# TECHNICAL SPECIFICATIONS MBE 4000



## MBE 4000 WITH REAR-MOUNTED POWER TAKE-OFF (REPTO)

The MBE 4000 lightweight, heavy-duty diesel engine maintains performance and fuel economy advantages at current emission levels.

#### **Rear-Mounted PTOs Are Used in Many Applications**

- Concrete mixers
- Vacuum trucks
- Brick and block trucks
- Log haulers equipped with loading cranes
- Other vocational markets

#### The MBE 4000 Provides

- Performance and fuel economy advantages at current emission levels
- Continuous 379 lb-ft torque
- Intermittent 442 lb-ft torque
- Drive ratio of 1.243:1

MBE 4000 REPTO provides power while the vehicle is moving or stationary. The REPTO flange is an integral part of the flywheel housing, receives power through the camshaft gear and does not depend on the transmission to receive its power.

#### **MBE 4000 REPTO Offers Important Advantages to Operators**

- Eliminates front frame or bumper extensions needed to accommodate front-mounted PTOs
- Shortens overall truck length, improving maneuverability
- Operators can spec a longer wheelbase without exceeding bridge laws or other length restrictions, which increases carrying capacity
- Shorter hydraulic lines can be used
- Rear-mounted REPTO eliminates modifications to radiators and radiator supports for front-mounted PTO shaft clearance. Operators can spec a standard radiator without loss of cooling capacity
- The MBE 4000 REPTO uses the original engine mounts so engine length stays the same



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### **MBE 4000 PROGRAMMABLE FUNCTIONS FOR USE WITH POWER TAKE-OFF**

- Adjustable minimum/maximum engine speed
- Adjustable ramp rate
- · Engine torque limiting
- Up to three pre-set engine RPM options
- · Limiting speed governor or variable speed governor
- Throttle pedal override function
- · Vehicle speed limit
- Drop-out for clutch/park or service brake

MBE 4000 Specifications	
Configuration	Inline 6 Cylinder
Displacement	781.12 cu. in. (12.8 L)
Compression Ratio	18:1
Bore	5.04 in. (128 mm)
Stroke	6.54 in. (166 mm)
Weight (Dry)	2270 lb. (1030 kg)
Electronics	DDEC <sup>®</sup> VI

Accessory/Location Flywheel Housing	Drive Ratio	Rotation (as Viewed from Rear of Engine)	Output Yoke	Swing Diameter in. / mm	Capacity in Ib-ft @ 2000 Engine RPM	Maximum Permissible Joint Angle	Comments
Accessory Drive (REPTO) LHS of Engine Facing Rearward-Position	1.243:1	CCW	Spicer 1350	3.75 / 95	Continuous 379 Ib-ft 500 Nm Intermittent 442 Ib-ft 600 Nm	6°	Available Only on SAE#1 Flywheel Housing

Note: A Detroit Diesel torsional coupling (p/n A4602500001) is required in the REPTO driveline Intermittent capacity is defined as 10% time of duty cycle.

Rear Engine Power Take-Off (REPTO) requires prior Detroit Diesel Application Engineering approval.

#### **Maintenance Intervals (Miles)**

Maintenance Item	Severe-Duty	Short-Haul	Long-Haul
Engine Oil and Filter Change	10,000	15,000	30,000
Fuel Filter Change	12,000	30,000	60,000
Valve Lash Adjustment	20,000 first-then 40,000	30,000 first-then 60,000	60,000 first-then 120,000

Severe-Duty: Less than 6,000 annual miles. Short-Haul: 6,000 to 60,000 annual miles. Long-Haul: Over 60,000 annual miles.

#### Standard Warranty<sup>1</sup>

Warranty Limitations (Whichever Occurs First)		Repair Charge to	Repair Charge to be Paid by Owner		
MBE 4000	Months	Miles / Kilometers	Parts	Labor	
Engine	0 - 24	Unlimited	No Charge	No Charge	
Accessories	0 - 24	0 - 100,000 mi. 0 - 160,000 km	No Charge	No Charge	
Upon expiration of the 24-month warranty coverage, but within 500,000 mi. / 800,000 km of use, the warranty continues to apply as follows:					
Major Components <sup>2</sup>	25 - 60	0 - 500,000 mi. 0 - 800,000 km	No Charge	100% of Service Outlet's Normal Charge	

<sup>1</sup> See your Authorized Detroit Diesel service outlet for a copy of the warranty parchment for complete details.

<sup>2</sup> Cylinder block/head, crankshaft, camshaft, main bearing bolts, flywheel housing, connecting rod assemblies, oil cooler housing, water pump housing and air inlet housing



#### For more information, call 1-800-445-1980. www.DetroitDiesel.com

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