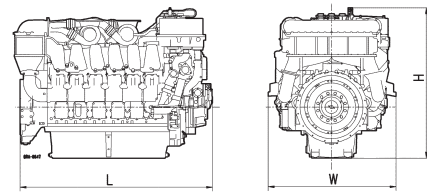
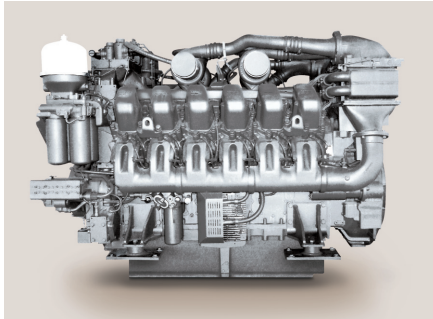


Series 4000

Diesel Engines for the Oil & Gas Industry Well Services - Frac Operation



Dimensions and Masses

| Engine | Dimensions LxWxH mm (in) | Mass, dry kg (lbs) |
|--------------|----------------------------|--------------------|
| 12V 4000 S01 | 2413x1519x1746 (95x60x69) | 6045 (13327) |
| 16V 4000 S01 | 3020x1590x1740 (119x63x69) | 7085 (15620) |
| 12V 4000 S03 | 2490x1449x1870 (98x57x74) | 6155 (13570) |
| 16V 4000 S03 | 2975x1476x1867 (117x58x74) | 7514 (16566) |

All dimensions are approximate; for complete information refer to the installation drawing.

Engine Model

| | | |
|------------------------|-----------|---|
| Bore/stroke | mm (in) | 4000 S01: 165/190 (6.5/7.5), 4000 S03: 170/210 (6.7/8.3) |
| Cylinder configuration | | 90°V |
| Displacement/cylinder | l (cu in) | 4000 S01: 4.06 (248), 4000 S03: 4.77 (291) |
| Displacement, total | l (cu in) | 4000 S01: 48.7 (2972), 4000 S03: 57.2 (3491) |
| Fuel specification | | EN 590, Grade No.1-D/2-D |

| Engine Type | Rated Power ICFN | | | Peak Torque* | | |
|---------------|---------------------------|------|------|---------------------------------|-------|------|
| | kW | bhp | rpm | Nm | lb-ft | rpm |
| Optimization | ⑩ | | | | | |
| Application | Continuous operation (4D) | | | | | |
| 12V 4000 S83 | 1680 | 2253 | 1900 | 10000 | 7376 | 1540 |
| 12V 4000 S83L | 1865 | 2500 | 1900 | 10460 | 7715 | 1560 |
| 16V 4000 S83 | 2237 | 3000 | 1900 | 13333 | 9834 | 1540 |
| Optimization | ☒* | | | | | |
| 16V 4000 S83L | 2461 | 3300 | 1900 | Please consult your distributor | | |
| Optimization | ② | | | | | |
| 12V 4000 S81 | 1678 | 2250 | 1900 | 9339 | 6888 | 1650 |
| 16V 4000 S81 | 2237 | 3000 | 1900 | 12452 | 9184 | 1650 |

Optimization: ② Exhaust emission EPA 40 CFR 89/ Tier 1 compliant
☒* Emission optimized without certification (below Tier 1 level)

⑩ Exhaust emission EPA 40 CFR part 89/Tier 2 compliant
* Alternative torque curves available to meet transmission input limits



Power. Passion. Partnership.

Application

Power Definition

4D 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 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, secondary fuel filters with hand priming pump (Tier 2 only) |
| Lube Oil System | Multi-stage lube oil filters, Closed crankcase breather system (Tier 2 only) |
| Cooling System | Separate HT (JW) and LT (CAC) coolant circuits with separate coolant pumps and thermostats |
| Flywheel/Housing | SAE 00 wet flywheel housing |
| Engine Mounting | Trunnion mount (three-point mounting) |
| Electronics and Instrumentation | DDEC/ADEC engine control and management systems |

Optional Equipment

| | |
|-----------------------|---|
| Lube Oil System | 2 or 4 liter centrifugal oil filters |
| Combustion Air System | Air shut-off flaps (Tier 2 only) |
| Exhaust Gas System | Exhaust gas bellows with companion flanges |
| Coolant System | Coolant connecting parts (weld-on flanges and rotatable elbows), Front crank PTO for radiator fan drive |
| Accessory Drives | 28 VDC battery charging alternator, Auxiliary PTO`s for hydraulic pump drives |

Reference conditions:

> Intake-air temperature: 25°C (77°F)

> Ambient air pressure: 1000 mbar (14.5 psi)

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

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

Subject to change without notice. Customization possible. Engines illustrated in this document may feature options not currently available.