



C18 ACERT™
Industrial Engine
Tier 2
571 bkW/765 bhp @ 2100 rpm

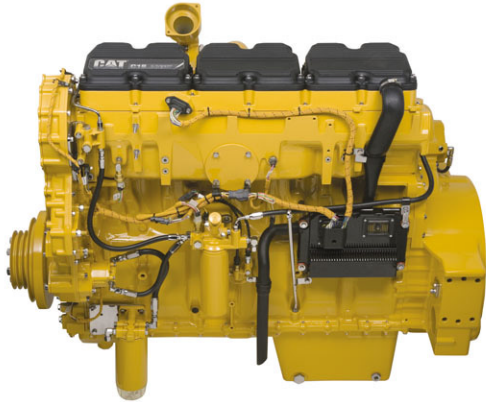


Image shown may not reflect actual engine

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)

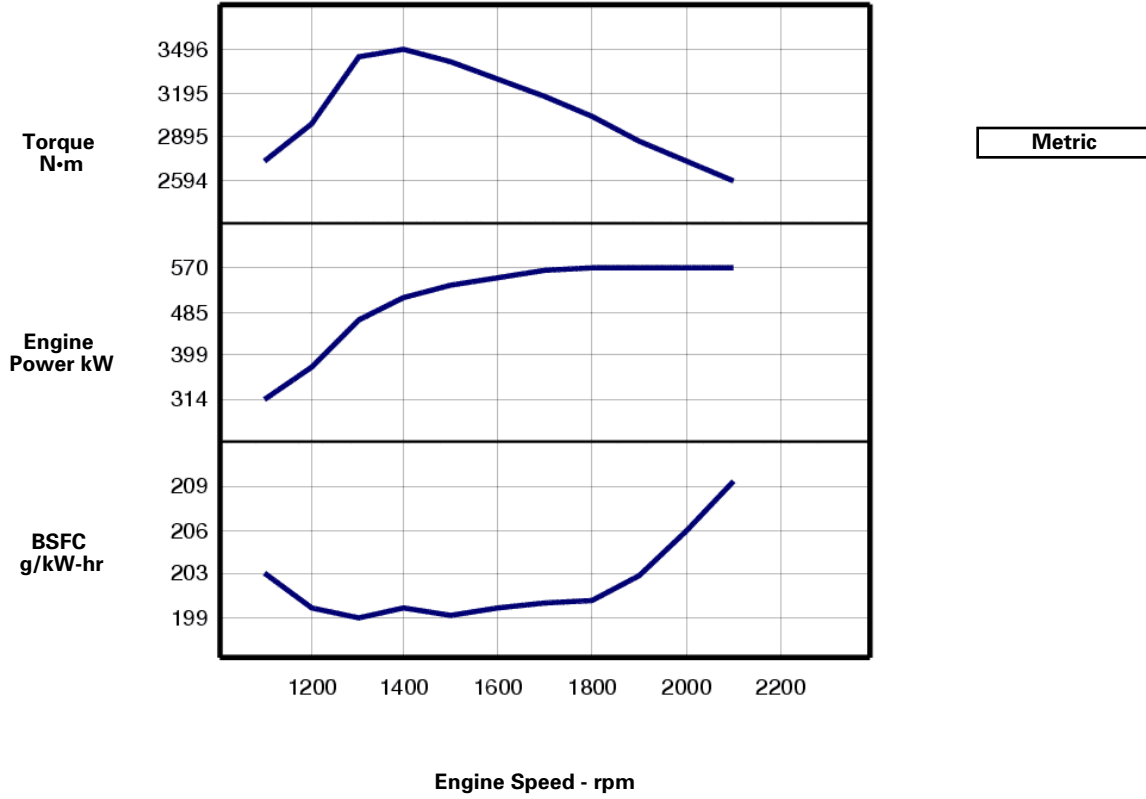
General

Paint, Caterpillar Yellow
Vibration damper
Lifting eyes



PERFORMANCE CURVES

IND - D - DM7701-00

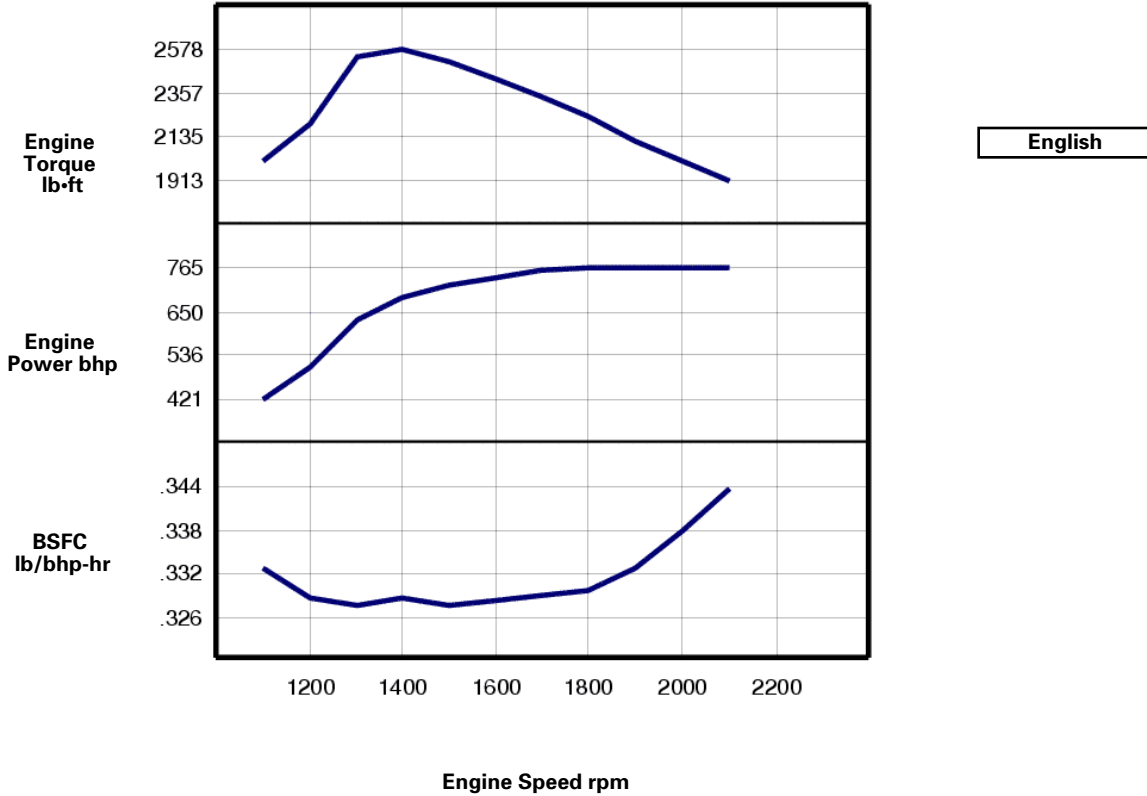


Engine Speed rpm	Engine Power kW	Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
2100	571	2594	209.1	142.2
2000	571	2724	205.5	139.7
1900	571	2867	202.3	137.5
1800	571	3027	200.5	136.4
1700	564	3170	200.2	134.7
1600	552	3296	199.8	131.5
1500	535	3408	199.3	127.2
1400	513	3496	199.9	122.1
1300	470	3451	199.2	111.5
1200	375	2983	199.9	89.3
1100	314	2724	202.4	75.7



PERFORMANCE CURVES

IND - D - DM7701-00



Engine Speed rpm	Engine Power bhp	Engine Torque lb-ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
2100	765	1913	.344	37.6
2000	765	2009	.338	36.9
1900	765	2115	.333	36.3
1800	765	2233	.330	36.0
1700	757	2338	.329	35.6
1600	741	2431	.328	34.7
1500	718	2514	.328	33.6
1400	687	2579	.329	32.3
1300	630	2545	.327	29.5
1200	503	2200	.329	23.6
1100	421	2009	.333	20.0



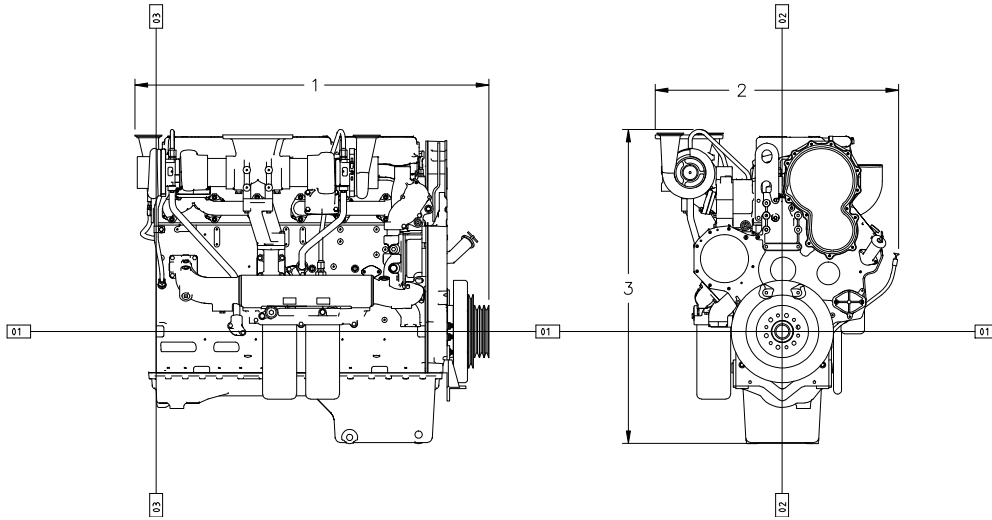
C18 ACERT™ Industrial Engine Tier 2

RATINGS AND CONDITIONS

571 bkW/765 bhp @ 2100 rpm

IND - D For service where maximum power is required for periodic overloads (time at full load not to exceed 10% 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 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.



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: DM7701-00

Feature Code: C18DI04 Arr. Number: 2543817

Materials and specifications are subject to change without notice.

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