G3606 with ADEM™4 GAS ENGINE

1417 bkW (1900 bhp) & 1540 BKW (2065 bhp)
0.3 and 0.5 g/bhp-hr NOx (NTE)

Shown with optional equipment.

SPECIFICATIONS

In-Line 6, 4 -Stroke-Cycle
Serial Prefix.....XSF
Bore.....300 mm (11.8 in)
Stroke.....300 mm (11.8 in)
Displacement.....127.2L(7762cu.in)
Aspiration.....Turbocharged-Aftercooled
Digital Engine Management
GovernorandProtection.....Electronic(ADEM™4)
Combustion.....LowEmission(LeanBurn)
Cooling System Capacity
Total.....420 L (111 gal)
JW.....340 L (90 gal)
SCAC.....80 L (21 gal)
LubeOilSystem(refill).....708L(187gal)
OilChangeInterval.....5000hrs
Rotation(fromflywheelend).....counterclockwise
Flywheel Teeth.....255

FEATURES AND BENEFITS

Engine Design

- ADEM4enginecontrolsystemprovidescompleteenginecontrol, monitoring, and protection while maintaining emissions.
- Widest fuel tolerance in the industry for application flexibility.
- Proven reliability and durability with the lowest owning and operating costs.

Emissions

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

Advanced Digital Engine Management

ADEM4enginemanagementsystemintegratesspeedcontrol,air/fuel ratiocontrol,andignition/detonationcontrolsintoacompleteengine managementsystem.ADEM4hasimproved:userinterface,display system, shutdown controls, and system diagnostics.

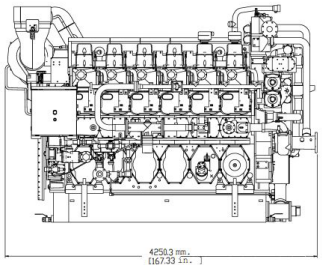
Full Range of Attachments

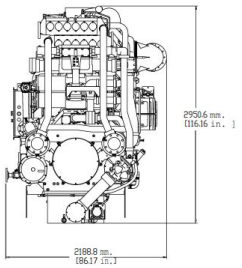
Large variety of factory-installed engine attachments reduces packaging time.

Testing

Everyengineisfull-loadtestedtoensureproperengineperformance.

DIMENSIONS





Length	4250.3mm	167.33in
Width	2188.8 mm	86.17 in
Height	2950.6 mm	116.16in
Weight(wet)	16,730 kg	36,883lb

Note:Donotuseforinstallationdesign.Seegeneraldimensiondrawingsfordetail. Weights and dimensions are approximations.

Fulllistingofequipment(standardandoptional),alongwithadditionalfeaturesand benefits can be found at www.cat.com/oilandgas or through your local dealer.

LEHW0258-05
Caterpillar: Confidential Green

TECHNICAL DATA

Performance Number	EM6489-02	EM6490-02	EM6487-02	EM6488-02
Rating	0.3 g NOx NTE	0.5 g NOx NTE	0.3 g NOx NTE	0.5 g NOx NTE
Engine Power	1417 bkW (1900 bhp)	1417 bkW (1900 bhp)	1540 bkW (2065 bhp)	1540 bkW (2065 bhp)
Engine Speed	1000 rpm	1000 rpm	1000 rpm	1000 rpm
Max Altitude @ Rated Torque and 38° C (100°F)	2760 m (9055 ft)	2730 m (8957 ft)	1970 m (6463 ft)	1930 m (6332 ft)
Aftercooler Temperature				
Stage 1 (JW)	88 °C (190 °F)	88 °C (190 °F)	88 °C (190 °F)	88 °C (190 °F)
Stage 2 (SCAC)	54 °C (130 °F)	54 °C (130 °F)	54 °C (130 °F)	54 °C (130 °F)
Emissions (NTE)*	g/bkW-hr (g/bhp-hr)	g/bkW-hr (g/bhp-hr)	g/bkW-hr (g/bhp-hr)	g/bkW-hr (g/bhp-hr)
NOx	0.4 (0.3)	0.67 (0.5)	0.4 (0.3)	0.67 (0.5)
CO	2.89 (2.15)	2.26 (1.68)	2.26 (1.68)	2.89 (2.15)
CO_2	593 (443)	593 (442)	593 (443)	586 (437)
VOC**	0.26 (0.19)	0.22 (0.17)	0.25 (0.19)	0.22 (0.16)
Fuel Consumption @ 100% load ***	9.53 MJ/bkW-hr (6739 Btu/bhp-hr)	9.39 MJ/bkW-hr (6637 Btu/bhp-hr)	9.41 MJ/bkW-hr (6653 Btu/bhp-hr)	9.27 MJ/bkW-hr (6552 Btu/bhp-hr)
Heat Balance @ 100% Load	bkW (Btu/min)	bkW (Btu/min)	bkW (Btu/min)	bkW (Btu/min)
Heat Rejection to Jacket Water	407 (23152)	389 (22137)	439 (24974)	420 (23898)
Heat Rejection to Oil Cooler	204 (11587)	204 (11628)	206 (11728)	207 (11782)
Heat Rejection to Aftercooler				
Stage 1 (JW)	266 (15131)	253 (14388)	319 (18163)	306 (17426)
Stage 2 (SCAC)	141 (8045)	135 (7681)	163 (9296)	106 (6019)
Heat Rejection to Exhaust LHV to 25°C (77°F)	1247 (70891)	1230 (69942)	1294 (73584)	1274 (72452)
Heat Rejection to Atmosphere	110 (6274)	116 (6022)	111 (6285)	106 (6019)
Exhaust System				
Exhaust Stack Temperature	429 °C (805 °F)	436 °C (817 °F)	413 °C (775 °F)	418 °C (785 °F)
Gas Pressure	400-485 kPag (58.0-70.3 psig)	400-485 kPag (58.0-70.3 psig)	485-552 kPag (70.3-80.1 psig)	485-552 kPag (70.3-80.1 psig)

* at 100% load and speed, listed as not to exceed
** Volatile organic compounds as defined in U.S. EPA 40 CFR 60, subpart JJJJ
*** ISO 3046/1

STANDARD EQUIPMENT

Air Inlet System
- Air cleaner - standard duty
- Inlet air adapter

Cooling System
- Compressor Oil cooler connections
- Jacket Water pump
- Aftercooler/oil cooler pump
- Jacket Water thermostats and housing
- Two-stage aftercooler
- Jacket Water heater connections
- Standard ANSI connections

Starting System
- Single turbine starting motors

Exhaust System
- Dry exhaust manifolds
- Single vertical outlet adapter
- Dual layer heat shields
  - Layer 1: stainless steel foil
  - Layer 2: carbon steel

Fuel System
- Gasadmissionvalves-electronicallycontrolledfuelsupplypressure

Instrumentation
- 8 inch HMI Engine Control Panel
- Interconnect Harness

Lubrication System
- Crankcase breather- top mounted
- Oil pan drain valve- front and rear

OPTIONAL EQUIPMENT

Air Inlet System
- Heavy-duty air cleaner with precleaners

Charging Alternator
- 35 Amp & 65 Amp charging alternators - CSA approved

Exhaust System
- Flexible bellows adapters

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

Lubrication System
- Air or electric motor-driven prelube
- Duplex oil filter
- Oil level regulator

Rating Definitions and Conditions
Engineperformanceisobtainedinaccordancewith SAEJ1995,ISO3046/1,BS5514/1, and DIN6271/1 standards.
Transientresponsedataisacquiredfromanengine/generatorcombinationatnormal operatingtemperatureandinaccordancewithISO3046/1standardambientconditions. Also in accordance with SAE J1995, BS5514/1, and DIN6271/1 standard reference conditions.
Conditions:Powerforgasenginesisbasedonfuelhavinganl HVof33.74kJ/L(905Btu/cuft)at101kPa(29.91inHg)and15°C(59°F).Fuelrateisbasedonacubicmeterat100 kPa(29.61inHg)and15.6°C(60.1°F).Airflowisbasedonacubicfootat100kPa(29.61 inHg)and25°C(77°F).Exhaustflowisbasedonacubicfootat100kPa(29.61inHg)and stack temperature.