

International Newsroom

New Maxxforce Big Bore Engine Ratings Revealed: Peak Torque Up To 1,700 lb.-ft. Achieved At 1,000 RPM

Outstanding power characteristics set new performance and efficiency standards

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— International Truck and Engine Corporation today revealed the power and torque ratings for its MaxxForce™ 11 and MaxxForce™ 13 Class 8 commercial truck diesel engines at the Mid-America Trucking Show.

The MaxxForce big bore design provides up to 1,700 lb.-ft. of torque at 1,000 rpm. The outstanding efficiency and power characteristics of the MaxxForce 11 and MaxxForce 13 — made possible by innovative technologies including a high-pressure common-rail fuel system, twin-series turbochargers with interstage cooler, and Eco-Therm™ heat-management system — set new industry standards for heavy-duty diesel performance, drivability and fuel efficiency.

Six MaxxForce big bore models offer ratings in the ranges of 330 to 475 horsepower and 1,250 to 1,700 lb.-ft. torque (see chart).

"These new engines provide clear advantages over traditional Class 8 big bore diesels," said Jacob Thomas, vice president of International's Big Bore Diesel Engines Business Unit. "We're providing power and performance that drivers can put to work, and new levels of efficiency that owners can take to the bank."

The advanced fuel- and air-management systems provide instant response to reach peak torque at 1,000 rpm. This means earlier acceleration upshifts and fewer grade-climb downshifts.

This keeps MaxxForce™ big bore engines operating more often in the lower speed range — where fuel economy is inherently best. Other 11- and 13-liter engines do not achieve peak torque until higher engine speeds.

"Our goal is best-in-class fuel economy, which is extremely important to Class 8 truck owners," said Thomas. "Because even one-tenth of a percentage improvement in fuel economy can mean huge savings, the capability for unprecedented fuel economy is a key part of the basic design of these engines."

Power and Fuel Efficiency: High-Pressure Common-Rail Fuel System and Eco-Therm™ Technology

The MaxxForce 11 and MaxxForce 13 engine's high-pressure common-rail fuel system controls fuel with great precision at very high pressure. This yields more complete combustion and fuel efficiency. International's electronically controlled common-rail design introduces fuel into the cylinders at very high pressure and in several metered sequences with each combustion cycle. Other Class 8 diesel fuel systems use high pressure — but do not achieve high pressure at engine speeds as low as the MaxxForce big bore engines.

The advanced fuel system, twin-series turbochargers and patent-pending Eco-Therm™ heat-management system deliver an optimized balance of power, performance and emissions control. A smaller primary turbo responds very quickly to deliver air for immediate take-off at low engine speeds. The larger secondary turbo maintains peak power at high speeds and grade changes. An interstage cooler after the first turbo and an after-cooler following the second turbo reduce the temperature of the intake air increasing its density so that more air can be packed into the engine to achieve efficient, peak performance.

The innovative Eco-Therm™ heat-management system is made possible by unprecedented engine-truck integration on the MaxxForce big bore engines. It electronically controls coolant flow and temperature across the various coolers to achieve optimal intake-air and exhaust-gas temperatures under all conditions. Intake-air temperature control enables faster warm-ups and engine operation at peak efficiency in cold climates. By maintaining exhaust-gas temperatures at optimal levels, there is an enhanced level of passive regeneration of the diesel particulate filter that leads to improved fuel economy.

At the Mid-America Trucking Show, International executives provided details behind the new MaxxForce™ big bore engines' other technologically advanced systems, components and materials, which provide Class 8 customers:

- Higher strength without added weight — The North American commercial

truck market's first compacted-graphite iron (CG Iron) cylinder block is up to 300 pounds lighter compared to the traditional gray iron that other engine blocks are made from. CG Iron is 70 percent stronger, 40 percent stiffer and has twice the fatigue strength of traditional gray iron. This provides longer service life and higher payload capacity.

- Low noise, vibration and harshness — The high-pressure common-rail fuel system, pronounced cylinder block ribbing and other design enhancements make the MaxxForce big bore engines startlingly quiet (3-5 dBA quieter) compared to current big bore engines. This results in exceptional driver comfort and experience.

Designed and engineered specifically for International® brand Class 8 trucks, the MaxxForce big bore engines will be exclusively offered in International® ProStar™ line-haul tractors, TranStar™ regional-haul tractors, and WorkStar™ severe service vehicles beginning in late 2007.

As previously announced, the new MaxxForce 11 and MaxxForce 13 are the first outcomes of the collaboration between International and MAN Nutzfahrzeuge. Both global companies contributed to the design, development, engineering, sourcing, testing and manufacturing of the technologies, systems and components. The MaxxForce 11 and MaxxForce 13 engines will be manufactured at a new International plant in Huntsville, Ala.

For more information on MaxxForce 11 and MaxxForce 13, the entire line of MaxxForce commercial diesel engines and the MaxxForce™ International Diesel Power brand, visit www.maxxforce.com.

International Truck and Engine

International Truck and Engine Corporation is the principal operating subsidiary of Navistar International Corporation (NYSE: NAV). The company produces International® brand commercial trucks, MaxxForce brand diesel engines and IC brand school buses, Workhorse brand chassis for motor homes and step vans, and is a private label designer and manufacturer of diesel engines for the pickup truck, van and SUV markets. The company is also a provider of truck and diesel engine parts and service. A wholly owned subsidiary offers financing services.

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