

Specifications

Cylinders: V12
Piston Displacement: 7040 cu. in. (115 L)
Bore & Stroke: 9.375" x 8.5" (238 x 216 mm)
Compression Ratio: 10:1
Jacket Water System Capacity: 100 gal. (379 L)
Lube Oil Capacity: 190 gal. (719 L)
Starting System: 125 - 150 psi air/gas 24V electric
Dry Weight: 20,550 lb. (9299kg)

Standard Equipment

AIR CLEANER – Two, dry type with rain shield and service indicator.
BARRING DEVICE – Manual.
BEARINGS – Heavy duty, replaceable, precision type.
BREATHER – Closed system.
CONNECTING RODS – Drop forged steel, rifle drilled.
CONTROL SYSTEM – Pneumatic. Includes pilot operated valves for air start and prelube. Engine mounted control panel with two push button valves. Pilot operated air start valves omitted when starter is not furnished by Waukesha. Includes engine On/Off push button. One mounted on either side of the engine.
CRANKCASE – Integral crankcase and cylinder frame. Main bearing caps drilled and tapped for temperature sensors. Does not include sensors.
CRANKSHAFT – Counterweighted, forged steel, seven main bearings, and dynamically balanced.
CYLINDERS – Removable wet type cylinder liners, chrome plated on outer diameter. Induction hardened.
CYLINDER HEADS – Twelve interchangeable. Two hard faced intake and two hard faced exhaust valves per cylinder. Hard faced intake and exhaust valve seat inserts. Roller valve lifters and hydraulic push rods.
ENGINE ROTATION – Counterclockwise when facing flywheel.
ENGINE MONITOR DEVICES – Engine thermocouples, K-type, are wired to a common junction box for jacket water temperature, lube oil temperature and intake manifold temperature. Magnetic pickup wired for customer supplied tachometer. Lube oil pressure and intake manifold pressure sensing lines are terminated in a common bulk head.
EXHAUST OUTLET – Single vertical at rear. Flexible stainless steel connection with 8" (203 mm) pipe flange.
FLYWHEEL – Approx. $WR^2 = 155000 \text{ lb-in}^2$; with ring gear (208 teeth), machined to accept two drive adapters: 31.88" (810 mm) pilot bore, 30.25" (768 mm) bolt circle, (12) 0.75"-10 tapped holes; or 28.88" (734 mm) pilot bore, 27.25" (692 mm) bolt circle, (12) 0.625"-11 tapped holes and (12) 0.75"-10 tapped holes.

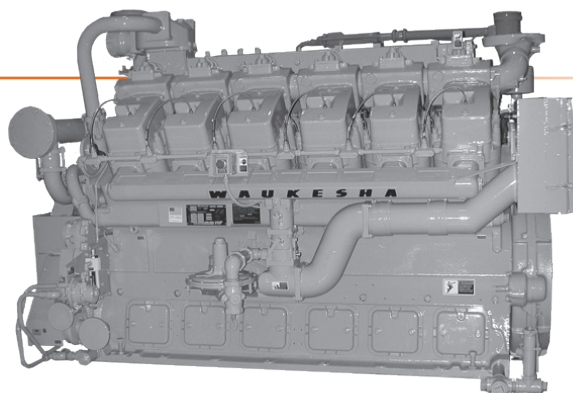


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FUEL SYSTEM – Dual, natural gas, 4" (102 mm) updraft. Two Fisher Model S-201, 2" (51 mm) gas regulators, 13 psi (89 kPa) maximum inlet pressure.
FLYWHEEL HOUSING – No. 00 SAE.
GOVERNOR – Woodward UG-8 LD hydraulic lever type, with friction type speed control. Mounted on right hand side.
IGNITION – Waukesha Custom Engine Control Ignition Module. Electronic digital ignition system. 24V DC power required.
LEVELING BOLTS
LIFTING EYES – Requires 9.5 ton Working Load Limit (W.L.L.) anchor shackles.
LUBRICATION – Full pressure. Gear type pump. Full flow filter, 36 gallon (136 litres) capacity, not mounted. Includes lube oil strainer (mounted on engine) and flexible connections (shipped loose). Air/gas motor driven prelube pump. Requires final piping.
MANIFOLDS – Exhaust, (2) water cooled.
OIL COOLER – Shell and tube type, with thermostatic temperature controller and pressure regulating valve. Not mounted.
OIL PAN – Base type. 90 gallon (340 litres) capacity including filter and cooler.
PAINT – Oilfield orange primer.
PISTONS – Aluminum with floating pin. Standard 10:1 compression ratio. Oil cooled.
SHIPPING SKID – For domestic truck or rail.
VIBRATION DAMPER – Viscous type. Guard included with remote mounted radiator or no radiator.
WATER CIRCULATING SYSTEM, ENGINE JACKET – Belt driven water circulating pump, cluster type thermostatic temperature regulating valve, full flow bypass type. Flange connections and mating flanges for (2) 4" (102 mm) inlets and (1) 5" (127 mm) outlet.

POWER RATINGS: L7042G VHP Series Gas Engines

Model	C.R.	Bore & Stroke in. (mm)	Displ. cu. in. (litres)	Brake Horsepower (kWb Output)							
				1200 RPM		1000 RPM		900 RPM		800 RPM	
				C	I	C	I	C	I	C	I
L7042G	10:1	9.375" x 8.5" (238 x 216)	7040 (115)	1025	1152	896	1008	818	920	732	824
				(764)	(859)	(668)	(752)	(610)	(686)	(546)	(614)

	1200 rpm		1000 rpm	
	C	I	C	I
Power bhp (kWb)	1025 (764)	1152 (859)	896 (668)	1008 (752)
BSFC (LHV) Btu/bhp-hr (kJ/kWh)	7223 (10220)	7095 (10034)	7171 (10148)	6998 (9898)
Fuel Consumption Btu/hr x 1000 (kW)	7404 (2169)	8171 (2395)	6425 (1883)	7056 (2068)
NOx g/bhp-hr (mg/nm ³ @ 5% O ₂)	13.00 (4815)	13.00 (4815)	13.00 (4815)	13.00 (4815)
CO g/bhp-hr (mg/nm ³ @ 5% O ₂)	9.00 (3333)	9.00 (3333)	9.00 (3333)	9.00 (3333)
THC g/bhp-hr (mg/nm ³ @ 5% O ₂)	2.00 (741)	2.00 (741)	2.00 (741)	2.00 (741)
NMHC g/bhp-hr (mg/nm ³ @ 5% O ₂)	0.30 (111)	0.30 (111)	0.30 (111)	0.30 (111)
Heat to Jacket Water Btu/hr x 1000 (kW)	2452 (719)	2690 (788)	2126 (623)	2335 (684)
Heat to Lube Oil Btu/hr x 1000 (kW)	380 (111)	407 (119)	328 (96)	349 (102)
Heat to Radiation Btu/hr x 1000 (kW)	375 (110)	233 (68)	361 (106)	233 (68)
Total Exhaust Heat Btu/hr x 1000 (kW)	1865 (547)	2068 (606)	1570 (460)	1710 (501)
Intake/Exhaust System				
Induction Air Flow scfm (Nm ³ /hr)	1478 (2272)	1776 (2730)	1283 (1972)	1509 (2319)
Exhaust Flow lb/hr (kg/hr)	6580 (2985)	8397 (3810)	5710 (2590)	7099 (3221)
Exhaust Temperature °F (°C)	1058 (570)	1062 (572)	1041 (561)	1040 (560)

Typical heat data is shown, however no guarantee is expressed or implied. Consult your Dresser Waukesha Application Engineering Department for system application assistance.

All natural gas engine ratings are based on a fuel of 900 Btu/ft³ (35.3 MJ/nm³) SLHV, with a 91 WKI®. For conditions or fuels other than standard, consult the Dresser Waukesha Application Engineering Department.

Data based on standard conditions of 77°F (25°C) ambient temperature, 29.53 inches Hg (100kPa) barometric pressure, 30% relative humidity (0.3 inches HG / 1 kPa water vapor pressure).

Fuel consumption based on ISO3046/1-1995 with a tolerance of +5% for commercial quality natural gas having a 900 BTU/ft³ (35.3 MJ/nm³) SLHV.

Heat data based on fuel consumption +2%.

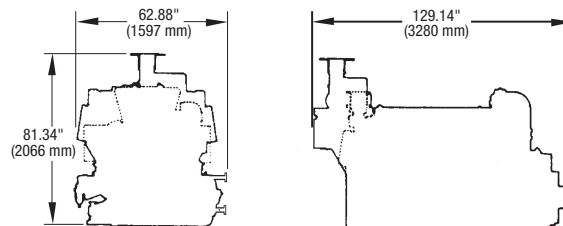
Heat rejection based on cooling exhaust temperature to 77°F (25°C).

Rating Standard: All models - Ratings are based on ISO 3046/1-1986 with mechanical efficiency of 90% and T_{cr}a (clause 10.1) as specified above limited to ± 10° F (5° C). Ratings are also valid for SAE J1349, BS5514, DIN6271 and AP17B-11C standard atmospheric conditions.

C = ISO Standard Power/Continuous Power Rating: The highest load and speed which can be applied 24 hours per day, seven days per week, 365 days per year except for normal maintenance. It is permissible to operate the engine at up to 10% overload, or a maximum load indicated by the intermittent rating, whichever is lower, for two hours in every 24 hour period.

I = Intermittent Service Rating: The highest load and speed that can be applied in variable speed mechanical system application only. Operation at this rating is limited to a maximum of 3500 hours per year.

Consult your local Waukesha representative for system application assistance. The manufacturer reserves the right to change or modify without notice, the design or equipment specifications as herein set forth without incurring any obligation either with respect to equipment previously sold or in the process of construction except where otherwise specifically guaranteed by the manufacturer.



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