

JODEL D150 MASCARET

Issue 3 Reference to Lycoming O-235 and engine mount dated 12.2.08
drawing changed

1. UK contact

Pete Smoothy, Airworld (UK), PO Box 1835, Winslow. MK18 3ZS tel 0700 247 9675 e-mail sales@airworlduk.com.

2. Description

The Jodel D150 Mascaret is a two-seat low-wing tailwheel undercarriage touring aeroplane of all wood fabric-covered construction, previously factory produced as a type certified aeroplane but now supplied in the form of a set of drawings. The engine fitted is a Continental O-200A or Lycoming O-235.

The Jodel D150 Mascaret is categorised as an SEP Aeroplane (colloquially referred to as 'group A') not a microlight in the UK.

The standard LAA-accepted drawings for building the D150 are of French origin, originally supplied by SAB of Beaune. The drawings supplied by Frank Rogers of Australia are also accepted. Some early drawings from Frank Rogers may not have included drawings of the engine mount, in which case the SAB drawings or later Rogers mount drawing for the engine mount must be used for this component.

3. Fast Build Kit 51% Compliance

Not applicable- plans built aircraft.

4. Build Manual

Not applicable – plans built aircraft. However the LAA information pack for the Jodel D18 provides much useful guidance information equally applicable to the D150.

5. Maintenance Manual

None available – recommend maintain in accordance with LAMS schedule.

6. Build Inspections

Build inspection schedule 1 (Wood aircraft).
Inspector approval codes A-A or A-W. Inspector signing off final inspection also requires 'first flight' endorsement.

7. Flight Manual

None available. See French Fiche number 81 for additional flight information

8. Mandatory Permit Directives

None applicable specifically to this aircraft type, but note

MPD: 1998-019-R1 Flexible Fuel Tubing Applies to all aircraft

JODEL D150 MASCARET

9. LAA Modifications

Nil. Note however the installation of a shoulder harness is mandatory for all LAA Jodels.

10. Service Bulletins

Avions Robin SB5 Addition of flap hinge locator plates. Strictly applies to DR250 series but D150 uses same hinges.

Avions Robin SB 102 – inspection of fuel quantity senders and sender wells for corrosion, fitting of cover plates to prevent water ingress.

French Airworthiness Directive **010.06.79 Stabilator Attachment - Inspection For Corrosion**. Applies to all Jodels fitted with an all-moving tailplane. For the amateur built, the AD is not a legal requirement but nevertheless LAA policy is that it should be treated as mandatory. The AD requires removing the stabilator bearing attachment plates (x 4 per aircraft) located each side of the upper rear longerons and inspect for evidence of corrosion. Corroded plates should be replaced with new parts. *This AD requires repetitive inspection every three years*. Note that similar exfoliation corrosion problems have been experienced on Jodel D150 flap actuator horns.

Also **AD 69.71** Requires replacement of mild steel stabilator tab hinges with stainless steel equivalents to avoid problems with corrosion and seizure.

Also **AD 64.26.23** requires modification of pre-1966 'Jacottet' trim tab control unit restricting the clearance of the operating handle along its axis.

11. Standard Options

Fabric can be attached by bonding to the wing ribs with Super-seam cement (or equivalent) rather than rib stitching, but only if rib cap strips are fitted and fabric anchored at wing dihedral break in accordance with Jodel drawing G1 and translated covering notes available from LAA.

12. Special Inspection Points

- **Wooden Structure - Damage And Deterioration**
Jodels are well known for their tendency to ground loop if mishandled on landing. The undercarriage is designed to collapse sideways in such a way that there is a good chance the wing spar will remain undamaged. However, instances of spar damage are known to have occurred even after apparently benign ground loop incidents. Very thorough inspection will be required after all such events. Other parts of the wooden structure particularly prone to damage are the engine firewall area behind the metal bulkhead, where moisture and oil soakage can lead to early deterioration, and in the aft fuselage tail-post area where these contaminants are also likely to collect. These areas are always worth examining closely and special attention should be given to keeping drain holes clear.

JODEL D150 MASCARET

- Wing Trailing Edge Attachment Bolts
Jodel wing trailing edge attachment bolts (x 2) are known to be particularly subject to corrosion. It is considered wise to remove these bolt every couple of years and renew as necessary. Replacement bolts are available from Jodel parts suppliers.
- The Frank Rogers drawings do not show the outboard wing rib leading edges 'drooped' pictorially to match the aerofoil co-ordinates as provided. The co-ordinates are correct when compared to Jodel drawing 10 V3 14.1.67 (leading edge droop modification), ignore the pictorial shape.

13. Operating Limitations and Placards

Maximum number of occupants authorised to be carried: Two

The aircraft must be operated in compliance with the following operating limitations, which shall be displayed in the cockpit by means of placards or instrument markings:

Aerobatic Limitations

Aerobatics prohibited.

Intentional spinning is prohibited.

Loading Limitations

Maximum Total Weight Authorised: 720 Kg

CG Range: 310mm to 550mm aft of datum point.

Datum Point is: The leading edge of the rectangular portion of the wing.

Engine Limitations

Maximum Engine RPM: Continental O-200 ; 2750 rpm.

Lycoming O-235; as applicable to engine model (normally 2800)

Airspeed Limitations

Maximum Indicated Airspeed: 165 mph

Maximum Indicated Airspeed with flaps extended: 93 mph

Other Limitations

The aircraft shall be flown by day and under Visual Flight Rules only.

Smoking in the aircraft is prohibited.

Additional Placard

"Occupant Warning - This Aircraft has not been Certificated to an International Requirement"

Fireproof identification plate (normally stainless steel) must be fitted to fuselage, engraved or stamped with aircraft's registration letters.

14 Additional Engine Limitations/placards

With Continental O-200:

Minimum oil pressure : 0.7 kg/sq cm

Maximum oil temperature : 107 C

Min fuel pressure : 0.09 kg/sq cm

With Lycoming O-235: as applicable to engine model

JODEL D150 MASCARET

15. Maximum Permitted Empty Weight

N/A

16. Special Test Flying Issues

N/A

17. Control Surface Deflections

Ailerons	Up: 12-15 degrees
	Down: 12-15 degrees
Stabilator	Up: 12 degrees
	Down: 11 degrees
Rudder	Left 30 degrees
	Right 30 degrees
Flap	Down 50 degrees
Elevator tab	Up 13 degrees
	Down 0 degrees

18 Additional Weighing Information

Levelling datum: Upper longeron at cockpit
Moment arm of crew: 610mm
Moment arm of front tank: 100mm
Moment arm of rear tank: 1180mm
Moment arm of baggage: 1370mm

19. Significant Airworthiness Approval Notes

PFA-235-363 Initial acceptance

Approved :



F.R. Donaldson
Chief Engineer

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