



LAA/MOD 5
ENGINE TYPE/MODEL CHANGE
 Issue 11

Mod No. (Office use only)

This form is used to make an approval application for an engine substitution. Do not submit a separate propeller change application even if the propeller has been changed with the engine, see [TL 3.02](#). This form may be printed out, completed by hand and either posted to LAA Engineering or scanned and emailed to engineering@laa.uk.com, or it may be completed electronically, saved and emailed as an attachment to the same email address. If emailed without the owner's signature, it must be sent by the aircraft owner. Please retain a copy of the completed form for your records.

1. AIRCRAFT DETAILS

Registration	Type	Serial Number
G -		

2. APPLICANT DETAILS (Note: Applicant must be a 'Full plus' member)

Applicant's Name	Membership No.	
Name and address of person to be contacted regarding this modification:		
Daytime Telephone Number:		e-mail:

3. EXISTING ENGINE DETAILS

Manufacturer	Full Designation	Reduction Ratio
		: 1
Reason for removal:		
(Advice: Do not ground the aircraft unnecessarily by installing the proposed engine/propeller before receiving the go-ahead from LAA Engineering)		

4. PROPOSED ENGINE DETAILS

Manufacturer	Full Designation	Reduction Ratio	Condition	
		: 1	NEW	USED

5. PROPOSED PROPELLER DETAILS

(Note: no separate propeller change application form is required)

Manufacturer	Full Designation (not S/N)	No. Blades	Dia x Pitch
Specify type:	Fixed pitch / Ground adjustable / In-flight adjustable		
Condition:	New / Used / Overhauled	If not new, total hours:	
Source/history: (if overhauled, when and by who, from which supplier, previously on which aircraft, etc)			

6. REPEAT MOD DETAILS

In order to qualify as a *Repeat* mod, the proposed installation must match exactly an existing *Prototype* ('normal') mod (aircraft type, engine model and propeller model, pitch and diameter must be the same). A list of approved *Prototype* mods is published on the website (www.laa.uk.com). Note that the method of attachment must also be copied or an alternative agreed with LAA Engineering.

Prototype mod number to be repeated:	
--------------------------------------	--

7. PROPELLER MOUNTING

Describe fully the method of propeller attachment, including details of any propeller extension or spacer used. Also include details of spinner attachment, if applicable, including bulkheads, materials and fasteners used. Drawings may be attached.

--

8. IN-FLIGHT ADJUSTABLE PROPELLERS

Note: The installation of a manifold pressure gauge is mandatory.

Describe locations of manifold pressure gauge and pitch change control. Where fitted, state make and type of electronic controller or hydraulic governor (CSU).

--

9. PREDICTED WEIGHT AND BALANCE EFFECT ON AIRCRAFT

Date of current W&B report:	Weight (lb/kg)	CG (in/mm)	Moment
A/C pre-mod			
+/- engine weight change	(engine weight difference)	(engine moment arm) X	=
+/- propeller weight change	(propeller weight difference)	(propeller moment arm) X	=
= A/C post-mod			



LAA/MOD 5
ENGINE TYPE/MODEL CHANGE
 Issue 11

Mod No. (Office use only)

10. NOISE (Microlight aircraft only)

Microlight aircraft require a noise certificate issued by the CAA. (Contact CAA on 01293 573309)		
Has a noise certificate application been made?	YES	NO
Has a noise certificate been obtained?	YES	NO
Has CAA stated that a noise test is required?	YES	NO

11. IMPLEMENTATION

Is the proposed engine currently fitted to the aircraft? (Note that once installed, the aircraft may not be flown until permission given)	YES	NO
If yes, briefly describe any other work needed for the aircraft to be ready for flight (e.g. finish re-build)		
If no, when do you intend to fit the engine?		

12. DESIGN CONSIDERATIONS (expand answers on page 4 if required)

Is the engine amongst those that have been approved for the aircraft type?	
If not, how do you propose to show that it complies with the appropriate design requirements?	
Would the engine mount need to be changed?	
What is the engine mount's origin and history?	
Are adapters required to fit different engine to existing mount? (Details req'd).	
Is there a change in thrust line? If so, provide details.	
Does the cowling need to be adjusted? If so, provide details.	
Is a carburettor heat system to be installed? If so, provide details.	
Is a non-standard ignition system fitted? If so, please provide details.	
Is the proposed propeller suitable for the engine?	
Is propeller clearance with the airframe or ground adequate? CS-VLA 925	
Is fuel flow adequate with existing bore fuel lines? (Submit LAA/IC-FF form)	
Would the engine be gravity fed or include a fuel pump(s)? Give pump designation(s).	
Is Tacho drive rotation direction different? If so, state remedy.	



LAA/MOD 5
ENGINE TYPE/MODEL CHANGE
 Issue 11

Mod No. (Office use only)

What are engine RPM limits? If different, is new Tacho placard fitted?	
Does a Service Instruction from A/C manufacturer or STC for the engine installation exist?	
Note, for Rotax engines, please also submit a completed installation checklist.	

13. ENGINE CONDITION (if proposed engine is a used one; expand answers below if required)

What is the engine's origin and history?	
What is the engine's condition, including internally?	
If the engine has been kept in storage, for how long?	
Was the engine preserved throughout storage?	
Has the engine been overhauled? When and by whom?	
How many hours has the engine run since last overhaul? (Logbook evidence req'd)	
What is the age of the magnetos? Life may be age limited.	
Will the magnetos be tested? If so, how?	
Are any AD's for the engine outstanding?	

Include more detailed answers below to the questions above, as required.

14. DESIGN SUPPORT

In many cases you will be required to obtain a declaration of "no technical objection" from the Designer of your aircraft regarding the modification that you intend to install.		
Has the designer agreed to co-operate with you over this modification?	YES	NO
Do you have access to any other design capability?	YES	NO
If yes, please give brief details.		



LAA/MOD 5
ENGINE TYPE/MODEL CHANGE
 Issue 11

Mod No. (Office use only)

15. INSPECTION SUPPORT

In many cases your inspector will be required to supervise testing and confirm compliance with the requirements. You must discuss your proposal with your inspector prior to submitting this form: we may contact him/her for their opinion.

My inspector is: (Name)		LAA inspector no.	
Has your inspector agreed to co-operate with you over this modification?			YES
			NO

16. FUNCTION AND FLIGHT TEST PROPOSALS

In many cases an engine/prop change will require in-depth ground and flight testing and this often requires the involvement of a suitably qualified test pilot and may dictate the standard of the airfield chosen.
 State your proposals for function and flight testing the modification.

17. PROPOSED FLIGHT TEST DETAILS

Test Pilot	Total hrs PIC	Hrs on type	Airfield
Proposed test pilots who have not previously submitted a Check Pilot Application form, please download from the LAA web site, complete and submit to LAA Engineering.			
Is proposed pilot qualified to fly aircraft fitted with in-flight adjustable propellers (if appropriate)? Note: Differences training may be required (ref LAA coaching scheme).			YES
			NO
			N/A

Note: A valid flight test authorisation or, in certain cases, an amended Operating Limitations document, issued by LAA Engineering, is required before flight.

17. OWNER'S DECLARATION

I declare that the foregoing information is correct and I agree to abide by any conditions pertaining to this modification.

I agree that this modification, if approved, can be used free of charge by others.

Name (owner): (on behalf of all the owners)	
Signature:	
Date:	

Note: a signature is not required if the owner is submitting this form by email; however, by submitting the application, you signify that you agree with the Owner's Declaration.

If this mod is successful, are you willing to allow potential applicants wishing to fit the same mod to their aircraft to contact you? YES / NO

If so, which means of contact is acceptable to be published on the LAA's web site?
 home phone , mobile phone , email , address [Tick whichever apply]