INSTALLATION INSTRUCTIONS

Original Issue Date: 12/06

Model: 450/500REOZVB

Market: Industrial

Subject: Fuel Hose Service Kit GM54805 (V4)

Introduction

This fuel system service kit is intended to eliminate the loss of fuel prime on the above generator set models.

Inspect and replace the fuel system hoses as needed. Submit a standard warranty claim referencing this instruction sheet and warranty labor code 5348. A flat rate of 3.0 hours has been established to perform this procedure. A claim can only be filed during the generator set warranty period.

Retain all removed parts for a minimum of 90 days after filing the warranty claim. **DO NOT** return parts to the manufacturer unless requested to do so.

Read the entire installation procedure and compare the kit parts with the parts list in this publication before beginning installation. Perform steps in the order shown.

Maintenance Requirements

On occasion, some parts may become damaged during shipping, receiving, service removal, or service installation. When using replacement parts, use only parts supplied from an authorized Kohler distributor/dealer.

Note: Technicians should have an additional fuel filter and water separator nearby during service in case they become damaged, contaminated, or leakage occurs after installation.

The following tools and supplies are required:

- Metric wrenches and socket sets up to 24 mm.
- Strap wrench for fuel filter and water separator.
- Crowfoot open end wrench, 22 mm (optional).
- Fuel filter (optional).
- Water separator (optional).
- 1/4 in. ID pipe or tubing of proper length to replace existing return diptube. A 1/8 in. NPT schedule 80 can be used in place of the 1/4 in. ID pipe.

Application Requirements

Determine which fuel system version is currently installed on the generator set.

- If the generator set has an existing hose connection between the front and rear riser as shown in Figure 1,
 DO NOT use this service kit. If the generator set needs to be serviced, contact your authorized Kohler distributor/dealer.
- If the generator set fuel system components are comparable to Version 1 and Version 2, use this service kit. See Figure 2 and Figure 3.

Note: The steps and components in the removal procedure are typical of most units. Some variation between engine models may require a slightly different removal procedure.

Safety Precautions

Observe the following safety precautions while installing the kit.

A WARNING



Accidental starting.
Can cause severe injury or death.

Disconnect the battery cables before working on the generator set. Remove the negative (-) lead first when disconnecting the battery. Reconnect the negative (-) lead last when reconnecting the battery.

Disabling the generator set. Accidental starting can cause severe injury or death. Before working on the generator set or connected equipment, disable the generator set as follows: (1) Move the generator set master switch to the OFF position. (2) Disconnect the power to the battery charger. (3) Remove the battery cables, negative (-) lead first. Reconnect the negative (-) lead last when reconnecting the battery. Follow these precautions to prevent starting of the generator set by an automatic transfer switch, remote start/stop switch, or engine start command from a remote computer.



Fire.

Can cause severe injury or death.

Do not smoke or permit flames or sparks near fuels or the fuel system.

Servicing the fuel system. A flash fire can cause severe injury or death. Do not smoke or permit flames or sparks near the fuel injection system, fuel line, fuel filter, fuel pump, or other potential sources of spilled fuels or fuel vapors. Catch fuels in an approved container when removing the fuel line or fuel system.

Leaking or accumulated engine fluids. A fire can cause severe injury or death. Clean up engine fluids including fuel, oil, grease, and coolant. Determine the source of engine leaks and correct before starting the generator set. Keep the generator set area clean and remove combustible materials.



Explosive fuel vapors.
Can cause severe injury or death.

Use extreme care when handling, storing, and using fuels.

Draining the fuel system. Explosive fuel vapors can cause severe injury or death. Spilled fuel can cause an explosion. Use a container to catch fuel when draining the fuel system. Wipe up spilled fuel after draining the system.



Hot engine and exhaust system. Can cause severe injury or death.

Do not work on the generator set until it cools.

Servicing the exhaust system. Hot parts can cause severe injury or death. Do not touch hot engine parts. The engine and exhaust system components become extremely hot during operation.



Rotating parts.
Can cause severe injury or death.

Operate the generator set only when all guards, screens, and covers are in place.

A WARNING



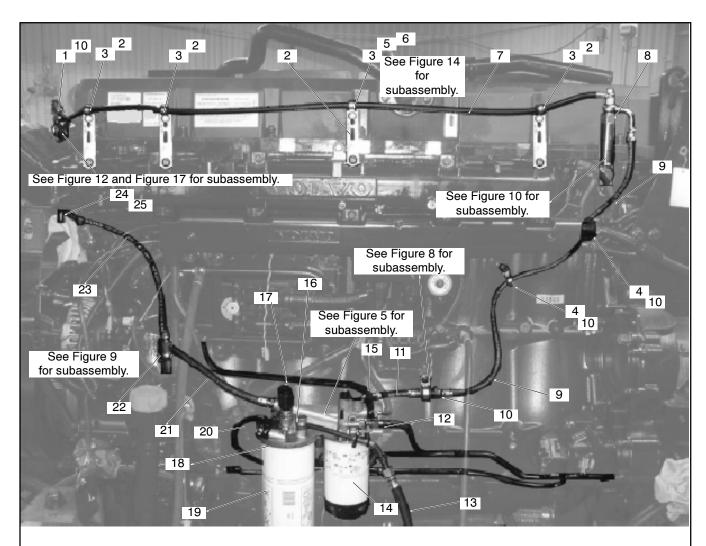
Airborne particles. Can cause severe injury or blindness.

Wear protective goggles and clothing when using power tools, hand tools, or compressed air.

Removal Procedure

- 1. Remove the generator set from service.
- 1.1 Place the generator set master switch in the OFF/RESET position.
- 1.2 Disconnect the power to the battery charger, if equipped.
- 1.3 Disconnect the generator set engine starting battery(ies), negative (-) lead first.

- **Note:** To minimize fuel leakage, close the usersupplied valves nearest to the engine, if installed.
- 1.4 Close the fuel inlet and the fuel return line valves.
- 1.5 Use an approved container to catch the fuel.
- 1.6 Remove the fuel tank supply and the fuel return lines on the generator set.



- 1. Front riser (3848156)
- 2. Bracket, standard, qty. 4 (845999)
- 3. Clamp, hose, 9 mm (3/8 in.), qty. 4 (942542)
- 4. Screw, M8-20, qty. 2 (946173)
- 5. Screw, M8-16, qty. 4 (946440)
- 6. Nut, M8, qty. 4 (945408)
- 7. Front-to-rear fuel line (3593502)
- 8. Rear riser (3848156)
- 9. Fuel line, rear upper (3849938)
- 10. Clamp, hose, 16 mm (5/8 in.), qty. 3 (949747)
- 11. Fuel line, rear, lower (3888420)
- 12. Existing line from water separator to fuel pump
- 13. New 1/4 in. return line supplied with kit (GM51589)

- 14. Water separator
- 15. Existing line from ECU cooler to water separator
- 16. Valve, deaerating (3594288)
- 17. Electrical sensor connection
- 18. Filter housing
- 19. Fuel filter
- 20. Existing fuel line from filter to fuel pump
- 21. Fuel line, front, lower (3888407)
- 22. Overflow valve
- 23. Fuel line, front upper (3593826)
- 24. Screw, M8-12 (947107)
- 25. Clamp, hose, 29 mm (1 1/8 in.) (943717)

Figure 1 Riser Kit Routing Assembly

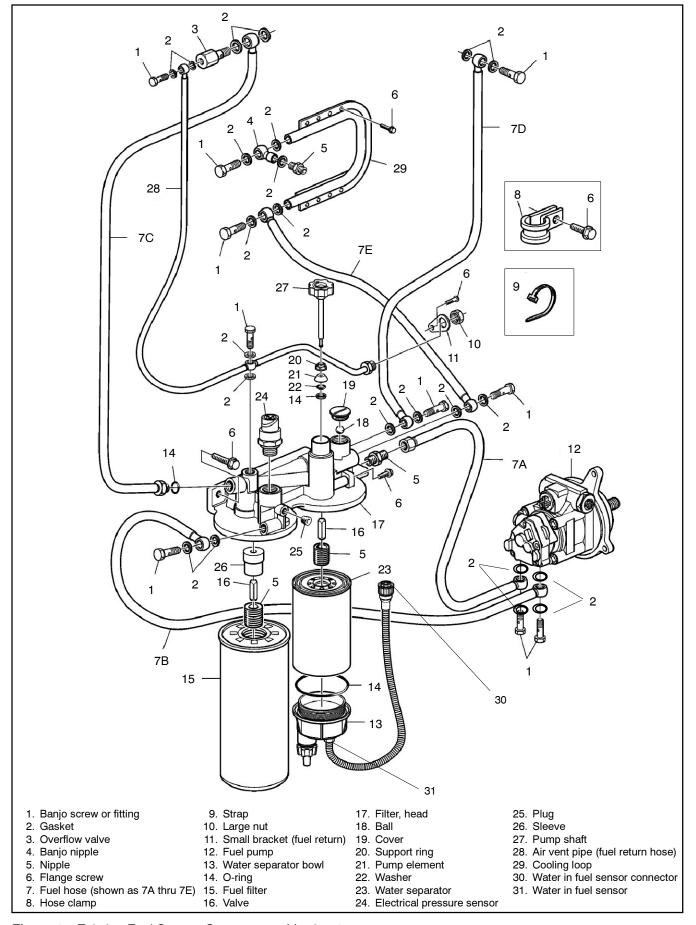


Figure 2 Existing Fuel System Components, Version 1

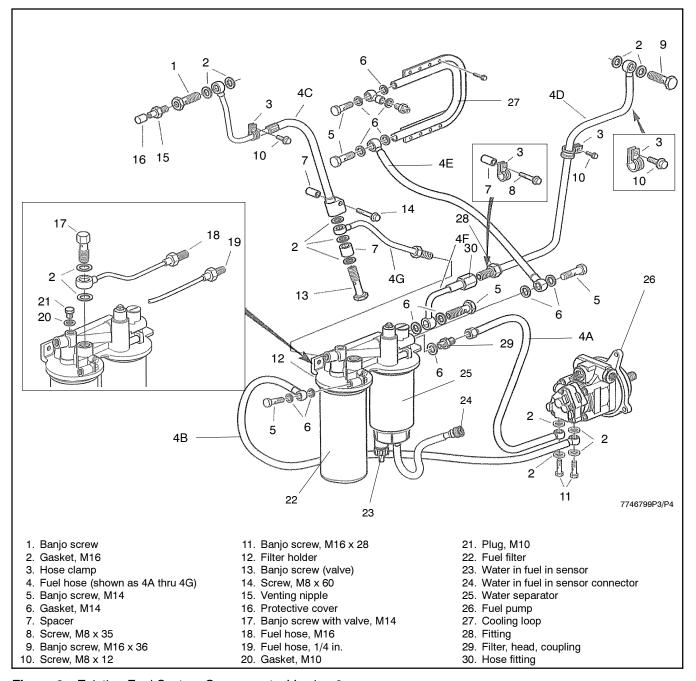


Figure 3 Existing Fuel System Components, Version 2

2. Remove the fuel filter and water separator.

- 2.1 Disconnect the water in fuel sensor electrical connector at the bottom of the water separator.
 - **Note:** Leave the water in fuel sensor connected to the water separator, if it will be reused.
- 2.2 Move the engine wiring harness away from the filter head area.
- 2.3 Disconnect the electrical pressure sensor at the top of the fuel filter.
- **Note:** If the new filter head is not equipped with an electrical pressure sensor, remove it from the old filter head. Afterwards, apply pipe sealant to the threads and install it into the new filter head.
- 2.4 Remove the wing nut and bracket strapped over the lower half of the fuel filter.

Note: The filter head has a rubber strip as part of the clamping system on the fuel filter. Save these components for installation later.

- 2.5 Place an approved container under the filter head area to catch leaking fuel.
- 2.6 Remove the fuel filter and water separator from filter head.
- 2.7 Temporarily store the fuel filter and the water separator in a closed container or plastic bag.

-or-

Place clean rags on the filters to prevent dirt/ dust contamination.

2.8 Remove and discard the M16 flange screw, radiator stay, all washers, rubber elements, bushing, M16 flange nut, and radiator support mounting bracket. See Figure 4.

Note: Save screw GM27452 from the radiator stay and the screw from the support mounting bracket if the engine was built after week 5 of 2006 (W0605).

2.9 If the generator set fuel system contains common parts with Figure 2, go to step 3. If the generator set fuel system contains common parts with Figure 3, go to step 4.

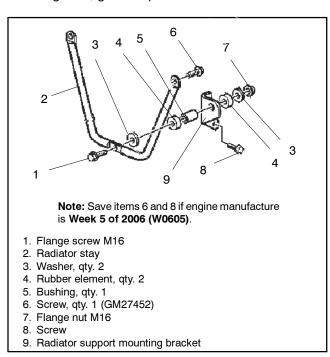


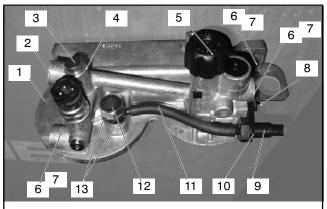
Figure 4 Radiator Support Bracket Mounting

 Remove the existing fuel system components from Version 1. Compare the generator set fuel system components with Version 1. See Figure 2.

Note: Use of a 21 mm and 24 mm or equivalent wrench may be necessary to remove the radiator support bracket.

Note: The steps and components in the removal procedure are typical of most units. Some variation between engine models may require a slightly different removal procedure.

- Disconnect fuel hose 7A from the water separator.
 See Figure 2.
- 3.2 Remove the fitting from the filter head (see Figure 2). Install the fitting in the new filter head using gasket 20869259 (see Figure 5). Discard the old gaskets.



- 1. Filter, head
- 2. Fuel hose (3888407) connection point
- 3. Screw, plug, M10 (960628)
- 4. Gasket, M10 (20852762)
- 5. Priming pump
- 6. Install new screws, banjo, M14, qty. 3 (991048)
- 7. Install new gaskets, M14, qty. 6 (20852764)
- 8. Connection, fuel pump, new gasket, special, M14 (20869259)
- 9. Fuel return line connection, 1/4 in. NPT
- 10. Large nut (re-use)
- 11. Fuel line, return, 1/4 in. NPT (3888908)
- 12. Valve, deaerating (3594288)
- 13. Gaskets, M14, qty. 2 (20852764)

Figure 5 Filter Housing Components

Note: The kit contains twelve M14 gaskets 20852764 and one M14 special gasket 20869259. These components are similar in size. Identify the M14 special gasket 20869259, as the rubber sealing material is triangular, to prevent misuse. See Figure 6.

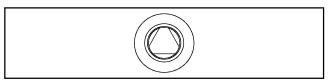


Figure 6 M14 Special Gasket 20869259

3.3 Disconnect fuel hose 7B from the fuel filter. Discard the gaskets and the banjo screw. See Figure 2.

- 3.4 Disconnect fuel hose 7D between the cylinder head rear location and the filter head. Remove the hose clamp and screw. Discard the hose, hose clamp, screws, and gaskets. See Figure 2.
- 3.5 Disconnect fuel supply hose 7E from the water separator. Discard the gaskets and the banjo screw. See Figure 2.
- 3.6 Disconnect fuel hose 7C at the cylinder head front location. Remove and discard the fitting screw, overflow valve, and gaskets. See Figure 2.
- 3.7 Remove and discard the hose clamps and screws.
- 3.8 Remove fuel hose 7C from the fuel filter. Discard the fuel hose and the O-ring. See Figure 2.
- 3.9 Remove the banjo screw and gaskets from the fuel return line at the fuel filter head. Discard the hose clamp and the gaskets. See Figure 2.
- 3.10 Remove large nut holding fuel return line to filter head. Discard fuel return line. Save large nut for use later. See Figure 5.
- 3.11 Remove three screws to remove the filter head from the engine. Discard the existing filter head. DO NOT discard the screws. Save them for installation later.
- 3.12 Go to step 5.
- 4. Remove the existing fuel system components from Version 2. Compare the generator set fuel system components with Version 2. See Figure 3.
 - **Note:** The steps and components in the removal procedure are typical of most units. Some variation between engine models may require a slightly different removal procedure.
- 4.1 Disconnect fuel hose 4A from the water separator. See Figure 3.
- 4.2 Remove the fitting from the filter head (see Figure 3). Install new gasket 20869259 and fitting in the new filter head (see Figure 5). Discard the old gaskets.
 - Note: The kit contains twelve M14 gaskets 20852764, and one M14 special gasket 20869259. These components are similar in size. Identify the M14 special gasket 20869259, as the rubber sealing material is triangular, to prevent misuse. See Figure 6.

- 4.3 Disconnect fuel hose 4B from the fuel filter, located to the left of the fuel filter. Discard the gaskets and the banjo screws. See Figure 3.
- 4.4 Disconnect fuel hose 4D at the cylinder head rear location. Disconnect the nonreturn valve end of the fuel hose. Remove and discard the hose, hose clamp, screws, and old gaskets. See Figure 3.
- 4.5 Disconnect fuel hose 4F between the filter head coupling and the water separator. Discard the hose, gaskets, and banjo screw. See Figure 3.
- 4.6 Disconnect fuel supply hose 4E from the water separator. Discard the gaskets and banjo screw. See Figure 3.
- 4.7 Disconnect fuel hose 4C at the cylinder head front location where the banjo fitting and the venting nipple are used. Remove and discard the protective cover, hose, old gaskets, hose clamps, spacers, and screws. See Figure 3.
- 4.8 Disconnect fuel hose 4G and the fitting from the fuel filter. Remove and discard the fitting, old gaskets, spacers, and valve screw. See Figure 3.
- 4.9 Remove large nut holding fuel return line to filter head. Save large nut for use later. See Figure 5.
- 4.10 Remove the three screws and remove the filter head from the engine. Discard the existing filter head and the small rubber hose. **DO NOT** discard the screws. Save them for installation later.

5. Install the new fuel system components.

Install the fuel hose kit using the following steps and refer to Figure 1 and Figure 5 through Figure 17.

- **Note:** When installing the gaskets and the banjo screws, be sure the rubber sealing material in the (metal) gasket does not break off and enter the banjo fitting.
- 5.1 Preassemble the filter head M10 screw plug 960628, M10 gasket 20852762, fuel return line 1/4 in. NPT, deaerating valve 3594288, and two M14 gaskets 20852764. Install large nut removed from previous installation to hold return line to filter head. See Figure 5.
- 5.2 Install the new filter housing using the three existing screws. Tighten securely. See Figure 5.

- 5.3 Install new radiator support mounting bracket, for the radiator stay. Determine if the engine was built before week 4 of 2006 (W0604) or after week 5 of 2006 (W0605). See Figure 7.
 - Week 4 of 2006. Attach new radiator support mounting bracket 3594409 to engine bracket using three M10 sleeve spacers 977412 and three M10-35 flange screws 946752. Tighten securely. See Figure 7.
 - Week 5 of 2006. Attach new radiator support mounting bracket 3594409 to engine bracket using three M10-35 flange screws. Tighten securely. See Figure 7.

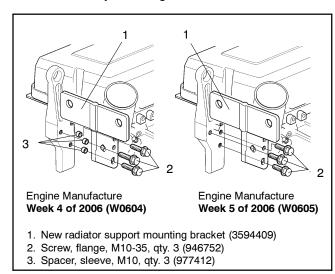


Figure 7 Radiator Support Mounting Bracket Assemblies

- 5.4 Assemble the rear lower fuel line 3888420 to the rear upper fuel line 3849938 (see Figure 1). This hose assembly contains the nonreturn valve (see Figure 8).
- 5.5 Attach rear lower fuel line 3888420 to the filter housing. Install new M14 banjo screw 991048 and two new M14 gaskets 20852764, at the water separator location. See Figure 1 and Figure 5.
 - Note: The kit contains twelve M14 gaskets 20852764, and one M14 special gasket 20869259. These components are similar in size. Identify the M14 special gasket 20869259 as the rubber sealing material is triangular to prevent misuse. See Figure 6.
- 5.6 Attach the nonreturn valve/fuel hose assembly from step 5.4 to the engine block using screw spacer 826652, 20 mm (3/4 in.) hose clamp 949786, and M8-35 screw 946470. Tighten securely. See Figure 8.

Note: Some engine models may not have this mounting location. Use an available mounting boss in close proximity. See Figure 8.

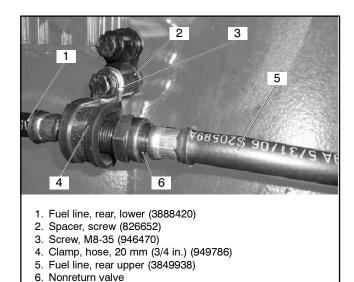
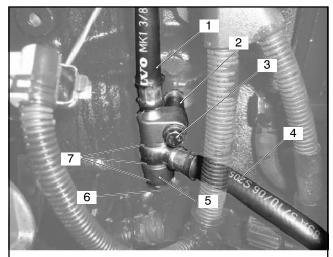


Figure 8 Nonreturn Valve Assembly

- 5.7 Attach the existing fuel line connection from the fuel pump to the water separator. See Figure 1.
- 5.8 Attach the existing fuel line from the fuel pump to the fuel filter (see Figure 1). Install new M14 banjo screw 991048 and install two new M14 gaskets 20852764 (see Figure 5).
- 5.9 Attach new 1/4 in. fuel return line GM51589 to the right side of the water separator (see Figure 1) at the 1/4 in. NPT fuel return line connection (see Figure 5).
- 5.10 Attach the existing fuel line from the ECU engine cooling loop to the right side of the water separator (see Figure 1). Install new M14 banjo screw 991048 and install two new M14 gaskets 20852764 (see Figure 5).
- 5.11 Connect the water sensor electrical connector at the bottom of the water separator. See Figure 1.
- 5.12 Connect the electrical sensor and the hose to the top of the fuel filter. See Figure 1.
- 5.13 Attach the front lower fuel line 3888407 to the left side of the fuel filter. See Figure 1.

Note: This fuel return line has an O-ring with the fitting and connects between the fuel pressure valve and the filter head.

5.14 Assemble the overflow valve components that include front upper fuel line 3593826, front lower fuel line 3888407, valve spacer 991656, overflow valve screw 21014054, and three M16 gaskets 20852765. DO NOT final tighten overflow valve screw 21014054 at this time. See Figure 9.



- 1. Fuel line, front upper (3593826)
- 2. Spacer, screw (826652)
- 3. Screw, M8-60 (965180)
- 4. Fuel line, front, lower (3888407)
- 5. Spacer, valve (991656)
- 6. Screw, valve, overflow (21014054)
- 7. Gasket, M16, qty. 3 (20852765)

Figure 9 Overflow Valve Assembly

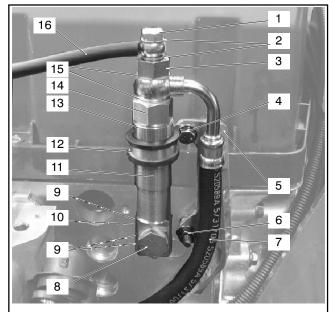
5.15 Attach the overflow valve assembly to the engine block using screw spacer 826652 and M8-60 screw 965180. Tighten securely. Tighten overflow valve 21014054 securely. See Figure 9.

Note: Due to engine variations, only three of the four mounting holes on the rear riser bracket will be used.

- 5.16 Install the rear riser bracket 3594418 to the cylinder head using two M8-20 screws 946173, and 16 mm (5/8 in.) clamp 949747 on the bottom of the bracket. See Figure 1 and Figure 10.
- 5.17 Install new rear riser 3848156, to the cylinder head using M16 banjo screw 991046, 20 mm (1 1/4 in.) short length spacer 3849957, and three M16 gaskets 20852765. See Figure 10.

Note: DO NOT allow contact between rear riser 3848156, and rear upper fuel line 3849938. See Figure 10.

Note: It may be necessary to loosen the fitting at the nonreturn valve in order to route rear upper fuel line 3849938 without binding (see Figure 10). Tighten the fitting at the nonreturn valve securely (see Figure 8).



- 1. Screw, banjo, M10 (48634)
- 2. Gasket, M10, qty. 2 (20852762)
- 3. Screw, banjo, M16 with M10 (3888268)
- 4. Mounting hole location for clamp
- 5. Bracket, riser, rear (3594418)
- 6. Screw, M8-20 (946173)
- 7. Rear upper fuel line (3849938)
- 8. Screw, banjo, M16 (991046)
- 9. Gasket, M16, qtv. 3 (20852765)
- 10. Spacer, short length, 20 mm (1 1/4 in.) (3849957)
- 11. Riser, rear (3848156)
- 12. Clamp, hose, 29 mm (1 1/8 in.) (943717)
- 13. Washer, copper, M22 (18677)
- 14. Fitting, brass (949620)
- 15. Gasket, M16, qty. 2 (20852765)

16. Front-to-rear fuel line (3593502)

Figure 10 Rear Riser Assembly 3848156

- 5.18 Attach rear upper fuel line 3849938 to rear riser 3848156. Install new banjo screw M16 with M10 3888628 and install two new M16 gaskets 20852765. See Figure 10.
- 5.19 Install plastic retainer 3545508 to rear upper fuel line 3849938 and wire harness. See Figure 11.

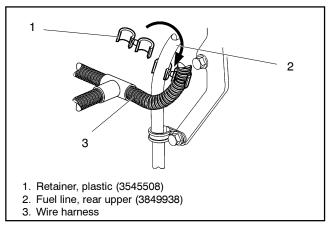


Figure 11 Upper Rear Fuel Hose Assembly

- 5.20 Secure the rear riser to rear riser bracket 3594418 using 29 mm (1 1/8 in.) hose clamp 943717 and M8-12 fastener 947107 thru the mounting hole. See Figure 10.
- 5.21 Secure rear upper fuel line 3849938 to the engine block using one 16 mm (5/8 in.) hose clamp 949747 and one M8-20 screw 946173. See Figure 1.
- 5.22 Install new front riser 3848156 to the cylinder head using M16 banjo screw 190713, 40 mm (1 1/2 in.) spacer 3849956, and three M16 gaskets 20852765. DO NOT tighten M16 banjo screw 991046. See Figure 12.

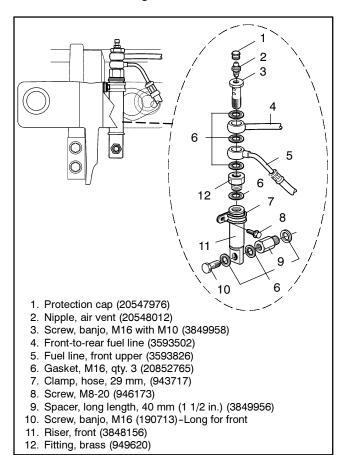


Figure 12 Front Riser Assembly 3848156

- 5.23 Install 29 mm (1 1/8 in.) hose clamp 943717 over front riser 3848156. Secure clamp onto new radiator support mounting bracket. Use M8-20 screw 946173, and hand tighten. See Figure 12.
- 5.24 Attach front upper fuel line 3593826 to front riser 3848156. Install new banjo screw M16 with M10 3849958 and install three new M16 gaskets 20852765. See Figure 12.

5.25 Install the air vent nipple 20548012 and protection cap 20547976 into M16-10 banjo screw at the top of front riser 3848156 into M16-10 banjo screw. See Figure 12.

Note: If necessary, use a 21 mm and/or 24 mm wrench to install the radiator support bracket.

- 5.26 Install radiator stay 3593807 to new radiator support mounting bracket 3594409. See Figure 13.
 - Attach two bushings 252202, two rubber elements 866857, and two washers 948556 on the front side of radiator support mounting bracket. Slide two flange screws 968302 through the radiator stay mounting holes and radiator support mounting bracket 3594409. See Figure 13.
 - Attach two rubber elements 866857, two washers 948556, and two M16 flange nuts 966818 to the back side of the radiator support mounting bracket. Tighten securely. See Figure 13.

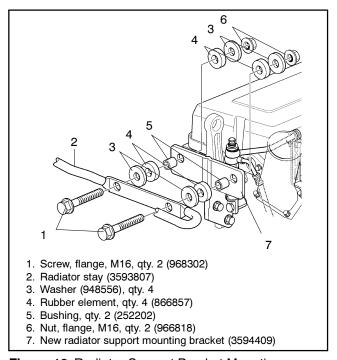


Figure 13 Radiator Support Bracket Mounting

5.27 Install front-to-rear fuel line 3593502 to rear riser 3848156 using M10 banjo screw 48634 and two M10 gaskets 20852762. See Figure 10 and Figure 12.

5.28 Securely tighten the banjo screws on rear riser 3848156 and front riser 3848156.

Note: Place hose clamp 949747 on the bracket side away from the valve cover. See Figure 14.

Note: Avoid crimping the fuel hose radius at the risers when tightening the screws on the hose clamps.

5.29 Remove the four existing screws located on the the air charge manifold (see Figure 14). See Figure 1 for bracket locations.

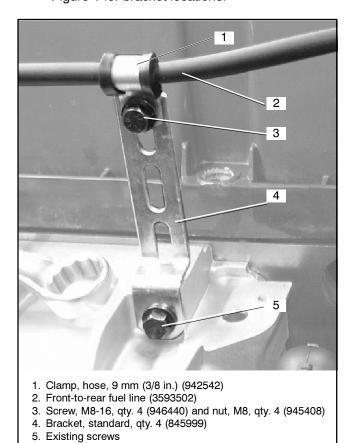


Figure 14 Connection Line Bracket Mounting

5.30 Install four new standard brackets 845999, and four 9 mm (3/8 in.) hose clamps 942542 to front-to-rear fuel line 3593502. Attach the clamps to brackets 845999, using four M8-16 screws 946440 and four M8 flange nuts 945408. Tighten securely. See Figure 1 and Figure 14.

5.31 Locate the fuel hose attached to the front riser, which is connected to the filter head. Place 16 mm (5/8 in.) hose clamp 949747 on the fuel hose and attach to the engine block using the M8-12 screw 947107. See Figure 1.

Note: Technicians should have an additional fuel filter and water separator nearby during service in case the originals become damaged, contaminated, or leakage occurs after installation.

5.32 Remove filter and water separator from plastic container or bag.

—or—

Remove rags from filter and water separator.

- 5.33 Install the existing fuel filter and the water separator. Install a new fuel filter and/or water separator if damage to the filters occurred during removal or if they became contaminated with dirt during the installation procedure. See Figure 1.
- 5.34 Install two new M16 banjo screws 991046 and four new M16 gaskets 20852765, at the fuel pump. See Figure 15.

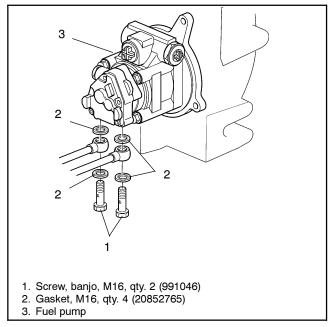


Figure 15 Radiator Support Bracket Mounting

5.35 Install new M14 banjo screws 991048 and four new M14 gaskets 20852764, at the ECU cooling loop. See Figure 16.

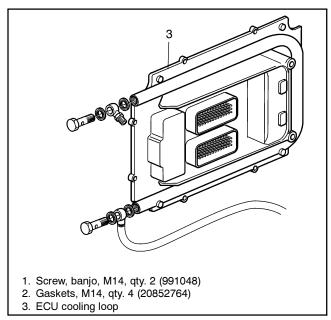


Figure 16 Radiator Support Bracket Mounting

6. Check and modify the fuel tank as needed.

- 6.1 Replace fuel return line with new 1/4 in. ID line supplied with this kit.
- 6.2 Replace the diptube going into the fuel tank with 1/4 in. ID pipe or tubing. A 1/8 in. NPT schedule 80 can be used in place of the 1/4 in. ID pipe.
- 6.3 Remove check valve from supply installed at tank.
- 6.4 Install the fuel supply to the generator set.

Note: The kit may contain additional pieces that are not used in this application. These parts may be useful if additional components were removed.

6.5 Connect the new 1/4 in. return line to the fuel tank connection.

7. Open the fuel valves.

- 7.1 Check that each fuel fitting is tightened securely.
- 7.2 Clean up any spilled fuel on and around the generator set. Dispose of any used fuel and contaminated containers including rags in a proper manner.
- 7.3 Open the fuel inlet valve and fuel return line valve, if equipped.
- 7.4 Use the priming pump located on the top of the fuel filter to prime the fuel system. Press down and rotate the knob slightly counterclockwise to release the plunger. Remove protective cap 20547976 from air vent nipple. Loosen air vent nipple 20854797 located on front riser 3848156 to allow air to escape while pumping. Connect 1/4 in. NPT drain hose to vent fitting to direct fuel into container. Pump the plunger until fuel is coming out of vent to purge air from the fuel system. See Figure 12 and Figure 17.

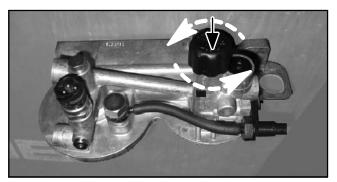


Figure 17 Filter Priming Pump

- 7.5 Press plunger down and turn slightly clockwise to lock into place. See the respective engine operation manual for additional information.
- 7.6 Locate air vent nipple 20547976 on front riser 3848156. Replace protection cap 20547976 and tighten securely. See Figure 12.

8. Restore the generator set to service.

- 8.1 Check that the generator set master switch is in the OFF position.
- 8.2 Reconnect the generator set engine starting battery, negative (-) lead last.
- 8.3 Reconnect power to the battery charger, if equipped.

9. Test run the generator set to check for leaks.

- 9.1 Place the generator set master switch to the RUN position to start the generator set.
- 9.2 Immediately stop the generator set if a fuel leak is detected. Otherwise, run the unit for 5 minutes and stop the generator set.
- 9.3 Check for leaks. If any leaks are found, disable the generator set and repair the leaks. Restore the generator for operation.
- 9.4 Place the generator set master switch to the RUN position to start the generator set and run for a minimum of 30 minutes. Immediately stop the generator set if a fuel leak is detected.
- 9.5 Check for leaks. If any leaks are found, disable the generator set and repair the leaks.
- 9.6 Restore the generator set to service.
- 9.7 If the unit does not have a programmed exercise mode and an automatic transfer switch with an exercise option, follow these exercising guidelines listed below. Exercise the generator:
 - for one hour each week.
 - with at least 35% load.
 - only in the presence of an operator.

Parts List (Packing List)

Fuel Hose Service Kit GM54805 (V4)

	Description	Part No.
1	Screw, banjo, M10	48634
3	Screw, banjo, M16	991046
1	Screw, banjo, M16 (Long for front)	190713
5	Screw, banjo, M14	991048
2	Spacer, screw, M8	826652
4	Nut, M8	945408
2	Screw, M8-12	947107
4	Screw, M8-20	946173
1	Screw, M8-35	946470
2	Fitting, brass	949620
4	Clamp, hose, 9 mm (3/8 in.)	942542
3	Clamp, hose, 16 mm (5/8 in.)	949747
1	Clamp, hose, 20 mm (3/4 in.)	949786
2	Clamp, hose, 29 mm (1 1/8 in.)	943717
1	Screw, plug, M10	960628
1	Screw, M8-60	965180
4	Bracket, standard	845999
1	Spacer, valve	991656
1	Fuel line (front-to-rear)	3593502
1	Spacer, short length, 20 mm (1 1/4 in.)	3849957
1	Riser, rear	3848156
1	Riser, front	3848156
1	Filter, head	3849373
1	Fuel line (front upper)	3593826
1	Fuel line (rear upper)	3849938
1	Spacer, long length, 40 mm (1 1/2 in.)	3849956
1	Screw, banjo, M16 with M10 (rear)	3888268
1	Fuel line (front lower) with O-ring	3888407
1	Fuel line (rear lower)	3888420
1	Fuel line, return, 1/4 in. NPT	3888908
1	Fuel line, return, M16 (not used)	3888904
3	Gasket, M10	20852762
12	Gasket, M14	20852764
18	Gasket, M16	20852765
1	Gasket, special, M14 (with triangular rubber sealing material)	20869259
2	Washer, copper, M22	18677
1	Valve, deaerating	3594288
1	Screw, valve, overflow	21014054
1	Bracket, riser, rear	3594418
1	Screw, banjo, M16 with M10 (front)	3849958
1	Retainer, plastic	3545508
1	Mounting bracket, radiator support (for radiator stay)	3594409
4	Washer (for radiator stay)	948556
1	Radiator stay	3593807
4	Rubber element	866857
2	Bushing	252202
2	Screw, flange, M16	968302
2	Nut, flange, M16	966818
4	Screw, M8-16	946440
3	Screw, flange, M10-35	946752
3	Spacers, sleeve, M10	977412
1	Protection cap	20547976
1	Nipple, air vent	20548012

Notes