

MISSION M108

Light Sport Aircraft General Specification

POWERED BY
ROTAX
912 IS



LAMBERT AIRCRAFT ENGINEERING



Mission M108 Description

Wings

Fabric covered wings supported by wing struts. Dual tubular aluminium alloy wing spars. Plywood wing ribs. Frise ailerons operated through cables. Manually operated trailing edge flaps. Quick wing folding system.

Fuselage

Fabric covered welded space frame fuselage structure from high strength steel alloy tubing. Horizontal tailplane supported by streamlined struts. Fixed fin with conventional rudder.

Landing gear

Fuselage mounted fixed landing gear. Main landing gear legs by cantilever composite leaf springs. 6" main wheels with hydraulic disc brakes. Different tyre size options. Steerable nose wheel with telescopic strut or steerable tailwheel.

Systems

Cable operated rudder. Elevator operated through push-pull rods. Aileron control through cable system. Elevator trim tab operated through push-pull cable. Composite fuel tanks in the wings leading to header tank in the fuselage. 14 VDC electrical system with battery and engine driven alternator.

Cockpit

Two seats in side-by-side arrangement. Fore and aft adjustable seats with backrest folding forward to provide access to baggage area. Full dual controls with elevator and ailerons operated by conventional stick columns. Differential toe brakes on tailwheel model; optional toe brakes on passenger side. Single lever operated brakes on nose-wheel model with optional parking brake.

Four point seat harnesses. High quality interior and seat upholstery. Central throttle control. Brake lever and elevator trim control between seats.

Two upward hinging doors. Cabin ventilation system. Optional cabin heating system.

Instruments and avionics

Choice of several standard avionics packages, each with various options. See list of avionics options.

Powerplant

Engine: **Rotax 912iS Sport** with DUC three blade ground adjustable propeller.



Mission M108 Equipment & Options

Landing gear and brakes	Nosewheel version	Taildragger version
Manual brake lever	● ¹	n/a
Parking brake valve	○	○
Toe brakes on pilot side	○ ¹	●
Toe brakes on passenger side	○ ¹	○
Main wheel tyres 15x6.00x6, nose wheel tyre 4.00x6	●	●
All tyres 8.00x6 (Carlisle)	○	○
Tyres 26"x12"x6" (Alaskan bush tyres)		○ ²
Wheel spats	○	○

Exterior	All models
Exterior trim, standard trim scheme in 2 colours of choice	●
Aircraft exterior colour in other colour than white	○
Full custom paint scheme	○
Tinted windshield and windows (with anti-UV and IR coating)	○
Full transparent doors	○

Interior & Safety Equipment	All models
Four point seat harnesses (Schroth), TSO	●
Airframe emergency recovery system (ballistic parachute)	●
Seat cushions with energy absorbing foam	●
Stall warning system	●
Deluxe interior panels, floor carpets and seat upholstery (leather)	○
Cabin heating system	○
Heated pitot probe & alternate static source	○
LED Interior lighting system with dual dimmer	○
Whelen LED tail mounted anti-collision light (non-TSO)	○
Whelen wingtip mounted all LED anti-collision and position lights, TSO	○
Whelen LED leading edge landing/taxi/recognition light	○

Powerplant & Systems	Rotax 912iS
Rotax 912iS Sport engine, 73 kW (100 hp)	●
Thermostat controlled temperature of coolant & oil systems	●
40A main alternator (28A standard alternator retained as standby alternator)	○
DUC Swirl Inconel, 3-blade propeller, 68" diameter, metal leading edges	●
DUC Flash, 3-blade propeller, 68" diameter, metal leading edges	○
Long range fuel tanks (110 litres total usable fuel capacity)	○

¹ Nosewheel aircraft with optional toe brakes will not have a manual brake lever

² Bush tyres will affect aircraft performance. Refer to POH supplement.

● Standard

○ Optional

Mission M108 Specifications

Wing span	31 ft 4 in (9.57 m)
Wing area	131 sq ft (12.2 m ²)
Aspect ratio	7.45
Tailplane span	7 ft 11 in (2.40 m)
Length	20 ft 0 in (6.10 m)
Height	7 ft 6 in (2.25 m) nosewheel 6 ft 2 in (1.90 m) taildragger
Wheel track	5 ft 11 in (1.77 m)
Width with wings folded	8 ft 6 in (2.60 m)
Baggage capacity	90 lbs (40 kg)
Cabin width	43 in (1.08 m)
Fuel capacity, standard	20.5 US gal (78 litres)
Fuel capacity, optional	29.0 US gal (110 litres)
Never exceed speed	120 kt (222 km/h)
Max. crosswind comp.	12 kt (22 km/h) taildragger 16 kt (30 km/h) nosewheel
Limit load factors	+3.8/-1.9 g

Mission M108 Performance

Engine	Make	Rotax
	Type	912iS Sport
	Number of cylinders	4
	Displacement	82.6 cu in (1352 cm ³)
	Engine power	100 HP (73 kW) at 5800 rpm
	Approved fuels	Mogas, Avgas 91UL & 100LL
Propeller	Make	DUC
	Type	Swirl Inconel
	Number of blades	3
	Diameter	68" (173 cm)
Empty weight		720-740 lbs (330-340 kg)
Maximum take-off weight		1320 lbs (600 kg)
Maximum level speed		105 kt (195 km/h)
Rate of climb		950 ft/min (4.75 m/s)
Cruising speed		85-90 kt (160-170 km/h)
Fuel consumption (typical)		12-15 litres/h (3.2-3.9 US gph)
Range, std fuel / opt. fuel		450 nm (850 km) / 680 nm (1250 km)
Stall speed, full flaps		38 kt (70 km/h)
Take-off ground roll		250-400 ft (80-130 m)



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