Subject: Converting Dual Fuel Tank (NSQ) to a Single Fuel Tank System (N2L/NVK)

Models: Chevrolet Silverado
Affected: 4500HD, 5500 HD and 6500 HD
Model Years: 2019 and beyond
Date: January 29, 2019
Revision Date: April 2, 2019

ADVISORY:

Condition/Concern:

Some vehicle upfits of the Chevrolet Silverado 4500HD 5500 HD and 6500 HD Chassis Cabs required the removal/deletion of the front fuel tank to install upfit equipment. The following will provide instructions on the removal/addition of the necessary hardware to reconfigure the vehicle’s fuel system from a dual (NSQ) to a single Rear mounted (N2L) fuel tank system. Be advised that following the fuel system reconfiguration certain modules on the vehicle must be reprogrammed for the fuel system components to function properly.

Warning: Refer to Safety and Glasses and Compressed Air Warning

Warning: Vehicle is drivable only after front tank is removed, hoses and pipes and fuel tank module replaced, and ECM software update is done.

DUAL TANKS TO REAR ONLY (N2L) INSTRUCTIONS:

1. Drain the fuel tank.

   Fuel Tank Draining Diesel

   Recommended special tools

   CH–45004 Fuel Tank Siphon Hose or equivalent

   A. Disconnect the negative battery cable.
   B. Remove the fuel fill cap.
   C. Insert the Fuel Tank Siphon Hose into the tank.
   D. Attach the Fuel Tank Siphon Hose to a hand or air operated pump device.
   E. Using a hand or air operated pump drain as much fuel from the tank as possible.
Fuel Feed Rear Hose removal

1. Raise and support the vehicle. Refer to Lifting and jacking in service manual

2. Tie Strap (1) » Remove and DISCARD [4x]
3. Fuel Feed Rear Hose (2) » Disconnect –Refer to Plastic Collar Quick Connect Fitting Services

4. Tie Strap (1) » Remove and DISCARD [5x]
5. Fuel Feed Rear Hose (2) » Disconnect –Refer to Plastic Collar Quick Connect Fitting Services
6. Fuel Feed Rear Hose (2) » Remove
Fuel Feed and Return Front Hose removal

1. Raise and support the vehicle.

2. Tie Strap (1) » Remove and DISCARD
3. Fuel Feed and Return Front Hose (2) » Disconnect [2x] –Refer to Plastic Collar Quick Connect Fitting Services

4. Tie Strap (1) » Remove and DISCARD [3x]
5. Fuel Feed and Return Front Hose (2) » Disconnect [2x] –Refer to Plastic Collar Quick Connect Fitting Services
6. Fuel Feed and Return Front Hose (2) » Remove
Front Fuel Tank Removal

1. Drain the fuel tank. Refer to Fuel Tank Draining in service.

2. Fuel Tank Filler Hose Clamp (1) » Loosen
3. Fuel Tank Filler Hose (2) » Remove
4. Fuel Tank Vent Hose Clamp (3) » Loosen
5. Fuel Tank Vent Hose (4) » Remove
6. Fuel Return Line (5) » Disconnect – Refer to Plastic Collar Quick Connect Fitting Services
7. Fuel Supply Line (6) » Disconnect – Refer to Plastic Collar Quick Connect Fitting Services
8. Fuel Transfer Line (7) » Disconnect – Refer to Plastic Collar Quick Connect Fitting Services
9. Tie Strap (8) » Remove and DISCARD [2x]
10. Fuel Tank Vent Hose Clamp (9) » Loosen
11. Fuel Tank Vent Hose (10) » Remove
12. Tie Strap (11) » Remove and DISCARD
13. Electrical Connector (12) » Disconnect
14. Tie Strap (13) » Remove and DISCARD
15. Fuel Feed and Return Front Hose (1) » Disconnect –Refer to Plastic Collar Quick Connect Fitting Services [2x]

16. Place a suitable adjustable jack under the fuel tank.
17. Fuel Tank Support Bolt (1) » Remove [4x]
18. Fuel Tank Support Nut (2) » Remove [4x]
19. Place a suitable adjustable jack under the fuel tank.
20. Fuel Tank Support Bolt (1) » Remove [4x]
21. Fuel Tank Support Nut (2) » Remove [4x]

22. Fuel Tank (1) » Remove
Rear Fuel Tank Fuel Pump Module Replacement

Special Tools

*CH 45722 Fuel Sender Lock Ring Wrench or EQUIVALENT*

1. Auxiliary Fuel Tank» Remove

2. Fuel Pump Lock Ring(1)» Remove—*CH 45722 Wrench or EQUIVALENT*

3. Fuel Tank Fuel Pump Module (1)» Remove
4. O-Ring (2)» Remove and DISCARD
Installation Procedure

1. O-Ring (2) » Install NEW for Rear Fuel Tank only
2. Fuel Tank Fuel Pump Module (1) » Install Part Number 84212966 (Rear Fuel pump Module kit)

3. Fuel Pump Lock Ring (1) » Install—CH 45722 Wrench or EQUIVALENT
4. Auxiliary Fuel Tank » Install
Rear Tank Fuel Line and return replacement

1. Replace Fuel line and return based on illustration below with part number
2. Install/connect all nuts, bolts, clips, straps accordingly

Rear Tank fuel line and return illustration
Components part number for fuel lines Rear Tank only

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<tr>
<th>Coll</th>
<th>Part #</th>
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**ELECTRICAL**

Front Fuel Tank

1. Unplug connector from Fuel tank pump module
2. Extend all wires (5 wires: Ckt GY Cavity 1, YE/GY Cavity2, WH/BN Cavity 3, BU/VT Cavity 5, and BK/GN Cavity 6) by conforming to GM best practices and procedures for splicing, protecting, shrink tubing...
3. Run extended bundle to rear fuel tank module
4. Insert connector in rear fuel pump module

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Rear Fuel Pump Module:

1. Unplug connector from Fuel tank pump module
2. Cut circuits from connector, and seal every ckt separately using heat shrink tubes, and conforming to GM best practices and procedures.
DUAL TANKS TO FRONT ONLY (NVK) INSTRUCTIONS:

Auxiliary Fuel Tank - Removal Procedure

2. Drain the fuel tank.

   Fuel Tank Draining Diesel

   Recommended special tools

   CH–45004 Fuel Tank Siphon Hose or equivalent

   F. Disconnect the negative battery cable.
   G. Remove the fuel fill cap.
   H. Insert the Fuel Tank Siphon Hose into the tank.
   I. Attach the Fuel Tank Siphon Hose to a hand or air operated pump device.
   J. Using a hand or air operated pump drain as much fuel from the tank as possible.

3. Electrical Connector (1) Disconnect

4. Tie Strap (2) » Remove and DISCARD

5. Fuel Tank Vent Hose Clamp (3) » Loosen

6. Fuel Tank Vent Hose (4) » Remove

7. Supply Fuel Line (5) » Disconnect

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8. Fuel Tank Vent Hose Clamp (6) » Loosen
9. Fuel Tank Vent Hose (7) » Remove
10. Fuel Tank Filler Hose Clamp (8) » Loosen
11. Fuel Tank Filler Hose (9) » Remove

12. Fuel Tank Shield Nut (1) » Remove [4x]
13. Fuel Tank Shield (2) » Remove
14. Place a suitable adjustable jack under the fuel tank.

15. Fuel Tank Strap Bolt (1) » Remove [4x]

16. Fuel Tank Strap (2) » Remove [2x]

17. Fuel Tank (1) » Remove
18. Remove Fuel Transfer Supply line (24) from the rear to front tank and all attaching hardware.


20. Bundle and secure the electrical connector and harness.
Additional Information:

Upon completion of the fuel system hardware reconfiguration, it is necessary to reprogram the vehicle’s Engine Control Module (ECM) by a GM dealer to enable proper fuel gauge operation and level indication.

GM DEALERS: Contact Techline Customer Support and request the vehicle configuration string be modified, replacing the dual fuel tank option (NSQ) with the single Rear fuel tank option (N2L) OR with the Single Front Tank option (NVK). Be sure to check for and clear any DTCs that may be present following the vehicle reconfiguration.