



3516 Industrial Engine

1492 bkW/2000 bhp @ 1800 rpm

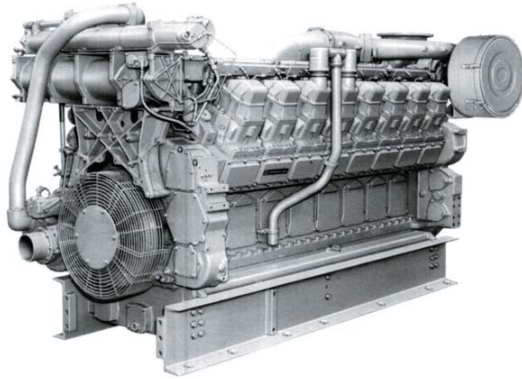


Image shown may not reflect actual engine

CAT® ENGINE SPECIFICATIONS

V-16, 4-Stroke-Cycle Diesel

| | |
|--------------------------------------|------------------------------------|
| Bore..... | 170.0 mm (6.69 in) |
| Stroke..... | 190.0 mm (7.48 in) |
| Displacement..... | 69.06 L (4,214.3 in ³) |
| Aspiration..... | Turbocharged / Aftercooled |
| Compression Ratio..... | 13.0:1 |
| Rotation (from flywheel end)..... | Counterclockwise |
| Capacity for Liquids | |
| Cooling System..... | 233.0 L (61.6 gal) |
| Lube Oil System (refill)..... | 401.3 L (106.0 gal) |
| Engine Weight, Net Dry (approximate) | 7,484 kg (16,499 lb) |

FEATURES

EMISSIONS

Non-certified rating.

SINGLE SOURCE SUPPLIER

Caterpillar:

- Casts engine blocks, heads, cylinder liners, and flywheel housings
- Machines critical components
- Assembles complete engine

Ownership of these manufacturing processes enables Caterpillar to produce high quality, dependable product.

Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities

TESTING

Prototype testing on every model:

- proves computer design
- verifies system torsional stability
- functionality tests every model

Every Caterpillar engine is dynamometer tested under full load to ensure proper engine performance

FULL RANGE OF ATTACHMENTS

Wide range of bolt-on system expansion attachments, factory designed and tested

UNMATCHED PRODUCT SUPPORT OFFERED THROUGH WORLDWIDE CATERPILLAR DEALER NETWORK

More than 1,500 dealer outlets.

Caterpillar factory-trained dealer technicians service every aspect of your industrial engine.

99.7% of parts orders filled within 24 hours worldwide.

Caterpillar parts and labor warranty.

Preventive maintenance agreements available for repair before failure options.

Scheduled Oil Sampling program matches your oil sample against Caterpillar set standards to determine:

- internal engine component condition
- presence of unwanted fluids
- presence of combustion by-products

WEB SITE

For all your industrial power requirements, visit www.cat-industrial.com.



STANDARD ENGINE EQUIPMENT

1492 bkW/2000 bhp @ 1800 rpm

Air Inlet System

Aftercooler core, corrosion resistant coated (air side)
Air cleaner, regular duty with service indicators
Turbochargers, rear mounted

Control System

Governor, RH, 3161 with self contained synthetic oil sump.
Air-fuel ratio control, mechanical speed control, without torque control.
Governor control, positive locking

Cooling System

Thermostats and housing for conventional core radiator
Jacket water pump, gear driven, centrifugal

Exhaust System

Exhaust manifold, dry

Flywheels and Flywheel Housings

Flywheel, SAE No. 00, 183 teeth
Flywheel housing, SAE No. 00

Fuel System

Fuel filter, with service indicators, cartridge type with RH service
Fuel transfer pump

Instrumentation

Instrument Panel, RH
Engine oil pressure gauge
Fuel pressure gauge
Oil filter differential gauge
Jacket water temperature gauge
Service meter, electric
Tachometer

Lube System

Crankcase breather, top mounted
Oil cooler
Oil filler and dipstick, RH
Oil pump
Oil filter, cartridge type with RH service
Shallow oil pan

Mounting System

Rails, mounting, engine length, 254 mm (10 in), industrial-type, C-channel.

Power Take-Offs

Accessory drive, upper RH
Front housing, single sided

Protection System

Junction box
Manual shutoff, RH
Safety shutoff protection, energized to shutdown
Low oil pressure, low idle 69 kPa (10 psi); high idle 207 kPa (30 psi)
Water temperature
Overspeed
3161 governor solenoid energized to shutdown

Starting System

Starting switch

General

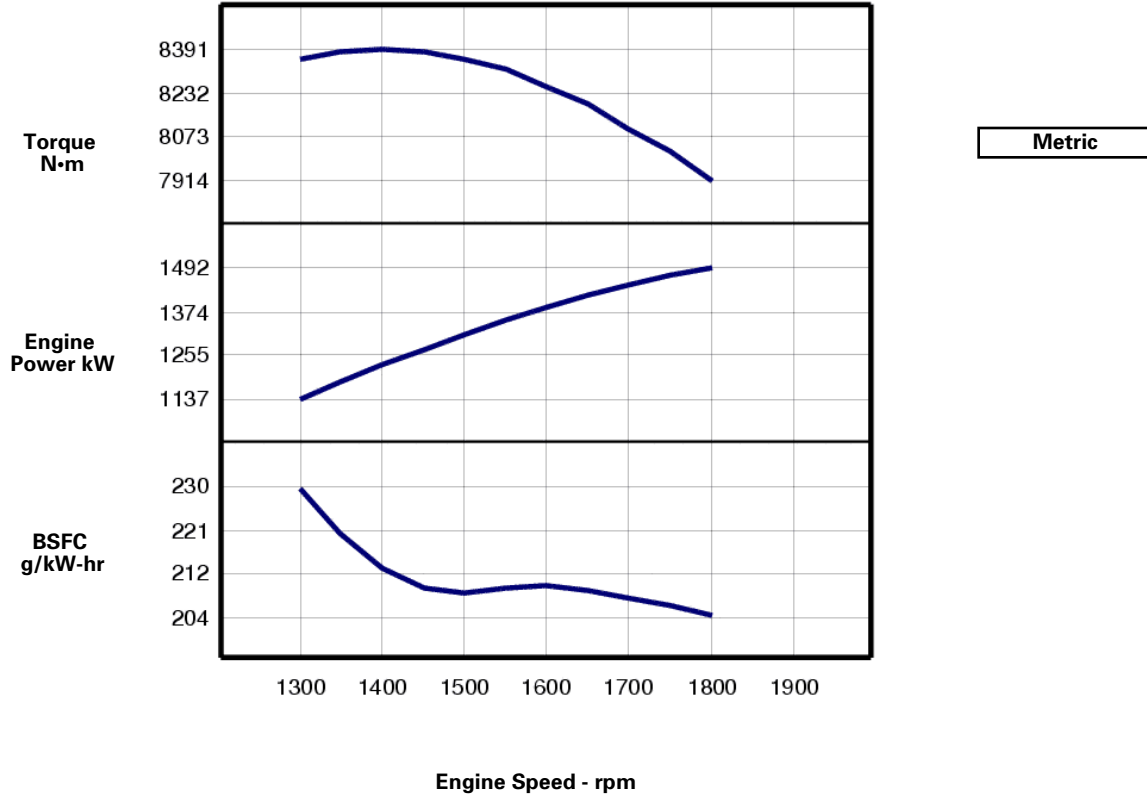
Paint, Caterpillar Yellow,
Vibration damper and guard,
Lifting eyes



PERFORMANCE CURVES

1492 bkW/2000 bhp @ 1800 rpm

IND - C (Intermittent) - TM3382-08



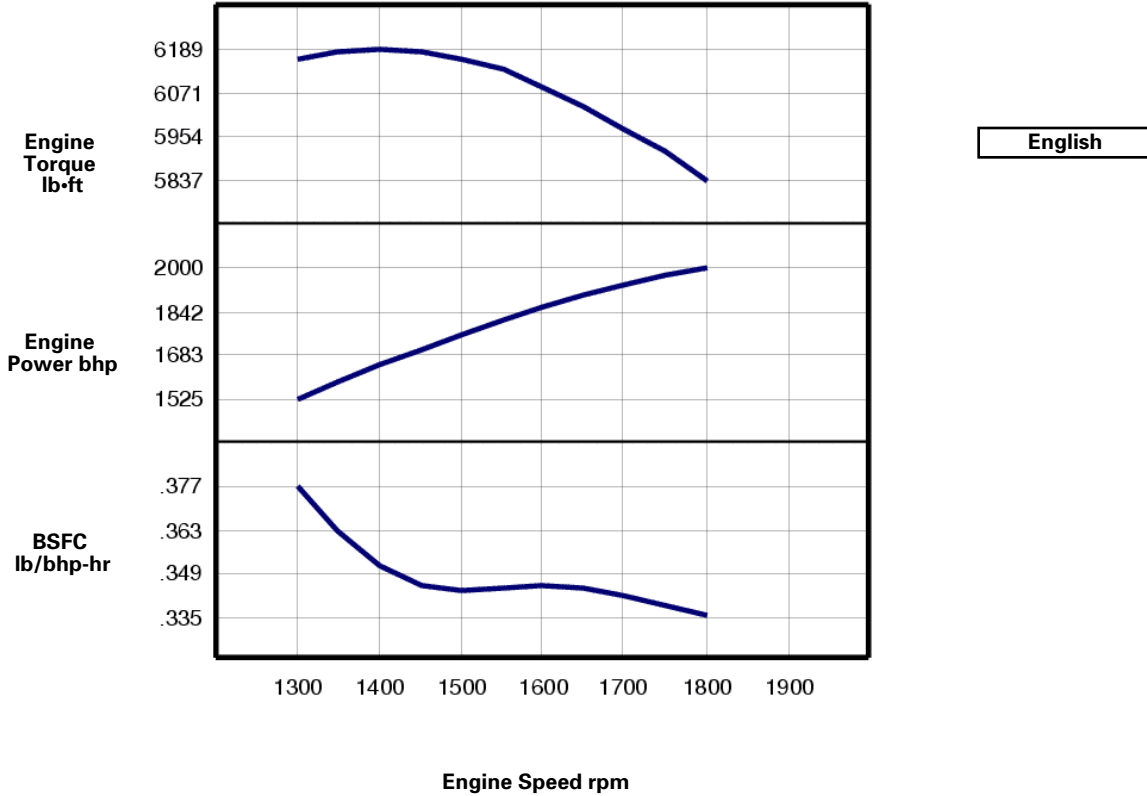
| Engine Speed rpm | Engine Power kW | Torque N·m | BSFC g/kW-hr | Fuel Rate L/hr |
|------------------|-----------------|------------|--------------|----------------|
| 1800 | 1492 | 7914 | 204 | 362.8 |
| 1750 | 1469 | 8017 | 206 | 360.8 |
| 1700 | 1443 | 8106 | 207.9 | 357.7 |
| 1650 | 1415 | 8188 | 209.4 | 353.3 |
| 1600 | 1384 | 8259 | 210 | 346.3 |
| 1550 | 1350 | 8315 | 209.5 | 336.7 |
| 1500 | 1313 | 8358 | 208.9 | 326.8 |
| 1450 | 1273 | 8381 | 209.9 | 318.5 |
| 1400 | 1230 | 8391 | 213.8 | 313.5 |
| 1350 | 1185 | 8381 | 220.5 | 311.2 |
| 1300 | 1137 | 8353 | 229.5 | 311.1 |



PERFORMANCE CURVES

1492 bkW/2000 bhp @ 1800 rpm

IND - C (Intermittent) - TM3382-08



| Engine Speed rpm | Engine Power bhp | Engine Torque lb-ft | BSFC lb/bhp-hr | Fuel Rate gal/hr |
|------------------|------------------|---------------------|----------------|------------------|
| 1800 | 2000 | 5837 | .335 | 95.8 |
| 1750 | 1970 | 5913 | .339 | 95.3 |
| 1700 | 1935 | 5979 | .342 | 94.5 |
| 1650 | 1897 | 6039 | .344 | 93.3 |
| 1600 | 1856 | 6092 | .345 | 91.5 |
| 1550 | 1810 | 6133 | .344 | 88.9 |
| 1500 | 1760 | 6165 | .343 | 86.3 |
| 1450 | 1707 | 6181 | .345 | 84.1 |
| 1400 | 1650 | 6189 | .351 | 82.8 |
| 1350 | 1589 | 6181 | .363 | 82.2 |
| 1300 | 1525 | 6161 | .377 | 82.2 |



RATINGS AND CONDITIONS

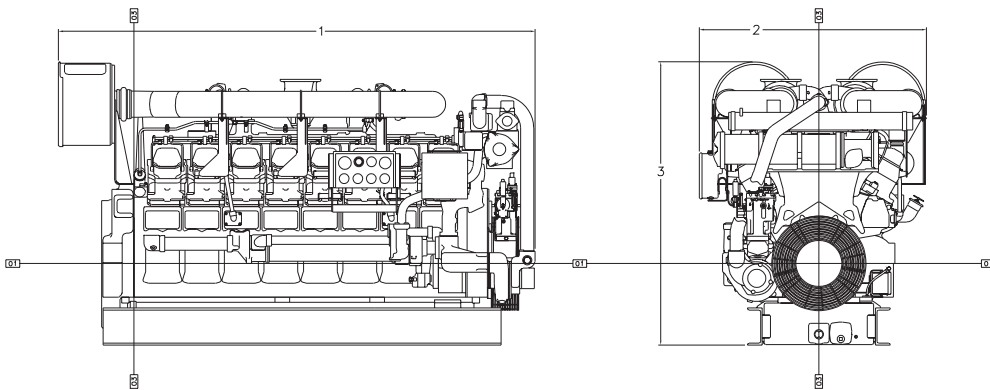
1492 bkW/2000 bhp @ 1800 rpm

IND - C (Intermittent) Intermittent service where maximum power and/or speed are cyclic. The power and speed capability of the engine can be utilized for one uninterrupted hour followed by one hour of operation at or below IND - A. Time at full load is not to exceed 50% of the duty cycle. Typical service examples are: agricultural tractors, harvesters and combines, off highway trucks, fire pump application power, blast hole drills, rock crushers and wood chippers with high torque rise, and oil field hosting.

Engine Performance Engine performance is corrected to inlet air standard conditions of 99 KPA (29.31 IN HG) dry barometer and 25 deg C (77 deg F) temperature. These values correspond to the standard atmospheric pressure and temperature as shown in SAE J1995.

Performance measured using a standard fuel with fuel gravity of 35 degrees API having a lower heating value of 42,780 KJ/KG (18,390 BTU/LB) when used at 29 DEG (84.2 DEG F) where the density is 838.9 G/L (7.001 LB/US GAL).

The corrected performance values shown for Caterpillar engines will approximate the values obtained when the observed performance data is corrected to SAE J1995, ISO 3046-2 and 8665 and 2288 and 9249 and 1585, EEC 80/1269 and DIN 70020 standard reference conditions.



| Engine Dimensions | |
|-------------------|-----------------------|
| (1) Length | 3365.8 mm (132.51 in) |
| (2) Width | 1703.0 mm (67.05 in) |
| (3) Height | 1719.6 mm (67.7 in) |

Note: Do not use for installation design. See general dimension drawings for detail (Drawing # 1729243).

Performance Number: TM3382-08

Feature Code: 516DI01 Arr. Number: 4W0284

Materials and specifications are subject to change without notice.
16304903

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