14 CFR Part 39

[Docket No. 94–NM–114–AD]

Airworthiness Directives; McDonnell Douglas Model DC–10 Series Airplanes and Model KC–10A (Military) Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to certain McDonnell Douglas Model DC–10 series airplanes and Model KC–10A (military) airplanes. This proposal would require various modifications of the flight controls, hydraulic power systems, and landing gear. This proposal is prompted by a recommendation by the Systems Review Task Force (SRTF) for accomplishment of certain modifications that will enhance the controllability of these airplanes in the unlikely event of catastrophic damage to all hydraulics systems. The actions specified by the proposed AD are intended to ensure airplane survivability in the event of damage to fully powered flight control systems.

DATES: Comments must be received by March 1, 1995.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM–103, Attention: Rules Docket No. 94–NM–114–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056. Comments may be inspected at this location between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The service information referenced in the proposed rule may be obtained from McDonnell Douglas Corporation, P.O. Box 1771, Long Beach, California 90801–1771, Attention: Business Unit Manager, Technical Administrative Support, Dept. L51, Mail Code 2–98. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California.

FOR FURTHER INFORMATION CONTACT: Mauricio J. Kuttler, Aerospace Engineer, Systems and Equipment Branch, ANM–131L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712; telephone (310) 627–5355; fax (310) 627–5210.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications shall identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket. –

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket Number 94–NM–114–AD.'' The postcard will be date stamped and returned to the commenter.

Availability of NPRMs–

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Transport Airplane Directorate, ANM–103, Attention: Rules Docket No. 94–NM–114–AD, 1601 Lind Avenue, SW., Renton, Washington 98055–4056.

Discussion–

In July 1989, a McDonnell Douglas Model DC–10–30 series airplane was involved in an accident in Sioux City, Iowa, resulting in the deaths of 110 passengers and one crewmember. The National Transportation Safety Board (NTSB) identified the catastrophic disintegration of the stage 1 fan disk of one of the engines as a probable cause of the accident. The resulting debris damaged the hydraulic systems that power the flight controls, resulting in the loss of virtually all control capability.–

Following the accident, the Administrator of the Federal Aviation Administration convened a Systems Review Task Force (SRTF) to investigate means for enhancing airplane survivability following damage to fully powered flight control systems. The SRTF formed working groups to perform these investigations for specific airplane models to determine what actions could be effective in protecting other transport category airplanes with powered flight control systems from similar engine or systems failures.–

The SRTF working group assigned to review Model DC–10 series airplanes completed its review of the Model DC–10 design, including existing service bulletins, and issued a report recommending accomplishment of certain modifications described in 12 Model DC–10 service bulletins. A copy of the report is contained in the Rules Docket for this AD action.

Explanation of Relevant Service Documents–

The FAA has reviewed and approved the 12 McDonnell Douglas DC–10 Service Bulletins recommended for accomplishment by the SRTF working group. Accomplishment of the modifications specified in these service bulletins will enhance the controllability of the airplane in the unlikely event of catastrophic damage to all three hydraulic systems in the tail area of the airplane.

Seven of the 12 service bulletins discussed previously describe procedures for various modifications of the flight controls:–

1. McDonnell Douglas DC–10 Service Bulletin 27–71, Revision 1, dated February 14, 1973, was issued in response to reports of failures of the piping of the hydraulic system of the horizontal stabilizer on Model DC–10 series airplanes that had accumulated as few as 70 flight hours. The failures were attributed to rapid release of the trim control handles of the stabilizer, which resulted in pressure surges that were abnormally high in the hydraulic system of the stabilizer. Continued high pressure surges and externally induced vibrations could result in fatigue failure of the hydraulic piping. These conditions, if not corrected, could result in the loss of fluid, which could render the affected system inoperative.–

The service bulletin describes procedures for installation of surge damper assemblies and new piping assemblies in hydraulic systems 1 and 3 of the horizontal stabilizer. Installation of the dampers and piping will ensure that high pressure surges are absorbed and will prevent pipe failures.–

2. McDonnell Douglas DC–10 Service Bulletin 27–120, dated February 10, 1975, describes procedures for modification and reidentification of the

trim hydraulic motor assembly of the horizontal stabilizer. Accomplishment of the modification will minimize the possibility of fatigue failure of the motor case screws and shuttle valve screws. (The service bulletin references Sperry Rand Corporation, Vickers Division, Service Bulletin 390017–27–2, dated December 2, 1974, as an additional source of service information.) Failure of the motor case screws and/or failure of the shuttle valve screws, if not corrected, could result in loss of hydraulic system fluid. Failure of two shuttle valve screws could cause the shuttle valve to separate from the trim motor.–

3. McDonnell Douglas DC–10 Service Bulletin 27–152, dated August 9, 1976, was issued in response to a report of inoperative horizontal stabilizer trim due to disengagement of the torsional coupling of the drive system on Model DC–10 series airplanes that had accumulated approximately 4,100 flight hours. In addition, during fleet inspections, loose retaining nuts and locking clips were found on these airplanes; the torsional nut did not engage adequately to provide locking action. The inoperative horizontal stabilizer trim was attributed to failure of the locking clip to prevent the retaining nut of the torsional coupling from rotating and becoming loose. This condition could result in the retaining nut becoming loose and allowing disengagement of the torsional coupling. This condition, if not corrected, could result in the loss of horizontal stabilizer trim capability.

The service bulletin describes procedures for replacing the existing locking clip on the torsional coupling of the horizontal stabilizer with a new nut retainer of an improved design. Accomplishment of this modification will minimize the possibility of the torsional nut becoming loose.–

4. McDonnell Douglas DC–10 Service Bulletin 27–181, Revision 1, dated May 28, 1981, was issued in response to reports of failure of the differential drive shear pin in the horizontal stabilizer drive system. These failures occurred during takeoff climb on Model DC–10 series airplanes that had accumulated between 4 and 4,201 flight hours. Investigation revealed that these failures were caused by bending fatigue of the shear pin due to a loose fit. Failure of the shear pin could result in an inoperative horizontal stabilizer drive system. This condition, if not corrected, could result in reduced controllability of the airplane.–

The service bulletin describes procedures for installation of a modified chain drive unit on the horizontal stabilizer. The new unit incorporates a larger shear pin with a single shear point having a larger diameter with less constraint. Accomplishment of this modification will increase the reliability of the drive assembly.–

5. McDonnell Douglas DC–10 Service Bulletin 27–201, dated December 30, 1985, was issued in response to a report of in-flight loss of hydraulic systems 1 and 2 shortly after takeoff of a Model DC–10 series airplane. Investigation revealed that the loss of hydraulic systems was caused by blowout of the number 6 tire after gear retraction. The blowout deflected the keel web structure, which ruptured hydraulic pipes to the flap lock valves and caused rapid loss of fluid. This condition, if not corrected, could result in loss of operation of the hydraulic system.–

The service bulletin describes procedures for replacement of the hydraulic pipe assemblies of the flap lock valve with new pipe assemblies having increased flexibility and strength. Installation of these pipe assemblies will minimize the possibility of rupture of the pipe assemblies during events such as those described previously.–

6. McDonnell Douglas DC–10 Service Bulletin 27–208, dated September 5, 1989, was issued in response to reports of cracking of the end caps of the trim control valve of the horizontal stabilizer on Model DC–10 series airplanes that had accumulated between 9,800 and 16,000 flight hours. Investigation revealed that fatigue cracking initiated from inside the radius of the end cap. Such fatigue cracking, if not corrected, could result in loss of hydraulic fluid and eventual shutdown of the hydraulic system.–

The service bulletin describes procedures for replacement of eight end caps of the trim control valve of the horizontal stabilizer with new end caps having a larger inside radius. Replacement of the end caps will minimize the possibility of cracking of the end caps.–

7. McDonnell Douglas DC–10 Service Bulletin 27–209, dated October 20, 1989, was issued in response to reports of failure of the chain drive fuse of the horizontal stabilizer on Model DC–10 series airplanes that had accumulated between 4,000 and 18,000 flight hours. Investigation revealed that a fuse pin within the chain drive unit had sheared due to loose nuts on the shaft assembly. These conditions, if not corrected, could result in the horizontal stabilizer drive system becoming inoperative.–

The service bulletin describes procedures for inspecting the nuts on the shaft assembly for looseness, proper orientation, excess backlash, and engagement of the washer locking tab; and replacing the fuse pin, adjusting backlash, and properly positioning and tightening the nuts, if necessary. Replacing the fuse pin and tightening the nuts will minimize the possibility of failure of the chain drive fuse of the horizontal stabilizer.–

Two of the 12 service bulletins describe procedures for modifications of certain hydraulic power systems:–

8. McDonnell Douglas DC–10 Service Bulletin 29–109, Revision 1, dated September 22, 1978, was issued in response to reports of rapid rise in temperature in hydraulic system 3 subsequent to the loss of hydraulic fluid in hydraulic system 1 or 2. Investigation revealed that a shutoff valve on the reversible motor pump may fail on one side of the reversible motor pump and that failure may go undetected. This failure poses a problem if a failure occurs in the opposite hydraulic system that causes total loss of that system's fluid. If a valve fails in the open position on one side and fluid is lost from the opposite hydraulic system, the reversible motor pump will rotate at maximum rpm (limited by the flow control). This condition, if not corrected, could result in a rise in temperature in the opposite hydraulic system, which may necessitate limited use of the engine-drive pumps on that hydraulic system.–

The service bulletin describes procedures for installation of an indication system that will allow the flight crew to immediately detect an inoperative shutoff valve on the reversible motor pump. The installation of the indication system involves installing two pressure switches on the reversible motor pumps; installing a ground stud, two relays, and receptacles on the center compartment electrical rack; replacing the 6-post terminal strip in the wheel well of the right main landing gear with an 8-post terminal strip; installing an annunciator legend on the flight engineer's annunciator panel; installing a circuit breaker and replacing the nameplate on the flight engineer's circuit breaker panel; revising the failure indication wiring on the constant speed drive; and installing indication wiring and associated clamps and brackets on the reversible motor pump.–

9. McDonnell Douglas DC–10 Service Bulletin 29–125, Revision 2, dated October 23, 1987, was issued in response to reports of complete loss of fluid from the number 3 hydraulic system. The fluid loss was caused by a ruptured hi-pressure switch on the hydraulic case drain. This condition, if

not corrected, could result in the loss of function of the hydraulic system.

The service bulletin describes procedures for modification of the main hydraulic power system. The modification involves replacing the hi-pressure switches on the hydraulic case drain on engine numbers 1, 2, and 3 with plugs; removing one relay and one receptacle on the aft relay panel of the equipment rack; replacing the existing legend in position 8 on the flight engineer's annunciator panel with a blank legend; and revising the wiring for indicating the aircraft hydraulic temperature and pressure. Accomplishment of this modification will minimize the possibility of loss of hydraulic fluid.–

Three of the 12 service bulletins describe procedures for modifications of the landing gear:–

10. McDonnell Douglas DC–10 Service Bulletin 32–134, dated March 22, 1977, was issued in response to reports of damage to the electrical and hydraulic installations of the aft antiskid manifold on the main landing gear. The damage resulted from blown tire fragments and debris, which rendered the antiskid system inoperative and, in one case, ruptured a hydraulic pipe. Failure of the pipe, if not corrected, could cause hydraulic system numbers 1 or 3 to become inoperative due to the loss of hydraulic fluid.–

The service bulletin describes procedures for modification of the aft antiskid manifold on the left and right main landing gear. The modification entails installing a protective shield and associated brackets on the aft antiskid manifold. Accomplishment of this modification will minimize the possibility of damage to the aft antiskid manifold.–

11. McDonnell Douglas DC–10 Service Bulletin 32–143, dated August 8, 1978, was issued in response to reports of damage to the brake piping that is routed between the antiskid manifolds and the swivel glands of the main landing gear. This damage occurred as a result of the impact of debris following failure of a tire on the main landing gear. A ruptured antiskid return pipe could result in loss of fluid from the affected antiskid system during application of the brakes. A single failure of a pressure pipe will limit brake performance on a single system. Failure of brake pressure pipes in both systems, if not corrected, could result in complete loss of braking capability.–

The service bulletin describes procedures for installation of protective shields over the brake and the antiskid piping located on the aft side of the left and right main landing gear. Accomplishment of this modification will minimize the possibility of brake pressure and damage to the antiskid return piping caused by failure of a tire on the main landing gear.–

12. McDonnell Douglas DC–10 Service Bulletin 32–157, Revision 1, dated October 29, 1980, was issued in response to a report of damage to a support bracket on the aileron trim cable and to a flight control mixer in the wheel well of the centerline landing gear. Investigation revealed that the damage was caused by the impact of a tire tread that was thrown into the open area created by the aft doors on the centerline landing gear when the landing gear is in the down position. This condition, if not corrected, could result in damage to components located in the wheel well of that landing gear.–

The service bulletin describes procedures for installing a doubler on the web assembly between the wheel wells of the center landing gear and the right main landing gear; installing a fiberglass deflector assembly on the shock strut of the centerline landing gear; replacing the pressure gage manifold of the shock strut; and installing an instruction plate and adding precaution instruction markings in the wheel well of the right main landing gear and on the forward door of the center landing gear. Accomplishment of this modification will minimize the possibility of damage to components in the wheel well of the centerline landing gear caused by a thrown tire tread or other debris.

Explanation of the Proposed Rule–

Since an unsafe condition has been identified that is likely to exist or develop on other products of this same type design, the proposed AD would require various modifications of the flight controls, hydraulic power systems, and landing gear. The actions would be required to be accomplished in accordance with the McDonnell Douglas service bulletins described previously.–

The FAA is continuing to review the recommendations of the SRTF working group for these airplanes and may consider further rulemaking based on those recommendations.–

As a result of recent communications with the Air Transport Association (ATA) of America, the FAA has learned that, in general, some operators may misunderstand the legal effect of AD's on airplanes that are identified in the applicability provision of the AD, but that have been altered or repaired in the area addressed by the AD. The FAA points out that all airplanes identified in the applicability provision of an AD are legally subject to the AD. If an airplane has been altered or repaired in the affected area in such a way as to affect compliance with the AD, the owner or operator is required to obtain FAA approval for an alternative method of compliance with the AD, in accordance with the paragraph of each AD that provides for such approvals. A note has been included in this notice to clarify this requirement.

Cost Impact–

There are approximately 427 Model DC–10 series airplanes and Model KC–10A (military) airplanes of the affected design in the worldwide fleet. The FAA estimates that 254 airplanes of U.S. registry would be affected by this proposed AD.–

Approximate work hours to accomplish the proposed actions and costs for required parts are listed in the following table. The average labor rate is $60 per work hour.

Service bulletin No.–	Estimated work hours–	Parts cost per airplane	Total cost per airplane
27–71	5	(1)	$300.00
27–120 ..	3	$68.00	248.00
27–152 ..	1	278.00	338.00
27–181 ..	5	431.00	731.00
27–201 ..	10	7,943.00	8,543.00
27–208 ..	5	3,704.00	4,004.00
27–209 ..	9	N/A	540.00
29–109 ..	101	713.00	6,773.00
29–125 ..	4	498.00	738.00
32–134 ..	3	2,034.00	2,214.00
32–143 ..	3	649.00	829.00
32–157 ..	6	46,463.00	46,823.00

[1] Required parts would be supplied by the manufacturer at no cost to operators.–

Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be $18,308,574, or $72,081 per airplane.–

The total cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the proposed requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.–

The number of required work hours, as indicated above, is presented as if the accomplishment of the actions proposed in this AD were to be conducted as ''stand alone'' actions. However, the 24-month compliance time specified in paragraph (a) of this proposed AD should allow ample time for the actions to be accomplished coincidentally with scheduled major airplane inspection and maintenance activities, thereby minimizing the costs associated with special airplane scheduling.–

Further, the FAA recognizes that the obligation to maintain aircraft in an airworthy condition is vital, but sometimes expensive. Because AD's require specific actions to address specific unsafe conditions, they appear to impose costs that would not otherwise be borne by operators. However, because of the general obligation of operators to maintain aircraft in an airworthy condition, this appearance is deceptive. Attributing those costs solely to the issuance of this AD is unrealistic because, in the interest of maintaining safe aircraft, most prudent operators would accomplish the required actions even if they were not required to do so by the AD. –

A full cost-benefit analysis has not been accomplished for this proposed AD. As a matter of law, in order to be airworthy, an aircraft must conform to its type design and be in a condition for safe operation. The type design is approved only after the FAA makes a determination that it complies with all applicable airworthiness requirements. In adopting and maintaining those requirements, the FAA has already made the determination that they establish a level of safety that is cost-beneficial. When the FAA, as in this proposed AD, makes a finding of an unsafe condition, this means that the original cost-beneficial level of safety is no longer being achieved and that the proposed actions are necessary to restore that level of safety. Because this level of safety has already been determined to be cost-beneficial, a full cost-benefit analysis for this proposed AD would be redundant and unnecessary.

Regulatory Impact

The regulations proposed herein would not have substantial direct effects 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, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.–

For the reasons discussed above, I certify that this proposed regulation (1) is not a ''significant regulatory action'' under Executive Order 12866; (2) is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, 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 copy of the draft regulatory evaluation prepared for this action is contained in the Rules Docket. A copy of it may be obtained by contacting 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.

The Proposed Amendment–

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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. App. 1354(a), 1421 and 1423; 49 U.S.C. 106(g); and 14 CFR 11.89.

§ 39.13 [Amended]–

2. Section 39.13 is amended by adding the following new airworthiness directive:

McDonnell Douglas: Docket 94–NM–114–AD.–

Applicability: Model DC–10–10, –10F, –15, –30, –30F, –40, and –40F series airplanes and Model KC–10A (military) airplanes; as listed in the following McDonnell Douglas DC–10 service bulletins; certificated in any category:–

Service bulletin No. –	Revision level –	Date issued–
27–71–	1 –	February 14, 1973.–
27–120– ..	Original– .	February 10, 1975.–
27–152– ..	Original– .	August 9, 1976.–
27–181– ..	1 –	May 28, 1981.–
27–201– ..	Original– .	December 30, 1985.–
27–208– ..	Original– .	September 5, 1989.–
27–209– ..	Original– .	October 20, 1989.–
29–109– ..	1–	September 22, 1978.–
29–125– ..	2–	October 23, 1987.–
32–134– ..	Original– .	March 22, 1977.–
32–143– ..	Original– .	August 8, 1978.–
32–157– ..	1–	October 29, 1980.–

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 use the authority provided in paragraph (b) to request approval from the FAA. This approval may address either no action, if the current configuration eliminates the unsafe condition; or different actions necessary to address the unsafe condition described in this AD. Such a request should include an assessment of the effect of the changed configuration on the unsafe condition addressed by this AD. In no case does the presence of any modification, alteration, or repair remove any airplane from the applicability of this AD.

Compliance: Required as indicated, unless accomplished previously. –

To ensure airplane survivability in the event of damage to fully powered flight control systems, accomplish the following:–

(a) Within 24 months after the effective date of this AD, modify the flight controls, hydraulic power systems, and landing gear in accordance with paragraphs (a)(1) through (a)(12) of this AD, as applicable.–

(1) For airplanes listed in McDonnell Douglas DC–10 Service Bulletin 27–71, Revision 1, dated February 14, 1973: Install surge damper assemblies and new piping assemblies in hydraulic systems 1 and 3 of the horizontal stabilizer in accordance with the service bulletin. As of the effective date of this AD, no person shall install a pipe assembly, part number AJK7004–641, –642, –643, –644, –645, –646, –647, or –648 on any airplane. As of the effective date of this AD, no person shall install a valve assembly, part number AJG7041–5515 or –5517, on any airplane unless that assembly has been modified in accordance with the service bulletin.–

(2) For airplanes listed in McDonnell Douglas DC–10 Service Bulletin 27–120, dated February 10, 1975: Modify and reidentify the trim hydraulic motor assembly of the horizontal stabilizer in accordance with the service bulletin.

Note 2: The McDonnell Douglas service bulletin references Sperry Rand Corporation, Vickers Division, Service Bulletin 390017–27–2, dated December 2, 1974, as an additional source of service information.

(3) For airplanes listed in McDonnell Douglas DC–10 Service Bulletin 27–152, dated August 9, 1976: Replace the existing retaining nut locking clip on the torsional coupling of the horizontal stabilizer with a new retaining nut locking clip in accordance with the service bulletin. As of the effective date of this AD, no person shall install a locking clip or nut retainer, part number AJH7259–1, on any airplane.–

(4) For airplanes listed in McDonnell Douglas DC–10 Service Bulletin 27–181, Revision 1, dated May 28, 1981: Install a modified chain drive unit on the horizontal stabilizer in accordance with the service bulletin. As of the effective date of this AD, no person shall install a chain drive unit assembly, part number AJH7337–1 or AJH7337–501; pin, part number AJH7343–1; housing assembly, part number AJH7345–1; shaft, part number AJH7075–1 or –501; or decal, part number AJH7347–1; on any airplane.–

(5) For airplanes listed in McDonnell Douglas DC–10 Service Bulletin 27–201, dated December 30, 1985: Replace the hydraulic pipe assemblies of the flap lock valve with new pipe assemblies in accordance with the service bulletin. As of the effective date of this AD, no person shall

install a pipe assembly, part number AYK7002–876, –877, –878, –879, –880, and –881; AYK7136–1; and AYK7137–1; on any airplane.–

(6) For airplanes listed in McDonnell Douglas DC–10 Service Bulletin 27–208, dated September 5, 1989: Replace eight end caps of the trim control valve of the horizontal stabilizer with new end caps having a larger inside radius, in accordance with the service bulletin. As of the effective date of this AD, no person shall install an end cap, part number AJG7020–503; or valve assembly, part number AJG7041–5535, –5533, –5531, –5529, –5527, –5525, –5523, –5521, –5519, –5517, –5515, –5513, –5511, –5509, –5507, –5505, –5503, –5501, or –5001; on any airplane.–

(7) For airplanes listed in McDonnell Douglas DC–10 Service Bulletin 27–209, dated October 20, 1989: Inspect the nuts on the shaft assembly for looseness, proper orientation, excess backlash, and engagement of the washer locking tab, in accordance with the service bulletin. As of the effective date of this AD, no person shall install a drive assembly, part number AJH7337–505, on any airplane unless that assembly has been modified in accordance with the service bulletin.–

(i) If no discrepancy is found, no further action is required by this paragraph.–

(ii) If any discrepancy is found, prior to further flight, replace the fuse pin, adjust backlash, and properly position and tighten the nuts in accordance with the service bulletin.–

(8) For airplanes listed in McDonnell Douglas Service Bulletin 29–109, Revision 1, dated September 22, 1978: Install an indication system on the reversible motor pump in accordance with the service bulletin. As of the effective date of this AD, no person shall install a nameplate, part number ABN7191–1124, –1125, –1126, –872, –873, –874, –878, or –1084; a support, part number 2394536–509; or a plate, part number 2710497–1–6; on any airplane.–

(9) For airplanes listed in McDonnell Douglas DC–10 Service Bulletin 29–125, Revision 2, dated October 23, 1987: Modify the main hydraulic power system in accordance with the service bulletin. As of the effective date of this AD, no person shall install an annunciator panel, part number 102200–268, or –274, on any airplane unless that panel has been modified in accordance with the service bulletin.–

(10) For airplanes listed in McDonnell Douglas DC–10 Service Bulletin 32–134, dated March 22, 1977: Modify the aft antiskid manifold on the left and right main landing gear in accordance with the service bulletin. As of the effective date of this AD, no person shall install a bracket, part number ARG7291–1, ARG7291–501,ARG7485–501, or ARG7485–502 on any airplane. As of the effective date of this AD, no person shall install a main landing gear assembly, part number ARG7393-(Any Configuration), on any airplane unless that assembly has been modified in accordance with the service bulletin.–

(11) For airplanes listed in McDonnell Douglas DC–10 Service Bulletin 32–143, dated August 8, 1978: Install protective shields over the brake and antiskid piping located on the aft side of the left and right main landing gear in accordance with the service bulletin. As of the effective date of this AD, no person shall install a support, part number ARG7551–1 or ARG7552–1, or bracket, part number AEP8009–25, on any airplane. As of the effective date of this AD, no person shall install a main landing gear assembly, part number ARG7393-(Any Configuration), on any airplane unless that assembly has been modified in accordance with the service bulletin.–

(12) For airplanes listed in McDonnell Douglas DC–10 Service Bulletin 32–157, Revision 1, dated October 29, 1980: Install a doubler on the web assembly between the wheel wells of the center landing gear and the right main landing gear; install a fiberglass deflector assembly on the shock strut of the centerline landing gear; replace the pressure gage manifold of the shock strut; and install an instruction plate and adding precaution instruction markings in the wheel well of the right main landing gear and on the forward door of the center landing gear in accordance with the service bulletin. As of the effective date of this AD, no person shall install a manifold, part number AYK7162–501, on any airplane.–

(b) 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 Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. 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.

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.

(c) Special flight permits may be issued 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. Issued in Renton, Washington, on December 28, 1994.

S.R. Miller,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 95–62 Filed 1–3–95; 8:45 am]

BILLING CODE 4910–13–U

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14 CFR Part 39

[Docket No. 94–ANE–64]

Airworthiness Directives; Textron Lycoming LTS101 Series Turboshaft and LTP101 Series Turboprop Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to Textron Lycoming LTS101 series turboshaft and LTP101 series turboprop engines. This proposal would require replacement of cast material axial compressor rotors with wrought material axial compressor rotors that have improved fatigue characteristics and material properties. This proposal is prompted by 36 reports of axial compressor blade failures on cast rotors. The actions specified by the proposed AD are intended to prevent engine power loss and inflight engine shutdown.

DATES: Comments must be received by February 3, 1995.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Assistant Chief Counsel, Attention: Rules Docket No. 94–ANE–64, 12 New England Executive Park, Burlington, MA 01803–5299. Comments may be inspected at this location between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. The service information referenced in the proposed rule may be obtained from Textron Lycoming, 550 Main Street, Stratford, CT 06497. This information may be examined at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Eugene Triozzi, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803–5299; telephone (617) 238–7131, fax (617) 238–7199.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact