

Airworthiness Directive Schedule

Aeroplanes

Piper PA-23 Series (Apache and Aztec)

28 June 2018

- Notes:**
1. This AD schedule is applicable to Piper PA-23 (Apache), PA-23-160 (Apache) and PA-23-250 (Aztec) aircraft manufactured under Federal Aviation Administration (FAA) Type Certificate No. 1A10.
 2. The Federal Aviation Administration (FAA) is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these aircraft. State of Design ADs can be obtained directly from the FAA web site at http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/MainFrame?OpenFrameSet
 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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<p>From 1 October 2012 the Civil Aviation Authority of New Zealand (CAA) will no longer rewrite the text of State of Design ADs. Applicable State of Design ADs will be listed below and you can obtain them directly from the National Airworthiness Authority (NAA) web sites. Links to the NAA web sites are available on the CAA web site at http://www.caa.govt.nz/airworthiness-directives/states-of-design/ If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ, they will be added to the list below.</p>		
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DCA/PA-23/101 Landing Gear Anti-Retract Device - Modification

Applicability: Model PA-23 S/N 23-1 through 23-729.

Requirement: Piper SB 145

Compliance: 1 May 1959

DCA/PA-23/102 Aileron Balance Weight Bracket - Modification

Applicability: Model PA-23 as listed in SB 149.

Requirement: Piper SB 149

Compliance: By 1 March 1957

DCA/PA-23/103 Elevator Push-Pull Tube Rollers - Modification

Applicability: Model PA-23 S/N 23-1 through 23-903.

Requirement: Piper SB 151

Compliance: By 1 May 1957

DCA/PA-23/105 Elevator Control Tube Bell Crank Attachment - Modification

Applicability: Model PA-23 S/N 23-1 through 23-1691.

Requirement: Piper SB 176

Compliance: Next periodic inspection

Effective Date: 30 April 1960

DCA/PA-23/106 Starter Solenoid Circuit Protector - Modification

Applicability: Model PA-23 S/N 23-747 through 23-1534.

Requirement: Piper SB 175.
(FAA AD 60-03-07 refers)

Compliance: 31 May 1960

DCA/PA-23/107 Fuel Cell Vent Tubes - Modification

Applicability: Model PA-23 S/N 23-1 through 23-1026.

Requirement: Piper SL 359

Compliance: By 1 October 1961

DCA/PA-23/108 Vacuum Pump Splined Coupling - Modification

Applicability: Model PA-23-235 and PA-23-250 as listed in SB 218.

Requirement: Piper SB 218

Compliance: As detailed

DCA/PA-23/110 Wing Front Spar Attachment Fittings - Modification

- Applicability:** Model PA-23 S/N 23-1 through 23-309; 23-312 through 23-314; 23-316 through 23-318; 23-320 and 23-321.
- Requirement:** Piper SB 142
- Compliance:** Immediately on receipt of reinforcement kit 754112
- Effective Date:** 31 March 1966

DCA/PA-23/113A Empennage Casting - Inspection

- Applicability:** Model PA-23 S/N 23-1 through 23-1267
- Requirement:**
1. Visual Inspection: Remove tail cone, covers and fairings and inspect castings detailed in Piper SB 155A, for cracks.
 2. Dye Penetrant Inspection: Remove castings from aircraft, clean thoroughly, remove all paint and accomplish dye penetrant inspection.
 3. Replace cracked castings with serviceable forged or cast part.
 4. Prior to re-installation of crack free castings, clean thoroughly, apply zinc chromate primer and re-assemble per SB 155B.
- Note:** Forged parts have integral raised digit forging numbers, therefore absence of such markings identifies part as a casting.
(FAA AD 63-26-03 refers)
- Compliance:** Visual Inspection: At intervals not exceeding 100 hours TIS.
Dye Penetrant Inspection: At 1000 hours TTIS and thereafter at intervals not exceeding 500 hours TIS.
Inspection: may be discontinued when forgings fitted.
- Effective Date:** 30 April 1959

DCA/PA-23/115 Stabiliser Attachment Fittings - Modification

- Applicability:** Model PA-23 S/N 23-1 through 23-1219.
- Requirement:** Piper SB 160
- Compliance:** Next periodic inspection
- Effective Date:** 30 April 1959

DCA/PA-23/116 Rudder Trim Tab Control Attachment - Modification

- Applicability:** All model PA-23
- Requirement:** Piper SB 159
- Compliance:** Next periodic inspection
- Effective Date:** 30 April 1959

DCA/PA-23/117 Rudder Trim Tab Adjustment Screw - Modification

- Applicability:** Model PA-23 S/N 23-1 through 23-1253.
- Requirement:** Piper SB 162
- Compliance:** By 1 May 1958

DCA/PA-23/118 Goodrich Main Wheel Assemblies - Modification

Applicability: Model PA-23 S/N 23-1 through 23-863.
Requirement: Piper SL 291
Compliance: If wheel breakage is experienced
Effective Date: 30 April 1959

DCA/PA-23/119 Elevator Butt Rib and Torque Tube Attachment - Inspection

Applicability: Model PA-23 S/N 23-1 through 23-1284 and 23-1286
Requirement: Piper SB 146B
Compliance: At intervals not exceeding 100 hours TIS
Effective Date: 30 April 1959

DCA/PA-23/120 Fuel System Cable and Valve - Inspection

Applicability: All model PA-23 and PA-23-160 S/N PA-23-1 and up.
Requirement:
1. Ensure fuel cells contain fuel and with Master Switch 'on' energise electric fuel pumps. Cycle fuel selector and cross-feed valve levers checking main valve P/N 18598, auxiliary valve P/N 17920 and cross-feed valve P/N 492044 for leaks. (Refer Piper Service Manual, paras 9-17 and 9-18).
2. Check operating cables, linkage and valves for correct rigging and operation. (Piper SL 286 and Piper SL 322A refer)
Compliance: At intervals not exceeding 50 hours TIS. When valves P/N 492050 and 492051, cables P/N 18815 and 18816 and idler crank P/N 18782 are fitted, intervals may be increased to 100 hours TIS
Effective Date: 31 March 1960

DCA/PA-23/121 Rudder Trim Tab Horn - Inspection

Applicability: Model PA-23 S/N 23-2 through 23-2100
Requirement: Piper SB 213
Compliance: At intervals not exceeding 100 hours TIS
Effective Date: 30 June 1963

DCA/PA-23/123 Rudder Trim Tab Control Rod - Modification and Inspection

Applicability: Model PA-23 S/N 23-1 through 23-2046.
Requirement: Piper SL 407
Compliance: Modify at next periodic and thereafter inspect at intervals not exceeding 100 hours TIS
Effective Date: 31 March 1966

DCA/PA-23/124 Locking of Cabin Door - Modification and Inspection

- Applicability:** All model PA-23 not fitted with auxiliary locking mechanism
- Requirement:** 1. To prevent cabin door from opening in flight, fit leather strap to door surround such that door handle is secured only when in locked position.
2. Inspect strap for stretching or other damage and renew before flight, if found defective.
- Compliance:** Modify at next periodic and thereafter inspect at intervals not exceeding 100 hours TIS
- Effective Date:** 28 February 1964

DCA/PA-23/125 Vacuum Pump Mounting Gasket - Modification

- Applicability:** Model PA-23 S/N 23-1 through 23-3023 equipped with ARO model A-505-CDD or 21240 vacuum pumps
- Requirement:** Piper SB 225
- Compliance:** C of A
- Effective Date:** 31 March 1966

DCA/PA-23/126 Vacuum Pump Drive Couplings - Modification

- Applicability:** Model PA-23 S/N 23-1 through 23-3076 equipped with ARO model A-505-CDD or 21240 vacuum pumps.
- Requirement:** Piper SB 226
- Compliance:** Within the next 25 hours TIS
- Effective Date:** 28 February 1966

DCA/PA-23/127 Plate Front Spar Attachment - Inspection

- Applicability:** All model PA-23 S/N 23-1 through 23-1151 with plate P/N 17475-02.
- Requirement:** Remove plate P/N 17475-02 and inspect for fretting on either side of bend line. Remove any fretting found by light scraping and/or polishing with 00 grade emery, followed by etching with a solution of 10% to 20% commercial caustic soda and water. Swab area for approx. 2 minutes and wipe off with a damp cloth. Neutralise with a solution of 10% to 20% commercial concentrated nitric acid and water. Thoroughly wash in running water, warm rinse and dry. Inspect bend line using at least 7 power magnifying lens and reject any plate found cracked.

Before fitting new plate or refitting original if serviceable, lightly radius and smooth spar boom joint. Repaint as necessary.
- Compliance:** Within the next 100 hours TIS and thereafter at intervals not exceeding 1000 hours TIS
- Effective Date:** 31 March 1969

DCA/PA-23/128 Alternator Ground Wire - Modification

- Applicability:** Model PA-23-250 as listed in SL 519
- Requirement:** Piper SL 519
- Compliance:** Next periodic inspection
- Effective Date:** 31 March 1969

DCA/PA-23/130 Cancelled – FAA AD 2017-15-05 refers

Effective Date: 28 August 2017

DCA/PA-23/133 Alternator System - Modification

Applicability: Model PA-23-250 and PA-E23-250 S/N 27-3837 and 27-3944 through 27-4442.

Requirement: Piper SB 306.
(FAA AD 70-22-05 refers)

Compliance: Within the next 100 hours TIS if aircraft operate under IFR

Effective Date: 31 December 1970

DCA/PA-23/134 Engine Control Support Bracket - Inspection

Applicability: Model PA-23-150 and PA-23-160 S/N 23-1 through 23-2046 and PA-23-250 S/N 27-1 through 27-140.

Requirement: Piper SB 335A

Compliance: At intervals not exceeding 100 hours TIS until bracket P/N 16975-00 is fitted

Effective Date: 30 September 1969

DCA/PA-23/135 Engine Mounts - Inspection

Applicability: All model PA-23-250 S/N 27-2505 and up having engine mount P/N 31215.

Requirement: 1. Mounts date stamped prior to 26 May 1965. Visually inspect for cracks in following areas as illustrated in Piper SL 462:

(a) Lower forward lateral tube.

(b) Three-tube horizontal diagonal truss in and around the three welded junctures with the lower forward lateral fore and aft tube.

(c) Lower left horizontal fore and aft tube.

2. Mounts date stamped 26 May 1965 and after. Visually inspect tubes forward of the firewall for cracks.

3. Any mount found cracked must, before further flight, either:

(a) Be repaired per an approved scheme, magnetic particle inspected for complete freedom from cracks and be re-inspected per 1. above at intervals specified; or

(b) be replaced with new mount P/N 31215 and be re-inspected per 2. above at intervals specified.

Note: Mounts are date stamped on either of the two diamond shaped gusset plates located near upper firewall attachment points.
(FAA AD 68-07-04 and Piper SL 462 refer)

Compliance: 1. Engine mounts date stamped prior to 26 May 1965; at intervals not exceeding 100 hours TIS.

2. Engine mounts date stamped 26 May 1965 and after; at 1000 hours TIS and thereafter at intervals not exceeding 100 hours TIS

Effective Date: 31 January 1972

DCA/PA-23/136A Fuel System - Modification

- Applicability:** Model PA-23-235 and PA-23-250 S/N 27-1 through 27-2504 and 27-2505 through 27-4765
- Requirement:** Piper SL 606A
- Compliance:** By 1 March 1973

DCA/PA-23/137 Electric Trim Switch - Modification

- Applicability:** Model PA-23-350 as listed in SB 331
- Requirement:** Piper SB 331
- Compliance:** Within the next 100 hours TIS
- Effective Date:** 30 September 1972

DCA/PA-23/138 Exhaust System - Inspection

- Applicability:** All model PA-23-250 and PA-E23-250 S/N 27-2505 and up, equipped with non-supercharged engines.
- Requirement:** FAA AD 72-14-05 amendment 39-1943
- Compliance:** Within the next 50 hours TIS unless already accomplished within last 50 hours TIS and thereafter at intervals not exceeding 100 hours TIS.
- Effective Date:** 16 December 1974
- Note:** A copy of the referenced document may be obtained from the Director.

DCA/PA-23/139 Cancelled – Purpose fulfilled

- Note:** DCA/PA-23/139 adopted the requirements in unique Australian AD/PA-23/54, which required the installation of an additional water drain valve in each wing-tip fuel tank in aircraft fitted with Met-Co-Aire wing-tip fuel tanks. Compliance was required within 100 hours time in service after 30 April 1973. The Australian AD was not based on a Piper service document, or an USA AD. The AD is no longer required.
- Effective Date:** 30 November 2017

DCA/PA-23/140 Wing Rear Spar - Inspection

- Applicability:** Model PA-23-150 and PA-23-160 S/N 23-1 through 23-2046.
- Requirement:** Piper SL 672
- Compliance:** Within the next 100 hours TIS and thereafter annually
- Effective Date:** 30 November 1973

DCA/PA-23/141 Flap Outboard Hinges - Inspection

- Applicability:** Model PA-23-250 S/N 27-3050 and 27-3154 through 27-7405330.
- Requirement:** Piper SB 408.
(FAA AD 74-10-01 refers)
- Compliance:** Within the next 25 hours TIS and thereafter at intervals not exceeding 100 hours TIS, until modified in accordance with Piper SB 408B
- Effective Date:** 1 July 1974

*** DCA/PA-23/142B Stabilator Torque Tube Assembly Bolts - Inspection**

- Applicability:** Model PA-23-235 and PA-23-250 aircraft, S/N 27-1 through to 27-4654.
- Note:** DCA/PA-23/142B revised to introduce a terminating action for requirement 2.
- Requirement:** To detect corroded stabilator torque tube assembly bolts accomplish the following:-
1. Inspect stabilator attachment bolts (4 places) per Piper SL 667A. Replace bolts found corroded before further flight.
(FAA AD 74-13-03 refers)
 2. Inspect the following bolts for corrosion paying particular attention to their condition where they pass inside the stabilator torque tube.
 - (a) Bolts (2 places), attaching the balance weight tube to stabilator torque tube assembly. Replace bolts found corroded before further flight.
 - (b) Bolts (2 places), attaching the collar assembly to stabilator torque tube assembly. Replace bolts found corroded before further flight.
(Occurrence 95/2477 refers)
- Compliance:**
1. Within next 100 hours TIS after 19 January 1996 (the effective date of DCA/PA-23/142A) and thereafter at intervals not to exceed 3 years or 500 hours TIS whichever is the sooner. May be discontinued upon fitment of P/N 502 329 or 502 342 corrosion resistant bolts.
 2. Within next 100 hours TIS after 19 January 1996 (the effective date of DCA/PA-23/142A) and thereafter at intervals not to exceed 3 years or 500 hours TIS whichever is the sooner. The repetitive inspections per requirement 2.(a) and/or 2.(b) may be discontinued upon fitment of equivalent corrosion resistant bolts approved by the aircraft manufacturer.
- Effective Date:** DCA/PA-23/142 - 30 August 1974
DCA/PA-23/142A - 19 January 1996
DCA/PA-23/142B – 28 June 2018

DCA/PA-23/143 Heater Fuel Valve - Inspection

- Applicability:** Model PA-23 and PA-23-160 S/N 23-1 through 23-2046. Model PA-23-235, PA-23-250 and PA-E23-250 S/N 27-1 through 27-3943 except 27-3837
- Requirement:** Piper SB.
(FAA AD 74-22-05 refers)
- Compliance:** Within the next 100 hours TIS or by 15 March 1975 whichever occurs first
- Effective Date:** 16 December 1974

DCA/PA-23/144 Magnetic Compass Deviation - Inspection

- Applicability:** Model PA-23-250 S/N 27-3837, 27-3944 through 27-7554092; 27-7554094 through 27-7554159; 27-7554161 through 27-7654018; 27-7654020 through 27-7654024 and 27-7654026 through 27-7654036
- Requirement:** Piper SB 493.
(FAA AD 76-11-07 refers)
- Compliance:** Within the next 100 hours TIS
- Effective Date:** 14 July 1976

DCA/PA-23/145 Stabilator Tab - Modification

- Applicability:** Model PA-23-250 S/N 27-7654001 through 27-7654193.

Requirement: Piper SB 514
Compliance: Within the next 100 hours TIS
Effective Date: 29 October 1976

DCA/PA-23/146 Electric Trim Switch - Modification

Applicability: Model PA-23-250 S/N 27-3837 and 27-3944 through 27-4796 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/PA-23/147A Fuel System Control Cables - Inspection

Applicability: All model PA-23, PA-23-160, PA-23-235, PA-23-250 and PA-E23-250

Requirement:

1. Visually inspect using 10 power magnification all fuel valve control cable wires for cracks, sharp bends and kinks at each swivel fitting, idler control arm and actuating lever connection.
2. Inspect installation for correct rigging, adjustment and function per Piper SB 507. (FAA AD 77-26-02 refers)

Compliance: Aircraft with 300 hours or more TIS, within next 100 hours TIS and thereafter at intervals not exceeding 100 hours TIS

Effective Date: DCA/PA-23/147 - 31 January
DCA/PA-23/147A - 17 February 1978

DCA/PA-23/148 Stabilator Tip Tube and Weight Assembly - Inspection

Applicability: Part 1 - Model PA-23-250F S/N 27-7654001 through 27-7754057
Part 2 - Model PA-23-250F S/N 27-7754058 and up.

Requirement: Piper SB 540

Compliance: Part 1 - Inspection, with next 10 hours TIS and thereafter at intervals not exceeding 100 hours TIS. Modifications, before further flight if cracks found at initial inspection, otherwise within 100 hours TIS.
Part 2 - Inspect at intervals not exceeding 100 hours TIS.

Effective Date: 22 January 1977

Note: Requirement notified to registered owners on effective date.

DCA/PA-23/149 Wing Tip Navigation Light - Modification

Applicability: Model PA-23-250F with S/N detailed in Piper SB 486.

Requirement: Piper SB 486.
(FAA AD 77-01-05 refers)

Compliance: Within the next 50 hours TIS

Effective Date: 11 March 1977

DCA/PA-23/150 Stabilator Tip Ribs - Inspection

Applicability: Model PA-23-250 S/N 27-7654001 through 27-7754054

Requirement: Piper SB 547.
(FAA AD 78-02-03 refers)

Compliance: Within the next 50 hours TIS

Effective Date: 3 March 1978

DCA/PA-23/151 Stabilator Tab Horn - Modification

Applicability: Model PA-23-250 S/N 27-7654001 through 27-7754127, 27-7754130, 27-7754131, 27-7754133 through 27-7754136 and 27-7754138 through 27-7754144

Requirement: Piper SB 569.
(FAA AD 78-02-03 refers)

Compliance: Within the next 50 hours TIS

Effective Date: 3 March 1978

DCA/PA-23/152 Stabilator Tube and Weight Assy - Modification

Applicability: Model PA-23-250 S/N 27-7654001 through 27-7754041 with stabilator P/N 15658-2, 15658-3, 15658-22 or 15658-23

Requirement: Piper SL 807A.
(FAA AD 78-02-03 refers)

Compliance: Within the next 50 hours TIS

Effective Date: 3 March 1978

DCA/PA-23/153A Rubber Hinges - Inspection

Applicability: Model PA-23 and PA-23-160 S/N 23-1 and up

Requirement: To prevent in-flight failure, accomplish the following:

1. Using dye penetrant or equivalent method inspect (a) rudder upper hinge reinforcing bracket P/N 17067-18 or equivalent for cracks, after first removing upper hinge P/N 17063-03; and (b) lower hinge bracket assy. P/N 17289-00 for cracks in bearing area.
2. If cracks found in reinforcing bracket remove it and inspect spar web for cracks using dye penetrant or equivalent method.
3. Renew cracked parts before further flight.
(FAA AD 78-08-03 refers)

Compliance: Within the next 25 hours TIS, or at 1000 hours TTIS, whichever is the sooner, and thereafter at intervals not exceeding 1000 hours TIS

Effective Date: DCA/PA-23/153 - 12 May
DCA/PA-23/153A - 8 December 1978

DCA/PA-23/154A Forward Baggage Door - Inspection

Applicability: Model PA-23-250 S/N 27-2000 through 27-7954032 and S/N 27-2000 through 27-7954051 for Parts I and II of SB 604A respectively.

Requirement: Modify and inspect per Piper SB 604A Parts I and II.

Compliance: Within the next 100 hours TIS.

Effective Date: DCA/PA-23/154 - 27 October 1978
DCA/PA-23/154A - 3 August 1979

DCA/PA-23/155C Landing Gear Selector Lever – Inspection

- Applicability:** Model PA-23 aircraft, all S/Ns fitted with landing gear selector lever P/N 752303
- Requirement:** To prevent possible failure of the landing gear selector lever accomplish the following:
1. Inspect the the landing gear selector lever per steps (1) through to (4) in Piper Service Bulletin No. 635. If cracked, replace with a landing gear selector lever P/N 761213, before further flight.
 2. Replace landing gear selector lever P/N 752303 with a landing gear selector lever P/N 761213.
- Note:** The installation of a landing gear selector lever P/N 761213 is a terminating action to this AD.
(FAA AD 79-11-06 refers)
- Compliance:**
1. Within the next 50 hours TIS, unless already accomplished.
 2. Within the next 100 hours TIS or by 1 June 2007, whichever occurs sooner.
- Effective Date:** DCA/PA-23/155 - 13 July 1979
DCA/PA-23/155A - 8 February
DCA/PA-23/155B - 1 June 2006
DCA/PA-23/155C - 29 June 2006

DCA/PA-23/156 Stabilator - Inspection

- Applicability:** Model PA-23-250 S/N 27-7654001 through 27-7954044 with stabilators having following S/Ns 0336-L through 0340-L, 0401-L through 0607-L, 0337-R through 0341-R, 0402-R through 0609-R
- Requirement:** Inspect per Piper SB 606. Renew or repair as necessary before further.
(FAA AD 79-26-01 refers)
- Compliance:** Within the next 50 hours TIS and thereafter at intervals not exceeding 100 hours TIS until modified per SB 606 instructions para B.4
- Effective Date:** 8 February 1980

DCA/PA-23/157 Fuel System Valves - Seal Renewal

- Applicability:** Models PA-23-235, PA-23-250, PA-E23-250 S/N 27-505 through 27-1999 and 27-2223 through 27-7305126 fitted with Scott fuel selector valves
- Requirement:** Remove fuel selector valves and fit new valve spool 'O' rings per Piper kit no. 760-504. Refit valves and test operation per Maintenance Manual.
(FAA AD 80-18-10 refers)
- Compliance:** Within the next 100 hours TIS and thereafter at intervals not exceeding 1000 hours TIS
- Effective Date:** 24 October 1980

DCA/PA-23/158 Flap Control System - Inspection

- Applicability:** Model PA-23 and PA-23-160 S/N 23-1 through 23-2046; PA-23-235 S/N 23-505 through 23-622; PA-23-250 S/N 27-1 through 27-504 and PA-23-250 S/N 27-2000 through 27-8054059
- Requirement:** Inspect and modify per Piper SB 671
- Compliance:** At 1000 hours TIS and thereafter inspect bellcrank P/N 16423-00 at intervals not exceeding 100 hours TIS until replaced with P/N 16423-06. Aircraft with more than 1000 hours but less than 2000 hours TIS - within the next 100 hours TIS. Aircraft with more than 2000 hours TIS - within the next 50 hours TIS
- Effective Date:** 19 December 1980

DCA/PA-23/159A Fuselage Structure - Inspection

- Applicability:** Model PA-23 and PA-23-160 S/N 23-1 through 23-2046; PA-23-235 S/N 27-505 through 27-622; PA-23-250 S/N 27-1 through 27-504 and PA-23-250 S/N 27-2000 through 27-8054049
- Requirement:** Inspect, repair as necessary and reinforce per Piper SB 672A. (FAA AD 80-26-04 refers)
- Compliance:** At 600 hours TTIS or within next 100 hours TIS whichever is the later, unless already accomplished
- Effective Date:** DCA/PA-23/159 - 6 February 1981
DCA/PA-23/159A - 30 October 1981

DCA/PA-23/160 Flap Installation - Inspection

- Applicability:** Model PA-23 S/N 23-1 through 23-2046, PA-23-235 S/N 27-505 through 27-662, PA-23-250 S/N 27-1 through 27-504 and PA-23-250 S/N 27-2000 through 27-7405300.
- Requirement:** Inspect and repair as necessary per Piper SL 853. (FAA AD 81-04-05 refers)
- Compliance:** At 2000 hours TTIS and thereafter at intervals not exceeding 100 hours TIS until modified per Piper SL 853. Aircraft which have exceeded 3000 hours TIS shall be initially inspected within next 50 hours TIS.
- Effective Date:** 20 March 1981

DCA/PA-23/161A Parking Brake Operation - Placard

Applicability: Model PA-23 and PA-23-160 S/N 23-1 through 23-2046, PA-23-235, PA-23-250, and PA-E23-250 S/N 27-1 through 27-8154030.

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:

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

(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/PA-23/161 - 22 March 1985
 DCA/PA-23/161A - 19 December 1997

DCA/PA-23/162A Hydraulic Hoses - Removal

Applicability: Model PA23 and PA23-160 S/N 23-1 through 23-2046; PA23-235 S/N 27-505 through 27-622; PA23-250 S/N 27-1 through 27-8154030.

Requirement: To prevent hydraulic hose failure which could cause loss of hydraulic capabilities resulting in a gear-up landing, accomplish the following:-

Inspect and replace all hydraulic hoses identified as P/N 17766-02 or 465-138 and having a smooth rubber surface and a blue coloured end nut, with hoses of the same part number having a woven outer covering and black coloured end nut, per Piper SB 822.

Note: These hoses were available for installation starting February 1, 1985, and may have been installed in newly manufactured aircraft or as spares at any subsequent time. (FAA AD 96-21-04 refers)

Compliance: Within next 25 hours TIS

Effective Date: DCA/PA23/162 - 14 November 1986
 DCA/PA23/162A - 22 November 1996

DCA/PA-23/163 Fuel Vent/Drain Lines - Inspection

Applicability: All model PA-23, PA-23-160, PA-23-235, PA-23-250 and PA-E23-250

Requirement: To prevent possible water ingress into fuel cells resulting in engine stoppage, inspect per Piper SB 340.

Rectify defective installations before further flight. (FAA AD 88-21-07 refers)

Compliance: By 28 February 1989 and thereafter at intervals not exceeding 12 months

Effective Date: 2 December 1988

DCA/PA-23/164 Wing Tip Fuel Tanks - Flexible Hose Replacement

- Applicability:** Model PA-23-150, PA-23-160, PA-23-235 and PA-23-250, with Met-Co-Aire 48 gallon fuel tip tanks installed per STC SA1480WE.
- Requirement:** To prevent fuel leakage and possible fire, replace any existing Parker "Push-Lok" flexible fuel hose, MCA P/N 11059-4 or Parker-Hannifin P/N 801-6/250PSI, with a Stratoflex hose, MCA P/N 11059-10 or Parker-Hannifin P/N 130001-6S-0154, per Met-Co-Aire SB 23-001.
(FAA AD 93-06-02 refers)
- Compliance:** Within next 100 hours TIS.
- Effective Date:** 11 June 1993
- Note:** NZCAR Part III, Leaflets B.11-11/1, B.11-11/2, B.11-11/3, B.11-14, B.11-18 and B.11-23 are hereby cancelled.

DCA/PA-23/165 Severe Icing Conditions – AFM Revision

- Applicability:** Models PA-23, PA-23-160, PA-23-235, PA-23-250 and PA-E23-250.
- 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

DCA/PA-23/166 Induction Air Filters – Removal from Service

- Applicability:** The following models and S/Ns that are equipped with Purolator air filter P/N 638873, Model CA161PL, or Piper P/N 460-632 (PS60007-2);
 PA-23-235 S/N 27-505 through 27-622
 PA-23-250 S/N 27-01 through 27-2504
- Requirement:** To prevent pieces of a damaged induction air filter from being ingested into the engine, which could result in reduced or loss of engine power, accomplish the following:-
 Replace, per the maintenance manual, any Purolator/Facet induction air filter, Purolator P/N 638873, Model No. CA161PL, Piper P/N 460-632 (PS60007-2), that meets the following conditions:
- Was manufactured anytime from January 1997 through September 1998; and
 - Is identified with a ¼ inch high (white) ink stamp "FACET - 638873", and may include "FAA-PMA".
- Note:** Piper SB 1022, and Purolator SB 090298.01 provide information relating to this AD, including procedures on how to identify the affected air filters.
 (FAA AD 99-05-09 refers)
- Compliance:** Within next 25 hours TIS.
- Effective Date:** 25 March 1999

DCA/PA-23/167 Flap Torque Tube - Inspection

- Applicability:** Models PA-23 and PA-23-160, S/N 23-1 through 23-2046,
 Model PA-23-235, S/N 27-505 through 27-622
 Model PA-23-250 S/N 27-1 through 27-504,
 & 27-2000 thru 27-8154030
 Model PA-E23-250 S/N 27-2505 through 27-4916
 and 27-7304917 through 27-7554168
- Requirement:** To prevent failure of the flap control system torque tube, which could cause an asymmetric flap condition and loss of control of the aircraft, inspect the flap control torque tube for cracks, corrosion, wear, or elongation of the attachment bolt holes IAW Piper SB No. 1051B.
 Replace any damaged flap control torque tube before further flight with either a P/N 17634-002 flap control torque tube or a 104622-002 or 104622-004 flap control torque tube assembly.
 If no damage is found replace any wooden end plugs with new plastic end plugs, (P/N 17631-002). The 17631-002 end plugs are part of the 104622-002 and 104622-004 flap control torque tube assemblies, but must be obtained for the 7634-002 installation. It is not necessary to inspect the existing wooden end plugs as this AD requires their replacement with plastic end plugs.
 (FAA AD 2003-09-13 refers)
- Compliance:** Before accumulating 2500 hours TTIS or 100 hours TIS whichever occurs later and thereafter at intervals not to exceed 500 hours TIS.
 Replacement of the flap control torque tube with either a P/N 17634-002 flap control torque tube or a 104622-002 or 104622-004 flap control torque tube assembly, is terminating action for this AD.
- Effective Date:** 29 May 2003

DCA/PA-23/168 Turbocharger System - Modification

Applicability: Models PA-23-235, PA-23-250, and PA-E23-250 that are equipped with Garrett Aviation Services (Garrett) (formerly AiResearch) turbosuperchargers installed under STC SA852WE, SA909WE, or SA978WE; or installed under The New Piper, Inc. (formerly Piper) Aircraft Drawing Number 32016.

Note: Piper manufactured the majority of affected airplanes with the turbocharger system. The turbocharger system installed under Piper Aircraft Drawing Number 32016 (STC SA909WE) was a factory option on the Piper Model PA-23-250 or PA-E23-250 with serial numbers 27-2505 through 27-3943.

Requirement: Failure of the oil reservoir contributed to an in-flight fire within the nacelle area penetrating the firewall and subsequent failure of the wing spar. To prevent turbosupercharger oil reservoirs with inadequate fire resistance from failing when exposed to flame or exhaust gases accomplish the following.

1. For any turbosupercharger installation under STC SA852WE, SA909WE, or SA978WE, accomplish the procedures in Garrett Aviation Service Bulletin No. 1002143, Revision A. Replace any oil reservoir P/N 286-P23-028-81 or 286-P23-028-111, or approved equivalent P/N with a fireproof oil tank P/N 10ND79200-1 or 10ND79200-3, or FAA-approved equivalent P/N, and replace the installed oil reservoir hoses with fire-shielded hoses.

2. For any turbosupercharger installation under Piper Aircraft Drawing Number 32016, accomplish the procedures in The New Piper Aircraft, Inc. Vendor Service Publication No. 166, and Garrett Aviation Service Bulletin No. 1002143, Revision A.

Replace any oil reservoir (P/N 286-P23-028-81 or 286-P23-028-111, or approved equivalent P/N) with a fireproof oil tank (P/N 10ND79200-1 or 10ND79200-3, or FAA-approved equivalent P/N) and replace the installed oil reservoir hoses with fire-shielded hoses.

(FAA AD 2005-01-10 refers)

Compliance:

1. Within the next 100 hours TIS, unless already done.
2. Within the next 100 hours TIS unless already done.

Effective Date: 24 February 2005

DCA/PA-23/169A Nose Baggage Door – Inspection

Applicability: Model PA-23, PA-23-160, PA-23-235, PA-23-250, PA-23-250 (Navy UO-1) and PA-E23-250 aircraft, all S/N fitted with a baggage door in the fuselage nose section (a nose baggage door).

Note 1: This AD revised to clarify the AD requirement. The nose baggage compartment interior light inspection per SB No. 1194A to determine correct operation is not mandated by this AD.

Requirement: To prevent the nose baggage door opening in flight due to possible damaged, worn, corroded or non-conforming door assembly parts which could result in baggage striking the propeller or affect aircraft handling, accomplish the following:

1. Inspect the nose baggage door assembly for damaged, worn, corroded or non-conforming parts per part 1 of Piper Aircraft, Inc. SB No. 1194A, dated 10 November 2008.

Replace life limited parts per SB No. 1194A and ensure a nose baggage placard is fitted per the instructions in SB No. 1194A.

If any damaged, worn, corroded or non-conforming nose baggage door parts are found, repair or replace as required per the instructions in SB No. 1194A before further flight.

2. Inspect the nose baggage door latch and lock assemblies for damage, wear, corrosion, or non-conforming components, and lubricate as required per SB No. 1194A. Determine that the key can only be removed from the lock assembly in the locked position per the instructions in part II of the SB No. 1194A.

If any damaged, worn, corroded or non-conforming nose baggage door parts are found, repair or replace as required per the instructions in SB No. 1194A before further flight.

Note 2: As an alternative to fitting placard P/N 100700-079 per SB No. 1194A, manufacturer a placard (using at least 1/8-inch letters) with the following text and install the placard directly above the nose baggage door handle.

CLOSE AND LOCK NOSE BAGGAGE DOOR BEFORE FLIGHT

1. CLOSE DOOR FULLY AGAINST DOOR FRAME
2. PRESS DOOR HANDLE FLUSH WITH SKIN, AND ROTATE KEY INTO LOCKED POSITION
3. REMOVE KEY
4. PUSH ON FORWARD END OF DOOR HANDLE, TO CONFIRM THAT HANDLE IS LOCKED AND SECURE

Note 3: This AD does not require an inspection of the nose baggage compartment interior light to determine correct operation as specified in part 1, paragraph 1 of Piper MSB No. 1194A dated 10 November 2008.
(FAA AD 2009-13-06R1 refers)

Compliance: 1. Within the next 1000 hours TIS since replacement of all life limited parts listed in SB No. 1194A, or within the next 100 hours TIS whichever occurs later, and thereafter at intervals not to exceed 1000 hours TIS.

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

Effective Date: DCA/PA23/169 - 30 July 2009
DCA/PA23/169A - 27 October 2011

From 1 October 2012 the Civil Aviation Authority of New Zealand (CAA) will no longer rewrite the text of State of Design ADs. Applicable State of Design ADs will be listed below and you can obtain them directly from the National Airworthiness Authority (NAA) web sites. Links to the NAA web sites are available on the CAA web site at

<http://www.caa.govt.nz/airworthiness-directives/states-of-design/>

If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ, they will be added to the list below.

2015-24-05 Fuel System – Inspection

Applicability: All Piper aircraft listed in the applicability section of FAA AD 2015-24-05.

Effective Date: 12 January 2016

2017-15-05 Heater Exhaust Extension – Inspection

Applicability: Piper PA-23, PA-23-160, PA-23-235, PA-23-250 and PA-E23-250 aircraft, all S/N.

Effective Date: 28 August 2017