



NEXGEN
FUELING™

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VT-0025

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MTI/SJB

First Fill Fueling Procedure for Mack LNG Vehicles with Dual Fuel Tanks

This procedure gives guidance for filling LNG (Liquefied Natural Gas) fuel tanks on new Mack vehicles being put into service for the first time.

The LNG fuel tanks on new Mack vehicles are pressurized with nitrogen in order to prevent any foreign matter or humidity from entering the tank during truck assembly and transport of the vehicle from the Mack facility to the dealer or customer facility.

It is imperative that this nitrogen is completely vented correctly from the tank at the time of initial LNG fueling. The following procedure must be followed to ensure correct engine operation.

Warning:

The following protective clothing should always be worn by personnel working in areas where there is a chance of an exposure to LNG.

- Protective apron or smock
- Longed sleeve shirt, jacket, or overalls
- Full length cuff-less pants or trousers
- Face shield
- Work Gloves
- Suitable work shoes or boots

Warning:

This procedure is to be used at initial LNG fueling only.

Note: It is important to note the exact quantity of fuel used throughout this initial fueling procedure in order to verify the fuel tanks have been correctly filled.

Note: It is important all LNG fittings and connections are inspected, checked for leaks, and tightened before vehicle is put into service. A good quality combustible gas detector should be used for detecting leaks.

1. If the tanks are warm and do not contain any methane, go to Step 2. If the tanks already contain methane, proceed to Step 3.
2. Open tank vent valve to let the existing pressure blow the nitrogen out from the tank and into the atmosphere. The majority of the nitrogen should vacate the tank.
3. Immediately close tank vent valve once tank pressures have reached atmospheric pressure.

Note: It will be necessary to install a vent connector onto the vent receptacle to allow gas to safely blow into the atmosphere.

4. Ensure the vent hand valve is closed on both vehicle tanks.
5. Attach the fueling nozzle to the fill fitting.
6. Dispense approximately 10 gallons of LNG into the tanks.
7. Wait 15 minutes or more. The pressure should rise as the tanks are cooling down.
8. Attach the station vent hose nozzle onto the tank furthest from the fill fitting. The vent valve on the tank with the fill fitting should remain closed. If pressure is at 75 psi or over, open the vent valve on the tank furthest from the fill fitting and vent the tank down to approximately 75 psi.
9. Close the vent valve opened in the previous step after the tank has vented down to approximately 75psi.
10. Dispense approximately another 10 gallons of LNG to the tank(s).
11. Wait 15 minutes.
12. If pressure is at 75 psi or more, open the vent valve on the tank furthest from the fill fitting and vent the tank down to approximately 75 psi.

This procedure is for use by trained mechanics experienced with using Liquefied Natural Gas systems and vacuum technology. Review all pertinent safety documents before starting this procedure.



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13. Close vent hand valve opened in the previous step after tank has vented down to approximately 75psi.
14. With fueling nozzle still attached, finish fueling vehicle until tank is full.
15. Remove the LNG fuel nozzle and station vent nozzle from vehicle tank.

This procedure is based on a procedure previously published by Mack® Trucks, Incorporated on November 26, 2002.

This procedure is for use by trained mechanics experienced with using Liquefied Natural Gas systems and vacuum technology. Review all pertinent safety documents before starting this procedure.