

TB-2362 REV A

REMOVAL OF OLD SENSOR AND FOCUS TUBE FROM HEAD UNIT AND INSTALLATION OF NEW SENSOR WITH FOCUS TUBE

DEF RESERVOIR UNITS

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APPROVAL SUMMARY

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INDEX OF REVISIONS

REVISION	DESCRIPTION	APPROVED BY/ DATE
-	Initial Release	CKM 6/24/2010
A	Update Torque Specification for retaining ring. WAS 50 ±10 in-lbs IS 20-30 in-lbs.	NCD 9/22/2010

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1.0 INTRODUCTION:

1.1 PURPOSE:

The purpose of this document is to show the proper steps for the removal of the sensor from a head unit and the installation of a new sensor with a focus tube attached and equipped to the head unit located on DEF Reservoir tanks.

1.2 APPLICABLE UNITS:

DEF Reservoirs with head units and level sensors attached.

Level Sensor unit P/N 960-0111-**00** (Last two digits coincide with the final digits of the sensor being removed).

Focus Tube P/N 908-0245-**00** (Last two digits coincide with the final digits of the sensor being removed).

2.0 PROCEDURE:

Suggested instruments that can be used (do not have to be exact; can be interchanged with what is available in the field).

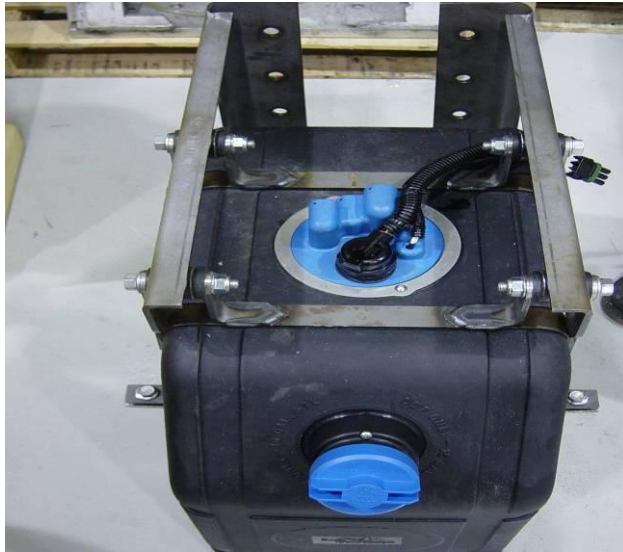


Required Equipment: Loctite 242 and Parker O-Lube or equivalent DEF compatible petroleum jelly

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DEF Reservoir Assembly fitted with old sensor (Note: Fittings have been removed from head unit for clarity purposes):



1. Using a 1/8" Allen wrench/hex key, unscrew the Allen screws holding the retaining ring to the reservoir from the unit and place safely aside to be used at a later time.



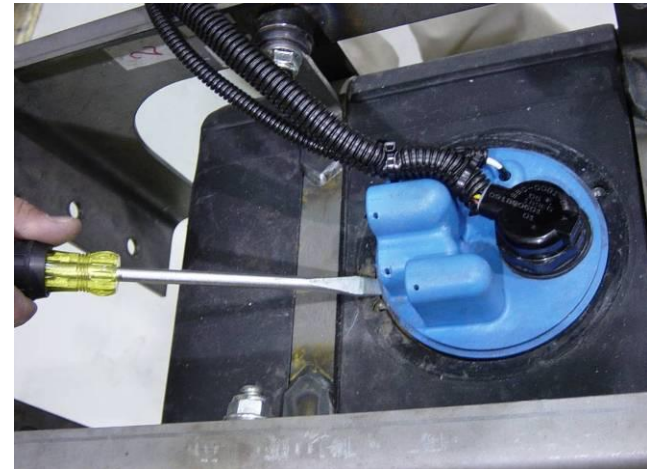
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2. Remove retaining ring from unit.



3. Using a flathead screwdriver, gently pry around where the head unit is connected to the reservoir while pulling on the top of the unit to remove. Do NOT pull on the wires or fittings for removal.

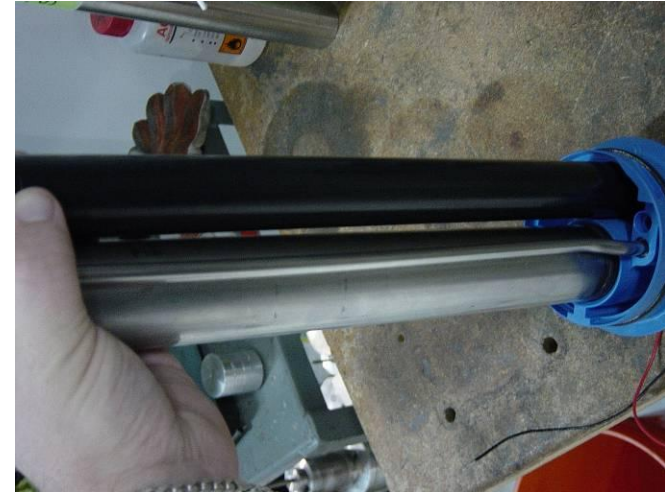
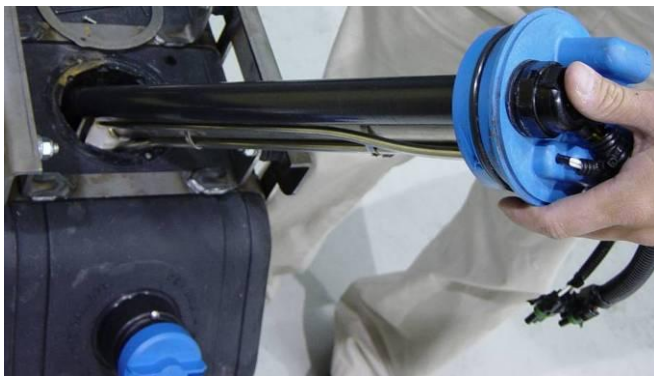


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4. Once loosened from the DEF reservoir, pull the head unit out of the tank, angling the head unit towards the flange at the end so that it will fit through the opening, and drain the head unit of any coolant still inside. Place the head unit upside-down on a soft, clean surface, this helps prevent against the introduction of contaminants upon re-installation.

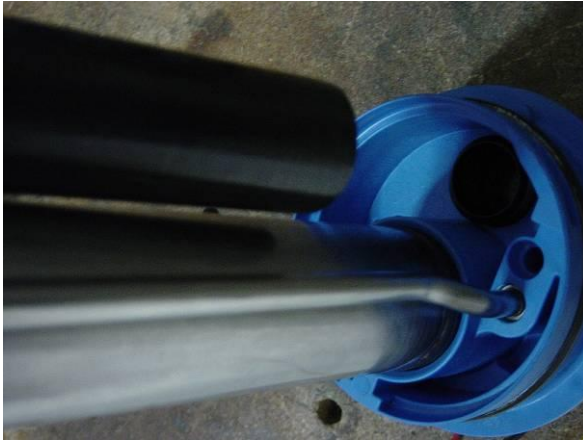


5. Grip the Focus Tube and hand loosen counter-clockwise until it becomes unattached from the head unit (Focus Tube colors vary). Set aside for use at a later time.

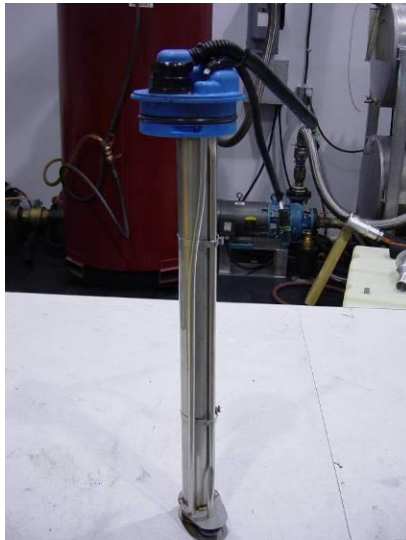


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6. Place the head unit upright on a clean surface, so as to help prevent contaminants from being introduced into the reservoir upon re-installation.



7. Snip off the zip ties to remove the split wire loom from the wires connected to the sensor.



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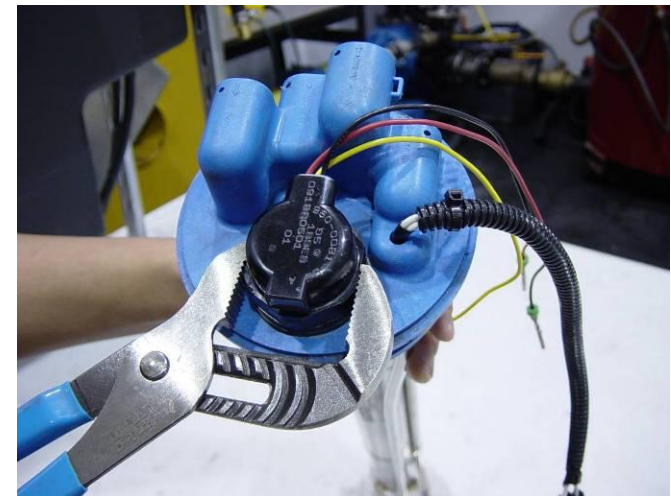
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8. Remove split wire loom from around the wires connected to the sensor unit.

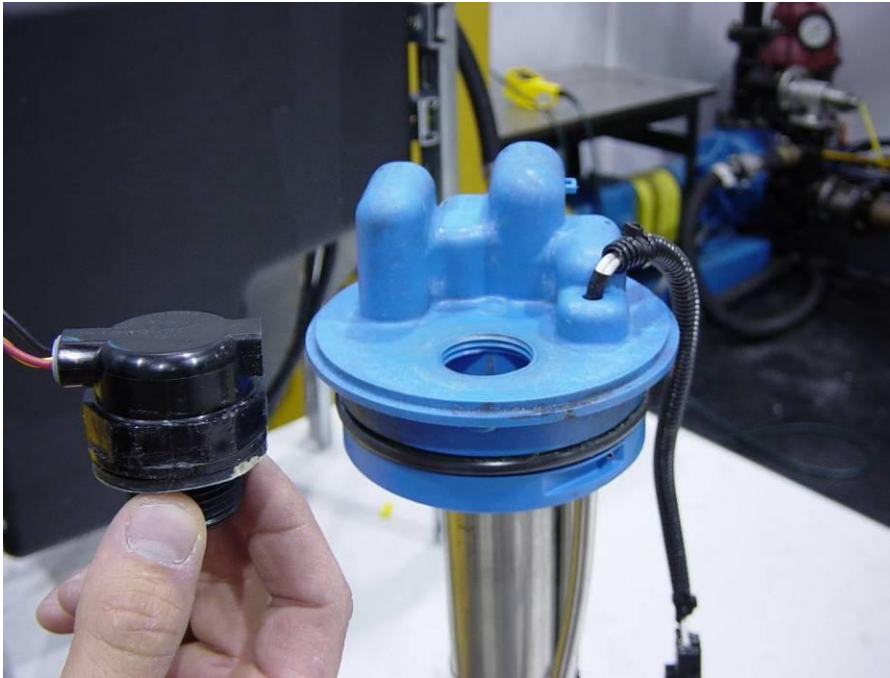


9. Use groove lock pliers or a wrench to firmly grip the base of the sensor and turn it counter clockwise to loosen it from the head unit.

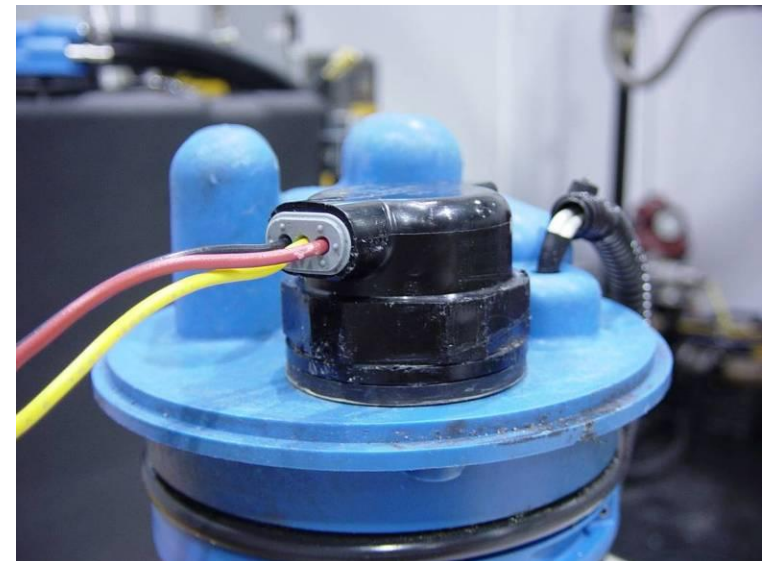


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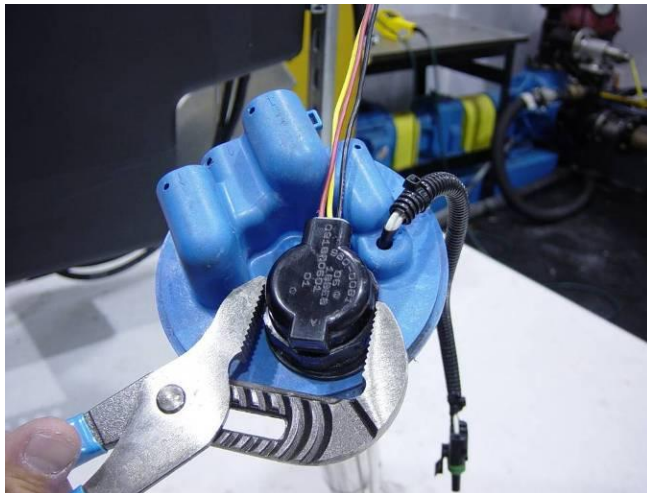
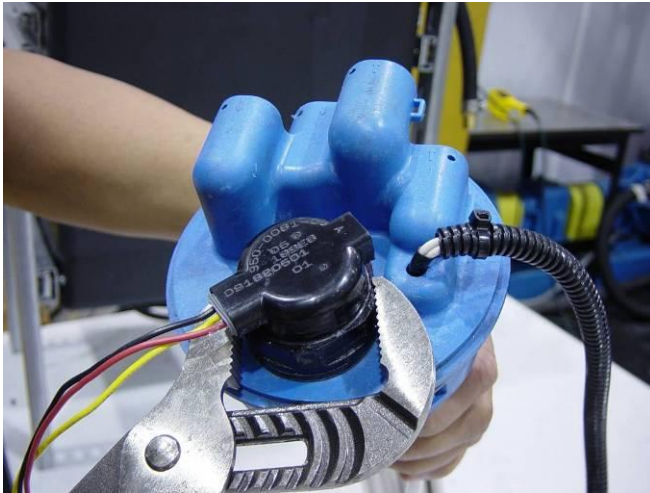
10. The gasket of the new sensor should be lubricated with a thin layer of DEF compatible petroleum jelly or oil, and then screwed into place until the bottom lip of the sensor is touching the top of the head unit.



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11. Use the groove lock pliers or wrench to tighten so that the wires are in the original position (shown in second image below).

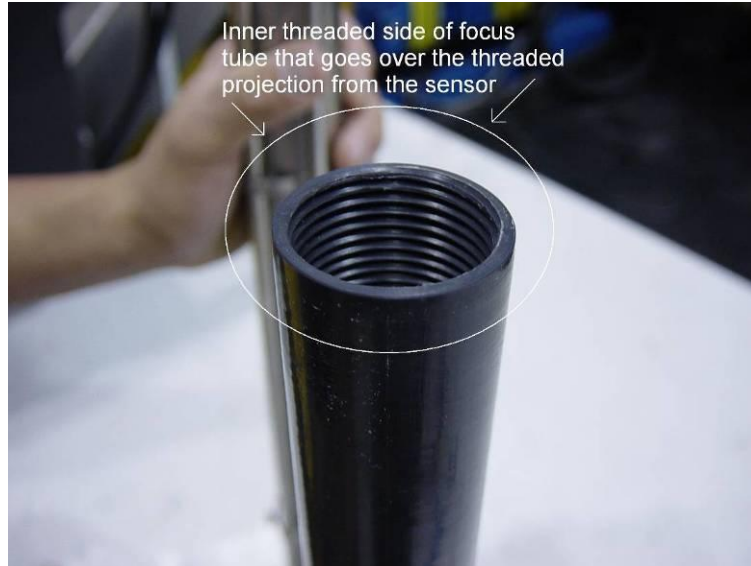


12. Locate where the focus tube will be positioned on the underside of the head unit. Situate the focus tube so that the inner threaded side of the tube will be tightened over top of the threaded projection from the sensor on the underside of the head unit (Focus Tube colors vary).

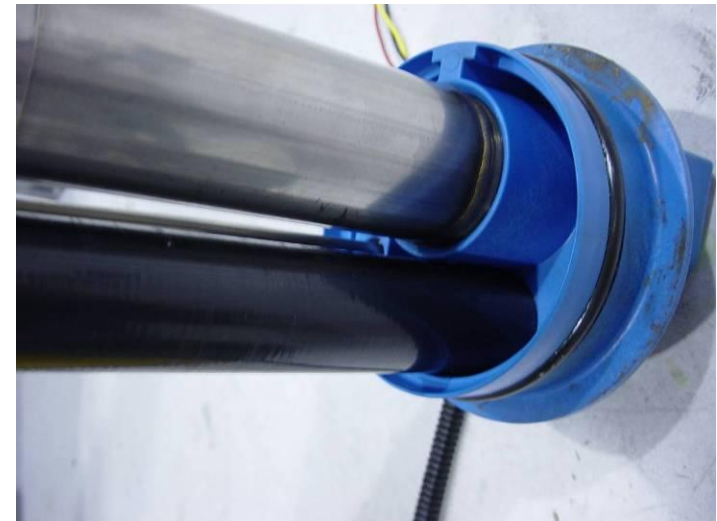
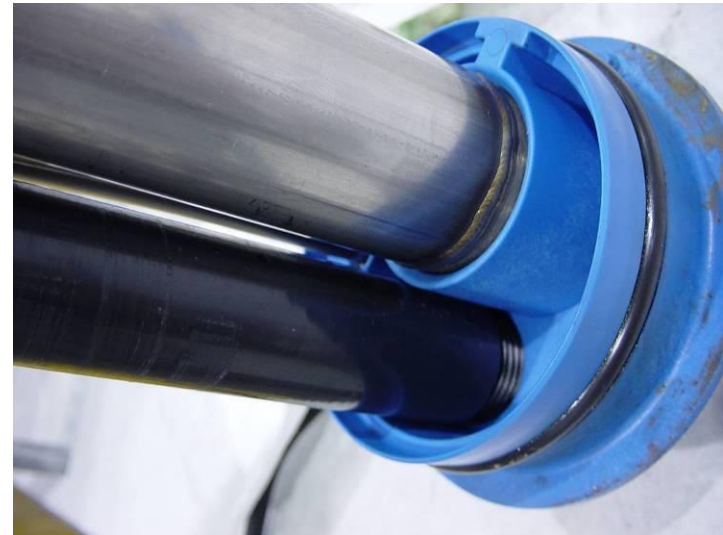


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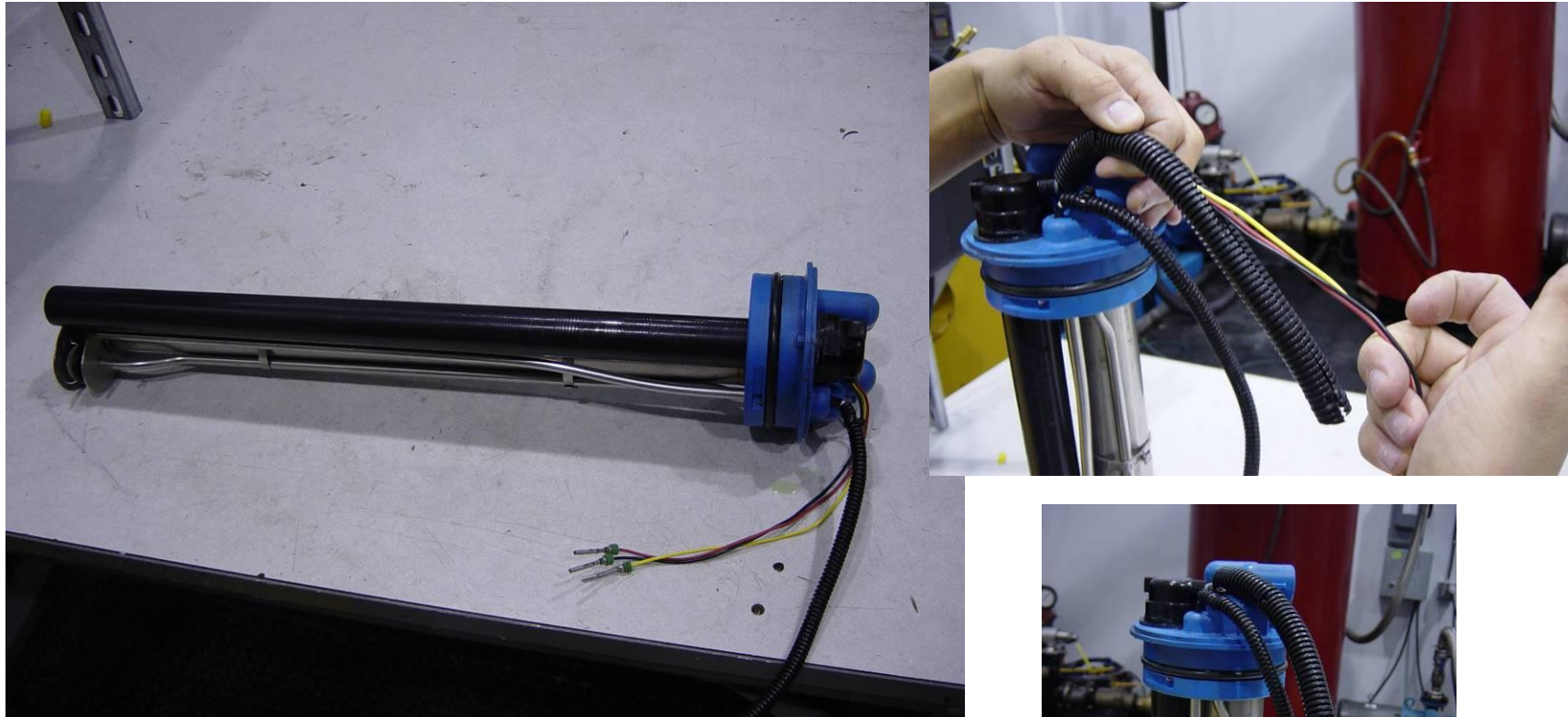


13. Tighten the focus tube by hand until it feels snug.



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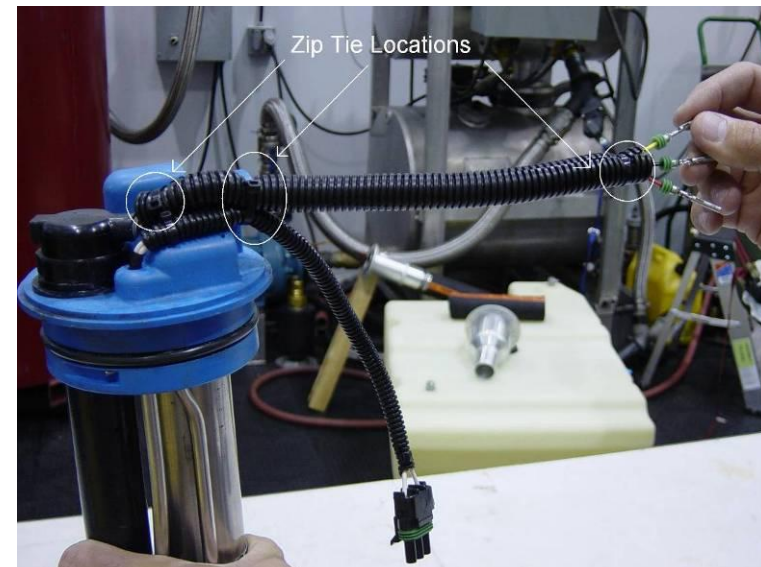


14. Pull the split wire loom over the wires of the new sensor unit and attach zip ties, making sure that the second tie connects both wire looms and goes through the connector located on the DEF head unit itself (shown below). Snip any excess threading from the zip ties.



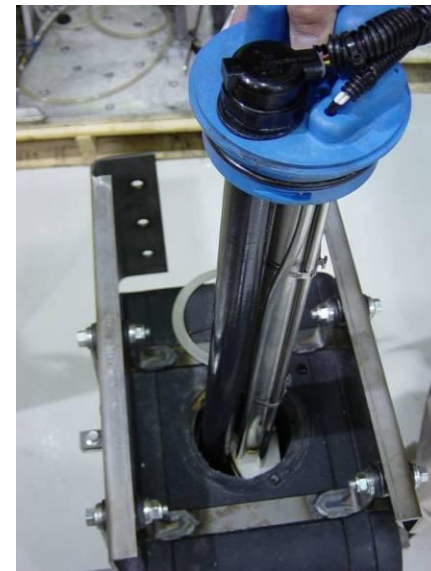
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15. Position DEF head unit with new sensor and focus tube over reservoir tank. Angle the head unit so that it will fit through the opening, then straighten the head unit and slide it the rest of the way through.



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16. Push the head unit back into place, facing the original or desired location to ensure proper hose connection. Parker O-Lube or equivalent petroleum jelly may need to be applied to the O-ring on the head unit for easier insertion. Apply Loctite 242 to the screw holes on the reservoir, and then slide the retaining ring over the split wire loom coverings and onto the head unit, ensuring the screw holes of the retaining ring match up with the holes in the tank.

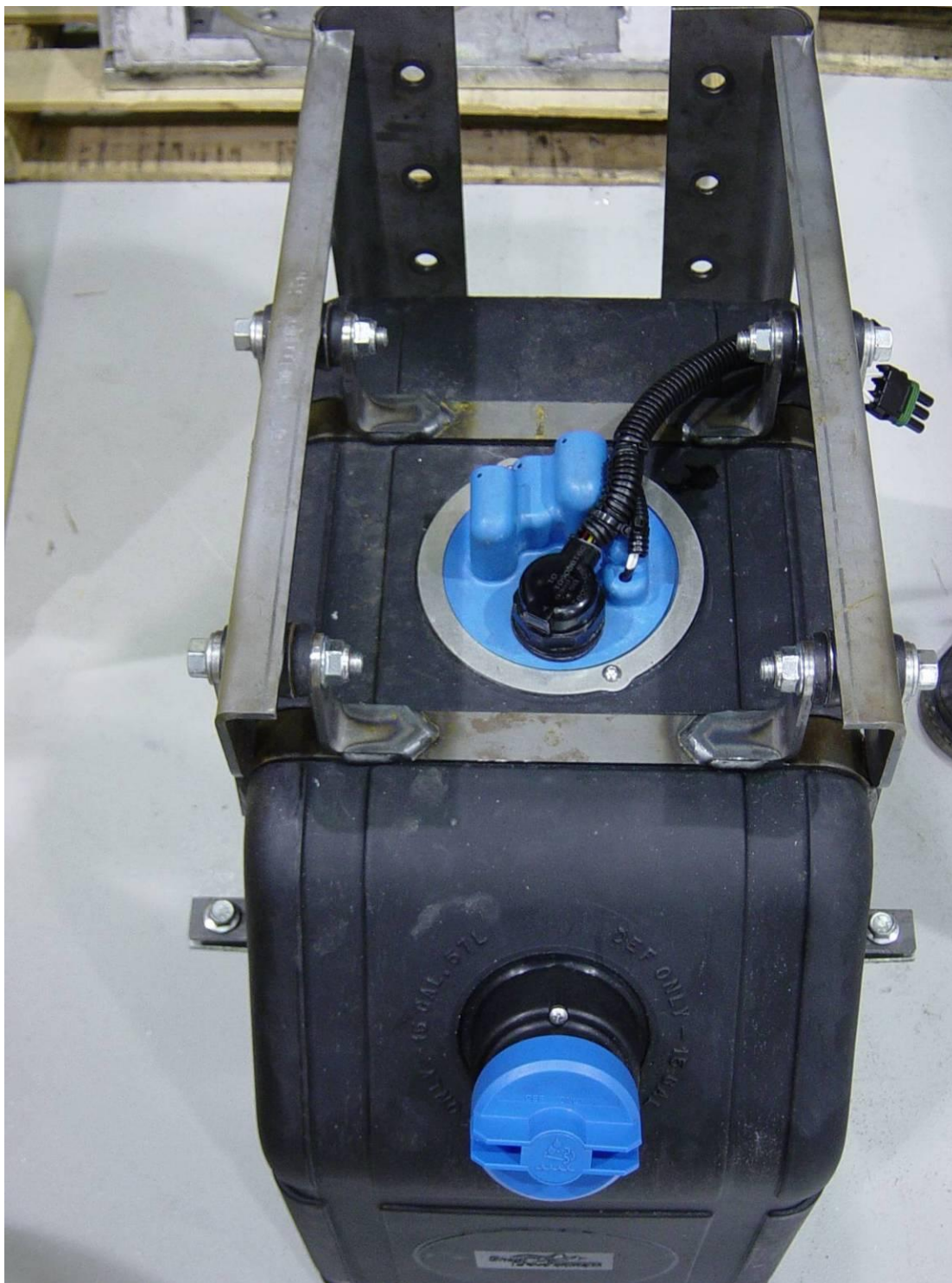


17. Using the Allen Wrench/Hex Key, screw the Allen screws back into place and installation is complete. Recommended torque installation is 20-30 in-lbs.



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