

LAA PROPELLER TYPE LIST - PTL/1 – NOTES

October 2019

Procedure

There are two sources of information which may be used to determine which particular propeller(s) may be fitted to a particular LAA aircraft:

- a) The Operating Limitations issued for a specific aircraft may list one or more propellers, specifying model type and often pitch and diameter. Propellers, which are exactly as any of those listed, may be installed.
- b) If the aircraft's Operating Limitations refer to propellers 'as LAA Propeller Type List - PTL/1' (link to table at end of Notes) then any propellers listed on the PTL/1 for that particular aircraft/engine combination are acceptable, as defined thereon.

Propellers determined as acceptable in 'a' and/or 'b' above may be installed subject to satisfying the conditions and points of attention below. Note that the Operating Limitations form part of the Permit to Fly. Fitment of any propeller not described as above will invalidate the aircraft's Permit to Fly, and to avoid illegal flight may only be used when application has been made to LAA Engineering and a test flight authorisation issued.

When relying on PTL/1 as a source of reference for propeller 'approval', the owner must obtain a copy of the appropriate PTL/1 from LAA Engineering or via the LAA website and retain it along with a copy of these notes in the aircraft records. At Permit renewal LAA inspectors must check that the installed propeller is appropriate and 'approved'. Owners must therefore ensure that the aircraft's Operating Limitations document and PTL/1 if appropriate is/are available to the inspector for this purpose.

Before Installation

Propellers should be positively identified and be inspected and checked, along with their attaching hardware, to be free from damage, be properly balanced and in good airworthy condition prior to fitment. Checks should be made to ensure the propeller is in compliance with all applicable Service Bulletins and Airworthiness Directives etc.

Installation

Propellers must be installed in accordance with propeller and aircraft/engine manufacturer's instructions. Where no such instructions exist, then normal aircraft engineering 'best practise' applies. The propeller installation must be inspected by a suitable LAA inspector who should in particular consult 'Notes To LAA Aircraft Inspectors' (SPARS) – Procedures Section.

Ground Run

Before test flying, engine ground runs must be carried out and satisfactory results achieved and recorded. Maximum static engine rpm should be documented.

First Flight

The first flight with a 'new' propeller must be regarded and conducted as if it were a 'test flight'. The flight test should be used to check that propeller overall performance is satisfactory, and results should be recorded in the aircraft logbooks and/or worksheets.

Microlight Aircraft

Microlight aircraft used to require a Noise Certificate, and a change in propeller required a new Noise Certificate. However, in September 2019 the CAA issued General Exemption E 4930 exempting Microlights from this requirement. This exemption is only effective until 12 January 2021, although the CAA has stated that they intend to change the law to remove the Microlight noise requirement.

Log Book Entry & Worksheet

Propeller changes must be recorded in the airframe logbook and the entry signed by a LAA inspector to indicate his satisfaction. In the case of variable pitch propellers, a dedicated propeller logbook must also be maintained (CAP 400).

Weight Schedule

Changes to propeller type will often result in a need to amend the aircraft's weight schedule. This may be achieved by calculation if the exact weights and moments of parts fitted versus parts removed are known. Otherwise it will be necessary to reweigh the aircraft. New/amended weight schedules should be copied to LAA Engineering.

Special Notes

Attention must be paid to any special notes appearing on the PTL/1 which apply to the particular aircraft type and model/propeller combination in question. PTL/1 table can be found by following the link below.

[**PTL/1 table**](#)