



LAA TYPE ACCEPTANCE DATA SHEET  
TADS 237A  
SHERWOOD RANGER XP

Issue 3	TADS reference changed from 237C to 237A to reflect correct LAA designation of this variant. Minor editorial changes.	Dated 3/9/13	JV
Revision A	Minor editorial changes. Note of alternative forward cg limit in sections 2.9 & 3.3.	Dated 13/2/18	JV

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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Note that the original supplier, Tiger Cub Developments Ltd, ceased trading following the untimely death of the designer, Russ Light.

### 1.2 Description

The Sherwood Ranger XP is a biplane of traditional appearance, seating two in tandem in open cockpits. It is built from a kit or from a set of plans. The aircraft has been cleared by the LAA when fitted with a Rotax 618 engine. 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.

The Sherwood Ranger XP is a clipped-wing SEP ('group A') aeroplane development of the Sherwood Ranger ST microlight model.

The airframe is mainly of simple aluminium alloy tube construction, with wooden wing ribs and fabric covering. Rearward folding wings are fitted.



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**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”*.

2.1 Fast Build Kit 51% Compliance

The aircraft is only available as a slow-build kit or to build from a set of drawings.

2.2 Build Manual

A comprehensive Build Manual is available, titled ‘Sherwood Ranger Construction and Assembly Manual’ which covers the LW, ST and XP models.

2.3 Build Inspections

Build inspection schedule 46 (Sherwood Ranger aircraft).  
Inspector approval codes A-A or A-W or K. Inspector signing off final inspection also requires ‘first flight’ endorsement.

2.4 Flight Manual

A Flight Manual exists for the –LW model which is very similar to the –XP model.

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)

None.

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.



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2.8 Control surface deflections

Ailerons	Up: 25° Down: 15°
Elevators	Up: 20° Down: 20°
Rudder	Left: 20° Right: 20°

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
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: 450 kg  
CG Range: Limits 3.8 inches to 7.7 inches aft of the datum point  
(forward limit of 2.2 inches aft of datum if using the revised occupant moment arms, see TLAC [TIN-01-2017](#))  
Datum Point is: the centreline of the lower wing mainspar tube at the fuselage side
  - 2.3 Engine Limitations  
Maximum Engine RPM: 7000
  - 2.4 Airspeed Limitations  
Maximum Indicated Airspeed (V<sub>NE</sub>): 100 mph (87 knots)
  - 2.5 Other Limitations  
The aircraft shall be flown by day and under Visual Flight Rules only.  
Smoking in the aircraft is prohibited.  
Solo flight from rear seat only.

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.



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2.10 Maximum permitted empty weight

<i>Model</i>	<i>Engine</i>	<i>Max empty weight</i>
XP	Rotax 618	255 kg

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

3.1 Maintenance Manual

A Maintenance Manual for the LW model is available, which is similar to the XP model. For further information consult the LAMS or LAA Generic Maintenance Schedule. For the engine maintenance requirements consult the engine manufacturer.

3.2 Standard Options

The listing below shows the factory options that have been accepted by the LAA.

SRP001	Sheeted leading edge
SRP002	Fibreglass wingtips
SRP003	Differential heel brakes
7-FG12	Fuselage mounted fuel tank

Controllable elevator trim (deleted from standard kit by change 006).

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>Status</i>	<i>Date</i>	<i>Description</i>
<a href="#">TIN-01-2017</a>	Advisory	19/12/2017	Revised C of G Limits

3.4 Special Inspection Points

- The aircraft is built using 'microlight' techniques even though it is an SEP aeroplane.
- Check integrity of glass fibre joints between ribs and spars carefully.
- Ensure proper setting of all pulled rivets.

3.5 Special Test Flying Issues

- Ensure wing folding locked before flight.
- There is no dedicated set of pilot's notes for the XP at this time.

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