

Shown with
Optional Equipment

CATERPILLAR® ENGINE SPECIFICATIONS

V-8, 4-Stroke-Cycle	
Bore — in (mm)	6.7 (170)
Stroke — in (mm).....	7.5 (190)
Displacement — cu in (L).....	2,105 (34.5)
Aspiration Turbocharged-Aftercooled	
Capacity for Liquids — U.S. gal (L)	
Cooling System ¹	30 (114)
Lube Oil System (refill)	61 (231)
Package Shipping Weight	
(Dry) — lb (kg)	11,950 (5420)

¹Engine only.

FEATURES

■ FULL RANGE OF ATTACHMENTS

- Wide range of bolt-on system expansion attachments, factory designed and tested

■ UNMATCHED PRODUCT SUPPORT OFFERED THROUGH WORLDWIDE CATERPILLAR DEALER NETWORK

- More than 1,500 dealer outlets
- Caterpillar factory-trained dealer technicians service every aspect of your petroleum engine
- 99.7% of parts orders filled within 24 hours — worldwide
- Caterpillar parts and labor warranty
- Preventive maintenance agreements available for “repair before failure” options
- Scheduled Oil Sampling (S•O•SSM) program matches your oil sample against Caterpillar set standards to determine:
 - internal engine component condition
 - presence of unwanted fluids
 - presence of combustion by-products

■ SINGLE-SOURCE SUPPLIER

- Caterpillar:
 - casts engine blocks, heads, cylinder liners, and flywheel housings
 - machines critical components
 - assembles complete engine
 Ownership of these manufacturing processes enables Caterpillar to produce high quality, dependable product.
- Factory-designed systems built at Caterpillar ISO certified facilities

■ G3508

- Standard and low emission ratings available
- Broad operating speed range and ability to burn a wide spectrum of gaseous fuels
- Cat® Electronic Ignition System (EIS)
- Robust diesel strength design provides prolonged life and lower owning and operating costs.

■ TESTING

- Prototype testing on every model:
 - proves computer design
 - verifies system torsional stability
 - functionality tests every model
- Every Caterpillar engine is dynamometer tested under full load to ensure proper engine performance.

■ WEB SITE

- For additional information on all your petroleum power requirements, visit www.cat-oilandgas.com.

FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

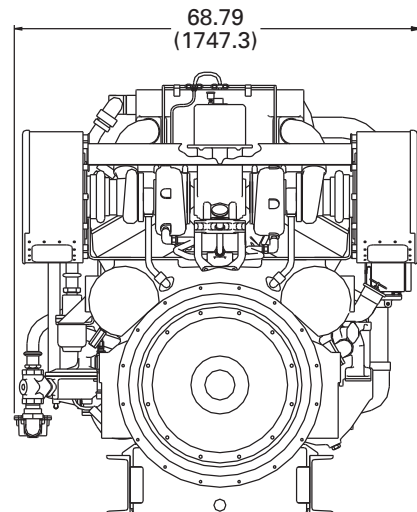
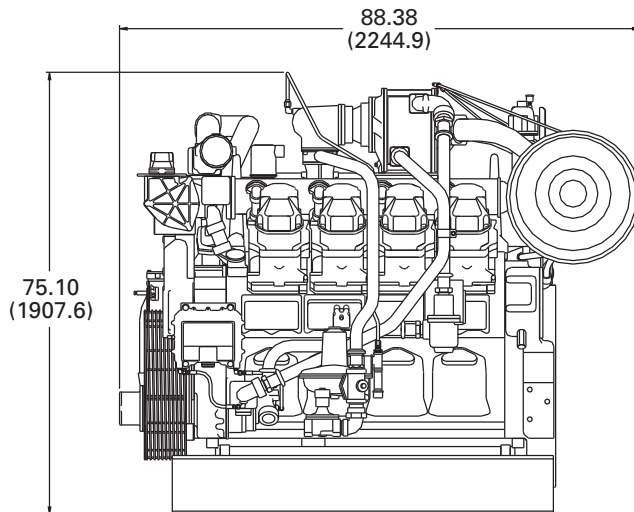
SYSTEM	STANDARD	OPTIONAL
Air Inlet	Air cleaner — intermediate duty with service indicator	Remote air inlet adapter Precleaner
Charging System		Battery chargers Charging alternators
Control System	3161 mechanical governor, RH positive locking	2301A speed control governor CSA700 speed control governor 3161 mechanical governor Vernier and positive locking control
Cooling System	Thermostats and housing Jacket water pump Aftercooler water pump Aftercooler thermostats and housing	Thermostatic valve Thermostatic switch Connections Expansion and overflow tank Water level switch gauge
Exhaust System	Watercooled exhaust manifolds	Flexible fittings Elbows Flanges Flange and exhaust expander Rain cap Muffler
Flywheel/ Flywheel Housing	SAE No. 00 flywheel SAE No. 00 flywheel housing SAE standard rotation	
Fuel System	Gas pressure regulator Natural gas carburetor	Low pressure gas conversion Air/fuel ratio control Air/fuel ratio interconnect wiring harness CSA air fuel ratio and ignition Fuel filter
Ignition System	Cat Electronic Ignition System (EIS)	CSA ignition
Instrumentation	Instrument panel — RH, 12-hole service meter	Alarm module Customer communication module Instrument panel gauges f/u/w EIS engines Instrument panel gauges f/u/w CSA electronic ignition system
Lube System	Crankcase breathers (top mounted) Oil cooler Oil filter, RH Oil bypass filter Shallow oil pan Oil sampling valve	Oil bypass filter removal Oil pan accessories Sump pumps Turbo accumulator Lubricating oil
Mounting System	Engine mounting rails	Rails Vibration isolators
Power Take-Offs	Two-sided front housing	Front accessory drives Auxiliary drive shaft Auxiliary drive pulleys Front stub shaft Pulleys
Protection	Electronic shutoff system Mounting — 20' wiring harness	Gas valve Explosion relief valve Status control box interconnect wiring harness
Starting System		Starting motors Air pressure regulator Air silencer Electric air start controls Electric starting motors — single 24-volt Starting aids Battery sets (24-volt dry), cables, and rack
General	Paint, Caterpillar yellow Vibration damper and guard Lifting eyes	Flywheel guard Damper guard removal Engine barring group Tool set Digital diagnostic tool

TECHNICAL DATA
G3508 Gas Petroleum Engine — 1400 rpm

		DM0122-04
Arrangement Number		PA5322 w/o AFRC
Engine Power		
@ 100% Load	bhp (bkW)	633 (472)
@ 75% Load	bhp (bkW)	475 (354)
Engine Speed	rpm	1400
SCAC Temperature	°F (°C)	129 (54)
Compression Ratio		8.0:1
Emissions*		
NO _x	g/bhp-hr	2.0
CO	g/bhp-hr	1.6
Total Hydrocarbons	g/bhp-hr	2.1
Fuel Consumption		
@ 100% Load	Btu/bhp-hr (MJ/bkW-hr)	7,619 (10.78)
@ 75% Load	Btu/bhp-hr (MJ/bkW-hr)	7,859 (11.12)
Heat Balance		
Heat Rejection to Jacket Water		
@ 100% Load	Btu/min (bkW)	23,999 (422)
@ 75% Load	Btu/min (bkW)	20,303 (357)
Heat Rejection to Aftercooler		
@ 100% Load	Btu/min (bkW)	4,322 (76)
@ 75% Load	Btu/min (bkW)	2,332 (41)
Heat Rejection to Exhaust		
@ 100% Load	Btu/min (bkW)	22,066 (388)
@ 75% Load	Btu/min (bkW)	16,777 (295)
Exhaust System		
Exhaust Gas Flow Rate		
@ 100% Load	cfm (m ³ /min)	3,588 (101.6)
@ 75% Load	cfm (m ³ /min)	2,751 (77.9)
Exhaust Stack Temperature		
@ 100% Load	°F (°C)	847 (453)
@ 75% Load	°F (°C)	837 (447)
Intake System		
Air Inlet Flow Rate		
@ 100% Load	cfm (m ³ /min)	1,353 (38.3)
@ 75% Load	cfm (m ³ /min)	1,045 (29.6)
Gas Pressure	psi (kPa)	35 (242)

*at 100% load and speed

GAS PETROLEUM ENGINE



DIMENSIONS		
Length	in (mm)	88.38 (2244.9)
Width	in (mm)	68.79 (1747.3)
Height	in (mm)	75.10 (1907.6)
Shipping Weight	lb (kg)	11,950 (5420)

Note: General configuration not to be used for installation. See general dimension drawings for detail.

RATING DEFINITIONS AND CONDITIONS

Engine performance is obtained in accordance with SAE J1995, ISO3046/1, BS5514/1, and DIN6271/1 standards.

Transient response data is acquired from an engine/generator combination at normal operating temperature and in accordance with ISO3046/1 standard ambient conditions. Also in accordance with SAE J1995, BS5514/1, and DIN6271/1 standard reference conditions.

Conditions: Power for gas engines is based on fuel having an LHV of 905 Btu/cu ft (33.74 kJ/L) at 29.91 in. Hg (101 kPa) and 59° F (15° C). Fuel rate is based on a cubic meter at 29.61 in. Hg (100 kPa) and 60.1° F (15.6° C). Air flow is based on a cubic foot at 29.61 in. Hg (100 kPa) and 77° F (25° C). Exhaust flow is based on a cubic foot at 29.61 in. Hg (100 kPa) and stack temperature.

Materials and specifications are subject to change without notice. The International System of Units (SI) is used in this publication. CAT, CATERPILLAR, their respective logos, 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.