

# MidRange Natural Gas Engine ISB6.7 G.

# Low-Emissions, Cost-Efficient and Ultra-Reliable.

School bus fleets, shuttle bus operators, medium-duty truck owners and managers of all types of vocational vehicles can now spec a natural gas engine perfectly sized for their equipment. For applications up to 33,000 lb. GVW, the Cummins Westport ISB6.7 G combines the strength of a proven diesel engine block and components with innovative combustion technology from the undisputed leader in the natural gas engine industry.

Rated at up to 240 hp (179 kW) with 560 lb-ft (759 N•m) of peak torque, and available with automatic transmissions, the ISB6.7 G has the power to outperform gasoline engines of similar displacement while delivering better fuel efficiency and longer engine life.

### **Certified ARB-Optional Low NOx.**

Not only does the ISB6.7 G meet U.S. Environmental Protection Agency (EPA) and California Air Resource Board (ARB) 2016 emission regulations, but it also meets ARB's optional low oxides of nitrogen (NOx) standard of 0.1 g/bhp-hr (50% below current EPA requirements). It also meets 2017 EPA greenhouse gas (GHG) requirements a year ahead of schedule.

#### **Dedicated To Quality.**

The ISB6.7 G is built on a dedicated line at the Cummins Rocky Mount Engine Plant, where the experience of over 12 million B Series engines contributes to dependability and durability. It shares up to 80% of the base engine components with the Cummins ISB6.7 diesel, contributing to durability, uptime, and longer engine life. The proven wastegate turbocharger, high-energy ignition system, and modular fuel delivery systems are all controlled by our own proprietary Engine Control Module (ECM).

# **Advanced Combustion Leads To Lower Emissions And Better Performance.**

The ISB6.7 G also utilizes the same Stoichiometric cooled Exhaust Gas Recirculation (SEGR) combustion technology as the ISL G and ISX12 G natural gas engines. A measured quantity of exhaust gas is passed through a cooler to reduce temperatures before it is mixed with fuel and the incoming air charge, and then it is sent to the cylinder. SEGR results in improved power density and fuel economy, and enables the use of a maintenance-free Three-Way Catalyst (TWC) for emissions control.



#### Maintenance-Free Aftertreatment.

Another benefit of the ISB6.7 G combustion technology is enabling the use of TWC aftertreatment. TWCs are effective, simple, passive devices, packaged as part of the muffler. They provide consistent emissions-control performance, increased power density and thermal efficiency. TWCs are maintenance-free, and can be mounted vertically or horizontally on the vehicle. The ISB6.7 G does not require active aftertreatment such as a Diesel Particulate Filter (DPF) or Selective Catalytic Reduction (SCR).



Three-Way Catalyst Aftertreatment

#### Natural Gas - The Fuel Choice Is Yours.

The ISB6.7 G operates on 100 percent natural gas, which can be carried on the vehicle in either compressed (CNG) or liquefied (LNG) form. The ISB6.7 G can also run on renewable natural gas (RNG) made from biogas or landfill gas that has been upgraded to vehicle-fuel quality. To meet engine fuel requirements under a variety of load conditions, the engine requires the fuel storage system to provide an engine fuel pressure at rated conditions between 70 psi and 150 psi.









#### ISB6.7 G Ratings

Engine Model	Advertised hp (kW) @ rpm	Peak Torque lb-ft (N•m) @ rpm	Governed Speed
ISB6.7 G 240	240 (179) @ 2400	560 (759) @ 1600	2400 RPM
ISB6.7 G 220	220 (164) @ 2400	520 (705) @ 1600	2400 RPM
ISB6.7 G 200	200 (149) @ 2400	520 (705) @ 1600	2400 RPM

### ISB6.7 G Specifications

Maximum Horsepower	240 HP	179 kW
Peak Torque	560 LB-FT	759 N•m
Governed Speed	2400 RPM	
Clutch Engagement Torque	e 295 LB-FT	400 N•m
Type 4-cycle, spark-ignited, in-line 6-cylinder, turbocharged, CAC		
Engine Displacement	409 CU IN	6.7 LITERS
Bore and Stroke	4.21 IN x 4.88 IN	107 MM × 124 MM
Operating Cycles	4	
Oil System Capacity	4.25 U.S. GALLONS	16.09 LITERS
Coolant Capacity	12.5 U.S. QUARTS	11.8 LITERS
System Voltage	12 V	
Net Weight (Dry)	1,150 LB	522 KG
Fuel Type	CNG/LNG/RNG	Methane number 75 or greater
Aftertreatment	Three-Way Catalyst (TWC)	

#### **Features And Benefits.**

- Air/Fuel Regulation Cummins closed-loop electronic control system. Improved sensors for engine parameters, including intake manifold pressure and temperature, fuel inlet pressure, knock detection, air/fuel ratio and fuel mass flow.
- ➤ Air Intake System Charge-air cooling reduces emissions by lowering intake manifold air temperatures.
- Accessory Belt Drive System Self-tensioning serpentine polyvee belt accessory drive system for the water pump, engine-mounted fan hub and most alternators. Gear-driven air compressor, with a provision for a gear-driven hydraulic pump.
- High-Energy Ignition System Improved Ignition Control Module (ICM) provides better spark plug performance and self-diagnostics.
- ➤ High-Efficiency Lube Cooler Lowers oil temperatures, for longer engine life.
- Crankshaft Eight-counterweight, fully balanced, hightensile-strength steel forging with induction-hardened fillets and journals, for outstanding durability.
- Oil Filter The combination full-flow and bypass oil filter improves filtration while minimizing oil filter replacement and disposal costs.
- Control System Full drive-by-wire ECM provides full monitoring and control of engine sensors, the fuel system and the ignition system. Full interface capability to Cummins INSITE™ and diagnostic service tools. The ECM provides original equipment manufacturers (OEMs) and end users with the ability to tailor performance of the engine to fit the vehicle's mission.

#### > Electronic Features Include:

- Road-speed governing
- Accelerator interlock
- SAE J1587/J1939
- Power Take-Off (PTO) control
- Cruise control
- Engine protection system
- > Parts Simplicity Enables most engine service and repair operations with common tools.
- Wastegate Turbocharger With a water-cooled bearing housing, for durability. Electronic control, for precise air handling.

#### **Optimizing Performance With PowerSpec.**

Cummins PowerSpec helps you find the ideal gearing specs for engine performance or fuel economy, making it possible to tailor the operation of Cummins Westport engines to fit every customer's application. PowerSpec can also read fault codes, and can be programmed to collect trip information for multiple drivers. For more information on using PowerSpec with the ISB6.7 G, see cumminsengines.com/powerspec.



# **Base Warranty.**

Cummins Westport natural gas engines feature the same factory base warranty coverage as Cummins diesel engines. Beginning with date-in-service, the ISB6.7 G is covered by a 2-year/unlimited-mileage/



kilometers warranty with full parts and labor coverage on warrantable failures.\* Standard coverage for the ISB6.7 G in school buses is 5 years/100,000 miles (160,934 km).

#### **Extended Coverage.**

For additional peace of mind, Cummins Westport offers a variety of extended coverage plans to meet every customer's need. For full extended coverage plan details, contact your local Cummins distributor or Cummins Westport representative.



#### **Better Customer Care.**

Cummins Westport-powered vehicles are supported by Cummins service network, the largest and most capable in North America, Cummins-authorized

technicians are fully trained on Cummins Westport natural gas engines, with ready access to Genuine Cummins parts and warranty support. For questions regarding your Cummins Westport engine, or for assistance in finding a repair facility in the United States or Canada, call Cummins Care at 1-800-DIESELS™ (1-800-343-7357).

### **Cummins Westport – The Natural Choice.**

Cummins Westport Inc. designs, engineers and markets 6- to 12-liter spark-ignited natural gas engines for commercial transportation applications such as trucks and buses. Our dedicated 100 percent natural gas engines are manufactured by Cummins, and are available as a factory-direct option from leading truck and bus manufacturers.



#### The Natural Gas Academy.

To learn more about natural gas engines for transportation, and how natural gas can work for your fleet, visit the Cummins Westport Natural Gas Academy online. You'll find videos, information and resources about engines, OEM availability, fuel systems, refueling, maintenance and more at cumminswestport.com/natural-gas-academy.

<sup>\*</sup>Warrantable failures are those due to defects in materials or workmanship.

# ISB6.7 G Maintenance Intervals – Normal Duty < 33,000 GVW.

Maintenance Item	Miles/Kilometers	Hours	Months
Check CAC Cooler, Piping and Air Cleaner	7,500 MI 12,000 KM	250	3
Oil and Filter*	15,000 MI 24,000 KM	500	6
Spin-On Fuel Filter	30,000 MI 48,000 KM	1,000	12
Spark Plugs	15,000 MI 24,000 KM	500	12
Overhead Adjustment	45,000 MI 72,000 KM	1,500	12
Standard Coolant	60,000 MI 96,000 KM	2,000	24
Crankcase Ventilation Filter	60,000 MI 96,000 KM	2,000	24
Air Cleaner/Element	Follow vehicle manufacturer's published recommendations.		

<sup>\*</sup>Requires natural gas engine oil (CES 20085 is recommended).

- > Default interval is the hours stated. Performance maintenance at whichever interval comes first hours, miles or time.
- > Refer to QuickServe® Online or Owners Manual for complete details on maintenance intervals.
- ➤ Based on a normal duty cycle of 30 mph average speed. Distance intervals will increase or decrease based on average speed.



Cummins Westport is a pioneer in product improvement. Thus, specifications may change without notice. Illustrations may include optional equipment.



# **ISB6.7 G Torque Curves.**



