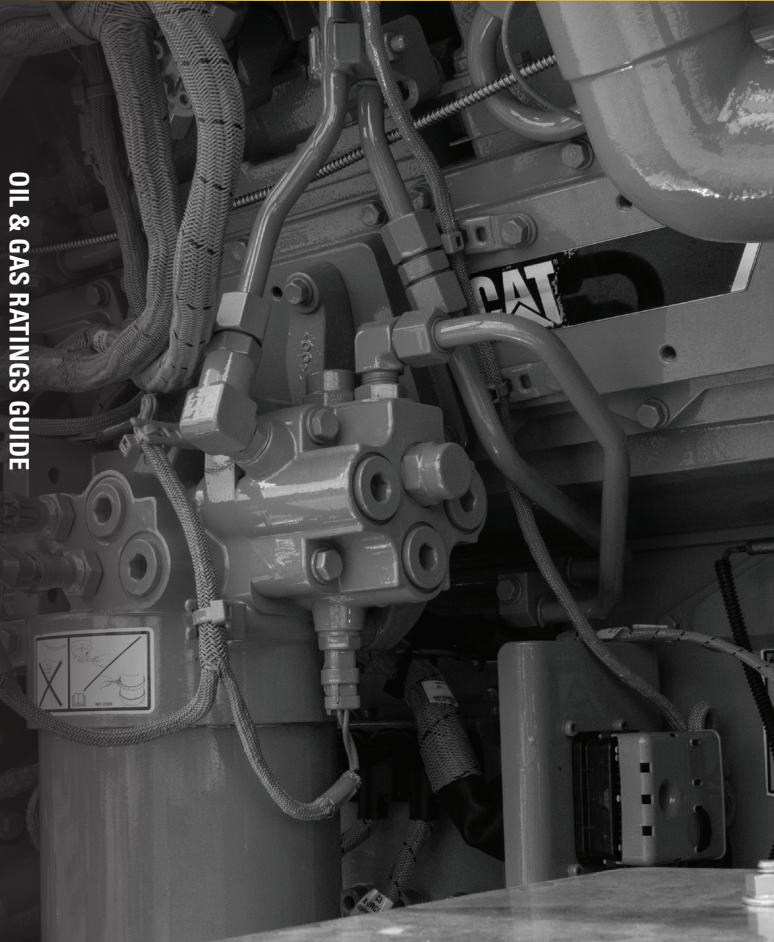


2021 MARCH

# OIL & GAS RATINGS GUIDE

EDITION 2021 (MARCH)



OIL & GAS RATINGS GUIDE

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## 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.

### 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 North America the DGB dual-fuel technology is available as a retrofit kit. 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-EI . . . . 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.

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.

\*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 NR Nonroad Equivalent (Not Currently EPA Certified)
BSFC	Brake Specific Fuel Consumption
CCNR	Central Commission for Navigation on the Rhine
CCNR Stage 2	Central Commission for Navigation on the Rhine Stage 2
China On-hwy IV	China On-highway Phase IV
China II NRNC	China Stage II Nonroad and Non-Certified
China III NR	China Stage III Nonroad Mobile
China Phase IV	China Phase 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 Equivalent (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 Equivalent (Certified to U.S. EPA & California ARB Tier 4 Final Nonroad Non-Genset Standards)
EPA T4i	U.S. EPA Tier 4 Interim
EPA T4i NRG	U.S. EPA Tier 4 Interim Nonroad Genset Standards (Not Currently EPA Certified)
EPA T4i NRNG	U.S. EPA Tier 4 Interim Nonroad Non-Genset Standard (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 Standards (Non-Current for EU)
EU IV NR	EU Stage IV Nonroad Standards

**Emissions (continued)**

IMO I	International Maritime Organization (IMO) Tier I
IMO II	International Maritime Organization (IMO) Tier II
IMO III	International Maritime Organization (IMO) Tier III
Low Emissions	Lean-burn stationary gas-fueled engine without mobile certification
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)
UN R96 IIIA	UN Regulation No. 96 Tractor and NRMM Engine Emissions Stage IIIA
UN R96 IIIB	UN 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)
bkW	Brake engine power (kilowatt)
BSFC	Brake Specific Fuel Consumption
ekW	Generator set electrical output (kilowatt)
kVA	Generator set electrical output (kilo Volt-Amp)
LE	Low Emissions
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)**

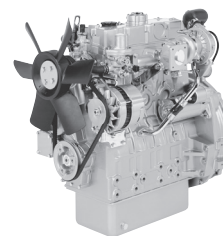


From well stimulation and pressure pumping to cementing the well, the well service industry presents a unique set of challenges. Cat engines meet these challenges with outstanding reliability across a wide range of available power. They meet the emissions standards and are backed by the expert support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



## Well Service Engine Ratings

bhp Range	Engine	Page Number
41.6-66	C2.2	13
72-142	C4.4 • C4.4 ACERT	14
128-275	C6.6 ACERT	15
188-300	C7 ACERT • C7.1 ACERT	16
275-400	C9 ACERT • C9.3 ACERT	17
325-450	C11 ACERT	18
385-520	C13 ACERT	19
440-595	C15 ACERT	20
575-800	C18 ACERT	21
800-1150	C27 ACERT	22
800-1350	C32 ACERT	23
2000-2250	3512B	24
2150-2500	3512C HD	25
2250-3000	3512E	26
3000-3300	3516C HD	27
205-1110	Hazardous Location	28
205-1225	Watercooled Manifold	29
680-1800	Watercooled Manifold	30



## Well Service Ratings

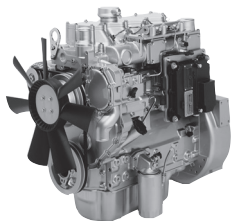
Rating Tier	bkW	bhp	rpm	Emissions	Notes
C	31	41.6	2200	EPA T3 NR, EU IIIA NR	Naturally Aspirated
C	34.1	45.7	2400	EPA T3 NR, EU IIIA NR	Naturally Aspirated
C	35.7	47.9	2600	EPA T3 NR, EU IIIA NR	Naturally Aspirated, Derate to 31.4 bhp/42.1 bkW
C	37.3	50	2800	EPA T3 NR, EU IIIA NR	Naturally Aspirated, Derate to 32.8 bhp/43.9 bkW
C	38	51	3000	EPA T3 NR, EU IIIA NR	Naturally Aspirated, Derate to 34 bhp/45.6 bkW
C	40	53.3	2600	EPA T3 NR, EU IIIA NR	Turbocharged
C	43	57.7	2600	EPA T3 NR, EU IIIA NR	Turbocharged
C	44.7	60	2800	EPA T3 NR, EU IIIA NR	Turbocharged
C	45.5	61	3000	EPA T3 NR, EU IIIA NR	Turbocharged
C	49.2	66	2800	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled

## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
NA	661.5 (26)	439 (17.3)	676 (26.6)	184 (406)	2.2 (135)
T, TA	662 (26.1)	489 (19.3)	698 (27.5)	194 (427.7)	2.2 (135)

**Bore x Stroke – mm (in)** 84 x 100 (3.3 x 3.9)

For diesel engine rating definitions please see page 10.



## Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
<b>C4.4</b>					
C	54	72	2200	EPA T3 NR, EU IIIA NR	Naturally Aspirated
C	56	75	2200	EPA T3 NR, EU IIIA NR	Naturally Aspirated
C	56-75	75-100	2200-2400	EPA T3 NR, EU IIIA NR	Turbocharged
<b>C4.4 ACERT</b>					
C	62-75	83-99	2200	EPA T3 NR, EU IIIA NR	Turbocharged
C	68-83	91-111	2200-2400	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	75-106	100-142	2200	EPA T3 NR, EU IIIA NR, EPA T4f NRRG	Turbocharged-Aftercooled

## Specifications

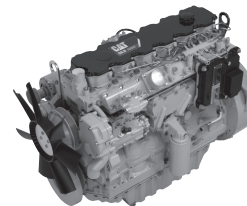
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
<b>C4.4</b>	663 (26.1)	597 (23.5)	810 (32)	306 (675)	4.4 (269)
<b>C4.4 ACERT</b>	631 (24.8)	626 (24.7)	824 (32)	360 (794)	4.4 (269)

**Bore x Stroke – mm (in)** 105 x 127 (4.1 x 5)

Please see spec sheet for more information:

C4.4 ACERT ..... LEHH0551, LEHH0569

For diesel engine rating definitions please see page 10.



## Well Service Ratings

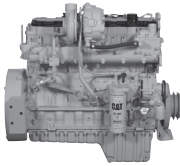
Rating Tier	bkW	bhp	rpm	Emissions	Notes
C	95	128	2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	116	156	2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	129	173	2000-2500	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	130	174	1800-2500	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	136	182	2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	140	188	2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	144	193	2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	146	196	2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	151	203	1800-2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	159	213	2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	168	225	2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	176	236	2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	186	250	2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled
C	205	275	2200	EPA T3 NR, EU IIIA NR	Turbocharged-Aftercooled

## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
<b>C6.6 ACERT</b>	929 (34)	668 (26.3)	797 (31.4)	506 (1116)	6.6 (403)

**Bore x Stroke – mm (in)** 105 x 127 (4.1 x 5)

For diesel engine rating definitions please see page 10.



### 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, EU IIIA NR	Watercooled, SCAC, REMAC avail
B	153	205	2200	IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR	Haz Loc, SCAC only
C	172	230	2200	IMO II, EPA T2 M, EPA T3 NR, EU IIIA 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
<b>C7.1 ACERT</b>					
B	141	188	1800-2200	EPA T4i NRG, EU IIIB NR	Dry Manifold
B	168	225	1800-2200	EPA T4f NRRG, EU IV NR	Dry Manifold
C	168	250	1800-2200	EPA T4f NRRG, EU IV NR	Dry Manifold
C	205	275	1800-2200	EPA T4f NRRG, EU IV NR	Dry Manifold

### 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	bkW	bhp	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	275	2200	IMO II, EPA T3 NR, China NR III, EU IIIA NR	Dry Manifold
B	224	300	2200	IMO II, EPA T3 NR, EU IIIA NR, China NR III	Dry Manifold
C	242	325	2200	IMO II, EPA T3 NR, EU IIIA NR, China NR III	Dry Manifold
C	261	350	2200	IMO II, EPA T3 NR, EU IIIA NR, China NR III	Dry Manifold
D	280	375	2200	IMO II, EPA T3 NR, EU IIIA NR	Dry Manifold

### Specifications

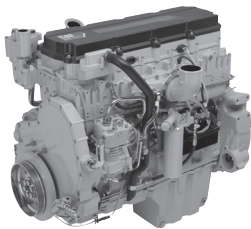
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
<b>C9 ACERT</b>	1092 (43)	828 (32.6)	1024 (40.3)	716 (1578)	8.8 (537)
<b>C9.3 ACERT</b>	1150 (45.3)	828 (32.6)	1123 (44.21)	885 (1950)	9.3 (567.5)
<b>Bore x Stroke – mm (in)</b>					
<b>C9 ACERT</b>	112 x 149 (4.4 x 5.8)				
<b>C9.3 ACERT</b>	115 x 149 (4.5 x 5.9)				

Please see spec sheet for more information:

C9 ACERT ..... LEHW0014, LEHW0046, LEHW0047

C9.3 ACERT ..... LEHW0099

For diesel engine rating definitions please see page 10.



## Well Service Ratings

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

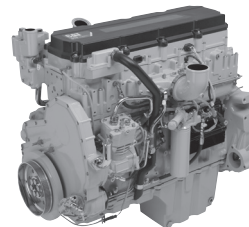
## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
<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	Avail with Cat Compression Brake, Dry Manifold
B	309	415	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Avail with Cat Compression Brake, Dry Manifold
C	328	440	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Avail with Cat Compression Brake, 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

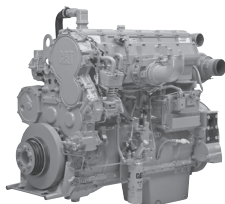
## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
<b>C13 ACERT</b>	1201 (47.3)	1013 (39.9)	1186 (46.7)	896 (1976)	12.5 (763)
<b>C13 ACERT T4</b>	1203 (47.4)	933.14 (36.74)	1186 (46.7)	1350 (2976)	12.5 (763)
<b>Bore x Stroke – mm (in)</b>	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	Avail with Cat Compression Brake, Dry Manifold
B	354	475	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China II NR	Avail with Cat Compression Brake, Dry Manifold
C	403	540	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China II NR	Avail with Cat Compression Brake, 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	EPA T2 M, IMO II, EPA T3 M	Haz Loc, SCAC, Watercooled
D	403	540	1800-2000	EPA T2 M, IMO II, EPA T3 M	Haz Loc, SCAC & REMAC, Watercooled
A/B	354	475	1800-2100	EPA T4i NRRG, EU IIIB NR	Dry Manifold
C	403	540	1800-2100	EPA T4i NRRG, EU IIIB NR, China Phase IV	Dry Manifold
D	433	580	1800-2100	EPA T4i NRRG, EU IIIB NR	Dry Manifold
A/B	354	475	1800-2100	EPA T4f NRNG, EU IV NR	Dry Manifold
C	403	540	1800-2100	EPA T4f NRNG, EU IV NR	Dry Manifold
D	433	580	1800-2100	EPA T4f NRNG, EU IV NR	Dry Manifold

## Specifications

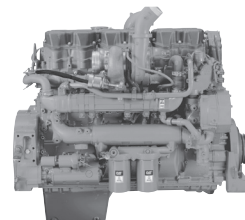
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C15 ACERT</b>	1377 (54)	927 (37)	1227 (48)	1245 (2743)	15.2 (927.6)
<b>C15 ACERT T4</b>	1530 (60.2)	961 (37.8)	1282 (51)	1666 (3673)	15.2 (927.6)

**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	bhp	rpm	Emissions	Notes
A	429	575	2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Avail with Cat Compression Brake, Dry Manifold
B	447	600	2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Avail with Cat Compression Brake, Dry Manifold
C	470	630	2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Avail with Cat Compression Brake, 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/B	447	600	1800-1900	EPA T4i NRRG, EU IIIB NR	Dry Manifold
C	470	630	1800-1900	EPA T4i NRRG, EU IIIB NR, China Phase IV	Dry Manifold
C	522	700	1800-1900	EPA T4i NRRG, EU IIIB NR	Dry Manifold
C	563	755	1800	EPA T4f NRNG	Dry Manifold
D	597	800	1800	EPA T4f NRNG	Dry Manifold
A	429	575	2000	EPA T4f NRNG, EU IV NR	Dry Manifold
B	447	600	2000	EPA T4f NRNG, EU IV NR	Dry Manifold
C	470	630	2000	EPA T4f NRNG, EU IV 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)

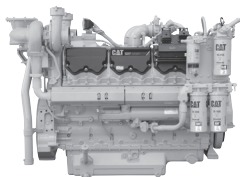
**Bore x Stroke – mm (in)** 145 x 183 (5.7 x 7.2)

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	bhp	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	China III NR	Dry Manifold
A	597	800	1800	EPA T4f NRNG	Narrow Config, Dry Manifold
B	652	875	1800	EPA T4f NRNG	Narrow Config, Dry Manifold
C	708	950	1800	EPA T4f NRNG	Narrow Config, Dry Manifold

## Specifications

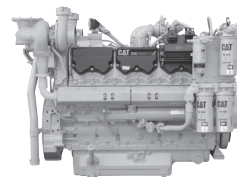
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C27 ACERT</b>	1918 (75.5)	1463 (57.6)	1321 (52)	2895 (6382)	27 (1648)
<b>C27 ACERT T4</b>	2160 (85)	1270 (50)	1650 (65)	2956 (6516)	27 (1648)

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

Please see spec sheet for more information:

C27 ACERT ..... LEHW0052, LEHW0101

For diesel engine rating definitions please see page 10.



## Well Service Ratings

Rating Tier	bkW	bhp	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 M, IMO II	Haz Loc, SCAC only, Watercooled
A	597	800	2100	EPA T2 NR, IMO II	Dry Manifold
B	708	950	1800-2100	China III NR, EPA T2 NR, IMO II	Dry Manifold
C	839	1125	1800-2100	China III NR, EPA T2 NR, IMO II	Dry Manifold
D	895	1200	1800-2100	China III NR, EPA T2 NR, IMO II	Dry Manifold
E	1007	1350	1800-2100	China III NR, EPA T2 NR, IMO II	Dry Manifold
C	839	1125	1800	EPA T4f NRNG	Dry Manifold

## Specifications

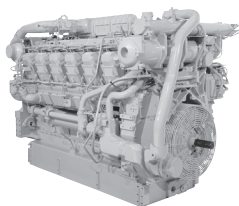
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C32 ACERT</b>	1934.9 (76.18)	1431 (56.34)	1388.3 (54.66)	2286 (5040)	32 (1953)
<b>C32 ACERT T4</b>	1905 (75)	1600 (63)	1549 (61)	3107 (6850)	32 (1953)

**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

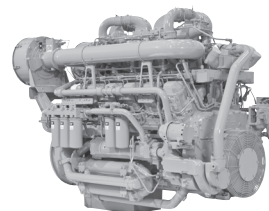
## Specifications

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

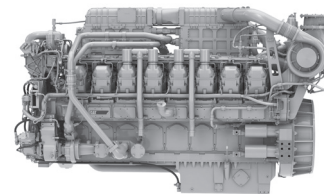
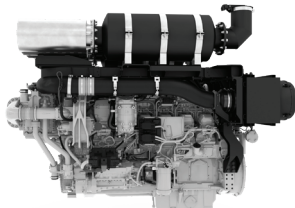
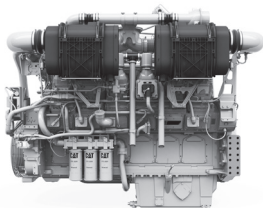
## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3512C HD ATAAC</b>	2804 (110.4)	1504 (59.2)	2192 (86.3)	6200 (13,669)	58.9 (3596)
<b>3512C HD SCAC</b>	2880 (113.8)	1630 (64.2)	2185 (86.1)	6402 (14,115)	58.9 (3596)
<b>Bore x Stroke – mm (in)</b>	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 (in³)
<b>EPA T4F Diesel</b>					
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)
<b>DGB</b>					
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)
<b>China Stage III</b>					
3512E ATAAC	2242 (88.3)	1982 (78)	2208 (86.9)	6270 (13,823)	58.9 (3596)

Bore x Stroke – mm (in) 170x215 (6.69x8.46)

\* 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 use 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

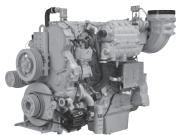
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
3516C HD SCAC	3450 (135.83)	1688 (66.5)	2040 (80.3)	8516 (18,775)	78 (4765)

Bore x Stroke – mm (in) 170x215 (6.69x8.46)

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

Rating	Tier	bkW	bhp	rpm	Emissions	Notes
<b>C7 ACERT</b>						
B	153	205	2200	IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR	Haz Loc, SCAC only, Watercooled	
C	172	230	2200	IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR	Haz Loc, SCAC only, Watercooled	
<b>C9 ACERT</b>						
D	254	340	2200	IMO II, EPA T3 NR, EU IIIA NR	Haz Loc, SCAC & REMAC avail, Derate Option, Watercooled	
<b>C15 ACERT</b>						
D	400	536	1800-2000	EPA T2 M, IMO II, EPA T3 M	Haz Loc, SCAC, Watercooled	
D	400	536	1800-2100	EU IIIA NR Constant Speed, IMO II	Haz Loc, SCAC, Watercooled	
D	403	540	1800-2000	EPA T2 M, IMO II, EPA T3 M	Haz Loc, SCAC & REMAC, Watercooled	
<b>C32 ACERT</b>						
A	597	800	2100	EPA T2 NR, EPA T2 M, IMO II	Haz Loc, SCAC only, Watercooled	
A	641	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	826	1110	2100	EPA T2 NR, EPA T2 M, IMO II	Haz Loc, SCAC only, Watercooled	

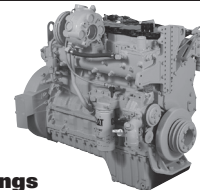
## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C7 ACERT</b>	1053 (41.5)	758 (29.8)	1032 (40.6)	629 (1386)	7.2 (439)
<b>C9 ACERT</b>	1092 (43)	828 (32.6)	1024 (40.3)	716 (1578)	8.8 (537)
<b>C15 ACERT</b>	1377 (54)	927 (37)	1227 (48)	1245 (12,743)	15.2 (927.6)
<b>C32 ACERT</b>	1918 (75.5)	1473 (58)	1321 (52)	2286 (5040)	32 (1953)
<b>Bore x Stroke – mm (in)</b>					
<b>C7 ACERT</b>	110x127 (4.3x5)		<b>C18 ACERT</b>	145x183 (5.7x7.2)	
<b>C9 ACERT</b>	112x149 (4.4x5.8)		<b>C32 ACERT</b>	145x162 (5.7x6.4)	
<b>C15 ACERT</b>	137.2x171.5 (5.4x6.75)				

Please see spec sheet for more information:

C7 ACERT .. LEHW0044 C9 ACERT .. LEHW0014 C15 ACERT .. LEHW0013 C32 ACERT.. LEHW0051

For diesel engine rating definitions please see page 10.



## Well Service Ratings

Rating	Tier	bkW	bhp	rpm	Emissions	Notes
<b>C7 ACERT</b>						
B	153	205	2200	IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR	Watercooled, SCAC & REMAC avail	
C	172	230	2200	IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR	Watercooled, SCAC & REMAC avail	
D	205	275	2200	IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR	Watercooled, SCAC & REMAC avail	
<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	
<b>C15 ACERT</b>						
D	400	536	1800-2000	EPA T2 M, IMO II, EPA T3 M	Haz Loc, SCAC, Watercooled	
D	403	540	1800-2000	EPA T2 M, IMO II, EPA T3 M	Haz Loc, SCAC & REMAC, Watercooled	
<b>C32 ACERT</b>						
A	597	800	2100	EPA T2 NR, EPA T2 M, IMO II	Watercooled, SCAC, SCAC + HEX & REMAC avail	
A	641	860	2100	EPA T2 NR, EPA T2 M, IMO II	Watercooled, SCAC, SCAC + HEX & REMAC avail	
B	686	920	2100	EPA T2 NR, EPA T2 M, IMO II	Watercooled, SCAC, SCAC + HEX & REMAC avail	
C	746	1000	2100	EPA T2 NR, EPA T2 M, IMO II	Watercooled, SCAC, SCAC + HEX & REMAC avail	
D	828	1110	2100	EPA T2 NR, EPA T2 M, IMO II	Watercooled, SCAC, SCAC + HEX & REMAC avail	
E	913	1225	2100	EPA T2 NR, EPA T2 M, IMO II	Watercooled, SCAC, SCAC + HEX & REMAC avail	

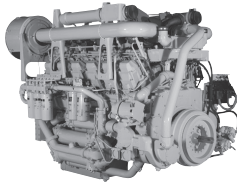
## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C7 ACERT</b>	1053 (41.5)	758 (29.8)	1032 (40.6)	629 (1386)	7.2 (439)
<b>C9 ACERT</b>	1092 (43)	828 (32.6)	1024 (40.3)	716 (1578)	8.8 (537)
<b>C32 ACERT</b>	1918 (75.5)	1473 (58)	1321 (52)	2286 (5040)	32 (1953)
<b>Bore x Stroke – mm (in)</b>					
<b>C7 ACERT</b>	110x127 (4.3x5)				
<b>C9 ACERT</b>	112x149 (4.4x5.8)				
<b>C32 ACERT</b>	145x162 (5.7x6.4)				

Please see spec sheet for more information:

C7 ACERT ..... LEHW0045 C9 ACERT ..... LEHW0046 C32 ACERT ..... LEHW0050

For diesel engine rating definitions please see page 10.



## Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
<b>3508</b>					
A	507	680	1200	NC	Watercooled
C	611	820	1300	NC	Watercooled
A	638	855	1800	NC	Watercooled
C	746	1000	1800	NC	Watercooled
C	846	1135	1900	NC	Watercooled
<b>3512</b>					
A	761	1020	1200	NC	Watercooled
C	858	1150	1300	NC	Watercooled
A	954	1280	1800	NC	Watercooled
C	1119	1500	1800	NC	Watercooled
C	1342	1800	1900	NC	Watercooled
<b>3516</b>					
A	1010	1355	1200	NC	Watercooled
C	1242	1665	1300	NC	Watercooled

## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3508</b>	2136.14 (84.1)	1701.8 (67)	1719.58 (67.7)	4309 (9500)	34.5 (2105)
<b>3512</b>	2674.62 (105.3)	1701.8 (67)	1719.58 (67.7)	5203.75 (11,462)	51.8 (3158)
<b>3516</b>	3251 (128)	1701 (66.9)	2004 (78.9)	8660 (19,090)	69 (4210)

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

Please see spec sheet for more information:

3512 ..... LEHW0055

3516 ..... LEHW0160

For diesel engine rating definitions please see page 10.

Engine	Transmission	Max hp	Page Number
<b>C9 ACERT</b>	CX31-P600	600	32
<b>C11 ACERT</b>	CX31-P600	600	32
<b>C13 ACERT</b>	CX31-P600	600	32
<b>C15 ACERT</b>	CX31-P600	600	32
<b>C15 ACERT</b>	CX38-P892	800	33-34
<b>C18 ACERT</b>	CX38-P892	800	33-34
<b>C27 ACERT</b>	TH48-E70	1200	38
<b>C32 ACERT</b>	TH48-E70	1500	38
<b>3512B</b>	CX48-P2300	2300	35
<b>3512C</b>	CX48-P2300	2300	35
	TH53-E60	2500	36
	TH55-E70	3300	39
	TH55-E90	3300	40
<b>3512E</b>	CX48-P2300	2300	35
	TH53-E60	2500	36
	CX48-P3060	3000	37
<b>3512E</b>	TH55-E70	3300	39
	TH55-E90	3300	40
<b>3516C</b>	TH55-E70	3300	39
	TH55-E90	3300	40



### 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 flange

### Power Take Off

(Pump Auxiliary Drive)

### PTO Mountings and Locations\*

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

### Transmission Speed Ratios

Gear	Ratio
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:	613 mm (24.1 in)
Length:	1098 mm (43.2 in)

### Weight

Approximate Dry Weight	
STD Configuration	456 kg (1006 lbs)
Integral Pump Drive	496 kg (1094 lbs)

### Spec Sheet

LEHW0008



CX38-P892 IPD Version



CX38-P892 Standard Version

### Ratings

Gross Input Power*	457-652 KW (600-875 hp)
Gross Input Torque	3966 N•m (2925 lb-ft)
Rated Input Speed	2100 rpm

\* ASC approval on ratings over 800 hp

### Output Connection Options

1810 companion flange, ISO7646 255 flange

### Power Take Off

(Pump Auxiliary Drive)

### PTO Mountings and Locations\*

Integral Pump Drive Configuration:  
10-bolt PTO at 11 o'clock and 1 o'clock

Rear facing PTO's: PTO's SAE "C" J744 14 teeth splines (CCW rotation, two and four bolt pump mounts), 1.2 x engine speed

Front facing PTO's: PTO's SAE "B" J744 13 teeth splines (CW rotation, two and four bolt pump mounts), 1.2 x engine speed

### Transmission Speed Ratios

Gear	Ratio
1F	6.21
2F	4.69
3F	3.38
4F	2.68
5F	2.03
6F	1.66
7F	1.20
8F	1.00
9F	0.69
1R	-5.91
2R	-2.56

### Dimensions

Height: 853.9 (33.6") STD 1003.1 (39.5") IPD  
Width: 709.8 mm (27.9") STD 751.9 (29.6") IPD  
Length: (drivetrain) 1184.9 (46.6") STD 1288.6 (50.7") IPD

### Weight

Approximate Dry Weight	
STD Configuration	748 kg (1650 lbs)
Integral Pump Drive	896 kg (1975 lbs)

\*Viewed from rear

\*\*Please see Application and Installation Guide (REHS3513) for details on combined PTO power rating

Ratings continued on page 34

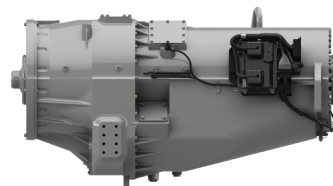
Ratings continued from page 33

CX38-P892 PTO's	Maximum Rated Torque	Maximum Rated Power
Single Side PTO	174 N•m (128 lb-ft)	56 kW (75 hp) <sup>(1)</sup>
Single Integral Drive PTO	658 N•m (485 lb-ft)	149 kW (200 hp) <sup>(2)</sup>
Total Combined Side and Integral Drive PTO's	Varies	261 kW (350 hp) <sup>(3)</sup>

<sup>(1)</sup> Maximum rated power taken at 1800 rpm engine speed

<sup>(2)</sup> Maximum rated power taken at 1800 rpm engine speed x 1.2 PTO speed up

<sup>(3)</sup> Total combined side and integral drive PTOs include all 10-bolt, SAE B and SAEC locations on the transmission



**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 (Yoke)**

GWB 390.60/GWB 390.65

**Power Take Off**

(Pump Auxiliary Drive)

**PTO Mountings and Locations\***

SAE J704 (8-bolt) 14.9 kW/20 hp at 12 o'clock

SAE J744 C-size (2- and 4-bolt) 112 kW/150 hp at 5 o'clock

Optional Cat bolt-on PTO at 12 o'clock  
112 kW / 150 hp capable, SAE J744  
C-size (2 & 4 bolt), front or rear drive

**Transmission Speed Ratios**

Gear	Ratio
1F	3.34
2F	2.45
3F	2.20
4F	1.81
5F	1.62
6F	1.36
7F	1.19
8F	0.99
Stall Torque	2.20

**Dimensions**

Height:	1049 mm (41.3 in)
Width:	1128 mm (44.4 in)
Length:	1893.2 mm (74.5 in)

**Weight**

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

**Spec Sheet**

LEHW0148  
LEHW20261 - Cat PTO

Please see spec sheet for more information:

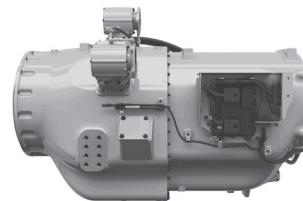
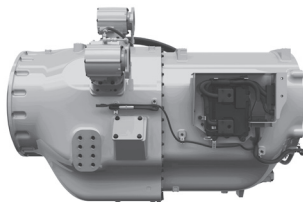
CX38-P892..... LEHW0357

\*\*Viewed from rear

\*\*\*Please see Application and Installation Guide (M0078890) for details on combined PTO power rating

\*Viewed from rear





### Ratings

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

### Output Connection Options

GWB 390.70, GWB 390.65

### Power Take Off

(Pump Auxiliary Drive)

### 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 @1900 rpm (Cat PTO)  
 20 hp @1900 rpm (Non-Cat PTOs)

### Transmission Speed Ratios

Gear	Ratio
1F	4.54
2F	3.33
3F	2.99
4F	2.46
5F	2.20
6F	1.62

### Dimensions

Height: 1122 mm (44.2 in)  
 Width: 1215 mm (48.0 in)  
 Length: 1793 mm (70.6 in)

### Weight

Approximate Weight  
 With Coupling 2005 kg (4420 lbs)

### Spec Sheet

LEHW0374  
 LEHW20261 - Cat PTO

\*\*Viewed from rear

\*\*\*Please see Application and Installation Guide (M0090883) for details on combined PTO power rating

### Ratings

Gross Input Power\* 2235KW (3000 hp)  
 Gross Input Torque 12040 N•m (8880 lb-ft)  
 Rated Input Speed 1900 rpm  
 Maximum Input Speed 2025 rpm

### Output Connection Options

GWB 390.70

### Power Take Off

(Pump Auxiliary Drive)

### PTO Mountings and Locations\*

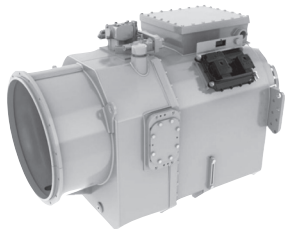
Drive: Engine-driven PTO  
 Location: 12 o'clock, 10 o'clock  
 Mountings: SAE J704 8 bolt  
 SAE J744 C-Size (Optional Cat bolt-on PTO)

Maximum PTO Power:

150 hp @1900 rpm (Cat PTO)  
 20 hp @1900 rpm (Non-Cat PTOs)

\*\*Viewed from rear

\*\*\*Please see Application and Installation Guide (M0090883) for details on combined PTO power rating



### 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\*

SAE J704 (8-bolt) 14.9 kW/20 hp at 3 o'clock, 5 o'clock, and 9 o'clock (Non-Cat PTOs)

Optional Cat bolt-on PTO 112 kW / 150 hp capable (3 o'clock and 9 o'clock positions), 67 kW / 90 hp capable (5 o'clock position), SAE J744 C-size (2 & 4 bolt), front or rear drive

\*\* Transmission provided with SAE J704 8-bolt interface at 3 o'clock and 5 o'clock PTO locations. Optional SAE J704 8-bolt interface at 9 o'clock location.

\*Viewed from rear

### Transmission Speed Ratios

Gear	Ratio
1F	6.16
2F	4.52
3F	3.33
4F	2.47
5F	1.82
6F	1.36
7F	1.00

Stall Torque Ratio 2.20

### Dimensions

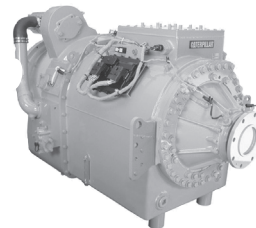
Height:	1092 mm (43 in)
Width:	866 mm (34 in)
Length:	1681 mm (66 in)

### Weight

Approximate Dry Weight	
Transmission	1694 kg (3735 lbs)
Engine/Transmission Coupling	108 kg (238 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\*

SAE J704 (8-bolt) 14.9 kW/20 hp at 3 o'clock (Non-Cat PTOs)

SAE J744 C-size (2- and 4-bolt) 112 kW/150 hp at 11 o'clock

Optional Cat bolt-on PTO at 3 o'clock 112 kW / 150 hp capable, SAE J744 C-size (2 & 4 bolt), front or rear drive

\*Viewed from rear

### Transmission Speed Ratios

Gear	Ratio
1F	6.25
2F	4.59
3F	3.38
4F	2.48
5F	1.83
6F	1.36
7F	1.00

Stall Torque Ratio 2.23

### Dimensions

Height:	1288 mm (51 in)
Width:	1246 mm (49 in)
Length:	2132 mm (84 in)

### Weight

Approximate Dry Weight	
Transmission	2871 kg (6330 lbs)
Engine/Transmission Coupling	
2500 hp	136 kg (300 lbs)
3000+ hp	181 kg (400 lbs)

### Spec Sheet

LEHW1006  
LEHW20261 - Cat PTO



### Ratings

Gross Input Power	2461 kW (3300 hp)
Gross Input Torque	12 677 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\*

SAE J704 (8-bolt) 14.9 kW/20 hp at 3 o'clock (Non-Cat PTOs)

SAE J744 C-size (2- and 4-bolt) 112 kW/150 hp at 11 o'clock

Optional Cat bolt-on PTO at 3 o'clock 112 kW / 150 hp capable, SAE J744 C-size (2 & 4 bolt), front or rear drive

### Transmission Speed Ratios

Gear	Ratio
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
Stall Torque Ratio	2.23

### Dimensions

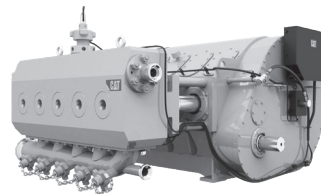
Height:	1288 mm (51 in)
Width:	1246 mm (49 in)
Length:	2137 mm (84 in)

### Weight

Approximate Dry Weight	2755 kg (6075 lbs)
Transmission	2755 kg (6075 lbs)
Engine/Transmission Coupling	
2500 hp	136 kg (300 lbs)
3000+ hp	181 kg (400 lbs)

### Spec Sheet

LEHW1006  
LEHW20261 - Cat PTO



### Specifications

Max. Input	2500 bhp (1864 bkW)
Max. rpm	330
Number of Plungers	5
Stroke Length	8 in (203.2 mm)
Plunger Load	238,000 lb (107,960 kg)
Gear Ratio	6.353:1

### Dimensions and Weight

Height:	50.87 in (1292.1 mm)
Width:	86.23 in (2190.2 mm)
Length:	80.12 in (2035 mm)
Weight:	16,600 lb (7530 kg)

Extreme Duty and Stainless Steel fluid ends available  
Power End Lube Oil Filtration System is standard feature  
Optional factory installed PEMS® Pump Electronic Monitoring System

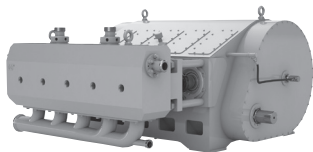
Plunger Diameter	Displacement per Revolution		Displacement at Pump rpm Well Stimulation and Intermittent Application												
			87		118		150		200		250		330		
in	mm	Gal/Rev.	L/Rev.	bpm	psi	bpm	psi	bpm	psi	bpm	psi	bpm	psi	bpm	psi
4	101.6	2.17	8.21	4.52	18 984	6.12	14996	7.76	11 830	10.33	8886	12.93	7102	17.05	5386
4.5	114.3	2.75	10.40	5.69	15 000	7.74	11849	9.83	9338	13.10	7012	16.38	5605	21.62	4247
5	127.0	3.40	12.87	7.05	12 150	9.55	9597	12.14	7562	16.19	5671	20.24	4537	26.71	3437
Input Power (bhp)				2400	2400	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500

Based on 90% ME and 100% VE – Intermittent Service Only  
Pumps with pressures in excess of 15 000 psi require special gauge and discharge flanges

Please see spec sheet for more information:

WS255 ..... LEPW0060

\*Viewed from rear



### Specifications

Max. Input 3000 bhp (2237 kW)  
 Max. rpm 275  
 Number of Plungers 5  
 Stroke Length 10 in (254 mm)  
 Plunger Load 250,000 lb (113 398 kg)  
 Gear Ratio 5.55:1

### Dimensions and Weight

Height: 52.8 in (1341.1 mm)  
 Width: 95.6 in (2428.2 mm)  
 Length: 97.1 in (2466.3 mm)  
 Weight: 24,736 lb (11,221 kg)

Extreme Duty and Stainless Steel fluid ends available  
 Power End Lube Oil Filtration System is standard feature  
 Optional factory installed PEMS Pump Electronic Monitoring System

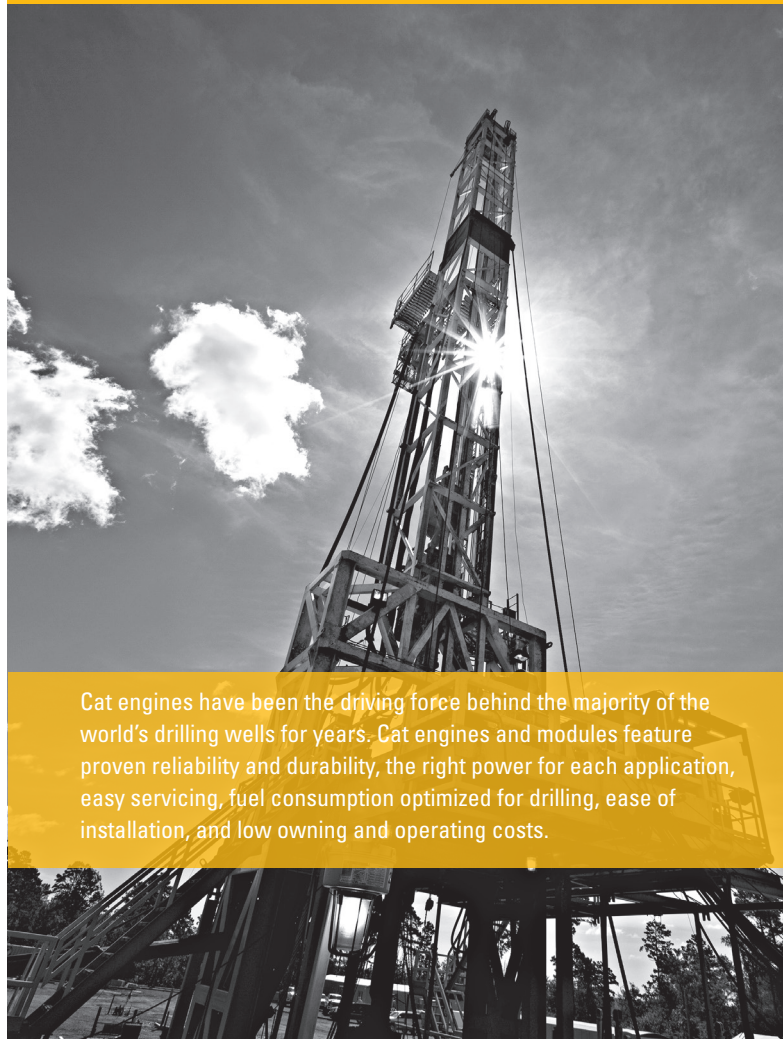
Plunger Diameter	Displacement per Revolution		Displacement at Pump rpm Well Stimulation and Intermittent Application										
			75		115		150		200		275		
in	mm	Gal/Rev.	L/Rev.	bpm	psi	bpm	psi	bpm	psi	bpm	psi	bpm	psi
4.0	101.6	2.72	10.3	4.86	19 900	7.43	16 450	9.71	12 615	12.93	9460	17.79	6875
4.5	114.3	3.44	13.0	6.14	15 725	9.43	12 985	12.29	9960	16.38	7450	22.52	5425
5.0	127.0	4.25	16.1	7.60	12 730	11.64	10 520	15.17	8065	20.24	6050	27.81	4400
<b>Input Power (bhp)</b>				2368	3000	3000	3000	3000	3000	3000	3000	3000	3000

Based on 90% ME and 100% VE – Intermittent Service Only  
 Pumps with pressures in excess of 15 000 psi require special gauge and discharge flanges

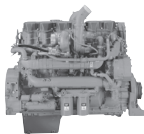
Please see spec sheet for more information:

WS305 ..... LEPW0085

# Land Drilling Ratings



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.



## Land Mechanical Drilling Engine Ratings

Rating Tier	bkW	bhp	rpm	Emissions
A/B	354	475	1800-2100	EPA T4 NRNG, EU V NR COMPLIANT
C	403	540	1800-2100	EPA T4 NRNG, EU V NR COMPLIANT
D	433	580	1800-2100	EPA T4 NRNG, EU V NR COMPLIANT
A*	328	440	1800-2100	EPA T3 NR, EPA ESE, UN R96 IIIA, China III NR, IMO II
B*	354	475	1800-2100	EPA T3 NR, EPA ESE, UN R96 IIIA, China III NR, IMO II
C*	403	540	1800-2100	EPA T3 NR, EU IIIA NR, UN R96 IIIA, China III NR, IMO II
A/B	354	475	1800-2100	EPA T4i NRNG, EU IIIB NR, IMO III
C	403	540	1800-2100	EPA T4i NRNG, EU IIIB NR, IMO III, China Phase IV
D	433	580	1800-2100	EPA T4i NRNG, EU IIIB NR, IMO III
D	400	536	1800-2000	IMO II, EPA T3M, Haz Loc
D	403	540	1800-2000	IMO II, EPA T3M, Haz Loc

\*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	China II NRNC, EU II NRNC
Prime	410	365	456	550	China II NRNC, EU II NRNC
<b>60 Hz/1800 rpm</b>					
Prime	366	320	400	491	EPA ESE
Prime	409	365	456	549	EPA ESE
Prime	530	455	569	711	EPA ESE

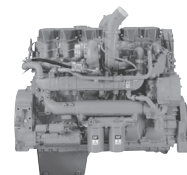
## Specifications

	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.



## Land Mechanical Drilling Engine 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

\*Available with Cat compression brake

## Land Drilling Module Ratings

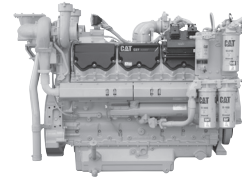
Duty	bkW	ekW	kVA	bhp	Emissions
<b>50 Hz/1500 rpm</b>					
Prime	490	436	545	657	China II NRNC, EU II NRNC
<b>60 Hz/1800 rpm</b>					
Prime	576	500	625	772	EPA ESE
Prime	624	545	681	837	EPA ESE
Prime	528	455	569	708	EPA T4F NRNG

Ratings continued on page 46

Ratings continued from page 45

## 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)				



## Land Mechanical Drilling Engine 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	1800-2100		EPA T4i NRNG
B	653	875	1800-2100		EPA T4i NRNG
C	708	950	1800-2100		EPA T4i NRNG
D	783	1050	1800-2100		EPA T4i NRNG
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

## 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:

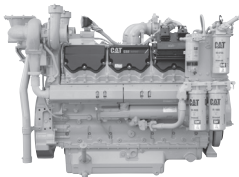
C27 ACERT (T2)..... LEHW0052      C27 ACERT Module..... LEHW0115  
 C27 ACERT (T4i) ..... LEHW0101

For diesel engine rating definitions please see page 10.

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.



## Land Mechanical Drilling Engine 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, EPA ESE
C	839	1125	1800-2100	EPA T2 NR, China III NR, IMO II, EPA ESE
D	895	1200	1800-2100	EPA T2 NR, China III NR, IMO II, EPA ESE
E	1007	1350	1800-2100	EPA T2 NR, China III NR, IMO II, EPA ESE
E	1119	1500	1800-2100	IMO II
B	708	950	1800-2100	EPA T4i NRNG
C	839	1125	1800-2100	EPA T4i NRNG
D	895	1200	1800-2100	EPA T4i NRNG
B	746	1000	1800	EPA T4f NRNG
C	839	1125	1800	EPA T4f NRNG
D	895	1200	1800	EPA T4f NRNG

## Land Electric Drilling Module Ratings

Duty	bkW	ekW	kVA	bhp	Emissions
<b>50 Hz/1500 rpm</b>					
Prime	882	700	1000	1182	NC
<b>60 Hz/1800 rpm</b>					
Prime	1008	910	1300	1351	NC

## 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 (T4i).....	LEHW0100
C32 ACERT Module.....	LEHW0110

For diesel engine rating definitions please see page 10.

## Land Mechanical Drilling Engine Ratings

Model	Duty	bkW	bhp	rpm	Emissions
3508	A	507	680	1200	NC
3508	Drill-M	567	760	1200	NC
3508	C	611	820	1300	NC
3508	A	638	855	1800	NC
3508	C	746	1000	1800	NC
3512	A	761	1020	1200	NC
3512	Drill-M	764	1025	1200	NC
3512	C	858	1150	1300	NC
3512	Drill-M	932	1250	1200	NC
3512	A	955	1280	1800	NC
3512	C	1119	1500	1800	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-EI	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)

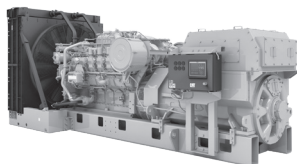
**Bore x Stroke – mm (in)** 170 x 190 (6.7 x 7.5)

**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	NC

## Land Electric-Drive Drilling Engine Ratings

Model	Duty	bkW	bhp	rpm	Emissions
3508B	Drill-EI	682	915	1200	NC
3512B	Drill-EI	1101	1475	1200	NC
3512B with DGB	Drill-EI	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

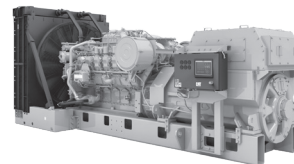
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3508B Engine</b>	2136 (84.1)	1702 (67)	2024 (79.7)	4309 (9500)	35 (2105)
<b>3508B Module</b>	4986 (196.3)	2319 (91.3)	2596 (102.2)	15 352 (33,846)	35 (2105)
<b>3512B Engine</b>	2675 (105.3)	1702 (67)	1720 (67.7)	5203 (11,471)	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 Module .....	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 HD	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

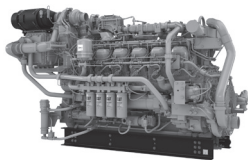
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3508C Engine</b>	2136 (84.1)	1702 (67.0)	2024 (79.7)	4582 (10,101)	35 (2105)
<b>3512C Module</b>	6051 (238.2)	2318 (91.2)	2659 (104.7)	14 453 (31,864)	52 (3158)
<b>3512C HD</b>					
<b>Engine</b>	2682 (105.6)	1790 (70.5)	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

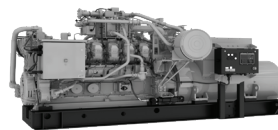
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
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3512E Engine 3327 (131) 1829 (72) 1981 (78) 7711 (17,000) 59 (3600)

Bore x Stroke – mm (in) 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



## Land Drilling Energy Storage System Ratings

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

## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Disp – L (in <sup>3</sup> )
--	-------------	-------------	-------------	-----------------------------

3512 Engine 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)

	L – m (ft)	W – m (ft)	H – m (ft)	Weight - kg (lbs)
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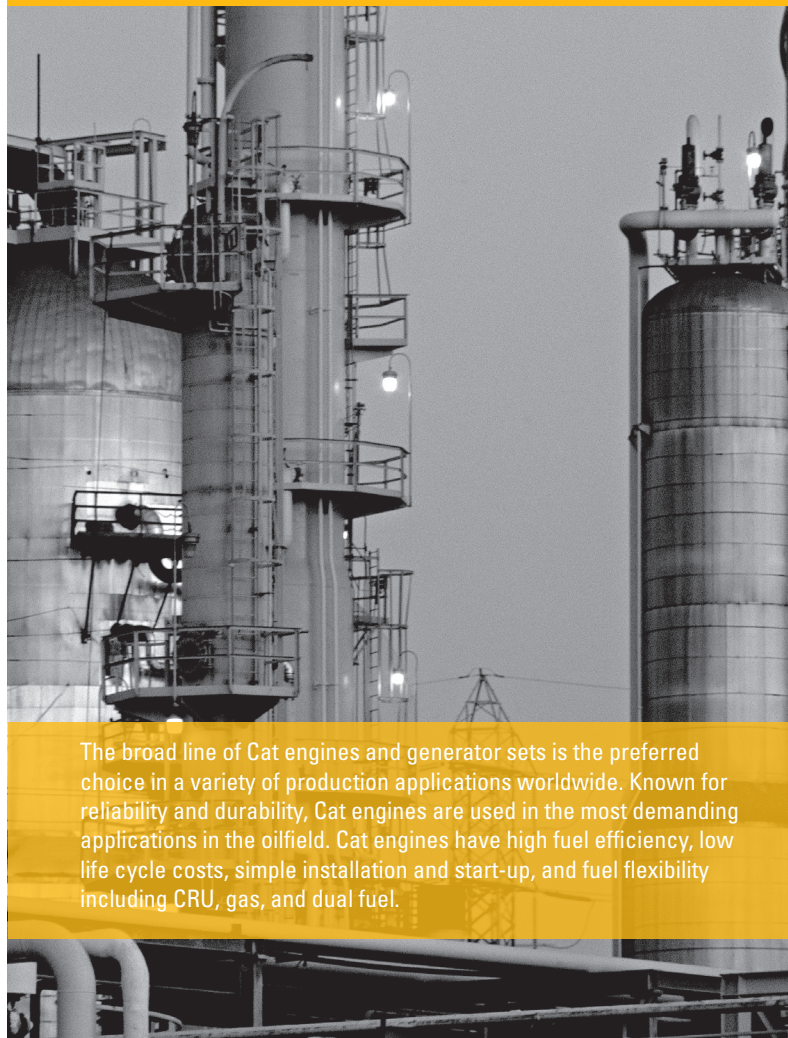
PGS1260 HD 6.1(20) 2.4 (8) 2.8 (9.5) 16,500 (36,376)

Please see spec sheet for more information:  
3512 Engine ..... LEHW20188-00  
PGS1260 HD ..... LEHW0282

For diesel engine rating definitions please see page 10.

Engine	Transmission	Max hp	Page Number
<b>C15 ACERT</b>	CX31-P600	600	33
	CX38-P892	875	35
<b>C18 ACERT</b>	CX38-P892	875	35
<b>C27 ACERT</b>	TH48-E70	1200	39
<b>C32 ACERT</b>	TH48-E70	1500	39

## Land Production Ratings



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	kW	kW	kVA	bhp	Emissions
C15 ACERT	Prime	331	292	365	444	EU II NRNC, China II NRNC, NC
C15 ACERT	Prime	410	364	455	549	EU II NRNC, China II NRNC, NC
C18 ACERT	Prime	483	436	545	647	EU II NRNC, China II NRNC, NC
C32 ACERT	Prime	882	800	1000	1182	NC

## 50 Hz Generator Set Ratings – 365-7150 kVA

Standby	kVA			kW			Generator Set Model	Emissions/ Configuration
	Prime	Cont.	Standby	Prime	Cont.	Standby		
1500 rpm								
–	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 57

Ratings continued from page 56

Standby	kVA			kW			Generator Set Model	Emissions/ Configuration
	Prime	Cont.	Standby	Prime	Cont.	Standby		
1500 rpm								
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
1000 rpm								
–	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 – 180-16296 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 59

Ratings continued from page 58

## 60 Hz Generator Set Ratings – 180-16296 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 60

Ratings continued from page 59

## 60 Hz Generator Set Ratings – 180-16296 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	NC
–	3025	2750	–	2420	2200	C280-8	EPA T4F
–	3025	2750	–	2420	2200	C280-8	NC
–	4550	4125	–	3640	3300	C280-12	NC
–	4550	4125	–	3640	3300	C280-12	EPA T4i
–	6050	5750	–	4840	4600	C280-16	EPA T4i
–	6050	5500	–	4840	4400	C280-16	NC
–	–	–	1040	985	985	6CM20C	NC
–	–	–	1380	1310	1310	8CM20C	NC
–	–	–	1500	1475	1475	9CM20C	NC

Ratings continued from page 60

## 60 Hz Generator Set Ratings – 180-16296 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
–	–	–	1900	1735	1735	6CM25C	NC
–	–	–	2500	2315	2315	8CM25C	NC
–	–	–	2800	2600	2600	9CM25C	NC
–	–	–	2000	1940	1940	6CM25E	NC
–	–	–	2700	2585	2585	8CM25E	NC
–	–	–	3000	2910	2910	9CM25E	NC
–	–	–	2800	2780	2780	6CM32C	NC
–	–	–	3800	3700	3700	8CM32C	NC
–	–	–	4300	4170	4170	9CM32C	NC
–	–	–	5880	5880	5880	12CM32C	NC
–	–	–	7840	7840	7840	16CM32C	NC
–	–	–	3400	3085	3085	6CM32E	NC
–	–	–	4500	4115	4115	8CM32E	NC
–	–	–	5100	4630	4630	9CM32E	NC
–	–	–	6500	6170	6170	12CM32E	NC
–	–	–	8700	8230	8230	16CM32E	NC
<b>600 rpm</b>							
3600	3456	3456	2940	2822	2822	6CM32C	Low BSFC
4800	4608	4608	3920	3763	3763	8CM32C	Low BSFC
5400	5184	5184	4410	4233	4233	9CM32C	Low BSFC
<b>500/514 rpm</b>							
7639	6839	6839	6100	5579	5579	6CM43C	Low BSFC
8912	7978	7978	7100	6440	6440	7CM43C	Low BSFC
10185	9118	9118	8100	7438	7438	8CM43C	Low BSFC
11458	10258	10258	9200	8290	8290	9CM43C	Low BSFC
15278	13677	13677	12300	11170	11170	12CM43C	Low BSFC
20370	18236	18236	16400	14890	14890	16CM43C	Low BSFC

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

## Generator Set Ratings – 1056-17460 ekW

ekW	kVA	Duty	Generator Set Model	Notes
<b>60 Hz – 1800 rpm</b>				
1360	1700	Prime	3512B with DGB	Diesel with up to 70% NG/LNG/CNG/FG
<b>50 Hz – 1500 rpm</b>				
1056	1320	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
<b>50/60 Hz – 500/514 rpm</b>				
5290	–	Cont	6CM46DF	CRU/HFO with NG/LNG
6170	–	Cont	7CM46DF	CRU/HFO with NG/LNG
7050	–	Cont	8CM46DF	CRU/HFO with NG/LNG
7930	–	Cont	9CM46DF	CRU/HFO with NG/LNG
10580	–	Cont	12CM46DF	CRU/HFO with NG/LNG
14110	–	Cont	16CM46DF	CRU/HFO with NG/LNG

## 50 Hz Oilfield Generator Set Ratings – 110-1560 ekW

ekW	rpm	Generator Set Model
<b>1500 rpm</b>		
1560	1500	CG170-16

## 50 Hz Generator Set Ratings – 70-9700 ekW

ekW	rpm	Generator Set Model
<b>1500 rpm</b>		
125	1500	G3406
160	1500	G3406
360	1500	G3412C
400	1500	CG132-8
480/495/510	1500	G3508
600	1500	CG132-12
725	1500	G3512
800	1500	CG132-16
984	1500	G3512E
975/1030	1500	G3516
1184	1500	G3512E
1200	1500	CG170-12
1555	1500	G3516C
1560	1500	CG170-16
1990/2000	1500	G3516H
1972	1500	G3520C
1995	1500	G3520E
2000	1500	CG170-20
2000	1500	G3520
2486	1500	G3520H
<b>1000 rpm</b>		
1679	1000	G3608
2515	1000	G3612
3333	1000	CG260-12
3355	1000	G3616
4300	1000	CG260-16
<b>750 rpm</b>		
6580	750	G16CM34
10300	750	G20CM34



## 60 Hz Oilfield Generator Set Ratings - 131-1500 ekW

ekW	rpm	Generator Set Model	Emissions
<b>1800 rpm</b>			
131	1800	G3306B	NRM, Stationary
400	1800	CG137-12	NRM
<b>1200 rpm</b>			
360	1200	G3508	NC
555/560/570	1200	G3512	NC
765/770	1200	G3516	NC

## 60 Hz Generator Set Ratings - 85-9700 ekW

ekW	rpm	Generator Set Model
<b>1500 rpm with gearbox</b>		
1966	1500	G3516H
2476	1500	G3520H
<b>1800 rpm</b>		
400	1800	CG137-12
400	1800	CG132-8
350/375	1800	G3412 TA
423	1800	G3412C
600	1800	CG132-12
800	1800	CG132-16
1300	1800	G3516B
1650/1660	1800	G3516C
2050	1800	G3520C
2500	1800	G3520 <sup>1</sup>
<b>900 rpm</b>		
1510	900	G3608
2263	900	G3612
3000	900	CG260-12
3020	900	G3616
4000	900	CG260-16
4050	900	CG260-16
<b>720 rpm</b>		
6580	720	G16CM34
9800	720	G20CM34

<sup>1</sup>EPA NRM emission compliant

## 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 MLIT T4f, South Korea MOE T4f UN R120, IMO III
C9.3B ATAAC	280	375	1800-2200	EPA T4f, EU Stage V, Japan MLIT T4f, South Korea MOE T4f UN R120, IMO III
C9.3B ATAAC	310	415	1800-2200	EPA T4f, EU Stage V, Japan MLIT T4f, South Korea MOE T4f UN R120, IMO III
C9.3B ATAAC	340	455	1800-2200	EPA T4f, EU Stage V, Japan MLIT T4f, South Korea MOE T4f UN R120, IMO III
C9.3B ATAAC	340	456	1800-2100	EPA T4f, EU Stage V, Japan MLIT T4f, South Korea MOE T4f UN R120, IMO III
C9.3B ATAAC	370	496	1800-2100	EPA T4f, EU Stage V, Japan MLIT T4f, South Korea MOE T4f UN R120, IMO III
C9.3B ATAAC	400	536	1800-2100	EPA T4f, EU Stage V, Japan MLIT T4f, South Korea MOE T4f UN R120, IMO III
C9.3B ATAAC	430	577	1800-2100	EPA T4f, EU Stage V, Japan MLIT T4f, South Korea MOE T4f UN R120, IMO III
C9.3B ATAAC	403	540	1800-2100	EPA T4f, EU Stage V, Japan MLIT T4f, South Korea MOE T4f UN R120, IMO III
C9.3B ATAAC	433	580	1800-2100	EPA T4f, EU Stage V, Japan MLIT T4f, South Korea MOE T4f UN R120, IMO III
C9.3B ATAAC	470	630	1800-2100	EPA T4f, EU Stage V, Japan MLIT T4f, South Korea MOE T4f UN R120, IMO III

Ratings continued on page 66

Ratings continued from page 65

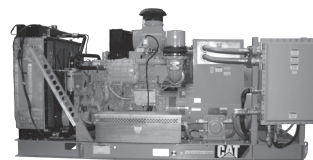
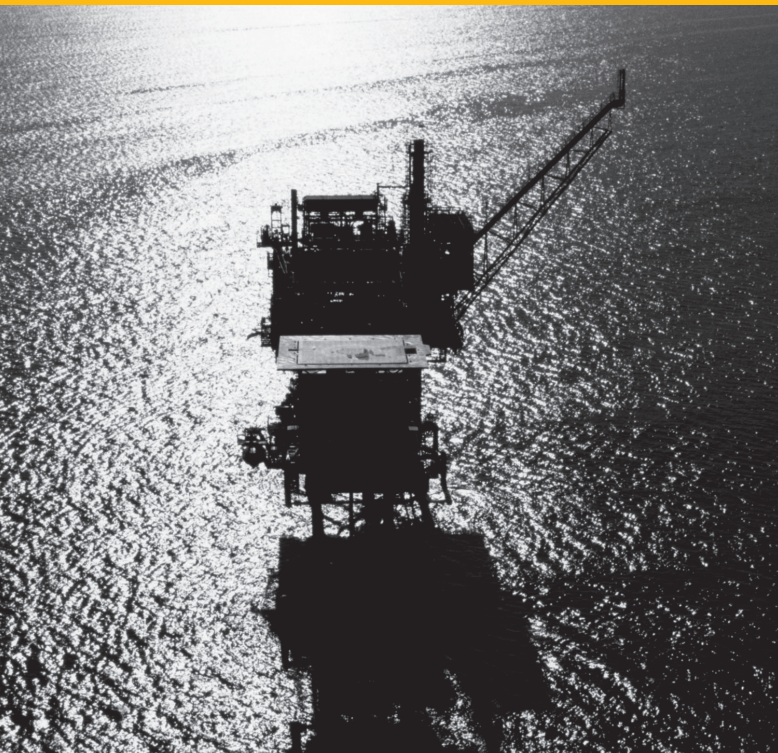
## Mechanical Drive Engine Ratings; Lesser Regulated Areas - 168-15040 bkW

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
6CM20C	1140	1529	1000	Diesel/HFO/CRU
8CM20C	1520	2038	1000	Diesel/HFO/CRU
9CM20C	1710	2293	1000	Diesel/HFO/CRU
6CM25C	1800	2414	750	Diesel/HFO/CRU
8CM25C	2400	3218	750	Diesel/HFO/CRU
9CM25C	2700	3621	750	Diesel/HFO/CRU
6CM32C	2700	-	600	Diesel/HFO/CRU
8CM32C	3600	-	600	Diesel/HFO/CRU
9CM32C	4050	-	600	Diesel/HFO/CRU
6CM32E	3000	-	750	Diesel/HFO/CRU
8CM32E	4000	-	750	Diesel/HFO/CRU
9CM32E	4500	-	750	Diesel/HFO/CRU

## 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
G12CM34	4575	6135	750
G16CM34	6100	8180	750
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

# Offshore Drilling and Production Ratings



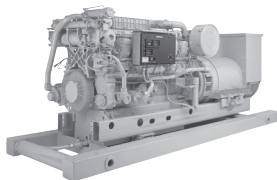
### Generator Sets

Cat hazardous location generator sets combine the C15 ACERT – 1500 and 1800 rpm, 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>				
C15 ACERT	OS-Prime	360	288	Haz Loc
C32 ACERT	OS-Prime	874	800	Haz Loc
<b>1800 rpm/60 Hz</b>				
C15 ACERT	OS-Prime	400	320	Haz Loc
C32 ACERT	OS-Prime	994	910	Haz Loc
3512C HD	OS-Prime	1802	1730	Haz Loc
3516C HD	OS-Prime	2210	2100	Haz Loc

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.



## Offshore Generator Set Ratings

Model	Duty	bkW	ekW <sup>1</sup>	kVA <sup>1</sup>	Emissions
<b>1500 rpm/50 Hz</b>					
3512B	OS-Prime	1257	1200	1500	IMO II
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)

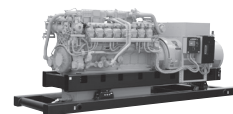
<sup>1</sup>Dependent on generator selection and power factor.

<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
3512E	OS-Prime	1632	1550	1938	IMO III
3512E	OS-Prime	1789	1700	2125	IMO III
3516E	OS-Prime	1921	1825	2281	IMO III
3516E	OS-Prime	2105	2000	2500	IMO III
3516E	OS-Prime	2368	2250	2813	IMO III

\*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)
<b>3512E min</b>	2644 (104.1)	2113 (83.2)	2036 (80.2)	4960 (10,395)	34.5 (2107)
<b>max</b>	3272 (128.8)	2154 (84.8)	2160 (85.0)		
<b>3512E min</b>	3185 (125.4)	2130 (83.9)	2142 (84.3)	6532-7411 (14,400-16,340)	51.8 (161)
<b>max</b>	3185 (125.4)	2130 (83.9)	2142 (84.3)		

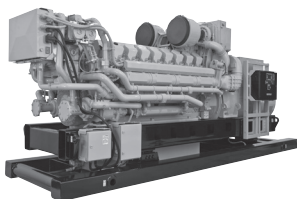
**Bore x Stroke – mm (in)** 170 x 190 (6.7 x 7.5)

**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
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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)
<b>Bore x Stroke – mm (in)</b>	175x220 (6.9x8.7)				

\*Available with increased exhaust backpressure.

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

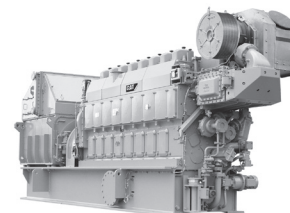
<sup>2</sup>Dimensions and weights are dependent on generator and options selected. See general installation drawings for details.

<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<sup>1</sup>

Model	Duty	bkW	ekW <sup>2</sup>	kVA <sup>2</sup>	Emissions
<b>900 rpm/60 Hz</b>					
6CM20C	Prime	1080	1037	1296	IMO II
8CM20C	Prime	1440	1382	1728	IMO II
9CM20C	Prime	1620	1555	1944	IMO II
<b>1000 rpm/50 Hz</b>					
6CM20C	Prime	1200	1152	1440	IMO II
8CM20C	Prime	1600	1536	1920	IMO II
9CM20C	Prime	1800	1728	2160	IMO II

<sup>1</sup>Ratings Available in MDO, HFO, and crude oil fuel. ISO 3046-1 reference conditions.

<sup>2</sup>Generator efficiency of 96% and 0.8 power factor.

### Specifications<sup>3</sup>

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in <sup>3</sup> )
<b>6CM20C</b>	6073 (239.1)	1680 (66.1)	2833 (111.5)	18.8 (42,000)	57 (3480)
<b>8CM20C</b>	6798 (267.6)	1816 (71.5)	3010 (118.5)	23.1 (51,000)	75 (4580)
<b>9CM20C</b>	7125 (280.6)	1817 (71.5)	3011 (118.5)	30.0 (67,000)	85 (5190)

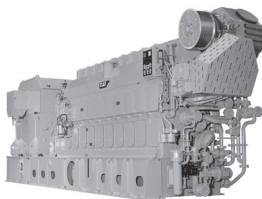
**Bore x Stroke – mm (in)** 200x300 (7.9x11.8)

<sup>3</sup>Base-mounted generator sets. Final dimensions dependent on generator make/type.

Please see spec sheet for more information:

6CM20C..... LEPW0045  
8CM20C..... LEPW0046  
9CM20C..... LEPW0047

For diesel engine rating definitions please see page 10.



### Offshore Generator Set Ratings<sup>1</sup>

Model	Duty	bkW	ekW <sup>2</sup>	kVA <sup>2</sup>	Emissions
<b>750/720 rpm – 50/60 Hz</b>					
6CM25E	Prime	2100	2016	2520	IMO II
8CM25E	Prime	2800	2688	3360	IMO II
9CM25E	Prime	3150	3024	3760	IMO II

<sup>1</sup> Ratings Available in MDO, HFO, and crude oil fuel. ISO 3046-1 reference conditions.

<sup>2</sup> Generator efficiency of 96% and 0.8 power factor.

### Specifications<sup>3</sup>

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in <sup>3</sup> )
<b>6CM25E</b>	7579 (298.4)	2357 (92.8)	3866 (152.2)	43 (95,000)	123 (7505)
<b>8CM25E</b>	8313 (327.3)	2358 (92.8)	4066 (160.1)	53 (117,000)	163 (9946)
<b>9CM25E</b>	9302 (366.2)	2359 (92.8)	4801 (189.0)	56 (124,000)	184 (11,227)

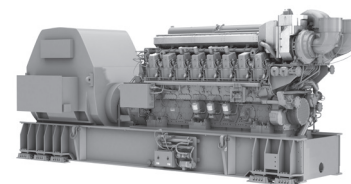
**Bore x Stroke – mm (in)** 255 x 400 (10 x 15.7)

<sup>3</sup> Base-mounted generator sets. Final dimensions dependent on generator make/type.

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

6CM25E.....	LEPW0285
8CM25E.....	LEPW0286
9CM25E.....	LEPW0287

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>					
C280-6	Cont	1730	1650	2063	IMO II
C280-6	Cont	1900	1820	2275	IMO II
C280-8	Cont	2300	2200	2250	EPA T4i / IMO III
C280-8	Cont	2530	2420	3025	EPA T4i / 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	EPA T4i / IMO III
C280-12	MCR	3800	3650	4563	IMO II
C280-12	MCR	3800	3650	4563	IMO II
C280-16	Cont	4600	4400	5500	EPA T4i / IMO III
C280-16	Prime	5060	4840	6050	EPA T4i / 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 76



Ratings continued from page 75

Model	Duty	bkW	ekW <sup>1</sup>	kVA <sup>1</sup>	Emissions
<b>1000 rpm/50 Hz</b>					
C280-6	Cont	1850	1760	2200	IMO II
C280-6	Cont	2030	1940	2425	IMO II
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)

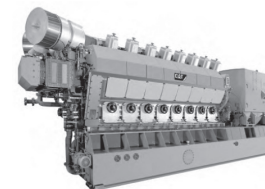
**Bore x Stroke – mm (in)** 280 x 300 (11 x 11.8)

<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.



**Offshore Generator Set Ratings<sup>1</sup>**

Model	Duty	bkW	ekW <sup>2</sup>	kVA <sup>2</sup>	Emissions
<b>600 rpm – 50/60 Hz</b>					
6CM32C	Prime	3000	2880	3600	IMO II
8CM32C	Prime	4000	3840	4800	IMO II
9CM32C	Prime	4500	4320	5400	IMO II
<b>750/720 rpm – 50/60 Hz</b>					
6CM32E	Prime	3480	–	–	IMO II
8CM32E	Prime	4640	–	–	IMO II
9CM32E	Prime	5220	–	–	IMO II
12CM32E	Prime	6960	–	–	IMO II
16CM32E	Prime	9280	–	–	IMO II

<sup>1</sup> Ratings Available in MDO, HFO, and crude oil fuel. ISO 3046-1 reference conditions.

<sup>2</sup> Generator efficiency of 97% and 0.8 power factor.

**Specifications<sup>4</sup>**

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in <sup>3</sup> )
<b>6CM32C</b>	9302 (366.2)	2639 (103.9)	4801 (189.0)	73.0 (161,000)	232 (14,156)
<b>8CM32C</b>	10 886 (427.6)	2600 (102.4)	4869 (191.7)	92.0 (203,000)	309 (18,855)
<b>9CM32C</b>	11 419 (449.6)	2600 (102.4)	4869 (191.7)	98.0 (217,000)	347 (21,173)
<b>6CM32E</b>	9566 (376.6)	2639 (103.9)	4567 (179.8)	73.0 (161,000)	232 (14,156)
<b>8CM32E</b>	10 626 (418.3)	2600 (102.4)	4869 (191.7)	92.0 (203,000)	309 (18,855)
<b>9CM32E</b>	11 156 (439.2)	2600 (102.4)	4869 (191.7)	98.0 (217,000)	347 (21,173)
<b>12CM32E</b>	10 703 (421.4)	3526 (138.8)	4639 (182.6)	120.0 (265,000)	444 (27,092)
<b>12CM32E</b>	10 703 (421.4)	3526 (138.8)	4639 (182.6)	120.0 (265,000)	444 (27,092)
<b>16CM32E</b>	12 149 (478.3)	3526 (138.8)	4639 (182.6)	140.0 (309,000)	592 (36,123)
<b>16CM32E</b>	12 149 (478.3)	3526 (138.8)	4639 (182.6)	140.0 (309,000)	592 (36,123)

**Bore x Stroke – mm (in)** 320 x 480 (12.6 x 18.9)

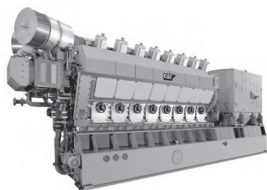
<sup>4</sup> Base-mounted generator sets. Final dimensions dependent on generator make/type.

Please see spec sheet for more information:

6CM32C.....	LEPW0042	8CM32C.....	LEPW0043	9CM32C.....	LEPW0044
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For diesel engine rating definitions please see page 10.





### Offshore Generator Set Ratings<sup>1</sup>

Model	Duty	bkW	ekW <sup>2</sup>	kVA <sup>2</sup>	Emissions
<b>720 rpm – 60 Hz</b>					
6CM34DF	Prime	3060	–	–	IMO II/III
8CM34DF	Prime	4080	–	–	IMO II/III
9CM34DF	Prime	4590	–	–	IMO II/III
<b>750 rpm – 50 Hz</b>					
6CM34DF	Prime	3180	3085	3856	IMO II/III
8CM34DF	Prime	4240	4113	5141	IMO II/III
9CM34DF	Prime	4770	4627	5784	IMO II/III

<sup>1</sup>Ratings Available in MDO, HFO, and crude oil fuel. ISO 3046-1 reference conditions.

<sup>2</sup>Generator efficiency of 97% and 0.8 power factor.

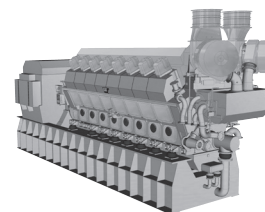
### Specifications<sup>3</sup>

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in <sup>3</sup> )
<b>6CM34DF</b>	9566 (376.6)	2600 (102.4)	4567 (179.8)	73.0 (161,000)	251 (15,291)
<b>8CM34DF</b>	10 626 (418.3)	2600 (102.4)	4770 (187.8)	92.0 (203,000)	334 (20,388)
<b>9CM34DF</b>	11 156 (439.2)	2600 (102.4)	4770 (187.8)	98.0 (217,000)	376 (22,936)

**Bore x Stroke – mm (in)** 340 x 480 (13.4 x 18.9)

<sup>3</sup>Base-mounted generator sets. Final dimensions dependent on generator make/type.

For diesel engine rating definitions please see page 10.



### Offshore Generator Set Ratings<sup>1</sup>

Model	Duty	bkW	ekW <sup>2</sup>	kVA <sup>2</sup>	Emissions
<b>500/514 rpm – 50/60 Hz</b>					
6CM43C	Prime	6300	6111	7639	IMO II
7CM43C	Prime	7350	7130	8912	IMO II
8CM43C	Prime	8400	8148	10185	IMO II
9CM43C	Prime	9450	9167	11458	IMO II
12CM43C	Prime	12600	12222	15278	IMO II
16CM43C	Prime	16800	16296	20370	IMO II

<sup>1</sup>Ratings Available in MDO, HFO, and crude oil fuel. ISO 3046-1 reference conditions.

<sup>2</sup>Generator efficiency of 97% and 0.8 power factor.

### Specifications<sup>3</sup>

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in <sup>3</sup> )
<b>6CM43C</b>	12 202 (480.4)	3400 (133.9)	6278 (247.2)	178.0 (393,000)	532 (32,463)
<b>7CM43C</b>	12 999 (511.8)	3400 (133.9)	6649 (261.8)	195.0 (430,000)	620 (37,382)
<b>8CM43C</b>	13 729 (540.5)	3400 (133.9)	6649 (261.8)	210.0 (464,000)	709 (43,263)
<b>9CM43C</b>	14 459 (569.3)	3400 (133.9)	6649 (261.8)	240.0 (530,000)	797 (48,633)
<b>12CM43C</b>	14 740 (580.3)	3890 (153.1)	6517 (256.6)	275.0 (607,000)	1063 (64,865)
<b>16CM43C</b>	16 870 (664.2)	4027 (158.8)	6439 (253.5)	345.0 (761,000)	1417 (86,487)

**Bore x Stroke – mm (in)** 430 x 610 (16.9 x 24.0)

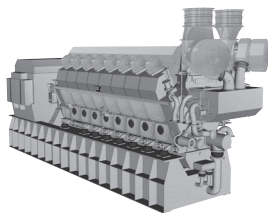
<sup>3</sup>Base-mounted generator sets. Final dimensions dependent on generator make/type.

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

12CM43C ..... LEPW0053

16CM43C ..... LEPW0054

For diesel engine rating definitions please see page 10.


**Offshore Generator Set Ratings<sup>1</sup>**

Model	Duty	bkW	ekW <sup>2</sup>	kVA <sup>2</sup>	Emissions
<b>500/514 rpm – 50/60 Hz</b>					
6CM46DF	Prime	5790	5616	7020	IMO II/III
7CM46DF	Prime	6755	6552	8190	IMO II/III
8CM46DF	Prime	7720	7488	9360	IMO II/III
9CM46DF	Prime	8685	8424	10530	IMO II/III
12CM46DF	Prime	11580	11232	14040	IMO II/III
16CM46DF	Prime	15440	14976	18720	IMO II/III

<sup>1</sup> Ratings Available in LFO. HFO and crude oil ratings available separately.

<sup>2</sup> Generator efficiency of 97% and 0.8 power factor.

**Specifications<sup>3</sup>**

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in <sup>3</sup> )
<b>6CM46DF</b>	12 202 (480.4)	3400 (133.9)	6278 (247.2)	178.0 (393,000)	608 (37,116)
<b>7CM46DF</b>	12 999 (511.8)	3400 (133.9)	6649 (261.8)	195.0 (430,000)	710 (43,302)
<b>8CM46DF</b>	13 729 (540.5)	3400 (133.9)	6649 (261.8)	210.0 (464,000)	811 (49,488)
<b>9CM46DF</b>	14 459 (569.3)	3400 (133.9)	6649 (261.8)	240.0 (530,000)	912 (55,674)
<b>12CM46DF</b>	14 740 (580.3)	3890 (153.1)	6517 (256.6)	275.0 (607,000)	1217 (74,232)
<b>16CM46DF</b>	16 870 (664.2)	4027 (158.5)	6439 (253.5)	345.0 (761,000)	1622 (98,975)

**Bore x Stroke – mm (in)** 460 x 610 (18.1 x 24.0)

<sup>3</sup> Base-mounted generator sets. Final dimensions dependent on generator make/type.

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

6CM45DF	.....	LEHW0297
7CM45DF	.....	LEHW0298
8CM45DF	.....	LEHW0299
9CM45DF	.....	LEHW0300
12CM45DF	.....	LEHW0301
16CM45DF	.....	LEHW0302

For diesel engine rating definitions please see page 10.

# Gas Compression Ratings



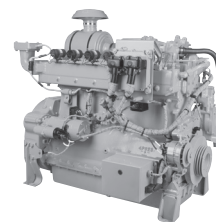
For pipeline, storage, gathering, and re-injection, Cat engines are the prime choice for reliable gas compression. Caterpillar offers the widest range of prime mover choices, with power ratings from 71 bkW (95 bhp) to 6,100 bkW (8,180 bhp). Innovative electronic controls give you superior performance 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	83
215-637 bhp	G3400	84
400-600 bhp	CG137	85
524-1725 bhp	G3500	86-87
1875-5350 bhp	G3600	88-89
6135-8180 bhp	GCM34	90

## Electric Drive Motors Ratings

bhp	Engine	Page Number
1500	CN1586	91
2000	CN2086	91
2500	CN2586	91
3000	CN3086	91
3500	CN3586	91
3621	CN2785	91
4000	CN4086	91
5000	CN5086	91
5500	CN5586	91



## 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% O <sub>2</sub> 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% O <sub>2</sub> Emission Rating
G3306B TA <sup>1</sup>	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 <sup>1</sup>	Cont	151	203	1800	Export Only	2% O <sub>2</sub> Emission Rating
G3306B TAA <sup>1</sup>	Cont	157	211	1800	NSPS Site Compliant Capable	With Caterpillar or Customer-provided AFRC & Aftertreatment* 0.5 & 1.0 g/bhp-hr NOx

<sup>1</sup>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

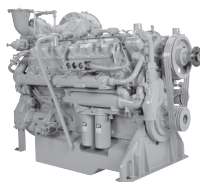
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
G3304	1158 (46)	744 (29)	1170 (46)	757 (1670)	7 (425)
G3306	1539 (60)	978 (38)	1261 (50)	948 (2090)	10.5 (640)

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

Please see spec sheet for more information:

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 AFRC & Aftertreatment 0.5% O <sub>2</sub> or 2% O <sub>2</sub> Set Points
G3406 TA <sup>1</sup>	Cont	206	276	1800	NSPS Site Compliant Capable	With Customer-supplied AFRC & Aftertreatment 0.5% O <sub>2</sub> Set Point
G3406 TA <sup>1</sup>	Cont	242	325	1800	Export Only	2% O <sub>2</sub> Emission Rating
G3408 NA	Cont	190	255	1800	NSPS Site Compliant Capable	With Customer-supplied AFRC & Aftertreatment 0.5% O <sub>2</sub> or 2% O <sub>2</sub> Set Points
G3408 TA <sup>1</sup>	Cont	298	400	1800	Export Only	2% O <sub>2</sub> Emission Rating
G3408C LE <sup>1</sup>	Cont	317	425	1800	NSPS Site Compliant Capable <sup>2</sup>	With Customer-supplied Aftertreatment
G3412 TA <sup>1</sup>	Cont	448	600	1800	Export Only	2% O <sub>2</sub> Set Point
G3412C LE <sup>1</sup>	Cont	475	637	1800	NSPS Site Compliant Capable <sup>2</sup>	With Customer-supplied Aftertreatment

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

<sup>2</sup> NSPS Site Compliant Capable with Customer-supplied SCR Aftertreatment

## Specifications

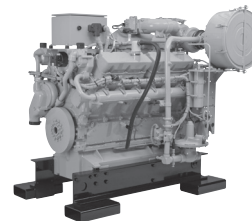
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
G3406 TA	1934 (76)	1270 (50)	1433 (56)	1362 (3000)	14.6 (893)
G3408 TA	1738 (68)	1312 (52)	1542 (61)	2041 (4500)	18 (1099)
G3408C LE	1756 (69.1)	1563 (61.5)	1758 (69.2)	2041 (4500)	18 (1099)
G3412 TA	2087 (82)	1224 (48)	1542 (61)	2320 (5115)	27 (1649)
G3412C LE	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
CG137-8	Cont	298	400	1800	NSPS Site Compliant Capable	With Caterpillar-supplied AFRC & Customer-provided Aftertreatment, 0.5% O <sub>2</sub> Set Point
CG137-12	Cont	447	600	1800	NSPS Site Compliant Capable	With Caterpillar-supplied AFRC, Caterpillar or Customer supplied Aftertreatment, 0.5% O <sub>2</sub> Set Point

## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
CG137-8	1627 (64.0)	1443 (56.8)	1758 (69.2)	2200 (4850)	18 (1099)
CG137-12	2092 (82.4)	1423 (56)	1778 (70)	2835 (6250)	27 (1649)

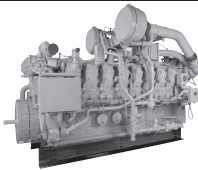
**Bore x Stroke – mm (in)** 137 x 152 (5.4 x 6)

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

CG137-8.....LEHW0340  
 CG137-12 Integrated Catalyst.....LEHW0119  
 CG137-12.....LEHW0270

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

For gas engine rating conditions please see page 10.



**Gas Ratings**

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
G3508 TA <sup>1</sup>	Cont	391	524	1200	NSPS Site Compliant Capable	With Customer-supplied AFRC & Aftertreatment, 0.5% O <sub>2</sub> Set Point
G3508 LE <sup>1</sup>	Cont	500	670	1400	NSPS Site Compliant Capable <sup>2</sup>	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3508J LE <sup>1</sup>	Cont	514	690	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx
G3512 TA <sup>1</sup>	Cont	589	790	1200	NSPS Site Compliant Capable	With Customer-supplied AFRC & Aftertreatment, 0.5% O <sub>2</sub> Set Point
G3512 LE <sup>1</sup>	Cont	642	860	1200	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3512 LE <sup>1</sup>	Cont	749	1004	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3512J LE <sup>1</sup>	Cont	772	1035	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx
G3516 NA	Cont	492	660	1200	Export Only	With Caterpillar supplied AFRC & Customer-supplied Aftertreatment, 0.5% O <sub>2</sub> Set Point
G3516 TA <sup>1</sup>	Cont	1029	1380	1400	NSPS Site Compliant Capable	With Caterpillar supplied AFRC & Customer-supplied Aftertreatment, 0.4% O <sub>2</sub> Set Point
G3516 LE <sup>1</sup>	Cont	858	1150	1200	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3516 LE <sup>1</sup>	Cont	1000	1340	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3516J LE <sup>1</sup>	Cont	1029	1380	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx

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

<sup>2</sup> NSPS Site Compliant Capable with Customer-supplied SCR Aftertreatment

**Ratings continued on page 87**

Ratings continued from page 86

**Gas Ratings**

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
G3516J LE <sup>1</sup>	Cont	1119	1500	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx
*G3520J LE <sup>1</sup>	Cont	1104	1480	1200	NSPS Site Compliant Capable <sup>2</sup>	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx
*G3520J LE <sup>1</sup>	Cont	1286	1725	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx

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

<sup>2</sup> NSPS Site Compliant Capable with Customer-supplied SCR Aftertreatment

\*Additional ratings available via DTO.

**Specifications**

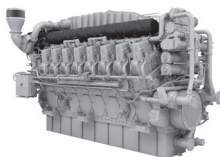
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
G3508 LE	2440 (96)	1768 (70)	1907 (76)	5420 (11,950)	34.5 (2105)
G3508J LE	2546 (100.2)	2029 (79.9)	2140 (84.3)	6048 (13,306)	34.5 (2105)
G3512 LE	2786 (109)	1790 (71)	1863 (73)	6676 (14,720)	51.8 (3158)
G3512J LE	3037 (120)	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 <sup>1</sup>	Cont	1398	1875	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3606 A4 <sup>2</sup>	Cont	1454	1950	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3606 A4 <sup>3</sup>	Cont	1499	2010	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3608 A4 <sup>1</sup>	Cont	1864	2500	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3608 A4 <sup>2</sup>	Cont	1931	2590	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3608 A4 <sup>3</sup>	Cont	1995	2675	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 <sup>2</sup>	Cont	2890	3875	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3612 A4 <sup>3</sup>	Cont	2983	4000	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3616 A4 <sup>1</sup>	Cont	3729	5000	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3616 A4 <sup>2</sup>	Cont	3859	5175	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3616 A4 <sup>3</sup>	Cont	3990	5350	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx

<sup>1</sup> 54°C Aftercooler Water & 88°C Jacket Water

<sup>2</sup> 43°C Aftercooler Water & 88°C Jacket Water

<sup>3</sup> 32°C Aftercooler Water & 88°C Jacket Water

Ratings continued on page 89

For gas engine rating conditions please see page 10.

Ratings continued from page 88

## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
G3606 A4	4833.4 (190.3)	2225.2 (87.6)	2923.2 (115.1)	16 639 (36,683)	127.2 (7762)
G3608 A4	5656 (222.68)	2260 (89)	2922 (115)	21 092 (46,500)	169.6 (10,350)
G3612 A4	5431.9 (210.31)	2731.7 (107.56)	3279 (129)	26 535 (58,500)	254 (15,528)
G3616 A4	5652 (222.5)	2634 (104)	3278 (129)	32 659 (72,000)	339 (20,705)

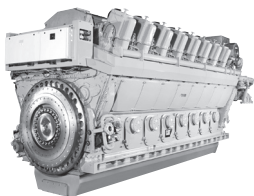
Bore x Stroke – mm (in) 300 x 300 (11.8 x 11.8)

Please see spec sheet for more information:

G3606 A4 0.3g NOx.....	LEHW0258	G3612 A4 0.3g NOx.....	LEHW0260
G3606 A4 0.5g NOx.....	LEHW0234	G3612 A4 0.5g NOx.....	LEHW0236
G3608 A4 0.3g NOx.....	LEHW0259	G3616 A4 0.3g NOx.....	LEHW0261
G3608 A4 0.5g NOx.....	LEHW0235	G3616 A4 0.5g NOx.....	LEHW0198

For gas engine rating conditions please see page 10.





**Gas Ratings**

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
G12CM34	Cont	4575	6135	750	NSPS Site Compliant Capable	0.5 & 0.7 g/bhp-hr NOx
G16CM34	Cont	6100	8180	750	NSPS Site Compliant Capable	0.5 & 0.7 g/bhp-hr NOx

**Specifications**

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
G12CM34	7055 (278)	2992 (118)	3875 (153)	64 400 (142,000)	457 (27,907)
G16CM34	8405 (331)	2992 (118)	3875 (153)	82 000 (181,000)	610 (37,209)

**Bore x Stroke – mm (in)** 340 x 420 (13.4 x 16.5)

Please see spec sheet for more information:

- G12CM34..... LEHW8997
- G16CM34..... LEHW0001

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	Number 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

\* Class B rise at nameplate rated load

Ratings continued from page 92



Ratings continued from page 91

## 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

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

## Displacement

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

## BMEP

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

## Generator Set Ratings

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

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

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

**For more information  
please visit:  
[www.cat.com/oilandgas](http://www.cat.com/oilandgas)**

**E-mail: [cat\\_power@cat.com](mailto:cat_power@cat.com)**

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## **LET'S DO THE WORK.™**

Materials and specifications are subject to change without notice. Rating ranges listed include the lowest and highest available for a specific engine or family of engines. Load factor and time at rated load and speed will determine the best engine/rating match.

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