

# Petroleum Ratings Guide



**CATERPILLAR®**



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## Application Power/Engine Selection Guide

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## Diesel Engine Rating Definitions

### Explanation of Ratings A, B, C, D, and E:

For an exact determination of the appropriate rating, contact your local Cat® dealer. Engine rating obtained and presented in accordance with ISO3046/1.

#### A Rating (Continuous)

Continuous heavy-duty service where the engine is operated at maximum power and speed up to 100% of the time without interruption or load cycling.

#### B Rating

For service where power and/or speed are cyclic (time at full load not to exceed 80%).

#### C Rating (Intermittent)

Intermittent service where maximum power and/or speed are cyclic (time at full load not to exceed 50%).

#### D Rating

For service where maximum power is required for periodic overloads (time at full load not to exceed 10% of the duty cycle).

#### E Rating

For service where maximum power is required for a short time for initial starting or sudden overload. For emergency service where standard power is unavailable (time at full load not to exceed 5% of the duty cycle).

## 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

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

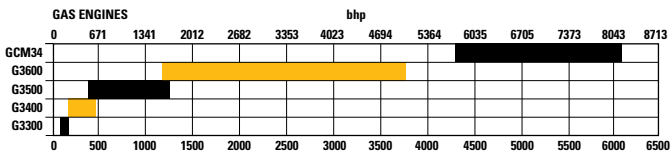
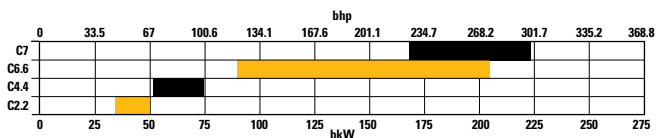
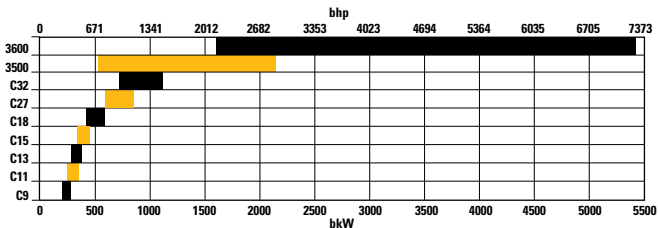
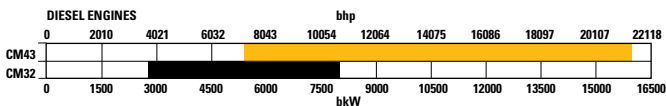
Ratings are based on dry natural gas having an LHV of 35.54 MJ/Nm<sup>3</sup> (905 btu/ft<sup>3</sup>). Variations in altitude, temperature, and gas composition from standard conditions may require a reduction in engine horsepower.

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

## ISO 9001:2000 Certification

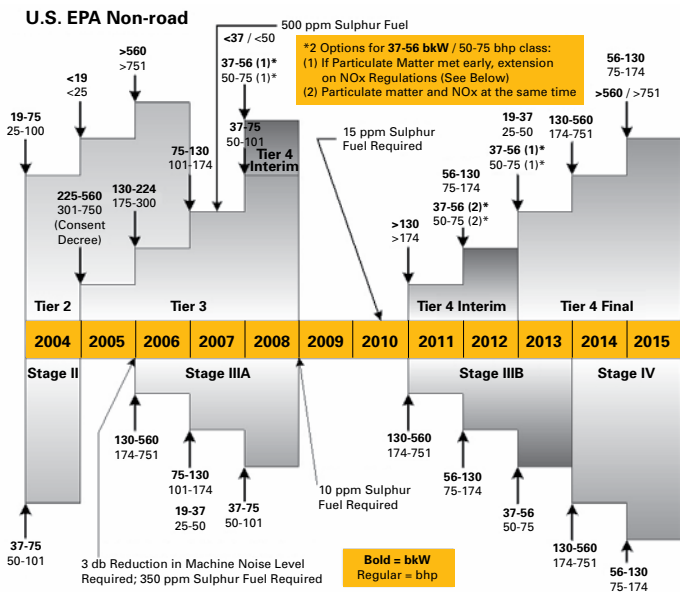
Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities.

## Match a Reliable Cat® Engine to Your Application



## EPA & EU NON-ROAD EMISSIONS REGULATIONS\*

### Tier 3 Changes for Consent Decree Signatories



### European Non-road

\*Additional information available at [www.dieselnets.com](http://www.dieselnets.com)

## EPA Stationary Regulations

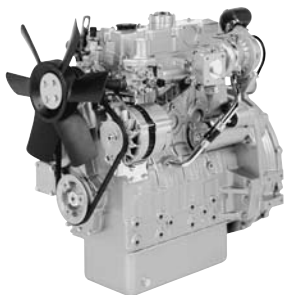
For important information related to the New Source Performance Standard (NSPS) for diesel stationary engines, refer to the EPA web site at [www.epa.gov](http://www.epa.gov).

## Abbreviations

NA	Naturally Aspirated
T	Turbocharged
TA	Turbocharged/Aftercooled
TTA	Twin Turbo Aftercooled
PC	Precombustion Chamber
ATAAC	Air-to-Air Aftercooled
bhp	Brake horsepower
bkW	Brake Kilowatts
LE	Low Emission
JWAC	Jacket Water Aftercooled
SCAC	Separate Circuit Aftercooled
E	Electronic
HD	High Displacement
ECU	Electronic Control Unit
FIE	Fuel Injection Equipment
EMS	Engine Management System
ULB	Ultra Lean Burn Technology

## ACERT® Technology

- A series of evolutionary, incremental improvements resulting in breakthrough engine technology
- Built on proven Cat systems and components
- Minimizes emissions through better control of the combustion process



**C2.2**

## Specifications

### C2.2

<b>Bore x Stroke</b> . . . .	84 x 100 mm (3.3 x 3.9 in)
<b>Displacement</b> . . . .	2.2 liters (135 in <sup>3</sup> )
<b>Ship Weight (NA)</b> . . . .	184 kg (406 lbs) <b>(NA)</b>
	194 kg (427.7 lbs) <b>(T, TA)</b>

### Approximate Dimensions:

<b>Length</b> . . . . .	661.5 mm (26.0 in) <b>(NA)</b>
<b>Width</b> . . . . .	439 mm (17.3 in) <b>(NA)</b>
<b>Height</b> . . . . .	676 mm (26.6 in) <b>(NA)</b>
<b>Length</b> . . . . .	662 mm (26.1 in) <b>(T, TA)</b>
<b>Width</b> . . . . .	489 mm (19.3 in) <b>(T, TA)</b>
<b>Height</b> . . . . .	698 mm (27.5 in) <b>(T, TA)</b>

## C2.2 Ratings In-Line 4

### C Rating (Intermittent)

NA	bkW	bhp	rpm
	Std/Derate	Std/Derate	
	31.0	41.6	2200
	34.1	45.7	2400
	35.7 / 31.4	47.9 / 42.1	2600
	37.3 / 32.8	50.0 / 43.9	2800
	38.0 / 34.0	51.0 / 45.6	3000

### T

	39.8	53.3	2600
	43	57.7	2600
	44.7	60.0	2800
	45.5	61.0	3000

### TA

	49.2	66	2800
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## Benefits

- Increase of horsepower and torque capabilities by 10%
- 500-hour service intervals
- Single-side servicing

### Abbreviations used:

- NA.....Naturally Aspirated
- T.....Turbocharged
- TA.....Turbocharged/Aftercooled

**EPA Compliant for current year**

Meets 2008 Tier 3 and Tier 4a, Stage IIIA emissions requirements. Tier 3 and Tier 4a refer to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

## C4.4 ACERT



### Specifications

	C4.4	C4.4 ACERT
<b>Bore x Stroke</b> . . . . .	105 x 127 mm (4.1 x 5.0 in)	105 x 127 mm (4.1 x 5.0 in)
<b>Displacement</b> . . . . .	4.4 liters (269 in <sup>3</sup> )	4.4 liters (269 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	291 kg (640 lbs) (NA) 306 kg (674.6 lbs) (T, TA)	360 kg (793.7 lbs) (T, TA)
<b>Approximate Dimensions:</b>		
<b>Length</b> . . . . .	663 mm (26.1 in) (NA, T, TA)	631 mm (24.8 in) (T, TA)
<b>Width</b> . . . . .	470 mm (18.5 in) (NA) 597 mm (23.5 in) (T) 620 mm (24.4 in) (TA)	626 mm (24.65 in) (T, TA)
<b>Height</b> . . . . .	810 mm (31.9 in) (NA, T) 775 mm (30.5 in) (TA)	823.5 mm (32.4 in) (T) 958 mm (37.72 in) (TA)

### C4.4 Ratings In-Line 4

C Rating (Intermittent)			C Rating (Intermittent)			C Rating (Intermittent)		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>NA</b>			<b>T</b>			<b>TA (ATAAC)</b>		
54	72	2200	55.5-74.5	74.4-99.9	2200-2400	68-83	91.2-111.3	2200-2400
55.9	75	2200						

### C4.4 ACERT Ratings In-Line 4

C Rating (Intermittent)			C Rating (Intermittent)		
bkW	bhp	rpm	bkW	bhp	rpm
<b>T</b>			<b>TA (ATAAC)</b>		
61.5-74.5	82.5-99	2200	74.5-106	99.5-142	2200

### Features

- Mechanical range up to 117 bhp
- Identical major hook-up points
- New options including multi-vee belt
- Auxiliary drive capability — SAE A PTO  
SAE B PTO

### Benefits

- Choice of mechanical and electronic control
- Choice of naturally aspirated, turbocharged, and turbocharged/aftercooled models
- Minimum impact to engine bay installation
- Installation and noise suppression costs reduced
- Maintained fuel economy
- Improved power and torque matching
- Faster diagnostics

#### Abbreviations used:

NA.....Naturally Aspirated

TA.....Turbocharged/Aftercooled

T.....Turbocharged

ATAAC.....Air-to-Air Aftercooled

#### EPA Compliant for current year

Meets Tier 3, Stage IIIA emissions requirements. C4.4 Naturally Aspirated rating meets Stage IIIA emissions requirements only. Tier 3 refers to EPA (U.S.) requirements. Stage III refers to European requirements.



**C6.6 ACERT®**

## Specifications

C6.6 ACERT	
<b>Bore x Stroke</b> . . . .	105 x 127 mm (4.1 x 5.0 in)
<b>Displacement</b> . . . .	6.6 liters (402.8 in <sup>3</sup> )
<b>Ship Weight (TA)</b> . . .	506 kg (1116 lbs)
<b>Approximate Dimensions:</b>	
<b>Length</b> . . . . .	929 mm (36.6 in)
<b>Width</b> . . . . .	668 mm (26.3 in)
<b>Height</b> . . . . .	797 mm (31.4 in)

## C6.6 ACERT Ratings In-Line 6

bkW TA (ATAAC)	C Rating (Intermittent)	
	bhp	rpm
95	128	2200
116.5	156.2	2200
129	173.0	2000
129	173.0	2500
129.5	173.7	1800
129.5	173.7	2200
130	174.3	2500
136	182.4	2200
140	187.7	2200
144	193.1	2200
146	195.8	2200
151	202.5	1800
151	202.5	2200
158.5	212.6	2200
159	213.2	2200
168	225.3	2200
176	236.0	2200
186	249.4	2200
205	274.9	2200

## Features

- ADEM™ A4 ECU
- Cat common rail fuel system
- 4-valve cross flow cylinder head
- Integrated fuel lift pump
- Auxiliary drive capability —  
SAE A PTO  
New SAE B PTO

### Abbreviations used:

- TA.....Turbocharged/Aftercooled
- ATAAC.....Air-to-Air Aftercooled
- ECU.....Electronic Control Unit

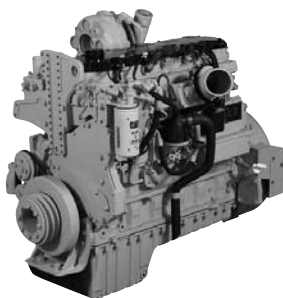
### EPA Compliant for current year

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

## Benefits

- Insulated timing cover, valve cover, and isolated oil pan reduce noise up to 3-5 dBA
- Multi-V belt reduces maintenance and belt wear
- Outstanding cold start capability to -25°F/-32°C using glow plugs
- Either side servicing

## C7 ACERT



### Specifications

	<b>C7 ACERT</b>
<b>Bore x Stroke</b> . . . .	110 x 127 mm (4.33 x 5.0 in)
<b>Displacement</b> . . . .	7.2 liters (442 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	588 kg (1296 lbs)
<b>Approximate Dimensions:</b>	
<b>Length</b> . . . . .	1053 mm (41.5 in)
<b>Width</b> . . . . .	758 mm (29.8 in)
<b>Height</b> . . . . .	1032 mm (40.6 in)

### C7 ACERT Ratings In-Line 6

ATAAC	B Rating			C Rating (Intermittent)			D Rating		
	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
	168	225	1800-	187	250	1800-	224	300	2100-
			2200			2200			2200
	—	—	—	205	275	1800-	—	—	—
						2200			

### Features

- ADEM™ A4 ECU
- HEUI™ fuel system
- Enhanced cylinder block
- Mono steel piston
- Side cover breather

### Benefits

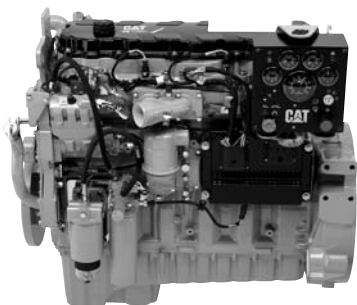
- Wastegated turbocharger optimizes airflow
- Cleaner combustion process
- Lightweight block design
- Easy installation in OEM equipment
- Improved joints reduce oil and coolant loss from engine

#### Abbreviations used:

- ATAAC.....Air-to-Air Aftercooled
- ECU.....Electronic Control Unit

#### EPA Compliant for current year

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.



**C9 ACERT**

## Specifications

### C9 ACERT

**Bore x Stroke** . . . . 112 x 149 mm (4.41 x 5.87 in)  
**Displacement** . . . . 8.8 liters (537 in<sup>3</sup>)  
**Ship Weight** . . . . . 864 kg (1905 lbs)

#### Approximate Dimensions:

**Length** . . . . . 1091 mm (43 in)  
**Width** . . . . . 827 mm (32.6 in)  
**Height** . . . . . 1023 mm (40.3 in)

## C9 ACERT Ratings In-Line 6

A Rating (Continuous)			B Rating			C Rating (Intermittent)			D Rating		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>											
205	275	1800-	224	300	1800-	242	325	1800-	280	375	1800-
		2200			2200			2200			2200
—	—	—	—	—	—	261	350	1800-	—	—	—
								2200			

## Features

- ADEM™ A4 ECU
- HEUI™ fuel system
- High efficiency oil filters
- Fractured split connecting rod
- Lightweight cylinder block
- Wastegated turbocharger

## Benefits

- Mid-supported wet liner allows better fuel consumption and reduced emissions
- Extended life with induction-hardened internal surface
- Optimized fuel injector control
- New oil filter reconfigured to reduce wear on engine

### Abbreviations used:

**ATAAC**.....Air-to-Air Aftercooled  
**ECU**.....Electronic Control Unit

### EPA Compliant for current year

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

## C11 ACERT



### Specifications

	<b>C11 ACERT</b>
<b>Bore x Stroke</b> . . . .	130 x 140 mm (5.12 x 5.51 in)
<b>Displacement</b> . . . .	11.1 liters (677 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	930 kg (2050 lbs)
<b>Approximate Dimensions:</b>	
<b>Length</b> . . . . .	1203 mm (47.4 in)
<b>Width</b> . . . . .	1054 mm (41.5 in)
<b>Height</b> . . . . .	1186 mm (46.7 in)

### C11 ACERT Ratings In-Line 6

<b>A Rating</b> (Continuous)			<b>B Rating</b>			<b>C Rating</b> (Intermittent)			<b>D Rating</b>			<b>E Rating</b>		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>														
242	325	1800-	261	350	1800-	287	385	1800-	313	420	1800-	336	450	1800-
		2100			2100			2100			2100			2100

### Features

- ADEM™ A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

### Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Oil pan isolation reduces noise volume
- Multi-layered steel hard gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control

#### Abbreviations used:

- ATAAC**.....Air-to-Air Aftercooled
- ECU**.....Electronic Control Unit

#### EPA Compliant for current year

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.



**C13 ACERT**

## Specifications

	<b>C13 ACERT</b>
<b>Bore x Stroke</b> . . . .	130 x 157 mm (5.1 x 6.2 in)
<b>Displacement</b> . . . .	12.5 liters (763 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	939 kg (2070 lbs)
<b>Approximate Dimensions:</b>	
<b>Length</b> . . . . .	1203 mm (47.4 in)
<b>Width</b> . . . . .	1011 mm (39.8 in)
<b>Height</b> . . . . .	1186 mm (46.7 in)

## C13 ACERT Ratings In-Line 6

A Rating (Continuous)			B Rating			C Rating (Intermittent)			D Rating			E Rating		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>														
287	385	1800-	310	415	1800-	328	440	1800-	354	475	1800-	388	520	1800-
		2100			2100			2100			2100			2100

## Features

- ADEM™ A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

## Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Oil pan isolation reduces noise volume
- Multi-layered steel hard gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control

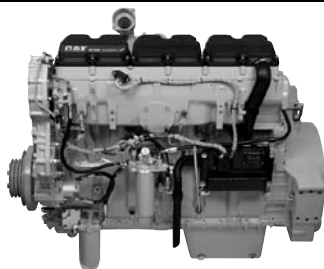
### Abbreviations used:

- ATAAC**.....Air-to-Air Aftercooled
- ECU**.....Electronic Control Unit

### EPA Compliant for current year

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

## C15 ACERT



### Specifications

	<b>C15 ACERT</b>
<b>Bore x Stroke . . . .</b>	137.2 x 171.4 mm (5.4 x 6.75 in)
<b>Displacement . . . .</b>	15.2 liters (927.56 in <sup>3</sup> )
<b>Ship Weight . . . . .</b>	1469 kg (3239 lbs)

#### Approximate Dimensions:

<b>Length . . . . .</b>	1377 mm (54.2 in)
<b>Width . . . . .</b>	926 mm (36.5 in)
<b>Height . . . . .</b>	1226 mm (48.3 in)

### C15 ACERT Ratings In-Line 6

A Rating (Continuous)			B Rating			C Rating (Intermittent)			D Rating			E Rating		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>														
328	440	1800-	354	475	1800-	403	540	1800-	433	580	1800-	444	595	1800-
		2100			2100			2100			2100			2100

### Features

- ADEM™ A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

### Benefits

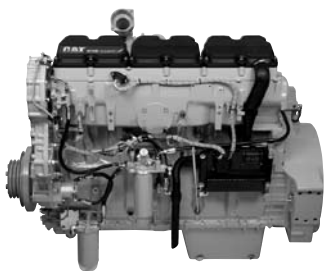
- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Multi-layered steel hard gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control

#### Abbreviations used:

- ATAAC**.....Air-to-Air Aftercooled
- ECU**.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.



**C18 ACERT**

## Specifications

	<b>C18 ACERT</b>
<b>Bore x Stroke</b> . . . .	145 x 183 mm (5.71 x 7.2 in)
<b>Displacement</b> . . . .	18.1 liters (1104.53 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	1673 kg (3688 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	1388 mm (54.6 in) (T)
	1414.1 mm (55.7 in) (TTA)
<b>Width</b> . . . . .	921 mm (36.3 in) (TA)
	974.0 mm (38.3 in) (TTA)
<b>Height</b> . . . . .	1243 mm (48.9 in) (TA)
	1257 mm (49.5 in) (TTA)

## C18 ACERT Ratings In-Line 6

<b>A Rating</b> (Continuous)			<b>B Rating</b>			<b>C Rating</b> (Intermittent)			<b>D Rating*</b>			<b>E Rating*</b>		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm

### TA (ATAAC)

429	575	1800-	447.5	600	1800-	470	630	1800-	—	—	—	—	—	—
		2100			2100			2100						

### TTA (ATAAC)

—	—	—	—	—	—	522	700	1800-	571	765	1800-	597	800	1800-
								2100			2100			2100

## Features

- ADEM™ A4 ECU
- MEUI fuel system
- Twin parallel turbocharger on 700 horsepower and above
- Best in power class density
- Monotherm piston

## Benefits

- Narrow rings of monotherm piston and tighter tolerance allows superior control
- Unique twin parallel turbo design providing superb response with low fuel consumption
- Fuel efficiency gives savings in operating costs and cleaner air
- MEUI fuel system is highly reliable due to its design and volume of units active in the market
- New connecting rods allow for better retention and clamping force
- Meets emissions requirements

### Abbreviations used:

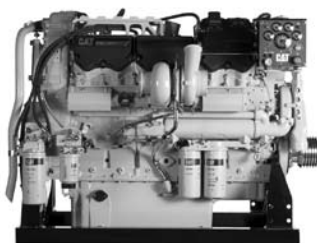
- ATAAC.....Air-to-Air Aftercooled
- ECU.....Electronic Control Unit
- TA.....Turbocharged/Aftercooled
- TTA.....Twin Turbocharged/Aftercooled

### EPA Compliant for current year

A, B, and C ratings meet Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

\*D and E ratings meet Tier 2 emissions requirements above 559 bkW (751 bhp). Tier 2 refers to EPA (U.S.) requirements.

## C32 ACERT



### Specifications\*

	C27 ACERT	C32 ACERT
<b>Bore x Stroke</b> . . . . .	137.7 x 152.4 mm (5.42 x 5.99 in.)	145.0 x 162 mm (5.71 x 6.38 in)
<b>Displacement</b> . . . . .	27 liters (1648 in <sup>3</sup> )	32.1 liters (1959 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	2946 kg (6495 lbs)	2946 kg (6495 lbs)
<b>Approximate Dimensions:</b>		
<b>Length</b> . . . . .	1917 mm (75.5 in)	1917 mm (75.5 in)
<b>Width</b> . . . . .	1464 mm (57.6 in)	1479 mm (58.2 in)
<b>Height</b> . . . . .	1321 mm (52 in)	1319 mm (51.9 in)

### C27 ACERT Ratings V-12

A Rating (Continuous)			B Rating			C Rating (Intermittent)			D Rating			E Rating		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
TA (ATAAC)														
597	800	1800-2100	653	875	1800-2100	708	950	1800-2100	783	1050	1800-2100	858	1150	1800-2100

### C32 ACERT Ratings V-12

A Rating			B Rating			C Rating (Intermittent)			D Rating			E Rating		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
TA (ATAAC)														
—	—	—	708	950	1800-2100	839	1125	1800-2100	895	1200	1800-2100	1007	1350	1800-2100
597	800	2100	—	—	—	—	—	—	—	—	—	1119	1500	2100

### Features

- ADEM™ A4 ECU
- MEUI fuel system
- Leverage 3412E and C15/C18 technology
- Rear gear train
- Overhead cams
- Front housing and gear train

### Benefits

- Excellent fuel efficiency and power density
- Wide power range from a single installation (from 800-1350 bhp)
- More production from same size package
- Improved cold start capability

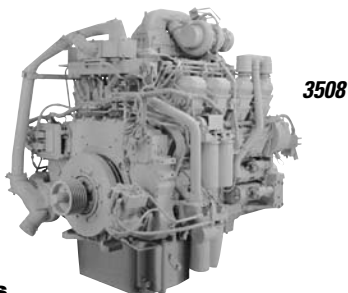
#### Abbreviations used:

- TA.....Turbocharged/Aftercooled
- ATAAC.....Air-to-Air Aftercooled
- ECU.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 2 emissions requirements. Tier 2 refers to EPA (U.S.) requirements.

\*All data is preliminary. Final turbo locations could affect dimensions.



**3508**

## Specifications

**3508**  
**Bore x Stroke** . . . . 170 x 190 mm (6.7 x 7.5 in)  
**Displacement** . . . . 34.5 liters (2105 in<sup>3</sup>)  
**Ship Weight** . . . . . 4309 kg (9500 lbs)

**Approximate Dimensions:**

**Length** . . . . . 2136 mm (84 in)  
**Width** . . . . . 1703 mm (67 in)  
**Height** . . . . . 1720 mm (68 in)

## 3508 Land Mechanical Drilling Ratings V-8

A Rating (Continuous)			B Rating		
bkW	bhp	rpm	bkW	bhp	rpm
<b>JWAC</b>					
507	680	1200	567	760	1200
638	855	1800	—	—	—

## 3508 Land Electric Drilling Ratings V-8

	Prime bhp	rpm
<b>JWAC</b>		
	860	1200*

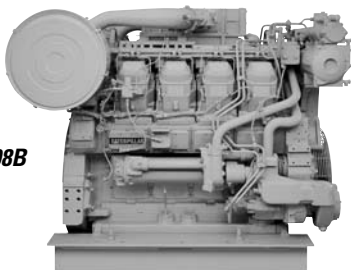
**Abbreviations used:**

**JWAC**.....Jacket Water Aftercooled

Meets Tier 1, Stage I emissions requirements. Tier 1 refers to EPA (U.S.) requirements. Stage I refers to European requirements.

\*Industrial Price List Ratings

3508B



## Specifications

	<b>3508B</b>
<b>Bore x Stroke . . . .</b>	170 x 190 mm (6.7 x 7.5 in)
<b>Displacement . . . .</b>	34.5 liters (2105 in <sup>3</sup> )
<b>Ship Weight . . . . .</b>	4309 kg (9500 lbs)

### Approximate Dimensions:

<b>Length . . . . .</b>	2462 mm (97 in)
<b>Width . . . . .</b>	1703 mm (67 in)
<b>Height . . . . .</b>	1720 mm (68 in)

## 3508B Land Mechanical Drilling Ratings V-8

bkW	B Rating	
	bhp	rpm
TA (SCAC)		
567	760	1200
671	900	1200
783	1050	1800

## 3508B Land Electric Drilling Ratings V-8

bkW	Prime	
	bhp	rpm
TA (SCAC)		
682	915	1200
880	1180	1500

## 3508B Offshore Electric Drilling Ratings V-8

bkW	Prime + 10%*	
	bhp	rpm
TA (SCAC)		
649	870	1000
682	915	1200
856	1148	1500

## 3508B Emergency Unit Ratings V-8

bkW	Prime + 10%*	
	bhp	rpm
TA (SCAC)		
968	1298	1800

## Features

- Built with common parts — intake and exhaust valves, valve seat inserts, and valve springs are all identical
- High-pressure fuel lines eliminated
- Advanced electronic control systems
- Electronically controlled unit injectors

## Benefits

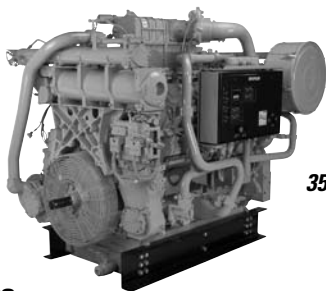
- Service efficiency reduces operating costs
- Superior fuel economy
- Repower savings/higher production with less fuel consumption

### Abbreviations used:

TA.....Turbocharged/Aftercooled    SCAC.....Separate Circuit Aftercooled

Meets Tier 1 emissions requirements. Tier 1 refers to EPA (U.S.) requirements.

\*With 10% overload for MCS certifications and IMO certified.



**3508C**

## Specifications

	<b>3508C</b>
<b>Bore x Stroke . . .</b>	170 x 190 mm (6.7 x 7.5)
<b>Displacement . . .</b>	34.5 liters (2105 in <sup>3</sup> )
<b>Ship Weight . . . . .</b>	5188 kg (10 101 lbs)

### Approximate Dimensions:

<b>Length . . . . .</b>	2681 mm (106 in)
<b>Width . . . . .</b>	1703 mm (67 in)
<b>Height . . . . .</b>	1720 mm (68 in)

## 3508C Land Mechanical Drilling Ratings V-8

bkW	B Rating	
	bhp	rpm
671	900	1200

## 3508C Land Electric Drilling Ratings V-8

bkW	Prime	
	bhp	rpm
682	915	1200

## Features

- Built with common parts — intake and exhaust valves, valve seat inserts, and valve springs are all identical
- High-pressure fuel lines eliminated
- ADEM A3 control system
- Electronically controlled unit injectors

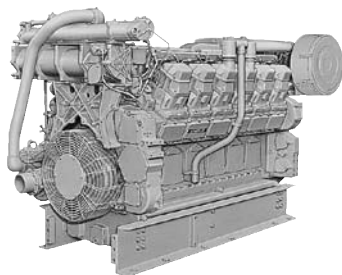
## Benefits

- Service efficiency reduces operating costs
- Superior fuel economy
- Repower savings/higher production with less fuel consumption
- Low emissions

### EPA Compliant for current year

Meets Tier 2, Stage II emissions requirements. Tier 2 refers to EPA (U.S.) requirements. Stage II refers to European requirements.

3512



## Specifications

	<b>3512</b>
<b>Bore x Stroke . . .</b>	170 x 190 mm (6.7 x 7.5 in)
<b>Displacement . . .</b>	51.8 liters (3158 in <sup>3</sup> )
<b>Ship Weight . . . . .</b>	6078 kg (13 400 lbs)

### Approximate Dimensions:

<b>Length . . . . .</b>	2676 mm (105 in)
<b>Width . . . . .</b>	1703 mm (67 in)
<b>Height . . . . .</b>	1720 mm (68 in)

## 3512 Petroleum Industrial Ratings V-12

A Rating (Continuous)			B Rating			C Rating (Intermittent)			E Rating		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>JWAC</b>											
761	1020	1200	—	—	—	858	1150	1300	—	—	—
955	1280	1800	—	—	—	1119	1500	1800	—	—	—
—	—	—	—	—	—	—	—	—	1342	1800	1900

## 3512 Land Mechanical Drilling Ratings V-12

	bkW	bhp	rpm
<b>JWAC</b>			
	764	1025	1200
	932	1250	1200

## 3512 Land Electric Drilling Ratings V-12

	Prime		
	bkW	bhp	rpm
<b>JWAC</b>			
	708	950	1200
	830	1113	1000
	890	1194	1000
	985	1321	1200
	1070	1435	1200
	1090	1462	1500

## Features

- Built with common parts — intake and exhaust valves, valve seat inserts, and valve springs are all identical
- High-pressure fuel lines eliminated
- Electronically controlled unit injectors

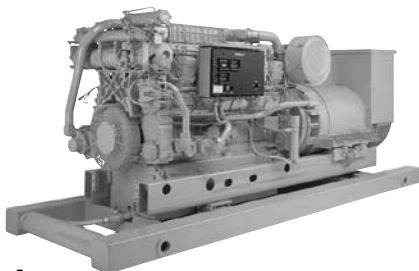
## Benefits

- Service efficiency reduces operating costs
- Superior fuel economy
- Repower savings/higher production with less fuel consumption

### Abbreviations used:

**TA**.....Turbocharged/Aftercooled    **JWAC**.....Jacket Water Aftercooled

Meets Tier 1, Stage I emissions requirements. Tier 1 refers to EPA (U.S.) requirements. Stage I refers to European requirements.



**3512B**

## Specifications

	<b>3512B</b>
<b>Bore x Stroke</b> . . . .	170 x 190 mm (6.7 x 7.5 in)
<b>Displacement</b> . . . .	51.8 liters (3158 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	6078 kg (13 400 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	3067 mm (120.8 in)
<b>Width</b> . . . . .	1785 mm (70.3 in)
<b>Height</b> . . . . .	1806 mm (71.1 in)

## 3512B Petroleum Industrial Ratings V-12

A Rating (Continuous)			B Rating			C Rating (Intermittent)		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>TA (SCAC)</b>								
1118	1500	1800**	1174	1575	1800**	1230	1650	1800**

## 3512B Emergency Unit Ratings V-12

Prime + 10%*		
bkW	bhp	rpm
<b>TA (SCAC)</b>		
1424	1910	1800

## 3512B Offshore Electric Drilling Ratings V-12

Prime + 10%*		
bkW	bhp	rpm
<b>TA (SCAC)</b>		
933	1251	1000
1102	1478	1200
1257	1686	1500

## 3512B Land Electric Drilling Ratings V-12

Prime		
bkW	bhp	rpm
<b>TA (SCAC)</b>		
1101	1476	1200
1310	1751	1500

## 3512B FRAC Ratings V-12

E Rating		
bkW	bhp	rpm
<b>TA (SCAC)</b>		
1491	2000	1900
1603	2150	1900
1678	2250	1900

## Features

- Built with common parts — intake and exhaust valves, valve seat inserts, and valve springs are all identical
- High-pressure fuel lines eliminated
- Advanced electronic control systems
- Electronically controlled unit injectors

## Benefits

- Service efficiency reduces operating costs
- Superior fuel economy
- Repower savings/higher production with less fuel consumption

### Abbreviations used:

**TA**.....Turbocharged/Aftercooled  
**SCAC**.....Separate Circuit Aftercooled

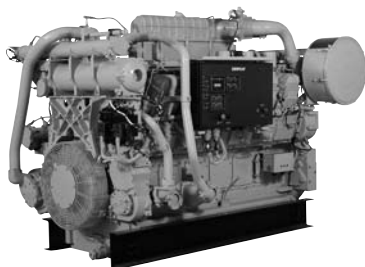
**HD**.....High Displacement

Meets Tier 1 emissions requirements. Tier 1 refers to EPA (U.S.) requirements.

\*With 10% overload for MCS certifications and IMO certified.

\*\*Industrial Mobile Equipment Price List Engines

## 3512C



### Specifications

	3512C	3512C (Drilling Modules)
Bore x Stroke . . . . .	170 x 215 mm (6.7 x 8.5 in)	170 x 190 mm (6.7 x 7.5 in)
Displacement . . . . .	58.6 liters (3575 in <sup>3</sup> )	51.8 liters (3158 in <sup>3</sup> )
Ship Weight . . . . .	6645 kg (14 650 lbs)	7620 kg (16 800 lbs)
<b>Approximate Dimensions:</b>		
Length . . . . .	3067 mm (120.8 in)	3067 mm (120.8 in)
Width . . . . .	1785 mm (70.3 in)	1785 mm (70.3 in)
Height . . . . .	1806 mm (71.1 in)	1806 mm (71.1 in)

### 3512C Land Electric Drilling Ratings V-12

TA (SCAC)	Prime		rpm
	bkW	bhp	
	1101	1477	1200

### 3512C Offshore Electric Drilling Ratings V-12

TA (SCAC)	Prime + 10%*		
	bkW	bhp	rpm
	1101	1477	1200

### 3512C Land Mechanical Drilling Ratings V-12

TA (SCAC)	bkW	bhp	rpm
	932	1250	1200
	1100	1476	1200

### 3512C Land and Offshore Well FRAC Ratings V-12

ATAAC	Intermittent		
	bkW	bhp	rpm
	1603	2150	1900
	1678	2250	1900
	1752	2350	1900
	1864	2500	1900

### Features

- Built with common parts — intake and exhaust valves, valve seat inserts, and valve springs are all identical
- High-pressure fuel lines eliminated
- Advanced electronic control systems
- Electronically controlled unit injectors

### Benefits

- Service efficiency reduces operating costs
- Superior fuel economy
- Repower savings/higher production with less fuel consumption

#### Abbreviations used:

TA.....Turbocharged/Aftercooled

ATAAC.....Air-to-Air Aftercooled

SCAC.....Separate Circuit Aftercooled

HD.....High Displacement

#### EPA Compliant for current year

Meets Tier 2, Stage II emissions requirements. Tier 2 refers to EPA (U.S.) requirements. Stage II refers to European requirements.

\*With 10% overload for MCS certifications and IMO certified.



**3516**

## Specifications

	<b>3516</b>
<b>Bore x Stroke . . . .</b>	170 x 190 mm (6.7 x 7.5 in)
<b>Displacement . . . .</b>	69 liters (4210 in <sup>3</sup> )
<b>Ship Weight . . . . .</b>	7484 kg (16 499 lbs)

### Approximate Dimensions:

<b>Length . . . . .</b>	3366 mm (133 in)
<b>Width . . . . .</b>	1703 mm (67 in)
<b>Height . . . . .</b>	1718 mm (68 in)

## 3516 Petroleum Industrial Ratings V-16

A Rating (Continuous)			C Rating (Intermittent)		
bkW	bhp	rpm	bkW	bhp	rpm
<b>JWAC</b>					
1010	1355	1200	1242	1665	1300
1275	1710	1800*	1492	2000	1800*

## 3516 Land Mechanical Drilling Ratings V-16

	bkW	Prime bhp	rpm
<b>JWAC</b>	1044	1400	1200
	1230	1649	1200

## 3516 Land Electric Drilling Ratings V-12

	bkW	Prime bhp	rpm
<b>JWAC</b>	1200	1609	1000
	1345	1804	1200

## Features

- Built with common parts — intake and exhaust valves, valve seat inserts, and valve springs are all identical
- High-pressure fuel lines eliminated
- Electronically controlled unit injectors

## Benefits

- Service efficiency reduces operating costs
- Superior fuel economy
- Repower savings/higher production with less fuel consumption

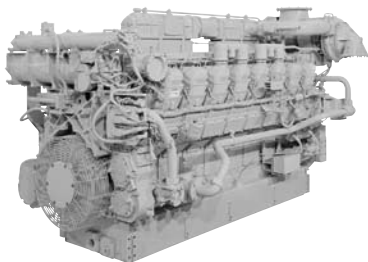
### Abbreviations used:

**JWAC**.....Jacket Water Aftercooled

Meets Tier 1, Stage I emissions requirements. Tier 1 refers to EPA (U.S.) requirements. Stage I refers to European requirements.

\*Industrial Engine Price List Ratings

## 3516B HD



### Specifications

	3516B	3516B HD
<b>Bore x Stroke</b> . . . . .	170 x 190 mm (6.7 x 7.5 in)	170 x 215 mm (6.7 x 8.5 in)
<b>Displacement</b> . . . . .	69 liters (4209 in <sup>3</sup> )	78 liters (4770 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	7484 kg (16 500 lbs)	7484 kg (16 500 lbs)
<b>Approximate Dimensions:</b>		
<b>Length</b> . . . . .	3008 mm (119 in)	3008 mm (119 in)
<b>Width</b> . . . . .	1443 mm (57 in)	1443 mm (57 in)
<b>Height</b> . . . . .	1980 mm (78 in)	1980 mm (78 in)

### 3516B Ratings V-16

A Rating (Continuous)			B Rating			C Rating (Intermittent)		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>TA (SCAC)</b>								
1491	2000	1800**	1566	2100	1800**	1640	2200	1800**

### 3516B Offshore Electric Drilling Ratings V-16

Prime + 10%*		
bkW	bhp	rpm
1287	1726	1000
1383	1855	1200
1717	2303	1500

### 3516B Emergency Unit Ratings V-16

Prime + 10%*		
bkW	bhp	rpm
1901	2549	1800

### 3516B HD Offshore Electric Drilling Ratings V-16

Prime + 10%*		
bkW	bhp	rpm
<b>TA (SCAC)</b>		
1603	2150	1200

### 3516B Land Electric Drilling Ratings V-16

Prime		
bkW	bhp	rpm
<b>TA (SCAC)</b>		
1383	1855	1200***

### Features

- Built with common parts — intake and exhaust valves, valve seat inserts, and valve springs are all identical
- High-pressure fuel lines eliminated
- Advanced electronic control systems
- Electronically controlled unit injectors

### Benefits

- Service efficiency reduces operating costs
- Superior fuel economy
- Repower savings/higher production with less fuel consumption

### Abbreviations used:

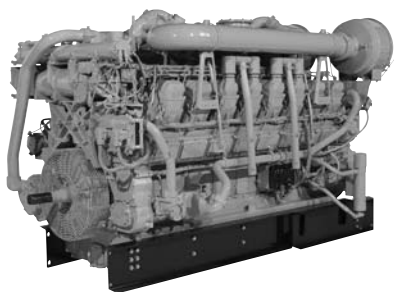
**TA**.....Turbocharged/Aftercooled    **SCAC**.....Separate Circuit Aftercooled  
**HD**.....High Displacement

Meets Tier 1 emissions requirements. Tier 1 refers to EPA (U.S.) requirements.

\*With 10% overload for MCS certifications and IMO certified.

\*\*Industrial Mobile Equipment Price List Engines.

\*\*\*IMO certified.



**3516C**

## Specifications

	<b>3516C HD</b>
<b>Bore x Stroke</b> . . . .	170 x 215 mm (6.7 x 8.5 in)
<b>Displacement</b> . . . .	78 liters (4770 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	16 874 kg (37 200 lbs) Module 7484 kg (16 500 lbs) Engine
<b>Approximate Dimensions:</b>	
<b>Length</b> . . . . .	5915 mm (233 in)
<b>Width</b> . . . . .	2092 mm (82 in)
<b>Height</b> . . . . .	2460 mm (97 in)

## 3516C HD Offshore Electric Drilling Ratings V-16

	Prime + 10%*		
bkW	bhp	rpm	
1383	1855	1200	
1603	2150	1200	

## Features

- Built with common parts — intake and exhaust valves, valve seat inserts, and valve springs are all identical
- High-pressure fuel lines eliminated
- Advanced electronic control systems
- Electronically controlled unit injectors

## Benefits

- Service efficiency reduces operating costs
- Superior fuel economy
- Repower savings/higher production with less fuel consumption

### Abbreviations used:

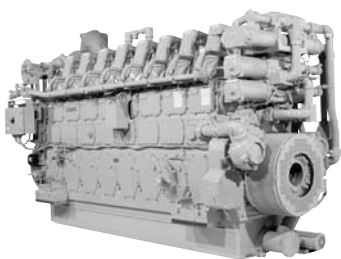
HD .....High Displacement

### EPA Compliant for current year

Meets Marine Tier 2, Stage II emissions requirements. Tier 2 refers to EPA (U.S.) requirements. Stage II refers to European requirements. EPA Non-Road emissions level capable.

\*With 10% overload for MCS certifications and IMO certified.

**3608**



## Specifications

	<b>3606</b>	<b>3608</b>
<b>Bore x Stroke</b> . . . . .	280 x 300 mm (11 x 11.8 in)	280 x 300 mm (11 x 11.8 in)
<b>Displacement</b> . . . . .	110.8 liters (6764 in <sup>3</sup> )	147.8 liters (9018 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	15 680 kg (34 500 lbs)	19 000 kg (41 800 lbs)

### Approximate Dimensions:

	<b>3606</b>	<b>3608</b>
<b>Length</b> . . . . .	3988 mm (157 in)	4828 mm (190 in)
<b>Width</b> . . . . .	1748 mm (69 in)	1748 mm (69 in)
<b>Height</b> . . . . .	2626 mm (103 in)	2626 mm (103 in)

	<b>3612</b>	<b>3616</b>
<b>Bore x Stroke</b> . . . . .	280 x 300 mm (11 x 11.8 in)	280 x 300 mm (11 x 11.8 in)
<b>Displacement</b> . . . . .	221.7 liters (13 527 in <sup>3</sup> )	295.6 liters (18 036 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	25 140 kg (55 300 lbs)	29 950 kg (65 900 lbs)

### Approximate Dimensions:

	<b>3612</b>	<b>3616</b>
<b>Length</b> . . . . .	4562 mm (180 in)	5482 mm (216 in)
<b>Width</b> . . . . .	1704 mm (67 in)	1704 mm (67 in)
<b>Height</b> . . . . .	3231 mm (127 in)	3231 mm (127 in)

## 3606 Ratings In-Line 6

Prime + 10%*		Continuous		
bkW	bhp	bkW	bhp	rpm
<b>TA</b>				
—	—	1490	1998	750
—	—	1560	2092	800
1900	2548**	1730	2320**	900
2030	2722**	1850	2481**	1000

## 3608 Ratings In-Line 8

Prime + 10%*		Continuous		
bkW	bhp	bkW	bhp	rpm
<b>TA</b>				
—	—	2080	2787	800
2530	3393**	2300	3084**	900
2710	3634**	2460	3299**	1000

## 3612 Ratings V-12

Prime + 10%*		Continuous		
bkW	bhp	bkW	bhp	rpm
<b>TA</b>				
—	—	2980	3996	750
—	—	3120	4184	800
3800	5096**	3460	4640**	900
4060	5444	3700	4962**	1000

## 3616 Ratings V-16

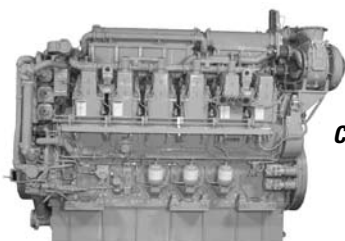
Prime + 10%*		Continuous		
bkW	bhp	bkW	bhp	rpm
<b>TA</b>				
—	—	4160	5579	800
5060	6785**	4600	6169	900
5420	7268**	4920	6598	1000

### Abbreviations used:

**TA**.....Turbocharged/Aftercooled

\*With 10% overload for MCS certifications.

\*\*IMO certified with 38°C cooling water at 25°C ambient sea water temperature.



**C280-6**

## Specifications

	<b>C280-6</b>	<b>C280-8</b>
<b>Bore x Stroke</b> . . . . .	280 x 300 mm (11 x 11.8 in)	280 x 300 mm (11 x 11.8 in)
<b>Displacement</b> . . . . .	111 liters (6773 in <sup>3</sup> )	148 liters (9031 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	15 680 kg (34 496 lbs)	19 000 kg (41 800 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	4276 mm (168 in)	5561 mm (219 in)
<b>Width</b> . . . . .	1722 mm (68 in)	1722 mm (68 in)
<b>Height</b> . . . . .	2733 mm (108 in)	2641 mm (104 in)

	<b>C280-12</b>	<b>C280-16</b>
<b>Bore x Stroke</b> . . . . .	280 x 300 mm (11 x 11.8 in)	280 x 300 mm (11 x 11.8 in)
<b>Displacement</b> . . . . .	222 liters (13 546 in <sup>3</sup> )	296 liters (18 062 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	25 980 kg (57 276 lbs)	28 500 kg (62 832 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	4861 mm (191 in)	5482 mm (216 in)
<b>Width</b> . . . . .	1741 mm (69 in)	1704 mm (67 in)
<b>Height</b> . . . . .	3550 mm (140 in)	3171 mm (125 in)

## C280-6 Ratings In-Line 6

TA	Prime + 10%*		
	bkW	bhp	rpm
	1900	2548	900
	2030	2722	1000**

## C280-8 Ratings In-Line 8

TA	Prime + 10%*		
	bkW	bhp	rpm
	2530	3393	900**
	2710	3634	1000**

## C280-12 Ratings V-12

TA	Prime + 10%*		
	bkW	bhp	rpm
	3800	5096	900
	4060	5444	1000**

## C280-16 Ratings V-16

TA	Prime + 10%*		
	bkW	bhp	rpm
	5060	6785	900**
	5420	7268	1000**

## Features

- ADEM A3 ECU
- EUI fuel system
- 40,000-hour overhaul interval

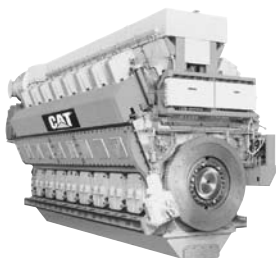
### Abbreviations used:

TA.....Turbocharged/Aftercooled

\*With 10% overload for MCS certifications and IMO certified.

\*\*Petroleum Ratings: Meets Marine Tier 2, Stage II emissions requirements. Tier 2 refers to EPA (U.S.) requirements. Stage II refers to European requirements.

## CM32



### Specifications

Model	Bore x Stroke mm (in.)	Displacement L (cu in.)	Ship Wt. tons (lb)	Length mm (in.)	Width mm (in.)	Height mm (in.)
6CM20	200 x 300 (7.87 x 11.8)	57 (3451)	10.7 (23,589)	4049 (159)	1558 (61)	2729 (107)
8CM20	200 x 300 (7.87 x 11.8)	75 (4601)	14 (30,865)	4846 (191)	1693 (67)	2865 (113)
9CM20	200 x 300 (7.87 x 11.8)	85 (5176)	15 (33,069)	6176 (243)	1693 (67)	2865 (113)
6CM25	255 x 400 (9.61 x 15.7)	122 (7480)	22 (48,502)	5345 (210)	2260 (89)	3767 (148)
8CM25	255 x 400 (9.61 x 15.7)	163 (9973)	27 (59,525)	6289 (248)	2315 (91)	3913 (154)
9CM25	255 x 400 (9.61 x 15.7)	184 (11,219)	30 (66,139)	6719 (265)	2315 (91)	3913 (154)
6CM32	320 x 480 (12.6 x 18.9)	232 (14,158)	37.5 (82,673)	6013 (236.7)	2175 (85.6)	3674 (144.6)
8CM32	320 x 480 (12.6 x 18.9)	309 (18,856)	46.4 (102,295)	7128 (280.6)	2855 (112.4)	3954 (165.7)
9CM32	320 x 480 (12.6 x 18.9)	347 (21,175)	49.4 (108,908)	7658 (301.5)	2855 (112.4)	3692 (145.4)
12CM32	320 x 420 (12.6 x 16.5)	405 (24,715)	64.4 (141,978)	6740 (256.4)	2930 (115.4)	3924 (154.5)
16CM32	320 x 420 (12.6 x 16.5)	541 (33,014)	81.4 (179,456)	8090 (318.5)	3350 (131.9)	3220 (130.7)
6CM43	430 x 610 (17 x 24.0)	531 (32,404)	93 (205,030)	7842 (308.7)	2869 (113)	4483 (176.5)
8CM43	430 x 610 (17 x 24.0)	709 (43,266)	114 (251,327)	9576 (377)	2869 (113)	4776 (188)
9CM43	430 x 610 (17 x 24.0)	797 (48,636)	126 (277,783)	10 306 (405.8)	2869 (113)	4776 (188)
12CM43	430 x 610 (17 x 24.0)	1063 (64,868)	162 (357,149)	9886 (389.2)	3780 (148.8)	4994 (196.6)
16CM43	430 x 610 (17 x 24.0)	1417 (86,471)	215 (473,994)	12 106 (476.6)	3780 (148.8)	5218 (205.4)

### Medium Speed Diesel Engines and Gen Sets

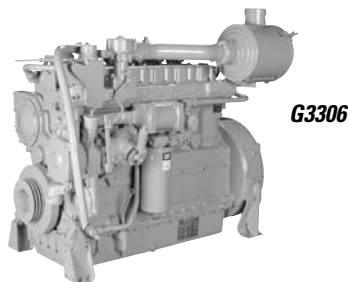
Model	bkW	bhp	rpm
6CM20	1020-1140	1368-1529	900/1000
8CM20	1360-1520	1824-2038	900/1000
9CM20	1530-1710	2051-2293	900/1000
6CM25	1800	2414	720/750
8CM25	2400	3218	720/750
9CM25	2700	3620	720/750
6CM32	2880	3862	600
8CM32	3840	5149	600
9CM32	4320	5793	600
12CM32	5760	7724	720/750
16CM32	7680	10,299	720/750
6CM43	5400	7241	500/514
8CM43	7200	9655	500/514
9CM43	8100	10,862	500/514
12CM43	10 800	14,483	500/514
16CM43	14 400	19,311	500/514

### Features

- Long stroke concept designed for heavy fuel operation
- Waterless engine block

### Benefits

- Best in class fuel efficiency — as low as 176 g/bkW-hr
- Long life, simple maintenance



**G3306**

## Specifications

	<b>G3304 (TA)</b>	<b>G3306 (TA)</b>
<b>Bore x Stroke</b> . . . . .	121 x 152 mm (4.75 x 6.0 in) . . . . .	121 x 152 mm (4.75 x 6.0 in)
<b>Displacement</b> . . . . .	7.0 liters (425 in <sup>3</sup> ) . . . . .	10.5 liters (638 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	739 kg (1630 lbs) . . . . .	948 kg (2090 lbs)
<b>Approximate Dimensions:</b>		
<b>Length</b> . . . . .	1158 mm (46 in) . . . . .	1505 mm (59 in)
<b>Width</b> . . . . .	744 mm (29 in) . . . . .	1208 mm (48 in)
<b>Height</b> . . . . .	1270 mm (50 in) . . . . .	978 mm (39 in)

## G3304 Ratings In-Line 4

Engine — Continuous	1800 rpm	
	bkW	bhp
<b>G3304 NA</b> <sup>2,3</sup>	71	95

## G3306 Ratings In-Line 6

Engine — Continuous	1800 rpm	
	bkW	bhp
<b>G3306 NA</b> <sup>3,4</sup>	108	145
<b>G3306 T</b>	112	150
<b>G3306 TA</b> <sup>2,3,4</sup>	151	203
<b>G3306 TA</b> <sup>1,3,4</sup>	157	211
<b>G3306 TA</b> <sup>1,3,4</sup>	164	220

<sup>1</sup>32° C/90° F Water to Aftercooler

<sup>2</sup>54° C/130° F Water to Aftercooler

<sup>3</sup>Catalyst Rating

<sup>4</sup>Standard Setting

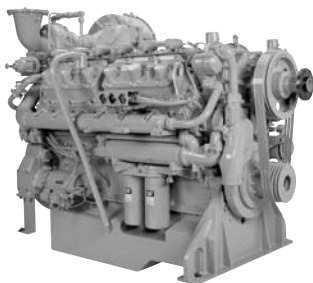
### Abbreviations used:

**NA**.....Naturally Aspirated

**TA**.....Turbocharged/Aftercooled

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

**G3412**



## Specifications

	<b>G3406 (TA)</b>	<b>G3408 (TA)</b>	<b>G3412 (TA)</b>
<b>Bore x Stroke</b> . . .	137 x 165 mm . . . . . (5.4 x 6.5 in)	137 x 152 mm . . . . . (5.4 x 6.0 in)	137 x 152 mm (5.4 x 6.0 in)
<b>Displacement</b> . . .	14 liters (893 in <sup>3</sup> ) . . . .	18 liters (1099 in <sup>3</sup> ) ..	27 liters (1649 in <sup>3</sup> )
<b>Ship Weight</b> . . . .	1362 kg (3000 lbs) . . . .	1680 kg (3700 lbs) ..	2143 kg (4720 lbs)
<b>Approximate Dimensions:</b>			
<b>Length</b> . . . . .	1993 mm (79 in) . . . . .	1594 mm (63 in) . . . . .	2049 mm (81 in)
<b>Width</b> . . . . .	1265 mm (50 in) . . . . .	1471 mm (58 in) . . . . .	1603 mm (63 in)
<b>Height</b> . . . . .	1433 mm (56 in) . . . . .	1509 mm (59 in) . . . . .	1734 mm (68 in)

## G3406 Ratings In-Line 6

Engine — Continuous	1800 rpm	
	bkW	bhp
<b>G3406 NA<sup>2,3</sup></b>	160	215
<b>G3406 TA<sup>1,2</sup></b>	206	276
<b>G3406 TA<sup>1,3</sup></b>	242	325

## G3408 Ratings V-8

Engine — Continuous	1800 rpm		1500 rpm	
	bkW	bhp	bkW	bhp
<b>G3408 NA<sup>2,3</sup></b>	190	255	—	—
<b>G3408 TA<sup>1,2</sup></b>	—	—	248	332
<b>G3408 TA<sup>1,3</sup></b>	298	400	—	—
<b>G3408C LE<sup>1</sup></b>	317	425	—	—

## G3412 Ratings V-12

Engine — Continuous	1800 rpm		1500 rpm	
	bkW	bhp	bkW	bhp
<b>G3412 NA<sup>2</sup></b>	272	365	—	—
<b>G3412 TA<sup>1,2</sup></b>	—	—	373	500
<b>G3412 TA<sup>3</sup></b>	448	600	—	—
<b>G3412C LE<sup>1</sup></b>	475	637	—	—

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

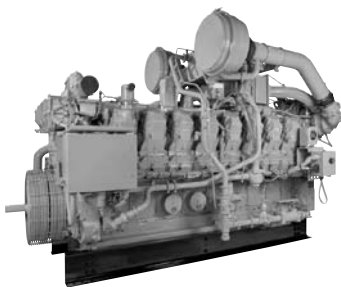
<sup>2</sup>Catalyst Rating

<sup>3</sup>Standard Rating

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

### Abbreviations used:

**NA**..... Naturally Aspirated    **TA**..... Turbocharged/Aftercooled



**G3516B**

## Specifications

	<b>G3508 (TA)</b>	<b>G3512 (TA)</b>
<b>Bore x Stroke</b> . . . . .	170 x 190 mm (6.7 x 7.5 in)	170 x 190 mm (6.7 x 7.5 in)
<b>Displacement</b> . . . . .	34.5 liters (2105 in <sup>3</sup> )	51.8 liters (3158 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	5425 kg (11 950 lbs)	6560 kg (14 450 lbs)
<b>Approximate Dimensions:</b>		
<b>Length</b> . . . . .	2247 mm (89 in)	2788 mm (110 in)
<b>Width</b> . . . . .	1733 mm (68 in)	1703 mm (67 in)
<b>Height</b> . . . . .	1867 mm (74 in)	1863 mm (73 in)

	<b>G3516 (TA)</b>	<b>G3520B (TA)</b>
<b>Bore x Stroke</b> . . . . .	170 x 190 mm (6.7 x 7.5 in)	170 x 190 mm (6.7 x 7.5 in)
<b>Displacement</b> . . . . .	69.0 liters (4211 in <sup>3</sup> )	86.3 liters (5263 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	7931 kg (17 470 lbs)	9875 kg (21 770 lbs)
<b>Approximate Dimensions:</b>		
<b>Length</b> . . . . .	3327 mm (131 in)	3849 mm (152 in)
<b>Width</b> . . . . .	1703 mm (67 in)	1718 mm (68 in)
<b>Height</b> . . . . .	1859 mm (73 in)	2398 mm (94 in)

### G3508 Ratings V-8

Engine — Continuous	1400 rpm		1200 rpm	
	bkW	bhp	bkW	bhp
<b>G3508 TA<sup>3</sup></b>	—	—	391	524
<b>G3508 LE</b>	500	670	—	—

### G3512 Ratings V-12

Engine — Continuous	1400 rpm		1200 rpm	
	bkW	bhp	bkW	bhp
<b>G3512 TA<sup>3</sup></b>	—	—	589	790
<b>G3512 LE</b>	749	1005	642	860

### G3516 Ratings V-16

Engine — Continuous	1400 rpm		1200 rpm	
	bkW	bhp	bkW	bhp
<b>G3516 NA</b>	—	—	492	660
<b>G3516<sup>3</sup>TA</b>	—	—	783	1050
<b>G3516 LE</b>	1000	1340	858	1150

### G3516B Ratings V-16

Engine — Continuous	1400 rpm	
	bkW	bhp
<b>G3516B LE w/ULB<sup>6,7</sup></b>	1029	1380

### G3520B Ratings V-20

Engine — Continuous	1400 rpm		1200 rpm	
	bkW	bhp	bkW	bhp
<b>G3520B LE w/ULB<sup>6,7</sup></b>	1286	1725	1104	1480

## Gas Engine Feature

- ADEM™ A3 EMS

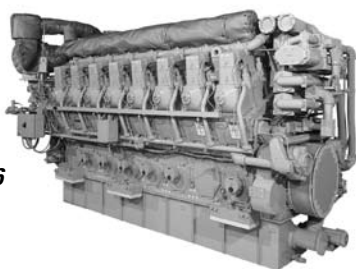
### Abbreviations used:

**NA**.....Naturally Aspirated  
**EMS**.....Engine Management System  
**LE**.....Low Emission

**TA**.....Turbocharged/Aftercooled  
**LE**.....Low Emission  
**ULB**.....Ultra Lean Burn Technology

<sup>1</sup>32° C/90° F Water to Aftercooler  
<sup>2</sup>43° C/110° F Water to Aftercooler  
<sup>3</sup>54° C/130° F Water to Aftercooler  
<sup>4</sup>Low Emissions  
<sup>5</sup>Air Fuel Ratio  
<sup>6</sup>250 mg/Nm<sup>3</sup> dry (.5 g/bhp-hr) NOx NTE emissions (corrected to 5% O<sub>2</sub>)  
<sup>7</sup>500 mg/Nm<sup>3</sup> dry (1 g/bhp-hr) NOx NTE emissions (corrected to 5% O<sub>2</sub>)  
 Ratings listed are for 25° C (77° F) ambient temperature, 500 ft. altitude, and pipeline quality gas.

**G3616**



## Specifications

	<b>G3606 (TA)</b>	<b>G3608 (TA)</b>
<b>Bore x Stroke</b> . . . . .	300 x 300 mm (11.8 x 11.8 in) . . . . .	300 x 300 mm (11.8 x 11.8 in)
<b>Displacement</b> . . . . .	127.2 liters (37 762 in <sup>3</sup> ) . . . . .	169.6 liters (10 350 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	15 640 kg (34 560 lbs) . . . . .	19 000 kg (41 888 lbs)
<b>Approximate Dimensions:</b>		
<b>Length</b> . . . . .	4638 mm (183 in) . . . . .	5465 mm (215 in)
<b>Width</b> . . . . .	1744 mm (69 in) . . . . .	1868 mm (74 in)
<b>Height</b> . . . . .	2921 mm (115 in) . . . . .	2922 mm (115 in)

	<b>G3612 (TA)</b>	<b>G3616 (TA)</b>
<b>Bore x Stroke</b> . . . . .	300 x 300 mm (11.8 x 11.8 in) . . . . .	300 x 300 mm (11.8 x 11.8 in)
<b>Displacement</b> . . . . .	254.4 liters (15 528 in <sup>3</sup> ) . . . . .	339.2 liters (20 698 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	25 084 kg (55 300 lbs) . . . . .	29 892 kg (65 900 lbs)
<b>Approximate Dimensions:</b>		
<b>Length</b> . . . . .	4735mm (186 in) . . . . .	5661 mm (223 in)
<b>Width</b> . . . . .	2380 mm (94 in) . . . . .	2380 mm (94 in)
<b>Height</b> . . . . .	3220 mm (127 in) . . . . .	3208 mm (126 in)

### G3606 Ratings In-Line 6

Engine — Continuous	1000 rpm	
	bkW	bhp
<b>G3606 LE<sup>1,2,3</sup></b>	1324	1775

### G3608 Ratings In-Line 8

Engine — Continuous	1000 rpm	
	bkW	bhp
<b>G3608 LE<sup>1,2,3</sup></b>	1767	2370

### G3612 Ratings V-12

Engine — Continuous	1000 rpm	
	bkW	bhp
<b>G3612 LE<sup>1,2,3</sup></b>	2647	3550

### G3616 Ratings V-16

Engine — Continuous	1000 rpm	
	bkW	bhp
<b>G3616 LE<sup>1,2,3</sup></b>	3531	4735

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

<sup>2</sup>250 mg/Nm<sup>3</sup> dry (0.5 gr/bhp-hr)

NOx emissions (corrected to 5% O<sub>2</sub>)

<sup>3</sup>350 mg/Nm<sup>3</sup> dry (0.7 gr/bhp-hr)

NOx emissions (corrected to 5% O<sub>2</sub>)

## Features

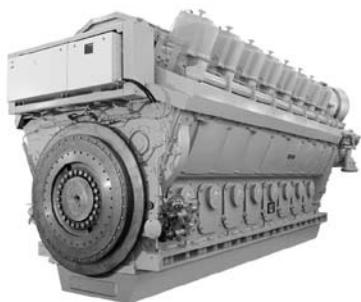
- Over 5 decades experience leveraging Caterpillar quality engineering and manufacturing of gas and diesel powered engines
- Fuel flexibility
- State-of-the-art electronically controlled pre-chamber design
- ADEM A3 control system with detonation-sensitive timing control for individual cylinders

## Benefits

- Standard engine configuration will operate on a broad range of field gases with no hardware changes required
- Meets latest worldwide emissions standards
- Cat engineered design expertise has been applied
- Electronically controlled pre-chamber design allows you to obtain NOx levels as low as 0.5 gr/bhp-hr

**Abbreviations used:**

TA.....Turbocharged/Aftercooled



**G16CM34**

## Specifications

	<b>G12CM34</b>	<b>G16CM34 (TA)</b>
<b>Bore x Stroke</b> . . . . .	340 x 420 mm (13.4 x 16.5 in) . . . . .	340 x 420 mm (13.4 x 16.5 in)
<b>Displacement</b> . . . . .	458 liters (27 947 in <sup>3</sup> ) . . . . .	610 liters (37 222 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	65 000 kg (143 300 lbs) . . . . .	81 229 kg (179 080 lbs)
<b>Approximate Dimensions:</b>		
<b>Length</b> . . . . .	7055 mm (278 in) . . . . .	8090 mm (319 in)
<b>Width</b> . . . . .	2901 mm (114 in) . . . . .	2960 mm (117 in)
<b>Height</b> . . . . .	3622 mm (143 in) . . . . .	3473 mm (137 in)

## G12CM34 Ratings V-12

Engine — Continuous	750 rpm	
	bkW	bhp
<b>G12CM34</b>	4290-4575	5753-6135

## G16CM34 Ratings V-16

Engine — Continuous	750 rpm	
	bkW	bhp
<b>G16CM34</b>	6100	8180

## Features

- ADEM™ A3 ECU
- Precise fuel metering via electronic gas admission valves
- Active, per cylinder detonation control
- Heavy-duty core components, same as marine heavy fuel engine
- Constant torque speed turndown 750-450 rpm

## Benefits

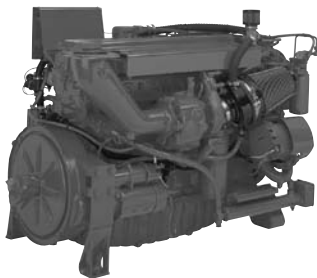
- High efficiency 5900 Btu/bhp-hr
- Low emissions — 0.5 gr/bhp-hr NOx
- High reliability
- Long maintenance intervals

### Abbreviations used:

**TA**.....Turbocharged/Aftercooled

**ECU**.....Electronic Control Unit

**Fire Pump  
Engine**



### 3412C\*\* Ratings V-12

1750 rpm		1900 rpm		2100 rpm	
bkW	bhp	bkW	bhp	bkW	bhp
<b>T</b>					
401	538	—	—	427	573
<b>TA</b>					
476	638	551	739	551	739

### 3508\*\* Ratings V-8

1460 rpm		1750 rpm	
bkW	bhp	bkW	bhp
<b>TA</b>			
709	950	794	1065

### 3512\*\* Ratings V-12

1460 rpm		1750 rpm	
bkW	bhp	bkW	bhp
<b>TA</b>			
1067	1430	1193	1600

### 3516\*\* Ratings V-16

1460 rpm		1750 rpm	
bkW	bhp	bkW	bhp
<b>TA</b>			
1417	1900	1480	1985

**Abbreviations used:**

**JWAC**.....Jacket Water Aftercooled

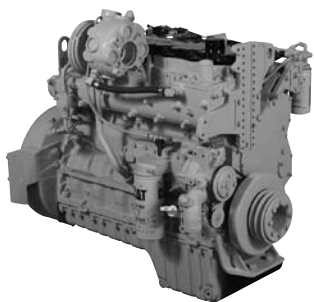
**T**.....Turbocharged

**TA**.....Turbocharged/Aftercooled

3412C is FM/UL certified

\*New Source Performance Standard (NSPS) compliant

\*\*For export only



**C7 ACERT  
Engine**

## **C7 ACERT Wet Ratings**

In-Line 6

2200 rpm

bkW	bhp
153	205
172	230
205	275

## **C9 ACERT Wet Ratings**

In-Line 6

2200 rpm

bkW	bhp
242	325
254	340

## **C32 ACERT Wet Ratings**

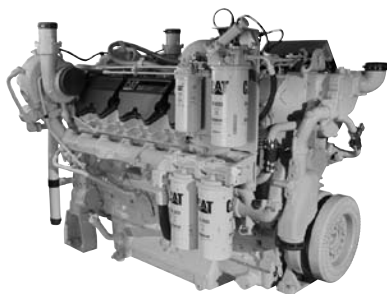
V-12

2100 rpm

bkW	bhp
597	800
641	860
686	920
746	1000
828	1110
913	1225

## **Features/Benefits**

- Optional corrosion protection package with epoxy mastic primer finish
- Water cooled exhaust manifold and turbos



**C32 Hazardous Area Engine**

## **C7 Hazardous Area\* Ratings** In-Line 6

2200 rpm	
bkW	bhp
153	205
172	230
205	275
205	275***

## **C9 Hazardous Area\* Ratings** In-Line 6

2200 rpm	
bkW	bhp
242	325
254	340
254	340***

## **C-15 Hazardous Area Ratings\*\*** In-Line 6

2100 rpm	
bkW	bhp
373	500

## **C32 Hazardous Area\* Ratings** V-12

2100 rpm	
bkW	bhp
597	800
641	860
686	920
828	1110

\*Engines meet ATEX, NEC 500, and NEC 505 standards

\*\*Engines meet ATEX standards only

\*\*\*Engine configured for ambient temperature derate

# Generator Set Ratings

## Diesel 50 Hz (Continuous)

Model	rpm	kV•A
C15	1500	365
C15	1500	455
C18	1500	500
C18	1500	545
C32 ACERT®	1500	830
3508B	1500	910
C32 ACERT®	1500	910
3512	1500	1010
3512B	1500	1010
3512B	1500	1206
3512B	1500	1230
3516B-HD	1500	1500
3516	1500	1600
3516	1500	1640
3516B	1500	1750
3516B-HD	1500	2000
3508	1000	488
3508B	1000	638
3512	1000	969
3512B	1000	1013
3516	1000	1225
3516B	1000	1288
6CM20	1000	1368
8CM20	1000	1825
9CM20	1000	2025
3606	1000	2200
3608	1000	2938
3612	1000	4400
3616	1000	5875
3606	750	1775
6CM25	750	2225
8CM25	750	2875
3608	750	2363
9CM25	750	3238
3612	750	3550
3616	750	4725
12CM32	750	6988
16CM32	750	9313
6CM32	600	3456
8CM32	600	4656
9CM32	600	5238
6CM43	500	6550
7CM43	500	7638
8CM43	500	8725
9CM43	500	9825
12CM43	500	13094

## Diesel 60 Hz (Continuous)

Model	rpm	ekW
C15	1800	320
C15	1800	365
C15	1800	410
C15	1800	455
C18	1800	500
C18	1800	545
3508B	1800	660
C32 ACERT®	1800	740
3508B	1800	832
C32 ACERT®	1800	830
3512	1800	890
3512B	1800	1030
3512	1800	1010
3512B	1800	1230
3512C	1800	1230
3516	1800	1450
3516B	1800	1640
3516C	1800	1640
3516C-HD	1800	2050
3508	1200	400
3508B	1200	520
3512	1200	870
3512B	1200	890
3516	1200	1100
3516B	1200	1145
3516B	1200	1325
6CM20	900	980
8CM20	900	1300
9CM20	900	1470
3606	900	1650
3608	900	2200
3612	900	3300
3616	900	4400
3606	720	1375
6CM25	720	1730
3608	720	1830
8CM25	720	2230
9CM25	720	2500
3612	720	2750
3616	720	3660
12CM32	720	5590
16CM32	720	7450
6CM32	600	2765
8CM32	600	3725
9CM32	600	4190
6CM43	514	5240
7CM43	514	6110
8CM43	514	6980
9CM43	514	7860
12CM43	514	10475

## Gas 50 Hz (Continuous)

Model	rpm	kV•A
G3406	1500	200
G3412	1500	380
G3516 LE	1500	1087
G3516 LE	1500	1219
G3516 LE	1500	1288

## Gas 60 Hz (Continuous)

Model	rpm	ekW
G3406	1800	190
G3412	1800	360
G3516 LE	1200	770

# Power Module Ratings

## 60 Hz

Model	rpm	ekW	kV•A
C175-16	1200	1833	2619
3508B	1200	600	750
3508B	1800	910	1140
3508C	1200	682	855
3512B	1200	1030	1290
3512B	1800	1360	1700
3512C	1200	1101	1375
3516B	1200	1285	1600
3516B	1800	1825	2280
3516C HD	1200	1637	2050
3606 Continuous	900	1650	2063
3606 Prime	900	1820	2275
3608 Continuous	900	2200	2750
3608 Prime	900	2420	3025
3612 Continuous	900	3300	4125
3612 Prime	900	3640	4550
3616 Continuous	900	4400	5500
3616 Prime	900	4840	6050

# *Engine and Transmission Packages*

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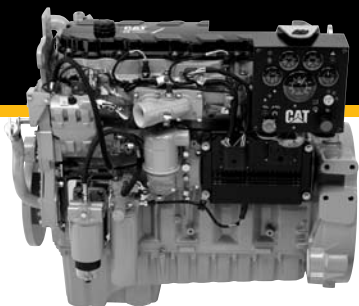
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# Application Chart

Engine	Transmission	Max hp	Page
<b>C9 ACERT</b>	TH31-E61	350	42-43
	TH31-E61 (Dropbox 2WD or 4WD)	350	44-45
	CX31-P600 (Dropbox 2WD or 4WD)	600	46-47
<b>C11 ACERT</b>	TH35-E81	450	48-49
	TH35-E81 (Dropbox 2WD or 4WD)	450	50-51
	CX31-P600 (Dropbox 2WD or 4WD)	600	52-53
<b>C13 ACERT</b>	TH35-E81	520	54-55
	TH35-E81 (Dropbox 2WD or 4WD)	520	56-57
	CX31-P600 (Dropbox 2WD or 4WD)	600	58-59
<b>C15 ACERT</b>	TH35-E81	540	60-61
	TH35-E81 (Dropbox 2WD or 4WD)	540	62-63
	CX31-P600 (Dropbox 2WD or 4WD)	600	64-65
	CX35-P800	800	66-67
<b>C18 ACERT</b>	CX35-P800	800	68-69
<b>C27 ACERT</b>	TH48-E70	1150	70-71
<b>C32 ACERT</b>	TH48-E70	1500	72-73
<b>3512B</b>	TH48-E80	2250	74-75
<b>3512C</b>	TH48-E80	2250	76-77
	TH55-E70	2500	78-79

# C9 ACERT®



## Specifications

	<b>C9 ACERT</b>
<b>Bore x Stroke</b> . . . .	112 x 149 mm (4.41 x 5.87 in)
<b>Displacement</b> . . . .	8.8 liters (537 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	776 kg (1719 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	1198 mm (47 in)
<b>Width</b> . . . . .	819 mm (32 in)
<b>Height</b> . . . . .	1002 mm (40 in)

## C9 ACERT Ratings In-Line 6

<b>A Rating</b> (Continuous)			<b>B Rating</b>			<b>C Rating</b> (Intermittent)			<b>D Rating</b>		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>											
205	275	1800-	224	300	1800-	242	325	1800-	280	375	1800-
		2200			2200			2200			2200
—	—	—	—	—	—	261	350	1800-	—	—	—
								2200			

## Features

- ADEM™ A4 ECU
- HEUI™ fuel system
- High efficiency oil filters
- Fractured split connecting rods
- Lightweight cylinder block
- Wastegated turbocharger

## Benefits

- Mid-supported wet liner allows better fuel consumption and reduced emissions
- Extended life with induction-hardened internal surface
- Optimized fuel injector control
- New oil filter reconfigured to reduce wear on engine
- Meets Tier 3/Stage IIIA emissions requirements

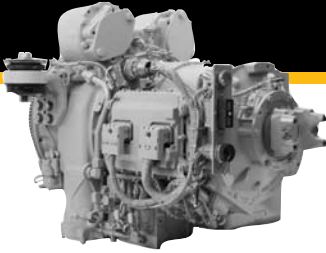
### Abbreviations used:

**ATAAC**.....Air-to-Air Aftercooled

**ECU**.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.



## Ratings

Gross Input Power	261 kW (350 hp)
Gross Input Torque	1556 N•m (1148 lb-ft)
Maximum Turbine Torque	2746 N•m (2025 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2500 rpm

## Mountings

*Structural application subject to Caterpillar approval*

Input Connection (Flywheel):  
SAE #1 dry flywheel housing with flexplate converter drive

Output Connection Options:  
1710 output yoke  
1810 companion flange

## Torque Converter

Series	TC40-ESLF
Stall Torque Ratio	2.46

## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive,  
1:1 ratio from the input shaft,  
Pump drive rotates same as  
transmission input

### Location & Rated Power

11 o'clock 149 kW/200 hp and  
1 o'clock 149 kW/200 hp  
Total 164 kW (220 hp)

**Note:** Locations are as viewed from  
transmission output.

### PTO Mountings

SAE C mounting pads facing output (2)  
SAE B mounting pads facing input (2)

## Oil System

### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

## Installation Connections

1 Cooler, 1 Electrical

## Gears

Type	Straight, Spur Planetary
Forward/Reverse	6F/1R

## Transmission Speed Ratios

Gear	Ratio
1F	4.40
2F	2.33
3F	1.53
4F	1.00
5F	0.71
6F	0.60
1R	3.96

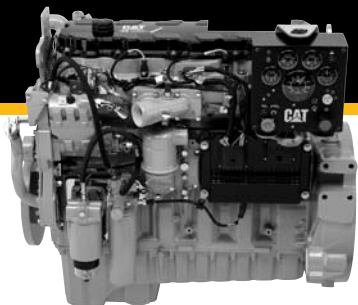
## Dimensions

Height:	833.8 mm (32.83 in)
Width:	1008.6 mm (39.71 in)
Length:	1097.5 mm (43.21 in)

## Weight

Approximate Dry Weight	841 kg (1855 lbs)
---------------------------	-------------------

# C9 ACERT



## Specifications

### C9 ACERT

<b>Bore x Stroke</b> . . . . .	112 x 149 mm (4.41 x 5.87 in)
<b>Displacement</b> . . . . .	8.8 liters (537 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	776 kg (1719 lbs)

#### Approximate Dimensions:

<b>Length</b> . . . . .	1198 mm (47 in)
<b>Width</b> . . . . .	819 mm (32 in)
<b>Height</b> . . . . .	1002 mm (40 in)

## C9 ACERT Ratings In-Line 6

A Rating (Continuous)			B Rating			C Rating (Intermittent)			D Rating		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>											
205	275	1800- 2200	224	300	1800- 2200	242	325	1800- 2200	280	375	1800- 2200
—	—	—	—	—	—	261	350	1800- 2200	—	—	—

## Features

- ADEM A4 ECU
- HEUI fuel system
- High efficiency oil filters
- Fractured split connecting rods
- Lightweight cylinder block
- Wastegated turbocharger

## Benefits

- Mid-supported wet liner allows better fuel consumption and reduced emissions
- Extended life with induction-hardened internal surface
- Optimized fuel injector control
- New oil filter reconfigured to reduce wear on engine
- Meets Tier 3/Stage IIIA emissions requirements

#### Abbreviations used:

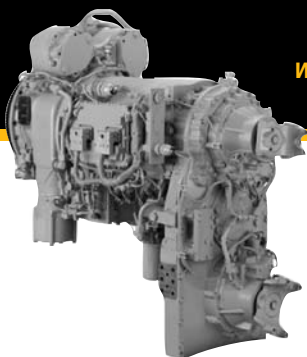
- ATAAC.....Air-to-Air Aftercooled
- ECU.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

# TH31-E61

WITH INTEGRAL DROP BOX



## Ratings

Gross Input Power	261 kW (350 hp)
Gross Input Torque	1556 N•m (1148 lb-ft)
Maximum Turbine Torque	2746 N•m (2025 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2500 rpm

## Mountings

Structural application subject to Caterpillar approval

Input Connection (Flywheel):  
SAE #1 dry flywheel housing with flexplate converter drive

Output Connection Options:  
1710 output yoke  
1810 companion flange

## Torque Converter

Series	TC40-ESLF
Stall Torque Ratio	2.46

## Power Take Off

(Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive,  
1:1 ratio from the input shaft,  
Pump drive rotates same as  
transmission input

### Location & Rated Power

11 o'clock 149 kW/200 hp and  
1 o'clock 149 kW/200 hp  
Total 164 kW (220 hp)

**Note:** Locations are as viewed from  
transmission output.

### PTO Mountings

SAE C mounting pads facing output (2)  
SAE B mounting pads facing input (2)

## Oil System

### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

## Installation Connections

1 Cooler, 1 Electrical

## Gears

Type	Straight, Spur Planetary
Forward/Reverse	6F/1R

## Transmission Speed Ratios

Gear	Ratio
1F	4.40
2F	2.33
3F	1.53
4F	1.00
5F	0.71
6F	0.60
1R	3.96

## Dimensions

Height:	1371.1 mm (53.98 in)
Width:	685.6 mm (26.99 in)
Length:	1377.1 mm (54.22 in)

## Weight

Approximate Dry Weight	
2WD model	1250 kg (2755 lbs)
4WD model	1282 kg (2827 lbs)

## Integral Drop Box (optional)

### Drive Ratio

1:1 to selected outputs

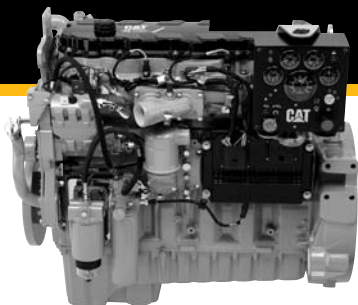
### Drop Height

610 mm (24 in) from transmission  
centerline

### Output Connections (Yokes)

2WD model — one additional 1710  
yoke or 1810 companion flange  
4WD model — two additional 1710  
yokes or 1810 companion flanges

# C9 ACERT



## Specifications

	C9 ACERT
Bore x Stroke . . . . .	112 x 149 mm (4.41 x 5.87 in)
Displacement . . . . .	8.8 liters (537 in <sup>3</sup> )
Ship Weight . . . . .	776 kg (1719 lbs)

### Approximate Dimensions:

Length . . . . .	1198 mm (47 in)
Width . . . . .	819 mm (32 in)
Height . . . . .	1002 mm (40 in)

## C9 ACERT Ratings In-Line 6

A Rating (Continuous)		B Rating			C Rating (Intermittent)			D Rating			
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>											
205	275	1800-	224	300	1800-	242	325	1800-	280	375	1800-
		2200			2200			2200			2200
—	—	—	—	—	—	261	350	1800-	—	—	—
								2200			

## Features

- ADEM A4 ECU
- HEUI fuel system
- High efficiency oil filters
- Fractured split connecting rods
- Lightweight cylinder block
- Wastegated turbocharger

## Benefits

- Mid-supported wet liner allows better fuel consumption and reduced emissions
- Extended life with induction-hardened internal surface
- Optimized fuel injector control
- New oil filter reconfigured to reduce wear on engine
- Meets Tier 3/Stage IIIA emissions requirements

### Abbreviations used:

ATAAC.....Air-to-Air Aftercooled

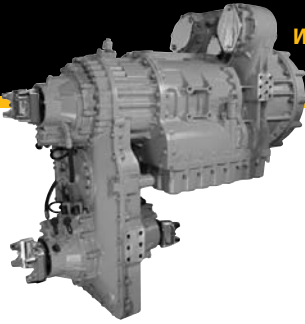
ECU.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

# CX31-P600

WITH INTEGRAL DROP BOX



## Ratings

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

## Mountings

Structural application subject to Caterpillar approval

Input Connection (Flywheel):	SAE #1 dry flywheel housing
Output Connection Options:	1710 output yoke, 1810 yoke, 1810 companion flange, ISO-8667 flange
Side Supports:	SAE #2 pads (2)

## Torque Converter

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

## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive, 1:1 ratio from the input shaft, Pump drive rotates same as transmission input

### Location

Standard: 1 o'clock and 8 o'clock, 5 o'clock at rear

Optional Integral PTO Drives:

1 o'clock and 11 o'clock, 5 o'clock at rear

**Note:** Locations are as viewed from transmission output.

### PTO Mountings

Cat 8-bolt pattern and spline at standard side and rear (1)

## Oil System

### Oil Temperatures

Continuous	90° C (194° F)
Maximum Intermittent	99° C (210° F)

## Installation Connections

2 Oil Cooler, 2 Electrical

## Gears

Type	Planetary Spur
Forward/Reverse	6F/1R

## 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

## Dimensions

Height:	1393 mm (54.8 in)
Width:	672 mm (26.5 in)
Length:	1383 mm (54.4 in)

## Weight

Approximate Dry Weight

2WD model	842 kg (1857 lbs)
4WD model	876 kg (1932 lbs)

## Integral Drop Box (optional)

### Drive Ratio

1:1 to selected outputs

### Drop Height

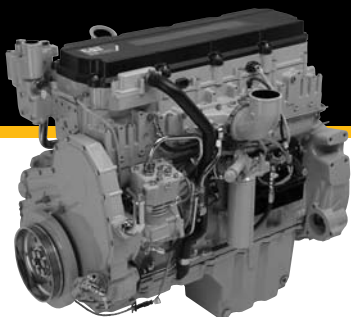
610 mm (24 in) from transmission centerline

### Output Connections (Yokes)

2WD model — one additional 1710 yoke or 1810 companion flange

4WD model — two additional 1710 yokes or 1810 companion flanges

# C11 ACERT



## C11 ACERT

**Bore x Stroke** . . . . 130 x 140 mm (5.12 x 5.51 in)

**Displacement** . . . . 11.1 liters (677 in<sup>3</sup>)

**Ship Weight** . . . . . 930 kg (2050 lbs)

### Approximate Dimensions:

**Length** . . . . . 1287 mm (51 in)

**Width** . . . . . 918 mm (36 in)

**Height** . . . . . 1078 mm (42 in)

## C11 ACERT Ratings In-Line 6

A Rating (Continuous)			B Rating			C Rating (Intermittent)			D Rating			E Rating		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
ATAAC														
242	325	1800-	261	350	1800-	287	385	1800-	313	420	1800-	336	450	1800-
		2100			2100			2100			2100			2100

## Features

- ADEM A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

## Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Oil pan isolation reduces noise volume
- Multi-layered steel head gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control
- Meets Tier 3/Stage IIIA emissions requirements

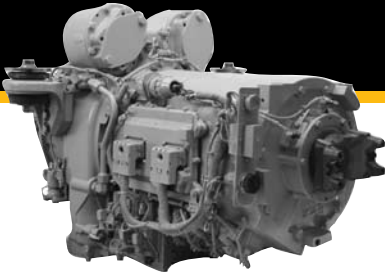
### Abbreviations used:

**ATAAC**.....Air-to-Air Aftercooled

**ECU**.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.



## Ratings

Gross Input Power	410 kW (540 hp)
Gross Input Torque	2237 N•m (1650 lb-ft)
Maximum Turbine Torque	3295 N•m (2430 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2500 rpm

## Mountings

*Structural application subject to Caterpillar approval*

Input Connection (Flywheel):  
SAE #1 dry flywheel housing with flexplate converter drive

Output Connection Options:  
1810 output yoke  
1810 companion flange

## Torque Converter

Series	TC40-ESLF
Stall Torque Ratio	2.46

## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive,  
1:1 ratio from the input shaft,  
Pump drive rotates same as  
transmission input

### Location & Rated Power

11 o'clock 149 kW/200 hp and  
1 o'clock 149 kW/200 hp  
Total 164 kW (220 hp)

**Note:** Locations are as viewed from  
transmission output.

### PTO Mountings

SAE C mounting pads facing output (2)  
SAE B mounting pads facing input (2)

## Oil System

### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

## Installation Connections

1 Cooler, 1 Electrical

## Gears

Type	Straight, Spur Planetary
Forward/Reverse	8F/1R

## Transmission Speed Ratios

Gear	Ratio
1F	5.72
2F	3.57
3F	2.71
4F	1.94
5F	1.42
6F	1.00
7F	0.73
8F	0.63
1R	4.46

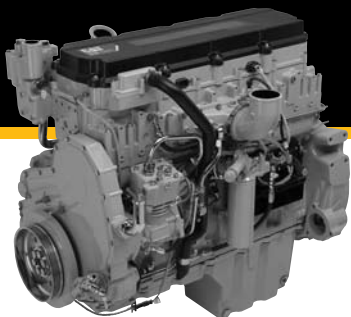
## Dimensions

Height:	833.8 mm (32.83 in)
Width:	1023.6 mm (40.30 in)
Length:	1222.8 mm (48.14 in)

## Weight

Approximate Dry Weight	973 kg (2145 lbs)
---------------------------	-------------------

# C11 ACERT



## Specifications

	<b>C11 ACERT</b>
<b>Bore x Stroke</b> . . . .	130 x 140 mm (5.12 x 5.51 in)
<b>Displacement</b> . . . .	11.1 liters (677 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	930 kg (2050 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	1287 mm (51 in)
<b>Width</b> . . . . .	918 mm (36 in)
<b>Height</b> . . . . .	1078 mm (42 in)

## C11 ACERT Ratings In-Line 6

A Rating (Continuous)			B Rating			C Rating (Intermittent)			D Rating			E Rating		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>														
242	325	1800-	261	350	1800-	287	385	1800-	313	420	1800-	336	450	1800-
		2100			2100			2100			2100			2100

## Features

- ADEM™ A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

## Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Oil pan isolation reduces noise volume
- Multi-layered steel head gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control
- Meets Tier 3/Stage IIIA emissions requirements

### Abbreviations used:

**ATAAC**.....Air-to-Air Aftercooled

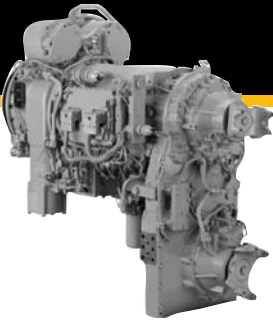
**ECU**.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

# TH35-E81

WITH INTEGRAL DROP BOX



## Ratings

Gross Input Power	410 kW (540 hp)
Gross Input Torque	2237 N•m (1650 lb-ft)
Maximum Turbine Torque	3295 N•m (2430 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2500 rpm

## Mountings

Structural application subject to Caterpillar approval

Input Connection (Flywheel):  
SAE #1 dry flywheel housing with flexplate converter drive

Output Connection Options:  
1810 output yoke  
1810 companion flange

## Torque Converter

Series	TC40-ESLF
Stall Torque Ratio	2.46

## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive,  
1:1 ratio from the input shaft,  
Pump drive rotates same as  
transmission input

### Location & Rated Power

11 o'clock 149 kW/200 hp and  
1 o'clock 149 kW/200 hp

Total 164 kW (220 hp)

**Note:** Locations are as viewed from  
transmission output.

### PTO Mountings

SAE C mounting pads facing output (2)  
SAE B mounting pads facing input (2)

## Oil System

### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

## Installation Connections

1 Cooler, 1 Electrical

## Gears

Type	Straight, Spur Planetary
Forward/Reverse	8F/1R

## Transmission Speed Ratios

Gear	Ratio
1F	5.72
2F	3.57
3F	2.71
4F	1.94
5F	1.42
6F	1.00
7F	0.73
8F	0.63
1R	4.46

## Dimensions

Height:	1371.1 mm (53.98 in)
Width:	685.6 mm (26.99 in)
Length:	1491.4 mm (58.71 in)

## Weight

Approximate Dry Weight	
2WD model	1350 kg (2975 lbs)
4WD model	1382 kg (3047 lbs)

## Integral Drop Box (optional) Drive Ratio

1:1 to selected outputs

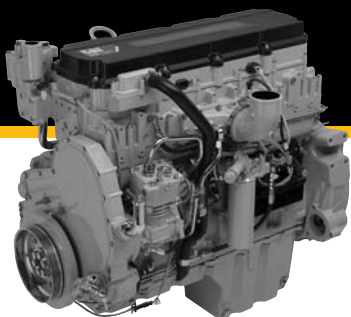
### Drop Height

610 mm (24 in) from transmission  
centerline

### Output Connection:

2WD model — one additional 1810  
yoke or companion flange  
4WD model — two additional 1810  
yokes or companion flanges

# C11 ACERT



## Specifications

C11 ACERT	
Bore x Stroke . . . .	130 x 140 mm (5.12 x 5.51 in)
Displacement . . . .	11.1 liters (677 in <sup>3</sup> )
Ship Weight . . . . .	930 kg (2050 lbs)
<b>Approximate Dimensions:</b>	
Length . . . . .	1287 mm (51 in)
Width . . . . .	918 mm (36 in)
Height . . . . .	1078 mm (42 in)

## C11 ACERT Ratings In-Line 6

A Rating (Continuous)			B Rating			C Rating (Intermittent)			D Rating			E Rating		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
ATAAC														
242	325	1800-2100	261	350	1800-2100	287	385	1800-2100	313	420	1800-2100	336	450	1800-2100

## Features

- ADEM™ A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

## Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Oil pan isolation reduces noise volume
- Multi-layered steel head gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control
- Meets Tier 3/Stage IIIA emissions requirements

### Abbreviations used:

ATAAC.....Air-to-Air Aftercooled

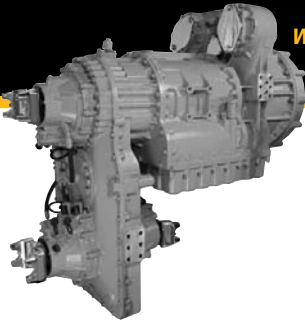
ECU.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

# CX31-P600

WITH INTEGRAL DROP BOX



## Ratings

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

## Mountings

Structural application subject to Caterpillar approval

Input Connection (Flywheel):	SAE #1 dry flywheel housing
Output Connection Options:	1710 output yoke, 1810 yoke, 1810 companion flange, ISO-8667 flange
Side Supports:	SAE #2 pads (2)

## Torque Converter

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

## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive, 1:1 ratio from the input shaft, Pump drive rotates same as transmission input

### Location

Standard: 1 o'clock and 8 o'clock, 5 o'clock at rear

Optional Integral PTO Drives: 1 o'clock and 11 o'clock, 5 o'clock at rear

**Note:** Locations are as viewed from transmission output.

### PTO Mountings

Cat 8-bolt pattern and spline at standard side and rear (1)

## Oil System

### Oil Temperatures

Continuous	90° C (194° F)
Maximum Intermittent	99° C (210° F)

## Installation Connections

2 Oil Cooler, 2 Electrical

## Gears

Type	Planetary Spur
Forward/Reverse	6F/1R

## 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

## Dimensions

Height:	1393 mm (54.8 in)
Width:	672 mm (26.5 in)
Length:	1383 mm (54.4 in)

## Weight

Approximate Dry Weight	
2WD model	842 kg (1857 lbs)
4WD model	876 kg (1932 lbs)

## Integral Drop Box (optional) Drive Ratio

1:1 to selected outputs

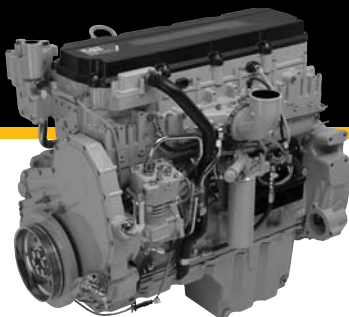
### Drop Height

610 mm (24 in) from transmission centerline

### Output Connections (Yokes)

2WD model	— one additional 1710 yoke or 1810 companion flange
4WD model	— two additional 1710 yokes or 1810 companion flanges

# C13 ACERT



## Specifications

	<b>C13 ACERT</b>
<b>Bore x Stroke</b> . . . .	130 x 157 mm (5.1 x 6.2 in)
<b>Displacement</b> . . . .	12.5 liters (763 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	1149 kg (2533 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	1287 mm (51 in)
<b>Width</b> . . . . .	918 mm (36 in)
<b>Height</b> . . . . .	1078 mm (42 in)

## C13 ACERT Ratings In-Line 6

<b>A Rating</b> (Continuous)			<b>B Rating</b>			<b>C Rating</b> (Intermittent)			<b>D Rating</b>			<b>E Rating</b>		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>														
287	385	1800-	310	415	1800-	328	440	1800-	354	475	1800-	388	520	1800-
		2100			2100			2100			2100			2100

## Features

- ADEM A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

## Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Oil pan isolation reduces noise volume
- Multi-layered steel head gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control
- Meets Tier 3/Stage IIIA emissions requirements

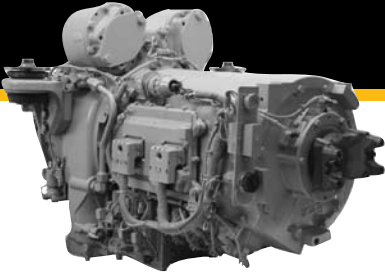
### Abbreviations used:

**ATAAC**.....Air-to-Air Aftercooled

**ECU**.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.



## Ratings

Gross Input Power	410 kW (540 hp)
Gross Input Torque	2237 N•m (1650 lb-ft)
Maximum Turbine Torque	3295 N•m (2430 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2500 rpm

## Mountings

*Structural application subject to Caterpillar approval*

Input Connection (Flywheel):	SAE #1 dry flywheel housing with flexplate converter drive
Output Connection Options:	1810 output yoke 1810 companion flange

## Torque Converter

Series	TC40-ESLF
Stall Torque Ratio	2.46

## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive,  
1:1 ratio from the input shaft,  
Pump drive rotates same as  
transmission input

### Location & Rated Power

11 o'clock 149 kW/200 hp and  
1 o'clock 149 kW/200 hp  
Total 164 kW (220 hp)

**Note:** Locations are as viewed from  
transmission output.

### PTO Mountings

SAE C mounting pads facing output (2)  
SAE B mounting pads facing input (2)

## Oil System

### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

## Installation Connections

1 Cooler, 1 Electrical

## Gears

Type	Straight, Spur Planetary
Forward/Reverse	8F/1R

## Transmission Speed Ratios

Gear	Ratio
1F	5.72
2F	3.57
3F	2.71
4F	1.94
5F	1.42
6F	1.00
7F	0.73
8F	0.63
1R	4.46

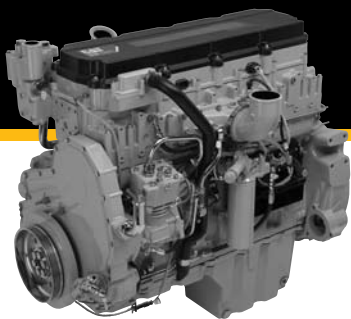
## Dimensions

Height:	833.8 mm (32.83 in)
Width:	1023.6 mm (40.30 in)
Length:	1222.8 mm (48.14 in)

## Weight

Approximate Dry Weight	973 kg (2145 lbs)
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# C13 ACERT



## Specifications

	<b>C13 ACERT</b>
<b>Bore x Stroke</b> . . . .	130 x 157 mm (5.1 x 6.2 in)
<b>Displacement</b> . . . .	12.5 liters (763 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	1149 kg (2533 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	1287 mm (51 in)
<b>Width</b> . . . . .	918 mm (36 in)
<b>Height</b> . . . . .	1078 mm (42 in)

## C13 ACERT Ratings In-Line 6

<b>A Rating</b> (Continuous)		<b>B Rating</b>			<b>C Rating</b> (Intermittent)			<b>D Rating</b>			<b>E Rating</b>			
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>														
287	385	1800-	310	415	1800-	328	440	1800-	354	475	1800-	388	520	1800-
		2100			2100			2100			2100			2100

## Features

- ADEM A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

## Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Oil pan isolation reduces noise volume
- Multi-layered steel head gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control
- Meets Tier 3/Stage IIIA emissions requirements

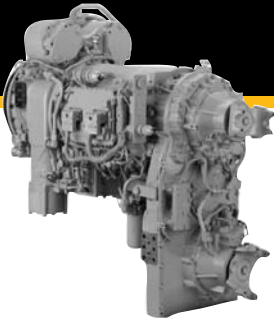
### Abbreviations used:

**ATAAC**.....Air-to-Air Aftercooled

**ECU**.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.



### Ratings

Gross Input Power	410 kW (540 hp)
Gross Input Torque	2237 N•m (1650 lb-ft)
Maximum Turbine Torque	3295 N•m (2430 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2500 rpm

### Mountings

*Structural application subject to Caterpillar approval*

Input Connection (Flywheel):	SAE #1 dry flywheel housing with flexplate converter drive
Output Connection Options:	1810 output yoke 1810 companion flange

### Torque Converter

Series	TC40-ESLF
Stall Torque Ratio	2.46

### Power Take Off (Pump Auxiliary Drive)

#### Description

4 x PTOs integral live drive, 1:1 ratio from the input shaft, Pump drive rotates same as transmission input

#### Location & Rated Power

11 o'clock 149 kW/200 hp and  
1 o'clock 149 kW/200 hp  
Total 164 kW (220 hp)

**Note:** Locations are as viewed from transmission output.

#### PTO Mountings

SAE C mounting pads facing output (2)  
SAE B mounting pads facing input (2)

### Oil System

#### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

### Installation Connections

1 Cooler, 1 Electrical

### Gears

Type	Straight, Spur Planetary
Forward/Reverse	8F/1R

### Transmission Speed Ratios

Gear	Ratio
1F	5.72
2F	3.57
3F	2.71
4F	1.94
5F	1.42
6F	1.00
7F	0.73
8F	0.63
1R	4.46

### Dimensions

Height:	1371.1 mm (53.98 in)
Width:	685.6 mm (26.99 in)
Length:	1491.4 mm (58.71 in)

### Weight

Approximate Dry Weight	
2WD model	1350 kg (2975 lbs)
4WD model	1382 kg (3047 lbs)

### Integral Drop Box

#### Drive Ratio

1:1 to selected outputs

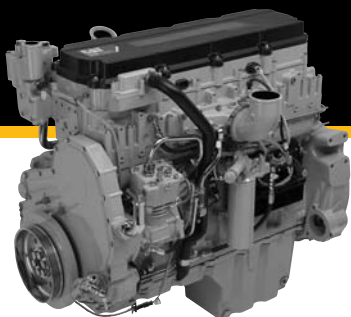
#### Drop Height

610 mm (24 in) from transmission centerline

#### Output Connection:

2WD model — one additional 1810 yoke or companion flange  
4WD model — two additional 1810 yokes or companion flanges

# C13 ACERT



## Specifications

	<b>C13 ACERT</b>
<b>Bore x Stroke</b> . . . .	130 x 157 mm (5.1 x 6.2 in)
<b>Displacement</b> . . . .	12.5 liters (763 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	1149 kg (2533 lbs)
<b>Approximate Dimensions:</b>	
<b>Length</b> . . . . .	1287 mm (51 in)
<b>Width</b> . . . . .	918 mm (36 in)
<b>Height</b> . . . . .	1078 mm (42 in)

## C13 ACERT Ratings In-Line 6

<b>A Rating</b> (Continuous)			<b>B Rating</b>			<b>C Rating</b> (Intermittent)			<b>D Rating</b>			<b>E Rating</b>		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>														
287	385	1800- 2100	310	415	1800- 2100	328	440	1800- 2100	354	475	1800- 2100	388	520	1800- 2100

## Features

- ADEM A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

## Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Oil pan isolation reduces noise volume
- Multi-layered steel head gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control
- Meets Tier 3/Stage IIIA emissions requirements

### Abbreviations used:

**ATAAC**.....Air-to-Air Aftercooled

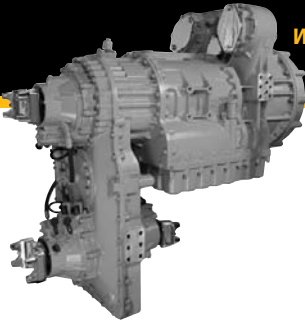
**ECU**.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

# CX31-P600

WITH INTEGRAL DROP BOX



## Ratings

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

## Mountings

*Structural application subject to Caterpillar approval*

Input Connection (Flywheel):	SAE #1 dry flywheel housing
Output Connection Options:	1710 output yoke, 1810 yoke, 1810 companion flange, ISO-8667 flange
Side Supports:	SAE #2 pads (2)

## Torque Converter

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

## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive, 1:1 ratio from the input shaft, Pump drive rotates same as transmission input

### Location

Standard: 1 o'clock and 8 o'clock, 5 o'clock at rear

Optional Integral PTO Drives:

1 o'clock and 11 o'clock, 5 o'clock at rear

**Note:** Locations are as viewed from transmission output.

### PTO Mountings

Cat 8-bolt pattern and spline at standard side and rear (1)

## Oil System

### Oil Temperatures

Continuous	90° C (194° F)
Maximum Intermittent	99° C (210° F)

## Installation Connections

2 Oil Cooler, 2 Electrical

## Gears

Type	Planetary Spur
Forward/Reverse	6F/1R

## 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

## Dimensions

Height:	1393 mm (54.8 in)
Width:	672 mm (26.5 in)
Length:	1383 mm (54.4 in)

## Weight

Approximate Dry Weight	
2WD model	842 kg (1857 lbs)
4WD model	876 kg (1932 lbs)

## Integral Drop Box (optional) Drive Ratio

1:1 to selected outputs

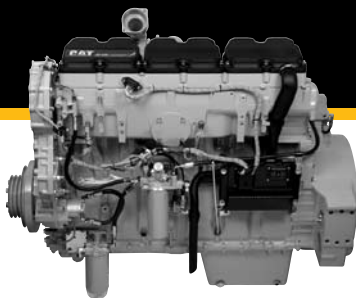
### Drop Height

610 mm (24 in) from transmission centerline

### Output Connections (Yokes)

2WD model	— one additional 1710 yoke or 1810 companion flange
4WD model	— two additional 1710 yokes or 1810 companion flanges

# C15 ACERT



## Specifications

	<b>C15 ACERT</b>
<b>Bore x Stroke</b> . . . .	137.2 x 171.4 mm (5.4 x 6.75 in)
<b>Displacement</b> . . . .	15.2 liters (927.56 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	1665 kg (3670 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	1661 mm (65 in)
<b>Width</b> . . . . .	901 mm (36 in)
<b>Height</b> . . . . .	1336 mm (53 in)

## C15 ACERT Ratings In-Line 6

<b>A Rating</b> (Continuous)			<b>B Rating</b>			<b>C Rating</b> (Intermittent)			<b>D Rating</b>			<b>E Rating</b>		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>														
328	440	1800-	354	475	1800-	403	540	1800-	433	580	1800-	444	595	1800-
		2100			2100			2100			2100			2100

## Features

- ADEM A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

## Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Multi-layered steel head gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control
- Meets Tier 3/Stage IIIA emissions requirements

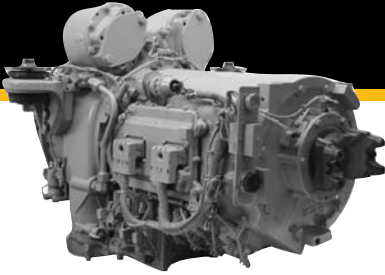
### Abbreviations used:

**ATAAC**.....Air-to-Air Aftercooled

**ECU**.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.



## Ratings

Gross Input Power	410 kW (540 hp)
Gross Input Torque	2237 N•m (1650 lb-ft)
Maximum Turbine Torque	3295 N•m (2430 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2500 rpm

## Mountings

*Structural application subject to Caterpillar approval*

Input Connection (Flywheel):  
SAE #1 dry flywheel housing with flexplate converter drive

Output Connection Options:  
1810 output yoke  
1810 companion flange

## Torque Converter

Series TC40-ESLF  
Stall Torque Ratio 2.46

## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive,  
1:1 ratio from the input shaft,  
Pump drive rotates same as  
transmission input

### Location & Rated Power

11 o'clock 149 kW/200 hp and  
1 o'clock 149 kW/200 hp  
Total 164 kW (220 hp)

**Note:** Locations are as viewed from  
transmission output.

### PTO Mountings

SAE C mounting pads facing output (2)  
SAE B mounting pads facing input (2)

## Oil System

### Oil Temperatures

Continuous 90° C (195° F)  
Maximum Operating 99° C (210° F)

## Installation Connections

1 Cooler, 1 Electrical

## Gears

Type Straight, Spur Planetary  
Forward/Reverse 8F/1R

## Transmission Speed Ratios

Gear	Ratio
1F	5.72
2F	3.57
3F	2.71
4F	1.94
5F	1.42
6F	1.00
7F	0.73
8F	0.63
1R	4.46

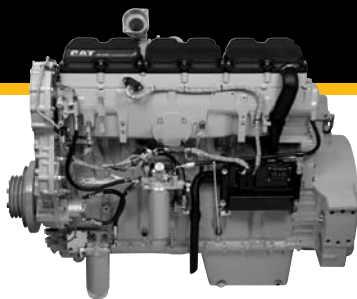
## Dimensions

Height: 833.8 mm (32.83 in)  
Width: 1023.6 mm (40.30 in)  
Length: 1222.8 mm (48.14 in)

## Weight

Approximate  
Dry Weight 973 kg (2145 lbs)

# C15 ACERT



## Specifications

	<b>C15 ACERT</b>
<b>Bore x Stroke</b> . . . .	137.2 x 171.4 mm (5.4 x 6.75 in)
<b>Displacement</b> . . . .	15.2 liters (927.56 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	1665 kg (3670 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	1661 mm (65 in)
<b>Width</b> . . . . .	901 mm (36 in)
<b>Height</b> . . . . .	1336 mm (53 in)

## C15 ACERT Ratings In-Line 6

<b>A Rating</b> (Continuous)			<b>B Rating</b>			<b>C Rating</b> (Intermittent)			<b>D Rating</b>			<b>E Rating</b>		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>														
328	440	1800-	354	475	1800-	403	540	1800-	433	580	1800-	444	595	1800-
		2100			2100			2100			2100			2100

## Features

- ADEM A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

## Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Multi-layered steel head gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control
- Meets Tier 3/Stage IIIA emissions requirements

### Abbreviations used:

**ATAAC**.....Air-to-Air Aftercooled

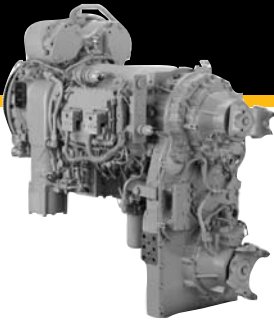
**ECU**.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

# TH35-E81

WITH INTEGRAL DROP BOX



## Ratings

Gross Input Power	410 kW (540 hp)
Gross Input Torque	2237 N•m (1650 lb-ft)
Maximum Turbine Torque	3295 N•m (2430 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2500 rpm

## Mountings

Structural application subject to Caterpillar approval

Input Connection (Flywheel):  
SAE #1 dry flywheel housing with flexplate converter drive

Output Connection Options:  
1810 output yoke  
1810 companion flange

## Torque Converter

Series	TC40-ESLF
Stall Torque Ratio	2.46

## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive,  
1:1 ratio from the input shaft,  
Pump drive rotates same as  
transmission input

### Location & Rated Power

11 o'clock 149 kW/200 hp and  
1 o'clock 149 kW/200 hp

Total 164 kW (220 hp)

**Note:** Locations are as viewed from  
transmission output.

### PTO Mountings

SAE C mounting pads facing output (2)  
SAE B mounting pads facing input (2)

## Oil System

### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

## Installation Connections

1 Cooler, 1 Electrical

## Gears

Type	Straight, Spur Planetary
Forward/Reverse	8F/1R

## Transmission Speed Ratios

Gear	Ratio
1F	5.72
2F	3.57
3F	2.71
4F	1.94
5F	1.42
6F	1.00
7F	0.73
8F	0.63
1R	4.46

## Dimensions

Height:	1371.1 mm (53.98 in)
Width:	685.6 mm (26.99 in)
Length:	1491.4 mm (58.71 in)

## Weight

Approximate Dry Weight	
2WD model	1350 kg (2975 lbs)
4WD model	1382 kg (3047 lbs)

## Integral Drop Box

### Drive Ratio

1:1 to selected outputs

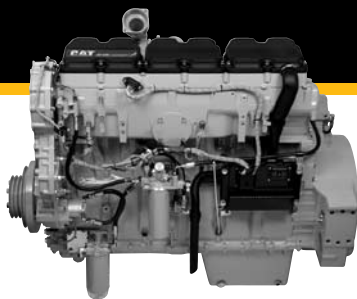
### Drop Height

610 mm (24 in) from transmission  
centerline

### Output Connection:

2WD model — one additional 1810  
yoke or companion flange  
4WD model — two additional 1810  
yokes or companion flanges

# C15 ACERT



## Specifications

	<b>C15 ACERT</b>
<b>Bore x Stroke</b> . . . .	137.2 x 171.4 mm (5.4 x 6.75 in)
<b>Displacement</b> . . . .	15.2 liters (927.56 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	1665 kg (3670 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	1661 mm (65 in)
<b>Width</b> . . . . .	901 mm (36 in)
<b>Height</b> . . . . .	1336 mm (53 in)

## C15 ACERT Ratings In-Line 6

<b>A Rating</b> (Continuous)			<b>B Rating</b>			<b>C Rating</b> (Intermittent)			<b>D Rating</b>			<b>E Rating</b>		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>														
328	440	1800-	354	475	1800-	403	540	1800-	433	580	1800-	444	595	1800-
		2100			2100			2100			2100			2100

## Features

- ADEM A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

## Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Multi-layered steel head gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control
- Meets Tier 3/Stage IIIA emissions requirements

### Abbreviations used:

**ATAAC**.....Air-to-Air Aftercooled

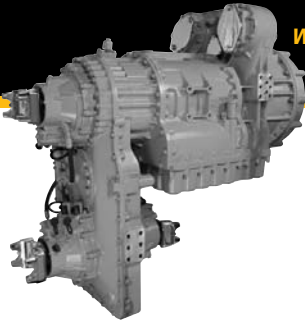
**ECU**.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

# CX31-P600

WITH INTEGRAL DROP BOX



## Ratings

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

## Mountings

Structural application subject to Caterpillar approval

Input Connection (Flywheel):	SAE #1 dry flywheel housing
Output Connection Options:	1710 output yoke, 1810 yoke, 1810 companion flange, ISO-8667 flange
Side Supports:	SAE #2 pads (2)

## Torque Converter

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

## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive, 1:1 ratio from the input shaft, Pump drive rotates same as transmission input

### Location

Standard: 1 o'clock and 8 o'clock, 5 o'clock at rear

Optional Integral PTO Drives:

1 o'clock and 11 o'clock, 5 o'clock at rear

**Note:** Locations are as viewed from transmission output.

### PTO Mountings

Cat 8-bolt pattern and spline at standard side and rear (1)

## Oil System

### Oil Temperatures

Continuous	90° C (194° F)
Maximum Intermittent	99° C (210° F)

## Installation Connections

2 Oil Cooler, 2 Electrical

## Gears

Type	Planetary Spur
Forward/Reverse	6F/1R

## 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

## Dimensions

Height:	1393 mm (54.8 in)
Width:	672 mm (26.5 in)
Length:	1383 mm (54.4 in)

## Weight

Approximate Dry Weight

2WD model	842 kg (1857 lbs)
4WD model	876 kg (1932 lbs)

## Integral Drop Box (optional)

### Drive Ratio

1:1 to selected outputs

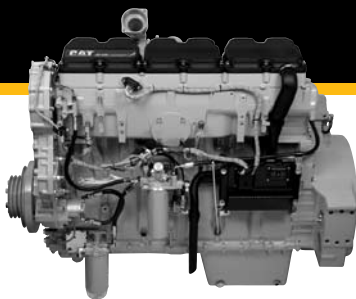
### Drop Height

610 mm (24 in) from transmission centerline

### Output Connections (Yokes)

2WD model	— one additional 1710 yoke or 1810 companion flange
4WD model	— two additional 1710 yokes or 1810 companion flanges

# C15 ACERT



## Specifications

	<b>C15 ACERT</b>
<b>Bore x Stroke</b> . . . .	137.2 x 171.4 mm (5.4 x 6.75 in)
<b>Displacement</b> . . . .	15.2 liters (927.56 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	1665 kg (3670 lbs)

### Approximate Dimensions:

<b>Length</b> . . . . .	1661 mm (65 in)
<b>Width</b> . . . . .	901 mm (36 in)
<b>Height</b> . . . . .	1336 mm (53 in)

## C15 ACERT Ratings In-Line 6

<b>A Rating</b> (Continuous)			<b>B Rating</b>			<b>C Rating</b> (Intermittent)			<b>D Rating</b>			<b>E Rating</b>		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>ATAAC</b>														
328	440	1800-	354	475	1800-	403	540	1800-	433	580	1800-	444	595	1800-
		2100			2100			2100			2100			2100

## Features

- ADEM A4 ECU
- MEUI fuel system
- Single-piece cross flow cylinder head
- High pressure fuel system
- Mono steel piston
- Leak-free technology
- Single/dual rear PTO
- Multi-layer steel head gaskets

## Benefits

- Gear train is redesigned with increased capacity and decreasing noise volume
- Option of laminated front housing significantly diminishes decibel output
- Multi-layered steel head gasket improves durability
- Steel spacer between two layers of spring steel increases gasket resilience
- Gasket resilience increases engine life by decreasing leakage
- New highly efficient oil filter reduces engine wear and enhances contamination control
- Meets Tier 3/Stage IIIA emissions requirements

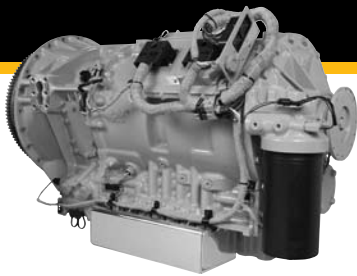
### Abbreviations used:

**ATAAC**.....Air-to-Air Aftercooled

**ECU**.....Electronic Control Unit

**EPA Compliant for current year**

Meets Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.



## Ratings

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

## Mountings

Structural application subject to Caterpillar approval

Input Connection (Flywheel):	SAE #1 dry flywheel housing
Output Connection Options:	1810 yoke, 1810 companion flange, ISO-8667 flange
Side Supports:	SAE #2 pads (2)

## Torque Converter

Stall Torque Ratio	1.962
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## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive, 1:1 ratio from the input shaft, Pump drive rotates same as transmission input

### Location

Standard: 8 o'clock and 1 o'clock side positions, 5 o'clock at rear

Optional Integral PTO Drives:

1 o'clock and 11 o'clock above T/C housing, 5 o'clock at rear

**Note:** Locations are as viewed from transmission output.

### PTO Mountings

10-bolt, rear PTO mounting Cat  
8-bolt (1)

## Oil System

### Oil Temperatures

Continuous	90° C (194° F)
Maximum Intermittent	99° C (210° F)

## Installation Connections

2 Oil Cooler, 2 Electrical

## Gears

Type	Planetary Spur
Forward/Reverse	8F/1R

## 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

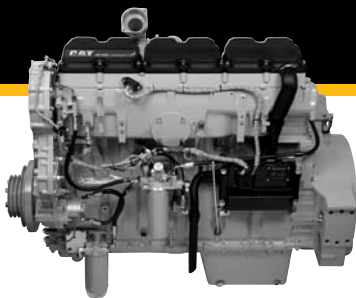
## Dimensions

Height:	860.9 mm (33.9 in)
Width:	609.4 mm (24.0 in)
Length:	1253 mm (49.3 in)

## Weight

Approximate Dry Weight	731 kg (1611 lbs)
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# C18 ACERT



## Specifications

	<b>C18 ACERT</b>
<b>Bore x Stroke</b> . . . .	145 x 183 mm (5.71 x 7.2 in)
<b>Displacement</b> . . . .	18.1 liters (1104.53 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	1673 kg (3688 lbs)
<b>Approximate Dimensions:</b>	
<b>Length</b> . . . . .	1388 mm (54.6 in) (T) 1414.1 mm (55.7 in) (TTA)
<b>Width</b> . . . . .	921 mm (36.3 in) (TA) 974.0 mm (38.3 in) (TTA)
<b>Height</b> . . . . .	1243 mm (48.9 in) (TA) 1257 mm (49.5 in) (TTA)

## C18 ACERT Ratings In-Line 6

A Rating (Continuous)	B Rating		C Rating (Intermittent)		D Rating*		E Rating*	
	bkW	bhp rpm	bkW	bhp rpm	bkW	bhp rpm	bkW	bhp rpm
<b>TA (ATAAC)</b>								
429	575	1800- 2100	447.5	600	1800- 2100	470	630	1800- 2100

<b>TTA (ATAAC)</b>								
—	—	—	—	—	—	522	700	1800- 2100
—	—	—	—	—	—	571	765	1800- 2100
—	—	—	—	—	—	597	800	1800- 2100

## Features

- ADEM™ A4 ECU
- MEUI fuel system
- Twin parallel turbocharger on 700 horsepower and above
- Best in power class density
- Monotherm piston

## Benefits

- Narrow rings of monotherm piston and tighter tolerance allows superior control
- Unique twin parallel turbo design providing superb response with low fuel consumption
- Fuel efficiency gives savings in operating costs and cleaner air
- MEUI fuel system is highly reliable due to its design and volume of units active in the market
- New connecting rods allow for better retention and clamping force
- Meets emissions requirements

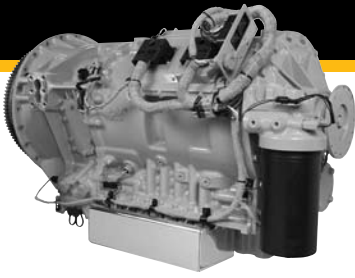
### Abbreviations used:

- ATAAC.....Air-to-Air Aftercooled
- ECU.....Electronic Control Unit
- TA.....Turbocharged/Aftercooled
- TTA.....Twin Turbocharged/Aftercooled

### EPA Compliant for current year

A, B, and C ratings meet Tier 3, Stage IIIA emissions requirements. Tier 3 refers to EPA (U.S.) requirements. Stage IIIA refers to European requirements.

\*D and E ratings meet Tier 2 emissions requirements above 559 bkW (751 bhp). Tier 2 refers to EPA (U.S.) requirements.



## Ratings

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

## Mountings

Structural application subject to Caterpillar approval

Input Connection (Flywheel):	SAE #1 dry flywheel housing
Output Connection Options:	1810 yoke, 1810 companion flange, ISO-8667 flange
Side Supports:	SAE #2 pads (2)

## Torque Converter

Stall Torque Ratio	1.962
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## Power Take Off (Pump Auxiliary Drive)

### Description

4 x PTOs integral live drive, 1:1 ratio from the input shaft, Pump drive rotates same as transmission input

### Location

Standard: 8 o'clock and 1 o'clock side positions, 5 o'clock at rear  
Optional Integral PTO Drives: 1 o'clock and 11 o'clock above T/C housing, 5 o'clock at rear

**Note:** Locations are as viewed from transmission output.

### PTO Mountings

10-bolt, rear PTO mounting Cat  
8-bolt (1)

## Oil System

### Oil Temperatures

Continuous	90° C (194° F)
Maximum Intermittent	99° C (210° F)

## Installation Connections

2 Oil Cooler, 2 Electrical

## Gears

Type	Planetary Spur
Forward/Reverse	8F/1R

## 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

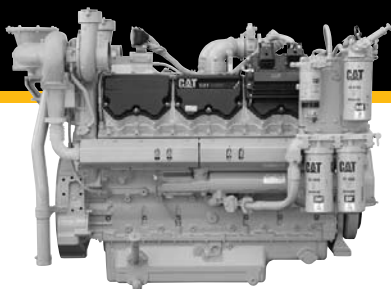
## Dimensions

Height:	860.9 mm (33.9 in)
Width:	609.4 mm (24.0 in)
Length:	1253 mm (49.3 in)

## Weight

Approximate Dry Weight	731 kg (1611 lbs)
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# C27 ACERT



## Specifications

	<b>C27 ACERT</b>
<b>Bore x Stroke</b> . . . . .	137.7 x 152.4 mm (5.42 x 5.99 in)
<b>Displacement</b> . . . . .	27 liters (1648 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	2946 kg (6495 lbs)
<b>Approximate Dimensions*:</b>	
<b>Length</b> . . . . .	2083 mm (82 in)
<b>Width</b> . . . . .	1473 mm (58 in)
<b>Height</b> . . . . .	1499 mm (59 in)

## C27 ACERT Ratings V-12

<b>A Rating</b> (Continuous)			<b>B Rating</b>			<b>C Rating</b> (Intermittent)			<b>D Rating</b>			<b>E Rating</b>		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
<b>TA (ATAAC)</b>														
597	800	1800-2100	653	875	1800-2100	708	950	1800-2100	783	1050	1800-2100	858	1150	1800-2100

## Features

- ADEM A4 ECU
- MEUI fuel system
- Leverage 3412E and C15/C18 technology
- Rear gear train
- Overhead cams
- Front housing and gear train

## Benefits

- Excellent fuel efficiency and power density
- Wide power range from a single installation (from 800-1150 bhp)
- More production from same size package
- Improved cold start capability

### Abbreviations used:

TA.....Turbocharged/Aftercooled

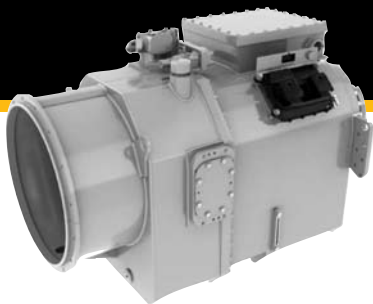
ATAAC.....Air-to-Air Aftercooled

ECU.....Electronic Control Unit

### EPA Compliant for current year

Meets Tier 2 emissions requirements. Tier 2 refers to EPA (U.S.) requirements.

\*All data is preliminary. Final turbo locations could affect dimensions.



## Ratings

Gross Input Power	1118 kW (1500 hp)
Gross Input Torque	5995 N•m (4422 lb-ft)
Maximum Turbine Torque	7442 N•m (5489 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2200 rpm

## Mountings

Structural application subject to Caterpillar approval

Input Connection (Flywheel):  
SAE #0

Output Connection (Yoke):  
GWB 390.60/GWB 390.65

## Torque Converter

Series	TC58-ESLF
Stall Torque Ratio	2.20

## Power Take Off (Pump Auxiliary Drive)

### Description

Engine driven

### Location & Rated Power

3 positions (3 o'clock, 5 o'clock, and 9 o'clock from rear)

112 kW/150 hp continuous

### PTO Mountings

SAE 8 bolt (J704)

## Clutches

Electro-hydraulic fully modulated, oil cooled, multidisc

### Clutch Modulation Control

Cat Electronic Clutch Pressure Control (ECPC)

## Oil System

### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

## Installation Connections

1 Cooler, 1 Pump, 1 Electrical

## Gears

Type	Straight, Spur Planetary
Forward/Reverse	7F/0R

## 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

## Dimensions

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

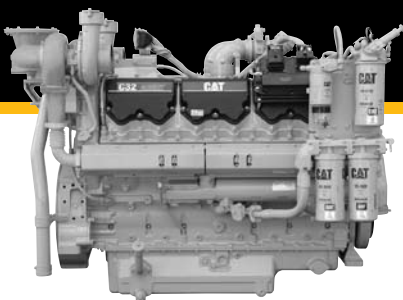
## Weight

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

## Optional Configuration

Gross Input Power	895 kW (1200 hp)
Gross Input Torque	4045 N•m (5484 lb-ft)
Maximum Turbine Torque	7442 N•m (5489 lb-ft)
Torque Converter Series	TC58927-ESLF
Stall Torque Ratio	2.27

# C32 ACERT



## Specifications

	<b>C32 ACERT</b>
<b>Bore x Stroke</b> . . . .	145.0 x 162 mm (5.71 x 6.38 in)
<b>Displacement</b> . . . .	32.1 liters (1959 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	2946 kg (6495 lbs)
<b>Approximate Dimensions*:</b>	
<b>Length</b> . . . . .	2083 mm (82 in)
<b>Width</b> . . . . .	1473 mm (58 in)
<b>Height</b> . . . . .	1499 mm (59 in)

## C32 ACERT Ratings V-12

A Rating			B Rating			C Rating (Intermittent)			D Rating			E Rating		
bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm	bkW	bhp	rpm
TA (ATAAC)														
—	—	—	708	950	1800-	839	1125	1800-	895	1200	1800-	1007	1350	1800-
					2100			2100			2100			2100
597	800	2100	—	—	—	—	—	—	—	—	—	1119	1500	2100

## Features

- ADEM A4 ECU
- MEUI fuel system
- Leverage 3412E and C15/C18 technology
- Rear gear train
- Overhead cams
- Front housing and gear train

## Benefits

- Excellent fuel efficiency and power density
- Wide power range from a single installation (from 800-1500 bhp)
- More production from same size package
- Improved cold start capability

### Abbreviations used:

TA.....Turbocharged/Aftercooled

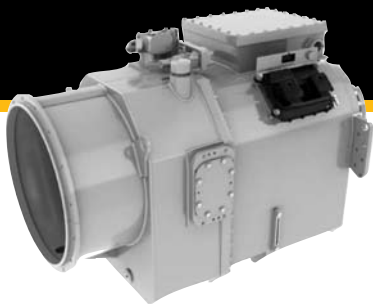
ATAAC.....Air-to-Air Aftercooled

ECU.....Electronic Control Unit

### EPA Compliant for current year

Meets Tier 2 emissions requirements. Tier 2 refers to EPA (U.S.) requirements.

\*All data is preliminary. Final turbo locations could affect dimensions.



## Ratings

Gross Input Power	1118 kW (1500 hp)
Gross Input Torque	5995 N•m (4422 lb-ft)
Maximum Turbine Torque	7442 N•m (5489 lb-ft)
Rated Input Speed	2100 rpm
Maximum Input Speed	2200 rpm

## Mountings

Structural application subject to Caterpillar approval

Input Connection (Flywheel):  
SAE #0

Output Connection (Yoke):  
GWB 390.60/GWB 390.65

## Torque Converter

Series	TC58-ESLF
Stall Torque Ratio	2.20

## Power Take Off (Pump Auxiliary Drive)

### Description

Engine driven

### Location & Rated Power

3 positions (3 o'clock, 5 o'clock, and 9 o'clock from rear)

112 kW/150 hp continuous

### PTO Mountings

SAE 8 bolt (J704)

## Clutches

Electro-hydraulic fully modulated, oil cooled, multidisc

### Clutch Modulation Control

Cat Electronic Clutch Pressure Control (ECPC)

## Oil System

### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

## Installation Connections

1 Cooler, 1 Pump, 1 Electrical

## Gears

Type	Straight, Spur Planetary
Forward/Reverse	7F/OR

## 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

## Dimensions

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

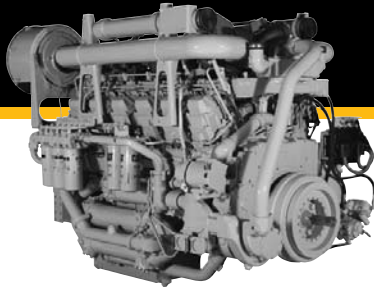
## Weight

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

## Optional Configuration

Gross Input Power	895 kW (1200 hp)
Gross Input Torque	4045 N•m (5484 lb-ft)
Maximum Turbine Torque	7442 N•m (5489 lb-ft)
Torque Converter Series	TC58927-ESLF
Stall Torque Ratio	2.27

# 3512B



## Specifications

	3512B
Bore x Stroke . . . .	170 x 190 mm (6.7 x 7.5 in)
Displacement . . . .	51.8 liters (3158 in <sup>3</sup> )
Ship Weight . . . . .	6078 kg (13 400 lbs)

### Approximate Dimensions:

Length . . . . .	3067 mm (120.8 in)
Width . . . . .	1785 mm (70.3 in)
Height . . . . .	1806 mm (71.1 in)

## 3512B FRAC Ratings V-12

TA (SCAC)	E Rating	
	bkW	bhp
1491	2000	1900
1603	2150	1900
1678	2250	1900

## Features

- Built with common parts — intake and exhaust valves, valve seat inserts, and valve springs are all identical
- High-pressure fuel lines eliminated
- Advanced electronic control systems
- Electronically controlled unit injectors

## Benefits

- Service efficiency reduces operating costs
- Superior fuel economy
- Repower savings/higher production with less fuel consumption

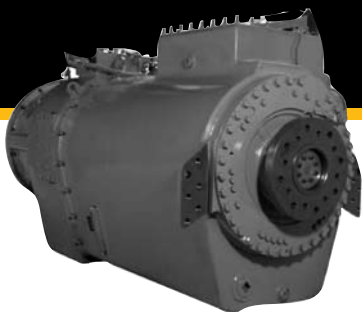
### Abbreviations used:

TA.....Turbocharged/Aftercooled  
SCAC.....Separate Circuit Aftercooled

Meets Tier 1 emissions requirements. Tier 1 refers to EPA (U.S.) requirements.

\*With 10% overload for MCS certifications and IMO certified.

\*\*Industrial Mobile Equipment Price List Engines



## 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	2100 rpm

## Mountings

*Structural application subject to Caterpillar approval*

Input Connection (Flywheel):

SAE #0

Output Connection (Yoke):

GWB 390.60/GWB 390.65

## Torque Converter

Series	TC58-ESLF
Stall Torque Ratio	2.20

## Power Take Off

(Pump Auxiliary Drive)

### Description

Engine driven

### Location & Rated Power

3 positions (3 o'clock, 5 o'clock, and 9 o'clock from rear)

112 kW/150 hp continuous

### PTO Mountings

SAE 8 bolt (J704)

## Clutches

Electro-hydraulic fully modulated, oil cooled, multidisc

### Clutch Modulation Control

Individual Clutch Modulation (ICM)

## Oil System

### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

## Installation Connections

2 Cooler, 1 Pump, 1 Electrical

## Gears

Type	Straight, Spur Planetary
Forward/Reverse	8F/OR

## Transmission Speed Ratios

Gear	Ratio
1F	3.33
2F	2.45
3F	2.20
4F	1.80
5F	1.61
6F	1.35
7F	1.19
8F*	0.99

**\*Warm-Up Mode Option** — provides torque converter stall for aiding powertrain warming during cold starts. 8F is unavailable on units configured with the warm-up mode option.

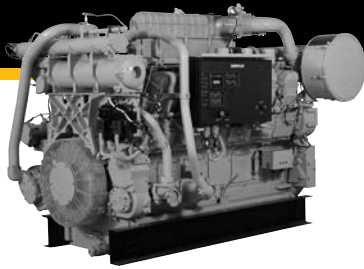
## Dimensions

Height:	1182 mm (46.5 in)
Width:	838.2 mm (33 in)
Length:	1977 mm (78 in)

## Weight

Approximate Dry Weight	
Transmission	2028 kg (4468 lbs)
Engine/Transmission Coupling	186 kg (410 lbs)

# 3512C



## Specifications

	3512C HD	3512C (Drilling Modules)
<b>Bore x Stroke</b> . . . . .	170 x 215 mm (6.7 x 8.5 in) . . . . .	170 x 190 mm (6.7 x 7.5 in)
<b>Displacement</b> . . . . .	58.6 liters (3575 in <sup>3</sup> ) . . . . .	51.8 liters (3158 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	6645 kg (14 650 lbs) . . . . .	7620 kg (16 800 lbs)
<b>Approximate Dimensions:</b>		
<b>Length</b> . . . . .	3067 mm (120.8 in) . . . . .	3067 mm (120.8 in)
<b>Width</b> . . . . .	1785 mm (70.3 in) . . . . .	1785 mm (70.3 in)
<b>Height</b> . . . . .	1806 mm (71.1 in) . . . . .	1806 mm (71.1 in)

## 3512C FRAC Ratings V-12

ATAAC	Intermittent		
	bkW	bhp	rpm
	1603	2150	1900
	1678	2250	1900
	1752	2350	1900
	1864	2500	1900

## Features

- Built with common parts — intake and exhaust valves, valve seat inserts, and valve springs are all identical
- High-pressure fuel lines eliminated
- Advanced electronic control systems
- Electronically controlled unit injectors

## Benefits

- Service efficiency reduces operating costs
- Superior fuel economy
- Repower savings/higher production with less fuel consumption

### Abbreviations used:

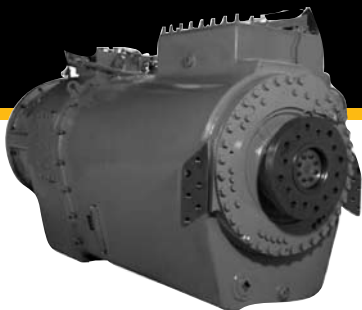
**TA**.....Turbocharged/Aftercooled  
**ATAAC**.....Air-to-Air Aftercooled

**HD**.....High Displacement  
**SCAC**.....Separate Circuit Aftercooled

### EPA Compliant for current year

Meets Tier 2, Stage II emissions requirements. Tier 2 refers to EPA (U.S.) requirements. Stage II refers to European requirements.

\*With 10% overload for MCS certifications and IMO certified (offshore only).



## 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	2100 rpm

## Mountings

*Structural application subject to Caterpillar approval*

Input Connection (Flywheel):

SAE #0

Output Connection (Yoke):

GWB 390.60/GWB 390.65

## Torque Converter

Series	TC58-ESLF
Stall Torque Ratio	2.20

## Power Take Off

(Pump Auxiliary Drive)

## Description

Engine driven

## Location & Rated Power

3 positions (3 o'clock, 5 o'clock, and 9 o'clock from rear)

112 kW/150 hp continuous

## PTO Mountings

SAE 8 bolt (J704)

## Clutches

Electro-hydraulic fully modulated, oil cooled, multidisc

## Clutch Modulation Control

Individual Clutch Modulation (ICM)

## Oil System

### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

## Installation Connections

2 Cooler, 1 Pump, 1 Electrical

## Gears

Type	Straight, Spur Planetary
Forward/Reverse	8F/0R

## Transmission Speed Ratios

Gear	Ratio
1F	3.33
2F	2.45
3F	2.20
4F	1.80
5F	1.61
6F	1.35
7F	1.19
8F*	0.99

**\*Warm-Up Mode Option** — provides torque converter stall for aiding powertrain warming during cold starts. 8F is unavailable on units configured with the warm-up mode option.

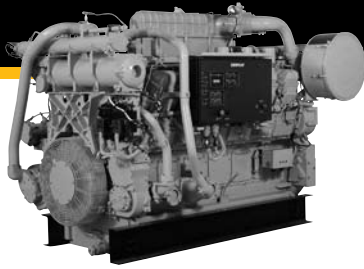
## Dimensions

Height:	1182 mm (46.5 in)
Width:	838.2 mm (33 in)
Length:	1977 mm (78 in)

## Weight

Approximate Dry Weight	
Transmission	2028 kg (4468 lbs)
Engine/Transmission Coupling	186 kg (410 lbs)

# 3512C



## Specifications

	3512C HD	3512C (Drilling Modules)
<b>Bore x Stroke</b> . . . . .	170 x 215 mm (6.7 x 8.5 in) . . . . .	170 x 190 mm (6.7 x 7.5 in)
<b>Displacement</b> . . . . .	58.6 liters (3575 in <sup>3</sup> ) . . . . .	51.8 liters (3158 in <sup>3</sup> )
<b>Ship Weight</b> . . . . .	6645 kg (14 650 lbs) . . . . .	7620 kg (16 800 lbs)
<b>Approximate Dimensions:</b>		
<b>Length</b> . . . . .	3067 mm (120.8 in) . . . . .	3067 mm (120.8 in)
<b>Width</b> . . . . .	1785 mm (70.3 in) . . . . .	1785 mm (70.3 in)
<b>Height</b> . . . . .	1806 mm (71.1 in) . . . . .	1806 mm (71.1 in)

## 3512C FRAC Ratings V-12

ATAAC	Intermittent		
	bkW	bhp	rpm
1603	2150	1900	
1678	2250	1900	
1752	2350	1900	
1864	2500	1900	

## Features

- Built with common parts — intake and exhaust valves, valve seat inserts, and valve springs are all identical
- High-pressure fuel lines eliminated
- Advanced electronic control systems
- Electronically controlled unit injectors

## Benefits

- Service efficiency reduces operating costs
- Superior fuel economy
- Repower savings/higher production with less fuel consumption

### Abbreviations used:

**TA**.....Turbocharged/Aftercooled  
**ATAAC**.....Air-to-Air Aftercooled

**HD**.....High Displacement  
**SCAC**.....Separate Circuit Aftercooled

### EPA Compliant for current year

Meets Tier 2, Stage II emissions requirements. Tier 2 refers to EPA (U.S.) requirements. Stage II refers to European requirements.

\*With 10% overload for MCS certifications and IMO certified (offshore only).



## Ratings

Gross Input Power	1864 kW (2500 hp)
Gross Input Torque	10 028 N•m (7396 lb-ft)
Rated Input Speed	1900 rpm
Maximum Input Speed	1970 rpm

## Mountings

*Structural application subject to Caterpillar approval*

Input Connection (Flywheel):  
SAE #0 (when combined with required Caterpillar engine adapter)

Output Connection (Yoke):  
GWB 390.65

## Torque Converter

Series	TC64-ESLF
Stall Torque Ratio	2.23

## Power Take Off

(Pump Auxiliary Drive)

### Description

Engine driven

### Location & Rated Power

2 positions (3 o'clock and 11 o'clock from rear)

112 kW/150 hp continuous

### PTO Mountings

SAE 8 bolt (J704) @ 3 o'clock  
SAE C-size (J744) @ 11 o'clock

## Clutches

Electro-hydraulic fully modulated, oil cooled, multidisc

### Clutch Modulation Control

Cat Electronic Clutch Pressure Control (ECPC)

## Oil System

### Oil Temperatures

Continuous	90° C (195° F)
Maximum Operating	99° C (210° F)

## Installation Connections

1 Cooler, 1 Pump, 1 Electrical

## Gears

Forward/Reverse 7F/OR

## 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

## Dimensions

Height:	1288.3 mm (50.72 in)
Width:	1150.4 mm (45.29 in)
Length:	2200.1 mm (86.62 in)

## Weight

Approximate Dry Weight	
Transmission	2920 kg (6430 lbs)
Engine/Transmission Coupling	136 kg (300 lbs)



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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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