



# C9 ACERT™

## Industrial Engine

Tier 3/Stage IIIA  
242 bkW/325 bhp @ 2200 rpm



Image shown may not reflect actual engine

## CAT® ENGINE SPECIFICATIONS

### I-6, 4-Stroke-Cycle Diesel

Bore.....	112.0 mm (4.41 in)
Stroke.....	149.0 mm (5.87 in)
Displacement.....	8.8 L (537.01 in <sup>3</sup> )
Aspiration.....	Turbocharged Aftercooled
Compression Ratio.....	16.1:1
Rotation (from flywheel end).....	Counterclockwise
Cooling System.....	13.9 liters, 3.7 gallons
Lube Oil System (refill).....	32.0 liters, 8.5 gallons
Weight, Net Dry (approximate kg, lb).....	776 kg, 1711 lb

## FEATURES

### Emissions

Meets U.S. EPA Tier 3, EU Stage IIIA emission requirements.

### Worldwide Supplier Capability

Caterpillar

- Casts engine blocks, heads, and cylinder liners
- 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 1,500 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](http://www.cat-industrial.com).



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### **STANDARD ENGINE EQUIPMENT**

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#### **Air Inlet System**

Air to air aftercooled (ATAAC)  
Turbocharged

#### **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**

HEUI 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



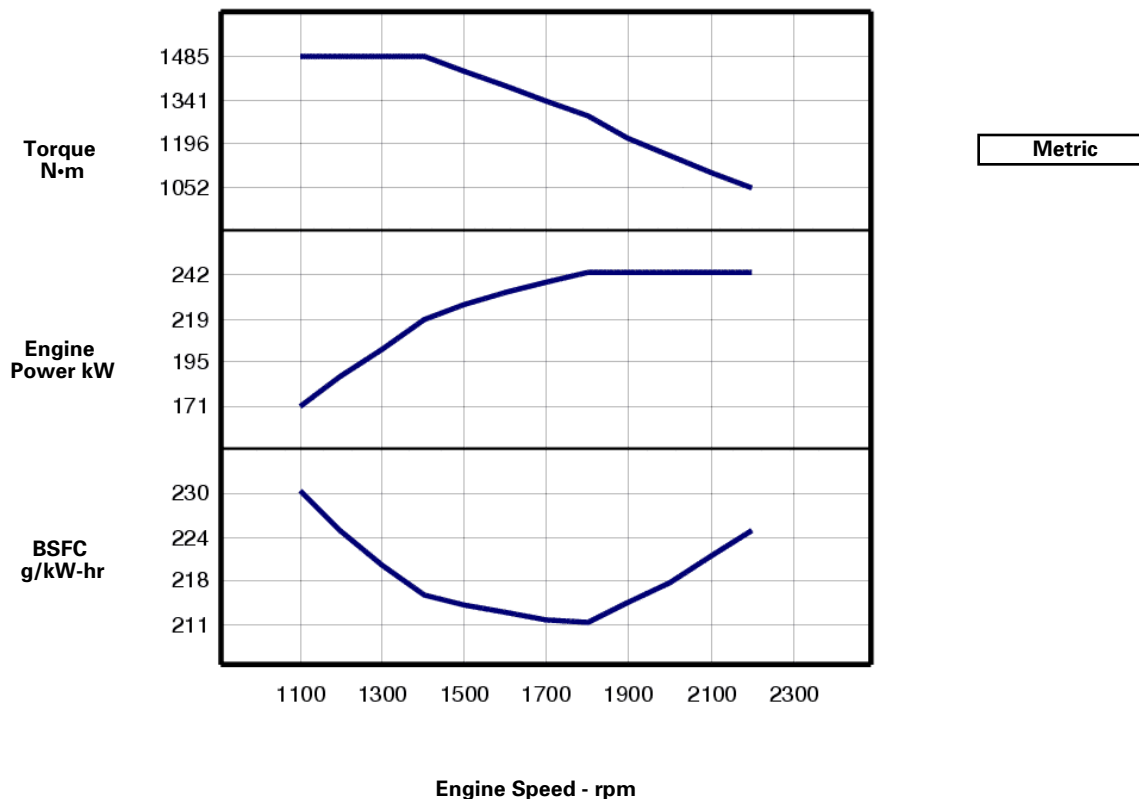
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## PERFORMANCE CURVES

### IND - C (Intermittent) - DM8118-01



Engine Speed rpm	Engine Power kW	Torque N·m	BSFC g/kW-hr	Fuel Rate L/hr
2200	242	1052	224.6	64.9
2100	242	1102	221.1	63.9
2000	242	1157	217.2	62.8
1900	242	1218	214.2	61.9
1800	242	1286	211.3	61.0
1700	238	1336	211.9	60.1
1600	232	1385	212.8	58.9
1500	225	1435	214	57.5
1400	218	1485	215.5	55.9
1300	202	1485	219.7	52.9
1200	187	1485	224.5	49.9
1100	171	1485	230.3	46.9



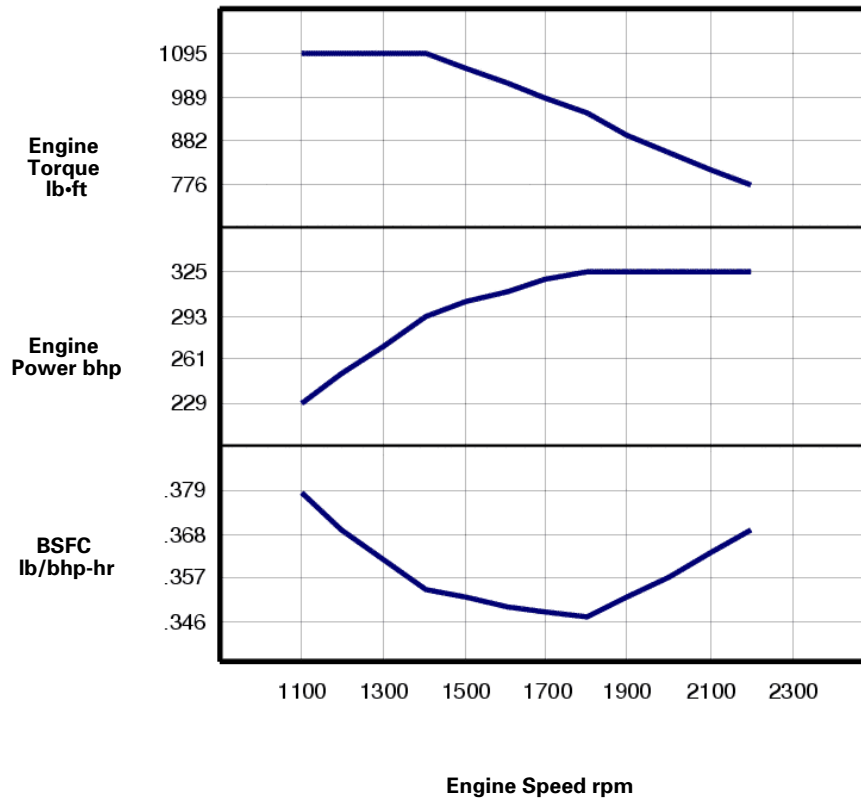
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## PERFORMANCE CURVES

### IND - C (Intermittent) - DM8118-01



English

Engine Speed rpm	Engine Power bhp	Engine Torque lb·ft	BSFC lb/bhp-hr	Fuel Rate gal/hr
2200	325	776	.369	17.1
2100	325	813	.363	16.9
2000	325	853	.357	16.6
1900	325	898	.352	16.4
1800	325	949	.347	16.1
1700	319	985	.348	15.9
1600	311	1022	.350	15.6
1500	302	1058	.352	15.2
1400	292	1095	.354	14.8
1300	271	1095	.361	14.0
1200	250	1095	.369	13.2
1100	229	1095	.379	12.4



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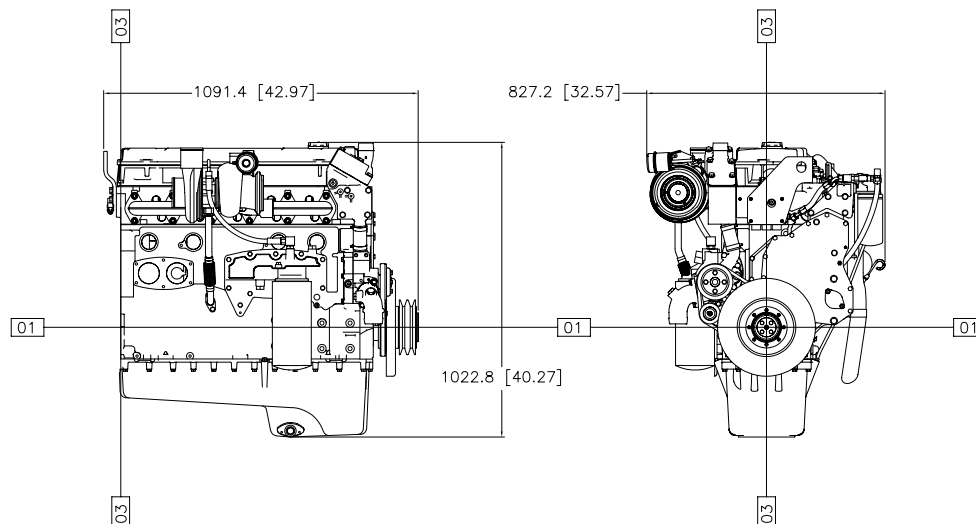
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### RATINGS AND CONDITIONS

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

**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	1091.4 mm (42.97 in)
(2) Width	827.2 mm (32.57 in)
(3) Height	1022.8 mm (40.27 in)

Note: Do not use for installation design.  
See general dimension drawings for detail (Drawing # 2651026 ).

Performance Number: DM8118-01

Feature Code: C09D112 Arr. Number: 2524432

Materials and specifications are subject to change without notice.

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