

[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 92-ANE-12; Amendment 39-8214; AD 92-08-03]

Airworthiness Directives; Hamilton Standard Model 14RF-9 Propellers

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to Hamilton Standard Model 14RF-9 propellers. This action requires inspections for excessive tooth wear, and replacement, if necessary, of propeller control unit (PCU) servo ballscrew internal spline (BIS) assemblies. This amendment is prompted by reports of excessive PCU servo BIS tooth wear. The actions specified in this AD are intended to prevent the inability to control the propeller blade angle.

DATES: Effective April 27, 1992.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 27, 1992.

Comments for inclusion in the Rules Docket must be received on or before May 7, 1992.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Assistant Chief Counsel, Attention: Rules Docket No. 92-ANE-12, 12 New England Executive Park, Burlington, Massachusetts 01803.

The service information referenced in this AD may be obtained from Hamilton Standard, One Hamilton Road, Windsor Locks, Connecticut 06096-1010. This information may be examined at the FAA, New England Region, Office of the Assistant Chief Counsel, Room 311, 12 New England Executive Park, Burlington, Massachusetts; or at the Office of the Federal Register, 1100 L Street NW., Room 8401, Washington, D.C.

FOR FURTHER INFORMATION CONTACT: Frank Walsh, Boston Aircraft Certification Office, ANE-150, FAA, New England Region, Engine and Propeller Directorate, Aircraft Certification Service, 12 New England Executive Park, Burlington, Massachusetts 01803-5299, telephone (617) 273-7066; fax (617) 270-2412.

SUPPLEMENTARY INFORMATION: Four confirmed cases of excessive propeller control unit (PCU) servo ballscrew internal spline (BIS) tooth wear have been found on Embraer EMB-120 aircraft. This wear has affected the ability of the PCU to

AIRWORTHINESS DIRECTIVE



OFFICE OF AVIATION SYSTEM STANDARDS
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U.S. Department
of Transportation
Federal Aviation
Administration

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Federal Aviation Regulations, Part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety. They are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (FAR 39.3).

92-08-03 Hamilton Standard: Amendment 39-8214. Docket No. 92-ANE-12.

Applicability: Hamilton Standard Model 14RF-9 propellers installed on Embraer EMB-120 aircraft.

Compliance: Required as indicated, unless accomplished previously.

To prevent the inability to control propeller blade angle, as a result of propeller control unit (PCU) servo ballscrew internal spline (BIS) tooth wear, accomplish the following:

(a) Inspect the PCU servo BIS assembly for excessive tooth wear in accordance with the Accomplishment Instructions of Hamilton Standard Alert Service Bulletin (ASB) No. 14RF-9-61-A53, dated March 12, 1992, as follows:

(1) For a PCU servo BIS assembly with 1,800 or more hours time in service (TIS) or unknown TIS on the effective date of this AD, inspect within 200 hours TIS after the effective date of this AD.

(2) For a PCU servo BIS assembly with less than 1,800 hours TIS on the effective date of this AD, inspect prior to the accumulation of 1,800 hours TIS, or within 200 hours TIS after the effective date of this AD, whichever occurs later.

(b) Reinspect the PCU servo BIS assembly for excessive tooth wear in accordance with the Accomplishment Instructions of Hamilton Standard ASB No. 14RF-9-61-A53, dated March 12, 1992, at intervals not to exceed 900 hours TIS since the last inspection required by this AD.

(c) If excessive tooth wear is found, prior to further flight, replace the PCU servo BIS assembly with a serviceable assembly in accordance with the Accomplishment Instructions of Hamilton Standard ASB No. 14RF-9-61-A53, dated March 12, 1992, and thereafter inspect in accordance with paragraphs (a) and (b) of this AD.

(d) Report the results of the initial and repetitive inspections required by paragraphs (a), (b), and (c) of this AD by utilizing Appendix 1, "Ballscrew Inspection Data," within 72 hours of the inspection to the Manager, Boston Aircraft Certification Office, Engine and Propeller Directorate, Aircraft Certification Service, FAA, 12 New England Executive Park, Burlington, Massachusetts 01803-5299, Telex Number 949301 FAAANE BURL, fax (617) 270-2412. The reporting requirements of this AD terminate on April 1, 1993. Information collection requirements contained in this regulation have been approved by the Office of Management and Budget (OMB) under the provision of the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.) and have been assigned OMB Control Number 2120-0056.

APPENDIX 1
BALLSCREW INSPECTION DATA

The following information must be reported and sent as soon as possible but no later than 72 hours after inspection to:

Manager, Boston Aircraft Certification Office
Engine & Propeller Directorate
Aircraft Certification Service
Federal Aviation Administration
12 New England Executive Park
Burlington, Massachusetts 01803-5299
Fax: (617) 270-2412

Company _____

Date of Inspection _____

PCU Part Number _____

PCU Serial Number _____

Aircraft Serial Number _____

Position: Left Side _____ Right Side _____
(please check)

(please circle):

Estimated Time On PCU Actual Time On PCU

Time Since New (Hours) _____ Time Since Repair (Hours) _____

Inspection: Accepted _____ *Rejected _____

*Please indicate in comments if unit was rejected as part of the functional check.

No. of left side teeth with steps _____

No. of right side teeth with steps _____

Comments: _____

(e) An alternative method of compliance or adjustment of the compliance time, that provides an acceptable level of safety, may be used if approved by the Manager, Boston Aircraft Certification Office, FAA, Engine and Propeller Directorate. The request shall be forwarded through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Boston Aircraft Certification Office.

NOTE: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Engine & Propeller Directorate.

(f) Special flight permits may be issued in accordance with FAR 21.197 and 21.199 to operate the airplane to a location where the requirements of this AD can be accomplished.

(g) The inspection and replacement requirements shall be done in accordance with the following service document:

<u>Document No.</u>	<u>Pages</u>	<u>Date</u>
Hamilton Standard ASB No. 14RF-9-61-A53	1-15	3-12-92

Total Pages: 15

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be obtained from Hamilton Standard, One Hamilton Road, Windsor Locks, Connecticut 06096-1010. Copies may be inspected at the FAA, New England Region, Office of the Assistant Chief Counsel, Room 311, 12 New England Executive Park, Burlington, Massachusetts; or at the Office of the Federal Register, 1100 L Street NW., Room 8401, Washington, D.C.

(h) This amendment becomes effective on April 27, 1992.

FOR FURTHER INFORMATION CONTACT:

Frank Walsh, Boston Aircraft Certification Office, ANE-150, FAA New England Region, Engine and Propeller Directorate, Aircraft Certification Service, 12 New England Executive Park, Burlington, Massachusetts 01803-5299, telephone (617) 273-7066; fax (617) 270-2412.