## Series 4000-04 Diesel Engines for the Oil & Gas Industry Frac Operation





## Dimensions and Masses

Engine	Dimensions LxWx	Mass, dry kg (lbs)				
12V 4000	2685x1665x1921 (	7500 (16535)				
All dimensions are app	roximate; for complete in	formation refer to the installation drawin	g.			
Engine Model						
Bore/stroke	mm (in)	170/210 (6.7/8.3)				
Cylinder configura	tion	90°V				
Displacement/cylinder I (cu in)		4.77 (291)				
Displacement, total I (cu in)		57.2 (3491)				
Fuel specification*		EN 590, Grade No.1-D/2-D				
* Ultra low sulfur diese	l (<15ppm) required					

Engine Type	Rated Power kW	ICFN bhp	rpm	Peak Torque Nm	lb-ft	rpm
Optimization	2)					
Application	Continuous o	operation (4D)				
12V 4000 T94	1678	2250	1900	8325	6138	1200
12V 4000 T94I	1865	2500	1900	9240	6812	1200

Optimization: ② Exhaust emission EPA 40 CFR 89/Tier 4i



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Applicatio

4D

## Power Definitio

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Continuous operation w/low load

Load factor: < 40%, Operating hours: max. 2000/yr, Overload: Fuel stop (ICFN)

Power output within 5% tolerance at standard conditions. Power definition according to ISO 3046 (ratings also correspond to SAE J 1995 and SAE J 1349 standard conditions) Consult your MTU Detroit Diesel or MTU distributor/dealer for the rating that will apply to your specific application.

Standard Equipment	
Starting System	Hydraulic starter
Fuel System	Common rail injection system, double-walled high pressure fuel lines
Lube Oil System	Multi-stage lube oil filters, closed crankcase breather system
Combustion Air System	Two-stage turbocharging with exhaust gas recirculation (EGR)
Cooling System	HT (JW) and LT (CAC) coolant circuits with separate pumps
Flywheel/Housing	SAE 00 flywheel housing "wet"
Engine Mounting	Front trunnion mount
Electronics and Instrumentation	ADEC engine control and management systems
Optional Equipment	

Starting System	Redundant starting systems (electric, pneumatic, hydraulic)	
Fuel System	Fuel pre-filter with water separators	
Lube Oil System	Lube oil centrifugal oil filters, special oil sump for inclinations up to 25° in all directions	
Combustion Air System	Electrically or pneumatically operated air shutdown flaps	
Coolant System	Coolant connecting parts, front crank PTO for radiator fan drive	
Flywheel/Housing	SAE 00 flywheel housing "dry"	
Accessory Drives	Battery charging alternator 28VDC, auxiliary PTOs for hydraulic pump drives	
Certification	3 <sup>rd</sup> party certification available on request	

Reference conditions:

> Intake-air temperature: 25°C (77°F)

> Ambient air pressure: 1000 mbar (14.5 psi)

> Rated power available up to 40  $^{\circ}$  C (104  $^{\circ}$  F) and 400 m (1312 ft)

Subject to change without notice. Customization possible. Engines illustrated in this document may feature options not fitted as standard. For further information please consult your MTU or MTU Detroit Diesel distributor/dealer.

> Charge air coolant temp.: 45°C (113°F)

> Altitude above sea level: 100 m (328 ft)