



DONGFENG CUMMINS ENGINE
PERFORMANCE CURVE

Engine Model
6CTA8.3-C215

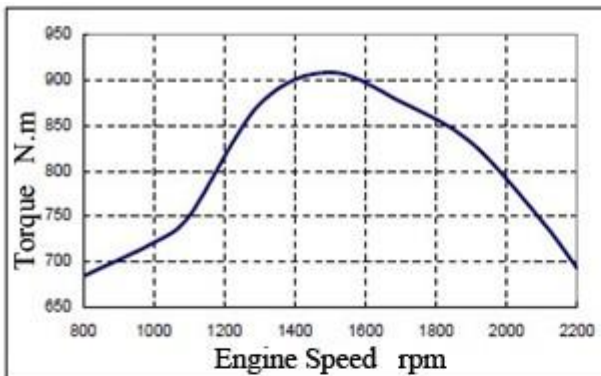
Curve No.
FR91769

CPL Code
0399

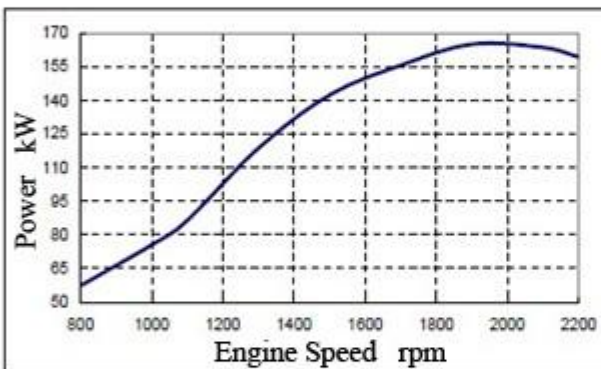
Date
2006-7

Displacement: 8.3L
Bore: 114mm
Stroke: 135mm
Fuel System: Weifu 7100PW/RSV
Cylinders: 6 Cylinders, in Line

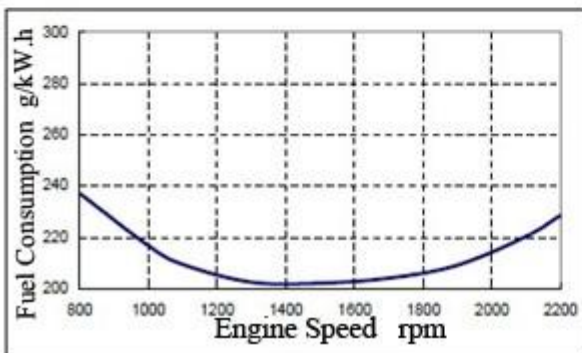
Advertised Power: 160kW@2200 rpm
215HP@2200 rpm
Peak Torque: 908N.m@1500 rpm
Aspiration: Turbocharged & After-cooled
Rating Type: Continuous



Torque	
rpm	N.m
800	684
1000	721
1100	750
1300	873
1500	908
1700	876
1900	831
2100	745
2200	693



Power	
rpm	kW
800	57
1000	75
1100	86
1300	119
1500	143
1700	156
1900	165
2100	164
2200	160



Fuel Consumption	
rpm	g/kW.h
800	237
1000	217
1100	210
1300	203
1500	202
1700	204
1900	209
2100	220
2200	228

All performance data based on the standard status and GB/T18297 conditions.



Cummins Engine Co. Ltd

Diesel Engine for Engineering Performance Data

General Engine Data

Engine Wet Weight (Pricing Configuration).....	627 kg
Moment of Inertia of Rotating Components (No Flywheel).....	0.37 kg·m ²
Center of Gravity from Front Face of Block.....	427 mm
Center of Gravity above Crankshaft Centerline.....	163 mm

Engine Mounting

Maximum (Static) Bending Moment at Front Support Mounting Surface.....	495N.m
Maximum (Static) Bending Moment at Side Pad Mounting Surface.....	TBD N.m
Maximum (Static) Bending Moment at Rear Face of Block.....	1356N.m

Exhaust System

Maximum Back Pressure.....	76 mmHg
Exhaust Pipe Size Normally Acceptable.....	75 mm
Maximum Static Supported Weight at the Turbocharger Outlet Flange.....	22.7N·m
Exhaust Manifold Insulation Acceptable.....	No
Turbocharger Insulation Acceptable.....	No

Air Intake System

Maximum Intake Air Restriction with Heavy Duty Air Cleaner	
— Clean Element.....	381 mmH ₂ O
— Dirty Element.....	635 mmH ₂ O
Minimum Dirt Holding Capacity with Heavy Duty Air Cleaner.....	53 g/liter/sec.
Maximum Temperature Rise from Ambient to the Inlet of the Turbocharger.....	17 °C
Maximum Pressure Drop from the Turbocharger Outlet to the Intake Manifold.....	- kPa

Lubrication System

Normal Operating Oil Pressure Range.....	276 – 345kPa
Maximum Lube Oil Flow for Engine Accessories.....	7.6 liter/min.
Maximum Sump Oil Temperature.....	121 °C
Minimum Engine Oil Pressure for Engine Protection Devices:	
— At Rated Speed and Load.....	276kPa
— At Torque Peak Speed and Load.....	207kPa
— At Low Idle.....	69kPa
Minimum Required Lube System Capacity - Sump plus Filters.....	18liter
By-pass Filtration Required.....	Yes
Angularity of Standard Oil Pan: (Values stated are for intermittent operation only):	
— Front Down.....	45 °
— Front Up.....	45°
— Side to Side.....	45°

Cooling System

Coolant Capacity - Engine Only.....	9.8 L
Maximum Engine Cooling Circuit External Resistance.....	34kPa
Minimum Pump Inlet Pressure with Open Thermostat and no Pressure Cap.....	TBD
Maximum Static Head of Coolant Above Engine Crankshaft Centerline.....	TBD
Standard (modulating) Thermostat Range.....	83-95 °C
Maximum Block Coolant Pressure with Closed Thermostat and no Pressure Cap.....	276kPa
Minimum Pressure Cap.....	50kPa
Maximum Engine Coolant Temperature at Engine Outlet.....	98.9°C
Maximum Engine Coolant Temperature for Engine Protection Devices.....	104.4°C
Minimum Engine Coolant Temperature.....	79.4°C
Minimum Fill Rate.....	19 liter/min
Maximum Initial Fill Time.....	5 min
Minimum Coolant Expansion Space of System Capacity.....	6%
Maximum Deaeration Time.....	25 min.
Minimum Drawdown of Total System Capacity.....	11%
(Drawdown Must Exceed the Volume Not Filled at Initial Fill & Must Not Include Expansion Space)	
Fan-on Engine Coolant Outlet Temperature.....	93°C
Shutter Opening Coolant Outlet Temperature.....	93°C
Shutter Opening Intake Manifold Air Temperature.....	TBD

Fuel System

Maximum Fuel Flow on the Supply Side of the Fuel Pump.....	300 kg/hr
Maximum Fuel Intake Restriction	
— with clean fuel filter.....	102 mmHg
— with dirty fuel filter.....	203 mmHg
Maximum Fuel Drain Restriction	
— with check valves.....	510mmHg
— less check valves.....	TBD
Maximum Fuel Inlet Temperature.....	71°C
Minimum Fuel Tank Air Venting Capability Required at 6 in. H2O Back Pressure.....	340 liter/hr
Low Idle Set Speed.....	800 rpm
Maximum Governed Speed (10% of Rated Torque)	2460 rpm
Maximum Over speed Capability.....	3750 rpm
Crankshaft Thrust Bearing Load Limit	
—Maximum Intermittent.....	1627 N
—Maximum Continuous.....	1085 N

Emission

Estimated Free Field Sound Pressure Level At 15 m (50 ft.) and Full-Load Governed Speed

(Excludes Noise from Intake, Exhaust, Cooling System and Driven Components)

—Right Side.....	TBD
—Left Side.....	TBD
—Front.....	TBD

—Rear..... TBD

Fuel Rating Option used for these Data: FR91769

Engine Speed..... -rpm
 Gross Power Output..... -kW
 Torque..... - N.m
 Intake Manifold Pressure..... -kPa
 Motoring Friction Horsepower..... -kW
 Turbocharger Compressor Outlet Pressure..... -kPa
 Exhaust Air Flow..... -litre/sec
 Exhaust Gas Temperature -°C
 Heat Rejection to Ambient (Dry Manifold)..... -kW
 Heat Rejection to Coolant (Dry Manifold)..... -kW
 Heat Rejection to Fuel..... -kW
 Engine Coolant Flow..... -liter/sec
 External Cooling Circuit Resistance@2500r/min..... - Kpa△P
 Altitude Limitations:
 —Intermittent..... -m
 —Continuous..... -m
 Steady Smoke..... -Bosch

Rated Power	Max. Power Point	Peak Torque
2200		1500
160		143
693		908
130		110
TBD		TBD
135		115
733		238
433		459
68		51
91.0		75.0
0.56		0.43
4.5		3.0
34.5		17.3
TBD		TBD
4500		4500
1.0		1.5

ALL DATA CERTIFIED WITHIN 5%

TBD = To Be Decided N/A = Not Applicable N.A. = Not Available

All data is subject to change without notice, sorry for inform.