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OIL & GAS RATINGS GUIDE

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CATERPILLAR®

Caterpillar follows a policy of continuous product improvement. For this reason, some material and specifications in the Caterpillar Oil & Gas Ratings Guide could change without notice.

For more Information about Caterpillar Oil & Gas and current products, as well as legacy products, please visit:
www.cat.com/oilandgas

For Cat® Dealers: Please reference TMI Web for the most current information.

Table of Contents

Caterpillar: Making Sustainable Progress Possible 5
Abbreviations and Definitions 6-9
Rating Conditions 10

Well Service Ratings 11
Well Service Engine Ratings 12
C2.2 13
C4.4 • C4.4 ACERT™ 14
C6.6 ACERT 15
C7 ACERT • C7.1 ACERT 16
C9 ACERT • C9.3 ACERT 17
C11 ACERT 18
C13 ACERT 19
C15 ACERT 20
C18 ACERT 21
C27 ACERT 22
C32 ACERT 23
3512B 24
3512C HD 25
3512E • 3512E DGB 26
3516C HD 27
Hazardous Location 28
Watercooled Manifold 29-30
Transmission Application Chart 31
CX31-P600 Transmission 32
CX31-P600 Transmission with Integral Drop Box 33
CX35-P800 Transmission 34
CX38-P892 Transmission 35-36
CX48-P2300 Transmission 37
CX48-P2560 Transmission 38
CX48-P3060 Transmission 39
TH48-E70 Transmission 40
TH55-E70 Transmission 41
TH55-E90 Transmission 42
WS255 Quintuplex Pump 43
WS273XD Triplex Pump 44
WS305XD Quintuplex Pump 45

Land Drilling Ratings 46
C15 ACERT 47
C18 ACERT 48-49
C27 ACERT 50
C32 ACERT 51

Table of Contents

Land Drilling Ratings (continued)
- 3500 . . . 52
- 3500B . . . 53
- 3500C . . . 54
- 3500E . . . 55
- Drilling Transmission Application Chart . . . 56

Land Production Ratings . . . 57
- Diesel Generator Sets – 50 Hz . . . 58-59
- Diesel Generator Sets – 60 Hz . . . 60-62
- Dual Fuel Generator Sets . . . 63
- Gas Generator Sets – 50 Hz . . . 64
- Gas Generator Sets – 60 Hz . . . 65
- Diesel Engines – Mechanical Drive . . . 66
- Diesel Fuel Engines – Mechanical Drive . . . 67
- Gas Engines – Mechanical Drive . . . 68

Offshore Drilling and Production Ratings . . . 69
- Ratings Summary . . . 70
- Hazardous Location . . . 71
- 3500B . . . 72
- 3500C • 3500E . . . 73
- C175 . . . 74
- CM20 . . . 75
- CM25 . . . 76
- C280 . . . 77-78
- CM32 . . . 79
- CM34DF . . . 80
- CM43 . . . 81
- CM46DF . . . 82

Gas Compression Ratings . . . 83
- Gas Compression Engine Ratings . . . 84
- G3300 . . . 85
- G3400 . . . 86
- CG137 . . . 87
- G3500 . . . 88-89
- G3600 with ADEM™ A4 . . . 90-91
- GCM34 . . . 92
- Electric Drive Motors . . . 93

Formulas . . . 94

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.

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^{-1}	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^{-1}	EPA Certified for Stationary Emergency Application (Emits Equivalent U.S. EPA Tier 3 NR Nonroad Standards)
EPA T4F	U.S. EPA Tier 4 Final
EPA T4f NRG	U.S. EPA Tier 4 Final Nonroad Genset Equivalent (Certified to U.S. EPA & California ARB Tier 4 Final Nonroad Genset Standards)
EPA T4F NRNG	U.S. EPA Tier 4 Final Nonroad Non-Genset Equivalent (Certified to U.S. EPA & California ARB Tier 4 Final Nonroad Non-Genset Standards)
EPA T4i	U.S. EPA Tier 4 Interim
EPA T4i NRG	U.S. EPA Tier 4 Interim Nonroad Genset Standards (Not Currently EPA Certified)
EPA T4i NRNG	U.S. EPA Tier 4 Interim Nonroad Non-Genset Standard (Not Currently EPA Certified)
EU II NRNC	EU Stage II Nonroad and Non-Certified
EU IIIA NR	EU Stage IIIA Nonroad Equivalent (Non-Current for EU)
EU IIIB NR	EU Stage IIIB Nonroad Standards (Non-Current for EU)
EU IV NR	EU Stage IV Nonroad Standards

Emissions (continued)

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

Engine Configuration

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

Fuels

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

Performance

bhp	Brake engine power (horsepower)
bkW	Brake engine power (kilowatt)
BSFC	Brake Specific Fuel Consumption
ekW	Generator set electrical output (kilowatt)
kVA	Generator set electrical output (kilo Volt-Amp)
LE	Low Emissions
NA	Naturally Aspirated
TA	Turbocharged-aftercooled

Rating Conditions

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

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

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

Ratings are based on dry natural gas having an LHV of 35.54 MJ/Nm^3 (905 btu/ft^3). 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.cat.com/oilandgas

Well Service Ratings

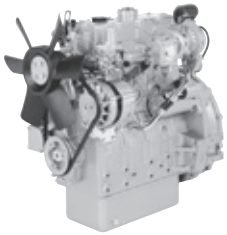


From well stimulation and pressure pumping to cementing the well, the well service industry presents a unique set of challenges. Cat engines meet these challenges with outstanding reliability across a wide range of available power. They meet the emissions standards and are backed by the expert support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



Well Service Engine Ratings

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



Well Service Ratings

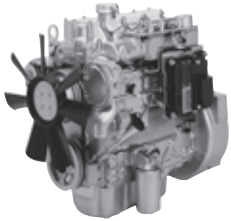
Rating Tier	bkW	bhp	rpm	Emissions	Notes
C	31	41.6	2200	EPA T3 NR, EU IIIA NR	Naturally Aspirated
C	34.1	45.7	2400	EPA T3 NR, EU IIIA NR	Naturally Aspirated
C	35.7	47.9	2600	EPA T3 NR, EU IIIA NR	Naturally Aspirated, Derate to 31.4 bhp/42.1 bkW
C	37.3	50	2800	EPA T3 NR, EU IIIA NR	Naturally Aspirated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

Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in^3)
NA	661.5 (26)	439 (17.3)	676 (26.6)	184 (406)	2.2 (135)
T, TA	662 (26.1)	489 (19.3)	698 (27.5)	194 (427.7)	2.2 (135)

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

For diesel engine rating definitions please see page 10.



Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
C4.4					
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
C4.4 ACERT					
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 (in³)
C4.4	663 (26.1)	597 (23.5)	810 (32)	306 (675)	4.4 (269)
C4.4 ACERT	631 (24.8)	626 (24.7)	824 (32)	360 (794)	4.4 (269)

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

Please see spec sheet for more information:

C4.4 ACERT LEHH0551, LEHH0569

For diesel engine rating definitions please see page 10.



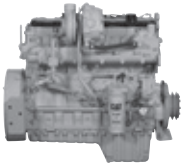
Well Service Ratings

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

Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in^3)
C6.6 ACERT	929 (34)	668 (26.3)	797 (31.4)	506 (1116)	6.6 (403)
Bore x Stroke – mm (in)	105 x 127 (4.1 x 5)				

For diesel engine rating definitions please see page 10.



Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
C7 ACERT					
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
C7.1 ACERT					
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 (in³)
C7 ACERT	1053 (41.5)	758 (29.8)	1032 (40.6)	629 (1386)	7.2 (439)
C7.1 ACERT	1065 (41.9)	820 (32.3)	907 (35.7)	715 (1576)	7.01 (427.7)

Bore x Stroke – mm (in)

C7 ACERT 110 x 127 (4.3 x 5)

C7.1 ACERT 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
C9 ACERT					
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
C9.3 ACERT					
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 NRNG, EU IV NR	Dry Manifold
B	242	325	1800-2200	EPA T4f NRNG, EU IV NR	Dry Manifold
C	261	350	1800-2200	EPA T4f NRNG, EU IV NR	Dry Manifold
D	298	400	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 (in³)
C9 ACERT	1092 (43)	828 (32.6)	1024 (40.3)	716 (1578)	8.8 (537)
C9.3 ACERT	1150 (45.3)	828 (32.6)	1123 (44.21)	885 (1950)	9.3 (567.5)

Bore x Stroke – mm (in)

C9 ACERT 112 x 149 (4.4 x 5.8)

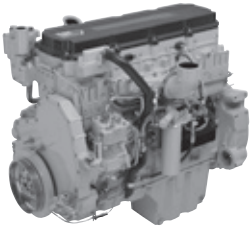
C9.3 ACERT 115 x 149 (4.5 x 5.9)

Please see spec sheet for more information:

C9 ACERT LEHW0014, LEHW0046, LEHW0047

C9.3 ACERT LEHW0099

For diesel engine rating definitions please see page 10.



Well Service Ratings

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

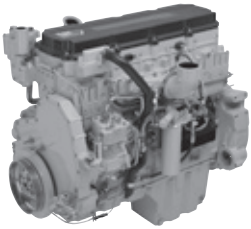
Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in^3)
C11 ACERT	1201 (47.3)	1057 (41.6)	1176 (46.3)	892 (1967)	11.15 (681)
Bore x Stroke – mm (in)	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

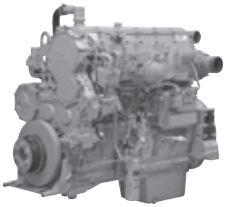
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
C13 ACERT	1201 (47.3)	1013 (39.9)	1186 (46.7)	896 (1976)	12.5 (763)
C13 ACERT T4	1203 (47.4)	933.14 (36.74)	1186 (46.7)	1350 (2976)	12.5 (763)

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

Please see spec sheet for more information:

C13 ACERT LEHW0062, LEHW0096

For diesel engine rating definitions please see page 10.



Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
A	328	440	1800-2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	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

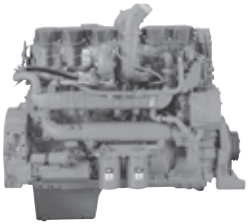
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
C15 ACERT	1377 (54)	927 (37)	1227 (48)	1245 (2743)	15.2 (927.6)
C15 ACERT T4	1530 (60.2)	961 (37.8)	1282 (51)	1666 (3673)	15.2 (927.6)

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

Please see spec sheet for more information:

C15 ACERT LEHW0097, LEHW0061

For diesel engine rating definitions please see page 10.



Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
A	429	575	2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Avail with Cat Compression Brake, Dry Manifold
B	447	600	2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Avail with Cat Compression Brake, Dry Manifold
C	470	630	2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Avail with Cat Compression Brake, Dry Manifold
C	522	700	2100	IMO II, EPA T3 NR, EU IIIA NR, China III NR	Dry Manifold
D	570	765	2100	IMO II, EPA T2 NR	Dry Manifold
E	597	800	2100	IMO II, EPA T2 NR	Dry Manifold
A/B	447	600	1800-1900	EPA T4i 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

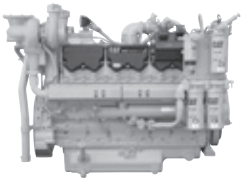
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
C18 ACERT	1389 (54.7)	919 (36.2)	1227 (49.5)	1273 (2807)	18.1 (1105)
C18 ACERT T4	1530 (60.2)	961 (37.8)	1282 (51)	1580 (3482)	18.1 (1105)

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

Please see spec sheet for more information:

C18 ACERT LEHW0098, LEHW0053, LEHW0109

For diesel engine rating definitions please see page 10.



Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
A	597	800	1800-2100	EPA T2 NR, China III NR	Dry Manifold
B	652	875	1800-2100	EPA T2 NR, China III NR	Dry Manifold
C	708	950	1800-2100	EPA T2 NR, China III NR	Dry Manifold
D	783	1050	1800-2100	EPA T2 NR, China III NR	Dry Manifold
E	858	1150	1800-2100	China III NR	Dry Manifold
A	597	800	1800	EPA T4f NRNG	Narrow Config, Dry Manifold
B	652	875	1800	EPA T4f NRNG	Narrow Config, Dry Manifold
C	708	950	1800	EPA T4f NRNG	Narrow Config, Dry Manifold

Specifications

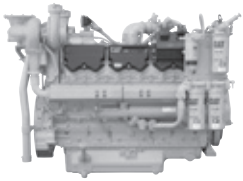
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in^3)
C27 ACERT	1918 (75.5)	1463 (57.6)	1321 (52)	2895 (6382)	27 (1648)
C27 ACERT T4	2160 (85)	1270 (50)	1650 (65)	2956 (6516)	27 (1648)

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

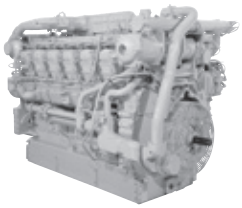
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in^3)
C32 ACERT	1934.9 (76.18)	1431 (56.34)	1388.3 (54.66)	2286 (5040)	32 (1953)
C32 ACERT T4	1905 (75)	1600 (63)	1549 (61)	3107 (6850)	32 (1953)

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

Please see spec sheet for more information:

C32 ACERT LEHW0049, LEHW0050, LEHW0051, LEHW0100

For diesel engine rating definitions please see page 10.



Well Service Ratings

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

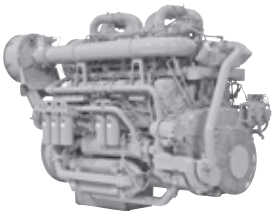
Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
3512B	2827 (111.3)	1793 (70.6)	1862 (73.3)	4803.6 (10,590)	52 (3173)
Bore x Stroke – mm (in)	170 x 190 (6.7 x 7.5)				

Please see spec sheet for more information:

3512B LEHW0055

For diesel engine rating definitions please see page 10.



Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
E	1603	2150	1900	EPA T2 NR, 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

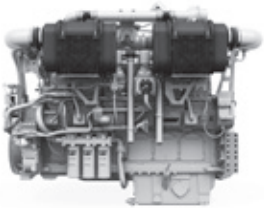
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
3512C HD ATAAC	2804 (110.4)	1504 (59.2)	2192 (86.3)	6200 (13,669)	58.9 (3596)
3512C HD SCAC	2880 (113.8)	1630 (64.2)	2185 (86.1)	6402 (14,115)	58.9 (3596)

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

Please see spec sheet for more information:

3512C HD LEHW0056, LEHW0090

For diesel engine rating definitions please see page 10.



Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
E	1678	2250	1800	EPA T4F NRNG	ATAAC, DGB 1.7% Torque Rise
E	1678	2250	1800	EPA T4F NRNG	SCAC, DGB 1.7% Torque Rise
E	1865	2500	1800	EPA T4F NRNG	ATAAC, DGB 7.0% Torque Rise
E	1865	2500	1800	EPA T4F NRNG	SCAC, DGB 7.0% Torque Rise
E	2237	3000	1900	China Stage III, NR	7.5% Torque Rise

Specifications

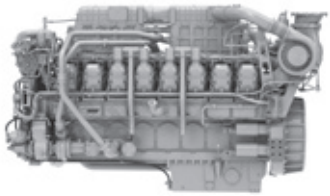
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
EPA T4F Diesel and DGB					
3512E ATAAC	3099 (122)	2235 (88)	2718 (107)	9110 (20,100)	58.9 (3596)
3512E SCAC	3490 (137.4)	2235 (88)	2718 (107)	9750 (21,500)	58.9 (3596)
China Stage III					
3512E ATAAC	2242 (88.3)	1982 (78)	2208 (86.9)	6400 (14,110)	58.9 (3596)

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

Please see spec sheet for more information:

3512E LEHW0239, LEHW0240, LEHW0345

For diesel engine rating definitions please see page 10.



Well Service Ratings

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

Specifications

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

Please see spec sheet for more information:

3516C HD LEHW0159, LEHW0160

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



Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
C7 ACERT					
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
C9 ACERT					
D	254	340	2200	IMO II, EPA T3 NR , EU IIIA NR	Haz Loc, SCAC & REMAC avail, Derate Option, Watercooled
C15 ACERT					
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
C18 ACERT					
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
C32 ACERT					
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 (in³)
C7 ACERT	1053 (41.5)	758 (29.8)	1032 (40.6)	629 (1386)	7.2 (439)
C9 ACERT	1092 (43)	828 (32.6)	1024 (40.3)	716 (1578)	8.8 (537)
C15 ACERT	1377 (54)	927 (37)	1227 (48)	1245 (12,743)	15.2 (927.6)
C18 ACERT	1931 (76)	1204 (47.4)	1198 (47.2)	1814 (4000)	
C32 ACERT	1918 (75.5)	1473 (58)	1321 (52)	2286 (5040)	32 (1953)

Bore x Stroke – mm (in)

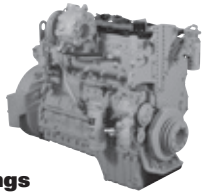
C7 ACERT 110 x 127 (4.3 x 5)
C9 ACERT 112 x 149 (4.4 x 5.8)
C15 ACERT 137.2 x 171.5 (5.4 x 6.75)
C18 ACERT 145 x 183 (5.7 x 7.2)
C32 ACERT 145 x 162 (5.7 x 6.4)

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 Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
C7 ACERT					
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
C9 ACERT					
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
C15 ACERT					
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
C32 ACERT					
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^3)
C7 ACERT	1053 (41.5)	758 (29.8)	1032 (40.6)	629 (1386)	7.2 (439)
C9 ACERT	1092 (43)	828 (32.6)	1024 (40.3)	716 (1578)	8.8 (537)
C32 ACERT	1918 (75.5)	1473 (58)	1321 (52)	2286 (5040)	32 (1953)

Bore x Stroke – mm (in)

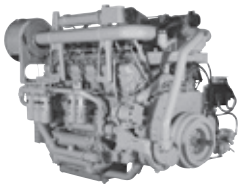
C7 ACERT 110 x 127 (4.3 x 5)
C9 ACERT 112 x 149 (4.4 x 5.8)
C32 ACERT 145 x 162 (5.7 x 6.4)

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.

Watercooled Manifold



Well Service Ratings

Rating Tier	bkW	bhp	rpm	Emissions	Notes
3508					
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
3512					
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
3516					
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^3)
3508	2136.14 (84.1)	1701.8 (67)	1719.58 (67.7)	4309 (9500)	34.5 (2105)
3512	2674.62 (105.3)	1701.8 (67)	1719.58 (67.7)	5203.75 (11,462)	51.8 (3158)
3516	3251 (128)	1701 (66.9)	2004 (78.9)	8660 (19,090)	69 (4210)

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

Please see spec sheet for more information:

3512 ..... LEHW0055
3516 ..... LEHW0160

For diesel engine rating definitions please see page 10.

Transmission Application Chart

Engine	Transmission	Max hp	Page Number
C9 ACERT	CX31-P600	600	32
	CX31-P600*	600	33
C11 ACERT	CX31-P600	600	32
	CX31-P600*	600	33
C13 ACERT	CX31-P600	600	32
	CX31-P600*	600	33
C15 ACERT	CX31-P600	600	32
	CX31-P600*	600	33
	CX35-P800	800	34
	CX38-P892	800	35-36
C18 ACERT	CX35-P800	800	34
	CX38-P892	800	35-36
C27 ACERT	TH48-E70	1200	40
C32 ACERT	TH48-E70	1500	40
3512B	CX48-P2300	2300	37
3512C	CX48-P2300	2300	37
	CX48-P2560	2500	38
	TH55-E70	3300	41
	TH55-E90	3300	42
3512E	CX48-P2300	2300	37
	CX48-P2560	2500	38
	CX48-P3060	3000	39
	TH55-E70	3300	41
	TH55-E90	3300	42
3516C	TH55-E70	3300	41
	TH55-E90	3300	42

*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

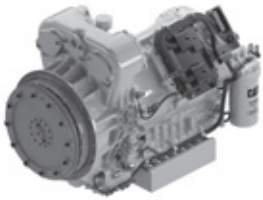
2WD model	909 kg (2005 lbs)
4WD model	943 kg (2080 lbs)

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



CX38-P892 IPD Version



CX38-P892 Standard Version

Ratings

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

* ASC approval on ratings over 800 hp

Output Connection Options

1810 companion flange,
ISO7646 255 flange

Power Take Off

(Pump Auxiliary Drive)

PTO Mountings and Locations*

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

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

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

Transmission Speed Ratios

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

Dimensions

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

Weight

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

Ratings continued on page 36

Ratings continued from page 35

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

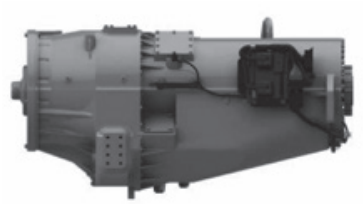
[1] Maximum rated power taken at 1800 rpm engine speed
[2] Maximum rated power taken at 1800 rpm engine speed x 1.2 PTO speed up
[3] Total combined side and integral drive PTOs include all 10-bolt, SAE B and SAEC locations on the transmission

Please see spec sheet for more information:

CX38-P892..... LEHW0357

**Viewed from rear

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



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

Power Take Off
(Pump Auxiliary Drive)

PTO Mountings and Locations*
SAE J704 (8-bolt) 14.9 kW/20 hp at 12 o'clock

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

Optional Cat bolt-on PTO 112 kW / 150 hp capable, SAE J744 C-size (2 & 4 bolt), front or rear drive, 1.292 x engine speed at 12 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

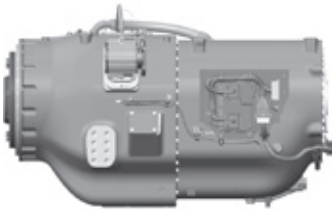
Height:	1049 mm (41.3 in)
Width:	1128 mm (44.4 in)
Length:	1893.2 mm (74.5 in)

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*	1864 KW (2500 hp)
Gross Input Torque	12040 N•m (8880 lb-ft)
Rated Input Speed	1900 rpm

Output Connection Options
GWB 390.70, GWB 390.65

Power Take Off
(Pump Auxiliary Drive)

PTO Mountings and Locations*

Drive:	Engine-driven PTO
Location:	12 o'clock, 10 o'clock
Mountings:	SAE J704 8 bolt

SAE J744 C-Size (Optional Cat bolt-on PTO)

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

Rotation

SAE J704 Drive:	Rotates at 1.193 x engine rpm, opposite direction of the engine
Optional Cat PTO:	Rotates at 1.275 x engine rpm, opposite direction of the engine

Transmission Speed Ratios

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

Dimensions

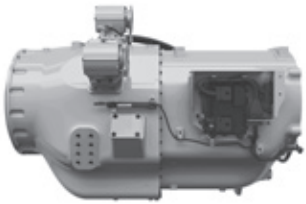
Height:	1122 mm (44.2 in)
Width:	1269 mm (50.0 in)
Length:	1793 mm (70.6 in)

Weight
Approximate Weight
With Coupling 2005 kg (4420 lbs)

Spec Sheet
LEHW0344

**Viewed from rear

***Please see Application and Installation Guide (REHS7047) for details on combined PTO power rating



Ratings

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

Output Connection Options
GWB 390.70

Power Take Off
(Pump Auxiliary Drive)

PTO Mountings and Locations*

Drive:	Engine-driven PTO
Location:	12 o'clock, 10 o'clock
Mountings:	SAE J704 8 bolt

SAE J744 C-Size (Optional Cat bolt-on PTO)

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

Rotation

SAE J704 Drive:	Rotates at 1.193 x engine rpm, opposite direction of the engine
Optional Cat PTO:	Rotates at 1.275 x engine rpm, opposite direction of the engine

Transmission Speed Ratios

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

Dimensions

Height:	1122 mm (44.2 in)
Width:	1269 mm (50.0 in)
Length:	1793 mm (70.6 in)

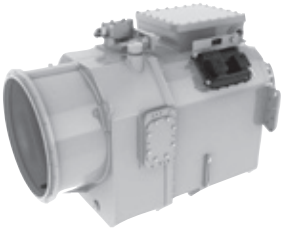
Weight

Approximate Weight With Coupling	2050 kg (4520 lbs)

Spec Sheet
LEHW0344

**Viewed from rear

***Please see Application and Installation Guide (REHS7047) for details on combined PTO power rating



Ratings

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

Output Connection (Yoke)
GWB 390.60/GWB 390.65

Power Take Off
(Pump Auxiliary Drive)

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

Optional Cat bolt-on PTO 112 kW / 150 hp capable (3 o'clock and 9 o'clock positions), 67 kW / 90 hp capable (5 o'clock position), SAE J744 C-size (2 & 4 bolt), front or rear drive, 1.292 x engine speed

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

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

*Viewed from rear



Ratings

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

Output Connection (Yoke)

GWB 390.65 – 2500 hp
GWB 390.70 – 3000+ hp

Power Take Off

(Pump Auxiliary Drive)

PTO Mountings and Locations*

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

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

Optional Cat bolt-on PTO
112 kW / 150 hp capable, SAE J744 C-size (2 & 4 bolt), front or rear drive, 1.275 x engine speed at 3 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 (Non-Cat PTOs)

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

Optional Cat bolt-on PTO 112 kW / 150 hp capable, SAE J744 C-size (2 & 4 bolt), front or rear drive, 1.275 x engine speed at 3 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)

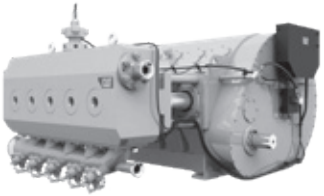
Weight

Approximate Dry Weight	
Transmission	2755 kg (6075 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	2500 bhp (1864 bkW)
Max. rpm	330
Number of Plungers	5
Stroke Length	8 in (203.2 mm)
Plunger Load	238,000 lb (107,960 kg)
Gear Ratio	6.353:1

Dimensions and Weight

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

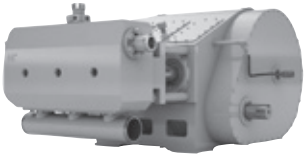
Carbon, Extreme Duty and Stainless Steel fluid ends available
Power End Lube Oil Filtration System is standard feature
Optional factory installed PEMS® Pump Electronic Monitoring System

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

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

Please see spec sheet for more information:

WS255 ..... LEPW0060



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

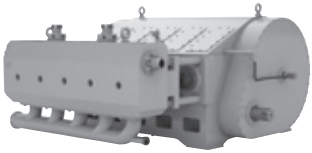
Height:	52.0 in (1320.8 mm)
Width:	95.41 in (2423.4 mm)
Length:	71.13 in (1806.7 mm)
Weight:	16,700 lb (7575 kg)

Extreme Duty fluid ends with robust geometry
Power End Lube Oil Filtration System is standard feature
Optional factory installed PEMS Pump Electronic Monitoring System

Plunger Diameter		Displacement per Revolution		Displacement at Pump rpm Well Stimulation and Intermittent Application									
				70		116		150		200		275	
in	mm	Gal/ Rev.	L/Rev.	bpm	psi	bpm	psi	bpm	psi	bpm	psi	bpm	psi
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
Input Power (bhp)				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

Please see spec sheet for more information:
WS273XD..... LEPW0081



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:	24,736 lb (11,221 kg)

Extreme Duty fluid ends with robust geometry
Power End Lube Oil Filtration System is standard feature
Optional factory installed PEMS Pump Electronic Monitoring System

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

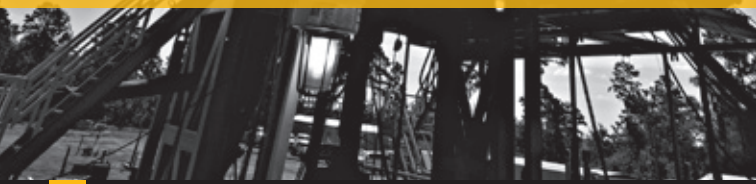
Please see spec sheet for more information:

WS305XD..... LEPW0085

Land Drilling Ratings



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





Land Mechanical Drilling Engine Ratings

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

*Available with Cat compression brake

Land Drilling Module Ratings

Duty	bkW	ekW	kVA	bhp	Emissions
50 Hz/1500 rpm					
Prime	331	292	365	444	China II NRNC, EU II NRNC
Prime	410	365	456	550	China II NRNC, EU II NRNC
60 Hz/1800 rpm					
Prime	366	320	400	491	EPA ESE
Prime	409	365	456	549	EPA ESE
Prime	530	455	569	711	EPA ESE

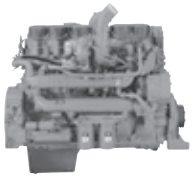
Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
C15 ACERT	1377 (54)	927 (37)	1227 (48)	1245 (2743)	15 (928)
C15 ACERT T4	1530 (60.2)	961 (37.8)	1282 (51)	1580 (3482)	15 (928)
C15 ACERT Module	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, EU Stage IIIA, China III NR, IMO II, NC
B*	447	600	1800- 2100	EPA T3 NR, EPA ESE, EU Stage IIIA, China III NR, IMO II, NC
C*	470	630	1800- 2100	EPA T3 NR, EPA ESE, EU Stage IIIA, China III NR, IMO II, NC
C	522	700	1800- 2100	EPA T3 NR, EPA ESE, EU Stage IIIA, China III NR, IMO II, NC
D	570	765	1800- 2100	EPA T2 NR, China III NR, IMO II
E	597	800	1800- 2100	EPA T2 NR, China III NR, IMO II
A/B	447	600	1800- 1900	EPA T4i NR, EU IIIB
A	429	575	1800 -2000	EPA T4F NRNG, EU V NR
B	447	600	1800 -2000	EPA T4F NRNG, EU V NR
C	470	630	1800 -1900	EPA T4i NR, EU IIIB
C	522	700	1800 -1900	EPA T4i NR, EU IIIB
C	563	755	1800 -1900	EPA T4i NR
C	470	630	1800 -2000	EPA T4F NRNG, EU V NR
C	563	755	1800	EPA T4F NRNG, EU V NR
C	597	800	1800	EPA T4F NRNG, EU V NR

*Available with Cat compression brake

Land Drilling Module Ratings

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

Ratings continued on page 49

Ratings continued from page 48

Specifications

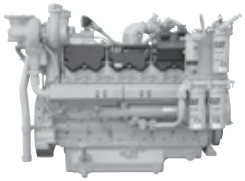
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
C18 ACERT	1389 (54.7)	919 (36.2)	1227 (49.5)	1273 (2807)	18 (1105)
C18 ACERT T4	1530 (60.2)	961 (37.8)	1282 (51)	1580 (3482)	18 (1105)
C18 ACERT Module	3632 (143)	1524 (60)	2115 (83.3)	5033 (11,095)	18 (1105)

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

Please see spec sheet for more information:

C18 ACERT (T3)..... LEHW0053
C18 ACERT (T4i) LEHW0098
C18 ACERT (T4F)..... LEHW0109
C18 ACERT Module (T4F) LEHW0333
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	IMO II
B		653	875	1800-2100	IMO II
C		708	950	1800-2100	IMO II
D		783	1050	1800-2100	IMO II
E		858	1150	1800-2100	IMO II
A		597	800	1800-2100	EPA T4i NRNG
B		653	875	1800-2100	EPA T4i NRNG
C		708	950	1800-2100	EPA T4i NRNG
D		783	1050	1800-2100	EPA T4i NRNG
A		597	800	1800	EPA T4F NRNG
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

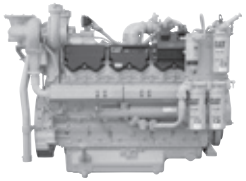
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in^3)
C27 ACERT	1918 (75.5)	1463 (57.6)	1321 (52)	2895 (6382)	27 (1648)
C27 ACERT T4	2160 (85)	1270 (50)	1650 (65)	2956 (6516)	27 (1648)
C27 ACERT Module	5228 (205.8)	1950 (76.8)	2180 (85.8)	9072 (20,000)	27 (1648)

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

For diesel engine rating definitions please see page 10.



Land Mechanical Drilling Engine Ratings

Rating Tier	bkW	bhp	rpm	Emissions
A	597	800	1800-2100	EPA T2 NR, China III NR, IMO II
B	708	950	1800-2100	EPA T2 NR, China III NR, IMO II, EPA ESE
C	839	1125	1800-2100	EPA T2 NR, China III NR, IMO II, EPA ESE
D	895	1200	1800-2100	EPA T2 NR, China III NR, IMO II, EPA ESE
E	1007	1350	1800-2100	EPA T2 NR, China III NR, IMO II, EPA ESE
E	1119	1500	1800-2100	IMO II
B	708	950	1800-2100	EPA T4i NRNG
C	839	1125	1800-2100	EPA T4i NRNG
D	895	1200	1800-2100	EPA T4i NRNG
B	746	1000	1800	EPA T4f NRNG
C	839	1125	1800	EPA T4f NRNG
D	895	1200	1800	EPA T4f NRNG

Land Electric Drilling Module Ratings

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

Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in^3)
C32 ACERT	1918 (75.5)	1473 (58)	1321 (52)	2895 (6382)	32 (1953)
C32 ACERT T4	1905 (75)	1600 (63)	1549 (61)	3107 (6850)	32 (1953)
C32 ACERT Module	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	C	611	820	1300	NC
3508	A	638	855	1800	NC
3508	C	746	1000	1800	NC
3512	A	761	1020	1200	NC
3512	Drill-M	764	1025	1200	NC
3512	C	858	1150	1300	NC
3512	Drill-M	932	1250	1200	NC
3512	A	955	1280	1800	NC
3512	C	1119	1500	1800	NC
3516	Drill-M	1230	1649	1200	NC

Land Electric-Drive Drilling Module Ratings

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

Specifications

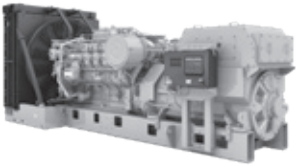
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
3508 Engine	2136 (84.1)	1702 (67.0)	1720 (67.7)	4309 (9500)	35 (2105)
3508 Module	7874 (310)	2385 (93.9)	2779 (109.4)	14 443 31,847)	35 (2105)
3512 Engine	2675 (105.3)	1702 (67.0)	1720 (67.7)	5203 (11,471)	52 (3158)
3512 Module	7874 (310)	2385 (93.9)	2936 (115.6)	15 714 (34,643)	52 (3158)
3516 Engine	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
3508 Module LEHW0069
3512 Engine LEHW0060
3512 Module LEHW0066

For diesel engine rating definitions please see page 10.



Land Mechanical Drilling Engine Ratings

Model	Duty	bkW	bhp	rpm	Emissions
3508B	Drill-M	671	900	1200	NC

Land Electric-Drive Drilling Engine Ratings

Model	Duty	bkW	bhp	rpm	Emissions
3508B	Drill-El	682	915	1200	NC
3512B	Drill-El	1101	1475	1200	NC
3512B with DGB	Drill-El	993	1251	1000	NC

Land Electric-Drive Drilling Module Ratings

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

Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
3508B Engine	2136 (84.1)	1702 (67)	2024 (79.7)	4309 (9500)	35 (2105)
3508B Module	4986 (196.3)	2319 (91.3)	2596 (102.2)	15 352 (33,846)	35 (2105)
3512B Engine	2675 (105.3)	1702 (67)	1720 (67.7)	5203 (11,471)	52 (3158)
3512B Module	6051 (238.2)	2318 (91.2)	2659 (104.7)	14 000 (30,864)	52 (3158)
3516B DGB Module	5841 (230.0)	2318 (91.2)	2662 (104.8)	13 545 (29,861)	52 (3158)
3516B Module	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
3508B Module LEHW0070
3512B Module LEHW0067, LEHW0170
3512B DGB Module LEHW0200
3516B Module LEHW0065

For diesel engine rating definitions please see page 10.



Land Mechanical Drilling Engine Ratings

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

Land Electric-Drive Drilling Engine Ratings

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

Land Electric-Drive Drilling Module Ratings

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

Specifications

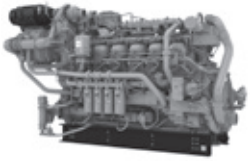
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
3508C Engine	2136 (84.1)	1702 (67.0)	2024 (79.7)	4582 (10,101)	35 (2105)
3512C Module	6051 (238.2)	2318 (91.2)	2659 (104.7)	14 453 (31,864)	52 (3158)
3512C HD					
Engine	2682 (105.6)	1790 (70.5)	2019 (79.5)	5423 (11,945)	59 (3574)
Module	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 HD Engine LEHW0048
3512C HD China III NR..... LEHW0241
3512C Module..... LEHW0068
3512C (DGB) Module..... LEHW0138
3512C HD Module LEHW0013

For diesel engine rating definitions please see page 10.



Land Electric-Drive Drilling Engine Ratings

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

Specifications

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
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)

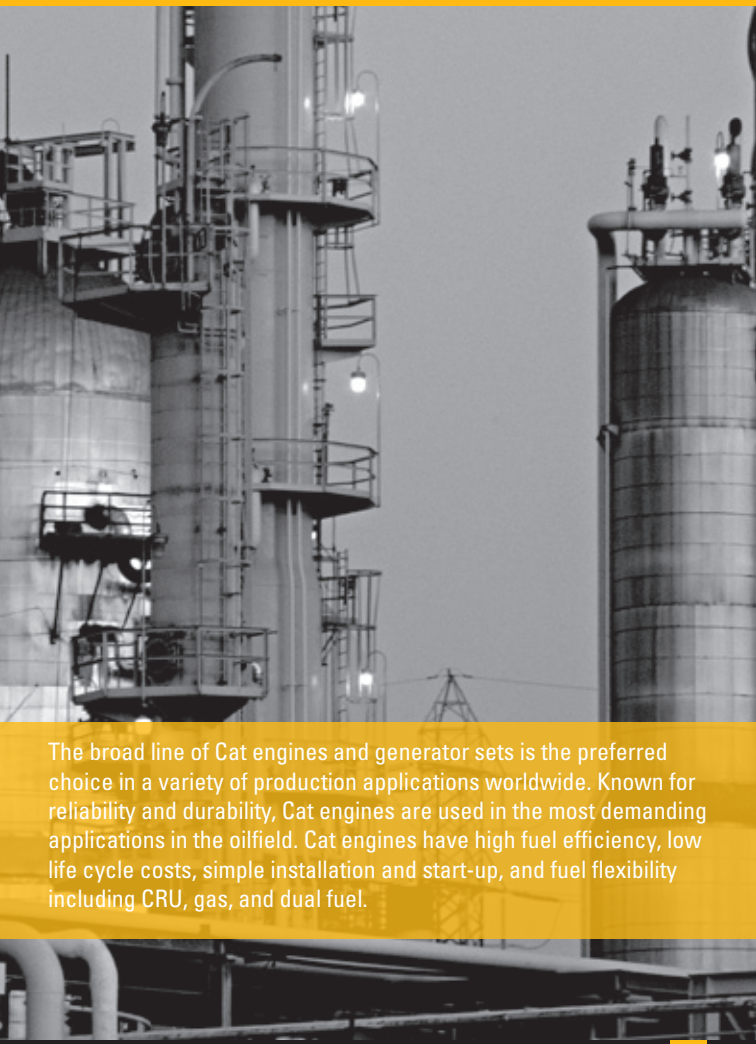
Please see spec sheet for more information:
3500E Engine.....LEHW0282

For diesel engine rating definitions please see page 10.

Drilling Transmission Application Chart

Engine	Transmission	Max hp	Page Number
C15 ACERT	CX31-P600	600	33
	CX35-P800	800	34
C18 ACERT	CX35-P800	800	34
C27 ACERT	TH48-E70	1200	41
C32 ACERT	TH48-E70	1500	41

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
			1500 rpm			
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.		
			1500 rpm				
–	350	–	–	280	–	C13	China III NR
–	400	–	–	320	–	C13	China III NR
–	450	–	–	360	–	C15	China III NR
–	500	–	–	400	–	C15	China III NR
500	450	–	400	360	–	C15	NC
550	500	–	440	400	–	C15	NC
–	600	–	–	480	–	C18	China III NR
605	550	–	484	440	–	C18	NC
660	600	–	528	480	–	C18	NC
715	650	–	572	520	–	C18	NC
800	725	–	640	580	–	3412C	Low BSFC
900	810	–	720	648	–	3412C	Low BSFC
1250	1100	–	1000	880	–	C32	Low BSFC, 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 59

Ratings continued from page 58

kVA			ekW			Generator Set Model	Emissions/ Configuration
Standby	Prime	Cont.	Standby	Prime	Cont.		
1500 rpm							
2500	2275	2000	2000	1820	1600	3516B HD	Low BSFC, Low Emissions
2750	2500	–	2200	2000	–	3516C HD	Low BSFC
3000	2725	2500	2400	2180	2000	C175-16	Low BSFC
3000	–	–	2400	–	–	C175-16	Low Emissions
3100	2825	2600	2480	2260	2080	C175-16	Low BSFC
3100	–	–	2480	–	–	C175-16	Low Emissions
3900	3500	3150	3120	2800	2520	C175-20	Low BSFC
3900	–	–	3120	–		C175-20	Low Emissions
4000	3600	3250	3200	2880	2600	C175-20	Low BSFC
4000	–	–	3200	–	–	C175-20	Low Emissions
1000 rpm							
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	Emissions/
Standby	Prime	Cont.	Standby	Prime	Cont.	Set Model	Configuration
1800 rpm							
156	142	–	125	114	–	C7.1 ACERT	EPA ESE
187	169	–	150	135	–	C7.1 ACERT	EPA ESE
219	197	–	175	157	–	C7.1 ACERT	EPA ESE
250	–	–	200	–	–	C7.1 ACERT	EPA ESE + T4F
250	225	–	200	180	–	C9 ACERT	EPA ESE
313	281	–	250	225	–	C9 ACERT	EPA ESE
375	344	–	300	275	–	C9 ACERT	EPA ESE
438	400	–	350	320	–	C13 ACERT	EPA ESE
500	456	–	400	365	–	C13 ACERT	EPA ESE
438	400	–	350	320	–	C15 ACERT	EPA ESE
500	456	–	400	365		C15 ACERT	EPA ESE
563	513	–	450	410	–	C15 ACERT	EPA ESE
625	569	–	500	455	–	C15 ACERT	EPA ESE
688	625	–	550	500	–	C18 ACERT	EPA ESE
750	681	–	600	545	–	C18 ACERT	EPA ESE
875	794	–	700	635	–	3412STA	NC
1000	906	–	800	724	–	3412STA	NC

*** Package available through DTO**

Ratings continued on page 61

Ratings continued from page 60

60 Hz Generator Set Ratings – 180-16296 ekW

kVA			ekW			Generator	Emissions/
Standby	Prime	Cont.	Standby	Prime	Cont.	Set Model	Configuration
1800 rpm (continued)							
938	906	–	750	680	–	C27 ACERT	EPA ESE
1000	906	–	800	725	–	C27 ACERT	EPA ESE
–	1035	–	–	725	–	C27 ACERT	NC, EPA T2
1250	1138	1038	1000	910	830	C32 ACERT	NC, EPA ESE, EPA T2
–	1300	–	–	910	–	C32 ACERT	NC
1375	1250	1113	1100	1000	890	3512	NC
1875	1700	1538	1500	1360	1230	3512B	NC
1875	1700	1538	1500	1360	1230	3512B	EPA ESE
2188	2000	1813	1750	1600	1450	3516	NC
2500	2281	2050	2000	1825	1640	3516B	NC
1000 rpm							
–	–	–	1150	1100	1100	6CM20C	NC
–	–	–	1500	1465	1465	8CM20C	NC
–	–	–	1700	1650	1650	9CM20C	NC
900 rpm							
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
–	–	–	1040	985	985	6CM20C	NC
–	–	–	1380	1310	1310	8CM20C	NC
–	–	–	1500	1475	1475	9CM20C	NC

[1]Dependent on generator selection and power factor.

Ratings continued on page 62

Ratings continued from page 61

60 Hz Generator Set Ratings – 180-16296 ekW

kVA			ekW				
Standby	Prime	Cont.	Standby	Prime	Cont.	Generator Set Model	Emissions/ Configuration
720/750 rpm							
–	–	–	1900	1735	1735	6CM25C	NC
–	–	–	2500	2315	2315	8CM25C	NC
–	–	–	2800	2600	2600	9CM25C	NC
–	–	–	2000	1940	1940	6CM25E	NC
–	–	–	2700	2585	2585	8CM25E	NC
–	–	–	3000	2910	2910	9CM25E	NC
–	–	–	2800	2780	2780	6CM32C	NC
–	–	–	3800	3700	3700	8CM32C	NC
–	–	–	4300	4170	4170	9CM32C	NC
–	–	–	5880	5880	5880	12CM32C	NC
–	–	–	7840	7840	7840	16CM32C	NC
–	–	–	3400	3085	3085	6CM32E	NC
–	–	–	4500	4115	4115	8CM32E	NC
–	–	–	5100	4630	4630	9CM32E	NC
–	–	–	6500	6170	6170	12CM32E	NC
–	–	–	8700	8230	8230	16CM32E	NC
600 rpm							
3600	3456	3456	2940	2822	2822	6CM32C	Low BSFC
4800	4608	4608	3920	3763	3763	8CM32C	Low BSFC
5400	5184	5184	4410	4233	4233	9CM32C	Low BSFC
500/514 rpm							
7639	6839	6839	6100	5579	5579	6CM43C	Low BSFC
8912	7978	7978	7100	6440	6440	7CM43C	Low BSFC
10185	9118	9118	8100	7438	7438	8CM43C	Low BSFC
11458	10258	10258	9200	8290	8290	9CM43C	Low BSFC
15278	13677	13677	12300	11170	11170	12CM43C	Low BSFC
20370	18236	18236	16400	14890	14890	16CM43C	Low BSFC

[1]Dependent on generator selection and power factor.

Generator Set Ratings – 1056-17460 ekW

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

50 Hz Oilfield Generator Set Ratings – 110-1560 ekW

ekW	rpm	Generator Set Model
	1500 rpm	
110	1500	G3306B
1560	1500	CG170-16

50 Hz Generator Set Ratings – 70-9700 ekW

ekW	rpm	Generator Set Model
	1500 rpm	
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
	1000 rpm	
1679	1000	G3608
2515	1000	G3612
3333	1000	CG260-12
3355	1000	G3616
4300	1000	CG260-16
	750 rpm	
6580	750	G16CM34
10300	750	G20CM34

60 Hz Oilfield Generator Set Ratings – 131-1500 ekW

ekW	rpm	Generator Set Model	Emissions
	1800 rpm		
131	1800	G3306B	NRM, Stationary
282	1800	CG137-8	NC
400	1800	CG137-12	NRM
	1200 rpm		
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
	1500 rpm with gearbox	
1966	1500	G3516H
2469	1500	G3520H
	1800 rpm	
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
	900 rpm	
1510	900	G3608
2263	900	G3612
3000	900	CG260-12
3020	900	G3616
4000	900	CG260-16
	720 rpm	
6580	720	G16CM34
9800	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 67

Ratings continued from page 66

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	269-347	361-465	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
6CM20C	1140	1529	1000	Diesel/HFO/CRU
8CM20C	1520	2038	1000	Diesel/HFO/CRU
9CM20C	1710	2293	1000	Diesel/HFO/CRU
6CM25C	1800	2414	750	Diesel/HFO/CRU
8CM25C	2400	3218	750	Diesel/HFO/CRU
9CM25C	2700	3621	750	Diesel/HFO/CRU
6CM32C	2700	–	600	Diesel/HFO/CRU
8CM32C	3600	–	600	Diesel/HFO/CRU
9CM32C	4050	–	600	Diesel/HFO/CRU
6CM32E	3000	–	750	Diesel/HFO/CRU
8CM32E	4000	–	750	Diesel/HFO/CRU
9CM32E	4500	–	750	Diesel/HFO/CRU

Mechanical Drive Engine Ratings – 71-10000 bkW

Model	bkW	bhp	rpm
G3304B	71	95	1800
G3306B	108, 151, 157	145, 203, 211	1800
G3406 TA	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, 387 5, 4000	1000
G3616 A4	3728, 3859, 3989	5000, 5175, 5350	1000

Offshore Drilling and Production Ratings



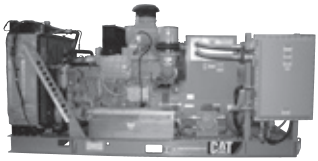
Cat engines and generator sets are widely known for performance, reliability, durability, and fuel flexibility in the offshore oil and gas industry. With ratings capable of operating on MDO, CRU, and dual fuel, offshore products include generator sets for main, essential, and emergency power plus a wide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

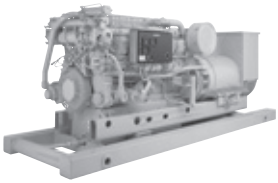


Generator Sets

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
1500 rpm/50 Hz				
C15 ACERT	OS-Prime	360	288	Haz Loc
C32 ACERT	OS-Prime	874	800	Haz Loc
1800 rpm/60 Hz				
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[1]	kVA[1]	Emissions
1200 rpm/60 Hz					
3516B HD	MCR	1603	1530	2186	IMO II
1500 rpm/50 Hz					
3512B	OS-Prime	1257	1200	1500	IMO II
3516B	OS-Prime	1717	1600	2000	IMO II
1800 rpm/60 Hz					
3508B	OS-Prime	968	910	1138	IMO I
3512B	OS-Prime	1424	1360	1700	IMO I
3516B	OS-Prime	1901	1825	2281	IMO I

Specifications[2]

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
3508B	4031 (158.7)	1784 (70.2)	2048 (80.6)	12 475 (27,503)	35 (2116)
3512B	4660 (183.5)	1988 (78.3)	2043 (80.4)	14 975 (33,014)	52 (3161)
3516B	6095 (240)	2147 (84.5)	2106 (82.9)	17 500 (38,580)	69 (4233)
3516B HD	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)

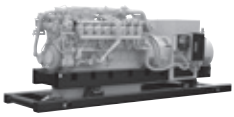
[1]Dependent on generator selection and power factor.

[2]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[1]	kVA[1]	Emissions
1200 rpm/60 Hz					
3512C	MCR	1101	1030	1470	IMO II
3516C HD*	MCR	1383	1285	1836	IMO II/III[3]
3516C HD*	MCR	1603	1530	2186	IMO II/III[3]
1500 rpm/50 Hz					
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
1800 rpm/60 Hz					
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.

[1]Dependent on generator selection and power factor.

[2]Dimensions and weights are dependent on generator and options selected. See general installation drawings for details.

[3]IMO III engines require SCR aftertreatment. Contact dealer for availability and technical details.

Specifications[2]

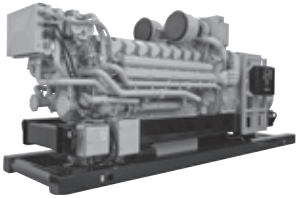
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
3512C	5448 (214.5)	1825 (71.9)	2313 (91)	14 975 (33,300)	51.8 (3161)
3516C HD	6705 (264)	1986 (78.2)	2535 (99.8)	18 800 (41,400)	78 (4764)
3512E min	2644 (104.1)	2113 (83.2)	2036 (80.2)	4960 (10,395)	34.5 (2107)
max	3272 (128.8)	2154 (84.8)	2160 (85.0)		
3512E min	3185 (125.4)	2130 (83.9)	2142 (84.3)	6532-7411 (14,400-16,340)	51.8 (161)
max	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[1]	kVA[1]	Emissions
1200 rpm/60 Hz					
C175-16*	MCR	1930	1833	2619	IMO II/III[3]
C175-16	MCR	2316	2200	3142	IMO II/III
1500 rpm/50 Hz					
C175-16	OS-Prime	2418	2300	2875	IMO II
1800 rpm/60 Hz					
C175-16	OS-Prime	2800	2660	3325	IMO II

Specifications[2]

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

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

*Available with increased exhaust backpressure.

[1]Dependent on generator selection and power factor.

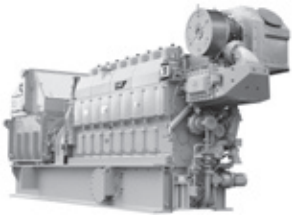
[2]Dimensions and weights are dependent on generator and options selected. See general installation drawings for details.

[3]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[1]

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

[1] Ratings Available in MDO, HFO, and crude oil fuel. ISO 3046-1 reference conditions.

[2] Generator efficiency of 96% and 0.8 power factor.

Specifications[3]

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

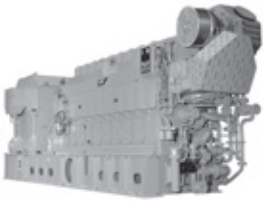
Bore x Stroke – mm (in) 200 x 300 (7.9 x 11.8)

[3] 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[1]

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

[1] Ratings Available in MDO, HFO, and crude oil fuel. ISO 3046-1 reference conditions.
[2] Generator efficiency of 96% and 0.8 power factor.

Specifications[3]

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

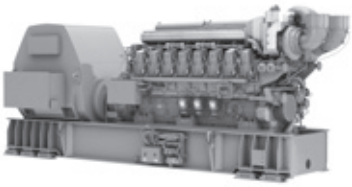
Bore x Stroke – mm (in) 255 x 400 (10 x 15.7)

[3] Base-mounted generator sets. Final dimensions dependent on generator make/type.

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.



Offshore Generator Set Ratings

Model	Duty	bkW	ekW[1]	kVA[1]	Emissions
900 rpm/60 Hz					
C280-8	Cont	2300	2200	2750	EPA T4
C280-8	MCR	2530	2420	3457	IMO II
C280-12	Cont	3460	3300	4125	IMO III
C280-12[T]	MCR	3800	3650	5214	IMO II/III[2]
C280-16	Cont	4600	4400	5500	IMO II
C280-16*	MCR	5060	4840	6914	IMO II/III[2]
C280-16**	MCR	5600	5375	7679	IMO II
C280-16**[T]	MCR	5730	5500	7857	IMO II/III[2]
1000 rpm/50 Hz					
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.

[T]Available with increased exhaust backpressure.

[1]Dependent on generator selection and power factor.

[2]IMO III engines require SCR aftertreatment. Contact dealer for availability and technical details.

Ratings continued on page 78

Ratings continued from page 77

Specifications[3]

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in³)
C280-8	8140 (320.5)	2326 (91.6)	3406 (134.1)	49 (108,027)	148 (9031)
C280-12	8125 (319.9)	2568 (101.1)	3973 (156.4)	56.5 (124,561)	222 (13,546)
C280-16 FMT	10283 (404.8)	2800 (110.2)	4092 (161.1)	66 (145,505)	296 (18,062)
C280-16 RMT	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)

[3]Dimensions and weights are dependent on generator and options selected. See general installation drawings for details.

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.



Offshore Generator Set Ratings[1]

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

[1] Ratings Available in MDO, HFO, and crude oil fuel. ISO 3046-1 reference conditions.
[2] Generator efficiency of 97% and 0.8 power factor.

Specifications[4]

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in³)
6CM32C	9302 (366.2)	2639 (103.9)	4801 (189.0)	73.0 (161,000)	232 (14,156)
8CM32C	10 886 (427.6)	2600 (102.4)	4869 (191.7)	92.0 (203,000)	309 (18,855)
9CM32C	11 419 (449.6)	2600 (102.4)	4869 (191.7)	98.0 (217,000)	347 (21,173)
6CM32E	9566 (376.6)	2639 (103.9)	4567 (179.8)	73.0 (161,000)	232 (14,156)
8CM32E	10 626 (418.3)	2600 (102.4)	4869 (191.7)	92.0 (203,000)	309 (18,855)
9CM32E	11 156 (439.2)	2600 (102.4)	4869 (191.7)	98.0 (217,000)	347 (21,173)
12CM32E	10 703 (421.4)	3526 (138.8)	4639 (182.6)	120.0 (265,000)	444 (27,092)
12CM32E	10 703 (421.4)	3526 (138.8)	4639 (182.6)	120.0 (265,000)	444 (27,092)
16CM32E	12 149 (478.3)	3526 (138.8)	4639 (182.6)	140.0 (309,000)	592 (36,123)
16CM32E	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)

[4] 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[1]

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

[1] Ratings Available in MDO, HFO, and crude oil fuel. ISO 3046-1 reference conditions.

[2] Generator efficiency of 97% and 0.8 power factor.

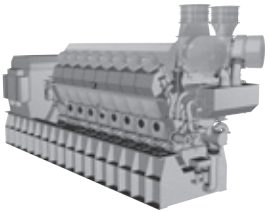
Specifications[3]

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

[3] Base-mounted generator sets. Final dimensions dependent on generator make/type.

For diesel engine rating definitions please see page 10.



Offshore Generator Set Ratings[1]

Model	Duty	bkW	ekW[2]	kVA[2]	Emissions
500/514 rpm – 50/60 Hz					
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

[1] Ratings Available in MDO, HFO, and crude oil fuel. ISO 3046-1 reference conditions.
[2] Generator efficiency of 97% and 0.8 power factor.

Specifications[3]

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in³)
6CM43C	12 202 (480.4)	3400 (133.9)	6278 (247.2)	178.0 (393,000)	532 (32,463)
7CM43C	12 999 (511.8)	3400 (133.9)	6649 (261.8)	195.0 (430,000)	620 (37,382)
8CM43C	13 729 (540.5)	3400 (133.9)	6649 (261.8)	210.0 (464,000)	709 (43,263)
9CM43C	14 459 (569.3)	3400 (133.9)	6649 (261.8)	240.0 (530,000)	797 (48,633)
12CM43C	14 740 (580.3)	3890 (153.1)	6517 (256.6)	275.0 (607,000)	1063 (64,865)
16CM43C	16 870 (664.2)	4027 (158.8)	6439 (253.5)	345.0 (761,000)	1417 (86,487)

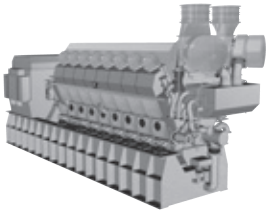
Bore x Stroke – mm (in) 430 x 610 (16.9 x 24.0)

[3] 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[1]

Model	Duty	bkW	ekW[2]	kVA[2]	Emissions
500/514 rpm – 50/60 Hz					
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

[1] Ratings Available in LFO. HFO and crude oil ratings available separately.

[2] Generator efficiency of 97% and 0.8 power factor.

Specifications[3]

	L – mm (in)	W – mm (in)	H – mm (in)	Wt – tonnes (lbs)	Disp – L (in³)
6CM46DF	12 202 (480.4)	3400 (133.9)	6278 (247.2)	178.0 (393,000)	608 (37,116)
7CM46DF	12 999 (511.8)	3400 (133.9)	6649 (261.8)	195.0 (430,000)	710 (43,302)
8CM46DF	13 729 (540.5)	3400 (133.9)	6649 (261.8)	210.0 (464,000)	811 (49,488)
9CM46DF	14 459 (569.3)	3400 (133.9)	6649 (261.8)	240.0 (530,000)	912 (55,674)
12CM46DF	14 740 (580.3)	3890 (153.1)	6517 (256.6)	275.0 (607,000)	1217 (74,232)
16CM46DF	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)

[3] Base-mounted generator sets. Final dimensions dependent on generator make/type.

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.

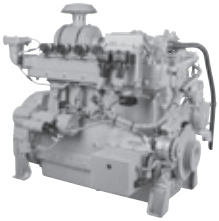
Gas Compression Ratings



For pipeline, storage, gathering, and re-injection, Cat engines are the prime choice for reliable gas compression. Caterpillar offers the widest range of prime mover choices, with power ratings from 71 bkW (95 bhp) to 6,100 bkW (8,180 bhp). Innovative electronic controls give you superior performance with excellent fuel economy, performance flexibility, and dependability for low owning and operating costs.

Gas Compression Engine Ratings

Range	Engine	Page Number
95-211 bhp	G3300	85
215-637 bhp	G3400	86
400-600 bhp	CG137	87
524-1725 bhp	G3500	88-89
1875-5350 bhp	G3600	90-91
6135-8180 bhp	GCM34	92



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_2 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_2 Emission Rating
G3306B TA[1]	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[1]	Cont	151	203	1800	Export Only	2% O_2 Emission Rating
G3306B TAA[1]	Cont	157	211	1800	NSPS Site Compliant Capable	With Caterpillar or Customer-provided AFRC & Aftertreatment* 0.5 & 1.0 g/bhp-hr NOx

*Dependent upon engine configuration selected.

[1]54°C/130°F Water to Aftercooler

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

Specifications

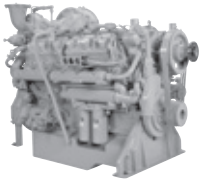
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in^3)
G3304	1158 (46)	744 (29)	1170 (46)	757 (1670)	7 (425)
G3306	1539 (60)	978 (38)	1261 (50)	948 (2090)	10.5 (640)

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

Please see spec sheet for more information:

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

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_2 or 2% O_2 Set Points
G3406 TA[1]	Cont	206	276	1800	NSPS Site Compliant Capable	With Customer-supplied AFRC & Aftertreatment 0.5% O_2 Set Point
G3406 TA[1]	Cont	242	325	1800	Export Only	2% O_2 Emission Rating
G3408 NA	Cont	190	255	1800	NSPS Site Compliant Capable	With Customer-supplied AFRC & Aftertreatment 0.5% O_2 or 2% O_2 Set Points
G3408 TA[1]	Cont	298	400	1800	Export Only	2% O_2 Emission Rating
G3408C LE[1]	Cont	317	425	1800	NSPS Site Compliant Capable[2]	With Customer-supplied Aftertreatment
G3412 TA[1]	Cont	448	600	1800	Export Only	2% O_2 Set Point
G3412C LE[1]	Cont	475	637	1800	NSPS Site Compliant Capable[2]	With Customer-supplied Aftertreatment

[1] 54°C/130°F Water to Aftercooler
[2] NSPS Site Compliant Capable with Customer-supplied SCR Aftertreatment

Specifications

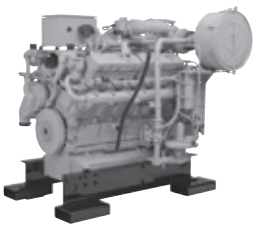
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
G3406 TA	1934 (76)	1270 (50)	1433 (56)	1362 (3000)	14.6 (893)
G3408 TA	1738 (68)	1312 (52)	1542 (61)	2041 (4500)	18 (1099)
G3408C LE	1756 (69.1)	1563 (61.5)	1758 (69.2)	2041 (4500)	18 (1099)
G3412 TA	2087 (82)	1224 (48)	1542 (61)	2320 (5115)	27 (1649)
G3412C LE	2442 (96)	1598 (63)	1960 (77)	2800 (6173)	27 (1649)

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

Please see spec sheet for more information:

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

For gas engine rating conditions please see page 10.



Gas Ratings

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
CG137-8	Cont	298	400	1800	NSPS Site Compliant Capable	With Caterpillar-supplied AFRC & Customer-provided Aftertreatment, 0.5% O_2 Set Point
CG137-12	Cont	447	600	1800	NSPS Site Compliant Capable	With Caterpillar-supplied AFRC & Aftertreatment, 0.5 & 1.0 g/bhp-hr NOx or Customer-provided AFRC & Aftertreatment

Specifications

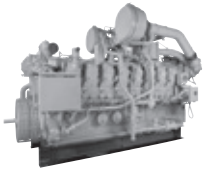
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
CG137-8	1627 (64.0)	1443 (56.8)	1758 (69.2)	2200 (4850)	18 (1099)
CG137-12	2092 (82.4)	1423 (56)	1778 (70)	2835 (6250)	27 (1649)

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

Please see spec sheet for more information:
CG137-8 ..... LEHW0340
CG137-12 Integrated Catalyst LEHW0119
CG137-12 ..... LEHW0270

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

For gas engine rating conditions please see page 10.



Gas Ratings

Model	Rating	Tier	bkW	bhp	rpm	Emissions	Notes
G3508 TA[1]	Cont		391	524	1200	NSPS Site Compliant Capable	With Customer-supplied AFRC & Aftertreatment, 0.5% O_2 Set Point
G3508 LE[1]	Cont		500	670	1400	NSPS Site Compliant Capable[2]	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3508B LE[1]	Cont		514	690	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 & 1 g/bhp-hr NOx
G3508J LE[1]	Cont		514	690	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx
G3512 TA[1]	Cont		589	790	1200	NSPS Site Compliant Capable	With Customer-supplied AFRC & Aftertreatment, 0.5% O_2 Set Point
G3512 LE[1]	Cont		642	860	1200	NSPS Site Compliant Capable[2]	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3512 LE[1]	Cont		749	1004	1400	NSPS Site Compliant Capable[2]	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3512B LE[1]	Cont		772	1035	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 & 1 g/bhp-hr NOx
G3512J LE[1]	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 Caterpillar supplied AFRC & Customer-supplied Aftertreatment, 0.5% O_2 Set Point
G3516 TA[1]	Cont		1029	1380	1400	NSPS Site Compliant Capable	With Caterpillar-supplied AFRC & Customer-supplied Aftertreatment, 0.4% O_2 Set Point
G3516 LE[1]	Cont		858	1150	1200	NSPS Site Compliant Capable[2]	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3516 LE[1]	Cont		1000	1340	1400	NSPS Site Compliant Capable[2]	With Customer-supplied Aftertreatment, 2 g/bhp-hr NOx
G3516B LE[1]	Cont	0	1029	1380	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 & 1 g/bhp-hr NOx

[1] 54°C/130°F Water to Aftercooler

[2] NSPS Site Compliant Capable with Customer-supplied SCR Aftertreatment

Ratings continued on page 89

Ratings continued from page 88

Gas Ratings

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
G3516J LE[1]	Cont	1029	1380	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx
G3520B LE[1]	Cont	1104	1480	1200	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 & 1 g/bhp-hr NOx
G3520B LE[1]	Cont	1286	1725	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 & 1 g/bhp-hr NOx
G3520J LE[1]	Cont	1286	1725	1400	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.5 g/bhp-hr NOx

[1] 54°C/130°F Water to Aftercooler

[2] 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^3)
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)
G3508J LE	2546 (100.2)	2029 (79.9)	2140 (84.3)	6048 (13,306)	34.5 (2105)
G3512 LE	2786 (109)	1790 (71)	1863 (73)	6676 (14,720)	51.8 (3158)
G3512B LE	3023 (119)	2220 (87.4)	2136 (84.1)	6676 (14,720)	51.8 (3158)
G3516 TA	3654 (143.8)	1973 (77.7)	2281 (89.8)	9232 (20,352)	69 (4211)
G3516 LE	3339 (131)	1820 (72)	1863 (73)	8015 (17,670)	69 (4211)
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 LE LEHW0034
G3508B LE LEHW0072
G3508J LE LEHW0341
G3512 LE LEHW0035
G3512B LE LEHW0095
G3516 LE LEHW0036
G3516 TA LEHW0329
G3516B LE LEHW0037
G3516J LE LEHW0318
G3520B LE (1200 rpm) LEHW0017
G3520B LE (1400 rpm) LEHW0038
G3520J LE LEHW0320

For gas engine rating conditions please see page 10.



Gas Ratings

Model	Rating Tier	bkW	bhp	rpm	Emissions	Notes
G3606 A4[1]	Cont	1398	1875	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3606 A4[2]	Cont	1454	1950	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3606 A4[3]	Cont	1499	2010	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3608 A4[1]	Cont	1864	2500	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3608 A4[2]	Cont	1931	2590	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3608 A4[3]	Cont	1995	2675	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3612 A4[1]	Cont	2796	3750	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3612 A4[2]	Cont	2890	3875	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3612 A4[3]	Cont	2983	4000	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3616 A4[1]	Cont	3729	5000	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3616 A4[2]	Cont	3859	5175	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx
G3616 A4[3]	Cont	3990	5350	1000	NSPS Site Compliant Capable	With Customer-supplied Aftertreatment, 0.3 and 0.5 g/bhp-hr NOx

[1] 54°C Aftercooler Water & 88°C Jacket Water
[2] 43°C Aftercooler Water & 88°C Jacket Water
[3] 32°C Aftercooler Water & 88°C Jacket Water

Ratings continued on page 91

For gas engine rating conditions please see page 10.

Ratings continued from page 90

Specifications

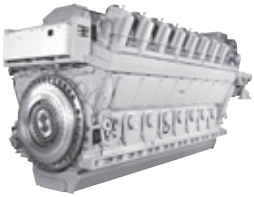
	L – mm (in)	W – mm (in)	H – mm (in)	Wt – kg (lbs)	Disp – L (in³)
G3606 A4	4833.4 (190.3)	2225.2 (87.6)	2923.2 (115.1)	16 639 (36,683)	127.2 (7762)
G3608 A4	5656 (222.68)	2260 (89)	2922 (115)	21 092 (46,500)	169.6 (10,350)
G3612 A4	5431.9 (210.31)	2731.7 (107.56)	3279 (129)	26 535 (58,500)	254 (15,528)
G3616 A4	5652 (222.5)	2634 (104)	3278 (129)	32 659 (72,000)	339 (20,705)

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

Please see spec sheet for more information:

G3606 A4 0.3g NOx..... LEHW0258
G3606 A4 0.5g NOx..... LEHW0234
G3608 A4 0.3g NOx..... LEHW0259
G3608 A4 0.5g NOx..... LEHW0235
G3612 A4 0.3g NOx.....LEHW0260
G3612 A4 0.5g NOx.....LEHW0236
G3616 A4 0.3g NOx.....LEHW0261
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 (in³)
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.



Specifications

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

* Class B rise at nameplate rated load

Formulas

Unit Conversions

Torque
1 N•m = 0.737562 ft/lb

Power
1 kW = 1.341022 hp

Volume
1 L = 61.023744 in^3

Length
1 mm = 0.03937 in

Mass
1 kg = 2.204623 lb

Energy
1 kJ = 0.948452 BTU

Pressure
1 kPa = 0.145038 psi

Temperature
(°C x 1.8) + 32 = °F

$$\frac{(°F - 32)}{1.8} = °C$$

Plunger Load
PD x PD x .7854 x PSI

PD = Plunger diameter
PSI = Fluid end pressure in PSI

Fuel Consumption

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

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

Torque

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

Displacement

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

BMEP

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

Generator Set Ratings

Real Power (ekW) = Brake Power (bkW) x Generator Efficiency

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

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

For more information please visit:
www.cat.com/oilandgas

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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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