

Airworthiness Directive Schedule

Aeroplanes

Piper PA-39 Series (Twin Comanche)

17 December 2015

- Notes**
1. This AD schedule is applicable to Piper PA-39 (Twin Comanche) aircraft manufactured under Federal Aviation Administration (FAA) Type Certificate No. A18SO.
 2. The FAA is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for Piper PA-31 series aircraft. State of Design ADs applicable to these aircraft can be obtained directly from the FAA web site. The link to the FAA web site is available on the CAA web site at http://www.caa.govt.nz/Airworthiness_Directives/states_of_design.html
 3. The date above indicates the amendment date of this schedule.
 4. New or amended ADs are shown with an asterisk *
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DCA/PA39/1A Stabilator Torque Tube Bearing Support Fittings - Inspection

Applicability: Model PA-39 S/N 39-1 through 39-155 that have not incorporated Piper P/N 760 835 (Hi-Shear Rivet Replacement Kit) on all four stabilator torque tube bearing support fittings.

Requirement: To prevent loss of pitch control because of looseness of the stabilator torque tube bearing support fittings, accomplish the following:-

Inspect the stabilator torque tube bearing support fittings for looseness per Piper SB 411A. If looseness is found incorporate Piper P/N 760 835 (Hi-Shear Rivet Replacement Kit) on the affected fitting prior to further flight.
(FAA AD 94-13-10 refers)

Compliance: Within next 100 hours TIS and thereafter at intervals not to exceed 100 hours TIS.

Effective Date: DCA/PA39/1 3 August 1974
DCA/PA29/1A 2 September 1994

DCA/PA39/2 Fuselage Aft Bulkhead - Inspection

Applicability: Model PA39 S/N 39-1 through 39-155.

Requirement: Piper SL 679
(FAA AD 74-16-08 refers)

Compliance: Within the next 50 hours TIS and thereafter at intervals not exceeding 100 hours TIS

Effective Date: 29 August 1974

DCA/PA39/3 Stabilator Torque Tube Bearing Block - Inspection

Applicability: Model PA39 S/N 39-1 through 39-155.

Requirement: Piper SB 464
(FAA AD 75-27-08 refers)

Compliance: Within the next 50 hours TIS

Effective Date: 27 February 1976

DCA/PA39/4 Stabilator Attachment Bolts - Inspection

Applicability: Model PA39 S/N 39-1 through 39-155.

Requirement: Piper SL 772.
(FAA AD 74-13-03 refers)

Compliance: Within the next 100 hours TIS and thereafter at intervals not exceeding 3 years or 500 hours TIS, whichever is the sooner. The inspection may be discontinued upon fitment of P/N 502342 corrosion resistant bolts.

Effective Date: 31 May 1976

DCA/PA39/5 Forward Fin Attachment Channel - Inspection

Applicability: Model PA39 S/N 39-1 through 39-155.

Requirement: FAA AD 76-18-05.

Compliance: Within the next 50 hours TIS

Effective Date: 30 September 1976

Note: A copy of the reference document may be obtained from the Director

DCA/PA39/6 Electric Trim Switch - Modification

Applicability: Model PA39 S/N 39-1 through 39-155 which have Piper kit 760505 embodied per SB 331, or as otherwise detailed in SB 527.

Requirement: Piper SB 527

Compliance: Within the next 100 hours TIS

Effective Date: 14 December 1976

DCA/PA39/7 Aileron Spar - Inspection

Applicability: Model PA39, S/N 39-1 through 39-155.

Requirement: Piper SL 787
(FAA AD 77-08-01 also refers)

Compliance: At 1000 hours TTIS and thereafter at intervals not exceeding 100 hours TIS until modified per Piper kit no. 760 914

Effective Date: 9 May 1977

DCA/PA39/8 Landing Gear Extension System - Inspection and Bungee Renewal

Applicability: All model PA-39

Requirement:

1. Inspect per Piper SL 782B
2. Inspect MLG Bungee cords for frayed protective covering, breaks, or soft areas and renew any found defective
3. Renew Bungee cords.
(FAA AD 77-13-21 refers)

Compliance: Inspection per (1) and (2) - At 1000 hours TIS and thereafter at intervals not exceeding 1000 hours TIS for (1) and 500 hours TIS or 12 months, whichever is the sooner, for (2). Aircraft with 1000 hours or more TIS shall be initially inspected within next 100 hours TIS, unless already accomplished.

Bungee renewal - At intervals not exceeding 500 hours TIS or 3 years, whichever is the sooner

Effective Date: 31 January 1978

DCA/PA39/9 Fuel Selector Valve - Inspection

Applicability: Model PA-39 S/N 39-1 through 39-155

Requirement: Check valve port leakage per Piper SL 851 Part `A`. Renew defective valves before further flight

Compliance: At intervals not exceeding 50 hours TIS

Effective Date: 10 November 1978

DCA/PA39/10 Aileron Nose Rib - Inspection

Applicability: Model PA-39 S/N 39-1 and up not incorporating Piper kit P/N 763893

Requirement: Inspect per Piper SL 850
(FAA AD 79-20-10 refers)

Compliance: Within the next 50 hours TIS and thereafter at intervals not exceeding 100 hours TIS

Effective Date: 9 November 1979

DCA/PA39/11 Power Plant Hose Assemblies - Inspection and Renewal

- Applicability:** Model PA-39 with Rajay Industries Inc turbocharger installation per STC SA787WE
- Requirement:**
1. Visually inspect power plant fuel, air and oil hose assemblies listed in Rajay SL 28 to determine age and general condition. Replace with like serviceable part if assembly is: 5 years old or more, does not have a metal tag and age cannot be determined, or is deteriorated (regardless of age)
 2. Renew hose assemblies.
(FAA AD 81-19-04 refers)
- Compliance:**
1. Inspection - within next 100 hours TIS.
 2. Renewal - At intervals not exceeding 5 years
- Effective Date:** 11 December 1981

DCA/PA39/12 Fuel System - Inspection and Placard

- Applicability:** Model PA-39 S/N 39-1 through 39-155
- Requirement:** To prevent retention of water, contamination and deterioration of fuel system, accomplish the following:
1. (a) Gain access to and dismantle fuel strainer assembly per Piper Maintenance Manual.
(b) Inspect and if contamination found, flush fuel tanks and system. Renew damaged parts as necessary and reassemble.
 2. On inside of hinged access door or adjacent position clearly visible to pilot during pre-flight check, install placard which, in letters at least $\frac{1}{8}$ inch high reads:
"BEFORE FIRST FLIGHT OF EACH DAY AND AFTER REFUELLING DRAIN FUEL SYSTEM PER FLIGHT MANUAL INSTRUCTIONS".
(FAA AD 83-10-01 refers)
- Compliance:**
1. Inspection - within the next 50 hours TIS and thereafter at intervals not exceeding 50 hours TIS
 2. Placard - within the next 50 hours TIS
- Effective Date:** 24 June 1983

DCA/PA39/13 Spar Cap - Inspection

- Applicability:** Model PA-39 S/N 39-1 through 39-155.
- Requirement:** To preclude possible loss of structural integrity, inspect per Piper SB 751. Rectify or replace defective parts before further flight.
- Compliance:** Within the next 100 hours TIS
- Effective Date:** 15 July 1983

DCA/PA39/14A Parking Brake Operation - Placard

Applicability: Model PA-39, S/N 39-1 through 39-162.

Requirement: To prevent aircraft controllability problems while involved in ground operation because of improper brake operation, accomplish the following:-

Install one of the following in a central location on the pilot's instrument panel in full view of the pilot;

(1) A Piper P/N 81090-02 placard; or

(2) A Piper P/N 683-107 placard.

Note: The above referenced placards both contain the following wording:

<p>WARNING</p> <p>NO BRAKING WILL OCCUR IF AIRCRAFT BRAKES ARE APPLIED WHILE PARKING BRAKE HANDLE IS PULLED AND HELD</p>

(FAA AD 85-02-05R1 refers)

Compliance: Required within 100 hours time-in-service after 22 March 1985 or prior to the next flight after the effective date of this AD, whichever occurs later, unless already accomplished.

Effective Date: DCA/PA39/14 - 22 March 1985
DCA/PA39/14A - 19 December 1997

DCA/PA39/15C Main Landing Gear Sidebrace Stud – Inspection and Replacement

Applicability: Models PA-39 aircraft, all S/N.

Note 1: This AD revised to remove note 3. There is no terminating action to the repetitive inspections mandated by this AD for PA-39 aircraft. The larger 5/8" sidebrace stud P/N 78717-02 and bushing cannot be installed in the existing sidebrace bracket assembly. And bracket assembly P/N 95643-06, 95643-07, 95643-08 or 95643-09 cannot be installed on PA-39 aircraft.

Requirement: To prevent main landing gear (MLG) collapse due to possible main gear sidebrace stud cracks which if not detected and corrected could result in loss of aircraft control during landing, accomplish the following:

Remove both the left and right main gear sidebrace studs from the aircraft per the instructions in the landing gear section of the aircraft MM. Inspect both the main gear sidebrace stud for cracks using Type I (fluorescent) liquid penetrant or magnetic particle inspection methods. Figure 1 of this AD depicts the area where the sidebrace stud is to be inspected.

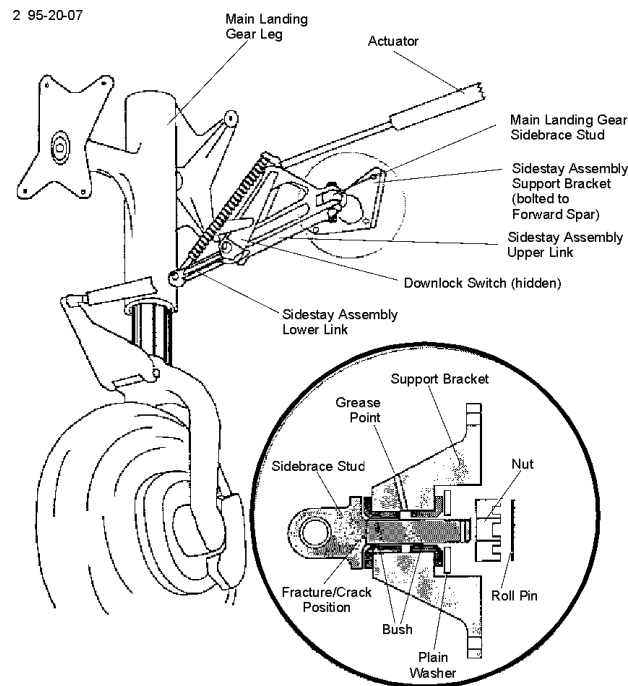


Figure 1

Note: This figure is provided to depict the area of the sidebrace stud to be inspected. This is not intended to represent the configuration of all models affected.

For any main gear sidebrace stud not found cracked, before to further flight reinstall the stud per the instructions in the Landing Gear section of the applicable MM, and reinspect and replace (as necessary) per this AD.

For any main gear sidebrace stud found cracked, before to further flight replace the cracked stud with a serviceable part per the instructions in the Landing Gear section of the applicable MM, and reinspect and replace (as necessary) per this AD.

Note 2: Models PA39 series aircraft were fitted with main gear sidebrace studs P/N 22512-00 at production.
(FAA AD 97-01-01R1 refers)

Compliance: Within the next 100 hours TIS unless previously accomplished and thereafter at intervals not to exceed 1000 hours TIS.

Effective Date: DCA/PA39/15A - 14 March 1997
DCA/PA39/15B - 29 September 2011
DCA/PA39/15C - 27 October 2011

DCA/PA39/16 Severe Icing Conditions - Flight Manual Revision

Applicability: All model PA-39

Requirement: To minimise the potential hazards associated with operating the aircraft in severe icing conditions (by providing more clearly defined procedures and limitations associated with such conditions), incorporate the following into the Aircraft Flight Manual (AFM):-

1. Limitations Section of the Aircraft Flight Manual**“WARNING**

Severe icing may result from environmental conditions outside of those for which the aircraft is certificated. Flight in freezing rain, freezing drizzle, or mixed icing conditions (supercooled liquid water and ice crystals) may result in ice build-up on protected surfaces exceeding the capability of the ice protection system, or may result in ice forming aft of the protected surfaces. This ice may not be shed using the ice protection systems, and may seriously degrade the performance and controllability of the aircraft.

- During flight, severe icing conditions that exceed those for which the aircraft is certificated shall be determined by the following visual cues. If one or more of these visual cues exists, immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the icing conditions.
- Unusually extensive ice accumulation on the airframe and windshield in areas not normally observed to collect ice.
- Accumulation of ice on the upper surface of the wing aft of the protected area.
- Accumulation of ice on the engine nacelles and propeller spinners farther aft than normally observed.
- Since the autopilot, when installed and operating, may mask tactile cues that indicate adverse changes in handling characteristics, use of the autopilot is prohibited when any of the visual cues specified above exist, or when unusual lateral trim requirements or autopilot trim warnings are encountered while the aircraft is in icing conditions.
- All wing icing inspection lights must be operative prior to flight into known or forecast icing conditions at night. This supersedes any relief provided by the Master Minimum Equipment List (MMEL).”

2. Normal Procedures Section of the Aircraft Flight Manual

“THE FOLLOWING WEATHER CONDITIONS MAY BE CONDUCIVE TO SEVERE IN-FLIGHT ICING:

- Visible rain at temperatures below 0 degrees Celsius ambient air temperature.
- Droplets that splash or splatter on impact at temperatures below 0 degrees Celsius ambient air temperature.

PROCEDURES FOR EXITING THE SEVERE ICING ENVIRONMENT:

These procedures are applicable to all flight phases from takeoff to landing. Monitor the ambient air temperature. While severe icing may form at temperatures as cold as -18 degrees Celsius, increased vigilance is warranted at temperatures around freezing with visible moisture present. If the visual cues specified in the Limitations Section of the AFM for identifying severe icing conditions are observed, accomplish the following:

- Immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the severe icing conditions in order to avoid extended exposure to flight conditions more severe than those for which the aircraft has been certificated.
- Avoid abrupt and excessive manoeuvring that may exacerbate control difficulties.
- Do not engage the autopilot.
- If the autopilot is engaged, hold the control wheel firmly and disengage the autopilot.
- If an unusual roll response or uncommanded roll control movement is observed, reduce the angle-of-attack.
- Do not extend flaps when holding in icing conditions. Operation with flaps extended can result in a reduced wing angle-of-attack, with the possibility of ice forming on the upper surface further aft on the wing than normal, possibly aft of the protected area.
- If the flaps are extended, do not retract them until the airframe is clear of ice.
- Report these weather conditions to Air Traffic Control.”

Note: This may be accomplished by inserting a copy of this AD in the AFM or by incorporating a manufacturer's flight manual revision that contains the wording per this AD.

3. Flight Crew Notification

Operators must ensure that flight crew are aware of the flight manual revision.
(FAA AD 98-04-27 refers)

Compliance: By 10 May 1998

Effective Date: 10 April 1998

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* [2015-24-05](#) Fuel System – Inspection

Effective Date: 12 January 2016