



**DONGFENG CUMMINS ENGINE
PERFORMANCE CURVE**

Engine Model
6BT5.9-G2

Curve No.
FR9317-02

Engine Family
D40

CPL Code
1189-02

Date
12-2005

Displacement: 5.9L

Advertised Power: 86kW@1500 rpm

Bore: 102mm

115HP@1500 rpm

Stroke: 120mm

Fuel System: Beiyou PB Pump, GAC Electrical Governor

Aspiration: Turbocharged

Cylinders: 6 Cylinders, in Line

Rating Type: Continuous

Engine Speed	Standby Power		Rated Power		Continuous Power	
RPM	KW	HP	KW	HP	KW	HP
1500	92	123	86	115	N/A	N/A

Output Power			Fuel Consumption	
%	KW	HP	g/kw.h	L/h
Standby Power				
100	92	123	221	25
Rated Power				
100	86	115	214	22
75	65	87	216	17
50	43	58	217	11
25	22	29	248	7
Continuous Power				
N/A	N/A	N/A	N/A	N/A



Performance data obtain under normal conditions, according to GB/T18297 test conditions

Technical Request

Aspiration.....	Turbocharged
Net Weight(Dry)-Engine Only.....	411kg
Instantaneous inertia at Rotating: (without Flywheel).....	0.25kg.m ²
Distance from Center of Gravity to the Front Engine Block.....	544mm
Distance from Center of Gravity to the Crankshaft Centerline.....	155mm

Engine Mounting

Maximum (Static) Bending Moment at Rear Face of Block.....	1356 N.m
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Exhaust System

Maximum Back Pressure.....	76 mmHg
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Air Intake System

Maximum Intake Air Restriction:

— with Dirty Filter Element.....	635 mmH ₂ O
— with Normal Clean Air Filter and Clean Filter Element.....	254 mmH ₂ O
—with Heavy-duty Clean Air Filter and Clean Filter Element.....	381 mmH ₂ O

Lubrication System

Normal Operating Oil Pressure Range:

— at Idle Speed.....	207 kPa
— at Rated Speed	345 kPa

Maximum Sump Oil Temperature.....	121 °C
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Angularity of Standard Oil Pan: Oil Capacity(Max.-Min.).....	14.2-12.3 litre
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Minimum Required Lube System Capacity - Sump plus Filters.....	16.4 litre
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Angularity of Standard Oil Pan:

— Front Down.....	40 °
— Front Up.....	40°
— Side to Side.....	40°

Fuel System

Type of Fuel System.....	BYC A Type Direct Fuel Injection Pump
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The Maximum Resistance of Fuel Pump When Use Clean Filter.....	102mmHg
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Maximum Fuel Return Oil Resistance.....	254mmHg
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Return Fuel in Total(Constant Load).....	202-litre/hr
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Cooling System

Coolant Capacity - Engine Only.....	9.9 L
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Maximum Engine Cooling Circuit External Resistance.....	28kPa
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Minimum Pump Inlet Pressure with Open Thermostat and no Pressure Cap.....	14m
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Standard (modulating) Thermostat Range.....	82-95 °C
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Minimum Pressure Cap.....	69 kPa
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The Highest Coolant Temperature(Standby/Rated Power)..... 104/100 °C

Electrical System

Starter Motor..... 12V 24V
 Battery Charging System(Polarity Negative Ground)..... 63amp 40amp
 Maximum Resistance of Starting Circuit..... 0.00075Ω 0.002Ω

Specification Data:

Engine Speed.....rpm
 Output Power.....kw
 Torque.....N.m
 Idle Speed.....rpm
 Frictional Loss Power.....kw
 Piston Speed.....m/s
 Coolant Flow.....l/s
 Air Intake Flow..... l/s
 Air Exhaust Flow..... l/s
 Exhaust Temperature..... °C
 Heat Loss in The Environment.....kw
 Coolant Heat Loss.....kw
 Fuel Heat Loss.....kw

Rated Power	Standby Power
1500	1500rpm
86	92
548	586
750-950	750-950
12.7	12.7
6.0	6.0
2.0	2.0
100	108
250	280
526	565
N/A	N/A
49	55
N/A	N/A

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.