

ASW 24 Flight Manual

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ASW 24 Flight Manual

Optional operation of the ASW 24 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
Wing chord (mean aerodynamic)	0.71 m
Wing area	10.00 m ²
Height of winglet	0.5 m
Wing loadings -	
- min.	30.5 kg/m ²
- max.	50.0 kg/m ²

	(British system)
Span	49.22 ft
Fuselage length	21.49 ft
Height (Fin and Tail Wheel)	4.27 ft
Max.Take-Off Mass	1102.00 lbs
Wing chord (mean aerodynamic)	2.33 ft
Wing area	107.64 ft ²
Height of winglet	19.68 inches
Wing loadings -	
- min.	6.25 lbs/ft ²
- max.	10.24 lbs/ft ²

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1.1 Introduction

This Maintenance Manual was produced because the safety and airworthiness of an aircraft depends to a large measure also on the careful maintenance of all its components. Its airworthiness can be assured only if the ASW 24 is maintained and operated in the manner laid down in the Manuals.

1.2 Description of the Sailplane

The ASW 24 is a single-seater mid-wing glider with T-tail unit, retractable sprung landing gear with hydraulic disc brake, and including water ballast system. Automatic connections for elevator, aileron and airbrakes controls have been developed for this design. The double-paddle dive brakes with spring loaded sealing caps extend on the top surface only.

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.

If the ASW 24 is equipped with detachable 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.

Secondary structures are:

- all tail units and control surfaces
- fuselage in the cockpit area
- all doors, airbrakes and fairings.

1.4 Specifications

Wings

Span	15.00 m	(49.22 ft)
Wing area	10.00 m ²	(107.64 ft ²)
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 m ²	(0.65 ft ²)
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 m ²	(10.23 ft ²)
Airfoil Section		DU 86-131/30