



Dongfeng Cummins Engine Company
Xiangyang - Hubei, China
Construction Engine Data Sheet

Engine Model
6LTAA8.9-C325
Engine Family
D56

Curve No.
FR92213
CPL Code
8671

DCEC
Date
2006-09

Displacement: 8.9L

Bore: 114mm

Stroke: 145mm

Fuel System: P7100 Pump/RQV-K

Cylinders: 6 Cylinders, in Line

Advertised Power: 239kW@2200 rpm

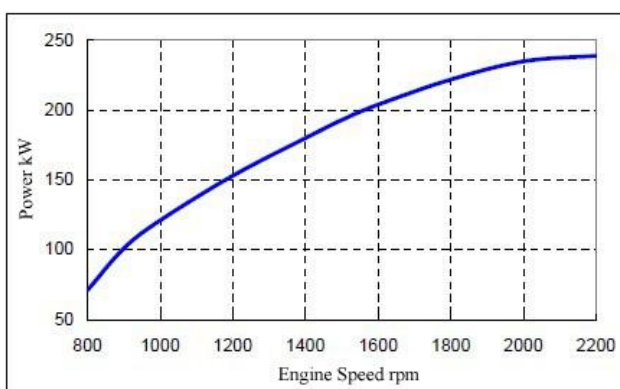
325HP@2200 rpm

Peak Torque: 1230N.m@1500 rpm

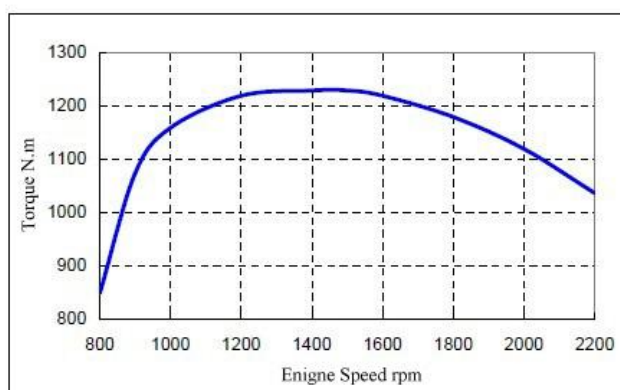
Aspiration: Turbocharged & Air-Air Intercooled

Rating Type: Continuous

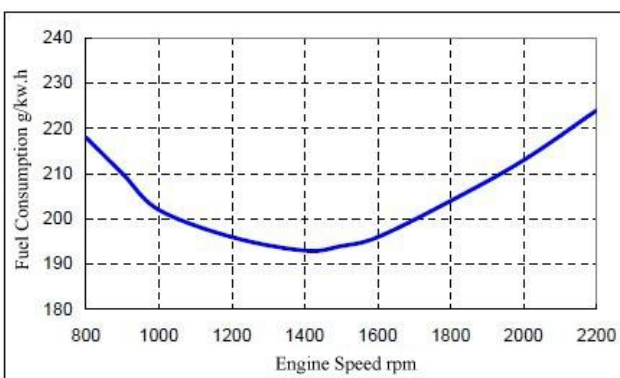
Power Curve of Cummins 6LTAA8.9-C325 Diesel Engine



Power	
rpm	kW
800	71
900	101
1000	121
1200	153
1400	180
1500	193
1600	204
1800	222
2000	235
2200	239



Torque	
rpm	N.m
800	850
900	1075
1000	1160
1200	1220
1400	1230
1500	1230
1600	1220
1800	1180
2000	1120
2200	1037



Fuel Consumption	
rpm	g/kW.h
800	218
900	210
1000	202
1200	196
1400	193
1500	194
1600	196
1800	204
2000	213
2200	224

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



Cummins Engine Co. Ltd

Diesel Engine for Construction Performance Data

General Engine Data

Engine Wet Weight (Pricing Configuration).....	650 kg
Maximum Over Speed Performance.....	3150rpm
Moment of Inertia of Rotating Components (No Flywheel).....	0.72 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.....	495 N.m
Maximum (Static) Bending Moment at Side Pad Mounting Surface.....	250 N.m
Maximum (Static) Bending Moment at Rear Face of Block.....	1356 N.m
Moment of Inertia of Complete Engine	
— Roll Axis.....	29.8 kg m ²
— Pitch Axis.....	76.8 kg m ²
— Yaw Axis.....	66.9 kg m ²

Exhaust System

Maximum Back Pressure.....	10.1kPa
Exhaust Pipe Size Normally Acceptable.....	100 mm
Maximum Static Supported Weight at the Turbocharger Outlet Flange.....	14 N m
Exhaust Manifold Insulation Acceptable.....	No
Turbocharger Insulation Acceptable.....	No

Air Intake System

Maximum Intake Air Restriction with Heavy Duty Air Cleaner	
— Clean Element.....	3.7 kPa
— Dirty Element.....	6.2 kPa
Minimum Dirt Holding Capacity with Heavy Duty Air Cleaner.....	53 g/litre/sec.
Maximum Temperature Rise from Ambient to the Inlet of the Turbocharger.....	17 °C
Minimum Diameter Size of the Intake Manifold.....	125 mm

Turbocharged Inter-cooled System

Allowable Maximum Intake Manifold Temperature(25°C Ambient Temperature).....	60 °C
Allowable Pressure Difference Before and After Cold.....	14kPa
Allowable Temperature Difference for the Exhaust Temperature with Ambient Temperature.....	35 °C

Lubrication System

Normal Operating Oil Pressure Range	
Minimum Oil Pressure at Idle Speed.....	69 kPa

Maximum Oil Pressure at Rated Speed.....	426 kPa
Maximum Lube Oil Flow for Engine Accessories.....	7.6 litre/min.
Maximum Sump Oil Temperature.....	138 °C
Minimum Required Lube System Capacity(Sump plus Filters).....	27.6 litre
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.....	11.1 L
Maximum Engine Cooling Circuit External Resistance.....	34 kPa
Minimum Pump Inlet Pressure with Open Thermostat and no Pressure Cap.....	0 kPa
Maximum Static Head of Coolant Above Engine Crankshaft Centerline.....	1 m
Standard (modulating) Thermostat Range.....	82-93 °C
Minimum Pressure Cap.....	50 kPa
Maximum Engine Coolant Temperature at Engine Outlet.....	100°C
Maximum Engine Coolant Temperature for Engine Protection Devices.....	104°C
Minimum Engine Coolant Temperature.....	70°C
Minimum Fill Rate.....	19 litre/min
Maximum Initial Fill Time.....	5 min
Minimum Coolant Expansion Space.....	6%
Maximum Deaeration Time.....	25 min.
Minimum Drawdown.....	11%
(Drawdown Must Exceed the Volume Not Filled at Initial Fill & Must Not Include Expansion Space)	
Shutter Opening Coolant Outlet Temperature.....	85°C
Shutter Opening Intake Manifold Air Temperature.....	60°C

Cool Start System	12V	24V
Minimum Battery Capacity(below -18°C)		
— Engine Cold Starting Current.....CCA	1500	750
— Engine Reserve Capacity.....min	360	180
Minimum Environmental Temperature When Cold Start Unassisted.....°C	-12	
Minimum Engine Speed When Cold Start Unassisted.....rpm	120	

Fuel System

Maximum Fuel Flow on the Supply Side of the Fuel Pump.....	315 l/hr
Maximum Fuel Supply Restriction:	
— with clean fuel filter.....	20 kPa
— with dirty fuel filter.....	34 kPa
Maximum Fuel Drain Restriction:	
— with check valves.....	N/A
— less check valves.....	69 kPa
Maximum Fuel Inlet Temperature.....	71°C
Minimum Fuel Tank Air Venting Capability.....	0.055 L/s

Minimum Idle Speed.....	700±100 rpm
Maximum Governed Speed (10% of Rated Torque)	2500 rpm
Allowable Maximum Highest Altitude.....	2000 m
Torque When Accelerator Closed at 550rpm/min.....	650N.m
Limited Load for Thrust Bearing	
—Instantaneous Maximum.....	5338 N.m
—Continuous Maximum.....	2670 N.m

Fuel Rating Option used for these Data: FR92213

Engine Speed.....	-rpm
Gross Power Output.....	-kW
Torque.....	-N.m
Intake Manifold Pressure.....	-kPa
Turbocharger Compressor Outlet Pressure.....	-kPa
Intake Air Flow.....	- m3/min
Exhaust Air Flow.....	-m3/min
Exhaust Gas Temperature - Dry Stack.....	- °C
Heat Rejection to Ambient (Dry Manifold).....	-kW
Heat Rejection to Coolant (Dry Manifold).....	-kW
Heat Rejection to Fuel.....	-kW
Engine Coolant Flow.....	-litre/sec
External Cooling Circuit Resistanc.....	- Kpa△P
Altitude Limitations:	
—Intermittent.....	-m
—Continuous.....	-m
Steady State Smoke.....	-Bosch

Rated Power	Max. Power Point	Peak Torque
2200		1400
239		180
1037		1230
164		141
171		144
21.2		11.2
56		35
510		505
65		29
108		66.8
N/A		N/A
4.67		2.92
34.5		17.3
N/A		N/A
2000		2000
1.5		2.0

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.