



SERVICE LETTER

No. 878A

Piper Aircraft Corporation

Lock Haven, Pennsylvania, U.S.A.

FAA Approved

March 6, 1981 M

(Service Letter No. 878A supersedes and voids Service Letter No. 878, dated May 10, 1979.)

This Service Letter consists of two (2) separate PARTS, each PART dealing with a separate Oil Breather Tube service procedure. Refer to each PART for specific Subject, Models and Serial Numbers Affected, Compliance Time, Purpose, Instructions, and Material Required.

Reason for Revision: Add PART II.

PART I

Subject: Oil Breather Tube Inspection/Alignment

Models Affected: Serial Numbers Affected:

PA-31/31-300/31-325 Navajo
PA-31-350 Chieftain

31-2 and Up.
31-5001 and Up.

Compliance Time: Recommended at the next scheduled inspection and thereafter every time the cowling is installed.

Purpose:

Misalignment of an oil breather tube with the hole in the bottom of the cowl could cause oil to vent inside the cowling.

PART I of this Service Release provides instructions for the inspection of the oil breather tubes and for the realignment of the tubes if required.

Instructions:

1. Gain access to the oil breather tubes.
2. Inspect the tubes for proper alignment, and realign if necessary. Refer to the "Oil Breather Tube Alignment Detail" on attached SKETCH A to insure proper positioning of tubes.

Material Required: Not Applicable.

(over)

PART II

Subject:

Oil Breather Tube Relocation

Models Affected:PA-31/31-325 Navajo
PA-31-350 ChieftainSerial Numbers Affected:31-2 through 31-7912031
31-5001 through 31-7852098Compliance Time:

Recommended at next regularly scheduled inspection event.

Purpose:

Ingestion of oil vapor by the pneumatic air pump on the left engine can reduce the service life of the pump.

PART II of this Service Release provides instructions for the relocation of the left engine oil breather tube to prevent oil vapor ingestion by the pump.

Instructions:

Refer to attached Instructions and Sketches.

Material Required:

PA-31 only	One (1) per aircraft Oil Breather Tube, Piper Part Number 71832-02
	One (1) per aircraft Oil Breather Tube, Piper Part Number 71830-02
PA-31-350 and PA-31-325 Only	One (1) per aircraft Oil Breather Tube, Piper Part Number 49449-02
As required/desired	Patch Plate, Piper Part Number 481 096
	Neoprene Rubber Elbow, Piper Part Number 21459-00
	Silicone Rubber Elbow, Piper Part Number 45850-00

Availability of Parts:

Your Piper Field Service Facility.

Effectivity Date:

This Service Release is effective upon receipt.

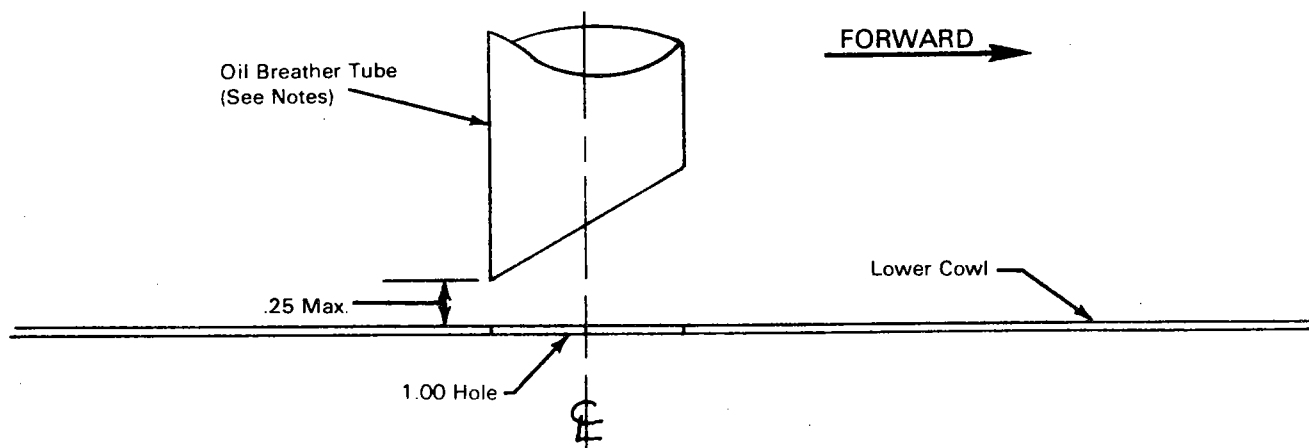
Summary:

Please contact your Piper Field Service Facility to arrange for compliance with this Service Release in accordance with Compliance Times, above.

INSTRUCTIONS

On PA-31 and PA-31-325 aircraft with Serial Numbers 31-5 to 31-7812087 inclusive, and PA-31-350 aircraft with Serial Numbers 31-5001 to 31-7852098 inclusive, relocate the oil breather tube(s) on the left engine as follows:

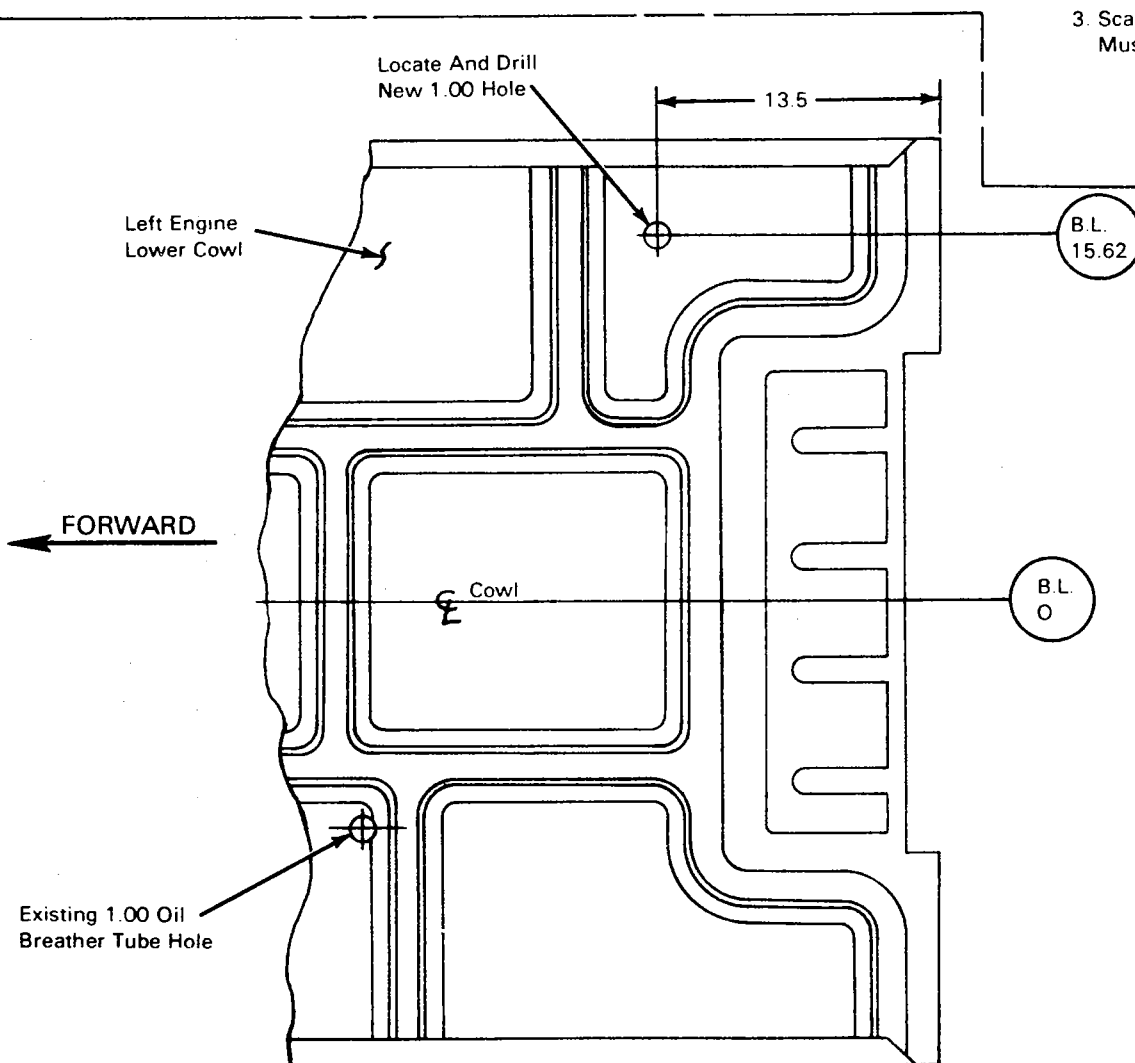
1. Remove the upper and lower cowl from the left engine.
2. Locate and drill a one inch hole thru the lower cowl as shown on Sketch "A". NOTE: It is permissible to leave the existing one inch oil breather hole in the lower cowl open. If desired, a patch plate (Piper part no. 481 096) may be installed to plug this existing hole.
3. On PA-31-325 and PA-31-350 aircraft, remove the existing oil breather tube and install new oil breather tube (P/N 49449-02) as shown on Sketch "B". On PA-31 aircraft, remove the two (2) existing oil breather tubes and install new oil breather tubes (P/N 71830-02 and P/N 71832-02) as shown on Sketch "B". NOTE: If existing neoprene rubber and silicone elbows, as shown on Sketch "B", are deteriorated, replace with new parts.
4. Secure new oil breather tube(s) to existing structures for support and to prevent chafing and interference. Refer to Sketch "B" for recommended clamping configuration.
5. Reinstall the lower cowl. Inspect the new oil breather tube for proper alignment with the new one inch hole in the lower cowl. Refer to Sketch "A" to insure proper positioning of oil breather tube.
6. Reinstall the upper engine cowl.
7. Make proper Logbook entry of relocation of the left engine oil breather tube per this service release.



OIL BREATHER TUBE ALIGNMENT DETAIL

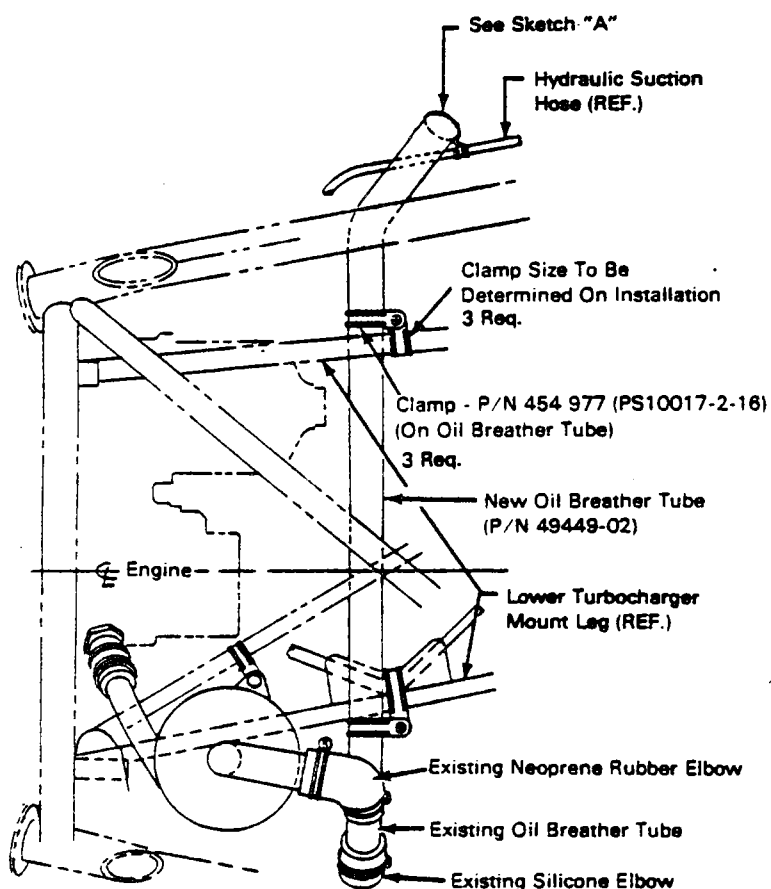
NOTES:

1. Centerline Of Breather Tube Must Align With Centerline Of 1.00 Hole In Lower Cowl.
2. Breather Tube Must Not Extend Thru 1.00 Hole In Lower Cowl. Maximum Distance Between End Of Tube And Cowl Surface is .25.
3. Scarf On End Of Breather Tube Must Face Forward.

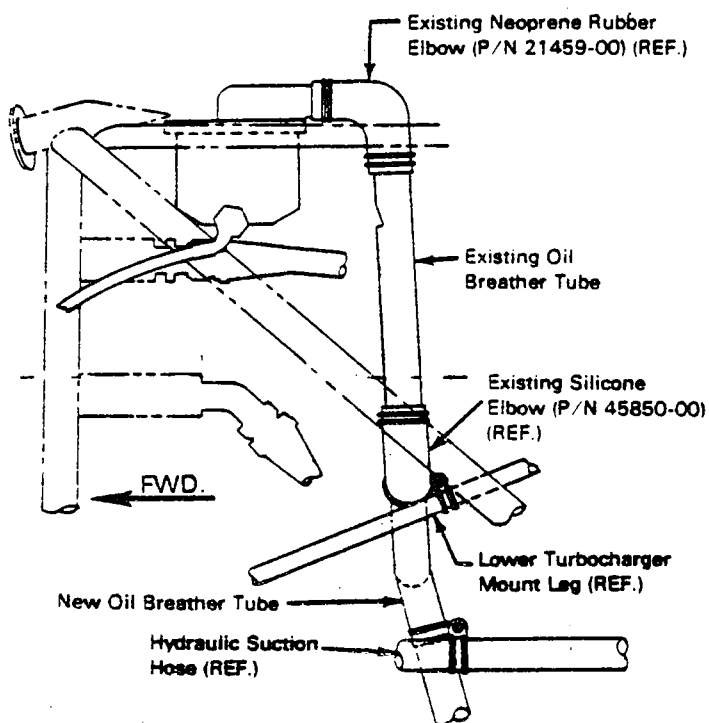


VIEW LOOKING DOWN AT LEFT ENGINE LOWER COWL (PA-31, PA-31-325 AND PA-31-350 ONLY)

SKETCH "A"

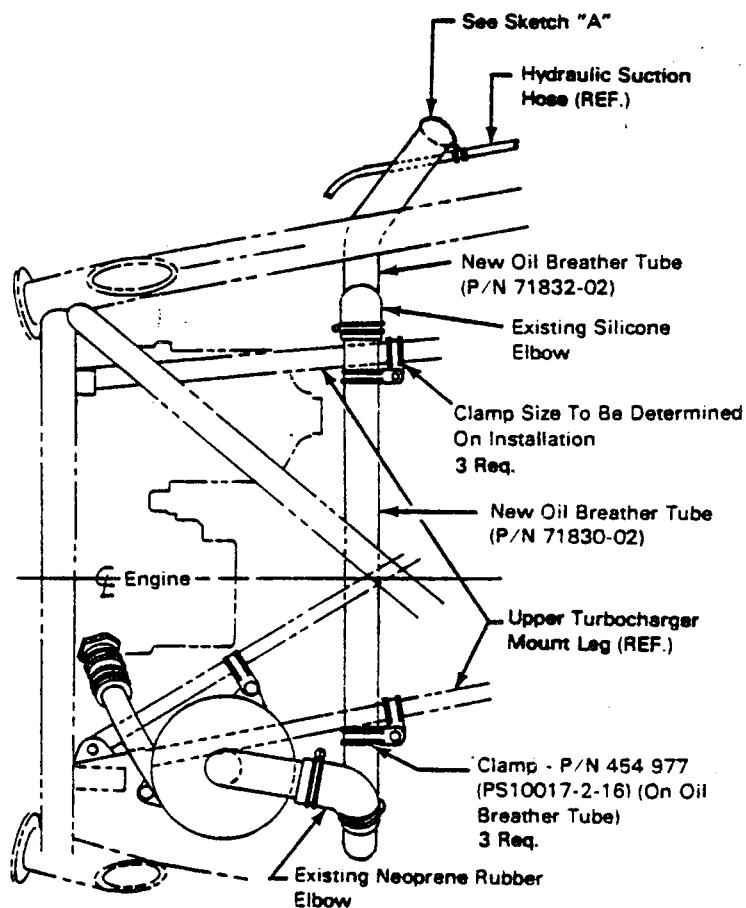


VIEW LOOKING DOWN AT LEFT ENGINE

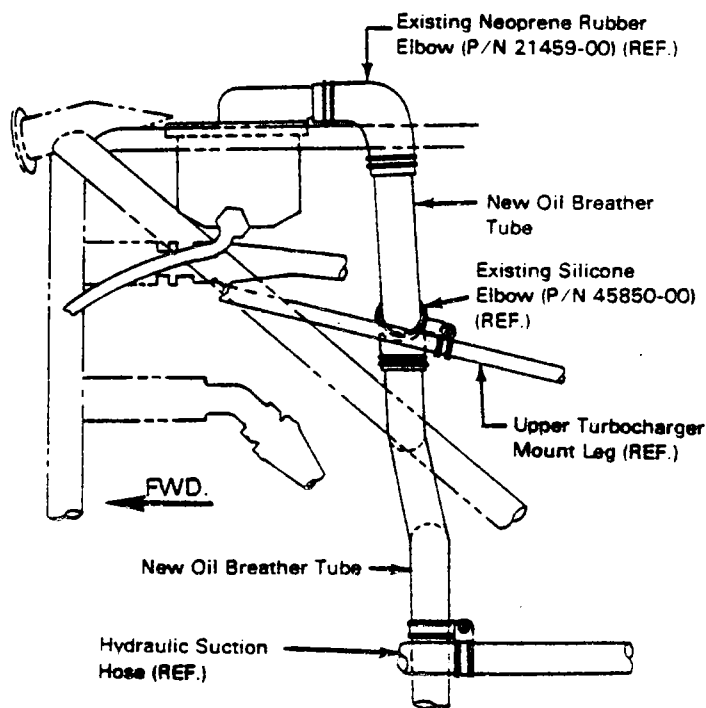


VIEW LOOKING INBOARD AT LEFT ENGINE

PA-31-325 AND PA-31-350 ONLY



VIEW LOOKING DOWN AT LEFT ENGINE



VIEW LOOKING INBOARD AT LEFT ENGINE

PA-31 ONLY

SKETCH "B"