

Kohler® Diesel Model KD440

1 Cylinder » 442 cc » 7.7 kW/10.3 HP » 3600 RPM » 18.4 ft. lbs. @2200 RPM

Certification

EPA TIER 2
ECE R 24

Features

- 4-Stroke Air-Cooled Diesel Engine
- SAE J609a Crankshafts
- Counter-Clockwise Rotation
- Direct Injection
- Full-Pressure Lubrication with Oil Pump
- Centrifugal Mass Governor
- Built-In Full-Flow Oil Filter
- Oil Breathing Blow-By with Safety Device
- Automatic Extra Fuel Starting Device
- Self-Bleeding Fuel System
- Torque Regulator
- Automatic Compression Release
- Die-Cast Aluminum Crankcase with Integral Cast Iron Cylinder Liner
- Aluminum Cylinder Head
- Mounting Feet
- Hydraulic Valve Lifters

Applications

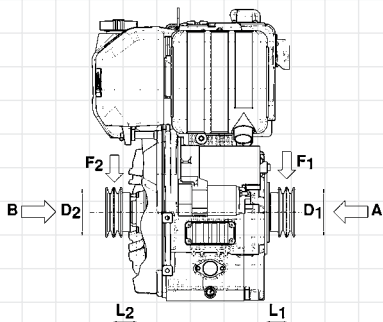
- Two-Wheel Tractor
- Agricultural Mower
- Agricultural Pump
- High-Pressure Cleaner
- Generator
- Vibrating Plate
- Hydraulic Power Pack



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Specifications

Cylinders	No. of Cylinders	1
Displacement	cc/cu. in.	442/27
Bore	mm/in.	86/3.4
Stroke	mm/in.	76/3
Compression Ratio		20.3:1
Rating kW/HP	NB ISO 3046 IFN	7.4/10.1
	NA ISO 3046 ICXN	6.8/9.3
Max. Torque	N·m/ft. lbs. @ 2200 RPM	25/18.4
Minimum Idling Speed RPM		950-1000
Fuel Tank Capacity	liters/quarts	5/5.3
Oil Consumption	kg/h/lb/h	0.0048/0.0106
Oil Sump Capacity	liters/quarts	1.5/1.6
Min. Allowable Oil Pressure	bar/psi	1-1.5/14.5-21.8
Max. Allowable Incline for Short Periods of Operation (Peak Values)		25° (35°)
Volume of Air Required for Correct Combustion @ 3600 RPM	liters/min/cfm	635/22
Volume of Air Required for Correct Cooling @ 3600 RPM	liters/min/cfm	5500/194
Dry Weight	kg/lbs.	45/99.1
Recommended Battery	V/Ah	12/44
Minimum Pulley Diameters for Belt Drive		



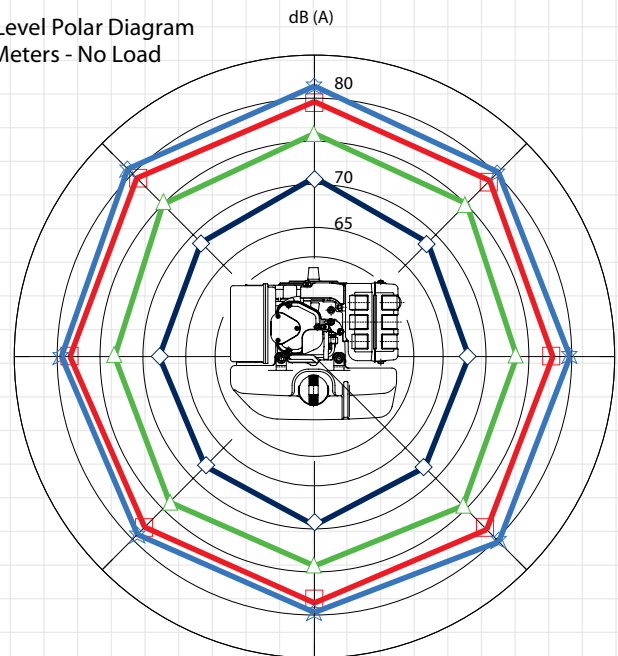
$$D_1 \text{ (mm)} \geq 620 [66 + L_2 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (RPM)}}$$

$$D_2 \text{ (mm)} \geq 650 [53 + L_1 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (RPM)}}$$

Max. Allowable Axial Load in Both Directions A-B = 200 kg/441 lbs.

Sound Pressure Level dB (A)

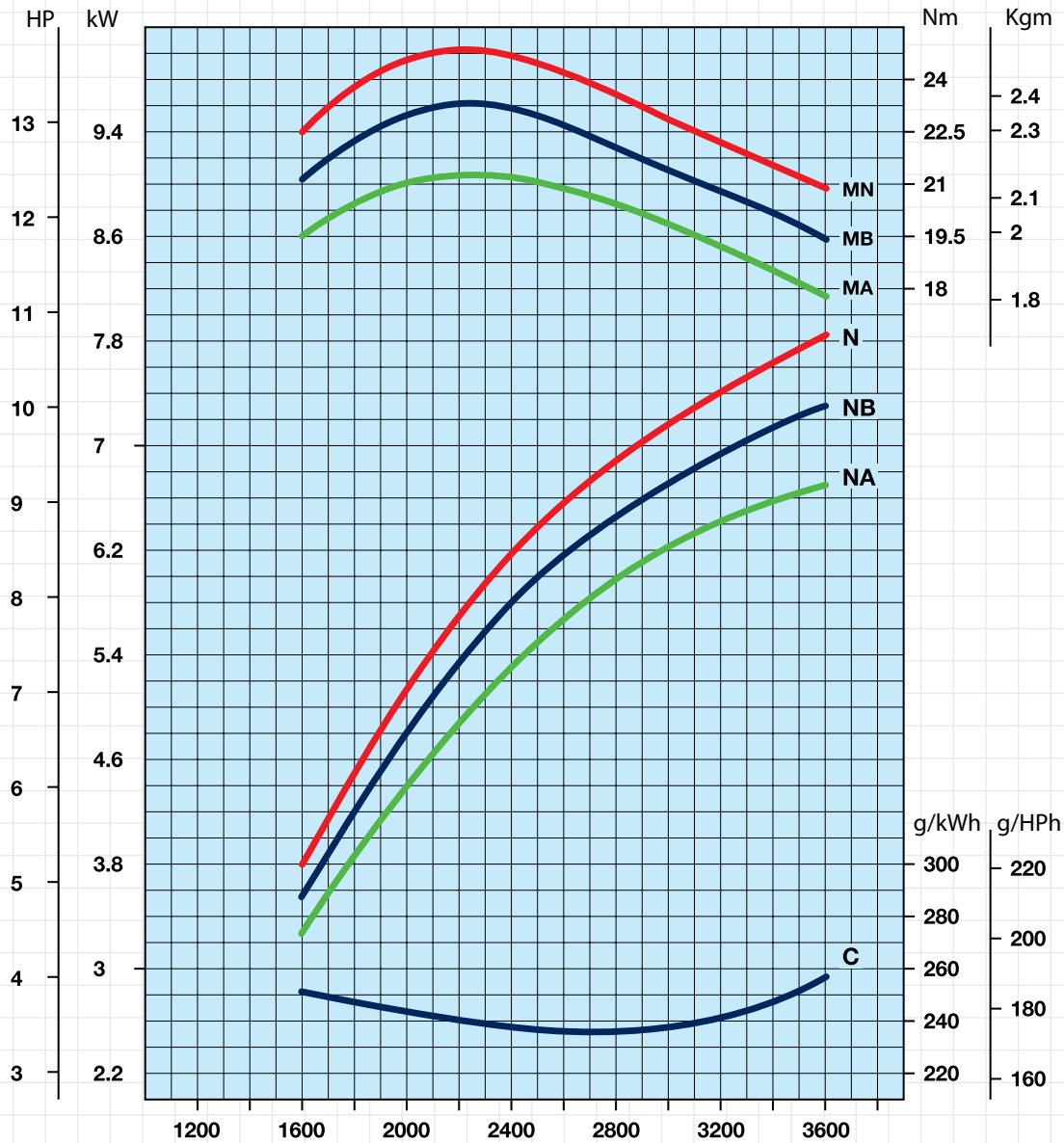
Sound Pressure Level Polar Diagram
Open Field at 7 Meters - No Load
Running Engine.



1000 RPM 2000 RPM 3000 RPM 3600 RPM

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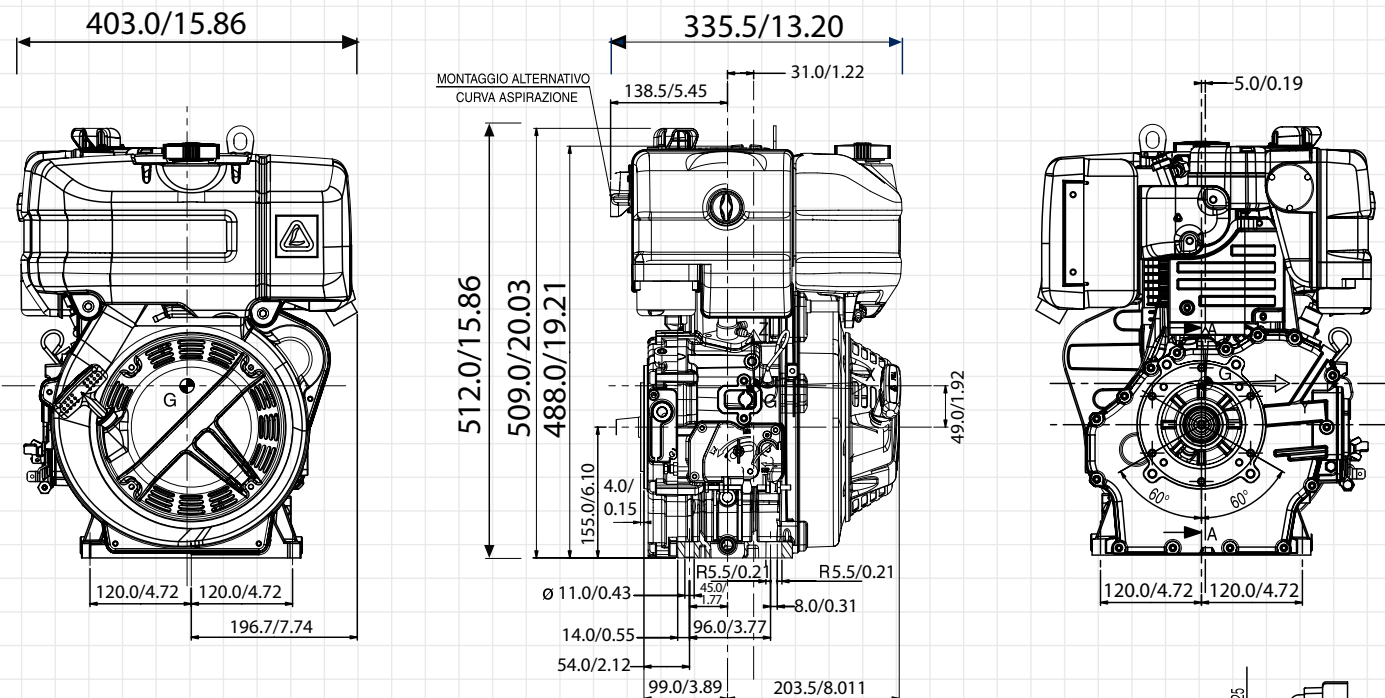
Curves



- N Power curve - 80/1269/CEE - ISO 1585 -
- NB Power curve - ISO 3046/1 - IFN -
- NA Power curve - ISO 3046/1 - ICXN -
- MN Torque curve - (N curve)
- MB (B curve - MA (A curve)
- C Specific fuel consumption - (NB curve)

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Technical Drawings



Standard Equipment

- Recoil Start with Automatic Compression Release
- Fuel Tank
- Fuel Filter
- Dry Air Cleaner
- Muffler with Guard
- Accelerator and Stop Manual Control
- 12 V Electric Start with Control Panel
- SAE J609a Ext 4 Crankshaft with Type B Mtg. Flange
- Fuel Valve Safety Shutdown for Low Oil Pressure

Accessories

- Internal Dynamic Balancer
- 24 V Electric Start
- Accelerator and Stop Remote Control
- Key Start Panel with Shutdown Device
- Fuel Lift Pump
- Oil Temperature Switch
- Glow Plug on Intake Manifold
- SAE J609a Ext 9, 6, and 3 Integral Crankshaft Options with Type B Mtg. Flange
- Extended Wiring Harness

