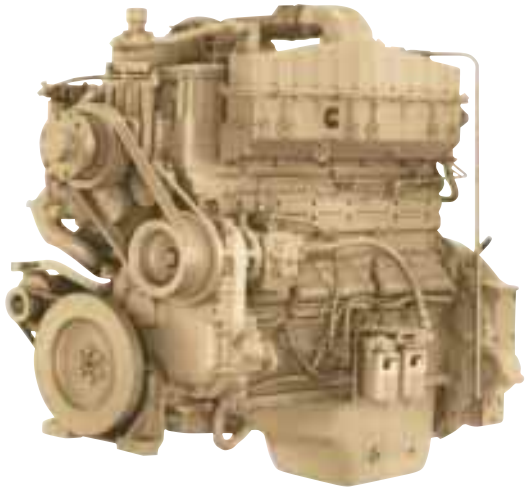
NTA855-G2
BIG CAM III
GENERATOR DRIVE



SPECIFICATIONS

4-Stroke Cycle, Turbocharged and Aftercooled, In-Line, 6-Cylinder Diesel Engine.

1800 RPM Engine Output		
Standby Power Rating	**465 BHP**	**[347 kWm*]**
Prime Power Rating	**420 BHP**	**[313 kWm*]**
Continuous Power Rating	**350 BHP**	**[261 kWm*]**
1500 RPM Engine Output		
Standby Power Rating	**430 BHP**	**[321 kWm*]**
Prime Power Rating	**380 BHP**	**[283 kWm*]**
Continuous Power Rating	**340 BHP**	**[254 kWm*]**
*Refers to gross power available from engine, not generator set.		
Bore and Stroke	5.50x6.0 in.	[140x152 mm]
Displacement	855 cu. in.	[14 L]
**Lube System Oil Capacity	10.2 U.S. gal.	[38.6 L]
Coolant Capacity	5.5 U.S. gal.	[20.8 L]
Net Weight with Standard Accessories, Dry	2,900 lb.	[1315 kg]
Approx. Overall Dimensions:		
Width	31.10 in.	[790 mm]
Length	60.71 in.	[1542 mm]
Height	53.88 in.	[1368 mm]

** With combination full flow and bypass filter.

RATING GUIDELINES:

Standby Power Rating is applicable for supplying emergency electric power for the duration of the utility power outage. No overload capability is available for this rating. Under no condition is an engine allowed to operate in parallel with the public utility at the Standby Power rating.

Prime Power Rating is applicable for supplying electric power in lieu of commercially purchased power. Prime Power is the maximum power available at variable load for an unlimited number of hours. A 10% overload capability is available.

OPERATION at ELEVATED TEMPERATURE and ALTITUDE:

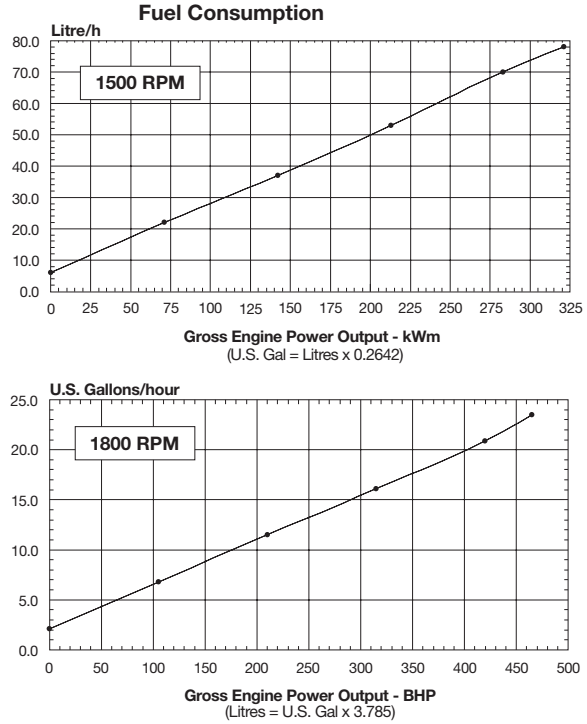
The engine may be operated at:

- 1800 RPM up to:
  5000 ft. (1525 m) and 104 °F (40 °C) without power deration.
- 1500 RPM up to:
  5000 ft. (1525 m) and 104 °F (40 °C) without power deration.

For sustained operation above these conditions derate by:
4% per 1,000 ft. (300 m) and 1% per 10 °F (2% per 11 °C).

NTA855-G2 **CPL: 1383** **Curve No: FR-1526**

Fuel Consumption



PERFORMANCE:

Standard Conditions:

Data Shown Above Are Based On:

- Engine operating with fuel system, water pump, lubricating oil pump, air cleaner and exhaust silencer; not included are battery charging alternator, fan and optional driven components.
- Engine operating with diesel fuel corresponding to grade No. 2D per ASTM D975.
- ISO-3046, Part 1, Standard Reference Conditions of: 29.53 in. Hg. (100 kPa) barometric pressure (361 ft. [110 m] altitude), 77 °F (25 °C) air temperature and a relative humidity of 30%.

NOTES:

- For Continuous Power or Base Power, Interruptible Power (Utility Power Curtailment) and Peak Shaving, contact the local Cummins representative.
- Cummins Engine Company recommends that Cummins engines be operated at a minimum load of 30% of their respective Standby Power rating.

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DESIGN FEATURES

Aftercooler: Three-pass design large capacity aftercooler results in cooler, denser intake air for more efficient combustion and reduced internal stresses for longer life. Aftercooler is located in engine coolant system, eliminating need for special plumbing.

Bearings: Replaceable, precision type, steel backed inserts. Seven main bearings, 4.5 in. (114 mm) diameter. Connecting rod bearings 3.125 in. (79 mm) diameter.

Camshaft: Single camshaft precisely controls valve and injector timing. Lobes are induction hardened for long life. Seven replaceable precision type bushings 2.5 in. (64 mm) diameter.

Camshaft Followers: Induction hardened, roller type for long cam and follower life.

Connecting Rods: Drop forged, I-beam section 12 in. (305 mm) center-to-center length. Rifle drilled for pressure lubrication of piston pin. Rod is tapered on piston pin end to reduce unit pressures.

Cooling System: Belt driven centrifugal water pump. Large volume water passages provide even flow of coolant around cylinder liners, valves, and injectors. Modulating bypass thermostats regulate coolant temperature. Spin-on corrosion resistor checks rust and corrosion, controls acidity and removes impurities.

Crankshaft: High tensile strength steel forging with induction hardened fillets and journals. Fully counterweighted and dynamically balanced.

Cylinder Block: Alloy cast iron with removable wet liners.

Cylinder Heads: Alloy cast iron. Each head serves two cylinders. Drilled fuel supply and return lines. Valve seats are replaceable corrosion resistant inserts. Valve guides and cross head guides are replaceable inserts.

Cylinder Liners: Replaceable wet liners dissipate heat faster than dry liners and are easily replaced without reboring the block.

Fuel System: Cummins PT™ self-adjusting system. Integral dual flyweight governor provides overspeed protection independent of main governor. Camshaft actuated fuel injectors give accurate metering and timing. Fuel lines are internal drilled passages in cylinder heads. Spin-on fuel filter.

Gear Train: Timing gears and accessory drive gears are induction hardened helical gears driven from crankshaft and located at front of block.

Lubrication: Demand Flow Cooling (DFC) system with two-pass coolant flow through the lube oil cooler housing, resulting in improved heat transfer efficiency and reduced engine coolant flow requirements. A pressure switch in the lube oil filter head detects full flow plugging.

Pistons: Aluminum alloy, cam ground and barrel shaped to compensate for thermal expansion assures precise fit at operating temperatures. CeCorr™ grooved skirt finish provides superior lubrication. Oil cooled for rapid heat dissipation. Three compression and one oil ring.

Pistons Pins: Full floating, tubular steel retained by snap rings, 2.4 in. (51 mm) diameter.

STC with Lube Oil Viscosity Sensor: Is a hydro-mechanical Step Timing Control that advances the injection timing on start-up for improved startability and white smoke control.

Turbocharger: Cummins exhaust gas driven turbocharger mounted on side of engine. Turbocharging provides more power, improved fuel economy, altitude compensation, and lower smoke and noise levels.

Valves: Dual 1.875 in. (51 mm) diameter poppet type intake and exhaust valves. Wear resistant face on exhaust valves.

AVAILABLE EQUIPMENT

Cooling System:
1. Fan drive for radiator (0.75:1 or 0.85:1 drive ratio, 20.2 in [518 mm] center).
2. Heat exchanger - tube type, copper nickel.
3. Remote cooling (engine water pump only).

Exhaust System:
1. Exhaust manifold, dry type.
2. Flexible exhaust connection.

Filters: Fleetguard.
Lubricating oil: spin-on full flow paper element type and bypass type.
Fuel: dual spin-on paper element type.

Flywheel: To fit SAE-514 (18.375 in. [467mm] diameter), generator flexible drive disk - reference SAE standard J162a.

Flywheel Housing: SAE No. 1, dry type.

Governors: Electric or hydraulic; for droop or isochronous operation. Cummins EFC (electric fuel control) or others.

Starting System:
1. Electric starter (24 volt positive engagement).
2. Compressed air starter.
3. Battery charging alternator (24 volt, 35 ampere).

For other available equipment consult factory.

OPTIONAL EQUIPMENT

Contact the local Cummins representative.

AGENCY CERTIFICATION

Certification: Contact the local Cummins representative.

Cummins has always been a pioneer in product improvement. Thus, specifications may change without notice. Illustrations may include optional equipment.

Cummins Engine Company, Inc.
Box 3005
Columbus, IN 47202-3005
U.S.A.