

The Cat® 3516 Industrial Diesel Engine is offered in ratings ranging from 1011-1492 kW (1355-2000 bhp) @ 1200-1800 rpm. These ratings are non-certified and are available for global non-regulated areas. Industries and applications powered by 3516 engines include Bore/Drill Rigs, Chippers/Grinders, Construction, Cranes, Dredgers, Forestry, General Industrial, Material Handling, Mining, Mobile Earthmoving Equipment, Pumps, Shovels/Draglines, Surface Hauling Equipment and Trenchers.

Specifications

| Power Rating | | |
|---------------|---------------|----------|
| Minimum Power | 1011 kW | 1355 bhp |
| Maximum Power | 1492 kW | 2000 bhp |
| Rated Speed | 1200-1800 rpm | |

| Emission Standards | |
|--------------------|---------------|
| Emissions | Non-certified |

| General | |
|------------------------------|------------------------------|
| Engine Configuration | V-16, 4-Stroke-Cycle Diesel |
| Bore | 170 mm (6.7 in) |
| Stroke | 190 mm (7.5 in) |
| Displacement | 69 L (4210 in ³) |
| Aspiration | Turbocharged Aftercooled |
| Compression Ratio | 13.0:1 |
| Rotation (from flywheel end) | Counterclockwise |
| Lube System (refill) | 401.3 l (424 qt) |

| Engine Dimensions (Approximate. Final dimensions dependent on selected options) | |
|---|---------------------|
| Length | 3366 mm (133 in) |
| Width | 1703 mm (67 in) |
| Height | 1720 mm (68 in) |
| Weight, Net Dry (Basic Operating Engine Without Optional Attachments) | 7484 kg (16,499 lb) |

Benefits and Features

Emissions

SS-7157028-18397893-012

Non-certified rating. Available for global non-regulated areas.

Reliable, Quiet and Durable Power

World-class manufacturing capability and processes coupled with proven core engine designs assure reliability, quiet operation, and many hours of productive life.

Fuel Efficiency

Fuel consumption optimized to match operating cycles of a wide range of equipment and applications while maintaining low operating costs.

Quality

Every Cat engine is manufactured to stringent quality standards in order to assure customer satisfaction.

World-class Product Support Offered Through Global Cat Dealer Network

- Scheduled maintenance, including SOSSM sample
- Customer Support Agreements (CSA)
- Caterpillar Extended Service Coverage (ESC)
- Superior dealer service network
- Extended dealer service network through the Cat Industrial Service Distributor (ISD) program

Standard Equipment

Air Inlet System

- Aftercooler core, corrosion resistant coated (air side)
- Air cleaner. Regular duty, dry, panel type with service indicators, turbocharger, jacket water aftercooled.
- Turbocharger, rear mounted
- Jacket water aftercooled

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
- Jacket water pump, centrifugal

Exhaust System

- Exhaust manifold, dry

Flywheels and Flywheel Housing

- SAE No. 00 flywheel
- 183 flywheel teeth
- SAE No. 00 flywheel housing

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
- Oil dipstick
- 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 Off

- 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

- Vibration damper
- Lifting eyes
- Paint: Caterpillar yellow, with optional colors available at request



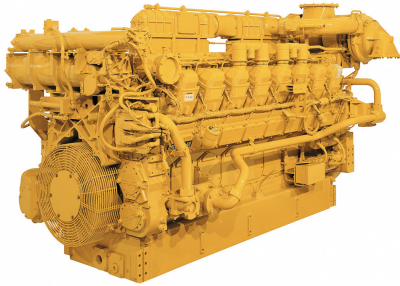
The International System of Units (SI) is used in this publication. CAT, CATERPILLAR, their respective logos, ADEM, EUI, S-O-S, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

3516

1492 bkW (2000 bhp) @ 1800 rpm

Rating Type: IND-C (INTERMITTENT) RATING

Emissions: Non-certified Emission Standards



3516

DITA

1492 bkW (2000 bhp) @ 1800 rpm

Image shown may not reflect actual configuration

Metric

English

| General Engine | | |
|-----------------------|----------|---------------|
| Power Rating | 1492 kW | 2000 hp |
| Number of Cylinders | 16 | |
| Bore | 170 mm | 6.7 in |
| Stroke | 190 mm | 7.5 in |
| Displacement | 69.0 L | 4211.0 cu in. |
| Compression Ratio | 13.0 : 1 | |

RATING DEFINITIONS AND CONDITIONS

IND-C (INTERMITTENT) RATING: Intermittent service where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

Diesel Engines — up to 7.1 liter All rating conditions are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in Hg), with a vapor pressure of 1 kPa (.295 in Hg), and 25°C (77°F). Performance measured using fuel to EPA specifications in 40 CFR Part 1065 and EU specifications in Directive 97/68/EC with a density of 0.845-0.850 kg/L @ 15°C (59°F) and fuel inlet temperature 40°C (104°F).

Diesel Engines — greater than 7.1 liter All rating conditions are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42,780 kJ/kg (18,390 btu/lb) when used at 29°C (84.2°F) with a density of 838.9 g/L.

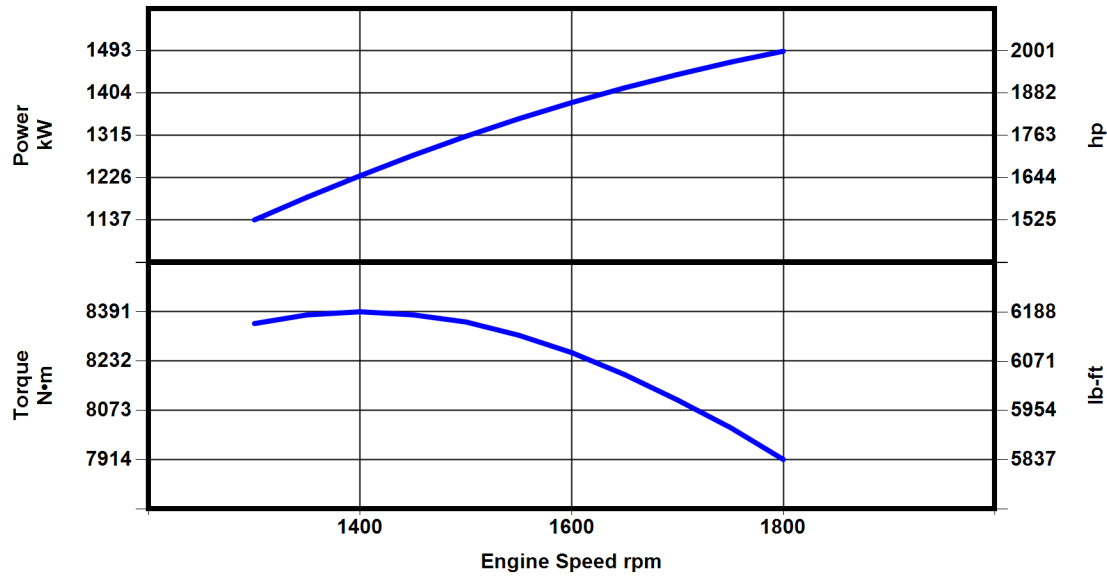


3516

1492 bkW (2000 bhp) @ 1800 rpm

Rating Type: IND-C (INTERMITTENT) RATING

Emissions: Non-certified Emission Standards



| Engine Speed rpm | Engine Power bkW | Engine Power bhp | Torque N*m | Torque lb-ft |
|------------------|------------------|------------------|------------|--------------|
| 1800 | 1492 | 2000 | 7914 | 5837 |
| 1750 | 1469 | 1970 | 8017 | 5913 |
| 1700 | 1443 | 1935 | 8106 | 5979 |
| 1650 | 1415 | 1897 | 8188 | 6039 |
| 1600 | 1384 | 1856 | 8259 | 6092 |
| 1550 | 1350 | 1810 | 8315 | 6133 |
| 1500 | 1313 | 1760 | 8358 | 6165 |
| 1450 | 1273 | 1707 | 8381 | 6182 |
| 1400 | 1230 | 1650 | 8391 | 6189 |
| 1350 | 1185 | 1589 | 8381 | 6182 |
| 1300 | 1137 | 1525 | 8353 | 6161 |

The International System of Units (SI) is used in this publication. CAT, CATERPILLAR, their respective logos, ADEM, EUI, S-O-S, "Caterpillar Yellow" and the "Power Edge" trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.