C18 ACERT™
Industrial Power Unit
Tier 3
448 bkW/600 bhp @ 2100 rpm

Image shown may not reflect actual engine

CATERPILLAR 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

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

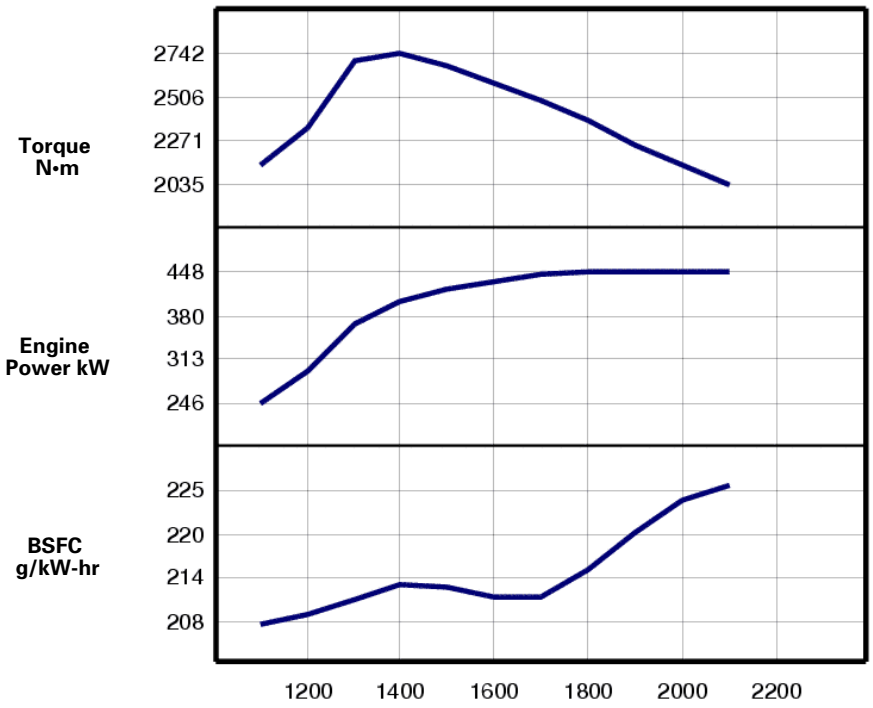
Crankcase breather
Oil cooler
Oil filler
Oil filter
Oil pan front sump
Oil dipstick
Oil pump (gear driven)

General

Paint, Caterpillar Yellow
Vibration damper
Lifting eyes

PERFORMANCE CURVES

IND - B - DM8169-01

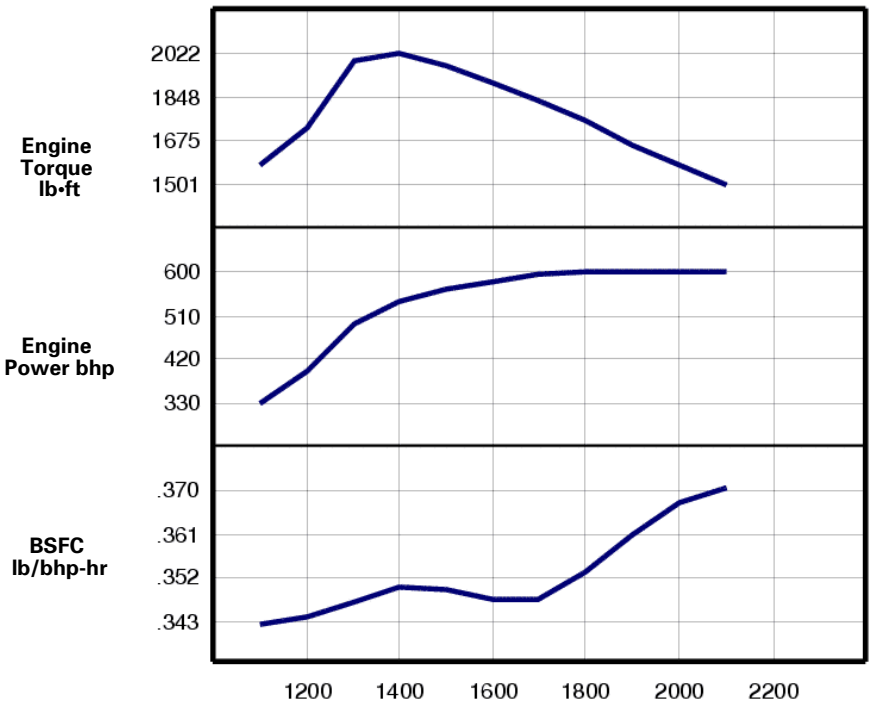


Metric

Engine Speed rpm	Engine Power kW	Torque N•m	BSFC g/kW-hr	Fuel Rate L/hr
2100	448	2035	225.3	120.2
2000	448	2137	223.5	119.2
1900	448	2249	219.3	117.0
1800	448	2374	214.7	114.5
1700	443	2486	211.4	111.5
1600	433	2584	211.5	109.2
1500	420	2673	212.5	106.4
1400	402	2742	212.9	102.0
1300	368	2706	211.1	92.7
1200	294	2340	209.1	73.3
1100	246	2136	208.1	61.0

PERFORMANCE CURVES

IND - B - DM8169-01



English

Engine Speed rpm	Engine Power bhp	Engine Torque lb•ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
2100	600	1501	.370	31.8
2000	600	1576	.367	31.5
1900	600	1659	.361	30.9
1800	600	1751	.353	30.2
1700	594	1834	.348	29.5
1600	581	1906	.348	28.8
1500	563	1971	.349	28.1
1400	539	2022	.350	26.9
1300	494	1996	.347	24.5
1200	394	1726	.344	19.4
1100	330	1575	.342	16.1

CATERPILLAR®

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Tier 3

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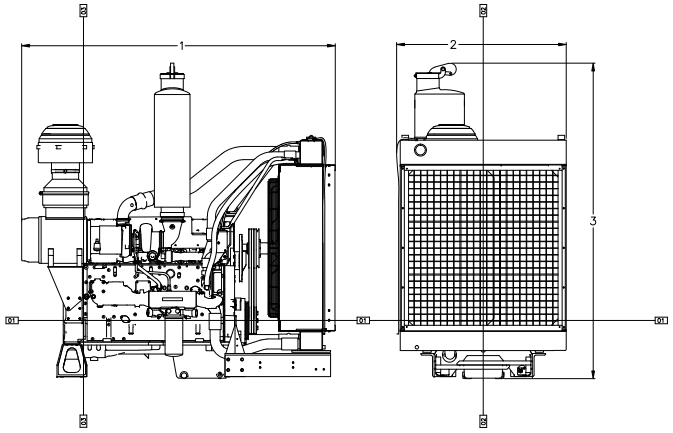
RATINGS AND CONDITIONS

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

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	See page 1-Specifications for Dimensions
(2) Width	
(3) Height	

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

Performance Number: DM8169-01

Feature Code: C18DI14 Arr. Number: 2371955

Materials and specifications are subject to change without notice.

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