

# OIL & GAS RATINGS GUIDE

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OIL & GAS RATINGS GUIDE



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## Caterpillar: Making Sustainable Progress Possible

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

### Improvement through fuel diversity

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

## Abbreviations and Definitions

### Duty Types

Drill-EI . . . . . Land electric drilling rating; output available with varying load for an unlimited time. Prime rating in accordance with ISO 8525. Typical load factor 60-70%

Drill-M . . . . . Land mechanical drilling rating; 100% of advertised engine rating used occasionally, but not over one hour followed by one hour period below 90% load per day for mechanical pumping and mechanical drilling applications. Typical load factor 60%

Cont . . . . . Continuous rating; 100% of engine operating hours at 100% of rated power

Prime . . . . . Prime no overload rating for power generation in oil and gas applications; output available with varying load for an unlimited time; output in accordance with ISO 8525.

OS-Prime . . . . . Offshore prime rating with 10% overload capability for MCS certification; output available with varying load for an unlimited time; output in accordance with ISO 8525.

MCR . . . . . Maximum Continuous Rating (MCR) following reference conditions according to the International Association of Classification Societies (ACS) for main and auxiliary engines. An overload of 10% is permitted for one hour within 12 hours of operation.

A . . . . . For pumping, ventilation, well service mixing units, and customer specs – the power and speed capability of the engine which can be used to power well service equipment. The engine can be operated at maximum power and speed for up to 100% of the time without interruption or load cycling.

B . . . . . For oil field mechanical pumping/drilling, independent rotary drive, well service blenders, cementers, and stationary plant air compressors – the power and speed capability of the engine which can be used to power well service equipment. The maximum average load factor is 85% of rated engine power. The maximum time at rated load and speed is not to exceed 80% of the duty cycle, or 4 hour continuously.

C . . . . . For fire pump, offshore cranes, well service kill pumps, cementers, production pumps, and drills – the power and speed capability of the engine which can be used to power high pressure well service equipment. Also the power and speed capability of the engine which can be used to power mud pumps, rotary table, and drawworks through a mechanical drive. For intermittent service where maximum power and/or speed are cyclic. The maximum average load factor is 70% for C32 and smaller engines. The maximum average load factor for larger engines is 80%. The maximum time at rated load and speed is not to exceed 50% of the duty cycle, or one hour continuously, followed by a one hour period below 90% load. When used as a fire pump and NFPA certification is required, size the pump power to 90% of the advertised rating.

D . . . . . For fire pump, offshore cranes, and portable air compressors – the power and speed capability of the engine where maximum power is required for periodic overloads. The maximum average load factor is 50%, and the maximum time at rated load and speed is not to exceed 10% of the duty cycle, or 30 minutes continuously. When used as a fire pump and NFPA certification is required, size the pump power to 90% of the advertised rating.

E . . . . . For fire pump, offshore cranes, well fracturing, and cementing/kill pump – the power and speed capability of the engine which can be used to power high pressure well service equipment. For C32 engines and smaller, the maximum average load factor is 35%. For well fracturing engines, the maximum average load factor is 50%, and the maximum time at rated load and speed is less than 2.5 hours per year. For cementing and kill pump engines, the maximum average load factor is 40%, and the maximum time at rated load and speed is less than two hours per year. When used as a fire pump and NFPA certification is required, size the pump power to 90% of the advertised rating.

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

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

## Emissions

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

## Emissions (continued)

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

## Engine Configuration

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

## Fuels

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

## Performance

|      |   |
|------|---|
| bhp  | Brake engine power (horsepower)                 |
| 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                                   |

## Emissions (continued)

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

## Rating Conditions

### Diesel Engines –

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

### Diesel Engines –

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

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

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

## ISO 9001:2000 Certification

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

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

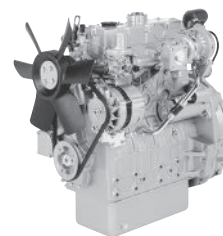


From well stimulation and pressure pumping to cementing the well, the well service industry presents a unique set of challenges. Cat® engines and transmissions meet these challenges with outstanding reliability across a wide range of available power. They meet the emissions standards and are backed by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



## Well Service Engine Ratings

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



## Well Service Ratings

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

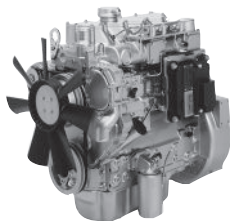
## Specifications

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

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

For diesel engine rating definitions please see page 10.





## Well Service Ratings

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

## Specifications

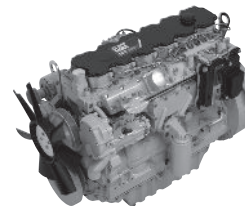
|                   | L – mm (in) | W – mm (in) | H – mm (in) | Wt – kg (lbs) | Disp – L (in³) |
|-------------------|-------------|-------------|-------------|---------------|----------------|
| <b>C4.4</b>       | 663 (26.1)  | 597 (23.5)  | 810 (32)    | 306 (675)     | 4.4 (269)      |
| <b>C4.4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

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

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.



## Well Service Ratings

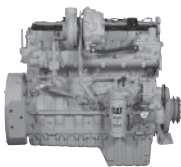
| Rating Tier | bkW | bhp | rpm       | Emissions             | Notes                    |
|-------------|-----|-----|-----------|-----------------------|--------------------------|
| C           | 95  | 128 | 2200      | EPA T3 NR, EU IIIA NR | Turbocharged-Aftercooled |
| C           | 116 | 156 |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

## Specifications

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

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

For diesel engine rating definitions please see page 10.



### Well Service Ratings

| Rating Tier       | bkW | bhp | rpm       | Emissions                                  | Notes                          |
|-------------------|-----|-----|-----------|--|--------------------------------|
| <b>C7 ACERT</b>   |     |     |           |  |                                |
| D                 | 205 | 275 | 2200      | IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR    | Watercooled, SCAC, REMAC avail |
| B                 | 153 | 205 | 2200      | IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR    | Haz Loc, SCAC only             |
| C                 | 172 | 230 | 2200      | IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR    | Haz Loc, SCAC only             |
| B                 | 168 | 225 | 2200      | IMO II, EPA T3 NR, EU IIIA NR, China II NR | Dry Manifold, ATAAC            |
| C                 | 186 | 250 | 2200      | IMO II, EPA T3 NR, EU IIIA NR, China II NR | Dry Manifold, ATAAC            |
| D                 | 224 | 300 | 2200      | IMO II, EPA T3 NR, EU IIIA NR, China II NR | Dry Manifold, ATAAC            |
| <b>C7.1 ACERT</b> |     |     |           |  |                                |
| B                 | 141 | 188 | 1800-2200 | EPA T4i NRG, EU IIIB NR                    | Dry Manifold                   |
| B                 | 168 | 225 | 1800-2200 | EPA T4f NRRNG, EU IV NR                    | Dry Manifold                   |
| C                 | 168 | 250 | 1800-2200 | EPA T4f NRRNG, EU IV NR                    | Dry Manifold                   |
| C                 | 205 | 275 | 1800-2200 | EPA T4f NRRNG, EU IV NR                    | Dry Manifold                   |

### Specifications

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

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.

### Well Service Ratings

| Rating Tier     | bkW | bhp | rpm  | Emissions                                   | Notes                                      |
|-----------------|-----|-----|------|---|--|
| <b>C9 ACERT</b> |     |     |      |   |  |
| C               | 242 | 325 | 2200 | IMO II, EPA T3 NR, EU IIIA NR               | Watercooled, SCAC, REMAC avail             |
| D               | 254 | 340 | 2200 | IMO II, EPA T3 NR, EU IIIA NR               | Watercooled, SCAC, REMAC avail             |
| D               | 254 | 340 | 2200 | IMO II, EPA T3 NR, EU IIIA NR               | Haz Loc, SCAC & REMAC avail, Derate option |
| A               | 205 | 275 | 2200 | IMO II, EPA T3 NR, China NR III, EU IIIA NR | Dry Manifold                               |
| B               | 224 | 300 | 2200 | IMO II, EPA T3 NR, EU IIIA NR, China NR III | Dry Manifold                               |
| C               | 242 | 325 | 2200 | IMO II, EPA T3 NR, EU IIIA NR, China NR III | Dry Manifold                               |
| C               | 261 | 350 | 2200 | IMO II, EPA T3 NR, EU IIIA NR, China NR III | Dry Manifold                               |
| D               | 280 | 375 | 2200 | IMO II, EPA T3 NR, EU IIIA NR               | Dry Manifold                               |

### Specifications

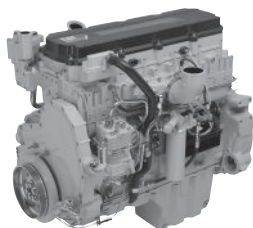
|                                | L – mm (in)           | W – mm (in) | H – mm (in) | Wt – kg (lbs) | Disp – L (in³) |
|--------------------------------|-----------------------|-------------|-------------|---------------|----------------|
| <b>C9 ACERT</b>                | 1092 (43)             | 828 (32.6)  | 1024 (40.3) | 716 (1578)    | 8.8 (537)      |
| <b>C9.3B</b>                   | 1125 (44.3)           | 791 (31.1)  | 1068 (42)   | 865 (1907)    | 9.3 (567.5)    |
| <b>Bore x Stroke – mm (in)</b> |                       |             |             |               |                |
| <b>C9 ACERT</b>                | 112 x 149 (4.4 x 5.8) |             |             |               |                |
| <b>C9.3B</b>                   | 115 x 149 (4.5 x 5.9) |             |             |               |                |

Please see spec sheet for more information:

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

C9.3 B ..... LEHH0578, LEHE0598

For diesel engine rating definitions please see page 10.



## Well Service Ratings

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

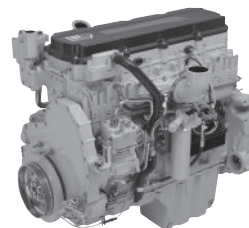
## Specifications

|                                | L – mm (in)            | W – mm (in) | H – mm (in) | Wt – kg (lbs) | Disp – L (in³) |
|--------------------------------|------------------------|-------------|-------------|---------------|----------------|
| <b>C11 ACERT</b>               | 1201 (47.3)            | 1057 (41.6) | 1176 (46.3) | 892 (1967)    | 11.15 (681)    |
| <b>Bore x Stroke – mm (in)</b> | 130 x 140 (5.12 x 5.5) |             |             |               |                |

Please see spec sheet for more information:

C11 ACERT ..... LEHW0063

For diesel engine rating definitions please see page 10.



## Well Service Ratings

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

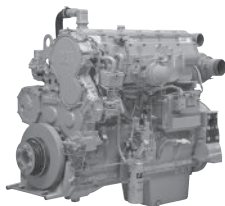
## Specifications

|                                | L – mm (in)           | W – mm (in)    | H – mm (in) | Wt – kg (lbs) | Disp – L (in³) |
|--------------------------------|-----------------------|----------------|-------------|---------------|----------------|
| <b>C13 ACERT</b>               | 1201 (47.3)           | 1013 (39.9)    | 1186 (46.7) | 896 (1976)    | 12.5 (763)     |
| <b>C13B T4</b>                 | 1203 (47.4)           | 933.14 (36.74) | 1186 (46.7) | 1350 (2976)   | 12.5 (763)     |
| <b>Bore x Stroke – mm (in)</b> | 130 x 157 (5.1 x 6.2) |                |             |               |                |

Please see spec sheet for more information:

C13 ACERT ..... LEHW0062, LEHW0096

For diesel engine rating definitions please see page 10.



## Well Service Ratings

| Rating Tier | bkW | bhp | rpm       | Emissions                                   | Notes  |
|-------------|-----|-----|-----------|---|--|
| A           | 328 | 440 | 1800-2100 | IMO II, EPA T3 NR, EU IIIA NR, China III NR | Avail with Cat Compression Brake, Dry Manifold |
| B           | 354 | 475 | 1800-2100 | IMO II, EPA T3 NR, EU IIIA NR, China II NR  | Avail with Cat Compression Brake, Dry Manifold |
| C           | 403 | 540 | 1800-2100 | IMO II, EPA T3 NR, EU IIIA NR, China II NR  | Avail with Cat Compression Brake, Dry Manifold |
| D           | 433 | 580 | 2100      | IMO II, EPA T3 NR, EU IIIA NR, China II NR  | Dry Manifold                                   |
| E           | 444 | 595 | 2100      | IMO II, EPA T3 NR, EU IIIA NR, China II NR  | Dry Manifold                                   |
| D           | 400 | 536 | 1800-2000 | EPA T2 M, IMO II, EPA T3 M                  | SCAC, Watercooled                              |
| D           | 403 | 540 | 1800-2000 | EPA T2 M, IMO II, EPA T3 M                  | SCAC & REMAC, Watercooled                      |
| A/B         | 354 | 475 | 1800-2100 | EPA T4f NRRNG, EU IV NR                     | Dry Manifold                                   |
| C           | 403 | 540 | 1800-2100 | EPA T4f NRRNG, EU IV NR                     | Dry Manifold                                   |
| D           | 433 | 580 | 1800-2100 | EPA T4f NRRNG, EU IV NR                     | Dry Manifold                                   |

## Specifications

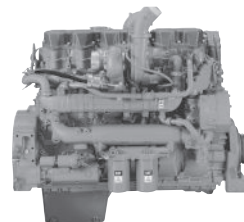
|                     | L – mm (in) | W – mm (in) | H – mm (in) | Wt – kg (lbs) | Disp – L (in <sup>3</sup> ) |
|---------------------|-------------|-------------|-------------|---------------|-----------------------------|
| <b>C15 ACERT</b>    | 1377 (54)   | 927 (37)    | 1227 (48)   | 1245 (2743)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

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

Please see spec sheet for more information:

C15 ACERT ..... LEHW0097, LEHW0061

For diesel engine rating definitions please see page 10.



## Well Service Ratings

| Rating Tier | bkW | bhp | rpm  | Emissions                                   | Notes  |
|-------------|-----|-----|------|---|--|
| A           | 429 | 575 | 2100 | IMO II, EPA T3 NR, EU IIIA NR, China III NR | Avail with Cat Compression Brake, Dry Manifold |
| B           | 447 | 600 | 2100 | IMO II, EPA T3 NR, EU IIIA NR, China III NR | Avail with Cat Compression Brake, Dry Manifold |
| C           | 470 | 630 | 2100 | IMO II, EPA T3 NR, EU IIIA NR, China III NR | Avail with Cat Compression Brake, Dry Manifold |
| C           | 522 | 700 | 2100 | IMO II, EPA T3 NR, EU IIIA NR, China III NR | Dry Manifold                                   |
| D           | 570 | 765 | 2100 | IMO II, EPA T2 NR                           | Dry Manifold                                   |
| E           | 597 | 800 | 2100 | IMO II, EPA T2 NR                           | Dry Manifold                                   |
| C           | 563 | 755 | 1800 | EPA T4f NRRNG                               | Dry Manifold                                   |
| D           | 597 | 800 | 1800 | EPA T4f NRRNG                               | Dry Manifold                                   |
| A           | 429 | 575 | 2000 | EPA T4f NRRNG, EU IV NR                     | Dry Manifold                                   |
| B           | 447 | 600 | 2000 | EPA T4f NRRNG, EU IV NR                     | Dry Manifold                                   |
| C           | 470 | 630 | 2000 | EPA T4f NRRNG, EU IV NR                     | Dry Manifold                                   |

## Specifications

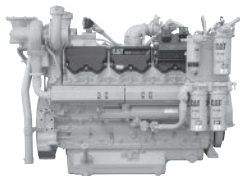
|                     | L – mm (in) | W – mm (in) | H – mm (in) | Wt – kg (lbs) | Disp – L (in <sup>3</sup> ) |
|---------------------|-------------|-------------|-------------|---------------|-----------------------------|
| <b>C18 ACERT</b>    | 1389 (54.7) | 919 (36.2)  | 1227 (49.5) | 1273 (2807)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

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

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.



## Well Service Ratings

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

## Specifications

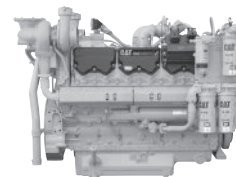
|                     | L – mm (in) | W – mm (in) | H – mm (in) | Wt – kg (lbs) | Disp – L (in <sup>3</sup> ) |
|---------------------|-------------|-------------|-------------|---------------|-----------------------------|
| <b>C27 ACERT</b>    | 1918 (75.5) | 1463 (57.6) | 1321 (52)   | 2895 (6382)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

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

Please see spec sheet for more information:

C27 ACERT ..... LEHW0052, LEHW0101

For diesel engine rating definitions please see page 10.



## Well Service Ratings

| Rating Tier | bkW  | bhp  | rpm       | Emissions                       | Notes                                 |
|-------------|------|------|-----------|---------------------------------|---------------------------------------|
| A           | 597  | 800  | 2100      | EPA T2 NR, EPA T2 M, IMO II     | Watercooled, SCAC, SCAC+ HEX, & REMAC |
| A           | 642  | 860  | 2100      | EPA T2 NR, EPA T2 M, IMO II     | Watercooled, SCAC, SCAC+ HEX, & REMAC |
| B           | 686  | 920  | 2100      | EPA T2 NR, EPA T2 M, IMO II     | Watercooled, SCAC, SCAC+ HEX, & REMAC |
| C           | 746  | 1000 | 2100      | EPA T2 NR, EPA T2 M, IMO II     | Watercooled, SCAC, SCAC+ HEX, & REMAC |
| D           | 828  | 1110 | 2100      | EPA T2 NR, EPA T2 M, IMO II     | Watercooled, SCAC, SCAC+ HEX, & REMAC |
| E           | 914  | 1225 | 2100      | EPA T2 NR, EPA T2 M, IMO II     | Watercooled, SCAC, SCAC+ HEX, & REMAC |
| A           | 597  | 800  | 2100      | EPA T2 NR, EPA T2 M, IMO II     | Haz Loc, SCAC only, Watercooled       |
| A           | 642  | 860  | 2100      | EPA T2 NR, EPA T2 M, IMO II     | Haz Loc, SCAC only, Watercooled       |
| B           | 686  | 920  | 2100      | EPA T2 NR, EPA T2 M, IMO II     | Haz Loc, SCAC only, Watercooled       |
| D           | 828  | 1110 | 2100      | EPA T2 NR, EPA T2 M, IMO II     | Haz Loc, SCAC only, Watercooled       |
| A           | 597  | 800  | 2100      | EPA T2 NR, IMO II               | Dry Manifold                          |
| B           | 708  | 950  | 1800-2100 | China III NR, EPA T2 NR, IMO II | Dry Manifold                          |
| C           | 839  | 1125 | 1800-2100 | China III NR, EPA T2 NR, IMO II | Dry Manifold                          |
| D           | 895  | 1200 | 1800-2100 | China III NR, EPA T2 NR, IMO II | Dry Manifold                          |
| E           | 1007 | 1350 | 1800-2100 | China III NR, EPA T2 NR, IMO II | Dry Manifold                          |
| C           | 839  | 1125 | 1800      | EPA T4f NRNG                    | Dry Manifold                          |

## Specifications

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

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

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.



## Well Service Ratings

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

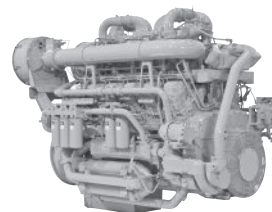
## Specifications

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

Please see spec sheet for more information:

3512B ..... LEHW0055

For diesel engine rating definitions please see page 10.



## Well Service Ratings

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

## Dynamic Gas Blending – Well Service Ratings

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

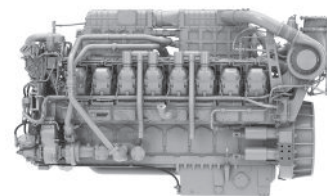
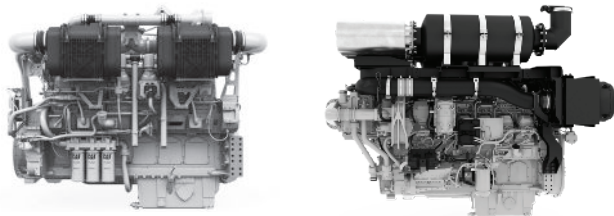
## Specifications

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

Please see spec sheet for more information:

3512C HD ..... LEHW0056, LEHW0090

For diesel engine rating definitions please see page 10.



## Diesel Only - Well Service Ratings

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

## \*Dynamic Gas Blending - Well Service Ratings

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

## China Stage III - Well Service Ratings

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

## Specifications

|                                | L – mm (in)             | W – mm (in) | H – mm (in) | Wt – kg (lbs)  | Disp – L (in³) |
|--------------------------------|-------------------------|-------------|-------------|----------------|----------------|
| <b>EPA T4F Diesel</b>          |                         |             |             |                |                |
| 3512E ATAAC                    | 3099 (122)              | 2235 (88)   | 2718 (107)  | 9646 (21,266)  | 58.9 (3596)    |
| 3512E SCAC                     | 3490 (137.4)            | 2235 (88)   | 2718 (107)  | 10277 (22,657) | 58.9 (3596)    |
| <b>DGB</b>                     |                         |             |             |                |                |
| 3512E ATAAC                    | 3099 (122)              | 2235 (88)   | 2718 (107)  | 9778 (21,486)  | 58.9 (3596)    |
| 3512E SCAC                     | 3490 (137.4)            | 2235 (88)   | 2718 (107)  | 10414 (22,959) | 58.9 (3596)    |
| <b>China Stage III</b>         |                         |             |             |                |                |
| 3512E ATAAC                    | 2242 (88.3)             | 1982 (78)   | 2208 (86.9) | 6270 (13,823)  | 58.9 (3596)    |
| <b>Bore x Stroke – mm (in)</b> | 170 x 215 (6.69 x 8.46) |             |             |                |                |

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

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.

## Well Service Ratings

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

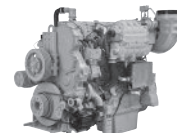
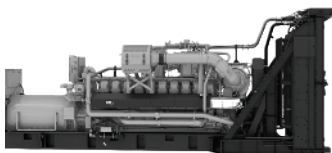
## Specifications

|                                | L – mm (in)             | W – mm (in) | H – mm (in) | Wt – kg (lbs) | Disp – L (in³) |
|--------------------------------|-------------------------|-------------|-------------|---------------|----------------|
| 3516C HD SCAC                  | 3450 (135.83)           | 1688 (66.5) | 2040 (80.3) | 8516 (18,775) | 78 (4765)      |
| <b>Bore x Stroke – mm (in)</b> | 170 x 215 (6.69 x 8.46) |             |             |               |                |

Please see spec sheet for more information:

3516C HD ..... LEHW0159, LEHW0160

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



## Well Service Ratings

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

## Specifications

|                                | L – mm (in)             | W – mm (in) | H – mm (in) | Wt – kg (lbs)  | Disp – L (in <sup>3</sup> ) |
|--------------------------------|-------------------------|-------------|-------------|----------------|-----------------------------|
| <b>G3520 NRM</b>               | 8534 (336)              | 2386 (91)   | 3230 (128s) | 22,000(48,501) | 97.6 (5956)                 |
| <b>Bore x Stroke – mm (in)</b> | 170 x 215 (6.69 x 8.46) |             |             |                |                             |

Please see spec sheet for more information:

G3520 NRM ..... LEHW20286

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

## Well Service Ratings

| Rating Tier      | bkW | bhp  | rpm       | Emissions                               | Notes   |
|------------------|-----|------|-----------|---|---|
| <b>C7 ACERT</b>  |     |      |           |   |   |
| B                | 153 | 205  | 2200      | IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR | Haz Loc, SCAC only, Watercooled                         |
| C                | 172 | 230  | 2200      | IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR | Haz Loc, SCAC only Watercooled                          |
| <b>C9 ACERT</b>  |     |      |           |   |   |
| D                | 254 | 340  | 2200      | IMO II, EPA T3 NR, EU IIIA NR           | Haz Loc, SCAC & REMAC avail, Derate Option, Watercooled |
| <b>C15 ACERT</b> |     |      |           |   |   |
| D                | 400 | 536  | 1800-2000 | EPA T2 M, IMO II, EPA T3 M              | Haz Loc, SCAC, Watercooled                              |
| D                | 400 | 536  | 1800-2100 | EU IIIA NR Constant Speed, IMO II       | Haz Loc, SCAC, Watercooled                              |
| D                | 403 | 540  | 1800-2000 | EPA T2 M, IMO II, EPA T3 M              | Haz Loc, SCAC & REMAC, Watercooled                      |
| <b>C32 ACERT</b> |     |      |           |   |   |
| A                | 597 | 800  | 2100      | EPA T2 NR, EPA T2 M, IMO II             | Haz Loc, SCAC only, Watercooled                         |
| A                | 641 | 860  | 2100      | EPA T2 NR, EPA T2 M, IMO II             | Haz Loc, SCAC only, Watercooled                         |
| B                | 686 | 920  | 2100      | EPA T2 NR, EPA T2 M, IMO II             | Haz Loc, SCAC only, Watercooled                         |
| D                | 826 | 1110 | 2100      | EPA T2 NR, EPA T2 M, IMO II             | Haz Loc, SCAC only, Watercooled                         |

## Specifications

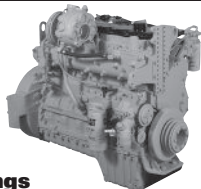
|                                | L – mm (in)                | W – mm (in) | H – mm (in) | Wt – kg (lbs)    | Disp – L (in <sup>3</sup> ) |
|--------------------------------|----------------------------|-------------|-------------|------------------|-----------------------------|
| <b>C7 ACERT</b>                | 1053 (41.5)                | 758 (29.8)  | 1032 (40.6) | 629 (1386)       | 7.2 (439)                   |
| <b>C9 ACERT</b>                | 1092 (43)                  | 828 (32.6)  | 1024 (40.3) | 716 (1578)       | 8.8 (537)                   |
| <b>C15 ACERT</b>               | 1377 (54)                  | 927 (37)    | 1227 (48)   | 1245 (12,743)    | 15.2 (927.6)                |
| <b>C32 ACERT</b>               | 1918 (75.5)                | 1473 (58)   | 1321 (52)   | 2286 (5040)      | 32 (1953)                   |
| <b>Bore x Stroke – mm (in)</b> |                            |             |             |                  |                             |
| <b>C7 ACERT</b>                | 110 x 127 (4.3 x 5)        |             |             | <b>C18 ACERT</b> | 145 x 183 (5.7 x 7.2)       |
| <b>C9 ACERT</b>                | 112 x 149 (4.4 x 5.8)      |             |             | <b>C32 ACERT</b> | 145 x 162 (5.7 x 6.4)       |
| <b>C15 ACERT</b>               | 137.2 x 171.5 (5.4 x 6.75) |             |             |                  |                             |

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.





## Well Service Ratings

| Rating Tier      | bkW | bhp  | rpm       | Emissions                               | Notes                                       |
|------------------|-----|------|-----------|---|---|
| <b>C7 ACERT</b>  |     |      |           |   |   |
| B                | 153 | 205  | 2200      | IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR | Watercooled, SCAC & REMAC avail             |
| C                | 172 | 230  | 2200      | IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR | Watercooled, SCAC & REMAC avail             |
| D                | 205 | 275  | 2200      | IMO II, EPA T2 M, EPA T3 NR, EU IIIA NR | Watercooled, SCAC & REMAC avail             |
| <b>C9 ACERT</b>  |     |      |           |   |   |
| C                | 242 | 325  | 2200      | IMO II, EPA T3 NR, EU IIIA NR           | Watercooled, SCAC & REMAC avail             |
| D                | 254 | 340  | 2200      | IMO II, EPA T3 NR, EU IIIA NR           | Watercooled, SCAC & REMAC avail             |
| <b>C15 ACERT</b> |     |      |           |   |   |
| D                | 400 | 536  | 1800-2000 | EPA T2 M, IMO II, EPA T3 M              | Haz Loc, SCAC, Watercooled                  |
| D                | 403 | 540  | 1800-2000 | EPA T2 M, IMO II, EPA T3 M              | Haz Loc, SCAC & REMAC, Watercooled          |
| <b>C32 ACERT</b> |     |      |           |   |   |
| A                | 597 | 800  | 2100      | EPA T2 NR, EPA T2 M, IMO II             | Watercooled, SCAC, SCAC + HEX & REMAC avail |
| A                | 641 | 860  | 2100      | EPA T2 NR, EPA T2 M, IMO II             | Watercooled, SCAC, SCAC + HEX & REMAC avail |
| B                | 686 | 920  | 2100      | EPA T2 NR, EPA T2 M, IMO II             | Watercooled, SCAC, SCAC + HEX & REMAC avail |
| C                | 746 | 1000 | 2100      | EPA T2 NR, EPA T2 M, IMO II             | Watercooled, SCAC, SCAC + HEX & REMAC avail |
| D                | 828 | 1110 | 2100      | EPA T2 NR, EPA T2 M, IMO II             | Watercooled, SCAC, SCAC + HEX & REMAC avail |
| E                | 913 | 1225 | 2100      | EPA T2 NR, EPA T2 M, IMO II             | Watercooled, SCAC, SCAC + HEX & REMAC avail |

## Specifications

|                  | L – mm (in) | W – mm (in) | H – mm (in) | Wt – kg (lbs) | Disp – L (in <sup>3</sup> ) |
|------------------|-------------|-------------|-------------|---------------|-----------------------------|
| <b>C7 ACERT</b>  | 1053 (41.5) | 758 (29.8)  | 1032 (40.6) | 629 (1386)    | 7.2 (439)                   |
| <b>C9 ACERT</b>  | 1092 (43)   | 828 (32.6)  | 1024 (40.3) | 716 (1578)    | 8.8 (537)                   |
| <b>C32 ACERT</b> | 1918 (75.5) | 1473 (58)   | 1321 (52)   | 2286 (5040)   | 32 (1953)                   |

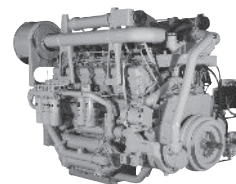
### Bore x Stroke – mm (in)

|                  |                       |
|------------------|-----------------------|
| <b>C7 ACERT</b>  | 110 x 127 (4.3 x 5)   |
| <b>C9 ACERT</b>  | 112 x 149 (4.4 x 5.8) |
| <b>C32 ACERT</b> | 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.



## Well Service Ratings

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

## Specifications

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

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

Please see spec sheet for more information:

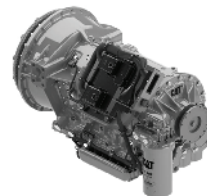
3512 ..... LEHW0055  
3516 ..... LEHW0160

For diesel engine rating definitions please see page 10.

| Engine       | Transmission | Max hp | Page Number |
|--------------|--------------|--------|-------------|
| C9<br>ACERT  | CX31-P600    | 600    | 32          |
| C11<br>ACERT | CX31-P600    | 600    | 32          |
| C13<br>ACERT | CX31-P600    | 600    | 32          |
| C15<br>ACERT | CX31-P600    | 600    | 32          |
| C18<br>ACERT | CX35-P800    | 800    | 33-34       |
| C18<br>ACERT | CX35-P800    | 800    | 33-34       |
| C27<br>ACERT | TH48-E70     | 1200   | 38          |
| C32<br>ACERT | TH48-E70     | 1500   | 38          |
| 3512B        | CX48-P2300   | 2300   | 35          |
| 3512C        | CX48-P2300   | 2300   | 35          |
|              | TH53-E60     | 2500   | 36          |
|              | TH55-E70     | 3300   | 39          |
|              | TH55-E90     | 3300   | 40          |
| 3512E        | CX48-P2300   | 2300   | 35          |
|              | TH53-E60     | 2500   | 36          |
|              | CX48-P3060   | 3000   | 37          |
|              | TH55-E70     | 3300   | 39          |
| 3516C        | TH55-E90     | 3300   | 40          |
|              | TH55-E70     | 3300   | 39          |
|              | TH55-E90     | 3300   | 40          |



CX31-P600 IPD Version



CX31-P600 Standard Version

### Ratings

|                     |                          |
|---------------------|--------------------------|
| Gross Input Power   | 447 kW (600 hp)          |
| Gross Input Torque  | 2746 N•m<br>(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® 8-bolt 355 kW/476 hp at 5 o'clock rear

### Transmission Speed Ratios

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

|                                  |       |
|----------------------------------|-------|
| Stall Torque Ratio @ Rated Speed |       |
| < 400 hp engine                  | 2.669 |
| > 400 hp engine                  | 2.324 |

### Dimensions

|         |                   |
|---------|-------------------|
| Height: | 719 mm (28.3 in)  |
| Width:  | 613 mm (24.1 in)  |
| Length: | 1098 mm (43.2 in) |

### Weight

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

### Spec Sheet

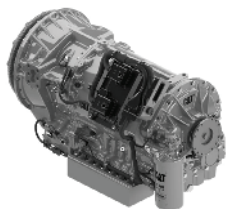
LEHW0008

\*Viewed from rear

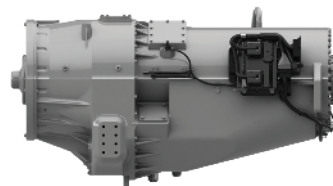
\*\*Please see Application and Installation Guide (REHS3513) for details on combined PTO power rating



CX35-P800 IPD Version



CX35-P800 Standard Version



### Ratings

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

### Output Connection Options

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 input\*\*

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

### Ratings

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

### Output Connection (Yoke)

GWB 390.60/GWB 390.65

### Power Take Off

(Pump Auxiliary Drive)

### PTO Mountings and Locations\*

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

Maximum PTO Power:

|                                    |
|------------------------------------|
| 150 hp @1900 rpm (Cat PTO)         |
| 20 hp @1900 rpm (Third-Party PTOs) |

### Transmission Speed Ratios

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

### Dimensions

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

### Weight

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

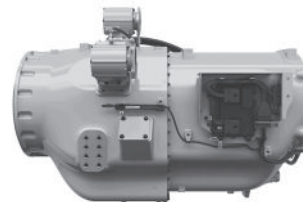
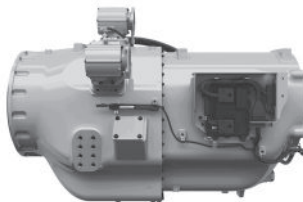
### Spec Sheet

LEHW0148  
LEHW20261 - Cat PTO

\*\*Viewed from rear

\*\*\*Please see Application and Installation Guide (REHS3515) for details on combined PTO power rating

\*Viewed from rear



**Ratings**

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

**Output Connection Options**

GWB 390.60, 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 (Third-Party PTOs)

**Transmission Speed Ratios**

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

**Dimensions**

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

**Weight**

Approximate Weight  
 With Coupling 2005 kg (4420 lbs)

**Spec Sheet**

LEHW0374  
 LEHW20261 - Cat PTO

\*\*Viewed from rear

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

**Ratings**

Gross Input Power\* 2235KW (3000 hp)  
 Gross Input Torque 12086 N•m (8914 lb-ft)  
 Rated Input Speed 1900 rpm  
 Maximum Input Speed 2025 rpm

**Output Connection Options**

GWB 390.70

**Power Take Off**

(Pump Auxiliary Drive)

**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 (Third-Party PTOs)

**Transmission Speed Ratios**

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

**Dimensions**

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

**Weight**

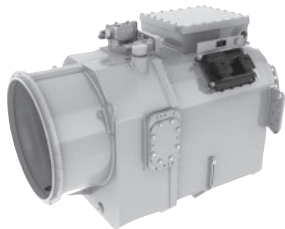
Approximate Weight  
 With Coupling 2050 kg (4520 lbs)

**Spec Sheet**

LEHW0344  
 LEHW20261 - Cat PTO

\*\*Viewed from rear

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



### Ratings

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

### Output Connection (Yoke)

GWB 390.60/GWB 390.65

### Power Take Off

(Pump Auxiliary Drive)

### PTO Mountings and Locations\*

Drive: Engine-driven PTO  
Location: 3 o'clock, 5 o'clock,  
& 9 o'clock

Mountings: SAE J704 8 bolt  
SAE J744 C-Size (Optional Cat bolt-on PTO)

Maximum PTO Power:  
3 o'clock - 150 hp @ 1900 rpm (Cat PTO)  
5 o'clock - 90 hp @ 1900 rpm (Cat PTO)  
9 o'clock - 150 hp @ 1900 rpm (Cat PTO)  
20 hp @ 1900 rpm All locations (Third-Party PTO)

\*\* 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.

### Transmission Speed Ratios

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

Stall Torque Ratio 2.20

### Dimensions

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

### Weight

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

### Spec Sheet

LEHW1002  
LEHW20261 - Cat PTO

### Ratings

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

### Output Connection (Yoke)

GWB 390.65 – 2500 hp  
GWB 390.70 – 3000+ hp

### Power Take Off

(Pump Auxiliary Drive)

### PTO Mountings and Locations\*

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

Maximum PTO Power:  
3 o'clock-150 hp @1900 rpm (Cat PTO)  
20 hp @1900 rpm (Third-Party PTOs)  
11 o'clock- 150 hp @1900 rpm

\*Viewed from rear

### Transmission Speed Ratios

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

Stall Torque Ratio 2.23

### Dimensions

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

### Weight

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

### Spec Sheet

LEHW1006  
LEHW20261 - Cat PTO



## Ratings

|                     |                         |
|---------------------|-------------------------|
| Gross Input Power   | 2461 kW (3300 hp)       |
| Gross Input Torque  | 12 677 N•m (9350 lb-ft) |
| Rated Input Speed   | 1900 rpm                |
| Maximum Input Speed | 1970 rpm                |

## Output Connection (Yoke)

|                       |
|-----------------------|
| GWB 390.65 – 2500 hp  |
| GWB 390.70 – 3000+ hp |

## Power Take Off

(Pump Auxiliary Drive)

## PTO Mountings and Locations\*

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

## Maximum PTO Power:

|                                      |
|--------------------------------------|
| 3 o'clock-150 hp @1900 rpm (Cat PTO) |
| 20 hp @1900 rpm (Third-Party PTOs)   |
| 11 o'clock- 150 hp @1900 rpm         |

## 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

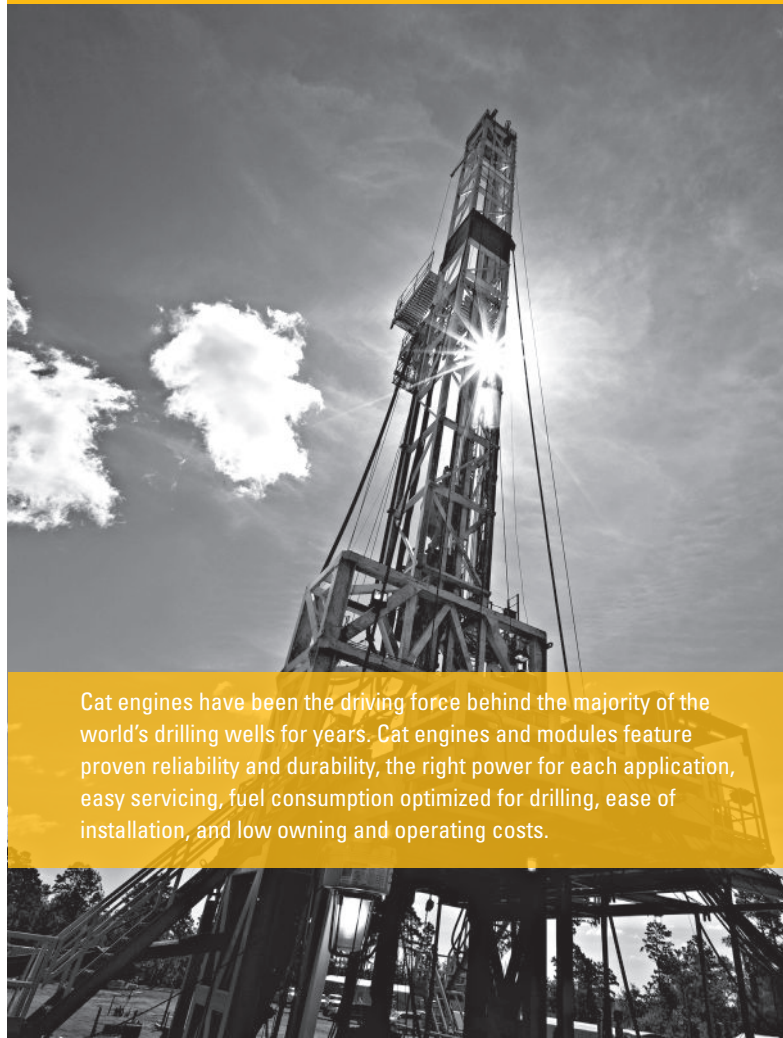
|                              |                    |
|------------------------------|--------------------|
| Approximate Dry Weight       |                    |
| Transmission                 | 2755 kg (6075 lbs) |
| Engine/Transmission Coupling |                    |
| 2500 hp                     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

## Spec Sheet

|                     |
|---------------------|
| LEHW1006            |
| LEHW20261 - Cat PTO |

\*Viewed from rear

# Land Drilling Ratings



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



## Land Mechanical Drilling Engine Ratings

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

\*Available with Cat compression brake

## Land Drilling Module Ratings

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

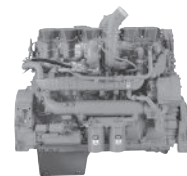
## Specifications

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

Please see spec sheet for more information:

C15 ACERT (T3).....LEHW0061      C15 ACERT (T4) ..... LEHW0097  
 C15 ACERT Module.....LEHW0010

For diesel engine rating definitions please see page 10.



## Land Mechanical Drilling Engine Ratings

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

\*Available with Cat compression brake

## Land Drilling Module Ratings

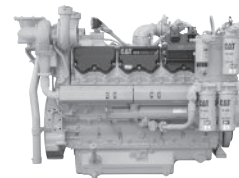
| Duty                  | bkW | ekW | kVA | bhp | Emissions                 |
|-----------------------|-----|-----|-----|-----|---------------------------|
| <b>50 Hz/1500 rpm</b> |     |     |     |     |                           |
| Prime                 | 490 | 436 | 545 | 657 | China II NRNC, EU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

Ratings continued on page 44

Ratings continued from page 43

## Specifications

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



## Land Mechanical Drilling Engine Ratings

| Rating | Tier | bkW  | bhp       | rpm | Emissions          |
|--------|------|------|-----------|-----|--------------------|
| A      | 597  | 800  | 1800-2100 |     | IMO II             |
| B      | 653  | 875  | 1800-2100 |     | IMO II             |
| C      | 708  | 950  | 1800-2100 |     | IMO II             |
| D      | 783  | 1050 | 1800-2100 |     | IMO II             |
| E      | 858  | 1150 | 1800-2100 |     | IMO II             |
| A      | 597  | 800  | 1800-2100 |     | EPA T4i NRNG       |
| B      | 653  | 875  | 1800-2100 |     | EPA T4i NRNG       |
| C      | 708  | 950  | 1800-2100 |     | EPA T4i NRNG       |
| D      | 783  | 1050 | 1800-2100 |     | EPA T4i NRNG       |
| A      | 597  | 800  | 1800      |     | EPA T4F NRNG, EU V |
| B      | 652  | 875  | 1800      |     | EPA T4F NRNG, EU V |
| C      | 708  | 950  | 1800      |     | EPA T4F NRNG, EU V |
| D      | 783  | 1050 | 1800      |     | EPA T4F NRNG, EU V |

## Land Electric Drilling Module Ratings

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

## Specifications

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

Please see spec sheet for more information:

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

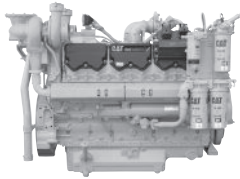
For diesel engine rating definitions please see page 10.

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.





## Land Mechanical Drilling Engine Ratings

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

## Land Electric Drilling Module Ratings

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

## Specifications

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

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

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

|                       |          |
|-----------------------|----------|
| C32 ACERT (T2).....   | LEHW0049 |
| C32 ACERT (T4i).....  | LEHW0100 |
| C32 ACERT Module..... | LEHW0110 |

For diesel engine rating definitions please see page 10.

## Land Mechanical Drilling Engine Ratings

| Model | Duty    | bkW  | bhp  | rpm  | Emissions |
|-------|---------|------|------|------|-----------|
| 3508  | A       | 507  | 680  | 1200 | NC        |
| 3508  | Drill-M | 567  | 760  | 1200 | NC        |
| 3508  | C       | 611  | 820  | 1300 | NC        |
| 3508  | A       | 638  | 855  | 1800 | NC        |
| 3508  | C       | 746  | 1000 | 1800 | NC        |
| 3512  | A       | 761  | 1020 | 1200 | NC        |
| 3512  | Drill-M | 764  | 1025 | 1200 | NC        |
| 3512  | C       | 858  | 1150 | 1300 | NC        |
| 3512  | Drill-M | 932  | 1250 | 1200 | NC        |
| 3512  | A       | 955  | 1280 | 1800 | NC        |
| 3512  | C       | 1119 | 1500 | 1800 | NC        |
| 3516  | Drill-M | 1230 | 1649 | 1200 | NC        |

## Land Electric-Drive Drilling Module Ratings

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

## Specifications

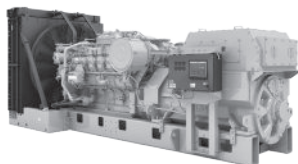
|                    | L – mm (in)  | W – mm (in) | H – mm (in)  | Wt – kg (lbs)   | Disp – L (in <sup>3</sup> ) |
|--------------------|--------------|-------------|--------------|-----------------|-----------------------------|
| <b>3508 Engine</b> | 2136 (84.1)  | 1702 (67.0) | 1720 (67.7)  | 4309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

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

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

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

For diesel engine rating definitions please see page 10.



## Land Mechanical Drilling Engine Ratings

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

## Land Electric-Drive Drilling Engine Ratings

| Model          | Duty     | bkW  | bhp  | rpm  | Emissions |
|----------------|----------|------|------|------|-----------|
| 3508B          | Drill-EI | 682  | 915  | 1200 | NC        |
| 3512B          | Drill-EI | 1101 | 1475 | 1200 | NC        |
| 3512B with DGB | Drill-EI | 933  | 1251 | 1000 | NC        |

## Land Electric-Drive Drilling Module Ratings

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

## Specifications

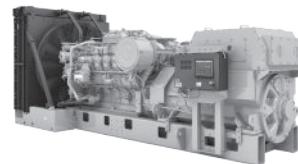
|                         | L – mm (in)  | W – mm (in) | H – mm (in)  | Wt – kg (lbs)   | Disp – L (in <sup>3</sup> ) |
|-------------------------|--------------|-------------|--------------|-----------------|-----------------------------|
| <b>3508B Engine</b>     | 2136 (84.1)  | 1702 (67)   | 2024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

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

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.



## Land Mechanical Drilling Engine Ratings

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

## Land Electric-Drive Drilling Engine Ratings

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

## Land Electric-Drive Drilling Module Ratings

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

## Specifications

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

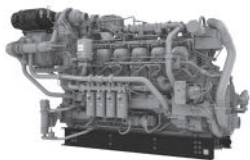
Bore x Stroke – mm (in) 170 x 190 (6.7 x 7.5)

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

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.



## Land Electric-Drive Drilling Engine Ratings

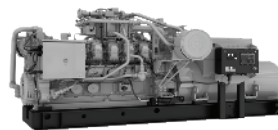
| Model | Duty     | bkW  | bhp  | rpm  | Emissions    |
|-------|----------|------|------|------|--------------|
| 3512E | Drill-EI | 1102 | 1477 | 1200 | EPA T4F NRNG |
| 3512E | Drill-EI | 1306 | 1750 | 1200 | EPA T4F NRNG |

## Specifications

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

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

For diesel engine rating definitions please see page 10.



## Land Electric-Drive Drilling Engine Ratings

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



## Land Drilling Energy Storage System Ratings

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

## Specifications

|  | L – mm (in)    | W – mm (in)   | H – mm (in)   | Disp – L (in <sup>3</sup> ) |
|--|----------------|---------------|---------------|-----------------------------|
| G3512 Engine   | 4979.3 (196.0) | 2154.4 (84.8) | 2277.1 (89.6) | 52 (3173)                   |
| <b>Bore x Stroke – mm (in)</b> 170 x 190 (6.7 x 7.5) |                |               |               |                             |
|  | L – m (ft)     | W – m (ft)    | H – m (ft)    | Weight - kg (lbs)           |
| PGS1260 HD   | 6.1(20)        | 2.4 (8)       | 2.8 (9.5)     | 16,500 (36,376)             |

Please see spec sheet for more information:  
 G3512 Engine ..... LEHW20188  
 PGS1260 HD ..... LEHW0282

For diesel engine rating definitions please see page 10.

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

## Land Production Ratings



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

## 50 Hz Oilfield Diesel Generator Set Ratings – 365-1000 kVA

| Model           | Duty  | kW  |     | kVA  |      | bhp | Emissions                     |
|-----------------|-------|-----|-----|------|------|-----|-------------------------------|
|                 |       | bkW | ekW | kVA  | bhp  |     |                               |
| <b>1500 rpm</b> |       |     |     |      |      |     |                               |
| C15 ACERT       | Prime | 331 | 292 | 365  | 444  |     | EU II NRNC, China II NRNC, NC |
| C15 ACERT       | Prime | 410 | 364 | 455  | 549  |     | EU II NRNC, China II NRNC, NC |
| C18 ACERT       | Prime | 483 | 436 | 545  | 647  |     | EU II NRNC, China II NRNC, NC |
| C32 ACERT       | Prime | 882 | 800 | 1000 | 1182 |     | NC                            |

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

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

Ratings continued on page 55

Ratings continued from page 54

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

## 60 Hz Generator Set Ratings – 180-4600 ekW

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

\* Package available through DTO

Ratings continued on page 57

Ratings continued from page 58

## 60 Hz Generator Set Ratings – 180-4600 ekW

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

Ratings continued on page 59

Ratings continued on page 59

## 60 Hz Generator Set Ratings – 180-4600 ekW

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

Ratings continued from page 58

## 60 Hz Generator Set Ratings – 180-4600 ekW

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

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

## Generator Set Ratings – 1056-1600 ekW

| ekW                     | kVA  | Duty  | Generator Set Model | Notes                                  |
|-------------------------|------|-------|---------------------|--|
| <b>60 Hz – 1800 rpm</b> |      |       |                     |  |
| 1360                    | 1700 | Prime | 3512B with DGB      | Diesel with up to 70%<br>NG/LNG/CNG/FG |
| <b>50 Hz – 1500 rpm</b> |      |       |                     |  |
| 1056                    | 1320 | Cont  | 3512B with DGB      | Diesel with up to 70%<br>NG/LNG/CNG/FG |
| 1200                    | 1500 | Prime | 3512B with DGB      | Diesel with up to 70%<br>NG/LNG/CNG/FG |
| 1600                    | 2000 | Prime | 3516B with DGB      | Diesel with up to 70%<br>NG/LNG/CNG/FG |

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

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

## 50 Hz Generator Set Ratings – 70-4300 ekW

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



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

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

## 60 Hz Generator Set Ratings - 85-4050 ekW

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

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

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

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

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Ratings continued from page 63

## Mechanical Drive Engine Ratings; Lesser Regulated Areas - 168-1275 bkW

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

## Mechanical Drive Engine Ratings - 71-10000 bkW

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

# Mobile Gas Solutions



## Mobile Gas Generator Set Ratings

| Model                         | Rating Tier | bkW | bhp | rpm  | Emissions                      | Notes  |
|-------------------------------|-------------|-----|-----|------|--------------------------------|--|
| <b>G3306B NA</b>              | Cont        | 108 | 145 | 1800 | NSPS Site<br>Compliant Capable | With Caterpillar or<br>Customer-provided<br>AFRC & Aftertreatment*<br>0.5 & 1.0 g/bhp-hr NOx |
| <b>G3306B NA</b>              | Cont        | 108 | 145 | 1800 | Export Only                    | 2% O <sub>2</sub> Emission Rating  |
| <b>G3306B TA<sup>1</sup></b>  | Cont        | 151 | 203 | 1800 | NSPS Site<br>Compliant Capable | With Caterpillar or<br>Customer-provided<br>AFRC & Aftertreatment*<br>0.5 & 1.0 g/bhp-hr NOx |
| <b>G3306B TA<sup>1</sup></b>  | Cont        | 151 | 203 | 1800 | Export Only                    | 2% O <sub>2</sub> Emission Rating  |
| <b>G3306B TAA<sup>1</sup></b> | Cont        | 157 | 211 | 1800 | NSPS Site<br>Compliant Capable | With Caterpillar or<br>Customer-provided<br>AFRC & Aftertreatment*<br>0.5 & 1.0 g/bhp-hr NOx |

\*Dependent upon engine configuration selected.

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

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

## Specifications

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

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

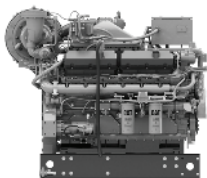
**Please see spec sheet for more information:**

G3306B TA ..... LEHW8815

G3306B NA ..... LEHW0111

For gas engine rating conditions please see page 10.

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



### Gas Ratings

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

### Specifications

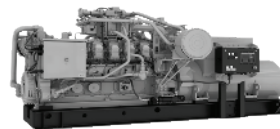
|                                | L – mm (in)         | W – mm (in) | H – mm (in) | Wt – kg (lbs) | Disp – L (in <sup>3</sup> ) |
|--------------------------------|---------------------|-------------|-------------|---------------|-----------------------------|
| CG137-12                       | 2092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

Please see spec sheet for more information:

CG137-12 Integrated Catalyst ..... LEHW0119

CG137-12 ..... LEHW0270

For gas engine rating conditions please see page 10.



### Mobile Gas Generator Set Ratings

| Model | Duty       | bkW  | bhp  | rpm  | Emissions |
|-------|------------|------|------|------|-----------|
| G3512 | Continuous | 1095 | 1468 | 1800 | EPA NRM   |

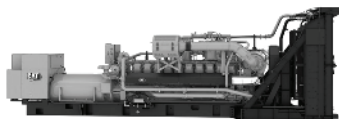
### Specifications

|                                | L – mm (in)           | W – mm (in)   | H – mm (in)   | Disp – L (in <sup>3</sup> ) |
|--------------------------------|-----------------------|---------------|---------------|-----------------------------|
| G3512 Engine                   | 4979.3 (196.0)        | 2154.4 (84.8) | 2277.1 (89.6) | 52 (3173)                   |
| <b>Bore x Stroke – mm (in)</b> | 170 x 190 (6.7 x 7.5) |               |               |                             |

Please see spec sheet for more information:

G3512 Engine ..... LEHW20188

For diesel engine rating definitions please see page 10.



**Mobile Gas Generator Set Ratings**

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

**Specifications**

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

**Please see spec sheet for more information:**  
 G3520 Engine ..... LEHW20286

For diesel engine rating definitions please see page 10.

# Energy Storage Solutions



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



**Energy Storage Solutions Ratings**

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

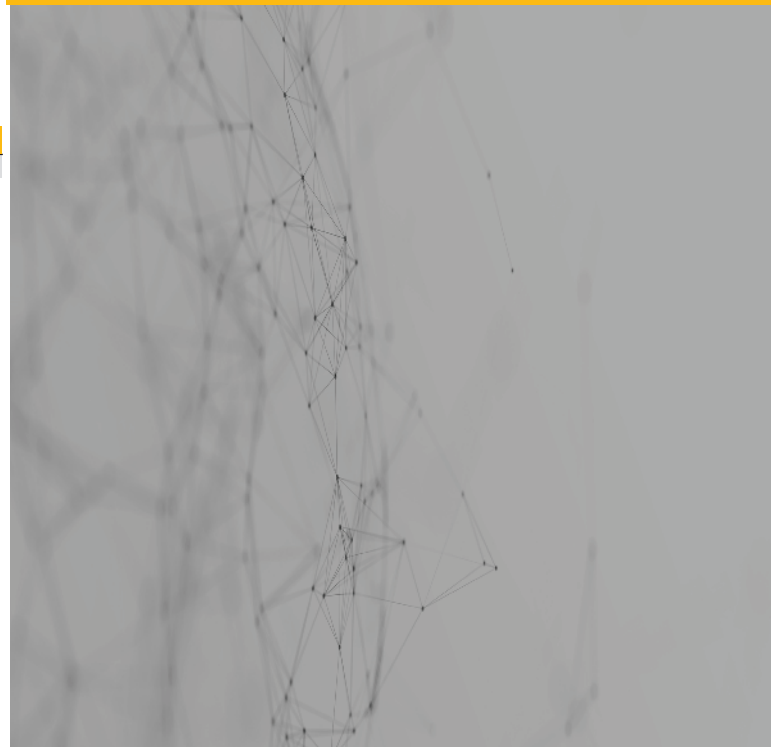
**Specifications**

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

Please see spec sheet for more information:  
 PGS1260 HD .....LEHW0282

For diesel engine rating definitions please see page 10.

# Controls & Automation



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

## Cat Smart Energy Management System

Cat Smart EMS provides operators with a digital transportation enabling data driven power performance. Reduce costs, increase automation, and improve safety right at your fingertips with Smart EMS.

### FUEL SAVINGS

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

### MAINTENANCE

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

### SAFETY

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

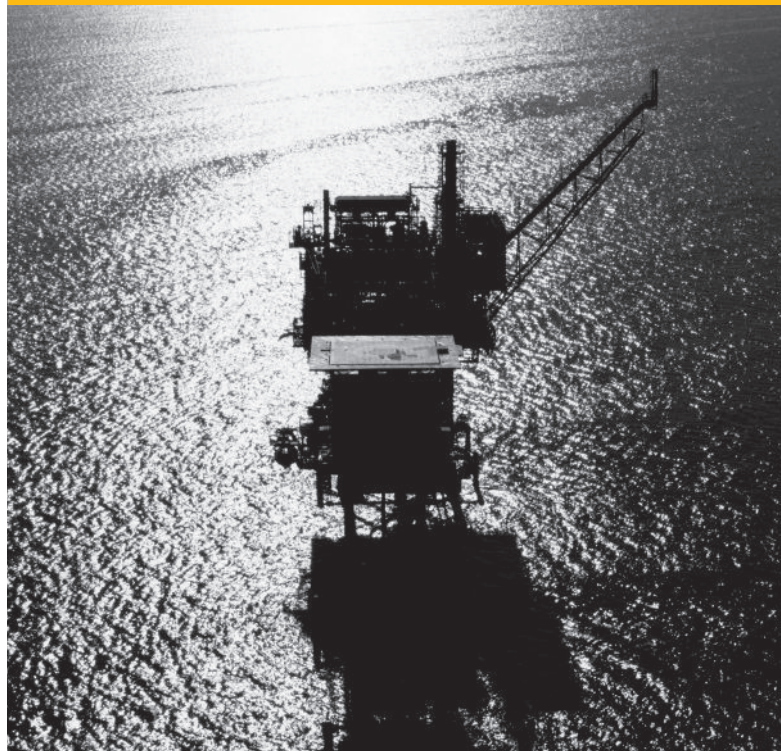
### SIMPLIFIED RIG CONTROLS

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

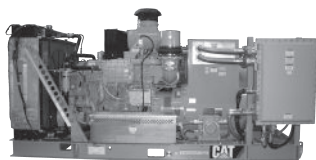


For diesel engine rating definitions please see page 10.

# 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.

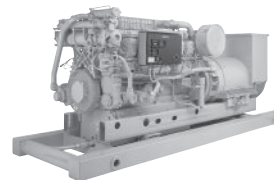


## Generator Sets

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

## Offshore Hazardous Location Generator Set Ratings

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



## Offshore Generator Set Ratings

| Model                 | Duty     | bkW  | ekW <sup>1</sup> | kVA <sup>1</sup> | Emissions |
|-----------------------|----------|------|------------------|------------------|-----------|
| <b>1500 rpm/50 Hz</b> |          |      |                  |                  |           |
| 3512B                 | OS-Prime | 1257 | 1200             | 1500             | IMO II    |
| 3516B                 | OS-Prime | 1717 | 1600             | 2000             | IMO II    |
| <b>1800 rpm/60 Hz</b> |          |      |                  |                  |           |
| 3508B                 | OS-Prime | 968  | 910              | 1138             | IMO I     |
| 3512B                 | OS-Prime | 1424 | 1360             | 1700             | IMO I     |
| 3516B                 | OS-Prime | 1901 | 1825             | 2281             | IMO I     |

## Specifications<sup>2</sup>

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

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

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

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

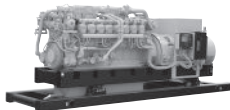
<sup>2</sup>Dimensions and weights are dependent on generator and options selected. See general installation drawings for details.

### Please see spec sheet for more information:

|             |                    |
|-------------|--------------------|
| 3508B ..... | LEHW0123           |
| 3512B ..... | LEHW0124, LEHW0125 |
| 3516B ..... | LEHW0126, LEHW0127 |

For diesel engine rating definitions please see page 10.





## Offshore Generator Set Ratings

| Model                 | Duty      | bkW  | ekW <sup>1</sup> | kVA <sup>1</sup> | Emissions               |
|-----------------------|-----------|------|------------------|------------------|-------------------------|
| <b>1200 rpm/60 Hz</b> |           |      |                  |                  |                         |
| 3512C                 | MCR       | 1101 | 1030             | 1470             | IMO II                  |
| 3516C HD*             | MCR       | 1383 | 1285             | 1836             | IMO II/III <sup>3</sup> |
| 3516C HD*             | MCR       | 1603 | 1530             | 2186             | IMO II/III <sup>3</sup> |
| <b>1500 rpm/50 Hz</b> |           |      |                  |                  |                         |
| 3508C                 | OS-Prime  | 673  | 640              | 799              | IMO II                  |
| 3508C                 | OS-Prime  | 820  | 780              | 974              | IMO II                  |
| 3512C-HD              | OS-Prime  | 1362 | 1294             | 1618             | IMO II                  |
| 3516C-HD              | OS-Prime  | 1717 | 1631             | 2039             | IMO II                  |
| 3516C-HD              | OS-Prime  | 1940 | 1843             | 2304             | IMO II                  |
| <b>1800 rpm/60 Hz</b> |           |      |                  |                  |                         |
| 3512C                 | OS-Prime  | 1432 | 1360             | 1700             | IMO II                  |
| 3512C HD              | OS-Prime  | 1632 | 1550             | 1938             | IMO II                  |
| 3512C HD              | OS-Prime  | 1790 | 1700             | 2125             | IMO II                  |
| 3516C HD              | OS-Prime  | 2350 | 2250             | 2813             | IMO II                  |
| 3512E                 | OS- Prime | 1632 | 1550             | 1938             | IMO III                 |
| 3512E                 | OS- Prime | 1789 | 1700             | 2125             | IMO III                 |
| 3516E                 | OS- Prime | 1921 | 1825             | 2281             | IMO III                 |
| 3516E                 | OS- Prime | 2105 | 2000             | 2500             | IMO III                 |
| 3516E                 | OS- Prime | 2368 | 2250             | 2813             | IMO III                 |

\*Available with increased exhaust backpressure.

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

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

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

## Specifications<sup>2</sup>

|                  | L – mm (in)  | W – mm (in) | H – mm (in) | Wt – kg (lbs)             | Disp – L (in <sup>3</sup> ) |
|------------------|--------------|-------------|-------------|---------------------------|-----------------------------|
| <b>3512C</b>     | 5448 (214.5) | 1825 (71.9) | 2313 (91)   | 14 975 (33,300)           | 51.8 (3161)                 |
| <b>3516C HD</b>  | 6705 (264)   | 1986 (78.2) | 2535 (99.8) | 18 800 (41,400)           | 78 (4764)                   |
| <b>3512E min</b> | 2644 (104.1) | 2113 (83.2) | 2036 (80.2) | 4960 (10,395)             | 34.5 (2107)                 |
| <b>max</b>       | 3272 (128.8) | 2154 (84.8) | 2160 (85.0) |                           |                             |
| <b>3512E min</b> | 3185 (125.4) | 2130 (83.9) | 2142 (84.3) | 6532-7411 (14,400-16,340) | 51.8 (161)                  |
| <b>max</b>       | 3185 (125.4) | 2130 (83.9) | 2142 (84.3) |                           |                             |

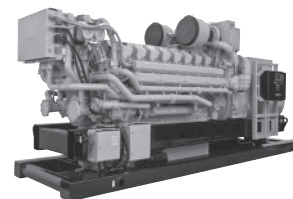
**Bore x Stroke – mm (in)** 170 x 190 (6.7 x 7.5)

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

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.



## Offshore Generator Set Rating

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

## Specifications<sup>2</sup>

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

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

\*Available with increased exhaust backpressure.

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

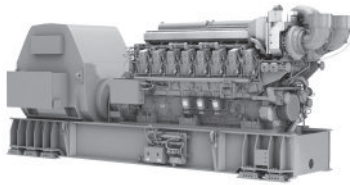
<sup>2</sup>Dimensions and weights are dependent on generator and options selected. See general installation drawings for details.

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

Please see spec sheet for more information:

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

For diesel engine rating definitions please see page 10.



## Offshore Generator Set Ratings

| Model                | Duty  | bkW  | ekW <sup>1</sup> | kVA <sup>1</sup> | Emissions         |
|----------------------|-------|------|------------------|------------------|-------------------|
| <b>900 rpm/60 Hz</b> |       |      |                  |                  |                   |
| C280-6               | Cont  | 1730 | 1650             | 2063             | IMO II            |
| C280-6               | Cont  | 1900 | 1820             | 2275             | IMO II            |
| C280-8               | Cont  | 2300 | 2200             | 2250             | EPA T4i / IMO III |
| C280-8               | Cont  | 2530 | 2420             | 3025             | EPA T4i / IMO III |
| C280-8               | Cont  | 2300 | 2200             | 2750             | IMO II            |
| C280-8               | Prime | 2530 | 2420             | 3025             | IMO II            |
| C280-8               | MCR   | 2530 | 2420             | 3025             | IMO II            |
| C280-12              | Cont  | 3460 | 3300             | 4125             | IMO II            |
| C280-12              | Prime | 3800 | 3640             | 4550             | IMO II            |
| C280-12              | Cont  | 3460 | 3300             | 4125             | EPA T4i / IMO III |
| C280-12              | MCR   | 3800 | 3650             | 4563             | IMO II            |
| C280-12              | MCR   | 3800 | 3650             | 4563             | IMO II            |
| C280-16              | Cont  | 4600 | 4400             | 5500             | EPA T4i / IMO III |
| C280-16              | Prime | 5060 | 4840             | 6050             | EPA T4i / IMO III |
| C280-16              | Cont  | 4600 | 4400             | 5500             | IMO II            |
| C280-16              | Prime | 5060 | 4840             | 6050             | IMO II            |
| C280-16              | MCR   | 5730 | 5500             | 6875             | IMO II            |
| C280-16              | MCR   | 5730 | 5500             | 6875             | IMO II            |
| C280-16              | MCR   | 5060 | 4840             | 6050             | IMO II            |

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

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

<sup>1</sup>Available with increased exhaust backpressure.

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

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

Ratings continued on page 81

Ratings continued from page 80

| Model                 | Duty  | bkW  | ekW <sup>1</sup> | kVA <sup>1</sup> | Emissions |
|-----------------------|-------|------|------------------|------------------|-----------|
| <b>1000 rpm/50 Hz</b> |       |      |                  |                  |           |
| C280-6                | Cont  | 1850 | 1760             | 2200             | IMO II    |
| C280-6                | Cont  | 2030 | 1940             | 2425             | IMO II    |
| C280-8                | Prime | 2710 | 2600             | 3250             | IMO II    |
| C280-8                | Cont  | 2460 | 2350             | 2938             | IMO II    |
| C280-8                | MCR   | 2710 | 2600             | 3250             | IMO II    |
| C280-12               | Cont  | 3700 | 3520             | 4400             | IMO II    |
| C280-12               | Prime | 4060 | 3880             | 4850             | IMO II    |
| C280-12               | MCR   | 4060 | 3900             | 4875             | IMO II    |
| C280-16               | Cont  | 4920 | 4700             | 5875             | IMO II    |
| C280-16               | Prime | 5420 | 5200             | 6500             | IMO II    |
| C280-16               | MCR   | 5420 | 5200             | 6500             | IMO II    |

## Specifications<sup>3</sup>

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

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

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

Please see spec sheet for more information:

C280-8 ..... LEHW0086, LEHW0092

C280-12 ..... LEHW0087, LEHW0093

C280-16 ..... LEHW0088, LEHW0094, LEHW0182

For diesel engine rating definitions please see page 10.

# Gas Compression Ratings



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

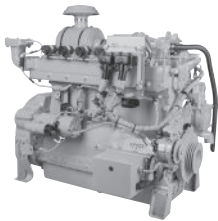
## Gas Compression

### 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       |

### Electric Drive Motors Ratings

| bhp  | Engine | Page Number |
|------|--------|-------------|
| 1500 | CN1586 | 92-93       |
| 2000 | CN2086 | 92-93       |
| 2500 | CN2586 | 92-93       |
| 3000 | CN3086 | 92-93       |
| 3500 | CN3586 | 92-93       |
| 3621 | CN2785 | 92-93       |
| 4000 | CN4086 | 92-93       |
| 5000 | CN5086 | 92-93       |
| 5500 | CN5586 | 92-93       |



## Gas Ratings

| Model                   | Rating Tier | bkW | bhp | rpm  | Emissions                      | Notes  |
|-------------------------|-------------|-----|-----|------|--------------------------------|--|
| G3304B NA               | Cont        | 71  | 95  | 1800 | NSPS Site<br>Compliant Capable | With Caterpillar or<br>Customer-provided<br>AFRC & Aftertreatment*<br>0.5 & 1.0 g/bhp-hr NOx |
| G3304B NA               | Cont        | 71  | 95  | 1800 | Export Only                    | 2% O <sub>2</sub> Emission Rating  |
| G3306B NA               | Cont        | 108 | 145 | 1800 | NSPS Site<br>Compliant Capable | With Caterpillar or<br>Customer-provided<br>AFRC & Aftertreatment*<br>0.5 & 1.0 g/bhp-hr NOx |
| G3306B NA               | Cont        | 108 | 145 | 1800 | Export Only                    | 2% O <sub>2</sub> Emission Rating  |
| G3306B TA <sup>1</sup>  | Cont        | 151 | 203 | 1800 | NSPS Site<br>Compliant Capable | With Caterpillar or<br>Customer-provided<br>AFRC & Aftertreatment*<br>0.5 & 1.0 g/bhp-hr NOx |
| G3306B TA <sup>1</sup>  | Cont        | 151 | 203 | 1800 | Export Only                    | 2% O <sub>2</sub> Emission Rating  |
| G3306B TAA <sup>1</sup> | Cont        | 157 | 211 | 1800 | NSPS Site<br>Compliant Capable | With Caterpillar or<br>Customer-provided<br>AFRC & Aftertreatment*<br>0.5 & 1.0 g/bhp-hr NOx |

<sup>1</sup>Dependent upon engine configuration selected.

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

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

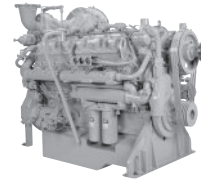
## Specifications

|                                | L – mm (in)                   | W – mm (in) | H – mm (in) | Wt – kg (lbs) | Disp – L (in <sup>3</sup> ) |
|--------------------------------|-------------------------------|-------------|-------------|---------------|-----------------------------|
| G3304                          | 1158 (46)                     | 744 (29)    | 1170 (46)   | 757 (1670)    | 7 (425)                     |
| G3306                          | 1539 (60)                     | 978 (38)    | 1261 (50)   | 948 (2090)    | 10.5 (640)                  |
| <b>Bore x Stroke – mm (in)</b> | <b>121 x 152 (4.75 x 6.0)</b> |             |             |               |                             |

Please see spec sheet for more information:

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

For gas engine rating conditions please see page 10.



## Gas Ratings

| Model                  | Rating Tier | bkW | bhp | rpm  | Emissions                                   | Notes   |
|------------------------|-------------|-----|-----|------|---|---|
| G3406 NA               | Cont        | 160 | 215 | 1800 | NSPS Site<br>Compliant Capable              | With Customer-supplied<br>AFRC & Aftertreatment<br>0.5% O <sub>2</sub> or 2% O <sub>2</sub><br>Set Points |
| G3406 TA <sup>1</sup>  | Cont        | 206 | 276 | 1800 | NSPS Site<br>Compliant Capable              | With Customer-supplied<br>AFRC & Aftertreatment<br>0.5% O <sub>2</sub> Set Point                          |
| G3406 TA <sup>1</sup>  | Cont        | 242 | 325 | 1800 | Export Only                                 | 2% O <sub>2</sub> Emission Rating   |
| G3408 NA               | Cont        | 190 | 255 | 1800 | NSPS Site<br>Compliant Capable              | With Customer-supplied<br>AFRC & Aftertreatment<br>0.5% O <sub>2</sub> or 2% O <sub>2</sub><br>Set Points |
| G3408 TA <sup>1</sup>  | Cont        | 298 | 400 | 1800 | Export Only                                 | 2% O <sub>2</sub> Emission Rating   |
| G3408C LE <sup>1</sup> | Cont        | 317 | 425 | 1800 | NSPS Site<br>Compliant Capable <sup>2</sup> | With Customer-supplied<br>Aftertreatment  |
| G3412 TA <sup>1</sup>  | Cont        | 448 | 600 | 1800 | Export Only                                 | 2% O <sub>2</sub> Set Point   |
| G3412C LE <sup>1</sup> | Cont        | 475 | 637 | 1800 | NSPS Site<br>Compliant Capable <sup>2</sup> | With Customer-supplied<br>Aftertreatment  |

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

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

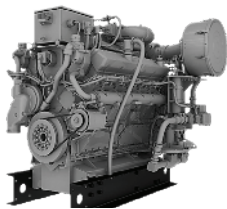
## Specifications

|                                | L – mm (in)                  | W – mm (in) | H – mm (in) | Wt – kg (lbs) | Disp – L (in <sup>3</sup> ) |
|--------------------------------|------------------------------|-------------|-------------|---------------|-----------------------------|
| G3406 TA                       | 1934 (76)                    | 1270 (50)   | 1433 (56)   | 1362 (3000)   | 14.6 (893)                  |
| G3408 TA                       | 1738 (68)                    | 1312 (52)   | 1542 (61)   | 2041 (4500)   | 18 (1099)                   |
| G3408C LE                      | 1756 (69.1)                  | 1563 (61.5) | 1758 (69.2) | 2041 (4500)   | 18 (1099)                   |
| G3412 TA                       | 2087 (82)                    | 1224 (48)   | 1542 (61)   | 2320 (5115)   | 27 (1649)                   |
| G3412C LE                      | 2442 (96)                    | 1598 (63)   | 1960 (77)   | 2800 (6173)   | 27 (1649)                   |
| <b>Bore x Stroke – mm (in)</b> | <b>137 x 152 (5.4 x 6.0)</b> |             |             |               |                             |

Please see spec sheet for more information:

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

For gas engine rating conditions please see page 10.



### Gas Ratings

| Model    | Rating Tier | bkW | bhp | rpm  | Emissions                   | Notes  |
|----------|-------------|-----|-----|------|-----------------------------|--|
| CG137-8  | Cont        | 298 | 400 | 1800 | NSPS Site Compliant Capable | With Caterpillar-supplied AFRC & Customer-provided Aftertreatment, 0.5% O <sub>2</sub> Set Point               |
| CG137-12 | Cont        | 447 | 600 | 1800 | NSPS Site Compliant Capable | With Caterpillar-supplied AFRC, Caterpillar or Customer supplied Aftertreatment, 0.5% O <sub>2</sub> Set Point |

### Specifications

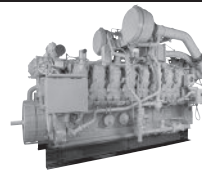
|          | L – mm (in)    | W – mm (in)    | H – mm (in)  | Wt – kg (lbs) | Disp – L (in <sup>3</sup> ) |
|----------|----------------|----------------|--------------|---------------|-----------------------------|
| CG137-8  | 1627 (64.0)    | 1443 (56.8)    | 1758 (69.2)  | 2200 (4850)   | 18 (1099)                   |
| CG137-12 | 2036.9 (80.19) | 1515.1 (59.65) | 1701 (66.97) | 2835 (6250)   | 27 (1649)                   |

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

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

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

For gas engine rating conditions please see page 10.



### Gas Ratings

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

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

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

**Ratings continued on page 88**

Ratings continued from page 87

## Gas Ratings

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

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

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

<sup>3</sup> G3516J 1500hp model to be mid-2022.

\*Additional ratings available via DTO.

## Specifications

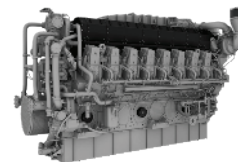
|           | L – mm (in)  | W – mm (in) | H – mm (in) | Wt – kg (lbs)  | Disp – L (in <sup>3</sup> ) |
|-----------|--------------|-------------|-------------|----------------|-----------------------------|
| G3508 LE  | 2440 (96)    | 1768 (70)   | 1907 (76)   | 5420 (11,950)  | 34.5 (2105)       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

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

Please see spec sheet for more information:

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

For gas engine rating conditions please see page 10.



## Gas Ratings

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

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

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

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

Ratings continued on page 90

For gas engine rating conditions please see page 10.

Ratings continued from page 89

## Specifications

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

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



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

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

## Hazardous Location Electric Drive Motor Ratings

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

Please see spec sheet for more information:

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

For gas engine rating conditions please see page 10.

\* Class B rise at nameplate rated load

Ratings continued on page 84

Ratings continued from page 83

## Specifications

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

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

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

\* Class B rise at nameplate rated load

Please see spec sheet for more information:

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

For gas engine rating conditions please see page 10.

## Unit Conversions

### Torque

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

### Power

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

### Volume

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

### Length

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

### Mass

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

### Energy

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

### Pressure

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

### Temperature

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

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

### Plunger Load

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

PD = Plunger diameter

PSI = Fluid end pressure in PSI

## Fuel Consumption

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

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

## Torque

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

## Displacement

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

## BMEP

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

## Generator Set Ratings

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

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

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



**For more information  
please visit:  
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**E-mail: [Cat\\_Oil\\_and\\_Gas@cat.com](mailto:Cat_Oil_and_Gas@cat.com)**

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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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