

MER

EQUIPMENT



JOHN DEERE

MARINE DIESEL

MG-275-TII

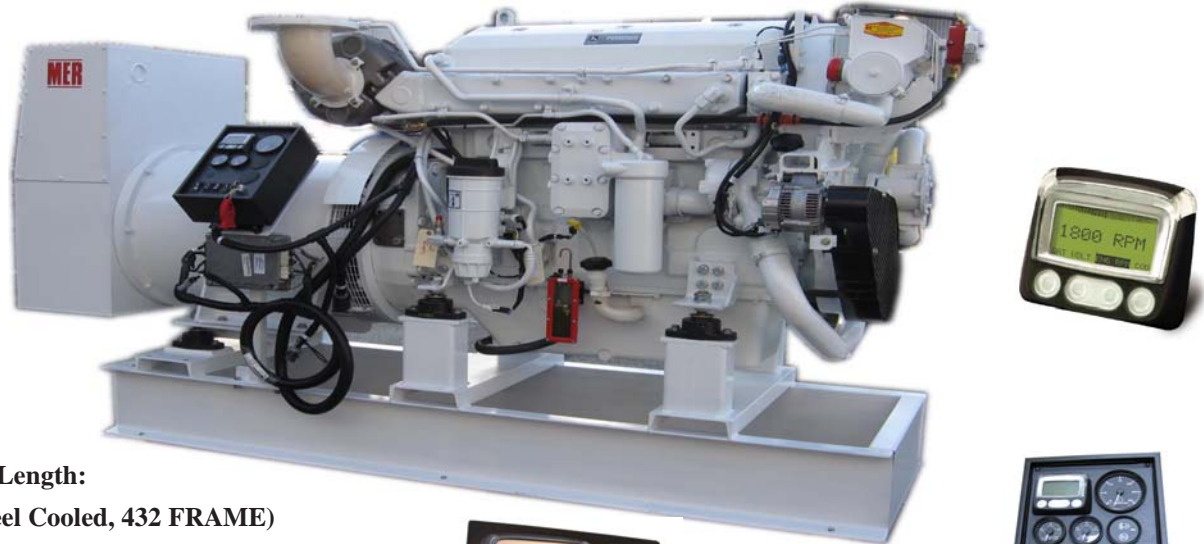
GENERATOR

****2 Year Limited
commercial warranty**

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6125AFM/4015

Tier II Emission Compliant

SOUND ENCLOSURES AVAILABLE FOR ALL MER GENERATORS



**Package Length:
93.5" (Keel Cooled, 432 FRAME)**

ENGINE FEATURES:

- * Electronically controlled High Pressure Unit injection for maximized fuel efficiency & no smoke operation.
- * Wet Cylinder liners for long life and easy rebuildability.
- * Six cylinder, four stroke, four valve counterbalanced, Turbo-Aftercooled direct injected design, for smooth, quiet, fuel efficient performance.
- * Deluxe John Deere Digital instrument panel, pre-wired for easy plug-together installation.
- * Automatic shut down system for high water temperature, overspeed, overload and/or low oil pressure.
- * Electric start/stop solenoid with warm up idle function.
- * Electronic fuel injection governing for precise 60 Hz generator output no load to full load.
- * Structural steel base frame with anti-vibration suspension mounts at crankcenter to minimize vibration transfer to the hull.
- * Live and Clutched PTO options with all MER generators.



Dimensions subject to change.
All dimensions in inches.

**MG-275JDSL-Tier II
275 Kilowatt - 1800 RPM
5202 Pounds
Externally Regulated
Marine Generator**

**Width:-----35"
Height:-----46.9"
Length: Engine:-----56.1"
Generator Standard:
Marathon 432RSL4015---37.4" - 3ph SN**

MER Equipment

338 West Nickerson

Seattle, Washington 98119 - USA

(206) 286-1817 FAX: (206) 286-1917

Toll Free: 1-800-777-0714

www.merequipment.com

MER MG-275JD-T-II

1800 RPM MARINE GENERATOR

OUTPUT @ 1800 RPM:

Prime Power 3 Phase rating @ .8 PF.....275Kw

Standby rating @ 125deg. rise.....300Kw

Voltage regulation: MG-275SN (SER).....±1%

Note: AVR-Regulated units are built for multi-purpose onboard power. MAC motor application units are built for large electric motor starting, at up to 1hp per 1Kw capacity (code G, motor-30% V dip.)

INSTALLATION SPECIFICATIONS:

Minimum Dry Exhaust output size: 5" ID

Opt. wet exhaust elbow: 6" OD (Hose ID 6")

Fuel inlet/return size: 10mm/ 3/8" OD (Hose ID 3/8")

Total Fuel Flow with return: 35 gph.

Exhaust gas flow @ 1800 rpm: 2013 CFM

Max allowable backpressure: 30" H2O

Coolant flow at 1800 rpm: 90 gpm:

Minimum Ventilation Area: 242 Sq In.

MER marine gensets come standard set up for keel cooling. Heat exchanger cooling is available with brass gear-driven sea water pump, cupro-nickle heat exchanger & stainless wet exhaust elbow.

ENGINE SPECIFICATIONS:

ENGINE MODEL: John Deere 6125AFM75

ENGINE TYPE: 6 CYLINDER, 24 VALVE, 4 CYCLE:

ELECTRONIC FUEL INJECTION,

FRESH WATER AFTERCOOLED -MARINE DIESEL

SINGLE CIRCUIT KEEL COOLING:

PISTON DISPLACEMENT.....766cu.in. (12.5L)

CYLINDER LINER.....CAST IRON, WET, O-RING FIT

CRANKSHAFT: FORGED STEEL, DYNAMICALLY BALANCED

COMPRESSION RATIO.....17:1

GOVERNOR: ELECTRONIC, ISOCHRONOUS OR DROOP:

ENGINE ROTATION.....CCW (facing flywheel)

* replaceable Cast Iron Wet liners for long life expectancy & easy in frame rebuildability.

* low vibration & noise due to counterbalanced crankshaft, high mass flywheel & crank-center mounted vibration isolators.

* fuel efficient, low smoke performance, thanks to Tier II compliant electronically controlled fuel injection system.

* wet exhaust manifold, Water Cooled Turbo, and expansion tank provide low engine room temperatures and reduced fire hazard.

* easy starting in all weather conditions, with direct injection and glow plug pre-heating.

* automatic shut-down system triggered by low oil pressure, high water temperature, overspeed, or overload conditions, for engine protection and safety.

* single circuit keel cooling for reduced installation and maintenance costs:

OPTIONS:

Electronic generator meters & controls, heat exchanger cooling, multiple clutched or live PTOs, Motor application generator ends, remote or automatic start.

Many other optional features & designs are available, please inquire, if you have special application problems.

MER Marine Generators

"More power through better performance."

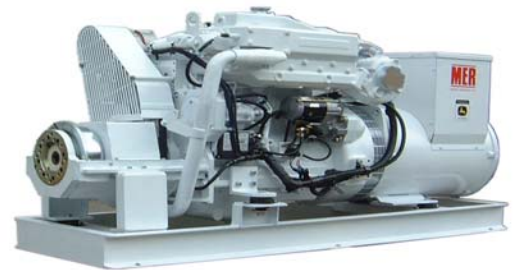
The MER Marine Generator combines a direct driven, 1800 RPM, brushless, continuous duty alternator and MER Packaged John Deere Diesel engine in a generator system manufactured & load tested to the strictest quality standards.

The MER Generator is designed and built specifically for the rugged conditions of commercial use. The expected time between overhauls on the MER packaged generator set is 30 to 50 thousand hours.

Around the world, the MER name has become synonymous with dependable, fuel efficient, maintenance free diesel power. MER has been building generator sets for the fishermen, contractors, and processors of the west coast since 1964. Our generators are built to withstand the tests of time and heavy use.

Talk to owners of our products. Ask them about our gensets and our legendary after sales service, then call us. We are toll free from anywhere in North America and we're on call 24 hours a day for same day shipping, worldwide.

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www.merequipment.com



JOHN DEERE

ENGINE PERFORMANCE CURVE

Rating: Marine
 Application: Generator
 Prime Power

POWERTECH 12.5 L Engine
 Model: **6125AFM75**

402 hp (300 kW) @ 1800 rpm
N/A @ 1500 rpm

| Speed rpm (Hz) | Generator Efficiency % | Keel Cooled | | Power Factor | Calculated Gen-Set Rating | |
|-------------------|---------------------------|-------------|----|-----------------|---------------------------|---------|
| | | (no fan) | | | kW | kVA |
| 1500 (50) | ----- | -- | -- | --- | ----- | ----- |
| 1800 (60) | 88-92 | -- | -- | 0.8 | 264-276 | 330-345 |

Air Intake Restriction 12 in.H₂O (3 kPa)
 Exhaust Back Pressure 30 in.H₂O (7.5 kPa)

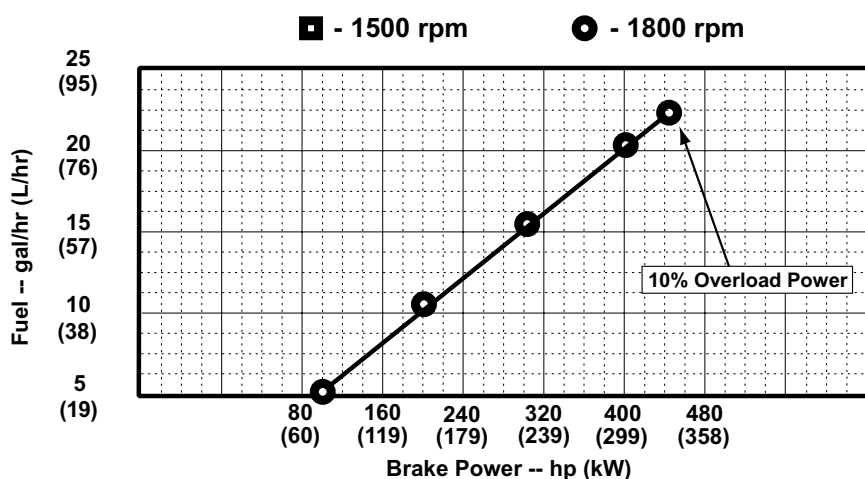
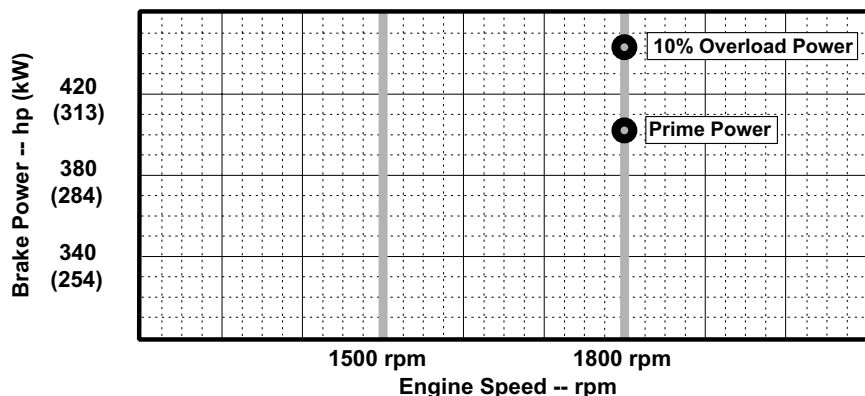
Gross power guaranteed within + or - 5% at SAE J1995 and ISO 8665 conditions:

- 77 °F (25 °C) air inlet temperature
- 29.31 in.Hg (99 kPa) barometer
- 104 °F (40 °C) fuel inlet temperature
- 0.853 fuel specific gravity @ 60 °F (15.5 °C)

Conversion factors:

- Power: kW = hp x 0.746
- Fuel: 1 gal = 7.1 lb, 1 L = 0.85 kg
- Torque: N•m = lb-ft x 1.356

All values are from currently available data and are subject to change without notice.



Notes:

| 1800 RPM Emission Certifications: | 1500 RPM Emission Certifications: |
|--|--------------------------------------|
| <ul style="list-style-type: none"> • EPA Commercial Marine (40 CFR Part 94) • IMO Annex VI | N/A |
| Ref: Engine Emission Label | Ref: Engine Emission Label |

Certified by:

NEAL LEPPER 27 APR 2004

* Revised Data
 Curve 6125AFM75402MG Sheet 1 of 2
 April 2004

Engine Specification Data

General Data

Model 6125AFM75
 Number of Cylinders 6
 Bore and Stroke--in.(mm)..... 5.00 x 6.50 (127 x 165)
 Displacement--in³ (L)766 (12.5)
 Compression Ratio 17.0 : 1
 Valves per Cylinder -- Intake / Exhaust 2 / 2
 Firing Order..... 1-5-3-6-2-4
 Combustion System..... Unit Injection
 Engine Type In-line, 4-Cycle
 Aspiration Turbocharged
 Charge Air Cooling System..... Engine Coolant
 Engine Crankcase Vent System Open
 Max. Crankcase Pressure--in. H₂O (kPa)2 (0.5)

Physical Data

(Includes Engine, Flywheel Housing, Flywheel & Electrics)
 Length--in.(mm)56.1 (1426)
 Width--in.(mm)33.5 (850)
 Height, Crank Center to Top--in. (mm).....30.5 (774)
 Height, Crank Center to Bottom--in. (mm) 14.3 (364)
 Weight, dry--lb (kg).....3142 (1425)
 Center of Gravity Location
 From Rear Face of Block (X-axis)--in. (mm) ...21.5 (546)
 Right of Crankshaft (Y-axis)--in. (mm).....0.9 (24)
 Above Crankshaft (Z-axis)--in. (mm).....9.1 (230)
 Max. Allow. Static Bending Moment at Rear Face
 of Flywhl Hsg w/5-G Load--lb-ft (N•m)600 (814)
 Thrust Bearing Load Limit (Forward)--lb(N) 1835 (8162)
 Maximum Installed Angle
 Front Up--degrees..... 12
 Front Down--degrees 0

Air System

1800 rpm 1500 rpm

Min. Ventilation Area--in.² (m²)242(0.156).....
 Max. Allow. Temp Rise, Ambient Air to
 Engine Inlet--°F (°C)..... 30 (17).....
 Engine Air Flow--ft³/min (m³/min) .. 897 (25.4).....
 Intake Manifold Press.--psi (kPa) 25 (172).....
 Maximum Air Intake Restriction
 Dirty Air Cleaner--in. H₂O (kPa) ... 25 (6.25).....
 Clean Air Cleaner--in. H₂O (kPa) ... 12 (3.0).....

Cooling System

1800 rpm 1500 rpm

Eng. Heat Reject.--BTU/min (kW) . 18,044(317).....
 Eng. Radiat. Heat--BTU/min (kW) .. 2231(39.2).....
 Coolant Flow--gal/min (L/min)..... 90 (339).....
 Min. Coolant Fill Rate--gal/min (L/min) ... 3 (12).....
 Thermostat Start to Open--°F (°C) 160 (71).....
 Thermostat Fully Open--°F (°C)..... 183 (84).....
 Maximum Top Tank Temp--°F (°C) ... 212 (100).....
 Minimum Sea Water-to-Boil--°F (°C) 90 (32).....
 Min. Water Pump In. Press.--in. H₂O (kPa)00 (00)
 Rec'd. Pressure Cap--psi (kPa) 15 (100).....
 Max. Pres. Drop
 Across Keel Cooler--psi (kPa)..... 4 (30).....
 Engine Coolant Capacity--qt (L) 38 (36).....

Electrical System

12 Volts 24 Volts

Recommended Battery Capacity
 CCA @ 32 °F (0 °C)--amp 1800 900
 Max. Starting Circuit Resist.--Ohm 0.001 0.002
 Starter Rolling Current
 @ 32 °F (0 °C)--amp 1280 600

Exhaust System

1800 rpm 1500 rpm

Exhaust Temperature--°F (°C) 743 (395).....
 Exhaust Gas Flow--ft³/min (m³/min) 2013 (57).....
 Min. Exhaust Pipe Dia. Dry--in. (mm) 5.0 (125).....
 Min. Exhaust Pipe Dia. Wet--in. (mm)6.0 (150).....
 Max. Allow. Back Press.--in. H₂O (kPa)30 (7.5).....
 Max. Weight on Turbo--lb (kg)55 (25.0).....

Fuel System

1800 rpm 1500 rpm

Fuel Injection Pump Unit Injectors.....
 Governor Type Electronic.....
 Governor Regulation..... Isochronous or Droop
 Total Fuel Flow--lb/hr (kg/hr)252 (114.3).....
 Total Fuel Flow--gal/hr (L/hr).....35 (134).....
 Min. Rec'd. Fuel Line ID--in. (mm).....0.25 (6.5)
 Min. Rec'd. Fuel Line Size -5
 Fuel Cons. 'Prime' --lb/hr (kg/hr) ... 145.5(66.0).....
 Fuel Cons. 'Prime' --gal/hr (L/hr) ...20.5 (77.6).....
 Max Leak-off Line Press.--psi (kPa) 12 (80)
 Max. Fuel Trans. Pump Suction--ft (m)..... 10 (3.0)
 Max. Fuel Inlet Restrict.--in. H₂O (kPa) -120 (-30)
 Max. Fuel Ht. Above Inj.Pump--ft (m) 10 (3.0)
 Max Leak-off Return Height--ft (m)8 (2.5)
 Max. Fuel Inlet Temp. --°F (°C)194 (90)
 Fuel Filter @ 98% Efficiency--Microns..... 2

Lubrication System

1800 rpm 1500 rpm

Oil Press. at Rated Speed--psi (kPa)..40 (275).....
 Oil Press. at 1100 rpm Idle--psi (kPa) .20 (138).....

Sea Water System

1800 rpm 1500 rpm

Pump Flow--gal/min (L/min).....83 (314).....
 Max. Inlet Restrict.--in. H₂O (kPa) 120 (30).....
 Max. Outlet Pressure--psi (kPa)20 (140).....
 Max. Suction Lift--ft (m) 10 (3).....

Performance Data

1800 rpm 1500 rpm

Rated 'Prime' Power--hp (kW) 402 (300).....
 10% Overload Eng. Pow.--hp (kW) 443 (330).....
 Low Idle Speed--rpm 1000.....
 Rated Torque--ft-lb (N•m)..... 1174 (1592).....
 BMEP--psi (kPa) 231 (1593).....
 Friction Power
 @ Rated Speed--hp (kW) 31 (22.8).....
 Smoke @ Rated Speed--Bosch No. <1.3.....

Fuel Consumption

1800 rpm 1500 rpm

Prime:
 25 % Power-- gal/hr (L/hr) 5.1 (19.1).....
 50 % Power-- gal/hr (L/hr) .. 10.7 (40.4).....
 75 % Power-- gal/hr (L/hr) .. 15.5 (58.8).....
 100 % Power-- gal/hr (L/hr) .. 20.5 (77.6).....
 10% Overload Power-- gal/hr (L/hr)22.4(84.9).....

Data based on keel-cooled engine.
 All values at rated speed and power with standard options unless otherwise noted.

* Revised Data
 Curve 6125AFM75402MG Sheet 2 of 2
 April 2004