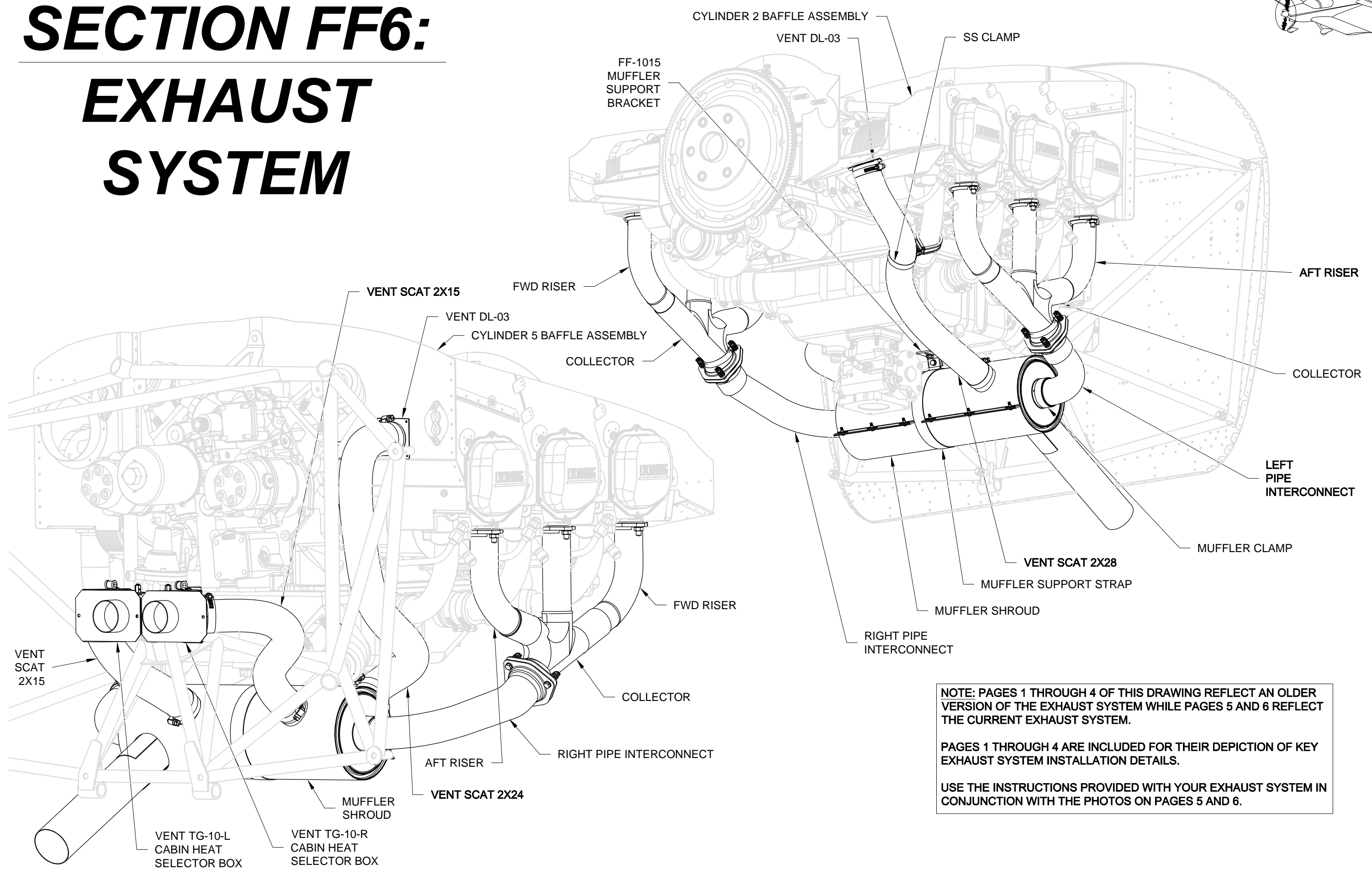


# SECTION FF6: EXHAUST SYSTEM



NOTE: PAGES 1 THROUGH 4 OF THIS DRAWING REFLECT AN OLDER VERSION OF THE EXHAUST SYSTEM WHILE PAGES 5 AND 6 REFLECT THE CURRENT EXHAUST SYSTEM.

PAGES 1 THROUGH 4 ARE INCLUDED FOR THEIR DEPICTION OF KEY EXHAUST SYSTEM INSTALLATION DETAILS.

USE THE INSTRUCTIONS PROVIDED WITH YOUR EXHAUST SYSTEM IN CONJUNCTION WITH THE PHOTOS ON PAGES 5 AND 6.

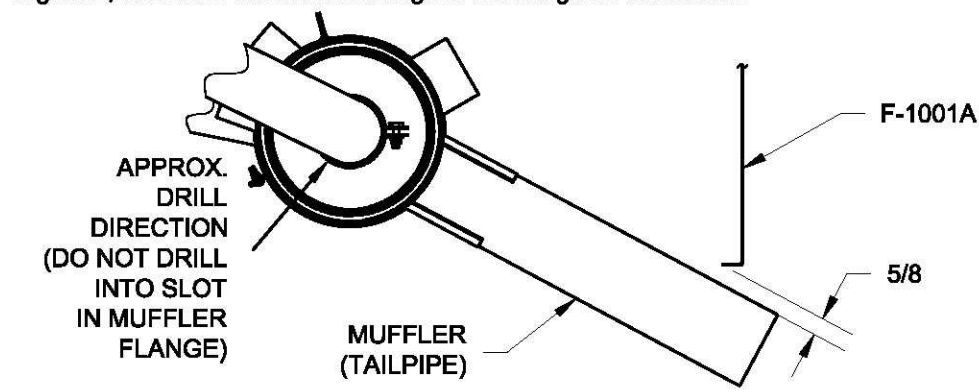
**Step 1:** Insert the Fwd and Aft Risers into the Collectors to form two Stack Assemblies. See Figure 1.

**Step 2:** Final-Drill the 1/4, #12 and #40 holes in the FF-1015 Muffler Support Bracket. Machine Countersink both #40 holes on the forward face of the muffler support bracket. Deburr the edges and holes in the muffler support bracket. Bolt the muffler support bracket to the bottom of the oil sump on the engine as shown in Figure 1.

**Step 3:** Install the Stack Assemblies and EA GASKET 77611 Exhaust Pipe Gaskets to the engine using the hardware shown in the detail view in Figure 1. Use anti-seize on the exhaust port studs. Torque the exhaust nuts to 100-140 inch-pounds.

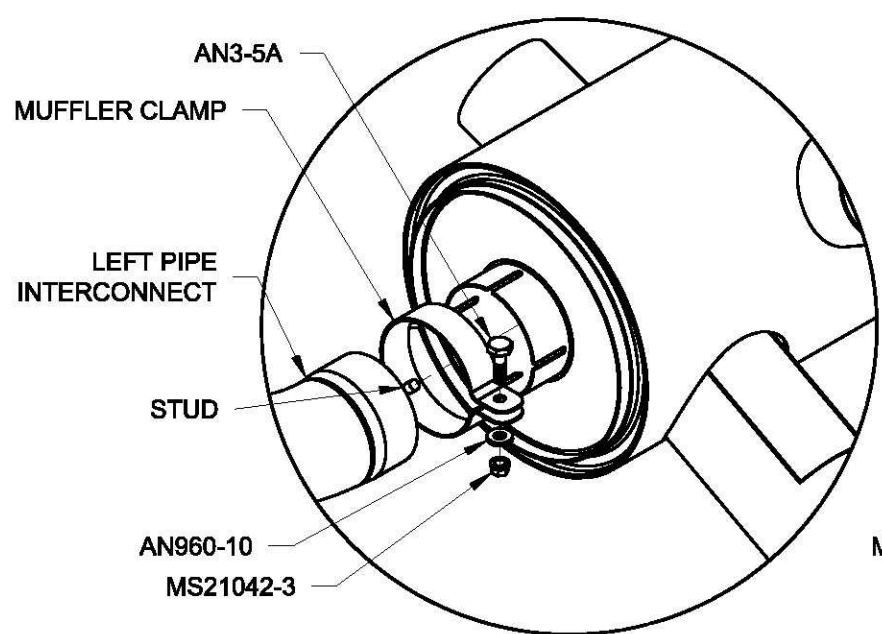
**Step 4:** Install the Muffler Shroud around the Muffler. Install sheet metal screws supplied with the exhaust system along both the muffler shrouds flanges (as an option these screws can be replaced with #8 screws and platenuts, see Figure 1). Slip the Muffler Strap around the center of the muffler shroud. Slip the Left and Right Pipe Interconnects into the ends of the muffler. Temporarily connect the Left Pipe Interconnect to the ball joint on the bottom of the left Stack Assembly. Connect the Right Pipe Interconnect to the ball joint on the bottom of the right stack assembly. Bolt the muffler strap to the FF-1015 Muffler Support Bracket. See Figure 1.

**Step 5:** Rotate the Muffler to obtain the 5/8 minimum clearance between the bottom of the F-1001A Firewall Bulkhead and the Muffler Tailpipe shown in Figure 2. Drill a #12 hole through the muffler and left pipe interconnect in the direction shown in Figure 2, 7/16 from the outboard edge of the flange on the muffler.

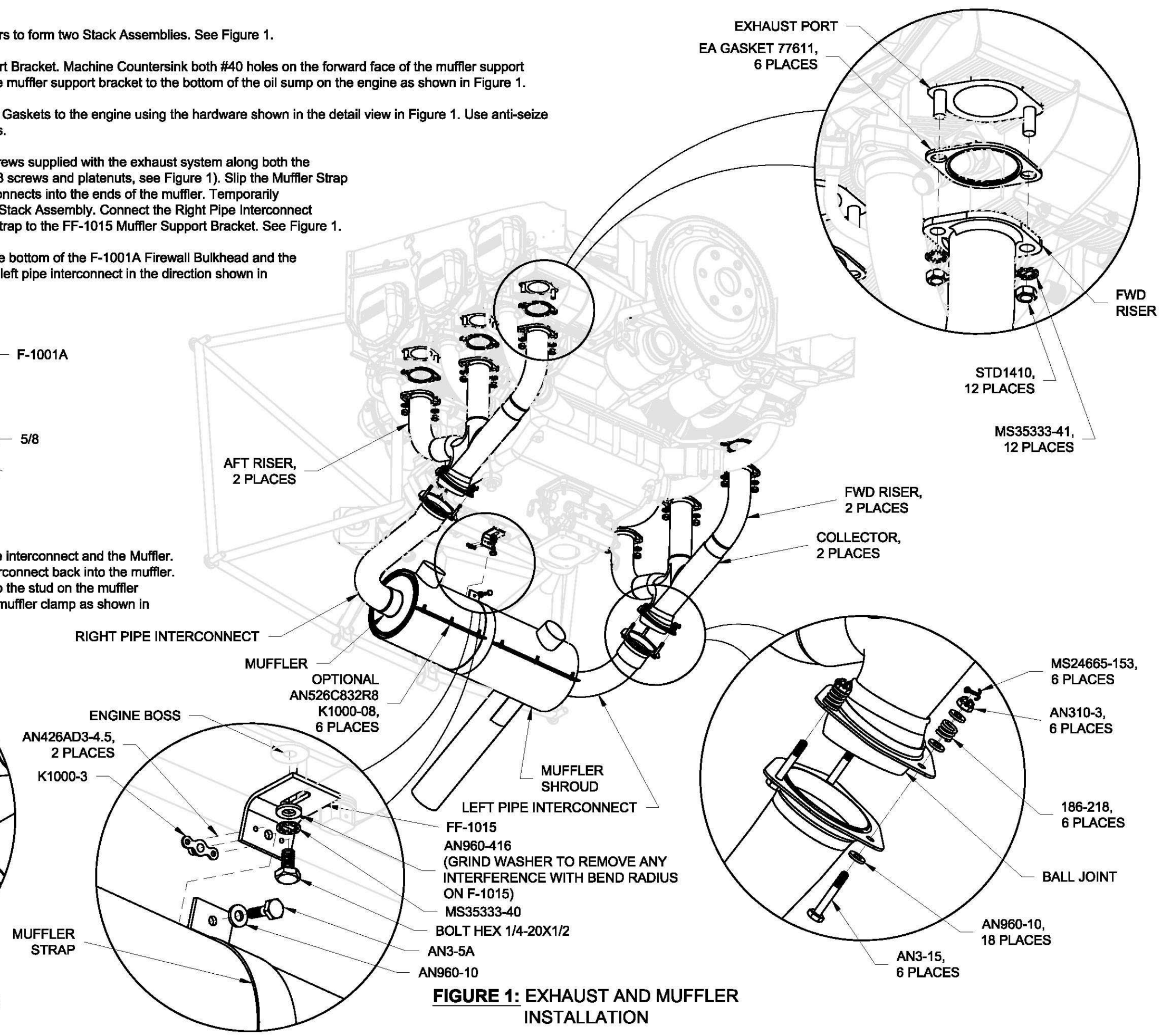


**FIGURE 2: MUFFLER CLEARANCE**

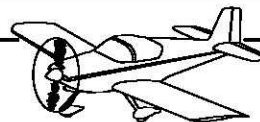
**Step 6:** Remove the Left Pipe Interconnect. Deburr the holes in the left pipe interconnect and the Muffler. Slip the Muffler Clamp over the left end of the muffler. Slip the left pipe interconnect back into the muffler. Connect the left pipe interconnect to the ball joint as shown in Figure 1. Slip the stud on the muffler clamp into the #12 hole drilled in Step 5. Install the hardware to fasten the muffler clamp as shown in Figure 3.



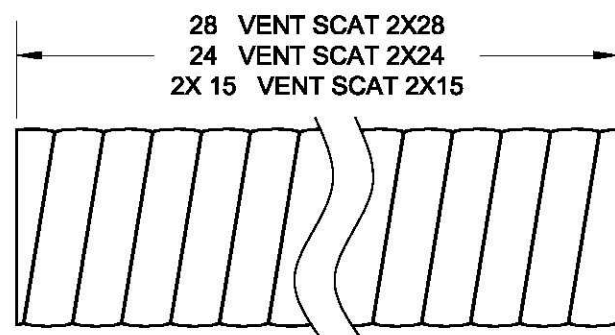
**FIGURE 3: CLAMPING THE MUFFLER**



**FIGURE 1: EXHAUST AND MUFFLER INSTALLATION**

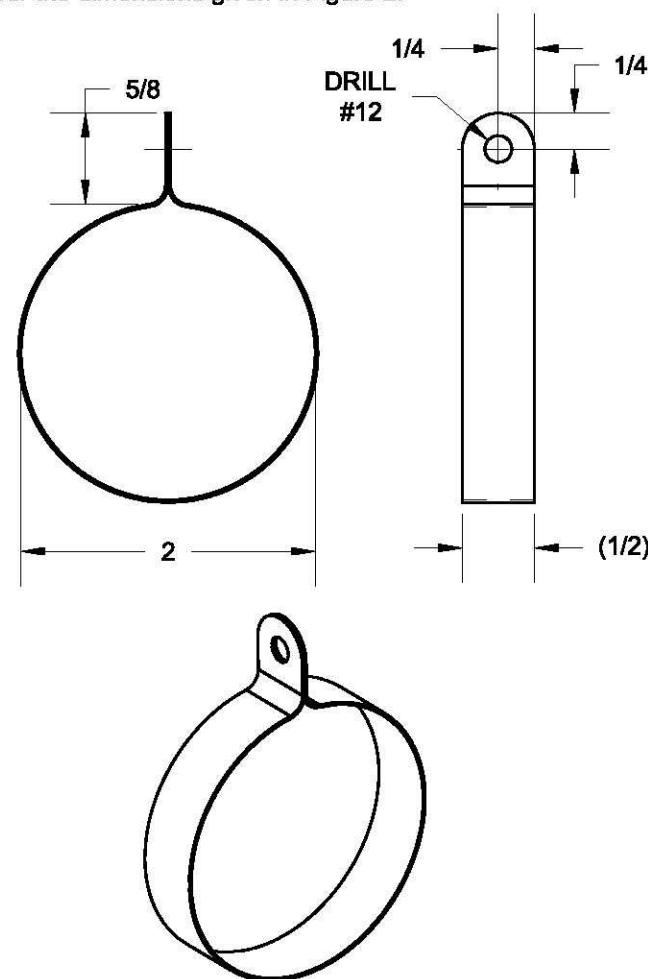


Step 1: Cut a length of scat tube 28 inches long from VENT SCAT 2" to create the VENT SCAT 2X28 Inlet Hose. Cut a length of scat tube 24 inches long from VENT SCAT 2" to create the VENT SCAT 2X24 Inlet Hose. Cut two lengths of scat tube each 15 inches long from VENT SCAT 2" to create two VENT SCAT 2X15 Interconnect Hoses. See Figure 1.



**FIGURE 1: CUTTING THE SCAT TUBES**

Step 2: Fabricate a SS Clamp from the SS304-26GAX1/2X9 material provided in the kit per the dimensions given in Figure 2.



**FIGURE 2: MAKING THE SS CLAMP**

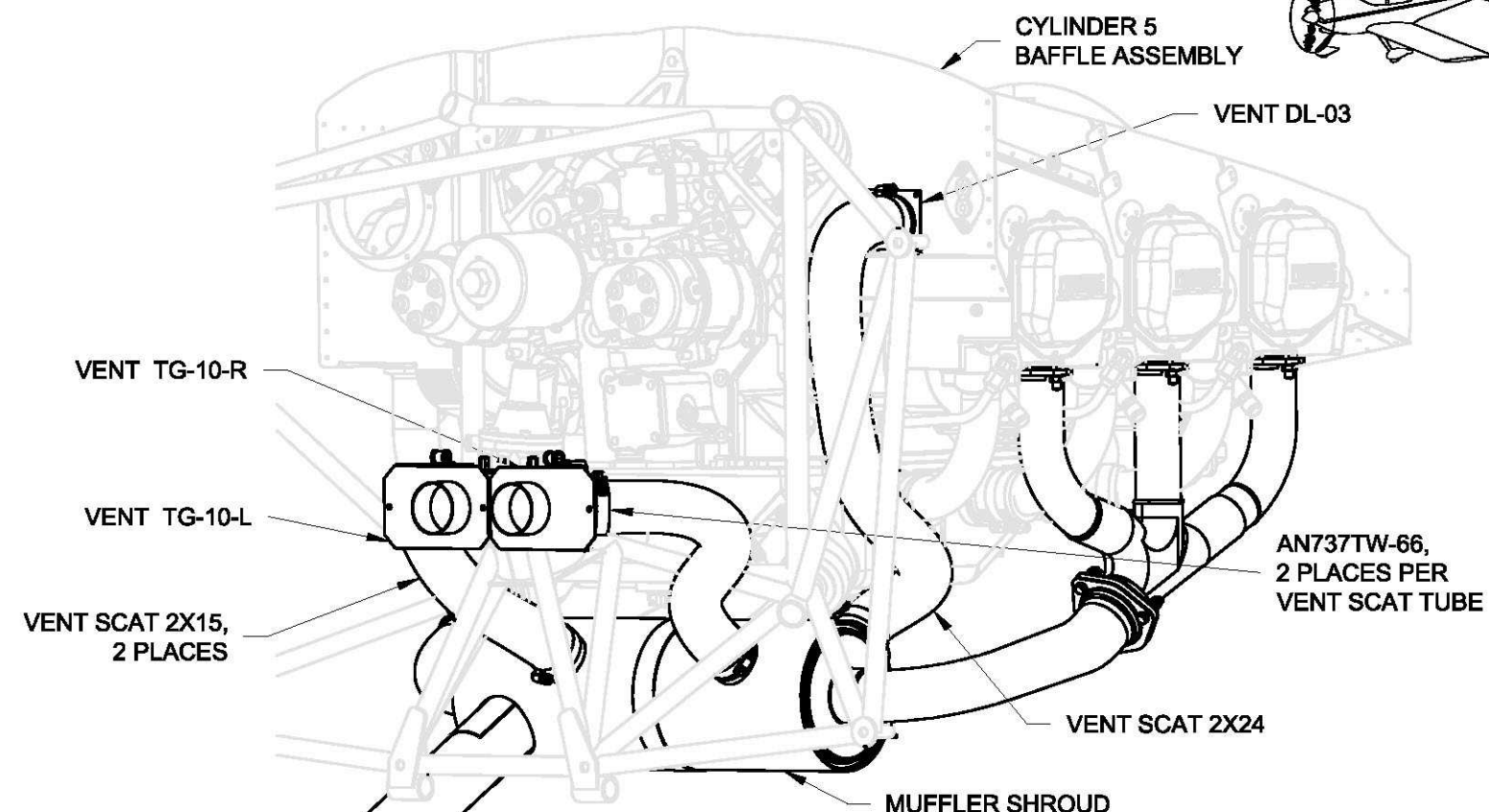
**NOTE: Refer to Figure 3 and Figure 4 for the remaining steps on this page.**

Step 3: Install both VENT SCAT 2X15 Interconnect Hoses between the aft inlets on the Muffler Shroud and the VENT TG-10-L and -R Cabin Heat Selector Boxes.

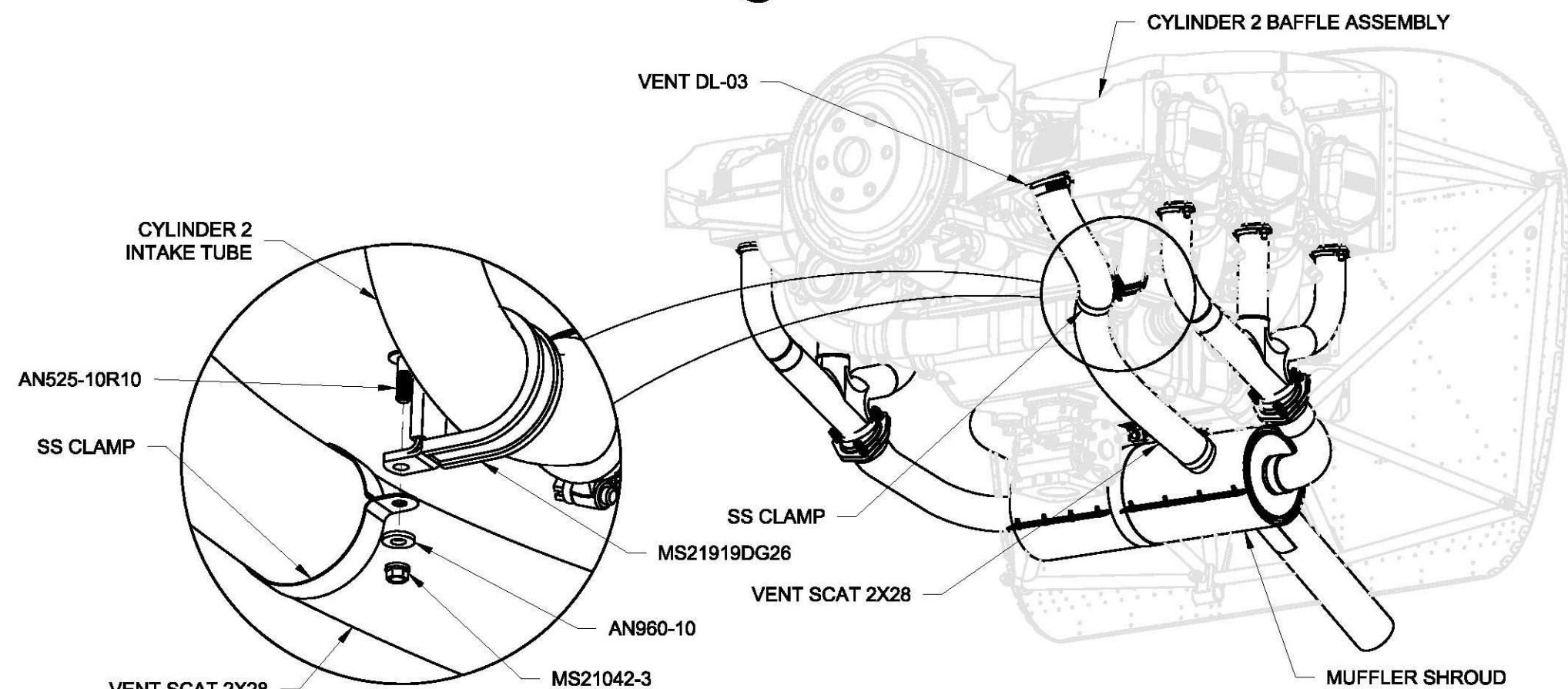
Step 4: Install the VENT SCAT 2X24 Inlet Hose between the VENT DL-03 attached to the aft side of the Cylinder 5 Baffle Assembly and the forward right port on the Muffler Shroud.

Step 5: Install the VENT SCAT 2X28 Inlet Hose between the VENT DL-03 attached to the lower face of the ramp on the Cylinder 2 Baffle Assembly and the forward left port on the Muffler Shroud. Route the inlet hose above the fuel line, see Page FF6-4, Figure 1.

Step 6: Clamp the VENT SCAT 2X28 Inlet Hose to the Cylinder 2 Intake Tube.



**FIGURE 3: INSTALLING THE SCAT HOSES**

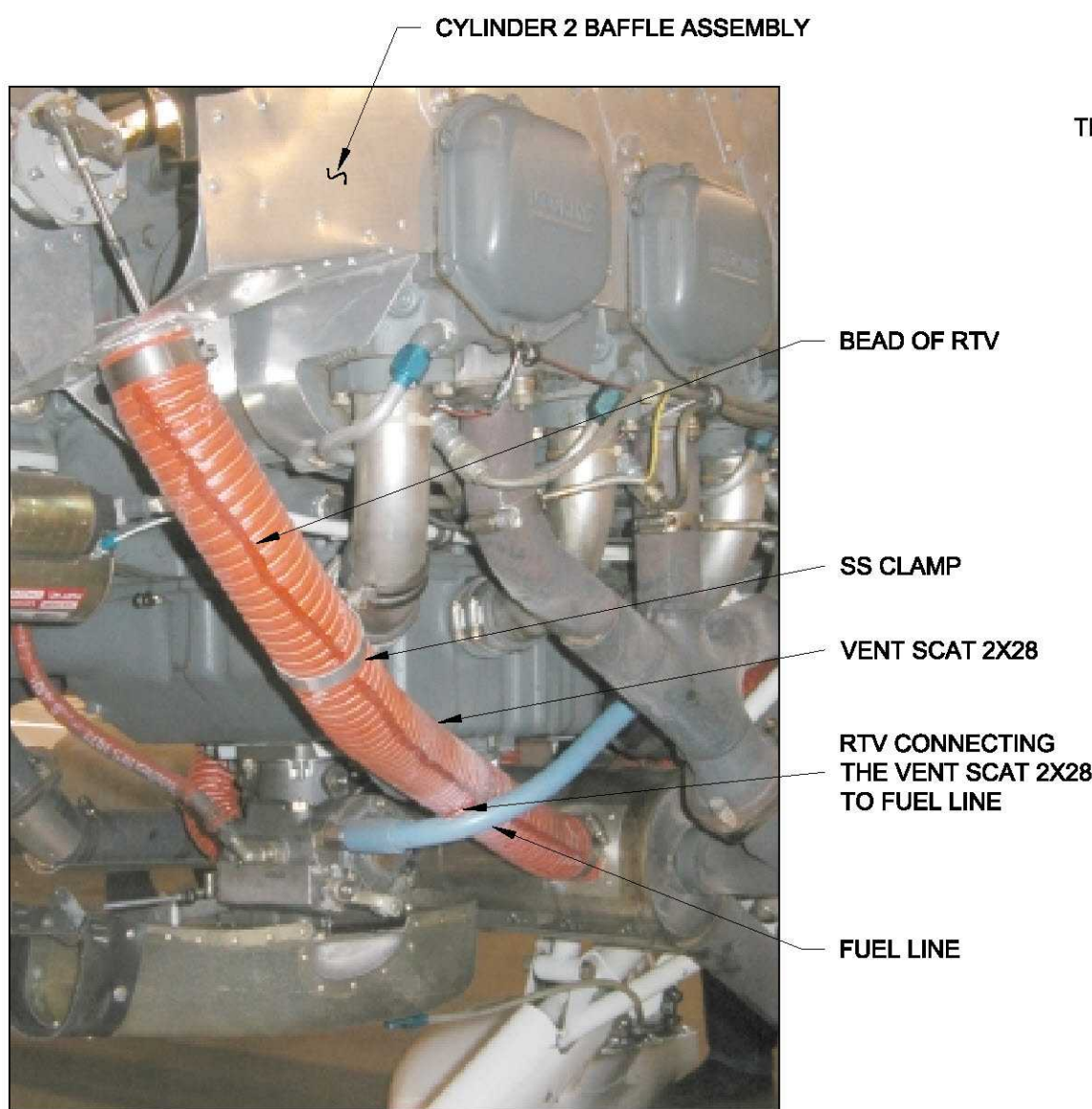


**FIGURE 4: INSTALLING THE SCAT HOSES**



**Step 1:** Run a bead of RTV high temperature sealant (Permatex #26B Red) along the entire length of all four VENT SCAT Inlet and Interconnect Hoses that attach to the Muffler Shroud. See Figure 1.

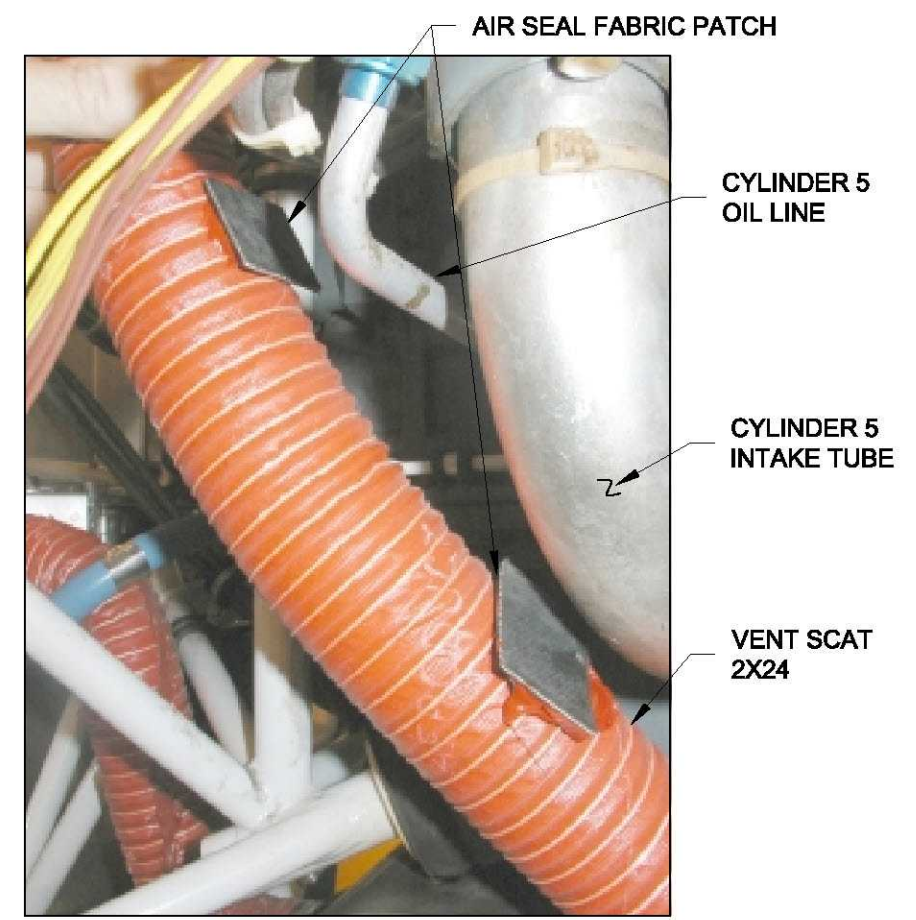
**Step 2:** Liberally apply RTV between the VENT SCAT 2X28 Inlet Hose and the fuel line that interconnects the engine driven fuel pump and the fuel injection servo. See Figure 1. Repeat this process for the fuel line between the firewall and the engine driven fuel pump that rests against the right VENT SCAT 2X15 Interconnect Hose. See Figure 2.



**FIGURE 1: INLET HOSE DETAILS (LEFT SIDE)**



**FIGURE 2: HOSE DETAILS (RIGHT SIDE)**



**FIGURE 3: PROTECTIVE PATCHES**

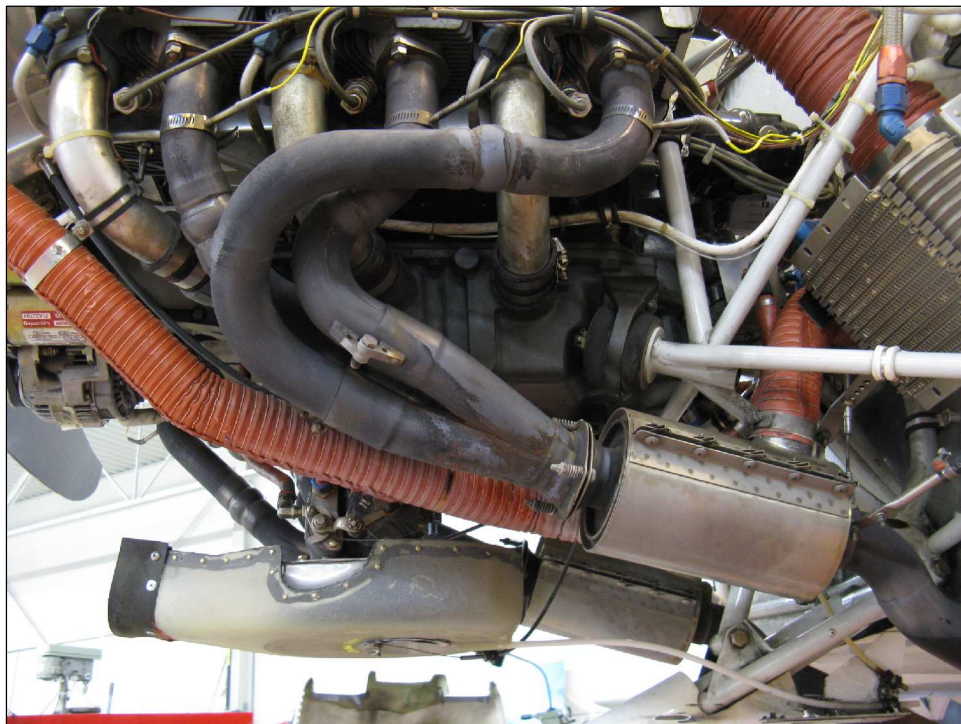
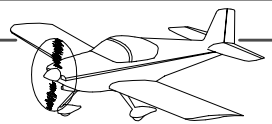
**Step 3:** Cut two patches of Air Seal Fabric as shown in Figure 3. Using RTV as an adhesive permanently affix the Air Seal Patches to the VENT SCAT 2X24 Inlet Hose as shown in Figure 3. This will prevent the inlet hose from chaffing on the Cylinder 5 Intake Tube and Oil Line.

**Step 4:** Liberally Apply a bead of RTV between the control cables and the left edge of the FF-1015 Muffler Support Bracket as shown in Figure 4.



**FIGURE 4: MUFFLER SUPPORT BRACKET DETAILS**





**FIGURE 1:** INSTALLATION OVERVIEW - LEFT SIDE



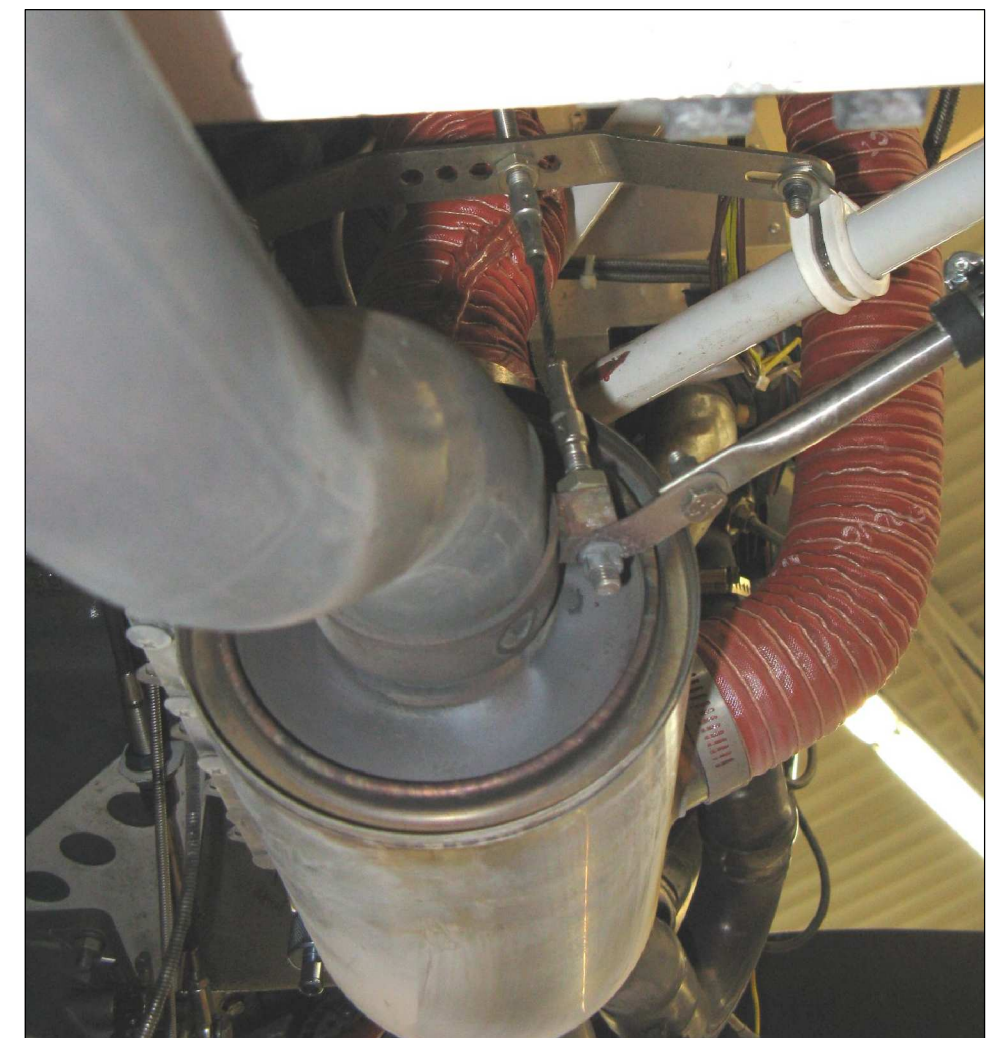
**FIGURE 3:** BALL JOINT ASSEMBLY DETAIL VIEW



**FIGURE 2:** INSTALLATION OVERVIEW - RIGHT SIDE

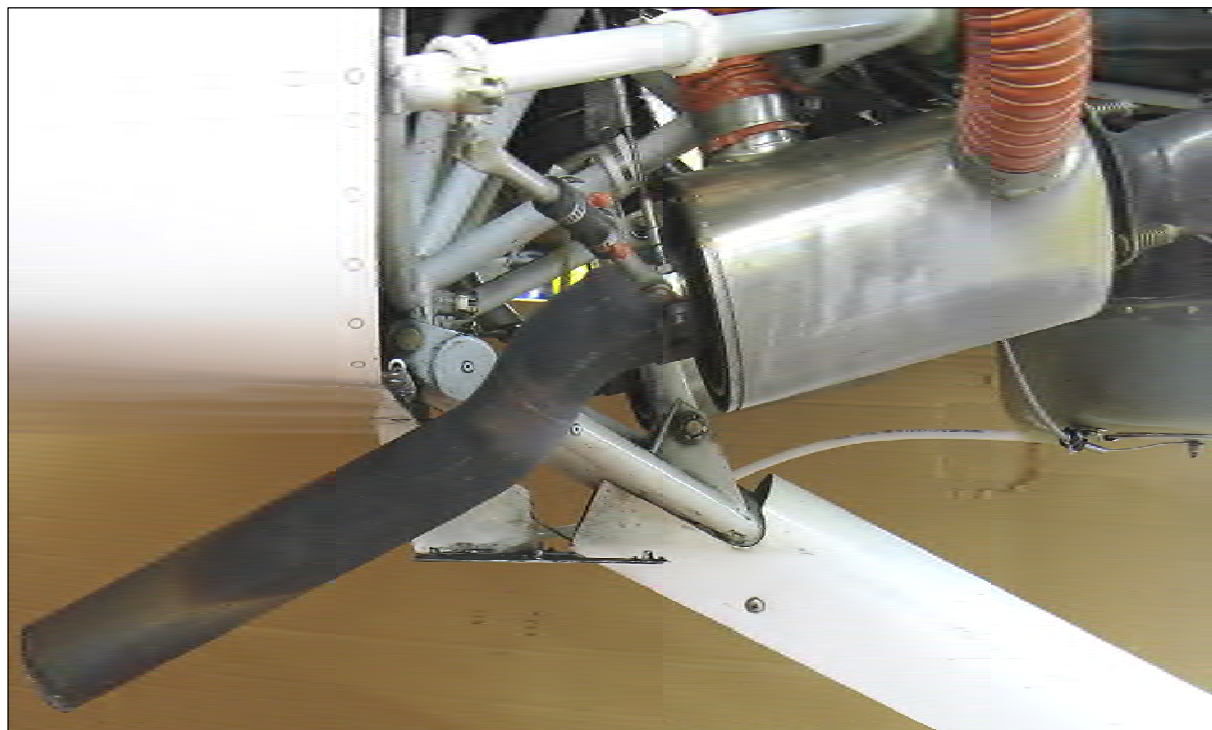


**FIGURE 4:** MUFFLER BRACING & SUPPORT - LEFT SIDE  
VIEW LOOKING UP AND FORWARD

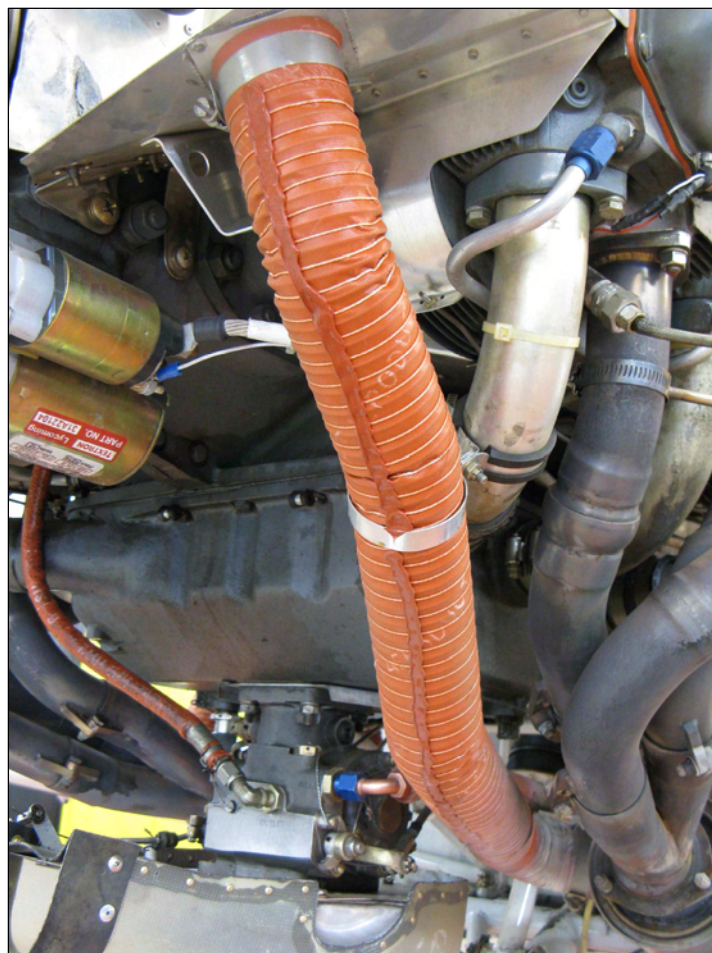


**FIGURE 5:** MUFFLER BRACING & SUPPORT - RIGHT SIDE  
VIEW LOOKING UP AND FORWARD





**FIGURE 1:** MUFFLER BRACING & SUPPORT - RIGHT SIDE  
VIEW LOOKING INBOARD



**FIGURE 3:**  
INLET SCAT TUBE ROUTING - LEFT SIDE



**FIGURE 2:**  
EXHAUST SUPPORT STRAP INSTALLATION DETAIL



**FIGURE 4:**  
EXHAUST SUPPORT STRAP INSTALLATION DETAIL



**FIGURE 5:**  
SCAT TUBE ROUTING - RIGHT SIDE