

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER B-63-5

Relating to Conversion of Vehicles to Alternative Fuels

PARNELL USA, INC.

Pursuant to the authority vested in the Air Resources Board by Sections 43004 and 43006 of the Health and Safety Code and Section 10753(d) of the Revenue and Taxation Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: The dual fuel gasoline / liquified petroleum gas (LPG) retrofit system, manufactured by Parnell USA, Inc. (Parnell) of 1518 West Knudsen Drive, Suite 100, Phoenix, Arizona, 85027-1388, is certified as described below for the following 2015 model-year General Motors LLC 6.0 liter heavy-duty engine.

Fuel Type: Dedicated Gasoline to Dual Fuel (Gasoline or LPG)

Engine Family: GGMXE06.0584 Displacement: 6.0 liter

Engine Models: L96/80, LC8/85

Major Retrofit System Components:

<u>Component</u>	<u>Part Number</u>
ECU	HPi-105628-00
Fuel Tank	18X72SBCJ-00
Fuel Selector Switch	EG-100107-00
Regulator	EG-300025-00
Injector Rails	EG-461102-00

All emission control systems and the vehicle manufacturer's tune-up label shall be retained. The vehicle shall be adjusted to Parnell's tune-up specifications. The production retrofit system shall be in all material respects the same as that for which certification is granted.

The certification exhaust emission standards and family emission limits, as applicable, for this engine family in grams per brake horsepower-hour are:

	<u>NMHC</u>	<u>NOx</u>	<u>CO</u>	<u>PM</u>	<u>HCHO</u>
Emission Standard					
HDO @110,000 Miles	0.14	0.20	14.4	0.01	0.01
Family Emission Limit	-	0.42	-	-	-

The certification exhaust emission values for this engine family with the dual fuel gasoline / LPG retrofit system in grams per brake horsepower-hour are:

	<u>NMHC</u>	<u>NOx</u>	<u>CO</u>	<u>PM</u>	<u>HCHO</u>
Certification Levels					
@110,000 Miles					
Gasoline	0.06	0.19	2.2	0.005	0.001
LPG	0.07	0.35	1.4	0.000	0.002

BE IT FURTHER RESOLVED: The retrofit system manufacturer has submitted and the Executive Officer hereby approves the materials in the application to demonstrate certification compliance with the emission standards set forth in Section 4 of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines."

BE IT FURTHER RESOLVED: The retrofit system manufacturer has submitted and the Executive Officer hereby approves the materials in the application to demonstrate certification compliance with the on-board diagnostic system requirements in Section 6 of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines."

BE IT FURTHER RESOLVED: The retrofit system manufacturer shall provide a supplemental emission control information label, which shall be affixed in a permanent manner adjacent to the original Vehicle Emission Control Information label, and shall comply with the labeling requirements described in Section 3(e) of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines."

BE IT FURTHER RESOLVED: The retrofit system manufacturer has submitted and the Executive Officer hereby approves the materials required to demonstrate certification compliance with the warranty requirements, including warranty notification under Sections 3(f)(5) , 3(g), and 9 of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines."

BE IT FURTHER RESOLVED: The retrofit system manufacturer may be subject to in-use enforcement emission testing as described in Section 12 of the "California

Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines."

BE IT FURTHER RESOLVED: The retrofit system manufacturer shall maintain a record of each engine on which the retrofit system is installed as required in Section 3(h) of the "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for 2004 and Subsequent Model Year On-Road Motor Vehicles and Engines." The manufacturer shall supply a copy of installation information upon request and annually report the annual sales by March 1 of the following calendar year.

The retrofit system certified under this Executive Order must conform to all applicable California emission regulations. Certification of the retrofit system shall not be construed as a certification to sell, offer for sale, or advertise any component of the retrofit system as an individually certified part.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this 12th day of January 2016.


FOR Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division