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**DATE:** 5 September 2008

**REVISION:** IR

**AIRCRAFT:** Husky A-1B and A-1C with installation of Lycoming IO-360-A1D6 Engine.

**SUBJECT:** Drain Valve Assembly Installation

**SERIAL NUMBERS AFFECTED:** Model A-1 Serial Number 1000; Model A-1B Serial Numbers; 2307, 2308, 2309, 2312, 2314, 2315, 2320, 2323, 2324, 2325, 2328, 2332, 2333, 2335, 2338, 2340, 2341, 2346, 2348, 2351, 2354, 2356, 2362, 2372, 2374, 2378, 2393, 2406, 2407, 2409, 2411, 2416, 2417, 2420, 2423, 2426, 2428, 2433, 2441, Model A-1C Serial Number; 3004, 3011, 3014, 3015, 3016, 3020, 3022, 3026.

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**Engineering Data is FAA Approved**

## **DESCRIPTION**

The Husky A-1B and A-1C with the Lycoming IO-360-A1D6 Engine necessitate a Drain Valve Assembly (“DVA”) in the center of the sump to avoid “over priming” or “flooding” of the engine when the engine is not in use. Currently, the DVA is not incorporated in the above affected models. Therefore, we require that installation of the DVA be installed as soon as possible. The purpose of this service bulletin is to alert owners of this situation so that they may install the DVA and avoid potential damage to the engine.

## **COMPLIANCE**

It is recommended that the DVA be added to the engine before further operations. Instructions on how to install the DVA are provided below. Please follow instructions carefully. After the DVA has been installed, make an appropriate notation in the airplane maintenance logbook. The attached Compliance Letter shall be completed and sent to Sky International Inc. and the Federal Aviation Administration (“FAA”).

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**INSTALLATION OF LYCOMING DRAIN VALVE ASSEMBLY\***

1. Remove Screws from Lower Engine cowling at firewall and nose bowl to remove Lower Cowling. Care should be taken on removal to avoid any paint damage. Retain hardware (nylon washer and fillister screws) to be re-used during installation.

NOTE:

Before removal of the Muffler Assembly, locate and mark the upper skin of the Muffler at a point directly below the drain plug located on the centerline of sump pan as accurately as possible. This will determine where to place 45454-033 Blister.

2. Remove safety Nuts and Retaining nuts and Remove the Muffler/Exhaust System. Set aside the muffler for later addition of the Blister installation. Make sure the exhaust Muffler Upper Skin has been properly marked for location of the blister.
3. Remove plug located at center of sump, and insert 45395-052 Elbow into the hole. Align Elbow fitting toward rear of Engine. Note that the elbow may require additional turns to install to the point that will clear the Muffler Upper Skin.
4. Install 45395-513 Vent Line Assembly onto 45395-052 elbow. Do not tighten at this time.
5. Position 45395-050 Support Bracket with lip down and secure with 2 ea MS20074-04-04 bolts and safety as required.
6. Assemble, DO NOT TIGHTEN, (a) AS5174-03-03 Union, (b) AQ624000-3-0060 Hose Assembly, (c) MS20822-3 Elbow, (d) 203200 Fitting, and (e) 75444 Adapter Assembly together as shown on detail.
7. Attach TYGON Hose (clear yellow 3/8ID x 1/2OD) to bottom of Adapter Assembly, using 1 ea BK705-1170 Worm Gear Clamp and Tighten.
8. Drill NO.10 (.194) Hole Firewall Footwell at location shown on illustration. Install MS21919-DG8 Clamp around the 203200 Fitting. Then thread The Clear Hose portion of the assembly behind the engine mount.
9. Secure the Clamp to the firewall with AN 526-1032R14 Screw, AN970-3 Washers (1 under Head (aft of firewall, 1 fwd of firewall, then 2 spacer washers, and secure with AN526-1032C Nut. Do not tighten at this time.
10. Form the Tube Assembly to a curvature that will align with the Hose Assembly for best clearance possible, and support the Tube to the Bracket previously installed to the sump.
11. Slip the MS21919-DG3 over the tube and secure to Support Bracket with 1 ea AN526-1032R5 Clamp, AN 960-10 Washer and AN365-1032C Nut.

12. Again check alignment for proper clearance and tighten (a) the complete hose and line assemblies and (b) and the complete attachment hardware connections.

**MUFFLER SHROUD (SKIN) MODIFICATION:**

TO MAKE NECESSARY CLEARANCE FOR ABOVE INSTALLATION.

1. Locate the reference point established in the earlier REFERENC NOTE. Using the reference point cut an oval shaped hole, using the template included (1 13/16 inch wide and 4 7/8 inches long.
2. Temporarily tack weld the new 45454 Blister to the upper skin of the muffler, and install muffler assembly. Check the clearance between the Vent Assembly (mainly the elbow at the sump). If adequate clearance is not shown, increase the blister form at the point of contact.
3. Remove the Muffler Assembly and Seam weld the blister to the upper skin of the muffler and re-install the muffler to the engine.
4. After approval reinstall the cowling in the reverse order of the removal.

**\*NOTE:**

- Only FAA authorized repairmen should perform the following instructions.
- It is the responsibility of owner/operator to have FAA authorized repairmen perform this work.

**PARTS LIST**

<b>NO. REQ.</b>	<b>CODE NUMBER</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
1	60658	75444	Fuel Drain Valve
1	57921	MS20822-3	Elbow
1		45395-513	Vent Line Assembly
1	57566	AS5174-03-03	Union
1	40101	AQ624000-3-0060	Hose, w/ fire sleeve
1	60653	Valley #203200	Fitting, Pipe Thread
1	56850	AN526-1032R8	Screw
1	56880	AN526-1032R14	Screw
1	57390	MS21919DG3	Clamp, cushioned
1	57411	MS21919-DG8	Clamp, cushioned
2	55392	AN365-1032C	Nut, self-locking
3	58740	AN960-10	Washer
2	58850	AN970-3	Washer, Large Area
2	30225	30146-004	Spacer Washer
1	60860	BK#705-1170	Clamp, Worm Drive
9 in.	40136	3/8 ID x 1/2 OD	Tube, Clear Yellow TYGON
1		45454-033	Blister, Muffler
1		45395-050	Support Bracket
2	61193	MS20074-04-04	Bolt, Safety Head
1		45395-052	Elbow

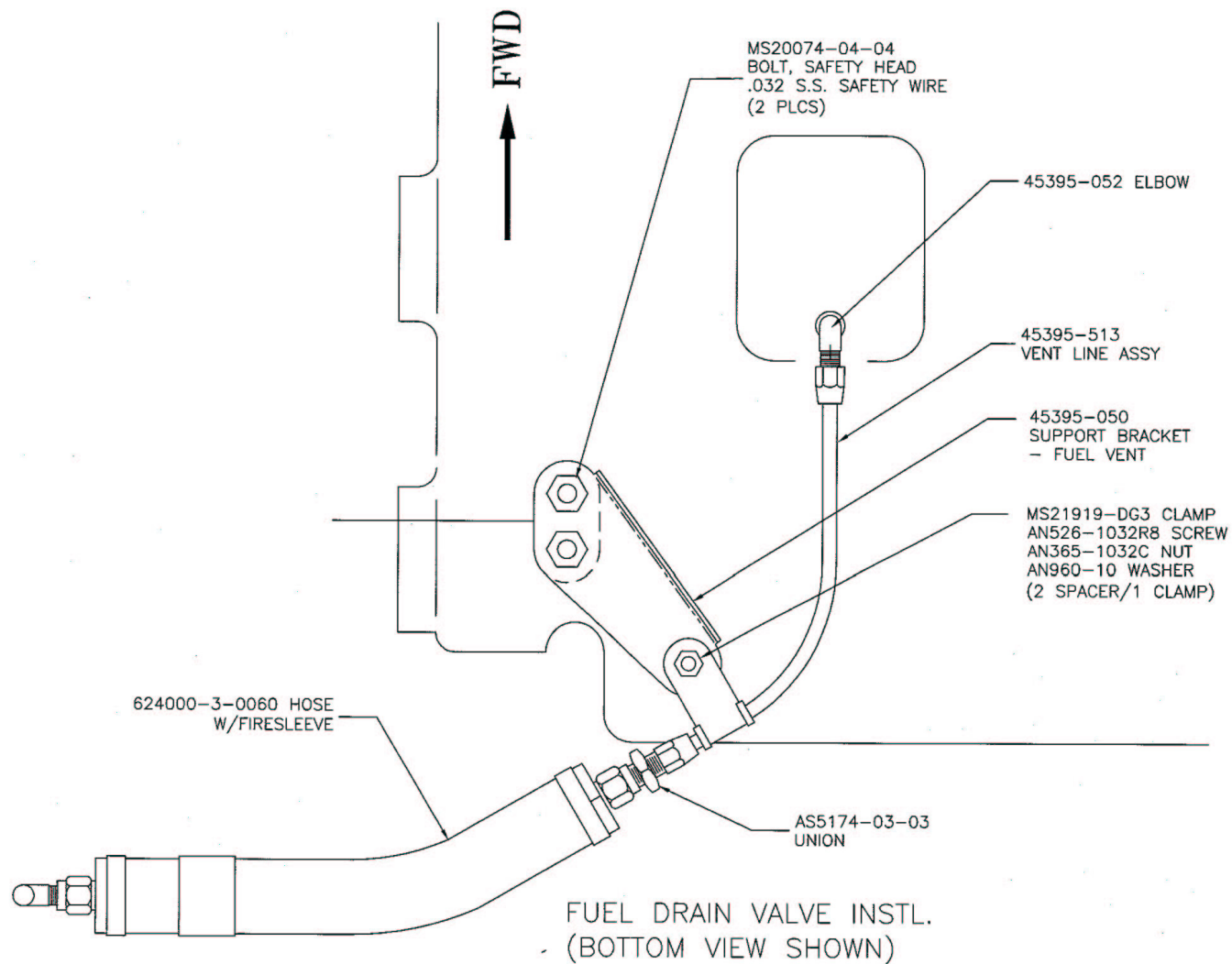


Figure 1-1

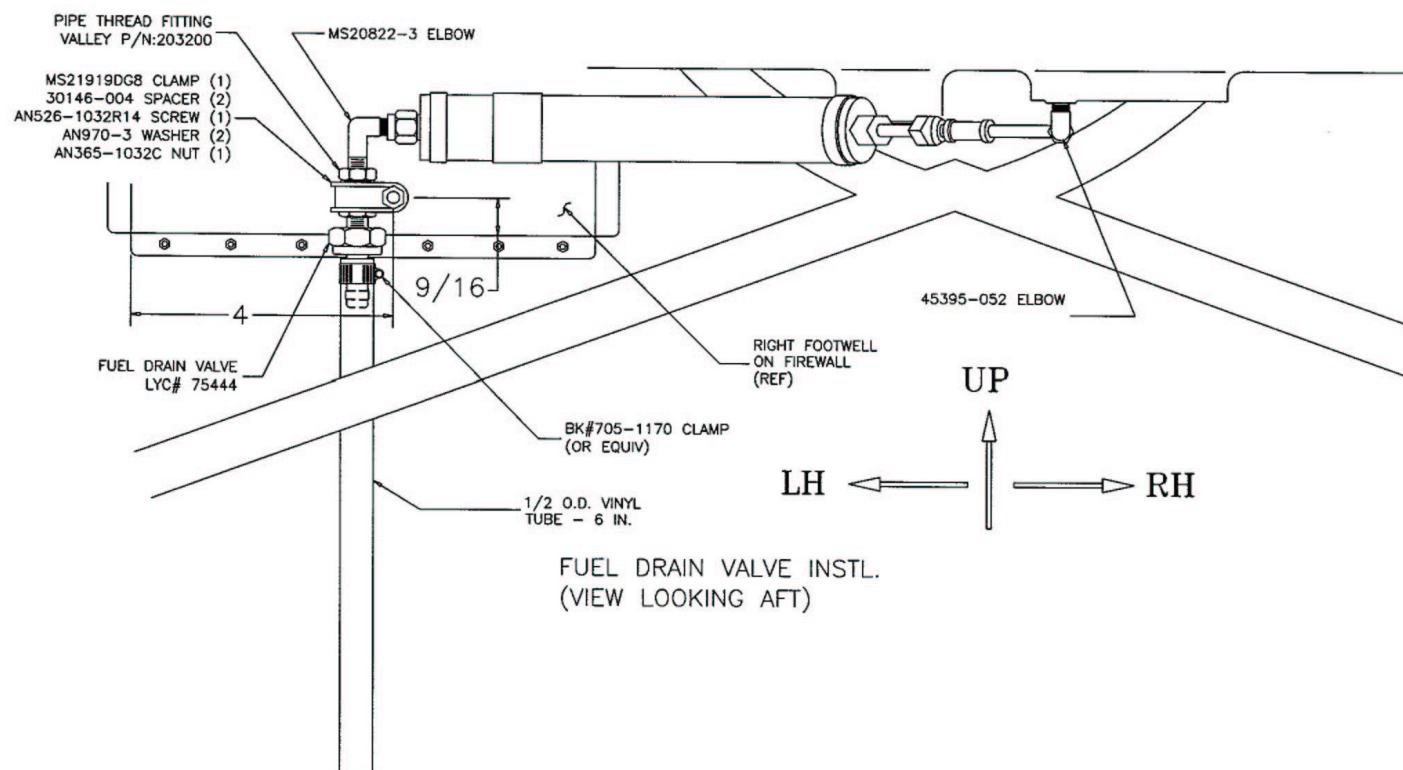


Figure 1-2

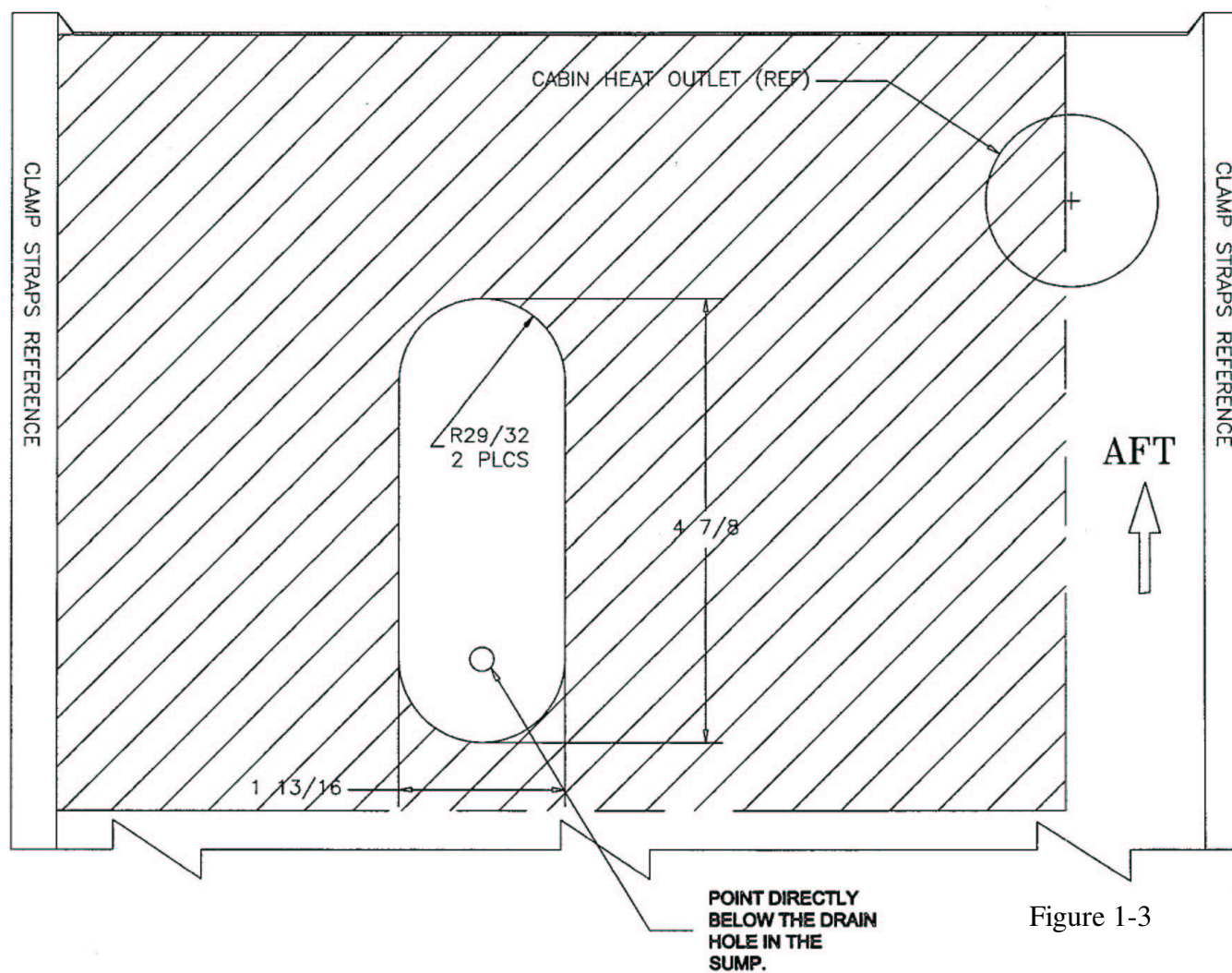
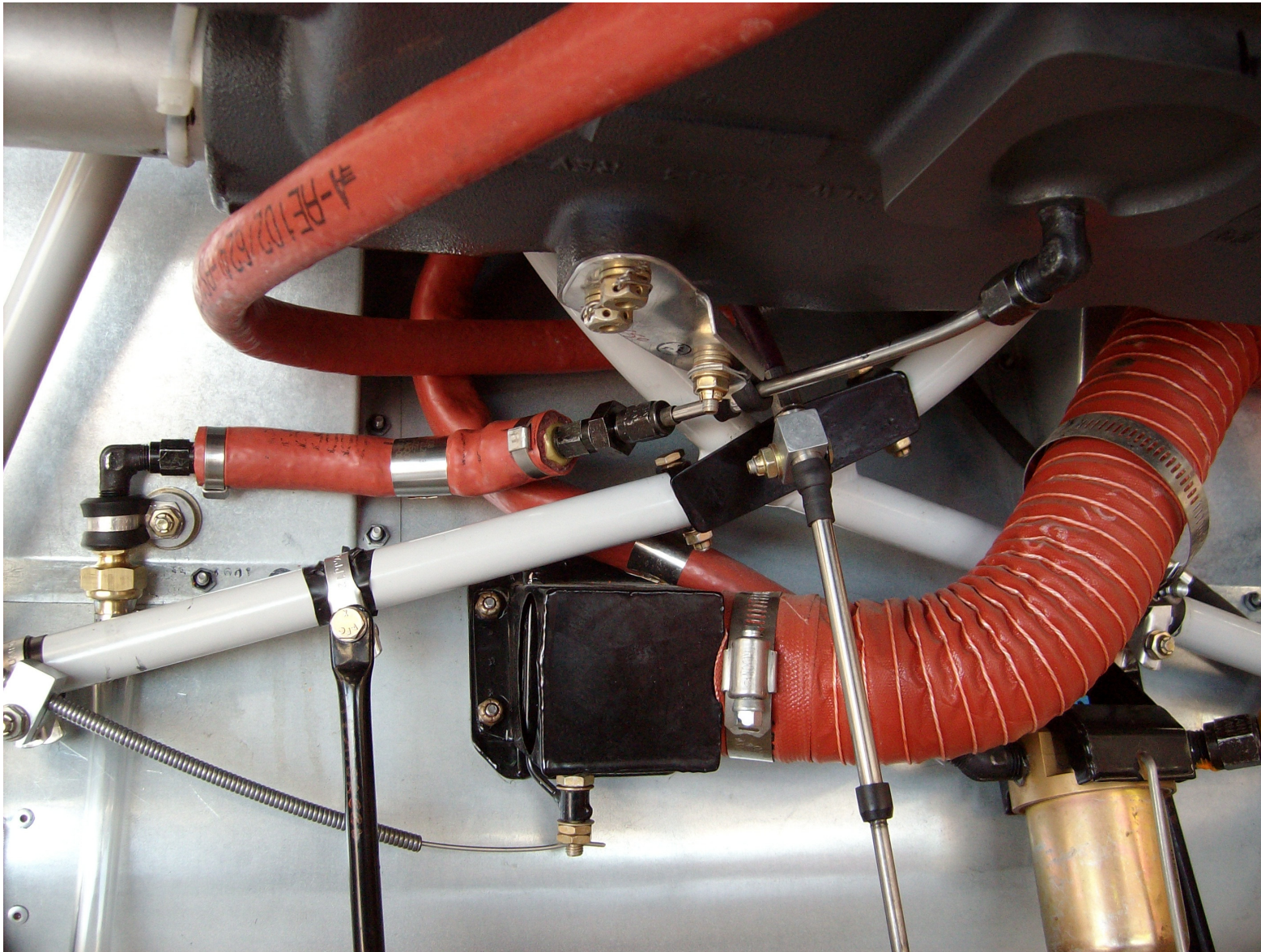
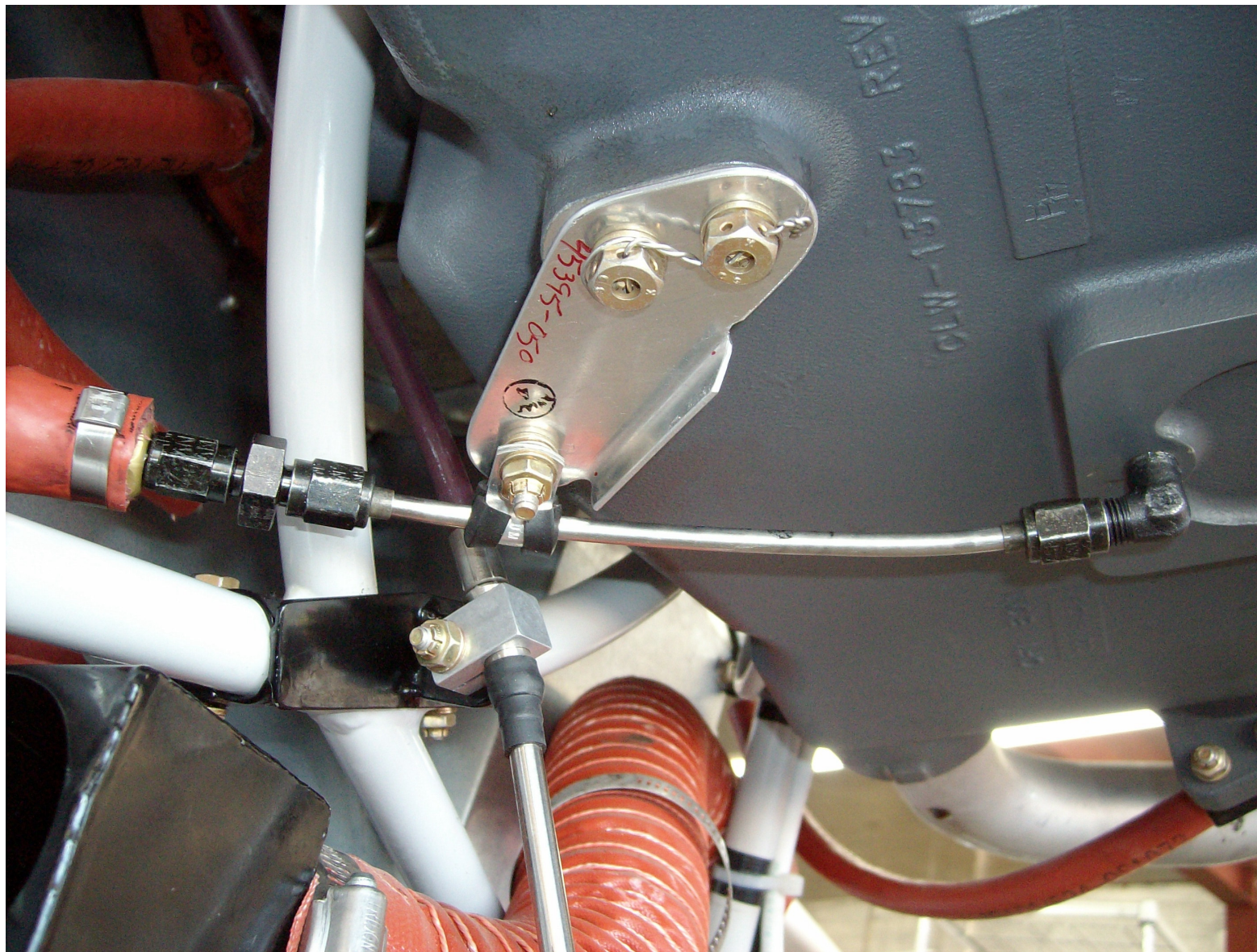


Figure 1-3













**COMPLIANCE LETTER**

This is to certify that I have added the drain valve assembly on aircraft

Serial Number \_\_\_\_\_ Registration Number \_\_\_\_\_

Model Number \_\_\_\_\_ in accordance with Service Bulletin No. 24.

Date: \_\_\_\_\_ Aircraft Hours: \_\_\_\_\_ Hours

Signed: \_\_\_\_\_

Return completed letter to:

Engineering  
Sky International, Inc.  
P.O. Box 1240  
Afton, WY 83110  
Fax: 307-885-9674

Send copy to:

Federal Aviation Administration  
Denver Aircraft Certification Office  
Attn: Roger Caldwell  
26805 East 68<sup>th</sup> Avenue, Room 214  
Denver, CO 80249-6361  
Fax: 303-342-1088