
Apertura alare	: m 20,0	Peso a vuoto	: Kg 230
Wing span	:	Empty weight	:
Lunghezza	: m 7,97	Peso a pieno carico	: Kg 330
Overall length	:	Max weight	:
Superficie alare	: m ² 21,05	Minima discesa	: m/s 0,80
Wing area	:	Sink speed	:
Allungamento	: AR 19,0	Rapporto di planata	: 1:25
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15,70	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: HUNGARY	Primo volo	: 1934
Country	:	First flight	:

KARAKAN

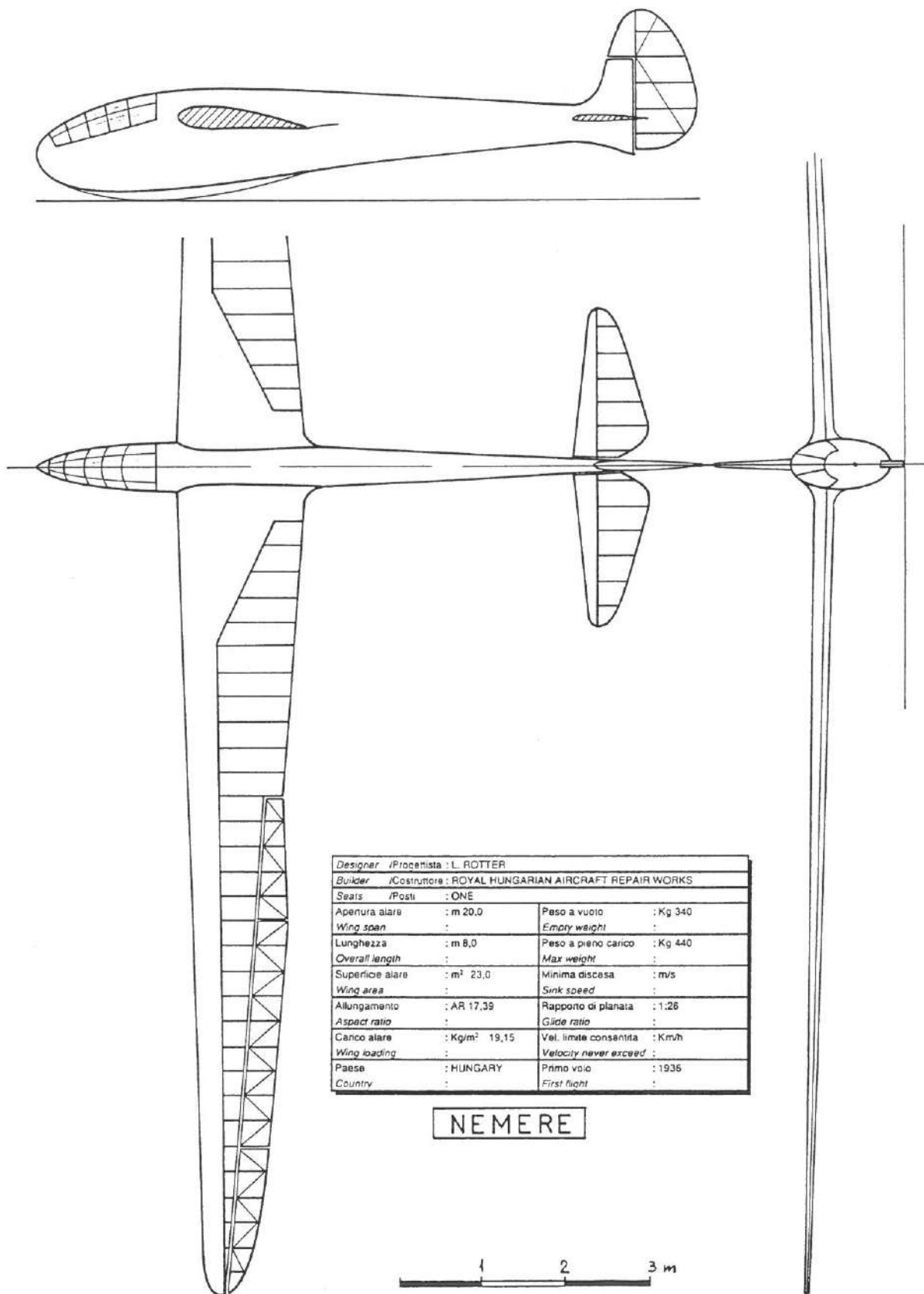
1 2 3 m



Designer /Progettista : JACSO - SZOKOLAY			
Builder /Costruttore :			
Seats /Posti :	ONE		
Apertura alare :	m 15,0	Peso a vuoto :	Kg 165
Wing span :		Empty weight :	
Lunghezza :	m 5,82	Peso a pieno carico :	Kg 250
Overall length :		Max weight :	
Superficie alare :	m ² 14,50	Minima discesa :	m/s
Wing area :		Sink speed :	
Allungamento :	AR 15,52	Rapporto di planata :	1:25
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 17,24	Vel. limite consentita :	Kmh
Wing loading :		Velocity never exceed :	
Paese :	HUNGARY	Primo volo :	1938
Country :		First flight :	

M-22

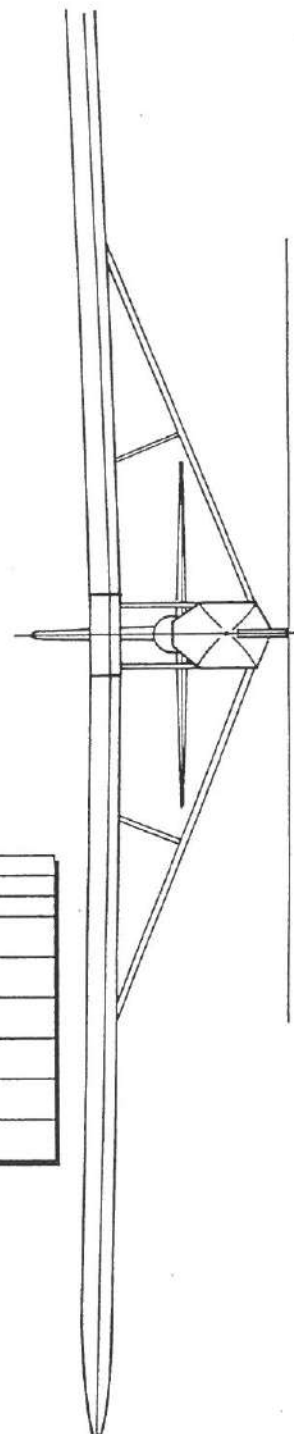
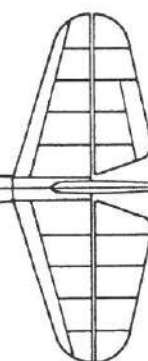
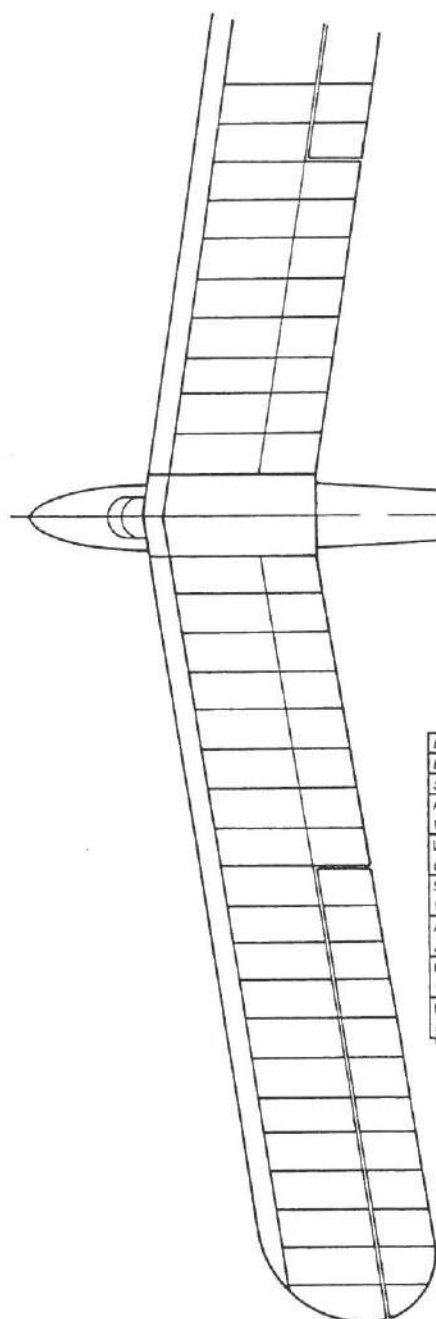
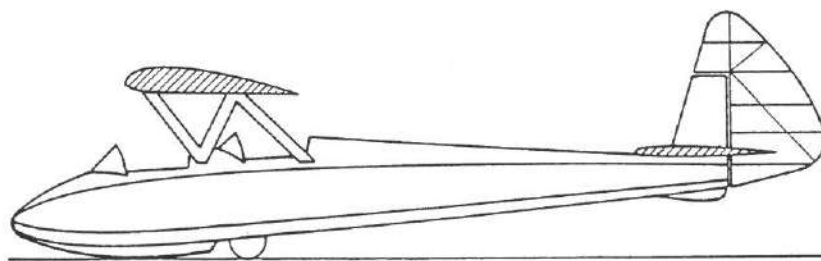
1 2 3 m



Designer / Progettista : L. ROTTER			
Builder / Costruttore : ROYAL HUNGARIAN AIRCRAFT REPAIR WORKS			
Seats / Posti	ONE		
Apertura alare	: m 20,0	Peso a vuoto	: Kg 340
Wing span	:	Empty weight	:
Lunghezza	: m 8,0	Peso a pieno carico	: Kg 440
Overall length	:	Max weight	:
Superficie alare	: m ² 23,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 17,39	Rapporto di planata	: 1,26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 19,15	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: HUNGARY	Primo volo	: 1936
Country	:	First flight	:

NEMERE

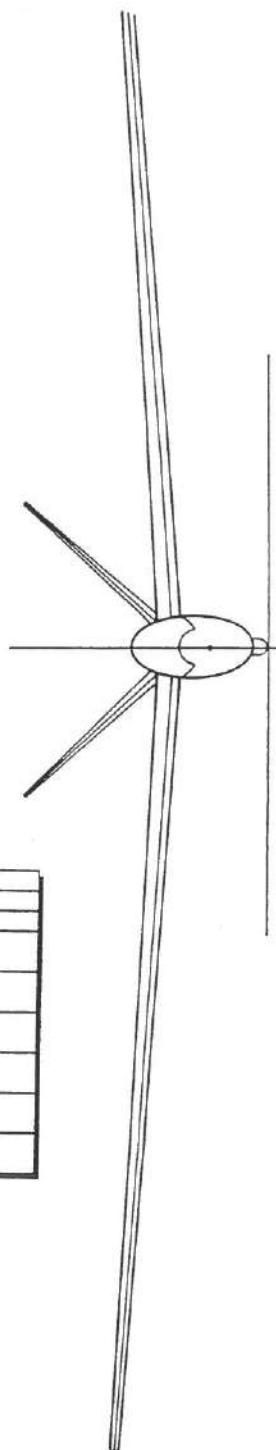
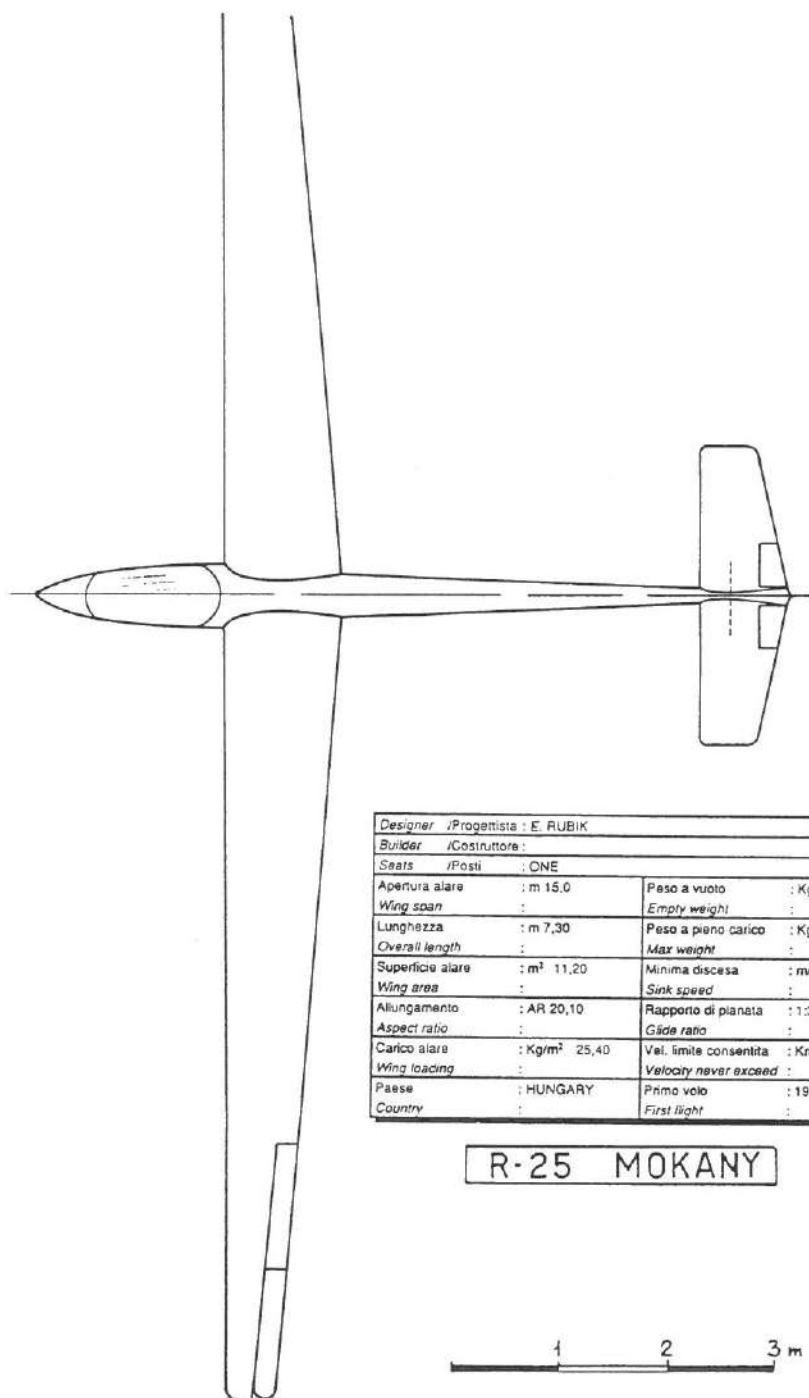
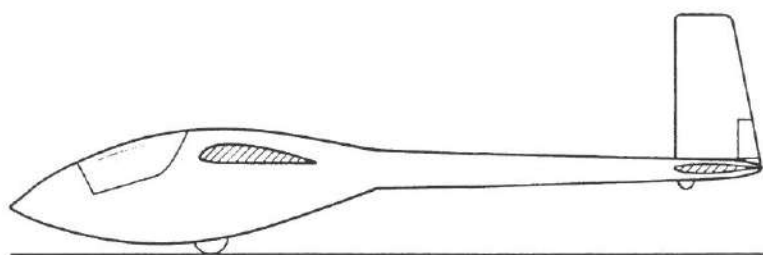
1 2 3 m



Designer / Progettista :	R. RUBIK	
Builder / Costruttore :	R. RUBIK	
Seats / Posti :	TWO TANDEM	
Apertura alare :	m 15,00	Peso a vuoto : Kg
Wing span :		Empty weight :
Lunghezza :	m 7,51	Peso a pieno carico : Kg
Overall length :		Max weight :
Superficie alare :	m ² 15,00	Minima discesa : m/s
Wing area :		Sink speed :
Allungamento :	AR 15,00	Rapporto di planata : 1:
Aspect ratio :		Glide ratio :
Carico alare :	Kg/m ² 15,00	Vel. limite consentita : Km/h
Wing loading :		Velocity never exceed :
Paese :	HUNGARY	Primo volo : 1941
Country :		First flight :

R-II-b CIMBORA

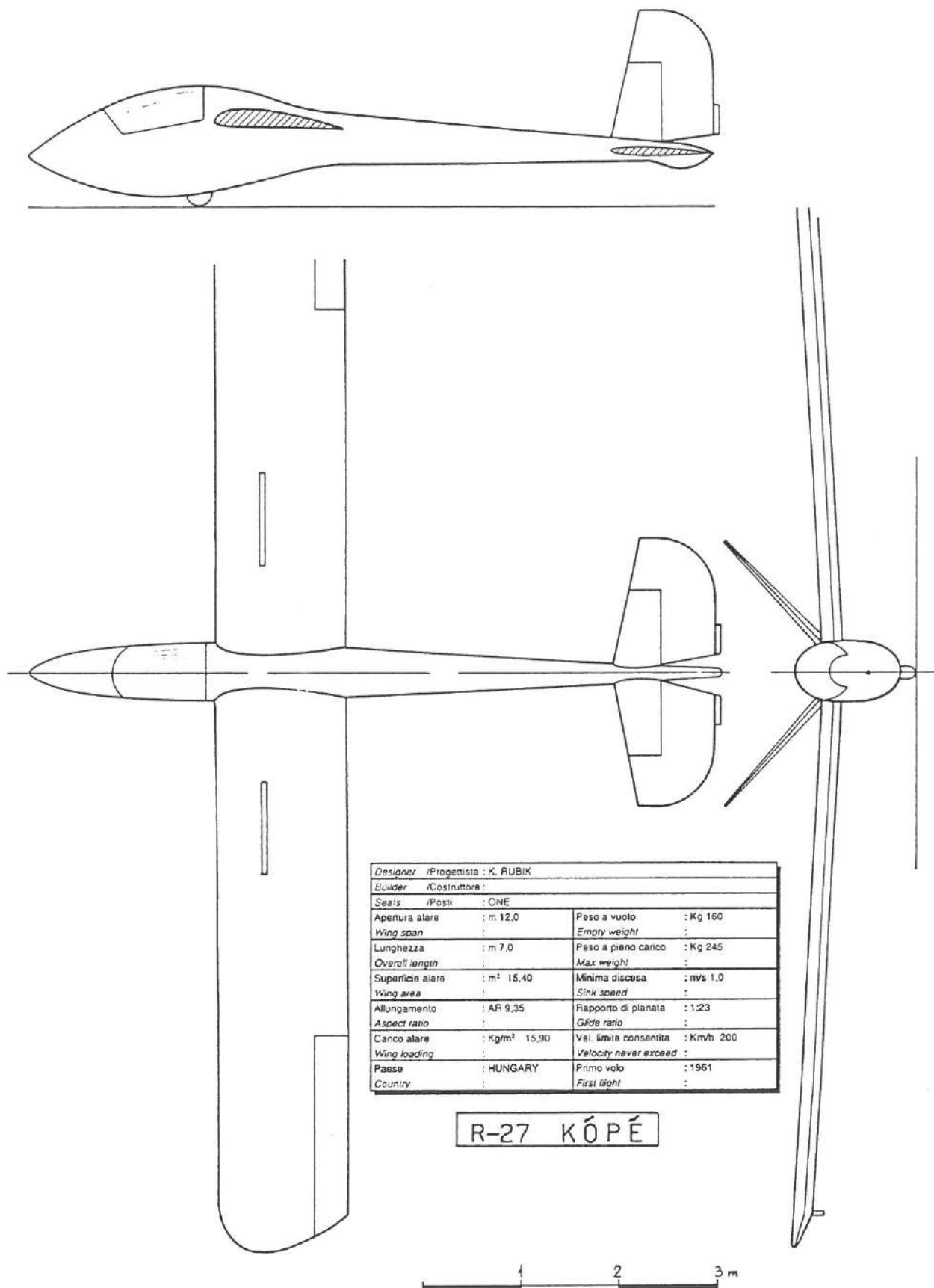




Designer	Progettista : E. RUBIK		
Builder	Costruttore :		
Seats	Posti : ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 200
Wing span	:	Empty weight	:
Lunghezza	: m 7,30	Peso a pieno carico	: Kg 284
Overall length	:	Max weight	:
Superficie alare	: m ² 11,20	Minima discesa	: m/s 0,68
Wing area	:	Sink speed	:
Allungamento	: AR 20,10	Rapporto di planata	: 1:31,20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 25,40	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: HUNGARY	Primo volo	: 1960
Country	:	First light	:

R-25 MOKANY

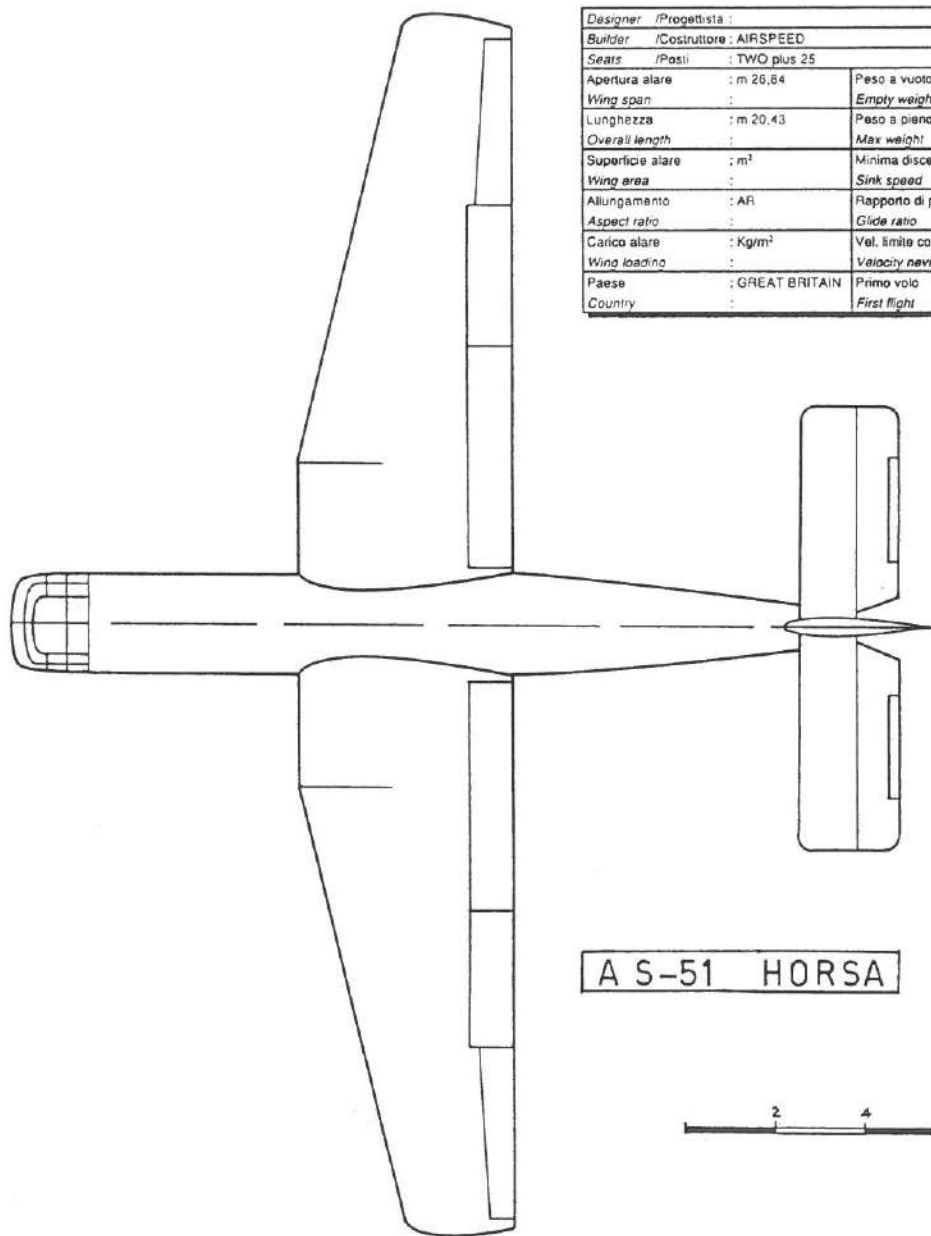
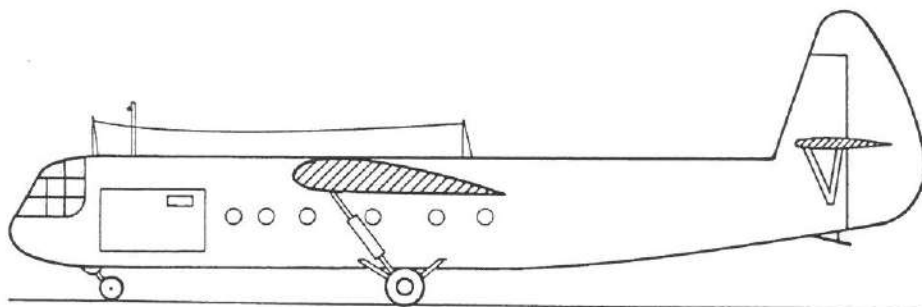




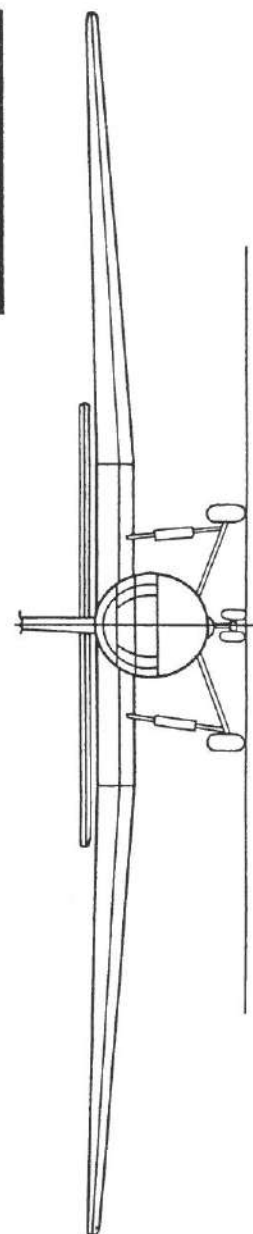
Designer / Progettista : K. RUBIK			
Builder / Costruttore :			
Seats / Posti : ONE			
Apertura alare	: m 12,0	Peso a vuoto	: Kg 160
Wing span	:	Empty weight	:
Lunghezza	: m 7,0	Peso a pieno carico	: Kg 245
Overall length	:	Max weight	:
Superficie alare	: m ² 15,40	Minima discesa	: mvs 1,0
Wing area	:	Sink speed	:
Allungamento	: AR 9,35	Rapporto di planata	: 1:23
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15,90	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: HUNGARY	Primo volo	: 1951
Country	:	First flight	:

R-27 KÓPÉ

1 2 3 m

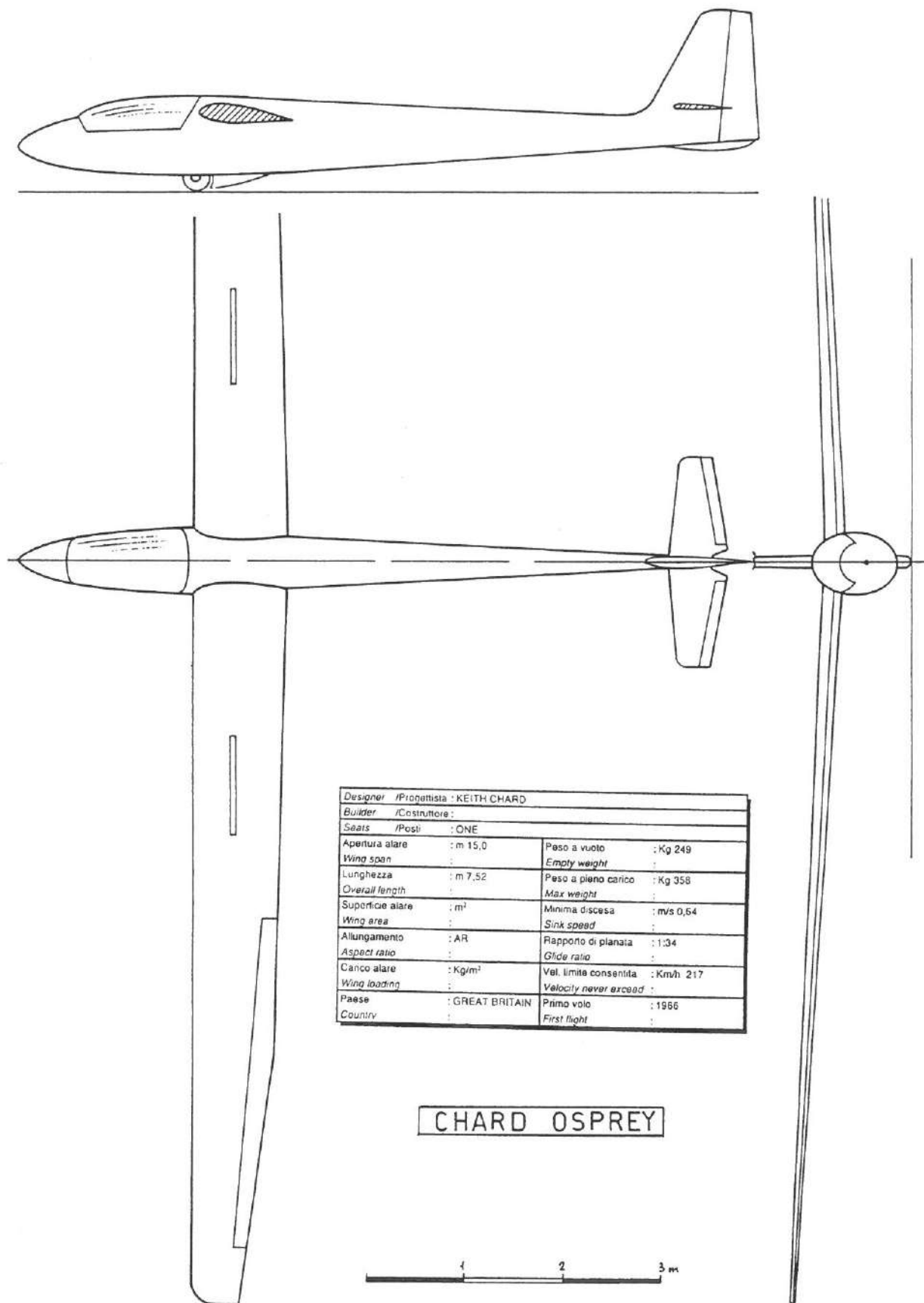


Designer /Progettista :			
Builder /Costruttore : AIRSPEED			
Seats /Posti : TWO plus 25			
Apertura alare	: m 26,84	Peso a vuoto	: Kg 3.402
Wing span	:	Empty weight	:
Lunghezza	: m 20,43	Peso a pieno carico	: Kg 6.917
Overall length	:	Max weight	:
Superficie alare	: m ²	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1941
Country	:	First flight	:



A S-51 HORSA

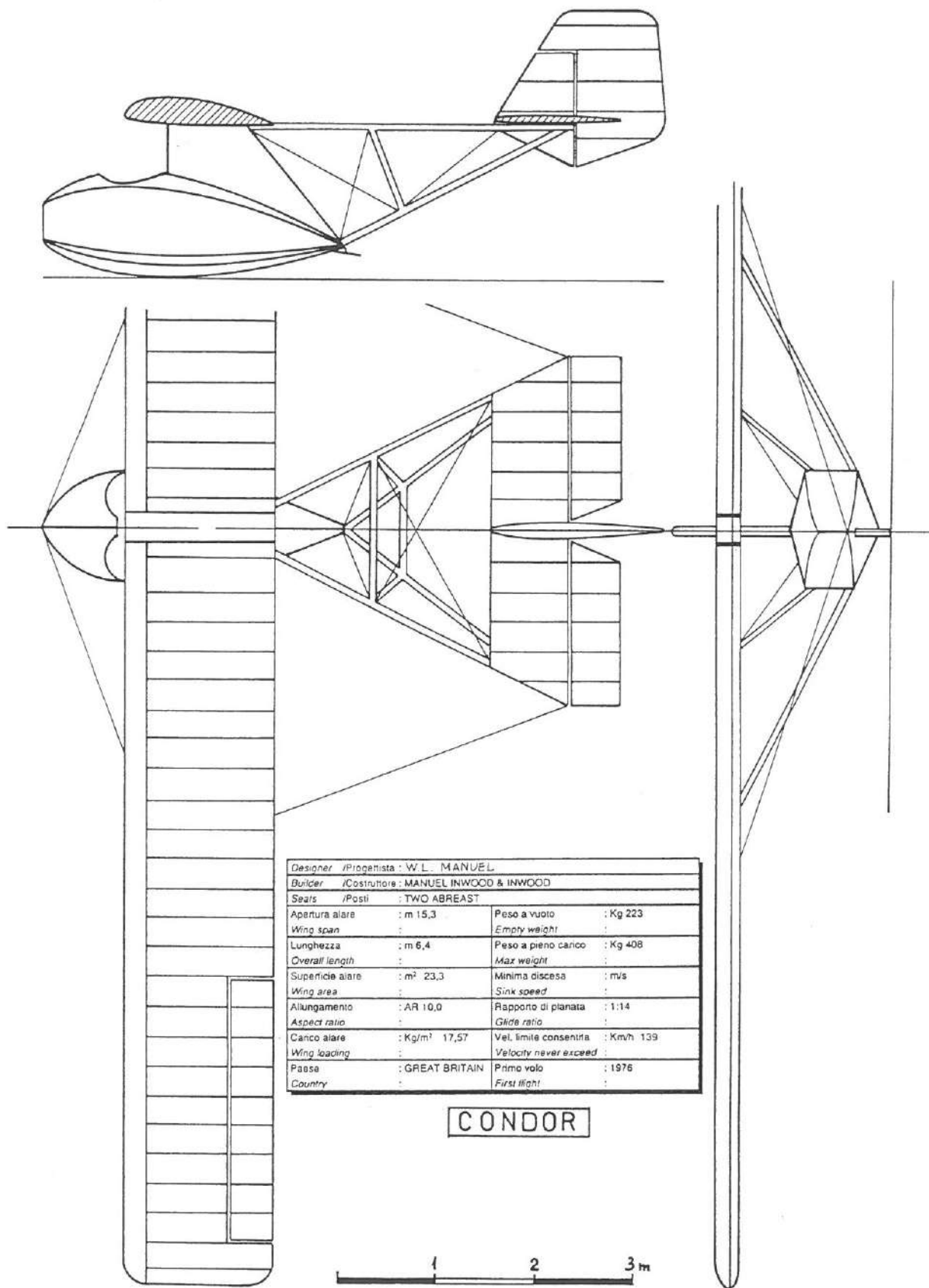


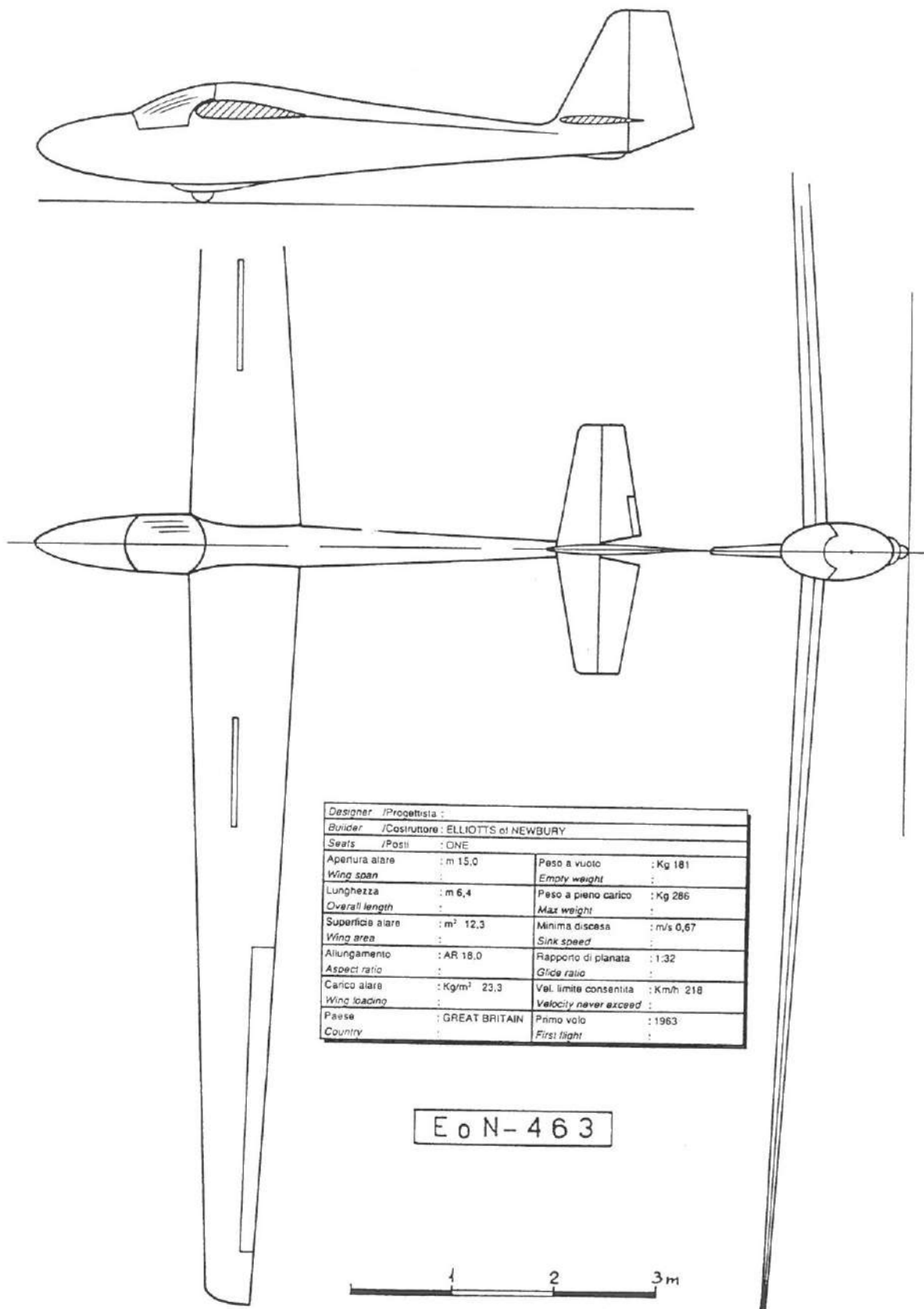


Designer / Progettista	KEITH CHARD		
Builder / Costruttore			
Seats / Posti	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 249
Wing span	:	Empty weight	:
Lunghezza	: m 7,52	Peso a pieno carico	: Kg 358
Overall length	:	Max weight	:
Superficie alare	: m ²	Minima discesa	: m/s 0,54
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h 217
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1966
Country	:	First flight	:

CHARD OSPREY

1 2 3 m

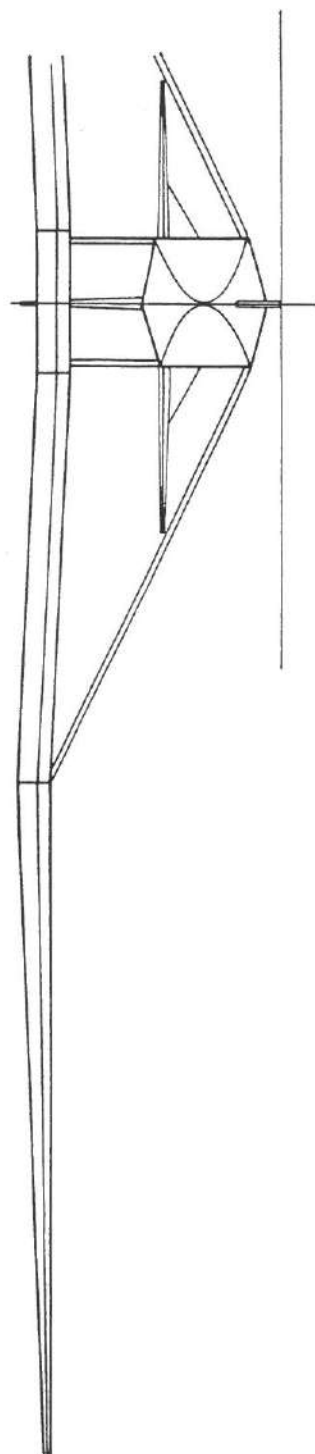
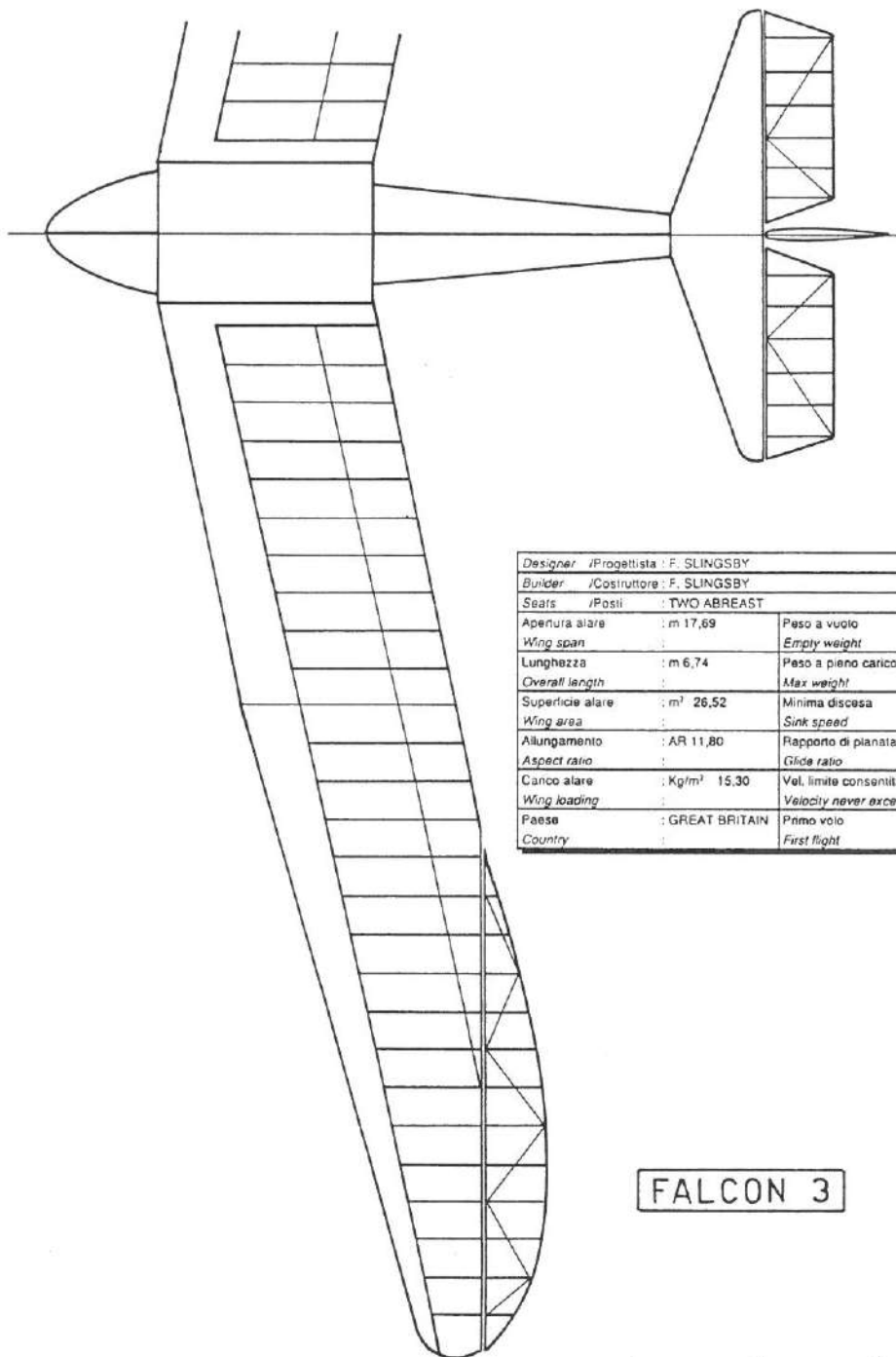
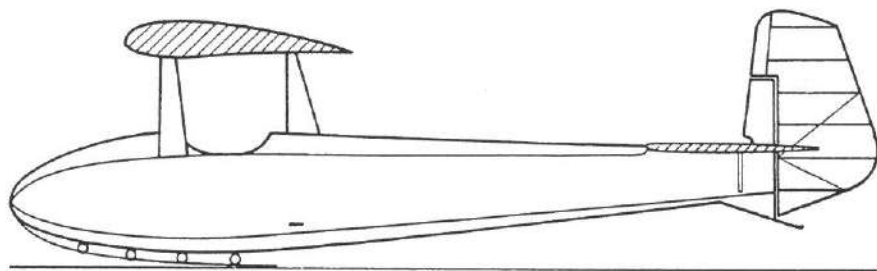




Designer / Progettista :		
Builder / Costruttore :	ELLIOTTS of NEWBURY	
Seats / Posti :	ONE	
Apertura alare :	m 15,0	Peso a vuoto : Kg 181
Wing span :		Empty weight :
Lunghezza :	m 6,4	Peso a pieno carico : Kg 286
Overall length :		Max weight :
Superficie alare :	m ² 12,3	Minima discesa : m/s 0,67
Wing area :		Sink speed :
Allungamento :	AR 18,0	Rapporto di planata : 1:32
Aspect ratio :		Glide ratio :
Carico alare :	Kg/m ² 23,3	Vel. limite consentita : Km/h 218
Wing loading :		Velocity never exceed :
Paese :	GREAT BRITAIN	Primo volo : 1963
Country :		First flight :

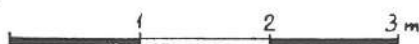
E o N - 4 6 3

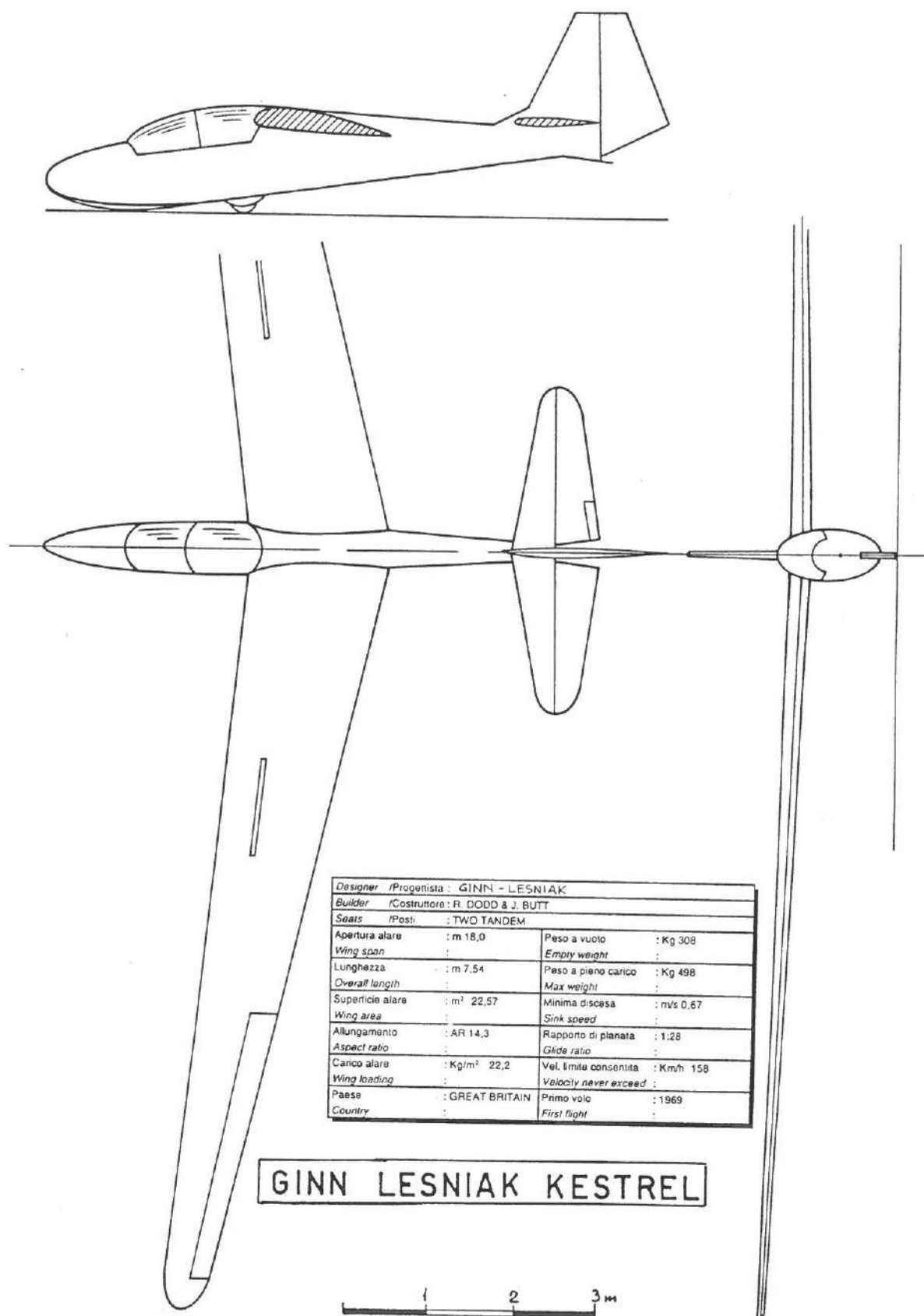
1 2 3m



Designer /Progettista : F. SLINGSBY				
Builder /Costruttore : F. SLINGSBY				
Seats /Posti : TWO ABREAST				
Apertura alare		: m 17,69	Peso a vuoto	: Kg 226,80
Wing span		:	Empty weight	:
Lunghezza		: m 6,74	Peso a pieno carico	: Kg 407,50
Overall length		:	Max weight	:
Superficie alare		: m ² 26,52	Minima discesa	: m/s
Wing area		:	Sink speed	:
Allungamento		: AR 11,80	Rapporto di planata	: 1:20
Aspect ratio		:	Glide ratio	:
Carico alare		: Kg/m ² 15,30	Vel. limite consentita	: Km/h
Wing loading		:	Velocity never exceed	:
Paese		: GREAT BRITAIN	Primo volo	: 1935
Country		:	First flight	:

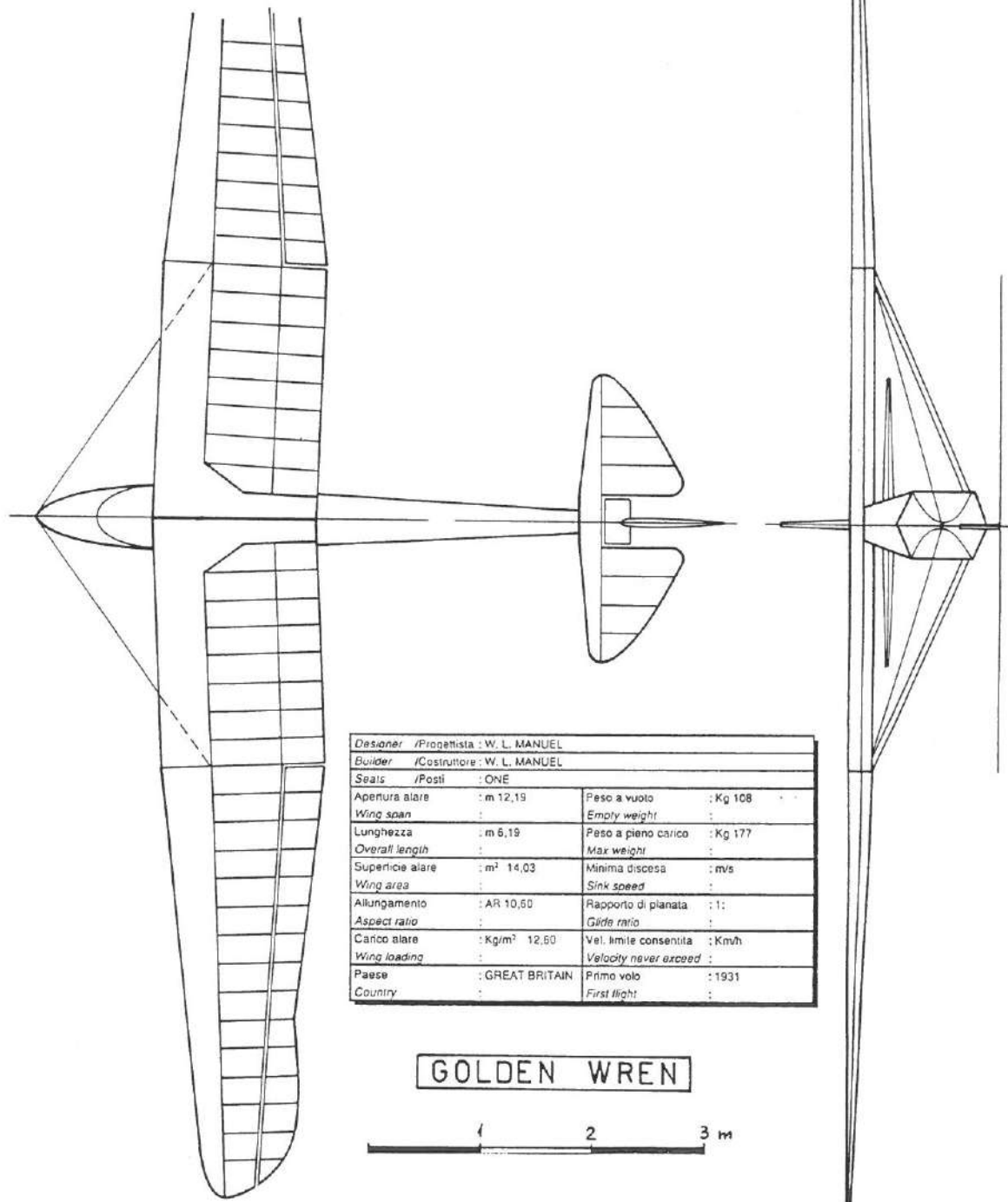
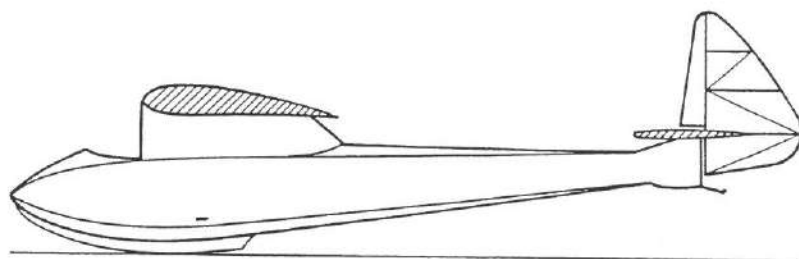
FALCON 3





Designer / Progettista	GINN - LESNIAK		
Builder / Costruttore	R. DODD & J. BUTT		
Seats / Posti	TWO TANDEM		
Apertura alare	: m 18,0	Peso a vuoto	: Kg 308
Wing span	:	Empty weight	:
Lunghezza	: m 7,54	Peso a pieno carico	: Kg 498
Overall length	:	Max weight	:
Superficie alare	: m ² 22,57	Minima discesa	: m/s 0,67
Wing area	:	Sink speed	:
Allungamento	: AR 14,3	Rapporto di planata	: 1:28
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,2	Vel. limite consentita	: Km/h 158
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1969
Country	:	First flight	:

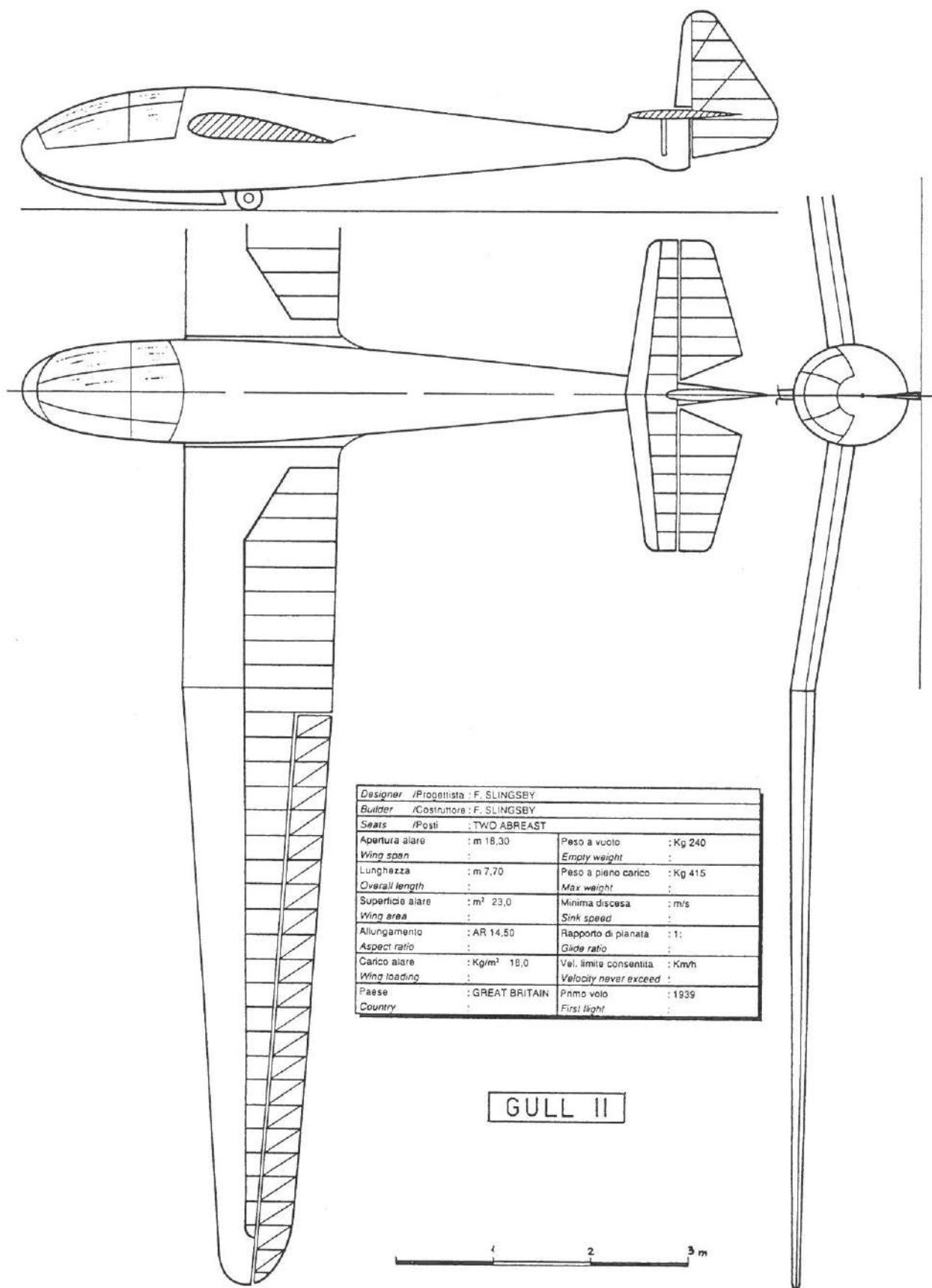
GINN LESNIAK KESTREL



Designer /Progettista :	W. L. MANUEL		
Builder /Costruttore :	W. L. MANUEL		
Seats /Posti :	ONE		
Apertura alare	: m 12,19	Peso a vuoto	: Kg 108
Wing span	:	Empty weight	:
Lunghezza	: m 6,19	Peso a pieno carico	: Kg 177
Overall length	:	Max weight	:
Superficie alare	: m ² 14,03	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 10,60	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 12,60	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1931
Country	:	First flight	:

GOLDEN WREN

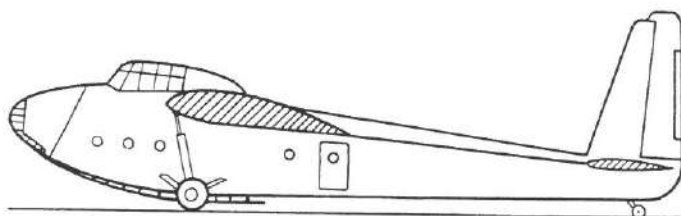
1 2 3 m



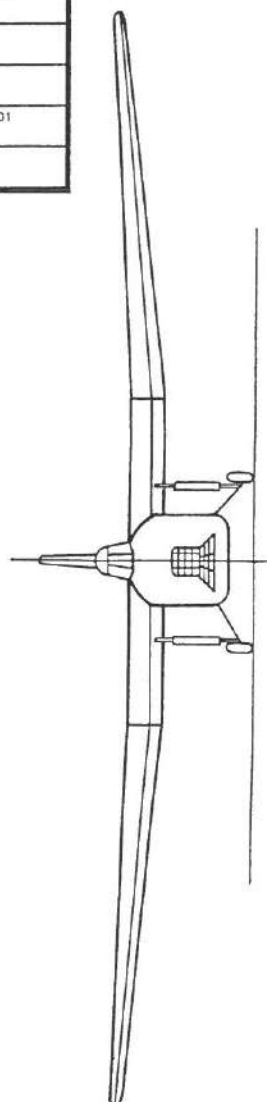
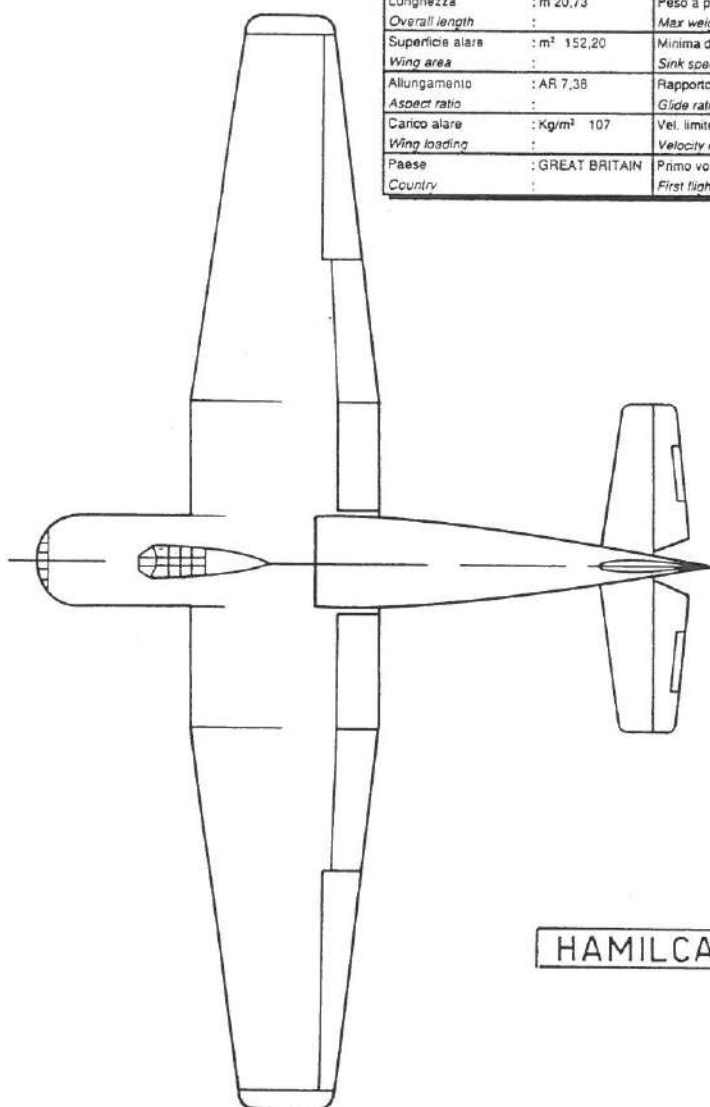
Designer /Progettista	F. SLINGSBY		
Builder /Costruttore	F. SLINGSBY		
Seats /Posti	TWO ABREAST		
Apertura alare	: m 18,30	Peso a vuoto	: Kg 240
Wing span	:	Empty weight	:
Lunghezza	: m 7,70	Peso a pieno carico	: Kg 415
Overall length	:	Max weight	:
Superficie alare	: m ² 23,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 14,50	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1939
Country	:	First flight	:

GULL II

1 2 3 m

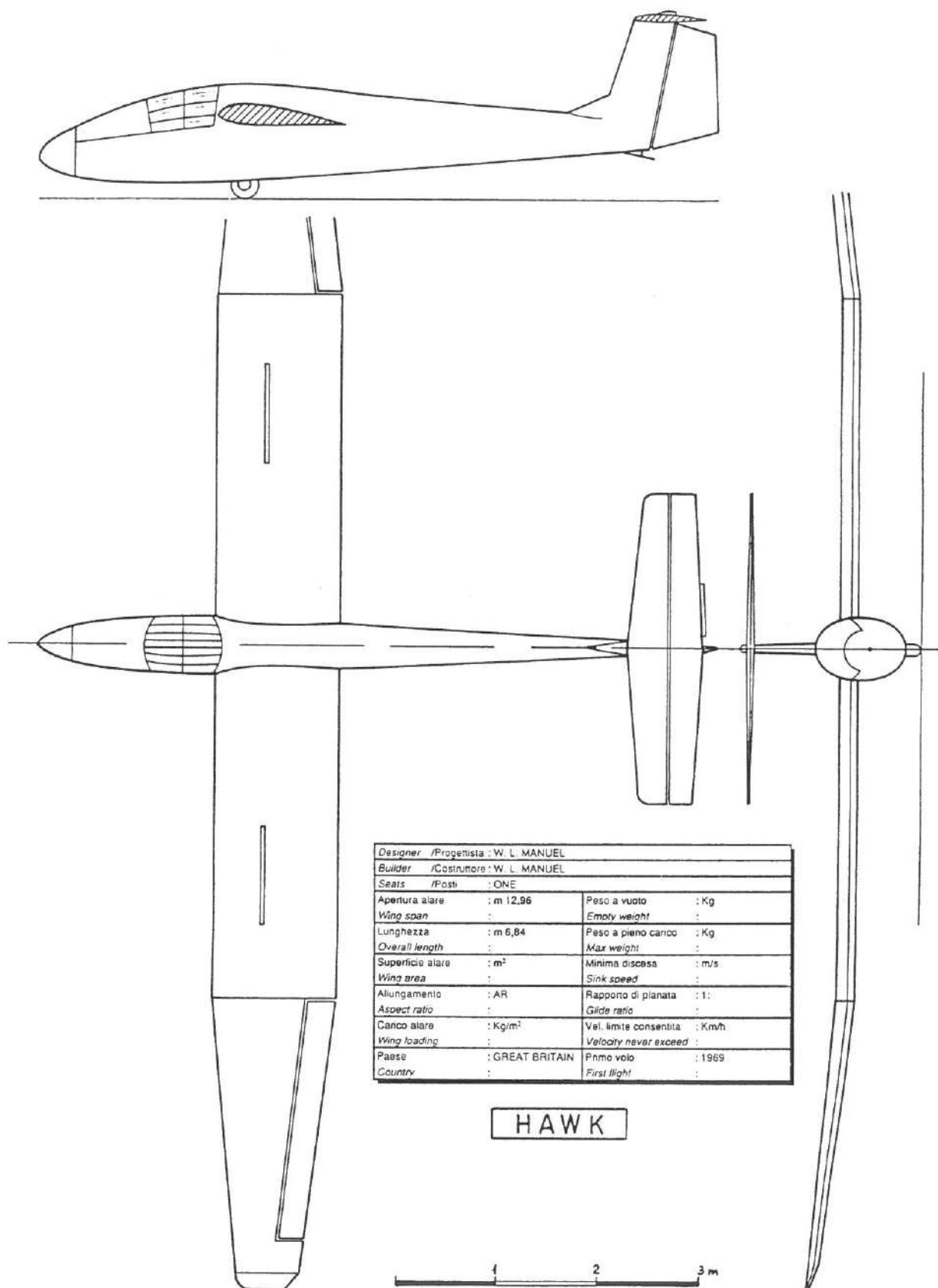


Designer / Progettista :			
Builder / Costruttore : GENERAL AIRCRAFT			
Seats / Posti :			
Apertura alare	: m 33,53	Peso a vuoto	: Kg 8.346
Wing span	:	Empty weight	:
Lunghezza	: m 20,73	Peso a pieno carico	: Kg 16.330
Overall length	:	Max weight	:
Superficie alare	: m ² 152,20	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 7,38	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 107	Vel. limite consentita	: Km/h 301
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1942
Country	:	First flight	:



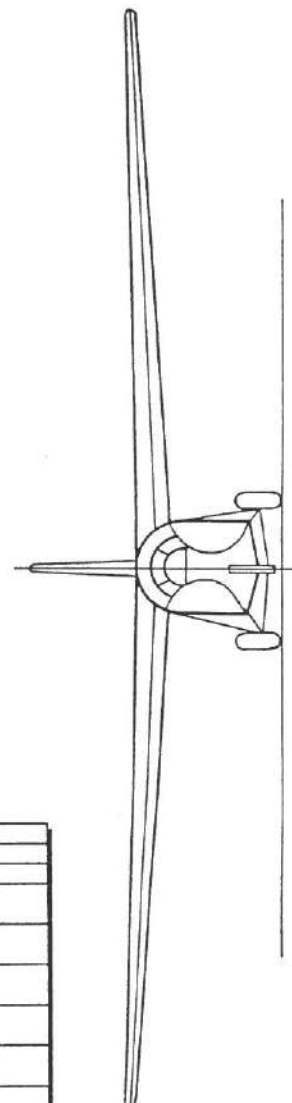
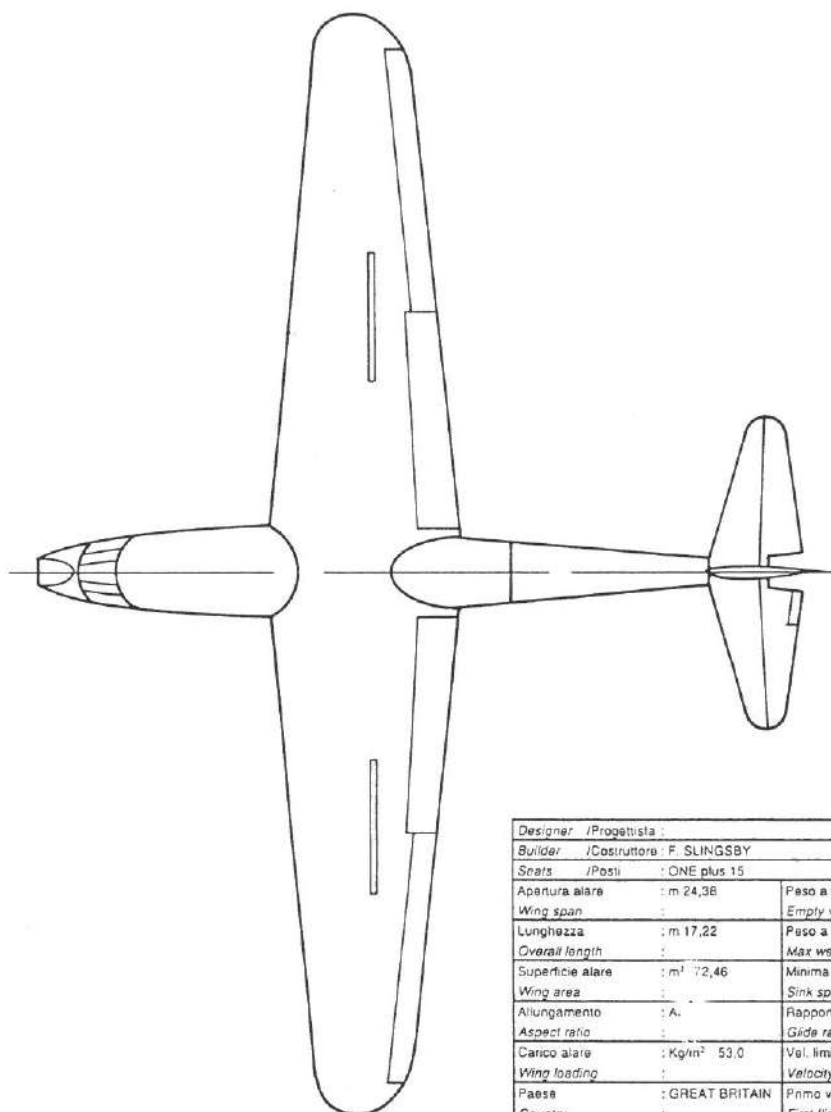
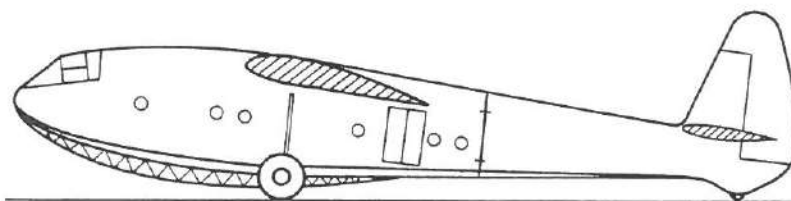
HAMILCAR I





Designer /Progettista : W. L. MANUEL			
Builder /Costruttore : W. L. MANUEL			
Seats /Posti : ONE			
Apertura alare	: m 12,96	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 6,84	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ²	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1969
Country	:	First flight	:

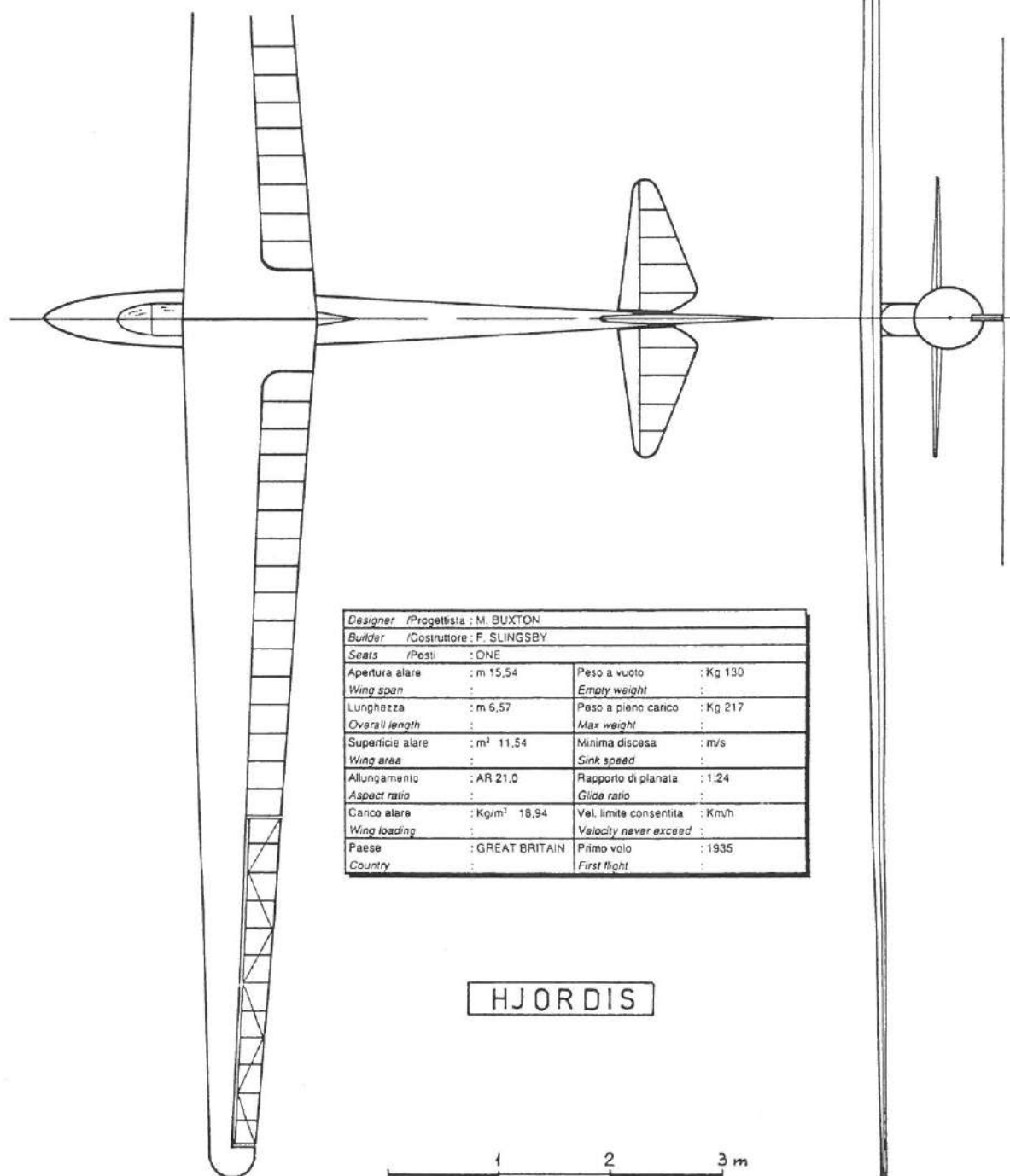
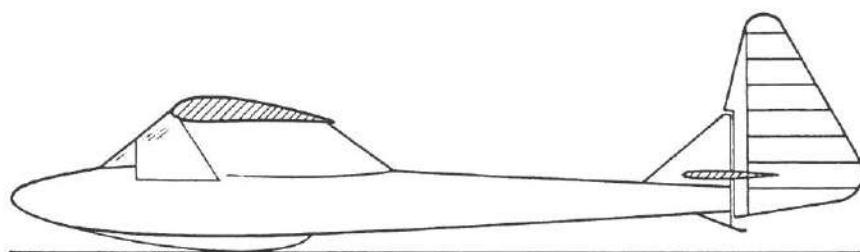
HAWK



Designer / Progettista			
Builder / Costruttore	F. SLINGSBY		
Seats / Posti	ONE plus 15		
Apertura alare	: m 24,38	Peso a vuoto	: Kg 2.100
Wing span		Empty weight	
Lunghezza	: m 17,22	Peso a pieno carico	: Kg 3.787
Overall length		Max weight	
Superficie alare	: m ² 72,46	Minima discesa	: m/s
Wing area		Sink speed	
Allungamento	: A	Rapporto di planata	: 1:
Aspect ratio		Glide ratio	
Carico alare	: Kg/m ² 53,0	Vel. limite consentita	: Km/h 210
Wing loading		Velocity never exceed	
Paese	: GREAT BRITAIN	Primo volo	: 1942
Country		First flight	

HEGIST 18

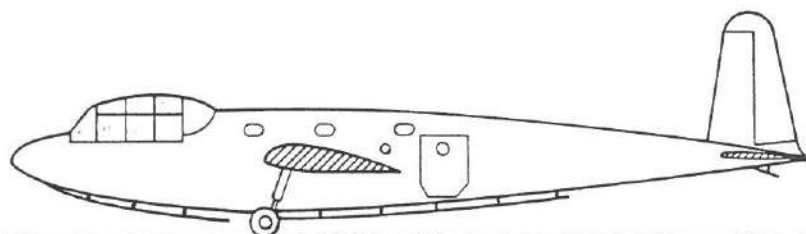




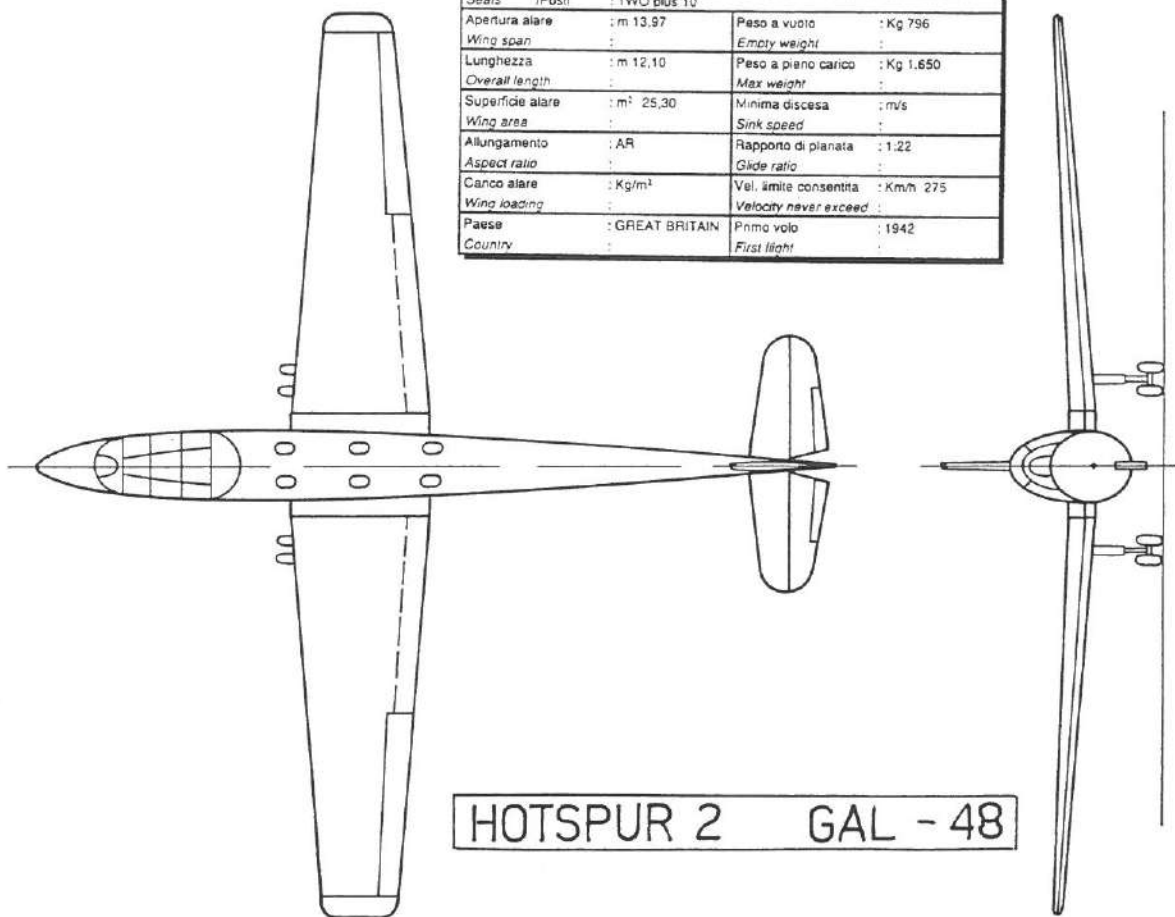
Designer / Progettista : M. BUXTON			
Builder / Costruttore : F. SLINGSBY			
Seats / Posti : ONE			
Apertura alare	: m 15,54	Peso a vuoto	: Kg 130
Wing span	:	Empty weight	:
Lunghezza	: m 6,57	Peso a pieno carico	: Kg 217
Overall length	:	Max weight	:
Superficie alare	: m ² 11,54	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 21,0	Rapporto di planata	: 1:24
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,94	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1935
Country	:	First flight	:

HJORDIS

1 2 3 m

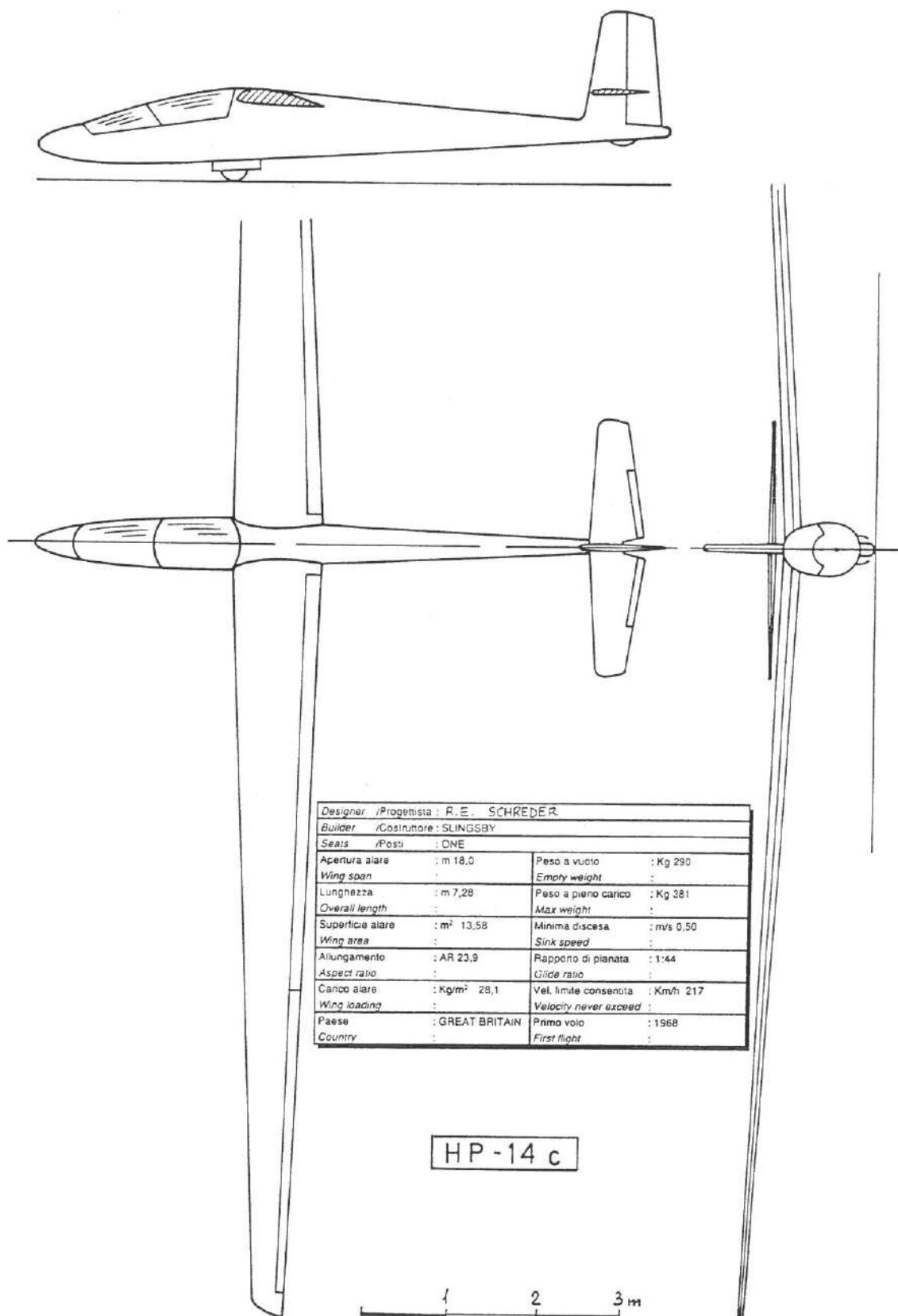


Designer /Progettista :			
Builder /Costruttore :	GENERAL AIRCRAFT		
Seats /Posti :	TWO plus 10		
Apertura alare	: m 13,97	Peso a vuoto	: Kg 796
Wing span	:	Empty weight	:
Lunghezza	: m 12,10	Peso a pieno carico	: Kg 1.650
Overall length	:	Max weight	:
Superficie alare	: m ² 25,30	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1.22
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h 275
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1942
Country	:	First flight	:



HOTSPUR 2 GAL - 48

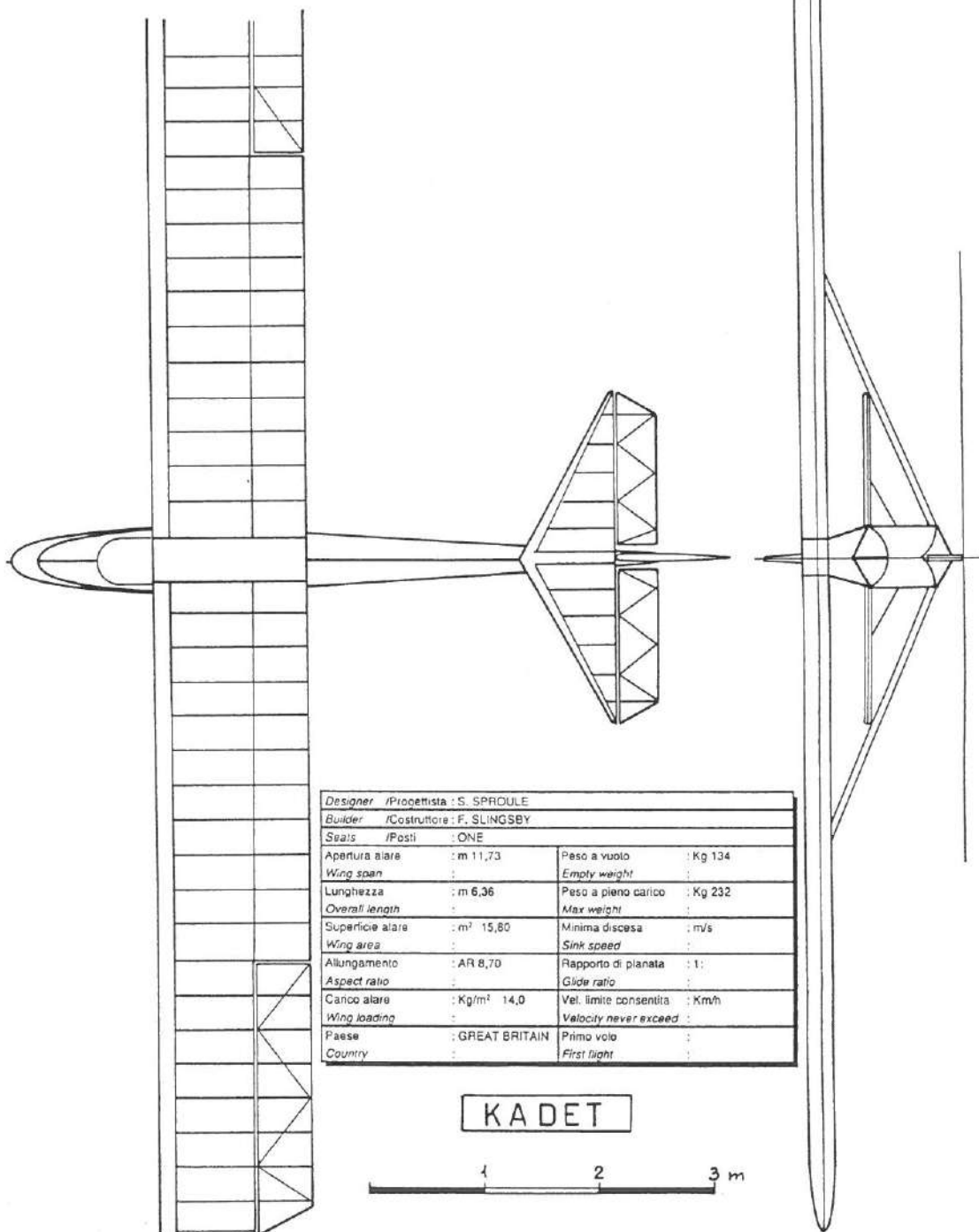
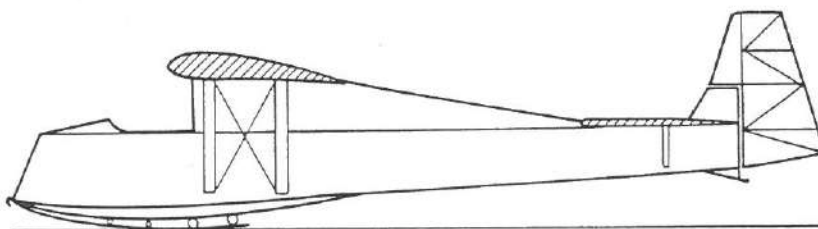




Designer / Progettista : R. E. SCHREDER			
Builder / Costruttore : SLINGSBY			
Seats / Posti : ONE			
Apertura alare	: m 18,0	Peso a vuoto	: Kg 290
Wing span	:	Empty weight	:
Lunghezza	: m 7,28	Peso a pieno carico	: Kg 381
Overall length	:	Max weight	:
Superficie alare	: m ² 13,58	Minima discesa	: m/s 0,50
Wing area	:	Sink speed	:
Allungamento	: AR 23,9	Rapporto di planata	: 1:44
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 28,1	Vel. limite consentita	: Km/h 217
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1968
Country	:	First flight	:

HP-14 c

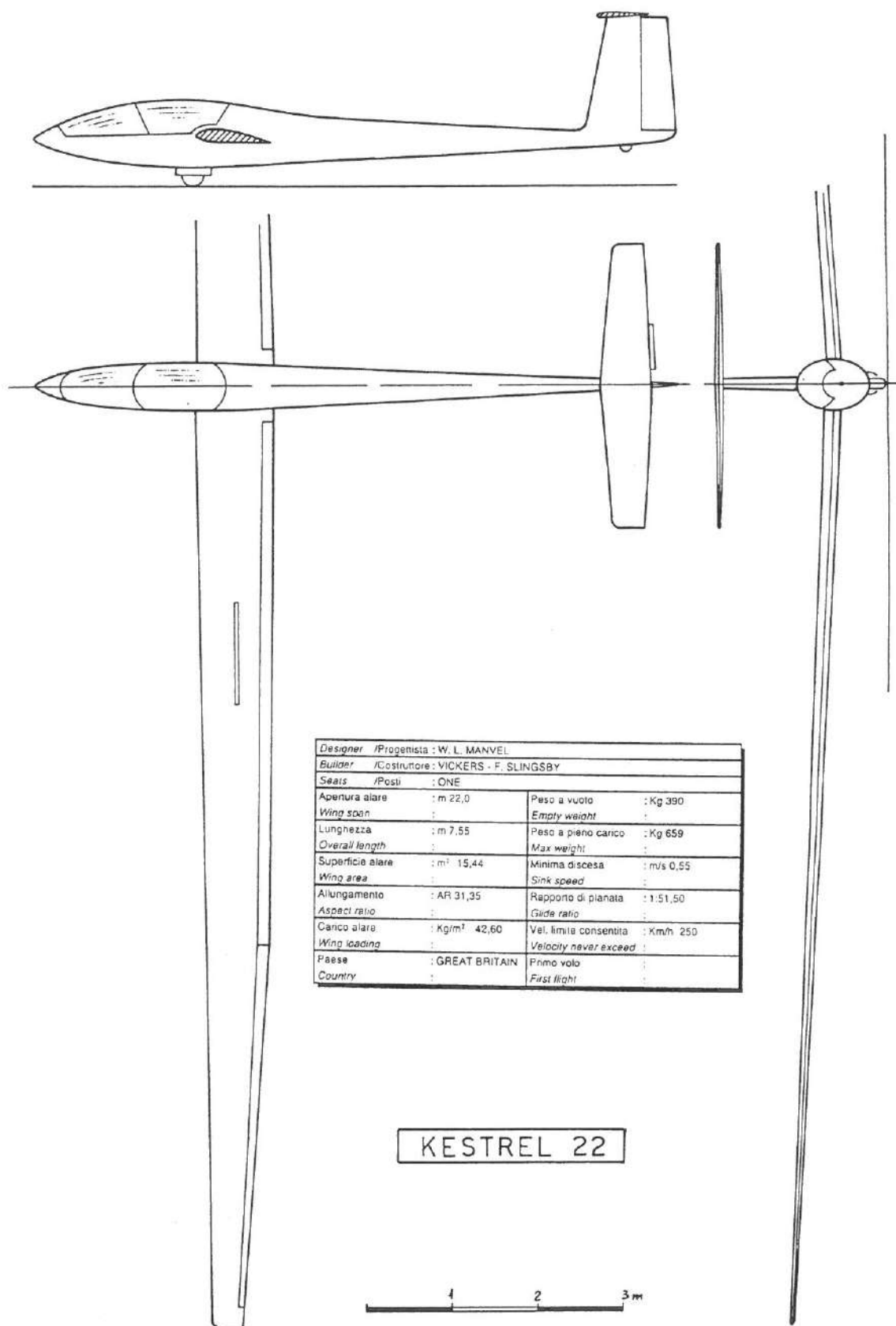
1 2 3 m



Designer / Progettista	: S. SPROULE		
Builder / Costruttore	: F. SLINGSBY		
Seats / Posti	: ONE		
Apertura alare	: m 11,73	Peso a vuoto	: Kg 134
Wing span		Empty weight	
Lunghezza	: m 6,36	Peso a pieno carico	: Kg 232
Overall length		Max weight	
Superficie alare	: m ² 15,80	Minima discesa	: m/s
Wing area		Sink speed	
Allungamento	: AR 8,70	Rapporto di planata	: 1:
Aspect ratio		Glide ratio	
Carico alare	: Kg/m ² 14,0	Vel. limite consentita	: Km/h
Wing loading		Velocity never exceed	
Paese	: GREAT BRITAIN	Primo volo	:
Country		First flight	

KADET

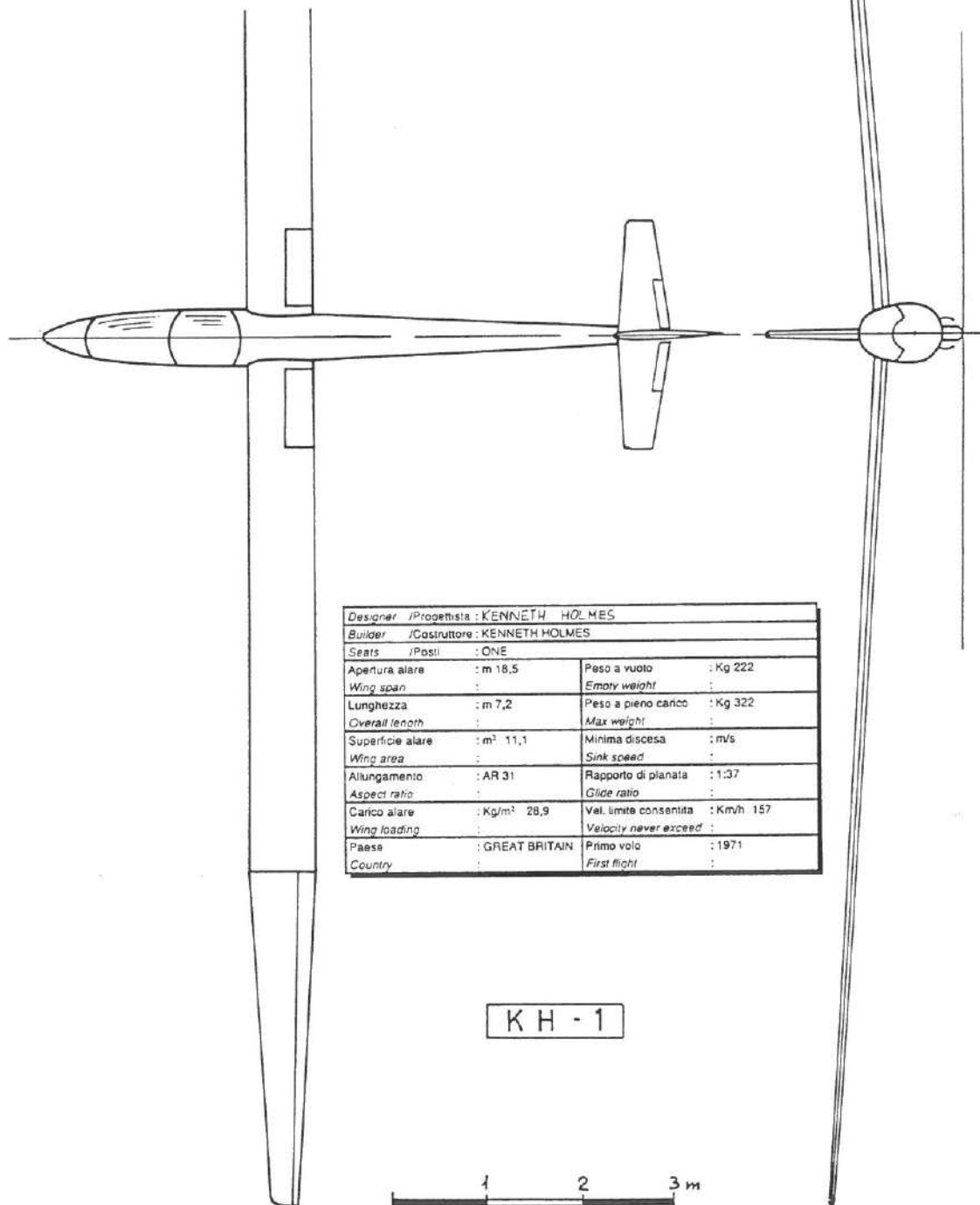
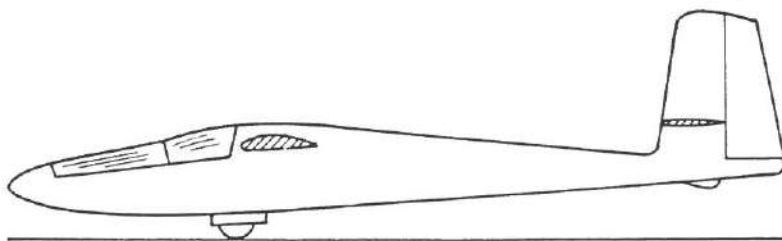
1 2 3 m



Designer /Progettista : W. L. MANVEL			
Builder /Costruttore : VICKERS - F. SLINGSBY			
Seats /Posti : ONE			
Apertura alare	: m 22,0	Peso a vuoto	: Kg 390
Wing span	:	Empty weight	:
Lunghezza	: m 7,55	Peso a pieno carico	: Kg 659
Overall length	:	Max weight	:
Superficie alare	: m ² 15,44	Minima discesa	: m/s 0,55
Wing area	:	Sink speed	:
Allungamento	: AR 31,35	Rapporto di planata	: 1:51,50
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 42,60	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	:
Country	:	First flight	:

KESTREL 22

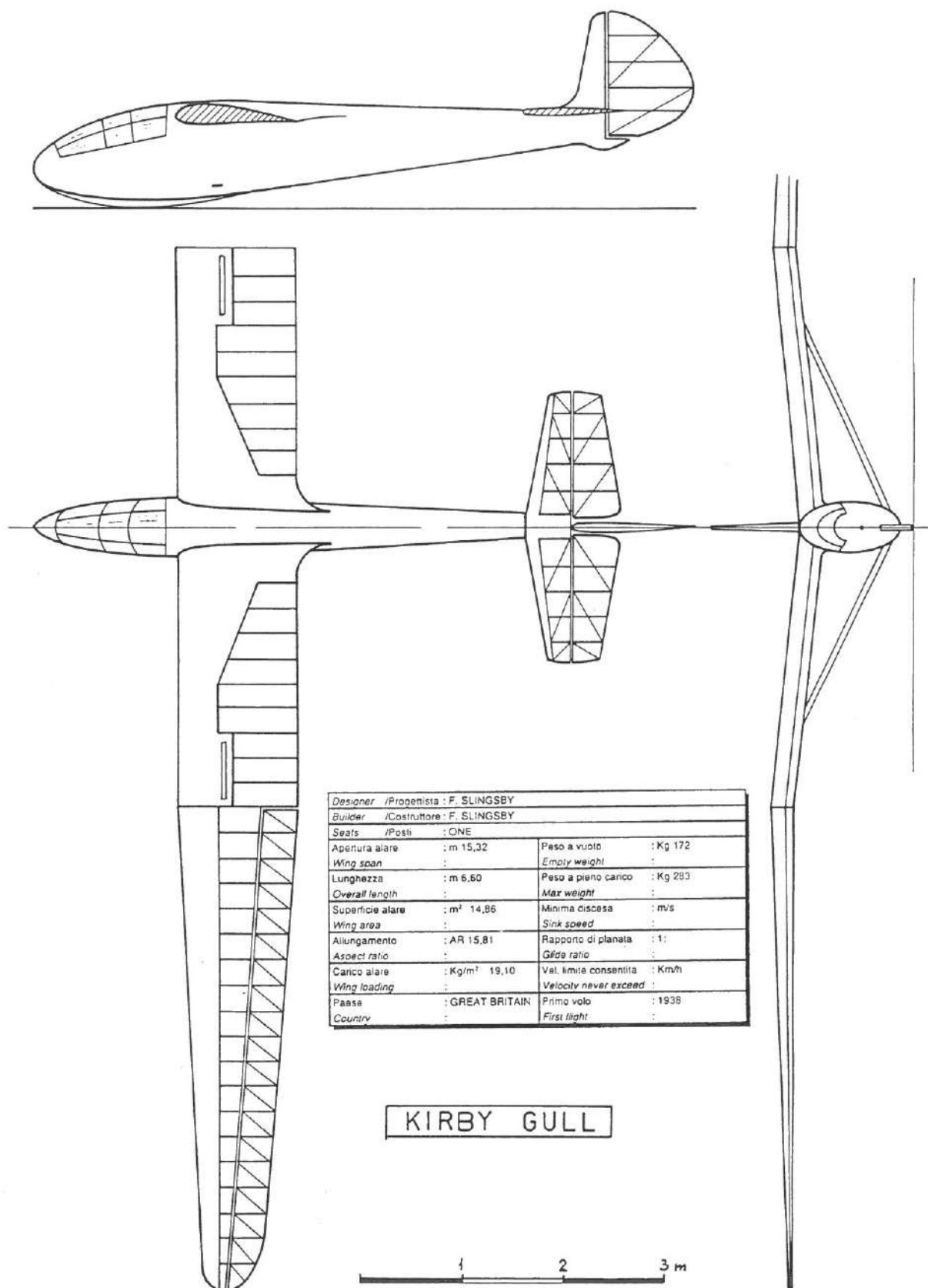
1 2 3 m

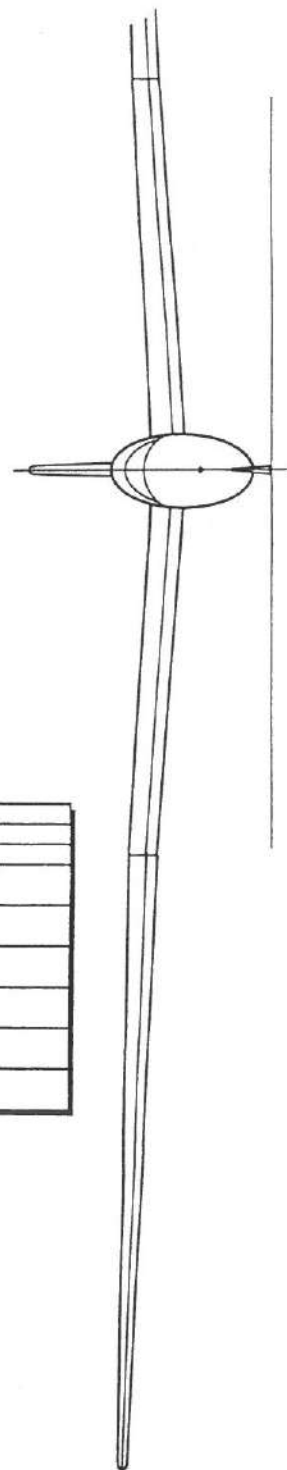
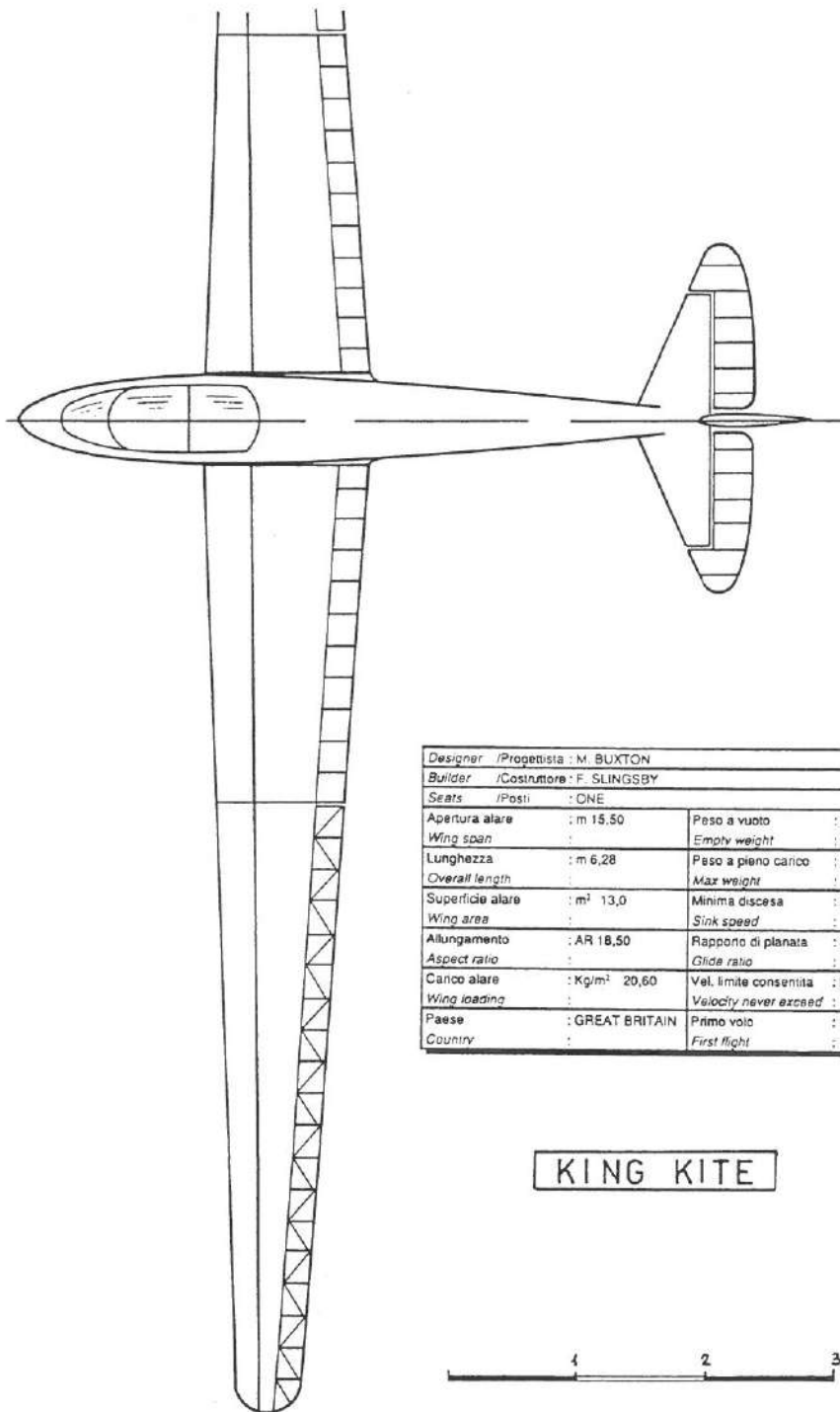
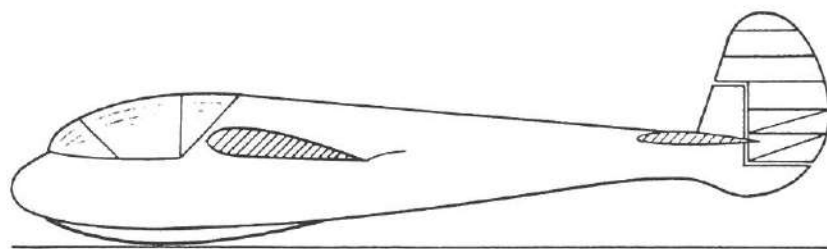


Designer / Progettista	KENNETH HOLMES		
Builder / Costruttore	KENNETH HOLMES		
Seats / Posti	ONE		
Apertura alare	: m 18,5	Peso a vuoto	: Kg 222
Wing span	:	Empty weight	:
Lunghezza	: m 7,2	Peso a pieno carico	: Kg 322
Overall length	:	Max weight	:
Superficie alare	: m ² 11,1	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 31	Rapporto di planata	: 1:37
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 28,9	Vel. limite consentita	: Km/h 157
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1971
Country	:	First flight	:

KH-1



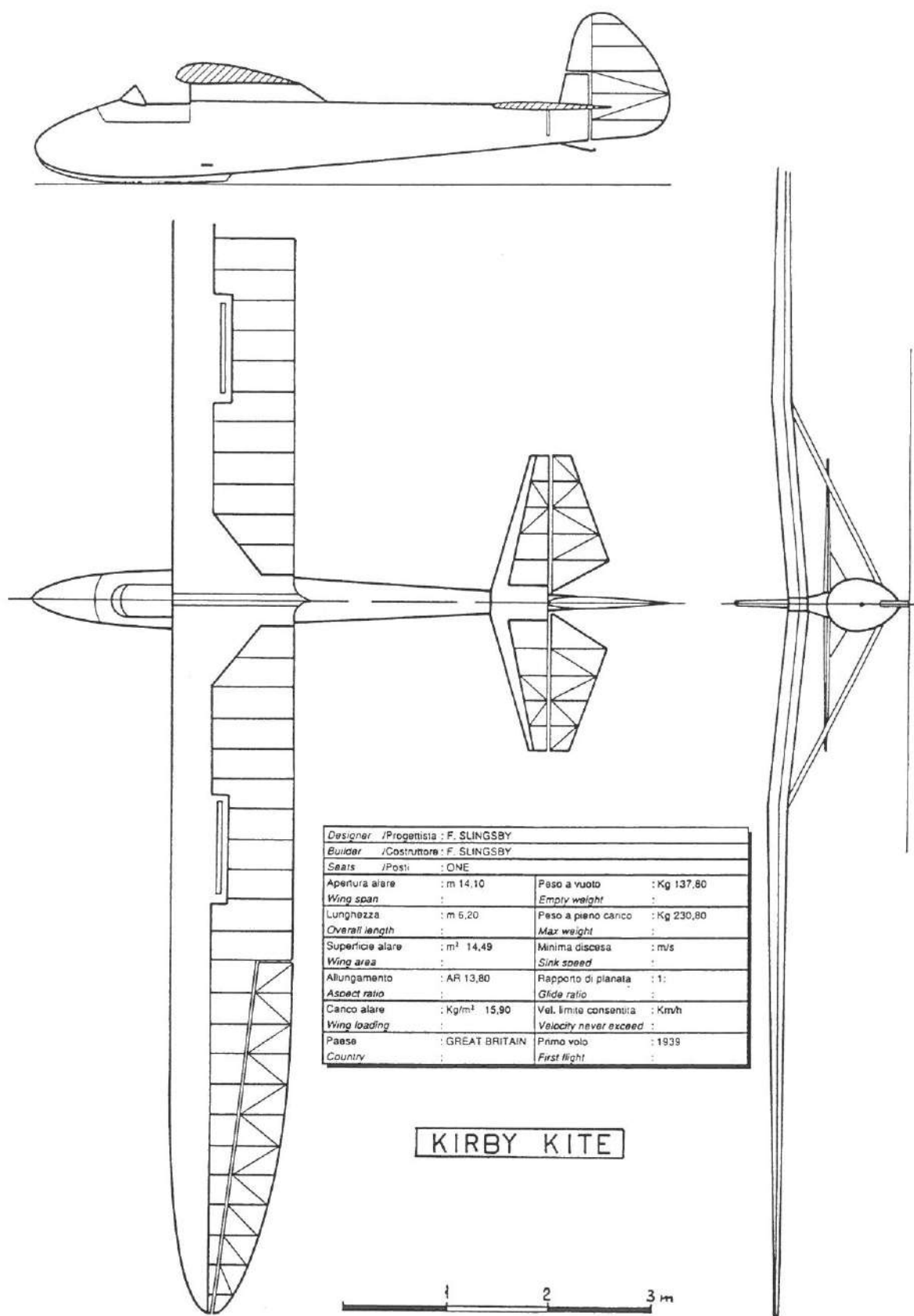




Designer / Progettista	: M. BUXTON		
Builder / Costruttore	: F. SLINGSBY		
Seats / Posti	: ONE		
Apertura alare	: m 15,50	Peso a vuoto	: Kg 183
Wing span	:	Empty weight	:
Lunghezza	: m 6,28	Peso a pieno carico	: Kg 268
Overall length	:	Max weight	:
Superficie alare	: m ² 13,0	Minima discesa	: mvs
Wing area	:	Sink speed	:
Allungamento	: AR 18,50	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 20,60	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1937
Country	:	First flight	:

KING KITE

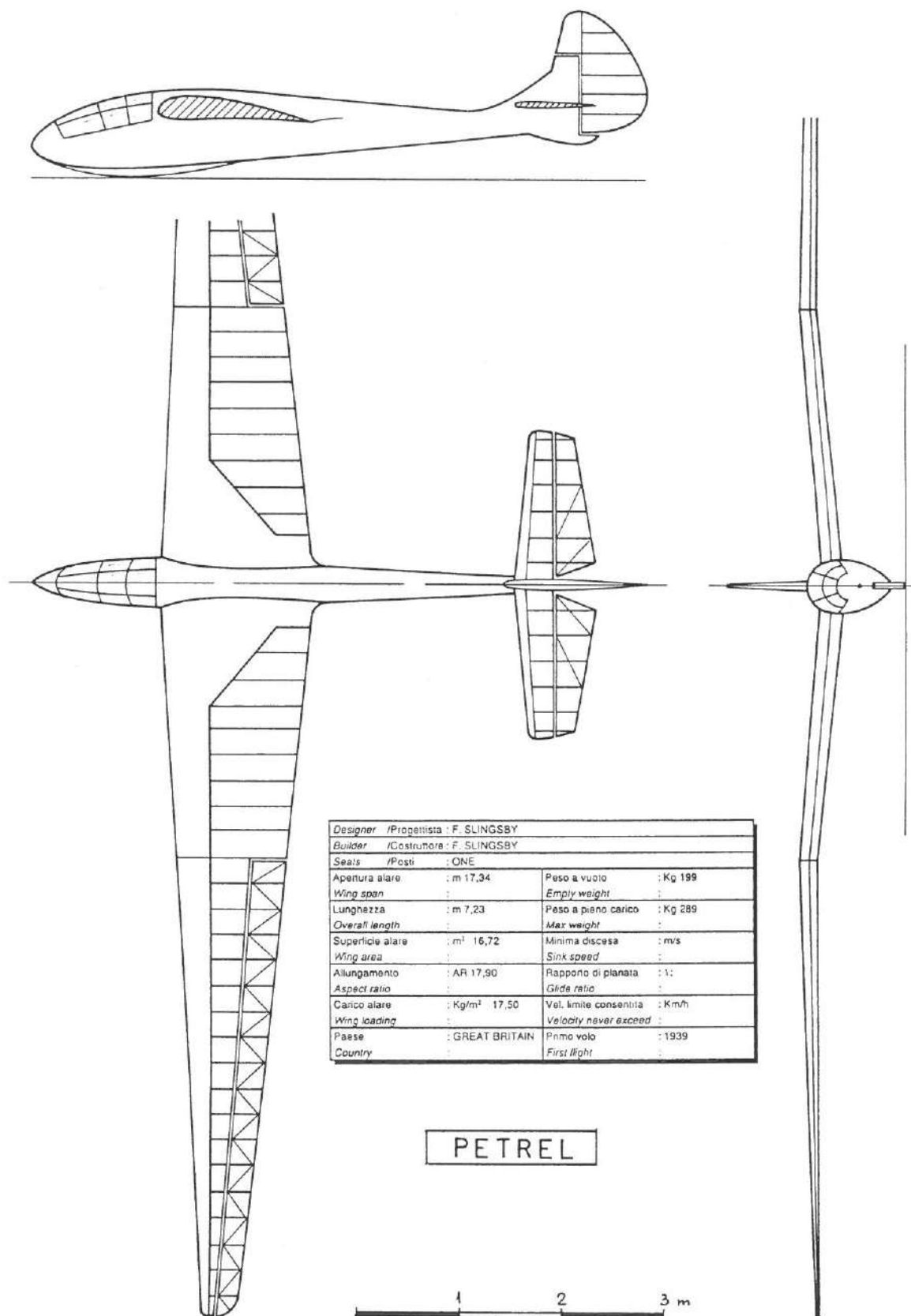




Designer /Progettista : F. SLINGSBY			
Builder /Costruttore : F. SLINGSBY			
Seats /Posti : ONE			
Apertura alare	: m 14,10	Peso a vuoto	: Kg 137,80
Wing span	:	Empty weight	:
Lunghezza	: m 5,20	Peso a pieno carico	: Kg 230,80
Overall length	:	Max weight	:
Superficie alare	: m ² 14,49	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 13,80	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15,90	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1939
Country	:	First flight	:

KIRBY KITE

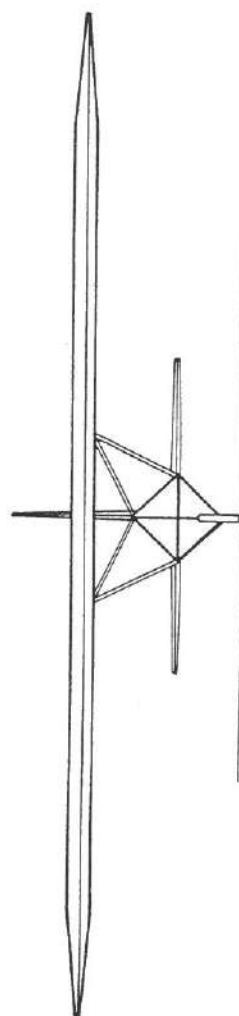
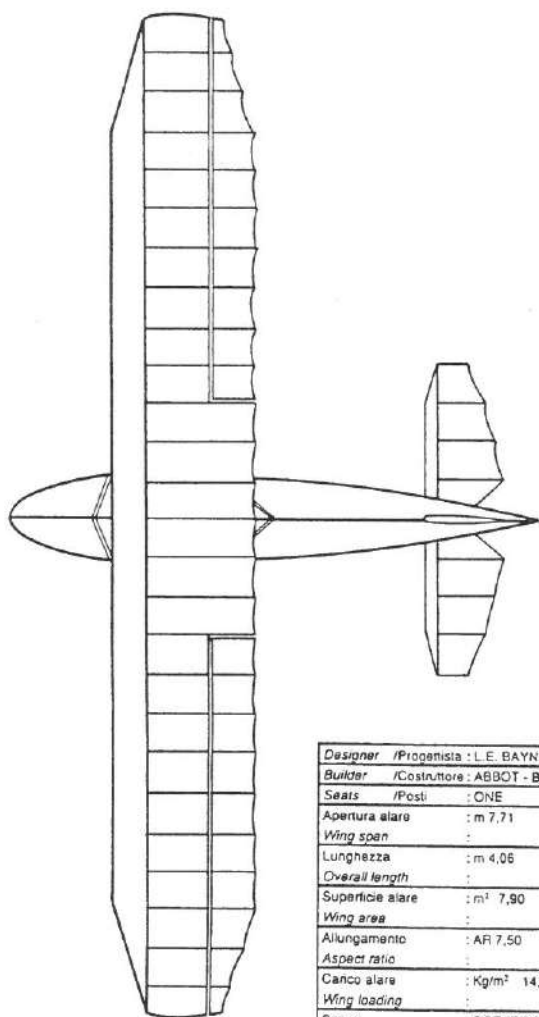
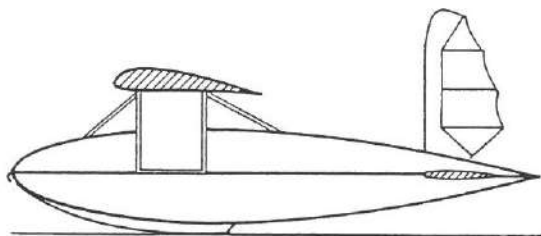
1 2 3 m



Designer / Progettista	F. SLINGSBY		
Builder / Costruttore	F. SLINGSBY		
Seats / Posti	ONE		
Apertura alare	: m 17,34	Peso a vuoto	: Kg 199
Wing span	:	Empty weight	:
Lunghezza	: m 7,23	Peso a pieno carico	: Kg 289
Overall length	:	Max weight	:
Superficie alare	: m ² 16,72	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 17,90	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 17,50	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1939
Country	:	First flight	:

PETREL

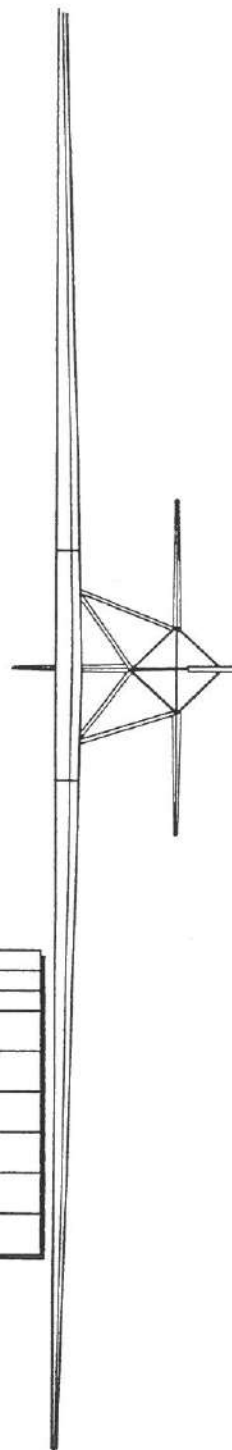
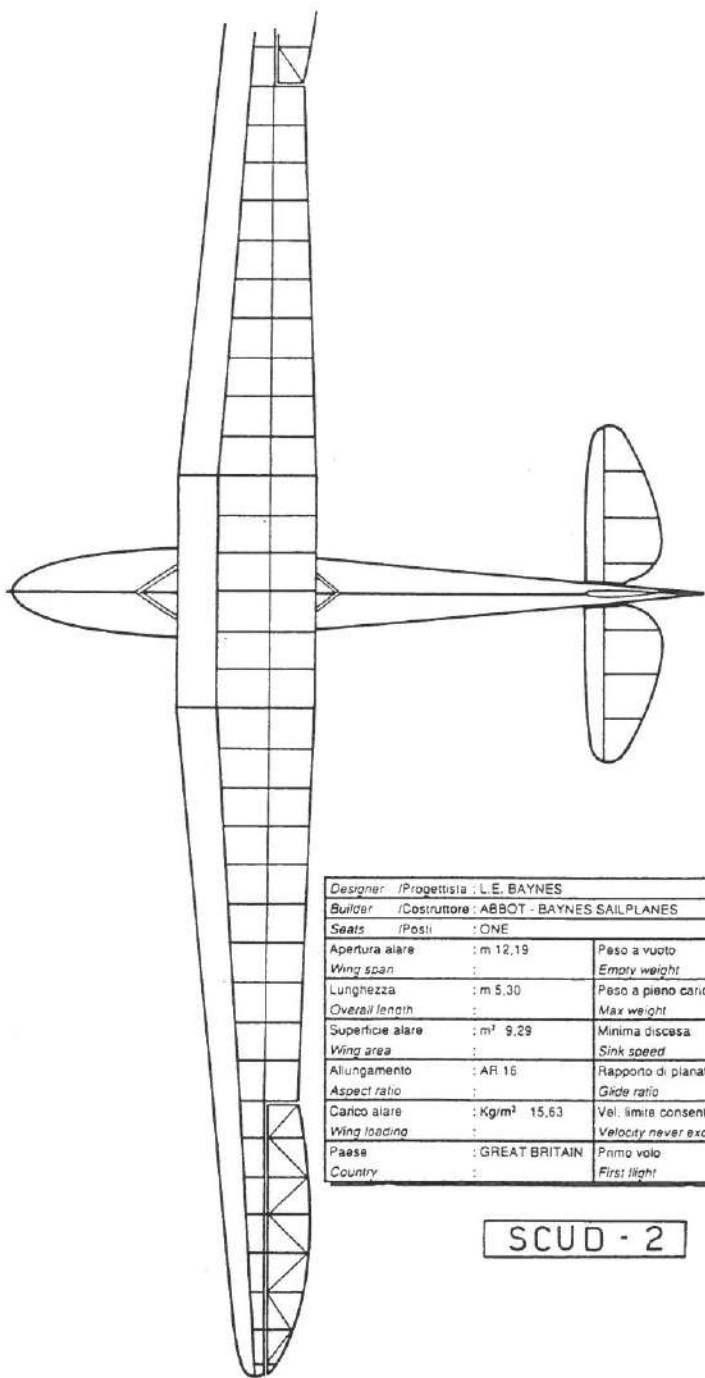
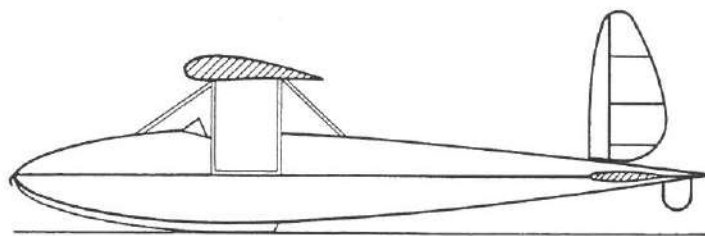




<i>Designer / Progettista</i> : L.E. BAYNES			
<i>Builder / Costruttore</i> : ABBOT - BAYNES SAILPLANES			
<i>Seats / Posti</i> : ONE			
<i>Apertura alare</i>	: m 7,71	<i>Peso a vuoto</i>	: Kg
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 4,06	<i>Peso a pieno carico</i>	: Kg 114,80
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 7,90	<i>Minima discesa</i>	: m/s
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 7,50	<i>Rapporto di planata</i>	: 1:
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 14,54	<i>Vel. limite consentita</i>	: Km/h
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: GREAT BRITAIN	<i>Primo volo</i>	: 1931
<i>Country</i>	:	<i>First flight</i>	:

SCUD - 1

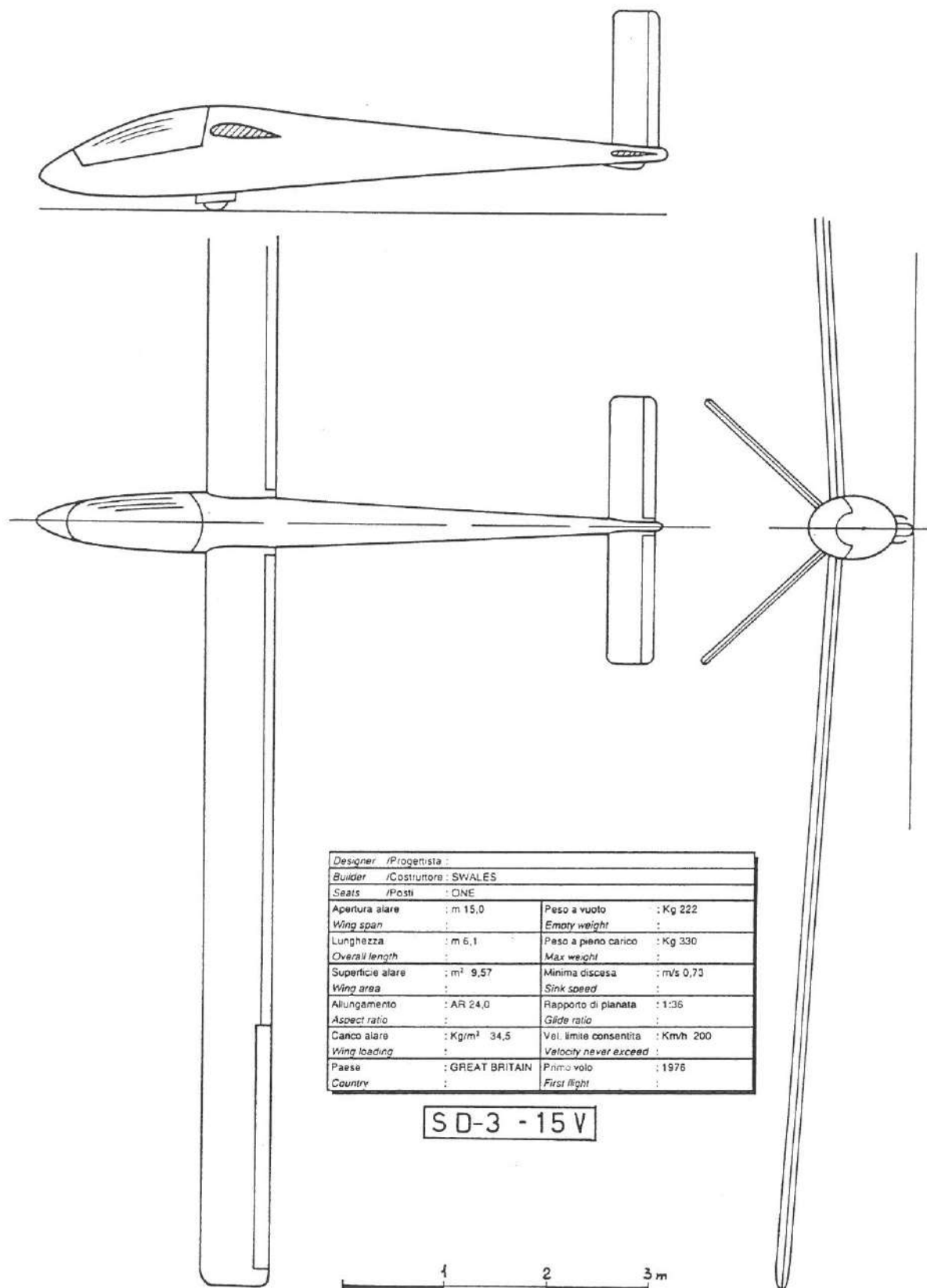




Designer / Progettista : L.E. BAYNES			
Builder / Costruttore : ABBOT - BAYNES SAILPLANES			
Seats / Posti :	ONE		
Apertura alare :	m 12,19	Peso a vuoto :	Kg
Wing span :		Empty weight :	
Lunghezza :	m 5,30	Peso a pieno carico :	Kg 145,15
Overall length :		Max weight :	
Superficie alare :	m ² 9,29	Minima discesa :	m/s
Wing area :		Sink speed :	
Allungamento :	AR 16	Rapporto di planata :	1:
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 15,63	Vel. limite consentita :	Km/h
Wing loading :		Velocity never exceed :	
Paese :	GREAT BRITAIN	Primo volo :	1932
Country :		First flight :	

SCUD - 2

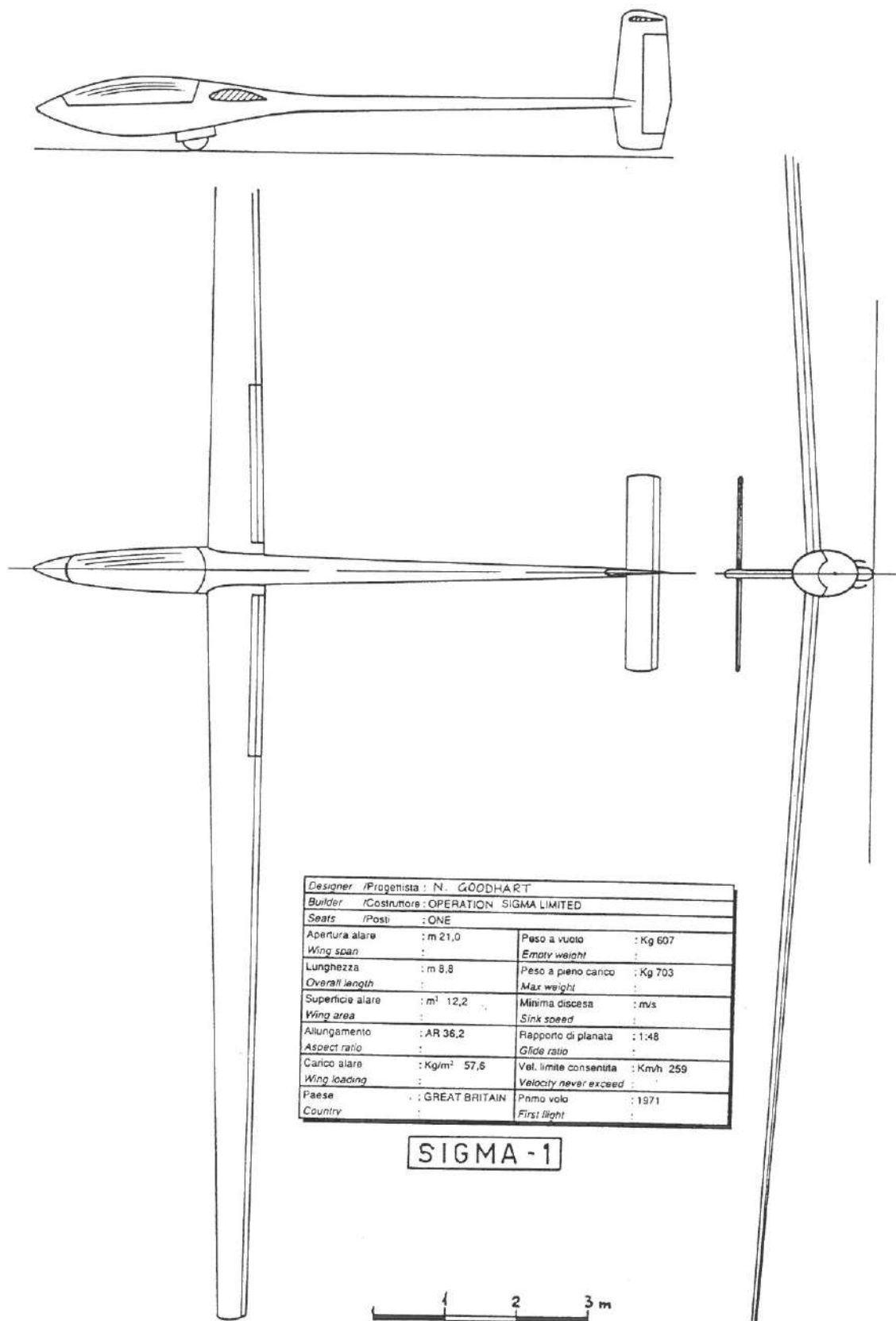




Designer / Progettista :			
Builder / Costruttore : SWALES			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 222
Wing span	:	Empty weight	:
Lunghezza	: m 6,1	Peso a pieno carico	: Kg 330
Overall length	:	Max weight	:
Superficie alare	: m ² 9,57	Minima discesa	: m/s 0,73
Wing area	:	Sink speed	:
Allungamento	: AR 24,0	Rapporto di planata	: 1:36
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 34,5	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1976
Country	:	First flight	:

SD-3 - 15 V

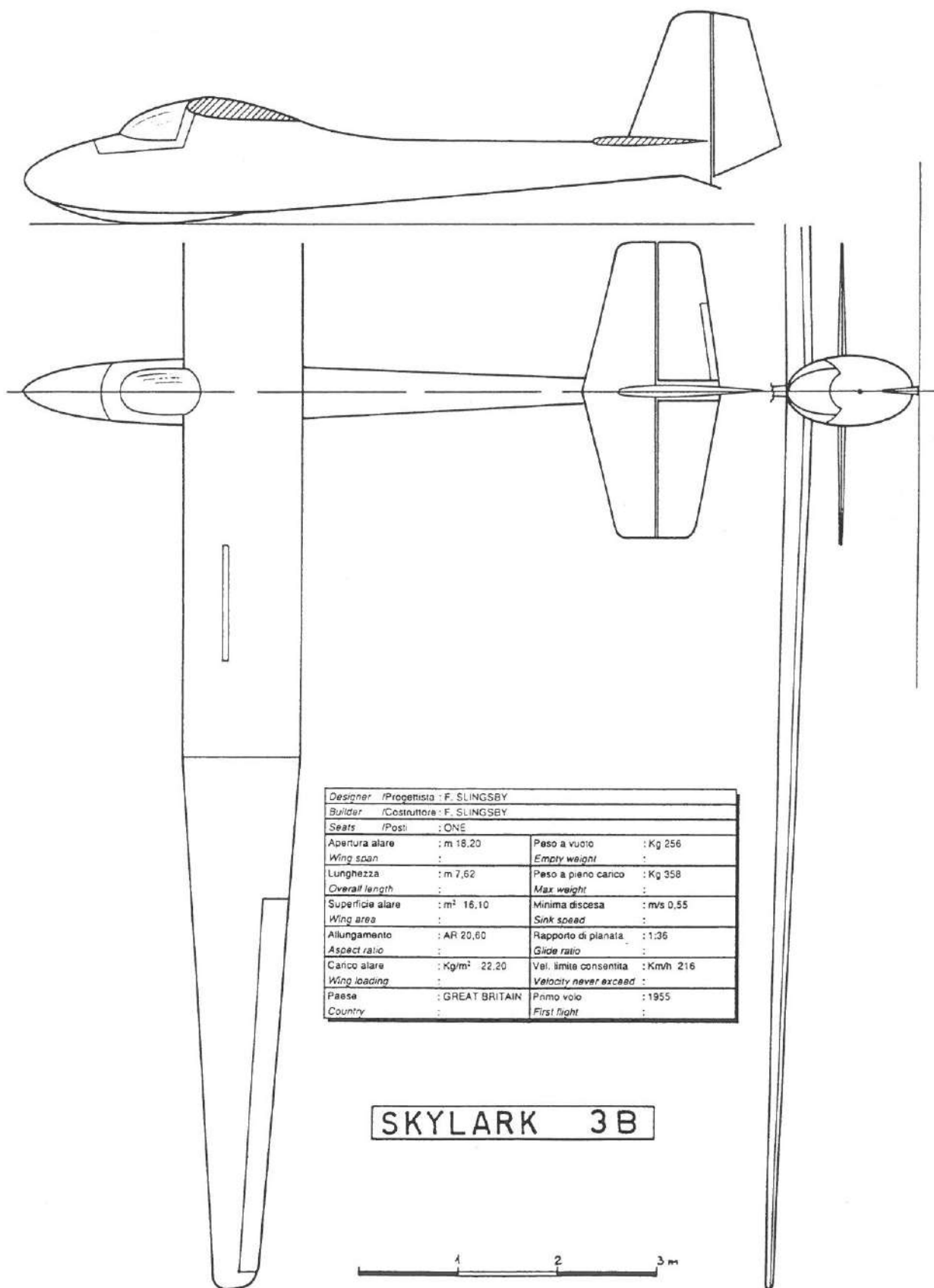
1 2 3 m



Designer / Progettista : N. GOODHART			
Builder / Costruttore : OPERATION SIGMA LIMITED			
Seats / Posti :	ONE		
Apertura alare :	m 21,0	Peso a vuoto :	Kg 607
Wing span :		Empty weight :	
Lunghezza :	m 8,8	Peso a pieno carico :	Kg 703
Overall length :		Max weight :	
Superficie alare :	m ² 12,2	Minima discesa :	m/s
Wing area :		Sink speed :	
Allungamento :	AR 36,2	Rapporto di planata :	1:48
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 57,5	Vel. limite consentita :	Kmh 259
Wing loading :		Velocity never exceed :	
Paese :	GREAT BRITAIN	Primo volo :	1971
Country :		First flight :	

SIGMA - 1

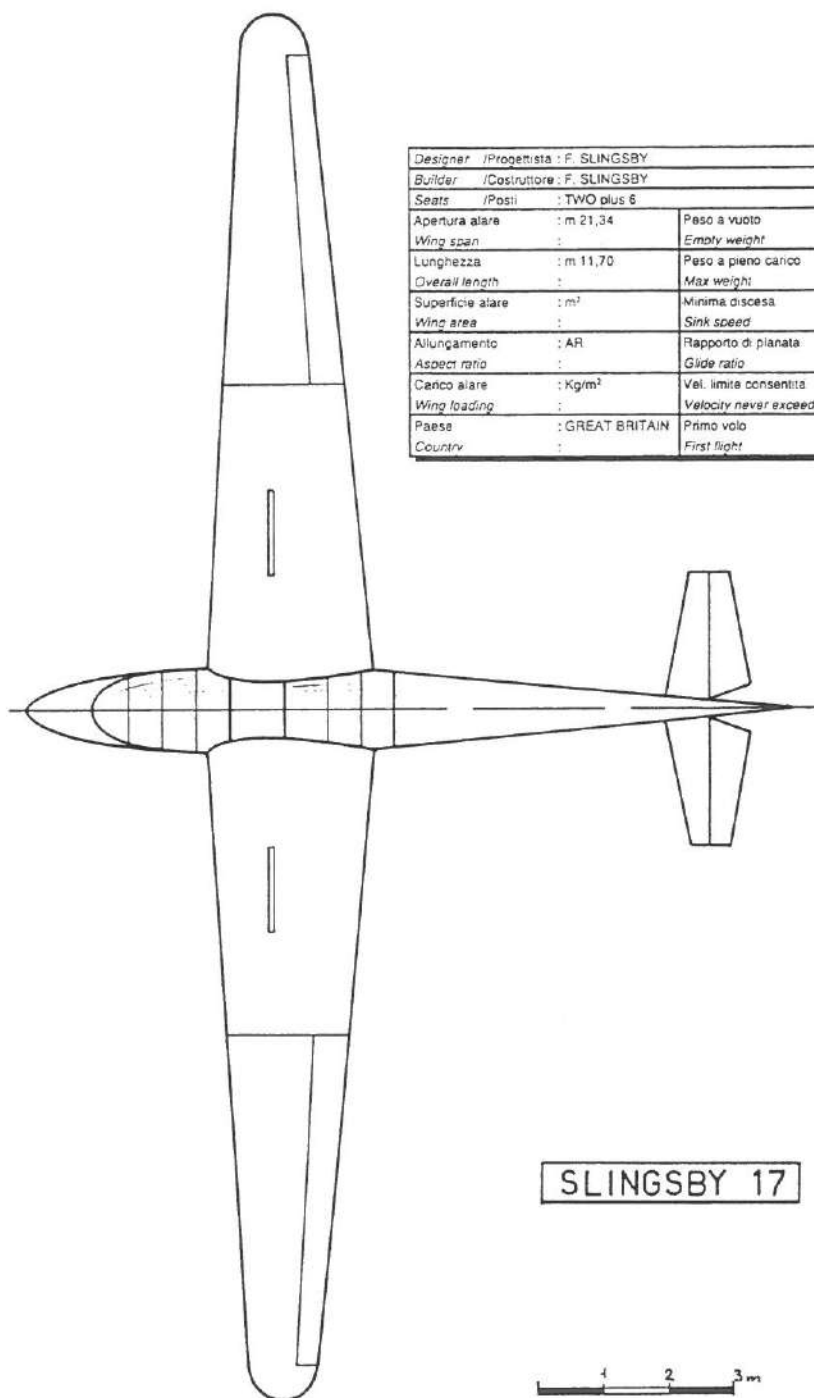
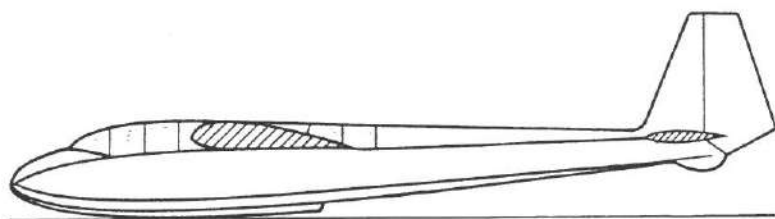
1 2 3 m



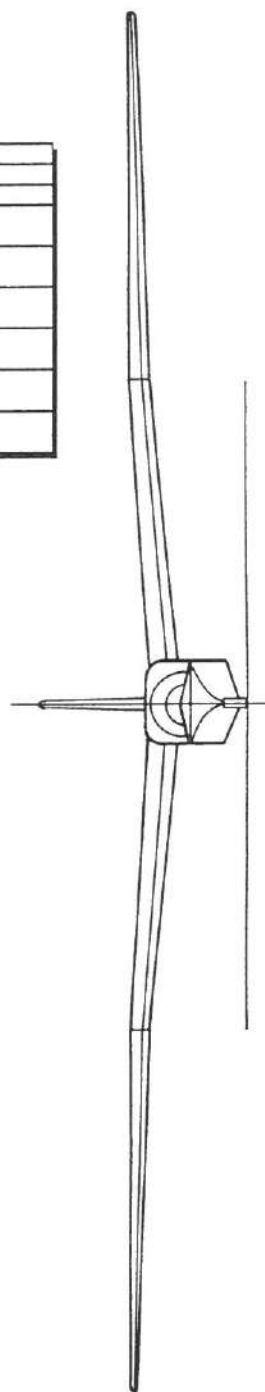
Designer / Progettista : F. SLINGSBY			
Builder / Costruttore : F. SLINGSBY			
Seats / Posti : ONE			
Apertura alare	: m 18,20	Peso a vuoto	: Kg 256
Wing span	:	Empty weight	:
Lunghezza	: m 7,62	Peso a pieno carico	: Kg 358
Overall length	:	Max weight	:
Superficie alare	: m ² 16,10	Minima discesa	: m/s 0,55
Wing area	:	Sink speed	:
Allungamento	: AR 20,60	Rapporto di planata	: 1:36
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,20	Vel. limite consentita	: Km/h 216
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1955
Country	:	First flight	:

SKYLARK 3B

1 2 3 m

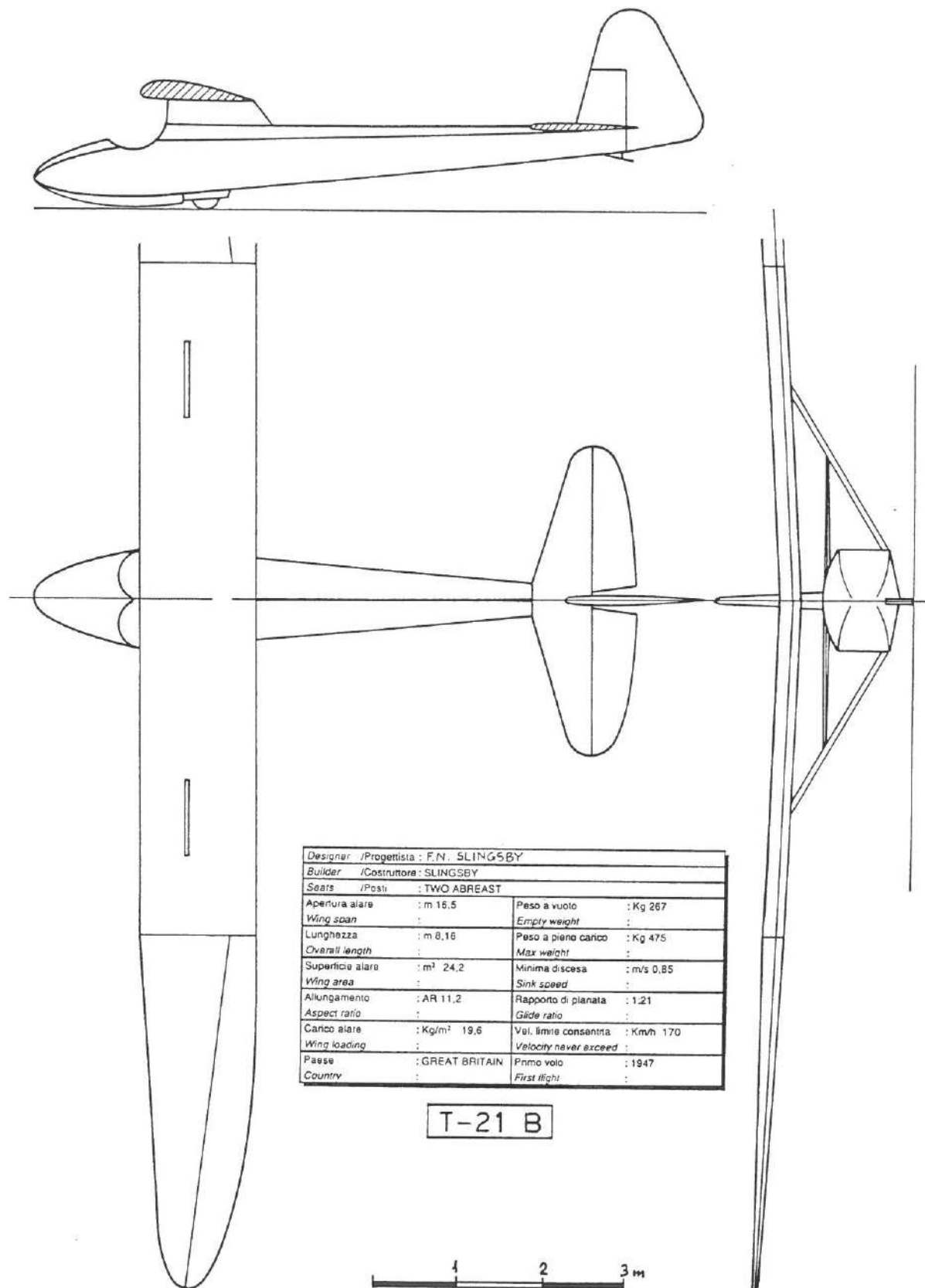


Designer / Progettista	F. SLINGSBY		
Builder / Costruttore	F. SLINGSBY		
Seats / Posi	TWO plus 6		
Apertura alare	: m 21,34	Peso a vuoto	: Kg 1.360
Wing span	:	Empty weight	:
Lunghezza	: m 11,70	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ²	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	:
Country	:	First flight	:



SLINGSBY 17

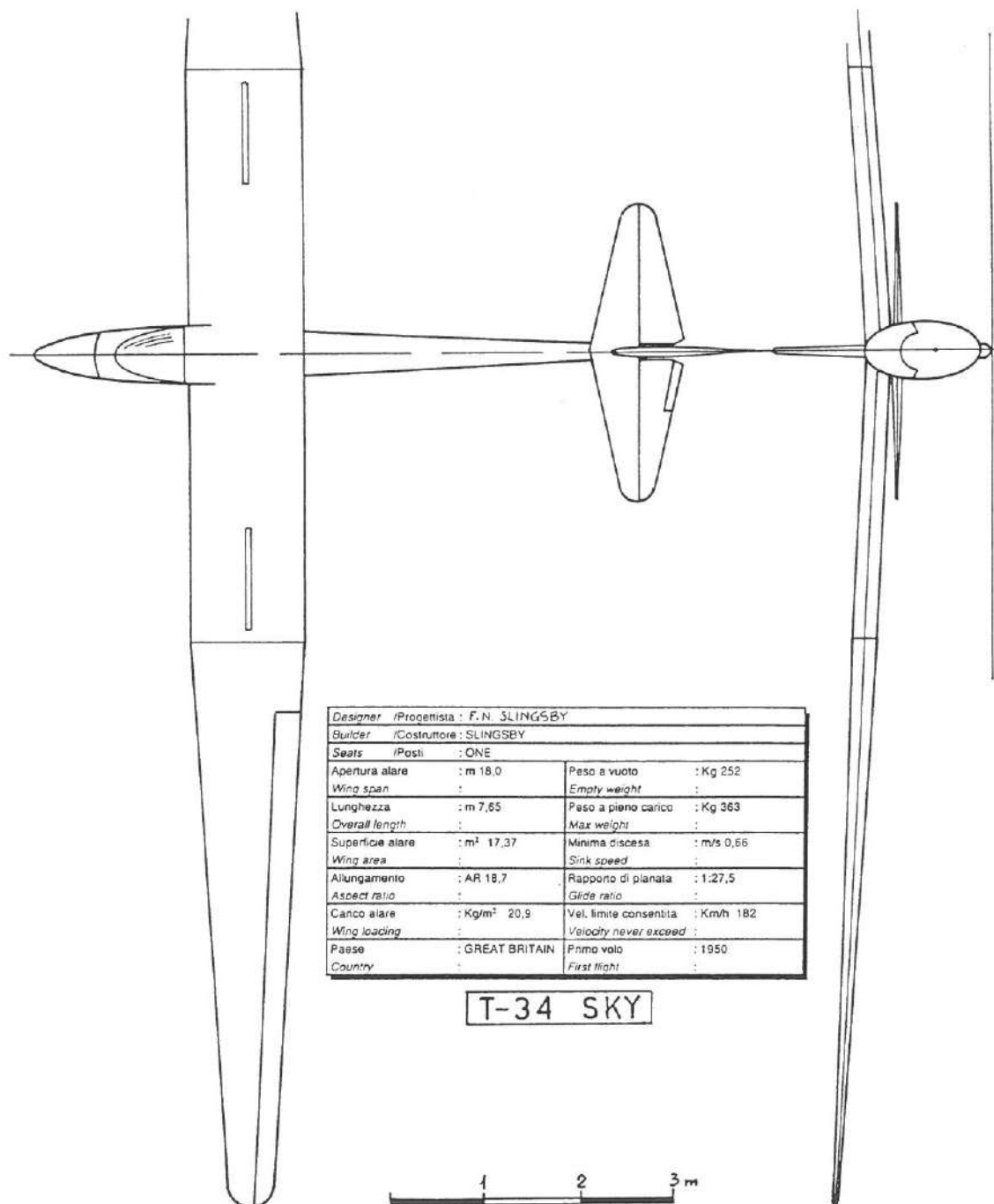
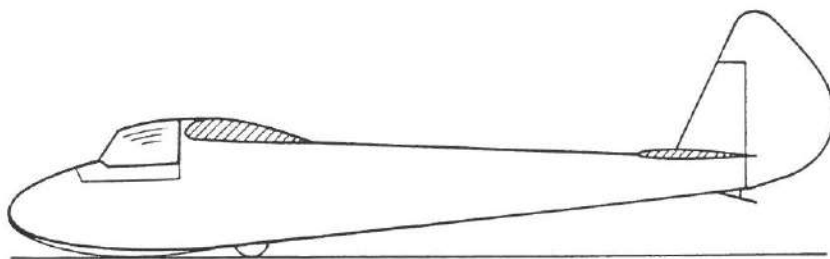
0 2 3 m



Designer / Progettista : F.N. SLINGSBY			
Builder / Costruttore : SLINGSBY			
Seats / Posti : TWO ABREAST			
Apertura alare	: m 16,5	Peso a vuoto	: Kg 267
Wing span	:	Empty weight	:
Lunghezza	: m 8,16	Peso a pieno carico	: Kg 475
Overall length	:	Max weight	:
Superficie alare	: m ² 24,2	Minima discesa	: m/s 0,85
Wing area	:	Sink speed	:
Allungamento	: AR 11,2	Rapporto di planata	: 1,21
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 19,6	Vel. limite consentita	: Km/h 170
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1947
Country	:	First flight	:

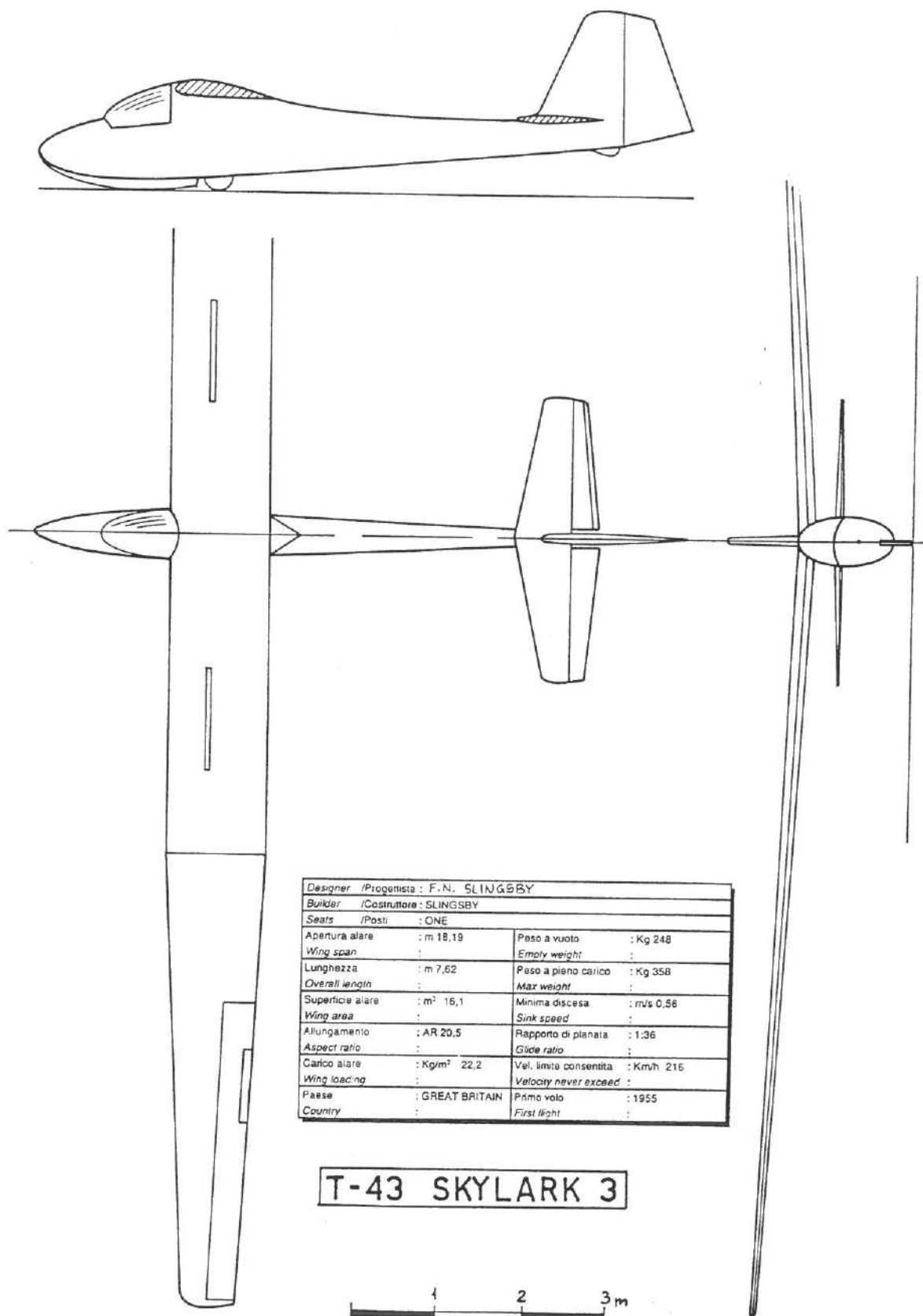
T-21 B

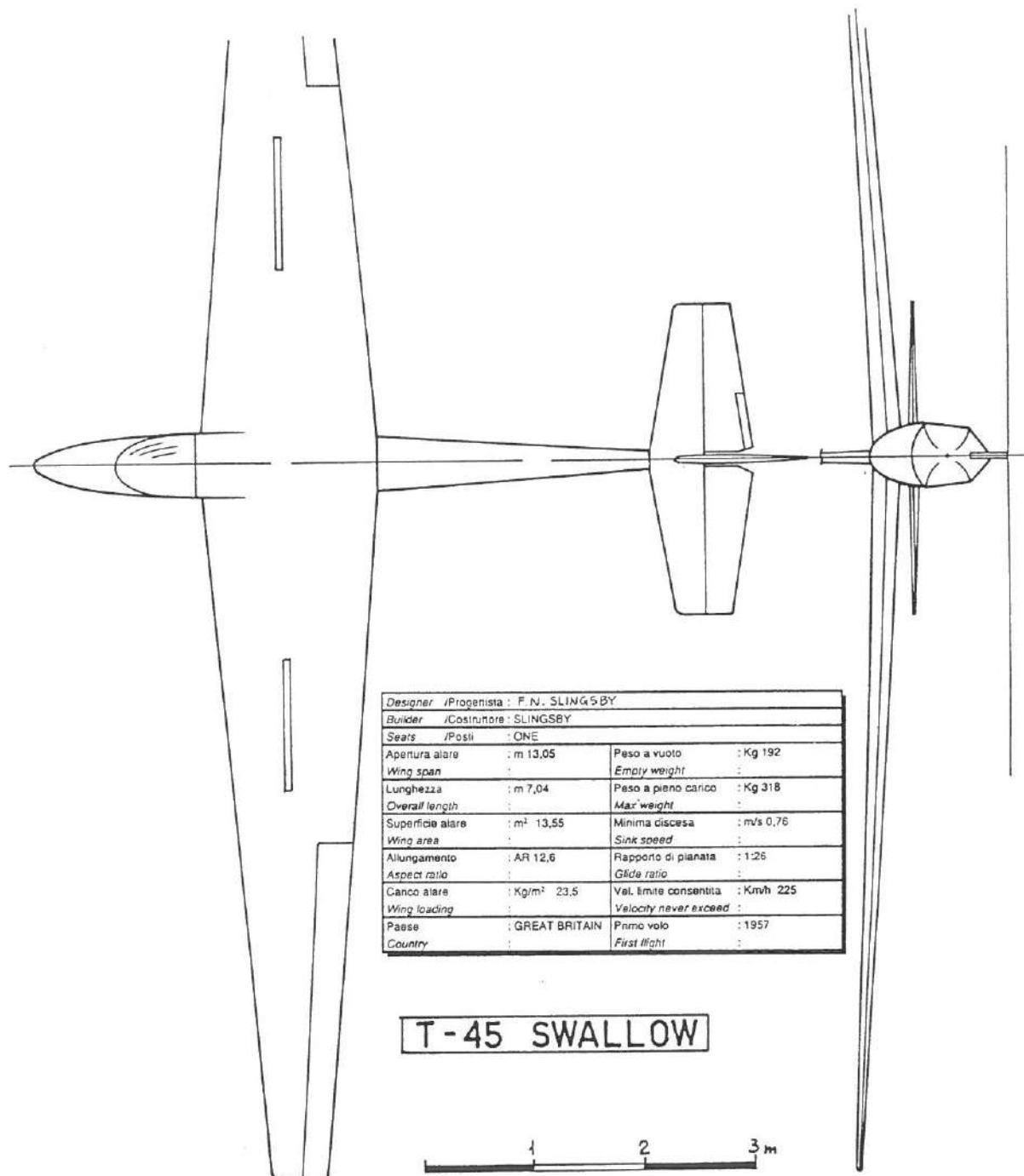
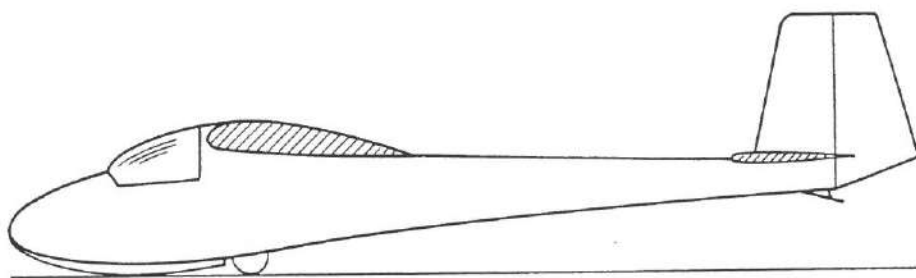




Designer / Progettista : F. N. SLINGSBY			
Builder / Costruttore : SLINGSBY			
Seats / Posti :	ONE		
Apertura alare :	m 18,0	Peso a vuoto :	Kg 252
Wing span :		Empty weight :	
Lunghezza :	m 7,65	Peso a pieno carico :	Kg 363
Overall length :		Max weight :	
Superficie alare :	m ² 17,37	Minima discesa :	m/s 0,66
Wing area :		Sink speed :	
Allungamento :	AR 18,7	Rapporto di planata :	1:27,5
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 20,9	Vel. limite consentita :	Km/h 182
Wing loading :		Velocity never exceed :	
Paese :	GREAT BRITAIN	Primo volo :	1950
Country :		First flight :	

T-34 SKY

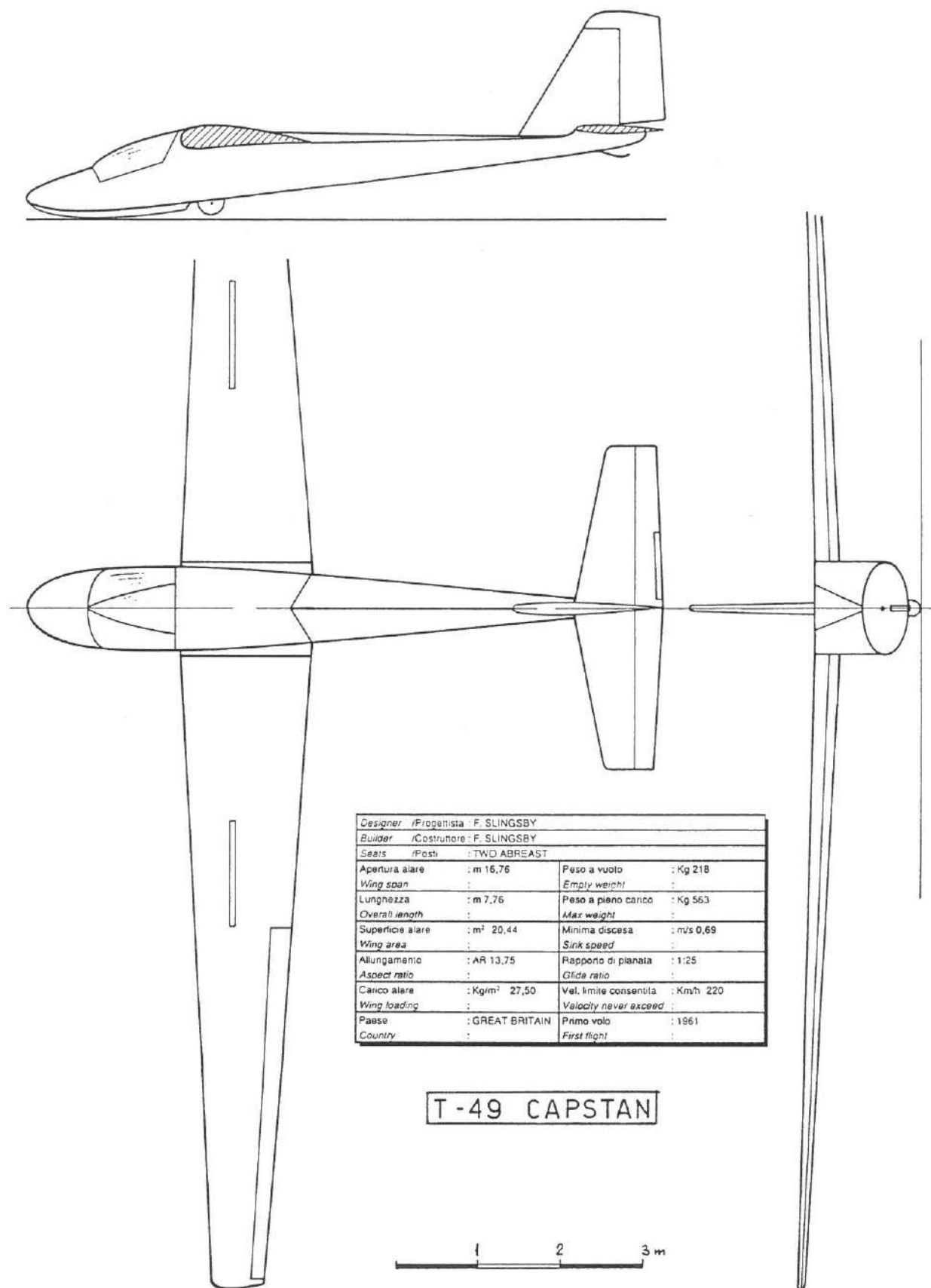




Designer / Progettista : F. N. SLINGSBY			
Builder / Costruttore : SLINGSBY			
Seats / Posti : ONE			
Apertura alare	: m 13,05	Peso a vuoto	: Kg 192
Wing span	:	Empty weight	:
Lunghezza	: m 7,04	Peso a pieno carico	: Kg 318
Overall length	:	Max weight	:
Superficie alare	: m ² 13,55	Minima discesa	: m/s 0,76
Wing area	:	Sink speed	:
Allungamento	: AR 12,6	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,5	Vel. limite consentita	: Km/h 225
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1957
Country	:	First flight	:

T-45 SWALLOW

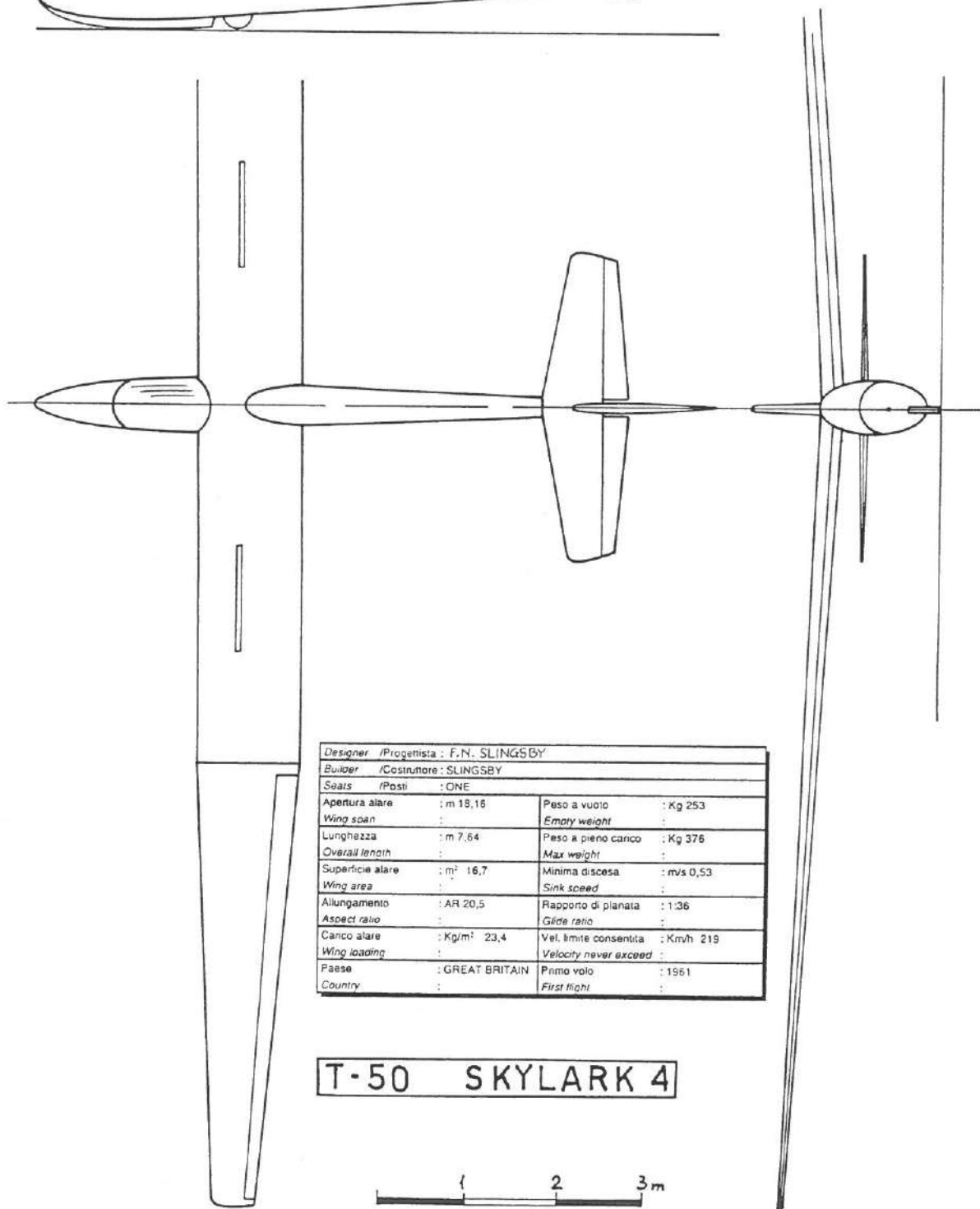
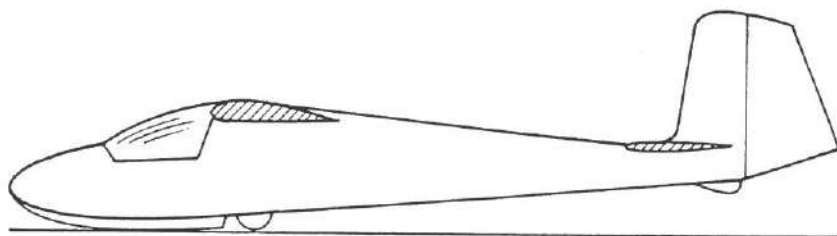




Designer / Progettista	F. SLINGSBY		
Builder / Costruttore	F. SLINGSBY		
Seats / Posti	TWO ABREAST		
Apertura alare	: m 16,76	Peso a vuoto	: Kg 218
Wing span	:	Empty weight	:
Lunghezza	: m 7,76	Peso a pieno carico	: Kg 563
Overall length	:	Max weight	:
Superficie alare	: m ² 20,44	Minima discesa	: m/s 0,69
Wing area	:	Sink speed	:
Allungamento	: AR 13,75	Rapporto di planata	: 1:25
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,50	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1961
Country	:	First flight	:

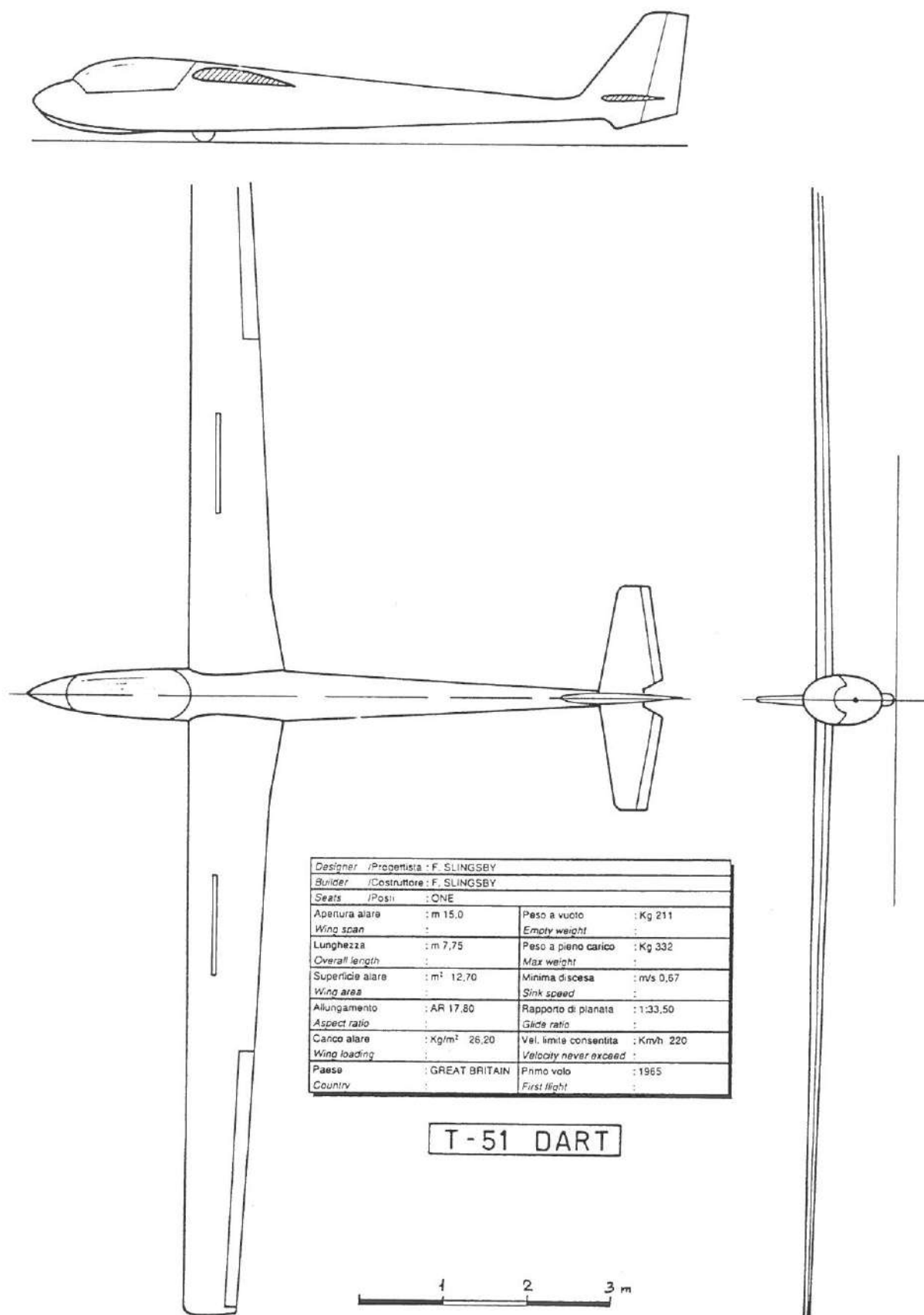
T-49 CAPSTAN

1 2 3 m



T-50 SKYLARK 4

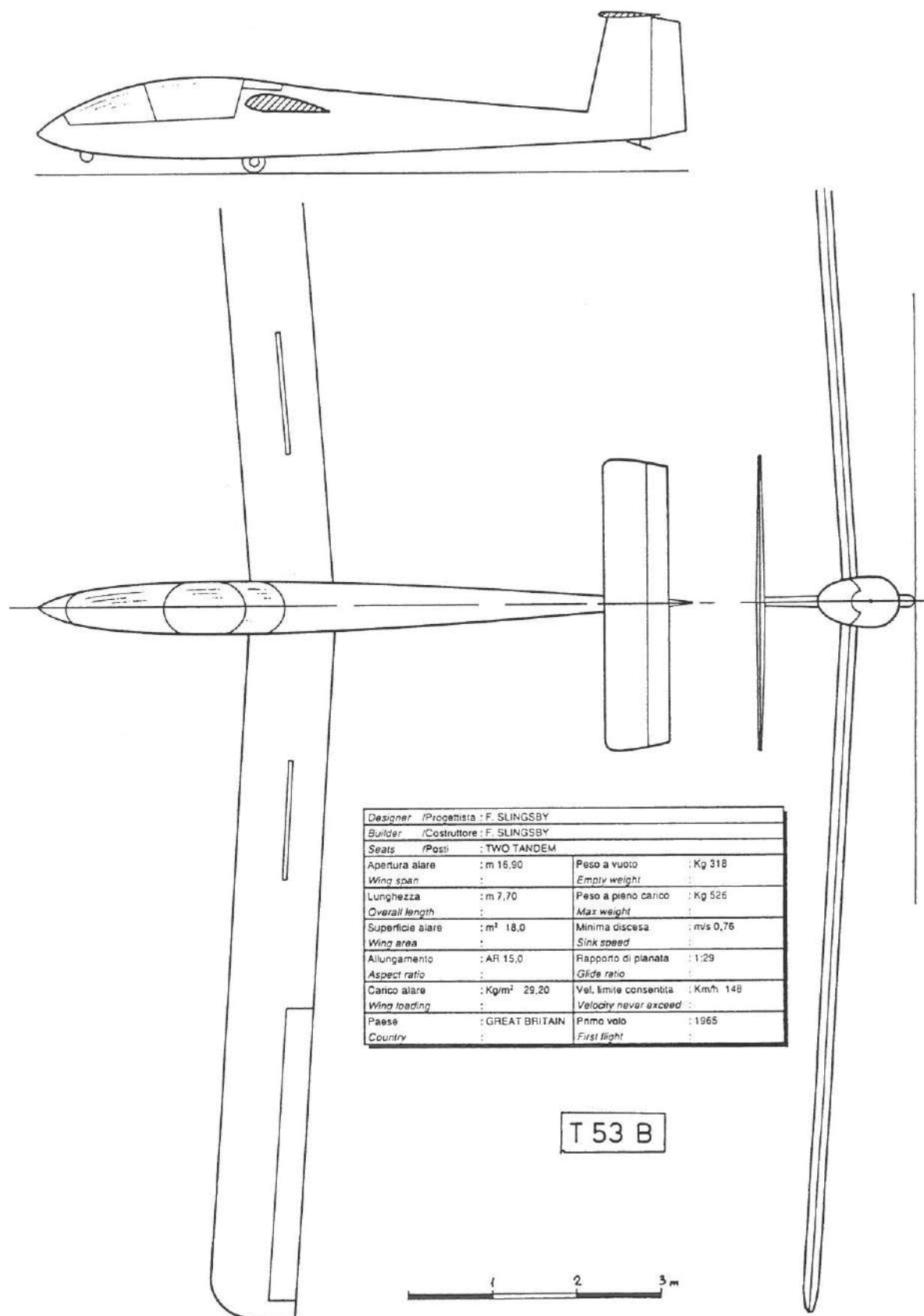




Designer / Progettista	F. SLINGSBY		
Builder / Costruttore	F. SLINGSBY		
Seats / Posti	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 211
Wing span	:	Empty weight	:
Lunghezza	: m 7,75	Peso a pieno carico	: Kg 332
Overall length	:	Max weight	:
Superficie alare	: m ² 12,70	Minima discesa	: m/s 0,67
Wing area	:	Sink speed	:
Allungamento	: AR 17,80	Rapporto di planata	: 1:33,50
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,20	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1965
Country	:	First flight	:

T-51 DART

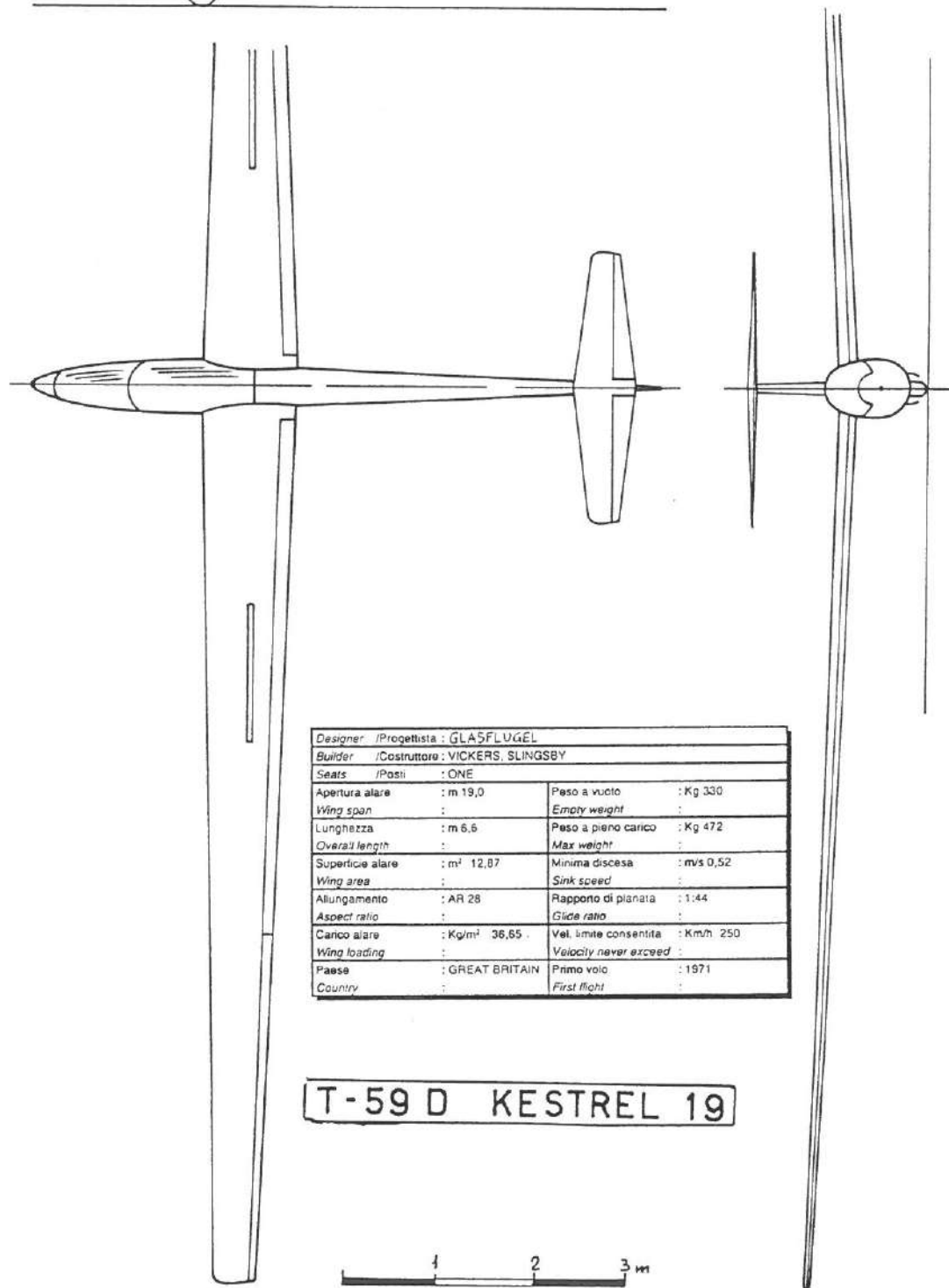
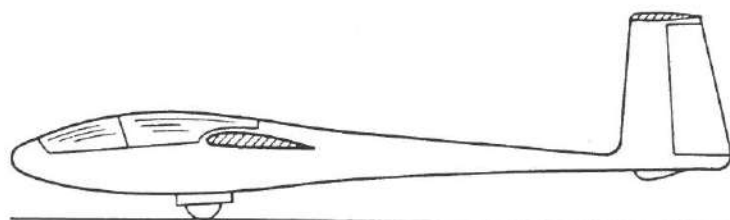
1 2 3 m



Designer	Progettista : F. SLINGSBY		
Builder	Costruttore : F. SLINGSBY		
Seats	Posti : TWO TANDEM		
Apertura alare	: m 16,90	Peso a vuoto	: Kg 318
Wing span	:	Empty weight	:
Lunghezza	: m 7,70	Peso a pieno carico	: Kg 526
Overall length	:	Max weight	:
Superficie alare	: m ² 18,0	Minima discesa	: m/s 0,76
Wing area	:	Sink speed	:
Allungamento	: AR 15,0	Rapporto di planata	: 1:29
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 29,20	Vel. limite consentita	: Km/h 148
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1965
Country	:	First flight	:

T 53 B

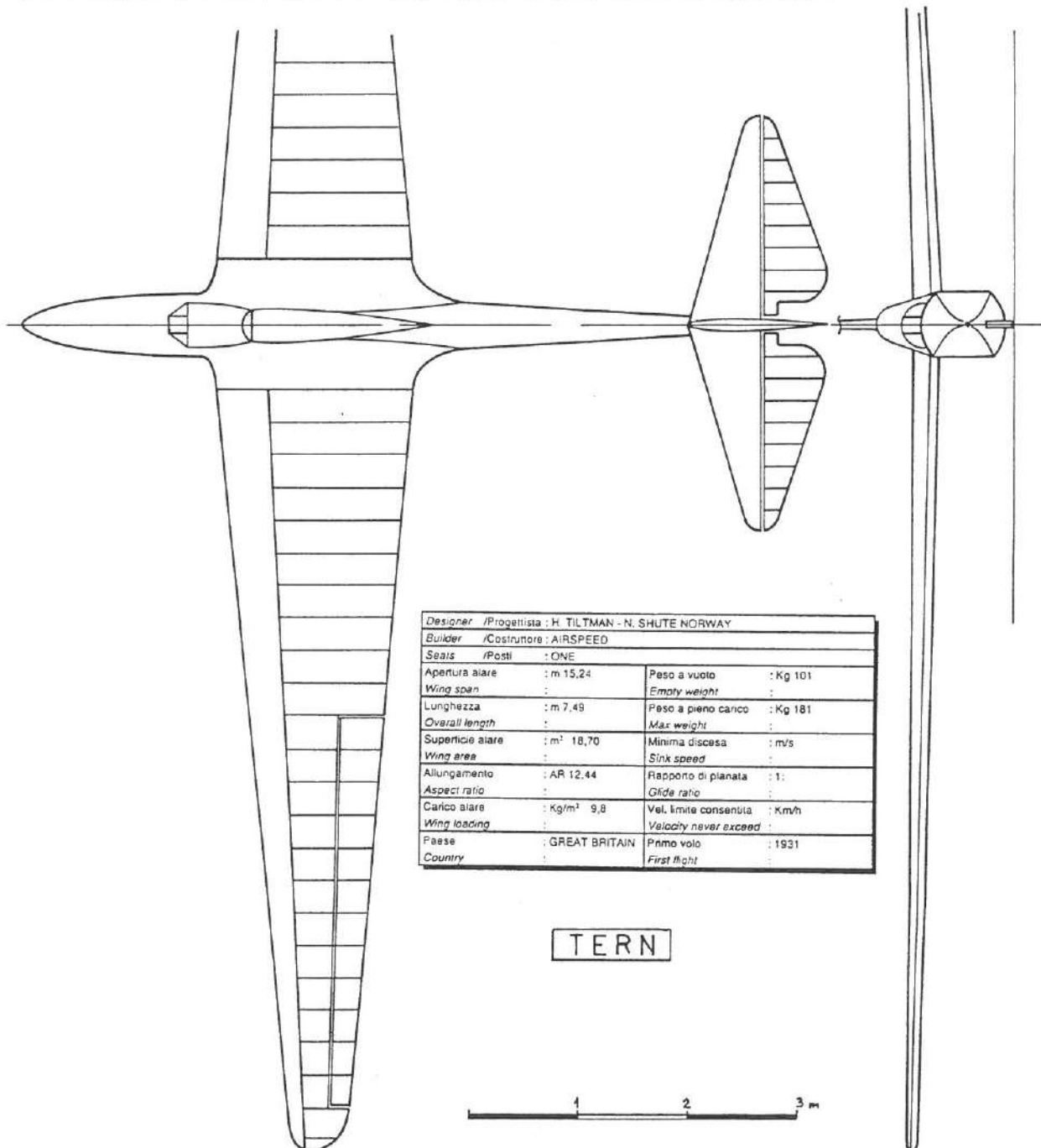
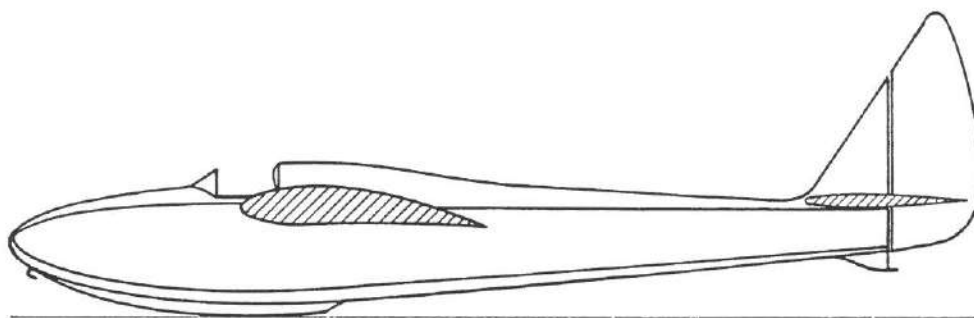
1 2 3 m



Designer / Progettista : GLASFUGEL			
Builder / Costruttore : VICKERS, SLINGSBY			
Seats / Posti : ONE			
Apertura alare	: m 19,0	Peso a vuoto	: Kg 330
Wing span	:	Empty weight	:
Lunghezza	: m 6,6	Peso a pieno carico	: Kg 472
Overall length	:	Max weight	:
Superficie alare	: m ² 12,87	Minima discesa	: m/s 0,52
Wing area	:	Sink speed	:
Allungamento	: AR 28	Rapporto di planata	: 1:44
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 36,65	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1971
Country	:	First flight	:

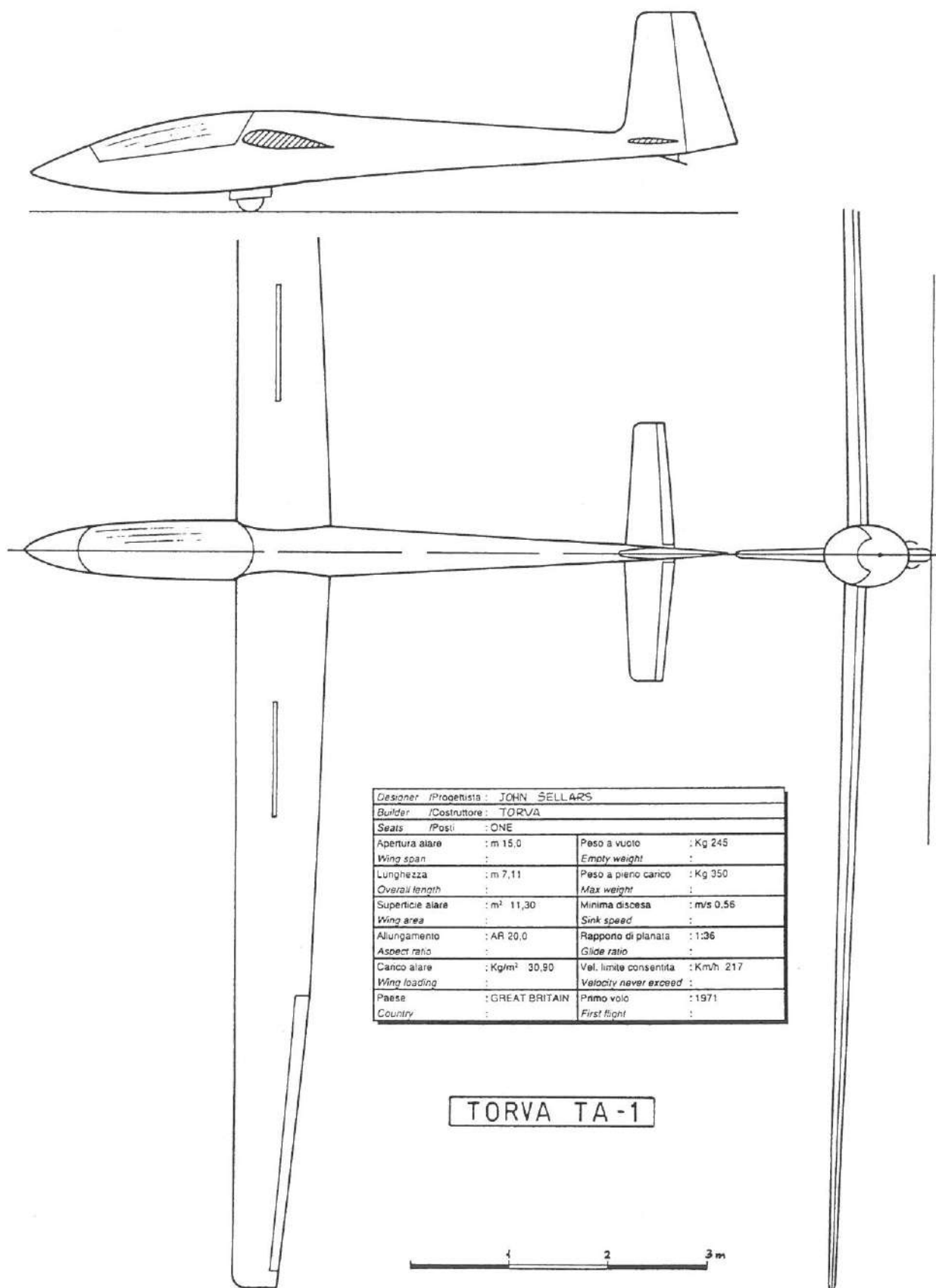
T-59 D KESTREL 19

1 2 3 m



Designer /Progettista	: H. TILTMAN - N. SHUTE NORWAY		
Builder /Costruttore	: AIRSPEED		
Seats /Posti	: ONE		
Apertura alare	: m 15,24	Peso a vuoto	: Kg 101
Wing span	:	Empty weight	:
Lunghezza	: m 7,49	Peso a pieno carico	: Kg 181
Overall length	:	Max weight	:
Superficie alare	: m ² 18,70	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 12,44	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 9,8	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1931
Country	:	First flight	:

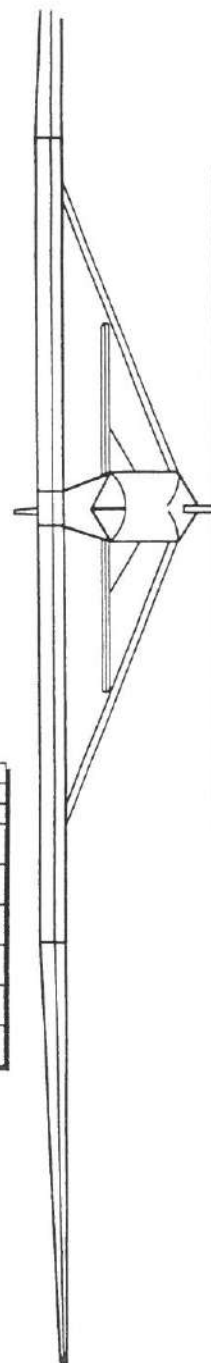
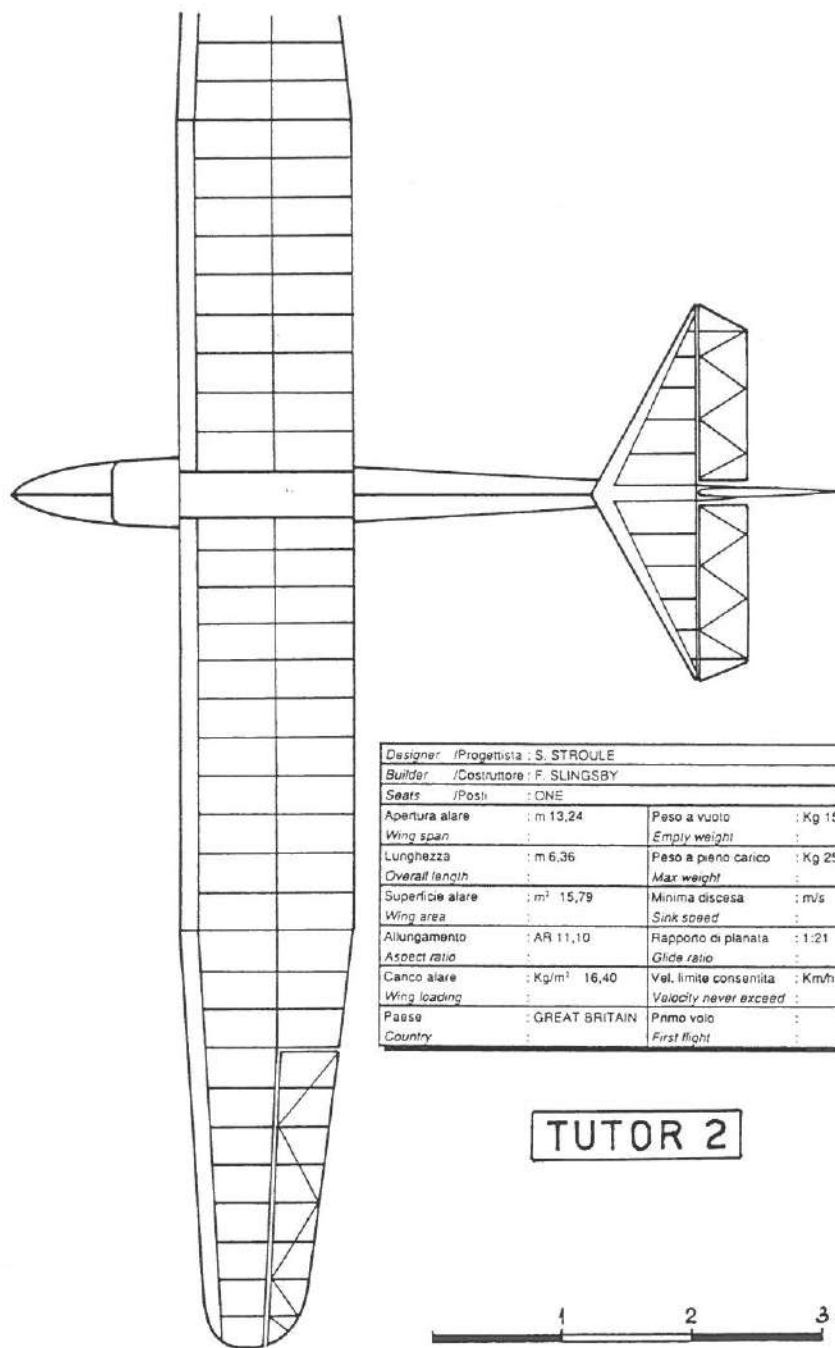
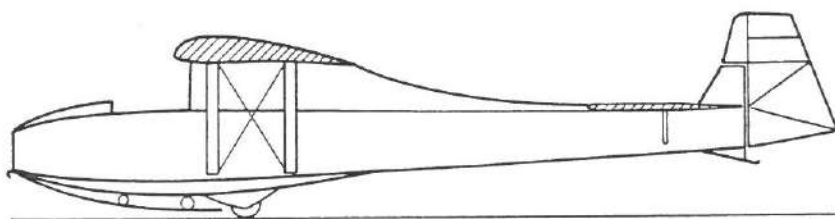
TERN



Designer /Progettista : JOHN SELLARS			
Builder /Costruttore : TORVA			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 245
Wing span	:	Empty weight	:
Lunghezza	: m 7,11	Peso a pieno carico	: Kg 350
Overall length	:	Max weight	:
Superficie alare	: m ² 11,30	Minima discesa	: mvs 0,56
Wing area	:	Sink speed	:
Allungamento	: AR 20,0	Rapporto di planata	: 1:36
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 30,90	Vel. limite consentita	: Km/h 217
Wing loading	:	Velocity never exceed	:
Paese	: GREAT BRITAIN	Primo volo	: 1971
Country	:	First flight	:

TORVA TA-1

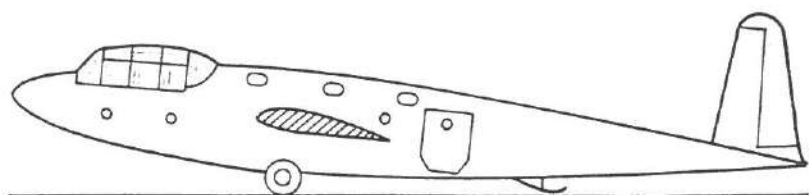
1 2 3 m



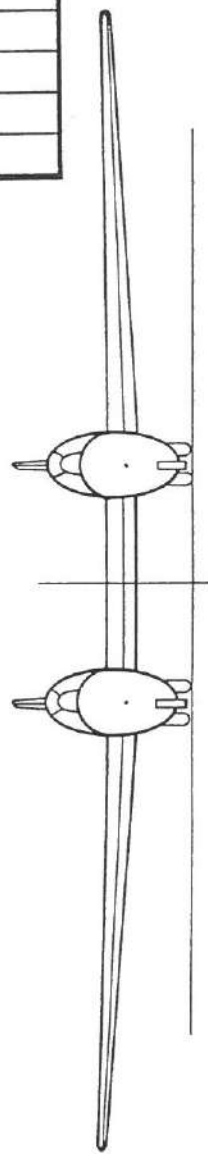
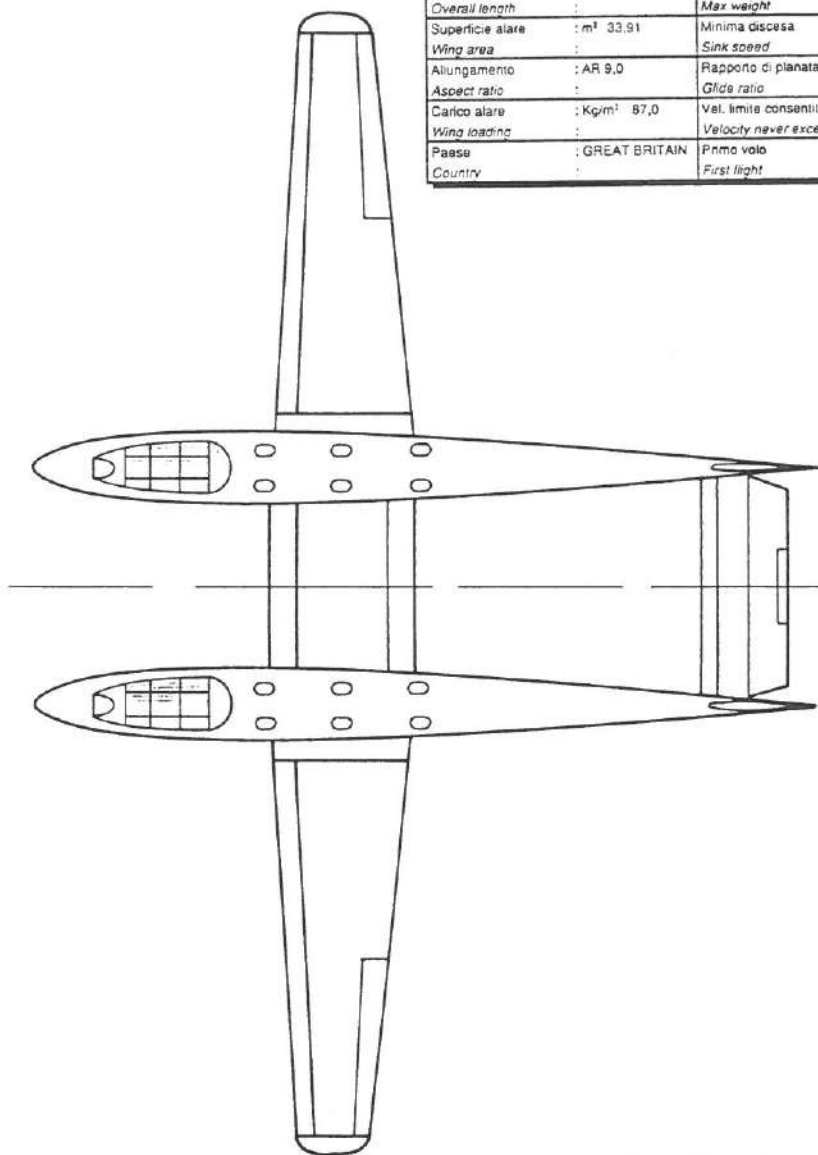
Designer /Progettista :	S. STROULE		
Builder /Costruttore :	F. SLINGSBY		
Seats /Posti :	ONE		
Apertura alare :	m 13,24	Peso a vuoto :	Kg 159
Wing span :		Empty weight :	
Lunghezza :	m 6,36	Peso a pieno carico :	Kg 258
Overall length :		Max weight :	
Superficie alare :	m ² 15,79	Minima discesa :	m/s
Wing area :		Sink speed :	
Allungamento :	AR 11,10	Rapporto di planata :	1:21
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 16,40	Vel. limite consentita :	Km/h
Wing loading :		Velocity never exceed :	
Paese :	GREAT BRITAIN		
Country :		Primo volo :	
		First flight :	

TUTOR 2

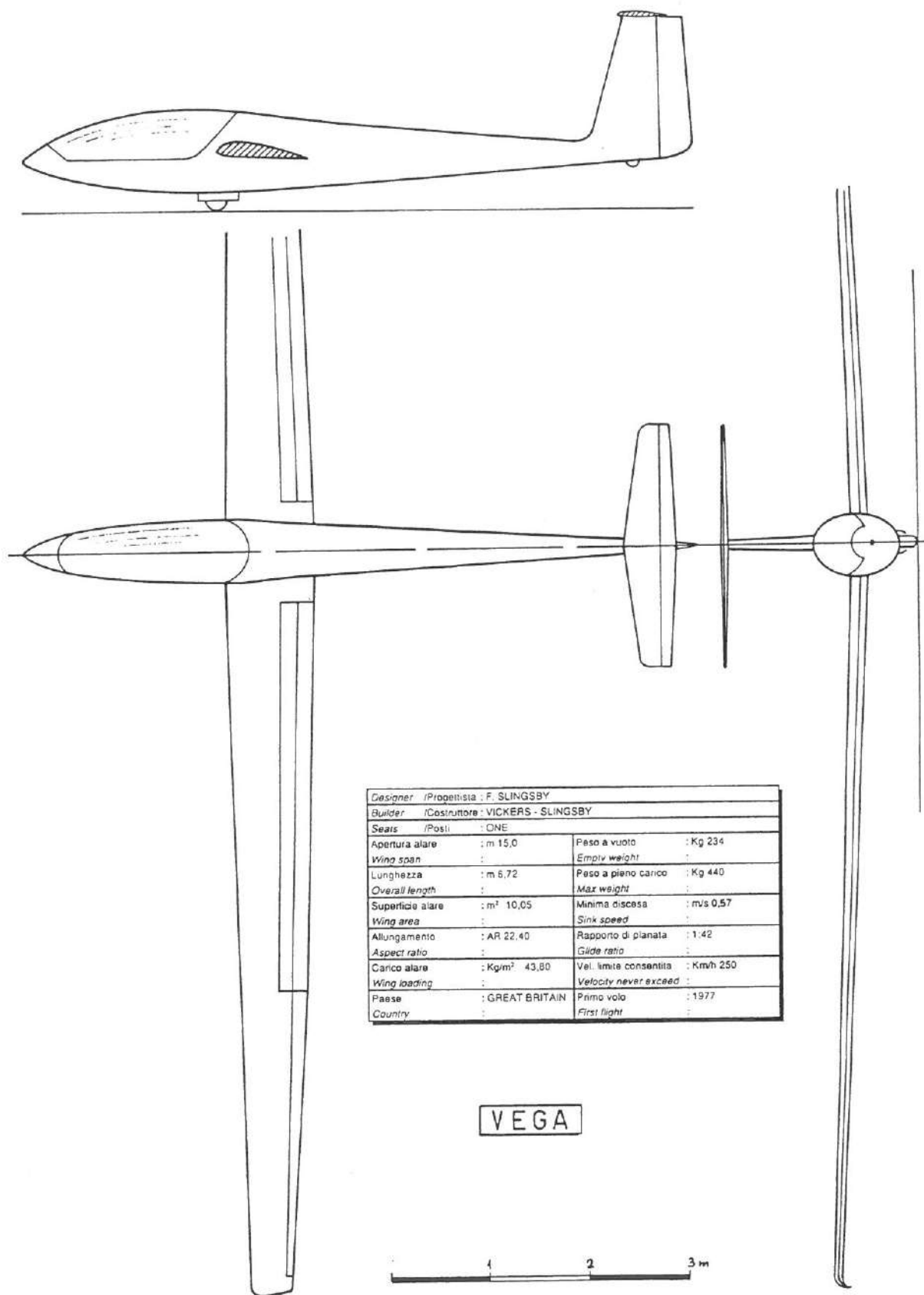




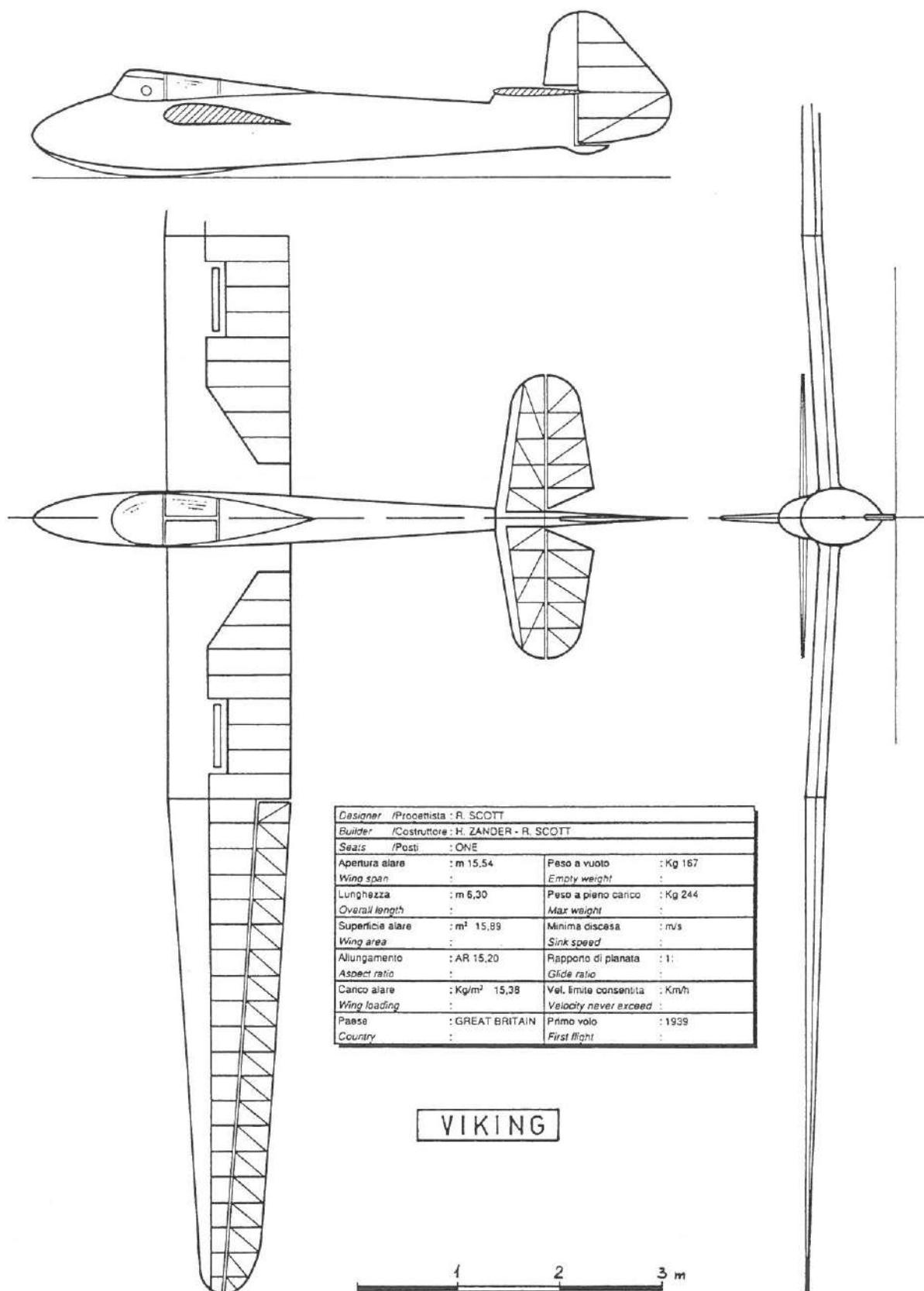
Designer / Progettista :			
Builder / Costruttore :	GENERAL AIRCRAFT		
Seats / Posti :	ONE plus 15		
Apertura alare :	m 17,65	Peso a vuoto :	Kg 1.456
Wing span :		Empty weight :	
Lunghezza :	m 12,11	Peso a pieno carico :	Kg 2.926
Overall length :		Max weight :	
Superficie alare :	m ² 33,91	Minima discesa :	m/s
Wing area :		Sink speed :	
Allungamento :	AR 9,0	Rapporto di planata :	1:
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 87,0	Vel. limite consentita :	Km/h
Wing loading :		Velocity never exceed :	
Paese :	GREAT BRITAIN	Primo volo :	1942
Country :		First flight :	



TWIN HOTSPUR G.A.L. 48-B



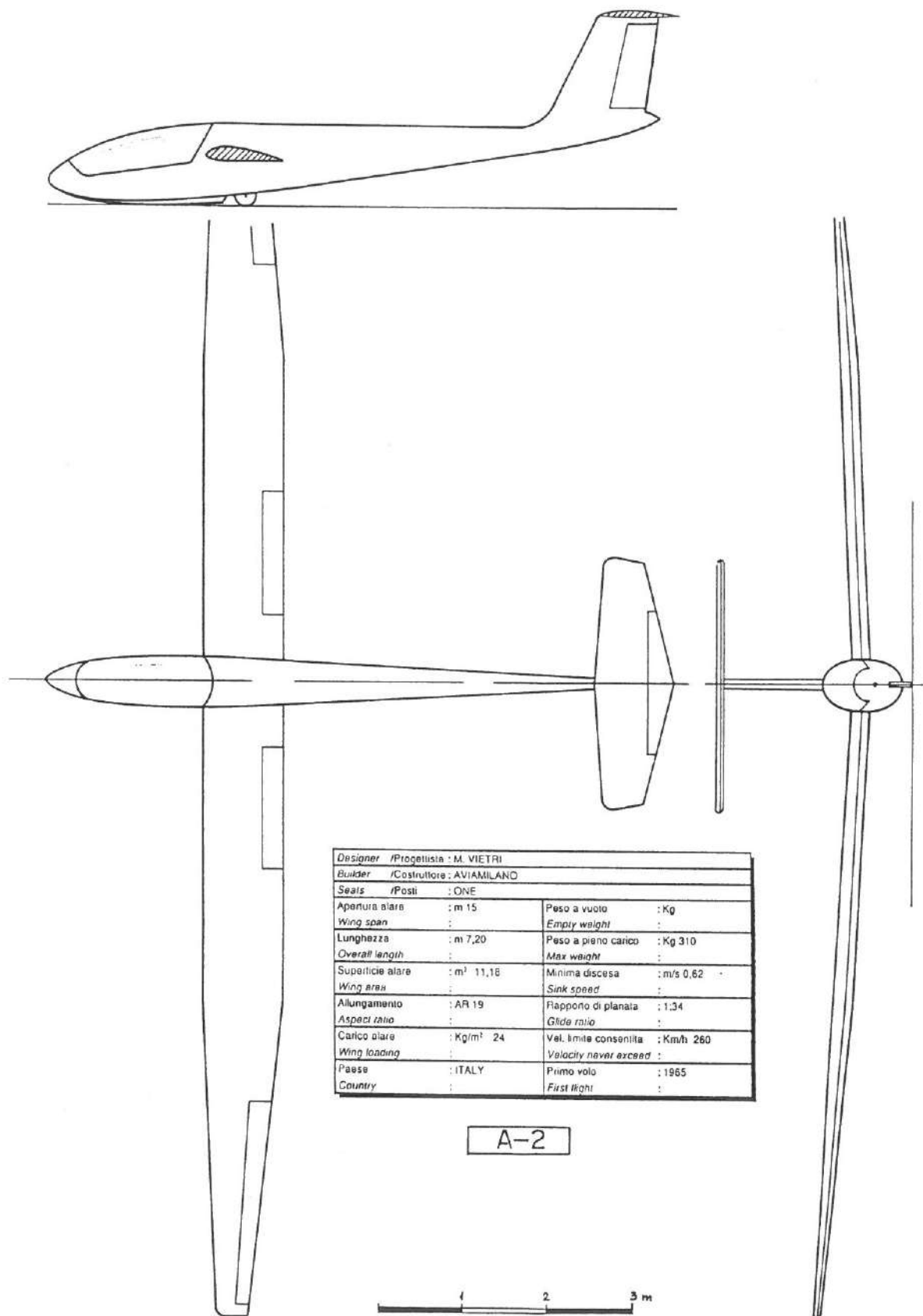
Designer	Progettista : F. SLINGSBY		
Builder	Costruttore : VICKERS - SLINGSBY		
Seats	Posti	ONE	
Apertura alare	: m	15,0	Peso a vuoto : Kg 234
Wing span	:		Empty weight :
Lunghezza	: m	6,72	Peso a pieno carico : Kg 440
Overall length	:		Max weight :
Superficie alare	: m ²	10,05	Minima discesa : m/s 0,57
Wing area	:		Sink speed :
Allungamento	: AR	22,40	Rapporto di planata : 1:42
Aspect ratio	:		Glide ratio :
Carico alare	: Kg/m ²	43,80	Vel. limite consentita : Km/h 250
Wing loading	:		Velocity never exceed :
Paese	: GREAT BRITAIN		Primo volo : 1977
Country	:		First flight :



<i>Designer /Progettista</i> : R. SCOTT			
<i>Builder /Costruttore</i> : H. ZANDER - R. SCOTT			
<i>Seats /Posti</i> : ONE			
<i>Apertura alare</i>	: m 15,54	<i>Peso a vuoto</i>	: Kg 167
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 6,30	<i>Peso a pieno carico</i>	: Kg 244
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 15,99	<i>Minima discesa</i>	: m/s
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 15,20	<i>Rapporto di planata</i>	: 1:
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 15,38	<i>Vel. limite consentita</i>	: Km/h
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: GREAT BRITAIN	<i>Primo volo</i>	: 1939
<i>Country</i>	:	<i>First flight</i>	:

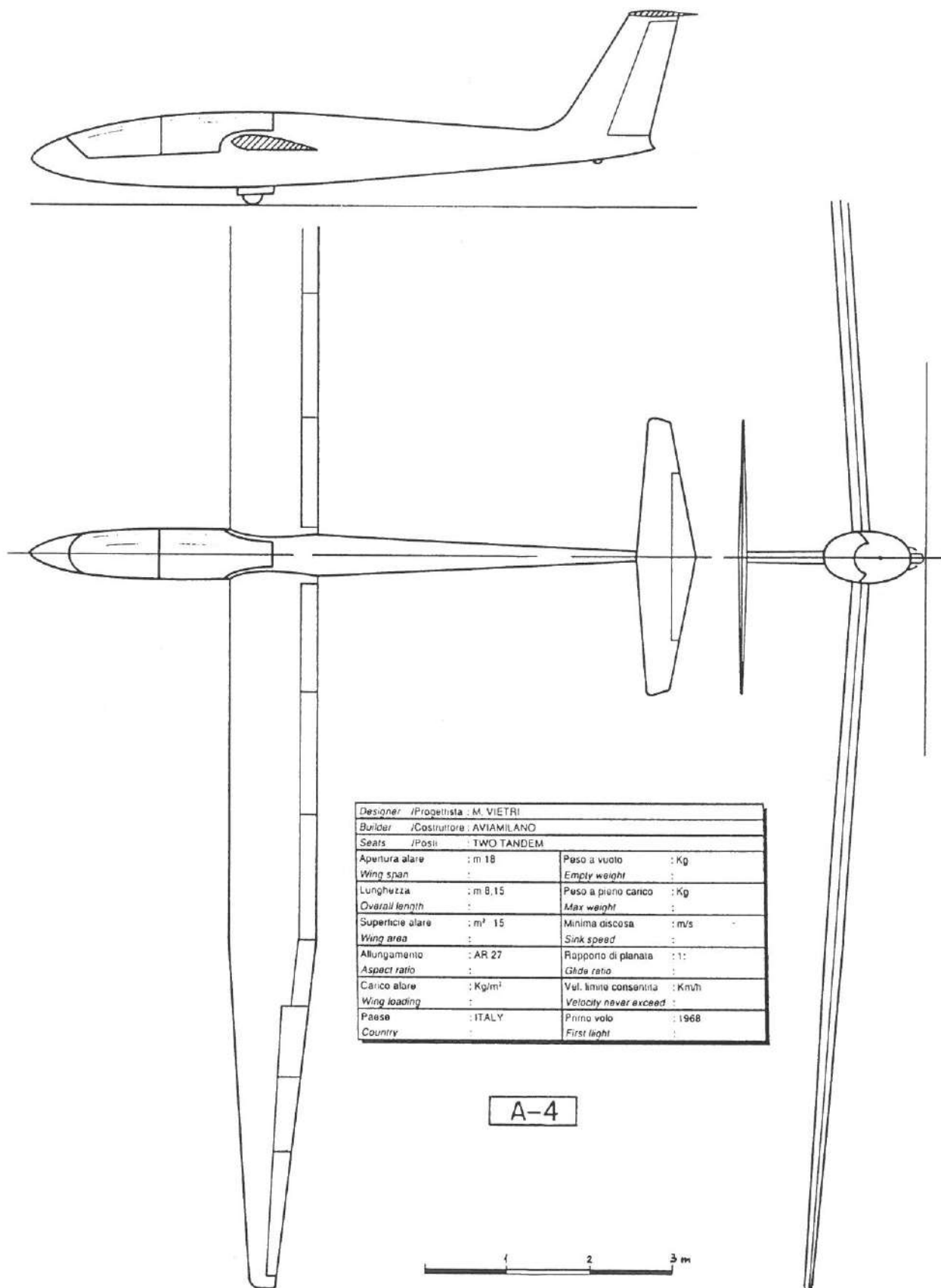
VIKING

1 2 3 m



Designer /Progettista : M. VIETRI			
Builder /Costruttore : AVIAMILANO			
Seats /Posti : ONE			
Apertura alare	: m 15	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 7,20	Peso a pieno carico	: Kg 310
Overall length	:	Max weight	:
Superficie alare	: m ² 11,18	Minima discesa	: m/s 0,62
Wing area	:	Sink speed	:
Allungamento	: AR 19	Rapporto di planata	: 1,34
Aspett ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 24	Vel. limite consentita	: Km/h 260
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1955
Country	:	First flight	:

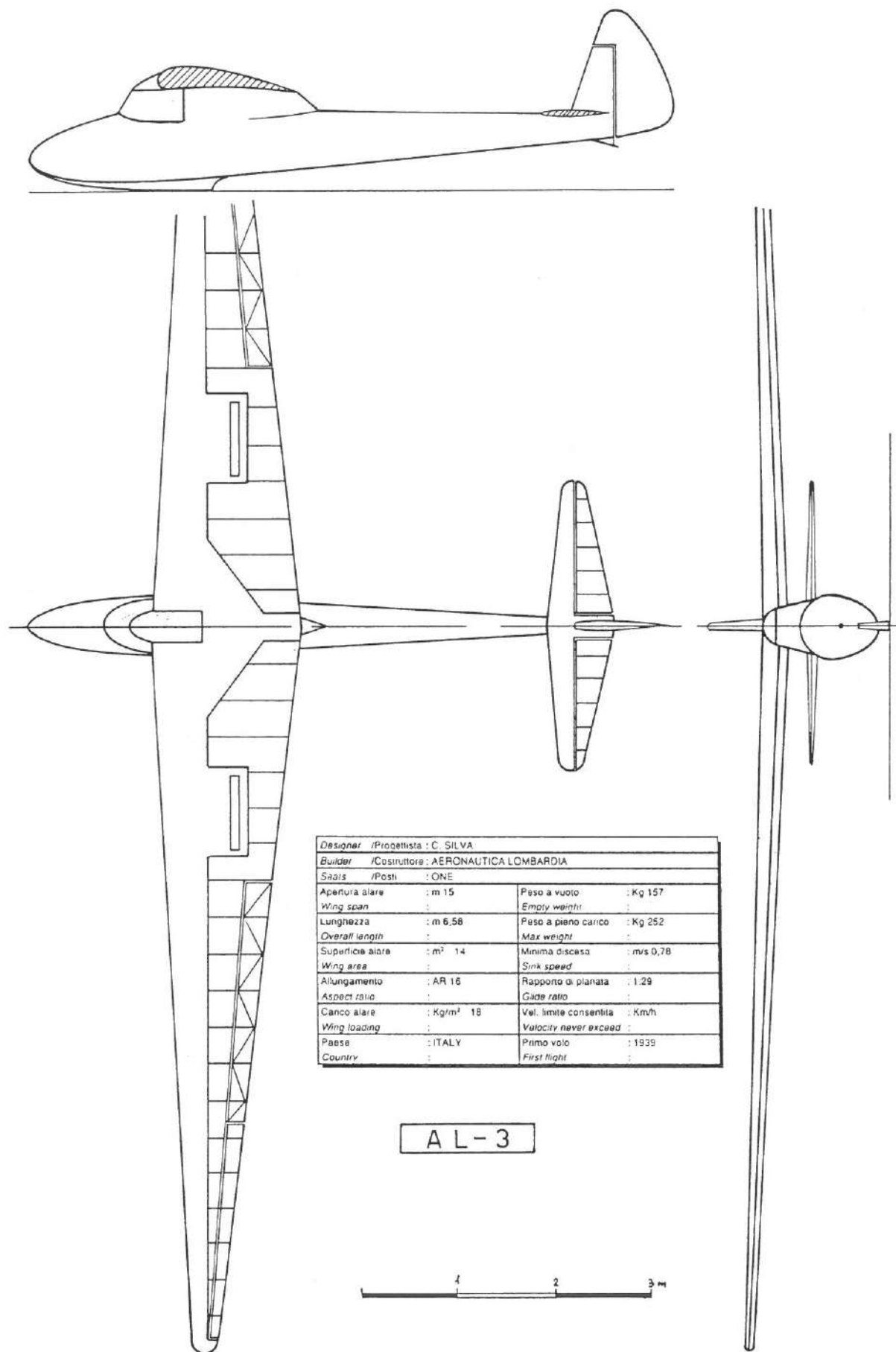
A-2



Designer	Progettista : M. VIETRI		
Builder	Costruttore : AVIAMILANO		
Seats	Posti	TWO TANDEM	
Apertura alare	: m 18	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 8,15	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 15	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 27	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1968
Country	:	First flight	:

A-4

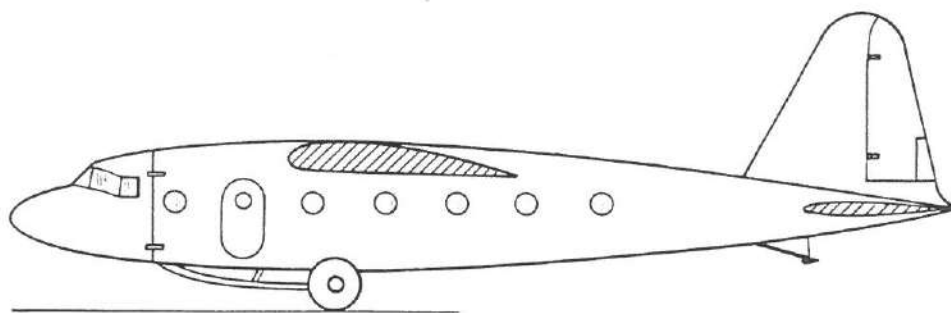
1 2 3 m



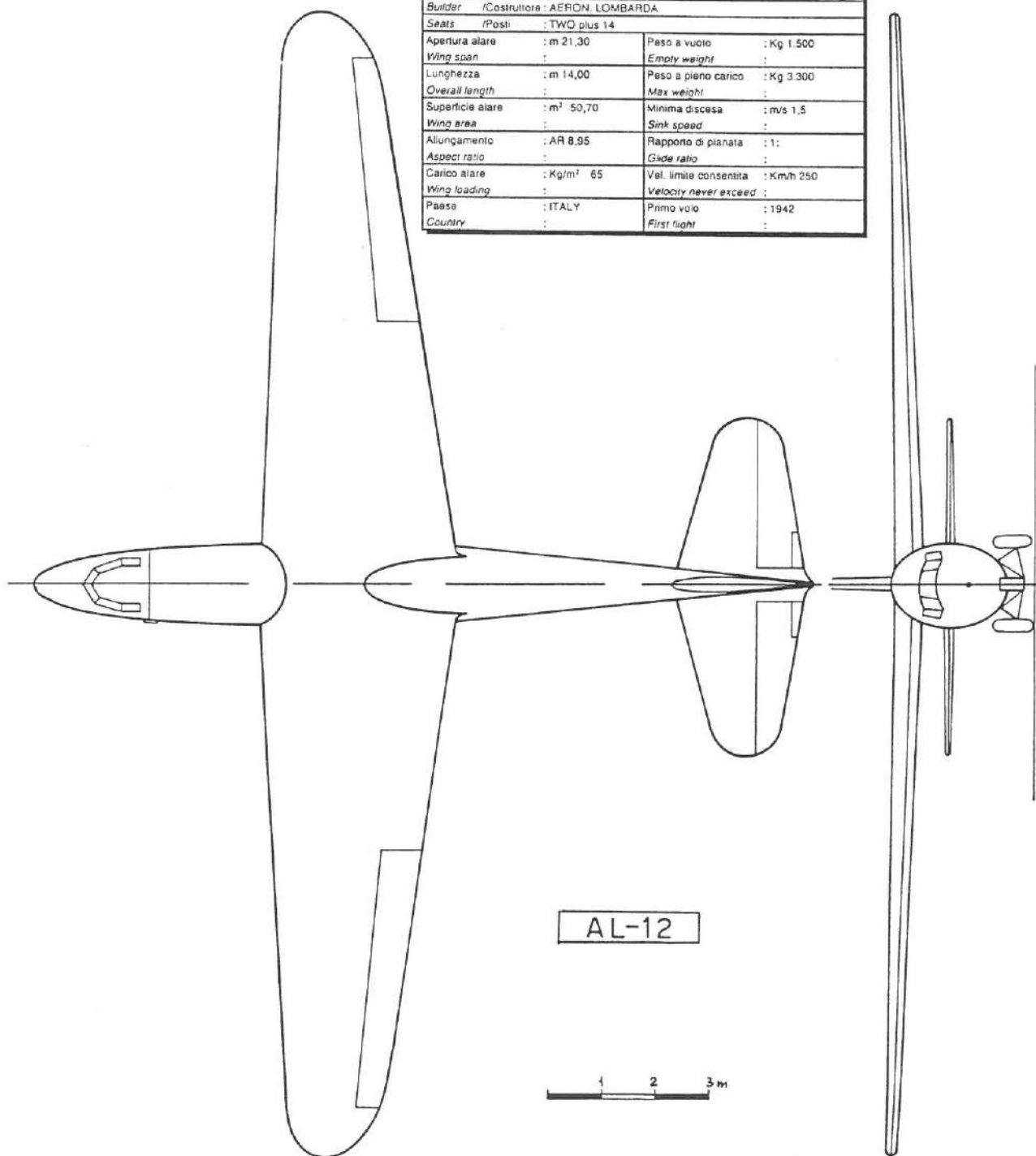
Designer /Progettista : C. SILVA			
Builder /Costruttore : AERONAUTICA LOMBARDIA			
Seats /Posti : ONE			
Apertura alare	: m 15	Peso a vuoto	: Kg 157
Wing span	:	Empty weight	:
Lunghezza	: m 6,58	Peso a pieno carico	: Kg 252
Overall length	:	Max weight	:
Superficie alare	: m ² 14	Minima discesa	: m/s 0,78
Wing area	:	Sink speed	:
Allungamento	: AR 16	Rapporto di planata	: 1,29
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1939
Country	:	First flight	:

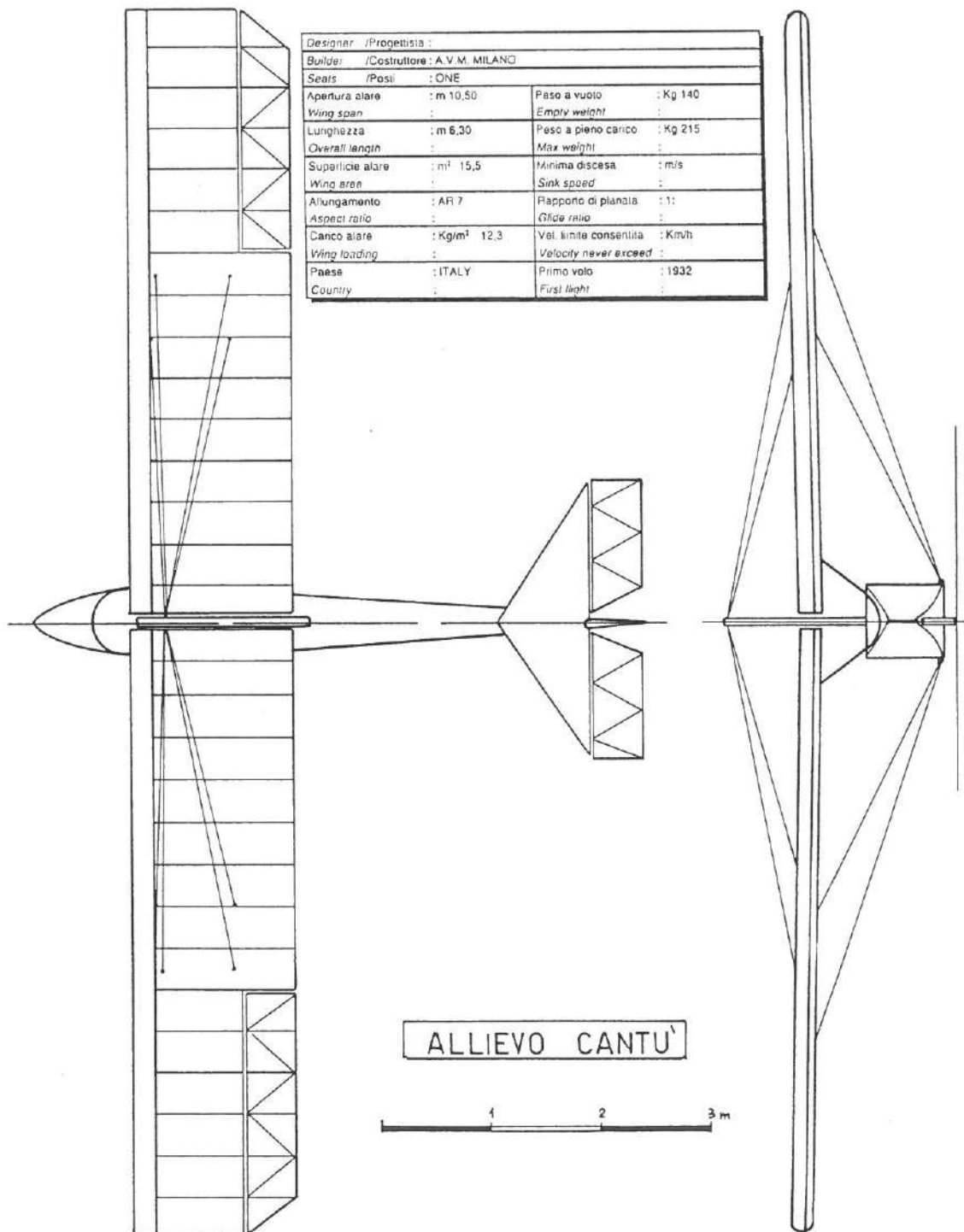
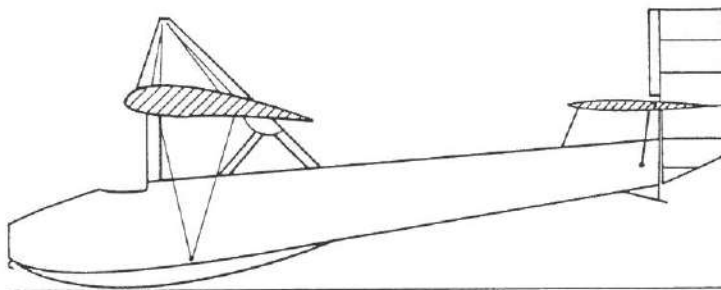
AL-3

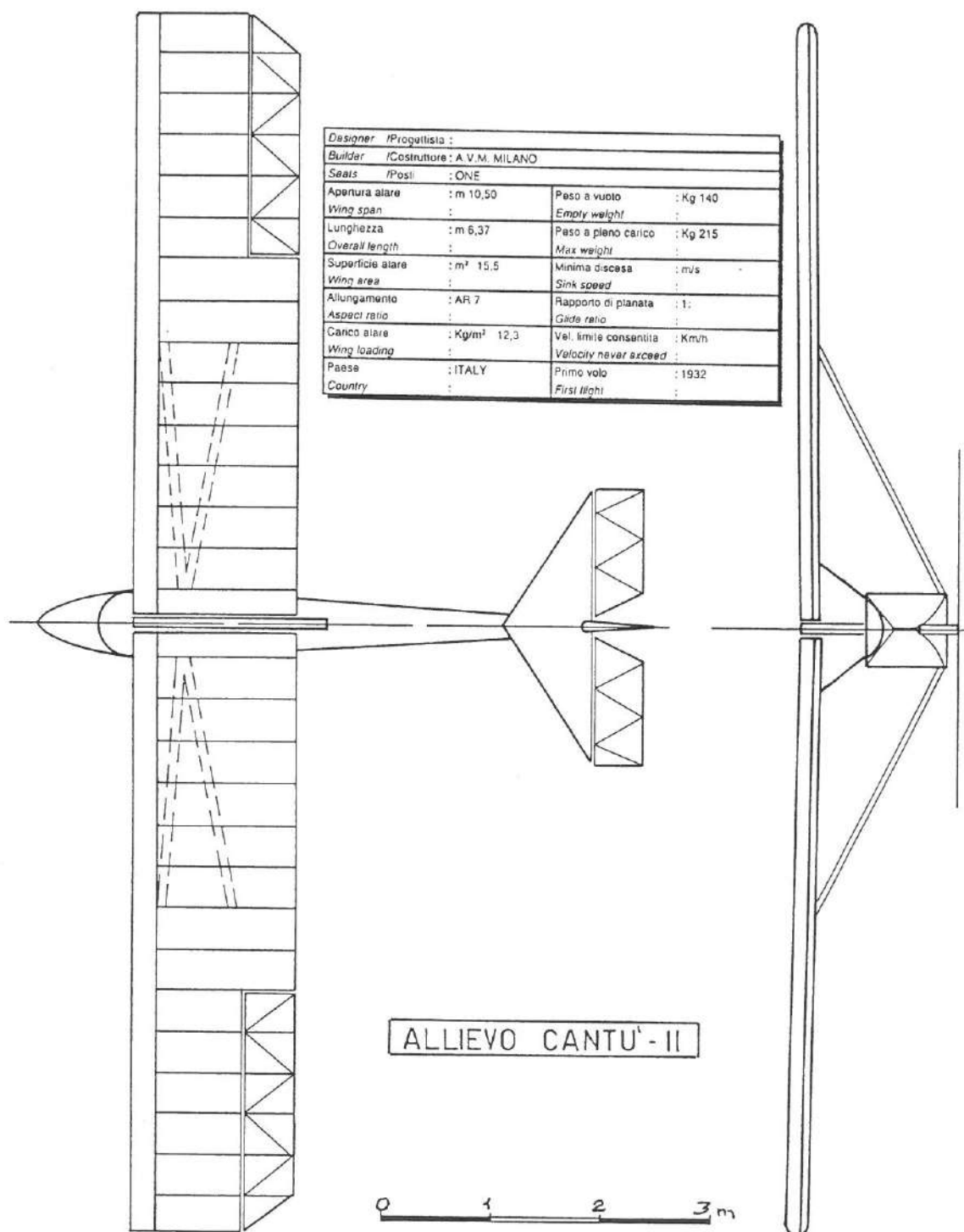
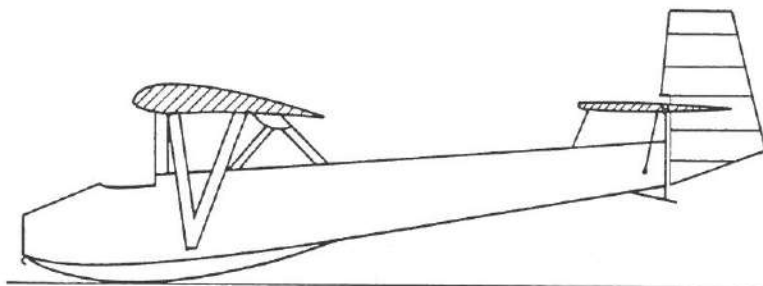


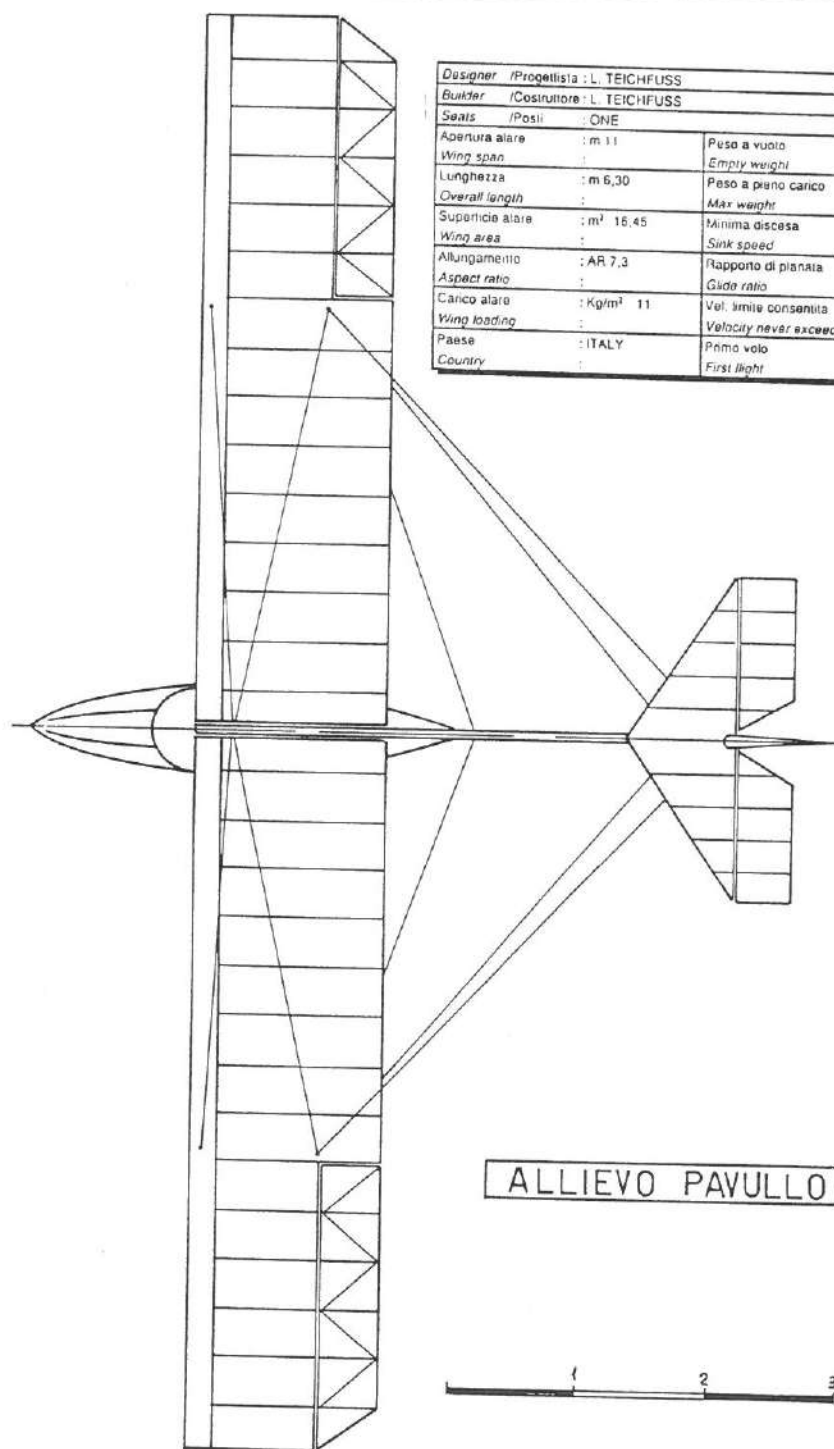
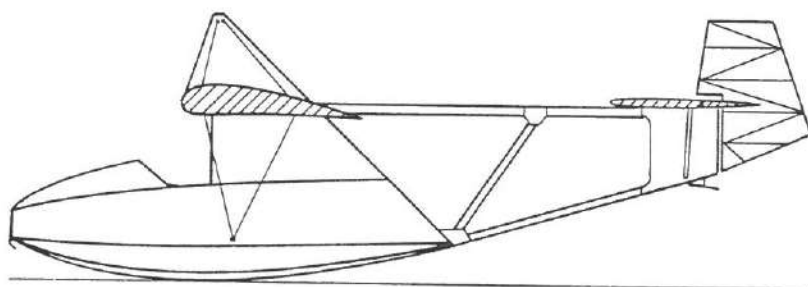


Designer /Progettista	: E. PRETI		
Builder /Costruttore	: AERON. LOMBARDA		
Seats /Posti	: TWO plus 14		
Apertura alare	: m 21,30	Peso a vuoto	: Kg 1.500
Wing span	:	Empty weight	:
Lunghezza	: m 14,00	Peso a pieno carico	: Kg 3.300
Overall length	:	Max weight	:
Superficie alare	: m ² 50,70	Minima discesa	: m/s 1,5
Wing area	:	Sink speed	:
Allungamento	: AR 8,95	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 65	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1942
Country	:	First flight	:



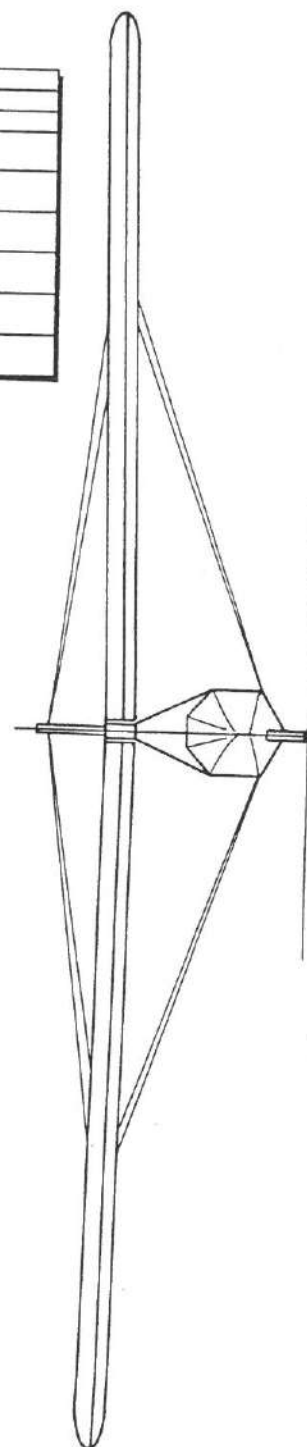


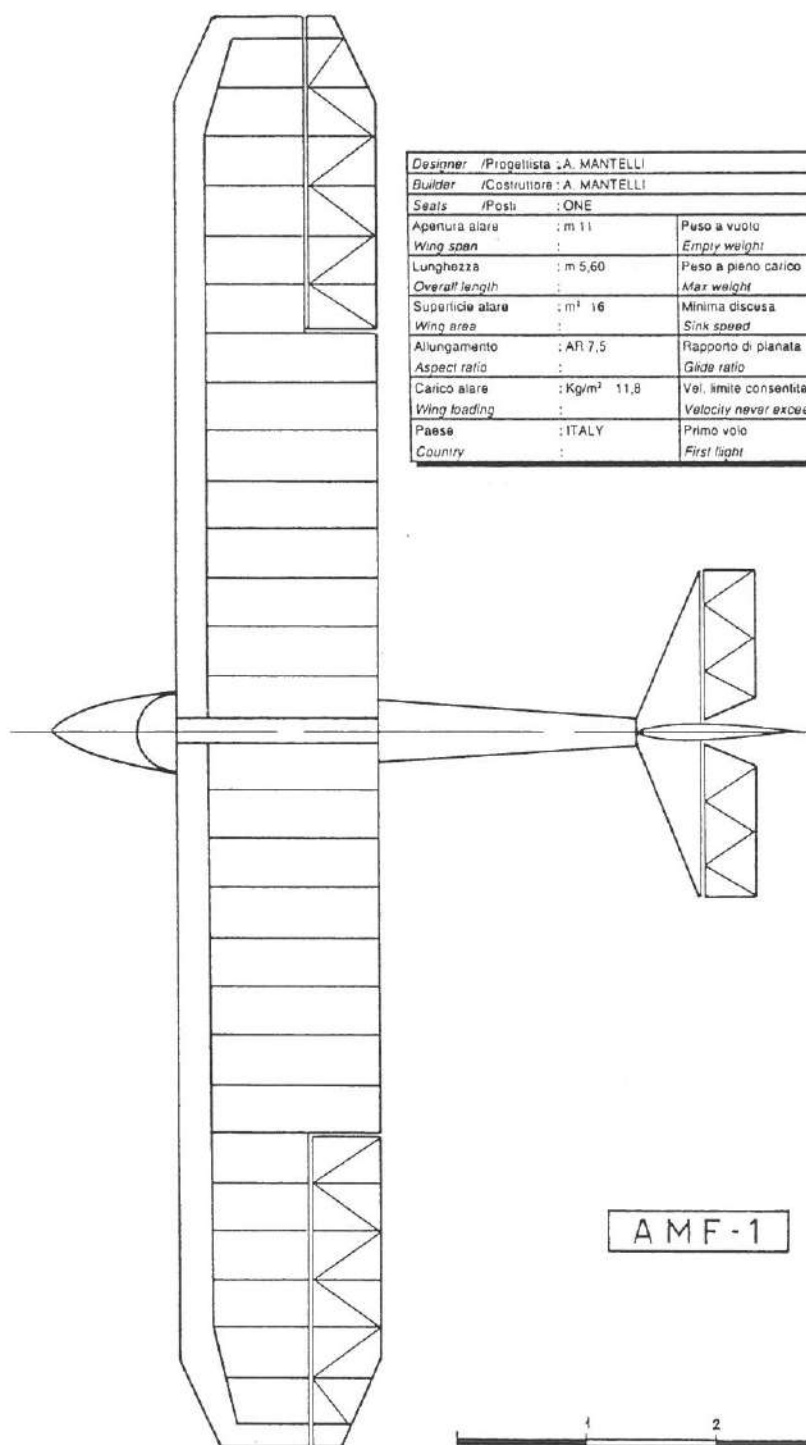
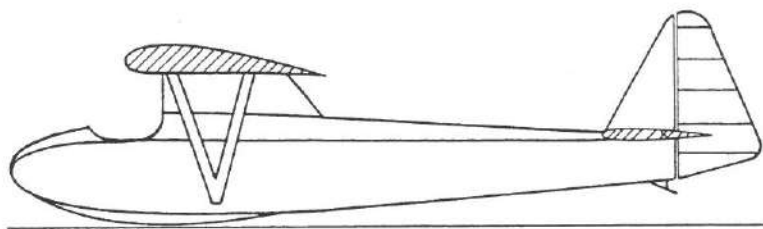




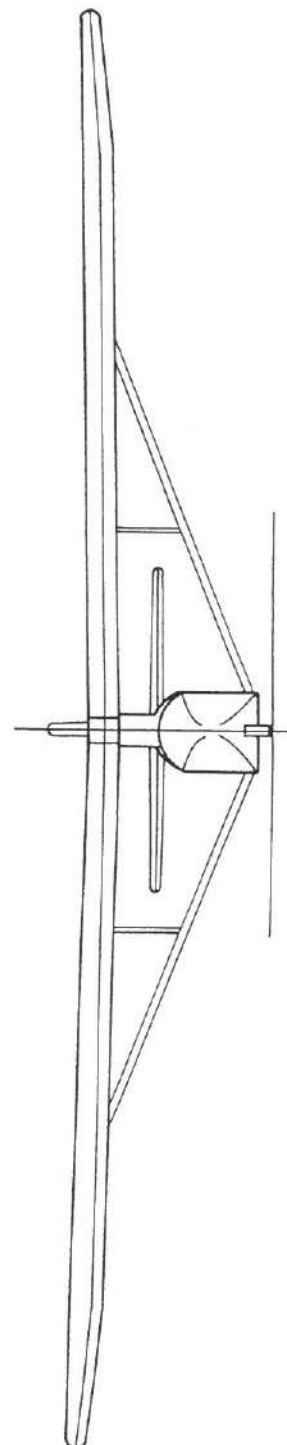
Designer /Progettista : L. TEICHFUSS	
Builder /Costruttore : L. TEICHFUSS	
Seats /Posti : ONE	
Apertura alare : m 11	Peso a vuoto : Kg 107
Wing span :	Empty weight :
Lunghezza : m 6,30	Peso a pieno carico : Kg 182
Overall length :	Max weight :
Superficie alare : m ² 16,45	Minima discesa : m/s 0,95
Wing area :	Sink speed :
Allungamento : AR 7,3	Rapporto di planata : 1:16
Aspect ratio :	Glide ratio :
Carico alare : Kg/m ² 11	Vel. limite consentita : Km/h
Wing loading :	Velocity never exceed :
Paese : ITALY	Primo volo : 1940
Country :	First flight :

ALLIEVO PAVULLO



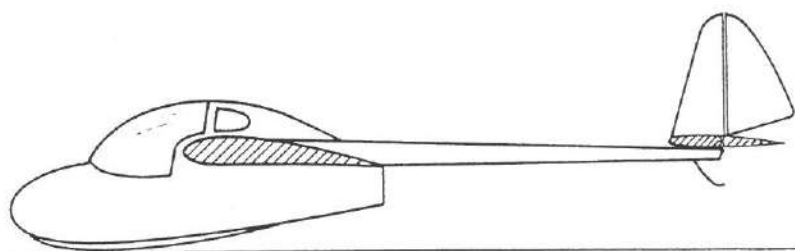


Designer /Progettista :A. MANTELLI			
Builder /Costruttore :A. MANTELLI			
Seats /Posti :ONE			
Apertura alare	: m 11	Peso a vuoto	: Kg 110
Wing span	:	Empty weight	:
Lunghezza	: m 5,60	Peso a pieno carico	: Kg 190
Overall length	:	Max weight	:
Superficie alare	: m ² 16	Minima discesa	: m/s 1,00
Wing area	:	Sink speed	:
Allungamento	: AR 7,5	Rapporto di planata	: 1:16
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 11,8	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1933
Country	:	First flight	:

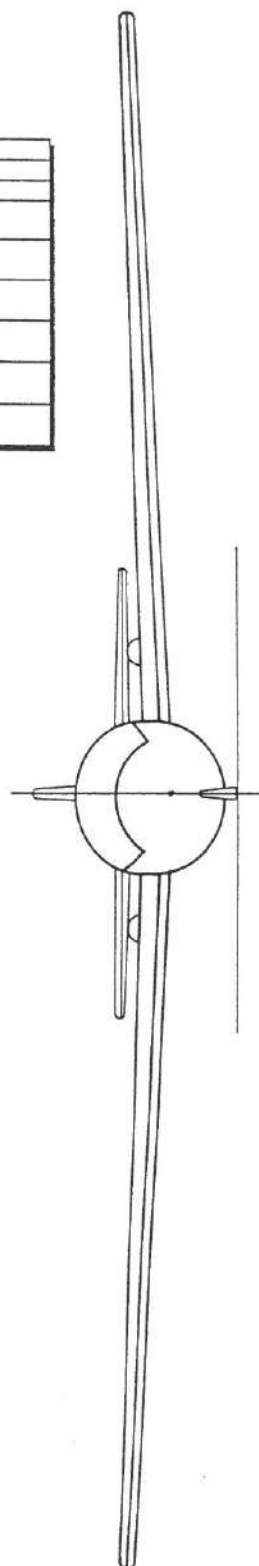
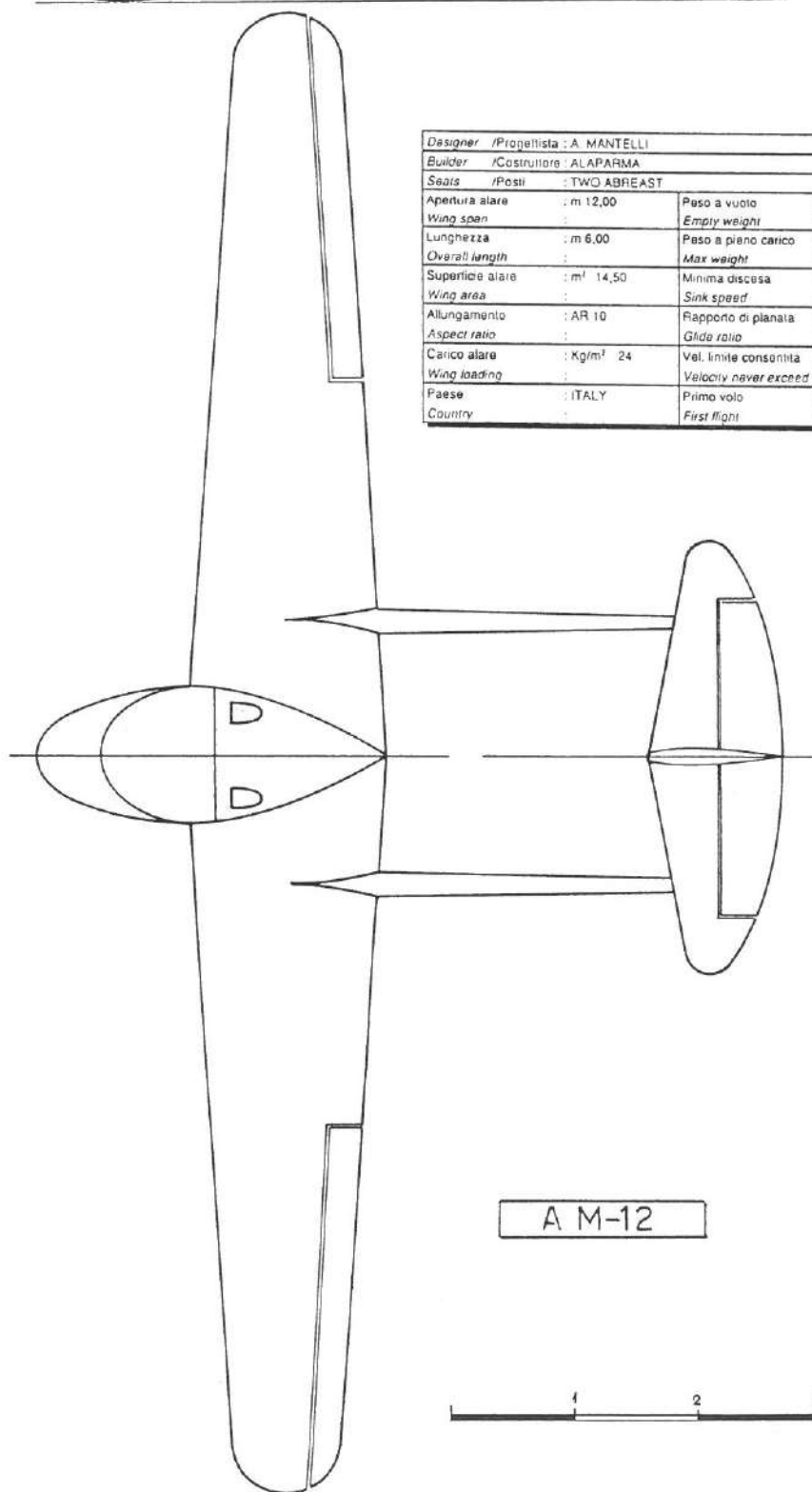


AMF-1



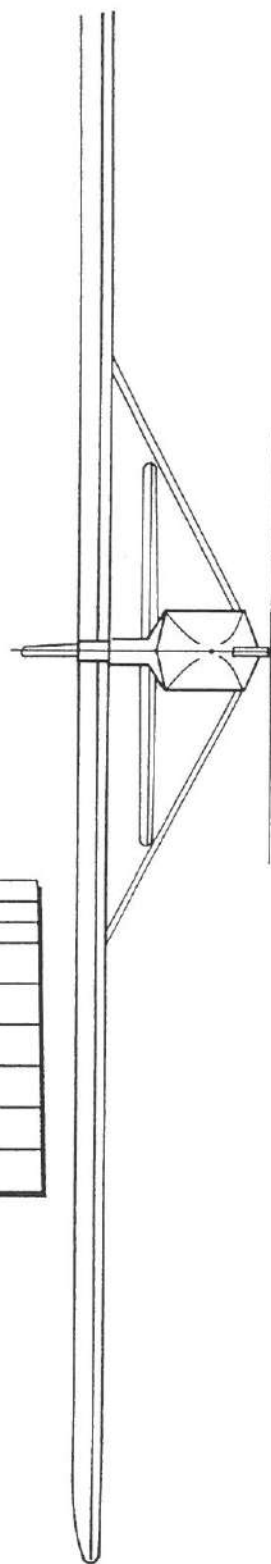
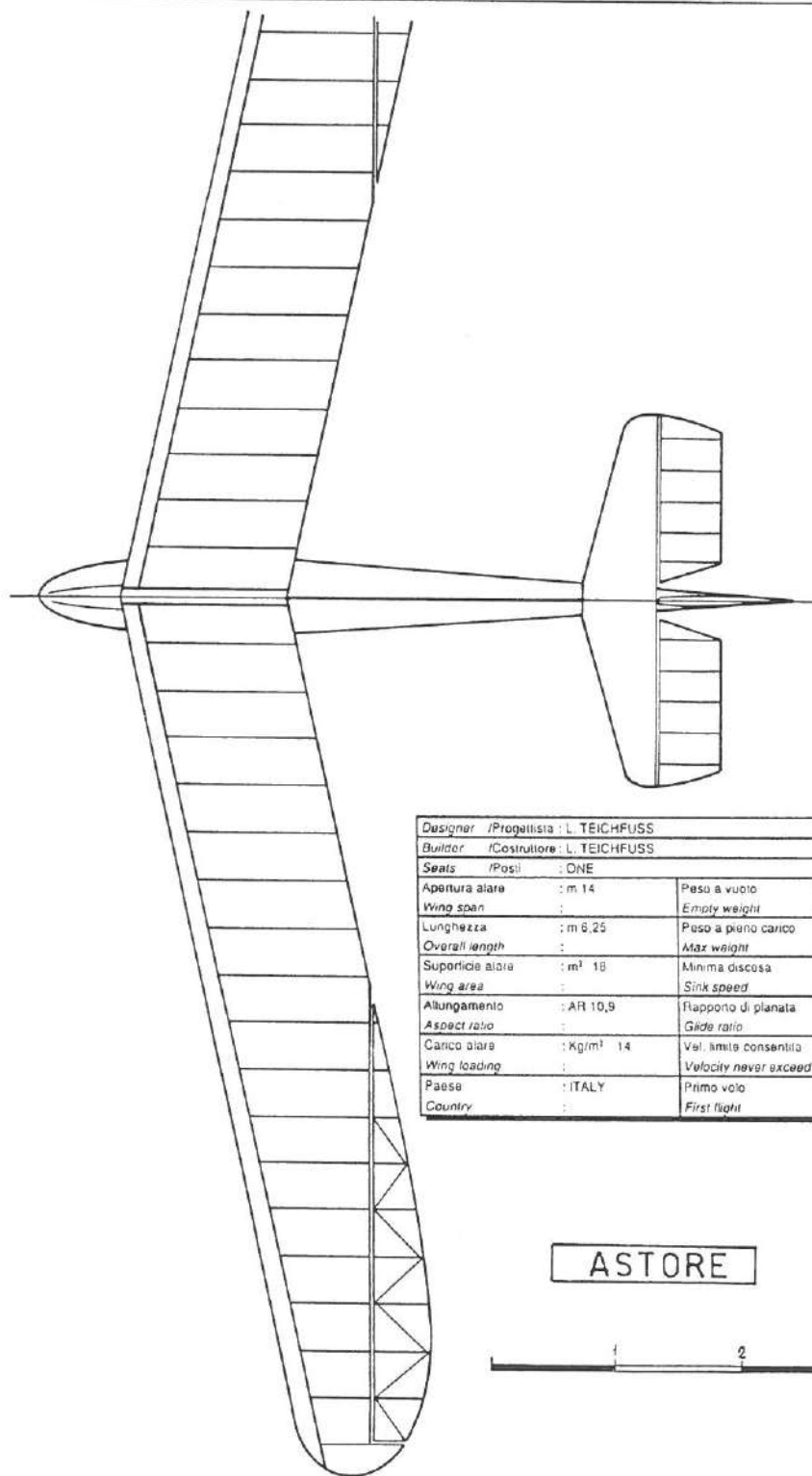
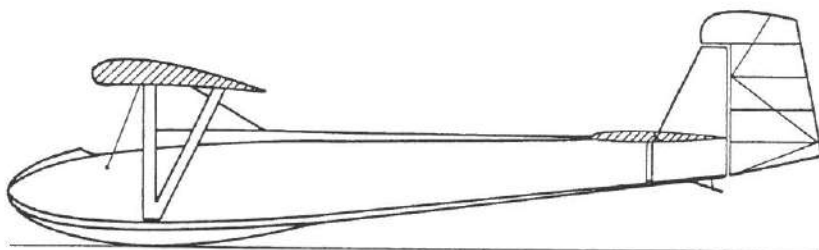


Designer /Progettista	: A. MANTELLI		
Builder /Costruttore	: ALAPARMA		
Seats /Posti	: TWO ABREAST		
Apertura alare	: m 12,00	Peso a vuoto	: Kg 100
Wing span	:	Empty weight	:
Lunghezza	: m 6,00	Peso a pieno carico	: Kg 350
Overall length	:	Max weight	:
Superficie alare	: m ² 14,50	Minima discesa	: m/s 0,90
Wing area	:	Sink speed	:
Allungamento	: AR 10	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 24	Vel. limite consuntiva	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1952
Country	:	First flight	:



A M-12

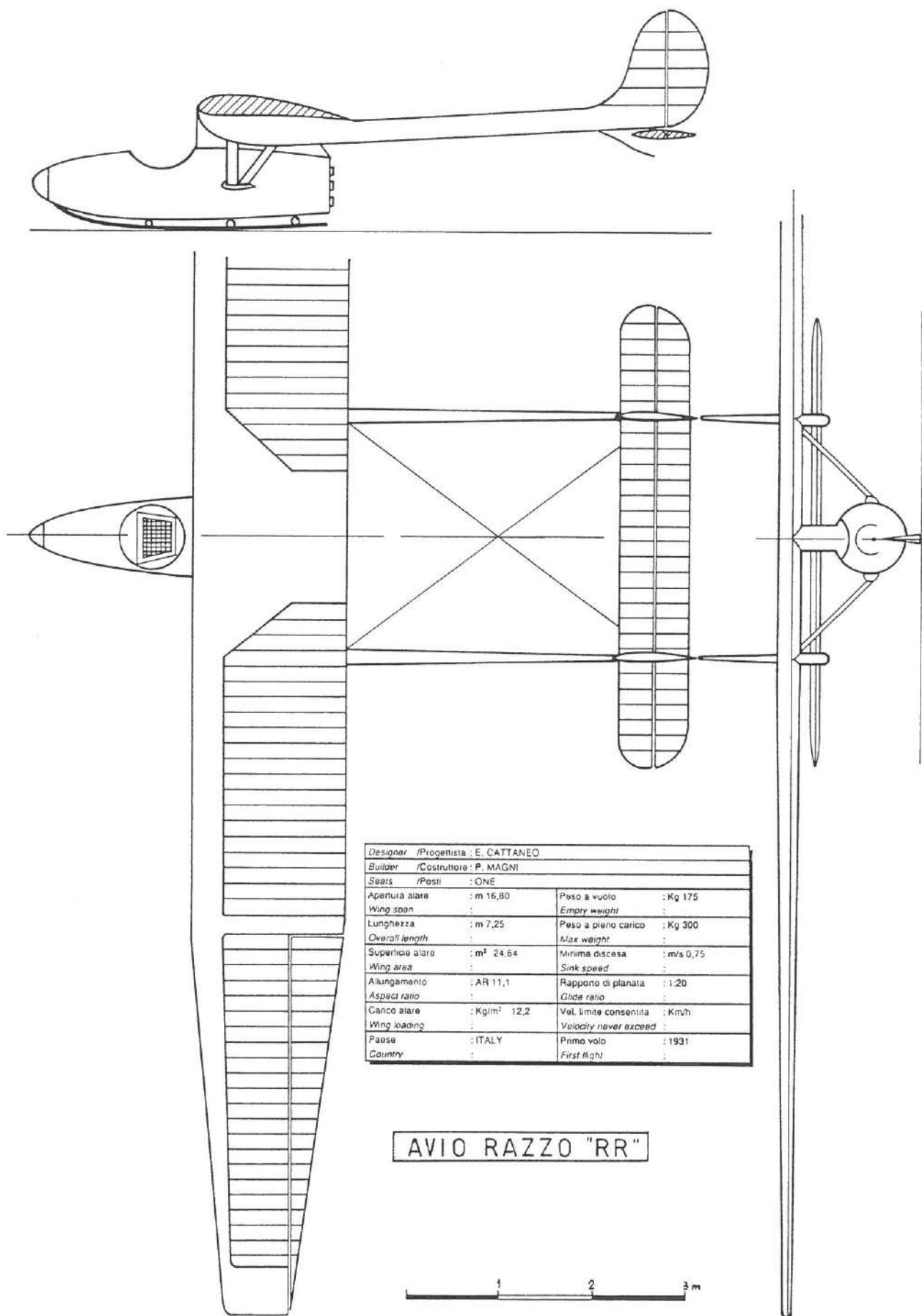




Designer / Progettista	: L. TEICHFUSS		
Builder / Costruttore	: L. TEICHFUSS		
Seats / Posti	: ONE		
Apertura alare	: m 14	Peso a vuoto	: Kg 177
Wing span	:	Empty weight	:
Lunghezza	: m 6,25	Peso a pieno carico	: Kg 252
Overall length	:	Max weight	:
Superficie alare	: m ² 18	Minima discosa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 10,9	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 14	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1928
Country	:	First flight	:

ASTORE

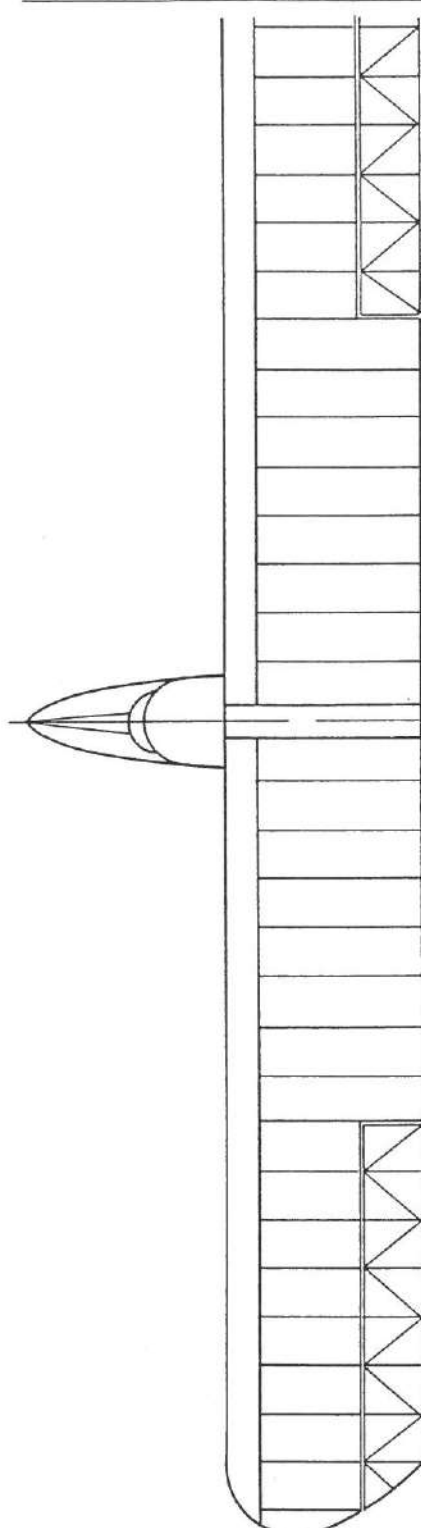
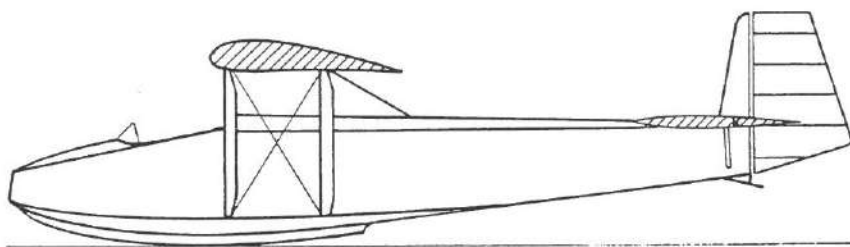




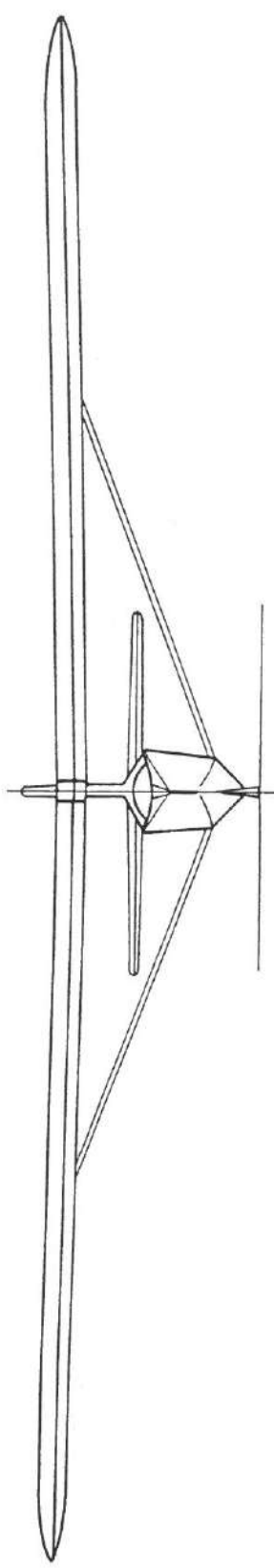
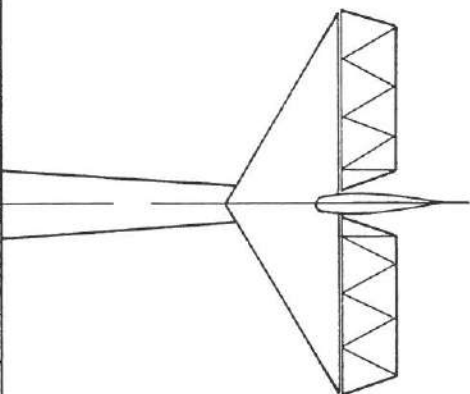
Designer /Progettista :	E. CATTANEO		
Builder /Costruttore :	P. MAGNI		
Seats /Posti :	ONE		
Apertura alare	: m 16,80	Peso a vuoto	: Kg 175
Wing span	:	Empty weight	:
Lunghezza	: m 7,25	Peso a pieno carico	: Kg 300
Overall length	:	Max weight	:
Superficie alare	: m ² 24,64	Minima discesa	: m/s 0,75
Wing area	:	Sink speed	:
Allungamento	: AR 11,1	Rapporto di planata	: 1:20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 12,2	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1931
Country	:	First flight	:

AVIO RAZZO "RR"

1 2 3 m

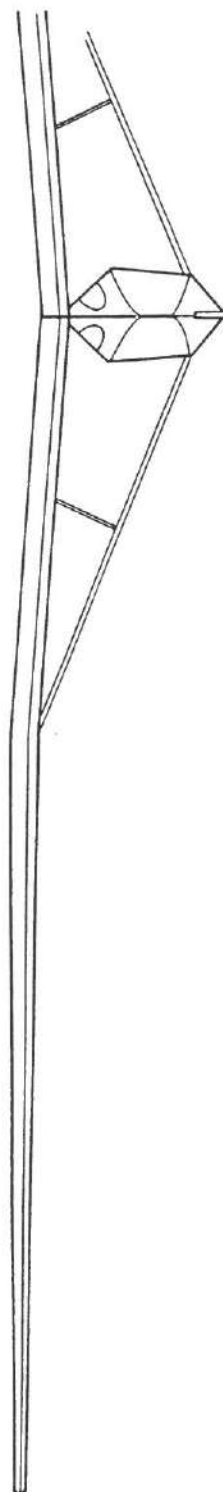
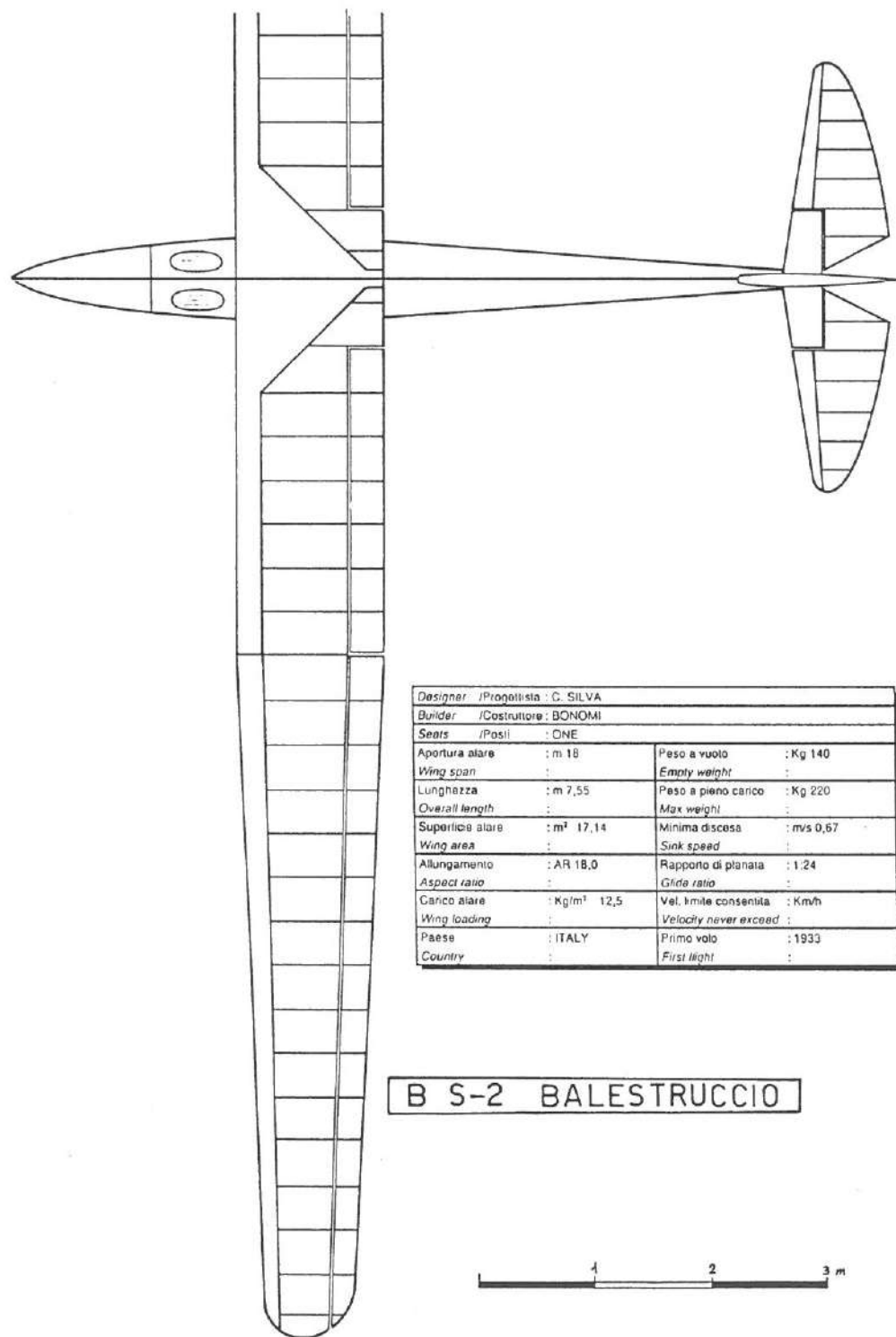
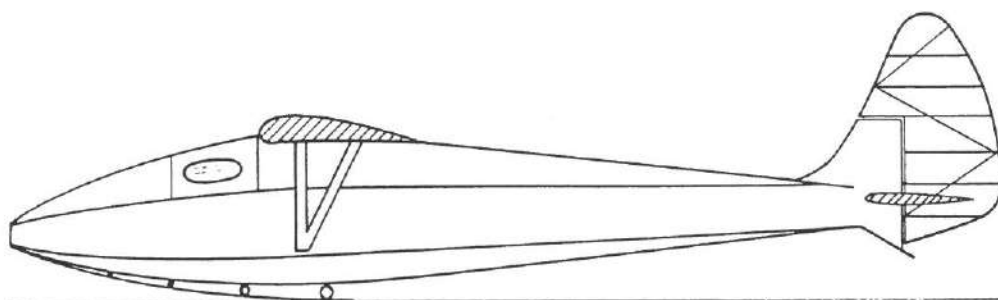


Designer /Progettista :			
Builder /Costruttore :			
Seats /Posti : ONE			
Apertura alare	: m 12,50	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 6,35	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 18	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 8	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1933
Country	:	First flight	:



BALILLA

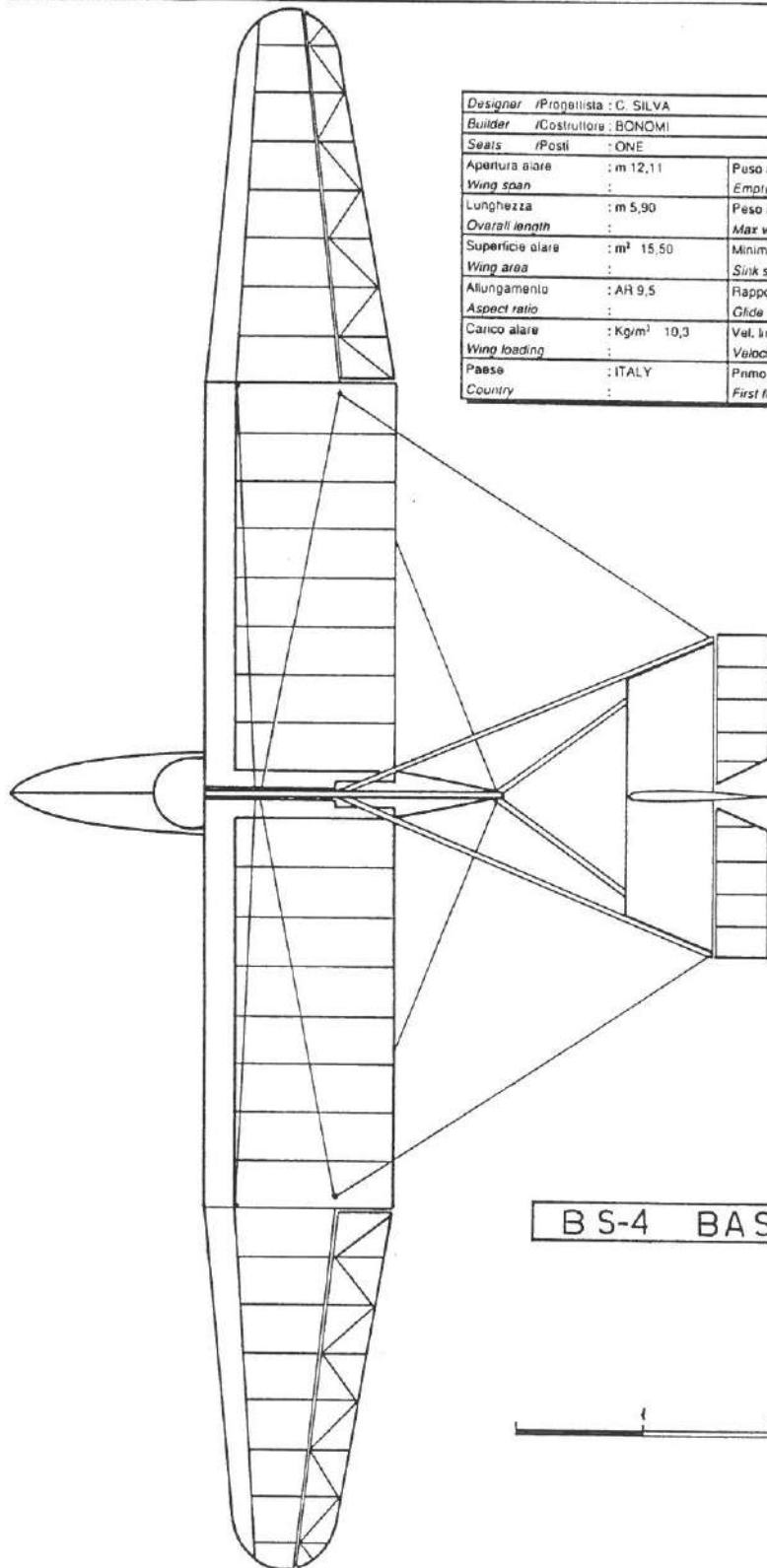
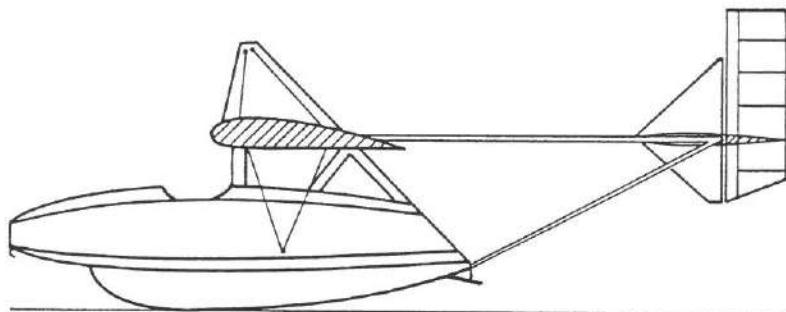




Designer / Progettista : C. SILVA	
Builder / Costruttore : BONOMI	
Seats / Posi : ONE	
Apertura alare : m 18	Peso a vuoto : Kg 140
Wing span :	Empty weight :
Lunghezza : m 7,55	Peso a pieno carico : Kg 220
Overall length :	Max weight :
Superficie alare : m ² 17,14	Minima discesa : m/s 0,67
Wing area :	Sink speed :
Allungamento : AR 18,0	Rapporto di planata : 1,24
Aspect ratio :	Glide ratio :
Carico alare : Kg/m ² 12,5	Vel. limite consentita : Km/h
Wing loading :	Velocity never exceed :
Paese : ITALY	Primo volo : 1933
Country :	First flight :

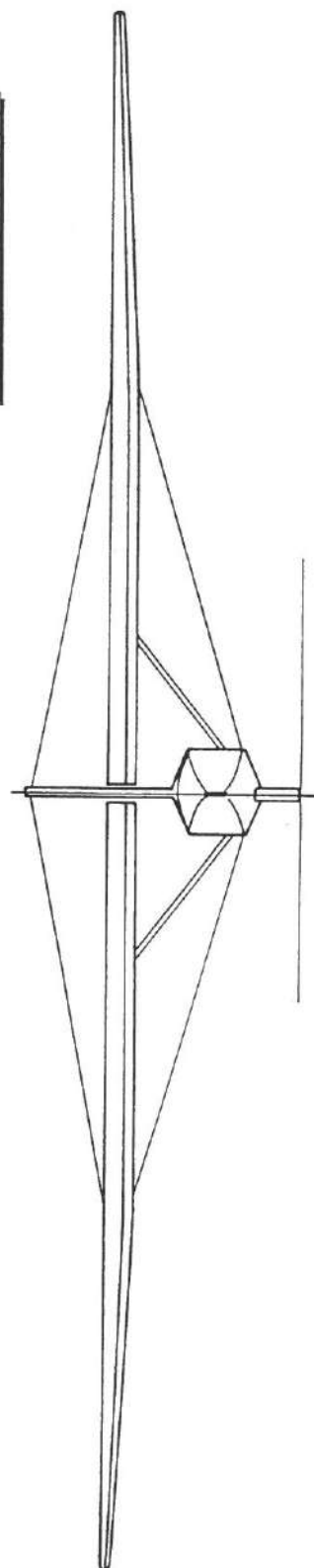
B S-2 BALESTRUCCIO

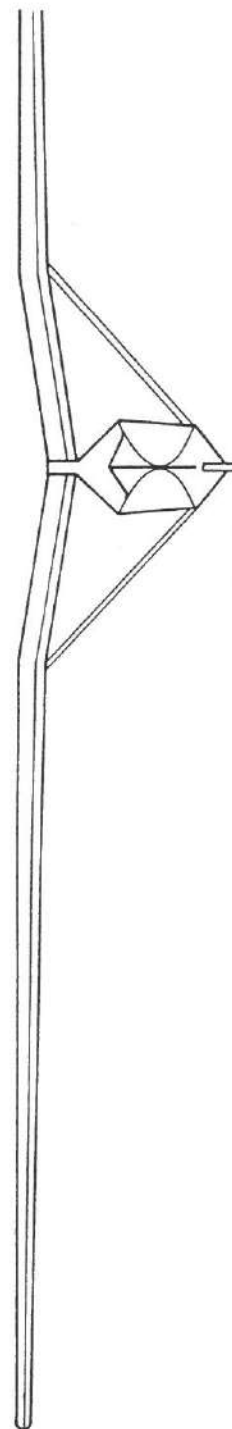
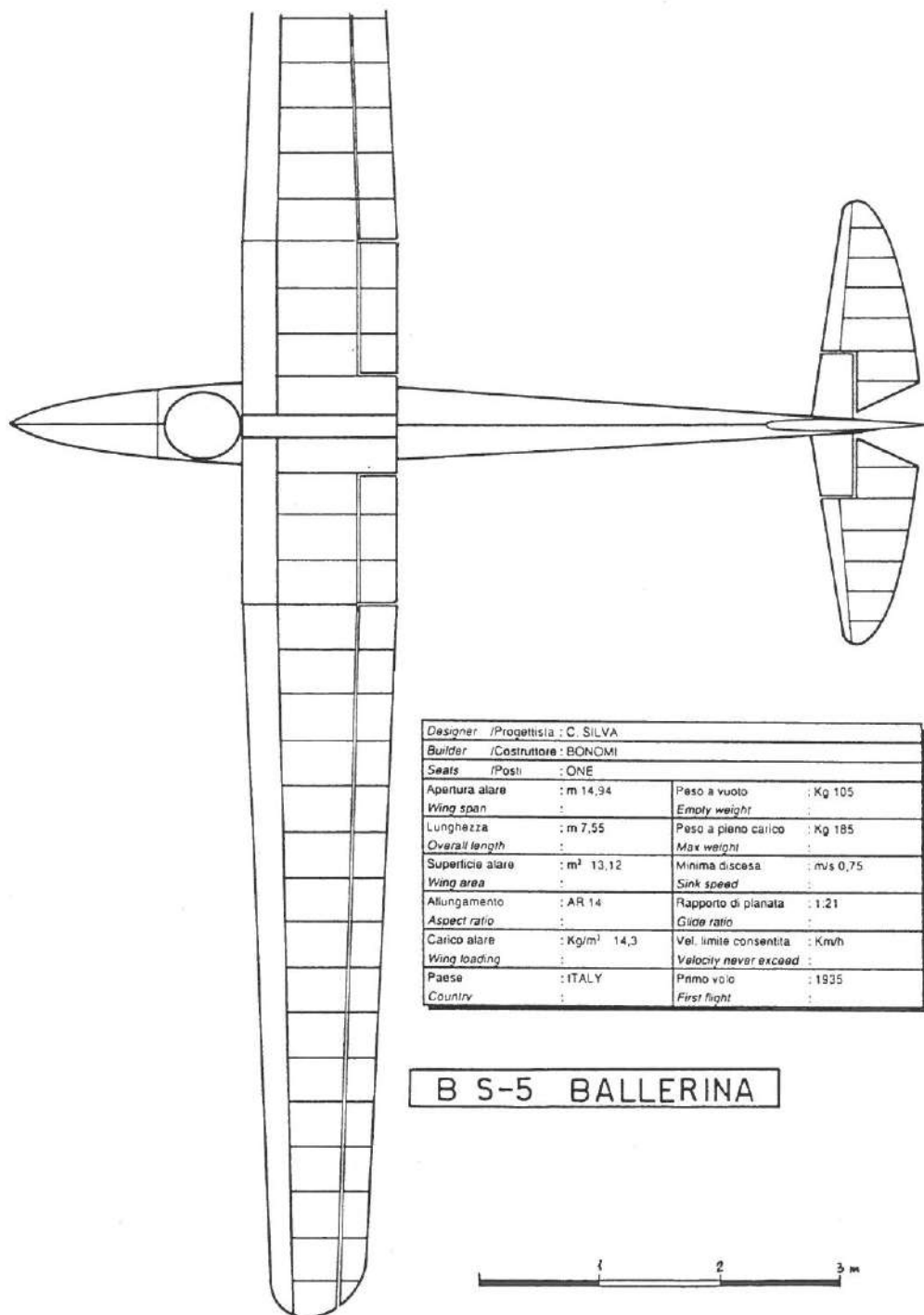
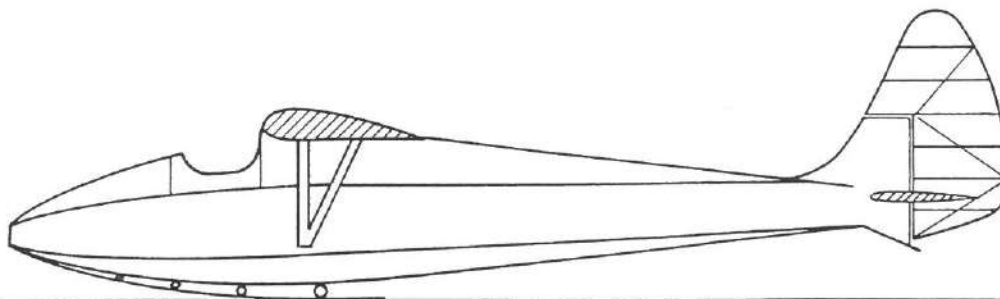




Designer /Progettista : C. SILVA			
Builder /Costruttore : BONOMI			
Seats /Posti : ONE			
Apertura alare : m 12,11		Peso a vuoto : Kg 90	
Wing span :		Empty weight :	
Lunghezza : m 5,90		Peso a pieno carico : Kg 170	
Overall length :		Max weight :	
Superficie alare : m ² 15,50		Minima discesa : m/s 0,87	
Wing area :		Sink speed :	
Allungamento : AR 9,5		Rapporto di planata : 1:24	
Aspect ratio :		Glide ratio :	
Carico alare : Kg/m ² 10,3		Vel. limite consentita : Km/h	
Wing loading :		Velocity never exceed :	
Paese : ITALY		Primo volo :	
Country :		First flight :	

B S-4 B A S E T T I N O

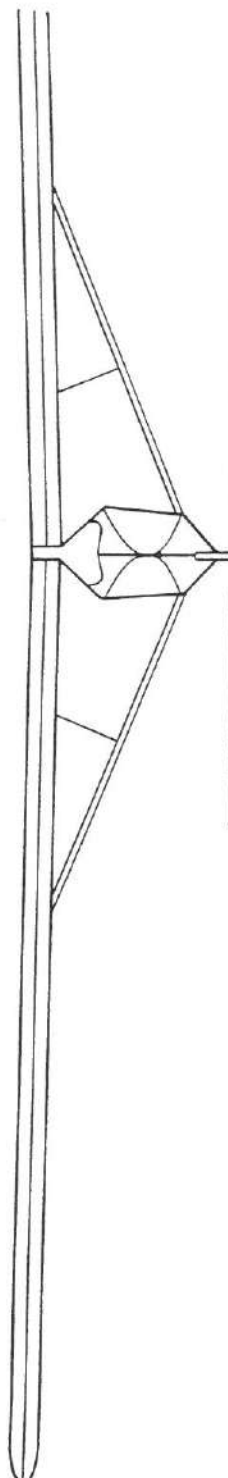
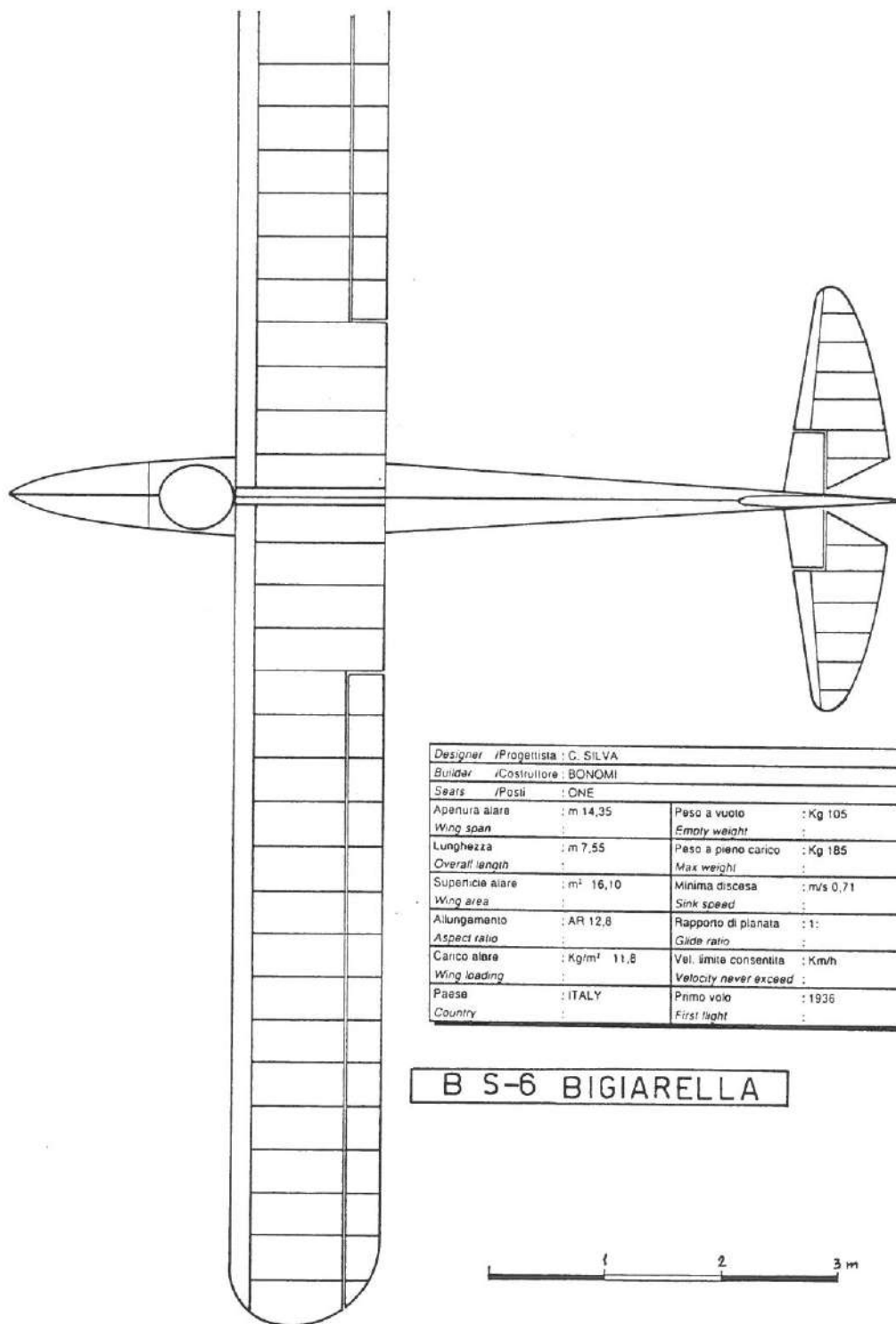
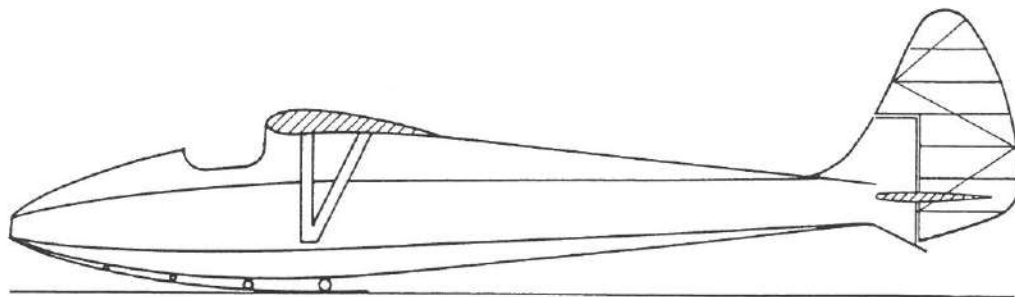




Designer /Progettista : C. SILVA			
Builder /Costruttore : BONOMI			
Seats /Posti : ONE			
Apertura alare	: m 14,94	Peso a vuoto	: Kg 105
Wing span	:	Empty weight	:
Lunghezza	: m 7,55	Peso a pieno carico	: Kg 185
Overall length	:	Max weight	:
Superficie alare	: m ² 13,12	Minima discesa	: m/s 0,75
Wing area	:	Sink speed	:
Allungamento	: AR 14	Rapporto di planata	: 1,21
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 14,3	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1935
Country	:	First flight	:

B S-5 BALLERINA

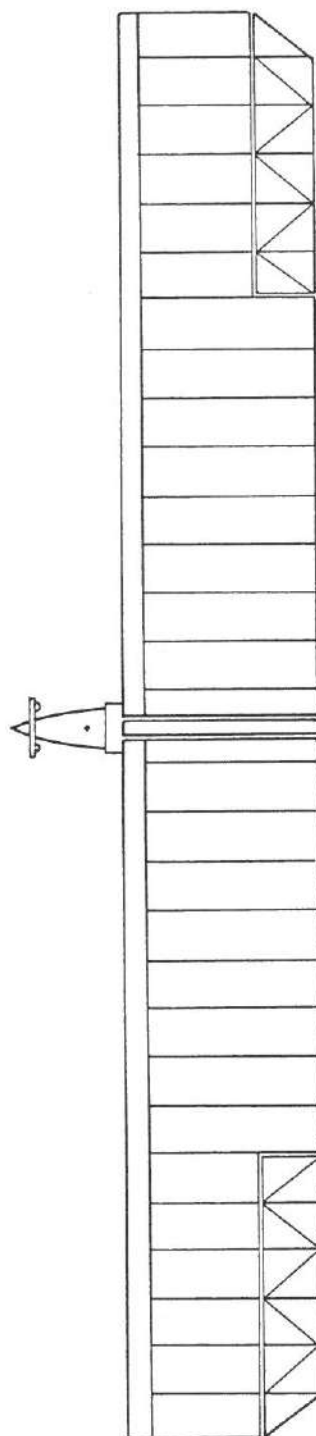
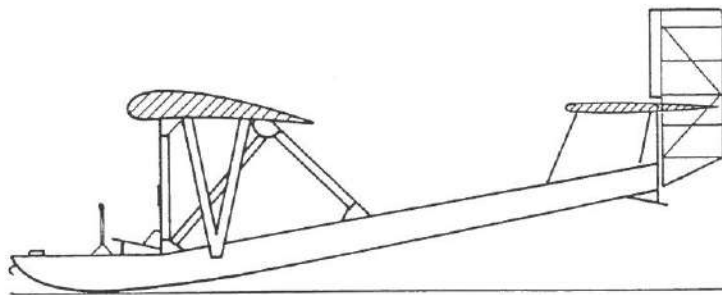




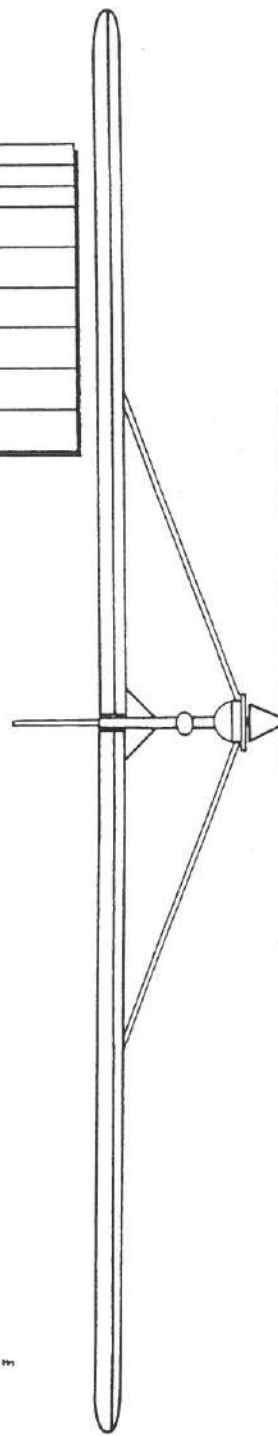
Designer / Progettista	: C. SILVA	Peso a vuoto	: Kg 105
Builder / Costruttore	: BONOMI	Empty weight	:
Seats / Posti	: ONE	Peso a pieno carico	: Kg 185
Apertura alare	: m 14,35	Max weight	:
Wing span	:	Minima discesa	: m/s 0,71
Lunghezza	: m 7,55	Sink speed	:
Overall length	:	Rapporto di planata	: 1:
Superficie alare	: m² 16,10	Glide ratio	:
Wing area	:	Vel. limite consentita	: Km/h
Allungamento	: AR 12,8	Velocity never exceed	:
Aspect ratio	:	Primo volo	: 1936
Carico alare	: Kg/m² 11,8	First flight	:
Wing loading	:		
Paese	: ITALY		
Country	:		

B S-6 BIGIARELLA

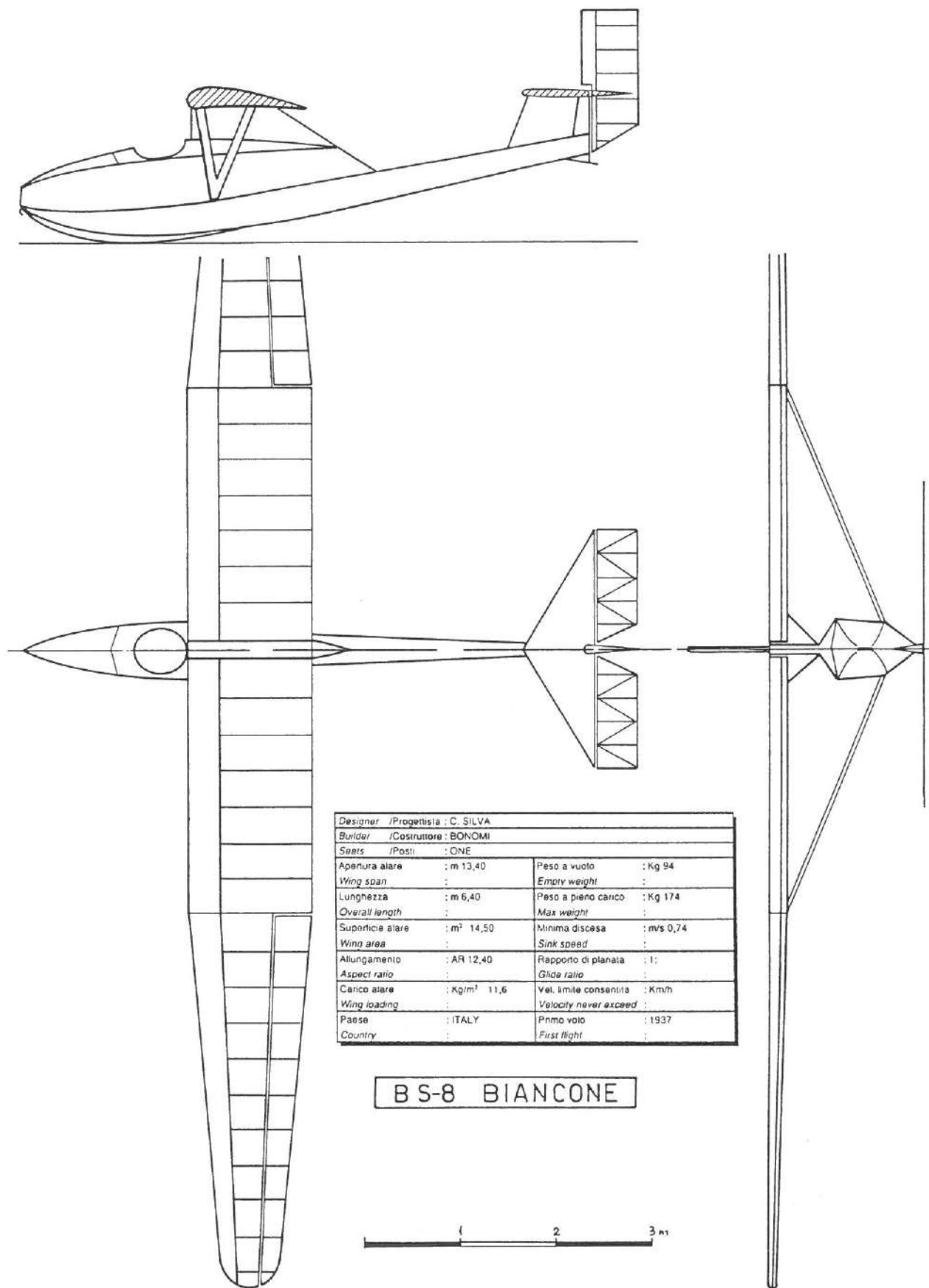




Designer / Progettista	: C. SILVA		
Builder / Costruttore	: BONOMI		
Seats / Posti	: ONE		
Apertura alare	: m 11	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 5,50	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ²	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1936
Country	:	First flight	:



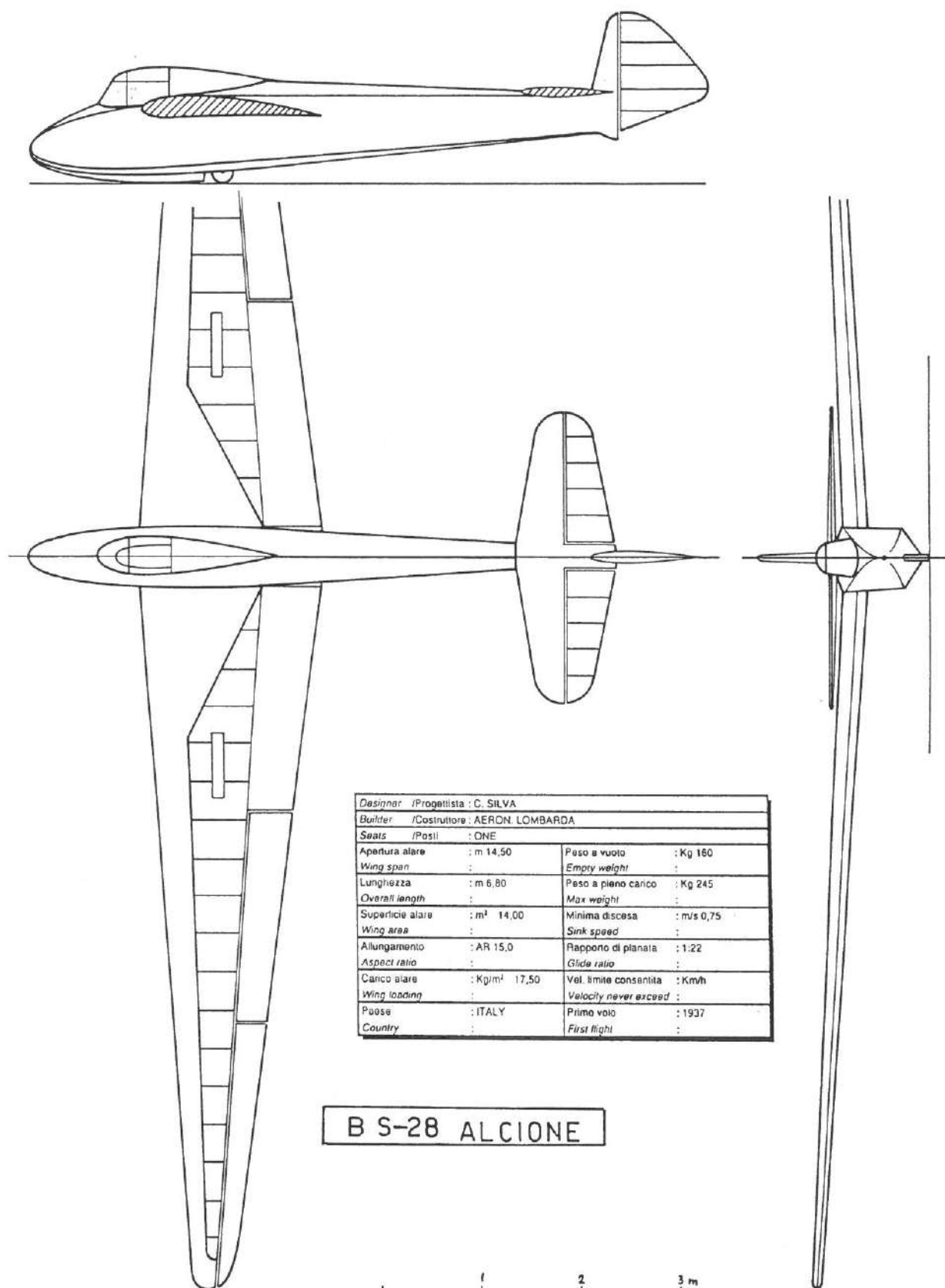
BS-7 ALLIEVO ITALIA



Designer /Progettista : C. SILVA			
Builder /Costruttore : BONOMI			
Seats /Posti : ONE			
Apertura alare	: m 13,40	Peso a vuoto	: Kg 94
Wing span	:	Empty weight	:
Lunghezza	: m 6,40	Peso a pieno carico	: Kg 174
Overall length	:	Max weight	:
Superficie alare	: m ² 14,50	Minima discesa	: m/s 0,74
Wing area	:	Sink speed	:
Allungamento	: AR 12,40	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 11,6	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1937
Country	:	First flight	:

BS-8 BIANCONE

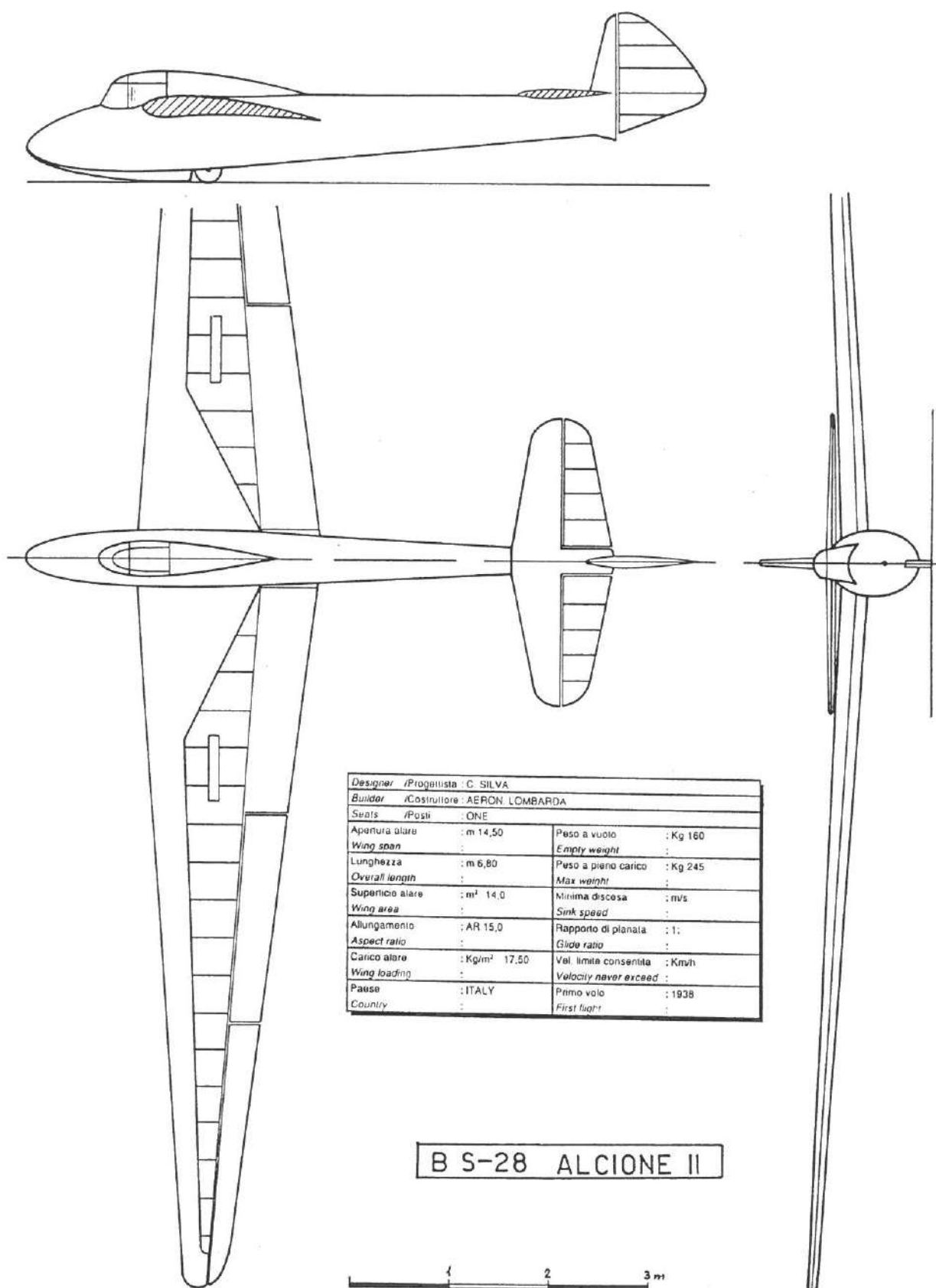
1 2 3 m



Designer / Progettista	: C. SILVA		
Builder / Costruttore	: AERON. LOMBARDIA		
Seats / Posi	: ONE		
Apertura alare	: m 14,50	Peso a vuoto	: Kg 160
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg 245
Overall length	:	Max weight	:
Superficie alare	: m ² 14,00	Minima discesa	: m/s 0,75
Wing area	:	Sink speed	:
Allungamento	: AR 15,0	Rapporto di planata	: 1:22
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 17,50	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1937
Country	:	First flight	:

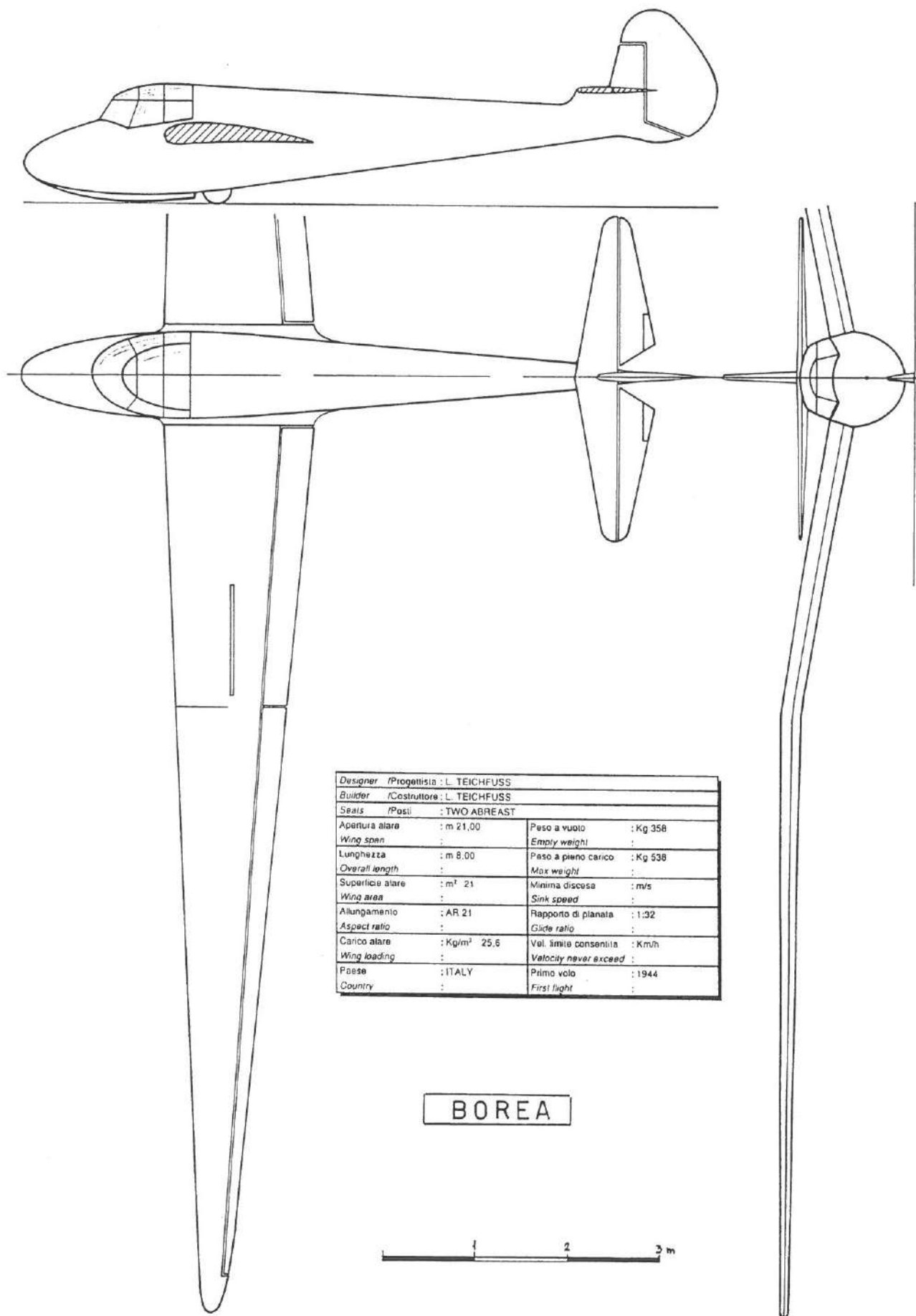
B S-28 ALCIONE

1 2 3 m



Designer /Progettista	C. SILVA		
Builder /Costruttore	AERON LOMBARDA		
Seats /Posti	ONE		
Apertura alare	: m 14,50	Peso a vuoto	: Kg 160
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg 245
Overall length	:	Max weight	:
Superficie alare	: m ² 14,0	Minima discosa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 15,0	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 17,50	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1938
Country	:	First flight	:

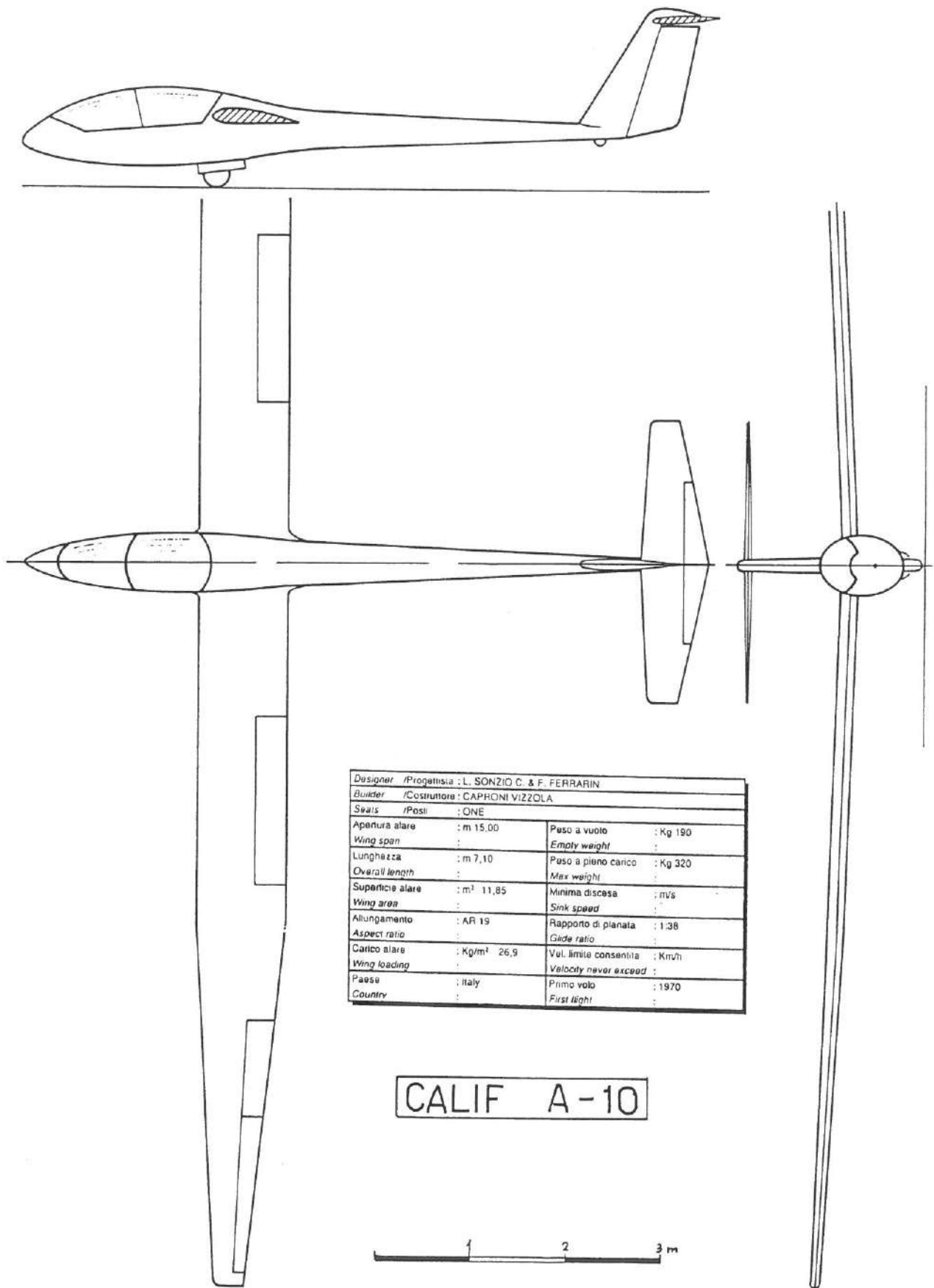
B S-28 ALCIONE II



Designer /Progettista : L. TEICHFUSS	
Builder /Costruttore : L. TEICHFUSS	
Seats /Posti : TWO ABREAST	
Apertura alare : m 21,00	Peso a vuoto : Kg 358
Wing span :	Empty weight :
Lunghezza : m 8,00	Peso a pieno carico : Kg 538
Overall length :	Max weight :
Superficie alare : m ² 21	Minima discesa : m/s
Wing area :	Sink speed :
Allungamento : AR 21	Rapporto di planata : 1:32
Aspect ratio :	Glide ratio :
Carico alare : Kg/m ² 25,6	Vel. limite consentita : Km/h
Wing loading :	Velocity never exceed :
Paese : ITALY	Primo volo : 1944
Country :	First flight :

BOREA

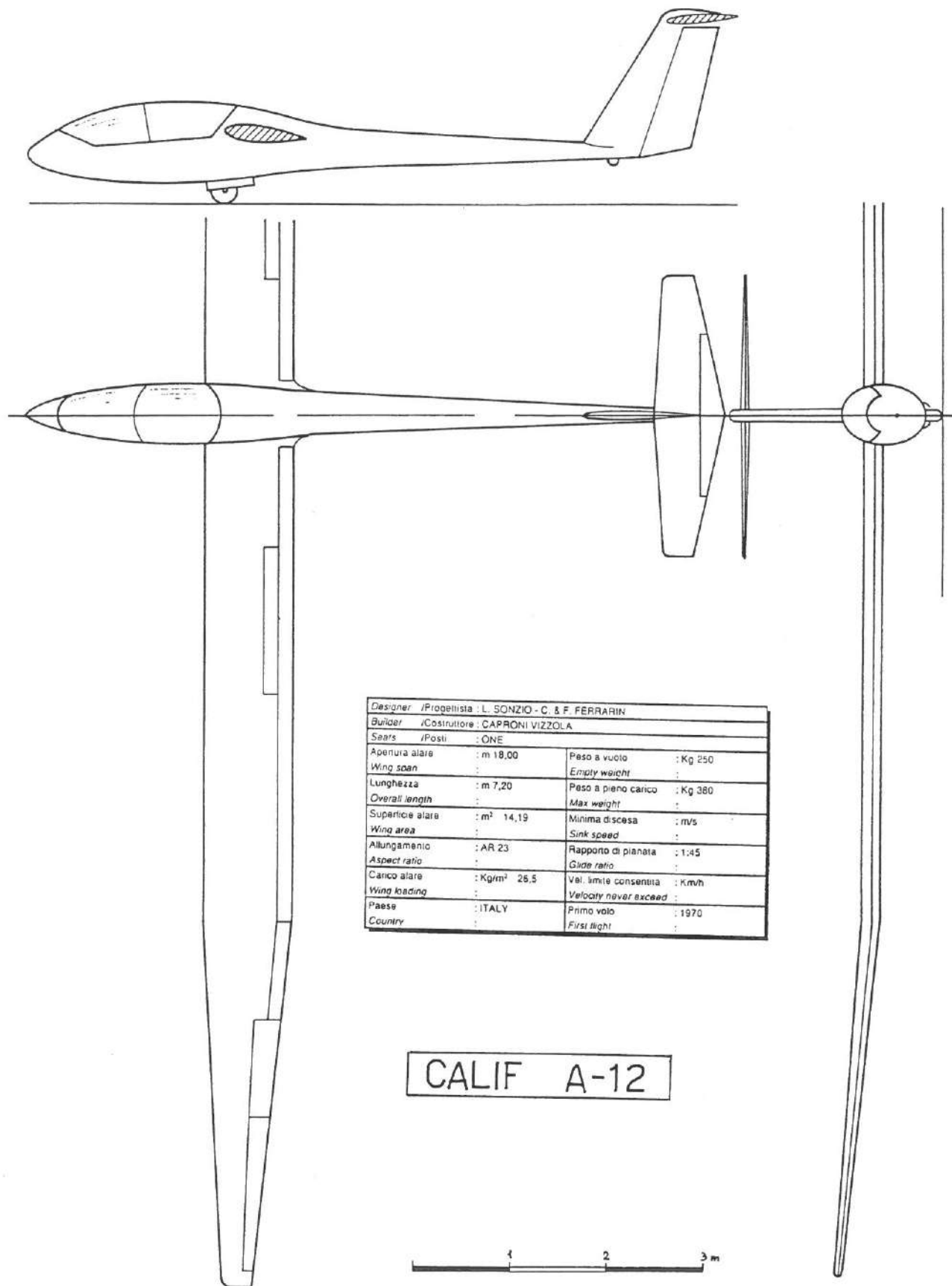
1 2 3 m



Designer	/Progettista : L. SONZIO C. & F. FERRARIN		
Builder	/Costruttore : CAPPONI VIZZOLA		
Seats	/Posi : ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 190
Wing span	:	Empty weight	:
Lunghezza	: m 7,10	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 11,85	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 19	Rapporto di planata	: 1,38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,9	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: Italy	Primo volo	: 1970
Country	:	First flight	:

CALIF A-10

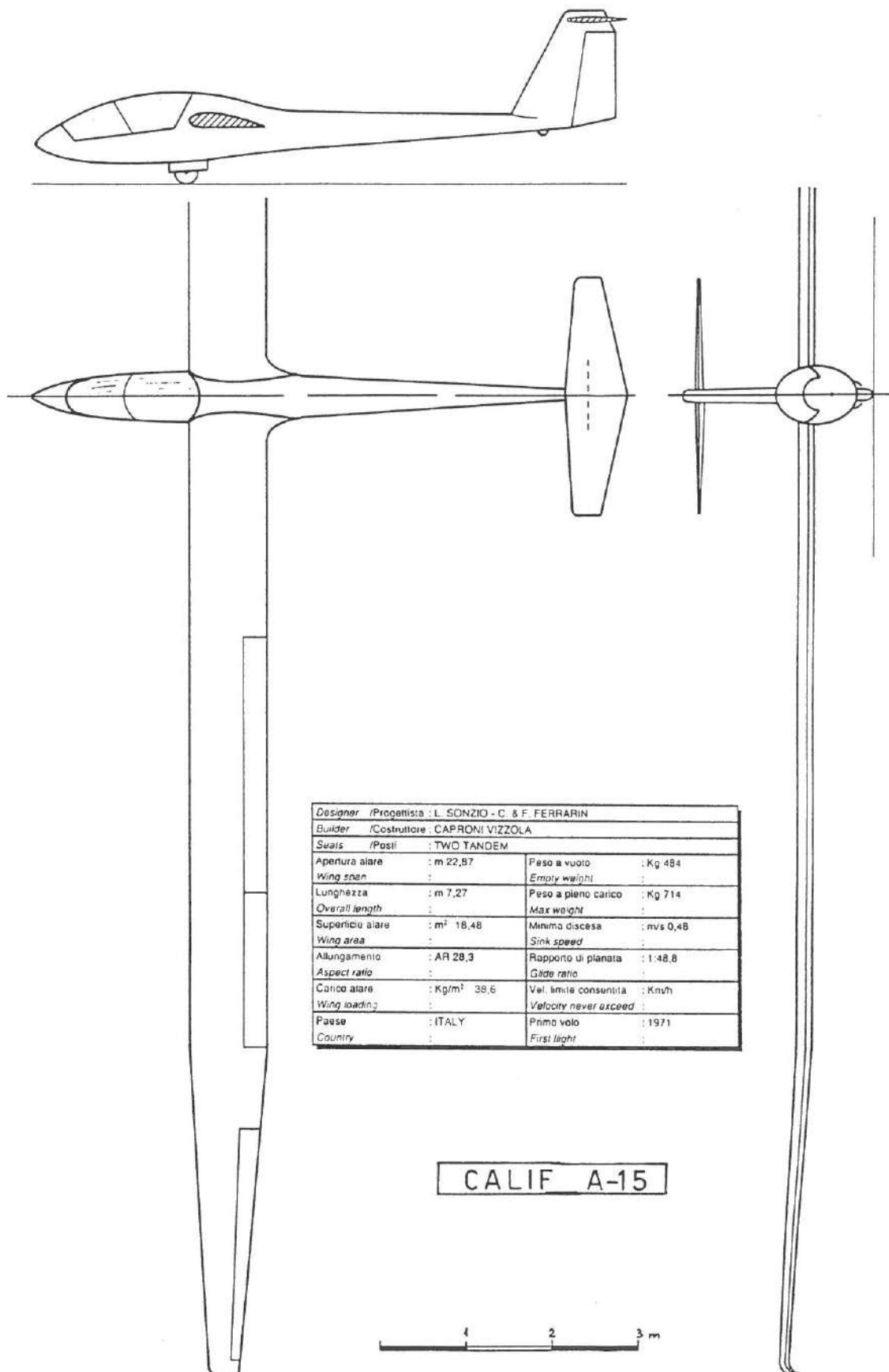
1 2 3 m



Designer / Progettista	: L. SONZIO - C. & F. FERRARIN		
Builder / Costruttore	: CAPRONI VIZZOLA		
Seats / Posti	: ONE		
Apertura alare	: m 18,00	Peso a vuoto	: Kg 250
Wing span	:	Empty weight	:
Lunghezza	: m 7,20	Peso a pieno carico	: Kg 380
Overall length	:	Max weight	:
Superficie alare	: m ² 14,19	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 23	Rapporto di planata	: 1:45
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,5	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1970
Country	:	First flight	:

CALIF A-12

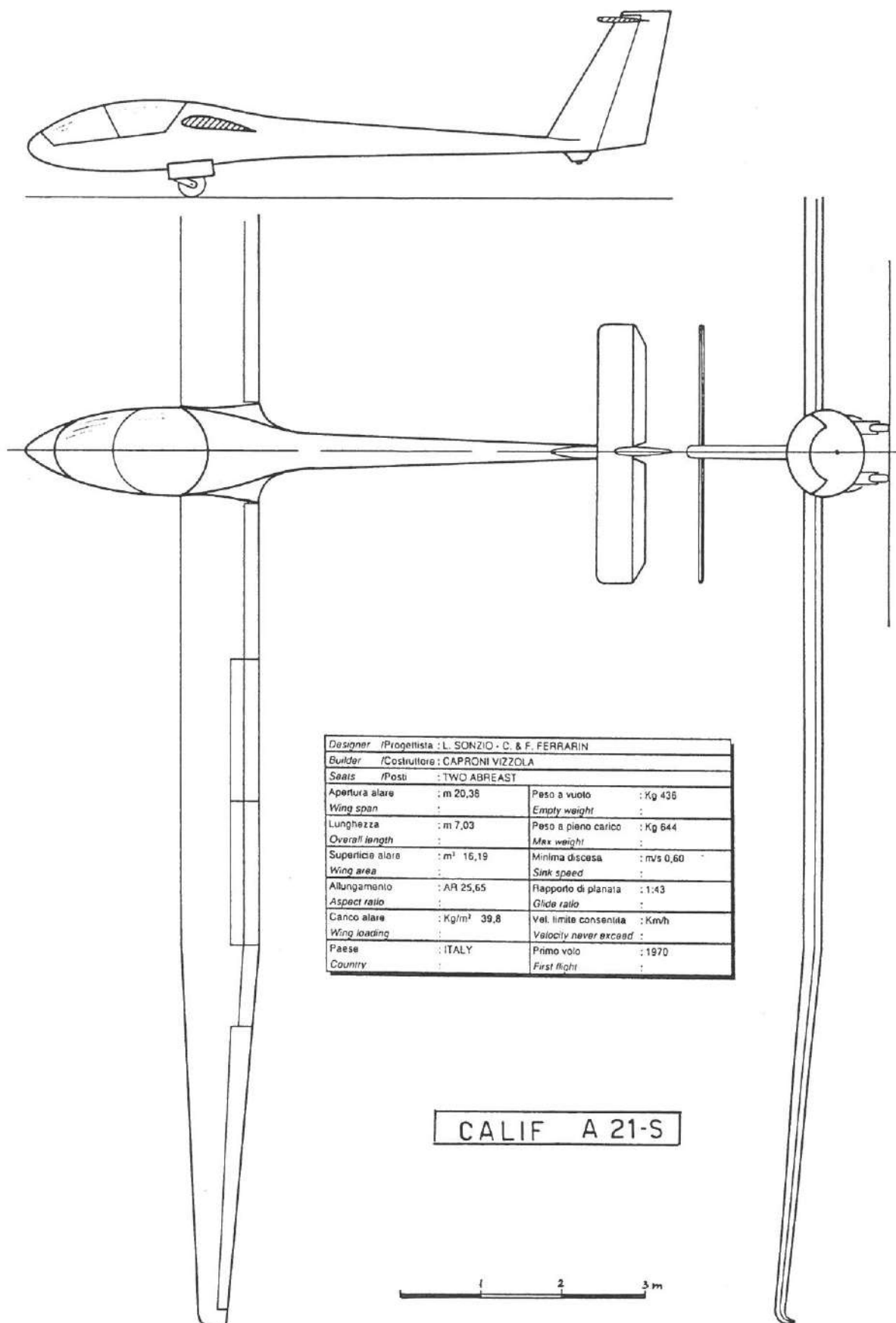
1 2 3 m



Designer / Progettista	: L. SONZIO - C. & F. FERRARIN		
Builder / Costruttore	: CAPRONI VIZZOLA		
Seats / Posti	: TWO TANDEM		
Apertura alare	: m 22,87	Peso a vuoto	: Kg 484
Wing span	:	Empty weight	:
Lunghezza	: m 7,27	Peso a pieno carico	: Kg 714
Overall length	:	Max weight	:
Superficie alare	: m ² 18,48	Minima discesa	: m/s 0,48
Wing area	:	Sink speed	:
Allungamento	: AR 28,3	Rapporto di planata	: 1:48,8
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 38,6	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1971
Country	:	First flight	:

CALIF A-15

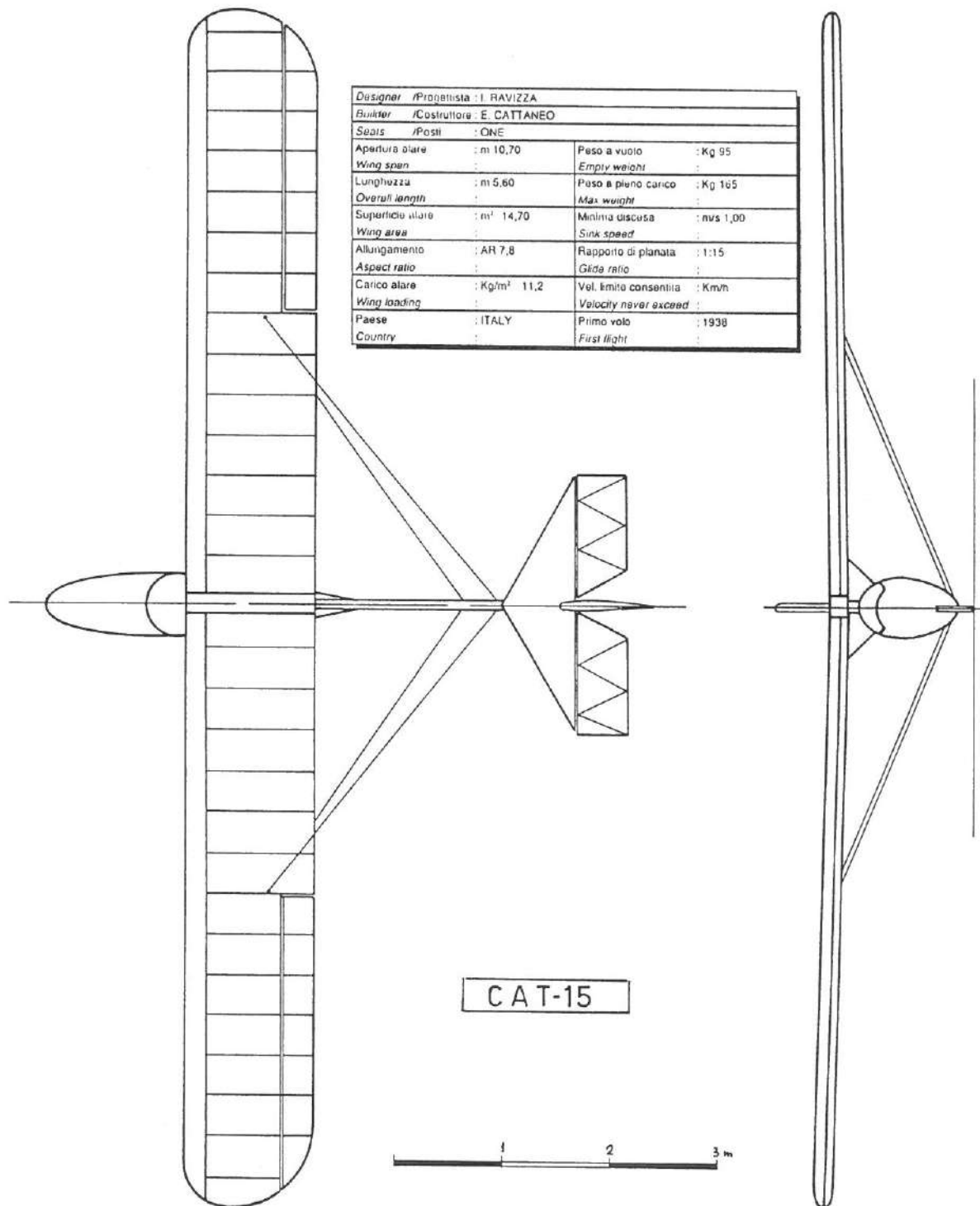
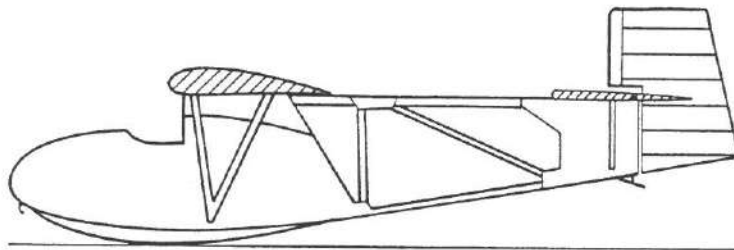
1 2 3 m



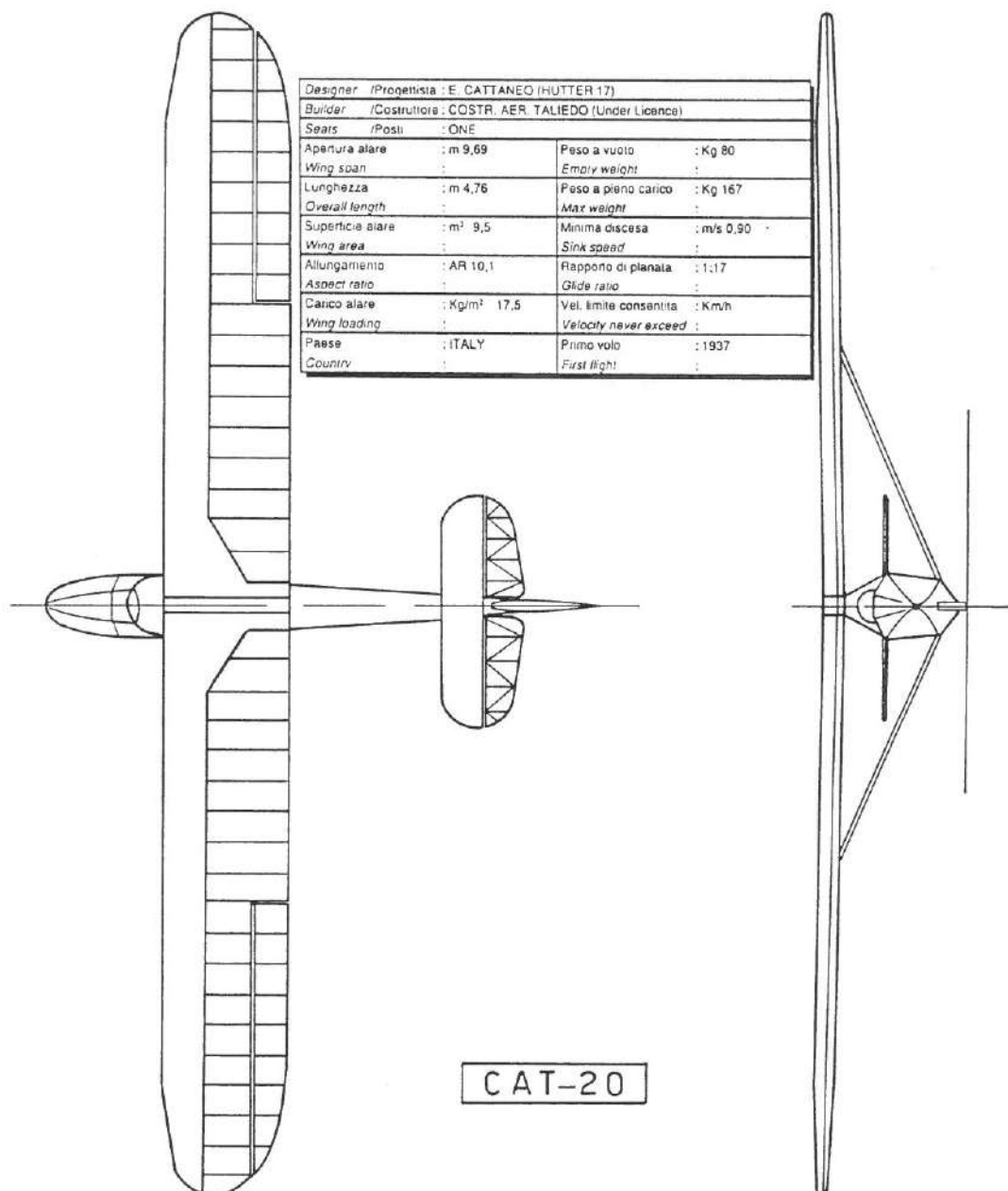
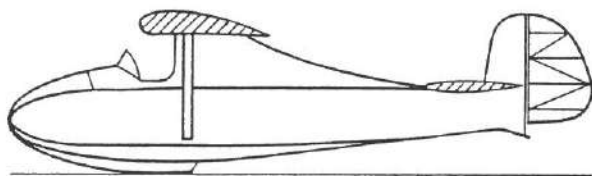
Designer	Progettista : L. SONZIO - C. & F. FERRARIN		
Builder	Costruttore : CAPRONI VIZZOLA		
Seats	Posti : TWO ABREAST		
Apertura alare	: m 20,36	Peso a vuoto	: Kg 436
Wing span	:	Empty weight	:
Lunghezza	: m 7,03	Peso a pieno carico	: Kg 644
Overall length	:	Max weight	:
Superficie alare	: m ² 16,19	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 25,65	Rapporto di planata	: 1:43
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 39,8	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1970
Country	:	First flight	:

CALIF A 21-S

1 2 3 m



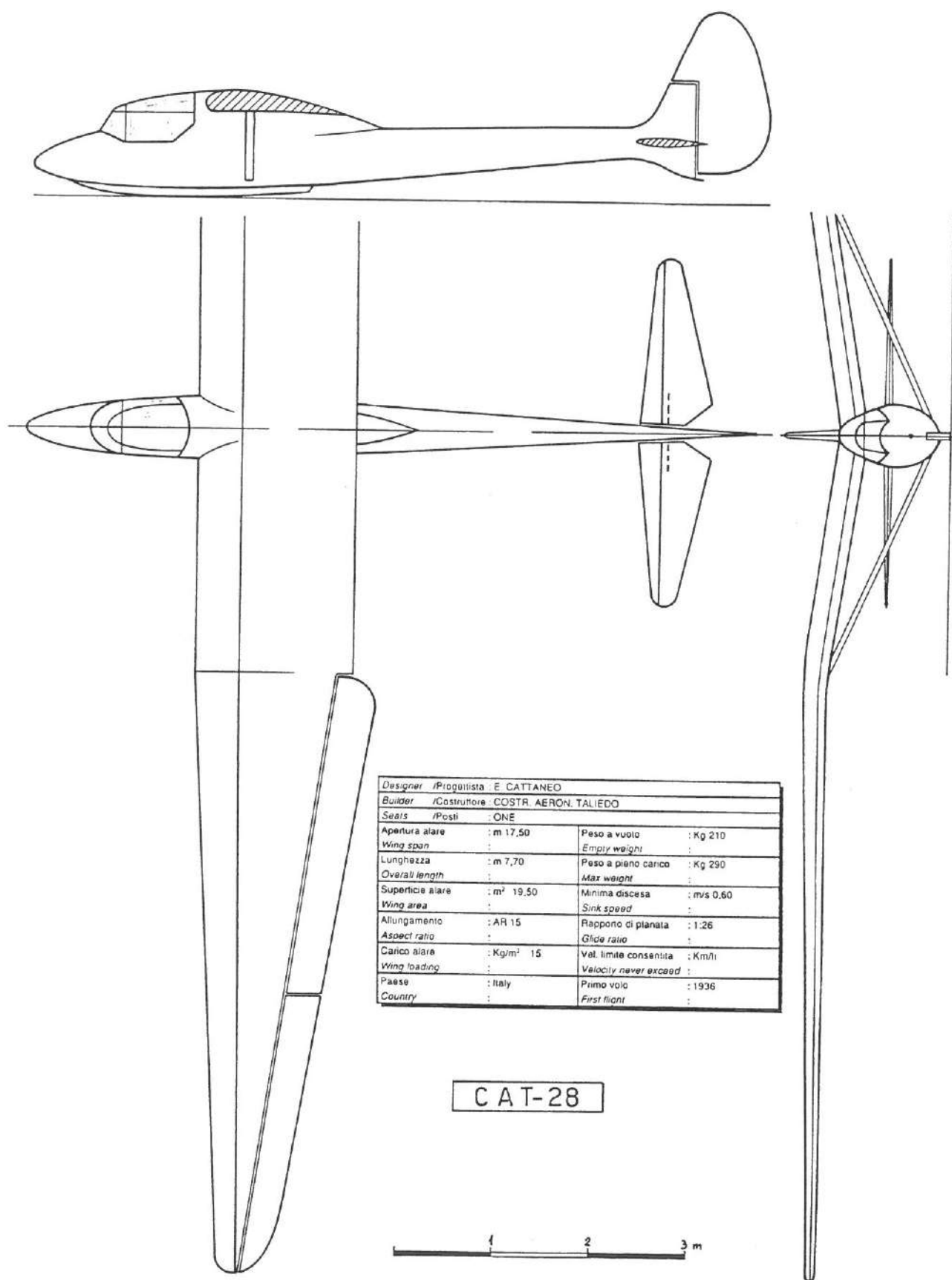
Designer	Progettista : I. RAVIZZA		
Builder	Costruttore : E. CATTANEO		
Seats	Posti : ONE		
Apertura alare	: m 10,70	Peso a vuoto	: Kg 95
Wing span		Empty weight	
Lunghezza	: m 5,60	Peso a pieno carico	: Kg 105
Overall length		Max weight	
Superficie alare	: m ² 14,70	Minima discesa	: nvs 1,00
Wing area		Sink speed	
Allungamento	: AR 7,8	Rapporto di planata	: 1:15
Aspect ratio		Glide ratio	
Carico alare	: Kg/m ² 11,2	Vel. limite consentita	: Km/h
Wing loading		Velocity never exceed	
Paese	: ITALY	Primo volo	: 1938
Country		First flight	



Designer	Progettista : E. CATTANEO (HUTTER-17)		
Builder	Costruttore : COSTR. AER. TALIEDO (Under Licence)		
Seats	Posti	ONE	
Apertura alare	: m 9,69	Peso a vuoto	: Kg 80
Wing span	:	Empty weight	:
Lunghezza	: m 4,76	Peso a pieno carico	: Kg 167
Overall length	:	Max weight	:
Superficie alare	: m ² 9,5	Minima discesa	: m/s 0,90
Wing area	:	Sink speed	:
Allungamento	: AR 10,1	Rapporto di planata	: 1:17
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 17,5	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1937
Country	:	First flight	:

CAT-20

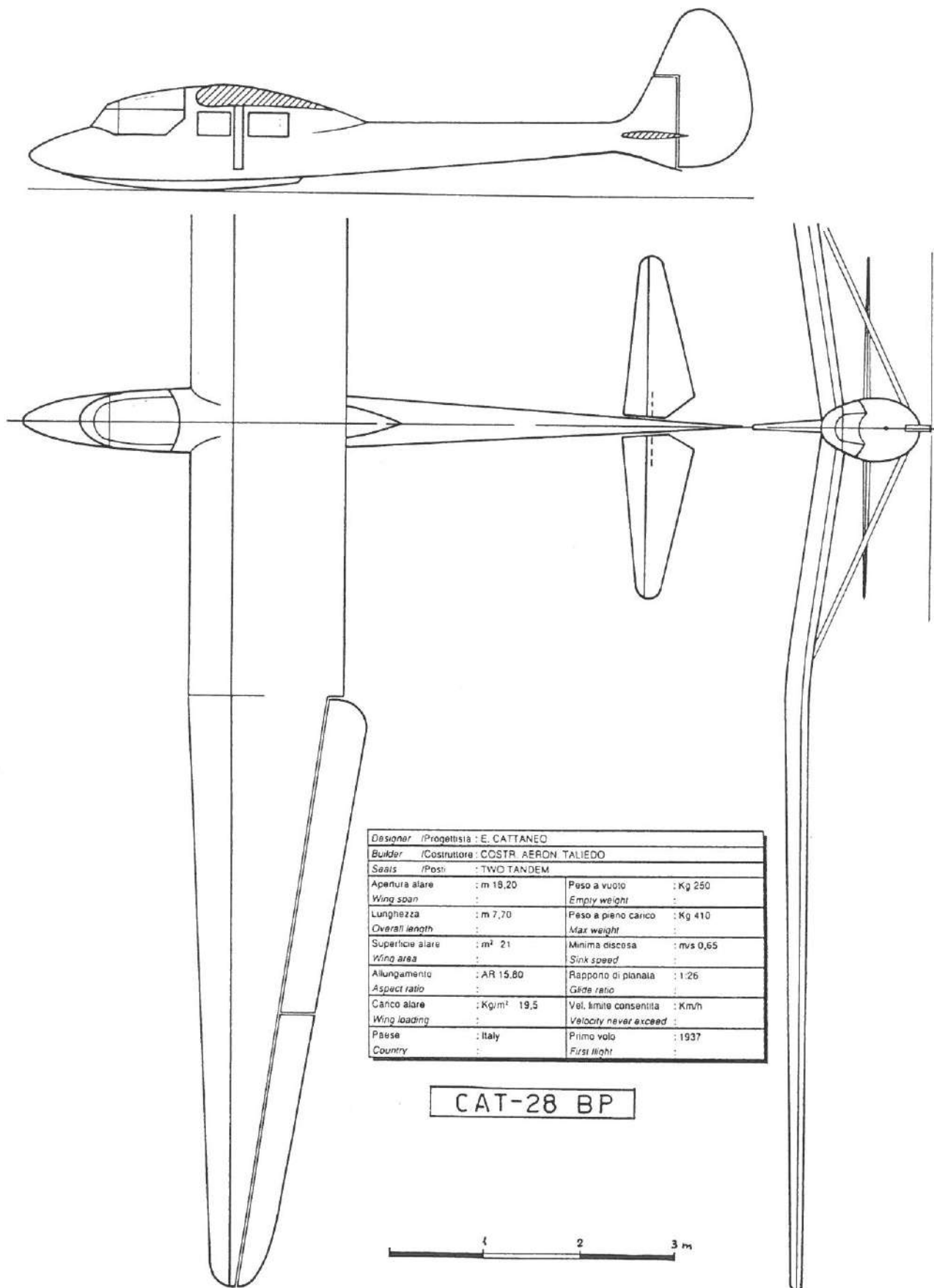




Designer / Progettista	E. CATTANEO		
Builder / Costruttore	COSTR. AERON. TALIEDO		
Seats / Posti	ONE		
Apertura alare	: m 17,50	Peso a vuoto	: Kg 210
Wing span	:	Empty weight	:
Lunghezza	: m 7,70	Peso a pieno carico	: Kg 290
Overall length	:	Max weight	:
Superficie alare	: m ² 19,50	Minima discesa	: mvs 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 15	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: Italy	Primo volo	: 1936
Country	:	First flight	:

CAT-28

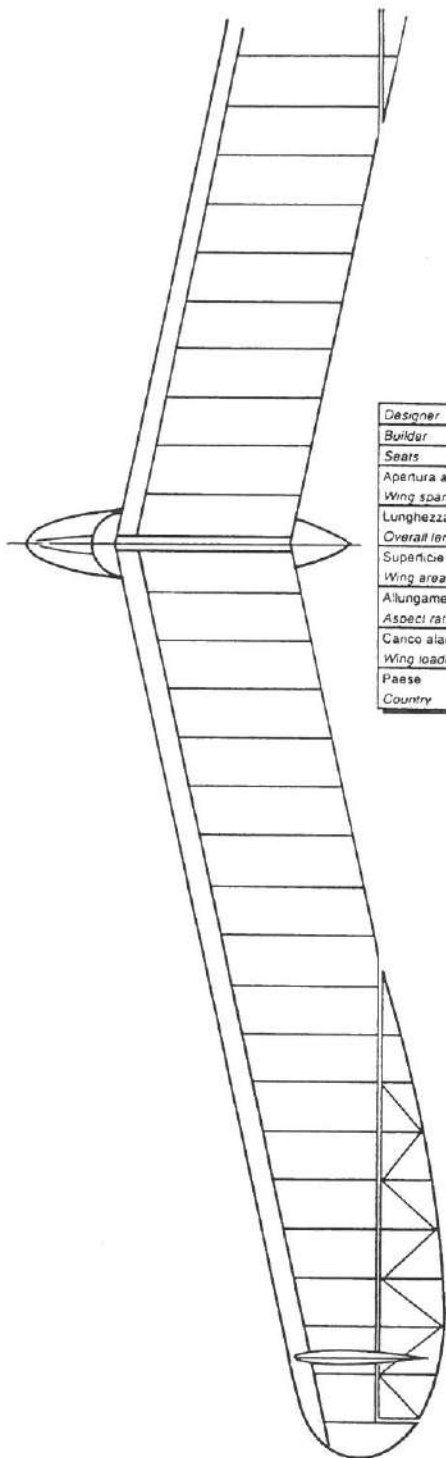
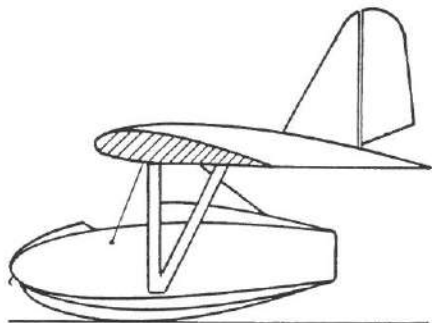
1 2 3 m



Designer	Progettista : E. CATTANEO		
Builder	Costruttore : COSTR. AERON. TALIEDO		
Seats	Posti	TWO TANDEM	
Apertura alare	: m 18,20	Peso a vuoto	: Kg 250
Wing span	:	Empty weight	:
Lunghezza	: m 7,70	Peso a pieno carico	: Kg 410
Overall length	:	Max weight	:
Superficie alare	: m ² 21	Minima discosa	: mvs 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 15,80	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 19,5	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: Italy	Primo volo	: 1937
Country	:	First flight	:

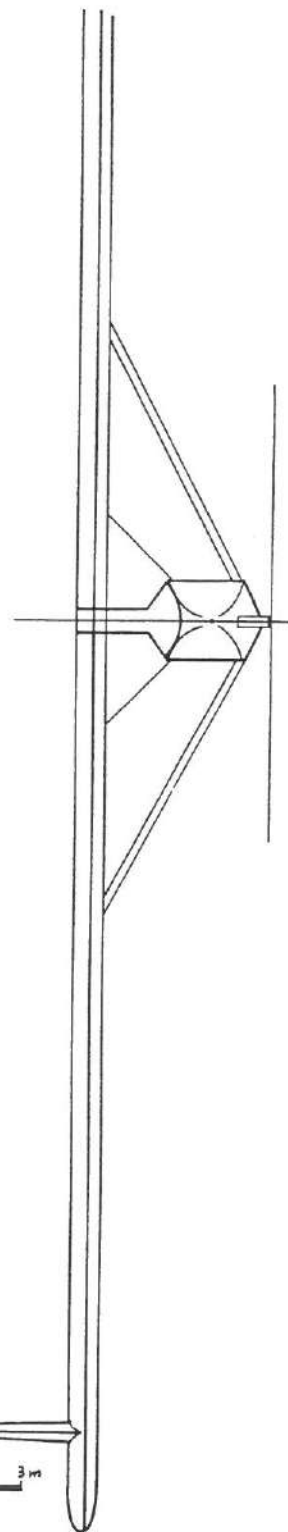
CAT-28 BP

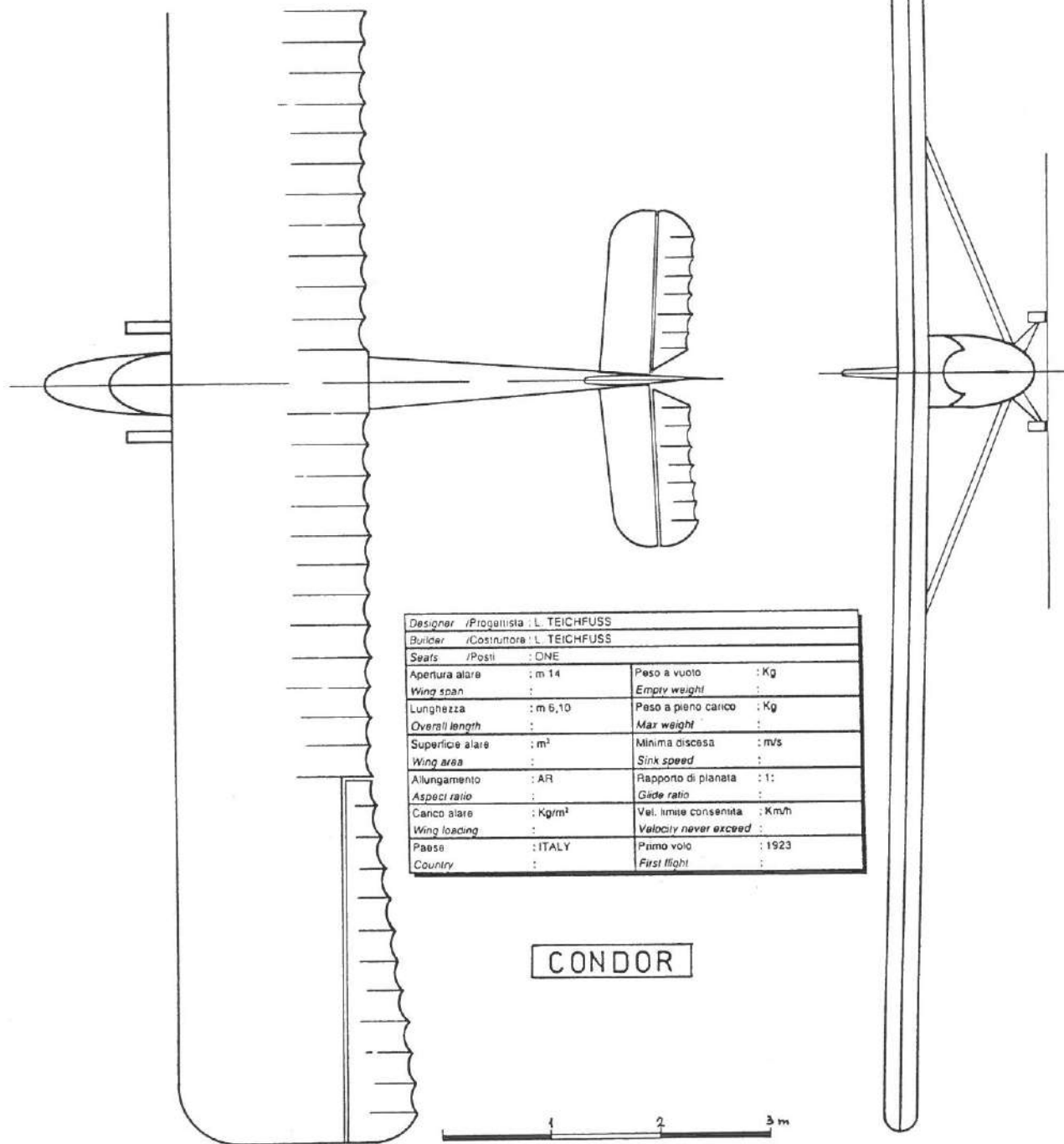
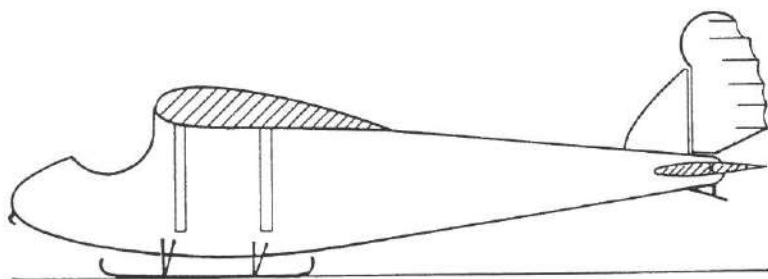
1 2 3 m



Designer /Progettista : L. TEICHFUSS			
Builder /Costruttore : L. TEICHFUSS			
Seats /Posti : ONE			
Apertura alare : m 14		Peso a vuoto : Kg	
Wing span :		Empty weight :	
Lunghezza : m		Peso a pieno carico : Kg	
Overall length :		Max weight :	
Superficie alare : m² 18		Minima discesa : m/s	
Wing area :		Sink speed :	
Allungamento : AR 10,9		Rapporto di planata : 1:	
Aspect ratio :		Glide ratio :	
Carico alare : Kg/m²		Vel. limite consentita : Km/h	
Wing loading :		Velocity never exceed :	
Paese : ITALY		Primo volo : 1929	
Country :		First flight :	

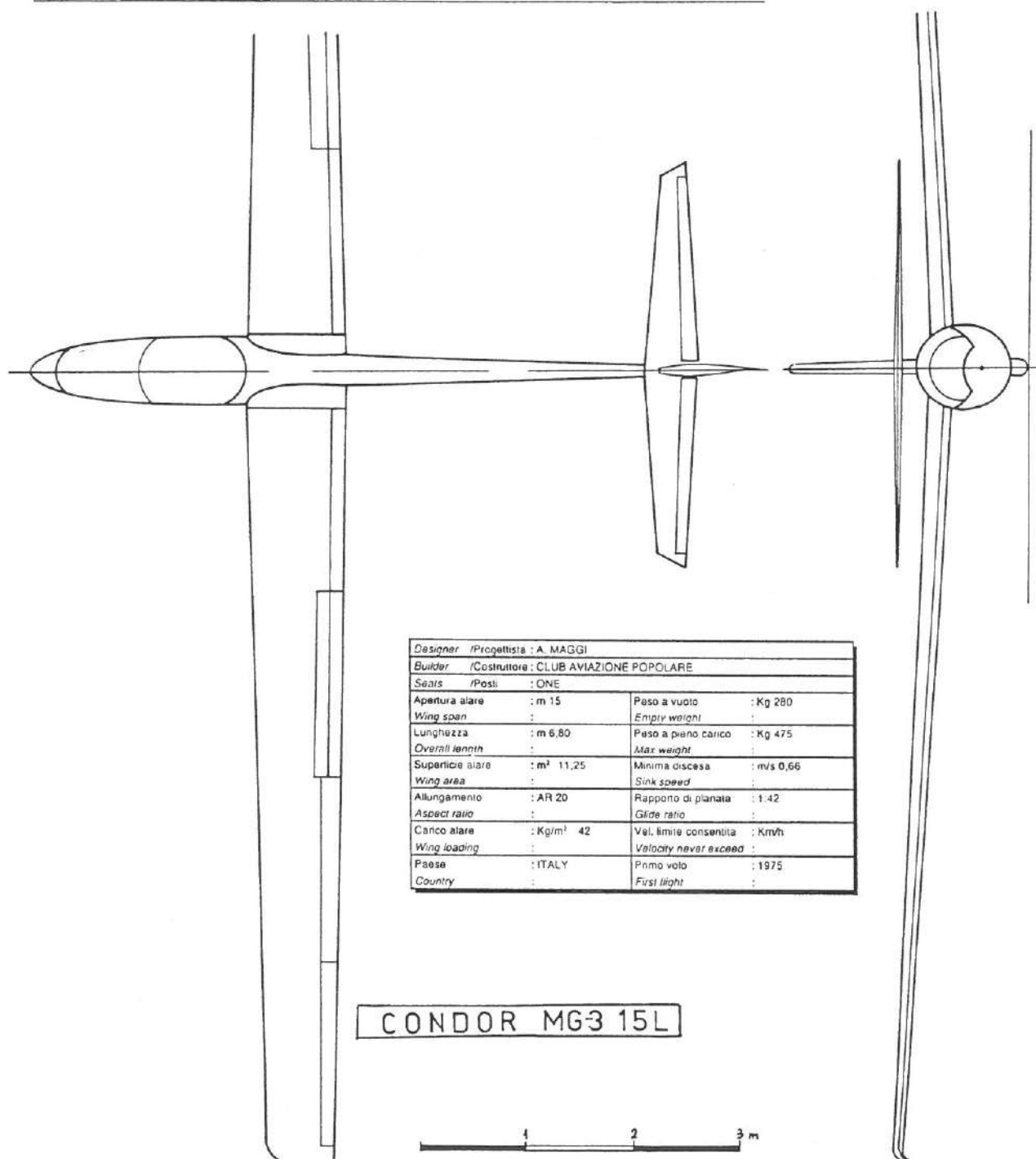
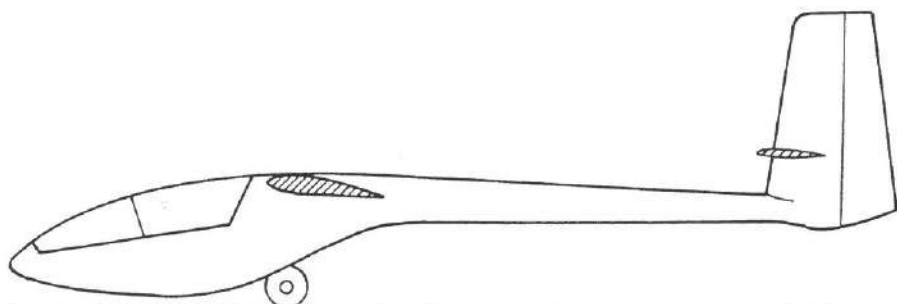
CICOGNA





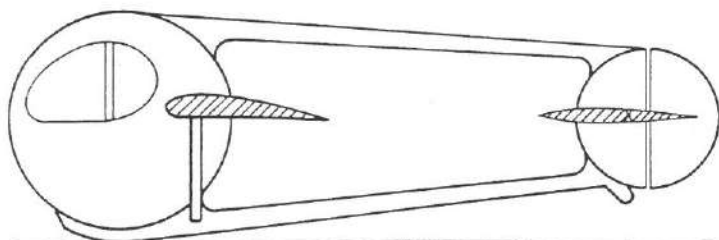
Designer	Progettista : L. TEICHFUSS	
Builder	Costruttore : L. TEICHFUSS	
Seats	Posti : ONE	
Apertura alare	: m 14	Peso a vuoto : Kg
Wing span	:	Empty weight :
Lunghezza	: m 6,10	Peso a pieno carico : Kg
Overall length	:	Max weight :
Superficie alare	: m ²	Minima discesa : m/s
Wing area	:	Sink speed :
Allungamento	: AR	Rapporto di planata : 1:
Aspect ratio	:	Glide ratio :
Carico alare	: Kg/m ²	Vel. limite consentita : Km/h
Wing loading	:	Velocity never exceed :
Paese	: ITALY	Primo volo : 1923
Country	:	First flight :

CONDOR

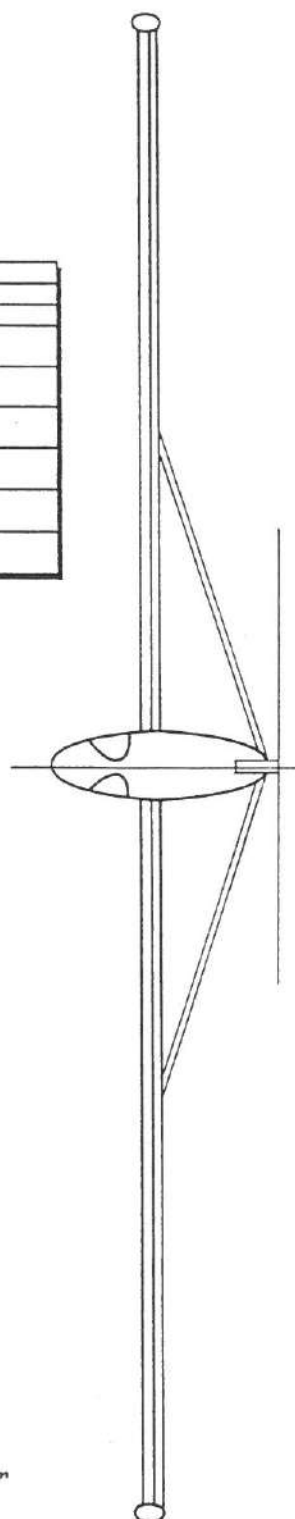
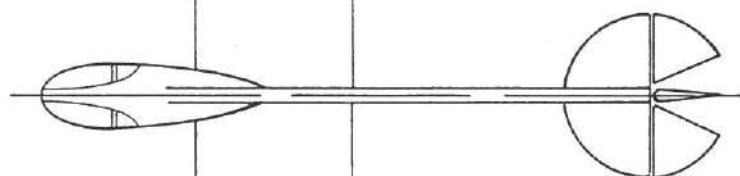


Designer / Progettista : A. MAGGI			
Builder / Costruttore : CLUB AVIAZIONE POPOLARE			
Seats / Posti : ONE			
Apertura alare	: m 15	Peso a vuoto	: Kg 280
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg 475
Overall length	:	Max weight	:
Superficie alare	: m ² 11,25	Minima discesa	: m/s 0,66
Wing area	:	Sink speed	:
Allungamento	: AR 20	Rapporto di planata	: 1:42
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 42	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1975
Country	:	First flight	:

CONDOR MG3 15L

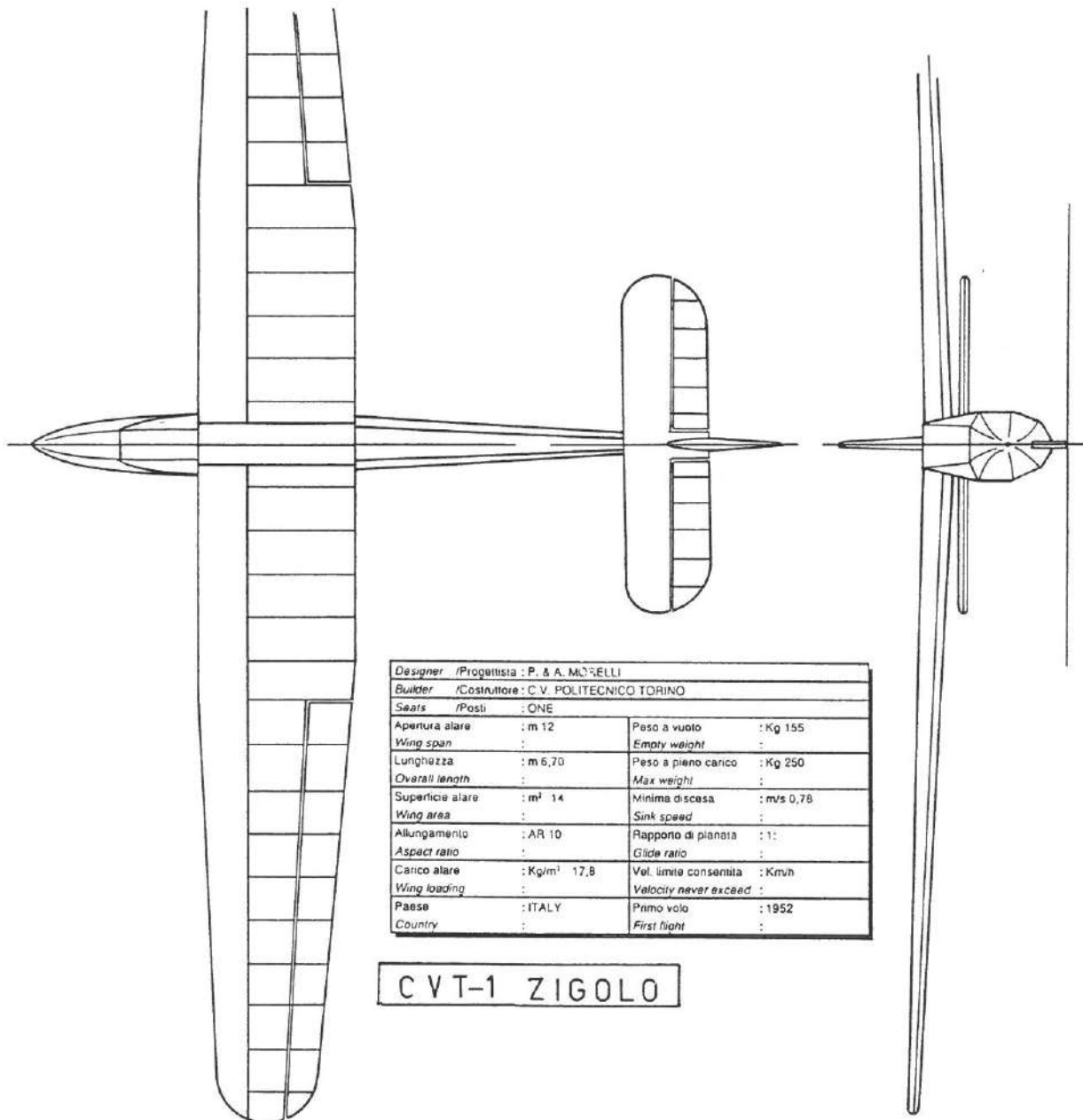
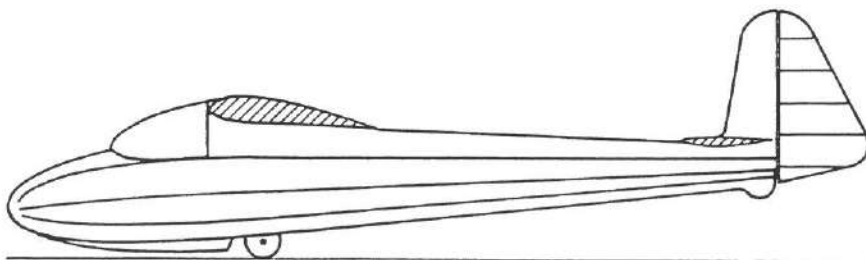


Designer	iProgettista : RACITI		
Builder	iCostruttore : COMP. APUANA RESINE PLASTICHE		
Seats	iPosti : ONE		
Apertura alare	: m 11,50	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 5,30	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 11,50	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 11,5	Rapporto di planata	: 1:15
Aspett ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1952
Country	:	First flight	:



CR-1 GRIFONE

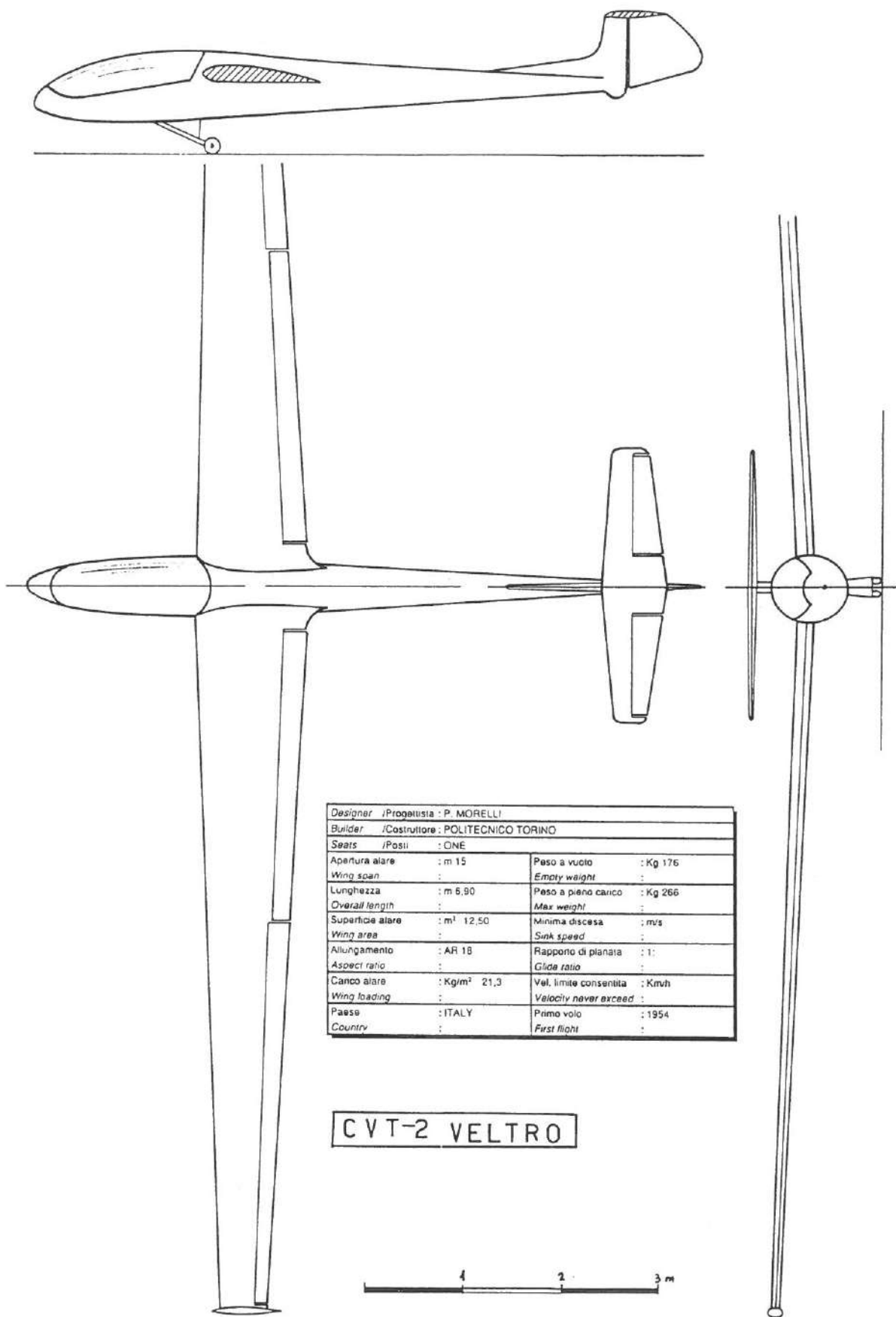
1 2 3m



Designer /Progettista : P. & A. MORRELLI			
Builder /Costruttore : C.V. POLITECNICO TORINO			
Seats /Posti	ONE		
Apertura alare	: m 12	Peso a vuoto	: Kg 155
Wing span	:	Empty weight	:
Lunghezza	: m 6,70	Peso a pieno carico	: Kg 250
Overall length	:	Max weight	:
Superficie alare	: m ² 14	Minima discesa	: m/s 0,78
Wing area	:	Sink speed	:
Allungamento	: AR 10	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 17,8	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1952
Country	:	First flight	:

CVT-1 ZIGOLO

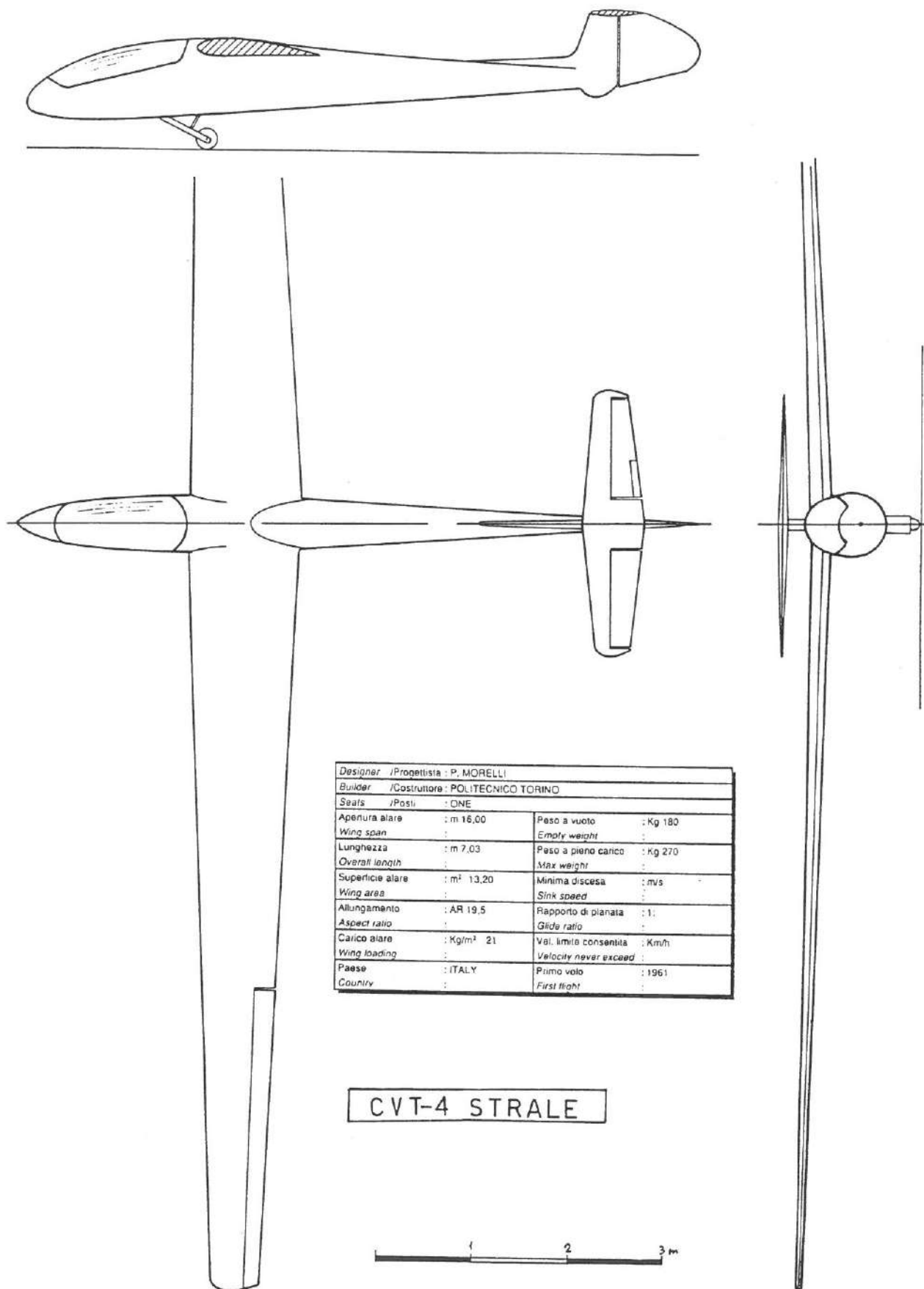




Designer / Progettista : P. MORELLI			
Builder / Costruttore : POLITECNICO TORINO			
Seats / Positi : ONE			
Apertura alare	: m 15	Peso a vuoto	: Kg 176
Wing span	:	Empty weight	:
Lunghezza	: m 6,90	Peso a pieno carico	: Kg 266
Overall length	:	Max weight	:
Superficie alare	: m ² 12,50	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 18	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 21,3	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1954
Country	:	First flight	:

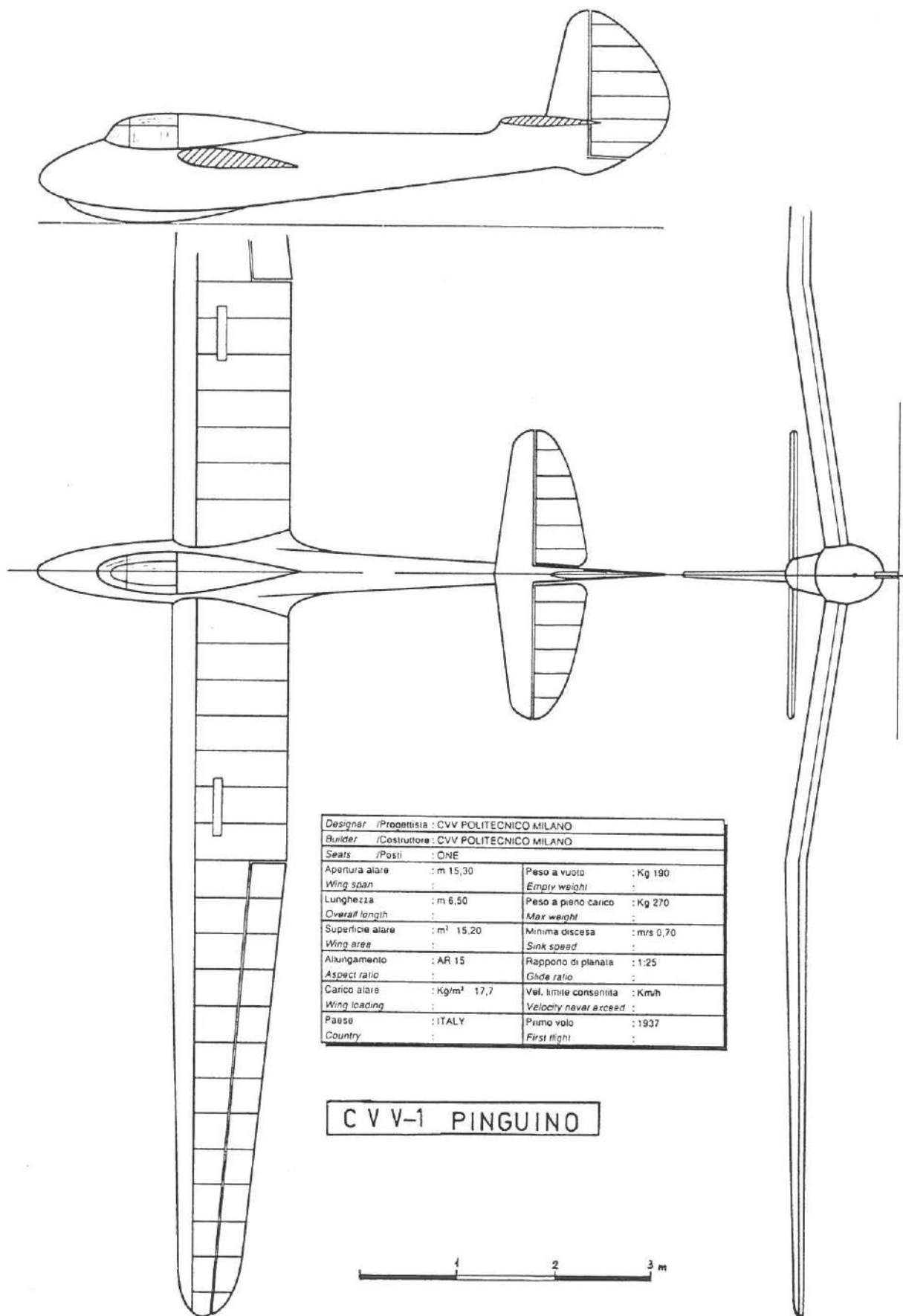
CVT-2 VELTRO

4 2 3 m



Designer : /Progettista : P. MORELLI			
Builder : /Costruttore : POLITECNICO TORINO			
Seats : /Posti : ONE			
Apertura alare	: m 16,00	Peso a vuoto	: Kg 180
Wing span	:	Empty weight	:
Lunghezza	: m 7,03	Peso a pieno carico	: Kg 270
Overall length	:	Max weight	:
Superficie alare	: m ² 13,20	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 19,5	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 21	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1961
Country	:	First flight	:

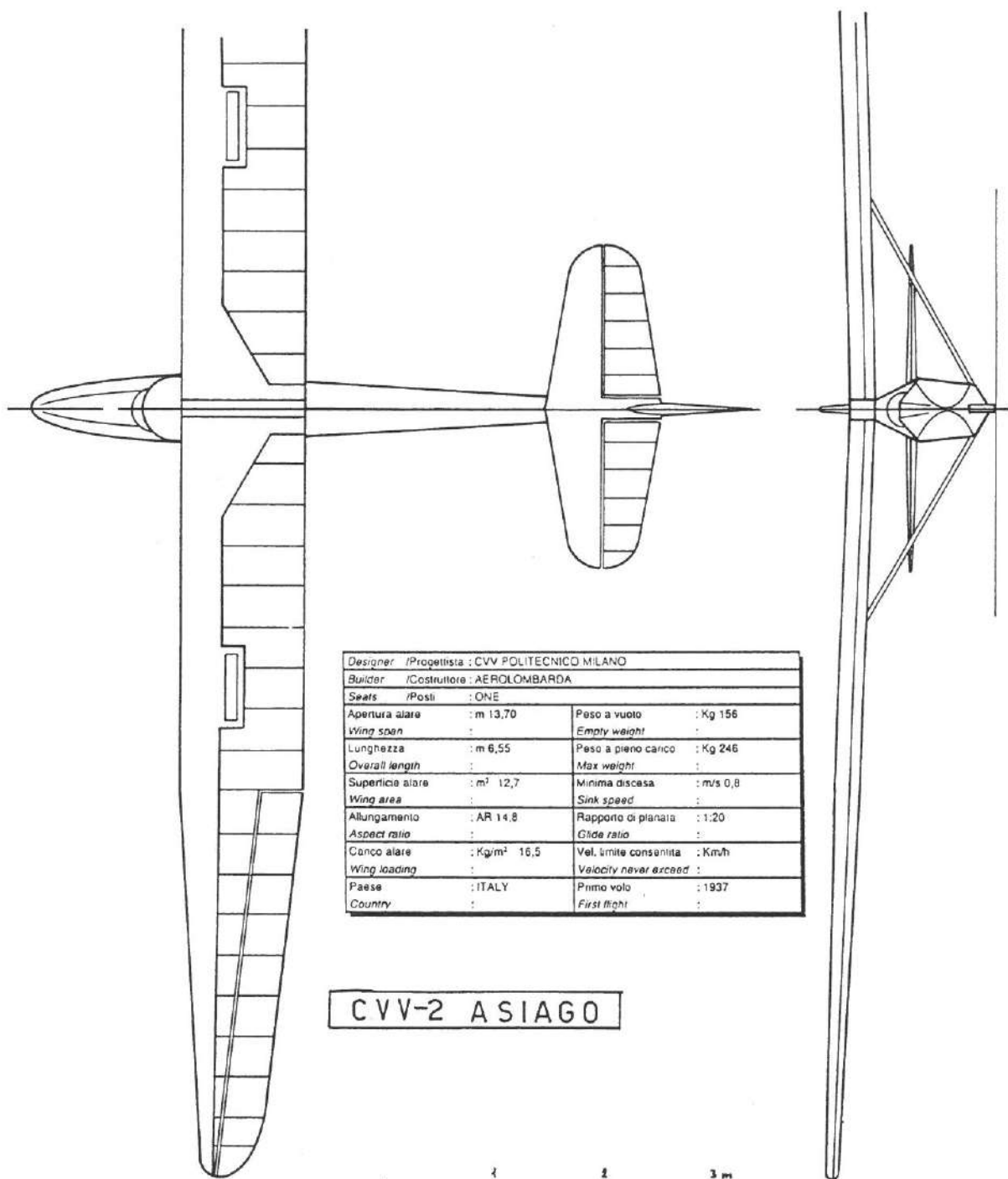
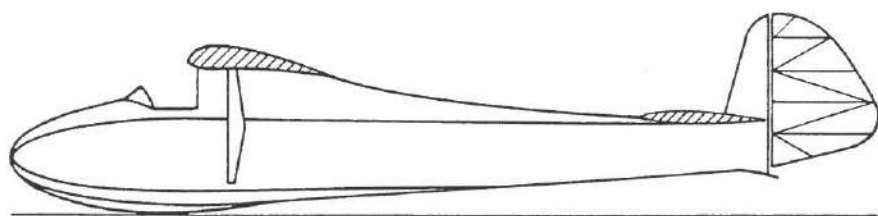
CVT-4 STRALE



Designer	iProgettista : CVV POLITECNICO MILANO				
Builder	iCostruttore : CVV POLITECNICO MILANO				
Seats	/Posti	: ONE			
Apertura alare	: m	15,30	Peso a vuoto	: Kg	190
Wing span	:		Empty weight	:	
Lunghezza	: m	6,50	Peso a pieno carico	: Kg	270
Overall length	:		Max weight	:	
Superficie alare	: m ²	15,20	Minima discesa	: m/s	0,70
Wing area	:		Sink speed	:	
Allungamento	: AR	15	Rapporto di planata	: 1:	25
Aspect ratio	:		Glide ratio	:	
Carico alare	: Kg/m ²	17,7	Vel. limite consentita	: Km/h	
Wing loading	:		Velocity never exceed	:	
Paese	: ITALY		Primo volo	: 1937	
Country	:		First flight	:	

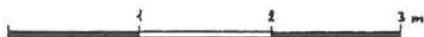
CVV-1 PINGUINO

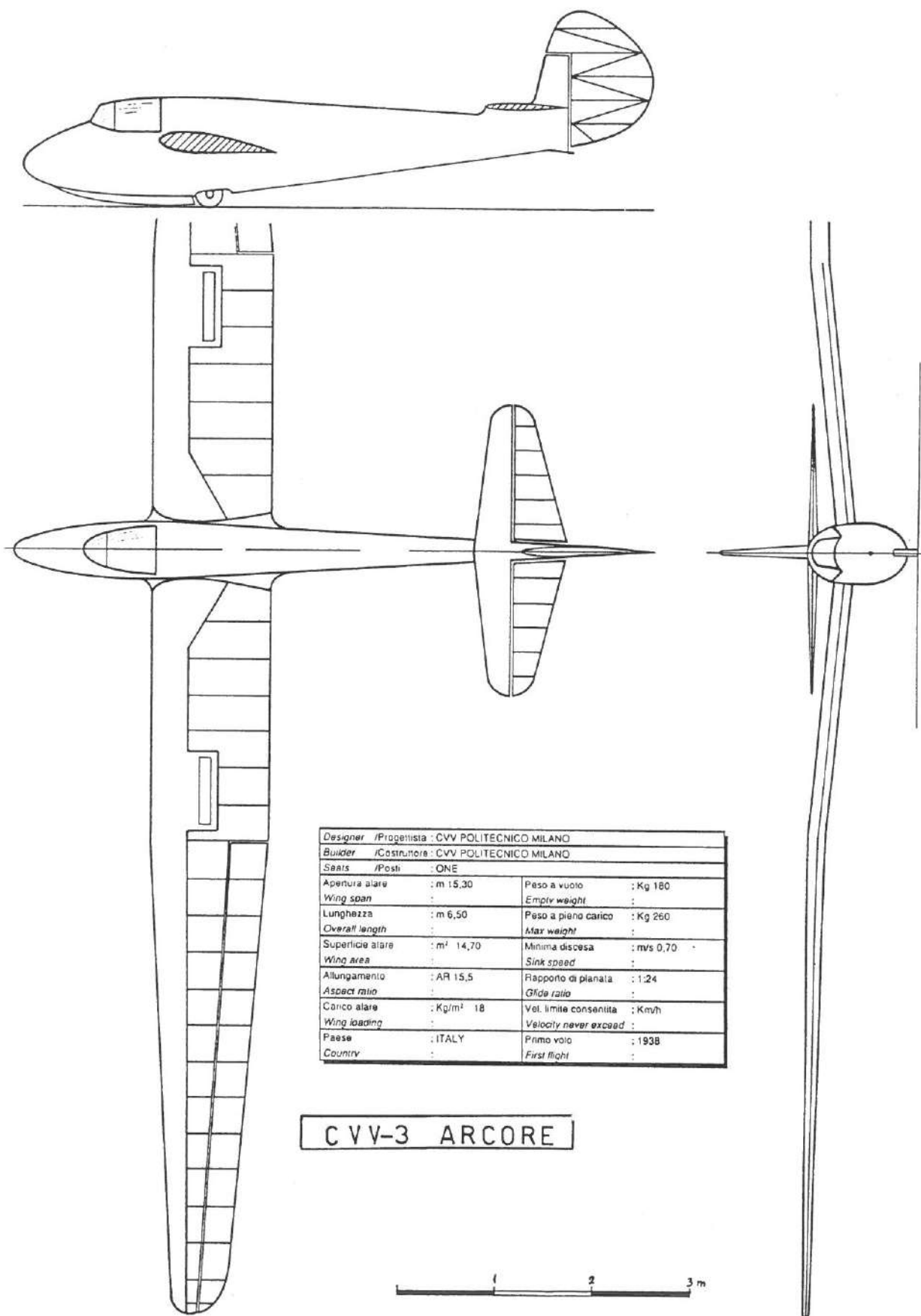
1 2 3 m



Designer /Progettista : CVV POLITECNICO MILANO			
Builder /Costruttore : AEROLOMBARDA			
Seats /Posti	: ONE		
Apertura alare	: m 13,70	Peso a vuoto	: Kg 156
Wing span	:	Empty weight	:
Lunghezza	: m 6,55	Peso a pieno carico	: Kg 246
Overall length	:	Max weight	:
Superficie alare	: m ² 12,7	Minima discesa	: m/s 0,8
Wing area	:	Sink speed	:
Allungamento	: AR 14,8	Rapporto di planata	: 1:20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 16,5	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1937
Country	:	First flight	:

CVV-2 ASIAGO

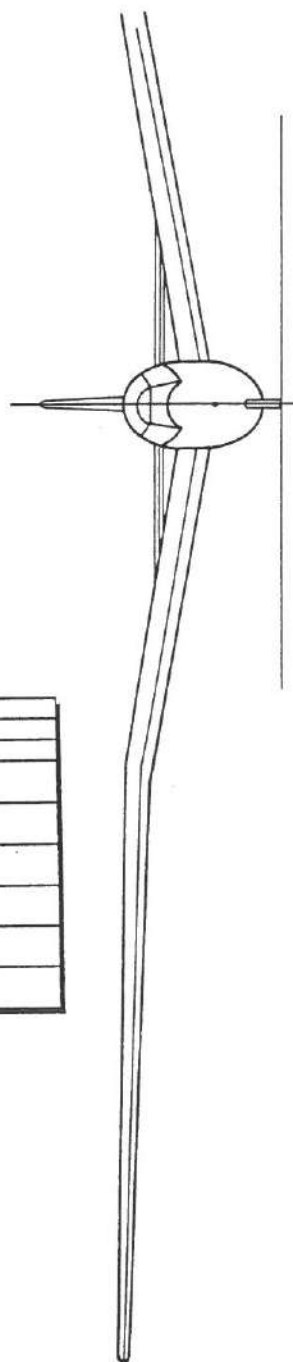
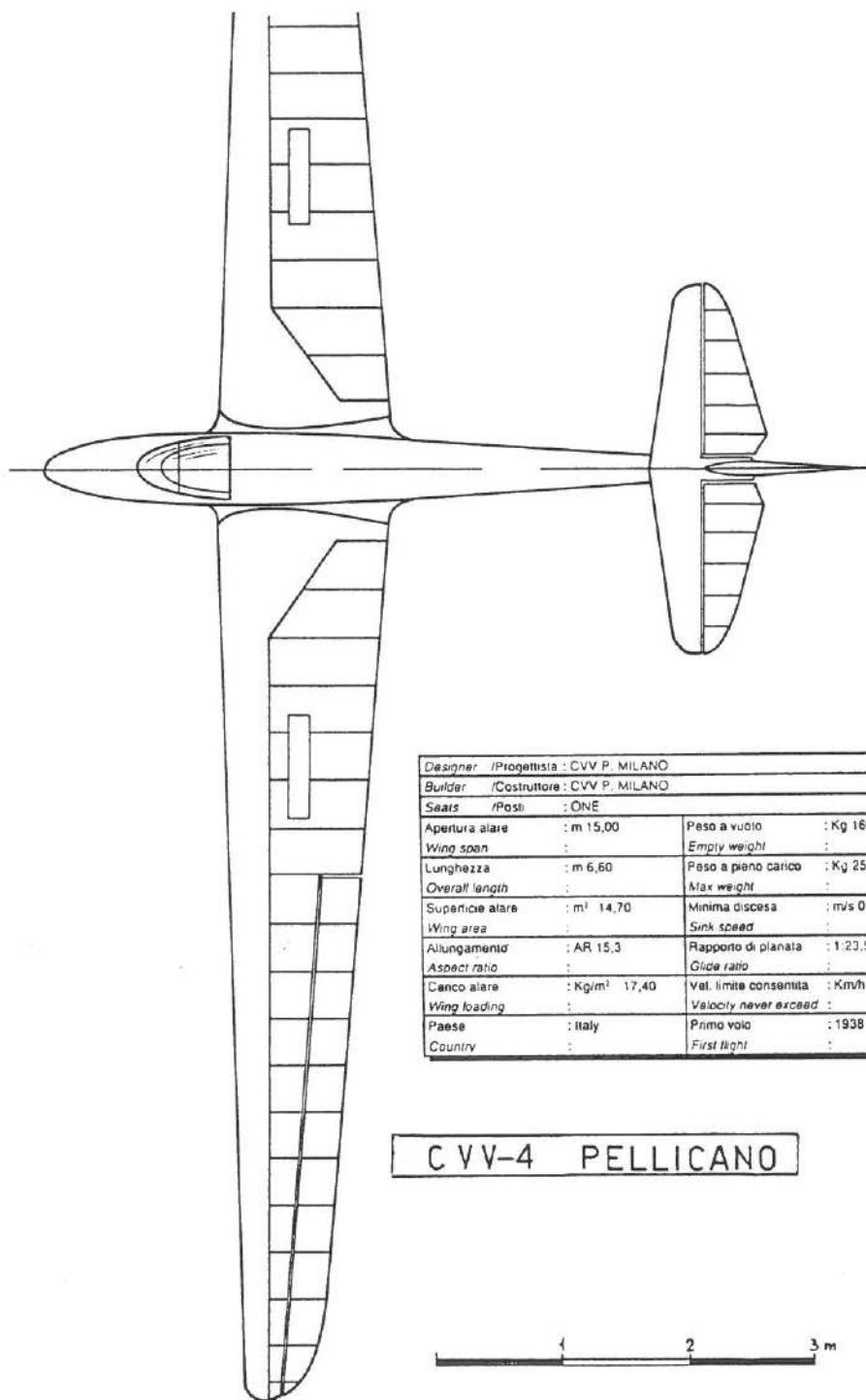
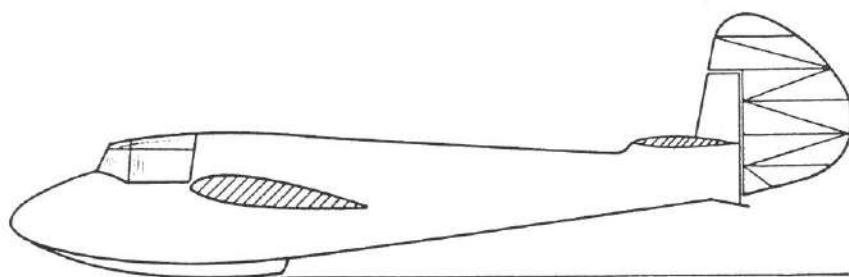




Designer / Progettista	CVV POLITECNICO MILANO		
Builder / Costruttore	CVV POLITECNICO MILANO		
Seats / Posti	ONE		
Apertura alare	: m 15,30	Peso a vuoto	: Kg 180
Wing span	:	Empty weight	:
Lunghezza	: m 6,50	Peso a pieno carico	: Kg 260
Overall length	:	Max weight	:
Superficie alare	: m ² 14,70	Minima discesa	: mvs 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 15,5	Rapporto di planata	: 1:24
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1938
Country	:	First flight	:

CVV-3 ARCORE

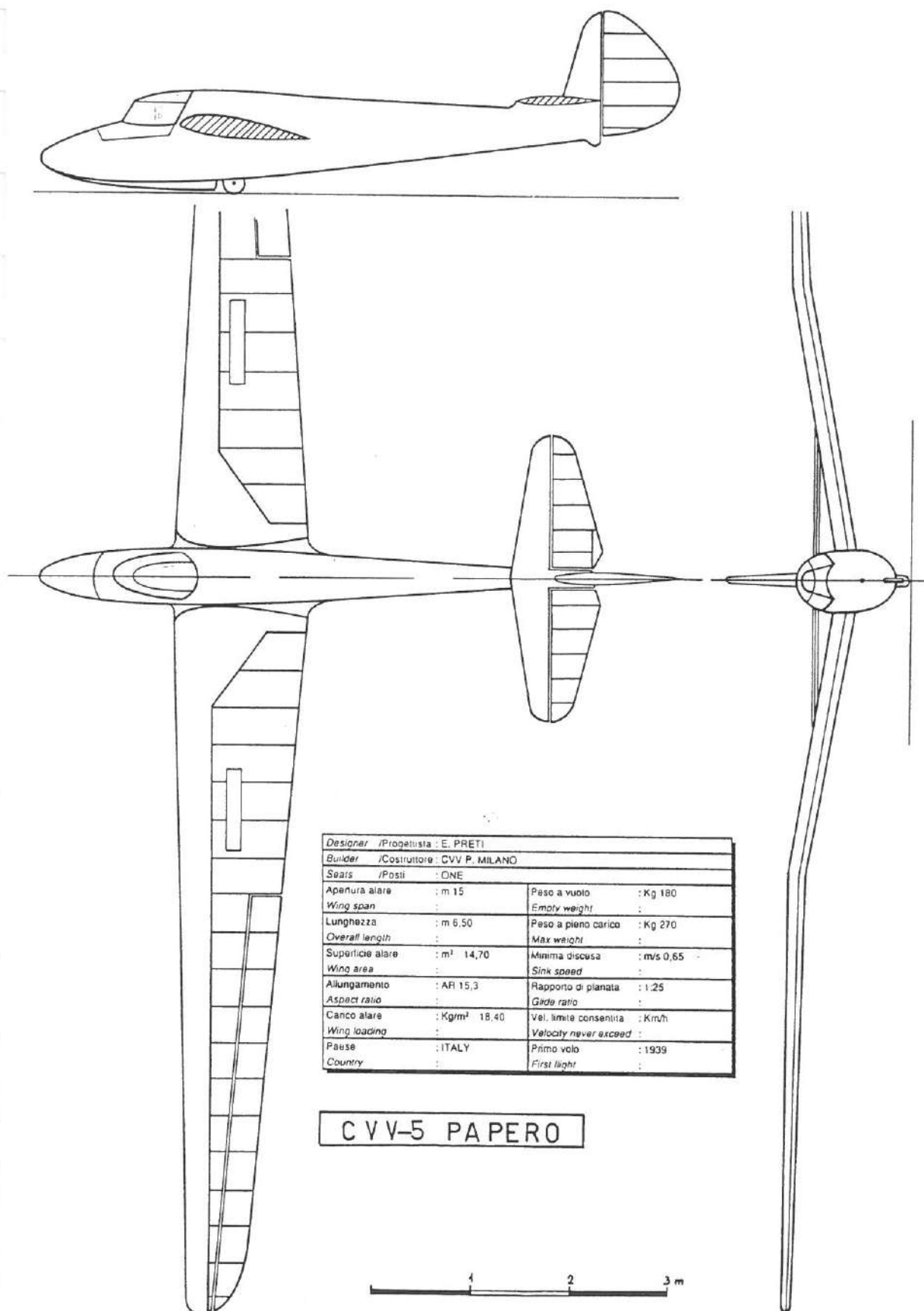
1 2 3 m



Designer / Progettista : CVV P. MILANO	
Builder / Costruttore : CVV P. MILANO	
Seats / Posti : ONE	
Apertura alare : m 15,00	Peso a vuoto : Kg 160
Wing span :	Empty weight :
Lunghezza : m 6,60	Peso a pieno carico : Kg 255
Overall length :	Max weight :
Superficie alare : m ² 14,70	Minima discesa : m/s 0,70
Wing area :	Sink speed :
Allungamento : AR 15,3	Rapporto di planata : 1:23,5
Aspect ratio :	Glide ratio :
Cenno alare : Kg/m ² 17,40	Vel. limite consentita : Km/h
Wing loading :	Velocity never exceed :
Paese : Italy	Primo volo : 1938
Country :	First flight :

CVV-4 PELLICANO

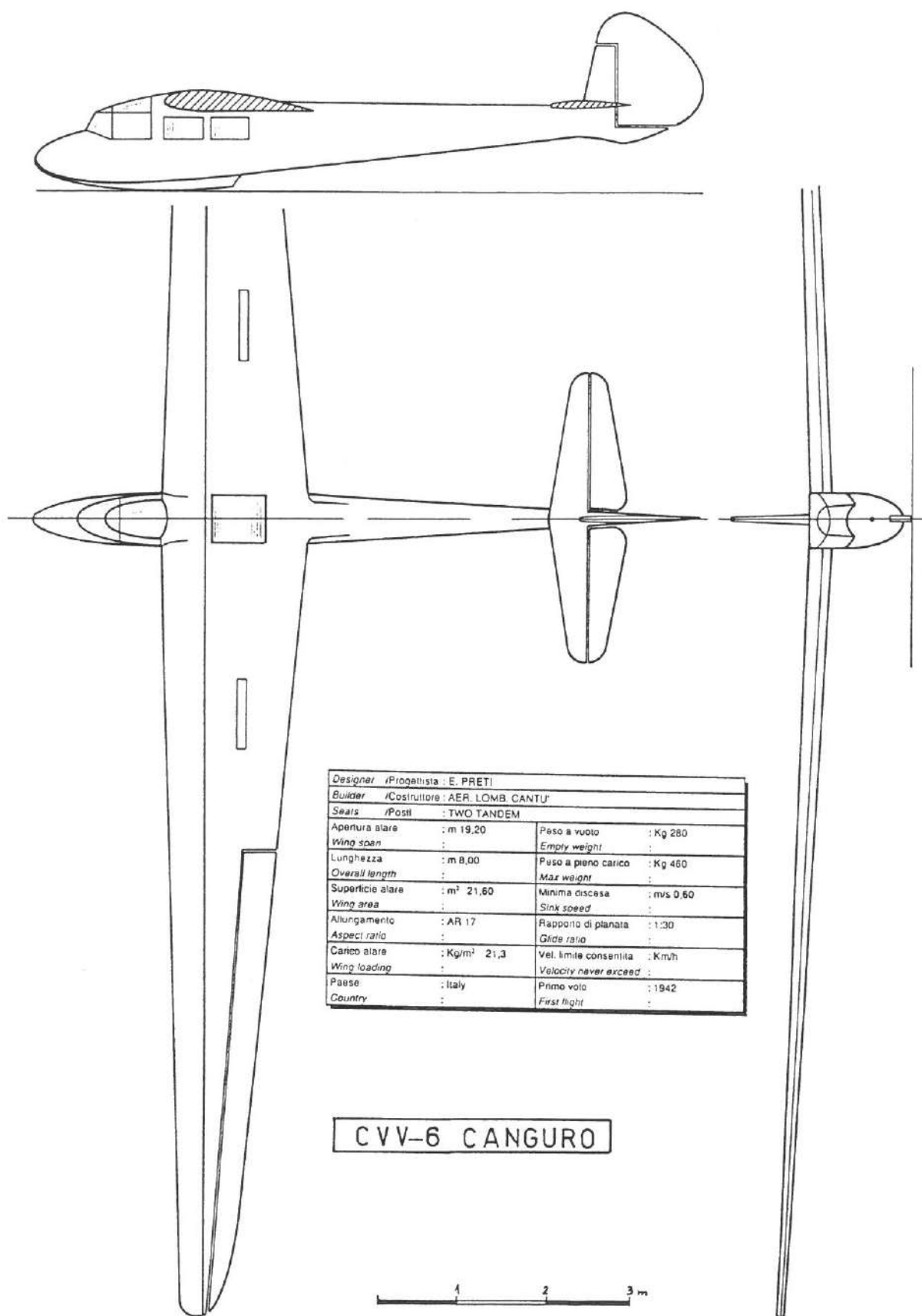




Designer / Progettista : E. PRETI			
Builder / Costruttore : CVV P. MILANO			
Seats / Posti : ONE			
Apertura alare	: m 15	Peso a vuoto	: Kg 180
Wing span	:	Empty weight	:
Lunghezza	: m 6,50	Peso a pieno carico	: Kg 270
Overall length	:	Max weight	:
Superficie alare	: m ² 14,70	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 15,3	Rapporto di planata	: 1:25
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,40	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1939
Country	:	First flight	:

CVV-5 PAPER0

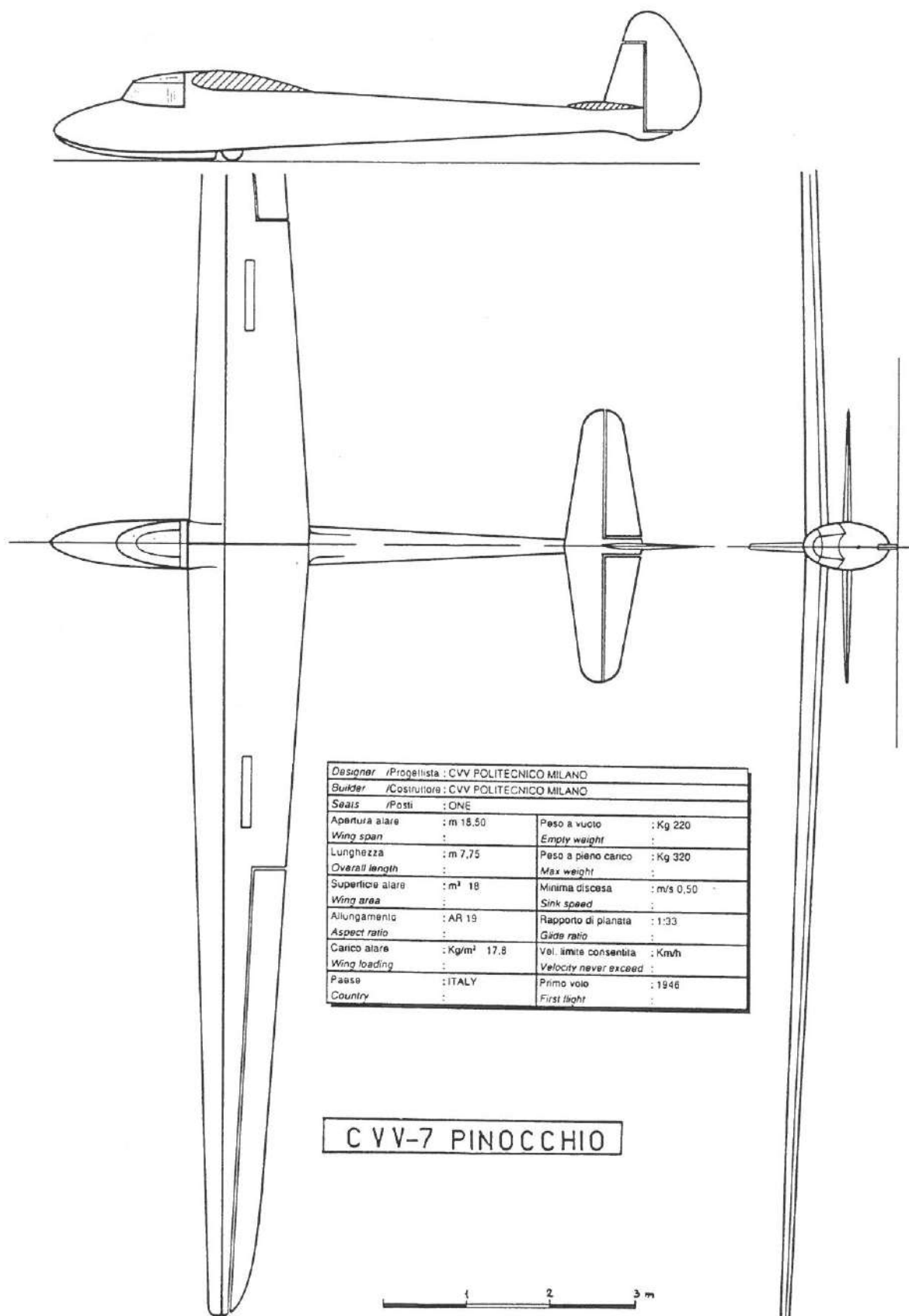
1 2 3 m



Designer	Progettista : E. PRETI		
Builder	Costruttore : AER. LOMB. CANTU'		
Seats	Posti : TWO TANDEM		
Apertura alare	: m 19,20	Peso a vuoto	: Kg 280
Wing span	:	Empty weight	:
Lunghezza	: m 8,00	Peso a pieno carico	: Kg 460
Overall length	:	Max weight	:
Superficie alare	: m ² 21,60	Minima discesa	: mvs 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 17	Rapporto di planata	: 1:30
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 21,3	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: Italy	Primo volo	: 1942
Country	:	First flight	:

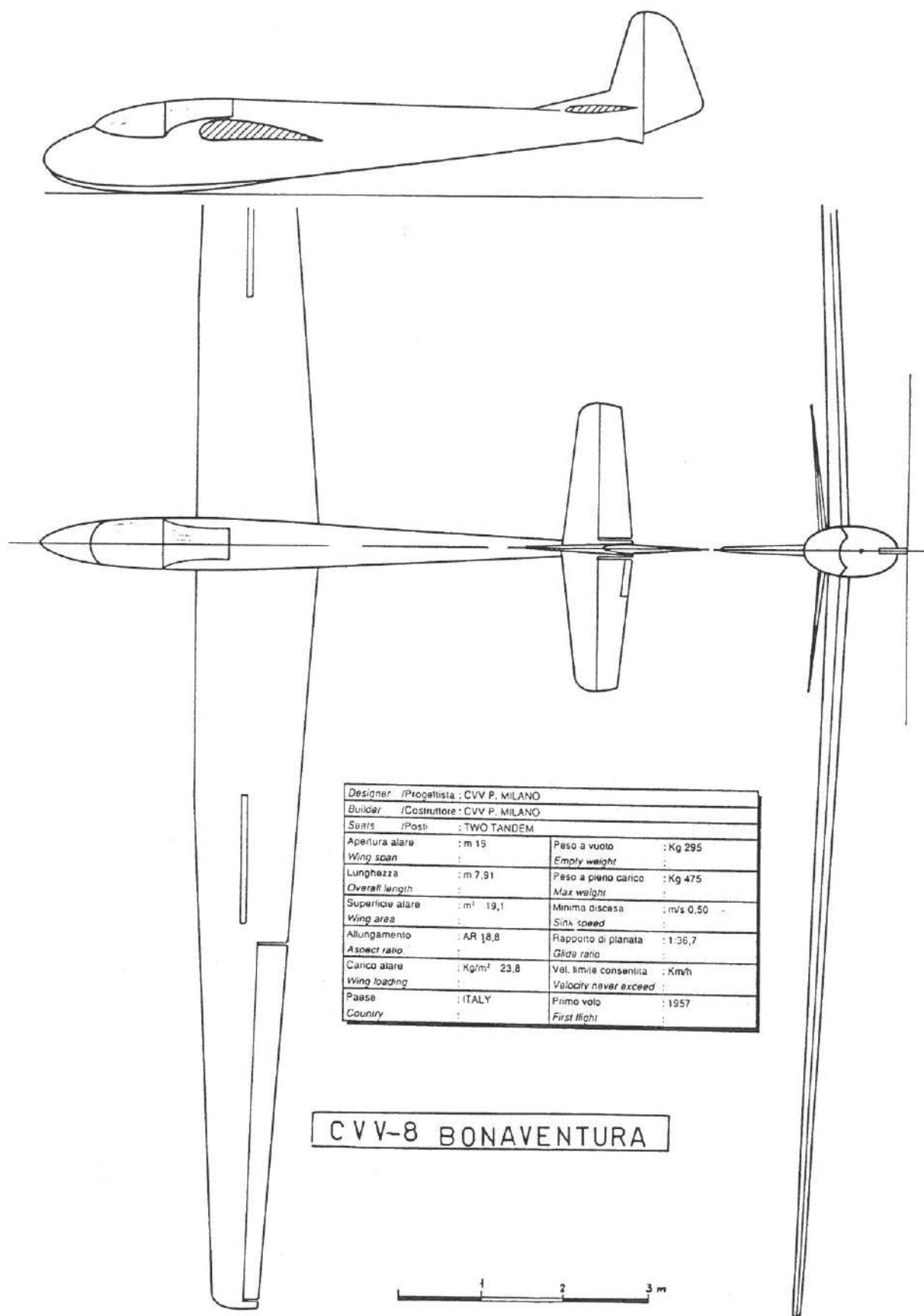
CVV-6 CANGURO

1 2 3 m



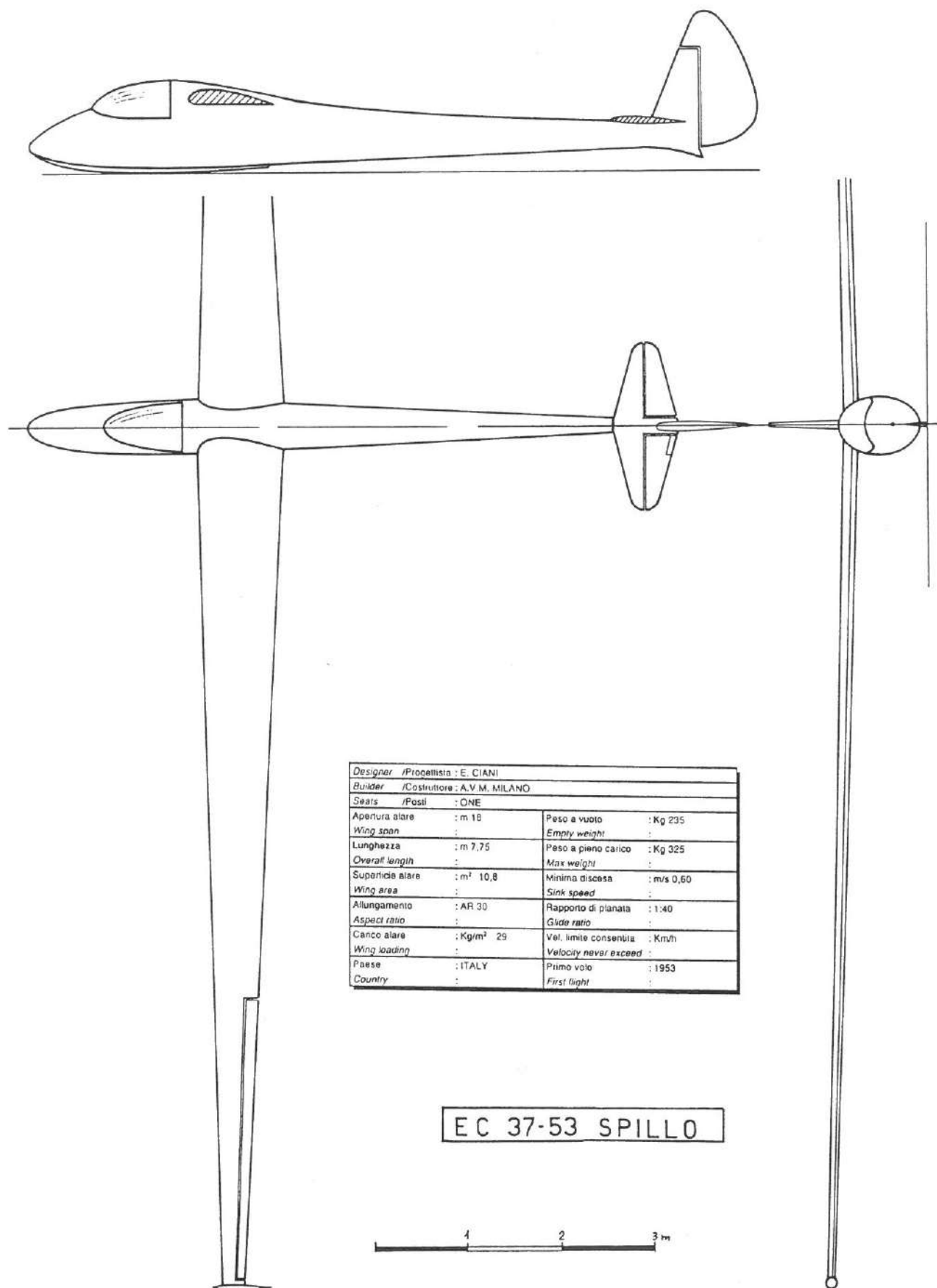
<i>Designer /Progettista</i> : CVV POLITECNICO MILANO			
<i>Builder /Costruttore</i> : CVV POLITECNICO MILANO			
<i>Seats /Posti</i> : ONE			
<i>Apertura alare</i>	: m 15,50	<i>Peso a vuoto</i>	: Kg 220
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 7,75	<i>Peso a pieno carico</i>	: Kg 320
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 18	<i>Minima discesa</i>	: m/s 0,50
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 19	<i>Rapporto di planata</i>	: 1:33
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 17,8	<i>Vel. limite consentita</i>	: Km/h
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: ITALY	<i>Primo volo</i>	: 1946
<i>Country</i>	:	<i>First flight</i>	:

CVV-7 PINOCCHIO



Designer /Progettista : CVV P. MILANO			
Builder /Costruttore : CVV P. MILANO			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 19	Peso a vuoto	: Kg 295
Wing span	:	Empty weight	:
Lunghezza	: m 7,91	Peso a pieno carico	: Kg 475
Overall length	:	Max weight	:
Superficie alare	: m ² 19,1	Minima discesa	: m/s 0,50
Wing area	:	Sink speed	:
Allungamento	: AR 18,8	Rapporto di planata	: 1:36,7
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,8	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1957
Country	:	First flight	:

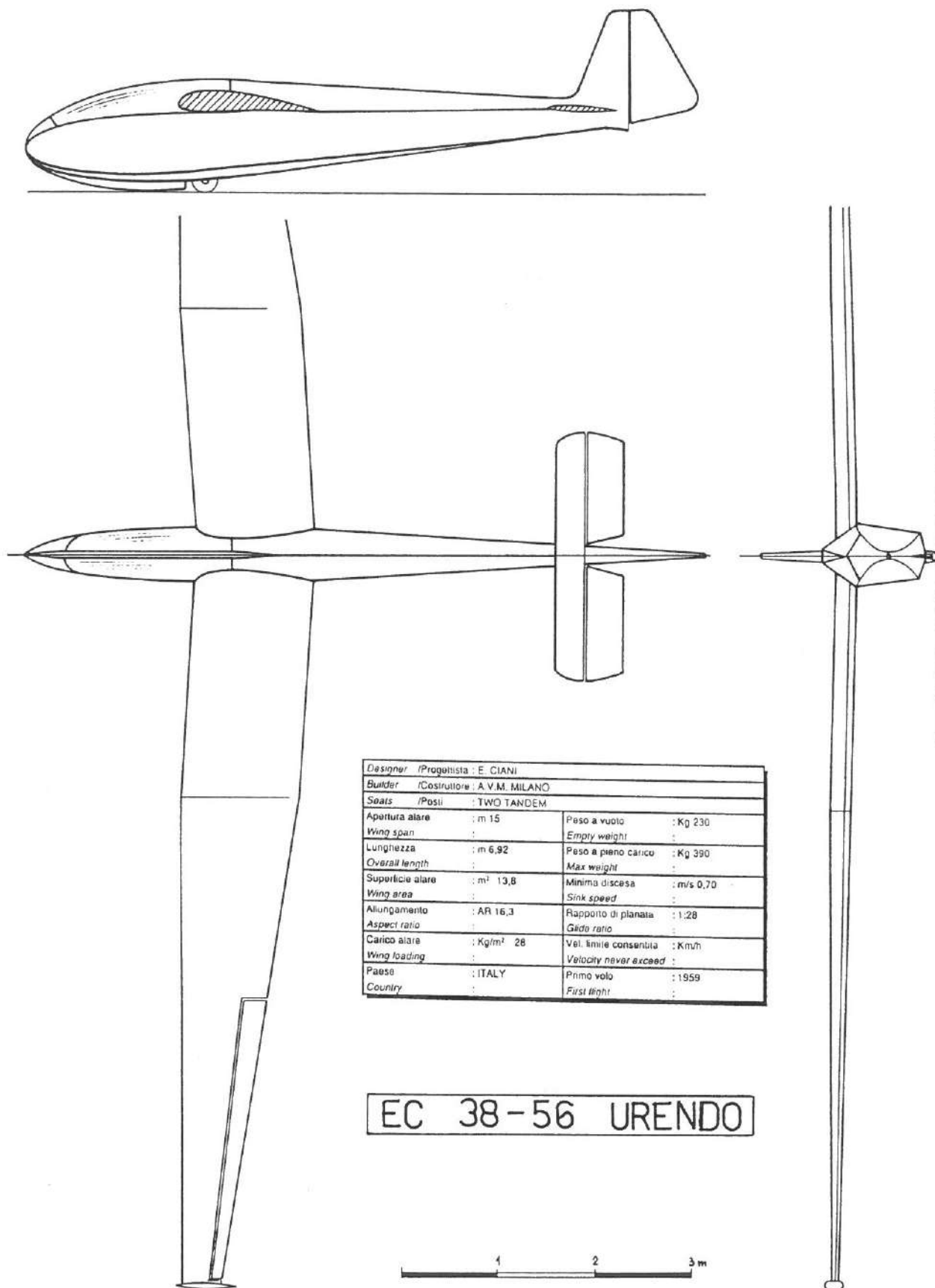
CVV-8 BONAVENTURA

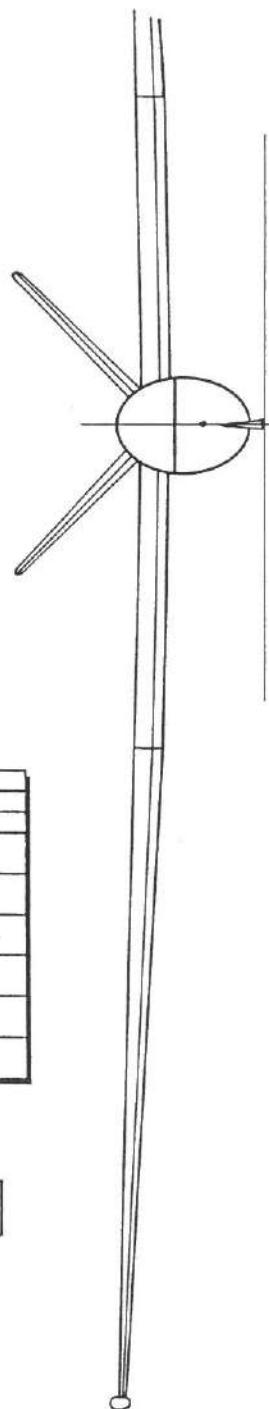
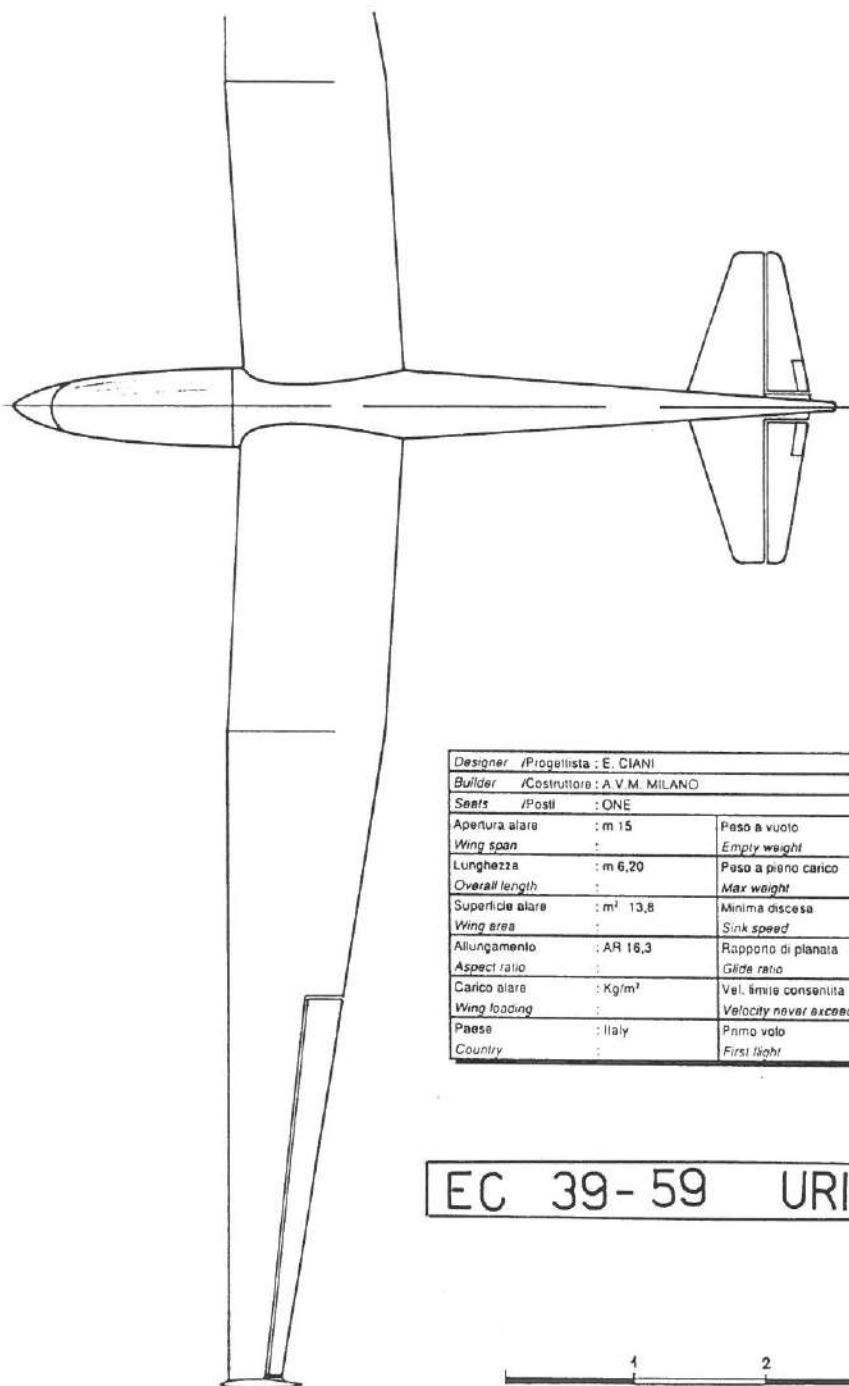
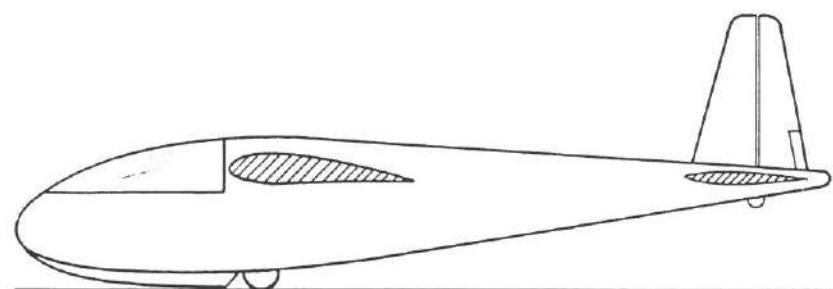


Designer /Progettista : E. CIANI			
Builder /Costruttore : A.V.M. MILANO			
Seats /Posti : ONE			
Apertura alare	: m 18	Peso a vuoto	: Kg 235
Wing span	:	Empty weight	:
Lunghezza	: m 7,75	Peso a pieno carico	: Kg 325
Overall length	:	Max weight	:
Superficie alare	: m ² 10,8	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 30	Rapporto di planata	: 1:40
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 29	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1953
Country	:	First flight	:

EC 37-53 SPILLO



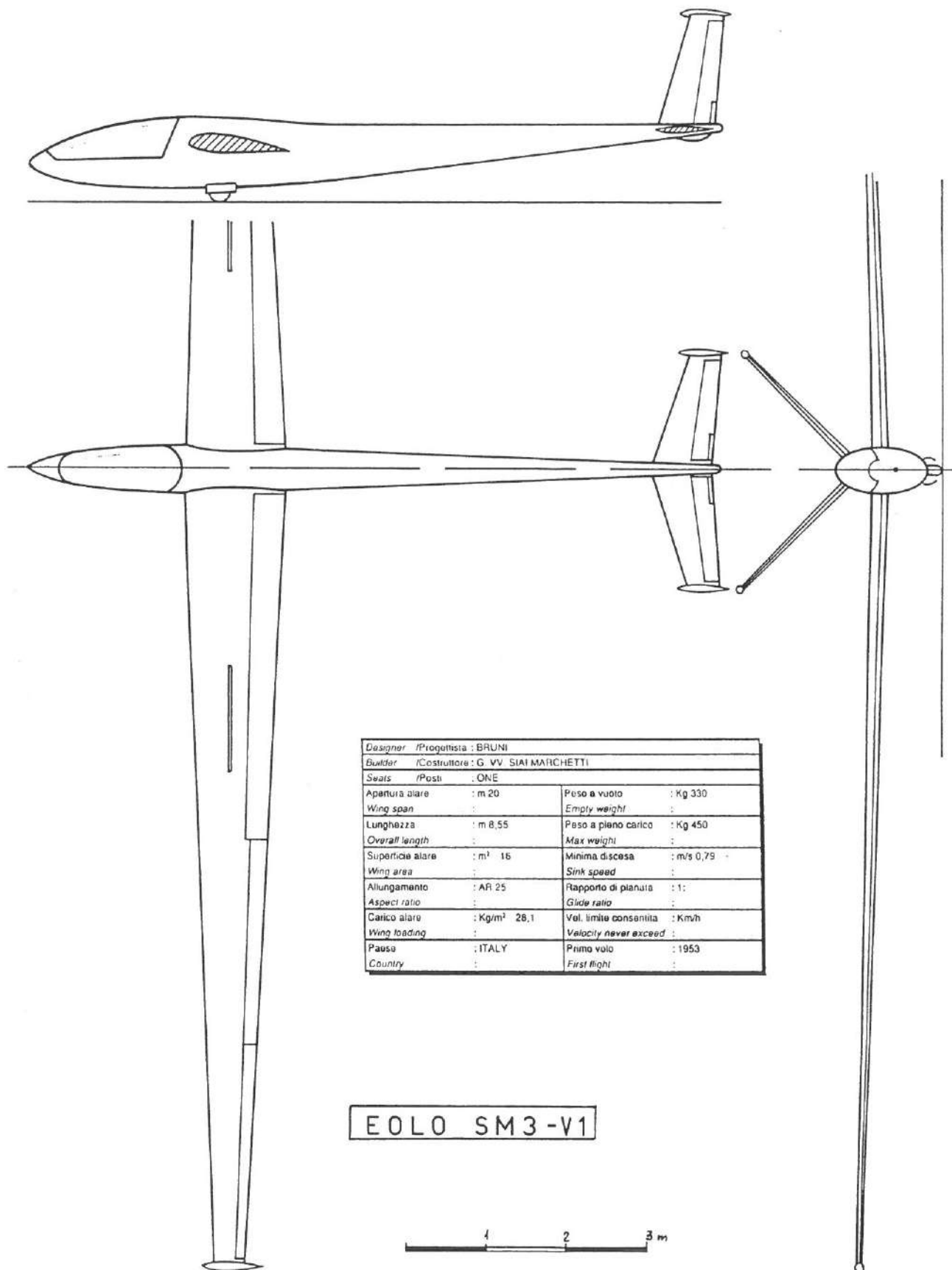




Designer /Progettista :	E. CIANI		
Builder /Costruttore :	A.V.M. MILANO		
Seats /Posti :	ONE		
Apertura alare :	m 15	Peso a vuoto :	Kg
Wing span :		Empty weight :	
Lunghezza :	m 6,20	Peso a pieno carico :	Kg
Overall length :		Max weight :	
Superficie alare :	m ² 13,8	Minima discesa :	m/s 0,70
Wing area :		Sink speed :	
Allungamento :	AR 16,3	Rapporto di planata :	1:28
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ²	Vel. limite consentita :	Kmh
Wing loading :		Velocity never exceed :	
Paese :	Italy	Primo volo :	1960
Country :		First flight :	

EC 39-59 URIBEL

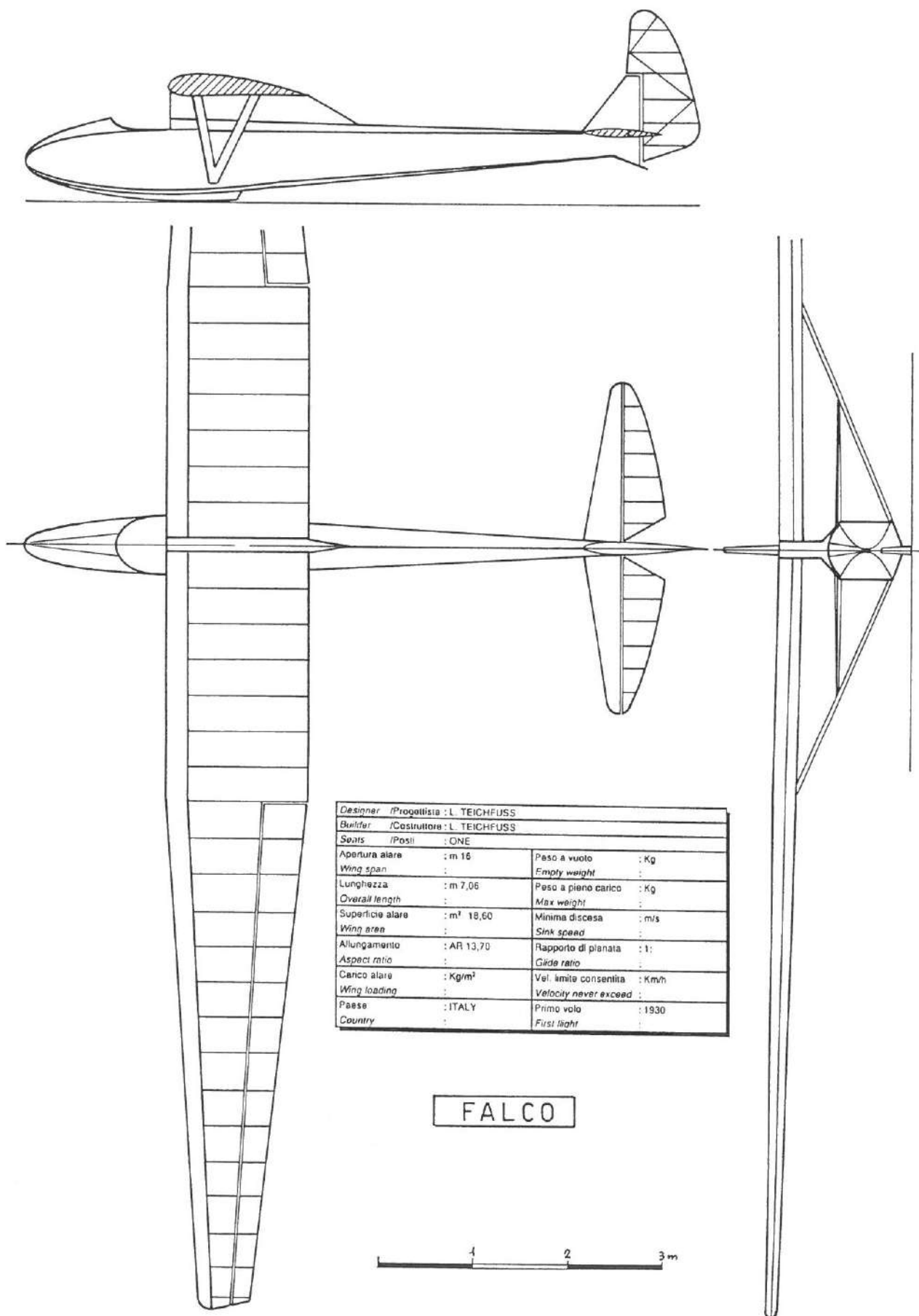




Designer / Progettista : BRUNI			
Builder / Costruttore : G. VV. SIAI MARCHETTI			
Seats / Posti : ONE			
Apertura alare	: m 20	Peso a vuoto	: Kg 330
Wing span	:	Empty weight	:
Lunghezza	: m 8,55	Peso a pieno carico	: Kg 450
Overall length	:	Max weight	:
Superficie alare	: m ² 16	Minima discesa	: m/s 0,79
Wing area	:	Sink speed	:
Allungamento	: AR 25	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 28,1	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1953
Country	:	First flight	:

EOLO SM3-V1

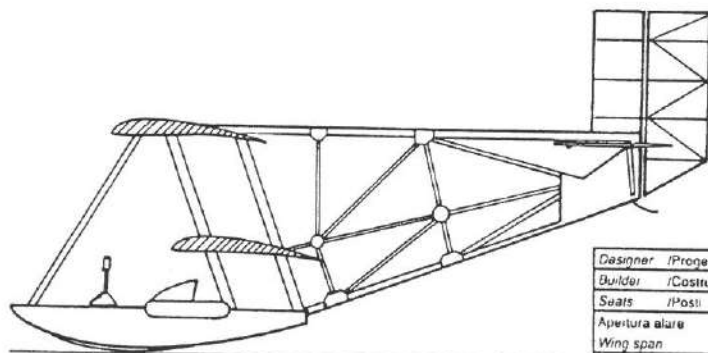
0 1 2 3 m



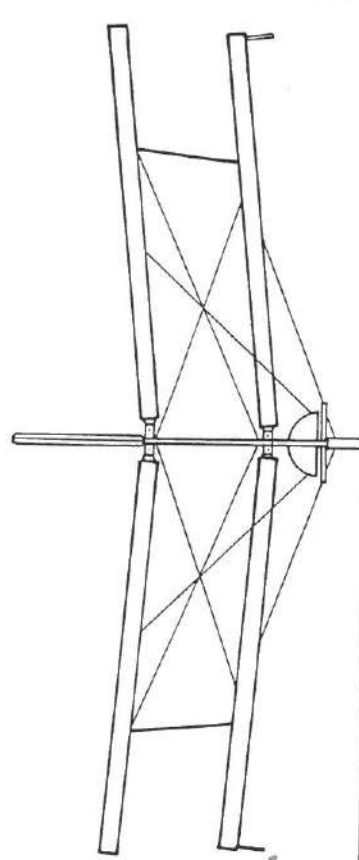
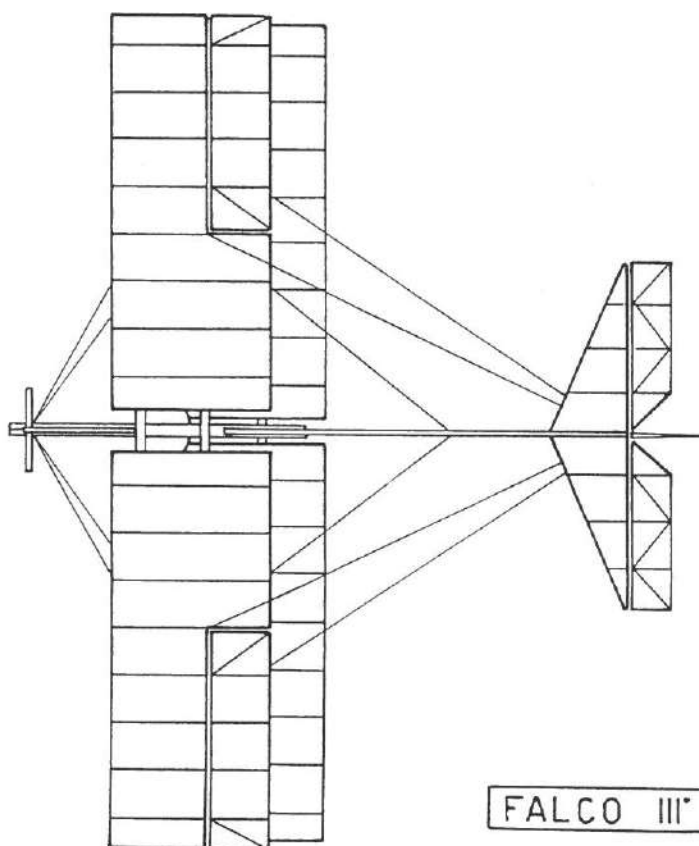
Designer	Progettista : L. TEICHFUSS		
Builder	Costruttore : L. TEICHFUSS		
Seats	(Posi)	ONE	
Apertura alare	: m 16	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 7,06	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m² 18,60	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 13,70	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1930
Country	:	First flight	:

FALCO

1 2 3 m

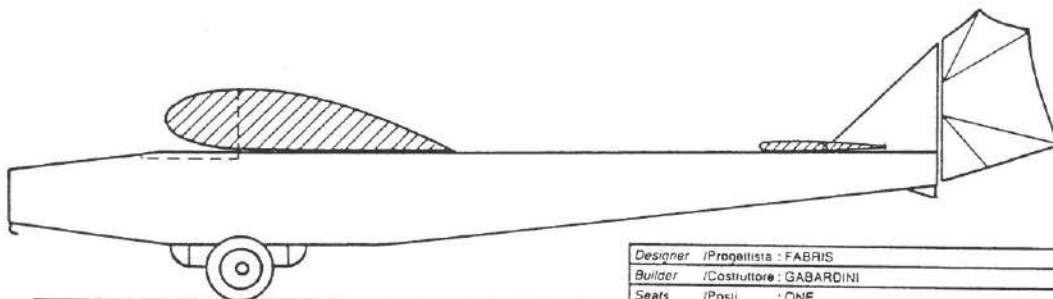


Designer	/Progettista : G. RABAGLIO		
Builder	/Costruttore : G.A. "FALCHI"		
Seats	/Posti :	ONE	
Apertura alare	: m 5,30	Peso a vuoto	: Kg 45
Wing span	:	Empty weight	:
Lunghezza	: m 4,40	Peso a pieno carico	: Kg 115
Overall length	:	Max weight	:
Superficie alare	: m ² 10	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 11,5	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1970
Country	:	First flight	:

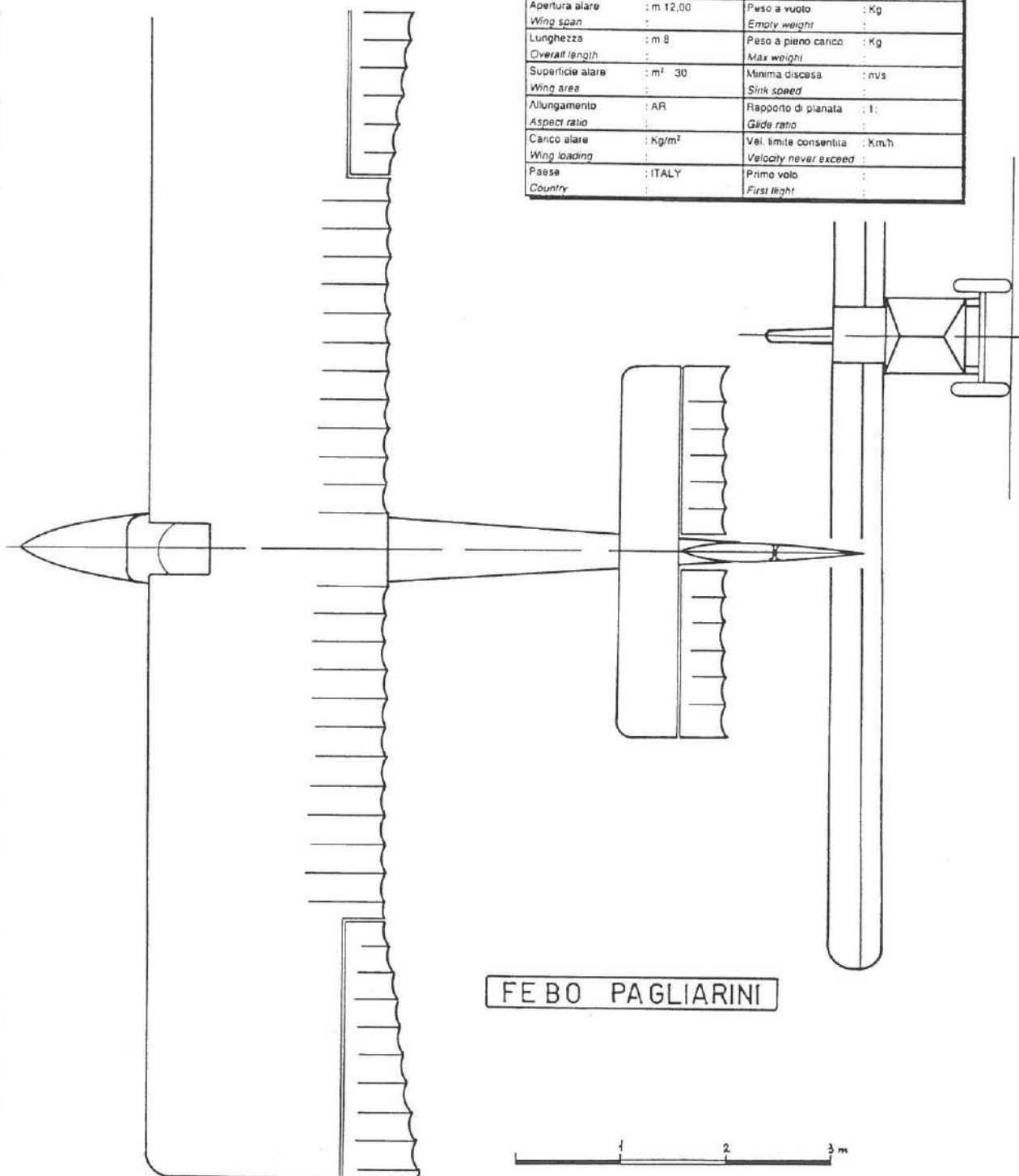


FALCO III

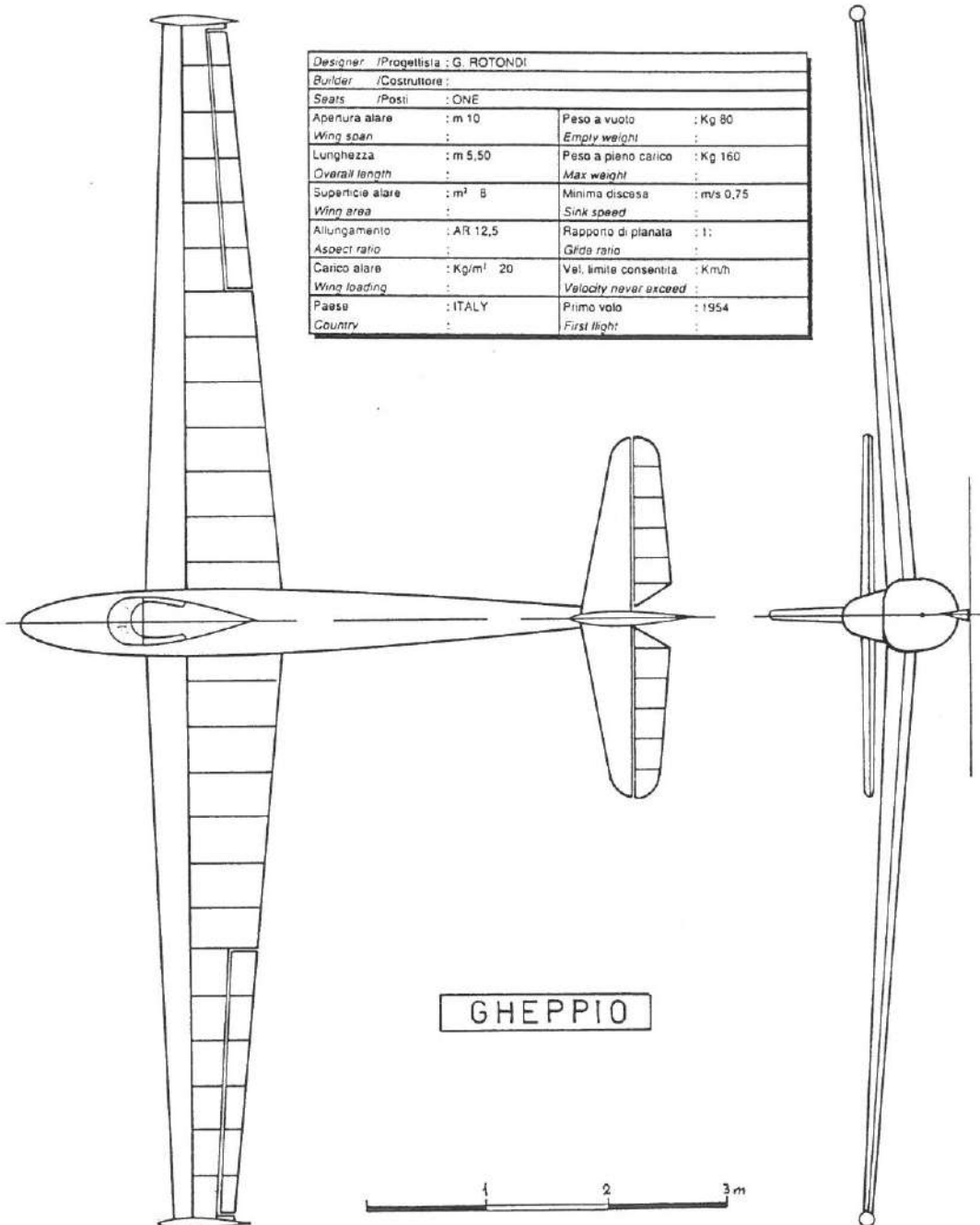
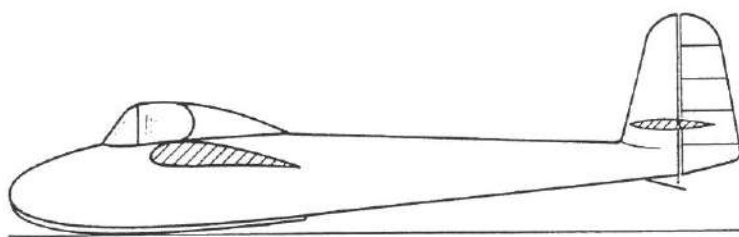




Designer	/Progettista : FABRIS	
Builder	/Costruttore : GABARDINI	
Seats	/Posti : ONE	
Apertura alare	: m 12,00	Peso a vuoto : Kg
Wing span	:	Empty weight
Lunghezza	: m 8	Peso a pieno carico : Kg
Overall length	:	Max weight
Superficie alare	: m ² 30	Minima discesa : m/s
Wing area	:	Sink speed
Allungamento	: AR	Rapporto di planata : 1:
Aspect ratio	:	Glide ratio
Carico alare	: Kg/m ²	Vel. limite consentita : Km/h
Wing loading	:	Velocity never exceed
Paese	: ITALY	Primo volo :
Country	:	First flight

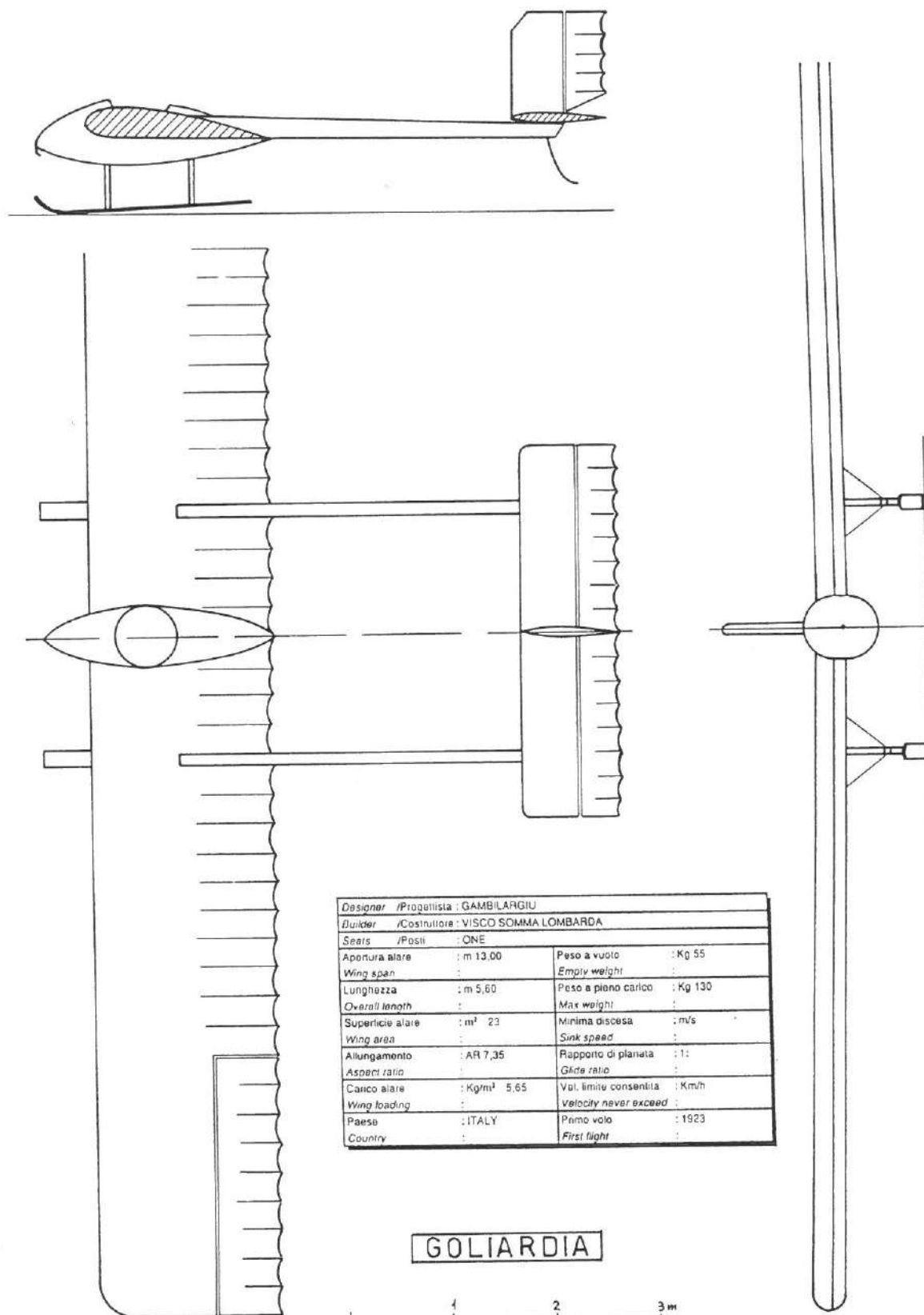


FEBO PAGLIARINI

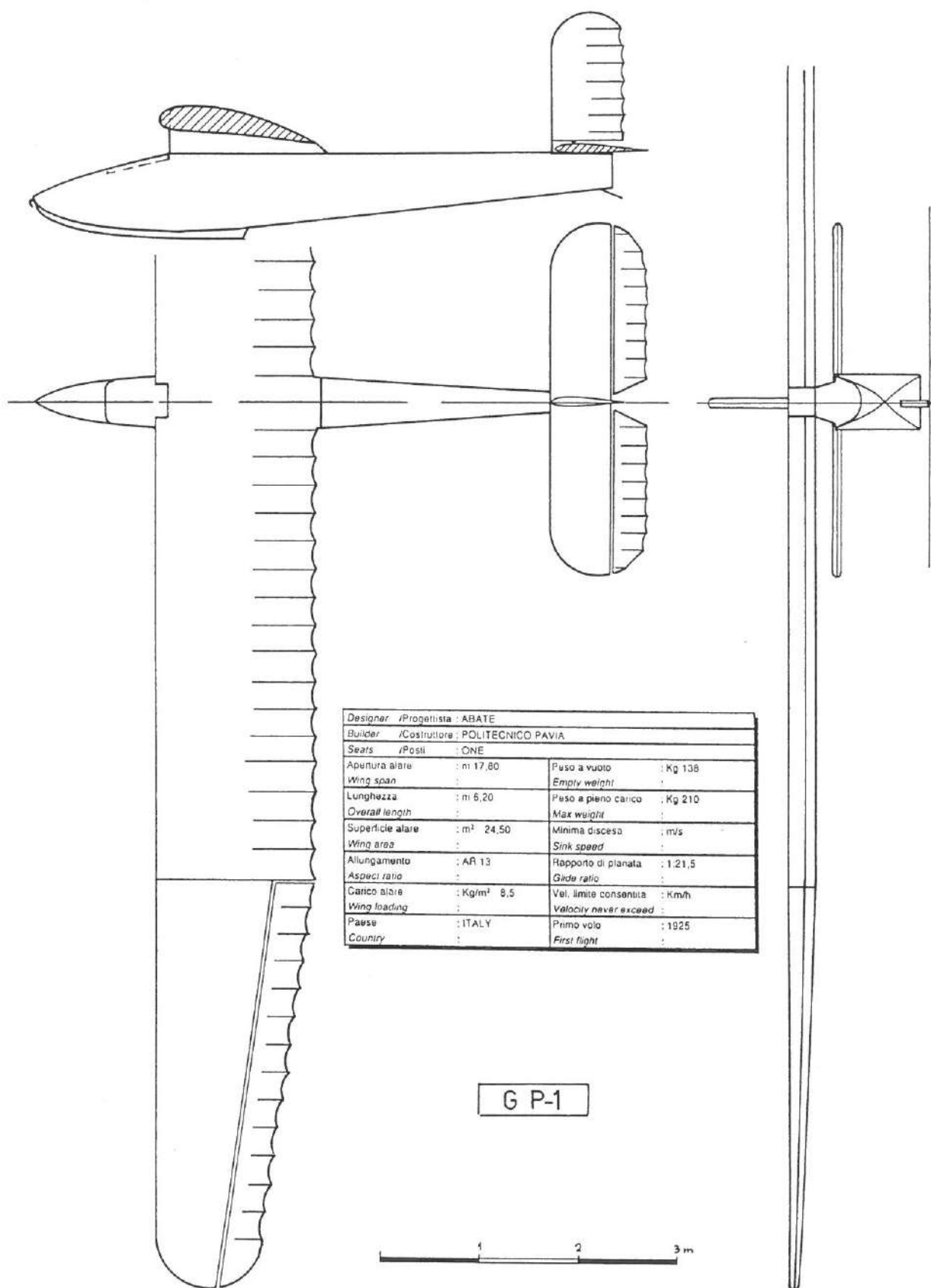


Designer / Progettista : G. ROTONDI			
Builder / Costruttore :			
Seats / Posti :	ONE		
Apertura alare :	m 10	Peso a vuoto :	Kg 80
Wing span :		Empty weight :	
Lunghezza :	m 5,50	Peso a pieno carico :	Kg 160
Overall length :		Max weight :	
Superficie alare :	m ² 8	Minima discesa :	m/s 0,75
Wing area :		Sink speed :	
Allungamento :	AR 12,5	Rapporto di planata :	1:
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 20	Vel. limite consentita :	Km/h
Wing loading :		Velocity never exceed :	
Paese :	ITALY	Primo volo :	1954
Country :		First flight :	

GHEPPIO



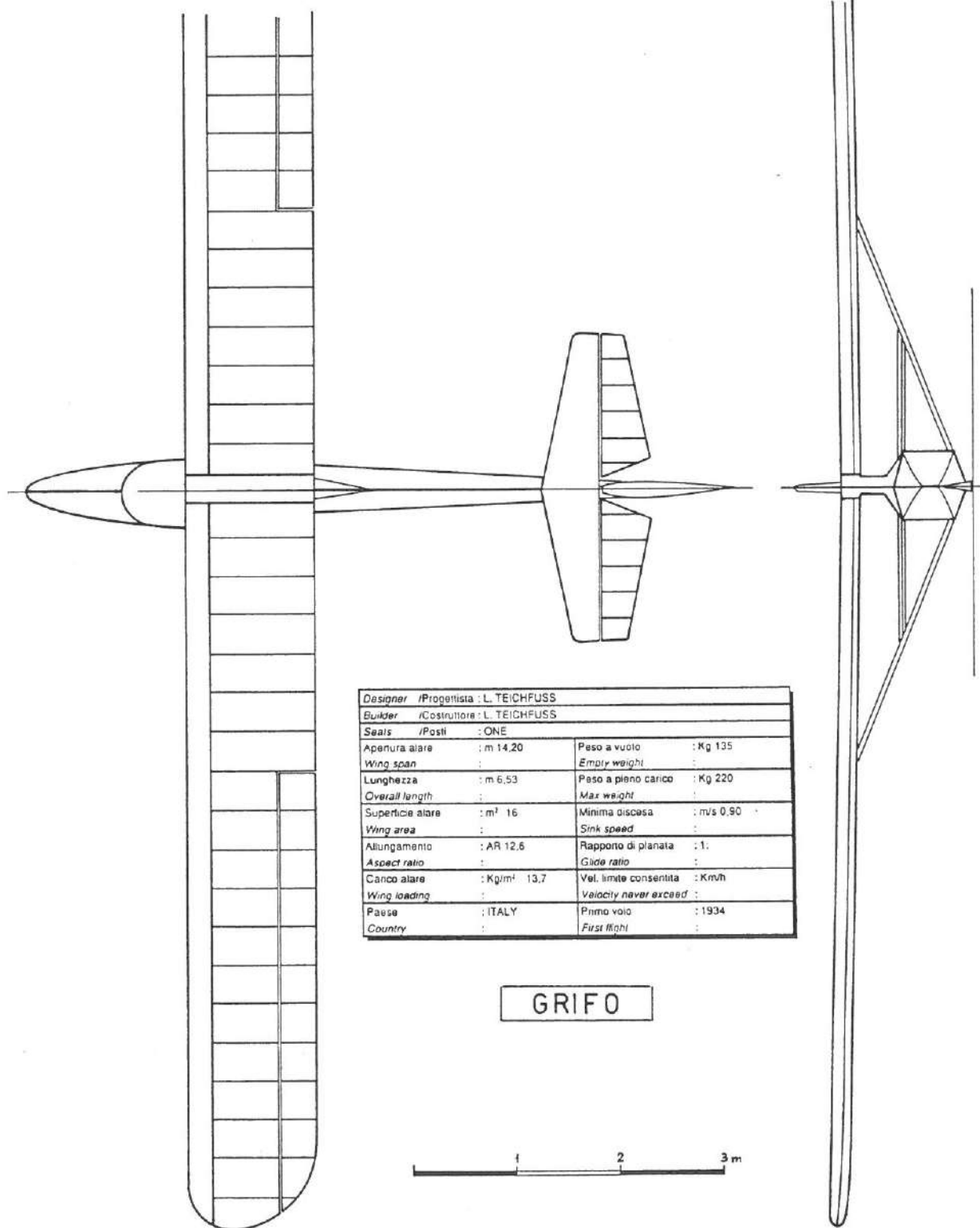
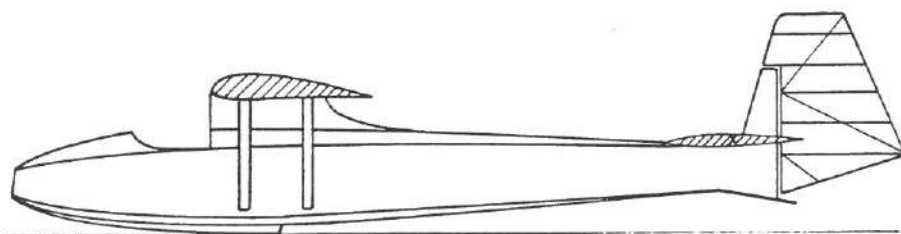
Designer /Progettista : GAMBILARGIU			
Builder /Costruttore : VISCO SOMMA LOMBARDA			
Seats /Posili : ONE			
Apertura alare	: m 13,00	Peso a vuoto	: Kg 55
Wing span		Empty weight	
Lunghezza	: m 5,60	Peso a pieno carico	: Kg 130
Overall length		Max weight	
Superficie alare	: m ² 23	Minima discesa	: m/s
Wing area		Sink speed	
Allungamento	: AR 7,35	Rapporto di planata	: 11
Aspect ratio		Glide ratio	
Carico alare	: Kg/m ² 5,65	Vel. limite consentita	: Km/h
Wing loading		Velocity never exceed	
Paese	: ITALY	Primo volo	: 1923
Country		First flight	



Designer	/Progettista : ABATE				
Builder	/Costruttore : POLITECNICO PAVIA				
Seats	/Posti : ONE				
Apertura alare	:	m	17,80	Peso a vuoto	: Kg 138
Wing span	:				Empty weight
Lunghezza	:	m	5,20	Peso a pieno carico	: Kg 210
Overall length	:				Max weight
Superficie alare	:	m ²	24,50	Minima discesa	: m/s
Wing area	:				Sink speed
Allungamento	:	AR	13	Rapporto di planata	: 1:21,5
Aspect ratio	:				Glide ratio
Carico alare	:	Kg/m ²	8,5	Vel. limite consentita	: Km/h
Wing loading	:				Velocity never exceed
Paese	:	ITALY			Primo volo
Country	:				First flight

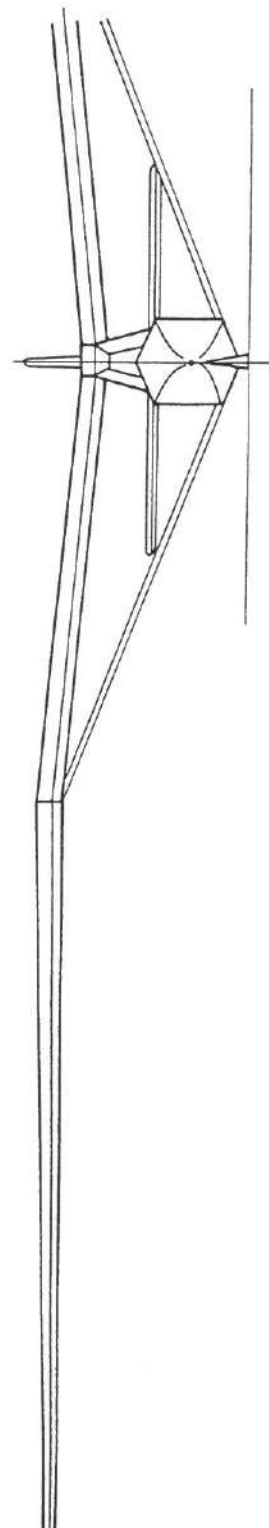
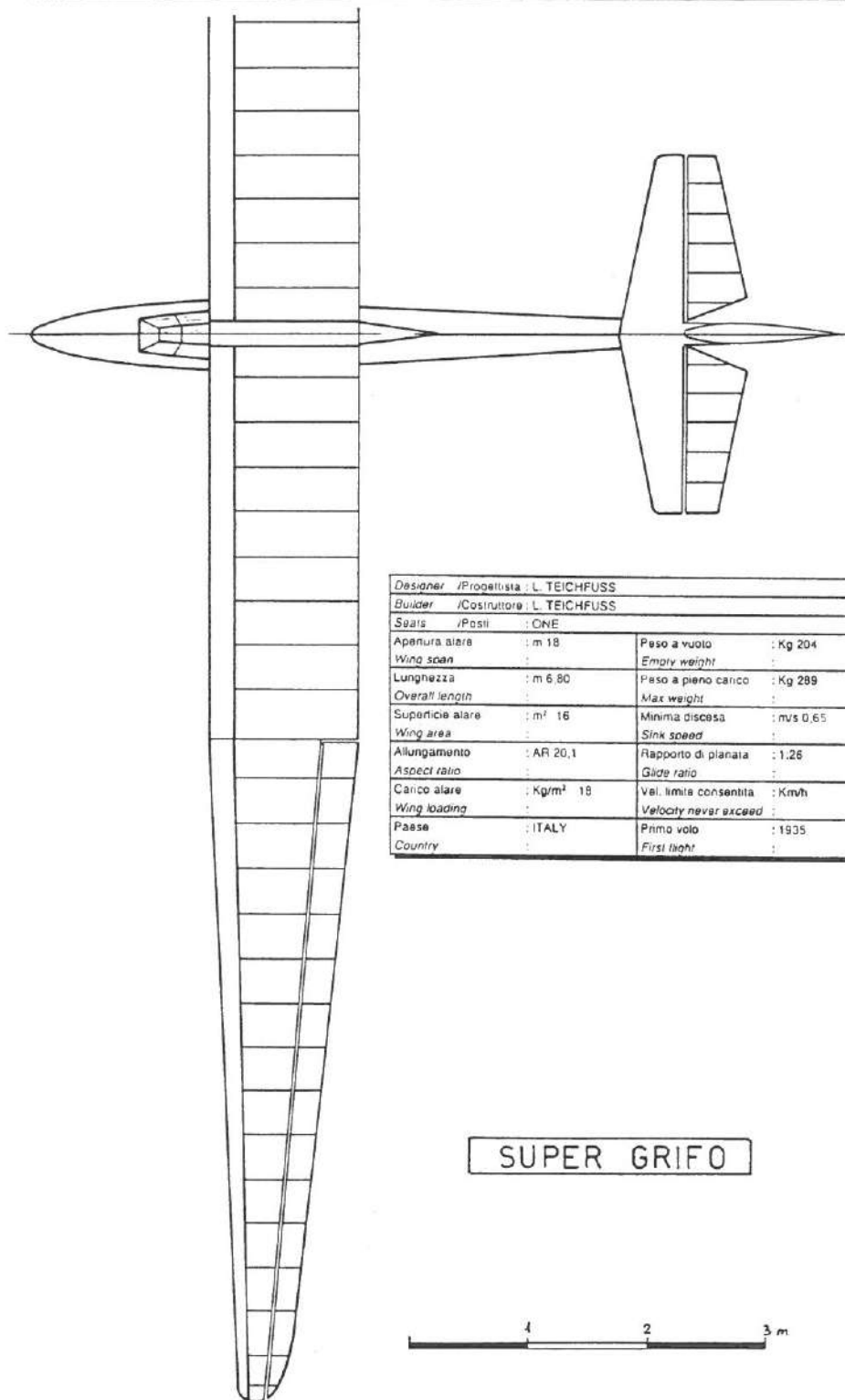
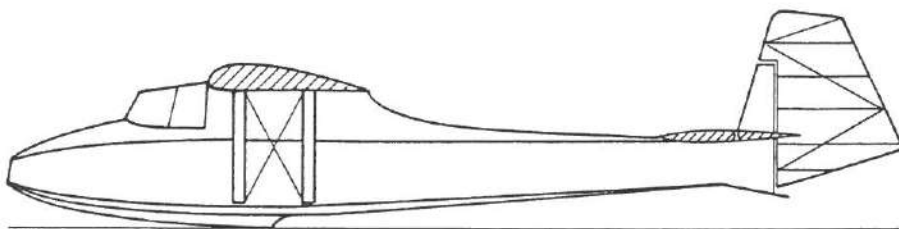
G P-1





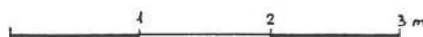
Designer	Progettista : L. TEICHFUSS		
Builder	Costruttore : L. TEICHFUSS		
Seats	Posti : ONE		
Apertura alare	: m 14,20	Peso a vuoto	: Kg 135
Wing span	:	Empty weight	:
Lunghezza	: m 6,53	Peso a pieno carico	: Kg 220
Overall length	:	Max weight	:
Superficie alare	: m ² 16	Minima discesa	: m/s 0,90
Wing area	:	Sink speed	:
Allungamento	: AR 12,6	Rapporto di planata	: 1.
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 13,7	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1934
Country	:	First flight	:

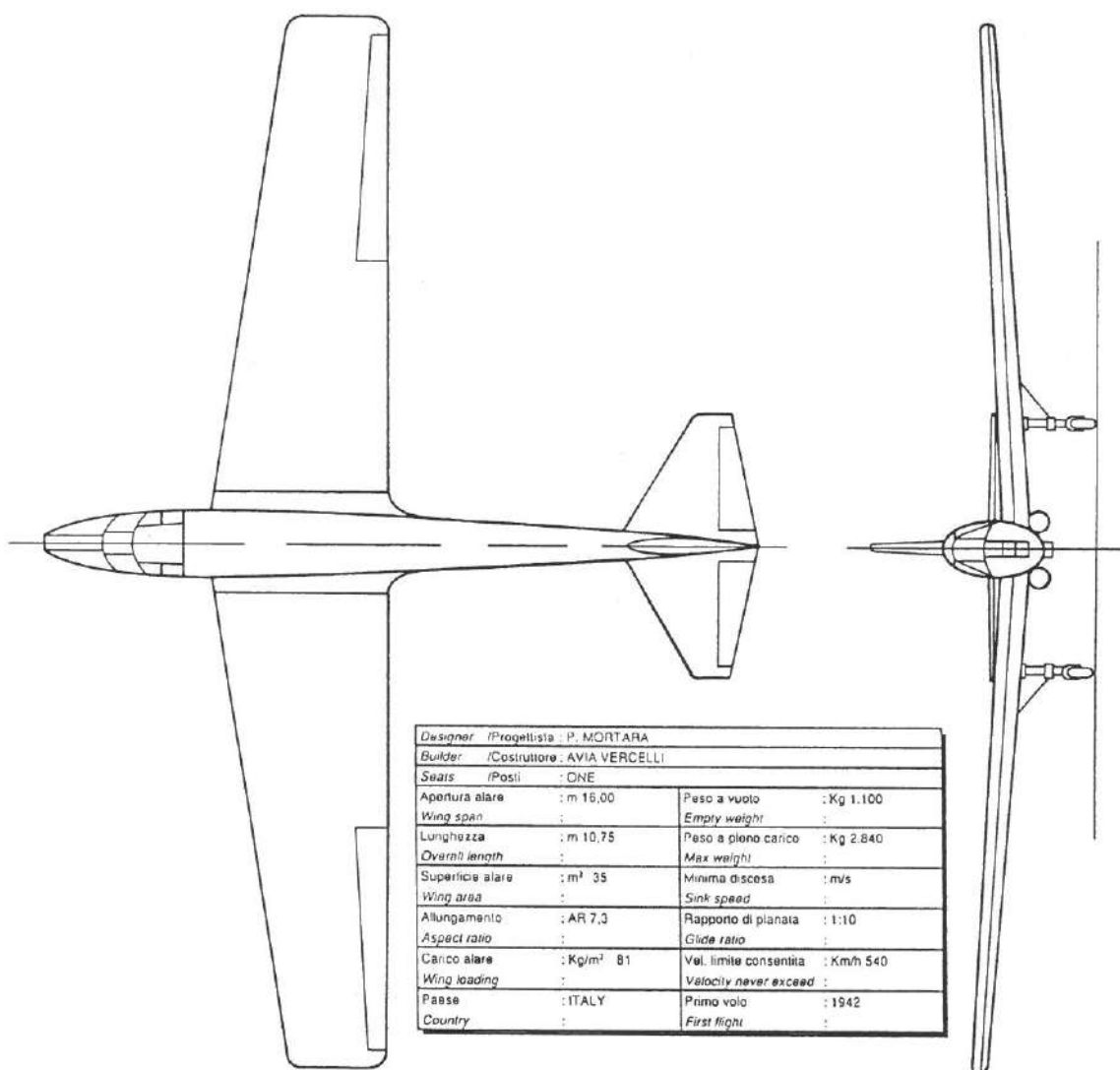
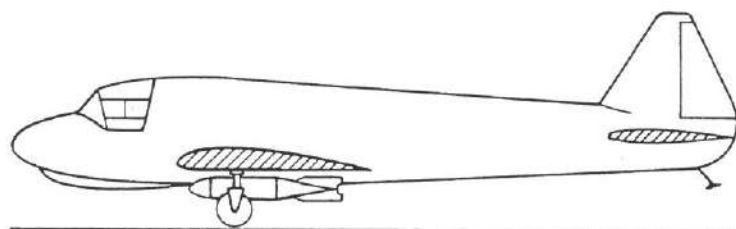
GRIFO



Designer /Progettista : L. TEICHFUSS			
Builder /Costruttore : L. TEICHFUSS			
Seats /Posti : ONE			
Apertura alare : m 18		Peso a vuoto : Kg 204	
Wing span :		Empty weight :	
Lunghezza : m 6.80		Peso a pieno carico : Kg 289	
Overall length :		Max weight :	
Superficie alare : m ² 16		Minima discesa : m/s 0.65	
Wing area :		Sink speed :	
Allungamento : AR 20,1		Rapporto di planata : 1.26	
Aspect ratio :		Glide ratio :	
Carico alare : Kg/m ² 18		Vel. limite consentita : Km/h	
Wing loading :		Velocity never exceed :	
Paese : ITALY		Primo volo : 1935	
Country :		First flight :	

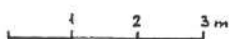
SUPER GRIFO

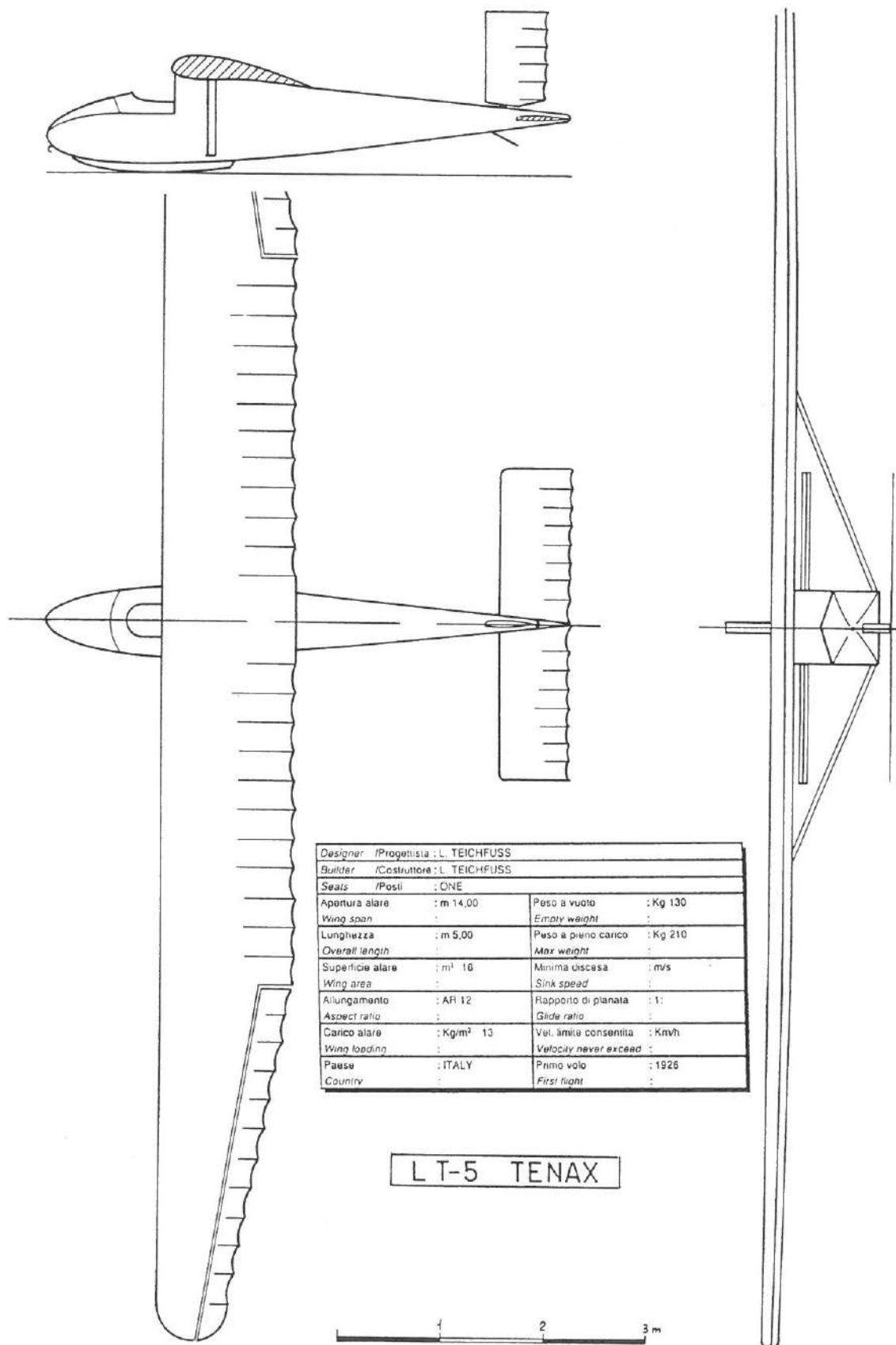


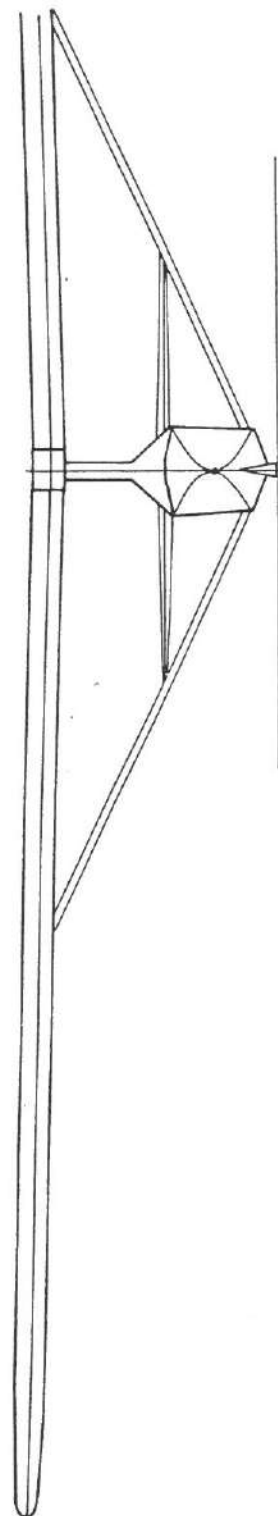
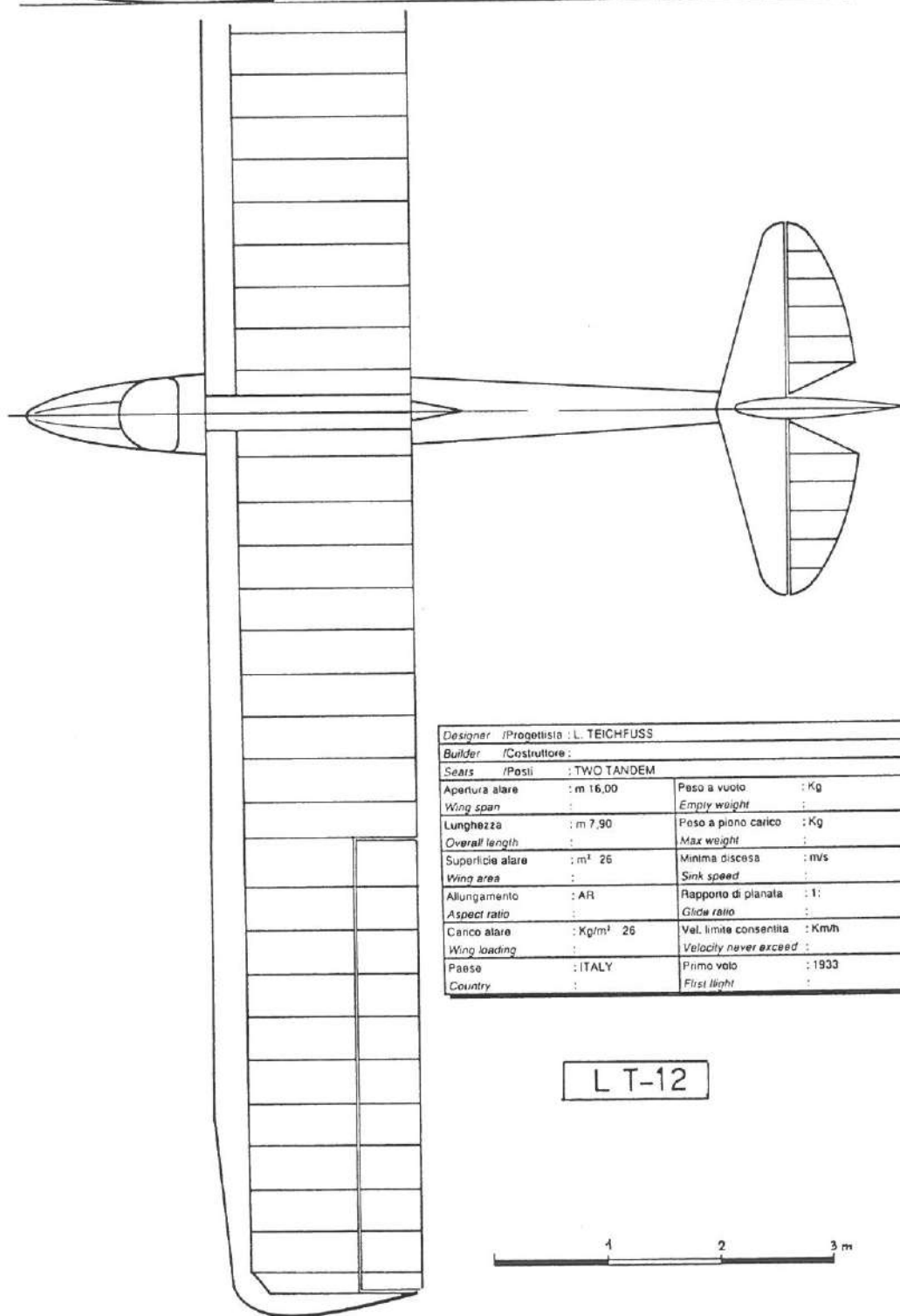
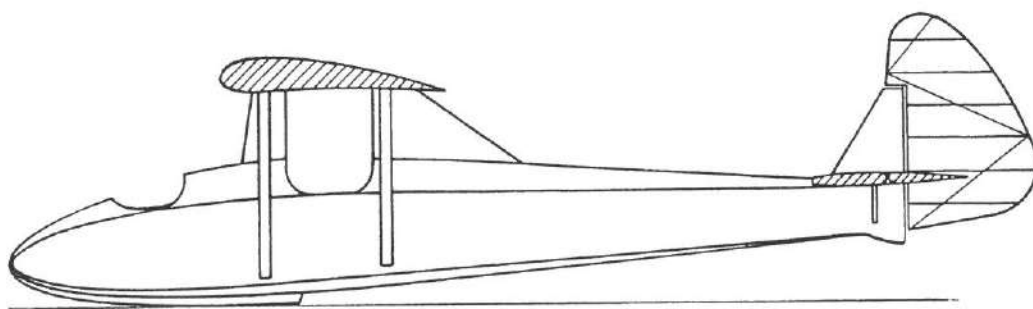


Designer /Progettista	P. MORTARA		
Builder /Costruttore	AVIA VERCELLI		
Seats /Posi	ONE		
Apertura alare	: m 16,00	Peso a vuoto	: Kg 1.100
Wing span	:	Empty weight	:
Lunghezza	: m 10,75	Peso a pieno carico	: Kg 2.840
Overall length	:	Max weight	:
Superficie alare	: m ² 35	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 7,3	Rapporto di planata	: 1:10
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 81	Vel. limite consentita	: Km/h 540
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1942
Country	:	First flight	:

Lm 02

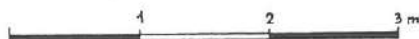


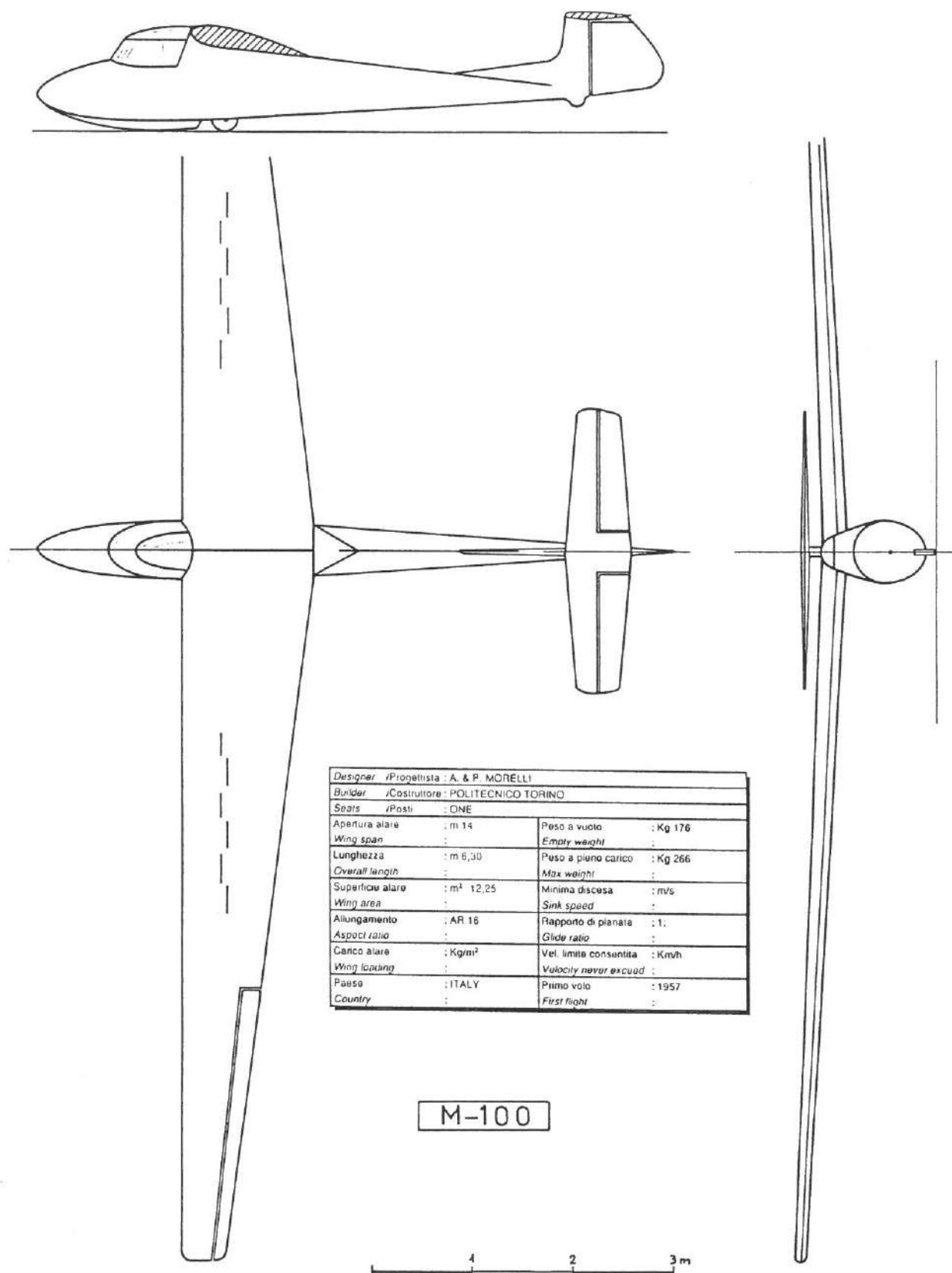


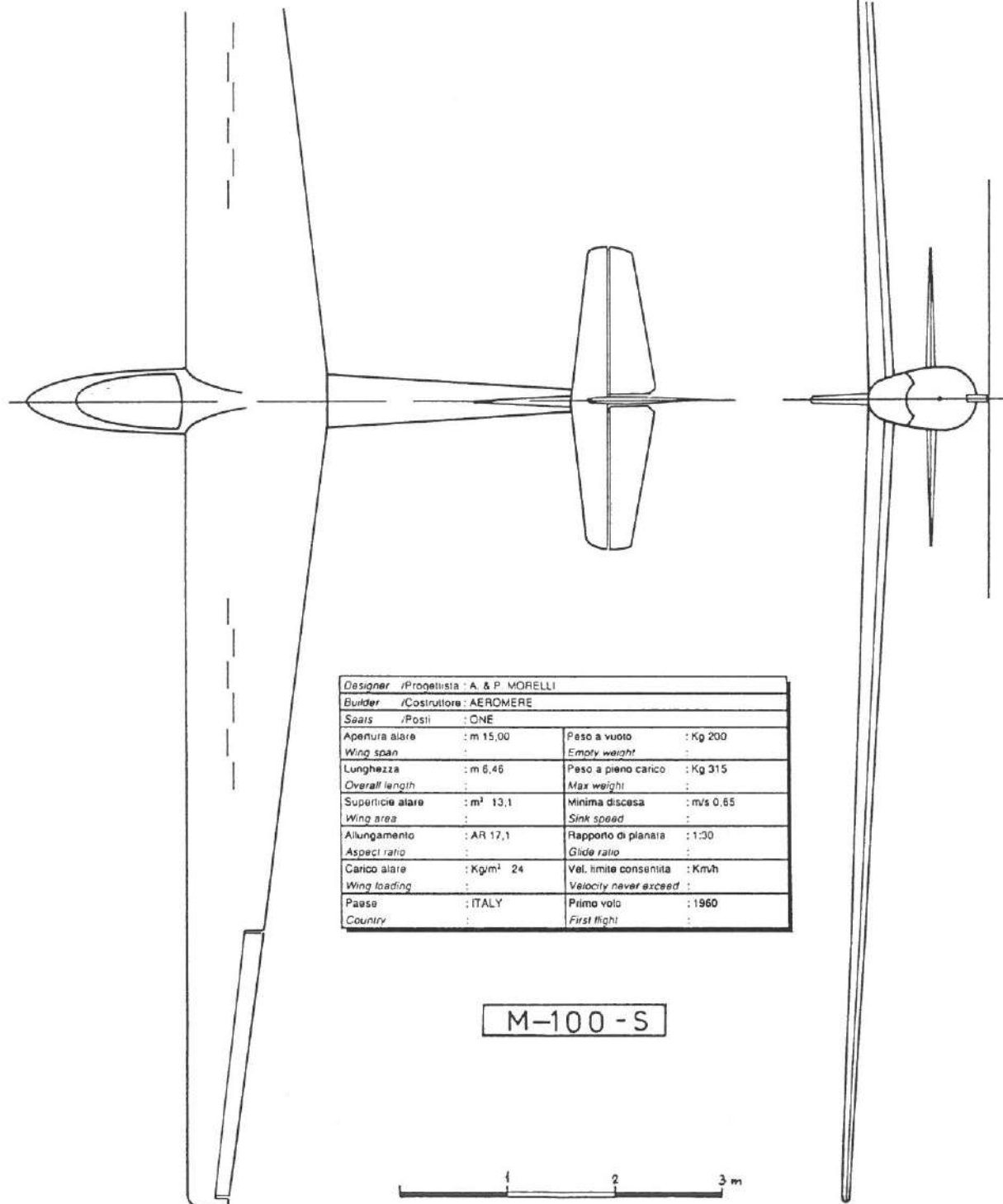
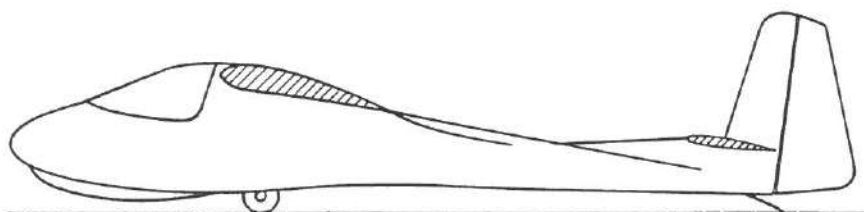


Designer / Progettista : L. TEICHFUSS			
Builder / Costruttore :			
Seats / Posti : TWO TANDEM			
Apertura alare	: m 16,00	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 7,90	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 26	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1933
Country	:	First flight	:

L T-12

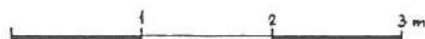


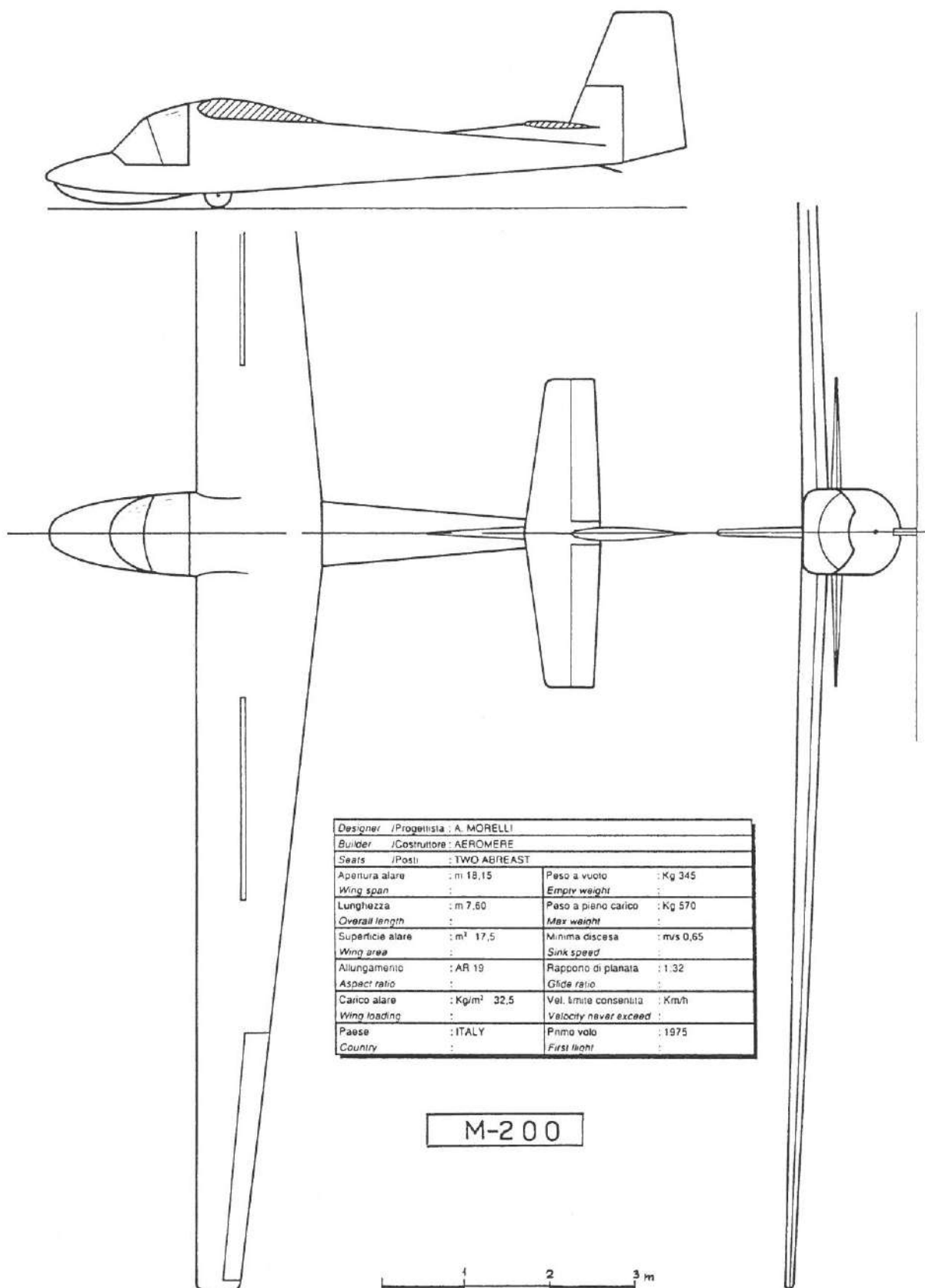




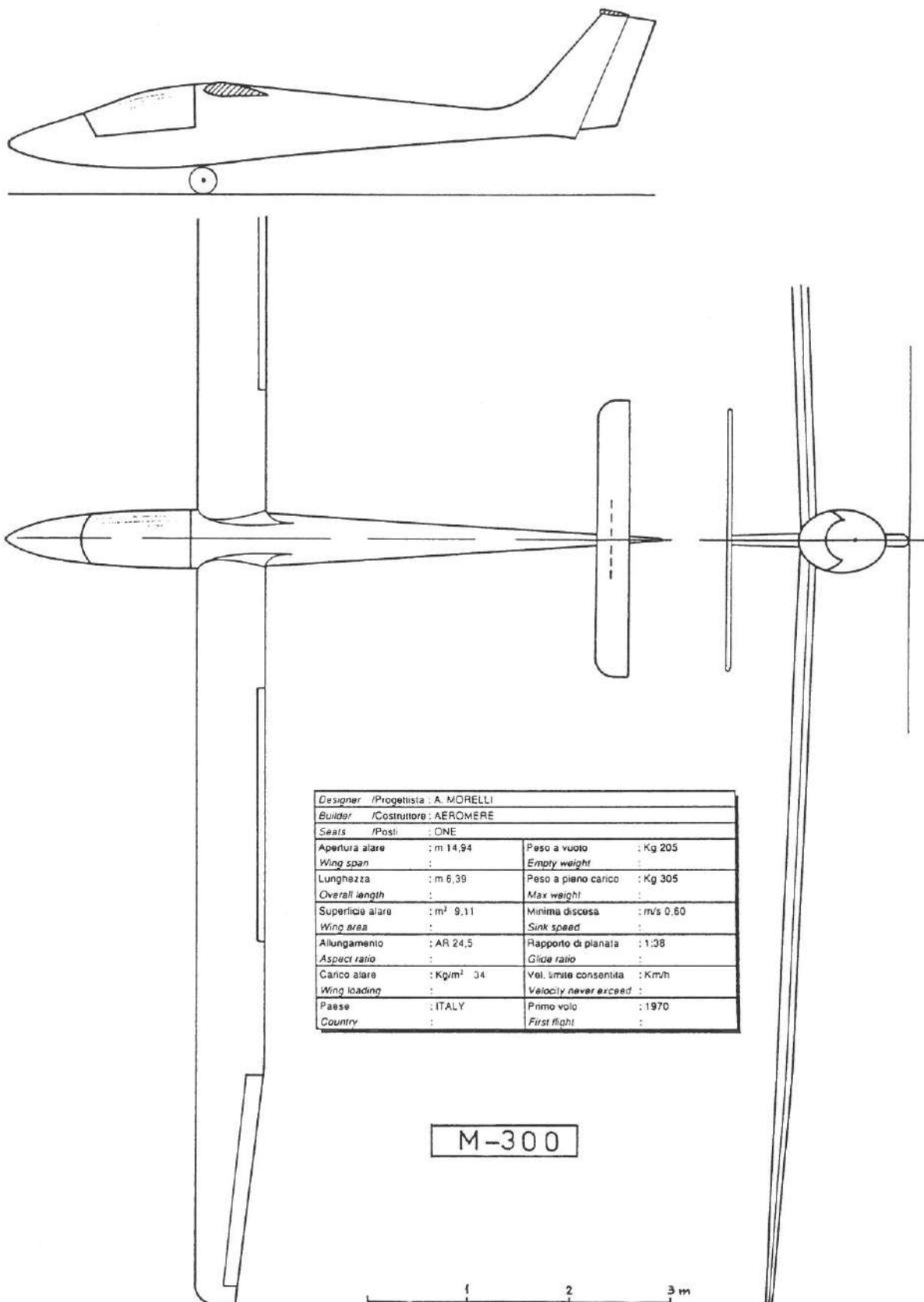
Designer	Progettista : A. & P. MORELLI		
Builder	Costruttore : AEROMERE		
Seats	Posti : ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 200
Wing span	:	Empty weight	:
Lunghezza	: m 6,46	Peso a pieno carico	: Kg 315
Overall length	:	Max weight	:
Superficie alare	: m ² 13,1	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 17,1	Rapporto di planata	: 1:30
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 24	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1960
Country	:	First flight	:

M-100 - S





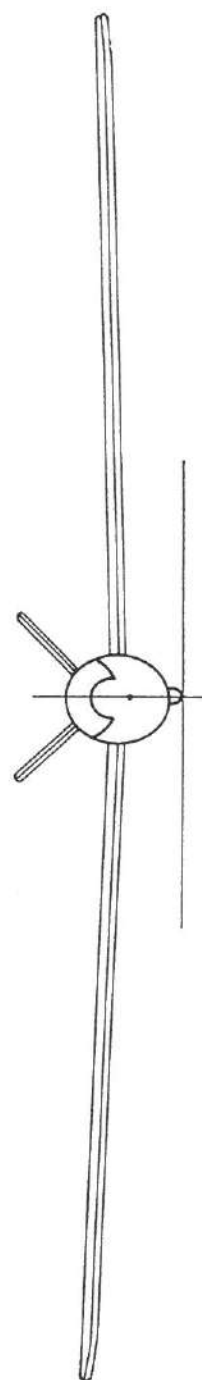
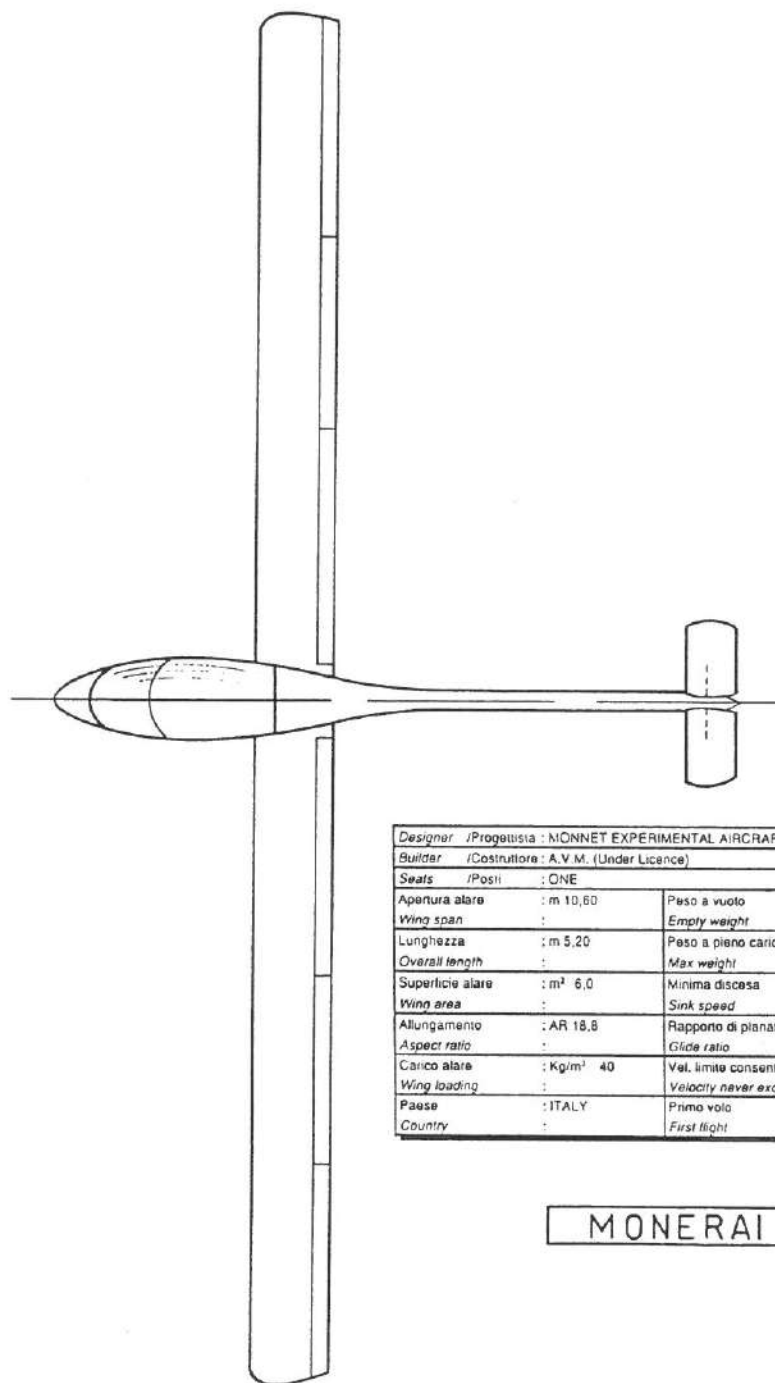
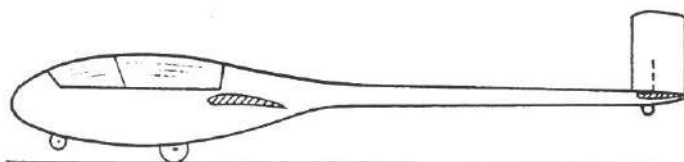
Designer / Progettista : A. MORELLI			
Builder / Costruttore : AEROMERE			
Seats / Posti : TWO ABREAST			
Apertura alare	: m 18,15	Peso a vuoto	: Kg 345
Wing span	:	Empty weight	:
Lunghezza	: m 7,60	Peso a pieno carico	: Kg 570
Overall length	:	Max weight	:
Superficie alare	: m ² 17,5	Minima discesa	: mvs 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 19	Rapporto di planata	: 1.32
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 32,5	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1975
Country	:	First flight	:



Designer /Progettista : A. MORELLI			
Builder /Costruttore : AEROMERE			
Seats /Posti : ONE			
Apertura alare	: m 14,94	Peso a vuoto	: Kg 205
Wing span	:	Empty weight	:
Lunghezza	: m 6,39	Peso a pieno carico	: Kg 305
Overall length	:	Max weight	:
Superficie alare	: m ² 9,11	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 24,5	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 34	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1970
Country	:	First flight	:

M-300

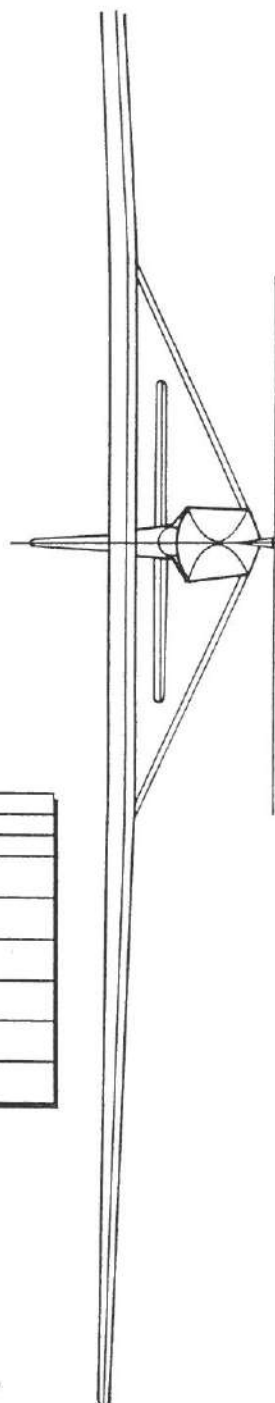
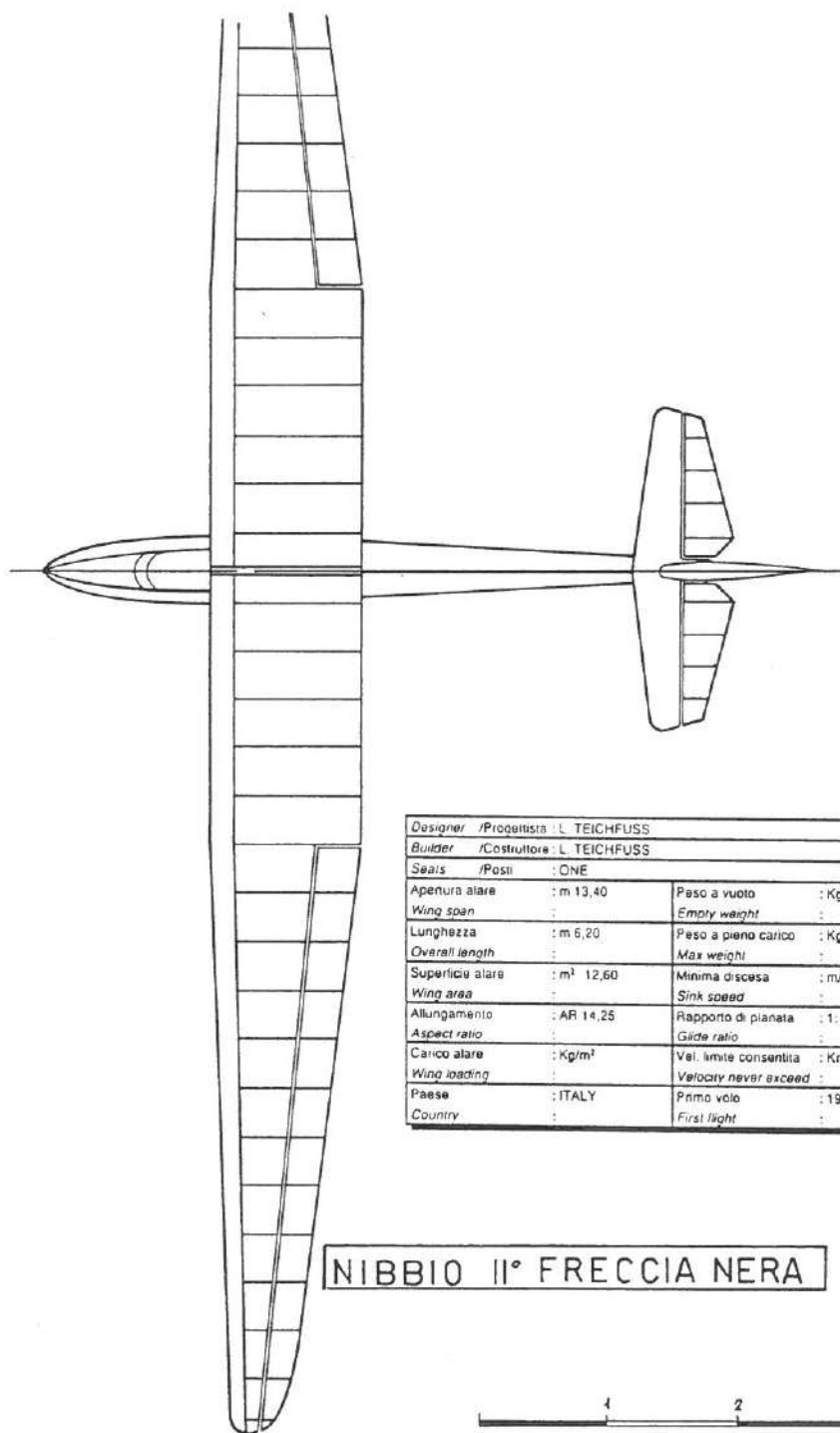
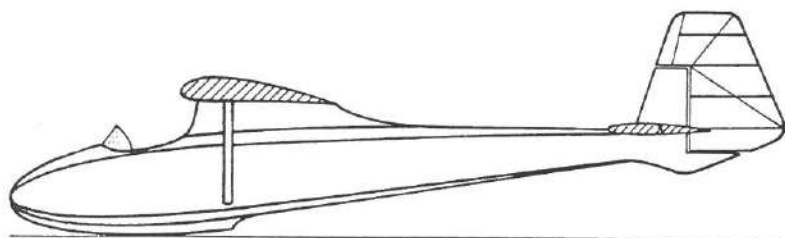




Designer / Progettista : MONNET EXPERIMENTAL AIRCRAFT			
Builder / Costruttore : A.V.M. (Under Licence)			
Seats / Posi :		ONE	
Apertura alare	: m 10,80	Peso a vuoto	: Kg 150
Wing span	:	Empty weight	:
Lunghezza	: m 5,20	Peso a pieno carico	: Kg 240
Overall length	:	Max weight	:
Superficie alare	: m ² 6,0	Minima discesa	: m/s 0,55
Wing area	:	Sink speed	:
Allungamento	: AR 18,8	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 40	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1983
Country	:	First flight	:

MONERAI

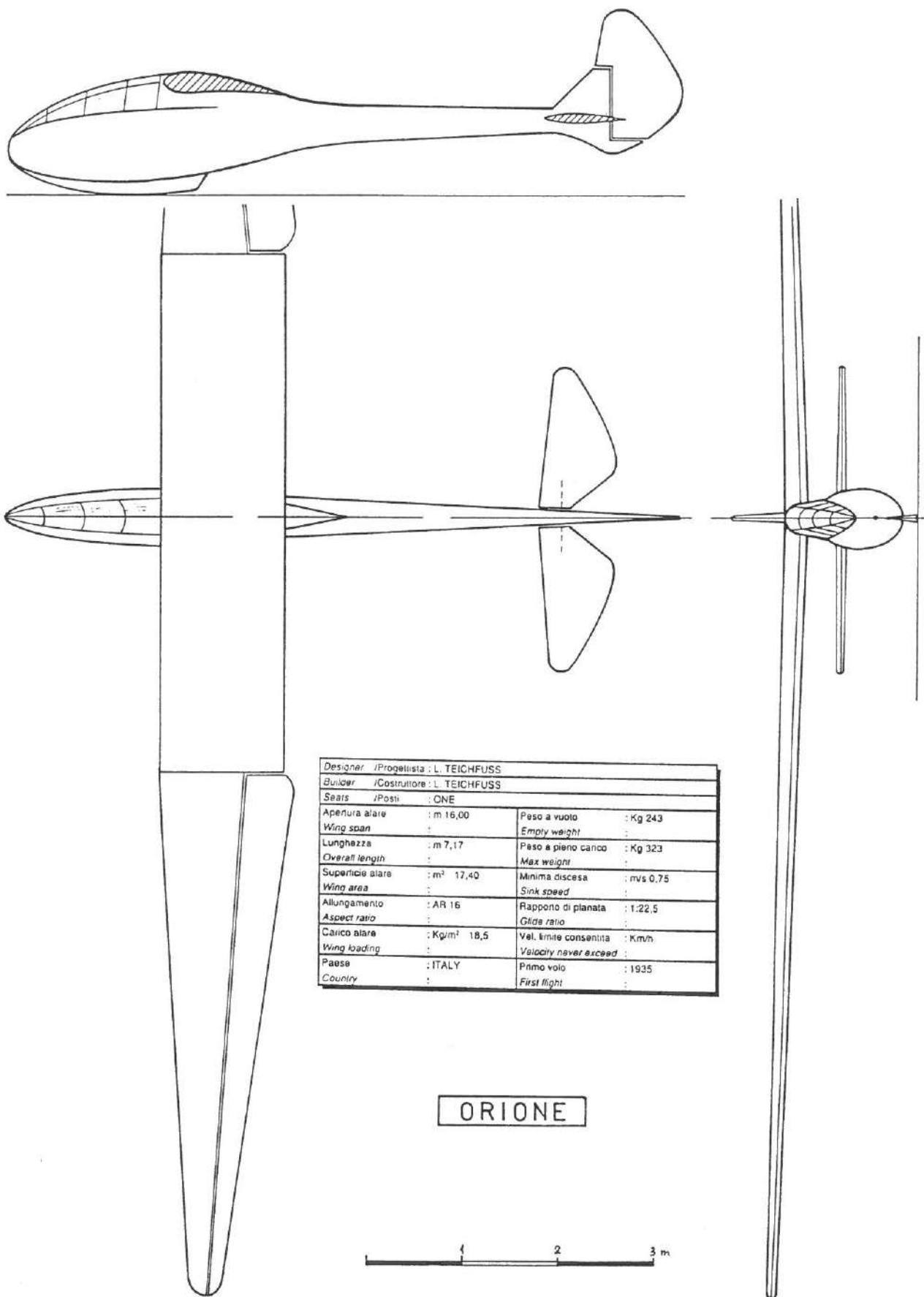




Designer /Progettista	L. TEICHFUSS		
Builder /Costruttore	L. TEICHFUSS		
Seats /Posi	ONE		
Apertura alare	: m 13,40	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 5,20	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 12,60	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 14,25	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1930
Country	:	First flight	:

NIBBIO II° FRECCIA NERA

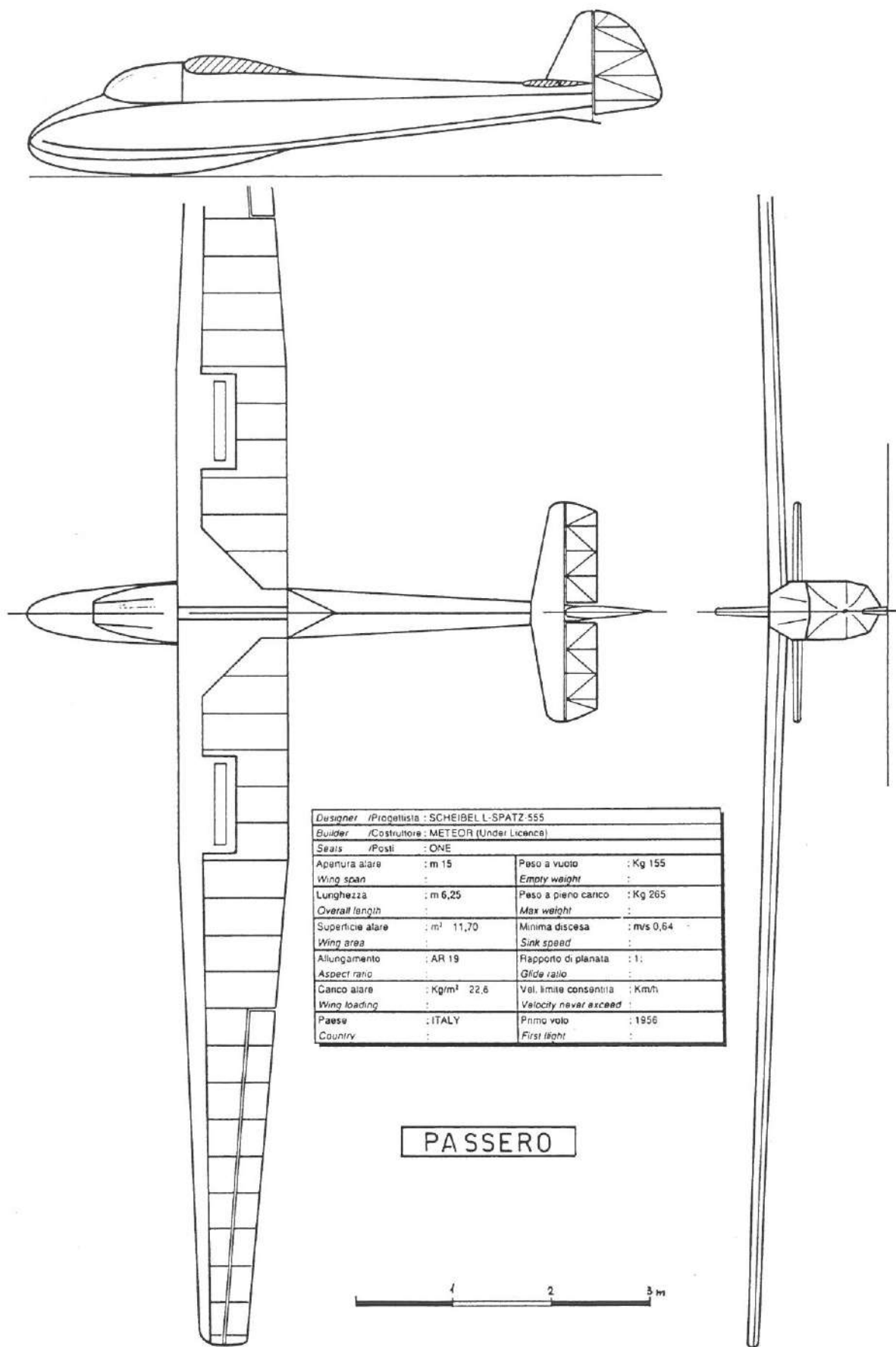




Designer	/Progettista : L. TEICHFUSS		
Builder	/Costruttore : L. TEICHFUSS		
Seats	/Posti : ONE		
Apertura alare	: m 16,00	Peso a vuoto	: Kg 243
Wing span	:	Empty weight	:
Lunghezza	: m 7,17	Peso a pieno carico	: Kg 323
Overall length	:	Max weight	:
Superficie alare	: m ² 17,40	Minima discesa	: m/s 0,75
Wing area	:	Sink speed	:
Allungamento	: AR 16	Rapporto di planata	: 1:22,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,5	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1935
Country	:	First flight	:

ORIONE

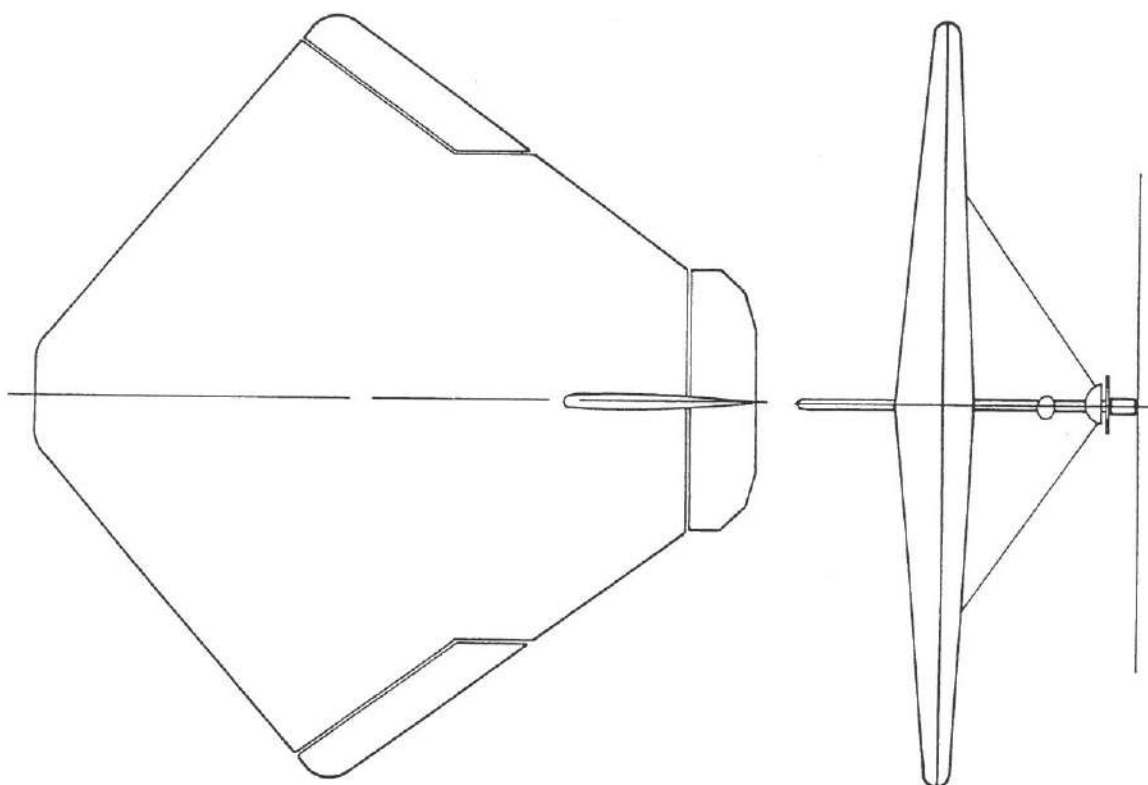
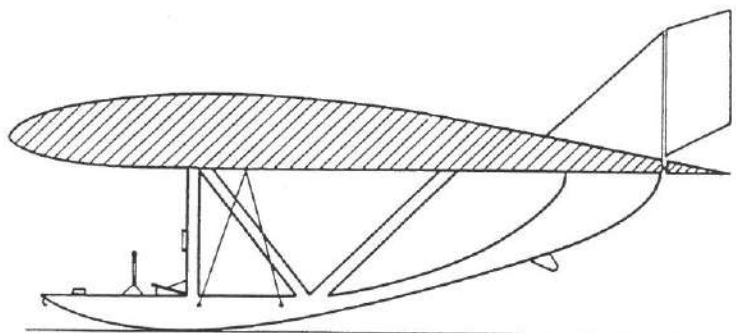
1 2 3 m



<i>Designer /Progettista</i> : SCHEIBEL L-SPATZ-555			
<i>Builder /Costruttore</i> : METEOR (Under Licence)			
<i>Seats</i>	<i>/Posti</i>	: ONE	
<i>Apertura alare</i>	: m 15	<i>Peso a vuoto</i>	: Kg 155
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 6,25	<i>Peso a pieno carico</i>	: Kg 265
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 11,70	<i>Minima discesa</i>	: m/s 0,64
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 19	<i>Rapporto di planata</i>	: 1:
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 22,6	<i>Vel. limite consentita</i>	: Km/h
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: ITALY	<i>Primo volo</i>	: 1956
<i>Country</i>	:	<i>First flight</i>	:

PASSERO

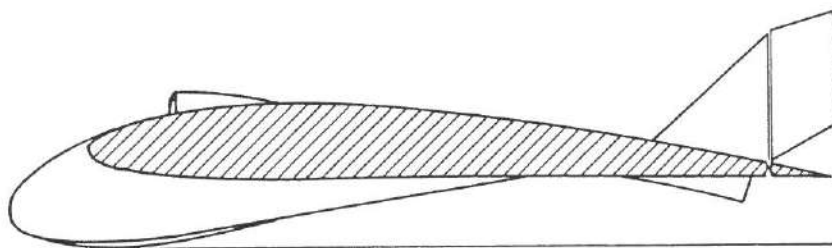
1 2 3 m



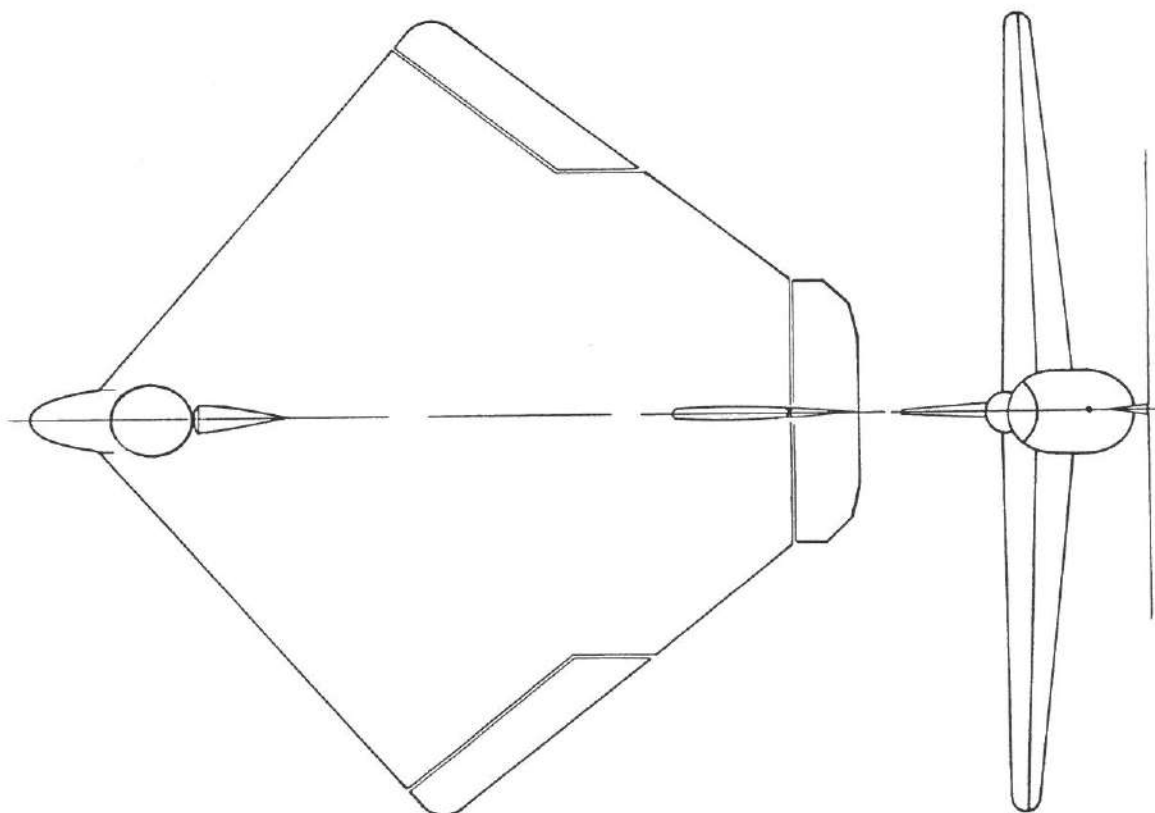
Designer / Progettista : F. PIANA - CANOVA			
Builder / Costruttore : F. PIANA - CANOVA			
Seats / Posti : ONE			
Apertura alare	: m 5,90	Peso a vuoto	: Kg 100
Wing span	:	Empty weight	:
Lunghezza	: m 5,45	Peso a pieno carico	: Kg 175
Overall length	:	Max weight	:
Superficie alare	: m ² 17,50	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 1,98	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 10	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1934
Country	:	First flight	:

PIANA CANOVA P.C-100



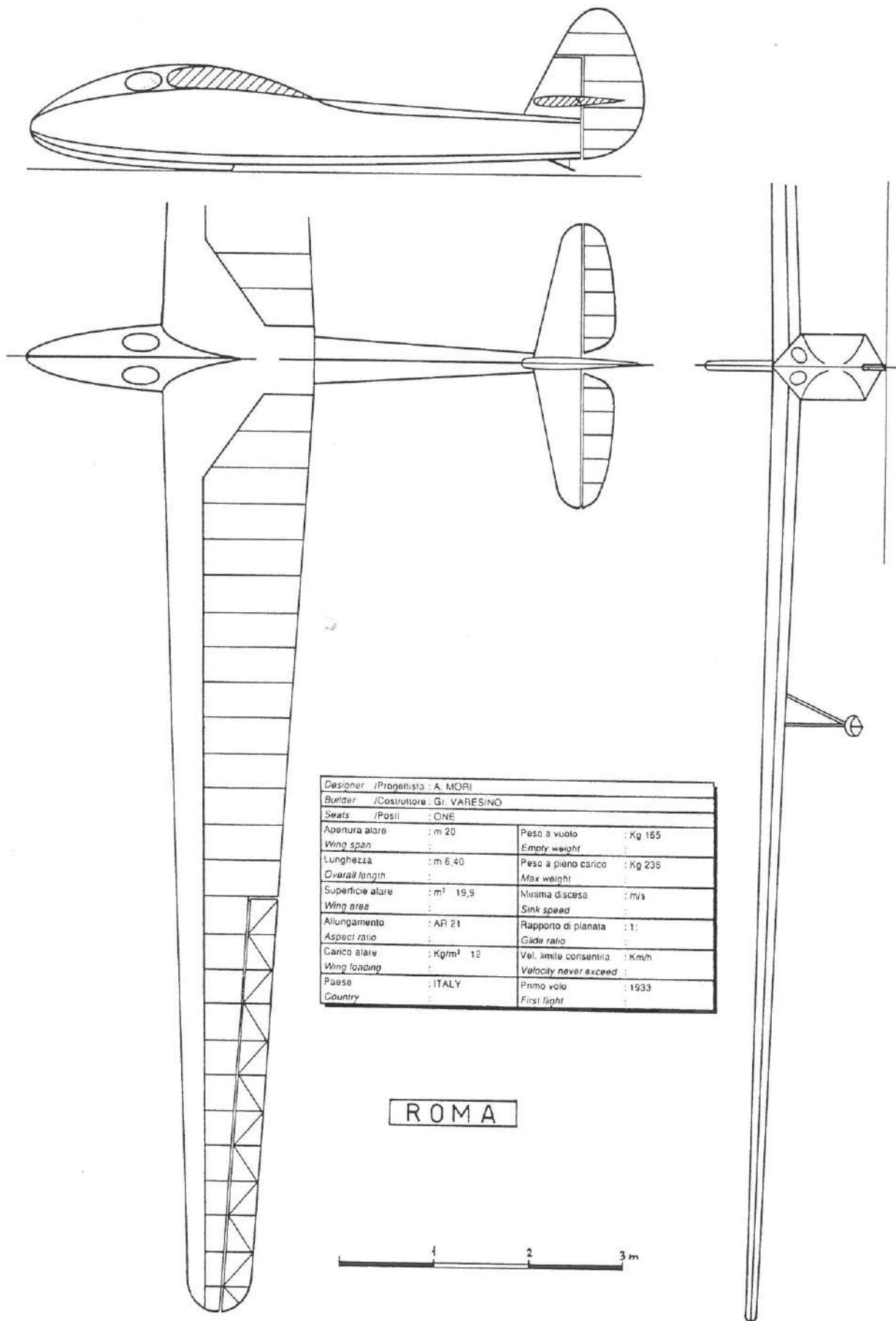


Designer / Progettista	: F. PIANA - CANOVA		
Builder / Costruttore	: F. PIANA - CANOVA		
Seats / Posti	: ONE		
Apertura alare	: m 6,06	Peso a vuoto	: Kg 190
Wing span	:	Empty weight	:
Lunghezza	: m 6,40	Peso a pieno carico	: Kg 270
Overall length	:	Max weight	:
Superficie alare	: m ² 18	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 1,83	Rapporto di pianata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1936
Country	:	First flight	:

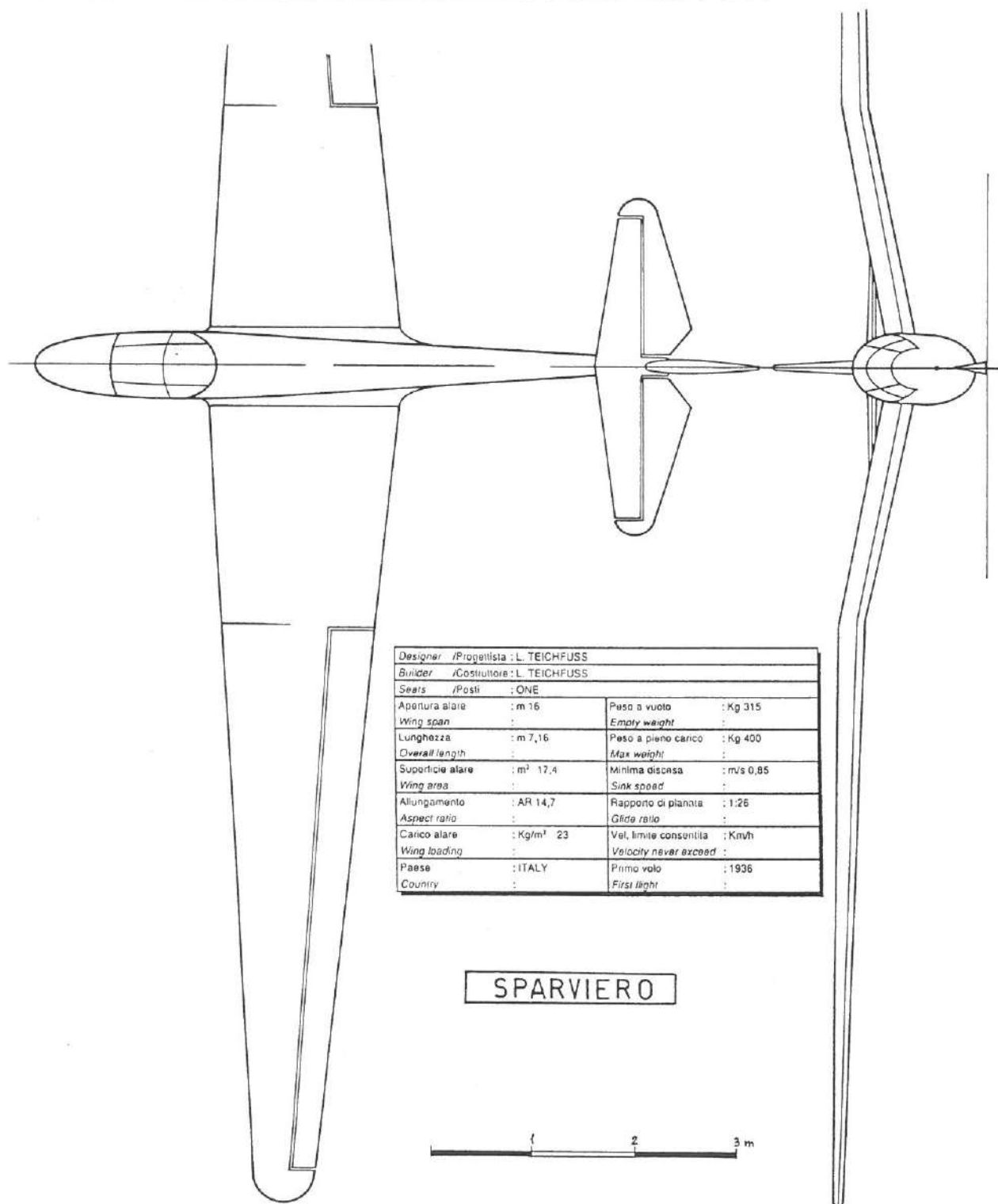
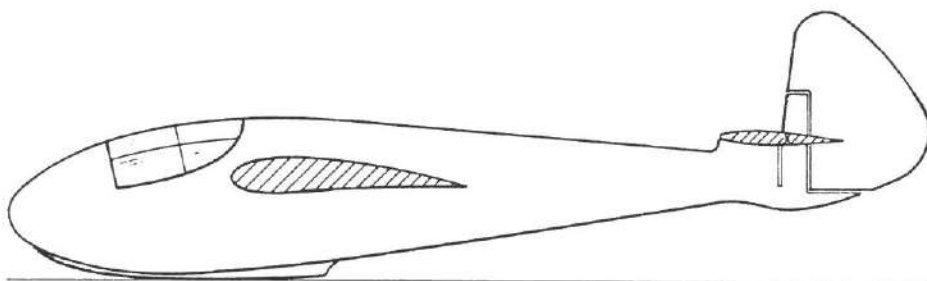


PIANA CANOVA P.C.-500





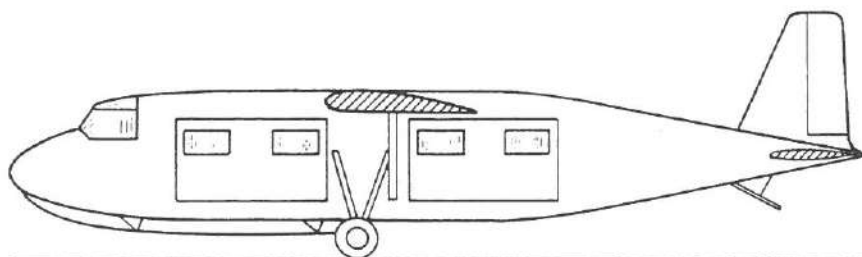
Designer / Progettista	A. MORI		
Builder / Costruttore	Gr. VARESI		
Seats / Posili	ONE		
Apertura alare	: m 20	Peso a vuoto	: Kg 165
Wing span	:	Empty weight	:
Lunghezza	: m 6,40	Peso a pieno carico	: Kg 235
Overall length	:	Max weight	:
Superficie alare	: m ² 19,9	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 21	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 12	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1933
Country	:	First flight	:



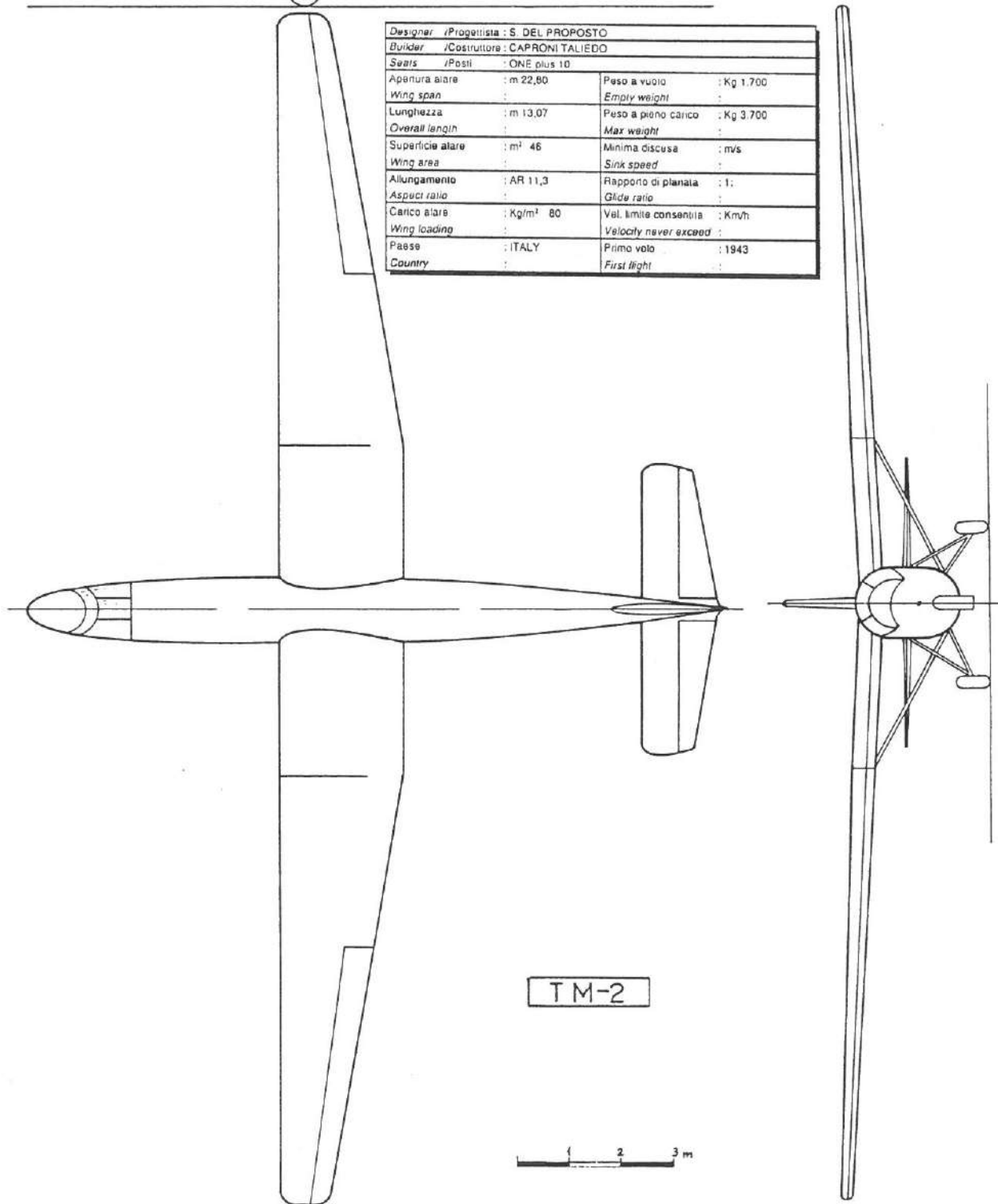
Designer / Progettista	: L. TEICHFUSS		
Builder / Costruttore	: L. TEICHFUSS		
Seats / Posti	: ONE		
Apertura alare	: m 16	Peso a vuoto	: Kg 315
Wing span	:	Empty weight	:
Lunghezza	: m 7,16	Peso a pieno carico	: Kg 400
Overall length	:	Max weight	:
Superficie alare	: m² 17,4	Minima discesa	: m/s 0,85
Wing area	:	Sink speed	:
Allungamento	: AR 14,7	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m² 23	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1936
Country	:	First flight	:

SPARVIERO



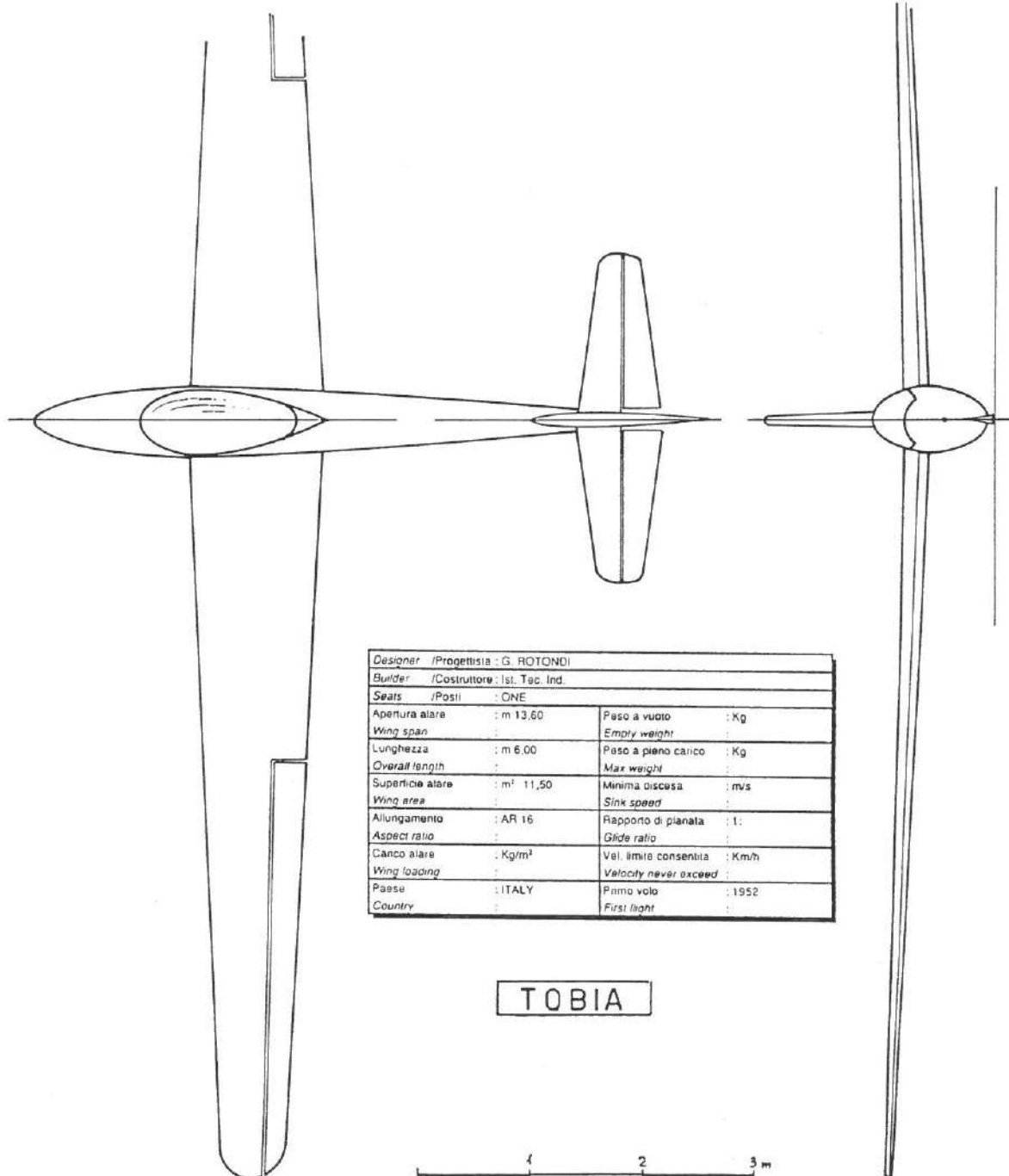
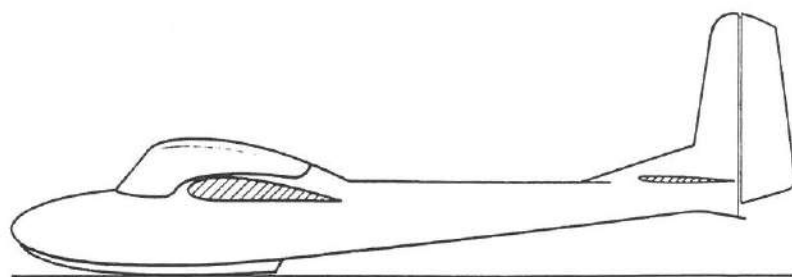


Designer / Progettista	S. DEL PROPOSTO		
Builder / Costruttore	CAPRONI TALIEDO		
Seats / Posti	ONE plus 10		
Apertura alare	: m 22,80	Peso a vuoto	: Kg 1.700
Wing span	:	Empty weight	:
Lunghezza	: m 13,07	Peso a pieno carico	: Kg 3.700
Overall length	:	Max weight	:
Superficie alare	: m ² 46	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 11,3	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 80	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1943
Country	:	First flight	:



TM-2

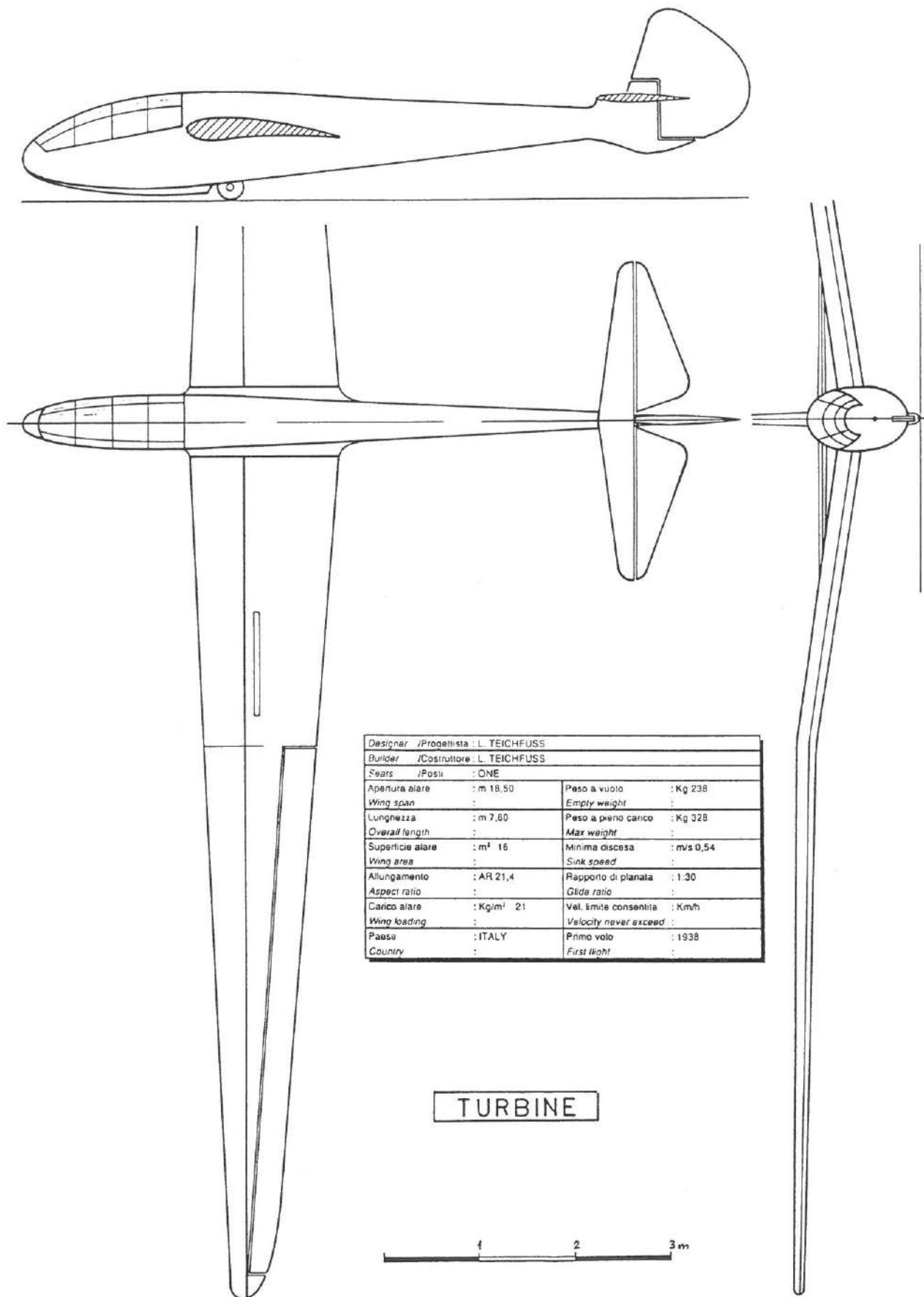




Designer : (Progettista) : G. ROTONDI			
Builder : (Costruttore) : Ist. Tec. Ind.			
Seats : (Posi) :		ONE	
Apertura alare :	m 13,60	Peso a vuoto :	Kg
Wing span :		Empty weight :	
Lunghezza :	m 6,00	Peso a pieno carico :	Kg
Overall length :		Max weight :	
Superficie alare :	m ² 11,50	Minima discesa :	m/s
Wing area :		Sink speed :	
Allungamento :	AR 16	Rapporto di planata :	1:
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ²	Vel. limite consentita :	Km/h
Wing loading :		Velocity never exceed :	
Paese :	ITALY	Primo volo :	1952
Country :		First flight :	

TOBIA

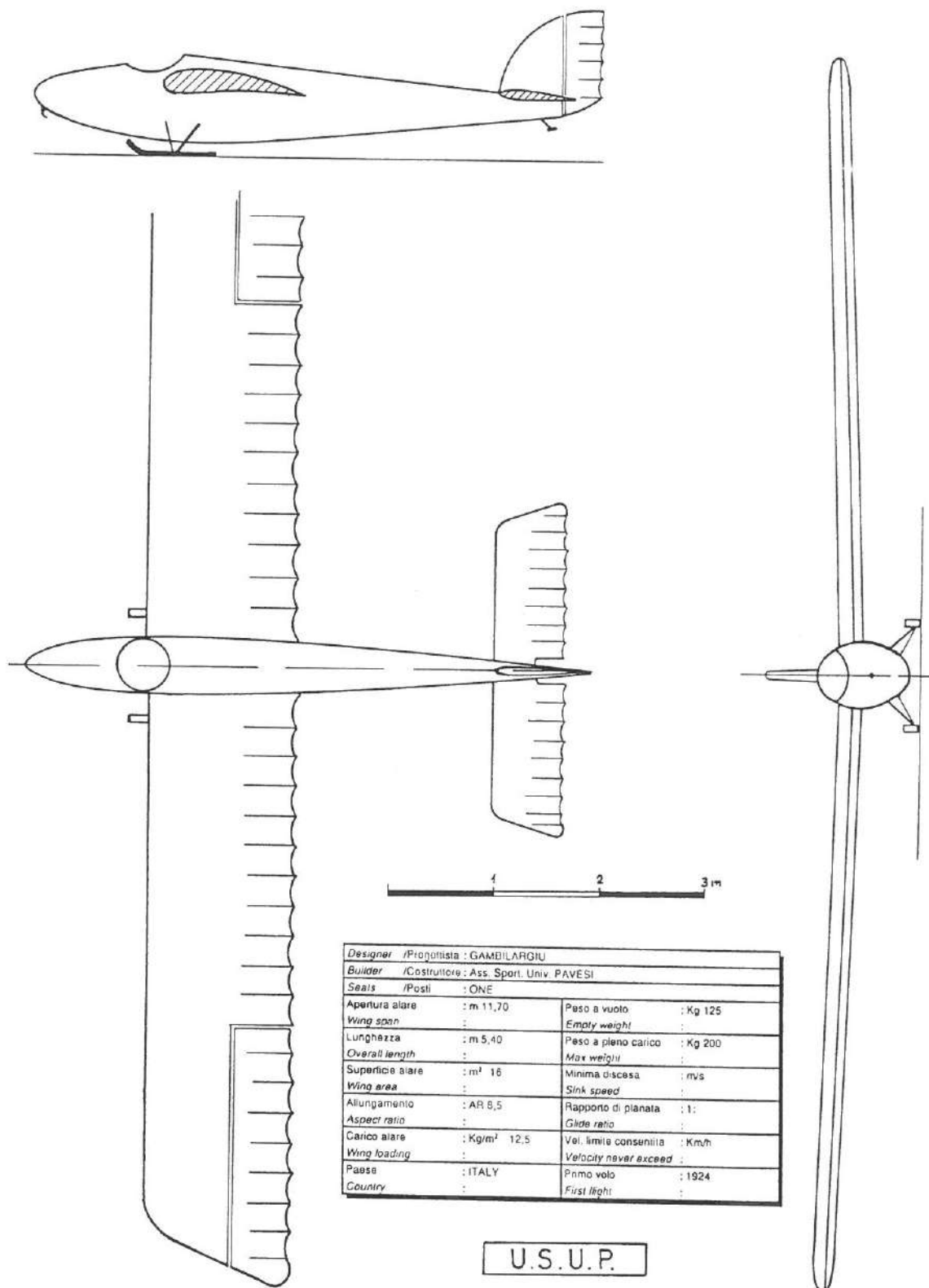


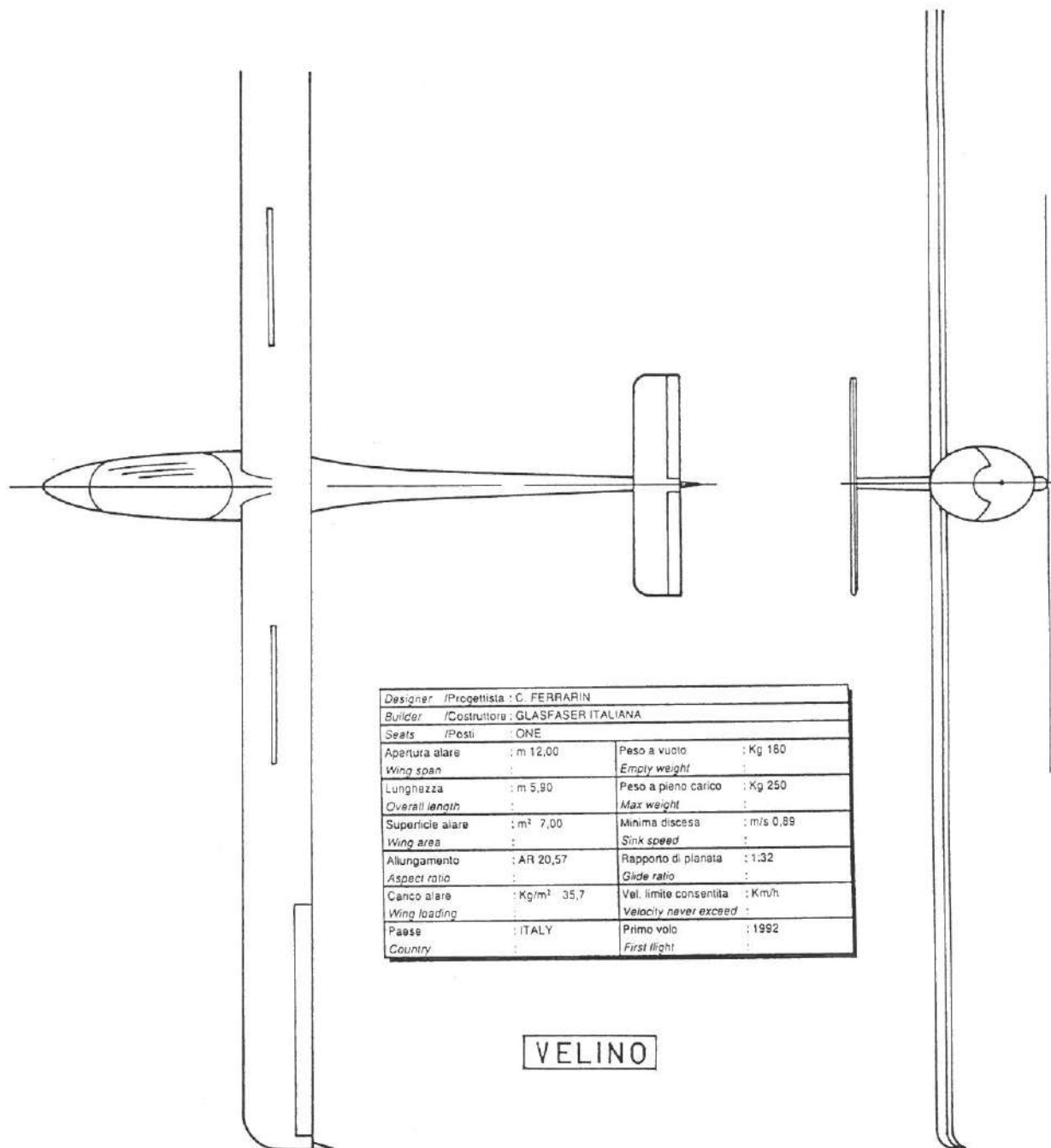
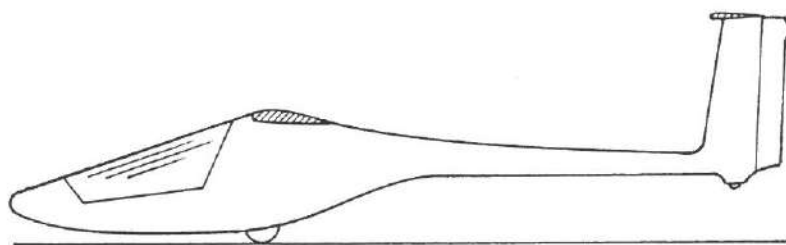


Designer	Progettista : L. TEICHFUSS		
Builder	Costruttore : L. TEICHFUSS		
Seats	Posiz.	ONE	
Apertura alare	: m	18,50	Peso a vuoto : Kg 238
Wing span	:		Empty weight :
Lunghezza	: m	7,60	Peso a pieno carico : Kg 328
Overall length	:		Max weight :
Superficie alare	: m ²	16	Minima discesa : m/s 0,54
Wing area	:		Sink speed :
Allungamento	: AR	21,4	Rapporto di planata : 1:30
Aspect ratio	:		Glide ratio :
Carico alare	: Kg/m ²	21	Vel. limite consentita : Km/h
Wing loading	:		Velocity never exceed :
Paese	ITALY		Primo volo : 1938
Country			First flight :

TURBINE

1 2 3 m

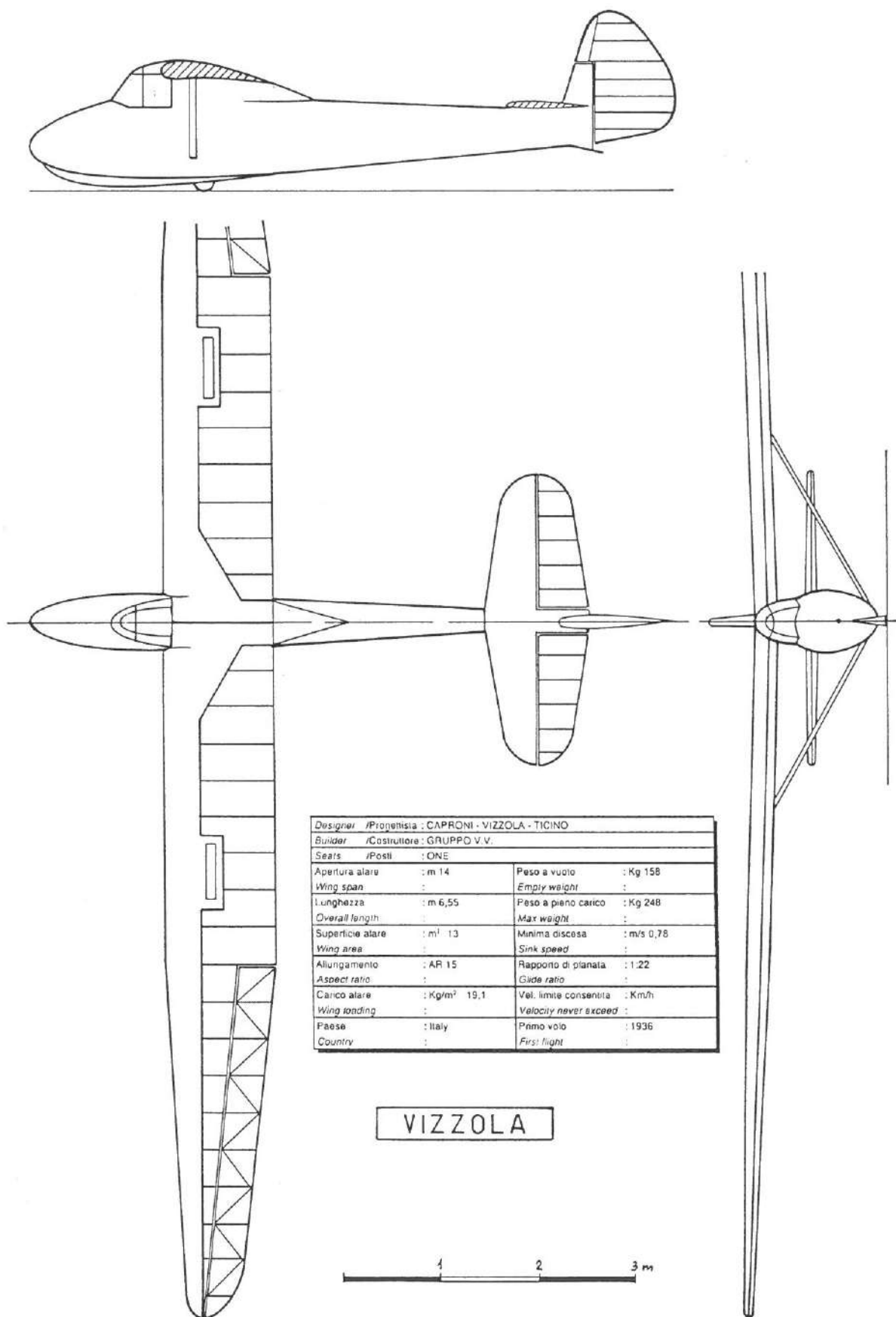


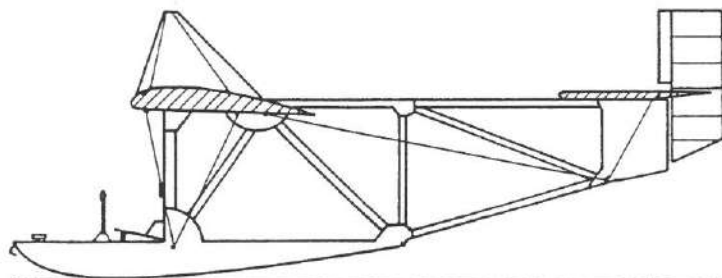


Designer / Progettista : C. FERRARIN			
Builder / Costruttore : GLASFASER ITALIANA			
Seats / Posti : ONE			
Apertura alare	: m 12,00	Peso a vuoto	: Kg 160
Wing span	:	Empty weight	:
Lunghezza	: m 5,90	Peso a pieno carico	: Kg 250
Overall length	:	Max weight	:
Superficie alare	: m ² 7,00	Minima discesa	: m/s 0,69
Wing area	:	Sink speed	:
Allungamento	: AR 20,57	Rapporto di planata	: 1,32
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 35,7	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1992
Country	:	First flight	:

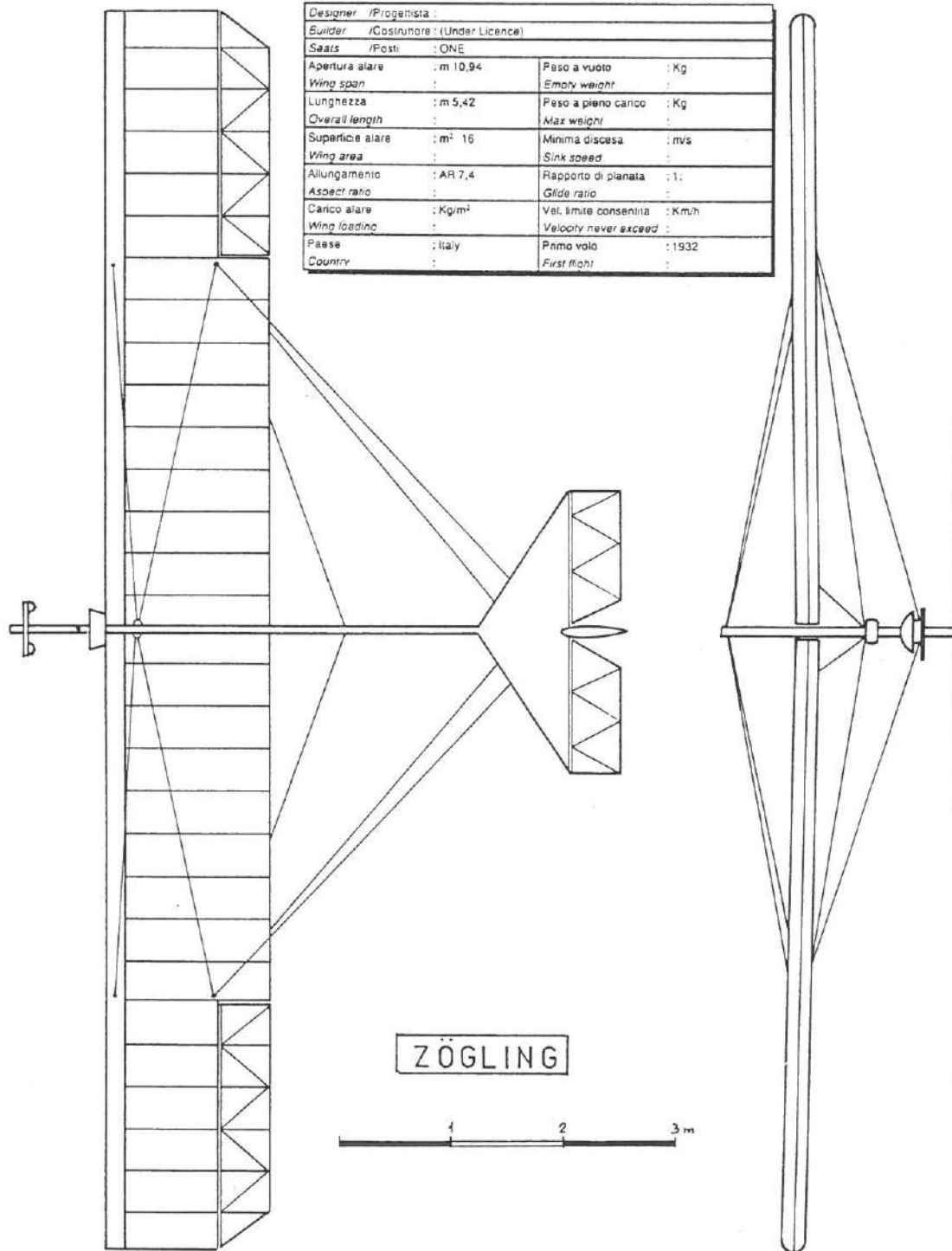
VELINO

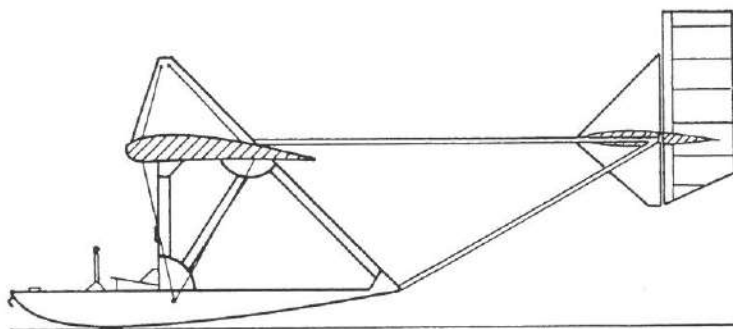




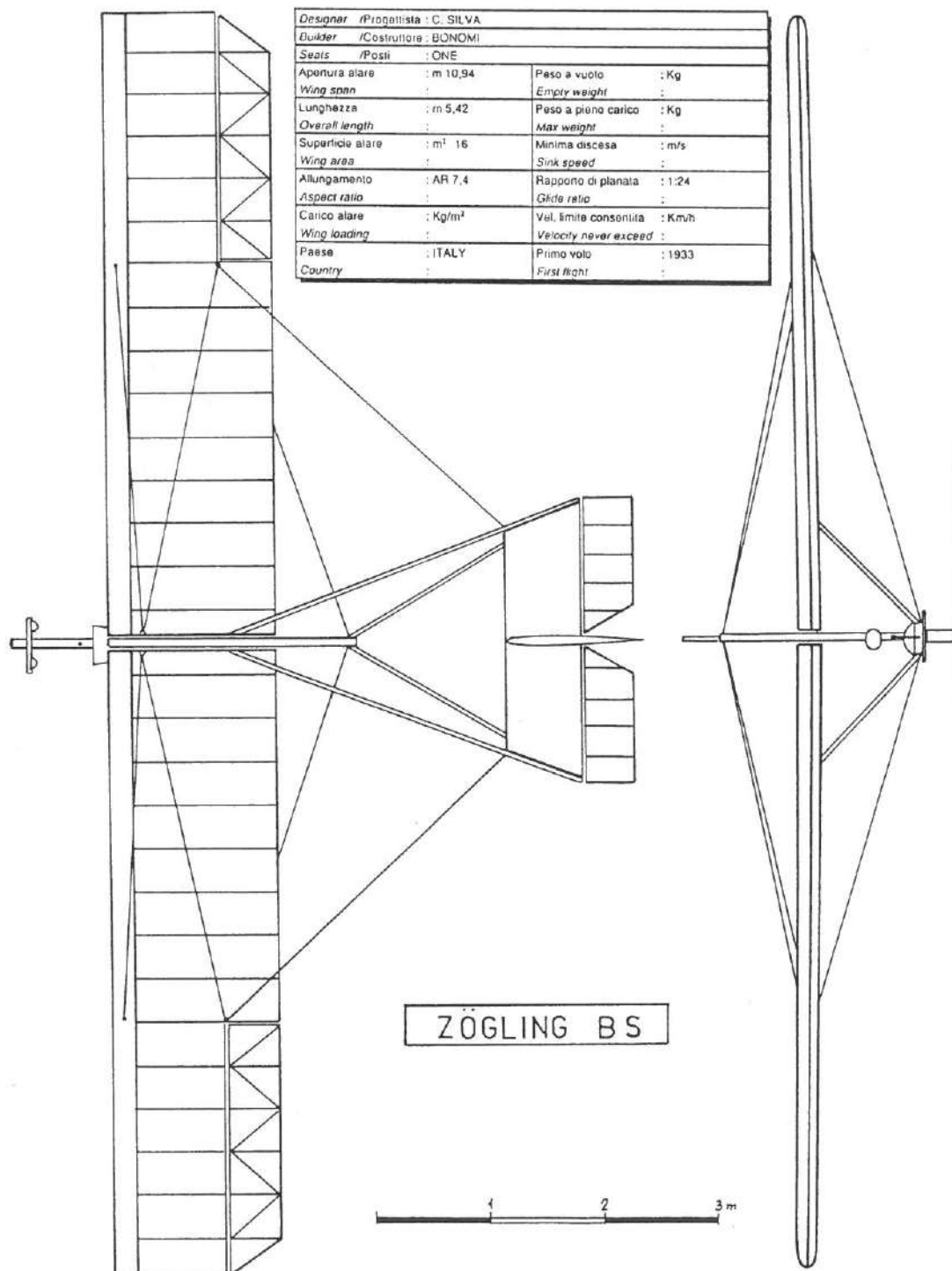


Designer	/Progenista		
Builder	/Costruttore : (Under Licence)		
Seats	/Posti : ONE		
Apertura alare	: m 10,94	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 5,42	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m² 16	Minima discesa	: mvs
Wing area	:	Sink speed	:
Allungamento	: AR 7,4	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: Italy	Primo volo	: 1932
Country	:	First flight	:

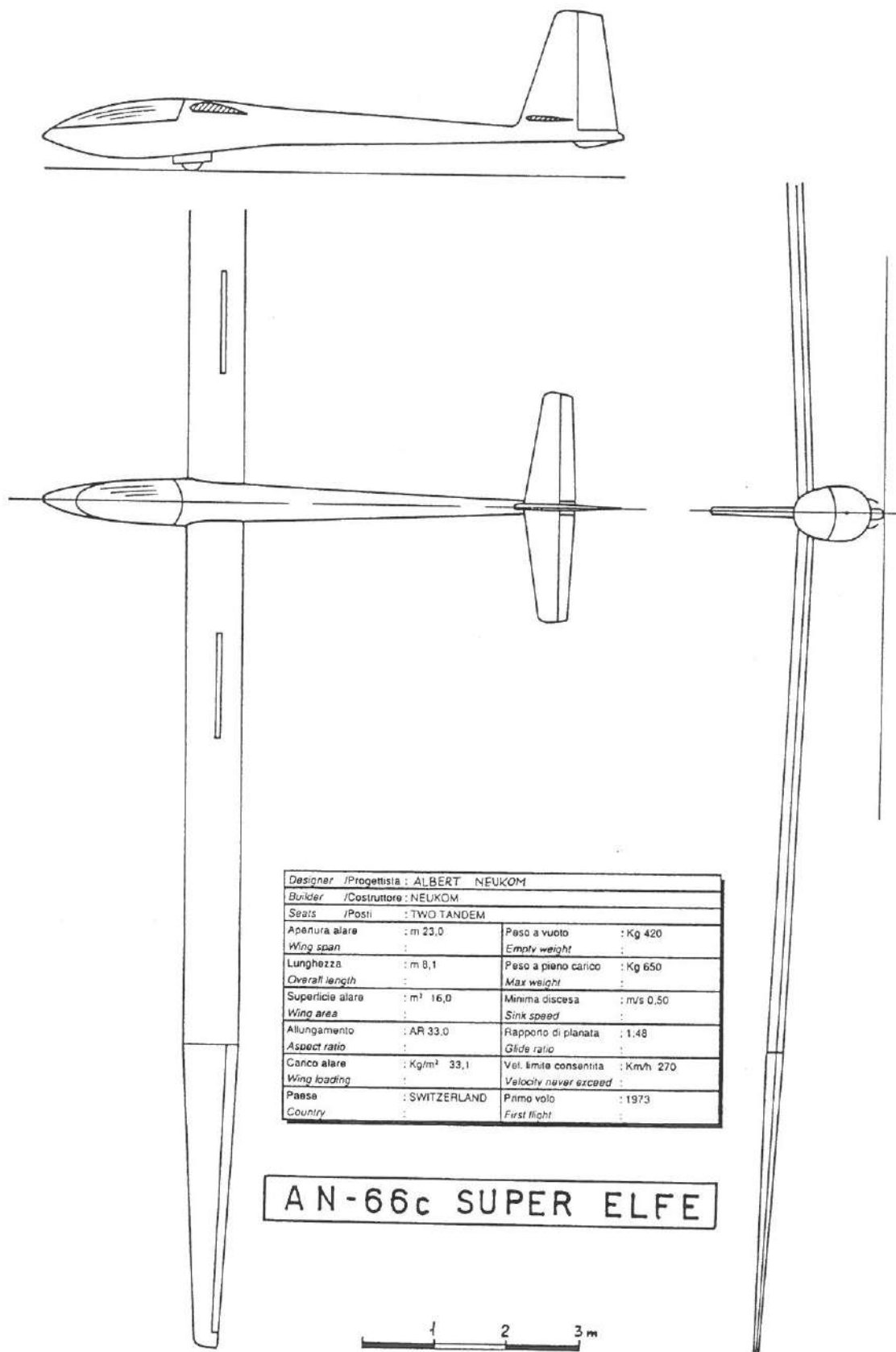




Designer /Progettista : C. SILVA			
Builder /Costruttore : BONOMI			
Seats /Posti : ONE			
Apertura alare	: m 10,94	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 5,42	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 16	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 7,4	Rapporto di planata	: 1:24
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: ITALY	Primo volo	: 1933
Country	:	First flight	:



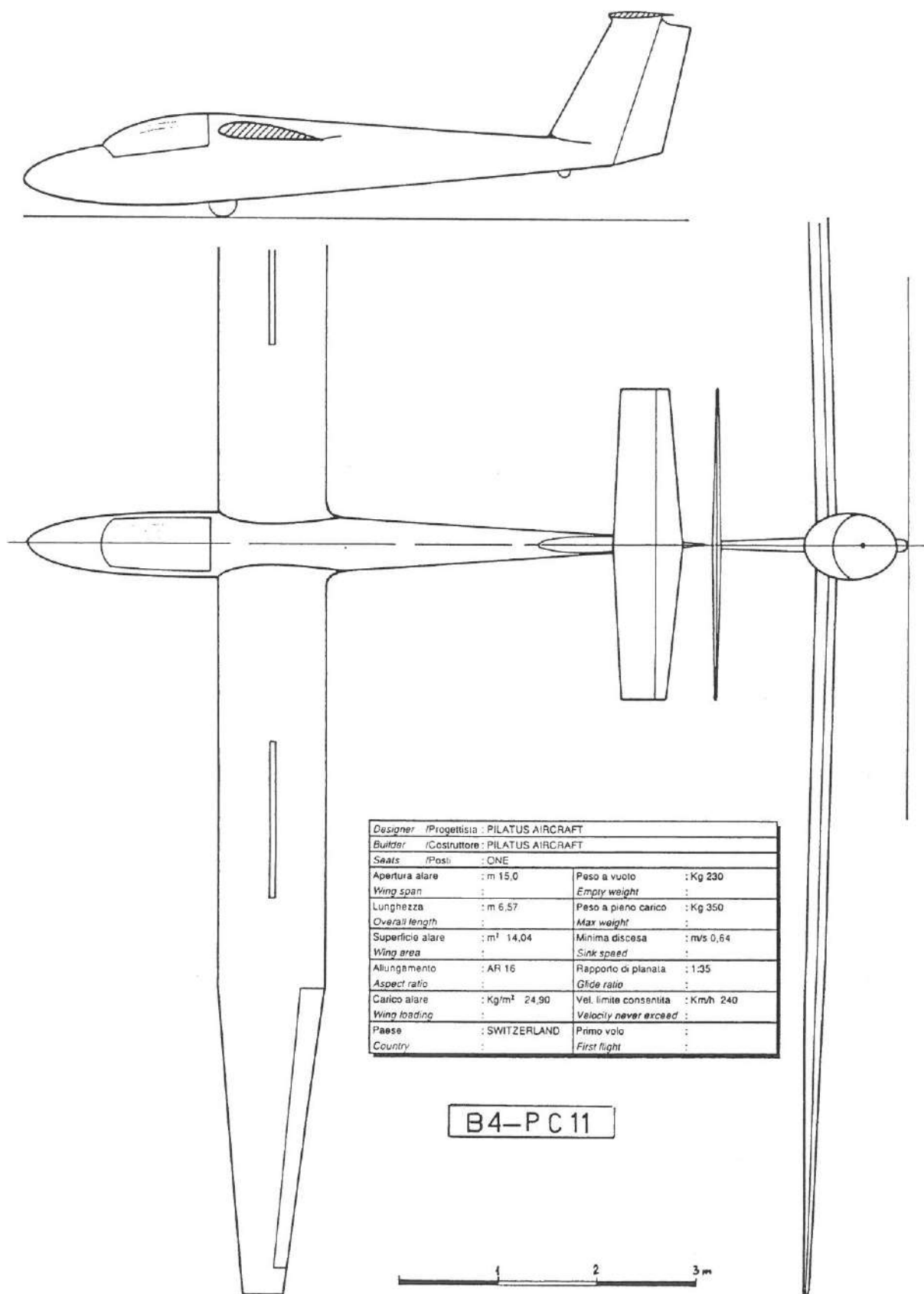
ZÖGLING BS

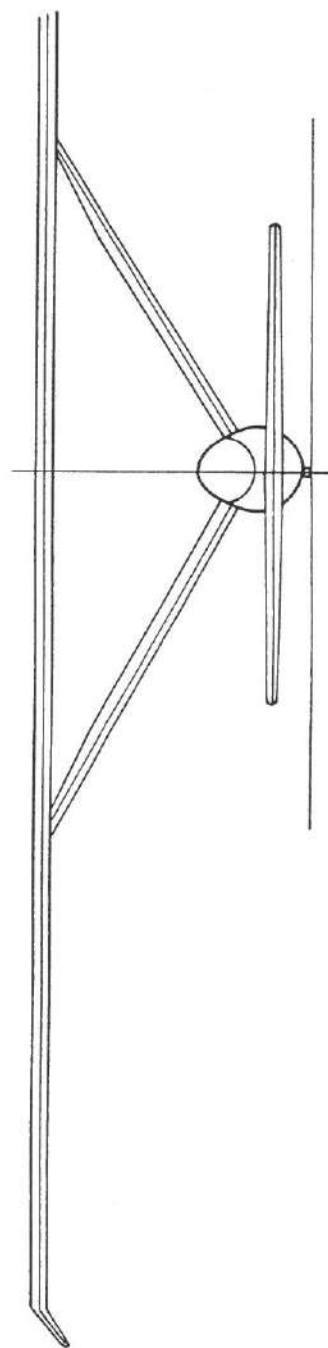
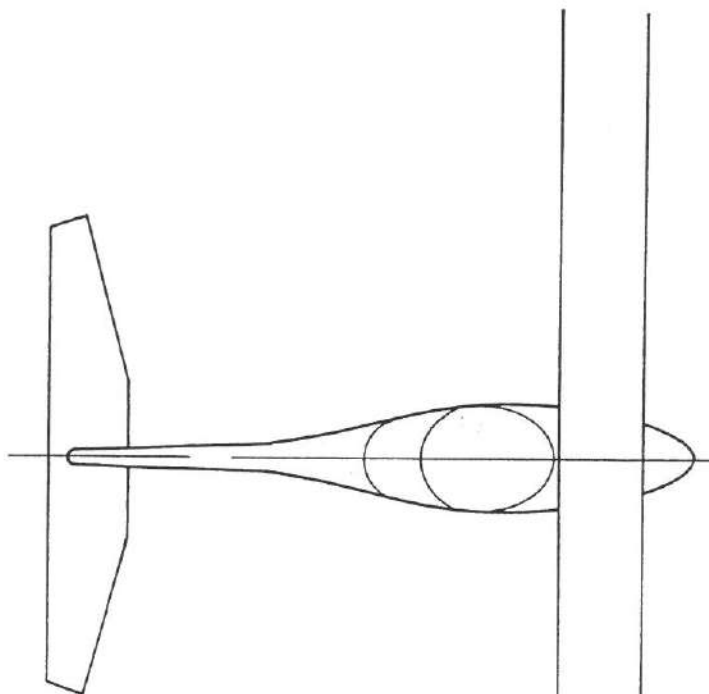
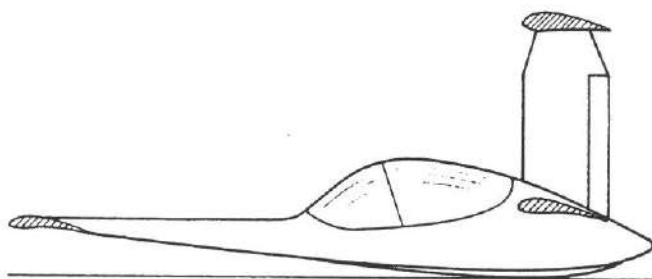


Designer / Progettista : ALBERT NEUKOM			
Builder / Costruttore : NEUKOM			
Seats / Posti : TWO TANDEM			
Apertura alare	: m 23,0	Peso a vuoto	: Kg 420
Wing span	:	Empty weight	:
Lunghezza	: m 8,1	Peso a pieno carico	: Kg 650
Overall length	:	Max weight	:
Superficie alare	: m ² 16,0	Minima discesa	: m/s 0,50
Wing area	:	Sink speed	:
Allungamento	: AR 33,0	Rapporto di planata	: 1,48
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 33,1	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: SWITZERLAND	Primo volo	: 1973
Country	:	First flight	:

AN-66c SUPER ELFE

1 2 3 m

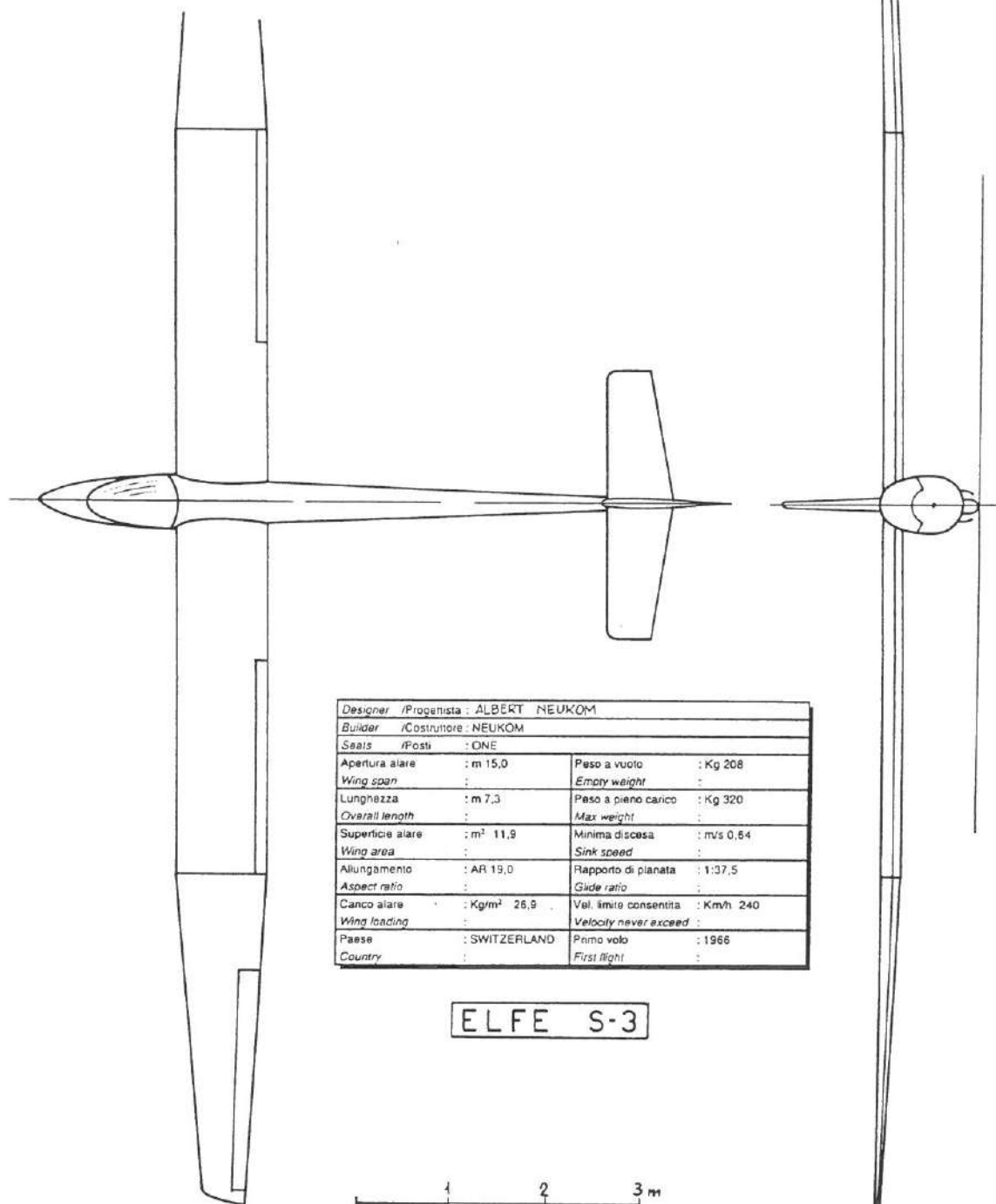
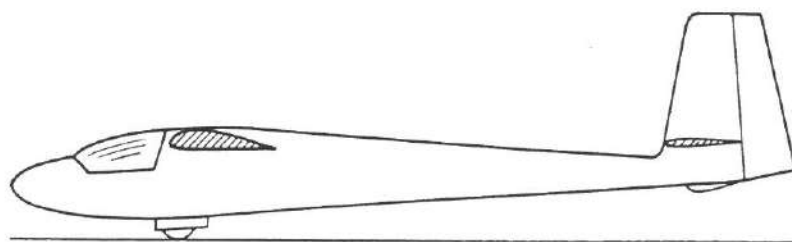




Designer / Progettista : H. SCHURCH			
Builder / Costruttore : SWISS FED. ISTIT. TECHNOLOGY			
Seats / Posti : ONE			
Apertura alare	: m 13,50	Peso a vuoto	: Kg 66
Wing span	:	Empty weight	:
Lunghezza	: m 4,94	Peso a pieno carico	: Kg 170
Overall length	:	Max weight	:
Superficie alare	: m ² 13,0	Minima discesa	: m/s 0,68
Wing area	:	Sink speed	:
Allungamento	: AR 20	Rapporto di planata	: 1:20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 13,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: SWITZERLAND	Primo volo	: 1977
Country	:	First flight	:

CANARD 2FL

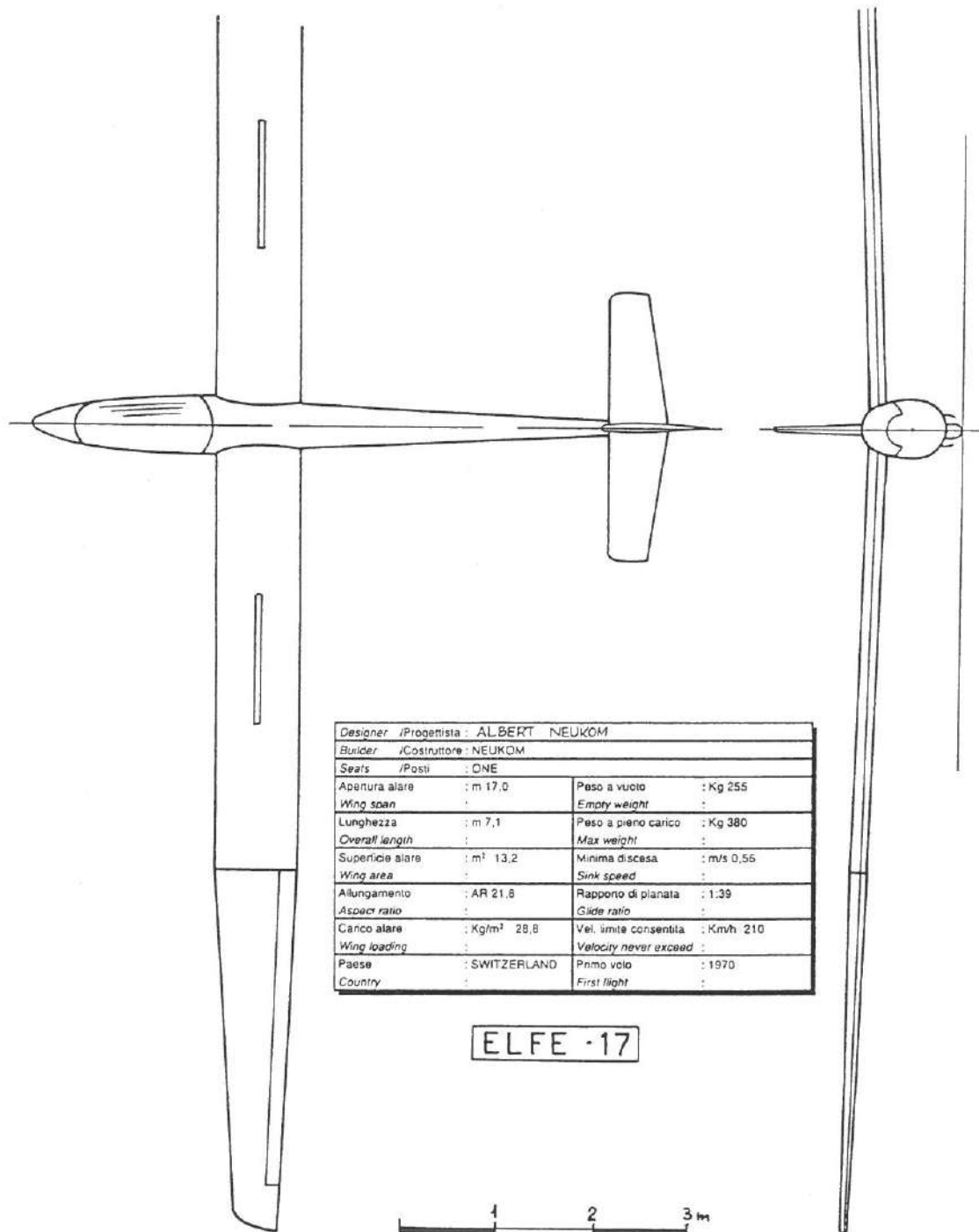
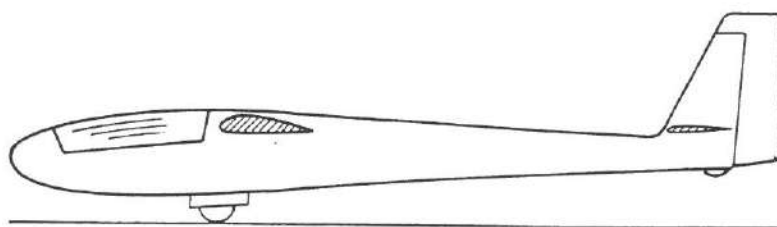




Designer / Progettista : ALBERT NEUKOM			
Builder / Costruttore : NEUKOM			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 208
Wing span	:	Empty weight	:
Lunghezza	: m 7,3	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 11,9	Minima discesa	: m/s 0,64
Wing area	:	Sink speed	:
Allungamento	: AR 19,0	Rapporto di planata	: 1:37,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,9	Vel. limite consentita	: Km/h 240
Wing loading	:	Velocity never exceed	:
Paese	: SWITZERLAND	Primo volo	: 1966
Country	:	First flight	:

ELFE S-3

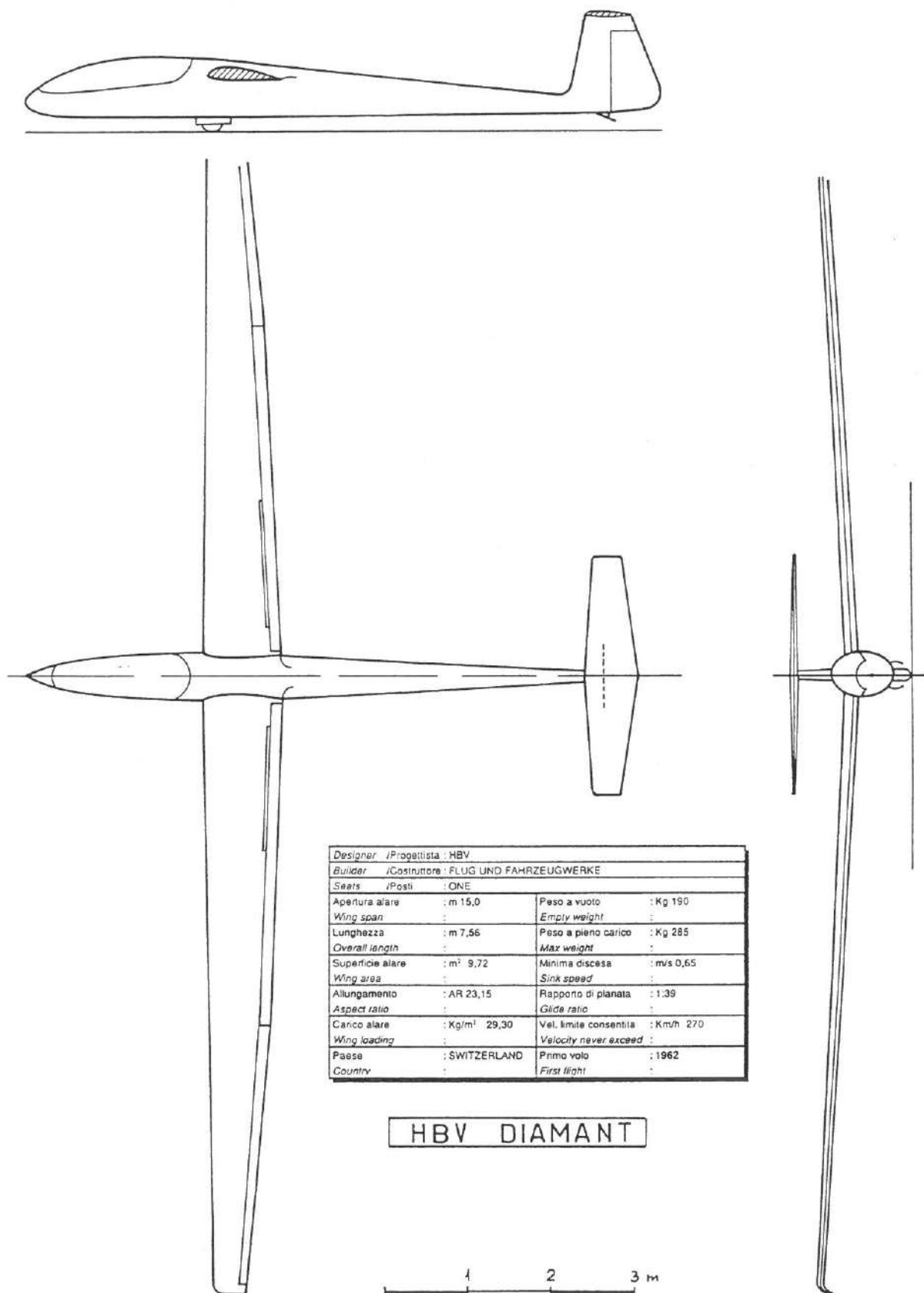




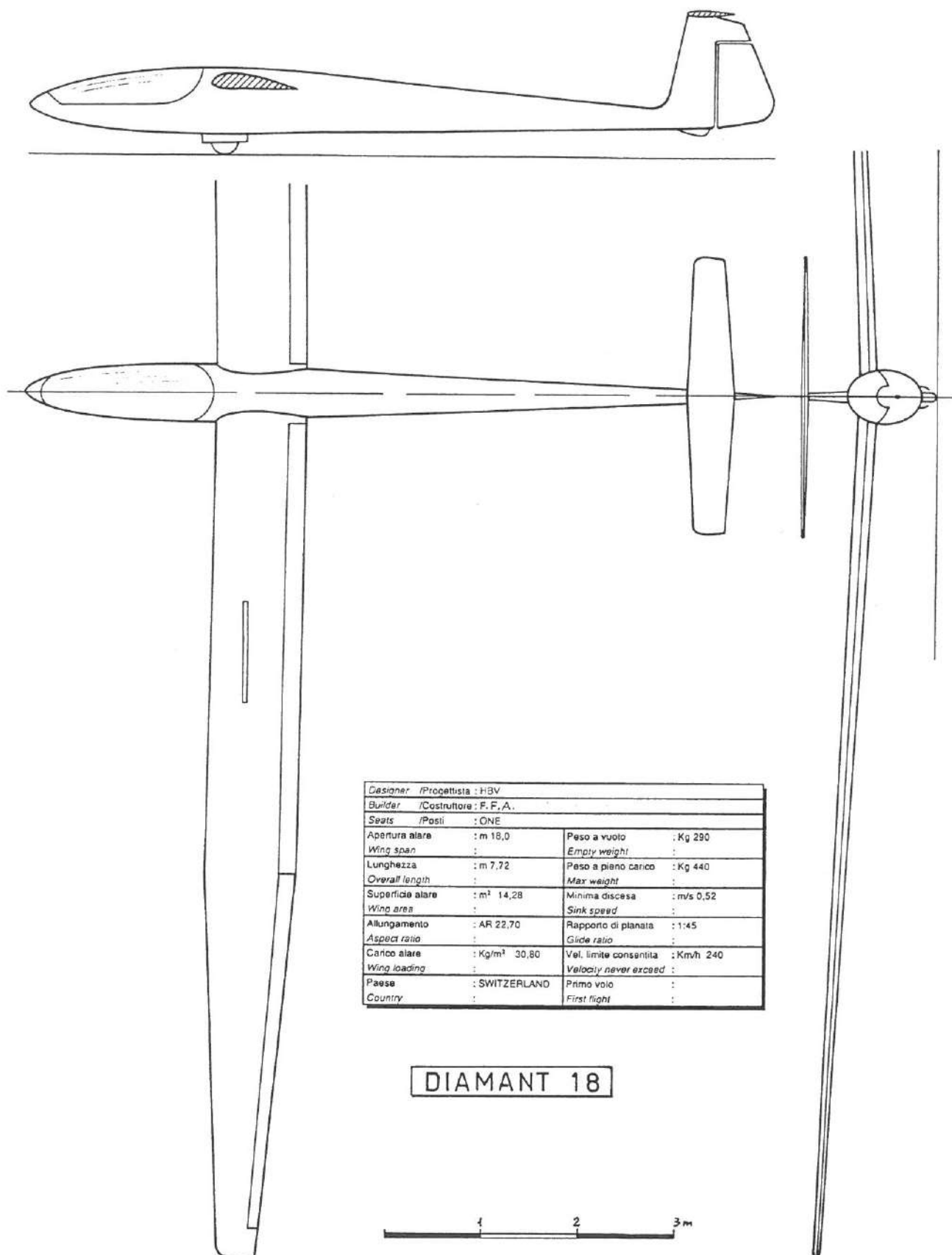
Designer /Progettista : ALBERT NEUKOM			
Builder /Costruttore : NEUKOM			
Seats /Posti : ONE			
Apertura alare	: m 17,0	Peso a vuoto	: Kg 255
Wing span	:	Empty weight	:
Lunghezza	: m 7,1	Peso a pieno carico	: Kg 380
Overall length	:	Max weight	:
Superficie alare	: m ² 13,2	Minima discesa	: m/s 0,55
Wing area	:	Sink speed	:
Allungamento	: AR 21,8	Rapporto di planata	: 1:39
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 28,8	Vel. limite consentita	: Km/h 210
Wing loading	:	Velocity never exceed	:
Paese	: SWITZERLAND	Primo volo	: 1970
Country	:	First flight	:

ELFE -17





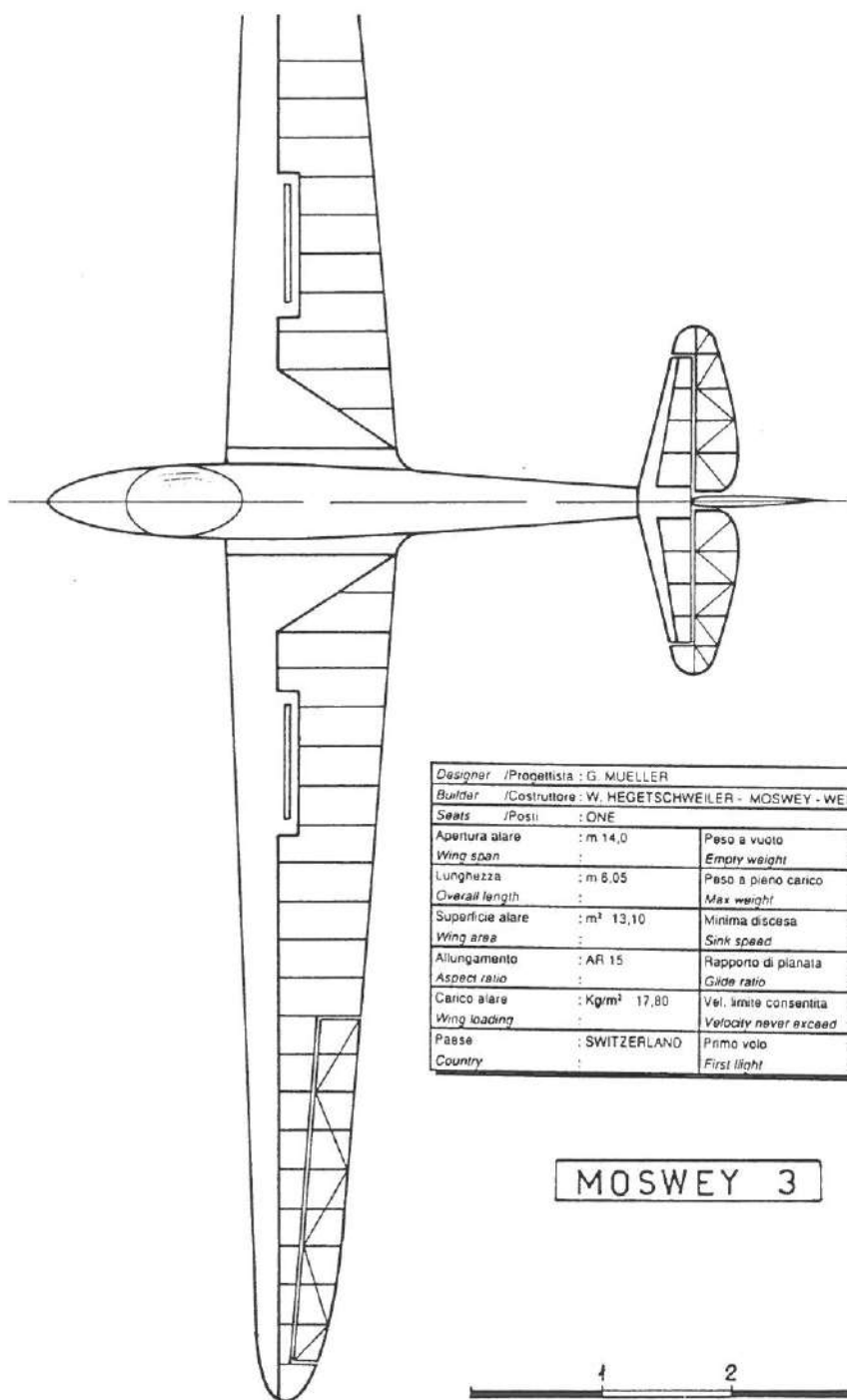
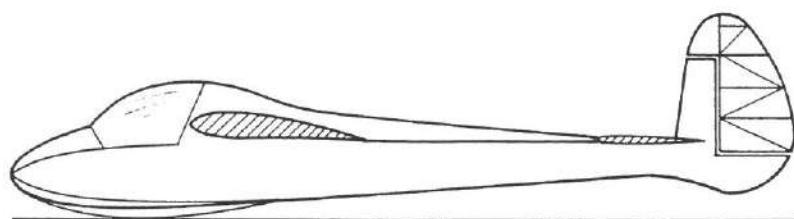
Designer / Progettista	: HBV		
Builder / Costruttore	: FLUG UND FAHRZEUGWERKE		
Seats / Posti	: ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 190
Wing span	:	Empty weight	:
Lunghezza	: m 7,56	Peso a pieno carico	: Kg 285
Overall length	:	Max weight	:
Superficie alare	: m ² 9,72	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 23,15	Rapporto di planata	: 1:39
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 29,30	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: SWITZERLAND	Primo volo	: 1962
Country	:	First flight	:



Designer /Progettista : HBV			
Builder /Costruttore : F. F. A.			
Seats /Posti	ONE		
Apertura alare	: m 18,0	Peso a vuoto	: Kg 290
Wing span	:	Empty weight	:
Lunghezza	: m 7,72	Peso a pieno carico	: Kg 440
Overall length	:	Max weight	:
Superficie alare	: m ² 14,28	Minima discesa	: m/s 0,52
Wing area	:	Sink speed	:
Allungamento	: AR 22,70	Rapporto di planata	: 1:45
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 30,80	Vel. limite consentita	: Km/h 240
Wing loading	:	Velocity never exceed	:
Paese	: SWITZERLAND	Primo volo	:
Country	:	First flight	:

DIAMANT 18

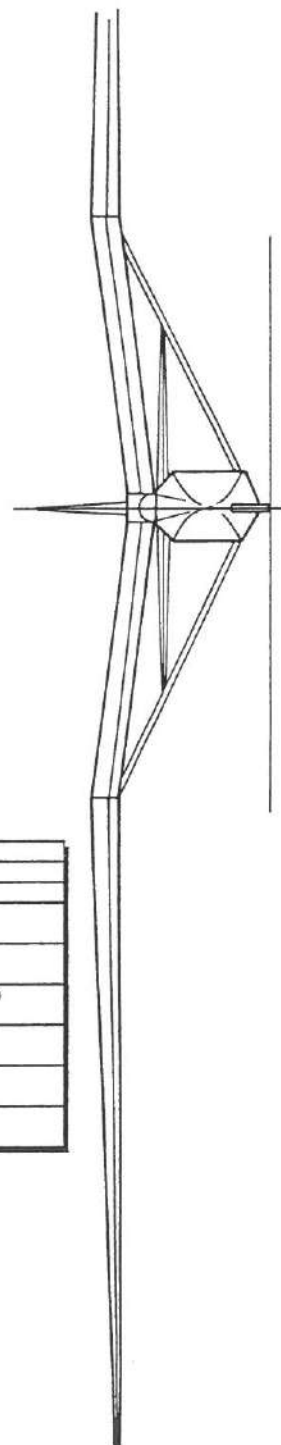
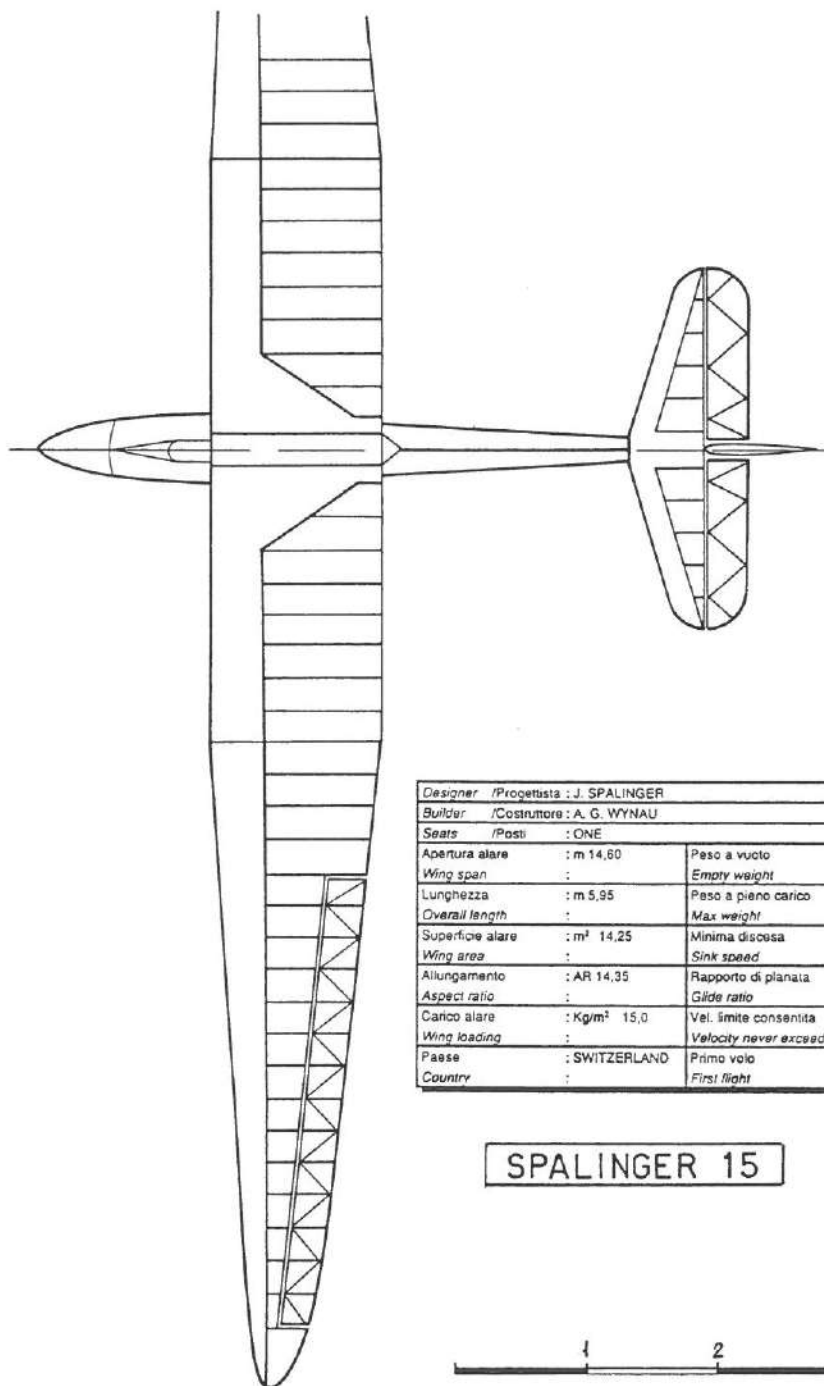
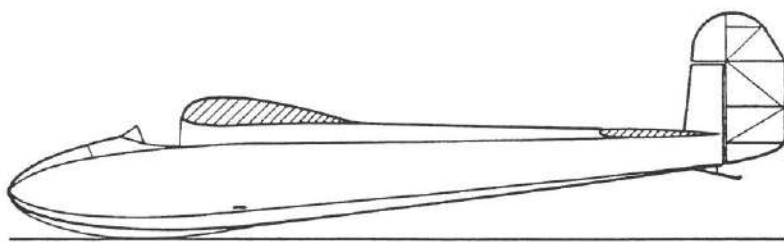
1 2 3m



Designer / Progettista : G. MUELLER			
Builder / Costruttore : W. HEGETSCHWEILER - MOSWEY - WERKE			
Seats / Posti : ONE			
Apertura alare	: m 14,0	Peso a vuoto	: Kg 130
Wing span	:	Empty weight	:
Lunghezza	: m 8,05	Peso a pieno carico	: Kg 233
Overall length	:	Max weight	:
Superficie alare	: m ² 13,10	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 15	Rapporto di planata	: 1:25
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 17,80	Vel. limite consentita	: Km/h 210
Wing loading	:	Velocity never exceed	:
Paese	: SWITZERLAND	Primo volo	: 1943
Country	:	First flight	:

MOSWEY 3

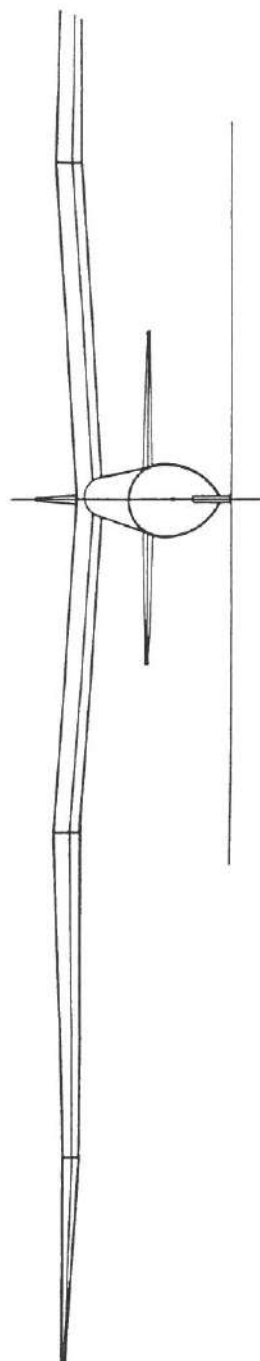
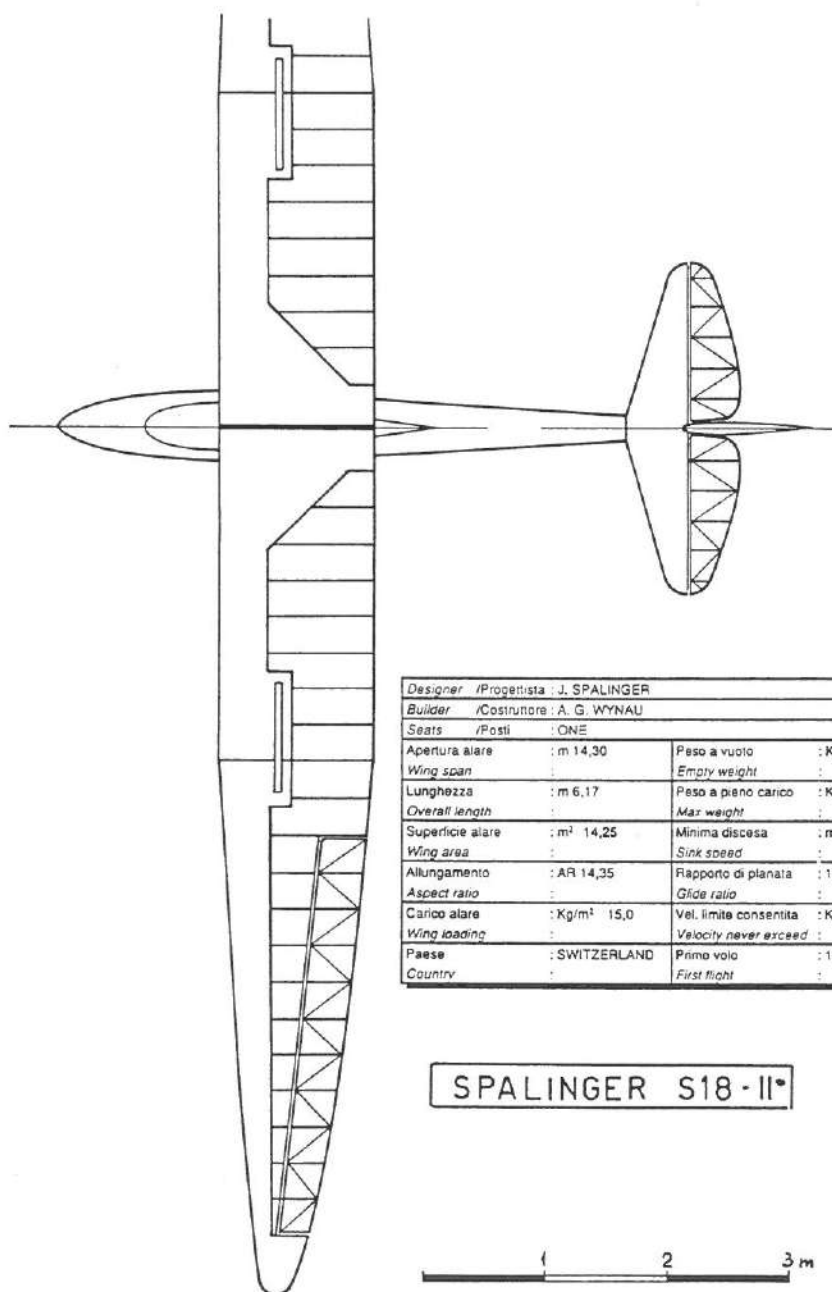
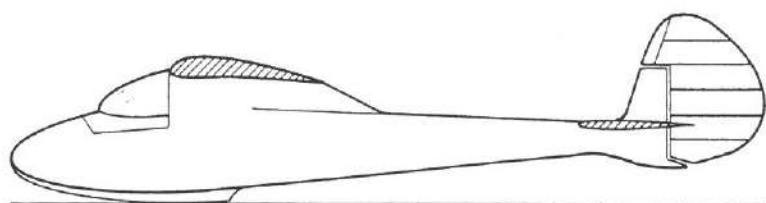




Designer / Progettista : J. SPALINGER			
Builder / Costumiere : A. G. WYNAU			
Seats / Posti : ONE			
Apertura alare	: m 14,60	Peso a vuoto	: Kg 135
Wing span	:	Empty weight	:
Lunghezza	: m 5,95	Peso a pieno carico	: Kg 215
Overall length	:	Max weight	:
Superficie alare	: m ² 14,25	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 14,35	Rapporto di planata	: 1:21
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: SWITZERLAND	Primo volo	: 1934
Country	:	First flight	:

SPALINGER 15

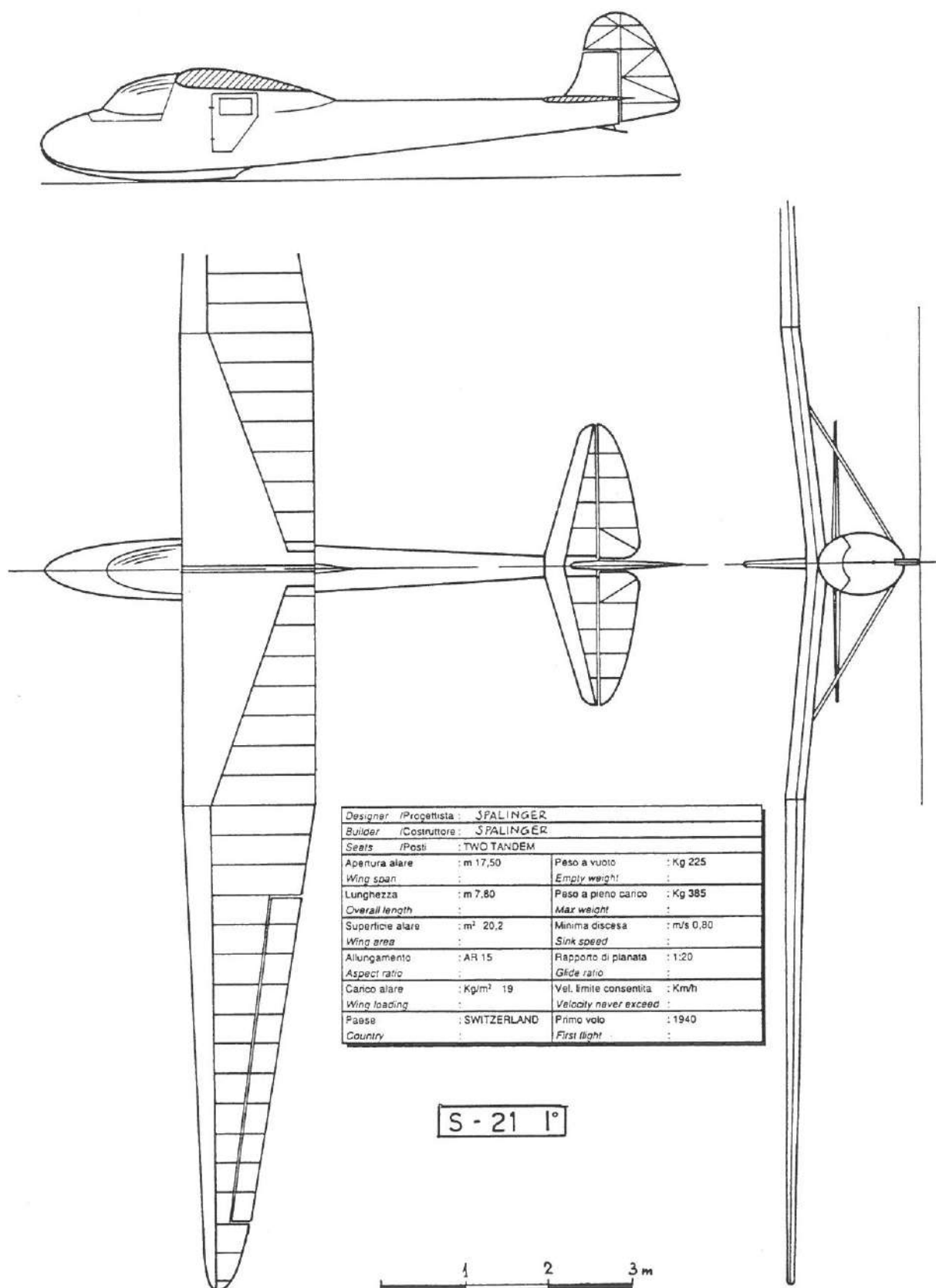


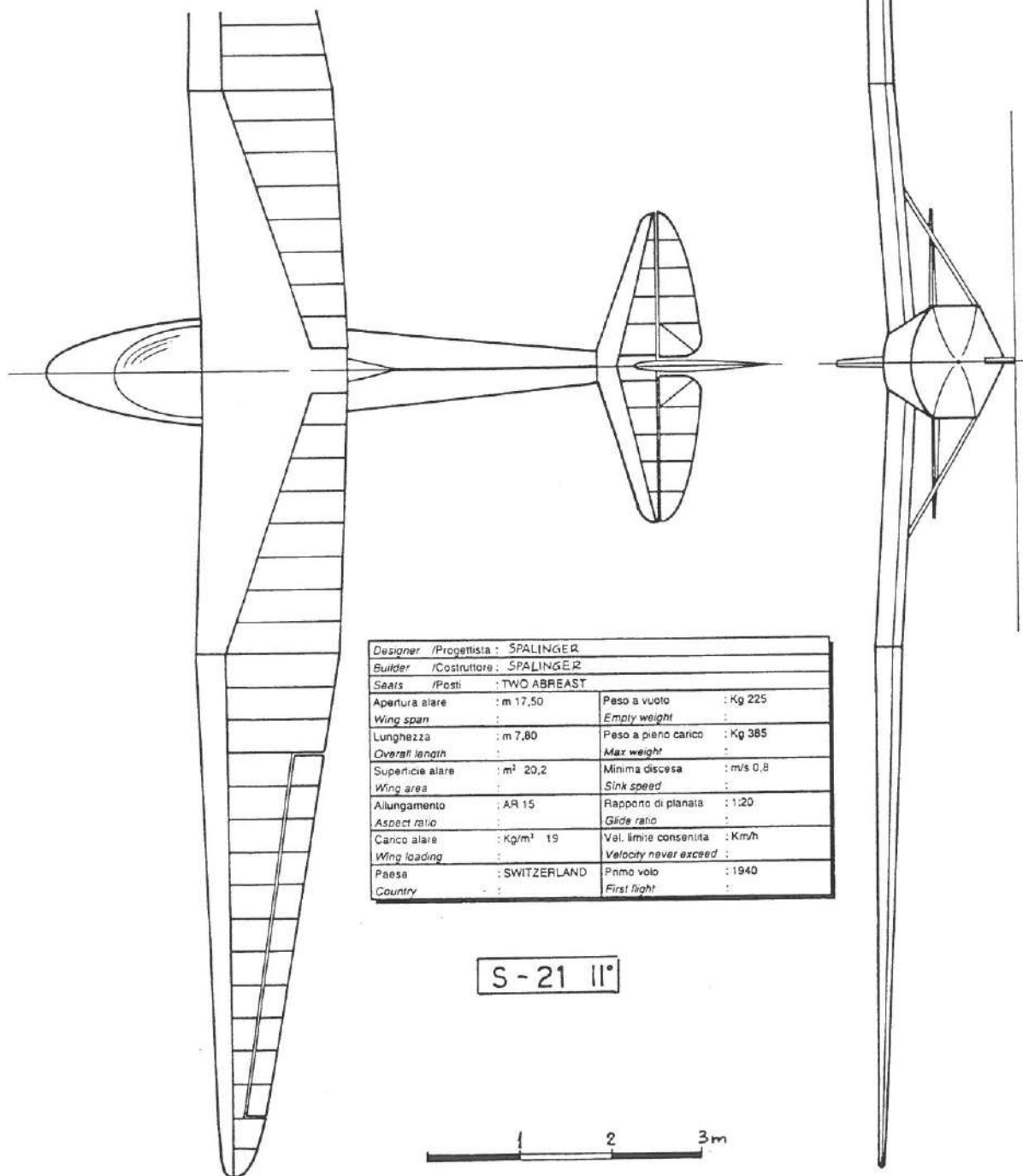
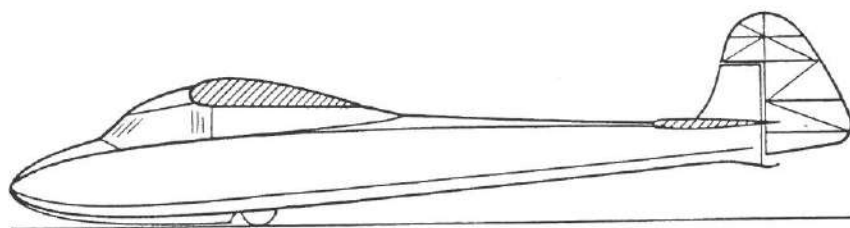


<i>Designer</i> /Progettista : J. SPALINGER			
<i>Builder</i> /Costruttore : A. G. WYNAU			
<i>Seats</i> /Posti : ONE			
<i>Apertura alare</i>	: m 14,30	<i>Peso a vuoto</i>	: Kg 135
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 6,17	<i>Peso a pieno carico</i>	: Kg 215
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 14,25	<i>Minima discesa</i>	: m/s 0,71
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 14,35	<i>Rapporto di planata</i>	: 1:21
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 15,0	<i>Vel. limite consentita</i>	: Km/h
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: SWITZERLAND	<i>Primo volo</i>	: 1937
<i>Country</i>	:	<i>First flight</i>	:

SPALINGER S18-II*



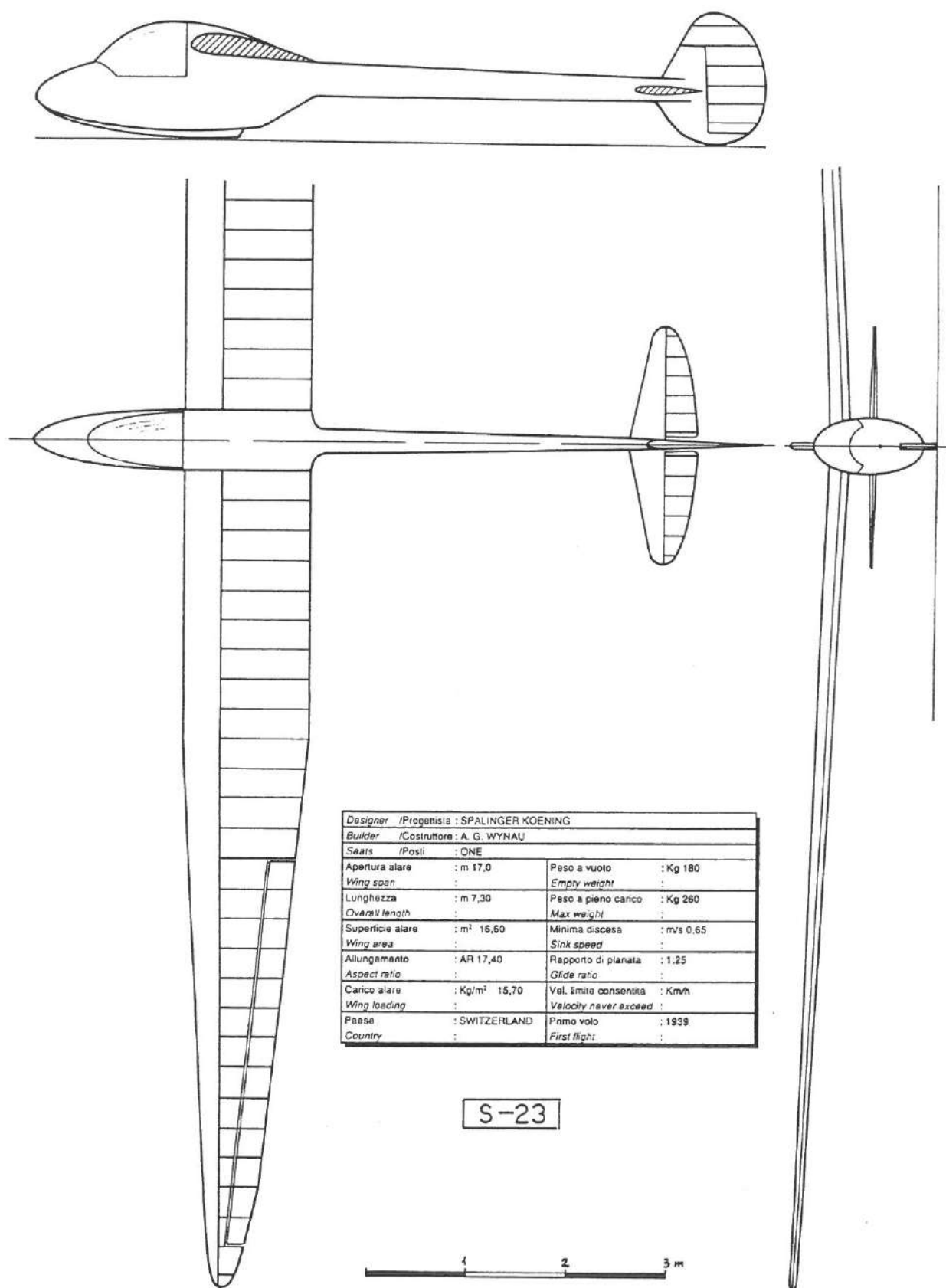


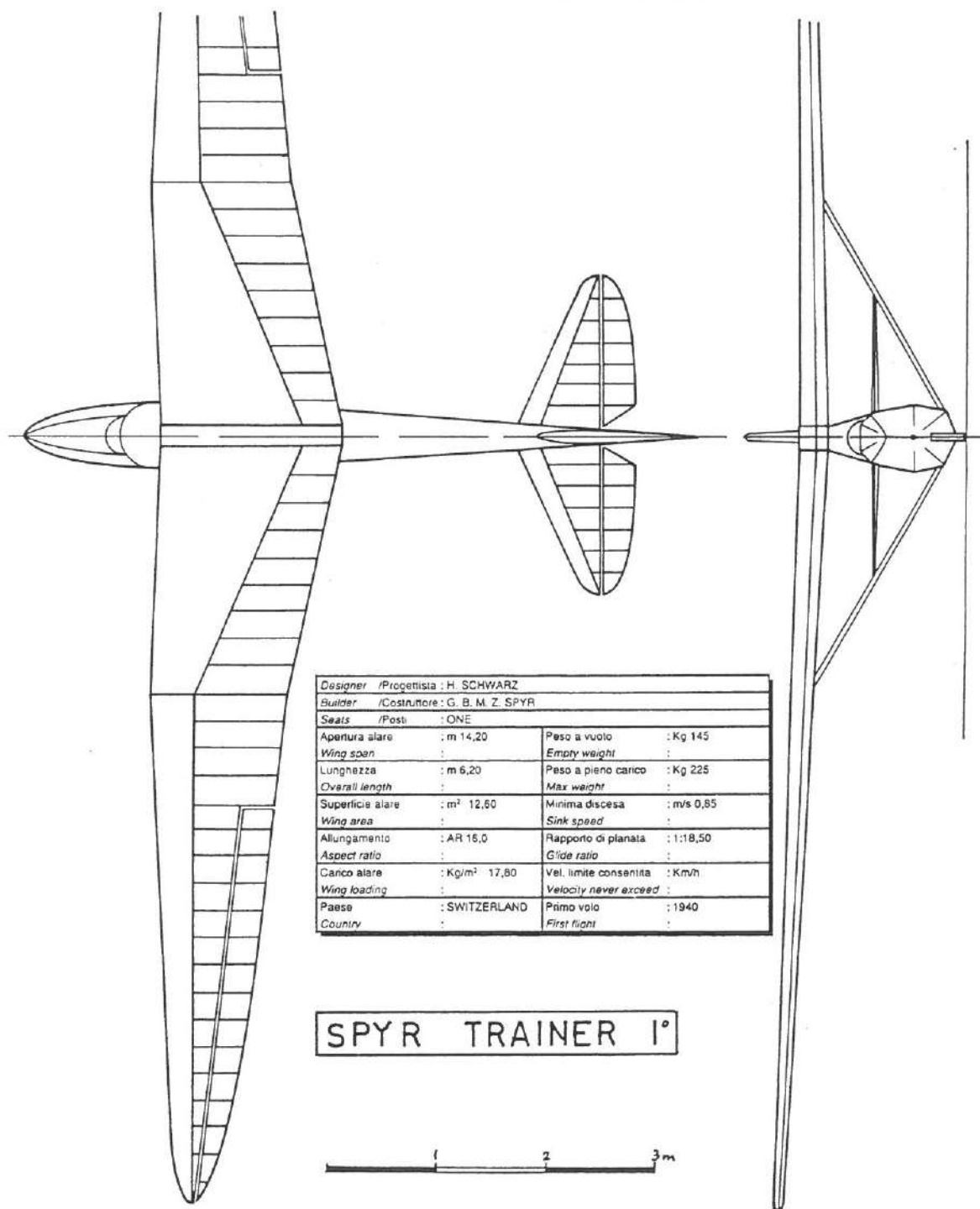
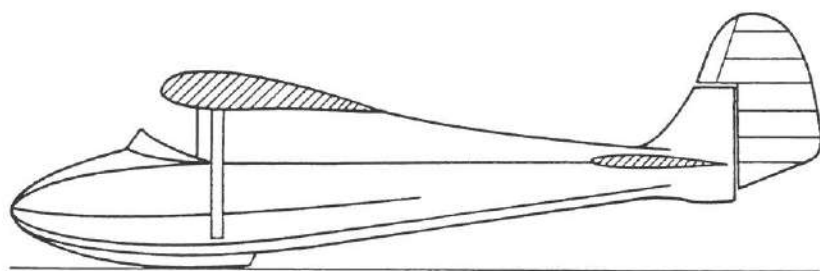


Designer /Progettista : SPALINGER			
Builder /Costruttore : SPALINGER			
Seats /Posti : TWO ABREAST			
Apertura alare	: m 17,50	Peso a vuoto	: Kg 225
Wing span	:	Empty weight	:
Lunghezza	: m 7,80	Peso a pieno carico	: Kg 385
Overall length	:	Max weight	:
Superficie alare	: m ² 20,2	Minima discesa	: m/s 0,8
Wing area	:	Sink speed	:
Allungamento	: AR 15	Rapporto di planata	: 1:20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 19	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: SWITZERLAND	Primo volo	: 1940
Country	:	First flight	:

S - 21 II°



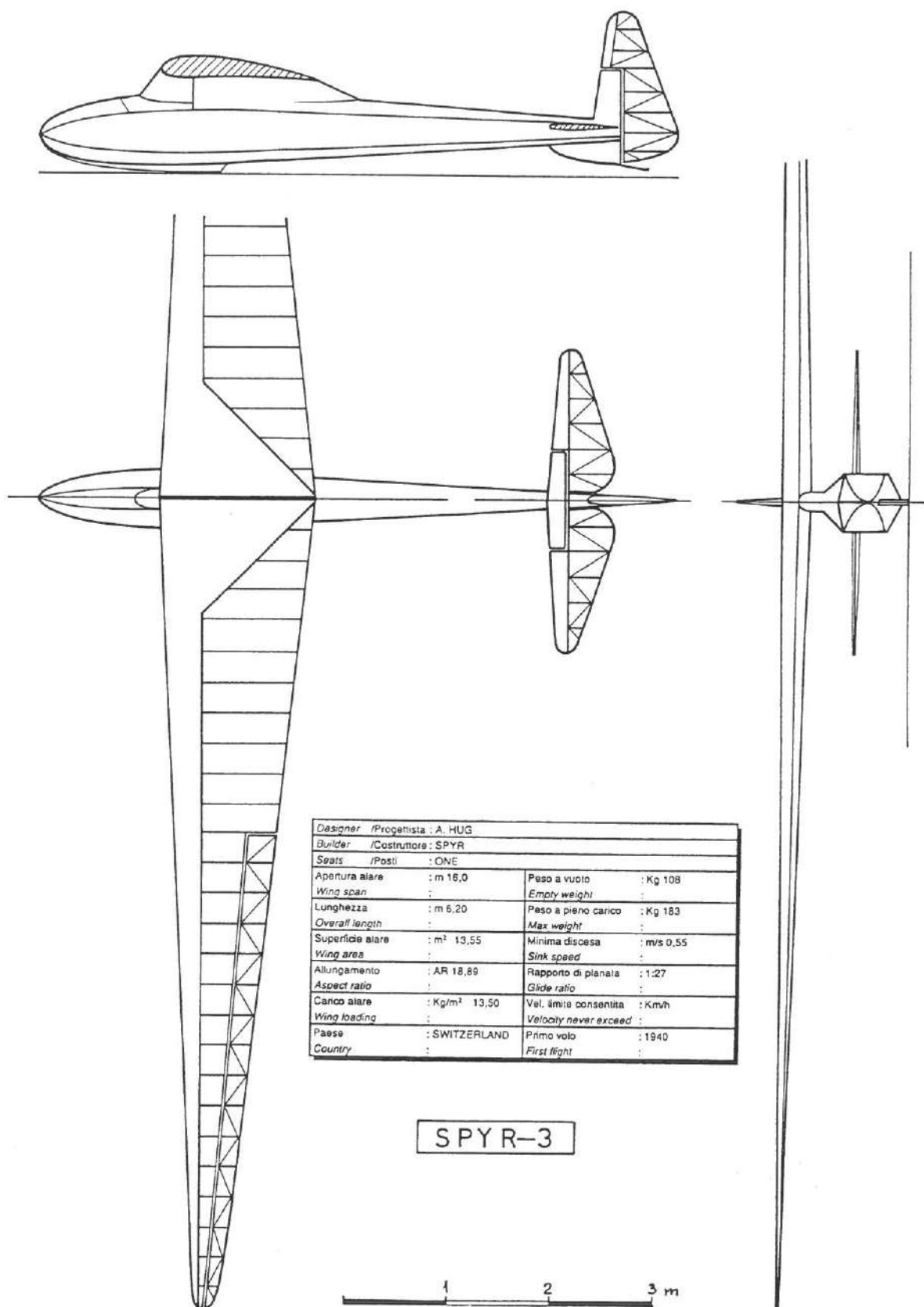


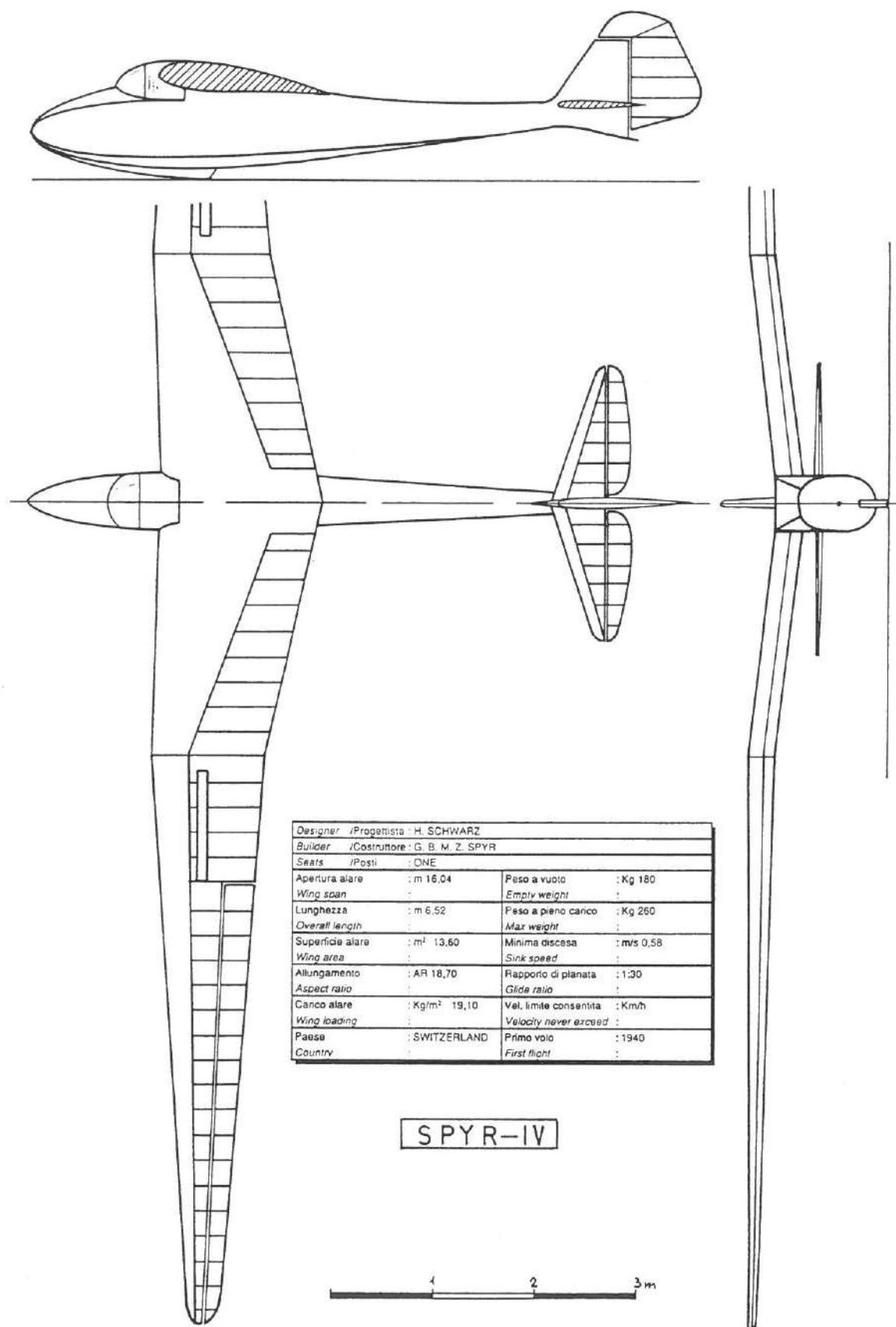


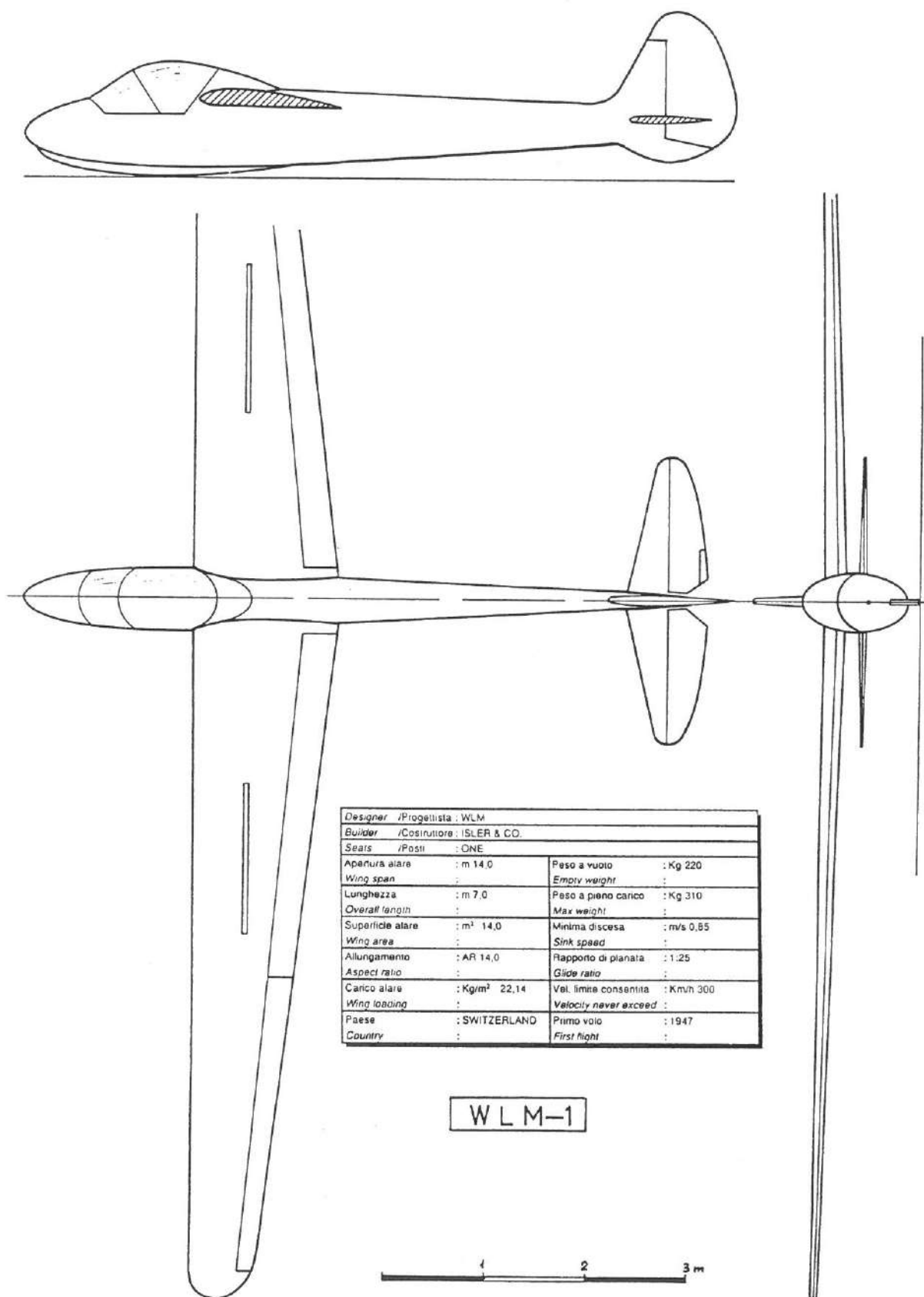
Designer / Progettista : H. SCHWARZ			
Builder / Costruttore : G. B. M. Z. SPYR			
Seats / Posti : ONE			
Apertura alare	: m 14,20	Peso a vuoto	: Kg 145
Wing span	:	Empty weight	:
Lunghezza	: m 6,20	Peso a pieno carico	: Kg 225
Overall length	:	Max weight	:
Superficie alare	: m ² 12,50	Minima discesa	: m/s 0,85
Wing area	:	Sink speed	:
Allungamento	: AR 16,0	Rapporto di planata	: 1:18,50
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 17,80	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: SWITZERLAND	Primo volo	: 1940
Country	:	First flight	:

SPYR TRAINER I°



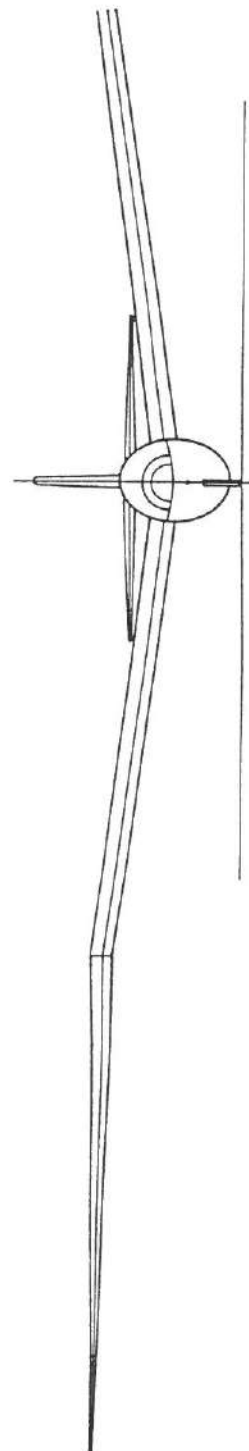
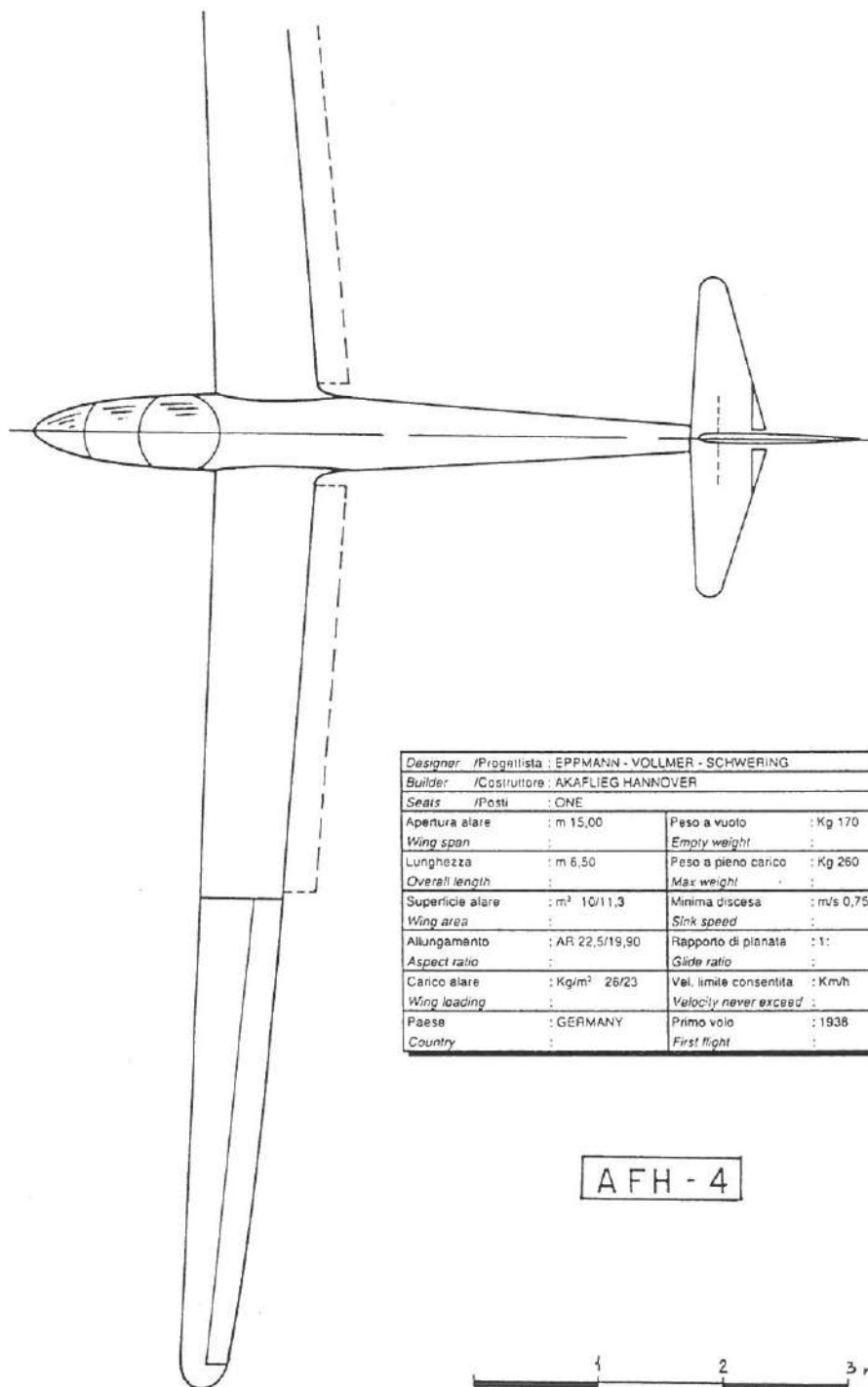






Designer /Progettista : WLM	
Builder /Costruttore : ISLER & CO.	
Seats /Posti : ONE	
Apertura alare : m 14,0	Peso a vuoto : Kg 220
Wing span :	Empty weight :
Lunghezza : m 7,0	Peso a pieno carico : Kg 310
Overall length :	Max weight :
Superficie alare : m ² 14,0	Minima discesa : m/s 0,85
Wing area :	Sink speed :
Allungamento : AR 14,0	Rapporto di planata : 1:25
Aspect ratio :	Glide ratio :
Carico alare : Kg/m ² 22,14	Vel. limite consentita : Km/h 300
Wing loading :	Velocity never exceed :
Paese : SWITZERLAND	Primo volo : 1947
Country :	First flight :

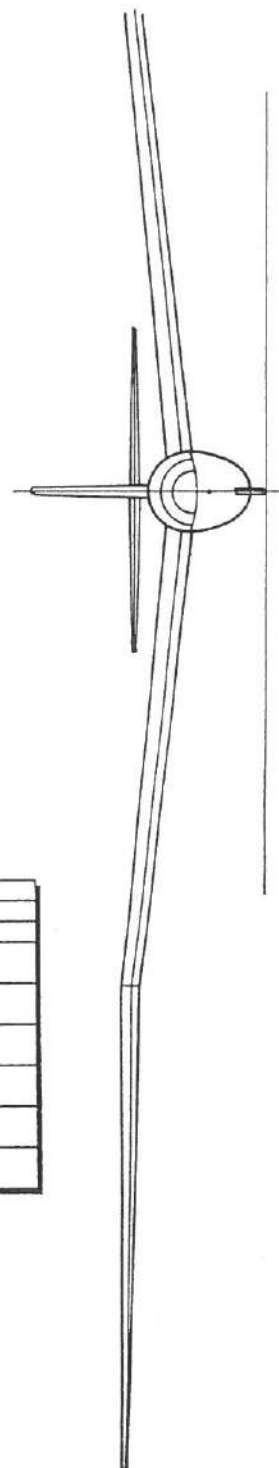
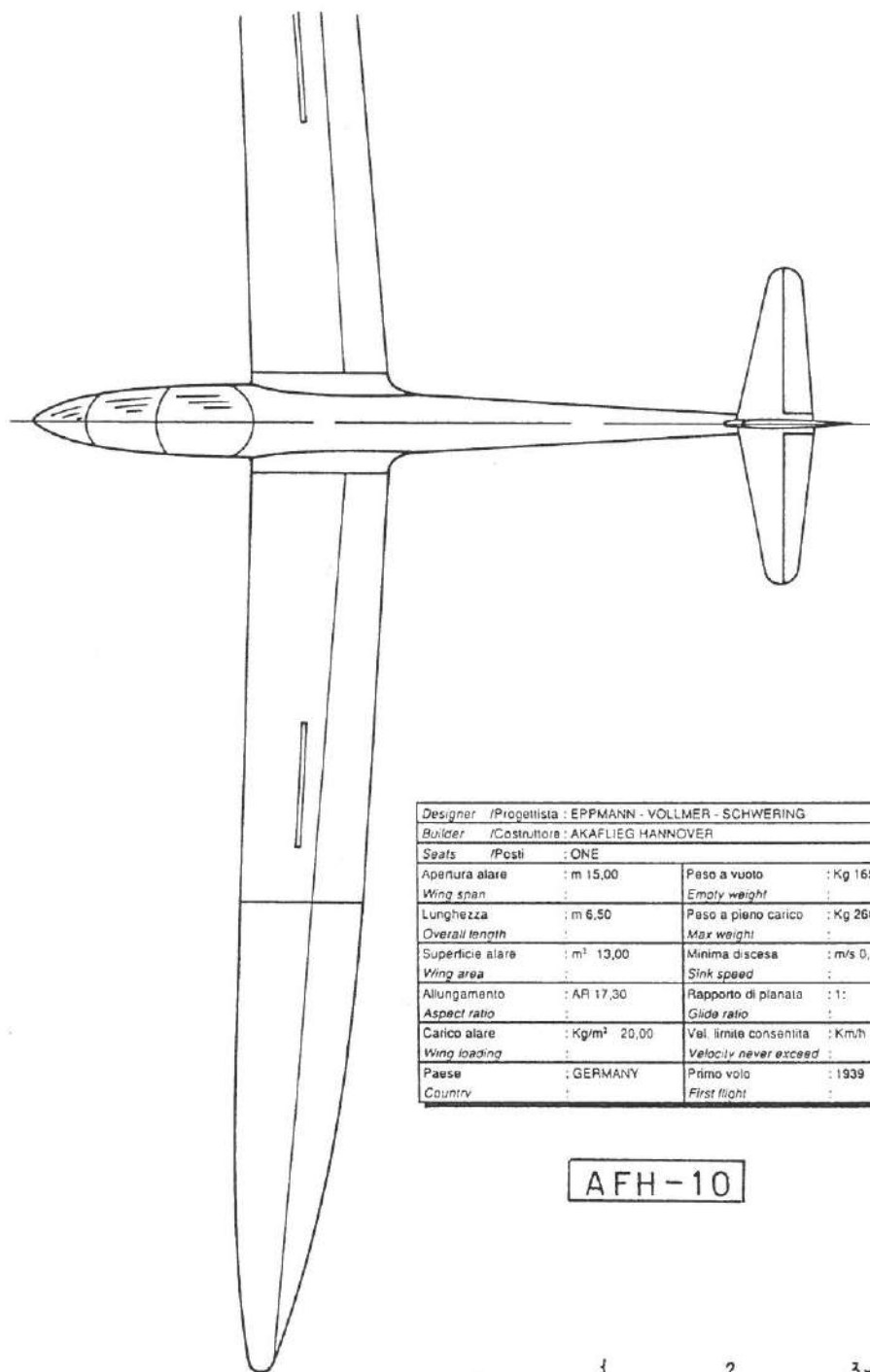
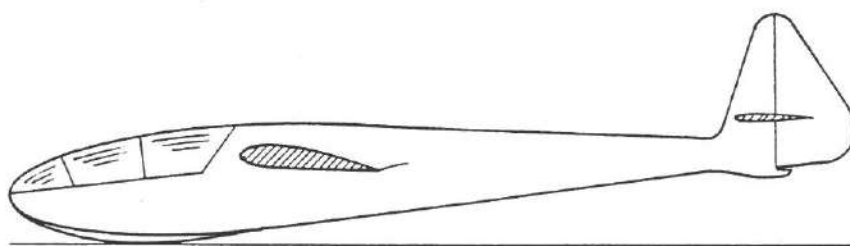
W L M-1



Designer / Progettista : EPPMANN - VOLLMER - SCHWERING			
Builder / Costruttore : AKAFLEG HANNOVER			
Seats / Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 170
Wing span	:	Empty weight	:
Lunghezza	: m 6,50	Peso a pieno carico	: Kg 260
Overall length	:	Max weight	:
Superficie alare	: m ² 10/11,3	Minima discesa	: m/s 0,75
Wing area	:	Sink speed	:
Allungamento	: AR 22,5/19,90	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26/23	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1938
Country	:	First flight	:

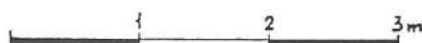
AFH - 4

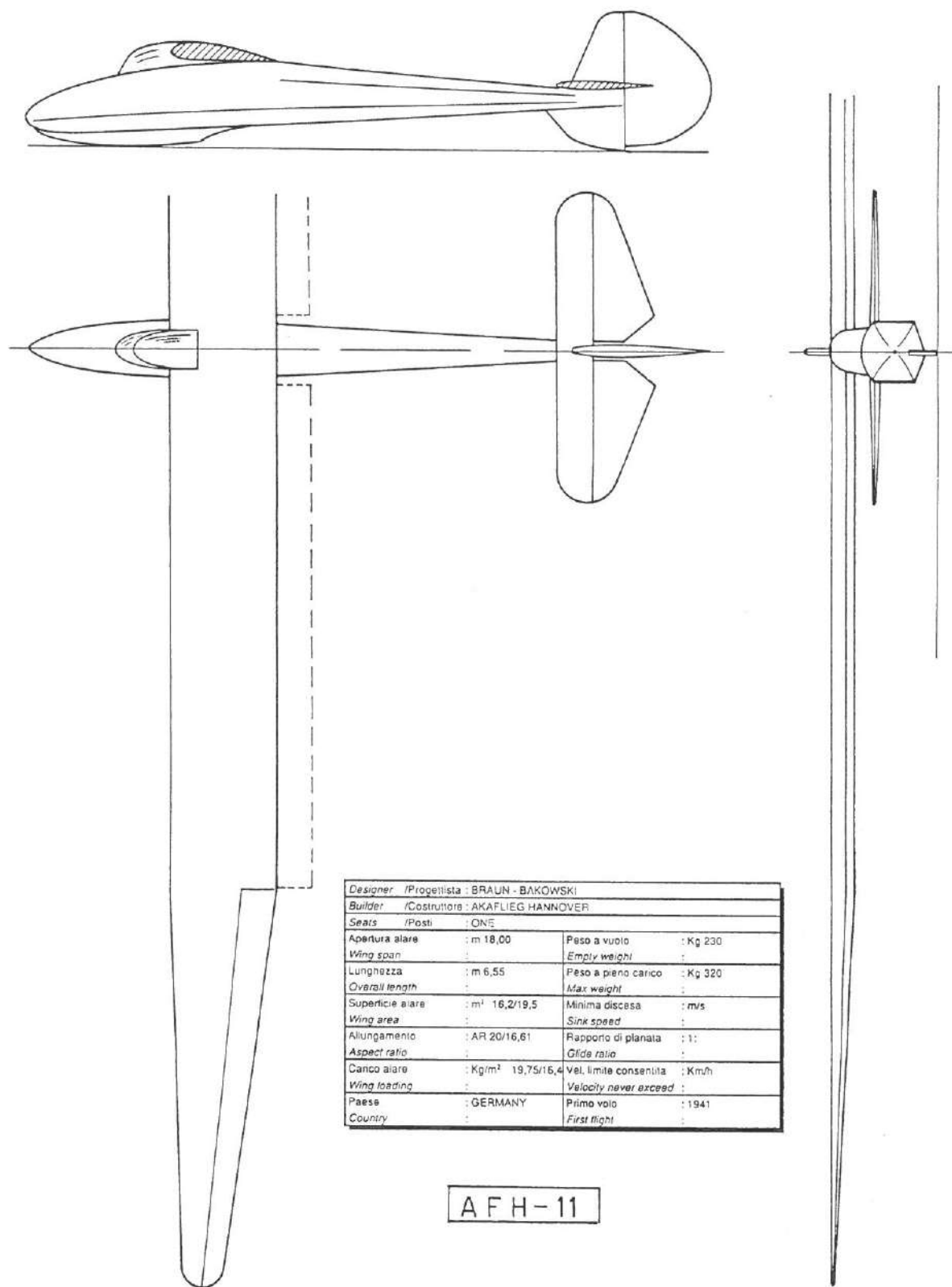




Designer	Progettista : EPPMANN - VÖLLMER - SCHWERING		
Builder	Costruttore : AKAFLEG HANNOVER		
Seats	Posti : ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 165
Wing span	:	Empty weight	:
Lunghezza	: m 6,50	Peso a pieno carico	: Kg 260
Overall length	:	Max weight	:
Superficie alare	: m ² 13,00	Minima discesa	: m/s 0,69
Wing area	:	Sink speed	:
Allungamento	: AR 17,30	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 20,00	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1939
Country	:	First flight	:

AFH-10

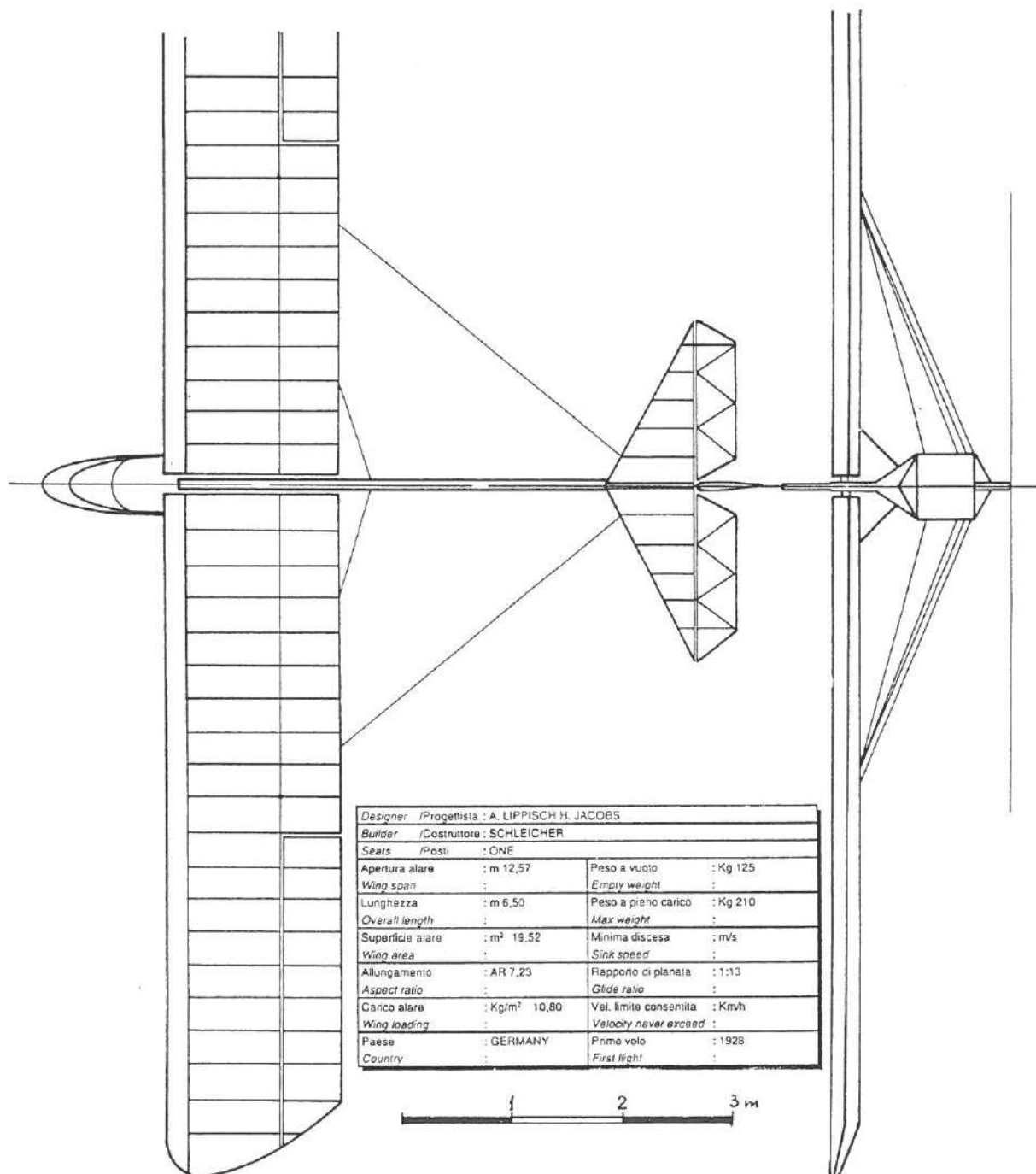
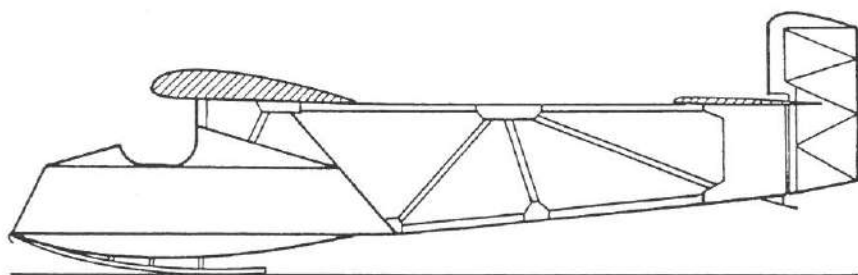




Designer / Progettista : BRAUN - BAKOWSKI			
Builder / Costruttore : AKAFLEG HANNOVER			
Seats / Posti	ONE		
Apertura alare	: m 18,00	Peso a vuoto	: Kg 230
Wing span		Empty weight	:
Lunghezza	: m 6,55	Peso a pieno carico	: Kg 320
Overall length		Max weight	:
Superficie alare	: m ² 16,2/19,5	Minima discesa	: m/s
Wing area		Sink speed	:
Allungamento	: AR 20/16,61	Rapporto di planata	: 1:
Aspect ratio		Glide ratio	:
Carico alare	: Kg/m ² 19,75/16,4	Vel. limite consentita	: Km/h
Wing loading		Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1941
Country		First flight	:

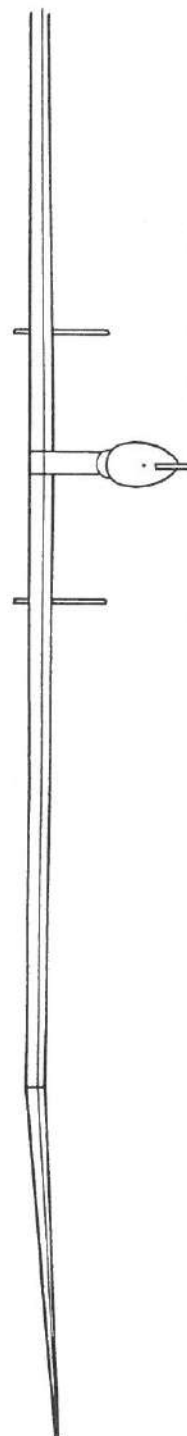
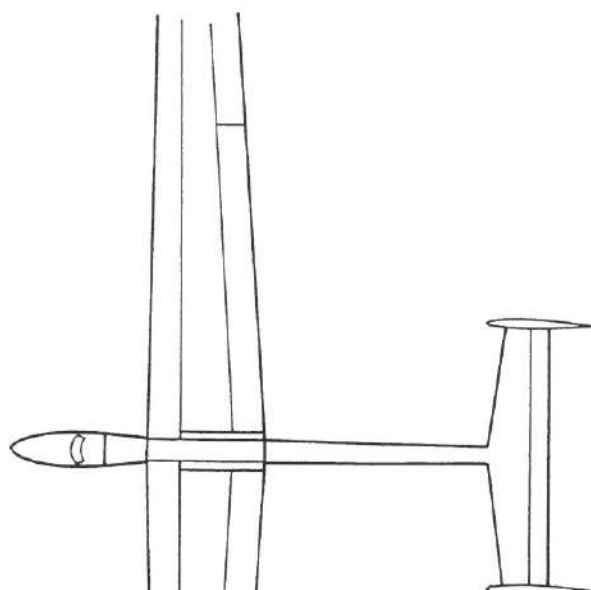
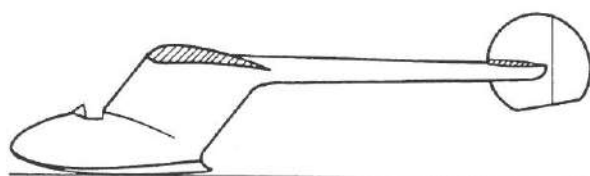
AFH-11





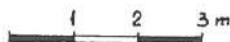
Designer / Progettista :	A. LIPPISCH H. JACOBS		
Builder / Costruttore :	SCHLEICHER		
Seats / Posti :	ONE		
Apertura alare :	m 12,57	Peso a vuoto :	Kg 125
Wing span :		Empty weight :	
Lunghezza :	m 6,50	Peso a pieno carico :	Kg 210
Overall length :		Max weight :	
Superficie alare :	m ² 19,52	Minima discesa :	m/s
Wing area :		Sink speed :	
Allungamento :	AR 7,23	Rapporto di planata :	1:13
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 10,80	Vel. limite consentita :	Kmh
Wing loading :		Velocity never exceed :	
Paese :	GERMANY	Prmo volo :	1928
Country :		First flight :	

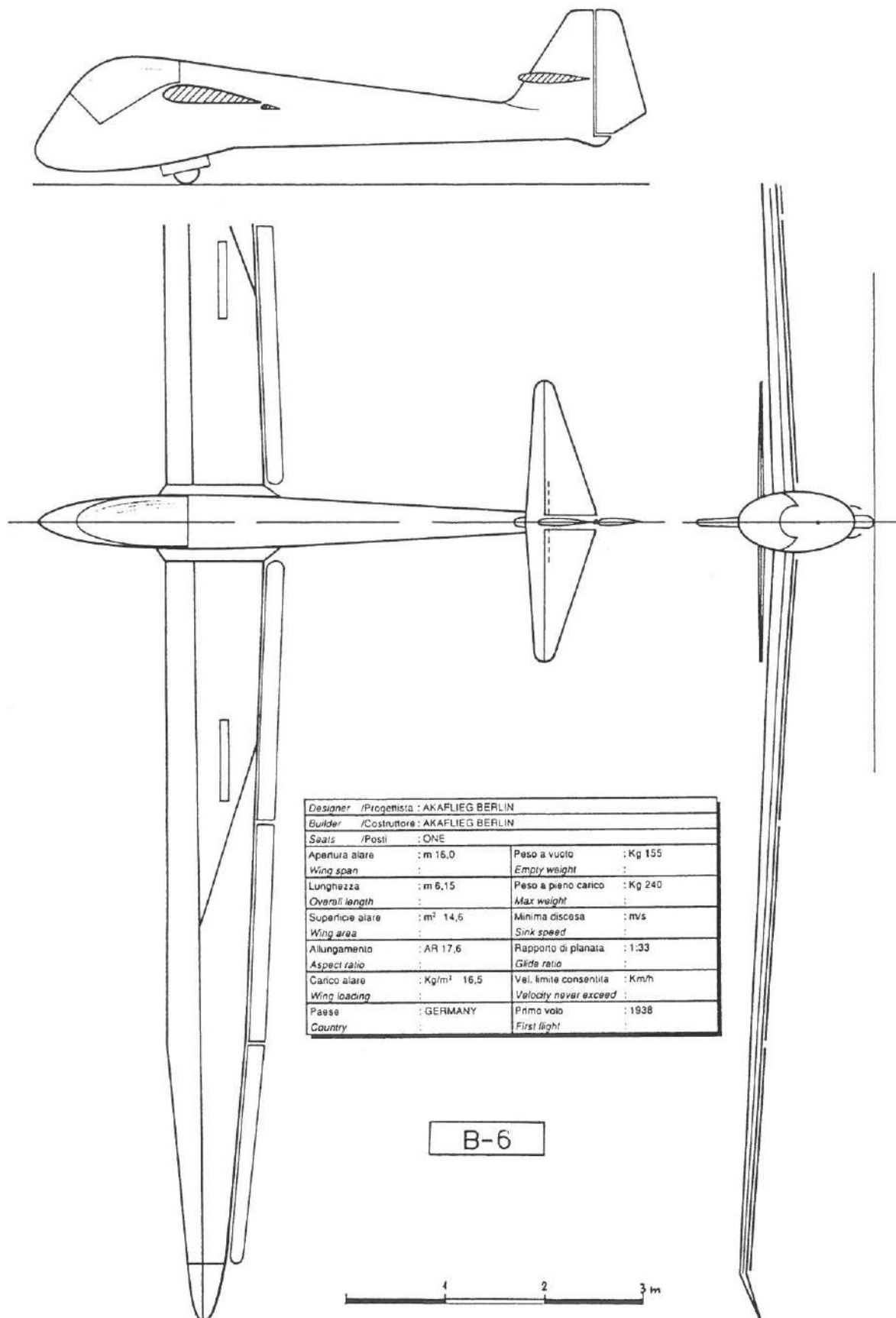
ANFAENGER "HOLS DER TEUFEL"



Designer / Progettista	DR. KUEPPER-AKAFLIEG MÜNCHEN		
Builder / Costruttore	SEGELFLUGZEUG KASSEL		
Seats / Posti	ONE		
Apertura alare	: m 30,0	Peso a vuoto	: Kg 392
Wing span	:	Empty weight	:
Lunghezza	: m 9,0	Peso a pieno carico	: Kg 482
Overall length	:	Max weight	:
Superficie alare	: m ² 35,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 25,70	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 13,80	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1932
Country	:	First flight	:

AUSTRIA THE ELEPHANT

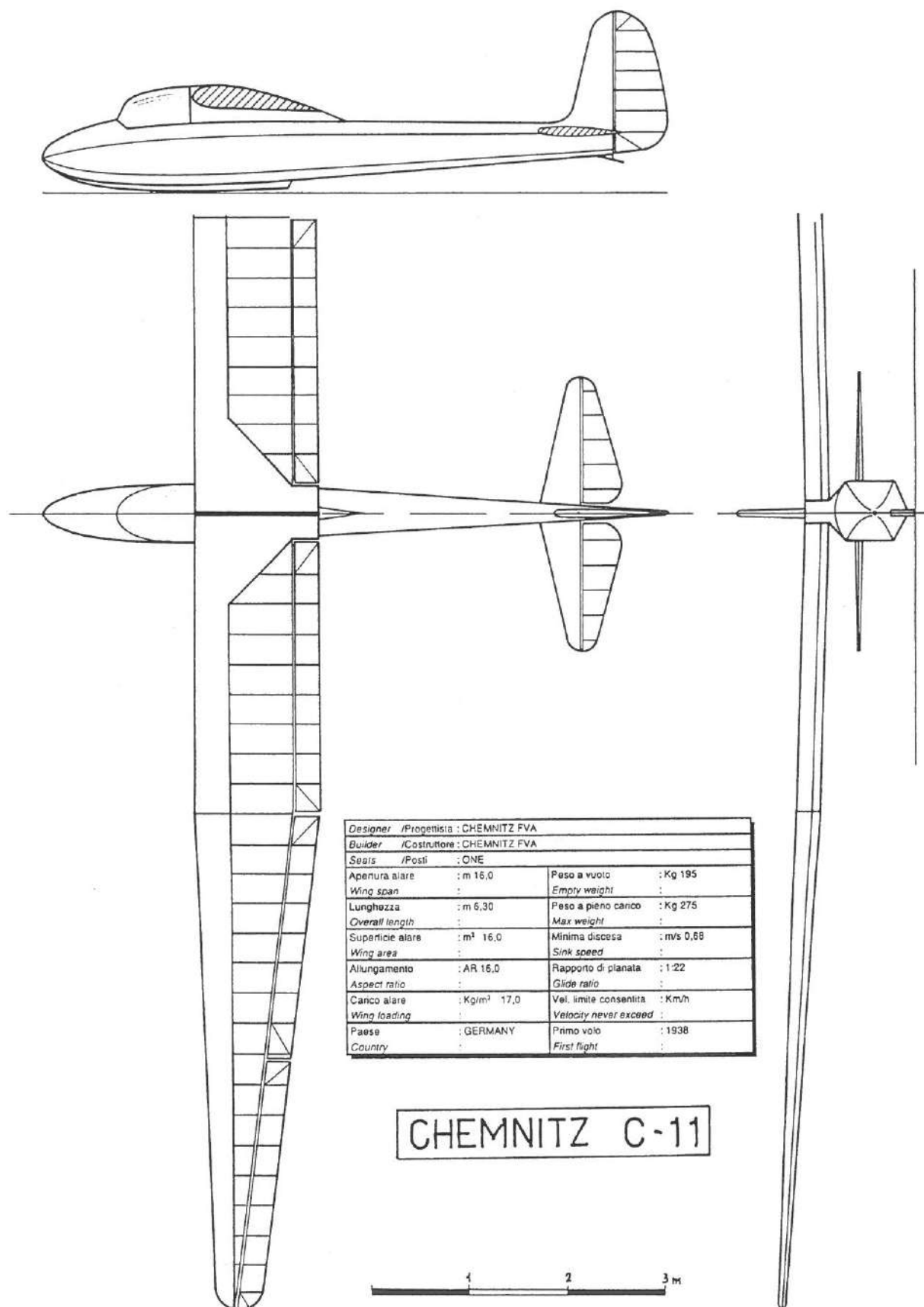




Designer / Progettista	AKAFLIEG BERLIN		
Builder / Costruttore	AKAFLIEG BERLIN		
Seats / Posti	ONE		
Apertura alare	: m 16,0	Peso a vuoto	: Kg 155
Wing span	:	Empty weight	:
Lunghezza	: m 6,15	Peso a pieno carico	: Kg 240
Overall length	:	Max weight	:
Superficie alare	: m ² 14,6	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 17,6	Rapporto di planata	: 1:33
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 16,5	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1938
Country	:	First flight	:

B-6

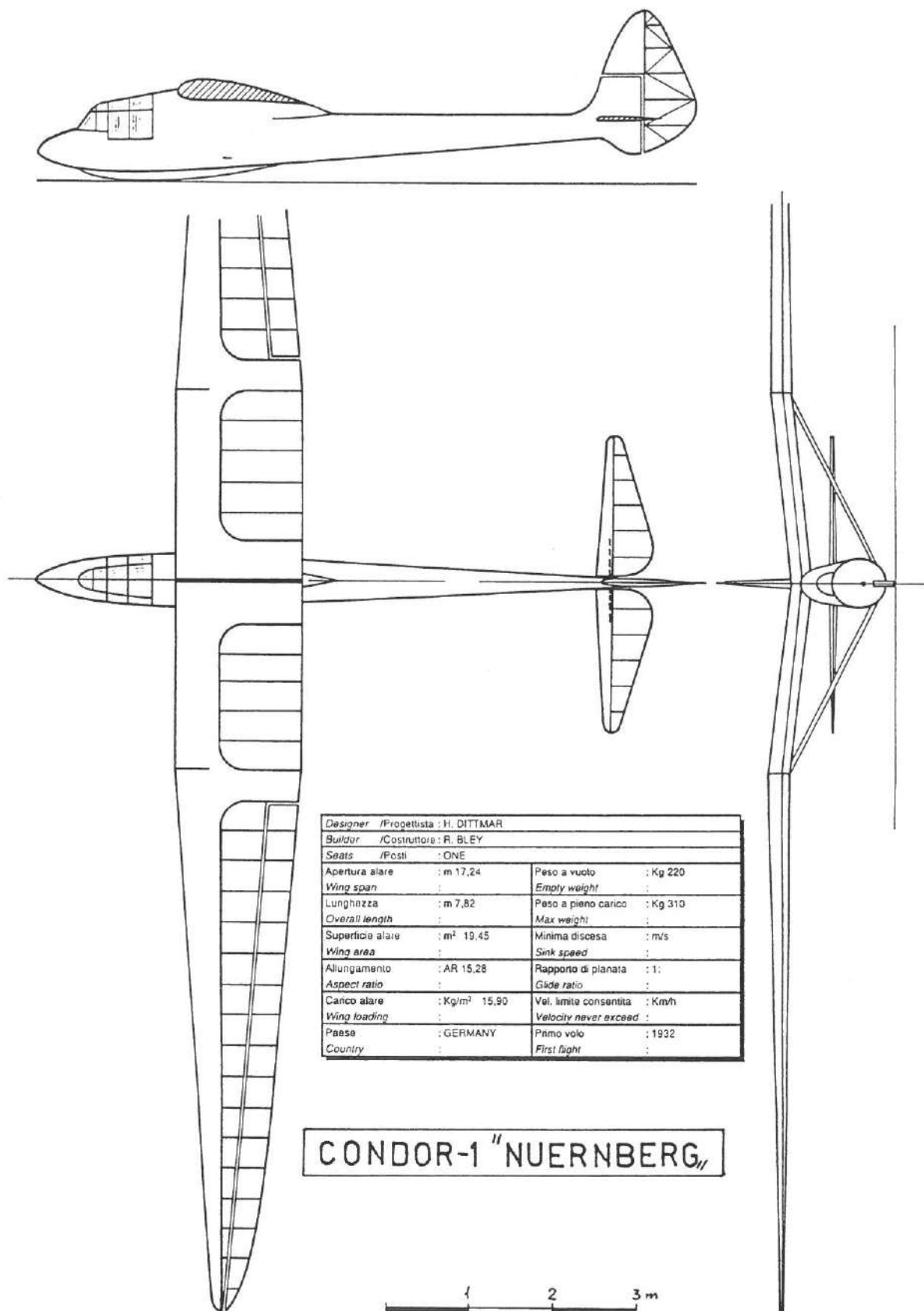
0 2 3 m



Designer / Progettista : CHEMNITZ FVA			
Builder / Costruttore : CHEMNITZ FVA			
Seats / Posti : ONE			
Apertura alare	: m 16,0	Peso a vuoto	: Kg 195
Wing span	:	Empty weight	:
Lunghezza	: m 6,30	Peso a pieno carico	: Kg 275
Overall length	:	Max weight	:
Superficie alare	: m ² 16,0	Minima discesa	: m/s 0,68
Wing area	:	Sink speed	:
Allungamento	: AR 16,0	Rapporto di planata	: 1:22
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 17,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1938
Country	:	First flight	:

CHEMNITZ C-11

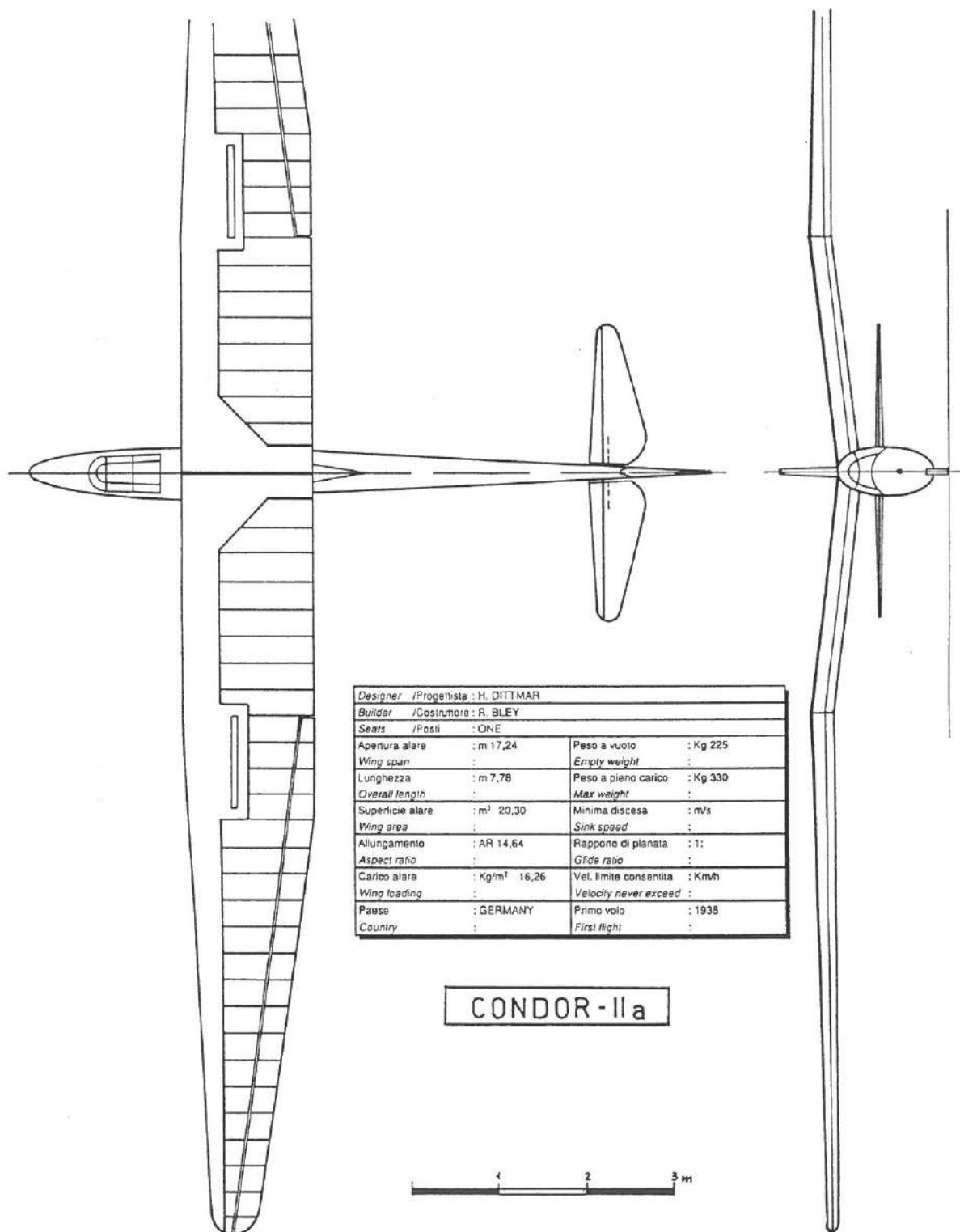
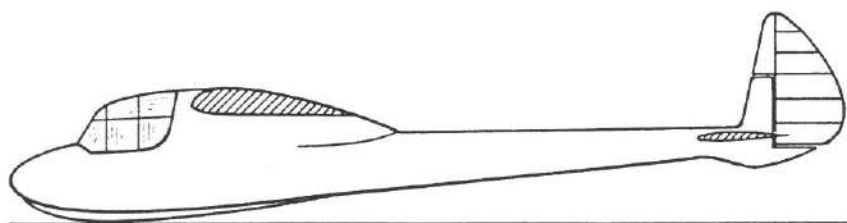




Designer /Progettista : H. DITTMAR			
Builder /Costruttore : R. BLEY			
Seats /Posti : ONE			
Apertura alare	: m 17,24	Peso a vuoto	: Kg 220
Wing span	:	Empty weight	:
Lunghizza	: m 7,82	Peso a pieno carico	: Kg 310
Overall length	:	Max weight	:
Superficie alare	: m ² 19,45	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 15,28	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15,90	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1932
Country	:	First flight	:

CONDOR-1 "NUERNBERG"

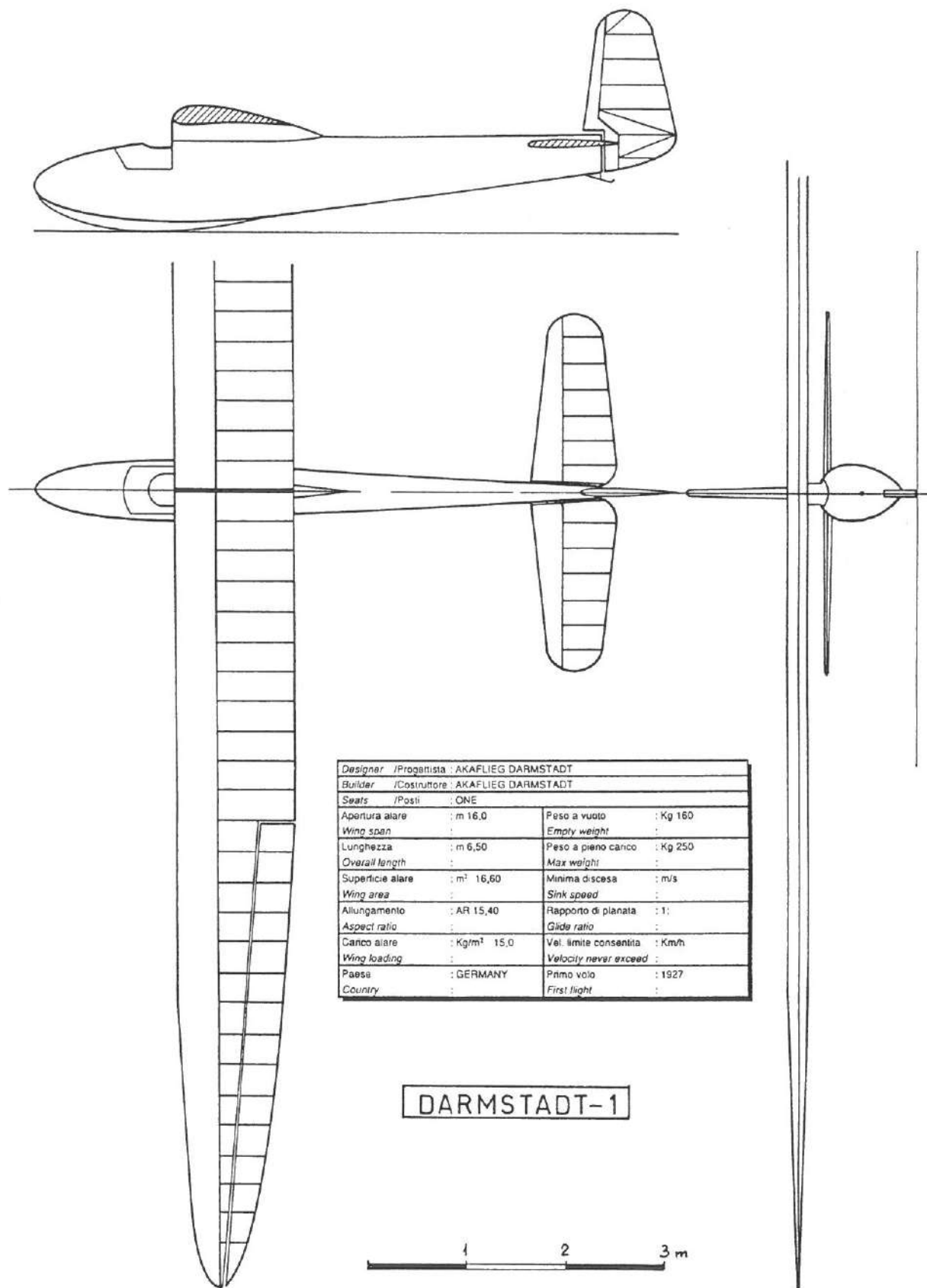
1 2 3 m



Designer /Progettista	: H. DITTMAR		
Builder /Costruttore	: R. BLEY		
Seats /Posti	: ONE		
Apertura alare	: m 17,24	Peso a vuoto	: Kg 225
Wing span	:	Empty weight	:
Lunghezza	: m 7,78	Peso a pieno carico	: Kg 330
Overall length	:	Max weight	:
Superficie alare	: m ² 20,30	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 14,64	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 16,26	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1938
Country	:	First flight	:

CONDOR-II a

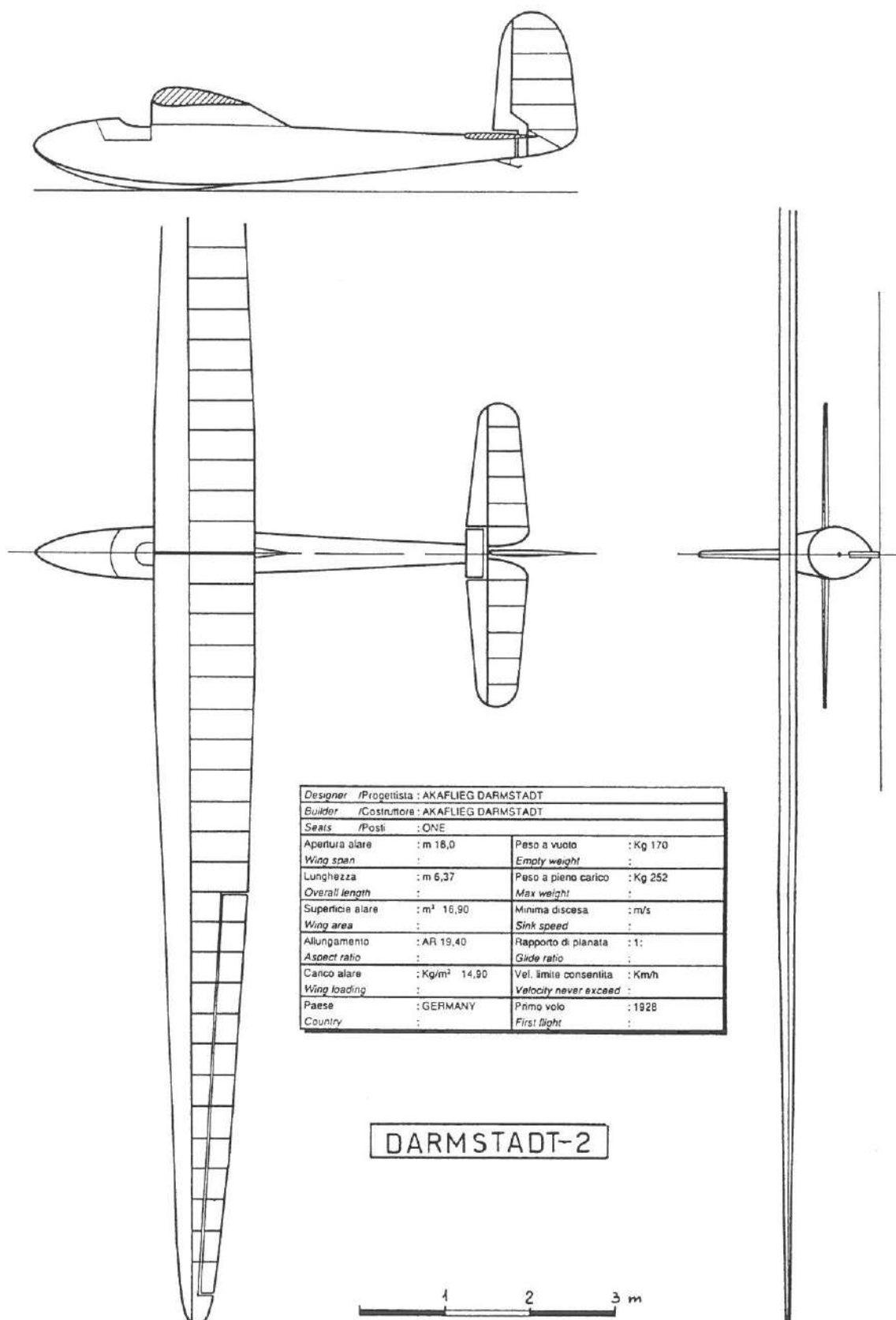




Designer / Progettista	AKAFLIEG DARMSTADT		
Builder / Costruttore	AKAFLIEG DARMSTADT		
Seats / Posti	ONE		
Apertura alare	: m 16,0	Peso a vuoto	: Kg 160
Wing span	:	Empty weight	:
Lunghezza	: m 6,50	Peso a pieno carico	: Kg 250
Overall length	:	Max weight	:
Superficie alare	: m ² 16,60	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 15,40	Rapporto di planata	: 1;
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1927
Country	:	First flight	:

DARMSTADT-1

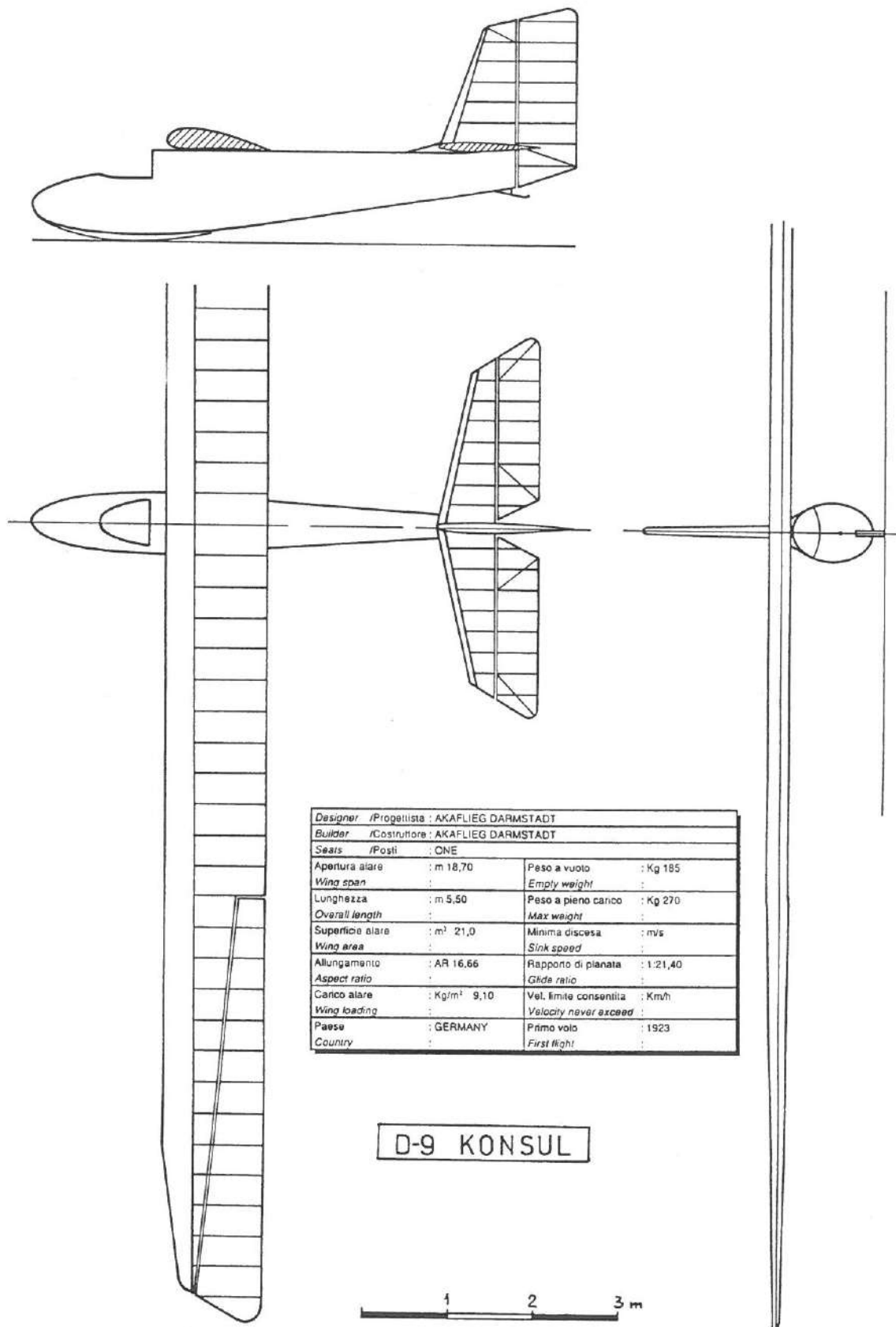
1 2 3 m



Designer	/Progettista : AKAFLEG DARMSTADT				
Builder	/Costruttore : AKAFLEG DARMSTADT				
Seats	/Posti : ONE				
Apertura alare	:	m 18,0	Peso a vuoto	:	Kg 170
Wing span	:		Empty weight	:	
Lunghezza	:	m 6,37	Peso a pieno carico	:	Kg 252
Overall length	:		Max weight	:	
Superficie alare	:	m ² 16,90	Minima discesa	:	m/s
Wing area	:		Sink speed	:	
Allungamento	:	AR 19,40	Rapporto di planata	:	1:
Aspect ratio	:		Glide ratio	:	
Carico alare	:	Kg/m ² 14,90	Vel. limite consentita	:	Km/h
Wing loading	:		Velocity never exceed	:	
Paese	:	GERMANY	Primo volo	:	1928
Country	:		First flight	:	

DARMSTADT-2

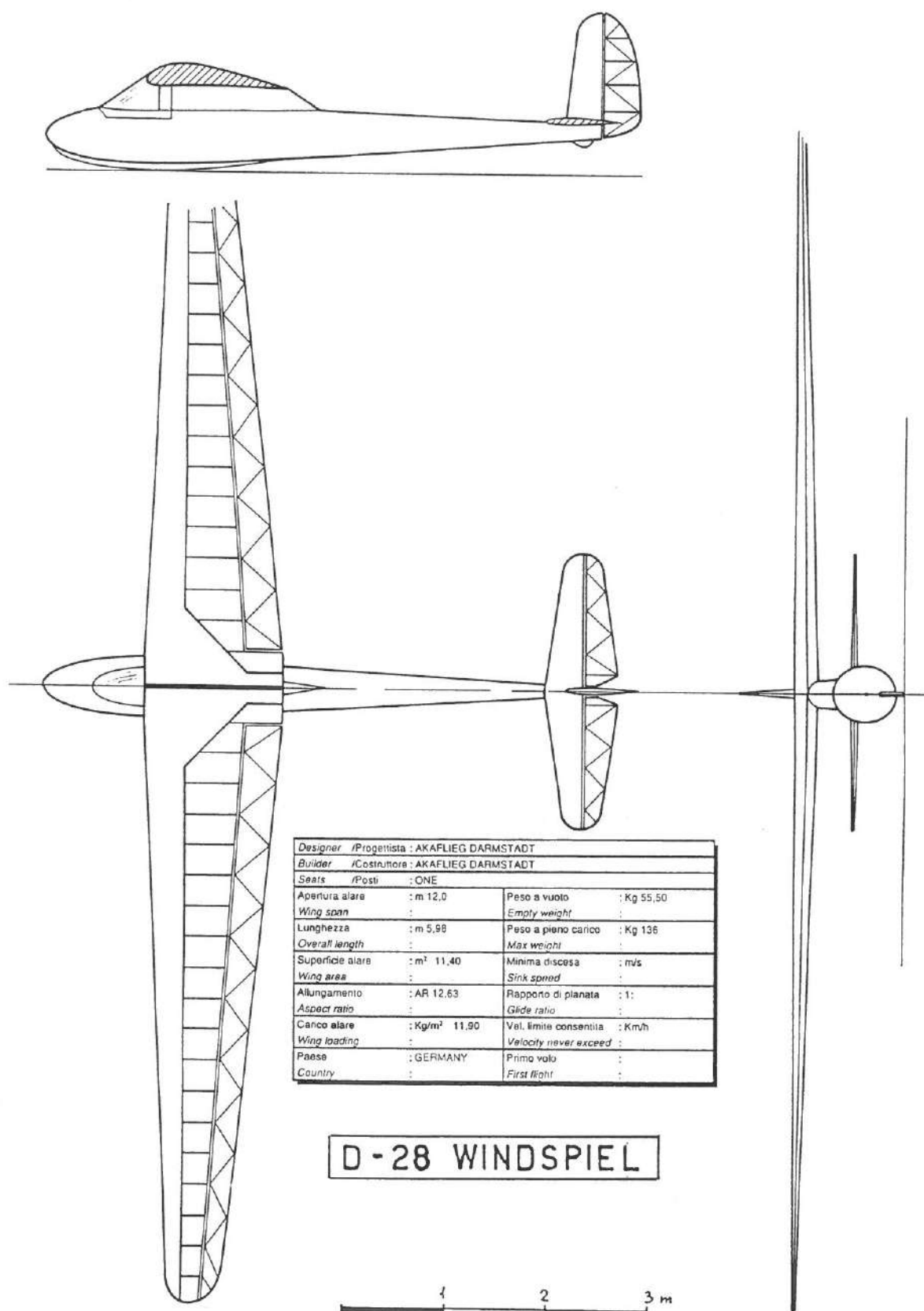
1 2 3 m

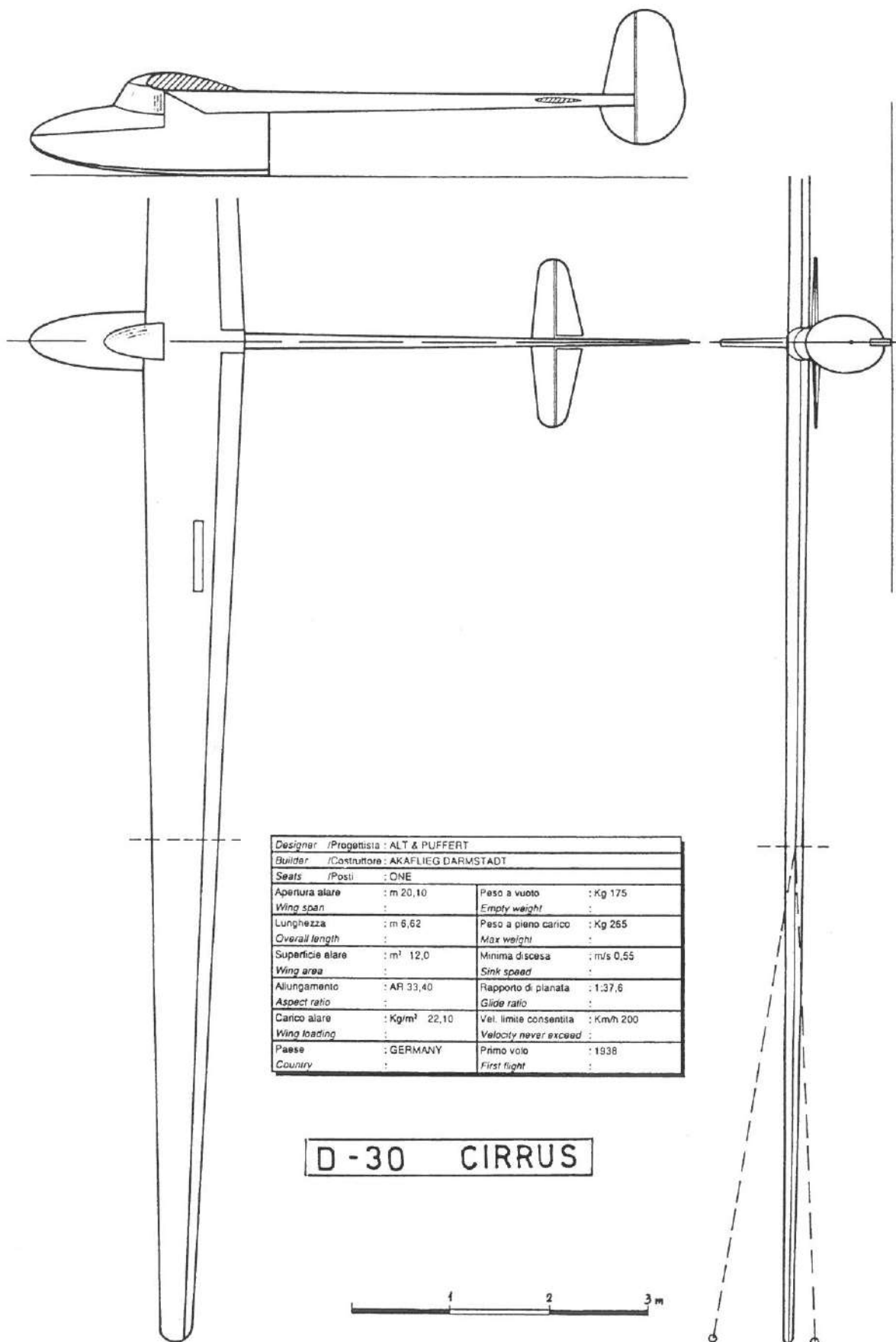


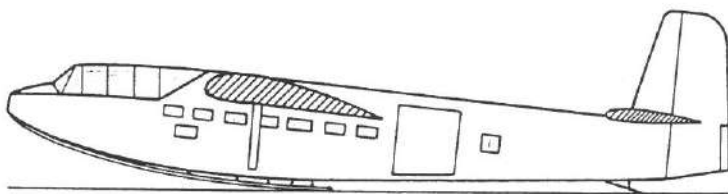
Designer /Progettista	AKAFLIEG DARMSTADT		
Builder /Costruttore	AKAFLIEG DARMSTADT		
Seats /Posti	ONE		
Apertura alare	: m 18,70	Peso a vuoto	: Kg 185
Wing span	:	Empty weight	:
Lunghezza	: m 5,50	Peso a pieno carico	: Kg 270
Overall length	:	Max weight	:
Superficie alare	: m ² 21,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 16,66	Rapporto di planata	: 1:21,40
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 9,10	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1923
Country	:	First flight	:

D-9 KONSUL

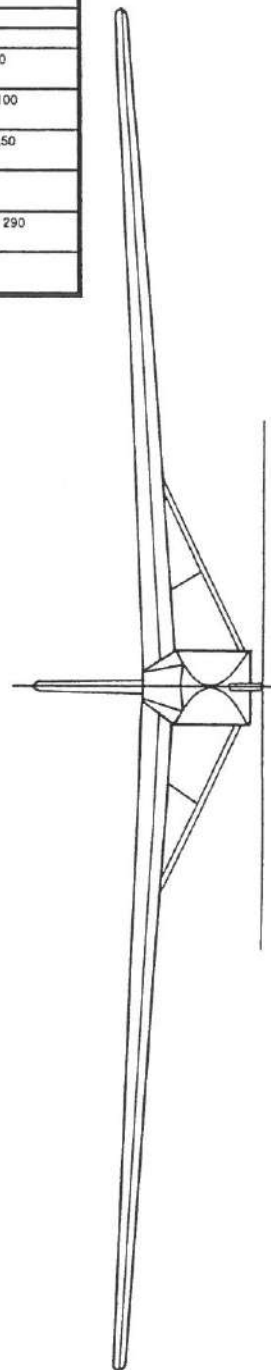
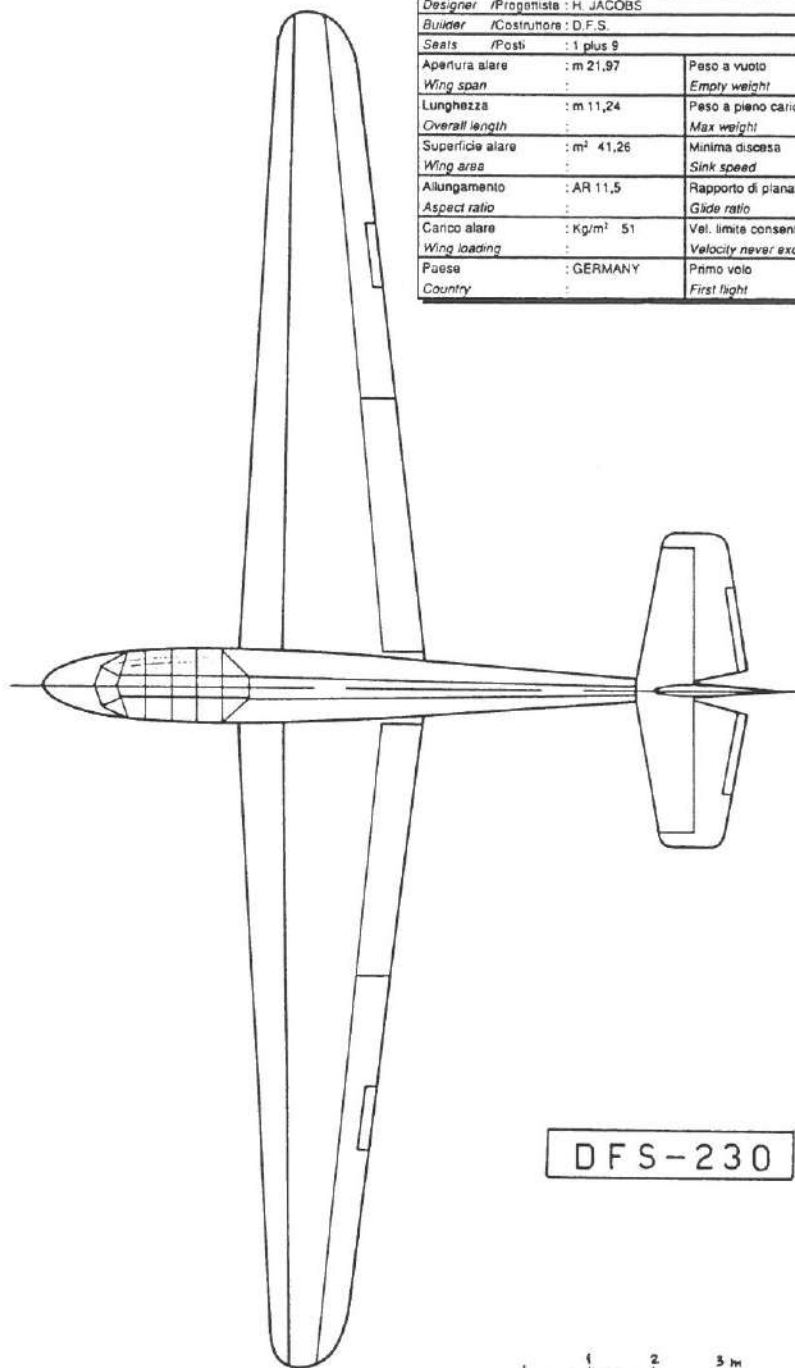
1 2 3 m





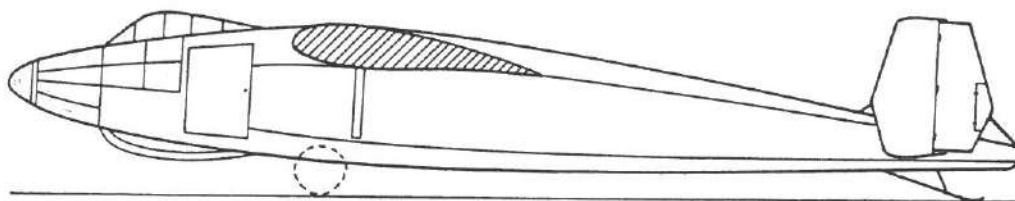


Designer /Progettista : H. JACOBS			
Builder /Costruttore : D.F.S.			
Seats /Posti : 1 plus 9			
Apertura alare : m 21,97		Peso a vuoto : Kg 850	
Wing span :		Empty weight :	
Lunghezza : m 11,24		Peso a pieno carico : Kg 2.100	
Overall length :		Max weight :	
Superficie alare : m ² 41,26		Minima discesa : m/s 1,50	
Wing area :		Sink speed :	
Allungamento : AR 11,5		Rapporto di planata : 1:	
Aspect ratio :		Glide ratio :	
Carico alare : Kg/m ² 51		Vel. limite consentita : Km/h 290	
Wing loading :		Velocity never exceed :	
Paese : GERMANY		Primo volo : 1937	
Country :		First light :	

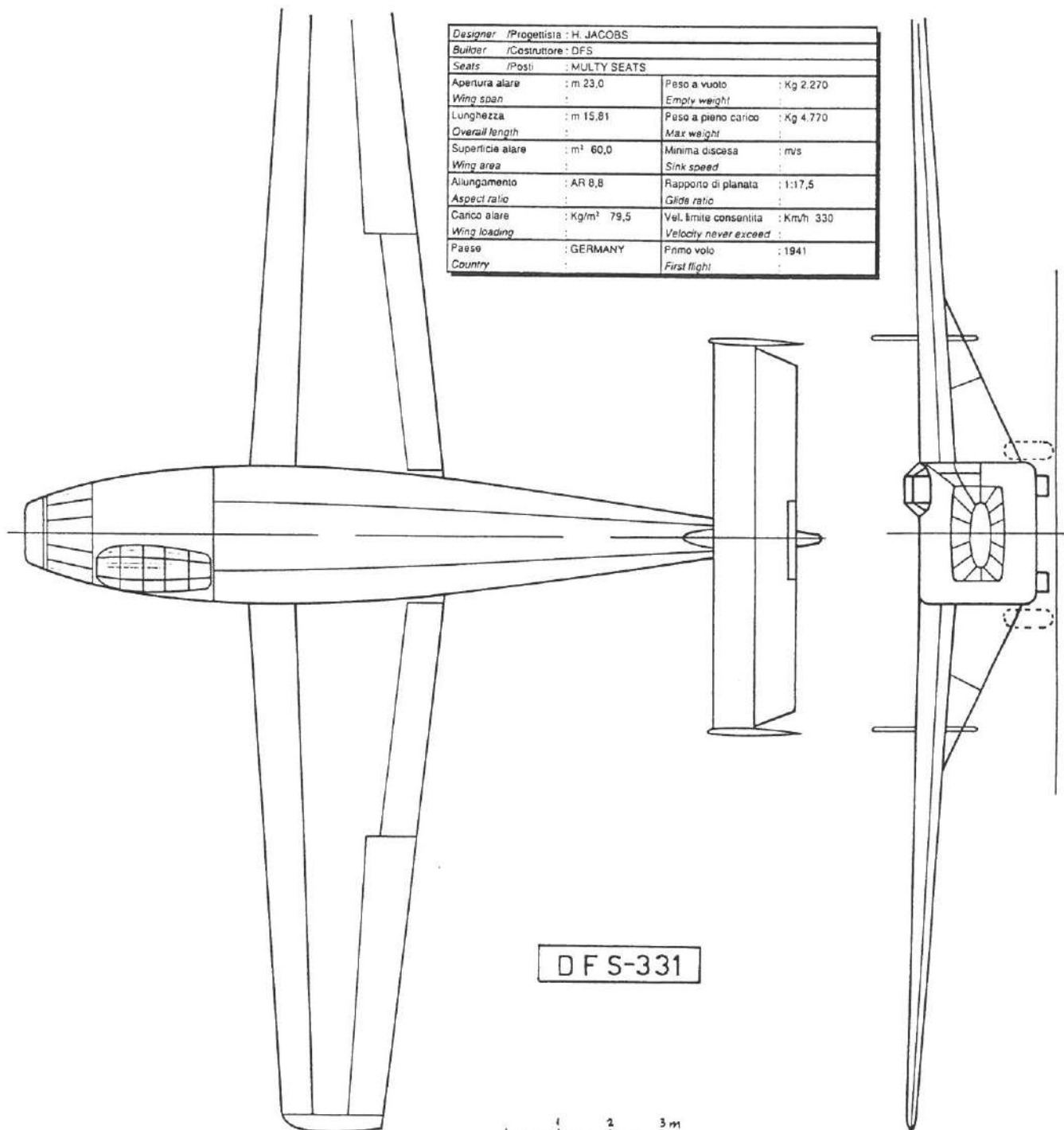


DFS-230



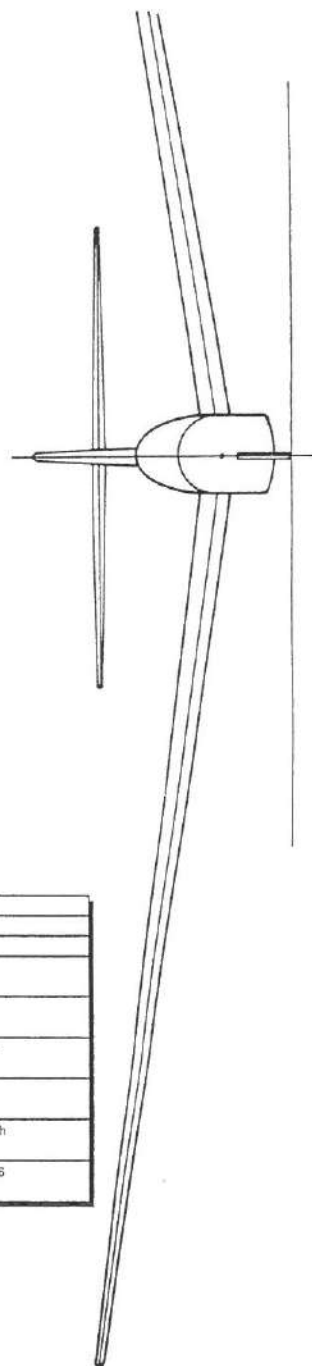
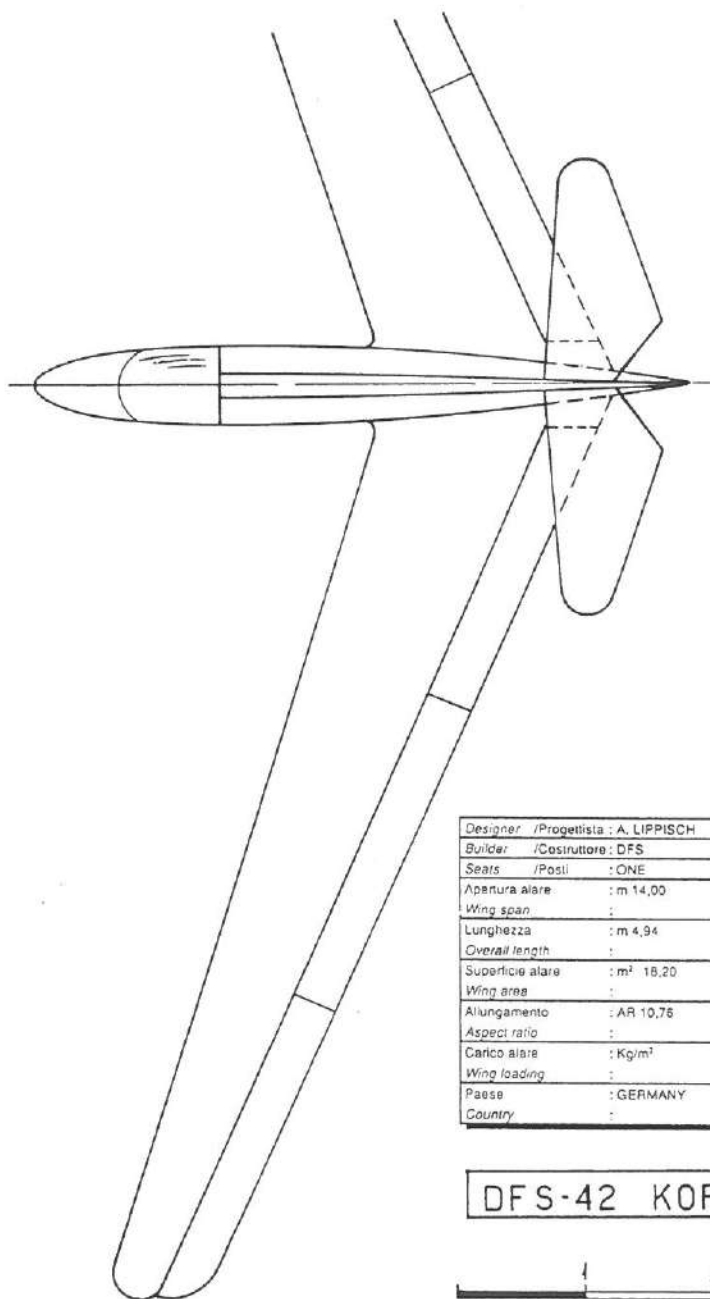
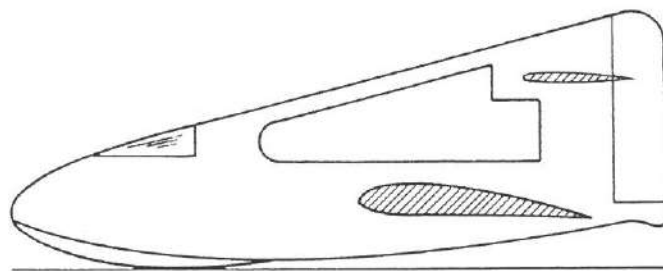


Designer / Progettista	: H. JACOBS		
Builder / Costruttore	: DFS		
Seats / Posti	: MULTY SEATS		
Apertura alare	: m 23,0	Peso a vuoto	: Kg 2.270
Wing span	:	Empty weight	:
Lunghezza	: m 15,81	Peso a pieno carico	: Kg 4.770
Overall length	:	Max weight	:
Superficie alare	: m ² 60,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 8,8	Rapporto di planata	: 1:17,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 79,5	Vel. limite consentita	: Km/h 330
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1941
Country	:	First flight	:



DFS-331

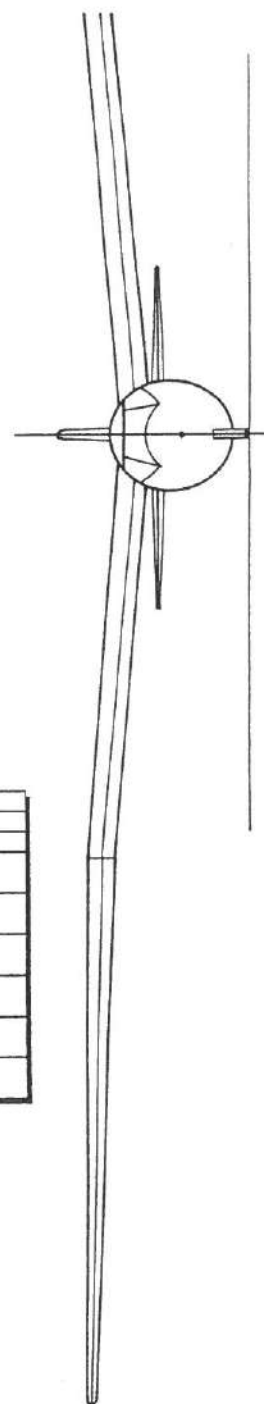
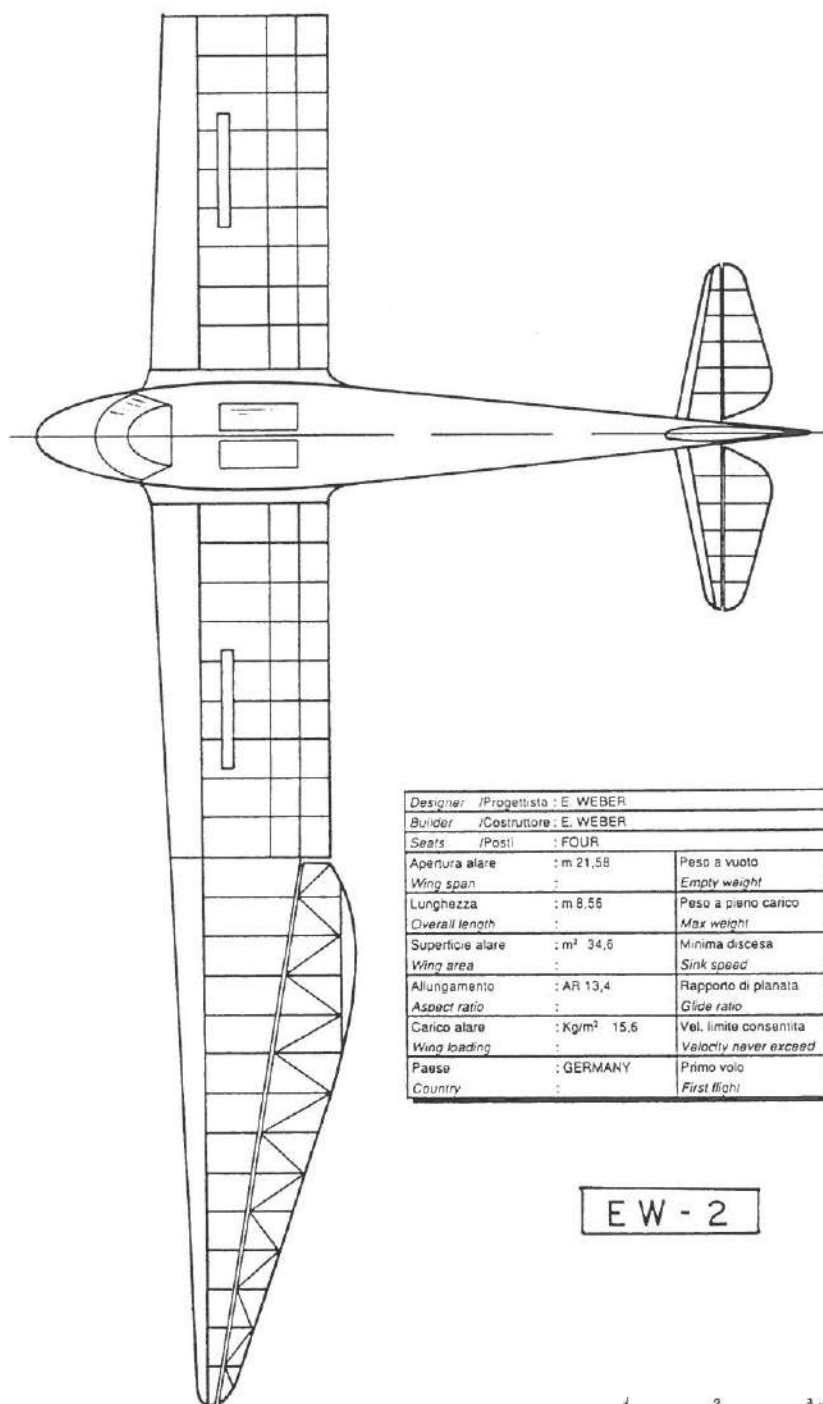
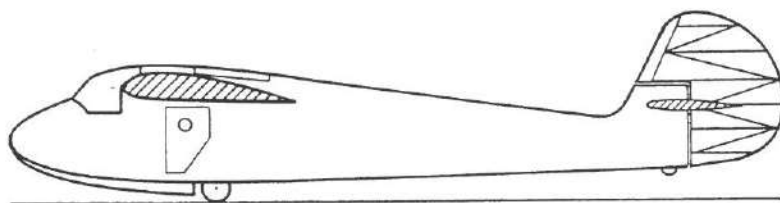
1 2 3 m



Designer / Progettista : A. LIPPISCH			
Builder / Costruttore : DFS			
Seats / Posti : ONE			
Apertura alare	: m 14,00	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 4,94	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 18,20	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 10,76	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1935
Country	:	First flight	:

DFS-42 KORMORAN

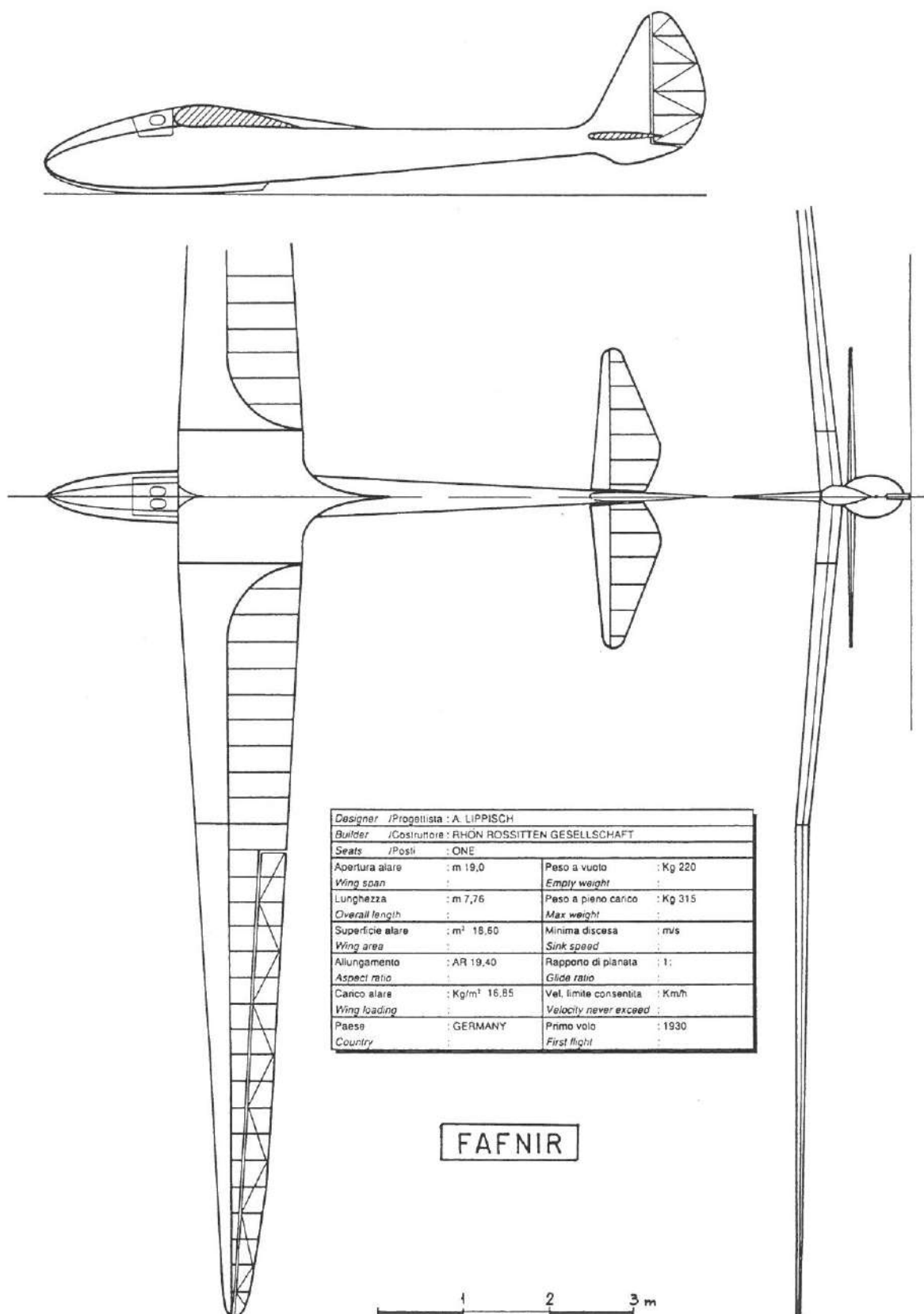




Designer /Progettista :	E. WEBER		
Builder /Costruttore :	E. WEBER		
Seats /Posti :	FOUR		
Apertura alare	: m 21,58	Peso a vuoto	: Kg 360
Wing span	:	Empty weight	:
Lunghezza	: m 8,56	Peso a pieno carico	: Kg 680
Overall length	:	Max weight	:
Superficie alare	: m² 34,6	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 13,4	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m² 15,6	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1939
Country	:	First flight	:

EW - 2

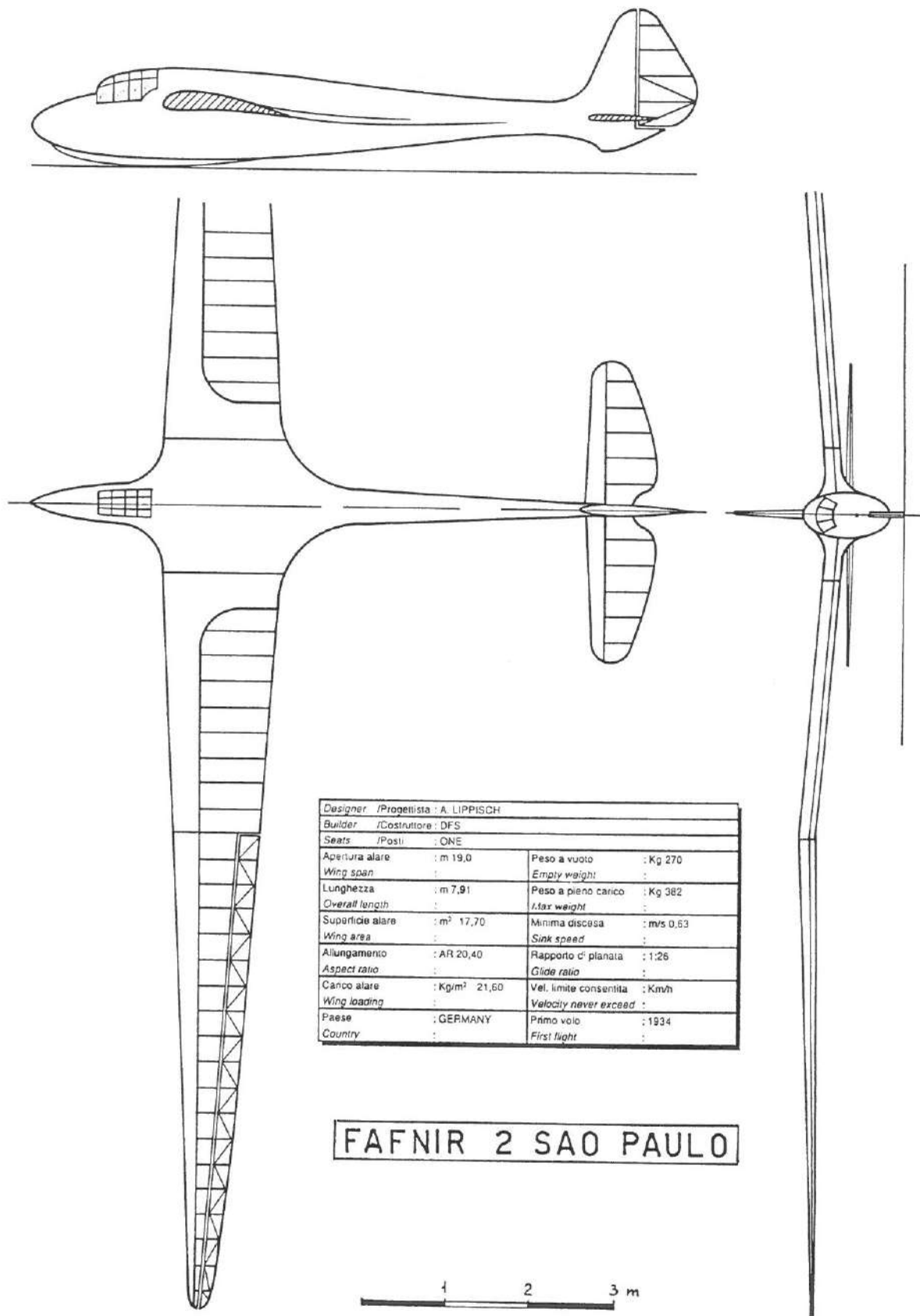




Designer / Progettista	: A. LIPPISCH		
Builder / Costruttore	: RHÖN ROSSITTEN GESELLSCHAFT		
Seats / Posti	: ONE		
Apertura alare	: m 19,0	Peso a vuoto	: Kg 220
Wing span	:	Empty weight	:
Lunghezza	: m 7,76	Peso a pieno carico	: Kg 315
Overall length	:	Max weight	:
Superficie alare	: m ² 18,60	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 19,40	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 16,85	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1930
Country	:	First flight	:

FAFNIR

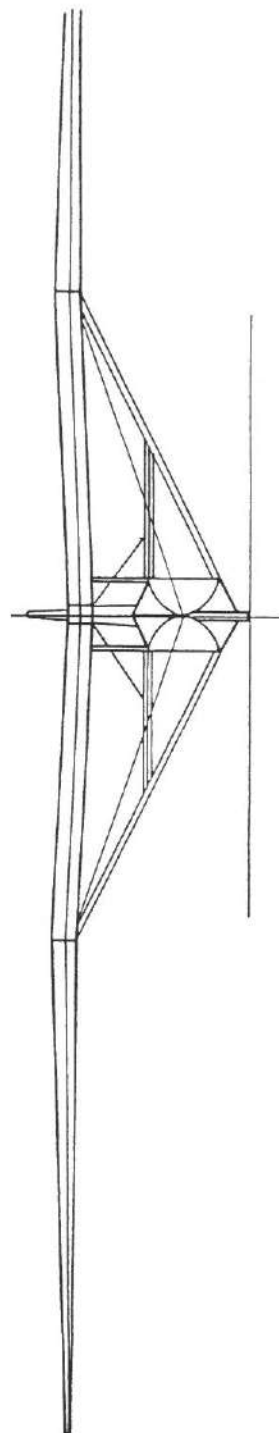
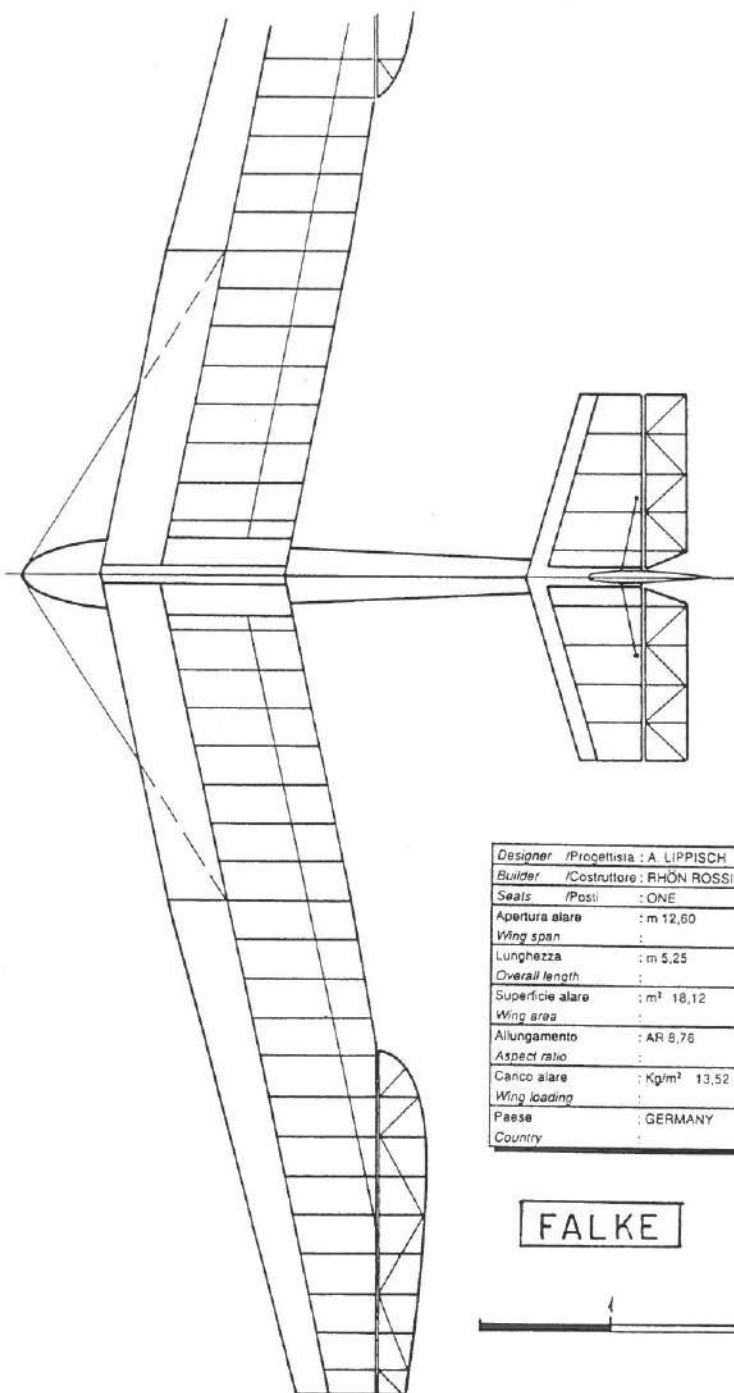
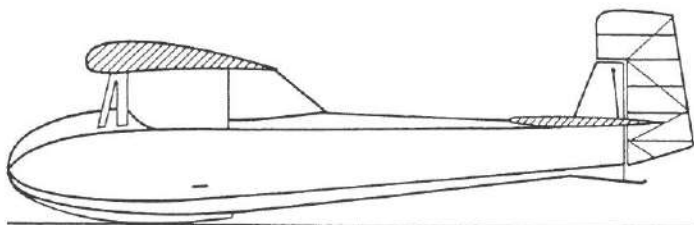
1 2 3 m



Designer /Progettista : A. LIPPISCH			
Builder /Costruttore : DFS			
Seats /Posti : ONE			
Apertura alare	: m 19,0	Peso a vuoto	: Kg 270
Wing span	:	Empty weight	:
Lunghezza	: m 7,91	Peso a pieno carico	: Kg 382
Overall length	:	Max weight	:
Superficie alare	: m ² 17,70	Minima discesa	: m/s 0,63
Wing area	:	Sink speed	:
Allungamento	: AR 20,40	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 21,60	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1934
Country	:	First flight	:

FAFNIR 2 SAO PAULO

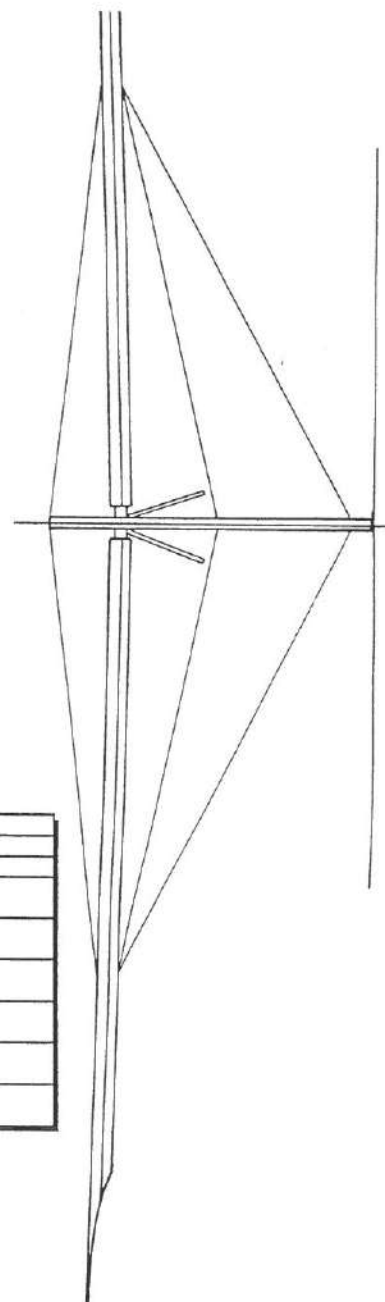
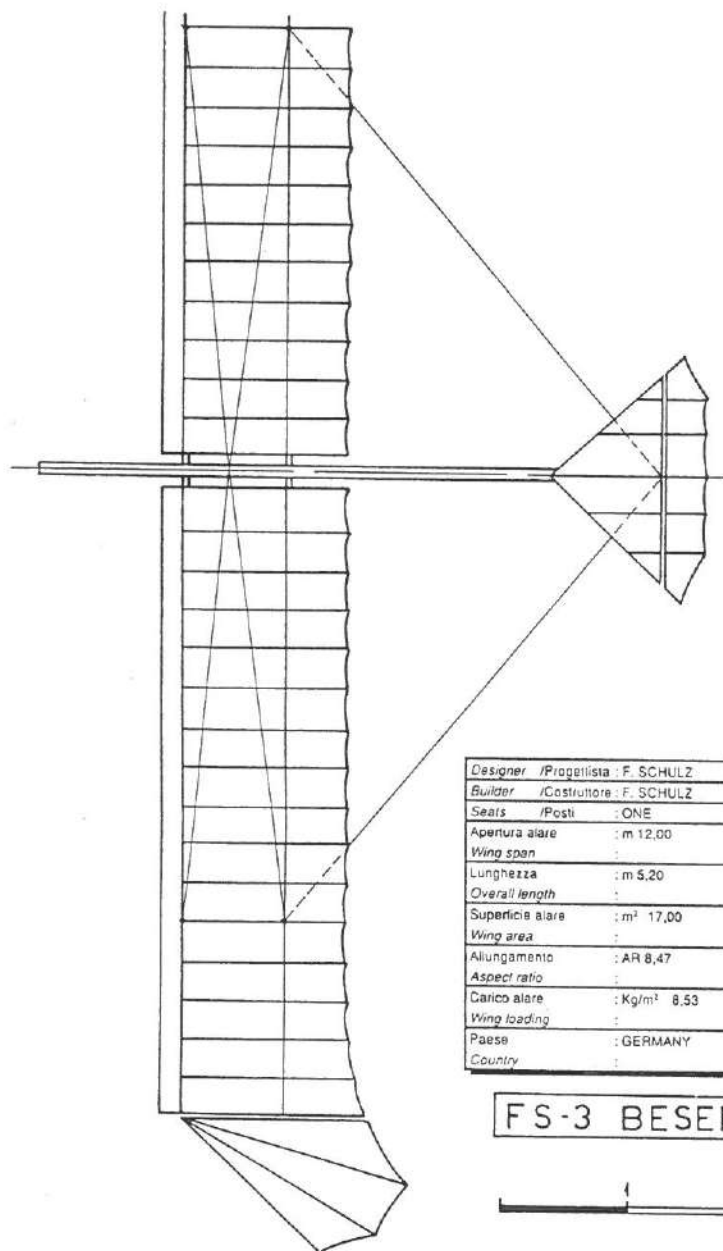
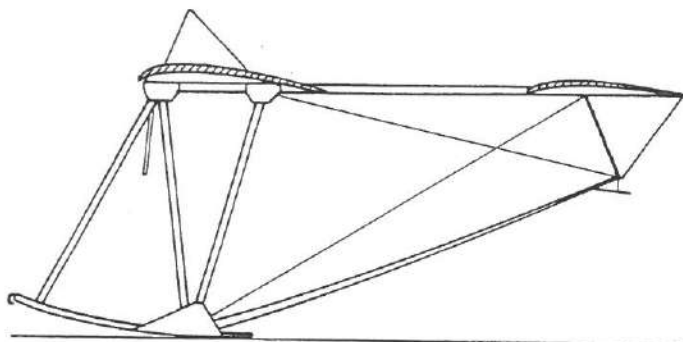
1 2 3 m



Designer / Progettista : A. LIPPISCH			
Builder / Costruttore : RHÖN ROSSITTEN GESELLSCHAFT			
Seats / Posti : ONE			
Apertura alare	: m 12,60	Peso a vuoto	: Kg 165
Wing span	:	Empty weight	:
Lunghezza	: m 5,25	Peso a pieno carico	: Kg 245
Overall length	:	Max weight	:
Superficie alare	: m ² 18,12	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 8,76	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 13,52	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1931
Country	:	First flight	:

FALKE

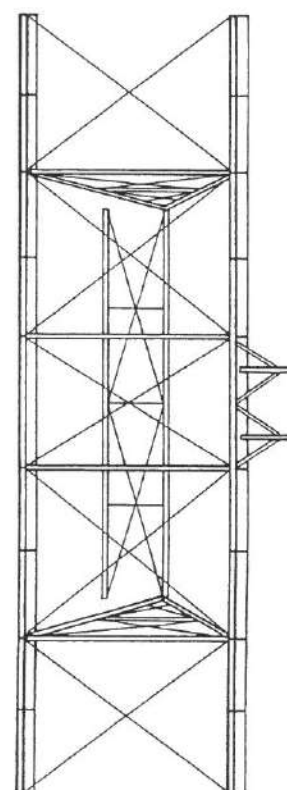
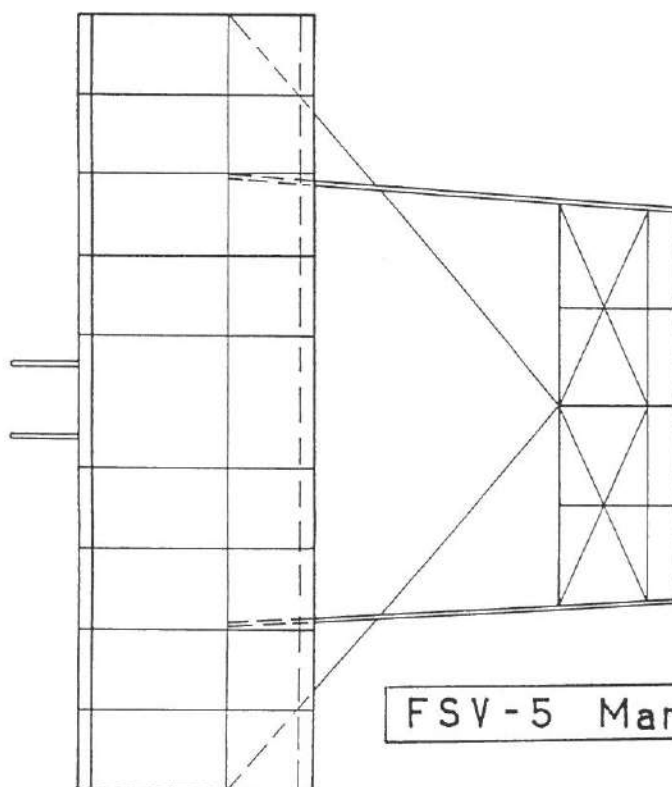
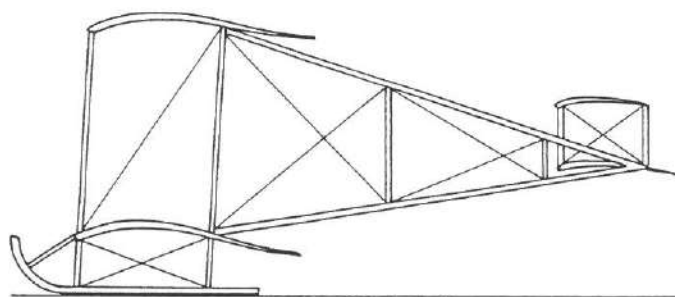




Designer /Progettista : F. SCHULZ			
Builder /Costruttore : F. SCHULZ			
Seats /Posti : ONE			
Apertura alare : m 12,00		Peso a vuoto : Kg 65	
Wing span :		Empty weight :	
Lunghezza : m 5,20		Peso a pieno carico : Kg 145	
Overall length :		Max weight :	
Superficie alare : m ² 17,00		Minima discesa : m/s	
Wing area :		Sink speed :	
Allungamento : AR 8,47		Rapporto di planata : 1:	
Aspect ratio :		Glide ratio :	
Carico alare : Kg/m ² 8,53		Vel. limite consentita : Km/h	
Wing loading :		Velocity never exceed :	
Paese : GERMANY		Primo volo : 1922	
Country :		First flight :	

FS-3 BESENSTIEL

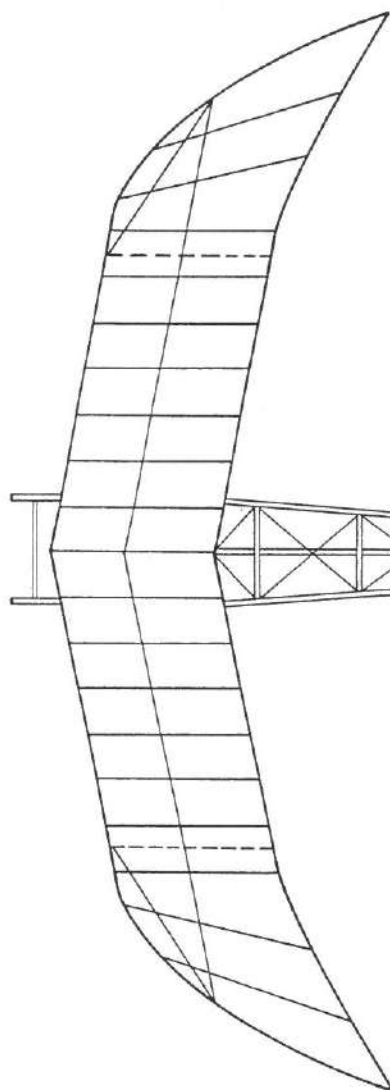
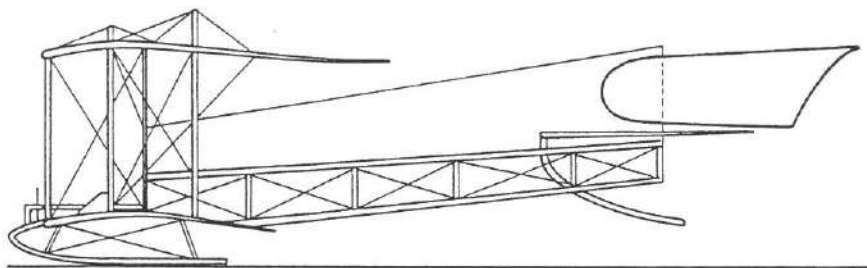




FSV-5 Mark 2

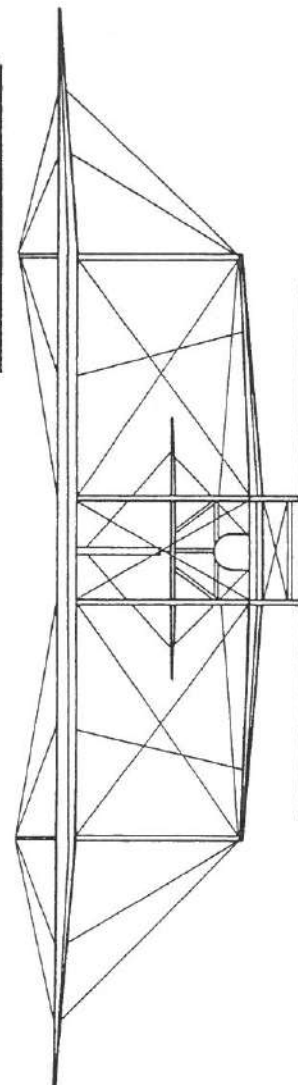
Designer / Progettista : FSV DARMSTADT			
Builder / Costruttore : FSV DARMSTADT			
Seats / Posti : ONE			
Apertura alare	: m 6,0	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 20,80	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1910
Country	:	First flight	:

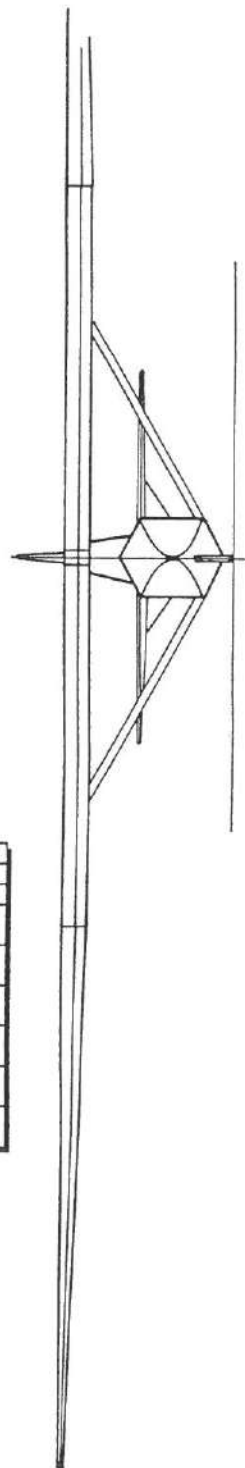
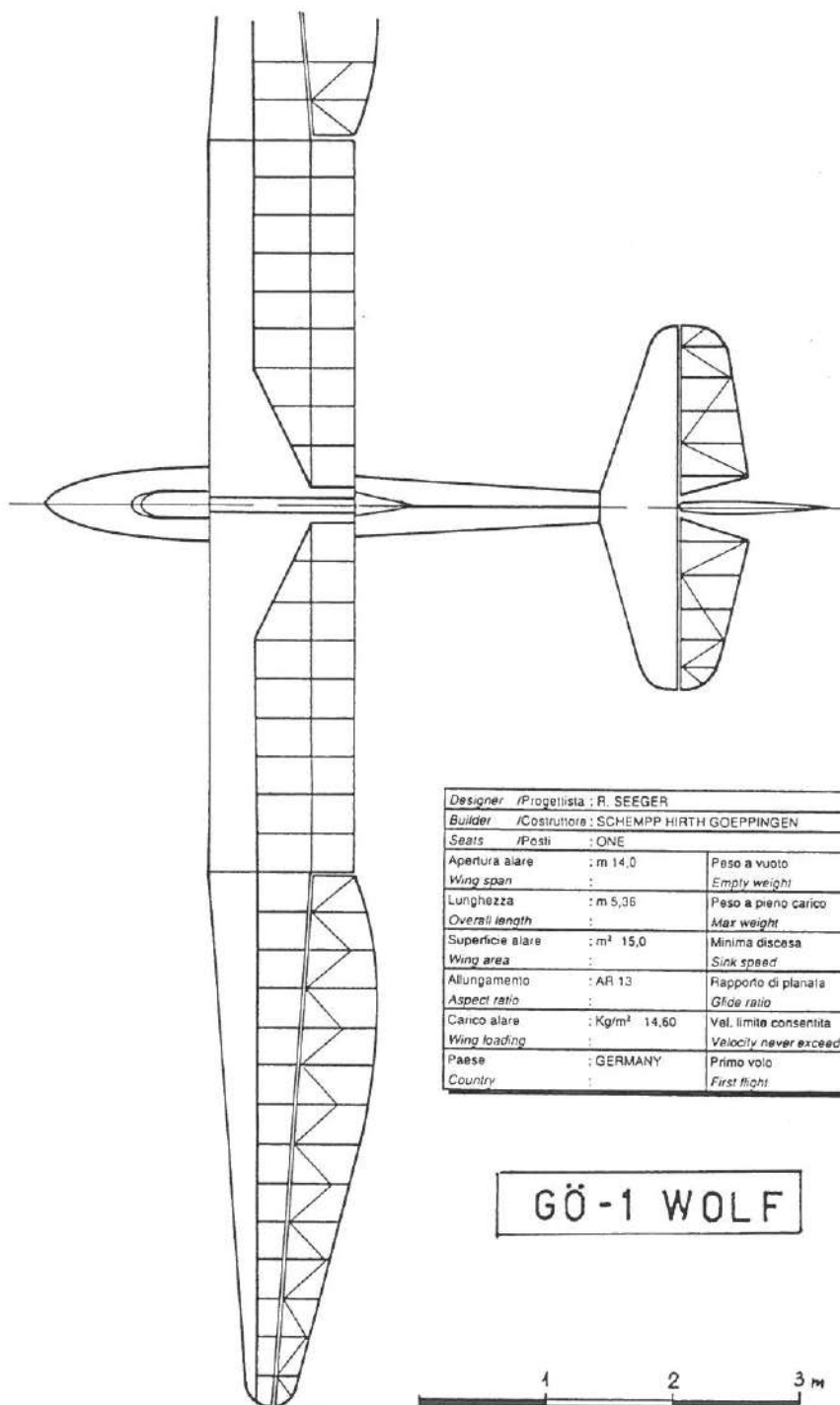
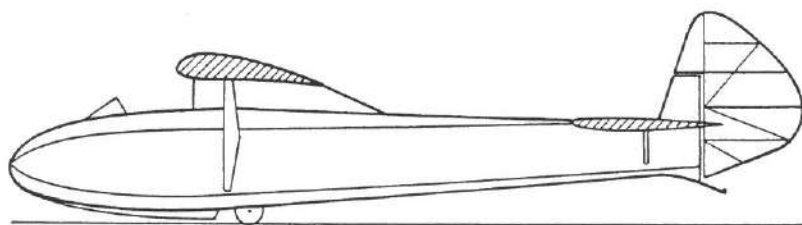




Designer /Progettista :	F. S. V. DARMSTADT	
Builder /Costruttore :	F. S. V. DARMSTADT	
Seats /Posti :	ONE	
Apertura alare :	m 10,0	Peso a vuoto : Kg
Wing span :		Empty weight :
Lunghezza :	m 8,0	Peso a pieno carico : Kg
Overall length :		Max weight :
Superficie alare :	m ²	Minima discesa : m/s
Wing area :		Sink speed :
Allungamento :	AR	Rapporto di planata : 1:
Aspect ratio :		Glide ratio :
Carico alare :	Kg/m ²	Vel. limite consentita : Km/h
Wing loading :		Velocity never exceed :
Paese :	GERMANY	Primo volo : 1912
Country :		First flight :

FSV-10

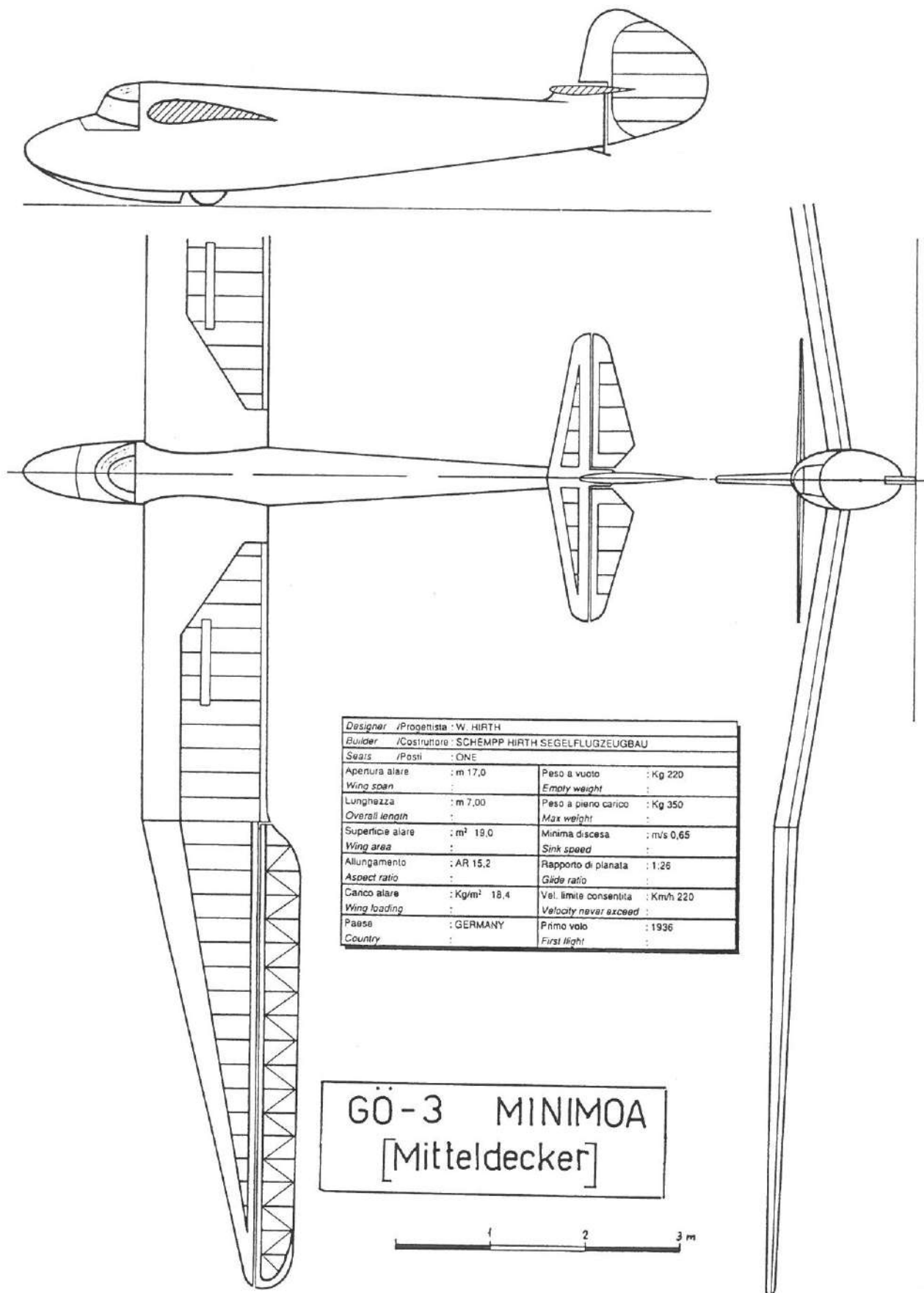




Designer / Progettista	: R. SEEGER		
Builder / Costruttore	: SCHEMP HIRTH GOEPFINGEN		
Seats / Posti	: ONE		
Apertura alare	: m 14,0	Peso a vuoto	: Kg 145
Wing span	:	Empty weight	:
Lunghezza	: m 5,36	Peso a pieno carico	: Kg 220
Overall length	:	Max weight	:
Superficie alare	: m ² 15,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 13	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 14,60	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1935
Country	:	First flight	:

GÖ-1 WOLF

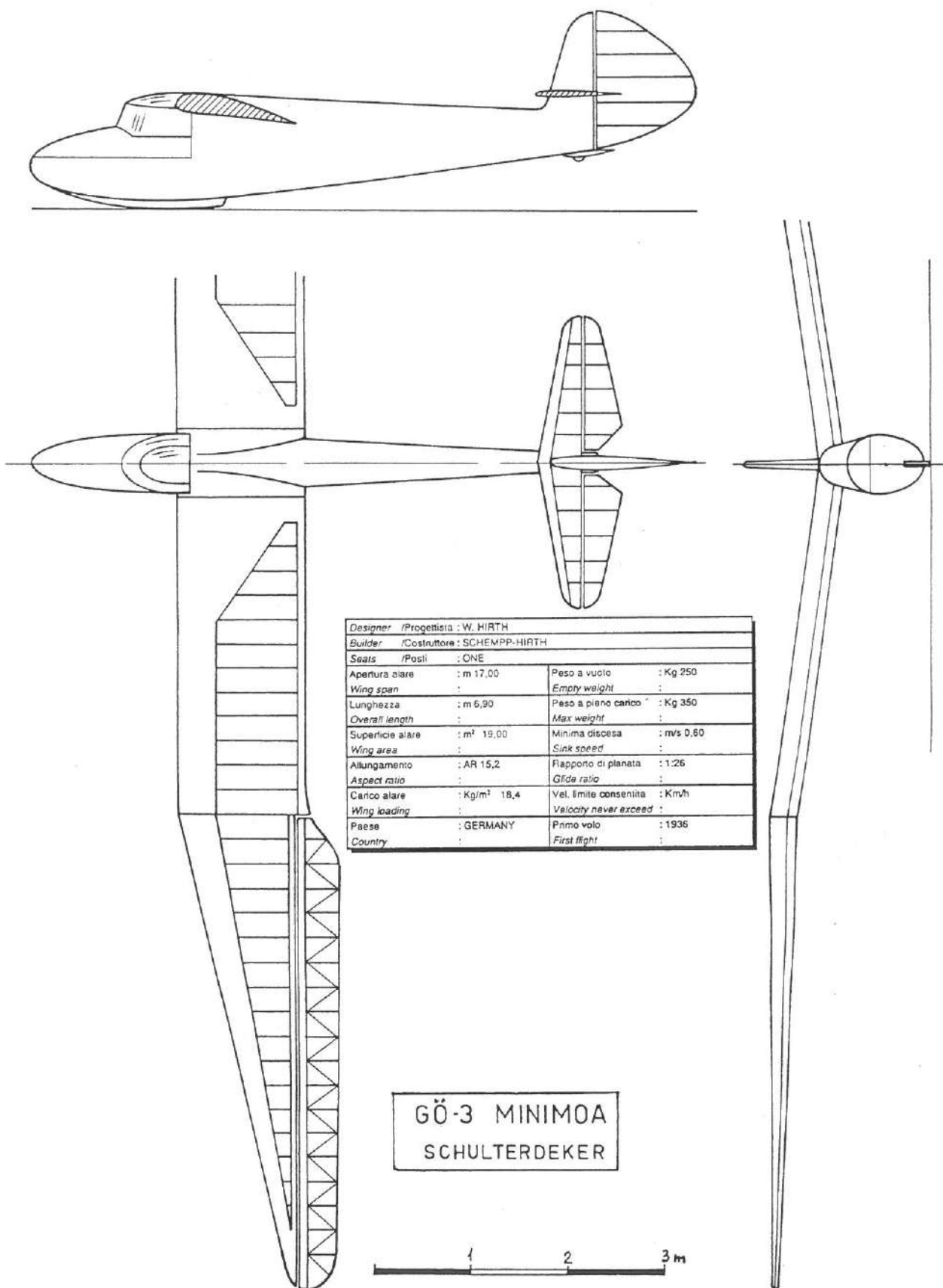




Designer / Progettista : W. HIRTH			
Builder / Costruttore : SCHEMPP HIRTH SEGELFLUGZEUGBAU			
Seats / Posti : ONE			
Apertura alare	: m 17,0	Peso a vuoto	: Kg 220
Wing span	:	Empty weight	:
Lunghezza	: m 7,00	Peso a pieno carico	: Kg 350
Overall length	:	Max weight	:
Superficie alare	: m ² 19,0	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 15,2	Rapporto di planata	: 1,25
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,4	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1936
Country	:	First flight	:

GÖ-3 MINIMOA
[Mitteldecker]

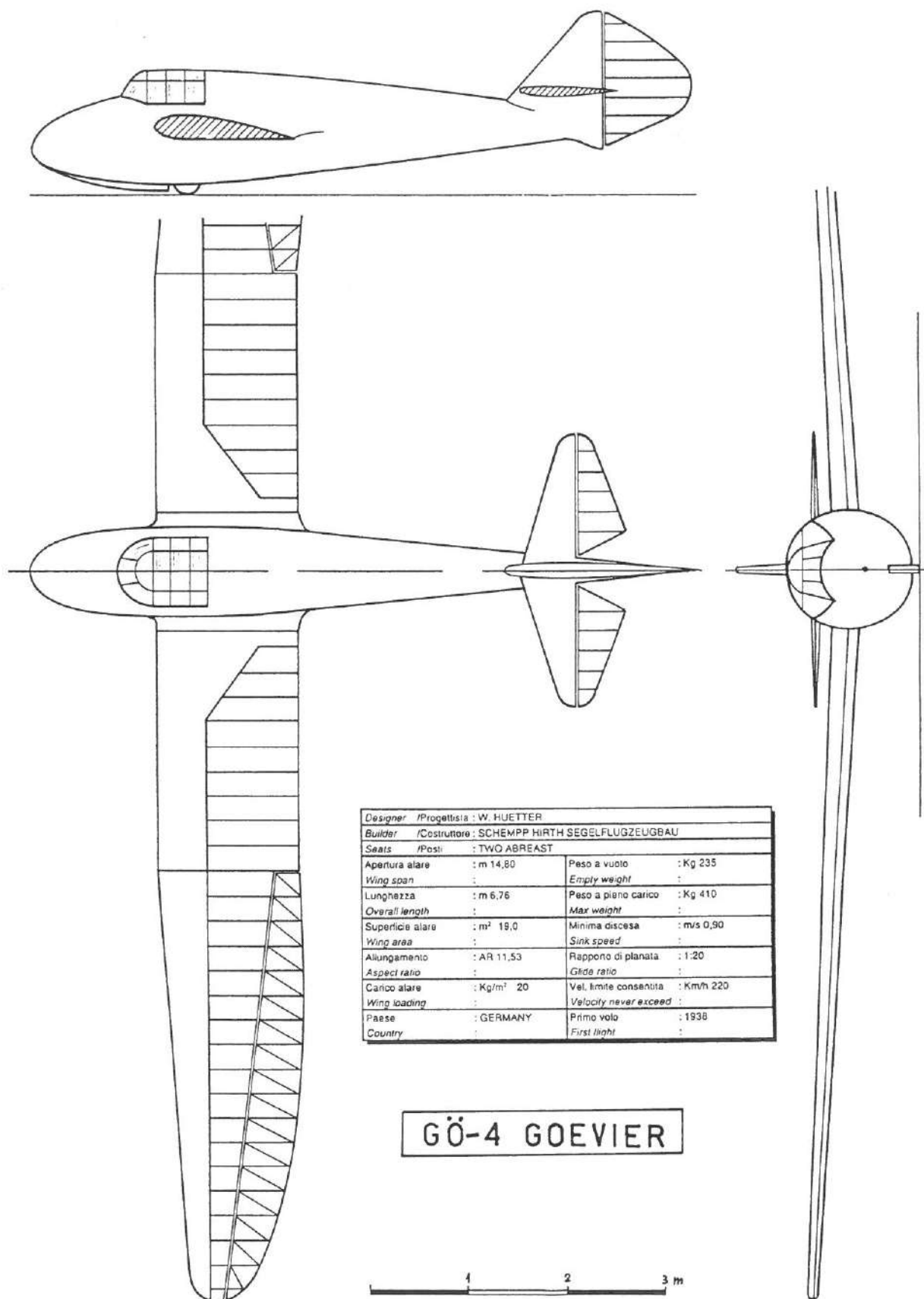
1 2 3 m



Designer / Progettista	: W. HIRTH		
Builder / Costruttore	: SCHEMPP-HIRTH		
Seats / Posti	: ONE		
Apertura alare	: m 17,00	Peso a vuoto	: Kg 250
Wing span	:	Empty weight	:
Lunghezza	: m 6,90	Peso a pieno carico	: Kg 350
Overall length	:	Max weight	:
Superficie alare	: m ² 19,00	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 15,2	Flapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,4	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1936
Country	:	First flight	:

GÖ-3 MINIMODA
SCHULTERDECKER

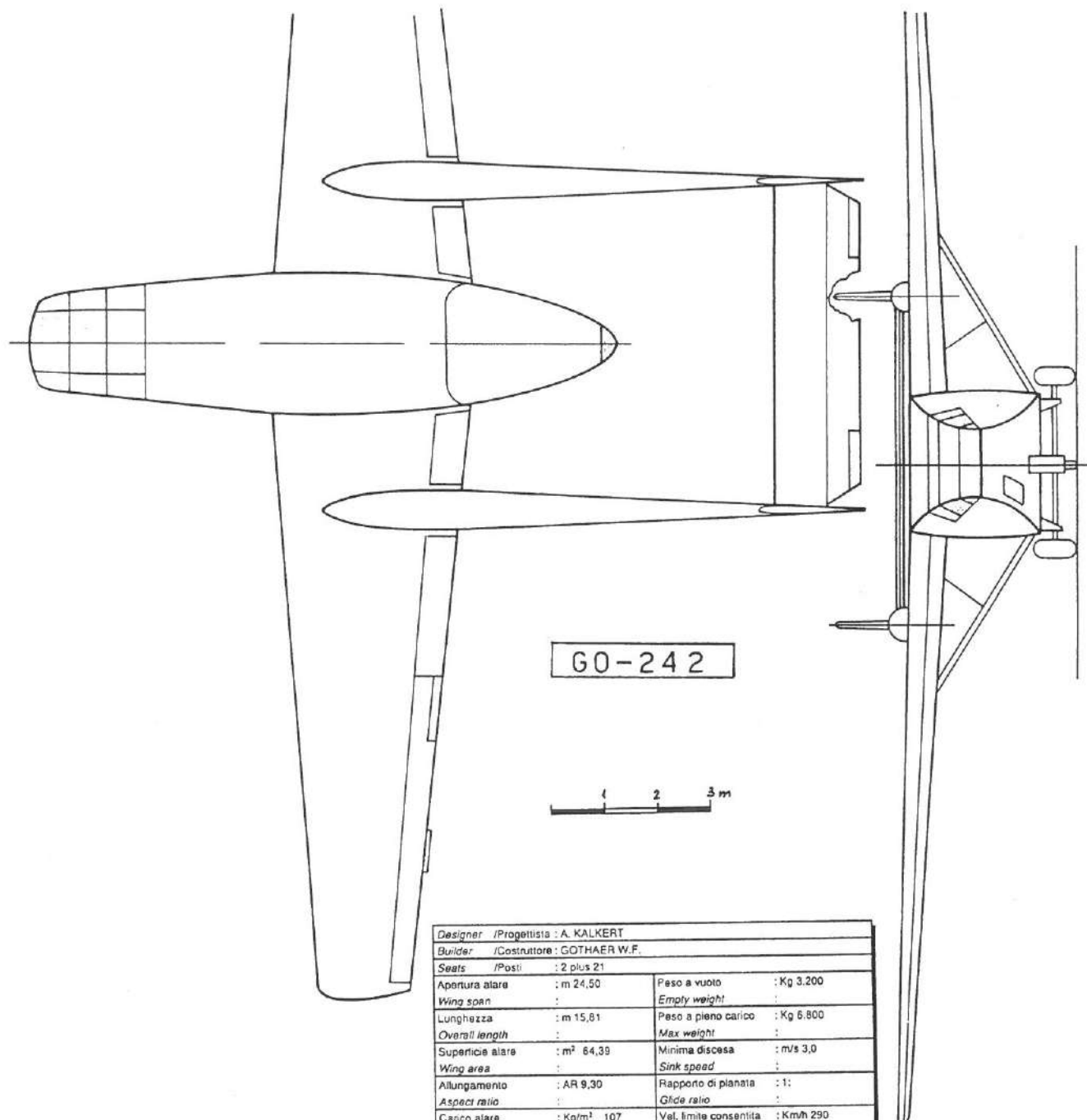
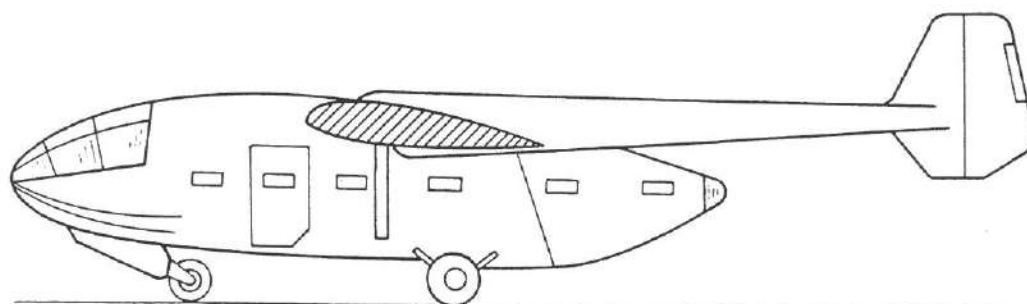
1 2 3 m



Designer / Progettista : W. HUETTER			
Builder / Costruttore : SCHEMPP HIRTH SEGELFLUGZEUGBAU			
Seats / Posti : TWO ABREAST			
Apertura alare	: m 14,80	Peso a vuoto	: Kg 235
Wing span	:	Empty weight	:
Lunghezza	: m 6,76	Peso a pieno carico	: Kg 410
Overall length	:	Max weight	:
Superficie alare	: m ² 19,0	Minima discesa	: m/s 0,90
Wing area	:	Sink speed	:
Allungamento	: AR 11,53	Rapporto di planata	: 1:20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 20	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1938
Country	:	First flight	:

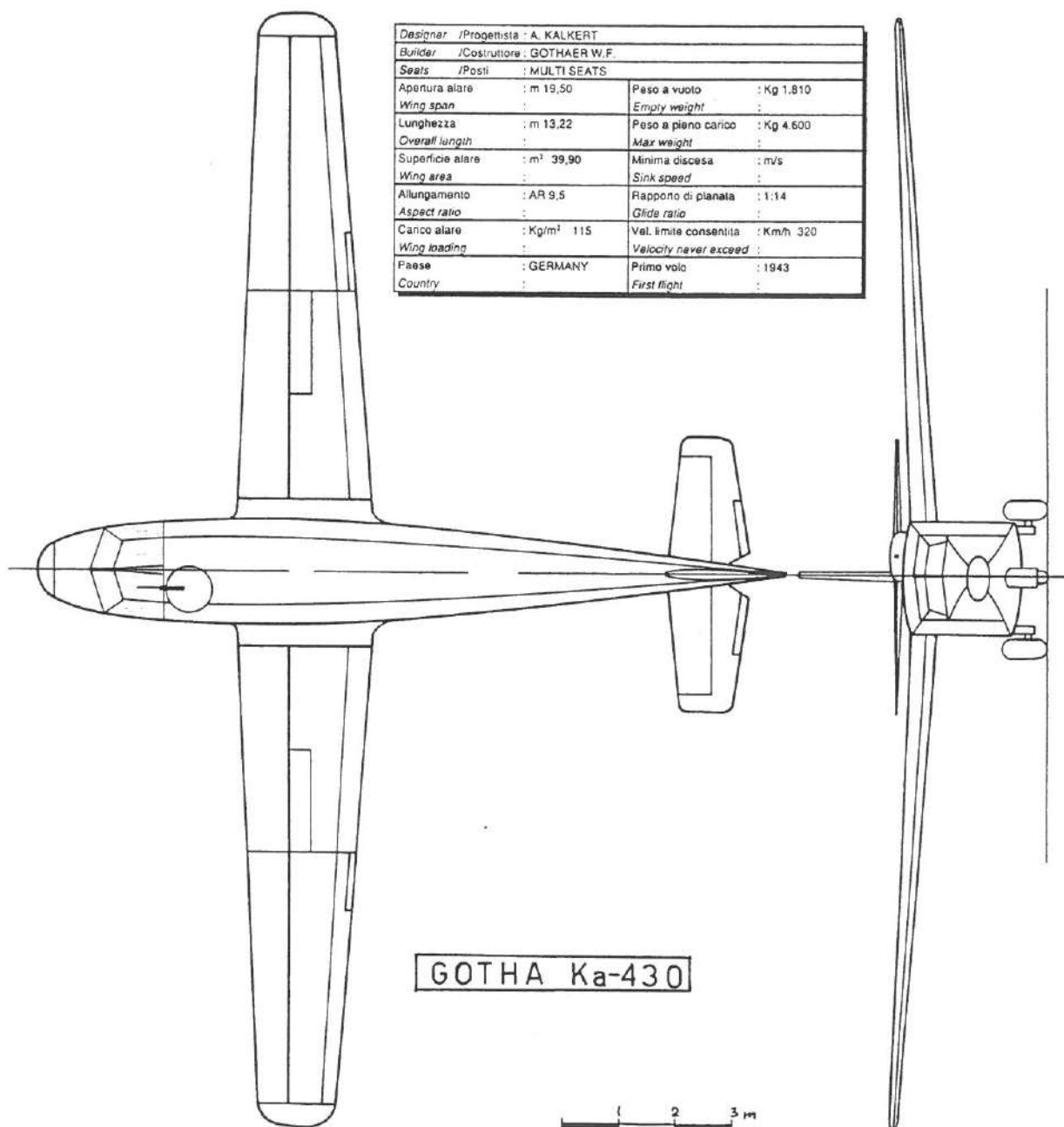
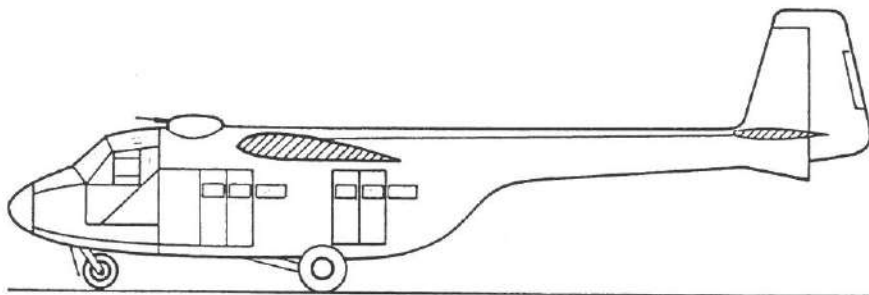
GÖ-4 GOEVIER

1 2 3 m



GO-242

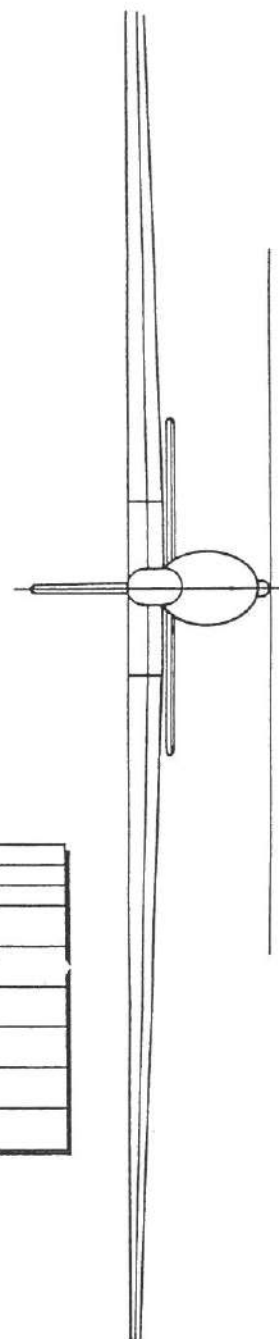
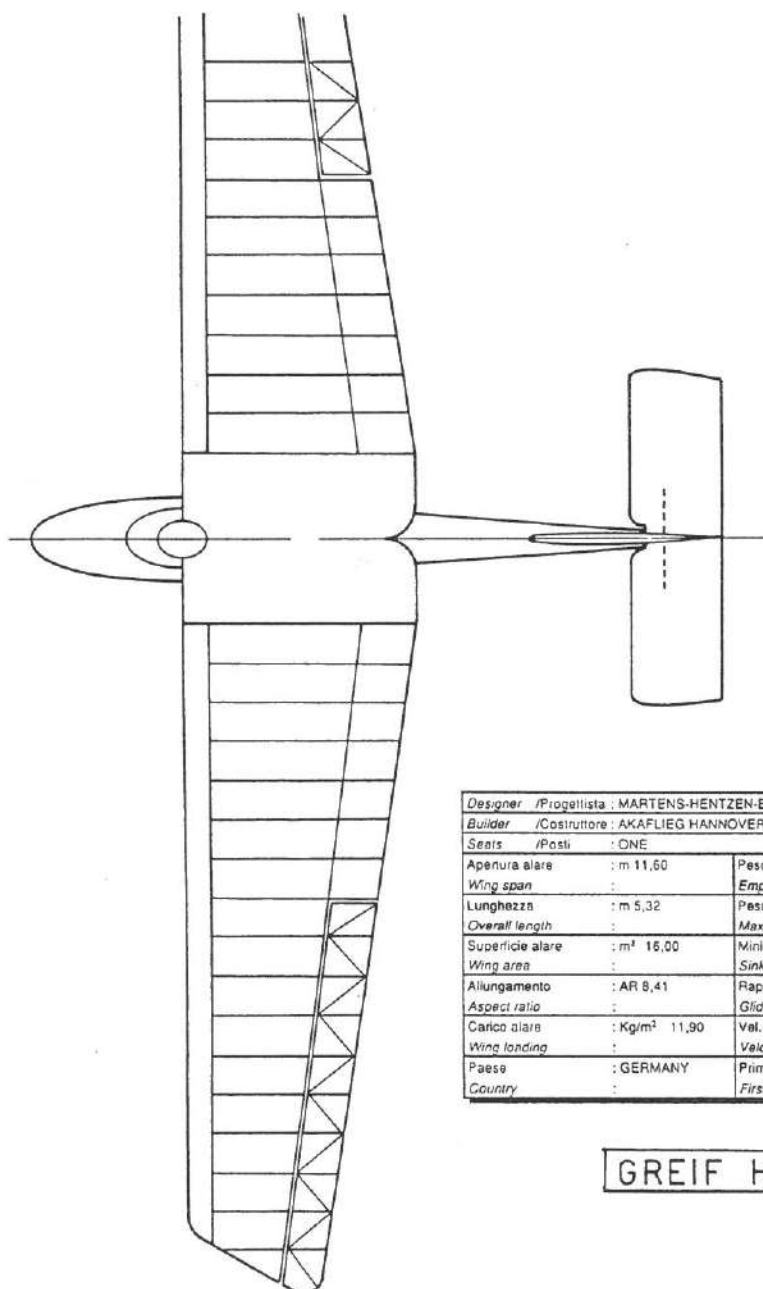
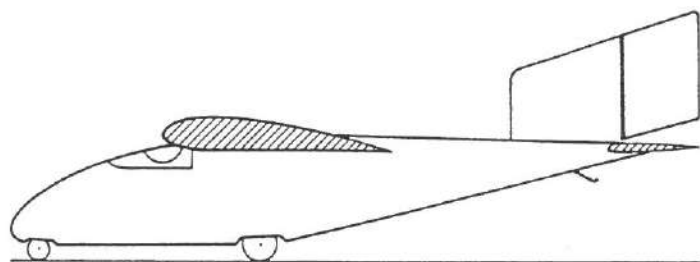
Designer / Progettista : A. KALKERT			
Builder / Costruttore : GÖTHAER W.F.			
Seats / Posti	: 2 plus 21		
Apertura alare	: m 24,50	Peso a vuoto	: Kg 3.200
Wing span	:	Empty weight	:
Lunghezza	: m 15,81	Peso a pieno carico	: Kg 6.800
Overall length	:	Max weight	:
Superficie alare	: m² 64,39	Minima discesa	: m/s 3,0
Wing area	:	Sink speed	:
Allungamento	: AR 9,30	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m² 107	Vel. limite consentita	: Km/h 290
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1941
Country	:	First flight	:



Designer / Progettista	: A. KALKERT		
Builder / Costruttore	: GÖTHAER W.F.		
Seats / Posti	: MULTI SEATS		
Apertura alare	: m 19,50	Peso a vuoto	: Kg 1.810
Wing span	:	Empty weight	:
Lunghezza	: m 13,22	Peso a pieno carico	: Kg 4.600
Overall length	:	Max weight	:
Superficie alare	: m ² 39,90	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 9,5	Rapporto di planata	: 1:14
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 115	Vel. limite consentita	: Km/h 320
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1943
Country	:	First flight	:

GOTHA Ka-430

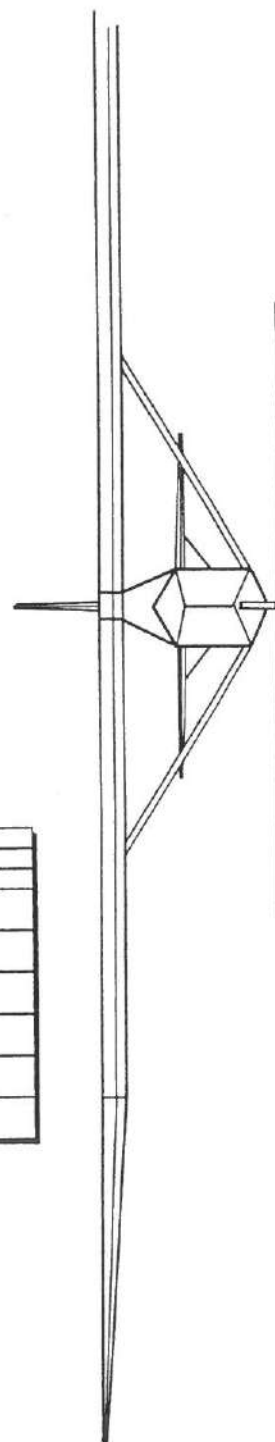
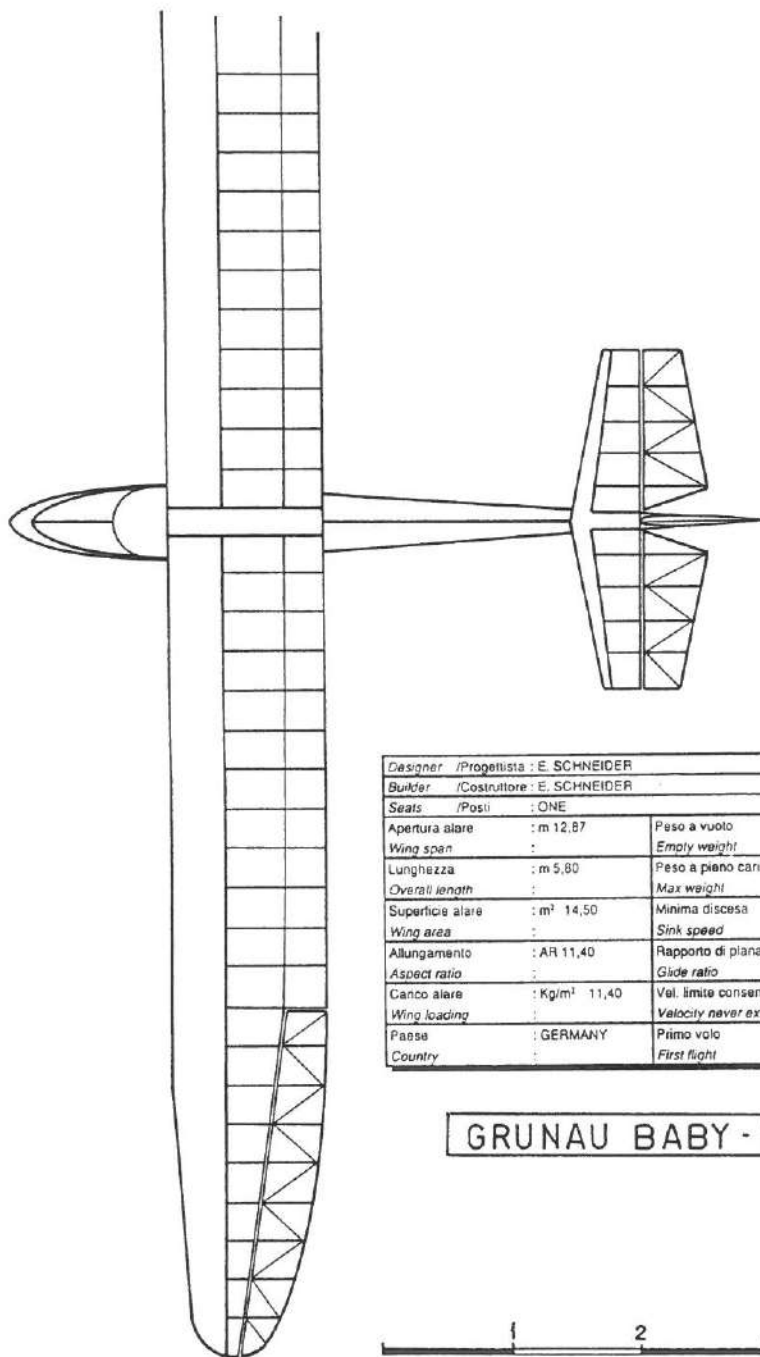
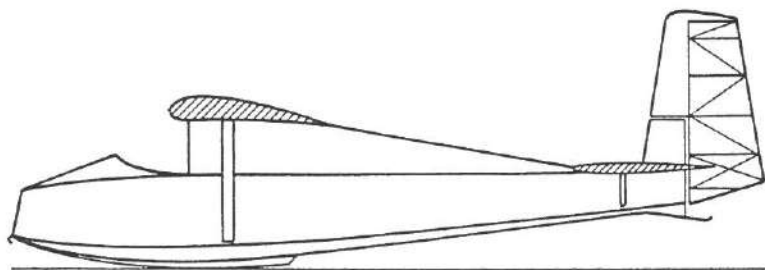
1 2 3 m



Designer / Progettista	MARTENS-HENTZEN-BLUME		
Builder / Costruttore	AKAFLIEG HANNOVER		
Seats / Posti	ONE		
Apertura alare	: m 11,60	Peso a vuoto	: Kg 93
Wing span	:	Empty weight	:
Lunghezza	: m 5,32	Peso a pieno carico	: Kg 190
Overall length	:	Max weight	:
Superficie alare	: m² 16,00	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 8,41	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m² 11,90	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1922
Country	:	First flight	:

GREIF H-2

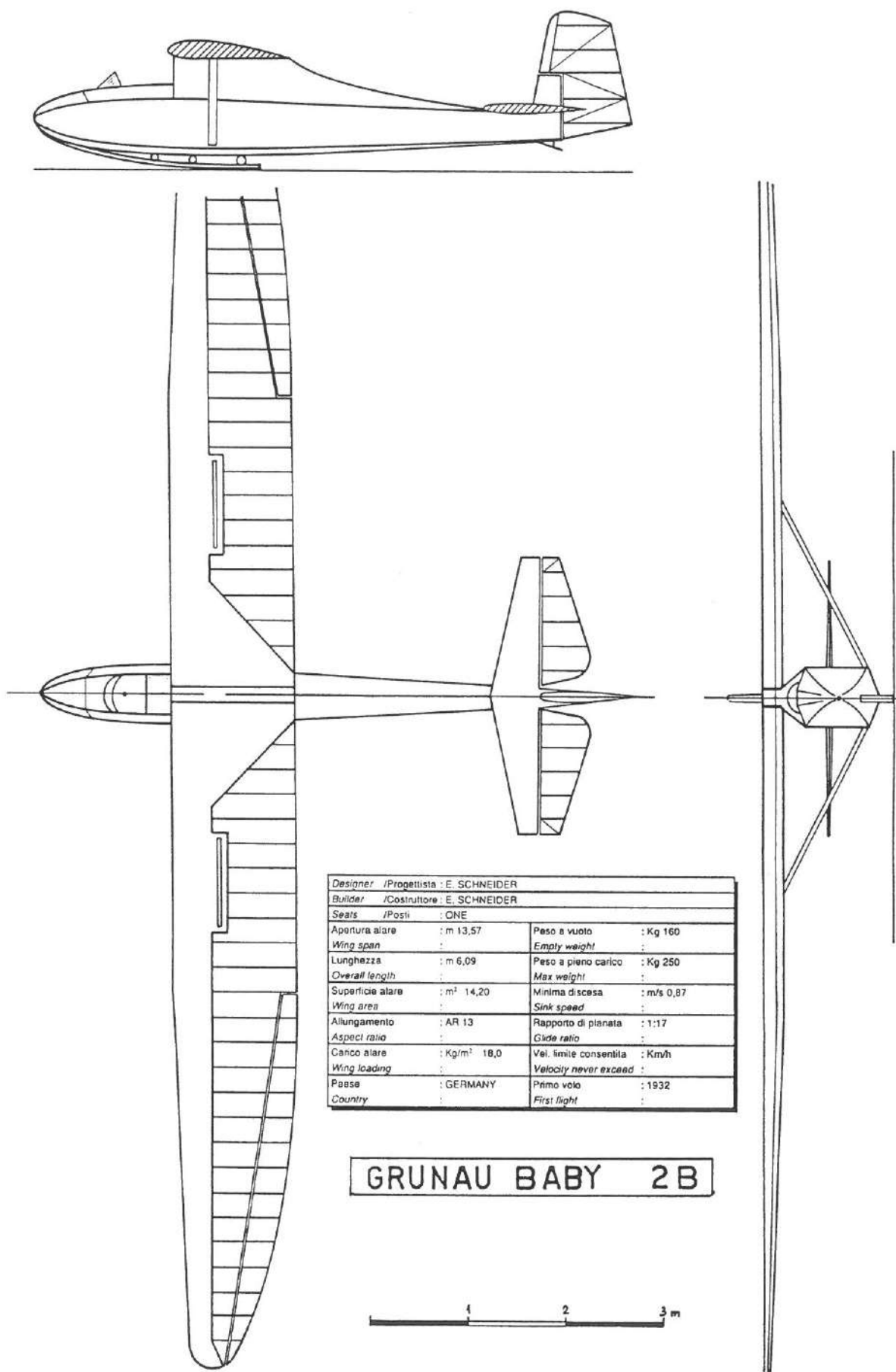




Designer /Progettista : E. SCHNEIDER			
Builder /Costruttore : E. SCHNEIDER			
Seats /Posi : ONE			
Apertura alare : m 12,87		Peso a vuoto	: Kg 100
Wing span :		Empty weight	:
Lunghezza : m 5,80		Peso a pieno carico	: Kg 166
Overall length :		Max weight	:
Superficie alare : m ² 14,50		Minima discesa	: m/s
Wing area :		Sink speed	:
Allungamento : AR 11,40		Rapporto di planata	: 1:17
Aspect ratio :		Glide ratio	:
Carico alare : Kg/m ² 11,40		Vel. limite consentita	: Km/h
Wing loading :		Velocity never exceed	:
Paese : GERMANY		Primo volo	: 1931
Country :		First flight	:

GRUNAU BABY - 1

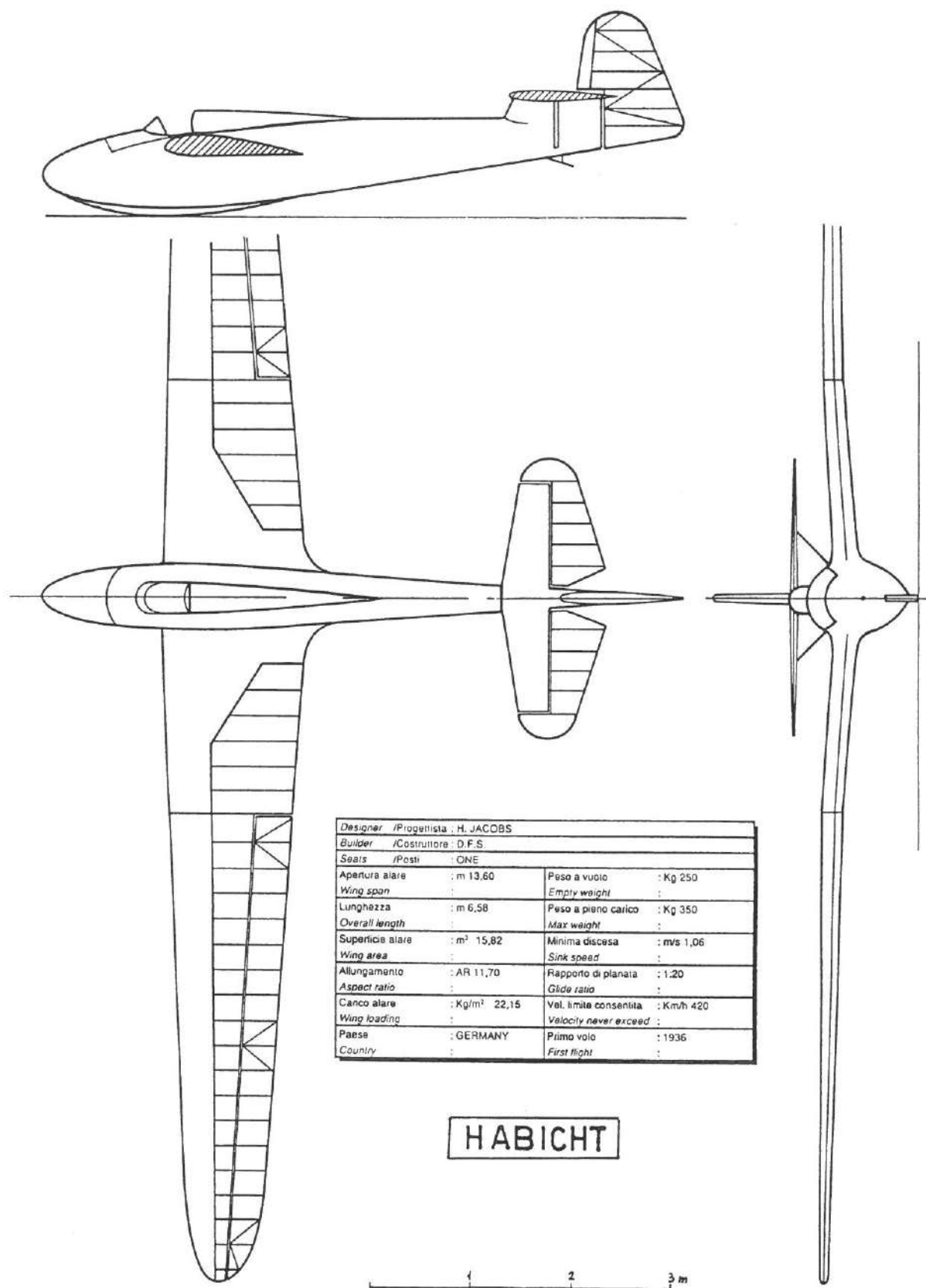




Designer / Progettista	E. SCHNEIDER		
Builder / Costruttore	E. SCHNEIDER		
Seats / Posti	ONE		
Apertura alare	: m 13,57	Peso a vuoto	: Kg 160
Wing span	:	Empty weight	:
Lunghezza	: m 6,09	Peso a pieno carico	: Kg 250
Overall length	:	Max weight	:
Superficie alare	: m ² 14,20	Minima discesa	: m/s 0,87
Wing area	:	Sink speed	:
Allungamento	: AR 13	Rapporto di planata	: 1:17
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1932
Country	:	First flight	:

GRUNAU BABY 2B

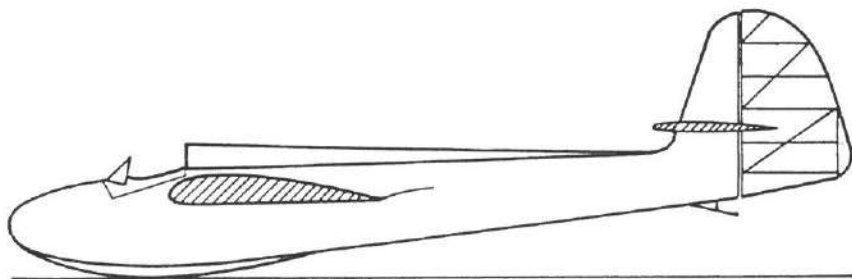
1 2 3 m



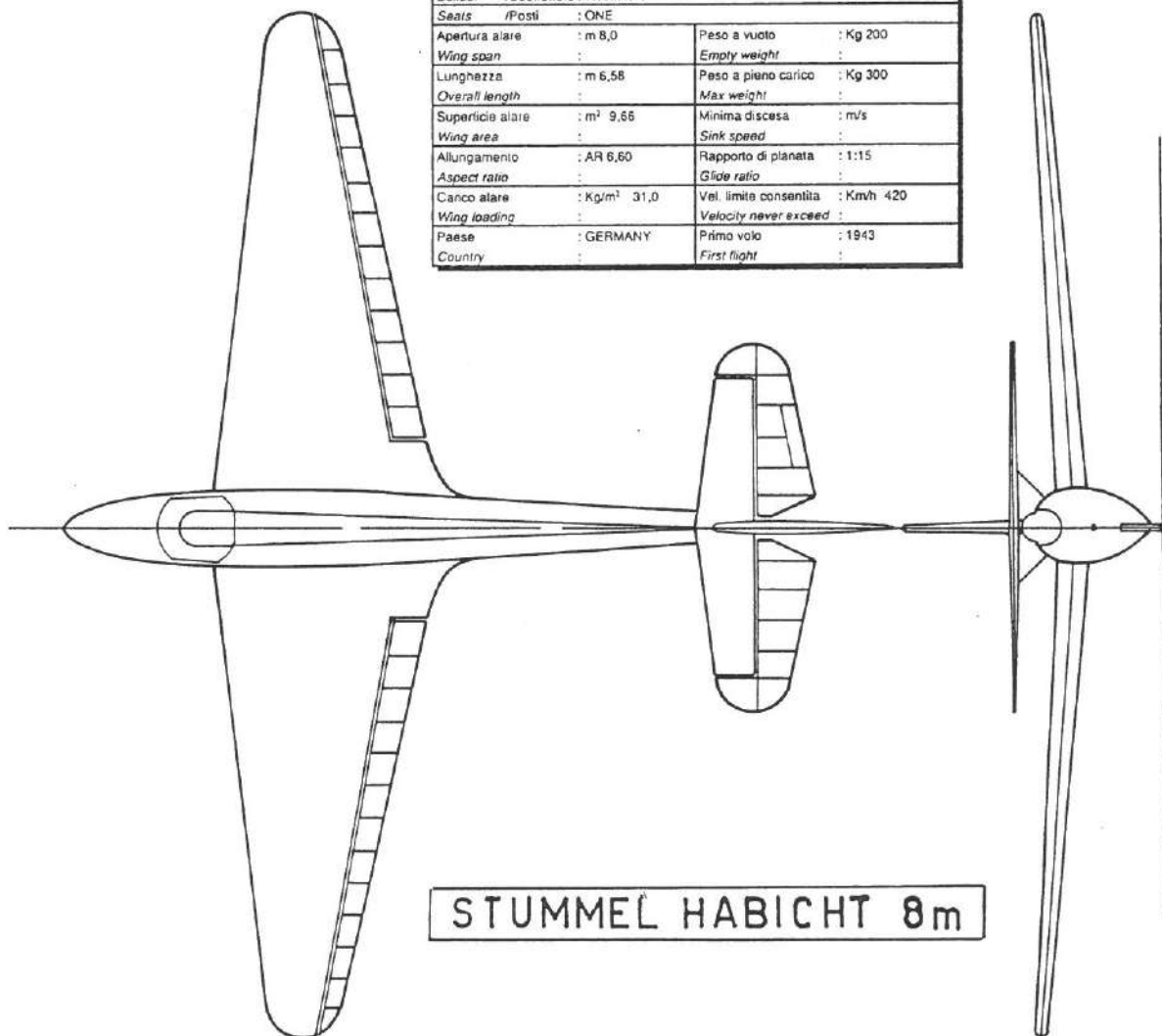
Designer / Progettista : H. JACOBS			
Builder / Costruttore : D.F.S.			
Seats / Posti :	ONE		
Apertura alare :	m 13,60	Peso a vuoto :	Kg 250
Wing span :		Empty weight :	
Lunghezza :	m 6,58	Peso a pieno carico :	Kg 350
Overall length :		Max weight :	
Superficie alare :	m ² 15,82	Minima discesa :	m/s 1,06
Wing area :		Sink speed :	
Allungamento :	AR 11,70	Rapporto di planata :	1:20
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 22,15	Vel. limite consentita :	Km/h 420
Wing loading :		Velocity never exceed :	
Paese :	GERMANY	Primo volo :	1936
Country :		First flight :	

HABICHT



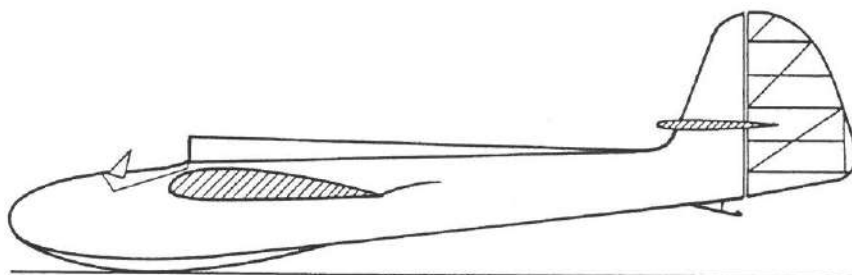


Designer /Progettista : H. JACOBS			
Builder /Costruttore : W. HIRTH			
Seats /Posti	: ONE		
Apertura alare	: m 8,0	Peso a vuoto	: Kg 200
Wing span	:	Empty weight	:
Lunghezza	: m 6,58	Peso a pieno carico	: Kg 300
Overall length	:	Max weight	:
Superficie alare	: m ² 9,66	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 6,60	Rapporto di planata	: 1:15
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 31,0	Vel. limite consentita	: Km/h 420
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1943
Country	:	First flight	:

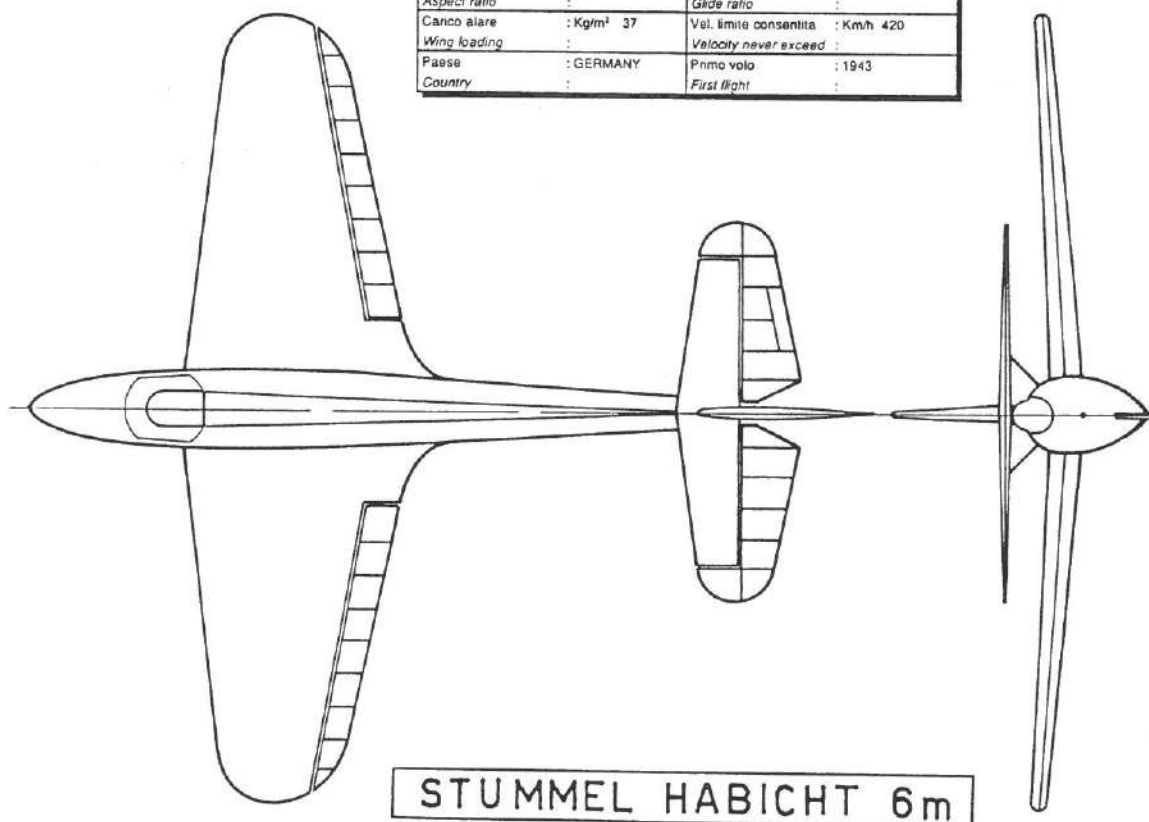


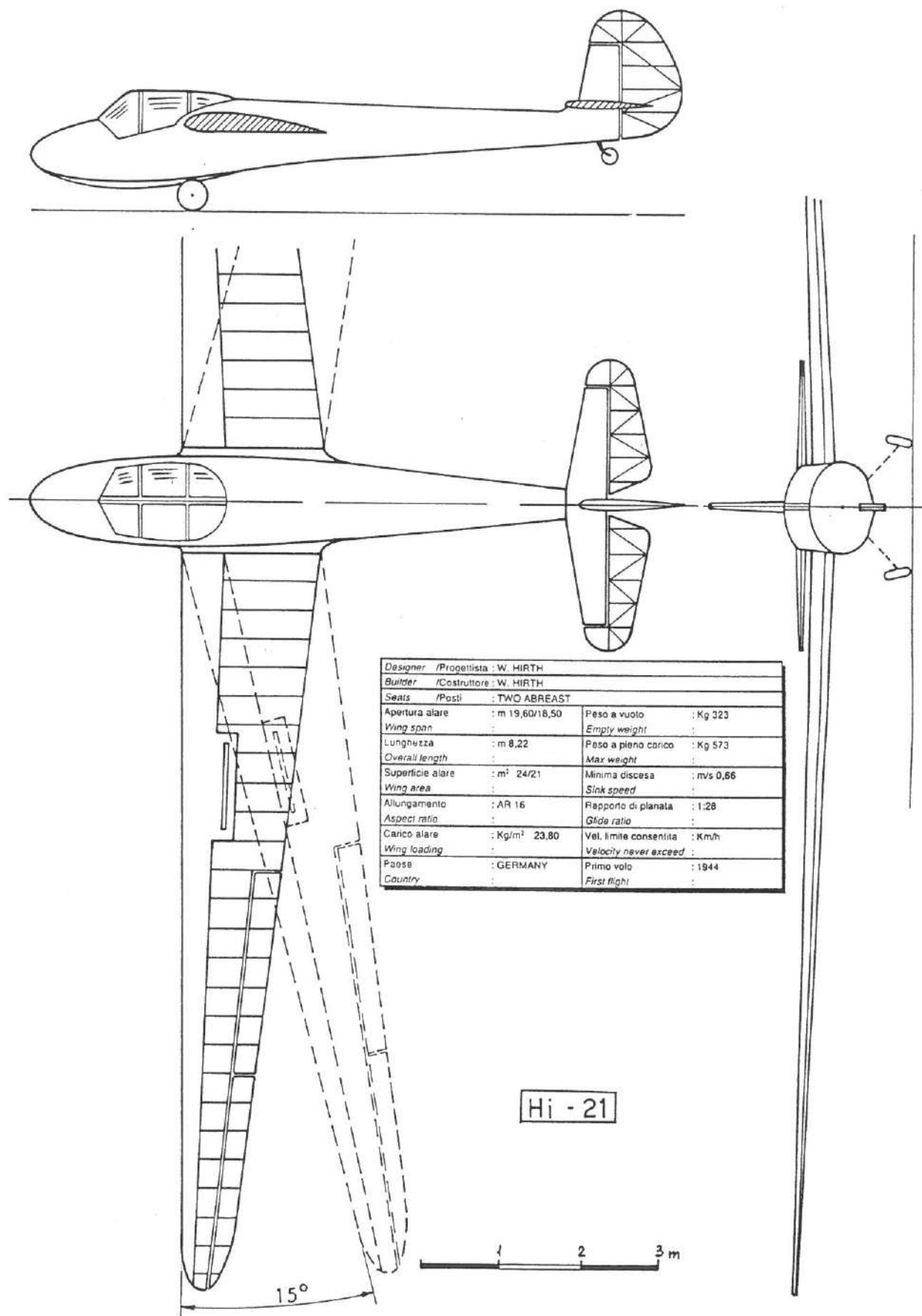
STUMMEL HABICHT 8m

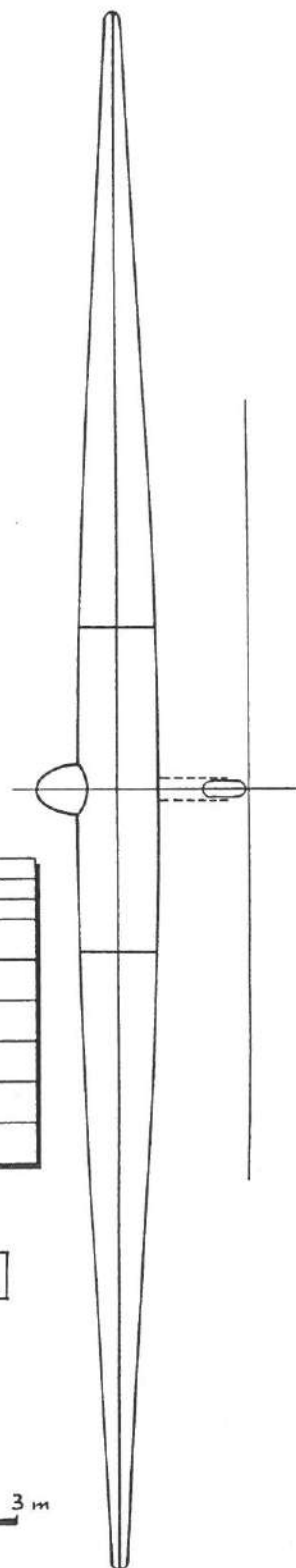
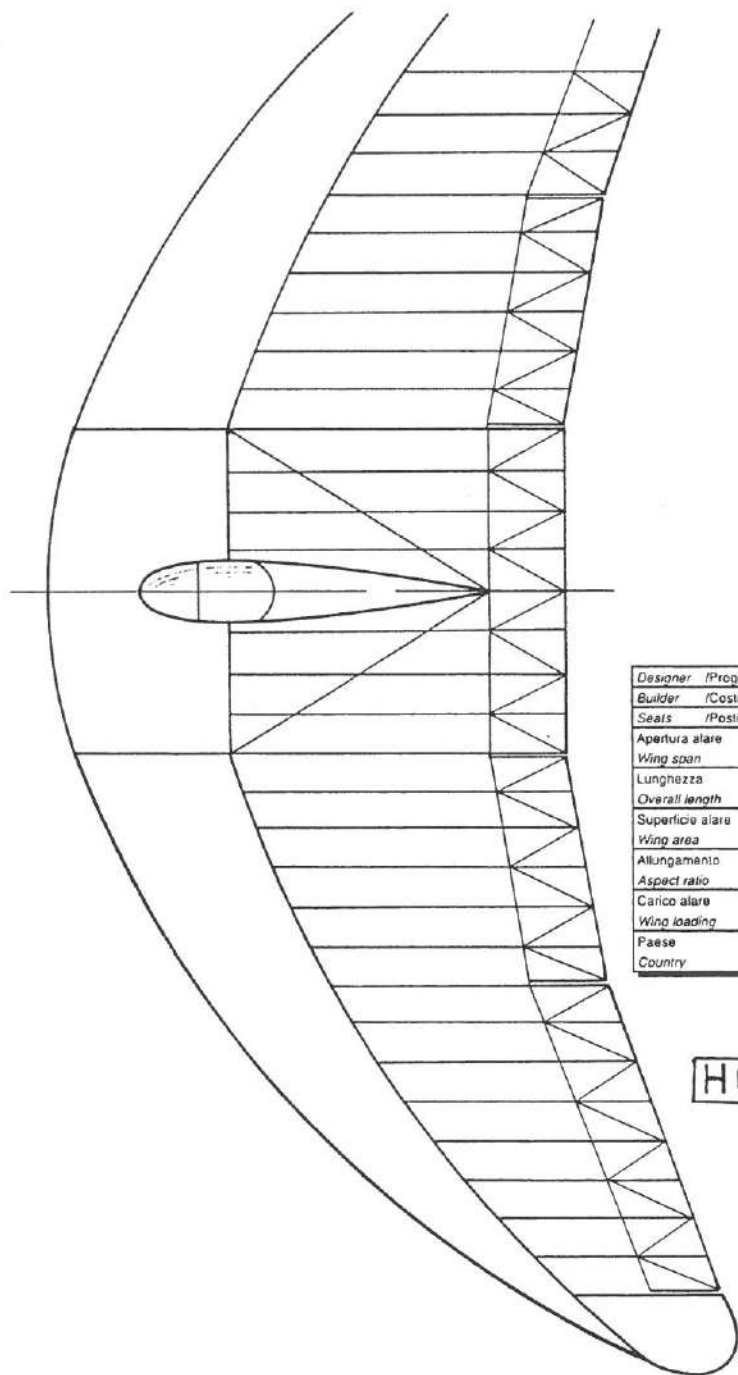
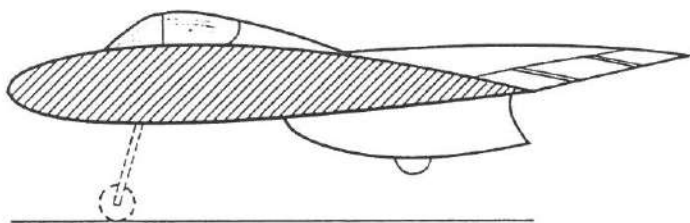




Designer /Progettista	: H. JACOBS		
Builder /Costruttore	: W. HIRTH		
Seats /Posti	: ONE		
Apertura alare	: m 5,0	Peso a vuoto	: Kg 210
Wing span	:	Empty weight	:
Lunghezza	: m 5,58	Peso a pieno carico	: Kg 300
Overall length	:	Max weight	:
Superficie alare	: m ² 6,03	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 4,08	Rapporto di planata	: 1:12
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 37	Vel. limite consentita	: Km/h 420
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1943
Country	:	First flight	:

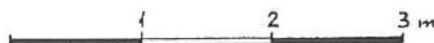


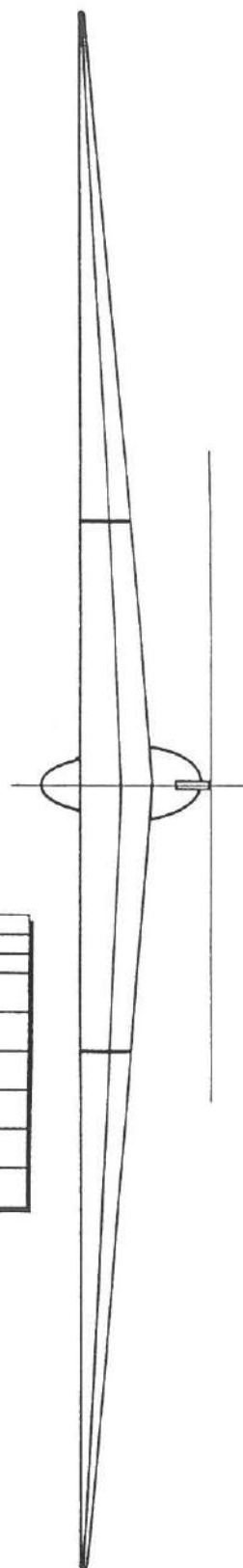
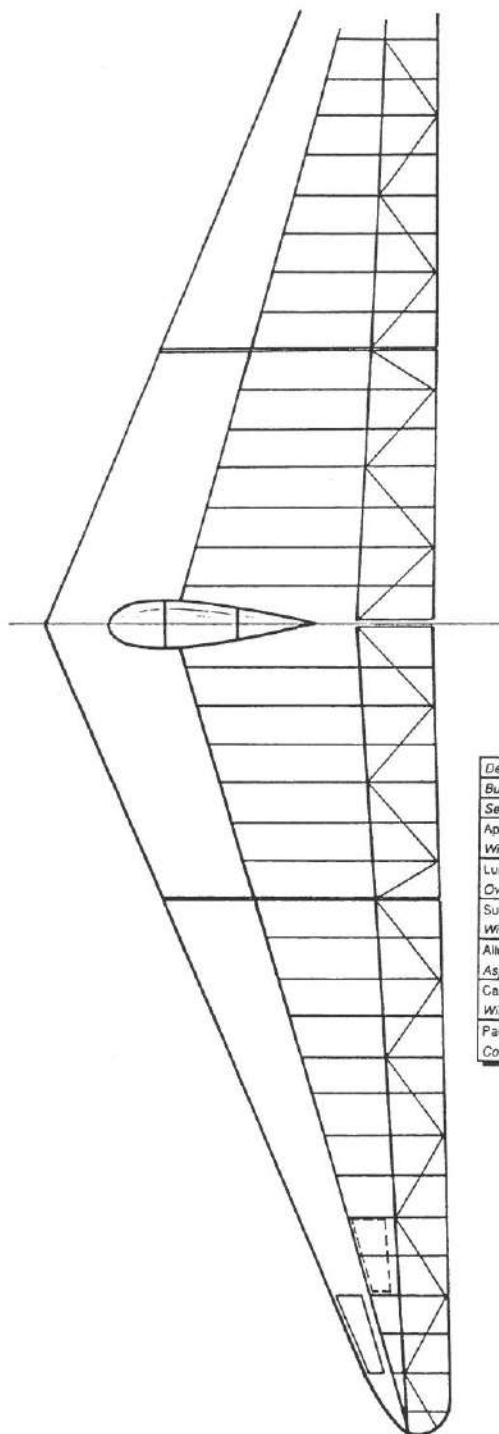
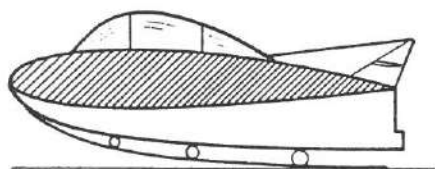




Designer	Progettista : R. & W. HORTEN	
Builder	Costruttore : R. & W. HORTEN	
Seats	Posti : ONE	
Apertura alare	: m 12,0	Peso a vuoto : Kg 90
Wing span	:	Empty weight :
Lunghezza	: m	Peso a pieno carico : Kg 170
Overall length	:	Max weight :
Superficie alare	: m ² 33,0	Minima discesa : m/s 0,80
Wing area	:	Sink speed :
Allungamento	: AR 4,37	Rapporto di planata : 1:19
Aspect ratio	:	Glide ratio :
Carico alare	: Kg/m ² 5,15	Vel. limite consentita : Km/h 164
Wing loading	:	Velocity never exceed :
Paese	: GERMANY	Primo volo : 1935
Country	:	First flight :

HORTEN PARABEL

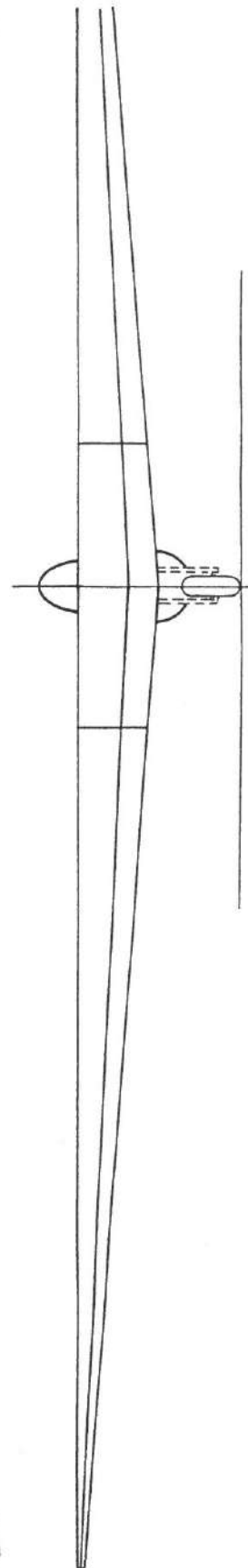
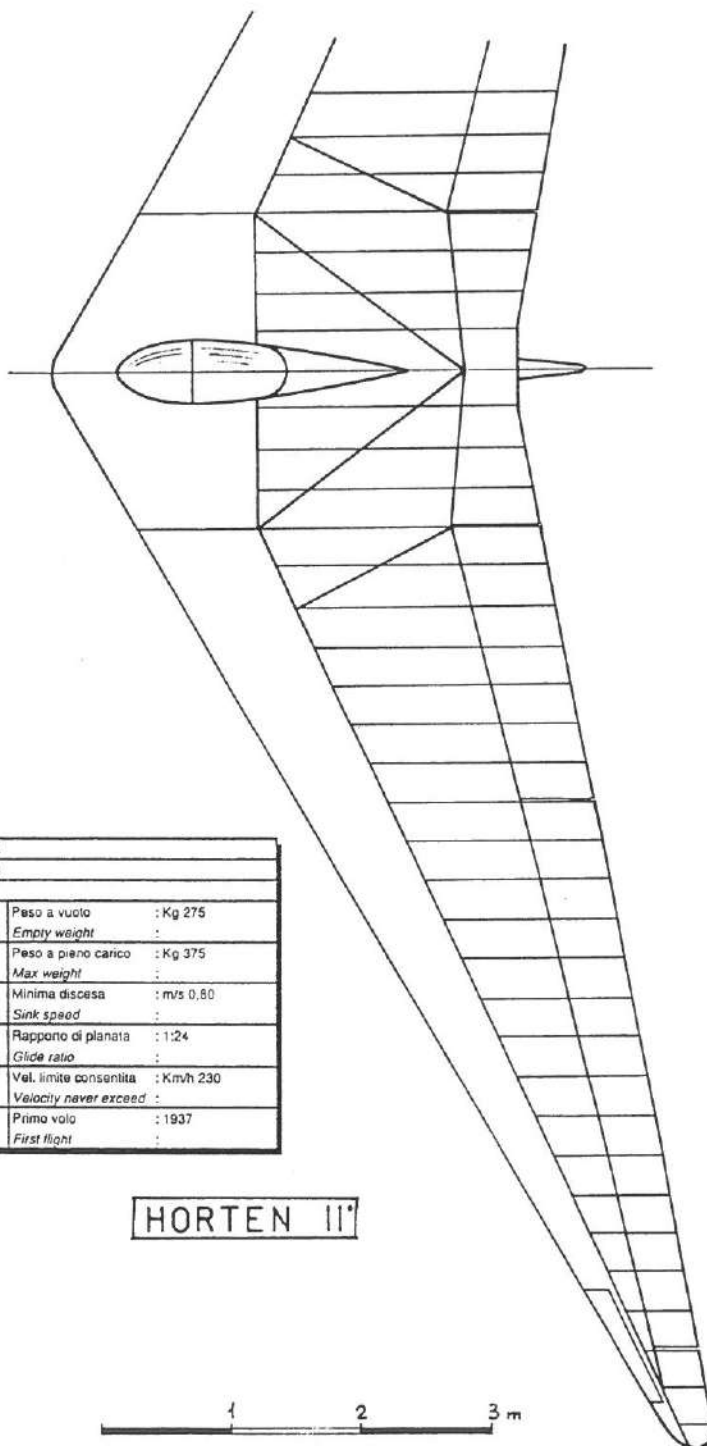
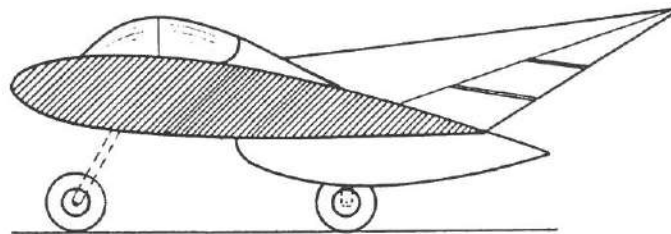




Designer	/Progettista : R. & W. HORTEN		
Builder	/Costruttore : R. & W. HORTEN		
Seats	/Posti : ONE		
Apertura alare	: m 12,40	Peso a vuoto	: Kg 120
Wing span	:	Empty weight	:
Lunghezza	: m 3,0	Peso a pieno carico	: Kg 200
Overall length	:	Max weight	:
Superficie alare	: m ² 21,0	Minima discesa	: m/s 0,85
Wing area	:	Sink speed	:
Allungamento	: AR 7,27	Rapporto di planata	: 1:21
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 9,50	Vel. limite consentita	: Km/h 228
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1933
Country	:	First flight	:

HORTEN I°

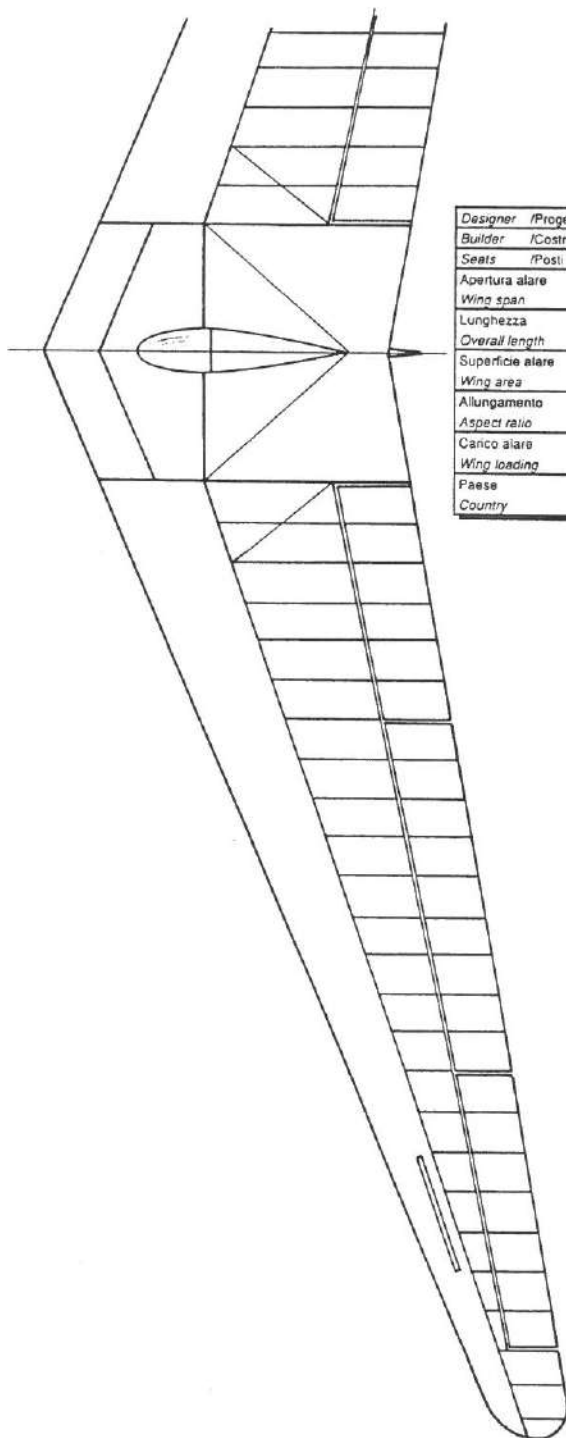
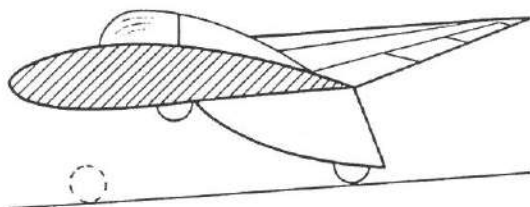




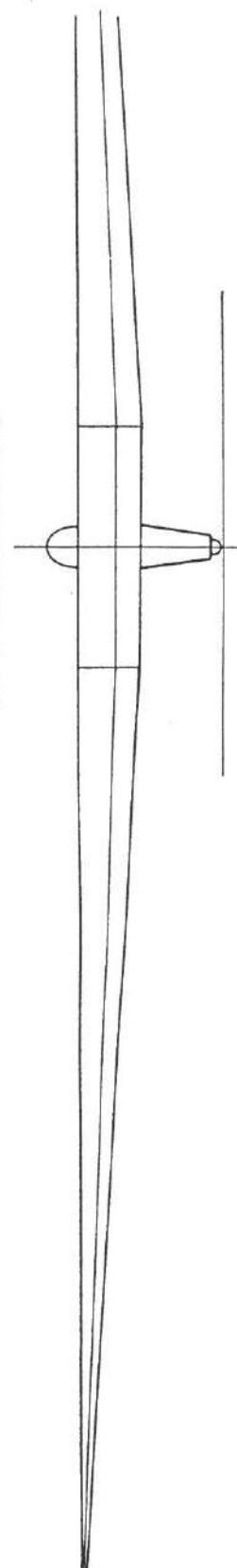
Designer /Progettista : R. & W. HORTEN			
Builder /Costruttore : R. & W. HORTEN			
Seats /Posti : ONE			
Apertura alare :	m 16,5	Peso a vuoto :	Kg 275
Wing span :		Empty weight :	
Lunghezza :	m 4,10	Peso a pieno carico :	Kg 375
Overall length :		Max weight :	
Superficie alare :	m ² 32,0	Minima discesa :	m/s 0,80
Wing area :		Sink speed :	
Allungamento :	AR 8,48	Rapporto di planata :	1:24
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 11,38	Vel. limite consentita :	Kmh 230
Wing loading :		Velocity never exceed :	
Paese :	GERMANY	Primo volo :	1937
Country :		First flight :	

HORTEN II'



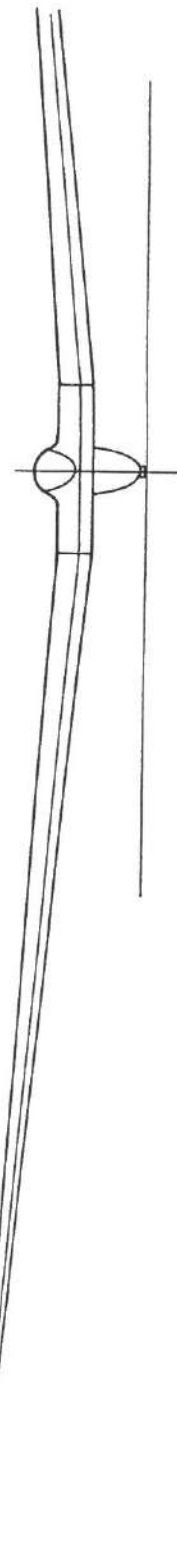
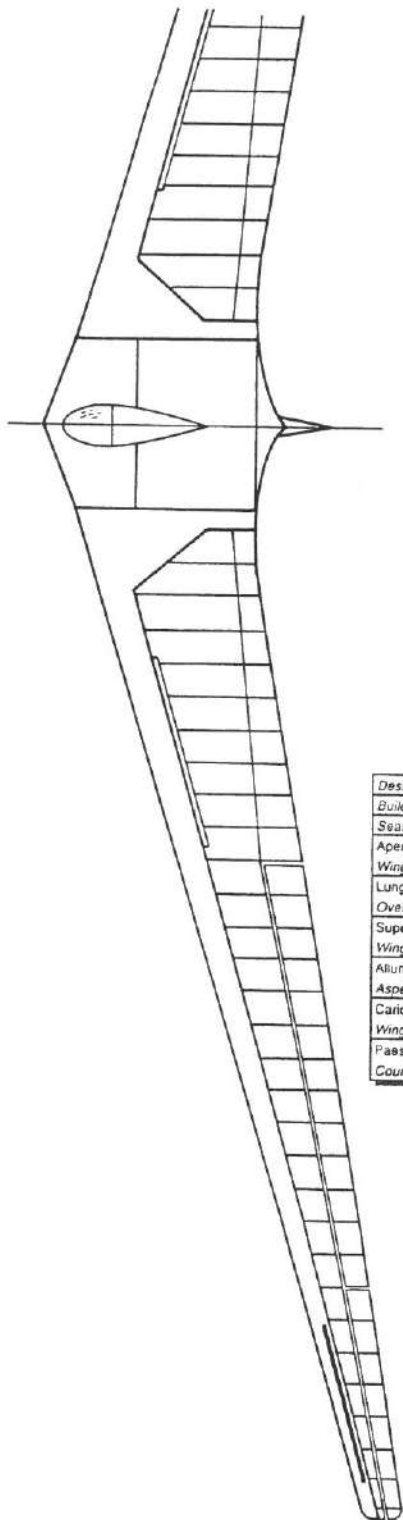
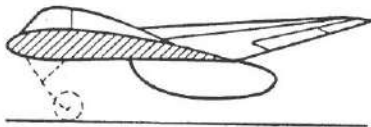


Designer / Progettista	: R. & W. HORTEN		
Builder / Costruttore	: R. & W. HORTEN		
Seats / Posti	: ONE		
Apertura alare	: m 20,0	Peso a vuoto	: Kg 265
Wing span	:	Empty weight	:
Lunghezza	: m	Peso a pieno carico	: Kg 360
Overall length	:	Max weight	:
Superficie alare	: m ² 37,50	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 10,66	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 9,60	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1938
Country	:	First flight	:



HORTEN III'

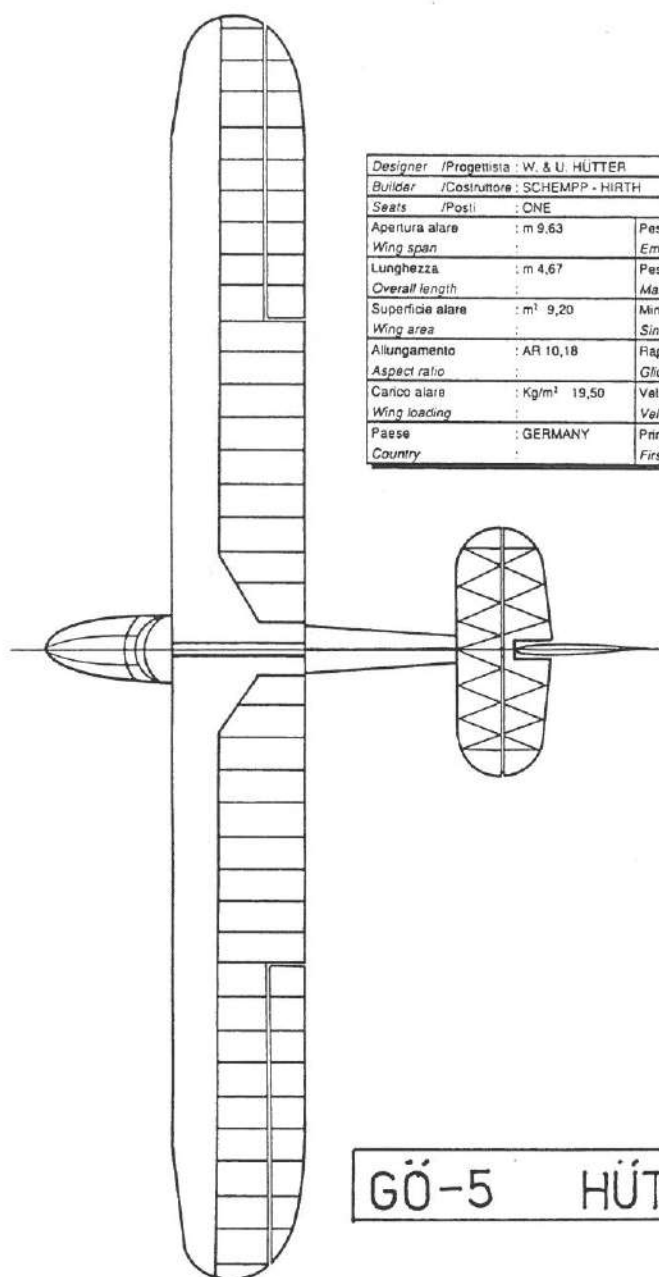
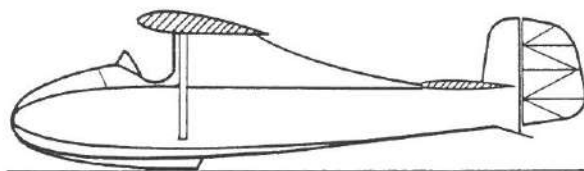




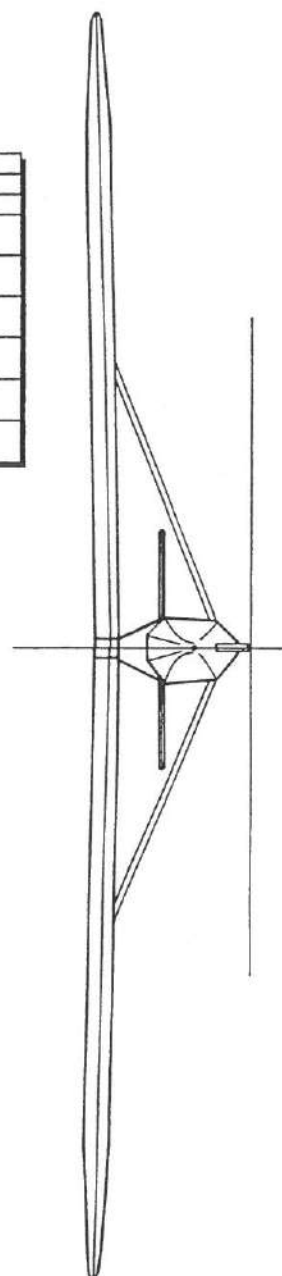
Designer /Progettista : R. & W. HORTEN			
Builder /Costruttore : R. & W. HORTEN			
Seats /Posti : ONE			
Apertura alare : m 20,0		Peso a vuoto : Kg 255	
Wing span :		Empty weight :	
Lunghezza : m 2,58		Peso a pieno carico : Kg 350	
Overall length :		Max weight :	
Superficie alare : m ² 19,10		Minima discesa : m/s	
Wing area :		Sink speed :	
Allungamento : AR 21,0		Rapporto di planata : 1:	
Aspect ratio :		Glide ratio :	
Carico alare : Kg/m ² 18,30		Vel. limite consentita : Km/h	
Wing loading :		Velocity never exceed :	
Paese : GERMANY		Primo volo : 1941	
Country :		First flight :	

HORTEN IV°



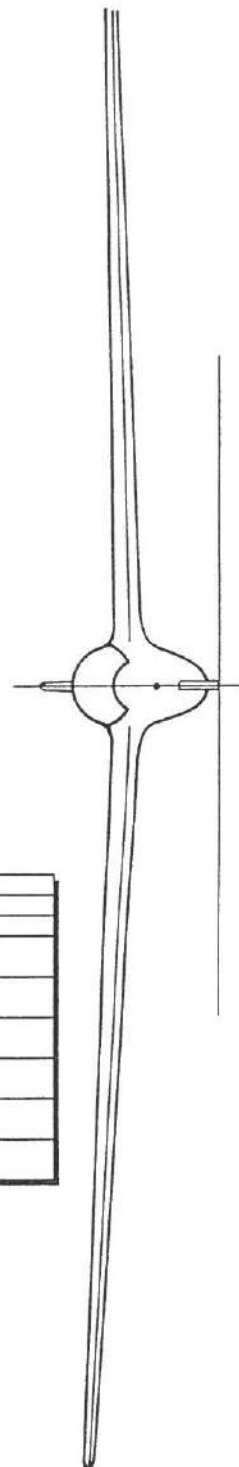
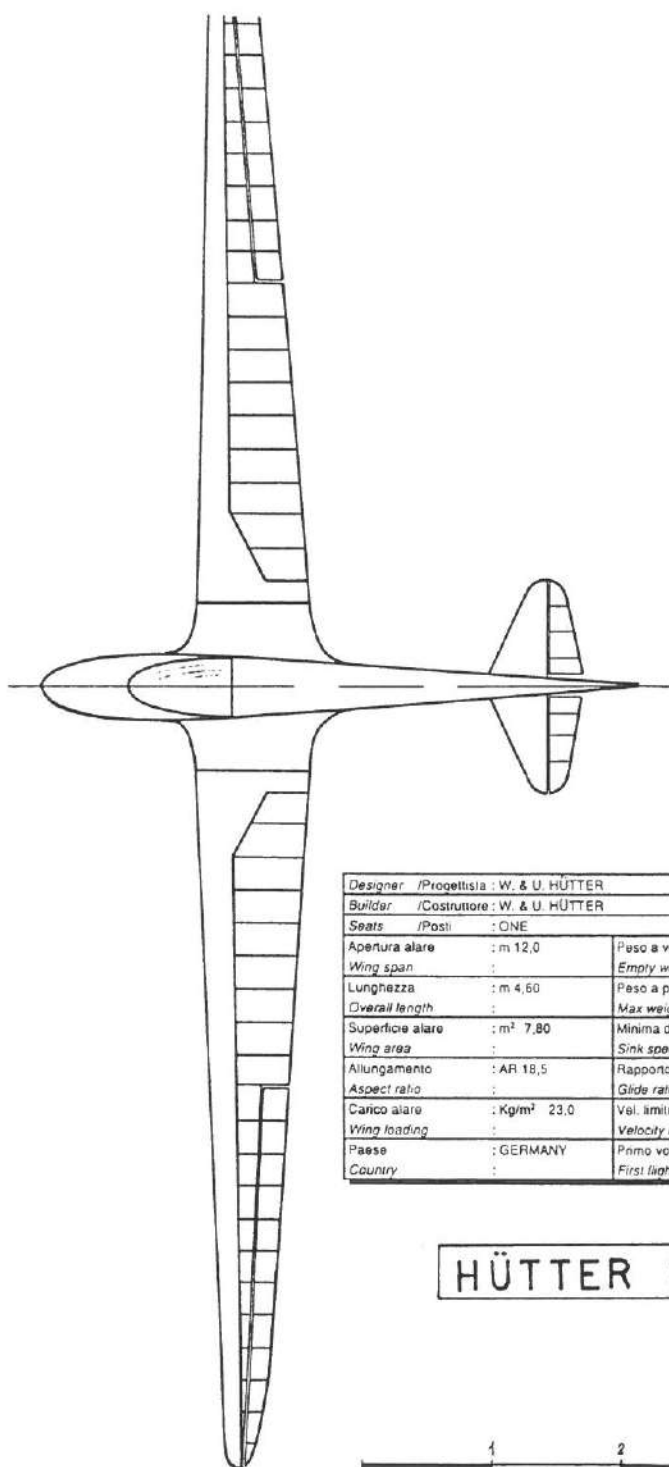
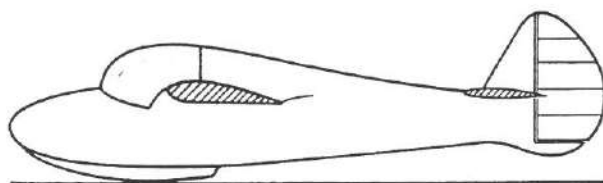


Designer /Progettista : W. & U. HÜTTER				
Builder /Costruttore : SCHEMP - HIRTH				
Seats /Posti : ONE				
Apertura alare		: m 9,63	Peso a vuoto	: Kg 93,5
Wing span		:	Empty weight	:
Lunghezza		: m 4,67	Peso a pieno carico	: Kg 183,5
Overall length		:	Max weight	:
Superficie alare		: m ² 9,20	Minima discesa	: m/s 1,00
Wing area		:	Sink speed	:
Allungamento		: AR 10,18	Rapporto di planata	: 1:17
Aspect ratio		:	Glide ratio	:
Carico alare		: Kg/m ² 19,50	Vel. limite consentita	: Km/h 225
Wing loading		:	Velocity never exceed	:
Paese		: GERMANY	Primo volo	: 1936
Country		:	First flight	:



GÖ-5 HÜTTER 17

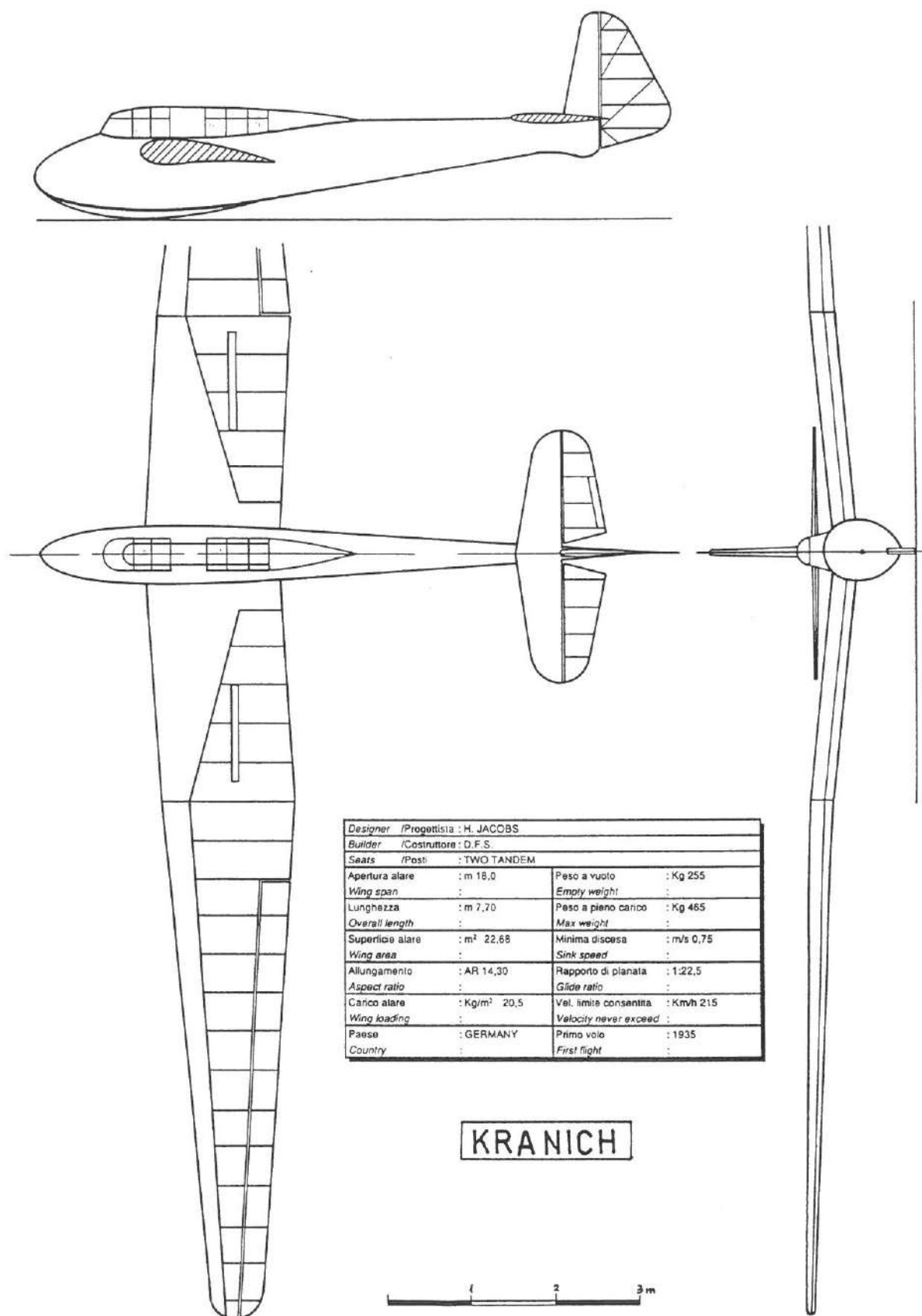




Designer /Progettista : W. & U. HÜTTER			
Builder /Costruttore : W. & U. HÜTTER			
Seats /Posti : ONE			
Apertura alare	: m 12,0	Peso a vuoto	: Kg 88
Wing span	:	Empty weight	:
Lunghezza	: m 4,60	Peso a pieno carico	: Kg 178
Overall length	:	Max weight	:
Superficie alare	: m² 7,80	Minima discesa	: mvs 0,86
Wing area	:	Sink speed	:
Allungamento	: AR 18,5	Rapporto di planata	: 1:24
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m² 23,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1936
Country	:	First flight	:

HÜTTER 28

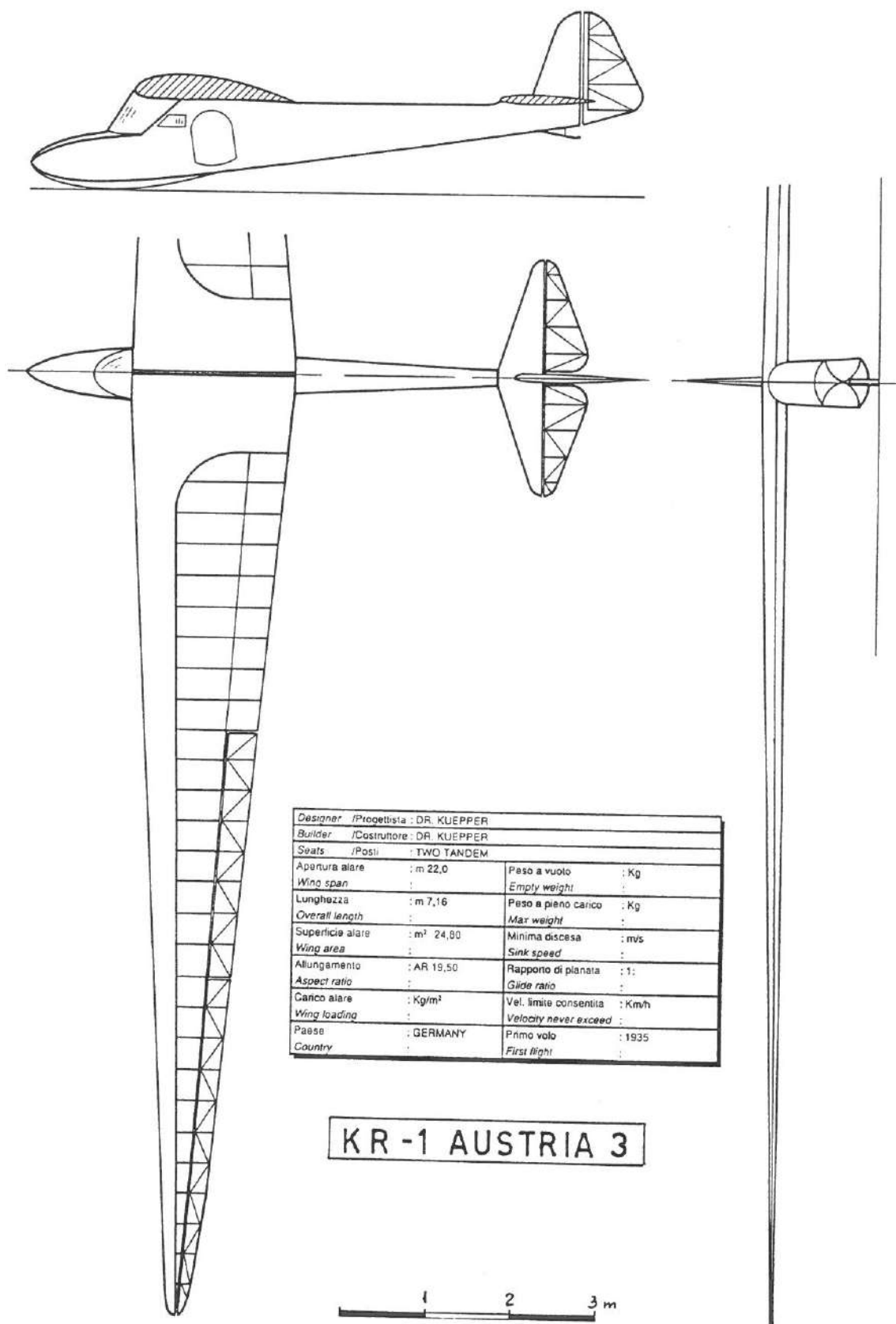




Designer	Progettista : H. JACOBS		
Builder	Costruttore : D.F.S.		
Seats	Posti	TWO TANDEM	
Apertura alare	: m 18,0	Peso a vuoto	: Kg 255
Wing span	:	Empty weight	:
Lunghezza	: m 7,70	Peso a pieno carico	: Kg 465
Overall length	:	Max weight	:
Superficie alare	: m ² 22,68	Minima discesa	: m/s 0,75
Wing area	:	Sink speed	:
Allungamento	: AR 14,30	Rapporto di planata	: 1:22,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 20,5	Vel. limite consentita	: Km/h 215
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1935
Country	:	First flight	:

KRANICH

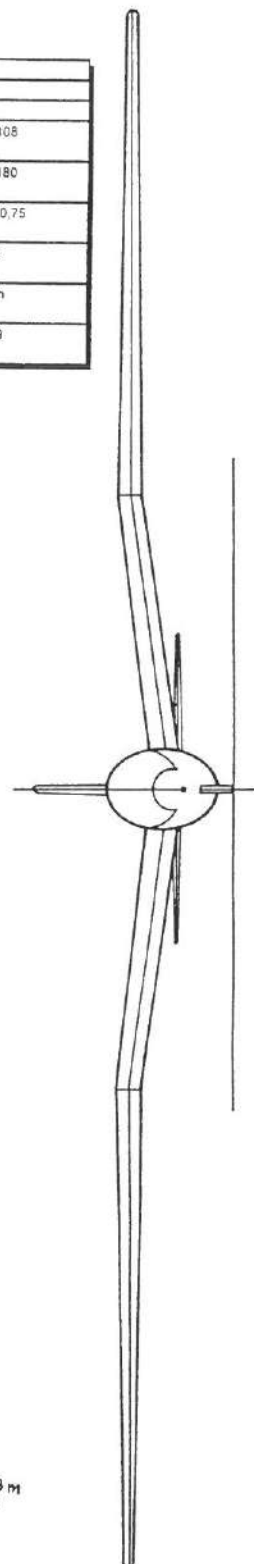
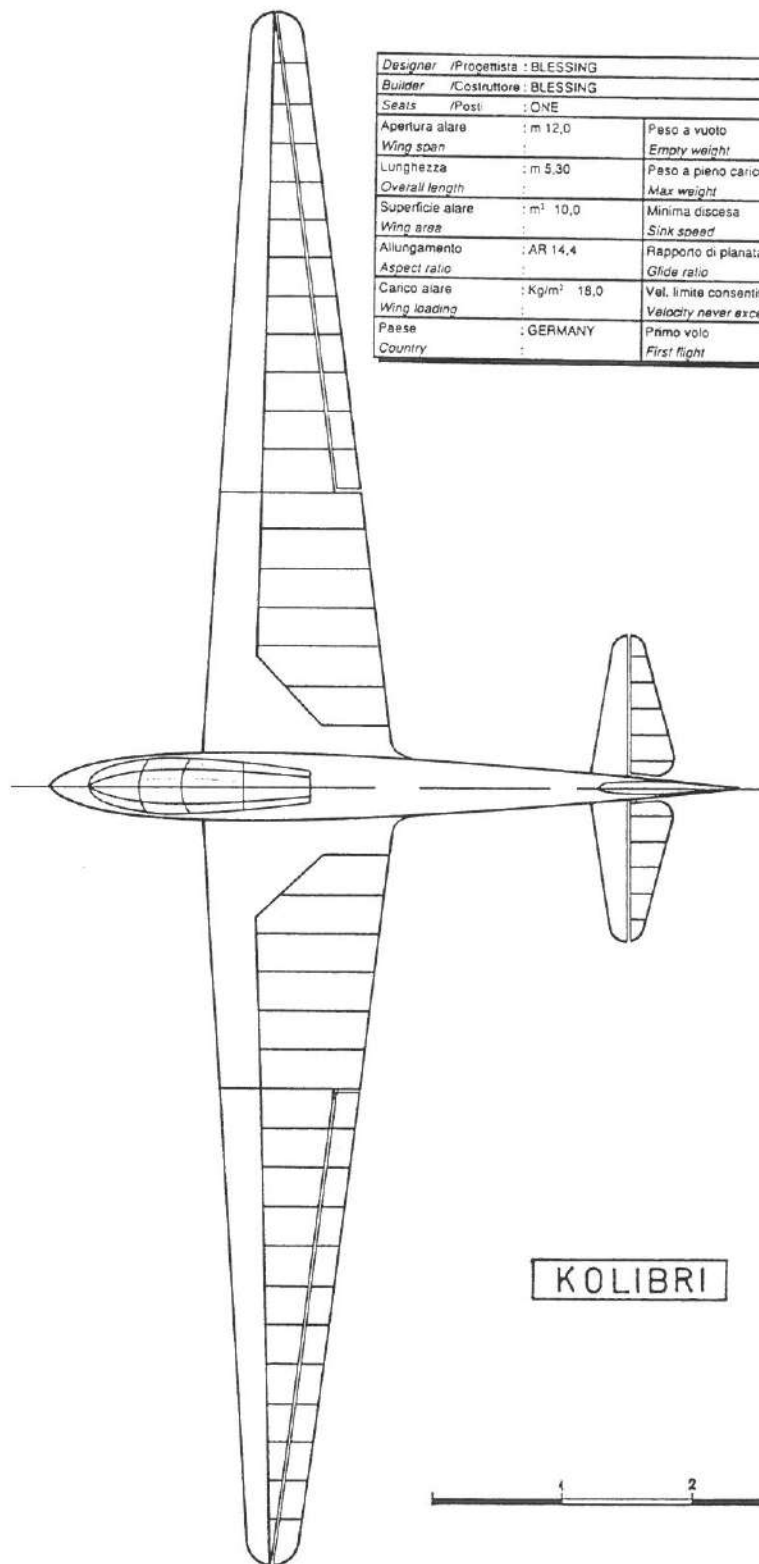
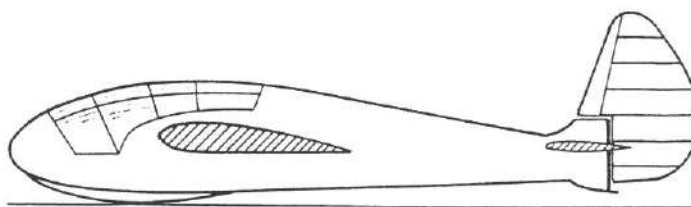
1 2 3 m



Designer /Progettista	DR. KUEPPER		
Builder /Costruttore	DR. KUEPPER		
Seats /Posti	TWO TANDEM		
Apertura alare	: m 22,0	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 7,16	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 24,80	Minima discesa	: mvs
Wing area	:	Sink speed	:
Allungamento	: AR 19,50	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1935
Country	:	First flight	:

KR-1 AUSTRIA 3

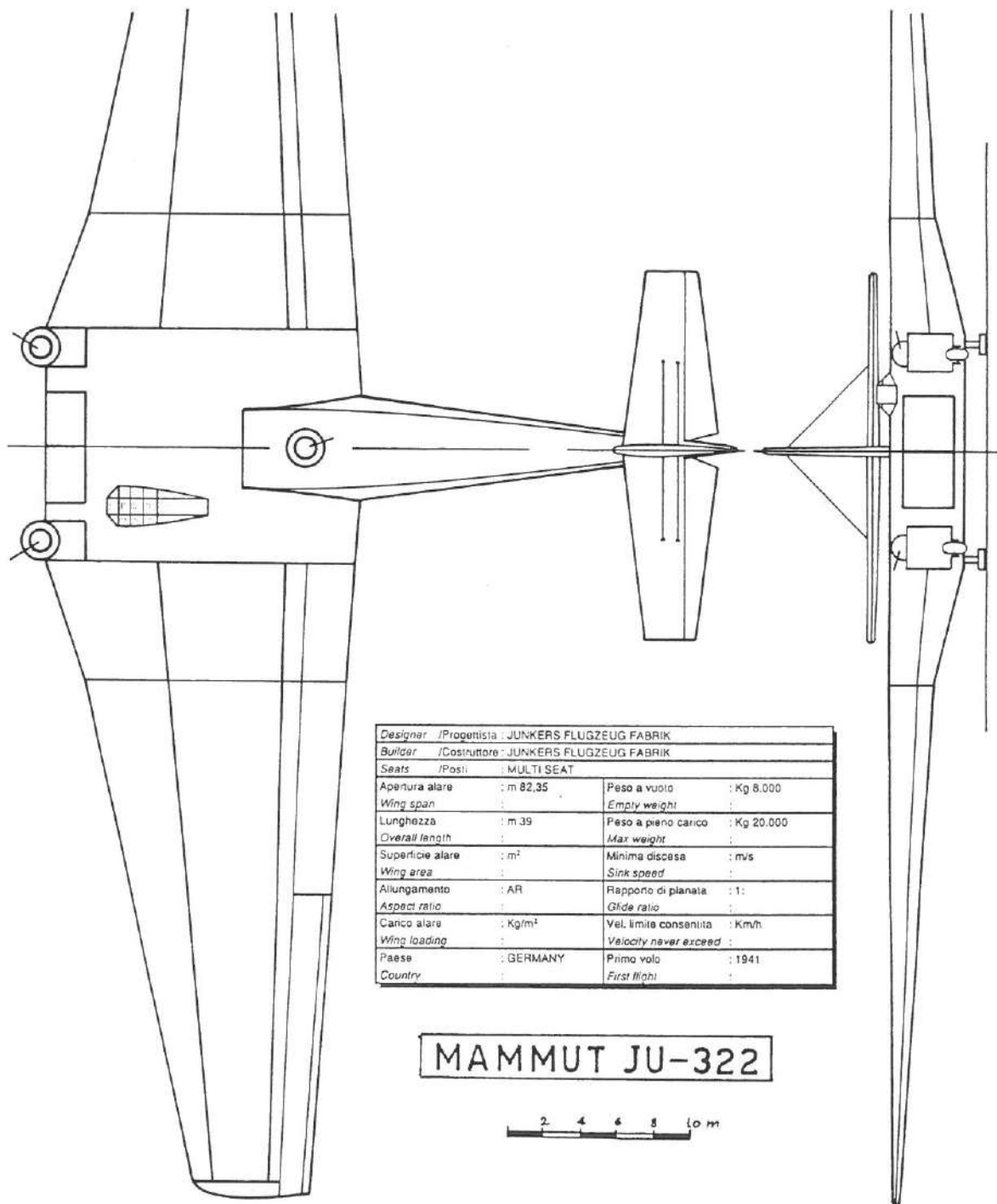
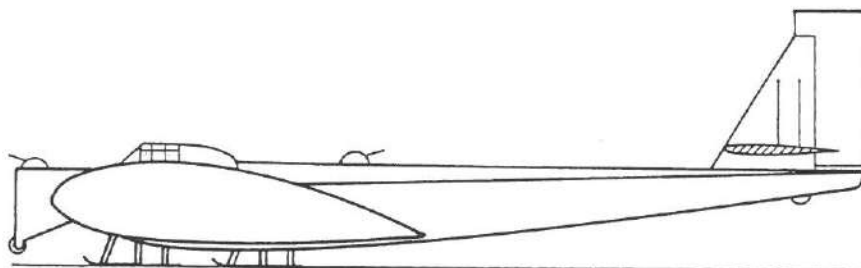
1 2 3 m



Designer /Progettista	: BLESSING		
Builder /Costruttore	: BLESSING		
Seats /Posti	: ONE		
Apertura alare	: m 12,0	Peso a vuoto	: Kg 108
Wing span	:	Empty weight	:
Lunghezza	: m 5,30	Peso a pieno carico	: Kg 180
Overall length	:	Max weight	:
Superficie alare	: m ² 10,0	Minima discesa	: m/s 0,75
Wing area	:	Sink speed	:
Allungamento	: AR 14,4	Rapporto di planata	: 1,25
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1939
Country	:	First flight	:

KOLIBRI

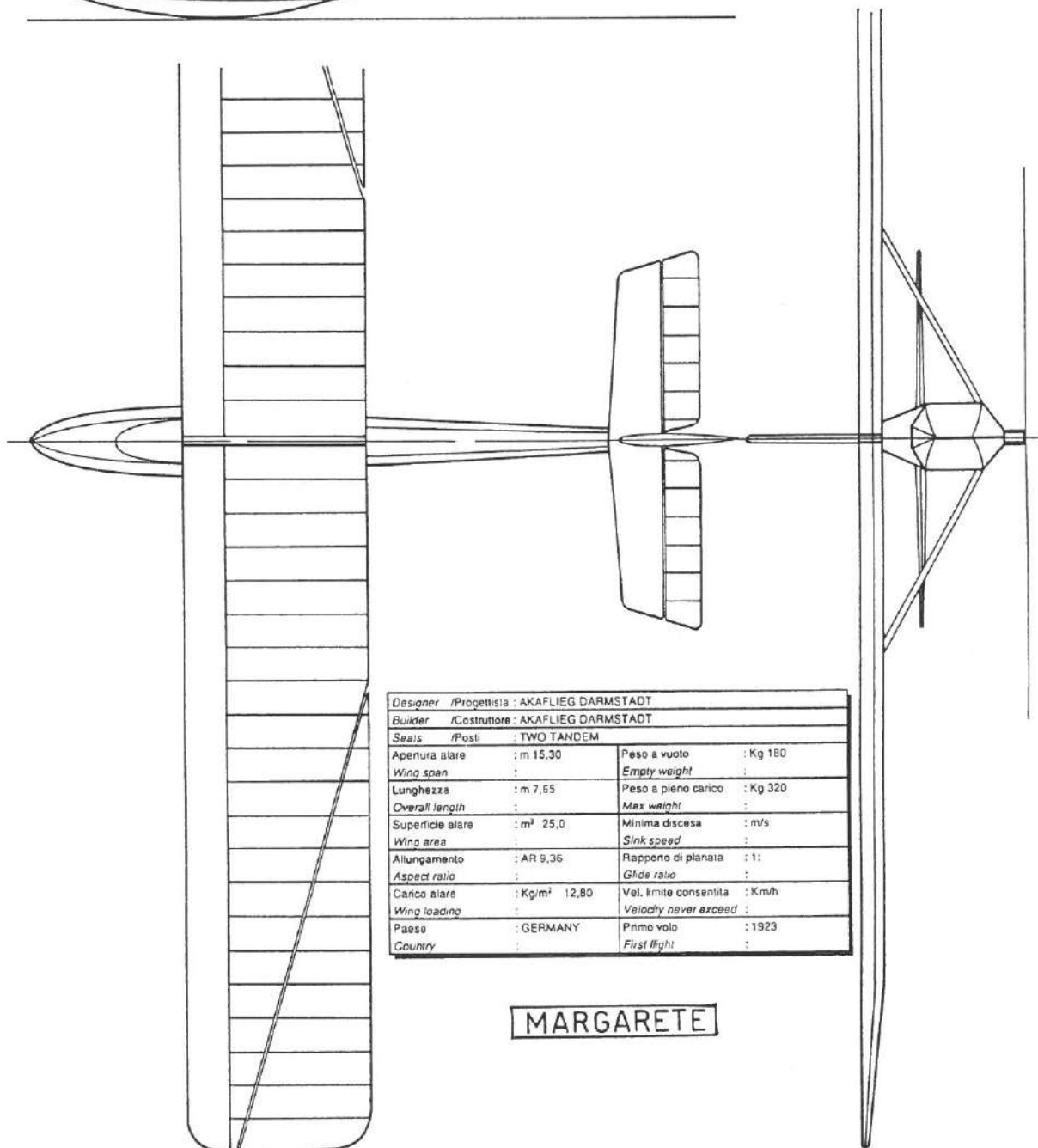
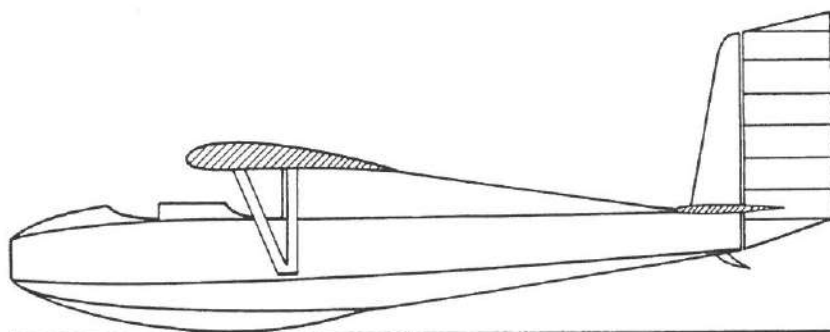




Designer	/Progettista	JUNKERS FLUGZEUG FABRIK		
Builder	/Costruttore	JUNKERS FLUGZEUG FABRIK		
Seats	/Posti	MULTI SEAT		
Apertura alare	: m	82,35	Peso a vuoto	: Kg 8.000
Wing span	:		Empty weight	:
Lunghezza	: m	39	Peso a pieno carico	: Kg 20.000
Overall length	:		Max weight	:
Superficie alare	: m ²		Minima discesa	: m/s
Wing area	:		Sink speed	:
Allungamento	: AR		Rapporto di planata	: 1:
Aspect ratio	:		Glide ratio	:
Carico alare	: Kg/m ²		Vel. limite consentita	: Km/h
Wing loading	:		Velocity never exceed	:
Paese	: GERMANY		Primo volo	: 1941
Country	:		First flight	:

MAMMUT JU-322

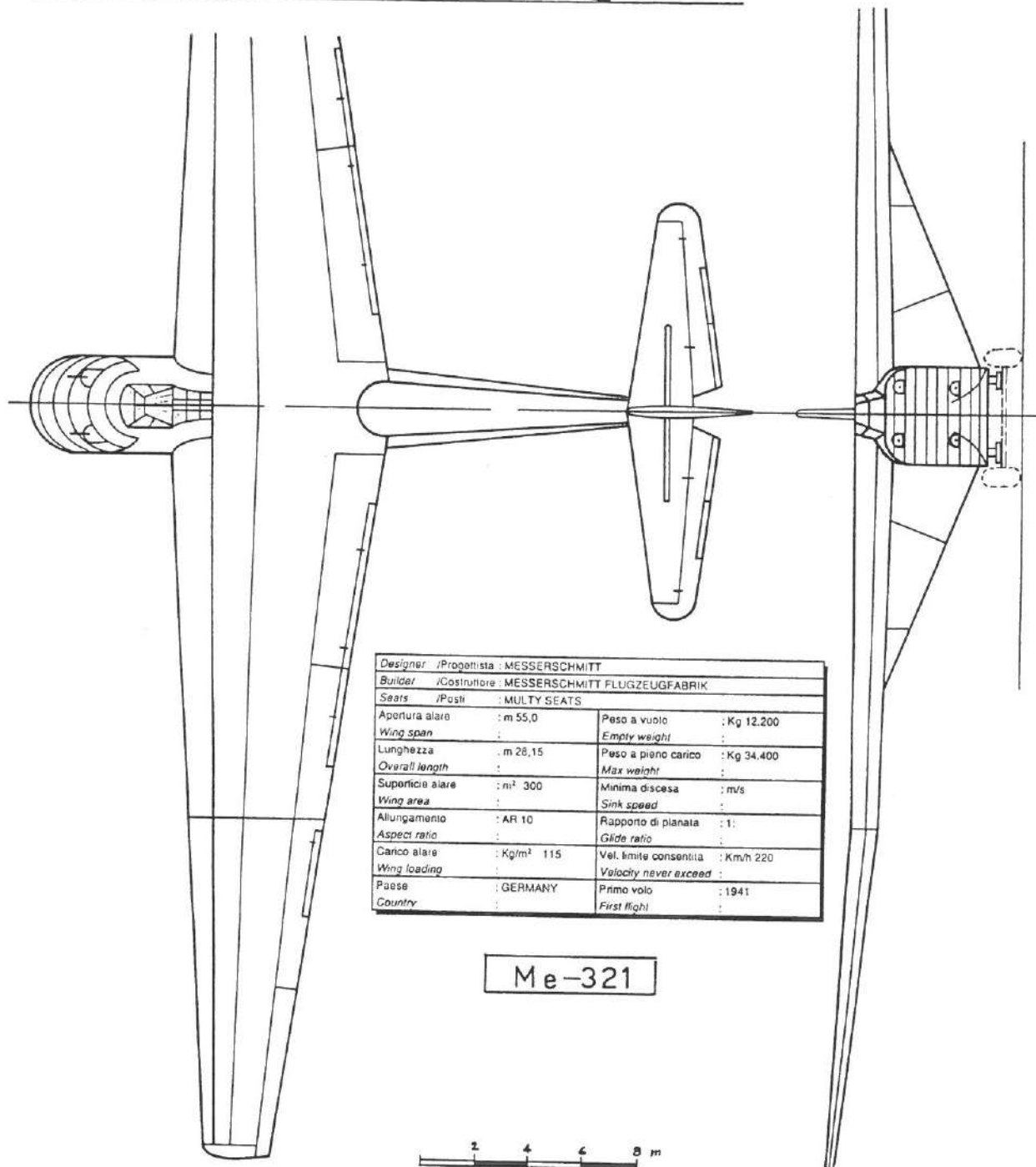
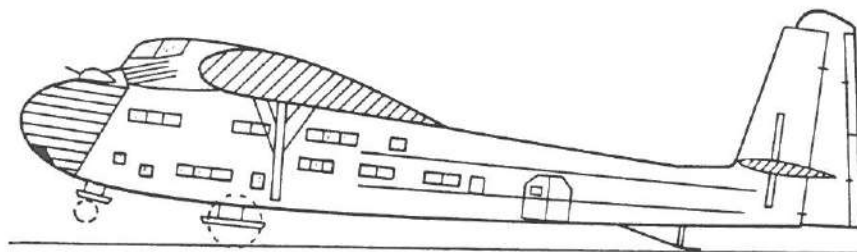
2 4 6 8 10 m



Designer	/Progettista : AKAFLIEG DARMSTADT		
Builder	/Costruttore : AKAFLIEG DARMSTADT		
Seats	/Posti : TWO TANDEM		
Apertura alare	: m 15,30	Peso a vuoto	: Kg 180
Wing span	:	Empty weight	:
Lunghezza	: m 7,65	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 25,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 9,36	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 12,80	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1923
Country	:	First flight	:

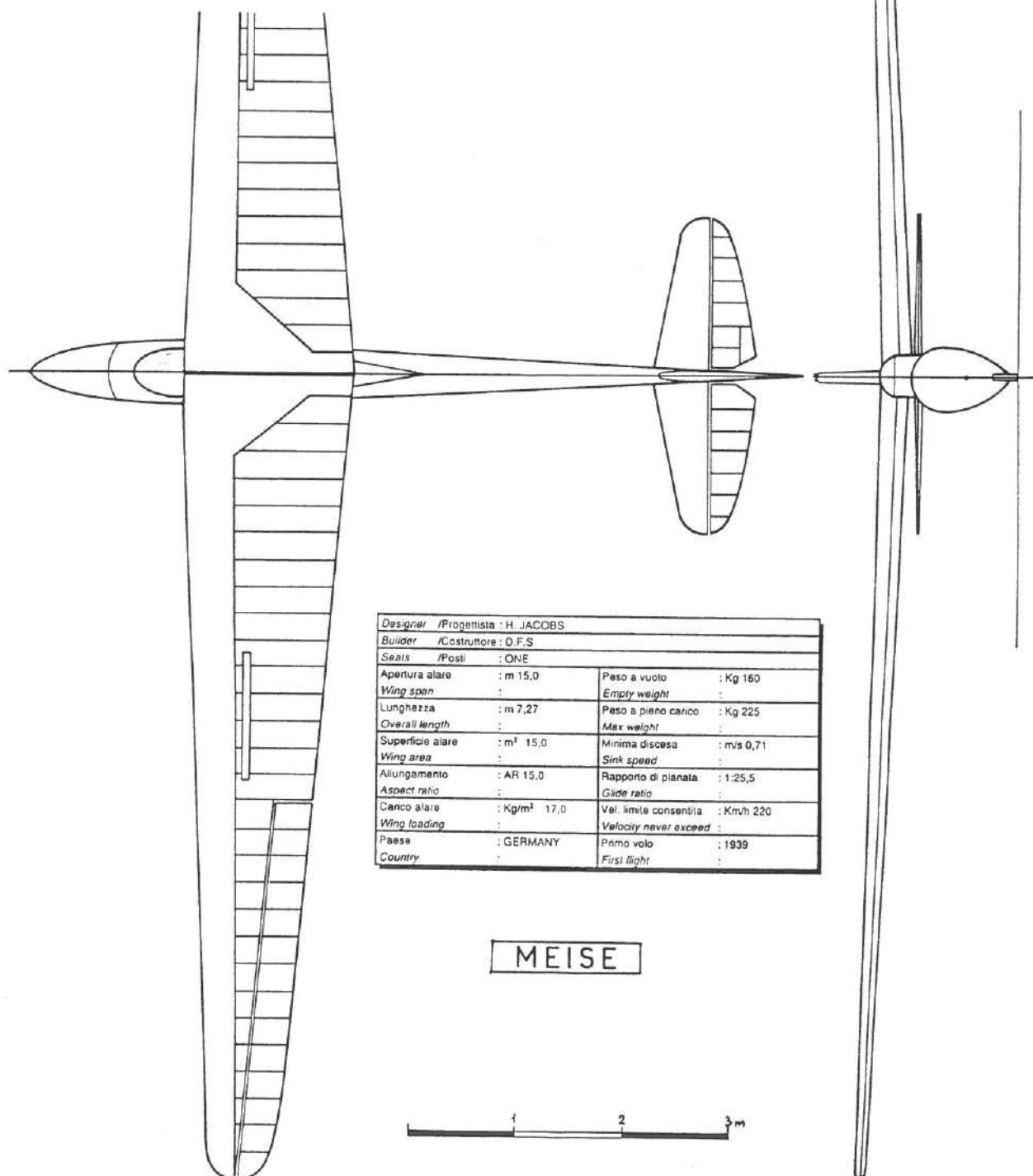
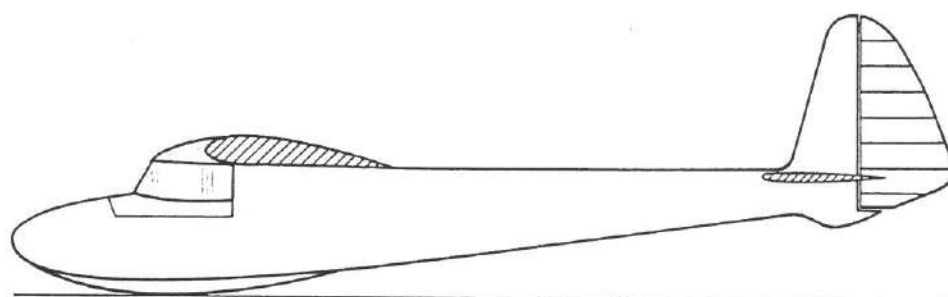
MARGARETE





Me-321

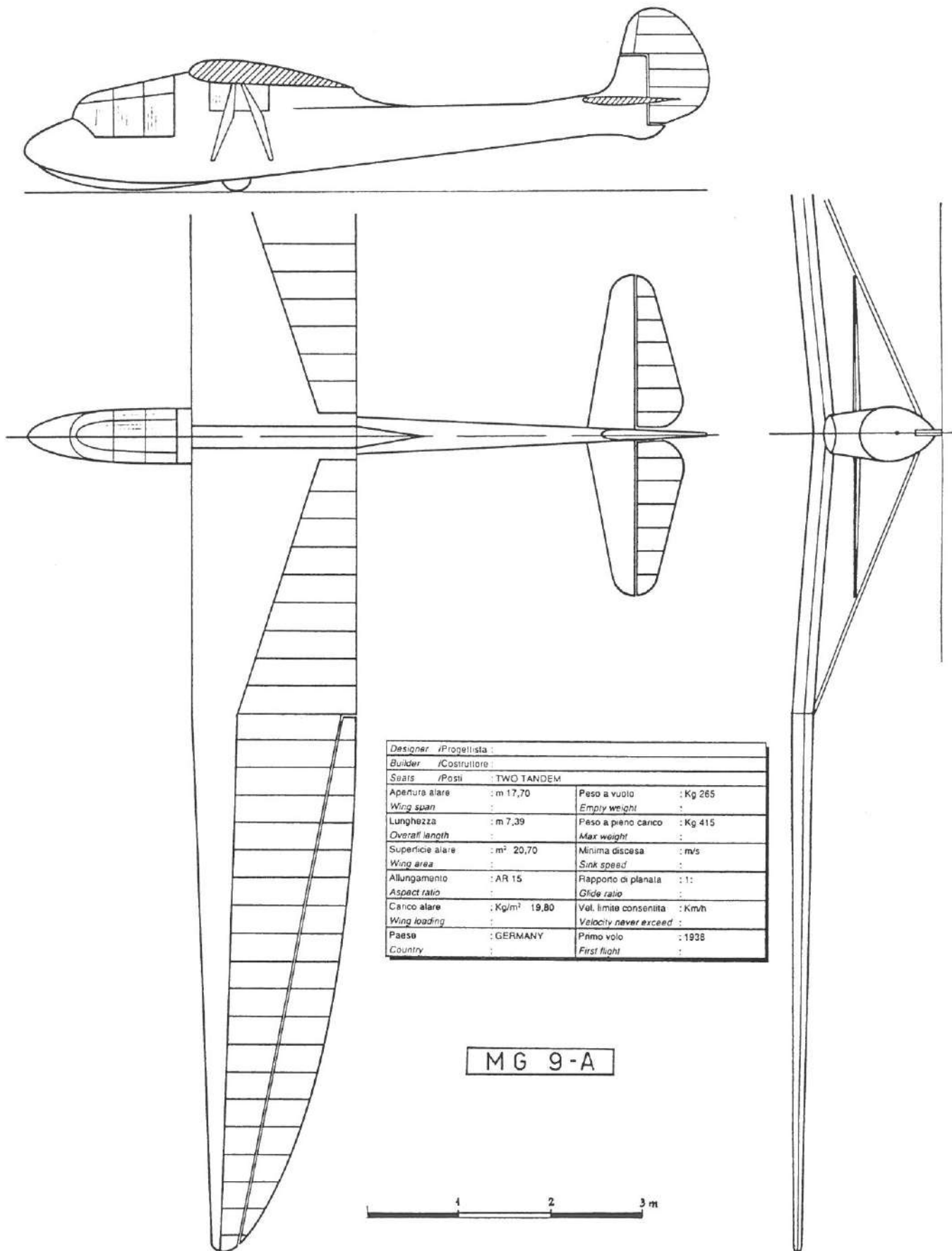


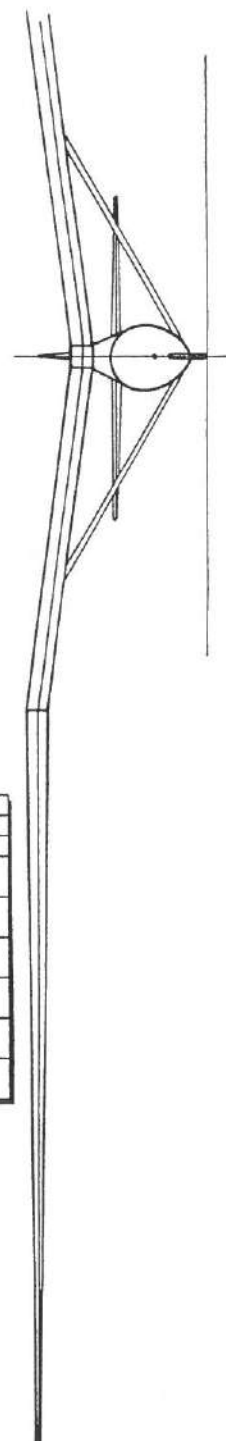
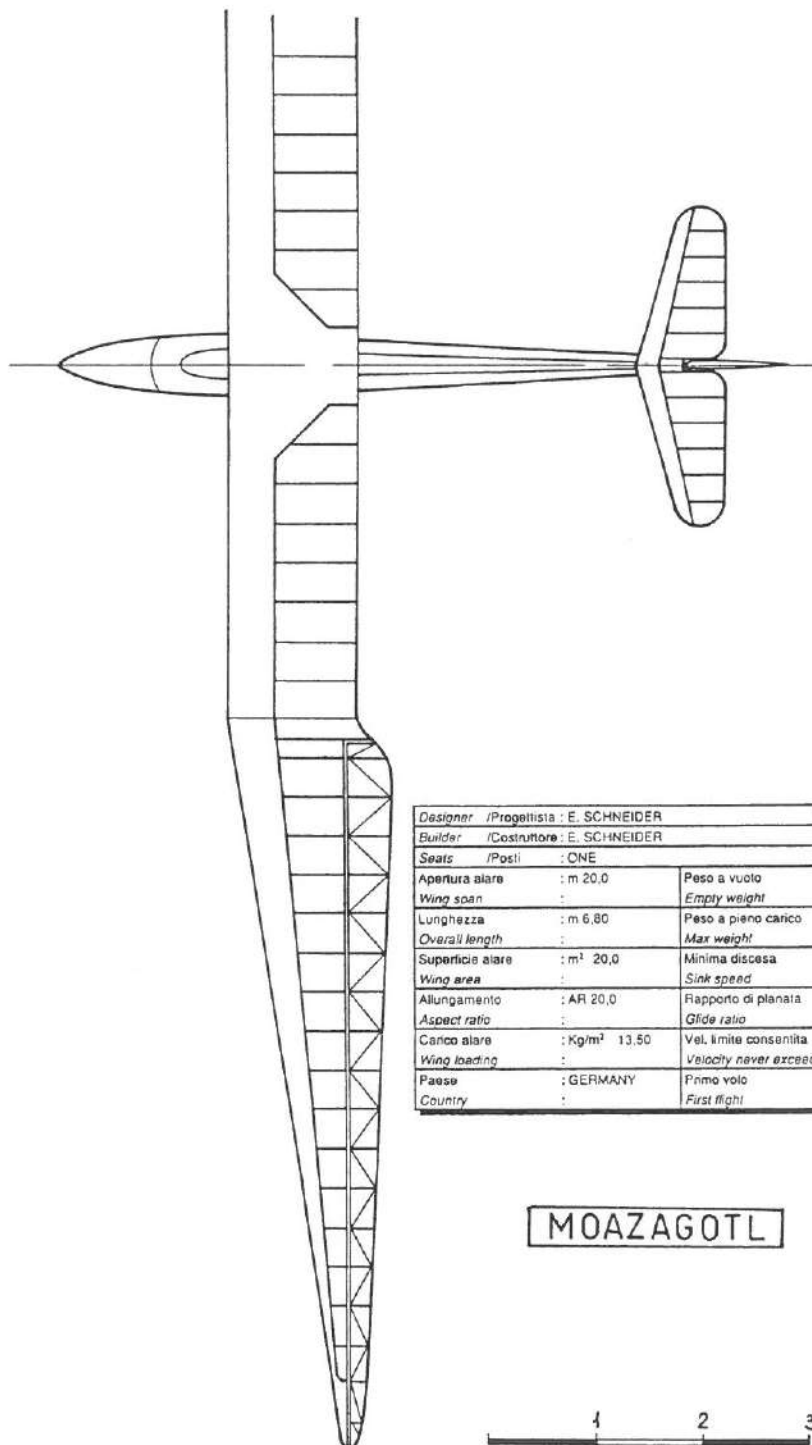
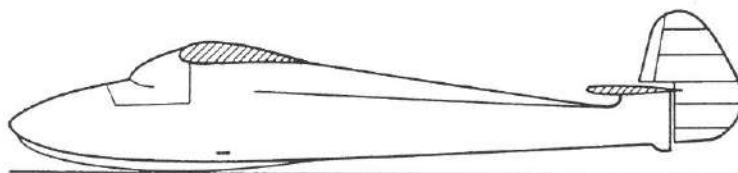


Designer / Progettista	: H. JACOBS		
Builder / Costruttore	: D.F.S		
Seats / Posti	: ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 160
Wing span	:	Empty weight	:
Lunghezza	: m 7,27	Peso a pieno carico	: Kg 225
Overall length	:	Max weight	:
Superficie alare	: m ² 15,0	Minima discesa	: m/s 0,71
Wing area	:	Sink speed	:
Allungamento	: AR 15,0	Rapporto di piana	: 1:25,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 17,0	Vel. kmle consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1939
Country	:	First flight	:

MEISE



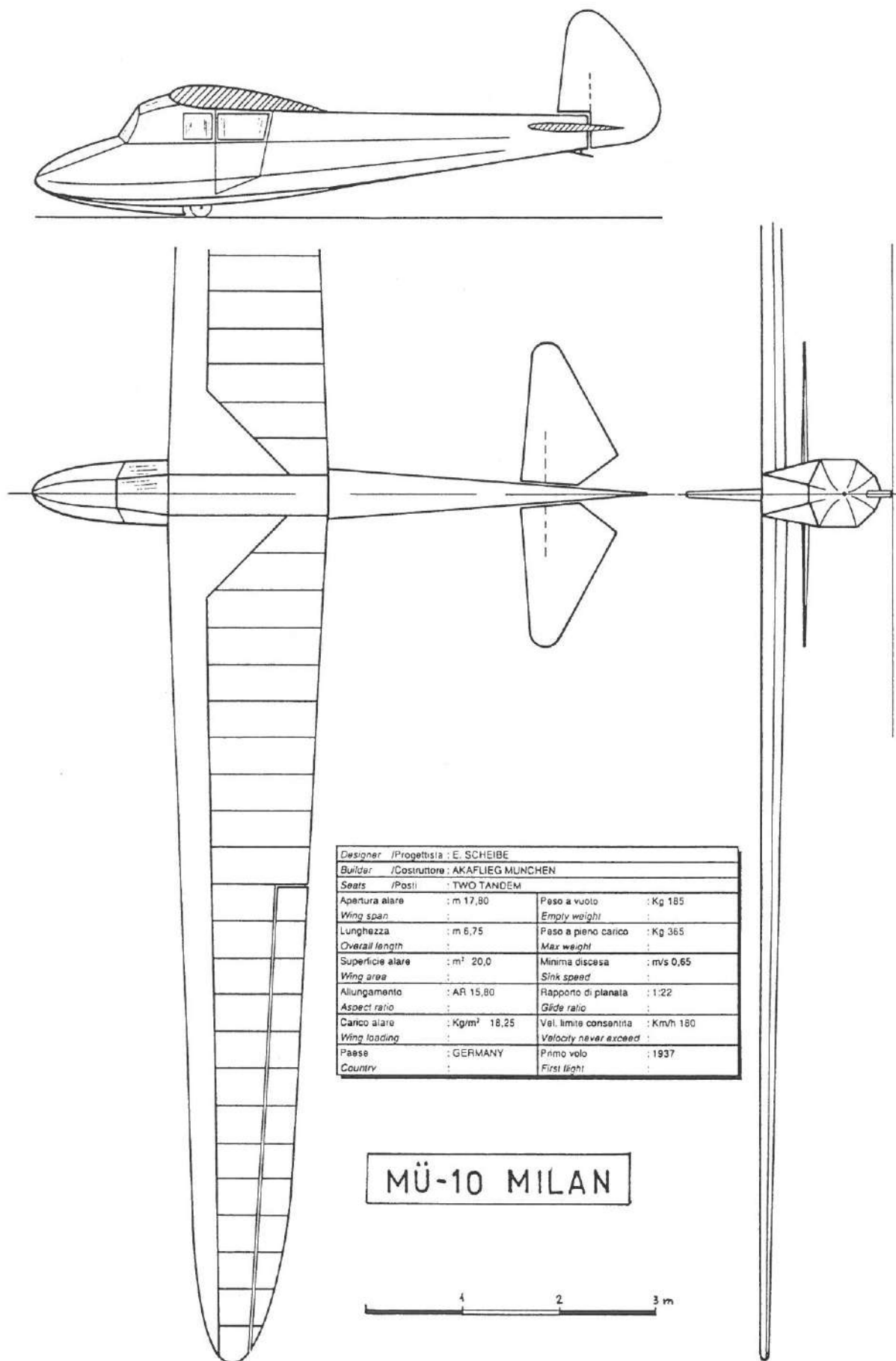




Designer / Progettista : E. SCHNEIDER			
Builder / Costruttore : E. SCHNEIDER			
Seats / Posti : ONE			
Apertura alare	: m 20,0	Peso a vuoto	: Kg 190
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg 270
Overall length	:	Max weight	:
Superficie alare	: m ² 20,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 20,0	Rapporto di planata	: 1:23
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 13,50	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1933
Country	:	First flight	:

MOAZAGOTL

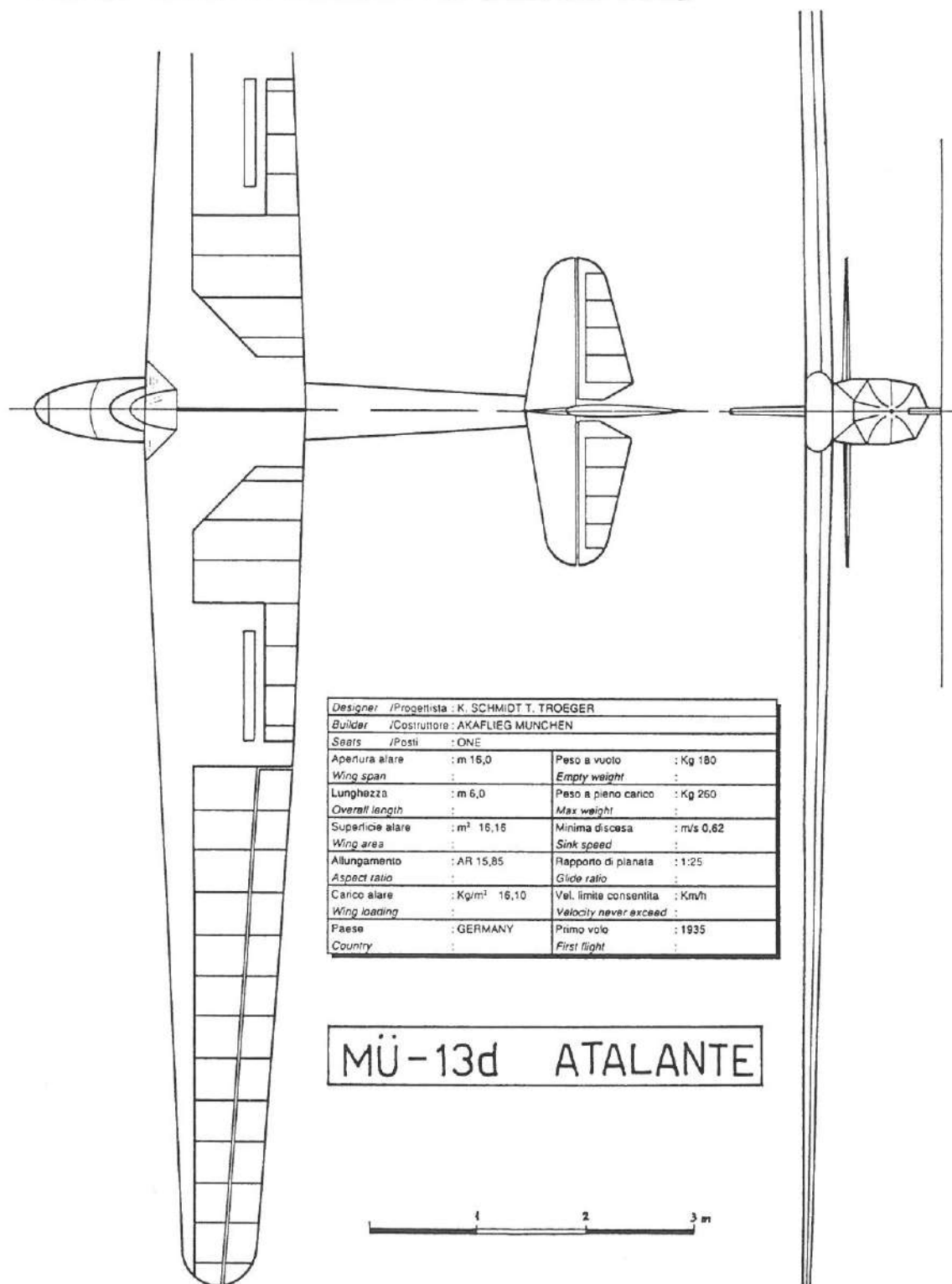
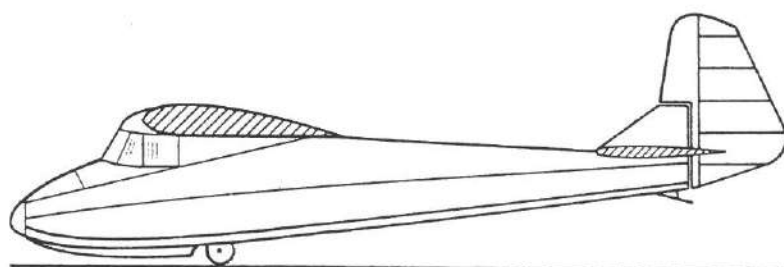




Designer /Progettista : E. SCHEIBE			
Builder /Costruttore : AKAFLEG MUNCHEN			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 17,80	Peso a vuoto	: Kg 185
Wing span	:	Empty weight	:
Lunghezza	: m 6,75	Peso a pieno carico	: Kg 365
Overall length	:	Max weight	:
Superficie alare	: m ² 20,0	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 15,80	Rapporto di planata	: 1:22
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,25	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1937
Country	:	First flight	:

MÜ-10 MILAN

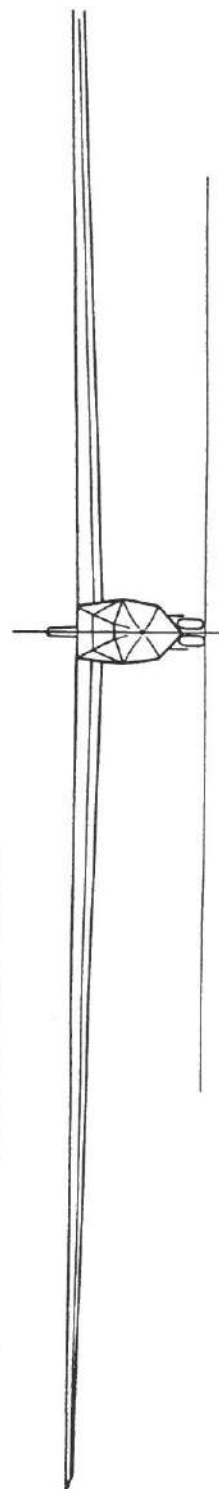
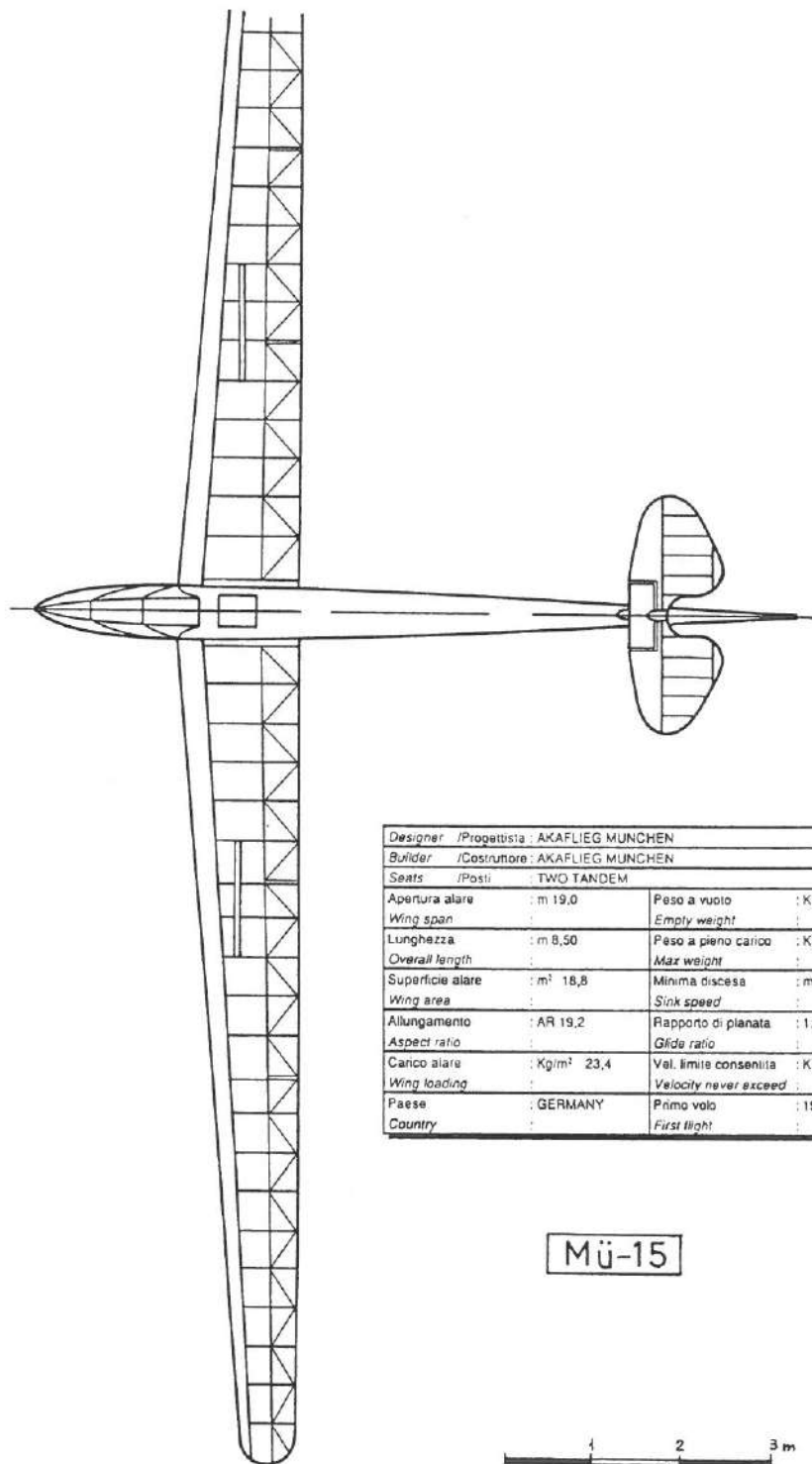
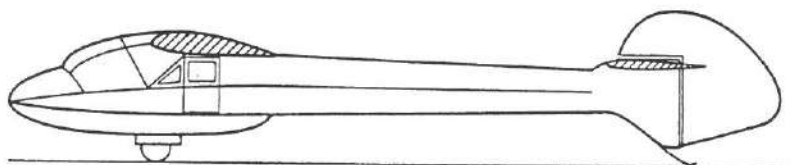
4 2 3 m



Designer / Progettista : K. SCHMIDT T. TROEGER			
Builder / Costruttore : AKAFLEG MUNCHEN			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 180
Wing span	:	Empty weight	:
Lunghezza	: m 6,0	Peso a pieno carico	: Kg 260
Overall length	:	Max weight	:
Superficie alare	: m ² 16,15	Minima discesa	: m/s 0,62
Wing area	:	Sink speed	:
Allungamento	: AR 15,85	Rapporto di planata	: 1:25
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 16,10	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1935
Country	:	First flight	:

MÜ-13d ATALANTE

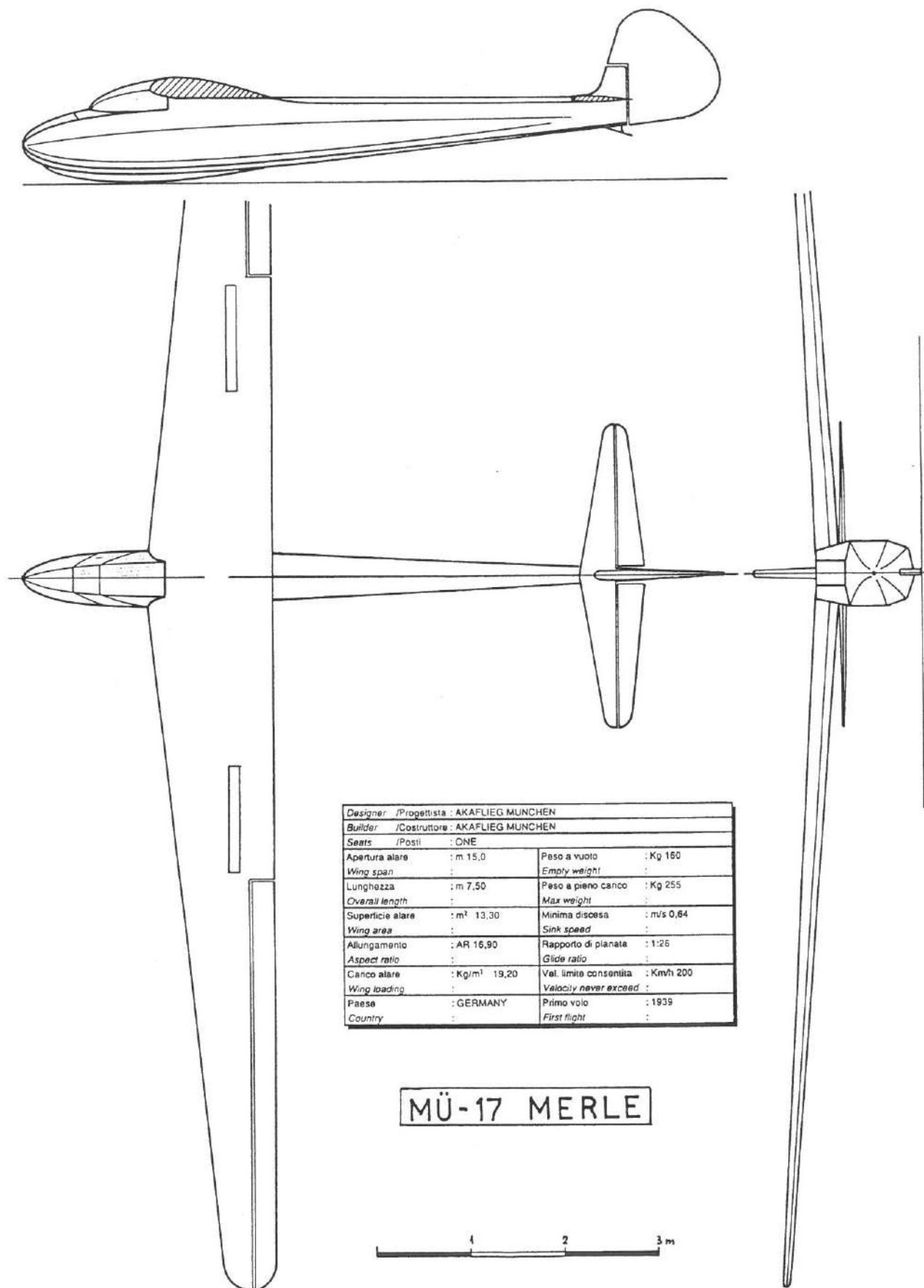


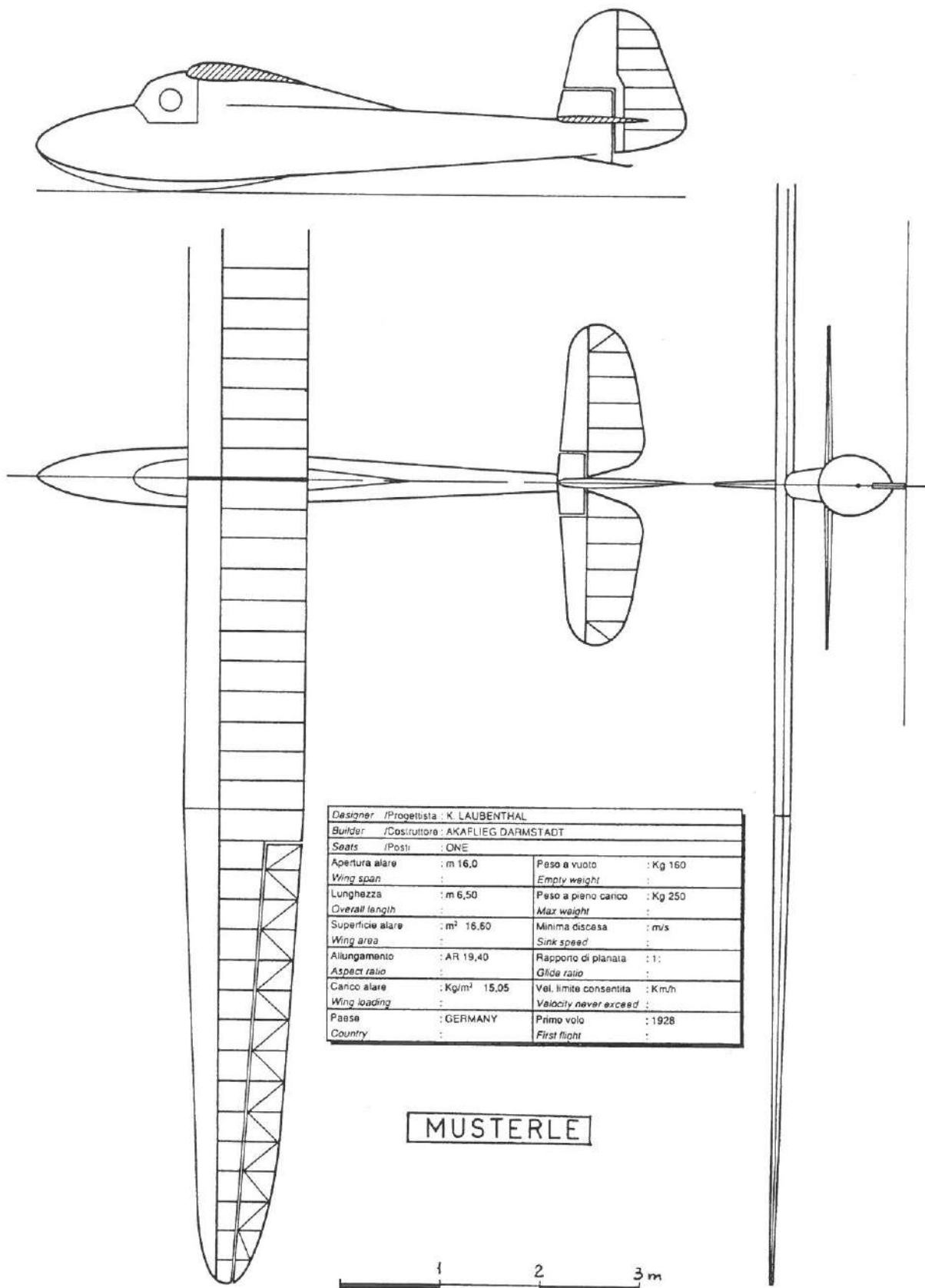


Designer / Progettista	AKAFLIEG MÜNCHEN		
Builder / Costruttore	AKAFLIEG MÜNCHEN		
Seats / Posti	TWO TANDEM		
Apertura alare	: m 19,0	Peso a vuoto	: Kg 260
Wing span	:	Empty weight	:
Lunghezza	: m 8,50	Peso a pieno carico	: Kg 450
Overall length	:	Max weight	:
Superficie alare	: m ² 18,8	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 19,2	Rapporto di planata	: 1:29
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,4	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1939
Country	:	First flight	:

Mü-15



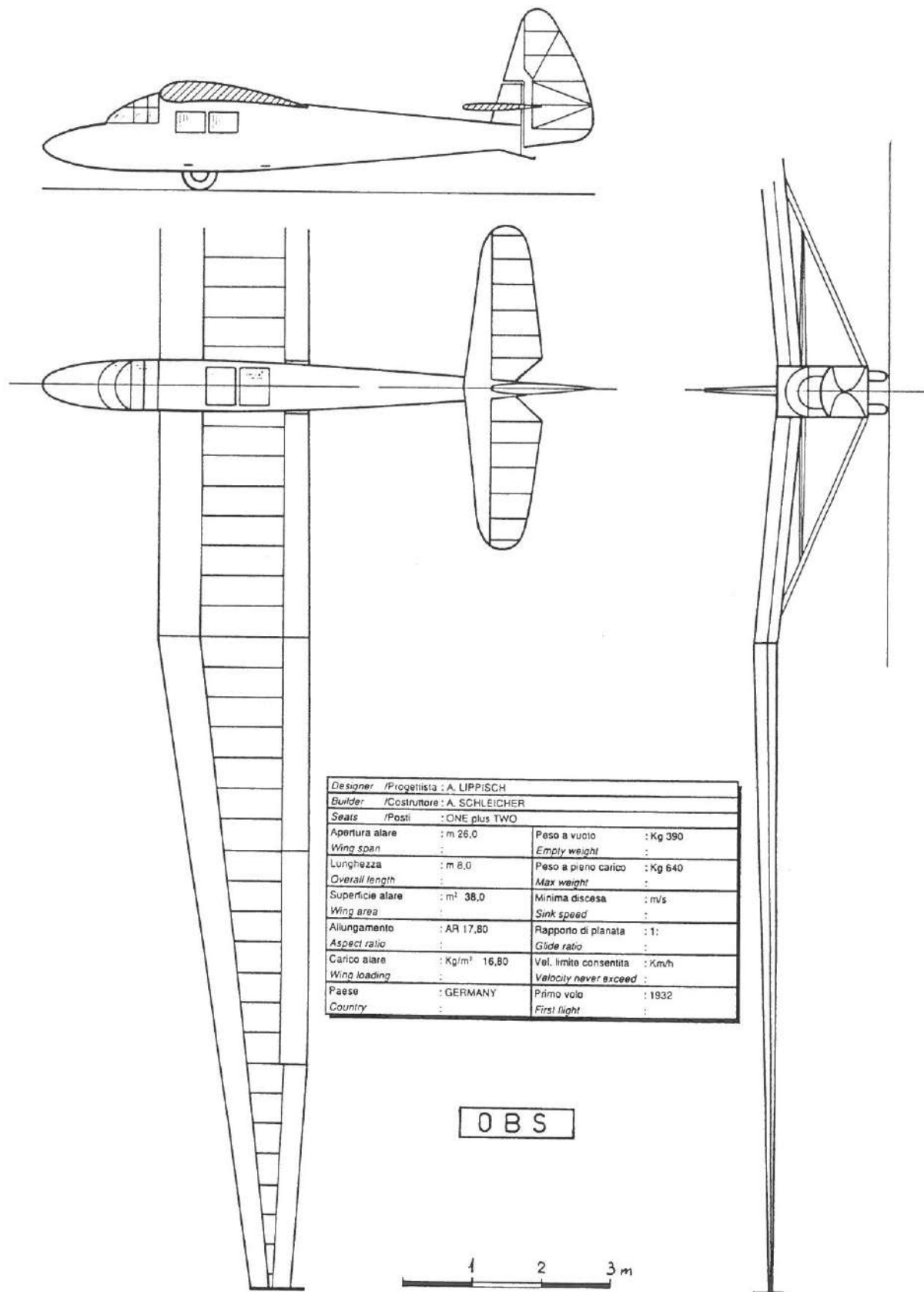


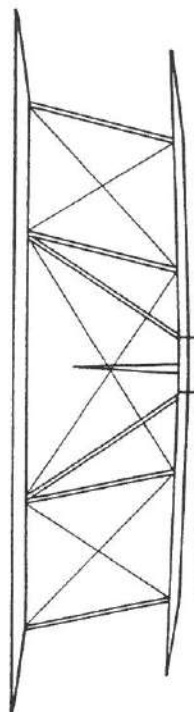
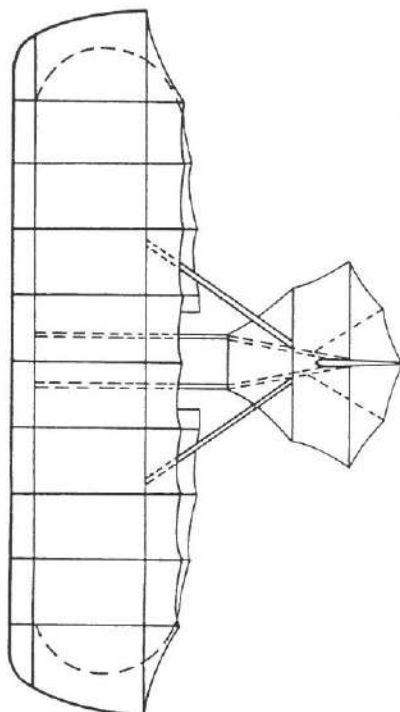
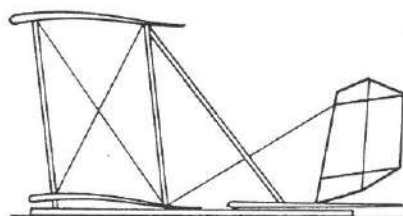


Designer	/Progettista : K. LAUBENTHAL		
Builder	/Costruttore : AKAFLEG DARMSTADT		
Seats	/Posti : ONE		
Apertura alare	: m 16,0	Peso a vuoto	: Kg 160
Wing span	:	Empty weight	:
Lunghezza	: m 6,50	Peso a pieno carico	: Kg 250
Overall length	:	Max weight	:
Superficie alare	: m ² 16,60	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 19,40	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15,05	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1928
Country	:	First flight	:

MUSTERLE

1 2 3 m

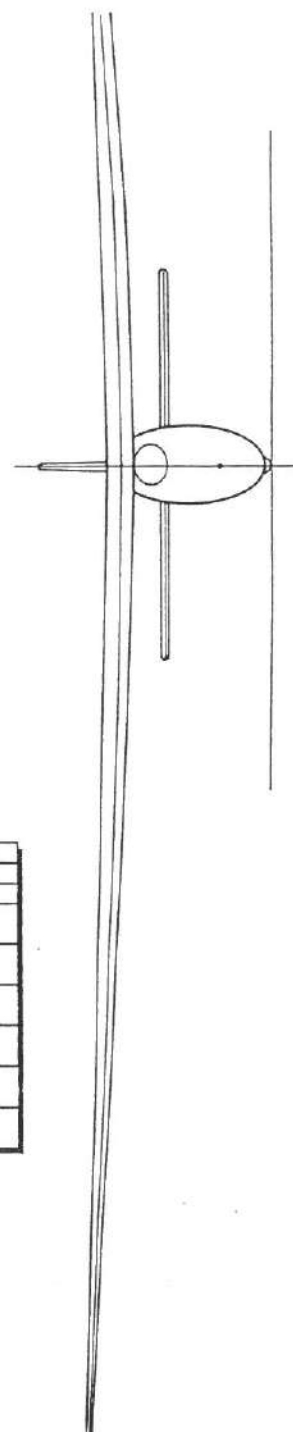
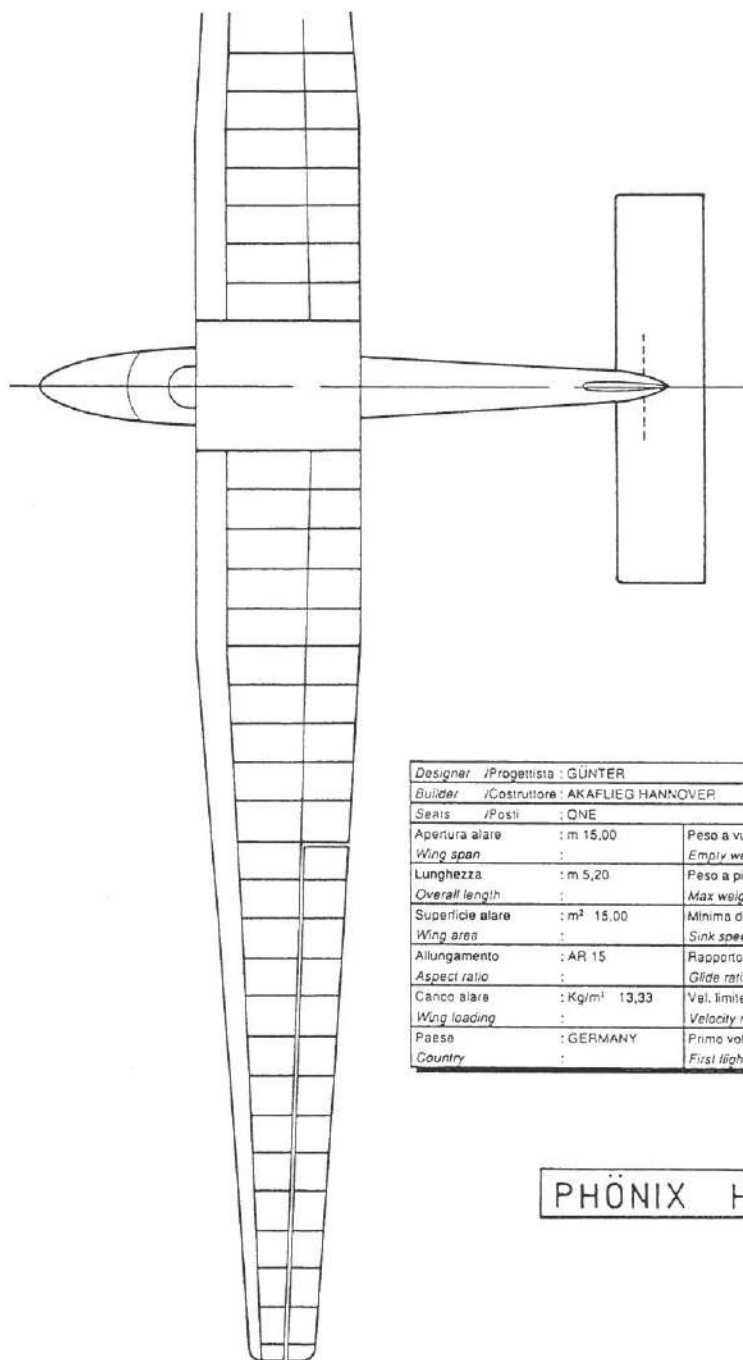
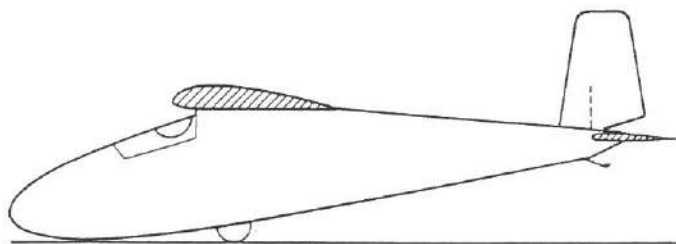




Designer /Progettista : W. PELZNER			
Builder /Costruttore : W. PELZNER			
Seats /Posti : ONE			
Apertura alare	: m 5,40	Peso a vuoto	: Kg 10,0
Wing span	:	Empty weight	:
Lunghezza	: m 3,0	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 14,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1920
Country	:	First flight	:

PELZNER

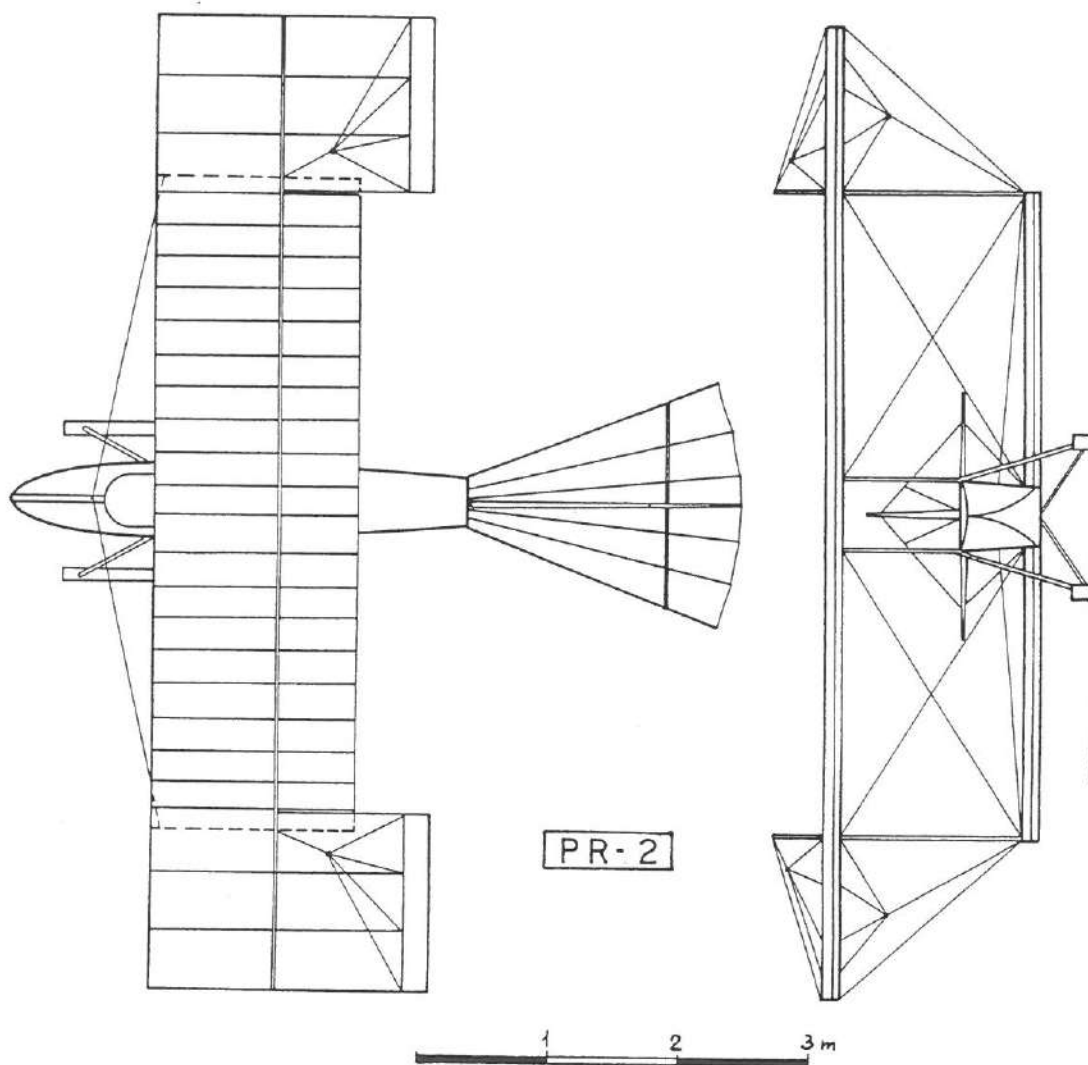




Designer / Progettista : GÜNTER			
Builder / Costruttore : AKAFLEG HANNOVER			
Seats / Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 120
Wing span	:	Empty weight	:
Lunghezza	: m 5,20	Peso a pieno carico	: Kg 200
Overall length	:	Max weight	:
Superficie alare	: m ² 15,00	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 15	Rapporto di planata	: 1:25
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 13,33	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1925
Country	:	First flight	:

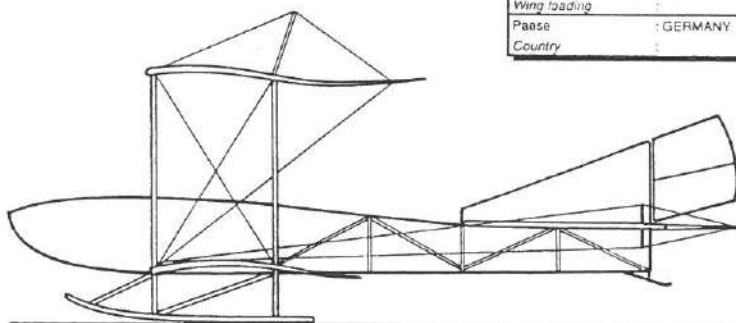
PHÖNIX H-8

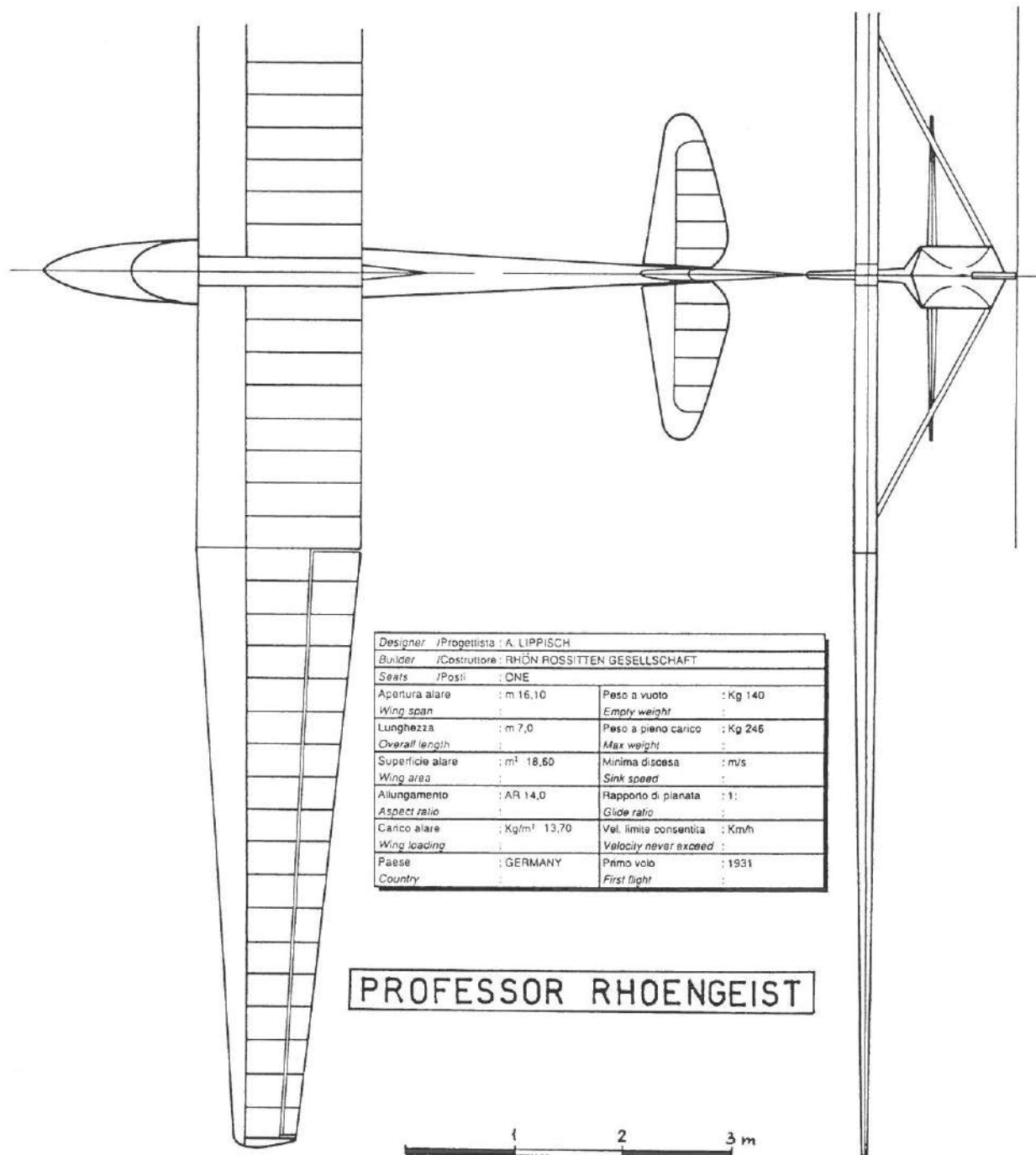
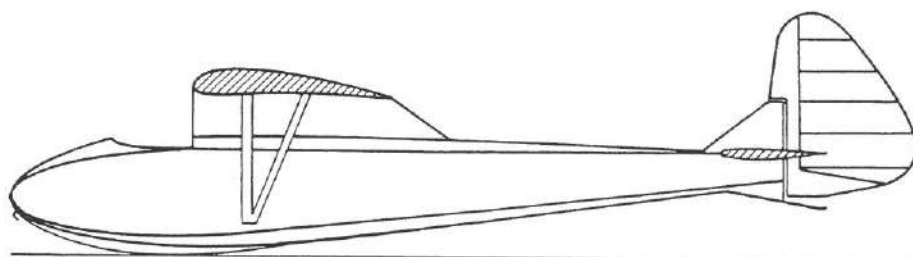




PR-2

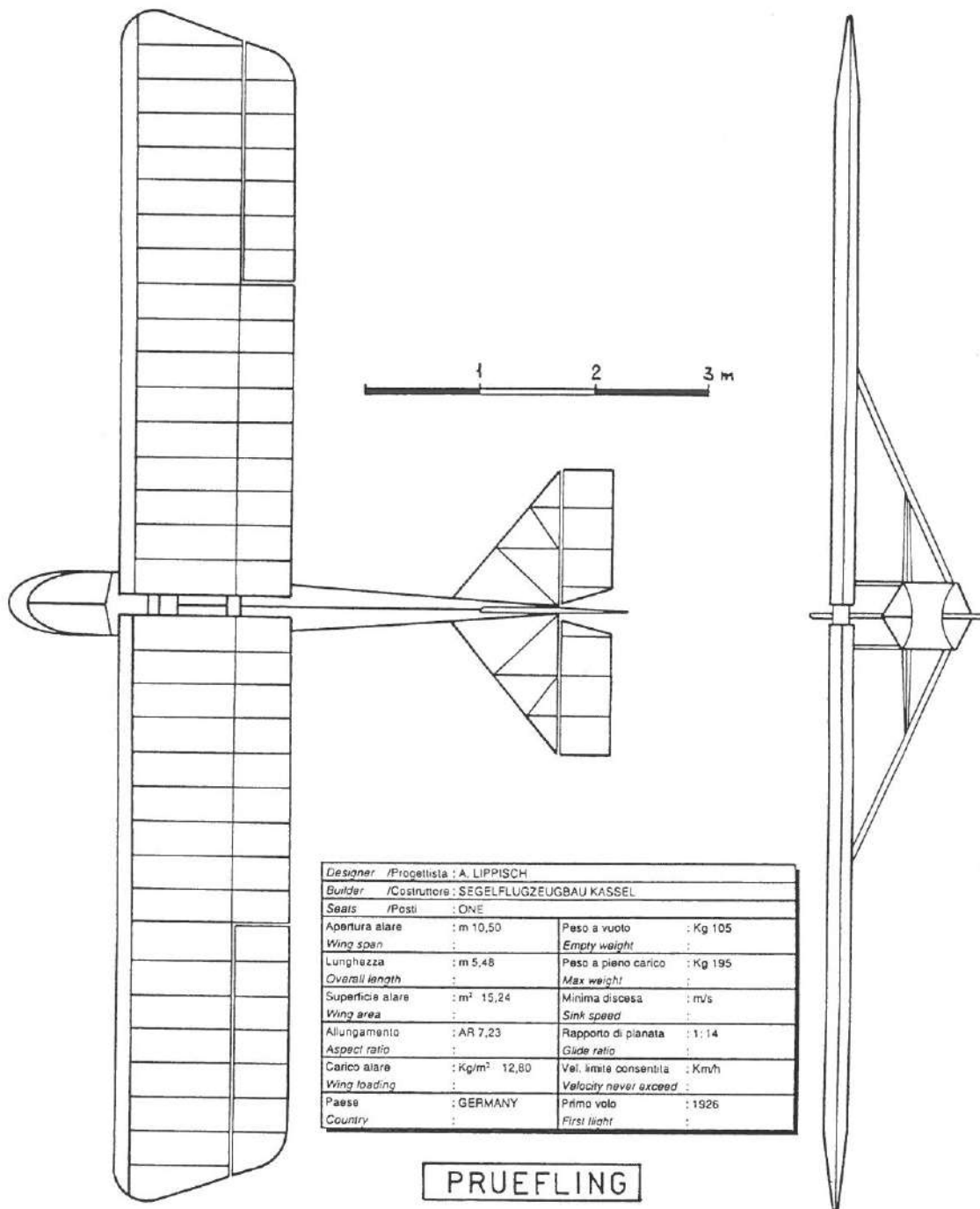
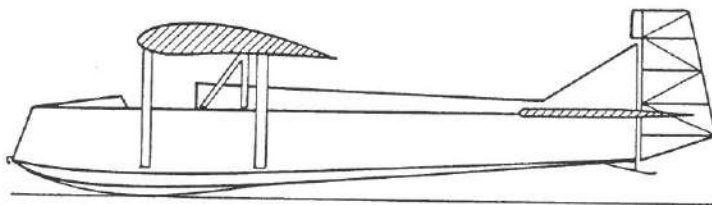
Designer / Progettista : P. RIEDLE	
Builder / Costruttore : P. RIEDLE	
Seats / Posti : ONE	
Apertura alare : m 7,50	Peso a vuoto : Kg
Wing span :	Empty weight :
Lunghezza : m 5,60	Peso a pieno carico : Kg
Overall length :	Max weight :
Superficie alare : m ²	Minima discesa : m/s
Wing area :	Sink speed :
Allungamento : AR	Rapporto di planata : 1:
Aspect ratio :	Glide ratio :
Carico alare : Kg/m ²	Vel. limite consentita : Km/h
Wing loading :	Velocity never exceed :
Paese : GERMANY	Primo volo : 1920
Country :	First flight :





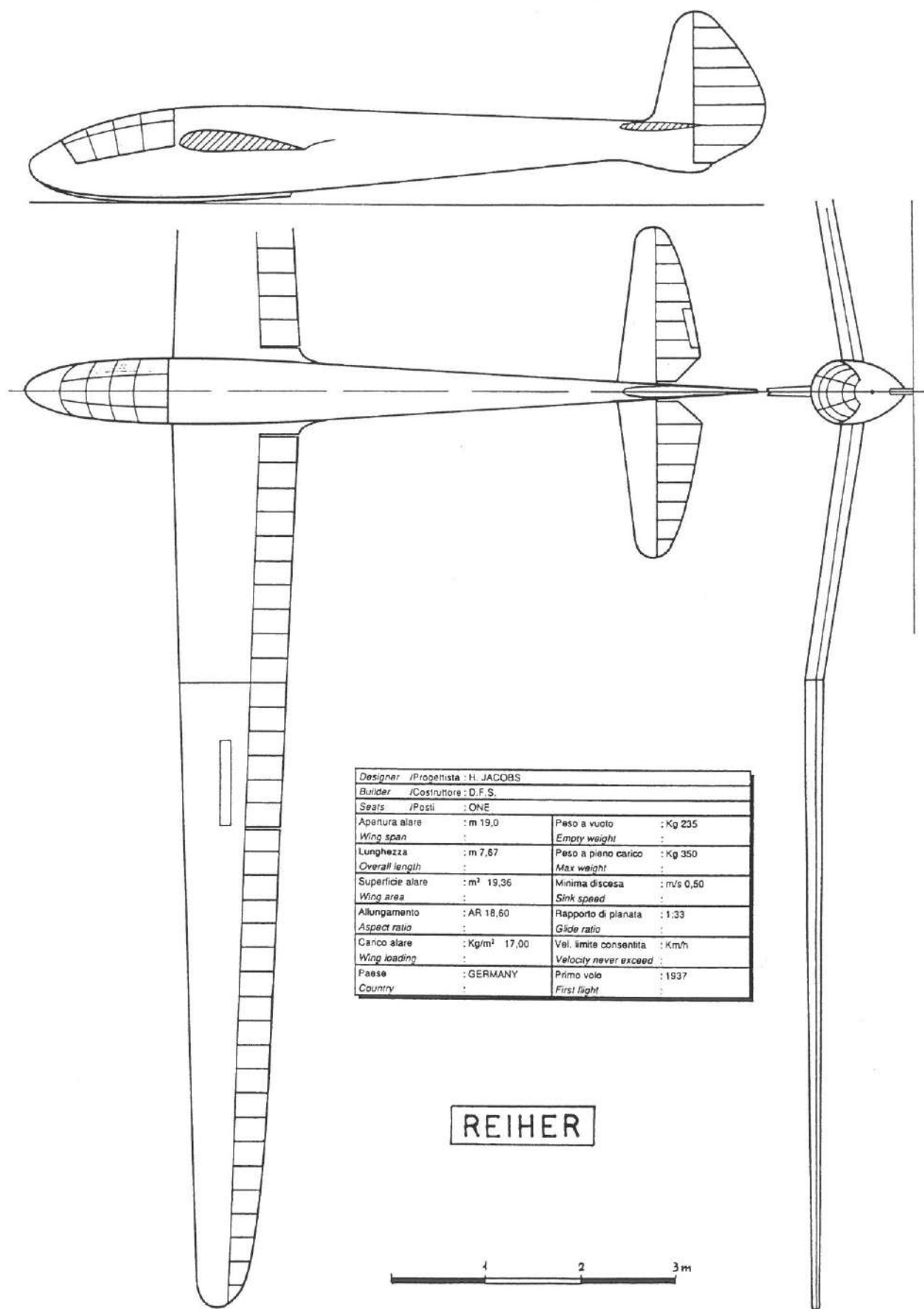
Designer / Progettista : A. LIPPISCH			
Builder / Costruttore : RHÖN-ROSSITTEN GESELLSCHAFT			
Seats / Posti : ONE			
Apertura alare	: m 16,10	Peso a vuoto	: Kg 140
Wing span		Empty weight	:
Lunghezza	: m 7,0	Peso a pieno carico	: Kg 245
Overall length		Max weight	:
Superficie alare	: m ² 18,60	Minima discesa	: m/s
Wing area		Sink speed	:
Allungamento	: AR 14,0	Rapporto di planata	: 1:
Aspect ratio		Glide ratio	:
Carico alare	: Kg/m ² 13,70	Vel. limite consentita	: Km/h
Wing loading		Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1931
Country		First flight	:

PROFESSOR RHOENGEIST



Designer /Progettista : A. LIPPISCH			
Builder /Costruttore : SEGELFLUGZEUGBAU KASSEL			
Seats /Posti : ONE			
Apertura alare	: m 10,50	Peso a vuoto	: Kg 105
Wing span	:	Empty weight	:
Lunghezza	: m 5,48	Peso a pieno carico	: Kg 195
Overall length	:	Max weight	:
Superficie alare	: m ² 15,24	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 7,23	Rapporto di planata	: 1:14
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 12,80	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1926
Country	:	First flight	:

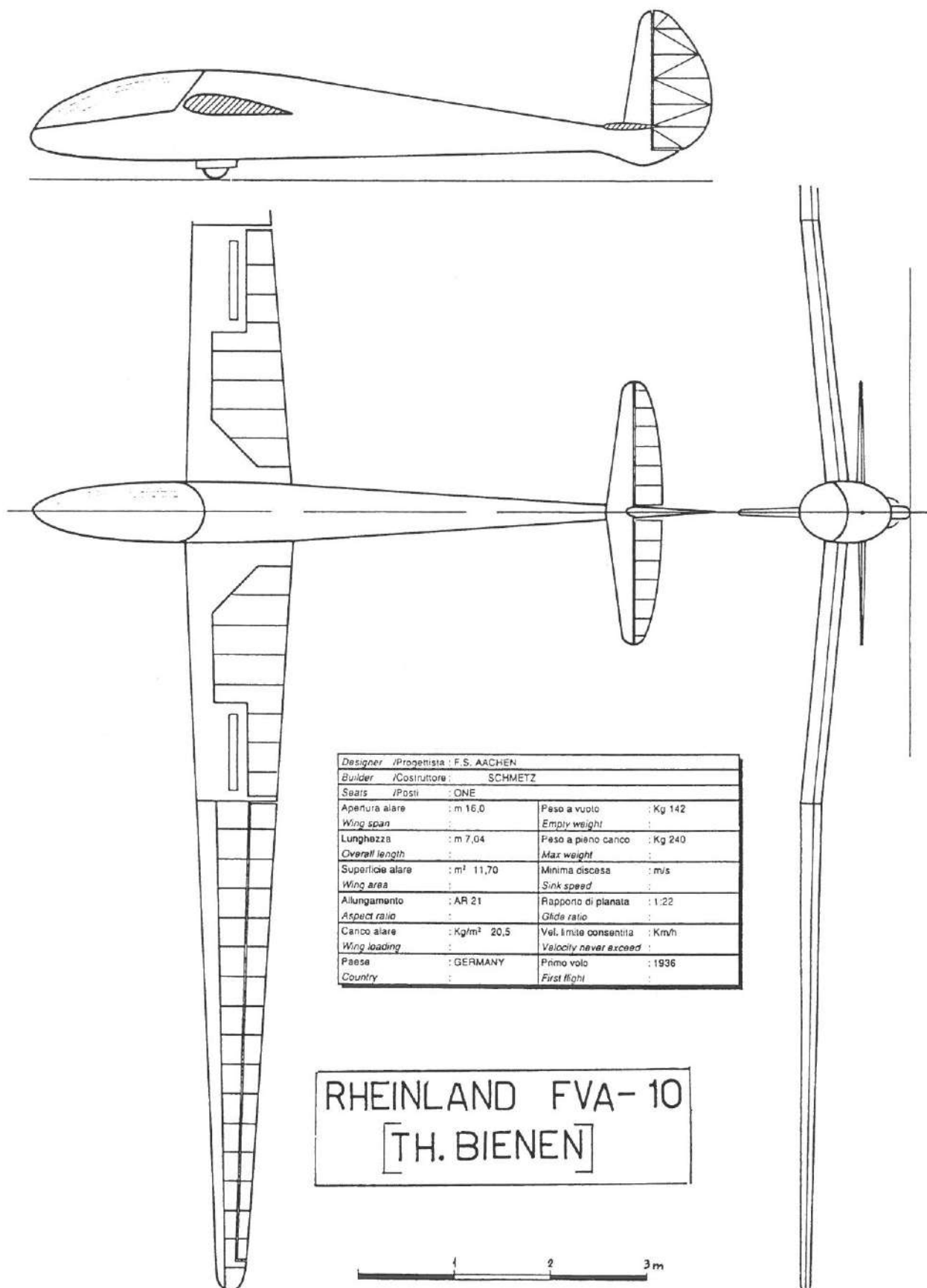
PRUEFLING



Designer /Progettista : H. JACOBS			
Builder /Costruttore : D.F.S.			
Seats /Posti : ONE			
Apertura alare	: m 19,0	Peso a vuoto	: Kg 235
Wing span	:	Empty weight	:
Lunghezza	: m 7,67	Peso a pieno carico	: Kg 350
Overall length	:	Max weight	:
Superficie alare	: m ² 19,36	Minima discesa	: m/s 0,50
Wing area	:	Sink speed	:
Allungamento	: AR 18,60	Rapporto di planata	: 1,33
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ² 17,00	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1937
Country	:	First flight	:

REIHER

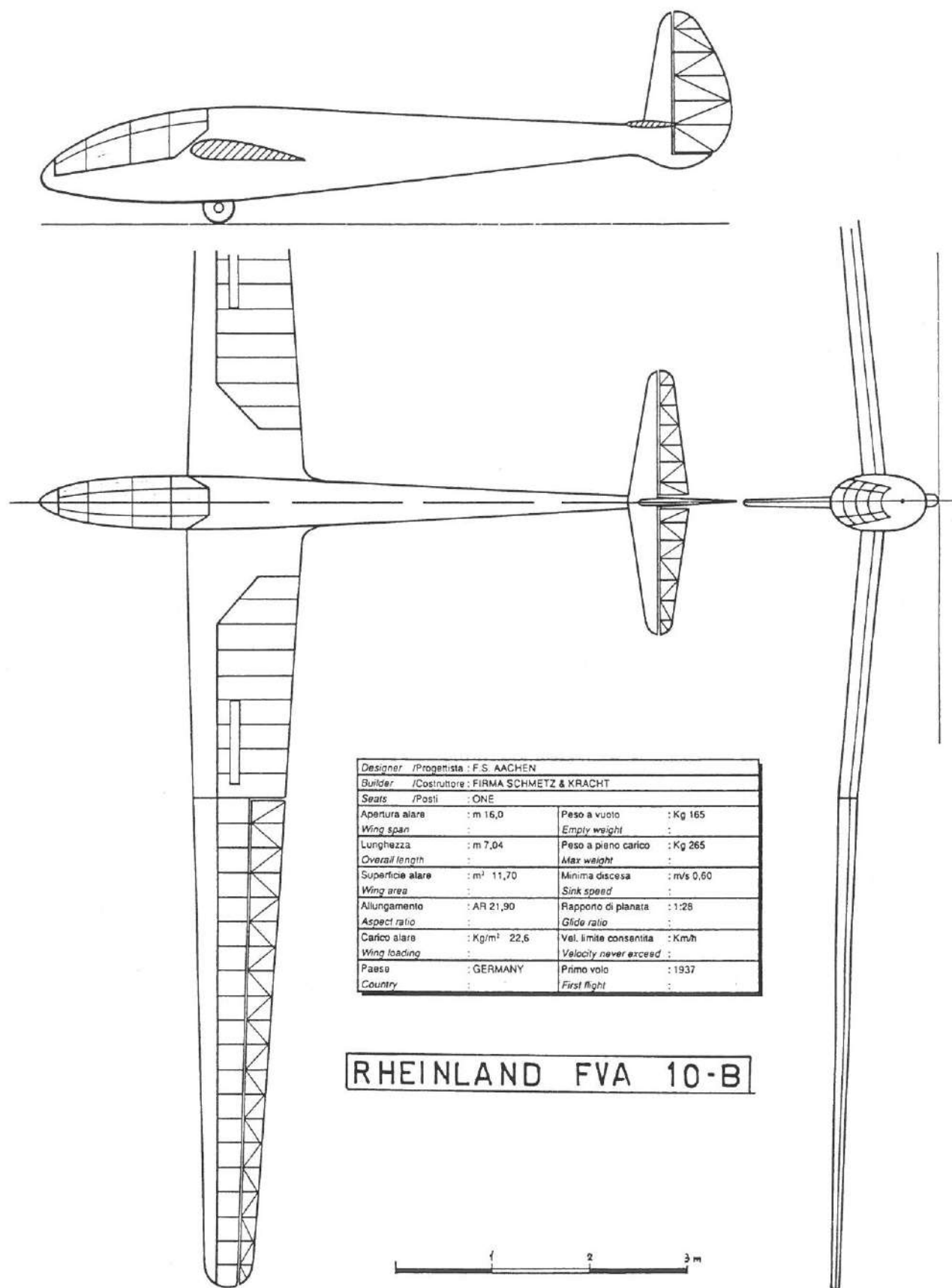




Designer /Progettista :	F. S. AACHEN		
Builder /Costruttore :	SCHMETZ		
Seats /Posti :	ONE		
Apertura alare	: m 16,0	Peso a vuoto	: Kg 142
Wing span	:	Empty weight	:
Lunghezza	: m 7,04	Peso a pieno carico	: Kg 240
Overall length	:	Max weight	:
Superficie alare	: m ² 11,70	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 21	Rapporto di planata	: 1:22
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 20,5	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1936
Country	:	First flight	:

RHEINLAND FVA-10
[TH. BIENEN]

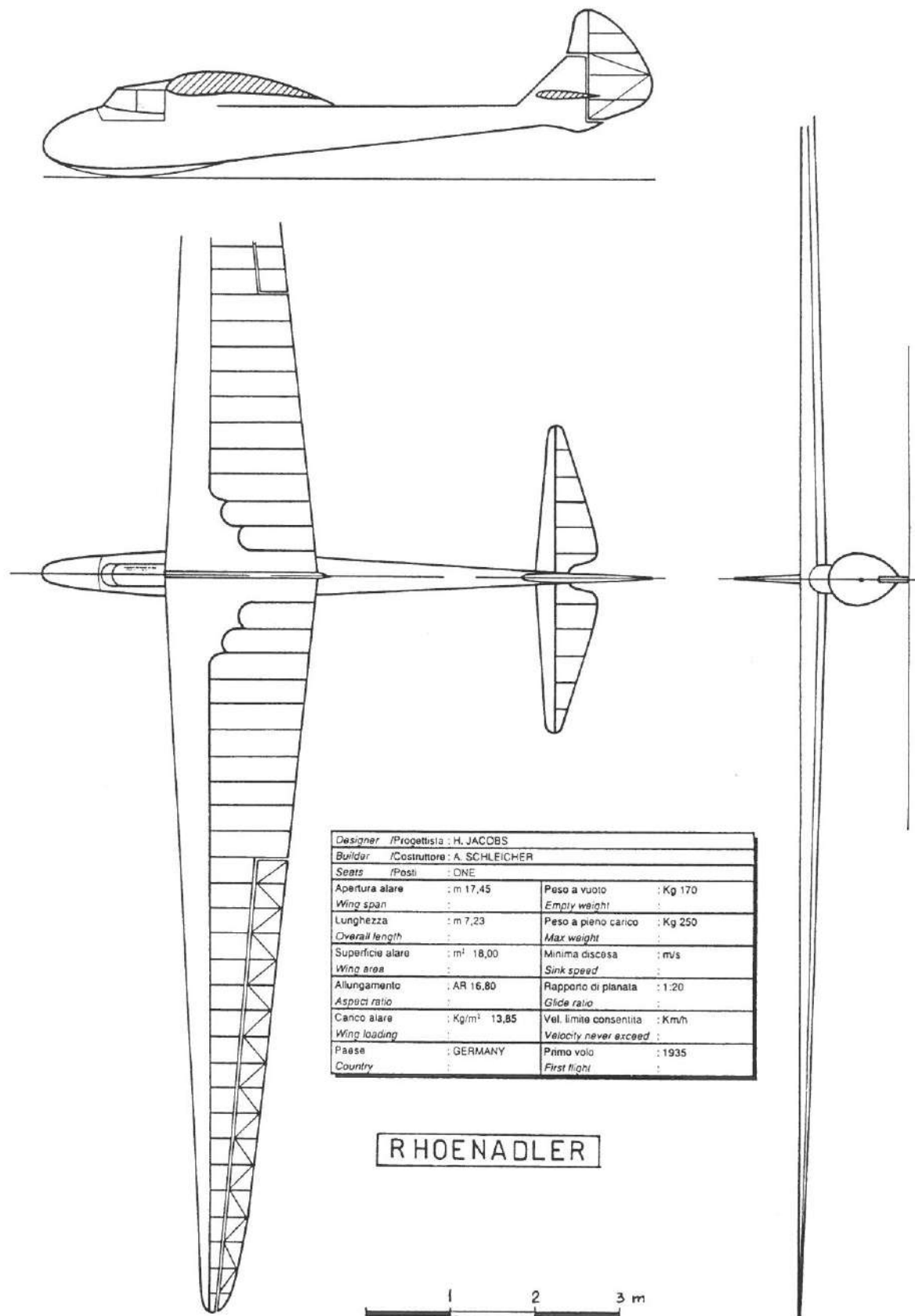
1 2 3 m



Designer / Progettista : F.S. AACHEN			
Builder / Costruttore : FIRMA SCHMETZ & KRACHT			
Seats / Posti : ONE			
Apertura alare	: m 16,0	Peso a vuoto	: Kg 165
Wing span	:	Empty weight	:
Lunghezza	: m 7,04	Peso a pieno carico	: Kg 265
Overall length	:	Max weight	:
Superficie alare	: m ² 11,70	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 21,90	Rapporto di planata	: 1:28
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,6	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1937
Country	:	First flight	:

RHEINLAND FVA 10-B

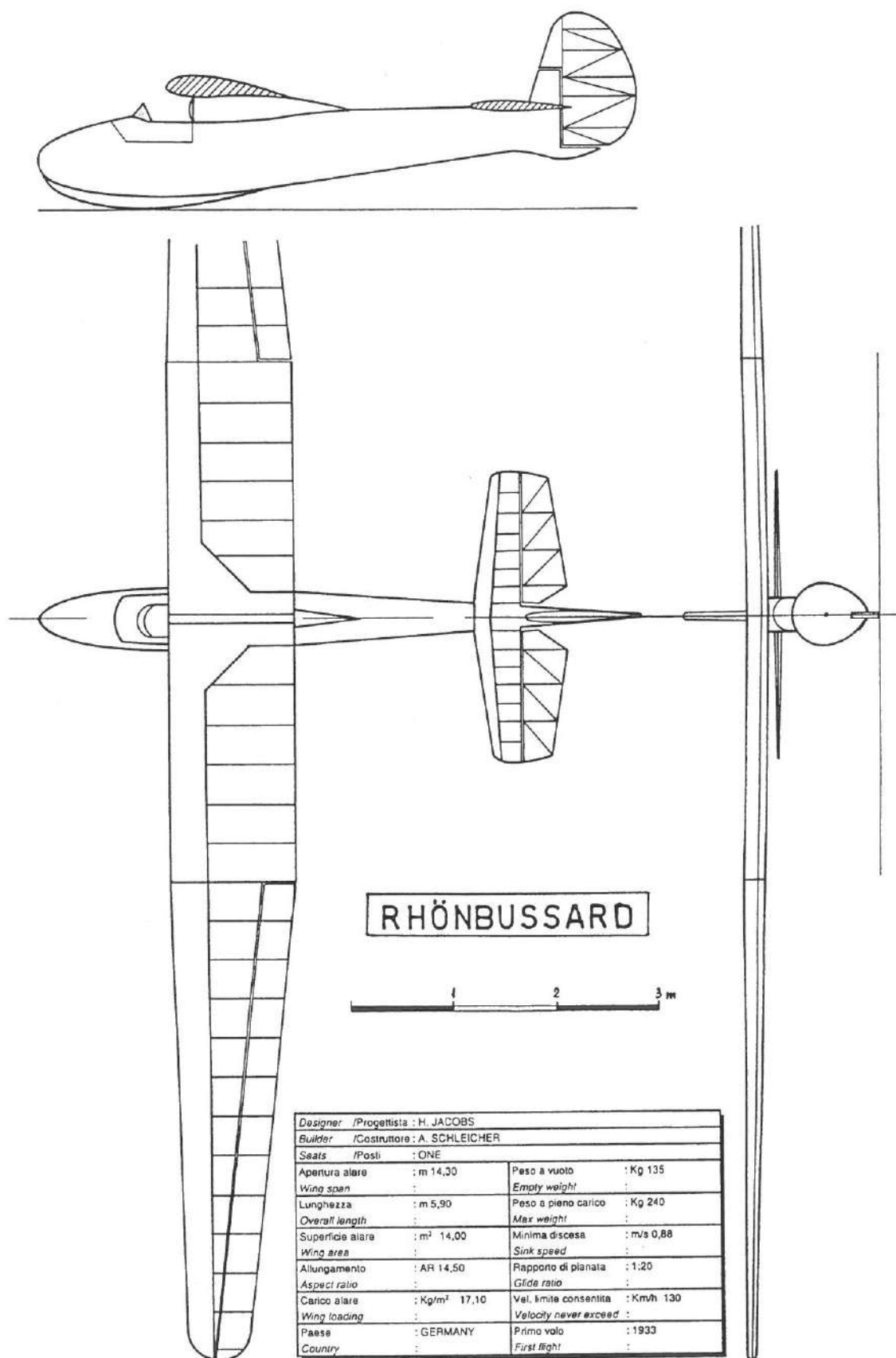


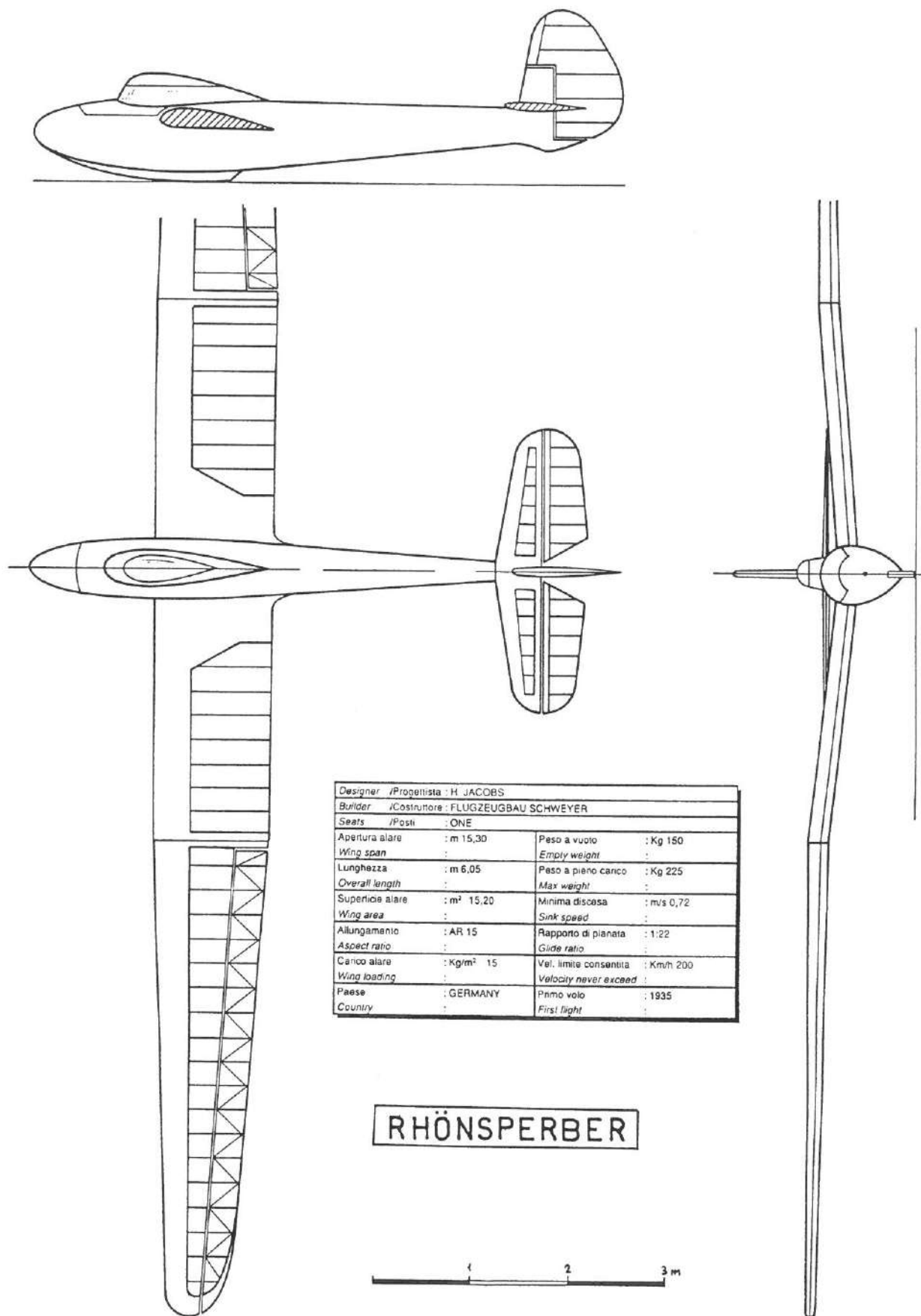


Designer /Progettista : H. JACOBS			
Builder /Costruttore : A. SCHLEICHER			
Seats /Posti : ONE			
Apertura alare	: m 17,45	Peso a vuoto	: Kg 170
Wing span	:	Empty weight	:
Lunghezza	: m 7,23	Peso a pieno carico	: Kg 250
Overall length	:	Max weight	:
Superficie alare	: m ² 18,00	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 16,80	Rapporto di planata	: 1:20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 13,85	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1935
Country	:	First flight	:

RHOENADLER

1 2 3 m

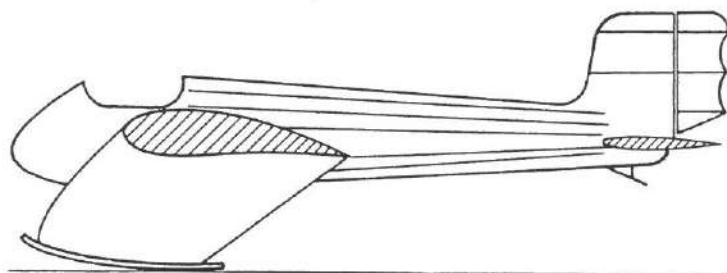




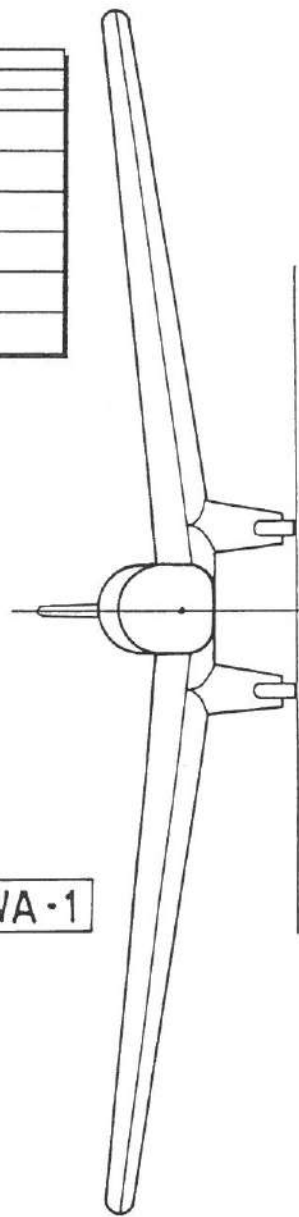
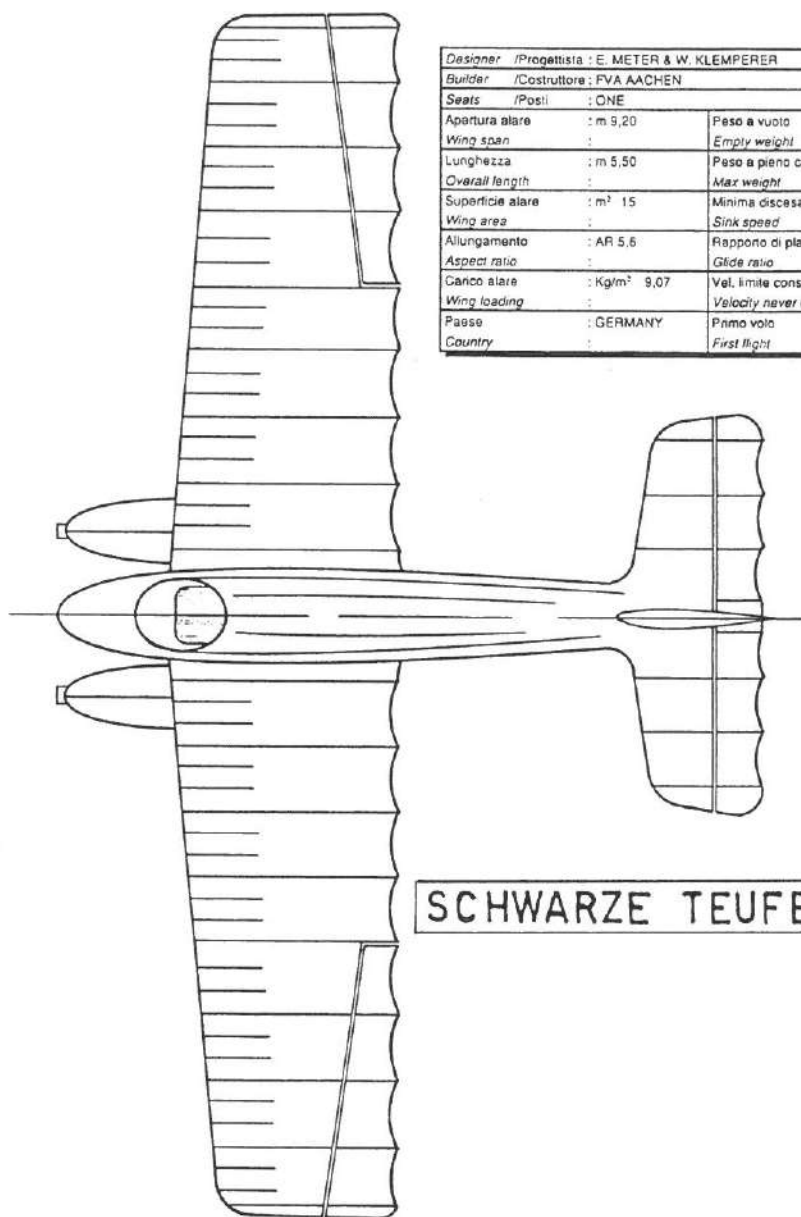
Designer /Progettista	: H. JACOBS		
Builder /Costruttore	: FLUGZEUGBAU SCHWEYER		
Seats /Posti	: ONE		
Apertura alare	: m 15,30	Peso a vuoto	: Kg 150
Wing span	:	Empty weight	:
Lunghezza	: m 6,05	Peso a pieno carico	: Kg 225
Overall length	:	Max weight	:
Superficie alare	: m ² 15,20	Minima discesa	: m/s 0,72
Wing area	:	Sink speed	:
Allungamento	: AR 15	Rapporto di planata	: 1:22
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1935
Country	:	First flight	:

RHÖNSPERBER

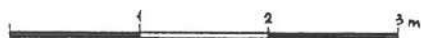
1 2 3 m

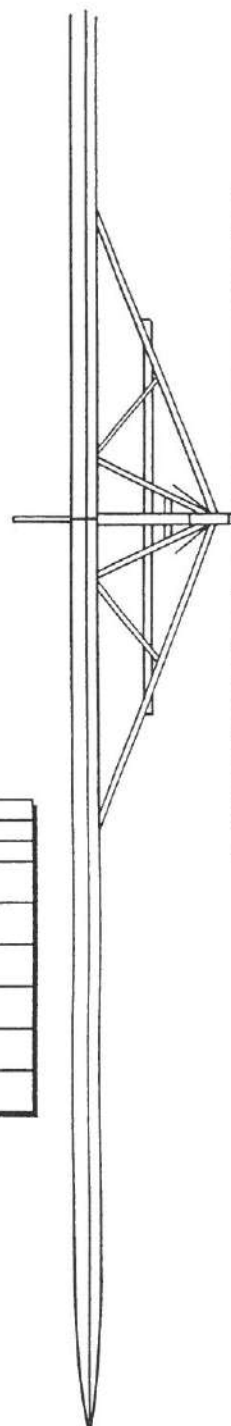
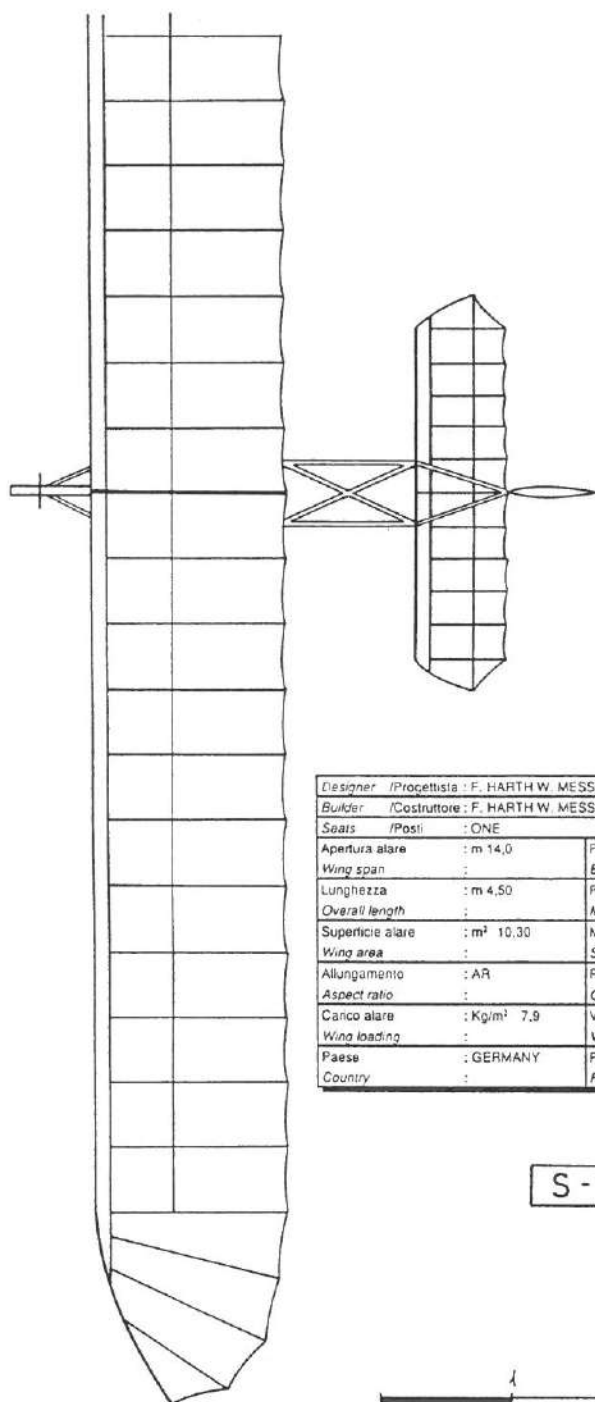
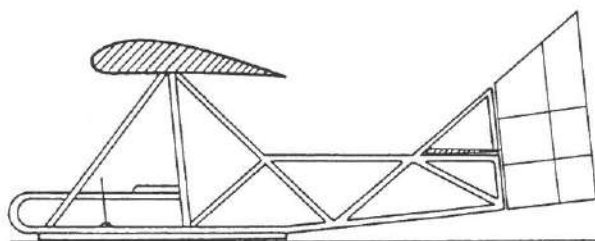


Designer / Progettista	: E. METER & W. KLEMPERER		
Builder / Costruttore	: FVA AACHEN		
Seats / Posti	: ONE		
Apertura alare	: m 9,20	Peso a vuoto	: Kg 61
Wing span	:	Empty weight	:
Lunghezza	: m 5,50	Peso a pieno carico	: Kg 136
Overall length	:	Max weight	:
Superficie alare	: m ² 15	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 5,6	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 9,07	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1920
Country	:	First flight	:



SCHWARZE TEUFEL FVA-1

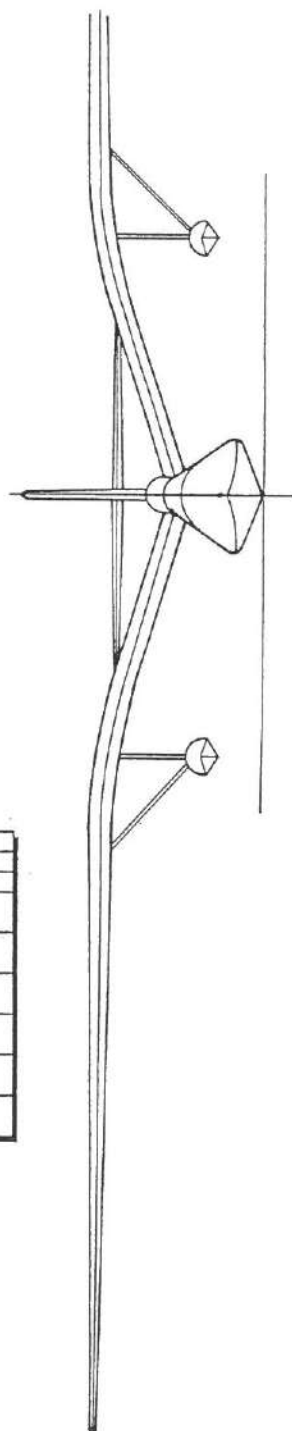
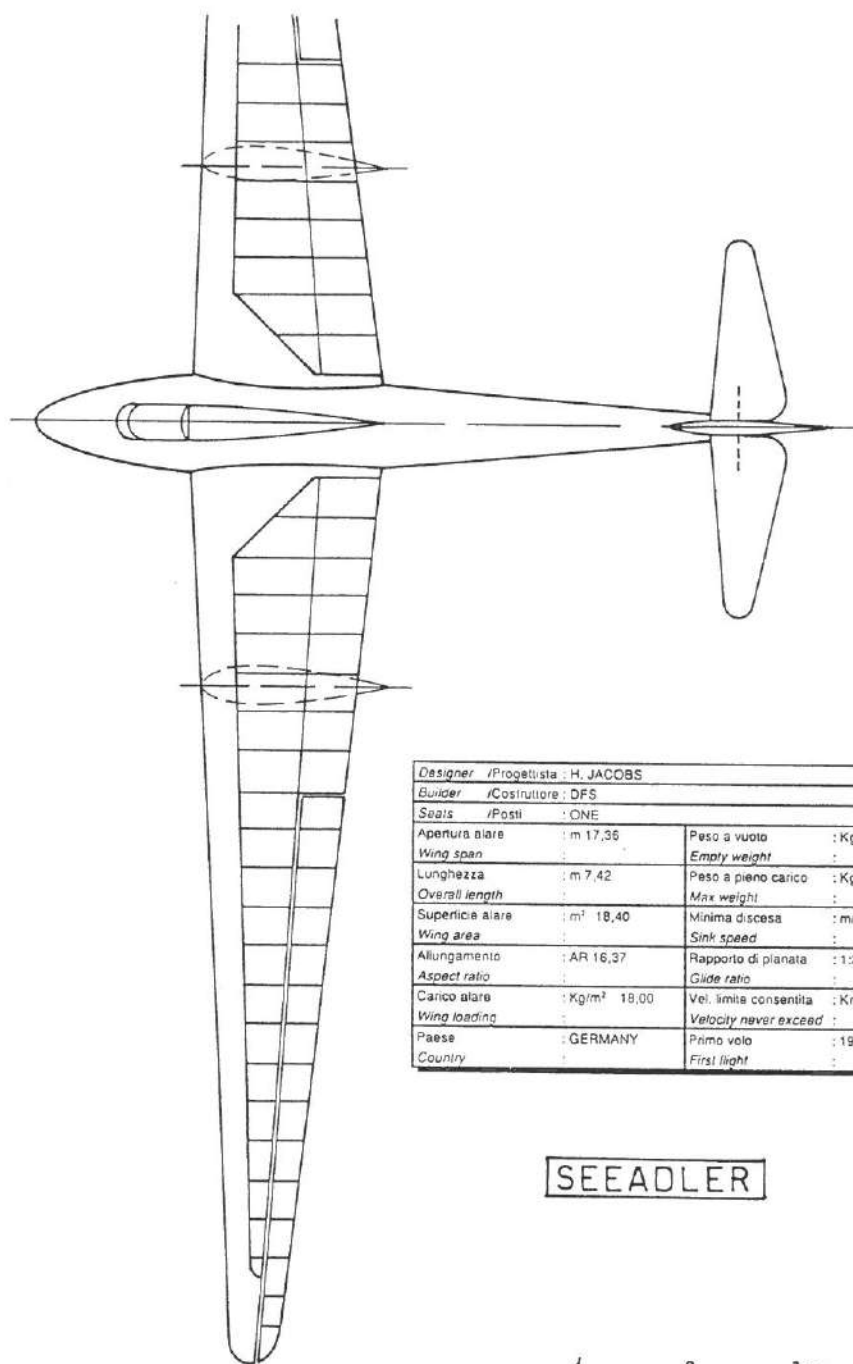
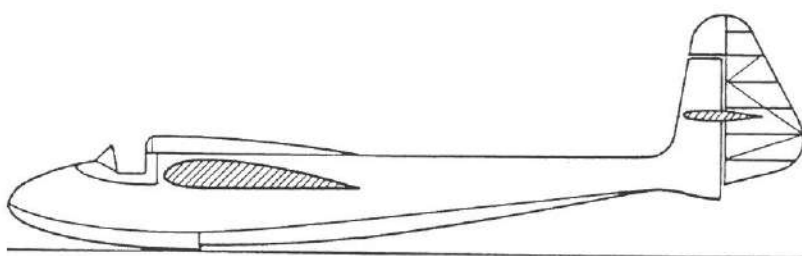




Designer / Progettista	F. HARTH W. MESSERSCHMITT		
Builder / Costruttore	F. HARTH W. MESSERSCHMITT		
Seats / Posti	ONE		
Apertura alare	: m 14,0	Peso a vuoto	: Kg 80
Wing span	:	Empty weight	:
Lunghezza	: m 4,50	Peso a pieno carico	: Kg 150
Overall length	:	Max weight	:
Superficie alare	: m ² 10,30	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 7,9	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1920
Country	:	First flight	:

S-10

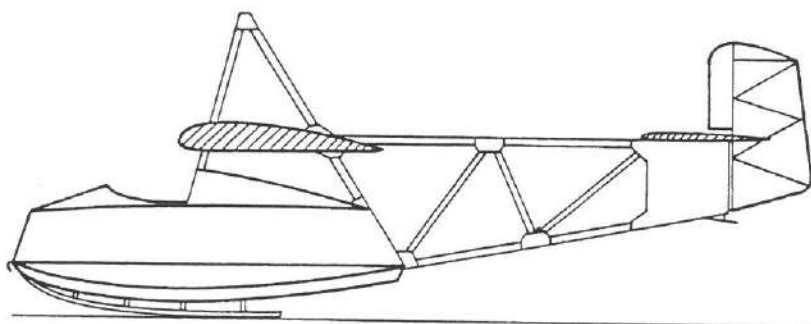




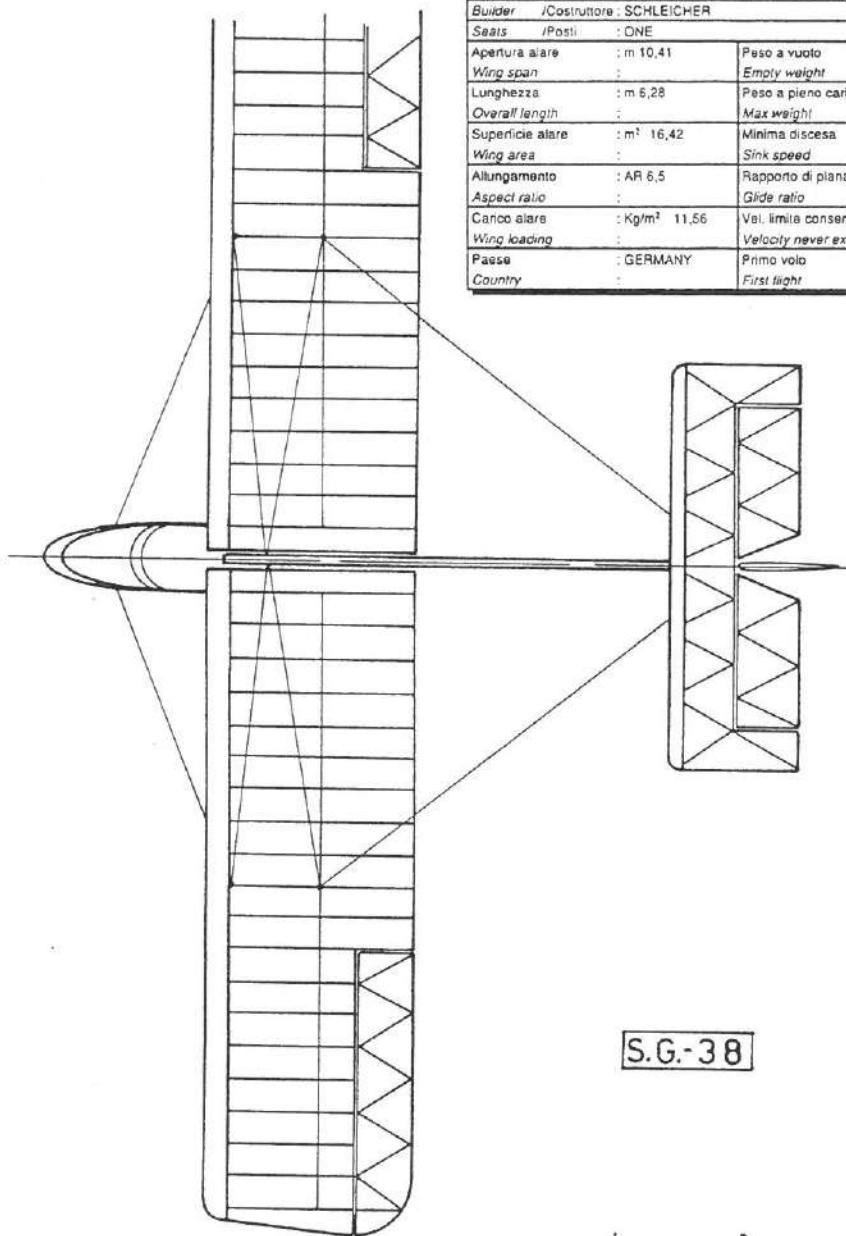
Designer /Progettista	H. JACOBS		
Builder /Costruttore	DFS		
Seats /Posti	ONE		
Apertura alare	m 17,36	Peso a vuoto	Kg 240
Wing span		Empty weight	
Lunghezza	m 7,42	Peso a pieno carico	Kg 330
Overall length		Max weight	
Superficie alare	m ² 18,40	Minima discesa	m/s 0,80
Wing area		Sink speed	
Allungamento	AR 16,37	Rapporto di planata	1:20
Aspect ratio		Glide ratio	
Carico alare	Kg/m ² 18,00	Vel. limite consentita	Km/h 140
Wing loading		Velocity never exceed	
Paese	GERMANY	Primo volo	1935
Country		First flight	

SEEADLER

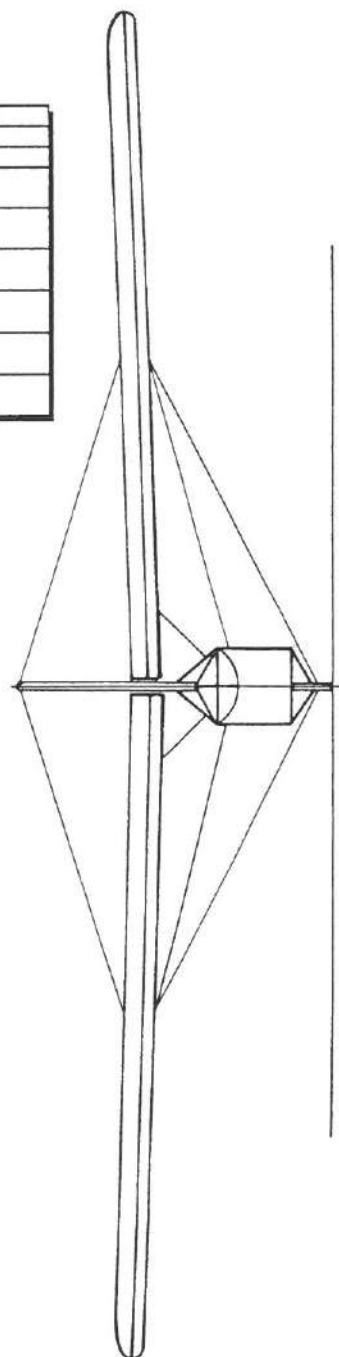


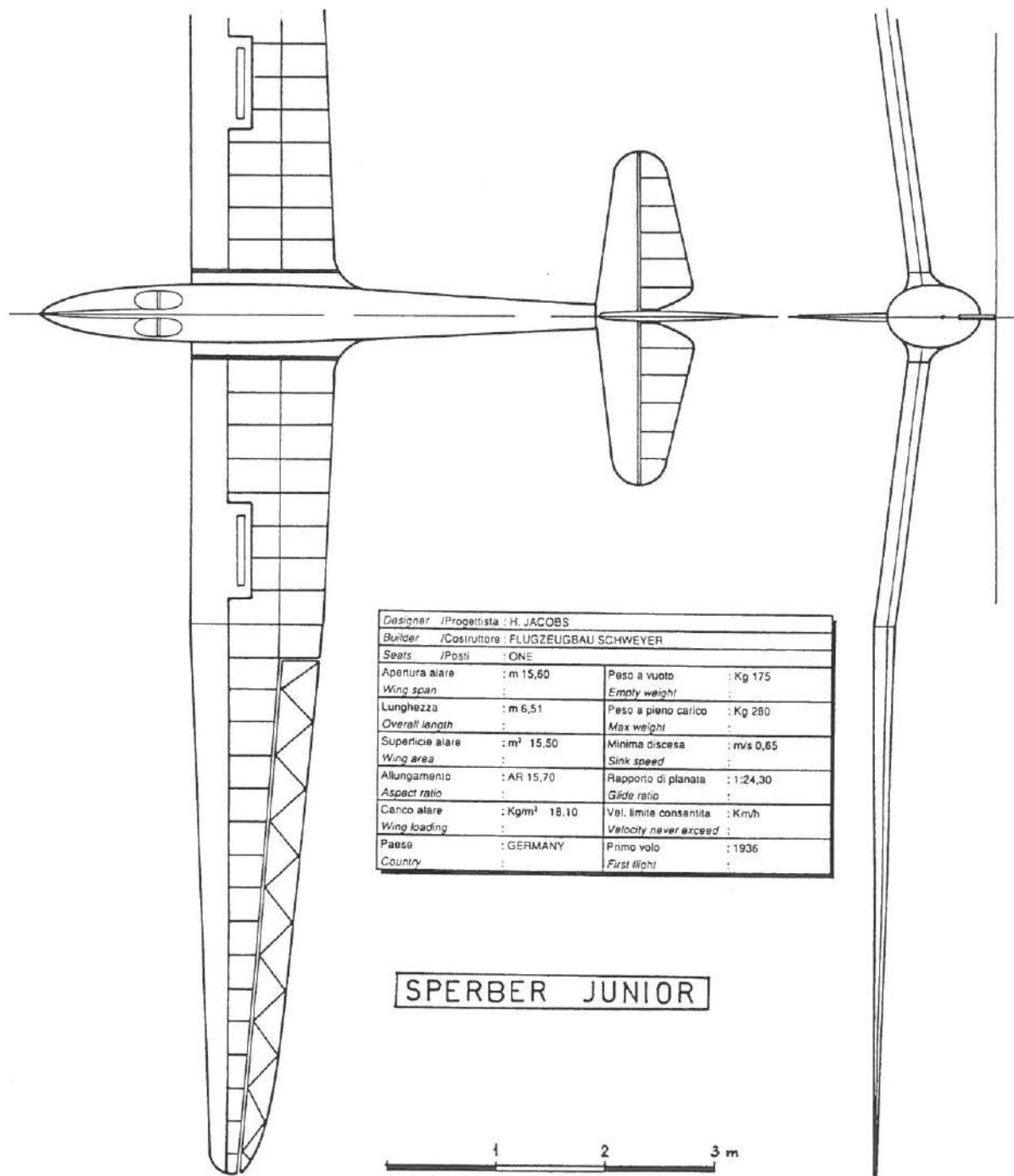
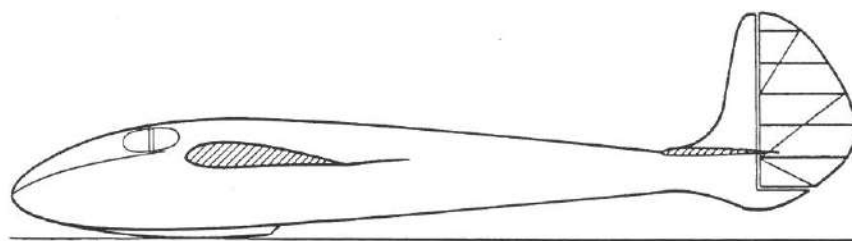


Designer / Progettista	REHBERG-SCHNEIDER - HOFMANN		
Builder / Costruttore	SCHLEICHER		
Seats / Posti	ONE		
Apertura alare	: m 10,41	Peso a vuoto	: Kg 100
Wing span	:	Empty weight	:
Lunghezza	: m 6,28	Peso a pieno carico	: Kg 190
Overall length	:	Max weight	:
Superficie alare	: m ² 16,42	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 6,5	Rapporto di planata	: 1:12
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 11,56	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1938
Country	:	First flight	:



S.G.-38

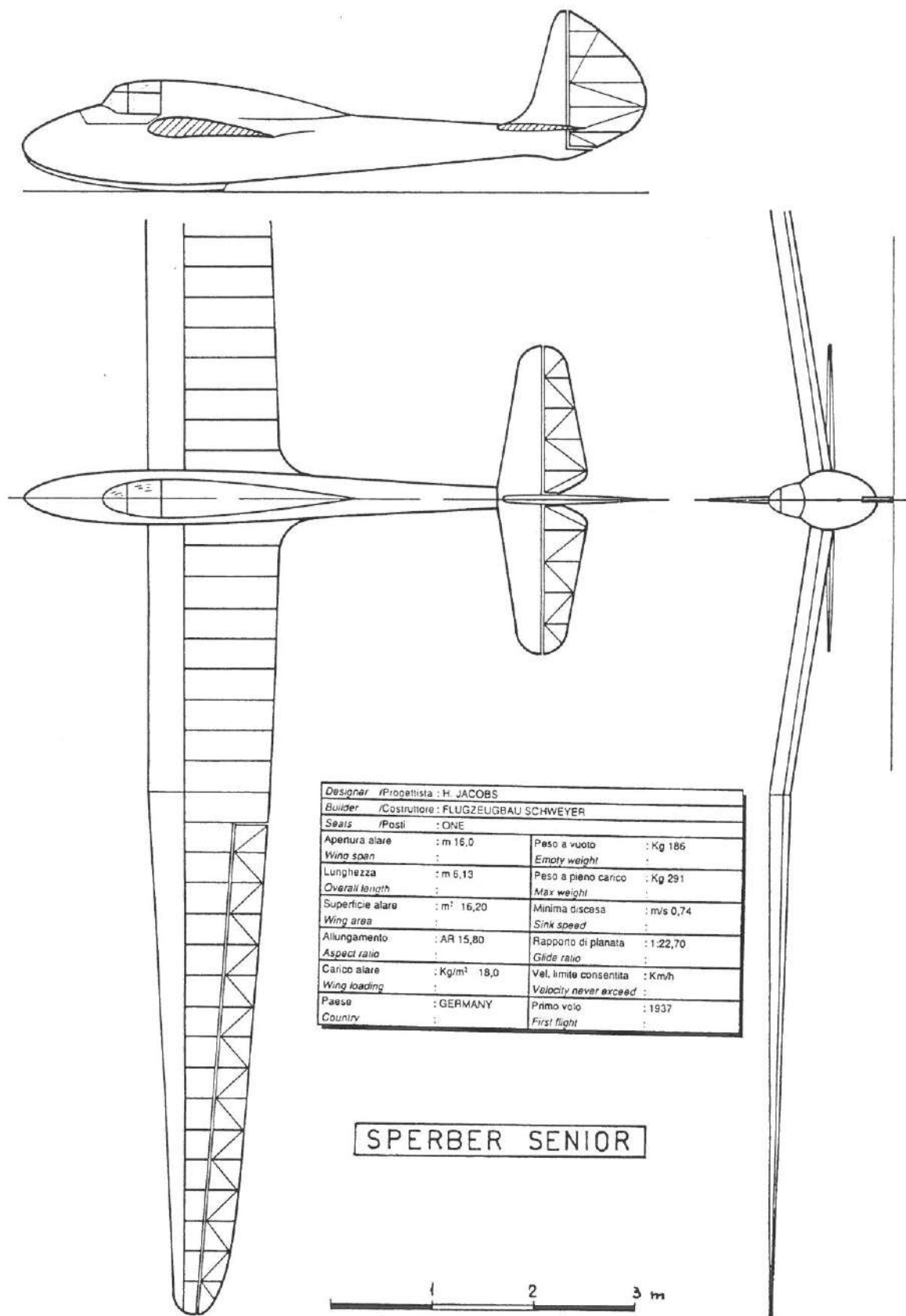


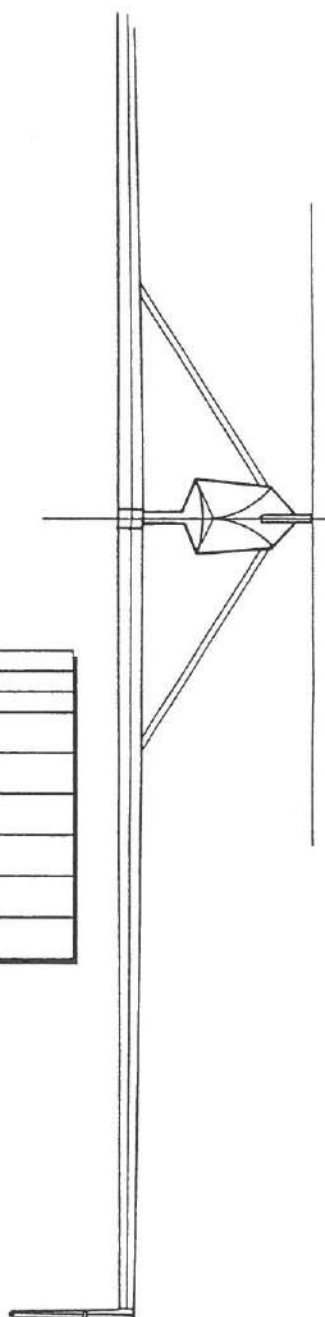
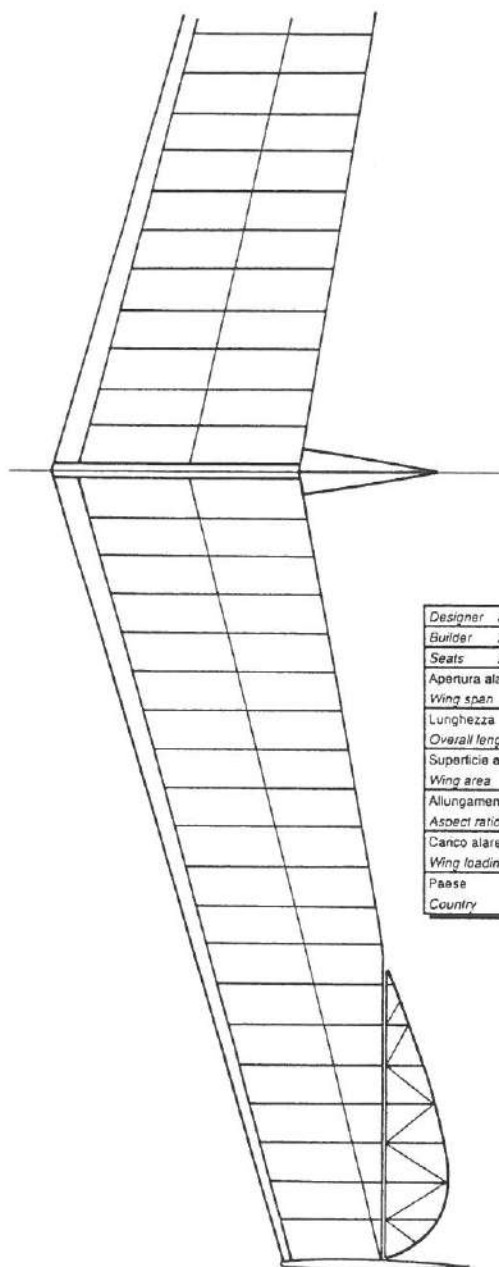
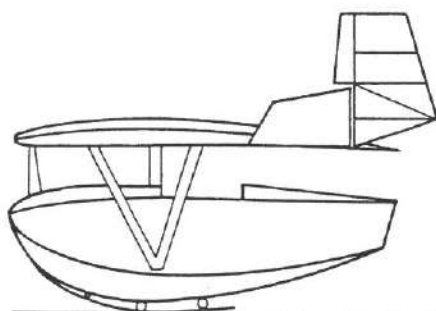


Designer / Progettista	: H. JACOBS		
Builder / Costruttore	: FLUGZEUGBAU SCHWEYER		
Seats / Posti	: ONE		
Apertura alare	: m 15,60	Peso a vuoto	: Kg 175
Wing span	:	Empty weight	:
Lunghezza	: m 6,51	Peso a pieno carico	: Kg 280
Overall length	:	Max weight	:
Superficie alare	: m ² 15,50	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 15,70	Rapporto di planata	: 1:24,30
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,10	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1936
Country	:	First flight	:

SPERBER JUNIOR

1 2 3 m

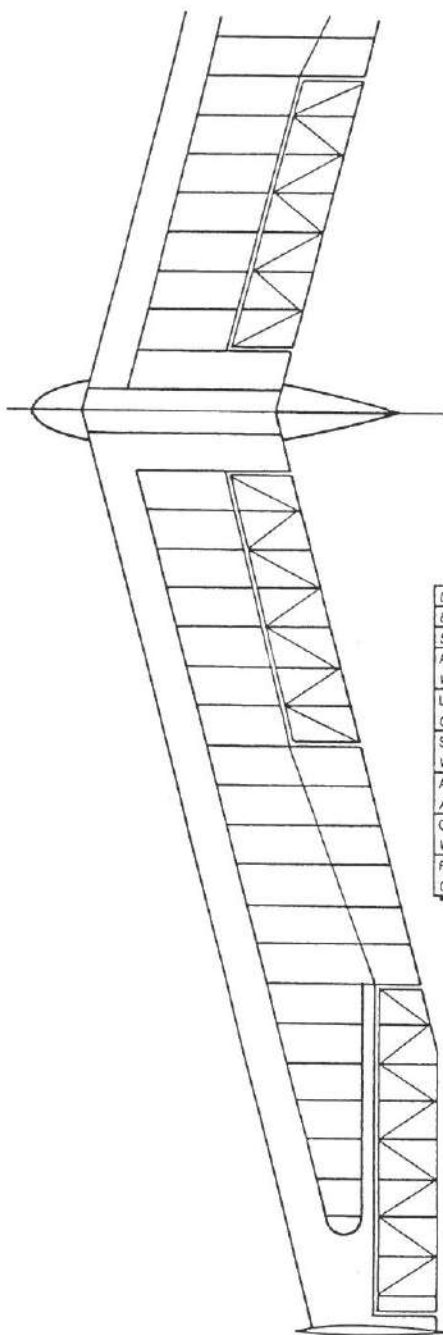
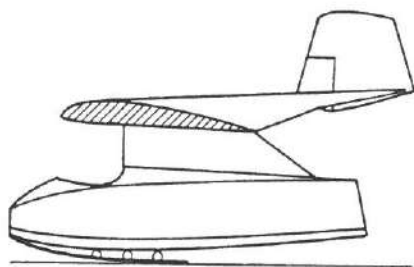




Designer /Progettista : A. LIPPISCH			
Builder /Costruttore : RHÖN ROSSITTEN GESELLSCHAFT			
Seats /Posi : ONE			
Apertura alare	: m 12,20	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 2,95	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 18,66	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 7,97	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1926
Country	:	First flight	:

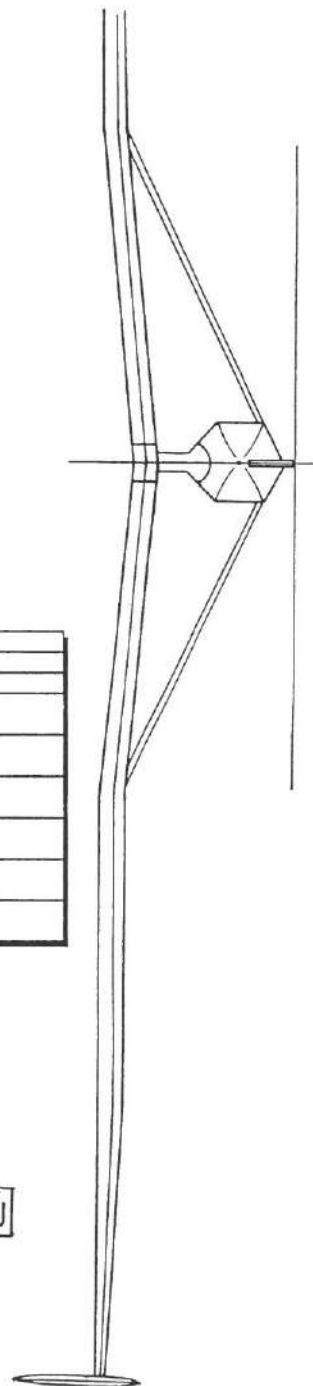
STORCH 4

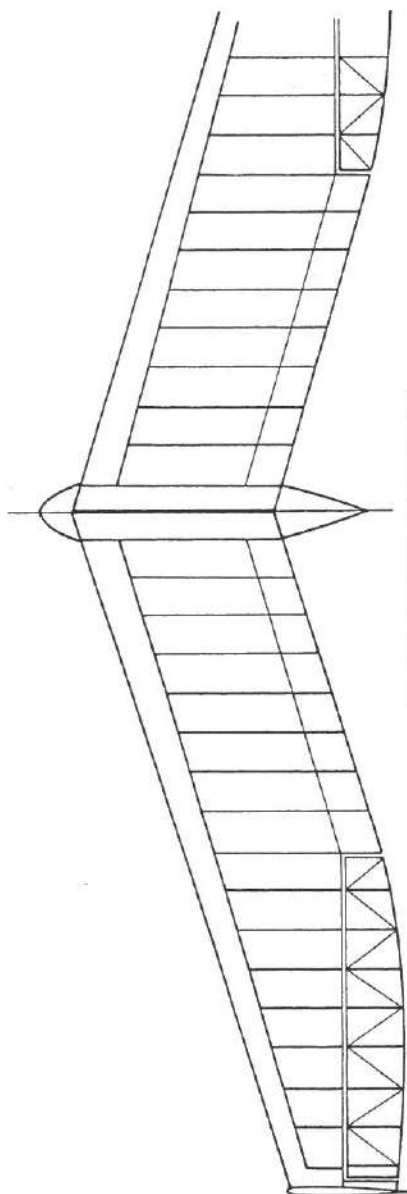
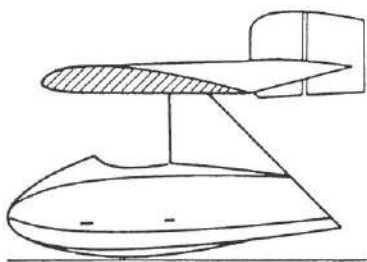




Designer /Progettista :	A. LIPPISCH	
Builder /Costruttore :	LIPPISCH - PHILLIPS	
Seats /Posti :	ONE	
Apertura alare :	m 14,00	Peso a vuoto : Kg
Wing span :		Empty weight :
Lunghezza :	m 3,15	Peso a pieno carico : Kg
Overall length :		Max weight :
Superficie alare :	m ² 15	Minima discesa : m/s
Wing area :		Sink speed :
Allungamento :	AR	Rapporto di planata : 1:
Aspect ratio :		Glide ratio :
Carico alare :	Kg/m ²	Vel. limite consentita : Km/h
Wing loading :		Velocity never exceed :
Paese :	GERMANY	Primo volo : 1932
Country :		First flight :

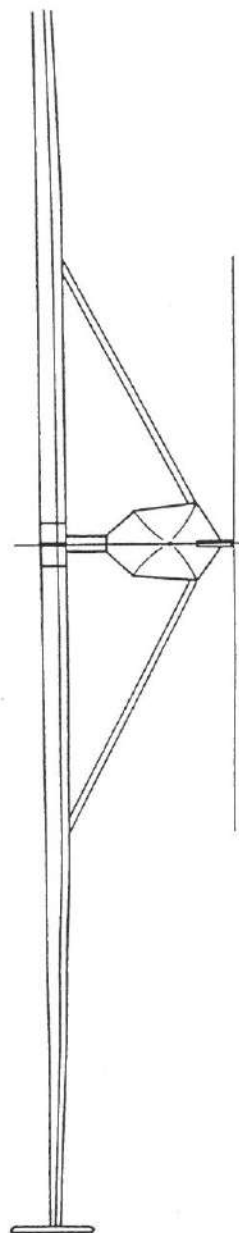
STORCH VIII - MARABÚ

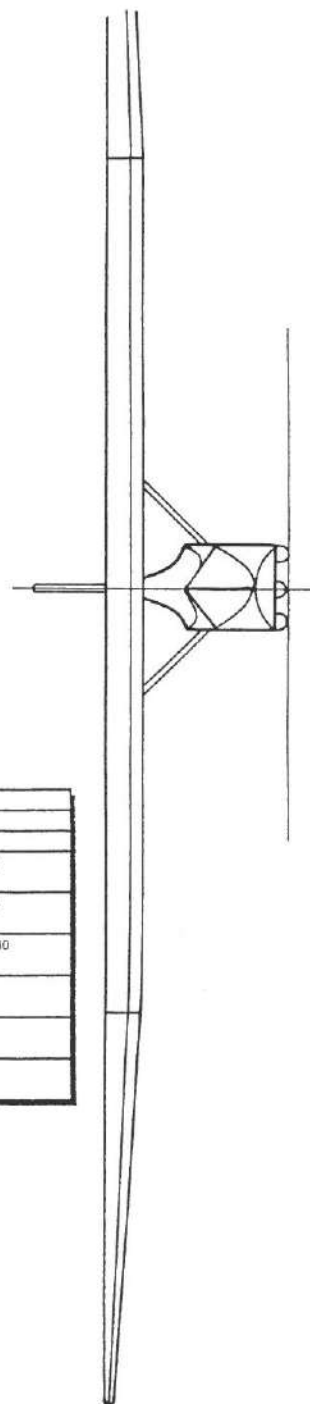
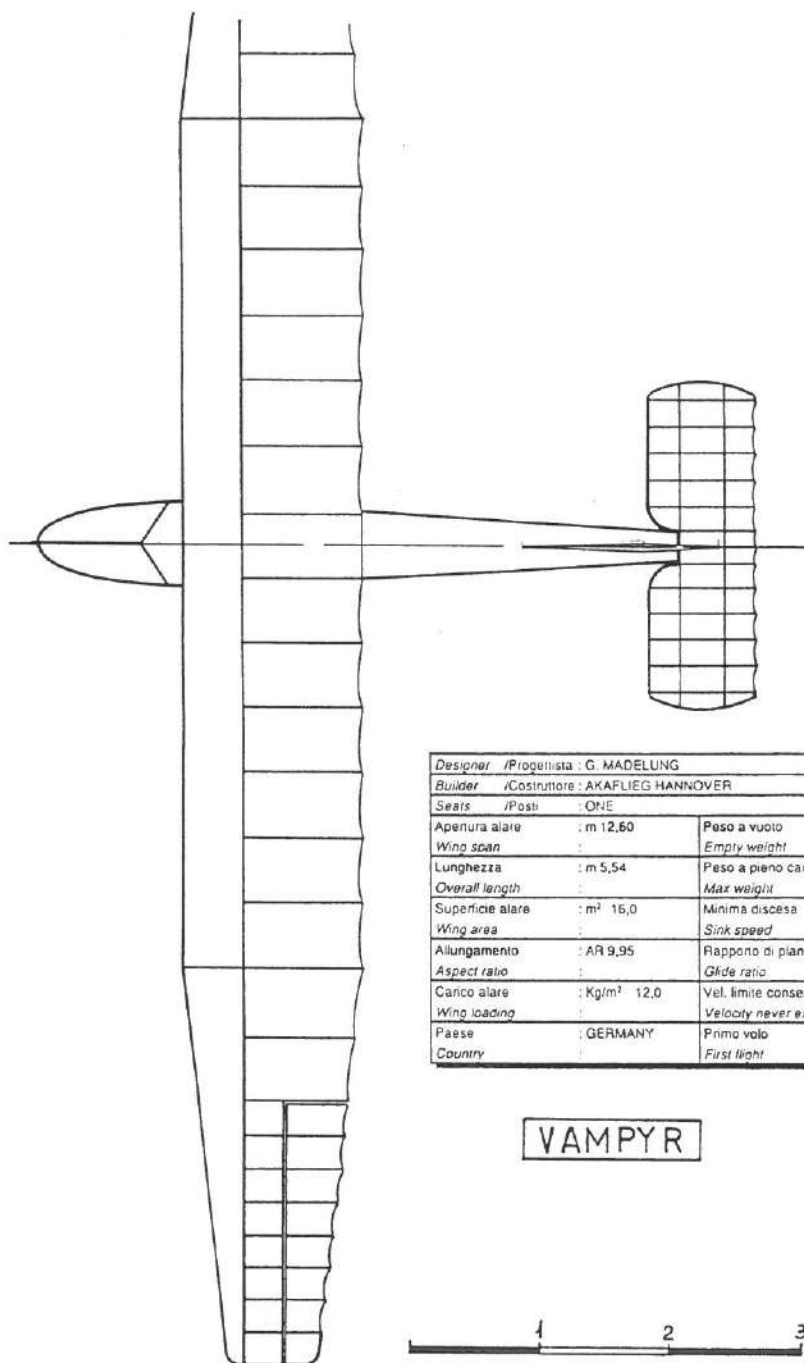
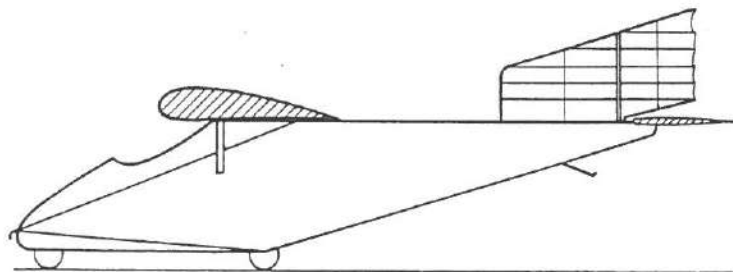




Designer / Progettista : A. LIPPISCH			
Builder / Costruttore : DFS			
Seats / Posti : ONE			
Apertura alare	: m 10,40	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 2,92	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 15,5	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1932
Country	:	First flight	:

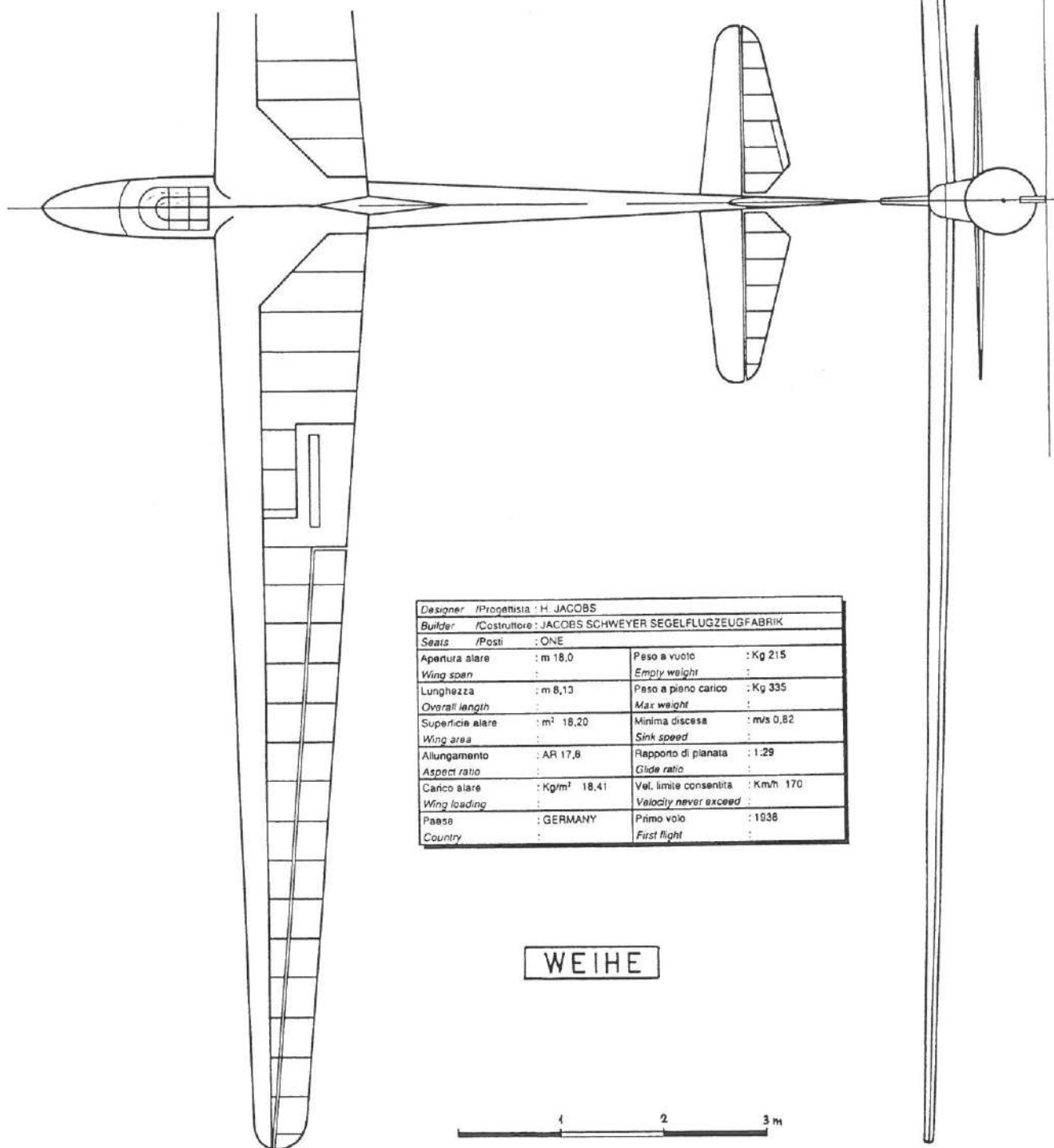
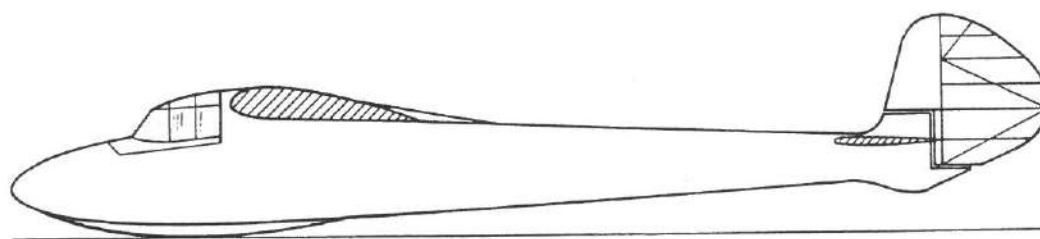
STORCH IXa





Designer / Progettista	G. MADELUNG		
Builder / Costruttore	AKAFLIEG HANNOVER		
Seats / Posti	ONE		
Apertura alare	: m 12,60	Peso a vuoto	: Kg 120
Wing span	:	Empty weight	:
Lunghezza	: m 5,54	Peso a pieno carico	: Kg 195
Overall length	:	Max weight	:
Superficie alare	: m ² 16,0	Minima discesa	: m/s 0,80
Wing area	:	Sink speed	:
Allungamento	: AR 9,95	Rapporto di planata	: 1:17
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 12,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1921
Country	:	First flight	:

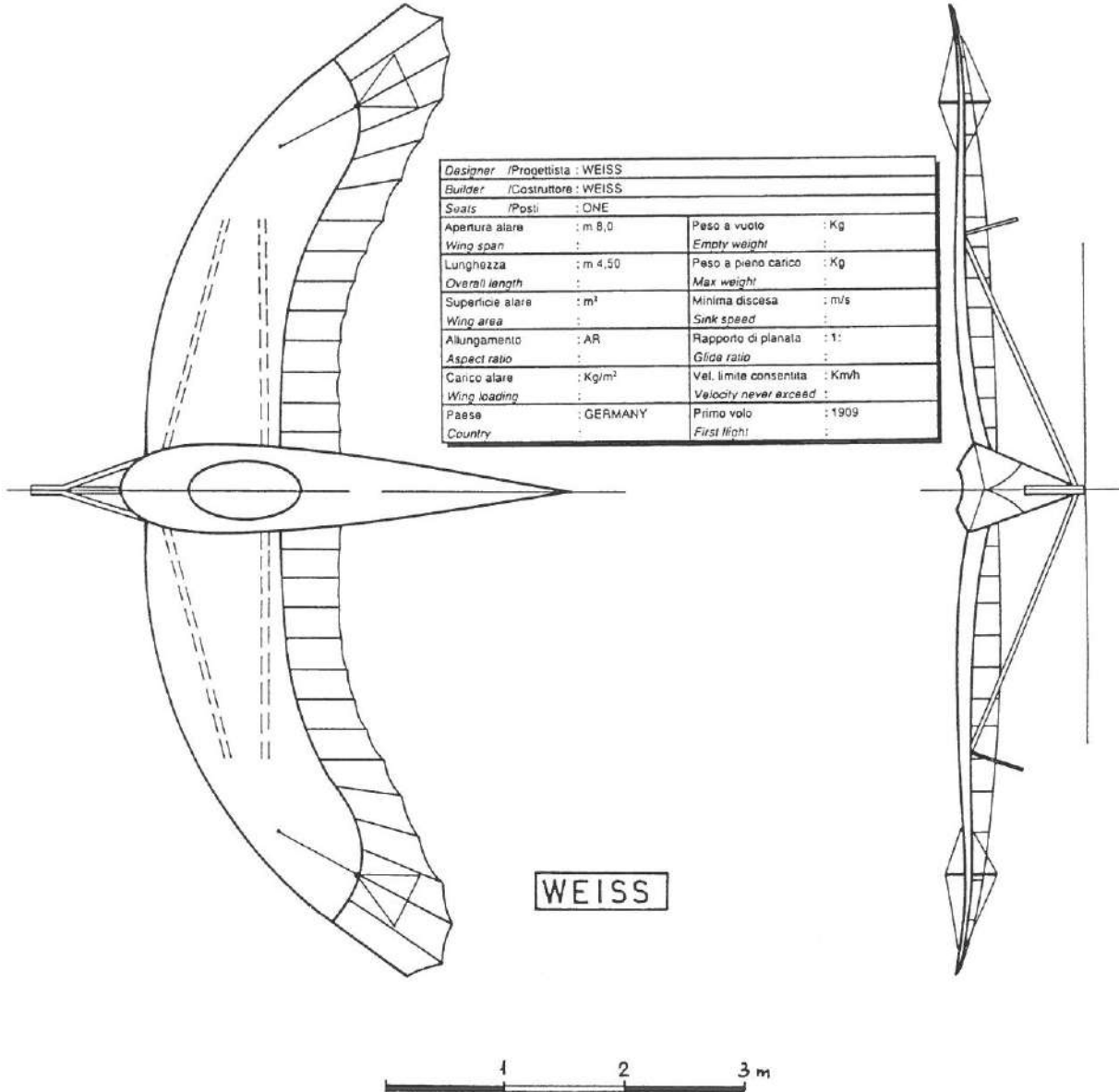
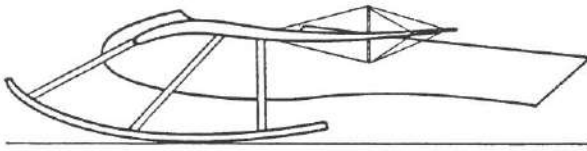
VAMPYR

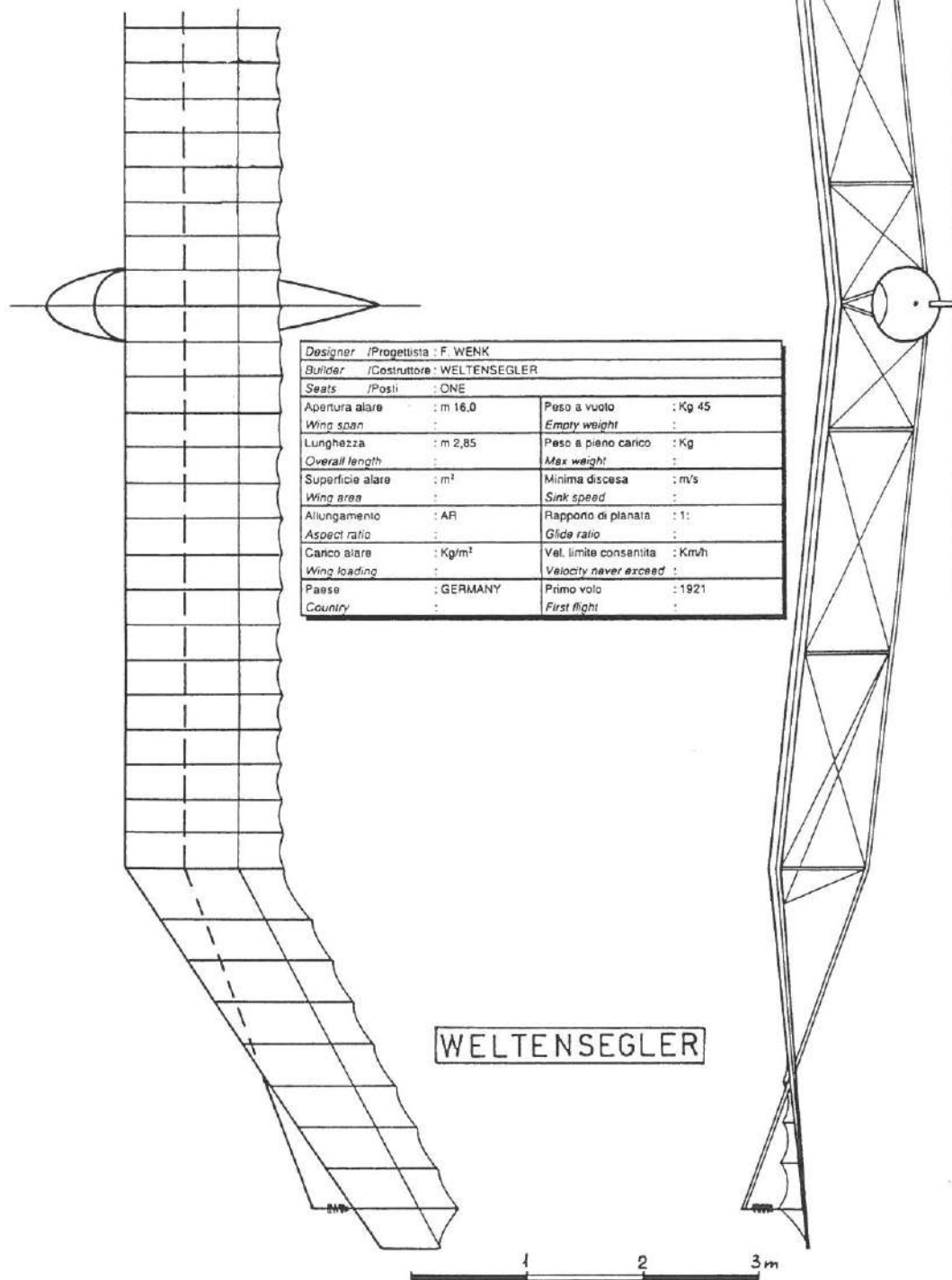
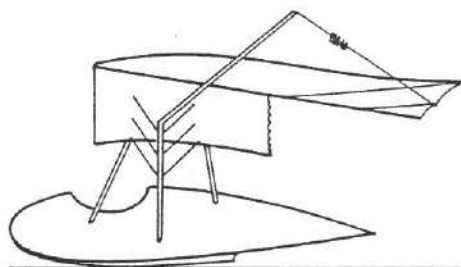


Designer / Progettista : H. JACOBS			
Builder / Costruttore : JACOBS SCHWEYER SEGELFLUGZEUGFABRIK			
Seats / Posti : ONE			
Apertura alare	: m 18,0	Peso a vuoto	: Kg 215
Wing span	:	Empty weight	:
Lunghezza	: m 8,13	Peso a pieno carico	: Kg 335
Overall length	:	Max weight	:
Superficie alare	: m ² 18,20	Minima discesa	: m/s 0,82
Wing area	:	Sink speed	:
Allungamento	: AR 17,6	Rapporto di planata	: 1.29
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,41	Vel. limite consentita	: Km/h 170
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1938
Country	:	First flight	:

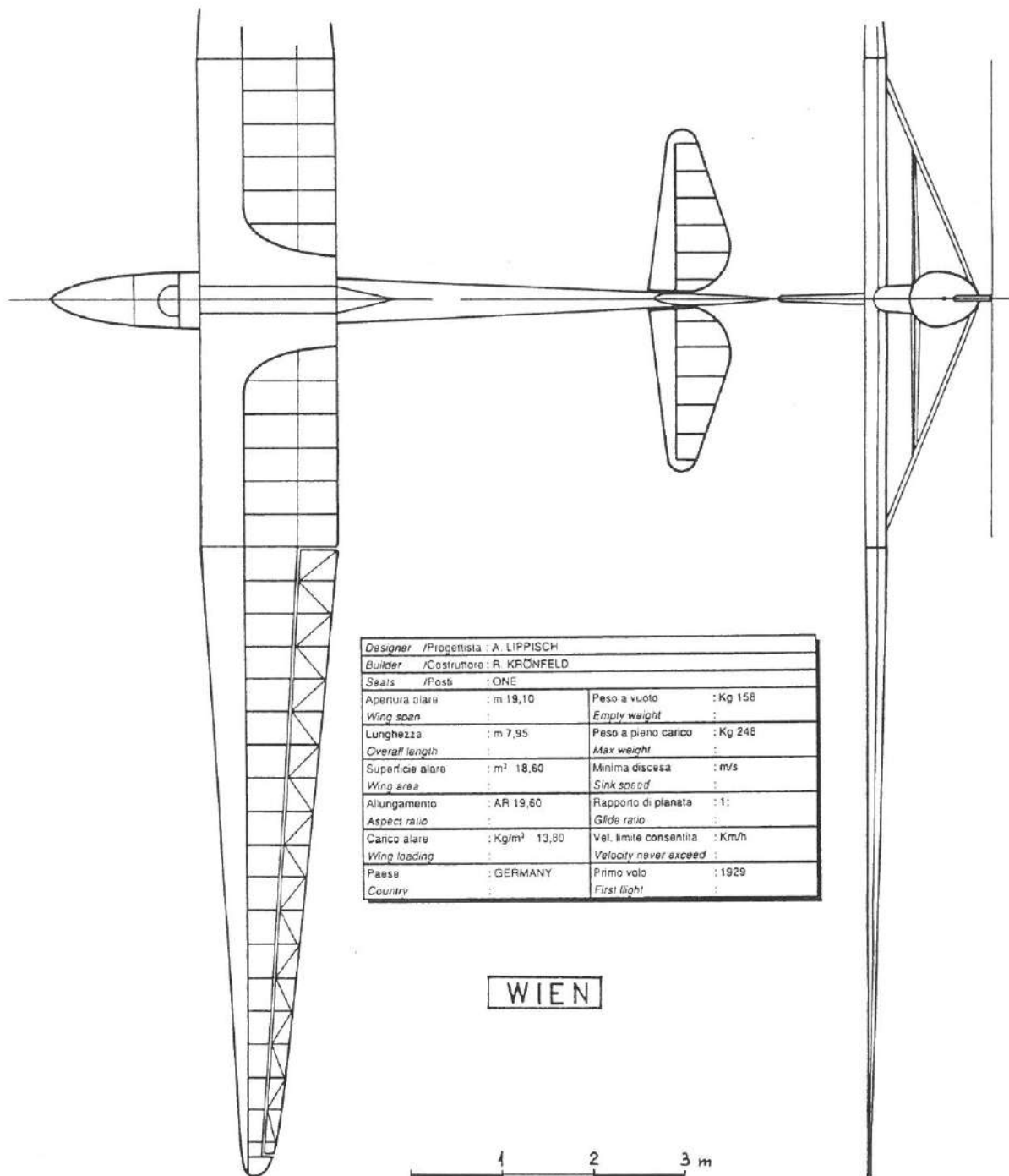
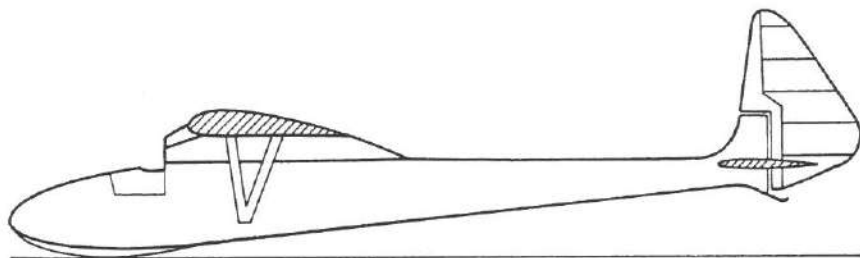
WEIHE

1 2 3 m





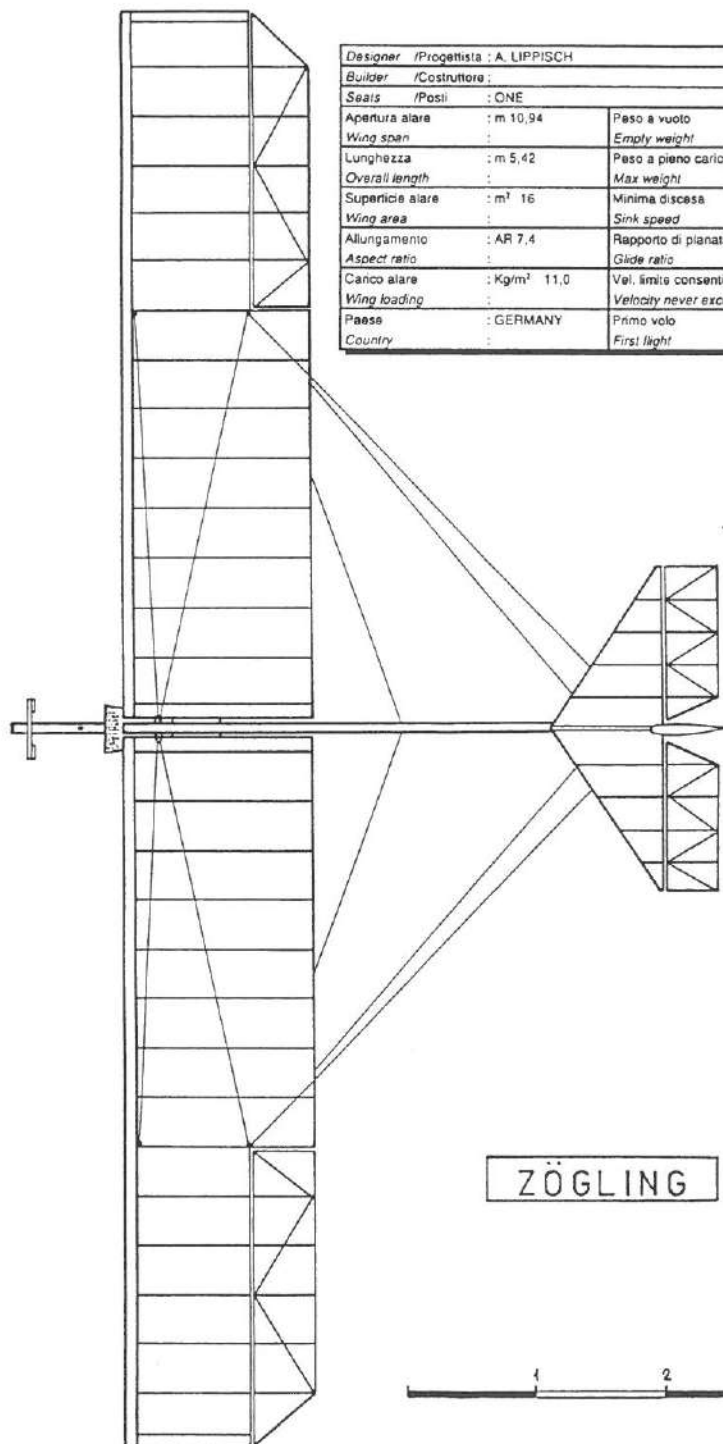
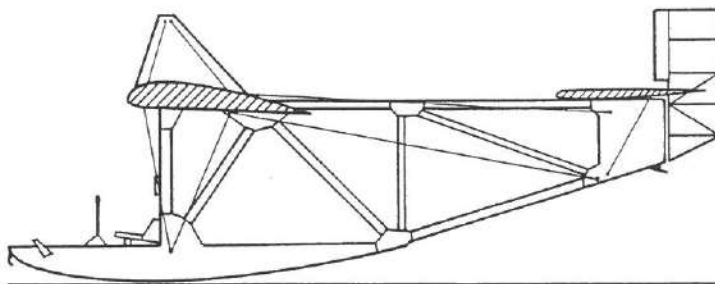
Designer /Progettista : F. WENK				
Builder /Costruttore : WELTENSEGLER				
Seats /Posti : ONE				
Apertura alare		: m 16,0	Peso a vuoto	: Kg 45
Wing span		:	Empty weight	:
Lunghezza		: m 2,85	Peso a pieno carico	: Kg
Overall length		:	Max weight	:
Superficie alare		: m ²	Minima discesa	: m/s
Wing area		:	Sink speed	:
Allungamento		: AR	Rapporto di planata	: 1:
Aspect ratio		:	Glide ratio	:
Carico alare		: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading		:	Velocity never exceed	:
Paese		: GERMANY	Primo volo	: 1921
Country		:	First flight	:



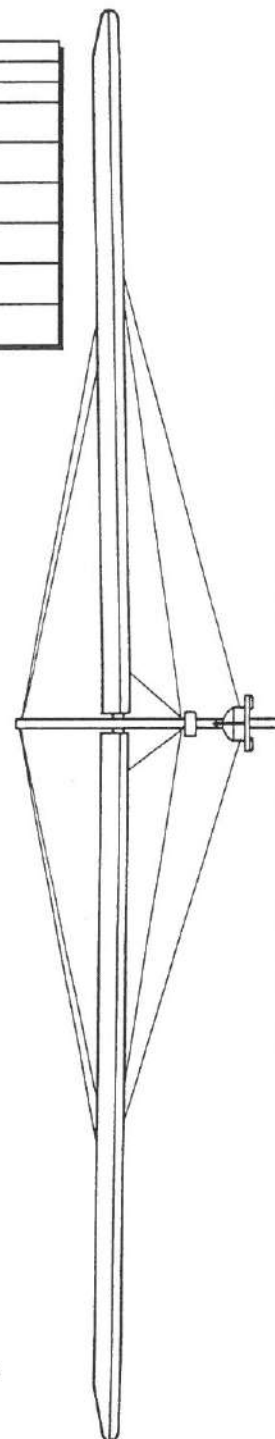
Designer /Progettista : A. LIPPISCH			
Builder /Costruttore : R. KRÖNFELD			
Seals /Posti : ONE			
Apertura alare	: m 19,10	Peso a vuoto	: Kg 158
Wing span	:	Empty weight	:
Lunghezza	: m 7,95	Peso a pieno carico	: Kg 248
Overall length	:	Max weight	:
Superficie alare	: m ² 18,60	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 19,60	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 13,80	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1929
Country	:	First flight	:

WIEN

1 2 3 m

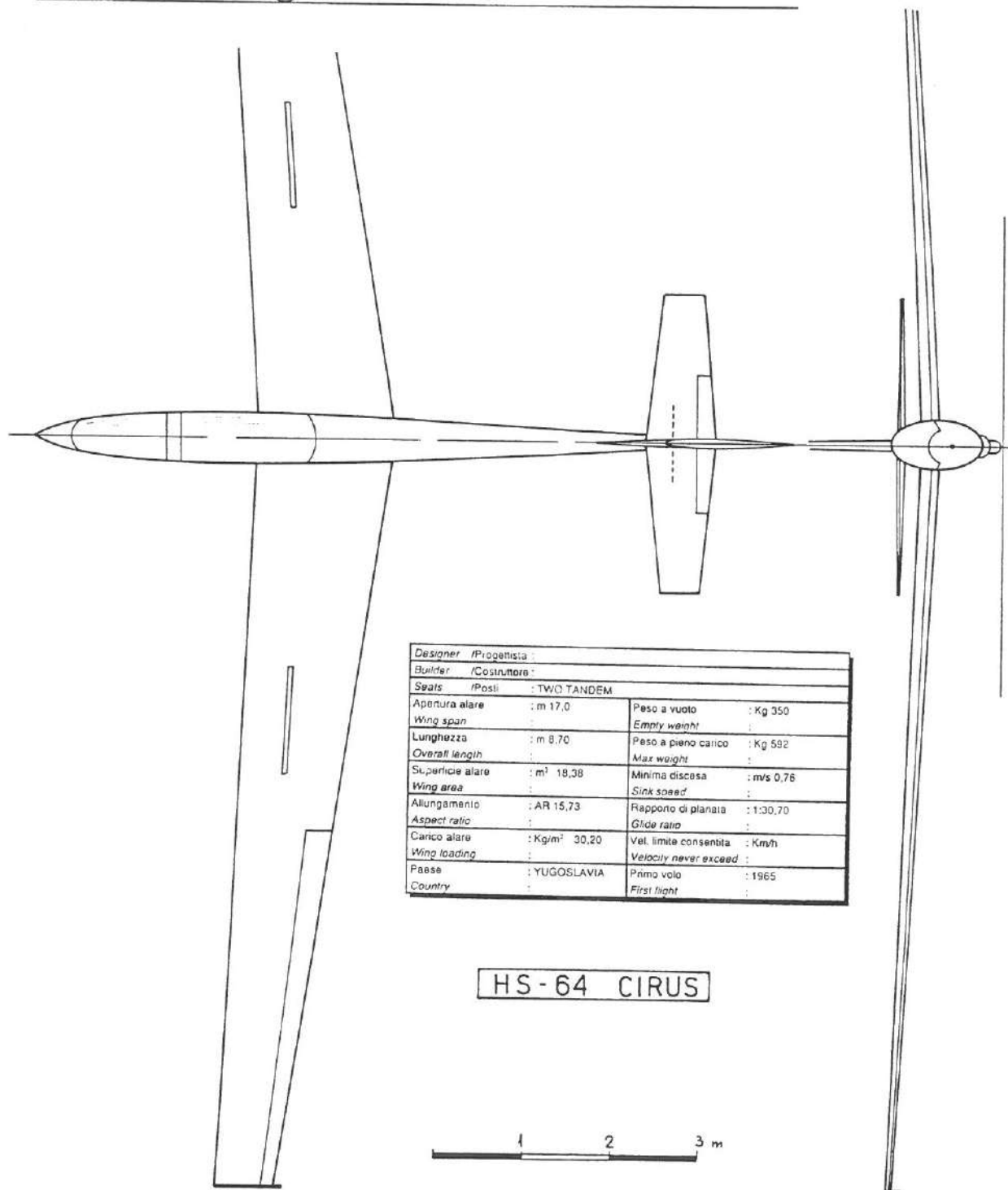
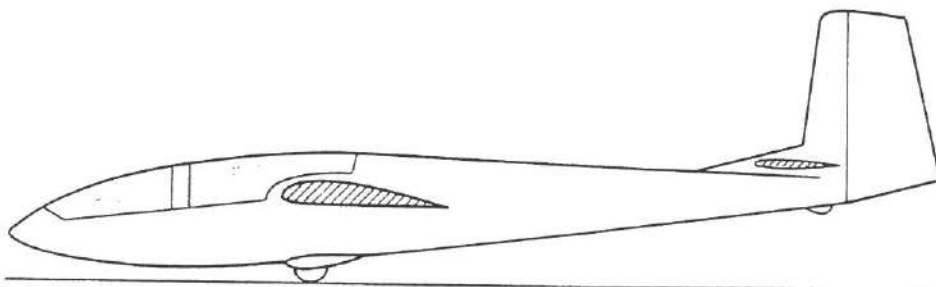


Designer /Progettista : A. LIPPISCH			
Builder /Costruttore :			
Seats /Posti :		ONE	
Apertura alare	: m 10,94	Peso a vuoto	: Kg 95
Wing span	:	Empty weight	:
Lunghezza	: m 5,42	Peso a pieno carico	: Kg 175
Overall length	:	Max weight	:
Superficie alare	: m ² 16	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 7,4	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 11,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1930
Country	:	First flight	:



ZÖGLING

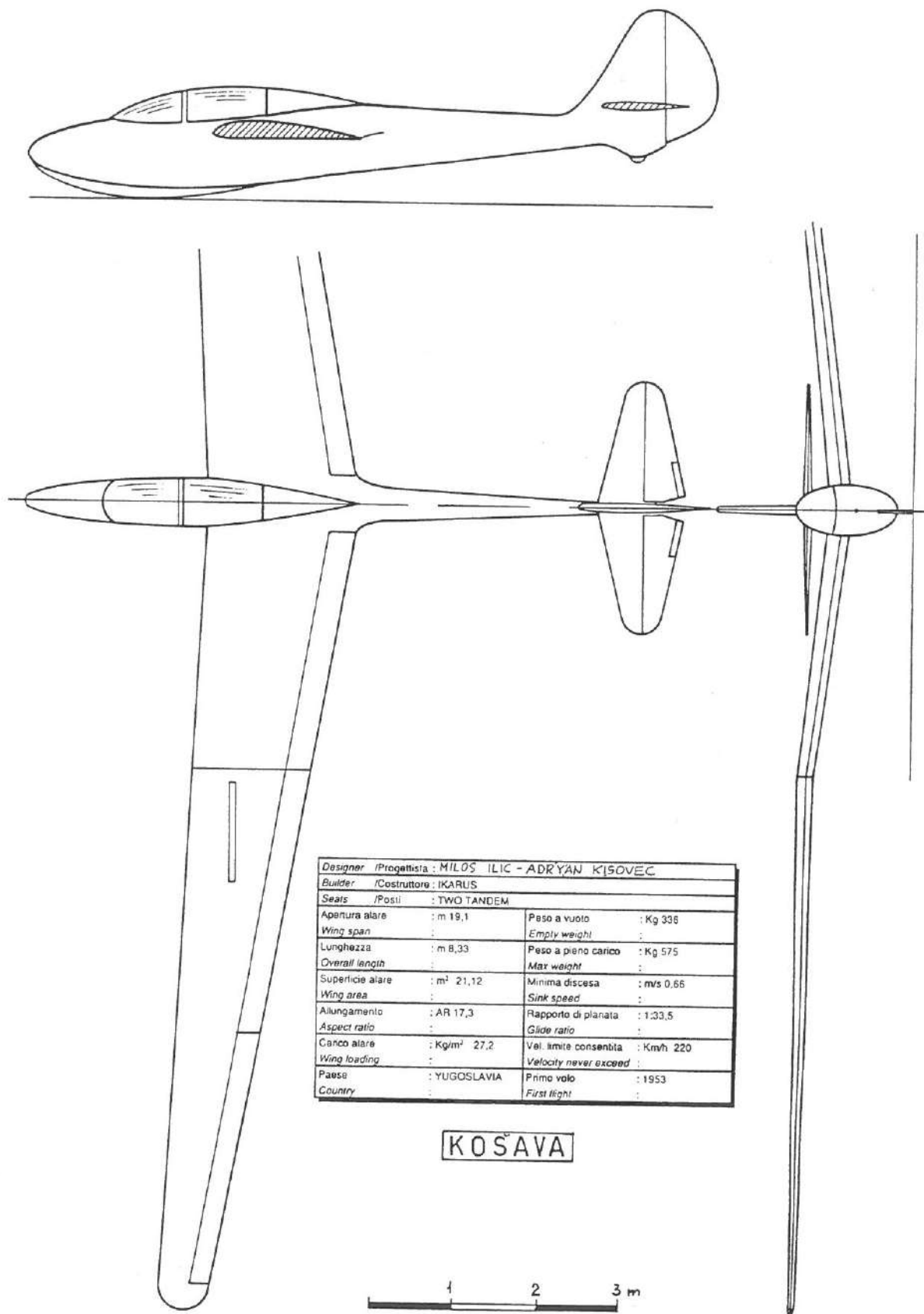




Designer /Progettista :			
Builder /Costruttore :			
Seats /Posti :	TWO TANDEM		
Apertura alare :	m 17,0	Peso a vuoto :	Kg 350
Wing span :		Empty weight :	
Lunghezza :	m 8,70	Peso a pieno carico :	Kg 592
Overall length :		Max weight :	
Superficie alare :	m ² 18,38	Minima discesa :	m/s 0,76
Wing area :		Sink speed :	
Allungamento :	AR 15,73	Rapporto di planata :	1:30,70
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 30,20	Vel. limite consentita :	Km/h
Wing loading :		Velocity never exceed :	
Paese :	YUGOSLAVIA	Primo volo :	1965
Country :		First flight :	

HS-64 CIRUS

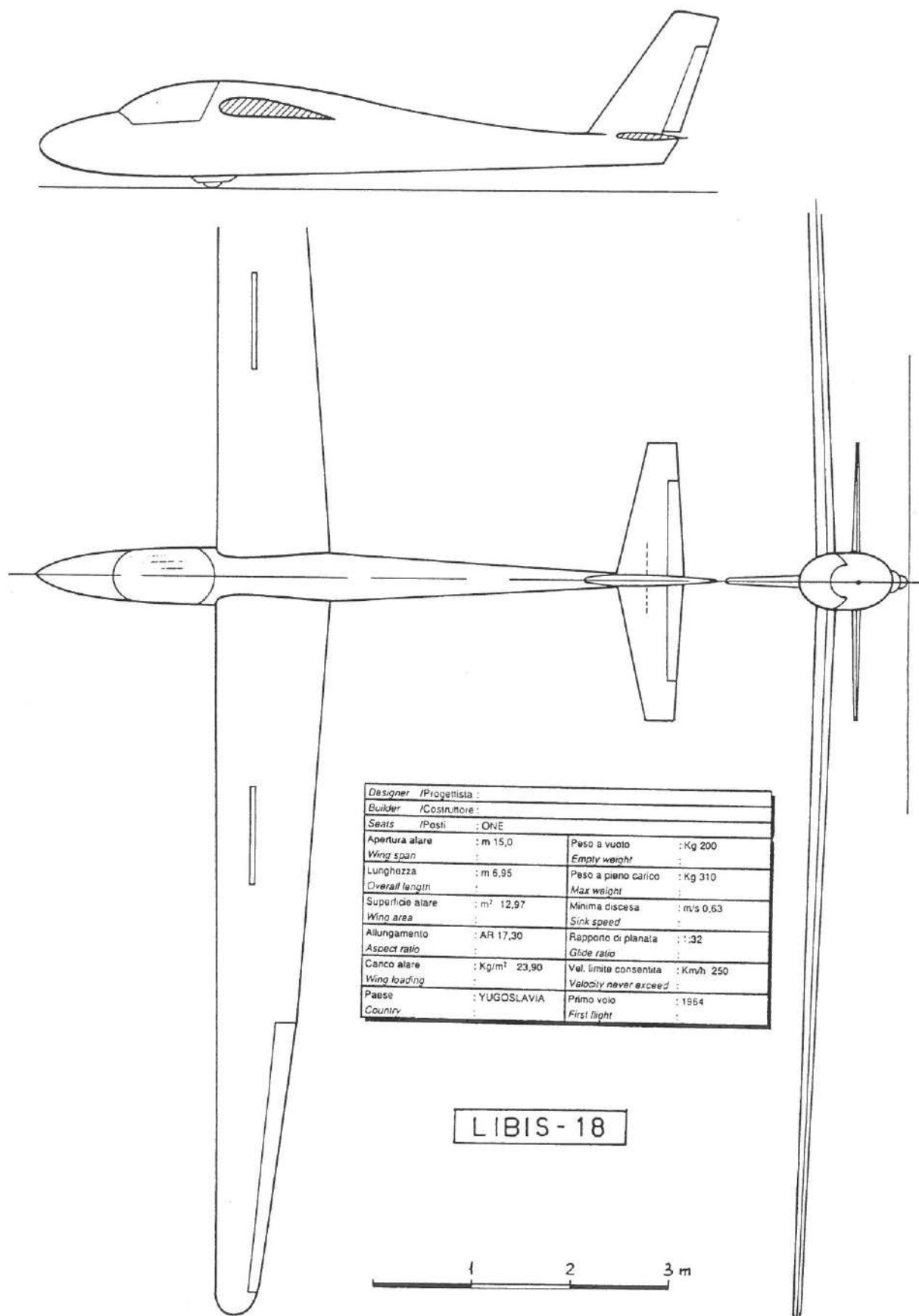
1 2 3 m



Designer / Progettista	MILOŠ ILIĆ - ADRIJAN KISOVEC		
Builder / Costruttore	IKARUS		
Seats / Positi	TWO TANDEM		
Apertura alare	: m 19,1	Peso a vuoto	: Kg 338
Wing span	:	Empty weight	:
Lunghezza	: m 8,33	Peso a pieno carico	: Kg 575
Overall length	:	Max weight	:
Superficie alare	: m ² 21,12	Minima discesa	: m/s 0,66
Wing area	:	Sink speed	:
Allungamento	: AR 17,3	Rapporto di planata	: 1:33,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,2	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: YUGOSLAVIA	Primo volo	: 1953
Country	:	First flight	:

KOSAVA

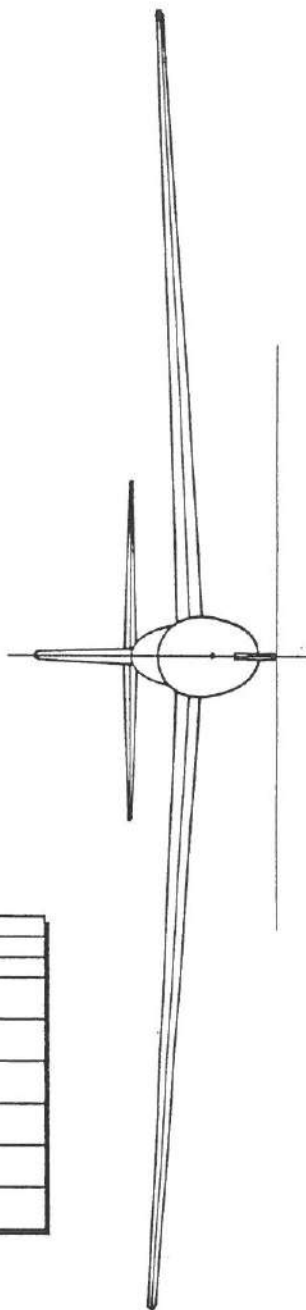
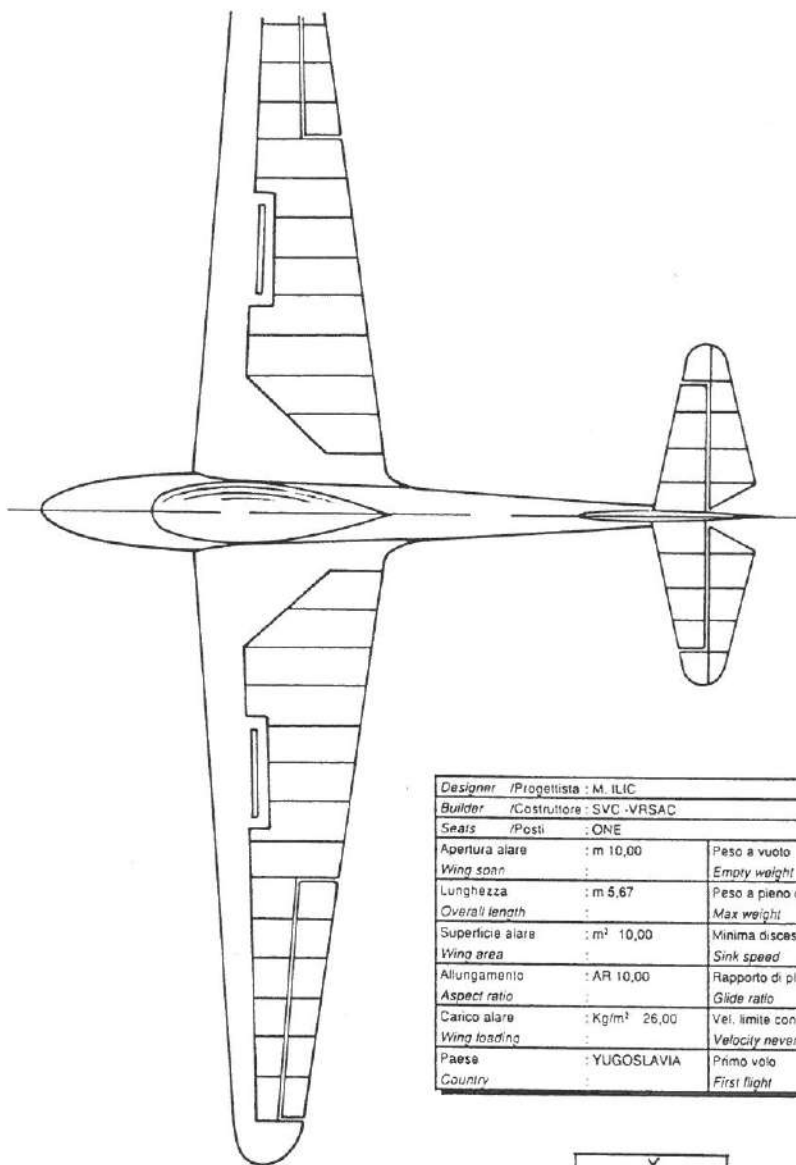
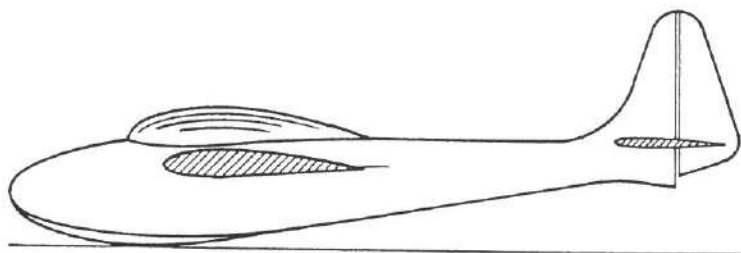




Designer / Progettista :		
Builder / Costruttore :		
Seats / Posti :	ONE	
Apertura alare :	m 15,0	Peso a vuoto : Kg 200
Wing span :		Empty weight :
Lunghezza :	m 6,95	Peso a pieno carico : Kg 310
Overall length :		Max weight :
Superficie alare :	m ² 12,97	Minima discesa : m/s 0,63
Wing area :		Sink speed :
Allungamento :	AR 17,30	Rapporto di planata : 1:32
Aspect ratio :		Glide ratio :
Canco alare :	Kg/m ³ 23,90	Vel. limite consentita : Km/h 250
Wing loading :		Velocity never exceed :
Paese :	YUGOSLAVIA	Primo volo : 1954
Country :		First flight :

LIBIS - 18

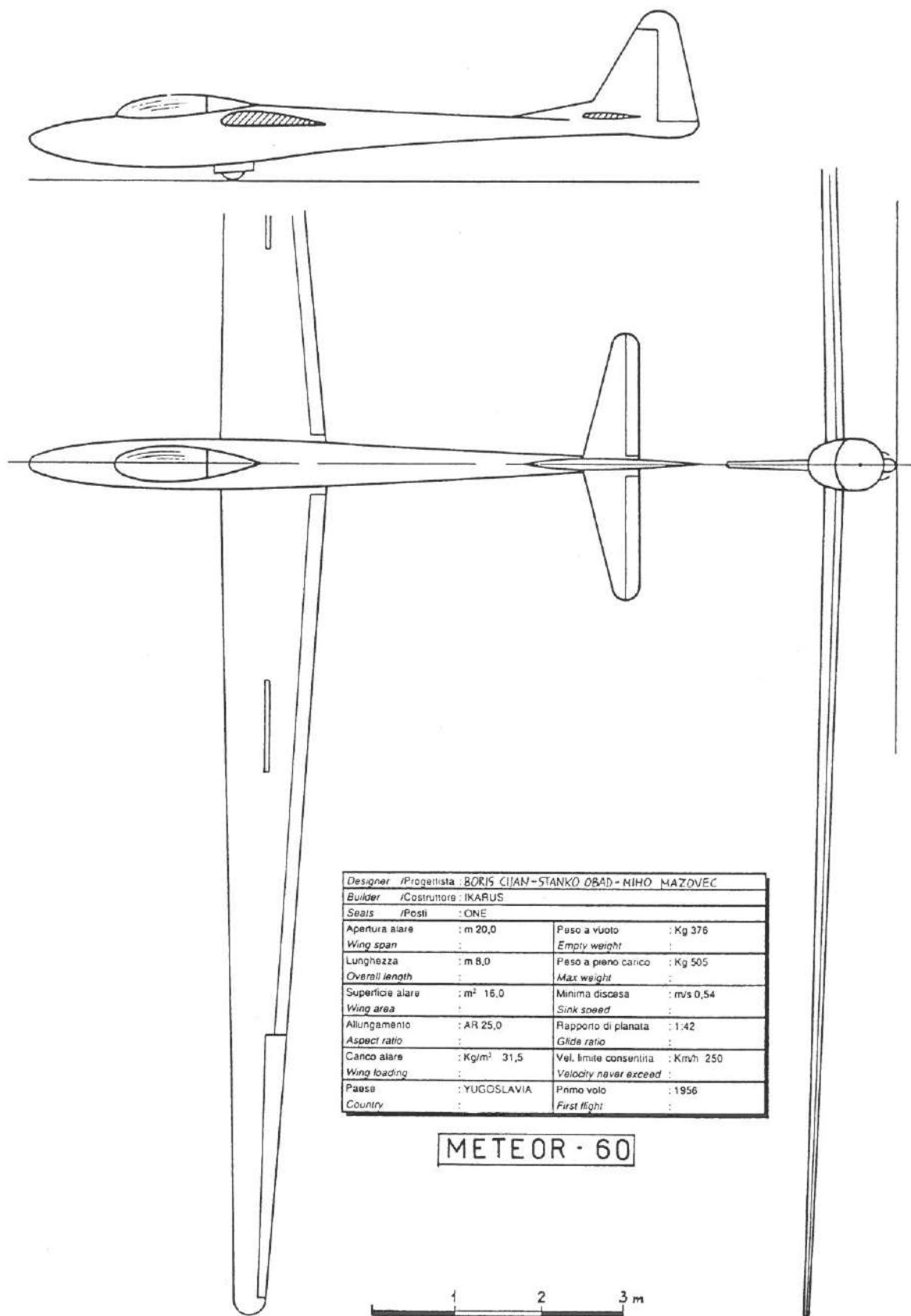
1 2 3 m



Designer / Progettista	: M. ILIC		
Builder / Costruttore	: SVC - VRSAC		
Seats / Posti	: ONE		
Apertura alare	: m 10,00	Peso a vuoto	: Kg 157
Wing span	:	Empty weight	:
Lunghezza	: m 5,67	Peso a pieno carico	: Kg 240
Overall length	:	Max weight	:
Superficie alare	: m ² 10,00	Minima discesa	: m/s 0,98
Wing area	:	Sink speed	:
Allungamento	: AR 10,00	Rapporto di planata	: 1,21,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,00	Vel. limite consentita	: Km/h 450
Wing loading	:	Velocity never exceed	:
Paese	: YUGOSLAVIA	Primo volo	: 1953
Country	:	First flight	:

MAČKA

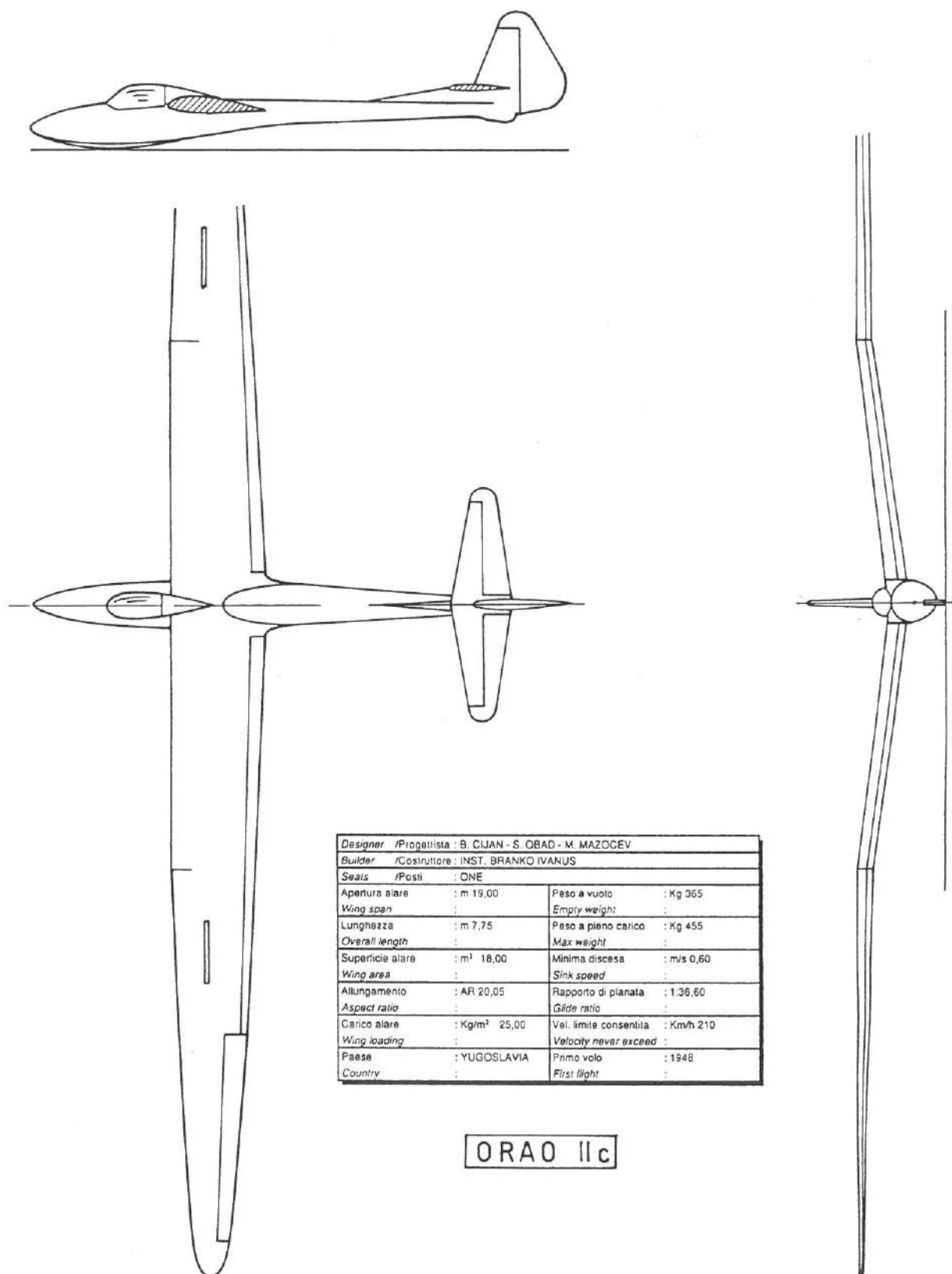




Designer /Progettista	BORIS CIGAN-STANKO OBAD - MIHO HAZOVEC		
Builder /Costruttore	IKARUS		
Seats /Posti	ONE		
Apertura alare	: m 20,0	Peso a vuoto	: Kg 376
Wing span	:	Empty weight	:
Lunghezza	: m 8,0	Peso a pieno carico	: Kg 505
Overall length	:	Max weight	:
Superficie alare	: m ² 16,0	Minima discesa	: m/s 0,54
Wing area	:	Sink speed	:
Allungamento	: AR 25,0	Rapporto di planata	: 1:42
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 31,5	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: YUGOSLAVIA	Primo volo	: 1956
Country	:	First flight	:

METEOR - 60

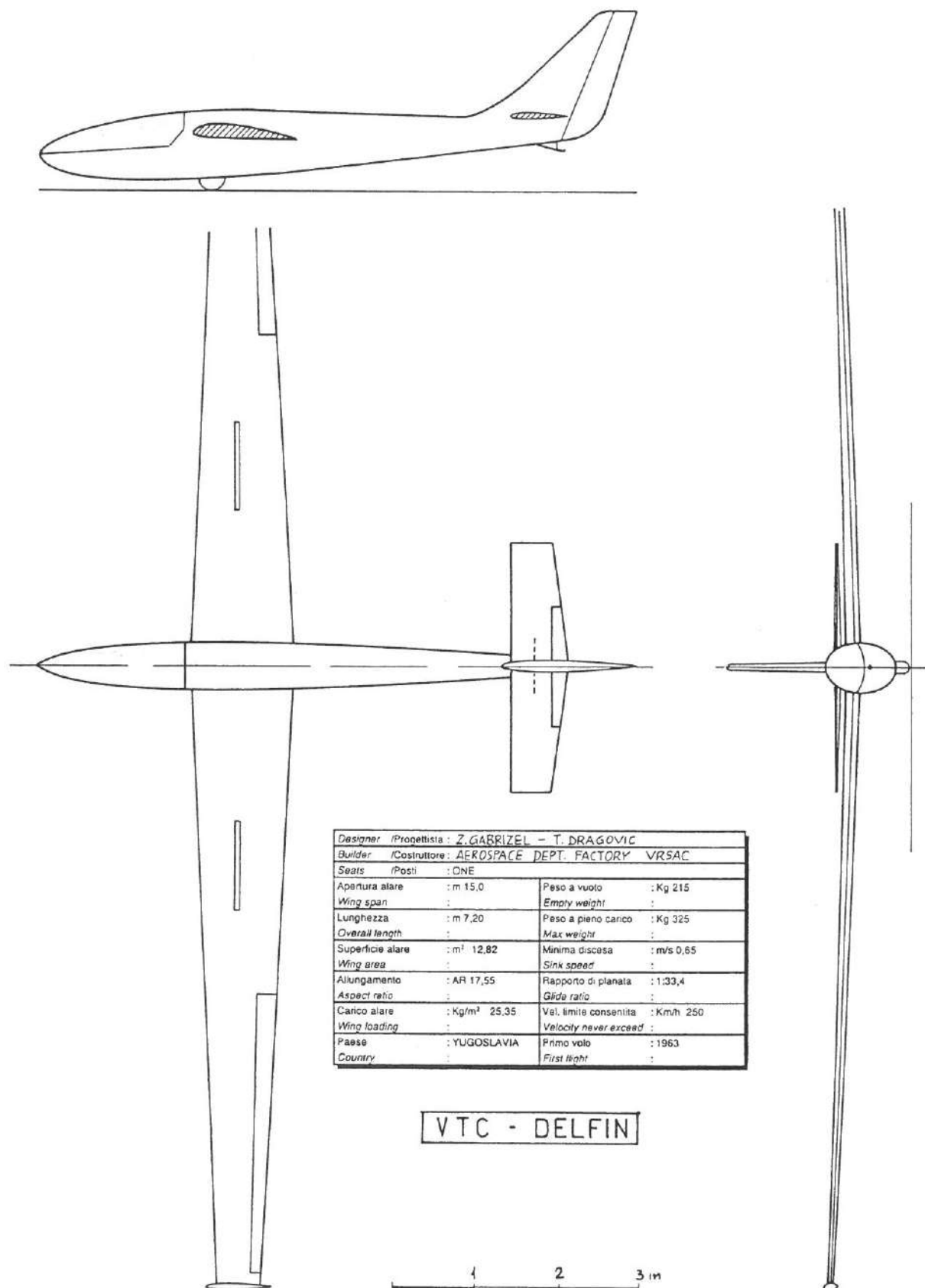
1 2 3 m



<i>Designer /Progettista</i> : B. CIJAN - S. OBAD - M. MAZOCEV			
<i>Builder /Costruttore</i> : INST. BRANKO IVANUS			
<i>Seats /Posti</i> : ONE			
<i>Apertura alare</i>	: m 19,00	<i>Peso a vuoto</i>	: Kg 365
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 7,75	<i>Peso a pieno carico</i>	: Kg 455
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 18,00	<i>Minima discesa</i>	: m/s 0,60
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 20,05	<i>Rapporto di planata</i>	: 1,36,60
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 25,00	<i>Vel. limite consentita</i>	: Km/h 210
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: YUGOSLAVIA	<i>Primo volo</i>	: 1948
<i>Country</i>	:	<i>First flight</i>	:

ORAO IIc

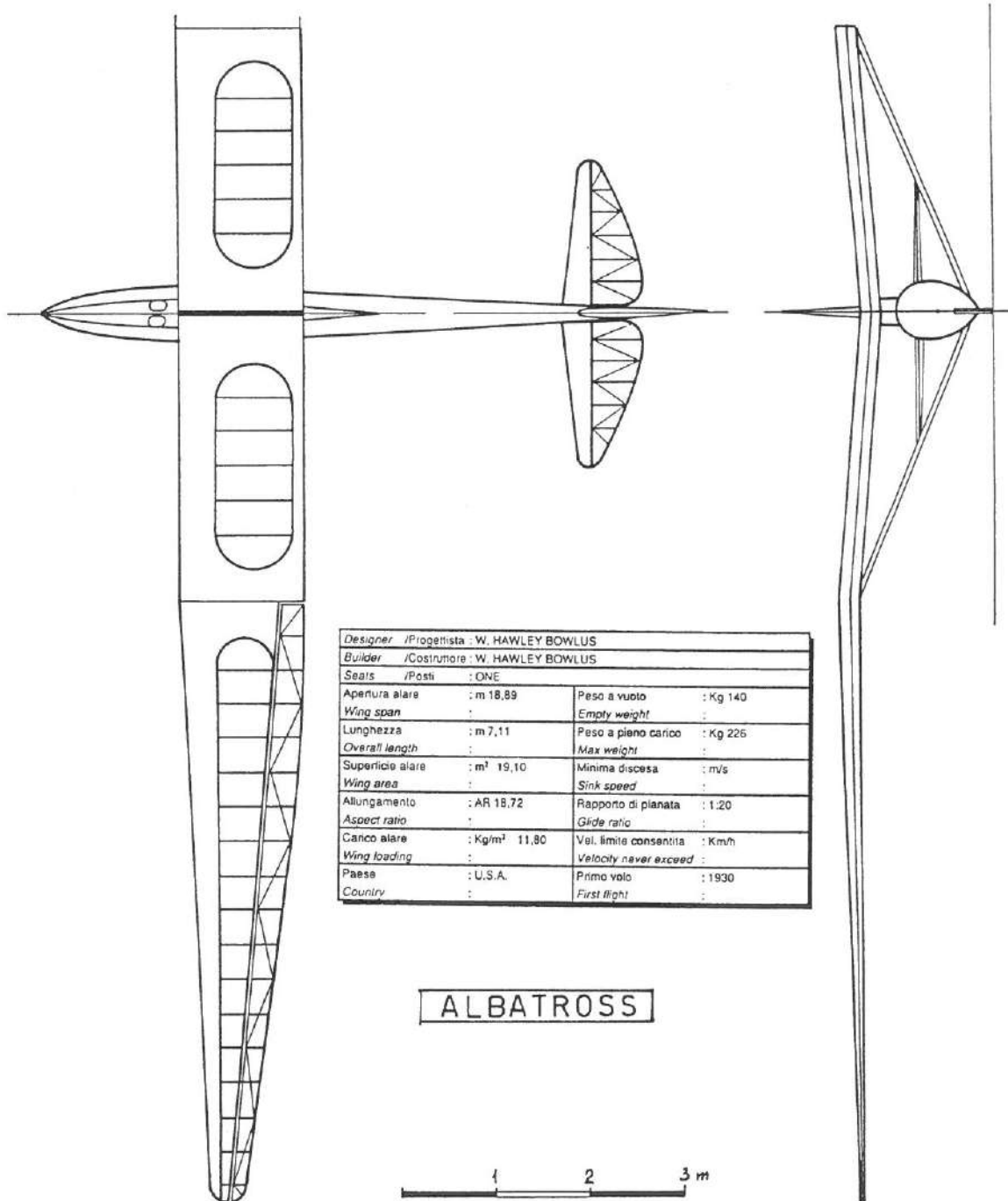
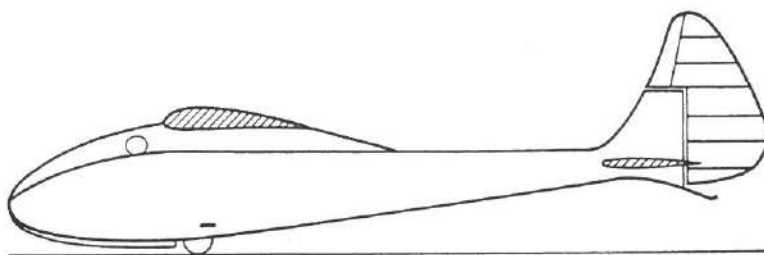




Designer / Progettista : Z. GABRIZEL - T. DRAGOVIC			
Builder / Costruttore : AEROSPACE DEPT. FACTORY VRSAC			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 215
Wing span	:	Empty weight	:
Lunghezza	: m 7,20	Peso a pieno carico	: Kg 325
Overall length	:	Max weight	:
Superficie alare	: m ² 12,82	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 17,55	Rapporto di planata	: 1:33,4
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 25,35	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: YUGOSLAVIA	Primo volo	: 1963
Country	:	First flight	:

VTC - DELFIN

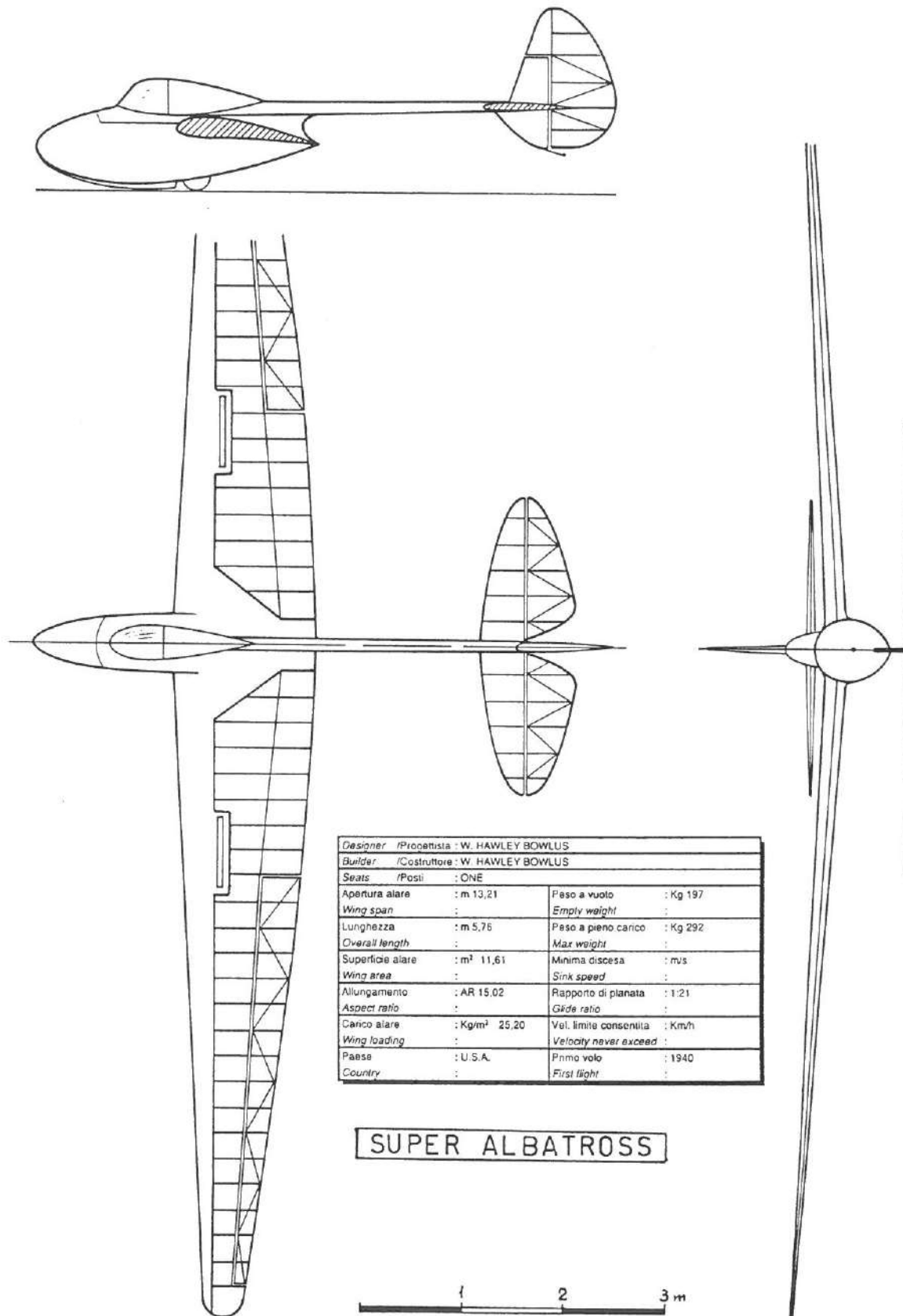
1 2 3 m



Designer / Progettista	W. HAWLEY BOWLUS		
Builder / Costruttore	W. HAWLEY BOWLUS		
Seats / Posti	ONE		
Apertura alare	: m 18,89	Peso a vuoto	: Kg 140
Wing span	:	Empty weight	:
Lunghezza	: m 7,11	Peso a pieno carico	: Kg 226
Overall length	:	Max weight	:
Superficie alare	: m ² 19,10	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 18,72	Rapporto di planata	: 1:20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 11,80	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1930
Country	:	First flight	:

ALBATROSS

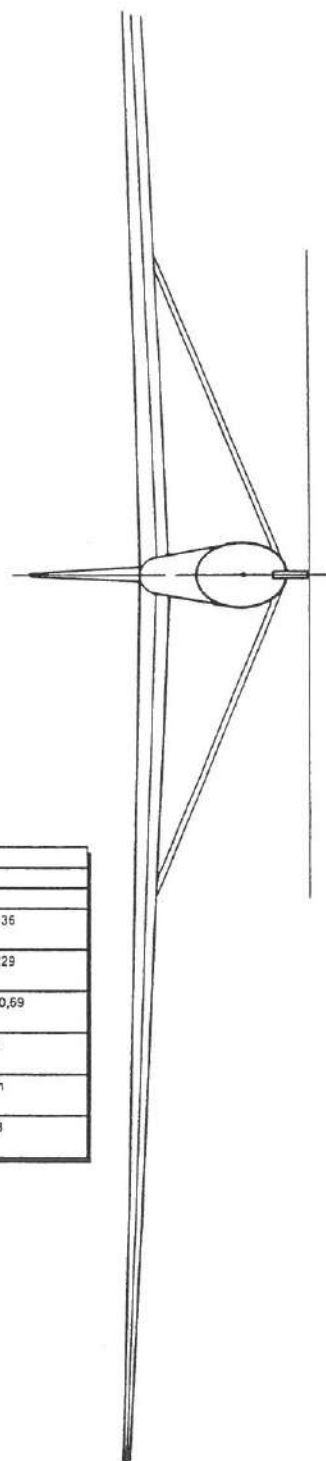
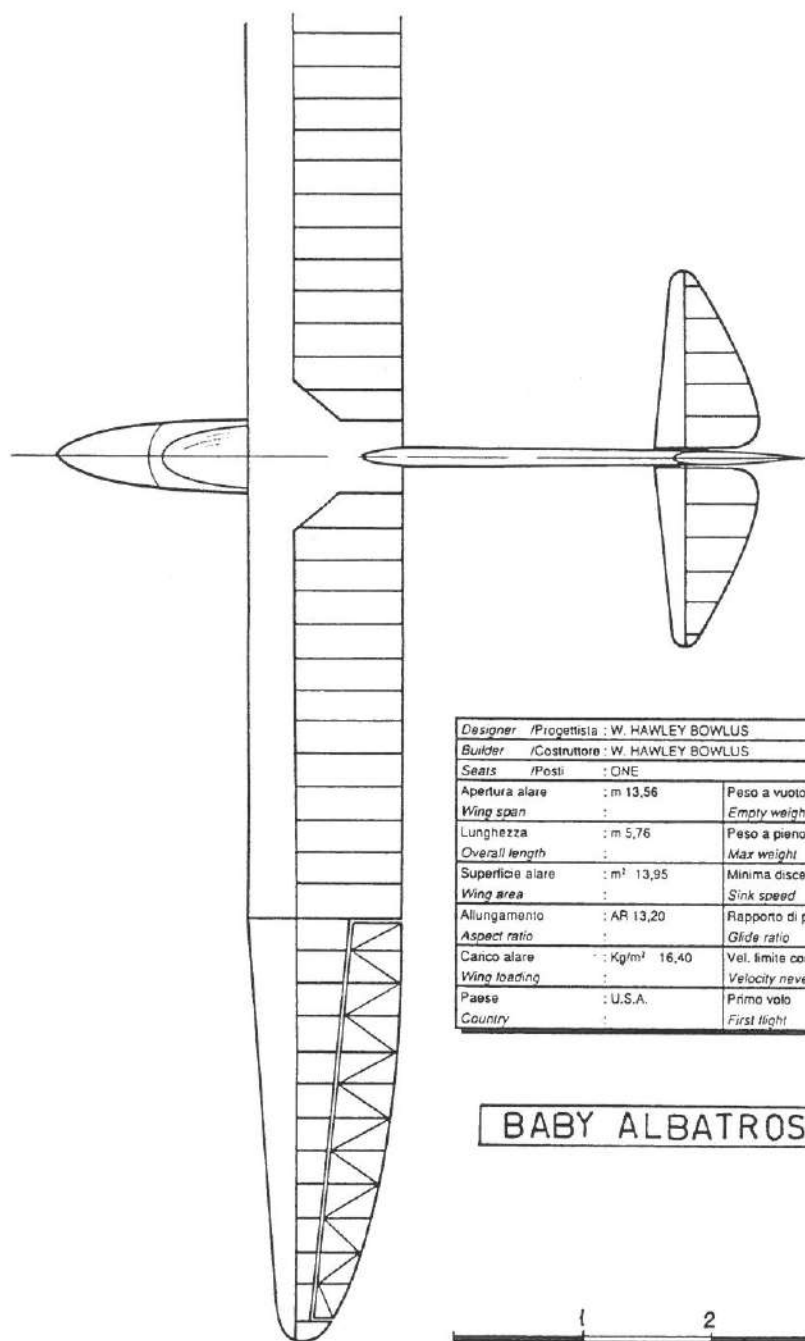
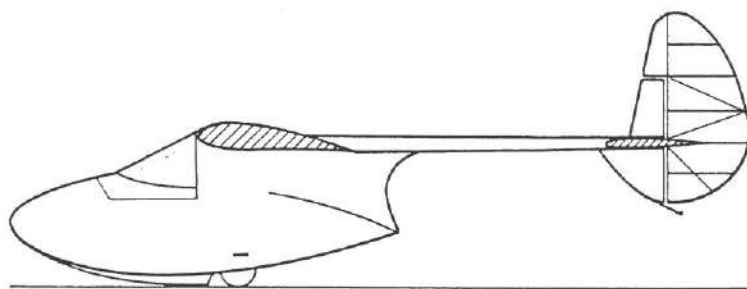




Designer / Progettista	: W. HAWLEY BOWLUS		
Builder / Costruttore	: W. HAWLEY BOWLUS		
Seats / Posti	: ONE		
Apertura alare	: m 13,21	Peso a vuoto	: Kg 197
Wing span	:	Empty weight	:
Lunghezza	: m 5,76	Peso a pieno carico	: Kg 292
Overall length	:	Max weight	:
Superficie alare	: m ² 11,61	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 15,02	Rapporto di planata	: 1:21
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 25,20	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1940
Country	:	First flight	:

SUPER ALBATROSS

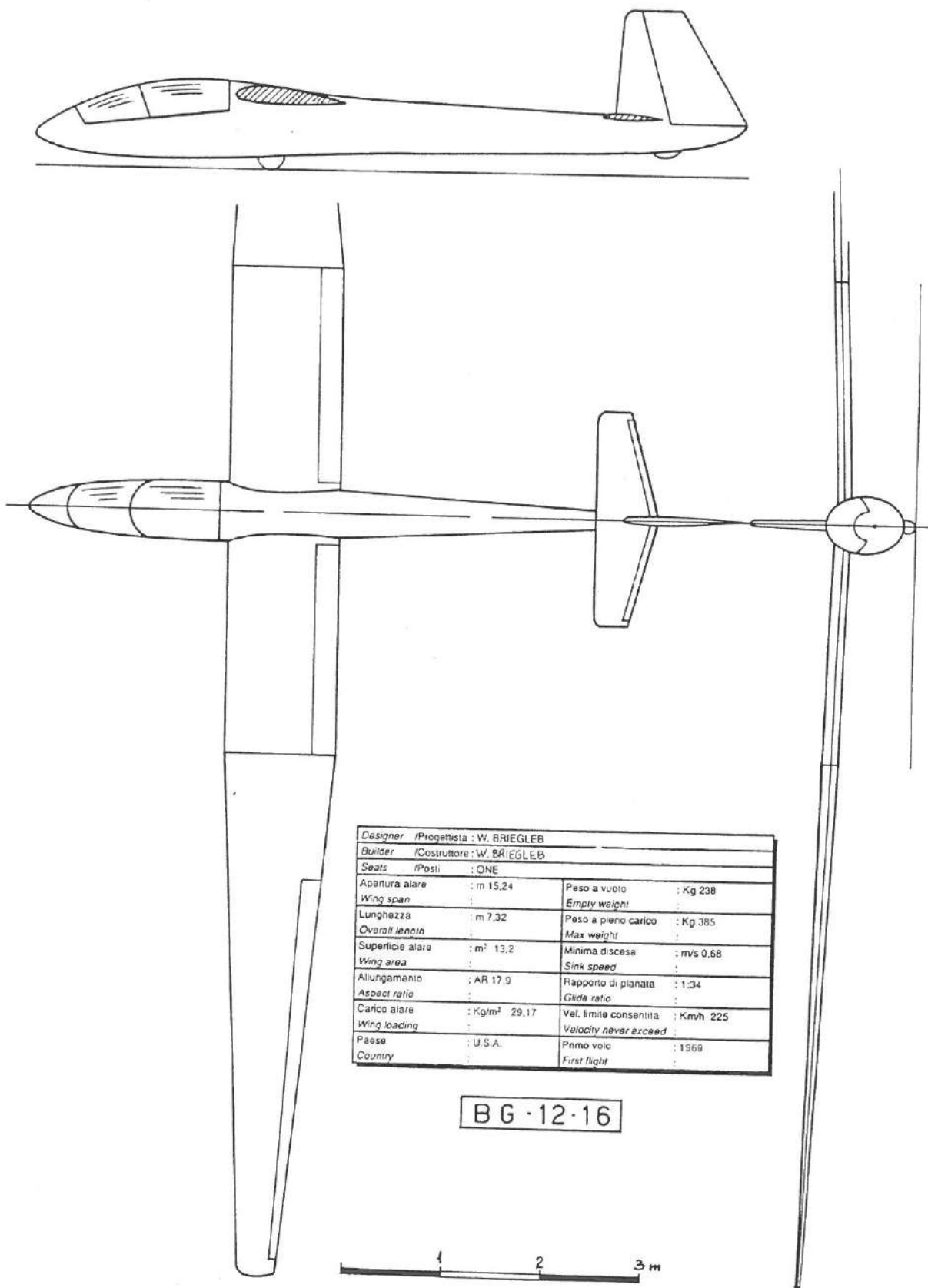
1 2 3 m

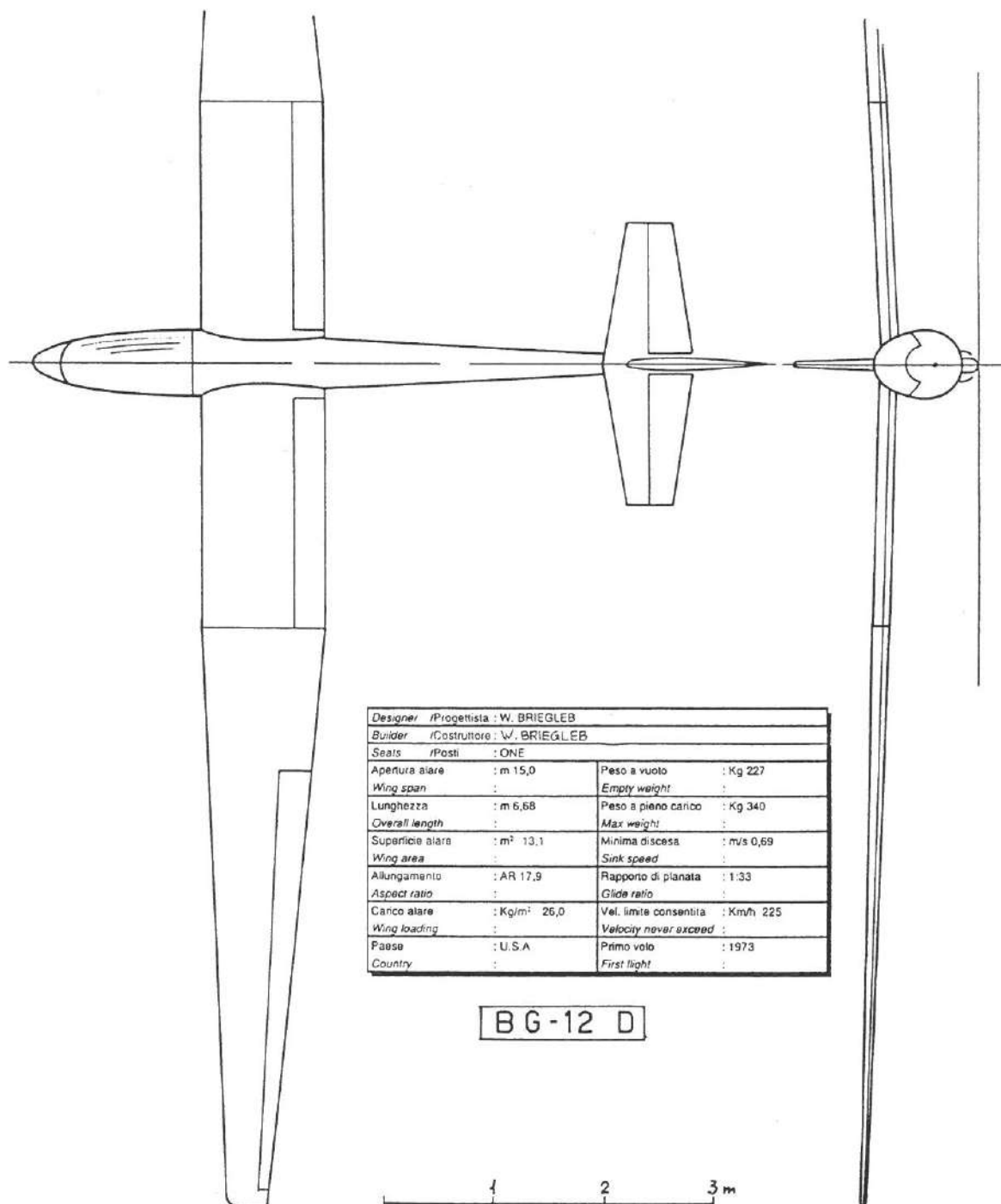
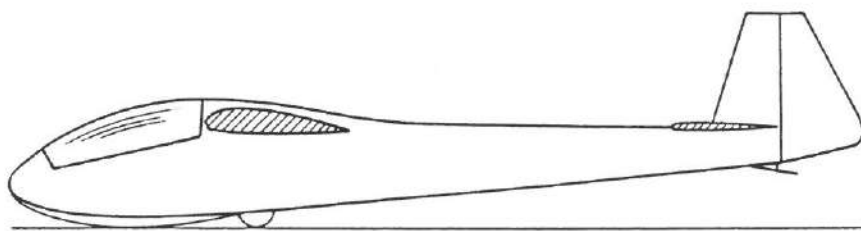


Designer /Progettista : W. HAWLEY BOWLUS			
Builder /Costruttore : W. HAWLEY BOWLUS			
Seats /Posti : ONE			
Apertura alare	: m 13,56	Peso a vuoto	: Kg 136
Wing span	:	Empty weight	:
Lunghezza	: m 5,76	Peso a pieno carico	: Kg 229
Overall length	:	Max weight	:
Superficie alare	: m ² 13,95	Minima discesa	: m/s 0,69
Wing area	:	Sink speed	:
Allungamento	: AR 13,20	Rapporto di planata	: 1:20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 16,40	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1938
Country	:	First flight	:

BABY ALBATROSS

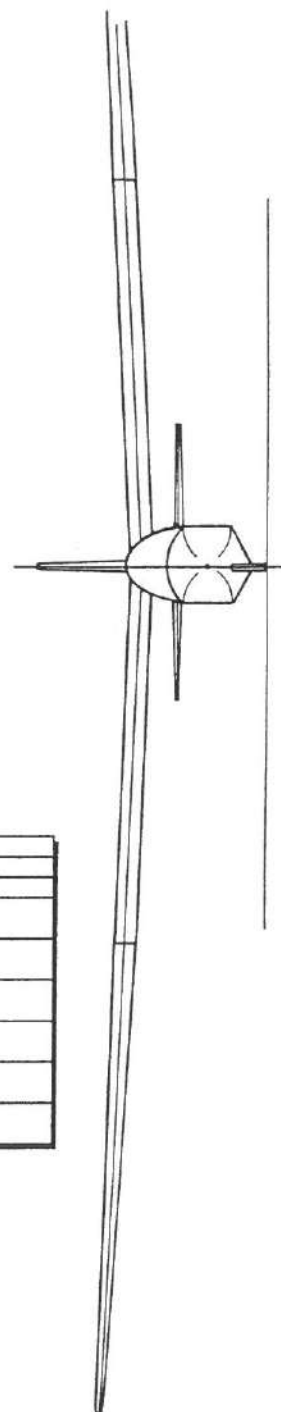
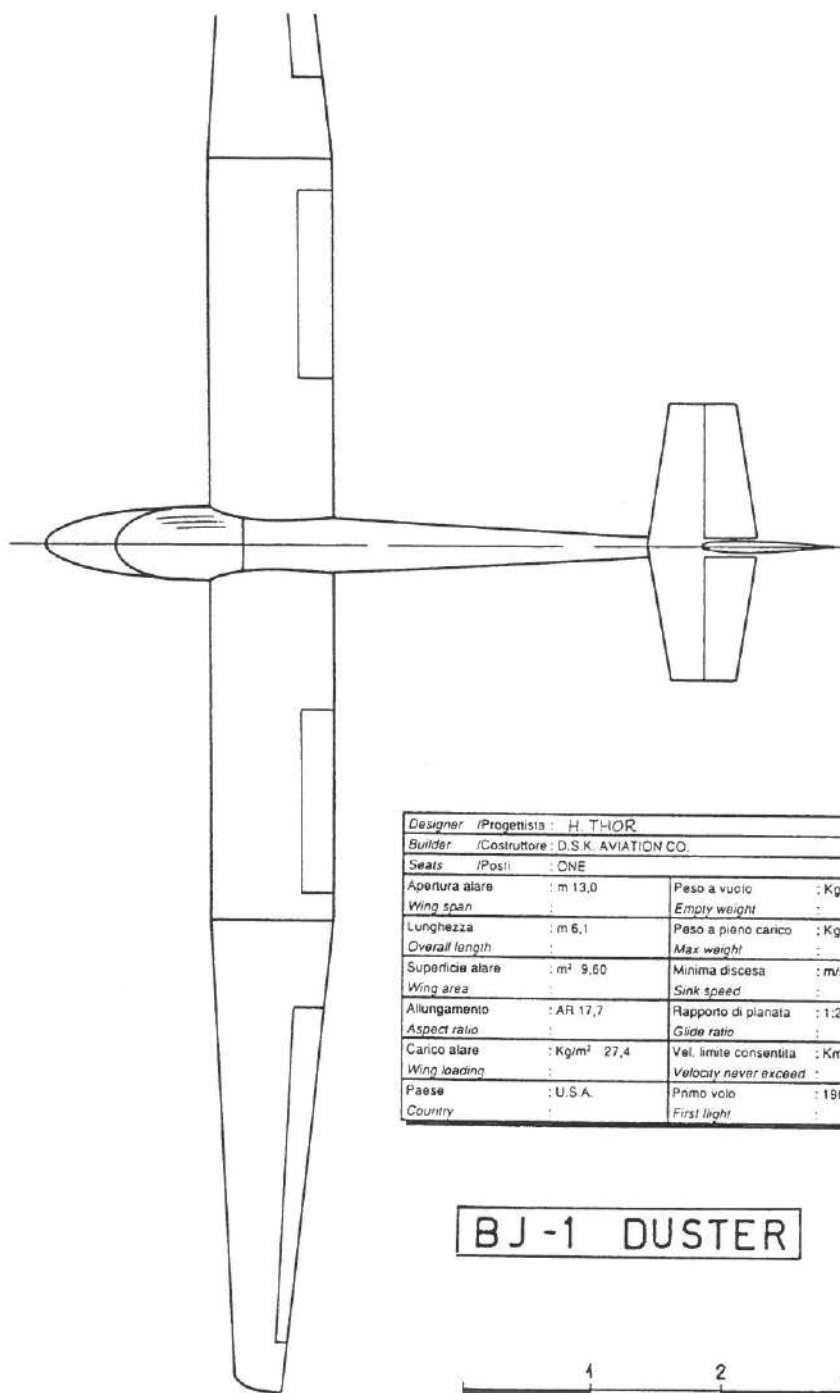
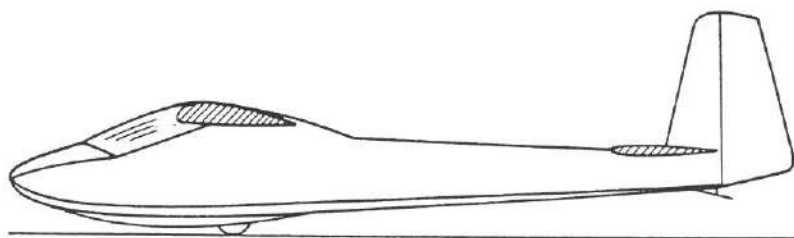






Designer /Progettista : W. BRIEGLEB			
Builder /Costruttore : W. BRIEGLEB			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 227
Wing span	:	Empty weight	:
Lunghezza	: m 6,68	Peso a pieno carico	: Kg 340
Overall length	:	Max weight	:
Superficie alare	: m ² 13,1	Minima discesa	: m/s 0,69
Wing area	:	Sink speed	:
Allungamento	: AR 17,9	Rapporto di planata	: 1:33
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ² 26,0	Vel. limite consentita	: Km/h 225
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A	Primo volo	: 1973
Country	:	First light	:

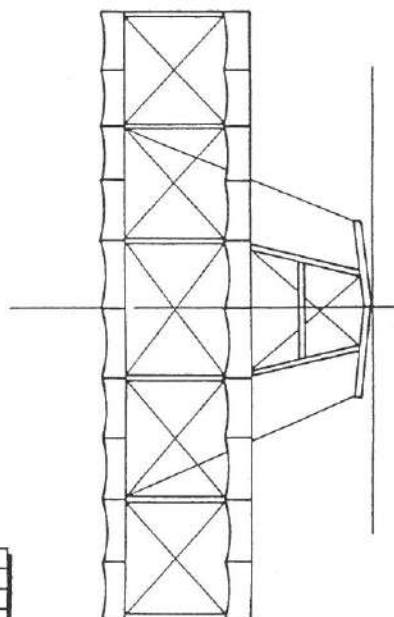
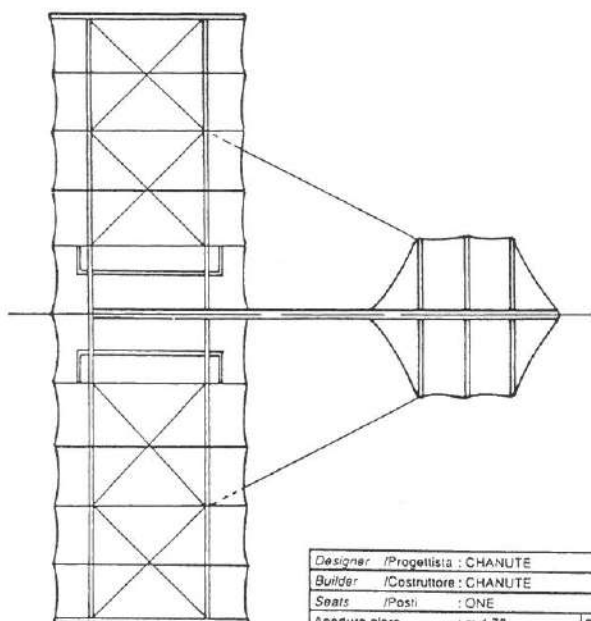
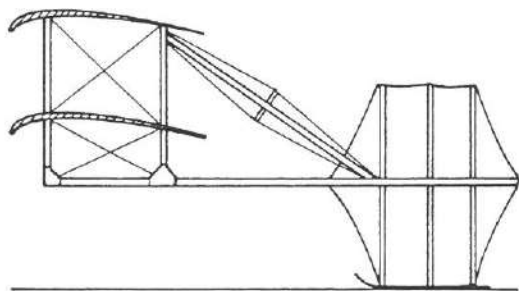
BG-12 D



Designer /Progettista :	H. THOR		
Builder /Costruttore :	D.S.K. AVIATION CO.		
Seats /Posti :	ONE		
Apertura alare	: m 13,0	Peso a vuoto	: Kg 159
Wing span	:	Empty weight	:
Lunghezza	: m 6,1	Peso a pieno carico	: Kg 263
Overall length	:	Max weight	:
Superficie alare	: m ² 9,60	Minima discesa	: m/s 1,8
Wing area	:	Sink speed	:
Allungamento	: AR 17,7	Rapporto di planata	: 1:29
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,4	Vel. limite consentita	: Km/h 206
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1966
Country	:	First flight	:

BJ-1 DUSTER

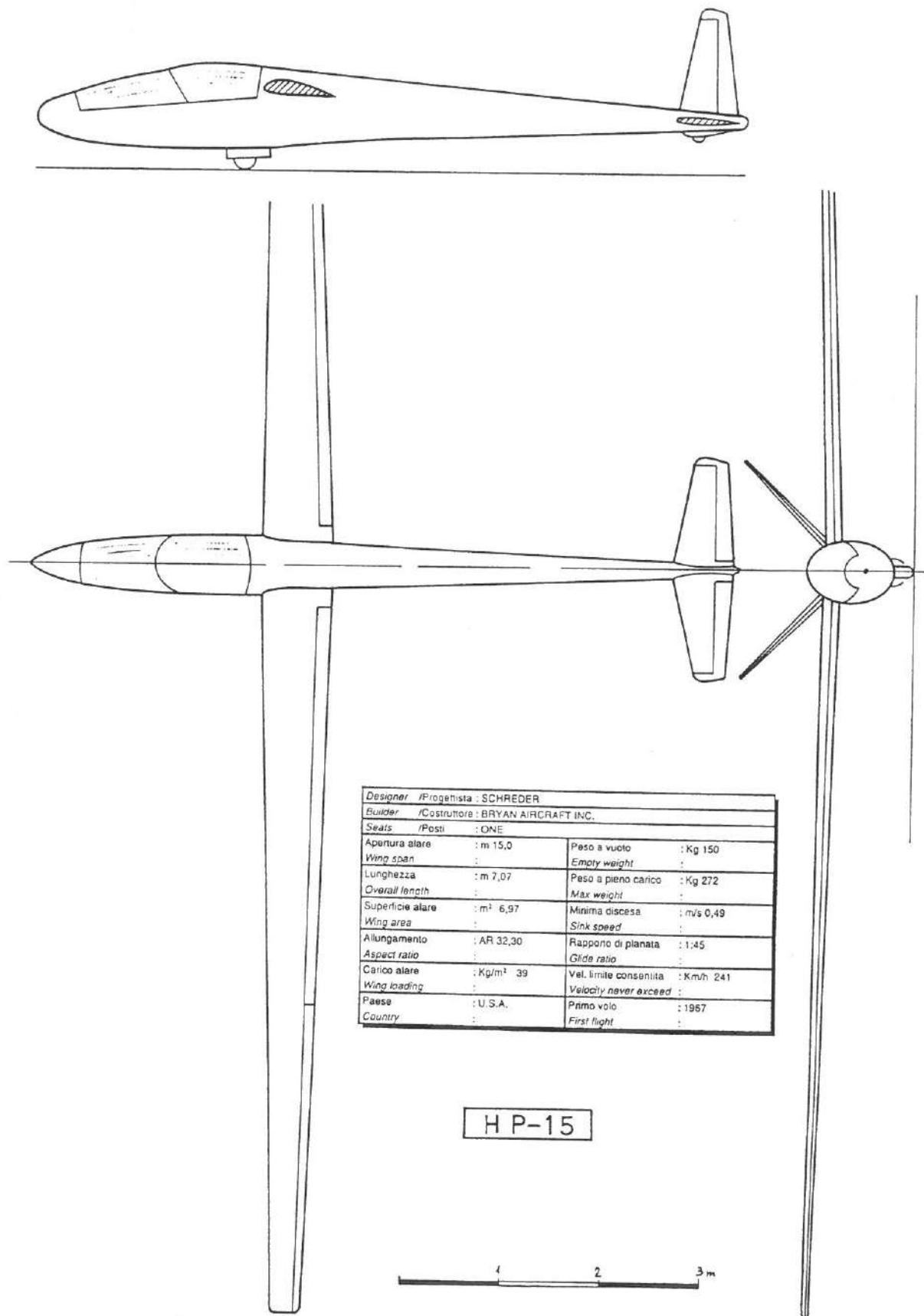




Designer /Progettista :	CHANUTE		
Builder /Costruttore :	CHANUTE		
Seats /Posti :	ONE		
Apertura alare :	m 4,73	Peso a vuoto :	Kg 11
Wing span :		Empty weight :	
Lunghezza :	m 3,91	Peso a pieno carico :	Kg 95
Overall length :		Max weight :	
Superficie alare :	m ² 12,46	Minima discesa :	m/s
Wing area :		Sink speed :	
Allungamento :	AR 3,17	Rapporto di planata :	1:5,67
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 7,62	Vel. limite consentita :	Km/h
Wing loading :		Velocity never exceed :	
Paese :	U.S.A.	Primo volo :	1896
Country :		First flight :	

CHANUTE BIPLANE

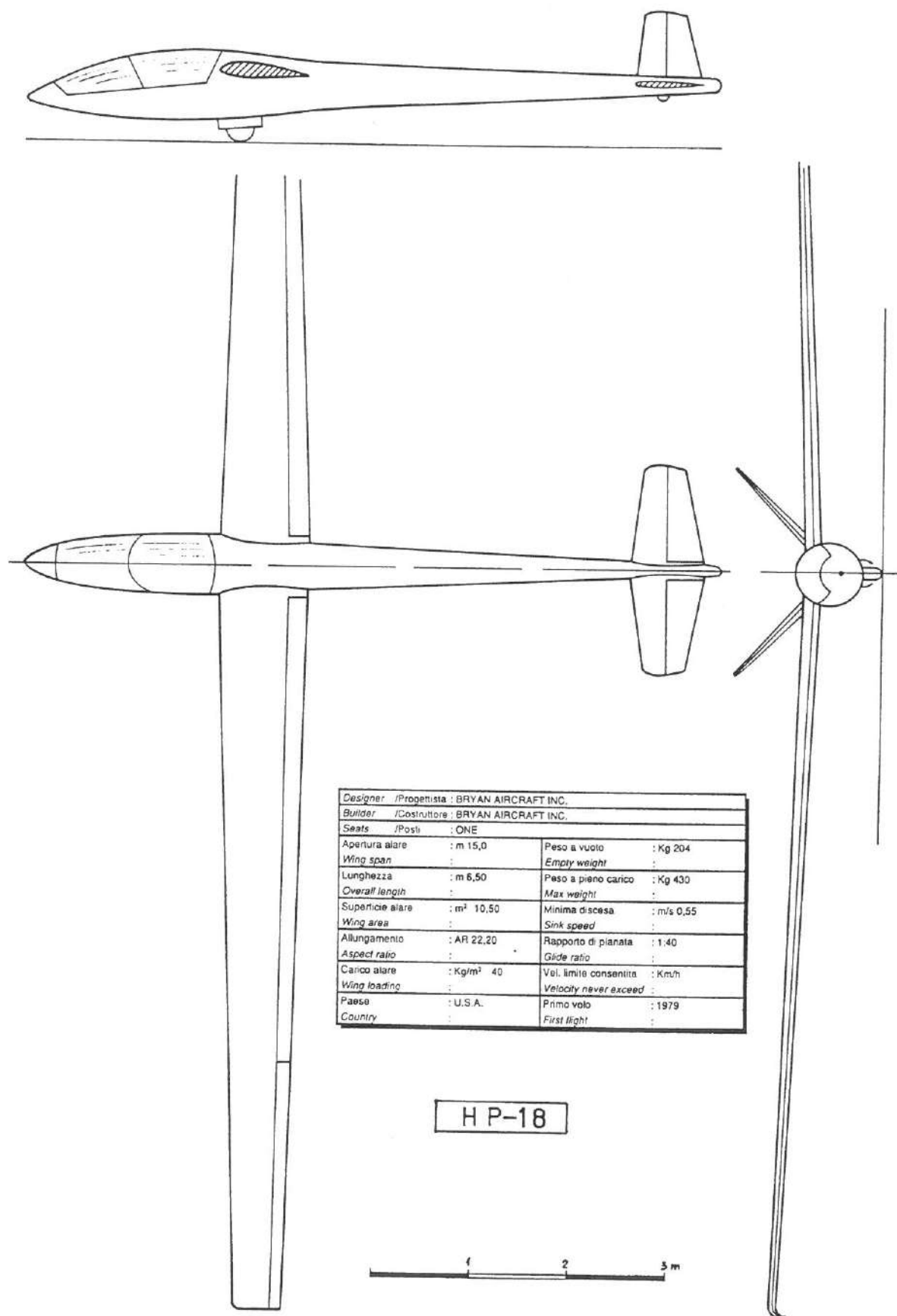




<i>Designer</i> / <i>Progettista</i> : SCHREDER			
<i>Builder</i> / <i>Costruttore</i> : BRYAN AIRCRAFT INC.			
<i>Seats</i> / <i>Posti</i> : ONE			
<i>Apertura alare</i>	: m 15,0	<i>Peso a vuoto</i>	: Kg 150
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 7,07	<i>Peso a pieno carico</i>	: Kg 272
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 6,97	<i>Minima discesa</i>	: m/s 0,49
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 32,30	<i>Rapporto di planata</i>	: 1:45
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 39	<i>Vel. limite consentita</i>	: Km/h 241
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: U.S.A.	<i>Primo volo</i>	: 1957
<i>Country</i>	:	<i>First flight</i>	:

HP-15

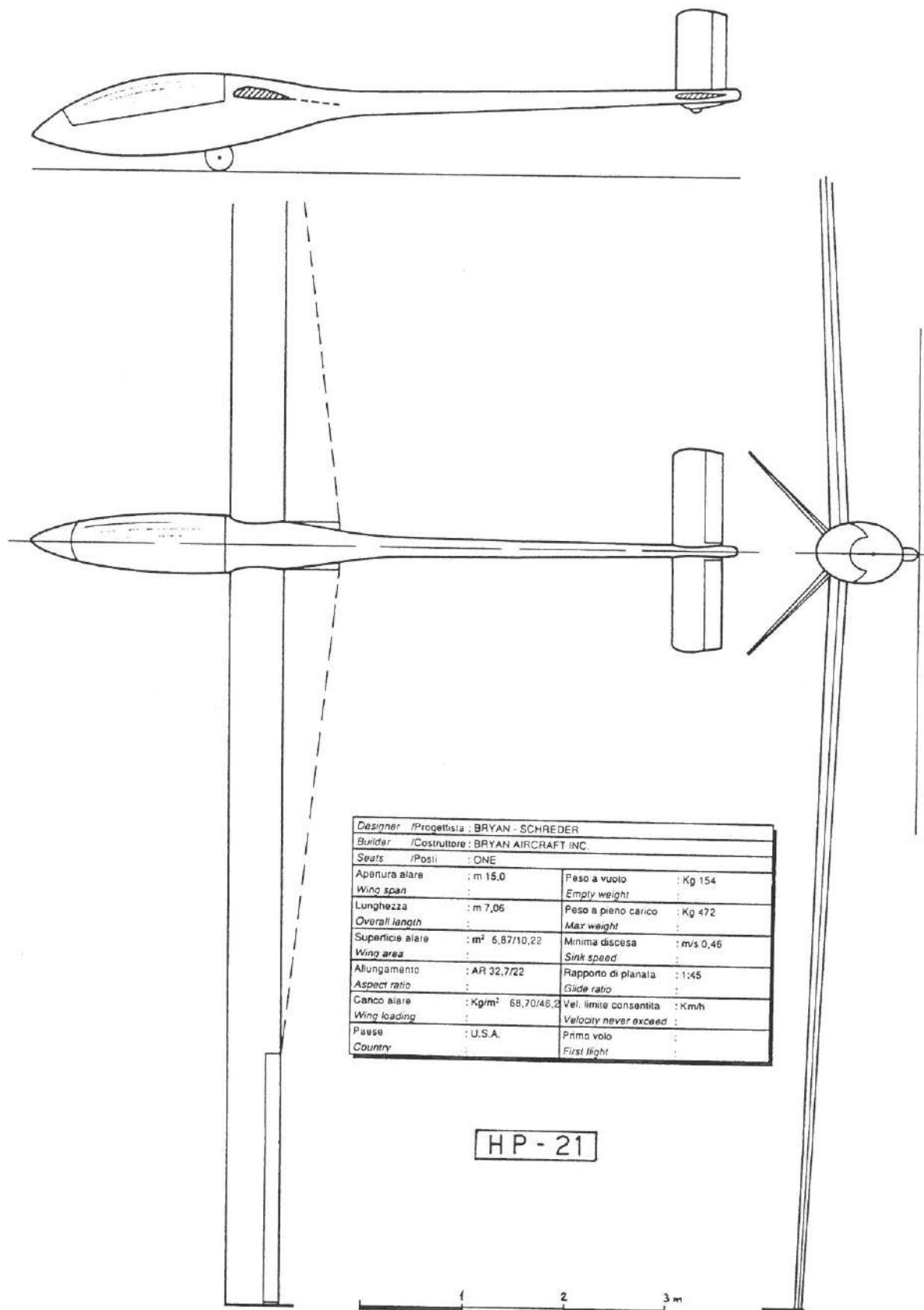


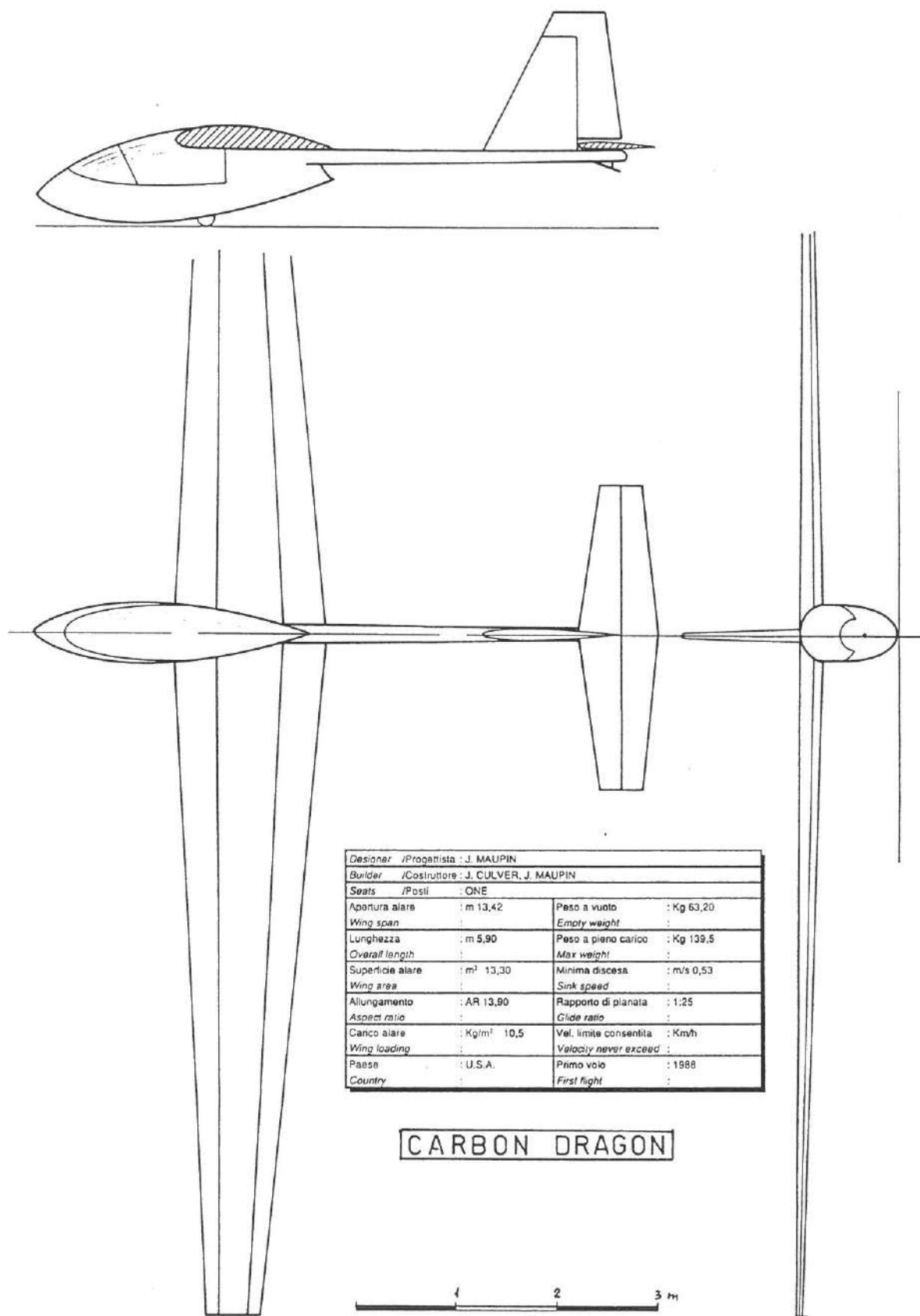


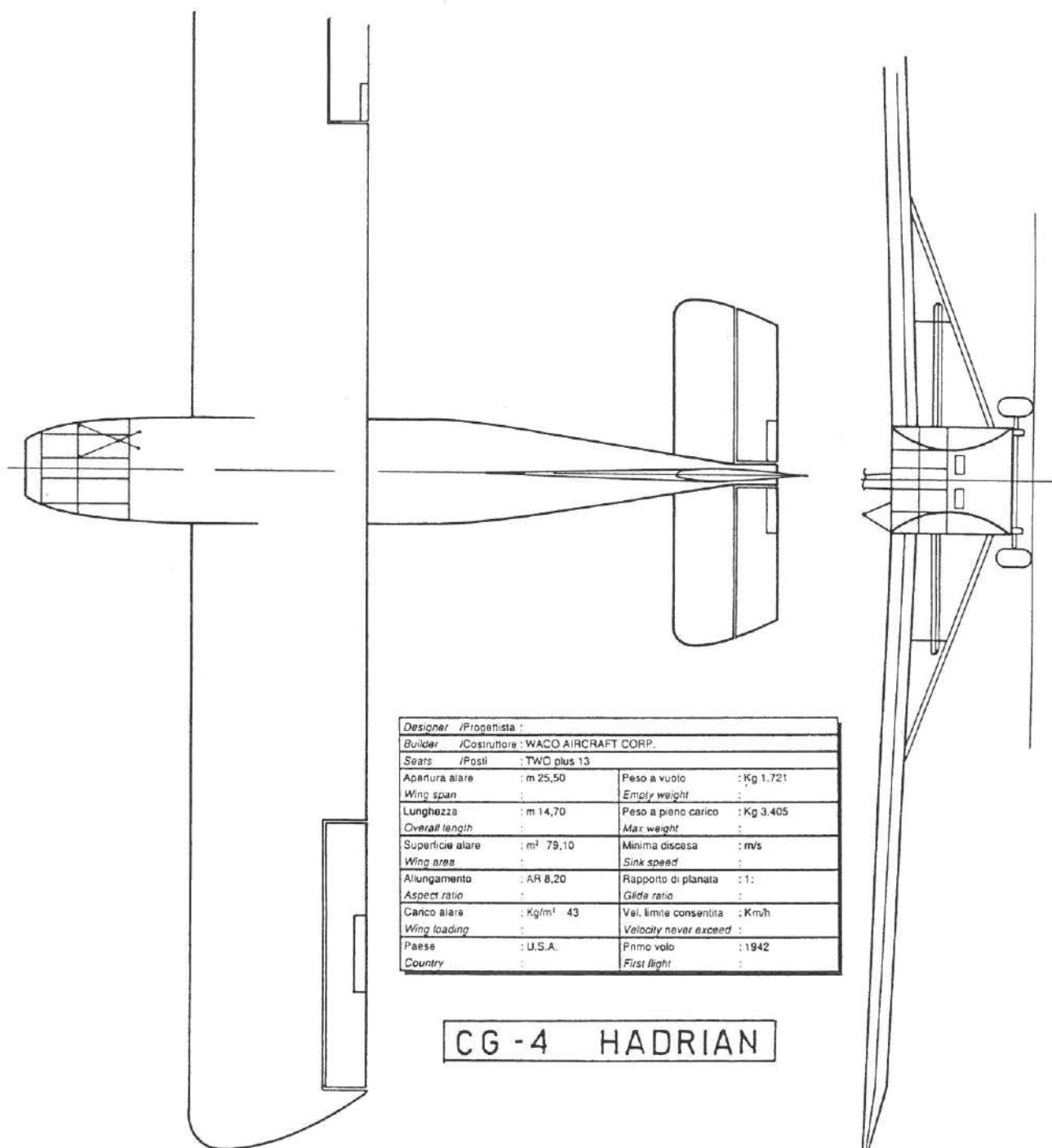
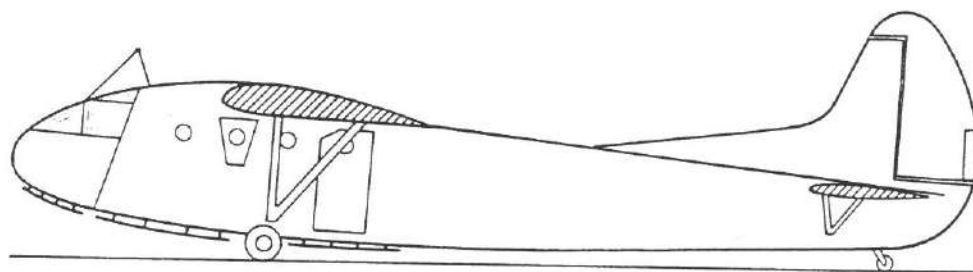
Designer / Progettista : BRYAN AIRCRAFT INC.			
Builder / Costruttore : BRYAN AIRCRAFT INC.			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 204
Wing span	:	Empty weight	:
Lunghezza	: m 6,50	Peso a pieno carico	: Kg 430
Overall length	:	Max weight	:
Superficie alare	: m ² 10,50	Minima discesa	: m/s 0,55
Wing area	:	Sink speed	:
Allungamento	: AR 22,20	Rapporto di planata	: 1,40
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 40	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1979
Country	:	First flight	:

HP-18

1 2 3 m



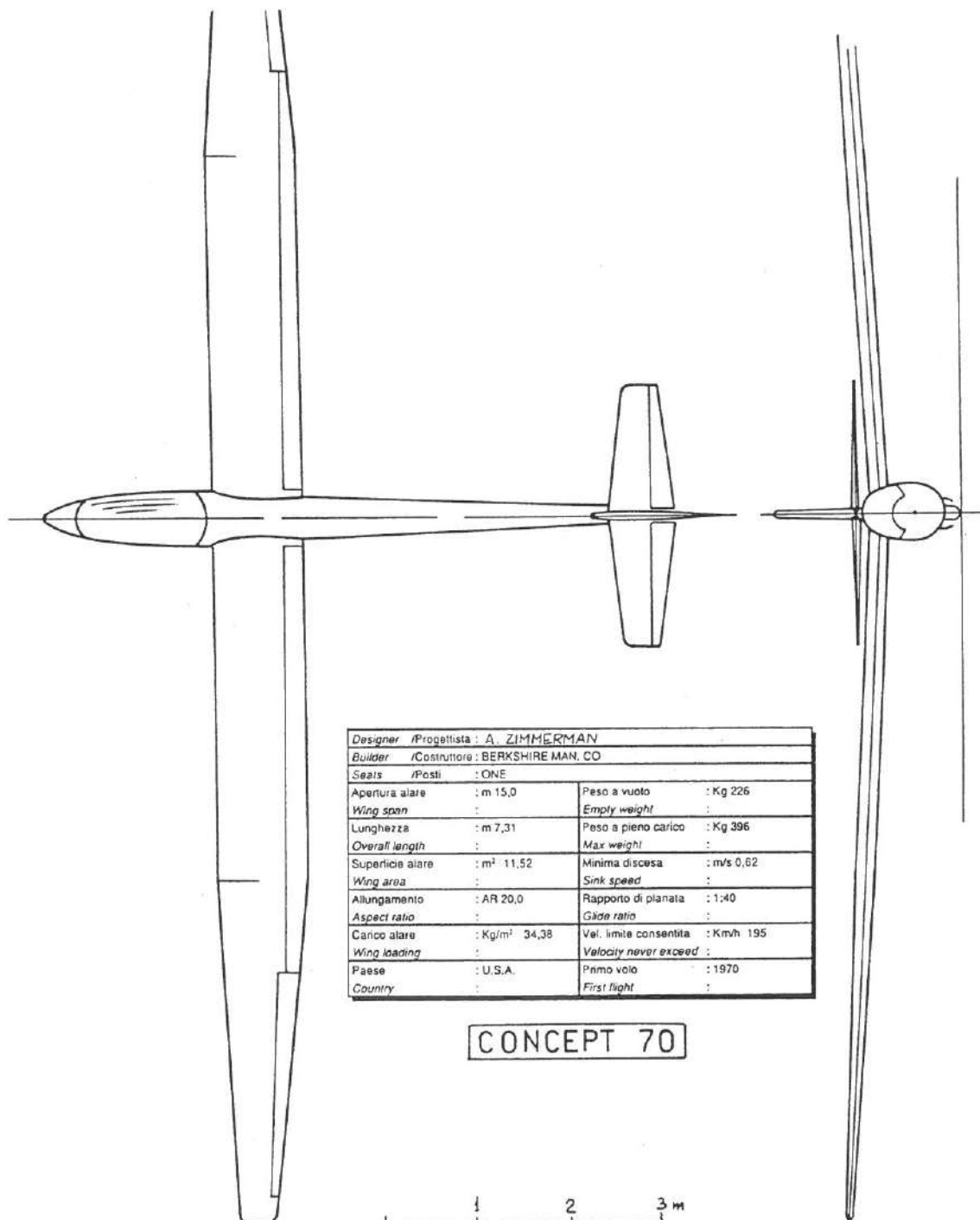
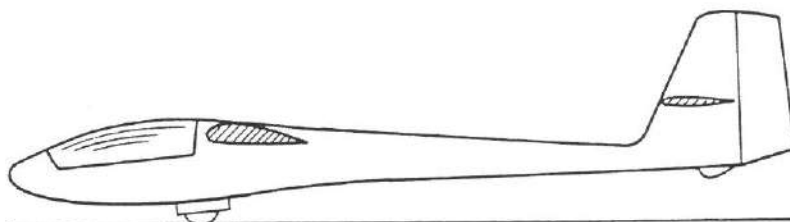




Designer / Progettista :			
Builder / Costruttore : WACO AIRCRAFT CORP.			
Seats / Posti : TWO plus 13			
Apertura alare	: m 25,50	Peso a vuoto	: Kg 1.721
Wing span	:	Empty weight	:
Lunghezza	: m 14,70	Peso a pieno carico	: Kg 3.405
Overall length	:	Max weight	:
Superficie alare	: m ² 79,10	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 8,20	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 43	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1942
Country	:	First flight	:

CG - 4 HADRIAN

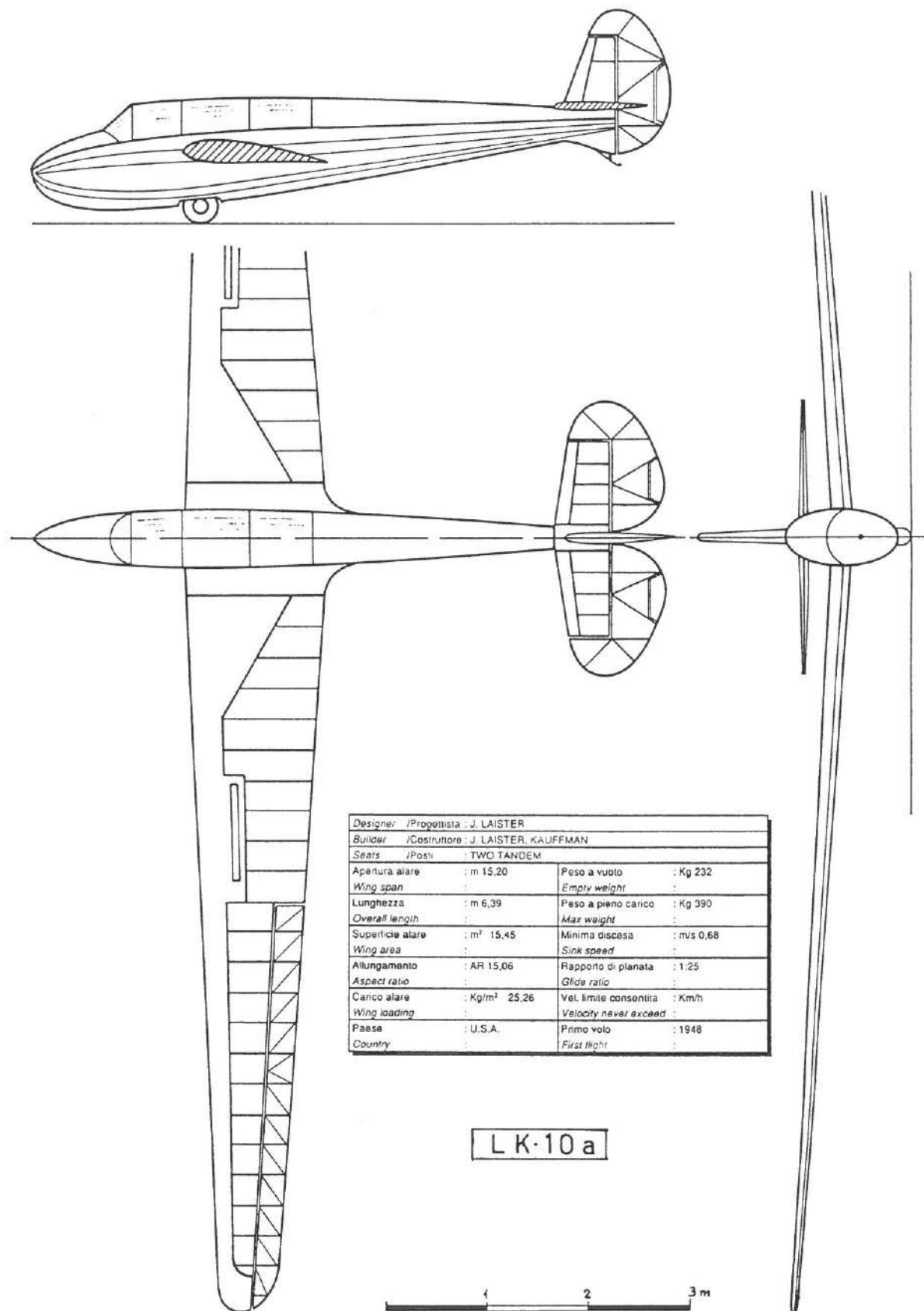




Designer /Progettista :	A. ZIMMERMAN		
Builder /Costruttore :	BERKSHIRE MAN, CO		
Seats /Posti :	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 226
Wing span	:	Empty weight	:
Lunghezza	: m 7,31	Peso a pieno carico	: Kg 396
Overall length	:	Max weight	:
Superficie alare	: m ² 11,52	Minima discesa	: m/s 0,62
Wing area	:	Sink speed	:
Allungamento	: AR 20,0	Rapporto di planata	: 1:40
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 34,38	Vel. limite consentita	: Km/h 195
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1970
Country	:	First flight	:

CONCEPT 70

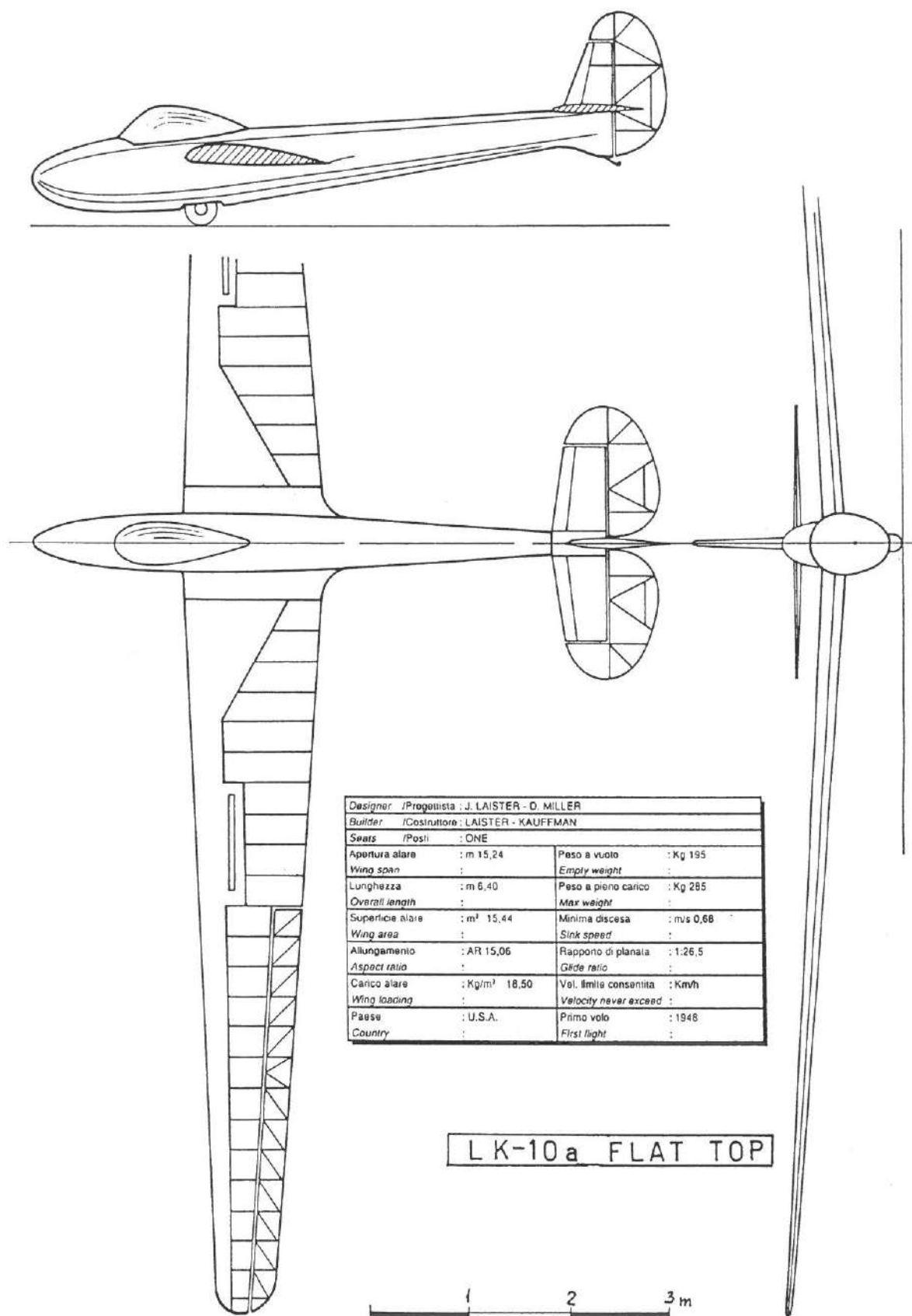
1 2 3 m



Designer / Progettista	: J. LAISTER		
Builder / Costruttore	: J. LAISTER, KAUFFMAN		
Seats / Posti	: TWO TANDEM		
Apertura alare	: m 15,20	Peso a vuoto	: Kg 232
Wing span	:	Empty weight	:
Lunghezza	: m 6,39	Peso a pieno carico	: Kg 390
Overall length	:	Max weight	:
Superficie alare	: m ² 15,45	Minima discesa	: m/s 0,68
Wing area	:	Sink speed	:
Allungamento	: AR 15,06	Rapporto di planata	: 1,25
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 25,26	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1948
Country	:	First flight	:

LK-10a

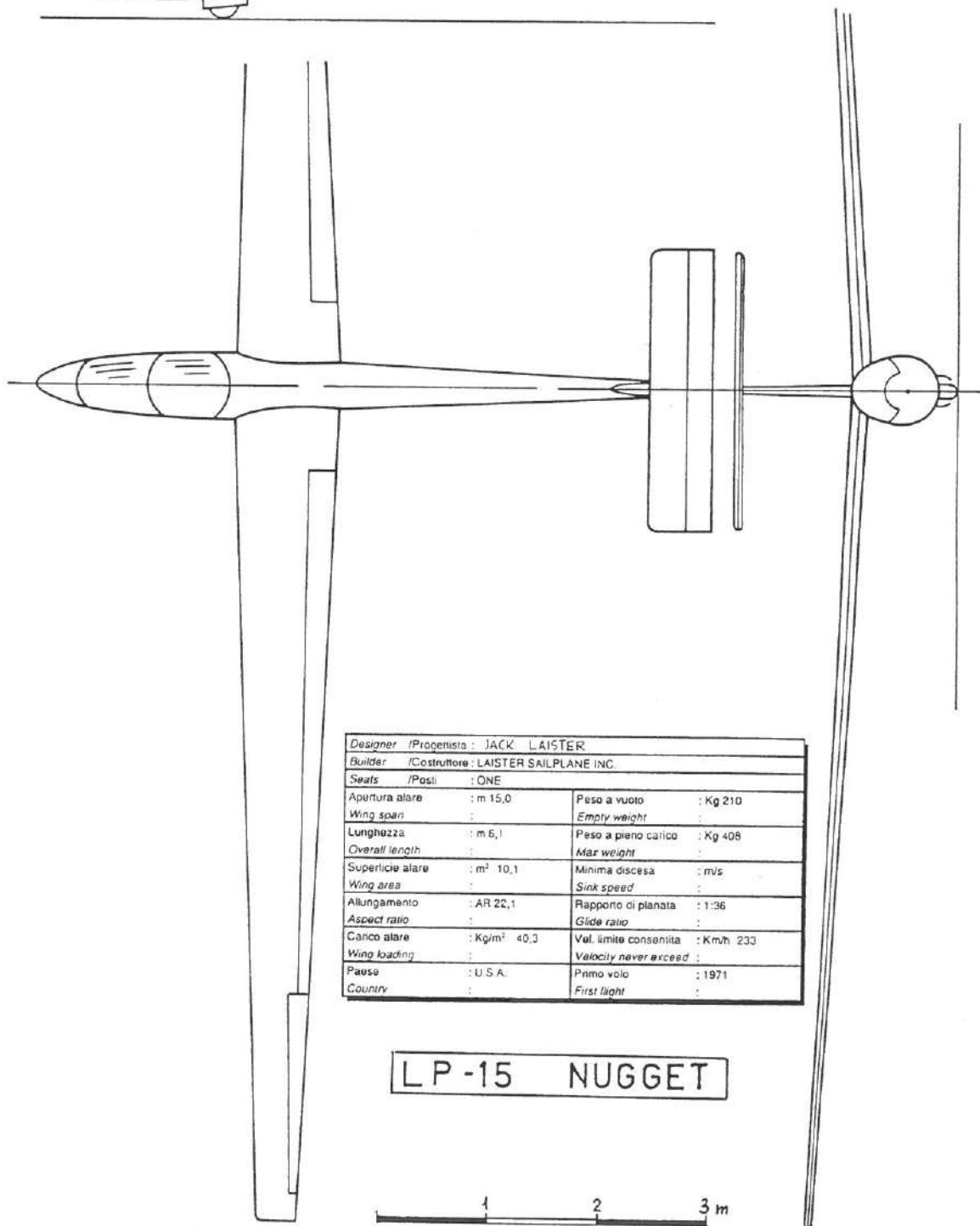
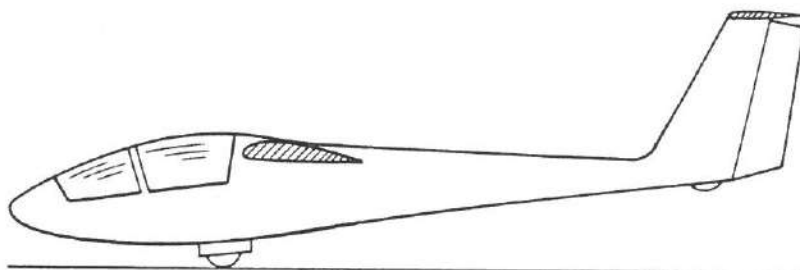
1 2 3 m



Designer / Progettista	J. LAISTER - D. MILLER		
Builder / Costruttore	LAISTER - KAUFFMAN		
Seats / Posti	ONE		
Apertura alare	: m 15,24	Peso a vuoto	: Kg 195
Wing span	:	Empty weight	:
Lunghezza	: m 6,40	Peso a pieno carico	: Kg 285
Overall length	:	Max weight	:
Superficie alare	: m ² 15,44	Minima discesa	: m/s 0,68
Wing area	:	Sink speed	:
Allungamento	: AR 15,06	Rapporto di planata	: 1:26,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,50	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1948
Country	:	First flight	:

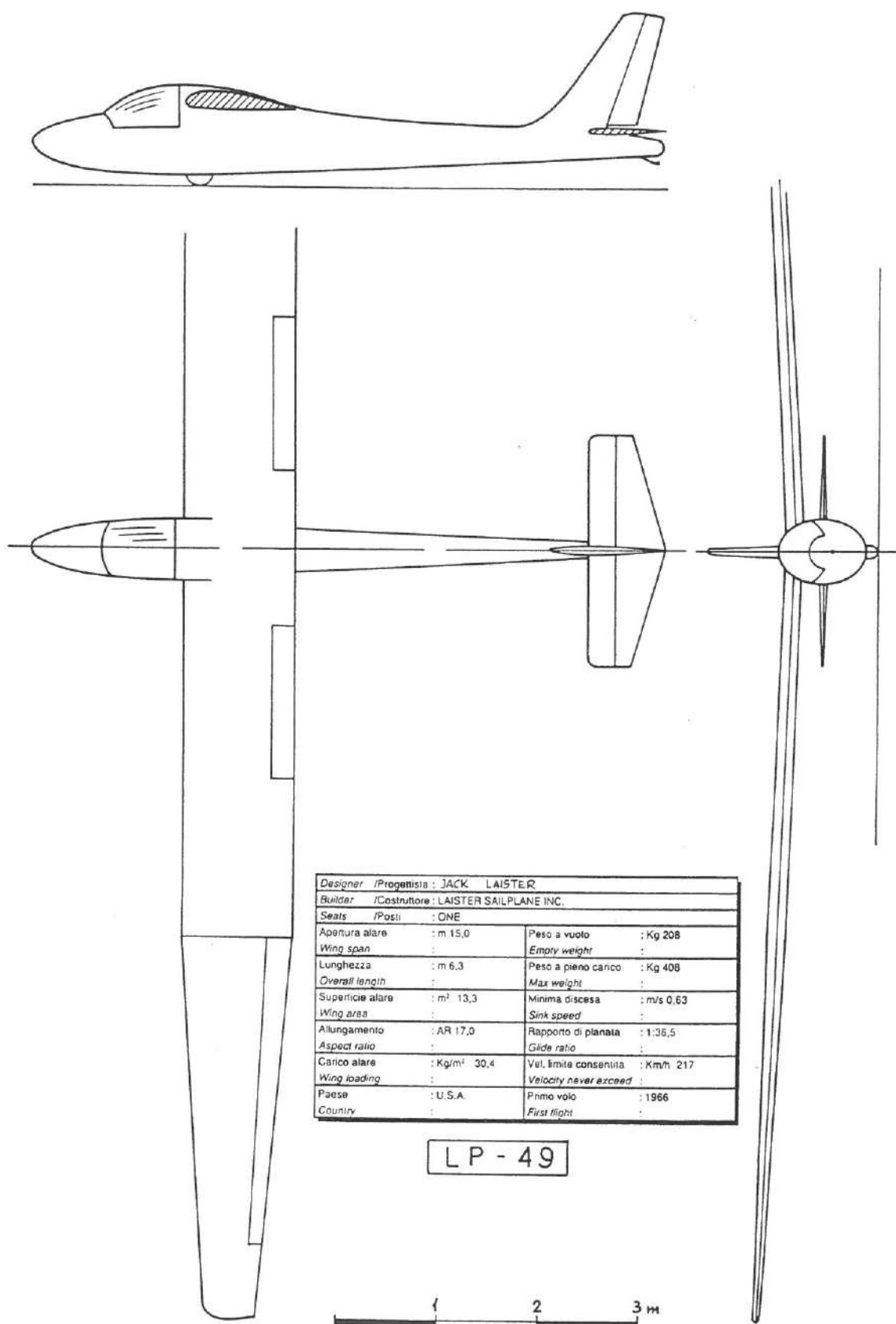
L K-10a FLAT TOP

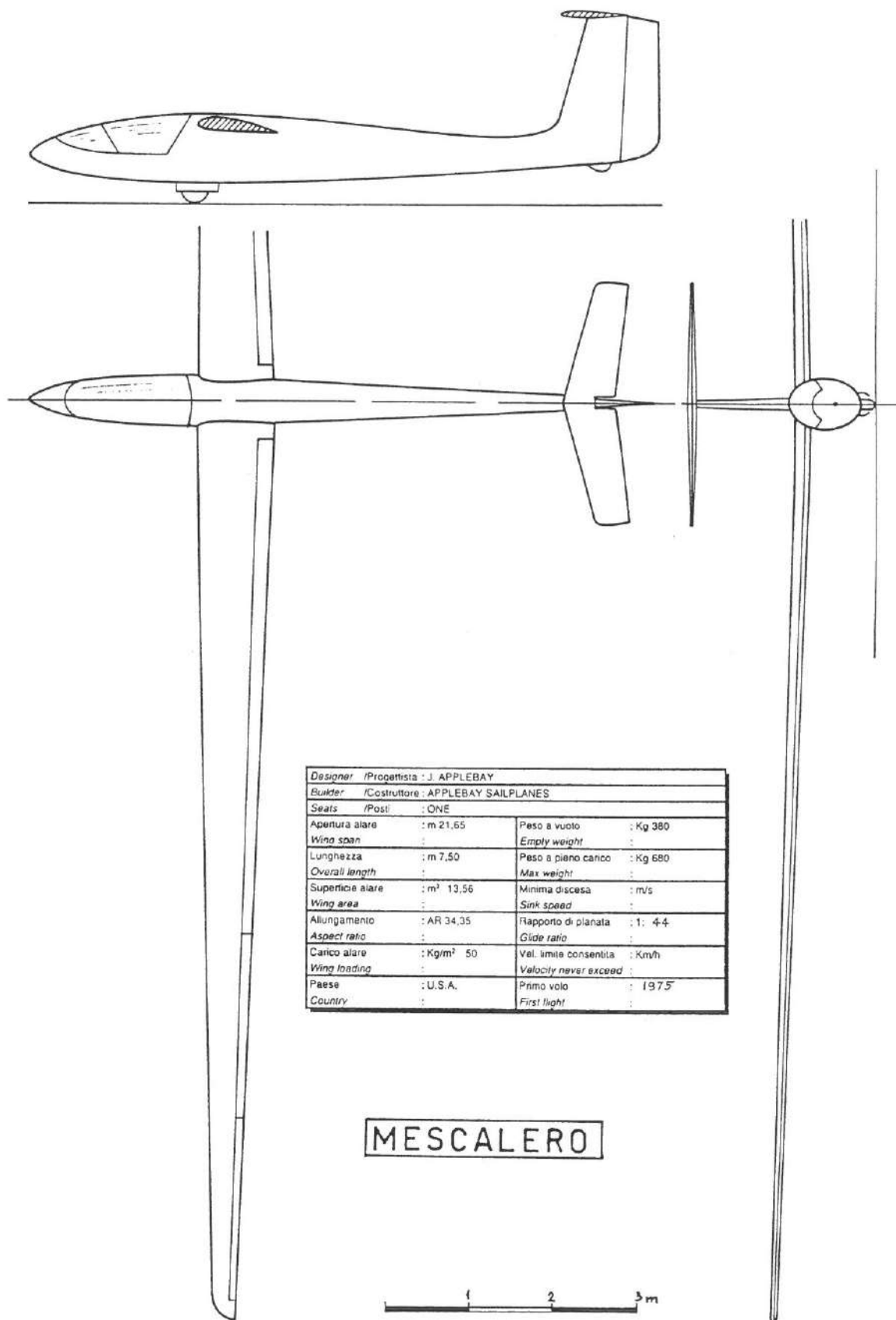
1 2 3 m



Designer / Progettista : JACK LAISTER			
Builder / Costruttore : LAISTER SAILPLANE INC.			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 210
Wing span	:	Empty weight	:
Lunghezza	: m 6,1	Peso a pieno carico	: Kg 408
Overall length	:	Max weight	:
Superficie alare	: m ² 10,1	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 22,1	Rapporto di planata	: 1:36
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 40,3	Vel. limite consentita	: Km/h 233
Wing loading	:	Velocity never exceed	:
Provenance	: U.S.A.	Primo volo	: 1971
Country	:	First flight	:

LP-15 NUGGET

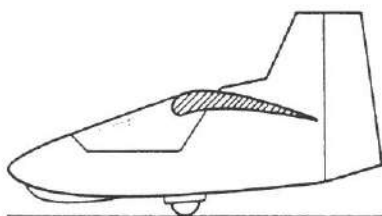




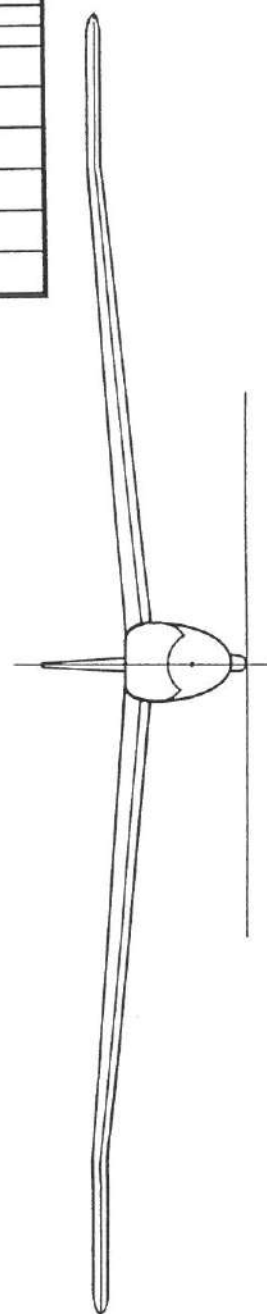
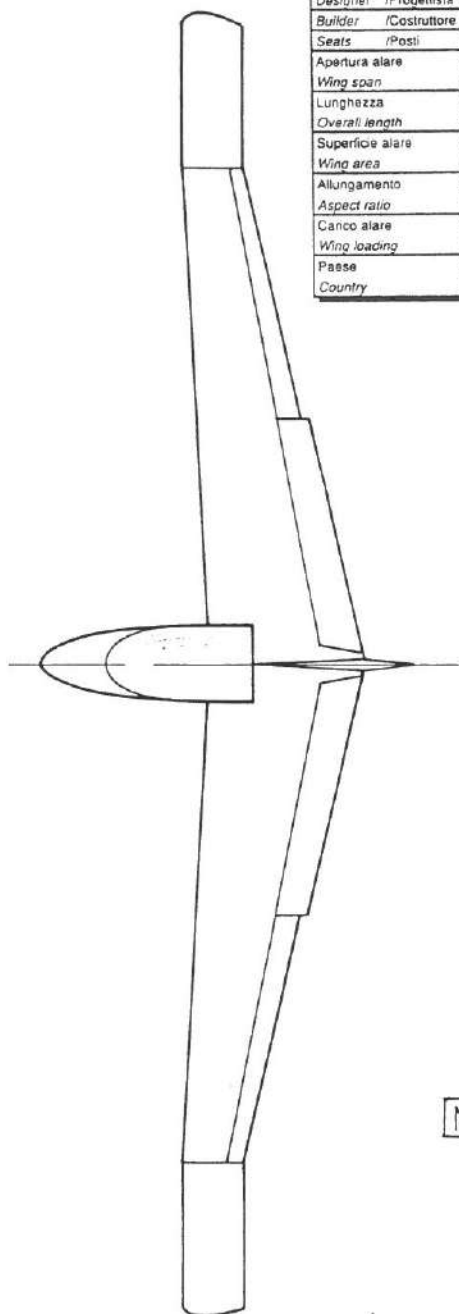
Designer / Progettista : J. APPLEBAY			
Builder / Costruttore : APPLEBAY SAILPLANES			
Seats / Posti : ONE			
Apertura alare	: m 21,65	Peso a vuoto	: Kg 380
Wing span	:	Empty weight	:
Lunghezza	: m 7,50	Peso a pieno carico	: Kg 680
Overall length	:	Max weight	:
Superficie alare	: m ² 13,56	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 34,35	Rapporto di planata	: 1: 4,4
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 50	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1975
Country	:	First flight	:

MESCALERO

1 2 3 m

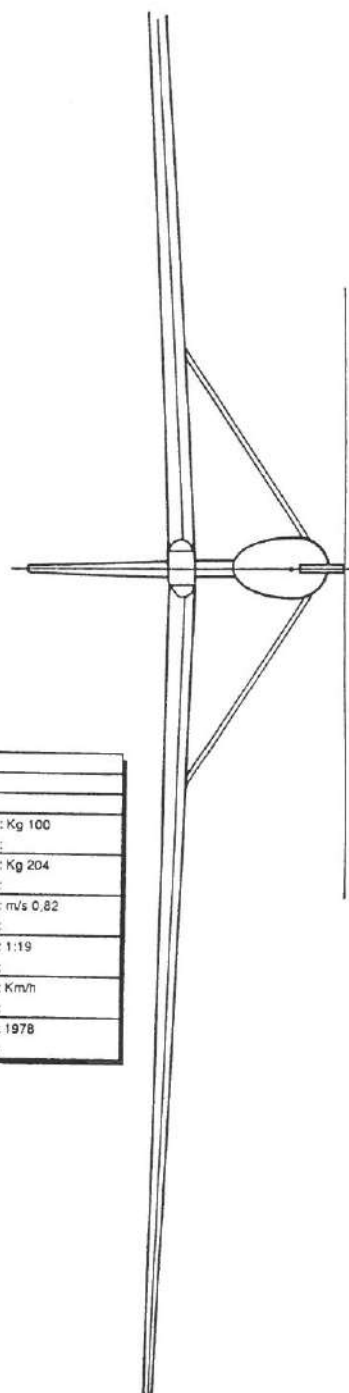
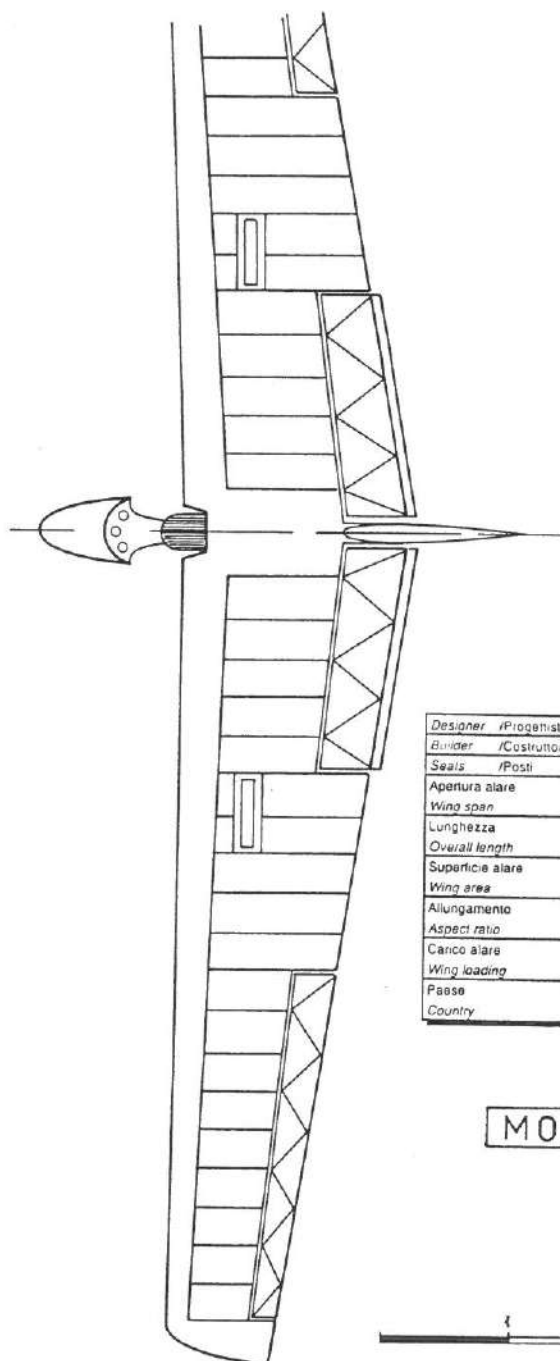
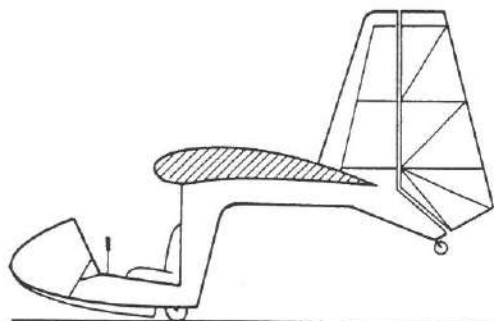


Designer / Progettista :			
Builder / Costruttore :			
Seats / Posti : ONE			
Apertura alare	: m 10,0	Peso a vuoto	: Kg 54,50
Wing span	:	Empty weight	:
Lunghezza	: m 2,54	Peso a pieno carico	: Kg 152
Overall length	:	Max weight	:
Superficie alare	: m ² 7,16	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 13,90	Rapporto di planata	: 1:27
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 21,2	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1980
Country	:	First flight	:



MINIBAT

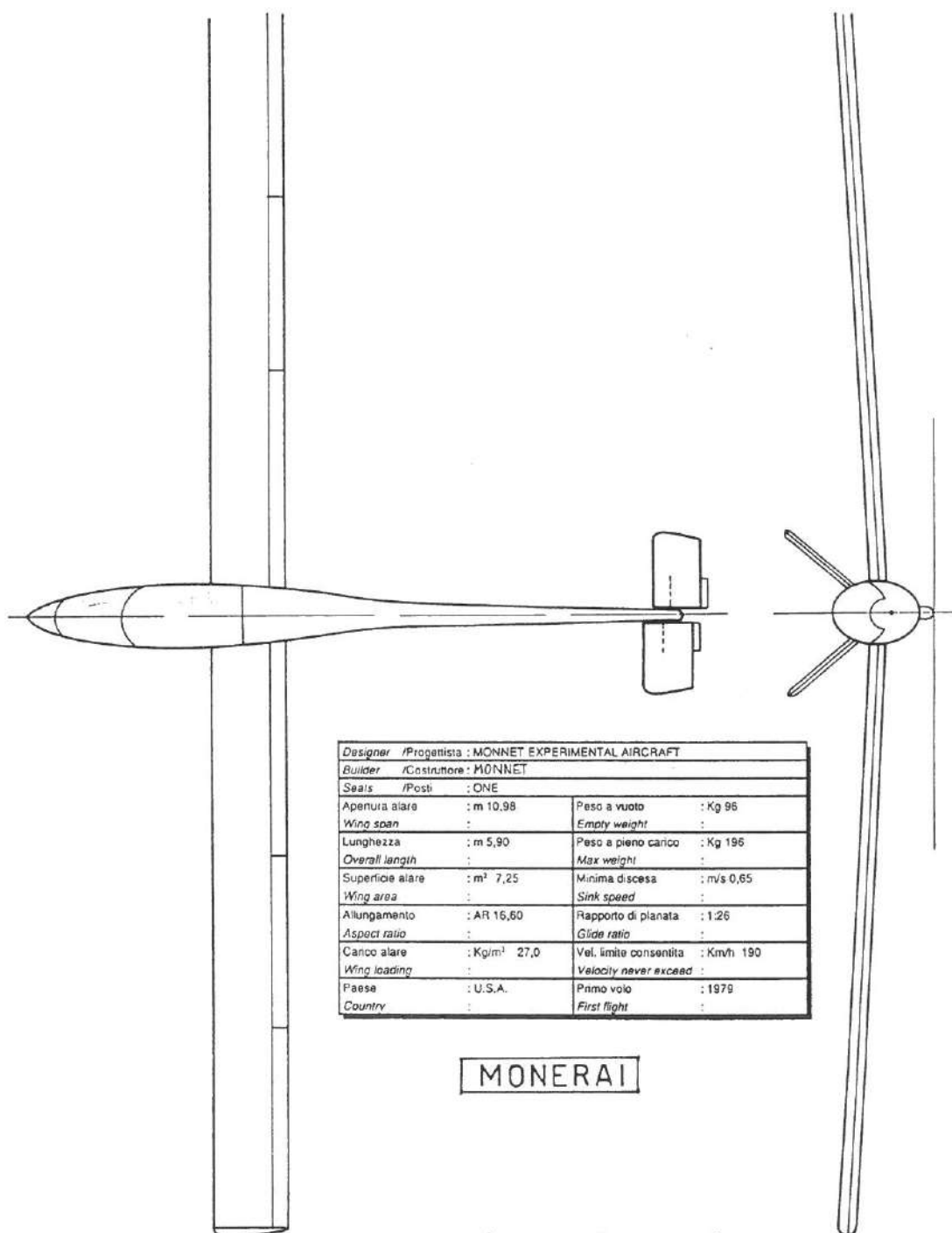
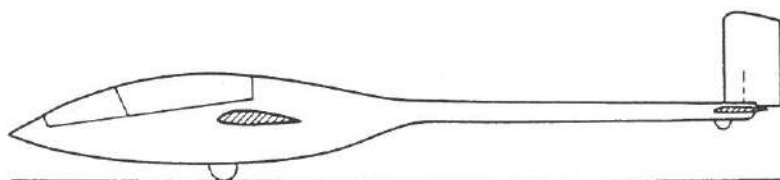




Designer	Progettista : J. MARSKE		
Builder	Costruttore : J. MARSKE		
Seats	Posti : ONE		
Apertura alare	: m 12,80	Peso a vuoto	: Kg 100
Wing span	:	Empty weight	:
Lunghezza	: m 3,71	Peso a pieno carico	: Kg 204
Overall length	:	Max weight	:
Superficie alare	: m ² 17,19	Minima discesa	: m/s 0,82
Wing area	:	Sink speed	:
Allungamento	: AR 9,50	Rapporto di planata	: 1:19
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 11,70	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1978
Country	:	First flight	:

MONARCH - E

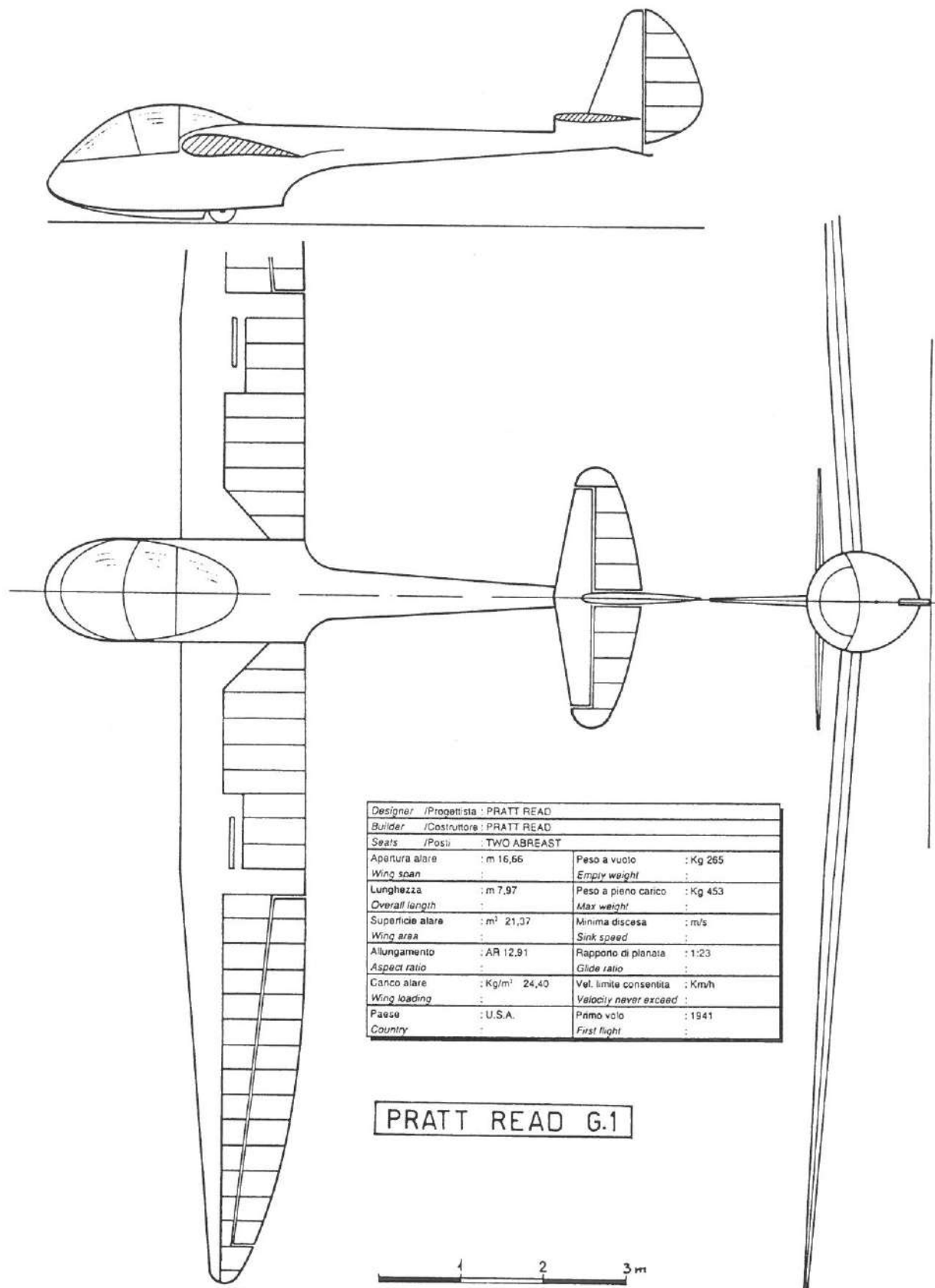




<i>Designer /Progettista</i> : MONNET EXPERIMENTAL AIRCRAFT			
<i>Builder /Costruttore</i> : MONNET			
<i>Seals /Posti</i> : ONE			
<i>Apertura alare</i>	: m 10,98	<i>Peso a vuoto</i>	: Kg 96
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 5,90	<i>Peso a pieno carico</i>	: Kg 196
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 7,25	<i>Minima discesa</i>	: m/s 0,65
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 16,60	<i>Rapporto di planata</i>	: 1:26
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 27,0	<i>Vel. limite consentita</i>	: Km/h 190
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: U.S.A.	<i>Primo volo</i>	: 1979
<i>Country</i>	:	<i>First flight</i>	:

MONERAI

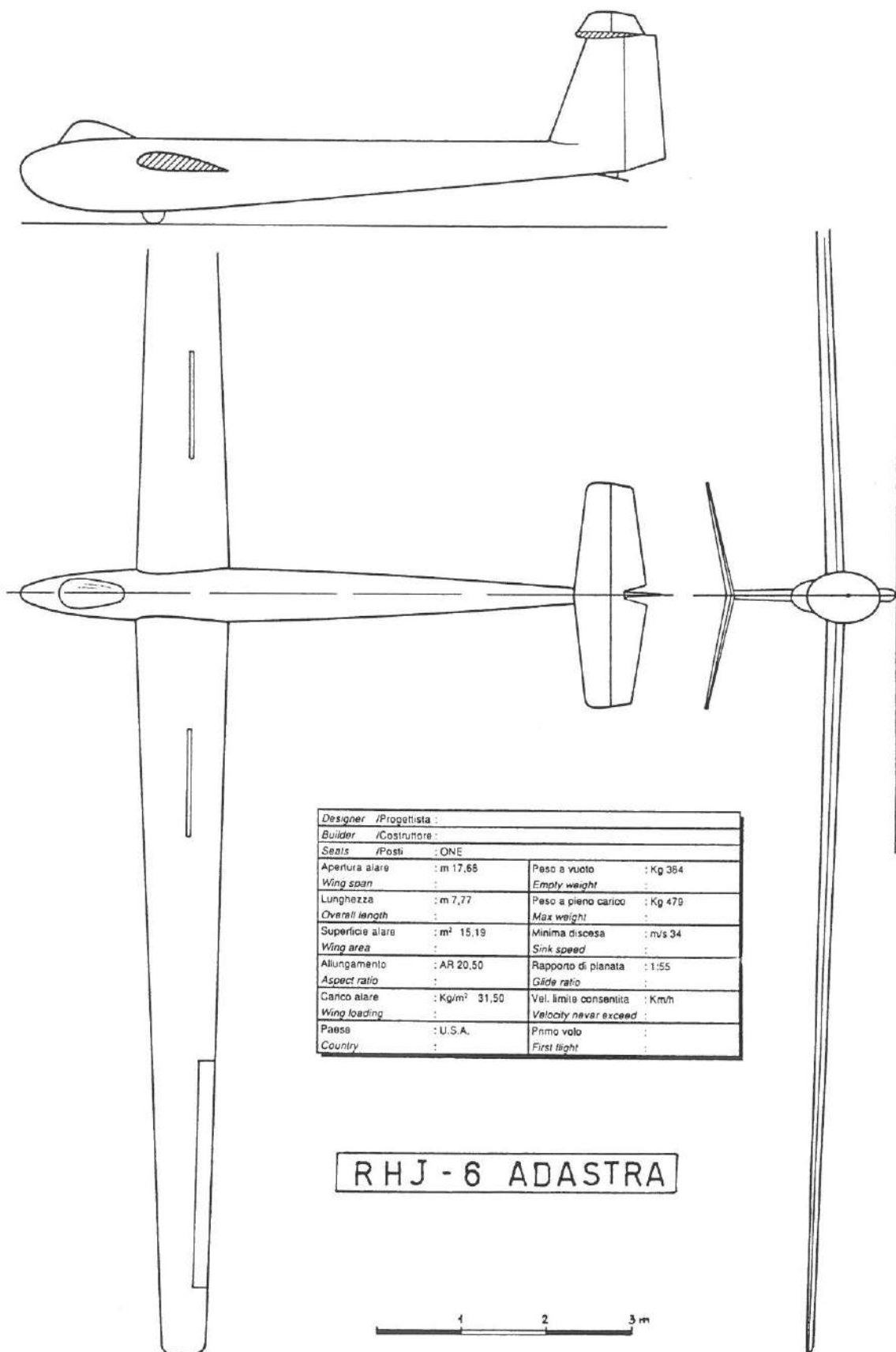




Designer /Progettista	PRATT READ	
Builder /Costruttore	PRATT READ	
Seats /Posti	TWO ABREAST	
Apertura alare	: m 16,66	Peso a vuoto : Kg 265
Wing span	:	Empty weight :
Lunghezza	: m 7,97	Peso a pieno carico : Kg 453
Overall length	:	Max weight :
Superficie alare	: m ² 21,37	Minima discesa : m/s
Wing area	:	Sink speed :
Allungamento	: AR 12,91	Rapporto di planata : 1:23
Aspect ratio	:	Glide ratio :
Carico alare	: Kg/m ² 24,40	Vel. limite consentita : Km/h
Wing loading	:	Velocity never exceed :
Paese	: U.S.A.	Primo volo : 1941
Country	:	First flight :

PRATT READ G.1

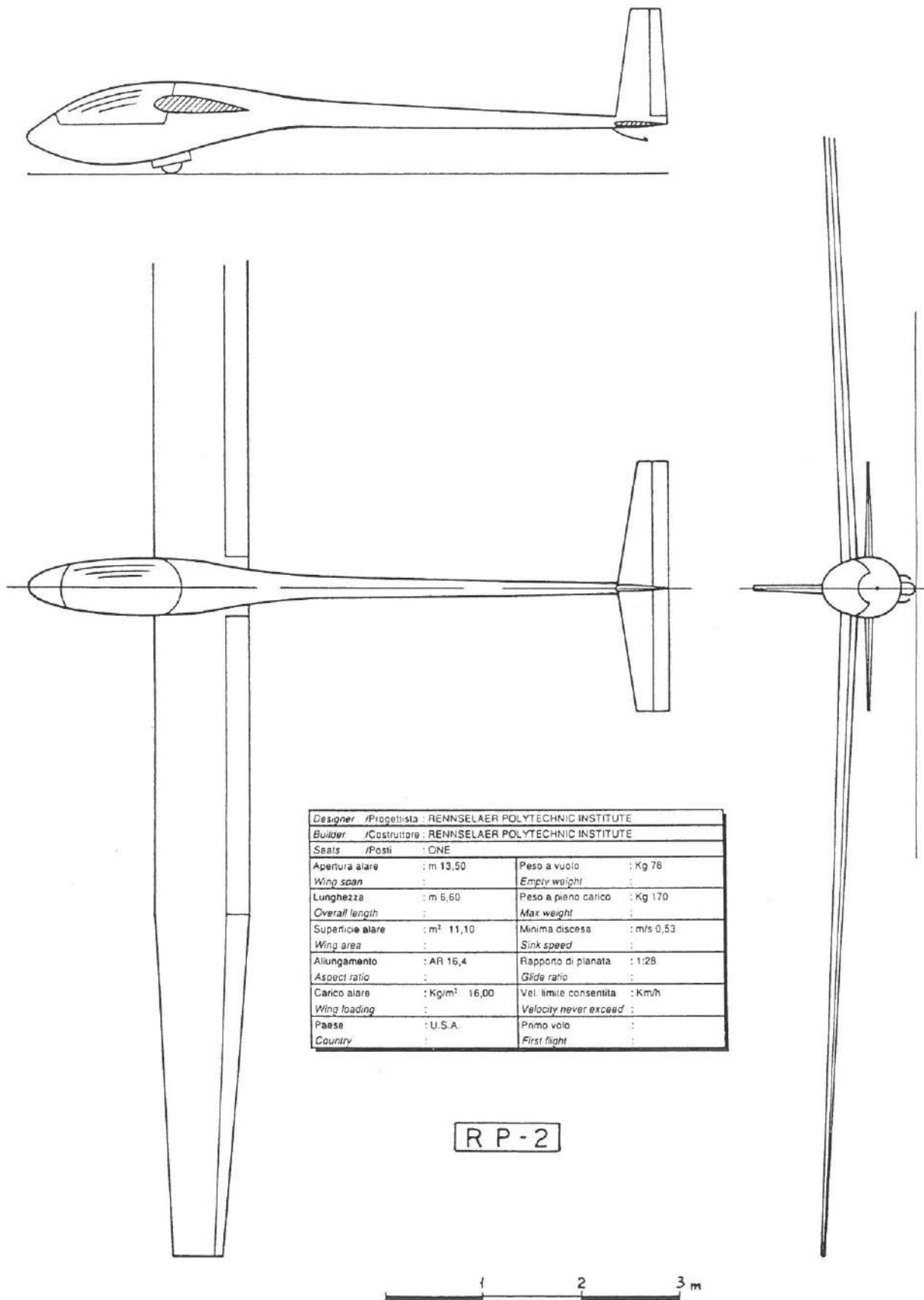
1 2 3 m



Designer /Progettista :			
Builder /Costruttore :			
Seats /Posti : ONE			
Apertura alare	: m 17,65	Peso a vuoto	: Kg 384
Wing span	:	Empty weight	:
Lunghezza	: m 7,77	Peso a pieno carico	: Kg 479
Overall length	:	Max weight	:
Superficie alare	: m ² 15,19	Minima discesa	: m/s 34
Wing area	:	Sink speed	:
Allungamento	: AR 20,50	Rapporto di planata	: 1:55
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 31,50	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	:
Country	:	First flight	:

RHJ - 6 ADASTRA

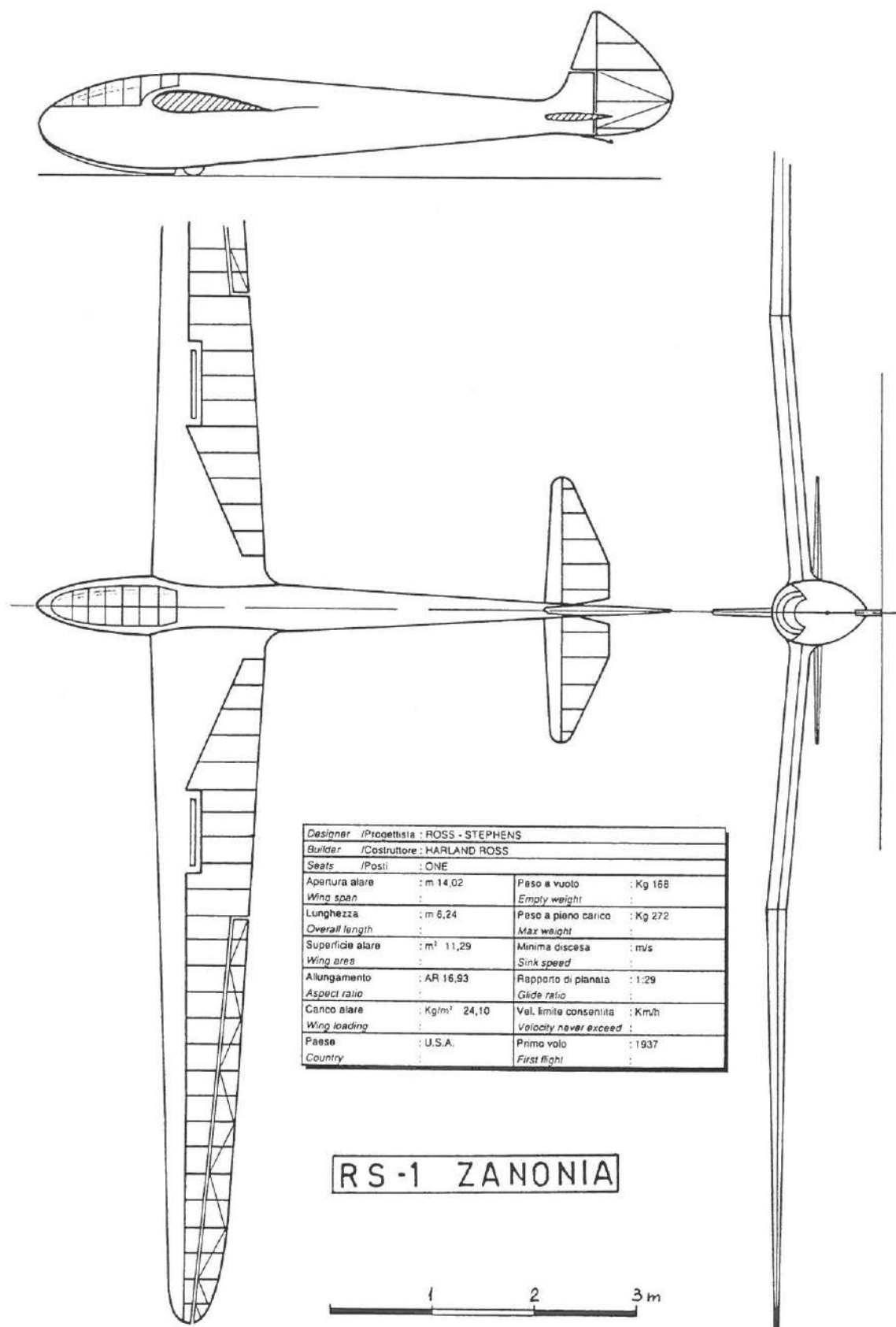
1 2 3 m



Designer /Progettista	: RENNSELAER POLYTECHNIC INSTITUTE		
Builder /Costruttore	: RENNSELAER POLYTECHNIC INSTITUTE		
Seats /Posti	: ONE		
Apertura alare	: m 13,50	Peso a vuoto	: Kg 78
Wing span	:	Empty weight	:
Lunghezza	: m 6,60	Peso a pieno carico	: Kg 170
Overall length	:	Max weight	:
Superficie alare	: m ² 11,10	Minima discesa	: m/s 0,53
Wing area	:	Sink speed	:
Allungamento	: AR 16,4	Rapporto di planata	: 1:28
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 16,00	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	:
Country	:	First flight	:

RP-2

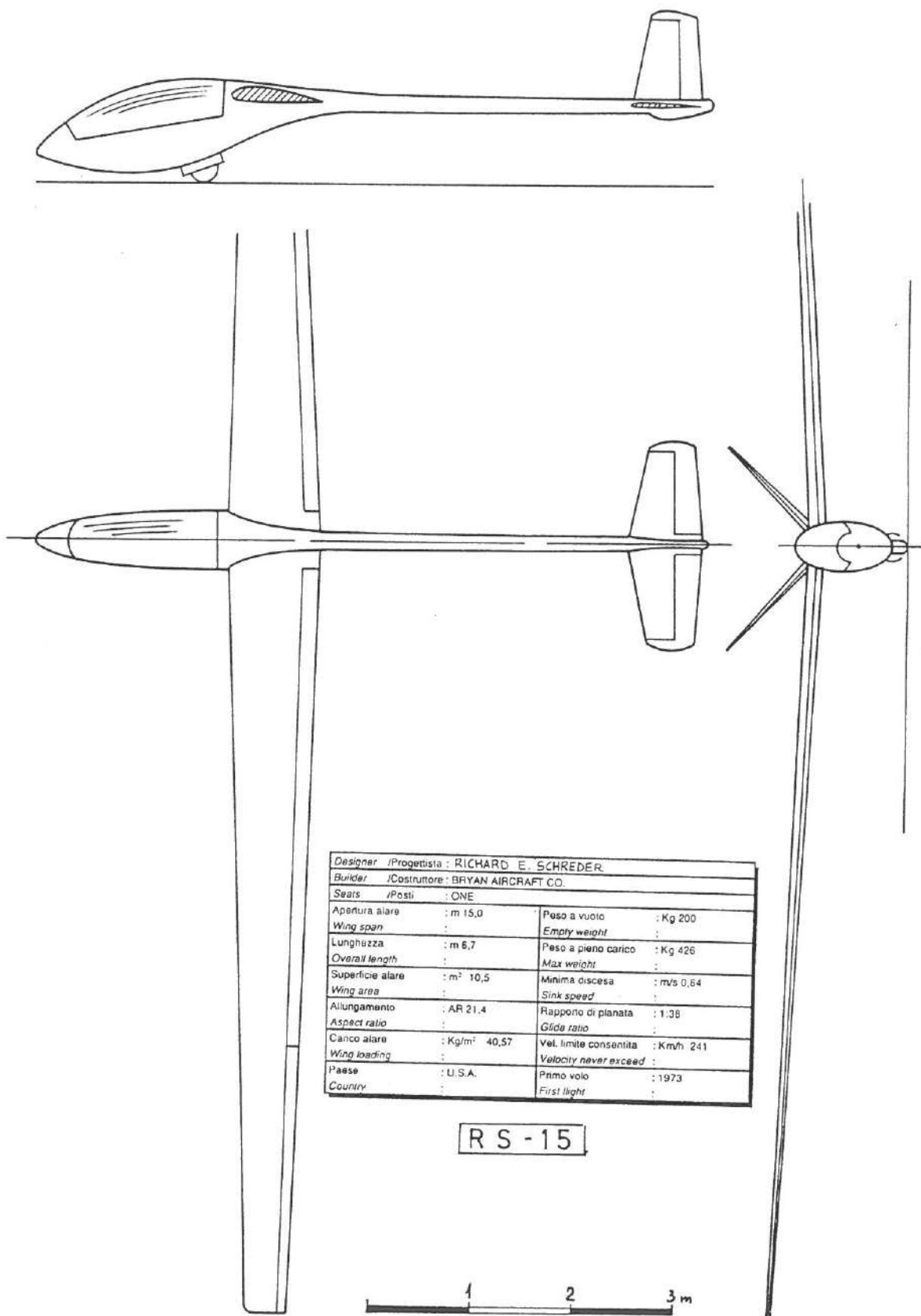
1 2 3 m



Designer / Progettista	ROSS - STEPHENS		
Builder / Costruttore	HARLAND ROSS		
Seats / Posti	ONE		
Apertura alare	: m 14,02	Peso a vuoto	: Kg 168
Wing span	:	Empty weight	:
Lunghezza	: m 6,24	Peso a pieno carico	: Kg 272
Overall length	:	Max weight	:
Superficie alare	: m ² 11,29	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 16,93	Rapporto di planata	: 1:29
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 24,10	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1937
Country	:	First flight	:

RS-1 ZANONIA

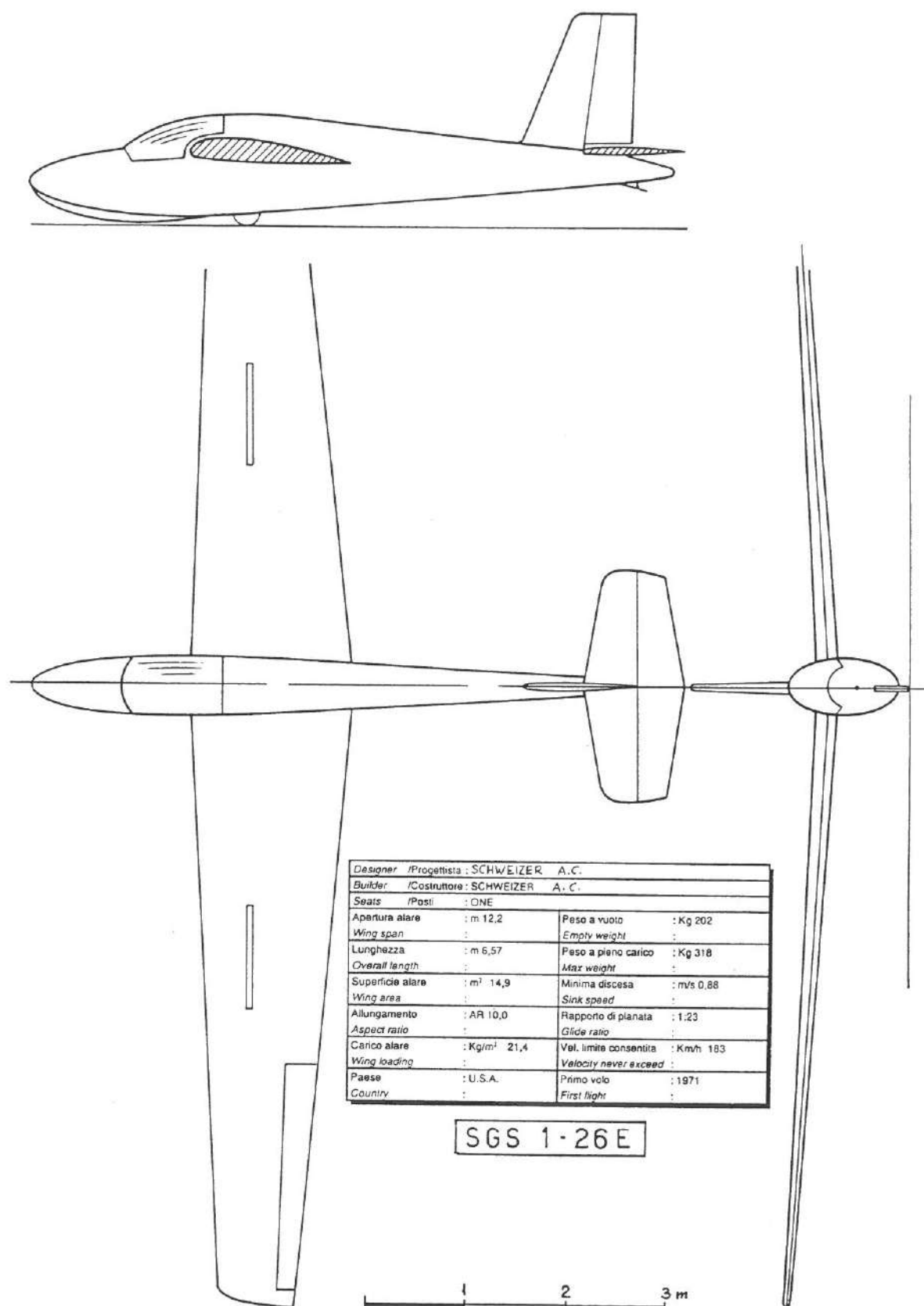
1 2 3 m

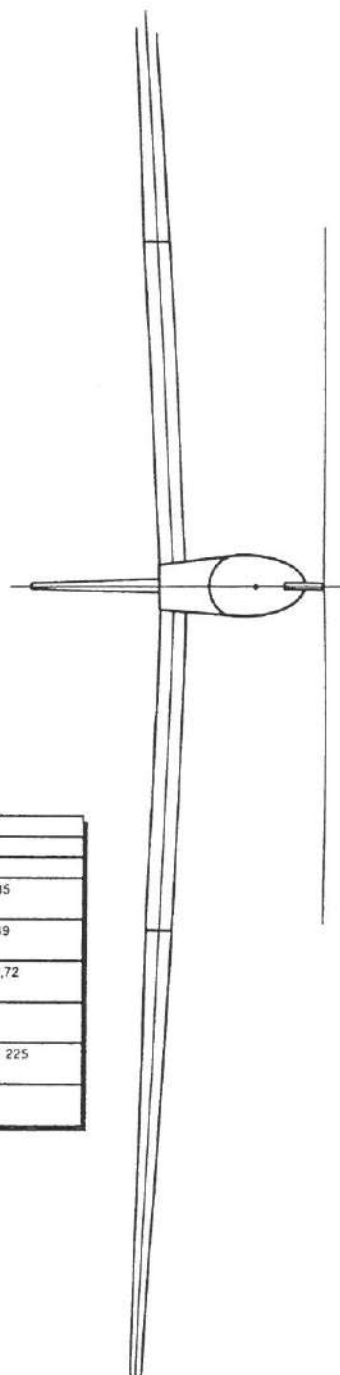
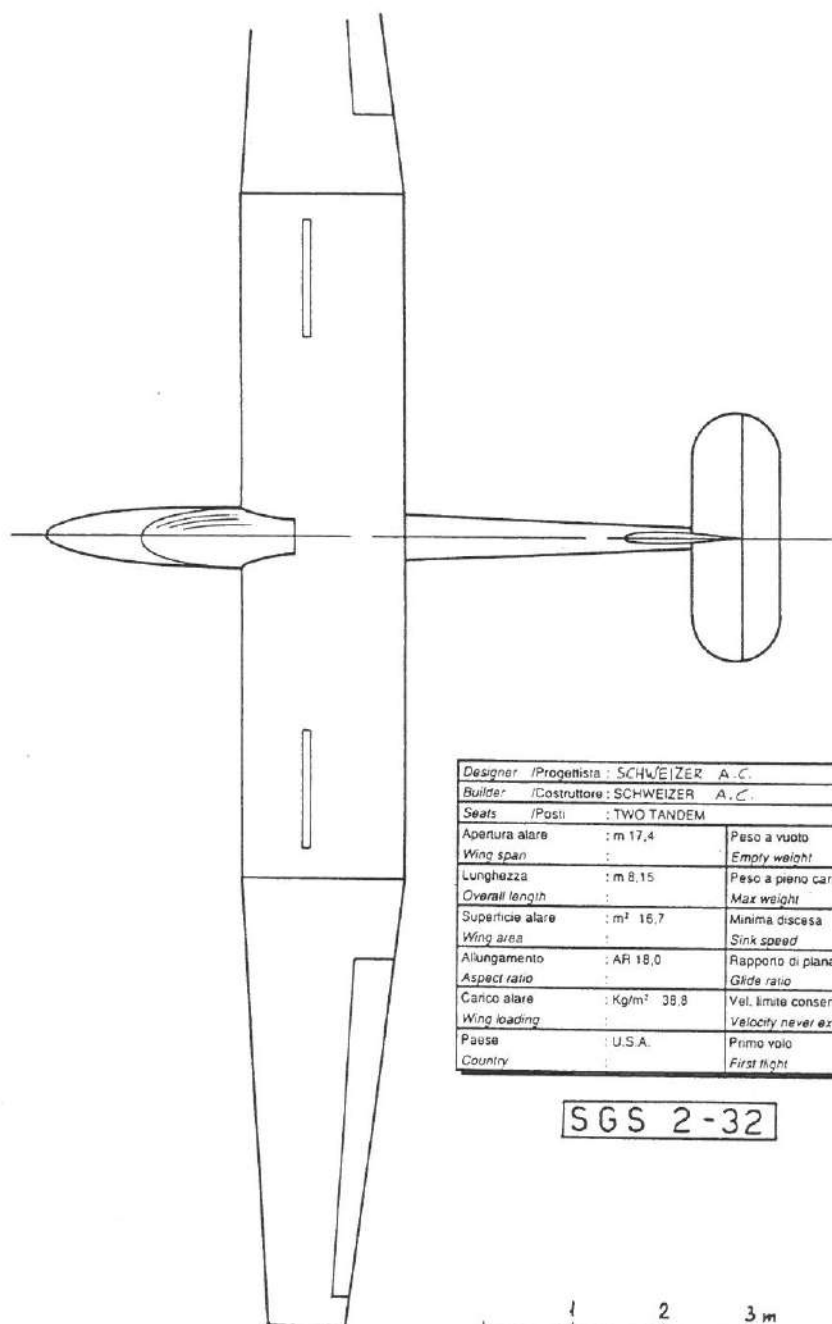
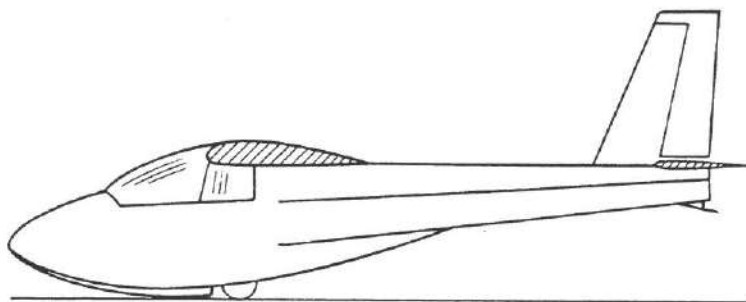


Designer / Progettista : RICHARD E. SCHREDER			
Builder / Costruttore : BRYAN AIRCRAFT CO.			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 200
Wing span	:	Empty weight	:
Lunghezza	: m 6,7	Peso a pieno carico	: Kg 426
Overall length	:	Max weight	:
Superficie alare	: m ² 10,5	Minima discesa	: m/s 0,64
Wing area	:	Sink speed	:
Allungamento	: AR 21,4	Rapporto di planata	: 1,38
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ² 40,57	Vel. limite consentita	: Km/h 241
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1973
Country	:	First light	:

RS-15



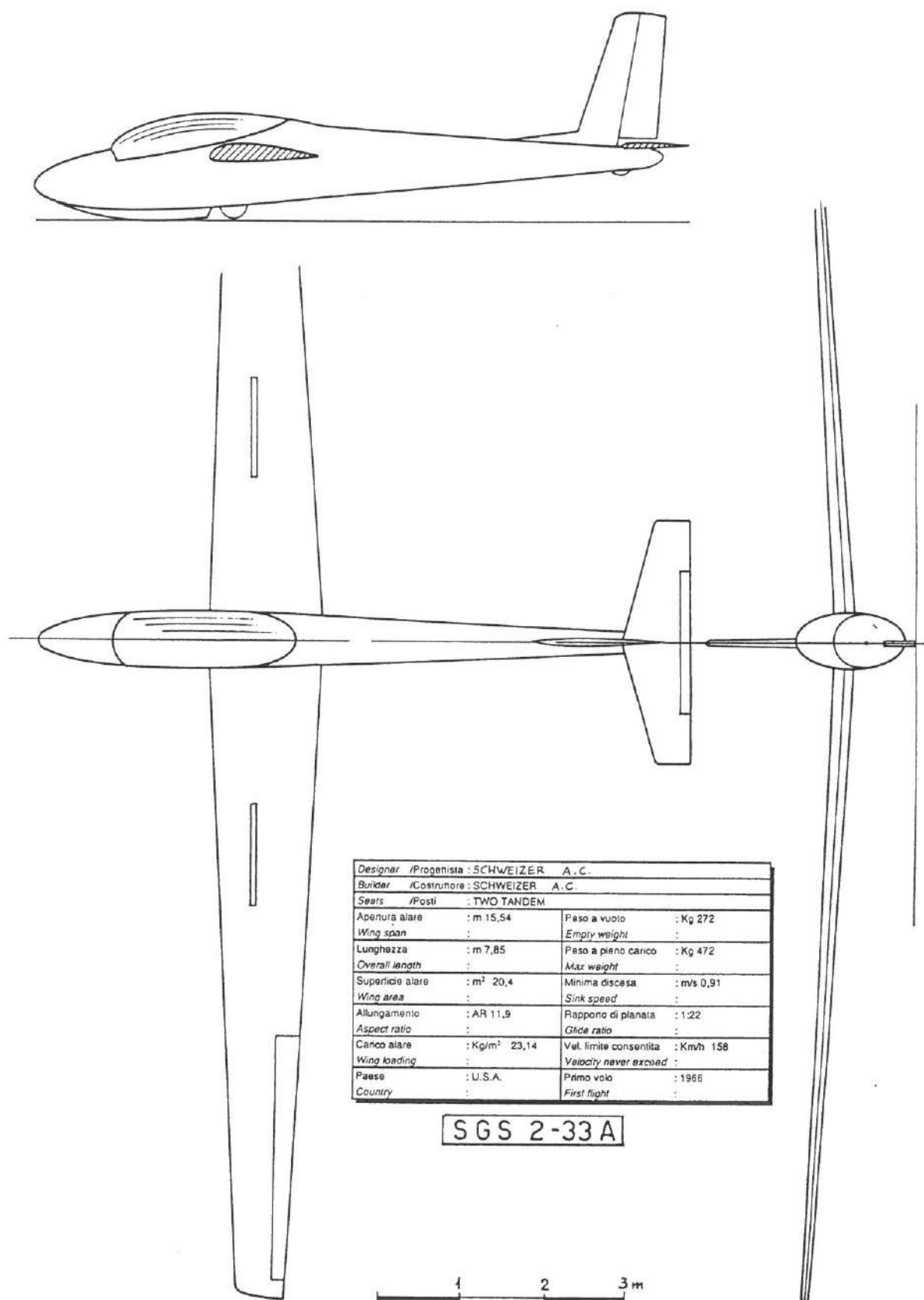


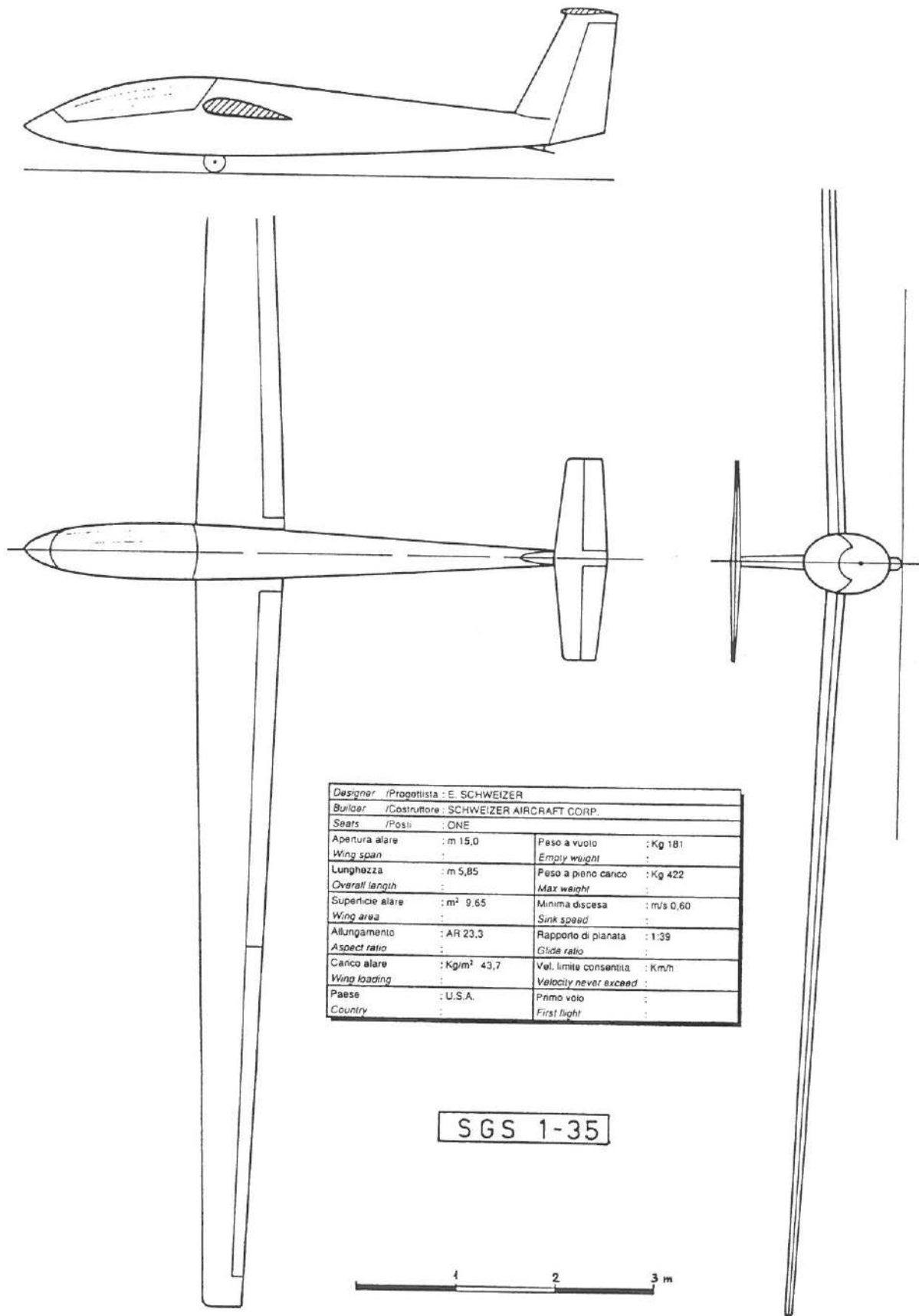


Designer / Progettista	SCHWEIZER A.C.		
Builder / Costruttore	SCHWEIZER A.C.		
Seats / Posti	TWO TANDEM		
Apertura alare	: m 17,4	Peso a vuoto	: Kg 385
Wing span	:	Empty weight	:
Lunghezza	: m 8,15	Peso a pieno carico	: Kg 649
Overall length	:	Max weight	:
Superficie alare	: m ² 16,7	Minima discesa	: m/s 0,72
Wing area	:	Sink speed	:
Allungamento	: AR 18,0	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 38,8	Vel. limite consentita	: Km/h 225
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1962
Country	:	First flight	:

SGS 2-32



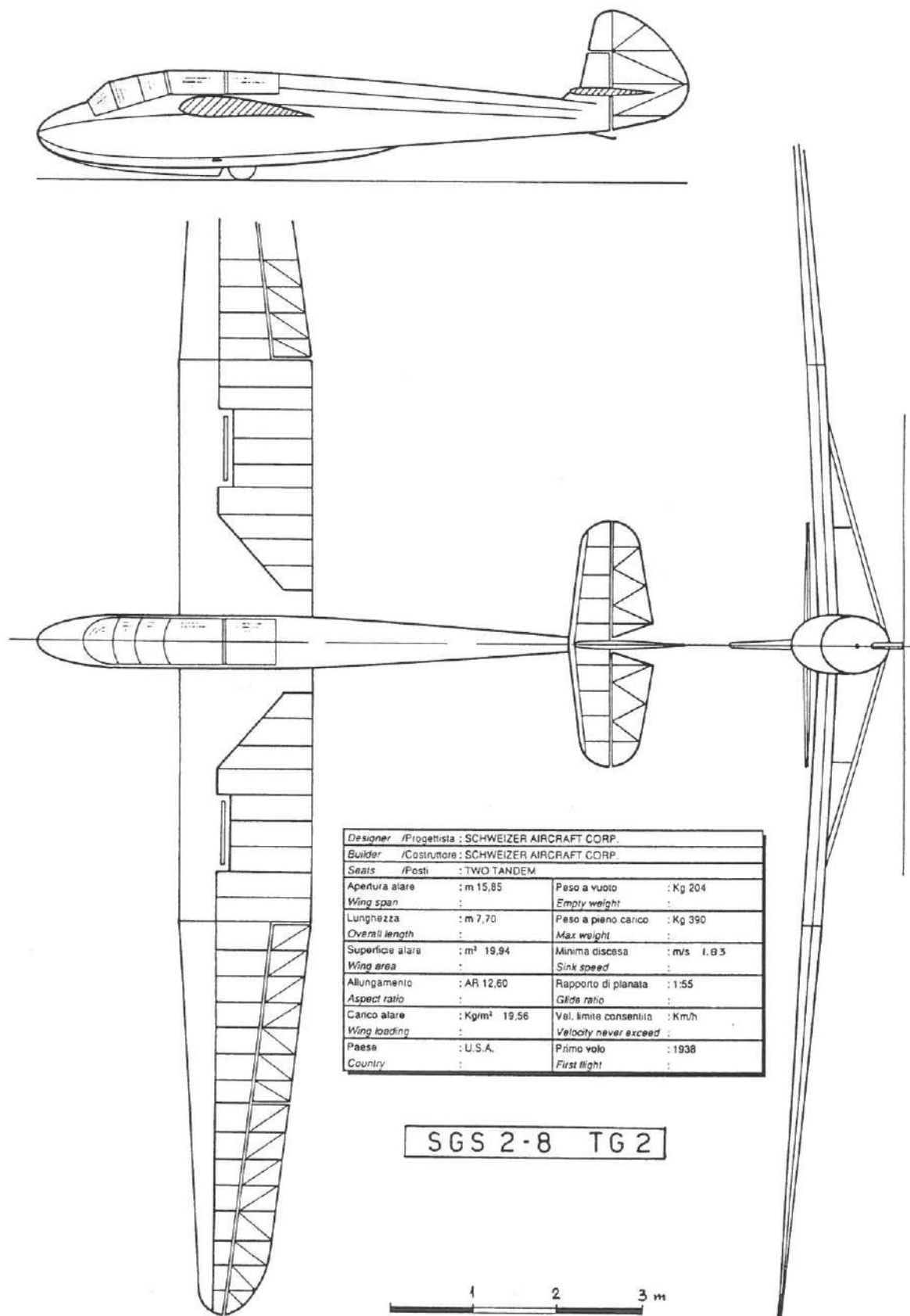


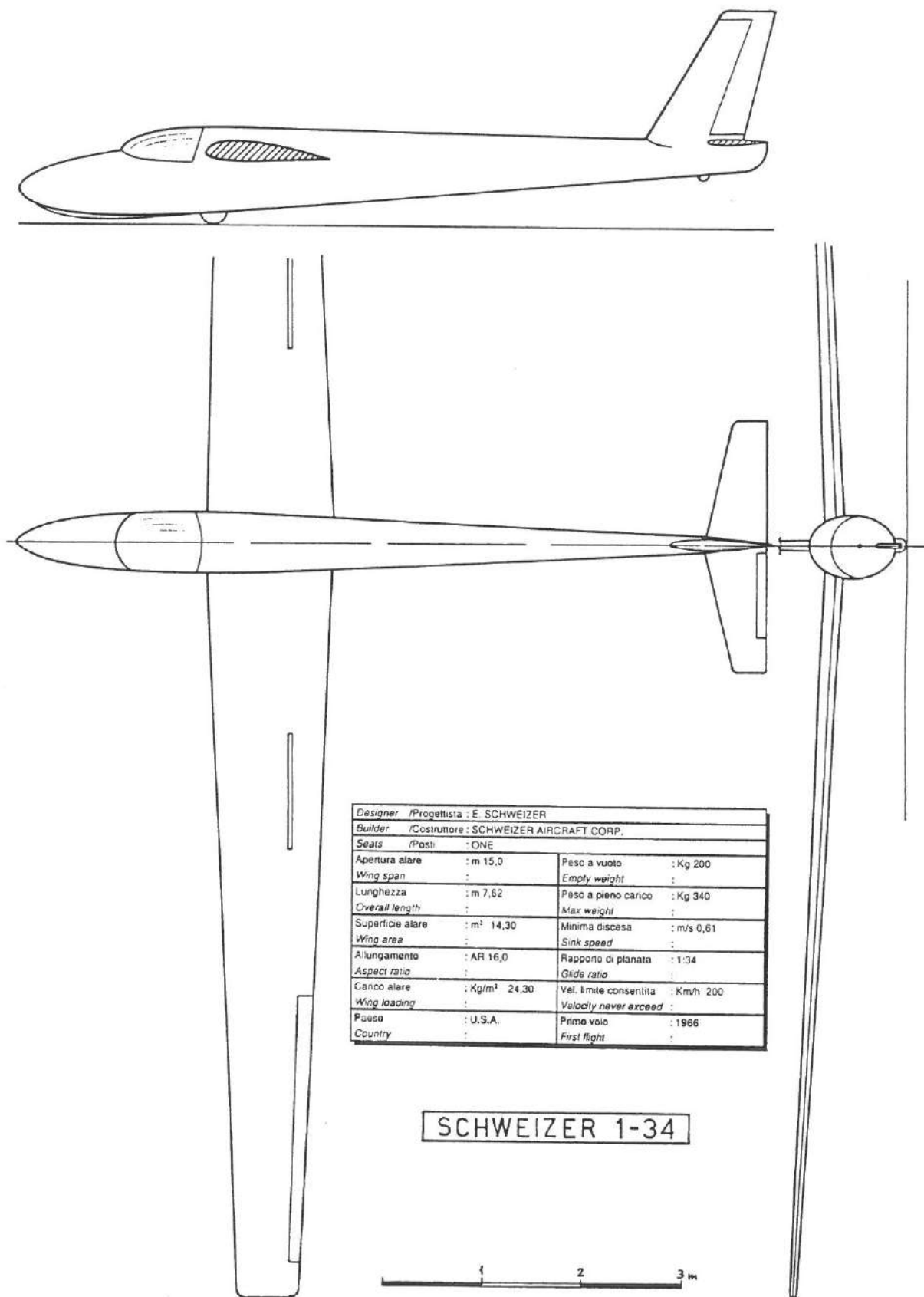


Designer / Progettista : E. SCHWEIZER			
Builder / Costruttore : SCHWEIZER AIRCRAFT CORP.			
Seats / Posi : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 181
Wing span	:	Empty weight	:
Lunghezza	: m 5,85	Peso a pieno carico	: Kg 422
Overall length	:	Max weight	:
Superficie alare	: m ² 9,65	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 23,3	Rapporto di planata	: 1:39
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 43,7	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	:
Country	:	First flight	:

SGS 1-35

1 2 3 m

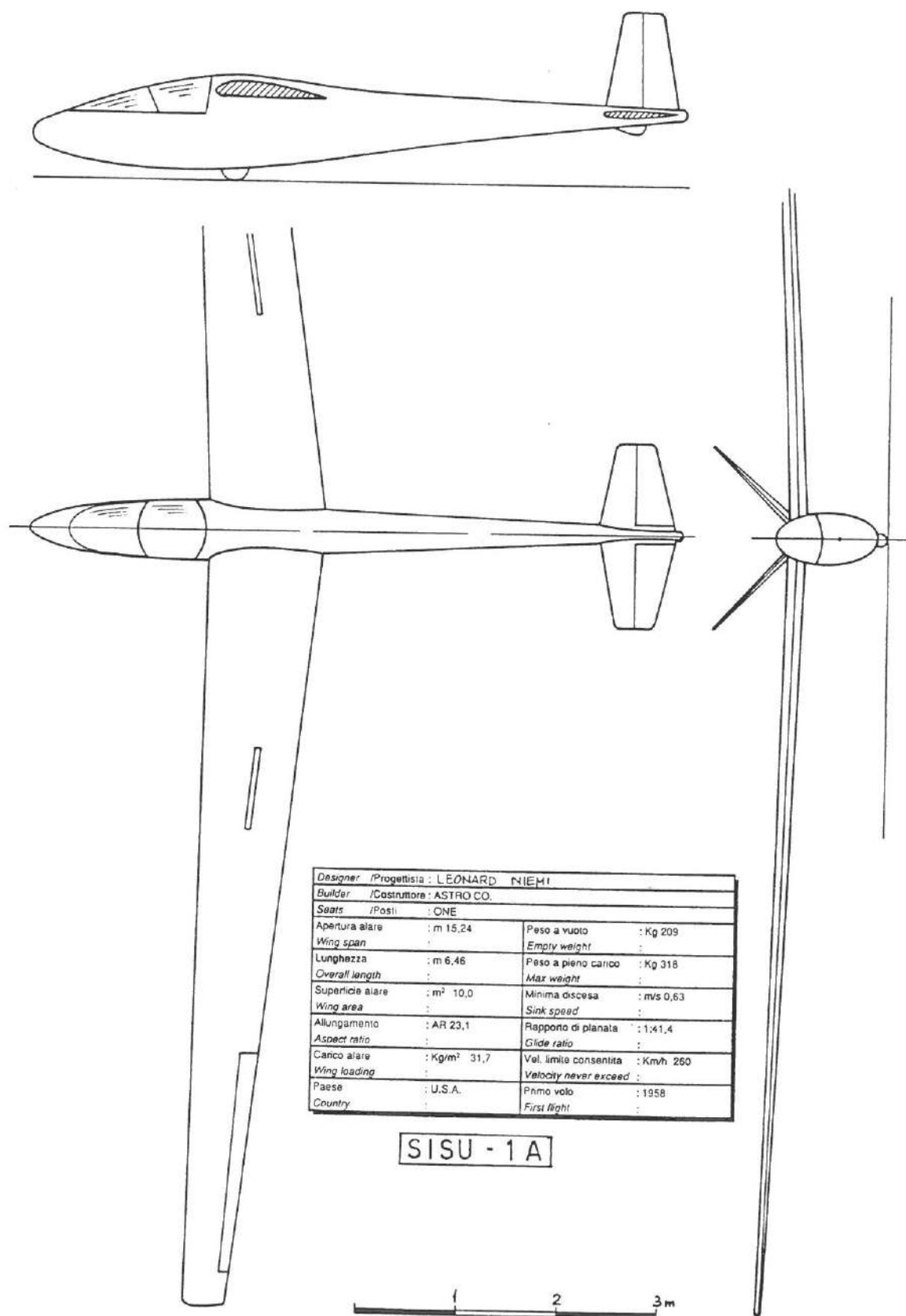


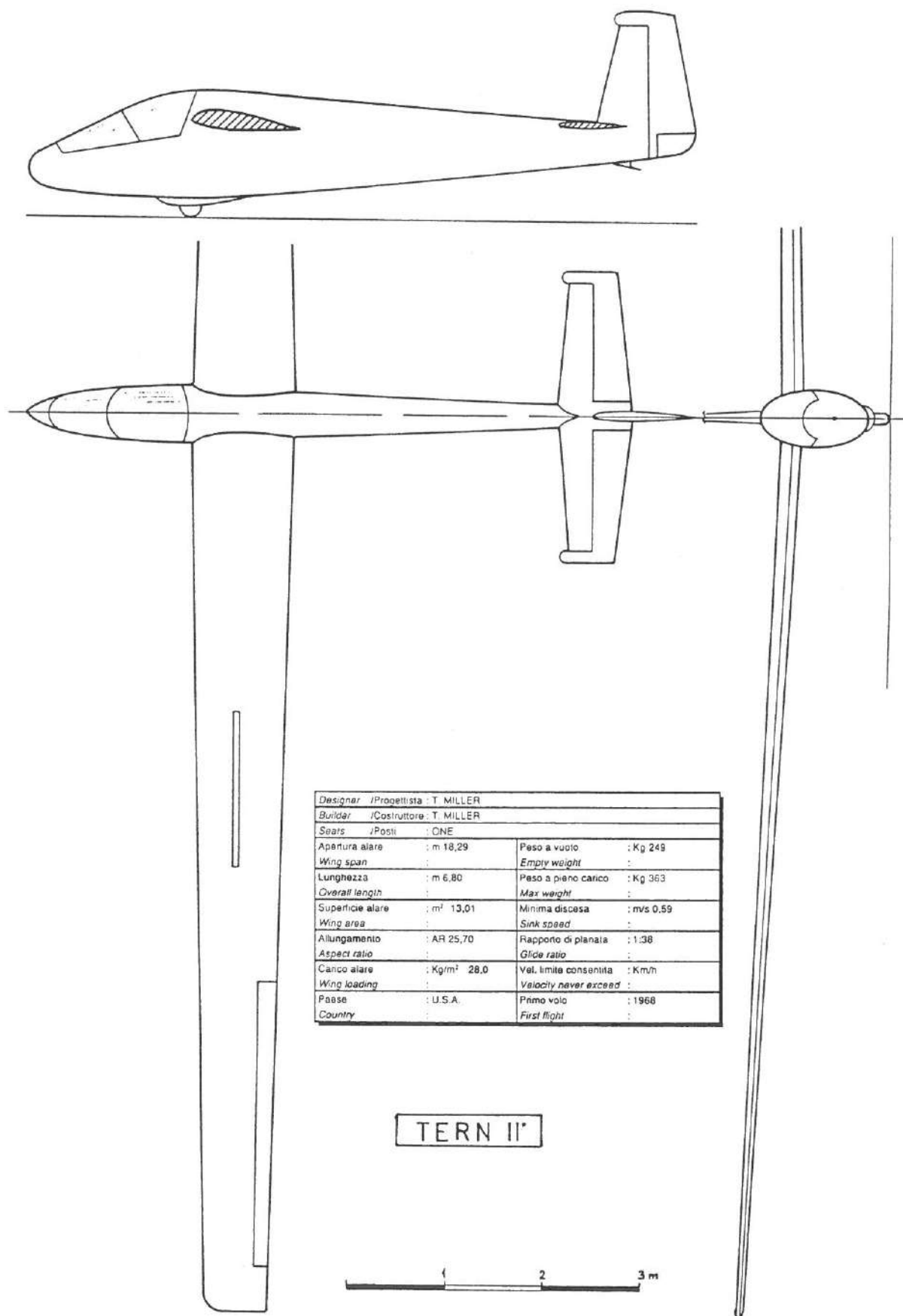


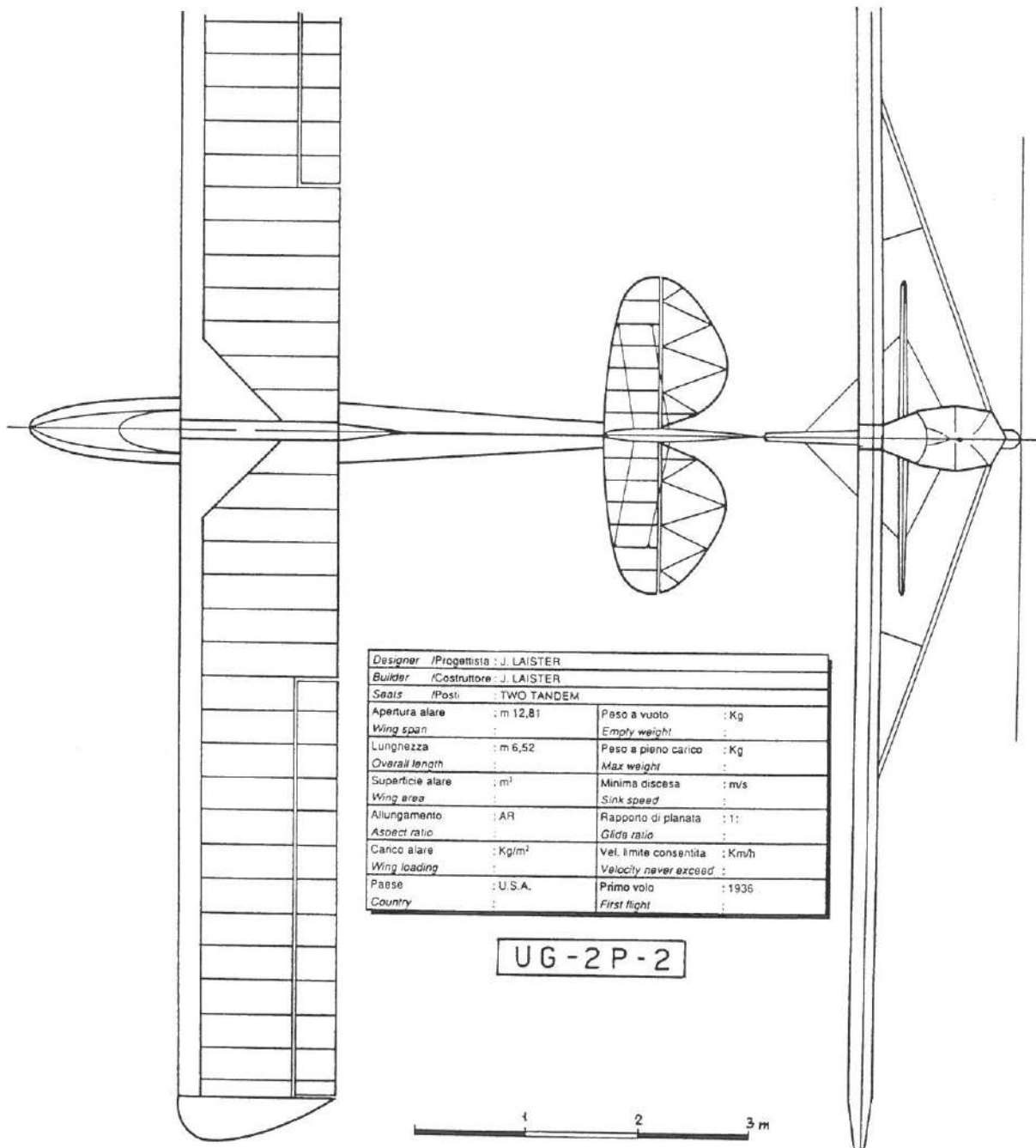
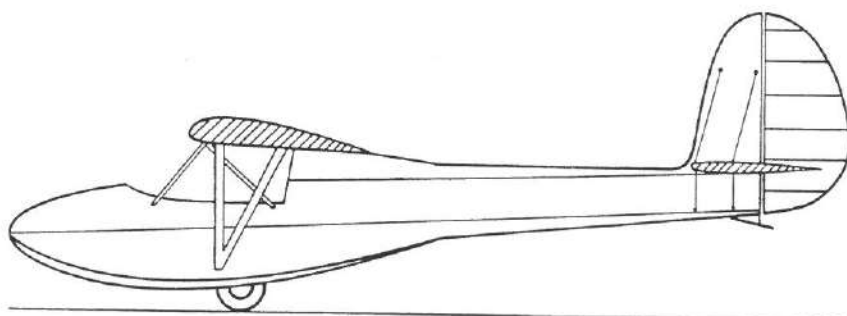
Designer /Progettista : E. SCHWEIZER			
Builder /Costruttore : SCHWEIZER AIRCRAFT CORP.			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 200
Wing span	:	Empty weight	:
Lunghezza	: m 7,62	Peso a pieno carico	: Kg 340
Overall length	:	Max weight	:
Superficie alare	: m ² 14,30	Minima discesa	: m/s 0,61
Wing area	:	Sink speed	:
Allungamento	: AR 16,0	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 24,30	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1966
Country	:	First flight	:

SCHWEIZER 1-34





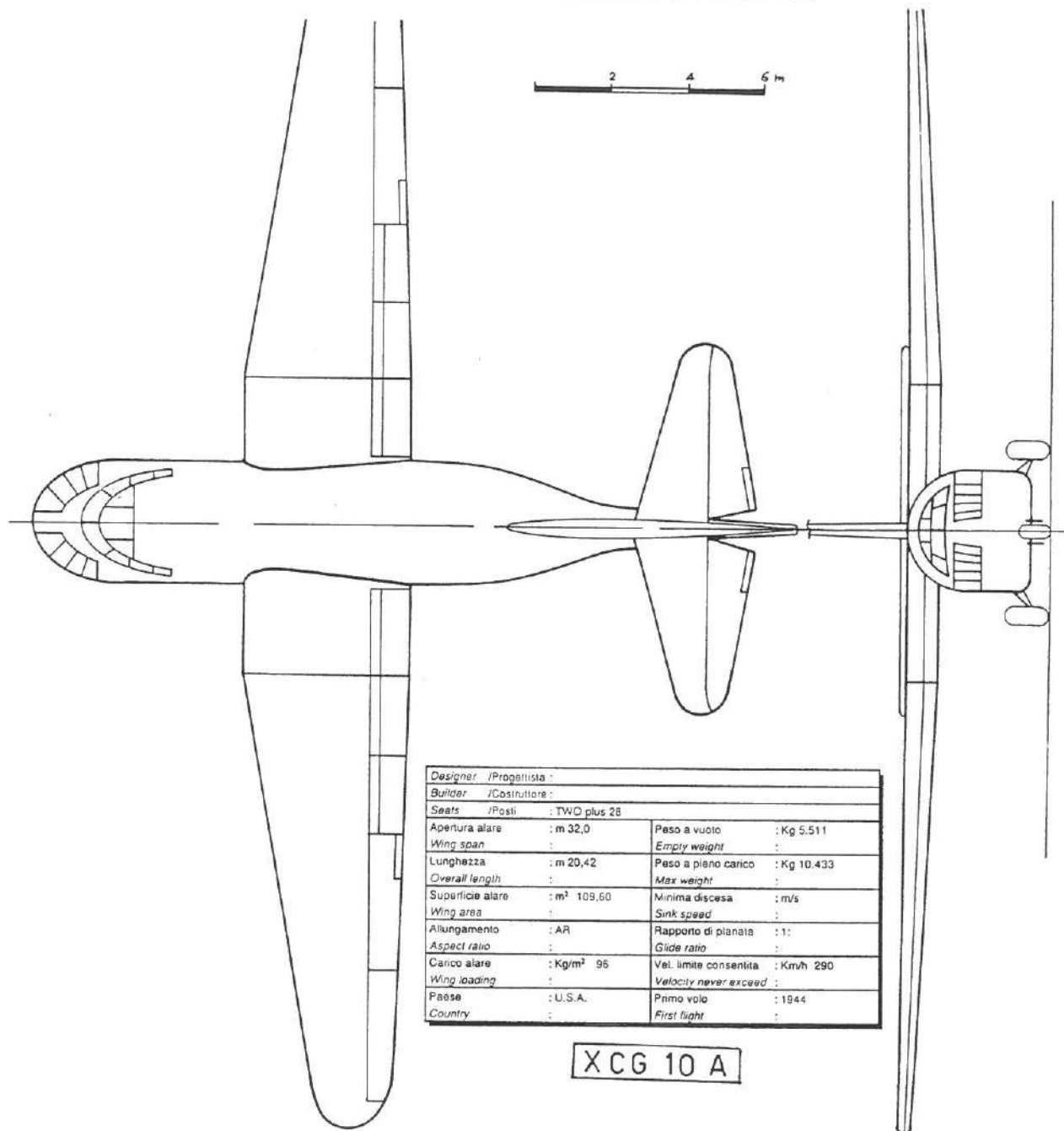
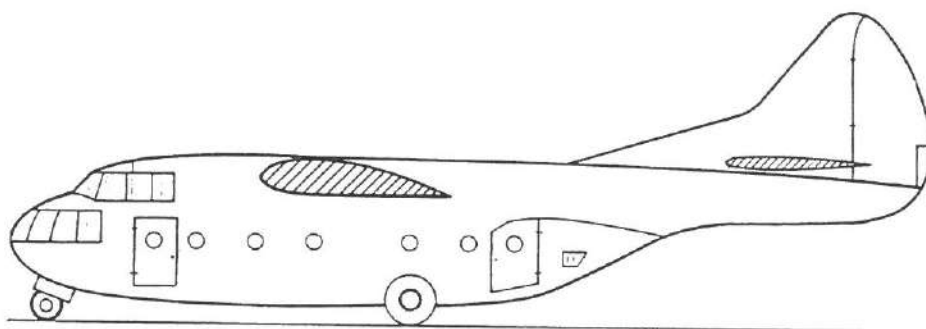




Designer /Progettista : J. LAISTER			
Builder /Costruttore : J. LAISTER			
Seats /Posti: TWO TANDEM			
Apertura alare	: m 12,81	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 6,52	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ²	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 11
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1936
Country	:	First flight	:

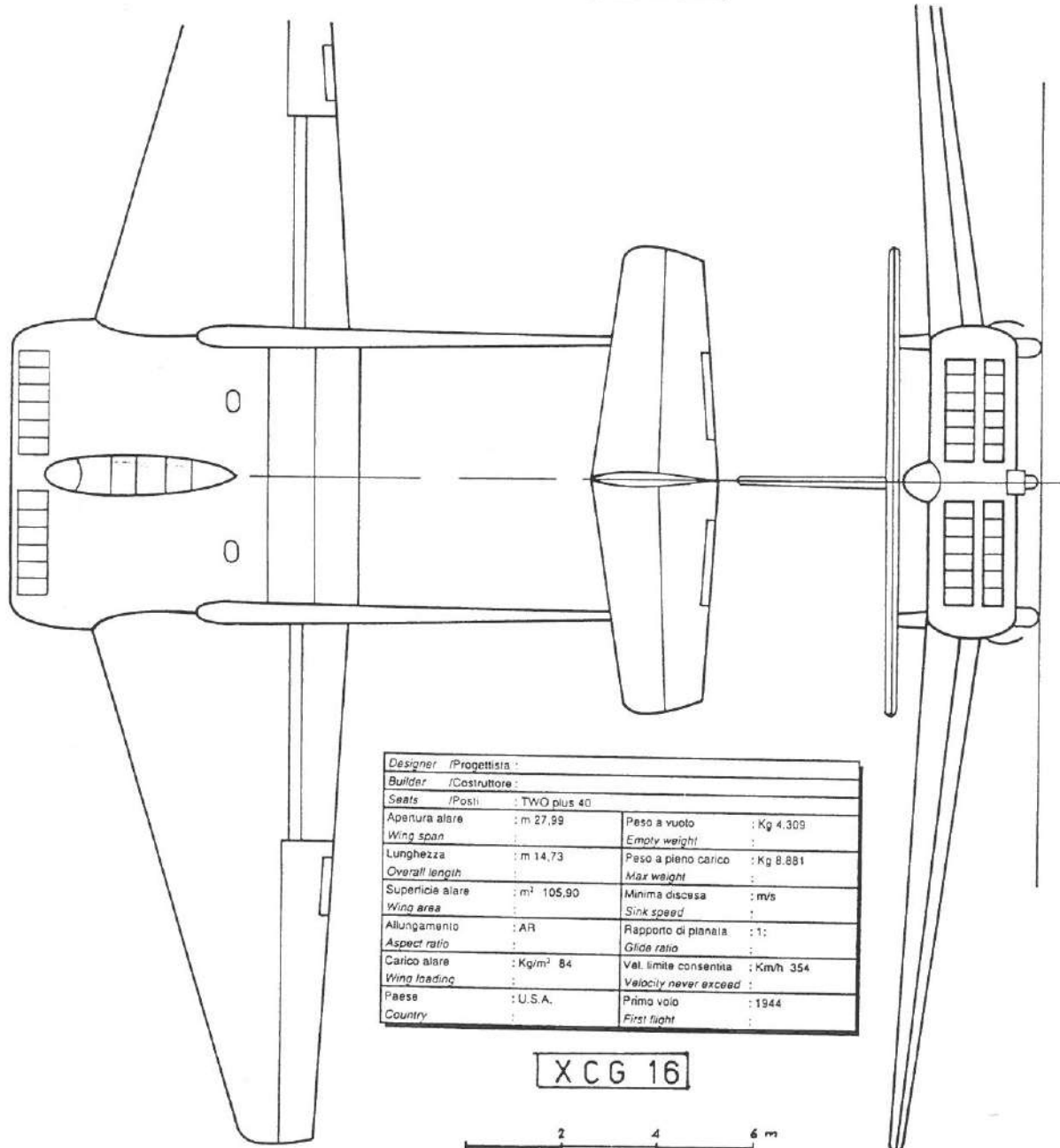
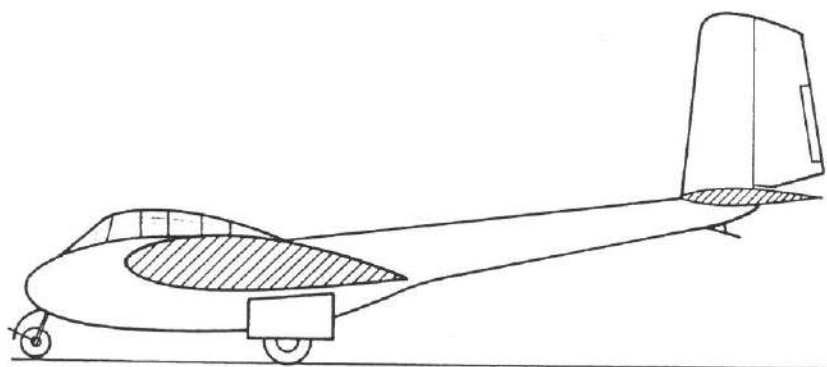
UG-2P-2

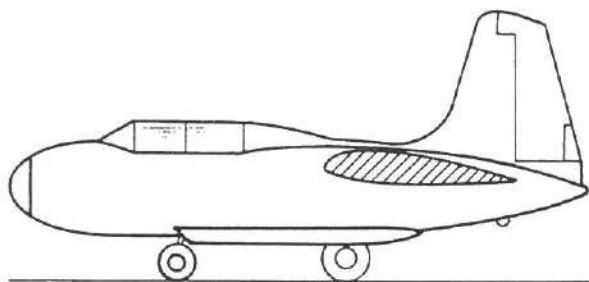
1 2 3 m



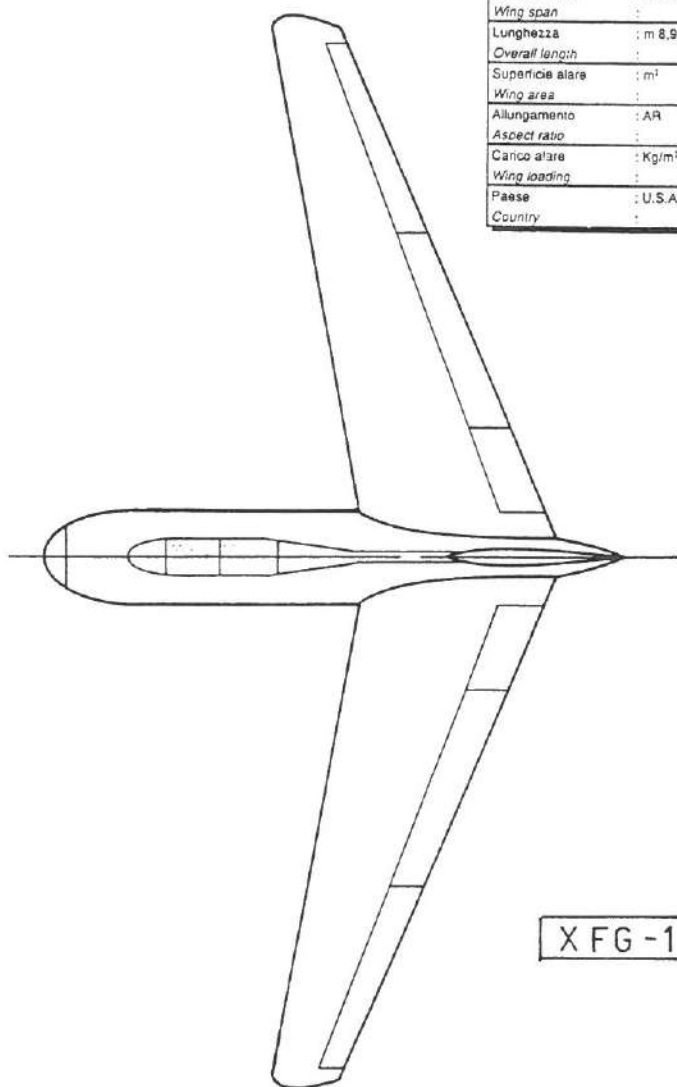
Designer / Progettista :			
Builder / Costruttore :			
Seats / Posti :	TWO plus 28		
Apertura alare :	m 32,0	Peso a vuoto :	Kg 5.511
Wing span :		Empty weight :	
Lunghezza :	m 20,42	Peso a pieno carico :	Kg 10.433
Overall length :		Max weight :	
Superficie alare :	m ² 109,60	Minima discesa :	m/s
Wing area :		Sink speed :	
Allungamento :	AR	Rapporto di planata :	1:
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 96	Vel. limite consentita :	Km/h 290
Wing loading :		Velocity never exceed :	
Paese :	U.S.A.	Primo volo :	1944
Country :		First flight :	

XCG 10 A

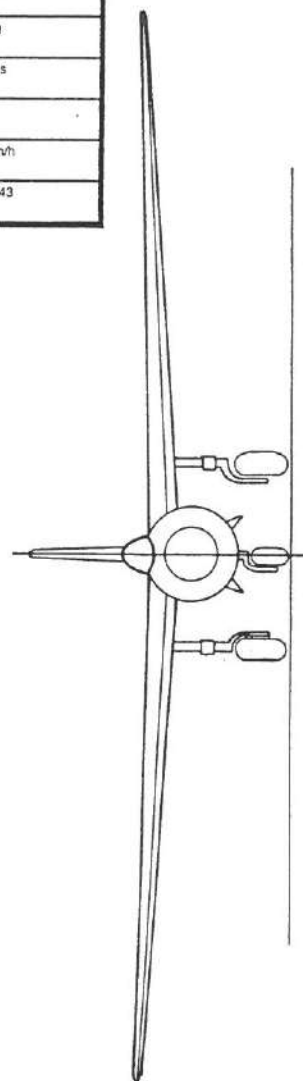


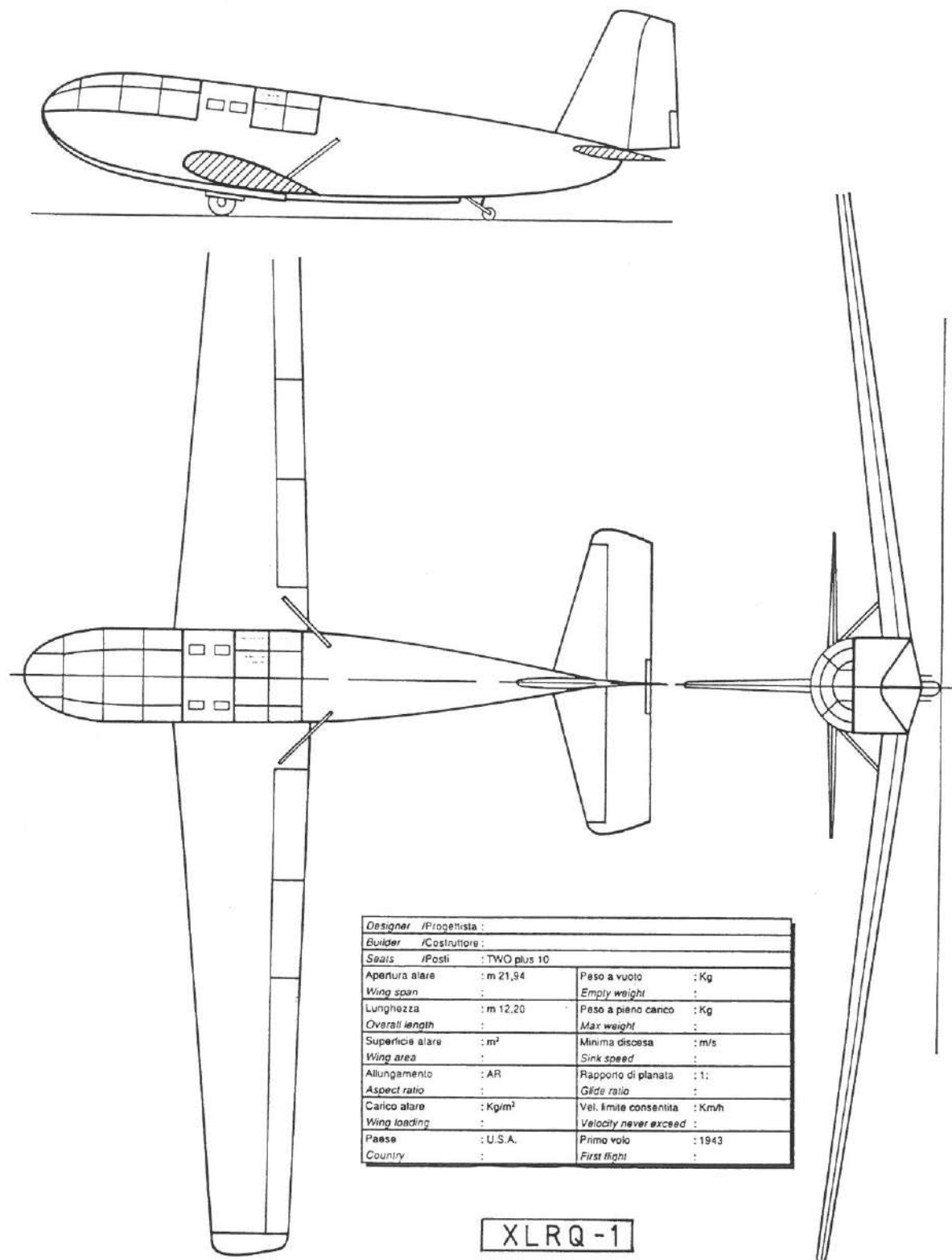


Designer / Progettista :			
Builder / Costruttore : CORNELIUS AIRCRAFT CORP.			
Seats / Posti : ONE plus 2563 Liters (FUEL)			
Apertura alare	: m 16,46	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 8,91	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ²	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1943
Country	:	First flight	:



XFG-1

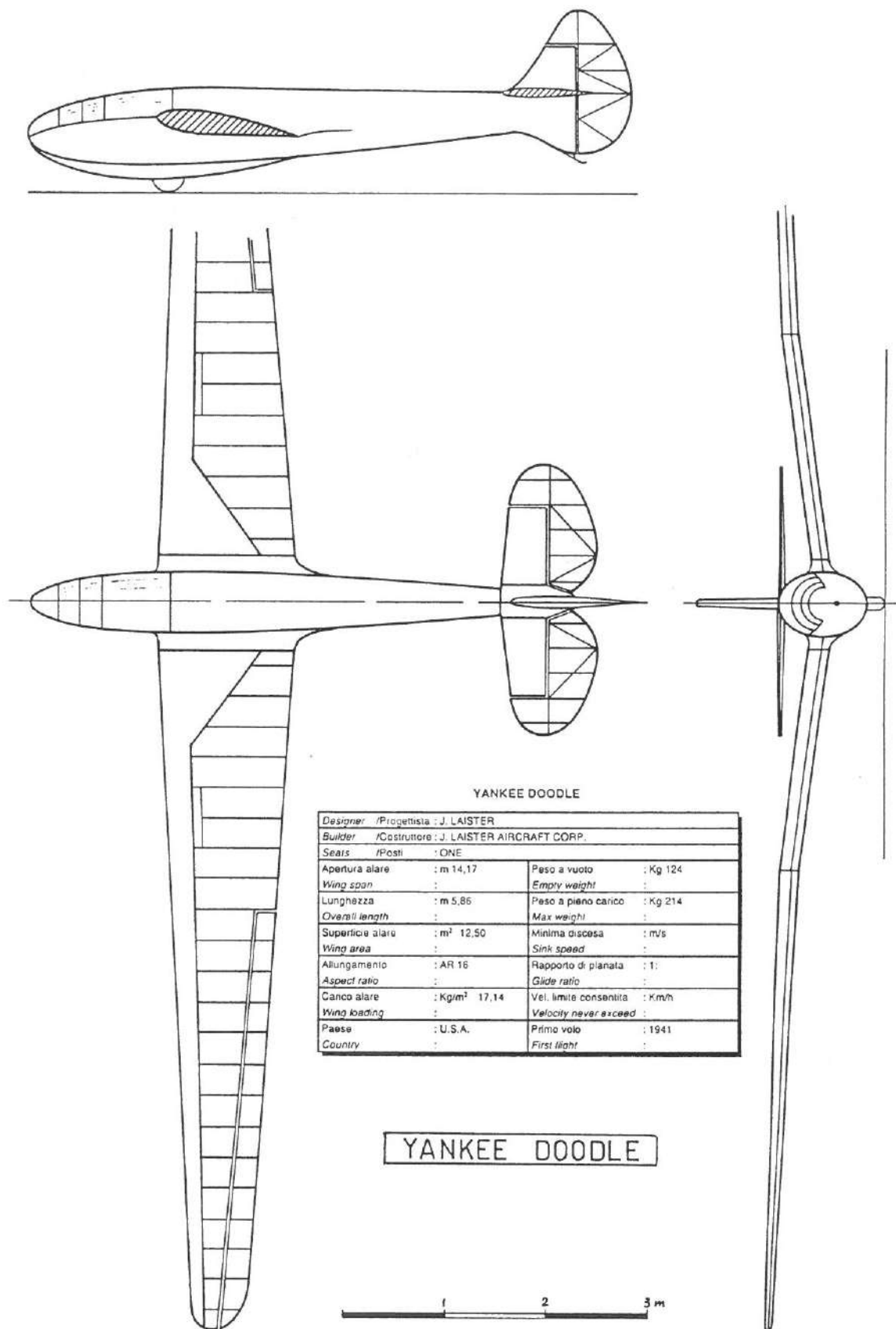


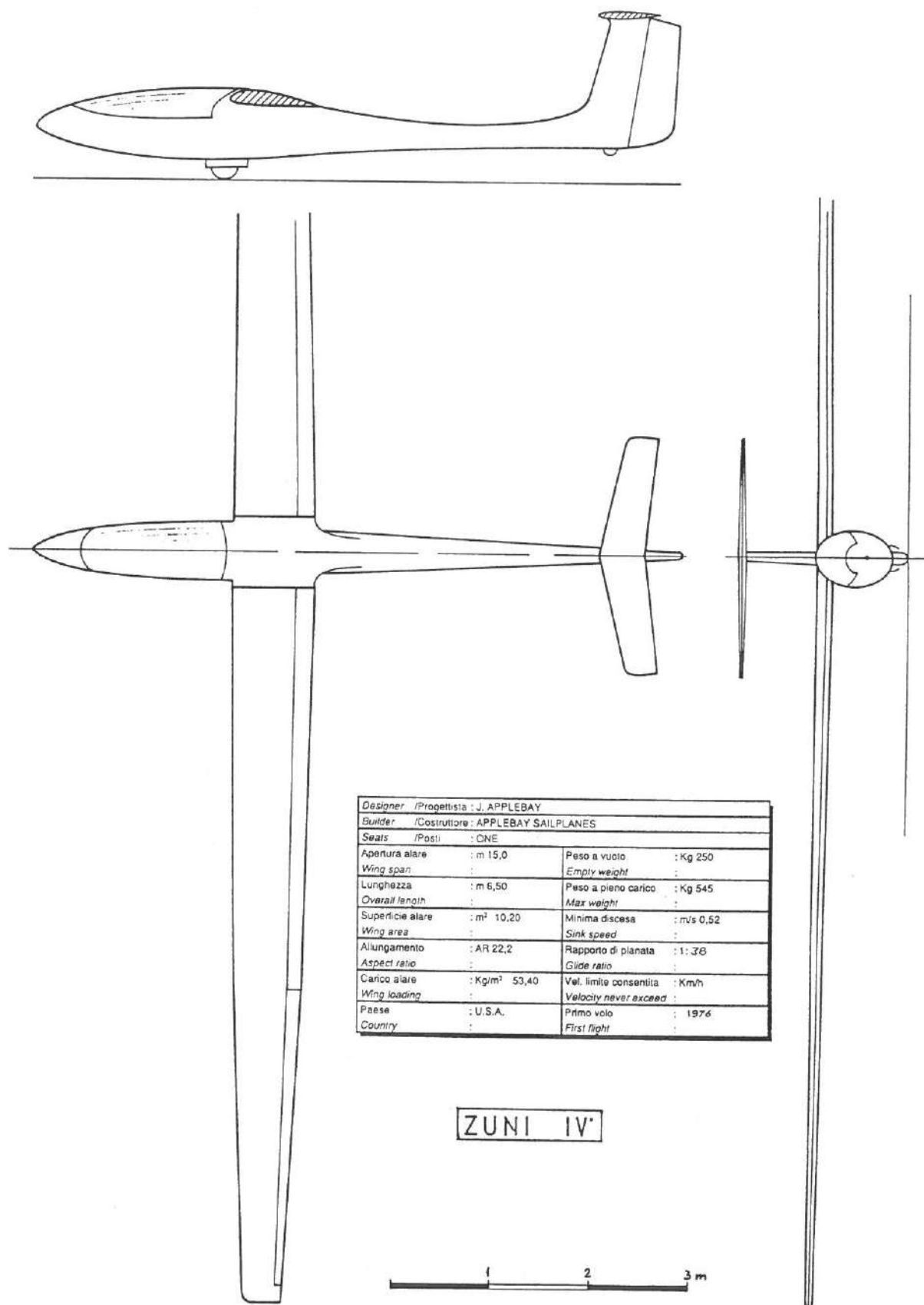


<i>Designer /Progettista :</i>			
<i>Builder /Costruttore :</i>			
<i>Seats /Posti :</i>	TWO plus 10		
<i>Apertura alare</i>	: m 21,94	<i>Peso a vuoto</i>	: Kg
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 12,20	<i>Peso a pieno carico</i>	: Kg
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ²	<i>Minima discesa</i>	: m/s
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR	<i>Rapporto di planata</i>	: 1:
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ²	<i>Vel. limite consentita</i>	: Km/h
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: U.S.A.	<i>Primo volo</i>	: 1943
<i>Country</i>	:	<i>First flight</i>	:

XLRQ-1



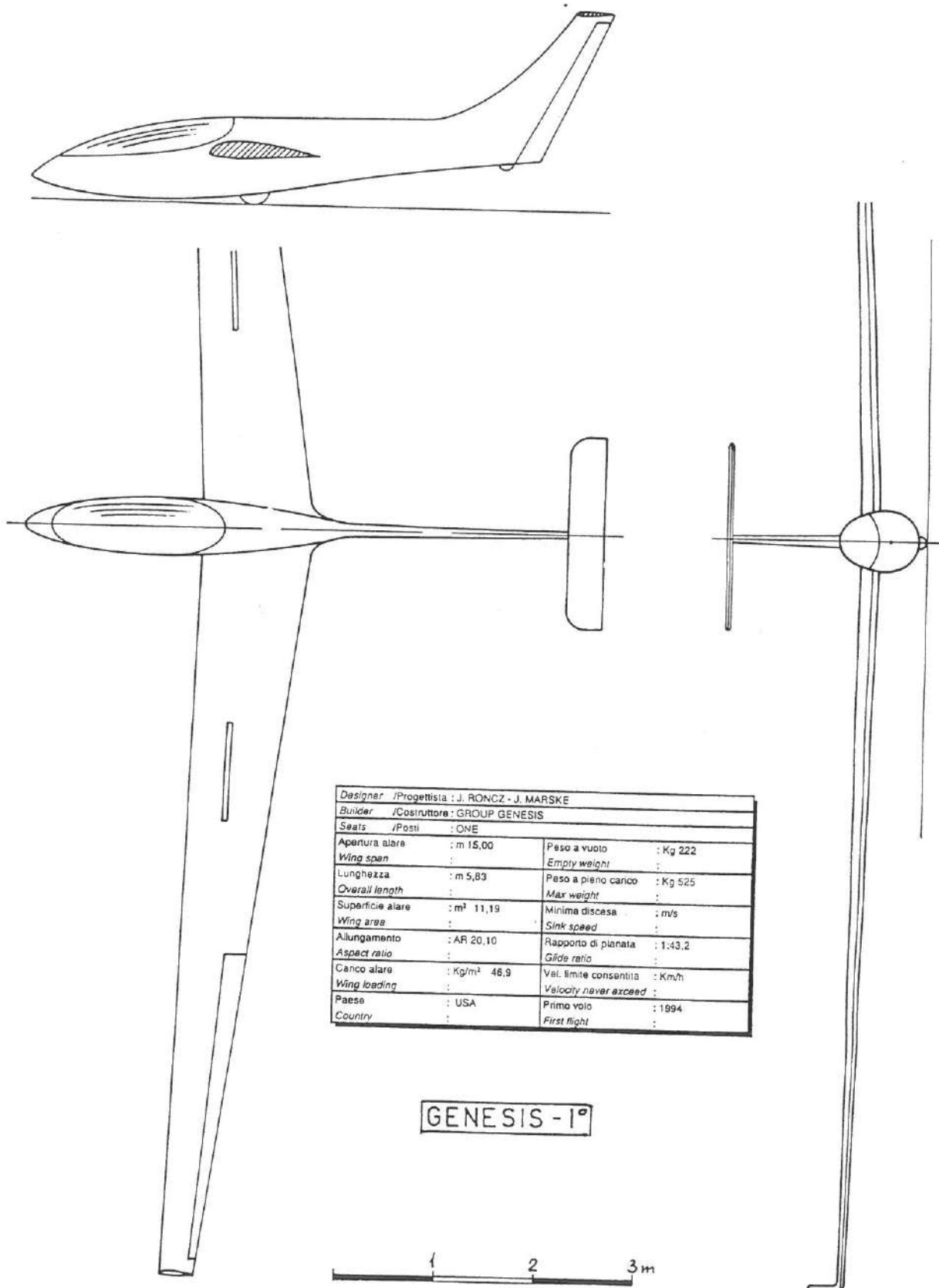




Designer /Progettista : J. APPLEBAY			
Builder /Costruttore : APPLEBAY SAILPLANES			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 250
Wing span	:	Empty weight	:
Lunghezza	: m 6,50	Peso a pieno carico	: Kg 545
Overall length	:	Max weight	:
Superficie alare	: m ² 10,20	Minima discesa	: m/s 0,52
Wing area	:	Sink speed	:
Allungamento	: AR 22,2	Rapporto di planata	: 1: 38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 53,40	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.A.	Primo volo	: 1976
Country	:	First flight	:

ZUNI IV

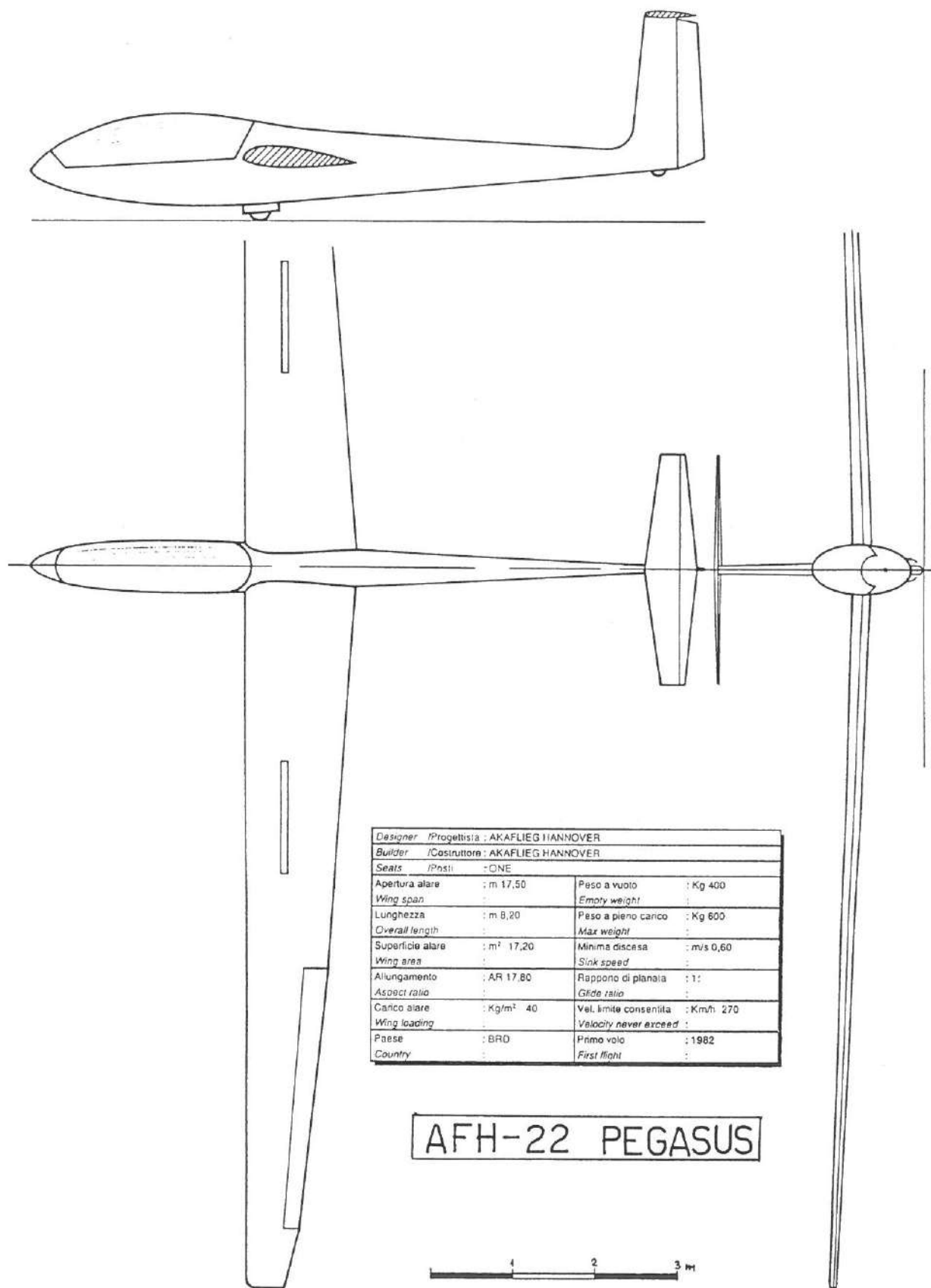
1 2 3 m



Designer	/Progettista : J. RONCZ - J. MARSKE		
Builder	/Costruttore : GROUP GENESIS		
Seats	/Posti : ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 222
Wing span	:	Empty weight	:
Lunghezza	: m 5,83	Peso a pieno carico	: Kg 525
Overall length	:	Max weight	:
Superficie alare	: m ² 11,19	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 20,10	Rapporto di planata	: 1:43,2
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 46,9	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: USA	Primo volo	: 1994
Country	:	First flight	:

GENESIS - I°

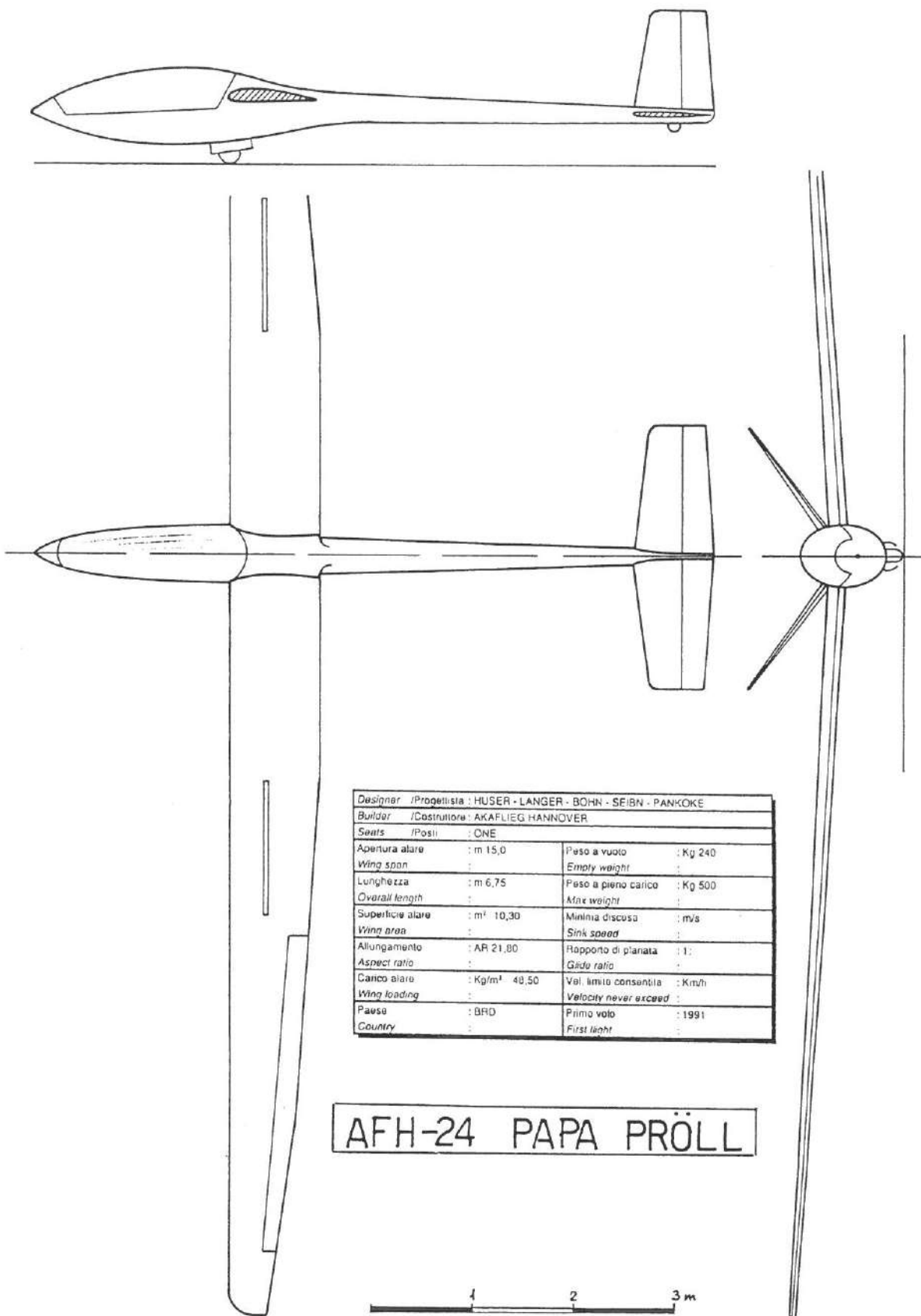
1 2 3 m



Designer / Progettista : AKAFLEG HANNOVER			
Builder / Costruttore : AKAFLEG HANNOVER			
Seats / Posti : ONE			
Apertura alare	: m 17,50	Peso a vuoto	: Kg 400
Wing span	:	Empty weight	:
Lunghezza	: m 8,20	Peso a pieno carico	: Kg 600
Overall length	:	Max weight	:
Superficie alare	: m ² 17,20	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 17,60	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 40	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1982
Country	:	First flight	:

AFH-22 PEGASUS

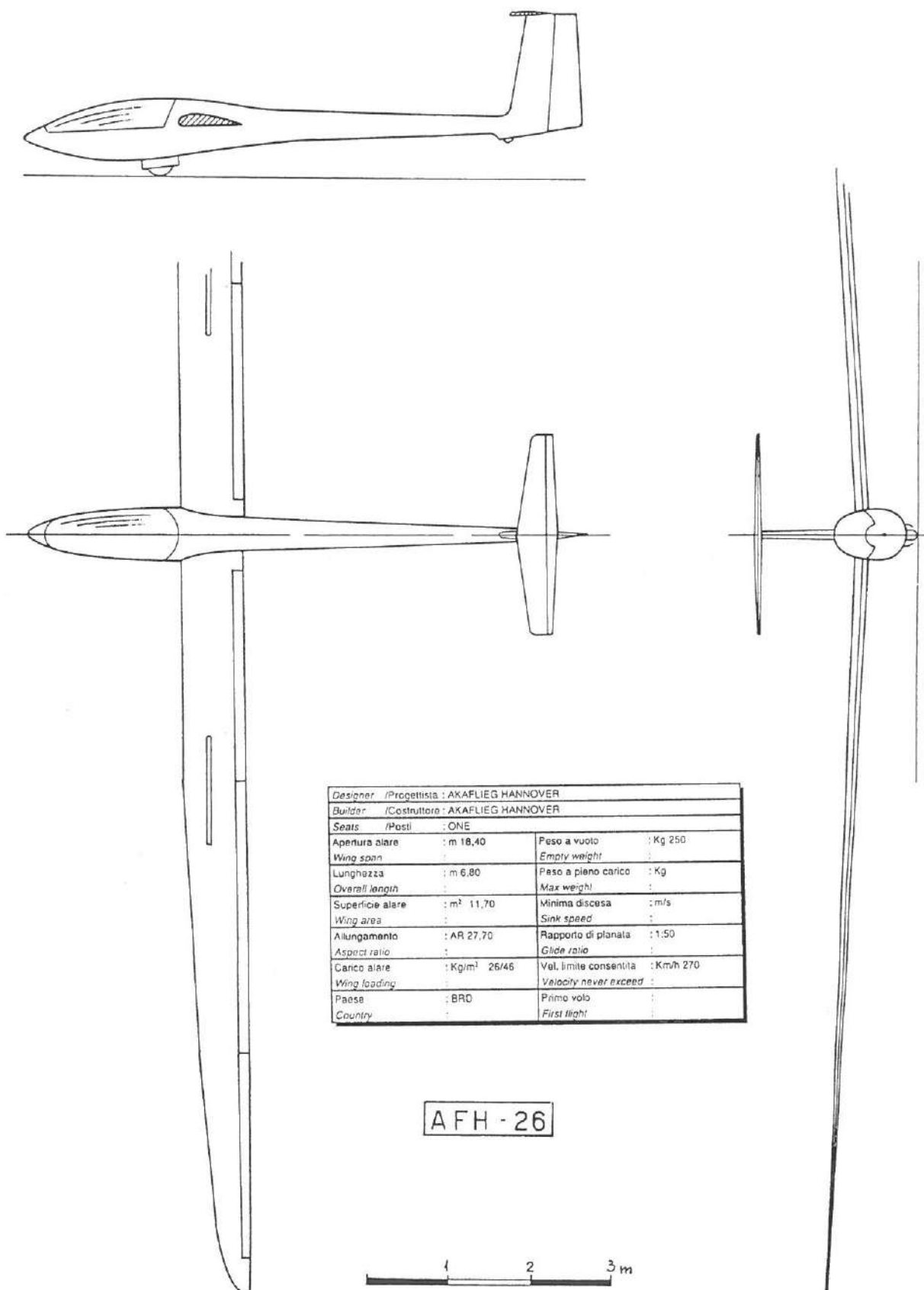
1 2 3 m

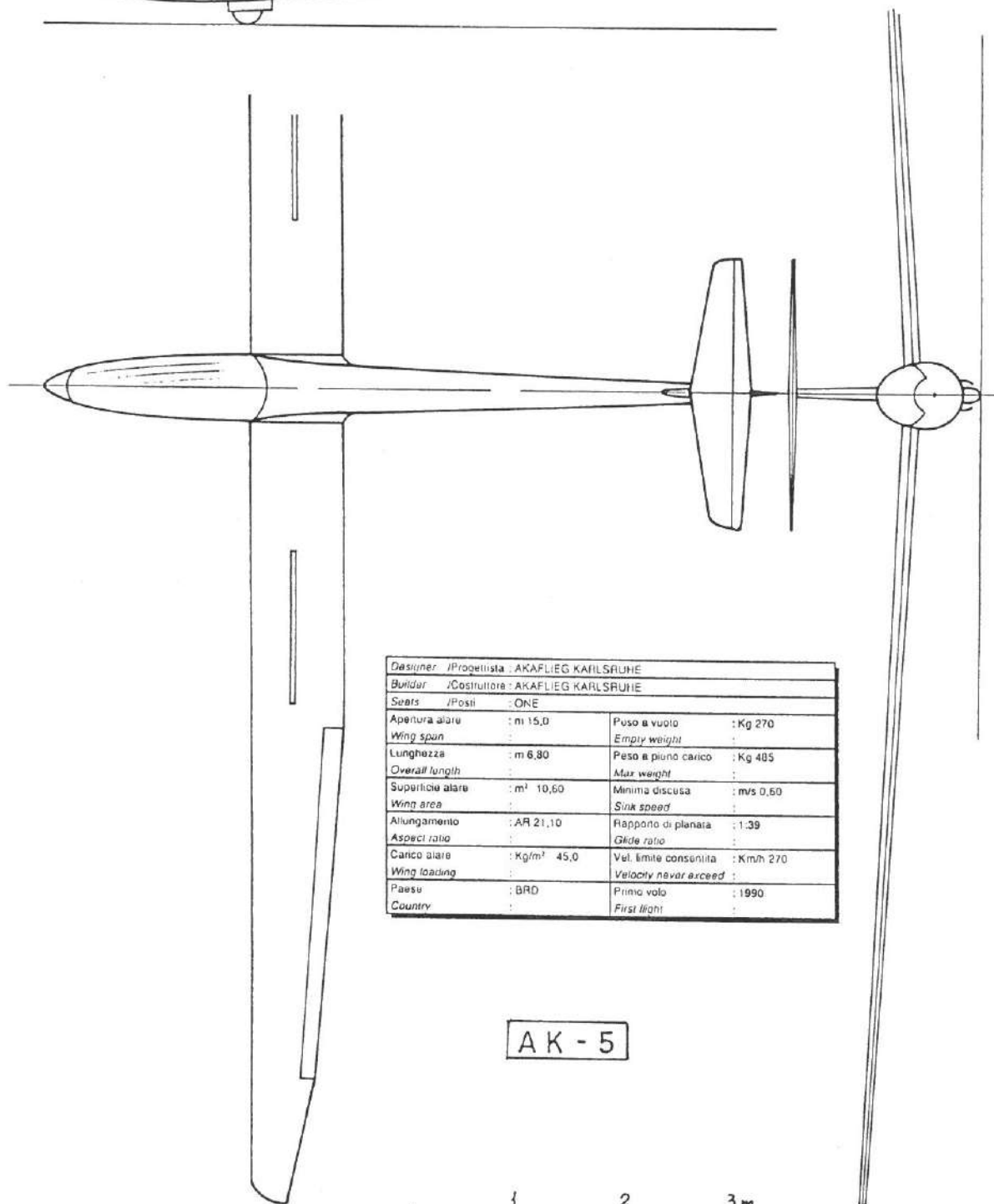
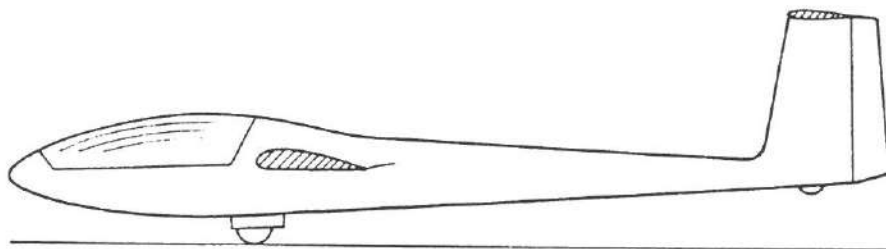


Designer / Progettista	HUSER - LANGER - BOHN - SEIBN - PANKOKE		
Builder / Costruttore	AKAFLIEG HANNOVER		
Seats / Posti	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 240
Wing span	:	Empty weight	:
Lunghezza	: m 6,75	Peso a pieno carico	: Kg 500
Overall length	:	Max weight	:
Superficie alare	: m ² 10,30	Minima discosa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 21,80	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 48,50	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1991
Country	:	First flight	:

AFH-24 PAPA PRÖLL

1 2 3 m

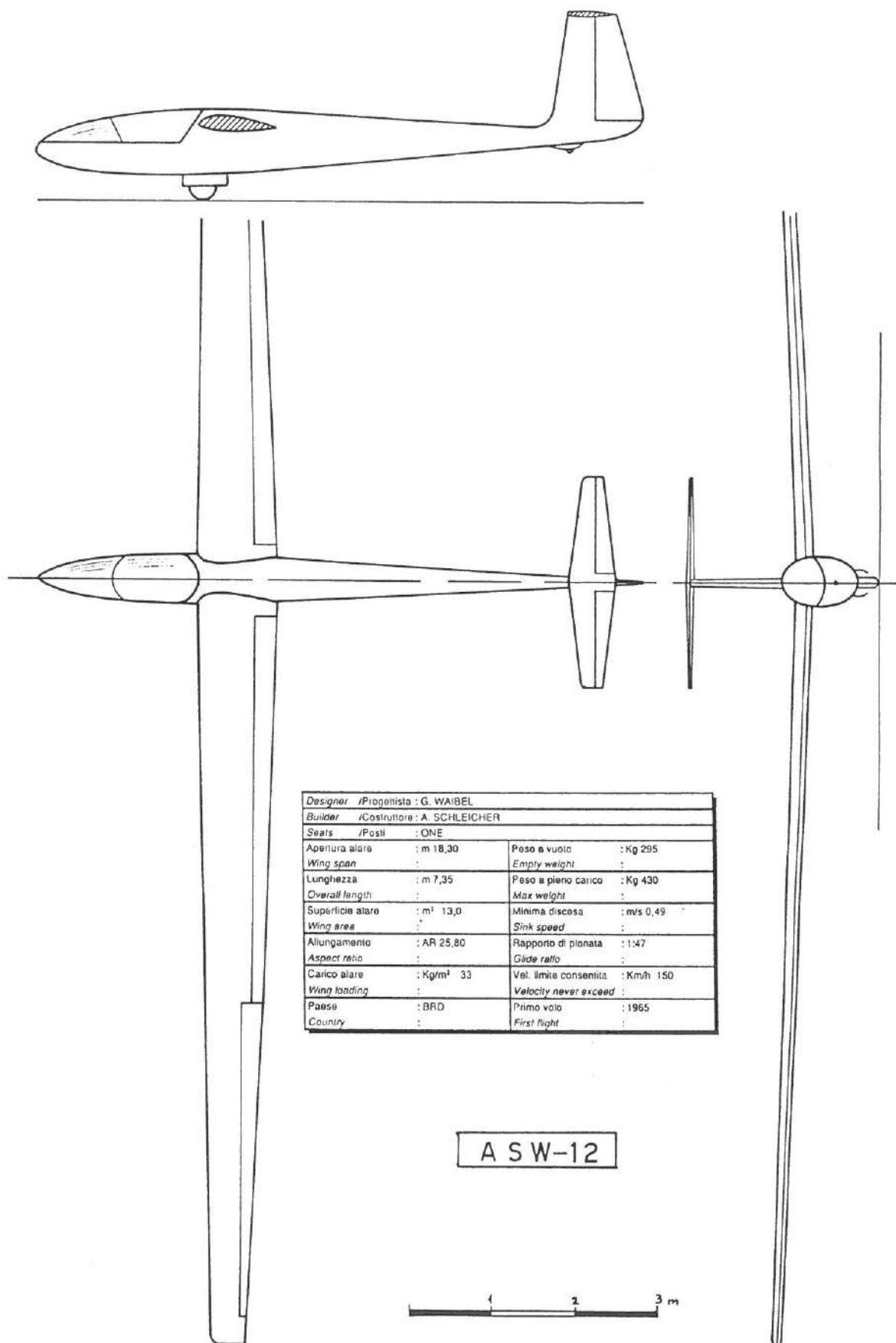




Designer	: IProgettista : AKAFLEG KARLSRUHE		
Builder	: CCostruttore : AKAFLEG KARLSRUHE		
Seats	: ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 270
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg 485
Overall length	:	Max weight	:
Superficie alare	: m ² 10,60	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 21,10	Rapporto di planata	: 1:39
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 45,0	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1990
Country	:	First flight	:

AK - 5

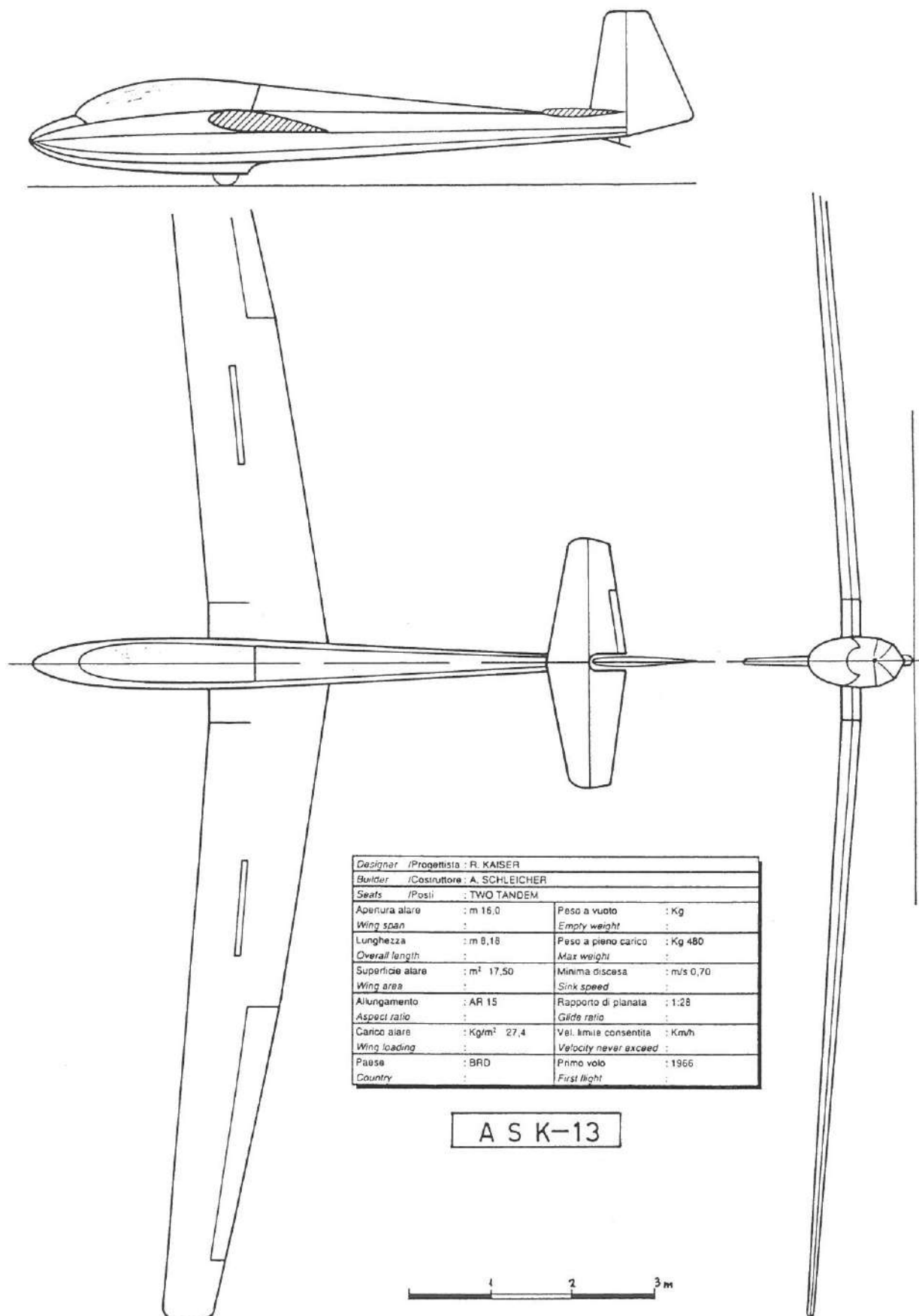




Designer /Progettista : G. WAIBEL			
Builder /Costruttore : A. SCHLEICHER			
Seats /Posti : ONE			
Apertura alare	: m 18,30	Peso a vuoto	: Kg 295
Wing span	:	Empty weight	:
Lunghezza	: m 7,35	Peso a pieno carico	: Kg 430
Overall length	:	Max weight	:
Superficie alare	: m ² 13,0	Minima discesa	: m/s 0,49
Wing area	:	Sink speed	:
Allungamento	: AR 25,80	Rapporto di pendenza	: 1:47
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 33	Vel. limite consentita	: Km/h 150
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1965
Country	:	First flight	:

ASW-12

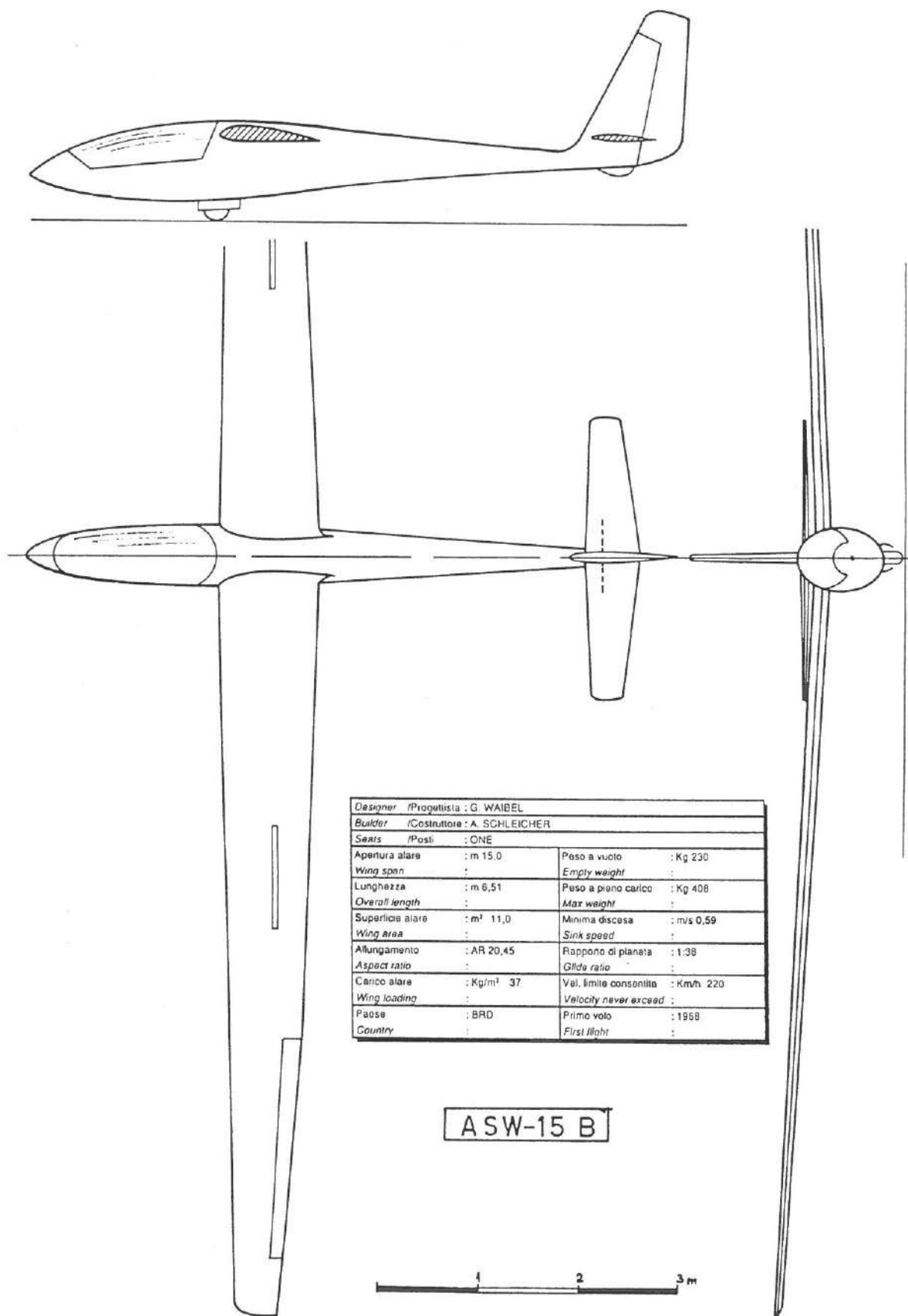
1 2 3 m



Designer / Progettista	: R. KAISER		
Builder / Costruttore	: A. SCHLEICHER		
Seats / Posti	: TWO TANDEM		
Apertura alare	: m 16,0	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 8,18	Peso a pieno carico	: Kg 480
Overall length	:	Max weight	:
Superficie alare	: m ² 17,50	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 15	Rapporto di planata	: 1:28
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,4	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1966
Country	:	First flight	:

ASK-13

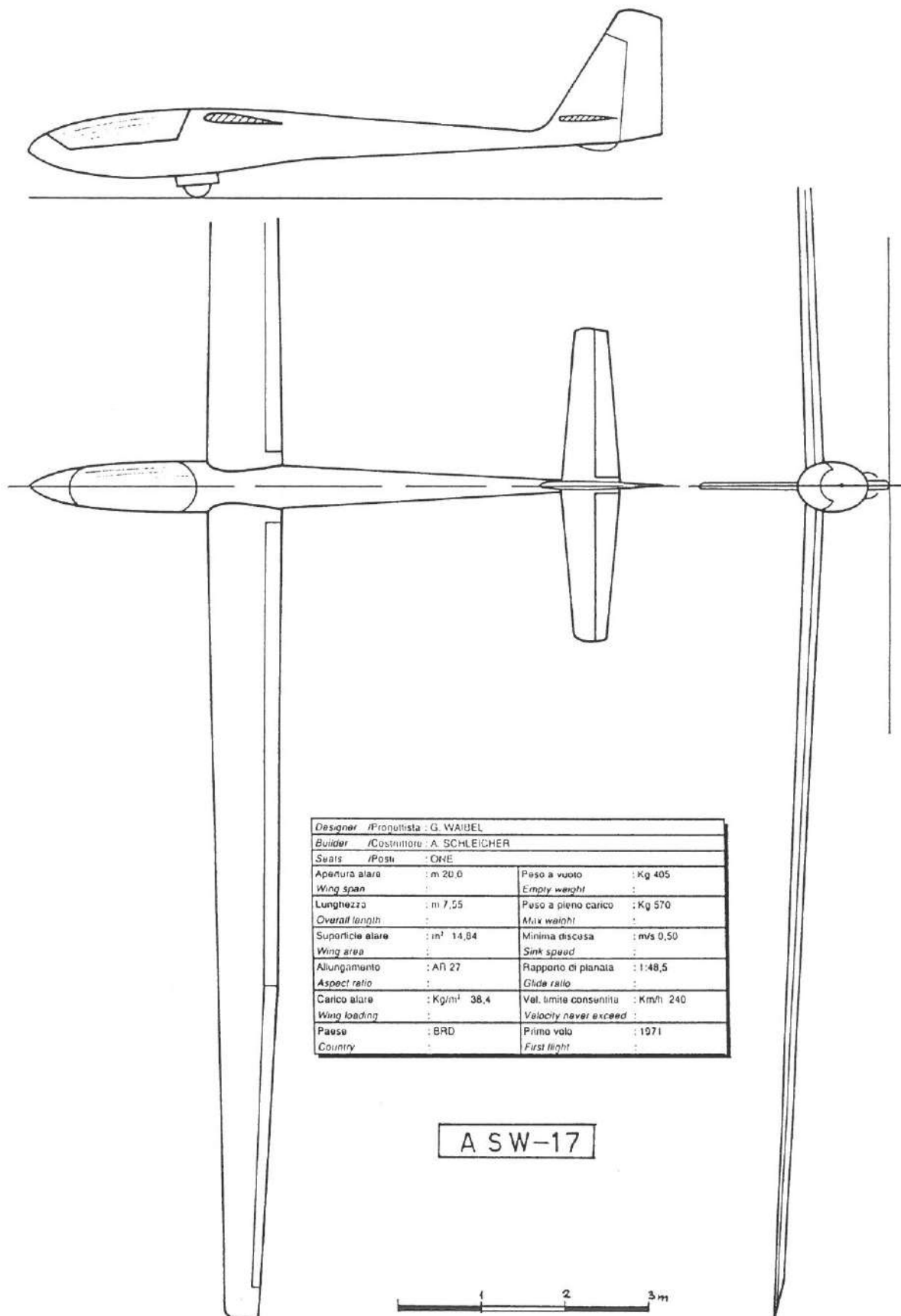
1 2 3 m



Designer / Progettista : G. WAIBEL			
Builder / Costruttore : A. SCHLEICHER			
Seats / Posti	: ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 230
Wing span	:	Empty weight	:
Lunghezza	: m 6,51	Peso a pieno carico	: Kg 408
Overall length	:	Max weight	:
Superficie alare	: m ² 11,0	Minima discesa	: m/s 0,59
Wing area	:	Sink speed	:
Allungamento	: AR 20,45	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 37	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1958
Country	:	First flight	:

ASW-15 B

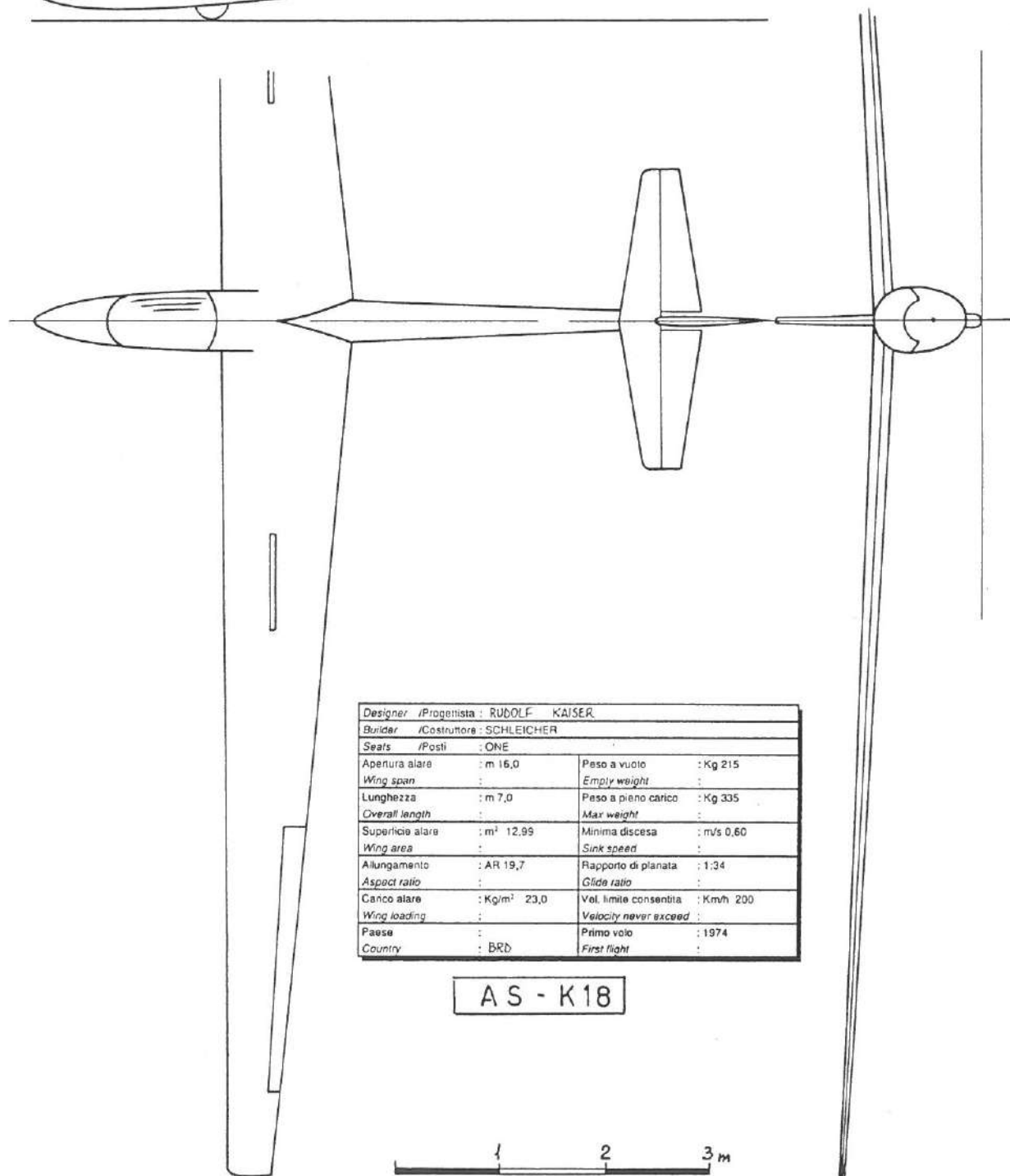
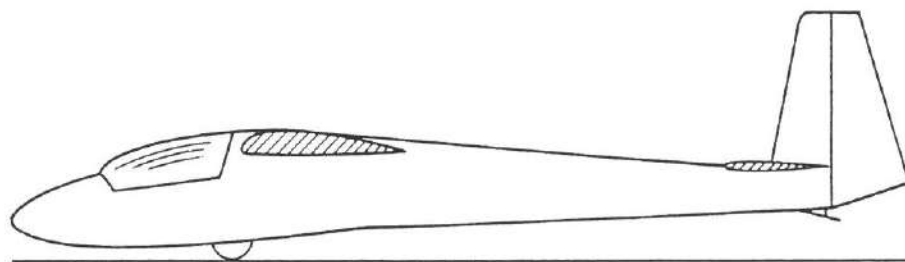
1 2 3 m



Designer /Progettista : G. WAIBEL			
Builder /Costruttore : A. SCHLEICHER			
Seats /Posti	ONE		
Apertura alare	: m 20,0	Peso a vuoto	: Kg 405
Wing span	:	Empty weight	:
Lunghezza	: m 7,55	Peso a pieno carico	: Kg 570
Overall length	:	Max weight	:
Superficie alare	: m ² 14,84	Minima discesa	: m/s 0,50
Wing area	:	Sink speed	:
Allungamento	: AR 27	Rapporto di planata	: 1:48,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 38,4	Vel. limite consentita	: Km/h 240
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1971
Country	:	First flight	:

ASW-17

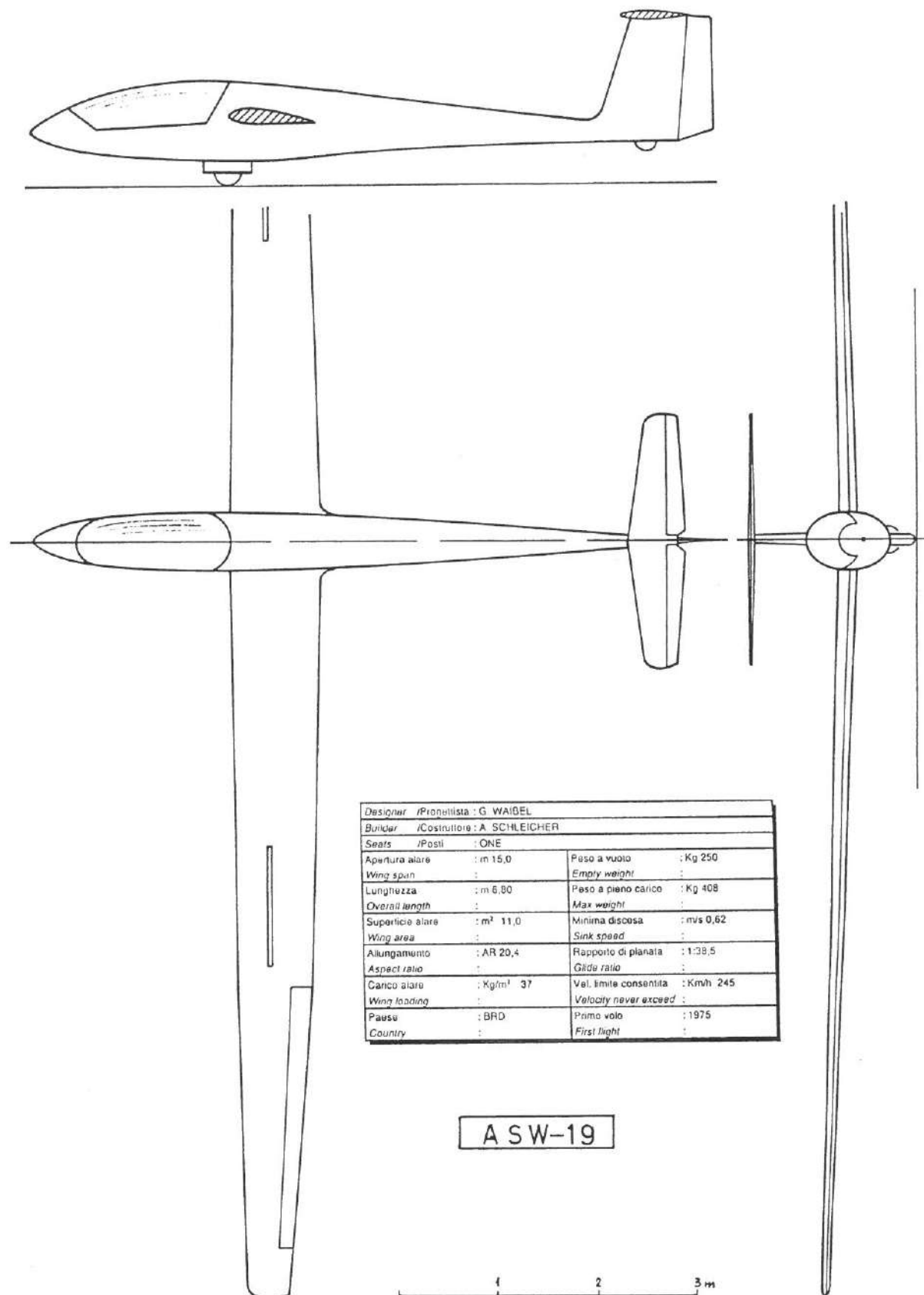
1 2 3m

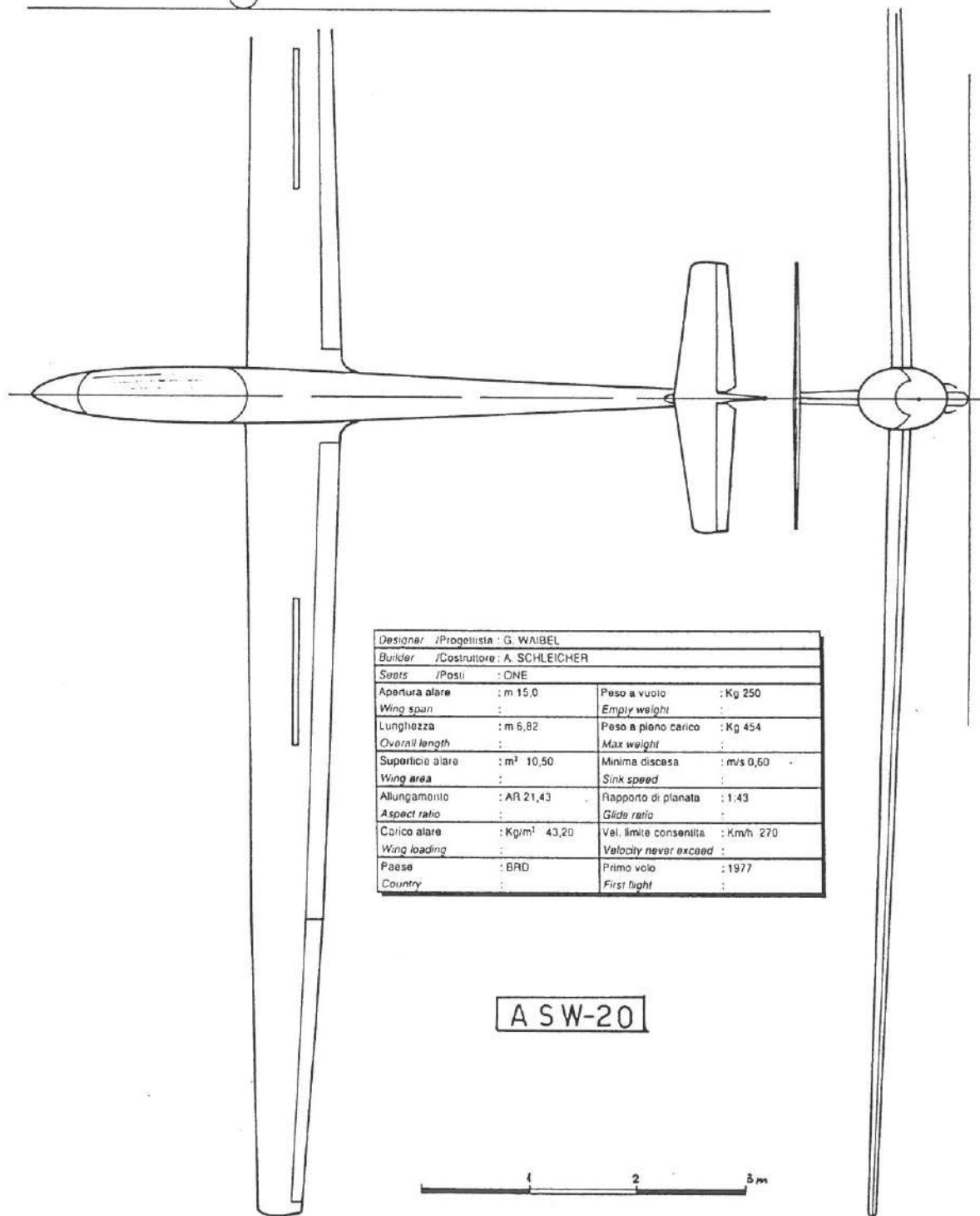
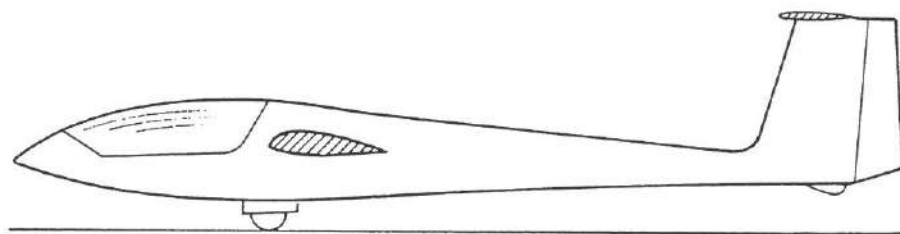


Designer / Progettista : RUDOLF KAISER			
Builder / Costruttore : SCHLEICHER			
Seats / Posti : ONE			
Apertura alare	: m 16,0	Peso a vuoto	: Kg 215
Wing span	:	Empty weight	:
Lunghezza	: m 7,0	Peso a pieno carico	: Kg 335
Overall length	:	Max weight	:
Superficie alare	: m ² 12,99	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 19,7	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 23,0	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	:	Primo volo	: 1974
Country	: BRD	First flight	:

AS - K18



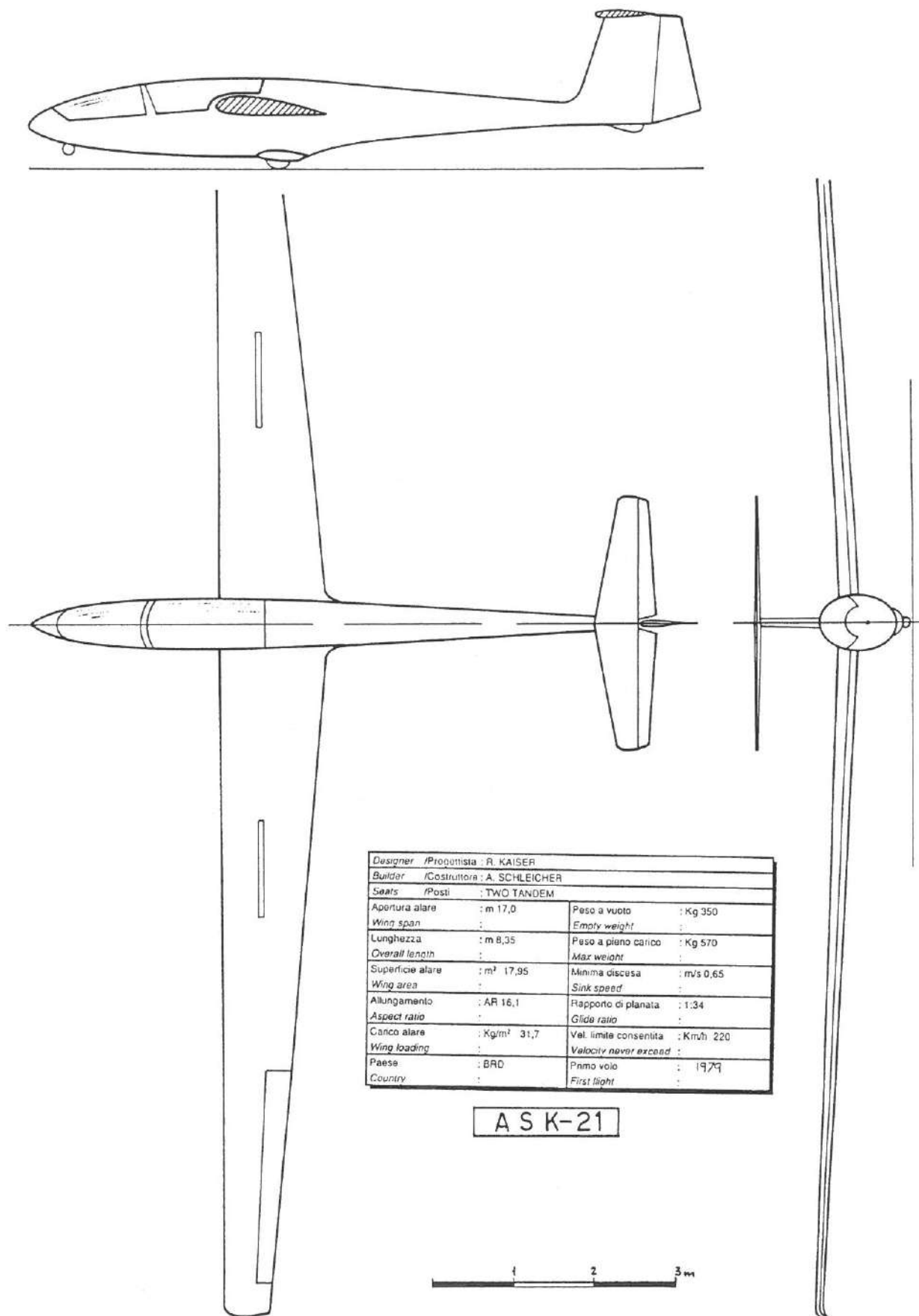




Designer / Progettista : G. WAIBEL			
Builder / Costruttore : A. SCHLEICHER			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 250
Wing span	:	Empty weight	:
Lunghezza	: m 6,82	Peso a pieno carico	: Kg 454
Overall length	:	Max weight	:
Superficie alare	: m ² 10,50	Minima discesa	: mvs 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 21,43	Rapporto di planata	: 1:43
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 43,20	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1977
Country	:	First flight	:

ASW-20

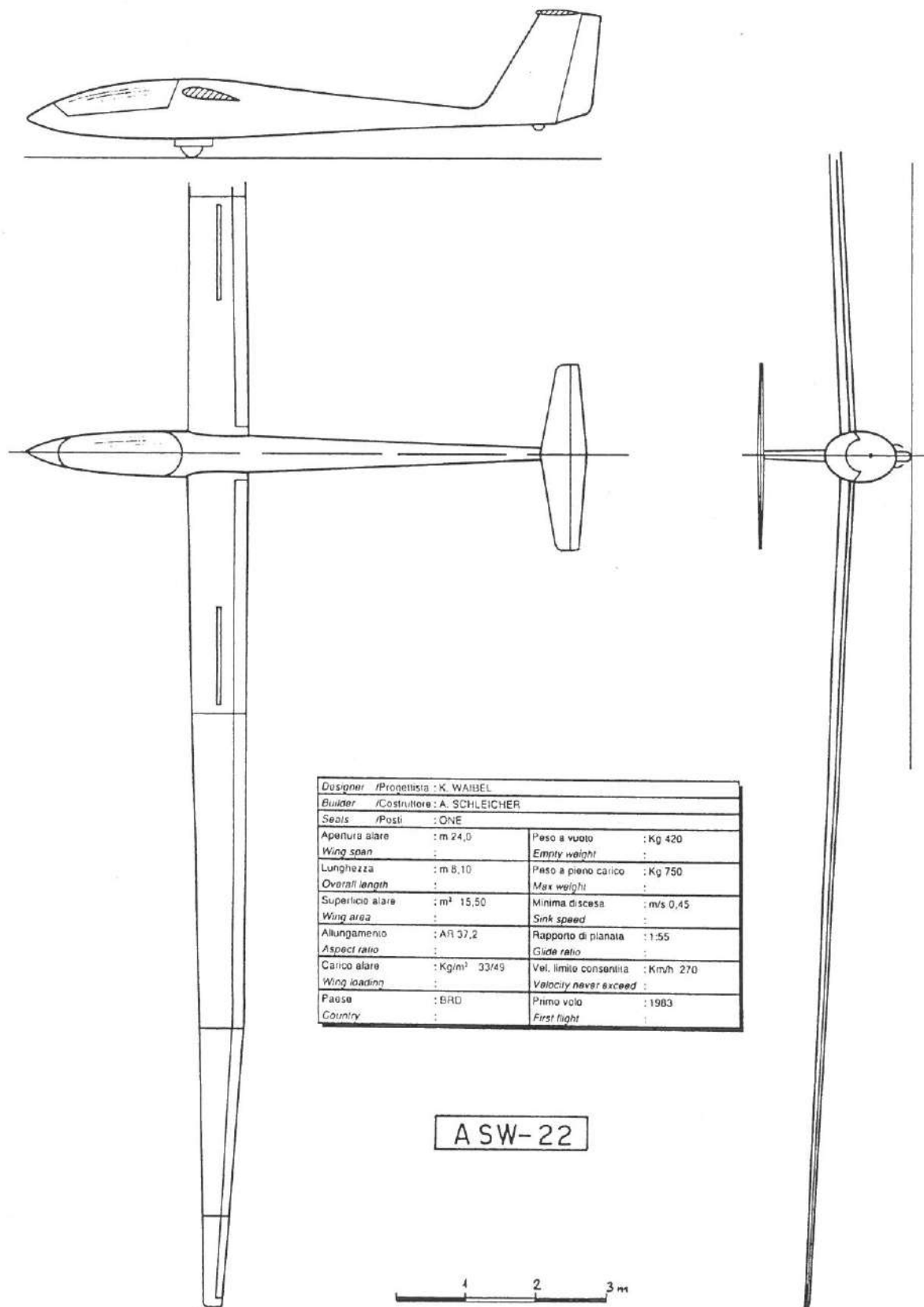




Designer / Progettista	: R. KAISER		
Builder / Costruttore	: A. SCHLEICHER		
Seats / Posti	: TWO TANDEM		
Apertura alare	: m 17,0	Peso a vuoto	: Kg 350
Wing span	:	Empty weight	:
Lunghezza	: m 8,35	Peso a pieno carico	: Kg 570
Overall length	:	Max weight	:
Superficie alare	: m ² 17,95	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 16,1	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 31,7	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1979
Country	:	First flight	:

ASK-21

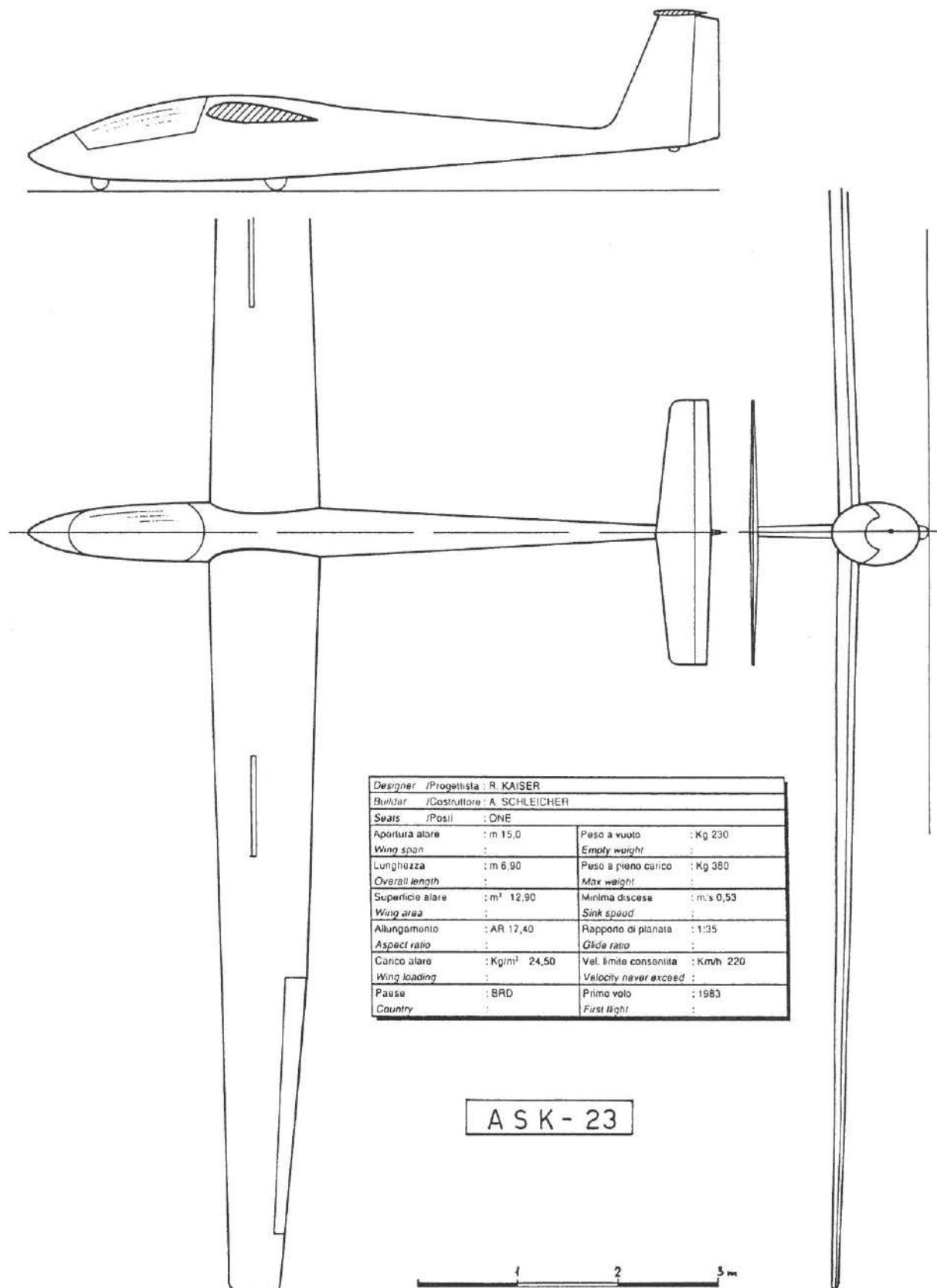


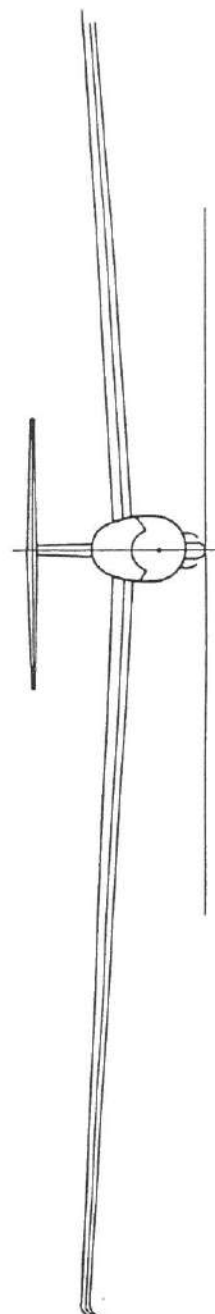
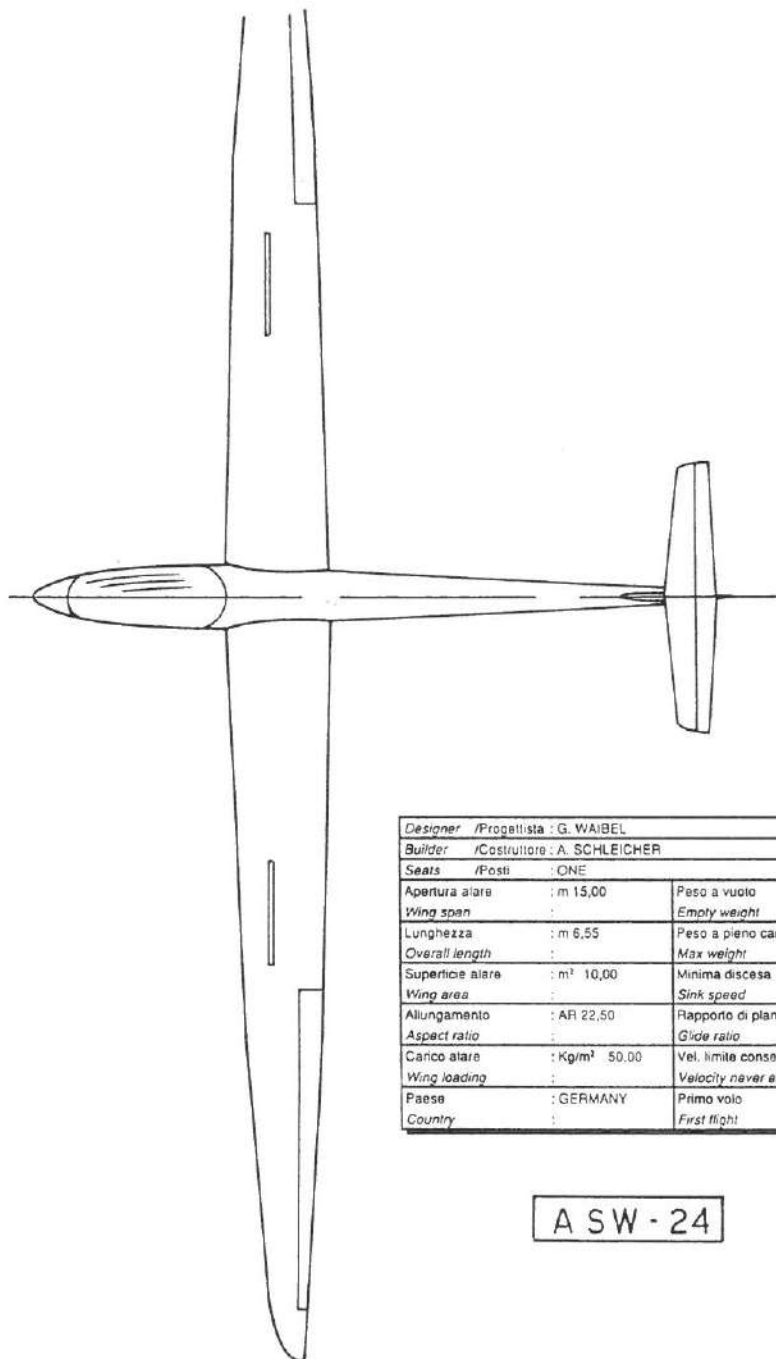
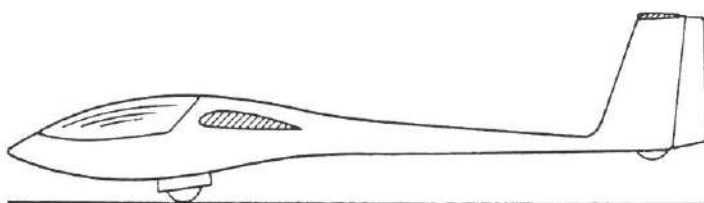


Designer /Progettista : K. WAIBEL			
Builder /Costruttore : A. SCHLEICHER			
Seats /Posti : ONE			
Apertura alare	: m 24,0	Peso a vuoto	: Kg 420
Wing span	:	Empty weight	:
Lunghezza	: m 8,10	Peso a pieno carico	: Kg 750
Overall length	:	Max weight	:
Superficie alare	: m ² 15,50	Minima discesa	: m/s 0,45
Wing area	:	Sink speed	:
Allungamento	: AR 37,2	Rapporto di planata	: 1:55
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 33/49	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1983
Country	:	First flight	:

ASW-22

0 2 3 m

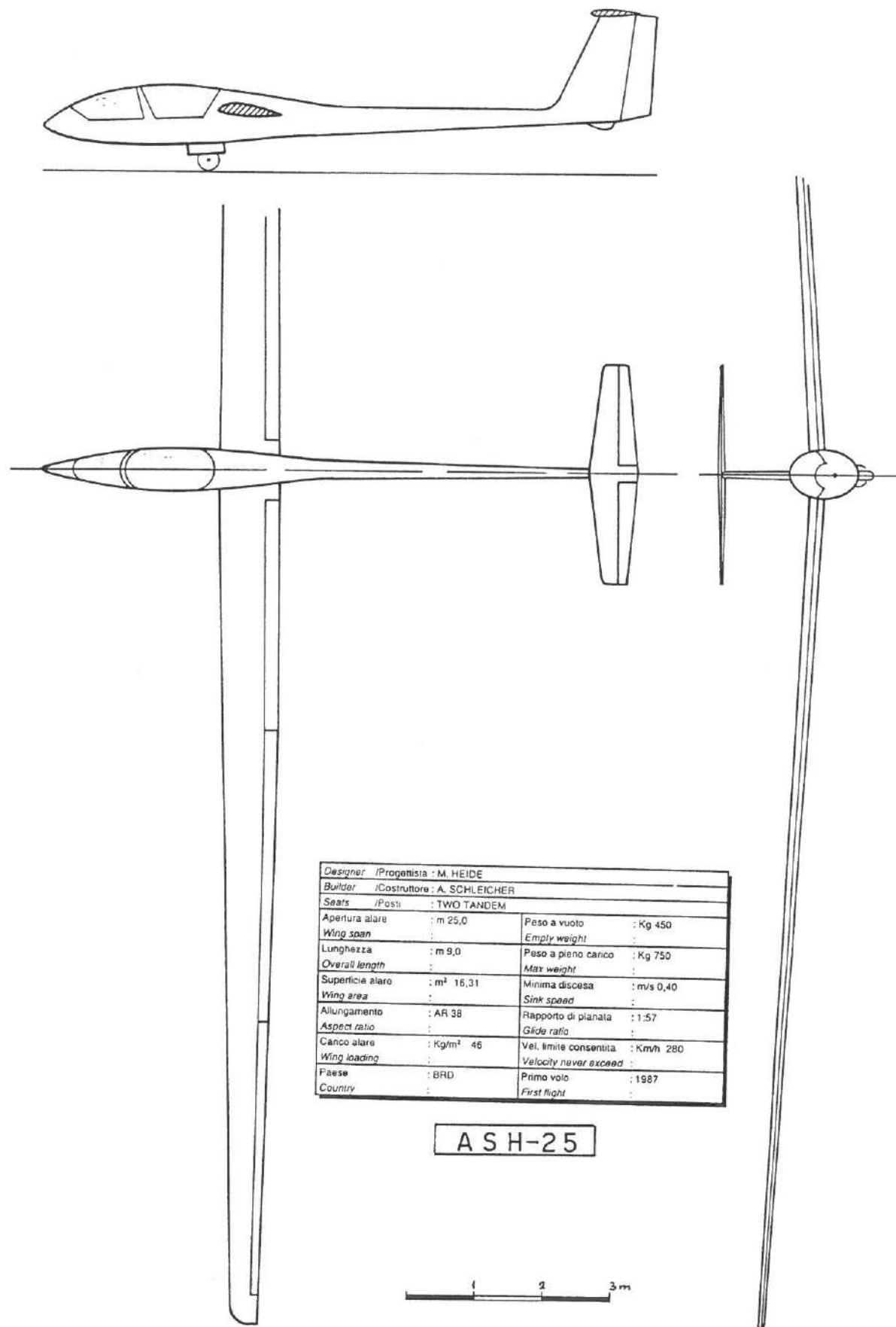




Designer /Progettista : G. WAIBEL			
Builder /Costruttore : A. SCHLEICHER			
Seats /Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 220
Wing span	:	Empty weight	:
Lunghezza	: m 6,55	Peso a pieno carico	: Kg 500
Overall length	:	Max weight	:
Superficie alare	: m ² 10,00	Minima discesa	: m/s 0,58
Wing area	:	Sink speed	:
Allungamento	: AR 22,50	Rapporto di planata	: 1:43
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 50,00	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1987
Country	:	First flight	:

A SW - 24

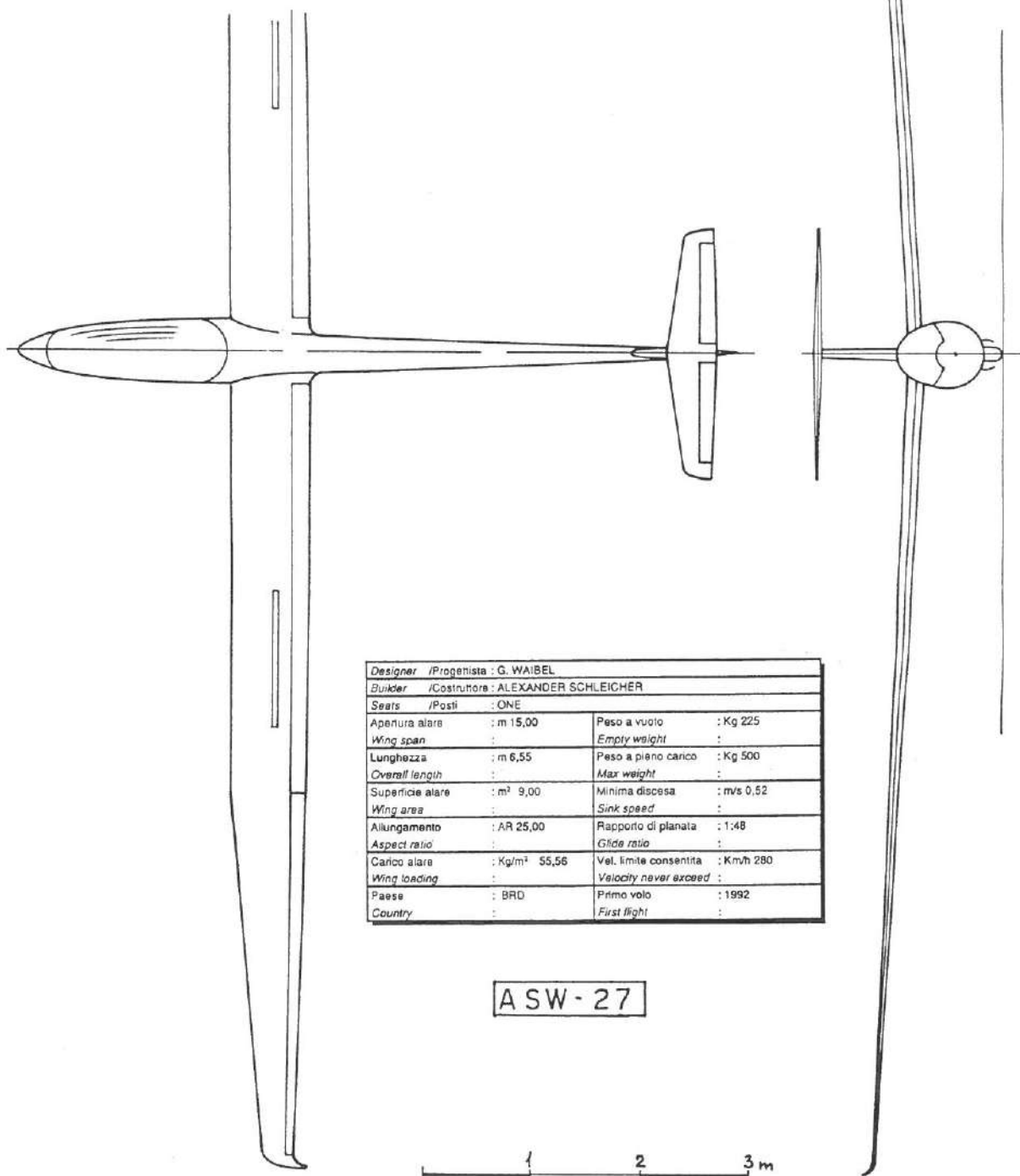
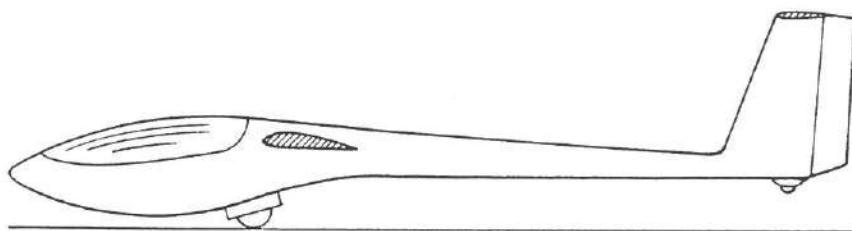




Designer	IProgettista : M. HEIDE		
Builder	ICostruttore : A. SCHLEICHER		
Seats	IPosti : TWO TANDEM		
Apertura alare	: m 25,0	Peso a vuoto	: Kg 450
Wing span	:	Empty weight	:
Lunghezza	: m 9,0	Peso a pieno carico	: Kg 750
Overall length	:	Max weight	:
Superficie alare	: m ² 16,31	Minima discesa	: m/s 0,40
Wing area	:	Sink speed	:
Allungamento	: AR 38	Rapporto di planata	: 1:57
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 46	Vel. limite consentita	: Km/h 280
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1987
Country	:	First flight	:

ASH-25

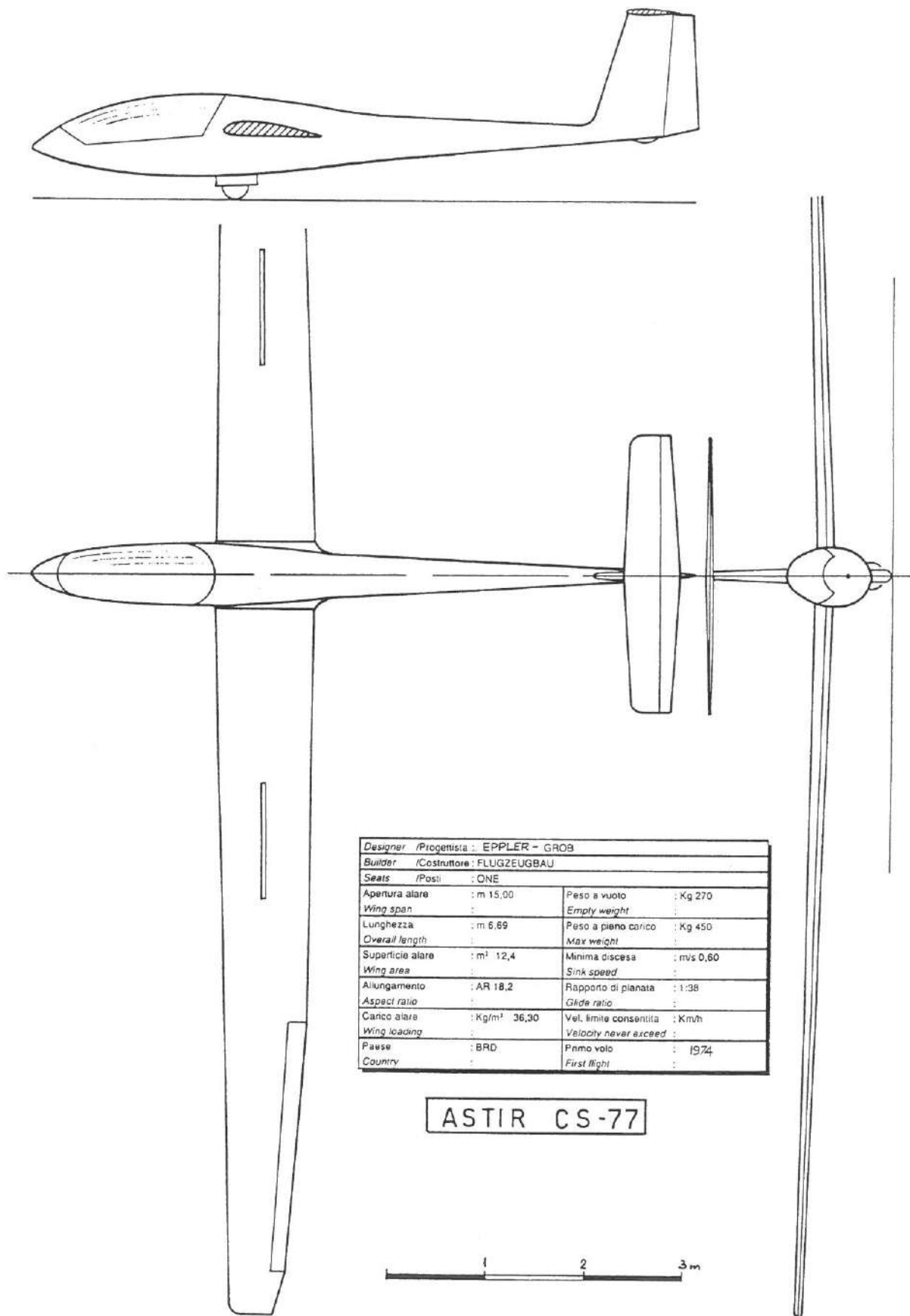
1 2 3 m



Designer /Progettista : G. WAIBEL			
Builder /Costruttore : ALEXANDER SCHLEICHER			
Seats /Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 225
Wing span	:	Empty weight	:
Lunghezza	: m 6,55	Peso a pieno carico	: Kg 500
Overall length	:	Max weight	:
Superficie alare	: m² 9,00	Minima discesa	: m/s 0,52
Wing area	:	Sink speed	:
Allungamento	: AR 25,00	Rapporto di planata	: 1:48
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m² 55,56	Vel. limite consentita	: Km/h 280
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1992
Country	:	First flight	:

ASW-27

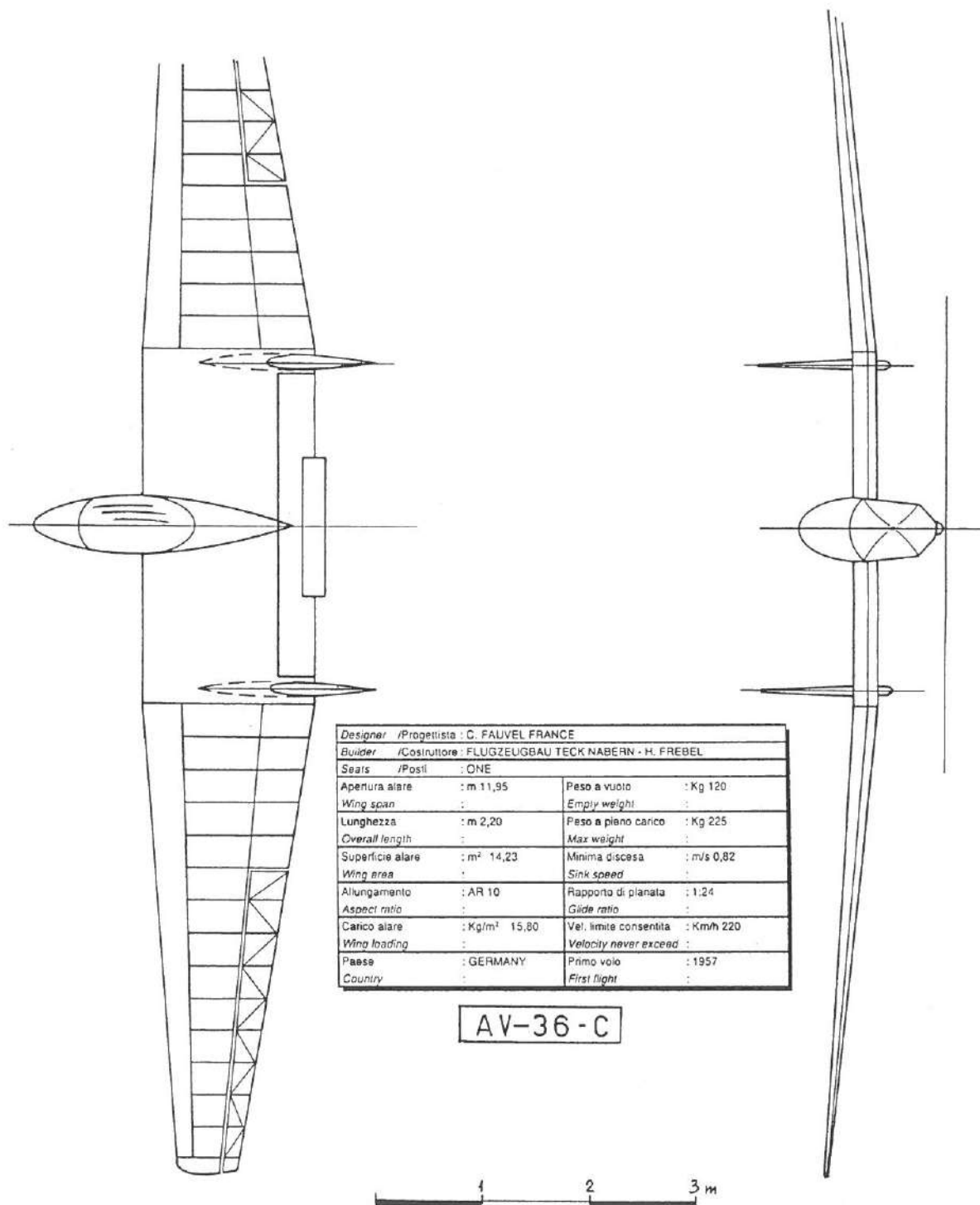
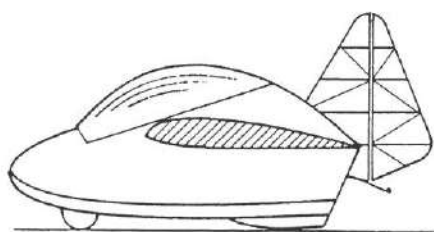
1 2 3 m



Designer /Progettista : EPPLER - GROB			
Builder /Costruttore : FLUGZEUGBAU			
Seats /Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 270
Wing span	:	Empty weight	:
Lunghezza	: m 6,69	Peso a pieno carico	: Kg 450
Overall length	:	Max weight	:
Superficie alare	: m ² 12,4	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 18,2	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 36,30	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Phase	: BRD	Primo volo	: 1974
Country	:	First flight	:

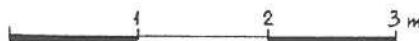
ASTIR CS-77

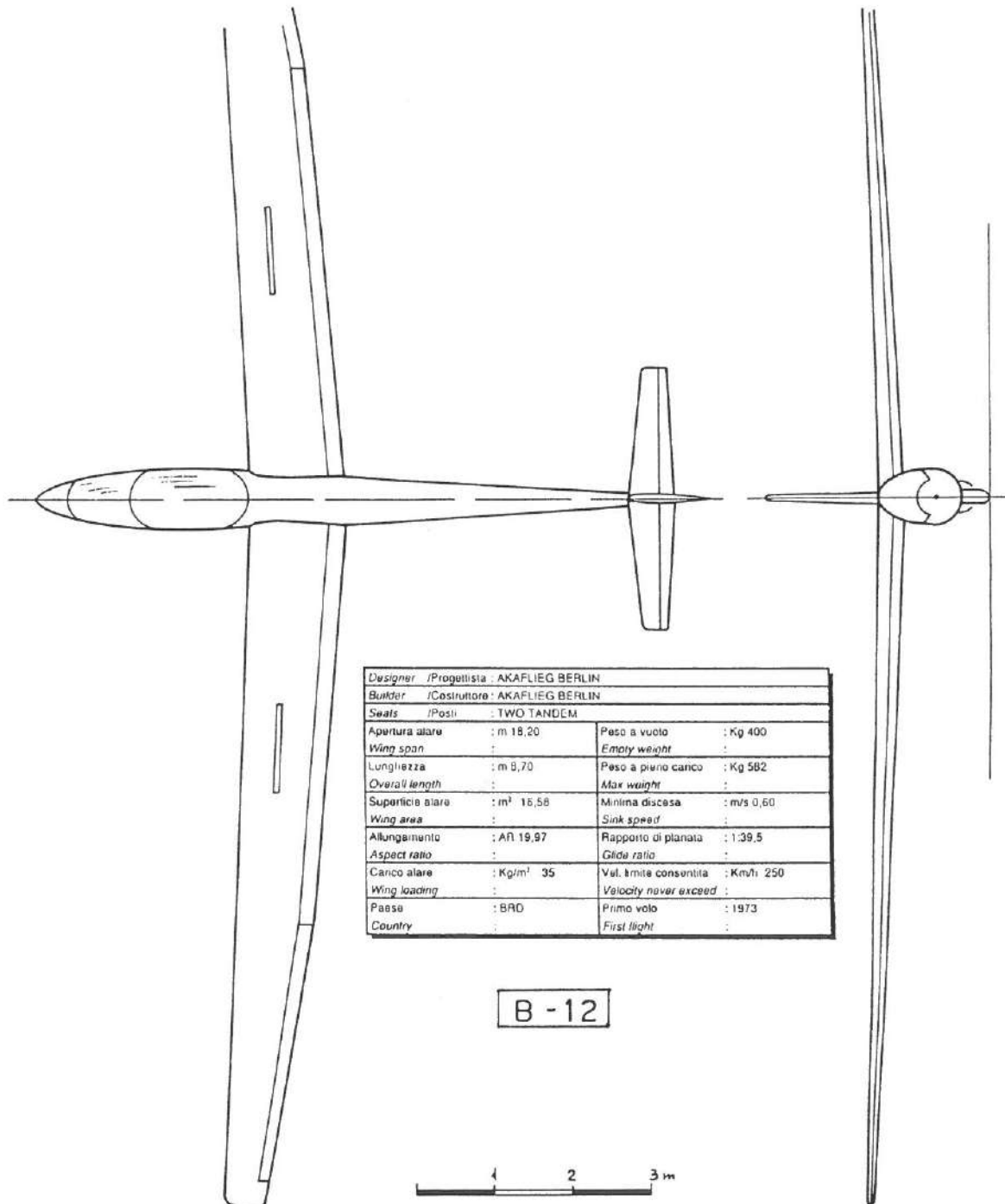
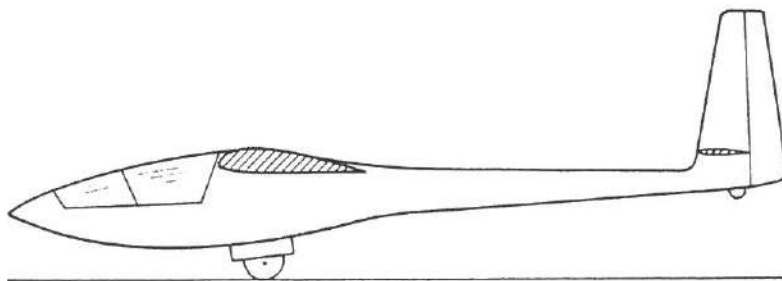
1 2 3 m



Designer / Progettista	C. FAUVEL FRANCE		
Builder / Costruttore	FLUGZEUGBAU TECK NABERN - H. FREBEL		
Seats / Posti	ONE		
Apertura alare	: m 11,95	Peso a vuoto	: Kg 120
Wing span	:	Empty weight	:
Lunghezza	: m 2,20	Peso a pieno carico	: Kg 225
Overall length	:	Max weight	:
Superficie alare	: m ² 14,23	Minima discesa	: m/s 0,82
Wing area	:	Sink speed	:
Allungamento	: AR 10	Rapporto di planata	: 1:24
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15,80	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1957
Country	:	First flight	:

AV-36-C

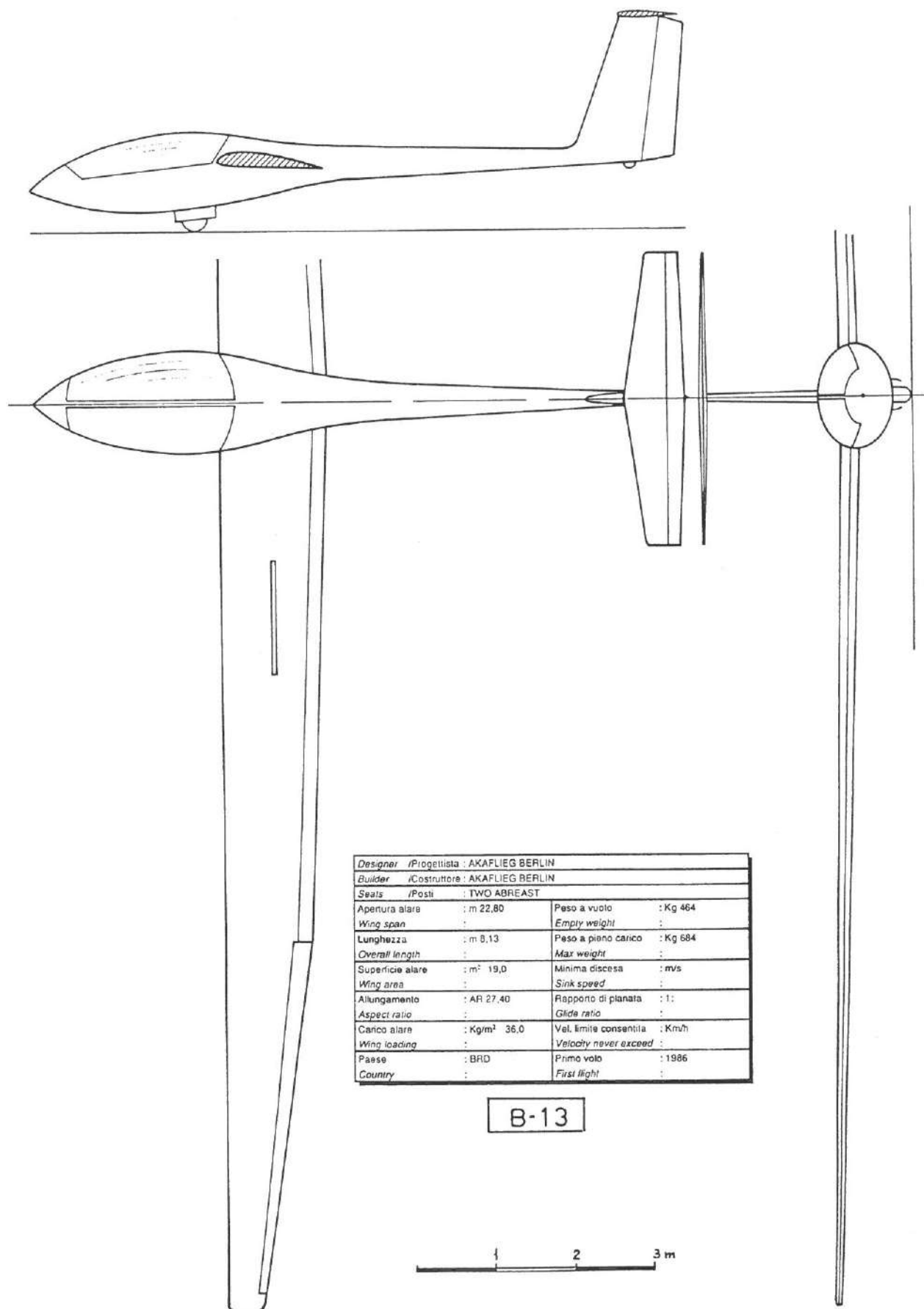




Designer / Progettista	AKAFLIEG BERLIN		
Builder / Costruttore	AKAFLIEG BERLIN		
Seats / Posti	TWO TANDEM		
Apertura alare	: m 18,20	Peso a vuoto	: Kg 400
Wing span	:	Empty weight	:
Lunghezza	: m 8,70	Peso a pieno carico	: Kg 582
Overall length	:	Max weight	:
Superficie alare	: m ² 16,58	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 19,97	Rapporto di planata	: 1:39,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 35	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1973
Country	:	First flight	:

B - 12

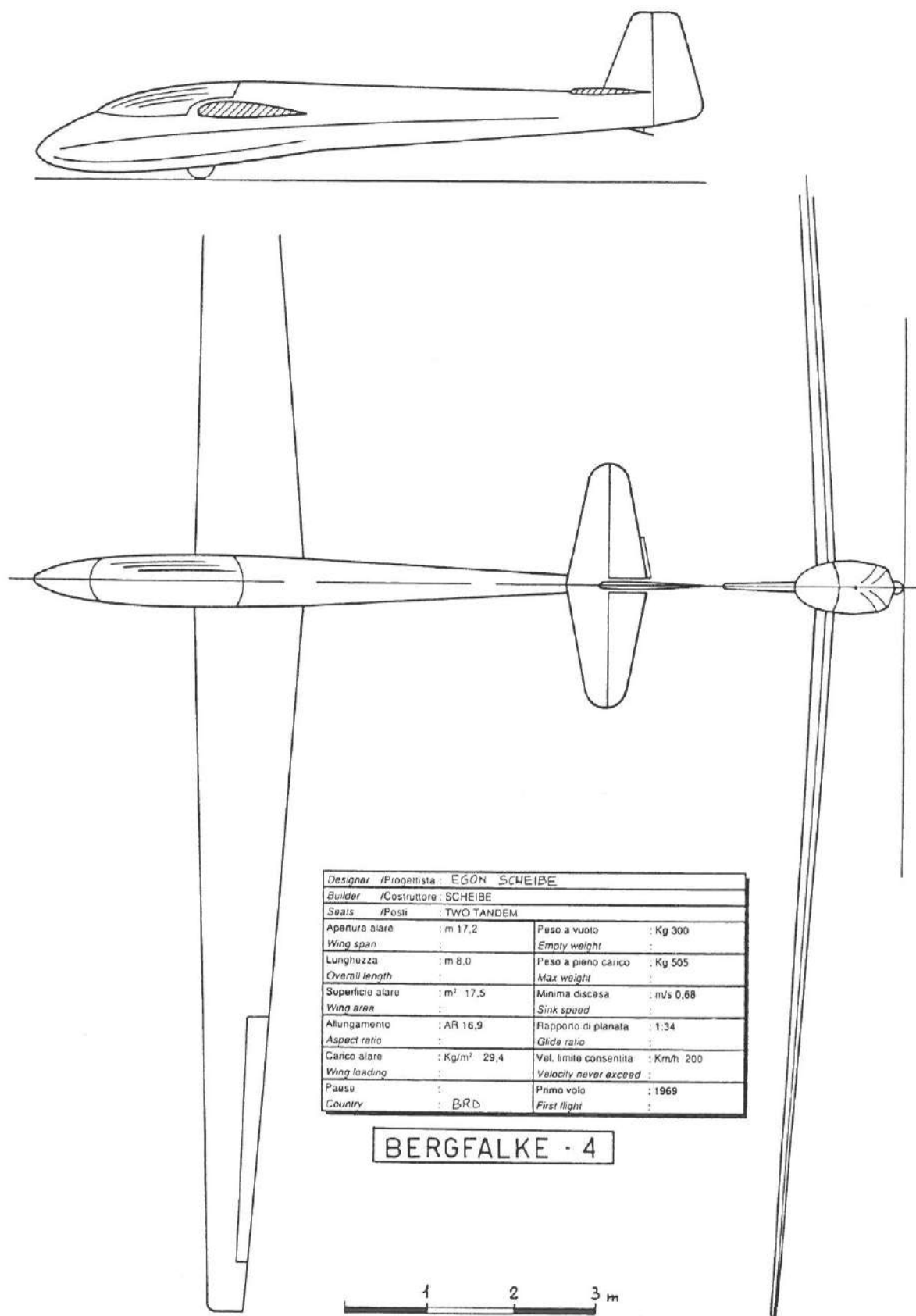


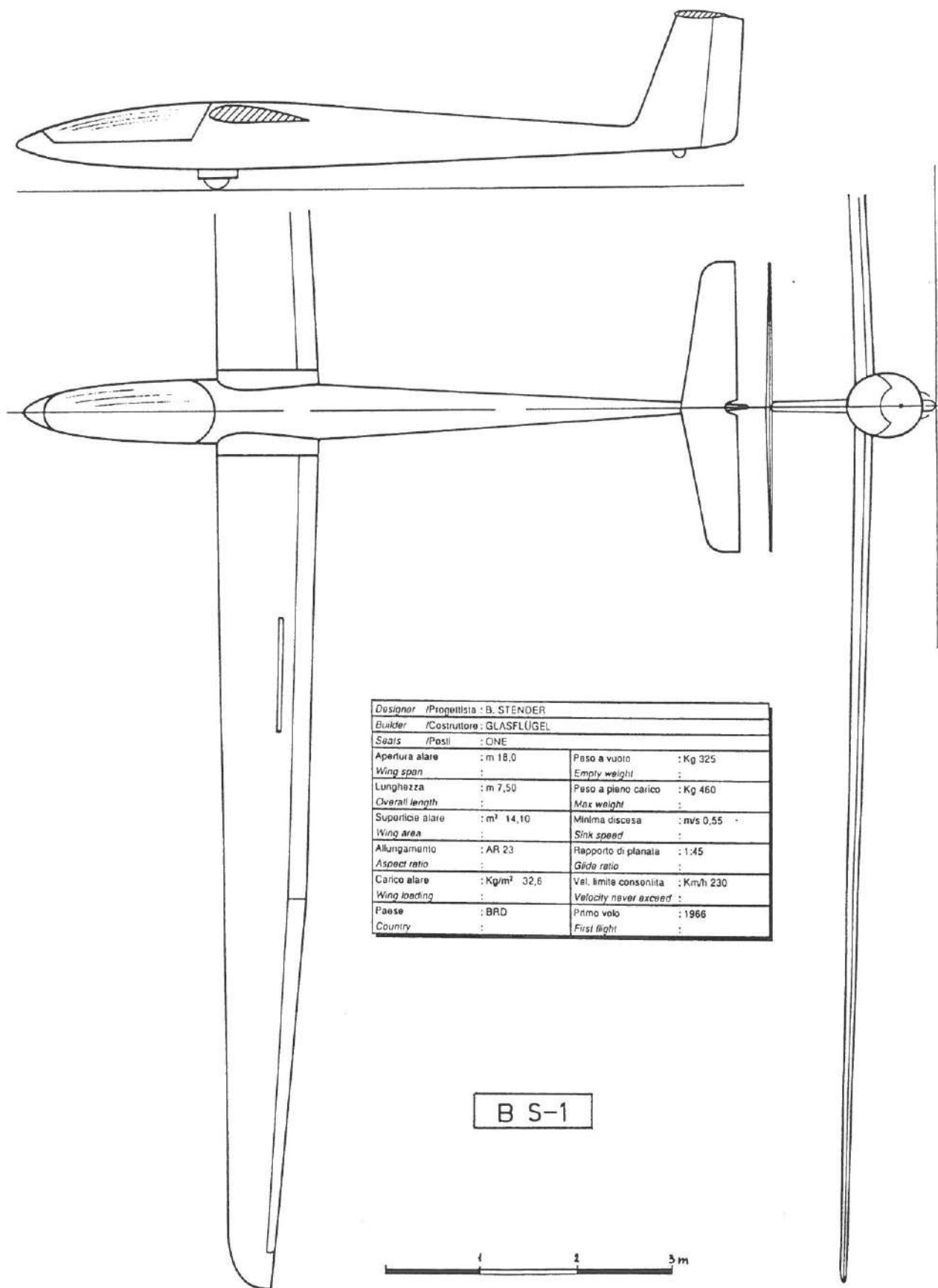


<i>Designer /Progettista</i> : AKAFLEG BERLIN			
<i>Builder /Costruttore</i> : AKAFLEG BERLIN			
<i>Seats /Posti</i> : TWO ABREAST			
<i>Apertura alare</i>	: m 22,80	<i>Peso a vuoto</i>	: Kg 464
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 8,13	<i>Peso a pieno carico</i>	: Kg 684
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 19,0	<i>Minima discesa</i>	: mvs
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 27,40	<i>Rapporto di planata</i>	: 1:
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 36,0	<i>Vel. limite consentita</i>	: Km/h
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: BRD	<i>Primo volo</i>	: 1986
<i>Country</i>	:	<i>First flight</i>	:

B-13

1 2 3 m

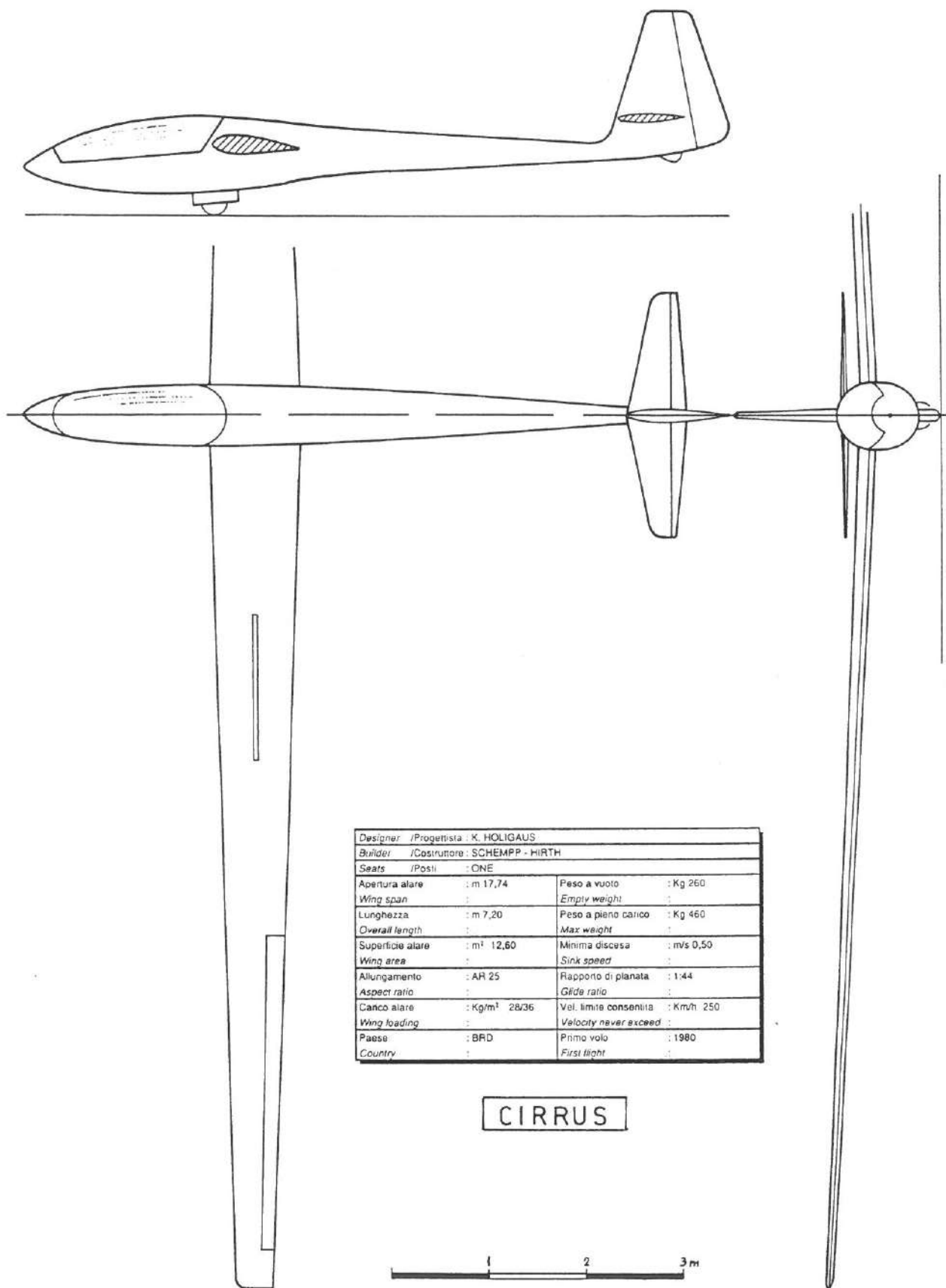




Designer / Progettista : B. STENDER			
Builder / Costruttore : GLASFLÜGEL			
Seats / Posti : ONE			
Apertura alare	: m 18,0	Peso a vuoto	: Kg 325
Wing span	:	Empty weight	:
Lunghezza	: m 7,50	Peso a pieno carico	: Kg 460
Overall length	:	Max weight	:
Superficie alare	: m ² 14,10	Minima discesa	: mvs 0,55
Wing area	:	Sink speed	:
Allungamento	: AR 23	Rapporto di planata	: 1:45
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 32,6	Vel. limite consonita	: Km/h 230
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1966
Country	:	First flight	:

B S-1

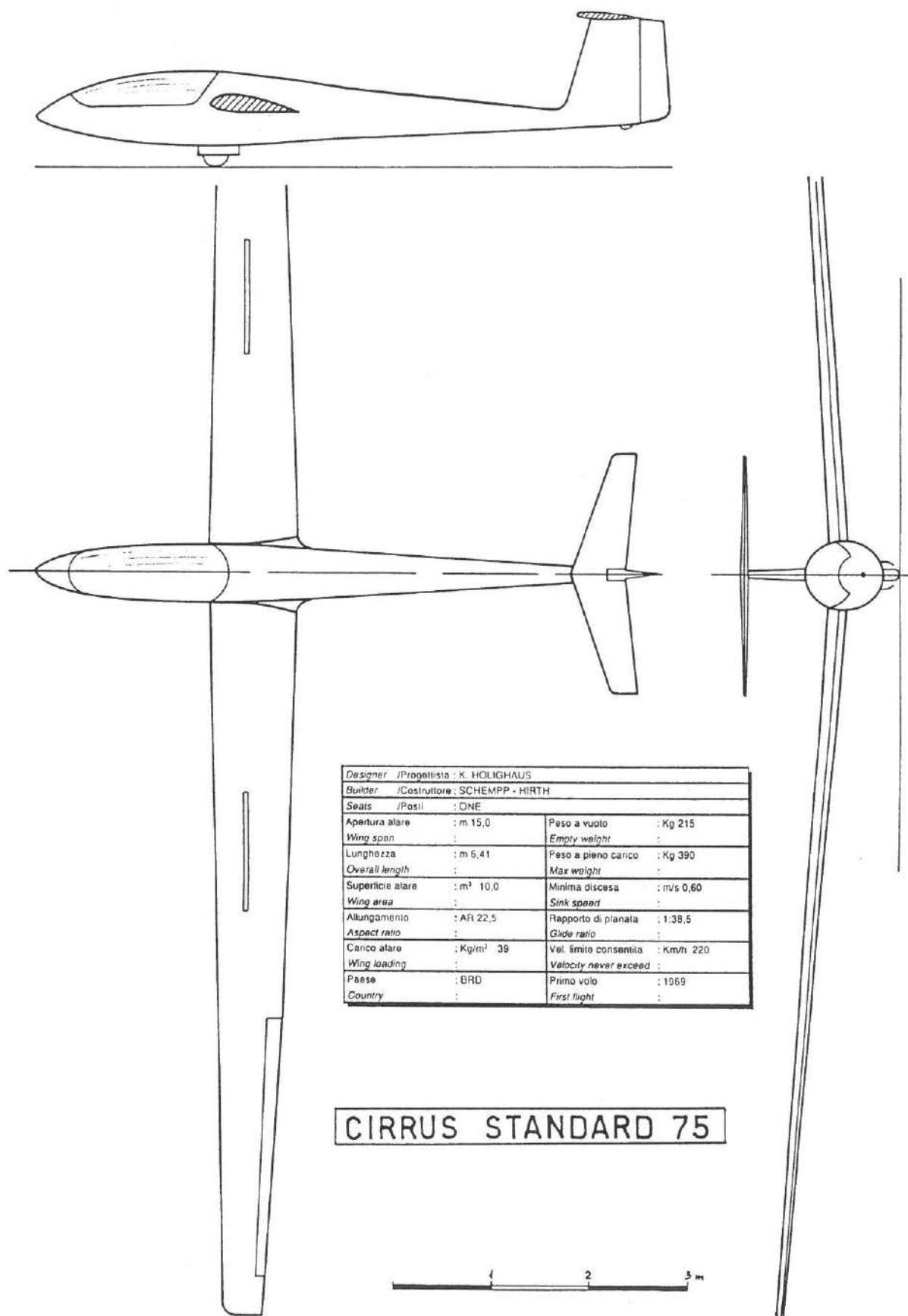
1 1 3 m



Designer /Progettista : K. HOLIGAUSS			
Builder /Costruttore : SCHEMPP - HIRTH			
Seats /Posti :	ONE		
Apertura alare :	m 17,74	Peso a vuoto :	Kg 260
Wing span :		Empty weight :	
Lunghezza :	m 7,20	Peso a pieno carico :	Kg 460
Overall length :		Max weight :	
Superficie alare :	m ² 12,60	Minima discesa :	m/s 0,50
Wing area :		Sink speed :	
Allungamento :	AR 25	Rapporto di planata :	1:44
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 28/36	Vel. limite consentita :	Kmh 250
Wing loading :		Velocity never exceed :	
Paese :	BRD	Primo volo :	1980
Country :		First flight :	

CIRRUS

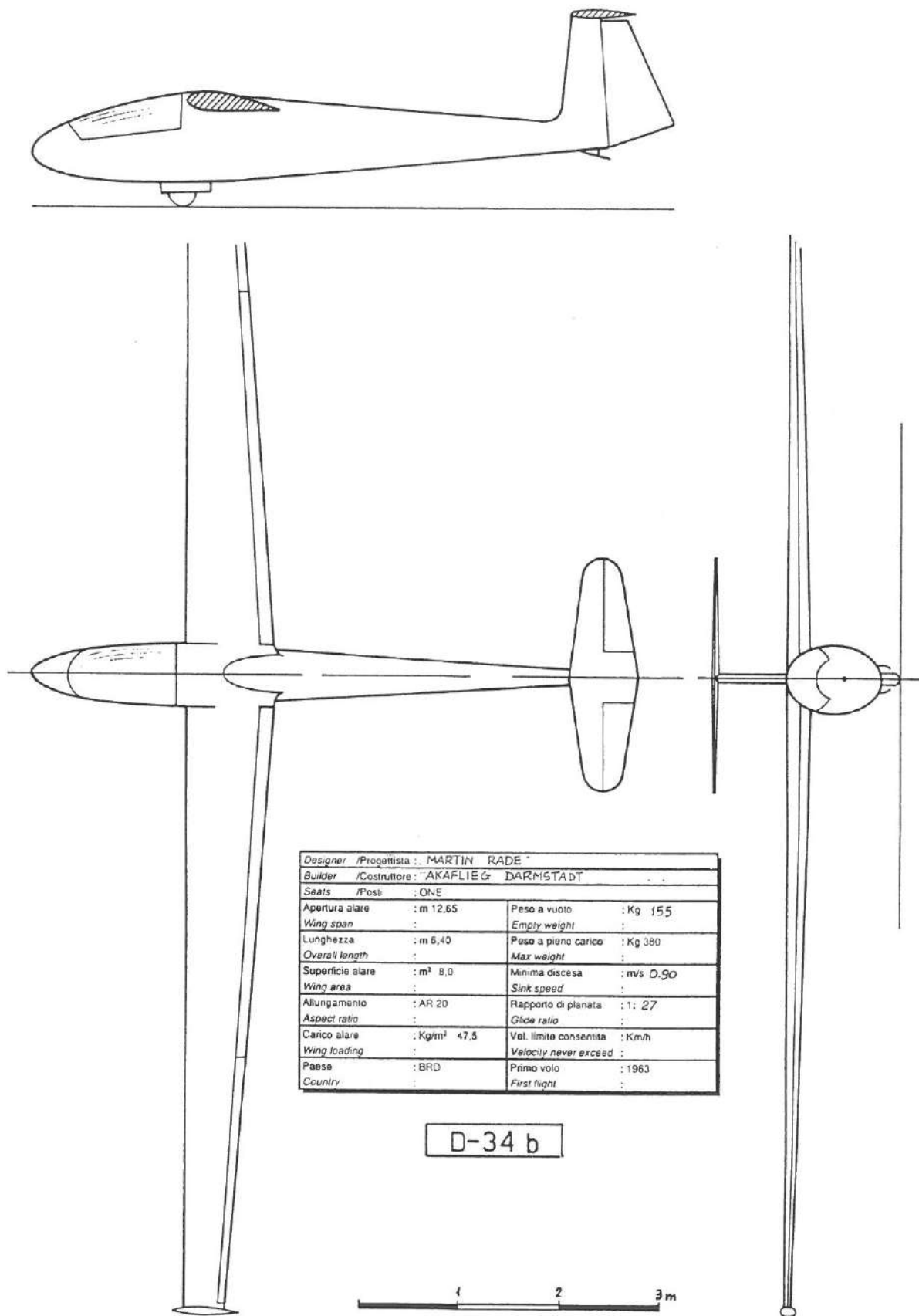
1 2 3 m



Designer / Progettista : K. HOLIGHAUS			
Builder / Costruttore : SCHEMP - HIRTH			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 215
Wing span	:	Empty weight	:
Lunghezza	: m 6,41	Peso a pieno carico	: Kg 390
Overall length	:	Max weight	:
Superficie alare	: m ² 10,0	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 22,5	Rapporto di planata	: 1,38,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 39	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1969
Country	:	First flight	:

CIRRUS STANDARD 75

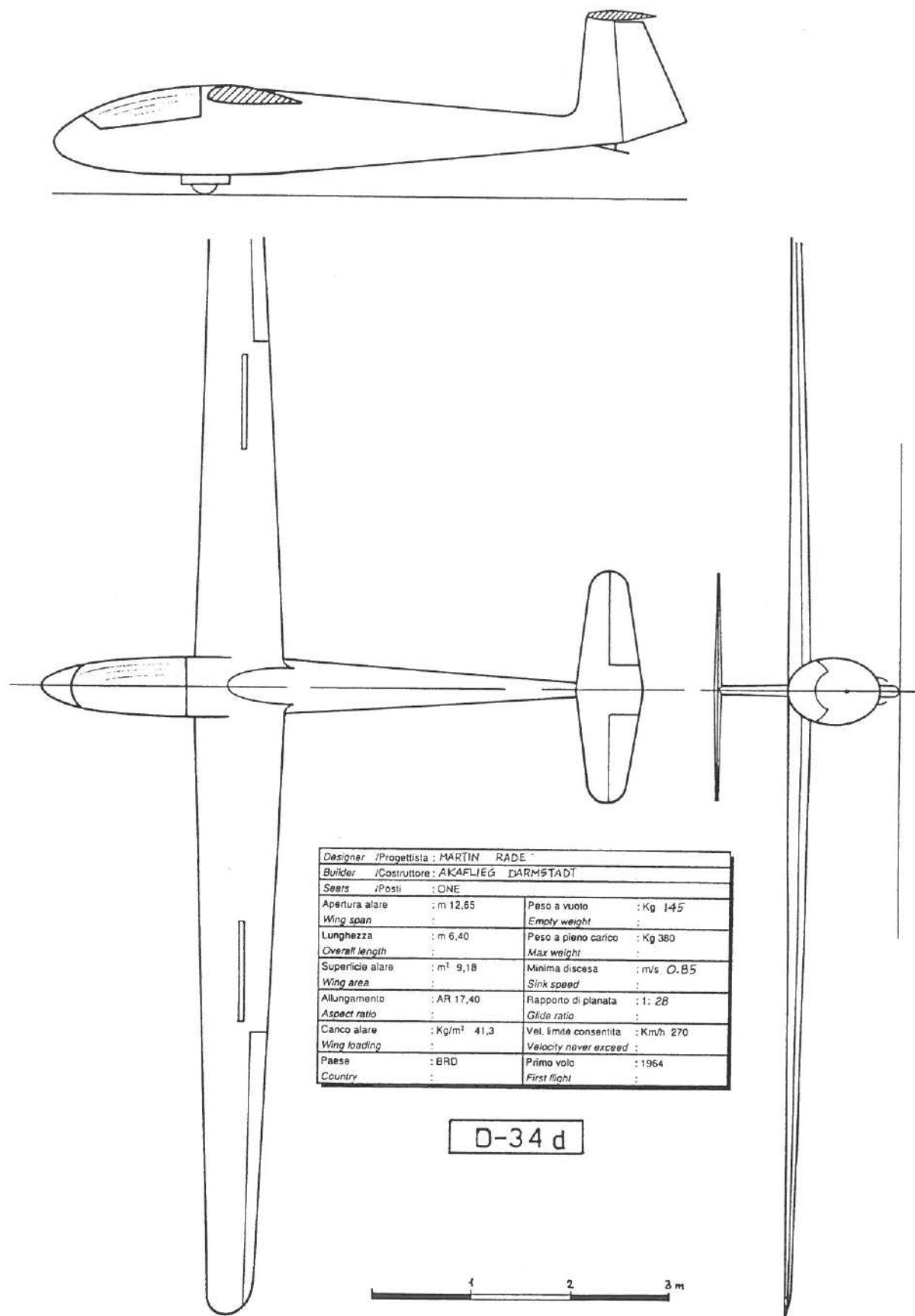


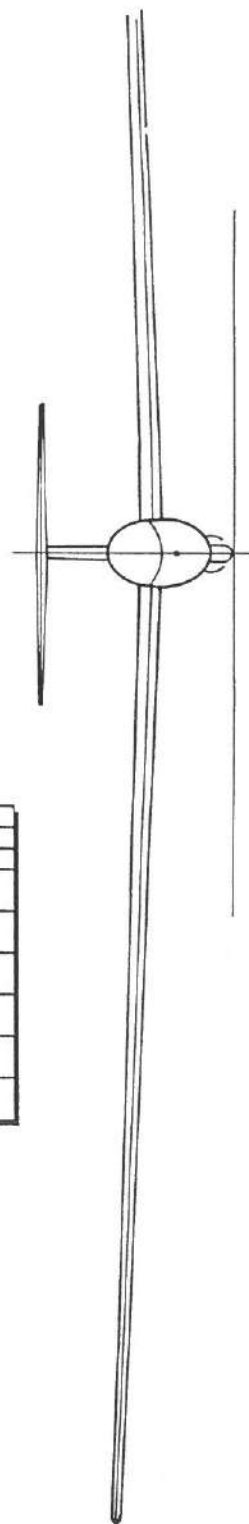
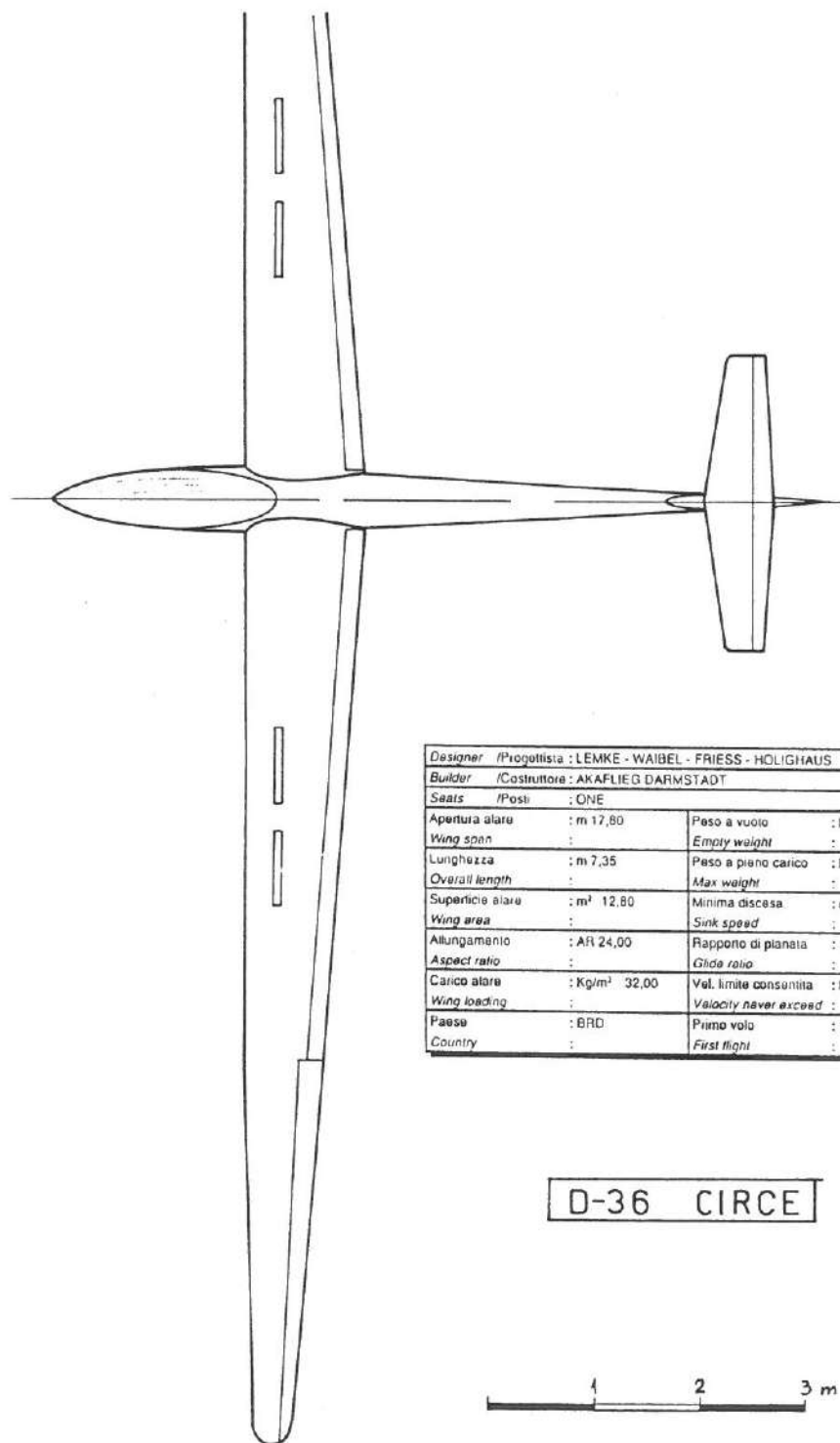
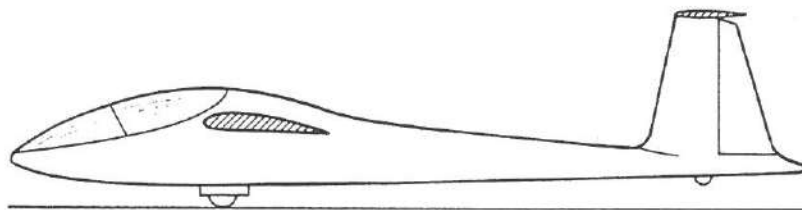


Designer /Progettista :	MARTIN RADE *		
Builder /Costruttore :	AKAFLIEG DARMSTADT		
Seats /Posti :	ONE		
Apertura alare	: m 12,65	Peso a vuoto	: Kg 155
Wing span	:	Empty weight	:
Lunghezza	: m 6,40	Peso a pieno carico	: Kg 380
Overall length	:	Max weight	:
Superficie alare	: m ² 8,0	Minima discesa	: mvs 0,90
Wing area	:	Sink speed	:
Allungamento	: AR 20	Rapporto di planata	: 1: 27
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 47,5	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1963
Country	:	First flight	:

D-34 b



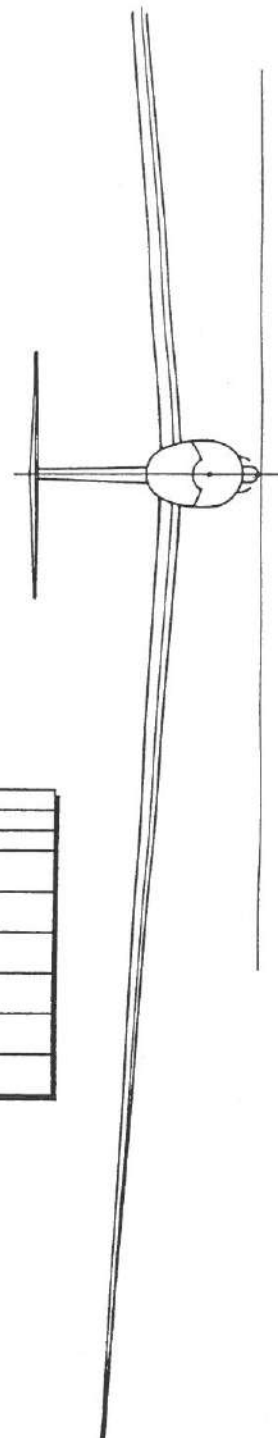
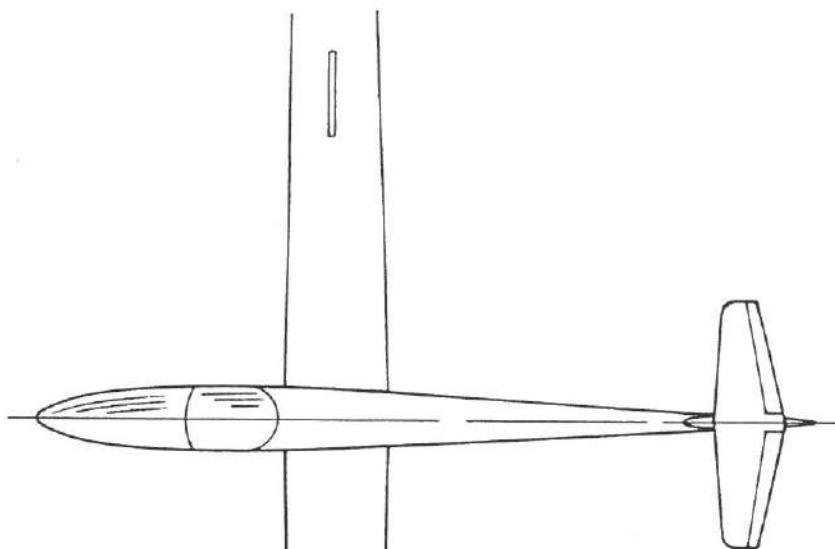
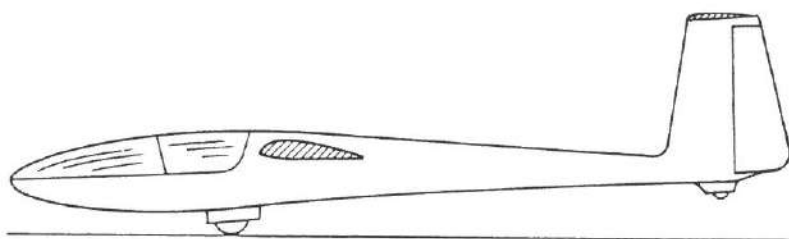




Designer / Progettista	: LEMKE - WAIBEL - FRIESS - HOLIGHAUS		
Builder / Costruttore	: AKAFLEG DARMSTADT		
Seats / Posti	: ONE		
Apertura alare	: m 17,80	Peso a vuoto	: Kg 282
Wing span	:	Empty weight	:
Lunghezza	: m 7,35	Peso a pieno carico	: Kg 410
Overall length	:	Max weight	:
Superficie alare	: m ² 12,80	Minima discesa	: m/s 0,50
Wing area	:	Sink speed	:
Allungamento	: AR 24,00	Rapporto di planata	: 1:40
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 32,00	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1964
Country	:	First flight	:

D-36 CIRCE

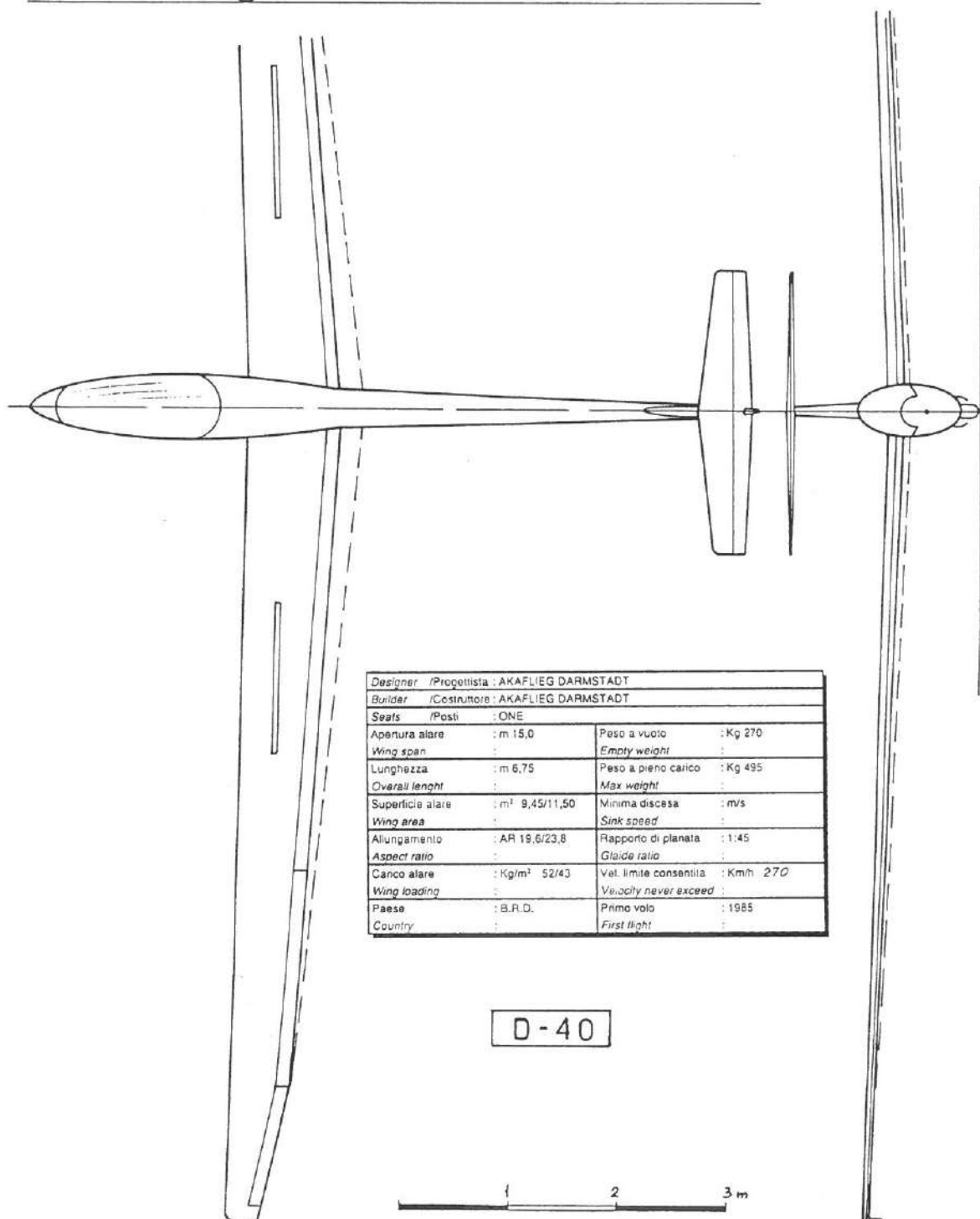
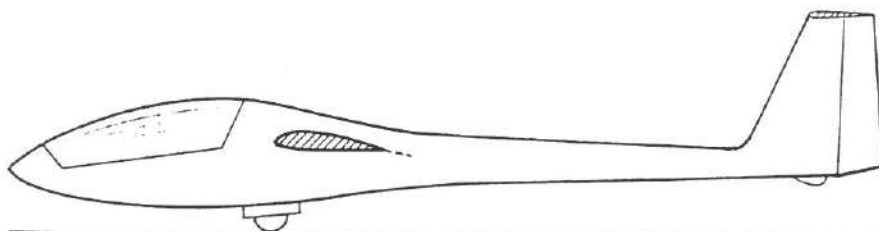




Designer /Progettista : F. SATOR - W. DIRKS			
Builder /Costruttore : AKAFLEG DARMSTADT			
Seats /Posti : ONE			
Apertura alare	: m 18,00	Peso a vuoto	: Kg 325
Wing span	:	Empty weight	:
Lunghezza	: m 7,20	Peso a pieno carico	: Kg 460
Overall length	:	Max weight	:
Superficie alare	: m ² 13,00	Minima discesa	: m/s 0,57
Wing area	:	Sink speed	:
Allungamento	: AR 24,8	Rapporto di planata	: 1:41
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 35,40	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1969
Country	:	First flight	:

D-37b ARTEMIS

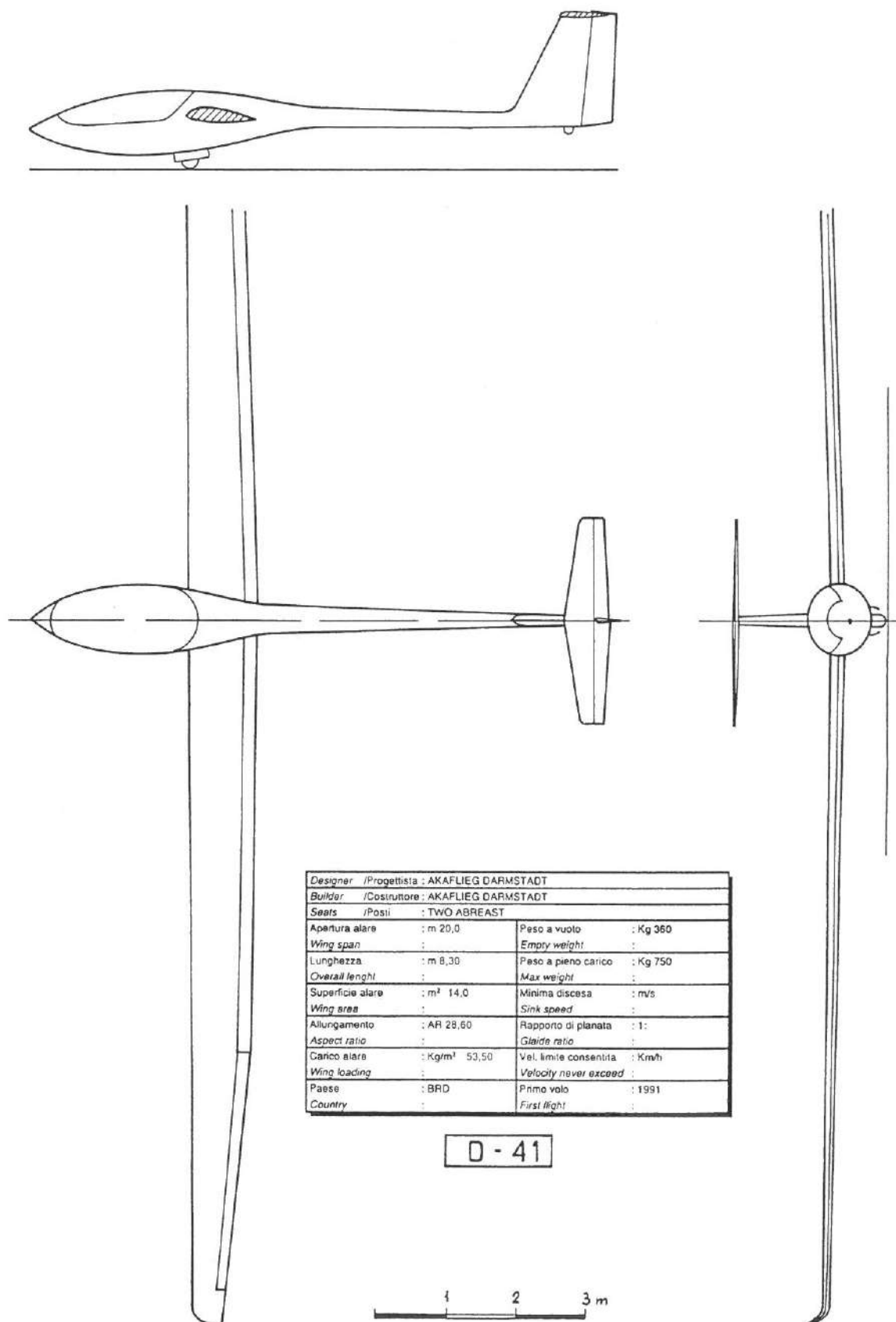


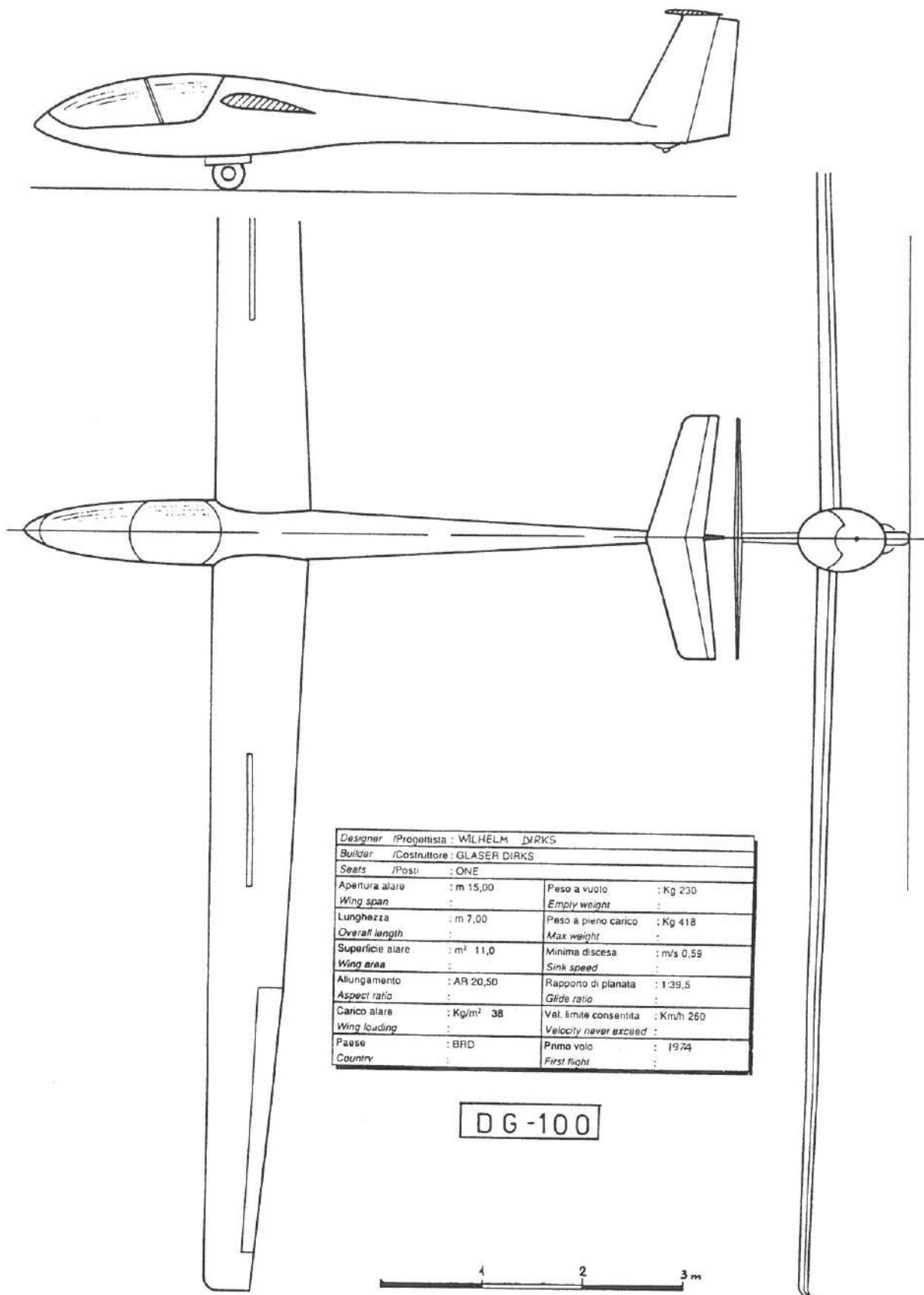


Designer / Progettista	AKAFLIEG DARMSTADT		
Builder / Costruttore	AKAFLIEG DARMSTADT		
Seats / Posti	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 270
Wing span	:	Empty weight	:
Lunghezza	: m 6,75	Peso a pieno carico	: Kg 495
Overall length	:	Max weight	:
Superficie alare	: m ² 9,45/11,50	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 19,6/23,8	Rapporto di planata	: 1:45
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 52/43	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: B.R.D.	Primo volo	: 1985
Country	:	First flight	:

D-40

1 2 3 m

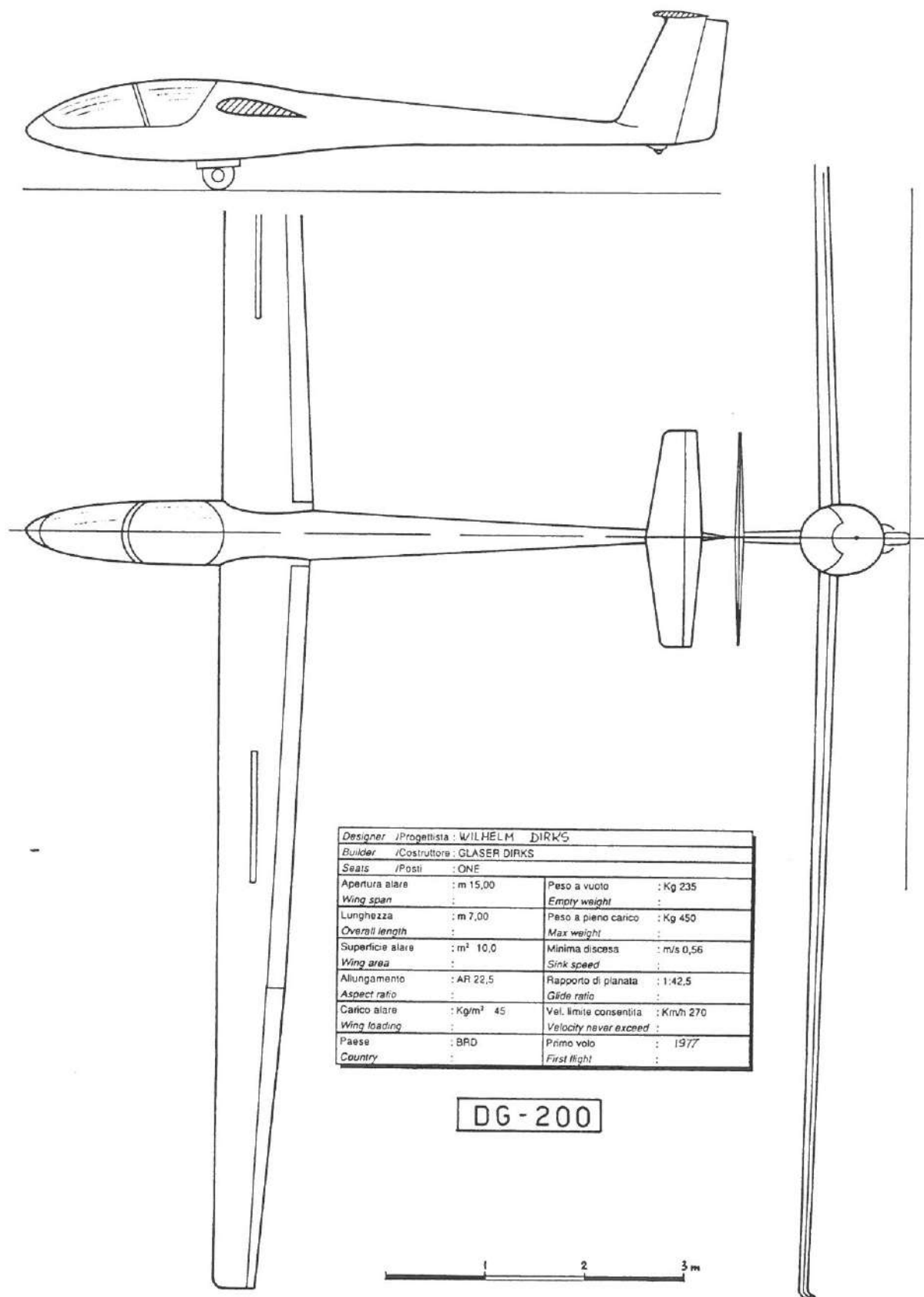




Designer / Progettista	WILHELM DIRKS		
Builder / Costruttore	GLASER DIRKS		
Seats / Posti	ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 230
Wing span	:	Empty weight	:
Lunghezza	: m 7,00	Peso a pieno carico	: Kg 418
Overall length	:	Max weight	:
Superficie alare	: m ² 11,0	Minima discesa	: m/s 0,59
Wing area	:	Sink speed	:
Allungamento	: AR 20,50	Rapporto di planata	: 1:39,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 38	Vel. limite consentita	: Km/h 260
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1974
Country	:	First flight	:

DG-100

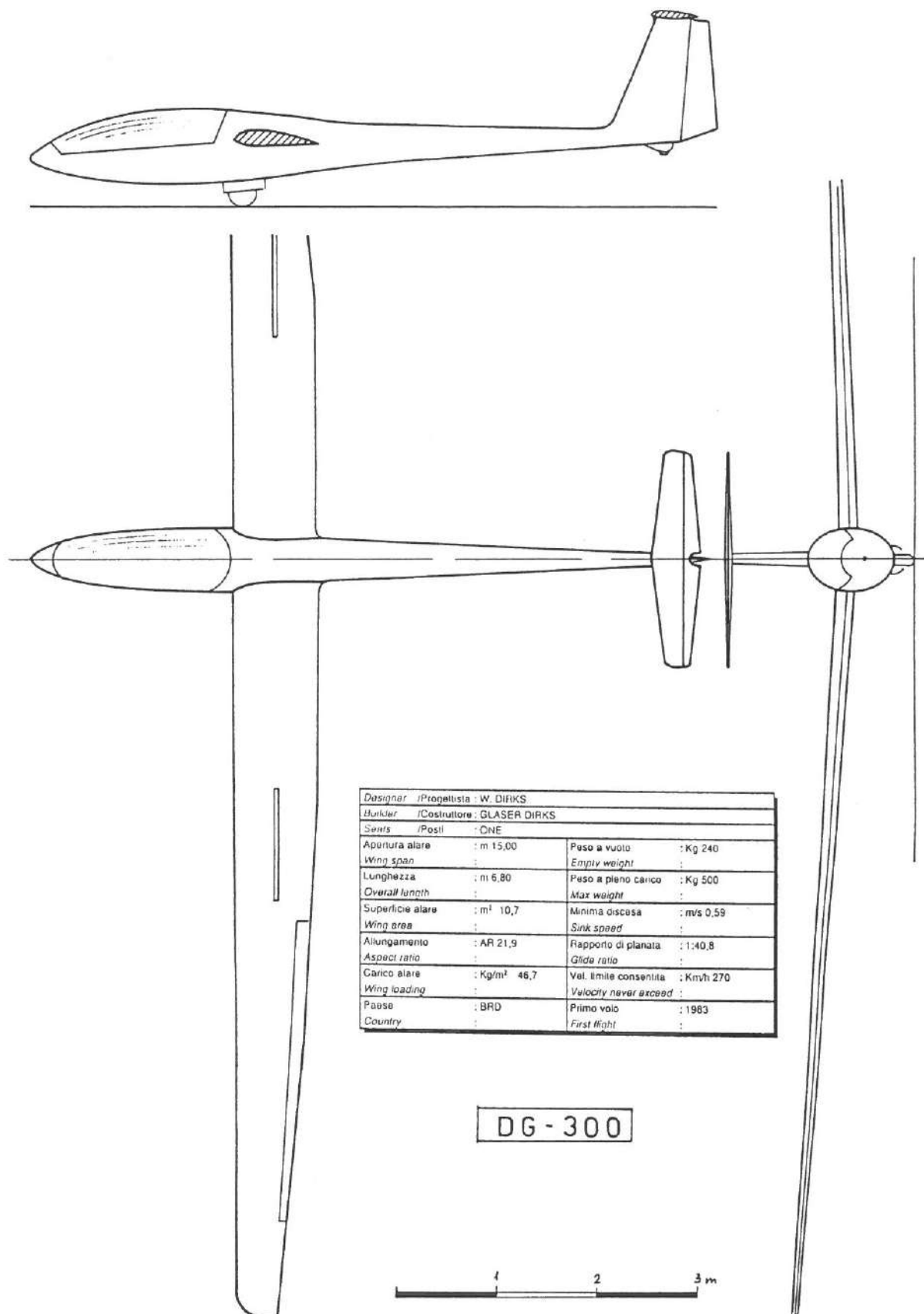




Designer /Progettista : WILHELM DIRKS			
Builder /Costruttore : GLASER DIRKS			
Seats /Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 235
Wing span	:	Empty weight	:
Lunghezza	: m 7,00	Peso a pieno carico	: Kg 450
Overall length	:	Max weight	:
Superficie alare	: m ² 10,0	Minima discesa	: m/s 0,56
Wing area	:	Sink speed	:
Allungamento	: AR 22,5	Rapporto di planata	: 1:42,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 45	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1977
Country	:	First flight	:

DG-200

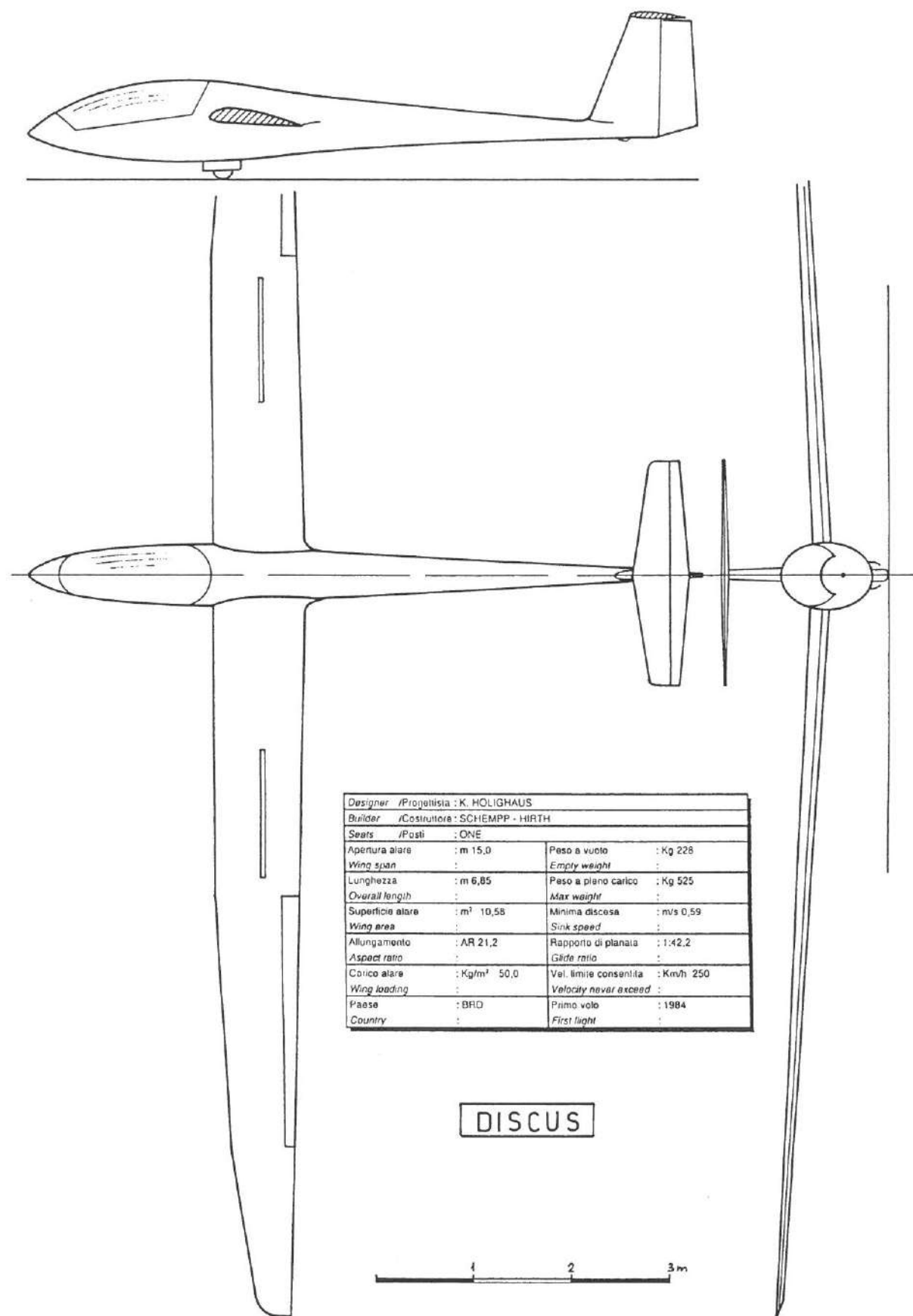
1 2 3 m



Designer	Progettista : W. DIRKS		
Builder	Costruttore : GLASER DIRKS		
Seats	Posti : ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 240
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg 500
Overall length	:	Max weight	:
Superficie alare	: m ² 10,7	Minima discesa	: m/s 0,59
Wing area	:	Sink speed	:
Allungamento	: AR 21,9	Rapporto di planata	: 1:40,8
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 46,7	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1983
Country	:	First flight	:

DG - 300

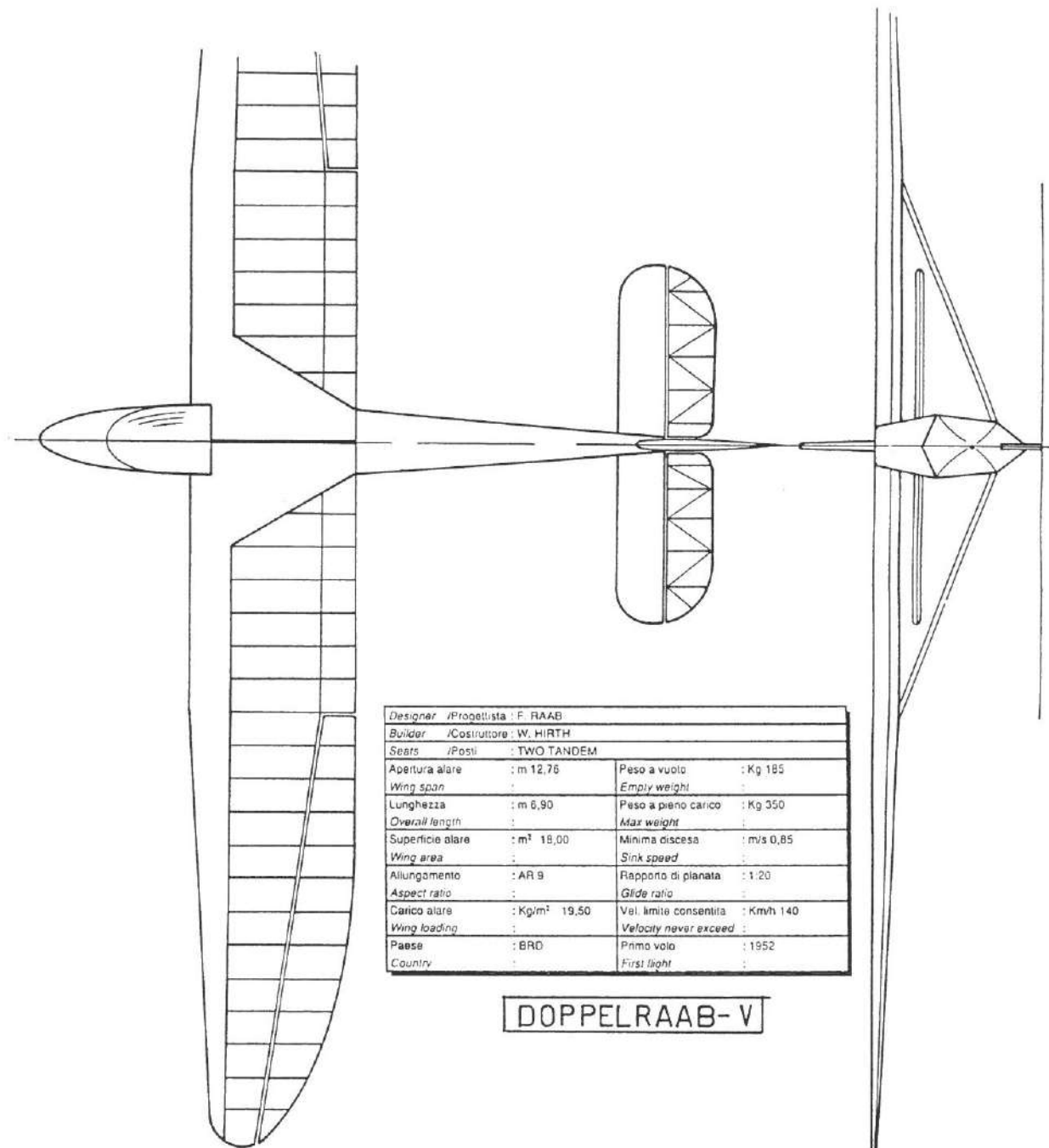
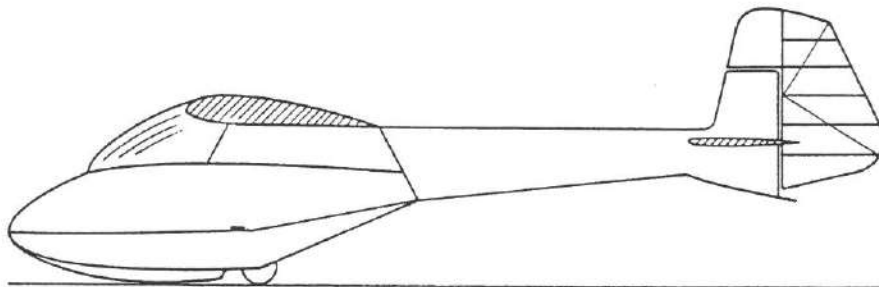




Designer /Progettista :	K. HOLIGHAUS		
Builder /Costruttore :	SCHEMPP - HIRTH		
Seats /Posti :	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 228
Wing span	:	Empty weight	:
Lunghezza	: m 6,85	Peso a pieno carico	: Kg 525
Overall length	:	Max weight	:
Superficie alare	: m ² 10,58	Minima discesa	: m/s 0,59
Wing area	:	Sink speed	:
Allungamento	: AR 21,2	Rapporto di planata	: 1:42,2
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 50,0	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1984
Country	:	First flight	:

DISCUS

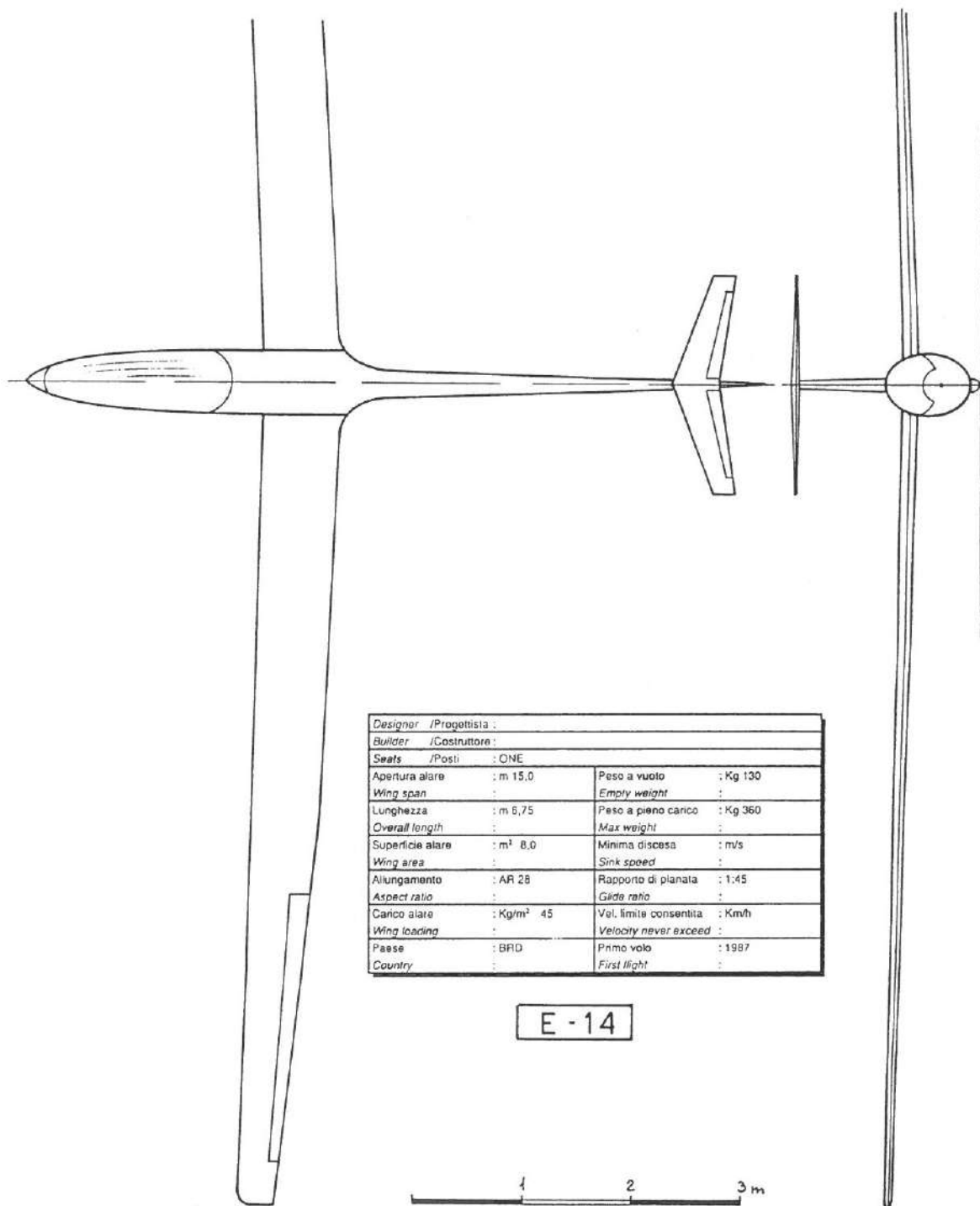
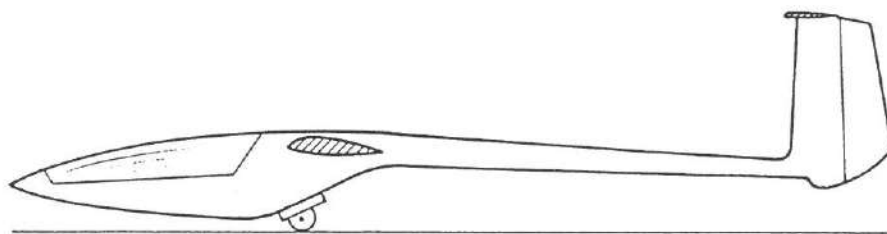
1 2 3 m



Designer / Progettista	F. RAAB		
Builder / Costruttore	W. HIRTH		
Seats / Posti	TWO TANDEM		
Apertura alare	: m 12,76	Peso a vuoto	: Kg 185
Wing span	:	Empty weight	:
Lunghezza	: m 6,90	Peso a pieno carico	: Kg 350
Overall length	:	Max weight	:
Superficie alare	: m ² 18,00	Minima discesa	: m/s 0,85
Wing area	:	Sink speed	:
Allungamento	: AR 9	Rapporto di planata	: 1:20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 19,50	Vel. limite consentita	: Km/h 140
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1952
Country	:	First flight	:

DOPPELRAAB-V

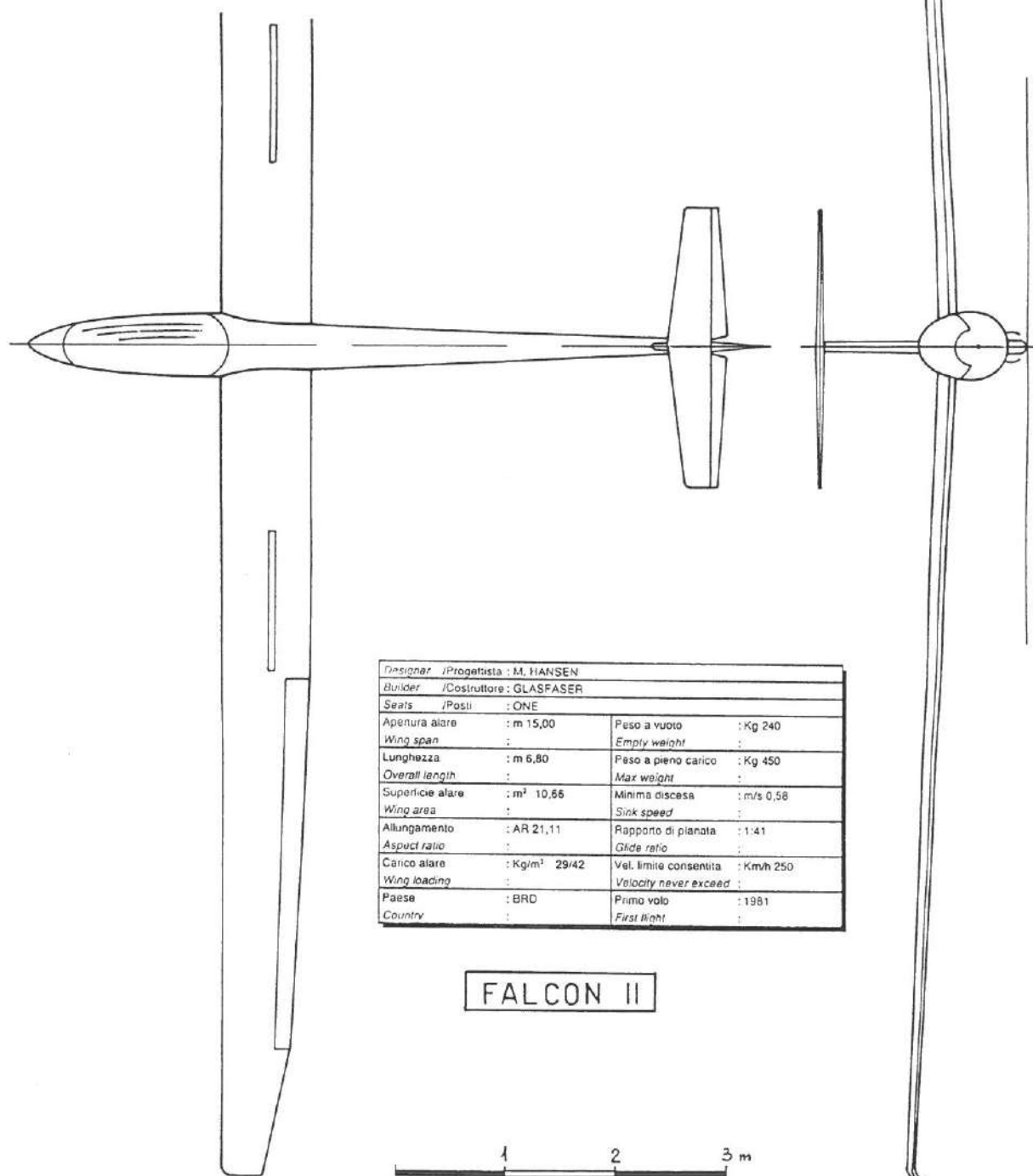
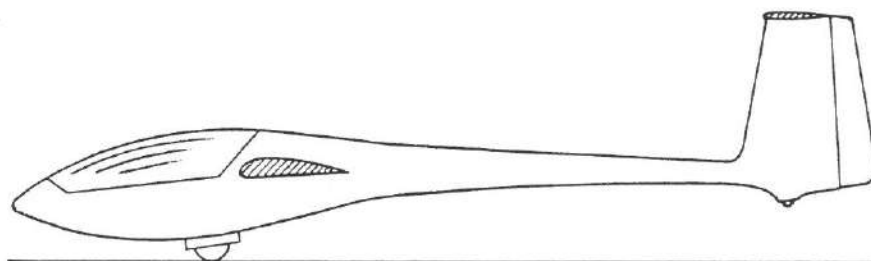




Designer /Progettista :			
Builder /Costruttore :			
Seats /Posti :	ONE		
Apertura alare :	m 15,0	Peso a vuoto :	Kg 130
Wing span :		Empty weight :	
Lunghezza :	m 6,75	Peso a pieno carico :	Kg 360
Overall length :		Max weight :	
Superficie alare :	m ² 8,0	Minima discesa :	m/s
Wing area :		Sink speed :	
Allungamento :	AR 28	Rapporto di planata :	1:45
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 45	Vel. limite consentita :	Km/h
Wing loading :		Velocity never exceed :	
Paese :	BRD	Primo volo :	1987
Country :		First flight :	

E - 14

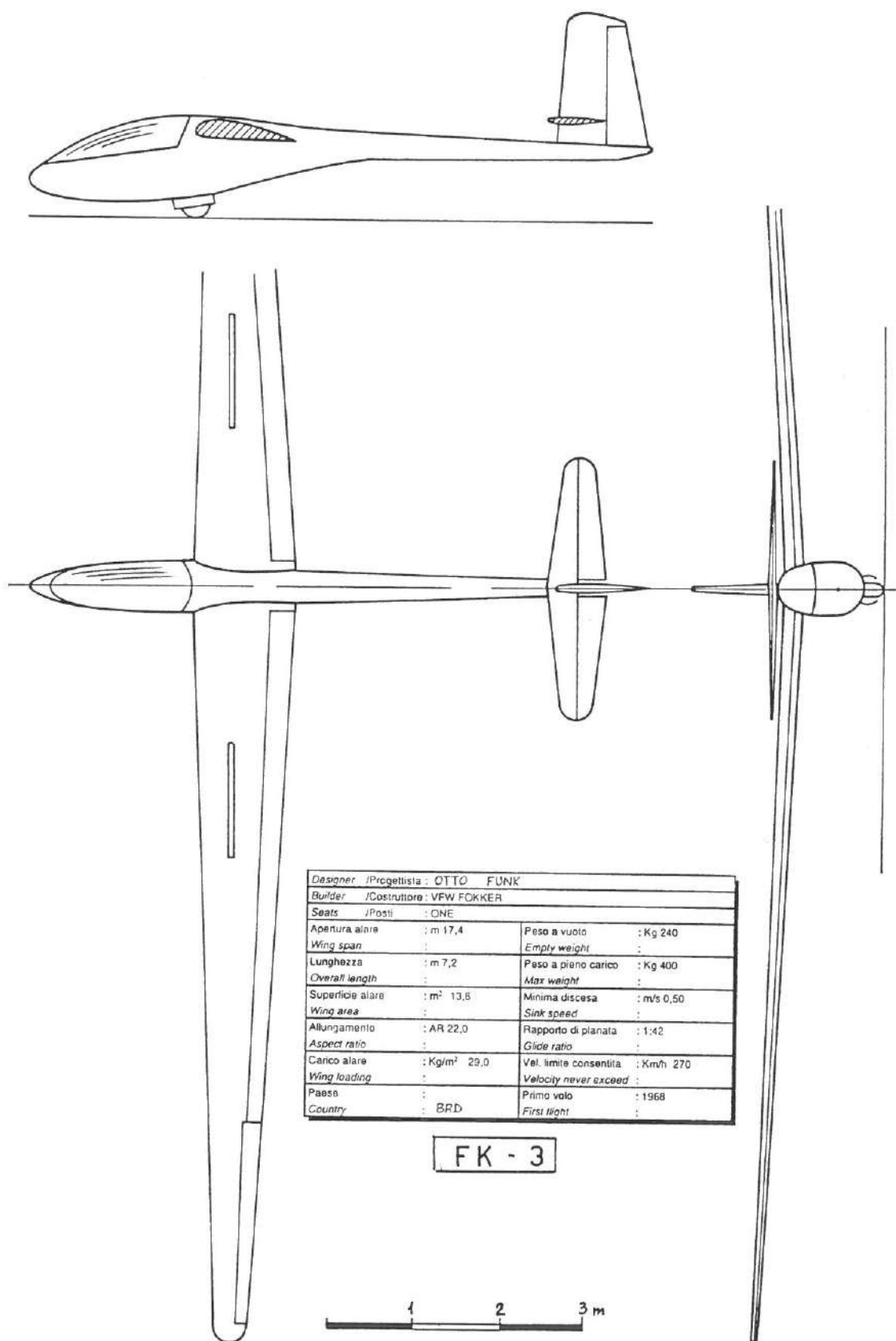


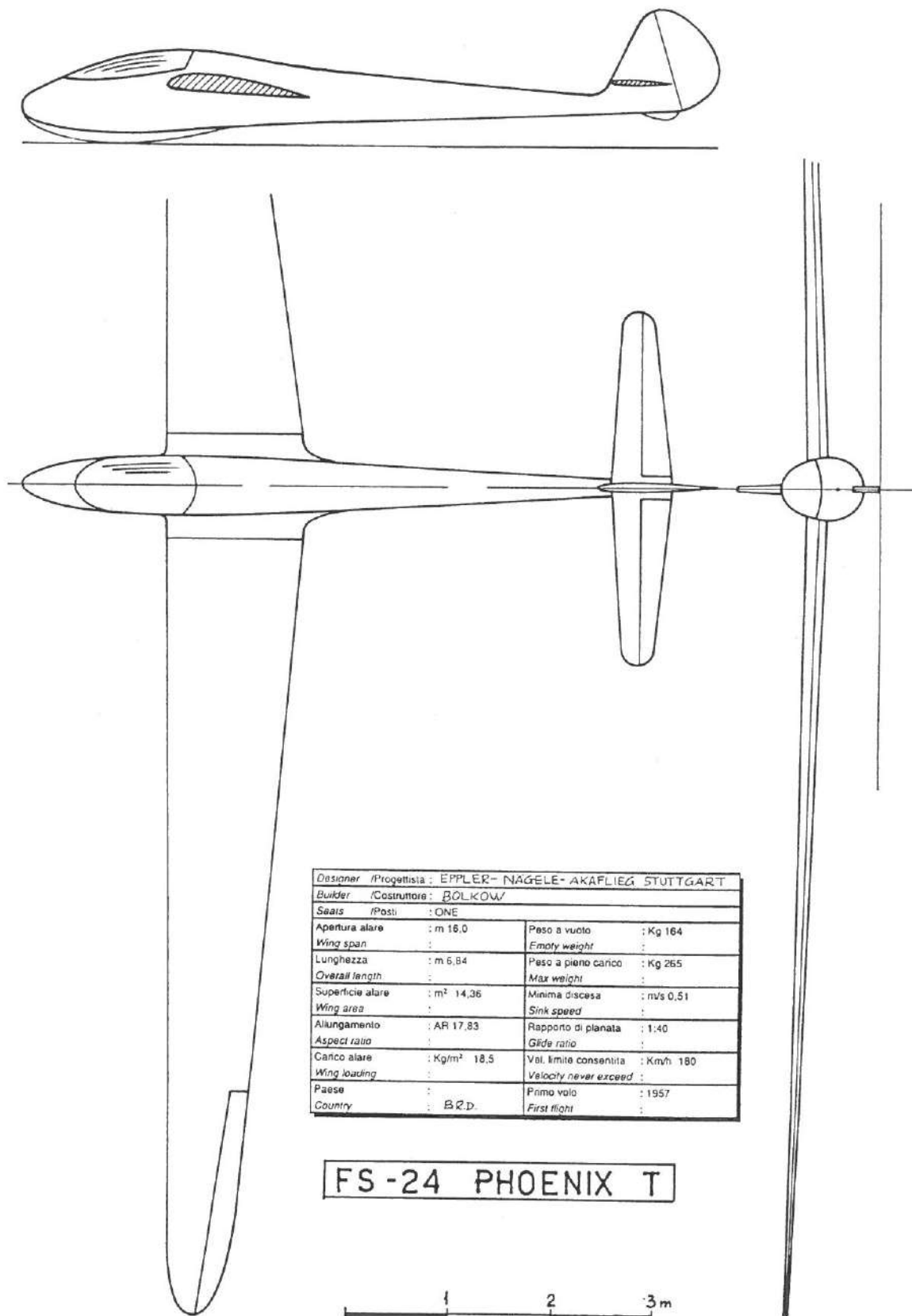


Designer /Progettista : M. HANSEN			
Builder /Costruttore : GLASFASER			
Seats /Posti : ONE			
Apertura alare : m 15,00		Peso a vuoto : Kg 240	
Wing span :		Empty weight :	
Lunghezza : m 6,80		Peso a pieno carico : Kg 450	
Overall length :		Max weight :	
Superficie alare : m ² 10,66		Minima discesa : m/s 0,58	
Wing area :		Sink speed :	
Allungamento : AR 21,11		Rapporto di planata : 1:41	
Aspect ratio :		Glide ratio :	
Carico alare : Kg/m ² 29/42		Vel. limite consentita : Km/h 250	
Wing loading :		Velocity never exceed :	
Paese : BRD		Primo volo : 1981	
Country :		First flight :	

FALCON II



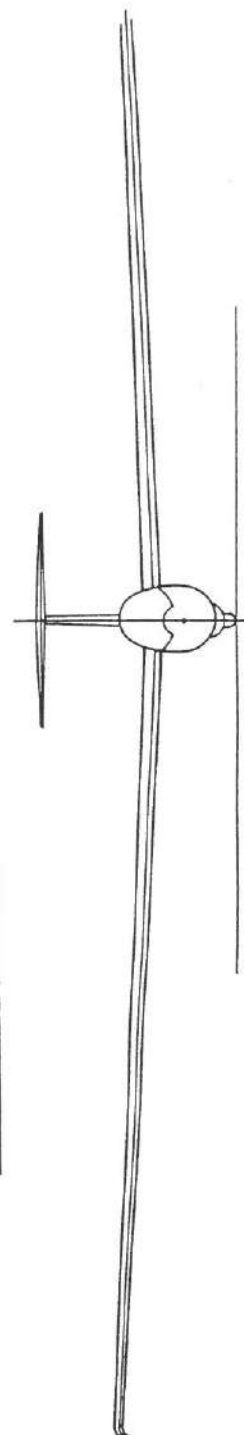
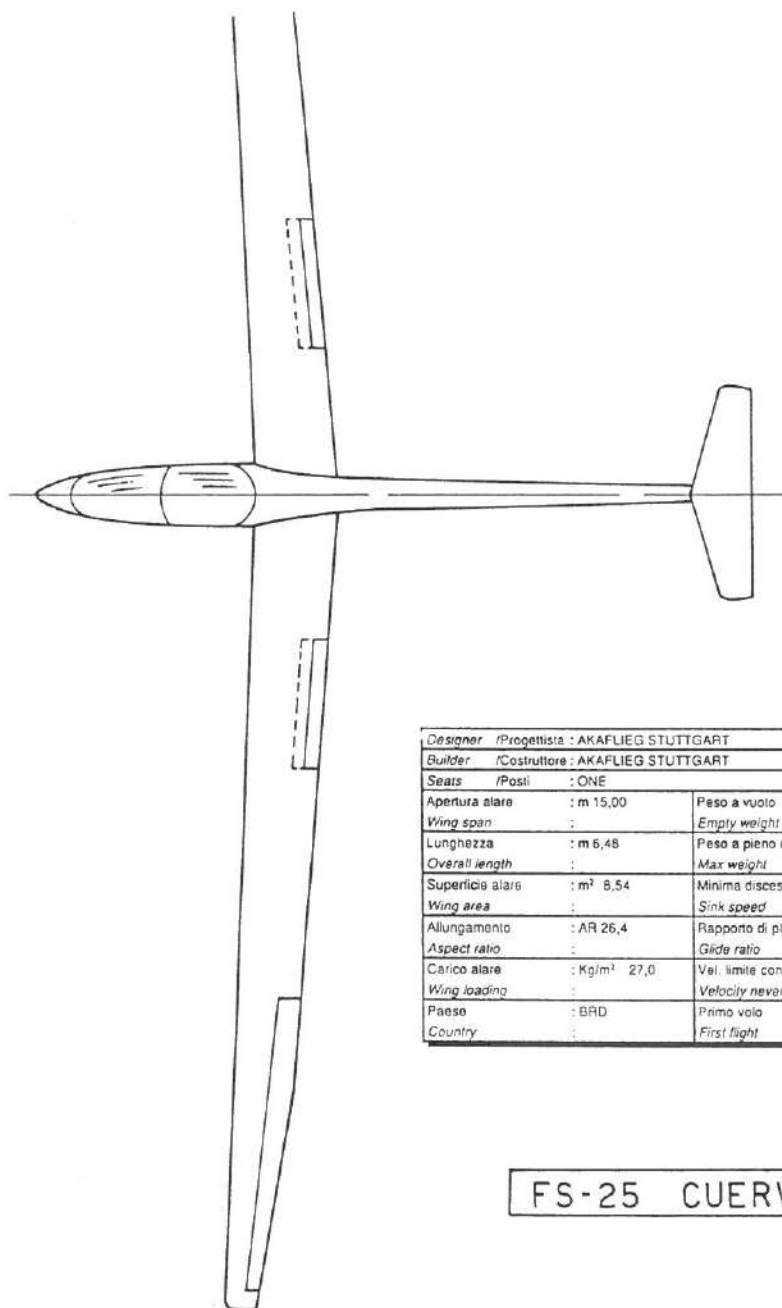
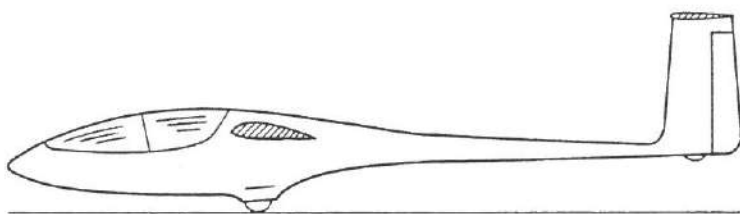




Designer /Progettista :	EPPLER-NÄGELE-AKAFLIEG STUTTGART		
Builder /Costruttore :	BÖLKOW		
Seats /Posti :	ONE		
Apertura alare	: m 16,0	Peso a vuoto	: Kg 164
Wing span	:	Empty weight	:
Lunghezza	: m 6,84	Peso a pieno carico	: Kg 265
Overall length	:	Max weight	:
Superficie alare	: m ² 14,36	Minima discesa	: m/s 0,51
Wing area	:	Sink speed	:
Allungamento	: AR 17,83	Rapporto di planata	: 1:40
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,5	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	:	Primo volo	: 1957
Country	: B.R.D.	First flight	:

FS-24 PHOENIX T

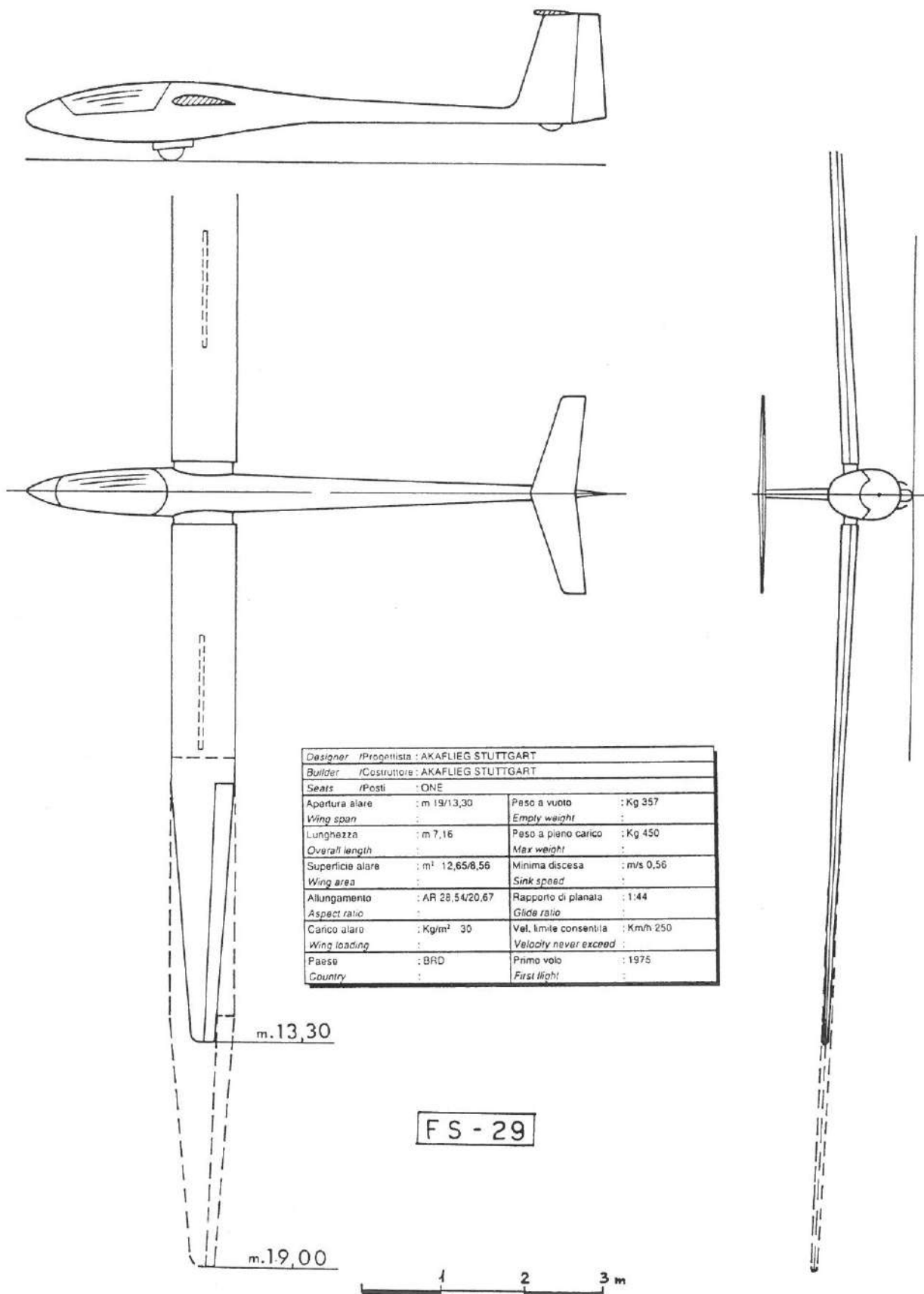
1 2 3m

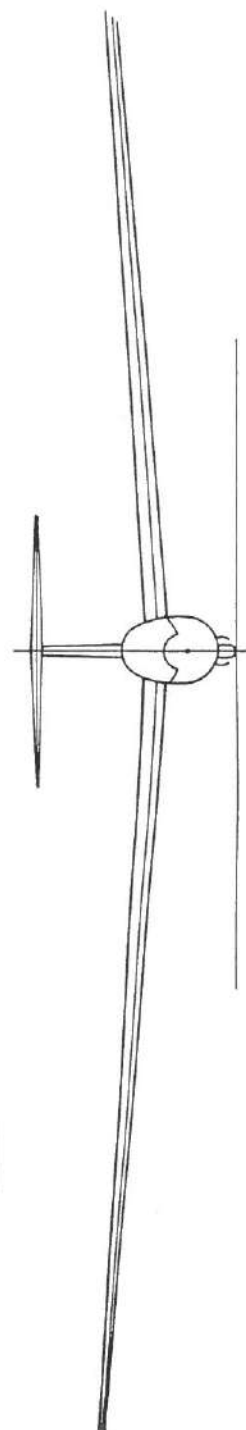
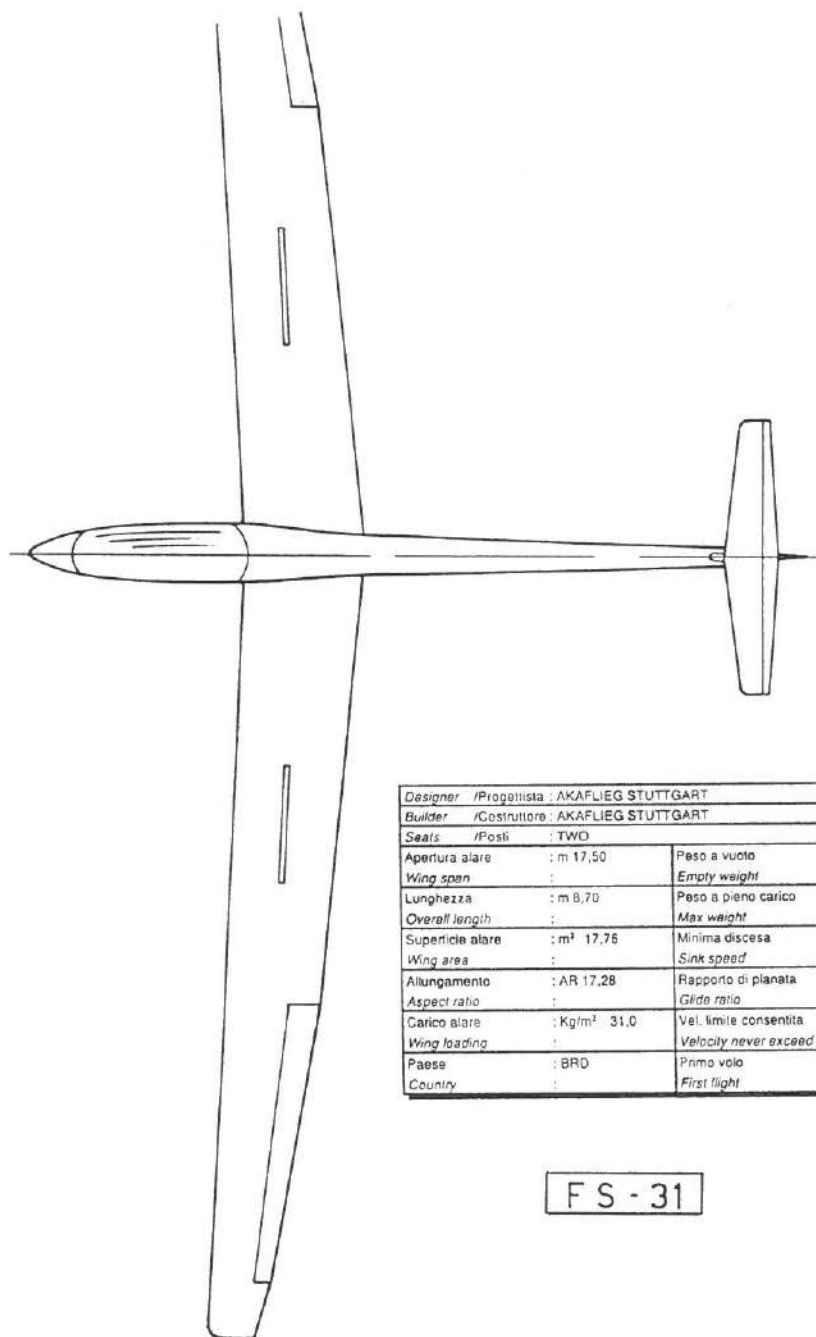
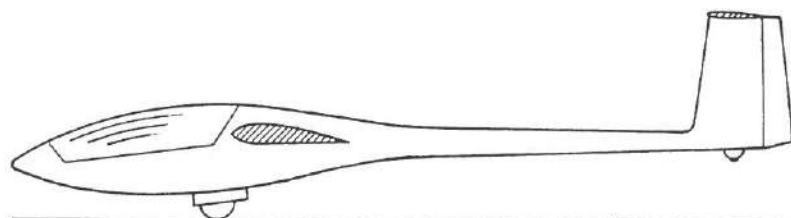


Designer / Progettista	AKAFLIEG STUTTGART		
Builder / Costruttore	AKAFLIEG STUTTGART		
Seats / Posti	ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 148
Wing span	:	Empty weight	:
Lunghezza	: m 6,48	Peso a pieno carico	: Kg 250
Overall length	:	Max weight	:
Superficie alare	: m ² 8,54	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 26,4	Rapporto di planata	: 1:38,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,0	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1968
Country	:	First flight	:

FS-25 CUERVO

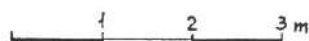


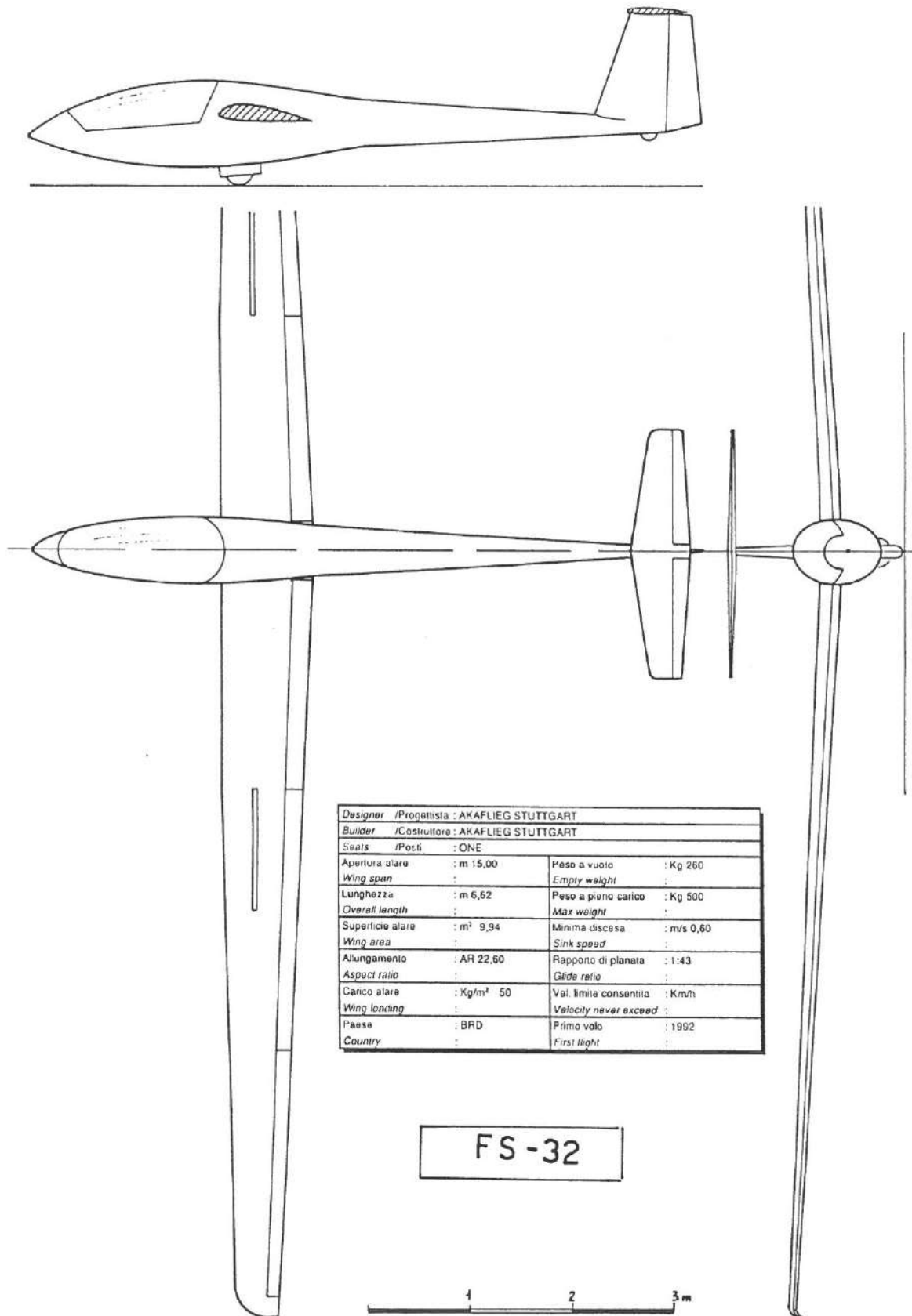




Designer / Progettista : AKAFLIEG STUTTGART			
Builder / Costruttore : AKAFLIEG STUTTGART			
Seats / Posti : TWO			
Apertura alare	: m 17,50	Peso a vuoto	: Kg 340
Wing span	:	Empty weight	:
Lunghezza	: m 8,70	Peso a pieno carico	: Kg 560
Overall length	:	Max weight	:
Superficie alare	: m ² 17,76	Minima discesa	: mvs 0,64
Wing area	:	Sink speed	:
Allungamento	: AR 17,28	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 31,0	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1981
Country	:	First flight	:

FS - 31

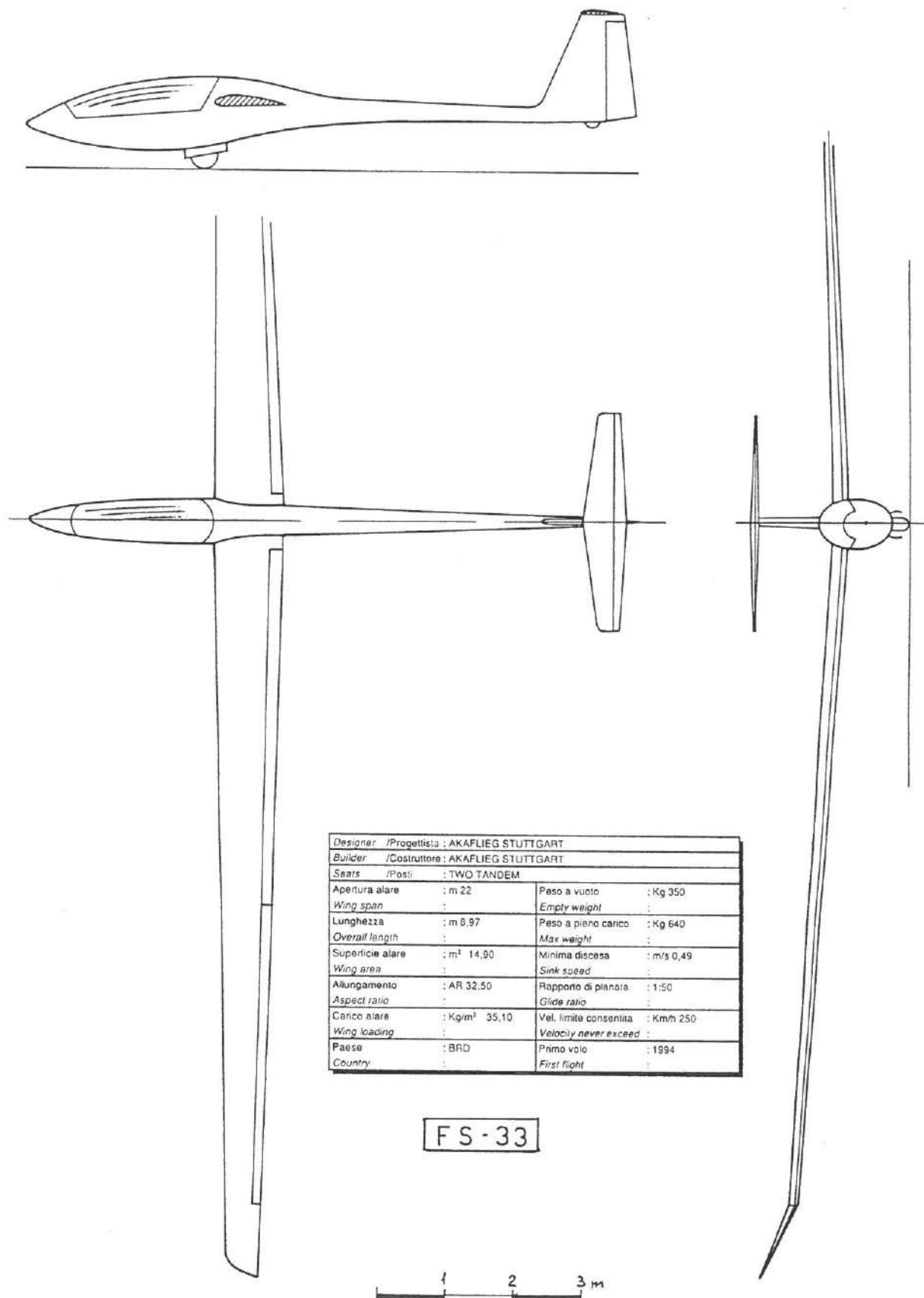




<i>Designer /Progettista</i> : AKAFLEG STUTTGART			
<i>Builder /Costruttore</i> : AKAFLEG STUTTGART			
<i>Seats /Posti</i> : ONE			
<i>Apertura alare</i>	: m 15,00	<i>Peso a vuoto</i>	: Kg 260
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 6,62	<i>Peso a pieno carico</i>	: Kg 500
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 9,94	<i>Minima discesa</i>	: m/s 0,60
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 22,60	<i>Rapporto di planata</i>	: 1:43
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 50	<i>Vel. limite consentita</i>	: Km/h
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: BRD	<i>Primo volo</i>	: 1992
<i>Country</i>	:	<i>First flight</i>	:

FS-32

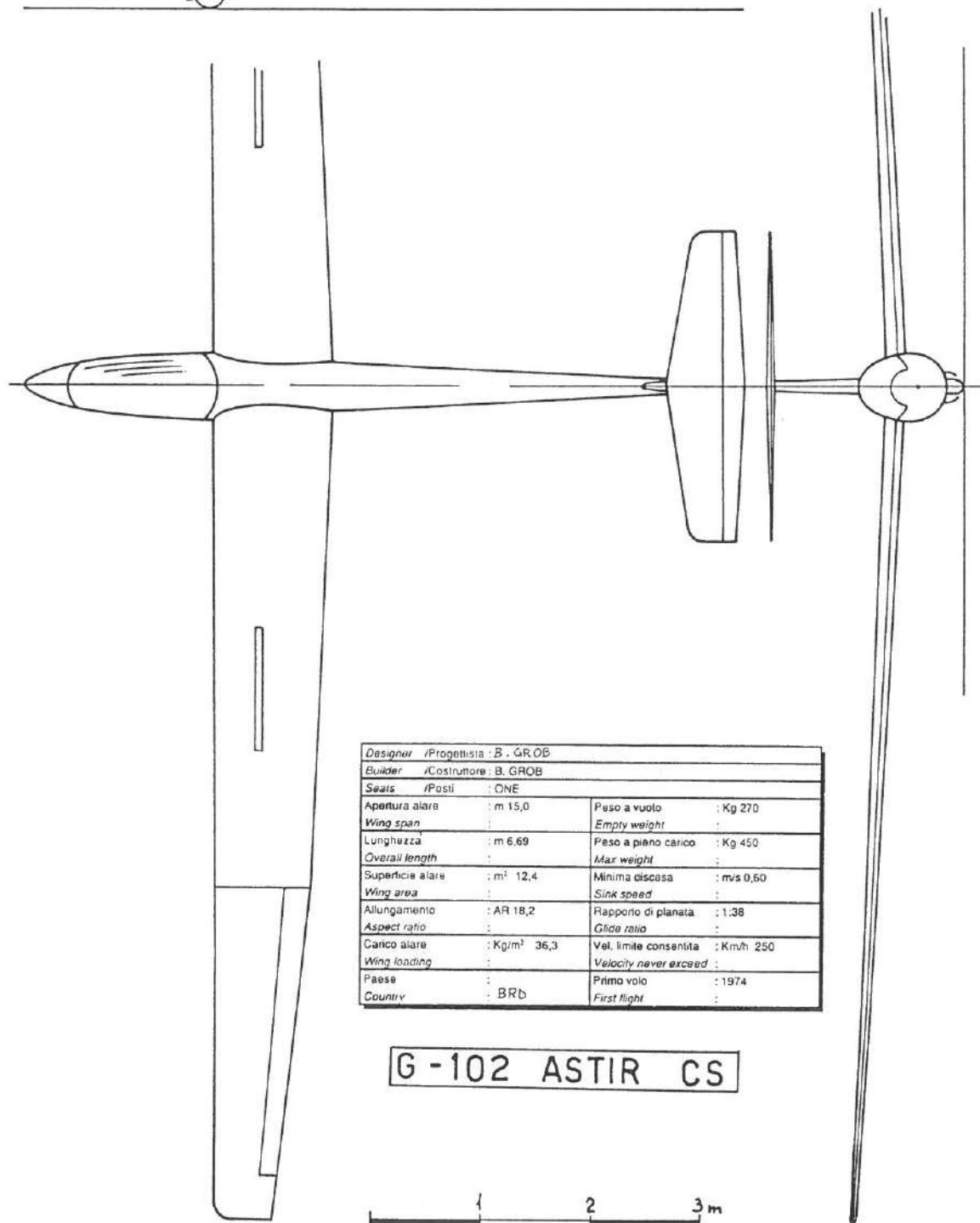
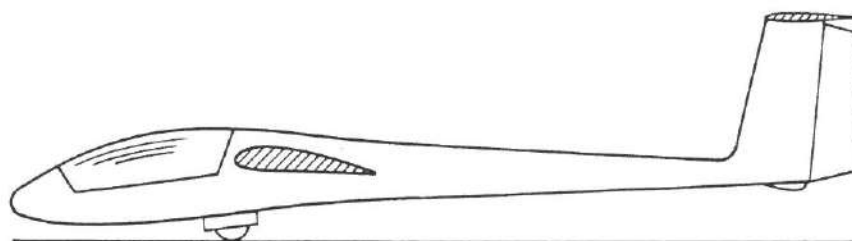




Designer /Progettista : AKAFLIEG STUTTGART			
Builder /Costruttore : AKAFLIEG STUTTGART			
Seats /Posti	: TWO TANDEM		
Apertura alare	: m 22	Peso a vuoto	: Kg 350
Wing span	:	Empty weight	:
Lunghezza	: m 8,97	Peso a pieno carico	: Kg 640
Overall length	:	Max weight	:
Superficie alare	: m ² 14,90	Minima discesa	: m/s 0,49
Wing area	:	Sink speed	:
Allungamento	: AR 32,50	Rapporto di planata	: 1:50
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 35,10	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1994
Country	:	First flight	:

FS-33

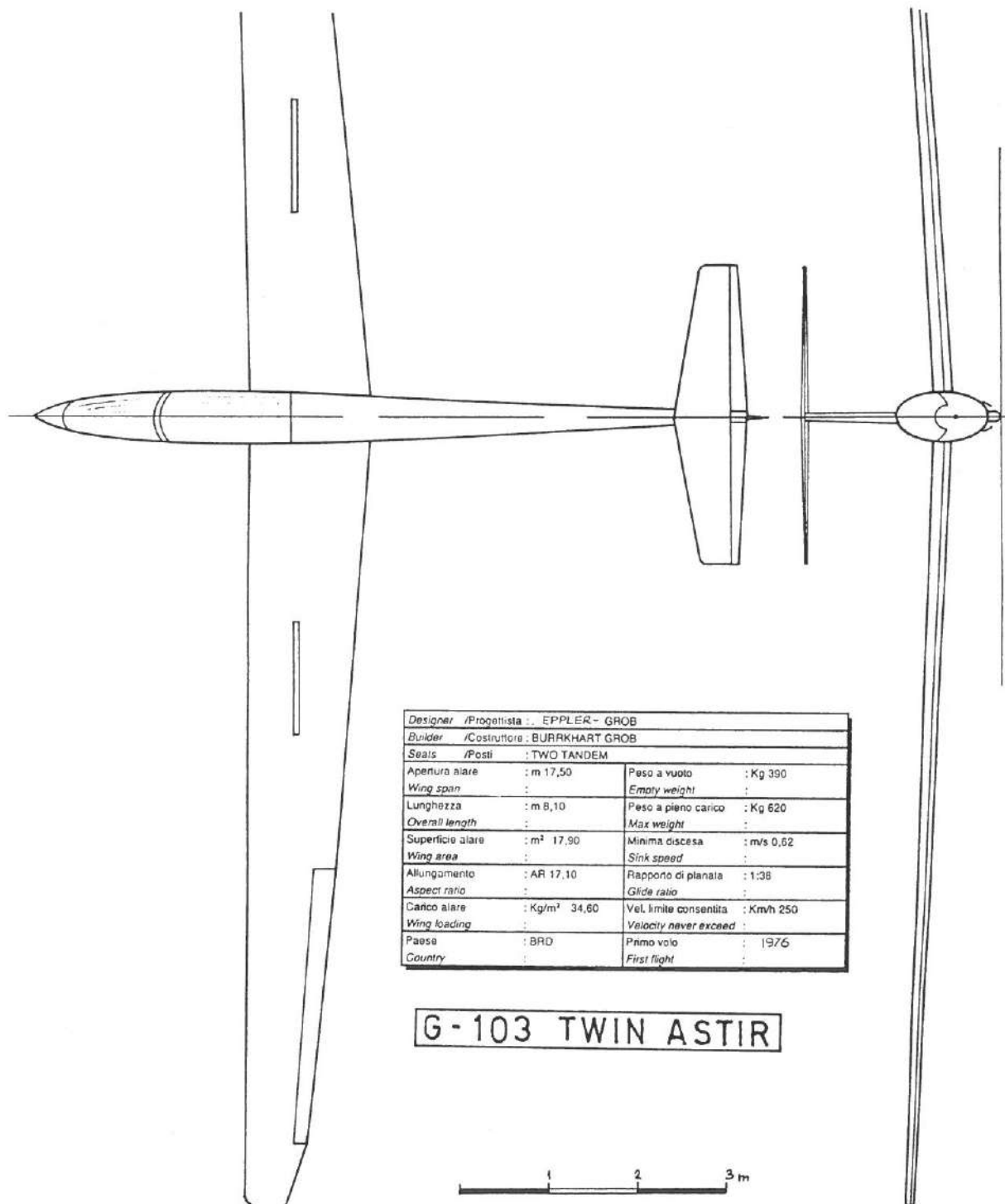
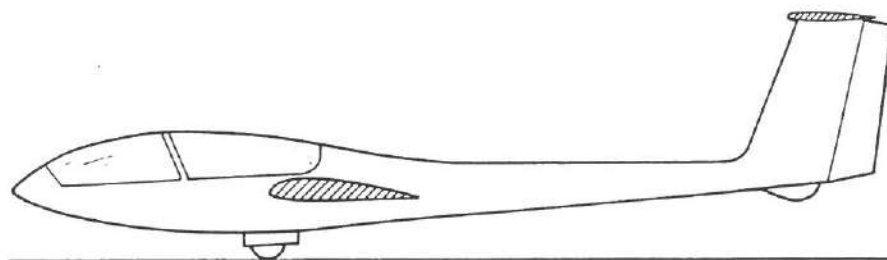




Designer / Progettista : B. GROB			
Builder / Costruttore : B. GROB			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 270
Wing span		Empty weight	
Lunghezza	: m 6,69	Peso a pieno carico	: Kg 450
Overall length		Max weight	
Superficie alare	: m ² 12,4	Minima discosa	: m/s 0,60
Wing area		Sink speed	
Allungamento	: AR 18,2	Rapporto di planata	: 1,38
Aspect ratio		Glide ratio	
Carico alare	: Kg/m ² 36,3	Vel. limite consentita	: Km/h 250
Wing loading		Velocity never exceed	
Paese		Primo volo	: 1974
Country	: BRD	First flight	

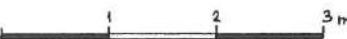
G - 102 ASTIR CS

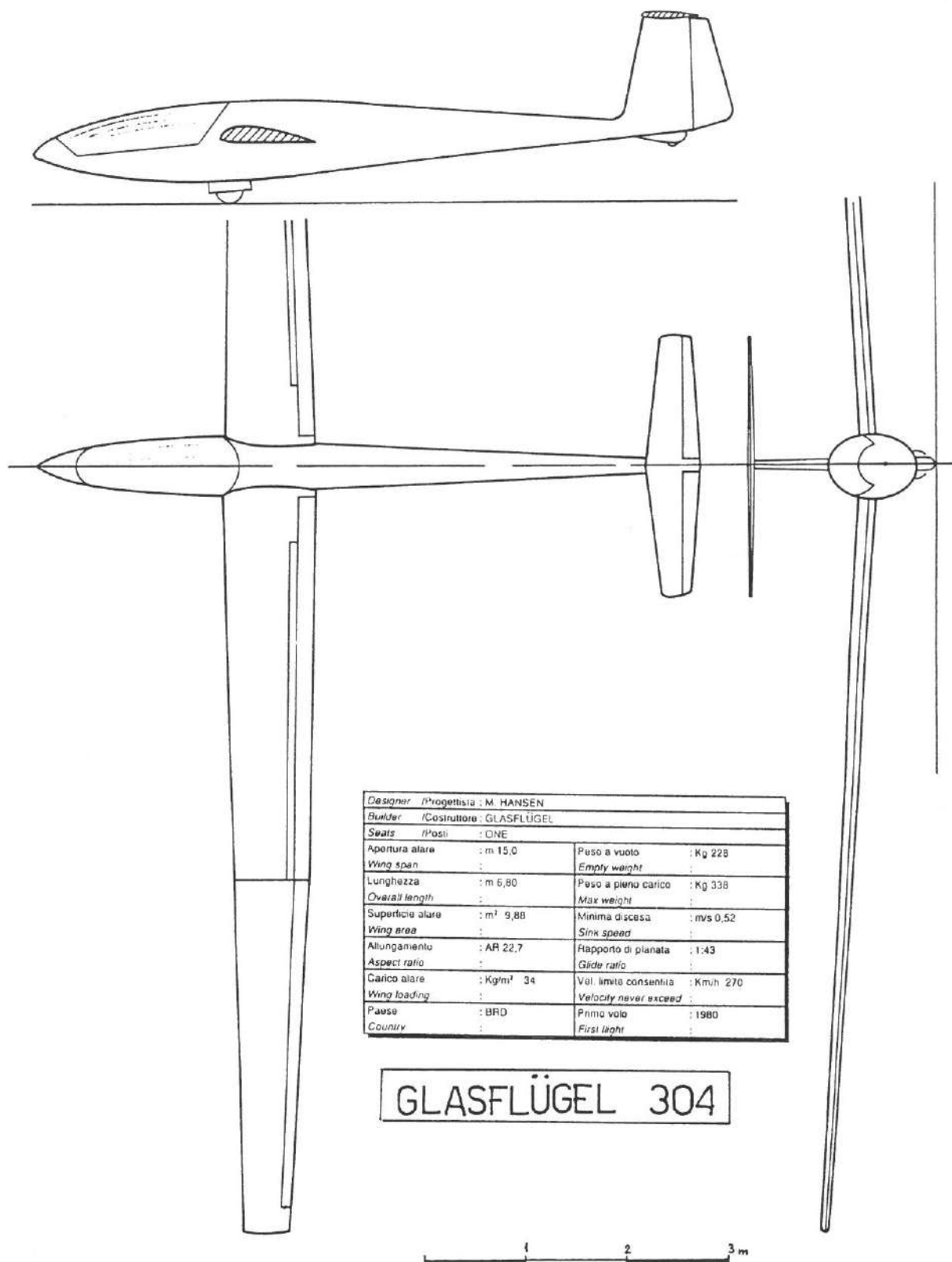




Designer /Progettista : EPPLER- GROB			
Builder /Costruttore : BURKHART GROB			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 17,50	Peso a vuoto	: Kg 390
Wing span	:	Empty weight	:
Lunghezza	: m 8,10	Peso a pieno carico	: Kg 620
Overall length	:	Max weight	:
Superficie alare	: m ² 17,90	Minima discesa	: m/s 0,62
Wing area	:	Sink speed	:
Allungamento	: AR 17,10	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 34,60	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1976
Country	:	First flight	:

G-103 TWIN ASTIR

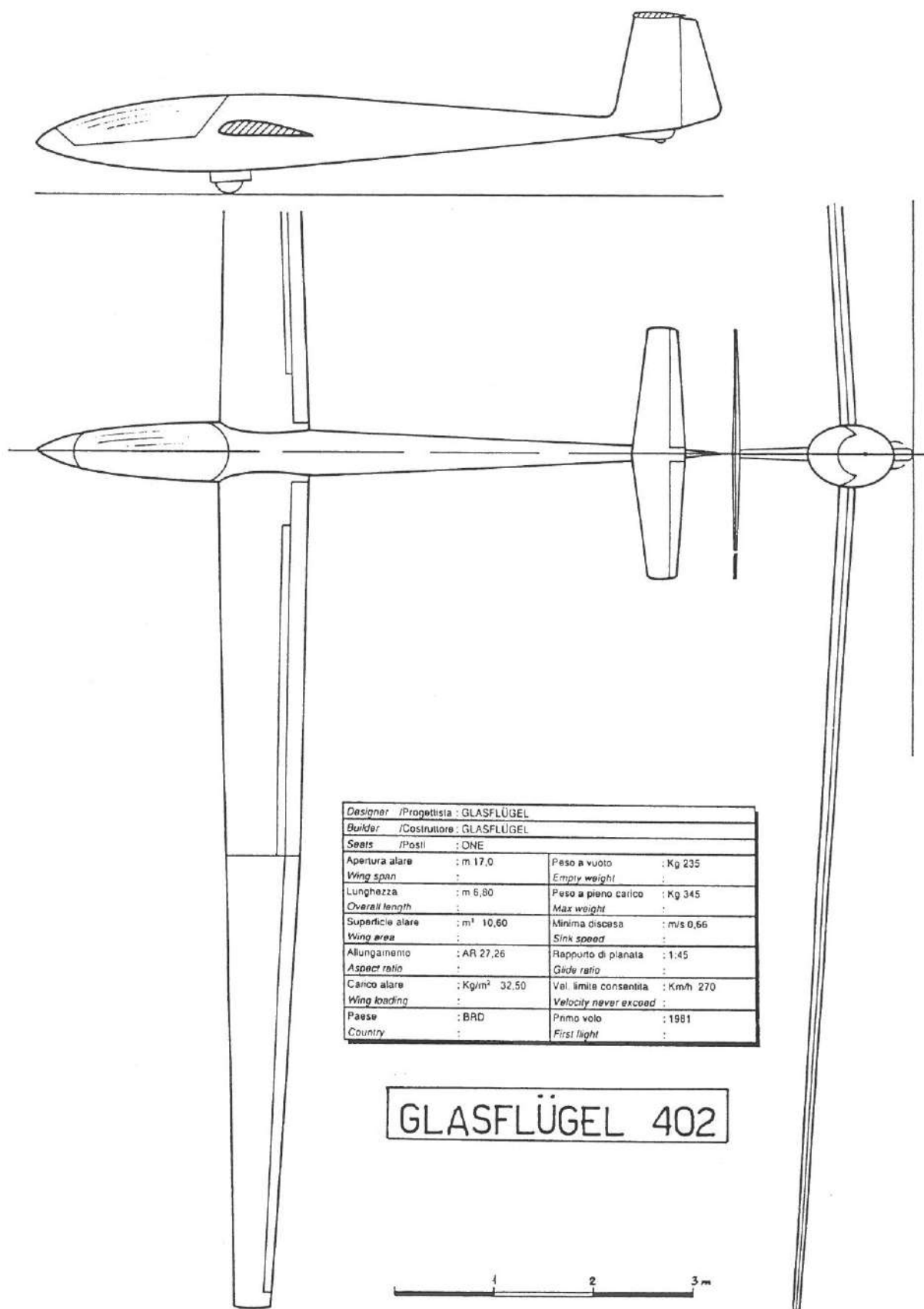




Designer / Progettista	M. HANSEN		
Builder / Costruttore	GLASFLÜGEL		
Seats / Posti	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 228
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg 338
Overall length	:	Max weight	:
Superficie alare	: m ² 9,88	Minima discesa	: mvs 0,52
Wing area	:	Sink speed	:
Allungamento	: AR 22,7	Rapporto di planata	: 1:43
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 34	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Phase	: BRD	Primo volo	: 1980
Country	:	First flight	:

GLASFLÜGEL 304

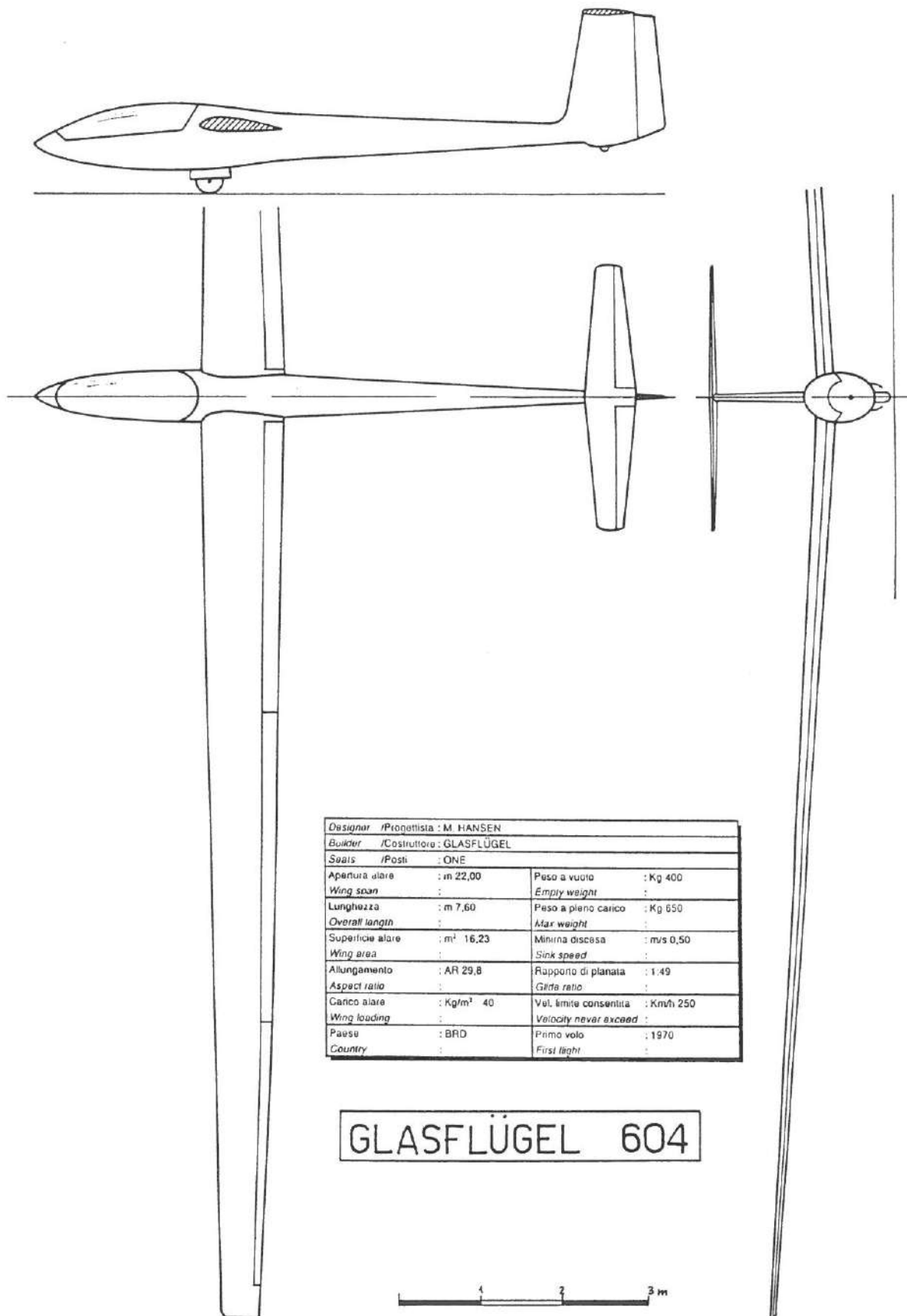
1 2 3 m



Designer / Progettista	GLASFLÜGEL		
Builder / Costruttore	GLASFLÜGEL		
Seats / Posti	ONE		
Apertura alare	: m 17,0	Peso a vuoto	: Kg 235
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg 345
Overall length	:	Max weight	:
Superficie alare	: m ² 10,60	Minima discesa	: m/s 0,66
Wing area	:	Sink speed	:
Allungamento	: AR 27,26	Rapporto di planata	: 1:45
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 32,50	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1981
Country	:	First flight	:

GLASFLÜGEL 402

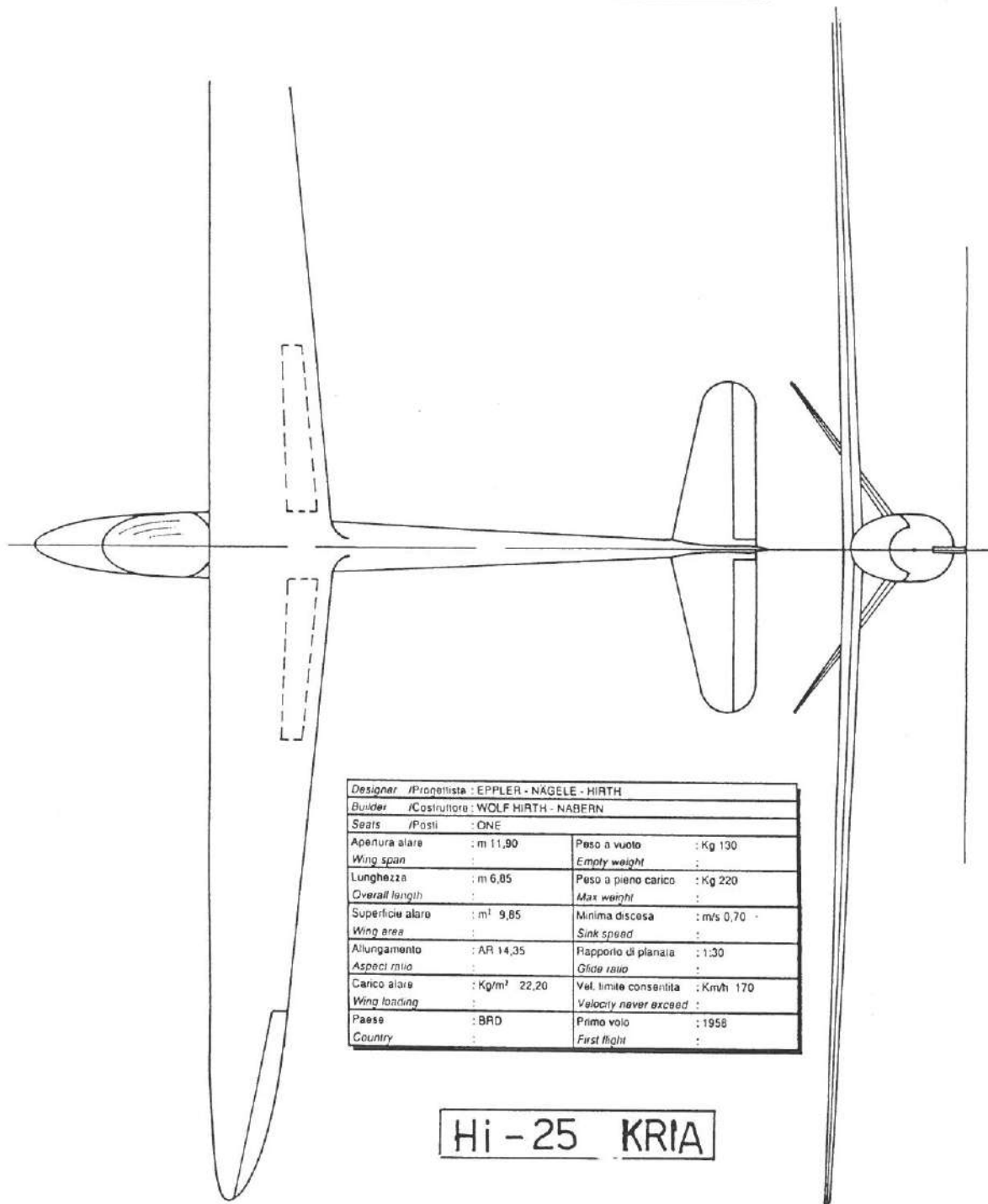
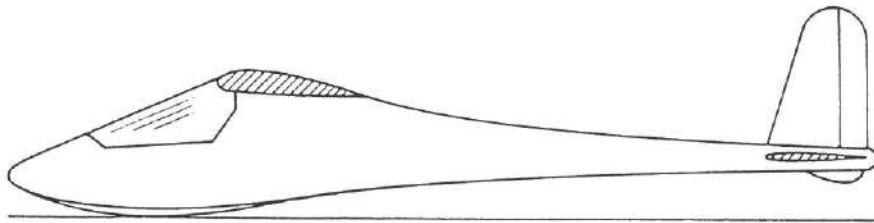
1 2 3 m



Designer /Progettista : M. HANSEN			
Builder /Costruttore : GLASFLÜGEL			
Seats /Posti : ONE			
Apertura alare	: m 22,00	Peso a vuoto	: Kg 400
Wing span	:	Empty weight	:
Lunghezza	: m 7,60	Peso a pieno carico	: Kg 650
Overall length	:	Max weight	:
Superficie alare	: m ² 16,23	Minima discesa	: mvs 0,50
Wing area	:	Sink speed	:
Allungamento	: AR 29,8	Rapporto di planata	: 1:49
Aspect ratio	:	Glida ratio	:
Carico alare	: Kg/m ² 40	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1970
Country	:	First flight	:

GLASFLÜGEL 604

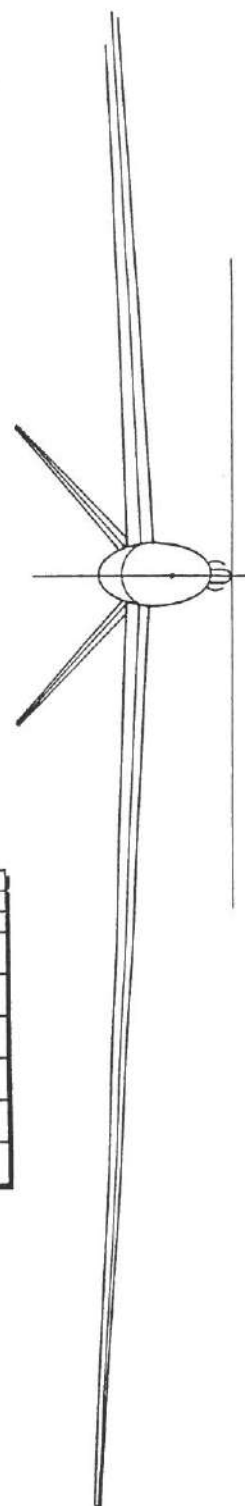
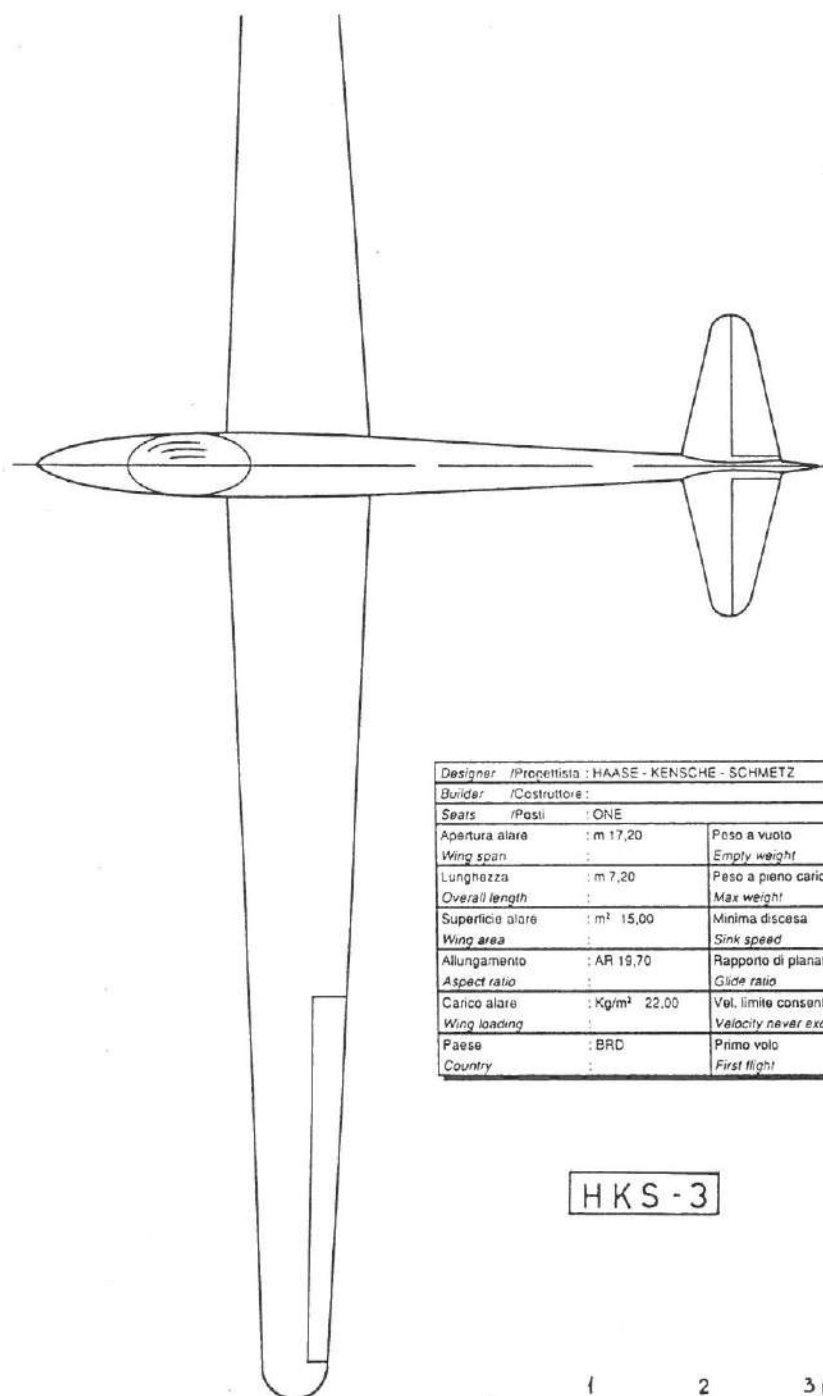
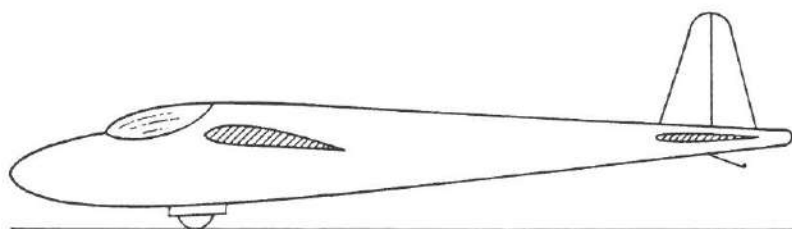
1 2 3 m



Designer / Progettista : EPPLER - NAGELE - HIRTH			
Builder / Costruttore : WOLF HIRTH - NABERN			
Seats / Posti : ONE			
Apertura alare	: m 11,90	Peso a vuoto	: Kg 130
Wing span	:	Empty weight	:
Lunghezza	: m 6,85	Peso a pieno carico	: Kg 220
Overall length	:	Max weight	:
Superficie alare	: m ² 9,85	Minima discesa	: m/s 0,70
Wing area	:	Sink speed	:
Allungamento	: AR 14,35	Rapporto di planata	: 1:30
Aspetti ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,20	Vel. limite consentita	: Km/h 170
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1958
Country	:	First flight	:

Hi - 25 KRIA

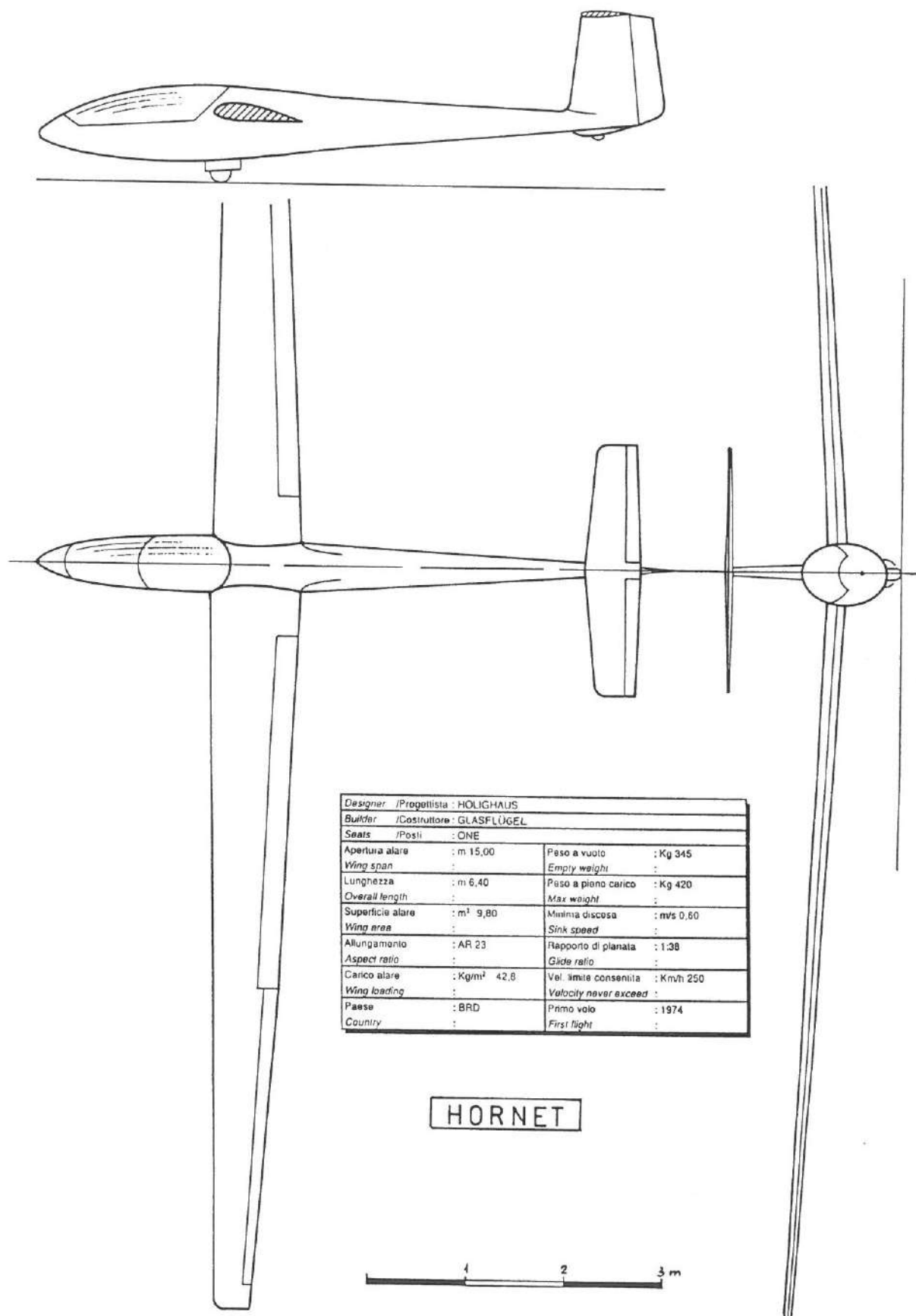




Designer / Progettista	HAASE - KENSCH - SCHMETZ		
Builder / Costruttore			
Seats / Posi	ONE		
Apertura alare	: m 17,20	Peso a vuoto	: Kg 250
Wing span	:	Empty weight	:
Lunghezza	: m 7,20	Peso a pieno carico	: Kg 380
Overall length	:	Max weight	:
Superficie alare	: m ² 15,00	Minima discesa	: m/s 0,53
Wing area	:	Sink speed	:
Allungamento	: AR 19,70	Rapporto di planata	: 1:37
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,00	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1955
Country	:	First flight	:

HKS-3

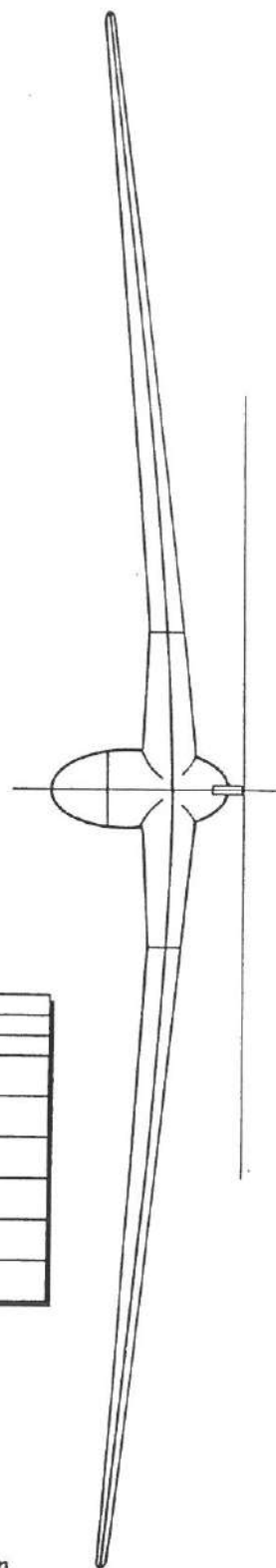
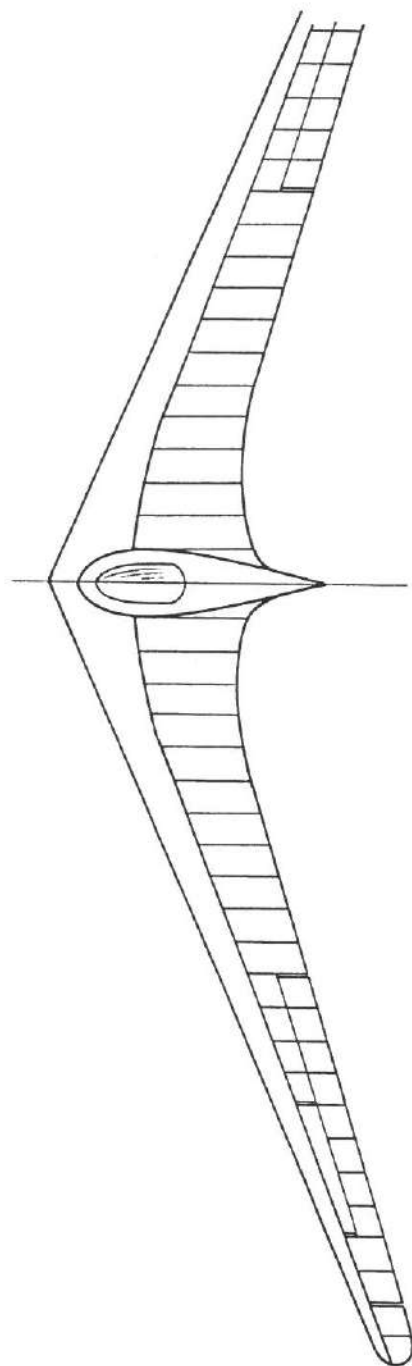
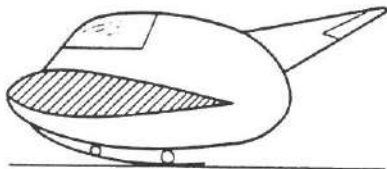




Designer / Progettista : HOLIGHAUS			
Builder / Costruttore : GLASFÜGEL			
Seats / Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 345
Wing span	:	Empty weight	:
Lunghezza	: m 6,40	Peso a pieno carico	: Kg 420
Overall length	:	Max weight	:
Superficie alare	: m ² 9,80	Maxima discosa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 23	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 42,8	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1974
Country	:	First flight	:

HORNET

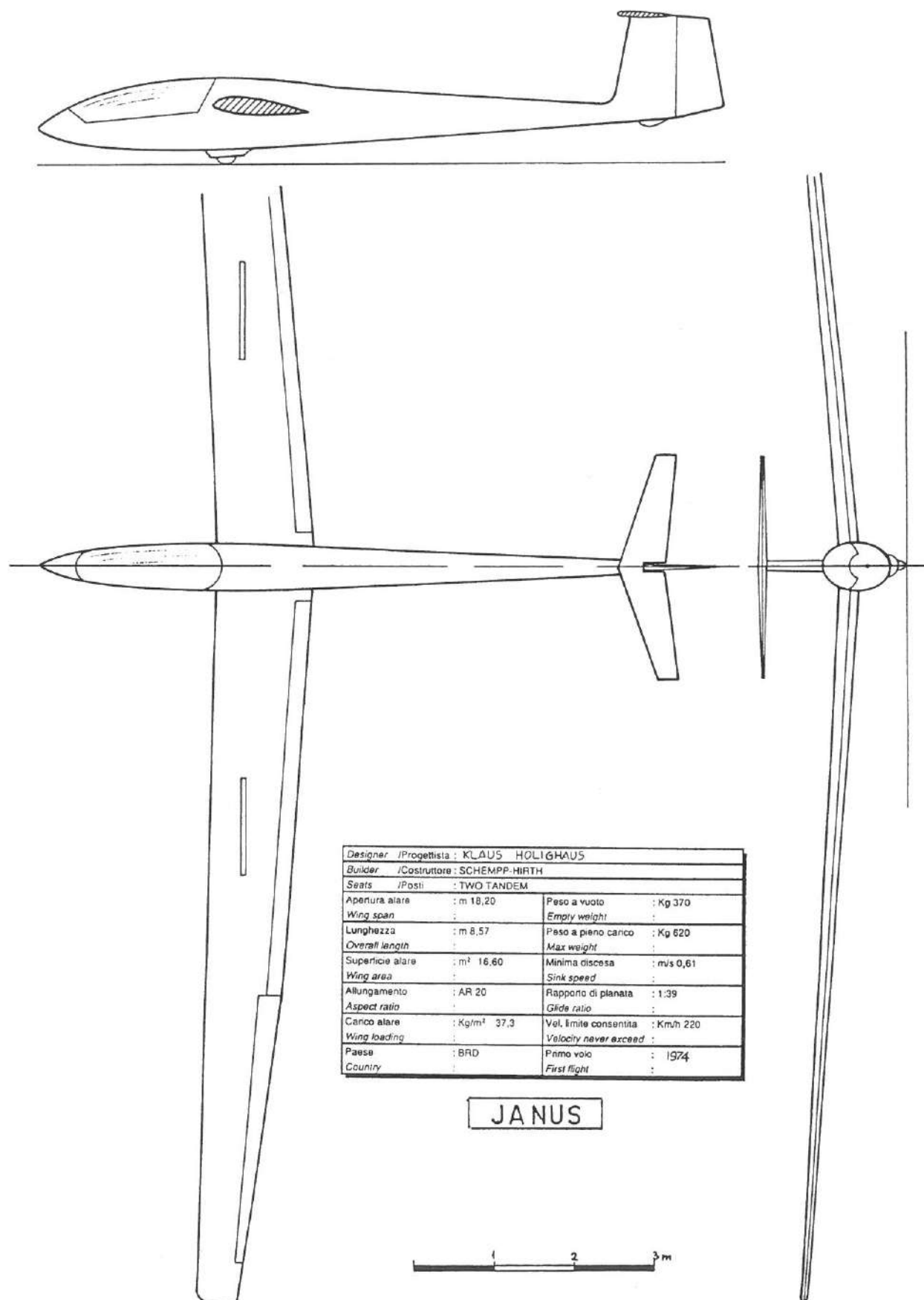
1 2 3 m



Designer / Progettista	R. & W. HORTEN		
Builder / Costruttore	R. & W. HORTEN		
Seats / Posti	ONE		
Apertura alare / Wing span	: m 12,0	Peso a vuoto / Empty weight	: Kg 80
Lunghezza / Overall length	: m	Peso a pieno carico / Max weight	: Kg 160
Superficie alare / Wing area	: m ² 9,0	Minima discesa / Sink speed	: m/s 0,65
Allungamento / Aspect ratio	: AR 16,0	Rapporto di planata / Glide ratio	: 1:30
Carico alare / Wing loading	: Kg/m ² 17,8	Vel. limite consentita / Velocity never exceed	: Km/h 200
Paese	: BRD	Primo volo / First flight	: 1953
Country			

HORTEN XVI

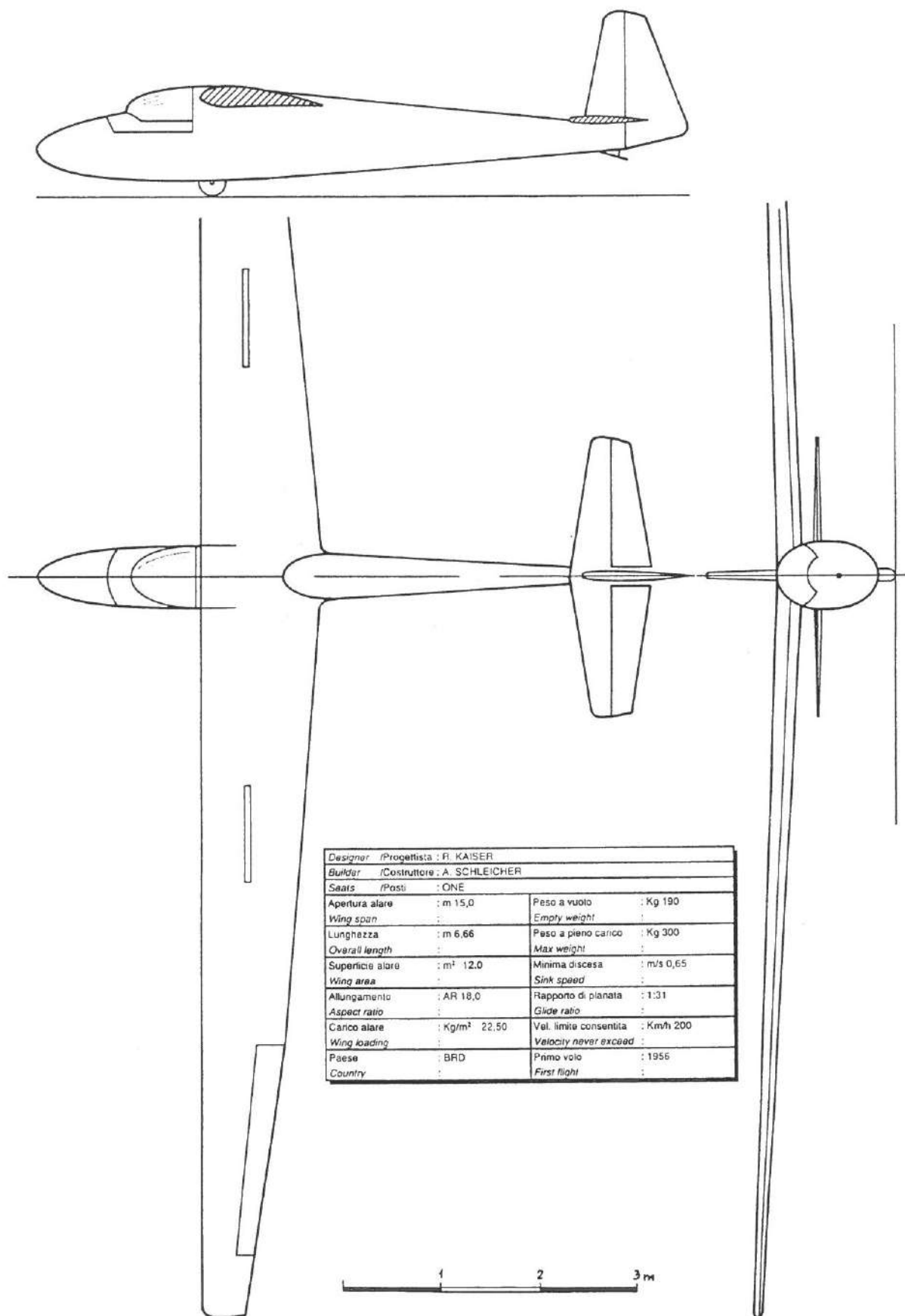




Designer / Progettista	KLAUS HOLIGHAUS		
Builder / Costruttore	SCHEMPF-HIRTH		
Seats / Posti	TWO TANDEM		
Apertura alare	: m 18,20	Peso a vuoto	: Kg 370
Wing span	:	Empty weight	:
Lunghezza	: m 8,57	Peso a pieno carico	: Kg 620
Overall length	:	Max weight	:
Superficie alare	: m ² 16,60	Minima discesa	: m/s 0,61
Wing area	:	Sink speed	:
Allungamento	: AR 20	Rapporto di planata	: 1:39
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 37,3	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1974
Country	:	First flight	:

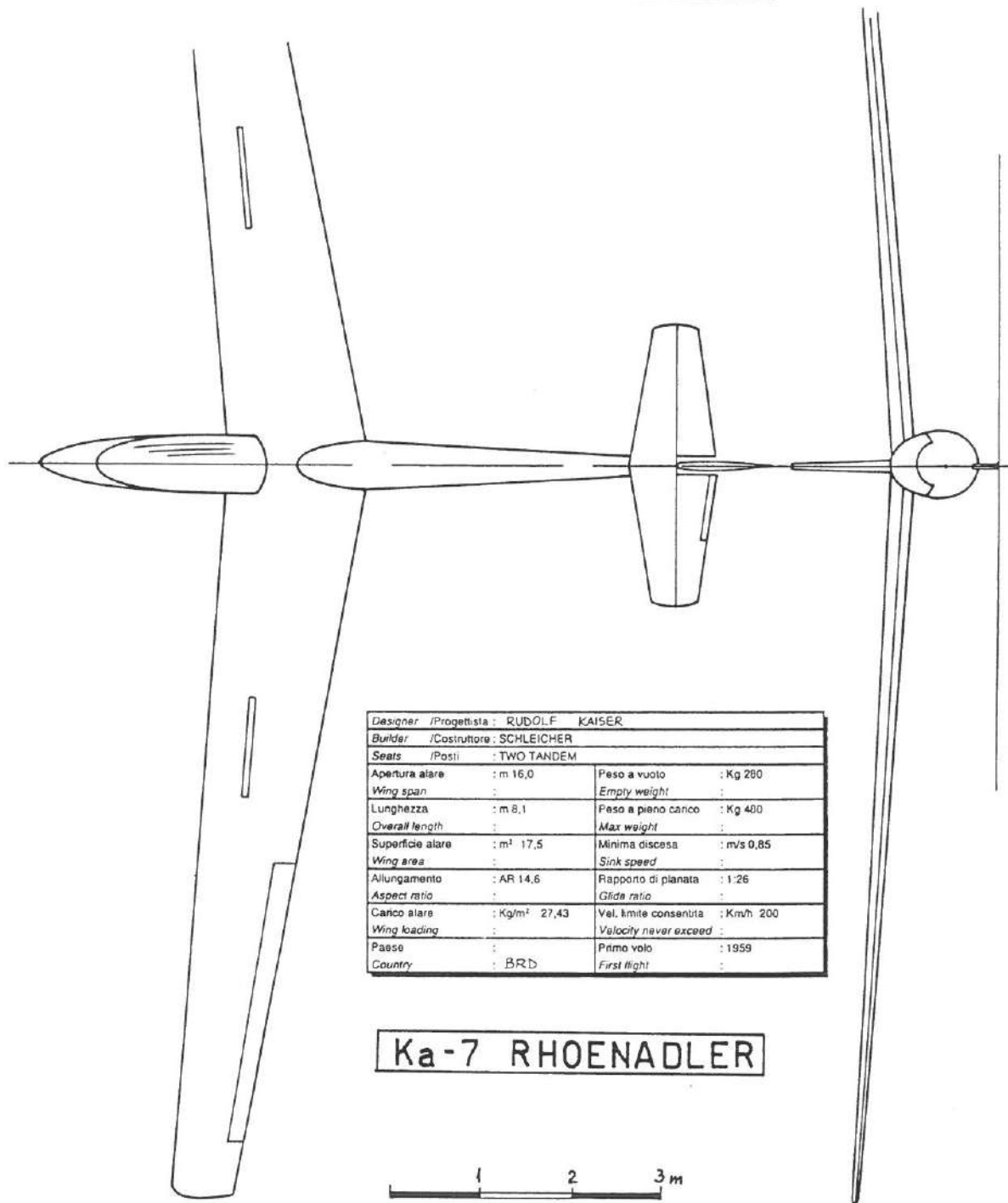
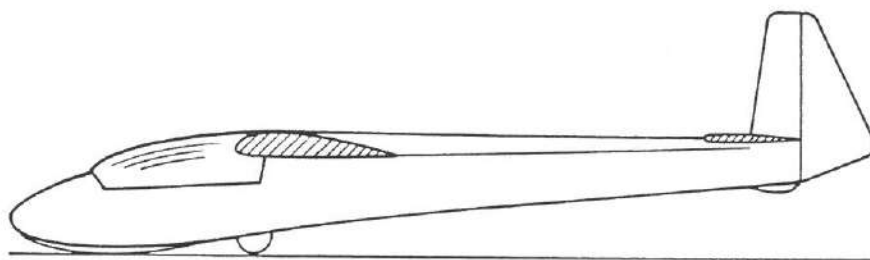
JANUS

1 2 3 m



Designer /Progettista :	R. KAISER		
Builder /Costruttore :	A. SCHLEICHER		
Seats /Posti :	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 190
Wing span	:	Empty weight	:
Lunghezza	: m 6,66	Peso a pieno carico	: Kg 300
Overall length	:	Max weight	:
Superficie alare	: m ² 12,0	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 18,0	Rapporto di planata	: 1:31
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,50	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1956
Country	:	First flight	:

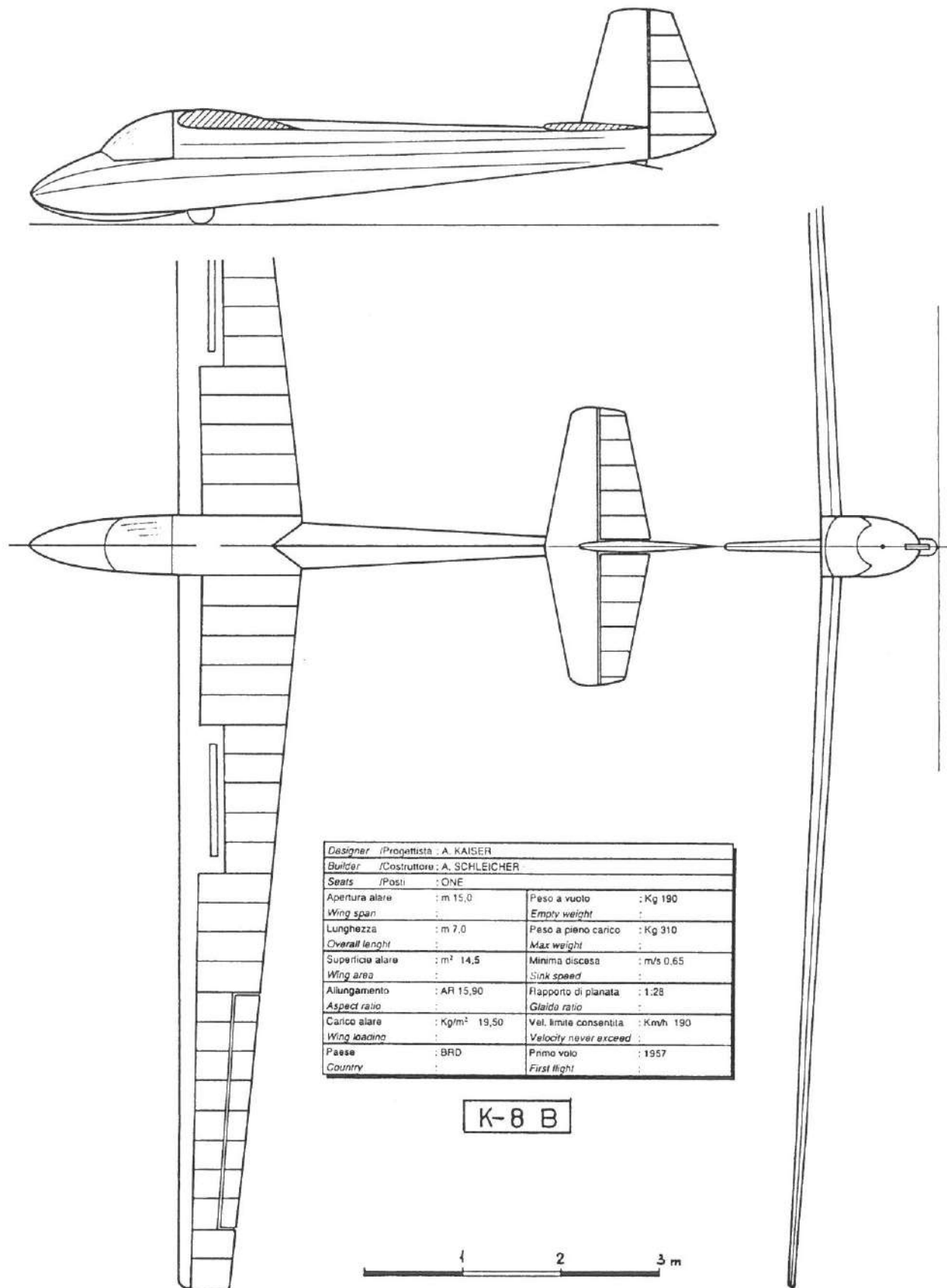
Ka-6 CR RHOENSEGLER



Designer / Progettista	RUDOLF KAISER		
Builder / Costruttore	SCHLEICHER		
Seats / Posti	TWO TANDEM		
Apertura alare	: m 16,0	Peso a vuoto	: Kg 280
Wing span	:	Empty weight	:
Lunghezza	: m 8,1	Peso a pieno carico	: Kg 400
Overall length	:	Max weight	:
Superficie alare	: m ² 17,5	Minima discesa	: m/s 0,85
Wing area	:	Sink speed	:
Allungamento	: AR 14,6	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,43	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	:	Primo volo	: 1959
Country	: BRD	First flight	:

Ka-7 RHOENADLER

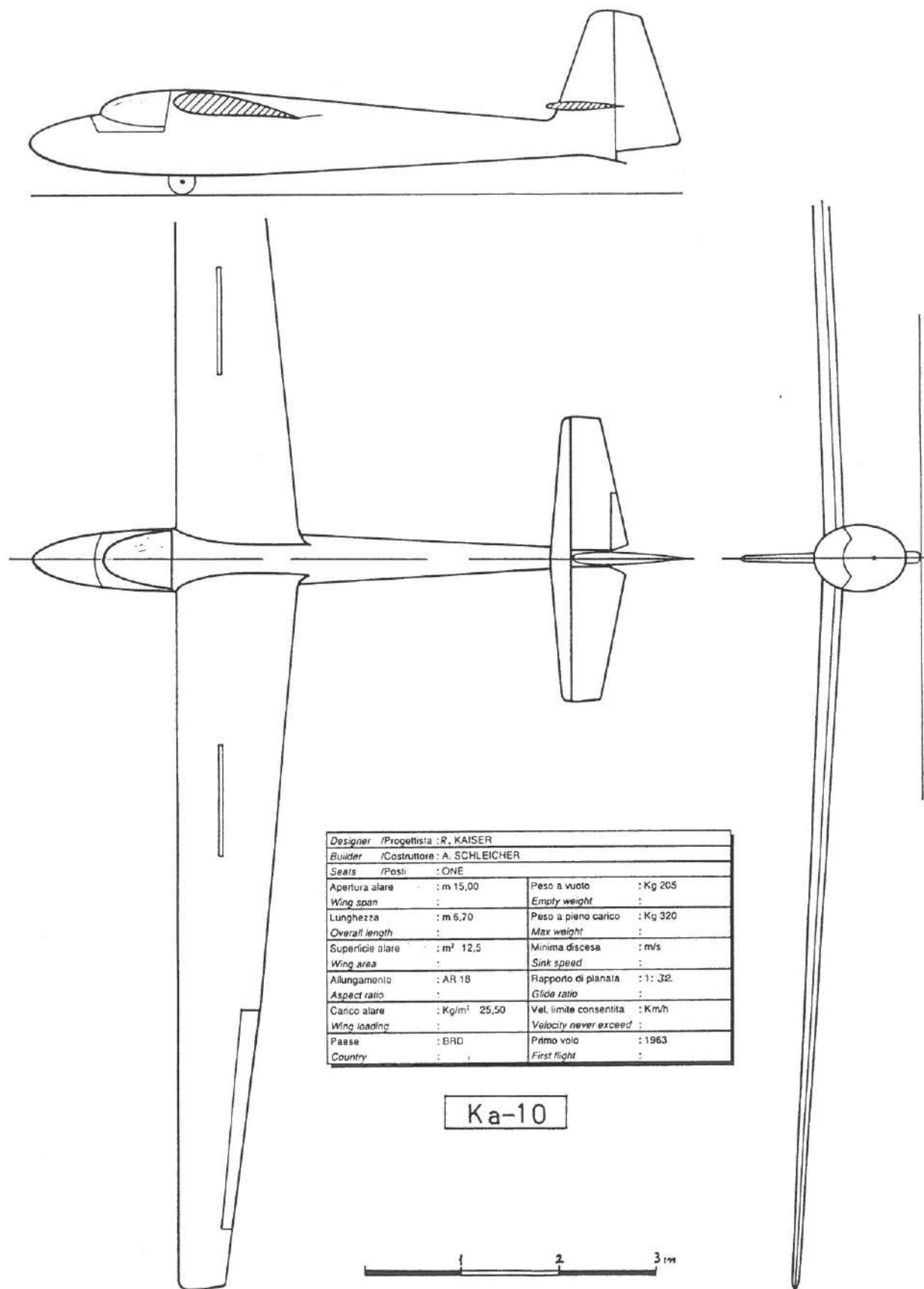
1 2 3 m



Designer /Progettista : A. KAISER			
Builder /Costruttore : A. SCHLEICHER			
Seats /Posti : ONE			
Apertura alare : m 15,0		Peso a vuoto : Kg 190	
Wing span :		Empty weight :	
Lunghezza : m 7,0		Peso a pieno carico : Kg 310	
Overall length :		Max weight :	
Superficie alare : m² 14,5		Minima discesa : m/s 0.65	
Wing area :		Sink speed :	
Allungamento : AR 15,90		Rapporto di planata : 1.28	
Aspect ratio :		Glide ratio :	
Carico alare : Kg/m² 19,50		Vel. limite consentita : Km/h 190	
Wing loading :		Velocity never exceed :	
Paese : BRD		Prmo volo : 1957	
Country :		First flight :	

K-8 B

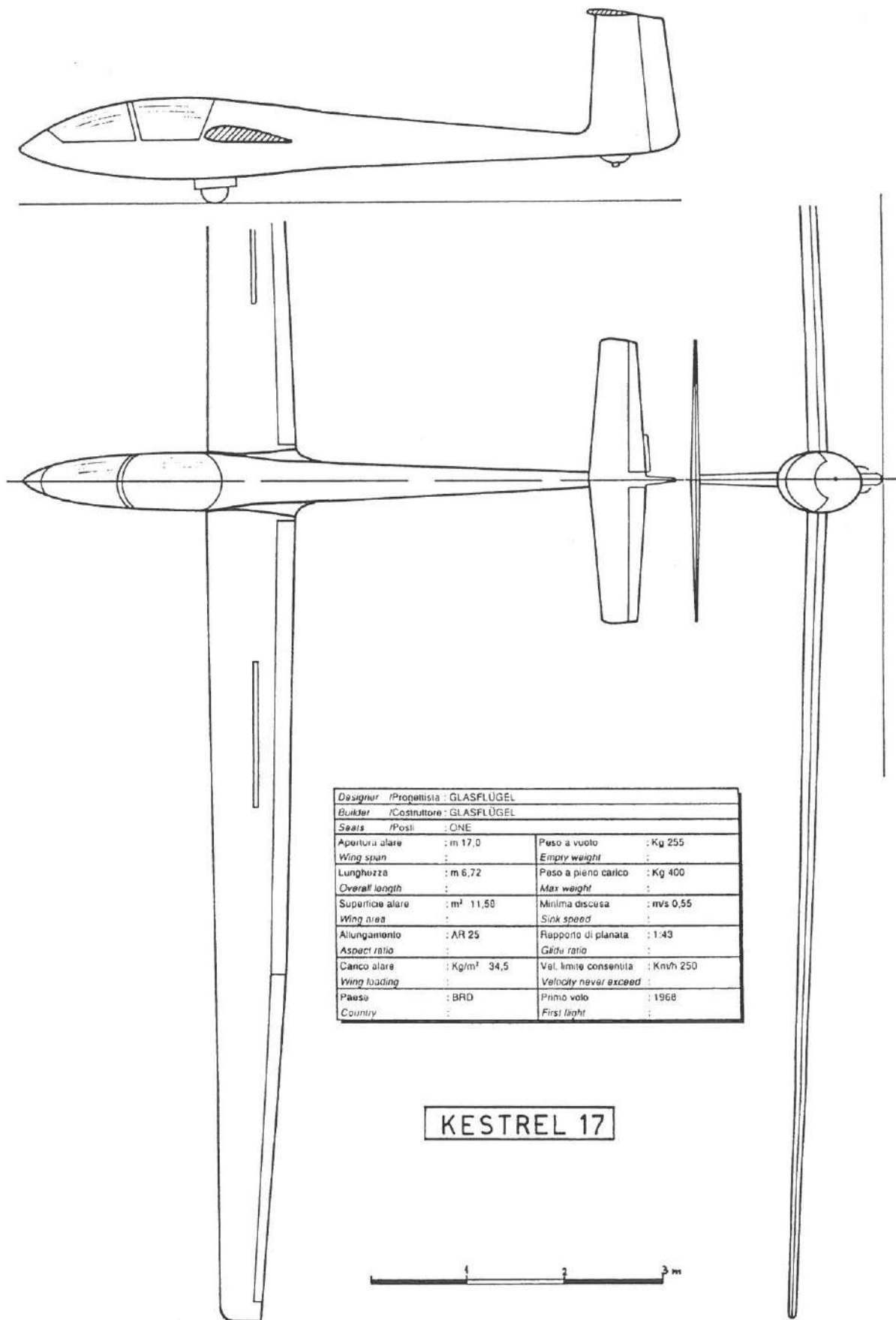
1 2 3 m



Designer /Progettista : R. KAISER			
Builder /Costruttore : A. SCHLEICHER			
Seats /Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 205
Wing span	:	Empty weight	:
Lunghezza	: m 6,70	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 12,5	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 18	Rapporto di planata	: 1: 32
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 25,50	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1963
Country	:	First flight	:

Ka-10

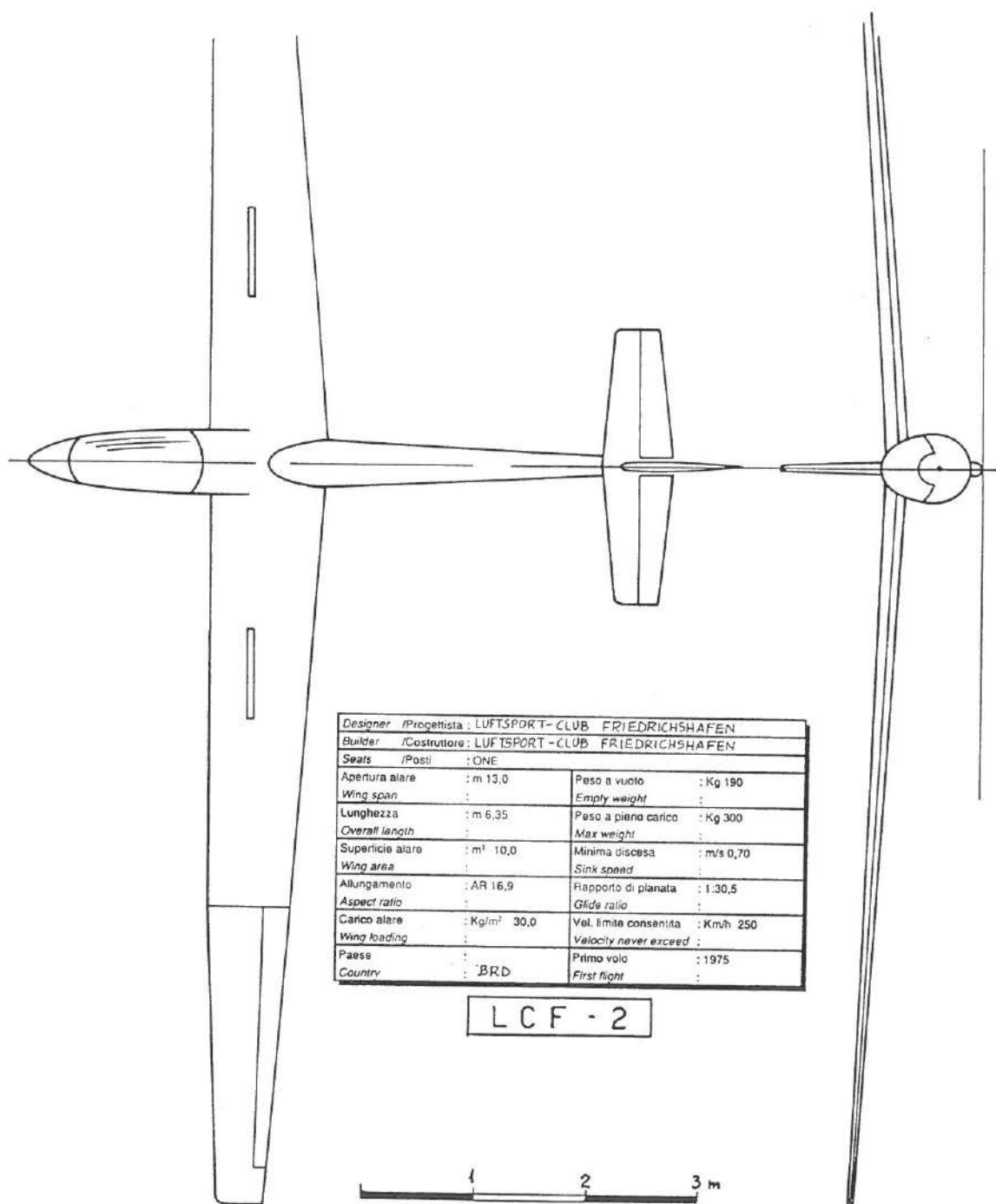
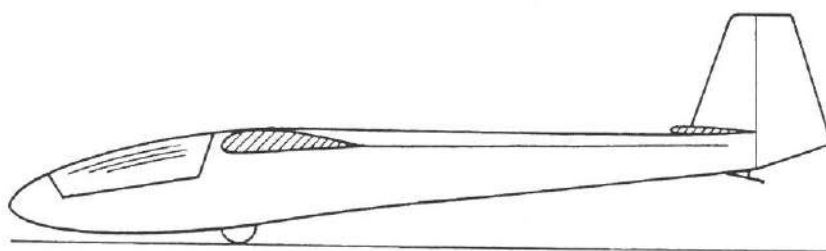


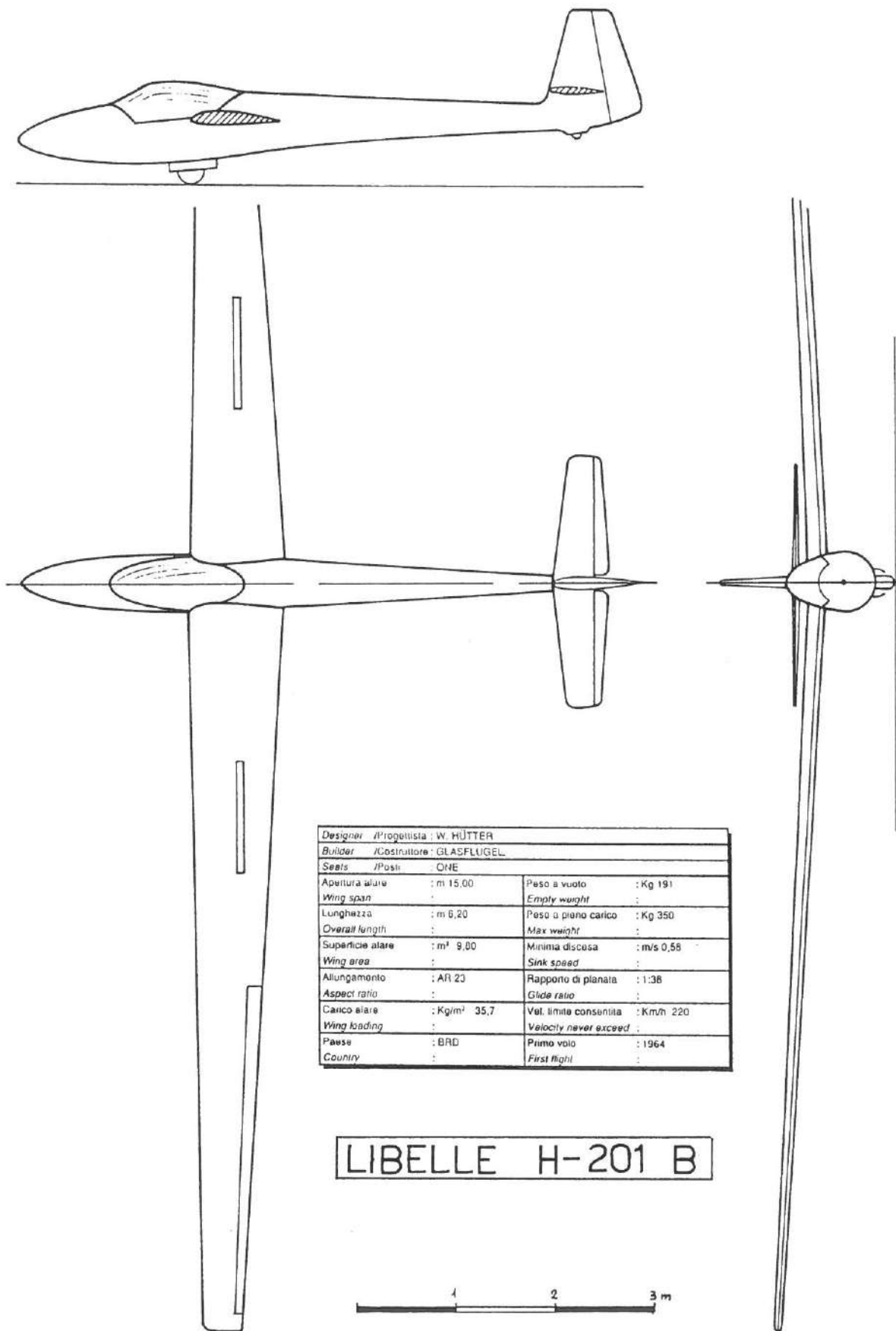


Designer / Progettista : GLASFLÜGEL			
Builder / Costruttore : GLASFLÜGEL			
Seas / Posti : ONE			
Apertura alare	: m 17,0	Peso a vuoto	: Kg 255
Wing span	:	Empty weight	:
Lunghezza	: m 6,72	Peso a pieno carico	: Kg 400
Overall length	:	Max weight	:
Superficie alare	: m² 11,50	Minima discesa	: m/s 0,55
Wing area	:	Sink speed	:
Allungamento	: AR 25	Rapporto di planata	: 1:43
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m² 34,5	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1968
Country	:	First flight	:

KESTREL 17

1 2 3 m

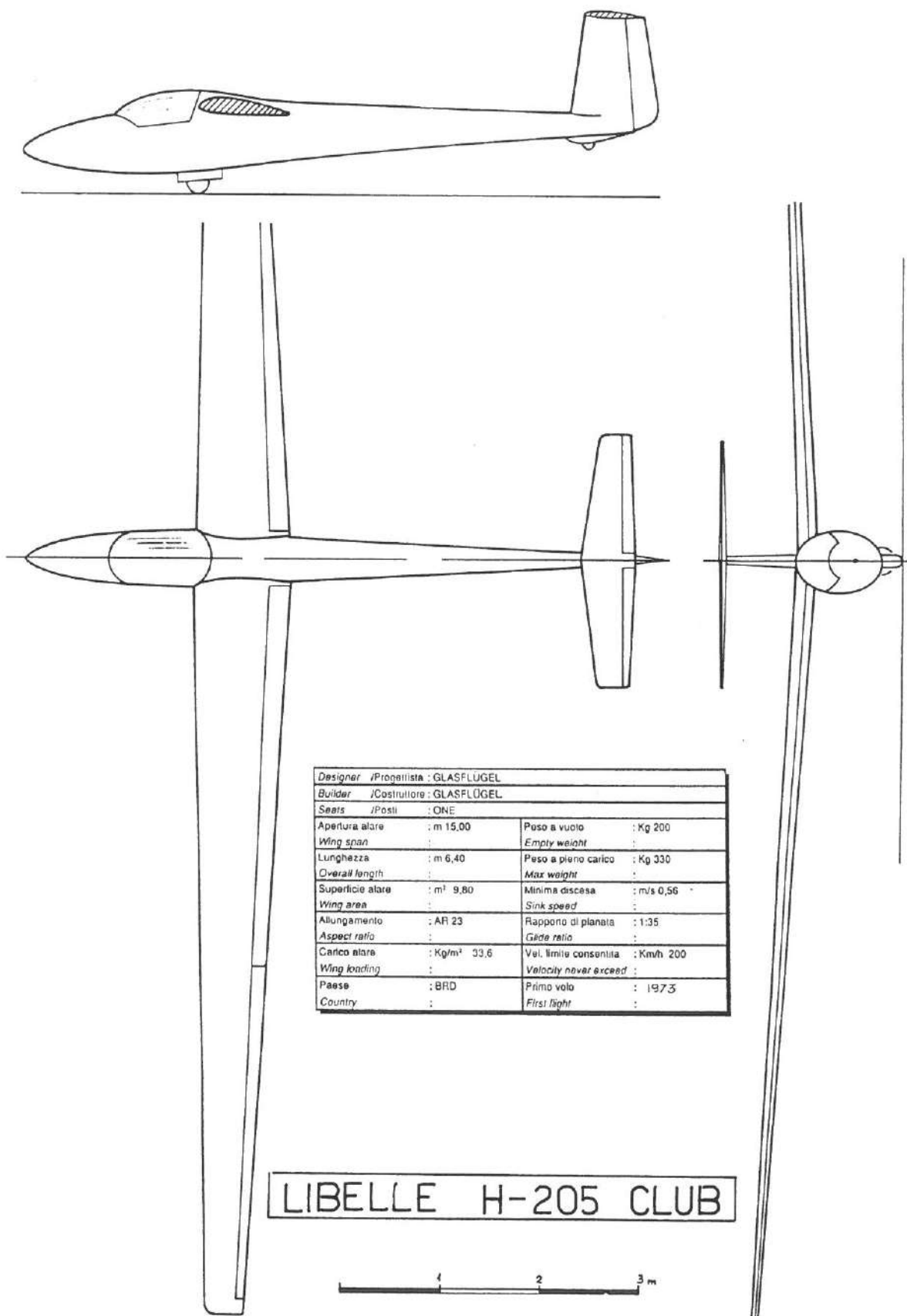




Designer / Progettista : W. HÜTTER			
Builder / Costruttore : GLASFLUGEL			
Seats / Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 191
Wing span	:	Empty weight	:
Lunghezza	: m 6,20	Peso a pieno carico	: Kg 350
Overall length	:	Max weight	:
Superficie alare	: m² 9,00	Minima discesa	: m/s 0,58
Wing area	:	Sink speed	:
Allungamento	: AR 23	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m² 35,7	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1964
Country	:	First flight	:

LIBELLE H-201 B

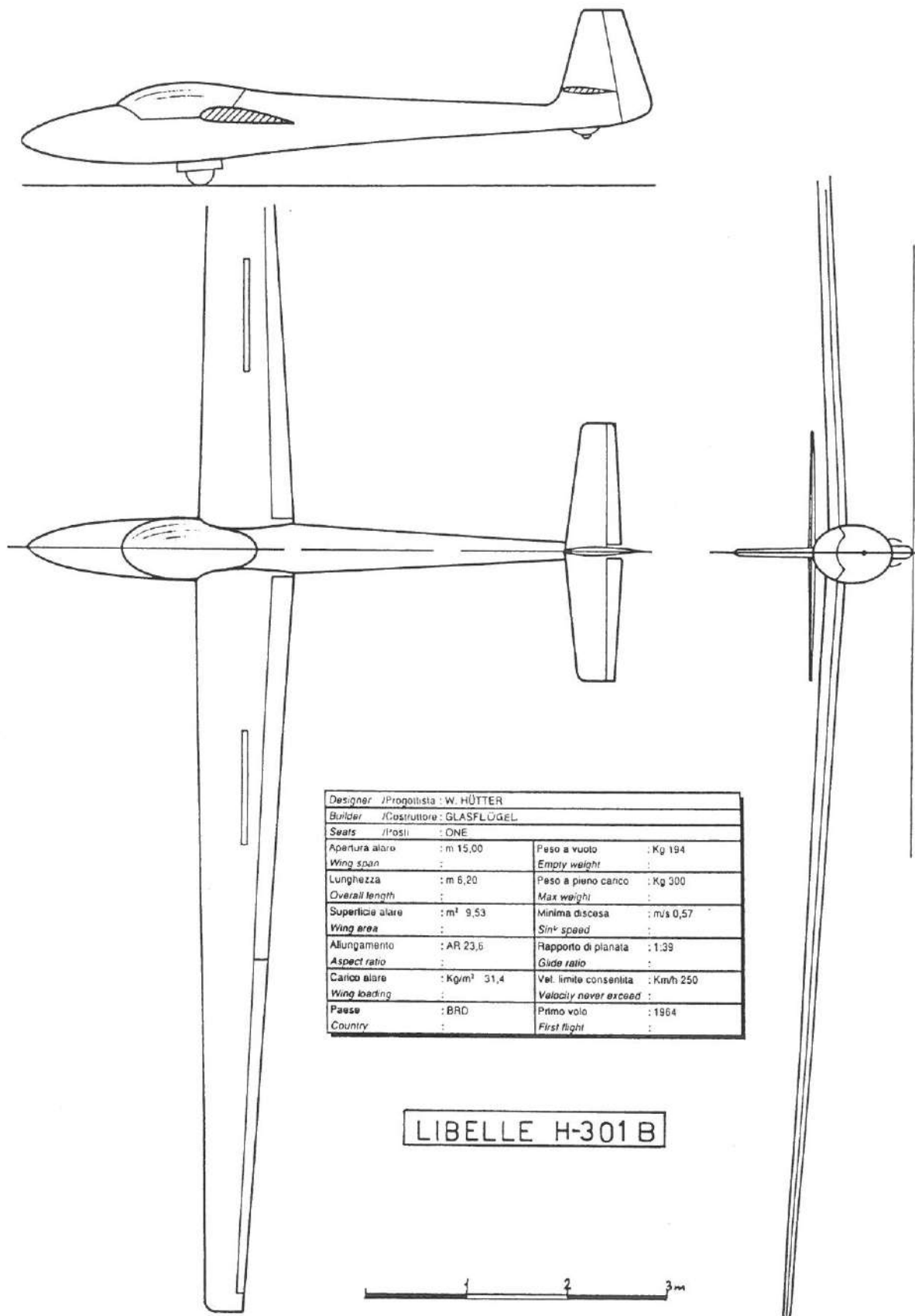
1 2 3 m

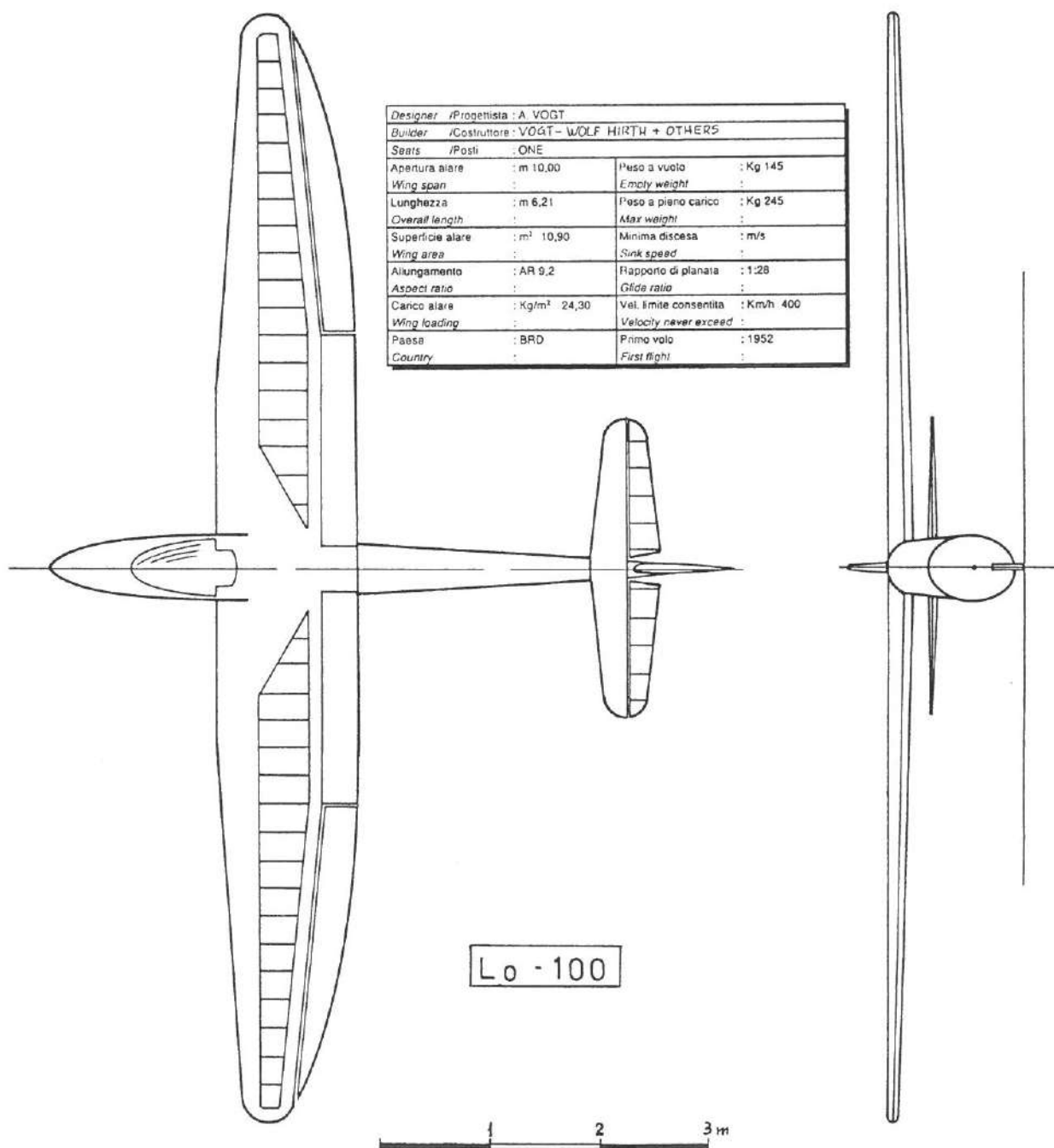
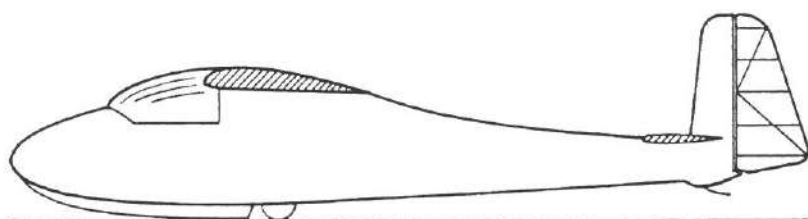


Designer /Progettista : GLASFÜGEL			
Builder /Costruttore : GLASFÜGEL			
Seats /Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 200
Wing span	:	Empty weight	:
Lunghezza	: m 6,40	Peso a pieno carico	: Kg 330
Overall length	:	Max weight	:
Superficie alare	: m ² 9,80	Minima discesa	: m/s 0,56
Wing area	:	Sink speed	:
Allungamento	: AR 23	Rapporto di planata	: 1:35
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 33,6	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1973
Country	:	First flight	:

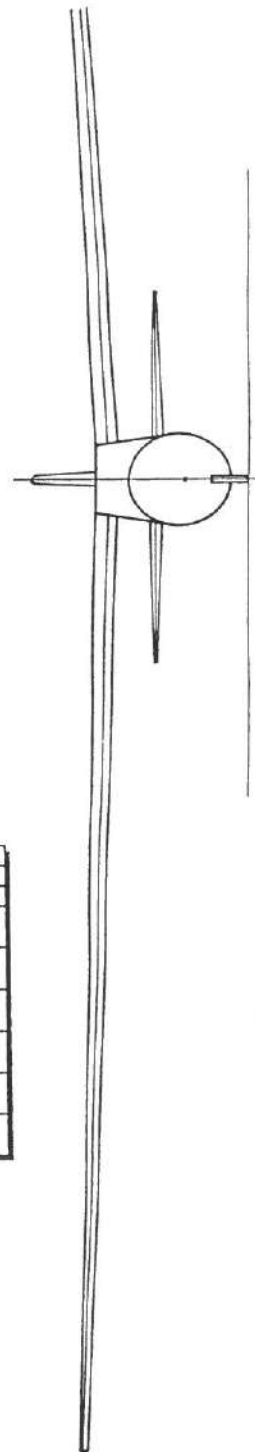
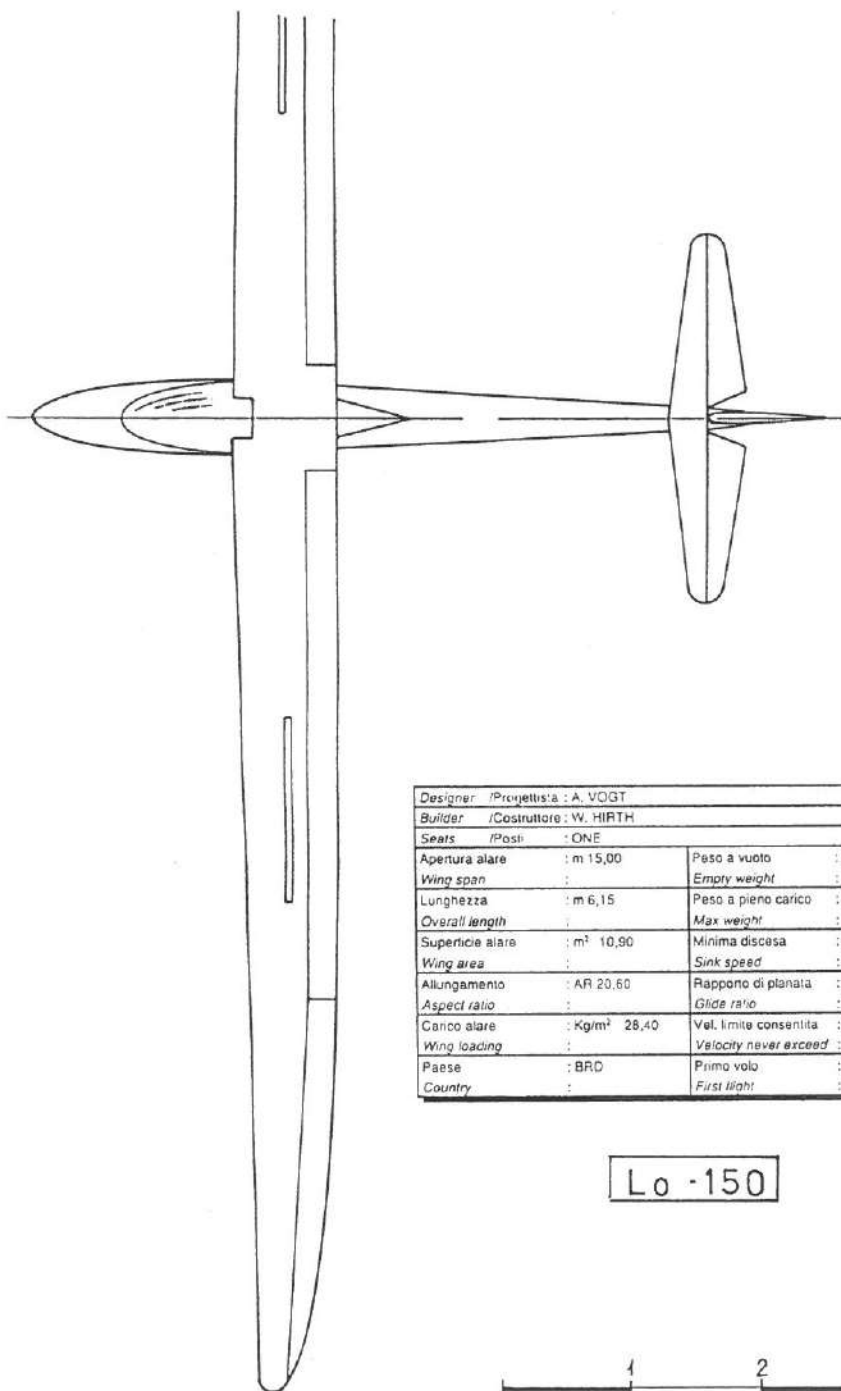
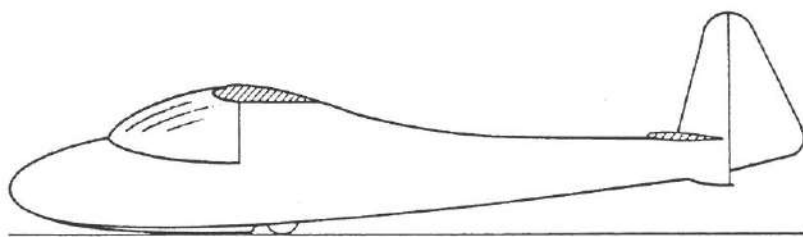
LIBELLE H-205 CLUB

4 2 3 m





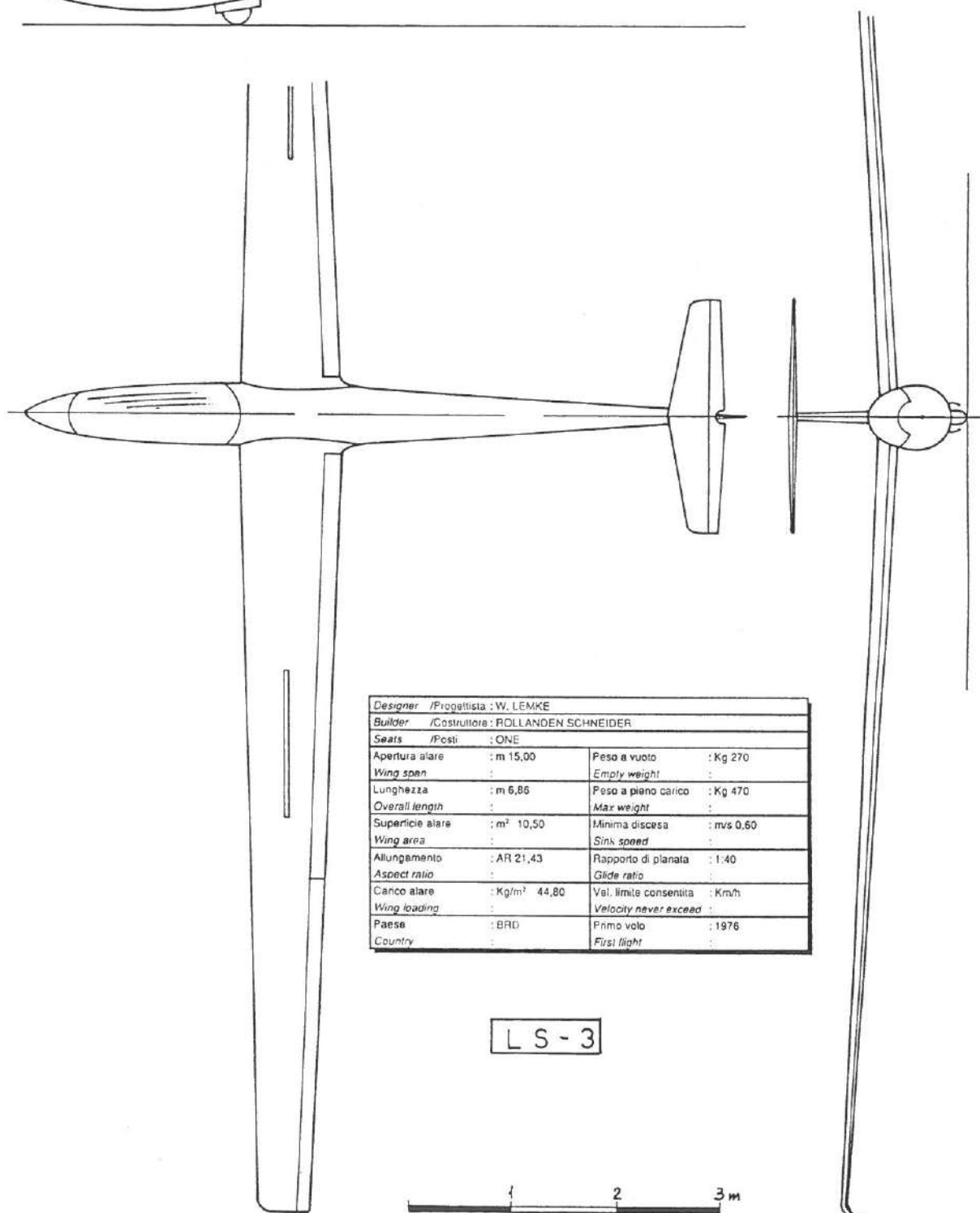
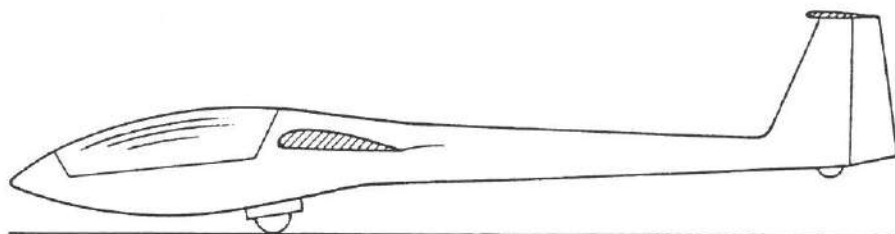
Designer / Progettista	: A VOGT		
Builder / Costruttore	: VOGT - WOLF HIRTH + OTHERS		
Seats / Posti	: ONE		
Apertura alare	: m 10,00	Peso a vuoto	: Kg 145
Wing span	:	Empty weight	:
Lunghezza	: m 6,21	Peso a pieno carico	: Kg 245
Overall length	:	Max weight	:
Superficie alare	: m ² 10,90	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 9,2	Rapporto di planata	: 1:28
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 24,30	Vel. limite consentita	: Km/h 400
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1952
Country	:	First flight	:



Designer /Progettista : A. VOGT			
Builder /Costruttore : W. HIRTH			
Seats /Posti	ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 200
Wing span	:	Empty weight	:
Lunghezza	: m 6,15	Peso a pieno carico	: Kg 310
Overall length	:	Max weight	:
Superficie alare	: m ² 10,90	Minima discesa	: m/s 0,68
Wing area	:	Sink speed	:
Allungamento	: AR 20,60	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 28,40	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1955
Country	:	First flight	:

Lo -150

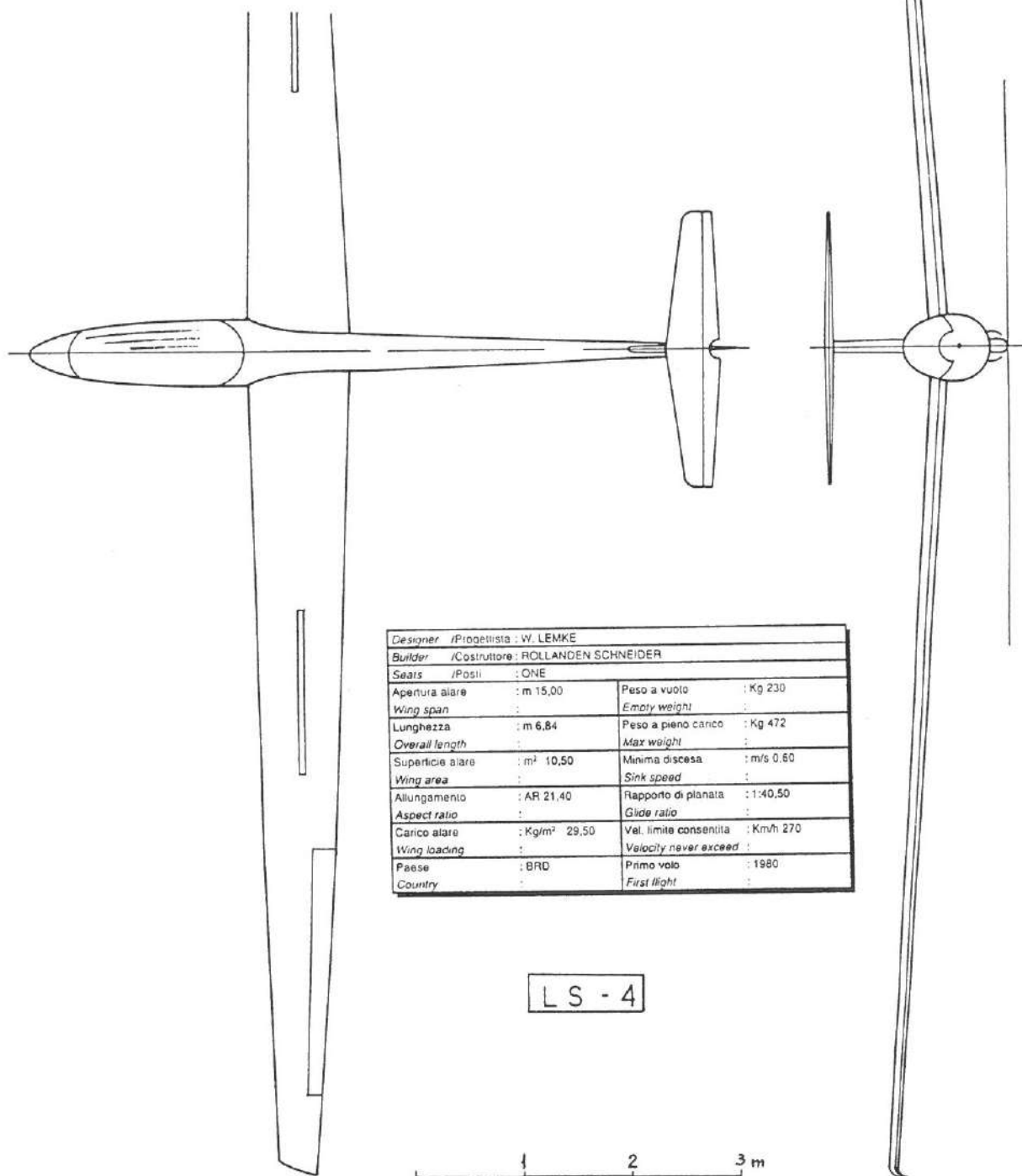
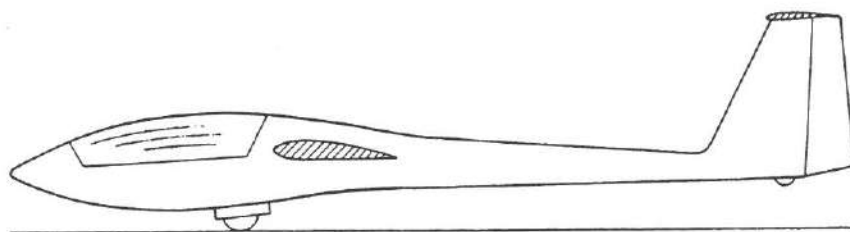




Designer /Progettista : W. LEMKE			
Builder /Costruttore : ROLLANDEN SCHNEIDER			
Seats /Posti :	ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 270
Wing span	:	Empty weight	:
Lunghezza	: m 6,86	Peso a pieno carico	: Kg 470
Overall length	:	Max weight	:
Superficie alare	: m ² 10,50	Minima discesa	: mvs 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 21,43	Rapporto di planata	: 1:40
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ² 44,80	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1976
Country	:	First flight	:

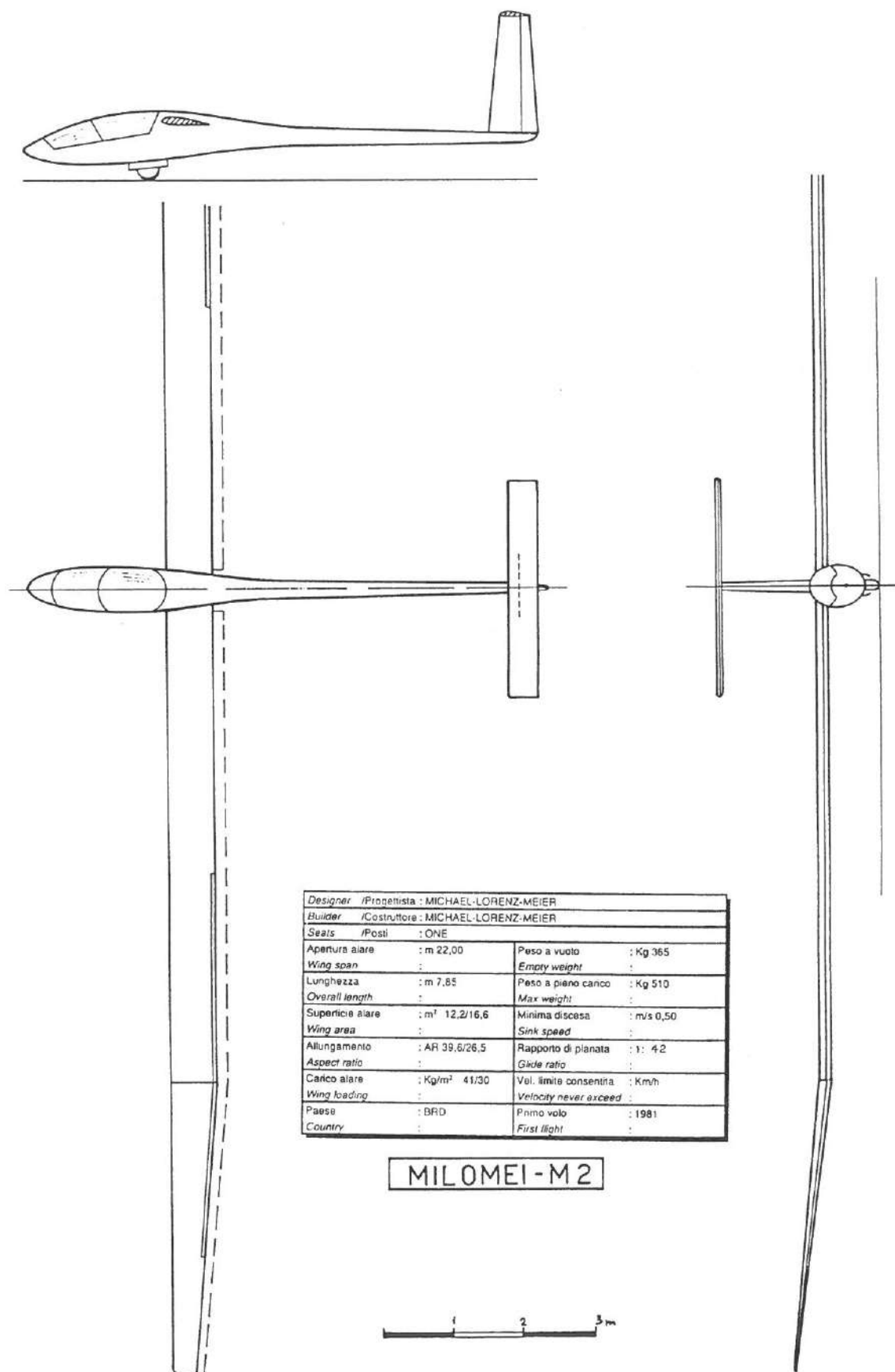
LS-3

1 2 3 m



Designer	Progettista : W. LEMKE		
Builder	Costruttore : ROLLANDEN SCHNEIDER		
Seats	Posti	ONE	
Apertura alare	: m	15,00	Peso a vuoto : Kg 230
Wing span	:		Empty weight :
Lunghezza	: m	6,84	Peso a pieno carico : Kg 472
Overall length	:		Max weight :
Superficie alare	: m ²	10,50	Minima discesa : m/s 0,60
Wing area	:		Sink speed :
Allungamento	: AR	21,40	Rapporto di planata : 1:40,50
Aspect ratio	:		Glide ratio :
Carico alare	: Kg/m ²	29,50	Vel. limite consentita : Km/h 270
Wing loading	:		Velocity never exceed :
Paese	: BRD		Primo volo : 1980
Country	:		First flight :

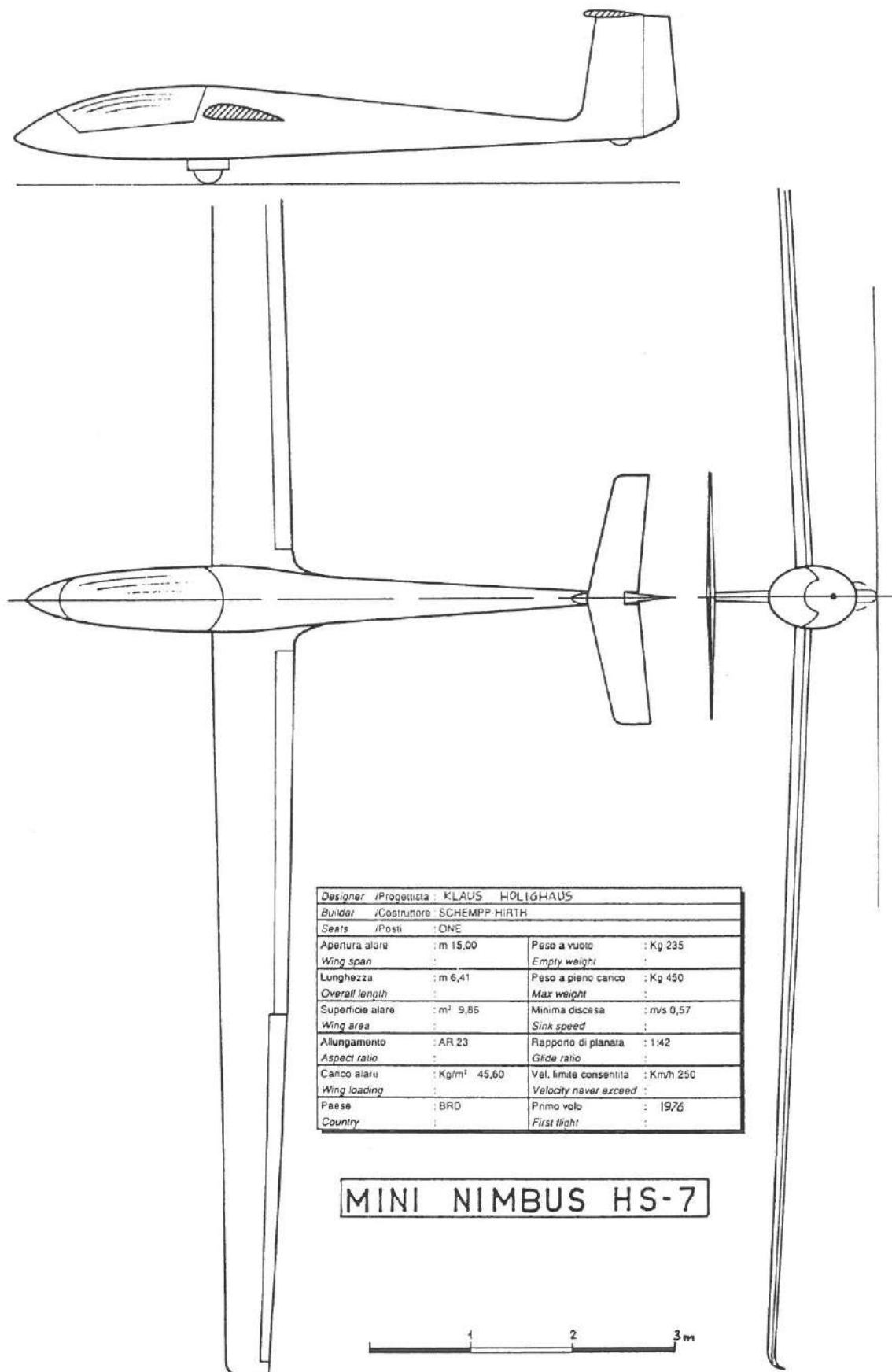
LS - 4



Designer /Progettista : MICHAEL LORENZ-MEIER			
Builder /Costruttore : MICHAEL LORENZ-MEIER			
Seats /Posti	: ONE		
Apertura alare	: m 22,00	Peso a vuoto	: Kg 365
Wing span	:	Empty weight	:
Lunghezza	: m 7,85	Peso a pieno carico	: Kg 510
Overall length	:	Max weight	:
Superficie alare	: m ² 12,2/16,6	Minima discesa	: m/s 0,50
Wing area	:	Sink speed	:
Allungamento	: AR 39,6/26,5	Rapporto di planata	: 1: 4,2
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 41/30	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1981
Country	:	First flight	:

MILOMEI-M2

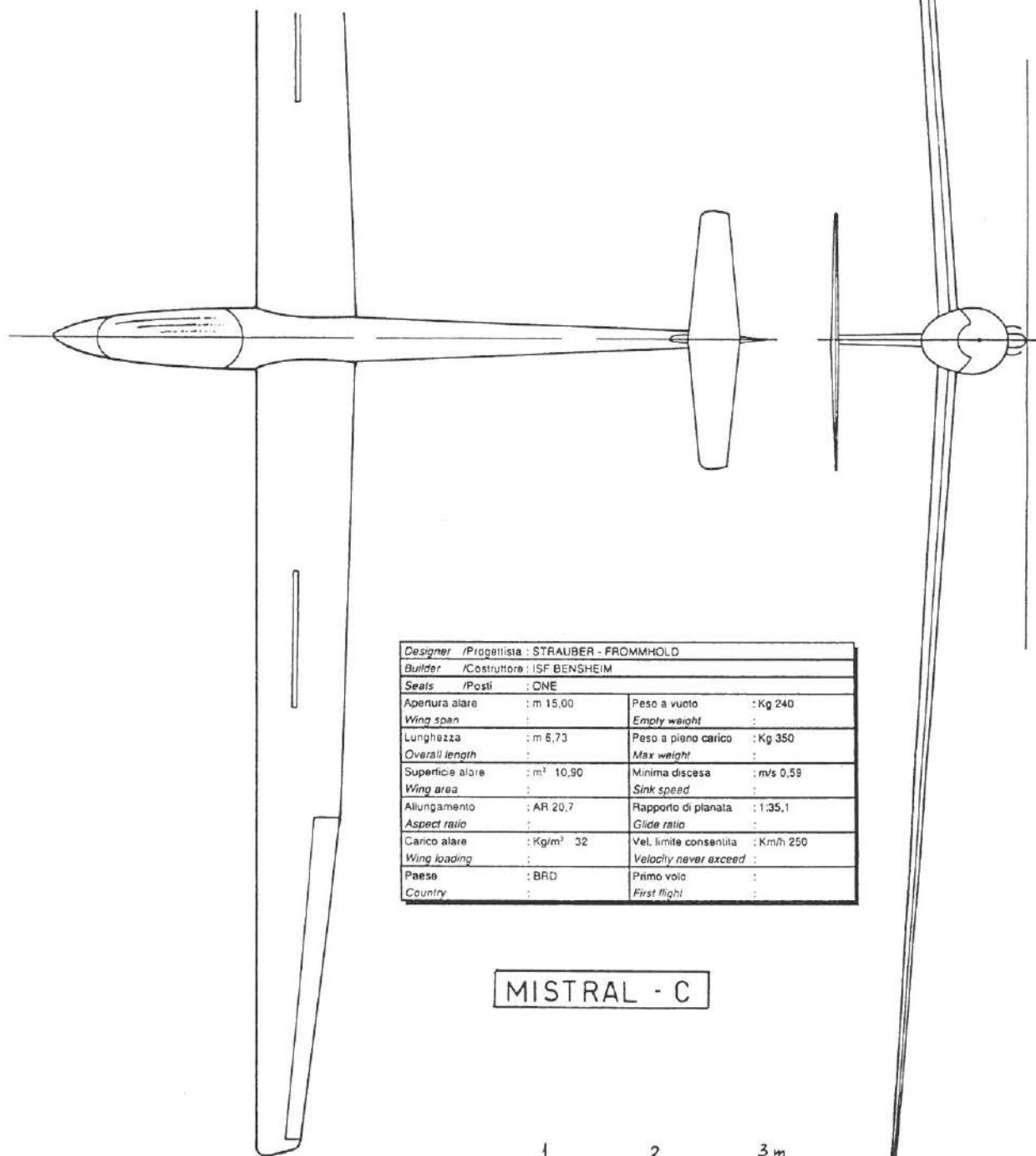
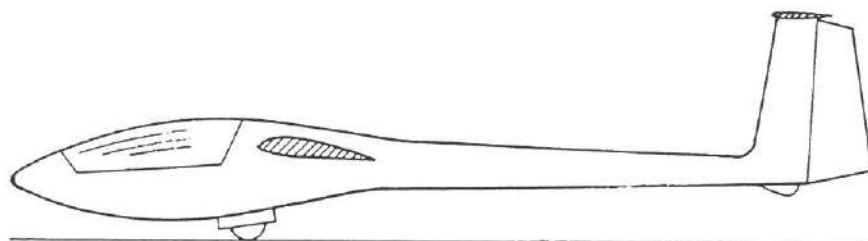
1 2 3 m



Designer / Progettista	KLAUS HÖLIGHAUS		
Builder / Costruttore	SCHEMPF-HIRTH		
Seats / Posti	ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 235
Wing span	:	Empty weight	:
Lunghezza	: m 6,41	Peso a pieno carico	: Kg 450
Overall length	:	Max weight	:
Superficie alare	: m ² 9,85	Minima discesa	: m/s 0,57
Wing area	:	Sink speed	:
Allungamento	: AR 23	Rapporto di planata	: 1:42
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 45,60	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1976
Country	:	First flight	:

MINI NIMBUS HS-7

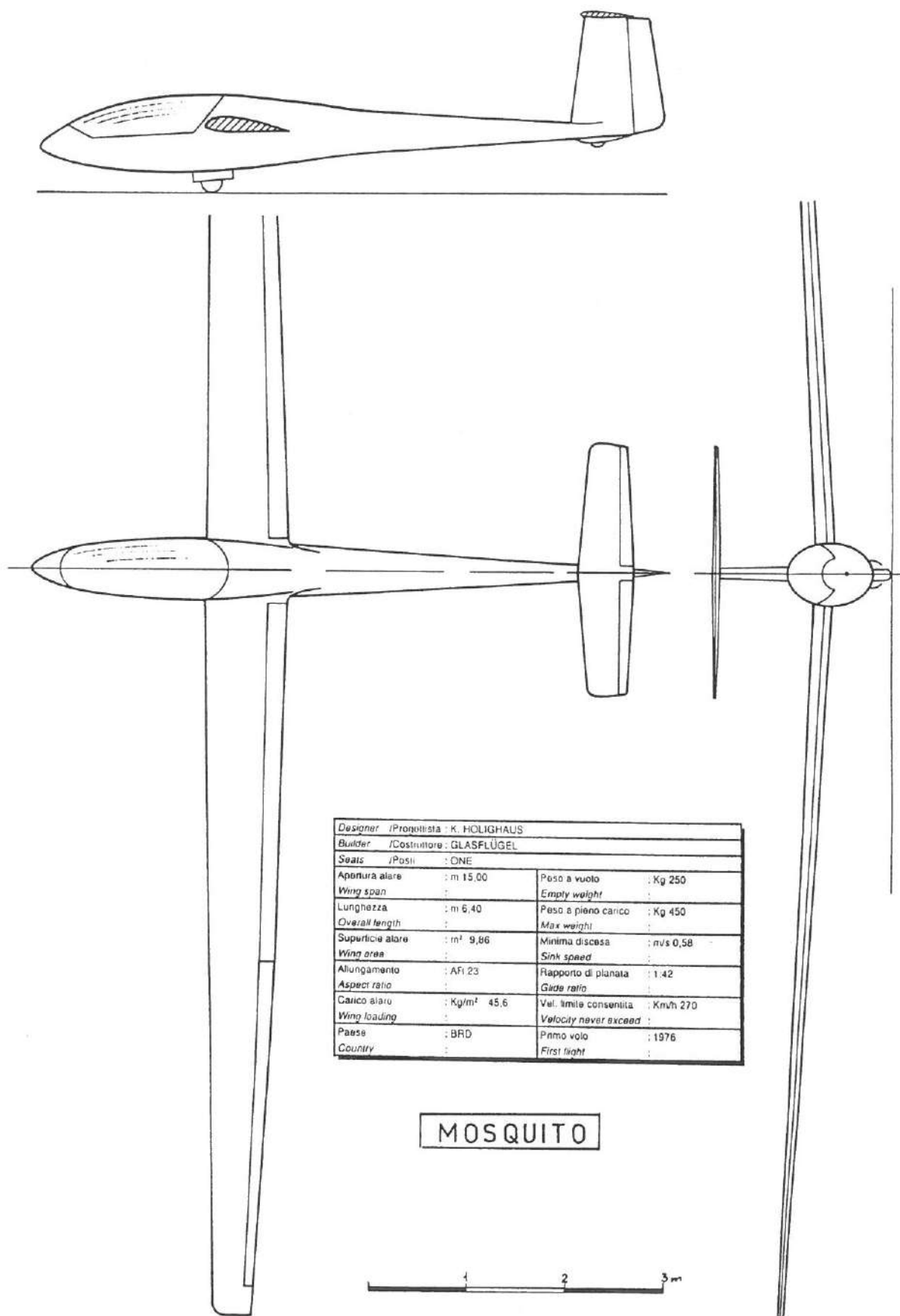
1 2 3 m

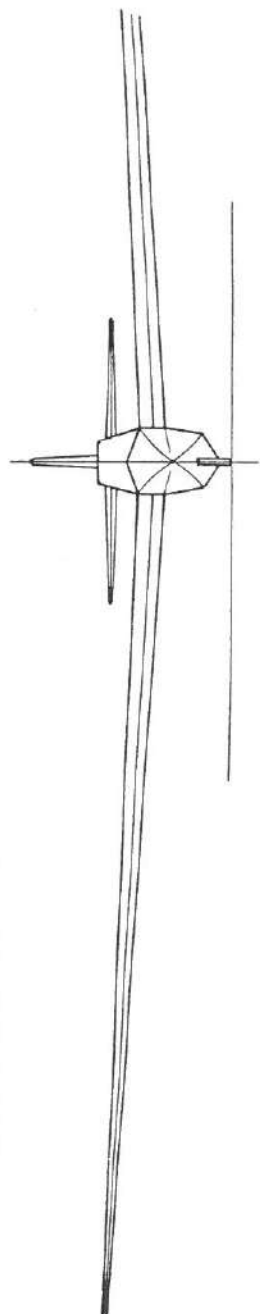
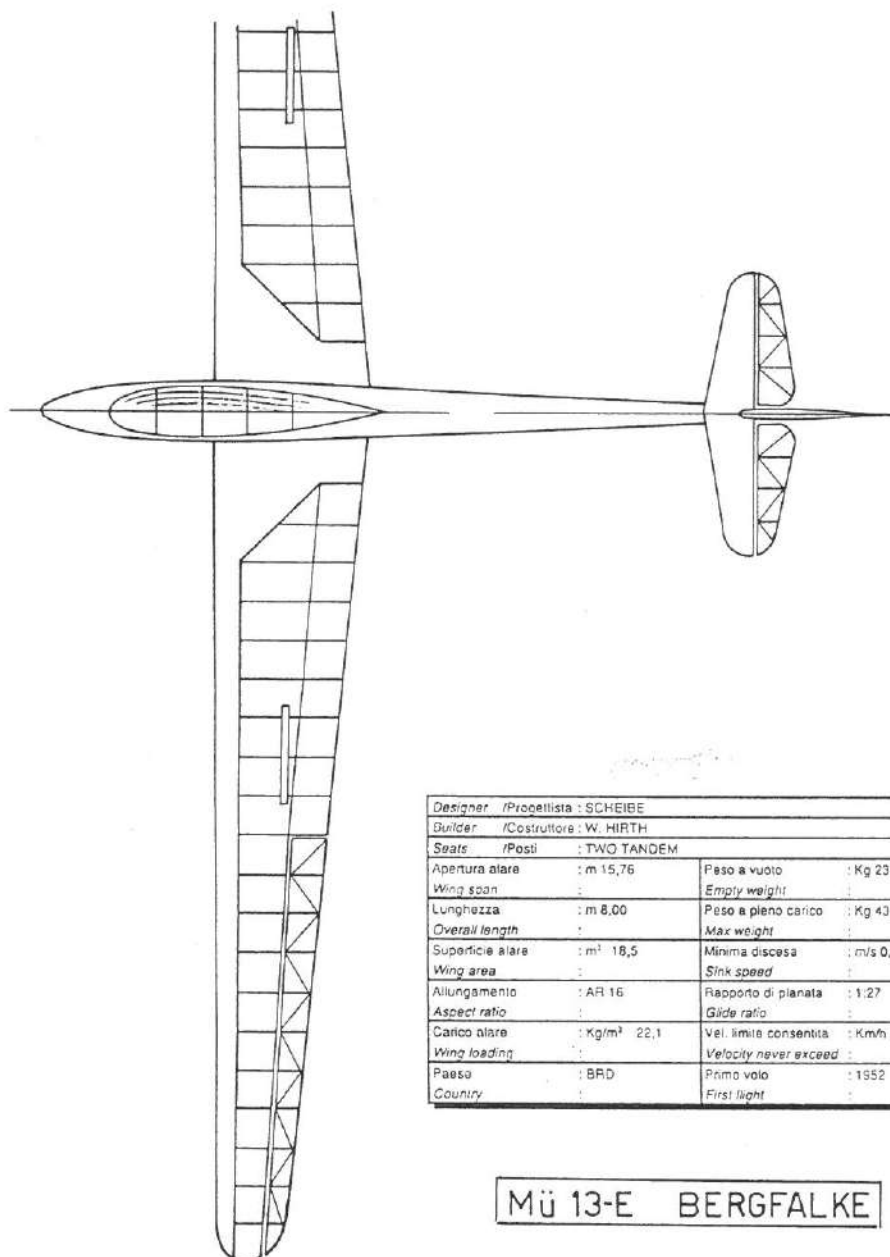
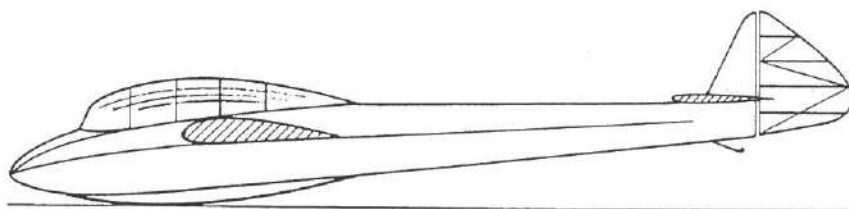


Designer / Progettista	STRAUBER - FROMMHOLD		
Builder / Costruttore	ISF BENSHEIM		
Seats / Posti	ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 240
Wing span	:	Empty weight	:
Lunghezza	: m 6,73	Peso a pieno carico	: Kg 350
Overall length	:	Max weight	:
Superficie alare	: m ² 10,90	Minima discesa	: m/s 0,59
Wing area	:	Sink speed	:
Allungamento	: AR 20,7	Rapporto di planata	: 1:35,1
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 32	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	:
Country	:	First flight	:

MISTRAL - C

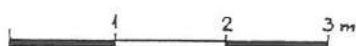


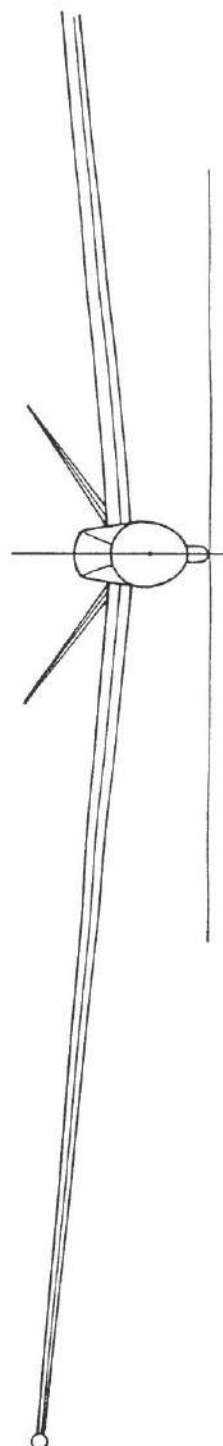
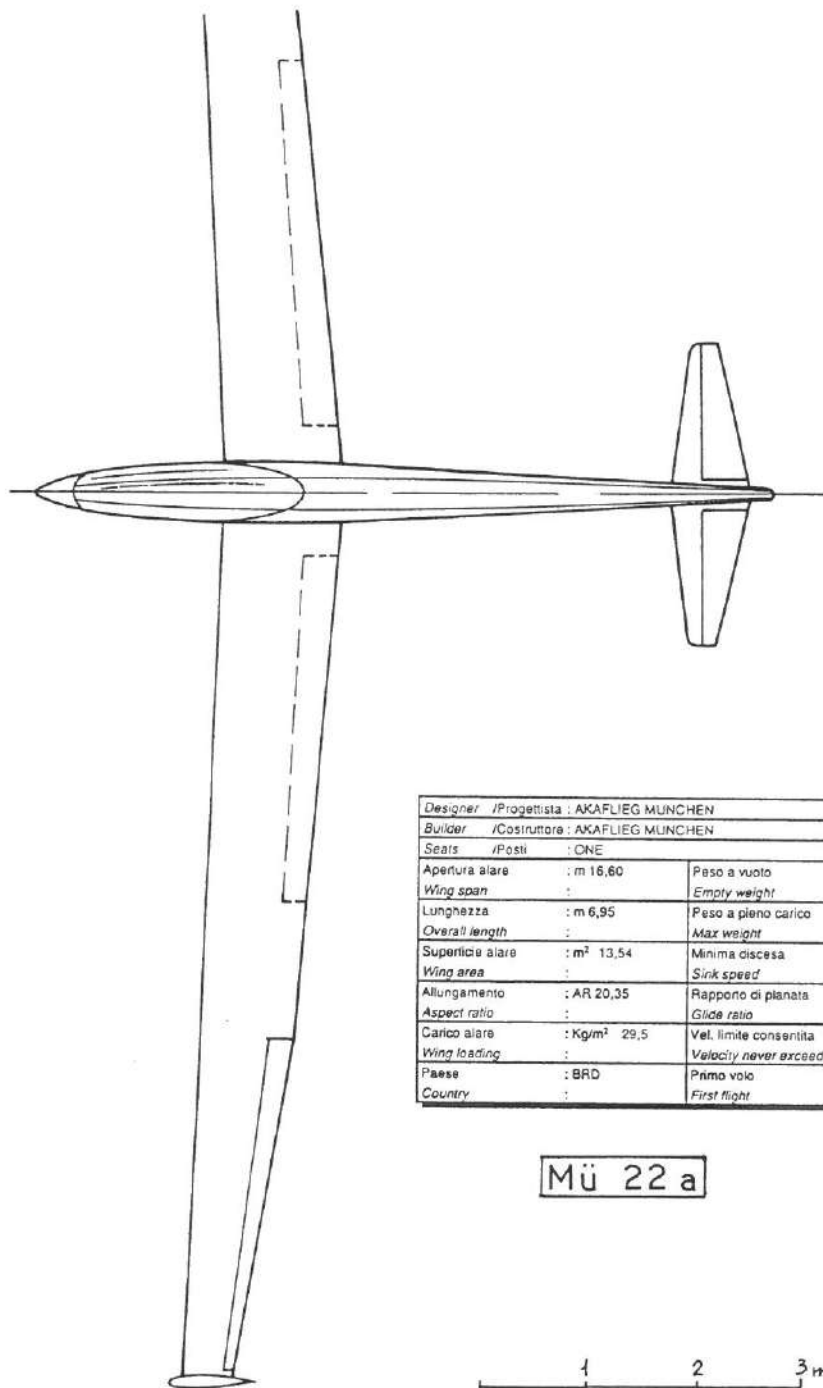
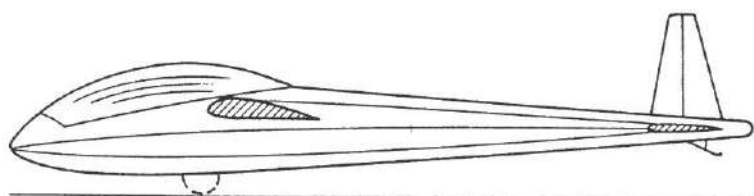




Designer / Progettista	SCHEIBE		
Builder / Costruttore	W. HIRTH		
Seats / Posti	TWO TANDEM		
Apertura alare	: m 15,76	Peso a vuoto	: Kg 235
Wing span	:	Empty weight	:
Lunghezza	: m 8,00	Peso a pieno carico	: Kg 430
Overall length	:	Max weight	:
Superficie alare	: m ² 18,5	Minima discesa	: m/s 0,63
Wing area	:	Sink speed	:
Allungamento	: AR 16	Rapporto di planata	: 1:27
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22,1	Vel. limite consentita	: Km/h 160
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1952
Country	:	First flight	:

MÜ 13-E BERGFALKE

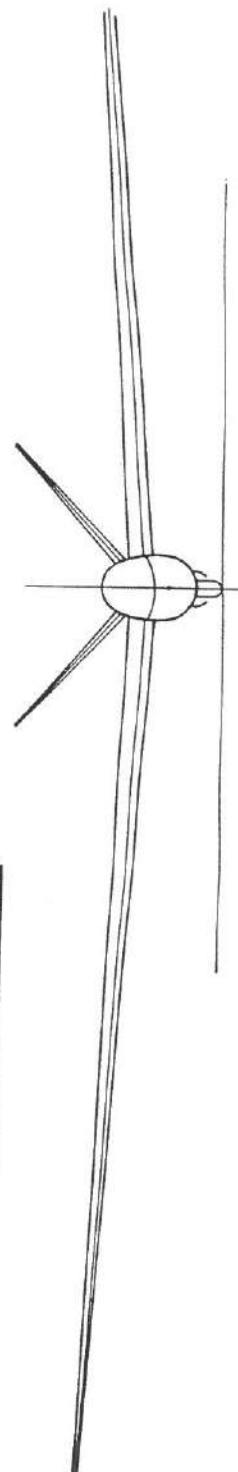
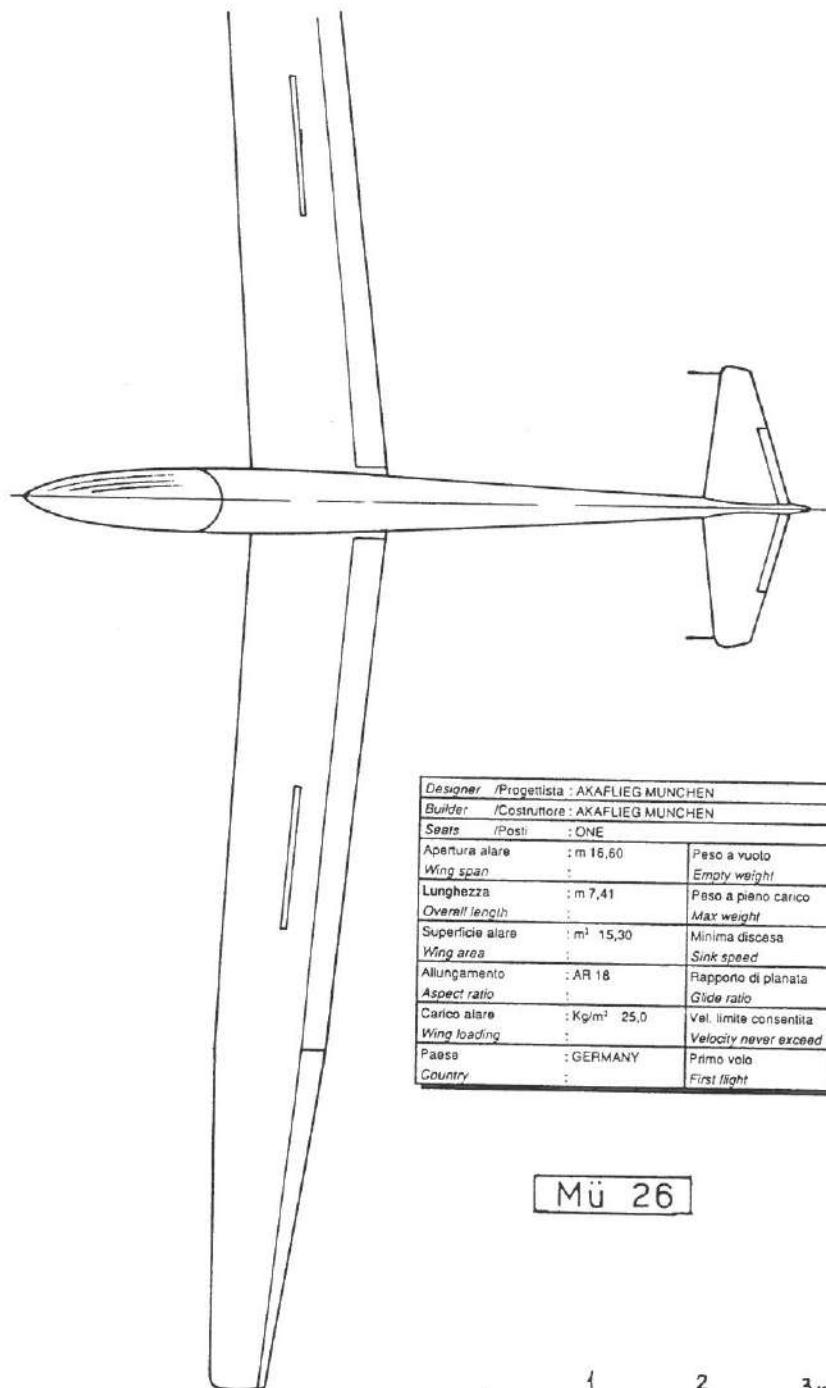
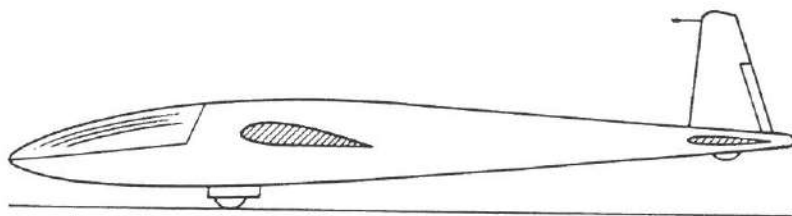




Designer /Progettista : AKAFLIEG MUNCHEN			
Builder /Costruttore : AKAFLIEG MUNCHEN			
Seats /Posti : ONE			
Apertura alare : m 16,60		Peso a vuoto : Kg 250	
Wing span :		Empty weight :	
Lunghezza : m 6,95		Peso a pieno carico : Kg 400	
Overall length :		Max weight :	
Superficie alare : m² 13,54		Minima discesa : m/s 0,50	
Wing area :		Sink speed :	
Allungamento : AR 20,35		Rapporto di planata : 1:36	
Aspect ratio :		Glide ratio :	
Carico alare : Kg/m² 29,5		Vel. limite consentita : Km/h 280	
Wing loading :		Velocity never exceed :	
Paese : BRD		Primo volo : 1954	
Country :		First flight :	

Mü 22 a

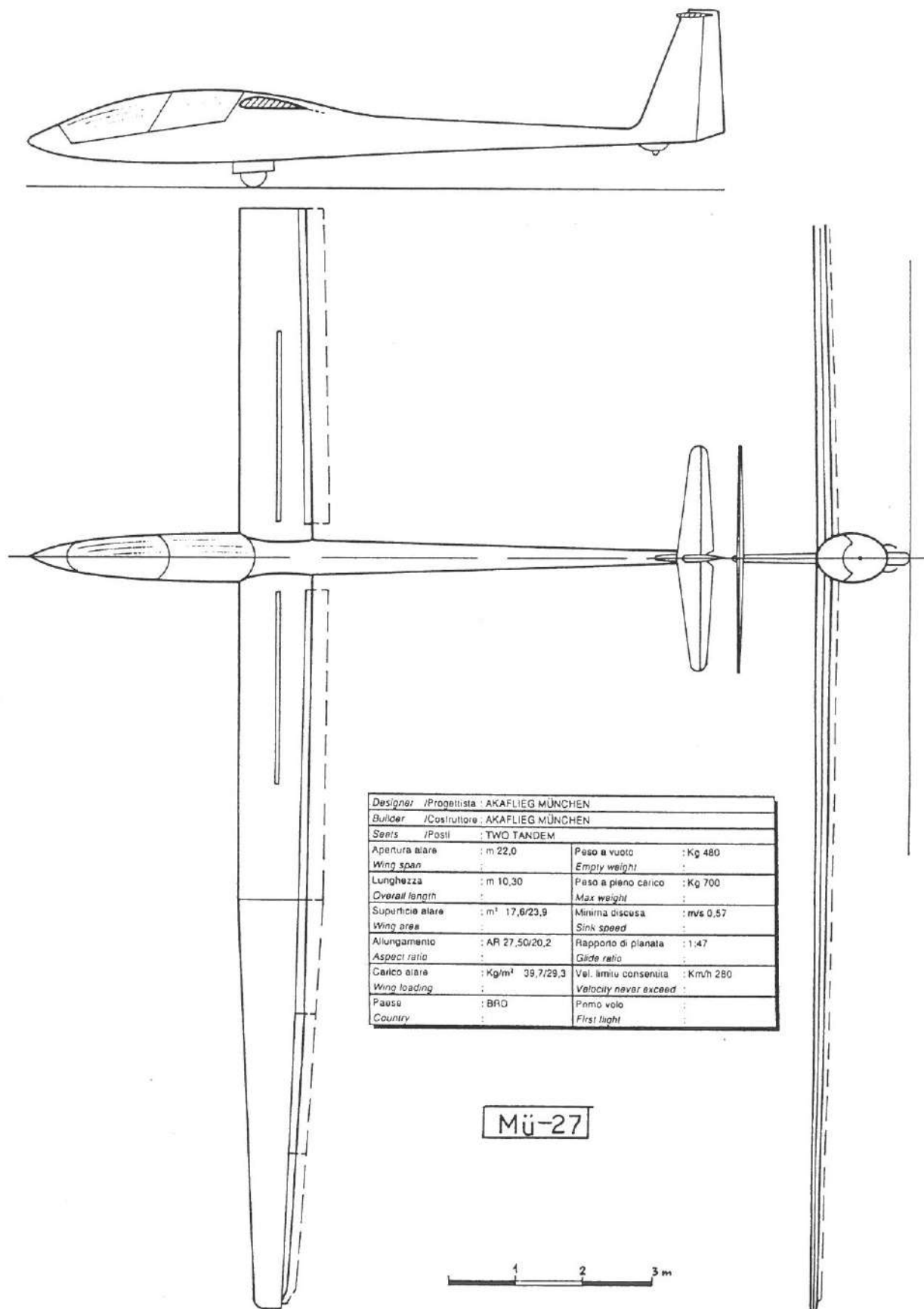




Designer /Progettista : AKAFLEG MUNCHEN			
Builder /Costruttore : AKAFLEG MUNCHEN			
Seats /Posti : ONE			
Apertura alare	: m 16,60	Peso a vuoto	: Kg 276
Wing span	:	Empty weight	:
Lunghezza	: m 7,41	Peso a pieno carico	: Kg 382
Overall length	:	Max weight	:
Superficie alare	: m ² 15,30	Minima discesa	: m/s 0,60
Wing area	:	Sink speed	:
Allungamento	: AR 18	Rapporto di planata	: 1:40
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 25,0	Vel. limite consentita	: Km/h 180
Wing loading	:	Velocity never exceed	:
Paese	: GERMANY	Primo volo	: 1971
Country	:	First flight	:

Mü 26

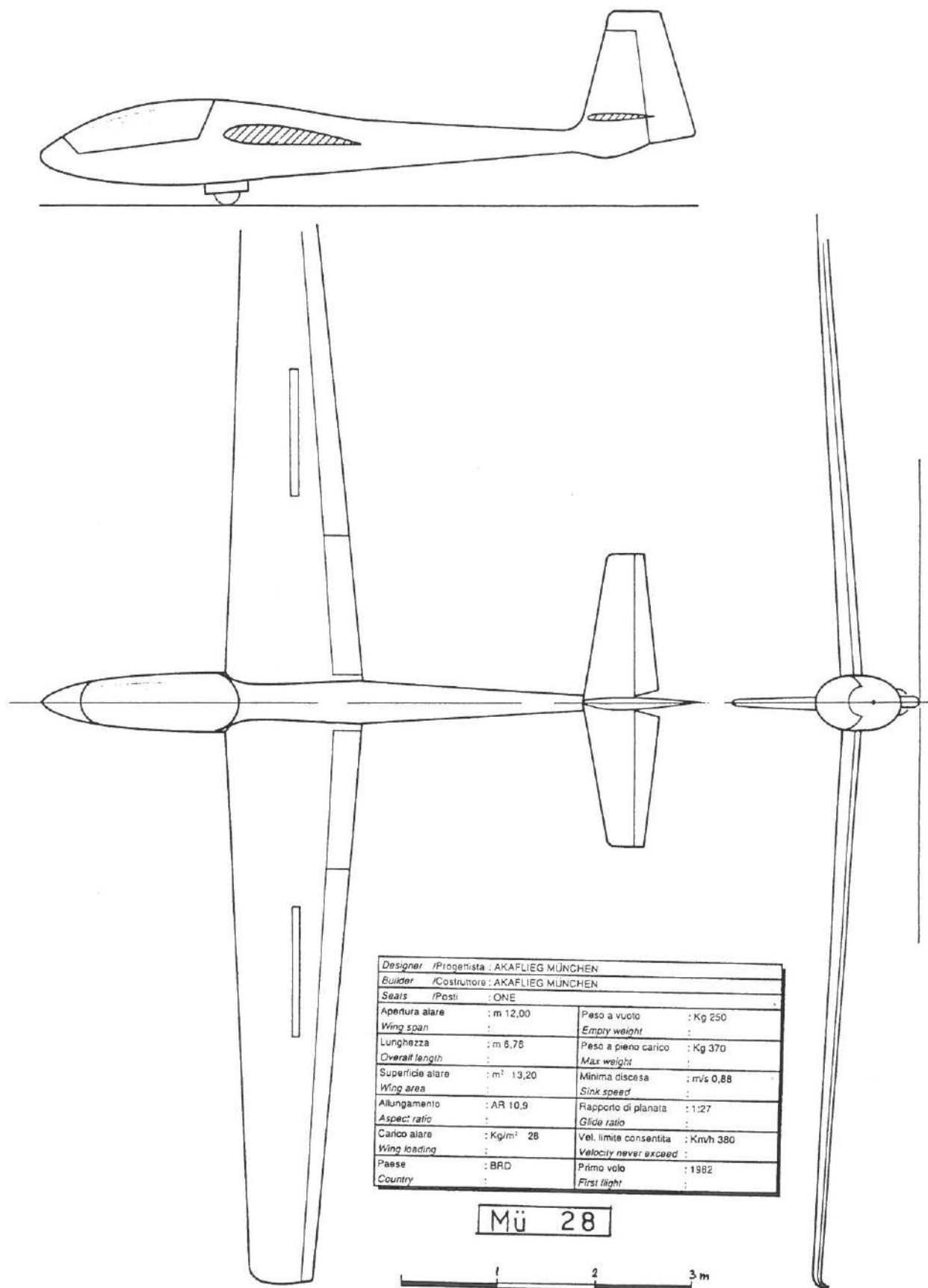


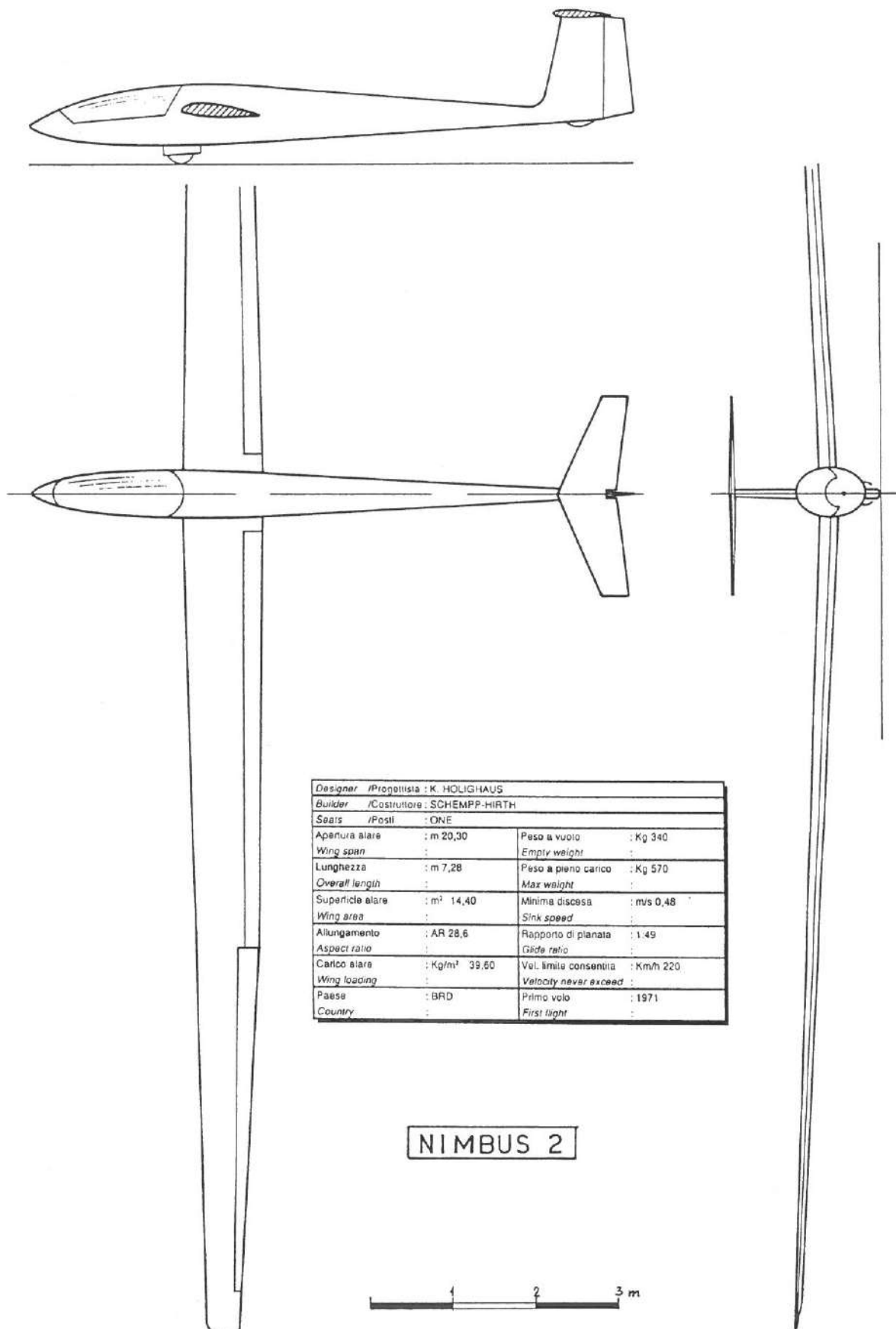


Designer /Progettista	AKAFLIEG MÜNCHEN		
Builder /Costruttore	AKAFLIEG MÜNCHEN		
Series /Posti	TWO TANDEM		
Apertura alare /Wing span	: m 22,0	Peso a vuoto /Empty weight	: Kg 480
Lunghezza /Overall length	: m 10,30	Peso a pieno carico /Max weight	: Kg 700
Superficie alare /Wing area	: m ² 17,6/23,9	Minima discesa /Sink speed	: m/s 0,57
Allungamento /Aspect ratio	: AR 27,50/20,2	Rapporto di planata /Glide ratio	: 1:47
Carico alare /Wing loading	: Kg/m ² 39,7/29,3	Vel. amiu consentita /Velocity never exceed	: Km/h 280
Paese	: BRD	Primo volo	
Country		First flight	

Mü-27

1 2 3 m

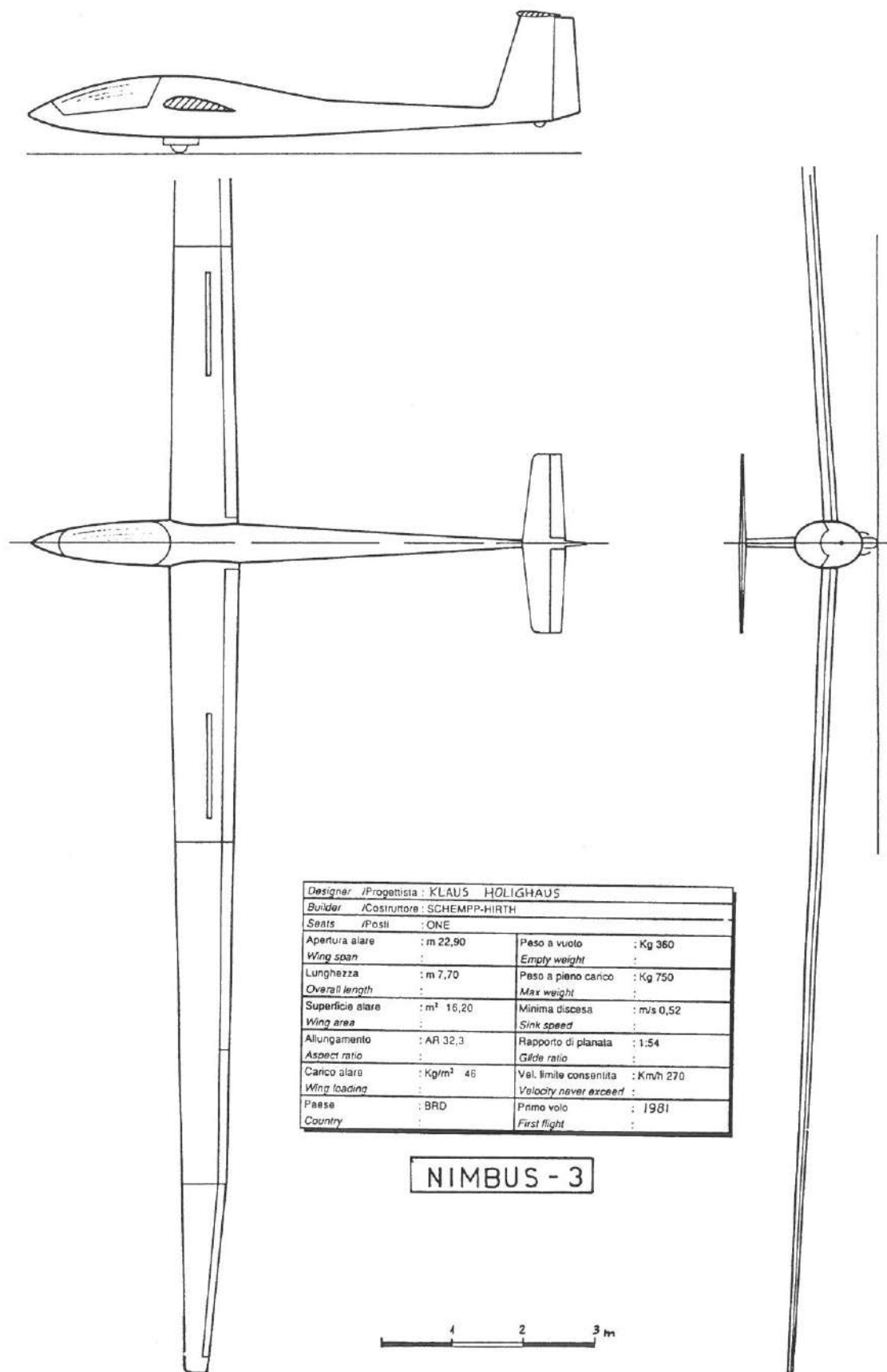




Designer / Progettista	K. HOLIGHAUS		
Builder / Costruttore	SCHEMP-PHIRTH		
Seats / Posti	ONE		
Apertura alare	: m 20,30	Peso a vuoto	: Kg 340
Wing span	:	Empty weight	:
Lunghezza	: m 7,28	Peso a pieno carico	: Kg 570
Overall length	:	Max weight	:
Superficie alare	: m ² 14,40	Minima discesa	: mvs 0,48
Wing area	:	Sink speed	:
Allungamento	: AR 28,6	Rapporto di planata	: 1,49
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 39,60	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1971
Country	:	First flight	:

NIMBUS 2

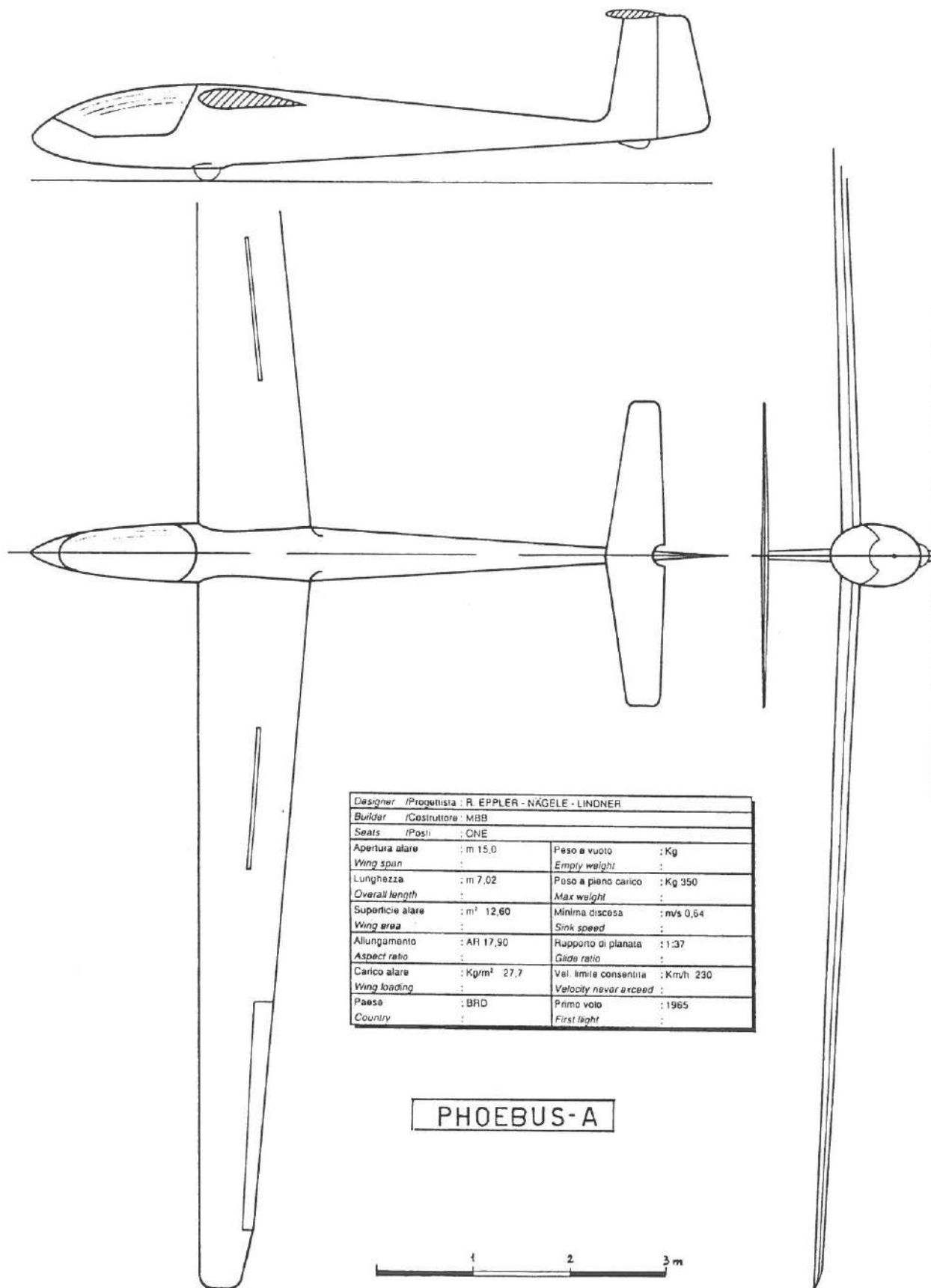
1 2 3 m



Designer / Progettista	KLAUS HÖLIGHAUS		
Builder / Costruttore	SCHEMPP-HIRTH		
Seats / Posti	ONE		
Apertura alare	: m 22,90	Peso a vuoto	: Kg 360
Wing span	:	Empty weight	:
Lunghezza	: m 7,70	Peso a pieno carico	: Kg 750
Overall length	:	Max weight	:
Superficie alare	: m ² 16,20	Minima discesa	: m/s 0,52
Wing area	:	Sink speed	:
Allungamento	: AR 32,3	Rapporto di planata	: 1,54
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 46	Vel. limite consentita	: Km/h 270
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1981
Country	:	First flight	:

NIMBUS - 3

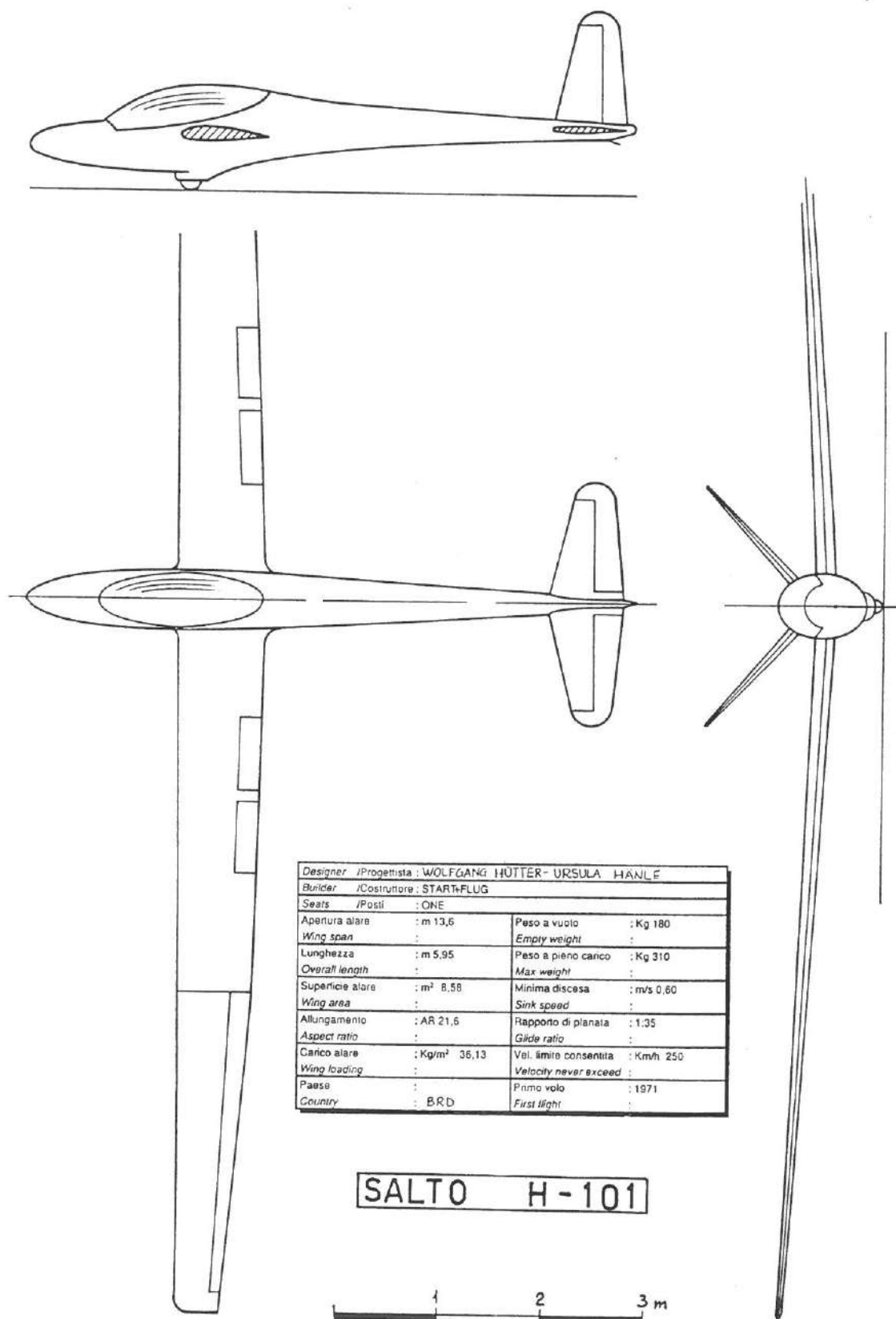
1 2 3 m

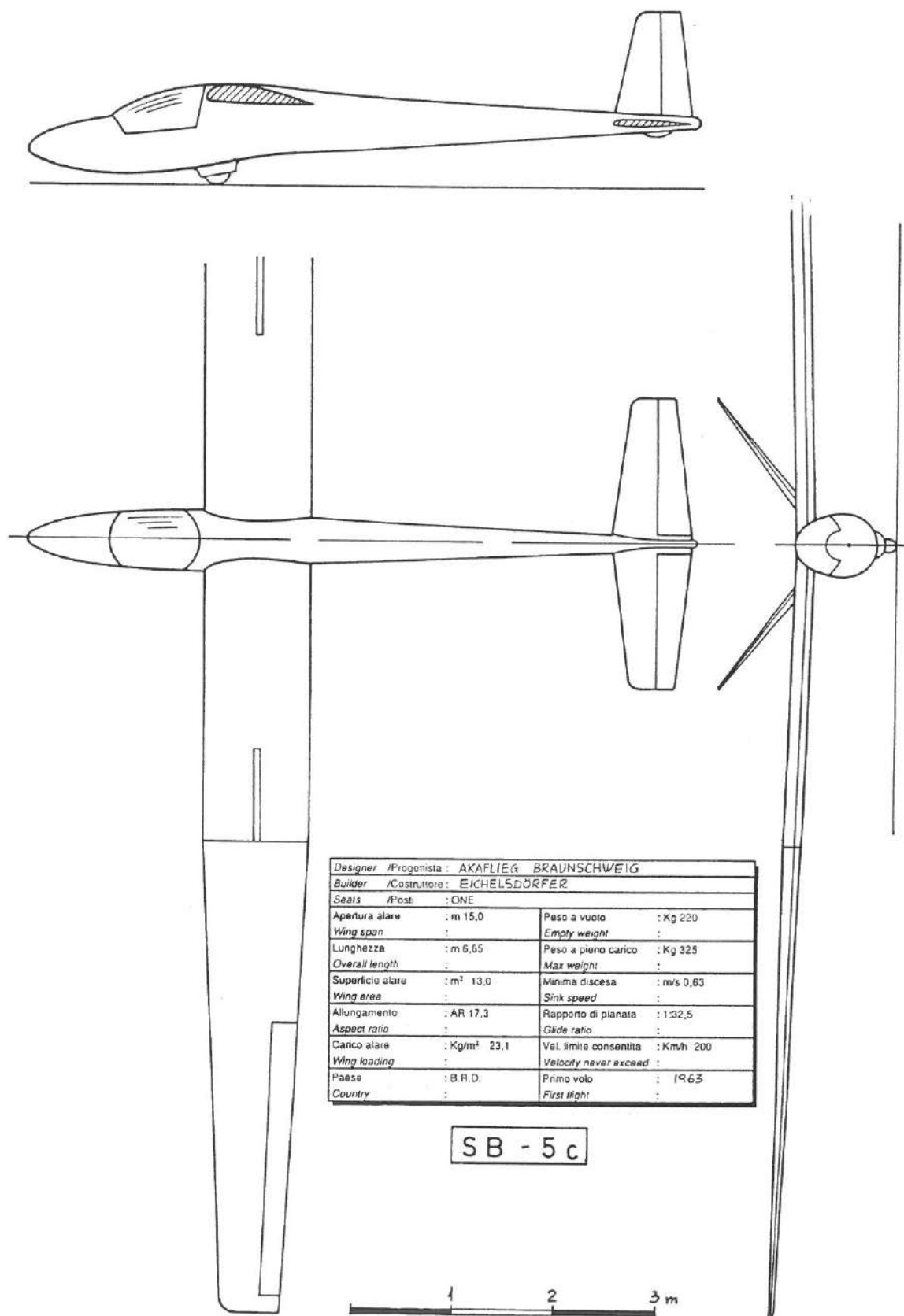


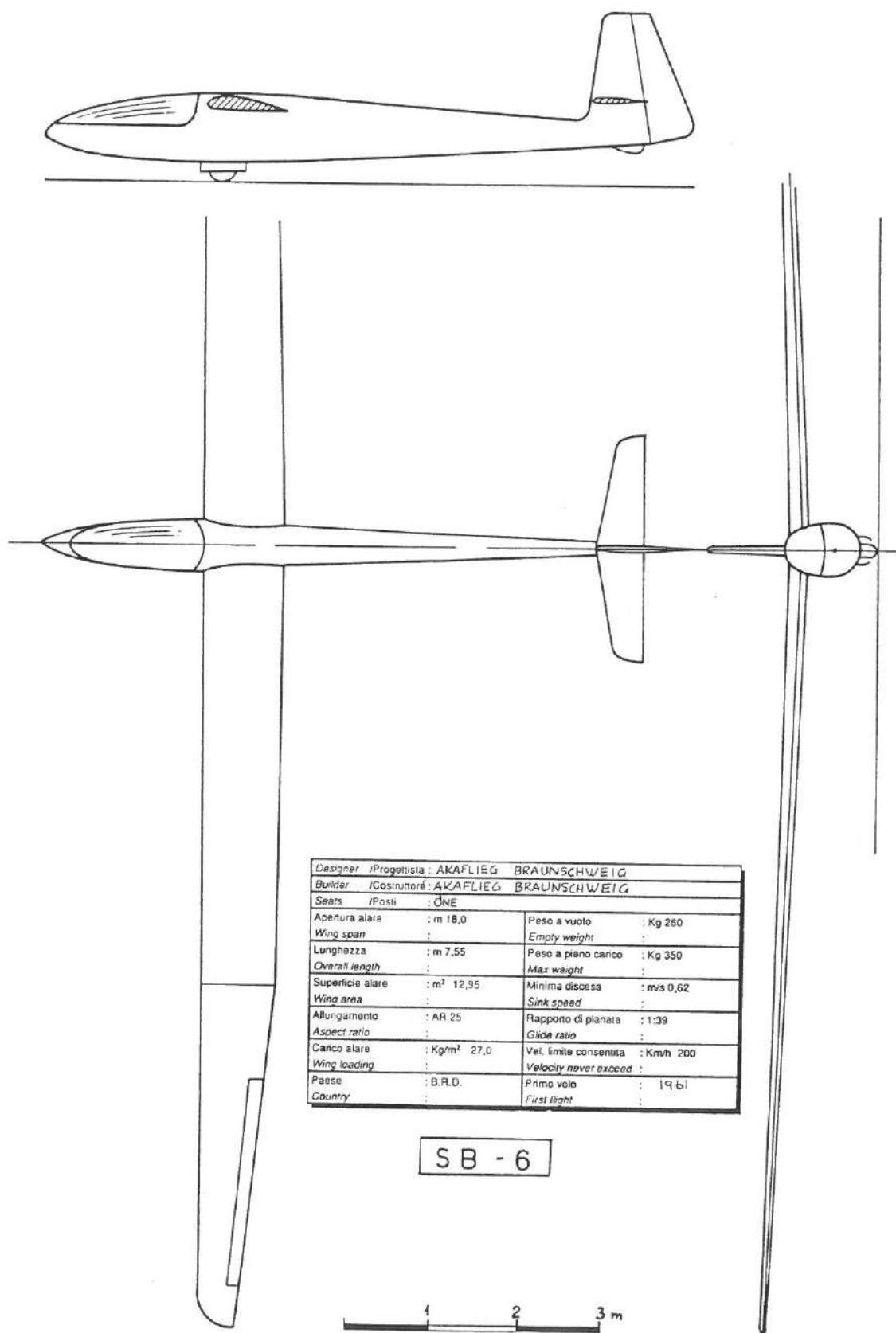
Designer / Progettista	R. EPPLER - NÄGELE - LINDNER		
Builder / Costruttore	MBB		
Seats / (Posi)	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 7,02	Peso a pieno carico	: Kg 350
Overall length	:	Max weight	:
Superficie alare	: m ² 12,60	Minima discesa	: m/s 0,64
Wing area	:	Sink speed	:
Allungamento	: AR 17,90	Rapporto di planata	: 1:37
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,7	Vel. limite consentita	: Km/h 230
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1965
Country	:	First flight	:

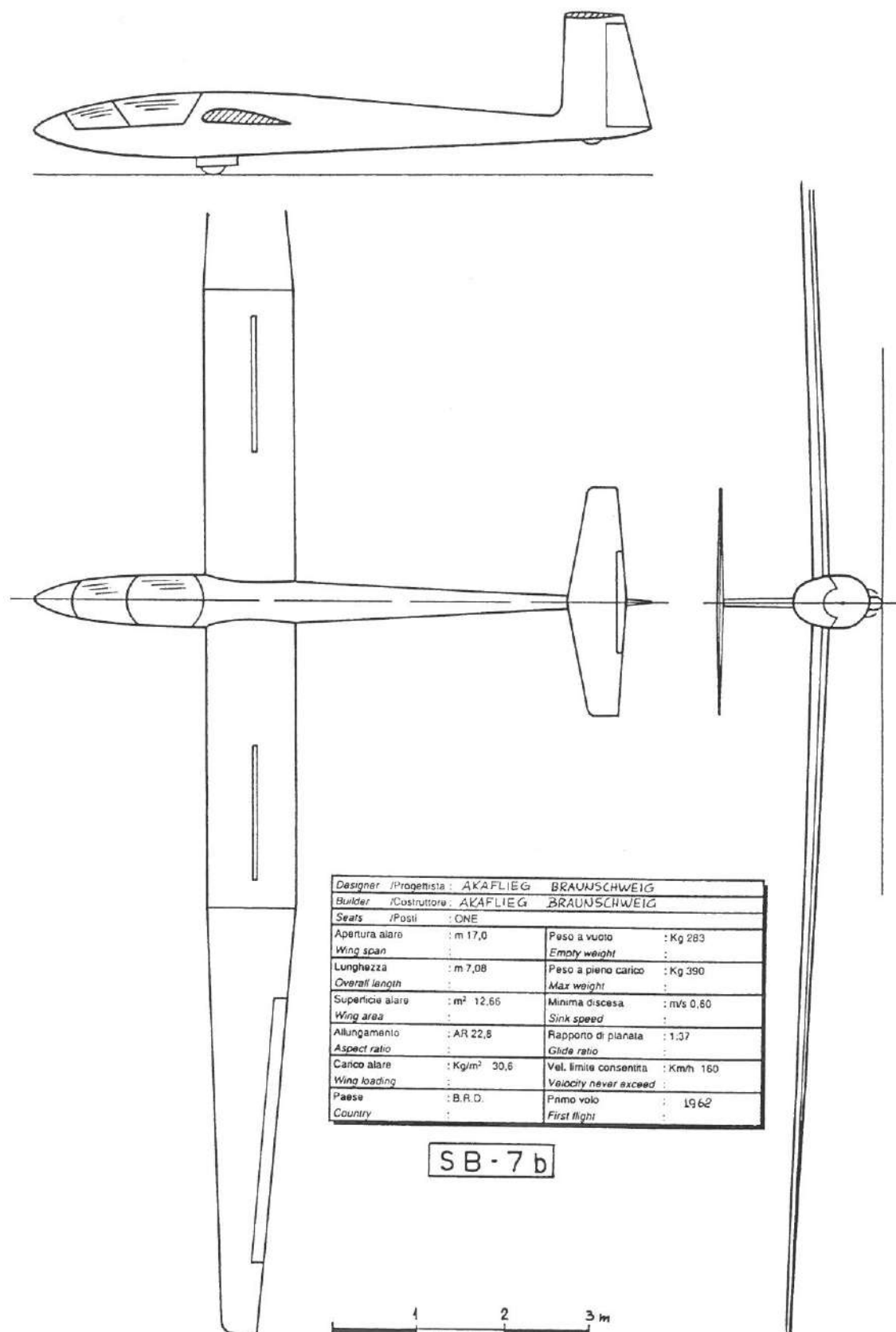
PHOEBUS-A

1 2 3 m





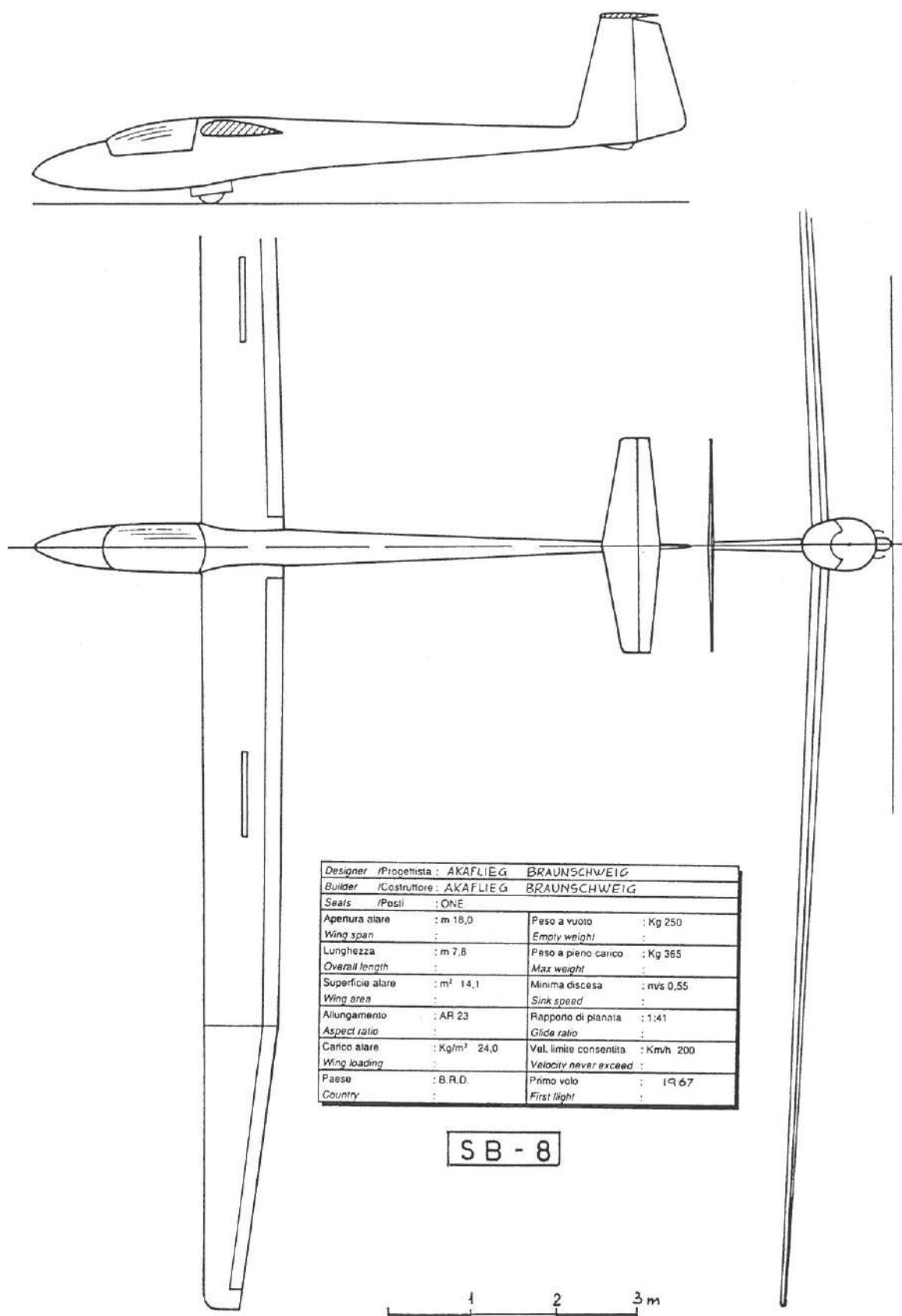


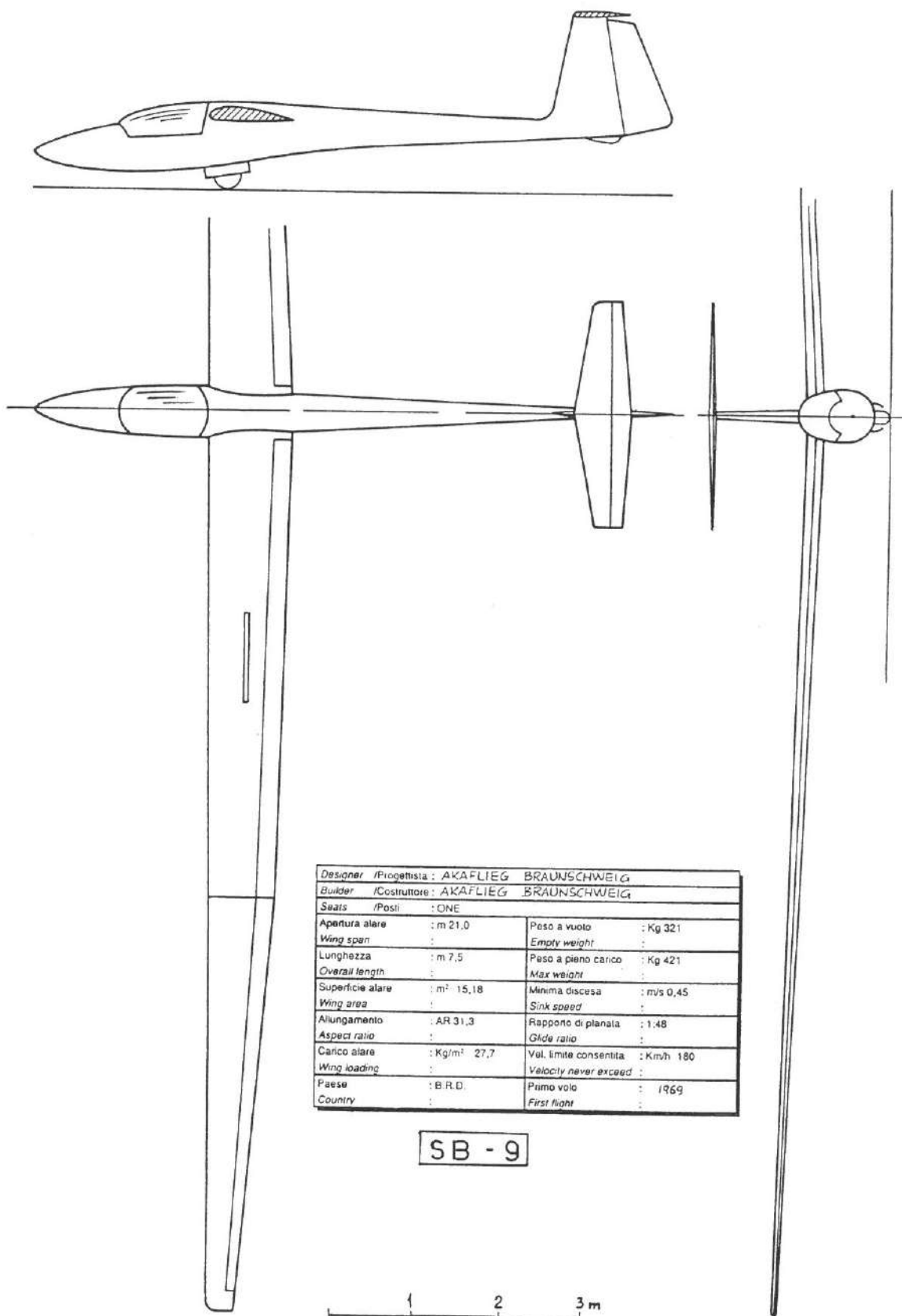


Designer / Progettista	AKAFLIEG		BRAUNSCHWEIG	
Builder / Costruttore	AKAFLIEG		BRAUNSCHWEIG	
Seats / Posti	ONE			
Apertura alare	:	m 17,0	Peso a vuoto	: Kg 283
Wing span	:		Empty weight	:
Lunghezza	:	m 7,08	Peso a pieno carico	: Kg 390
Overall length	:		Max weight	:
Superficie alare	:	m ² 12,66	Minima discesa	: m/s 0,60
Wing area	:		Sink speed	:
Allungamento	:	AR 22,5	Rapporto di planata	: 1,37
Aspect ratio	:		Glide ratio	:
Carico alare	:	Kg/m ² 30,6	Vel. limite consentita	: Km/h 160
Wing loading	:		Velocity never exceed	:
Paese	:	B.R.D.	Primo volo	: 1962
Country	:		First flight	:

SB-7b

1 2 3 m

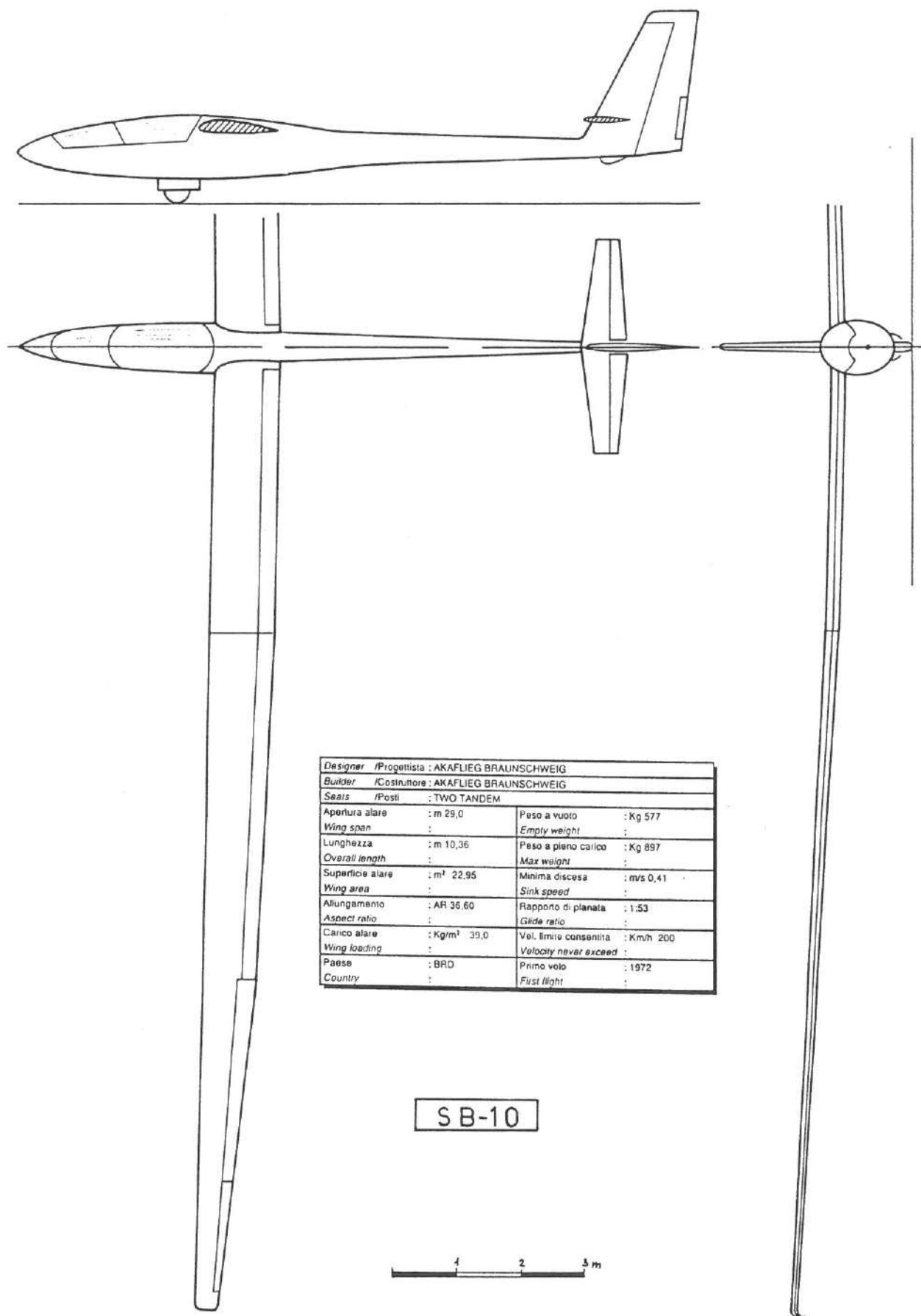




Designer /Progettista :	AKAFLIEG	BRAUNSCHWEIG
Builder /Costruttore :	AKAFLIEG	BRAUNSCHWEIG
Seats /Posti :	ONE	
Apertura alare	: m 21,0	Peso a vuoto : Kg 321
Wing span	:	Empty weight :
Lunghezza	: m 7,5	Peso a pieno carico : Kg 421
Overall length	:	Max weight :
Superficie alare	: m ² 15,18	Minima discesa : m/s 0,45
Wing area	:	Sink speed :
Allungamento	: AR 31,3	Rapporto di planata : 1:48
Aspect ratio	:	Glide ratio :
Carico alare	: Kg/m ² 27,7	Vel. limite consentita : Km/h 180
Wing loading	:	Velocity never exceed :
Paese	: B.R.D.	Primo volo : 1969
Country	:	First flight :

SB - 9

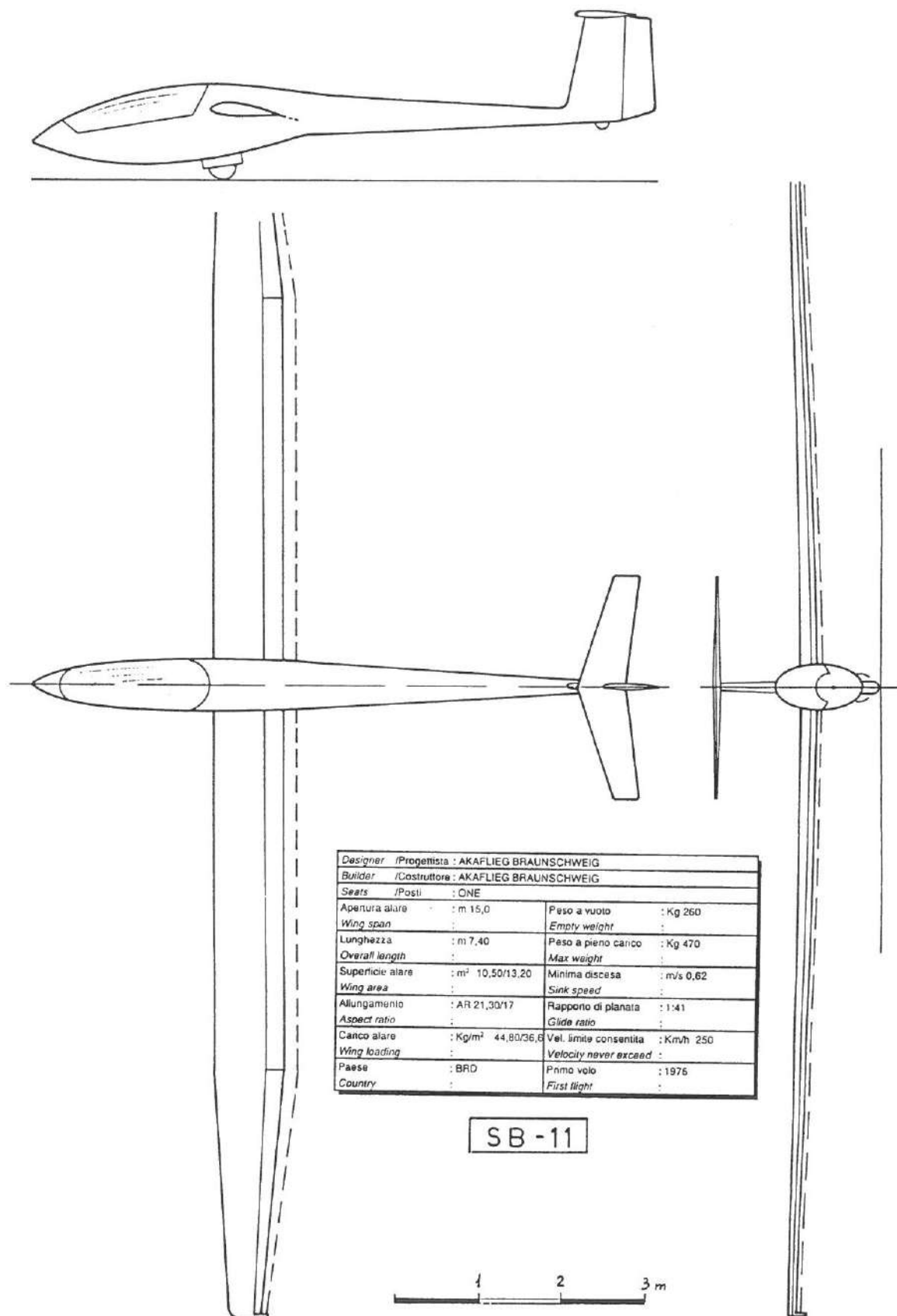
1 2 3 m



Designer /Progettista : AKAFLEG BRAUNSCHWEIG			
Builder /Costruttore : AKAFLEG BRAUNSCHWEIG			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 29,0	Peso a vuoto	: Kg 577
Wing span	:	Empty weight	:
Lunghezza	: m 10,36	Peso a pieno carico	: Kg 897
Overall length	:	Max weight	:
Superficie alare	: m ² 22,95	Minima discesa	: m/s 0,41
Wing area	:	Sink speed	:
Allungamento	: AR 36,60	Rapporto di planata	: 1,53
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 39,0	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1972
Country	:	First flight	:

SB-10

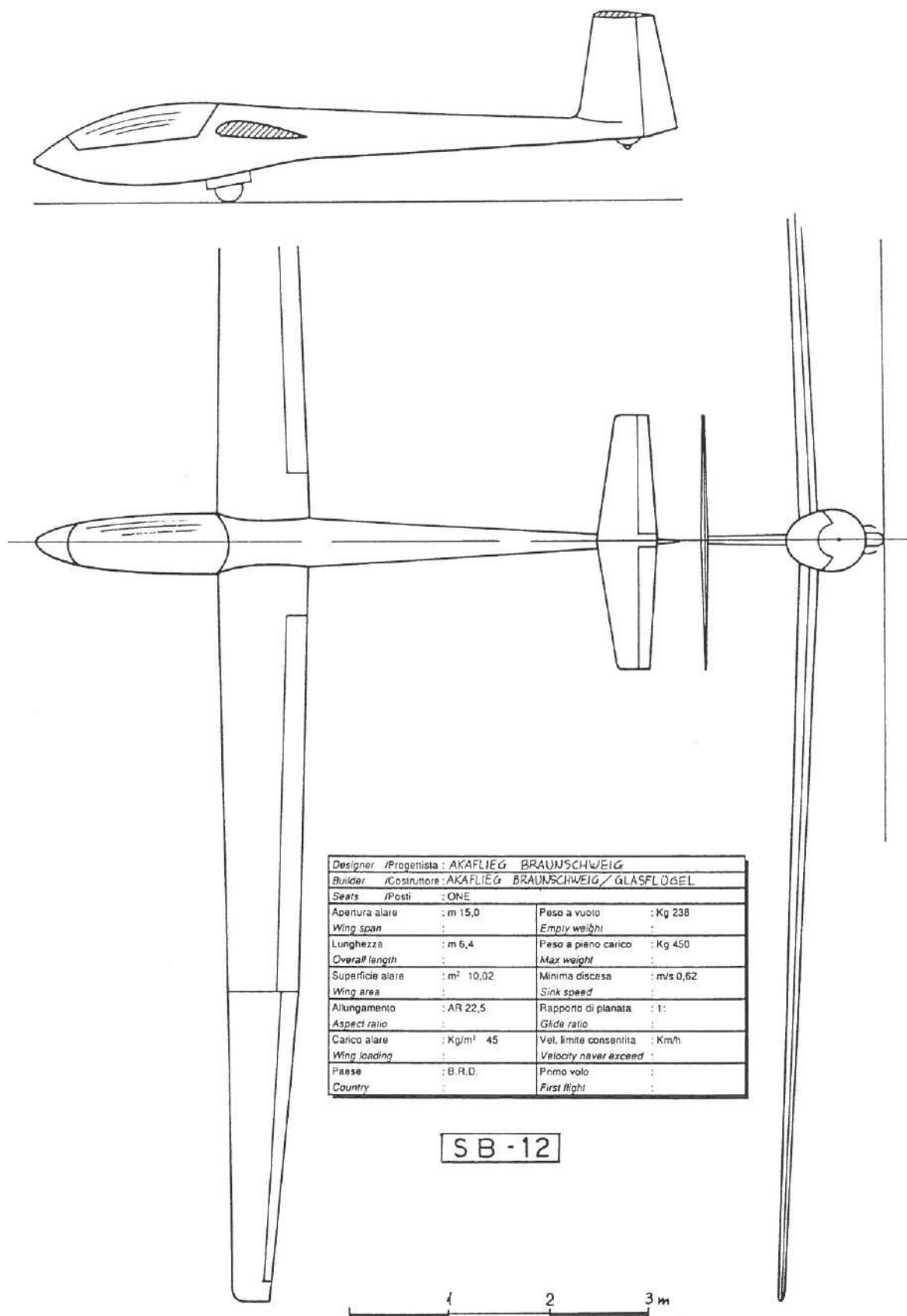
1 2 3 m



Designer / Progettista : AKAFLIEG BRAUNSCHWEIG			
Builder / Costruttore : AKAFLIEG BRAUNSCHWEIG			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 260
Wing span	:	Empty weight	:
Lunghezza	: m 7,40	Peso a pieno carico	: Kg 470
Overall length	:	Max weight	:
Superficie alare	: m ² 10,50/13,20	Minima discesa	: m/s 0,62
Wing area	:	Sink speed	:
Allungamento	: AR 21,30/17	Rapporto di planata	: 1:41
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 44,80/36,8	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1976
Country	:	First flight	:

SB - 11

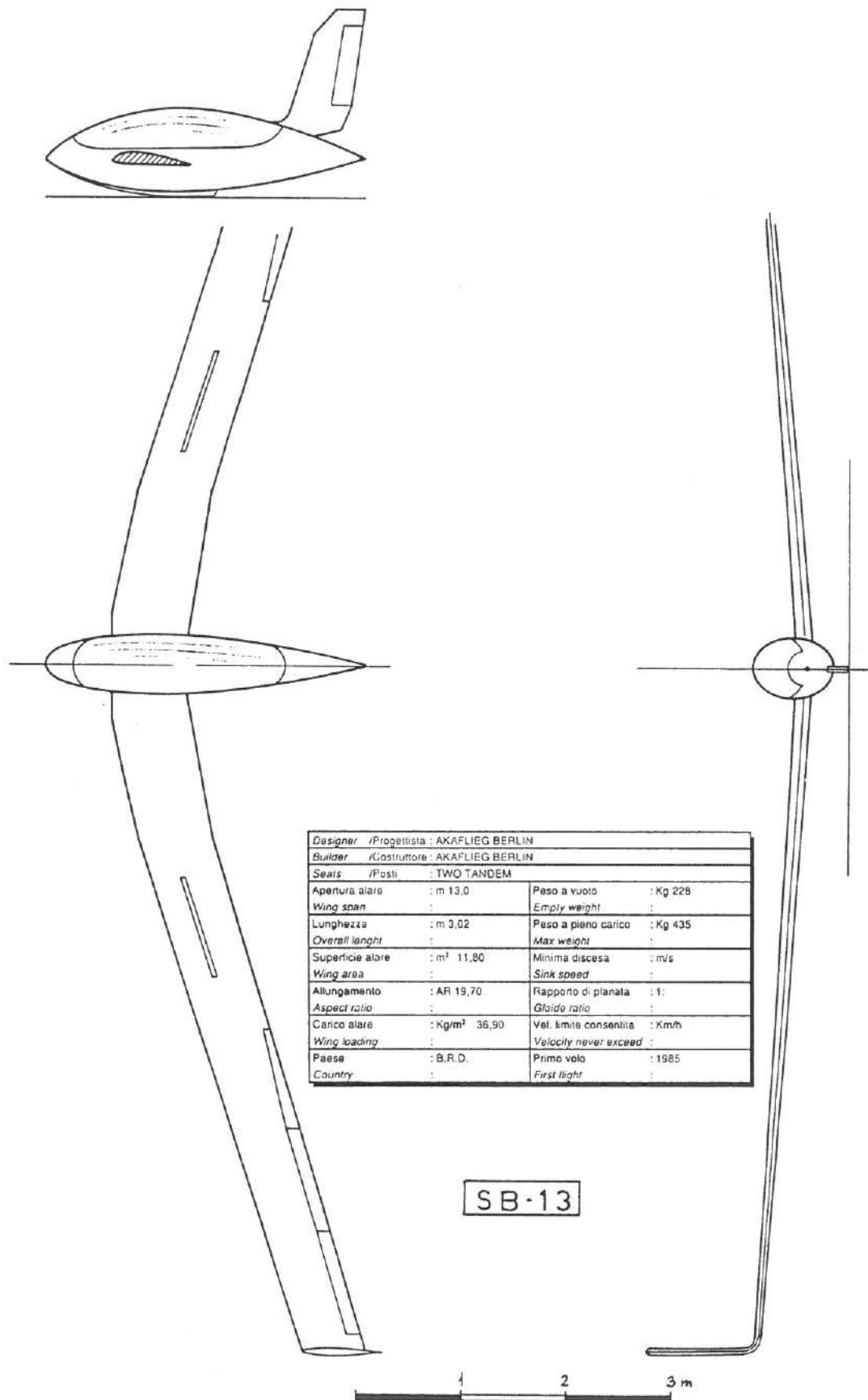
1 2 3 m



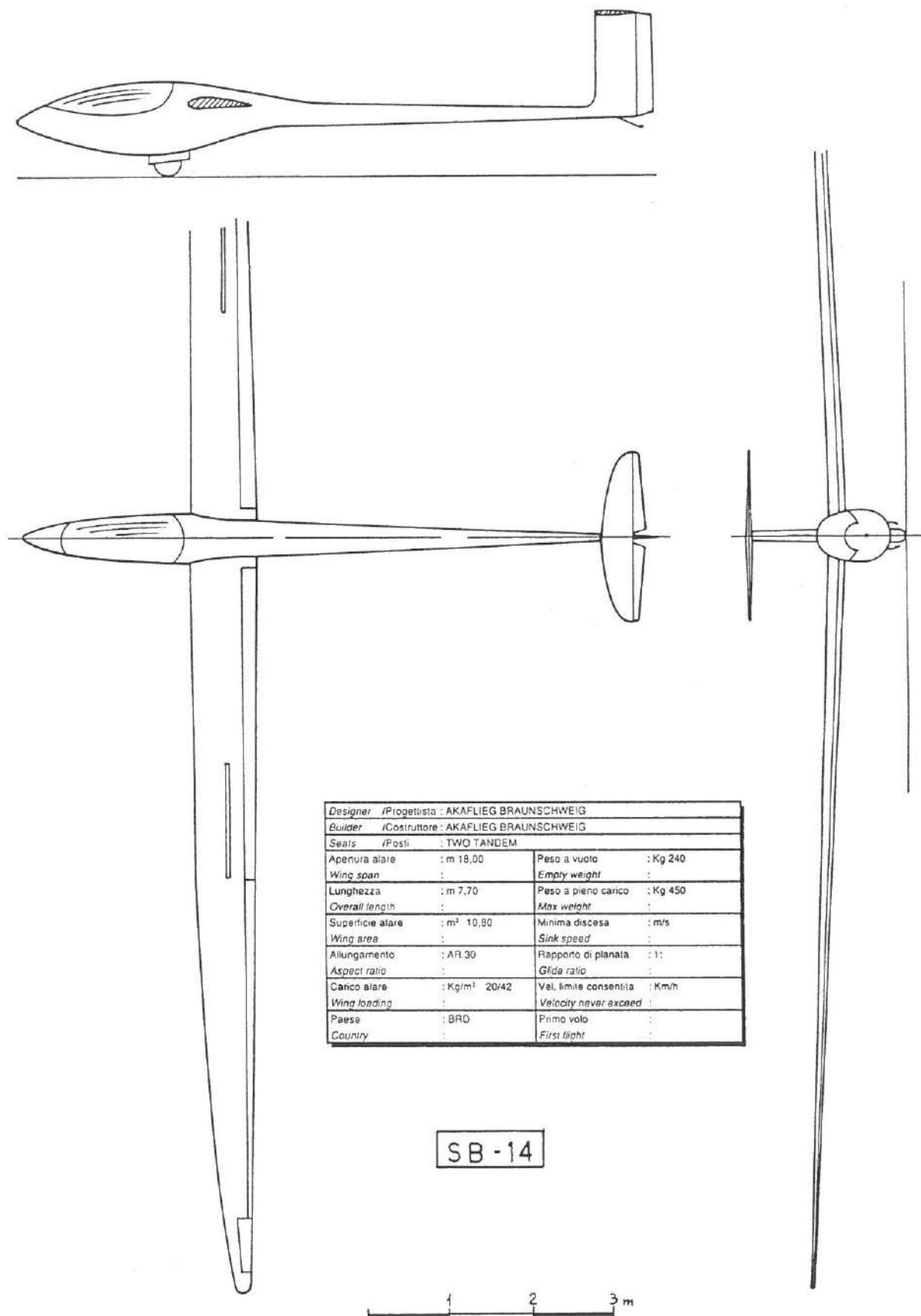
Designer	/Progettista : AKAFLEG BRAUNSCHWEIG		
Builder	/Costruttore : AKAFLEG BRAUNSCHWEIG / GLASFLOGEL		
Seats	/Posti : ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 238
Wing span	:	Empty weight	:
Lunghezza	: m 5,4	Peso a pieno carico	: Kg 450
Overall length	:	Max weight	:
Superficie alare	: m ² 10,02	Minima discesa	: m/s 0,62
Wing area	:	Sink speed	:
Allungamento	: AR 22,5	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 45	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: B.R.D.	Primo volo	:
Country	:	First flight	:

SB - 12





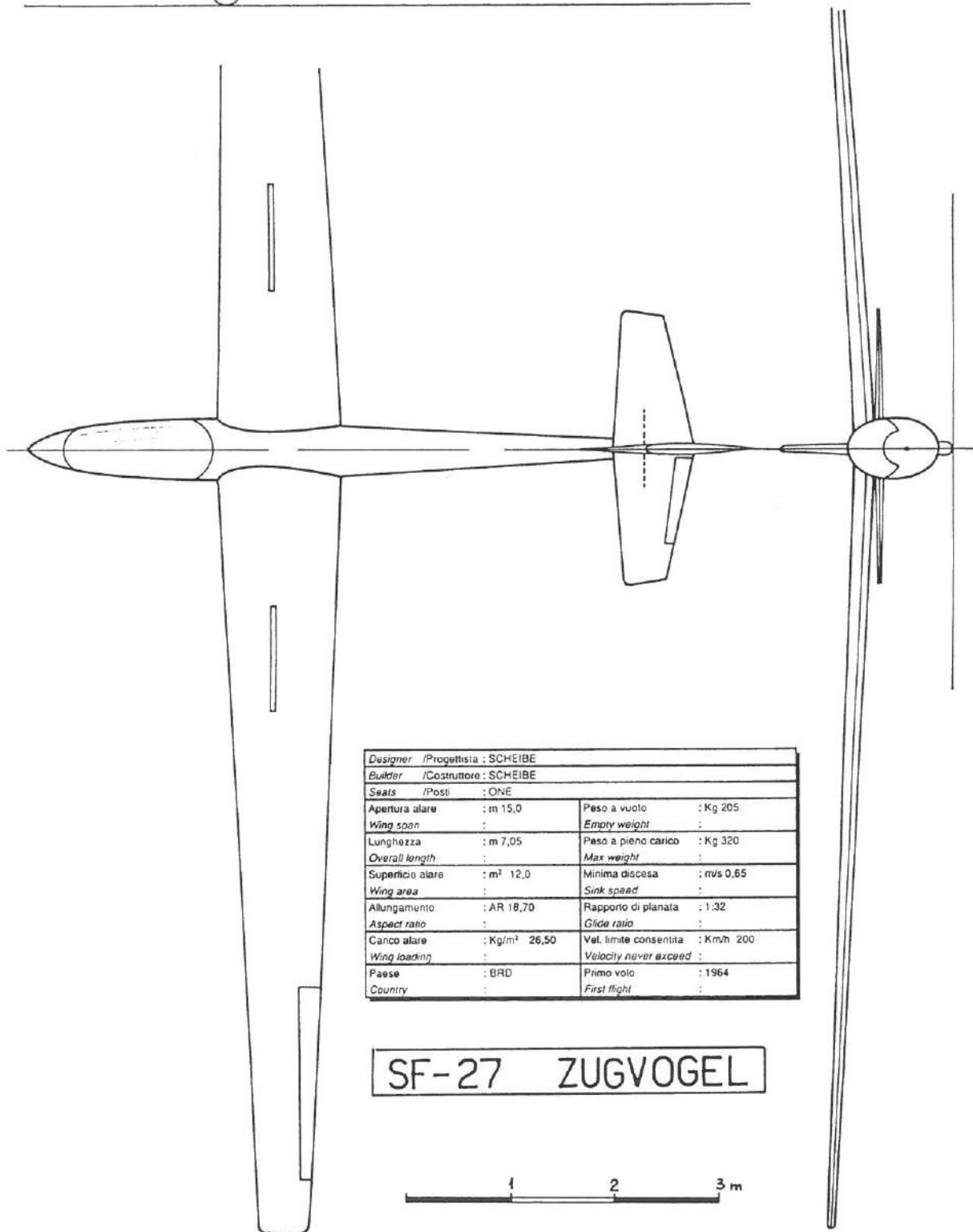
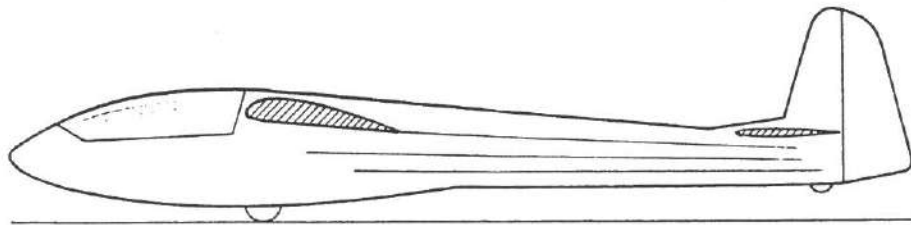
<i>Designer /Progettista</i> : AKAFLIEG BERLIN			
<i>Builder /Costruttore</i> : AKAFLIEG BERLIN			
<i>Seats /Posti</i> : TWO TANDEM			
<i>Apertura alare</i>	: m 13,0	<i>Peso a vuoto</i>	: Kg 228
<i>Wing span</i>	:	<i>Empty weight</i>	:
<i>Lunghezza</i>	: m 3,02	<i>Peso a pieno carico</i>	: Kg 435
<i>Overall length</i>	:	<i>Max weight</i>	:
<i>Superficie alare</i>	: m ² 11,80	<i>Minima discesa</i>	: m/s
<i>Wing area</i>	:	<i>Sink speed</i>	:
<i>Allungamento</i>	: AR 19,70	<i>Rapporto di planata</i>	: 1:
<i>Aspect ratio</i>	:	<i>Glide ratio</i>	:
<i>Carico alare</i>	: Kg/m ² 36,90	<i>Vel. limite consentita</i>	: Km/h
<i>Wing loading</i>	:	<i>Velocity never exceed</i>	:
<i>Paese</i>	: B.R.D.	<i>Primo volo</i>	: 1985
<i>Country</i>	:	<i>First flight</i>	:



Designer	/Progettista : AKAFLEG BRAUNSCHWEIG		
Builder	/Costruttore : AKAFLEG BRAUNSCHWEIG		
Seats	/Posti : TWO TANDEM		
Apertura alare	: m 18,00	Peso a vuoto	: Kg 240
Wing span	:	Empty weight	:
Lunghezza	: m 7,70	Peso a pieno carico	: Kg 450
Overall length	:	Max weight	:
Superficie alare	: m ² 10,80	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 30	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 20/42	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	:
Country	:	First flight	:

SB-14

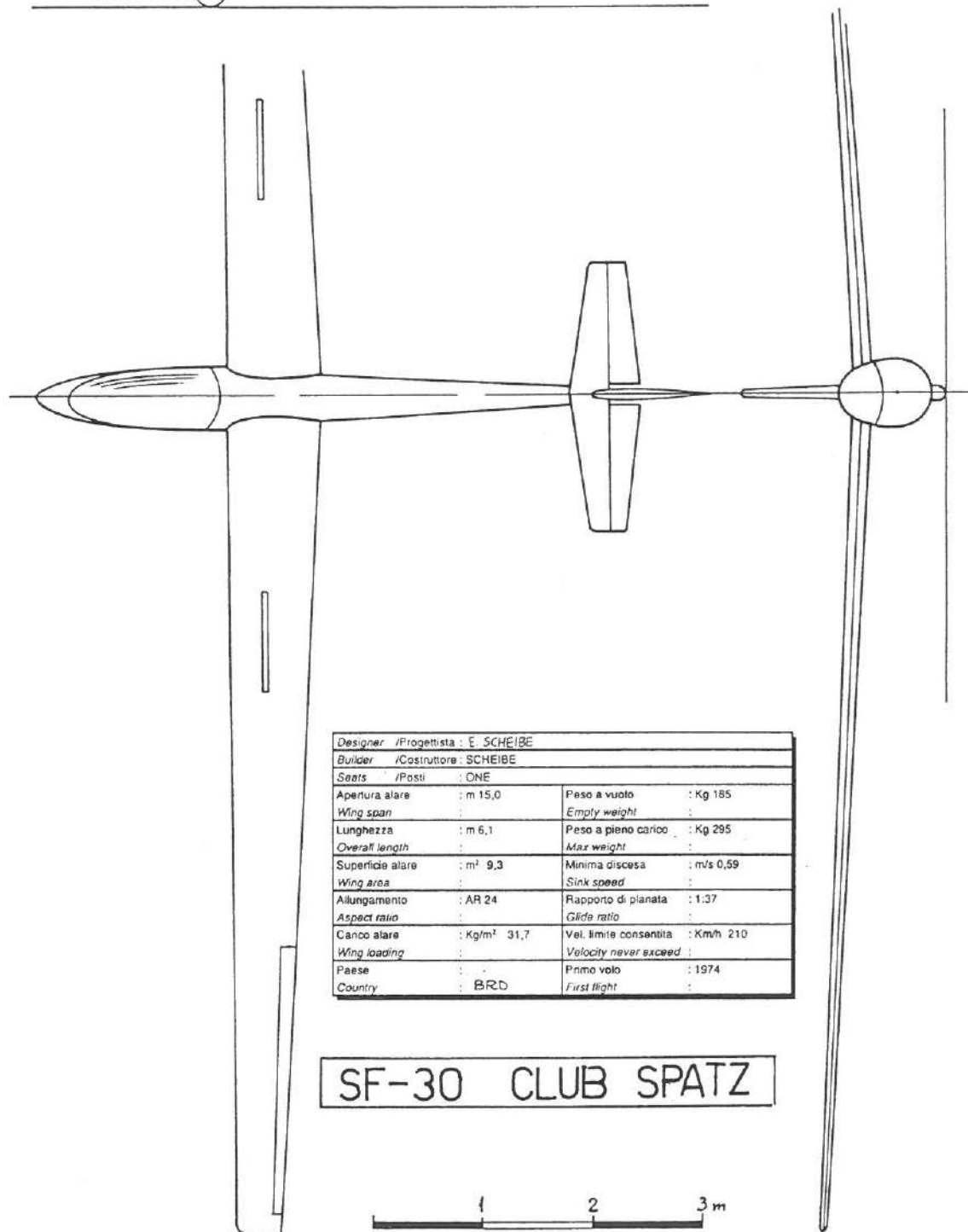
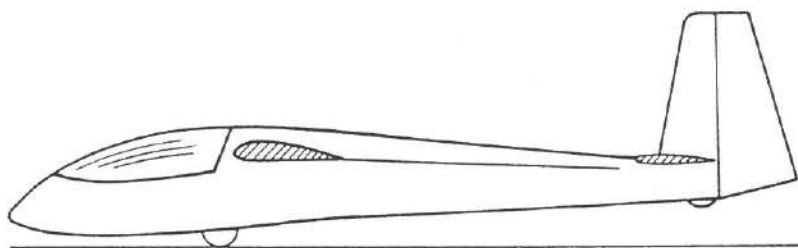
1 2 3 m



Designer / Progettista : SCHEIBE			
Builder / Costruttore : SCHEIBE			
Seats / Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 205
Wing span	:	Empty weight	:
Lunghezza	: m 7,05	Peso a pieno carico	: Kg 320
Overall length	:	Max weight	:
Superficie alare	: m ² 12,0	Minima discesa	: mvs 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 18,70	Rapporto di planata	: 1:32
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,50	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1964
Country	:	First flight	:

SF-27 ZUGVOGEL

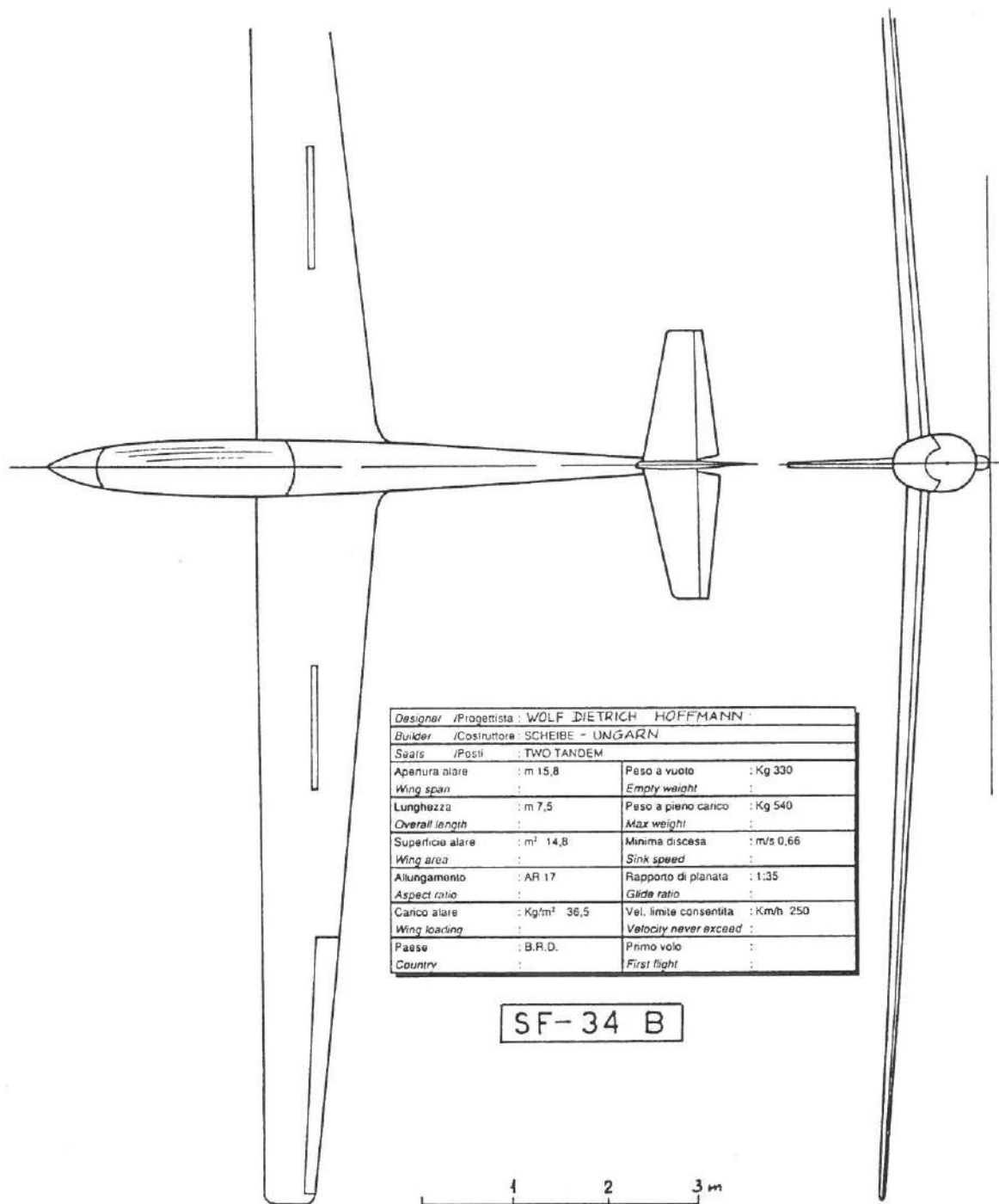
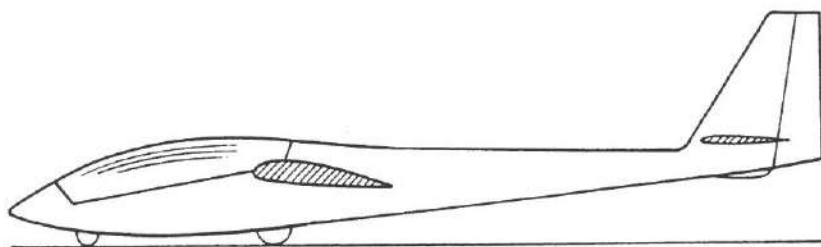
1 2 3 m



Designer /Progettista	E. SCHEIBE		
Builder /Costruttore	SCHEIBE		
Seats /Posti	ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 185
Wing span		Empty weight	
Lunghezza	: m 6,1	Peso a pieno carico	: Kg 295
Overall length		Max weight	
Superficie alare	: m ² 9,3	Minima discesa	: m/s 0,59
Wing area		Sink speed	
Allungamento	: AR 24	Rapporto di planata	: 1:37
Aspect ratio		Glide ratio	
Carico alare	: Kg/m ² 31,7	Vel. limite consentita	: Km/h 210
Wing loading		Velocity never exceed	
Paese		Primo volo	: 1974
Country	: BRD	First flight	

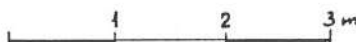
SF-30 CLUB SPATZ

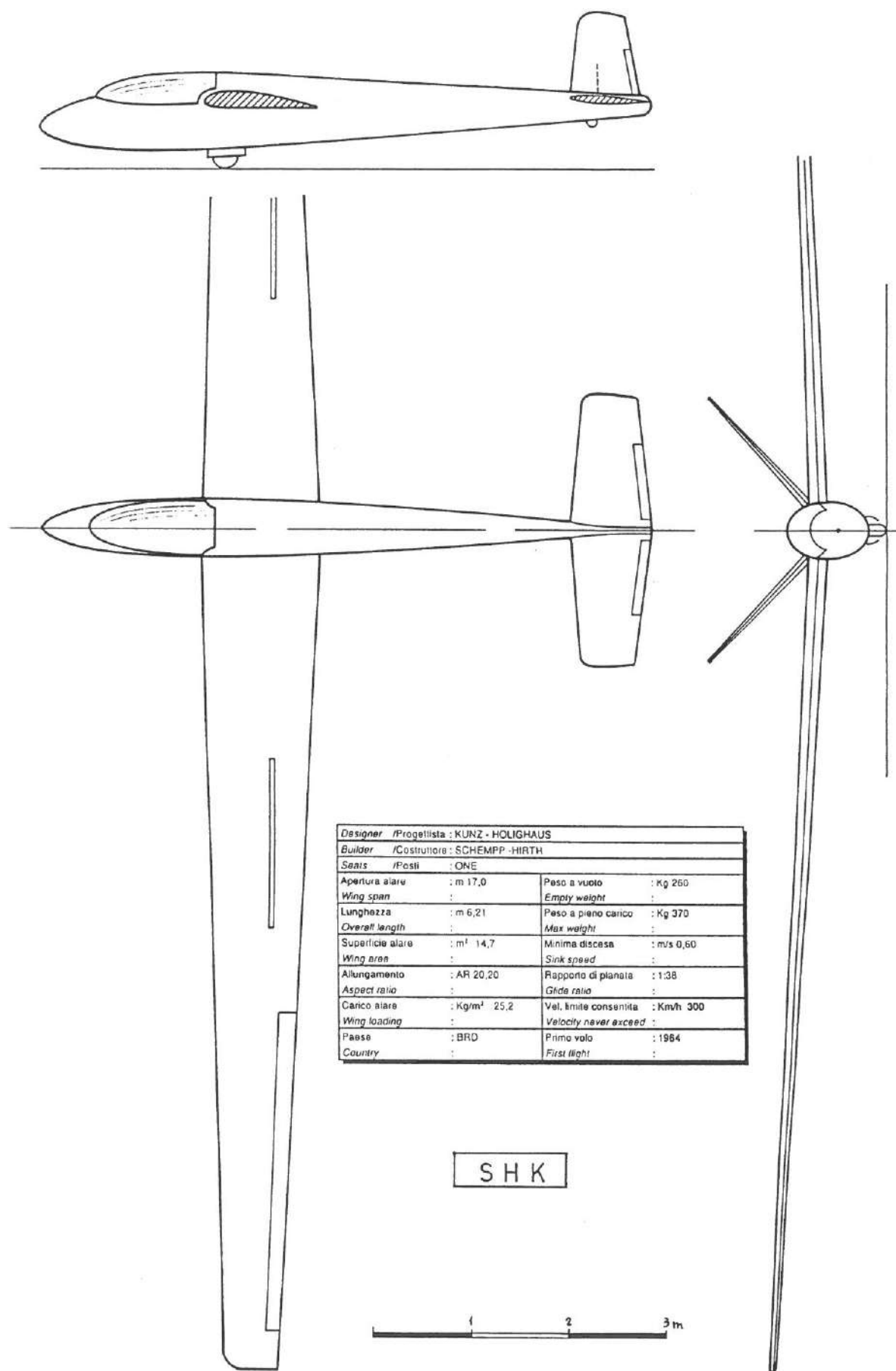


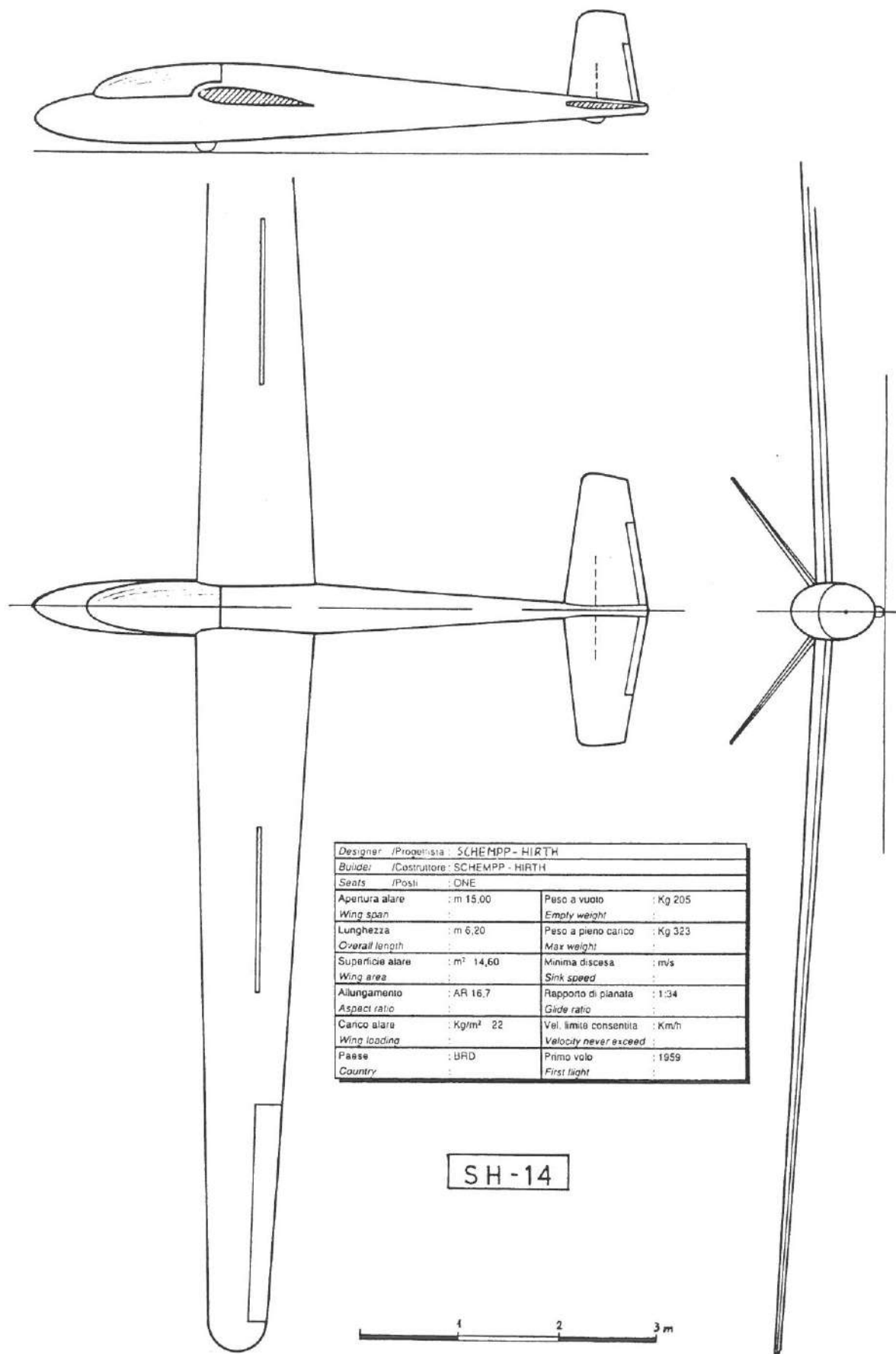


Designer /Progettista : WOLF DIETRICH HOFFMANN			
Builder /Costruttore : SCHEIBE - UNGARN			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 15,8	Peso a vuoto	: Kg 330
Wing span	:	Empty weight	:
Lunghezza	: m 7,5	Peso a pieno carico	: Kg 540
Overall length	:	Max weight	:
Superficie alare	: m ² 14,8	Minima discesa	: m/s 0,66
Wing area	:	Sink speed	:
Allungamento	: AR 17	Rapporto di planata	: 1:35
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 36,5	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: B.R.D.	Primo volo	:
Country	:	First flight	:

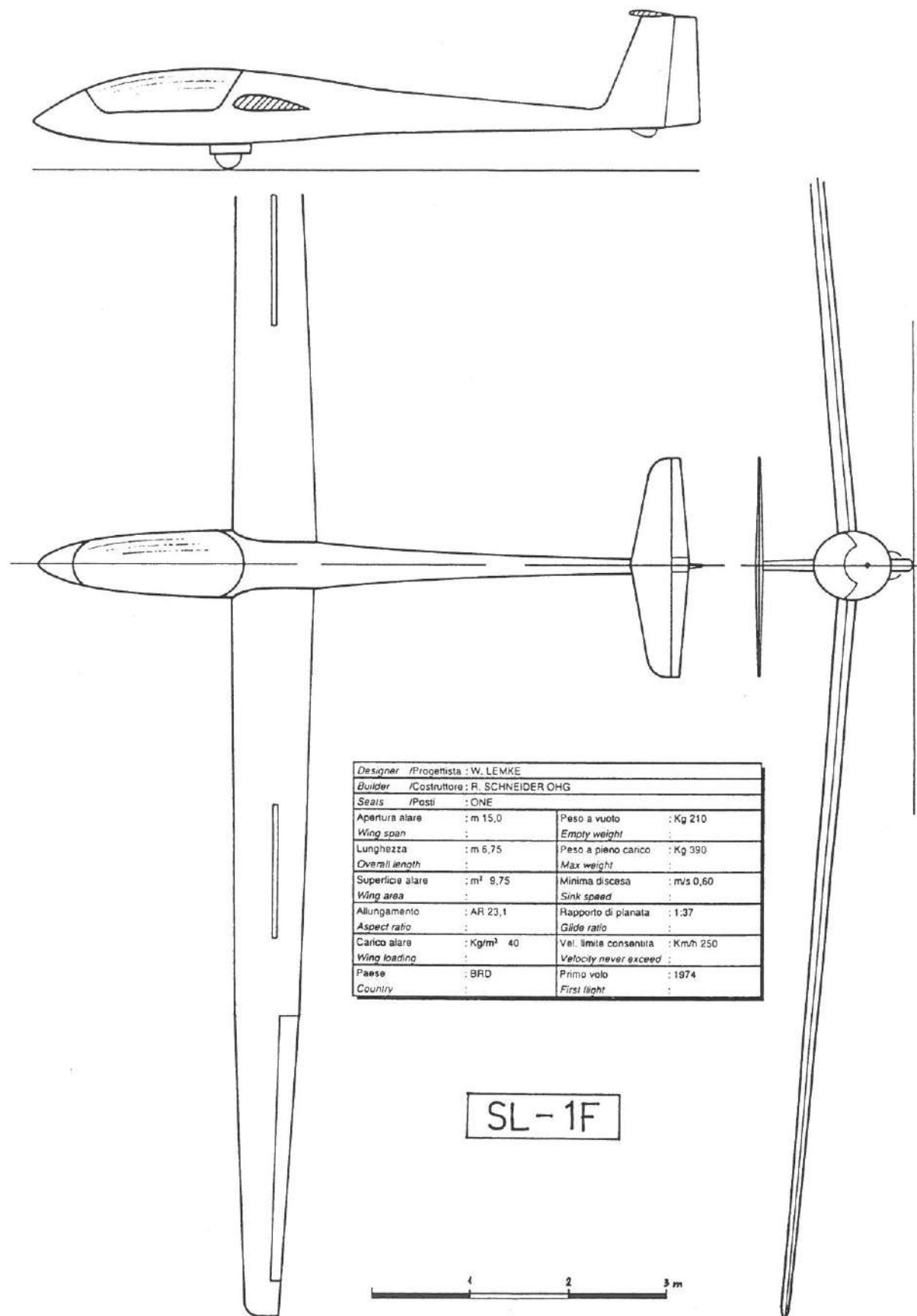
SF-34 B

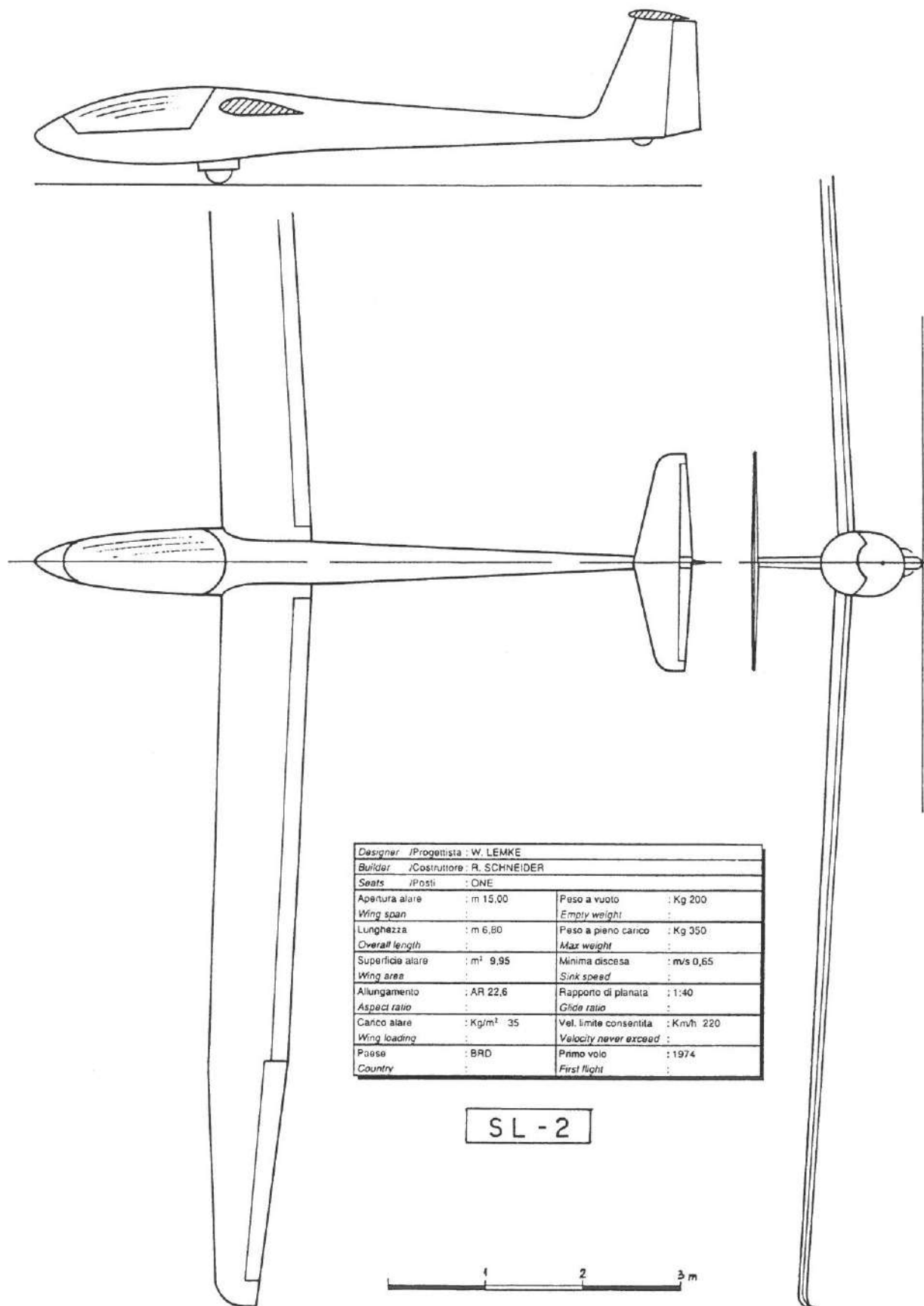






Designer / Progettista : SCHEMPP - HIRTH			
Builder / Costruttore : SCHEMPP - HIRTH			
Seats / Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 205
Wing span	:	Empty weight	:
Lunghezza	: m 6,20	Peso a pieno carico	: Kg 323
Overall length	:	Max weight	:
Superficie alare	: m ² 14,60	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 16,7	Rapporto di planata	: 1:34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 22	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1959
Country	:	First flight	:

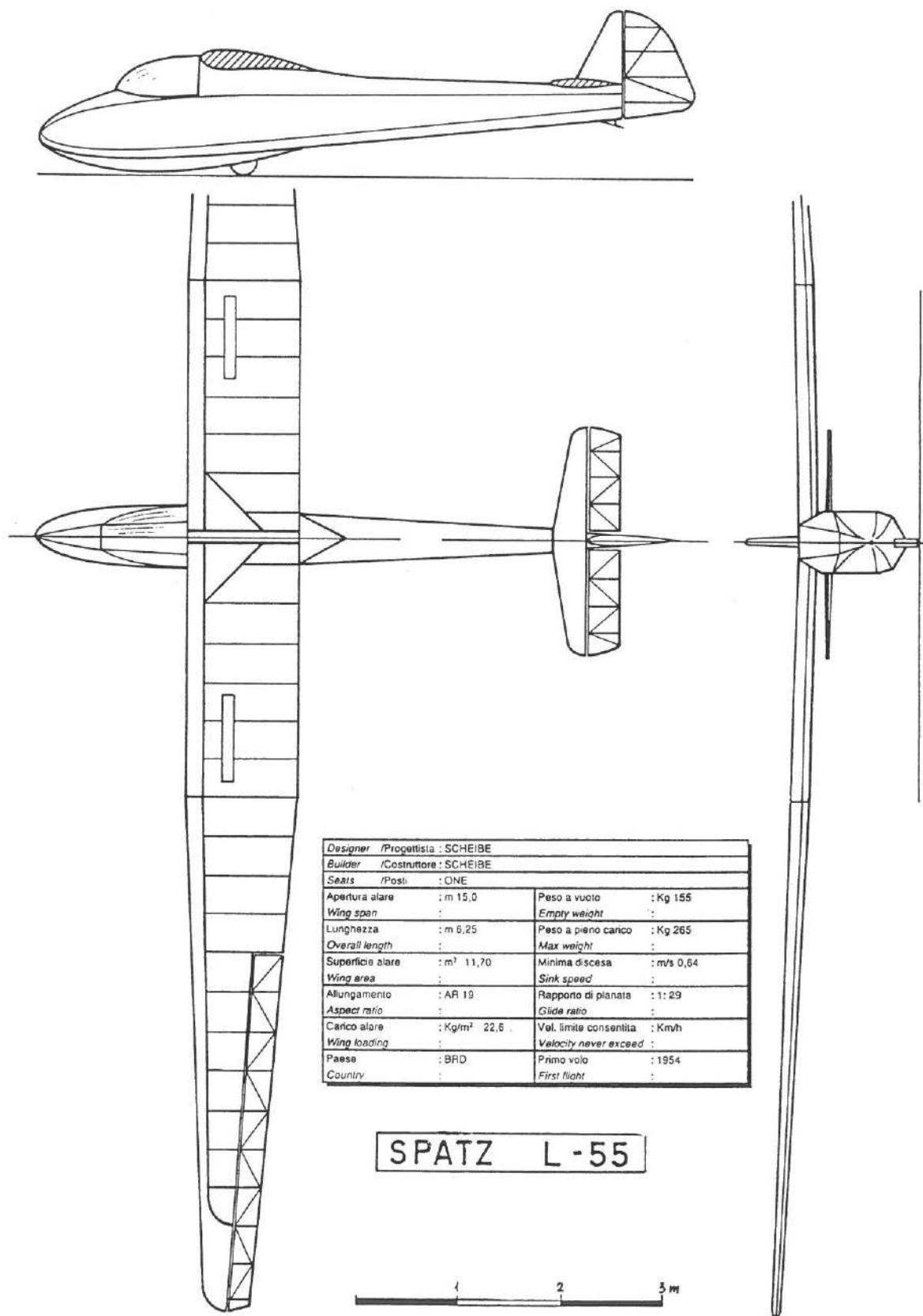




Designer / Progettista : W. LEMKE			
Builder / Costruttore : R. SCHNEIDER			
Seats / Posti	ONE		
Apertura alare	: m 15,00	Peso a vuoto	: Kg 200
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg 350
Overall length	:	Max weight	:
Superficie alare	: m ² 9,95	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 22,6	Rapporto di planata	: 1:40
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 35	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1974
Country	:	First flight	:

SL - 2

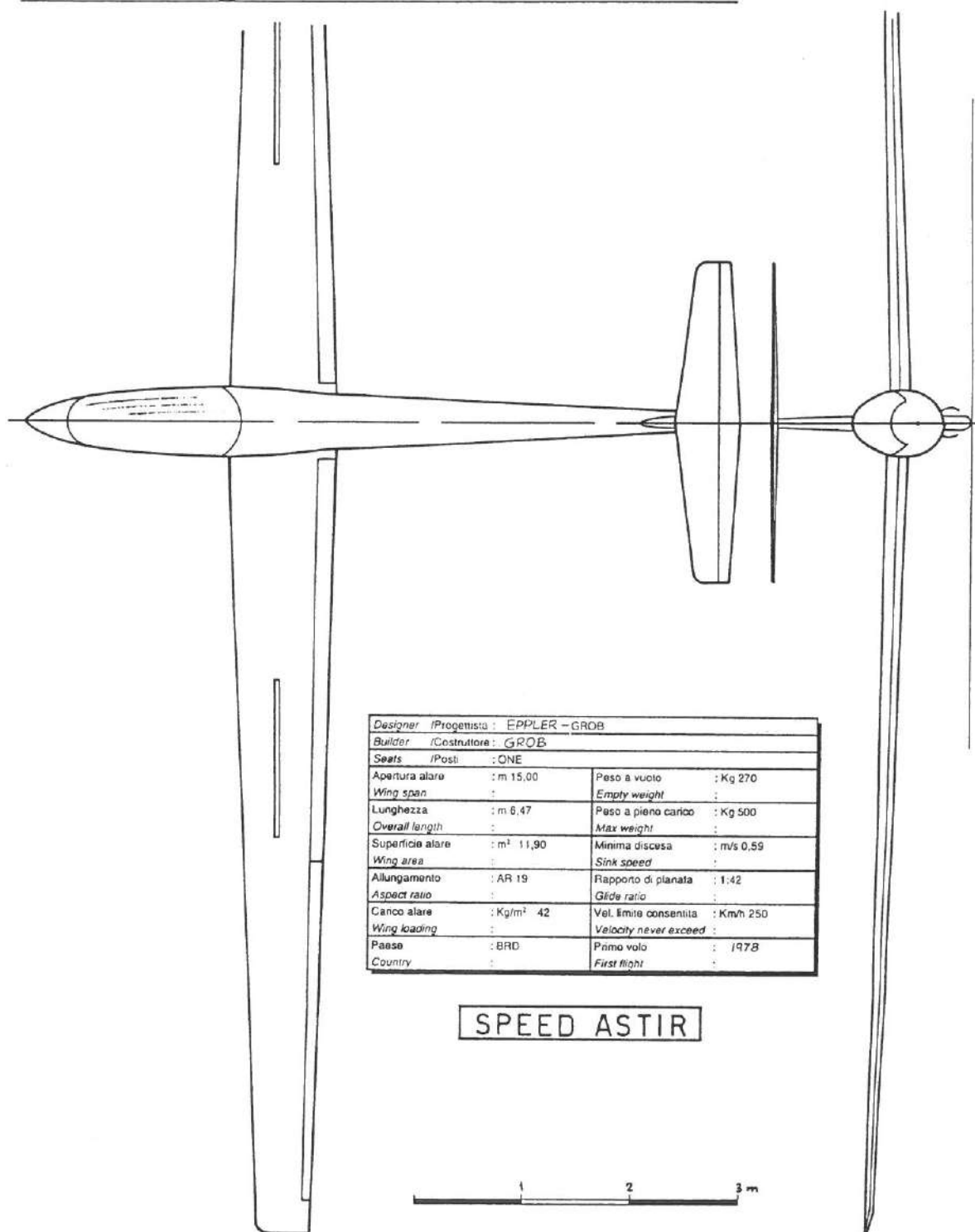
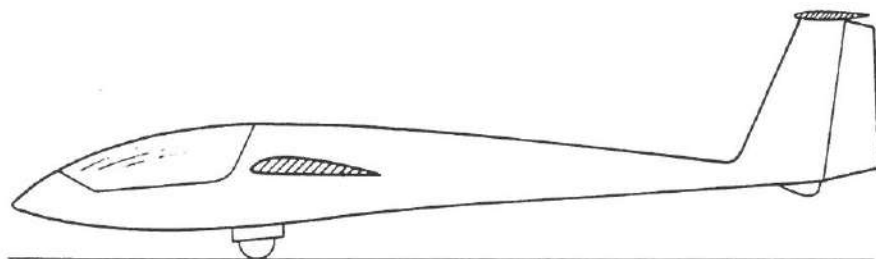




Designer / Progettista	SCHEIBE	
Builder / Costruttore	SCHEIBE	
Seats / Posti	ONE	
Apertura alare	: m 15,0	Peso a vuoto : Kg 155
Wing span	:	Empty weight :
Lunghezza	: m 6,25	Peso a pieno carico : Kg 265
Overall length	:	Max weight :
Superficie alare	: m ² 11,70	Minima discesa : m/s 0,64
Wing area	:	Sink speed :
Allungamento	: AR 19	Rapporto di planata : 1: 29
Aspect ratio	:	Glide ratio :
Carico alare	: Kg/m ² 22,6	Vel. limite consentita : Km/h
Wing loading	:	Velocity never exceed :
Paese	: BRD	Primo volo : 1954
Country	:	First flight :

SPATZ L-55

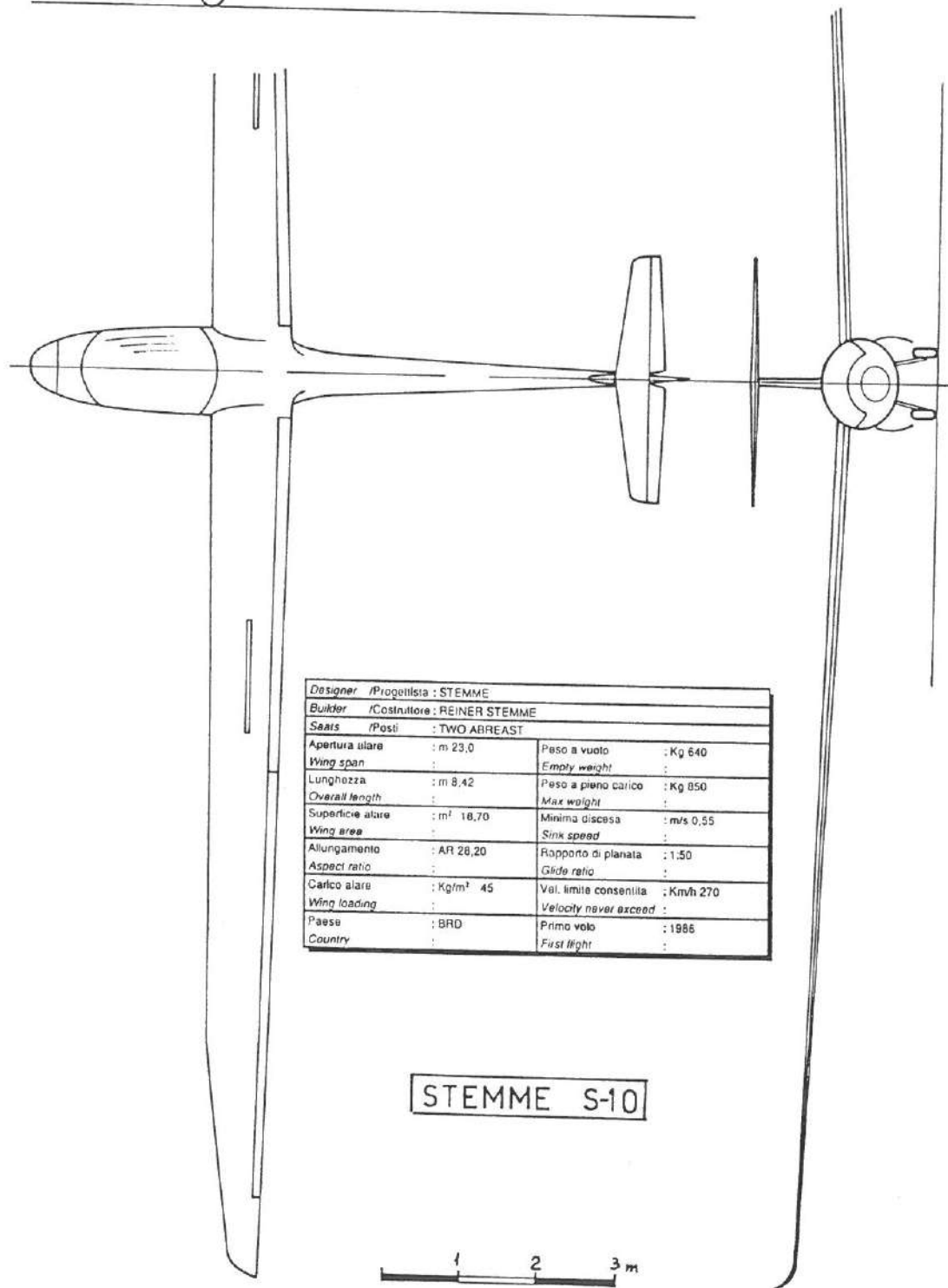
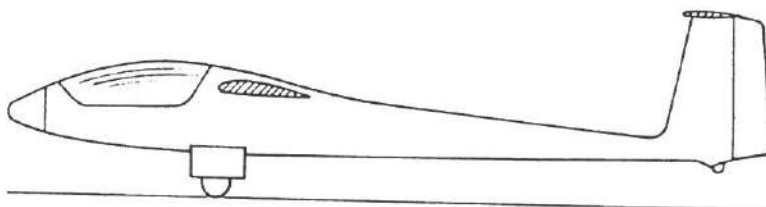


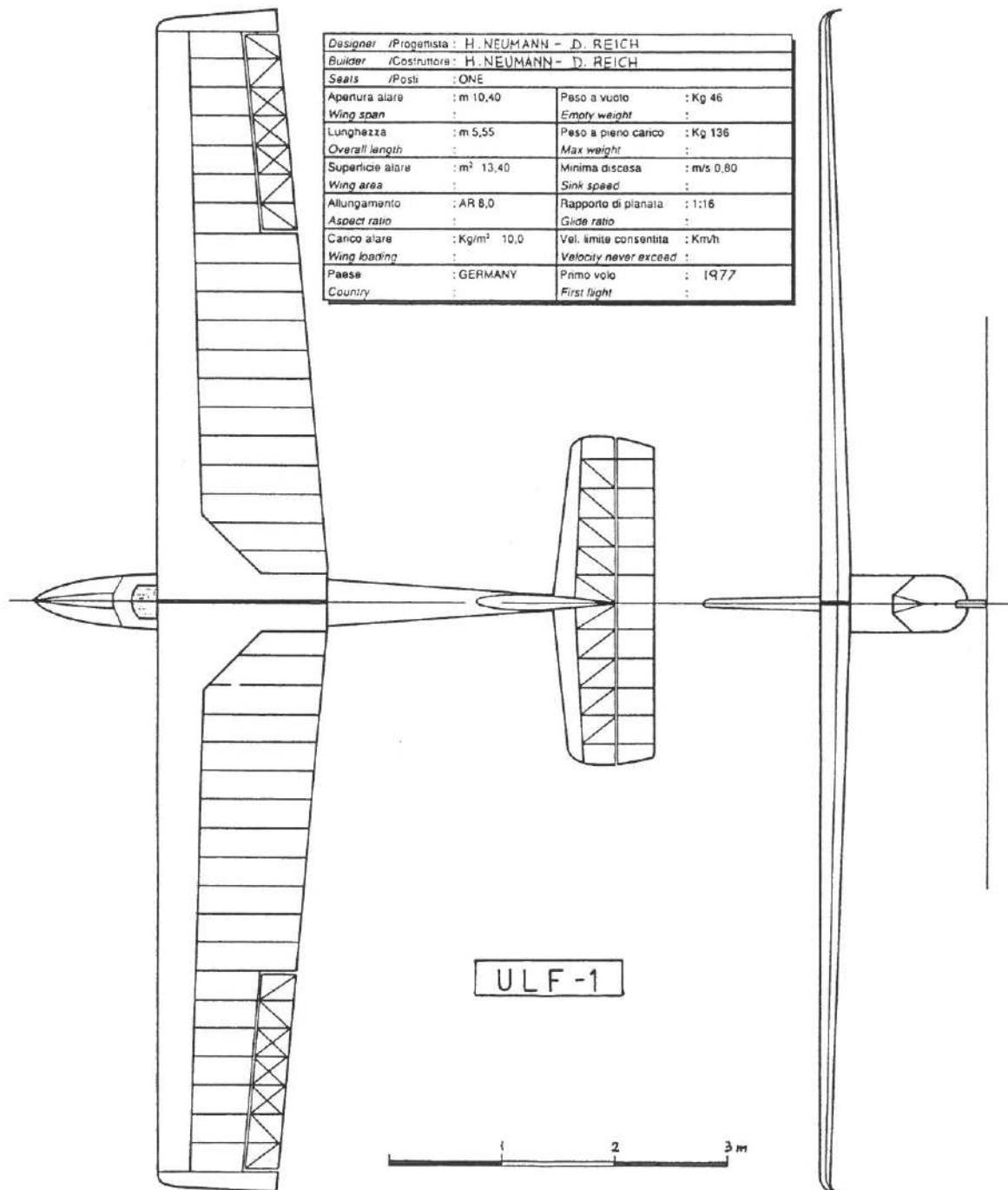
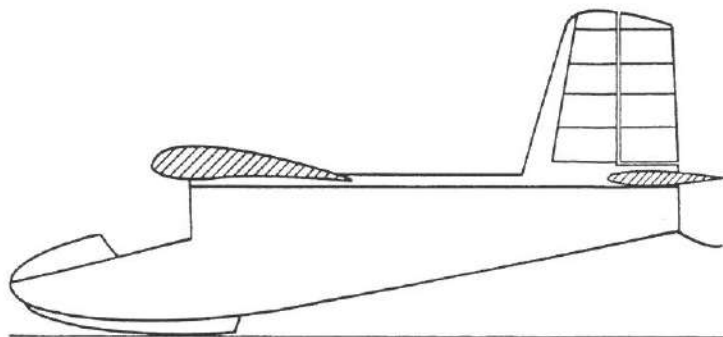


Designer / Progettista : EPPLER - GROB			
Builder / Costruttore : GROB			
Seats / Posti : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 270
Wing span	:	Empty weight	:
Lunghezza	: m 6,47	Peso a pieno carico	: Kg 500
Overall length	:	Max weight	:
Superficie alare	: m ² 11,90	Minima discesa	: m/s 0,59
Wing area	:	Sink speed	:
Allungamento	: AR 19	Rapporto di planata	: 1:42
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ² 42	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1978
Country	:	First flight	:

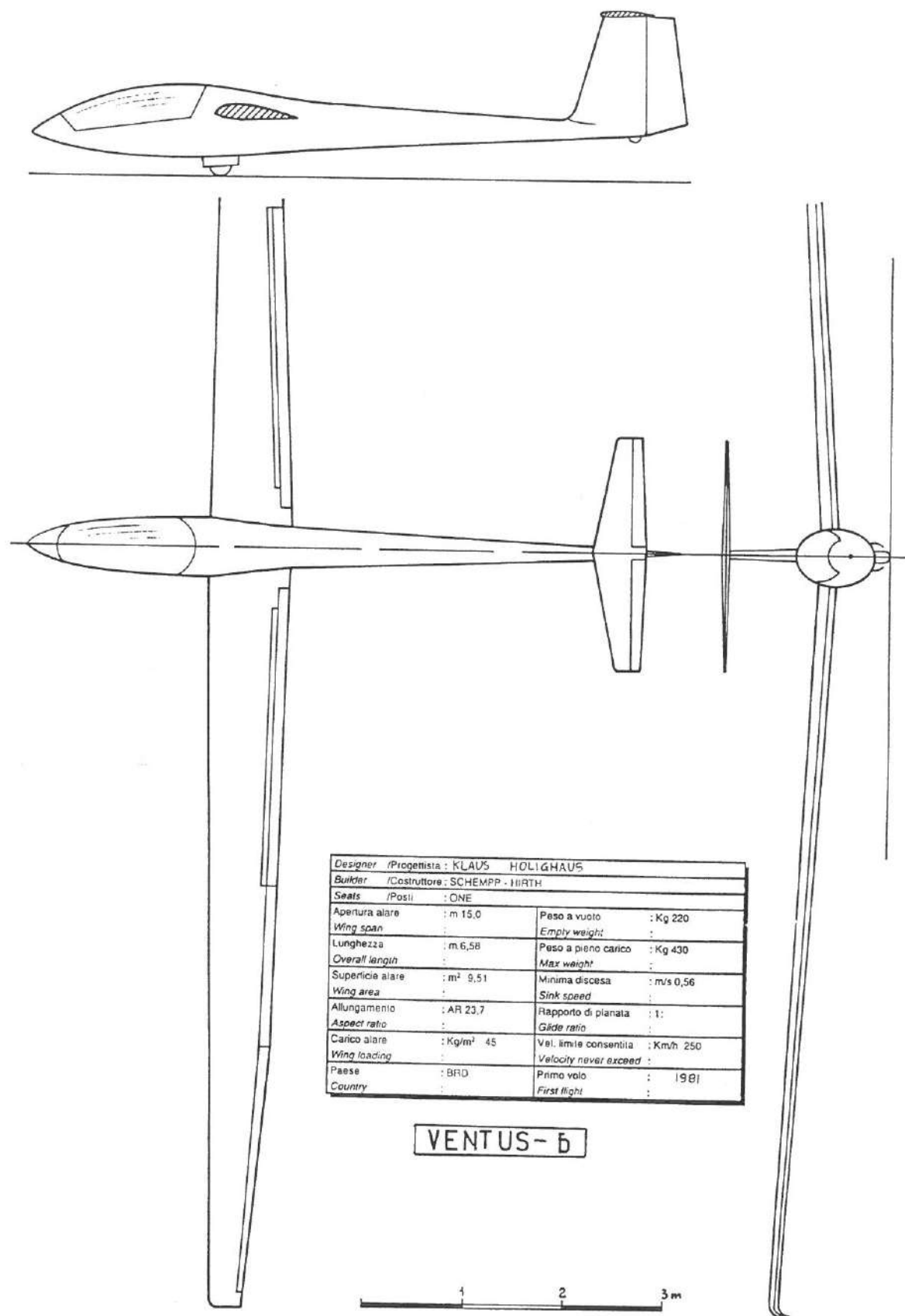
SPEED ASTIR







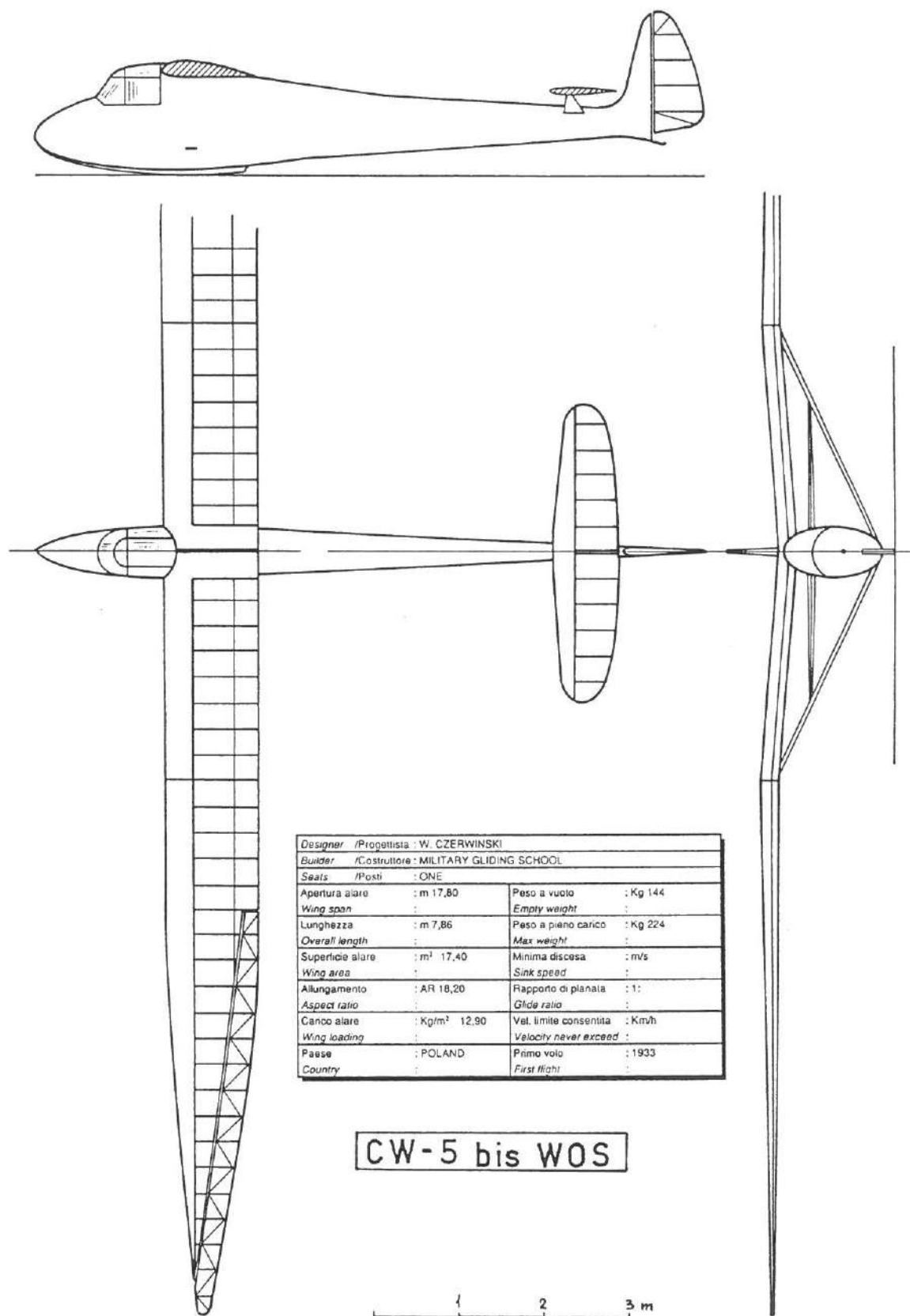
Designer / Progettista :	H. NEUMANN - D. REICH		
Builder / Costruttore :	H. NEUMANN - D. REICH		
Seats / Posti :	ONE		
Apertura alare :	m 10,40	Peso a vuoto :	Kg 46
Wing span :		Empty weight :	
Lunghezza :	m 5,55	Peso a pieno carico :	Kg 136
Overall length :		Max weight :	
Superficie alare :	m ² 13,40	Minima discesa :	m/s 0,80
Wing area :		Sink speed :	
Allungamento :	AR 8,0	Rapporto di planata :	1:16
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 10,0	Vel. limite consentita :	Kmh
Wing loading :		Velocity never exceed :	
Paese :	GERMANY	Primo volo :	1977
Country :		First flight :	



Designer /Progettista : KLAUS HOLIGHAUS			
Builder /Costruttore : SCHEMPF - HIRTH			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 220
Wing span	:	Empty weight	:
Lunghezza	: m 6,58	Peso a pieno carico	: Kg 430
Overall length	:	Max weight	:
Superficie alare	: m ² 9,51	Minima discesa	: m/s 0,56
Wing area	:	Sink speed	:
Allungamento	: AR 23,7	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 45	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Peese	: BRD	Primo volo	: 1981
Country	:	First flight	:

VENTUS-6

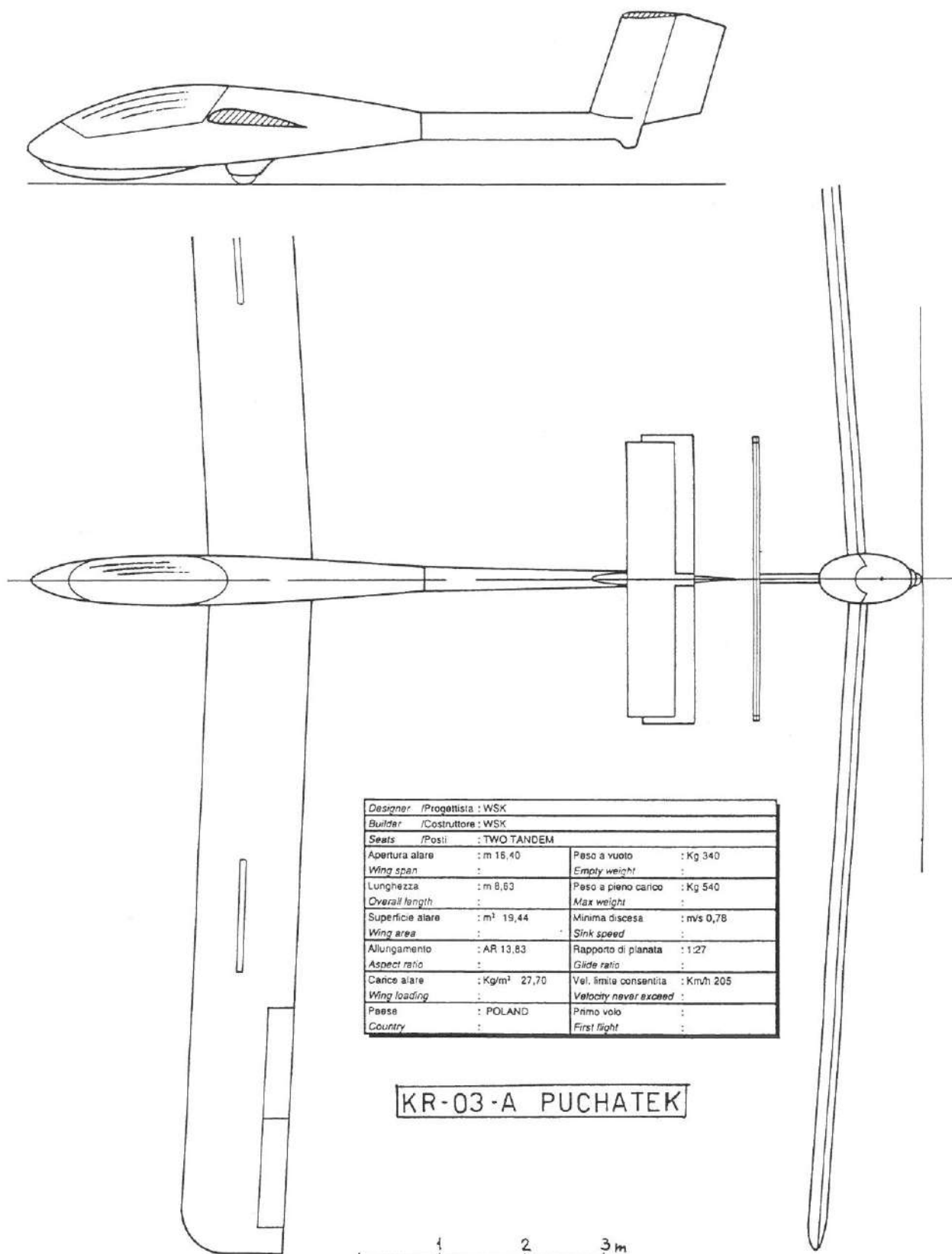
1 2 3 m



Designer / Progettista	: W. CZERWINSKI		
Builder / Costruttore	: MILITARY GLIDING SCHOOL		
Seats / Posti	: ONE		
Apertura alare	: m 17,80	Peso a vuoto	: Kg 144
Wing span	:	Empty weight	:
Lunghezza	: m 7,86	Peso a pieno carico	: Kg 224
Overall length	:	Max weight	:
Superficie alare	: m ² 17,40	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 18,20	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 12,90	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1933
Country	:	First flight	:

CW-5 bis WOS

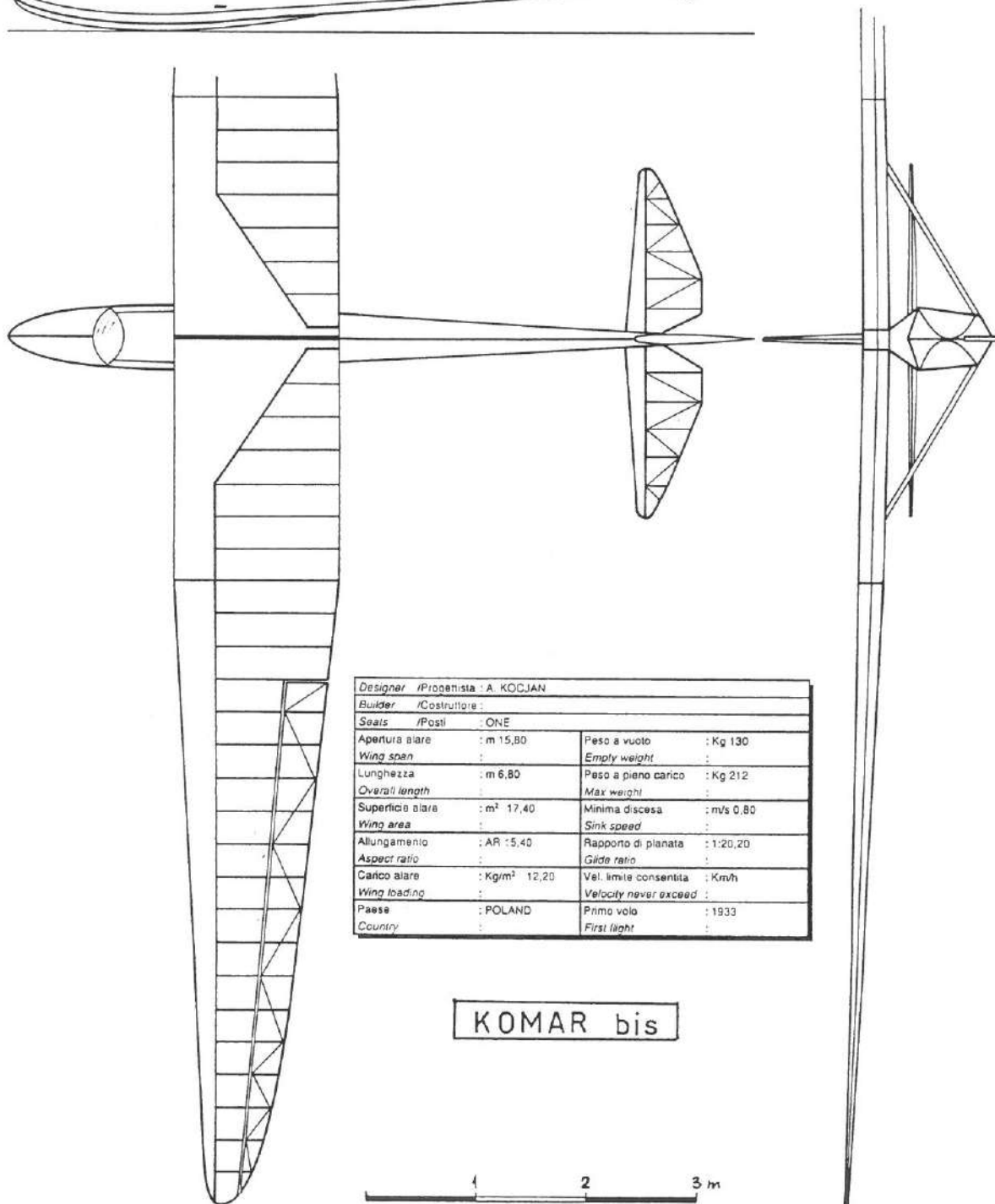
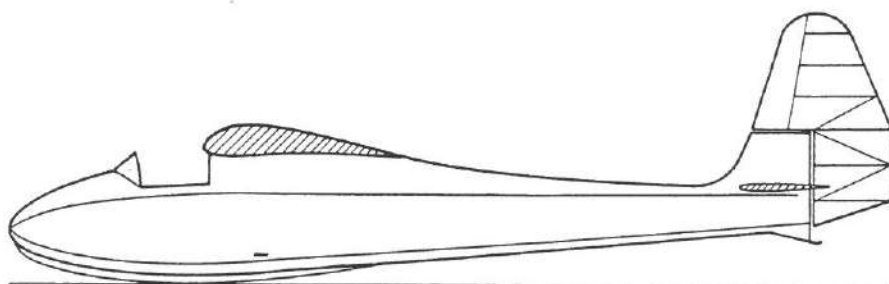
1 2 3 m



Designer /Progettista : WSK			
Builder /Costruttore : WSK			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 16,40	Peso a vuoto	: Kg 340
Wing span	:	Empty weight	:
Lunghezza	: m 8,63	Peso a pieno carico	: Kg 540
Overall length	:	Max weight	:
Superficie alare	: m ² 19,44	Minima discesa	: m/s 0,78
Wing area	:	Sink speed	:
Allungamento	: AR 13,83	Rapporto di planata	: 1:27
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,70	Vel. limite consentita	: Km/h 205
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	:
Country	:	First flight	:

KR-03-A PUCHATEK

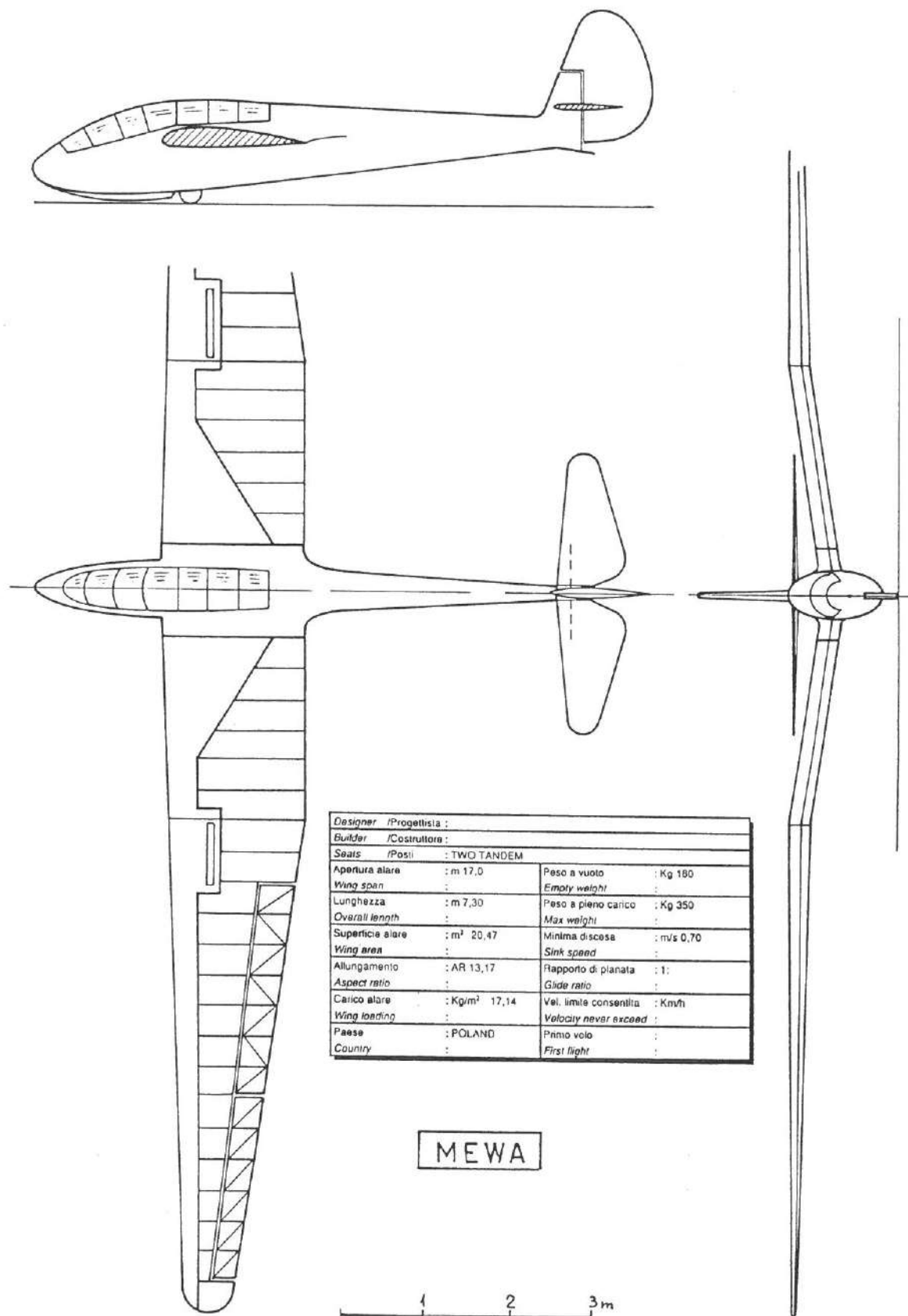
1 2 3 m

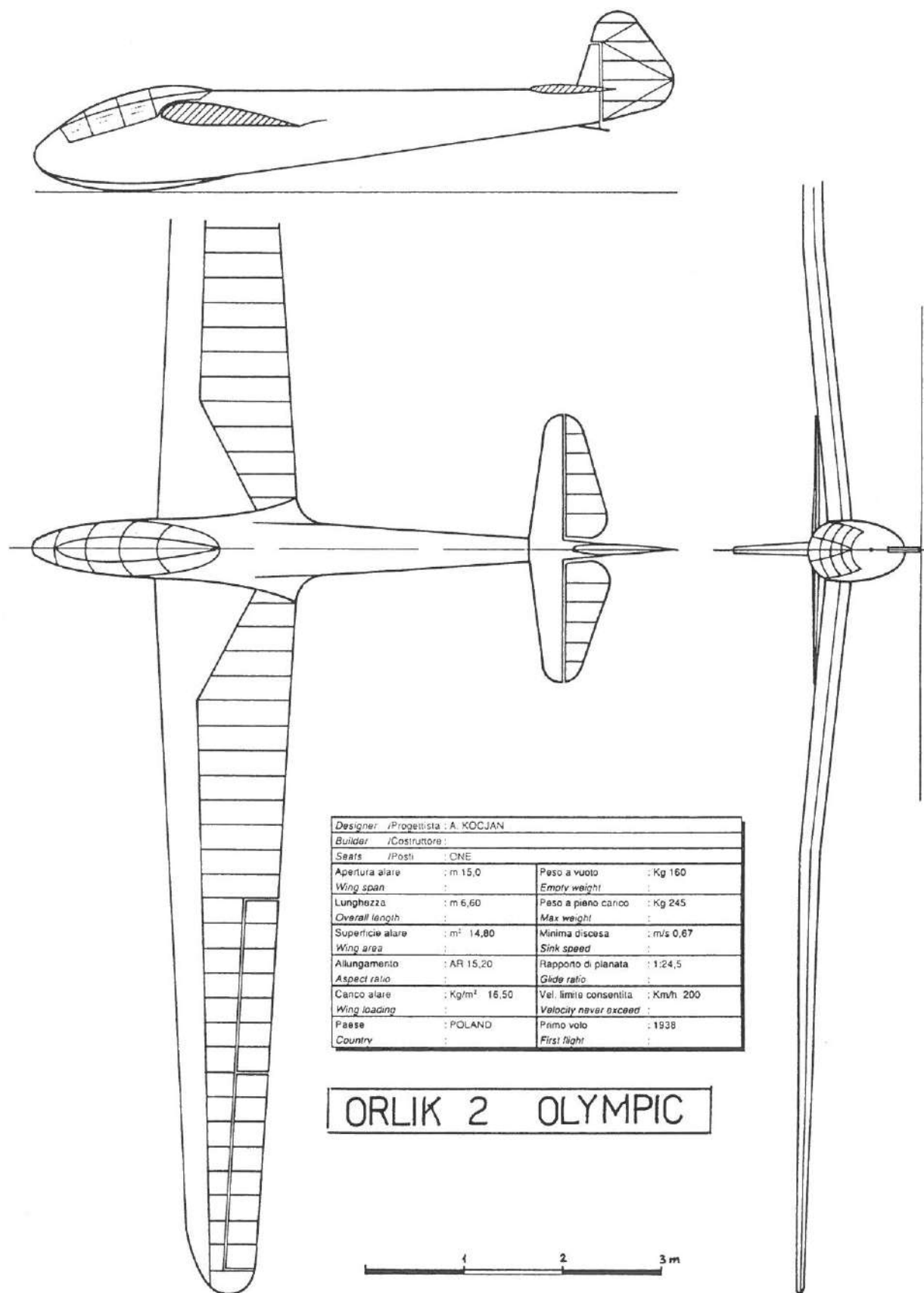


Designer /Progettista : A. KOCJAN			
Builder /Costruttore :			
Seats /Posti	ONE		
Apertura alare	: m 15,80	Peso a vuoto	: Kg 130
Wing span	:	Empty weight	:
Lunghezza	: m 6,80	Peso a pieno carico	: Kg 212
Overall length	:	Max weight	:
Superficie alare	: m ² 17,40	Minima discesa	: m/s 0,80
Wing area	:	Sink speed	:
Allungamento	: AR 15,40	Rapporto di planata	: 1:20,20
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 12,20	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1933
Country	:	First flight	:

KOMAR bis



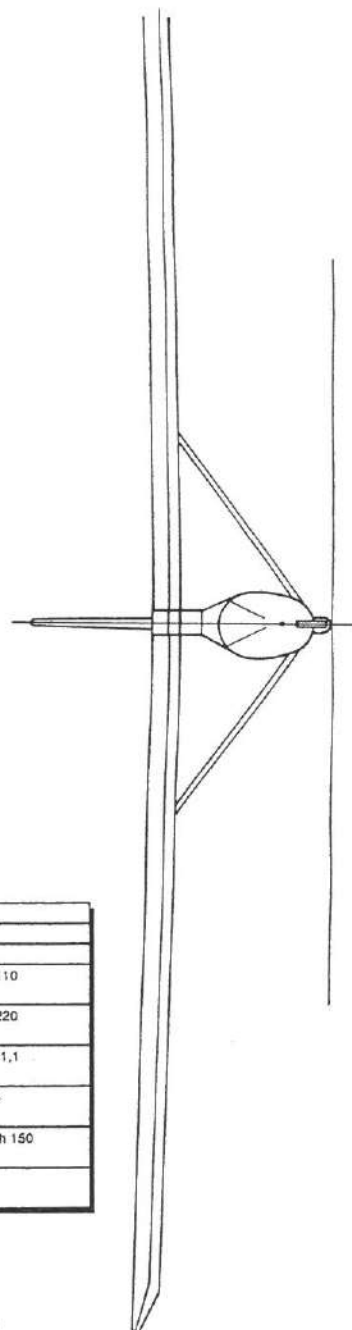
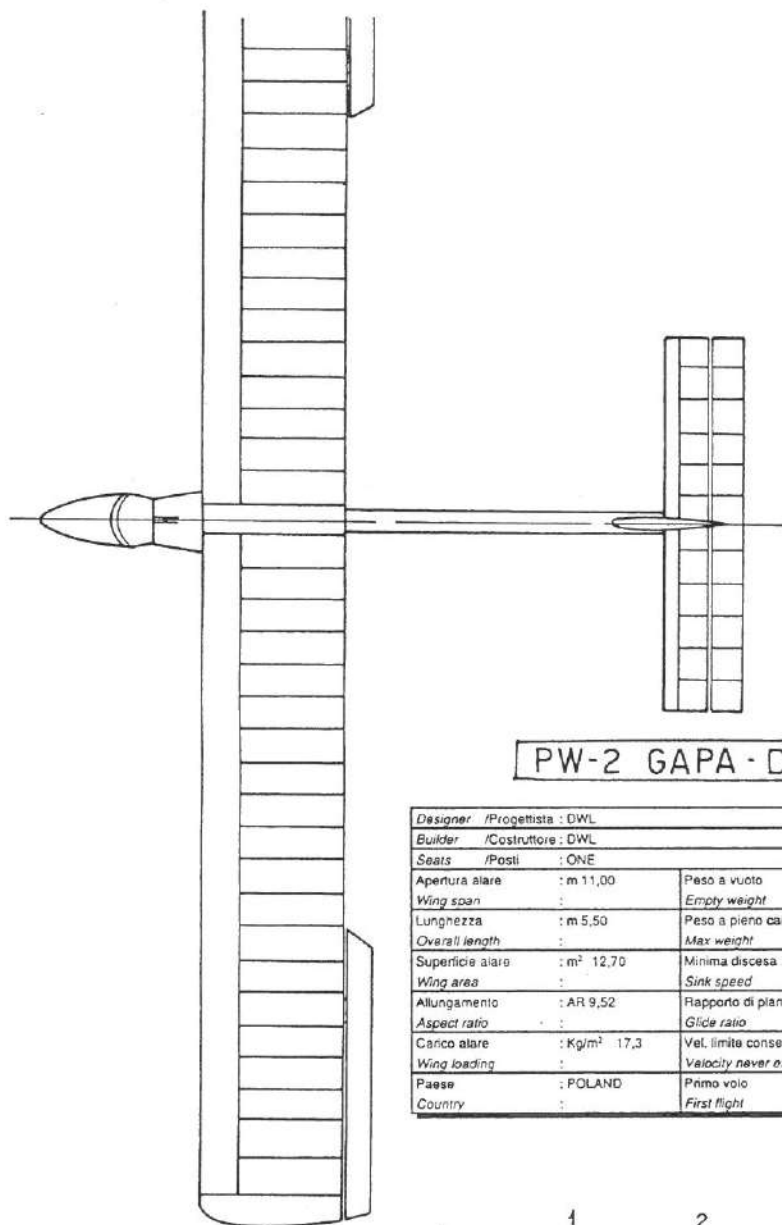
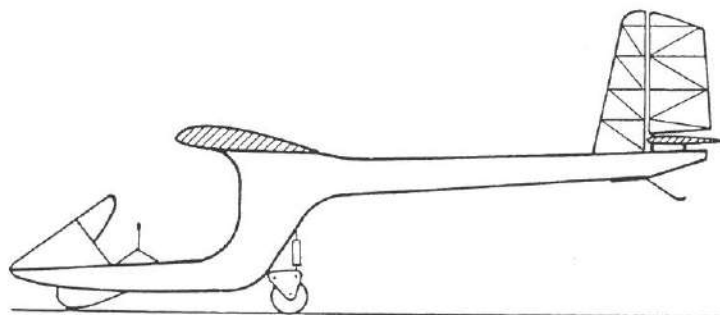




Designer /Progettista : A. KOCJAN			
Builder /Costruttore :			
Seats /Posti	: ONE		
Apertura alare	: m 15,0	Peso a vuoto	: Kg 160
Wing span	:	Empty weight	:
Lunghezza	: m 6,60	Peso a pieno carico	: Kg 245
Overall length	:	Max weight	:
Superficie alare	: m ² 14,80	Minima discesa	: m/s 0,67
Wing area	:	Sink speed	:
Allungamento	: AR 15,20	Rapporto di planata	: 1:24,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 16,50	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1938
Country	:	First flight	:

ORLIK 2 OLYMPIC

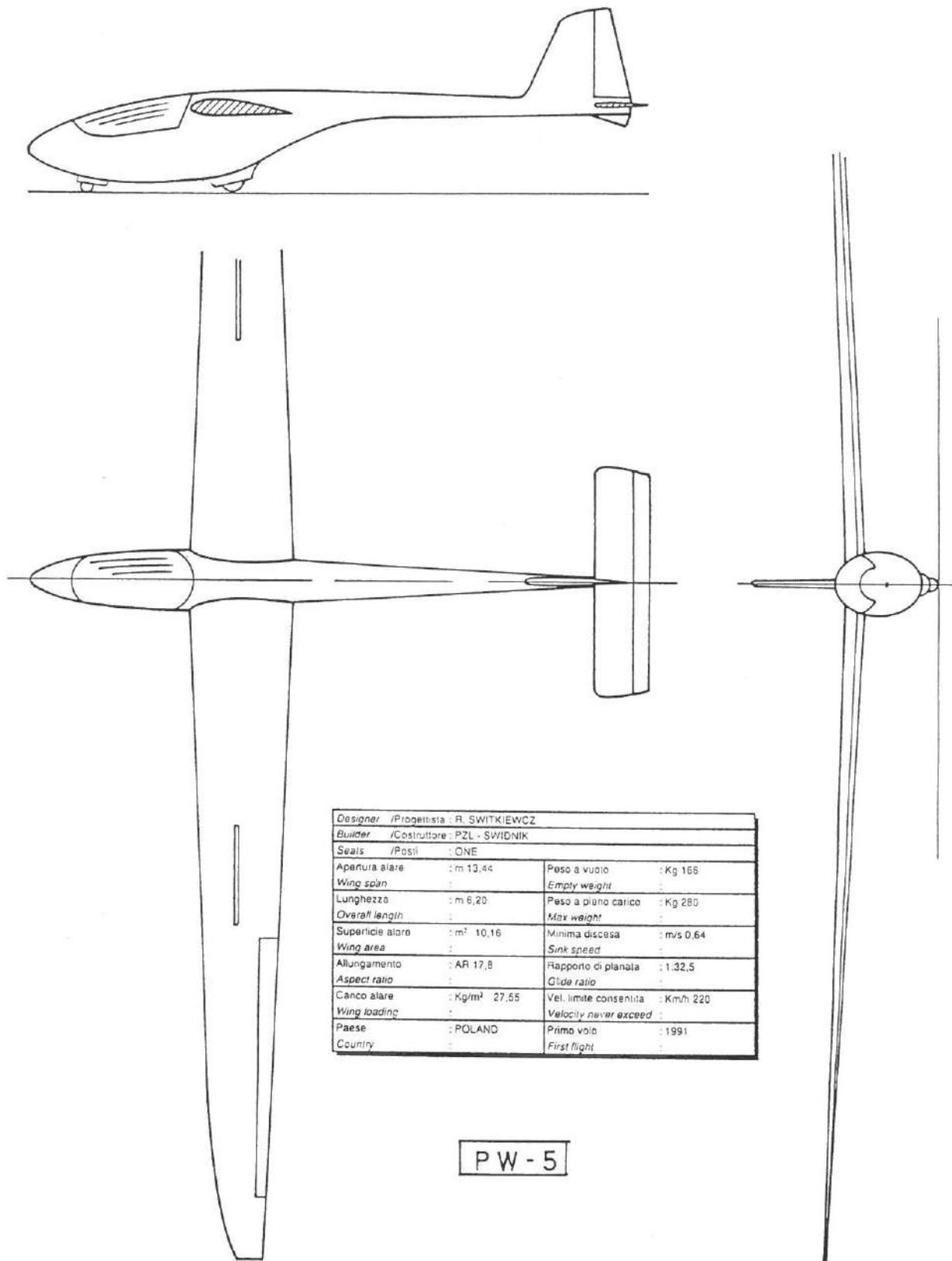
1 2 3 m



PW-2 GAPA-D

Designer / Progettista : DWL	
Builder / Costruttore : DWL	
Seats / Posti : ONE	
Apertura alare : m 11,00	Peso a vuoto : Kg 110
Wing span :	Empty weight :
Lunghezza : m 5,50	Peso a pieno carico : Kg 220
Overall length :	Max weight :
Superficie alare : m ² 12,70	Minima discesa : m/s 1,1
Wing area :	Sink speed :
Allungamento : AR 9,52	Rapporto di planata : 1:16
Aspect ratio :	Glide ratio :
Carico alare : Kg/m ² 17,3	Vel. limite consentita : Km/h 150
Wing loading :	Velocity never exceed :
Paese : POLAND	Primo volo :
Country :	First flight :

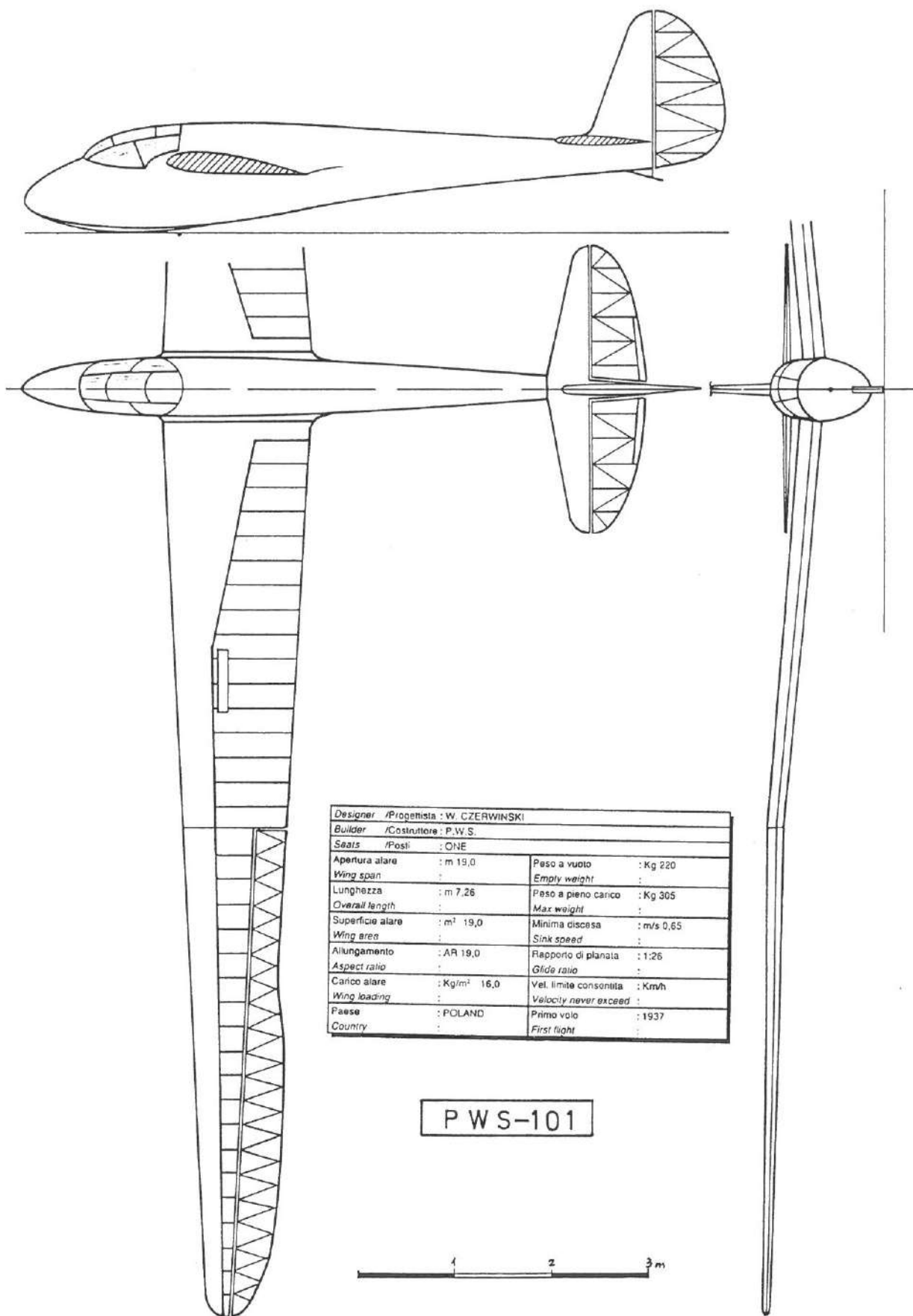
1 2 3 m



Designer	/Progettista : R. SWITKIEWCZ		
Builder	/Costruttore : PZL - SWIDNIK		
Seals	/Posit : ONE		
Apertura alare	: m 13,44	Peso a vuoto	: Kg 165
Wing span	:	Empty weight	:
Lunghezza	: m 6,20	Peso a pieno carico	: Kg 280
Oversail length	:	Max weight	:
Superficie alare	: m ² 10,16	Minima discesa	: m/s 0,64
Wing area	:	Sink speed	:
Allungamento	: AR 17,8	Rapporto di planata	: 1,32,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 27,55	Vel. limite consentita	: Km/h 220
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1991
Country	:	First flight	:

PW-5

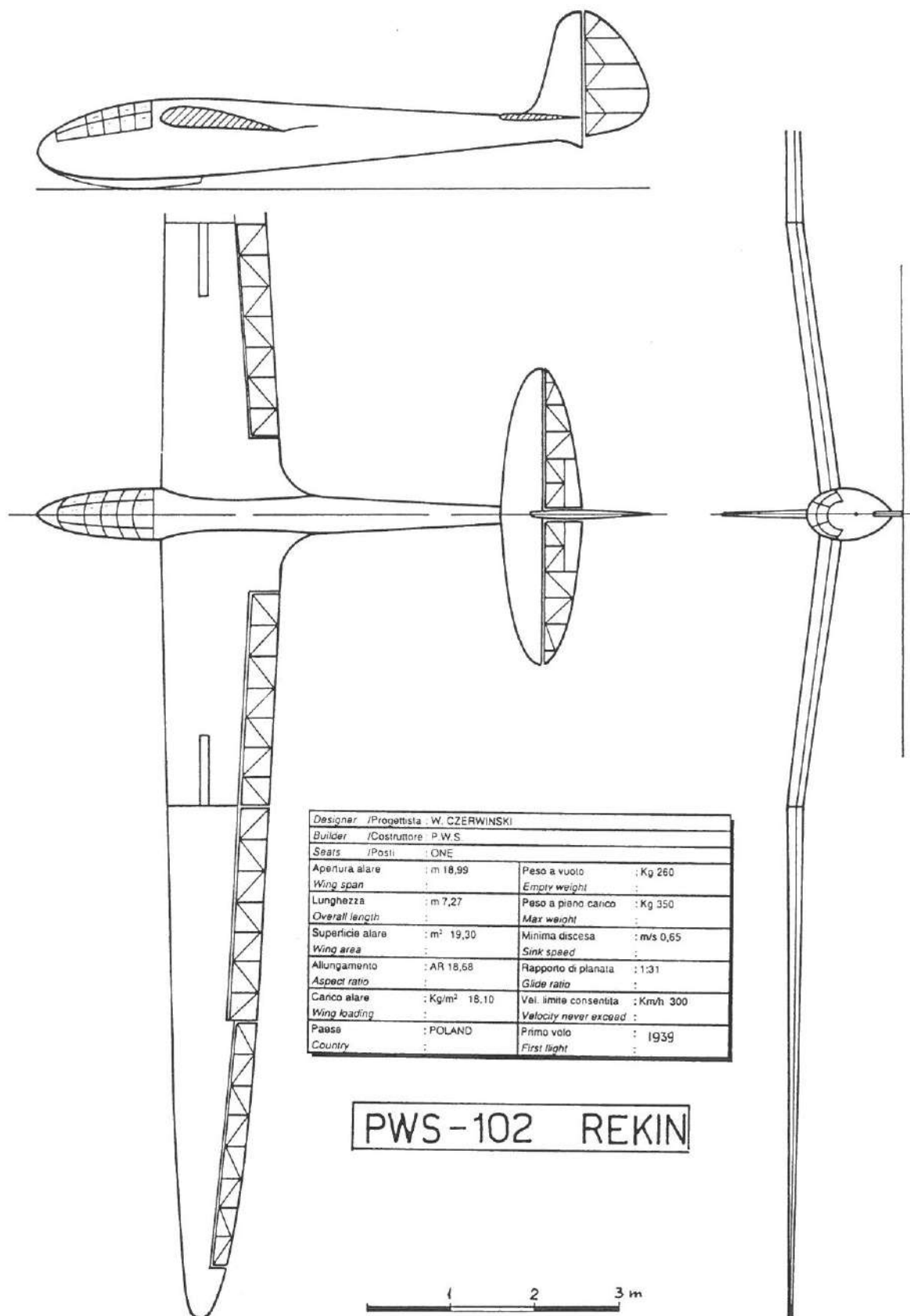
1 2 3 m



Designer /Progettista : W. CZERWINSKI			
Builder /Costruttore : P.W.S.			
Seats /Posti	: ONE		
Apertura alare	: m 19,0	Peso a vuoto	: Kg 220
Wing span	:	Empty weight	:
Lunghezza	: m 7,26	Peso a pieno carico	: Kg 305
Overall length	:	Max weight	:
Superficie alare	: m ² 19,0	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 19,0	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 16,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1937
Country	:	First flight	:

P W S-101

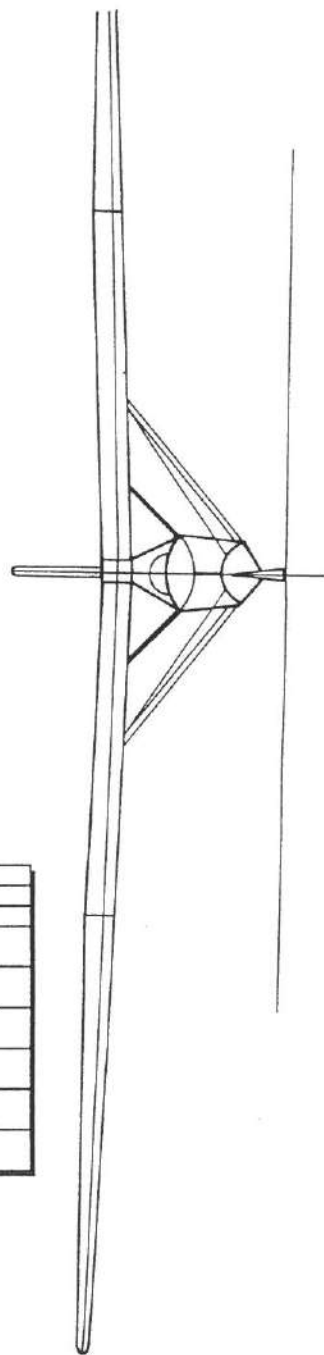
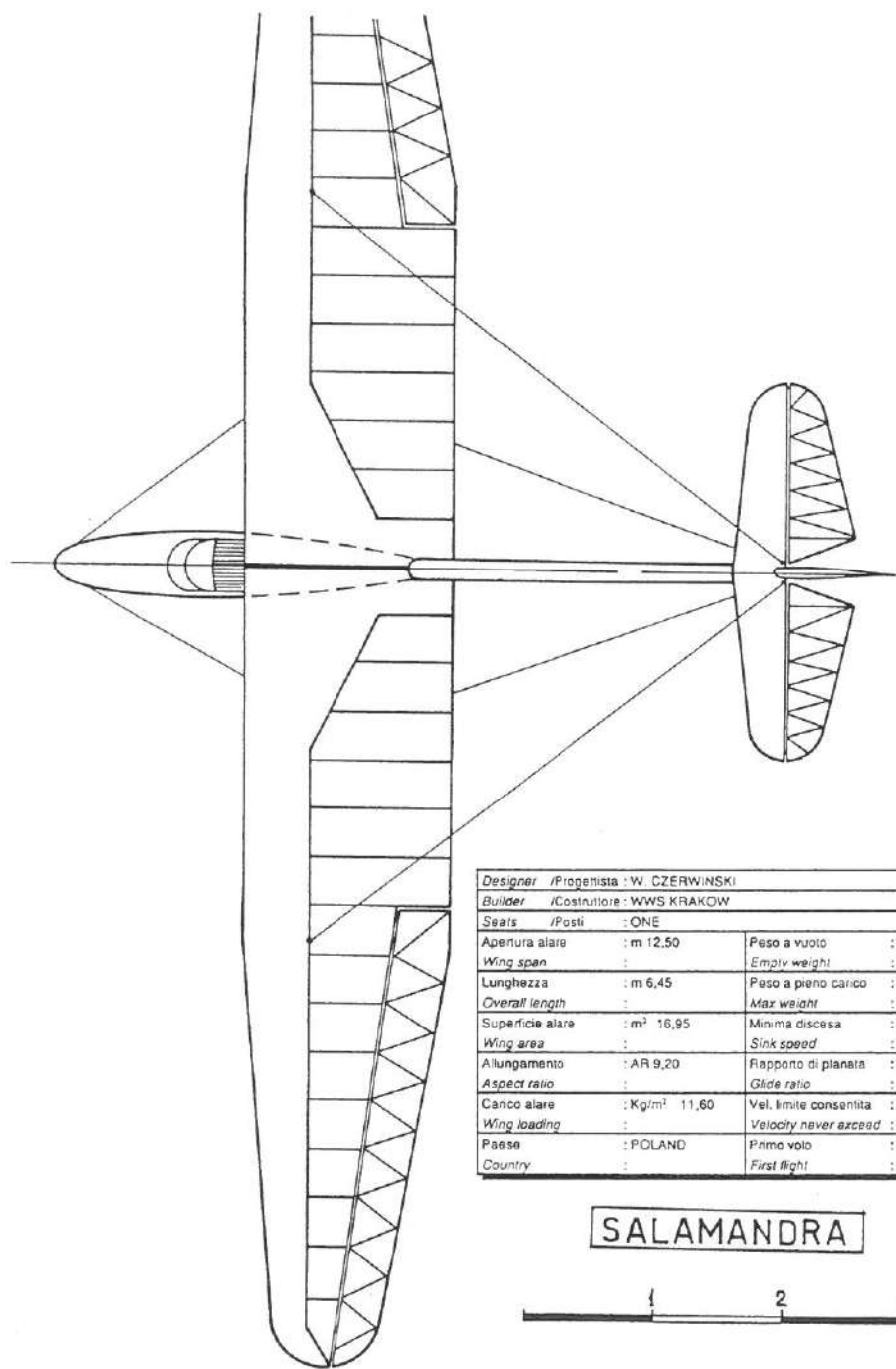
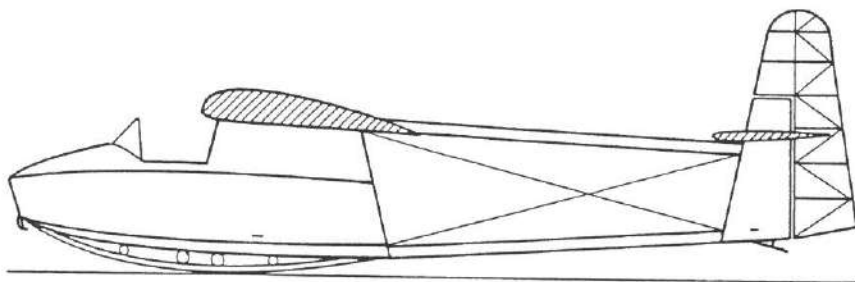




Designer / Progettista	W. CZERWINSKI		
Builder / Costruttore	P.W.S.		
Seats / Posti	ONE		
Apertura alare	: m 18,99	Peso a vuoto	: Kg 260
Wing span	:	Empty weight	:
Lunghezza	: m 7,27	Peso a pieno carico	: Kg 350
Overall length	:	Max weight	:
Superficie alare	: m ² 19,30	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 18,68	Rapporto di planata	: 1:31
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,10	Vel. limite consentita	: Km/h 300
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1939
Country	:	First flight	:

PWS-102 REKIN

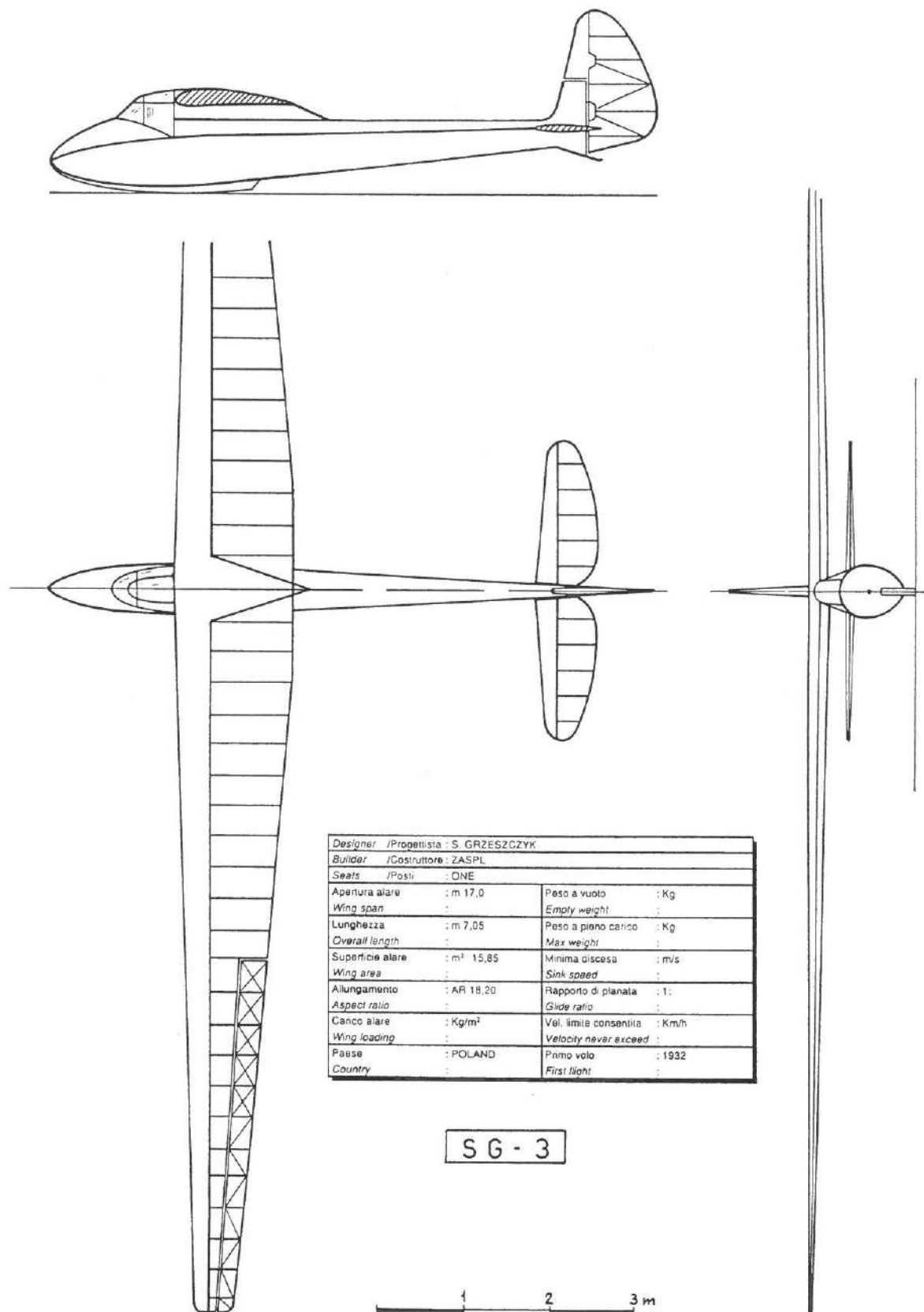
1 2 3 m



Designer / Progettista : W. CZERWINSKI			
Builder / Costruttore : WWS KRAKOW			
Seats / Posti : ONE			
Apertura alare	: m 12,50	Peso a vuoto	: Kg 110
Wing span	:	Empty weight	:
Lunghezza	: m 6,45	Peso a pieno carico	: Kg 195
Overall length	:	Max weight	:
Superficie alare	: m ² 16,95	Minima discesa	: m/s 0,83
Wing area	:	Sink speed	:
Allungamento	: AR 9,20	Rapporto di planata	: 1:16,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 11,60	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1936
Country	:	First flight	:

SALAMANDRA

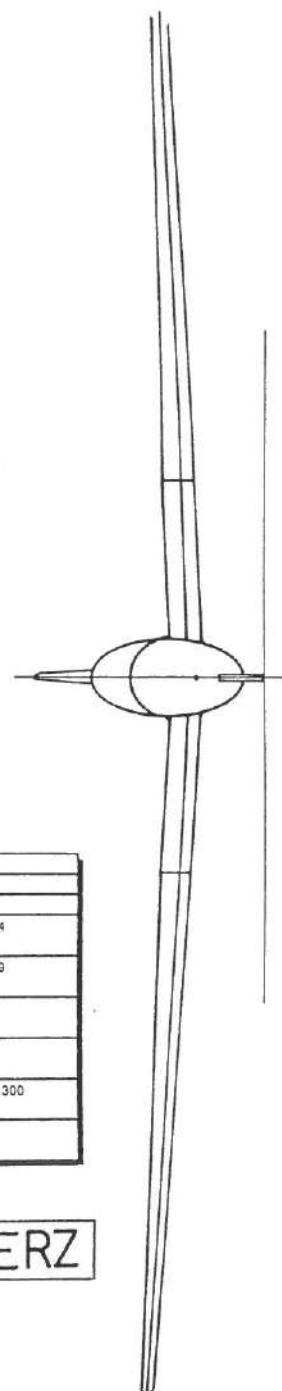
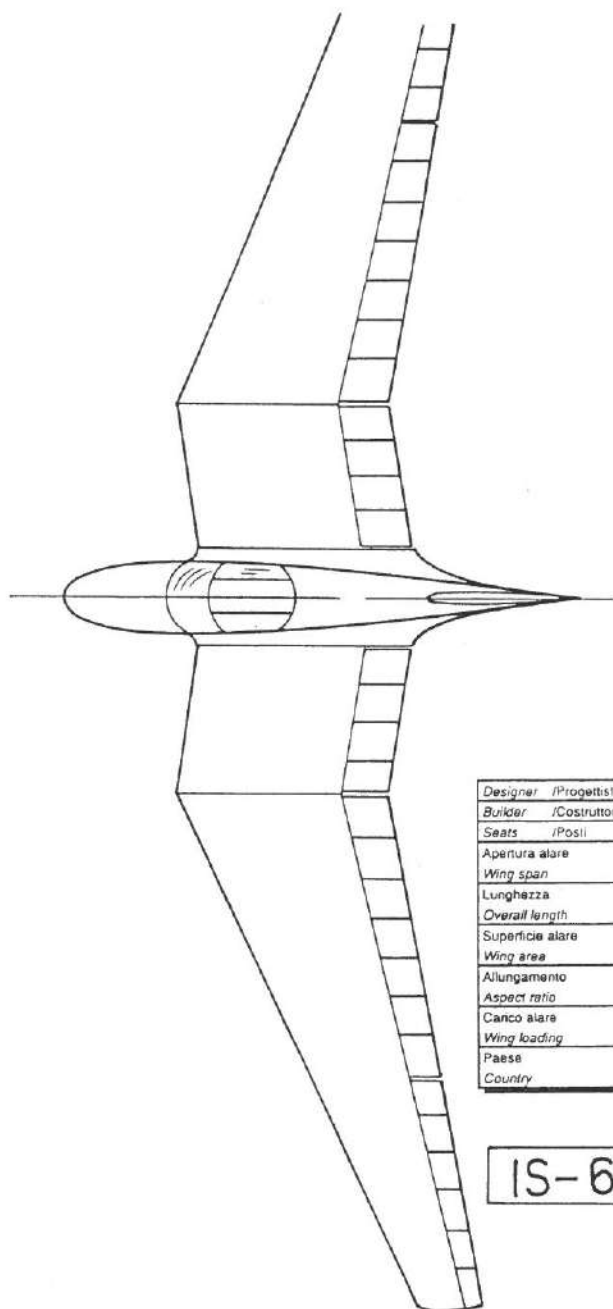
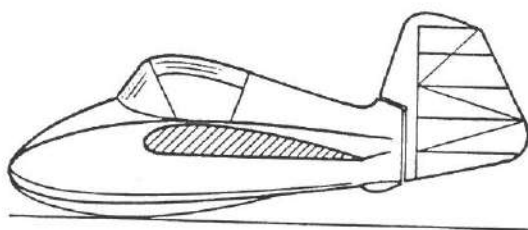




Designer / Progettista	S. GRZESZCZYK		
Builder / Costruttore	ZASPL		
Seats / Posti	ONE		
Apertura alare	: m 17,0	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 7,05	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 15,85	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: ARI 18,20	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1932
Country	:	First flight	:

SG - 3

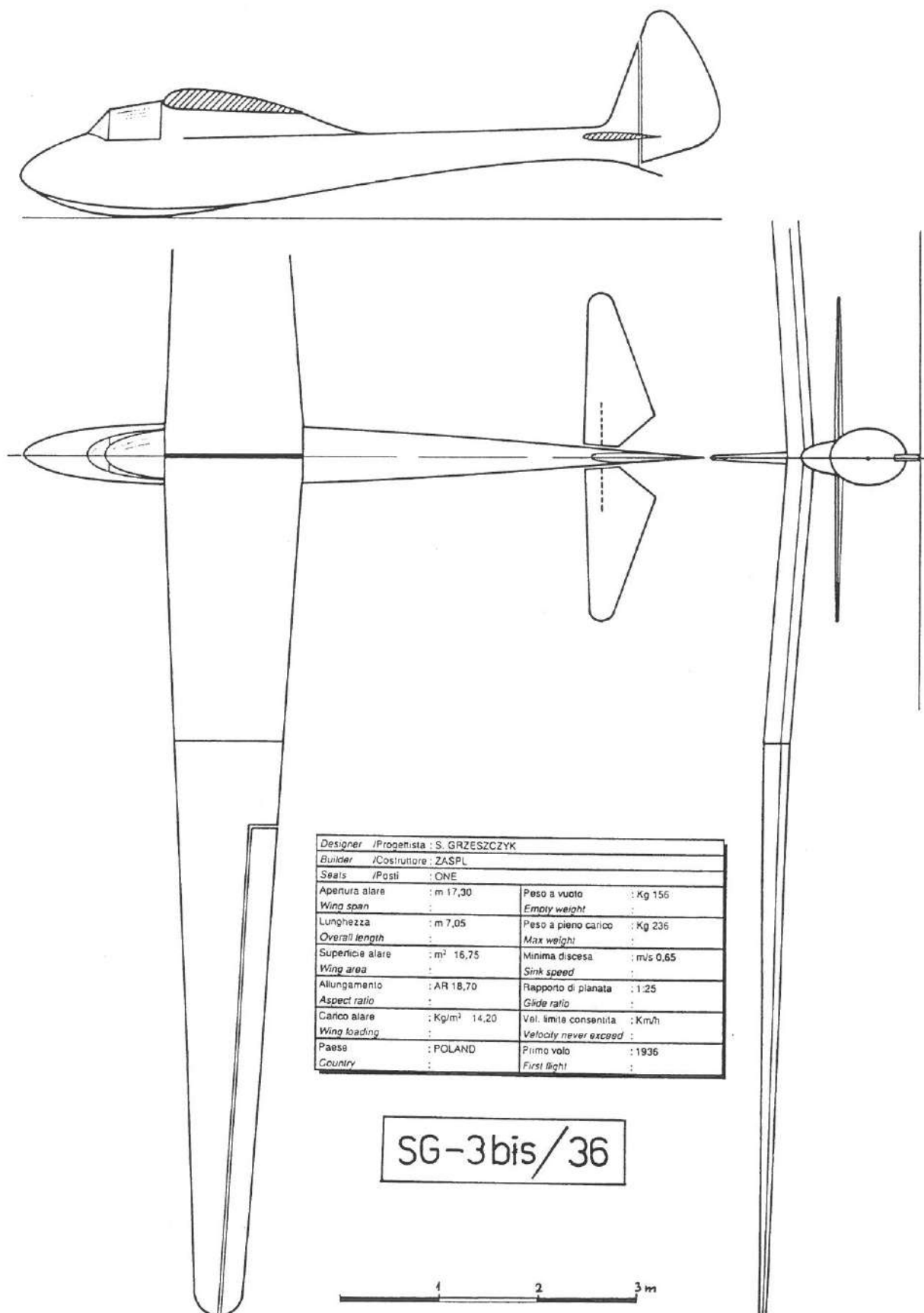
1 2 3 m



Designer /Progettista :	IS		
Builder /Costruttore :	SZD		
Seats /Posti :	ONE		
Apertura alare	: m 12,0	Peso a vuoto	: Kg 194
Wing span	:	Empty weight	:
Lunghezza	: m 4,05	Peso a pieno carico	: Kg 269
Overall length	:	Max weight	:
Superficie alare	: m ² 14,40	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 10,0	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 18,60	Vel. limite consentita	: Km/h 300
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	:
Country	:	First flight	:

IS-6-X NIETOPERZ

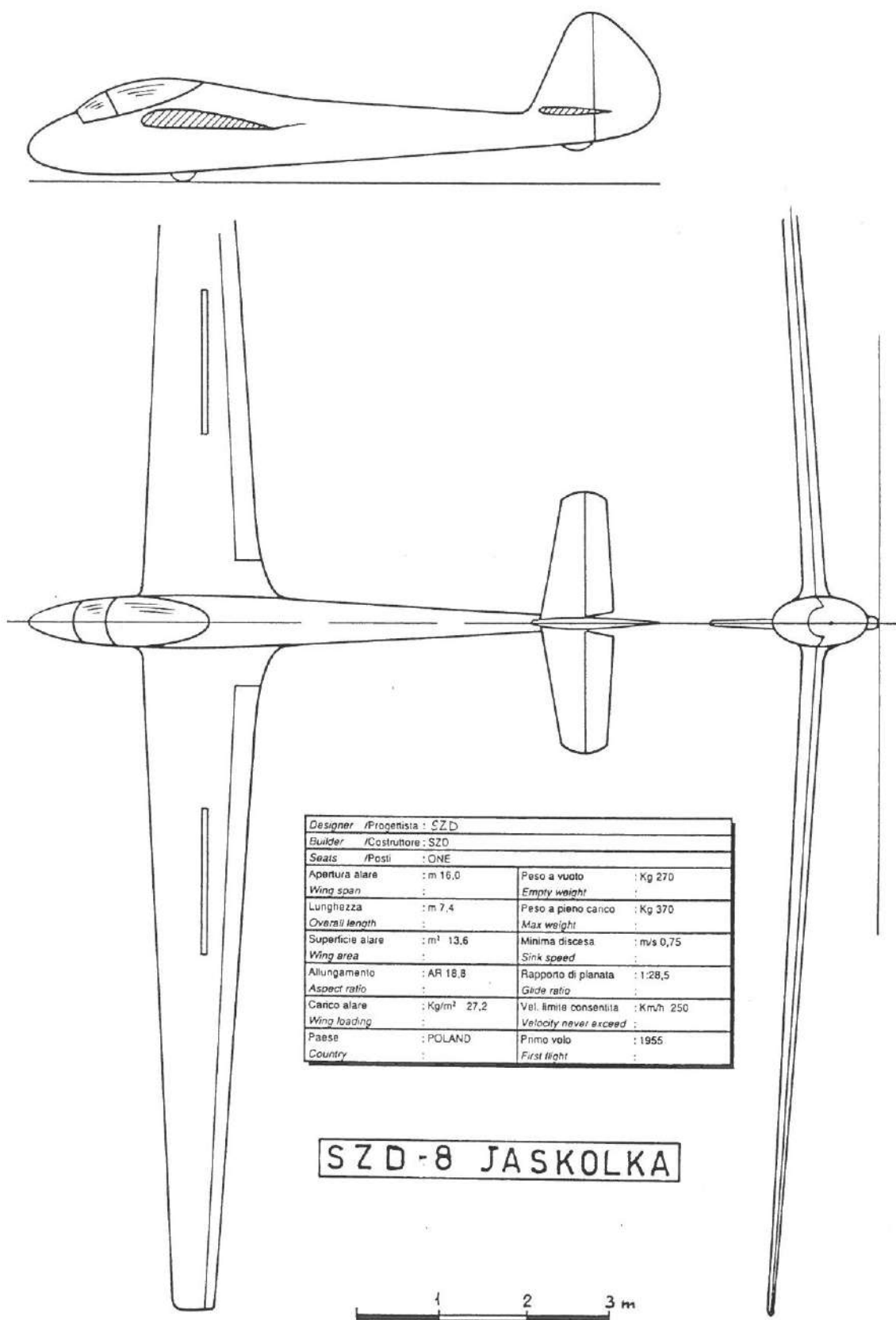


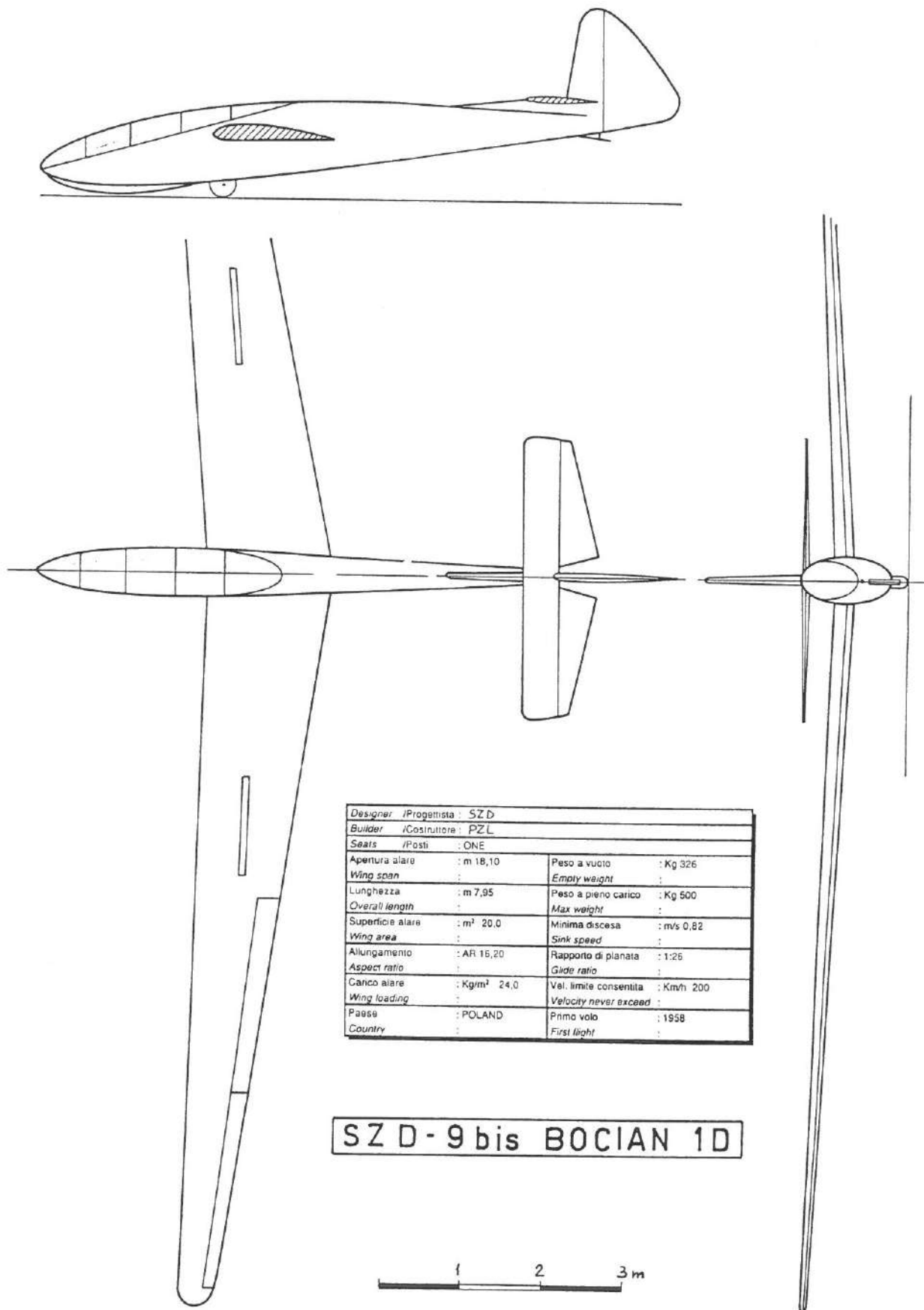


Designer / Progettista	: S. GRZESZCZYK		
Builder / Costruttore	: ZASPL		
Seats / Posti	: ONE		
Apertura alare	: m 17,30	Peso a vuoto	: Kg 156
Wing span	:	Empty weight	:
Lunghezza	: m 7,05	Peso a pieno carico	: Kg 236
Overall length	:	Max weight	:
Superficie alare	: m ² 16,75	Minima discesa	: m/s 0,65
Wing area	:	Sink speed	:
Allungamento	: AR 18,70	Rapporto di planata	: 1:25
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 14,20	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1936
Country	:	First flight	:

SG-3bis/36

1 2 3 m

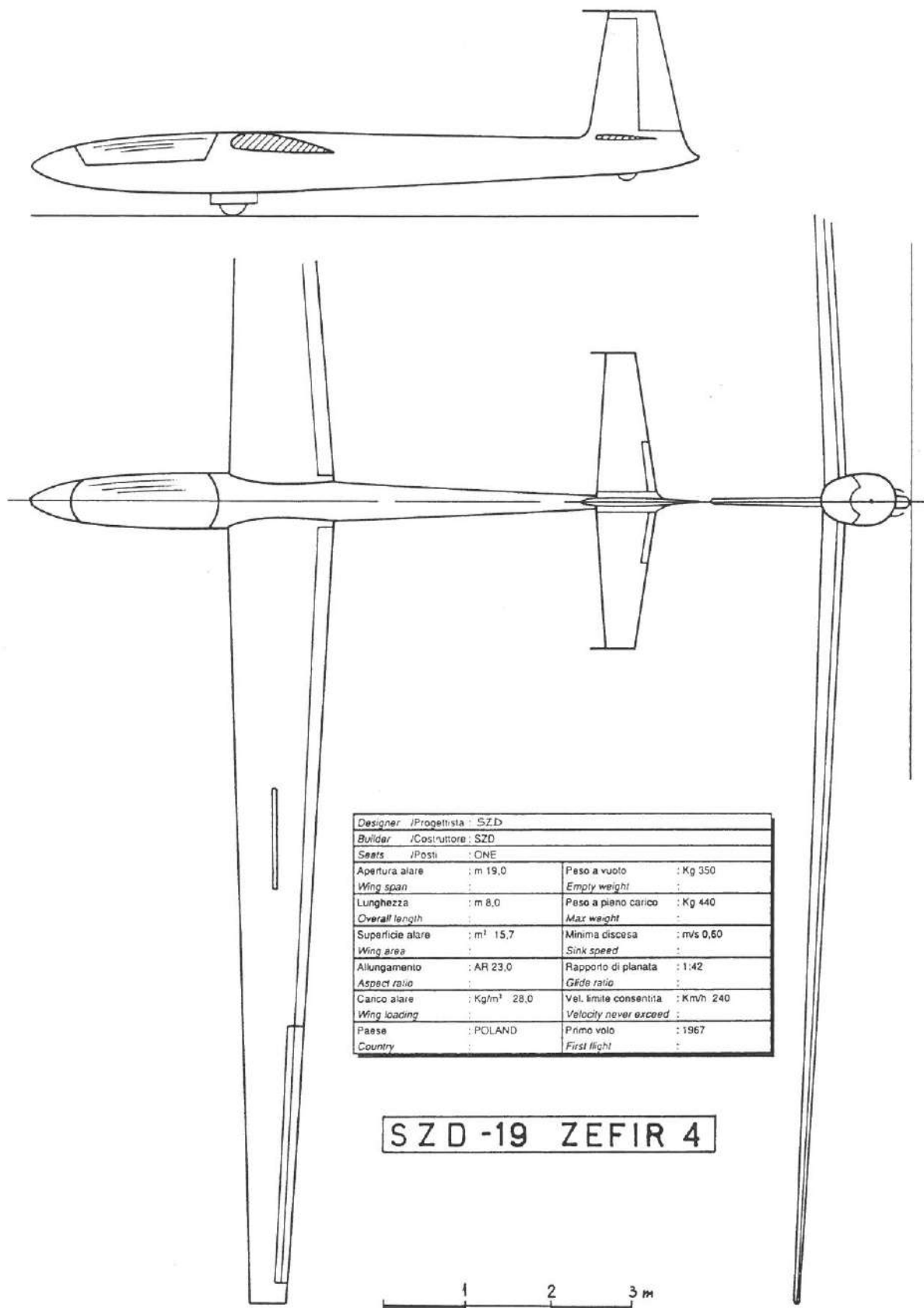


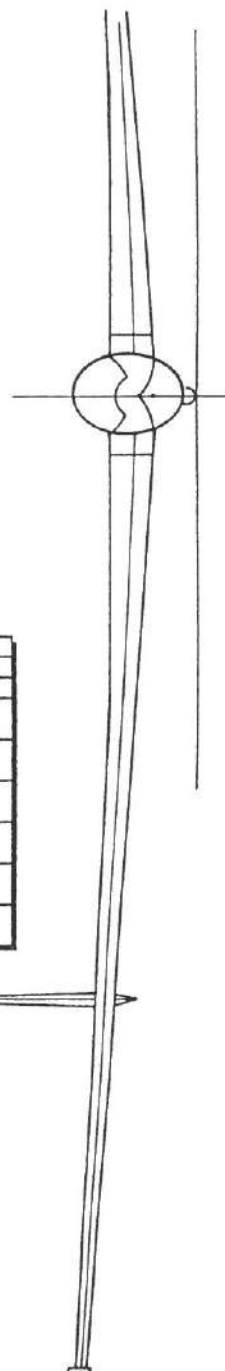
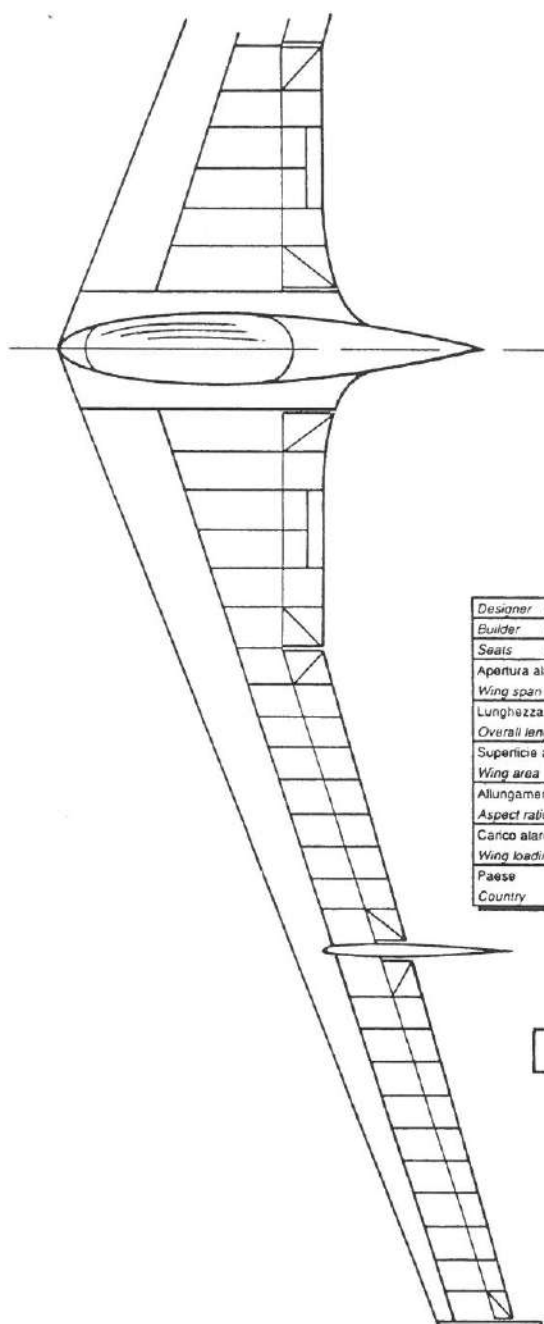
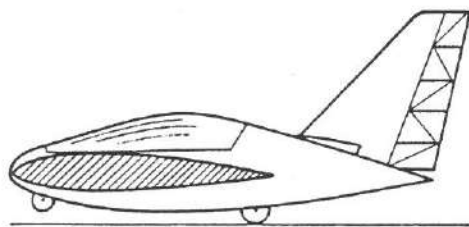


Designer / Progettista	SZD		
Builder / Costruttore	PZL		
Seats / Posti	ONE		
Apertura alare	: m 18,10	Peso a vuoto	: Kg 326
Wing span	:	Empty weight	:
Lunghezza	: m 7,95	Peso a pieno carico	: Kg 500
Overall length	:	Max weight	:
Superficie alare	: m ² 20,0	Minima discesa	: m/s 0,82
Wing area	:	Sink speed	:
Allungamento	: AR 16,20	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 24,0	Vel. limite consentita	: Km/h 200
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1958
Country	:	First flight	:

SZD-9 bis BOCIAN 1D

1 2 3 m

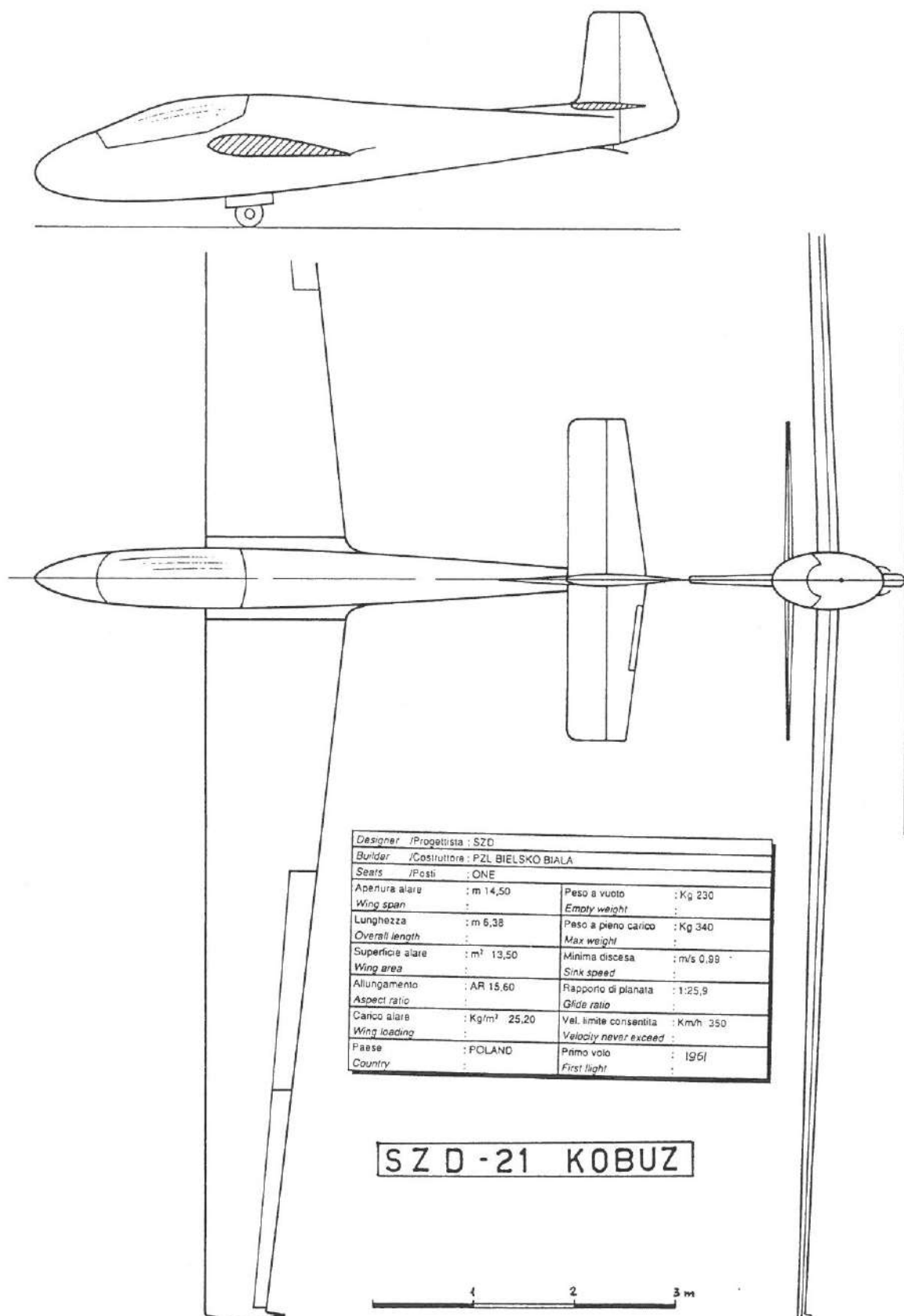


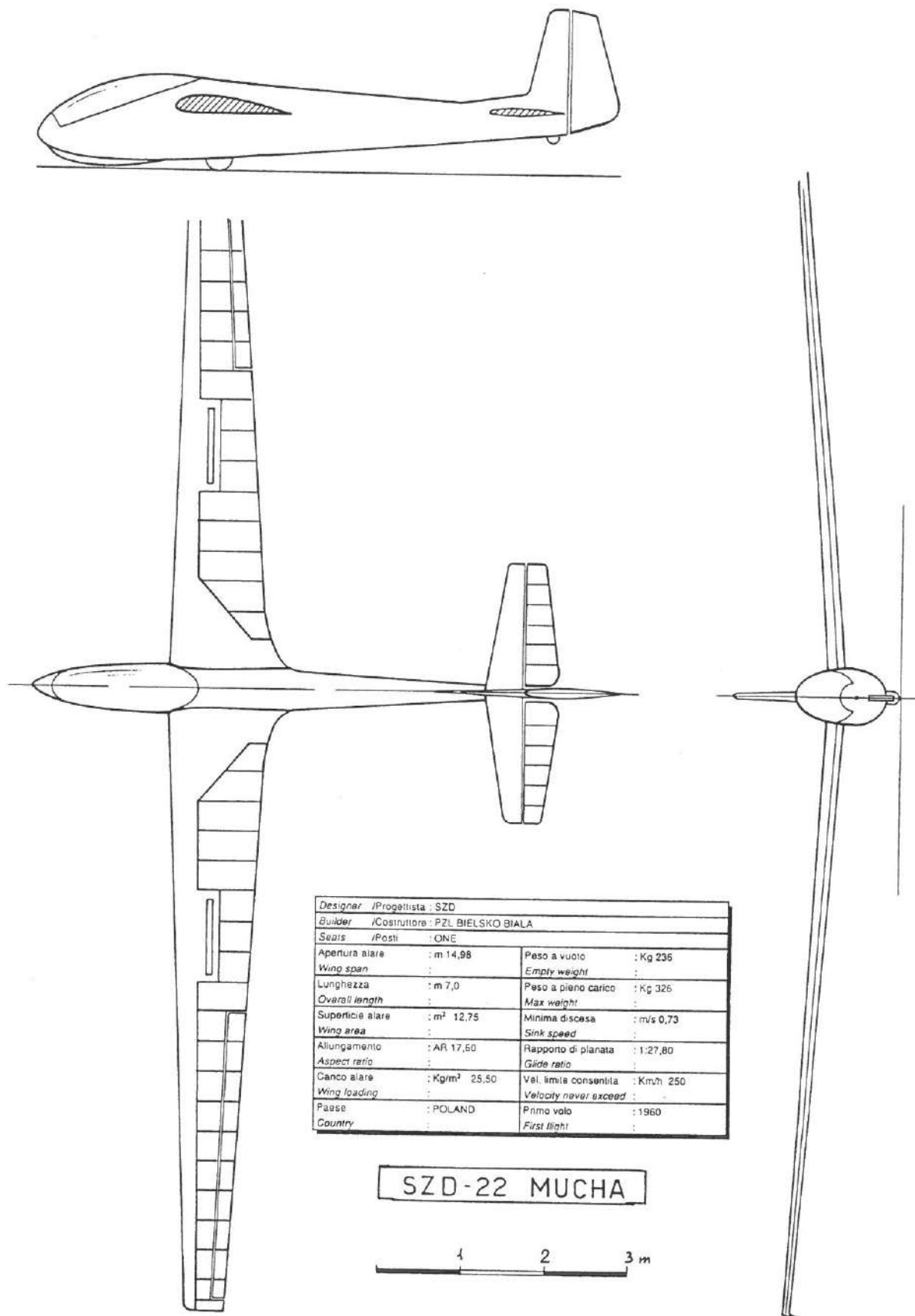


Designer (Progettista) : J. DYREX			
Builder (Costruttore) : SZD			
Seats (Posti) : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ² 15,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR 15,0	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1959
Country	:	First flight	:

SZD-20 WAMPIR



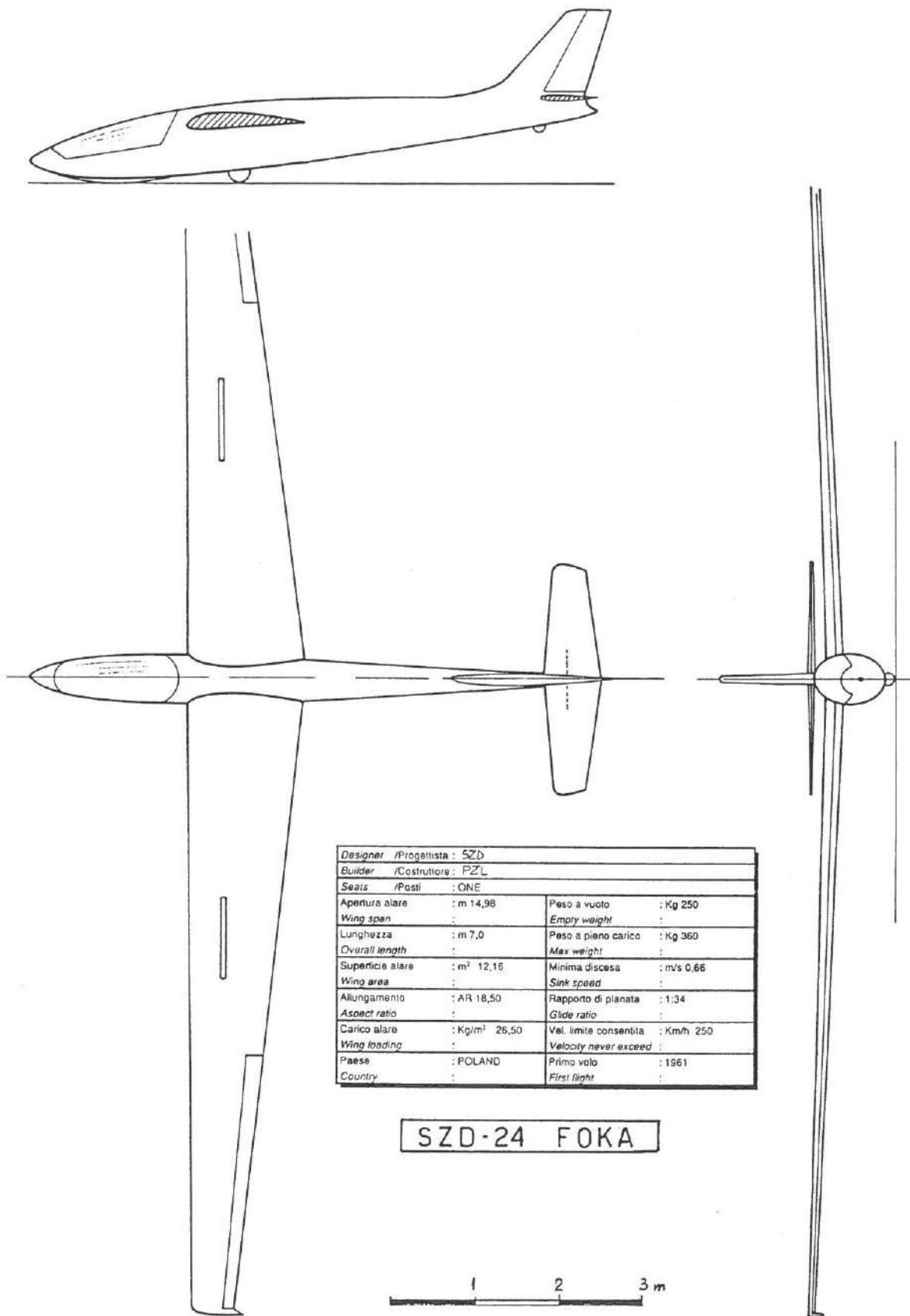




Designer / Progettista : SZD			
Builder / Costruttore : PZL BIELSKO BIALA			
Seats / Posti : ONE			
Apertura alare	: m 14,98	Peso a vuoto	: Kg 235
Wing span	:	Empty weight	:
Lunghezza	: m 7,0	Peso a pieno carico	: Kg 325
Overall length	:	Max weight	:
Superficie alare	: m ² 12,75	Minima discesa	: m/s 0,73
Wing area	:	Sink speed	:
Allungamento	: AR 17,60	Rapporto di planata	: 1:27,80
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ² 25,50	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1960
Country	:	First flight	:

SZD-22 MUCHA

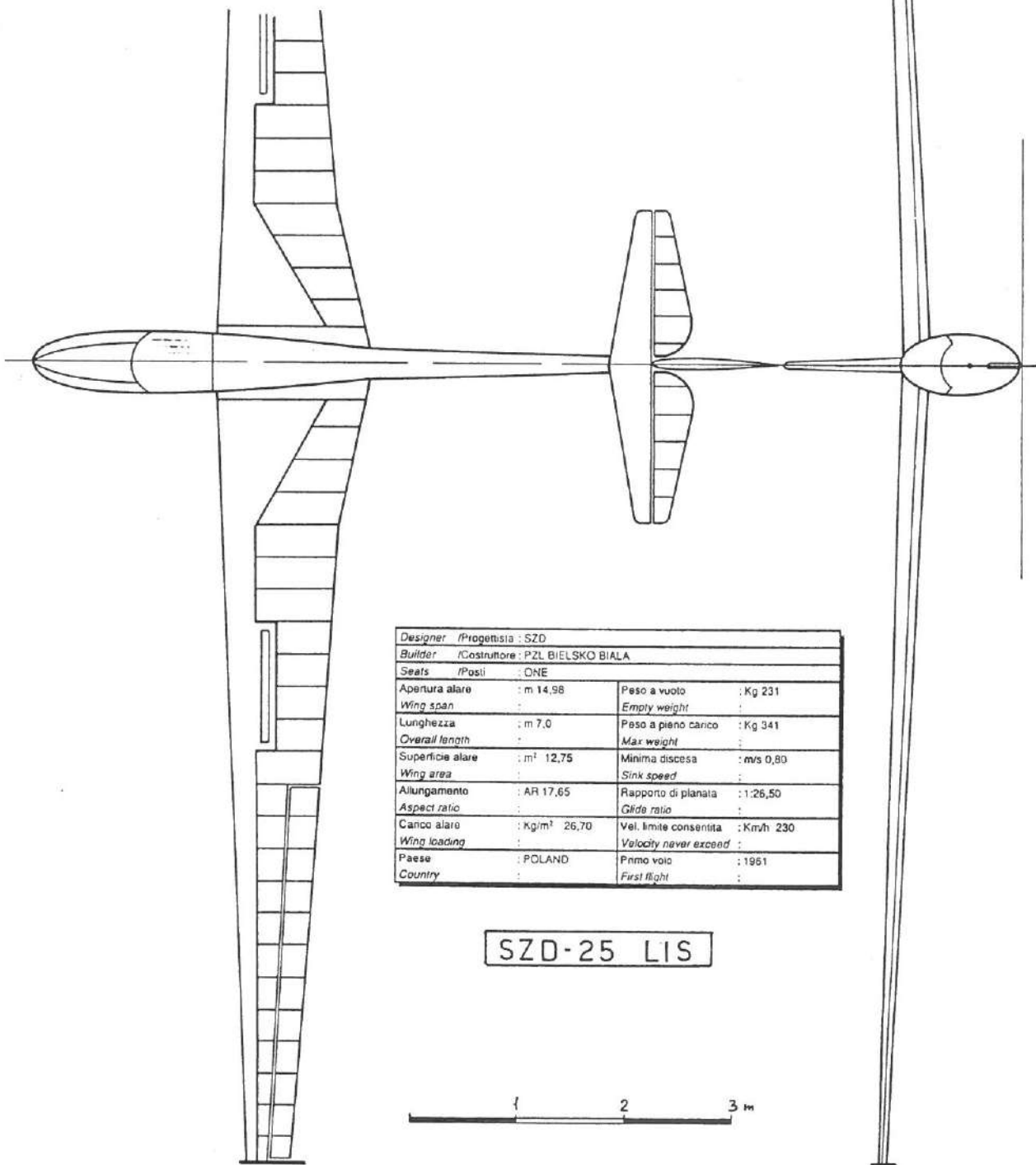
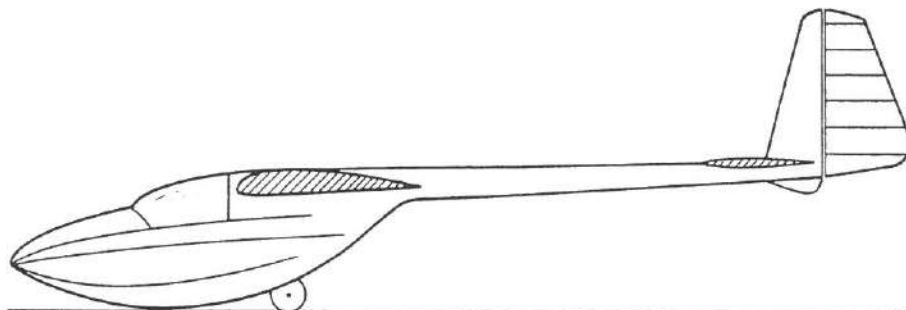
1 2 3 m



Designer /Progettista : SZD			
Builder /Costruttore : PZL			
Seats /Posti : ONE			
Apertura alare	: m 14,98	Peso a vuoto	: Kg 250
Wing span	:	Empty weight	:
Lunghezza	: m 7,0	Peso a pieno carico	: Kg 360
Overall length	:	Max weight	:
Superficie alare	: m ² 12,16	Minima discesa	: m/s 0,66
Wing area	:	Sink speed	:
Allungamento	: AR 18,50	Rapporto di planata	: 1,34
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,50	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1961
Country	:	First flight	:

SZD-24 FOKA

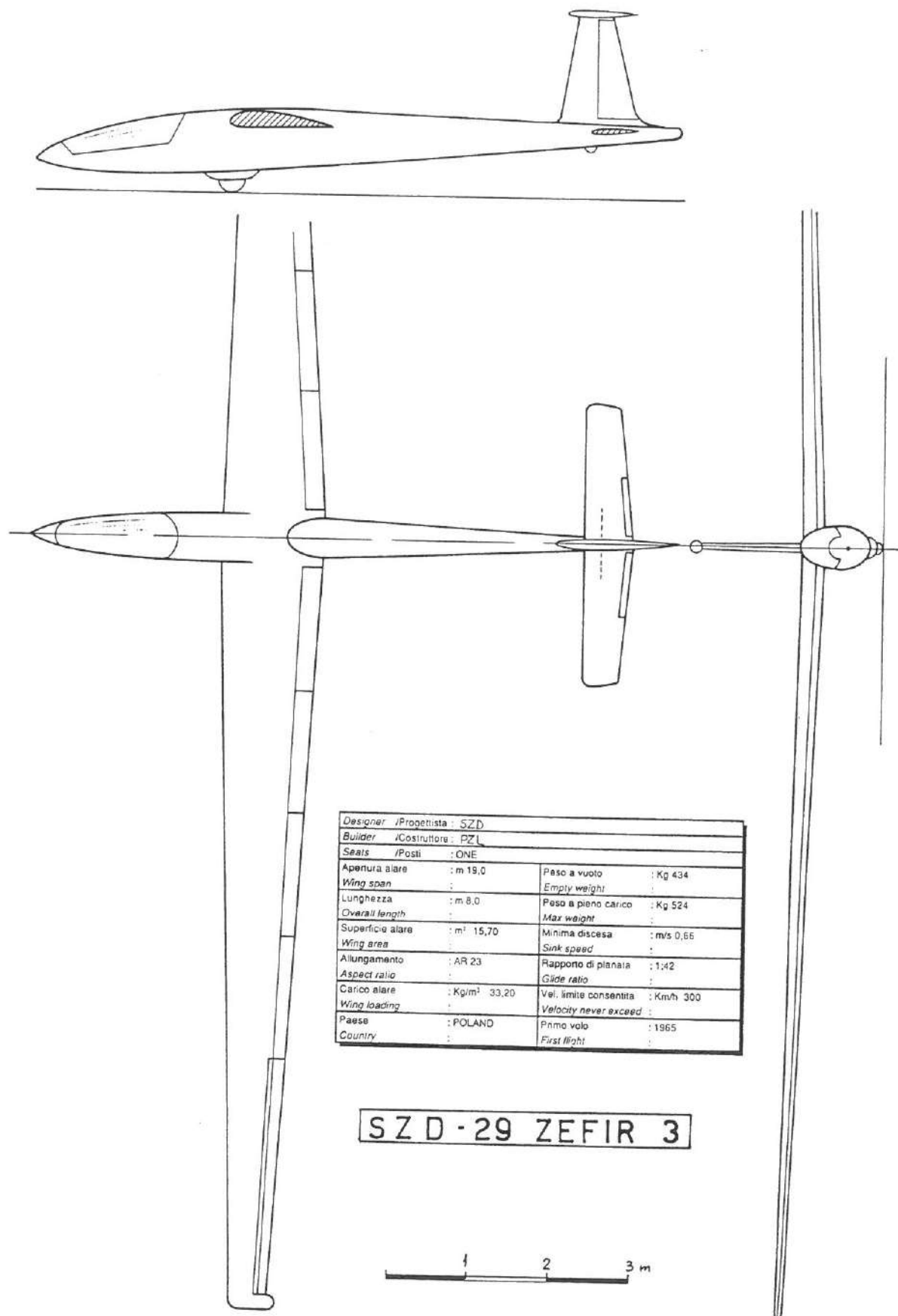
1 2 3 m

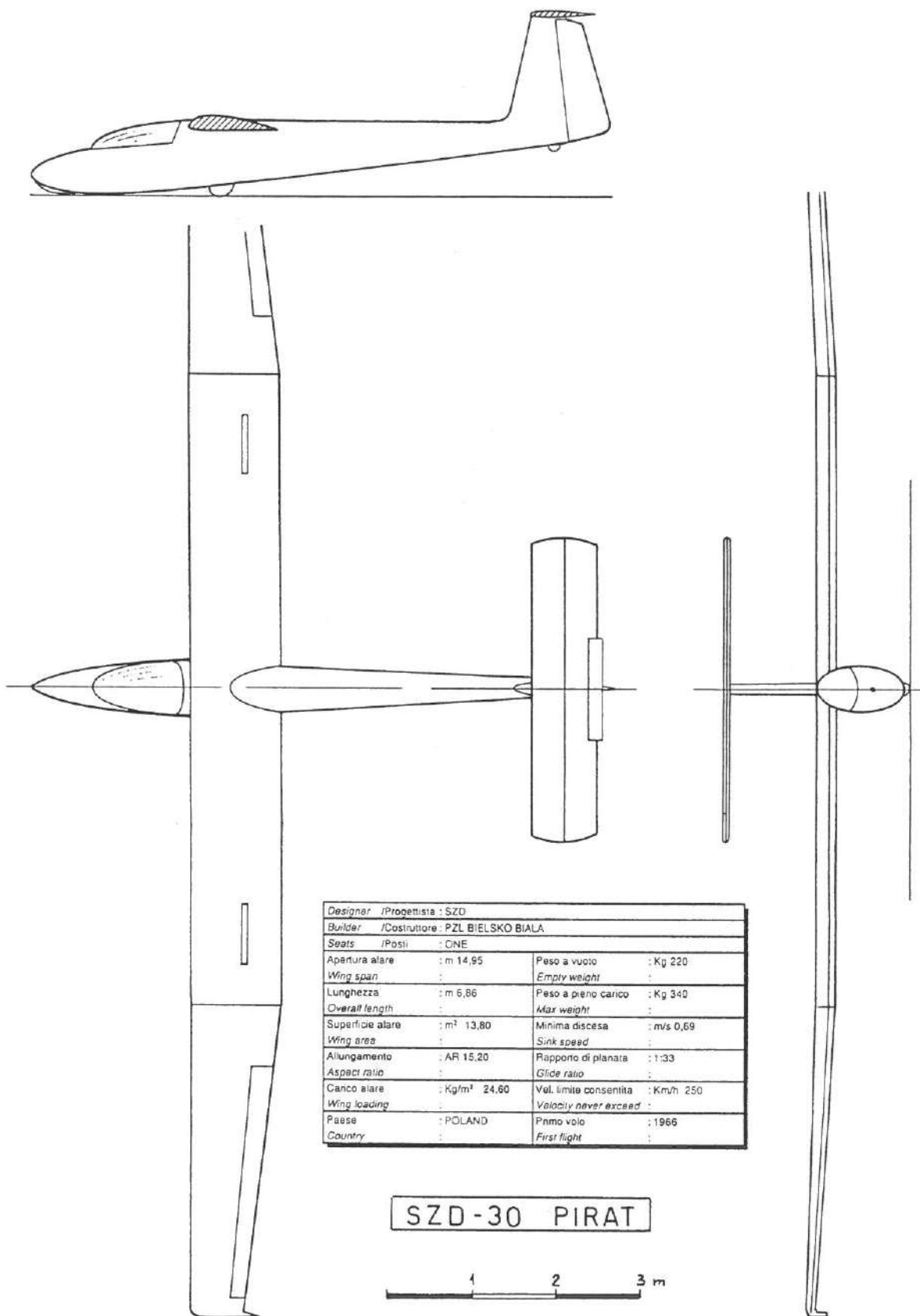


Designer / Progettista : SZD			
Builder / Costruttore : PZL BIELSKO BIALA			
Seats / Posti : ONE			
Apertura alare	: m 14,98	Peso a vuoto	: Kg 231
Wing span	:	Empty weight	:
Lunghezza	: m 7,0	Peso a pieno carico	: Kg 341
Overall length	:	Max weight	:
Superficie alare	: m ² 12,75	Minima discesa	: m/s 0,80
Wing area	:	Sink speed	:
Allungamento	: AR 17,65	Rapporto di planata	: 1:26,50
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 26,70	Vel. limite consentita	: Km/h 230
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1951
Country	:	First flight	:

SZD-25 LIS

1 2 3 m

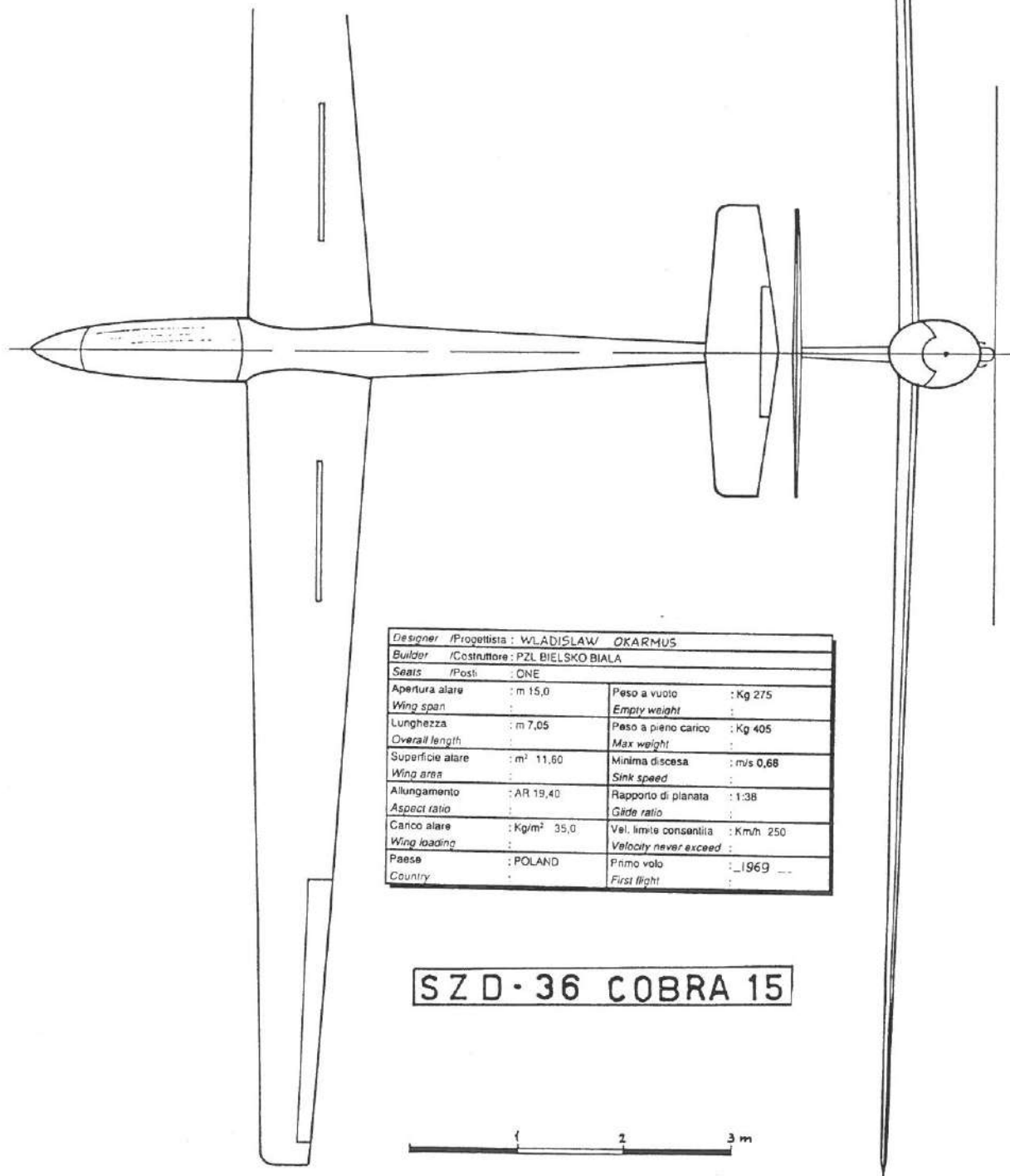
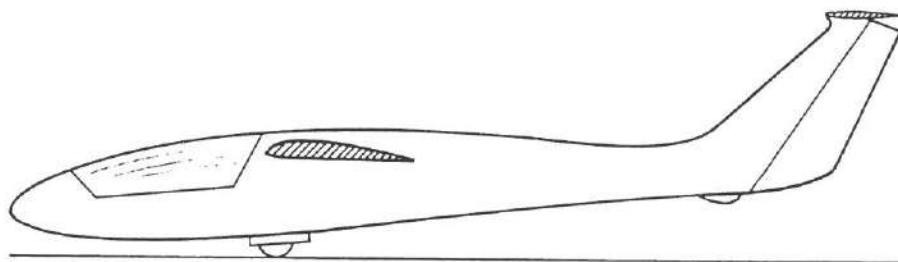




Designer /Progettista	: SZD		
Builder /Costruttore	: PZL BIELSKO BIALA		
Seats /Posti	: ONE		
Apertura alare	: m 14,95	Peso a vuoto	: Kg 220
Wing span	:	Empty weight	:
Lunghezza	: m 6,86	Peso a pieno carico	: Kg 340
Overall length	:	Max weight	:
Superficie alare	: m ² 13,80	Minima discesa	: m/s 0,69
Wing area	:	Sink speed	:
Allungamento	: AR 15,20	Rapporto di planata	: 1:33
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 24,60	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1966
Country	:	First flight	:

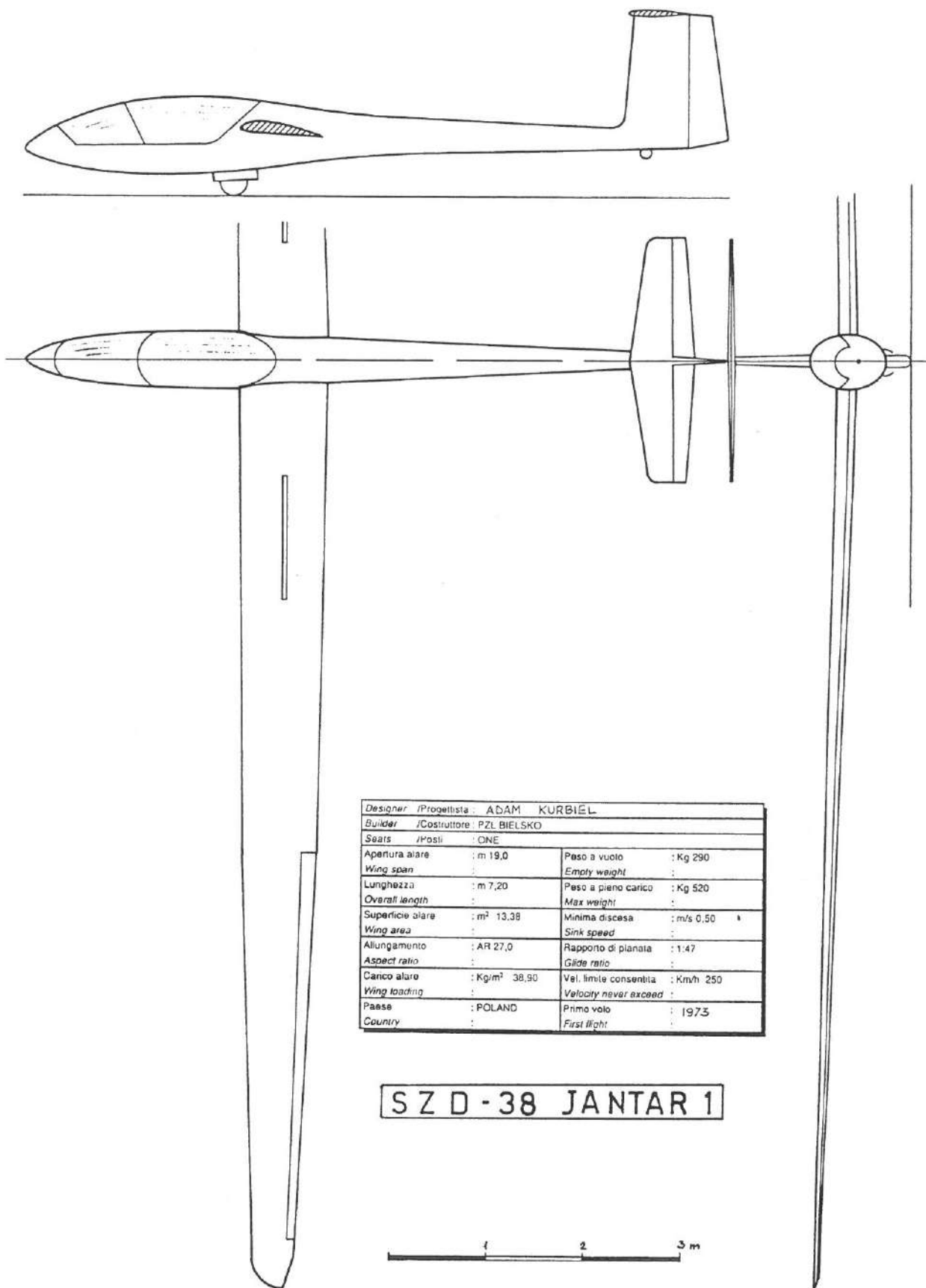
SZD-30 PIRAT

1 2 3 m



Designer /Progettista : WLADISLAW OKARMUS			
Builder /Costruttore : PZL BIELSKO BIALA			
Seats /Posti : ONE			
Apertura alare	: m 15,0	Peso a vuoto	: Kg 275
Wing span	:	Empty weight	:
Lunghezza	: m 7,05	Peso a pieno carico	: Kg 405
Overall length	:	Max weight	:
Superficie alare	: m ² 11,60	Minima discesa	: m/s 0,68
Wing area	:	Sink speed	:
Allungamento	: AR 19,40	Rapporto di planata	: 1:38
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 35,0	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1969
Country	:	First flight	:

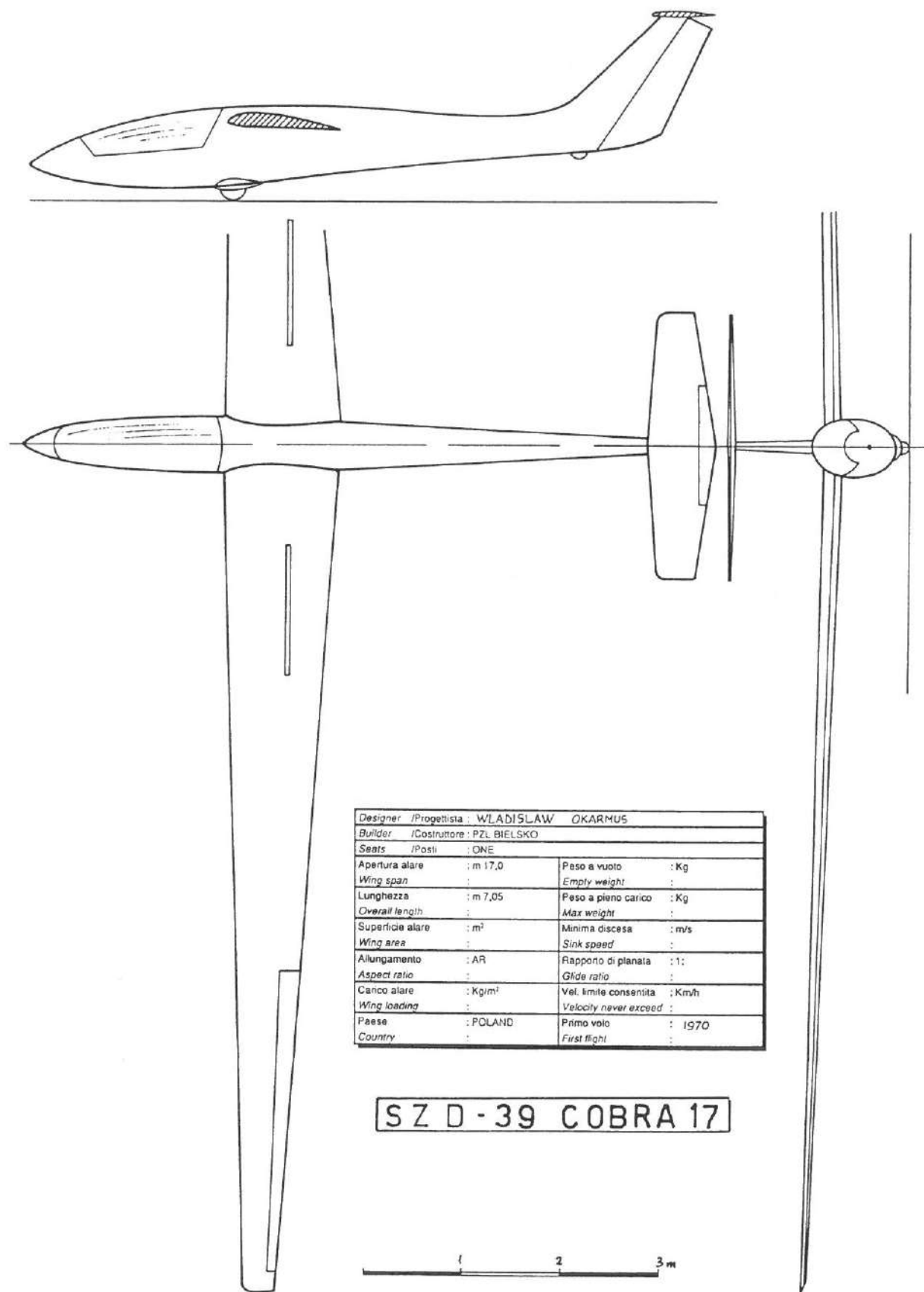
SZD-36 COBRA 15



Designer /Progettista : ADAM KURBIEL			
Builder /Costruttore : PZL BIELSKO			
Seats /Posti : ONE			
Apertura alare	: m 19,0	Peso a vuoto	: Kg 290
Wing span	:	Empty weight	:
Lunghezza	: m 7,20	Peso a pieno carico	: Kg 520
Overall length	:	Max weight	:
Superficie alare	: m ² 13,38	Minima discesa	: m/s 0,50
Wing area	:	Sink speed	:
Allungamento	: AR 27,0	Rapporto di planata	: 1:47
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 38,90	Vel. limite consentita	: Km/h 250
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1973
Country	:	First flight	:

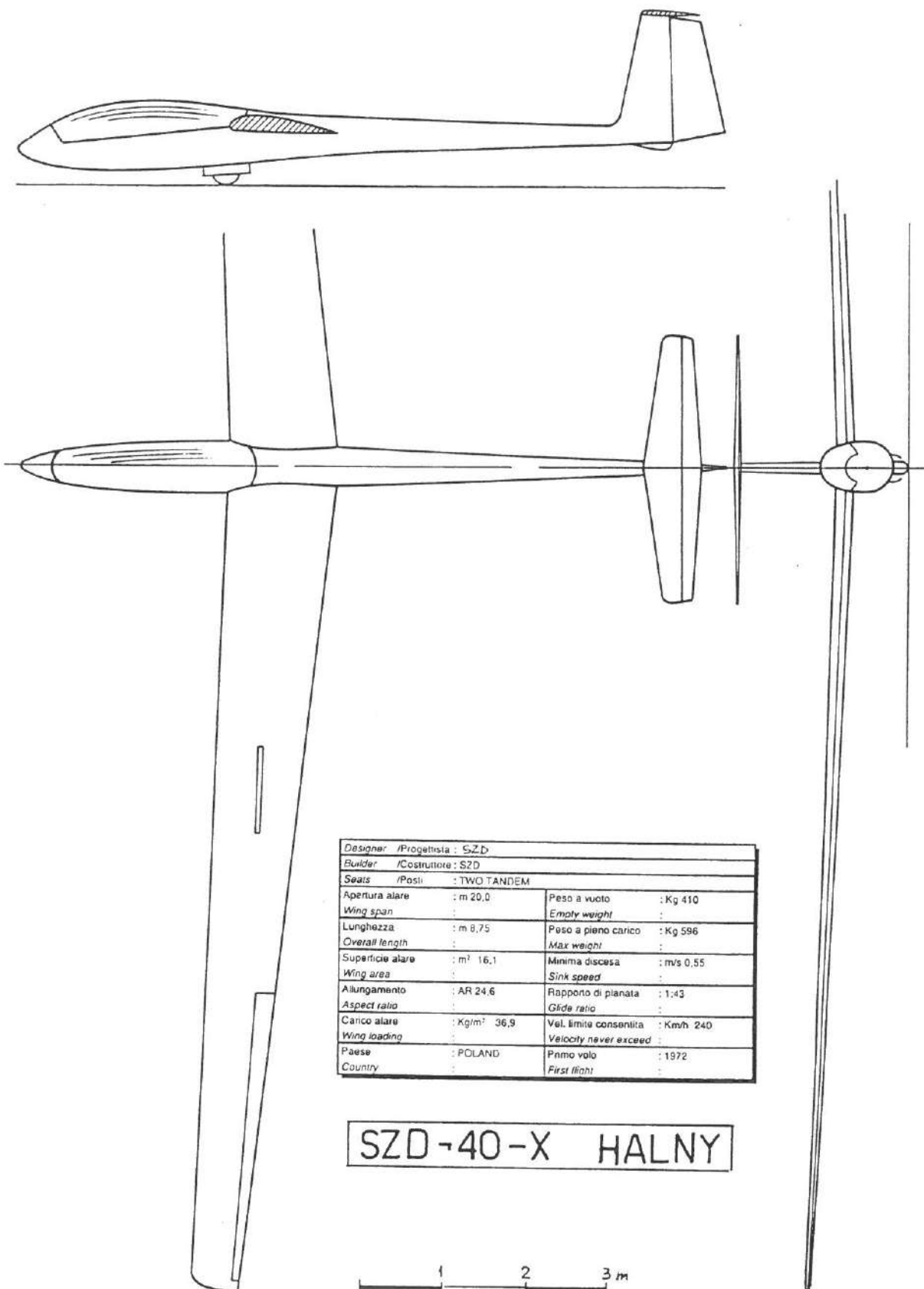
S Z D - 38 JANTAR 1

1 2 3 m



Designer / Progettista	WŁADYSŁAW OKARMUS		
Builder / Costruttore	PZL BIELSKO		
Seats / Posti	ONE		
Apertura alare	: m 17,0	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m 7,05	Peso a pieno carico	: Kg
Overall length	:	Max weight	:
Superficie alare	: m ²	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ²	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1970
Country	:	First flight	:

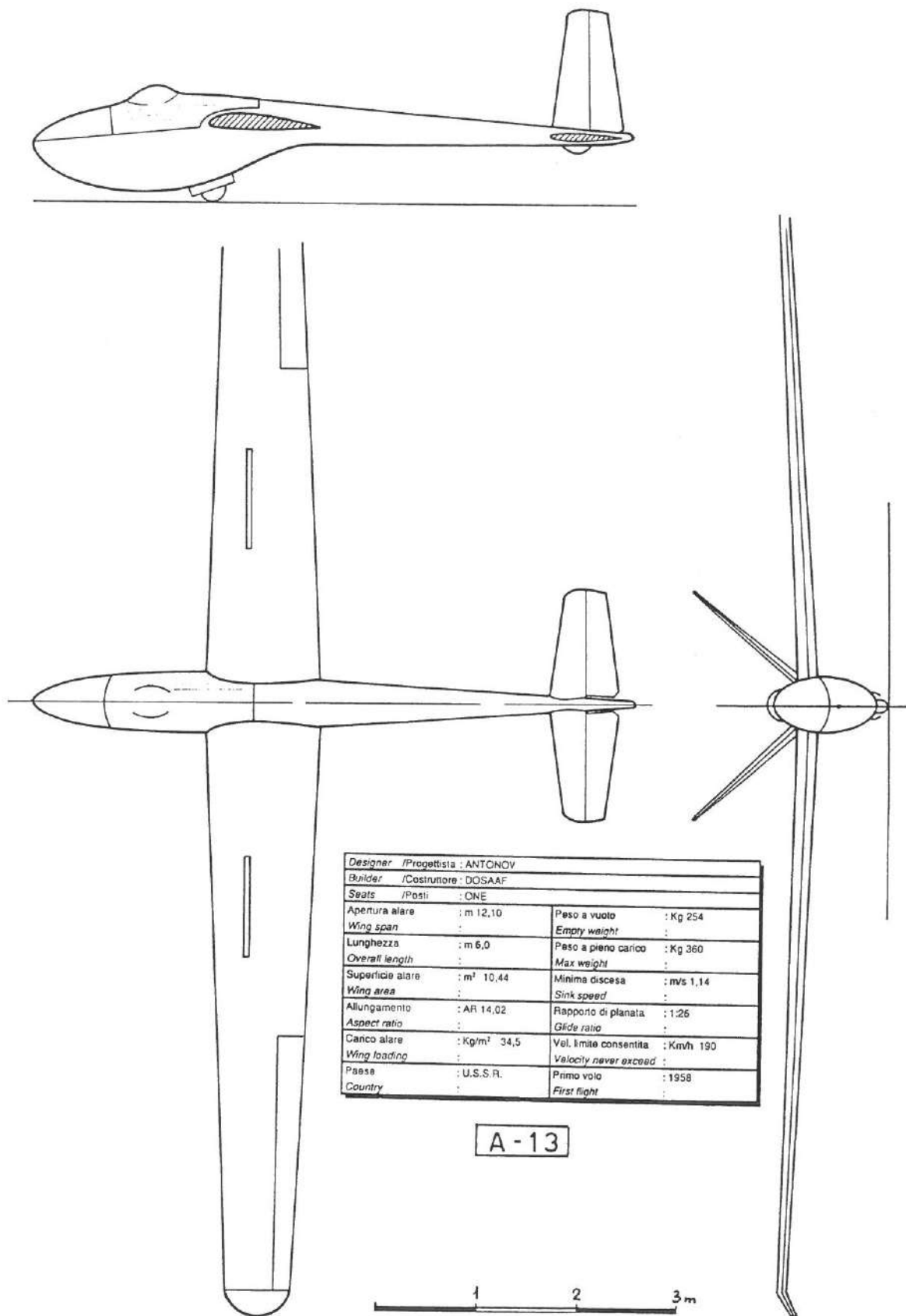
SZD - 39 COBRA 17



Designer /Progettista : SZD			
Builder /Costruttore : SZD			
Seats /Posti : TWO TANDEM			
Apertura alare	: m 20,0	Peso a vuoto	: Kg 410
Wing span	:	Empty weight	:
Lunghezza	: m 8,75	Peso a pieno carico	: Kg 596
Overall length	:	Max weight	:
Superficie alare	: m ² 16,1	Minima discesa	: m/s 0,55
Wing area	:	Sink speed	:
Allungamento	: AR 24,6	Rapporto di planata	: 1:43
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 36,9	Vel. limite consentita	: Km/h 240
Wing loading	:	Velocity never exceed	:
Paese	: POLAND	Primo volo	: 1972
Country	:	First flight	:

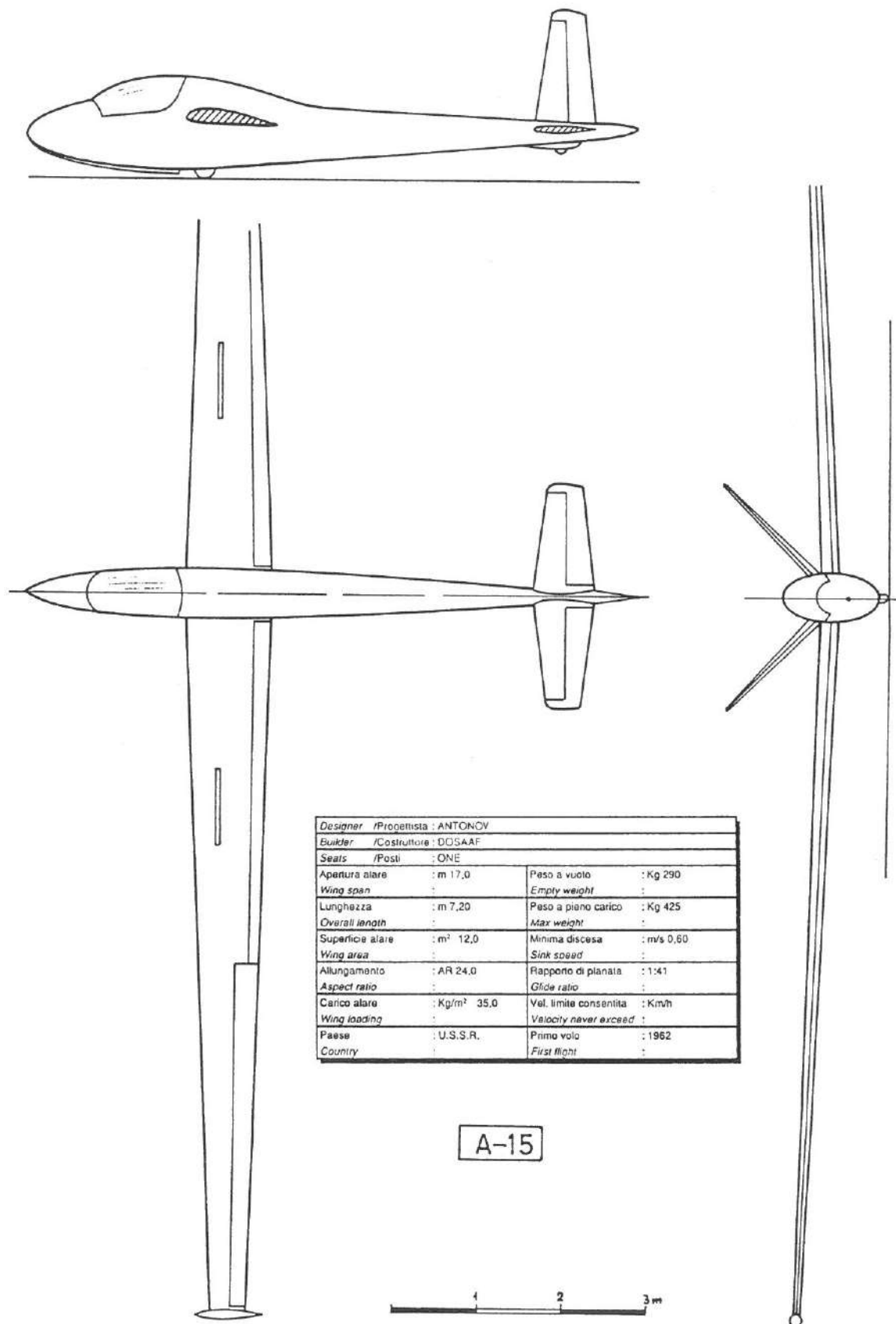
SZD-40-X HALNY

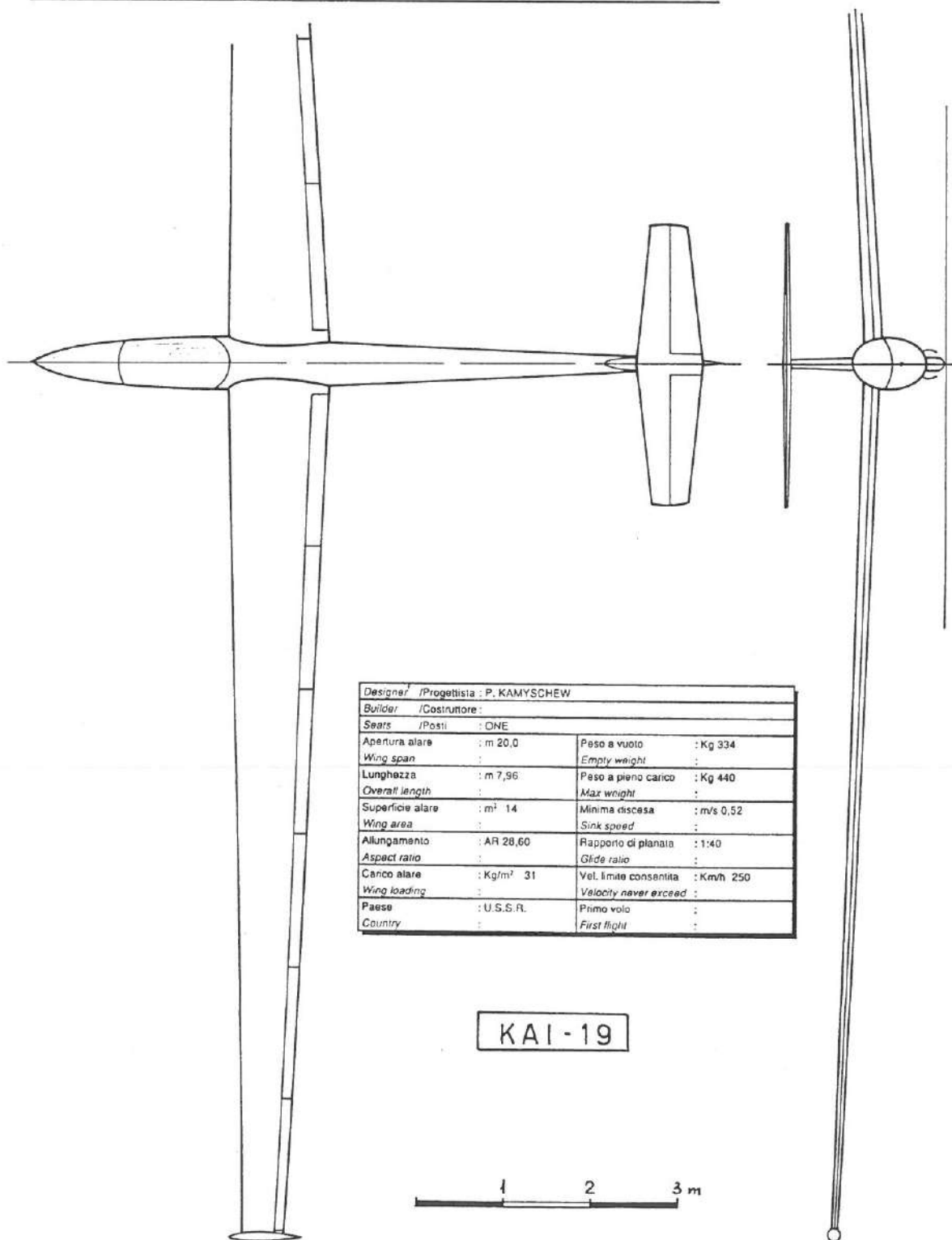
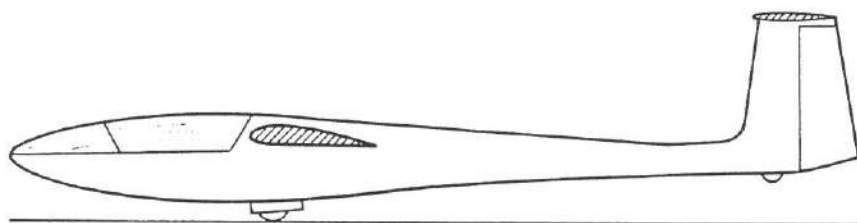
1 2 3 m



Designer /Progettista : ANTONOV			
Builder /Costruttore : DOSAAF			
Seats /Posti : ONE			
Apertura alare	: m 12,10	Peso a vuoto	: Kg 254
Wing span	:	Empty weight	:
Lunghezza	: m 6,0	Peso a pieno carico	: Kg 360
Overall length	:	Max weight	:
Superficie alare	: m ² 10,44	Minima discesa	: m/s 1,14
Wing area	:	Sink speed	:
Allungamento	: AR 14,02	Rapporto di planata	: 1:26
Aspect ratio	:	Glide ratio	:
Canco alare	: Kg/m ² 34,5	Vel. limite consentita	: Km/h 190
Wing loading	:	Velocity never exceed	:
Paese	: U.S.S.R.	Primo volo	: 1958
Country	:	First flight	:

A-13

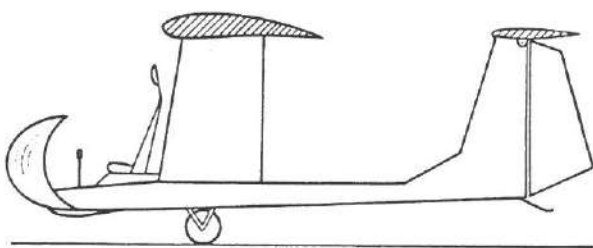




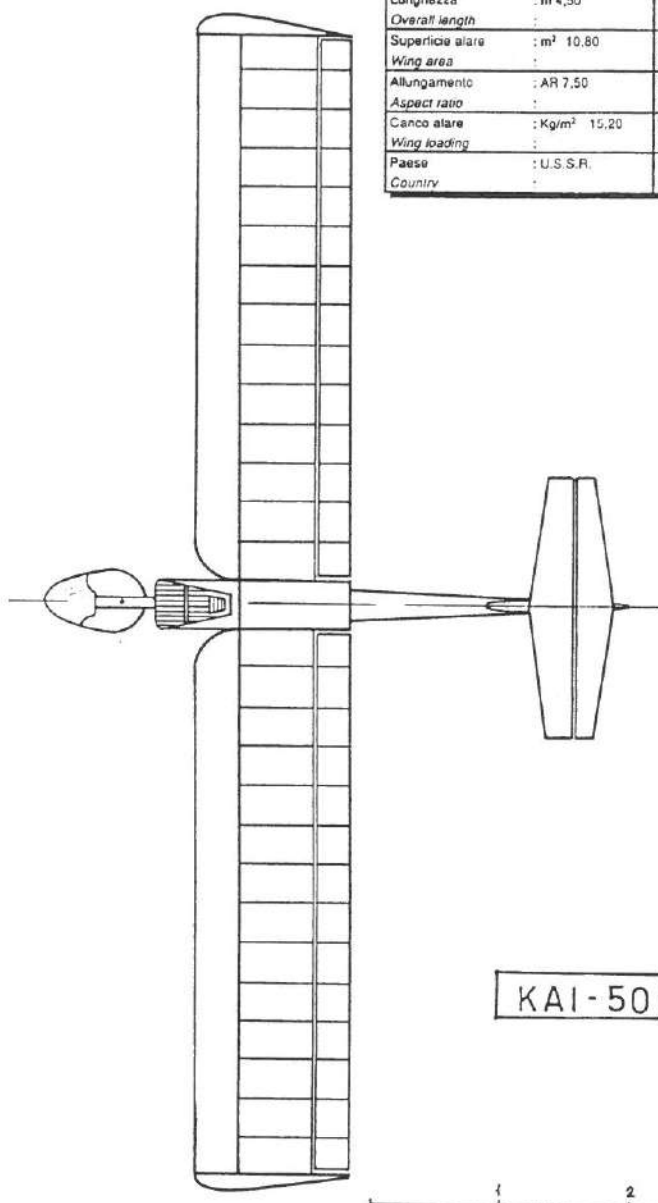
Designer / Progettista :	P. KAMYSHEV		
Builder / Costruttore :			
Seats / Posti :	ONE		
Apertura alare :	m 20,0	Peso a vuoto :	Kg 334
Wing span :		Empty weight :	
Lunghezza :	m 7,96	Peso a pieno carico :	Kg 440
Overall length :		Max weight :	
Superficie alare :	m ² 14	Minima discesa :	m/s 0,52
Wing area :		Sink speed :	
Allungamento :	AR 28,60	Rapporto di planata :	1:40
Aspect ratio :		Glide ratio :	
Carico alare :	Kg/m ² 31	Vel. limite consentita :	Kmh 250
Wing loading :		Velocity never exceed :	
Paese :	U.S.S.R.	Primo volo :	
Country :		First flight :	

KAI-19

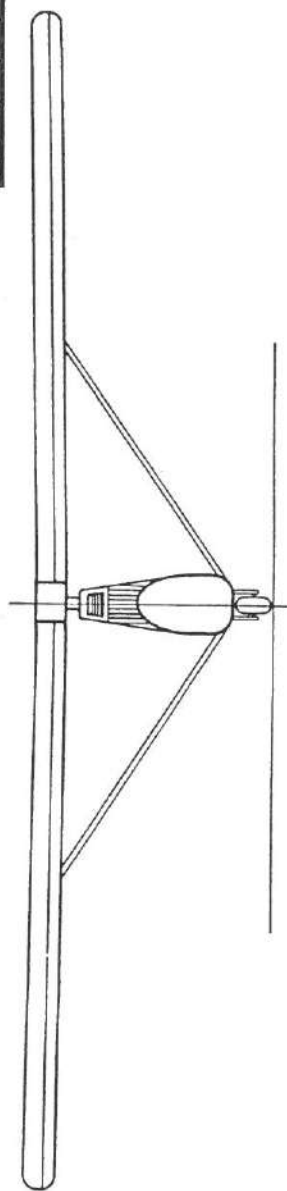


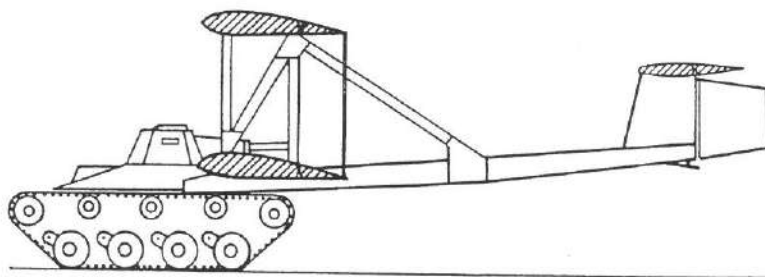


Designer / Progettista	KAZAN		
Builder / Costruttore			
Seats / Posti	ONE		
Apertura alare	: m 9,0	Peso a vuoto	: Kg 84
Wing span	:	Empty weight	:
Lunghezza	: m 4,50	Peso a pieno carico	: Kg 164
Overall length	:	Max weight	:
Superficie alare	: m ² 10,80	Minima discesa	: m/s 1,10
Wing area	:	Sink speed	:
Allungamento	: AR 7,50	Rapporto di planata	: 1:14
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 15,20	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.S.R.	Primo volo	: 1981
Country	:	First flight	:

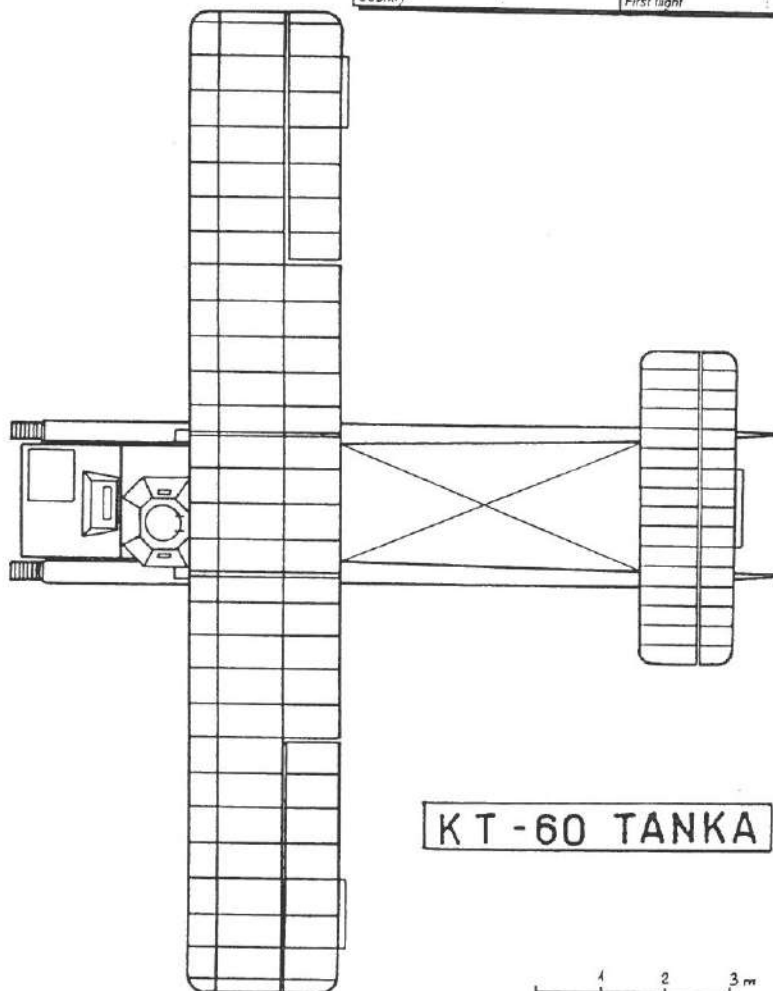


KAI-50

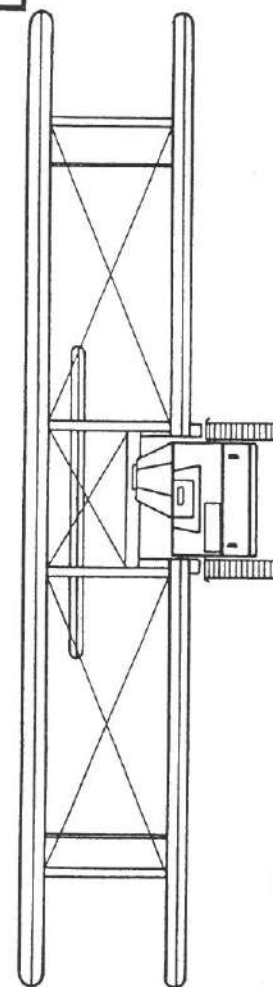


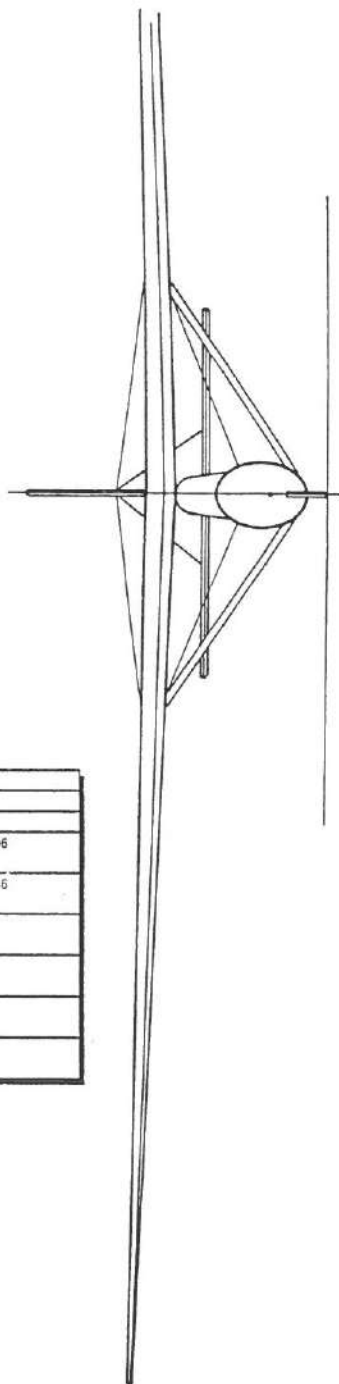
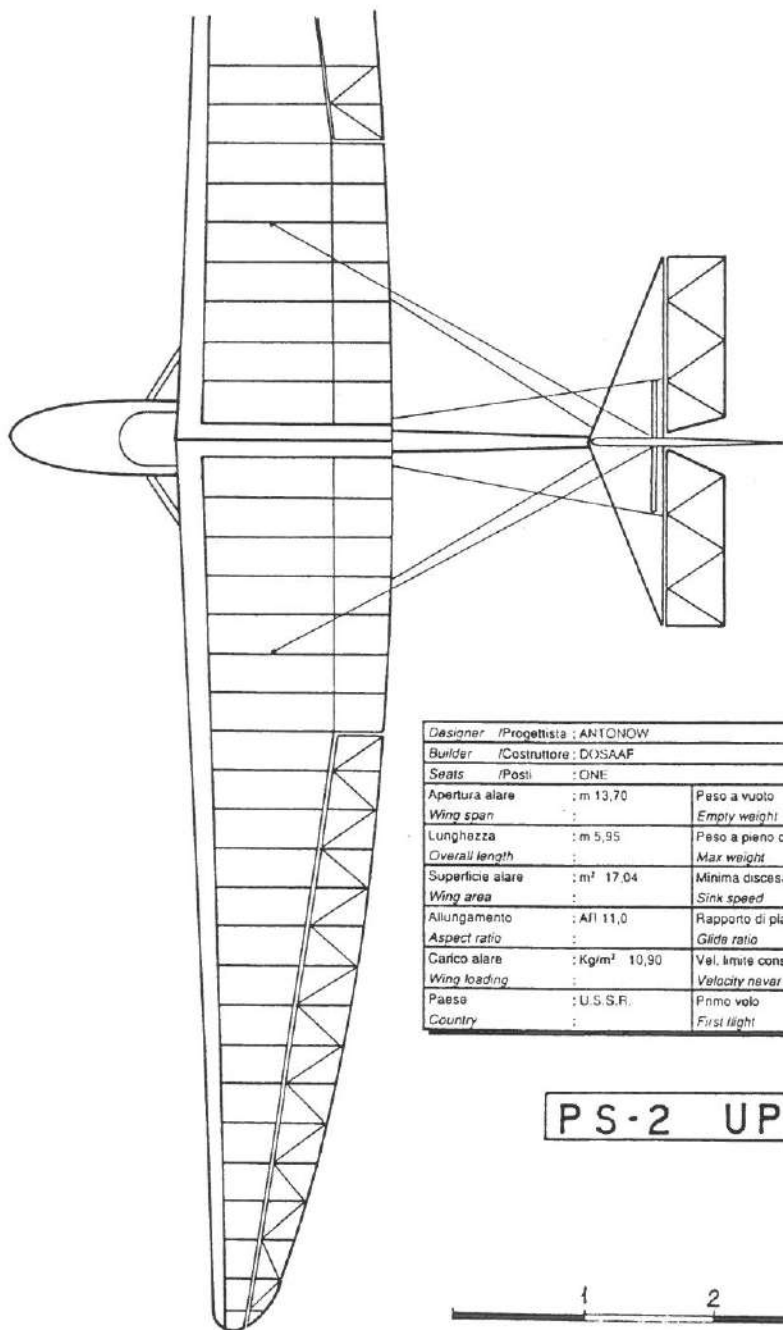
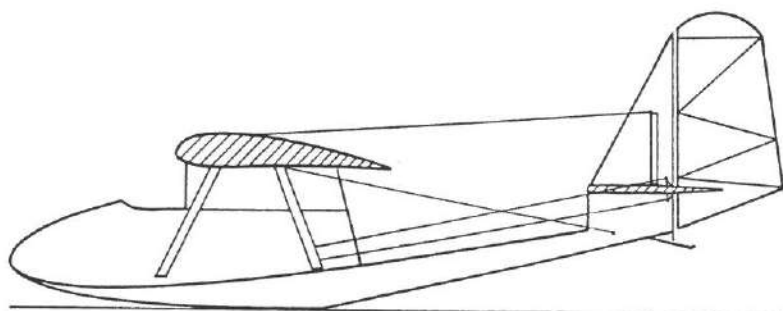


Designer /Progettista : ANTONOV			
Builder /Costruttore :			
Seats /Posti :			
Apertura alare	: m 15,0	Peso a vuoto	: Kg
Wing span	:	Empty weight	:
Lunghezza	: m	Peso a pieno carico	: Kg 8.200
Overall length	:	Max weight	:
Superficie alare	: m ² 68,0	Minima discesa	: m/s
Wing area	:	Sink speed	:
Allungamento	: AR	Rapporto di planata	: 1:
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m ² 120,0	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: U.S.S.R.	Primo volo	:
Country	:	First flight	:



KT - 60 TANKA

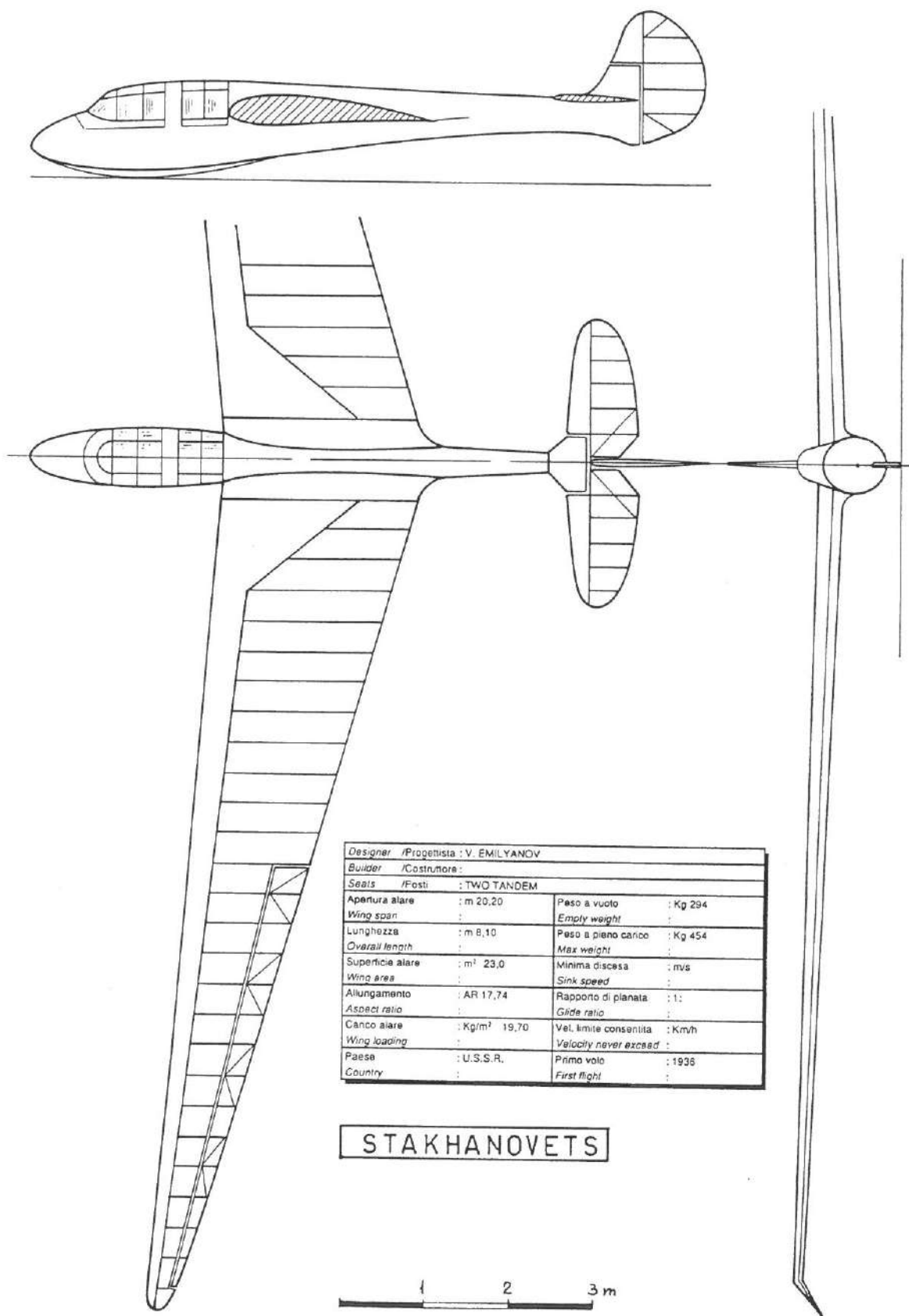




Designer /Progettista : ANTONOW			
Builder /Costruttore : DOSAAF			
Seats /Posti : ONE			
Apertura alare : m 13,70		Peso a vuoto : Kg 106	
Wing span :		Empty weight :	
Lunghezza : m 5,95		Peso a pieno carico : Kg 186	
Overall length :		Max weight :	
Superficie alare : m² 17,04		Minima discesa : m/s	
Wing area :		Sink speed :	
Allungamento : Afl 11,0		Rapporto di planata : 1:	
Aspect ratio :		Glide ratio :	
Carico alare : Kg/m² 10,90		Vel. limite consentita : Km/h	
Wing loading :		Velocity never exceed :	
Paese : U.S.S.R.		Prmo volo : 1929	
Country :		First flight :	

PS-2 UPAR

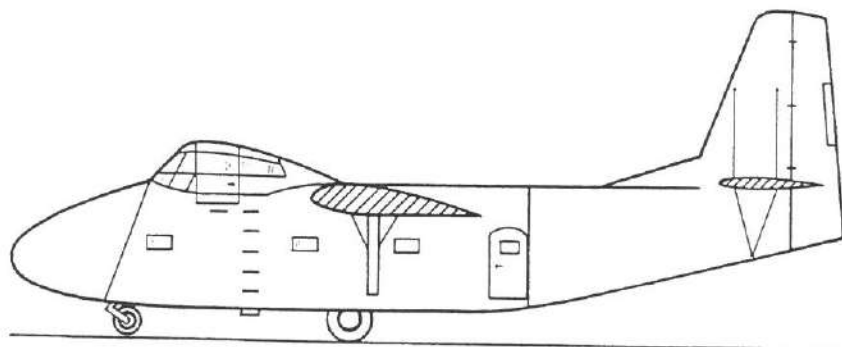




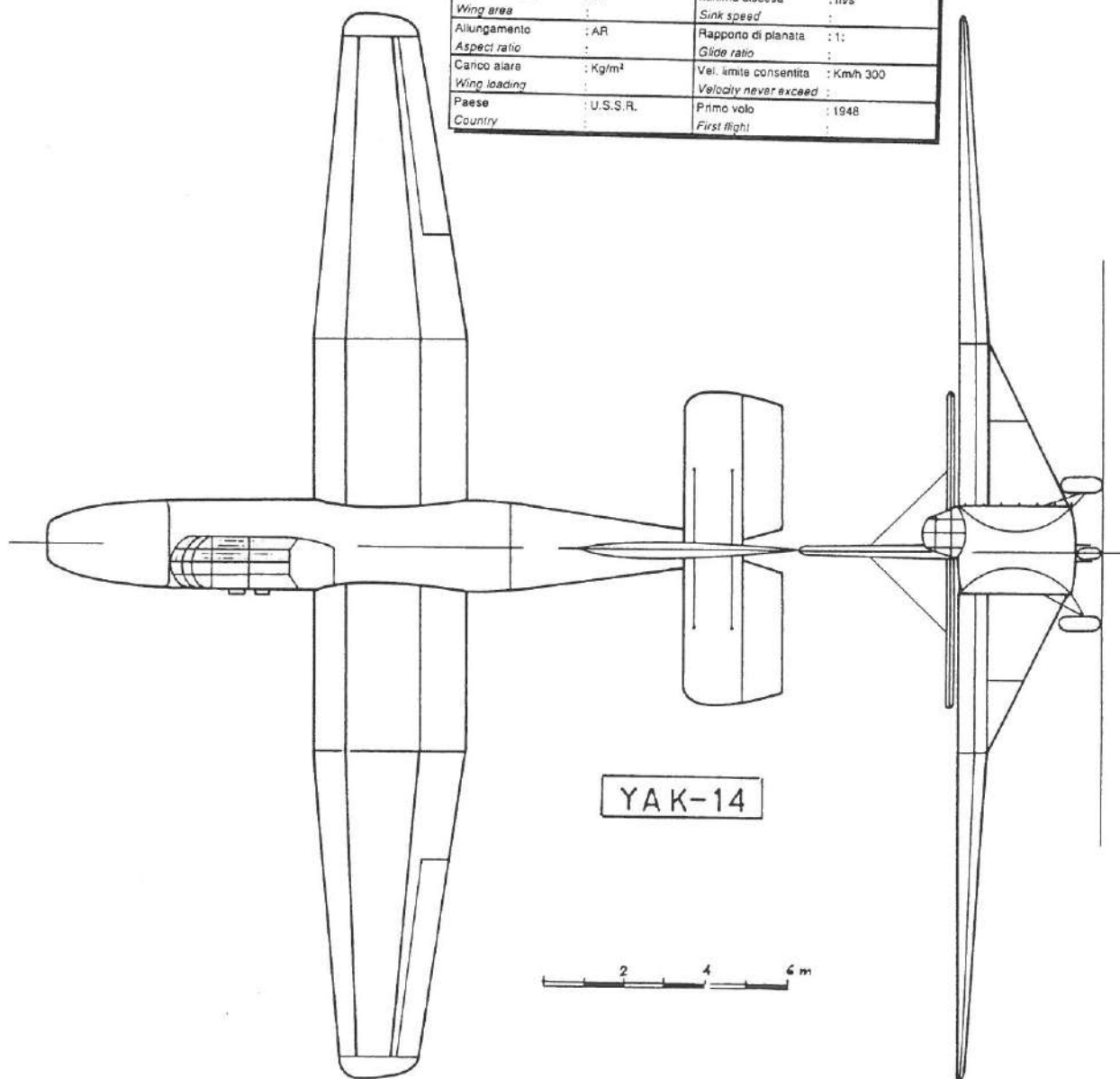
Designer /Progettista :	V. EMILYANOV	
Builder /Costruttore :		
Seats /Posti :	TWO TANDEM	
Apertura alare	: m 20,20	Peso a vuoto : Kg 294
Wing span	:	Empty weight
Lunghezza	: m 8,10	Peso a pieno carico : Kg 454
Overall length	:	Max weight
Superficie alare	: m ² 23,0	Minima discesa : m/s
Wing area	:	Sink speed
Allungamento	: AR 17,74	Rapporto di planata : 1:
Aspect ratio	:	Glide ratio
Canco alare	: Kg/m ² 19,70	Vel. limite consentita : Km/h
Wing loading	:	Velocity never exceed :
Paese	: U.S.S.R.	Primo volo : 1936
Country	:	First flight

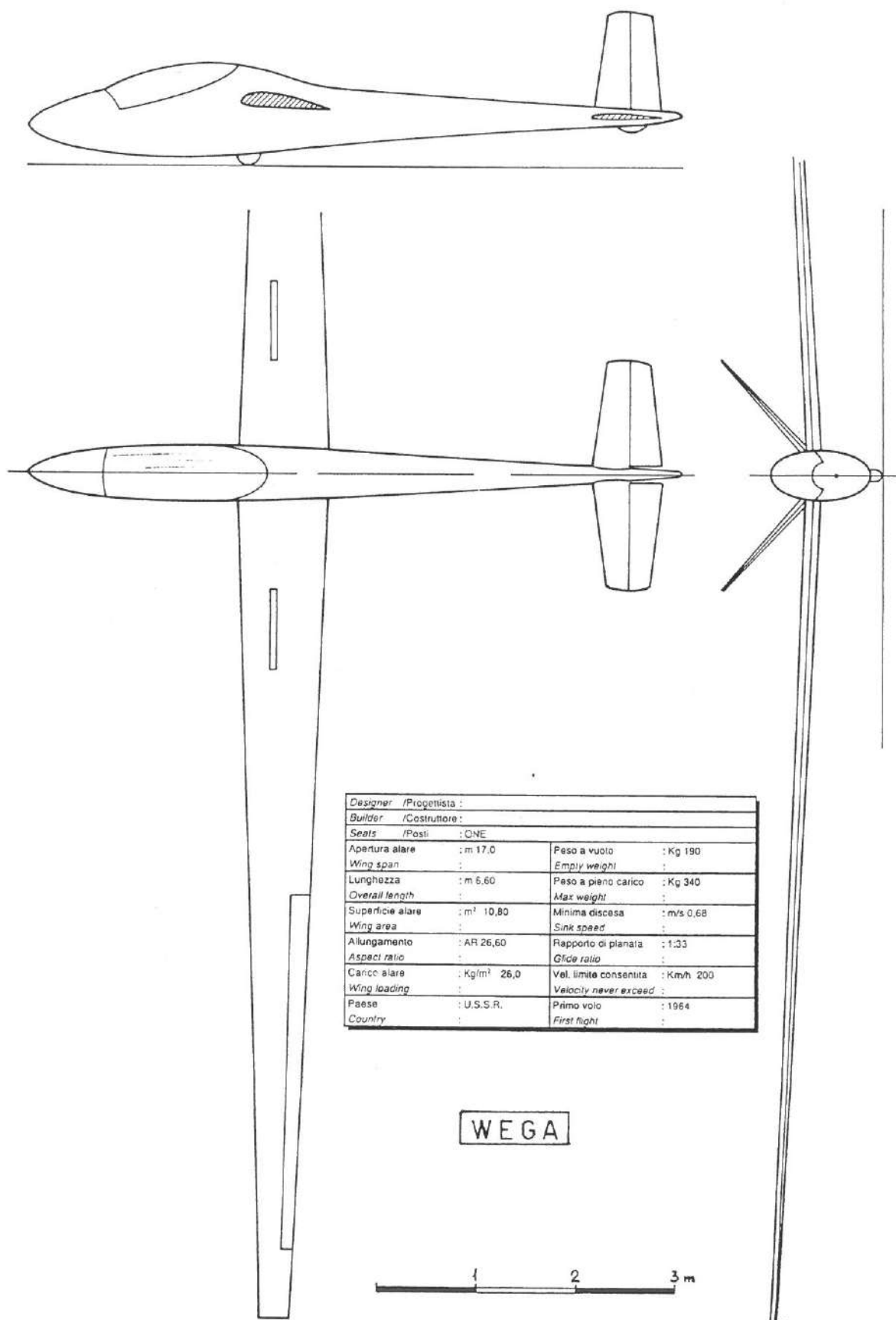
STAKHANOVETS

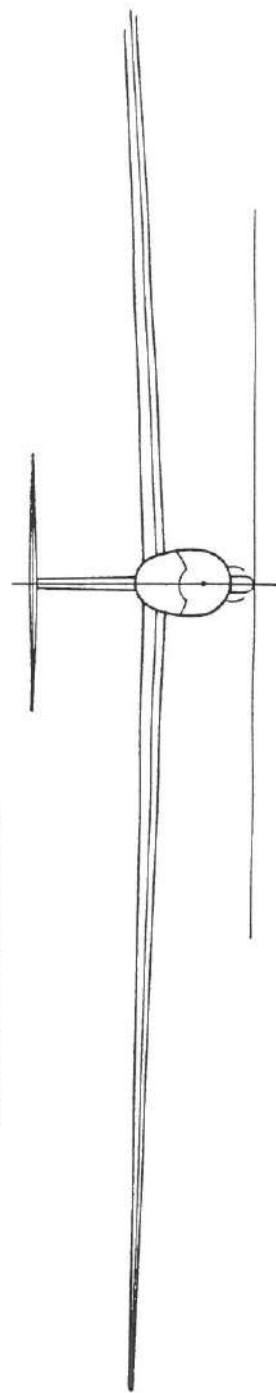
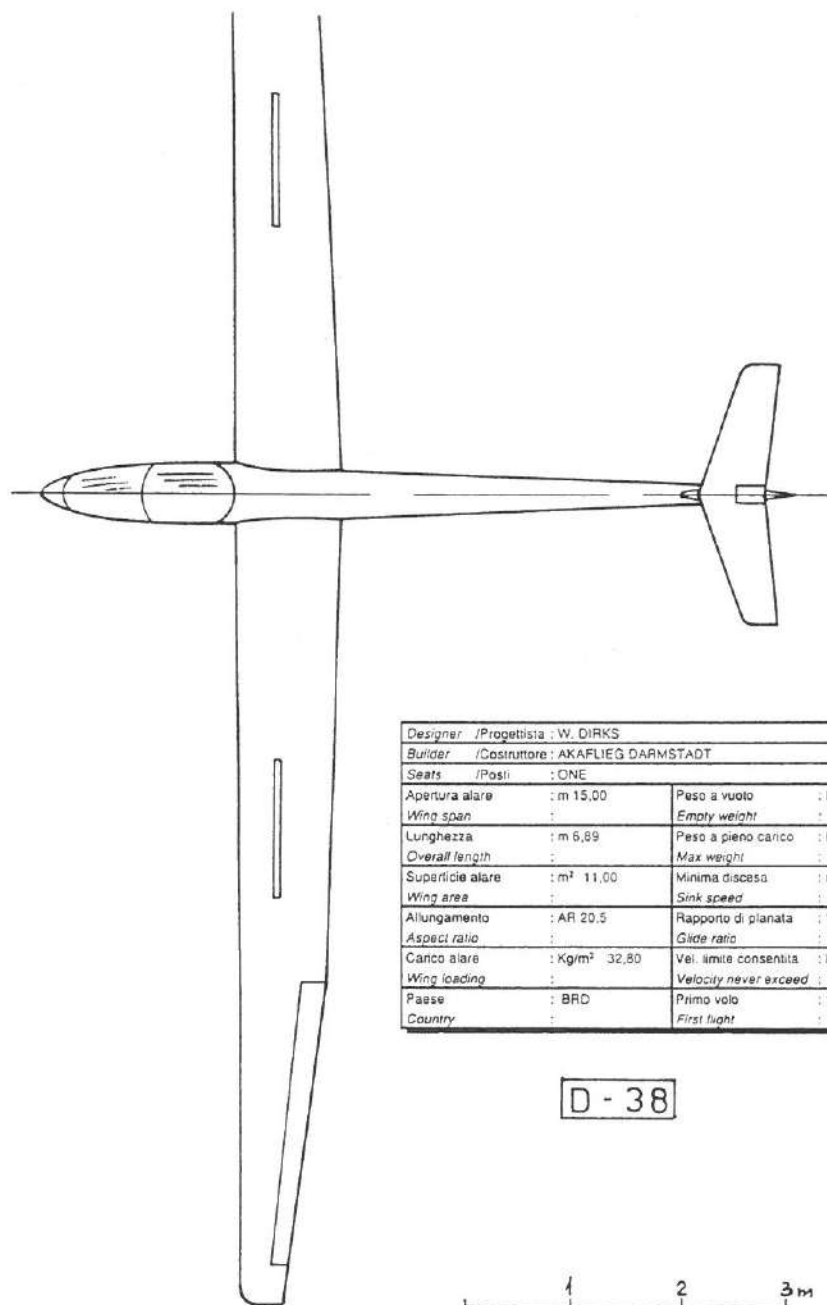
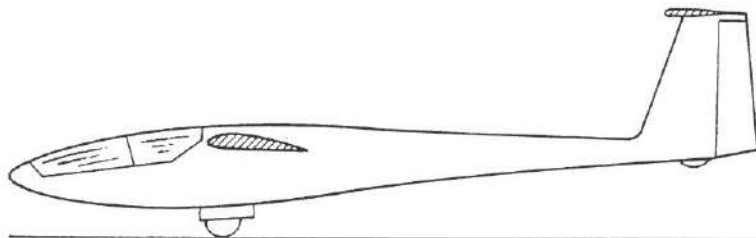
1 2 3 m



Designer	Progettista : YAKOLEV	
Builder	Costruttore :	
Seats	Posti : ONE plus 35	
Apertura alare	: m 26,17	Peso a vuoto : Kg 3.095
Wing span	:	Empty weight :
Lunghezza	: m 18,44	Peso a pieno carico : Kg 6.750
Overall length	:	Max weight :
Superficie alare	: m ²	Minima discesa : m/s
Wing area	:	Sink speed :
Allungamento	: AR	Rapporto di planata : 1:
Aspect ratio	:	Glide ratio :
Carico alare	: Kg/m ²	Vel. limite consentita : Km/h 300
Wing loading	:	Velocity never exceed :
Paese	: U.S.S.R.	Primo volo : 1948
Country	:	First flight :







Designer / Progettista : W. DIRKS			
Builder / Costruttore : AKAFLIEG DARMSTADT			
Seats / Posi : ONE			
Apertura alare	: m 15,00	Peso a vuoto	: Kg 210
Wing span	:	Empty weight	:
Lunghezza	: m 6,89	Peso a pieno carico	: Kg 360
Overall length	:	Max weight	:
Superficie alare	: m² 11,00	Minima discesa	: m/s 0,66
Wing area	:	Sink speed	:
Allungamento	: AR 20,5	Rapporto di planata	: 1:36,5
Aspect ratio	:	Glide ratio	:
Carico alare	: Kg/m² 32,80	Vel. limite consentita	: Km/h
Wing loading	:	Velocity never exceed	:
Paese	: BRD	Primo volo	: 1972
Country	:	First flight	:

D - 38





ELENCO DISEGNI

ARGENTINA

DINFIA IA-54	[2]
HORTEN XV [IA-34]	[1]

AUSTRALIA

ALBATROSS 26	[3]
AZURE STAR	[4]
BROLGA	[5]
EGOLINE EAGLE	[6]
EP-2 SUPER GOOSE	[7]
ES-52 KOOKABURRA	[8]
ES-60 B SUPER ARROW	[9]
GE-2 GOLDEN EAGLE	[10]
KITE 2	[11]
MISS QUEENSLAND	[13]
M-3 FALCON	[12]

AUSTRIA

AUSTRIA STANDARD	[14]
Mg-12a MUSGER	[15]
Mg-19a	[16]
Mg-23	[17]

BRASILE

CB-2 MINUANO	[18]
IPE-05	[19]
URUPEMA	[20]

BULGARIA

KOMETA STANDARD 3	[21]
-------------------------	--------

CANADA

HARBINGER	[22]
-----------------	--------

CECOSLOVACCHIA (ex)

BLANIK L-13	[23]
L-21 SPARTAK	[25]
BLANIK L-23	[26]
EL-2M SEDY VLK	[24]
SUPER BLANIK L-23	[27]
L-33 SOLO	[28]
LF-107 LUNAK	[29]
LF-109 PIONYR	[30]
MIMI B-3 SIDLO	[31]
VSM-40 DEMANT	[32]
VSM-140 DEMANT	[33]
VSO-10	[34]
VT-116 ORLIK II	[35]
WK-1	[36]

FINLANDIA

IKV-3 KOTKA	[37]
KK-1 UTU	[38]
PIK-3C KAJAVA	[39]
PIK-20	[40]
VASAMA	[41]

FRANCIA

AV-22	[42]
AV-361	[43]
AVIA 40P	[44]
BREGUET 901-S MOVETTE	[45]
BREGUET 905 FAUVETTE	[46]
CARMAM C-38	[49]
CAUDRON C-800	[47]
CAUDRON C-810	[48]
CE-75	[50]
CENTRAIR 101	[51]
COMPACT	[52]
DELANNE 30-P2	[53]
D-77 IRIS	[54]
JP 15-36A	[55]
PA 15-34	[56]
PEYRET TANDEM	[57]
SILENE E-75	[58]
SIREN C-30 EDELWEISS	[59]
SO-P1	[60]
ST-11 MINIMUS	[61]
TCV-01	[62]
TCV-02	[63]
TCV-03	[64]
WA-20 JAVELOT	[65]
WA-22 SUPER JAVELOT	[66]
WA-26	[67]
WA-28 ESPADON	[68]
WA-30 BIJAVE	[69]

GERMANIA (ex-DDR)

FES-530 I LEHRMEISTER	[70]
FES-530 II LEHRMEISTER	[71]
LOM-57 LIBELLE	[72]
LOM-58 LIBELLE	[73]
LOM-61 FAVORIT	[74]

INDIA

KARTIK KS-2	[75]
MRIGASHEER HS-2	[76]
ROHINI	[77]

GIAPPONE

C-2	[78]
H 22-B3	[79]
KU-7 MANAZURU	[81]
LSS-02	[80]
MITA 3	[82]
MXV-5	[83]

LETTONIA

BRO-5 RUTA-2	[84]
BK-6 NERINGA	[85]
EW-4	[86]

LITUANIA

LAK 9	[87]
LAK 12 LIETUVA	[88]
LAK 16	[89]
LAK 17 NIDA	[90]

OLANDA

SAGITTA	[91]
V-20	[92]

ROMANIA

CT-2	[93]
GEP	[94]
GP-2	[95]
GRUNAU BABY 2B	[96]
ICAR 1	[97]
IS-2	[98]
IS-3	[99]
IS-3a	[100]
IS-3b	[101]
IS-3c	[102]
IS-3d	[103]
IS-3e	[104]
IS-3f	[105]
IS-4	[106]
IS-5	[107]
IS-7	[108]
IS-8	[109]
IS-9	[110]
IS-10	[111]
IS-11	[112]
IS-12	[113]
IS-13	[114]
IS-18	[115]
IS-18/25	[116]
IS-28 B2	[117]
IS-29 D2 CLUB	[118]
IS-29 D2 STANDARD	[119]
IS-30	[120]
IS-32	[121]
OP-1	[122]
OP-22	[123]
RG-1	[124]
RG-2	[125]
RG-3	[126]
RG-4 PIONIER	[127]
RG-5 PESCARUS	[128]
RG-9 ALBATROSS	[129]
RM-1	[130]
RM-10	[131]
SALAMANDRA	[132]

SUD AFRICA

BJ-2	[133]
BJ-3	[134]

UNGHERIA

KARAKAN	[135]
M-22	[136]
R-IIb CIMBORA	[138]
NEMERE	[137]
R-25 MOKANY	[139]
R-27 KOPE	[140]

GRAN BRETAGNA

AS-51 HORSIA	[141]
CHARD OSPREY	[142]
CONDOR	[143]
E o N 463	[144]
FALCON 3	[145]
GINN LESNIAK KESTREL	[146]
GOLDEN WREN	[147]
GULL II	[148]
HAMILCAR I	[149]
HAWK	[150]
HEGIST 18	[151]
HJORDIS	[152]
HOTSPUR 2 GAL-48	[153]
HP 14-C	[154]
KADET	[155]
KESTREL 22	[156]
KH-1	[157]
KIRBY GULL	[158]
KING KITE	[159]
KIRBY KITE	[160]
PETREL	[161]
SCUD 1	[162]
SCUD 2	[163]
SD 3-15V	[164]
SIGMA 1	[165]
SKYLARK 3B	[166]
SLINGSBY 17	[167]
T-21B	[168]
T-34 SKY	[169]
T-43 SKYLARK 3	[170]
T-45 SWALLOW	[171]
T-49 CAPSTAN	[172]
T-50 SKYLARK 4	[173]
T-51 DART	[174]
T-53 B	[175]
T-59 D KESTREL 19	[176]
TERN	[177]
TORVA TA-1	[178]
TUTOR 2	[179]
TWIN HOTSPUR G.A.L. 48-B	[180]
VEGA	[181]
VIKING	[182]

SVIZZERA

AN-66c SUPER ELFE	[264]
B4-PC 11	[265]
CANARD 2FL	[266]
ELFE S-3	[267]
ELFE 17	[268]
DIAMANT HBV	[269]
DIAMANT 18	[270]
MOSWEY 3	[271]
SPALINGER S-15	[272]
SPALINGER S-18 II	[273]
SPALINGER S-21 I	[274]
SPALINGER S-21 II	[275]
SPALINGER S-23	[276]
SPYR TRAINER I	[277]
SPYR 3	[278]
SPYR 4	[279]
WLM 1	[280]

ITALIA

A-2	[183]
A-4	[184]
AL-3	[185]
AL-12	[186]
ALLIEVO CANTU'	[187]
ALLIEVO CANTU' II^	[188]
ALLIEVO PAVULLO	[189]
AMF-1	[190]
AM-12	[191]
ASTORE	[192]
AVIO RAZZO "RR"	[193]
BALILLA	[194]
BS-2 BALESTRUCCIO	[195]
BS-4 BASETTINO	[196]
BS-5 BALLERINA	[197]
BS-6 BIGIARELLA	[198]
BS-7 ALLIEVO ITALIA	[199]
BS-8 BIANCONE	[200]
BS-28 ALCIONE	[201]
BS-28 ALCIONE II^	[202]
BOREA	[203]
CALIF A-10	[204]
CALIF A-12	[205]
CALIF A-15	[206]
CALIF A-21S	[207]
CAT-15	[208]
CAT-20	[209]
CAT-28	[210]
CAT-28 BP	[211]
CICO GNA	[212]
CONDOR	[213]
CONDOR MG-3 15L	[214]
CR-1 GRIFONE	[215]
CVT-1 ZIGOLO	[216]
CVT-2 VELTRO	[217]
CVT-4 STRALE	[218]
CVV-1 PINGUINO	[219]
CVV-2 ASIAGO	[220]
CVV-3 ARCORE	[221]
CVV-4 PELLICANO	[222]
CVV-5 PAPERIO	[223]
CVV-6 CANGURO	[224]
CVV-7 PINOCCHIO	[225]
CVV-8 BONAVENTURA	[226]
EC 37-53 SPILLO	[227]
EC 38-56 URENDIO	[228]
EC 39-59 URIBEL	[229]
EOLO SM 3 - V1	[230]
FALCO	[231]
FALCO III^	[232]
FEBO PAGLIARINI	[233]
GHEPPIO	[234]
GOLIARDIA	[235]
GP-1	[236]
GRIFO	[237]
SUPER GRIFO	[238]
Lm-02	[239]
LT-5 TENAX	[240]
LT-12	[241]
M-100	[242]
M-100 S	[243]
M-200	[244]
M-300	[245]
MONERAI	[246]
NIBBIO II^ FRECCIA NERA	[247]
ORIONE	[248]
PASSERO	[249]
PIANA CANOVA PC-100	[250]
PIANA CANOVA PC-500	[251]
ROMA	[252]
SANT'AMBROGIO II^	[253]
SEA-SKY II^	[254]
SPARVIERO	[255]
TM-2	[256]
TOBIA	[257]
TURBINE	[258]
USUP	[259]
VELINO	[260]
VIZZOLA	[261]
ZOGLING	[262]
ZOGLING BS	[263]

GERMANIA (dalle origini al 1945)

AFH-4	[281]
AFH 10	[282]
AFH-11	[283]
ANFAENGER [HOLS DER TEUFEL]	[284]
AUSTRIA [THE ELEPHANT]	[285]
B-6	[286]
CHEMNITZ C-11	[287]
CONDOR 1 NUERNBERG	[288]
CONDOR 2a	[289]
DARMSTADT 1	[290]
DARMSTADT 2	[291]
D-9 KONSUL	[292]
D-28 WINDSPIEL	[293]
D-30 CIRRUS	[294]
DFS-230	[295]
DFS-331	[296]
DFS-42 KORMORAN	[297]
EW-2	[298]
FAFNIR	[299]
FAFNIR 2 SAO PAULO	[300]
FALKE	[301]
FS-3 BESENSTIEL	[302]
FSV-5 Mark 2	[303]
FSV-10	[304]
GÖ-1 WOLF	[305]
GÖ-3 MINIMOA (Mitteldecker)	[306]
GÖ-3 MINIMOA (Schulterdecker)	[307]
GÖ-4 GOEVIER	[308]
GOTHA GO-242	[309]
GOTHA Ka 430	[310]
GREIF H-2	[311]
GRUNAU BABY I	[312]
GRUNAU BABY II-B	[313]
HABICHT	[314]
STUMMEL HABICHT 8m	[315]
STUMMEL HABICHT 6m	[316]
Hi-21	[317]
HORTEN PARABEL	[318]
HORTEN I	[319]
HORTEN II	[320]
HORTEN III	[321]
HORTEN IV	[322]
HUETTER 17 [GOEPPINGEN 5]	[323]
HUETTER 28	[324]
KRANICH	[325]
KR-1 AUSTRIA 3	[326]
KOLIBRI	[327]
MAMMUT JU 322	[328]
MARGARETE	[329]
ME-321	[330]
WEISE	[331]
MG-9A	[332]
MOAZAGOTL	[333]
MÜ-10 MILAN	[334]
MÜ-13d ATALANTE	[335]
MÜ-15	[336]
MÜ-17 MERLE	[337]
MUSTERLE	[338]
OBS	[339]
PELZNER	[340]
PHOENIX H-8	[341]
PR-2	[342]
PROFESSOR RHOENGEIST	[343]
PRUEFLING	[344]
REIHER	[345]
RHEINLAND FVA-10 "Th.Bienen"	[346]
RHEINLAND FVA 10-B	[347]
RHOENADLER	[348]
RHOENBUSSARD	[349]
RHOENSPERBER	[350]
SCHWARZE TEUFEL FVA-1	[351]
S-10	[352]
SEEDLER	[353]
SG-38	[354]
SPERBER JUNIOR	[355]
SPERBER SENIOR	[356]
STORCH 4	[357]
STORCH VIII MARABU	[358]
STORCH IXa	[359]
VAMPIR H-1	[360]
WEIHE	[361]
WEISS	[362]
WELTENSEGLER	[363]
WIEN	[364]
ZOEGLING	[365]

JUGOSLAVIA (ex)

HS-64 CIRUS	[366]
KOSAVA	[367]
LIBIS 18	[368]
MACKA	[369]
METEOR 60	[370]
ORAO II-C	[371]
VTC DELFIN	[372]

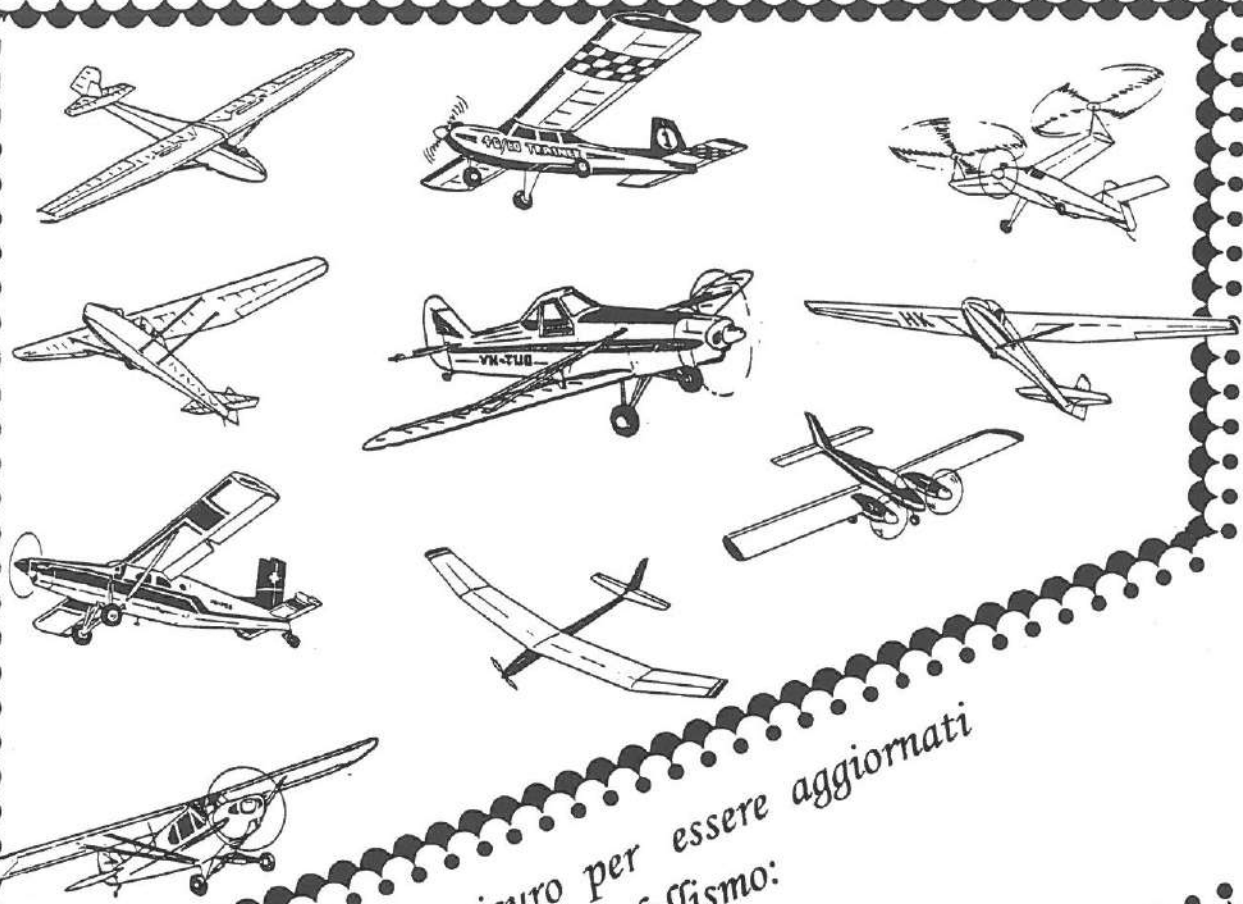
STATI UNITI D'AMERICA

ALBATROSS	[373]
SUPER ALBATROSS	[374]
BABY ALBATROSS	[375]
BG 12-16	[376]
BG 12-D	[377]
BJ-1 DUSTER	[378]
BRYAN HP-15	[380]
BRYAN HP-18	[381]
BRYAN HP-21	[382]
CARBON DRAGON	[383]
CG-4 HADRIAN	[384]
CHANUTE BIPLANE	[379]
CONCEPT 70	[385]
LK-10a	[386]
LK-10a FLAT TOP	[387]
LP-15 NUGGET	[388]
LP-49	[389]
MESCALERO	[390]
MINIBAT	[391]
MONARCH E	[392]
MONERAI	[393]
PRATT-READ G-1	[394]
RHJ-6 ADASTRA	[395]
RP-2	[396]
RS-1 ZANONIA	[397]
RS-15	[398]
SGS 1-26E	[399]
SGS 2-32	[400]
SGS 2-33A	[401]
SGS 1-35	[402]
SGS 2-8 TG2	[403]
SGS 1-34	[404]
SISU 1A	[405]
TERN II	[406]
UG 2P2	[407]
XCG-10A	[408]
XCG-16	[409]
XFG-1	[410]
XLRQ-1	[411]
YANKEE DOODLE	[412]
ZUNI IV	[413]
GENESIS	[414]

GERMANIA (dal 1945 ad oggi)

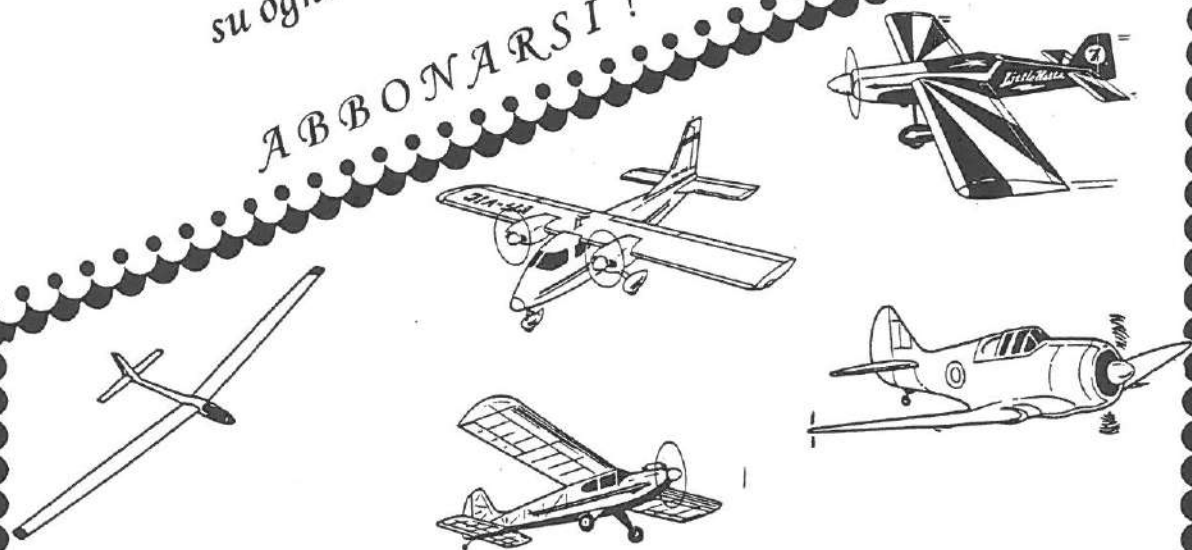
AFH-22 PEGASUS.....	[415]
AFH-24 PAPA PROELL.....	[416]
AFH-26	[417]
AK-5	[418]
ASW-12	[419]
ASK-13	[420]
ASW-15 B	[421]
ASW-17	[422]
ASK-18	[423]
ASW-19	[424]
ASW-20	[425]
ASK-21	[426]
ASW-22	[427]
ASK-23	[428]
ASW-24	[429]
ASH-25	[430]
ASW-27	[431]
ASTIR CS-77	[432]
AV-36-C	[433]
B-12	[434]
B-13	[435]
BERGFALKE 4	[436]
BS-1	[437]
CIRRUS	[438]
CIRRUS STANDARD 75	[439]
D-34b	[440]
D-34d	[441]
D-36 CIRCE	[442]
D-37 ARTEMIS	[443]
D-38	[564]
D-40	[444]
D-41	[445]
DG-100	[446]
DG-200	[447]
DG-300	[448]
DISCUS	[449]
DOPPELRAAB	[450]
E-14	[451]
FALCON II	[452]
FK-3	[453]
FS-24 PHOENIX T	[454]
FS-25 CUERVO	[455]
FS-29	[456]
FS-31	[457]
FS-32	[458]
FS-33	[459]
G-102 ASTIR CS	[460]
G-103 TWIN ASTIR	[461]
GLASFLUEGEL 304	[462]
GLASFLUEGEL 402	[463]
GLASFLUEGEL 604	[464]
Hi-25 KRIA	[465]
HKS-3	[466]
HORNET	[467]

HORTEN XVI	[468]
JANUS	[469]
Ka-6 CR RHOENSEGLER.....	[470]
Ka-7 RHOENADLER.....	[471]
Ka-8 B	[472]
Ka-10	[473]
KESTREL 17	[474]
LCF-2	[475]
LIBELLE 201-B	[476]
LIBELLE 205-Club	[477]
LIBELLE H-301-B	[478]
LO-100	[479]
LO-150	[480]
LS-3	[481]
LS-4	[482]
MILOMEI M-2	[483]
MINI-NIMBUS HS-7	[484]
MISTRAL C	[485]
MOSQUITO	[486]
MÜ-13 BERGFALKE	[487]
MÜ-22 A	[488]
MÜ-26	[489]
MÜ-27	[490]
MÜ-28	[491]
NIMBUS 2	[492]
NIMBUS 3	[493]
PHOEBUS A	[494]
SALTO H-101	[495]
SB-5c	[496]
SB-6	[497]
SB-7b	[498]
SB-8	[499]
SB-9	[500]
SB-10	[501]
SB-11	[502]
SB-12	[503]
SB-13	[504]
SB-14	[505]
SF-27 ZUGVOGEL.....	[506]
SF-30 CLUB SPATZ	[507]
SF-34 B	[508]
SHK	[509]
SH-14	[510]
SL-1F	[511]
SL-2	[512]
SPATZ L-55	[513]
SPEED ASTIR	[514]
STEMME S-10	[515]
ULF-1	[516]
VENTUS b	[517]



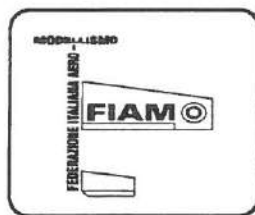
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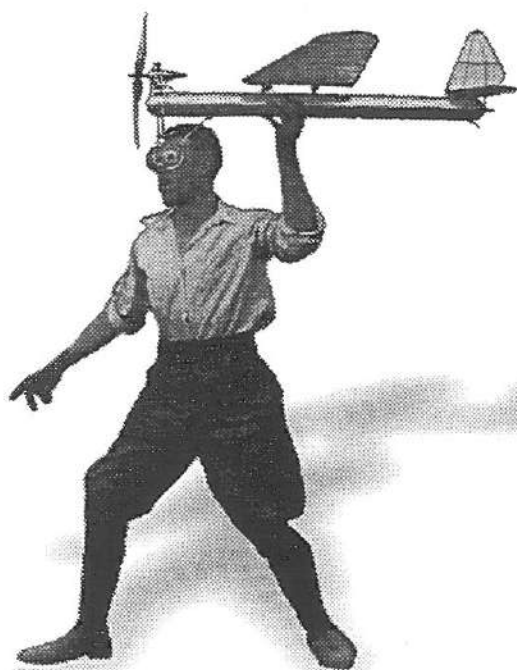
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