0.2 List of Effective Pages

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	LBA-App.	2.12	Nov. 90
	LBA-App.	2.13	Nov. 90
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3	LBA-App.	3.1	Nov. 90
	LBA-App.	3.2	Nov. 90
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	LBA-App.	3.4	Nov. 90
	LBA-App.	3.5	Nov. 90
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	LBA-App.	3.7	Nov. 90
	LBA-App.	3.8	Nov. 90
	LBA-App.	3.9	Nov. 90
	LBA-App.	3.10	Nov. 90
	LBA-App.	3.11	Nov. 90
4	LBA-App.	4.1	Nov. 90
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1.4 Descriptive Data

The ASW 24 E is a high performance powered single-seater sailplane the design of which was orientated to the FAI Standard Class specification.
The ASW 24 E is suitable for record breaking and competition flying. Not least, its pleasant flying characteristics make the ASW 24 E suitable for use for the pilot experienced in powered soaring.

The ASW 24 E is a shoulder wing glider with stabilised T-tail (tailplane-plus-elevator) and sprung, retractable landing gear with hydraulic disc brake and a retractable 24 hp (17,6 kW) power-plant which allows self-launching up to a take-off mass of 460 kg (1014 lbs).

As power-plant a ROTAX 275 single cylinder two-stroke engine is used which drives a wooden two-bladed propeller (mt-propeller, Straubing) by a toothed wheels reduction gear.

Optional operation of the ASW 24 E with **0.5 m** (about one foot) high winglets is approved.

Technical Data:	(metric system)
Span	15.00 m
Fuselage length	6.55 m
Height (Fin and Tail Wheel)	1.30 m
Max.Take-Off Mass	500.00 kg
Max. Take-Off Mass, Self-Launch	460.00 kg
Wing chord (mean aerodynamic)	0.71 m
Wing area	10.00 m^2
Height of winglet	**0.5 m**
Wing loadings - min.	34.5 kg/m^2
Wing loadings - max.	50.0 kg/m^2
Engine Performance	24.0 HP, 17,6 kW
Propeller Diameter	1.40 m
Reduction Rate Engine/Propeller	3 in 1

Technical Data: (British system)

Span	49.21 ft
Fuselage length	21.49 ft
Height (Fin and Tail Wheel)	4.27 ft
Max. Take-Off Mass	1102.31 lbs
Max. Take-Off Mass, Self-Launch	1014.13 lbs
Wing chord (mean aerodynamic)	2.33 ft
Wing area	107.64 ft^2
Height of winglet	**19.68 in**
Wing loadings - min.	7.07 lbs/ft^2
Wing loadings - max.	10.24 lbs/ft^2
Engine Performance	24.0 HP, 17,6 kW
Propeller Diameter	4.59 ft
Reduction Rate Engine/Propeller	3 in 1

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	0.6	Nov. 90		2.22	Nov. 90
	0.7	Nov. 90		2.23	Nov. 90
1	1.1	Nov. 90		2.24	Nov. 90
	1.2	Nov. 90		2.25	Nov. 90
	1.3	20.03.07		2.26	Nov. 90
	1.4	Nov. 90		2.27	Nov. 90
	1.5	20.03.07		2.28	Nov. 90
	1.6	Nov. 90		2.29	Nov. 90
	1.7	Nov. 90		2.30	Nov. 90
	1.8	Nov. 90		2.31	Nov. 90
2	2.1	Nov. 90		2.32	Nov. 90
	2.2	Nov. 90		2.33	Nov. 90
	2.3	Nov. 90		2.34	Nov. 90
	2.4	Nov. 90		2.35	Nov. 90
	2.5	Nov. 90		2.36	Nov. 90
	2.6	Nov. 90		2.37	Nov. 90
	2.7	Nov. 90		2.38	Nov. 90
	2.8	Nov. 90		2.39	Nov. 90
	2.9	Nov. 90		2.40	Nov. 90
	2.10	Nov. 90		2.41	Nov. 90
	2.11	Nov. 90		2.42	Nov. 90
	2.12	Nov. 90		2.43	Nov. 90
	2.13	Nov. 90		2.44	Nov. 90
	2.14	Nov. 90		2.45	09.09.92
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1.2.1 Wings

The 2-part wing is of GRP/SRP hard foam sandwich construction. The I-section spar consists of carbon fiber caps with GRP/hard foam web. The wings are assembled in the fuselage by means of a tongue-and-fork joint and two cylindrical main pins. The fuselage is connected to the wings by 4 lift and drag pins.

If the ASW 24 is equipped with winglets, these are inserted (depending on the type) from top into the wingtip or together with the wingtip into the wing. A spring loaded bolt secures the winglet in its position.

1.2.2 Fuselage

The fuselage shell construction employs hybrid materials technology. The mixture of glass, carbon and aramide fibers provides a light, rigid structure capable of protecting the pilot even in the case of an accident. The additional stiffening provided in the cockpit area further increases pilot safety.
The fin is made up from GRP/SRP hard foam sandwich so as not to impede signal transmission from the VHF radio aerial.

1.2.3 Tail Unit and Aileron

The stabilizer of the horizontal (stabilizer-plus-elevator) T-tail unit is of GRP/SRP/CRP sandwich construction. The elevator is a GRP/SRP skin, the rudder is of GRP/SRP/sandwich construction and the aileron is again a GRP/SRP skin.

1.4 Specifications

Wings

Span	15.00 m	(49.22 ft)
Wing area	10.00 m²	(107.64 ft²)
Aspect Ratio		22.50
Dihedral (spar top surface)		3.25°
Sweepback (both inner wing tapers)		0°
(outboard wing taper)		+0.78°
Airfoil section		DU 84-158

Winglet

Height	**0,5 m**	**(19.68 in.)**
Area	**0,06 m²**	**(0.65 ft²)**
Aspect Ratio		**ca. 4**

Fuselage

Length	6.55 m	(21.49 ft)
Height at T-tail incl. tail wheel	1.30 m	(4.27 ft)
Cockpit width (inside)	0.64 m	(2.1 ft)
Cockpit height	0.81 m	(2.66 ft)

Vertical Tail

Height above tail boom top edge	1.20 m	(3.94 ft)
Surface area	0.95 m²	(10.23 ft²)
Airfoil Section		DU 86-131/30

Rudder

Surface area	0.27 m²	(2.91 ft²)