

**Navistar's 2010 MaxxForce Big Bore Diesels Include New Engine Brake Option, Boost Power Options**

**2010 Models Include Optional MaxxForce® Engine Brake by Jacobs®, Four Expanded Power Ratings**

**LOUISVILLE, Ky. (March 25, 2010)** – Navistar, Inc. is giving Class 8 truckers more choices for getting up to speed in 2010, and one better way to help them slow down when needed. MaxxForce® big bore diesel engines offer four new performance ratings and a new MaxxForce® Engine Brake by Jacobs®, optional for all MaxxForce® 11 and MaxxForce® 13 models.

The new ratings include two 450 horsepower MaxxForce 13 models—one that offers 1,700 lb.-ft. torque and another with multi-torque output of 1,550/1,700 lb.-ft. The other two new ratings include a 430 horsepower MaxxForce 13 with multi-torque output of 1,550/1,700 lb.-ft. and a MaxxForce 11 rated at 365 horsepower and 1,250 lb.-ft. torque. Top ratings remain at 475 horsepower and 1,700 lb.-ft. torque for MaxxForce 13 and 390 horsepower and 1,450 lb.-ft. torque for MaxxForce 11.

“For the Class 8 market, the name of the game is power,” said Jim Hebe, Navistar vice president, North American sales operations. “MaxxForce big bore engines bring the power, along with other benefits critical to our customers, such as fuel efficiency, a smooth, quiet ride and a high-strength CGI block that delivers durability and extra payload—without added weight.”

MaxxForce big bore engines produce excellent power and throttle characteristics, in large part from their advanced, dual sequential turbocharger system. A smaller, primary turbo responds quickly for immediate take-off at low engine speeds, and a larger, secondary turbo provides peak power at higher speeds and on steep grades. Peak torque is achieved at 1,000 rpm and holds steady to 1,200 rpm—a much lower engine speed than other big bore

engines. This reduces gear-shifting needs uphill and allows for shifting at lower speeds when accelerating.

A high-pressure, common-rail fuel system features injection pressures of 32,000 psi (2,200 bar) for precise fuel dosing, injection timing and optimal combustion. The result is outstanding fuel economy with clean, in-cylinder emissions control.

### **New engine brake option**

The optional MaxxForce Engine Brake by Jacobs provides a new level of braking power for the MaxxForce 11 and 13. Fully integrated with vehicle controls and anti-lock braking system (ABS), the three-stage, compression-release brake offers maximum downhill braking performance from 351 to 398 braking horsepower at 1,900 to 2,100 rpm for the MaxxForce 11. For the MaxxForce 13, maximum downhill braking performance is 415 to 470 braking horsepower at 1,900 to 2,100 rpm.

The new engine brake can increase service brake life of MaxxForce big bore-powered International® ProStar®+, PayStar®, TranStar® and WorkStar® commercial trucks by up to three times. The new MaxxForce Engine Brake by Jacobs also features:

- Dedicated cam compression release technology for maximizing braking performance
- Proven technology and durable, reliable operation
- Braking power equal to positive power
- Factory installed or dealer retrofit

“The MaxxForce Engine Brake is designed with all the premium features Jacobs Vehicle Systems offers, assuring our International truck customers they have the most capable engine brake in the industry,” Hebe added.

The MaxxForce Engine Brake by Jacobs is comprised of two engine brake housings and special exhaust valve bridges. The engine control module (ECM) controls the engine brake and has three available braking levels, depending on driver needs. Integrated with the engine's electronic controls and vehicle's anti-lock braking system (ABS) for greater driver control, the brake is also fully functional with Allison transmissions.

“We are extremely pleased with the relationship between Jacobs Vehicle Systems and Navistar,” said Robert Perkins, vice president, marketing and business development, Jacobs Vehicle Systems. “Working together with Navistar on the development of the MaxxForce Engine Brake by Jacobs has led to a benchmark product that meets all ‘voice of the customer’ requirements.”

### **Additional MaxxForce Big Bore Advancements**

The 2010 MaxxForce 11 and 13 big bore engines also incorporate design improvements for increased reliability and serviceability, reinforcing Navistar's commitment to maximum uptime. These design enhancements include a high-efficiency, engine side-mounted, solid cast-aluminum housing EGR cooler. A floating-core EGR cooler design allows for thermo expansion, which significantly extends cooler performance and life. In addition, for the MaxxForce 2010 big bore engines, all systems and filters, as well as the valve cover, are easily accessible.

All International® brand on-highway commercial vehicles powered by 2010 MaxxForce engines will use MaxxForce Advanced EGR emissions technology. Navistar has pursued its in-cylinder emissions solution path for most of the past decade to provide the most customer-friendly powertrain, in terms of fuel economy, performance and overall ownership costs. With MaxxForce Advanced EGR, customers won't have the worry or inconvenience of finding and filling liquid urea. Most importantly, MaxxForce Advanced EGR provides

customers with a no-hassle solution that keeps responsibility for emissions compliance with the manufacturer—not the vehicle owner or driver.

MaxxForce-powered International brand vehicles are backed by the largest commercial-truck dealer network in North America with nearly 800 dealer locations and 7,000 service technicians.

## About Jacobs Vehicle Systems

Jacobs Vehicle Systems is a wholly-owned subsidiary of Danaher Corporation (NYSE:DHR). Jake Brake® products are used by North American heavy-duty diesel engine manufacturers as well as Hino, Hyundai and Mitsubishi in Asia and DAF in Europe. With support sites in Europe, Japan and China, Jacobs Vehicle Systems is headquartered in Bloomfield, Conn., where it has a 260,000 square foot design, testing and manufacturing facility. Registered to the TS16949 standard, Jacobs Vehicle Systems is the world's leading producer of vehicle retarding and valve actuation technologies and can be found on the Internet at [www.jakebrake.com](http://www.jakebrake.com).

	Horsepower	Torque	Gov speed
<b>2010 MaxxForce 11</b>	330	1,250	2,100
	365*	1,250	2,100
	379	1,350	2,100
	390	1,450	2,100
<b>2010 MaxxForce 13</b>	410	1,450	2,100
	430	1,550	2,100
	430	1,550/1,700	2,100
	450	1,700	2,100
	450	1,550/1,700	2,100
	475	1,700	2,100

*\*New model ratings for 2010*

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