

CIVIL AVIATION AUTHORITY — AUSTRALIA

CIVIL AVIATION ADVISORY CIRCULAR

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No: 42ZE-2(0)

SUBJECT: CERTIFICATION

IMPORTANT

This publication describes the preferred method of complying with the directions given under regulation 42ZE of the Civil Aviation Regulations for the certification of the completion of maintenance.

The information in this publication is advisory only. The Civil Aviation Regulations set out the legal requirements that must be complied with in relation to the subject matter of this publication. There may be a number of ways of ensuring that the requirements of the CARs are met. This publication sets out the method that is preferred to be used and which experience has shown should, in the majority of cases, ensure compliance with the regulations. However, before using the information in this publication the user should always read the CARs listed in the reference section below to ensure compliance with the legal obligations of the CARs.

PURPOSE

This publication addresses the certification requirements for aircraft maintenance.

STATUS

This is the first issue of CAAP 42ZE-2, and will remain current until withdrawn or superseded.

REFERENCES

This publication should be read in conjunction with Civil Aviation Regulation 42ZE.

HOW TO OBTAIN COPIES OF THIS PUBLICATION

Copies of this publication may be obtained from:

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1 - CERTIFICATION REQUIREMENTS

1.1 The completion of all maintenance for aircraft will be certified in accordance with the directions of Regulation 42ZE (1) and Schedule 5 of the CARs by persons that have performed or supervised the maintenance being certified.

1.2 This CAAP provides guidance for complying with the system of certification contained in Schedule 6 of the CARs. If using an alternative system, that alternative will require approval under regulation 42ZG of the CARs.

1.3 A signed entry on a document with respect to the completion of maintenance on an aircraft shall constitute a certification, only when the CARs or the system of certification prepared for, or by, the maintenance organisation and approved by the Authority, specifies that

the entry constitutes a certification under Regulation 42ZE of the CARs.

1.4 Except where otherwise approved or directed by the Authority, a certification for the completion of maintenance will be made by:

- (a) the holder of a valid appropriate AME licence;
- (b) the holder of a valid appropriate maintenance authority;
- (c) a person of a class of persons specified for the purpose in an airworthiness directive; or
- (d) a person authorised by the holder of the Certificate of Approval under CAR 42ZC (4) (b) to certify for completion of maintenance, to the extent of that authorisation.

1.5 Procedures need to be in place to determine if an assessment flight is necessary following the certification of any maintenance that may have an adverse affect on the flight or operating characteristics of the aircraft, but not to the extent as to effect the safety of the aircraft, and that effect can only be assessed during flight.

1.6 A person shall not certify a defect as acceptable within the provisions of the system of maintenance or the Minimum Equipment List (MEL) for an aircraft unless:

- (a) the defect has no adverse effect on the aircraft, other than as allowed by the system of maintenance or the MEL; and
- (b) the maintenance procedures required by the system of maintenance or the MEL have been satisfied.

1.7 A certification, within a licence category, for completion of an inspection involving the use of a non destructive testing (NDT) method shall be made by the holder of a valid appropriate AME licence ensuring:

- (a) the NDT method has been performed and certified to have been completed to approved maintenance data by:

- (i) the holder of a valid appropriate NDT authority;
- (ii) the holder of a valid appropriate AME licence, limited to liquid penetrant inspections utilising aerosol packed materials; or
- (iii) in the case of an NDT Class 1 organisation, a person registered in the organisation for that purpose; and

- (b) that any defects indicated are assessed for further maintenance and recorded as appropriate.

1.8 Where a certification is to be made for the completion of an NDT inspection and the procedure to be observed is not specified, a procedure approved for the purpose by the Authority or an authorised person will be observed for the inspection.

1.9 A certification, within a licence category, for the completion of a repair or modification of an aircraft or an aircraft component involving manual welding, including braze welding, must be made by the holder of a valid appropriate AME licence ensuring that the welding has been performed and certified, to have been completed to approved data, by the holder of a valid appropriate welding authority issued by the Authority.

1.10 Unless an approved alternative system of certification specifying different co-ordination procedures is in use, where multiple certifications are necessary for the completion of maintenance, whether an individual task, a series of tasks in a licence category or a multiple of licence categories, a further certification for the completion and co-ordination of that maintenance shall be made by a person who has certified for part of that maintenance.

1.11 The person certifying for the completion and co-ordination of maintenance is to also ensure that where any maintenance performed has invalidated a certification previously made, all necessary maintenance has been carried out and re-certified.

1.12 A person certifying for completion of maintenance within an AME licence category may accept a certification made within that category provided such a certification is made on a maintenance document which identifies the maintenance to which it relates and, where the maintenance was an inspection, the certification contains details of any damage or defect found and rectifications made as a result of that inspection.

1.13 The Certificate of Registration holder of the aircraft is responsible to ensure that certifications for the completion of maintenance performed outside Australian territory are made, in accordance with regulation 42ZK and, if not using that maintenance organisations system of certification, Schedule 6 of the CARs by:

- (a) the pilot-in-command, for maintenance which he is authorised to perform;
- (b) the holder of a valid appropriate Australian AME licence;
- (c) the holder of a valid appropriate Australian maintenance authority;
- (d) the holder of a valid appropriate aircraft maintenance licence issued by the appropriate authority in the Contracting State in which the maintenance is being performed; or
- (e) an employee appropriately authorised by an organisation to perform maintenance on the aircraft, engine or system type as approved by the appropriate authority in the Contracting State in which the maintenance is being performed; and that the maintenance has been performed in accordance with the Certificate of Registration holder's System of Maintenance.

1.14 The Certificate of Registration holder or the pilot-in-command is responsible for ensuring that certification for the completion of maintenance has been correctly made in the appropriate log book, maintenance release or alternative document prior to flight.

2 - CONTENTS OF CERTIFICATIONS

2.1 Unless an approved alternative system of certification is in use this section specifies the general requirements for the content of certifications in the appropriate log book or alternative document following the completion of maintenance.

2.2 Certifications will include a description of the maintenance performed, and shall include, where appropriate, the following details:

- (a) the date the certification was made;
- (b) the registration mark of the aircraft to which it applies;
- (c) the total time-in-service of the aircraft or component at which the maintenance was completed;
- (d) the signature and licence or authority number, whether issued by the CAA or Certificate of Approval holder under CAR 42ZC, of the person making the certification;
- (e) where the above person is, or is employed by, the holder of an appropriate certificate of approval or other appropriate person covering the maintenance, the certification will include:
 - (i) the name of the organisation performing the maintenance; and
 - (ii) the certificate or licence number of that organisation;
- (f) where the maintenance is, or includes, a repair or modification:
 - (i) the current approved maintenance data used; or
 - (ii) any exemption or variation granted against a requirement; and
 - (iii) if applicable, a record of any weight and balance changes;
- (g) the results obtained where the maintenance is, or includes, an inspection that specifies limits

and the damage or defect is within those limits; and

- (h) where the maintenance is, or includes, an inspection using an NDT method, the:
 - (i) NDT method used;
 - (ii) approved procedure used; and
 - (iii) results obtained.

2.3 Where the maintenance performed includes the fitting of a replacement or repaired component, the following additional details are required to be on record, as appropriate:

- (a) part name;
- (b) model;
- (c) part number;
- (d) serial number;
- (e) airworthiness directive compliance;
- (f) 'Authorised Release Certificate Approval Tag' number and details;
- (g) where the component is subject to an overhaul life, the
 - (i) total time-in-service; or
 - (ii) total cycles-in-service, and
 - (iii) time-since-new; or
 - (iv) time-since-overhaul;
- (h) where the component is subject to a retirement life, the total time-in-service or cycles of the component; and
- (i) for an engine, the test performance figures.

2.4 Where a component is replaced with one of a different airworthiness directive status, a certification will be made to reflect that change in status.

2.5 Where damage or a defect is found when complying with an airworthiness directive, a certification that such damage or defect is not major, will only be made in those cases where the airworthiness directive specifies limits, and the damage or defect is within those limits.

2.6 The requirement, contained in Schedule 6 of the CARs, for a statement

that the aircraft is airworthy only relates to the maintenance that has been performed e.g. if the certification is for changing a propeller then the certification that the aircraft is airworthy only means that the aircraft is airworthy in relation to that propeller change.
