



CERTIFICATION OF MAINTENANCE

TL 2.04
Issue 12
6 Nov 2018

1. Introduction (See Conditions on back of Permit to Fly)

One of the Conditions of a LAA Permit to Fly (upon which validity of a Permit to Fly is predicated on compliance) is that following maintenance a Permit Maintenance Release (PMR) is issued. This forms the required 'certification' of work, and is parallel to the well known system in the C of A world where engineers certify maintenance with a Certificate of Release to Service (CRS). It is an aircraft owner's responsibility to ensure that Conditions of a Permit to Fly are met, including the issue of a PMR when required.

Note that some 'older' pre 2004 Permit documents may still refer to a requirement to issue a Flight Release Certificate after maintenance. If your Permit says this, please return it to LAA straight away and we will ask the CAA to send you an updated version.

2. The PMR Certification

The PMR certification statement is as follows:

Permit Maintenance Release

The work recorded above/below has been completed to my satisfaction and in that respect the aircraft is considered fit for flight.

Signed: *A Sample* **Authorisation Ref:** 007 **Date:** 24/10/2014

Only a LAA inspector can issue a PMR, and there are a number of methods in which the requirement to 'issue' a PMR can be satisfied:

- a) The LAA shop sells airframe and engine logbooks which are similar in style to those published by the CAA, except that the LAA logbooks are especially produced with Permit aircraft in mind and so incorporate the relevant PMR phrasing. Hence, when maintenance work is described in the pages of an LAA logbook, an inspector's signature (plus inspector's number and date) appearing alongside constitutes the required certification. Job done!
- b) For aircraft which have CAA style logbooks, (CAPs 398, 399 and 400) and hence have the inappropriate CRS wording, LAA provide a logbook sticker (available free on request) which once inserted inside the logbook front cover overwrites the content so that a CRS can be construed to be a PMR throughout. Inspectors can then sign to certify work in the normal way as in 'a' above. The LAA does not produce propeller logbooks (required for VP propellers), and so for these the only option is a CAA propeller logbook.
- c) It is common place to use worksheets to describe maintenance and repair work carried out. This is often done when the amount of work is simply too voluminous to describe in the relatively small space available in a logbook, or simply as a matter of practicality when logbooks are not available to the inspector.

Downloadable via the LAA website Aircraft & Technical section/Data Library/Forms/checklists/worksheets - LAA/WS is an example worksheet, incorporating the PMR. Maintenance work can be described on such a worksheet or series of worksheets and as long as the worksheets are all unambiguously tied together by a unique reference number, it only takes one signature alongside a PMR to certify all the work. It is vital that the worksheet reference number is entered in the logbooks and as such the worksheets then become a 'legal' part of the aircraft's maintenance records.

Whilst we highly recommend incorporating the PMR into the worksheet, maintainers are at liberty to create their own style of worksheet and use of the example on our website is not mandatory.

- d) Where LAA logbooks and adapted worksheets are not available, then it is perfectly in order to start with a blank sheet of paper. In this case, having described the work in question, a PMR should then be written using the wording above, and signed and dated as appropriate. The same would need to be done if using a CAA logbook that is not overwritten by one of our stickers – a PMR would have to be written into the logbook on each signing occasion, or the inspector could use a specially manufactured 'PMR stamp' if he or she has gone to the bother of acquiring one.

Apart from Pilot Maintenance (see below), the requirement for PMR maintenance certification is applicable at all times, whether the aircraft is a Group A machine, a microlight or a gyroplane. It also applies regardless of whether the aircraft is operating with a current Permit to Fly or is being flown under the authority of a 'flight test' or 'ferry flight' permission (Permit Flight Release Certificate) issued by an inspector or by the LAA.

At the completion of construction of a LAA aircraft a one-off PMR certification is required to cover the build as a whole. LAA Engineering will require evidence of this, though with agreement with LAA the PMR can be signed by the inspector after LAA has provided flight test permission, as long as the PMR is issued prior to flight. This flexibility is useful in cases where the aircraft is subject to a final 'final' assembly at an airfield or where an inspector is keen to maintain complete oversight right up to the day of the first flight.

For PMR purposes, maintenance is understood to mean scheduled or unscheduled maintenance, overhaul, modification, repair, replacement, defect rectification, and compliance with mandatory inspections and modifications such as MPDs and ADs.

3. Permit Renewal Inspection

The work required to maintain, service and inspect as necessary to satisfy the basic Permit renewal inspection requirements set out on page 2 of the Permit renewal application form (LAA/FWR-1 or LAA/GR-1), even when there is no particular rectification work involved, will always require certification by PMR, along with provision of suitable worksheet and/or logbook entries. Note that the Permit to Fly renewal application form provided by LAA does not in itself constitute a worksheet, but merely a report for the purpose of facilitating the renewal process.

4. Aircraft Worksheets

As stated above, all maintenance and repair work etc carried out on LAA aircraft must be recorded, either directly in the applicable aircraft logbooks or on properly arranged worksheets which are then referenced in the logbooks (airframe, engine or propeller, as applicable).

Worksheets covering regular maintenance work are not required to be copied to LAA and indeed, where a Permit renewal inspection is largely routine and no major work has been carried out, LAA would not expect to receive copies of worksheets in this circumstance. However, there are often times when LAA Engineering does need to receive copies of worksheets (and/or logbook entries). Examples of this would be when dealing with significant defects, repairs, modifications and extensive rebuild and renovation work. Additionally, LAA reserves the right to ask for worksheet copies whenever it feels appropriate, irrespective of the nature of the job in question. It is also expected that maintenance records including logbooks and worksheets will be reviewed during LAA or CAA audits of the LAA fleet.

Unfortunately, all too frequently, the standard of worksheet witnessed by LAA is unacceptable. This is usually due to worksheets being too scrappy, incomplete, brief, or just plain inappropriate. We regularly return such unwelcome material with an instruction to do it again, and jobs are inevitably delayed.

Owners all too frequently assume that the main reason to create detailed worksheets is to satisfy LAA Engineering. In fact, LAA Engineering encourage the creation of good technical records mainly to protect the owner of the aircraft and the people carrying out the work from accusations of negligence if any problems arise in future with the aircraft that might be associated with the work in question. Being able to present a clear written record of exactly what was done, with full details and appropriate signatures is a great help in showing that the people involved took their responsibilities seriously and if the worst should happen, the paperwork records are crucial to rebuffing false claims or accusations. Good records also help programme maintenance work most effectively and avoid duplicating work that perhaps has already been done.

5. Pilot Maintenance

The only maintenance that may be carried out without a PMR being issued is Pilot Maintenance. A description of the defined scope of permitted Pilot Maintenance is available from the LAA website as Technical Leaflet TL 2.05. Nevertheless, it is still required that the pilot enter details of the work carried out into the appropriate logbooks, including his pilot's license number with his signature in column 6 of the logbook. Note that the same work being carried out by any person other than the pilot-owner would require inspection and certification by PMR, in the normal way.

6. Duplicate Inspections

Duplicate inspections are required whenever engine or flying controls are disturbed. Each part of such inspections should be signed by a suitably approved LAA inspector. Where there is no possibility of such a person being available, an owner/pilot who is also a member of the LAA may sign the second part of the duplicate inspection. When doing so, the owner/pilot must include his pilot's license number with his signature. The PMR statement must be signed by the LAA inspector.