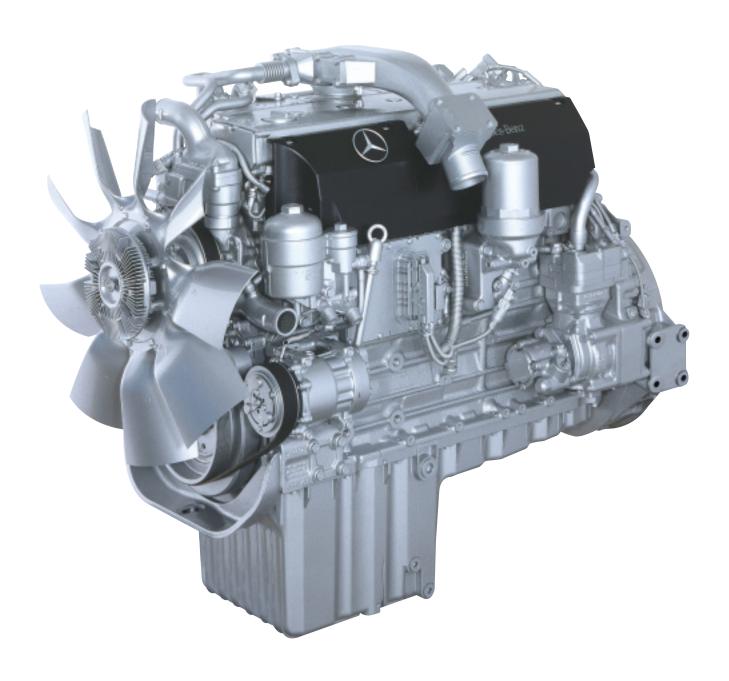
Mercedes-Benz

MBE 900



Best Choice For Medium-Duty Applications

Over 350,000 MBE 900 Engines Are In Use Worldwide

The MBE 900 Increases
Productivity And Reduces
Operating Costs

Manufactured specifically for the demanding North American medium-duty truck market by Mercedes-Benz, the company that produces half a million commercial diesel engines per year.









What Applications Use MBE 900s?

Today, More Than 350,000 MBE 900 Engines Are Operating Worldwide. Over 40,000 Are Operating In NAFTA.



... And Many More!

"It requires less maintenance and has reduced our downtime compared to the competitor's engines. For our operation the 260 hp / 700 lb ft torque works great and assures driver satisfaction. The warranty coverage, cost of operation, price and reliability are comparable to none."

Municipality, Director Of Maintenance

"Unit is unbelievable in power and fuel economy, claims averaging excellent fuel economy on a regular basis."

Pick-up And Delivery Fleet, Fleet Manager

Why Is The MBE 900 So Popular?

It All Starts With More Displacement And Up To 330 HP. And, 12 Different Ratings...

MBE 904 (4.3L) 170 hp @ 2200 RPM 420 lb ft @ 1200 RPM MBE 924 (4.8L) 190 hp @ 2200 RPM 520 lb ft @ 1200 RPM MBE 906 (6.4L) 190 hp @ 2200 RPM 520 lb ft @ 1200 RPM 210 hp @ 2200 RPM 520 lb ft @ 1200 RPM 210 hp @ 2200 RPM 605 lb ft @ 1200 RPM 230 hp @ 2200 RPM 660 lb ft @ 1200 RPM 250 hp @ 2200 RPM 660 lb ft @ 1200 RPM 260 hp @ 2200 RPM 700 lb ft @ 1200 RPM MBE 926 (7.2L) 250 hp @ 2200 RPM 800 lb ft @ 1300 RPM 280 hp @ 2200 RPM 800 lb ft @ 1300 RPM 300 hp @ 2200 RPM 860 lb ft @ 1300 RPM 330 hp @ 2200 RPM 1,000 lb ft @ 1300 RPM

More Than Any Other

Engine In Its Class.



The MBE 900's High Torque @ Low RPM Is Ideal For Automatic Transmissions

When you're picking up and dropping off all day long, drivers want to quickly and safely merge with traffic.

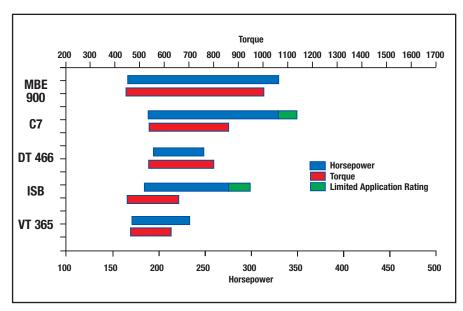
And on hilly terrain, high torque allows you to maintain a safe speed without downshifting.

In dump truck applications drivers appreciate the low end power in on/off highway environments.

Whether you stop and go dozens or hundreds of times a day, getting to speed more quickly:

- Saves Fuel
- **Saves Time**
- **Saves Money**
- And, You Can Make More Stops Too.

The MBE Offers The Highest Torque Of Any Engine In Its Class



High Torque At Low RPM

- Better Driveability
- Fewer Shifts
- Smoother Flow Thru Stop And Go Traffic
- Climb Hills Faster

MBE 900 High Torque At Low RPM ... The Driver's Choice!

Plus All The Features And Benefits You Need

Performance Features

- High torque at low RPM means more usable, productive power with fewer gear shifts.
- The available exhaust brake provides braking horsepower for improved vehicle control and less service brake wear.
- The exhaust brake can be combined with the MBE compression brake to provide the most powerful engine braking available for the most demanding applications.
- Oil pressure and coolant levels are monitored constantly by an on-board computer that signals when items need attention.
- An advanced engine protection system, including standard idle shutdown, helps avoid engine damage.

Fuel Economy And Operating Costs

- Air-to-Air charge cooling, one electronically controlled high pressure injector pump per cylinder and a matched turbocharger optimize combustion for high fuel efficiency.
- Excellent power-to-weight ratio means better vehicle performance and increased payloads.

- Data logging monitors fuel consumption and allows fleet managers to improve profitability.
- Extended routine maintenance schedule minimizes service costs and downtime with a B50 life of 500,000 miles.
- Replaceable intake and exhaust valve seat inserts and guides.

Reliability And Durability

- The cast iron engine block design is optimized for maximum strength and minimum weight.
- Cylinder bores are inductionhardened and piston rings are designed for exceptional durability, long life and low friction for maximum fuel economy.
- The MBE 900 is the most durable medium-duty engine with a B50 life of 500,000 miles.
- Gear driven air compressor for long life and low noise levels.
- Oil Cooling Nozzles Keep Pistons Cooler For Longer Life.
- 5 Main Bearings On The
 4 Cylinder Engine And 7 Main
 Bearings On The 6 Cylinder
 Engine Stabilize The Crankshaft
 For Long Life And Less Vibration.





The oil and fuel filters are positioned upright in front of the engine for ease of service and maintenance.



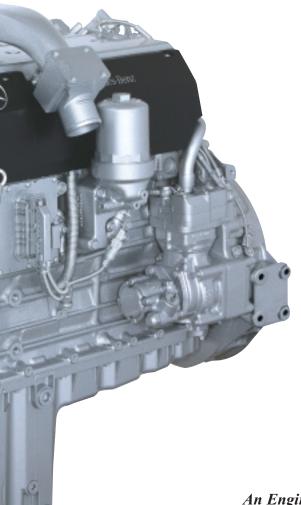
Electronically controlled injection features a unit pump injection system, with injection pressure up to 32,000 psi, for low emissions and excellent fuel economy.



The engine breathes better with three valves per cylinder. A fourth valve is utilized for the optional MBE compression brake.



An integral engine oil cooler keeps lubricant temperatures low, promoting longer bearing and component life. The internal design reduces the risk of oil leaks.



- Hardened Camshaft Allows High Injection Pressures.
- Forged, Hardened Crankshaft For Increased Durability

Driver Satisfaction

- The engine starts quickly without an additional cold start device in temperatures down to +5° F.

 An optional grid heater provides easy starting in extreme temperatures down to −13° F.

 For temperatures below −13° F an optional grid heater with preheating for coolant and lube oil is available.
- Optional cruise control provides driving ease, and optimizes driver control for safe use of the vehicle and reduced fuel consumption.
- Electronically controlled and viscous fans are available to match any application.

- MBE 900 engines idle down to 600 rpm – resulting in improved fuel economy.
- High-torque rise at low rpm is ideal for use with automatic transmissions.

Support When And Where You Need It By Detroit Diesel

- 176 Detroit Diesel distributors and over 600 dealers across North America have factorycertified technicians who know your MBE 900 inside and out.
- 3-year/150,000 mile base warranty for on-highway applications, 5-year/150,000 mile base warranty for fire, RV and rescue, and 5-year/unlimited mile base warranty for school bus applications.

An Engine That Thinks For You

Leading-edge electronics optimize the engine's output, customizing its operating parameters on the fly. High-pressure injection combined with a high output and highly responsive turbocharger virtually eliminate throttle lag and increase fuel economy. The optional MBE compression brake saves brake wear and improves driveability.



Cylinder bores are inductionhardened around the upper piston ring area, and when combined with special coatings on the rings themselves, overall durability is improved.



Forged connecting rods feature a new "precision" separation design of cap and rod for optimum fit and better load carrying capability.



The advanced-design wastegated turbocharger responds to the throttle quickly for rapid acceleration and superb driveability.



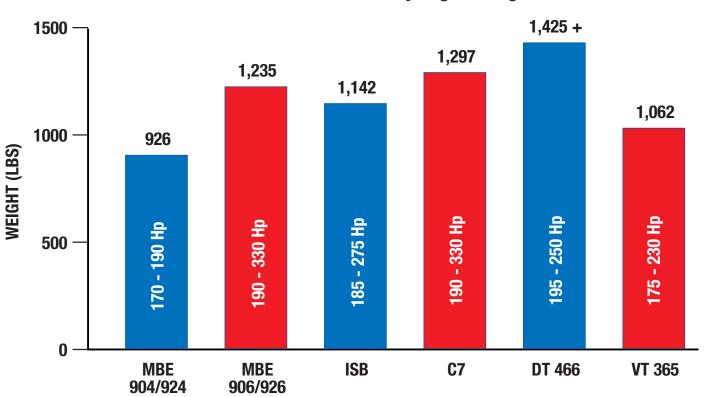
Electronic engine control ensures perfect engine management under all driving conditions and provides for individual adjustments to maintain performance over time.



The gear-driven air compressor uses 50 percent less power, leaving more power for driving and helping to reduce fuel bills.

The MBE 900 Lets You Carry More Payload Because It Offers The Best Power-To-Weight Ratio In The Industry

2004 Medium Duty Engine Weights



Heavy-Duty Technology In A Medium-Duty Engine

Electronics That Drive Your Truck To Profitability

The MBE 900's electronic control system provides the ability to customize the engine to your application for peak efficiency.

The MBE 900 electronic control optimizes fuel injection in real time to maximize fuel economy, performance and emissions. It diagnoses your MBE 900 on the fly, using onboard diagnostics. It even protects the engine from damage by directing system shutdowns to prevent catastrophic failures.

- Sensors signal operations outside of preset engine parameters
- Auto shutdown will prevent engine damage
- Data can be downloaded to fleet managers
- Multiple performance and fuel economy reports are available
- Built-in electronic redundancies for superior reliability

Fully Electronic, Fully Automatic And Fully Reliable, with fewer moving parts than less sophisticated engine management

sophisticated engine management systems

- Self-diagnosing and self-protecting to eliminate guesswork and accidental damage
- Modular components can be replaced easily and inexpensively
- Data collection/sharing enabled for fleet management
- Remote throttle PTO option



What's New In 2004?



ProDriver® DC

ProDriver DC is a dashboard-mounted display that provides instantaneous and summary information on vehicle and engine operation. Real time graphic displays, shown when engine is running, provide driver feedback on idle and driving performance relative to fleet goals. And/or ProDriver DC was designed to assist you in managing your trucks' operations by providing comprehensive data and activity reports that can be used to improve fuel economy, driver performance, driver satisfaction and operating cost.



Diagnostic Link Software

Diagnostic Link is a PC software program to assist maintenance personnel to quickly and accurately troubleshoot, diagnosis and reprogram MBE 900 On-Highway engines. This software contains a powerful trip-reporting program to provide comprehensive view of vehicle operation. DDDL software is a versatile tool, assisting fleet managers to effectively and efficiently run their operations.



ProLink® Reader

The Pro-Link handheld reader is a durable diagnostic tool for maintenance and troubleshooting. It is used in conjunction with the Multi-Protocol Cartridge and the MBE 900 data card to provide information such as a data list, limited parameters and service routines.

Reprogramming Capability
Has Now Been Brought
To The Local Distributor/
Dealer Level

Heavy-Duty Technology In A Medium-Duty Engine

Best In Class Engine Braking

MBE 900 Engines Offer Two Engine Brake Options

- **1** Compression Brake
- 2 Combination Compression/ Exhaust Brake

Up To 215 Braking Horsepower Available



The engine breathes better with three valves per cylinder. A fourth valve is utilized for the optional MBE 900 compression brake.

Why Spec An Engine Brake On The MBE 900?

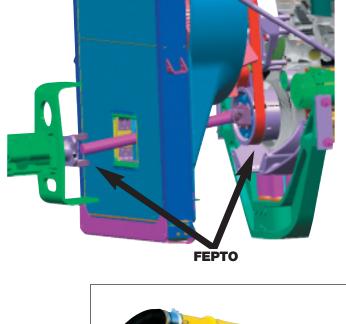
- Extremely Quiet
- Saves Wear And Tear On Service Brakes
- Driver Safety
- Increase Resale Value

The MBE 900 Is Now Available With A Front Engine PTO (FEPTO) Option





Vocational Applications





And...The MBE 900 Is The Fuel Economy Leader



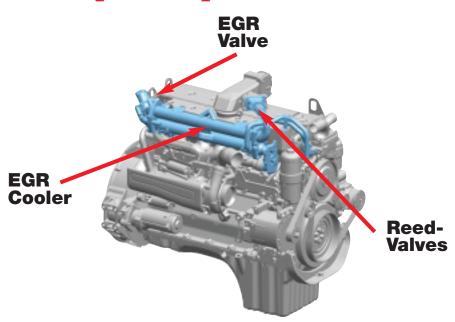


Electronic engine control ensures perfect engine management under all driving conditions and provides for individual adjustments to maintain performance over time.

2004 Emission Compliant With Exhaust Gas Recirculation (EGR)

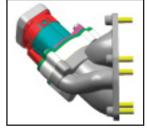
How Does EGR Work?

During certain conditions of engine operation, required amounts of cooled exhaust gas are routed to the intake manifold. The cooled exhaust gas mixes with the incoming fresh air and displaces some of the oxygen. With less oxygen in the air, the peak temperatures created in the combustion chamber are reduced, and the levels of NOx are also reduced. The lower the temperature, the lower the production of NOx.



Two Simple Steps To Control The Flow Of EGR

- 1. Rotary EGR Valve Regulates The Amount
 Of Exhaust Gas To Be Recirculated
- 2. Reed-Valves Allow Exhaust Gas To Mix With Charge Air

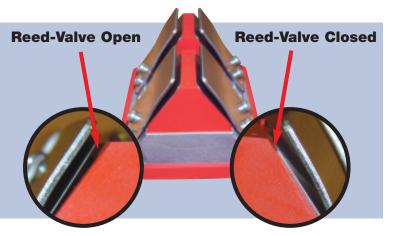


Rotary EGR Valve

How A Reed-Valve Works

The Reed-Valve is a one-way "door" that allows exhaust gas to flow into the intake manifold but prevents air in the intake manifold from flowing back into the exhaust system. Pressure peaks in the exhaust manifold open the Reed-Valves.

Reed-Valves are used on MBE 904, MBE 924 and MBE 926 engines. The MBE 906 does not incorporate Reed-Valves due to its "tuned exhaust".



To Meet 2004 Emission Standards, We Didn't Have To Change The Basic Design Of The Engine

Service So Close You Can Touch It

Whether You Choose To Service It Yourself ...

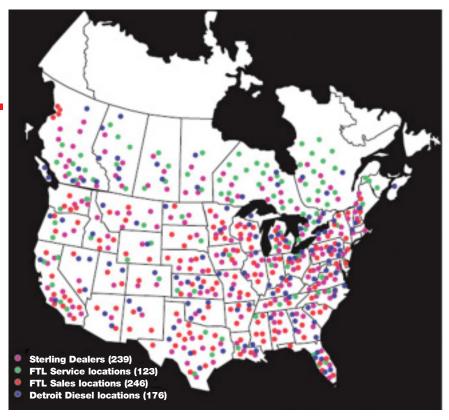


The oil and fuel filters are positioned upright in front of the engine for ease of service and maintenance.

Or Use Our Network Of Trained Professionals ...

It's Simple
To Locate One
Of The 800
Service Outlets.

176 Detroit Diesel distributors and over 600 dealers across North America have factory-certified technicians who know your MBE 900 inside and out. They are backed by the Detroit Diesel parts distribution system and its distributors plus over 600 dealers to assure maximum onhighway uptime for your trucks.



And The MBE 900 Is Backed By An Outstanding Warranty

MBE 900 Warranty

Standard Warranty

■ 3-year, 150,000 Miles

On-Highway

■ 5-year, 150,000 Miles

Fire, RV And Emergency

■ 5-year, Unlimited Miles

School Bus

Extended Coverage Available

- Power Protection Plan "P3" Coverage
- Comprehensive Component Coverage "CCC"

Extended routine maintenance schedule minimizes service costs and downtime.

Why Spec A 2004 MBE 900? You Decide!

The 2004 MBE 900

- The Most Durable Medium-Duty Engine
- The Best Power-to-Weight Ratio
- The Most Torque at Lower RPM
- Best-in-Class Engine Braking
- Superior Fuel Economy
- Low Cost of Operation
- Best Service Support Network in the Industry

The MBE 900 Offers The Best Combination Of Price, Performance, Cost Of Operation, Durability, Driver Satisfaction, Ease Of Service, Proven Technology And Warranty Satisfaction, All In One

Top Ten Reasons To Specify MBE 900 Engines From Detroit Diesel

- Certified to Meet 2004 Emission Standards
- Long Service Intervals for Lube, Fuel and Cooling Systems, Reducing Costs and Downtime
- Produces High Torque at Low RPM for More Usable, Productive Power with Fewer Gearshifts
- Offers Best-in-Class Engine Braking
- Easily Accessible Oil and Fuel Filters for Ease of Service and Maintenance
- Easy to Use Electronic Controls for Engine and Truck Protection, Including Self-Diagnostics for Troubleshooting
- Over 350,000 MBE 900s are Operating Worldwide
- Backed By A Full 3 Year / 150,000 Mile On-Highway Warranty 5 Year / Unlimited Mileage School Bus Warranty 5 Year / 150,000 Mile Fire, RV and Rescue Warranty
- Manufactured By DaimlerChrysler, A Company That Produces Half A Million Commercial Diesel Engines Per Year
- 176 Detroit Diesel Distributor Locations and 600+ Dealers Across North America Who Know Your MBE 900 Inside and Out
- Class-Leading Power-to-Weight Ratio for Excellent Vehicle Performance and Increased Payloads
- Backed By the Legendary Detroit Diesel Parts Support

The MBE 900 Offers The Best Combination Of Price, Performance, Cost Of Operation, Durability, Driver Satisfaction, Ease Of Service, Proven Technology, Warranty Satisfaction And Residual Value

DETROIT DIESEL





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