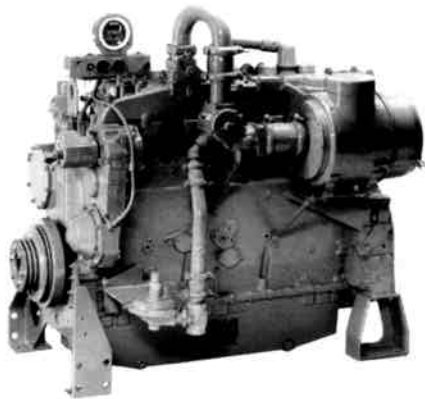


CATERPILLAR®

Gas Irrigation Engines

G3406

143-345 hp
1100-1800 rpm



NA Engine Shown

SPECIFICATIONS

In-Line 6, 4-Stroke-Cycle, Gas	
Bore—in (mm).....	5.4 (137)
Stroke—in (mm).....	6.5 (165)
Displacement—cu in (L).....	893 (14)
Rotation (from flywheel end) Counter-clockwise	
Compression Ratio.....	10.3:1
Jacket Water System	
Capacity w/out radiator—gal (L)....	8.5 (32)
Gas Pressure Requirements	
Naturally Aspirated.....	0.1 bar (1.5 psi)
Turbocharged-Aftercooled ..	1.8 bar (25 psi)
Lube Oil System—gal (L)	
Naturally Aspirated.....	.22 (83)
Turbocharged-Aftercooled	44 (167)
Weight, Net Dry (approx)—lb (kg)	
Naturally Aspirated.....	2,900 (1,315)
Turbocharged-Aftercooled....	3,000 (1,361)

FEATURES

■ DIESEL STRENGTH BUILT IN

Blocks, crankshafts, heads, liners, and connecting rods are common with Cat® Diesel Engines. Gas engine pressures are 40% to 50% lower: Result . . . extra long life.

■ SIMPLICITY

Time proven solid state magnetos provide ignition power without the need for belt driven alternators and batteries. A magneto powered Murphy panel offers mechanical readout of engine water temperature, oil pressure, and inlet air temperature (on TA engines) plus contacts within the gauges are the safeties for these critical systems.

■ APPLICATION FLEXIBILITY

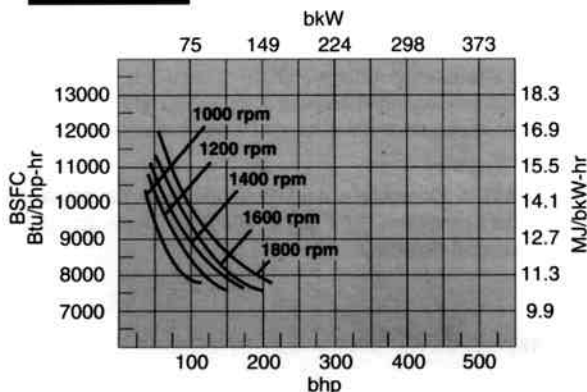
Constant torque over a wide speed range offers more flexibility for matching engine power output to job needs.

■ DURABILITY

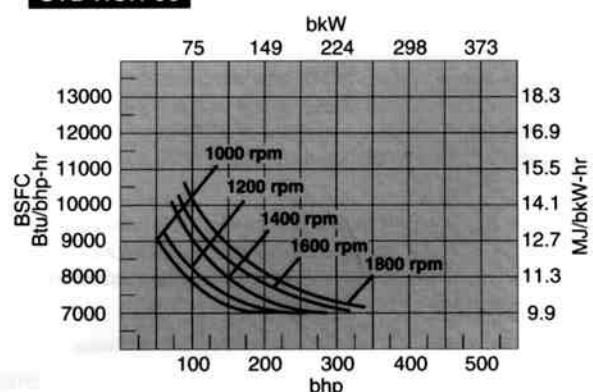
Gas engine exhaust temperatures are higher than diesel. Watercooled exhaust manifolds provide longer life because they operate at lower temperatures resulting in fewer cracks and less warpage.

FUEL CONSUMPTION

3406 NA



STD HCR-90



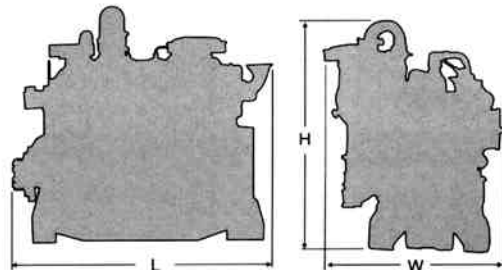
STANDARD EQUIPMENT

Air cleaner, two-stage, with rain cap and service indicator
 Breather, crankcase
 Carburetor, natural gas
 Cooler, lubricating oil
 Filter, lubricating oil bypass (TA only)
 Flywheel
 Housing SAE 1
 Ignition system
 Altronic V (NA)
 Altronic III (TA)
 Instrument panel, LH
 oil pressure, coolant temperature gauges
 Lifting eyes
 Manifold, exhaust, watercooled
 Pumps, gear driven
 auxiliary water, gear driven, centrifugal, non-self-priming (TA only)
 jacket water, gear-driven
 Regulator, gas pressure
 SAE standard rotation
 Service meter
 Shutoff system; shutoffs for:
 oil pressure
 coolant temperature
 overspeeds (2)
 inlet air temperature (TA)
 Supports, engine
 Thermostats and housing
 Torsional vibration damper

OPTIONAL EQUIPMENT

Air cleaners and accessories
 Bases and foundations
 Cooling systems,
 heat exchangers
 aftercooler groups
 expansion tank
 Controls and governors
 Exhaust fittings
 Fuel systems
 gas valve
 Gauges and instrument panels
 Mufflers
 Power takeoffs
 Protection devices
 Starting systems

DIMENSIONS



	L		H		W	
	in	mm	in	mm	in	mm
G3406 NA	64.1	1629	56.3	1431	45.4	1153
G3406 TA	78.4	1992	56.3	1431	49.8	1265

HORSEPOWER AT TYPICAL IRRIGATION SPEEDS

	1800 rpm	1760 rpm	1600 rpm	1466 rpm	1400 rpm	1320 rpm
Gear Ratio		1:1	10:11	5:6	4:5	3:4
NA	225	220	200	183	175	165
TA*	345	345	325	297	284	268

Bhp @ rated conditions of 500' and 77° F
 *90°F Rating

RATING CONDITIONS AND DEFINITIONS

Ratings are based on SAE J1349 standard conditions of 29.61 in-Hg (100 kPa) and 77°F (25°C). These ratings also apply at ISO 3046, DIN6271, BS5514 standard conditions of 29.61 in-Hg (100 kPa), 81°F (27°C); and API 7B-11C standard conditions of 29.38 in-Hg (99 kPa), 85°F (29°C).

Ratings are based on dry natural gas having a low heat value of 905 btu/ft³ (35.54 MJ/Nm³). Variations in altitude, temperature and gas composition from standard conditions may require a reduction in engine horsepower.

Turbocharged-aftercooled ratings apply to 5,000 ft (1525 m) and 77°F (25°C). Naturally aspirated engines apply to 500 ft (150 m) and 77°F (29°C). For applications which exceed these limits contact your Caterpillar dealer.

90°F (32°C) refers to aftercooler water inlet temperature. All data is based on standard conditions. 77°F (25°C) 500 ft Alt. These ratings do not allow for overload capability.

Materials and specifications are subject to change without notice.

The International System of Units (SI) is used in this publication.