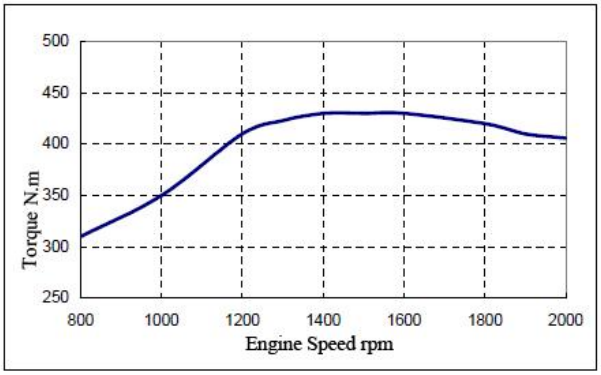
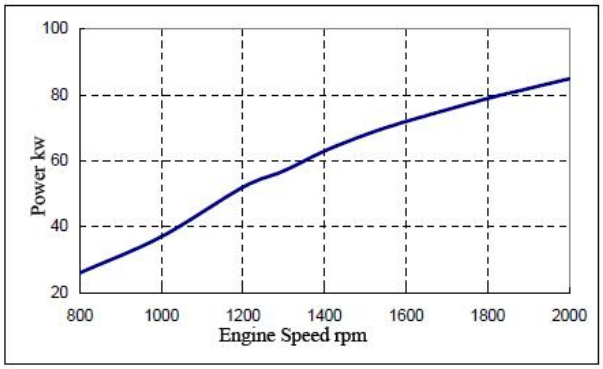
	DONGFENG CUMMINS ENGINE PERFORMANCE CURVE	Engine Model **6BT5.9-C115**	Curve No. **FR91470**	
			CPL Code **1189-02**	Date **2005-02**

Displacement: 5.9L
Bore: 102mm
Stroke: 120mm
Fuel System: Weifu PW/RSV
Cylinders: 6 Cylinders, in Line

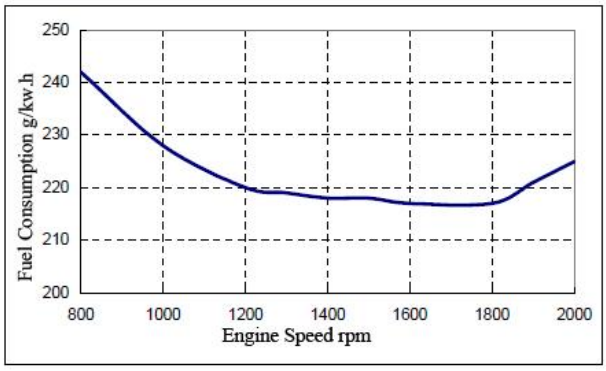
Advertised Power: 85kW@2000 rpm
115HP@2000 rpm
Aspiration: Turbocharged & Inter-cooled
Rating Type: Continuous



Torque	
rpm	N.m
800	310
1000	350
1200	410
1300	423
1400	430
1500	430
1600	430
1800	420
1900	410
2000	406



Power	
rpm	kW
800	26
1000	37
1200	52
1300	57
1400	63
1500	68
1600	72
1800	79
1900	82
2000	85



Fuel Consumption	
rpm	g/kW.h
800	242
1000	228
1200	220
1300	219
1400	218
1500	218
1600	217
1800	217
1900	221
2000	225

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)..... 432 kg
Moment of Inertia of Rotating Components (No Flywheel)..... 0.25 kg·m2
Center of Gravity from Front Face of Block..... 391 mm
Center of Gravity above Crankshaft Centerline..... 140 mm

Engine Mounting

Maximum (Static) Bending Moment at Front Support Mounting Surface..... 435 N.m
Maximum (Static) Bending Moment at Side Pad Mounting Surface..... TBD N.m
Maximum (Static) Bending Moment at Rear Face of Block..... 1356 N.m
Moment of Inertia of Complete Engine
— Roll Axis..... 16.5 kg·m2
— Pitch Axis..... 41.1 kg·m2
— Yaw Axis..... 35.4kg·m2

Exhaust System

Maximum Back Pressure..... 76 mmHg
Exhaust Pipe Size Normally Acceptable..... 75 mm
Maximum Static Supported Weight at the Turbocharger Outlet Flange..... 13.5 N·m
Exhaust Manifold Insulation Acceptable..... N/A
Turbocharger Insulation Acceptable..... N/A

Air Intake System

Maximum Intake Air Restriction with Heavy Duty Air Cleaner
— Clean Element..... 381 mmH2O
— Dirty Element..... 635 mmH2O
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 ℃
Maximum Pressure Drop from the Turbocharger Outlet to the Intake Manifold..... TBD kPa

Lubrication System

Normal Operating Oil Pressure Range..... 200-450 kPa
Maximum Lube Oil Flow for Engine Accessories..... 4.0 litre/min.
Maximum Sump Oil Temperature..... 121 ℃
Minimum Engine Oil Pressure for Engine Protection Devices:
— At Rated Speed and Load..... 276 kPa
— At Torque Peak Speed and Load..... 207 kPa
— At Low Idle..... 69 kPa
Minimum Required Lube System Capacity - Sump plus Filters..... 16.3 litre
By-pass Filtration Required..... N/A
Angularity of Standard Oil Pan: (Values stated are for intermittent operation only):

— Front Down……..	35 º
— Front Up……	35º
— Side to Side……...	35º

Cooling System

Coolant Capacity - Engine Only……..	9.9 L
Maximum Engine Cooling Circuit External Resistance……...	34 kPa
Minimum Pump Inlet Pressure with Open Thermostat and no Pressure Cap……..	N/A
Maximum Static Head of Coolant Above Engine Crankshaft Centerline……	N/A
Standard (modulating) Thermostat Range……	82-93 ℃
Maximum Block Coolant Pressure with Closed Thermostat and no Pressure Cap…….	276 kPa
Minimum Pressure Cap……	50 kPa
Maximum Engine Coolant Temperature at Engine Outlet……..	100℃
Maximum Engine Coolant Temperature for Engine Protection Devices…….	101.6℃
Minimum Engine Coolant Temperature……...	71℃
Minimum Fill Rate……	19 litre/min
Maximum Initial Fill Time……	5 min
Minimum Coolant Expansion Space……..…….…….……6% of System Capacity	
Maximum Deaeration Time……	25 min.
Minimum Drawdown…….……11% of Total System Capacity	
(Drawdown Must Exceed the Volume Not Filled at Initial Fill & Must Not Include Expansion Space)	
Fan-on Engine Coolant Outlet Temperature……	93℃
Shutter Opening Coolant Outlet Temperature……..	85℃
Shutter Opening Intake Manifold Air Temperature……	N/A

Fueling System

Maximum Fuel Flow on the Supply Side of the Fuel Pump……..	190litre/hr
— with clean fuel filter……..	102 mmHg
— with dirty fuel filter…… …….	203 mmHg
Maximum Fuel Drain Restriction	
— with check valves……..	N/A
— less check valves……...	510mmHg
Maximum Fuel Inlet Temperature…….	71℃
Minimum Fuel Tank Air Venting Capability Required at 6 in. H2O Back Pressure……	340 litre/hr
Low Idle Set Speed……	750 rpm
Maximum Governed Speed（10% of Rated Torque）……	2160 rpm
Maximum Over speed Capability……..	3750 rpm

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……...	N/A
—Left Side…….	N/A
—Front……...	N/A

—Rear……..…..……. N/A

Fuel Rating Option used for these Data: FR91536	Rated Power	Max. Power Point	Peak Torque
Engine Speed……..… -rpm	2000		1500
Gross Power Output……..…… -kW	85		68
Torque……... -N.m	406		430
Intake Manifold Pressure……...…… -kPa	110		75
Motoring Friction Horsepower……..… -kW	15		11
Turbocharger Compressor Outlet Pressure..…..……. -kPa	115		80
Intake Air Flow……..…… -litre/sec	172		125
Exhaust Gas Flow…….…….…… -litre/sec	433		310
Exhaust Gas Temperature - Dry Stack……..……..… -℃	450		510
Heat Rejection to Ambient (Dry Manifol……..… -kW	N/A		N/A
Heat Rejection to Coolant (Dry Manifold)…… -kW	73		53.6
Heat Rejection to Fuel……...…… -kW	0.5		0.3
Engine Coolant Flow…….…… -litre/sec	2.7		2.0
External Cooling Circuit Resistanc…… - Kpa△P	N/A		N/A
Altitude Limitations:			
—Intermittent…… -m	3500		3500
—Continuous…….……. -m	3000		3000
Steady State Smoke…….…… -Bosch	1.5		2

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.