Natural Gas Engines

GTA50
EMISSION DATA
ES2037B

Model:	GTA50	**Application:**	Generator Drive
Type:	4 Stroke, 60 Degree Vee, 16 Cylinder	**Rating:**	G1, G2, G3
Aspiration:	Turbocharged & Aftercooled	**Bore:**	6.25 in (159 mm)
Comp. Ratio:	8.5:1	**Stroke:**	6.25 in (159 mm)
Fuel:	Natural Gas	**Displacement:**	3067 cu in (50.3L)

Performance Data

	GTA50-G1		GTA50-G2		GTA50-G3	
	Standby	**Cont.**	**Standby**	**Cont.**	**Standby**	**Cont.**
BHP @ 1800 RPM	1150	888	1220	943	1334	1030
Torque (ft-lbs)	3355	2591	3560	2751	3892	3005
Fuel Consumption (BTU/Hp-hr)	8458	9326	8421	9191	8374	9203
Fuel Flow (SCFH)	10100	8600	10668	9000	11600	9843
Intake Air Flow (SCFM)	3227	2901	3336	3010	3553	3336
Exhaust Mass Flow (lb/hr)	14789	13239	15296	13770	16303	15258
Exhaust Flow (ACFM)	10008	8715	10500	9163	11417	10390
Exhaust Temperature (°F)	1150	1106	1173	1123	1206	1160

Exhaust Emissions Data

		GTA50-G1		GTA50-G2		GTA50-G3	
THC	Total Hydrocarbons (gr/hp-hr)	2.53	2.35	2.18	1.91	1.91	1.83
NMHC	Non-Meth. (gr/hp-hr)	0.45	0.42	0.26	0.34	0.23	0.22
NOx	Oxides of Nitrogen (gr/hp-hr)	14.72	14.97	15.38	15.98	17.30	17.96
CO	Carbon Monoxide (gr/hp-hr)	4.02	4.11	4.46	4.32	4.74	4.65
CO2	Carbon Dioxide (%)	7.90	7.80	8.10	8.06	8.30	8.20
O2	Oxygen (%)	3.80	3.60	3.40	3.00	2.90	2.80

Conditions

Data was recorded during steady-state rated engine RPM (± 25) with full load (± 2 %) and standardized to the following conditions:

Fuel Specification:	Dry processed natural gas with a 963 BTU per standard cubic foot LHV
Fuel Temperature:	60°F ± 9° at Flow Transmitter
Fuel Pressure:	14.7 PSIA ±.5 PSIA at Flow Transmitter
Intake Air Temp:	60°F ± 9° at inlet
Intake Air Pressure:	14.7 PSIA ±.5 PSIA at Intake
Barometric Pressure:	29.92 In. Hg ±1 In. Hg

The emissions data tabulated here were taken from a single engine under the test conditions shown above This data is subject to instrumentation, measurement, and engine-to-engine variability. Engine operation with excessive air intake or exhaust restrictions beyond published maximum limits, or with improper maintenance may result in elevated emission levels.

Specifications May Change Without Notice.