



Service Bulletin

HHXDF5 Mechanical Ride-On Trowels

LPG Hose Replacement

Product Group: Ride-On Trowels	Date Issued: 12/16/16	Service Bulletin No. TR20161212
Bulletin Type <input checked="" type="checkbox"/> Mandatory <input type="checkbox"/> Information Only <input type="checkbox"/> Recommended Change		Models/Series Affected: HHXDF5 S/N R10209091 — PH2003309

Details

Replace original LPG hoses with UL listed hose assemblies.

Parts Information

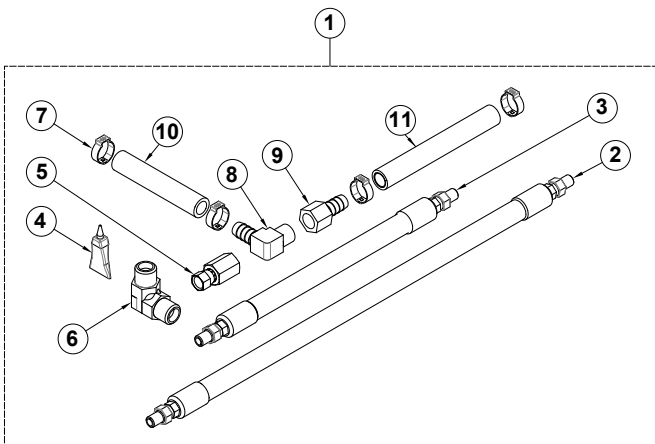


Figure 1. Kit, LPG Hose, HHXDF5

Table 1. HHXDF5 LPG Hose Service Kit				
Item No.	Part No.	Description	QTY.	Remarks
1	32827-SK	Service Kit, LPG Hose, HHXDF5	1	Includes Items 2-11
2	32826	Hose Assy, 1/4" ID LPG X 20.5", 2-1/4 MP	1	
3	32830	Hose Assy, 1/4" ID LPG X 12.5", 2X1/4 MP	1	
4	32831	Loctite®, 567™ -6ML	1	
5	32832	Fitting, Str. -4FJX-4FP	1	
6	32833	Fitting, 90 -4MJ X -4MBSPT	1	
7	32834	Clamp, Stepless Ear - 20mm	4	
8	32835	Fitting, 90 Brass 1/2" Barb X 3/8" MNPT 90°	1	
9	32836	Fitting, Str. Brass 1/2" Barb X 3/8" FNPT	1	
10	60072	Hose, Fuel Ø.50 Low Perm 35 PSI	1	.34'
11	60072	Hose, Fuel Ø.50 Low Perm 35 PSI	1	.46'

WORK SAFELY!

Only a qualified service technician with proper training should perform this installation. Follow all shop safety rules when performing this installation.

PREPARATION

1. Make sure trowel is turned off and engine is cool.
2. Place the trowel in an area free of dirt and debris.

REQUIRED TOOLS

- Ratchet Set
- Crimping Tool
- 10mm, 13mm, 9/16", 3/4" Open-End Wrenches
- Bench Vise
- Flat Screwdriver

LPG TANK SAFETY

DANGER

- **DO NOT** smoke around or near the equipment. Fire or explosion could result from gas vapors.
- Accumulation of LP gas vapors may result in the development of an oxygen-deficient atmosphere which carries a risk of asphyxiation.
- **NEVER** enter a gas cloud area. This condition produces an oxygen-deficient atmosphere that could be fatal.

CAUTION

- **ALWAYS** use protective gloves when handling LPG tank. LP gas will cause cold burns if it comes into contact with the skin.
- The eyes and body must be protected when handling all LP gas products. **ALWAYS** wear protective eye safety glasses and clothing.

BATTERY SAFETY

DANGER

- **DO NOT** expose the battery to open flames, sparks, cigarettes, etc. The battery contains combustible gases and liquids. If these gases and liquids come into contact with a flame or spark, an explosion could occur.
- **ALWAYS** disconnect the **NEGATIVE** battery terminal before performing service on the equipment.

- **ALWAYS** keep battery cables in good working condition. Repair or replace all worn cables.

BATTERY DISCONNECTION

1. Remove left side guard to access battery. Disconnect negative cable (**BLACK**) from the negative terminal on the battery (Figure 2).

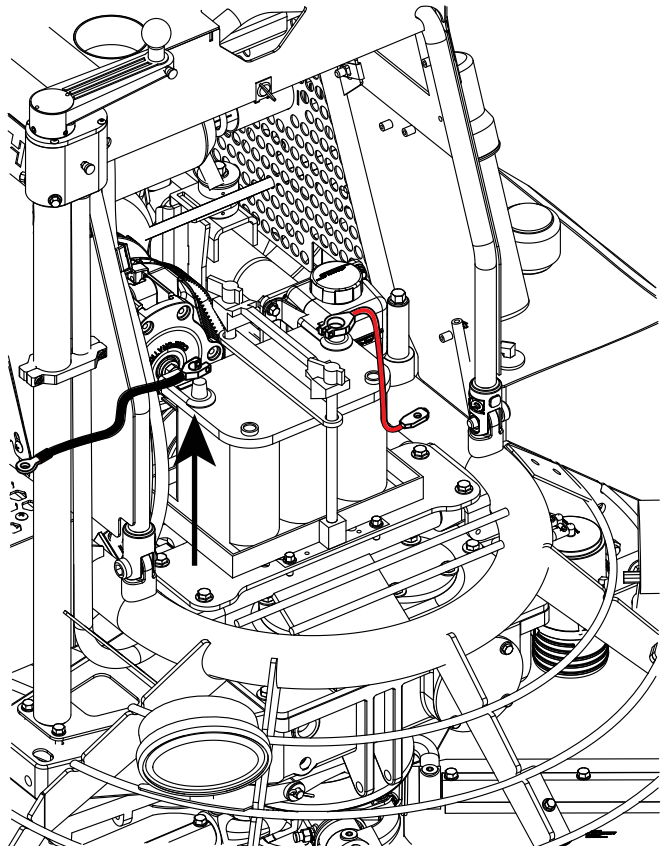


Figure 2. Disconnect Battery Cable

LPG TANK REMOVAL

1. **CLOSE** shutoff valve (Figure 3) on LPG tank.

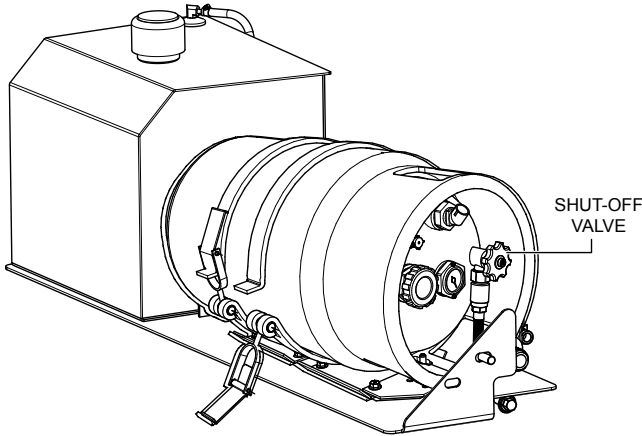


Figure 3. Close LPG Tank Shutoff Valve

2. Disconnect LPG gas line nozzle (Figure 4) from LPG tank fill port.

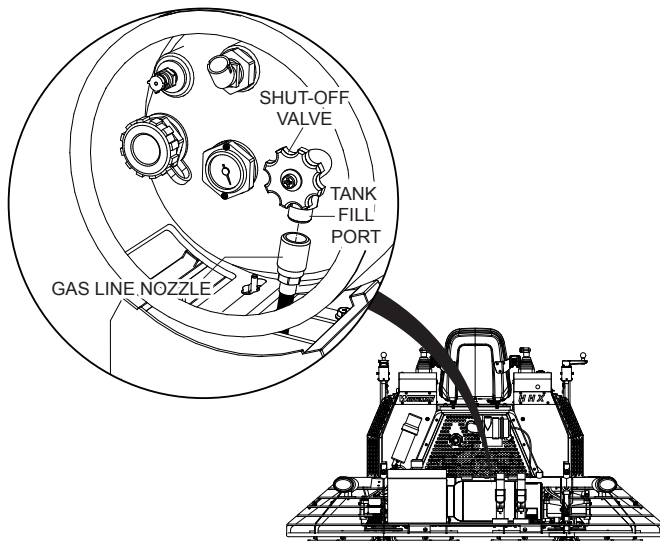


Figure 4. Disconnecting LPG Gas Line Nozzle

3. Release LPG tank retaining strap latches (Figure 5).

Push LPG tank backward and lift upward and remove tank.

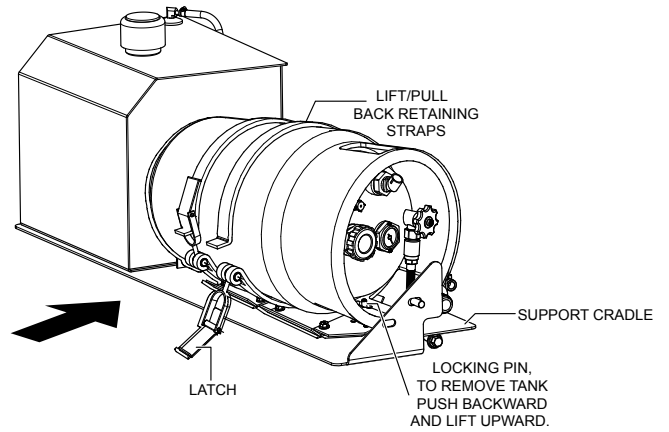


Figure 5. LPG Tank Removal

4. Remove bolts securing LPG tank retaining straps to frame.
5. Remove LPG retaining straps (Figure 6). Set bolts and LPG retaining straps aside.

NOTICE

In order to gain access to the safety lock off valve it is necessary to remove the LPG tank retaining straps.

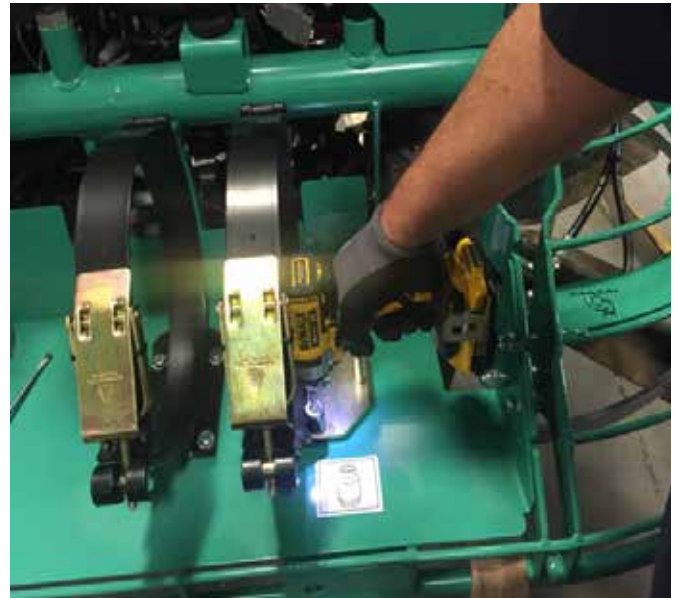


Figure 6. LPG Tank Strap Removal

REPLACING THE LPG HOSES

1. Lift up the operator's seat (Figure 7).



Figure 7. Rear Panel

2. Loosen the clamp that attaches the air filter intake hose to the air filter.
3. Remove air filter intake hose (Figure 8), and set aside.

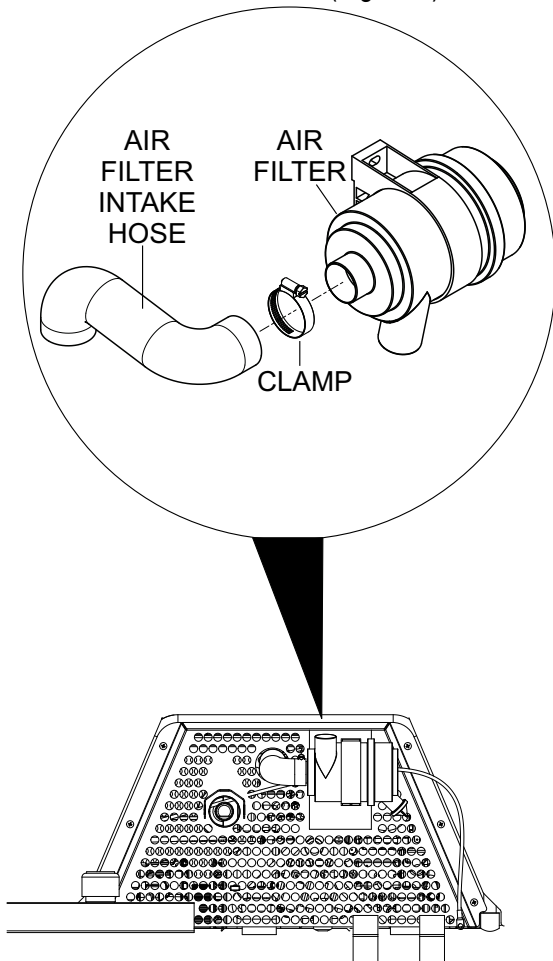


Figure 8. Remove Air Filter Intake Hose

4. Remove the six screws that secure the rear panel (Figure 9) to the frame.



Figure 9. Rear Panel Removal

5. Remove rear panel and set aside.
6. Loosen the two worm clamps (Figure 10) that secure the hose connected between the regulator and carburetor. Discard hose and worm clamps.



Figure 10. Loosen Hose Clamps

7. Apply Loctite® 567™ to the male threads (Figure 11) on the 90° fitting.

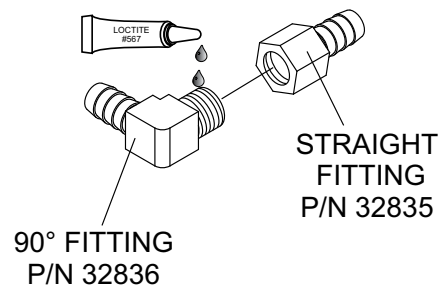


Figure 11. Applying Loctite® 567™ (90° Fitting)

8. Insert female straight fitting (P/N 32835) into 90° male fitting (P/N 32836)
9. Attach one end of the new **short** hose (P/N 60072) to female straight fitting (Figure 12). Attach stepless clamp (P/N 32834) and crimp.
10. Attach one end of the new **long** hose (P/N 60072) to 90° male straight fitting (Figure 12). Attach stepless clamp (P/N 32834) and crimp.

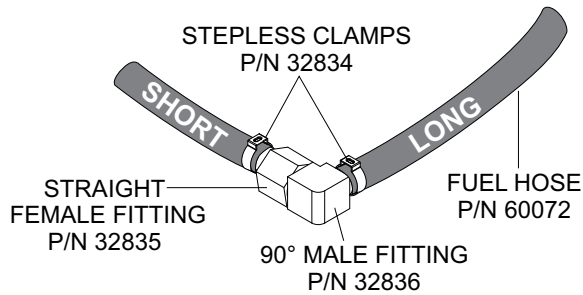


Figure 12. Connect Hoses to Fittings

11. Attach stepless clamps (P/N 32834) to the free end of the short and long hoses (Figure 13).
12. Attach the free end of the **long** hose to the regulator port and attach the free end of the **short** hose to the carburetor intake port (Figure 13).

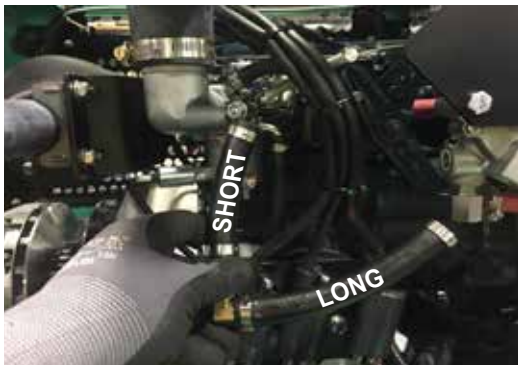


Figure 13. Connecting Hoses To Carburetor/Regulator

13. Crimp both stepless clamps (Figure 14) on each end of the long and short hoses.



Figure 14. Crimping Stepless Clamps

14. Remove propane tank adapter fitting from the lower hose (Figure 15), and set aside.

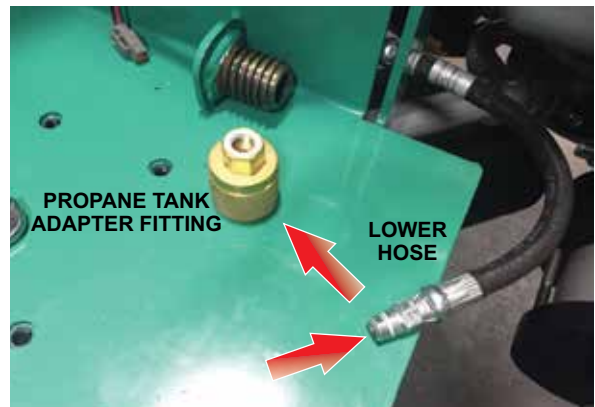


Figure 15. Remove LPG Connection Port Fitting

15. Remove the 90° hose fitting (Figure 16) at the base of the regulator, and discard.



Figure 16. 90° Fitting Removal

16. Remove straight fitting (Figure 17) at the base of the regulator, and discard.



Figure 17. Straight Fitting Removal

17. Using a 10mm socket or wrench, remove the HHC M6 screw and 1/4" flat washer that secures the **safety lock-off valve** (Figure 18) to the frame. Set screw and washer aside.

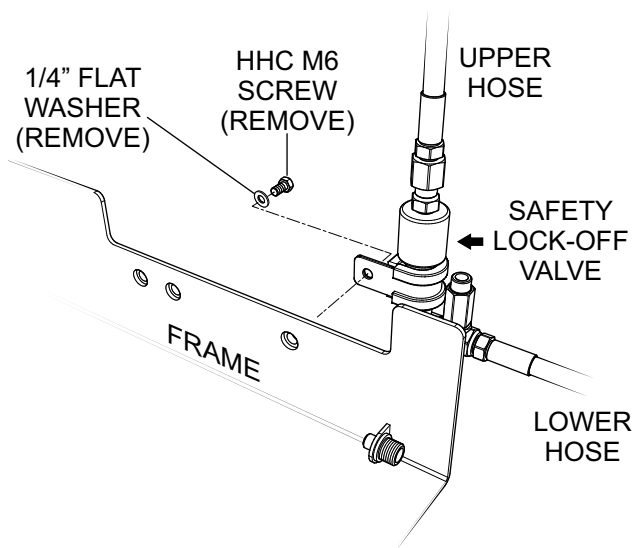


Figure 18. Safety Lock-Off Valve Bolt Removal

18. Cut the zip ties on the safety lock-off valve (Figure 19).



Figure 19. Cut Zip Ties

19. Unplug the safety lock-off valve connector (Figure 20).



Figure 20. Unplugging Safety Lock Connector

20. Remove the safety lock-off valve as an assembly (Figure 21).

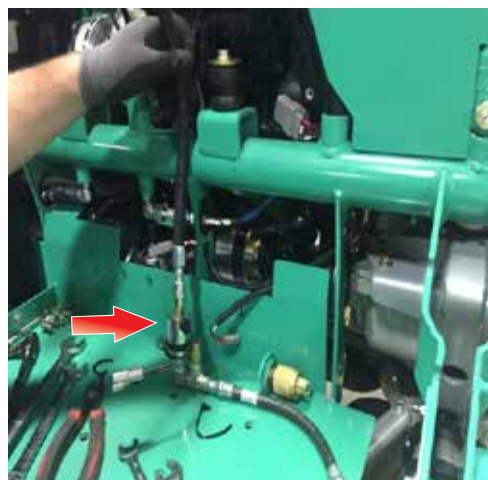


Figure 21. Safety Lock Off Valve Removal

21. Place the safety lock-off valve in a vise (Figure 22), remove the upper and lower hoses, and discard.

NOTICE

To ensure seal on valve fittings remains unbroken, use caution when removing hoses from safety lock off valve. If seal on valve fittings is broken, the fittings will need to be resealed.



Figure 22. Old Hoses Removal

22. Apply Loctite® 567™ to the threads (safety lock end) on the new upper hose (P/N 32830) and new lower hose (P/N 32826). Reference Figure 23.

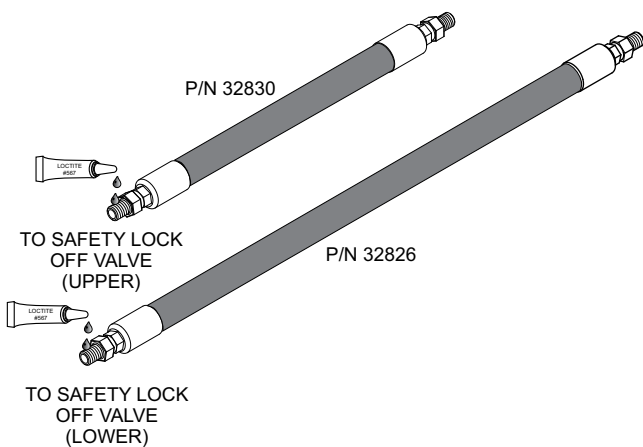


Figure 23. Applying Loctite® 567™ (Safety Lock Off Valve Side)

23. Connect the shorter hose (P/N 32830) to the upper section on the safety lock off valve and the longer hose (P/N 32826) to the bottom section. Tighten both hoses securely.

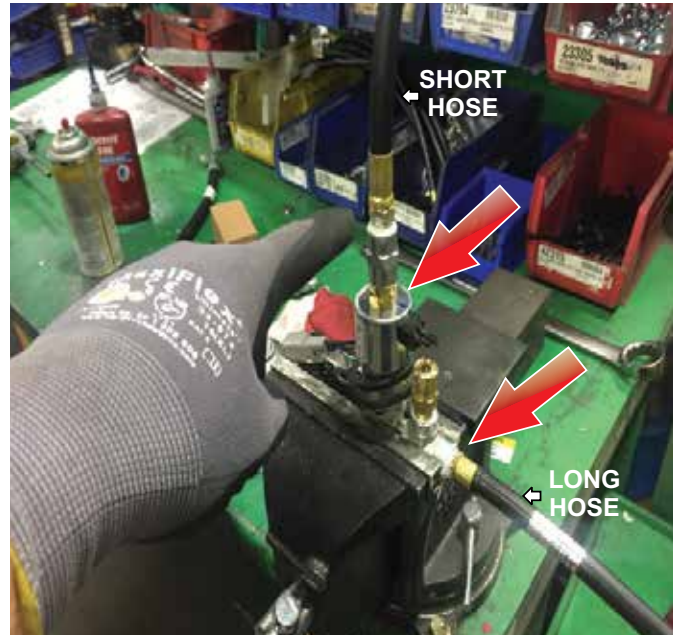


Figure 24. Attaching New Hoses

24. Apply Loctite® 567™ to the threads on the free end of the upper hose (P/N 32830). Reference Figure 25.

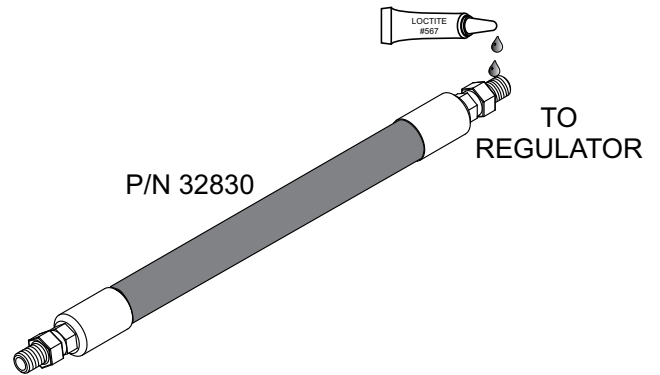


Figure 25. Applying Loctite® 567™ (Regulator/LPG Adapter Sides)

25. Insert female straight fitting (P/N 32832) onto short hose (P/N 32830) male straight fitting. Regulator side. Reference Figure 26.



Figure 26. Straight Fitting Connection

26. Reinstall safety lock-off valve assembly (Figure 27) in its original location. Secure valve assembly to frame with mounting hardware that was removed earlier. Tighten securely.

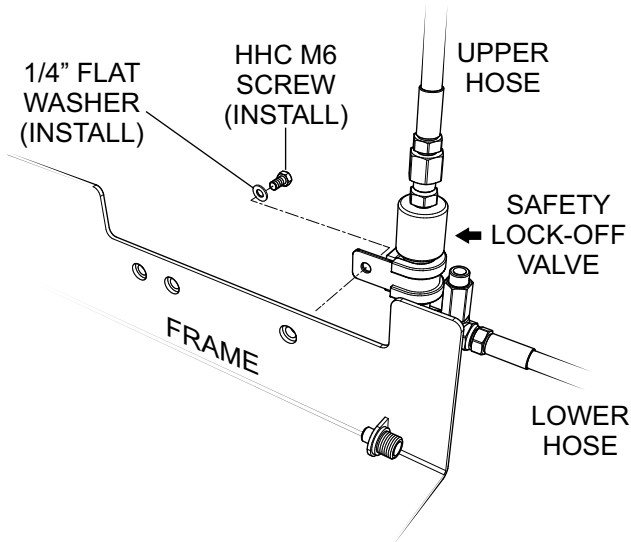


Figure 27. Safety Lock Off Valve Installation

27. Reconnect electrical connections, and use zip-ties to fasten harness securely.

28. Apply Loctite® 567™ to the male threads (Figure 28) on the 90° male fitting (P/N 32833).

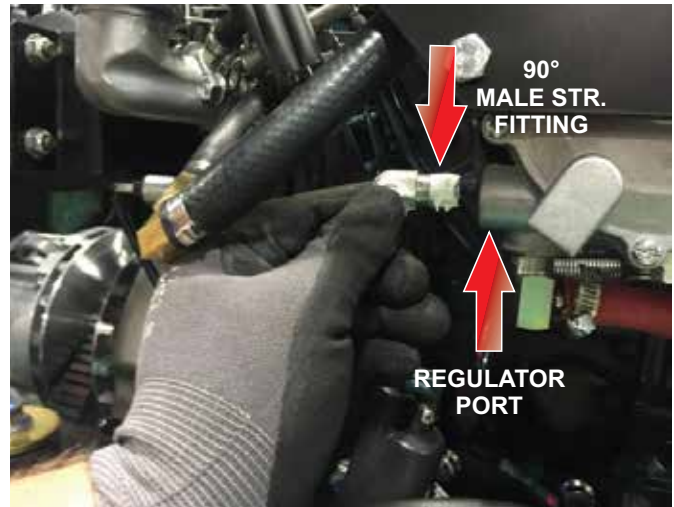


Figure 28. 90° Fitting Installation

29. Insert 90° male fitting (P/N 32833) into regulator port and tighten securely. Fitting should point straight down so that the hose will extend vertically from the bottom of the fitting when connected (Figure 29).
30. Connect hose (P/N 32830) with female straight fitting (P/N 32832) to 90° male fitting (P/N 32833) as shown in Figure 29, and tighten securely.



Figure 29. Connect Hose to Fitting

31. Apply Loctite® 567™ to the male threads (Figure 30) on the hose that connects to the propane tank adaptor fitting.

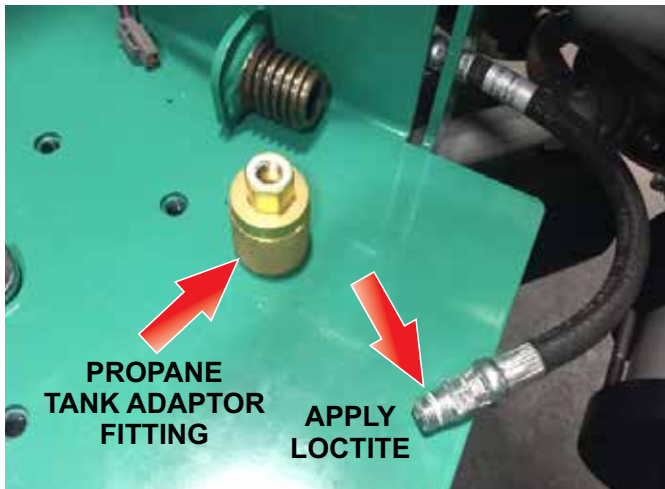


Figure 30. Applying Loctite® 567™

32. Reinstall LPG connection port fitting (Figure 31) and tighten securely.

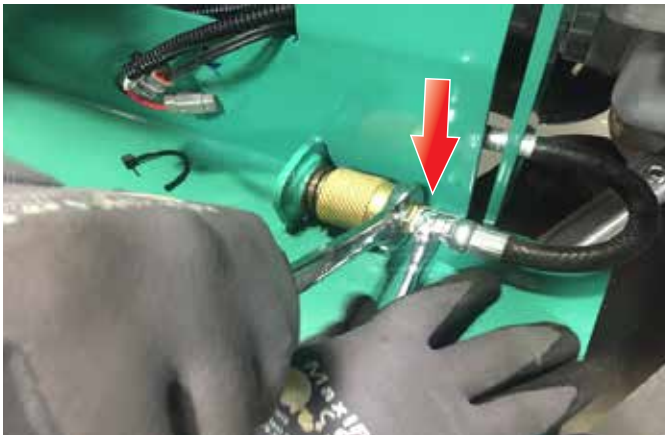


Figure 31. Reinstall LPG Connection Port Fitting

33. Reattach LPG tank straps and fasten securely (Figure 32).



Figure 32. Reattach LPG Tank Straps

34. Reinstall LPG tank and test for any leaks using soapy water.

35. Reconnect battery.

36. Start engine and check upper hoses for any leaks that go to the carburetor.

37. After making sure there are no leaks, reattach rear panel with six screws (Figure 33).



Figure 33. Reattach Rear Panel

38. Reattach air filter intake hose and tighten hose clamp securely (Figure 34).



Figure 34. Reinstall Air Filter Intake Hose



Service Bulletin

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LPG Hose Replacement

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON-HAND WHEN CALLING

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