

# OIL & GAS RATINGS GUIDE

EDITION 2017 (MAY)



**CATERPILLAR®**

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

- 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.

# Cat Engines

## 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 Interim 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 Interim 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



# Cat Engines

## 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.

Turbocharged-aftercooled ratings apply to 1525 m (5000 ft) and 25°C (77°F)

### 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.catoilandgas.cat.com/products/engines](http://www.catoilandgas.cat.com/products/engines)**

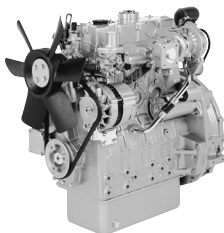
# Well Service Ratings



From frac jobs 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
2250-2500	3512E	26
3000-3300	3516C HD	27
205-1110	Hazardous Location	28
205-1225	Watercooled Manifold	29
680-1800	Watercooled Manifold	30
27-803	HazPak	31



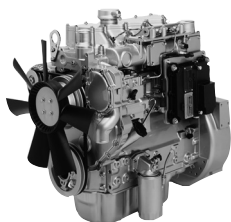
## Well Service Ratings

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 kW
C	37.3	50	2800	EPA T3 NR, EU IIIA NR	Naturally Aspirated Derate to 32.8 bhp/43.9 kW
C	38	51	3000	EPA T3 NR, EU IIIA NR	Naturally Aspirated Derate to 34 bhp/45.6 kW
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 (in <sup>3</sup> )
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)
<b>Bore x Stroke – mm (in)</b>	<b>84 x 100 (3.3 x 3.9)</b>				

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 NRNG	Turbocharged- Aftercooled

## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<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)
<b>Bore x Stroke – mm (in)</b>	105 x 127 (4.1 x 5)				

For diesel engine rating definitions please see page 10.



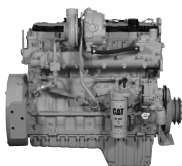
## Well Service Ratings

Rating	Tier	bkW	bhp	rpm	Emissions	Notes
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 (in <sup>3</sup> )
<b>C6.6 ACERT</b>	929 (34)	668 (26.3)	797 (31.4)	506 (1116)	6.6 (403)
<b>Bore x Stroke – mm (in)</b>	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 NRNG, EU IV NR	Dry Manifold
C		168	250	1800-2200	EPA T4f NRNG, EU IV NR	Dry Manifold
C		205	275	1800-2200	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>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
<b>C9.3 ACERT</b>					
A	223	300	1800-2200	EPA T4i NRG, EU IIIB NR	Dry Manifold
B	242	325	1800-2200	EPA T4i NRG, EU IIIB NR	Dry Manifold
C	261	350	1800-2200	EPA T4i NRG, EU IIIB NR	Dry Manifold
A	224	300	1800-2200	EPA T4f NRRNG, EU IV NR	Dry Manifold
B	242	325	1800-2200	EPA T4f NRRNG, EU IV NR	Dry Manifold
C	261	350	1800-2200	EPA T4f NRRNG, EU IV NR	Dry Manifold
D	298	400	1800-2200	EPA T4f NRRNG, 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>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>	112x149 (4.4x5.8)				
<b>C9.3 ACERT</b>	115x149 (4.5x5.9)				

### 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 (in <sup>3</sup> )
<b>C11 ACERT</b>	1201 (47.3)	1057 (41.6)	1176 (46.3)	892 (1967)	11.15 (681)
<b>Bore x Stroke – mm (in)</b>	130 x 140 (5.12 x 5.5)				

Please see spec sheet for more information:

C11 ACERT ..... LEHW0063

For diesel engine rating definitions please see page 10.



## Well Service Ratings

Rating	Tier	bkW	bhp	rpm	Emissions	Notes
A		287	385	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	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
A		287	385	1800-2100	EPA T4i NRG, EU IIIB NR	Dry Manifold
B		309	415	1800-2100	EPA T4i NRG, EU IIIB NR	Dry Manifold
C		328	440	1800-2100	EPA T4i NRG, EU IIIB NR	Dry Manifold
D		354	475	1800-2100	EPA T4i NRG, EU IIIB NR	Dry Manifold
E		388	520	1800-2100	EPA T4i NRG, EU IIIB NR	Dry Manifold
A		287	385	1800-2100	EPA T4f NRNG, EU IV NR	Dry Manifold
B		309	415	1800-2100	EPA T4f NRNG, EU IV NR	Dry Manifold
C		328	440	1800-2100	EPA T4f NRNG, EU IV NR	Dry Manifold
D		354	475	1800-2100	EPA T4f NRNG, EU IV NR	Dry Manifold
E		388	520	1800-2100	EPA T4f NRNG, EU IV NR	Dry Manifold

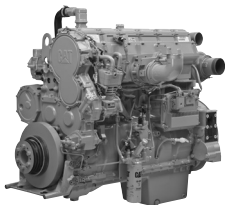
## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>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 NRG, EU IIIB NR	Dry Manifold
C	403	540	1800-2100	EPA T4i NRG, EU IIIB NR, China Phase IV	Dry Manifold
D	433	580	1800-2100	EPA T4i NRG, 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

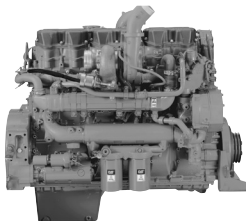
## Specifications

	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)
<b>Bore x Stroke – mm (in)</b>	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 NRG, EU IIIB NR	Dry Manifold
C	470	630	1800-1900	EPA T4i NRG, EU IIIB NR, China Phase IV	Dry Manifold
C	522	700	1800-1900	EPA T4i NRG, 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

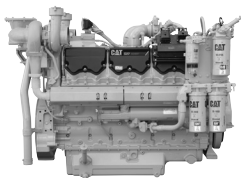
## Specifications

	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)
<b>Bore x Stroke – mm (in)</b>	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

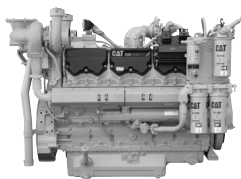
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C27 ACERT</b>	1918 (75.5)	1463 (57.6)	1321 (52)	2895 (6382)	27 (1648)
<b>C27 ACERT T4</b>	2160 (85)	1270 (50)	1650 (65)	2956 (6516)	27 (1648)

**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)
<b>Bore x Stroke – mm (in)</b>	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

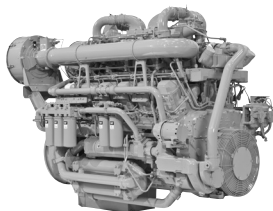
## Specifications

	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, EPA T2 M, IMO II, China III NR	ATAAC, 1.6% or 7% Torque Rise
E	1678	2250	1900	EPA T2 NR, EPA T2 M, IMO II, China III NR	ATAAC, 1.6% or 7% Torque Rise
E	1752	2350	1900	EPA T2 NR, EPA T2 M, IMO II, China III NR	ATAAC, 7% Torque Rise
E	1864	2500	1900	EPA T2 NR, EPA T2 M, IMO II, China III NR	ATAAC, 7% Torque Rise
E	1678	2250	1900	EPA T2 NR, EPA T2 M, IMO II, China III NR	SCAC, 1.6% or 7% Torque Rise
E	1864	2500	1900	EPA T2 NR, EPA T2 M, 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

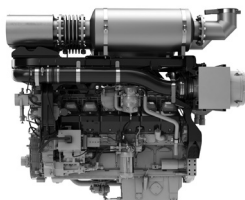
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3512C HD ATAAC</b>	2804 (110.4)	1504 (59.2)	2192 (86.3)	6200 (13,669)	58.9 (3596)
<b>3512C HD SCAC</b>	2880 (113.8)	1630 (64.2)	2185 (86.1)	6402 (14,115)	58.9 (3596)
<b>Bore x Stroke – mm (in)</b>	170 x 215 (6.7 x 8.5)				

Please see spec sheet for more information:

3512C HD ..... LEHW0056, LEHW0090

For diesel engine rating definitions please see page 10.





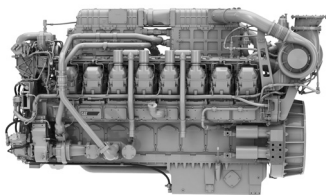
## Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
E	1678	2250	1800	EPA T4f NRNG	ATAAC, 1.7% Torque Rise
E	1678	2250	1800	EPA T4f NRNG	SCAC, 1.7% Torque Rise
E	1865	2500	1800	EPA T4f NRNG	ATAAC, 7.0% Torque Rise
E	1865	2500	1800	EPA T4f NRNG	SCAC, 7.0% Torque Rise

## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
3512E ATAAC	3099 (122)	2235 (88)	2718 (107)	9110 (20,100)	58.9 (3596)
3512E SCAC	3490 (137.4)	2235 (88)	2718 (107)	9750 (21,500)	58.9 (3596)
Bore x Stroke – mm (in)	170 x 215 (6.69 x 8.46)				

For diesel engine rating definitions please see page 10.



## Well Service Ratings

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

## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3516C HD SCAC</b>	3450 (135.83)	1688 (66.5)	2040 (80.3)	8516 (18,775)	78 (4765)
<b>Bore x Stroke – mm (in)</b>	170 x 215 (6.69 x 8.46)				

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>C18 ACERT</b>					
C	533	715	2100	IMO II, EPA T3 NR, EU IIIA NR	Haz Loc, SCAC only, Watercooled
D	599	803	2100	IMO II, EPA T3 NR, EU IIIA NR	Haz Loc, SCAC only, 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

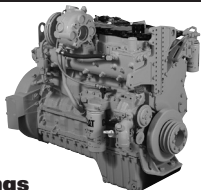
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C7 ACERT</b>	1053 (41.5)	758 (29.8)	1032 (40.6)	629 (1386)	7.2 (439)
<b>C9 ACERT</b>	1092 (43)	828 (32.6)	1024 (40.3)	716 (1578)	8.8 (537)
<b>C15 ACERT</b>	1377 (54)	927 (37)	1227 (48)	1245 (12,743)	15.2 (927.6)
<b>C18 ACERT</b>	1931 (76)	1204 (47.4)	1198 (47.2)	1814 (4000)	
<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>	110 x 127 (4.3 x 5)			<b>C18 ACERT</b>	145 x 183 (5.7 x 7.2)
<b>C9 ACERT</b>	112 x 149 (4.4 x 5.8)			<b>C32 ACERT</b>	145 x 162 (5.7 x 6.4)
<b>C15 ACERT</b>	137.2 x 171.5 (5.4 x 6.75)				

Please see spec sheet for more information:

C7 ACERT ..LEHW0044 C9 ACERT ..LEHW0014 C15 ACERT ..LEHW0113 C32 ACERT.. LEHW0051

For diesel engine rating definitions please see page 10.

# Watercooled Manifold WELL SERVICE



## 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)

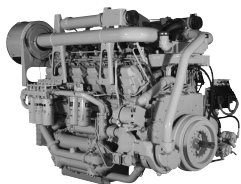
### Bore x Stroke – mm (in)

<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

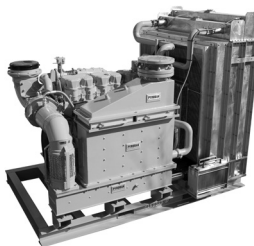
Rating Tier	bkW	bhp	rpm	Emissions	Notes
<b>3508</b>					
A	507	680	1200	NC	Watercooled
C	611	820	1300	NC	Watercooled
A	638	855	1800	NC	Watercooled
C	746	1000	1800	NC	Watercooled
C	846	1135	1900	NC	Watercooled
<b>3512</b>					
A	761	1020	1200	NC	Watercooled
C	858	1150	1300	NC	Watercooled
A	954	1280	1800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

For diesel engine rating definitions please see page 10.



## Well Service

Model	bkW	bhp	rpm	Emissions
C4.4 NA	45/44	60/59	1500/1800	CCNR Stage 2, EPA T2 M
C4.4 TA	96/112	128.7/150.2	1500/1800	NC
C4.4 NA	52	69.7	2200	CCNR Stage 2, EPA T2 M
C4.4 TA	92.6	124.2	2200	NC
C7 ACERT	158	211	2200	IMO II, EPA T2 M, EPA T3 NR
C9 ACERT	227	304	2200	EPA and CARB T3 NR, EU IIIA NR, EPA T2 M, IMO II
C15 ACERT	376	504	1800-2000	IMO II, EPA T3 M, EU IIIA NR
3406C	365	490	2100	NC

## Specifications

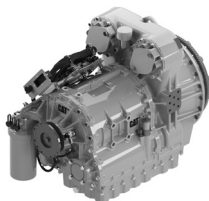
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>C4.4</b>	1571 (61.9)	1253 (49.3)	1627 (64)	970 (2138)	4.4 (268.5)
<b>C7 ACERT</b>	2228 (87.7)	1750 (68.9)	1884 (74.2)	3390 (7475)	7.2 (442)
<b>C9 ACERT</b>	2167 (85.3)	1863 (73.3)	2383 (93.8)	3480 (7673)	8.82 (537.96)
<b>C15 ACERT</b>	2583 (101.69)	2042 (80.39)	2216 (87.24)	3800 (8378)	15.2 (928)
<b>3406C</b>	2468 (97.2)	1842 (72.5)	2646 (104.2)	3620 (7982.1)	14.6 (893)

For diesel engine rating definitions please see page 10.

# Transmission Application Chart

Engine	Transmission	Max hp	Page
<b>C9 ACERT</b>	CX31-P600	600	33
	CX31-P600*	600	34
<b>C11 ACERT</b>	CX31-P600	600	33
	CX31-P600*	600	34
<b>C13 ACERT</b>	CX31-P600	600	33
	CX31-P600*	600	34
<b>C15 ACERT</b>	CX31-P600	600	33
	CX31-P600*	600	34
	CX35-P800	800	35
<b>C18 ACERT</b>	CX35-P800	800	35
<b>C27 ACERT</b>	TH48-E70	1200	36
<b>C32 ACERT</b>	TH48-E70	1500	36
<b>3512B</b>	CX48-P2300	2300	37
<b>3512C</b>	CX48-P2300	2300	37
	TH55-E70	3300	38
	TH55-E90	3300	39
<b>3512E</b>	CX48-P2300	2300	37
	TH55-E70	3300	38
	TH55-E90	3300	39
<b>3516C</b>	TH55-E70	3300	38
	TH55-E90	3300	39

\*Dropbox 2WD or 4WD



## 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)

## Retarder

Available for standard and integral pump drive configurations

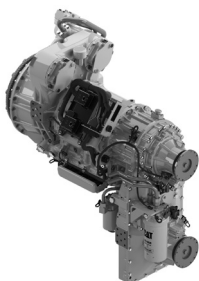
## Spec Sheet

LEHW0008

\*Viewed from rear

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





## 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\*

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\*\*

## 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:	1393 mm (54.8 in)
Width:	755 mm (29.7 in)
Length:	1366 mm (53.7 in)

## Weight

Approximate Dry Weight	
2WD model	909 kg (2005 lbs)
4WD model	943 kg (2080 lbs)

## Integral Drop Box

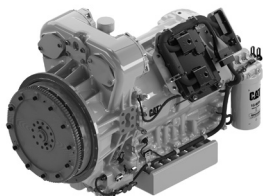
2WD or 4WD options available

## Spec Sheet

LEHW0008

\*Viewed from rear

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



## Ratings

Gross Input Power	597 kW (800 hp)
Gross Input Torque	
1F-3F	3254 N•m (2400 lb-ft)
4F-8F	3661 N•m (2700 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2500 rpm

## Output Connection Options

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\*\*

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

Optional Integral Pump Drive  
Configuration:

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

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

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

## Transmission Speed Ratios

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

## Dimensions

Height:	872 mm (34.4 in)
Width:	654 mm (25.8 in)
Length:	1265 mm (49.8 in)

## Weight

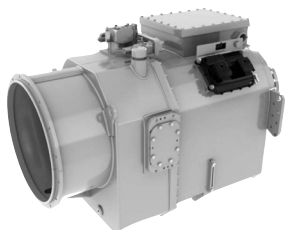
Approximate Dry Weight	
STD Configuration	651 kg (1435 lbs)
Integral Pump Drive	731 kg (1612 lbs)

## Spec Sheet

LEHW0007

\*Viewed from rear

\*\*Please see Application and Installation Guide (REHS3513) 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

## 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

\*Viewed from rear



## 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

## 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

\*Viewed from rear



## 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

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

## 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

\*Viewed from rear



## 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

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

## 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)

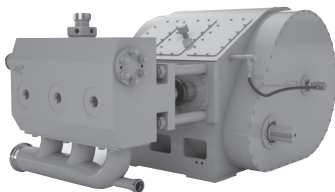
## Weight

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

## Spec Sheet

LEHW1006

\*Viewed from rear



## Specifications

Max. Input	2250 bhp (1678 kW)
Max. rpm	330
Number of Plungers	3
Stroke Length	8 in (203.2 mm)
Plunger Load	225,000 lb (102 048 kg)
Gear Ratio	6.353:1

## Dimensions and Weight

Height:	50.97 in (1295.6 mm)
Width:	92.42 in (2347.5 mm)
Length:	65.87 in (1673.1 mm)
Weight:	13,000 lb (5896.7 kg)

## Spec Sheet

LEPW0059

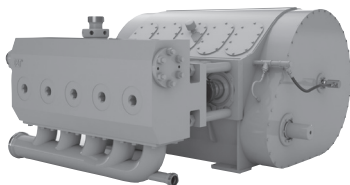
Standard geometry, extreme duty, and stainless steel fluid ends are available.

Plunger Diameter		Displacement per Revolution		Displacement at Pump rpm Well Stimulation and Intermittent Application									
				75		115		200		300		330	
in	mm	Gal/Rev.	L/Rev.	bpm	psi	bpm	psi	bpm	psi	bpm	psi	bpm	psi
4.5	114.3	1.65	6.25	2.95	14 147	4.52	14 147	7.86	10 502	11.81	7002	12.98	6365
5	127.0	2.04	7.72	3.64	11 459	5.60	11 459	9.71	8507	14.57	5671	16.02	5156
<b>Input Power (bhp)</b>				1137		1743		2250		2250		2250	

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.

Optional factory installed PEMS Pump Electronic Monitoring System



## 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:	16,000 lb (7257 kg)

## Spec Sheet

LEPW0060

Standard geometry, extreme duty, and stainless steel fluid ends are available.

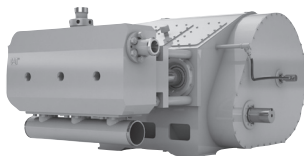
Plunger Diameter		Displacement per Revolution		Displacement at Pump rpm Well Stimulation and Intermittent Application											
				87		118		150		200		250		330	
in	mm	Gal/Rev.	L/Rev.	bpm	psi	bpm	psi	bpm	psi	bpm	psi	bpm	psi	bpm	psi
4	101.6	2.17	8.21	4.52	18 984	6.12	14996	7.76	11 830	10.33	8886	12.93	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
<b>Input Power (bhp)</b>				2400		2400		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.

Optional factory installed PEMS Pump Electronic Monitoring System





## Specifications

Max. Input	2700 bhp (2014 bkW)
Max. rpm	275
Number of Plungers	3
Stroke Length	10 in (254 mm)
Plunger Load	275,000 lb (124 738 kg)
Gear Ratio	5.55:1

## Dimensions and Weight

Height:	52.0 in (1320.8 mm)
Width:	95.41 in (2423.4 mm)
Length:	71.13 in (1806.7 mm)
Weight:	16,500 lb (7485 kg)

## Spec Sheet

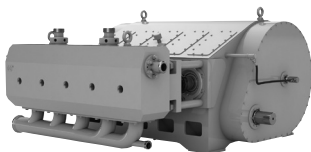
LEPW0081

Plunger Diameter		Displacement per Revolution		Displacement at Pump rpm Well Stimulation and Intermittent Application									
				70		116		150		200		275	
in	mm	Gal/Rev.	L/Rev.	bpm	psi	bpm	psi	bpm	psi	bpm	psi	bpm	psi
4	101.6	1.63	6.18	2.71	21 885	4.50	21 885	5.83	18 904	7.76	14 178	10.69	10 312
4.5	114.3	2.07	7.82	3.45	17 290	5.71	17 290	7.38	14 937	9.83	11 203	13.52	8147
5	127.0	2.55	9.65	4.24	14 005	7.05	14 005	9.10	12 099	12.14	9074	16.69	6599
<b>Input Power (bhp)</b>				1600		2400		2700		2700		2700	

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.

Optional factory installed PEMS Pump Electronic Monitoring System



## Specifications

Max. Input	3000 bhp (2237 bkW)
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:	24,000 lb (10 886 kg)

## Spec Sheet

LEPW0085

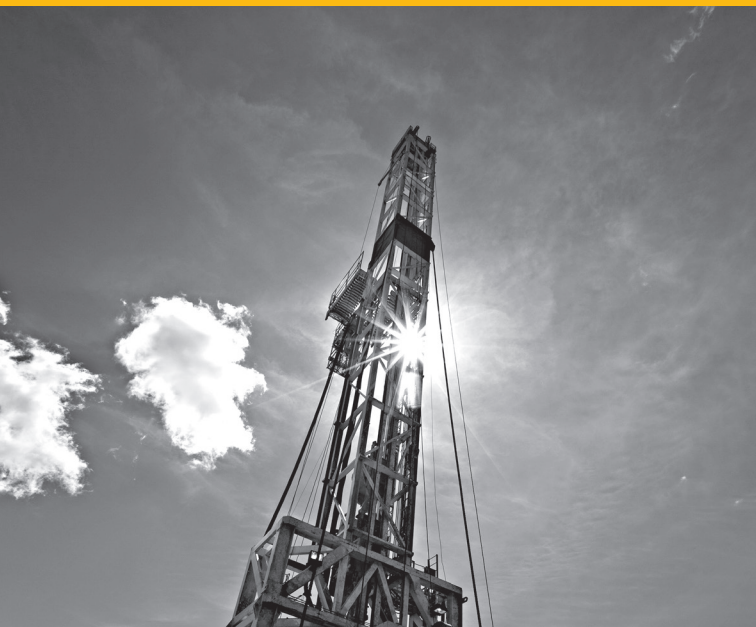
Plunger Diameter		Displacement per Revolution		Displacement at Pump rpm Well Stimulation and Intermittent Application									
				75		115		150		200		275	
in	mm	Gal/Rev.	L/Rev.	bpm	psi	bpm	psi	bpm	psi	bpm	psi	bpm	psi
4.0	101.6	2.72	10.3	4.86	19 900	7.43	16 450	9.71	12 615	12.93	9460	17.79	6875
4.5	114.3	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
5.5	139.7	5.14	19.5	9.19	10 525	14.07	8695	18.36	6665	24.48	5000	33.67	3635
<b>Input Power (bhp)</b>				2368		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.

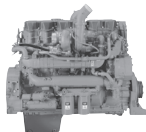
Optional factory installed PEMS Pump Electronic Monitoring System

# 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	328	440	1800-2100	EPA T4 NRNG, EU IV NR
A/B	354	475	1800-2100	EPA T4 NRNG, EU IV NR
C	403	540	1800-2100	EPA T4 NRNG, EU IV NR
D	433	580	1800-2100	EPA T4 NRNG, EU IV NR
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
C	403	540	1800-2100	EPA T3 NR, EU IIIA NR, UN R96 IIIA, China III NR, IMO II
C	403	540	1800-2100	China Phase IV
D	400	536	1800-2100	IMO II, EPA T3M, Haz Loc
D	403	540	1800-2100	IMO II, EPA T3M, Haz Loc
D	433	580	1800-2100	EPA T3 NR, UN R96 IIIA, IMO II
E	444	595	1800-2100	EPA T3 NR, UN R96 IIIA, IMO II

\*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	NC
Prime	410	365	456	550	NC
<b>60 Hz/1800 rpm</b>					
Prime	373	320	400	500	EPA ESE
Prime	420	365	456	563	EPA ESE
Prime	467	410	513	626	EPA ESE
Prime	517	455	569	693	EPA ESE, EPA T2 NR

## Specifications

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

**Bore x Stroke – mm (in)** 137 x 171 (5.4 x 6.75)

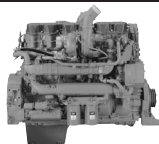
**Please see spec sheet for more information:**

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, IMO II, NC
B*	447	600	1800- 2100	EPA T3 NR, EPA ESE, IMO II, NC
C*	470	630	1800- 2100	EPA T3 NR, EPA ESE, IMO II, NC
C	470	630	1900	China On-hwy IV
C	522	700	1800- 2100	EPA T3 NR, EPA ESE, IMO II, NC
D	570	765	1800- 2100	EPA T3 NR, EPA ESE, IMO II, NC
E	597	800	1800- 2100	EPA T3 NR, EPA ESE, IMO II, NC
A	429	575	1800 -2000	EPA T4f NRNG, EU IV NR
B	447	600	1800 -2000	EPA T4f NRNG, EU IV NR
C	470	630	1800 -2000	EPA T4f NRNG, EU IV NR
C	563	755	1800	EPA T4f NRNG
C	597	800	1800	EPA T4f NRNG

\*Available with Cat compression brake

## Land Drilling Module Ratings

Duty	bkW	ekW	kVA	bhp	Emissions
<b>50 Hz/1500 rpm</b>					
Prime	483	436	545	657	NC
<b>60 Hz/1800 rpm</b>					
Prime	576	500	625	772	EPA ESE
Prime	624	545	681	837	EPA ESE, EPA T2 NR <sup>1</sup>

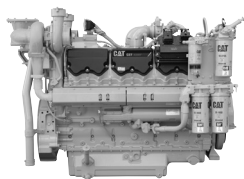
## Specifications

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

Please see spec sheet for more information:

C18 ACERT (T3)..... LEHW0053      C18 ACERT (T4f)..... LEHW0109  
 C18 ACERT (T4i) ..... LEHW0098      C18 ACERT Module..... LEHW7450

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, EPA ESE
B	653	875	1800-2100	EPA T2 NR, China III NR, IMO II, EPA ESE
C	708	950	1800-2100	EPA T2 NR, China III NR, IMO II, EPA ESE
D	783	1050	1800-2100	EPA T2 NR, China III NR, IMO II, EPA ESE
E	858	1150	1800-2100	EPA T2 NR, China III NR, IMO II, EPA ESE
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
B	652	875	1800	EPA T4f NRNG
C	708	950	1800	EPA T4f NRNG
D	783	1050	1800	EPA T4f NRNG

## Land Electric Drilling Module Ratings

Duty	bkW	ekW	kVA	bhp	Emissions
				60 Hz/1800 rpm	
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)

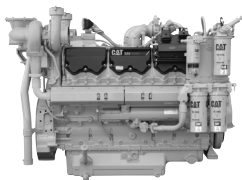
**Bore x Stroke – mm (in)** 137.7 x 152.4 (5.42 x 6)

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.

# C32 ACERT LAND DRILLING



## 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	EPA T2 NR, 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	708	950	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	770	700	1000	1032	NC
Prime	882	800	1000	1182	NC
<b>60 Hz/1800 rpm</b>					
Prime	1003	910	1300	1182	EPA T2 NR <sup>-1</sup>
Prime	1000	910	1137	1340	EPA T2 NR <sup>-1</sup>

## 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
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	C	1119	1500	1800	NC
3516	Drill-M	1230	1649	1200	NC

## Land Electric-Drive Drilling Engine Ratings

Model	Duty	bkW	bhp	rpm	Emissions
3512	Prime	890	1194	1000	NC
3512	Prime	985	1321	1200	NC
3512	Prime	1090	1462	1500	NC
3512	Prime	1070	1435	1200	NC
3512	Prime	708	950	1200	NC

## Land Electric-Drive Drilling Module Ratings

Model	Duty	bkW	ekW	kVA	bhp	Emissions
<b>50 Hz/1000 rpm</b>						
3512	Drill-EI	830	790	1130	1113	NC
3512	Drill-EI	890	855	1220	1194	NC
<b>60 Hz/1200 rpm</b>						
3508	Drill-EI	641	610	880	860	NC
3512	Drill-EI	708	635	950	950	NC
3512	Drill-EI	985	895	1321	1321	NC
3512	Drill-EI	1070	975	1435	1435	NC
<b>50 Hz/1500 rpm</b>						
3512	Drill-EI	1090	990	1237	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

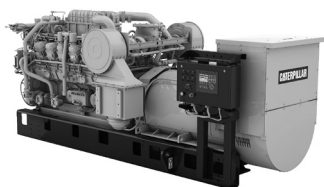
3512 Engine ..... LEHW0060

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
3508B	Drill-M	567	760	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	1476	1200	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	1750	1476	NC
3512B with DGB	Drill-EI	1101	995	1750	1476	NC
<b>50 Hz/1500 rpm</b>						
3512B	Drill-EI	1310	1200	1900	1757	NC
3512B with DGB	Drill-EI	1310	1200	1900	1757	NC

## Specifications

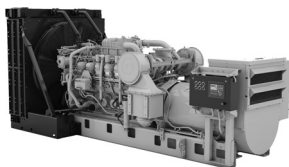
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>3508B Engine</b>	2136 (84.1)	1702 (67)	2024 (79.7)	4309 (9500)	35 (2105)
<b>3508B Module</b>	4986 (196.3)	2319 (91.3)	2596 (102.2)	15 352 (33,846)	35 (2105)
<b>3512B Engine</b>	2675 (105.3)	1702 (67)	1720 (67.7)	5203 (11,471)	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 with DGB	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 HD	Drill-EI	1310	1190	1900	1757	China III NR
<b>60 Hz/1200 rpm</b>						
3512C	Drill-EI	1101	995	1750	1476	EPA T2 NR, China III NR
3512C with DGB Retrofit Kit	Drill-EI	1101	995	1750	1476	EPA T2 NR, China III NR
3512C	Drill-EI	1305	1190	1842	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)

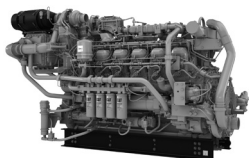
**Bore x Stroke – mm (in)** 170 x 190 (6.7 x 7.5)

**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 .....	LEHW0113

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
3512E	Drill-EI	1306	1750	1200	EPA T4f

## Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
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.

# Drilling Transmission Application Chart

Engine	Transmission	Max hp	Page
<b>C15 ACERT</b>	CX31-P600	600	33
	CX35-P800	800	35
<b>C18 ACERT</b>	CX35-P800	800	35
<b>C27 ACERT</b>	TH48-E70	1200	36
<b>C32 ACERT</b>	TH48-E70	1500	36

# 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	bkW	ekW	kVA	bhp	Emissions
<b>1500 rpm</b>						
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

kVA			ekW			Generator Set Model	Emissions/ Configuration
Standby	Prime	Cont.	Standby	Prime	Cont.		
<b>1500 rpm</b>							
400	365		320	292		C13	China III NR
450	400		360	320		C13	China III NR
400	350		320	280		C13	NC
450	400		360	320		C13	NC
	455			364		C15	China III NR
	500			400		C15	China III NR
500	455		400	364		C15	NC
550	500		364	400		C15	NC
600	500		480	400		C18	China III NR
605	550		484	440		C18	NC
660	600		528	480		C18	NC
700	635		560	508		C18	NC
800	725		640	580		3412C	Low BSFC
900	810		720	648		3412C	Low BSFC
1250	1100		1000	880		C32	Low BSFC, Low Emissions, China III NR
1100	1000	910	880	800	728	C32	Low BSFC, Low Emissions, China III NR
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
2250	2000	1750	1800	1600	1400	3516B	Low BSFC, Low Emissions

Ratings continued on page 56

Ratings continued from page 55

kVA			ekW			Generator Set Model	Emissions/ Configuration
Standby	Prime	Cont.	Standby	Prime	Cont.		
<b>1500 rpm</b>							
2500	2275	2000	2000	1820	1600	3516B HD	Low BSFC, Low Emissions
2750	2500		2200	2000		3516C HD	Low BSFC
2750	2500		2200	2000		3516C HD	Low BSFC,
3000	2725	2500	2400	2180	2000	C175-16	Low BSFC
3000			2400			C175-16	Low Emissions
3100	2825	2600	2480	2260	2080	C175-16	Low BSFC
3100			2480			C175-16	Low Emissions
3900	3500	3150	3120	2800	2520	C175-20	Low BSFC
3900			3120			C175-20	Low Emissions
4000	3600	3250	3200	2880	2600	C175-20	Low BSFC
4000			3200			C175-20	Low Emissions
<b>1000 rpm</b>							
2688	2425	2200	2150	1940	1760	3606	NC
3575	3250	2938	2860	2600	2350	3608	NC
5375	4850	4400	4300	3880	3520	3612	NC
7150	6500	5875	5720	5200	4700	3616	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
250	225	–	200	180	–	C9 ACERT	EPA ESE
313	281	–	250	225	–	C9 ACERT	EPA ESE
375	344	–	300	275	–	C9 ACERT	EPA ESE
–	400	–	–	320	–	C15 ACERT	EPA ESE
438	400	–	250	320	–	C13 ACERT	EPA ESE
500	456	–	400	365	–	C15 ACERT	EPA ESE
–	456	–	–	365	–	C15 ACERT	EPA ESE
–	512	–	–	410	–	C15 ACERT	EPA ESE
563	513	–	450	410	–	C15 ACERT	EPA ESE
–	569	–	–	455	–	C15 ACERT	EPA ESE
625	569	–	500	455	–	C15 ACERT	EPA ESE
–	625	–	–	500	–	C18 ACERT	EPA ESE
688	625	–	550	500	–	C18 ACERT	EPA ESE
750	681	–	600	545	–	C18 ACERT	EPA ESE
–	606	–	–	485	–	C18 ACERT	Tier 4F

\* Package available through DTO

Ratings continued on page 58



Ratings continued from page 57

kVA			kW			Generator Set Model	Emissions/ Configuration
Standby	Prime	Cont.	Standby	Prime	Cont.		
<b>1800 rpm (continued)</b>							
–	681	–	–	545	–	C18 ACERT	EPA ESE
–	780	–	–	455	–	C15 ACERT	EPA T2
–	780	–	–	545	–	C18 ACERT	EPA T2
875	794	–	700	635	–	3412C	NC
938	850	–	750	680	–	3412C	NC
1000	906	–	800	725	–	C27 ACERT	EPA ESE
938	906	–	750	680	–	C27 ACERT	EPA ESE
1000	906	–	800	725	–	3412C	NC
–	1035	–	–	725	–	C27 ACERT	EPA T2
–	1035	–	–	725	–	C27 ACERT	NC
–	1137	–	–	910	–	C27 ACERT	EPA T2, EPA ESE
1250	1138	1038	1000	910	830	C27 ACERT	NC
1250	1138	1038	1000	910	830	C27 ACERT	EPA ESE
–	1300	–	–	910	–	C27 ACERT	EPA T2, EPA ESE
1375	1250	1113	1100	1000	890	3512	NC
1875	1700	1538	1500	1360	1230	3512B	NC
1750	1594	–	1400	1275	–	3512B	NC
1875	1700	1538	1500	1360	1230	3512B	EPA ESE
2188	–	–	1750	–	–	3512C HD	EPA ESE
–	2813	2653	–	2250	2050	3516C	EPA ESE
3125	–	–	2500	–	–	3516C HD	EPA ESE
–	2281	2063	–	1825	1650	3516C	EPA ESE
2500	–	–	2000	–	–	3516C HD	EPA ESE
3125	2813	2563	2500	2250	2050	3516C HD	EPA T4F
–	2500	2281	–	2000	1825	3516C HD	EPA T4F
3750	3406	3125	3000	2725	2500	C175-16	EPA ESE
3750	3406	3125	3000	2725	2500	C175-16	EPA T4F
4875	4375	3938	3900	3500	3150	C175-20	EPA ESE

Ratings continued on page 59

# Diesel Generator Sets LAND PRODUCTION

Ratings continued from page 58

kVA				ekW		Generator Set Model	Emissions/ Configuration
Standby	Prime	Cont.	Standby	Prime	Cont.		
<b>900 rpm</b>							
2500	2275	2063	2000	1820	1650	3606	NC
3325	3025	2750	2660	2420	2200	3608	NC
5000	4550	4125	4000	3640	3300	3612	NC
6650	6050	5500	5320	4840	4400	3616	NC
<b>720/750 rpm</b>							
3960	3600	3600	3168	3024	3024	6CM32E	Low BSFC
5280	4800	4800	4224	4032	4032	8CM32E	Low BSFC
5940	5400	5400	4752	4536	4536	9CM32E	Low BSFC
<b>720 rpm</b>							
2400	2160	2160	1920	1728	1728	6CM25C	Low BSFC
3199	2880	2880	2559	2304	2304	8CM25C	Low BSFC
3600	3240	3240	2880	2592	2592	9CM25C	Low BSFC
2520	2400	2400	2016	1920	1920	6CM25E	Low BSFC
3360	3199	3199	2688	2559	2559	8CM25E	Low BSFC
3780	3600	3600	3024	2880	2880	9CM25E	Low BSFC
8148	7275	7275	6518	5820	5820	12CM32C	Low BSFC
10864	9700	9700	8691	7760	7760	16CM32C	Low BSFC
<b>600 rpm</b>							
3600	3456	3456	2880	2765	2765	6CM32C	Low BSFC
4800	4608	4608	3840	3686	3686	8CM32C	Low BSFC
5400	5184	5184	4320	4147	4147	9CM32C	Low BSFC
<b>500/514 rpm</b>							
7639	6839	6839	6111	5471	5471	6CM43C	Low BSFC
8912	7978	7978	7130	6383	6383	7CM43C	Low BSFC
10185	9118	9118	8148	7294	7294	8CM43C	Low BSFC
11458	10258	10258	9167	8206	8206	9CM43C	Low BSFC
15278	13677	13677	12222	10942	10942	12CM43C	Low BSFC
20370	18236	18236	16296	14589	14589	16CM43C	Low BSFC

## 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 – 750/720 rpm</b>				
2880	3600	Cont	6CM34DF	CRU/HFO with NG/LNG
3840	4800	Cont	8CM34DF	CRU/HFO with NG/LNG
4320	5300	Cont	9CM34DF	CRU/HFO with NG/LNG
<b>50/60 Hz – 500/514 rpm</b>				
5238	6548	Cont	6CM46DF	CRU/HFO with NG/LNG
6111	7639	Cont	7CM46DF	CRU/HFO with NG/LNG
6984	8730	Cont	8CM46DF	CRU/HFO with NG/LNG
7857	9821	Cont	9CM46DF	CRU/HFO with NG/LNG
10476	13095	Cont	12CM46DF	CRU/HFO with NG/LNG
13968	17460	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>		
110	1500	G3306B
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
975/1005/1030/1040	1500	G3516
1184	1500	G3512E
1200	1500	CG170-12
1475/1555	1500	G3516C
1560	1500	CG170-16
1590	1500	G3516E
1984/1990/2000	1500	G3516H
1966/1972	1500	G3520C
1995	1500	G3520E
2000	1500	CG170-20
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>		
6518	750	G16CM34
9700	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
282	1800	CG137-8	NC
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
2469	1500	G3520H
<b>1800 rpm</b>		
150	1800	G3406 NA
190/170	1800	G3406 TA
400	1800	CG137-12
400	1800	CG132-8
350/375/360	1800	G3412 TA
423	1800	G3412C
500	1800	G3412
600	1800	CG132-12
800	1800	CG132-16
1300	1800	G3516B
1475/1550/1650/1660	1800	G3516C
2050	1800	G3520C
<b>900 rpm</b>		
1510	900	G3608
2263	900	G3612
3000	900	CG260-12
3020	900	G3616
4000	900	CG260-16
<b>720 rpm</b>		
6518	720	G16CM34
9700	720	G20CM34

## Mechanical Drive Engine Ratings; Highly Regulated Areas - 116-839 bkW

Model	bkW	bhp	rpm	Emissions
C7.1 ACERT	116-168	156-225	2200	EPA T4f NRNG, EU IV NR
C9.3 ACERT	224-298	300-400	1800-2200	EPA T4f NRNG, EU IV NR
C13 ACERT	287-388	385-520	1800-2100	EPA T4f NRNG, EU IV NR
C15 ACERT	354-433	475-580	1800-2100	EPA T4f NRNG, EU IV NR
C18 ACERT	429-470	575-630	1800-2000	EPA T4f NRNG, EU IV NR
C18 ACERT	563-597	755-800	1800	EPA T4f NRNG
C27 ACERT	597-783	800-1050	1800	EPA T4f NRNG
C32 ACERT	746-895	1000-1200	1800	EPA T4f NRNG

Ratings continued on page 64

Ratings continued from page 63

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

Model	bkW	bhp	rpm	Fuel
C7 ACERT	168-224	225-300	1800-2200	Diesel
C9 ACERT	205-261	275-350	2100	Diesel
C11 ACERT	242-336	325-450	2100	Diesel
C13 ACERT	287-387	385-520	2100	Diesel
C15 ACERT	328-443	440-595	2100	Diesel
3406C	343	460	2100	Diesel
C18 ACERT	429-596	575-800	2100	Diesel
C27 ACERT	596-782	800-1050	2100	Diesel
3508	470-847	680-1135	1200-1900	Diesel
3508B	566-671	760-900	1200	Diesel
C32 ACERT	596-1118	800-1500	1800-2200	Diesel
3512	761-1118	1020-1500	1200-1800	Diesel
3516	1011-1275	1355-1710	1200-1800	Diesel
3512B	1492-1678	2000-2250	1900	Diesel
3606	1490-1850	2000-2480	750-1000	Diesel/CRU
3608	1980-2460	2655-3300	800-1000	Diesel/CRU
3612	2980-3700	4000-4962	750-1000	Diesel/CRU
3616	3960-4920	5310-6598	800-1000	Diesel/CRU
6CM20C	1020/1140	1529	1000	Diesel/CRU
8CM20C	1360/1520	2038	1000	Diesel/CRU
9CM20C	1530/1710	2293	1000	Diesel/CRU
6CM25C	1800	2414	750	Diesel/CRU
8CM25C	2400	3218	750	Diesel/CRU
9CM25C	2700	3621	750	Diesel/CRU
6CM25E	2010	2695	750	Diesel/CRU
8CM25E	2680	3594	750	Diesel/CRU
9CM25E	3015	4043	750	Diesel/CRU
6CM32C	2880	3862	600	Diesel/CRU
8CM32C	3840	5149	600	Diesel/CRU
9CM32C	4320	5793	600	Diesel/CRU
6CM32E	3150	4224	750	Diesel/CRU
8CM32E	4200	5633	750	Diesel/CRU
9CM32E	4725	6336	750	Diesel/CRU
12CM32C	6000	8045	750	Diesel/CRU
16CM32C	8000	10730	750	Diesel/CRU
6CM43C	5640	7565	514	Diesel/CRU
7CM43C	6300	8450	514	Diesel/CRU
8CM43C	7200	9655	514	Diesel/CRU
9CM43C	8460	11345	514	Diesel/CRU
12CM43C	11280	15125	514	Diesel/CRU
16CM43C	15040	20170	514	Diesel/CRU

## Mechanical Drive Engine Ratings - 3000-14400 bkW

Model	bkW	bhp	rpm	Fuel
6CM34DF	3000	4023	750	CRU with NG/LNG
8CM34DF	4000	5364	750	CRU with NG/LNG
9CM34DF	4500	6035	750	CRU with NG/LNG
6CM46DF	5400	7241	514	CRU with NG/LNG
7CM46DF	6300	8448	514	CRU with NG/LNG
8CM46DF	7200	9655	514	CRU with NG/LNG
9CM46DF	8100	10862	514	CRU with NG/LNG
12CM46DF	10800	14483	514	CRU with NG/LNG
16CM46DF	14400	19310	514	CRU with NG/LNG



### 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	160, 205, 242	215, 276, 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	783	1050	1400
G3516 LE	1000	1340	1200
G3516B	1029	1380	1200
G3516J	1029	1380	1400
G3520B	1104	1480	1200
G3520B	1286	1725	1400
G3606	1324, 1368, 1413	1775, 1835, 1895	1000
G3608	1767, 1823, 1879	2370, 2445, 2520	1000
G3612	2647, 2733, 2822	3550, 3665, 3785	1000
G3616	3531, 3647, 3764	4735, 4890, 5045	1000
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

## Land Fire Pump Engine Ratings - 172-2350 bkW

Model	bkW	bhp	rpm	Exhaust Manifold	NFPA 20	NFPA 20 Intent	Hazardous Location Certified
C7 ACERT	172	230	2200	wet		X <sup>1,2</sup>	X <sup>3</sup>
C7 ACERT	205	275	2200	wet		X <sup>1,2</sup>	X <sup>3</sup>
3406	218	292	1750	wet	X		
3406	218	292	1750	wet			
C9 ACERT	242	325	2200	wet		X <sup>1,2</sup>	
C9 ACERT	254	340	2200	wet		X <sup>1,2</sup>	X <sup>3</sup>
C9 ACERT	269	361	1800	wet		X <sup>1</sup>	
3406	276	370	1750	dry	X		
3406	276	370	1750	dry			
3406	313	420	1750	wet	X		
3406	313	420	1750	wet			
3406	321	430	2100	wet	X		
3406	321	430	2100	wet			
3406	339	455	2300	dry	X		
3406	339	455	2300	dry			
3406	343	460	1750	dry	X		
3406	343	460	1750	dry			
3406	359	482	2100	dry	X		
3406	359	482	2100	dry			
C15 ACERT	400	536	1800-2000	wet		X <sup>1,2</sup>	X <sup>3</sup>
C18 ACERT	448	600	2100	dry	X		
C18 ACERT	448	600	1900	dry	X		
C18 ACERT	448	600	1750	dry	X		
C18 ACERT	465	624	1800	wet		X <sup>1</sup>	
3412	476	638	1750	wet		X	
3412	476	638	1750	wet		X	
C18 ACERT	522	700	2100	dry	X		
C18 ACERT	522	700	1900	dry	X		
C18 ACERT	522	700	1750	dry	X		
C18 ACERT	522	700	1500	dry	X		
3412	551	739	2100	wet		X	
3412	551	739	1900	wet		X	
3412	551	739	2100	wet		X	
3412	551	739	1900	wet		X	
C18 ACERT	597	800	2100	dry	X		
C18 ACERT	597	800	1900	dry	X		

Ratings continued on page 68

Ratings continued from page 67

Model	bkW	bhp	rpm	Exhaust Manifold	NFPA 20	NFPA 20 Intent	Hazardous Location Certified
C18 ACERT	597	800	1750	dry	X		
C32 ACERT	642	860	2100	wet		X <sup>1,2</sup>	X <sup>3</sup>
C32 ACERT	683	916	1800	wet		X <sup>1,2</sup>	
C32 ACERT	686	920	2100	wet		X <sup>1,2</sup>	X <sup>3</sup>
3508	709	950	1460	wet		X	
3508	746	1000	1800	wet		X <sup>2</sup>	
C32 ACERT	746	1000	1600-1800	wet		X <sup>1,2</sup>	
C32 ACERT	746	1000	1600-1800	wet		X <sup>1,2</sup>	
C32 ACERT	746	1000	1800	wet		X <sup>1,2</sup>	
3508	795	1065	1750	wet		X	
C32 ACERT	828	1110	2100	wet		X <sup>1,2</sup>	X <sup>3</sup>
C32 ACERT	970	1300	1800	wet		X <sup>1,2</sup>	
3512	1066	1430	1460	wet		X	
3512	1118	1500	1800	wet		X <sup>2</sup>	
3512	1195	1600	1750	wet		X	
3516	1417	1900	1460	wet		X	
3516	1480	1985	1750	wet		X	
3516	1491	2000	1800	dry			
3516	1491	2000	1800	wet		X <sup>2</sup>	
3512C HD	1678	2250	1800	dry		X <sup>2</sup>	
3512C HD	1765	2365	1800	dry		X <sup>2</sup>	
3512C HD	1821	2442	1800	dry		X <sup>1</sup>	
3516C HD	1921	2576	1800	dry		X <sup>1</sup>	
3516C HD	2350	3151	1800	dry		X <sup>2</sup>	

**Note:** Additional components may be required to meet NFPA 20 intent requirements. Contact your local Cat dealer for technical support.

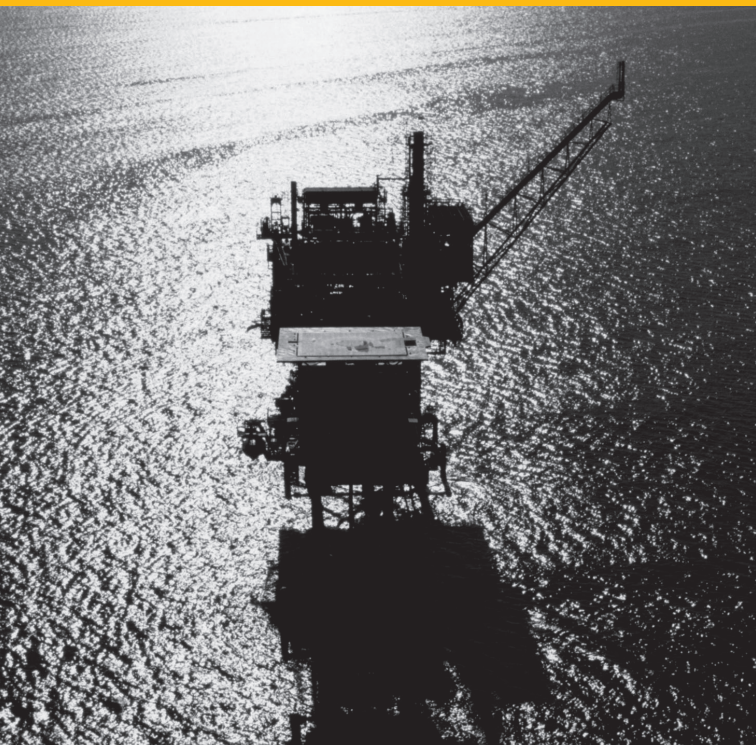
<sup>1</sup>Does not include required dual ECM

<sup>2</sup>Does not include 10% overload of advertised engine power. Will meet NFPA20 intent if pump is sized with nameplate 10% below engine advertised power.

<sup>3</sup>"X" indicates factory-certified for hazardous locations; hazardous location compliance for other ratings is possible through customization at the dealership.

Consult LEDW0018 for additional details.

# Offshore Drilling and Production Ratings



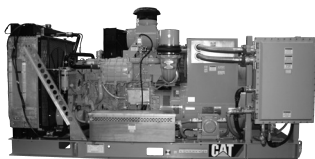
Cat engines and generator sets are widely known for performance, reliability, durability, and fuel flexibility in the offshore oil and gas industry. With ratings capable of operating on MDO, CRU, and dual fuel, offshore products include generator sets for main, essential, and emergency power plus a wide 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 – 60 Hz

ekW	kVA	Generator Set Model
910	1138	3508B
1030-1360	1470-1700	3512B
1030-1700	1470-2125	3512C
1037-1555	1296-1944	CM20
1285-1825	1836-2281	3516B
1550-1700	1938-2125	3512E
1833-2660	2619-2325	C175-16
1285 -2250	1836-2813	3516C
1825-2250	2281-2813	3516E
2200-2420	2750-3457	C280-8
2016-3024	2520-3760	CM25
3300-3650	4125-5214	C280-12
4400-5500	5500-7857	C280-16
2765-8691	3456-10864	CM32
2880-4320	3600-5400	CM34DF
5238-16296	6548-20370	CM43
5616-14976	7020-18720	CM46DF

## Offshore Generator Set Ratings – 50 Hz

ekW	kVA	Generator Set Model
639-779	799-974	3508C
880-1200	1100-1500	3512B
1152-1728	1440-2160	CM20
1180-1600	1475-2000	3516B
1631-1843	2039-2304	3516C
2300	2875	C175-16
2362-2600	2953-3714	C280-8
2016-3024	2520-3760	CM25
3520-3900	4400-5571	C280-12
4700-5200	5875-7429	C280-16
2765-8691	3456-10864	CM32
2880-4320	3600-5400	CM34DF
5238-16296	6548-20370	CM43
5616-14976	7020-18720	CM46DF

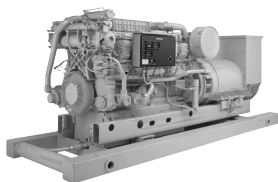


## Generator Sets

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



## Offshore Generator Set Ratings

Model	Duty	bkW	ekW <sup>1</sup>	kVA <sup>1</sup>	Emissions
<b>1200 rpm/60 Hz</b>					
3516B HD	MCR	1603	1530	2186	IMO II
<b>1500 rpm/50 Hz</b>					
3508B	OS-Prime	856	800	1000	IMO I
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

Ratings continued on page 73

Ratings continued from page 72

## 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	639	799	IMO II
3508C	OS-Prime	820	779	974	IMO II
3512C	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)

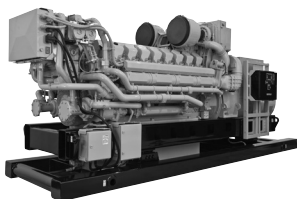
**Bore x Stroke HD – mm (in)** 170 x 215 (6.7 x 8.5)

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

3512C ..... LEHW0078

3516C HD ..... LEHW0073, LEHW0155

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>4</sup>
<b>1500 rpm/50 Hz</b>					
C175-16	OS-Prime	2418	2300	2875	IMO II
<b>1800 rpm/60 Hz</b>					
C175-16	OS-Prime	2800	2660	3325	IMO II

## Specifications<sup>2</sup>

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

**Bore x Stroke – mm (in)** 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.

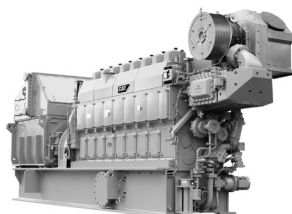
<sup>3</sup>IMO III engines require SCR aftertreatment. Contact dealer for availability and technical details.

<sup>4</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)** 200 x 300 (7.9 x 11.8)

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

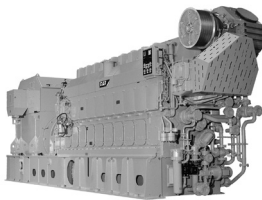
**Please see spec sheet for more information:**

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.

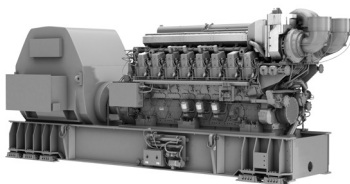
## Specifications<sup>3</sup>

	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.

For diesel engine rating definitions please see page 10.



## Offshore Generator Set Ratings

Model	Duty	bkW	ekW <sup>1</sup>	kVA <sup>1</sup>	Emissions
<b>900 rpm/60 Hz</b>					
C280-8	Cont	2300	2200	2750	IMO II
C280-8	MCR	2530	2420	3457	IMO II
C280-12	Cont	3460	3300	4125	IMO II
C280-12 <sup>T</sup>	MCR	3800	3650	5214	IMO II/III <sup>2</sup>
C280-16	Cont	4600	4400	5500	IMO II
C280-16*	MCR	5060	4840	6914	IMO II/III <sup>2</sup>
C280-16**	MCR	5600	5375	7679	IMO II
C280-16** <sup>T</sup>	MCR	5730	5500	7857	IMO II/III <sup>2</sup>
<b>1000 rpm/50 Hz</b>					
C280-8	Cont	2460	2362	2953	IMO II
C280-8	MCR	2710	2600	3714	IMO II
C280-12	Cont	3700	3520	4400	IMO II
C280-12	MCR	4060	3900	5571	IMO II
C280-16	Cont	4920	4700	5875	IMO II
C280-16	MCR	5420	5200	7429	IMO II

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

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

<sup>T</sup>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 79

Ratings continued from page 78

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

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in <sup>3</sup> )
<b>C280-6</b>	7441 (292.9)	2326 (91.6)	3406 (134.1)	41.5 (91 492)	111 (6773)
<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)

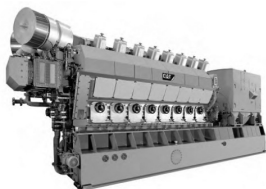
**Bore x Stroke – mm (in)** 280 x 300 (11 x 11.8)

<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:**

C280-6 .....	LEHW0085, LEHW0091
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	3300	3168	3960	IMO II
8CM32E	Prime	4400	4224	5280	IMO II
9CM32E	Prime	4950	4752	5940	IMO II
12CM32E	Prime	6360	6169	7712	IMO II
12CM32E <sup>3</sup>	Prime	6720 <sup>3</sup>	6518	8150	IMO II
16CM32E	Prime	8480	8226	10282	IMO II
16CM32E <sup>3</sup>	Prime	8960 <sup>3</sup>	8691	10860	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. <sup>3</sup> Ratings available in MDO only.

## 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)

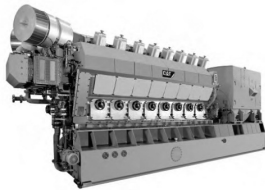
**Bore x Stroke – mm (in)** 320 x 480 (12.6 x 18.9)

<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

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	3000	2910	3638	IMO II/III
8CM34DF	Prime	4000	3880	4850	IMO II/III
9CM34DF	Prime	4500	4365	5456	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>

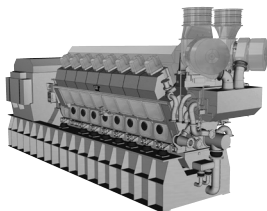
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in <sup>3</sup> )
<b>6CM34DF</b>	9566 (376.6)	2600 (102.4)	4567 (179.8)	73.0 (161,000)	251 (15,291)
<b>8CM34DF</b>	10 626 (418.3)	2600 (102.4)	4770 (187.8)	92.0 (203,000)	334 (20,388)
<b>9CM34DF</b>	11 156 (439.2)	2600 (102.4)	4770 (187.8)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

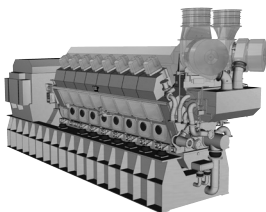
<sup>3</sup> Base-mounted generator sets. Final dimensions dependent on generator make/type.

**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.

For diesel engine rating definitions please see page 10.

## Offshore Fire Pump Engine Ratings

Model	bkW	bhp	rpm	Exhaust Manifold	NFPA 20 FM/UL Approved0	MCS Approved	Hazardous Location Certified
C7 ACERT	172	230	2200	wet			X <sup>3</sup>
C7 ACERT	205	275	2200	wet			X <sup>3</sup>
3406	218	292	1750	wet	X		
3406	218	292	1750	wet			
C9 ACERT	242	325	2200	wet			
C9 ACERT	254	340	2200	wet			X <sup>3</sup>
C9 ACERT	269	361	1800	wet		X	
3406	276	370	1750	dry	X		
3406	276	370	1750	dry			
3406	313	420	1750	wet	X		
3406	313	420	1750	wet			
3406	321	430	2100	wet	X		
3406	321	430	2100	wet			
3406	339	455	2300	dry	X		
3406	339	455	2300	dry			
3406	343	460	1750	dry	X		
3406	343	460	1750	dry			
3406	359	482	2100	dry	X		
3406	359	482	2100	dry			
C15 ACERT	400	536	1800-2000	wet			X <sup>3</sup>
C18 ACERT	448	600	2100	dry	X		
C18 ACERT	448	600	1900	dry	X		
C18 ACERT	448	600	1750	dry	X		
C18 ACERT	465	624	1800	wet		X	
3412	476	638	1750	wet			
3412	476	638	1900	wet			
3412	476	638	2100	wet			
C18 ACERT	522	700	2100	dry	X		
C18 ACERT	522	700	1900	dry	X		
C18 ACERT	522	700	1750	dry	X		
C18 ACERT	522	700	1500	dry	X		
3412	551	739	2100	wet			
3412	551	739	1900	wet			
3412	551	739	1750	wet			
C18 ACERT	597	800	2100	dry	X		
C18 ACERT	597	800	1900	dry	X		

Ratings continued on page 85

Ratings continued from page 84

Model	bkW	bhp	rpm	Exhaust Manifold	NFPA 20 FM/UL Approved	MCS Approved	Hazardous Location Certified
C18 ACERT	597	800	1750	dry	X		
C32 ACERT	642	860	2100	wet			X <sup>1</sup>
C32 ACERT	683	916	1800	wet		X	
C32 ACERT	686	920	2100	wet			X <sup>1</sup>
3508	709	950	1460	wet			
3508	746	1000	1800	wet		X	
C32 ACERT	746	1000	1600-1800	wet		X	
3508	795	1065	1750	wet			
C32 ACERT	828	1110	2100	wet			X <sup>1</sup>
C32 ACERT	970	1300	1800	wet		X	
3512	1066	1430	1460	wet			
3512	1118	1500	1800	wet		X	
3512	1195	1600	1750	wet			
3516	1417	1900	1460	wet			
3516	1480	1985	1750	wet			
3516	1491	2000	1800	dry			
3512C HD	1678	2250	1800	dry		X	
3512C HD	1765	2365	1800	dry		X	
3512C HD	1821	2442	1800	dry		X	
3516C HD	1921	2576	1800	dry		X	
3516C HD	2350	3151	1800	dry		X	
C175-16	2800	3755	1800	dry		X	

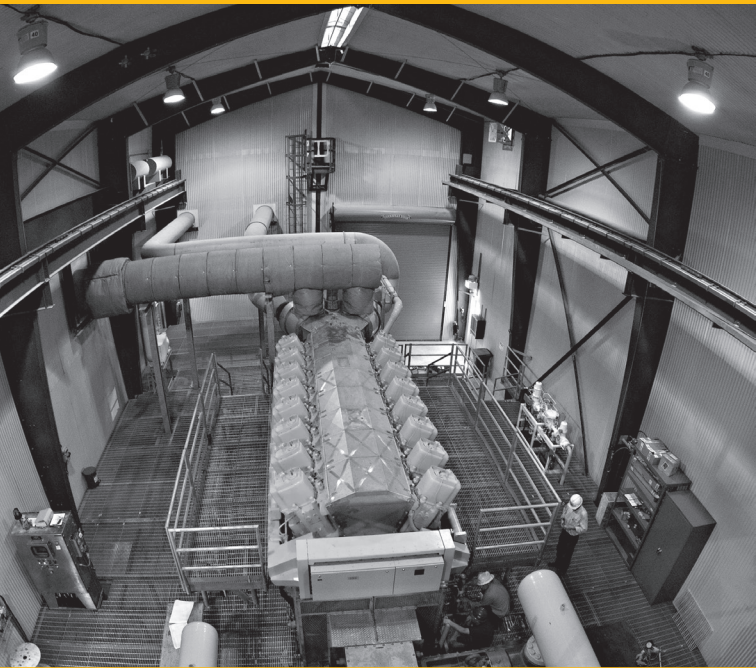
**Note:**

Additional components may be added via DTO Engineering to meet NFPA 20 requirements. Contact your local Cat dealer for technical support.

"X" indicates factory-certified for hazardous locations; hazardous location compliance for other ratings is possible through customization at the dealership.

Consult LEDW0018 for additional details.

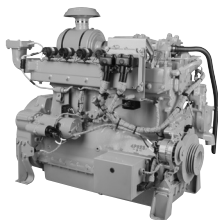
# Gas Compression Ratings



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	88
215-637 bhp	G3400	89
400-600 bhp	CG137	90
524-1725 bhp	G3500	91-92
1875-5350 bhp	G3600	94
6135-8180 bhp	GCM34	95



## 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

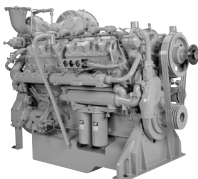
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
G3304	1158 (46)	744 (29)	1170 (46)	757 (1670)	7 (425)
G3306	1539 (60)	978 (38)	1261 (50)	948 (2090)	10.5 (640)

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)	1680 (3700)	18 (1099)
G3408C LE	1756 (69.1)	1563 (61.5)	1758 (69.2)	1680 (3700)	18 (1099)
G3412 TA	2087 (82)	1224 (48)	1542 (61)	2143 (4720)	27 (1649)
G3412C LE	2442 (96)	1598 (63)	1960 (77)	2141 (4720)	27 (1649)

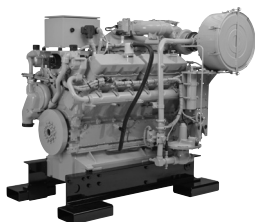
**Bore x Stroke – mm (in)** 137 x 152 (5.4 x 6.0)

**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 Customer-provided AFRC & Aftertreatment
CG137-12	Cont	447	600	1800	NSPS Site Compliant Capable	With Caterpillar AFRC & Aftertreatment 0.5 & 1.0 g/bhp-hr NOx or Customer-provided AFRC & Aftertreatment

## 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)	2835 (6250)	18 (1099)
CG137-12	2092 (82.4)	1423 (56)	1778 (70)	2200 (4850)	27 (1649)

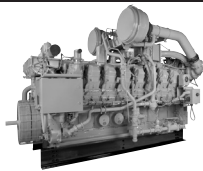
Bore x Stroke – mm (in) 137 x 152 (5.4 x 6)

### Please see spec sheet for more information:

CG137-8 .....LEHW0153  
 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
G3508B LE <sup>1</sup>	Cont	514	690	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment 0.5 & 1 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 <sup>2</sup>	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3512 LE <sup>1</sup>	Cont	749	1004	1400	NSPS Site Compliant Capable <sup>2</sup>	With Customer-supplied Aftertreatment 2 g/bhp-hr NOx
G3512B LE <sup>1</sup>	Cont	772	1035	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment 0.5 & 1 g/bhp-hr NOx
G3516 NA	Cont	492	660	1200	Export Only	With Customer-supplied AFRC & Aftertreatment 0.5% O <sub>2</sub> Set Point
G3516 TA <sup>1</sup>	Cont	783	1050	1200	NSPS Site Compliant Capable	With Customer-supplied AFRC & Aftertreatment 0.5% O <sub>2</sub> Set Point
G3516 LE <sup>1</sup>	Cont	858	1150	1200	NSPS Site Compliant Capable <sup>2</sup>	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3516 LE <sup>1</sup>	Cont	1000	1340	1400	NSPS Site Compliant Capable <sup>2</sup>	With Customer-supplied Aftertreatment 2 g/bhp-hr NOx
G3516B LE <sup>1</sup>	Cont	1029	1380	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment 0.5 & 1 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
G3520B LE <sup>1</sup>	Cont	1104	1480	1200	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment 0.5 & 1 g/bhp-hr NOx
G3520B LE <sup>1</sup>	Cont	1286	1725	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment 0.5 & 1 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

Ratings continued on page 92

Ratings continued from page 91

## Specifications

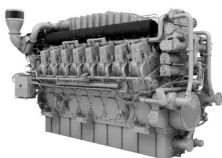
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
G3508 LE	2440 (96)	1768 (70)	1907 (76)	5420 (11,950)	34.5 (2105)
G3508B LE	2522 (99)	2014 (79)	2131 (84)	5420 (11,950)	34.5 (2105)
G3512 LE	2786 (109)	1790 (71)	1863 (73)	6676 (14,720)	51.8 (3158)
G3512B LE	3023 (119)	2220 (87.4)	2136 (84.1)	6676 (14,720)	51.8 (3158)
G3516 LE	3339 (131)	1820 (72)	1863 (73)	8015 (17,670)	69 (4211)
G3516B LE	3400 (133)	1844 (73)	2286 (90)	8382 (18,480)	69 (4211)
G3516J LE	3586 (141)	1883 (74)	2285 (90)	9155 (20,183)	69 (4211)
G3520B LE	4180 (164)	1755 (69)	2385 (94)	9875 (21,770)	86 (5263)
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 TA .....	LEHW0034	G3516B LE .....	LEHW0037
G3508B LE .....	LEHW0072	G3516J LE .....	LEHW0318
G3512 TA .....	LEHW0035	G3520B LE (1200 rpm) .....	LEHW0017
G3512B LE .....	LEHW0095	G3520B LE (1400 rpm) .....	LEHW0038
G3516 TA .....	LEHW0036	G3520J LE .....	LEHW0320

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 94

For gas engine rating conditions please see page 10.

## Specifications

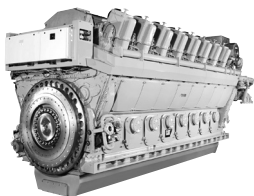
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in <sup>3</sup> )
<b>G3606 A4</b>	4833.4 (190.3)	2225.2 (87.6)	2923.2 (115.1)	16 639 (36,683)	127.2 (7762)
<b>G3608 A4</b>	5656 (222.68)	2260 (89)	2922 (115)	21 092 (46,500)	169.6 (10,350)
<b>G3612 A4</b>	5431.9 (210.31)	2731.7 (107.56)	3279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

# Electric Drive Motors

## Specifications

	CN1566 1200 rpm	CN2086 900 rpm	CN2586 900 rpm	NEMA CN3086 900 rpm	CN3586 900 rpm	CN4086 900 rpm	CN5086 900 rpm	IEC CN2785 750 rpm
<b>Rating</b>	1500 hp	2000 hp	2500 hp	3000 hp	3500 hp	4000 hp	5000 hp	2700 kW
<b>Number of Poles</b>	6	8	8	8	8	8	8	8
<b>Voltages</b>	4000V/ 4160 V 60 Hz	4000V/ 4160 V 60 Hz	4000V/ 4160 V 60 Hz	4000V/ 4160 V 60 Hz	4000V/ 4160 V 60 Hz	4000V/ 4160 V 60 Hz	4000V/ 4160 V 60 Hz	10 kV 50 Hz
<b>Enclosure Type</b>	WP11 (IP24W)	WP11 (IP24W)	WP11 (IP24W)	WP11 (IP24W)	WP11 (IP24W)	WP11 (IP24W)	WP11 (IP24W)	IP55
<b>Cooling</b>	IC01	IC01	IC01	IC01	IC01	IC01	IC01	IC611
<b>EX Protection</b>	—	—	—	—	—	—	—	EX px II T3
<b>Service Factor (Inverter Fed)</b>	1.15 SF (1.0 VFD)	1.15 SF (1.0 VFD)	1.15 SF (1.0 VFD)	1.15 SF (1.0 VFD)	1.15 SF (1.0 VFD)	1.15 SF (1.0 VFD)	1.15 SF (1.0 VFD)	—
<b>Temperature Rise</b>	Class B*	Class B*	Class B*	Class B*	Class B*	Class B*	Class B*	Class B*
<b>Insulation</b>	Class F	Class F	Class F	Class F	Class F	Class F	Class F	Class F
<b>Weight (Approx.)</b>	8289 lb	12,037 lb	13,735 lb	17,130 lb	18,431 lb	19,268 lb	23,330 lb	13 210 kg
<b>Hazardous Location</b>	Class 1, Division 2, Groups A, B, C, and (T3)							Zone 1

\* Class B rise at nameplate rated load

## 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

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

## 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

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

## Displacement

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

## BMEP

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

## Generator Set Ratings

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

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

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

## Energy

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

## Pressure

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

## Temperature

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

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

## Plunger Load

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

PD = Plunger diameter

PSI = Fluid end pressure in PSI



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## **Caterpillar. Your Local Resource. Worldwide.**

### **AMERICAS**

#### **Caterpillar Inc.**

Oil & Gas  
10203 Sam Houston Park Drive  
Houston, Texas 77064  
Tel: (+1) 713-329-2207  
Fax: (+1) 713-895-4280

### **ASIA-PACIFIC**

#### **Caterpillar Asia Pte., Ltd.**

Oil & Gas  
7 Tractor Road  
Singapore 627968  
Tel: (+65) 6828-7333  
Fax: (+65) 6828-7414

### **CHINA**

#### **Caterpillar Global Petroleum China**

Room 1601 Caterpillar Tower  
No. 8 Wangjing Street  
Beijing 100102, P.R. China  
Tel: (+86-10) 5921-0521  
Fax: (+86-10) 5921-0022

### **RUSSIA**

#### **Caterpillar Eurasia**

82 Sadovnicheskaya Str.  
Moscow 115035  
Tel: (+7-495) 213-3340  
Fax: (+7-495) 213-3372

### **EUROPE, AFRICA, AND MIDDLE EAST**

#### **Caterpillar Commercial Northern Europe Ltd.**

Oil & Gas  
Building 329  
Doncastle Road  
Bracknell RG12 8PE  
United Kingdom  
Tel: 01344 782920  
Fax: 01344 782930

#### **Caterpillar Motoren GmbH & Co. KG**

Oil & Gas  
Falckensteiner Str. 2  
D-24159 Kiel, Germany  
Tel: (+49) 431 3995 3004  
Fax: (+49) 431 3995 5004

## **BUILT FOR IT.™**

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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