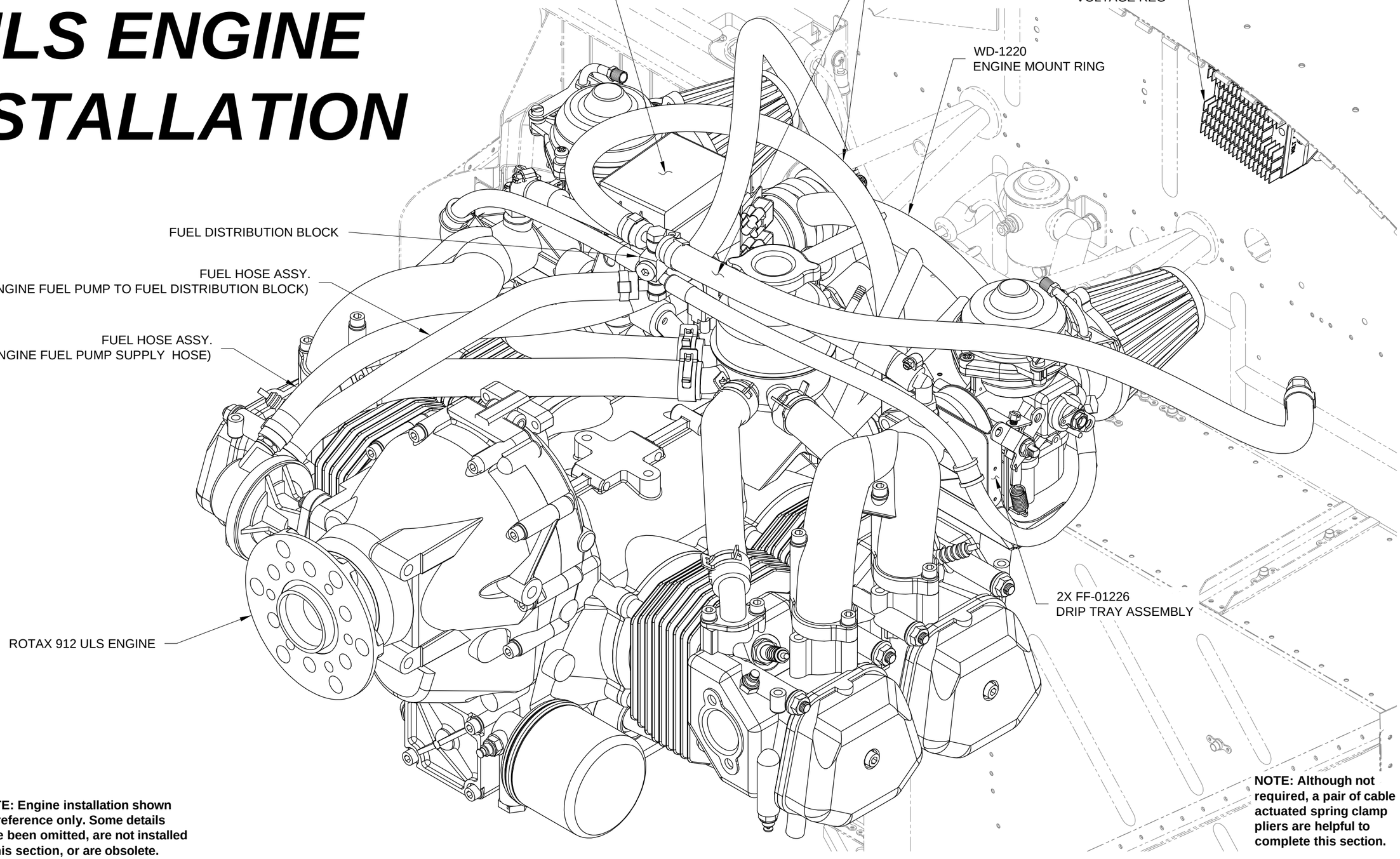
SECTION 46U:
ULS ENGINE INSTALLATION



NOTE: Engine installation shown for reference only. Some details have been omitted, are not installed in this section, or are obsolete.

NOTE: Although not required, a pair of cable actuated spring clamp pliers are helpful to complete this section.

DATE OF COMPLETION: _____

PARTICIPANTS: _____

WARNING: Torque values specified by Rotax supersede all values listed in this section. Torque values must be strictly followed. Have torque wrenches calibrated before use.

NOTE: Keep track of hardware placement by reattaching the hardware to the engine as parts are removed. If there is any question about proper hardware, consult the engine's Illustrated Parts Catalog.

Step 1: Set the engine on a steady work surface at a convenient working height and take pictures of the systems and components at various angles for your own reference later. Continue taking pictures as parts are removed.

Step 2: On the ignition harness, mark connectors A1, B1, A2, and B2. See Figure 1.

Step 3: Remove the retaining screw from the small clamp at the rear of the ignition module and pull the ignition harness free. See Figure 1.

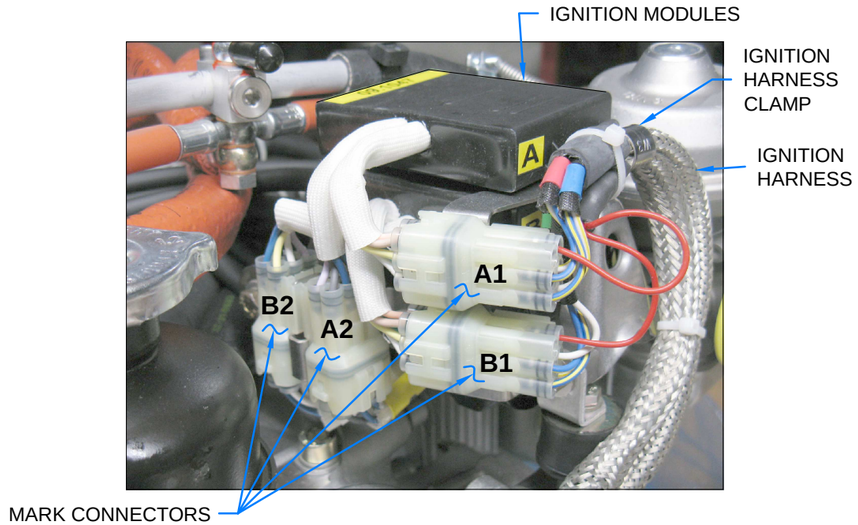


FIGURE 1: MARK ELECTRICAL CONNECTORS; REMOVE WIRING HARNESS

Step 4: Remove the A1 & B1 electrical connectors from the ignition module metal mounting bracket by gently prying the tab at the shielded harness end (arrow) toward the connector and slide them off the bracket. See Figure 2.

FIGURE 2: REMOVE CONNECTORS

Step 5: Separate the two connector halves of the A1 & B1 connectors by gently separating the single tab as shown in Figure 3 and then pulling them apart. Do not reconnect these connectors until directed to do so later in this section.

CAUTION: Do not damage the tabs by prying with excessive force.

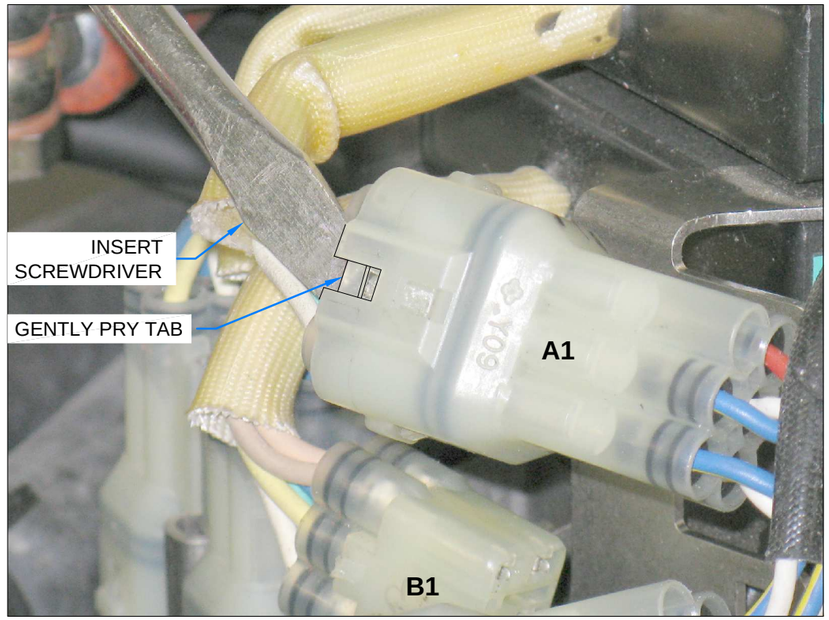


FIGURE 3: SEPARATING CONNECTOR HALVES

Step 6: Remove the flywheel cover from the back of the engine. Refer to the Rotax 912 ULS Illustrated Parts Catalog Chapter 24-20-00.

Step 7: As shown in Figure 4, remove the two cushioned clamps and spacer from the upper trigger coil by removing the Allen screw.

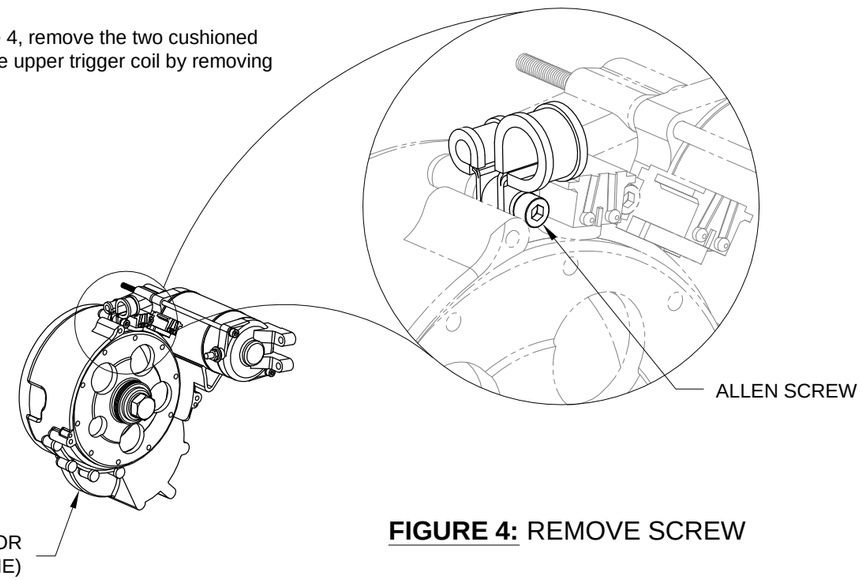


FIGURE 4: REMOVE SCREW

Step 1: Discard the smaller clamp, Allen screw and spacer. Reattach the larger clamp and wire harness to the generator as shown in Figure 1. Torque the Allen screw to 55 in-lbs.

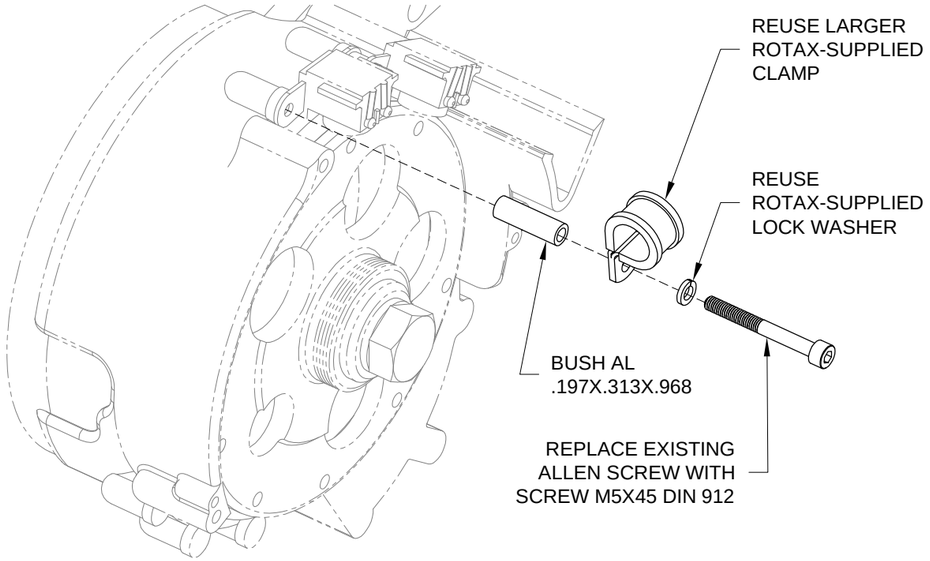


FIGURE 1:
REMOVE AND REPLACE HARDWARE
(WIRE HARNESS NOT SHOWN FOR CLARITY)

NOTE: There are two trigger cams on the flywheel approximately 180 degrees apart and each aligns with only one of the two trigger coils at a time. The crankshaft must be rotated in order to align the trigger cams with the coils.

Step 2: Insert two large bolts in holes clocked approximately 180 degrees apart in the propeller flange as shown in Figure 2. Remove one spark plug per cylinder to make rotating the crankshaft much easier. Place a large screwdriver or other lever between the bolts and slowly rotate the crankshaft CCW until one of the trigger cams aligns with the upper trigger coil. See Figure 3.

Step 3: Measure the gap between the trigger cam and the upper trigger coil (not the plastic cover) using a feeler gauge. Adjust the coil until the gap is .012-.016 in. [0.3-0.4 mm]. See Figure 3.

To confirm the gap distance, see Section 74-00-00 Wear Limits in the Rotax 912 and 914 Series Maintenance Manual (Heavy Maintenance). Search using keywords: "trigger coil gap (with clamps)".

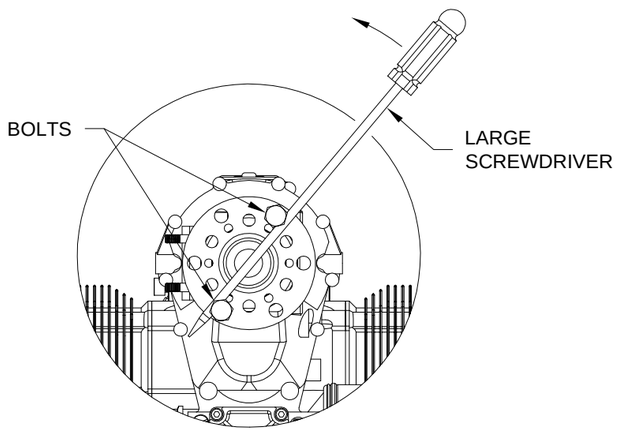


FIGURE 2: ROTATING CRANKSHAFT

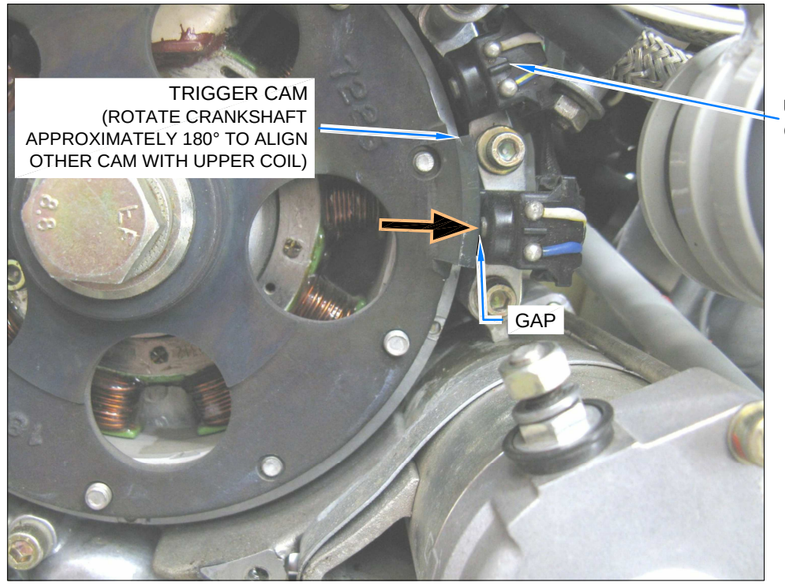


FIGURE 3: CHECK TRIGGER COIL CLEARANCE
(IGNITION COVER NOT SHOWN FOR CLARITY)

Step 4: Temporarily reinstall the spark plugs. Thread them in a few turns. They will be removed again in Section 47iS/U.

Step 5: Remove the left forward mounting bolt from the igniton modules. See Figure 4.

Remove the retaining nut from the bottom of the rubber isolator several inches aft and below the mounting bolt location, then loosen the upper screw and pivot the elastomer assembly aft/up as far as possible.

Pivoting the aft elastomer and removing the left forward bolt allows the ignition module to be moved, providing space for engine mount installation later in this section.

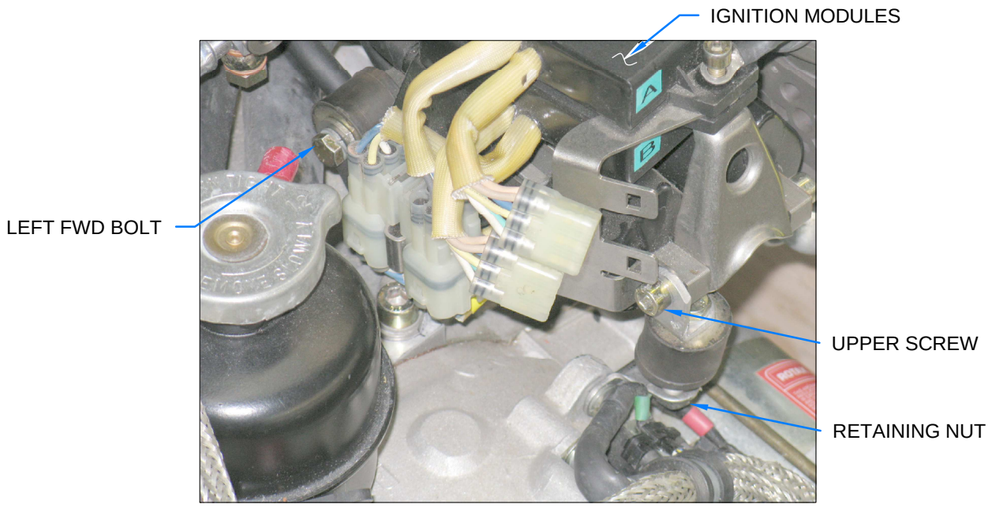


FIGURE 4: DISCONNECTING IGNITION MODULE

NOTE: Prior to removal, note band clamp screw position.

Step 1: Remove both carburetors as follows:

Disconnect the damping spring from the clamp bracket. See Figure 1.

Loosen the band clamp. Remove the carburetor with a slight turning and swivel action.

Remove the band clamp. Disconnect the fuel line clamp from the intake manifold by removing the retaining nut.

Step 2: Secure the carburetors on top of the engine to prevent damage.

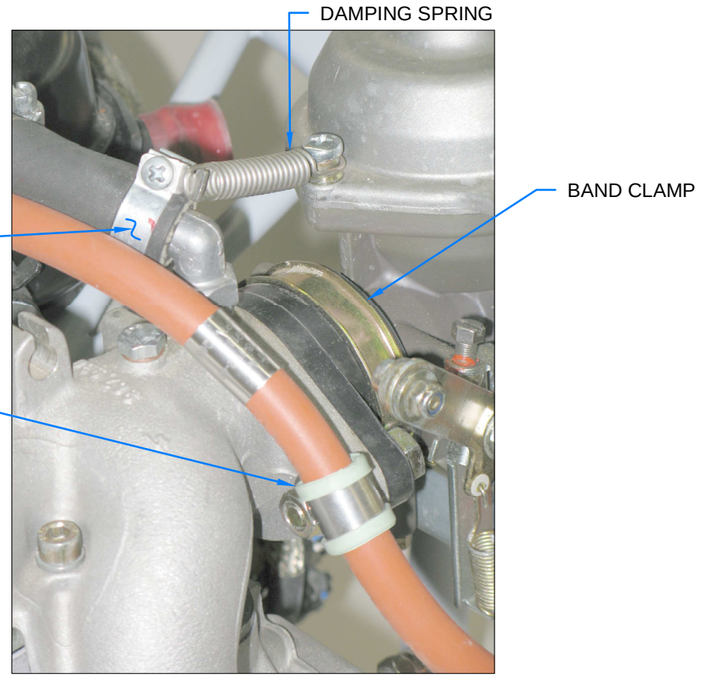


FIGURE 1: REMOVE CARBURETORS

Step 3: Mark the upper grounding lug on the starter. See Figures 2 and 3.

Cut off the lug at the mark (a hacksaw or rotary tool works well), then file the cut area on the starter to a smooth surface. See Figure 4.

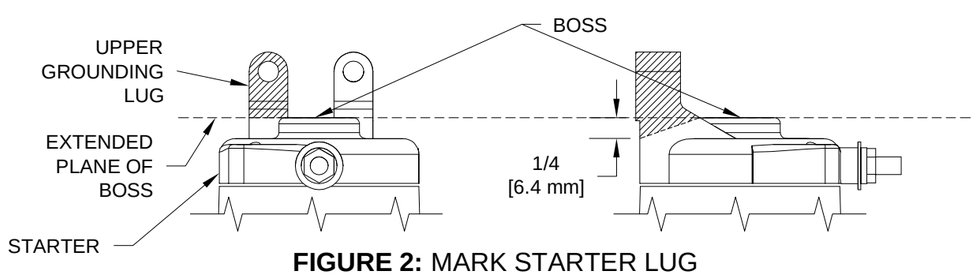


FIGURE 2: MARK STARTER LUG

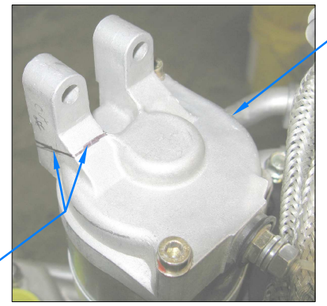


FIGURE 3: MARKED STARTER LUG

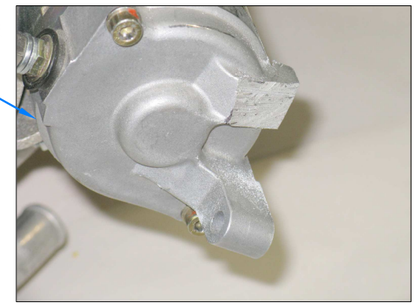


FIGURE 4: STARTER LUG REMOVED
(NOT YET FILED SMOOTH)

Step 4: Tilt up the back of the engine and support with a 2x4 wood block or equivalent under the oil outlet fitting on the bottom of the crank case. See Figure 5.

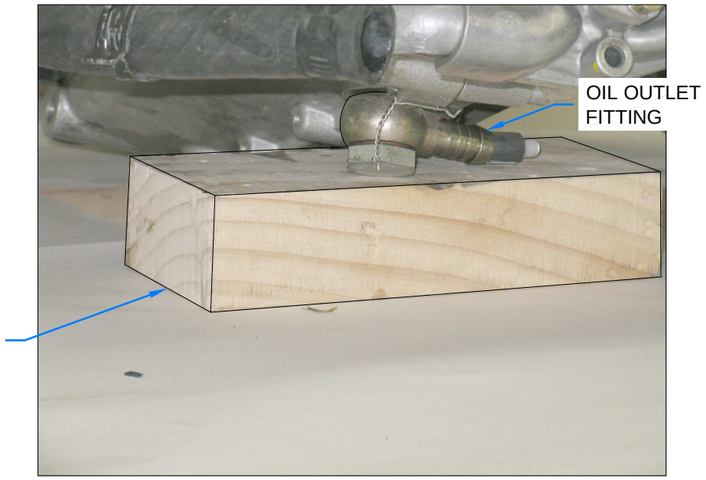


FIGURE 5: TILT UP ENGINE
(OBSOLETE FITTING SHOWN)

Step 5: Check the water inlet elbow clocking. See Figure 6. If necessary remove, reposition, and reinstall the elbow as shown.

Step 6: Squeeze open the clamps with a large pair of pliers or similar, and move the four spring type clamps forward along the lower coolant hoses to allow the hoses to be removed from the water pump. See Figure 6.

Beware of the possibility of residual coolant and have a catch pan and rags on hand.

Pry/pull the hoses free from the water pump tubes, being careful not to nick or gouge the surface of the tubes.

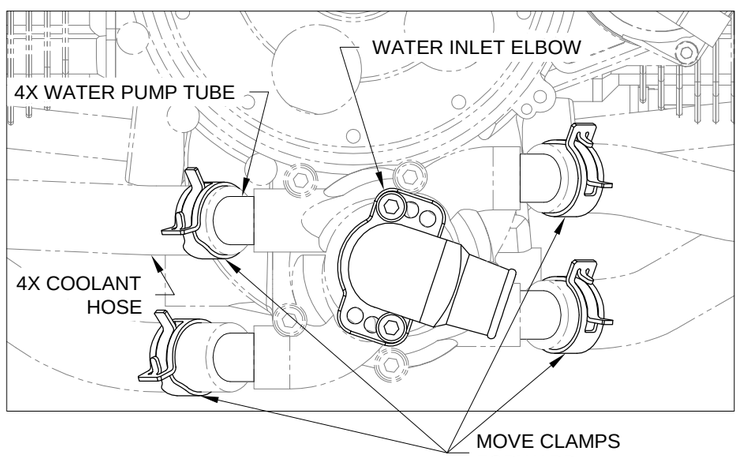


FIGURE 6: REMOVING LOWER COOLANT HOSES

Step 1: Remove the crankcase Allen screw located above and aft of cylinder three as it will be used as an engine mounting point. See Figures 1 and 5.

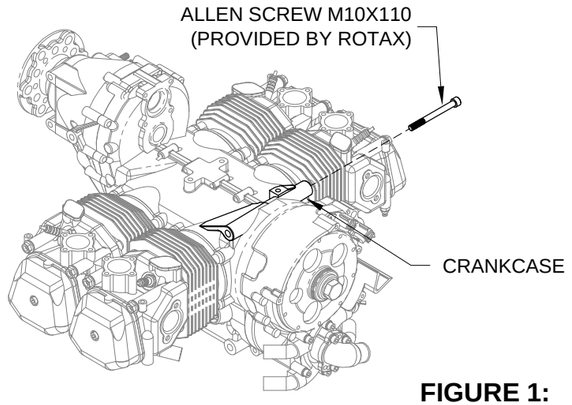


FIGURE 1:
REMOVE CRANKCASE THROUGH BOLT

Step 2: Remove the powder coating from the mating surface of the four WD-1220 Engine Mount Ring bushings. See Figure 2 detail view.

Step 3: Apply masking tape to the inside surfaces of the WD-1220 to prevent scratching the powder coat during installation.

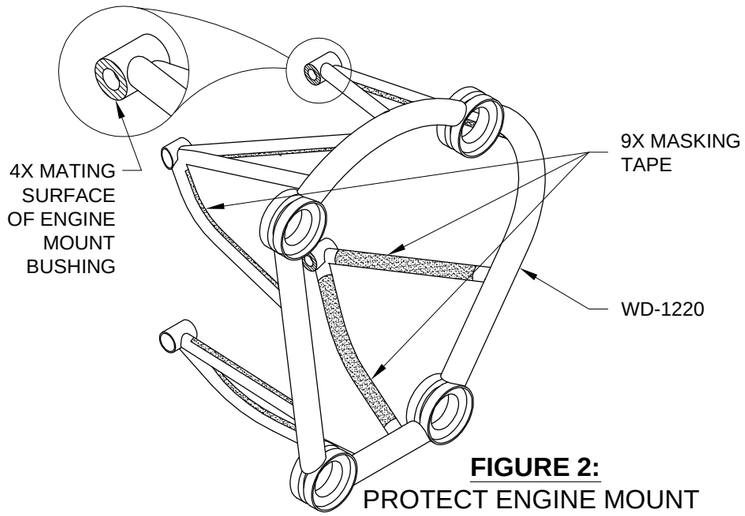


FIGURE 2:
PROTECT ENGINE MOUNT

Step 4: Fit the WD-1220 to the engine. The engine mount ring will fit onto the engine without using force if the correct sequence is followed.

Step 5: Hook the lower right engine mount bushing over the lower right water pump coolant tube. Move the ignition module up and away from the engine, then slide the upper right engine mount bushing past the starter towards the upper right engine mounting point. See Figures 3 and 4.

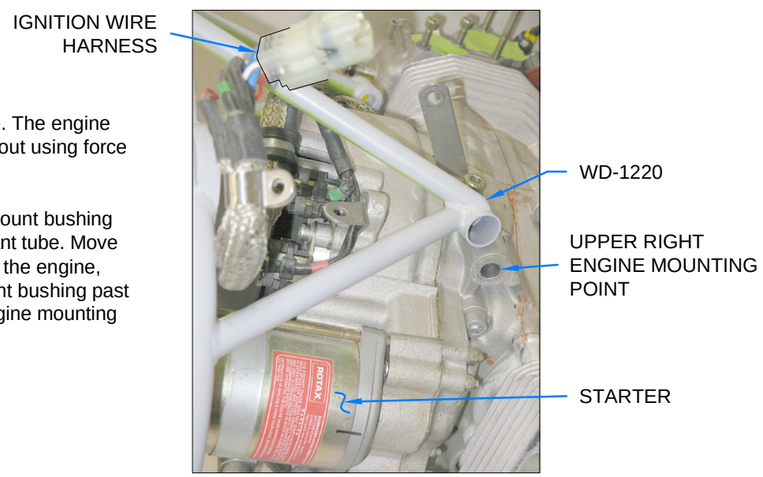


FIGURE 3: INSTALL ENGINE MOUNT: PART 1

Step 6: Rotate the bottom left side of the WD-1220 forward and over the lower left water pump coolant tube. This will be a tight fit, be careful not to damage the coolant tube! See Figure 4.

Step 7: Pull the ignition wire harness through the upper right side of the WD-1220 as shown in Figure 3.

Step 8: Rotate the top left of the WD-1220 forward so that the upper left bushing aligns with the upper left engine mounting point.

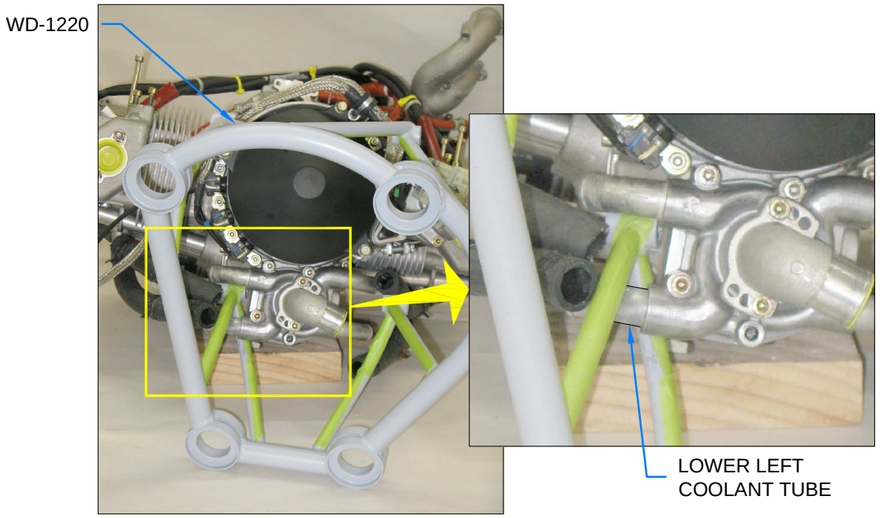


FIGURE 4: INSTALL ENGINE MOUNT: PART 2

Step 9: Attach the WD-1220 to the engine using the hardware called out in Figure 5 and tighten the right side only. Do not final torque the hardware yet. Leave the left hardware completely loose.

Step 10: Check for a gap between the left WD-1220 bushing and the engine. If a gap exists more than half the thickness of a NAS1149F0632P washer, add NAS1149F0632P or NAS1149F0663P washers as required to fill the gap. Attach the left WD-1220 bushings to the engine using the washers as required.

Step 11: Torque the mount screws to the value found in the Rotax 912 and 914 Series Maintenance Manual (Heavy Maintenance), Section 71-00-00.

Step 12: Remove the masking tape from the WD-1220.

Step 13: Reinstall the four lower coolant hoses on the water pump and return the spring clamps to their proper locations.

Step 14: Re-install the ignition module hardware removed on Page 46U-03 Step 5.

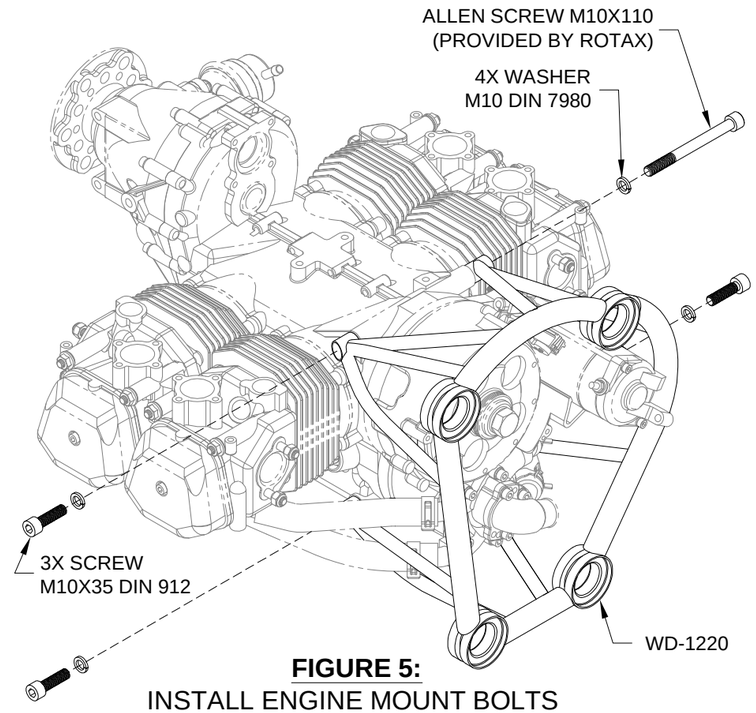


FIGURE 5:
INSTALL ENGINE MOUNT BOLTS

NOTE: The instructions on this page are intended to confirm that the correct fluid fitting is installed and oriented properly as shown in Figure 2.

NOTE: Be forewarned that enough oil may be lurking in the engine to make a very large mess. Tilt the engine until the fluid fitting is not the lowest point of the case.

Step 1: Remove and replace the 956 651 Adaptor straight fluid fitting as shown in Figures 1 and 2.

Step 2: When the rotational position is correct as shown in Figure 2, torque the banjo bolt to 22 ft.-lbs. and safety. See Rotax 912 ULS Illustrated Parts Catalog, Figure 79-20-00-4.

Step 3: Return the engine to a stable level position.

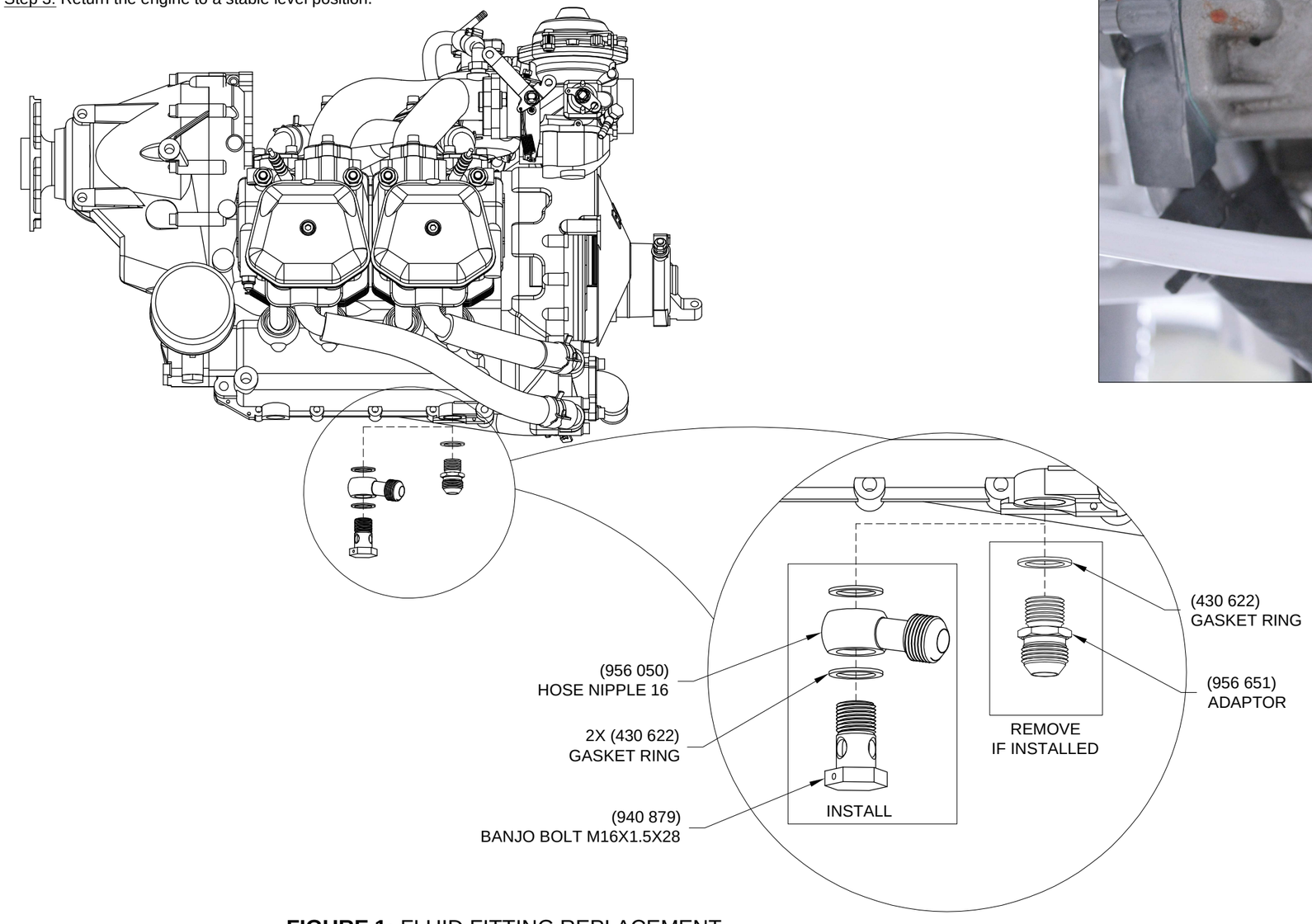


FIGURE 1: FLUID FITTING REPLACEMENT

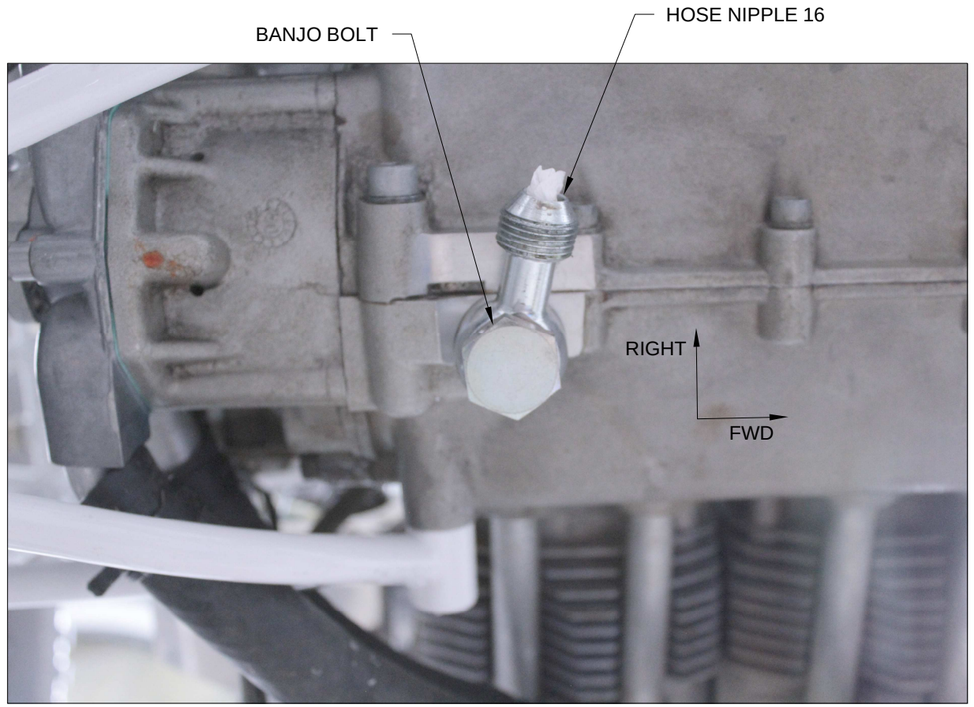


FIGURE 2: HOSE NIPPLE CLOCKING

Step 1: To create the Left Carburetor Drip Tray, trim one FF-01226B Right Drip Tray Stiffener as shown in Figure 1.

Step 2: To create the Right Carburetor Drip Tray, trim the right upper flange of one FF-01226A Drip Tray and the remaining F-01226B Right Drip Tray Stiffener as shown in Figure 2 and Figure 3 Detail A. Figure 3 shows the finished configuration.

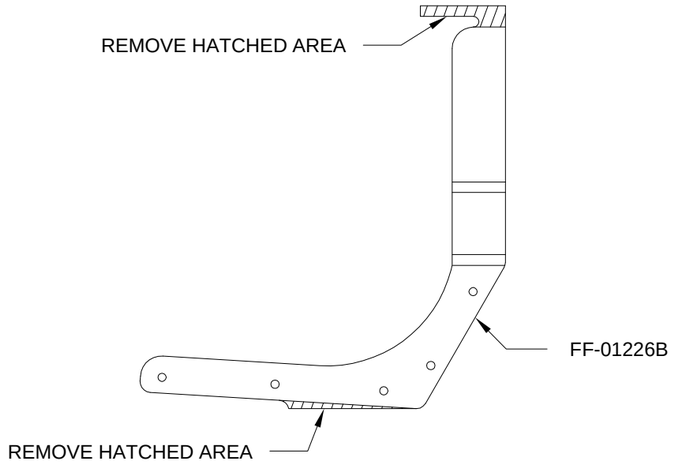


FIGURE 1: TRIM DRIP TRAY
STIFFENER FOR LEFT ASSEMBLY

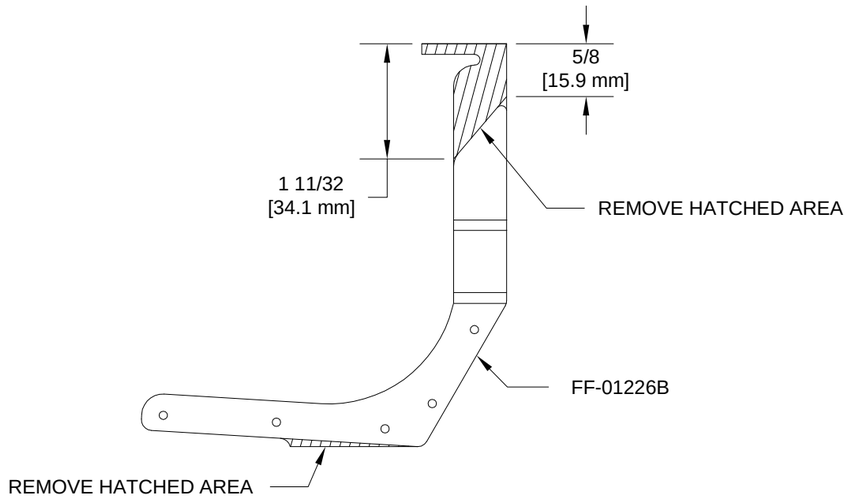


FIGURE 2: TRIM DRIP TRAY
STIFFENER FOR RIGHT ASSEMBLY

Step 3: Cleco together the two Drip Tray Assemblies and match-drill #40 the holes as shown in Figure 3 Detail B.

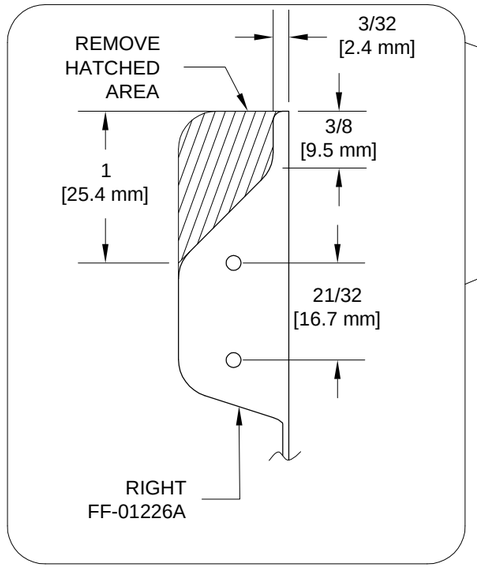
Step 4: Machine countersink double-flush the single hole as called out in Figure 3 for both Drip Tray Assemblies.

Step 5: Set the single AN426 rivet in both Drip Tray Assemblies as shown in Figure 3. Place the manufactured head of the rivet flush on the outside of both drip trays and the shop head set as close to flush as possible on the interior.

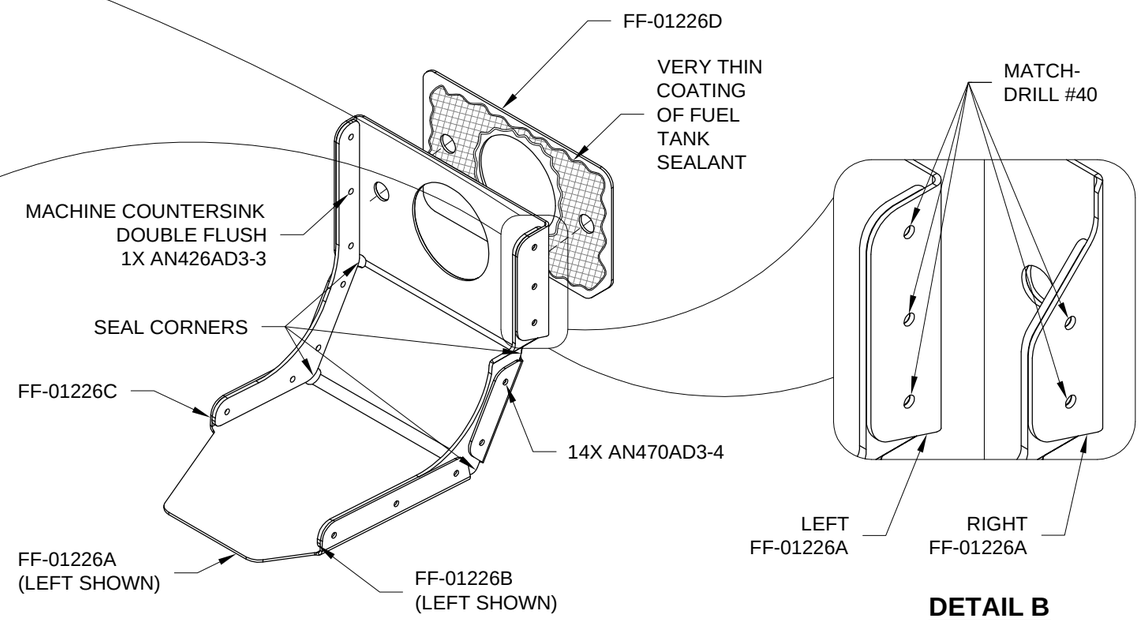
Step 6: Rivet the Drip Tray Assemblies together as shown in Figure 3.

Step 7: Bond one FF-1226D Drip Tray Doubler to each Drip Tray Assembly using fuel tank sealant as shown in Figure 3. Use a temporary 5/16 bolt in each hole to maintain alignment while clamping parts between small wood blocks. If any sealant squeezes out into the holes, wait until the sealant has cured, then peel it away.

Step 8: Seal the corners of the Drip Tray Assemblies with fuel tank sealant as shown in Figure 3.



DETAIL A
(RIGHT DRIP TRAY ONLY)



DETAIL B

FIGURE 3: DRIP TRAY ASSEMBLY
(LEFT SHOWN)

Step 1: Remove the two bolts securing the left carburetor flange assembly to the left intake manifold. See the arrows in Figure 1.

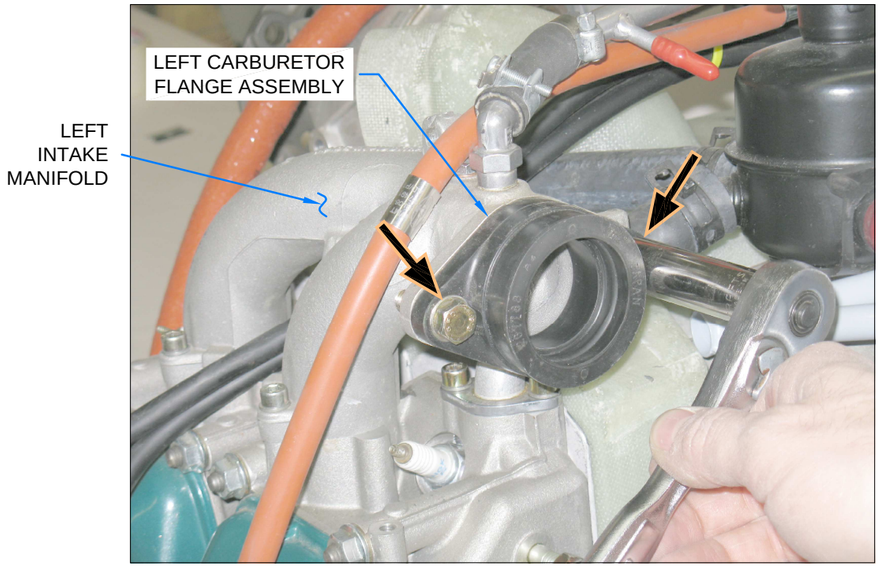


FIGURE 1:
REMOVE CARBURETOR FLANGE ASSEMBLY

Step 2: Install the left Drip Tray Assembly between the intake manifold and the carburetor flange assembly as shown in Figure 2. Verify that the O-ring is still in place on the flange of the intake manifold before putting the left Drip Tray Assembly in position. Install the longer bolt to the outboard side. Use Loctite 243 and torque both bolts to 135 in.-lbs. See Rotax 912 ULS Illustrated Parts Catalog Figure 73-10-00-1

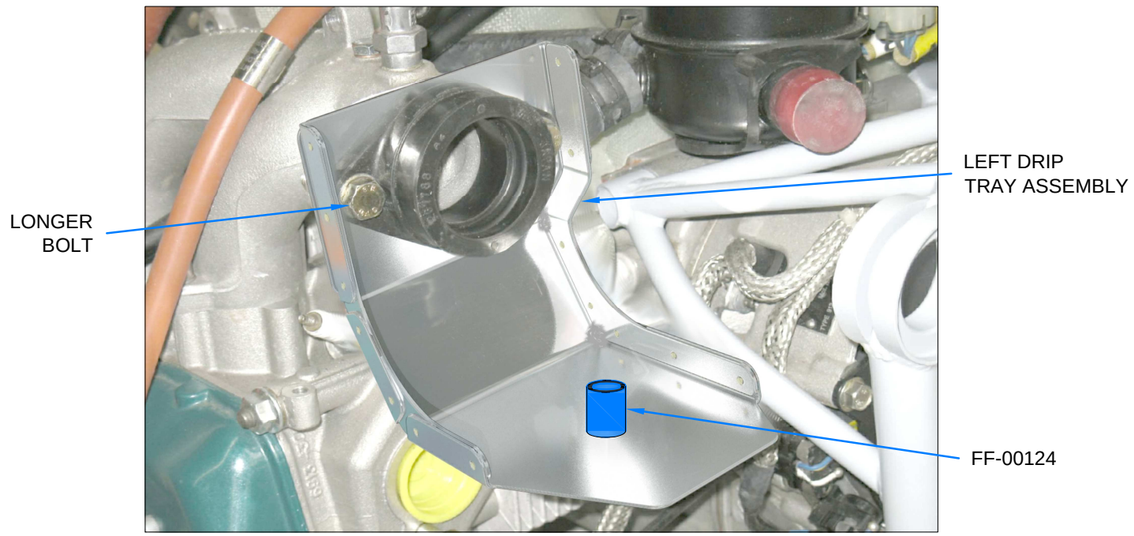


FIGURE 2: INSTALL DRIP TRAY ASSEMBLIES
(LEFT SHOWN)

Step 3: Fabricate a FF-00124 Vibration Damper Hose from EA HOSE H173 rubber hose per Figure 3 dimensions.

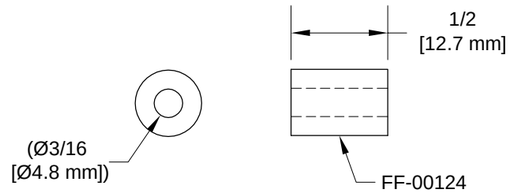


FIGURE 3: CUT VIBRATION DAMPER HOSE

Step 4: Install the band clamp onto the carburetor flange assembly. See Figure 4. The clamp lugs and screw must be placed at the bottom or 6 o'clock position with the screw head facing outboard.

Step 5: Re-install the left carburetor free of oil or grease. Tighten the band clamp against the spacer provided by Rotax which automatically sets the proper gap of .276 in. [7 mm] between the clamp lugs to prevent over tightening.

Step 6: Connect the damping spring and install the fuel line clamp.

Step 7: Test-fit the FF-00124 Vibration Damper Hose under the carburetor in the location shown in Figure 2. It should insert under the carburetor with slight resistance. Adjust the length of the FF-00124 as necessary to achieve a good fit.

Step 8: Bond the FF-00124 to the drip tray assembly using fuel tank sealant.

Repeat Steps 1 through 8 for the right carburetor.

NOTE: If the screws to which the damping spring attaches were loosened, retighten in accordance with Rotax Heavy Maintenance Manual Section 73-00-00, pages 56-57 (Fig 73-41).

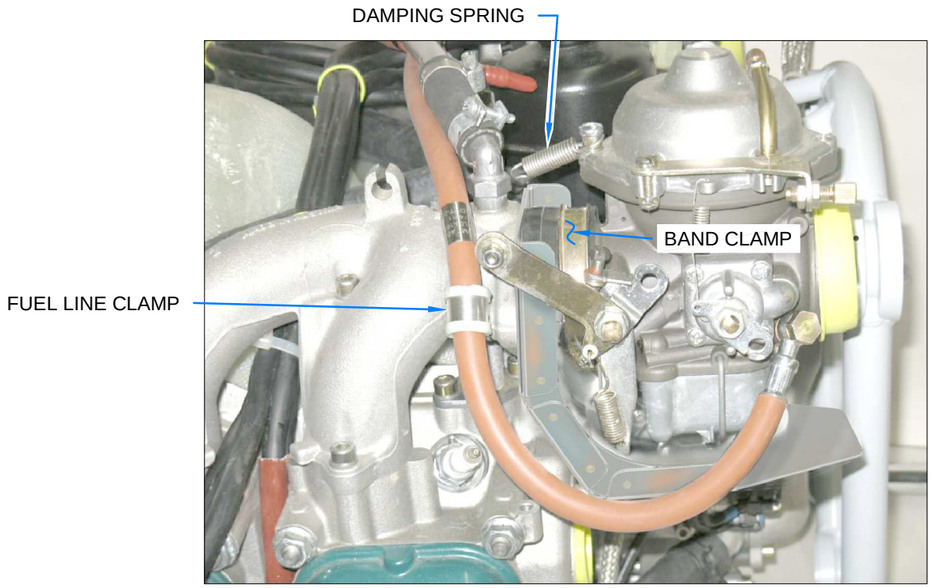


FIGURE 4: RE-INSTALL CARBURETORS

NOTE: When loosening or tightening the banjo bolts, support the fuel distribution block appropriately to prevent damage to the compensating tube assembly.

NOTE: See Rotax 912 ULS Illustrated Parts Catalog Figure 73-10-00-2 for fuel system torque values.

Step 1: Remove the two banjo bolts, copper rings and fuel hoses from the fuel distribution block as shown in Figure 1. Remove the Hose Nipple 3/4 as shown in Figure 1 and discard. Be prepared to catch falling copper sealing rings.

Step 2: Loosen the Allen screw and rotate the fuel distribution block 180 degrees on the compensating tube. Doing so will place the main port on the forward side of the compensating tube. If the main port shifted to one side, slide the fuel distribution block back along the axis of the compensating tube to even out any slack in the fuel distribution block to carb fuel hose assembly.

Step 3: Tighten the Allen screw M5X16 to 55 in.-lbs.

Step 4: Remove the pilot jet from the banjo bolt M8X1X17 as shown in Figure 1 and discard.

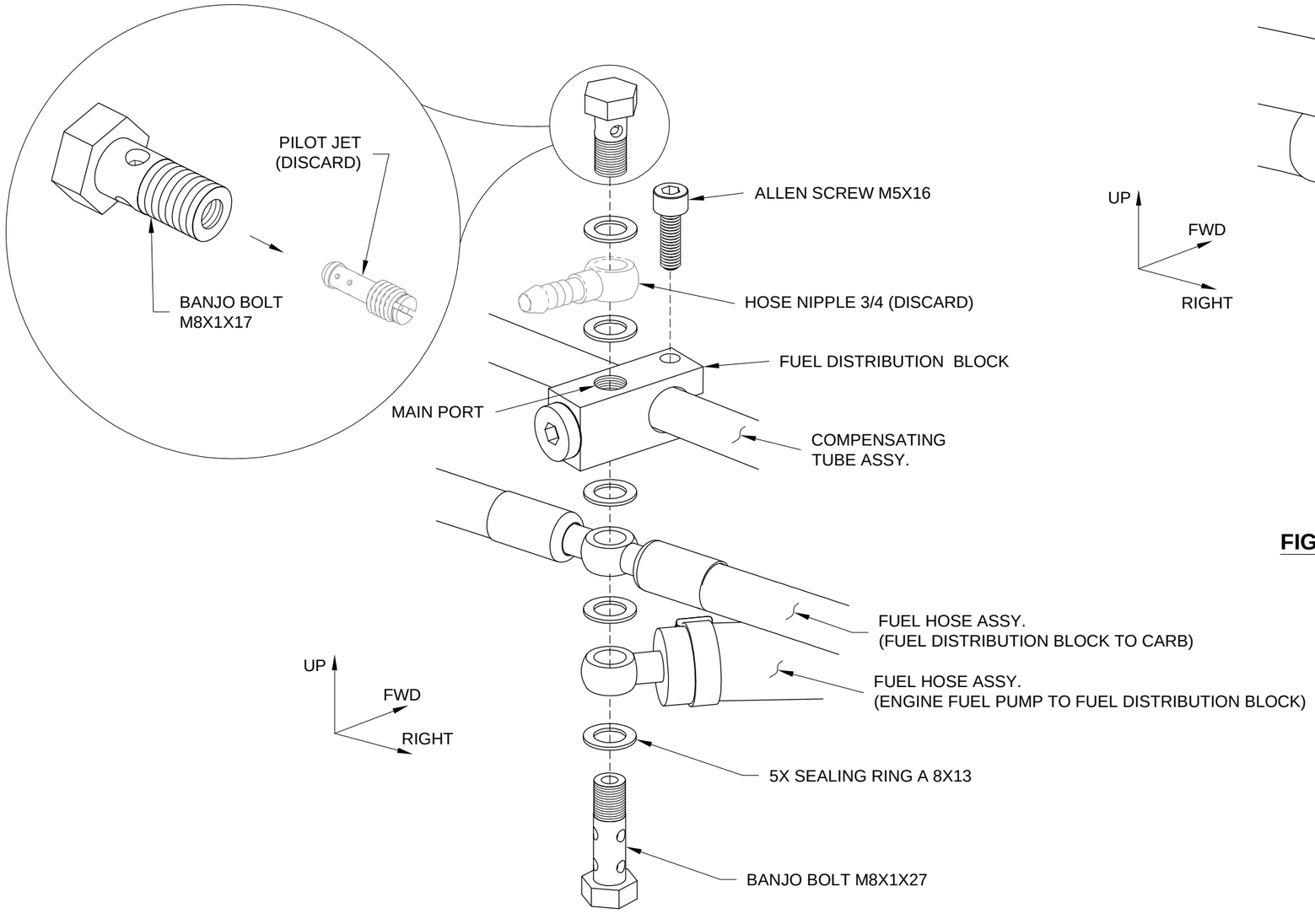


FIGURE 1: DISASSEMBLE FUEL HOSE ASSEMBLY

Step 5: Attach the fuel hose assy. (fuel distribution block to carb) and the fuel hose assy (pump to fuel distribution block) to the fuel distribution block as shown in Figures 1 and 2.

Step 6: Torque the Banjo Bolt M8X1X27 to 90 in.-lbs.

Step 7: Install the Banjo Bolt M8x1x17 finger tight for now to keep out debris.

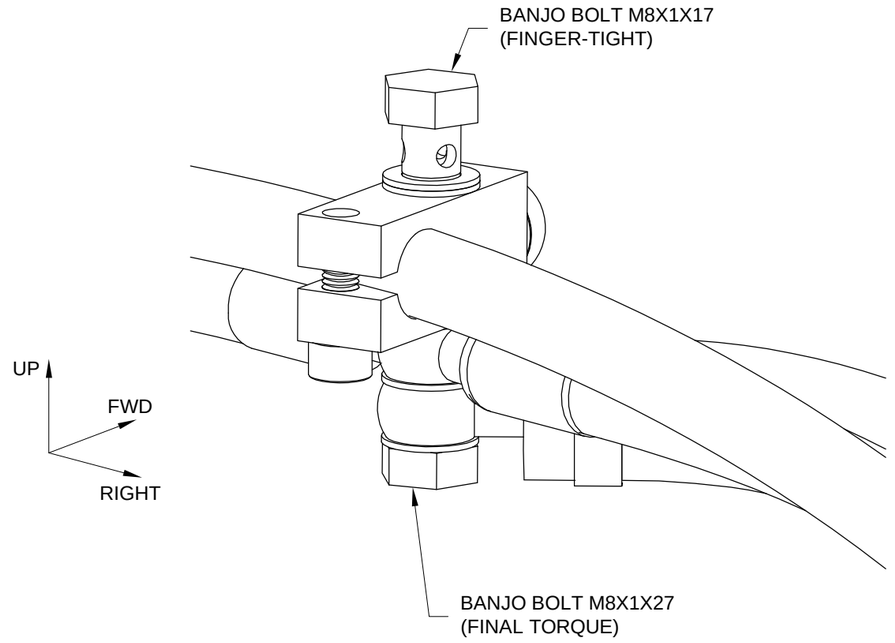


FIGURE 2: REASSEMBLE FUEL HOSE ASSEMBLY

Step 1: Preload the WD-1201-1 Nose Gear Leg upward at the wheel so that the upper flange of the nose gear assembly is held firm against the F-01201C-1 Firewall Bottom while drilling. Upward force under the tail will yield the same result.

Step 2: Clamp the right side of the WD-1201-1 to the F-01201C-1 with an AN5 bolt to stabilize the assembly as shown in Figure 1. Only use the AN3 hardware and bushing if the AN5 hardware doesn't fit. If using the AN3 bolt, trim 0.10 inches off BUSHING-AL.197X.313X.438 (supplied in the kit) to make BUSHING-AL.197X.313X.100.

Using the left-side hole as a guide, final-drill 3/8 through the WD-1201-1, F-01201C-1 and WD-1204 Engine Mount Brackets. See Figure 1. Deburr the hole.

Step 3: Insert an AN6 bolt through the left-side hole from inside the fuselage. From the front side of the firewall, slide one bushing and one washer over the bolt and tighten the nut to put clamping pressure on the left side of the WD-1201-1 as shown in Figure 1.

Remove the AN5 bolt from the right side and final-drill 3/8. Deburr. Insert one AN6 bolt into the right-side hole from inside the fuselage. Remove the nut, washer, and bushing from the left side. Leave the bolts in place.

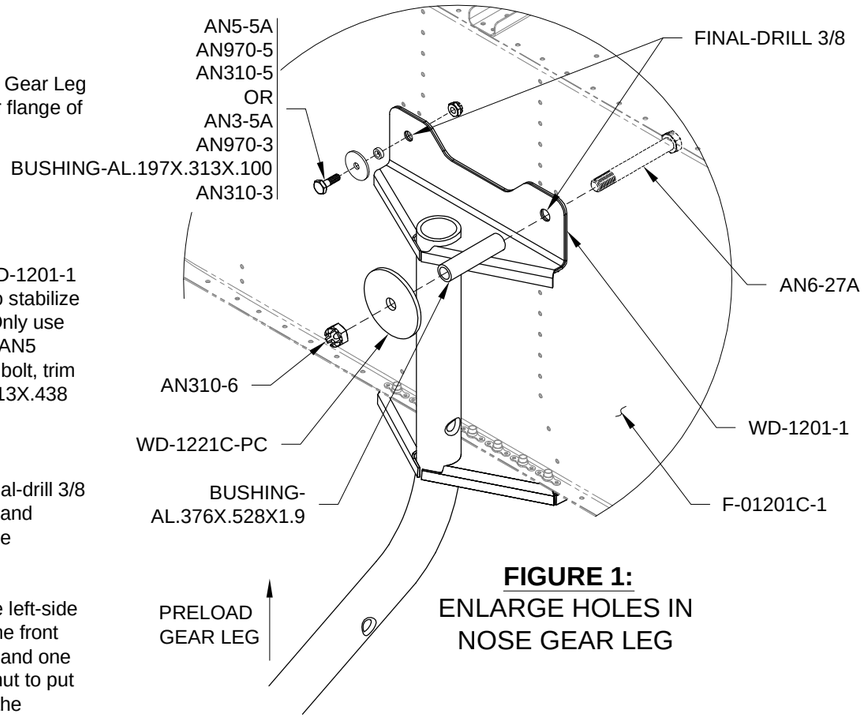


FIGURE 1:
ENLARGE HOLES IN NOSE GEAR LEG

NOTE: At this point the engine weighs about 160 lbs. No dedicated hoisting lug is provided.

Step 4: Hoist the engine with nylon web slings or equivalent. Place one under the prop shaft and the other at the center of the WD-1220 Engine Mount Ring top tube. See Figure 2.

If an engine hoist is not available consider suspending the engine from above using a hand operated winch or come-along and bring the fuselage to the engine.

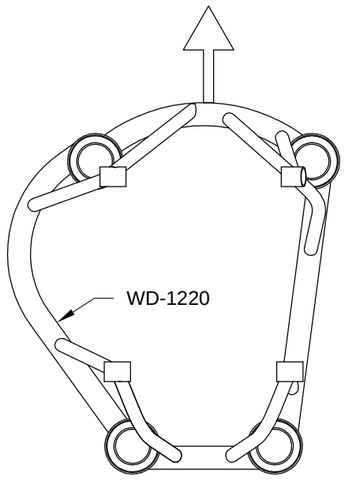


FIGURE 2:
HOISTING THE ENGINE
(ENGINE NOT SHOWN)

Step 5: Install the engine and WD-1220 to the WD-1221 Engine Mount Standoff, F-01201C-1, and WD-1204 using the hardware shown in Figure 3.

First tighten the lower two nuts followed by the upper two nuts. Done this way the Engine Mount Standoff may be deflected vertically when aligning it to the upper engine mount ring attach bolts.

Continue to tighten the nuts in a diagonal pattern until the WD-1220 is secure. Lower the hoist slightly, then final torque the nuts in a diagonal pattern.

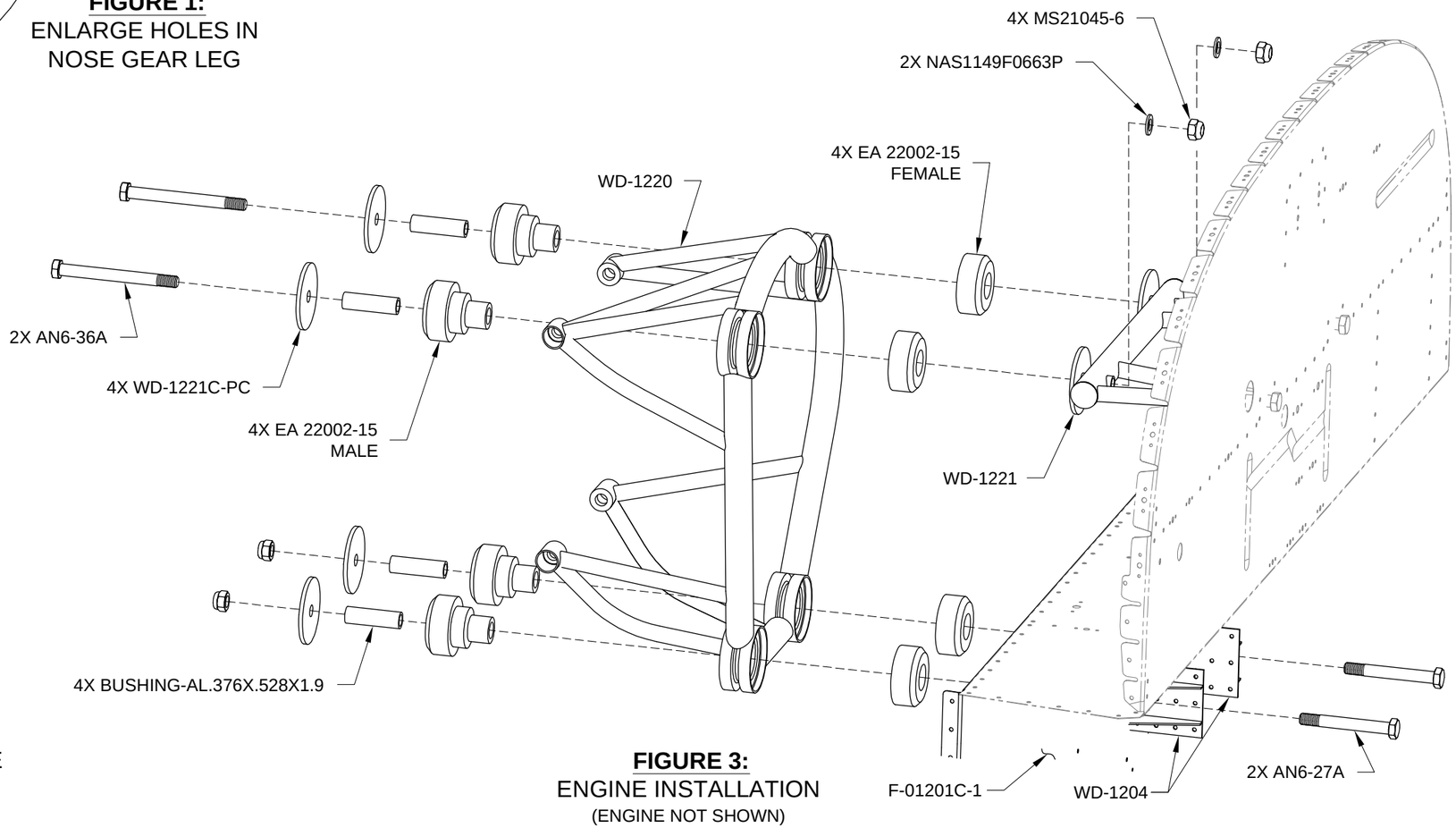


FIGURE 3:
ENGINE INSTALLATION
(ENGINE NOT SHOWN)

NOTE: A proper ground connection between the airframe and the engine is essential to proper function of sensors mounted to the engine.

Step 1: Slide an insulated boot over each end of the WH-P155 (WHT) Starter Power Cable then attach the ring terminal to the power stud on the starter using the hardware shown in Figure 1. Torque the 6mm hex nut to 35 in.-lbs. Attach the other end to the 992 818 Rotax Starter Relay Assembly and torque to 35 in-lbs. Refer to Rotax 912 ULS Illustrated Parts Catalog Figure 80-10-00-1. Slide the insulating boots into place. See Figure 1.

Step 2: Use the hardware shown in Figure 1 to connect the WH-P151-1 (WHT) Engine Ground Cable to the remaining lug on the starter.

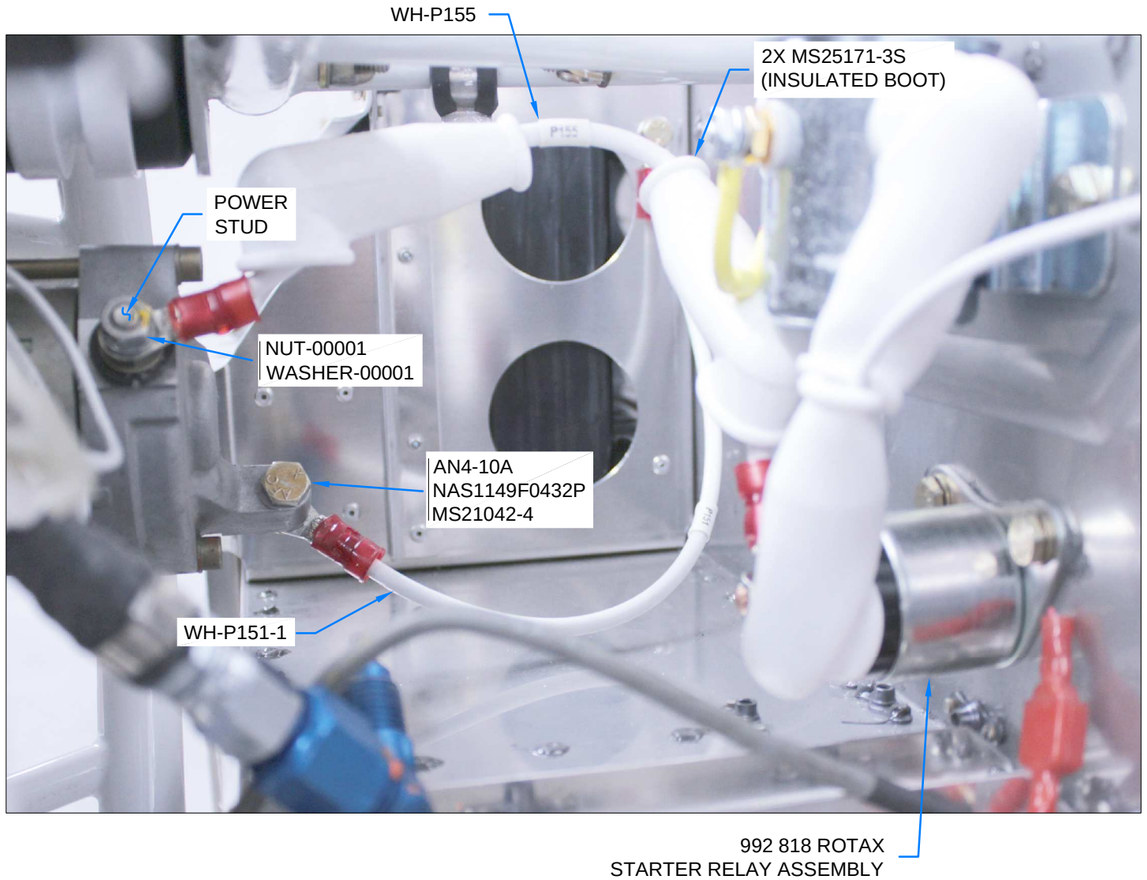


FIGURE 1: CONNECTING STARTER

Step 3: Machine countersink the FF-00123 Regulator Adapter Plate for the head of the screw shown in Figure 2.

Step 4: Attach the EA-XB100-1 B&C AVC1 Voltage Regulator to the FF-00123 using the hardware shown in Figure 2.

Temporarily insert the inboard screw shown in Figure 3 to maintain alignment when tightening.

Step 5: Temporarily install the EA-XB100-1 on the firewall using the hardware shown in Figure 3. The EA-XB100-1 will be permanently mounted during the avionics installation.

Step 6: Install the rivets and screw shown in Figure 3. These fasteners fill holes not used for the Rotax 912 ULS engine installation.

Cover the head of each fastener with a thin layer of fuel tank sealant on the forward side of the firewall.

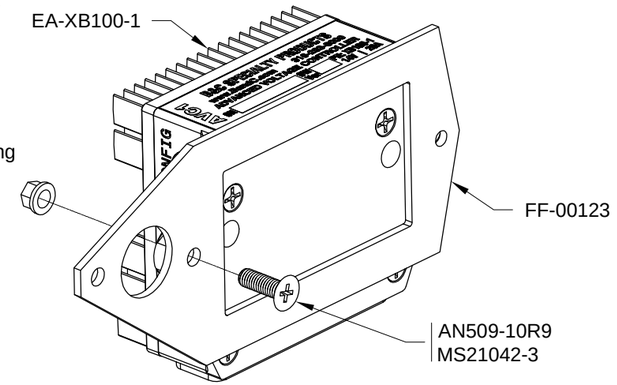


FIGURE 2: VOLTAGE REGULATOR AND ADAPTER PLATE

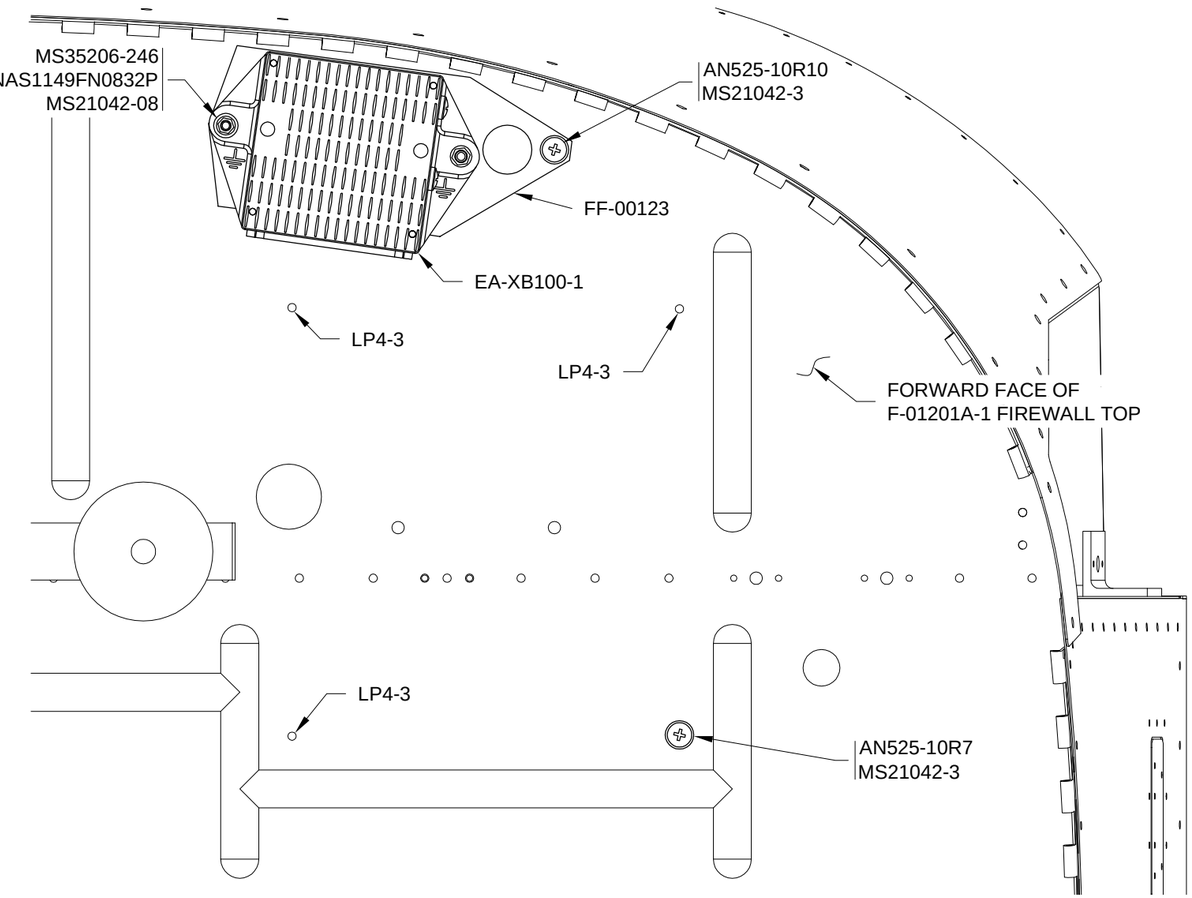


FIGURE 3: VOLTAGE REGULATOR ATTACHMENT

Step 1: Identify the portion of the WH-RV12-IGNITION Ignition Wiring Harness that has the outer insulation removed to expose a length of shielding. The end closest to this will connect to the electrical connectors A1 and B1 at the ignition module. See Figures 1 and 2.

NOTE: The A1 and B1 electrical connector plugs should still be disconnected from their opposite halves. This will make it easier to insert the pins.

NOTE: Wire WH-J152(WHT/BLU) is one inch longer than WH-J153(BLU) if measured from the exposed shield portion of the wires.

Step 2: Insert the WH-J153(BLU) Ignition A Wire into the unused socket of electrical connector A1. See Figure 1 View A-A. Give the wire a gentle tug to check for proper installation.

Step 3: Insert the WH-J152(WHT/BLU) Ignition B Wire into the unused socket of electrical connector B1. Give the wire a gentle tug to check for proper installation.

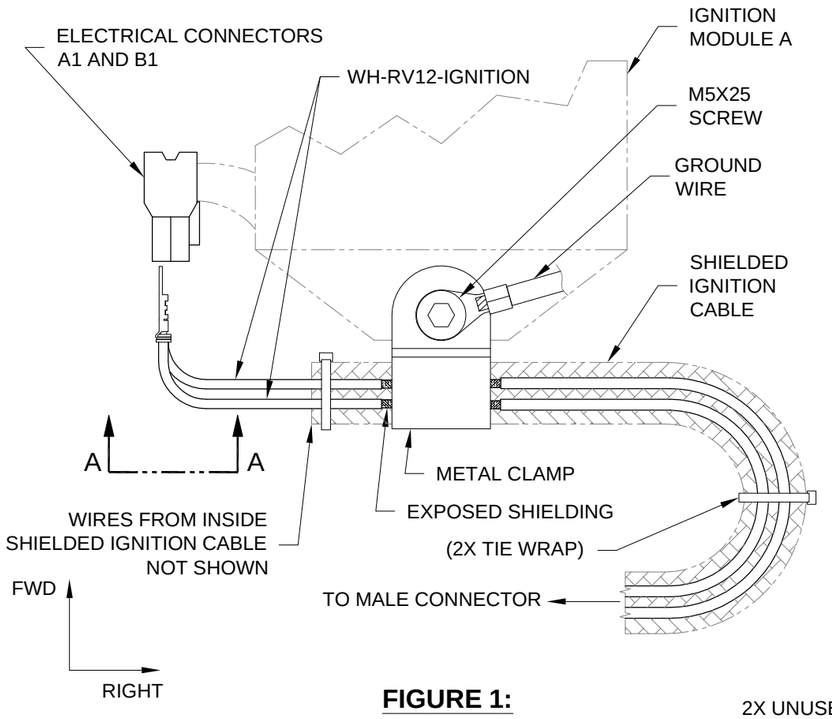
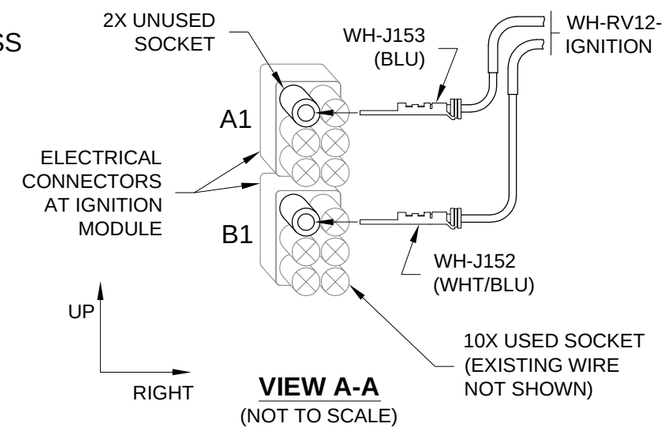


FIGURE 1:
CONNECTING IGNITION HARNESS
(TOP VIEW, NOT TO SCALE)



VIEW A-A
(NOT TO SCALE)

Step 4: Snap together the A1 and B1 electrical connectors and install them back onto the metal ignition module brackets. See Page 46U-02.

Step 5: If installed to the ignition module, remove the M5X25 Allen screw attaching the clamp. See Figures 1 and 2.

Step 6: Install the exposed shield of the WH-J152(WHT/BLU) Ignition B Wire and WH-J153(BLU) Ignition A Wire against the shielding of the ignition cable inside the metal clamp.

Step 7: Make sure there is good contact between all shielding inside the clamp and reinstall the Allen screw and ground wire shown in Figure 4 using Loctite 243. Torque the screw to 22 in.-lbs. Refer to Rotax 912 ULS Illustrated Parts Catalog Figure 74-20-00-3.

Step 8: Route the WH-RV12-IGNITION along the shielded ignition cable to the right, down, and back to the left. See Figure 2.

Secure the wires along the way with tie-wraps. The connector at the aft end of these wires will be connected during the Avionics Kit installation.

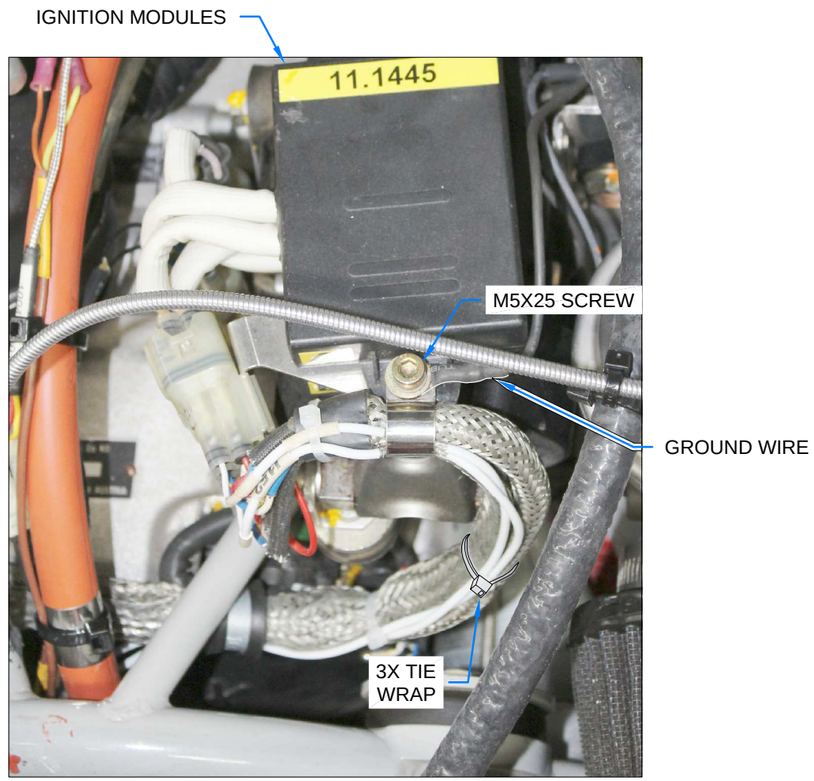


FIGURE 2:
ROUTING IGNITION HARNESS

Step 1: Find the 964 090 Soft Start (Rotax nomenclature "Easy Start") black wire that Y's together out of the bottom of the A2 and B2 Connectors. Reference Figures 1 and 2.

Step 2: Measure 20 in. [50.8 cm] from the A2 connector body and cut the 964 090 (BLK) Soft Start wire. Strip the wire and crimp a female spade terminal to the end. See View A-A.

Step 3: Route the 964 090 aft along the pitot line just to the left of the ignition modules. During the avionics installation, this will connect to a piggyback connector (supplied with the Avionics Kit) on the starter relay.

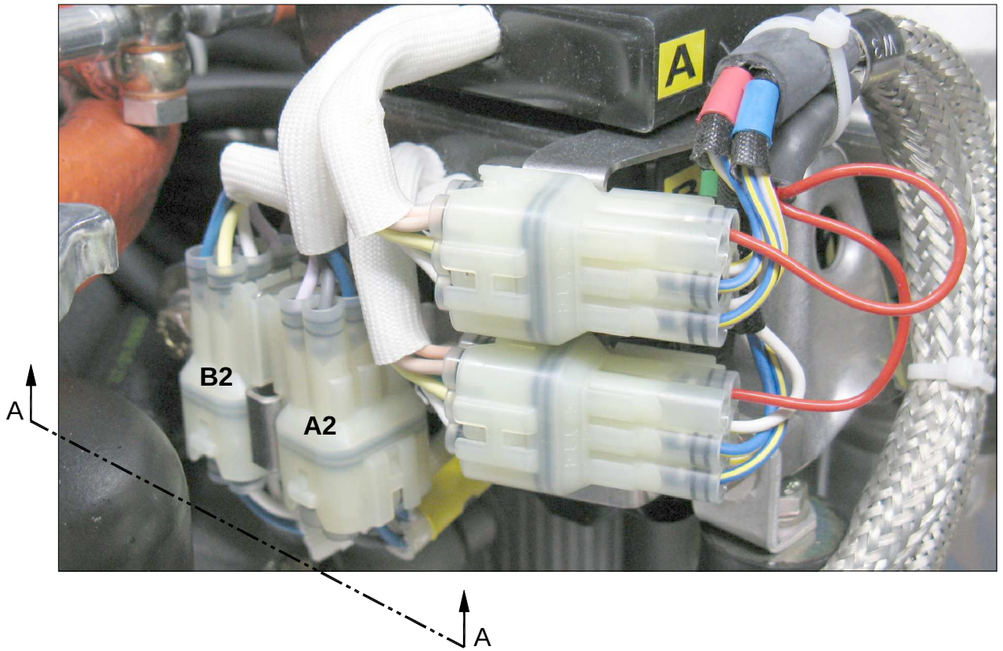


FIGURE 1: IGNITION MODULE CONNECTORS

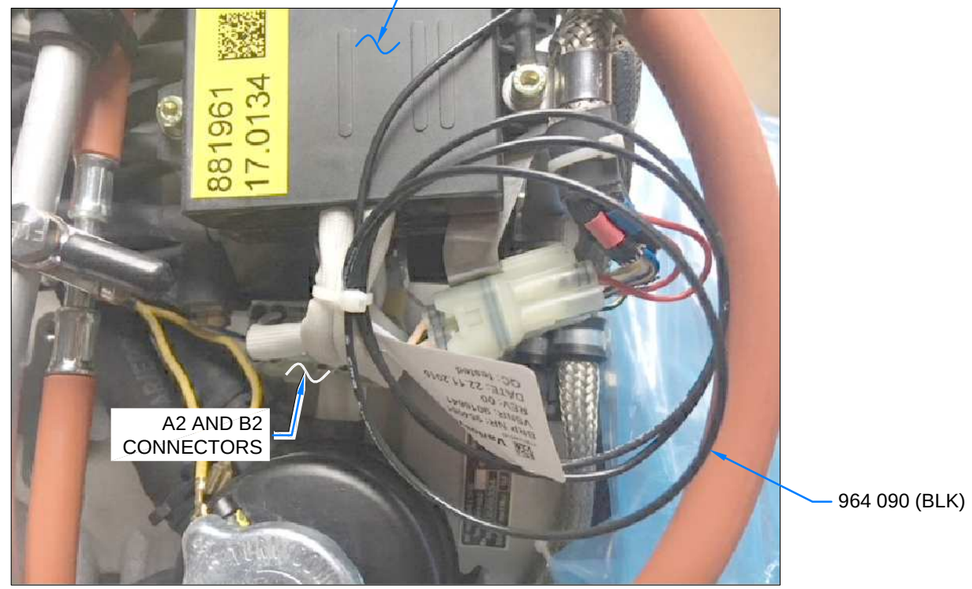
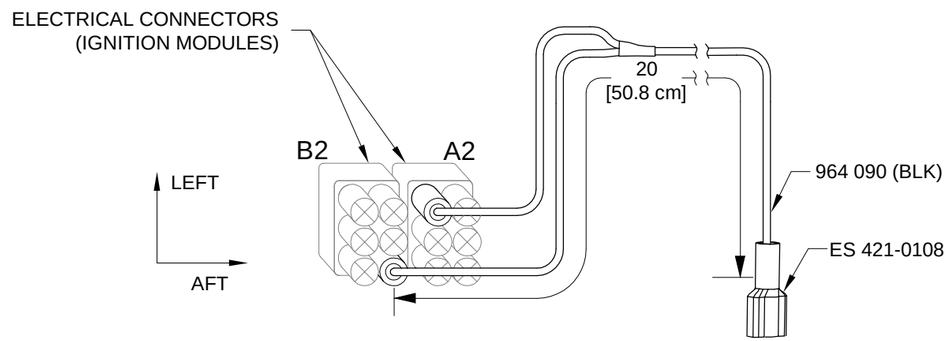


FIGURE 2: EASY START WIRES



VIEW A-A:
(NOT TO SCALE)

Step 1: Confirm that the VA-216 Fuel Return Asy was properly manufactured. Since there is no way to visually inspect the banjo fitting orientation use the following technique: blow air into each end of the hose so that it comes out of the banjo fitting. It should be more difficult to blow air through the fuel return side than through the fuel pressure side. See Figure 1.

At this point, plug the fuel pressure line side as it will remain unconnected until the Avionics Kit is installed.

WARNING: It is possible to install the VA-216 Fuel Return Asy with the ends reversed which will result in low fuel pressure. VERIFY PROPER INSTALLATION ORIENTATION.

NOTE: When loosening or tightening the banjo bolts, support the fuel distribution block appropriately to prevent damage to the compensating tube asy.

Step 2: Attach the VA-216 to the fuel distribution block using the Rotax hardware called out in Figure 2. See Figure 3 for completed assembly. Torque the banjo bolt to 90 in.-lbs.

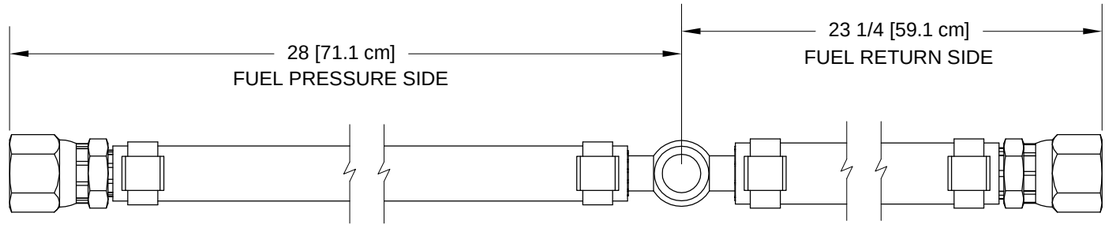


FIGURE 1: VA-216 FUEL RETURN ASY

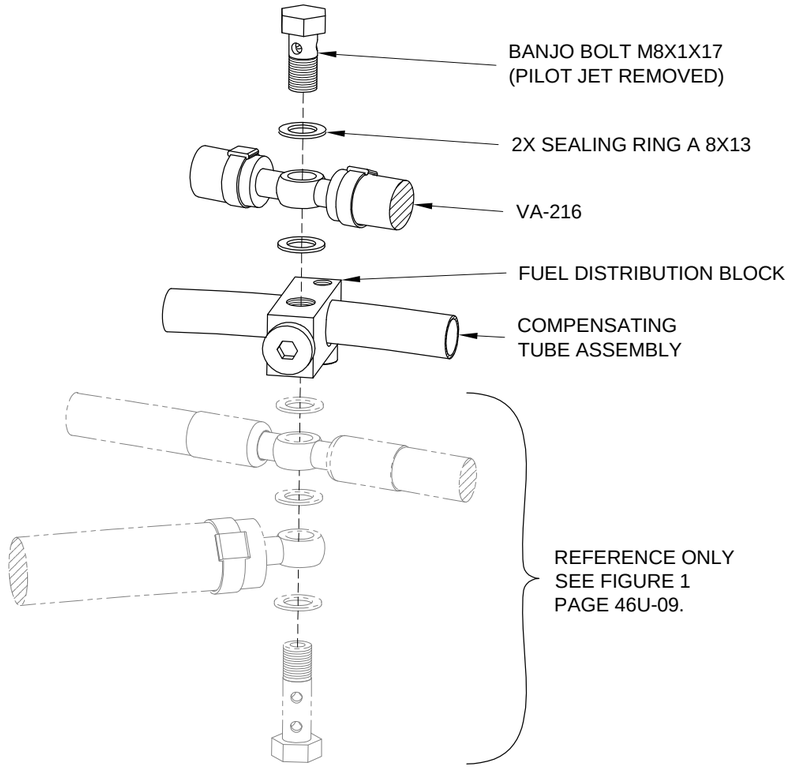


FIGURE 2: ATTACHING THE VA-216

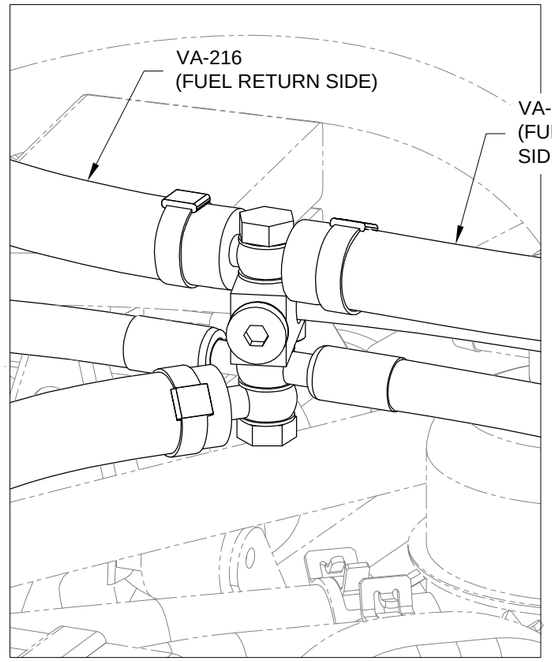


FIGURE 3: AS ASSEMBLED
(FRONT VIEW, LOOKING AFT)

Step 1: Attach the fuel return side of the VA-216 to the fuel return bulkhead fitting (left fitting) on the F-01201B-1 Firewall Shelf. See Figure 2.

Step 2: Attach the fuel hose assy. (engine fuel pump supply hose) to the fuel supply fitting (right fitting) on the F-01201B-1. See Figures 1 and 2.

Secure the engine fuel pump hoses with a tie-wrap as shown in Figure 2.

Step 3: Attach cushion clamps to the fuel hose assy. (engine fuel pump supply hose) and WD-1221 Engine Mount Standoff as shown in Figure 3.

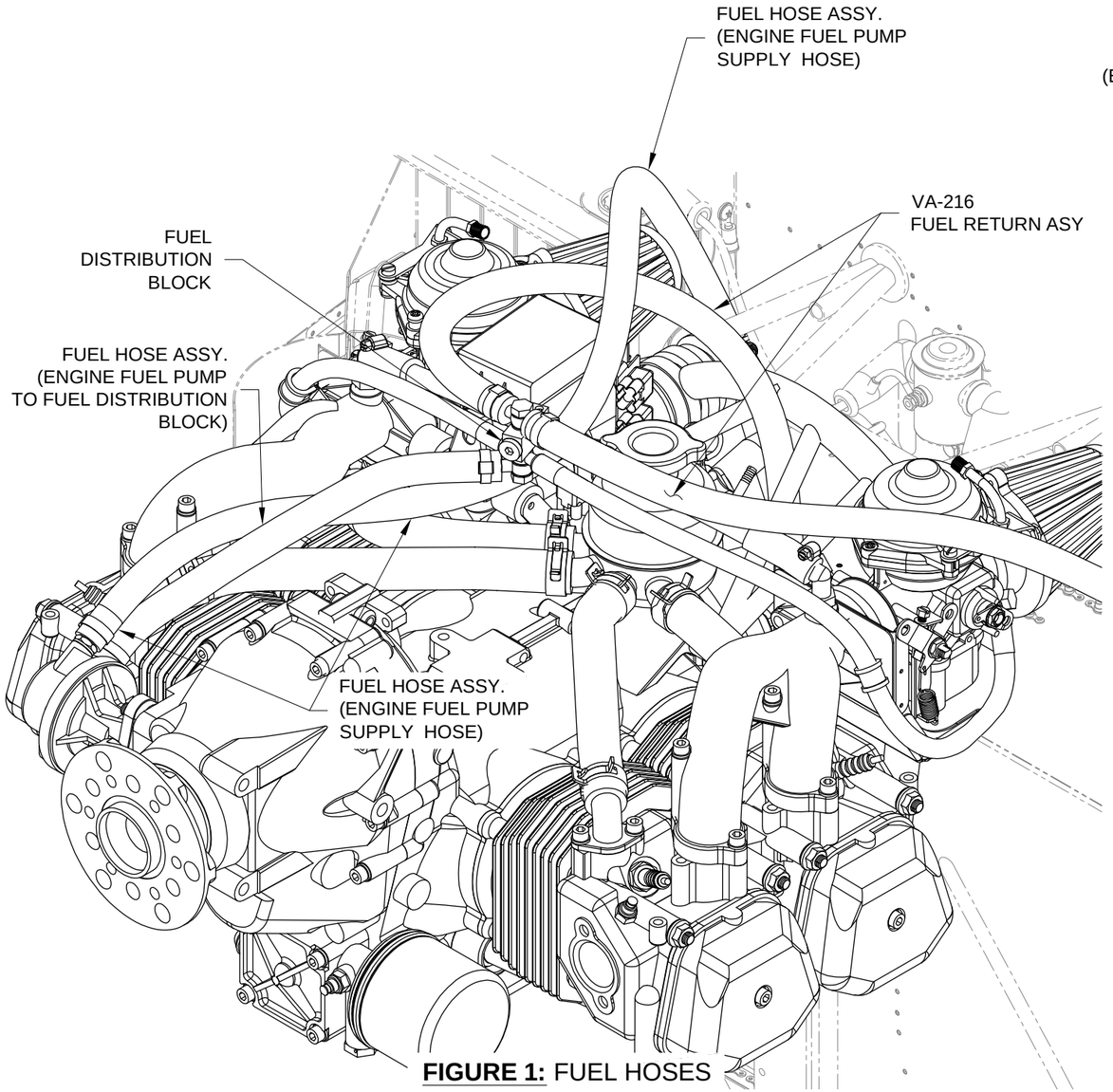


FIGURE 1: FUEL HOSES

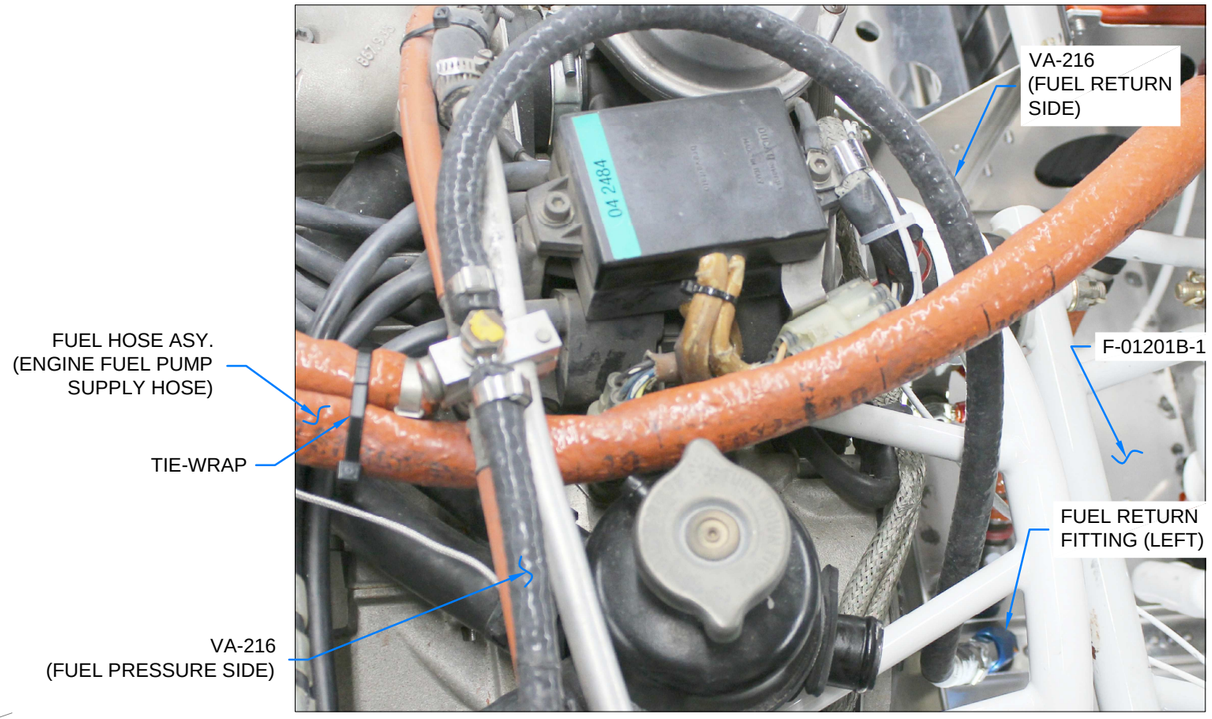


FIGURE 2: CONNECTING FUEL RETURN & FUEL PUMP SUPPLY HOSES

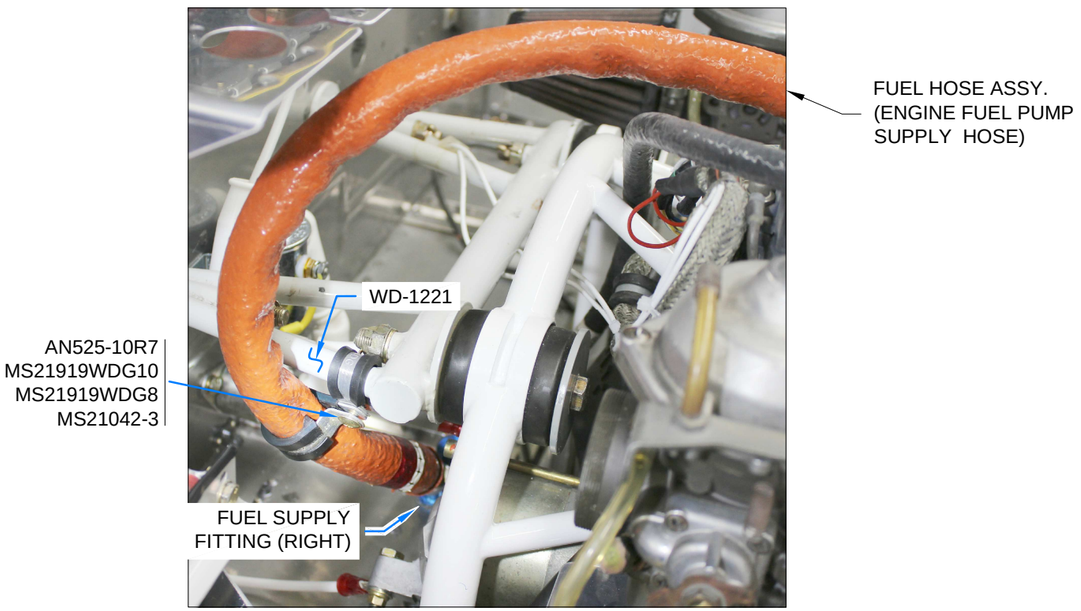


FIGURE 3: SECURE FUEL PUMP SUPPLY HOSE
(OBSOLETE HOSE SHOWN)

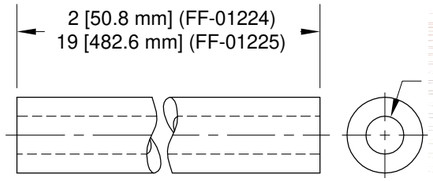


FIGURE 1: HOSE LENGTHS

Step 1: Cut the FF-01224 Interconnect Hose and FF-01225 Drain Hose from EA HOSE H175 per Figure 1 dimensions.

Step 2: Slip the FF-01224 Interconnect Hose over the fuel pump drain fitting and secure using the hose clamp shown in Detail A of Figure 2.

Step 3: Place cushioned clamps onto the engine oil return tubes as shown in Figure 2 and Detail Views B and C. Close clamps using safety wire (not shown) to aid installation.

Step 4: Cut and straighten an 18 in. [45.7 cm] length of AT0-032X1/4 tube. (Unrolling against a flat surface works well.)

Step 5: Fabricate the FF-01223 Drain Tube by cutting to the dimensions shown in Figure 3.

Step 6: Flare the FF-01223 per Figure 3 dimensions. Radius the flared ends of the FF-01223 per Figure 3.

Step 7: Check the FF-01223 to FF-01224 and FF-01225 fit. Reduce flare diameter if/as required to allow insertion of the FF-01223 but keep enough flare to prevent the FF-01223 from slipping through the hose clamps.

Step 8: Bend the FF-01223 per the template on Page 46U-18.

Step 9: Insert the FF-01223 into the FF-01225 and clamp.

Step 10: Feed the FF-01225 between the coolant hoses, then aft and down in front of the WD-1220 Engine Mount.

Step 11: Slide a hose clamp over the forward end of the FF-01223.

Step 12: Insert the FF-01223 into the FF-01224 and clamp per Detail A of Figure 2.

Step 13: Attach the FF-01223 to the large cushioned clamps on the engine oil return tubes using the small cushioned clamps and hardware called out in Detail B and C of Figure 2.

The lower end of the FF-01225 will be trimmed and secured in a later section.

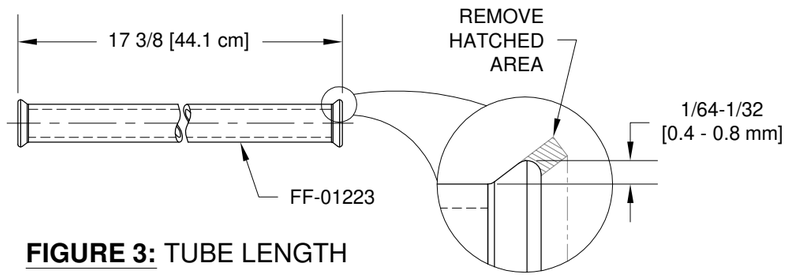
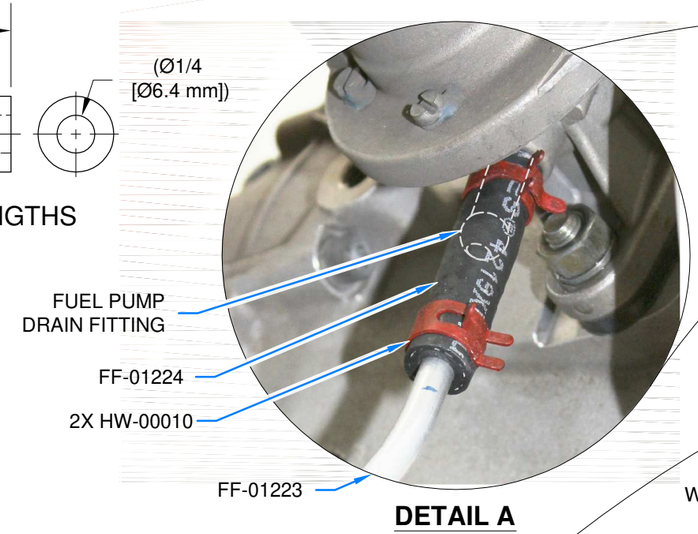
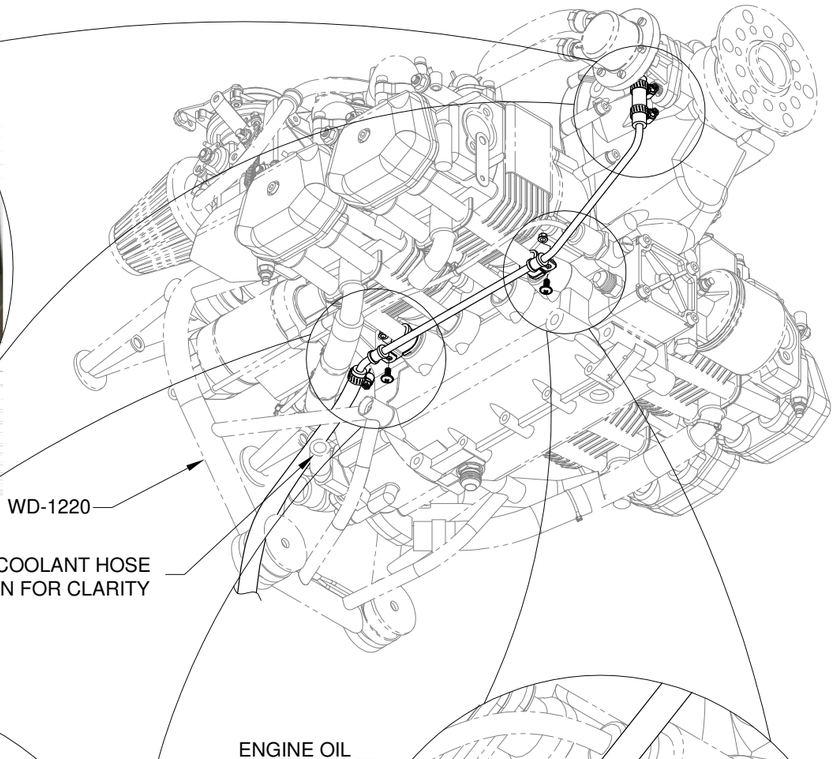
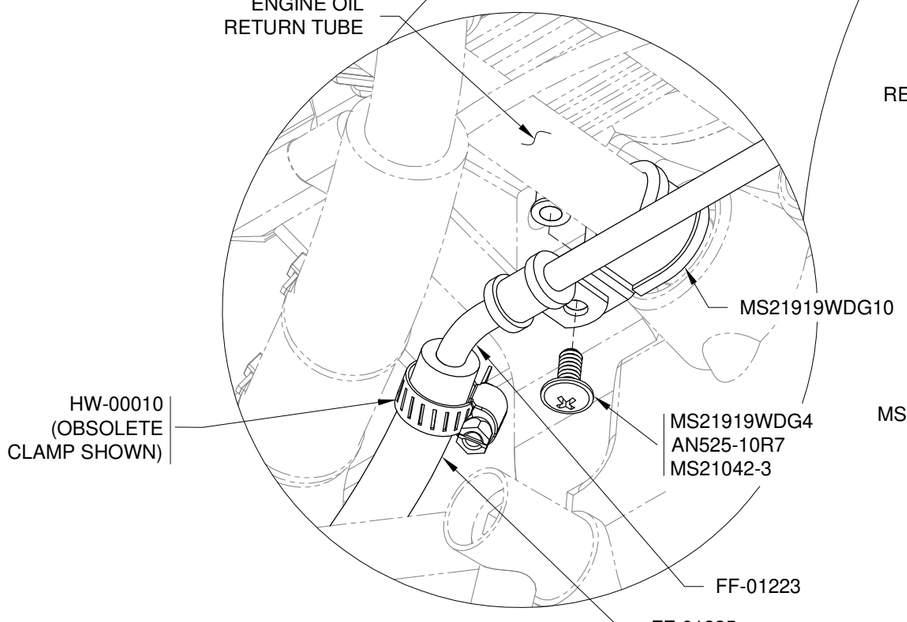


FIGURE 3: TUBE LENGTH

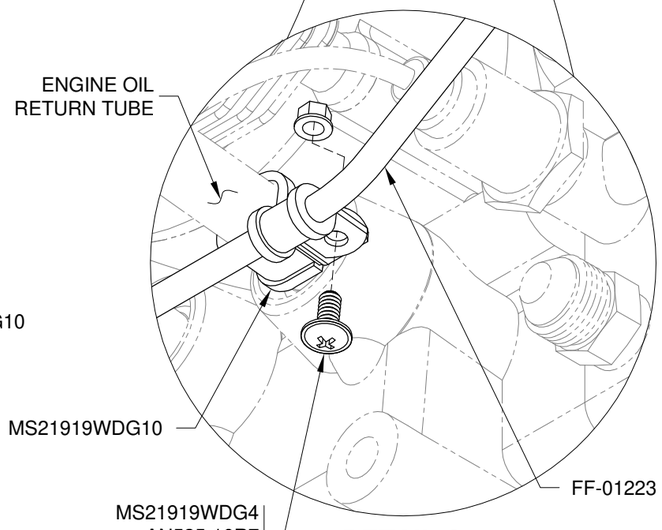


DETAIL A





DETAIL B



DETAIL C

FIGURE 2: FUEL DRAIN ATTACHMENT
(SOME PARTS OMITTED FOR CLARITY)

Step 1: Safety wire the magnetic plug to the crankshaft plug screw as shown in Figures 1 and 2.

Step 2: Safety wire the oil pressure regulator plug to the lug on the crankcase as shown in Figures 3 and 4. The plug is number "1" in Figure 3.

Step 3: Safety wire the oil tank drain plug to the hole in the fitting as shown in Figure 5. Note that oil tank is not yet installed on the aircraft.

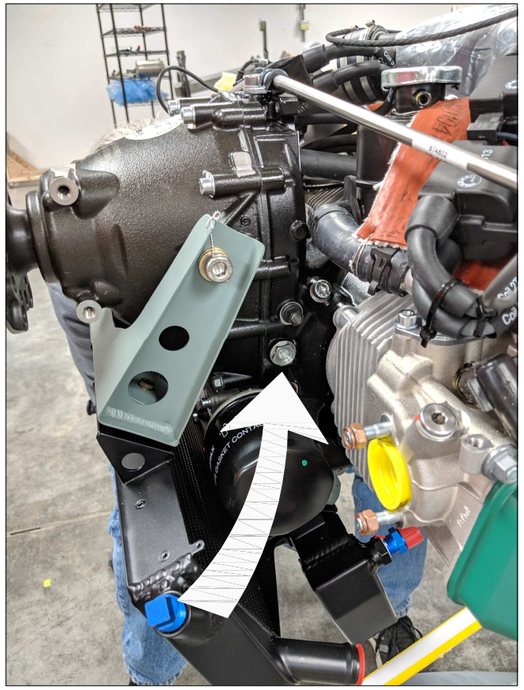


FIGURE 1: MAGNETIC PLUG LOCATION
(912iS SHOWN, SIMILAR FOR 912ULS)

FIGURE 2: SAFETY WIRE MAGNETIC PLUG
(912iS SHOWN, SIMILAR FOR 912ULS)

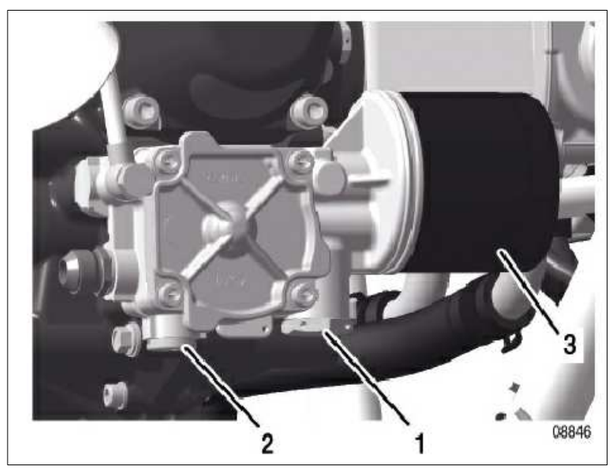


FIGURE 3: OIL PRESSURE REGULATOR PLUG LOCATION
(912iS SHOWN, SIMILAR FOR 912ULS)

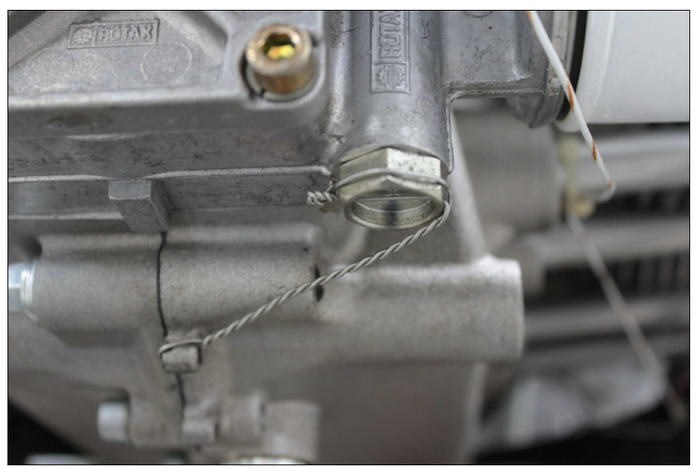
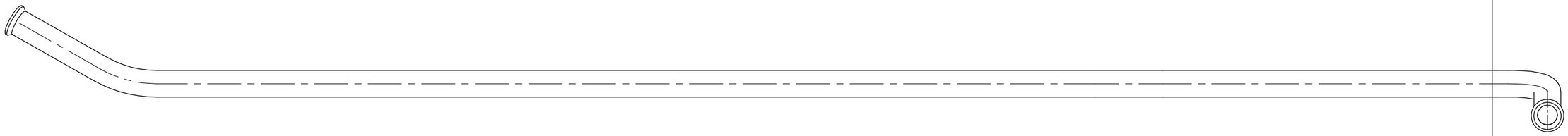


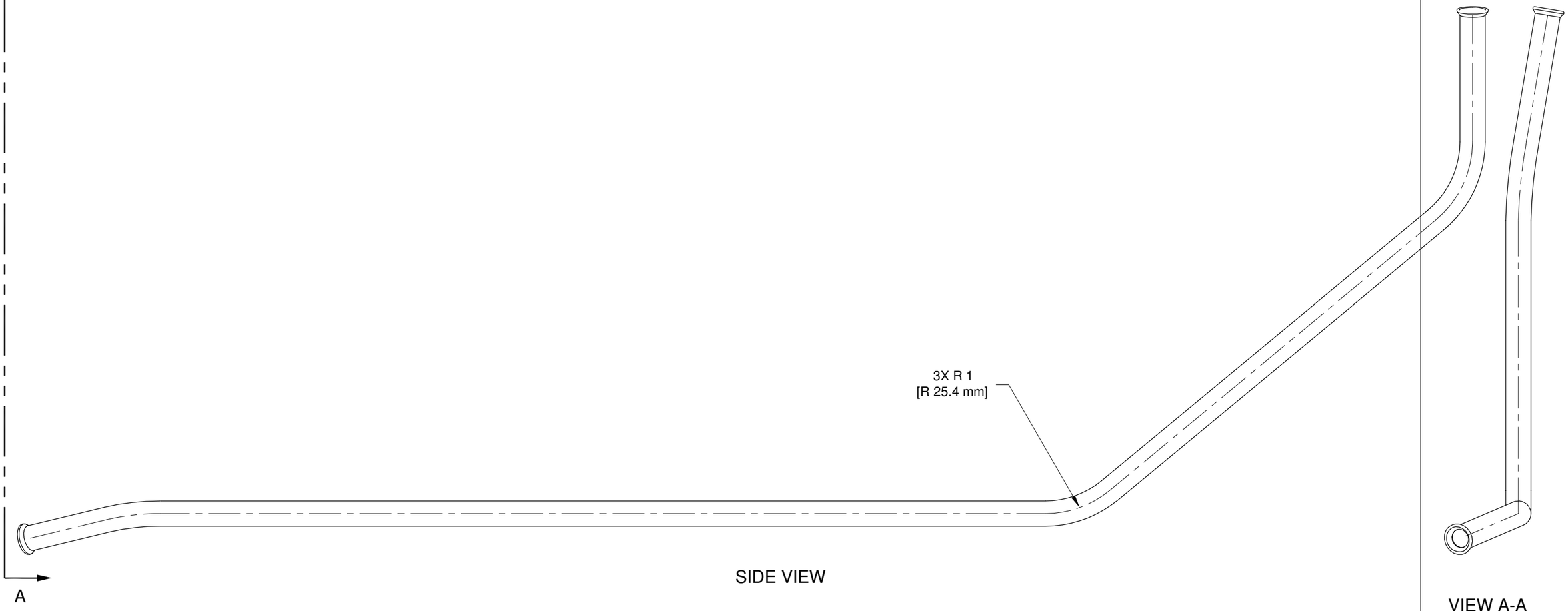
FIGURE 4: SAFETY WIRE OIL PRESSURE REGULATOR PLUG

FIGURE 5: SAFETY WIRE OIL TANK DRAIN PLUG



TOP VIEW

A



SIDE VIEW

A

VIEW A-A

FIGURE 1: DRAIN TUBE BEND TEMPLATE

(NOTE: CHECK PRINTED SCALE 1:1 PER SECTION 3 BEFORE USING THIS TEMPLATE!)

16
[406.4 mm]

10 9/16
[268.3 mm]