

CUMMINS ENGINE DATASHEET



ENGINE MODEL: 6BT5.9-G2



DONGFENG CUMMINS ENGINE Co., Ltd.
ENGINE DATASHEET—for G-drive

ENGINE MODEL
6BT5.9-G2

ENGINE FAMILY
D40

CPL
1189-02

2005/12

Displacement	5.9 L	Air intake way	turbo-charged		
Cylinder bore	102 mm	Cylinder quantity	6	kW(BHP)	@RPM
Stroke	120 mm			145(194)	3000
Fuel system	A pump _ BOSCH governor/			Speed-droop	5%

Engine testing with fuel system, water pump and oil pump, without air compressor, alternator, fan, other options and driving accessory.
 Testing condition: air intake resistance 250 mmHg, exhaust back pressure 50 mmHg.

Engine Speed-RPM	Max Power		Base Output Power		Continuous Power	
	kW	HP	kW	HP	kW	HP
2950	130	194	110	147	N/A	N/A

Output Power			Fuel consumption	
%	kW	HP	g/kW.h	L/h
Max Power				
100	145	194	4862	55
Auxiliary Pump Power				
100	110	147	396	45



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PERFORMANCE CURVE
FR 9317-02

ENGINE FAMILY
6B

CPL
1189-02

2005/12

Typical engine data

Net weight	kg	411
Rotate part instantaneous inertia _ without flywheel	kg.m ²	0.25
Distance between gravity center and rear surface of cylinder block	mm	544
Distance between gravity center and center line above of crankshaft	mm	155

Engine installation

Static bent torque permitted—rear surface of cylinder block	N.m	1356
Static bent torque permitted—front surface of cylinder block	N.m	435
Static bent torque permitted—flank surface of cylinder block	N.m	365

Exhaust system

Max. back pressure	mmHg	76
Diameter of exhaust pipe recommended	mm	75

Air intake system

Max. air intake resistance		
Dirty filter	mmH ₂ O	635
Normal air cleaner and clean filter	mmH ₂ O	254
Heavy duty cleaner and clean filter	mmH ₂ O	381
Diameter of intake pipe recommended	mm	100

Lubrication system

Normal oil pressure range

Low idle	kPa	207
Rated speed	kPa	345
Max. oil temperature permitted in oil pan	°C	121
Oil pan capacity (Max _ Min)	L	14.2_12.3
Lubrication system Min. capacity (oil pan + oil filter)	L	16.4
Usage inclining degree permitted (any direction)	°	40

Fuel system

Fuel injection pump model	A pump _ BOSCH governor	
Max. fuel input resistance of transfer pump	mmHg	102
Max. overflow fuel resistance at overflow pipe of injector	mmHg	254
Total fuel overflow amount	L/h	202

Cooling system

Coolant capacity-engine only	L	9.9
Max. coolant cycling resistance exterior engine	kPa	28
Thermostat adjusting temperature (range)	°C	82_95
Min. opening pressure of radiator cap	kPa	69
Max. coolant temperature permitted _ Standby Power/Base output Power	°C	104/100

Electric system

Starter	12V	24V
Battery charging system	63A	40A
Max. starting circuit resistance	0.00075Ω	0.002Ω
Min. battery capacity_ -12°C (CCA: Cold Cranking Ampere)	800CCA	400CCA

Technical data _ under standard fuel delivery rate FR 91589

Engine speed _ RPM	Auxiliary Pump Power	Max Power
Output Power _ kW	3000	3000
	110	145

Torque _ Nm	548	586
Low idle _ RPM	750-950	750-950
Friction energy output _ kW	12.7	12.7
Piston speed _ m/s	6.0	6.0
Engine coolant flow _ L/sec	2.0	2.0
Air intake flow _ L/sec	100	108
Exhaust flow _ L/sec	250	280
Exhaust temperature _ °C	526	565
Environment energy output _ kW	N/A	N/A
Coolant energy output _ kW	49	55
Fuel energy output _ kW	N/A	N/A

All data's error within $\pm 5\%$.