



G3600 A4 engines provide a wide range of power options to fit your gas compression application. G3600 A4 engines bring the highest uptime in the industry and long operating intervals between overhaul. Operators that use G3600 A4 engines in their fleet enjoy virtually no unscheduled downtime, the right power for their application, the lowest operating costs, and emissions compliance. Ideal applications for G3600 A4 engines include centralized gathering stations, gas processing, transmissions, and storage applications. Cat G3616 A4 gas engine with ratings: 3729-3990 bkW (5000-5350 bhp) @ 1000 rpm. NSPS site compliant capable.

# **Specifications**

3729 bkW	5000 bhp
3990 bkW	5350 bhp
ı	NSPS Site Compliant Capable
339 L	20698 in3
	9.2:1
Turbocharged-Aftercooled	
Counterclockwise	
	255
32659 kg	72000 lb
	5000 hours
Electronic, ADEM™ A4	
300 mm	11.8 in
300 mm	11.8 in

Capacity for Liquids		
Cooling System	798 L	211 gal
Lube Oil System (refill)	1329 L	351 gal

### **Benefits and Features**

### **Engine Design**

Proven reliability and durability - Ability to burn a wide spectrum of gaseous fuels - Robust diesel strength design prolongs life and lowers owning and operating costs - Broad operating speed range

#### **Emissions**

Meets U.S. EPA Spark Ignited Stationary NSPS Emissions for 2010/11 with the use of an oxidation catalyst

# Lean Burn Engine Technology



Lean-burn engines operate with large amounts of excess air. The excess air absorbs heat during combustion reducing the combustion temperature and pressure, greatly reducing levels of NOx. Lean-burn design also provides longer component life and excellent fuel consumption

### **Ease of Operation**

High-strength pan and rails for excellent mounting and stability - Side covers on block allow for inspection of internal components

### **Advanced Digital Engine Management**

ADEM A3 engine management system integrates speed control, air/fuel ratio control, and ignition/detonation controls into a complete engine management system. ADEM A3 has improved: user interface, display system, shutdown controls, and system diagnostics.

# **Full Range of Attachments**

Large variety of factory-installed engine attachments reduces packaging time.

### **Testing**

Every engine is full-load tested to ensure proper engine performance

### Gas Engine Rating Pro

GERP is a PC-based program designed to provide site performance capabilities for Cat® natural gas engines for the gas compression industry. GERP provides engine data for your site's altitude, ambient temperature, fuel, engine coolant heat rejection, performance data, installation drawings, spec sheets, and pump curves.

# Product Support Offered Through Global Cat Dealer

More than 2,200 dealer outlets Cat factory-trained dealer technicians service every aspect of your petroleum engine Cat parts and labor warranty Preventive maintenance agreements available for repairbefore-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

Over 60 years of natural gas engine production Ownership of these manufacturing processes enables Caterpillar to produce high quality, dependable products - Cast engine blocks, heads, cylinder liners, and flywheel housings - Machine critical components - Assemble complete engine

#### Web Site

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

# Standard Equipment

#### Air Inlet System

- Air cleaner standard duty
- · Inlet air adapter

### **Control System**

• A4 control system — provides electronic governing integrated with air/fuel ratio control and individual cylinder ignition timing control

#### **Cooling System**

- Jacket water pump
- · Jacket water thermostats and housing
- Aftercooler pump



- · Aftercooler water thermostats and housing
- Single-stage aftercooler

### **Exhaust System**

- Dry wrapped exhaust manifolds
- Vertical outlet adapter

### Flywheel & Flywheel Housing

· SAE standard rotation

#### **Fuel System**

• Gas supply and and shut-off valves — electronically controlled fuel supply pressure

### **Ignition System**

A4 control system — senses individual cylinder detonation and controls individual cylinder timing

#### Instrumentation

• LCD display panel — monitors engine parameters and displays diagnostic codes

### **Lube System**

- Crankcase breathers top mounted
- · Oil cooler
- · Oil filter
- · Oil pan drain valve

# **Mounting System**

• Engine mounting feet (six total)

### **Protection System**

- Electronic shutoff system with purge cycle
- Crankcase explosion relief valves
- · Gas shutoff valve

### Starting System

Air starting system

### General

- Paint Cat yellow
- Vibration dampers

# **Optional Equipment**

### Air Inlet System

· Heavy-duty air cleaner with precleaners

### **Charging System**

• 35 Amp & 65 Amp charging alternators - CSA approved

### **Exhaust System**

- · Flexible bellows adapters
- Exhaust expander

# G3616 A4 Gas Compression Engine

### Oil & Gas



Weld flanges

# **Fuel System**

- Fuel filter
- Gas pressure regulator
- Flexible connection
- Flexible connection

#### Instrumentation

- · Remote data monitoring and speed control
- Compatible with Cat Electronic Technician (ET) and Data View
- · LCD display panel
- · Color HMI display
- · Modbus and Ethernet capable

# **Lube System**

- Air or electric motor-driven prelube
- · Duplex oil filter

# **Mounting System**

• Mounting plates (set of six)

# **Power Take-Offs**

· Front stub shafts

# **Starting System**

- · Air pressure reducing valve
- Natural gas starting system

### General

- · Engine barring device
- · Damper guard

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