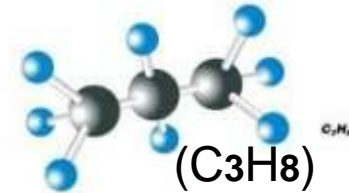




8.1L LPI Presentation Medium Duty Truck

Propane Advantages



- Low cost and domestically produced alternative fuel
- Non-toxic, burns cleanly & is not a ground contaminant
- Abundant supply in the U.S.
 - 60% comes from natural gas & 40% from refining oil
- Similar MPG and fuel fill rate as gasoline
- Promote a green fleet image
- Support Energy Independence

Propane Advantages

- Propane is an approved alternative fuel listed in both the Clean Air Act of 1990 and the National Energy Policy Act of 1992 and 2005.
- It is currently the world's most proven, reliable and widely used alternative fuel, fueling more than 10 million vehicles internationally.
- Provides a clear environmental advantage. Compared to gasoline, propane yields 87% less smog-producing hydrocarbons, up to 90% less carbon monoxide, 12% less carbon dioxide, 50% less nitrogen oxide and 50% fewer toxins and other smog-producing emissions.
- Propane can play an important role in mitigating climate change, because it is among the lowest life-cycle greenhouse gas emissions of all commercially available fuels.
- The D.O.E. website states the low carbon and oil contamination characteristics of propane have resulted in documented engine life of up to two times that of gasoline engines.

Source: U.S. Environmental Protection Agency and the Orange County (California) Transit Authority
www.propanecouncil.org/trade/fleet/emissions.html

The LPI System

- Clean-Low Emission
- Simple Design
- Economical
- Safe
- Supported



Clean – Low Emissions

2008

NOx Only

EPA & CARB – HD Diesel Standard

1.0

EPA & CARB – HD Gasoline Standard

0.2



LPI

8.1L Certification Level

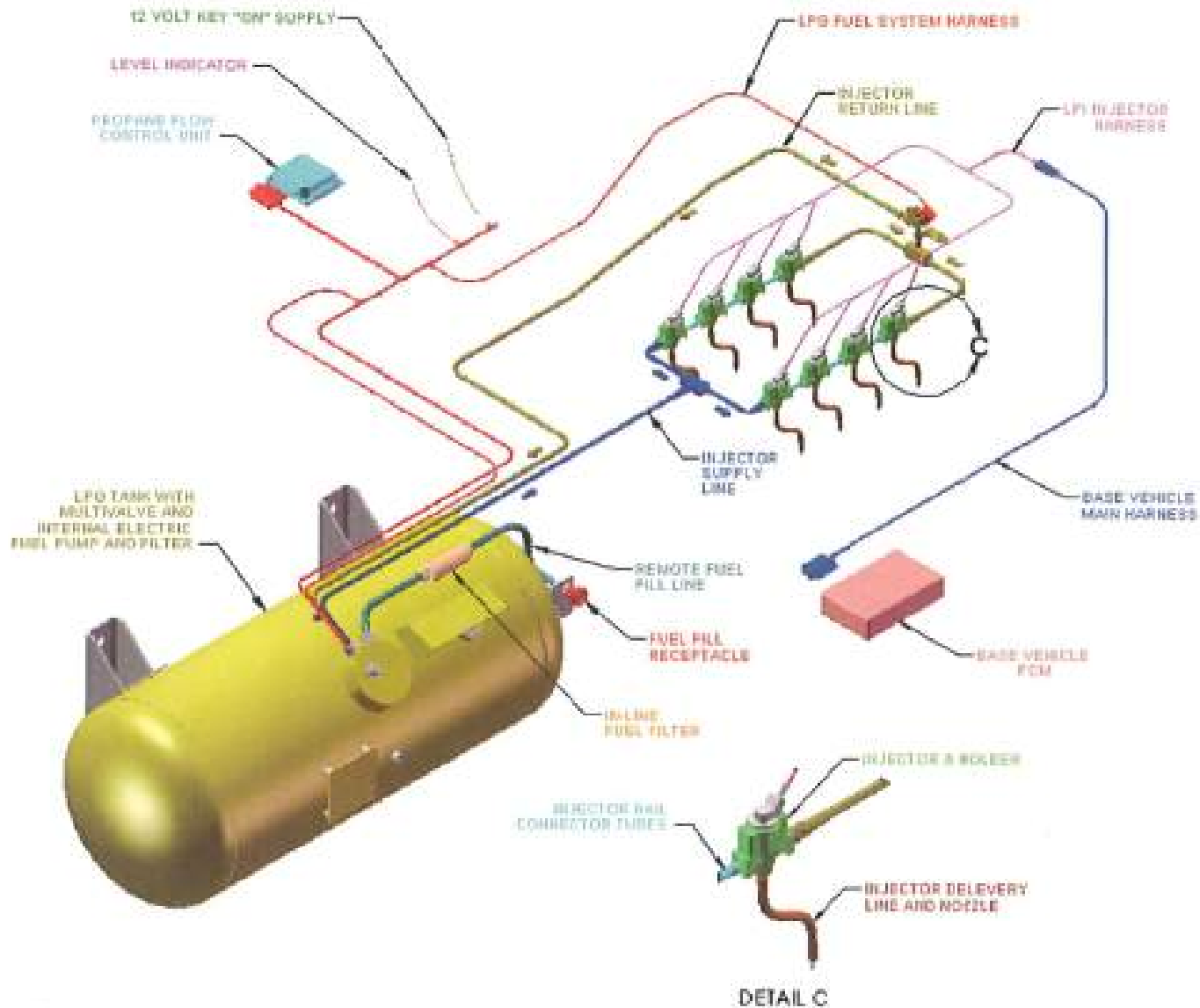
0.170

- Certified with EPA & CARB at Zero Particulate Matter
- No need for DPF, cooled EGR or Urea Injection

Simple Design

- Direct replacement of the OEM gasoline fuel system.
 - Liquid Propane Injection
 - Sequential Port Injected
 - Utilizes the GM P-59 Engine Control Unit
- Developed & Certified by CFUSA at General Motors Proving Grounds in Millbrook, England.
 - Approximately 40,000 systems operating Worldwide
 - EPA/CARB Certified: April, 2006 C4500/C5500
 - Available 2003-2009 MY Vehicles
 - LPI system installed in Flint, Michigan by a recognized installer

LIQUID PROPANE INJECTION



“LPI Delivers Propane to the Intake Port as a Liquid”

Benefit:

- Vaporization occurs at the intake port, cooling the air/fuel charge and increasing air/fuel density providing power better than the gasoline engine equivalent.
- Vaporization creates a cooling effect reducing valve and upper cylinder temperatures and prolonging engine life.
- Provides excellent cold weather start and go.

“LPI control is integrated into the OEM computer”

Benefit:

- Proprietary programming optimizes fuel economy, performance and low emissions
- Injector spray pattern is optimized as designed by the engine OEM.
- OEM developed diagnostics remain intact with the LPI system.
- Allows use of GM Tech II tool for diagnostics.

“LPI utilizes bottom feed injector design”

Benefit:

- Provides a self cleaning and purging action.
- Reduces contaminant build up.
- Improves the service life of the injectors.
- Maintains fuel economy, performance and low emissions.
- Provides quiet operation.

Safe

- Fuel tank is made of ¼” thick carbon steel.
- Tanks are 20 times more puncture resistant than a gasoline or diesel tank.
- Fuel flow is automatically shut-off in the event of a fuel line rupture.
- Critical valves are mounted below the tank shell perimeter providing superior protection from damage.
- Propane has the most narrow flammability range of any fossil fuel.
- Propane requires an ignition source of 940 degrees F to ignite. In contrast, gasoline will ignite with an ignition source of only 430 to 500 degrees F.
- In the rare event of a leak, propane will vaporize into the air and will not pool.



Service and Support...Warranty

- Match OEM engine warranty with a 2 year / unlimited mileage warranty
- Available technical trainer
- Technical manuals and CD provided
- Technical service bulletins
- Technical assistance hotline

Supported by our current Master Dealer & Service Provider Network





8.1L Medium Duty Applications



Mike Perticone
Eastern Regional Manager
CleanFUEL USA
(517) 416-3677
mfp@cleanfuelusa.com
www.cleanfuelusa.com