

KOLB TWINSTAR MK3 EXTRA

Issue 1 Initial Issue

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1. UK contact

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2. Description

The Kolb Twinstar Mk III Extra is a high wing two seat microlight with a pusher engine. Either the Rotax 582 or Jabiru 2200A engine may be fitted.

3. Fast Build Kit 51% Compliance

Not applicable – the aircraft is built from a slow-build kit.

4. Build Manual

Provided with kit.

5. Build Inspections

Build inspection schedule 9 (Tubular aircraft).

Inspector approval codes A-A, A-M, K or M. Inspector signing off final inspection also requires 'first flight' endorsement.

6. Maintenance Manual

Refer to operators manual. In the absence of specific information refer to LAMS schedule and engine manufacturer's schedule.

7. Flight Manual

See operators manual

8. Mandatory Permit Directives

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

MPD: 1997-010 Seat pan modification

KOLB TWINSTAR MK3 EXTRA9. LAA Mandatory Modifications

It will be essential to ensure that your project conforms with the LAA required modifications for the Mk 3 Extra model. These comprise the following modifications which are to be supplied by Kolb with the kit:

- 1.1 Control surface hinges uprated to MS2001-3 spec
- 1.2 Addition of aileron control stops
- 1.3 Elevator cables uprated to 3mm diameter
- 1.4 Flap lever extension
- 1.5 Uprated wing struts

In addition, the following mods apply which will be supplied by Silver Fern

- 1.6 Door stop
- 1.7 Elevator stop
- 1.8 Instrument console brace
- 1.9 Instrument console edge softening.
- 1.10 Lexan panels added to enclose section to rear of cockpit
- 1.11 Seat modification to improve crew protection as shown in Mainair service bulletin KSB1, including aluminium seat base and Dyna foam energy-absorbing squab.

10. Service Bulletins

Nil known

11. Standard Options

Wing vortex generators allowing an increase in max gross weight to 431 kg

12. Special Inspection Points

Correct positioning of wing vortex generators per Silver Fern instructions

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

The aeroplane is permitted to fly only for non-aerobatic operation. In this context non-aerobatic operation includes any manoeuvre necessary for normal flying, intentional stalls from level flight and steep turns in which the angle of bank doesn't exceed 60degrees.

Intentional spinning is prohibited

Maximum Total weight Authorised: 405 Kg (431 Kg with vortex generators fitted per mod 11271)

CG Range: 11.6 inches to 20.3 inches aft of datum.

Datum Point is: Leading edge of wing

KOLB TWINSTAR MK3 EXTRA

Engine Limitations

Maximum Engine RPM: 6800 (with Rotax engine)
3300 (with Jabiru engine)

Airspeed Limitations

Maximum Indicated Airspeed: 95 mph
Maximum Indicated Airspeed with Flaps Extended: 60 mph

Other Limitations

The aircraft shall be flown by day and under Visual Flight Rules only.
Smoking in the aircraft is prohibited.
Sideslipping prohibited.
Minimum solo pilot weight without ballast: 77 Kg
Smoking in the aircraft is prohibited.

Additional Placard

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

14. Maximum Permitted Empty Weight

<u>Model</u>	<u>Engine</u>	<u>Max empty weight</u>	
Mk 3 Extra	Rotax 582	225 Kg	(241Kg with mod 11271)
Mk 3 Extra	Jabiru 2200A	233 kg	(249 Kg with mod 11271)

15. Special Test Flying Issues

Supplementary Rotax two stroke flight test schedule if Rotax engine fitted.

16. Control surface deflections

Ailerons	Up:	TBD degrees
	Down:	TBD degrees
Elevators	Up:	TBD degrees
	Down:	TBD degrees
Rudder	Left	TBD degrees
	Right	TBD degrees
Flap	Down	TBD degrees
Elevator tab	Up and down	TBD degrees

17. Noise Certification

As a microlight aircraft, a noise certificate must be issued by the CAA specific to each individual aircraft built. A new noise certificate must be obtained following any change in noise output, including change to engine type, reduction gear ratio, propeller type, propeller pitch setting, type of exhaust, exhaust after-muffler or intake silencer.

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Approved:



F.R. Donaldson
Chief Engineer

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