

USING MODS APPROVED FOR “ALL AIRCRAFT OF TYPE”

1. Introduction

Prior to the introduction of the “Standard Mod” system, modifications which were considered adequately detailed and potentially useful to other builders were classified as “Approved – All of Type” instead of the more normal “Approved – This Aircraft Only”. This Information letter lists all of the mods which have been “approved – all of type” and describes how they can be applied to subsequent examples of the type.

The technical element of these mods has already been approved by LAA Engineering but the services of a LAA inspector are required to ensure that the specific example aircraft has no build variations, repairs or pre-existing mods that could compromise the function or airworthiness of the new modification. It is important that this authorisation be obtained before any parts are purchased or work done to the aircraft to avoid any potentially costly rework. Following installation of the mod, the LAA inspector is also required to check the installation for quality and conformity.

2. Using a Mod Approved for “All of Type”

The paperwork for applying a Mod which has been LAA approved for “all of type” is quite simple, the applicant simply selects a mod from the list below and fills the standard form SF9. This records all of the relevant information, the initial inspector authorisation and final verification of the installed mod. There is also facility to include record of any flight tests or special inspections. The final section constitutes the Permit Maintenance Release and completed form then becomes part of the official aircraft build or maintenance record.

Builders and inspectors should be aware that unlike the existing “Standard Mod” format, the standard of documentation of these mods may require some interpretation. In most cases it will be limited to a set of drawings or sketches showing the finished configuration. There are rarely instructions on how this is achieved or any post installation tests or calibrations that may be necessary. It falls to the inspector to apply “Standard Aircraft Practice” to fill in any gaps and ensure that all critical aspects are covered. The guidelines and checklist at section 3 and 4 of this information letter should be used as a guide.

3. Charges for Incorporating Mods approved for “all of type”

Since there is no requirement to call on LAA Engineering, there is no charge levied for incorporating Mods approved “all of type”.

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The Following Mods are approved by LAA Engineering for "all of type" and are available on request from LAA Engineering.

Mod No.		A/C Type	Modification Name	Iss	Source
10240	029	Clutton Fred	Fixed Fin	1	LAA Engineering
10233	047	Aircamper	Modified Lift Strut Spar Attachment Plates	1	LAA Engineering
10521	048	D.31 Turbulent	Leburg Ignition System	1	LAA Engineering
10885	049	D.62 Condor	Airworld Jodel Exhaust System	1	LAA Engineering
11086	052	Jodel D.11	New Canopy	1	LAA Engineering
10333	062	Evans VP.1	Repositioned Control Stick	1	LAA Engineering
10831	152	ARV Super 2	Replace Rivets with Bolts at T/P Mount	1	LAA Engineering
10278	162	Zenair CH600/01	Rudder self centring device	1	LAA Engineering
10349	162	Zenair CH600/01	Improve mainwheel/nose wheel struts	1	LAA Engineering
10533	172	Kitfox Mk 1,2 3	Clipped Wingspan – Note 2	1	LAA Engineering
10525	172A	Kitfox Mk 4	Vapour Return Line	1	LAA Engineering
10242	181A	Vans RV-6/6A	High Speed Warning Device	1	LAA Engineering
11003	185	Christavia Mk1	Change to Lift Strut Specification	1	LAA Engineering
10739	186	Team Minimax	Streamlined Lift Struts	2	LAA Engineering
10493	193	Rans S4, S5	Fuel Tank Finger Strainer	1	LAA Engineering
10216	204B	Rans S-6 ESD	Undercarriage Bracing Struts	1	LAA Engineering – Note 1
10506	204B	Rans S-6 ESD	New Fuel Tank	1	LAA Engineering
10013	232	Murphy Rebel	Cantilever Main Undercarriage	1	LAA Engineering
10290	237	Shw'd Ranger	Fit Fifth Seat Belt	1	LAA Engineering
10291	237	Shw'd Ranger	Fit Head Rest	1	LAA Engineering

Note 1: Where this note referenced permission must be sought from the modification designer before further details of the mod can be disclosed.

Note 2: Not applicable to microlight versions.

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Mod No.		A/C Type	Modification Name	Iss	Source
10024	247	Europa Classic	Removable Composite Firewall	1	LAA Engineering
10051	247	Europa	Tailplane pip pin cover	1	LAA Engineering
10178	247	Europa	Fit Gascolator	1	LAA Engineering
10179	247	Europa	Fir Oil Thermostat	1	LAA Engineering
10180	247	Europa	Fit Grease Nipples to Tail Bearing	1	LAA Engineering
10182	247	Europa	Outrigger Cuffs	1	LAA Engineering
10183	247	Europa	Fit Factory Tail Wheel Suspension	1	LAA Engineering
10191	247	Europa	Stack Pipe Fuel Gauge	1	LAA Engineering
10251	247	Europa	Alternative Tailwheel Steering	1	LAA Engineering
10267	247	Europa	Strobe Lights	1	LAA Engineering
10296	247	Europa	Fuel Pressure Gauge	1	LAA Engineering
10297	247	Europa	Door Lock	1	LAA Engineering
10298	247	Europa	Access Panels - Rear Fuselage	1	LAA Engineering
10303	247	Europa	Flap Pin Guide	1	LAA Engineering
10347	247	Europa	Bonding Tailplane Drive tube	1	LAA Engineering
10355	247	Europa	Singleton Tailwheel Steering	1	LAA Engineering
10357	247	Europa	Stall Warner	1	LAA Engineering
10427	247	Europa	Skydrive 912 Carb Heater	1	LAA Engineering
10448	247	Europa	Topflite Pitot Static Head	1	LAA Engineering
10457	247	Europa	Relocate Fuel Pump and Filters	1	LAA Engineering
10513	247	Europa	Whelen Wingtip Strobes	1	LAA Engineering
10515	247	Europa	Modified Spinner Backplate	1	LAA Engineering
10530	247	Europa	Avelec Digital Fuel Gauge	1	LAA Engineering
10539	247	Europa	Throttle Lever Assembly	1	LAA Engineering
10601	247	Europa	Modification of Centre Tunnel	1	LAA Engineering
10623	247	Europa	Enhancement of Tailplane Drive	1	LAA Engineering
10790	247	Europa	Monowheel Jacking point	1	LAA Engineering
10951	247	Europa	Skydrive 912 Carb Heater	1	LAA Engineering
11510	247	Europa	Amendment to Europa Mod 70	1	LAA Engineering
10430	274	Jabiru SK	Bond Rubber Facings to U/C Legs	1	LAA Engineering
10921	274A	Jabiru UL-450	Additional Noseleg Support	1	LAA Engineering – Note 1
11125	274A	Jabiru UL-450	Capacitance Fuel Gauge	1	LAA Engineering
10817	301	MCR-01 VLA	Stall Warner Installation	1	LAA Engineering
11670	301A	MCR-01 Club	Stall Warner Installation	1	LAA Engineering
11153	320	RV-9/9A	Replacement Fixings F787	1	LAA Engineering
10406	802	Aeronca 11	Radio Battery and Air Driven Charger	1	LAA Engineering
10424	804	Aeronca 7	Airworld Exhaust System	1	LAA Engineering
10351	842	Jodel D112	Airworld Exhaust System	1	LAA Engineering
10261	844	Jodel D120	Airworld Spin-on Oil Filter	1	LAA Engineering
10257	849	Luscombe 8	Lap and Diagonal Strap	1	LAA Engineering
10586	849	Luscombe 8	Wing Inspection Panels	1	LAA Engineering
10087	861	Piper PA-15, 17	Wind Driven Alternator	1	LAA Engineering

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4. Inspection Actions

LAA Standard Form SF 9 should be used to record the following activities:

- Assess the aircraft before mod is fitted to ensure that there are no mods or repairs likely to conflict with the installation or operation of the modification. Check also that any differences between the type variant on which the mod was originally approved are considered.
- Check the finished installation for Quality, conformity and ensure it works satisfactorily.
- Conduct any ground tests or calibrations considered appropriate.
- Raise and endorse worksheets covering the activities performed.
- Make a suitable logbook entry which quotes the mod number.
- Certify the PMR to return the aircraft to service.
- Conduct an Air Test as appropriate under the authority of the PMR to check for satisfactory operation in flight.

The Inspector is responsible for nominating any additional tests or inspections he deems appropriate. As a guidance in determining these requirements the following checklist should be considered:

5. Standard Checklist:

- **Has the weight or CG been significantly affected (a difference of > 1lb)?**
Update weight and balance record by calculation or weighing.
Ensure that the increased empty weight does not exceed the maximum allowed by BCAR Sect S25 (microlights) or CS-VLA25 (Group A).
- **Does the mod involve any detail part manufacture which could be difficult to inspect once fully assembled?**
If so ensure these are inspected before hand. The same applies to any areas which require inspection before the structure is closed.
- **Does the mod affect the powerplant performance? (eg addition of carb heat)**
If so consider checking static and idle r.p.m and flight evaluation to ensure climb rate is still acceptable.
- **Does the mod affect any aerodynamic surface?**
If so ensure that the aircraft is air tested to confirm that the performance and handling are as expected.
- **Has a measuring or sensing device been added? (fuel gauge, stall warner etc)**
Ensure that the device is calibrated to an acceptable degree of accuracy.

Any air-testing requirements can be carried out under a suitably authorised PMR however the aircraft owner is responsible for ensuring that the pilot is of appropriate competence and the airfield has adequate surroundings and is otherwise equipped for an unexpected forced landing.