



Piper Aircraft, Inc.
 2926 Piper Drive
 Vero Beach, FL, U.S.A. 32960

SERVICE NO. 1302 LETTER

Date: December 1, 2022

(S)

SUBJECT:

**REPLACEMENT OF LOCKING GASCOLATOR
DRAIN VALVE**

MODELS AFFECTED:

Group A:

- PA-11 Cub Special
- PA-15 Vagabond
- PA-16 Clipper
- PA-17 Vagabond
- PA-18/-18A/-19 Super Cub
- PA-20 Pacer
- PA-22-125/-135/-150/-160 Tri-Pacer / Caribbean
- PA-22-108 Colt

Group B:

- PA-28-140 Cherokee 140
- PA-28-150/-160 Cherokee 150 / 160
- PA-28-180 Cherokee 180
- PA-28-151 Cherokee Warrior
- PA-28-161 Cherokee Warrior II

- PA-28-161 Cadet
- PA-28-181 Archer II

- PA-28-201T Turbo Dakota
- PA-28-236 Dakota

- PA-28R-180 Arrow
- PA-28R-200 Arrow II
- PA-28R-201 Arrow III

PA-28R-201T Turbo Arrow III

- PA-28RT-201 Arrow IV
- PA-28RT-201T Turbo Arrow IV

SERIAL NUMBERS AFFECTED:

- All
- All
- All
- All
- All
- All
- All
- All
- All
- All
- All
- All
- 28-7716001 through 28-8616057,
2816001 through 2816096
- 2841001 through 2841290
- 28-7690001 through 28-7990626,
28-8090001 through 8690056,
2890001 through 2890145
- All
- 28-7911001 through 28-8611009,
2811001 through 2811032
- All
- All
- 28R-7737001 through 28R-7837317,
2837001 through 2837043
- All
- All
- All

COMPLIANCE TIME: At owners/operators discretion.

APPROVAL: The engineering aspects of this service document have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved.

PURPOSE: Before 1990, Piper airplanes were equipped with a gascolator assembly (aka the fuel strainer bowl or fuel filter bowl) manufactured with a *locking* drain valve. Starting in 1990, Piper replaced the locking drain valve with a *non-locking* drain valve.

Due to its locking capability, locking drain valves could be left open through operator error, after the completion of the preflight checklist. While an engine is operating, an open gascolator drain valve could allow air to enter the fuel system or it could drain fuel from the tanks. Either of these conditions could lead to fuel starvation and engine failure.

To prevent the possibility of the gascolator drain valve being left locked open, Piper recommends replacing any installed locking drain valve with the non-locking drain valve.

INSTRUCTIONS:

NOTE: Early Piper Aircraft models were certified under CAR 3 rules and there is no regulatory requirement for a manufacturer's maintenance manual. For aircraft models that do not have a maintenance manual, Piper recommends the use of AC 43.13-1B (latest revision). See also "Civil Aeronautics Manual 18".

1. Remove the engine cowling. Refer to Chapter 71-10-00 of the appropriate Airplane Maintenance Manual (AMM) or Powerplant section of the appropriate Service Manual (SM) for instructions on cowling removal.
2. Locate the gascolator assembly, mounted on the forward left side of the firewall as shown in Figure 1. Inspect and determine which drain valve is installed.
 - If a locking fuel drain valve is installed, proceed to step 3.
 - If a non-locking fuel drain valve is installed, proceed to step 8.
3. Pull the main power circuit breaker to the OFF position and set the fuel selector valve to the OFF position.
4. Remove the gascolator from the airplane. Refer to Chapter 28-20-00 of the appropriate AMM or Fuel System section of the appropriate SM for instructions on gascolator removal.

NOTE: Before removing, drain fuel from the gascolator bowl. Use a suitable container to collect the drained fuel.

5. Remove the locking fuel drain valve from the gascolator and install the non-locking fuel drain valve as shown in Figure 2.
6. Install the gascolator assembly. Refer to Chapter 71-10-00 of the appropriate AMM or Fuel System section of the appropriate SM for instructions on gascolator installation.

CAUTION: TAKE CARE TO ENSURE NO FIRE HAZARD EXISTS BEFORE RESTORING POWER TO AIRPLANE.

7. Reset the main power circuit breaker to the ON position and set the fuel selector valve to the LEFT or RIGHT fuel tank. Turn ON the fuel pump and pressurize the fuel system to check the gascolator assembly for leaks. Turn OFF fuel pump and correct any leaks found.
8. Install the engine cowling. Refer to Chapter 71-10-00 of the appropriate Airplane Maintenance Manual (AMM) or Powerplant section of the appropriate Service Manual (SM) for instructions on cowling installation.
9. Complete a logbook entry documenting compliance with this service letter.

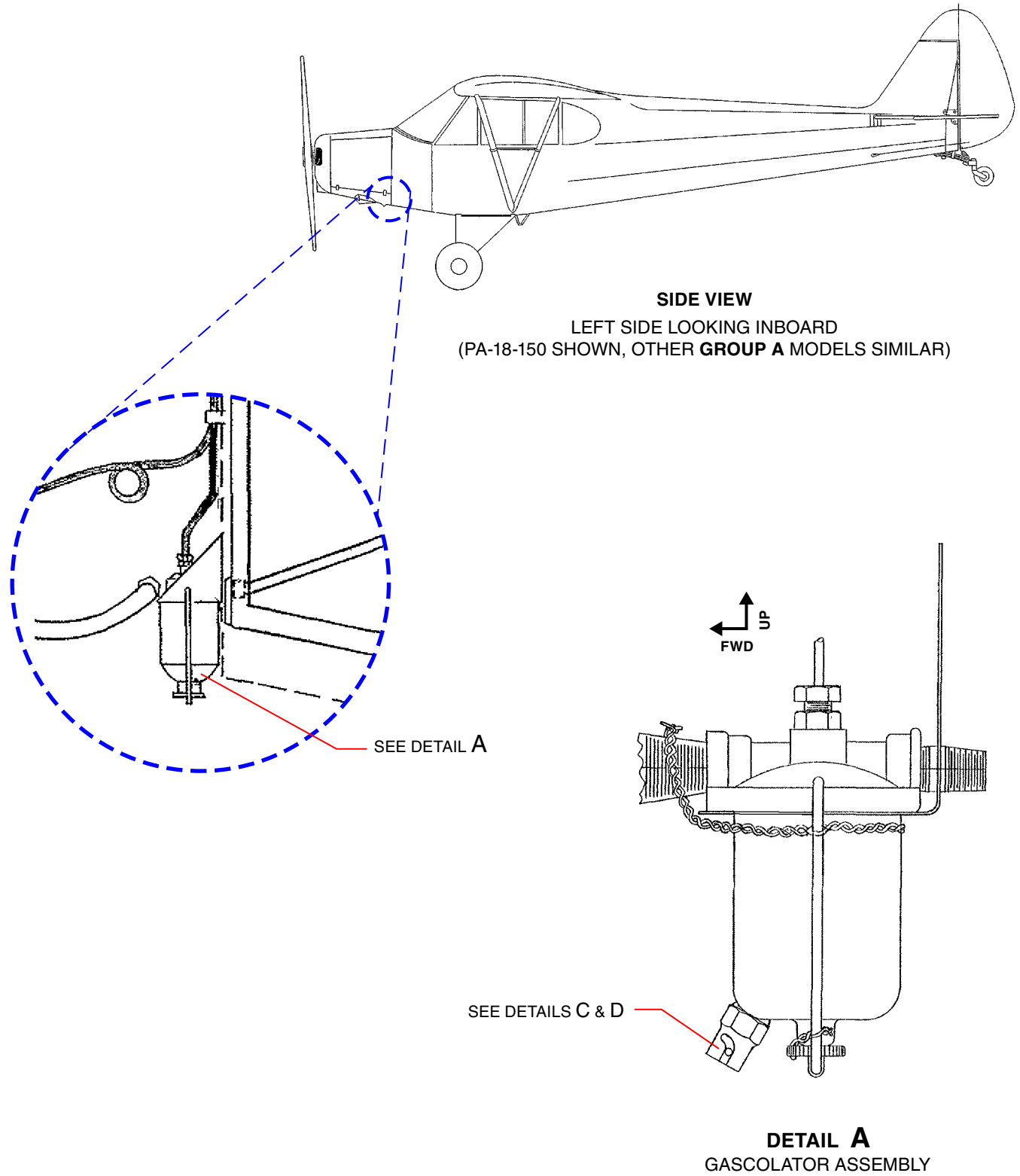


Figure 1 (Sheet 1 of 3)
Gascolator Drain Valve

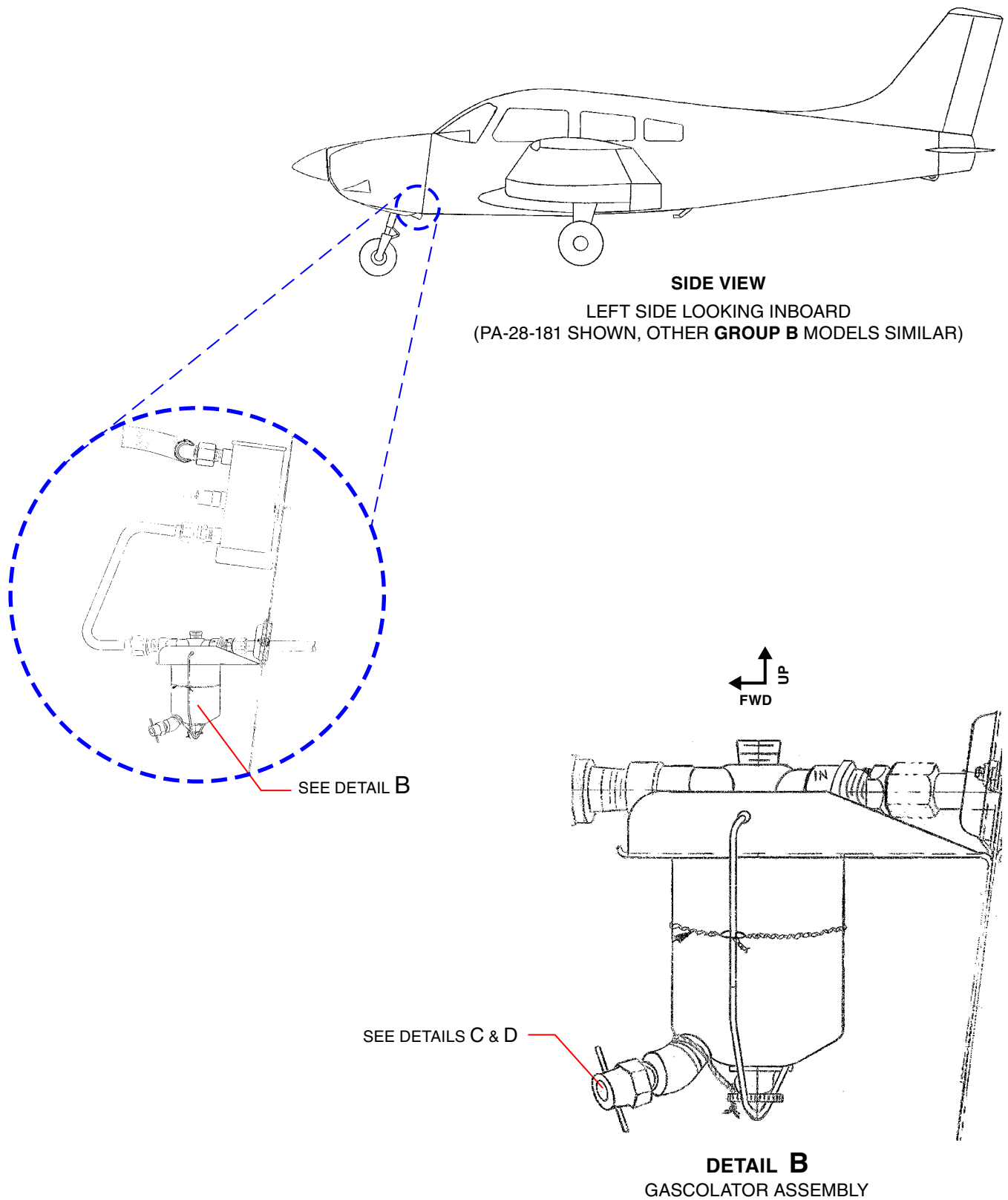


Figure 1 (Sheet 2 of 3)
Gascolator Drain Valve

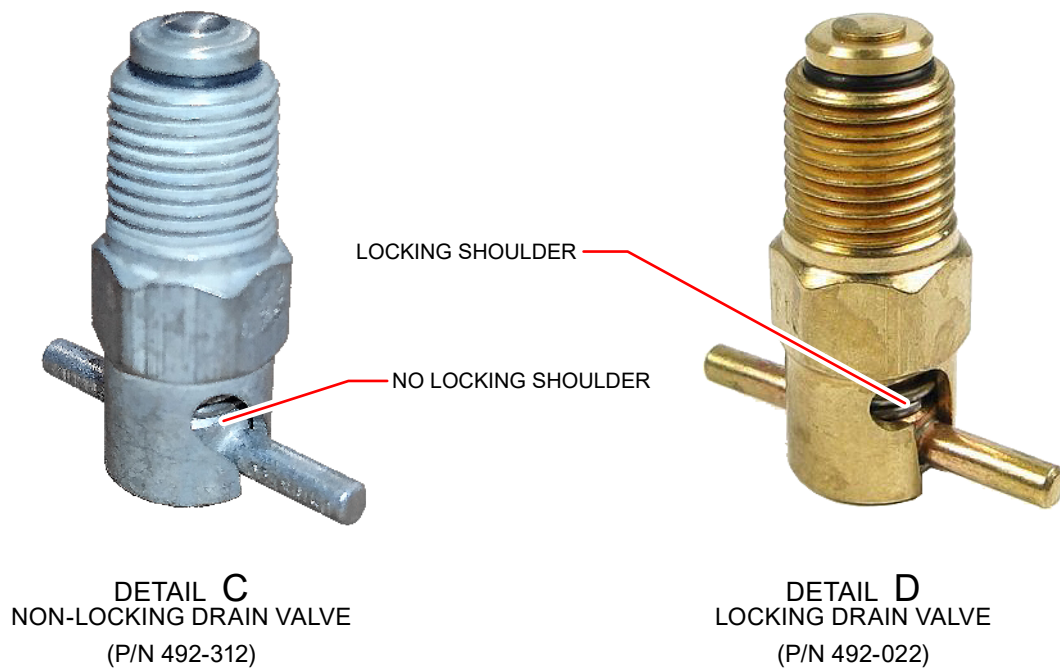
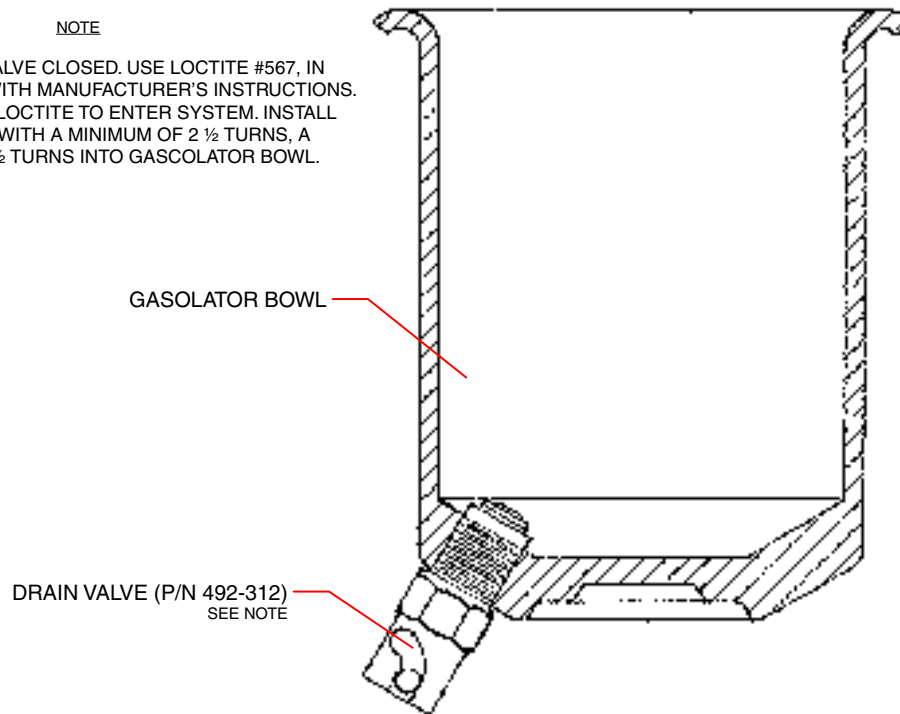


Figure 1 (Sheet 3 of 3)
Gascolator Drain Valve

NOTE

INSTALL WITH VALVE CLOSED. USE LOCTITE #567, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DO NOT ALLOW LOCTITE TO ENTER SYSTEM. INSTALL VALVE BY HAND WITH A MINIMUM OF 2 ½ TURNS, A MAXIMUM OF 3 ½ TURNS INTO GASCOLATOR BOWL.



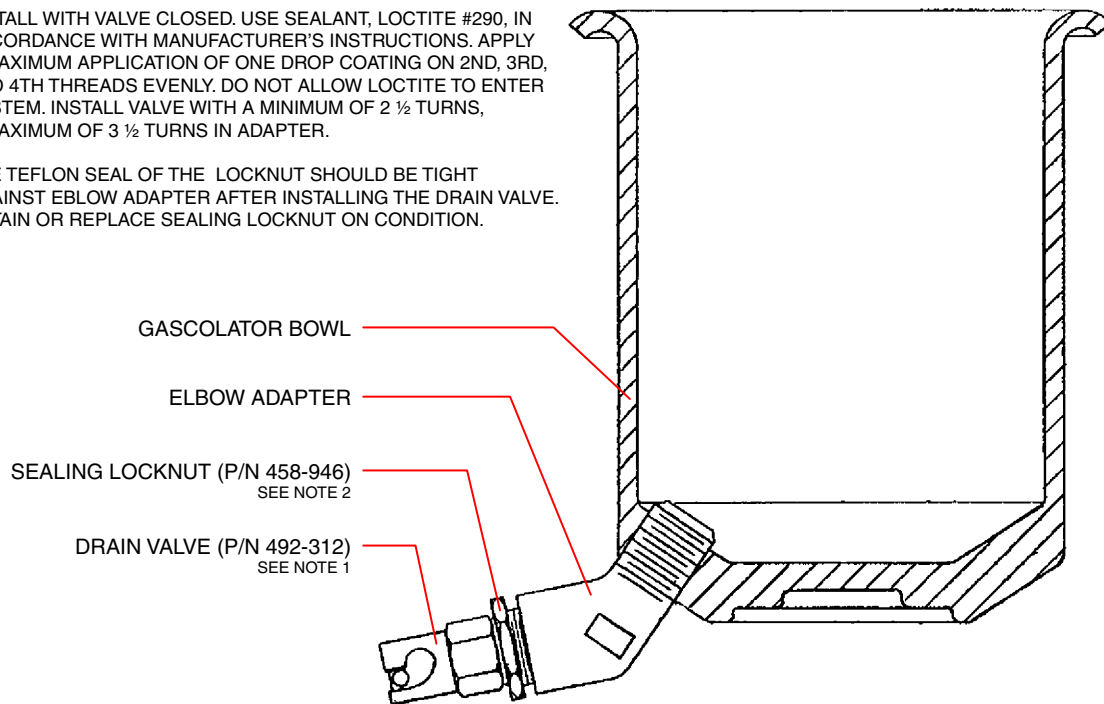
GASCOLATOR BOWL ASSEMBLY

GROUP A MODELS

Figure 2 (Sheet 1 of 2)
Installation of Non-Locking Drain Valve

NOTES

1. INSTALL WITH VALVE CLOSED. USE SEALANT, LOCTITE #290, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. APPLY A MAXIMUM APPLICATION OF ONE DROP COATING ON 2ND, 3RD, AND 4TH THREADS EVENLY. DO NOT ALLOW LOCTITE TO ENTER SYSTEM. INSTALL VALVE WITH A MINIMUM OF 2 ½ TURNS, A MAXIMUM OF 3 ½ TURNS IN ADAPTER.
2. THE TEFLON SEAL OF THE LOCKNUT SHOULD BE TIGHT AGAINST ELBOW ADAPTER AFTER INSTALLING THE DRAIN VALVE. RETAIN OR REPLACE SEALING LOCKNUT ON CONDITION.



GASCOLATOR BOWL ASSEMBLY
GROUP B MODELS

Figure 2 (Sheet 2 of 2)
Installation of Non-Locking Drain Valve

MATERIAL REQUIRED: On condition, one (1) Non-Locking Drain Valve, Piper P/N 492-312, per aircraft.

AVAILABILITY OF PARTS: Your Piper Approved Service Center –
Find your local service center at <https://www.piper.com/>

EFFECTIVITY DATE: This service letter is effective upon receipt.

SUMMARY: Please contact your Piper Approved Service Center to make arrangements for compliance with this service letter in accordance with the compliance time indicated.

NOTE: Please notify the factory of any address/ownership corrections. Changes should include aircraft model, serial number, and current owner's name and address.

Corrections and/or changes should be directed to:

PIPER AIRCRAFT, INC.

Attn: Customer Service

2926 Piper Drive

Vero Beach, FL 32960

or:

CustomerService@piper.com

Please include in subject line: "Aircraft ownership update"