June 2006

Motorin' Toward EPA '07 with the MBE Program:

A quick glance at the MBE 900 Engine

In the May edition of the *EPA '07 Update Bulletin,* the MBE 4000 heavy-duty diesel engine was covered. For this edition, we focus on the MBE 900 medium-duty engine.

The MBE 900 has been the premium engine choice for a wide range of medium and vocational buyers, powering the needs of food and beverage distributors, pick-up & delivery, fire and rescue departments, school bus fleets, tow truck operators, construction companies, recreational vehicles and others. Nearly 600,000 MBE 900 engines are in service today, with more than 100,000 in North America alone.

With the changes required to meet the EPA's 2007 diesel-emissions mandate, the new MBE 900 – now a full 7.2 liters – will continue to serve its diverse customer base, offering a wide range of power ratings (see below). With this broad spectrum of choices, buyers can spec the most economical, and best matched, components to fit their specific applications. Less money invested, and lower operational costs equal a better bottom line.

Here are the ratings for the 2007 MBE 900:

MBE 900 Engine: Standard Power Ratings	
190 HP @ 2200 RPM	**520 lb-ft. @ 1200 RPM**
210 HP @ 2200 RPM	**520 lb-ft. @ 1200 RPM**
230 HP @ 2200 RPM	**620 lb-ft. @ 1200 RPM**
250 HP @ 2200 RPM	**660 lb-ft. @ 1200 RPM**

MBE 900 Engine: High Performance Power Ratings	
260 HP @ 2200 RPM	**800 lb-ft. @ 1200 RPM**
280 HP @ 2200 RPM	**800 lb-ft. @ 1200 RPM**
300 HP @ 2200 RPM	**860 lb-ft. @ 1200 RPM**
350 HP @ 2200 RPM*	**860 lb-ft. @ 1200 RPM**
*** Fire, Emergency, RV Applications Only**	

SMART Fuel System®
The new SMART fuel system for the MBE 900 adds to the performance and cleanliness of the 2007 model. It features electronically controlled injection nozzles capable of multiple injections per combustion cycle.

Detroit Diesel Electronic Control (DDEC) VI
Detroit Diesel set the benchmark for heavy-duty diesel engine electronics. Now, we're raising the bar with the sixth generation DDEC VI electronic engine management system. It employs a more powerful microprocessor, increased memory and enhanced diagnostics. The DDEC VI is capable of monitoring and managing all engine functions, including the Aftertreatment Systems required for 2007 emissions. DDEC VI is a key part of the strategy to achieve greater operating efficiency and cleaner exhaust emissions.

Dual-Stage Turbocharger
The high-performance version of the 2007 MBE 900 employs a dual-stage turbocharger to maximize throttle response and combustion efficiency. Controlled by the DDEC VI, the turbo automatically – and precisely – adjusts its boost across the operating range, delivering quick and forceful lift on the low end and superb driveability at any engine speed.

Maintenance-Free Electrostatic Breather
The electrostatic breather system removes oil from crankcase vapor before it's vented into the atmosphere. The system sends oil droplets back to the sump where they can continue to serve the engine, reducing oil consumption. And the best thing is, it requires no maintenance.

High-Tech Grid Heater
The MBE 900 is capable of starting unassisted in temperatures as low as 5 degrees Fahrenheit. For colder temperature operation, down to -20 degrees Fahrenheit, an optional high-tech grid heater controlled by DDEC VI is available. The high-tech grid heater pre-heats air in the intake system before it enters the engine during starting and initial warm-up. This device reduces cranking time in cold weather to increase starter life, reduces white smoke and offers peace-of-mind.

Questions About EPA '07 and the MBE 900:

Q: Can you tell me more about the multi-function fuel filter for the 900?
A: The new, patented fuel filter/water separator system is developed specifically for DDC's MBE 900 engine. The system incorporates primary, vacuum-side water separation and secondary, pressure-side fuel filtration. This system provides an advantage over other similar systems because it offers an optional water-in-fuel (WIF) sensor that alerts the operator of high-water conditions in the filter and an optional powerful 260 Watt, 12 VDC PTC heater that keeps fuel warm in the coldest climates.

Q: Do the maintenance intervals of the 2007 MBE 900 change?
A: No, the maintenance intervals stay the same as the current engine. However, all of the 2007 engines require an Aftertreatment System to capture and burn off (regenerate) the soot in the engine exhaust gas through a Diesel Particulate Filter (DPF). The DPF will require maintenance to clear the ash that accumulates in the filter. For most vehicle applications and duty cycles, this will occur between 200,000 and 400,000 miles of operation.

Q: Does the MBE 900 have the same electronic controls as its heavy-duty counterparts, the Series 60 and MBE 4000?

A: Yes, there is a common electronics platform for all of our engines – DDEC VI – which is an advantage for DDC in 2007 because it helps the engine maintain fuel economy and performance at reduced emissions levels.

This concludes the June 2006 edition of *EPA '07 Update Bulletin*, if you are not interested in receiving this newsletter in the future please respond to this e-mail to have your name removed from the distribution list. Thank you!