



Cat 3516 engines set the standard in the drilling industry. For many years the 3500 has been the preferred choice by drillers due to their high performance, durability, and reliability in the oilfield. The ideal application for the 3512 engine is mechanical drive for land drilling rigs. 3516 engines, with ratings: 1230 bkW (1649 bhp) @ 1200 rpm. Not emissions certified, available for non-regulated areas.

## Specifications

| Engine Specifications         |                          |                      |
|-------------------------------|--------------------------|----------------------|
| Minimum Rating                | 1230 bkW                 | 1649 BHP             |
| Maximum Rating                | 1230 bkW                 | 1649 BHP             |
| Emissions                     | Non-certified            |                      |
| Rated Speed                   | 1200 r/min               | 1200 r/min           |
| Bore                          | 170 mm                   | 6.69 in              |
| Stroke                        | 190 mm                   | 7.48 in              |
| Displacement                  | 69 l                     | 4210 in <sup>3</sup> |
| Aspiration                    | Turbocharged-Aftercooled |                      |
| Governor and Protection       | W3161                    |                      |
| Engine Weight - Net Dry       | 8659 kg                  | 19090 lb             |
| Oil Change Interval           | 500                      |                      |
| Rotation from Flywheel End    | Counterclockwise         |                      |
| Flywheel and Flywheel Housing | SAE No. 00               |                      |
| Flywheel Teeth                | 183                      |                      |

## Capacity for Liquids

|                                      |       |               |
|--------------------------------------|-------|---------------|
| Minimum Cooling System - Engine Only | 233 l | 61.5 gal (US) |
|--------------------------------------|-------|---------------|

## Dimensions

|        |         |         |
|--------|---------|---------|
| Length | 3251 mm | 128 in  |
| Width  | 1701 mm | 67 in   |
| Height | 2004 mm | 78.9 in |

## Benefits and Features

### Product Design

Developed specifically to meet the demands of oil and gas applications- Proven reliability and durability- Robust diesel strength design prolongs life and lowers owning and operating costs- Market-leading power density- Designed to perform in oilfield conditions, including high ambient and high altitude applications- Long overhaul life proven in oilfield applications- Core engine components designed for reconditioning and reuse at overhaul

### **Ease of Installation**

Inner-outer base mounting configuration simplifies rig integration- Wide range of attachments enable configuration flexibility- Inner base three-point generator mounting maintains factory alignment- Single lifting point simplifies installation work

### **Engine Control and Protection**

Woodward 3161 governor- E-stop pushbutton on instrument panel - Air shutoff and explosion relief valves available - Extra alarms, inputs, and outputs available

### **Custom Packaging**

For any petroleum application, trust Caterpillar to meet your project needs with custom factory generator sets and mechanical packages. Cat engines, generators, controls, radiators, and transmissions can be custom designed and matched in collaboration with our local dealers to create unique solutions. Custom packages are globally supported and are covered by a one year warranty after startup.

### **Testing**

Every Cat generator set is full-load tested to ensure proper engine performance.- Generator sets are assembled, tested, and validated as a package to ensure performance, reliability and durability.

### **Product Support Offered Through Global Cat Dealer Network**

More than 2,200 dealer outlets- Cat factory-trained dealer technicians service every aspect of your Cat petroleum product- Worldwide parts availability, service, and warranty- Preventive maintenance agreements available for repair before-failure options- S•O•SSM program matches your oil and coolant samples against Caterpillar set standards to determine:• Internal engine component condition• Presence of unwanted fluids• Presence of combustion by-products• Site-specific oil change interval

### **Over 80 Years of Engine Manufacturing Experience**

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

### **Web Site**

For all your petroleum power requirements, visit [www.catoilandgasinfo.com](http://www.catoilandgasinfo.com).

## **Standard Equipment**

### **Air Inlet System**

- Corrosion-resistant aftercooler core
- Regular duty air cleaner
- Service indicator

### **Control System**

- Governor, Woodward 3161 – RH
- Pneumatic control
- Governor control - positive locking

### **Cooling System**

- Thermostats and housing (dual outlet)
- Jacket water pump, gear driven

### **Exhaust System**

- Dry exhaust manifold

- Exhaust flexible fitting, adapters, and flanges

### **Flywheel and Housing**

- SAE No. 00 flywheel
- SAE No. 00 flywheel housing
- SAE standard rotation

### **Fuel System**

- Fuel filter
- Fuel transfer pump
- Flexible fuel lines
- Fuel priming pump

### **Instrumentation**

- Analog instrument gauges:

### **Lubrication System**

- Crankcase breather
- Oil cooler
- Oil filter
- Shallow oil pan
- Oil drain extension, 2 in NPT female connection

### **Mounting System**

- Rails, mounting, floor type

### **Power take-offs**

- Accessory drive
- Front housing, two-sided

### **Protection System**

- Manual shutoff control, LH
- Junction box
- Safety shutoff protection, energized to shutdown

### **Starting System**

- Air starting motor
- Air silencer

### **General**

- Paint - Cat yellow
- Vibration damper and guard
- Lifting eyes

## **Optional Equipment**

### **Air Inlet System**

- Heavy duty air cleaner

- Remote air inlet adapters

### **Control System**

- Load sharing governor, 2301A
- Load sharing module
- Governor conversion to 0-200 mA direct rack control
- Local speed throttle control
- Throttle position sensors

### **Cooling System**

- High gloss black folded core radiators and conventional core radiators
- Belt guard
- Blower fan
- Fan drive and fan pulley
- Radiator cover
- Water level switch gauge
- Air separator
- Coolant level sensors
- Connections

### **Exhaust System**

- Exhaust elbows
- Exhaust mufflers

### **Fuel System**

- Primary fuel filter

### **Generator and Attachments**

- Low voltage extension box
- Potential and current transformers
- Air filter
- Cable access box
- Bearing RTDs

### **Instrumentation**

- Customer management device
- Gauges and instrumentation panels
- Switches and contactors

### **Lubrication System**

- Crankcase fumes disposal
- Oil pan accessories

### **Power Take-off**

- Crankshaft pulley
- Front stub shaft



- Charging alternator
- Air compressor

### Protection System

- Explosion relief valves (3)
- Shutoffs
- Switches and contactors

### Starting System

- Manual air starter
- Air pressure regulator

### General

- Flywheel guard

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