



Cat 3500 offshore generator sets are specifically designed for drilling and production operations offshore. Decades of experience powering offshore vessels and platforms make have evolved into a product that offers proven performance, low emissions, high durability, and low owning and operating costs. Applications for 3500 offshore generator sets include main power, essential services power, and emergency power on-board drilling and production rigs and vessels. Cat generator sets are backed by the worldwide network of Cat dealers ready to support your operation with technical support, service, parts, and warranty. Cat 3512C offshore generator set. Ratings: 1030-1360 ekW (1470-1700 kVA) @ 60 Hz (1200/1800 rpm). Meets IMO Tier II emission standards.

# **Specifications**

Engine Specifications		
Minimum Rating	1030 ekW	1470 kV·A
Maximum Rating	1360 ekW	1700 kV·A
Emissions		EPA Tier 2, IMO II
Engine Control		ADEM A3
Fuel System	EUI	
Aspiration	Turbocharged-Aftercooled	
Stroke	190 mm	7.5 in
Oil Change Interval	500 h	500 h
Displacement	51.81	3161 in <sup>3</sup>
Bore	170 mm	6.7 in
Weight	14975 kg	33300 lb

Dimensions			
Length	5448 mm	214.5 in	
Width	1825 mm	71.9 in	
Height	2313 mm	91 in	

Capacity for Liquids		
Lube Oil System - Refill	318	84 gal (US)
Cooling System - Engine	157	41.5 gal (US)

# **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

# **Advanced Digital Engine Management**

ADEM A3 engine management system provided engine control, monitoring, and protection.

## Safety

E-stop pushbutton on instrument panel - Air shutoff and explosion relief valves available - Configurable alarm, derate, and shutdown set points - 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.

## Product Support Offered Through the Global Cat Dealer Network

More than 2,200 dealer outlets- Cat factory-trained dealer technicians service everyaspect of your Cat petroleum product- Worldwide parts availability, service, and warranty- Preventive maintenance agreements available for repairbefore-failure options- S•O•SSM program matches your oil and coolant samplesagainst 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 enablesCaterpillar to produce high quality, dependable products.

## Web Site

For all your petroleum power requirements, visit www.catoilandgasinfo.com.

# Standard Equipment

### **AIR INLET SYSTEM**

Corrosion resistant separate circuit aftercooler core, regular dutyair cleaners, dual turbochargers

## **CONTROL SYSTEM**

· Caterpillar A-III electronic engine control, Electronic UnitInjection fuel system, rigid wiring harness

# **COOLING SYSTEM**

• Auxiliary fresh water pump, centrifugal non-self-priming auxiliarysea water pump, gear driven centrifugal jacket water pump, expansion tank, engine oil cooler, thermostats and housing

# **EXHAUST SYSTEM**

 Dry gas-tight exhaust manifolds with heat shields, dualturbochargers with water-cooled bearings and heat shields, vertical exhaust outlet

## FLYWHEELS & FLYWHEEL HOUSINGS

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

## **FUEL SYSTEM**

- · Fuel filter, RH, with service indicators
- · Fuel transfer pump
- Electronically Controlled Unit Injectors

# INSTRUMENTATION



• Engine mounted instrument panel with four position switch, overspeed shutdown notification light, emergency stop notificationlight, graphical display unit for analog or digital display of: oil andfuel pressure, oil and fuel filter differential, system DC voltage, exhaust and water temperature, air inlet restriction, servicemeter, engine speed, fuel consumption (total and instantaneous)

## **LUBE SYSTEM**

• Top mounted crankcase breather, RH oil filter, RH oil filler, gear type oil pump, deep sump oil pan, recommended use of Caterpillar Diesel Engine Oil 10W30 or 15W40

## MOUNTING SYSTEM

• Industrial type engine mounting rails)

# **POWER TAKE-OFFS**

· Accessory driveLower RH, Lower LHFront housing, Two-sided

### PROTECTION SYSTEM

- A-III Electronic Monitoring System provides customer programmableengine de-ration strategies to protect against adverse operatingconditions
- Emergency stop push button (located in Electronic Instrument Panel)Safety shutoff protection for oil pressure and water temperature, overspeed protection

#### **GENERAL**

· Vibration damper and guardPaint, Caterpillar Yellow engine with black rails.Lifting eyes

# **Optional Equipment**

## **AIR INLET SYSTEM**

- Air Cleaner Removal
- Remote Air Inlet Adapters

# **CHARGING SYSTEM**

- Battery Chargers
- Charging Alternators

## **CONTROL SYSTEM**

- · Load Sharing module
- Local speed throttle control

# **COOLING SYSTEM**

- Water level switch gauge
- · Coolant level sensors
- Connections
- Keel Cooling Conversions
- · Radiator cooling conversion
- · Heat exchangers
- · Auxiliary water pumps
- · Sea water pump removal
- · Air separator

# **EXHAUST SYSTEM**

Exhaust outlet

# 3512C Offshore Generator Set Oil & Gas



- Flexible fittings
- Elbows
- Flanges
- Flange and exhaust expanders
- Mufflers

# **FUEL SYSTEM**

- Fuel Cooler
- Fuel priming pumps
- Flexible fuel lines
- Rigid Fuel Lines
- · Primary fuel filter
- Fuel level switch

## **GENERATORS AND GENERATOR ATTACHMENTS**

- INSTALLED GENERATOR ARRANGEMENTS F/MAR AUX ENGINES
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# **INSTRUMENTATION**

- PL1000T Communication Module
- PL1000E Communication Module
- Customer Interface Box
- Thermocouples
- Remote panel display
- · Remote cylinder temperature display

## **LUBE SYSTEM**

- Oil Pan
- Oil pan accessories
- Sump pumps
- Prelubrication Options
- · Lubricating oil
- Centrifugal Oil Filter

## **MOUNTING SYSTEM**

- Vibration isolators
- Rails

# **POWER TAKE-OFFS**

- Flywheel guard
- Flexible coupling
- · Coupling hub
- Front housing accessories
- · Upper left hand front location

# 3512C Offshore Generator Set Oil & Gas



- · Upper left hand rear location
- Upper right hand front location:
- · Upper right hand rear location
- · Lower left hand front location
- · Front housing accessory drives
- Front power take-offs
- · Crankshaft pulleys
- · Damper guard removals

# **PROTECTION SYSTEM**

- · Air inlet shutoffs
- · Switches and contactors
- · Explosion relief valve
- Sensors

# **SPARE PART KITS**

• Engine Parts Kits

# STARTING SYSTEM

- · Starting motors or barring divice
- · Air starting motors options
- · Starting aids
- Battery sets 24 volt Dry
- · Battery rack

# **GENERAL**

- Tool set
- · Caterpillar datalink wire

# SVCE TOOLS/SHIP PROT/FACTORY SUPPORT

Commissioning

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.