

INDUSTRIAL DIESEL ENGINE

# KUBOTA 03-M-SERIES (3-cylinder)

# D1803-M-E3B



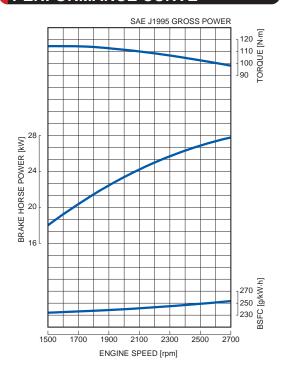


#### **RATED POWER**

## 27.9 kW/2700 rpm



#### PERFORMANCE CURVE



#### FEATURES with BENEFITS

#### **Emissions**

•The D1803-M engine complies with EPA Interim Tier 4 emissions regulations that are effective through the end of 2012. This engine also complies with EU Stage 3A requirements that are effective through 2012 and beyond in the European market.

#### **Durable Power**

- •The Kubota 03-M-Series is well recognized for industrial applications. With numerous features such as a built-in solenoid, low fan position, and single side serviceability, this engine offers excellent performance characteristics and application flexibility.
- •The cooling water passages between the cylinder bores, using Kubota's original casting technology as a countermeasure against heat load of high power density, provides both superior endurance and reliable engine characteristics.
- The D1803-M engine offers a seamless transition from Tier 2 to Interim Tier 4 by maintaining the same footprint and hard mounting points with only slight performance changes from the Tier 2 engine.

#### **Clean and Quiet Power**

- •Kubota's original E-TVCS (Three Vortex Combustion System) has been improved. The airflow, combustion chamber and piston recess were optimized to provide a 50% lower particulate matter (PM) level, the same stringent level as above the 37kW-class (EPA Interim Tier 4).
- The half-float valve cover and MoS<sub>2</sub> coated pistons lower noise levels by 1.0-2.0 dBA over conventional diesel engines and provide reduced transmitted vibration from the valve area for better noise characteristics.

#### Option

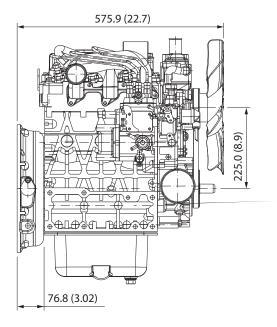
- •The Kubota 03-M-Series engines offer side power take-off(PTO), in response to the trend of increasing hydraulic control devices in industrial machines. It is possible to install a hydraulic pump at two side PTO locations.
- A Direct Injection engine is also available.

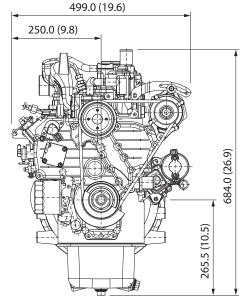
#### **GENERAL SPECIFICATION**

| Model                               |           | D1803-M-E3B                           |
|-------------------------------------|-----------|---------------------------------------|
| Emission Regulation                 |           | Interim Tier 4 / Stage 3A             |
|                                     |           | -                                     |
| Туре                                |           | Vertical 4-cycle Liquid Cooled Diesel |
| Number of Cylinders                 |           | 3                                     |
| Bore                                | mm (in)   | 87 (3.43)                             |
| Stroke                              | mm (in)   | 102.4 (4.03)                          |
| Displacement                        | L (cu.in) | 1.826 (111.4)                         |
| Combustion System                   |           | Indirect Injection                    |
| Intake System                       |           | Naturally Aspirated                   |
| Maximum Speed                       | rpm       | 2700                                  |
| Output:<br>SAE J1995<br>Gross Power | kW        | 27.9                                  |
|                                     | hp        | 37.4                                  |
|                                     | ps        | 37.9                                  |
| Direction of Rotation               |           | Counterclockwise Viewed on Flywheel   |
| Oil Pan Capacity                    | L (gal)   | 7.0 (1.85)                            |
| Starter Capacity                    | V-kW      | 12-2.0                                |
| Alternator Capacity                 | V-A       | 12-40                                 |
| Length                              | mm (in)   | 575.9 (22.7)                          |
| Width                               | mm (in)   | 499.0 (19.6)                          |
| Height (1)                          | mm (in)   | 684.0 (26.9)                          |
| Height (2)                          | mm (in)   | 265.5 (10.5)                          |
| Dry Weight                          | kg (lb)   | 151.0 (332.9)                         |

<sup>\*</sup>Specification is subject to change without notice.

#### **DIMENSIONS**







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<sup>\*</sup>Dry weight is according to Kubota's standard specification.

When specification varies, the weight will vary accordingly. \*SAE J1995 Gross Power: 1-hour rating based on engine without cooling fan, air cleaner and muffler, with alternator.