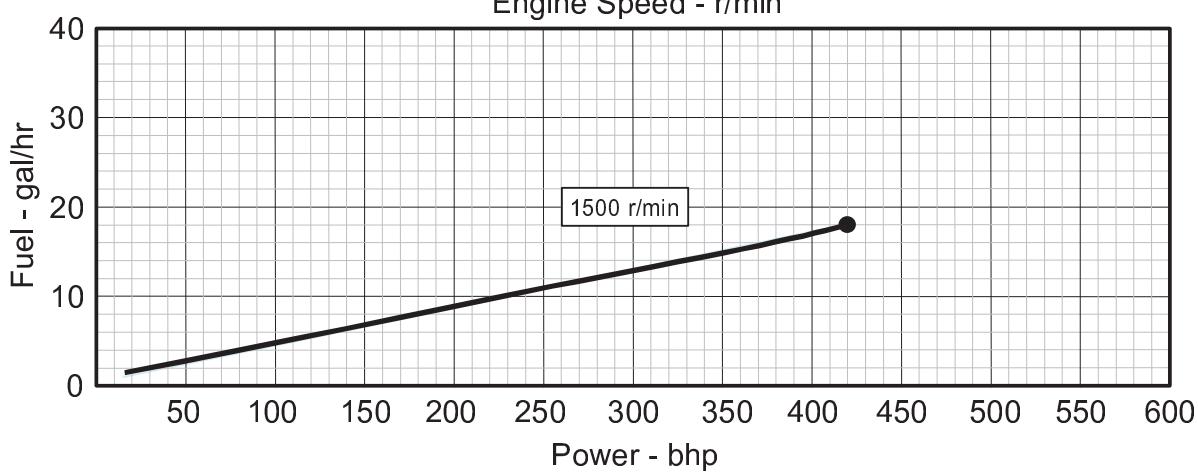
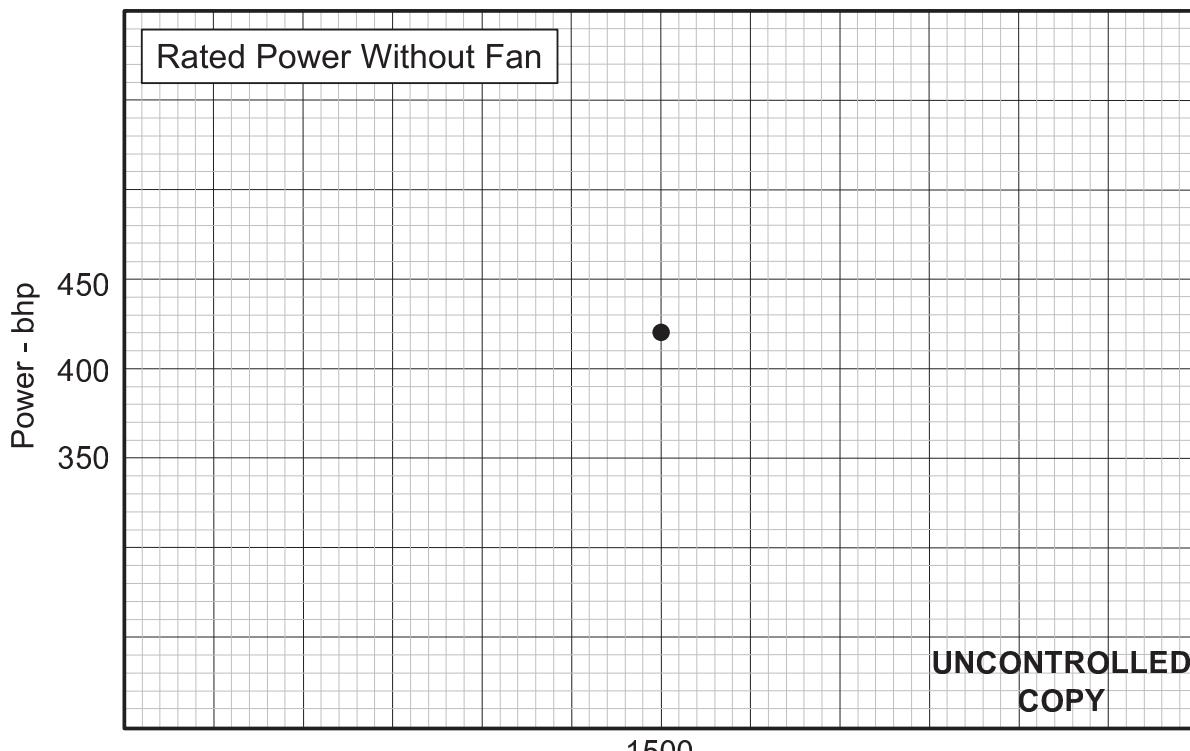


**DETROIT DIESEL****Generator Set Power****Model:** Series 60®**Rating:** 420 bhp (313 kW) @ 1500 r/min**Certification:**  
1998 Nonroad  
Prime Power

Power output guaranteed within 5% at SAE J1995 conditions:  
77°F (25°C) air inlet temperature; 29.31 in. Hg (99kPa) dry barometer;  
Fuel consumption data is based on diesel fuel No.2 with a fuel weight of  
7.11 lb/U.S. gal (.85kg/liter)  
Performance is based on minimum intake and exhaust restrictions  
Values derived are from currently available data and subject to change  
without notice

Conversion Factors:  
Power: kW = bhp x 0.746  
Fuel: L/hr = gal/hr x 3.785

Turbo: TMF55 (1.34 A/R)  
Injector: 5235695

**Certified by:** Phil Remmick

Curve No. E4-6065-32-19  
Rev. / Date: 2 / 8-13-98  
Sheet No. 1 of 2

**Performance Curve**

All information subject to change without notice.

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# GENERATOR SPECIFICATION SHEET

## PRIME POWER - 1500 r/min

**General Data**

|   |                         |
|---|-------------------------|
| Model .....                                 | 6063-TK35               |
| Number of Cylinders .....                   | 6                       |
| Bore and Stroke – in. x in. (mm x mm) ..... | 5.12 x 6.30 (130 x 160) |
| Displacement – in. <sup>3</sup> (L) .....   | 778 (12.7)              |
| Compression Ratio .....                     | 15.0:1                  |
| Piston Speed – ft/min (m/min) .....         | 1575 (480)              |
| Intake Valves Per Cylinder .....            | 2                       |
| Exhaust Valves Per Cylinder .....           | 2                       |
| Combustion System .....                     | DIRECT INJECTION        |
| Engine Type .....                           | INLINE 4 CYCLE          |
| Aspiration .....                            | TURBOCHARGED            |

**Configuration**

|                                    |                  |
|------------------------------------|------------------|
| Injection Device .....             | EUI              |
| Turbocharger .....                 | TMF55 (1.34 A/R) |
| Charge Air Cooling .....           | AIR TO AIR       |
| Engine Crankcase Vent System ..... | OPEN             |

**Physical Data**

|   |               |
|---|---------------|
| Size:   |               |
| Length – in. (mm) .....                       | 57.2 (1453)   |
| Width – in. (mm) .....                        | 35 (889)      |
| Height – in. (mm) .....                       | 54.2 (1377)   |
| Weight, Dry – lb (kg) .....                   | 2630 (1193)   |
| Weight, Wet – lb (kg) .....                   | 2752 (1248)   |
| Center of Gravity Distance:                   |               |
| From R.F.O.B. (x axis) – in. (mm) .....       | 22.3 (566)    |
| Above Crankshaft (y axis) – in. (mm) .....    | 8.6 (218)     |
| Right of Crankshaft (z axis) – in. (mm) ..... | -1.4 (-35.6)  |
| Installation Drawing .....                    | 23515495 REF. |

**Mechanical Data**

|   |             |
|---|-------------|
| Thrust Bearing Load Limit – lb (N) .....                                | 900 (4000)  |
| Maximum Static Bending Moment at Rear Face of Block – lb·ft (N·m) ..... | 1000 (1356) |
| Additional Mechanical Data .....  | E4-606-32-1 |

**Fuel System**

|   |              |
|---|--------------|
| Fuel Injector – Part Number .....               | 5235695      |
| Injection Timing Height – mm .....              | 78.8         |
| Fuel Consumption – lb/hr (kg/hr) .....          | 130.2 (59.1) |
| Fuel Spill – lb/hr (kg/hr) .....                | 18.3 (69.3)  |
| Fuel Spill – gal/hr (L/hr) .....                | 515 (234)    |
| Total Fuel Flow – lb/hr (kg/hr) .....           | 72.4 (274)   |
| Total Fuel Flow – gal/hr (L/hr) .....           | 645 (293)    |
| Maximum Fuel Inlet Temperature – °F (°C) .....  | 90.7 (34.3)  |
| Maximum Fuel Pump Suction:                      |              |
| Clean System – in. Hg (kPa) .....               | 6 (20.3)     |
| Dirty System – in. Hg (kPa) .....               | 12 (41)      |
| Fuel Filter Size, Primary – Microns .....       | 25           |
| Fuel Filter Size, Secondary – Microns .....     | 8            |
| Fuel Spill Restrictive Fitting – in. (mm) ..... | 0.08 (2.03)  |

**Lubrication System**

|   |           |
|---|-----------|
| Oil Pressure at Rated Speed – lb/in. <sup>2</sup> (kPa) ..... | 50 (345)  |
| Oil Pressure at Low Idle – lb/in. <sup>2</sup> (kPa) .....    | 12 (83)   |
| In Pan Oil Temperature – °F .....                             | 235 (113) |
| Oil Flow – gal/min (L/min) .....                              | 26 (98)   |
| Oil Pan Capacity:   |           |
| High Limit – qt (L) .....                                     | 32 (30)   |
| Low Limit – qt (L) .....                                      | 26 (25)   |
| Total Engine Oil Capacity with Filters – qt (L) .....         | 38 (36)   |
| Engine Angularity Limits, Front Up – Degrees .....            | 27        |
| Engine Angularity Limits, Front Down – Degrees .....          | 27        |
| Engine Angularity Limits, Side Tilt – Degrees .....           | 21        |

**Electrical System**

|   |        |
|---|--------|
| Recommended Battery Capacity (CCA @ 0°F): |        |
| 12 Volt System .....                      | 1875   |
| 24 Volt System .....                      | 950    |
| Maximum Resistance of Starting Circuit:   |        |
| 12 Volt System – ohms .....               | 0.0012 |
| 24 Volt System – ohms .....               | 0.002  |

**Cooling System**

|   |                |
|---|----------------|
| Engine Heat Rejection – Btu/min (kW) .....  | 6770 (119.0) † |
| Charge Air Cooler Heat Rejection – Btu/min (kW) .....                               | 3430 (60.3) †  |
| Engine Radiated Heat – Btu/min (kW) .....   | 2430 (42.8) †  |
| Coolant Flow – gal/min (L/min) .....  | 79.5 (301)     |
| Thermostat:   |                |
| Start to Open – °F (°C) .....   | 190 (88)       |
| Fully Open – °F (°C) .....  | 205 (96)       |
| Maximum Water Pump Inlet Restriction – in. Hg (kPa) .....                           | 0 (0)          |
| Engine Coolant Capacity – qt (L) .....  | 24 (23)        |
| Minimum Pressure Cap – lb/in. <sup>2</sup> (kPa) .....                              | 7 (48.3)       |
| Water Pump Discharge Pressure   |                |
| (Exclusive Pressure Cap) – lb/in. <sup>2</sup> (kPa) .....                          | 17 (117)       |
| Maximum Top Tank Temperature – °F (°C) .....  | 210 (99)       |
| Minimum Top Tank Temperature – °F (°C) .....  | 160 (71)       |
| Minimum Coolant Fill Rate – gal/min (L/min) .....                                   | 3 (11.4)       |
| Cooling Index (110 °F Ambient w/H <sub>2</sub> O @ Sea Level):                      |                |
| Maximum Air to Water Diff. – °F (°C) .....  | 100 (56)       |
| Deaeration Air Handling Capacity – ft <sup>3</sup> /min (m <sup>3</sup> /min) ..... | 0.6 (0.017)    |
| Minimum Drawdown Requirement – qt (L) .....   | 4 (3.8)        |

**Air System**

|  |             |
|--|-------------|
| Maximum Ambient to Turbo Compressor Inlet                          |             |
| Temperature Rise – °F (°C) .....                                   | 30 (17)     |
| Maximum Air Intake Restriction:                                    |             |
| Clean Air Cleaner – in. H <sub>2</sub> O (kPa) .....               | 12 (3.0)    |
| Dirty Air Cleaner – in. H <sub>2</sub> O (kPa) .....               | 20 (5.0)    |
| Engine Air Flow – ft <sup>3</sup> /min (m <sup>3</sup> /min) ..... | 860 (24.3)  |
| Manifold Pressure – in. Hg (kPa) .....                             | 51.4 (174)  |
| Recommended Intake Pipe Outer Diameter – in. (mm) .....            | 5 (127)     |
| Maximum Charge Air Cooler System Total                             |             |
| Pressure Drop – in. H <sub>2</sub> O (kPa) .....                   | 47.6 (11.8) |
| Maximum Intake Manifold Temperature – °F (°C) .....                | 150 (66)    |
| Maximum Crankcase Pressure – in. H <sub>2</sub> O (kPa) .....      | 3.0 (0.75)  |

**Exhaust System**

|   |             |
|---|-------------|
| Exhaust Flow – ft <sup>3</sup> /min (m <sup>3</sup> /min) ..... | 2150 (60.9) |
| Exhaust Temperature – °F (°C) .....                             | 830 (443)   |
| Maximum Back Pressure – in. Hg (kPa) .....                      | 2.1 (7.1)   |
| Recommended Exhaust Pipe Diameter – in. (mm) .....              | 5 (127)     |

**Performance Data**

|  |              |
|--|--------------|
| Rated Power – bhp (kW) .....           | 420 (313)    |
| Rated Speed – r/min .....              | 1500         |
| BMEP – lb/in. <sup>2</sup> (kPa) ..... | 285 (1965)   |
| Friction Power – fhp (kW) .....        | 43 (32)      |
| Altitude Capability – ft (m) .....     | 12000 (3660) |

**Fuel Consumption**

|                                       |             |
|---------------------------------------|-------------|
| Fuel – gal/hr (L/hr) – 0% Power ..... | 1.0 (3.8)   |
| 25% Power .....                       | 5.3 (20.1)  |
| 50% Power .....                       | 9.6 (36.3)  |
| 75% Power .....                       | 14.0 (53)   |
| 100% Power .....                      | 18.3 (69.3) |

**Emission Data**

|                            |               |
|----------------------------|---------------|
| Noise – db(A) @ 1m .....   | 98.9 *        |
| Smoke – Bosch Number ..... | Not Available |

| Load                     | 10%  | 25%  | 50%  | 75%  | 100% |
|--------------------------|------|------|------|------|------|
| NO <sub>x</sub> – g/hr * | 180  | 618  | 1018 | 1428 | 1843 |
| CO – g/hr *              | 38   | 73   | 133  | 250  | 382  |
| HC – g/hr *              | 10.5 | 13.0 | 11.6 | 12.6 | 13.5 |

\* Estimated

† For Cooling System Design Capacity  
See: E4-6065-32-9

All values are at rated speed and power and with standard hardware, unless otherwise noted.

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