

The Cat® 3512 Industrial Diesel Engine is offered in ratings ranging from 761-1119 kW (1020-1500 bhp) @ 1200-1800 rpm. These ratings are non-certified and available for global non-regulated areas. Industries and applications powered by 3512 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	761 kW	1020 bhp
Maximum Power	1119 kW	1500 bhp
Rated Speed	1200-1800 rpm	

Emission Standards	
Emissions	Non-certified

General	
Engine Configuration	V-12, 4-Stroke-Cycle Diesel
Bore	170 mm (6.7 in)
Stroke	190 mm (7.5 in)
Displacement	51.8 L (3161 in ³)
Aspiration	Turbocharged Aftercooled
Compression Ratio	13.0:1
Rotation (from flywheel end)	Counterclockwise
Lube System (refill)	310.4 l (327.9 qt)

Engine Dimensions (Approximate. Final dimensions dependent on selected options)	
Length	2676 mm (105 in)
Width	1703 mm (67 in)
Height	1720 mm (68 in)
Weight, Net Dry (Basic Operating Engine Without Optional Attachments)	6078 kg (13,400 lb)

Benefits and Features

Emissions

SS-8938177-18397814-012

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
- Fumes disposal (not installed)

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.

3512

761 kW (1021 bhp) @ 1200 rpm

Rating Type: IND-A (CONTINUOUS) RATING

Emissions: Non-certified Emission Standards

3512

DITA

761 kW (1021 bhp) @ 1200 rpm

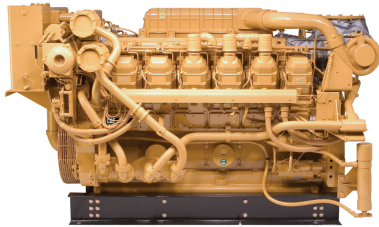


Image shown may not reflect actual configuration

Metric English

General Engine		
Power Rating	761 kW	1021 hp
Number of Cylinders	12	
Bore	170 mm	6.7 in
Stroke	190 mm	7.5 in
Displacement	51.8 L	3161.0 cu in.
Compression Ratio	13.0 : 1	

RATING DEFINITIONS AND CONDITIONS

IND-A (CONTINUOUS) RATING: Continuous heavy duty service where the engine is operated at maximum power and speed up to 100% of the time without interruption or load cycling.

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.

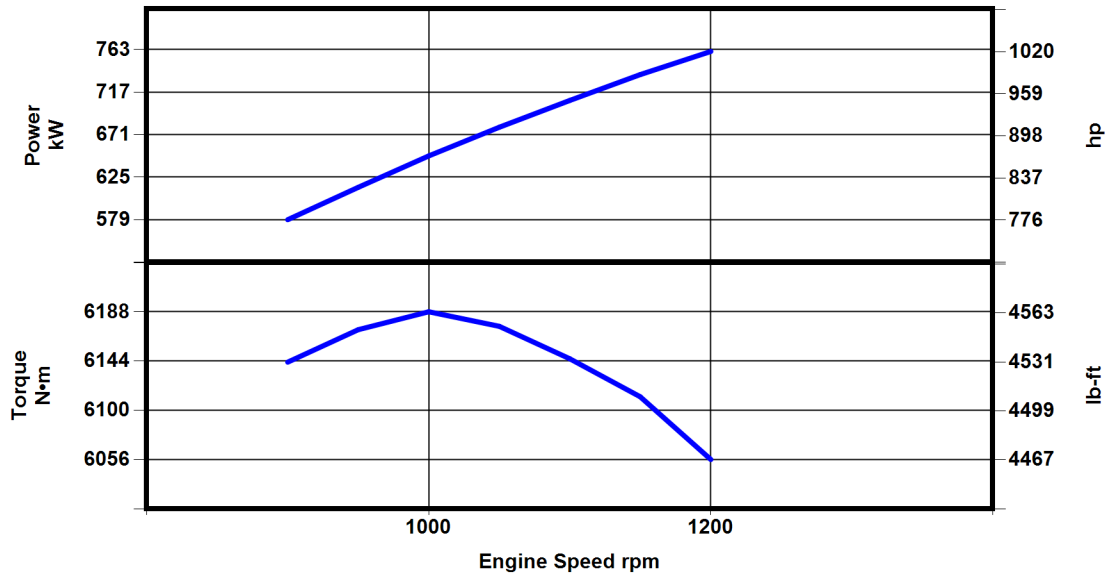


3512

761 bkW (1021 bhp) @ 1200 rpm

Rating Type: IND-A (CONTINUOUS) RATING

Emissions: Non-certified Emission Standards



Engine Speed rpm	Engine Power bkW	Engine Power bhp	Torque N*m	Torque lb-ft
1200	761	1021	6056	4467
1150	736	987	6112	4508
1100	708	949	6146	4533
1050	679	911	6175	4555
1000	648	869	6188	4564
950	614	823	6172	4552
900	579	776	6143	4531

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