

EASA	CERTIFICATION MEMORANDUM
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Subject

Installation of new parts and appliances without an EASA Form 1 in European Light Aircraft

Log of Issues

Issue	Issue date	Change description
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1. INTRODUCTION

1.1. PURPOSE AND SCOPE

The purpose of this Certification Memorandum is to provide guidance on the new provision in Part 21.A.307(c) that allows the installation of parts and appliances without an EASA Form 1 as introduced by Commission Regulation (EU) No 748/2012.

1.2. REFERENCES

It is intended that the following reference materials be used in conjunction with this Certification Memorandum:

Reference	Title	Code	Issue	Date
Commission Regulation (EU) No 748/2012	Implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations	---	---	03/08/2012
Commission Regulation (EU) No 593/2012	Amending Regulation (EC) No 2042/2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks	---	---	05/07/2012

1.3. ABBREVIATIONS

The following abbreviations are used in this Certification Memorandum:

Abbreviation	Meaning
ELA	European Light Aircraft.

1.4. DEFINITIONS

The following definitions are used in this Certification Memorandum:

Definition	Meaning
ELA1	<p>'ELA1 aircraft' means the following manned European Light Aircraft:</p> <ul style="list-style-type: none"> (i) an aeroplane with a Maximum Take-off Mass (MTOM) of 1 200 kg or less that is not classified as complex motor-powered aircraft; (ii) a sailplane or powered sailplane of 1 200 kg MTOM or less; (iii) a balloon with a maximum design lifting gas or hot air volume of not more than 3 400 m³ for hot air balloons, 1 050 m³ for gas balloons, 300 m³ for tethered gas balloons; (iv) an airship designed for not more than 4 occupants and a maximum design lifting gas or hot air volume of not more than 3 400 m³ for hot air airships and 1 000 m³ for gas airships;

Definition	Meaning
ELA2	<p>'ELA2 aircraft' means the following manned European Light Aircraft:</p> <ul style="list-style-type: none"> (i) an aeroplane with a Maximum Take-off Mass (MTOM) of 2 000 kg or less that is not classified as complex motor-powered aircraft; (ii) a sailplane or powered sailplane of 2 000 kg MTOM or less; (iii) a balloon; (iv) a hot air airship; (v) a gas airship complying with all of the following characteristics: <ul style="list-style-type: none"> – 3 % maximum static heaviness, – Non-vectorred thrust (except reverse thrust), – Conventional and simple design of: structure, control system and ballonnet system, – Non-power assisted controls; (vi) a Very Light Rotorcraft.

2. BACKGROUND

On 13/12/2011 EASA published the Opinion 01/2011 that proposed the introduction of a possibility for owners of aircraft within the ELA scope to accept certain not safety critical parts for installation without an EASA Form 1. This proposal aimed at reducing the regulatory burden to a level proportionate with the safety risks.

The EASA Opinion 01/2011 was adopted by the European Commission and resulted in:

- Commission Regulation (EU) No 593/2012 (06/07/2012) amending Regulation (EC) No 2042/2003 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks; and
- Commission Regulation (EU) No 748/2012 (03/08/2012) laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations.

It was anticipated at the time of the publication of the opinion that a separate rulemaking task (MDM.032(d)) would be started to develop Acceptable Means of Compliance and Guidance Material to accompany the new provisions in the rule. In the meantime a more fundamental discussion with regard to the need for an EASA Form 1, not restricted to parts and appliances within the ELA scope, has moved the issue for ELA into a new rulemaking task (RMT.0018 and RMT.0571 (21.026) "Installation of parts and appliances that are released without an EASA Form 1 or equivalent."). This rulemaking task is planned to deliver its first results only in 2014. However, because the new rule for ELA is already applicable since 10 September 2012, there is a need for intermediate guidance material.

It is therefore that by means of this Certification Memorandum EASA provides that guidance for the implementation of the possibility for owners of ELA aircraft to accept certain not safety critical parts for installation without an EASA Form 1.

3. EASA CERTIFICATION POLICY

3.1. EASA POLICY

The clarification and guidance provided in this Certification Memorandum relate to the eligibility for installation of parts and appliances in accordance with Part 21 and the installation and maintenance of these parts and appliances in accordance with Part M and Part 145.

3.2. WHO THIS CERTIFICATION MEMORANDUM AFFECTS

This Certification Memorandum affects aircraft owners of ELA aircraft, maintenance organisations, National Aviation Authorities and the EASA Standardisation Department when performing standardisation visits to National Aviation Authorities.

3.3. THE SCOPE OF THIS CERTIFICATION MEMORANDUM

This Certification Memorandum is applicable to determining eligibility for installation and maintenance of parts and appliances that fall within the scope and criteria defined by 21.A.307(c)(1).

It is important for the aircraft owner to understand the consequence of this flexibility provision and the responsibility that comes with it. Parts and appliances that come without an EASA Form 1 are not subject to production control in accordance with Part 21 Subpart F or G. Potential negative safety impact due to the absence of aviation regulated production is mitigated by limiting the concept to non-safety critical parts and appliances. The aircraft owner who intends to make use of the provided flexibility needs to be aware of this when considering accepting parts and appliances without an EASA Form 1.

A pragmatic approach in applying the new rule is to select parts that can be obtained directly from the original source (E.g. a non-aviation vendor). Such parts are often identified with a vendor code in the Illustrated Parts Catalogue (IPC) or in a Service Bulletin (SB).

Another criterion that can be used to select parts that are eligible under this scheme are parts for which manufacturing data is available and for which the quality of the part can also be established after production.

According to 21.A.307(c) parts and appliances without an EASA Form 1 can be considered acceptable for installation by the owner of the aircraft only when they are:

1. not life-limited, nor part of the primary structure, nor part of the flight controls;
2. manufactured in conformity to applicable design;
3. marked in accordance with Subpart Q;
4. identified for installation in the specific aircraft.

And when the owner has verified compliance with the above 4 conditions and has accepted responsibility for this compliance.

The following guidance for these 4 points is provided in this Certification memorandum.

1. Not life-limited, nor part of the primary structure, nor part of the flight controls.

The information that is necessary to determine if these criteria are applicable is not always readily available or transposed into data that is available to the owner (E.g. primary structure is not always clearly defined). An owner should consult documentation (not limited to design data) from the design approval holder (Type Certificate, SB, STC, IPC, Maintenance Manual, Repair) before making the decision. Life-limited parts are the parts that are normally listed in the Airworthiness Limitations Section of the AMM (Or in some cases AFM) When in doubt, the owner can also consult an aviation organisation approved in accordance with EASA airworthiness regulations. (E.g. the maintenance organisation) Such an organisation can in turn also consult the competent authority or the Agency.

2. Manufactured in conformity with the applicable design

There are basically two ways to establish that a part without an EASA Form 1 but intended for ELA use conforms with applicable design data.

First, by obtaining a part directly from the original source/Original Equipment Manufacturer (OEM) (which may be a non-aviation vendor) as identified by part number and/or vendor code in the product support documentation (such as the Illustrated Parts Catalogue (IPC), Component Maintenance Manual (CMM) or in a Service Bulletin (SB).)

Secondly, in the case of parts where all of the data necessary for manufacture and subsequent inspection to determine the quality of the parts is available in the product support documentation or other data provided by the design approval holder, then such parts may be produced or fabricated in conformity with the applicable design data.

Note: It is important to realise that the acceptance of parts and appliances without an EASA Form 1 by no means is a way of making or accepting changes to the applicable design.

Where the owner is unable to obtain the approved data for the part, then the owner should consult the design approval holder or an organisation approved in accordance with EASA Airworthiness regulations as identified in Para 3.3 (1) of this Certification Memorandum.

3. Marked in accordance with Subpart Q

As for any other part or appliances it needs to be identified ("marked") for traceability purposes.

4. Identified for installation in the specific aircraft.

In order to record that the owner of the aircraft has decided to accept the part or appliance that came without an EASA Form 1 for installation in his/her aircraft, this needs to be recorded. An example of a list of parts that are installed during maintenance is provided below. It shows that the owner of a specific aircraft (Type and registration) has signed for the acceptance for installation (Specific for each accepted part), and is aware of the responsibilities (Part-21 reference is included).

Parts list & Qualifying Statement				
This maintenance record lists parts use during maintenance and records the aircraft owner acceptance of parts in accordance with Part 21 Reference 21.A.307(c).				
<u>Reg:</u>	<u>Type:</u>		<u>Work Ref No.</u>	
<u>Date:</u>				
Part No	Description	<u>Qty</u>	Part release Ref. (EASA Form 1 or equivalent)	Aircraft owner signature for part acceptance (See Ref 21.A.307(c))
AB1234-01	Part A	1	ZY9876	
AB5678-01	Part B	2	N/A	<i>Owner</i>
Etc.				
Part 21 21.A.307(c) Release of parts and appliances for installation				
The aircraft owner has verified and accepted the following responsibility for the parts identified by his/her signature in the table above:				
<ul style="list-style-type: none"> • The parts comply with the 4 conditions of 21.A.307(c), and • The parts are accepted for installation in his/her aircraft. 				
Signed: <i>Owner</i>				
Date: <u>dd/mm/yyyy</u>				

The fact that the owner has assumed the responsibility for the acceptance of a part has in general no effect on the marking of the parts (Marking is defined in the design data) unless the part is not manufactured by the original manufacturer.

3.4. HOW TO TREAT PARTS AND APPLIANCES WITHOUT AN EASA FORM 1

Ultimately it is the owner of the aircraft within the ELA1 or ELA2 criteria who takes the responsibility to accept a part or appliance within the given criteria for installation on his/her aircraft. For the continuing airworthiness of the aircraft it is required that these parts or appliances are to be clearly identified and handled in accordance with the amended rule in Part M and Part 145.

M.A.502 'Component Maintenance' has been amended for that reason. In order to assure that the parts and appliances that are accepted for a particular aircraft are not installed on other aircraft, component maintenance and release of that maintenance with an EASA Form 1 is not accepted (Refer to M.A.502(e)).

Also storage of these parts and appliances needs to be segregated from other items (Refer to 145.A.42(a)(6)). 145.A.42(e) has been introduced to emphasize the responsibilities of the owner for these parts and appliances.

4. REMARKS

1. Suggestions for amendment(s) to this EASA Certification Memorandum should be referred to the Certification Policy and Planning Department, Certification Directorate, EASA. E-mail CM@easa.europa.eu or fax +49 (0)221 89990 4459.
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