Lower Emissions, Improved Performance, Lower Costs.

The ISL G is the natural choice in alternative-fuel engine technology. With industry-leading performance and first-fit OEM availability, it combines all the advantages of clean-burning, low-cost natural gas with the power and torque needed for shuttle and school bus, urban transit, vocational and medium-duty truck and tractor applications.

Since the ISL G was introduced in 2007, thousands of truck and bus customers have benefited from the impressive low-end torque, transient response and quiet operation of the ISL G. Today, the ISL G meets current U.S. Environmental Protection Agency (EPA) and California Air Resources Board (ARB) emissions standards, as well as EPA greenhouse gas (GHG) and U.S. Department of Transportation (DOT) fuel-consumption regulations.

Dedicated Factory-Built Natural Gas Engine.

The ISL G is a dedicated, factory-built natural gas engine, manufactured by Cummins on the same assembly line as the ISL9 diesel. It shares many components and parts with the Cummins L Series diesels, including the same full-skirted block, for increased rigidity and strength. The design provides superior piston ring and bearing life, improved coolant flow and targeted-piston cooling. For improved reliability and durability, the ISL G features a new heavy duty Exhaust Gas Recirculation (EGR) cooler, redesigned exhaust manifold and gaskets, improved turbo housing and water pump and a newly updated Ignition Control Module (ICM) and sensors. Life-to-rebuild and rebuildability are similar to those of diesel engines.

Advanced Combustion Technology.

The 8.9-liter ISL G uses Stoichiometric cooled Exhaust Gas Recirculation (SEGR) combustion, leveraging Cummins proven EGR technology to create a high-performance natural gas engine. Stoichiometric combustion is the theoretical or ideal combustion process in which fuel and oxygen are completely consumed, with no unburned fuel or oxygen in the exhaust.

The cooled-EGR system takes a measured quantity of exhaust gas and passes it through a cooler to reduce temperatures before mixing it with fuel and the incoming air charge to the cylinder.

Cooled EGR, in combination with stoichiometric combustion, provides significant benefits. The use of cooled EGR (in place of large amounts of excess air used in lean-burn technology) lowers combustion temperatures and knock tendency. SEGR combustion also improves power density and fuel economy versus lean-burn and traditional stoichiometric engines.

Maintenance-Free Aftertreatment.

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

Natural Gas – The Fuel Choice Is Yours.

The ISL G operates on 100 percent natural gas, which can be carried on the vehicle in either compressed (CNG) or liquefied (LNG) form. The ISL 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 at engine fuel pressure at rated conditions between 70 psi and 150 psi.
ISL G Ratings

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>Advertised hp (kW) @ rpm</th>
<th>Peak Torque lb-ft (N•m) @ rpm</th>
<th>Governed Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISL G 320</td>
<td>320 (239) @ 2000</td>
<td>1000 (1356) @ 1300</td>
<td>2200 RPM</td>
</tr>
<tr>
<td>ISL G 300</td>
<td>300 (224) @ 2100</td>
<td>860 (1166) @ 1300</td>
<td>2200 RPM</td>
</tr>
<tr>
<td>ISL G 280</td>
<td>280 (209) @ 2000</td>
<td>900 (1220) @ 1300</td>
<td>2200 RPM</td>
</tr>
<tr>
<td>ISL G 260</td>
<td>260 (194) @ 2200</td>
<td>660 (895) @ 1300</td>
<td>2200 RPM</td>
</tr>
<tr>
<td>ISL G 250</td>
<td>250 (186) @ 2200</td>
<td>730 (990) @ 1300</td>
<td>2200 RPM</td>
</tr>
</tbody>
</table>

ISL G Specifications

- Maximum Horsepower: 320 HP, 239 kW
- Peak Torque: 1000 LB-FT, 1356 N•m
- Governed Speed: 2200 RPM
- Clutch Engagement Torque: 550 LB-FT, 746 N•m
- Type: 4-cycle, spark-ignited, in-line 6-cylinder, turbocharged, CAC
- Engine Displacement: 540 CU IN, 8.9 LITERS
- Bore and Stroke: 4.49 IN x 5.69 IN, 114 MM x 144.5 MM
- Operating Cycles: 4
- Oil System Capacity: 7.3 U.S. GALLONS, 27.6 LITERS
- Coolant Capacity: 13.1 U.S. QUARTS, 12.4 LITERS
- System Voltage: 12 V
- Net Weight (Dry): 1,625 LB, 737 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 based on Cummins Interact™ 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 water pump, engine-mounted fan hub and most alternators. Gear-driven air compressor with provision for gear-driven hydraulic pump.

- **High-Energy Ignition System** – Improved ICM provides better performance and improved spark plug and coil durability, plus self-diagnostics.

- **High-Efficiency Lube Cooler** – Lowers oil temperatures, for longer engine life.

- **Crankshaft** – Eight-counterweight, fully balanced, high-tensile-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 Electronic Control Module (ECM) provides full monitoring and control of engine sensors, fuel system and ignition system. Full interface capability to Cummins INSITE™ and diagnostic service tools. 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 water-cooled bearing housing for durability. Electronic control for precise air handling.
Gearing Recommendations.
For the best reliability and durability, the recommended maximum gross vehicle weight (GVW) for the ISL G is 66,000 lb (29,937 kg). Select gearing for fuel economy in regional-haul applications where engine speed is 1700-1900 rpm at optimal cruise. For vocational, transit and refuse applications, select gearing where engine speed is 1750-1900 rpm at cruise. Consult your Cummins or Cummins Westport representative to discuss specific gearing guidelines for your application.

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).

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. PowerSpec works on both ISL G and ISX12 G engines. See cumminsengines.com/powerspec for more information.

Base Warranty.
Cummins Westport engines feature the same factory base warranty coverage as Cummins diesel engines. For transit bus and shuttle engines, a standard 2-year/unlimited-mileage/kilometers warranty with full parts and labor coverage on warrantable failures* applies.

For school bus engines, standard coverage is 5 years/100,000 miles (160,934 km), whichever comes first. Major components are covered for 3 years/300,000 miles (482,803 km), whichever comes first.

For truck customers, full engine coverage is provided for 2 years/250,000 miles (402,336 km), whichever comes first.

*Warrantable failures are those due to defects in materials or workmanship.

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: cumminswestport.com/natural-gas-academy
### Maintenance Intervals

#### ISL G Truck < 66,000 GVW

<table>
<thead>
<tr>
<th>Maintenance Item</th>
<th>Miles/Kilometers</th>
<th>Hours</th>
<th>Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and Filter*</td>
<td>15,000 MI, 24,000 KM</td>
<td>500</td>
<td>6</td>
</tr>
<tr>
<td>Fuel Filter</td>
<td>30,000 MI, 48,000 KM</td>
<td>1,000</td>
<td>12</td>
</tr>
<tr>
<td>Coolant Filter</td>
<td>15,000 MI, 24,000 KM</td>
<td>500</td>
<td>6</td>
</tr>
<tr>
<td>Spark Plugs</td>
<td>45,000 MI, 72,000 KM</td>
<td>1,500</td>
<td>18</td>
</tr>
<tr>
<td>Change Coolant</td>
<td>60,000 MI, 96,000 KM</td>
<td>2,000</td>
<td>24</td>
</tr>
<tr>
<td>Valve Adjustment**</td>
<td>60,000 MI, 96,000 KM</td>
<td>2,000</td>
<td>24</td>
</tr>
<tr>
<td>Air Cleaner/Element</td>
<td>Follow vehicle manufacturer’s published recommendations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Requires natural gas engine oil (CES 20074).

**Initial valve adjustment at 1,000 hours.

#### ISL G Urban Transit Bus And Refuse Truck

<table>
<thead>
<tr>
<th>Maintenance Item</th>
<th>Miles/Kilometers</th>
<th>Hours</th>
<th>Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil and Filter*</td>
<td>7,500 MI, 12,000 KM</td>
<td>500</td>
<td>6</td>
</tr>
<tr>
<td>Fuel Filter</td>
<td>15,000 MI, 24,000 KM</td>
<td>1,000</td>
<td>12</td>
</tr>
<tr>
<td>Coolant Filter</td>
<td>7,500 MI, 12,000 KM</td>
<td>500</td>
<td>6</td>
</tr>
<tr>
<td>Spark Plugs</td>
<td>22,500 MI, 36,000 KM</td>
<td>1,500</td>
<td>18</td>
</tr>
<tr>
<td>Change Coolant</td>
<td>30,000 MI, 48,000 KM</td>
<td>2,000</td>
<td>24</td>
</tr>
<tr>
<td>Valve Adjustment**</td>
<td>30,000 MI, 48,000 KM</td>
<td>2,000</td>
<td>24</td>
</tr>
<tr>
<td>Air Cleaner/Element</td>
<td>Follow vehicle manufacturer’s published recommendations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Default interval is the hours stated. Interval is whichever comes first – hours, miles or time.

Refer to QuickServe® Online or Owners Manual for complete details on maintenance intervals.

Based on normal duty cycle of 15 mph average speed. Distance intervals will increase or decrease based on average speed.

### ISL G Torque Curves

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