EVERY ADVANTAGE. ISM
FOR LINE-HAUL AND VOCATIONAL APPLICATIONS
Every Advantage.

For reliability, low operating costs and strong performance, Cummins ISM can’t be beat.

It has one of the highest power-to-weight ratios in its class. An advanced fuel injection system and the patented Variable Geometry Turbocharger (VG Turbo) result in superior performance over every terrain, in any weather condition. Cummins ISM EPA ‘07 is expected to have comparable fuel economy to the previous model, so you get added savings every mile.

Plus, every element has been designed and manufactured by Cummins using Six Sigma processes to ensure a consistently superior level of quality in every ISM engine, every time.

### Ratings

<table>
<thead>
<tr>
<th>ENGINE MODEL</th>
<th>ADVERTISED HP (kW)</th>
<th>PEAK TORQUE LB-FT (N•M) @ RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISM 410</td>
<td>410 (306)</td>
<td>1550 (2102) @ 1200</td>
</tr>
<tr>
<td>ISM 370</td>
<td>370 (276)</td>
<td>1350 (1830) @ 1200</td>
</tr>
<tr>
<td>ISM 350</td>
<td>350 (261)</td>
<td>1350 (1830) @ 1200</td>
</tr>
<tr>
<td>ISM 330</td>
<td>330 (246)</td>
<td>1250 (1695) @ 1200</td>
</tr>
<tr>
<td>ISM 310</td>
<td>310 (231)</td>
<td>1150 (1559) @ 1200</td>
</tr>
<tr>
<td>ISM 280</td>
<td>280 (209)</td>
<td>1150 (1559) @ 1200</td>
</tr>
</tbody>
</table>

### SmartTorque Ratings

| ISM 350 ST   | 350 (261)          | 1350/1550 (1830/1966) @ 1200 |
| ISM 330 ST   | 330 (246)          | 1250/1350 (1695/1830) @ 1200 |

### Vocational Ratings

| ISM 425V     | 425 (317)          | 1550 (2102) @ 1200            |
| ISM 385V     | 385 (287)          | 1450 (1966) @ 1200            |
| ISM 385V     | 385 (287)          | 1350 (1830) @ 1200            |
| ISM 350V     | 350 (261)          | 1450 (1966) @ 1200            |
| ISM 350V     | 350 (261)          | 1350 (1830) @ 1200            |
| ISM 320V     | 320 (239)          | 1150 (1559) @ 1200            |

Additional ratings may be available. Check with your local Cummins distributor or dealer.

### Specifications

<table>
<thead>
<tr>
<th>ADVERTISED HORSEPOWER</th>
<th>280-425 HP</th>
<th>209-317 kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEAK TORQUE</td>
<td>1150-1550 LB-FT</td>
<td>1559-2102 N•M</td>
</tr>
<tr>
<td>GOVERNED SPEED</td>
<td>2100 RPM</td>
<td></td>
</tr>
<tr>
<td>CLUTCH ENGAGEMENT TORQUE</td>
<td>700 LB-FT</td>
<td>949 N•M</td>
</tr>
<tr>
<td>NUMBER OF CYLINDERS</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>OIL SYSTEM CAPACITY</td>
<td>10.2 U.S. GALLONS</td>
<td>38.6 LITERS</td>
</tr>
<tr>
<td>SYSTEM WEIGHT</td>
<td>2,268 LB</td>
<td>1,028 KG</td>
</tr>
<tr>
<td>ENGINE (DRY)</td>
<td>2,206 LB</td>
<td>1,000 KG</td>
</tr>
<tr>
<td>AFTERTREATMENT*</td>
<td>62 LB</td>
<td>28 KG</td>
</tr>
</tbody>
</table>

*Increase over standard muffler.
Features And Benefits.

The ISM meets the latest emissions requirements and delivers dependable, powerful performance with proven technology. It also has a lower cost of operation than other engines in its class. Standard features include:

- Fully Integrated Electronic Controls – A single ECM (Electronic Control Module) controls the engine and aftertreatment. Also coordinates interaction with the transmission, ABS, engine brake, cooling fan and more.

- Load-Based Speed Control (LBSC) – Improves both fuel economy and driver satisfaction by balancing performance while reducing noise.

- Gear-Down Protection (GDP) – Improves fuel economy by encouraging the driver to operate in the top two gears.

- Idle Control – Electronic features control idle speed, idle time, engine shutdown and PTO utilization.

- Road Speed Governor and Cruise Control – Settings optimize both fuel economy and performance.

- Self-tensioning belt drive system drives both fan and alternator for reduced maintenance and increased belt life.

- Mid-stop cylinder liner minimizes oil consumption and increases durability.

- Articulated piston design featuring forged-steel crown and aluminum skirt allows for higher top ring position, optimizing fuel efficiency.

Key Electronic Features.

- Cooled Exhaust Gas Recirculation – Lowers combustion temperatures for reduced emissions and optimized mpg.

- Cummins Particulate Filter – Fully integrated for uncompromising performance, reliability. Cummins design allows regeneration even in adverse operating conditions. Reduces particulate matter more than 90%.

- Crankcase Ventilation System – Electronically managed for optimum efficiency. Does not add parasitic load or complexity to the engine. Coalescing filter is easily serviced, only needing replacement every 2 years or 150,000 miles (240,000 km).

- High-Pressure Fuel Injection System – For cleaner, more complete combustion.

- SmartTorque Ratings – Deliver up to 100 lb-ft of extra torque in the top two gears for better fuel economy, fewer shifts and less driver fatigue.

Design For Dependability. Every Day Of Every Year.

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Gearing Recommendations.

A major factor in optimizing performance and fuel economy is vehicle gearing. Follow these simple recommendations to ensure gearing is properly selected:

**On-Highway 80,000 lb (36,287 kg) Or Less:**

- For maximum fuel economy or for vehicles intending to cruise greater than 65 mph, gear for an engine speed of 1500 rpm at the 65-mph checkpoint (1600 rpm for the ISM 410).

- In operations where fuel economy is not a concern or cruise speeds are typically below 65 mph, gear for an engine speed of 1600 rpm at the 65-mph checkpoint.

- Gearing combinations that produce an engine speed less than 1500 rpm at the vehicle’s intended cruise speed should be avoided.

The formula for determining engine speed (rpm) at the 65-mph checkpoint for a selected gearing combination is:

\[
\text{rpm} = \frac{(65 \text{ mph}) \times (\text{top gear ratio}) \times (\text{axle ratio}) \times (\text{tire revs/mile})}{60}
\]

**Vocational Trucks:**

The ISM vocational ratings are governed at 2100 rpm to deliver optimal performance with a wide variety of automatic and automated manual transmissions. Follow these simple recommendations to ensure gearing is properly specified:

- Select a gearing combination that will result in an engine speed between 1700-2000 rpm at the vehicle’s intended cruise speed (mph).

- The gearing combination selected should deliver the minimum startability (shown below) when launching the vehicle in the lowest gear of the transmission.

<table>
<thead>
<tr>
<th></th>
<th>Tractor/Trailer Combination:</th>
<th>Straight Truck:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20%</td>
<td>28%</td>
</tr>
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</table>

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\]

Log on to www.powerspec.cummins.com for more line-haul and vocational gearing recommendations.
Options That Save Money. Every Mile.

- Cummins C Brake™ by Jacobs® turns your energy-producing engine into an energy-absorbing air compressor, slowing your vehicle down considerably. Service brakes last longer and tire life is extended.
- Refrigerant compressor mounting options are available and come standard with automatic belt tensioners.
- WABCO air compressors come standard on Cummins engines, with models available in both 18.7 and 30.4 cfm (Twin).
- Water-in-fuel sensor alerts driver to contamination that could cause performance and durability problems.
- Rear Engine Power Take-Off (REPTO) is available for vehicles that need an engine to do double-duty.
- ICON™ idle control unit turns engine on/off automatically, decreasing idle times and fuel consumption while maintaining engine oil temperature and battery voltage. An in-cab thermostat is available for ICON, controlling engine operation as needed to maintain driver comfort.

QuickServe® Online.

The right information is priceless. Things change so rapidly today, you can’t afford to take a chance on outdated information. Paper manuals and CD-ROMs can’t always keep pace with ever-changing parts and service information. You need the most current information—continuously updated—every minute of every day. The Internet is the answer. QuickServe Online is your complete reference for Cummins parts and service information on the Internet. For more information, contact your local Cummins distributor or log on to quickserve.cummins.com.

Warranty Coverage.

Cummins base engine coverage* is 2 years/250,000 miles (402,336 km) with major components coverage for 5 years/500,000 miles (804,672 km) and injector coverage for 2 years/125,000 miles (201,168 km).

* Covers defects in materials or factory workmanship.

Extended Coverage.

A variety of extended coverage plans are available for ISM engines in every application. Contact your local Cummins dealer or distributor for details.

Every Question. Answered.

- Service Network – Cummins engines are backed by nearly 3,500 authorized Cummins parts and service outlets in North America.
- Customer Assistance Center – Call the Cummins specialists for technical assistance and service locations at 1-800-DIESELS (1-800-343-7357).
- Cummins E-Mail – For online assistance with Cummins-related questions, click on the Contact Us link in the header at everytime.cummins.com.
- Cummins Online Registration – Register all your Cummins engines quickly and easily at everytime.cummins.com to ensure quality parts and service for your engine.
Cummins is a pioneer in product improvement. Thus specifications may change without notice. Illustrations may include optional equipment.