



**LAA TYPE ACCEPTANCE DATA SHEET**  
**TADS 400**  
**SLING 4**

Issue 1	Initial Issue	Dated 16/9/20	JH
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This TADS is intended as a summary of available information about the type and should be used during the build, operation and permit revalidation phases to help owners and inspectors. Although it is hoped that this document is as complete as possible, other sources may contain more up to date information, e.g. the manufacturer's website.

Section 1 contains general information about the type.

Section 2 contains information about the type that is **MANDATORY** and must be complied with.

Section 3 contains advisory information that owners and inspectors should review to help them maintain the aircraft in an airworthy condition. If due consideration and circumstances suggest that compliance with the requirements in this section can safely be deferred, is not required or not applicable, then this is a permitted judgement call. This section also provides a useful repository for advisory information gathered through defect reports and experience.

## **Section 1 - Introduction**

### 1.1 UK contact

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### 1.2 Description

The Sling 4 is a four-seat low-wing, aeroplane of conventional layout and riveted aluminium construction powered by a Rotax 914-UL engine. It is produced in South Africa, as a kit complying with the 51% rule. The aircraft has integral fuel tanks occupying the wing leading edge sections forward of the main spar. The crew are seated within an enclosed cockpit featuring twin gull wing doors. The undercarriage is of fixed tricycle type, with a steerable nosewheel, the main gear being of aluminium spring leaf type while the nosegear is of telescopic type.

The only engine model currently approved in the UK for use in the Sling 4 is the Rotax 914-UL, this is fitted in conjunction with an Airmaster AP332SCTF-WWR70W constant speed propeller.

Note that the only propeller(s) approved for an individual aircraft are those listed on the individual aircraft's Operating Limitations document or in the PTL/1 (Propeller Type List) for the type.

## **Section 2 – Mandatory information for owners, operators and inspectors**

At all times, responsibility for the maintenance and airworthiness of an aircraft rests with the owner. Condition No 3 of a Permit to Fly requires that: "*the aircraft shall be maintained in an airworthy condition*".



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2.1 Kit 51% Rule Compliance

On the basis of an informal comparison with other kits that have already been accepted by the LAA as 51% compliant this is considered to meet the intent of the 51% rule without further proof being needed.

2.2 Build Manual

"Sling 4 KAI" (Kit Assembly Instruction) supplied with kit.

2.3 Build Inspections

Build inspection schedule 92 (Sling 2 and 4).

Inspector approval codes A-A, A-M or K. Inspectors must also have a '4SA' approval for approving build stage inspections. Inspector signing off final inspection also requires 'first flight' endorsement

2.4 Flight Manual

Sling 4 Pilot's Operating Handbook "DC-POH-001-X-C-8" – Supplied with kit.

2.5 Mandatory Permit Directives

None applicable specifically to this aircraft type:

Also check the LAA website for MPDs that are non-type specific ([TL2.22](#)).

2.6 LAA Required Modifications (including LAA issued AILs, SBs, etc)

Nil

2.7 Additional engine operating limitations to be placarded or shown by instrument markings

Notes:

- Refer to the engine manufacturer's latest documentation for the definitive parameter values and recommended instruments.
- Where an instrument is not fitted, the limit need not be displayed.

With Rotax 914-UL engine: Maximum Manifold Pressure: 1300 hPa (38.4 inHg)  
(max continuous, 1150 hPa (34 inHg))  
Maximum EGT: 950°C  
Maximum CHT: 135°C  
Max Coolant Temp: 120°C (with 50/50 Glycol/water coolant)  
Oil Temp Limits: 50°C to 130°C (Normal 90-110°C)  
Oil Pressure 1.5-7 Bar (1.5-5 bar normal)



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2.8 Control surface deflections

Ailerons	Up: 22° Down: 22°
Elevator	Up: 28° Down: 20°
Elevator tab	Up: 5° Down: 25°
Rudder	Left: 25° Right: 25°
Flap	Up: 0° Down: 11°, 20°, 32°

2.9 Operating Limitations and Placards

(Note that the wording on an individual aircraft's Operating Limitations document takes precedence, if different.)

1. Maximum number of occupants authorised to be carried: Four  
 Minimum number of occupants authorised to be carried: One pilot. No-one shall be carried except minimum crew during flights for the purpose of public exhibition and demonstration flying.
  
2. 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:
  - 2.1 Aerobatic Limitations  
 Aerobatic manoeuvres are prohibited.  
 Intentional spinning is prohibited.
  
  - 2.2 Loading Limitations  
 Maximum Total Weight Authorised: 920 kg  
 CG Range: 1859 mm to 2034mm aft of datum (18 to 31% MAC)  
 Datum Point is: 1616mm forward of leading edge of the wing at root.  
 Maximum baggage weight: 35 kg
  
  - 2.3 Engine Limitations  
 Rotax 914-UL:  
 Maximum Engine RPM: 5800  
 Maximum Continuous RPM: 5500
  
  - 2.4 Airspeed Limitations  
 Maximum Indicated Airspeed (V<sub>NE</sub>): 135 kts IAS  
 Max Indicated Airspeed Flaps Extended: 85 kts IAS
  
  - 2.5 Other Limitations  
 The aircraft shall be flown by day and under Visual Flight Rules only.  
 Smoking in the aircraft is prohibited.  
 Structural fatigue life: 500 flying hours



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Additional Placards:

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

A fireproof identification plate must be fitted to fuselage, engraved or stamped with aircraft’s registration letters.

2.10 Maximum permitted empty weight

Not applicable

**Section 3 – Advice to owners, operators and inspectors**

3.1 Maintenance Manual

Sling 4 Maintenance Manual “DC-MAM-001-X-C-23” – Supplied with kit.

3.2 Manufacturer’s/Standard Options

None.

3.3 Manufacturer’s Information (including Service Bulletins, Service Letters, etc)

In the absence of any over-riding LAA classification, inspections and modifications published by the manufacturer should be satisfied according to the recommendation of the manufacturer. It is the owner’s responsibility to be aware of and supply such information to their Inspector.

<i>Reference</i>	<i>Description</i>
<a href="#">TAF Service Bulletin 0014 Rev 1</a>	Rivet replacement on fuselage main spar carry through and on upper and lower inboard wing skins.
<a href="#">TAF Service Bulletin 0014</a>	CANCELLED – Rivet replacement on fuselage main spar carry through and on upper and lower inboard wing skins.
<a href="#">TAF Safety Alert 009</a>	CANCELLED - Potential risk of failure when activating the parachute rocket.
<a href="#">TAF Safety Alert 006</a>	Parachute blow-off skin incorrectly installed which may prevent the parachute from deploying correctly.
<a href="#">TAF Safety Alert 005</a>	Modification to fuel tank pickup to prevent inadvertent upward facing pickup.
<a href="#">TAF Service Bulletin 0013</a>	Replacing rudder pedal stops with latest revision.



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[TAF Service Bulletin 0012](#)

Potential risk of failure of parachute rocket activation due to incorrect installation of activation cable.

[TAF Service Bulletin 0010](#)

Annual inspection of Rib 601 for material thickness and cracks.

[TAF Service Bulletin 006](#)

Verify the correct Master Switch has been installed.

[TAF Service Bulletin 005](#)

Incorrect material used on guides which could lead to premature wear on pushrods.

[TAF Service Bulletin 004](#)

Placement of the ELT antenna.

[TAF Service Bulletin 002](#)

Reinforcement of the upper join between the centre and rear fuselages.

[TAF Service Bulletin 001](#)

Longitudinal cracks appearing in the main landing gear.

3.4 Special Inspection Points

None known

3.5 Operational issues

None known

3.6 Standard Modifications

None.

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Please report any errors or omissions to LAA Engineering: [engineering@laa.uk.com](mailto:engineering@laa.uk.com)