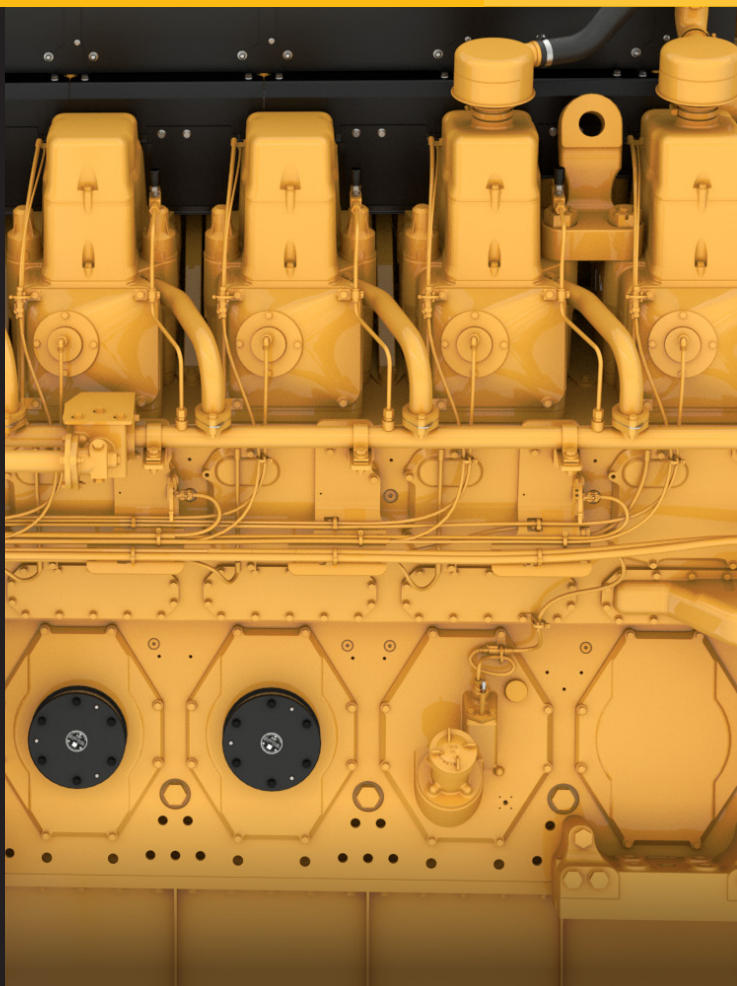


# OIL & GAS RATINGS GUIDE

JUNE 2023 EDITION

2023 - JUNE

OIL & GAS RATINGS GUIDE



**CATERPILLAR®**

# TABLE OF CONTENTS

Caterpillar: Making Sustainable Progress Possible .....	5
Abbreviations and Definitions .....	6-10
Rating Conditions .....	10
<b>WELL SERVICE RATINGS</b> .....	<b>11</b>
Well Service Engine Ratings .....	12
C7 ACERT • C7.1 ACERT .....	13
C9 ACERT • C9.3B .....	14
C11 ACERT .....	15
C13 ACERT .....	16
C15 ACERT .....	17
C18 ACERT .....	18
C27 ACERT .....	19
C32 ACERT .....	20
3512B .....	21
3512C HD .....	22
3512E • 3512E DGB™ .....	23
3516C HD .....	24
G3520 NRM .....	25
Transmission Application Chart .....	26
CX31-P600 Transmission .....	27
CX35-P800 Transmission .....	28
CX48-P2300 Transmission .....	29
CX48-P3060 Transmission .....	30
TH53-E60 Transmission .....	31
TH48-E70 Transmission .....	32
TH55-E70 Transmission .....	33
TH55-E90 Transmission .....	34
<b>LAND DRILLING RATINGS</b> .....	<b>35</b>
C15 ACERT .....	36
C18 ACERT .....	37-38
C27 ACERT .....	39
C32 ACERT .....	40
3500 .....	41
3500B .....	42
3500C .....	43
3500E .....	45G3512
45 .....	
PGS1260 .....	46

<b>LAND PRODUCTION RATINGS</b> .....	47
Diesel Generator Sets – 50 Hz .....	48-49
Diesel Generator Sets – 60 Hz .....	50-53
Dual Fuel Generator Sets .....	54
Gas Generator Sets – 50 Hz .....	55
Gas Generator Sets – 60 Hz .....	56
Diesel Engines – Mechanical Drive .....	57
Diesel Fuel Engines – Mechanical Drive .....	58
Gas Engines – Mechanical Drive .....	59
<b>MOBILE GAS SOLUTION</b> .....	60
G3306B .....	61
CG137-12 .....	62
G3512 .....	63
G3520 .....	64
<b>ENERGY STORAGE SYSTEMS</b> .....	65
PGS1260 .....	66
<b>CONTROLS &amp; AUTOMATION</b> .....	67
Cat Smart Energy Management System .....	68
<b>OFFSHORE DRILLING AND PRODUCTION RATINGS</b> .....	69
Hazardous Location .....	70
3500B .....	71
3500C .....	72
C175 .....	73
C280 .....	74-75
<b>GAS COMPRESSION RATINGS</b> .....	76
Gas Compression Engine Ratings .....	77
G3300 .....	78
G3400 .....	79
CG137 .....	80
G3500 .....	81-82
G3600 .....	83-84
Electric Drive Motors .....	85-86
<b>FORMULAS</b> .....	87

## SUSTAINABLE PROGRESS

# Caterpillar: Making Sustainable Progress Possible

A sustainable product life cycle includes efficient and safe equipment operation for our customers – and technology for improved sustainability performance. Caterpillar continues to develop technologies to comply with today’s emission standards with progress including advancements with non-road mobile equipment, battery energy storage, and electric motors.

### IMPROVEMENT THROUGH FUEL DIVERSITY

Delivering customer value with greater operational flexibility and lower fuel costs is at the heart of our natural gas strategy. Dynamic Gas Blending™ (DGB™) technology, for example, has led to the first-ever dual-fuel engine – using both diesel and natural gas – for select Cat® 3500 Series engines. In production since April 2013 on land drilling, production and well-service applications, the DGB system allows an engine to run on diesel and natural gas simultaneously, with gas substitution rates of up to 70 percent. In 2020, Caterpillar received the EPA Clean Air Excellence award, for the Cat 3512E Dynamic Gas Blending engine - the first and only DGB engine on the market certified to meet the U.S. EPA Tier 4 Final emission standards In North America. Exported engines are available with DGB dual-fuel capability from the factory, along with retrofit kit offerings. The customer benefits are clear: DGB can lower fuel costs by up to 50 percent compared to traditional diesel operation, while providing equivalent performance, as well as the flexibility to run on a wide variety of fuels – from associated gas to liquefied natural gas (LNG).

**ABBREVIATIONS AND DEFINITIONS**

**Duty Types**

- Drill-El . . . . . Land electric drilling rating; output available with varying load for an unlimited time. Prime rating in accordance with ISO 8525. Typical load factor 60-70%
- Drill-M . . . . . Land mechanical drilling rating; 100% of advertised engine rating used occasionally, but not over one hour followed by one hour period below 90% load per day for mechanical pumping and mechanical drilling applications. Typical load factor 60%
- Cont . . . . . Continuous rating; 100% of engine operating hours at 100% of rated power
- Prime . . . . . Prime no overload rating for power generation in oil and gas applications; output available with varying load for an unlimited time; output in accordance with ISO 8525.
- OS-Prime . . . . . Offshore prime rating with 10% overload capability for MCS certification; output available with varying load for an unlimited time; output in accordance with ISO 8525.
- MCR . . . . . Maximum Continuous Rating (MCR) following reference conditions according to the International Association of Classification Societies (ACS) for main and auxiliary engines. An overload of 10% is permitted for one hour within 12 hours of operation.
- A . . . . . For pumping, ventilation, well service mixing units, and customer specs – the power and speed capability of the engine which can be used to power well service equipment. The engine can be operated at maximum power and speed for up to 100% of the time without interruption or load cycling.
- B . . . . . For oil field mechanical pumping/drilling, independent rotary drive, well service blenders, cementers, and stationary plant air compressors – the power and speed capability of the engine which can be used to power well service equipment. The maximum average load factor is 85% of rated engine power. The maximum time at rated load and speed is not to exceed 80% of the duty cycle, or 4 hour continuously.

\*Duty type abbreviations do not apply to model number.

- C . . . . . For fire pump, offshore cranes, well service kill pumps, cementers, production pumps, and drills – the power and speed capability of the engine which can be used to power high pressure well service equipment. Also the power and speed capability of the engine which can be used to power mud pumps, rotary table, and drawworks through a mechanical drive. For intermittent service where maximum power and/or speed are cyclic. The maximum average load factor is 70% for C32 and smaller engines. The maximum average load factor for larger engines is 80%. the maximum time at rated load and speed is not to exceed 50% of the duty cycle, or one hour continuously, followed by a one hour period below 90% load. When used as a fire pump and NFPA certification is required, size the pump power to 90% of the advertised rating.
- D . . . . . For fire pump, offshore cranes, and portable air compressors – the power and speed capability of the engine where maximum power is required for periodic overloads. The maximum average load factor is 50%, and the maximum time at rated load and speed is not to exceed 10% of the duty cycle, or 30 minutes continuously. When used as a fire pump and NFPA certification is required, size the pump power to 90% of the advertised rating.
- E . . . . . For fire pump, offshore cranes, well fracturing, and cementing/kill pump – the power and speed capability of the engine which can be used to power high pressure well service equipment. For C32 engines and smaller, the maximum average load factor is 35%. For well fracturing engines, the maximum average load factor is 50%, and the maximum time at rated load and speed is less than 2.5 hours per year. For cementing and kill pump engines, the maximum average load factor is 40%, and the maximum time at rated load and speed is less than two hours per year. When used as a fire pump and NFPA certification is required, size the pump power to 90% of the advertised rating.

\*Duty type abbreviations do not apply to model number.

**Emissions**

CARB	California Air Resources Board
CARB T3 NR	California Air Resources Board U.S. EPA Tier 3 Nonroad Equivalent (Not Currently EPA Certified)
BSFC	Brake Specific Fuel Consumption
CCNR (Expired)	Central Commission for Navigation on the Rhine
CCNR Stage 2 (Expired)	Central Commission for Navigation on the Rhine Stage 2
China On-hwy IV	China On-highway Phase IV
China II NRNC	China Stage II and Non-Certified
China III NR	China Stage III Mobile
China IV NR	China Nonroad Stage IV
EPA ESE	EPA Certified for Stationary Emergency Application
EPA T1 M	U.S. EPA Marine Tier 1 Commercial
EPA T1 NR	U.S. EPA Tier 1 Nonroad Equivalent (Not Currently EPA Certified)
EPA T2 M	U.S. EPA Marine Tier 2 Commercial
EPA T2 NR	U.S. EPA Tier 2 Nonroad Equivalent (Not Currently EPA Certified)
EPA T2 NR <sup>1</sup>	EPA Certified for Stationary Emergency Application (Emits Equivalent U.S. EPA Tier 2 Nonroad Standards)
EPA T3 M	U.S. EPA Marine Tier 3 Commercial
EPA T3 NR	U.S. EPA Tier 3 NR Nonroad Equivalent (Not Currently EPA Certified)
EPA T3 NR <sup>1</sup>	EPA Certified for Stationary Emergency Application (Emits Equivalent U.S. EPA Tier 3 NR Nonroad Standards)
EPA T4F	U.S. EPA Tier 4 Final
EPA T4f NRG	U.S. EPA Tier 4 Final Nonroad Genset (Certified to U.S. EPA & California ARB Tier 4 Final Nonroad Genset Standards)
EPA T4F NRNG	U.S. EPA Tier 4 Final Nonroad Non-Genset (Certified to U.S. EPA & California ARB Tier 4 Final Nonroad Non-Genset Standards)
EPA T4i	U.S. EPA Tier 4 Interim Equivalent
EPA T4i NRG	U.S. EPA Tier 4 Interim Nonroad Genset Equivalent (Not Currently EPA Certified)
EPA T4i NRNG	U.S. EPA Tier 4 Interim Nonroad Non-Genset Equivalent (Not Currently EPA Certified)
EU II NRNC	EU Stage II Nonroad and Non-Certified
EU IIIA NR	EU Stage IIIA Nonroad Equivalent (Non-Current for EU)
EU IIIB NR	EU Stage IIIB Nonroad Equivalent (Non-Current for EU)
EU IV NR	EU Stage IV Nonroad Equivalent
EU Stage V	EU Stage V Nonroad Standards
IMO I	International Maritime Organization (IMO) Tier I

**Emissions (continued)**

IMO II	International Maritime Organization (IMO) Tier II
IMO III	International Maritime Organization (IMO) Tier III
Japan 2014 (T4f)	Japan 2014 (Tier 4 Final) Nonroad Standards
Korea (T4f)	Korea Tier 4 Final Nonroad Standards
Low Emissions	Lean-burn stationary gas-fueled engine without mobile certification
Mobile Gas Genset	Mobile Gas Genset
NC	Non-certified
NRM	Nonroad Mobile Certified (40 CFR Part 1048)
NRG	Nonroad Genset
NRNG	Nonroad Non-genset
NSPS Site Compliant	New Source Performance Standards Site Compliant Capable
Stationary	Certified for Stationary use (40CFR Part 60)
UNECE	United Nations Economic Commission for Europe
UN R96 IIIA	UNECE Regulation No. 96 Tractor and NRMM Engine Emissions Stage IIIA
UN R96 IIIB	UNECE Regulation No. 96 Tractor and NRMM Engine Emissions Stage IIIB

**Engine Configuration**

ATAAC	Air-to-air Aftercooled
FMT	Front-mounted Turbochargers
Haz Loc	Hazardous Location Certified
HD	High Displacement
REMAC	Remote-mounted Aftercooler
RMT	Rear-mounted Turbochargers
SCAC	Separate-circuit Aftercooler

**Fuels**

CNG	Compressed Natural Gas
CRU	Crude Fuel
FG	Field Gas
HFO	Heavy Fuel Oil
LNG	Liquefied Natural Gas
MDO	Marine Diesel Oil
NG	Natural Gas

**Performance**

bhp	Brake engine power (horsepower)
kW	Brake engine power (kilowatt)
BSFC	Brake Specific Fuel Consumption
kW	Generator set electrical output (kilowatt)
kVA	Generator set electrical output (kilo Volt-Amp)
LE	Low Emissions

## ■ INTRODUCTION

### Emissions (continued)

NA ..... Naturally Aspirated  
TA ..... Turbocharged-aftercooled

### Rating Conditions

#### Diesel Engines –

**up to 6.6 liter** ..... All rating conditions are based on ISO/TR14396, inlet air standard conditions with a total barometric pressure of 100 kPa (29.5 in Hg), with a vapor pressure of 1 kPa (.295 in Hg), and 25°C (77°F). Performance measured using fuel to specification EPA 2D 89.330-96 with a density of 0.845-0.850 kg/L @ 15°C (59°F) and fuel inlet temperature 40°C (104°F).

#### Diesel Engines –

**7 liter and higher** . . . All rating conditions are based on SAE J1995, inlet air standard conditions of 99 kPa (29.31 in Hg) dry barometer and 25°C (77°F) temperature. Performance measured using a standard fuel with fuel gravity of 35° API having a lower heating value of 42 780 kJ/kg (18,390 btu/lb) when used at 29°C (84.2°F) with a density of 838.9 g/L.

#### Gas Engines . . . . .

Ratings are based on SAE J1349 standard conditions of 100 kPa (29.61 in Hg) and 25°C (77°F). These ratings also apply at ISO3046, DIN6271, and BS5514 standard conditions of 100 kPa (29.61 in Hg) and 27°C (81°F); and API 7B-11C standard conditions of 99 kPa (29.28 in Hg) and 29°C (85°F) also apply.

Ratings are based on dry natural gas having an LHV of 35.54 MJ/Nm<sup>3</sup> (905 btu/ft<sup>3</sup>). Variations in altitude, temperature, and gas composition from standard conditions may require a reduction in engine horsepower.

### ISO 9001:2000 Certification

Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities.

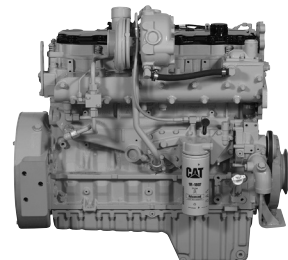
To find spec sheets referenced in this guide go to:  
[www.cat.com/oilandgas](http://www.cat.com/oilandgas)

# WELL SERVICE

From well stimulation and pressure pumping to cementing the well, the well service industry presents a unique set of challenges. Cat® engines and transmissions meet these challenges with outstanding reliability across a wide range of available power. They meet the emissions standards and are backed by the expert support of the worldwide Cat dealer network.

WELL SERVICE ENGINE RATINGS

bhp Range	Engine	Page Number
188-300	C7 ACERT • C7.1 ACERT	13
275-400	C9 ACERT • C9.3 ACERT	14
325-450	C11 ACERT	15
385-520	C13 ACERT	16
440-595	C15 ACERT	17
575-800	C18 ACERT	18
800-1150	C27 ACERT	19
800-1350	C32 ACERT	20
2000-2250	3512B	21
2150-2500	3512C HD	22
2250-3000	3512E	23
3000-3300	3516C HD	24



WELL SERVICE RATINGS

Rating Tier	bkW	bhp	rpm	Emissions	Notes
<b>C7 ACERT</b>					
D	205	275	2200	IMO II, EPA T2 M, EPA T3 NR,	Watercooled, SCAC, REMAC avail
B	153	205	2200	IMO II, EPA T2 M, EPA T3 NR,	Haz Loc, SCAC only
C	172	230	2200	IMO II, EPA T2 M, EPA T3 NR,	Haz Loc, SCAC only
B	168	225	2200	IMO II, EPA T3 NR, EU IIIA NR, China II NR	Dry Manifold, ATAAC
C	186	250	2200	IMO II, EPA T3 NR, EU IIIA NR, China II NR	Dry Manifold, ATAAC
D	224	300	2200	IMO II, EPA T3 NR, EU IIIA NR, China II NR	Dry Manifold, ATAAC

SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
<b>C7 ACERT</b>	1053 (41.5)	758 (29.8)	1032 (40.6)	629 (1386)	7.2 (439)
<b>C7.1 ACERT</b>	1065 (41.9)	820 (32.3)	907 (35.7)	715 (1576)	7.01 (427.7)
<b>Bore x Stroke – mm (in)</b>					
<b>C7 ACERT</b>	110 x 127 (4.3 x 5)				
<b>C7.1 ACERT</b>	105 x 135 (4.1 x 5.3)				

Please see spec sheet for more information:

C7 ACERT ..... LEHW0043, LEHW0044, LEHW0045

For diesel engine rating definitions please see page 10.

## WELL SERVICE RATINGS

RATING	TIER	kw	rpm	EMISSIONS	NOTES
<b>C9 ACERT</b>					
C	242	325	2200	IMO II, EPA T3 NR, EU IIIA NR	Watercooled, SCAC, REMAC avail
D	254	340	2200	IMO II, EPA T3 NR, EU IIIA NR	Watercooled, SCAC, REMAC avail
D	254	340	2200	IMO II, EPA T3 NR, EU IIIA NR	Haz Loc, SCAC & REMAC avail, Derate option
A	205	205	2200	IMO II, EPA T3 NR, EU IIIA NR	Dry Manifold
B	224	224	2200	IMO II, EPA T3 NR, EU IIIA NR	Dry Manifold
C	242	325	2200	IMO II, EPA T3 NR, EU IIIA NR	Dry Manifold
C	261	350	2200	IMO II, EPA T3 NR, EU IIIA NR	Dry Manifold
D	280	375	2200	IMO II, EPA T3 NR	Dry Manifold
<b>C9.3B</b>					
A	250	355	2200	CHINA IV NR, EPA T4F NR, EU V NR	Dry Manifold
B	280	375	2200	CHINA IV NR, EPA T4F NR, EU V NR	Dry Manifold
C	310	415	2200	IMO II, EPA T3 NR, EU IIIA NR	Dry Manifold
D	340	455	2200	IMO II, EPA T3 NR	Dry Manifold

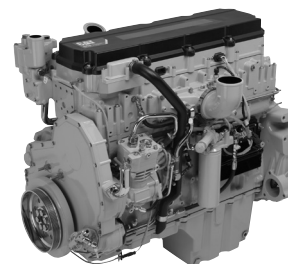
## SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C9 ACERT</b>	1092 (43)	828 (32.6)	1024 (40.3)	716 (1578)	8.8 (537)
<b>C9.3B</b>	1125 (44.3)	791 (31.1)	1068 (42)	865 (1907)	9.3 (567.5)
<b>Bore x Stroke – mm (in)</b>					
<b>C9 ACERT</b>	112x149 (4.4x5.8)				
<b>C9.3B</b>	115x149 (4.5x5.9)				

Please see spec sheet for more information:

C9 ACERT ..... LEHW0014, LEHW0046, LEHW0047  
 C9.3 B ..... LEHH0578, LEHE0598

For diesel engine rating definitions please see page 10.



## WELL SERVICE RATINGS

Rating	Tier	kw	bhp	rpm	Emissions	Notes
A	242	325	2100	IMO II, EPA T3 NR, EU IIIA NR,	Dry Manifold	
B	261	350	2100	IMO II, EPA T3 NR, EU IIIA NR,	Dry Manifold	
C	287	385	2100	IMO II, EPA T3 NR, EU IIIA NR,	Dry Manifold	
D	313	420	2100	IMO II, EPA T3 NR, EU IIIA NR,	Dry Manifold	
E	336	450	2100	IMO II, EPA T3 NR, EU IIIA NR,	Dry Manifold	

## SPECIFICATIONS

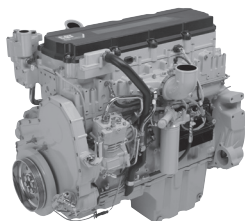
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C11 ACERT</b>	1201 (47.3)	1057 (41.6)	1176 (46.3)	892 (1967)	11.15 (681)
<b>Bore x Stroke – mm (in)</b>	130 x 140 (5.12 x 5.5)				

Please see spec sheet for more information:

C11 ACERT ..... LEHW0063

For diesel engine rating definitions please see page 10.





## WELL SERVICE RATINGS

Rating Tier	bkW	bhp	rpm	Emissions	Notes
A	287	385	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Dry Manifold
B	309	415	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Dry Manifold
C	328	440	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Dry Manifold
D	354	475	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Dry Manifold
E	388	520	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Dry Manifold

### C13B

A	340	456	2100	CHINA IV NR, EPA T4F NR, EU V NR	Dry Manifold
B	370	496	2100	CHINA IV NR, EPA T4F NR, EU V NR	Dry Manifold
C	400	536	2100	CHINA IV NR, EPA T4F NR, EU V NR	Dry Manifold
D	430	577	2100	CHINA IV NR, EPA T4F NR, EU V NR	Dry Manifold

## SPECIFICATIONS

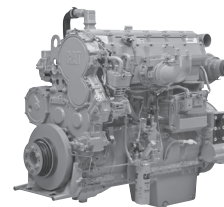
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C13 ACERT</b>	1201 (47.3)	1013 (39.9)	1186 (46.7)	896 (1976)	12.5 (763)
<b>C13B T4</b>	1203 (47.4)	933.14 (36.74)	1186 (46.7)	1350 (2976)	12.5 (763)

**Bore x Stroke – mm (in)** 130 x 157 (5.1 x 6.2)

Please see spec sheet for more information:

C13 ACERT ..... LEHW0062, LEHW0096

For diesel engine rating definitions please see page 10.



## WELL SERVICE RATINGS

Rating Tier	bkW	bhp	rpm	Emissions	Notes
A	328	440	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Dry Manifold
B	335	475	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China II NR	Dry Manifold
C	403	540	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China II NR	Dry Manifold
D	433	580	2100	IMO II, EPA T3 NR, EU IIIA NR, China II NR	Dry Manifold
E	444	595	2100	IMO II, EPA T3 NR, EU IIIA NR, China II NR	Dry Manifold
D	400	536	1800-2000	IMO II, EPA T3 M	SCAC, Watercooled
D	403	540	1800-2000	IMO II, EPA T3 M	SCAC & REMAC, Watercooled
A/B	354	475	2100	CHINA IV NR, EPA T4F NR, EU V NR	Dry Manifold
C	403	540	2100	CHINA IV NR, EPA T4F NR, EU V NR	Dry Manifold
D	433	580	2100	CHINA IV NR, EPA T4F NR, EU V NR	Dry Manifold

## SPECIFICATIONS

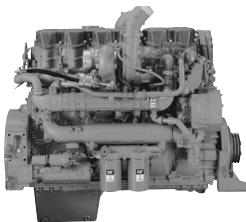
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C15 ACERT</b>	1377 (54)	927 (37)	1227 (48)	1245 (2743)	15.2 (927.6)
<b>C15 ACERT T4</b>	1530 (60.2)	961 (37.8)	1282 (51)	1666 (3673)	15.2 (927.6)

**Bore x Stroke – mm (in)** 137.2 x 171.5 (5.4 x 6.75)

Please see spec sheet for more information:

C15 ACERT ..... LEHW0097, LEHW0061

For diesel engine rating definitions please see page 10.



### WELL SERVICE RATINGS

RATING	TIER	bkw	rpm	EMISSIONS	NOTES
A	429	575	2100	IMO II,EPA T3 NR, EU IIIA NR, China III NR	Dry Manifold
B	447	600	2100	IMO II,EPA T3 NR, EU IIIA NR, China III NR	Dry Manifold
C	470	630	2100	IMO II,EPA T3 NR, EU IIIA NR, China III NR	Dry Manifold
C	522	700	2100	IMO II,EPA T3 NR, EU IIIA NR, China III NR	Dry Manifold
D	570	765	2100	IMO II, EPA T2 NR	Dry Manifold
E	597	800	2100	IMO II, EPA T2 NR	Dry Manifold
A	429	575	1900	CHINA IV NR	Dry Manifold
A	429	575	2000	EPA T4F NR, EU V NR	Dry Manifold
B	448	600	1900	CHINA IV NR, EU V NR	Dry Manifold
B	558	600	1900	CHINA IV NR, EU V NR	Dry Manifold
B	448	600	2000	EPA T4F NR, EU V NR	Dry Manifold
C	563	755	1800	EPA T4F NR, EU V NR	Dry Manifold
C	470	630	1900	CHINA IV NR, EU V NR	Dry Manifold
C	470	630	2000	EPA T4F NR, EU V NR	Dry Manifold
D	597	800	1800	EPA T4F NR, EU V NR	Dry Manifold

### SPECIFICATIONS

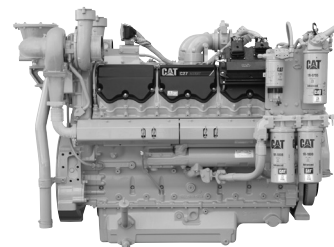
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C18 ACERT</b>	1389 (54.7)	919 (36.2)	1227 (49.5)	1273 (2807)	18.1 (1105)
<b>C18 ACERT T4</b>	1530 (60.2)	961 (37.8)	1282 (51)	1580 (3482)	18.1 (1105)

**Bore x Stroke – mm (in)** 145 x 183 (5.7 x 7.2)

**Please see spec sheet for more information:**

C18 ACERT ..... LEHW0098, LEHW0053, LEHW0109

For diesel engine rating definitions please see page 10.



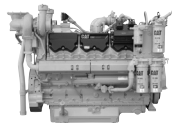
### WELL SERVICE RATINGS

RATING	TIER	bkw	rpm	EMISSIONS	NOTES
A	597	800	1800-2100	"EPA T2 NR, China III NR"	Dry Manifold
B	652	875	1800-2100	"EPA T2 NR, China III NR"	Dry Manifold
C	708	950	1800-2100	"EPA T2 NR, China III NR"	Dry Manifold
D	783	1050	1800-2100	"EPA T2 NR, China III NR"	Dry Manifold
E	858	1150	1800-2100	"EPA T2 NR, China III NR"	Dry Manifold
A	597	800	1800	EPA T4F NR, EU V NR	Dry Manifold
B	652	875	1800	EPA T4F NR, EU V NR	Narrow Config, Dry Manifold
C	708	950	1800	EPA T4F NR, EU V NR	Narrow Config, Dry Manifold
D	775	1039	1800	EPA T4F NR, EU V NR	Dry Manifold
C	470	630	2000	EPA T4F NR, EU V NR	Dry Manifold
D	597	800	1800	EPA T4F NR, EU V NR	Dry Manifold

### SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C27 ACERT</b>	1918 (75.5)	1463 (57.6)	1321 (52)	2895 (6382)	27 (1648)
<b>C27 ACERT T4</b>	2160 (85)	1270 (50)	1650 (65)	2956 (6516)	27 (1648)

**Bore x Stroke – mm (in)** 137.7 x 152.4 (5.42 x 6)



WELL SERVICE RATINGS

RATING	TIER	bkW	rpm	EMISSIONS	NOTES
A	597	800	2100	"EPA T2 NR, EPA T2 M, IMO II"	"Watercooled, SCAC, SCAC+ HEX, & REMAC"
A	642	860	2100	"EPA T2 NR, EPA T2 M, IMO II"	"Watercooled, SCAC, SCAC+ HEX, & REMAC"
B	686	920	2100	"EPA T2 NR, EPA T2 M, IMO II"	"Watercooled, SCAC, SCAC+ HEX, & REMAC"
C	746	1000	2100	"EPA T2 NR, EPA T2 M, IMO II"	"Watercooled, SCAC, SCAC+ HEX, & REMAC"
D	828	1110	2100	"EPA T2 NR, EPA T2 M, IMO II"	"Watercooled, SCAC, SCAC+ HEX, & REMAC"
E	914	1225	2100	"EPA T2 NR, EPA T2 M, IMO II"	"Watercooled, SCAC, SCAC+ HEX, & REMAC"
A	597	800	2100	"EPA T2 NR, EPA T2 M, IMO II"	"Haz Loc, SCAC only, Watercooled"
A	642	860	2100	"EPA T2 NR, EPA T2 M, IMO II"	"Haz Loc, SCAC only, Watercooled"
B	686	920	2100	"EPA T2 NR, EPA T2 M, IMO II"	"Haz Loc, SCAC only, Watercooled"
D	828	1110	2100	"EPA T2 NR, EPA T2 NR, IMO II"	"Haz Loc, SCAC only, Watercooled"
A	597	800	2100	EPA T2 NR, IMO II	Dry Manifold
B	708	950	1800-	"China III NR, EPA T2 NR, IMO II"	Dry Manifold
C	839	1125	1800-	"China III NR, EPA T2 NR, IMO II"	Dry Manifold
D	895	1200	1800-	"China III NR, EPA T2 NR, IMO II"	Dry Manifold
E	1007	1350	1800-	"China III NR, EPA T2 NR, IMO II"	Dry Manifold
B	746	1000	1800	EPA T4F, EU V NR	Dry Manifold
C	839	1125	1800	EPA T4F, EU V NR	Dry Manifold
D	895	1200	1800	EPA T4F, EU V NR	Dry Manifold

SPECIFICATIONS

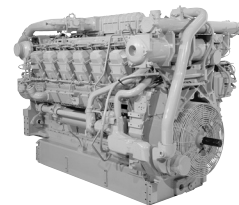
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
C32 ACERT	1934.9 (76.18)	1431 (56.34)	1388.3 (54.66)	2286 (5040)	32 (1953)
C32 ACERT T4	1905 (75)	1600 (63)	1549 (61)	3107 (6850)	32 (1953)

Bore x Stroke – mm (in) 145 x 162 (5.7 x 6.4)

Please see spec sheet for more information:

C32 ACERT ..... LEHW0049, LEHW0050, LEHW0051, LEHW0100

For diesel engine rating definitions please see page 10.



WELL SERVICE RATINGS

Rating	Tier	bkW	bhp	rpm	Emissions
E		1491	2000	1900	EPA T1 NR, EPA T1 M
E		1603	2150	1900	EPA T1 NR, EPA T1 M
E		1678	2250	1900	EPA T1 NR, EPA T1 M

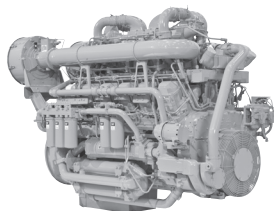
SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
3512B	2827 (111.3)	1793 (70.6)	1862 (73.3)	4803.6 (10,590)	52 (3173)
Bore x Stroke – mm (in)	170 x 190 (6.7 x 7.5)				

Please see spec sheet for more information:

3512B ..... LEHW0055

For diesel engine rating definitions please see page 10.



## WELL SERVICE RATINGS

Rating Tier	bkW	bhp	rpm	Emissions	Notes
E	1603	2150	1900	EPA T2 NR, IMO II, China III NR	ATAAC, 1.6% or 7% Torque Rise
E	1678	2250	1900	EEPA T2 NR, IMO II, China III NR	ATAAC, 1.6% or 7% Torque Rise
E	1752	2350	1900	EPA T2 NR, IMO II, China III NR	ATAAC, 7% Torque Rise
E	1864	2500	1900	EPA T2 NR, IMO II, China III NR	ATAAC, 7% Torque Rise
E	1678	2250	1900	EPA T2 NR, IMO II, China III NR	SCAC, 1.6% or 7% Torque Rise
E	1864	2500	1900	EPA T2 NR, IMO II, China III NR	SCAC, 7% Torque Rise

## DYNAMIC GAS BLENDING – WELL SERVICE RATINGS

Rating Tier	bkW	bhp	rpm	Emissions	Notes
E	1678	2250	1900	EPA T2 NR	Retrofit Kit Only
E	1864	2500	1900	EPA T2 NR	Retrofit Kit Only

## SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
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**3512C HD ATAAC** 2804 (110.4) 1504 (59.2) 2192 (86.3) 6200 (13,669) 58.9 (3596)

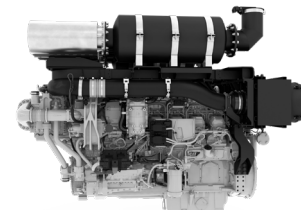
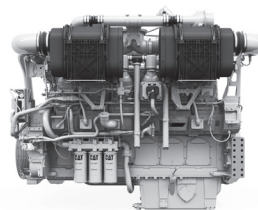
**3512C HD SCAC** 2880 (113.8) 1630 (64.2) 2185 (86.1) 6402 (14,115) 58.9 (3596)

**Bore x Stroke – mm (in)** 170 x 215 (6.7 x 8.5)

Please see spec sheet for more information:

3512C HD ..... LEHW0056, LEHW0090

For diesel engine rating definitions please see page 10.



## DIESEL ONLY - WELL SERVICE RATINGS

Rating Tier	bkW	bhp	rpm	Emissions	Notes
E	1678	2250	1800	EPA T4F NR	ATAAC, SCAC
E	1865	2500	1800	EPA T4F NR	ATAAC, SCAC

## \*DYNAMIC GAS BLENDING – WELL SERVICE RATINGS

Rating Tier	bkW	bhp	rpm	Emissions	Notes
E	1678	2250	1800	EPA T4F	ATAAC, SCAC
E	1865	2500	1800	EPA T4F	ATAAC, SCAC

## CHINA STAGE III – WELL SERVICE RATINGS

Rating Tier	bkW	bhp	rpm	Emissions	Notes
E	2237	3000	1900	China Stage III, NR	ATAAC 7% Torque Rise

## SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
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**3512E ATAAC** 3099 (122) 2235 (88) 2718 (107) 9646 (21,266) 58.9 (3596)

**3512E SCAC** 3490 (137.4) 2235 (88) 2718 (107) 10277 (22,657) 58.9 (3596)

**DGB**

**3512E ATAAC** 3099 (122) 2235 (88) 2718 (107) 9778 (21,486) 58.9 (3596)

**3512E SCAC** 3490 (137.4) 2235 (88) 2718 (107) 10414 (22,959) 58.9 (3596)

**China Stage III**

**3512E ATAAC** 2242 (88.3) 1982 (78) 2208 (86.9) 6270 (13,823) 58.9 (3596)

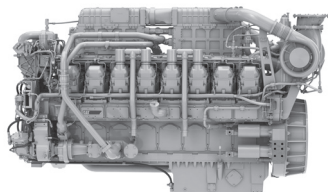
**Bore x Stroke – mm (in)** 170 x 215 (6.69 x 8.46)

\* The 3512E DGB Tier 4 Final engine is certified in only 49 states, not including California. This engine does not contain a CARB certification and is not for sale in California

Please see spec sheet for more information:

3512E ..... LEHW0239, LEHW0240, LEHW0345

For diesel engine rating definitions please see page 10.



### WELL SERVICE RATINGS

Rating Tier	bkW	bhp	rpm	Emissions	Notes
E	2237	3000	1900	EPA T2 NR, China III NR	SCAC
E	2349	3150	1900	EPA T2 NR, China III NR	SCAC
E	2461	3300	1900	EPA T2 NR, China III NR	SCAC
E	2237	3000	1900	EPA T1 NR	SCAC
E	2349	3150	1900	EPA T1 NR	SCAC
E	2461	3300	1900	EPA T1 NR	SCAC

### SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
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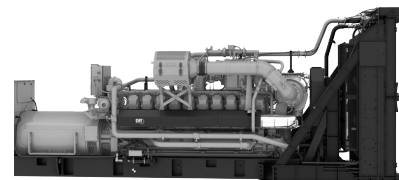
**3516C HD SCAC** 3450 (135.83) 1688 (66.5) 2040 (80.3) 8516 (18,775) 78 (4765)

**Bore x Stroke – mm (in)** 170 x 215 (6.69 x 8.46)

Please see spec sheet for more information:

3516C HD ..... LEHW0159, LEHW0160

For diesel engine rating definitions please see page 10. For diesel engine rating definitions please see page 10.



### WELL SERVICE RATINGS

Model	Duty	ekW	rpm	Emissions
G3520	Continuous	2500	1500	EPA NRM, T2

### SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
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**G3520 NRM** 8534 (336) 2386 (91) 3230 (128s) 22,000(48,501) 97.6 (5956)

**Bore x Stroke – mm (in)** 170 x 215 (6.69 x 8.46)

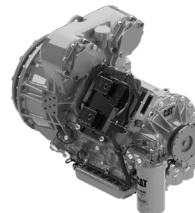
Please see spec sheet for more information:

G3520 NRM ..... LEHW20286

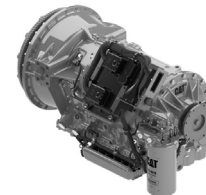
For diesel engine rating definitions please see page 10. For diesel engine rating definitions please see page 10.

Engine	Transmission	Max hp	Page Number
C9 ACERT	CX31-P600	600	27
C11 ACERT	CX31-P600	600	27
C13 ACERT	CX31-P600	600	27
C15 ACERT	CX31-P600	600	27
C18 ACERT	CX35-P800	800	28
C27 ACERT	TH48-E70	1200	32
C32 ACERT	TH48-E70	1500	32
3512B	CX48-P2300	2300	29
3512C	CX48-P2300	2300	29
	TH53-E60	2500	31
	TH55-E70	3300	33
	TH55-E90	3300	34
3512E	CX48-P2300	2300	29
	TH53-E60	2500	36
	CX48-P3060	3000	30
	TH55-E70	3300	33
	TH55-E90	3300	34
3516C	TH55-E70	3300	33
	TH55-E90	3300	34

Note: Do not use for installation design. Weights and dimensions are approximations



CX31-P600 IPD Version



CX31-P600 Standard Version

### RATINGS

Gross Input Power	447 kW (600 hp)
Gross Input Torque	2746 N•m (2025 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2500 rpm

### OUTPUT CONNECTION OPTIONS

1710 output yoke, 1810 yoke,  
1810 companion flange,  
ISO-8667-T180 flange

### POWER TAKE OFF

(Pump Auxiliary Drive)

### STANDARD CONFIGURATION

#### PTO MOUNTINGS & LOCATIONS

Standard Configuration:  
10-bolt, 199 kW/267 hp at 8 o'clock and 1 o'clock\*  
Cat 8-Bolt 355 kW/476 hp at 5 o'clock

### OPTIONAL INTEGRAL PUMP

#### DRIVE CONFIGURATION

SAE J744 B-size (2- and 4-bolt) 149 kW/200 hp at 1 o'clock and 11 o'clock facing input\*

SAE J744 C-size (2- and 4-bolt) 149 kW/200 hp at 1 o'clock and 11 o'clock facing output\*

Cat 8-bolt 355 kW/476 hp at 5 o'clock rear

### TRANSMISSION SPEED RATIOS

GEAR	SPEED RATIOS
------	--------------

1F	4.40
2F	2.33
3F	1.53
4F	1.00
5F	0.72
6F	0.61
1R	-3.97

Stall Torque Ratio @ Rated Speed

< 400 hp engine	2.669
> 400 hp engine	2.324

### DIMENSIONS

Height:	719 mm (28.3 in)
Width:	610 mm (24.0 in)
Length:	922 mm (36.3 in)

### WEIGHT

Approximate Dry Weight	
STD Configuration	456 kg (1006 lbs)
Integral Pump Drive	598 kg (1320 lbs)

### SPEC SHEET

LEHW20440

Contact your local dealer for availability

\*Please see Application and Installation Guide (REHS3513) for details on combine PTO rating or additional information



CX35-P800 IPD Version



CX35-P800 Standard Version

**RATINGS**

Gross Input Power	597 kW (800 hp)
Gross Input Torque	
1F -3F	3354 N•m (2400 lb-ft)
4F -8F	3661 N•m (2700 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2500 rpm

**OUTPUT CONNECTION OPTIONS**

1710 & 1810 yoke, 1810 companion flange, ISO-8667-T180 flange, SPL250

**POWER TAKE OFF**

(Pump Auxiliary Drive)

**STANDARD CONFIGURATION PTO MOUNTINGS & LOCATIONS**

Standard Configuration:  
10-bolt, 199 kW/267 hp at 8 o'clock and 1 o'clock  
Cat 8-bolt 355 kW/476 hp at 5 o'clock\*

**OPTIONAL INTEGRAL PUMP DRIVE CONFIGURATION**

SAE J744 B size (2- and 4-bolt) 149 kW/200 hp at 1 o'clock and 11 o'clock facing input\*  
SAE J744 C size (2- and 4-bolt) 149 kW/200 hp at 1 o'clock and 11 o'clock facing input\*  
Cat 8-bolt 355 kW/476 hp at 5 o'clock\*

**Contact your local dealer for availability**

\*Please see Application and Installation Guide (REHS3515) for details on combine PTO rating or additional information

**TRANSMISSION SPEED RATIOS**

GEAR	SPEED RATIOS
1F	5.73
2F	3.57
3F	2.72
4F	1.95
5F	1.43
6F	1.00
7F	0.74
8F	0.63
1R	-4.46
Stall Torque Ratio	1.962

**DIMENSIONS**

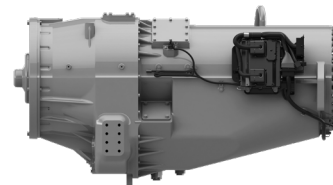
Height:	719 mm (33.4 in)
Width:	610 mm (24.0 in)
Length:	922 mm (36.3 in)

**WEIGHT**

Approximate Dry Weight	
STD Configuration	456 kg (1006 lbs)
Integral Pump Drive	598 kg (1320 lbs)

**SPEC SHEET**

LEHW0007



**RATINGS**

Gross Input Power	1715 kW (2300 hp)
Gross Input Torque	9024 N•m (6656 lb-ft)
Rated Input Speed	1900 rpm
Maximum Input Speed	2150 rpm

**OUTPUT CONNECTION OPTIONS**

GWB 390.60/GWB 390.65

**POWER TAKE OFF**

(Pump Auxiliary Drive)

**STANDARD CONFIGURATION PTO MOUNTINGS & LOCATIONS**

Drive: Engine-driven PTO  
Location: 12 o'clock\*  
Mountings: SAE J704 8 bolt  
SAE J744 C-Size (Optional Cat bolt-on PTO)

Maximum PTO Power:  
150 hp @1900 rpm (Cat PTO)

**TRANSMISSION SPEED RATIOS**

GEAR	SPEED RATIOS
1F	3.34
2F	2.45
3F	2.20
4F	1.81
5F	1.62
6F	1.36
7F	1.19
8F	0.99

**DIMENSIONS**

Height:	1049 mm (41.3 in)
Width:	1128 mm (44.4 in)
Length:	1833.5 mm (72.2 in)

**WEIGHT**

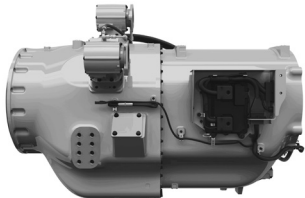
Approximate Dry Weight	
Transmission	1601 kg (3530 lbs)
Engine/Transmission Coupling	156 kg (343 lbs)

**SPEC SHEET**

LEHW0220  
LEHW20261 - Cat PTO

**Contact your local dealer for availability**

\*Please see Application and Integrate Guides (REHS7047 & M0117341) for further details on PTO specifications and limitations



**RATINGS**

Gross Input Power\* 2237KW (3000 hp)  
 Gross Input Torque 12086 N•m (8914 lb-ft)  
 Rated Input Speed 1900 rpm  
 Maximum Input Speed 2025 rpm

**OUTPUT CONNECTION OPTIONS**

GWB 390.70

**POWER TAKE OFF**

(Pump Auxiliary Drive)

**STANDARD CONFIGURATION**

**PTO MOUNTINGS & LOCATIONS\***

Drive: Engine-driven PTO  
 Location: 12 o'clock, 10 o'clock\*  
 Mountings: SAE J704 8 bolt  
 SAE J744 C-Size (Optional Cat bolt-on PTO)\*

Maximum PTO Power:  
 150 hp per PTO @1900 rpm (Cat PTO)\*

**TRANSMISSION SPEED RATIOS**

GEAR	SPEED RATIOS
1F	4.54
2F	3.33
3F	2.99
4F	2.46
5F	2.20
6F	1.62

**DIMENSIONS**

With Dual PTO's  
 Height: 1270 mm (50.0 in)  
 Width: 1269 mm (49.9 in)  
 Length: 1793 mm (70.6 in)

**WEIGHT**

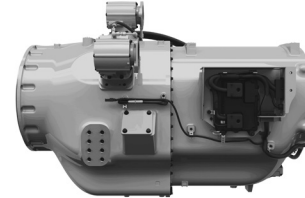
Transmission Wt - kg (lbs)  
 1900 kg (4189 lbs)  
 Engine/Transmission Coupling  
 Wt - kg (lbs) 150 kg (331 lbs)

**SPEC SHEET**

LEHW0344  
 LEHW20261 - Cat PTO

**Contact your local dealer for availability**

\*Please see Application and Integrate Guides (M0090883 & M0117341) for further details on PTO specifications and limitations



**RATINGS**

Gross Input Power\* 1864 KW (2500 hp)  
 Gross Input Torque 12086 N•m (8914 lb-ft)  
 Rated Input Speed 1900 rpm  
 Maximum Input Speed 2025 rpm

**OUTPUT CONNECTION OPTIONS**

GWB 390.60, GWB 390.65

**POWER TAKE OFF**

(Pump Auxiliary Drive)

**STANDARD CONFIGURATION**

**PTO MOUNTINGS & LOCATIONS\***

PTO Mountings and Locations\*  
 Drive: Engine-driven PTO  
 Location: 12 o'clock, 10 o'clock\*  
 Mountings: SAE J704 8 bolt  
 SAE J744 C-Size (Optional Cat bolt-on PTO)\*

Maximum PTO Power:  
 150 hp per PTO @1900 rpm (Cat PTO)\*

**TRANSMISSION SPEED RATIOS**

GEAR	SPEED RATIOS
1F	4.54
2F	3.33
3F	2.99
4F	2.46
5F	2.20
6F	1.62

**DIMENSIONS**

Height: 1270 mm (50.0 in)  
 Width: 1269 mm (49.9 in)  
 Length: 1793 mm (70.6 in)

**WEIGHT**

Approximate Dry Weight Wt-kg (lbs)  
 Transmission  
 1900 kg (4189 lbs)  
 Engine/Transmission Coupling  
 105-150 kg (231-331)

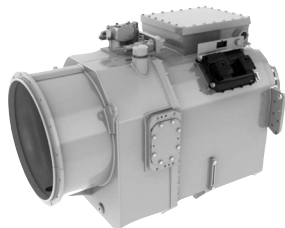
**SPEC SHEET**

LEHW0374  
 LEHW20261 - Cat PTO

**Contact your local dealer for availability**

\* Please see Application and Integrate Guides (M0090883 & M0117341) for further details on PTO specifications and limitations





**RATINGS**

Gross Input Power 895 kW (1200 hp)  
1118 kW (1500 hp)  
Gross Input Torque 5995 N•m (4422 lb-ft)  
Rated Input Speed 2100 rpm  
Maximum Input Speed 2200 rpm

**OUTPUT CONNECTION (YOKE)**

GWB 390.60/GWB 390.65

**POWER TAKE OFF**

(Pump Auxiliary Drive)

**PTO MOUNTINGS AND LOCATIONS\***

Drive: Engine-driven PTO  
Location: 3 o'clock, 5 o'clock,  
& 9 o'clock\*  
Mountings: SAE J704 8 bolt  
SAE J744 C-Size (Optional Cat bolt-on PTO)\*

**Maximum PTO Power:**

3 o'clock - 150 hp @ 1900 rpm (Cat PTO)\*  
5 o'clock - 90 hp @ 1900 rpm (Cat PTO)\*  
9 o'clock - 150 hp @ 1900 rpm (Cat PTO)\*

**TRANSMISSION SPEED RATIOS**

GEAR	SPEED RATIOS
1F	6.16
2F	4.52
3F	3.33
4F	2.47
5F	1.82
6F	1.36
7F	1.00

**DIMENSIONS**

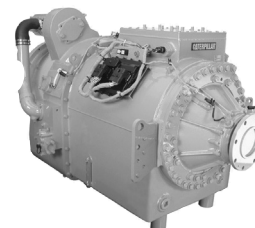
Height: 1092 mm (43.0 in)  
Width: 866 mm (34.1 in)  
Length: 1656 mm (65.2 in)

**WEIGHT**

Approximate Dry Weight  
Transmission 1694 kg (3735 lbs)  
Engine/Transmission Coupling  
74 kg (163 lbs)

**SPEC SHEET**

LEHW1002  
LEHW20261 - Cat PTO



**RATINGS**

Gross Input Power 2461 kW (3300 hp)  
Gross Input Torque 12,667 N•m (9350 lb-ft)  
Rated Input Speed 1900 rpm  
Maximum Input Speed 1970 rpm

**OUTPUT CONNECTION (YOKE)**

GWB 390.65 – 2500 hp  
GWB 390.70 – 3000+ hp

**POWER TAKE OFF**

(Pump Auxiliary Drive)

**PTO Mountings and Locations\***

Drive: Engine-driven PTO  
Location: 3 o'clock & 11 o'clock  
Mountings: SAE J704 (8-bolt) at 3 o'clock  
(Optional Cat bolt-on PTO)\*  
SAE J744 C-size (2- and 4-bolt) at 11 o'clock

**Maximum PTO Power:**

3 o'clock-150 hp @1900 rpm (Cat PTO)\*  
11 o'clock- 150 hp @1900 rpm

**TRANSMISSION SPEED RATIOS**

GEAR	SPEED RATIOS
1F	6.25
2F	4.59
3F	3.38
4F	2.48
5F	1.83
6F	1.36
7F	1.00

**DIMENSIONS**

Height: 1288 mm (50.7 in)  
Width: 1246 mm (49.1 in)  
Length: 2132 mm (83.9 in)

**WEIGHT**

Approximate Dry Weight  
Transmission 2917 kg (6431 lbs)  
Engine/Transmission Coupling  
105-150 kg (231-331 lbs)

**SPEC SHEET**

LEHW1006  
LEHW20261 - Cat PTO

\* Please see Application and Integrate Guides (REHS2891 & M0117341) for further details on PTO specifications and limitations

\* Please see Application and Integrate Guides (REHS2893 & M0117341) for further details on PTO specifications and limitations



**RATINGS**

Gross Input Power 2461 kW (3300 hp)  
 Gross Input Torque 12,677 N•m (3300 lb-ft)  
 Rated Input Speed 1900 rpm  
 Maximum Input Speed 1970 rpm

**OUTPUT CONNECTION OPTIONS**

GWB 390.65 – 2500 hp  
 GWB 390.70 – 3000+ hp

**POWER TAKE OFF**

(Pump Auxiliary Drive)

**PTO Mountings and Locations\***

Drive: Engine-driven PTO  
 Location: 3 o'clock & 11 o'clock  
 Mountings: SAE J704 (8-bolt) at 3 o'clock  
 (Optional Cat bolt-on PTO)\*  
 SAE J744 C-size (2- and 4-bolt) at 11 o'clock  
 Maximum PTO Power:  
 3 o'clock- 150 hp @1900 rpm (Cat PTO)\*  
 11 o'clock- 150 hp @1900 rpm

**TRANSMISSION SPEED RATIOS**

GEAR	SPEED RATIOS
1F	4.67
2F	3.43
3F	3.03
4F	2.53
5F	2.22
6F	1.85
7F	1.64
8F	1.36
9F	1.00

**DIMENSIONS**

Height: 1288 mm (50.7 in)  
 Width: 1246 mm (49.1 in)  
 Length: 2132 mm (83.9 in)

**WEIGHT**

Approximate Dry Weight  
 Transmission 2781 kg (6131 lbs)  
 Engine/Transmission Coupling  
 105-150 kg (231-331 lbs)

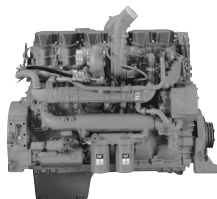
**SPEC SHEET**

LEHW1006  
 LEHW20261 - Cat PTO

\* Please see Application and Integrate Guides (REHS2893 & M0117341) for further details on PTO specifications and limitations

# LAND DRILLING

Cat engines have been the driving force behind the majority of the world's drilling wells for years. Cat engines and modules feature proven reliability and durability, the right power for each application, easy servicing, fuel consumption optimized for drilling, ease of installation, and low owning and operating costs.



**RATINGS**

Rating Tier	bkW	bhp	rpm	Emissions
A/B	354	475	1800	EPA T4F NR, EU IV NR, CHINA IV
C	403	540	1800	EPA T4F NR, EU IV NR, CHINA IV
D	433	580	1800	CHINA IV NR, EU V NR
A	328	440	1800	EPA T3 NR
B	354	475	1800	EPA T3 NR

\*Available with Cat compression brake

**LAND DRILLING MODULE RATINGS**

Duty	bkW	ekW	kVA	bhp	Emissions
<b>50 Hz/1500 rpm</b>					
Prime	331	292	365	444	
Prime	410	365	456	550	
<b>60 Hz/1800 rpm</b>					
Prime	373	320	-	500	EPA T3 NR
Prime	380	365	-	510	EPA T3 NR
Prime	517	455	-	693	EPA T3 NR

**SPECIFICATIONS**

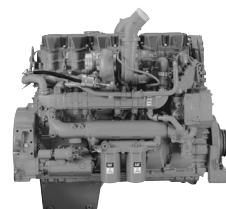
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C15 ACERT</b>	1377 (54)	927 (37)	1227 (48)	1245 (2743)	15 (928)
<b>C15 ACERT T4</b>	1530 (60.2)	961 (37.8)	1282 (51)	1580 (3482)	15 (928)
<b>C15 ACERT Module</b>	3518 (138.5)	1524 (60)	2110 (83.1)	4760 (10,500)	15 (928)
<b>Bore x Stroke – mm (in)</b>	137 x 171 (5.4 x 6.75)				

Please see spec sheet for more information:

C15 ACERT (T3)..... LEHW0061      C15 ACERT (T4) ..... LEHW0097

C15 ACERT Module ..... LEHW0010

For diesel engine rating definitions please see page 10.



**RATINGS**

Rating Tier	bkW	bhp	rpm	Emissions
A	429	575	1800-2100	EPA T3 NR, EPA ESE, EU Stage IIIA, China III NR, IMO II, NC
B	447	600	1800-2100	EPA T3 NR, EPA ESE, EU Stage IIIA, China III NR, IMO II, NC
C	470	630	1800-2100	EPA T3 NR, EPA ESE, EU Stage IIIA, China III NR, IMO II, NC
C	522	700	1800-2100	EPA T3 NR, EPA ESE, EU Stage IIIA, China III NR, IMO II, NC
D	570	765	1800-2100	EPA T2 NR, China III NR, IMO II
E	597	800	1800-2100	EPA T2 NR, China III NR, IMO II
A/B	447	600	1800-1900	EPA T4i NR, EU IIIB
A	429	575	1800-2000	EPA T4F NRNG, EU V NR
B	447	600	1800-2000	EPA T4F NRNG, EU V NR
C	470	630	1800-1900	EPA T4i NR, EU IIIB
C	522	700	1800-1900	EPA T4i NR, EU IIIB
C	563	755	1800-1900	EPA T4i NR
C	470	630	1800-2000	EPA T4F NRNG, EU V NR
C	563	755	1800	EPA T4F NRNG, EU V NR
D	597	800	1800	EPA T4F NRNG, EU V NR

**LAND DRILLING MODULE RATINGS**

Duty	bkW	ekW	kVA	bhp	Emissions
<b>50 Hz/1500 rpm</b>					
Prime	490	436	545	657	China II NRNC, EU II NRNC
<b>60 Hz/1800 rpm</b>					
Prime	528	455	569	708	EPA T4F NRNG

Ratings continued on page 38

Ratings continued from page 37

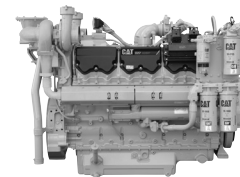
## SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C18 ACERT</b>	1389 (54.7)	919 (36.2)	1227 (49.5)	1273 (2807)	18 (1105)
<b>C18 ACERT T4</b>	1530 (60.2)	961 (37.8)	1282 (51)	1580 (3482)	18 (1105)
<b>C18 ACERT Module</b>	3632 (143)	1524 (60)	2115 (83.3)	5033 (11,095)	18 (1105)
<b>Bore x Stroke – mm (in)</b>	145 x 183 (5.7 x 7.2)				

Please see spec sheet for more information:

C18 ACERT (T3).....	LEHW0053	C18 ACERT Module (T4F) ....	LEHW0333
C18 ACERT (T4i).....	LEHW0098	C18 ACERT Module.....	LEHW7450
C18 ACERT (T4F).....	LEHW0109		

For diesel engine rating definitions please see page 10.



## RATINGS

Rating Tier	bkW	bhp	rpm	Emissions
A	597	800	1800-2100	IMO II
B	653	875	1800-2100	IMO II
C	708	950	1800-2100	IMO II
D	783	1050	1800-2100	IMO II
E	858	1150	1800-2100	IMO II
A	597	800	1800	EPA T4F NRNG, EU V
B	652	875	1800	EPA T4F NRNG, EU V
C	708	950	1800	EPA T4F NRNG, EU V
D	783	1050	1800	EPA T4F NRNG, EU V
A	597	800	1800	EPA T4F NRNG, EU V

## LAND ELECTRIC DRILLING MODULE RATINGS

Duty	bkW	ekW	kVA	bhp	Emissions
<b>60 Hz/1800 rpm</b>					
Prime	824	725	1035	1105	NC
Prime	824	725	907	1105	NC

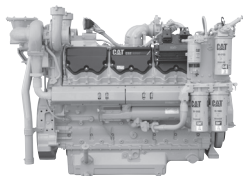
## SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C27 ACERT</b>	1918 (75.5)	1463 (57.6)	1321 (52)	2895 (6382)	27 (1648)
<b>C27 ACERT T4</b>	2160 (85)	1270 (50)	1650 (65)	2956 (6516)	27 (1648)
<b>C27 ACERT Module</b>	5228 (205.8)	1950 (76.8)	2180 (85.8)	9072 (20,000)	27 (1648)
<b>Bore x Stroke – mm (in)</b>	137.7 x 152.4 (5.42 x 6)				

Please see spec sheet for more information:

C27 ACERT (T2).....	LEHW0052	C27 ACERT Module.....	LEHW0115
C27 ACERT (T4i).....	LEHW0101		

For diesel engine rating definitions please see page 10.



## RATINGS

Rating Tier	bkW	bhp	rpm	Emissions
A	597	800	1800-2100	EPA T2 NR, China III NR IMO II
B	708	950	1800-2100	EPA T2 NR, China III NR, IMO II
C	839	1125	1800-2100	EPA T2 NR, China III NR, IMO II
D	895	1200	1800-2100	EPA T2 NR, China III NR, IMO II
E	1007	1350	1800-2100	EPA T2 NR, China III NR, IMO II
B	746	1000	1800	EPA T4F NR, EU V NR
C	839	1125	1800	EPA T4F NR, EU V NR
D	895	1200	1800	EPA T4F NR

## LAND DRILLING MODULE RATINGS

Duty	bkW	ekW	kVA	bhp	Emissions
<b>50 Hz/1500 rpm</b>					
Prime	882	800	1000	1182	NC
<b>60 Hz/1800 rpm</b>					
Prime	1008	910	1300	1351	EPA T2 NR

## SPECIFICATIONS

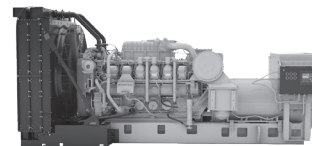
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C32 ACERT</b>	1918 (75.5)	1473 (58)	1321 (52)	2895 (6382)	32 (1953)
<b>C32 ACERT T4</b>	1905 (75)	1600 (63)	1549 (61)	3107 (6850)	32 (1953)
<b>C32 ACERT Module</b>	5228 (206)	1905 (75)	2180 (86)	9299 (20,500)	32 (1953)

**Bore x Stroke – mm (in)** 145 x 162 (5.7 x 6.4)

**Please see spec sheet for more information:**

C32 ACERT (T2) .....	LEHW0049
C32 ACERT (T4) .....	LEHW0100
C32 ACERT Module .....	LEHW0110

For diesel engine rating definitions please see page 10.



## RATINGS

Rating Tier	Duty	bkW	bhp	rpm	Emissions
3508	Drill-M	567	760	1200	NC
3512	Drill-M	764	1025	1200	NC
3512	Drill-M	932	1250	1200	NC
3516	Drill-M	1230	1649	1200	NC

## LAND ELECTRIC-DRIVE DRILLING MODULE RATINGS

Model	Duty	bkW	ekW	kVA	bhp	Emissions
<b>50 Hz/1500 rpm</b>						
3512	Drill-El	1090	990	1680	1462	NC

## SPECIFICATIONS

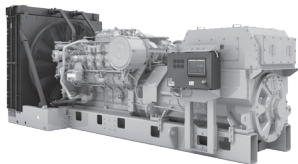
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3508 Engine</b>	2136 (84.1)	1702 (67.0)	1720 (67.7)	4309 (9500)	35 (2105)
<b>3508 Module</b>	7874 (310)	2385 (93.9)	2779 (109.4)	14 443 (31,847)	35 (2105)
<b>3512 Engine</b>	2675 (105.3)	1702 (67.0)	1720 (67.7)	5203 (11,471)	52 (3158)
<b>3512 Module</b>	7874 (310)	2385 (93.9)	2936 (115.6)	15 714 (34,643)	52 (3158)
<b>3516 Engine</b>	3251 (128)	1701 (67.0)	2004 (78.9)	8659 (19,090)	69 (4210)

**Bore x Stroke – mm (in)** 170 x 190 (6.7 x 7.5)

**Please see spec sheet for more information:**

3508 Engine .....	LEHW0058	3512 Engine .....	LEHW0060
3508 Module .....	LEHW0069	3512 Module .....	LEHW0066

For diesel engine rating definitions please see page 10.



### LAND MECHANICAL DRILLING ENGINE RATINGS

Model	Duty	bkW	bhp	rpm	Emissions
3508B	Drill-M	671	900	1200	EPA T1 NR

### LAND ELECTRIC-DRIVE DRILLING ENGINE RATINGS

Model	Duty	bkW	bhp	rpm	Emissions
3508B	Drill-M	682	915	1200	EPA T1 NR
3512B	Drill-M	1101	1475	1200	EPA T1 NR
3512B with DGB	Drill-M	933	1251	1000	NC

### LAND ELECTRIC-DRIVE DRILLING MODULE RATINGS

Model	Duty	bkW	ekW	kVA	bhp	Emissions
<b>60 Hz/1200 rpm</b>						
3512B	Drill-EI	1101	995	1673	1476	NC
3512B with DGB	Drill-EI	1101	995	1673	1476	NC
3516B	Drill-EI	1383	1285	2150	1855	NC
<b>50 Hz/1500 rpm</b>						
3512B	Drill-EI	1310	1200	1993	1757	NC
3512B with DGB	Drill-EI	1310	1200	1993	1757	NC

### SPECIFICATIONS

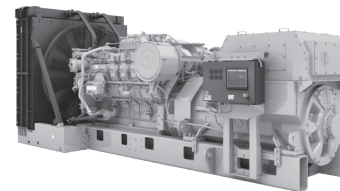
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3508B Engine</b>	2136 (84.1)	1702 (67)	2024 (79.7)	4309 (9500)	35 (2105)
<b>3508B Module</b>	4986 (196.3)	2319 (91.3)	2596 (102.2)	15 352 (33,846)	35 (2105)
<b>3512B Engine</b>	2675 (105.3)	1702 (67)	1720 (67.7)	5203 (11,471)	52 (3158)
<b>3512B Module</b>	6051 (238.2)	2318 (91.2)	2659 (104.7)	14 000 (30,864)	52 (3158)
<b>3516B DGB Module</b>	5841 (230.0)	2318 (91.2)	2662 (104.8)	13 545 (29,861)	52 (3158)
<b>3516B Module</b>	7874 (310.0)	2385 (93.9)	2520 (99.2)	18 810 (41,469)	69 (4210)

**Bore x Stroke – mm (in)** 170 x 190 (6.7 x 7.5)

**Please see spec sheet for more information:**

3508B Engine .....	LEHW0057	3512B DGB Module .....	LEHW0200
3508B Module .....	LEHW0070	3516B Module .....	LEHW0065
3512B Engine .....	LEHW0067, LEHW0170		

For diesel engine rating definitions please see page 10.



### LAND MECHANICAL DRILLING ENGINE RATINGS

Model	Duty	bkW	bhp	rpm	Emissions
3508C	Drill-M	671	900	1200	China III NR, EPA T2 NR
3512C HD	Drill-M	932	1250	1200	China III NR, EPA T2 NR
3512C	Drill-M	1100	1475	1200	China III NR, EPA T2 NR

### LAND ELECTRIC-DRIVE DRILLING ENGINE RATINGS

Model	Duty	bkW	bhp	rpm	Emissions
3508C	Drill-EI	682	915	1200	China III NR, EPA T2 NR
3512C	Drill-EI	1101	1475	1200	EPA T2 NR
3512C	Drill-EI	1305	1750	1200	EPA T2 NR

### LAND ELECTRIC-DRIVE DRILLING MODULE RATINGS

Model	Duty	bkW	ekW	kVA	bhp	Emissions
<b>50 Hz/1500 rpm</b>						
3512C	Drill-EI	1310	1245	1993	1757	China III NR
<b>60 Hz/1200 rpm</b>						
3512C	Drill-EI	1101	995	1673	1476	EPA T2 NR, China III NR
3512C	Drill-EI	1305	1190	2113	1750	EPA T2 NR

### SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3508C Engine</b>	2136 (84.1)	1702 (67.0)	2024 (79.7)	4582 (10,101)	35 (2105)
<b>3512C Module</b>	6051 (238.2)	2318 (91.2)	2659 (104.7)	14 453 (31,864)	52 (3158)
<b>3512C HD</b>					
<b>Engine</b>	2682 (105.6)	1790 (70.5)	2019 (79.5)	5423 (11,945)	59 (3574)
<b>Module</b>	6035 (237.6)	2320 (91.4)	2636 (103.8)	14 720 (32,452)	59 (3574)

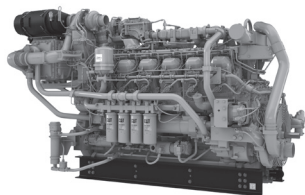
**Bore x Stroke – mm (in)** 170 x 190 (6.7 x 7.5)

**Bore x Stroke HD – mm (in)** 170 x 215 (6.7 x 8.5)

**Please see spec sheet for more information:**

3508C Engine .....	LEHW0059, LEHW0071	3512C Module .....	LEHW0068
3512C HD Engine .....	LEHW0048	3512C (DGB) Module .....	LEHW0138
3512C HD China III NR .....	LEHW0241	3512C HD Module .....	LEHW0013

For diesel engine rating definitions please see page 10.



### LAND ELECTRIC-DRIVE DRILLING ENGINE RATINGS

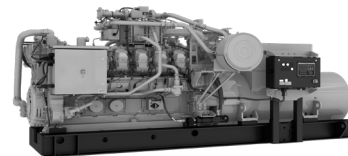
Model	Duty	bkW	bhp	rpm	Emissions
3512E	Drill-EI	1102	1477	1200	EPA T4F NRNG
3512E	Drill-EI	1306	1750	1200	EPA T4F NRNG

### SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3512E Engine</b>	3327 (131)	1829 (72)	1981 (78)	7711 (17,000)	59 (3600)
<b>Bore x Stroke – mm (in)</b>	170 x 216 (6.7 x 8.5)				

Please see spec sheet for more information:  
3500E Engine..... LEHW0282

For diesel engine rating definitions please see page 10.



### LAND ELECTRIC-DRIVE DRILLING ENGINE RATINGS

Model	Duty	bkW	bhp	rpm	Emissions
G3512	Continuous	1095	1468	1800	EPA NRM, T2

### SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Disp – L (in <sup>3</sup> )
<b>G3512 Engine</b>	4979.3 (196.0)	2154.4 (84.8)	2277.1 (89.6)	52 (3173)

**Bore x Stroke – mm (in)** 170 x 190 (6.7 x 7.5)

Please see spec sheet for more information:  
G3512 Engine ..... LEHW20188

## PGS1260 HD



### ENERGY STORAGE SOLUTIONS RATINGS

Model	Duty	Power (kW)	Energy(kWh)
PGS1260 HD	Continuous	1000	672

### SPECIFICATIONS

	L – m (ft)	W – m (ft)	H – m (ft)	Weight - kg (lbs)
<b>PGS1260 HD</b> (with trailer)	11.56(37.93)	2.66(8.73)	3.96(12.99)	
<b>PGS1260 HD</b> (without trailer)	6.75(22.13)	2.4 (8)	2.8 (9.5)	16,500 (36,376)

Please see spec sheet for more information:

PGS1260 Engine ..... LEHW20329

Container without cooler has a length of 6.06m or 19.87ft

For diesel engine rating definitions please see page 10.

# LAND PRODUCTION

The broad line of Cat engines and generator sets is the preferred choice in a variety of production applications worldwide. Known for reliability and durability, Cat engines are used in the most demanding applications in the oilfield. Cat engines have high fuel efficiency, low life cycle costs, simple installation and start-up, and fuel flexibility including CRU, gas, and dual fuel.



**50 HZ OILFIELD DIESEL GENERATOR SET RATINGS – 365-1000 KVA**

Model	Duty	bkW	ekW	kVA	bhp	Emissions
<b>1500 rpm</b>						
C18 ACERT	Prime	483	436	545	647	EU II NRNC, China II NRNC, NC
C32 ACERT	Prime	882	800	1000	1182	NC

**50 HZ OILFIELD DIESEL GENERATOR SET RATINGS – 365-7150 KVA**

kVA			ekW			Generator Set Model	Emissions/ Configuration
Standby	Prime	Cont.	Standby	Prime	Cont.		
<b>1500 rpm</b>							
–	350	–	–	280	–	C13	China III NR
–	400	–	–	320	–	C13	China III NR
–	450	–	–	360	–	C15	NC
–	500	–	–	400	–	C15	NC
500	450	–	400	360	–	C15	NC
550	500	–	440	400	–	C15	NC
605	550	–	484	440	–	C18	NC
660	600	–	528	480	–	C18	NC
715	650	–	572	520	–	C18	NC
800	725	–	640	580	–	3412C	Low BSFC
900	810	–	720	648	–	3412C	Low BSFC
1250	1100	–	1000	880	–	C32	Low BSFC
1100	1000	910	880	800	728	C32	Low BSFC
1250	1150	1000	1000	920	800	3512	Low BSFC
1400	1275	1206	1120	1020	965	3512	Low BSFC
1500	1360	–	1200	1088	–	3512B	Low BSFC, Low Emissions
1600	1500	1320	1280	1200	1056	3512B	Low BSFC, Low Emissions
1750	1600	–	1400	1280	–	3512B HD	Low BSFC, Low Emissions
1875	1700	1500	1500	1360	1200	3512B HD	Low BSFC, Low Emissions
2000	1825	1600	1600	1460	1280	3516	Low BSFC
–	2000	1750	–	1600	1400	3516B	Low BSFC, Low Emissions

Ratings continued on page 49

Ratings continued from page 48

kVA			ekW			Generator Set Model	Emissions/ Configuration
Standby	Prime	Cont.	Standby	Prime	Cont.		
<b>1500 rpm</b>							
2500	2275	2000	2000	1820	1600	3516B HD	Low BSFC, Low Emissions
2750	2500	–	2200	2000	–	3516C HD	Low BSFC
3000	2725	2500	2400	2180	2000	C175-16	Low BSFC
3000	–	–	2400	–	–	C175-16	Low Emissions
3100	2825	2600	2480	2260	2080	C175-16	Low BSFC
3100	–	–	2480	–	–	C175-16	Low Emissions
3900	3500	3150	3120	2800	2520	C175-20	Low BSFC
3900	–	–	3120	–	–	C175-20	Low Emissions
4000	3600	3250	3200	2880	2600	C175-20	Low BSFC
4000	–	–	3200	–	–	C175-20	Low Emissions
<b>1000 rpm</b>							
–	2425	2200	–	1940	1760	3606	NC
–	–	2000	–	–	1600	3606	NC
–	–	2938	–	–	2350	3608	NC
–	3250	–	–	2600	–	3608	NC
–	4850	4400	–	3880	3520	3612	NC
5375	–	–	4300	–	–	3612	NC
–	6500	–	–	5200	–	3616	NC
7150	–	5875	5720	–	4700	3616	NC
–	2425	2200	–	1940	1760	C280-6	NC
–	3250	–	–	2600	–	C280-8	NC
–	–	2938	–	–	2350	C280-8	NC
–	4850	4400	–	3880	3520	C280-12	NC
–	6500	5875	–	5200	4700	C280-16	NC

**60 HZ GENERATOR SET RATINGS – 180-4600 EKW**

kVA			ekW			Generator Set Model	Emissions/ Configuration
Standby	Prime	Cont.	Standby	Prime	Cont.		
<b>1800 rpm</b>							
156	142	–	125	114	–	C7.1 ACERT	EPA ESE
187	169	–	150	135	–	C7.1 ACERT	EPA ESE
219	197	–	175	157	–	C7.1 ACERT	EPA ESE
250	–	–	200	–	–	C7.1 ACERT	EPA ESE + T4F
250	225	–	200	180	–	C9 ACERT	EPA ESE
313	281	–	250	225	–	C9 ACERT	EPA ESE
375	344	–	300	275	–	C9 ACERT	EPA ESE
438	400	–	350	320	–	C13 ACERT	EPA ESE
500	456	–	400	365	–	C13 ACERT	EPA ESE
438	400	–	350	320	–	C15 ACERT	EPA ESE
500	456	–	400	365	–	C15 ACERT	EPA ESE
563	513	–	450	410	–	C15 ACERT	EPA ESE
625	569	–	500	455	–	C15 ACERT	EPA ESE
688	625	–	550	500	–	C18 ACERT	EPA ESE
750	681	–	600	545	–	C18 ACERT	EPA ESE
813	750	–	650	600	–	C18 ACERT	EPA ESE
875	794	–	700	635	–	C18 ACERT	EPA ESE
938	850	–	750	680	–	C18 ACERT	EPA ESE
875	794	–	700	635	–	3412STA	NC
1000	906	–	800	724	–	3412STA	NC

\* Package available through DTO

Ratings continued on page 51

Ratings continued from page 50

**60 HZ GENERATOR SET RATINGS – 180-4600 EKW**

kVA			ekW			Generator Set Model	Emissions/ Configuration
Standby	Prime	Cont.	Standby	Prime	Cont.		
<b>1800 rpm (continued)</b>							
938	906	–	750	680	–	C27 ACERT	EPA ESE
1000	906	–	800	725	–	C27 ACERT	EPA ESE
–	1035	–	–	725	–	C27 ACERT	NC, LOW BSFC
–	907	–	–	725	–	C27 ACERT	NC, LOW BSFC
–	1035	–	–	725	–	C27 ACERT	NC, LOW EMISSIONS
–	907	–	–	725	–	C27 ACERT	NC, LOW EMISSIONS
1250	1138	1038	1000	910	830	C32 ACERT	NC, EPA ESE, EPA T2
–	1300	–	–	910	–	C32 ACERT	NC
–	1137	–	–	910	–	C32 ACERT	NC
1375	1250	1113	1100	1000	890	3512	NC
–	1594	–	–	1275	–	3512B	NC, LOW BSFC
–	1700	1538	–	1360	1230	3512B	NC, LOW BSFC
1875	–	–	1500	–	–	3512C	EPA ESE
–	1700	1538	–	1360	1230	3512C	NC, EPA ESE
2188	–	–	1750	–	–	3512C	NC, EPA ESE
2188	2000	1813	1750	1600	1450	3516	NC
2500	–	–	2000	–	–	3516B	NC
–	2281	2050	–	1825	1640	3516B	NC
2813	–	–	2250	–	–	3516B	NC
–	2281	2063	–	1825	1650	3516C	NC, EPA ESE
2500	–	–	2000	–	–	3516C	NC, EPA ESE
–	2813	2563	–	2250	2050	3516C	NC, EPA ESE
3125	–	–	2500	–	–	3516CHD	NC, EPA ESE
2500	2281	–	2000	1825	–	3516CHD	EPA T4F
3125	2813	–	2500	2250	–	3516CHD	EPA T4F

Ratings continued on page 52

Ratings continued on page 51

**60 HZ GENERATOR SET RATINGS – 180-4600 EKW**

kVA			ekW			Generator Set Model	Emissions/ Configuration
Standby	Prime	Cont.	Standby	Prime	Cont.		
<b>900 rpm</b>							
–	2275	2063	–	1820	1650	3606	NC
–	–	1875	–	–	1500	3606	NC
–	–	2500	–	–	2000	3608	NC
–	3025	–	–	2420	–	3608	NC
–	–	2750	–	–	2200	3608	NC
–	4550	4125	–	3640	3300	3612	NC
5000	–	–	4000	–	–	3612	NC
–	–	3750	–	–	3000	3612	NC
–	6050	–	–	4840	–	3616	NC
6650	–	5500	5320	–	4400	3616	NC
–	–	5000	–	–	4000	3616	NC
–	2275	2063	–	1820	1650	C280-6	EPA T2
–	3025	2750	–	2420	2200	C280-8	EPA T4F
–	3025	2750	–	2420	2200	C280-8	NC
–	4550	4125	–	3640	3300	C280-12	EPA T4i
–	4550	4125	–	3640	3300	C280-12	EPA T4i
–	6050	5750	–	4840	4600	C280-16	EPA T4i
–	6050	5500	–	4840	4400	C280-16	EPA T4i

Ratings continued from page 52

**60 HZ GENERATOR SET RATINGS – 180-4600 EKW**

kVA			ekW			Generator Set Model	Emissions/ Configuration
Standby	Prime	Cont.	Standby	Prime	Cont.		
<b>720/750 rpm</b>							
–	1963	–	–	1570	–	3606	NC
–	1906	–	–	1525	–	3606	NC
–	2600	–	–	2080	–	3608	NC
–	2525	–	–	2020	–	3608	NC
–	3925	–	–	3140	–	3612	NC
–	3813	–	–	3050	–	3612	NC
–	5200	–	–	4160	–	3616	NC
–	5050	–	–	4040	–	3616	NC

<sup>1</sup>Dependent on generator selection and power factor.

**GENERATOR SET RATINGS – 1056-1600 EKW**

ekW	kVA	Duty	Generator Set Model	Notes
<b>60 Hz – 1800 rpm</b>				
1825	2281	Prime	3512B with DGB	Diesel with up to 70% NG/LNG/CNG/FG
<b>50 Hz – 1500 rpm</b>				
1400	1750	Cont	3512B with DGB	Diesel with up to 70% NG/LNG/CNG/FG
1200	1500	Prime	3512B with DGB	Diesel with up to 70% NG/LNG/CNG/FG
1600	2000	Prime	3516B with DGB	Diesel with up to 70% NG/LNG/CNG/FG

**50 HZ GENERATOR SET RATINGS – 70-4300 EKW**

ekW	rpm	Generator Set Model
<b>1500 rpm</b>		
360	1500	G3412C
400	1500	CG132B-8
600	1500	CG123B-12
800	1500	CG132B-16
984	1500	G3512E
975/1030	1500	G3516
1200	1500	CG170-12
1555	1500	G3516C
1560	1500	CG170-16
1990/2000	1500	G3516H
1972	1500	G3520C
2000	1500	CG170-20
2519	1500	G3520H
<b>1000 rpm</b>		
3333	1000	CG260-12
4300	1000	CG260-16

**60 HZ GENERATOR SET RATINGS – 85-4050 EKW**

ekW	rpm	Generator Set Model	Certifications
<b>1500 rpm with gearbox</b>			
1966	1500	G3516H	
2476	1500	G3520H	
<b>1800 rpm</b>			
282	1800	CG132-8	NRM
375	1800	G3412 TA	
400	1800	CG137-12	NRM
-	1800	G3412C	
600	1800	CG132B-12	
800	1800	CG132B-16	
1650/1660	1800	G3516C	
2050	1800	G3520C	
<b>900 rpm</b>			
3000	900	CG260-12	
4000	900	CG260-16	
4050	900	CG260-16	

**MECHANICAL DRIVE ENGINE RATINGS;  
HIGHLY REGULATED AREAS – 116-839 BKW**

Model	bkW	bhp	rpm	Emissions
C9.3B ATAAC	250	335	1800-2200	EPA T4f, EU Stage V, Japan 2014 (T4f), Korea T4f, UNECE R96 Stage IV, IMO III
C9.3B ATAAC	280	375	1800-2200	EPA T4f, EU Stage V, Japan 2014 (T4f), Korea T4f, UNECE R96 Stage IV, IMO III
C9.3B ATAAC	310	415	1800-2200	EPA T4f, EU Stage V, Japan 2014 (T4f), Korea T4f, UNECE R96 Stage IV, IMO III
C9.3B ATAAC	340	455	1800-2200	EPA T4f, EU Stage V, Japan 2014 (T4f), Korea T4f, UNECE R96 Stage IV, IMO III
C9.3B ATAAC	340	456	1800-2100	EPA T4f, EU Stage V, Japan 2014 (T4f), Korea T4f, UNECE R96 Stage IV, IMO III
C9.3B ATAAC	370	496	1800-2100	EPA T4f, EU Stage V, Japan 2014 (T4f), Korea T4f, UNECE R96 Stage IV, IMO III
C9.3B ATAAC	400	536	1800-2100	EPA T4f, EU Stage V, Japan 2014 (T4f), Korea T4f, UNECE R96 Stage IV, IMO III
C9.3B ATAAC	430	577	1800-2100	EPA T4f, EU Stage V, Japan 2014 (T4f), Korea T4f, UNECE R96 Stage IV, IMO III
C9.3B ATAAC	403	540	1800-2100	EPA T4f, EU Stage V, Japan 2014 (T4f), Korea T4f, UNECE R96 Stage IV, IMO III
C9.3B ATAAC	433	580	1800-2100	EPA T4f, EU Stage V, Japan 2014 (T4f), Korea T4f, UNECE R96 Stage IV, IMO III
C9.3B ATAAC	470	630	1800-2100	EPA T4f, EU Stage V, Japan 2014 (T4f), Korea T4f, UNECE R96 Stage IV, IMO III

Ratings continued on page 58

Ratings continued from page 57

## MECHANICAL DRIVE ENGINE RATINGS; LESSER REGULATED AREAS – 168-1275 BKW

Model	bkW	bhp	rpm	Fuel
C7.2 ACERT	167	255	1800-2200	China Stage II, EPA T3, EU Stage III A, IMO II
C7.2 ACERT	187	250	1800-2200	China Stage II, EPA T3, EU Stage III A, IMO II
C7.2 ACERT	224	300	1800-2200	China Stage II, EPA T3, EU Stage III A, IMO II
C15 ACERT	403	540	1800-2100	China Stage II, EPA T3, EU Stage III A, IMO II
C15 ACERT	433	580	1800-2100	China Stage II, EPA T3, EU Stage III A, IMO II
C18 ACERT	522	700	1800-2100	China Stage II, EPA T3, EU Stage III A, IMO II
C27 ACERT	708	950	1800-2100	EPA T2, IMO II
C27 ACERT	783	1050	1800-2100	EPA T2, IMO II
3508	637	855	1800	NC
3508	578	775	1800	NC
3508B	671	900	1200	NC
C32	839	1125	1800-2100	EPA T2, IMO II
C32	895	1200	1800-2100	EPA T2, IMO II
3512	955	1280	1800	NC
3516	1275	1710	1800	NC
3516	1011	1355	1200	NC
3516	1230	1649	1200	NC

## MECHANICAL DRIVE ENGINE RATINGS – 71-10000 BKW

Model	bkW	bhp	rpm
G3304B	71	95	1800
G3306B	108, 151, 157	145, 203, 211	1800
G3406 TA	242	325	1800
G3408	190/298	255/400	1800
G3408C	317	425	1800
G3412 TA	448	600	1800
CG137-8	298	400	1800
CG137-12	447	600	1800
G3412C	475	637	1800
G3508 TA	391	524	1200
G3508	500	670	1400
G3508B	515	690	1400
G3512 TA	589	790	1200
G3512 LE	642	860	1200
G3512 LE	749	1005	1400
G3512B	772	1035	1400
G3516 NA	492	660	1200
G3516 LE	858	1150	1200
G3516 TA	1030	1380	1400
G3516 LE	1000	1340	1400
G3516B	1029	1380	1200
G3516J	1029	1380	1400
G3520B	1104	1480	1200
G3520B	1286	1725	1400
G3606 A4	1398, 1454, 1499	1875, 1950, 2010	1000
G3608 A4	1864, 1931, 1995	2500, 2590, 2675	1000
G3612 A4	2796, 2890, 2983	3750, 3875, 4000	1000
G3616 A4	3728, 3859, 3989	5000, 5175, 5350	1000

# MOBILE GAS SOLUTIONS

The Mobile Gas Solutions portfolio includes products with a proven reliability designed to enable lower cost of ownership and decrease NOx and greenhouse gas emissions. Additional benefits include efficient gas power, high efficiency and power density, and a versatile EPA mobile certification.



## MOBILE GAS GENERATOR SET RATINGS

Model	Rating Tier	kW	bhp	rpm	Emissions	Notes
G3306B NA	Cont	108	145	1800	NSPS Site Compliant Capable	With Caterpillar or Customer-provided AFRC & Aftertreatment 0.5 & 1.0 g/bhp-hr Nox
G3306B NA	Cont	108	145	1800	Export Only NSPS Site Compliant Capable	2% O2 Emission Rating with Caterpillar or Customer-provided AFRC & Aftertreatment 0.5 & 1.0 g/bhp-hr Nox
G3306B TA	Cont	151	203	1800	Export Only NSPS Site Compliant Capable	2% O2 Emission Rating with Caterpillar or Customer-provided AFRC & Aftertreatment 0.5 & 1.0 g/bhp-hr Nox
G3306B TA	Cont	151	203	1800	Export Only NSPS Site Compliant Capable	2% O2 Emission Rating with Caterpillar or Customer-provided AFRC & Aftertreatment 0.5 & 1.0 g/bhp-hr Nox
G3306B TAA	Cont	157	211	1800	Export Only NSPS Site Compliant Capable	2% O2 Emission Rating with Caterpillar or Customer-provided AFRC & Aftertreatment 0.5 & 1.0 g/bhp-hr Nox

\*Dependent upon engine configuration selected.

<sup>1</sup>54°C/130°F Water to Aftercooler

Ratings listed are for 25°C (77°F) ambient temperature, 500' altitude, and pipeline quality gas.

## SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
G3304	1158 (46)	744 (29)	1170 (46)	757 (1670)	7 (425)
G3306	1539 (60)	978 (38)	1261 (50)	948 (2090)	10.5 (640)

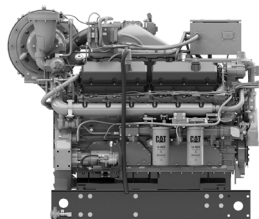
Bore x Stroke – mm (in) 121 x 152 (4.75 x 6.0)

Please see spec sheet for more information:

G3306B TA ..... LEHW8815

G3306B NA..... LEHW0111

For gas engine rating conditions please see page 10.



**GAS RATINGS**

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
CG137-12	Cont	447	600	1800	NSPS Site Compliant Capable	

**SPECIFICATIONS**

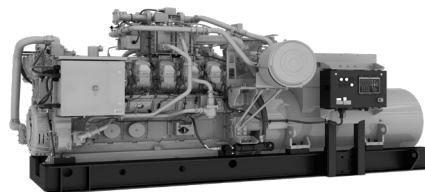
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
CG137-12	2092 (82.4)	1423 (56)	1778 (70)	2835 (6250)	27 (1649)
Bore x Stroke – mm (in)	137 x 152 (5.4 x 6)				

Please see spec sheet for more information:

CG137-12 Integrated Catalyst.....LEHW0119

CG137-12 .....LEHW0270

For gas engine rating conditions please see page 10.



**MOBILE GAS GENERATOR SET RATINGS**

Model	Duty	bkW	bhp	rpm	Emissions
G3512	Continuous	1095	1468	1800	EPA NRM, T2

**SPECIFICATIONS**

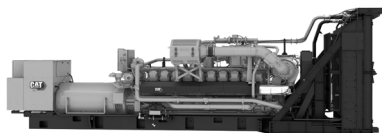
	L – mm (in)	W – mm (in)	H – mm (in)	Disp – L (in <sup>3</sup> )	Wt – kg (lbs)
G3512 Engine	4979.3 (196.0)	2154.4 (84.8)	2277.1 (89.6)	13,653 (30,100)	
Bore x Stroke – mm (in)	170 x 190 (6.7 x 7.5)				

Please see spec sheet for more information:

G3512 Engine ..... LEHW20188

For diesel engine rating definitions please see page 10.





## MOBILE GAS GENERATOR SET RATINGS

Model	Duty	ekW	rpm	Emissions
G3520	Continuous	2000	1500	EPA NRM, T2

## SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Disp – L (in <sup>3</sup> )
G3520 Engine	8534 (336)	2386 (94)	3230 (128)	97.6(5956)
Bore x Stroke – mm (in)	170 x 215 (6.7 x 8.5)			

Please see spec sheet for more information:

G3520 Engine ..... LEHW20286

For gas engine rating definitions please see page 10.

# ENERGY STORAGE SOLUTION

A scalable, mobile, energy storage system with a heavy-duty battery structure, the Cat Energy Storage System (ESS) has proven field success in land drilling applications and can be applied in any oilfield application where electric power is required. ESS can integrate with microgrid or utility power, including solar and other renewable sources, to enable short-duration peak shaving and load management, further reducing fuel burn while also managing peak grid power demands.

## PGS1260 HD



### ENERGY STORAGE SOLUTIONS RATINGS

Model	Duty	Power (kW)	Energy(kWh)
PGS1260 HD	Continuous	1000	672

### SPECIFICATIONS

	L – m (ft)	W – m (ft)	H – m (ft)	Weight - kg (lbs)
<b>PGS1260 HD</b> (with trailer)	11.56(37.93)	2.66(8.73)	3.96(12.99)	
<b>PGS1260 HD</b> (without trailer)	6.75(22.13)	2.4 (8)	2.8 (9.5)	16,500 (36,376)

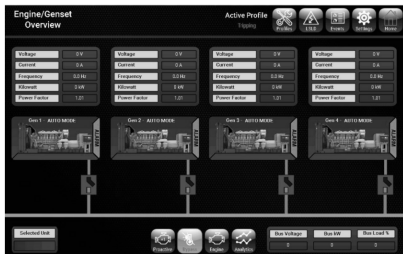
\*Container without cooler has a length of 6.06m or 19.87ft.

Please see spec sheet for more information:  
PGS1260 HD ..... LEHW20329

# CONTROLS & AUTOMATION

Experience data-driven solutions right at your fingertips for your engine management needs with Cat controls & automation. Cat Smart Engine Management System (EMS) is the latest engine and generator controller system developed by Caterpillar. This new technology efficiently manages the number of engines required to be online to meet rig power demands - allowing you to take control of your operation's digital transformation.

## ■ SMART ENERGY MANAGEMENT SYSTEM



### CAT SMART ENERGY MANAGEMENT SYSTEM

Cat Smart EMS is the latest engine and generator controller system developed by Caterpillar exclusively for land electric drilling rigs. This recently developed software package further utilizes Caterpillars EMCP4.4 controller to efficiently manage the number of engines required to be online to meet rig power demands.

Cat Smart EMS works by continuously monitoring rig power demand and comparing against available engine power. Depending on the power demand and availability, engines are started or stopped automatically for efficient operation. The logic behind this automation is adjustable by the end user and has multiple modes that can be selected for different drilling operations.

#### FUEL SAVINGS

- Reduce fuel consumption with increased engine load factor
- Up to 10% reduction in fuel consumption
- Improve gas substitution on Dynamic Gas Blending (DGB) engines

#### MAINTENANCE

- Reduce yearly maintenance cost with less engine run time
- Up to 25% reduction in engine runtime

#### SAFETY

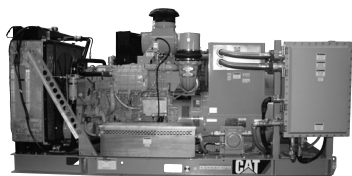
- HMI provides remote access to engine controls
- Enhanced safety for rig crew working around engines with local lockouts, visual and audible alarm before engine start-up

#### SIMPLIFIED RIG CONTROLS

- Reduced CAPEX for new rig builds since Cat Smart EMS replaces third party engine controllers
- Simplified power house layout and space savings with removing the engine controller from the power house
- Product differentiation with Cat Smart EMS

# OFFSHORE DRILLING & PRODUCTION

Cat engines and generator sets are widely known for performance, reliability, durability, and fuel flexibility in the offshore oil and gas industry. With ratings capable of operating on MDO, CRU, and dual fuel, offshore products include generator sets for main, essential, and emergency power plus a wide range of fire pump and crane engines. The global Cat dealer network covers offshore operations with warranty, parts, service, and technical support any time, anywhere.

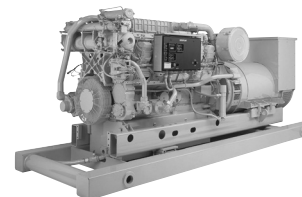


## GENERATOR SETS

Cat hazardous location generator sets combine the C32 ACERT – 1500 and 1800 rpm, 3512C – 1800 rpm and 3516C – 1800 rpm to meet Class I Division 2 requirements for core engine electronics and on-site needs. Contact the Application Support Center for additional information.

## OFFSHORE HAZARDOUS LOCATION GENERATOR SET RATINGS

Model	Duty	bkW	ekW	Configuration
<b>1500 rpm/50 Hz</b>				
C32 ACERT	OS-Prime	874	800	Haz Loc
<b>1800 rpm/60 Hz</b>				
C32 ACERT	OS-Prime	994	910	Haz Loc
3512C HD	OS-Prime	1802	1730	Haz Loc
3516C HD	OS-Prime	2210	2100	Haz Loc



## OFFSHORE GENERATOR SET RATINGS

Model	Duty	bkW	ekW <sup>1</sup>	kVA <sup>1</sup>	Emissions
<b>1500 rpm/50 Hz</b>					
3516B	OS-Prime	1717	1600	2000	IMO II
<b>1800 rpm/60 Hz</b>					
3508B	OS-Prime	968	910	1138	IMO I
3512B	OS-Prime	1424	1360	1700	IMO I
3516B	OS-Prime	1901	1825	2281	IMO I

## SPECIFICATIONS<sup>2</sup>

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3508B</b>	4031 (158.7)	1784 (70.2)	2048 (80.6)	12 475 (27,503)	35 (2116)
<b>3512B</b>	4660 (183.5)	1988 (78.3)	2043 (80.4)	14 975 (33,014)	52 (3161)
<b>3516B</b>	6095 (240)	2147 (84.5)	2106 (82.9)	17 500 (38,580)	69 (4233)
<b>3516B HD</b>	6095 (240)	2147 (84.5)	2214 (87.2)	18 800 (41,400)	78 (4764)

**Bore x Stroke – mm (in)** 170 x 190 (6.7 x 7.5)

**Bore x Stroke – mm (in) HD** 170 x 215 (6.7 x 8.5)

<sup>1</sup>Dependent on generator selection and power factor.

<sup>2</sup>Dimensions and weights are dependent on generator and options selected. See general installation drawings for details.

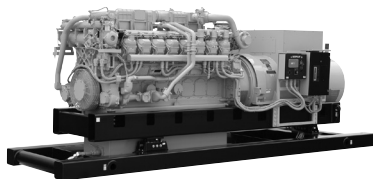
**Please see spec sheet for more information:**

3508B ..... LEHW0123

3512B ..... LEHW0124, LEHW0125

3516B ..... LEHW0126, LEHW0127

For diesel engine rating definitions please see page 10.



## OFFSHORE GENERATOR SET RATINGS

Model	Duty	bkW	ekW <sup>1</sup>	kVA <sup>1</sup>	Emissions
<b>1200 rpm/60 Hz</b>					
3512C	MCR	1101	1030	1470	IMO II
3516C HD*	MCR	1383	1285	1836	IMO II/III <sup>3</sup>
3516C HD*	MCR	1603	1530	2186	IMO II/III <sup>3</sup>
<b>1500 rpm/50 Hz</b>					
3508C	OS-Prime	673	640	799	IMO II
3508C	OS-Prime	820	780	974	IMO II
3512C-HD	OS-Prime	1362	1294	1618	IMO II
3516C-HD	OS-Prime	1717	1631	2039	IMO II
3516C-HD	OS-Prime	1940	1843	2304	IMO II
<b>1800 rpm/60 Hz</b>					
3512C	OS-Prime	1432	1360	1700	IMO II
3512C HD	OS-Prime	1632	1550	1938	IMO II
3512C HD	OS-Prime	1790	1700	2125	IMO II
3516C HD	OS-Prime	2350	2250	2813	IMO II

\*Available with increased exhaust backpressure.

<sup>1</sup>Dependent on generator selection and power factor.

<sup>2</sup>Dimensions and weights are dependent on generator and options selected. See general installation drawings for details.

<sup>3</sup>IMO III engines require SCR aftertreatment. Contact dealer for availability and technical details.

## SPECIFICATIONS<sup>2</sup>

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3512C</b>	5448 (214.5)	1825 (71.9)	2313 (91)	14 975 (33,300)	51.8 (3161)
<b>3516C HD</b>	6705 (264)	1986 (78.2)	2535 (99.8)	18 800 (41,400)	78 (4764)

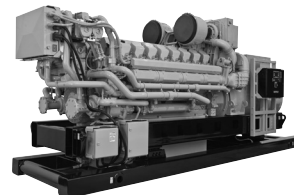
**Bore x Stroke – mm (in)** 170 x 190 (6.7 x 7.5)

**Bore x Stroke HD – mm (in)** 170 x 215 (6.7 x 8.5)

Please see spec sheet for more information:

3512C ..... LEHW0078      3516C HD ..... LEHW0073, LEHW0155

For diesel engine rating definitions please see page 10.



## OFFSHORE GENERATOR SET RATING

Model	Duty	bkW	ekW <sup>1</sup>	kVA <sup>1</sup>	Emissions
<b>1200 rpm/60 Hz</b>					
C175-16*	MCR	1930	1833	2619	IMO II/III <sup>3</sup>
C175-16	MCR	2316	2200	3142	IMO II/III
<b>1500 rpm/50 Hz</b>					
C175-16	OS-Prime	2418	2300	2875	IMO II
<b>1800 rpm/60 Hz</b>					
C175-16	OS-Prime	2800	2660	3325	IMO II

## SPECIFICATIONS<sup>2</sup>

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C175-16 50 Hz</b>	6782 (267)	2413 (95)	2928 (115)	25 991 (57,300)	85 (5164)
<b>C175-16 60 Hz</b>	6742 (265)	2125 (84)	2916 (115)	24 312 (53,599)	85 (5164)

**Bore x Stroke – mm (in)** 175 x 220 (6.9 x 8.7)

\*Available with increased exhaust backpressure.

<sup>1</sup>Dependent on generator selection and power factor.

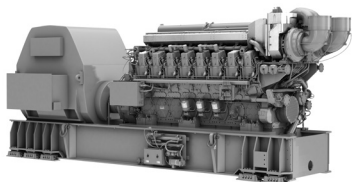
<sup>2</sup>Dimensions and weights are dependent on generator and options selected. See general installation drawings for details.

<sup>3</sup>IMO III engines require SCR aftertreatment. Contact dealer for availability and technical details.

Please see spec sheet for more information:

C175-16 50 Hz ..... LEHW0151      C175-16 60 Hz ..... LEHW6097

For diesel engine rating definitions please see page 10.



## OFFSHORE GENERATOR SET RATINGS

Model	Duty	bkW	ekW <sup>1</sup>	kVA <sup>1</sup>	Emissions
<b>900 rpm/60 Hz</b>					
C280-8	Cont	2300	2200	2250	IMO III
C280-8	Cont	2530	2420	3025	IMO III
C280-8	Cont	2300	2200	2750	IMO II
C280-8	Prime	2530	2420	3025	IMO II
C280-8	MCR	2530	2420	3025	IMO II
C280-12	Cont	3460	3300	4125	IMO II
C280-12	Prime	3800	3640	4550	IMO II
C280-12	Cont	3460	3300	4125	IMO III
C280-12	MCR	3800	3650	4563	IMO II
C280-12	MCR	3800	3650	4563	IMO II
C280-16	Cont	4600	4400	5500	IMO III
C280-16	Prime	5060	4840	6050	IMO III
C280-16	Cont	4600	4400	5500	IMO II
C280-16	Prime	5060	4840	6050	IMO II
C280-16	MCR	5730	5500	6875	IMO II
C280-16	MCR	5730	5500	6875	IMO II
C280-16	MCR	5060	4840	6050	IMO II

\* Available with front- or rear-mounted turbochargers.

\*\* Front-mounted turbochargers, all other ratings are rear-mounted turbochargers.

† Available with increased exhaust backpressure.

<sup>1</sup> Dependent on generator selection and power factor.

<sup>2</sup> IMO III engines require SCR aftertreatment. Contact dealer for availability and technical details.

Ratings continued on page 75

Ratings continued from page 74

Model	Duty	bkW	ekW <sup>1</sup>	kVA <sup>1</sup>	Emissions
<b>1000 rpm/50 Hz</b>					
C280-8	Prime	2710	2600	3250	IMO II
C280-8	Cont	2460	2350	2938	IMO II
C280-8	MCR	2710	2600	3250	IMO II
C280-12	Cont	3700	3520	4400	IMO II
C280-12	Prime	4060	3880	4850	IMO II
C280-12	MCR	4060	3900	4875	IMO II
C280-16	Cont	4920	4700	5875	IMO II
C280-16	Prime	5420	5200	6500	IMO II
C280-16	MCR	5420	5200	6500	IMO II

## SPECIFICATIONS<sup>3</sup>

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in <sup>3</sup> )
<b>C280-8</b>	8140 (320.5)	2326 (91.6)	3406 (134.1)	49 (108,027)	148 (9031)
<b>C280-12</b>	8125 (319.9)	2568 (101.1)	3973 (156.4)	56.5 (124,561)	222 (13,546)
<b>C280-16 FMT</b>	10283 (404.8)	2800 (110.2)	4092 (161.1)	66 (145,505)	296 (18,062)
<b>C280-16 RMT</b>	9873 (388.7)	2931 (115.4)	4092 (161.1)	64 (141,096)	296 (18,062)

**Bore x Stroke – mm (in)** 280 x 300 (11 x 11.8)

<sup>3</sup>Dimensions and weights are dependent on generator and options selected. See general installation drawings for details.

**Please see spec sheet for more information:**

C280-8	.....	LEHW0086, LEHW0092
C280-12	.....	LEHW0087, LEHW0093
C280-16	.....	LEHW0088, LEHW0094, LEHW0182

For diesel engine rating definitions please see page 10.



# GAS COMPRESSION

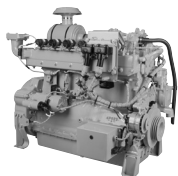
For pipeline, storage, gathering, and re-injection, Cat engines and motors are the prime choice for reliable gas compression. Caterpillar offers the widest range of prime mover choices, with power ratings from 71 kW (95 bhp) to 4,100 kW (5,500 bhp). Innovative electronic controls give you superior performance with excellent fuel economy, performance flexibility, and dependability for low owning and operating costs.

## GAS COMPRESSION ENGINE RATINGS

Range	Engine	Page Number
95-211 bhp	G3300	78
215-637 bhp	G3400	79
400-600 bhp	CG137	80
524-1725 bhp	G3500	81-82
1900-5500 bhp	G3600	83-84

## ELECTRIC DRIVE MOTORS RATINGS

bhp	Engine	Page Number
1500	CN1586	85-86
2000	CN2086	85-86
2500	CN2586	85-86
3000	CN3086	85-86
3500	CN3586	85-86
3621	CN2785	85-86
4000	CN4086	85-86
5000	CN5086	85-86
5500	CN5586	85-86



**GAS RATINGS**

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
G3304B NA	Cont	71	95	1800	NSPS Site Compliant Capable	With Caterpillar or Customer-provided AFRC & Aftertreatment* 0.5 & 1.0 g/bhp-hr NOx
G3304B NA	Cont	71	95	1800	Export Only	2% O2 Emission Rating
G3306B NA	Cont	108	145	1800	NSPS Site Compliant Capable	With Caterpillar or Customer-provided AFRC & Aftertreatment* 0.5 & 1.0 g/bhp-hr NOx
G3306B NA	Cont	108	145	1800	Export Only	2% O2 Emission Rating
G3306B TA**	Cont	151	203	1800	NSPS Site Compliant Capable	With Caterpillar or Customer-provided AFRC & Aftertreatment* 0.5 & 1.0 g/bhp-hr NOx
G3306B TA**	Cont	151	203	1800	Export Only	2% O2 Emission Rating
G3306B TAA*	Cont	157	211	1800	NSPS Site Compliant Capable	With Caterpillar or Customer-provided AFRC & Aftertreatment* 0.5 & 1.0 g/bhp-hr NOx

\*Dependent upon engine configuration selected.

\*\*54°C/130°F Water to Aftercooler

Ratings listed are for 25°C (77°F) ambient temperature, 500' altitude, and pipeline quality gas.

**SPECIFICATIONS**

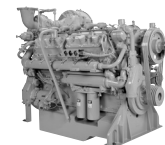
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>G3304</b>	1158 (46)	744 (29)	1170 (46)	757 (1670)	7 (425)
<b>G3306</b>	1539 (60)	978 (38)	1261 (50)	948 (2090)	10.5 (640)

**Bore x Stroke – mm (in)** 121 x 152 (4.75 x 6.0)

**Please see spec sheet for more information:**

G3304B ..... LEHW0017      G3306B TA ..... LEHW8815  
 G3306B NA ..... LEHW0111

For gas engine rating conditions please see page 10.



**GAS RATINGS**

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
G3406 NA	Cont	160	215	1800	NSPS Site Compliant Capable	With Customer-supplied Compliant AFRC & Aftertreatment 0.5% O2 or 2% O2 Set Points
G3406 TA*	Cont	206	276	1800	NSPS Site Compliant Capable	With Customer-supplied Compliant AFRC & Aftertreatment 0.5% O2 or 2% O2 Set Points
G3406 TA*	Cont	242	325	1800	Export Only	2% O2 Emission Rating
G3408 NA	Cont	190	255	1800	NSPS Site Compliant Capable	With Customer-supplied Compliant AFRC & Aftertreatment 0.5% O2 or 2% O2 Set Points
G3408 TA*	Cont	298	400	1800	Export Only	2% O2 Emission Rating
G3408C LE**	Cont	317	425	1800	NSPS Site Compliant Capable**	With Customer-supplied Aftertreatment
G3412 TA*	Cont	448	600	1800	Export Only	2% O2 Emission Rating
G3412C LE**	Cont	475	637	1800	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment

\*54°C/130°F Water to Aftercooler

\*\*NSPS Site Compliant Capable with Customer-supplied SCR Aftertreatment

**SPECIFICATIONS**

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>G3406 TA</b>	1934 (76)	1270 (50)	1433 (56)	1362 (3000)	14.6 (893)
<b>G3408 TA</b>	1738 (68)	1312 (52)	1542 (61)	2041 (4500)	18 (1099)
<b>G3408C LE</b>	1756 (69.1)	1563 (61.5)	1758 (69.2)	2041 (4500)	18 (1099)
<b>G3412 TA</b>	2087 (82)	1224 (48)	1542 (61)	2320 (5115)	27 (1649)
<b>G3412C LE</b>	2442 (96)	1598 (63)	1960 (77)	2800 (6173)	27 (1649)

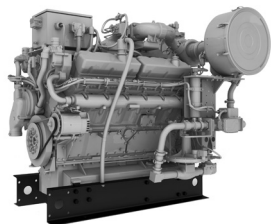
**Bore x Stroke – mm (in)** 137 x 152 (5.4 x 6.0)

**Please see spec sheet for more information:**

G3406 ..... LEHW0029      G3408C LE ..... LEHW0031      G3412C LE ..... LEHW0033  
 G3408 ..... LEHW0030      G3412 ..... LEHW0032

For gas engine rating conditions please see page 10.





**GAS RATINGS**

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
CGI37-8	Cont	298	400	1800	NSPS Site Compliant Capable	"With Caterpillar-supplied AFRC & Customer-provided Aftertreatment, 0.5% O2 Set Point"
CGI37-12	Cont	447	600	1800	NSPS Site Compliant Capable	"With Caterpillar-supplied or Customer-provided Aftertreatment, 0.5% O2 Set Point"

**SPECIFICATIONS**

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>CGI37-8</b>	1627 (64.0)	1443 (56.8)	1758 (69.2)	2200 (4850)	18 (1099)
<b>CGI37-12</b>	2036.9 (80.19)	1515.1 (59.65)	1701 (66.97)	2835 (6250)	27 (1649)

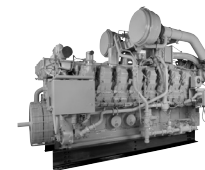
**Bore x Stroke – mm (in)** 137 x 152 (5.4 x 6)

**Please see spec sheet for more information:**

CGI37-8 .....LEHW0340  
 CGI37-12 .....LEHW20196

For gas engine rating conditions please see page 10.

Ratings listed are for 25°C (77°F) ambient temperature, 500' altitude, and pipeline quality gas.



**GAS RATINGS**

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
<b>G3508 TA*</b>	Cont	391	524	1200	NSPS Site Compliant Capable	With Customer-supplied AFRC & Aftertreatment, 0.5% O2 Set Point
<b>G3508 LE*</b>	Cont	500	670	1400	NSPS Site Compliant Capable****	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
<b>G3508J LE*</b>	Cont	514	690	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx
<b>G3512 TA*</b>	Cont	589	790	1200	NSPS Site Compliant Capable	With Customer-supplied AFRC & Aftertreatment, 0.5% O2 Set Point
<b>G3512 LE*</b>	Cont	642	860	1200	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
<b>G3512 LE*</b>	Cont	749	1004	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
<b>G3512J LE*</b>	Cont	772	1035	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx
<b>G3516 NA</b>	Cont	492	660	1200	Export Only	With Caterpillar supplied AFRC & Customer-supplied Aftertreatment, 0.5% O2 Set Point
<b>G3516 TA*</b>	Cont	1029	1380	1400	NSPS Site Compliant Capable	With Caterpillar supplied AFRC & Customer-supplied Aftertreatment, 0.4% O2 Set Point
<b>G3516 LE*</b>	Cont	858	1150	1200	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
<b>G3516 LE**</b>	Cont	1000	1340	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
<b>G3516J LE*</b>	Cont	1029	1380	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 g**** and 0.5 g/bhp-hr NOx

\* 54C/130F Water to Aftercooler

\*\* Available for standard and high H2S applications

\*\*\* Coming soon

\*\*\*\* NSPS Site Compliant Capable with Customer-supplied SCR Aftertreatment

Ratings continued on page 82

Ratings continued from page 81

### GAS RATINGS

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
G3516J LE***	Cont	1119	1500	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3g and 0.5 g/bhp-hr NOx
G3520J LE	Cont	1104	1480	1200	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx
G3520J LE***	Cont	1253	1680	1200	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx
G3520J LE	Cont	1286	1725	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx

\* 54C/130F Water to Aftercooler  
 \*\*\* Coming soon

\*\*\*\*Additional ratings available via DTO.

### SPECIFICATIONS

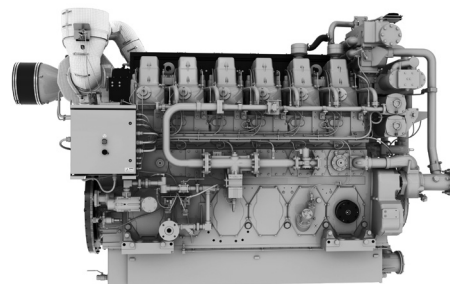
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
G3508 LE	2440 (96)	1768 (70)	1907 (76)	5420 (11,950)	34.5 (2105)
G3508J LE	2546 (100.2)	2029 (79.9)	2140 (84.3)	6048 (13,306)	34.5 (2105)
G3512 LE	2786 (109)	1790 (71)	1863 (73)	6676 (14,720)	51.8 (3158)
G3512J LE	3037 (120)	2201 (86.7)	2135 (84.1)	7081 (15,611)	51.8 (3158)
G3516 TA	3654 (143.8)	1973 (77.7)	2281 (89.8)	9232 (20,352)	69 (4211)
G3516 LE	3339 (131)	1820 (72)	1863 (73)	8015 (17,670)	69 (4211)
G3516J LE	3586 (141)	1883 (74)	2285 (90)	9155 (20,183)	69 (4211)
G3520J LE	4113 (162)	1883 (74)	2361 (93)	10785 (23,776)	86 (5263)

Bore x Stroke – mm (in) 170 x 190 (6.7 x 7.5)

Please see spec sheet for more information:

G3508 LE.....	LEHW0034	G3516 LE.....	LEHW0036
G3508J LE.....	LEHW0341	G3516J LE.....	LEHW0318
G3512 LE.....	LEHW0035	G3520J LE.....	LEHW0320
G3512J LE.....	LEHW0370		
G3516 TA.....	LEHW0329		

For gas engine rating conditions please see page 10.



### GAS RATINGS

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
G3606 A4*	Cont	1417	1900	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3606 A4*	Cont	1540	2065	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3608 A4*	Cont	1864	2500	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3608 A4*	Cont	2051	2750	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3612 A4 <sup>1</sup>	Cont	2796	3750	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3612 A4*	Cont	3076	4125	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3616 A4*	Cont	3729	5000	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3616 A4*	Cont	4101	5500	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx

\* 54C Aftercooler Water & 88C Jacket Water

Ratings continued on page 84

For gas engine rating conditions please see page 10.

Ratings continued from page 83

## SPECIFICATIONS

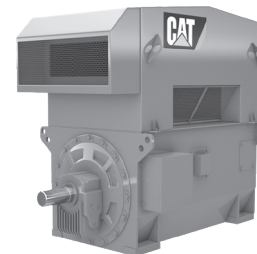
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>G3606 A4</b>	4250.3 (167.33)	2188.8 (86.17)	2950.6 (116.16)	16,730 (36,883)	127.2 (7762)
<b>G3608 A4</b>	5070.3 (199.62)	2188.8 (86.17)	2,951 (116.18)	2,951 (116.18)	169.6 (10,350)
<b>G3612 A4</b>	4955.3 (195.09)	2598(102.28)	3,279 (129.10)	26,835 (58,500)	254 (15,528)
<b>G3616 A4</b>	5,877 (231.38)	2,598 (102.28)	3,279 (129.05)	31,888 (70,301)	339 (20,705)

**Bore x Stroke – mm (in)** 300 x 300 (11.8 x 11.8)

Please see spec sheet for more information for both 0.3g and 0.5g:

G3606 A4 .....	LEHW0258
G3608 A4 .....	LEHW0259
G3612 A4 .....	LEHW0236
G3616 A4 .....	LEHW0198

For gas engine rating conditions please see page 10.



Caterpillar offers electric motor configurations, from 1,000 hp to 10,000 hp (750 kW – 7,500 kW), to meet your gas compression needs. To simplify the ordering process, Caterpillar offers a range of commonly ordered standard offerings. Other configurations are available via a Design to Order (DTO) request. Contact the Application Support Center for additional information.

All NEMA standard configuration electric motors come with WP11 (IP24W) enclosure, IC01 Cooling, Service Factor (Inverter Fed) - 1.15 SF (1.0 VFD), Class B Temperature Rise, Class F Insulation, and Hazardous Location - Class 1-Div. 2-Groups A,B,C, and (T3) certification. All IEC standard configuration motors come with IP55 enclosure, IC611 Cooling, EX px II T3 Ex Protection, Class B Temperature Rise, Class F Insulation, and Hazardous Location – Zone 1 certification.

## HAZARDOUS LOCATION ELECTRIC DRIVE MOTOR RATINGS

Model	Frame Size	bkW	bhp	# of Poles	Voltages
<b>1200 rpm/60 Hz (NEMA Standard)</b>					
CN1586	450	1118	1500	6	4000V /4160V
<b>900 rpm/60 Hz (NEMA Standard)</b>					
CN2086	500	1491	2000	8	4000V /4160V
CN2586	500	1864	2500	8	4000V /4160V
CN3086	560	2237	3000	8	4000V /4160V
CN3586	560	2610	3500	8	4000V /4160V
CN4086	560	2982	4000	8	4000V /4160V
CN5086	560	3728	5000	8	4000V /4160V
CN5586	560	4100	5500	8	4000V /4160V
<b>750 rpm/50 Hz (IEC Standard)</b>					
CN2785	630	2700	3621	8	10kV

Ratings continued on page 86

Ratings continued from page 85

## SPECIFICATIONS

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)
<b>CN1566</b>	2110 (83.07)	2005 (78.94)	1860 (73.23)	3760 (8,289)
<b>CN2086</b>	2864 (112.8)	2345 (92.3)	2060 (81.1)	6931 (15,280)
<b>CN2586</b>	2864 (112.8)	2345 (92.3)	2060 (81.1)	6931 (13,306)
<b>CN3086</b>	3470 (136.61)	2570 (101.18)	2461 (96.87)	7770 (17,130)
<b>CN3586</b>	3770 (132.68)	2580 (101.57)	2465 (97.05)	8320 (18,342)
<b>CN4086</b>	3770 (132.68)	2580 (101.57)	2465 (97.05)	8750 (19,290)
<b>CN5086</b>	3770 (132.68)	2580 (101.57)	2465 (97.05)	9720 (21,429)
<b>CN5586</b>	3545 (139.57)	2575 (101.38)	2565 (97.05)	11167 (24,620)
<b>CN2785</b>	3927 (154.60)	2306 (90.78)	2326 (91.57)	13210 (29,123)

**Bore x Stroke – mm (in) 170 x 190 (6.7 x 7.5)**

Other configurations available from 1,000 hp to 10,000 hp (750 kW – 7,500 kW) via a DTO request

\* Class B rise at nameplate rated load

### Please see spec sheet for more information:

CN1566.....	LEHW0245, LEHW0256
CN2086.....	LEPW0117, LEPW0116
CN2586.....	LEPW0114, LEPW0115
CN3086.....	LEHW0267, LEHW0268
CN3586.....	LEHW0265, LEHW0266
CN4086.....	LEHW0263, LEHW0264
CN5086.....	LEHW0248, LEHW0255
CN5586.....	LEHE2030, LEHE2031
CN2785.....	LEPW0124

For gas engine rating conditions please see page 10.

## Unit Conversions

### Torque

$$1 \text{ N}\cdot\text{m} = 0.737562 \text{ ft}\cdot\text{lb}$$

### Power

$$1 \text{ kW} = 1.341022 \text{ hp}$$

### Volume

$$1 \text{ L} = 61.023744 \text{ in}^3$$

### Length

$$1 \text{ mm} = 0.03937 \text{ in}$$

### Mass

$$1 \text{ kg} = 2.204623 \text{ lb}$$

### Energy

$$1 \text{ kJ} = 0.948452 \text{ BTU}$$

### Pressure

$$1 \text{ kPa} = 0.145038 \text{ psi}$$

### Temperature

$$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$$

$$\frac{(^{\circ}\text{F} - 32)}{1.8} = ^{\circ}\text{C}$$

### Plunger Load

$$\text{PD} \times \text{PD} \times .7854 \times \text{PSI}$$

PD = Plunger diameter  
PSI = Fluid end pressure in PSI

## Fuel Consumption

$$\frac{\text{g}}{\text{bkW}\cdot\text{hr}} \rightarrow \frac{\text{L}}{\text{hr}}$$

$$\left( \frac{\text{g}}{\text{bkW}\cdot\text{hr}} \right) \times \left( \frac{\text{Power (bkW)}}{1000 \times \text{fuel density (kg/L)}} \right) = \frac{\text{L}}{\text{hr}}$$

### Torque

$$\frac{30,000}{\rho} \times \frac{\text{Power (bkW)}}{\text{Speed (rpm)}} = \text{Torque (N}\cdot\text{m)}$$

### Displacement

$$\frac{\rho}{4 \times 10^6} \times [\text{bore (mm)}]^2 \times \text{stroke (mm)} \times \# \text{ cylinders} = \text{Displacement (L)}$$

### BMEP

$$\frac{4 \rho \times \text{Torque (N}\cdot\text{m)}}{\text{Displacement (L)}} = \text{BMEP (kPa)}$$

## Generator Set Ratings

$$\text{Real Power (ekW)} = \text{Brake Power (bkW)} \times \text{Generator Efficiency}$$

$$\text{Power Factor} = \frac{\text{Real Power (ekW)}}{\text{Apparent Power (kVA)}}$$

$$\text{Apparent Power (kVA)} = \frac{1.73 \times \text{Voltage} \times \text{Current}}{1000}$$

