



**LAA TYPE ACCEPTANCE DATA SHEET**  
**TADS 399**  
**SLING 2**

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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 2 is a two-seat low-wing, aeroplane of conventional layout and riveted aluminium construction powered by a Rotax 914 or 912iS 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 models currently approved in the UK for use in the Sling 2 are the Rotax 912iS and the 914-UL, both fitted with an Airmaster AP332SCTFH-WWR70W-R 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 2 construction manual” supplied with kit

2.3 Build Inspections

Build inspection schedule 92 (Sling 2 and 4).

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

2.4 Flight Manual

Sling 2 Pilot’s Operating Handbook “DC-POH-002-X-B-7” – 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)

The following modifications were required by the LAA for acceptance of the type in the UK, as follows:

When fitted with the Rotax 914-UL engine, TCU warning lamp colours: BOOST LIMIT lamp to be red, TCU FAULT lamp to be amber.

When fitted with the Rotax 912iS engine, the standard Rotax fine fuel filter must be fitted in place of the supplied filter and a check valve must be installed in the fuel return line as per the Rotax installation manual.

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 912iS engine:

Maximum CHT: 135°C

Max Coolant Temp: 120°C (with 50/50 Glycol/water coolant)



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Oil Temp Limits: 50C to 130°C (Normal 90-110°C)  
Oil Pressure: 2-5 Bar  
Minimum Fuel Pressure: 0.15 bar

2.8 Control surface deflections

Ailerons	Up: 24° ±2° Down: 24° ±2°
Elevator	Up: 30° ±2° Down: 20° ±2°
Elevator tab	Up: 8° ±5° Down: 20° ±5°
Rudder	Left: 25° ±2° Right: 25° ±2°
Flap	Up: 0° Down: 10°, 20°, 30° ±3°

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: Two  
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: 700 kg  
CG Range: Limits 1635mm to 1808mm aft of the datum point.  
Datum Point is: Front face of the propeller mounting flange.  
Maximum baggage weight: 35 kg
  - 2.3 Engine Limitations  
Rotax 912iS:  
Maximum Engine RPM: 5800  
Maximum Continuous RPM: 5500
  - 2.4 Airspeed Limitations  
Maximum Indicated Airspeed ( $V_{NE}$ ): 135 kts IAS  
Max Indicated Airspeed Flaps Extended: 80 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 2 Maintenance Manual “DC-MAM-002-X-B-2” – 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 Safety Alert 0011</a>	Replacement of fuel pump assembly for aircraft fitter with 915iS and 912iS engines.
<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 0010</a>	Risk of rudder pedal catching on button head screw of the centre console on full deflection.
<a href="#">TAF Service Bulletin 0013</a>	Replacing rudder pedal stops with latest revision.
<a href="#">TAF Service Bulletin 0012</a>	Potential risk of failure of parachute rocket activation due to incorrect installation of activation cable.



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<a href="#">TAF Service Bulletin 0011</a>	Repositioning and cooling of B regulator on Rotax 912 iS engines.
<a href="#">TAF Service Bulletin 0010</a>	Annual inspection of Rib 601 for material thickness and cracks.
<a href="#">TAF Service Bulletin 008</a>	Inspection of propeller hub – ground adjustable Warp Drive propellers.
<a href="#">TAF Service Bulletin 0007</a>	Master Key Failure.
<a href="#">TAF Service Bulletin 006</a>	Verify the correct Master Switch has been installed.
<a href="#">TAF Service Bulletin 005</a>	Incorrect material used on guides which could lead to premature wear on pushrods.
<a href="#">TAF Service Bulletin 004</a>	Placement of the ELT antenna.
<a href="#">TAF Service Bulletin 001</a>	Longitudinal cracks appearing in the main landing gear.
<a href="#">TAF Safety Advisory 0001</a>	CANCELLED - Wires overheating on Rotax 912 iS B-side voltage regulators.
<a href="#">TAF Safety Alert 009</a>	CANCELLED - Potential risk of failure when activating the parachute rocket.
<a href="#">TAF Safety Alert 008</a>	CANCELLED – Inspection of ground adjustable Warp Drive propeller hub.
<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 Safety Alert 004</a>	GUD E13 fuel filters between fuel pumps and Rotax 912 iS engine to be changed every 100 hours.
<a href="#">TAF Safety Alert 003</a>	Unable to set flap position with the 4-position flap controller (specific actuators).
<a href="#">TAF Safety Alert 002</a>	Fuel hose replacement.
<a href="#">TAF Safety Alert 001</a>	912iS fuel connector replacement.

3.4 Special Inspection Points

None known



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3.5 Operational issues

The aircraft did not demonstrate an ability to trim out to zero residual stick force when in the descent config with full flap and idle power. The residual stick force was small however and reduced to zero at power settings typically used during a powered approach.

The aircraft did not demonstrate a positive tendency to return to balanced flight after rudder release in a sideslip. This was however due to friction in the rudder control circuit rather than a lack of directional stability.

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)