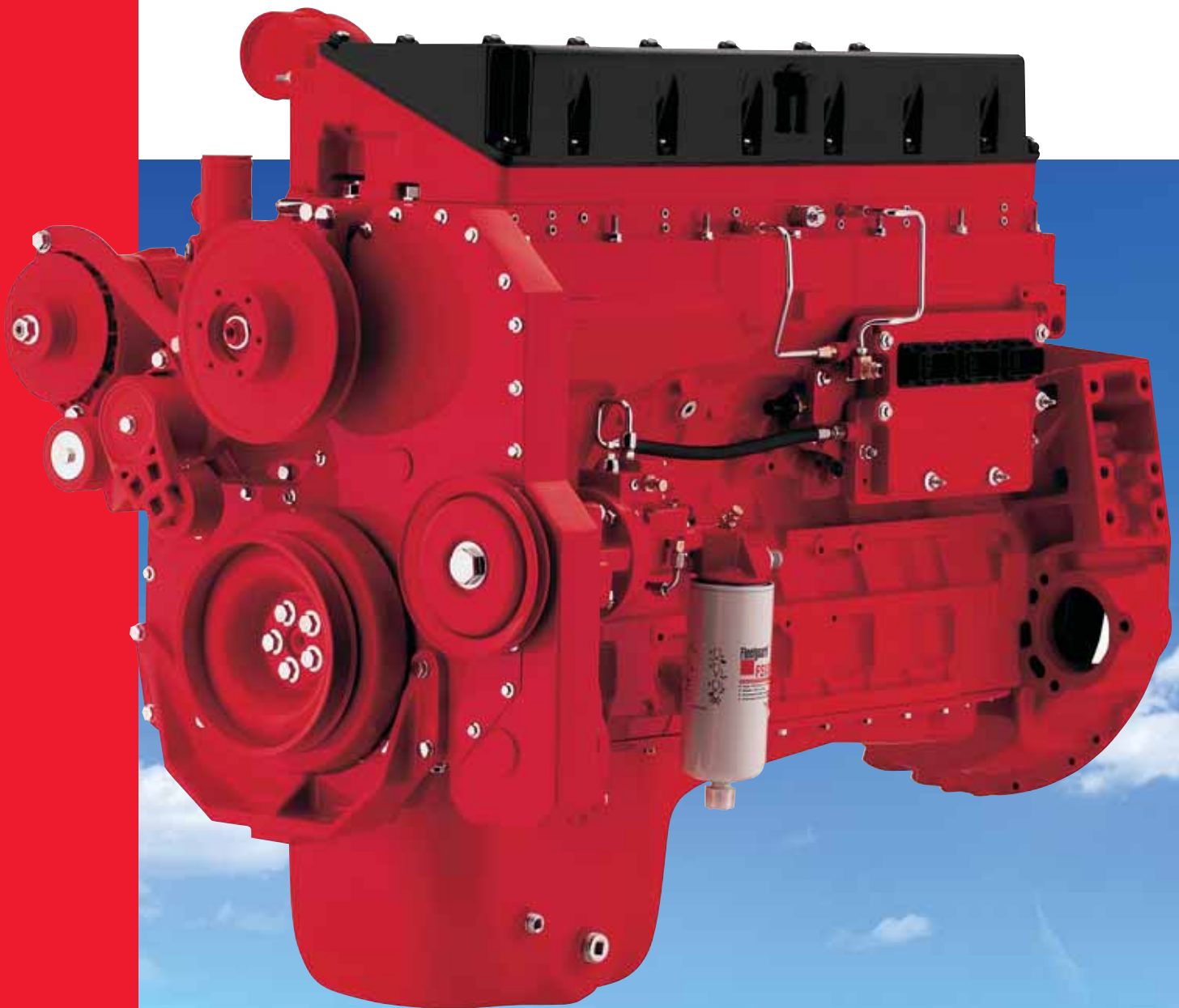




# Every™ Innovation. ISM<sup>e</sup>

Automotive Engines 335-445PS



# ISM<sup>e</sup>

In every aspect of heavy duty performance this engine sets benchmark standards for fuel efficiency, drive-ability and reliability. The ISM<sup>e</sup> has a long standing reputation for excellent transient response and overall refinement, enabling it to out perform larger engines. Structurally, the ISM<sup>e</sup> is at the forefront of heavy-duty design with a life-to-overhaul goal of one million kilometres. Yet despite all this in-built strength the engine weighs only 940 kg, offering a substantial payload advantage.

## Productivity

Productivity matched ratings have been targeted at specific applications to achieve an optimum balance between performance and cost-efficiency. For 26 to 44 tonne gross vehicle weight trucks and premium long distance coaches, operators can achieve extremely high levels of productivity with low running costs.

The highest rated ISM<sup>e</sup>-445 defines a new approach for 44 tonne operations. These engines focus on high torque capability in the driving range to optimise fuel economy and enhance response. With 2100 Nm peak torque at 1200 rpm and over 1900 Nm available to almost 1500 rpm, they can perform with relaxed ease on the toughest duty cycle of a 44-tonner. Over the road drive-ability matches that of nominally higher displacement engines. With the Cummins ISM<sup>e</sup> you get more for less.

## Performance

The high-pressure injection system and electronic controls ensure clean, powerful and efficient operation every time. Our Electronic Control Module (ECM) continuously monitors data, optimising the fuel-to-air mixture for

combustion efficiency. This increases engine responsiveness, improves fuel economy and significantly reduces noise levels.

Programmable features let you customise engine performance to match vehicle duty cycles. The ECM has the capacity and the connections to receive input from all other vehicle systems and adjust engine performance to match.

## Ratings

EMISSIONS	POWER RANGE PS (kW)	RATED SPEED RPM	PEAK TORQUE Nm (LB-FT)
EURO II	345-440 (254-324)	1900	2100 (1556)
EURO III	335-420 (246-309)	1900	2010 (1489)
EURO IV	350-445 (257-328)	1900	2100 (1556)
EURO V	350-445 (257-328)	1900	2100 (1556)

## Specifications

POWER	335 - 445 PS
PEAK TORQUE (NM)	2100
GOVERNED SPEED (RPM)	1900
NO OF CYLINDERS	6
DISPLACEMENT (LITRES)	10.8
OIL SYSTEM CAPACITY (LITRES)	39
DRY WEIGHT (KG)	940

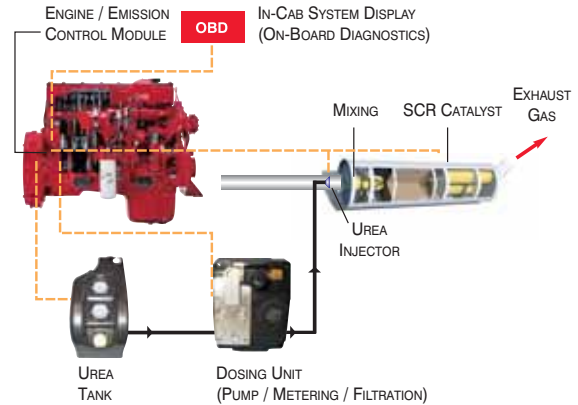
## Features and Benefits

Cummins ISM<sup>e</sup> comes with significant product benefits:

- Cummins HX55 Turbocharger: electronically controlled wastegate turbo delivers ideal air flow across the operating range.
- 24-Valve Cylinder Head: optimises air/fuel mixture to provide a faster response.
- Advanced Combustion Technology: Optimised injector tips and a reshaped steel piston bowl improve fuel economy

and emissions control with longer oil change intervals.

- Fuel Injectors: electronically controlled with fully variable timing ideally matched to engine configuration.
- Articulated Pistons: with forged steel crown and aluminium skirt for exceptional durability.
- Camshaft: hardened cast iron for improved wear tolerance.
- Electronic Integration: industry standard data-link accepts inputs from all powertrain components including electronic transmissions, ABS brakes and ASR anti-slip. Creates a seamless flow of information shared along a high speed network.
- Electronic Protection: sensors throughout the engine continually send data back to the engine control module for self diagnosis and protection. Rapid diagnostics and data downloading are available, helping to ensure maximum uptime for vehicles.
- High Power: up to 445 ps delivers great performance with a high power to weight ratio.
- High Torque: up to 2100 Nm at low revs for excellent responsiveness.
- Emissions Technology: meets Euro 4 and Euro 5 requirements using Selective Catalytic Reduction (S.C.R.) exhaust aftertreatment technology developed by Cummins Emission Solutions. This integrated system provides significant reductions in fuel consumption and extended service intervals.



- Global Support: backed by the widest network in the industry, with over 5,000 service outlets worldwide. Contact your local customer assistance centre for technical support, details on [www.cumminsengines.com](http://www.cumminsengines.com).

## Servicing

The ISM<sup>e</sup> comes with a number of servicing benefits to reduce running costs:

- Rocker System: permits 240,000 km before valve adjustment check for improved availability.
- Latest Cummins Filters: incorporate 10-micron 'Stratapore' multi-layer technology for exceptional protection.
- Fuel filter features an optional water-in-fuel sensor.
- Low Oil Consumption: minimal top-up between services.
- Mid-Stop Cylinder Liners: fully replaceable for ease of rebuilding.
- Sealed Sensors – Fully sealed to resist water intrusion. Combined temperature and pressure sensors reduce inventory and simplify maintenance with increased reliability.
- Brake by Jacobs: optional compression brake available to reduce service break wear.

Cummins has always been a pioneer in product development.  
Thus specifications may change without notice.  
Illustrations may include optional equipment.



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