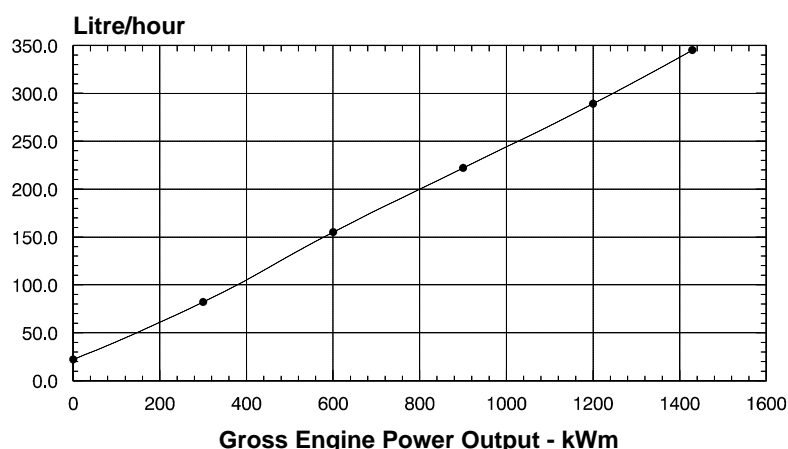
	<b>CUMMINS ENGINE COMPANY, INC</b>  Columbus, Indiana 47201  <b>ENGINE PERFORMANCE CURVE</b>	Basic Engine Model: <b>KTA50-G8</b>	Curve Number: <b>FR-6243 (1P / 2L)</b> <b>FR-6351 (2P / 2L)</b>	Page No.
		Engine Critical Parts List: <b>CPL: 2354 (1 Pump / 2 Loop)</b> <b>CPL: 2859 (2 Pump / 2 Loop)</b>	Date: <b>5Mar04</b>	
Displacement : <b>50.3 litre (3067 in<sup>3</sup>)</b>		Bore : <b>159 mm (6.25 in.)</b> Stroke : <b>159 mm (6.25 in.)</b>		
No. of Cylinders : <b>16</b>		Aspiration : <b>Turbocharged and Low Temperature Aftercooled</b>		

Engine Speed RPM	Standby Power		Prime Power		Continuous Power	
	kWm	BHP	kWm	BHP	kWm	BHP
1500	1429	1915	1200	1608	1100	1475

## Engine Performance Data @ 1500 RPM

OUTPUT POWER			FUEL CONSUMPTION			
%	kWm	BHP	kg/ kWm·h	lb/ BHP·h	litre/ hour	U.S. Gal/ hour
<b>STANDBY POWER</b>						
100	1429	1915	0.206	0.338	345	91.2
<b>PRIME POWER</b>						
100	1200	1608	0.205	0.337	289	76.3
75	900	1206	0.210	0.346	222	58.7
50	600	804	0.220	0.362	155	40.9
25	300	402	0.233	0.383	82	21.7
<b>CONTINUOUS POWER</b>						
100	1100	1475	0.206	0.339	266	70.4



These guidelines have been formulated to ensure proper application of generator drive engines in A.C. generator set installations. Generator drive engines are not designed for and shall not be used in variable speed D.C. generator set applications.

### STANDBY POWER RATING

Applicable for supplying emergency 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. This rating should be applied where reliable utility power is available. A Standby rated engine should be sized for a maximum of an 80% average load factor and 200 hours of operation per year. This includes less than 25 hours per year at the Standby Power rating. Standby ratings should never be applied except in true emergency power outages. Negotiated power outages contracted with a utility company are not considered an emergency.

### PRIME POWER RATING

Applicable for supplying electric power in lieu of commercially purchased power. Prime Power applications must be in the form of one of the following two categories:

#### UNLIMITED TIME RUNNING PRIME POWER

Prime Power is available for an unlimited number of hours per year in a variable load application. Variable load should not exceed a 70% average of the Prime Power rating during any operating period of 250 hours. The total operating time at 100% Prime Power shall not exceed 500 hours per year. A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation. Total operating time at the 10% overload power shall not exceed 25 hours per year.

#### LIMITED TIME RUNNING PRIME POWER

Limited Time Prime Power is available for a limited number of hours in a non-variable load application. It is intended for use in situations where power outages are contracted, such as in utility power curtailment. Engines may be operated in parallel to the public utility up to 750 hours per year at power levels never to exceed the Prime Power rating. The customer should be aware, however, that the life of any engine will be reduced by this constant high load operation. Any operation exceeding 750 hours per year at the Prime Power rating should use the Continuous Power rating.

### CONTINUOUS POWER RATING

Applicable for supplying utility power at a constant 100% load for an unlimited number of hours per year. No overload capability is available for this rating.

**CONVERSIONS:** (Litres = U.S. Gal x 3.785) (kWm = BHP x 0.746) (U.S. Gal = Litres x 0.2642) (BHP = Engine kWm x 1.34)

Data shown above represent gross engine performance capabilities obtained and corrected in accordance with ISO-3046 conditions of 100 kPa (29.53 in Hg) barometric pressure [110 m (361 ft) altitude], 25 °C (77 °F) air inlet temperature, and relative humidity of 30% with No. 2 diesel or a fuel corresponding to ASTM D2.

See reverse side for application rating guidelines.

The fuel consumption data is based on No. 2 diesel fuel weight at 0.85 kg/litre (7.1 lbs/U.S. gal).

Power output curves are based on the engine operating with fuel system, water pump and lubricating oil pump; not included are battery charging alternator, fan, optional equipment and driven components.

*D.K. Trueblood*

TECHNICAL DATA DEPT.

CERTIFIED WITHIN 5%

CHIEF ENGINEER