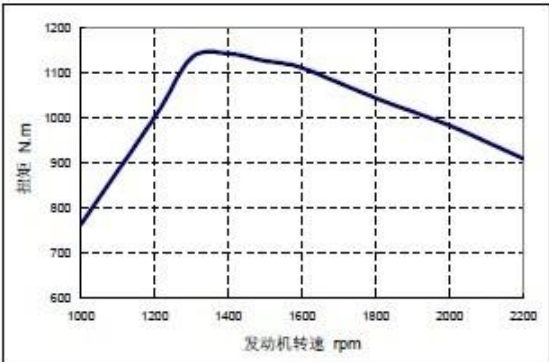




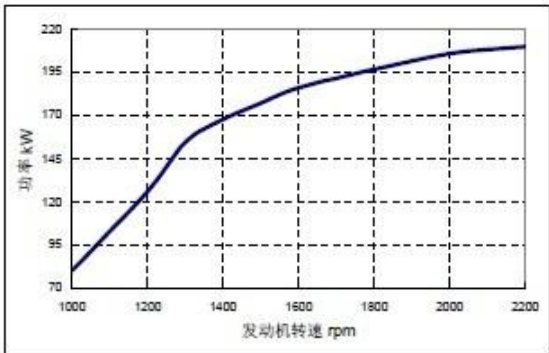
DONGFENG CUMMINS ENGINE
PERFORMANCE CURVE

Engine Model C280-20	Curve No. FR91568	
	CPL Code 8440	Date 15-June

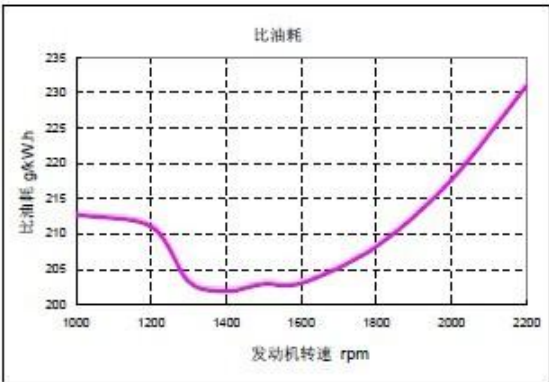
Displacement: 8.3L	Advertised Power: 206kW@2200 rpm
Bore: 114mm	280HP@2200 rpm
Stroke: 135mm	Peak Torque: 1125N.m@1400 rpm
Fuel System: WeiFuPW2000PUMP/RQV-K	Aspiration: Turbocharged & Air-Air Inter-cooled
Cylinders: 6 Cylinders, in Line	Rating Type: Continuous



扭矩	
rpm	N.m
1000	763
1200	1002
1300	1133
1400	1142
1500	1126
1600	1110
1800	1043
2000	982
2200	910



功率	
rpm	kW
1000	80
1200	126
1300	154
1400	167
1500	177
1600	186
1800	197
2000	206
2200	210



比油耗	
rpm	g/kW.h
1000	213
1200	211
1300	203
1400	202
1500	203
1600	203
1800	208
2000	218
2200	231

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

Cummins Engine Co. Ltd

Diesel Engine for Vehicle Performance Data

Technical Request

Aspiration:	Turbocharged & Inter-cooled
Emission Certification	GB17691/GB14761
Net Weight(Dry)-Engine Only-Average:	636kg
Net Weight(Dry)-Engine with Heat Exchanger-Average	665kg
Compression Ratio:	17.5:1
Distance from Center of Gravity to the Front Engine Block	427mm
Distance from Center of Gravity to the Crankshaft Centerline	163mm
Maximum Bending Moment at Rear Face of Block	1356 N.m
Limit load of Thrust Bearing:	
Instantaneous maximum:	4890 N
Continuous maximum	2670 N

Performance Characteristic

Idle Speed:	750±100rpm
Maximum non-load speed:	2500rpm
Over speed performance(within 15 seconds):	3500rpm
Maximum Altitude at Continuous Operation:	2500m
The clutch torque @ 800rpm:	630N.m
When install exhaust braking:	
The limit exhaust pressure of Turbocharger export @3150 rpm	450 kPa
Maximum power of Exhaust brake	114kw

Engine Speed (RPM)	Oil Pressure (kPa)	Air Flow (kg/min)	Air Pressurized		Exhaust Flow (m3/min)	Exhaust Temperature (°C)	Fuel Consumption (l/hr)	Heat Energy Loss	
			Flow (kg/min)	Pressure kPa				Coolant (KW)	Air (KW)
2200	370	19	22.4	165	50.1	575	48.51	97.0	57.0
1400	250	11.6	13.6	130	31.7	550	33.81	66.0	26.0

Engine Model: C280 20

Curve No.: FR91568

All values within ±5%.

Cummins Engine Co. Ltd

Diesel Engine for Vehicle Performance Data

LUBRICATION SYSTEM

Oil Sump Capacity:

Upper Limit: 19.0L

Lower Limit: 15.2L

Capacity of the whole system: 23.6 L

AIR SYSTEM

Air intake maximum temperature rise from Outside to the Turbocharger 15°C

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°C	50°C
---	------	------

Temperature after the cooling of the intercooler	25°C	20°C
--	------	------

The maximum allowable cold pressure difference before and after the intercooler:	16.7(125) kPa(mmHg)	
--	---------------------	--

The allowable minimum diameter of the intake manifold:	65mm	
--	------	--

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
---	------

FUEL SYSTEM

The maximum resistance of Fuel Pump when use clean filter	150mmHg
---	---------

Maximum fuel return oil resistance:	520mmHg
-------------------------------------	---------

COOLING SYSTEM

Engine Coolant Capacity:	12.3 L
--------------------------	--------

The range of temperature adjustment for the Thermostat:	83-95 °C
---	----------

The maximum pressure of Coolant(without pressure cap and thermostat closed)	280kPa
---	--------

The highest coolant temperature (at engine exports):	100°C
--	-------

Maximum degassing time	25mins
------------------------	--------

Maximum coolant flow to accessories	56 L/min
-------------------------------------	----------

The lowest coolant temperature	70°C
--------------------------------	------

Minimum speed of water-filling	19 l/min
--------------------------------	----------

Minimum coolant expansion volume relative to the system capacity	6 %
--	-----

Water tank capacity without water expansion	6 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	510	
COLD STARTING SYSTEM		
The lowest cold starting temperature without auxiliary starting device	-12℃ @120rpm	
The lowest cold starting temperature with starting device	-35℃@ 110rpm	
<i>Cummins Engine Co. Ltd</i>		
<i>All data is subject to change without notice- contact Cummins for most recent data.</i>		