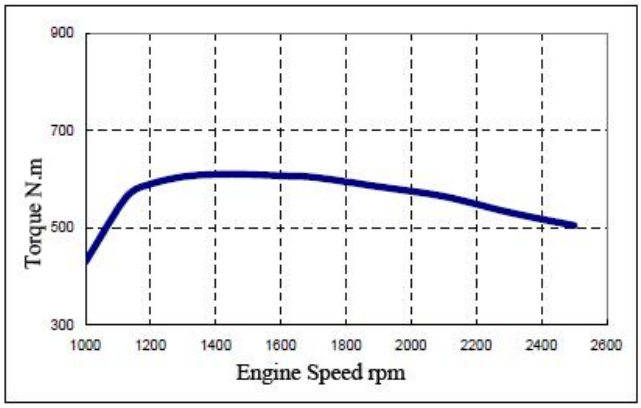
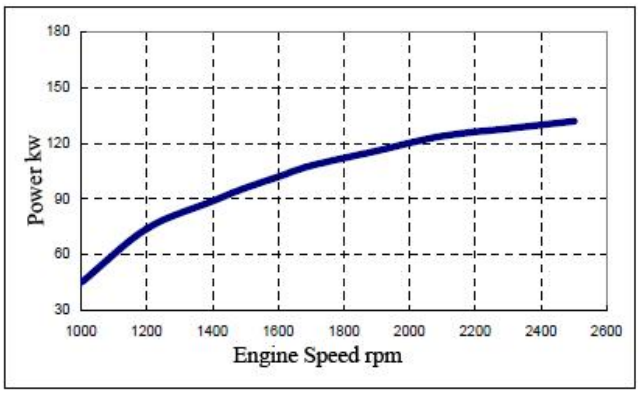
	DONGFENG CUMMINS ENGINE PERFORMANCE CURVE	Engine Model **EQB180-20**	Curve No. **FR91324**	
			CPL Code **8555**	Date **June**

Displacement:5.9L
Bore: 102mm
Stroke: 120mm
Fuel System: Boxu P7100/Weifu PW2000 Pump
Cylinders: 6 Cylinders, in Line

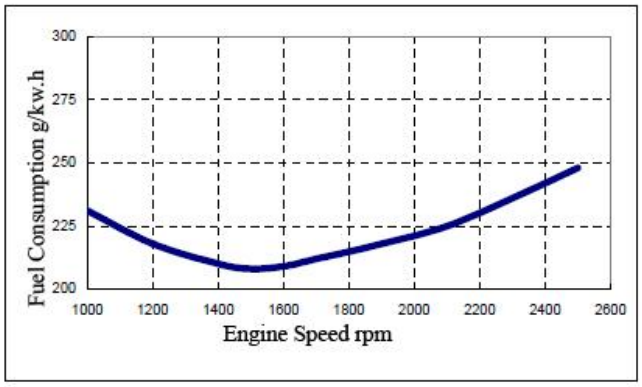
Advertised Power:132kW@2500 rpm
180HP@2500 rpm
Peak Torque: 610N.m@1500 rpm
Aspiration: Turbocharged & Inter-cooled
Rating Type: Continuous



Torque	
rpm	N.m
1000	430
1200	590
1400	610
1500	610
1600	608
1700	600
1900	585
2100	565
2300	532
2500	505



Power	
rpm	kW
1000	45
1200	74
1400	89
1500	96
1600	102
1700	108
1900	116
2100	124
2300	128
2500	132



Fuel Consumption	
rpm	g/kW.h
1000	231
1200	218
1400	210
1500	208
1600	209
1700	212
1900	218
2100	225
2300	236
2500	248

Performance data obtain under normal conditions, according to GB/T18297-2001 test conditions

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Diesel Engine for Vehicle Performance Data

Technical Request

Aspiration:	Turbocharged & Inter-cooled
Emission Certification	GB17691/GB14761
Net Weight(Dry)-Engine Only-Average:	413kg
Net Weight(Dry)-Engine with Heat Exchanger-Average	437kg
Compression Ratio:	17.3:1
Distance from Center of Gravity to the Front Engine Block	328mm
Distance from Center of Gravity to the Crankshaft Centerline	155mm
Maximum Bending Moment at Rear Face of Block	1356 N.m
Limit load of Thrust Bearing:	
Instantaneous maximum:	3781 N
Continuous maximum	1780 N
Instantaneous inertia at Rotating: (without Flywheel)	0.25kg.m2

Performance Characteristic

Idle Speed:	750rpm
Maximum non-load speed:	2850rpm
Over speed performance(within 15 seconds):	4200rpm
Maximum Altitude at Continuous Operation:	3000m
The clutch torque @ 800rpm:	350N.m
When install exhaust braking:	
The limit exhaust pressure of Turbocharger export @3150 rpm	414 kPa
Maximum power of Exhaust brake	112kw

Engine Speed (RPM)	Oil Pressure (kPa)	Air Flow (m3/min)	Air Pressurized		Exhaust Flow (m3/min)	Exhaust Temperature (℃)	Fuel Consumption (l/hr)	Heat Energy Loss	
			Flow (kg/min)	Pressure kPa				Coolant (KW)	Air (KW)
2500	400	16.7	19.2	140	46.8	500	40	75	29
1500	350	9.2	10.6	95	25.8	480	25.3	49	18

Engine Model：EQB180-20
Curve No.：FR91324
All values within ±5%.

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Diesel Engine for Vehicle Performance Data

LUBRICATION SYSTEM

Oil Sump Capacity:	
Upper Limit:	14.2L
Lower Limit:	12.4L
Capacity of the whole system:	16.4 L

AIR SYSTEM

Air intake maximum temperature rise from Outside to the Turbocharger	15℃
The allowable maximum restriction when use Dry Air Filter	
Medium: kPa (mmH2O)	2.9(300)
Heavy: kPa (mmH2O)	3.7(380)
The allowable maximum restriction when use dirty Filter Element: kPa (mmH2O)	6.2(635)

TURBOCHARGED & INTERCOOLED

Environment design parameters	Stage II	Stage III
The highest temperature of intake manifold:	55℃	50℃
Temperature after the cooling of the intercooler	25℃	20℃
The maximum allowiable cold pressure difference before and after the intercooler:	16.7(125) kPa(mmHg)	
The allowable minimum diameter of the intake manifold:	75mm	

EXHAUST SYSTEM

The maximum exhaust resistance with exhaust manifold and muffler: kPa(mmHg)	10.0(75)
The allowable minimum diameter of the exhaust manifold:	75mm
The allowable maximum static bending moment of the Turbocharger exhaust flange	27N.m

FUEL SYSTEM

The maximum resistance of Fuel Pump when use clean filter	150mmHg
Maximum fuel return oil resistance:	520mmHg

COOLING SYSTEM

Engine Coolant Capacity:	9.0 L
The range of temperature adjustment for the Thermostat:	83-95 ℃
The maximum pressure of Coolant(without pressure cap and thermostat closed)	276kPa
The highest coolant temperature (at engine exports):	100℃
Maximum degassing time	25mins
Maximum coolant flow to accessories	41 L/min
The lowest coolant temperature	70℃
Minimum speed of water-filling	19 l/min
Minimum coolant expansion volume relative to the system capacity	6 %

Water tank capacity without water expansion	5 L	
Minimum allows pressure of pressure cap:	50 kPa	
The alarm temperature of the coolant	100℃	
The open temperature of louver	N/A	
Cooling ability of cooling system:	Stage II	Stage III
The limit environmental temperature at rated speed	45 ℃	42 ℃
The limit environmental temperature at peak torque	40℃	37℃
24V ELECTRICAL SYSTEM		
Maximum resistance of starting circuit	0.002Ω	
The cold start current when engine and the clutch separate: CCA	12V 500	24V 250
COLD STARTING SYSTEM		
The lowest cold starting temperature without auxiliary starting device	-10℃ @120rpm	
The lowest cold starting temperature with starting device	-25℃ @110rpm	

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All data is subject to change without notice- contact Cummins for most recent data.