



CHONGQING CUMMINS ENGINE PERFORMANCE CURVE

Engine Model
NTAA855-G7A

Curve No.
C-184E

Rev
01

CPL Code
CQ132

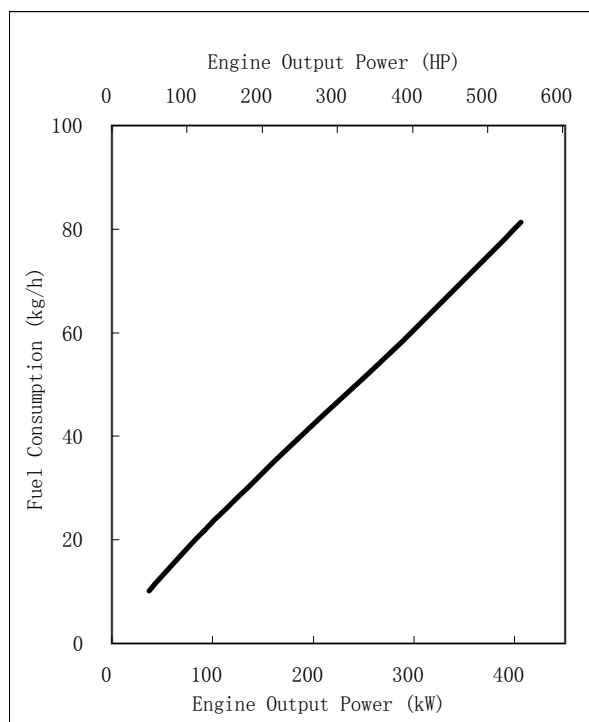
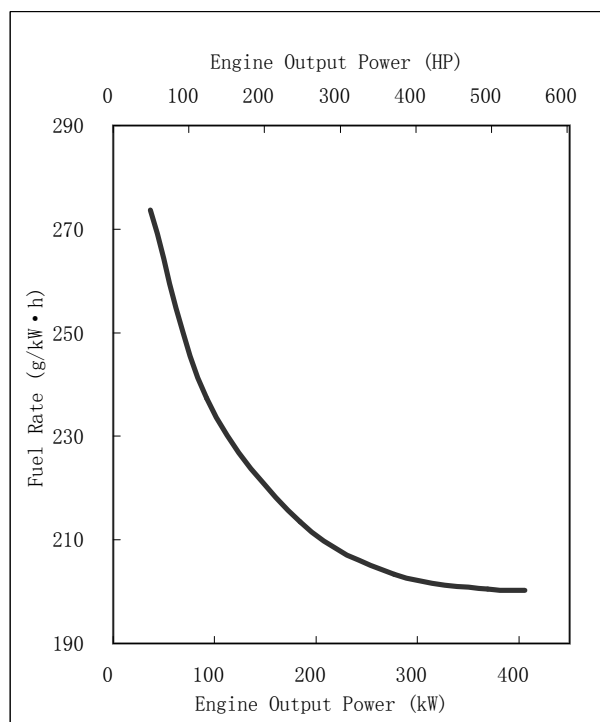
Data Sheet
DS-184E

Description
FR-184E

Date
2006-9-22

Displacement: **14L [855 in.³]** Cylinders: **6** Fuel System: **PT**
Bore: **140mm [5.50 in.]** Speed: **1500 r/min** Cfg. Number: **D093629DX02**
Stroke: **152mm [6.00in.]** Aspiration: **Turbocharged & Air-Air Cooled**

Standby Power		Prime Power		Continuous Power	
kW	HP	kW	HP	kW	HP
406	545	N.A.	N.A.	N.A.	N.A.



	Output Power		Fuel Consumption		Fuel Rate
	HP	kW	kg/h	L/h	g/kW-h
110%	545	406	81.3	98.0	200.2
100%	495	369	74.0	89.2	200.5
75%	372	277	56.3	67.8	203.4
50%	248	185	39.4	47.5	213.5
25%	124	92	21.9	26.4	237.3
10%	50	37	10.1	12.2	273.6

All data is based on :

- Engine Operating with fuel system, water pump, lubricating oil pump, air cleaner and exhaust silencer, fan, and optional driven components.
- Engine operating with fuel corresponding to grade No.2-D per ASTM D975.
- ISO 3046, Part1, Standard Reference Conditions of : Barometric Pressure:100kPa(29.5in.Hg); Altitude: 110m (361ft.); Air Temperature: 25°C (77°F) ; Relative Humidity: 30% .

All Data is Subject to Change Without Notice - contact CCEC for latest data . Tel : 86-400-889-9990



Chongqing Cummins Engine Co. Ltd.

Engine Data Sheet

MODEL: NTAA855-G7A
CONFIGURATION NO.: D093629DX02
CPL NUMBER: CQ132
PRIME POWER N.A.

DATA SHEET: DS-184E
PERFORMANCE CURVE: C-184E
INSTALLATION DIAGRAM: 4061323
DATE: 2006-9-22

STANDBY POWER: 545 HP (407 kW) at 1500 r/min

REVISION: 02

GENERAL ENGINE DATA

Type.....	4-Cycle;In-line;6-Cylinder	
Aspiration	Turbocharged,Air-Air Cooled	
Bore x Stroke - in.×in. (mm×mm).....	5.5 ×6	(140 × 152)
Displacement - in. ³ (L).....	855	(14)
Compression Ratio	14.0:1	
Firing Order	1-5-3-6-2-4	
Dry Weight		
--Engine Only - lb. (kg).....	2800	(1270)
Wet Weight		
--Engine Only - lb. (kg).....	2910	(1320)
Moment of Inertia of Rotating Components - With FW1109 flywheel - lb.·ft. ² (kg·n	118.5	(4.99)
Center of Gravity from Rear Face of Flywheel Housing - in.(mm)	27.7	(704)
Center of Gravity Above Crankshaft Centerline - in.(mm)	5.5	(140)

ENGINE MOUNTING

Maximum Allowable Bending Moment at Rear Face of Block - lb.·ft. (N·m).....	1000	(1356)
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EXHAUST SYSTEM

Maximum Allowable Back Pressure - in.Hg (kPa).....	3.0	(10)
Standard Exhaust Pipe Diameter - in. (mm).....	5.0	(127)

AIR INDUCTION SYSTEM

Maximum Allowable Intake Air Restriction		
--With Clean Filter Element - in. H ₂ O (kPa).....	15	(3.74)
--With Dirty Filter Element - in. H ₂ O (kPa)	25	(6.22)
Maximum Intake Pressure Fall from Turbo to Intake Manifold - PSI (kPa).....	5.0	(17)
Maximum Intake Manifold Temperature Rise - °F (°C).....	43	(24)
Minimum Dirt Holding Capacity - g/CFM (g/L/s).....	25	(53)
Maximum Allowable Intake Air Temperature ΔT - °F (°C).....	30	(17)

COOLING SYSTEM

Coolant Capacity - Engine Only - U.S. gal (L).....	5.5	(20.8)
- With Radiator - U.S. gal (L).....	16.0	(60.6)
Maximum Coolant Friction Head External to Engine - PSI (kPa).....	6	(41)
Maximum Static Head of Coolant (exclusive of Pressure Cap) - PSI (kPa)	15	(103)
Maximum Static Head of Coolant Above Engine Crank Centerline -ft. (m)	46	(14.0)
Standard Thermostat (Modulating) Range - °F (°C)	180 - 202	(82 - 94)
Minimum Allowable Pressure Cap -PSI (kPa).....	7.0	(48.2)
Maximum Coolant Temperature - °F (°C).....	205	(96)
Maximum Top Tank Temperature - °F (°C).....	212	(100)
Minimum Top Tank Temperature - °F (°C).....	160	(71)
Minimum Coolant Expansion Space - % of System Capacity	5	
Minimum Coolant Makeup Capacity - U.S. gal (L).....	1.1	(4.2)

LUBRICATION SYSTEM

Oil Pressure @ Idle Speed - PSI (kPa).....	15 Min	(103) Min
@ Governed Speed - PSI (kPa).....	35-50	(241 - 345)
Maximum Allowable Oil Temperature - °F (°C).....	250	(121)
Maximum Oil Consumption - U.S.qt./h (L/h).....	0.25	(0.24)
Oil Pan Capacity - Low / High - U.S. gal. (L).....	7.5 / 9.5	(28.4 / 36.0)
Total System Capacity - U.S. gal. (L).....	10.2	(38.6)
Angularity of Oil Pan - Front Down/Front Up/Side to Side.....	38°/38°/38°	

FUEL SYSTEM

Type Injection System.....	Direct Injection Cummins PT	
Maximum Allowable Restriction to Fuel Pump		
-- With Clean Fuel Filter - in.Hg (kPa).....	4.0	(13.5)
-- With Dirty Fuel Filter - in.Hg (kPa).....	8.0	(27.1)
Maximum Allowable Head on Injector Return Line		
-- With Check Valve - in.Hg (kPa).....	6.5	(22.0)
-- Without Check Valve - in.Hg (kPa).....	2.5	(8.5)
Minimum Fuel Supply Line Size - in. (mm).....	0.625	(16)
Minimum Fuel Return Line Size - in. (mm).....	0.5	(13)
Maximum Fuel Pump Supply - U.S.gal/h (L).....	113	(426)
Fuel Rail Pressure - PSI (kPa).....	173	(1196)
Maximum Fuel Temperature °F (°C).....	160	(71)

ELECTRICAL SYSTEM

Minimum Recommended Battery Capacity (24V)	
-- Cold Soak (No Load) - CCA.....	900
- Minimum Reserved Capacity - CCA.....	320
-- Cold Soak (With Load) - CCA.....	900
- Minimum Reserved Capacity - CCA.....	320
Maximum Allowable Resistance of Cranking Circuit - ohm.....	0.002
Standard Cranking Motor (Heavy Duty , Positive Engagement) - volt.....	24
Standard Battery Charging System , Negative Ground - ampere.....	35

PERFORMANCE DATA

Idle Speed - r/min	575 - 650	
Maximum No-Load Governed Speed - r/min	1800	
Maximum over Speed Capability - r/min	2700	
Minimum Crankshaft Rotation for unaided Cold Start - r/min.....	150	
Minimum Torque for unaided Cold Start - lb.·ft. (N·m).....	375	(509)
Exhaust Sound Pressure at 1m from Exhaust Outlet -1500r/min -dBA.....	N/A	

All data is based on :

--Engine Operating with fuel system, water pump, lubricating oil pump, air cleaner and exhaust silencer, fan, and optional driven components.

--Engine operating with fuel corresponding to grade No.2-D per **ASTM D975**.

--**ISO 3046**, Part1, Standard Reference Conditions of : Barometric Pressure:100kPa(29.5in.Hg); Altitude: 110m (361ft.); Air Temperature: 25°C (77°F) ; Relative Humidity: 30% .

--This Data Sheet includes both air-cooled (Fan/Radiator) & raw water cooled (Heatexchanger/Raw Water Pump) type engine.

	Prime Power		Standby Power	
	N.A.		50Hz	
			1500	
Governed Engine Speed - r/min.....				
Gross Engine Power Output - HP (kW)			545	(407)
Torque lb.-ft. (N·m).....			1911	(2591)
Brake Mean Effective Pressure - PSI (kPa)			337	(2326)
Piston Speed - ft./min (m/s).....			1500	(7.62)
Friction Horsepower - HP (kW).....			30	(22)
Intake Air Flow - CFM (L/s)			1164	(549)
Engine Water Flow - GPM (L/min.)			79	(5)
Raw Water Flow - GPM (L/s)			54	(3.4)
Fuel Consumption - U.S.gal/h (L/h).....			28.5	(108)
Oil Flow - GPM (L/s)			35	(2.2)
Exhaust Gas Temperature (After Turbine) - °F (°C).....			884	(473)
Exhaust Gas Flow (After Turbine) - CFM (L/s).....			2619	(1240)
Air to Fuel Ratio.....			24.2 : 1	
Heat Radiation - BTU (kW).....			2900	(51)
Heat Rejection to Coolant - BTU (kW).....			17370	(305)
Heat Rejection to Ambient - BTU (kW).....			14480	(254)

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Date: 2006-9-22

CHONGQING CUMMINS ENGINE CO. LTD.

CHONGQING, CHINA, 400031

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