

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

## SECTION III

### INSPECTION

#### 1. General

Piper Aircraft, Inc. (Piper) takes a continuing interest in having the owner get the most efficient use from his airplane, and keeping the airplane in the best mechanical condition. To that end, Piper publishes a recurring maintenance schedule which is supplemented with Service Bulletins, Service Letters and Service Spares Letters as required.

- A. The recurring maintenance schedule for the PA-28-151 Cherokee Warrior / PA-28-161 Warrior II - Warrior III (S/N's 2816110 thru 2816119) is provided in Table III-I.
- B. Piper Service Bulletins are of special importance and Piper considers compliance mandatory.
- C. Service Letters deal with product improvements and service hints pertaining to the affected aircraft. Owners should give careful attention to service letter information so they can ensure their airplane is properly serviced and kept up to date with the latest changes.
- D. Service Spares Letters offer improved parts, kits and optional equipment which were not originally available. These may be of interest to the owner.
- E. Service Bulletins, Service Letters and Service Spares Letters are emailed to Piper Dealers/Service Centers. U.S. registered owners are notified by postcard and encouraged to download these service publications from <http://www.piper.com/>.

**NOTE:** Piper mails flight manual (AFM / POH) revisions as well as the postcards cited above to the registered owner's name and address as shown on the Aircraft Registration Certificate. If the aircraft is based and/or operated at a different location (or locations) and/or by a person (or persons) other than those recorded on the aircraft registration, then the registered owner(s) is responsible for forwarding these to the operating location(s) or person(s).

Changes in aircraft registration may take a substantial amount of time to be recorded by the Federal Aviation Administration and received by Piper to change the mailing address. Owners and operators should make arrangements to keep abreast of flight manual revisions and service publications during this interim period through their Piper Dealer/Service Center.

The Federal Aviation Administration (FAA) publishes Airworthiness Directives (AD's) that apply to specific aircraft. They are mandatory changes and are to be complied within a time limit set by the FAA. When an AD is issued, it is sent to the latest registered owner of the affected aircraft and also to subscribers of the service. The owner is solely responsible for being aware of and complying with airworthiness directives.

**NOTE:** A searchable database of AD's is available on the FAA website. See the "Airworthiness Directives" link at "[www.faa.gov](http://www.faa.gov)". Additionally, Avantext offers a free email notification service for new AD's as well as the last six weeks worth of AD's at "[www.avantext.com](http://www.avantext.com)".

Owners should periodically check with a Piper Dealer/Service Center to find out the latest information to keep his aircraft up to date.

Service Bulletins, Service Letters, and Service Spares Letters are also available by subscription to the Avantext TechPubs Maintenance Libraries for Piper Aircraft (see [www.Avantext.com](http://www.Avantext.com)).

**THIS PAGE INTENTIONALLY BLANK**

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

### 2. Time Limits

- A. Refer to Section I for the FAA-approved airworthiness limitations section. It sets forth each mandatory replacement time, structural inspection interval, and related structural inspection procedure required for type certification.
- B. Refer to the remainder of this section for Piper's recommended Inspection Programs. They include the frequency and extent of the inspections required for the continued airworthiness of these airplanes.
- C. Inspections required by Flight Hour or Calendar Year, if due, are included as part of the Annual / 100 Hour Inspection and/or the Progressive Inspection Event cycles, and are listed individually in Special Inspections.

**THIS PAGE INTENTIONALLY BLANK**



# PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

## 3. Scheduled Maintenance

**WARNING: GROUND THE MAGNETO PRIMARY CIRCUIT (P LEAD), BEFORE PERFORMING ANY MAINTENANCE OPERATION ON THE ENGINE.**

This section provides instructions for conducting inspections - see Table III-I (PA-28-151/161). Repair or replacement instructions for those components found to be unserviceable during inspections will be found in the applicable airplane system section. (See Section Index Guide, Introduction.)

## 4. Description

**WARNING: FAILURE TO CONSULT APPLICABLE VENDOR PUBLICATION(S), WHEN SERVICING OR INSPECTING VENDOR EQUIPMENT INSTALLED IN PIPER AIRCRAFT, MAY RENDER THE AIRCRAFT UNAIRWORTHY. (SEE INTRODUCTION - SUPPLEMENTARY PUBLICATIONS.)**

The recurring maintenance schedule for the PA-28-151 Cherokee Warrior / PA-28-161 Warrior II - Warrior III (S/N's 2816110 thru 2816119) is provided herein as an Annual / 100 Hour Inspection. A Progressive Inspection Program (50 Hour) is available exclusively from Avantext, Inc in a separate manual form. See Piper Publications in the Introduction under Supplementary Publications.

Piper inspection programs comply with the F.A.A. Federal Aviation Regulations Parts 43, 91 and 135. The owner/operator is primarily responsible for maintaining the airplane in an airworthy condition, including compliance with all applicable Airworthiness Directives and conformity with the requirements in FAR 91.409, 91.411 and 91.413.

The first overhaul or replacement of components should be performed at the given periods. The condition of various components can then be used as criteria for determining subsequent periods applicable to the individual airplane, depending on usage, providing the owner/operator has an established Part 91 Progressive Inspection Program (see 91.409(d)) or Part 135 Approved Aircraft Inspection Program (see 135.419).

The time periods given for inspections of various components are based on average usage and environmental conditions.

**NOTE: The listed inspection, overhaul and replacement schedules do not guarantee that a particular item or component will reach the listed time without malfunction. Unique operating conditions encountered by individual airplanes cannot be controlled by the manufacturer.**

## 5. Definitions

A. Inspections - Must be performed only by Certified Mechanics who are qualified on these aircraft, using acceptable methods, techniques and practices to determine physical condition and detect defects.

- (1) Routine Inspection - Consists of a visual examination or check of the aircraft and its components and systems without disassembly.
- (2) Detailed Inspection - Consists of a thorough examination of the aircraft, appliance, component, or system; with disassembly as necessary to determine condition.
- (3) Special Inspection - Involves those components, systems or structure which by their application or intended use require an inspection peculiar to, more extensive in scope or at a time period other than that which is normally accomplished during an event or annual inspection.

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

- B. Checks - Can be performed by pilots and/or mechanics who are qualified on this aircraft and consists of examinations in the form of comparisons with stated standards for the purpose of verifying condition, accuracy and tolerances.
- C. Approved Inspection - Means a continuing airworthiness inspection of an airplane and its various component and systems at scheduled interval in accordance with procedures approved by the FAA under FAR Part 91.409(d) or Part 135.419.
- D. Tests - Operation of aircraft components, appliances or systems to evaluate functional performance.
  - (1) Operational Test - A task to determine that an item, is fulfilling its intended purpose. The task does not require quantitative tolerances. This is a fault finding task.
  - (2) Functional Test - A quantitative check to determine if one or more functions of an item performs within specified limits. This test may require the use of supplemental bench test equipment.
  - (3) In addition, each of the above tests must be performed by an FAA Certified Repair Station with appropriate ratings or by a Certified Mechanic who is qualified on this aircraft. The recording of the above function must be made in the permanent aircraft records by the authorized individual performing the test.
- E. Bench Test - Means removal of component from the aircraft to inspect for cleanliness, impending failure, need for lubrication, repair or replacement of parts and calibration to at least the manufacturers specifications using the manufacturers recommended test equipment or standards or the equivalent.

Each bench test will be performed by a Piper Service Center, FAA Certified Repair Station with appropriate rating or by a certified mechanic. This test will be performed at the scheduled interval regardless of any bench test performed on a particular component while being repaired/overhauled before scheduled interval bench test. After the component is installed into the aircraft, an operational test of the component and its related system should be performed to ensure proper function. Serviceable parts that were issued to the component will be filed in the aircraft permanent records. The person performing the test must make appropriate entries in the aircraft's permanent maintenance record.
- F. Maintenance - The word maintenance as defined by FAR Part 1, means "inspection, overhaul, repair, preservation and the replacement of parts, but excludes preventive maintenance."
- G. On Condition Maintenance - A primary maintenance process having repetitive inspections or tests to determine the condition of units, systems, or portions of structure with regard to continued serviceability (corrective action is taken when required by item condition.)

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

### H. Time - as used in this manual.

- (1) Time-in-service for aircraft components, unless otherwise specified, is a cumulative total of flight hours or calendar time calculated from the time a new or overhauled component was first installed in any aircraft, and including:
  - (a) the aircraft time that elapses from the initial installation to the first removal, if any; and,
  - (b) the aircraft time that elapses from each subsequent installation to each subsequent removal, if any; or,
  - (c) the calendar time elapsed since the installation.

**NOTE:** Dates stamped on individual components at the time of manufacture are typically applied to determine shelf life - i.e. the maximum time allowed from manufacture/assembly/cure until actually installed in an aircraft and are not relevant.

Do not, however; ignore markings applied to life-limited parts when removed with time and/or cycles remaining on them.

- (2) Aircraft time, flight hours, or aircraft hours are the “Hobbs Time” shown on, or calculated from, the installed “Hour Meter.”

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

## 6. Inspection Requirements

**WARNING:** INSTRUCTIONS FOR CONTINUED AIRWORTHINESS (ICA) FOR ALL NON-PIPER APPROVED STC INSTALLATIONS ARE NOT INCLUDED IN THIS MANUAL. WHEN A NON-PIPER APPROVED STC INSTALLATION IS INCORPORATED ON THE AIRPLANE, THOSE PORTIONS OF THE AIRPLANE AFFECTED BY THE INSTALLATION MUST BE INSPECTED IN ACCORDANCE WITH THE ICA PUBLISHED BY THE OWNER OF THE STC. SINCE NON-PIPER APPROVED STC INSTALLATIONS MAY CHANGE SYSTEMS INTERFACE, OPERATING CHARACTERISTICS AND COMPONENT LOADS OR STRESSES ON ADJACENT STRUCTURES, THE PIPER PROVIDED ICA MAY NOT BE VALID FOR AIRPLANES SO MODIFIED.

### A. Annual / 100 Hour Inspection. (See paragraph 7.)

Owners/operators may maintain the airplane solely under FAR 91.409 (a) and (b) inspection requirements. The 100 hour inspection cycle is a complete inspection of the airplane and is identical in scope to an annual inspection. Inspections must be accomplished by persons authorized by the FAA.

### B. Progressive Inspection.

The Progressive Inspection program is designed to permit the best utilization of the aircraft through the use of a planned inspection schedule. This schedule is prepared in a manual form, which is available exclusively by subscription to the Avantext TechPubs Maintenance Libraries for Piper Aircraft (see [www.Avantext.com](http://www.Avantext.com)):

P/N 761-540 for the PA-28-151 Cherokee Warrior / PA-28-161 Warrior II - Warrior III (S/N's 2816110 thru 2816119).

Refer to Piper's Customer Service Information Aerofiche P/N 1753-755 for a checklist to ensure obtaining latest issue.

**NOTE:** The 50 Hour Progressive Inspection Manual (P/N 761-540) referenced above is not a stand-alone document. It constitutes a snapshot of the Airworthiness Limitations and Inspection sections of the Instructions for Continued Airworthiness (ICA) and is current only at the time of printing. Use it as follows:

- (1) Owners/operators desiring to establish a Part 91 Progressive Inspection Program (PIP) (see 91.409(d)) or a Part 135 Approved Aircraft Inspection Program (AAIP) (see 135.419) should use the appropriate Progressive Inspection Manual as a template for submission to their regional FAA office.
- (2) Service centers conducting Event Cycle inspections under a FAA-approved PIP or AAIP can use the appropriate Progressive Inspection Manual as a working check-off list/form, provided they verify its currency against the FAA-approved PIP or AAIP.

### C. Overlimits Inspection.

If the airplane has been operated so that any of its components have exceeded their maximum operational limits, special inspections may be required by Piper and/or the component manufacturer. See Section III and applicable vendor publications.

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

## 7. Annual / 100 Hour Inspection Procedure

### A. Scheduled Maintenance (i.e. - Table III-I (PA-28-151 Cherokee Warrior / PA-28-161 Warrior II - Warrior III (S/N's 2816110 thru 2816119)

- (1) The required periodic inspection procedures are listed in Table III-I. These inspection procedures are broken down into major groups which include Propeller, Engine, Cabin and Cockpit, Fuselage and Empennage, Wing, Landing Gear, Special Inspections, Operational Inspection, and General. The first column in each group lists the inspection or procedure to be performed. The second column is divided into two sub-columns indicating the required inspection interval of 50 hours or 100 hours. Each inspection or operation is required at each of the inspection intervals indicated by a circle (O). When a vendor publication specifies a time outside the 50 / 100 hour cycle, it will be listed as a special inspection, below.
- (2) Refer to the applicable section of this manual for instructions on how to gain access to remove any item that must be removed and is not completely accessible.
- (3) Inspection Report Forms.

To help in the performance of periodic inspections, Inspection Report forms are available through Piper Dealers:

P/N 230-802 for the PA-28-151 Cherokee Warrior / PA-28-161 Warrior II - Warrior III (S/N's 2816110 thru 2816119).

**NOTE:** Service centers conducting Part 91 Annual / 100 Hour Inspections can use the appropriate Inspection Report Form (above), as a working check-off list, provided they verify its currency against an up-to-date copy of the ICA (i.e. – this Service Manual, see Section I and Table III-I).

- (4) In addition to inspection intervals required in scheduled maintenance (i.e. - Table III-I), preflight inspection must also be performed.
  - (5) References to service manual applicable areas are per the “section - system/sub-system” assignment of subject material.
- B. Special Inspections (See paragraph 8.)
- C. Unscheduled Maintenance (See paragraph 9.)

**THIS PAGE INTENTIONALLY BLANK**

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

**TABLE III-I - INSPECTION REPORT - PA-28-151/161**

Refer to Notes 1, 2, 3, and 4 before performing the following inspections.

NATURE OF INSPECTION	Inspection Interval (Hrs)	
	50	100
<b>A. PROPELLER GROUP</b>		
<b><u>WARNING:</u> USE EXTREME CAUTION WHEN ROTATING PROPELLER BY HAND; PROPELLER MAY KICK BACK. PRIOR TO ROTATING PROPELLER ENSURE BOTH MAGNETO SWITCHES ARE OFF (GROUNDED). IF MAGNETOS ARE NOT GROUNDED, TURNING PROPELLER MAY START ENGINE.</b>		
1. Inspect spinner and backplate for cracks, dents, missing screws, and security .....	O	O
2. Inspect blades for nicks and cracks .....	O	O
3. Inspect spinner mounting brackets for cracks and security .....		O
4. Inspect propeller mounting bolts for condition and security. If safety is broken, re-torque and safety .....		O
5. Inspect hub parts for cracks and corrosion .....		O
6. Inspect complete propeller and spinner assembly for security, chafing, cracks, deterioration, wear, and correct installation .....		O
<b>B. ENGINE GROUP</b>		
<b><u>WARNING:</u> IF MAGNETOS ARE NOT GROUNDED, TURNING PROPELLER MAY START ENGINE. USE EXTREME CAUTION WHEN ROTATING PROPELLER BY HAND; PROPELLER MAY KICK BACK. PRIOR TO ROTATING PROPELLER ENSURE BOTH MAGNETO SWITCHES ARE OFF (GROUNDED).</b>		
<b><u>NOTE:</u> Read Note 5 prior to completing this group.</b>		
1. Remove engine cowling and inspect for internal and external damage .....	O	O
2. Clean and inspect cowling for cracks, distortion, and loose or missing fasteners. (See Note 6.) .....		O
3. Drain oil sump. (See Note 7.) .....	O	O
4. Clean suction oil strainer at oil change; inspect strainer for foreign particles .....	O	O
5. Clean pressure oil strainer or change full-flow (cartridge-type) oil filter element. Inspect strainer or element for foreign particles .....	O	O
6. Inspect oil temperature sender unit for leaks and security .....		O
7. Inspect oil lines and fittings for leaks, security, chafing, dents, and cracks .....	O	O
8. Clean and inspect oil radiator cooling fins .....		O
9. Fill engine with oil per information on cowling or in Lubrication Chart, Sec. II .....	O	O
<b><u>CAUTION:</u> DO NOT CONTAMINATE VACUUM PUMP WITH CLEANING FLUID. (SEE LATEST REVISION OF LYCOMING SERVICE INSTRUCTION NO. 1221.)</b>		
10. Clean engine with approved solvents .....		O

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

**TABLE III-I - INSPECTION REPORT - PA-28-151/161 (cont.)**

NATURE OF INSPECTION	Inspection Interval (Hrs)	
	50	100
<b>B. ENGINE GROUP (CONT.)</b>		
11. Inspect condition of spark plugs. Clean and adjust gap as required; adjust per latest revision of Lycoming Service Instruction No. 1042. ....	O	O
<span style="color: green;"><u>NOTE:</u> If fouling of spark plugs is apparent, rotate bottom plugs to upper plugs.</span>		
12. Inspect spark plug cable leads .....	O	O
13. Check cylinder compression. (Refer to AC 43.13-1, latest revision.) .....	O	O
14. Inspect cylinders for cracked or broken fins. (See Note 8.) .....	O	O
15. Inspect rocker box covers for evidence of oil leaks. If found, replace gasket; torque cover screws 50 inch-pounds. ....	O	O
16. Inspect ignition harness and insulators for high tension leakage and continuity .....	O	O
17. Inspect magnetos for oil seal leakage (See Note 9.) .....	O	O
18. Inspect magnetos to engine timing .....	O	O
19. Inspect security of carburetor throttle arm .....	O	O
20. Remove air filter from screen housing and clean per Section II. Replace as required .....	O	O
21. Drain carburetor and clean inlet line fuel strainer .....	O	O
22. Inspect condition of carburetor heat air door and box (See Note 10.) .....	O	O
23. Inspect intake seals for leaks and clamps for tightness. (Torque clamps 40-50 in.-lbs.) .....	O	O
24. Inspect all air inlet ducts and alternate heat duct. ....	O	O
25. Remove and clean fuel filter bowl and screen on lower left side of firewall .....	O	O
26. Inspect condition of flexible fuel lines. Replace as required .....	O	O
27. Inspect fuel system for leaks .....	O	O
28. Inspect engine-driven and electric fuel pumps for condition and operation. Replace as required. Clean screens in electric fuel pump(s) .....	O	O
29. Inspect and operationally test engine-driven vacuum pump and lines. (See Notes 11 and 12.) .....	O	O
30. Inspect auxiliary vacuum pump system hoses, clamps, and electric harness for security. (Installed on PA-28-161, S/N's 28-8616001 and up) .....	O	O
31. Inspect throttle, carburetor heat, and mixture controls for security, travel and operating condition. (See Note 13.) .....	O	O
32. Inspect exhaust stacks, connections and gaskets per Exhaust System Inspection. (See Special Inspections, Procedures.) Replace gaskets as required .....	O	O
33. Inspect muffler, heat exchange and baffles per Exhaust System Inspection. (See Special Inspections, Procedures.) .....	O	O
34. Inspect breather tube for obstructions and security .....	O	O
35. Inspect crankcase for cracks, leaks, and security of seam bolts .....	O	O
36. Inspect engine mounts for cracks and loose mounting .....	O	O
37. Inspect all engine baffles .....	O	O
38. Inspect all wiring connected to engine and accessories .....	O	O



# PIPER CHEROKEE WARRIOR SERVICE MANUAL

**TABLE III-I - INSPECTION REPORT - PA-28-151/161 (cont.)**

NATURE OF INSPECTION	Inspection Interval (Hrs)	
	50	100
<b>B. ENGINE GROUP (CONT.)</b>		
39. Inspect rubber engine-mount bushings for deterioration. Replace as required. ....		0
40. Inspect firewall seals .....		0
41. Inspect condition and tension of alternator drive belt. (See Checking Generator and Alternator Belt Tension, Section XI.) .....		0
42. Lubricate alternator idler pulley and, if installed, compressor idler pulley; remove front grease seal and add grease per Lubrication Chart, Section II. Disregard if sealed bearing is installed .....		0
43. Inspect condition of alternator and starter .....		0
44. Inspect starter ring gear for broken or chipped teeth and condition of pulley slot. (Refer to Lycoming Service Bulletin No. 486.) .....		0
45. Inspect security of alternator and mounting .....		0
46. If installed, inspect condition of A/C compressor belt and tension. (See Adjustment of Drive Belt Tension, Section XIV, Paragraph 14-23.) .....		0
47. If installed, check A/C compressor oil level. (See Note 14.) .....		0
48. If installed, inspect A/C compressor clutch security and wiring. (See Note 16.) .....		0
49. If installed, inspect A/C compressor mounting for cracks, corrosion, and security .....		0
50. Check fluid in brake reservoir. Fill as required .....	0	0
51. Inspect and lubricate all controls per Lubrication Chart, Section II .....		0
52. Install engine cowling .....	0	0
<b>C. CABIN AND COCKPIT GROUP</b>		
1. Inspect cabin door latch and hinges, and windows, for damage, operation and security .....		0
2. Inspect windows for scratches, crazing, and condition .....		0
3. Check window and door seals for deterioration, cracks, and voids .....		0
4. Inspect upholstery for tears .....		0
5. Inspect seats and attaching brackets and hardware for condition, security, and operation. ....		0
6. Inspect seat belts and shoulder harnesses per Section XIV, Restraint System .....		0
7. Inspect trim control operation .....		0
8. Inspect rudder pedals for operation and adjustment. ....		0
9. Inspect parking brake valve and brake handle for operation and cylinder leaks ..		0
10. Inspect control wheels, column, pulleys, cables, turnbuckles, and fittings. (See Note 17.) .....		0
11. Perform Flap Control Cable Attachment Bolt Inspection. (See Special Inspections, Procedures, and Note 17.) .....		0
12. Inspect landing, navigation, strobe, cabin and instrument lights for operation, condition, and security. ....	0	0
13. Inspect instruments, avionics, lines, and attachments .....		0

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

**TABLE III-I - INSPECTION REPORT - PA-28-151/161 (cont.)**

NATURE OF INSPECTION	Inspection Interval (Hrs)	
	50	100
<b>C. CABIN AND COCKPIT GROUP (CONT.)</b>		
14. Inspect gyro-operated instruments and electric turn and bank. (Overhaul or replace as required.) .....		O
15. If equipped, replace attitude indicator and heading indicator air filters .....		O
16. If installed, replace vacuum regulator filter element .....		O
17. Inspect static system, altimeter and transponder for installation/certification per latest revision of AC 43.13-1 and current test/inspection per FAR's 91.411 and 91.413, respectively .....		O
18. Inspect and test ELT per FAR 91.207. (See Testing ELT, Section XII.) .....		O
19. Inspect operation of fuel selector valve. ....		O
20. Inspect condition of heater controls and ducts .....		O
21. Inspect condition and operation of air vents .....		O
22. If installed, inspect condition of air conditioning ducts .....		O
23. If installed, remove and clean air conditioning evaporator filter .....		O
24. If installed, inspect portable fire extinguisher minimum weight as specified on nameplate .....		O
<b>D. FUSELAGE AND EMPENNAGE GROUP</b>		
1. Remove inspection plates and panels .....		O
2. Inspect aft wing attach fittings per Aft Wing Attach Fittings 100 Hour Inspection. (See Special Inspections, Procedures.) .....		O
3. Inspect baggage door, latch and hinges for damage, operation and security .....	O	O
4. Inspect battery, box and cables. Flush or clean area as required and fill battery per instructions on box and in Electrical System, Section XI .....	O	O
5. Inspect electronic installations .....		O
6. Inspect skins, bulkheads, frames, and stringers for damage, irregularities, or structural defects (i.e. - skin cracks, distortion, dents, corrosion and loose or missing rivets) .....		O
7. Inspect condition and security of antenna mounts and electric wiring .....		O
8. If installed, inspect air conditioning system for refrigerant leaks. (See Note 14.) .....		O
9. If installed, inspect refrigerant level in sight gauge of receiver-dehydrator. Refer to Section XIV .....	O	O
10. If installed, inspect air conditioner condenser air scoop for condition and rigging. (See Note 15.) .....	O	O
11. Inspect fuel lines, valves, and gauges for damage and operation .....		O
12. Inspect security of all lines .....		O
13. Inspect vertical fin and rudder for surface damage or irregularities (i.e. - skin cracks, distortion, dents, corrosion, and excessive paint build up); structural defects (i.e. - loose or missing rivets); misrigging or structural imbalance; hinge damage, excessive wear, freedom of movement and proper lubrication; and attachment points for missing or worn hardware .....		O

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

**TABLE III-I - INSPECTION REPORT - PA-28-151/161 (cont.)**

NATURE OF INSPECTION	Inspection Interval (Hrs)	
	50	100
<b>D. FUSELAGE AND EMPENNAGE GROUP (CONT.)</b>		
14. Inspect rudder hinges, horn, and attachments for damage, security, and operation .....		O
15. Inspect vertical fin attachments for security .....		O
16. Inspect rudder control stops to ensure stops have not loosened and locknuts are tight .....		O
17. Inspect rudder hinge bolts for excess wear. Replace as required .....		O
18. Inspect stabilator and trim tab for surface damage or irregularities (i.e. - skin cracks, distortion, dents, corrosion, and excessive paint build up); structural defects (i.e. - loose or missing rivets); misrigging or structural imbalance; hinge damage, excessive wear, freedom of movement and proper lubrication; and attachment points for missing or worn hardware .....		O
19. Inspect stabilator, trim tab hinges, horn, and attachments for damage, security, and operation .....		O
20. Inspect stabilator attachments per Stabilator Attach Fittings Corrosion Inspection. (See Special Inspections, Procedures) .....		O
21. Inspect stabilator control stops to ensure stops are not loose. Ensure bolts and locknuts are tight .....		O
22. Inspect stabilator and tab hinge bolts and bearings for excess wear. Replace as required .....		O
23. Inspect aileron, rudder, stabilator, and stabilator trim cables; and cable terminals, turnbuckles, guides, fittings, and pulleys for safety, condition, and operation. (See Notes 17 and 18.) .....		O
24. Inspect rudder, stabilator, and stabilator trim cable tension per Table V-II. Use a tensiometer. ....		O
25. Lubricate per Lubrication Chart, Section II .....	O	O
26. Inspect strobe light for security and operation .....		O
27. Inspect rotating beacon for security and operation .....		O
28. If installed, inspect security of Autopilot servo bridle cable clamps. (See Note 17.) .....		O
29. Inspect all control cables, air ducts, electrical leads, harnesses, lines, radio antenna leads, and attaching parts for security, routing, chafing, deterioration, wear, and correct installation. (See Note 17.) .....		O
30. Inspect ELT battery for condition and date per FAR 91.207 .....		O
31. Inspect ELT installation and antenna for condition and security. Replace antenna if bent or damaged .....		O
32. Install inspection plates and panels .....		O

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

**TABLE III-I - INSPECTION REPORT - PA-28-151/161 (cont.)**

NATURE OF INSPECTION	Inspection Interval (Hrs)	
	50	100
<b>E. WING GROUP</b>		
1. Remove inspection plates and fairings .....		0
2. Inspect wing surfaces and tips for damage, loose rivets, and the condition of walkways .....		0
3. Inspect ailerons for surface damage or irregularities (i.e. - skin cracks, distortion, dents, corrosion, and excessive paint build up); structural defects (i.e. - loose or missing rivets); misrigging or structural imbalance; hinge damage, excessive wear, freedom of movement and proper lubrication; and attachment points for missing or worn hardware .....		0
4. Inspect aileron hinges and attachments. ....		0
5. Inspect aileron control stops to ensure stops are not loose. Ensure bolts and locknuts are tight .....		0
6. Inspect aileron cables and cable terminals, turnbuckles, fittings, guides, pulleys, and bellcranks for safety, condition and operation. (See Note 17.) .....		0
7. Inspect aileron cable tension per Table V-II. Use a tensiometer. ....		0
8. Inspect flaps for surface damage or irregularities (i.e. - skin cracks, distortion, dents, corrosion, and excessive paint build up); structural defects (i.e. - loose or missing rivets); misrigging or structural imbalance; hinge damage, excessive wear, freedom of movement and proper lubrication; and attachment points for missing, damaged or worn hardware .....		0
9. Inspect condition of flap hinge bolts. Replace as required .....		0
10. Lubricate per Lubrication Chart, Section II .....	0	0
11. Inspect wing fore and aft attach fittings, and bolts for security, corrosion and condition. ....		0
12. Retorque wing aft spar attach bolts per Wing Aft Spar-to-Fuselage Attachment Hardware 100 Hour Inspection, Section III, Special Inspections, Procedures .....		0
13. Inspect pitot tube for damage and condition .....		0
<b>CAUTION: SEVERE BURNS CAN RESULT FROM COMING IN CONTACT WITH A HEATED PITOT TUBE.</b>		
14. If installed, check pitot heat .....		0
15. Inspect fuel tanks and lines for leaks and water. (See Note 20.) .....		0
16. Inspect fuel tanks for minimum octane markings .....		0
17. Confirm fuel tanks are marked for capacity .....		0
18. Inspect fuel tank vents .....		0
19. Inspect all control cables, air ducts, electrical leads, lines, and attaching parts for security, routing, chafing, deterioration, wear, and correct installation. (See Note 17.) .....		0
20. Install inspection plates and fairings .....		0

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

**TABLE III-I - INSPECTION REPORT - PA-28-151/161 (cont.)**

NATURE OF INSPECTION	Inspection Interval (Hrs)	
	50	100
<b>F. LANDING GEAR GROUP</b>		
1. Check oleo struts for proper extension and evidence of fluid leakage. See Landing Gear, Section II .....	O	O
2. Inspect nose gear steering control and travel. (See Notes 21 and 22.) .....		O
3. Remove wheel fairings .....		O
4. Inspect wheel alignment .....		O
5. Put airplane on jacks. (Refer to Section II.) .....		O
6. Inspect tires for cuts, uneven or excessive wear, and slippage .....		O
7. Remove wheels; clean, inspect, and repack bearings .....		O
8. Inspect wheels for cracks, corrosion, and broken bolts .....		O
9. Check tire pressure .....	O	O
10. Inspect brake linings and discs for condition and wear .....	O	O
11. Inspect brake backing plates for condition and wear .....		O
12. Inspect brake lines for condition and security .....		O
13. Inspect shimmy dampener operation .....		O
14. Inspect gear forks for damage .....		O
15. Inspect oleo struts for fluid leaks and scoring .....		O
16. Inspect gear struts and mounting bolts for condition and security. (See Note 23.) .....		O
17. Inspect torque links for cracks, bolts for condition and security. Check assembly for excessive side play. (See Note 24.) .....		O
18. Inspect wheel fairings and attachments .....		O
19. Inspect hydraulic lines, electrical leads, and attaching parts for condition and security (i.e. - routing, chafing, damage, wear, etc.) .....		O
20. Lubricate per Lubrication Chart, Section II .....	O	O
21. Install wheel fairings .....		O
22. Remove airplane from jacks .....		O

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

**TABLE III-I - INSPECTION REPORT - PA-28-151/161 (cont.)**

NATURE OF INSPECTION	Inspection Interval (Hrs)	
	50	100
<b>G. SPECIAL INSPECTIONS</b>		
See Special Inspections, Requirements, below.		
<b>H. OPERATIONAL INSPECTION</b>		
<u>NOTE:</u> Refer to Note 25 prior to starting engine or taxiing airplane.		
1. Check fuel pump and fuel tank selector .....	O	O
2. Check fuel quantity and pressure .....	O	O
3. Check oil pressure and temperature .....	O	O
4. Check alternator output .....	O	O
5. Check carburetor heat .....	O	O
6. Check parking brake .....	O	O
7. Check vacuum gauge .....	O	O
8. Check auxiliary vacuum pump system operation (See Note 26.) .....	O	O
9. Check gyros for noise and roughness .....	O	O
10. Check cabin heater operation .....	O	O
11. Check magneto switch operation .....	O	O
12. Check magneto RPM variation .....	O	O
13. Check throttle and mixture operation .....	O	O
14. Check propeller smoothness .....	O	O
15. Check engine idle speed .....	O	O
16. Check electronic equipment operation .....	O	O
17. Check operation of autopilot, including automatic pitch trim, and manual electric trim. (See Note 27.) .....	O	O
18. If installed, check air conditioner compressor clutch operation .....	O	O
19. If installed, check air conditioner condenser scoop operation .....	O	O
<b>I. GENERAL</b>		
1. Aircraft conforms to FAA Specifications .....	O	O
2. Latest revision of applicable FAA Airworthiness Directives complied with .....	O	O
3. Current and correct Pilot's Operating Handbook or Airplane Flight Manual is in the airplane .....	O	O
4. Appropriate entries made in the Aircraft and Engine Log books .....	O	O
5. Registration Certificate is in the aircraft and properly displayed .....	O	O
6. Aircraft Equipment List, Weight and Balance and FAA Form(s) 337 (if applicable) are in the aircraft and in proper order .....	O	O
7. Operational inspection and run-up completed .....	O	O
8. Aircraft cleaned and lubricated after wash (as required) .....	O	O

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

TABLE III-I - INSPECTION REPORT - PA-28-151/161 (cont.)

## J. NOTES

1. Refer to Piper's Customer Service Information File P/N 1753-755 for latest revision dates to Piper Inspection Reports/Manuals and this service manual. References to Paragraph or Section are to the appropriate Paragraph or Section in this manual.

**WARNING: INSTRUCTIONS FOR CONTINUED AIRWORTHINESS (ICA) FOR ALL NON-PIPER APPROVED STC INSTALLATIONS ARE NOT INCLUDED IN THIS MANUAL. WHEN A NON-PIPER APPROVED STC INSTALLATION IS INCORPORATED ON THE AIRPLANE, THOSE PORTIONS OF THE AIRPLANE AFFECTED BY THE INSTALLATION MUST BE INSPECTED IN ACCORDANCE WITH THE ICA PUBLISHED BY THE OWNER OF THE STC. SINCE NON-PIPER APPROVED STC INSTALLATIONS MAY CHANGE SYSTEMS INTERFACE, OPERATING CHARACTERISTICS AND COMPONENT LOADS OR STRESSES ON ADJACENT STRUCTURES, THE PIPER PROVIDED ICA MAY NOT BE VALID FOR AIRPLANES SO MODIFIED.**

2. Inspections or operations are to be performed as indicated by a "O" at the 50 or 100 hour inspection interval. Inspections or operations (i.e. – component overhauls/replacements, etc.) required outside the 100 hour cycle are listed as special inspections in Section III. Inspections must be accomplished by persons authorized by the FAA.
  - (a) The 50 hour inspection accomplishes preventive maintenance, lubrication and servicing as well as inspecting of critical components.
  - (b) The 100 hour inspection is a complete inspection of the airplane, identical to an annual inspection.

**NOTE: A log book entry should be made upon completion of any inspections.**

3. Piper Service Bulletins are of special importance and Piper considers compliance mandatory. In all cases, see Service Bulletin/Service Letter Index P/N 762-332 to verify latest revision. See also Table III-II.
4. Piper Service Letters are product improvements and service hints pertaining to servicing the airplane and should be given careful attention.
5. Inspections given for the power plant are based on the engine manufacturer's operator's manual (Lycoming P/N 60297-16) for these airplanes. Any changes issued to the engine manufacturer's operator's manual after this date shall supersede or supplement the inspections outlined in this report. Should fuel other than the specified octane rating for the power plant be used, refer to the latest revision of Lycoming Service Letter No. L185 for additional information and recommended service procedures.
6. Inspect teflon bushings and pins attaching top and bottom engine cowlings at nose for condition and security. Replace as required.
7. Refer to latest revision of Lycoming Service Bulletin No. 480 and Service Instruction 1014.



# PIPER CHEROKEE WARRIOR SERVICE MANUAL

TABLE III-I - INSPECTION REPORT - PA-28-151/161 (cont.)

## J. NOTES (CONT.)

8. Check cylinders for evidence of excessive heat, which is indicated by burned paint on the cylinders. This condition is indicative of internal damage to the cylinder and, if found, its cause must be determined and corrected before the aircraft is returned to service.

Heavy discoloration and appearance of seepage at the cylinder head and barrel attachment area is usually due to emission of thread lubricant used during assembly of the barrel at the factory, or by slight gas leakage which stops after the cylinder has been in service for awhile. This condition is neither harmful nor detrimental to engine performance and operation. If it can be proven that leakage exceeded these conditions, the cylinder should be replaced.

9. Inspect magnetos:
- (a) **For airplanes equipped with Slick Magnetos:** inspect magneto(s) per the appropriate 100 Hour Inspection in the Slick F1100 Master Service Manual, available from Unison Industries, PH: (904) 739-4000, or <http://www.unisonindustries.com/>.
  - (b) **For airplanes equipped with TCM/Bendix Magnetos:** inspect magneto(s) per the procedures in the Periodic Maintenance section of the applicable Service Support Manual, available from Teledyne Continental Motors, Inc., PH: (800) 718-3411, or <http://www.tcmlink.com/>.
10. Check carburetor throttle body attaching screws for tightness; the correct torque for these screws is 40 to 50 inch-pounds.
11. **For airplanes equipped with Parker Hannifin / Airborne vacuum pump(s)**, verify compliance with Parker Hannifin / Airborne Service Letter No. 72.
12. **For airplanes equipped with Aero Accessories Inc., Tempest Dry Air Pumps only, for pumps which have accumulated 500 hours time-in-service or more**, inspect vacuum pump vane wear per Vacuum Pump Vane Wear Inspection (see Special Inspections, Procedures).
13. During inspection of throttle, determine if there is internal cable ballooning. If so, replace the affected cables.

**CAUTION: ENVIRONMENTAL REGULATIONS MAY REQUIRE SPECIAL EQUIPMENT AND PROCEDURES BE USED WHEN CHARGING AIR CONDITIONING SYSTEMS.**

14. The compressor oil level should not be checked unless a refrigerant leak has occurred or system pressure has been released, requiring an addition of refrigerant to the system.
15. Refer to Section XIV (Paragraphs 14-28 through 14-32) for condenser assembly rigging and adjustment.
16. Clean any traces of oil from the clutch surface.
17. Examine cables for broken strands by wiping them with a cloth for their entire length. Visually inspect the cable thoroughly for damage not detected by the cloth. Replace any damaged or frayed cables.
- (a) See Special Inspections, Procedures, Control Cable Inspection, Section V, paragraph 5-4, or the latest edition of FAA AC 43.13-1.
  - (b) At fifteen (15) years time-in-service, begin Cable Fittings 100 Hour Special Inspection. See Special Inspections, Procedures, Control Cable Inspection, Section V, paragraph 5-4.



# PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

**TABLE III-I - INSPECTION REPORT - PA-28-151/161 (cont.)**

## **J. NOTES (CONT.)**

18. If not accomplished already, create access panels for inspection (refer to Sec. IV, Para. 4-56). Inspect stabilator control cables.
19. Not used.
20. Sloshing of fuel tanks not approved. For airplanes with fuel tanks which have previously been sloshed, perform Sloshed Fuel Tank 100 Hour Inspection in Section IX.
21. PA-28-161, Warrior II airplanes, S/N's 28-7716001 thru 28-8416095, may have bungee-type nose wheel steering unless kit 764-975 has been installed. Those airplanes that have kit 764-975 installed will have pushrod type nosewheel steering.
22. In PA-28-161 S/N's 28-7716001 thru 2816119, if nose gear centering springs are not installed, see Section VII, paragraph 7-11.
23. In PA-28-151 S/N's 28-7415001 thru 28-7715314 and PA-28-161 S/N's 28-7716001 thru 28-7816110; for airplanes which are not equipped with forged main landing gear strut cylinders P/N 65489-002 on both left and right sides, perform Cast Main Landing Gear Strut Cylinder 100 Hour Inspection (see Special Inspections, Procedures).
24. In PA-28-151 S/N's 28-7415001 thru 28-7715314 and PA-28-161 S/N's 28-7716001 thru 28-7816253; for those airplanes which have not installed Piper Kit No. 760-910 or a new greaser bolt P/N 79543-002 and have accumulated 500 hours time-in-service: perform Main Landing Gear Torque Link Greaser Bolt Inspection (see Special Inspections, Procedures).
25. Refer to Section 4 of the Flight Manual/Pilot's Operating Handbook for preflight and flight check list.
26. Refer to operational check procedure in Section X, paragraph 10-18.
27. Refer to Flight Manual/Pilot's Operating Handbook Supplement for preflight and flight check and for intended function in all modes.

**THIS PAGE INTENTIONALLY BLANK**

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

## 8. Special Inspections

**WARNING: FAILURE TO CONSULT APPLICABLE VENDOR PUBLICATION(S), WHEN SERVICING OR INSPECTING VENDOR EQUIPMENT INSTALLED IN PIPER AIRCRAFT, MAY RENDER THE AIRCRAFT UNAIRWORTHY. (SEE INTRODUCTION - SUPPLEMENTARY PUBLICATIONS.)**

### A. Requirements

The following inspections are required in addition to those listed in Table III-I. These inspections are required at intervals of:

- Flight hours;
- Calendar Year; or
- the specific operation being conducted or the environment being operated in.

Unless otherwise indicated, these inspections are to be repeated at each occurrence of the specified interval. Note that the items listed herein are guidelines based on past operating experience. Each operator should closely monitor his own unique operating conditions/environment and react accordingly to keep his aircraft airworthy.

**NOTE:** A log book entry should be made upon completion of any inspections.

#### (1) Per Flight Hour

##### (a) **Each 10 Hours**

- In S/N's 28-7415001 thru 28-7515228, for airplanes which have not installed Piper Kit No. 760-847V, inspect the aileron-centering cable installation per Aileron-Centering Cable Inspection under Procedures, below.

##### (b) **Each 200 Hours**

- For airplanes with wing flap(s) which have accumulated ten (10) years time-in-service, conduct the following special inspection each 200 hours: Inspect the interior of the wing flap for evidence of dissimilar metal corrosion where aluminum sheet metal is in contact with steel flap brackets. Use a bore scope or other suitable tool. Installation of a new wing flap will relieve this inspection requirement until such time as the replacement wing flap reaches ten (10) years time-in-service.

##### (c) **Each 400 Hours**

- At every 400 hours of engine operation, remove the rocker box covers and check for freedom of valve rockers when valves are closed. Look for evidence of abnormal wear or broken parts in the area of the valve tips, valve keepers, springs, and spring seats. If any indications are found, the cylinder and all of its components must be removed (including the piston and connecting rod assembly) and inspected for further damage. Replace any parts that do not conform with limits shown in the latest revision for Lycoming Service Table of Limits SSP 1776.

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

### (d) Each 500 Hours

- 1 Lubricate per Lubrication Charts, Section II.
- 2 If installed, the auxiliary vacuum pump/motor assembly must be removed from service and replaced at 500 hours operating time as indicated on the elapsed time indicator, or at 10 years of installed time in the aircraft, whichever comes first.
- 3 Remove and flush oil radiator.
- 4 If installed, replace the vacuum system inlet air filter (i.e., central air filter, gyro filter, etc.) element each 500 hours time-in-service, annually, and at vacuum pump replacement, whichever comes first.
- 5 Clean and lubricate stabilator trim drum screw.
- 6 For airplanes equipped with Slick Magnetos: inspect and clean magneto(s) per the appropriate 500 Hour Inspection in the Slick F1100 Master Service Manual, available from Unison Industries, PH: (904) 739-4000, or <http://www.unisonindustries.com/>.
- 7 For airplanes equipped with TCM/Bendix Magnetos: inspect and clean magneto(s) per the procedures in the Periodic Maintenance section of the applicable Service Support Manual, available from Teledyne Continental Motors, Inc., PH: (800) 718-3411, or <http://www.tcmlink.com/>.
- 8 [In PA-28-151 S/N's 28-7415001 thru 28-7715314 and PA-28-161 S/N's 28-7716001 thru 28-7816253; for those airplanes which have installed either Piper Kit No. 760-910V or main landing gear torque link greaser bolt P/N 79543-002, each 500 hours time-in-service, perform Main Landing Gear Torque Link Greaser Bolt Inspection \(see Special Inspections, Procedures\).](#)

### (e) Each 1000 Hours

- 1 Replace engine compartment flexible hoses (fuel, oil, etc.) as required; but not to exceed 1000 hours time-in-service, eight (8) years, or engine overhaul, whichever comes first; except for TSO-C53a - Type D hoses which are replaced on condition.
- 2 Muffler replacement is recommended at or near 1000 hours time-in-service.

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

(f) **Each 1600 Hours**

- 1 For airplanes in Usage Class “B” (i.e. - severe usage), which have accumulated 3700 hours total time-in-service or 3700 hours factored time-in-service; conduct Wing Spar Inspection (see Special Inspections, Procedures).

NOTE: Instructions for determining “Usage Class” are included in the Wing Spar Inspection, (see Special Inspections, Procedures).

- 2 For airplanes in Usage Class “C” (i.e. - extreme usage); conduct Wing Spar Inspection (see Special Inspections, Procedures).

NOTE: Instructions for determining “Usage Class” are included in the Wing Spar Inspection, (see Special Inspections, Procedures).

(g) **Each 2000 Hours**

- 1 Each 2000 hours or seven (7) years, whichever occurs first, remove interior panels and headliner and conduct detailed inspection of aircraft structure (skin, bulkheads, stringers, etc.) for condition and security. Inspection of structure concealed by headliner may be accomplished by alternate means (i.e. - through the use of a borescope) without removing the headliner, providing access is obtained to all concealed areas and borescope provides sufficient detail to adequately accomplish the inspection.

- 2 Recommended Time-Between-Overhaul (TBO) / Reconditioning of **Sensenich Fixed-Pitch Metal Propellers** is 2000 hours, if propeller does not receive damage requiring immediate attention. Airplanes in flight school operations or operating from unpaved or poorly maintained runways may expose the propeller to increased foreign object damage which will require a shorter interval between overhauls. Reconditioning is removal of fatigued surface metal and accumulated small nicks too numerous to repair individually. Contact a Sensenich factory approved repair station. (Refer to latest revision of Sensenich Service Bulletin No. R17.)

- 3 Overhaul **McCauley Fixed Pitch propellers** each 2000 hours or 72 calendar months which ever occurs first. See latest revision of McCauley Service Bulletin No. 137.)

(h) **Each 6000 Hours**

- For airplanes in Usage Class “A” (i.e. - normal usage), which have accumulated 62,900 hours total time-in-service; conduct Wing Spar Inspection (see Special Inspections, Procedures).

NOTE: Instructions for determining “Usage Class” are included in the Wing Spar Inspection, (see Special Inspections, Procedures).

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

### (2) Per Calendar Year

#### (a) Each Thirty (30) Days

- 1 Inspect battery, box or shelf, and cables. Flush box as required and fill battery per instructions on box and in Electrical System, Section XI.
- 2 If installed, check portable fire extinguisher for condition and charge. Verify nozzle is unobstructed and safety seal is intact. Determine charge by “hefting” extinguisher.

#### (b) Each Ninety (90) Days

- Remove and clean fuel filter bowl and screen, at lower left side of firewall. Refer to Fuel System, Section IX.

#### (c) Each Four (4) Months

- Change the engine oil and full-flow cartridge-type oil filter each four (4) months or every 50 hours time-in-service, whichever comes first.

#### (d) Each Twelve (12) Months

- 1 Inspect [McCauley Fixed-Pitch Propellers](#) propeller mounting bolt torque at least once per year. Propeller mounting bolts must be magnetic particle inspected per ASTM E-1444 or liquid penetrant inspected per ASTM E-1417 or replaced at every overhaul. See latest revision of McCauley Service Bulletin No. 137.
- 2 If installed, replace the vacuum system inlet air filter (i.e., central air filter, gyro filter, etc.) element each 500 hours time-in-service, annually, and at vacuum pump replacement, whichever comes first.

#### (e) Each Two (2) Years

- 1 Test and inspect the static pressure system and altimeters. Ensure compliance with the requirements of FAR 43, Appendix E. (See FAR 91.411.)
- 2 Test and inspect the transponder. Ensure compliance with the requirements of FAR 43, Appendix F. (See FAR 91.413.)

#### (f) Each Four (4) Years

- For airplanes equipped with [TCM/Bendix Magnetos](#): overhaul or replace TCM/Bendix magnetos at engine overhaul, or each four (4) years time-in-service, whichever comes first.

#### (g) Each Six (6) Years

- 1 Overhaul [McCauley Fixed Pitch propellers](#) each 2000 hours or 72 calendar months which ever occurs first. See latest revision of McCauley Service Bulletin No. 137.
- 2 For airplanes equipped with Aero Accessories, Inc. vacuum pump(s), replace the shear coupling each six (6) years time-in-service.

(h) **Each Seven (7) Years**

- 1 Each 2000 hours or seven (7) years, whichever occurs first, remove interior panels and headliner and conduct detailed inspection of aircraft structure (skin, bulkheads, stringers, etc.) for condition and security. Inspection of structure concealed by headliner may be accomplished by alternate means (i.e. - through the use of a borescope) without removing the headliner, providing access is obtained to all concealed areas and borescope provides sufficient detail to adequately accomplish the inspection.
- 2 Each seven (7) years time-in-service, drain and remove the inboard metal fuel tank from each wing and inspect for corrosion as specified in Special Inspections, Procedures, Fuel Tank/Wing Spar Corrosion Inspection, below.
- 3 Replace fuel tank flexible hose interconnect couplings and fuel tank vent line flexible hose and hose couplings as required; but not to exceed seven (7) years or fuel tank removal, whichever comes first.

(i) **Each Eight (8) Years**

- Replace engine compartment flexible hoses (fuel, oil, etc.) as required; but not to exceed 1000 hours time-in-service, eight (8) years, or engine overhaul, whichever comes first; except for TSO-C53a - Type D hoses which are replaced on condition.

(j) **Each Ten (10) Years**

- Each ten (10) years time-in-service, test fuselage and wing fluid hoses to system pressure. Visually inspect for leaks. Hoses that pass inspection may remain in service, but must be rechecked each five (5) years additional time-in-service. No fluid hose may exceed twenty (20) years total time-in-service.

(k) **Each Twelve (12) Years**

- Hydrostatically test the portable fire extinguisher each twelve (12) years.

(l) **Each Twenty (20) Years**

- No fluid hose may exceed 20 years total time-in-service.

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

(3) Per Specific Operation / Operating Environment

(a) **Operation in High Dust or Industrial Pollution Environment**

**CAUTION: DISCONNECT LINES FROM PITOT/STATIC SYSTEM BEFORE CONDUCTING THIS INSPECTION.**

Item	Inspection	Inspection Interval
<input type="checkbox"/> Engine Air Filter.	Clean and inspect.	Daily.
<input type="checkbox"/> Cabin Environmental and Instrument Air Filters.	Inspect and replace if necessary.	100 Hours.
<input type="checkbox"/> Pitot/Static system.	Check for obstruction. Reverse flow to lines.	100 Hours or as required.
<input type="checkbox"/> Landing Gear Oleos	Clean.	Before each flight.
	Inspect.	100 Hours.
<input type="checkbox"/> Landing Gear Wheel Bearings.	Clean, inspect and repack.	50 Hours.
<input type="checkbox"/> Windows.	Inspect for cracks, erosion, crazing, visibility, and cleanliness.	Daily.
<input type="checkbox"/> Structure drain holes.	Clean with pipe cleaner.	Before each flight.

(b) **Operation in High Salt or High Humidity Environment**

Item	Inspection	Inspection Interval
<input type="checkbox"/> Fuselage, Empennage, Wings, and Control Surfaces.	Remove floor panels and exterior access plates; inspect for corrosion using a borescope or other suitable tool.	200 Hours.
<input type="checkbox"/> Landing Gear.	Inspect for corrosion and lubrication.	200 Hours.

**WARNING: ENSURE BOTH MAGNETO SWITCHES ARE OFF (GROUNDED), BEFORE TURNING PROPELLER. ENGINE MAY START IF BOTH SWITCHES ARE NOT OFF. USE EXTREME CAUTION WHEN ROTATING PROPELLER BY HAND; PROPELLER MAY KICK BACK.**

<input type="checkbox"/> Engines with more than 50 hours total time.	Each five days, pull prop through five complete revolutions. Each 30 days, fly aircraft for 30 minutes or, ground run until oil temperature is in the green arc. Avoid excessive ground run.	Each 5 days and each 30 days.
<input type="checkbox"/> Engines with less than 50 hours total time.	Each day, pull prop through five complete revolutions. Each 30 days, fly aircraft for 30 minutes or, ground run until oil temperature is in the green arc. Avoid excessive ground run.	Daily and each 30 days.



## PIPER CHEROKEE WARRIOR SERVICE MANUAL

### (b) Operation in High Salt or High Humidity Environment (continued)

Item	Inspection	Inspection Interval
<input type="checkbox"/> Instruments and Wiring.	Inspect for proper seal of cases and corrosion.	100 Hours.
<input type="checkbox"/> Interior.	Inspect upholstery, seat belts, seats and rugs for corrosion and integrity.	100 Hours.

**NOTE:** Do not use metallic tie downs (i.e. - chains, cables, etc.) in high salt or high humidity environments.

### (c) Operation in Extreme Cold

Item	Inspection	Inspection Interval
<input type="checkbox"/> Hydraulic, Pneumatic and Environmental.	Check all fittings and attachments for security and leaks.	First 100 Hour, then as required.

### (d) Operation from Soft or Unusual Terrain

Item	Inspection	Inspection Interval
<input type="checkbox"/> Landing Gear.	Inspect for cracks, attachment, damage, cleanliness and lubrication.	100 Hours.
<input type="checkbox"/> Wheels.	Inspect for cracks, damage, chipped rims; bearings for damage, corrosion and lubrication.	100 Hours.
<input type="checkbox"/> Tires.	Inspect for cuts, wear, inflation and deterioration.	Daily.
<input type="checkbox"/> Wheel Wells.	Inspect for foreign material, damage and corrosion.	100 Hours.
<input type="checkbox"/> Brakes.	Inspect for damage, foreign material, cracks and overheating.	Daily.
<input type="checkbox"/> Flaps, Lower Fuselage and Wing.	Inspect for damage, cracks and corrosion.	100 Hours.

**THIS PAGE INTENTIONALLY BLANK**

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

## B. Procedures

### (1) ENGINE MOUNT CORROSION INSPECTION, IMMERSION IN WATER

The following guidance is general in nature and should be applied or varied to fit the individual situation based on water level during immersion, length of time immersed, length of time since exposure, etc. Proceed as follows:

#### (a) Inspection

- 1 Level the aircraft in accordance with Section II in this service manual.
- 2 In two of the larger, lower, engine mount tubes, drill a 3/16 inch hole in the bottom of each tube, at the approximate mid-point.
- 3 Visually inspect the interior surface of each tube through the 3/16 inch hole for evidence of internal corrosion. Pay particular attention to the lower end of each tube as this is where corrosion is most likely to appear first.
- 4 Should evidence of corrosion be detected in step (3), above, replace the engine mount. If no corrosion is detected, proceed with Corrosion Prevention, below.

#### (b) Corrosion Prevention

If no evidence of corrosion is detected in step (3), above, proceed as follows:

- 1 Place a drip pan below the inspection holes in each engine mount tube.
- 2 Insert a plastic tube thru each inspection hole and feed it up to the high point of the engine mount tube.
- 3 Using a syringe inserted into the end of the plastic tube, pump linseed oil into the upper end of the engine mount tube while rotating the syringe / plastic tube assembly to assure maximum coverage. Continue pumping until the lower end of the engine mount tube is filled with linseed oil to the level of the inspection hole.
- 4 Now, draw the plastic tube out of the upper end of the engine mount tube and reinsert it in the opposite direction, feeding it to the lower end of the engine mount tube.
- 5 Suck excess linseed oil out of the engine mount tube with the syringe / plastic tube assembly.
- 6 When linseed oil can no longer be picked up by the syringe / plastic tube assembly, remove it and allow the engine mount tube to drain into drip pans for approximately two hours.
- 7 Purge excess oil from tubes by applying air pressure to each 3/16 inch inspection hole, one at a time.
- 8 Ensure that roughly the same amount of linseed oil that was pumped in is retrieved in the drip pans.
- 9 Apply a liberal coating of an approved fuel tank sealant (see Consumable Materials, Section II) to each inspection hole and seal the hole with an appropriate blind rivet. After installing the rivet, apply a liberal coating of the approved fuel tank sealant over the head of the rivet.

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

## (2) WING SPAR INSPECTION.

**WARNING: FAILURE TO FULLY COMPLY WITH THIS INSPECTION COULD SERIOUSLY AFFECT THE STRUCTURAL INTEGRITY; SAFETY AND AIRWORTHINESS OF THE AIRCRAFT.**

### (a) Background

On March 30, 1987, a PA-28 engaged in pipeline patrol operations suffered an inflight wing separation resulting in a fatal accident. Investigation revealed the wing failure was due to propagation of a fatigue crack, which originated in the wing lower main spar cap.

Based on more than five hundred (500) inspections of PA-28 and PA-32 airplanes with more than 5000 hours total time-in-service, and extensive wing fatigue and fracture analysis by Piper, the following inspection requirements have been developed.

**NOTE:** In the course of the inspections cited above, only two (2) negative findings were reported on a pair of PA-32's operating in a severe environment and with considerable damage histories. Piper understands that the majority of aircraft are, have been, and will continue to be operated well within the aircraft's design parameters during all of their operational life. **HOWEVER**, Piper also realizes that some small number of aircraft engage in operations which are defined herein as "severe" or "extreme" and those airplanes will require more frequent wing removal and inspection.

### (b) Procedure

First, determine the airplane's "usage class"; second, determine the recurring inspection intervals; and, third, when required, accomplishing the wing spar inspection.

#### 1 Determining Usage Class

**NOTE:** Airplane operating history and usage class are established during initial compliance with Piper Service Bulletin No. 886, check the logbook entry.

Complete documentation and/or knowledge of the airplane's entire operating history is required in order to make a valid determination of "Usage Class" and inspection intervals.

##### a Usage Class "A" - Normal

All aircraft which do not and have nor engaged in operations considered as "Severe," "Extreme," or "Unknown" in the Usage Classes described below. Most aircraft will fall into this "Usage Class." Normal flight training operations fall into this class as well.

**NOTE:** If there is any doubt as to the airplane's operating history, it is recommended that the initial inspection be conducted in accordance with the "Next 50 Hours" inspection requirement, below.

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

**b Usage Class “B” - Severe**

Aircraft which have engaged in severe usage, involving contour or terrain following operations, (such as power/pipeline patrol, fish/game spotting, aerial application, aerial-advertising, police patrol, livestock management or other activities) where a significant part of the total flight time has been spent below one-thousand (1000) feet AGL altitude.

**NOTE:** Aircraft with part of total time-in-service in Usage Class “B” operations and part in Usage Class “A”, may adjust inspection intervals by a “Factored Service Hours” calculation. See “Factored Service Hours,” below.

**c Usage Class “C” - Extreme**

Aircraft which have been damaged due to operations from extremely rough runways, flight in extreme damaging turbulence or other accident/incident which required major repair or replacement of wing(s), landing gear or engine mount.

**d Usage Class “D” - Unknown**

Aircraft and/or wings of unknown or undetermined operational or maintenance history.

**e Factored Service Time**

**NOTE:** This formula applies only to airplanes in Usage Class “B” - Severe. It may be used to calculate the initial and repetitive inspection times in factored hours, provided a portion of the airplane’s operating time-in-service has been in Usage Class “A” - Normal.

Determine Factored Service Time as follows:

<b>Example (PA-28-161)</b>	Hours in Severe Service +	Hours in <u>Normal Service</u> 17	= Factored Service Hours
(1)	800 +	<u>4000</u> 17	= 1035
(2)	1000 +	<u>14000</u> 17	= 1823

**Results**

- (1) Initial inspection not required at this time. Will require initial inspection when Total Factored Service Hours reach 1800.
- (2) Initial inspection required within the next 50 hours time-in-service.

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

- 2 Inspection Requirements.
- a Next 50 Hours:
- For airplanes in “Usage Class D” (i.e. - unknown usage), conduct Wing Spar Inspection and establish usage class for next inspection based on current aircraft operations.
- b Each 1600 Hours:
- For airplanes in “Usage Class B” (i.e. - severe usage), beginning at 3700 hours total time-in-service, and each 1600 hours thereafter, conduct Wing Spar Inspection.
  - For airplanes in “Usage Class C” (i.e. - extreme usage), conduct Wing Spar Inspection, each 1600 hours time-in-service.
- c Each 6000 Hours:
- For airplanes in “Usage Class A” (i.e. - normal usage), beginning at 62,900 hours total time-in-service, and each 6000 hours thereafter, conduct Wing Spar Inspection.

3 Inspection.

**CAUTION: USE EXTREME CARE IN REMOVING AND REPLACING THE WING MAIN SPAR TO FUSELAGE (I.E. - SPAR CARRYTHROUGH) ATTACHMENT BOLTS (18 PER SIDE) TO PRECLUDE DAMAGING THE BOLT HOLES OR BOLT HOLES. DO NOT DRIVE THE BOLTS IN OR OUT OF THE HOLES. AS THE BOLTS ARE REMOVED, NUMBER EACH BOLT AND HOLE TO ENSURE REPLACEMENT IN THE SAME HOLE. USE PROPER TORQUE VALUES WHEN INSTALLING BOLTS. IF REPLACEMENT OF SOME BOLTS IS REQUIRED, ENSURE PROPER PART NUMBER AND GRIP LENGTH. INSTALLATION OF EIGHTEEN (18) NEW NUTS (SEE BOLT LEGEND, FIGURE 4-2) DURING WING REINSTALLATION IS RECOMMENDED.**

- a Remove both wings in accordance with Wings - Removal, Section IV.
- b Visually inspect, using a 10-power (minimum) magnifying glass and a dye-penetrant method or equivalent, for cracks in the wing lower spar cap from the wing skin line outboard of the outboard row of wing attach bolt holes to an area midway between the second and third row of bolt holes from the outboard row.
- 1) If no cracks are found, prior to further flight, accomplish the actions specified in paragraph (c) below.
  - 2) If any cracks are found, prior to further flight, replace the spar or wing with a new or serviceable unit shown to be free of cracks when subjected to the inspections specified in this paragraph.



## PIPER CHEROKEE WARRIOR SERVICE MANUAL

### (4) STABILATOR ATTACH FITTINGS CORROSION INSPECTION.

At each annual or 100 hour inspection or anytime the stabilator is removed:

- (a) Remove upper and lower tailcone fairing assembly.
- (b) Remove the aft fuselage closeout plate assembly, if so equipped.
- (c) Inspect the steel attach fittings (4 places) for the stabilator and adjacent fuselage structure for rust and/or corrosion. (See Figure 3-1.)
- (d) If rust and/or corrosion is found, repair or replace as required, and add corrosion protection per latest revision of AC43.13-1.
- (e) If so equipped, reinstall aft fuselage closeout plate assembly. (Verify integrity of rubber seals, replace if required).
- (f) Reinstall upper and lower tailcone fairing assembly.

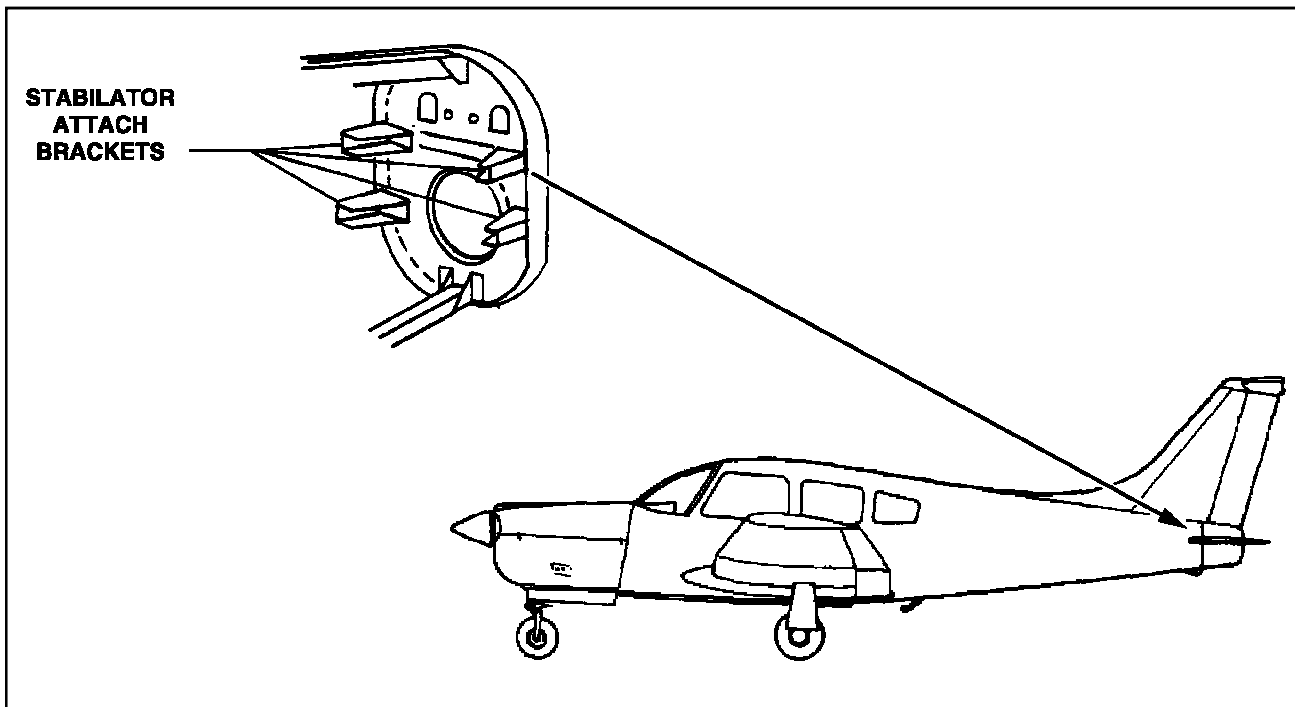


Figure 3-1. Stabilator Attach Fitting Corrosion Inspection



## PIPER CHEROKEE WARRIOR SERVICE MANUAL

### (5) FLAP CONTROL CABLE ATTACHMENT BOLT INSPECTION. (See Figure 3-2.)

Each 100 hours time-in-service, or annually, whichever comes first, inspect the flap control cable attachment bolt as specified below. Should any evidence of wear be detected replace the bolt.

- (a) Remove the royalite flap or flap/trim cover.
- (b) On aircraft having the flap handle only, proceed as follows:
  - 1 Remove flap handle mounting bracket attachment bolts.
  - 2 Raise flap handle and bracket assembly to gain access to the control cable attachment bolt.
- (c) On aircraft having the flap handle and trim wheel mounted together, proceed as follows:
  - 1 Loosen the trim wheel attachment bolt.
  - 2 Remove the trim wheel bracket attachment bolts and remove bracket from top of tunnel.
  - 3 Remove flap handle mounting bracket attachment bolts and raise handle and bracket assembly to gain access to control cable attachment bolt.
- (d) Remove and inspect cable attachment bolt for possible wear. Should wear be detected, replace bolt with new AN23-11 clevis bolt.
- (e) Reinstall all parts that were removed and make appropriate log book entry.

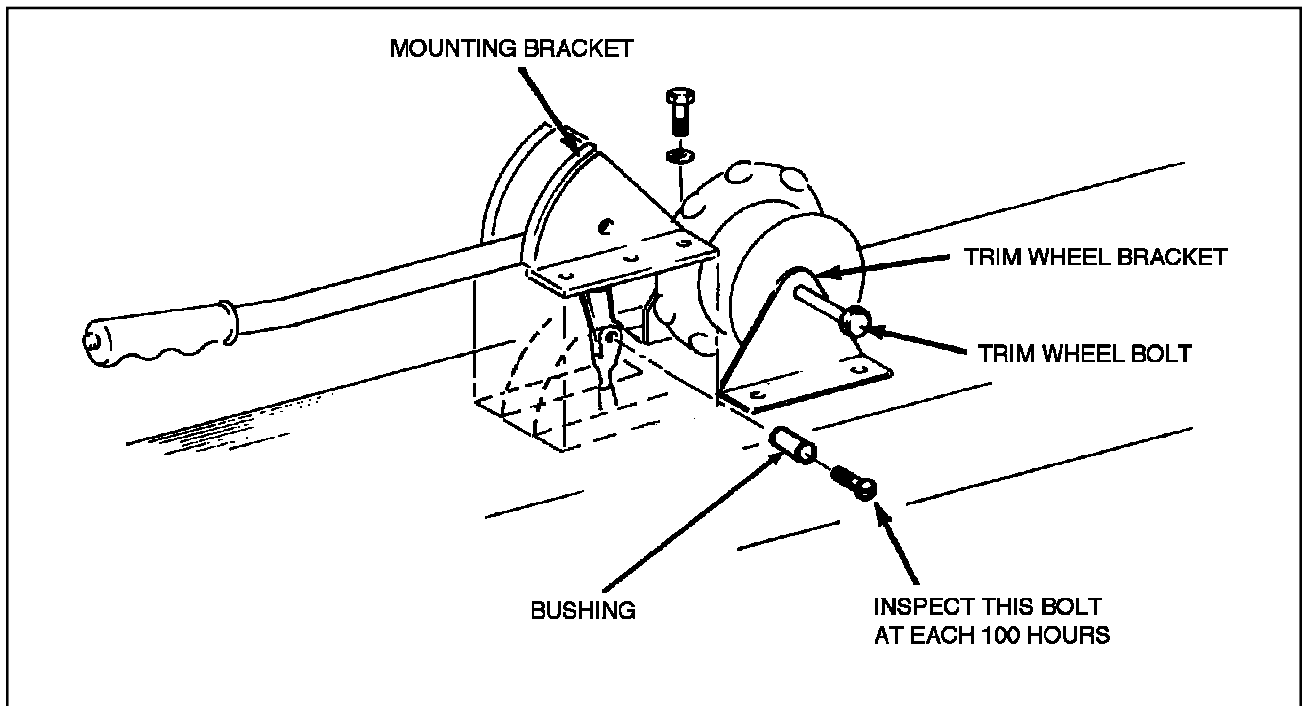


Figure 3-2. Flap Control Cable Attachment Bolt Inspection (Typical)

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

### (6) AFT WING ATTACH FITTINGS 100 HOUR INSPECTION.

#### (a) Background

Should the seals for the windows and doors not be maintained, leaks may develop which, if not corrected, will allow water ingress. This water contamination will wet the insulation around the aft wing attach fittings creating a highly corrosive environment.

#### (b) Inspection Procedure

**NOTE:** The following inspection assumes the airplane has been previously modified with the installation of baggage floor inspection access panels and drain holes in the fuselage bottom. If not, perform Fabrication Procedure, para. 4-79. Baggage Compartment Inspection Hole and Cover Plate, before continuing with the inspection.

Each 100 hours, inspect to determine condition of the aircraft window and door seals, the condition of the aft wing attach fittings, the insulation material around the affected area, and the drain holes in the bottom fuselage skin at the aft attach fittings area.

- 1 Gain access to the left and right aft wing attach fittings. (See Figure 3-3.)
  - a Remove rear seats and the rear floorboard.
  - b Remove interior mouldings and carpet as necessary.
  - c Remove the carpet from the baggage area floor and remove the two access panels in the baggage area floor.
- 2 Inspect thoroughly the left and right aft wing attach fittings for evidence of flaking paint and/or corrosion. (Flaking paint may be a symptom of hidden corrosion.)
  - a If corrosion exists:
    - 1) If corrosion is superficial and there is no metal flaking and/or pitting, clean and paint fittings, using a good quality aircraft primer.
    - 2) If serious corrosion is found, consult the Piper Illustrated Parts Catalog (P/N 761-538) for replacement part numbers and obtain and install new parts before next flight. See removal and installation procedure below.
    - 3) Upon completion of the inspection and after replacement or refurbishment of fittings, treat the aft attach fittings area using DINOL AV 8 corrosion compound (P/N 89500-800). The treatment may be brushed or sprayed.
  - b If no corrosion exists, continue with these instructions.
- 3 Inspect insulation in and around the rear fittings.
  - a If insulation is wet or matted down where it has been wet, it will be necessary to replace this insulation and it will be necessary to inspect all windows, doors, and exterior panels leading to the cabin.
    - 1) Check door seals for deterioration, cracks, and voids in adhesive.
    - 2) Check window seals for voids, cracks, and deterioration.
    - 3) Perform a leak check with water to determine where the water is entering. Cure all leak paths before continuing these instructions.
    - 4) Consult the Piper Illustrated Parts Catalog (P/N 761-538) for replacement part numbers and obtain and install new parts before continued operation.
    - 5) If sealing windows, use P/N 279-058 Sealant (Bostik 1100 FS) or equivalent.

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

- 6) If using insulation other than Piper original material, be sure that the insulation is flame resistant and conforms to FAR part 23.853.
  - b) If the insulation material has not been wet, or if new material is being installed, ensure a six (6) inch clearance in the insulation has been cut out in all directions around each attach fitting.
- 4) Locate the two 0.191 inch drain holes, one beneath each rear attach fitting, in the bottom fuselage skin and ensure each is clean and free of obstruction.

**NOTE:** If there are no drain holes, install them as described in Figure 3-4.
- 5) Re-install floorboards, seats, interior panels, and other articles previously removed. Perform a functional test of any system or component that may have been interrupted or removed.

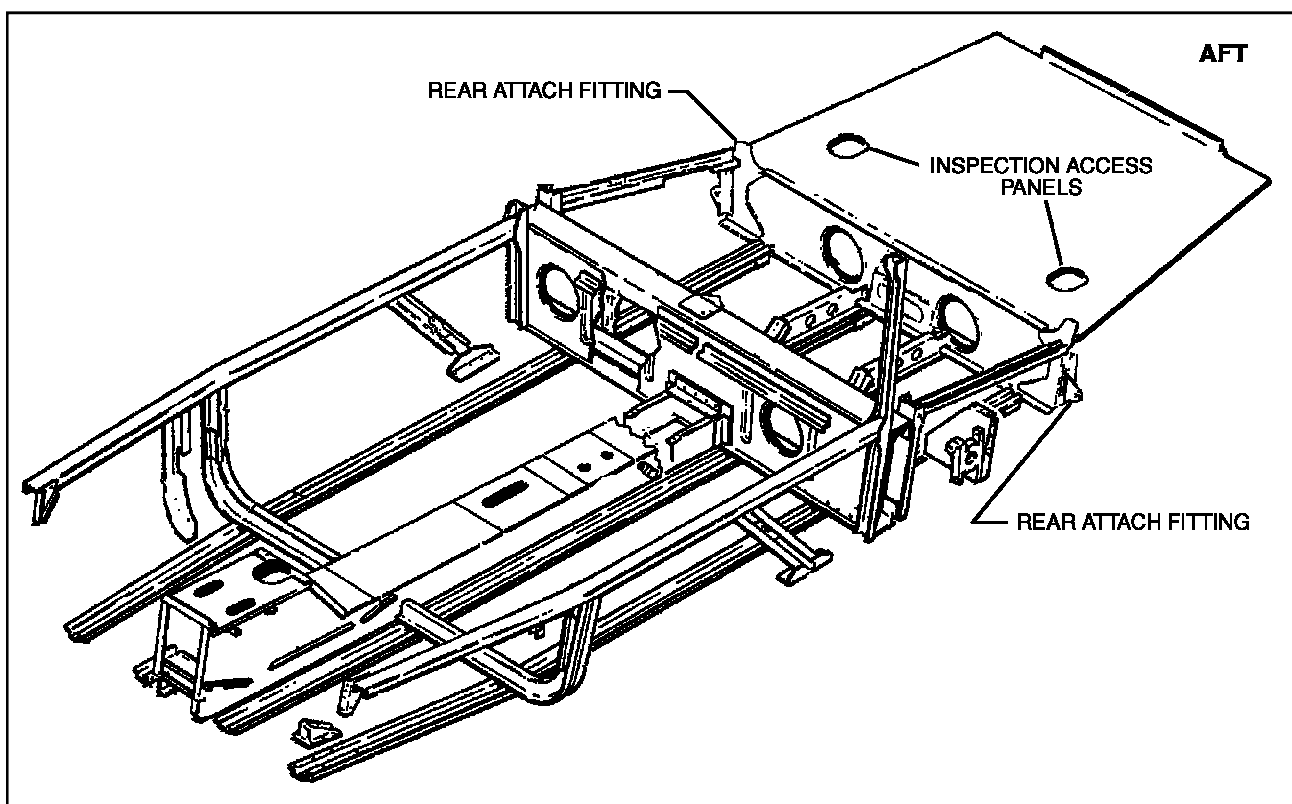


Figure 3-3. Wing Attach Fittings

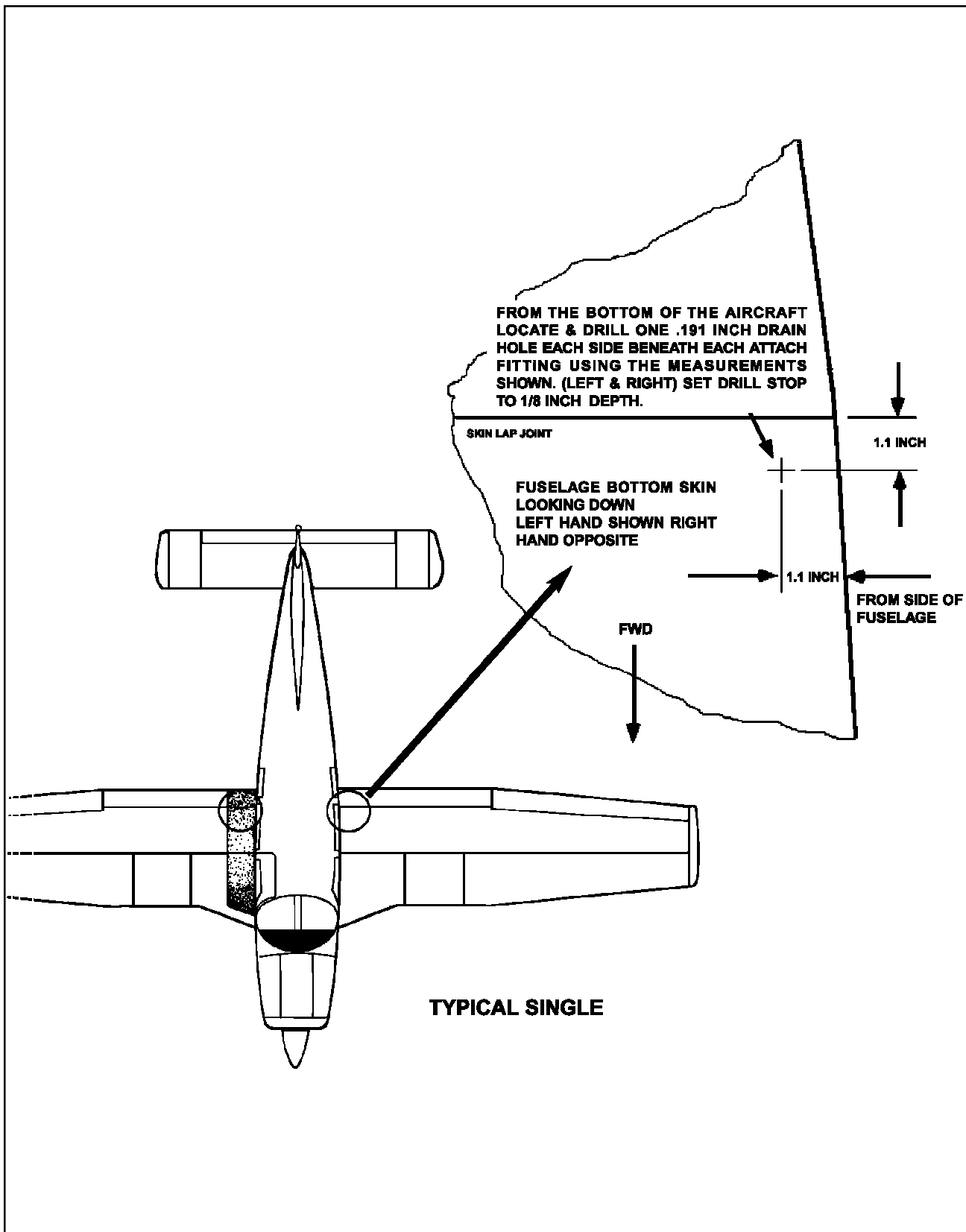


Figure 3-4. Drain Hole Installation

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

(c) Removal and Installation Procedure (if required). (See Figure 3-3.)

**NOTE:** If both fittings are to be changed, remove and replace one fitting at a time.

- 1 Remove electrical power from aircraft by disconnecting the battery.
- 2 Place jacks under wings and tail - tie down to stabilize aircraft.
- 3 Remove seats, removable floorboards and interior panels necessary to gain access to the rear wing attach fittings.
- 4 On L/H side, remove bus bar assembly from spar.
- 5 If necessary, drill off baggage compartment floor and remove from aircraft.
- 6 Remove bolt from wing rear spar and fuselage attach fitting.
- 7 Carefully drill out the rivets that attach the fitting to the spar.
- 8 With all the rivets removed, remove wing attach fitting from the fuselage. Discard fitting.
- 9 Clean and inspect the areas that were under bracket for any signs of corrosion.
- 10 If corrosion is found, repair or replace parts as necessary. Coat the area with primer and allow to dry.
- 11 If no corrosion is found, coat the area with primer. Allow time to dry.
- 12 Install new wing attach fitting and align rivet holes. It may be necessary to ream open the bolt hole to proper size. The hole is close tolerance and should be .3115 / .3135 (5/16) or .3745 / .3765 (3/8) depending on model and year. Replace attach fitting bolt should there be any sign of wear or corrosion.
- 13 Re-rivet wing attach fitting into place with appropriate fasteners.

**NOTE:** For hard to reach areas the existing MS20470AD-5 rivets may be replaced with Hi Lok fasteners. Use HL30-5 with HL-94 Hi Lok collars. Torque to 15 to 25 in.-lbs. Observe standard practices for use of Hi Lok fasteners.
- 14 Install wing spar and fuselage attach fitting bolt per Section IV and Figure 4-2.
- 15 Seal edges of attach fittings with PRC PR1422 (or equivalent) before installing interior.
- 16 Complete same process to the opposite side, if replacing both attach fittings.
- 17 Reinstall baggage door, floorboards, interior panels, and seats. Connect battery and check for operation.

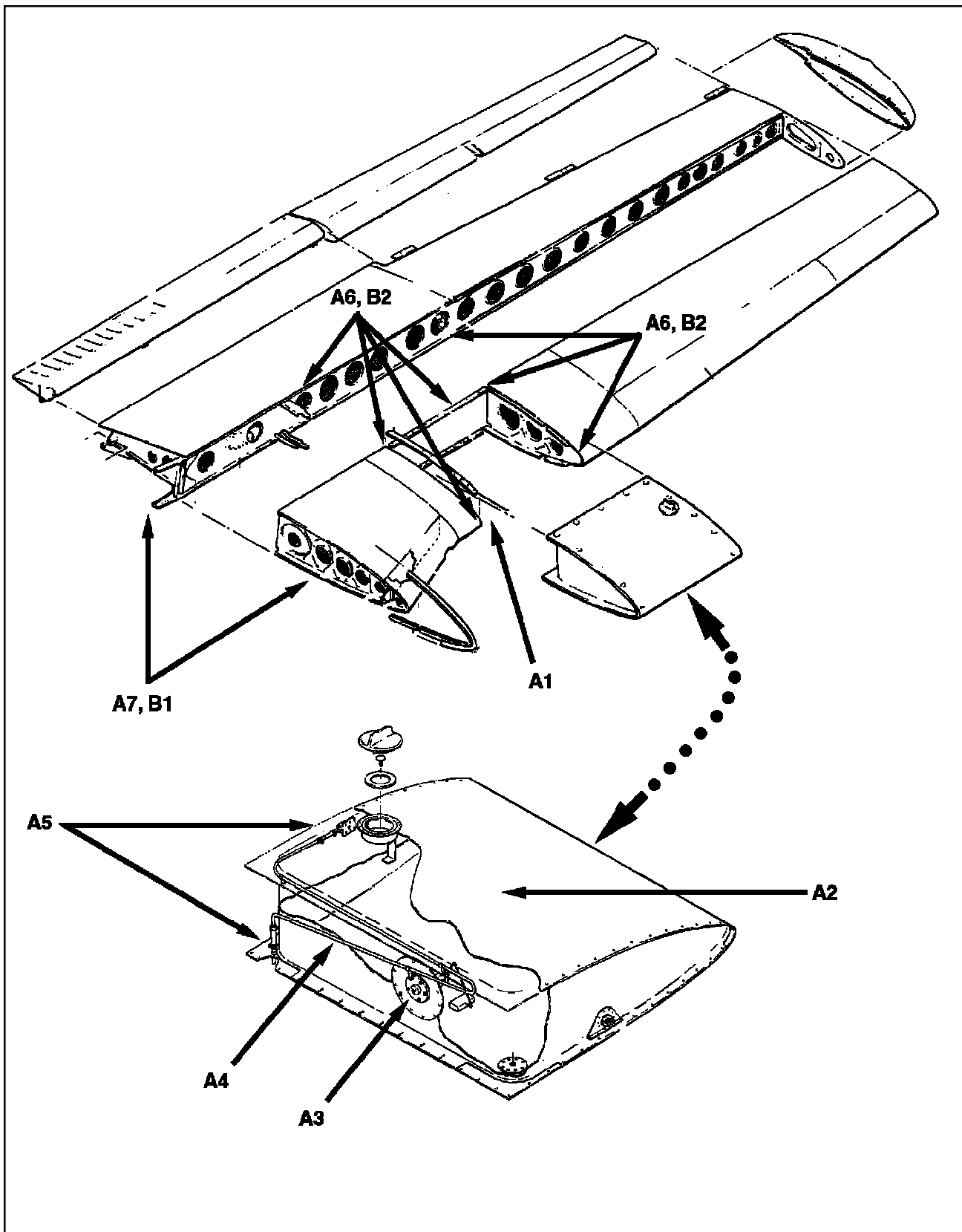


Figure 3-5. Fuel Tank and Wing Spar Corrosion Inspection

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

### (7) FUEL TANK/WING SPAR CORROSION INSPECTION.

Paragraphs (a) and (b) are keyed to Figure 3-5 (i.e. – (a)1 corresponds to A1 in figure).

- (a) Each seven calendar years time-in-service, remove the fuel tanks and conduct inspections as specified below. Each inspection is for corrosion (intergranular, exfoliation, etc.), but while exposed all areas and parts should be checked for other anomalies such as damage, cracking, or wear. Any part or area determined to be defective must be repaired or replaced using standard FAA approved parts and methods.
  - 1 Inspect the fuel tank attach hardware and gang channels (nut plate strips).
  - 2 Inspect the exterior of the fuel tanks for leaks. Inspect the interior for corrosion or sloshing compound. If either condition exists, clean, repair, or replace the fuel tank as required.
  - 3 Remove fuel quantity senders. Inspect for condition, operation, and security and freedom of movement of the float arm. Inspect condition of wires and terminals. Replace components as required. Replace gaskets.
  - 4 Inspect hard fuel vent lines for interior and exterior corrosion, wear, or deposits. Flush and clean with mineral spirits under pressure. If excessive debris, deposits, or corrosion observed, replace the line.
  - 5 Inspect flexible fuel hoses and couplings. Replace as required. Replacement is recommended regardless of serviceability.
  - 6 Inspect the spar, spar angles (cap), and ribs behind and adjacent to the fuel tank. If corrosion is detected, conduct a thorough inspection of the entire wing.
  - 7 Remove the lacing at the wing root and inspect the spar and forward wing attach fittings.
- (b) Treat the following areas with Dinotrol AV 8 before reassembly.
  - 1 Wing spar at root and forward wing attach fittings.
  - 2 Entire wing spar, spar angles (cap), and ribs behind and adjacent to the fuel tank.

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

### (8) CAST MAIN LANDING GEAR STRUT CYLINDER 100 HOUR INSPECTION.

In PA-28-151 S/N's 28-7415001 thru 28-7715314 and PA-28-161 S/N's 28-7716001 thru 2816110, for those airplanes which are not equipped with forged main landing gear strut cylinders P/N 65489-002 on both left and right sides; each 100 hours time-in-service, inspect the cast main landing gear strut cylinders (P/N's 65319-002/-003/-004) as follows:

**NOTE:** Installation of the improved forged main landing gear strut cylinder P/N 65489-002 on both the left and right sides eliminates this repetitive inspection requirement.

- (a) Thoroughly clean the area to be inspected as indicated in Figure 3-6 using a suitable cleaner.
- (b) Using a 10X power magnifying glass, visually inspect the gear cylinder top and bottom radii at the torque link attach lugs for cracks (Figure 3-6). If no cracks are found by visual inspection, proceed to Liquid Penetrant Inspection per latest revision of AC43.13-1 to check for cracks. Strip the paint and primer from the area to be inspected using a commercially available chemical paint stripper taking care only to remove paint and primer from the inspection area.
- (c) If a crack is detected, prior to further flight, replace the "cast" main gear strut cylinder with the "forged" main gear strut cylinder per Section VII.
- (d) If no cracks are detected, thoroughly clean the surfaces and touch-up paint and primer removed during the inspection process.
- (e) Make an appropriate logbook entry indicating completion of this inspection.

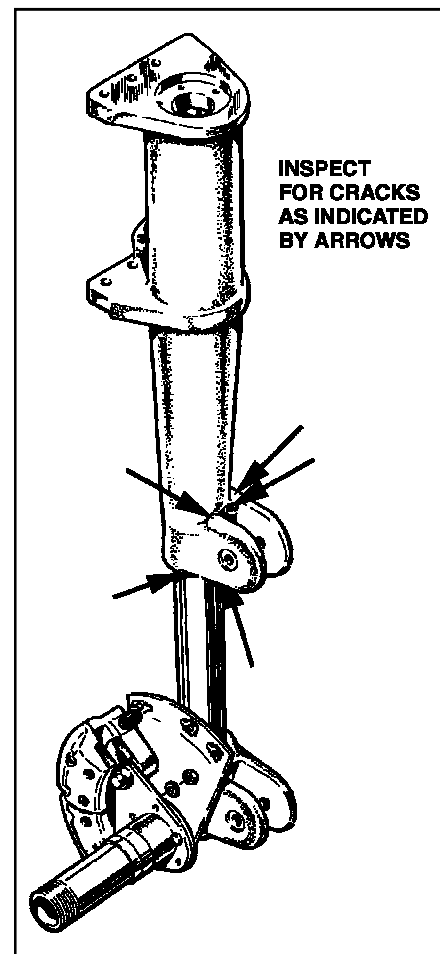


Figure 3-6. Main Gear Strut Cylinder



## PIPER CHEROKEE WARRIOR SERVICE MANUAL

### (9) MAIN LANDING GEAR TORQUE LINK GREASER BOLT INSPECTION

In PA-28-151 S/N's 28-7415001 thru 28-7715314 and PA-28-161 S/N's 28-7716001 thru 28-7816253; inspect the main landing gear torque link greaser bolts as follows:

**NOTE:** The 100 hour inspection requirement can be extended to 500 hours by the installation of Piper Kit No. 760-910V (to replace Sketch "A" bolt) or a new greaser bolt P/N 79543-002 (to replace Sketch "B" bolt) depending on which bolt is being replaced (see Figure 3-7).

- (a) If the aircraft is on jacks, the main gear struts must be deflated (see Section II) and the piston axle assembly supported before proceeding.
- (b) Remove the greaser bolt holding the main landing gear torque links together.
- (c) Thoroughly inspect each bolt using a 10X magnifying glass, or dye check, or magnetic particle inspection for cracks as shown in Sketches "A" and "B", Figure 3-7.
- (d) If any cracks are found, replace the bolt:
  - 1 When replacing bolts shown in Sketch "A," install Piper Kit No. 760-910V.

**NOTE:** For bolts shown in Sketch "A," Piper recommends they be replaced even if no cracks are found.
  - 2 When replacing bolts shown in Sketch "B," replace with P/N 79543-002.
- (e) If the struts were deflated, above, re-inflate the struts per Section II and remove airplane from jacks.
- (f) Make appropriate log book entry documenting performance of this inspection.

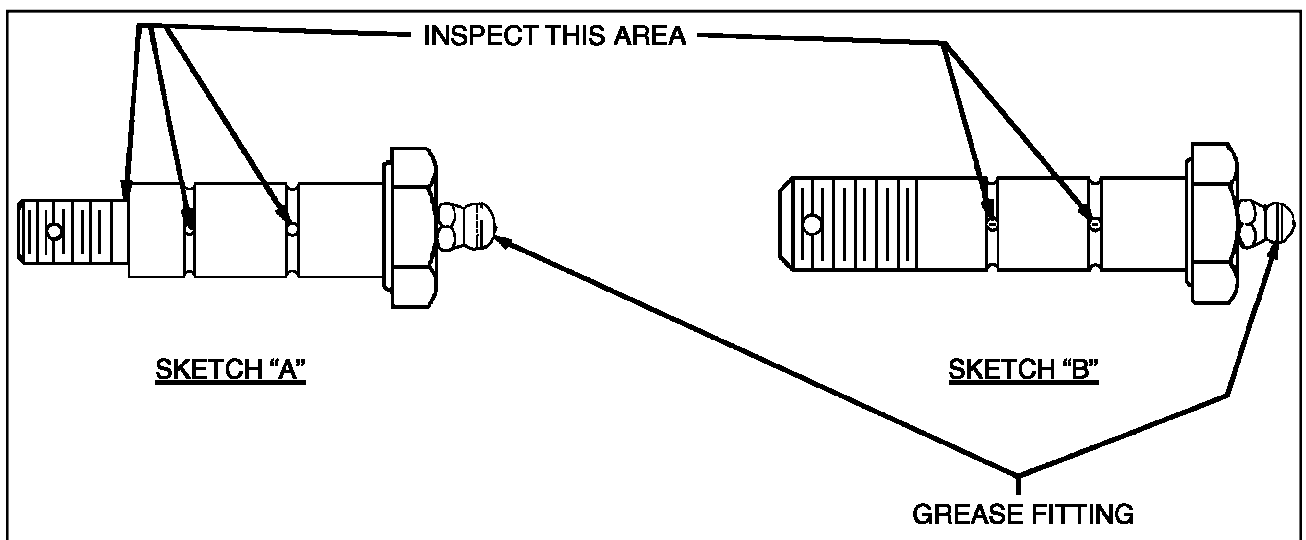


Figure 3-7. Main Landing Gear Torque Link Greaser Bolt Inspection

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

(10) EXHAUST SYSTEM INSPECTION. (Refer to Figure 3-8 thru 3-9.)

**WARNING: A VERY THOROUGH INSPECTION OF THE ENTIRE EXHAUST SYSTEM, INCLUDING EXHAUST HEATER SHROUD ASSEMBLY, MUFFLER AND MUFFLER BAFFLES, STACKS AND ALL EXHAUST CONNECTIONS AND WELDS MUST BE ACCOMPLISHED AT EACH 100 HOUR INSPECTION.**

The possibility of exhaust system failure increases with use. It is recommended that the system be checked more carefully as the number of hours increase, therefore inspection at the 700 hour period, that the exhaust system has been in use would be more critical than ones in the 100 hour period. The system should also be checked carefully before winter operation when the cabin heat will be in use.

**NOTE: Piper recommends that all PA-28 airplanes be fitted with a new muffler at or near the 1000 hour period of which the muffler has been used.**

**CAUTION: WHEN REMOVING OR INSTALLING COUPLING CLAMP, SLIDE CLAMP OVER END OF PIPE BEFORE ASSEMBLY / DISASSEMBLY. EXCESSIVE SPREADING CAN LEAD TO PREMATURE FAILURE OF CLAMP.**

**NOTE: When installing an exhaust clamp having an alignment pin be certain that the pin engages the mating holes in exhaust pipe and muffler to prevent separation of components.**

Removal of the tail pipe and stacks is required for inspection of the muffler baffle. Remove or loosen all exhaust shields, carburetor and cabin heat muffers, shrouds, heat blankets, etc., as required to permit inspection of the complete system. Perform the necessary cleaning operations and inspect all external surfaces for dents, cracks and missing parts. Pay particular attention to welds, clamps, supports and support attachment lugs, slip joints, stack flanges and gaskets. Inspect internal baffle or diffusers. Any cracks, warpage or severe oxidation are cause for replacement of the muffler.

If any component is inaccessible for a thorough visual inspection, accomplish one of the following:

- (a) Accomplish a submerged pressure check of the muffler and exhaust stack at 2 psi air pressure.
- (b) Conduct a ground test using a carbon monoxide indicator by heading the airplane into the wind, warming the engine on the ground, advancing the throttle to full static RPM with cabin heat valves open, and taking readings of the heated airstream inside the cabin at each outlet (including rear seat heat outlet, if installed). Appropriate sampling procedures applicable to the particular indicator must be followed. If carbon monoxide concentration exceeds .005 percent or if a dangerous reading is obtained on an indicator not calibrated in percentages, the muffler must be replaced.

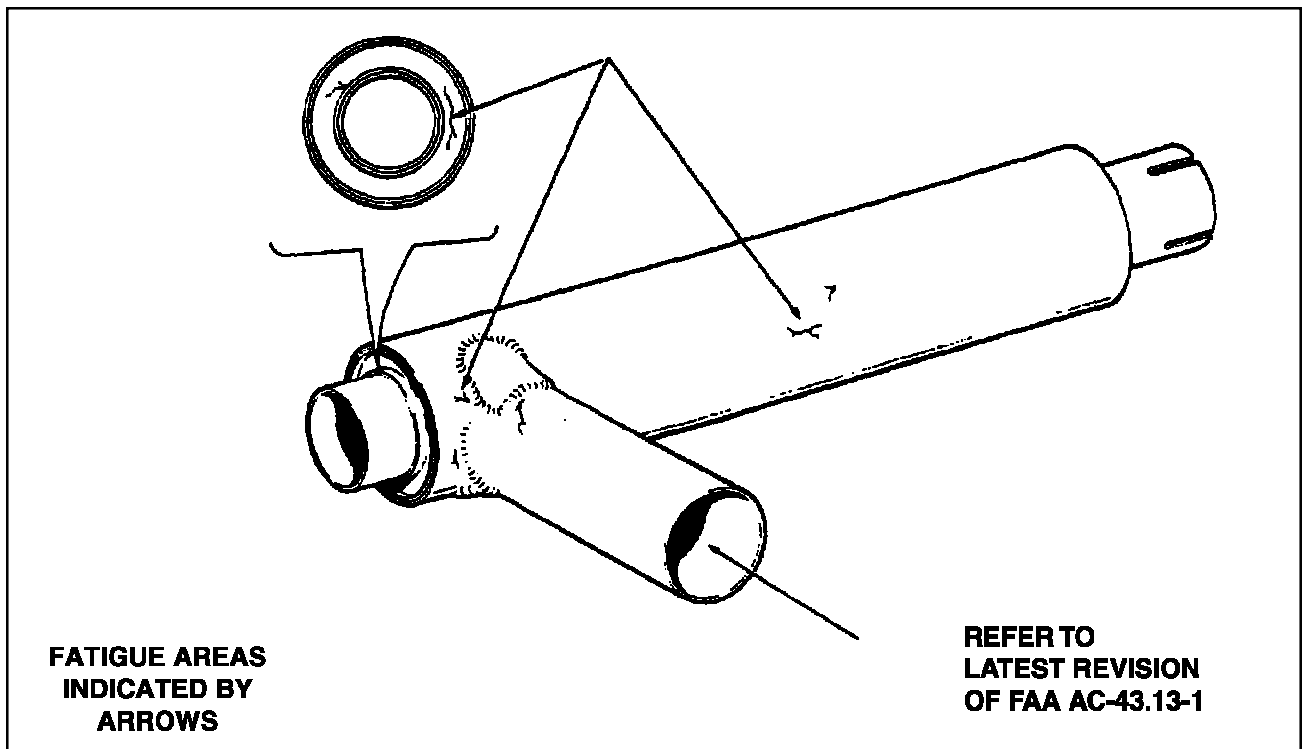


Figure 3-8. Typical Muffler Fatigue Areas

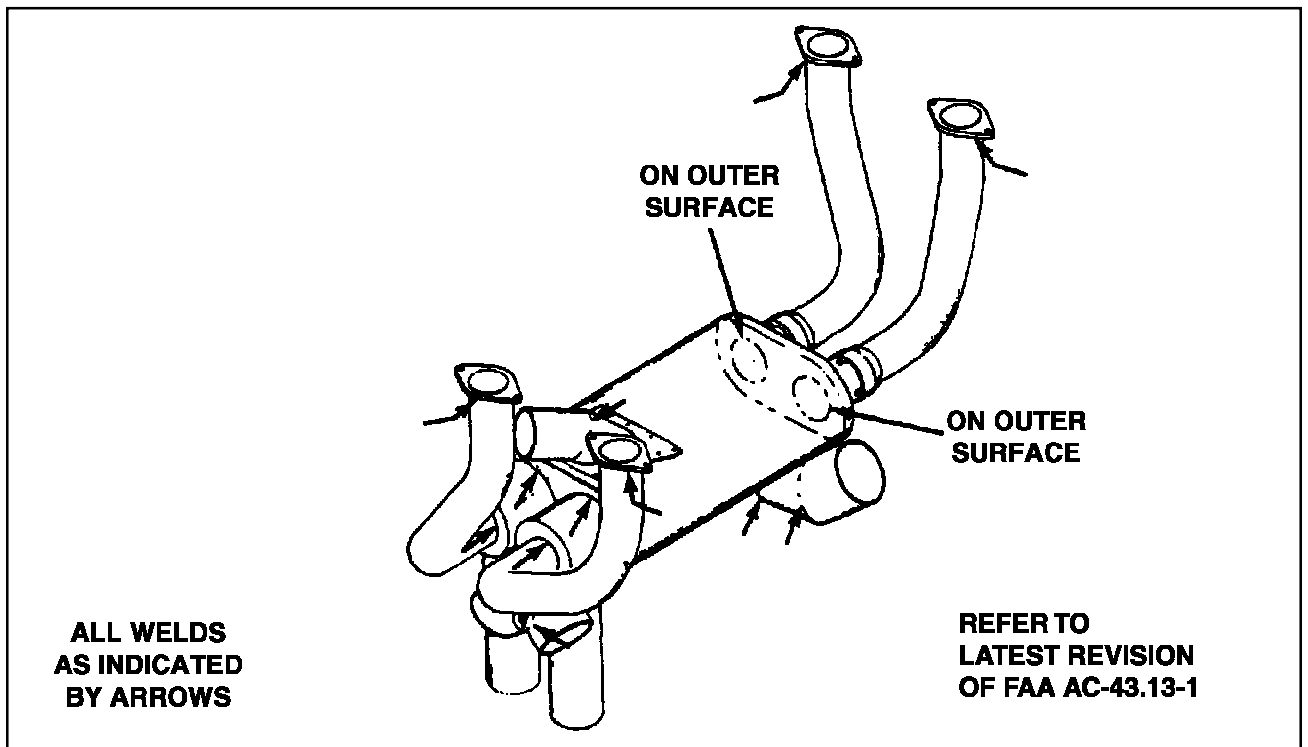


Figure 3-9. Exhaust System Inspection Points

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

(11) AILERON CENTERING CABLE INSPECTION. (Refer to Figure 3-10.)

In PA-28-151 S/N's 28-7415001 thru 28-7515228; at each ten (10) hours of operation until installation of Piper Kit No. 760 847V, inspect the aileron centering cable as follows:

(a) Gain visible access to the right hand control column sprocket assembly and inspect the aileron centering system for the following:

- 1 Evidence of cable fraying.
- 2 Spring breakage.
- 3 Set screw security (the set screw should not allow any cable movement).

**NOTE:** Refer to Figure 3-10 for identification of inspection areas.

(b) If the inspection reveals no evidence of the above described conditions, record a log book entry indicating compliance with this inspection.

(c) If the inspection reveals discrepancies, complete the following as required.

- 1 Replace as necessary:
  - a Cable
  - b Spring
- 2 Adjust the set screw as necessary.

(d) Record a log book entry indicating completion of this inspection.

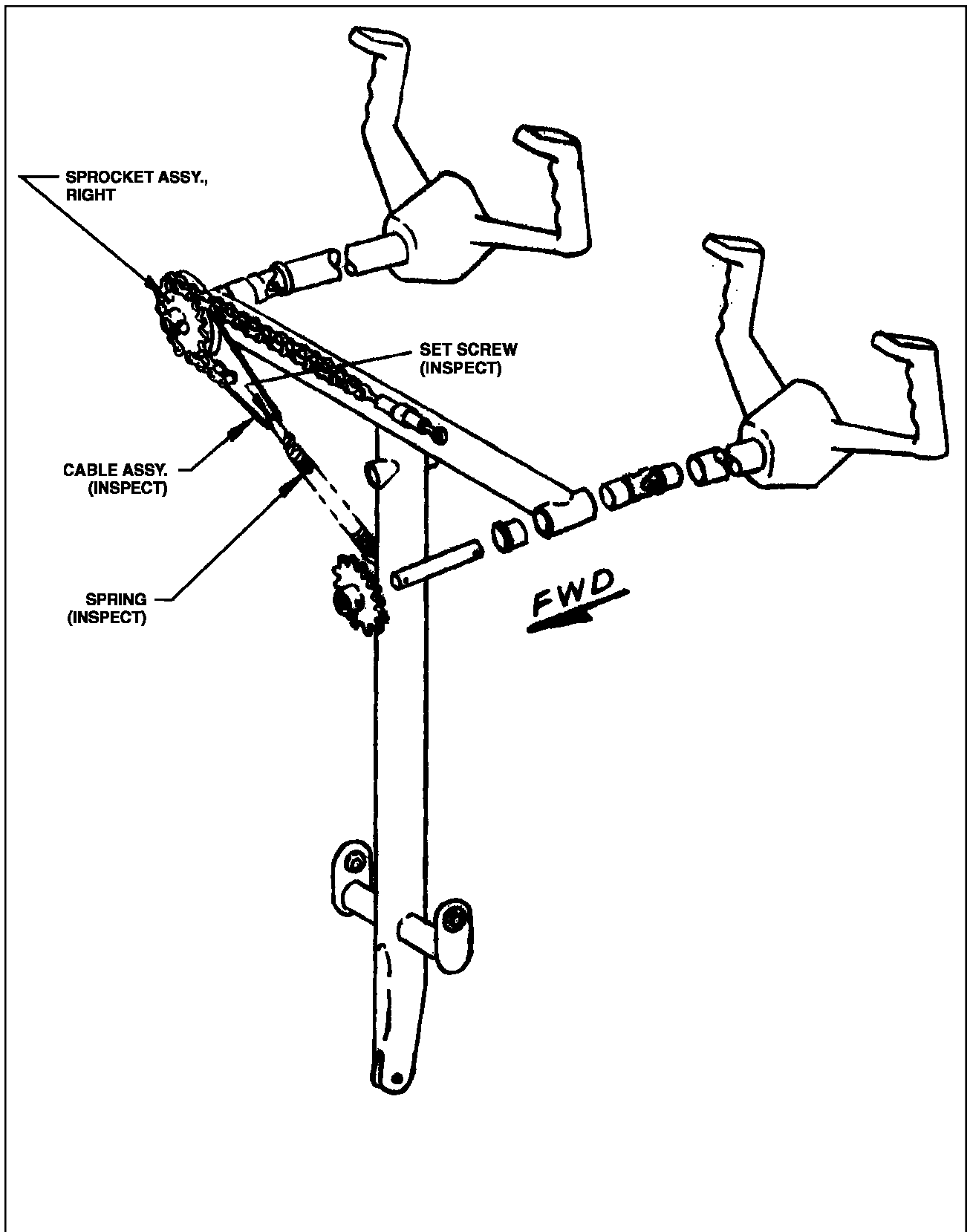


Figure 3-10. Aileron Centering Cable Inspection

**THIS PAGE INTENTIONALLY BLANK**

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

## 9. Unscheduled Maintenance Checks

**WARNING: FAILURE TO CONSULT APPLICABLE VENDOR PUBLICATION(S), WHEN SERVICING OR INSPECTING VENDOR EQUIPMENT INSTALLED IN PIPER AIRCRAFT, MAY RENDER THE AIRCRAFT UNAIRWORTHY. (SEE INTRODUCTION - SUPPLEMENTARY PUBLICATIONS.)**

The following inspections are required in response to specific anomalies encountered during aircraft operation. Note that the items listed herein are guidelines based on past operating experience. Each operator should closely monitor his own unique operating conditions/environment and react accordingly to keep his aircraft airworthy.

**NOTE:** A log book entry should be made upon completion of any inspections.

### A. **Lightning Strike**

Item	Inspection	Inspection Interval
<input type="checkbox"/> Propeller.	McCauley Propellers - see latest revision of McCauley SB 177.	Each occurrence, before further flight.
<input type="checkbox"/> Engine.	See latest revisions of appropriate Lycoming Service Bulletins and Overhaul Manual.	Each occurrence, before further flight.
<input type="checkbox"/> Electrical and Avionics Systems.	Inspect and check harness, connections, and equipment for high voltage damage, burns and insulation degradation. Replace or overhaul as required. Consult with appropriate avionics vendor(s) for inspections and operational checks. Bench test alternator and voltage regulator(s) (see Electrical System, Section XI).	Each occurrence, before further flight.
<input type="checkbox"/> All exterior surfaces, skins, and structure.	Inspect for burns, evidence of arcing, and damage on surfaces and bearings. Check for correct material properties in the area of the strike path. Degauss engine mount. Replace or repair affected areas/parts.	Each occurrence, before further flight.
<input type="checkbox"/> System Components.	Inspect instrumentation, vacuum, pitot/static, and fuel systems, for damage and correct operation.	Each occurrence, before further flight.
<input type="checkbox"/> Static Wicks.	Replace.	Each occurrence, before further flight.
<input type="checkbox"/> Bearings.	Inspect all control surface hinges and bearings, and landing gear and wheel bearings for pitting and damage. Replace as required.	Each occurrence, before further flight.

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

### B. Engine Overtemp, Loss of Oil, or Sudden Stoppage

Item	Inspection	Inspection Interval
<input type="checkbox"/> Engine.	See latest revisions of appropriate Lycoming Service Bulletins and Overhaul Manual.	Each occurrence, before further flight.
<input type="checkbox"/> Propeller. (Sudden Stoppage only.)	Refer to latest Sensenich Repair Manual. Remove and recondition before return to service, if required.	Each occurrence, before further flight.
<input type="checkbox"/> Propeller.	McCauley Propellers - see latest revision of McCauley SB 176 for stoppages/strikes; McCauley SL 1998-23 for overspeed.	Each occurrence, before further flight.
<input type="checkbox"/> Engine Mount and Attachments.	Inspect for distortion and damage. Replace or repair as required.	Each occurrence, before further flight.

### C. Severe Turbulence, Hard or Overweight Landing

**CAUTION: MINOR OR APPARENTLY SUPERFICIAL DAMAGE MAY INDICATE A MORE SEVERE CONDITION SOMEWHERE ELSE IN THE STRUCTURE.**

- (1) Place aircraft in a normal level attitude.
- (2) Make a preliminary inspection of checking alignment and out-of-track condition of engine, wings, tail, landing gear and doors.
- (3) Follow Piper and Lycoming Maintenance Manual procedures. If there are any questions regarding repairs or procedures, contact your Piper Dealer's Service Advisor (DSA).
- (4) Inspect the following items closely to determine the extent of damage:

Item	Inspection	Inspection Interval
<input type="checkbox"/> Landing Gear Struts. (Not required for severe turbulence.)	Cracks, signs of overstress deformation, loose or damaged strut housings. Axles for cracks, bending or flat spots. Damaged oleos and seals, hydraulic leaks and landing gear alignment.	Each occurrence, before further flight.
<input type="checkbox"/> Wheels, Tires, Brakes. (Not required for severe turbulence.)	Cracks, chips, loose or cracked mounting bolts, alignment of slippage marks, sidewall distress, hydraulic or air leaks. Inspect the wheels (dye penetrant method) and wheel bolts (magnetic particle method).	Each occurrence, before further flight.



## PIPER CHEROKEE WARRIOR SERVICE MANUAL

### C. Severe Turbulence, Hard or Overweight Landing (continued)

Item	Inspection	Inspection Interval
<input type="checkbox"/> Wheel Wells and Landing Gear attach points. (Not required for severe turbulence.)	Buckling, cracks, overstress, wing skin buckling, and side brace for damage and condition. Inspect landing gear attachment bolts (magnetic particle method).	Each occurrence, before further flight.
<input type="checkbox"/> Wings.	Wing attach bolts for slippage, damage and overstress. Upper and lower wing skins for wrinkles, cracks, popped or loose rivets.  Remove access plates and inspect for internal damage to ribs, stringers and sparwebs; and fuel tanks for damage, attachment, and leaks.	Each occurrence, before further flight.
<input type="checkbox"/> Engine.	Engine mounts for distortion and damage to elastomeric parts. Propeller for evidence of ground strike (i.e. - hard or overweight landing).	Each occurrence, before further flight.
<input type="checkbox"/> Fuselage.	Loose or missing rivets, door alignment, windows and attachments for overstress, cracks or damage. Wing carry through member for overstress damage. Stringers, bulkheads, keel beams for buckling, cracks, or damage. Avionics, instruments and accessories installation for security and operation.	Each occurrence, before further flight.
<input type="checkbox"/> Empennage.	Skins for buckling wrinkles, loose or missing rivets. Stabilator, rudder, and vertical fin for security of attachment and overstress of bolts. Ribs, stringers for buckling, cracks and damage.	Each occurrence, before further flight.

### D. Flaps Extended Above Maximum Flap Extension Speed ( $V_{FE}$ )

Item	Inspection	Inspection Interval
<input type="checkbox"/> Flap torque tube/pushrod.	Inspect for distortion. Replace as required. (See Flap Torque Tube/Pushrod Distortion Inspection.)	Each occurrence, before further flight.
<input type="checkbox"/> Flaps.	Inspect for damage to the skin and attach points. Replace as required.	Each occurrence, before further flight.

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

## E. Flood Damage, Immersion in Water

- A. These guidelines are general in nature and should be applied or varied to fit the individual aircraft according to water level, length of time of exposure and other variables. Only those areas that might not be obvious to the mechanic are addressed.

**CAUTION: MAKE ALL REPAIRS AND/OR ADJUSTMENTS IN ACCORDANCE WITH THE APPROPRIATE PIPER MAINTENANCE MANUAL, THE COMPONENT MANUFACTURER'S MAINTENANCE MANUAL, AND FAR PART 43. PAY PARTICULAR ATTENTION TO SILT, CORROSION AND CONTAMINANTS.**

- B. Follow Piper and Lycoming Maintenance Manual procedures. If there are any questions regarding repairs or procedures, contact your Piper Dealer's Service Advisor (DSA).
- C. Determine the water level on the aircraft. Determine which operating and/or electrical components have been exposed to the water.
- D. If the following items were immersed, inspect them closely to determine the extent of damage:

Item	Inspection	Inspection Interval
<input type="checkbox"/> Airframe.	Clean silt and contaminants from airframe.	If immersed, each event, before further flight.
<input type="checkbox"/> Tubular Structures. (i.e. - Engine Mounts, etc.)	Check for internal corrosion. Clean and represerve as required. (See Engine Mount Corrosion Inspection, Immersion in Water.)	If immersed, each event, before further flight.
<input type="checkbox"/> Wings.	Inspect to ensure that contaminants are cleaned from fuel cell areas.	If immersed, each event, before further flight.
<input type="checkbox"/> Landing Gear and associated Bearings, Torque Links, Shimmy Dampeners, etc.	Jack airplane and cycle landing gear oleos and torque links to ensure proper operation.	If immersed, each event, before further flight.
<input type="checkbox"/> Control Surfaces.	Remove surface, clean and check all bearings - relube or replace as necessary. Rebalance before installation.	If immersed, each event, before further flight.
<input type="checkbox"/> Flight Control System.	Clean and inspect all cables, pulleys, and bearings for evidence of corrosion. Replace corroded cables. Re-preserve galvanized cable with MIL-C-11796 Class 2 (hot).	If immersed, each event, before further flight.
<input type="checkbox"/> Trim Control System.	Clean and inspect all trim system cables, pulleys, drums, bearings, jack screws, etc. Do not apply preservation to trim cables.	If immersed, each event, before further flight.
<input type="checkbox"/> Actuating Cables.	Inspect "push-pull" actuating cables for powerplant, heating and ventilating system, fuel system, etc. for proper operation.	If immersed, each event, before further flight.

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

### E. Flood Damage, Immersion in Water (continued)

Item	Inspection	Inspection Interval
<input type="checkbox"/> Engine.	<p>Remove, disassemble, and inspect. Examine all parts paying particular attention for evidence of corrosion, rust or contaminants imbedded on bearing surfaces, piston, mounting flanges or any aluminum, magnesium or bronze surface that may be porous.</p> <p>Remove evidence of rust, or corrosion. If pitting in stressed areas is found the part should not be reused. Silt imbedded in porous surfaces may be removed. Be certain oil passages, dowel holes and similar hidden openings and recesses are thoroughly free from contaminants.</p> <p>Test electrical components and fuel metering devices in accordance with manufacturer's instructions to determine fitness for future use.</p> <p>Reassemble engine using new seals, gaskets, stressed bolts nuts and crankshaft sludge tubes. All reused parts must conform with Lycoming Table of Limits No. SSP-1776 for fits and clearances.</p> <p>See latest revision of Lycoming Service Bulletin No. 357.</p>	<p>If immersed, each event, before further flight.</p>
<input type="checkbox"/> Engine Accessories.	<p>Inspect. Aircraft systems that supply either fuel or oil to the engine must be thoroughly cleaned, including oil cooler, lines, valves, etc. to prevent contamination of the engine after reinstallation.</p>	<p>If immersed, each event, before further flight.</p>
<input type="checkbox"/> Propeller.	<p>Inspect and repair as necessary in an authorized propeller shop.</p>	<p>If immersed, each event, before further flight.</p>

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

## E. Flood Damage, Immersion in Water (continued)

Item	Inspection	Inspection Interval
<input type="checkbox"/> Electrical Systems.	<p>Replace all circuit breakers and switches.</p> <p>Replace all solenoids, relays and master contactors.</p> <p>Replace battery.</p> <p>Disassemble all connectors; clean and inspect for corrosion. Replace all corroded or pitted connectors. Inspect for wire corrosion at connector.</p> <p>Check all harness assemblies for entrapped contaminants. Clean and check for short circuits.</p> <p>Remove electric motors and electric pumps.</p> <p>Remove all potted solid state electrical equipment such as alternator inop. switches, low fuel warning switches, etc. Clean, dry and bench test per appropriate maintenance manual.</p> <p>Clean and check voltage regulators and overvoltage relays. Replace as necessary</p> <p>Clean and check all strobe light power supplies. Refer to appropriate maintenance manual.</p> <p>Replace all fuel senders, etc.</p> <p>Clean, inspect and check heated pitot systems.</p>	<p>If immersed, each event, before further flight.</p>
<input type="checkbox"/> Autopilot System. (If Installed.)	<p>Bench test in accordance with appropriate maintenance manual. Pay particular attention to clutch settings.</p>	<p>If immersed, each event, before further flight.</p>

## PIPER CHEROKEE WARRIOR SERVICE MANUAL

### E. Flood Damage, Immersion in Water (continued)

Item	Inspection	Inspection Interval
<input type="checkbox"/> Vacuum and Pitot-Static Systems.	Replace gyros.  Replace filters.  Clean and inspect all lines, and pitot and static vents.  Clean and check all regulating valves.  Remove and inspect engine driven and auxiliary vacuum pumps.	If immersed, each event, before further flight.
<input type="checkbox"/> Induction System.	Clean and inspect for silt and corrosion. Check all ducts and gaskets. Replace as necessary.  Clean and inspect all heat shrouds and ducting.	If immersed, each event, before further flight.
<input type="checkbox"/> Fuel System.	Perform Fuel Tank/Wing Spar Corrosion Inspection. Remove and clean fuel cells and fuel cells wing area. Clean all associated lines and pumps.  Clean and inspect all fuel tank vents, cap vents and vent lines.	If immersed, each event, before further flight.
<input type="checkbox"/> Instruments.	Clean and inspect instruments. Bench check per appropriate maintenance manual.	If immersed, each event, before further flight.
<input type="checkbox"/> Heating and Ventilating Systems.	Replace blower.  Clean and inspect all distribution boxes, ducting and valves.  Inspect and check system control cables. Replace corroded or binding cables.  If installed, clean and inspect air conditioning evaporator, condenser, and compressor.	If immersed, each event, before further flight.

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

---

## E. Flood Damage, Immersion in Water (continued)

Item	Inspection	Inspection Interval
<input type="checkbox"/> Avionics Systems.	Replace avionics.  Clean and inspect antennas and connectors.	If immersed, each event, before further flight.
<input type="checkbox"/> Insulation and Upholstery.	Remove all wet insulation and upholstery. Thoroughly clean and dry (or replace) to ensure corrosion is not promoted in adjacent structures.	If immersed, each event, before further flight.

**THIS PAGE INTENTIONALLY BLANK**

**THIS PAGE INTENTIONALLY BLANK**



# PIPER CHEROKEE WARRIOR SERVICE MANUAL

## TABLE III-II. SERVICE PUBLICATIONS LIST

This table is a cumulative list of Piper service publications (i.e. - Service Bulletins and Service Letters) applicable to the airplane models covered by this manual, with the following exceptions:

- A. Service publications which have been fully incorporated into this manual are not listed,
- B. Nor are service publications which have become obsolete.

Kits are listed when installation of that single kit indicates compliance with the associated service publication. Kits listed may be no longer available or may have been replaced.

Effectivity is listed by airplane model and year. See the individual service publication for specific serial number applicability.

Model	Year	Pub No.	Kit No.	Subject	
PA-28-151	1974	SB 424	760-878V	Wing Reinforcement Modification	
		SL 700	760-842V	Toe Brake System Modification	
		SL 715	760-876V	Emergency Locator Transmitter Switch Cover Mod.	
		SL 731	760-854V	Cherokee Warrior Product Refinement Program	
			760-855V	Cherokee Warrior Product Refinement Program	
			760-856V	Cherokee Warrior Product Refinement Program	
		SL 734		Bendix ADF-T-12 C/D Install. Inspection & Mod.	
		SL 745		Wing Main Spar Attach Bolts Inspection	
		1974-1975	SB 449A		Alternator (Chrysler) Mod & Wire End Terminal
			SB 450		Quick Drain Valve Inspection Fuel Gascolator
	SB 454		760-922V	Induction Air Shroud Modification	
	SB 474		760-985V	Carburetor Air Box Modification	
	SB 475			Instru. Panel Dimmer Control Assembly Mod	
	SL 735			Muffler Shroud Modification	
	SL 761		760-795V	Magnetic Compass Relocation Kit	
	1974-1976	SL 762	761-009V	ELT Remote Switches Modification	
		SL 785		Carburetor Induction Air Shroud Modification	
		SB 548		Engine Control Rod End Bearing Inspection	
		SL 756		Dual Glideslope Indicator Placard	
		SL 758		Bendix (SB 583) Ignition Switches Inspection	
	1974-1977	SL 800		"Narco ADF-140 Install., Performance Refinement"	
		SB 533		Fuel Gauge Calibration Inspection	
		SB 536		Carburetor Air Filter Box Inspection	
SB 717			Fuel Selector Line Inspection		
SB 836A			Aluminum Wire Inspection/Replacement		
SB 896			Shoulder Harness Installation & Usage		
	SB 1026		Dry Air Pump Flexible Couplings Inspection		

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

## TABLE III-II. SERVICE PUBLICATIONS LIST (cont.)

Model	Year	Pub No.	Kit No.	Subject	
PA-28-151 (cont.)		SB 1041		Airborne Air Filter Elements Inspec./Cleaning	
		SB 1122		Wing Rib Inspections	
		SL 653		"Throttle Lever and Shaft, Serrated"	
		SL 793		Flap Warning Placard	
		SL 826		Spinner Bulkhead Doubler	
		SL 845	763-828V	Engine Breather Tube Winterization Kit	
		SL 859	760-854V	Landing Light Installation Modification	
		SL 864	763-870V	Part II - Cabin Heat Control Refinement	
		1975-1977	SB 623		Diode Assembly Inspection
			SB 631B	764-303V	Battery Protection / Correct Rear Seat Installation
	SL 836		"Narco ADF-140/141 Antenna, Inspec. & Mod."		
1977	SB 538		Engine Control Cable Inspection		
	SB 543		Starter/Magneto Sw. Inspection & Replacement		
PA-28-161	1977	SB 548		Engine Control Rod End Bearing Inspection	
		SL 826		Spinner Bulkhead Doubler	
		SL 859	760-854V	Landing Light Installation Modification	
	1978	SB 582		Pitot & Static Sump Drain Inspection	
		SB 612		Fuel Gascolator Assembly Inspection	
	1980	SL 901	764-013V	Cabin Air Intake Duct Modification	
		SL 908		Instru. Pnl. Lighting - Century 21/41 Autopilot	
	1977-1978	SB 623		Diode Assembly Inspection	
		SB 631B	764-303V	Battery Protection / Correct Rear Seat Installation	
		SL 836		"Narco ADF-140/141 Antenna, Inspec. & Mod."	
		SL 845	763-828V	Engine Breather Tube Winterization Kit	
		SL 864	763-870V	Part II - Cabin Heat Control Refinement	
	1977-1981	SB 717		Fuel Selector Line Inspection	
	1977-1982	SB 836A		Aluminum Wire Inspection/Replacement	
	1977-1984	SB 896		Shoulder Harness Installation & Usage	
	1977-1995	SB 1026		Dry Air Pump Flexible Couplings Inspection	
		SB 1041		Airborne Air Filter Elements Inspec./Cleaning	
		SB 1122		Wing Rib Inspections	
		SL 653		"Throttle Lever and Shaft, Serrated"	
		SL 682B		Required Inspection of Piston Pin	
		SL 1047	767-343	Pilot Sidepost Handgrip Kit	
	1978-1979	SB 630A		Collins VIR-350 / 351 Nav. Rec. Modification	
		SB 638		Fuel Line Union Fitting Inspection	
		SB 646A	763-934V	Fuel Tank Vent Mod. & Vent Hose Repl.	
	1978-1980	SB 681		Boom Microphone Isolation Relay	
	1979-1981	SL 899		Part I - Aft Spinner Bulkhead Refinement	
		SL 899		Part II - Forward Spinner Bulkhead Refinement	

# PIPER CHEROKEE WARRIOR SERVICE MANUAL

**TABLE III-II. SERVICE PUBLICATIONS LIST (cont.)**

<b>Model</b>	<b>Year</b>	<b>Pub No.</b>	<b>Kit No.</b>	<b>Subject</b>
	1983-1984	SB 801		King Autopilot Servo Bridle Clamp Installation
	1994-1995	SB 1020		ARTEX 110-4 ELT and Attachment Bracket
		SB 1040		Flight Control Wheel Collar Retainer Mod.
		SB 1079		Untested Fuel Pump