

INDUSTRIAL DIESEL ENGINE

Kubota 05 Series (3-Cylinder)

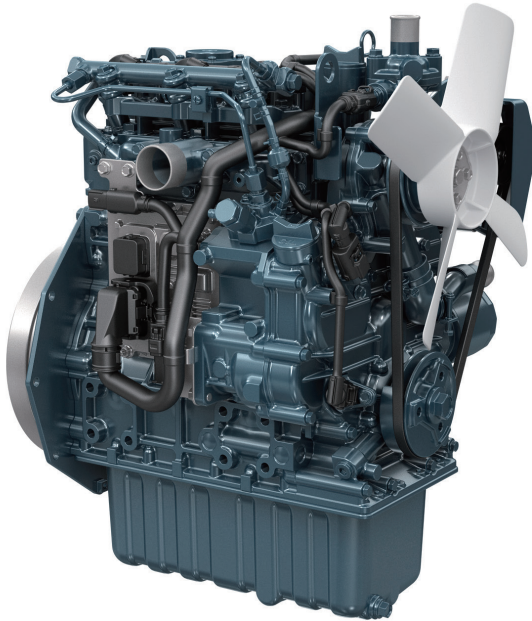
D1105-K-E4



China's national
smoke regulations
Category III

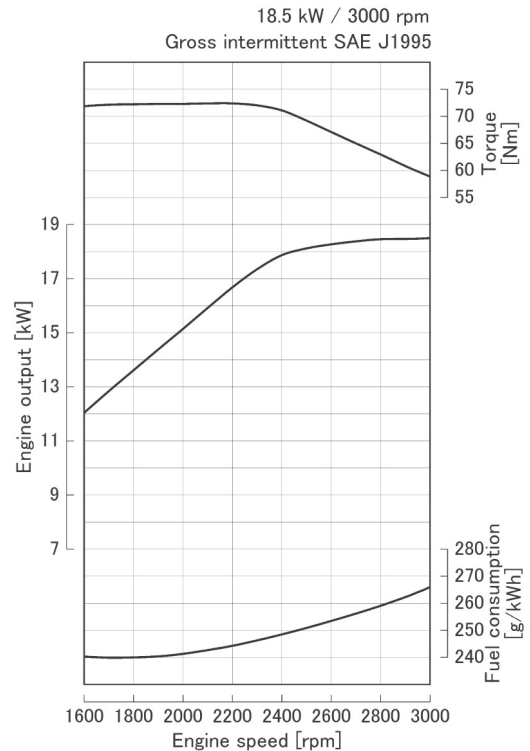
Stand-by Power

18.5 kW @ 3000 rpm



Photograph may show non-standard equipment.

Performance Curves



Features and Benefits

Zero Visible Smoke^{*1}

The new combustion method TVCR reduces black smoke to an invisible level.

Through adoption of the new combustion method TVCR, the D1105-K has been improved to produce clean exhaust gas with no visible black smoke during engine start-up, acceleration, and sudden load.

^{*1} Opacimeter less than 0.8m⁻¹

Low fuel consumption

Fuel efficiency improved by about 5% compared to conventional model.

Kubota's unique technology has overcome the obstacles to improving fuel efficiency in this class. In addition, the engine has high output and torque per displacement, combining both fuel efficiency and performance.

Installation Compatibility

Facilitating easy model upgrades.

D1105-K allows for an ECU to be directly attached to the engine crankcase, reducing development and design work at OEM. Additionally, the same external dimensions, air intake and exhaust positions, engine mount position, and PTO (power take-off) as the conventional models make it easy to upgrade.

Drivability

Supports highly efficient and stable operations.

The electronic control allows greater flexibility in setting the performance curve, enabling a broader output flat range in the rated range than with the conventional model.

As a result, the rotation fluctuation can be suppressed in response to workload fluctuations, contributing to an improved working environment for the operator.

Integrated / intelligent control

Facilitating highly integrated control of the engine and machine.

Intercommunication between the engine's ECU and the vehicle's ECU enables integrated control of the mounted equipment. The D1105-K with electronic control is therefore the optimal engine for equipment that requires advanced control, such as automatic/unmanned driving and hybrid systems. It is well equipped to respond to the growing need for digitalization.

D1105-K-E4

Engine Specifications

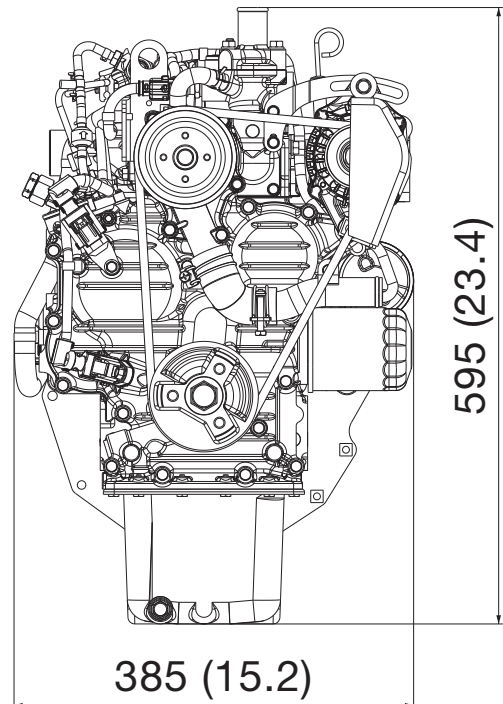
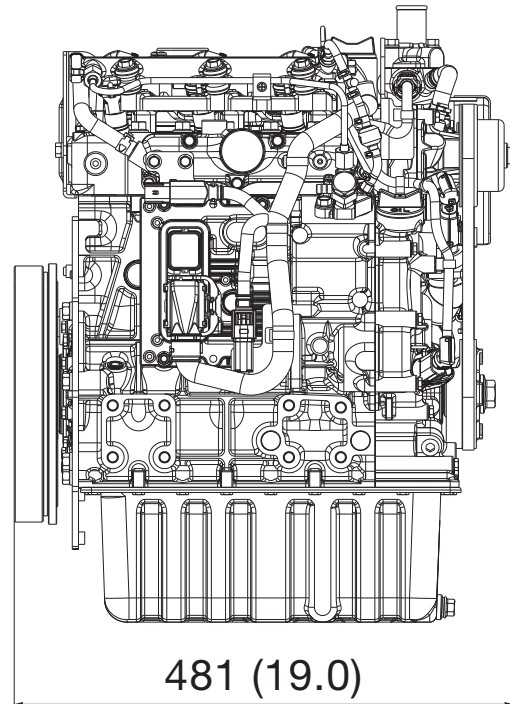
Engine model		D1105-K-E4
Emission regulation		EPA/CARB Tier4 + EU Stage V + China Non-Road IV
Type		Vertical, water cooled 4-cycle IDI diesel engine
Cylinders		3
Bore and Stroke	mm (in)	78.0 × 78.4 (3.07 × 3.09)
Displacement	L (cu.in)	1.123 (68.53)
Aspiration		Naturally Aspirated
Aftertreatment		–
Rated output / speed *1	kW (HP) / rpm	18.5 (24.8) / 3000
Maximum torque / speed *1	Nm (lb-ft) / rpm	72.4 (53.4) / 2200
Combustion and fuel system		TVCR
EGR		–
Length × Width × Height *2 (without aftertreatment unit)	mm (in)	481 × 385 × 595 (19.0 × 15.2 × 23.4)
Dry weight *2	kg (lb)	94 (207)

Specifications are subject to change without prior notice.
Dimensions and dry weight are according to Kubota's standard specification.
Dimensions and weight depend on completed specifications.

*1: Gross intermittent SAE J1995

*2: Included ECU, excluded cooling fan

Dimensions



Kubota Corporation

2-47, Shikitsuhigshi 1-chome Naniwa-ku, Osaka, 556-8601 Japan

<https://global.engine.kubota.co.jp/en>

ASP-D1105-K-E42405-R3-8-218100