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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98-NM-300-AD; Amendment 39-14355; AD 2005-22-11]

RIN 2120-AA64

Airworthiness Directives; Mitsubishi Model YS-11 Airplanes, and Model YS-11A-200, YS-11A-300, YS-11A-500, and YS-11A-600 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Mitsubishi Model YS-11 airplanes, and Model YS-11A-200, YS-11A-300, YS-11A-500, and YS-11A-600 series airplanes. This AD requires repetitive removal of the spinner; repetitive detailed inspections of the propeller hub to detect fatigue cracking; and replacement of a propeller hub with a new propeller hub, if necessary. This action is necessary to detect and correct fatigue cracking of the propeller hub, which could cause the loss of the propeller. This action is intended to address the identified unsafe condition.

DATES: Effective December 6, 2005.

ADDRESSES: The service information referenced in this AD may be obtained from Nihon Aeroplane Manufacturing, Toranomom Daiichi, Kotohire-Cho, Shiba, Minato-Ku, Tokyo, Japan. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California.

FOR FURTHER INFORMATION CONTACT: Brent Bandle, Project Engineer, Continuing Operational Safety, ANM-100L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5237; fax (562) 627-5210.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to all Mitsubishi Model YS-11 and YS-11A series airplanes was published in the Federal Register on August 31, 1999 (64 FR 47442). That action proposed to require repetitive removal of the spinner;

repetitive detailed visual inspections of the propeller hub to detect fatigue cracking; and replacement of a propeller hub with a new propeller hub, if necessary.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request To Include Only Airplanes With Incorrectly Inspected Propeller Hubs

Two commenters, the airplane manufacturer and the Japan Civil Aviation Bureau (JCAB), which is the airworthiness authority for Japan, request that we limit the airplanes affected by the notice of proposed rulemaking (NPRM) to those that have propeller hubs that were inspected incorrectly. The commenters explain that, after we issued the NPRM, which applies to all Mitsubishi Model YS-11 and YS-11A series airplanes, the JCAB found some discrepancies in procedures that an overhauler used when inspecting the hub. The JCAB revised its airworthiness directive and issued Japanese airworthiness directive TCD-4667A-98, dated March 18, 1998, to apply only to the hubs that were inspected incorrectly. The commenters request that we incorporate the list of applicable propellers into the final rule.

We infer that the commenters are also stating that hubs that were correctly inspected are not subject to the stated unsafe condition. We agree with the commenters; only propeller hubs that were incorrectly inspected are subject to the unsafe condition. Therefore, the final rule should be applicable only to airplanes on which these incorrectly inspected propeller hubs are installed. The Japanese airworthiness directive identifies the affected propellers by serial number. We have revised the summary and applicability of the final rule to reflect this change and to include only those serial numbers.

Request To Exclude Airplanes With Strengthened Propeller Hubs

The same commenters request that we exclude from the applicability any affected airplane that has a propeller hub that was strengthened in accordance with Dowty Rotor Service Bulletin 61-921, dated April 24, 1980, or later version approved by the JCAB. The commenters state that strengthened hubs do not require a repetitive visual inspection. The Japanese airworthiness directive excludes from its applicability all airplanes that have strengthened hubs; however, JCAB also notes in its comment that there have been two reports of cracks in strengthened hubs. In addition, the commenters request that we incorporate the actions in this service bulletin into the requirements of the final rule.

We do not agree with the commenters. The JCAB noted that there have been two reports of cracks found in hubs that have been modified in accordance with the Dowty Rotor service bulletin. We have determined that propellers with the strengthened hubs do have a potential unsafe cracking condition because it has been reported that strengthened hubs have also cracked. The strengthened hubs should not be excluded from the applicability and inspection requirements of the final rule. We have not changed the final rule in this regard.

Explanation of Further Changes to the Final Rule

We have revised the applicability to reflect the model designations as published in the most recent type certificate data sheets.

We have changed paragraph (a)(2) of the final rule to refer to the repair procedure to follow if any crack is detected in a hub.

We have changed references to a "detailed visual inspection" to "detailed inspection." We have included the definition for a detailed inspection in a note in the final rule.

Although the Japanese airworthiness directive referenced in this AD specifies to submit certain information to the JCAB, this AD does not include that requirement.

We have revised this action to clarify the appropriate procedure for notifying the principal inspector before using any approved AMOC on any airplane to which the AMOC applies.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Changes to 14 CFR Part 39/Effect on the AD

On July 10, 2002, the FAA issued a new version of 14 CFR part 39 (67 FR 47997, July 22, 2002), which governs the FAA's airworthiness directives system. The regulation now includes material that relates to altered products, special flight permits, and alternative methods of compliance. However, for clarity and consistency in this final rule, we have retained the language of the NPRM regarding that material.

Cost Impact

Since we issued the NPRM, we have determined that none of the airplanes affected by this action are on the U.S. Register. All airplanes affected by this AD are currently operated by non-U.S. operators under foreign registry; therefore, they are not directly affected by this AD action. However, we consider this AD necessary to ensure that the unsafe condition is addressed if any affected airplane is imported and placed on the U.S. Register in the future. If an affected airplane is imported and placed on the U.S. Register in the future, the required actions would take about 32 work hours per airplane to accomplish the inspection, and that the average labor rate is \$65 per work hour. Based on these figures, the estimated cost of the AD would be \$2,080 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

Adoption of the Amendment

Accordingly, pursuant to 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. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at www.faa.gov/aircraft/safety/alerts/

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and 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 (reference 14 CFR part 39, subpart 39.3).

2005-22-11 Mitsubishi Heavy Industries, LTD.: Amendment 39-14355. Docket 98-NM-300-AD.

Applicability

Model YS-11 airplanes, and Model YS-11A-200, YS-11A-300, YS-11A-500, and YS-11A-600 series airplanes, certificated in any category; having propeller hubs with the following serial numbers: CHE942, DRG1/74, DRG7/68, DRG8/68, DRG13/70, DRG14/71, DRG31/68, DRG33/70, DRG34/68, DRG35/68, DRG48/69, DRG53/69, DRG65/78, DRG72/69, DRG73/68, DRG75/69, DRG83/65, DRG87/68, DRG105/67, DRG126/70, DRG128/68, DRG130/70, DRG132/68, DRG132/70, DRG134/68, DRG137/67, DRG150/69, DRG154/65, DRG161/70, DRG179/68, DRG180/68, DRG194/63, DRG208/67, DRG231/70, DRG238/65, DRG275/68, DRG281/68, DRG284/64, DRG300/63, DRG302/67, DRG308/64, DRG308/66, DRG486/67, and DRG551/67.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (b) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance

Required as indicated, unless accomplished previously.

To detect and correct fatigue cracking of the propeller hub, which could cause the loss of the propeller, accomplish the following:

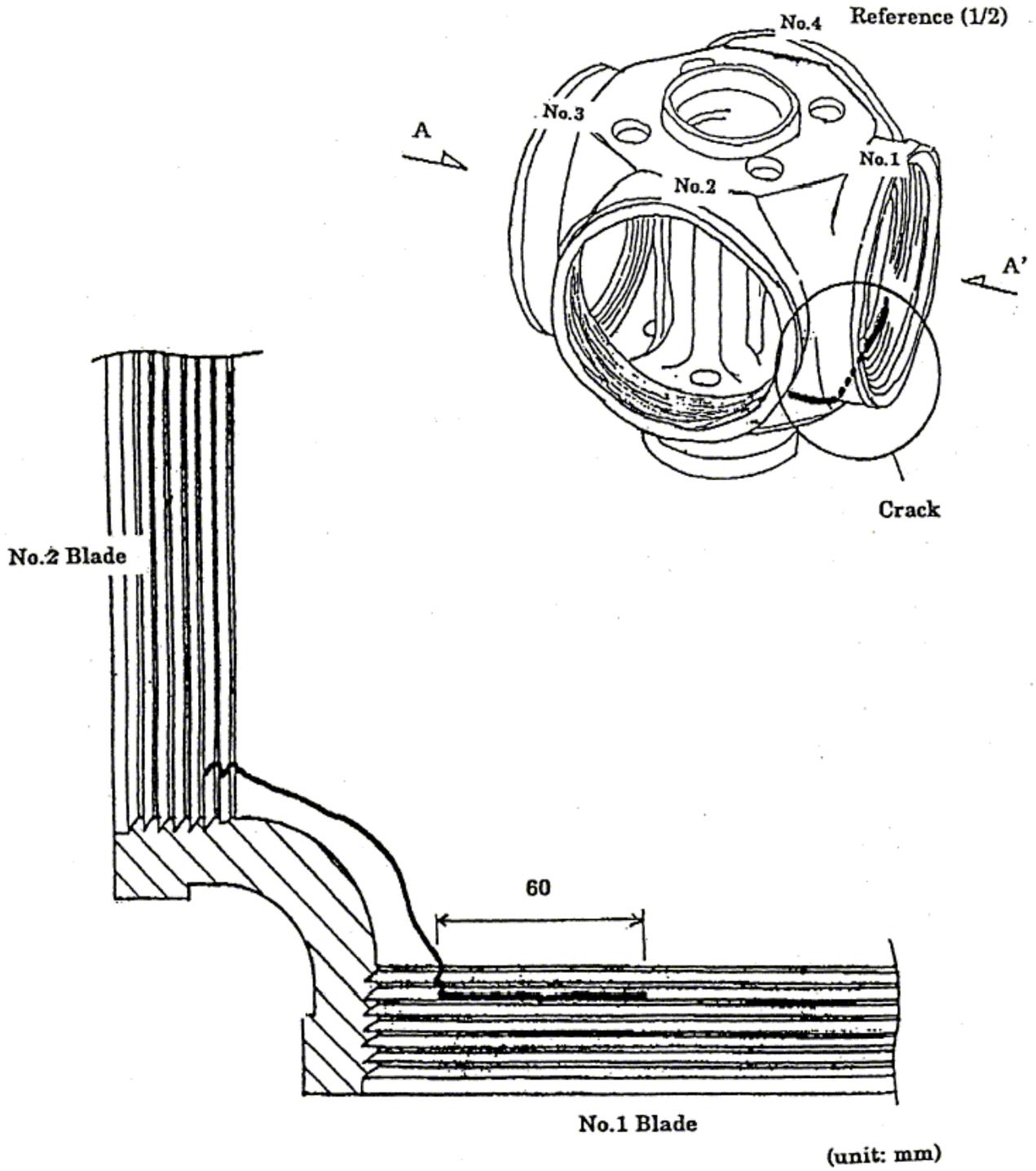
Inspection and Replacement

(a) Within 25 flight hours or 30 days after the effective date of this AD, whichever occurs first, remove the spinner and perform a detailed inspection for cracking of the propeller hub in the crack area shown in Figure 1 of this AD.

Note 2: For the purposes of this AD, a detailed inspection is: "An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required."

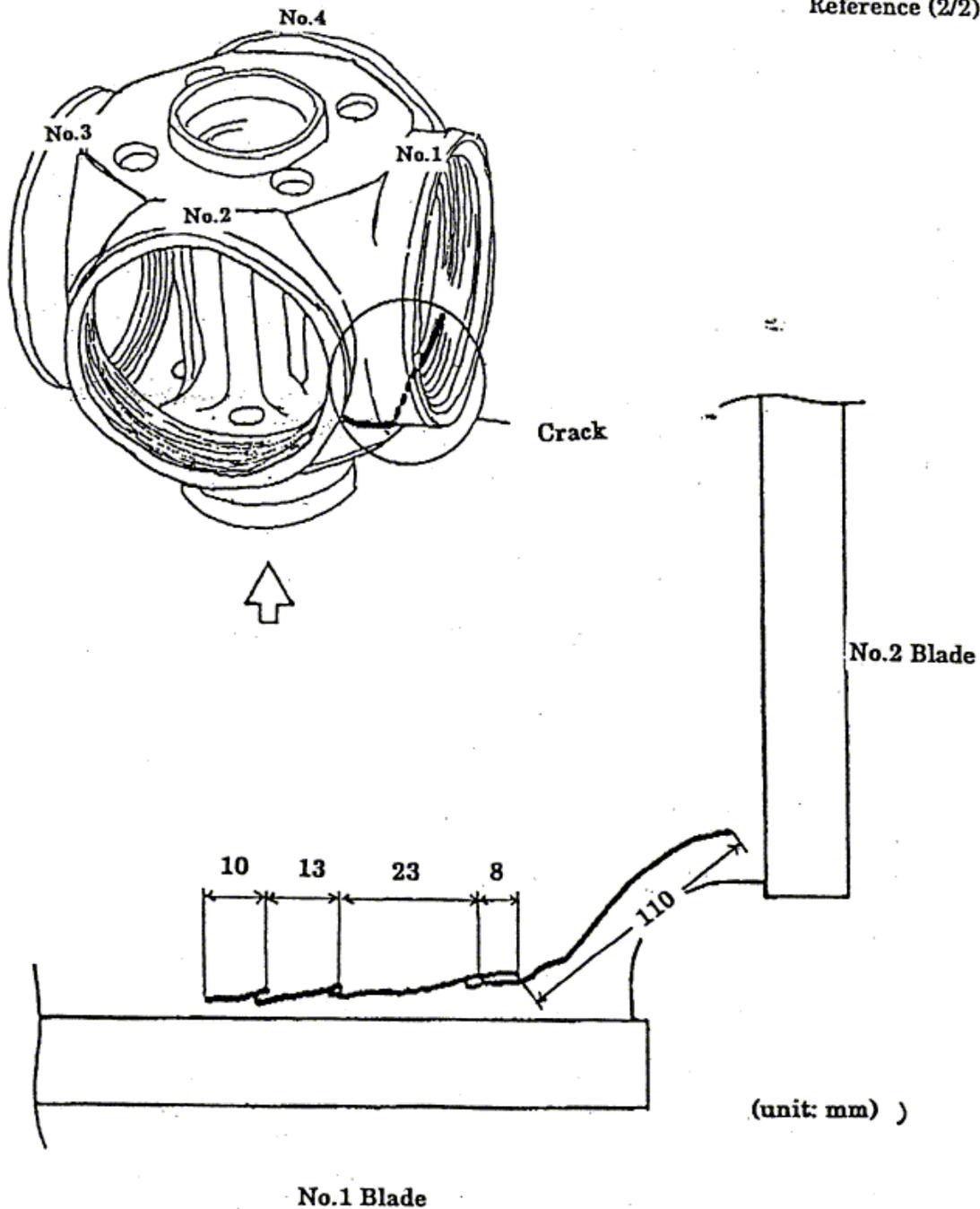
(1) If no crack is found, repeat the actions required by paragraph (a) of this AD thereafter at intervals not to exceed 25 flight hours.

(2) If any crack is detected, prior to further flight, replace the hub with a new hub according to a method approved by either the Manager, Los Angeles Aircraft Certification Office (ACO), FAA; or the Japan Civil Aviation Bureau (JCAB) (or its delegated agent). Chapter 61 of the Nihon Aeroplane Manufacturing Company YS-11 and YS-11A Aircraft Maintenance Manuals is one approved method. Repeat the actions required by paragraph (a) of this AD thereafter at intervals not to exceed 25 flight hours.



HUB CRACK - VIEW FROM TOP

(Cut A - A')



HUB CRACK - VIEW FROM BOTTOM

Alternative Methods of Compliance

(b)(1) 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, Los Angeles ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

(2) Before using any AMOC approved in accordance with § 39.19 on any airplane to which the AMOC applies, notify the appropriate principal inspector in the FAA Flight Standards Certificate Holding District Office.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(c) Special flight permits may be issued for non-revenue bearing flights with essential crew only in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Note 4: The subject of this AD is addressed in Japanese airworthiness directive TCD-4667A-98, dated March 18, 1998.

Incorporation by Reference

(d) None.

Effective Date

(e) This amendment becomes effective on December 6, 2005.

Issued in Renton, Washington, on October 20, 2005.

Kalene C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05-21543 Filed 10-31-05; 8:45 am]

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