

KOHLER® Diesel

Model KD420

1 Cylinder • 442 cc • 7.3 kW/9.8 hp • 3600 rpm • 17 ft lbs @ 2200 rpm

Certification

- EPA Tier 4 (Hand-Start Provision)
- ECE R 24

Features

- 4-Stroke Air-Cooled Diesel Engine
- SAE J609a Crankshaft
- Counterclockwise Rotation
- Direct Injection
- Full-Pressure Lubrication
- 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
- EGR System

Applications

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

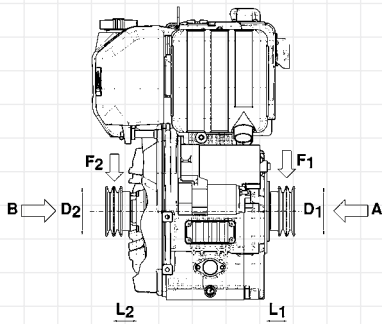


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Specifications

Cylinders	No. of Cylinders	1
Displacement	cc/cu in	442/27
Bore	mm/in	86/3.4
Stroke	mm/in	76/3.0
Compression Ratio		20.3:1
Rating kW/hp	N (80/1269/CEE) ISO 1585	7.3/9.8
	NB ISO 3046 IFN	7.0/9.3
	NA ISO 3046 ICXN	6.4/8.6
Maximum Torque	Nm/ft lbs @ 2200 rpm	23/17
Minimum Idling Speed rpm		950-1000
Fuel Tank Capacity	liters/quarts	5/5.3
Oil Consumption	kg/h/lb/h	0.0044/0.0097
Oil Sump Capacity	liters/quarts	1.5/1.6
Minimum Allowable Oil Pressure	bar/psi	1-1.5/14.5-21.8
Maximum Allowable Angle of Operation (Peak Values)		25° (35°)
Volume of Air Required for Correct Combustion @ 3600 rpm	liters/min/cfm	580/20
Volume of Air Required for Correct Cooling @ 3600 rpm	liters/min/cfm	5500/194
Dry Weight	kg/lb	45/99.1
Recommended Minimum Battery Size	V/CCA Standard, Heavy-Duty	12/420, 510
Minimum Pulley Diameters for Belt Drive		



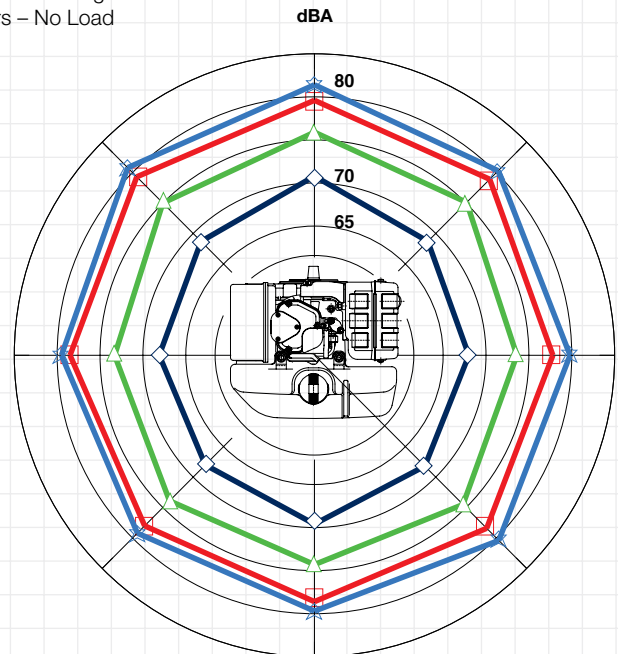
D_1 (mm) \geq 620 [66+ L_2 (mm)] N (kW)
n (rpm)

D_2 (mm) \geq 650 [53+ L_1 (mm)] N (kW)
n (rpm)

Maximum Allowable Axial Load in Both Directions
A-B = 200 kg/441 lb,

Sound Pressure Level dBA

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

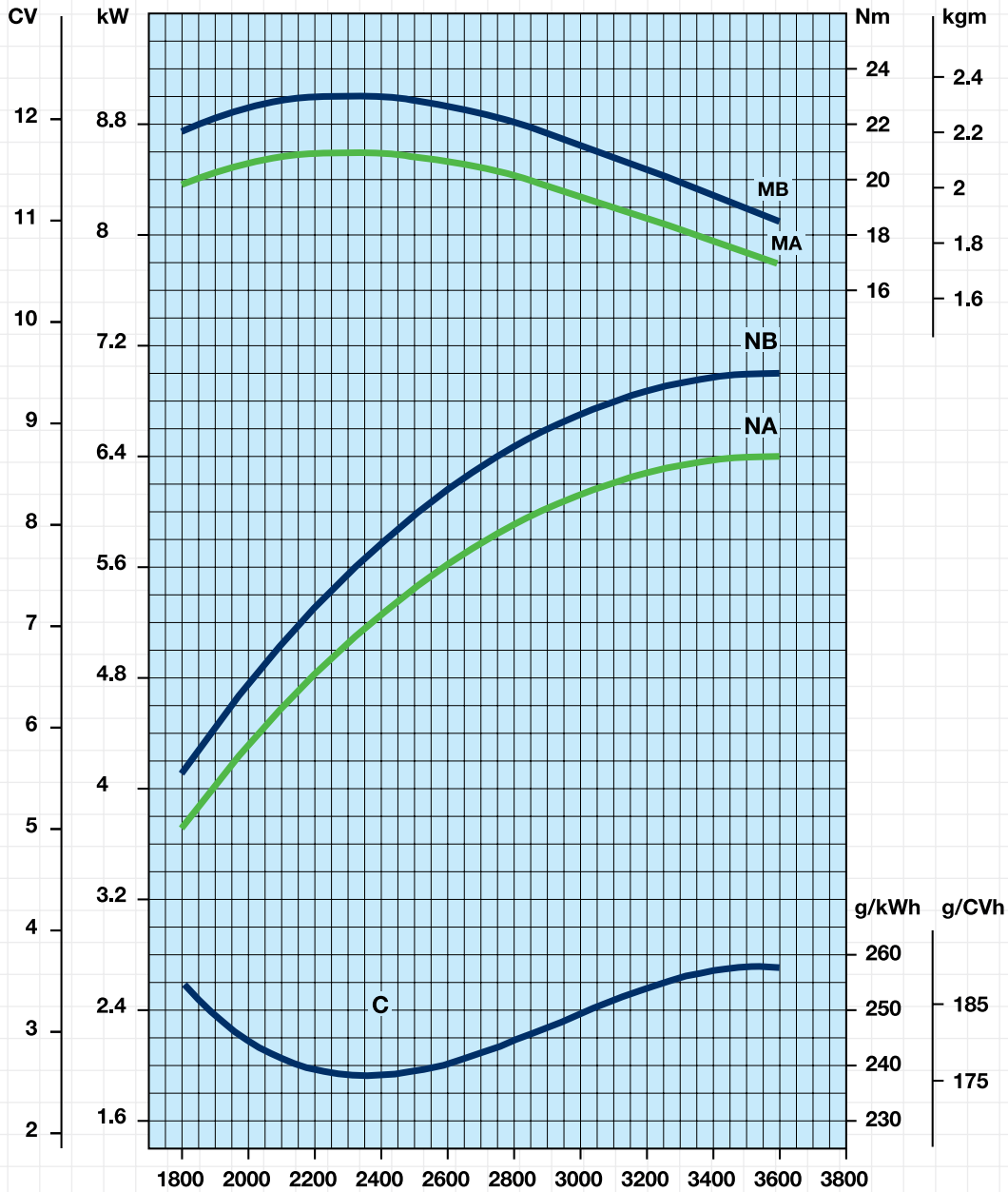


1000 rpm 2000 rpm 3000 rpm 3600 rpm

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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)