C18 ACERT™
Industrial Engine
Tier 2
597 bkW/800 bhp @ 2100 rpm

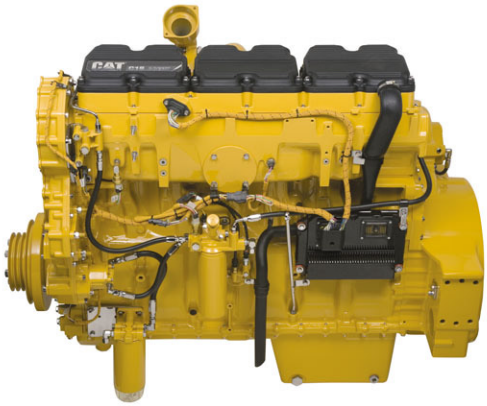


Image shown may not reflect actual engine

CAT® ENGINE SPECIFICATIONS

I-6, 4-Stroke-Cycle Diesel

Bore.....145.0 mm (5.71 in)
Stroke.....183.0 mm (7.2 in)
Displacement..... 18.1 L (1,104.53 in^3)
Aspiration.....Turbocharged Aftercooled
Compression Ratio.....16.3:1
Rotation (from flywheel end)..... Counterclockwise
Weight, Net Dry (approximate)..... 1769 kg (3900 lb)

FEATURES

Emissions & Regulations

Meets U.S. EPA Tier 2 emissions requirements.

Worldwide Supplier Capability

Caterpillar
- Casts engine blocks, heads, cylinder liners, and flywheel housings
- Machines critical components
- Assembles complete engine
- Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities

Ownership of these manufacturing processes enables Caterpillar to produce high quality, dependable product.

Testing

Prototype testing on every model:
- proves computer design
- verifies system torsional stability
- functionality tests every model

Every Caterpillar engine is dynamometer tested under full load to ensure proper engine performance.

Full Range of Attachments

Wide range of bolt-on system expansion attachments, factory designed and tested.

Unmatched Product Support Offered Through Worldwide Caterpillar Dealer Network

More than 1,800 dealer outlets
Caterpillar factory-trained dealer technicians service every aspect of your industrial engine
99.7% of parts orders filled within 24 hours worldwide
Caterpillar parts and labor warranty
Preventive maintenance agreements available for repair before failure options

Scheduled Oil Sampling program matches your oil sample against Caterpillar set standards to determine:
- internal engine component condition
- presence of unwanted fluids
- presence of combustion by-products

Web Site

For all your industrial power requirements, visit www.cat-industrial.com.

STANDARD ENGINE EQUIPMENT

Air Inlet System

Turbocharged Aftercooled -- 429-470 bkW (575-630 bhp)
Twin Turbocharged Aftercooled -- 522-597 bkW (700-800 bhp)
ATAAC

Charging System

Charging alternator 24 volt, 50 amp

Control System

Electronic governing
PTO speed control
Programmable ratings
Cold mode start strategy
Automatic altitude compensation
Power compensation for fuel temperature
Programmable low and high idle and total engine limit
Electronic diagnostics and fault logging
Engine monitoring system
J1939 Broadcast (diagnostic and engine status)
ADEM™ A4

Cooling System

Thermostats and housing, vertical outlet
Jacket water pump, centrifugal
Water pump, inlet

Exhaust System

Exhaust manifold, dry
Optional exhaust outlet

Flywheels and Flywheel Housing

SAE No. 1 Flywheel housing

Fuel System

MEUI injection
Fuel filter, secondary (2 micron high performance)
Fuel transfer pump
Fuel priming pump
ACERT™ Technology

Lube System

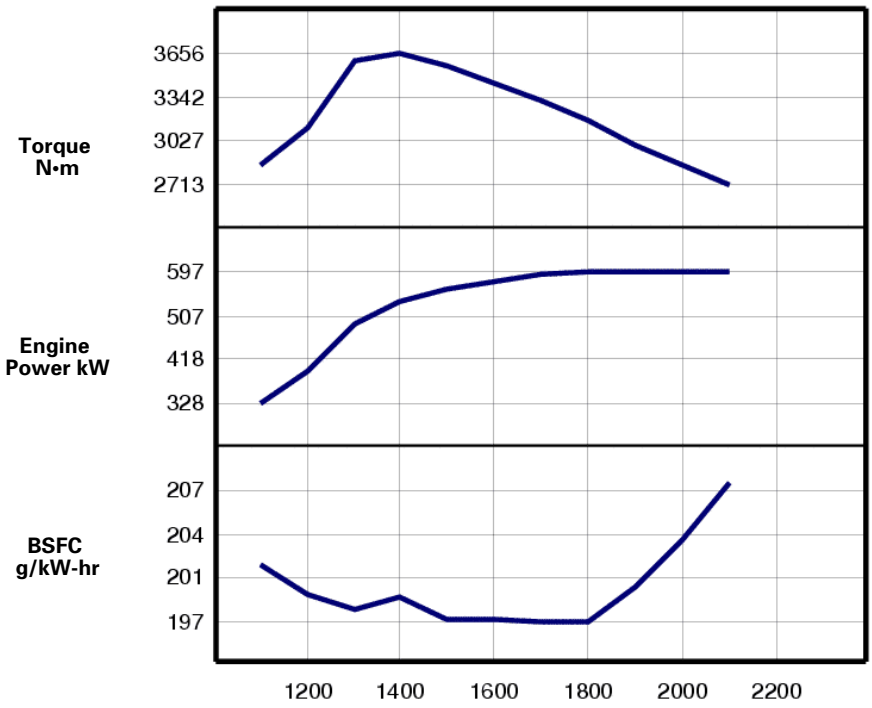
Crankcase breather
Oil cooler
Oil filler
Oil filter
Oil pan front sump
Oil dipstick
Oil pump (gear driven)

General

Paint, Caterpillar Yellow
Vibration damper
Lifting eyes

PERFORMANCE CURVES

IND - E - DM7702-00

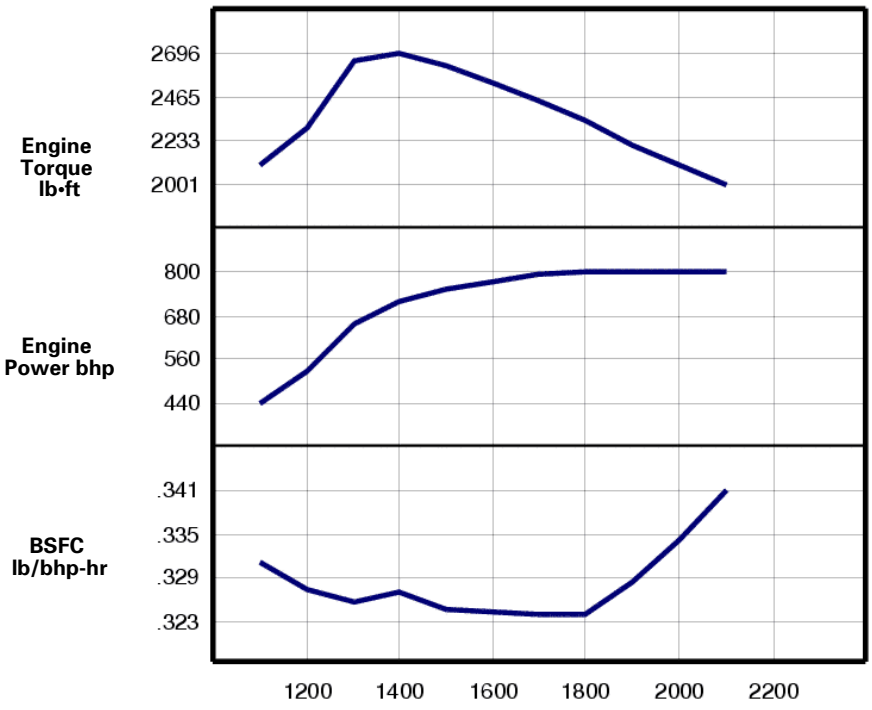


Metric

Engine Speed rpm	Engine Power kW	Torque N•m	BSFC g/kW-hr	Fuel Rate L/hr
2100	597	2713	207.4	147.5
2000	597	2848	203.2	144.5
1900	597	2998	199.7	142.0
1800	597	3165	197.1	140.2
1700	590	3315	197.1	138.7
1600	577	3446	197.3	135.8
1500	560	3564	197.4	131.7
1400	536	3656	198.9	127.0
1300	491	3609	198	115.9
1200	392	3120	199.1	93.1
1100	328	2848	201.3	78.7

PERFORMANCE CURVES

IND - E - DM7702-00



English

Engine Speed rpm	Engine Power bhp	Engine Torque lb•ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
2100	800	2001	.341	39.0
2000	800	2101	.334	38.2
1900	800	2211	.328	37.5
1800	800	2334	.324	37.0
1700	791	2445	.324	36.6
1600	774	2542	.324	35.9
1500	751	2629	.325	34.8
1400	719	2697	.327	33.5
1300	659	2662	.326	30.6
1200	526	2301	.327	24.6
1100	440	2101	.331	20.8

C18 ACERT™ Industrial Engine

Tier 2

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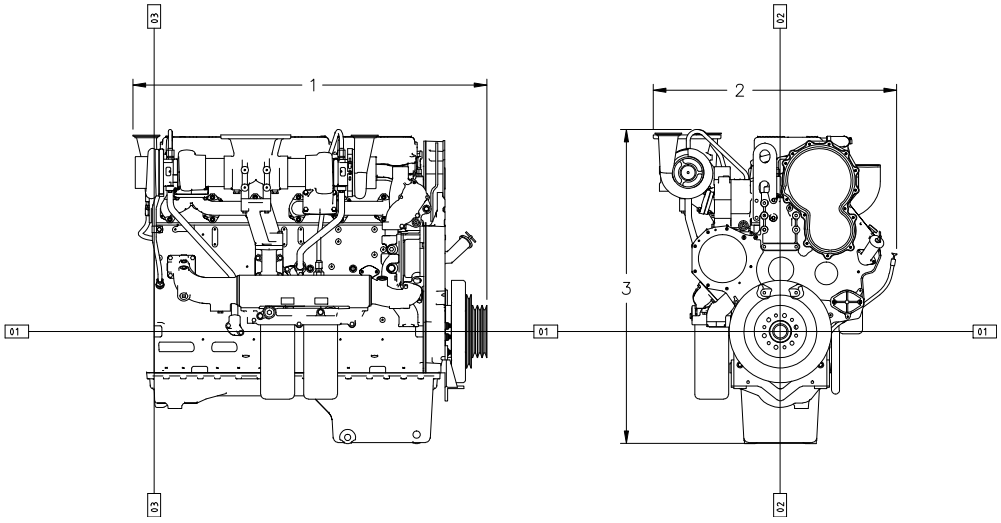
RATINGS AND CONDITIONS

IND - E 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).

Engine Performance 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 25ºC (77ºF) temperature. Performance measured using a standard fuel with fuel gravity of 35º 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.



Engine Dimensions	
(1) Length	1413.1 mm (55.63 in)
(2) Width	976.2 mm (38.43 in)
(3) Height	1251.2 mm (49.26 in)

Note: Do not use for installation design. See general dimension drawings for detail (Drawing # 2621427).

Performance Number: DM7702-00

Feature Code: C18DI05 Arr. Number: 2543817

Materials and specifications are subject to change without notice.

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The International System of Units (SI) is used in this publication.