



**LAA TYPE ACCEPTANCE DATA SHEET**  
**TADS P15**  
**IVOPROP**

Issue 1	Initial issue	Dated 17/03/21	JP
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This TADS is intended as a summary of available information about the propeller type and should be used during the overhaul, operation and permit revalidation phases to help owners and inspectors. Although it is hoped that this document is as complete a summary as possible, other sources contain more complete information, e.g. the manufacturer's website.

Section 1 contains general information about the propeller type and its variants.

Section 2 contains information about the propeller type that the LAA considers **mandatory** and must be complied with.

Section 3 contains advisory information that owners and inspectors should review to help them maintain the propeller 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 Contact Information

UK Contact: GS Aviation (Graham Slater)

Address: Clench Common Airfield  
Marlborough  
Wiltshire  
SN8 4NZ

Tel: 01672 515 535  
Email: [info@gsaviation.co.uk](mailto:info@gsaviation.co.uk)  
Website: [www.gsaviation.co.uk](http://www.gsaviation.co.uk)

Manufacturer contact information:

Address: Ivoprop Corp  
2615 East 67th Street, Unit E  
Long Beach  
CA 90805  
USA

Tel: +1 562 602 1451  
Email: [ivoprop@gmail.com](mailto:ivoprop@gmail.com)  
Website: [ivoprop.com](http://ivoprop.com)

1.2 Description

Ivoprops are non-certified propellers, with slender composite blades bolted to aluminium alloy discs which comprise the hub. The company has been manufacturing propellers since 1986.

The blade pitch can be altered by twisting the blade along its length, using a unique system comprising of a steel torque rod which extends from the root end of each blade to about half-way to the tip.



## LAA TYPE ACCEPTANCE DATA SHEET TADS P15 IVOPROP

A cam on the end of each torque rod, situated within the hub, bears against spacer discs the number of which can be altered to vary the torque on the torque rod and hence the twist on the blade.

Some examples of these propellers use an electric motor and screw jack mounted within the spinner to alter the blade pitch in flight. This system is only accepted by the LAA when modifications are made to the blade retention system, slip-ring system and electrical components – refer to LAA Engineering for further details.

LAA aircraft with Ivoprops installed range from various gyros to many types of the lighter fixed wing types, mostly powered by two-stroke Rotax engines although there are a few fitted to Rotax 912ULS engines and other types of two-strokes.

Ivoprops are also found installed on some factory-built gyros.

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

At all times, responsibility for the maintenance and airworthiness of an aircraft (including the propeller) rests with the owner. A condition stated on a Permit to Fly requires that: "*the aircraft shall be maintained in an airworthy condition*".

#### 2.1 Lifed Items

No type-specific information, refer to any specific manufacturer's information.

#### 2.2 Operator's Manuals

Where possible, the manuals describing setup, operation and maintenance procedures for the propeller should be obtained from the manufacturer or importer and retained with the aircraft's records.

For Ivoprop propellers installed on factory-built gyros, refer to the manuals and technical information supplied by the gyro manufacturer.

#### 2.3 Maintenance Schedule

Refer to information supplied by Ivoprop, otherwise normal maintenance procedures for composite blade propellers applies. Check also information in paragraph 3.3 below.

Refer also to [GS Aviation](#) for other specific maintenance requirements. Factory built gyros should refer to the aircraft's specific Maintenance Manual.

Propellers fitted to LAA administered aircraft that are maintained either in accordance with the manufacturer's maintenance schedule, the CAA Light Aircraft Maintenance Schedule (LAMS) [CAP 411](#) or the LAA Generic Maintenance Schedule, further details of which can be found in LAA Technical Leaflet [TL 2.19: The LAA Generic Maintenance Schedule](#). Note: The CAA and LAA produced maintenance schedules were originally written around the maintenance requirements of aircraft fitted with traditional aircraft engines and propellers.

Some aircraft may have mandated maintenance requirements and/or schedules which are stated on the aircraft's Operating Limitations document and these must be followed.

More information on maintenance schedules can be found in the [Aircraft Maintenance](#) section of the LAA website.



## LAA TYPE ACCEPTANCE DATA SHEET TADS P15 IVOPROP

### 2.4 Airworthiness Directives

Non-certified type, so no type-specific applicable Airworthiness Directives.

### 2.5 Mandatory Permit Directives

No type-specific MPDs at this time.

Check CAA [CAP 661](#) which lists MPDs issued before 31 January 2012 and is no longer being updated.

The CAA now provides links to MPDs issued after 31 January 2012 on the [CAA MPD Listing](#) page of their website.

The LAA website should be checked for MPDs that are non-type specific in LAA Technical Leaflet [TL 2.22: Non-Type Specific MPDs](#).

### 2.6 CAA Mandatory Requirements for Airworthiness CAP747 and Civil Aircraft Airworthiness Information and Procedures (CAAIP) CAP562

No type-specific requirements or information at this time.

CAA publications [CAP 747](#) and [CAP 562](#) contain information that may be relevant to LAA administered aircraft and should be checked for applicability.

### 2.7 LAA Required Modifications (including LAA issued AILs, SBs, etc)

No type specific required modifications at this time.

### 2.8 Operating Limitations to be Placarded or Shown by Instrument Markings

The Operating Limitations document for the aircraft will specify aircraft and powerplant limitations for that particular aircraft. Where a propeller is being fitted in accordance with a Propeller Type List ([PTL/1](#)), any limitations proscribed by the relevant [PTL/1](#) document must be adhered to.

Notes:

- Refer to the propeller manufacturer's latest documentation for the definitive parameter values and recommended placards.
- Data stated on the aircraft's Operating Limitations document must be displayed by means of cockpit placards or instrument markings.

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

### 3.1 General

Where possible, the manuals describing setup, operation and maintenance procedures for the propeller should be obtained from the manufacturer or importer and retained with the aircraft's records.



**LAA TYPE ACCEPTANCE DATA SHEET  
TADS P15  
IVOPROP**

3.2 Standard Options

There are no Standard Options for any propellers fitted to LAA administered aircraft at this time.

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

In the absence of any over-riding LAA classification, inspections and modifications published in the manufacturer's continuing airworthiness data should be satisfied according to the recommendations therein. It is the owner's responsibility to be aware of and supply such information to their inspector.

<i>Reference ID</i>	<i>Dated</i>	<i>Description</i>
<a href="#">Ivoprop SB Blade Movement</a>	n/k	Do detect blade movement
<a href="#">Ivoprop Knurled Plates</a>	n/k	Install instructions for knurled plates
<a href="#">Ivoprop Loose Prop</a>	n/k	Reasons for a loose propeller
<a href="#">Ivoprop Quick Adjust Instructions</a>	n/k	Instructions for adjusting Ultralight Model

There may be other Service Bulletins and other useful information published by Ivoprop, check with [GS Aviation](#).

Ivoprop do not appear to publish much maintenance information on their website.

Factory built gyros should check with the aircraft's manufacturer for continuing airworthiness information.

3.4 Special Inspection Points

1. The Ivoprop blades are unusually flexible and inspectors should take particular care to check that there is adequate fore-and-aft clearance between the blade tips and fixed structure. Ivoprop advise that in extreme circumstances the blades can whip through as much as 6" at the tip.
2. Inspectors should check in particular for signs of cracking of the composite blade roots in the vicinity of the blade mounting bolt holes and fretting of the bushes in the blades.

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