

# PILOT MAINTENANCE

## 1. Introduction

A Permit to Fly issued by the CAA to an aircraft controlled by the LAA includes a 'Conditions' document. Condition No. 2 states that all work carried out on the aircraft (i.e. maintenance and repairs etc) must be 'certified' by a 'person authorised by the CAA', i.e. in our case, a LAA inspector. However, there is one exception to this requirement which is that work carried out as 'pilot maintenance' does not need to be certified. The CAA has defined the scope of work permitted to be carried out by the pilot under these circumstances and this list is described in LAA document reference LAA/PM. This list is included with this information.

It nevertheless still remains a requirement that pilot maintenance is recorded and signed for. This is done by entering the details of the work carried out into column 6 of the aircraft or engine log book. Alternatively the work may be described on separate worksheets. These should then be given an identifying reference and the reference then entered in the log book. Worksheets raised in this way should be kept securely and permanently in the aircraft 'maintenance' file.

When acting as a signatory the pilot, who is the owner of the aircraft and who is a member of the LAA must include his pilots licence number with his signature.

Note that Condition No. 2 and this information apply equally to all LAA aircraft, whether group 'A', microlight or gyroplane.

Work falling outside the scope of that defined in LAA/PM will require the attention of a LAA inspector and the need for the work to be certified by a LAA inspector signing a Permit Maintenance Release, (PMR).

It is necessary to carry out a visual pre-flight inspection before each flight and particularly before the first flight of the day. There is no requirement for this inspection to be certified.

A duplicate inspection is required following reconnection or adjustment of any engine or flying control. For LAA aircraft, a licensed Pilot who is the owner of the aircraft and who is a member of the LAA is an acceptable signatory for one part of a duplicate inspection.

The extent of Pilot maintenance presently allowed is a hard won privilege granted by the CAA. The LAA expects that anybody carrying out such pilot maintenance does so only if they are confident that they have the necessary knowledge, skill, tools and facilities to complete the task to a satisfactory standard. Safety and airworthiness is the prime concern and abuse of these privileges can only lead to their curtailment.

If you encounter any technical difficulty or you have trouble in understanding the requirements of pilot maintenance then please seek advice from a LAA inspector, or contact LAA Engineering directly.

## 2. Definition of Pilot Maintenance - Document Reference LAA/PM

This document defines the type and extent of maintenance that may be carried out and certified by a pilot who is the owner of the aircraft and is a member of the LAA.

This document applies only to fixed wing aircraft and gyroplanes for which the issue of a Permit to Fly is controlled by the LAA.

## **PILOT MAINTENANCE**

1. Replacement of landing gear tyres, landing skids or skid shoes.  
(Including removal and replacement of wheels, cleaning and servicing of wheel bearings, application of creep marks, removal and refitting of brake units to the extent required for wheel removal and the removal and the renewal of brake pads/linings when special tools are not required. Replenishment of hydraulic brake system fluid level).
2. Replacement of elastic shock absorber cord units on landing gear where special tools are not required.
3. Replacement of defective safety wiring or split pins excluding those in engine, transmission, flight control and rotor systems.
4. Patch-repairs to fabric not requiring rib stitching or the removal of structural parts or control surfaces, if the repairs do not cover up structural damage and do not include repairs to rotor blades.
5. Repairs to upholstery and decorative furnishing of the cabin or cockpit interior when repair does not require dismantling of any structure or operating system or interfere with an operating system or affect the structure of the aircraft.
6. Repairs, not requiring welding, to fairings, non-structural cover plates and cowlings.
7. Replacement of side windows where that work does not interfere with the structure or with any operating system.
8. Replacement of safety belts or safety harness.
9. Replacement of seats or seat parts not involving dismantling of any structure of any operating system.
10. Replacement of bulbs, reflectors, glasses, lenses or lights.
11. Replacement of any cowling not requiring removal of the propeller, rotors or disconnection of engine or flight controls.
12. Replacement of unserviceable sparking plugs. (Including removal, cleaning, gapping, testing and refitting of all spark plugs).
13. Replacement of batteries. (Including maintenance of lead acid batteries)
14. Replacement of wings and tail surfaces and controls, the attachments of which are designed to provide for assembly immediately before each flight and dismantling after each flight.
15. Replacement of main rotor blades that are designed for removal where special tools are not required.
16. Replacement of generator belts designed for removal where special tools are not required.
17. Replacement of VHF communications equipment, being equipment which is not combined with navigation equipment.
18. Manufacture and installation of required cockpit placards and notices.
19. Lubrication of aircraft. (Including prior cleaning of hinges)
20. Inspection of engine induction air filter. (Including removal, cleaning and refitting).
21. Inspection of fuel filters. (Including removal, cleaning and refitting).
22. Changing of engine oil. (Including removal, cleaning/replacement, refitting of oil filter).