

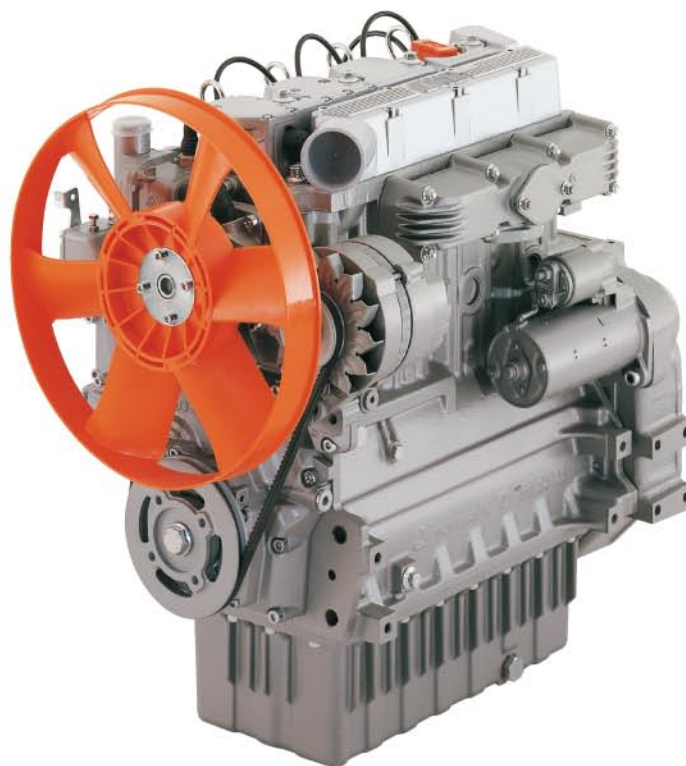
- 4 cylinders
- 2199 cm³
- 37,5 kW/51,0 HP
- 3000 r.p.m.
- Nm 144,0@2000

Available homologation

- EPA Interim TIER IV ◇
- 2004/26/CE Stage 3A ◇
- ECE R24 ▲

Construction

- 4-stroke diesel engine with cylinders in line
- Fluid-cooled with axial fan.
- Indirect injection.
- Single-shaft distribution with rod, valve levers and hydraulic tappets.
- Geared distribution control.
- Double pto on the crankshaft.
- Two pto on the distribution.
- Counterclockwise, rotation (1° PTO).
- Forced lubrication with vane pump on the crankshaft.
- Total passage external oil filter.
- Positionable fan and water pump.
- Automatic extra fuel starting device.
- Centrifugal governor.
- Torque regulator.
- Cast iron engine block with re-borable integral liners.
- Cast iron cylinder head.



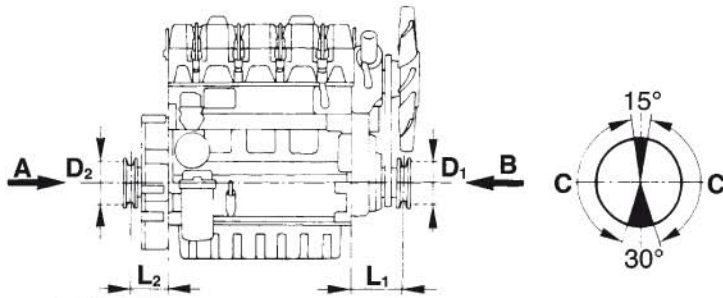
Applications

- Mini excavator
- Excavator
- Fork lift
- Dumper
- Gen set
- Aerial platform
- Compressor
- High pressure cleaner
- Sweeper
- Pump
- Tractor

Specifications

Cylinders	N.	4
Displacement	cm ³	2199
Bore	mm	88
Stroke	mm	90,4
Compression ratio		22,5:1
Rating kW/HP	N (80/1269/CEE) ISO 1585	37,5/51,0
	NB ISO 3046 IFN	34,5/46,9
	NA ISO 3046 ICXN	32,0/44,0
Max. torque	Nm	144,0@2000
Max. torque 3 PT.O.	Nm	39,2@3000
Min. idling speed		900
Water pump delivery at 3000 r.p.m.	l/min.	100
Oil consumption	kg/h.	0,025
Oil sump capacity		
	with dynamic horizontal stabilizer	l 4,5
	without dynamic horizontal stabilizer	l 5,7
Max. allowable inclination for:		
- short periods of operation (max. time 30 minutes)		25°
- peak values (max. time 1 minute)		35°
Cap. of air required for correct combustion @ 3000 r.p.m.	l/min.	3300
Cap. of air required for correct cooling @ 3000 r.p.m.	m ³ /min.	128
Dry weight	kg	192
Recommended battery	V/Ah	12/88

Minimum pulley diameters for belt drive



V belt	$D_2 \text{ (mm)} \geq 73 [L_2 \text{ (mm)} + 118]$	$\frac{N \text{ (kW)}}{n \text{ (RPM)}}$
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Cogged belt	$D_1 \text{ (mm)} \geq 46 [L_1 \text{ (mm)} + 118]$	$\frac{N \text{ (kW)}}{n \text{ (RPM)}}$
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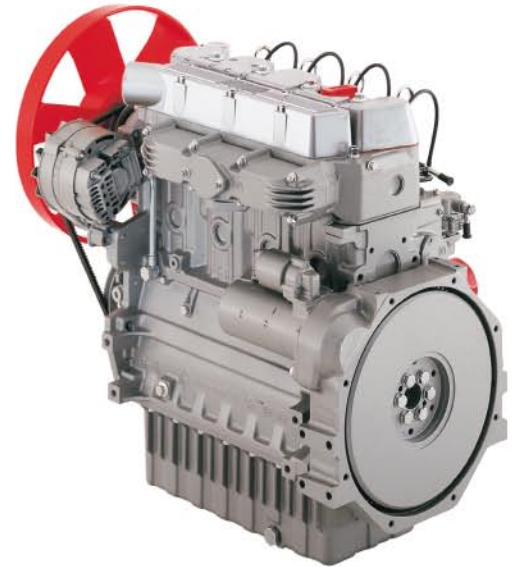
Max. intermittent axial load in both directions A-B = 300 kg
C - zone in which the radial load acts on the pulley

HOMOLOGATIONS EPA Interim TIER IV e 2004/26/CE Stage 3A ◆ ◆

Rating kW @ 3000 rpm	ISO 14396	36,6
Max. torque	Nm	132,5@2100

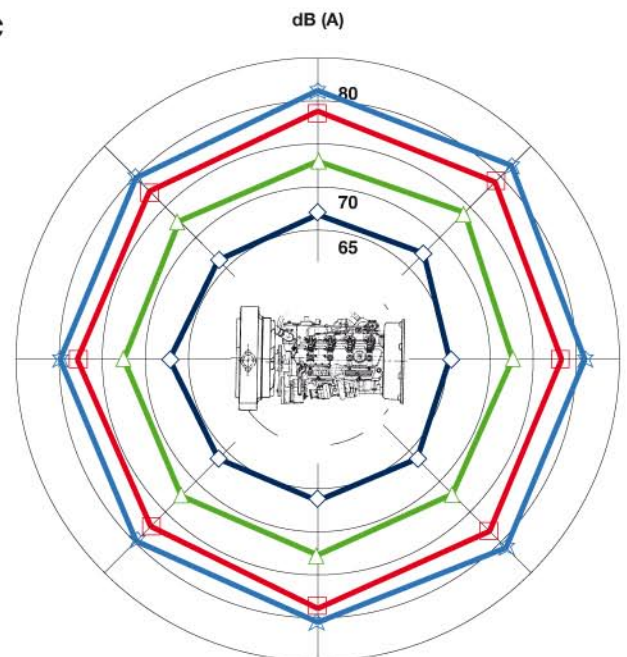
HOMOLOGATION ECE R24 ▲

Rating kW @ 3000 rpm	ISO 14396	35,0
Max. torque	Nm	130,0@2100



Sound pressure level dB (A)

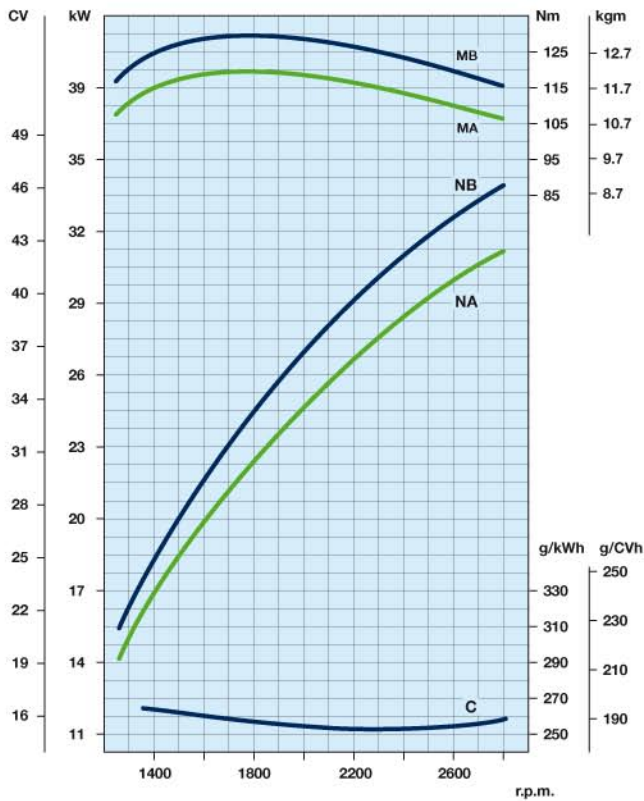
Sound level polar diagram open field - 7 meters microphone - no load running engine.



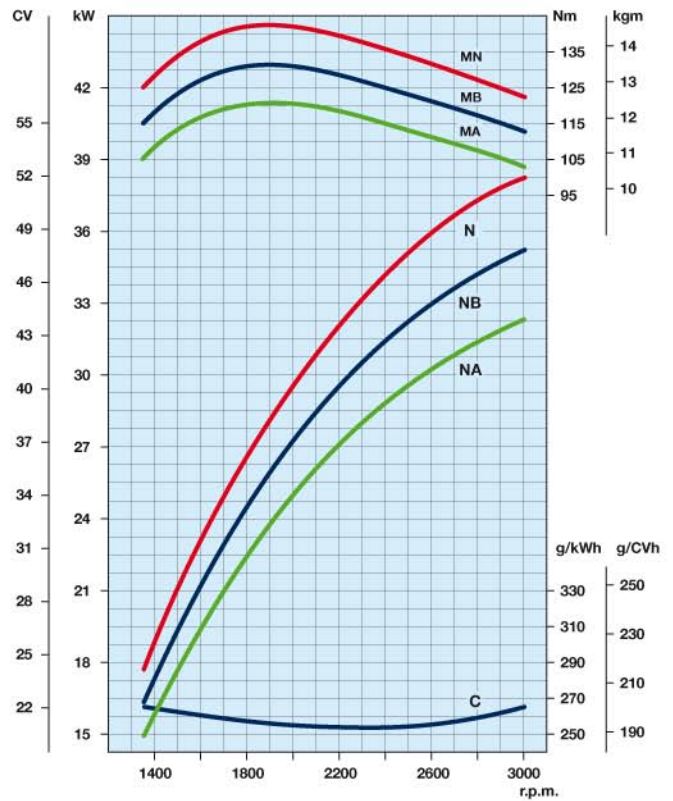
◆ 900 RPM
 ▲ 1800 RPM
 ■ 2500 RPM
 ◆ 3000 RPM

Curves

LDW 2204 @ 3000 r.p.m.



LDW 2204 B1 @ 2800 r.p.m. ▲



N Power curve - 80/1269/CEE - ISO 1585 -

NB Power curve - ISO 3046 - IFN -

NA Power curve - ISO 3046 - ICXN -

MN Torque curve - (N curve)

MB (NB curve - **MA** (NA curve)

C Specific fuel consumption - (NB curve)

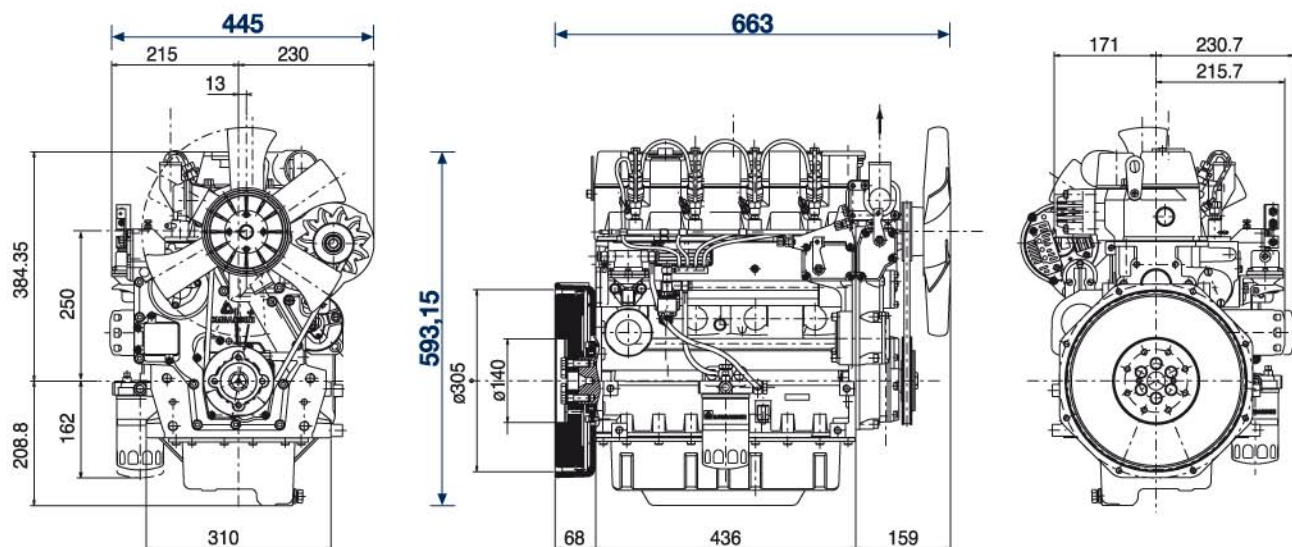
Power ratings refer to engines equipped with air filter, standard muffler, after being run in and in ambient conditions of 20°C and 1 bar. Power levels drop by 1% every 100m altitude and by 2% every 5°C above 20°C.

Output power for fixed speed application (including generating sets)

Engine power kW

r.p.m.	Intermittent (NB)	Continuous (NA)
3000	35,0	31,8
1800	22,5	20,5
1500	19,5	17,7

Technical drawings *



* More specific dimensions are available on www.lombardini.it (see table at the bottom of the page)

Standard equipment

- External oil filter
- Intake manifold
- Exhaust manifold
- Intake fan
- Accelerator control
- Electric starter and 12V alternator
- Thermostatic valve
- Fuel feed diaphragm pump
- Water pump
- Flanging plate
- Flywheel with ring gear
- Use, maintenance and spare parts booklet

Accessories

- Different guards according to use
- Clutches
- Clutch flywheels
- Flanges
- Hydraulic pump adaptors
- Keyswitch panel
- Electric stop
- Electronic plant for plugs
- Alternators
- Radiators
- Blowing fan
- Engine feet
- Fuel tanks
- Mufflers
- Dry air-cleaners mounted and separated
- Cyclonic precleaners
- Fuel filter on engine
- Cab heating system
- High capacity oil sump (see picture)



ISO 9001 Cert. n. 0446 - 1405
QS. 9000 Cert. n. 2231/0



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Files for this product available on www.lombardini.it

Data sheet	LDW2204DS.PDF
Owner manual	LDW2204OM.PDF
Service manual	LDW2204SM.PDF
Technical drawing	LDW2204TD.DWG
Power curve	LDW2204PC.PDF

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