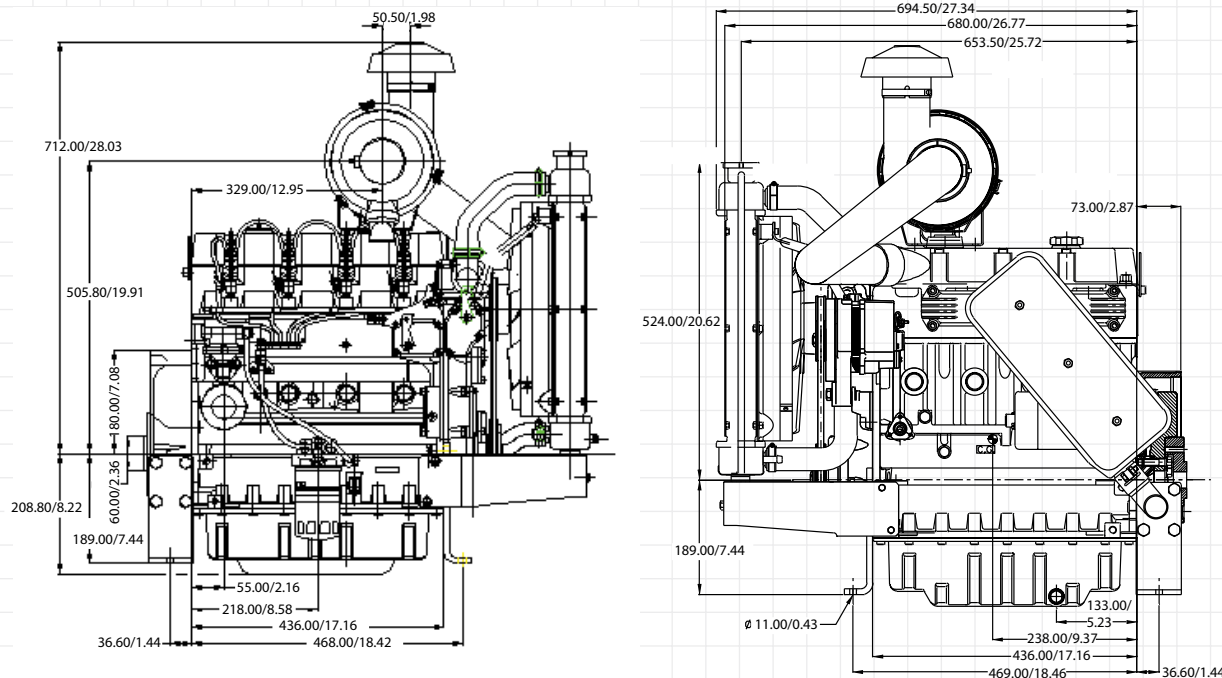


KOHLER Diesel

Model KDW2204

High-Speed Open Power Unit

Technical Drawings

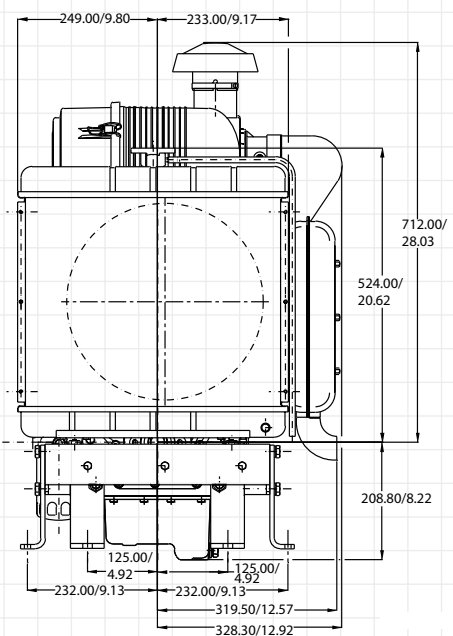


Standard Features (Open Power Unit)

- Base Engine
- Radiator Fan Guard
- Mounted Air Cleaner
- 12 V Electric Starter
- Fuel Filter with Valve
- Mounted Control Panel
- 3000 rpm
- Mounted Top Tank Radiator
- Suction Fan
- Muffler and Guard
- 45 Amp External Alternator
- Mounting Feet
- Group 5 Interchange Housing
- Safety Shutdown Low Oil Pressure and High Coolant Temperature

Accessories

- Optional Charging Systems
- SAE Housings and Drives
- Shaft Extensions
- Hydraulic Drives
- Dry Air Cleaners
- Various Mufflers and Manifolds
- Various Muffler Guards and Flanges
- Remote Oil Filter
- Top Tank and Crossflow Radiators
- Suction and Pusher Fans
- High-Capacity Oil Sump
- 2nd PTO Two-Groove Pulley
- Wiring Harness Extension
- Extended Dipstick



4 of 4

Form E-2158 3/09
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KOHLER

Relentless Power. Legendary Performance.

KOHLER Diesel

Model KDW2204

High-Speed Open Power Unit

4 Cylinders • 2199 cc • 38 kW/51.1 hp • 3000 rpm • 106.2 ft lbs @ 2000 rpm

Certification

- EPA Interim TIER 4
- 97/68/CE
- ECE R24-03

Features

- 4-Stroke Diesel Engine
- Liquid-Cooled with Axial Fan
- Indirect Fuel Injection
- Double PTO on the Crankshaft
- Counterclockwise Rotation (PTO Side)
- Full-Pressure Lubrication
- Automatic Extra-Fuel Starting Device
- Full-Flow Oil Filter
- Variable-Speed Governor
- Cast-Iron Crankcase with Reborable C
- Cast-Iron Cylinder Head
- Torque Device
- Hydraulic Valve Lifters

Applications

- Excavator
- Forklift
- Power Buggy
- Generator
- Aerial Platform
- Compressor
- High-Pressure Cleaner
- Sweeper
- Pump
- Tractor



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1 of 4
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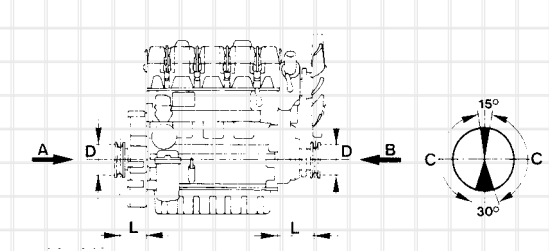
KOHLER Diesel

Model KDW2204

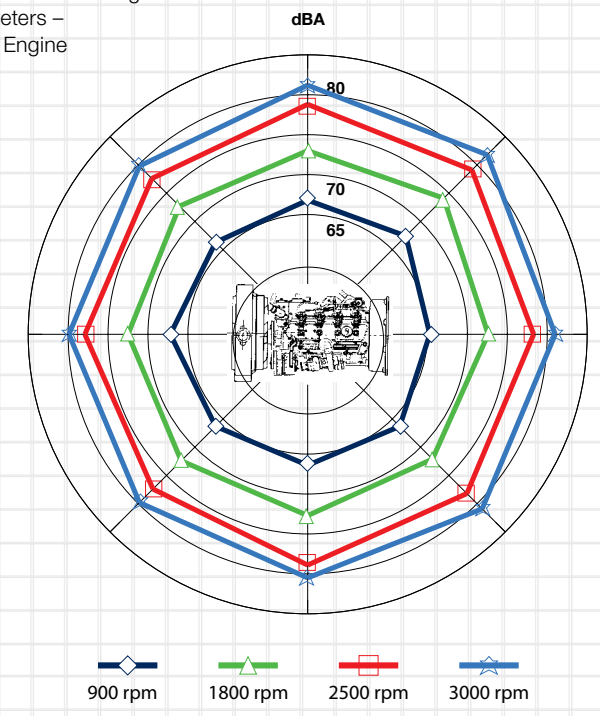
High-Speed Open Power Unit

Specifications

| | | |
|--|---------------------------------------|-----------------------|
| Cylinders | No. of Cylinders | 4 |
| Displacement | cc/cu in | 2199/134.2 |
| Bore | mm/in | 88/3.5 |
| Stroke | mm/in | 90.4/3.6 |
| Compression Ratio | | 22.5:1 |
| Rating kW/hp | N (80/1269/CEE) ISO 1585 | 38.0/51.0 |
| | NB ISO 3046 IFN | 34.5/46.3 |
| | NA ISO 3046 ICXN | 32.0/42.9 |
| Maximum Torque | Nm/ft lbs @ 2000 rpm | 144/106.2 |
| Maximum Torque 3 PTO | Nm/ft lbs | 39.2/29 |
| Minimum Idling Speed rpm | | 900 |
| Water Pump Delivery @ 3000 rpm | liters/min/gpm | 100/26 |
| Oil Consumption | kg/h/lb/h | 0.025/0.055 |
| Oil Capacity | | |
| | with Dynamic Horizontal Stabilizer | liters/quarts 4.5/4.8 |
| | without Dynamic Horizontal Stabilizer | liters/quarts 5.7/6 |
| Maximum Allowable Angle of Operation (Peak Values) | | 25° (35°) |
| Volume of Air Required for Correct Combustion @ 3000 rpm | liters/min/cfm | 3300/117 |
| Volume of Air Required for Correct Cooling @ 3000 rpm | m ³ /min/cfm | 128/4520 |
| Dry Weight | kg/lb | 214/472 |
| Recommended Minimum Battery Size | V/CCA Standard, Heavy-Duty | 12/660, 900 |
| Minimum Pulley Diameters for Belt Drive | | |



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



| | | |
|--|----------------------------|--------------------------|
| V-Belt | D (mm) ≥ 73 [L (mm) + 118] | $\frac{N (kW)}{n (rpm)}$ |
| Cogged Belt | D (mm) ≥ 46 [L (mm) + 118] | $\frac{N (kW)}{n (rpm)}$ |
| Maximum Allowable Axial Load in Both Directions | | |
| A-B=300 kg/661 lb C - Allowable Zone for Radial Load | | |

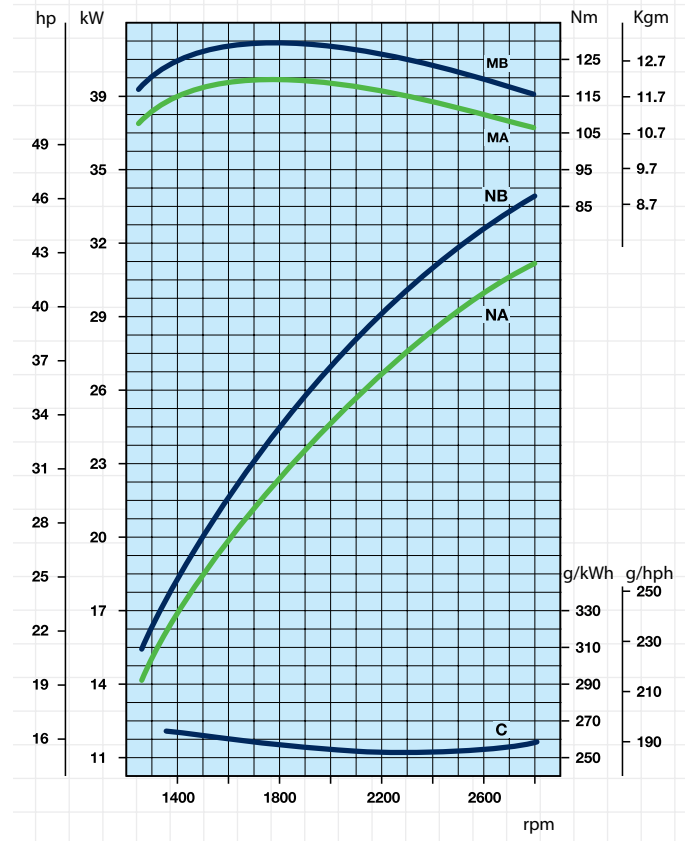
KOHLER Diesel

Model KDW2204

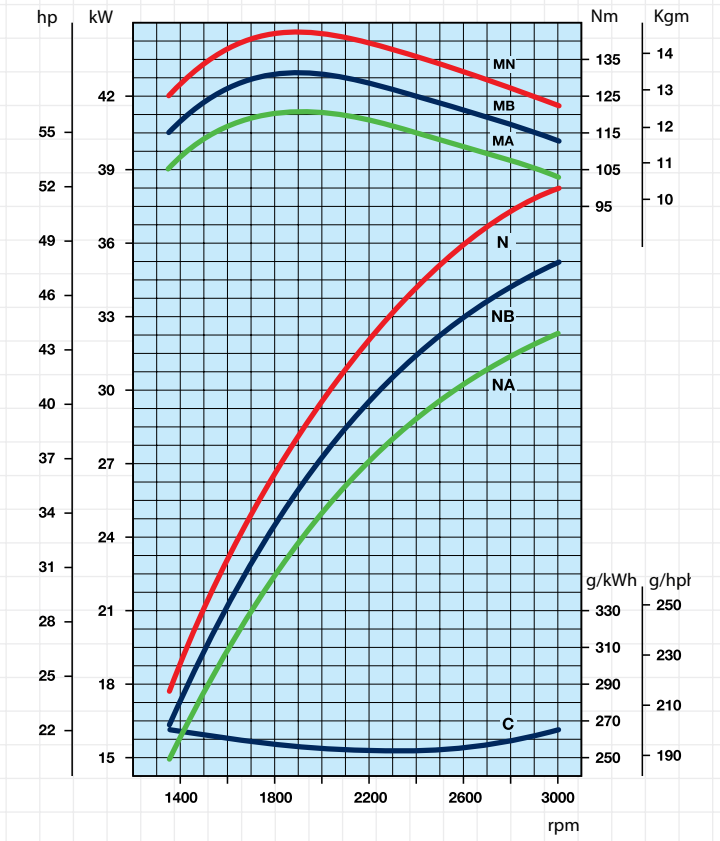
High-Speed Open Power Unit

Curves

KDW2204 B1 @ 2800 rpm ■ ● ▲



KDW2204 @ 3000 rpm ■ ● ▲



- 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)

Output Power for Fixed-Speed Application
 (Including Generator Sets)

| Engine Power kW | | |
|-----------------|-------------------|-----------------|
| rpm | Intermittent (NB) | Continuous (NA) |
| 3000 | 35.0 | 31.8 |
| 1800 | 22.5 | 20.5 |
| 1500 | 19.5 | 17.7 |

- EPA Interim TIER 4
- 97/68/CE
- ▲ ECE R24-03