

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2006-25105; Directorate Identifier 2006-CE-33-AD; Amendment 39-15016; AD 2007-06-01 R1]

RIN 2120-AA64

Airworthiness Directives; Raytheon Aircraft Company Beech Models 45 (YT-34), A45 (T-34A, B-45), and D45 (T-34B) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; correction.

SUMMARY: We are clarifying information contained in Airworthiness Directive (AD) 2007-06-01, which supersedes AD 62-24-01 and applies to all Raytheon Aircraft Company (RAC) Beech Models 45 (YT-34), A45 (T-34A, B45), and D45 (T-34B) airplanes. AD 2007-06-01 currently requires you to repetitively inspect, using the eddy current method, the front and rear horizontal stabilizer spars for cracks and replace any cracked stabilizer. We inadvertently left out the language in this AD that required replacement of any horizontal stabilizer spar found cracked prior to further flight although the procedures in the appendix made reference to corrective action. The replacement information was contained in the notice of proposed rulemaking (NPRM). This document adds this information already proposed back into the AD. We are issuing this AD to prevent failure of the front and/or rear horizontal stabilizer spars caused by fatigue cracks. This failure could result in stabilizer separation and loss of control of the airplane.

DATES: This AD becomes effective on April 16, 2007.

ADDRESSES: To view the AD docket, go to the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-001 or on the Internet at <http://dms.dot.gov>. The docket number is FAA-2006-25105; Directorate Identifier 2006-CE-33-AD.

FOR FURTHER INFORMATION CONTACT: T.N. Baktha, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946-4155; fax: (316) 946-4107.

SUPPLEMENTARY INFORMATION:

Discussion

On March 5, 2007, we issued AD 2007-06-01, Amendment 39-14982 (72 FR 10909, March 12, 2007), to supersede AD 62-24-01. AD 2007-06-01 retained inspections of the front and rear horizontal stabilizer spars for cracks, but changed the inspection method from the dye penetrant method to the surface eddy current method.

We inadvertently left out the language in AD 2007-06-01 that required replacement of any horizontal stabilizer spar found cracked prior to further flight although the procedures in the appendix made reference to corrective action. The replacement information was contained in the NPRM.

Consequently, the FAA sees a need to clarify AD 2007-06-01 to assure that any cracked horizontal stabilizer spar is replaced prior to further flight.

Correction of Publication

This document clarifies AD 2007-06-01 by incorporating the replacement language that was proposed in the NPRM and adds the amendment to section 39.13 of the Federal Aviation Regulations (14 CFR 39.13).

Since this action only clarifies the intent of what was originally proposed in the NPRM, it has no adverse economic impact and imposes no additional burden on any person than was already proposed. Therefore, the FAA has determined that prior notice and opportunity for public comment are unnecessary.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2007-06-01, Amendment 39-14982 (72 FR 10909, March 12, 2007), and adding the following new AD:



2007-06-01 R1 Raytheon Aircraft Company: Amendment 39-15016; Docket No. FAA-2006-25105; Directorate Identifier 2006-CE-33-AD.

Effective Date

(a) This AD becomes effective on April 16, 2007.

Affected ADs

(b) This AD revises AD 2007-06-01, Amendment 39-14982, which superseded AD 62-24-01, Amendment 39-508.

Applicability

(c) This AD affects the following airplane models and serial numbers that are certificated in any category:

Model	Serial Numbers
Beech 45 (YT-34)	All
Beech A45 (T34A, B-45)	All
Beech D45 (T-34B)	All

Unsafe Condition

(d) This AD is intended to prevent failure of the front and/or rear horizontal stabilizer spars caused by fatigue cracks by changing the inspection method from dye penetrant to surface eddy current. This failure could result in stabilizer separation and loss of control of the airplane.

Compliance

(e) Using the surface eddy current inspection procedures outlined in the appendix of this AD, inspect the front and rear horizontal stabilizer spars between the butt rib and the inboard end for cracks, unless already done, as presented below. If any crack is found in either spar or the reinforcing doubler during any inspection required by this AD, prior to further flight, replace the stabilizer and continue to repetitively inspect at intervals not to exceed 500 hours time-in-service (TIS).

(1) If the last inspection of the front and rear horizontal stabilizer spars was done using the surface eddy current method (or FAA-approved equivalent method) to show compliance with AD 62-24-01 and/or to show compliance with the alternative method of compliance (AMOC) to AD 2004-25-51: Repetitively inspect thereafter at intervals not to exceed 500 hours TIS.

(2) If the last inspection of the front and rear horizontal stabilizer spars required by AD 62-24-01 was done using the dye penetrant method: Inspect initially as presented in the table below and repetitively thereafter at intervals not to exceed 500 hours TIS:

If	Then
(i) Less than 200 hours TIS have passed since the last inspection required by AD 62-24-01:	Inspect at whichever of the following occurs later: (A) Upon accumulating 200 hours TIS since the last inspection required by AD 62-24-01; or (B) Within the next 6 months after April 16, 2007 (the effective date of this AD).
(ii) 200 hours TIS or more have passed since the last inspection required by AD 62-24-01:	Inspect at whichever of the following occurs first, unless paragraph (e)(2)(iii) of this AD applies, as specified below: (A) At the next repetitive inspection required by AD 62-24-01; or (B) Within the next 6 months after April 16, 2007 (the effective date of this AD).
(iii) Paragraph (e)(2)(ii) results in the initial surface eddy current inspection becoming mandatory within 30 days after the effective date of this AD:	Inspect within the next 30 days after April 16, 2007 (the effective date of this AD).

Alternative Methods of Compliance (AMOCs)

(f) The Manager, Wichita Aircraft Certification Office, FAA, ATTN: T.N. Baktha, Aerospace Engineer, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946-4155; fax: (316) 946-4107, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

(g) AMOCs approved for AD 62-24-01 are approved for this AD.

Appendix to AD 2007-06-01 R1–Surface Eddy Current Inspection Procedure

Note: This surface eddy current inspection procedure is based on T-34 Spar Corporation TSC 3506, Rev C, dated May 10, 2005. The T-34 Spar Corporation is allowing the use of this procedure to be included in this Airworthiness Directive. Alternative methods of compliance procedures will be allowed, if approved by the Wichita Aircraft Certification Office and requested using the procedures found in 14 CFR 39.19.

Purpose

This procedure is to be used to detect cracks in the inner and outer spars of the front and rear spar assemblies of Raytheon Aircraft Company Beech Models 45 (YT-34), A45 (T-34A, B-45), and D45 (T-34B) airplane stabilizers outside of the steel bushings in the attach holes.

Area To Be Inspected

To access the area of inspection, remove the stabilizer from the airplane. The areas to be inspected include the forward and aft surfaces of the inner and outer front and rear spars of the horizontal stabilizers in the areas surrounding each of the attach holes.

Preparing the Area for Inspection

Thoroughly clean area to be inspected with solvent (acetone or equivalent) as required until no signs of dirt, grime, or oil remain on the front and rear spars from the closeout former inboard on the forward and aft surfaces of the spars.

Surfaces to be inspected should be smooth and corrosion-free. Any loss of thickness due to corrosion below material thickness tolerance is cause for rejection of the structure. An ultrasonic tester may be used to determine if material thickness has been compromised.

Equipment Requirements

Nortec Stavely 2000D Eddy Current Tester or equivalent.

Probe: 50-500 KHz, shielded, absolute, 0.071" diameter (0.090 max. diameter), right angle, pencil style, surface probe, 5" long, drop or equivalent. Use 0.025" notch (beyond head) for calibration.

Personal Requirements

Technicians with Eddy Current, Level II or Level III per one of the following specifications: ATA specification 105, SNT-TC-1A, or NAS-410 (MIL-std 410E).

Methods

Typical Set-up Parameters:

Frequency -350 KHz, Gain Vertical -75 dB, Horizontal -69 dB, Drive-Mid, Filters-Lo Pass-30, Hi Pass-0, Lift off-Horizontal to the left, adjust as required. The most reliable indication (minimum of 1/2 to 2 gratitudes) of the smallest observable flaw in the coupon (see the attached Figures) occurs from the notch extending 0.025" past the edge of the nominal fastener head (total notch length of 0.100" from the edge of the nominal hole). Install appropriate aluminum guide pin into bushing such that the edge of the guide pin is flush with the edge of the bushing. Using the pin (see the attached Figures) as a guide, circle the area surrounding the steel bushing with the probe and adjacent area (approximately 1/4") to inspect for cracks. Inspect forward and aft surfaces surrounding bushings of each spar.

Note: T-34 Spar Corporation, 2800 Airport Road, Hanger A, Ada, Oklahoma 74820 is a source for these coupons and pin.

Accept/Reject Criteria

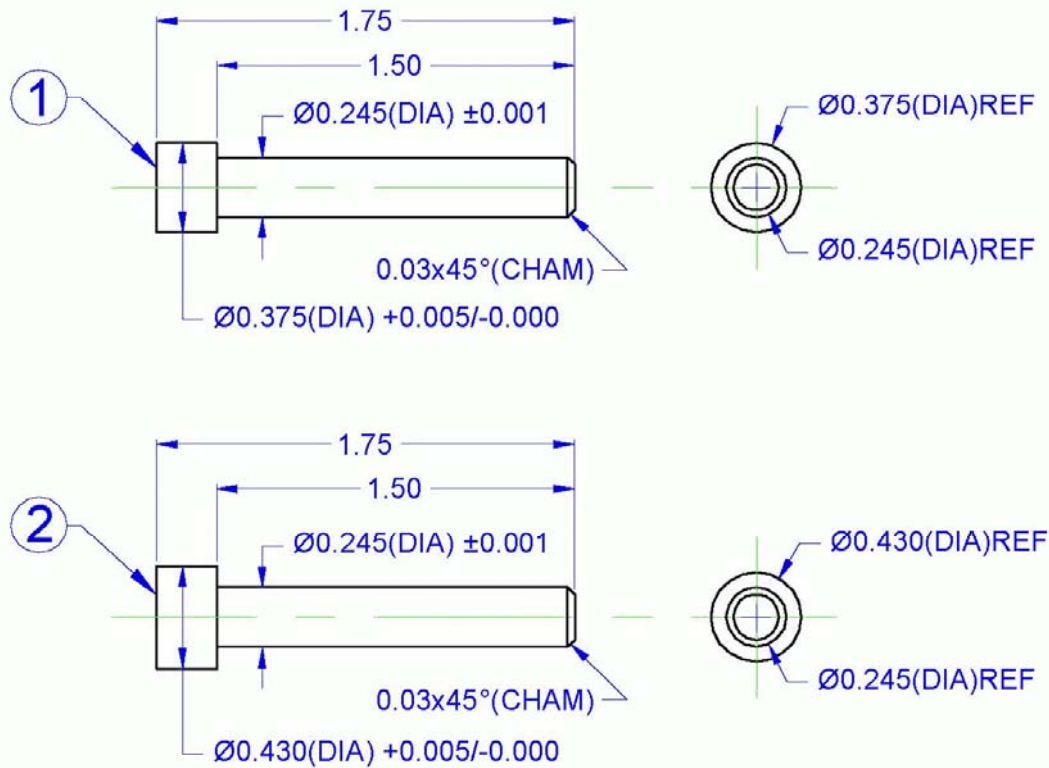
Any repeatable flaw indication is cause for rejection in accordance with the procedure. In the event that any crack is detected, describe the flaw in detail providing sketch as needed and send the information to the Wichita ACO.

Documentation Requirements

Record inspection findings in the aircraft logbook.

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CHANGED TO BE MADE INTO TWO SEPERATE PARTS	3-18/05	D. LANDRETH



2	45-127-2	BUSHING TOOL	Ø0.44(DIA) x1.75	ALUMINUM		BREAK ALL SHARP EDGES
1	45-127-1	BUSHING TOOL	Ø0.38(DIA) x1.75	ALUMINUM		BREAK ALL SHARP EDGES
KEY	PART NO.	DESCRIPTION	SIZE	MATERIAL SPEC.	HEAT TREAT	NOTES
		DIMENSIONING AND TOLERANCING IN INCHES UNLESS OTHERWISE SPECIFIED		CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE		
		APPROVALS		DATE		
		DRAWN LUKE KERR		3-14/05		
		CHECKED				
		RESP ENG				
		MFG ENG				
		QUAL ENG				
		DIMENSIONS AND SURFACE TEXTURE DESIGNATIONS APPLY BEFORE PLATING OR FINISH COATING UNLESS OTHERWISE NOTED.		GENERAL AVIATION MODIFICATIONS, INC. 2800 AIRPORT ROAD, HANGAR A ADA, OKLAHOMA 74820 PROBE LOCATING, BUSHING TOOL		
		SIZE		DWS. NO.		REV
		A		45-127		A
		SCALE		1.5=1		CAD FILE
				45-127 REVA.DWG		SHEET: 1 OF 1

Figure 1

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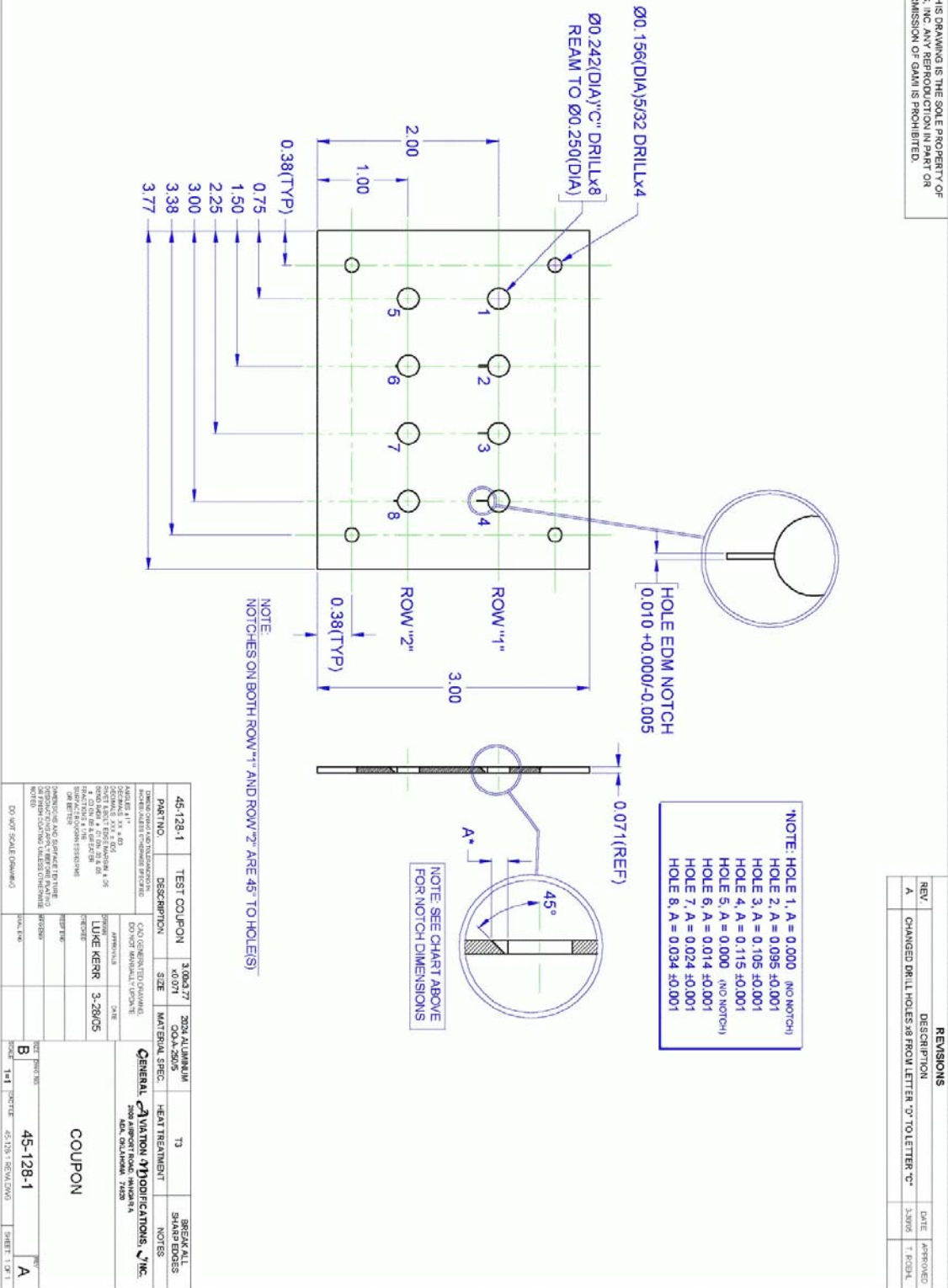
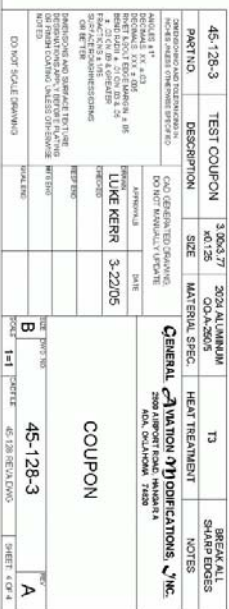


Figure 2

REVISIONS		
REV.	DESCRIPTION	DATE APPROVED
A	CHANGED DRILL HOLES #8 FROM LETTER "D" TO LETTER "C"	3/30/75 T. ROHL



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Issued in Kansas City, Missouri, on March 30, 2007.
James E. Jackson,
Acting Manager, Small Airplane Directorate, Aircraft Certification Service.
[FR Doc. 07-1715 Filed 4-5-07; 8:45 am]