

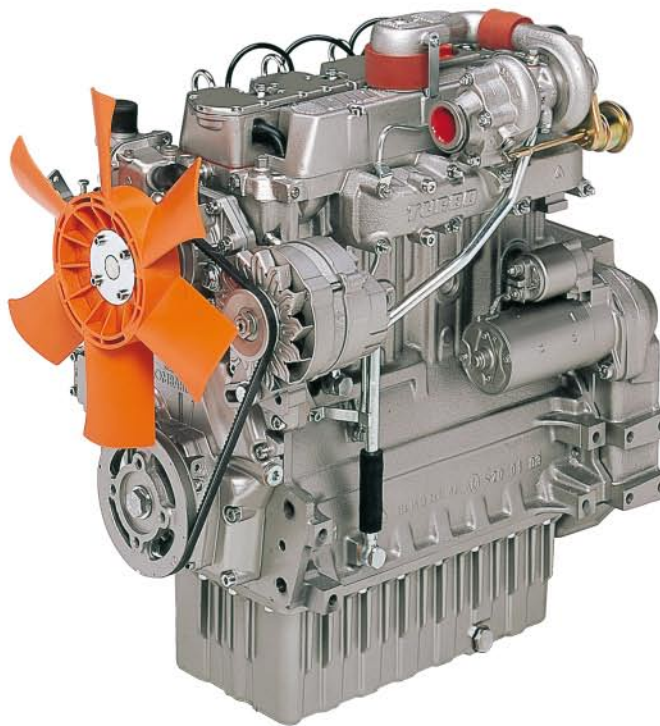
- 4 cylinders
- 2199 cm³
- 47,0 kW/63,9 HP
- 3000 r.p.m.
- Nm 190,0@1800

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.
- Water-oil heat exchanger.
- Turbocompressor Mitsubishi TD 025L.
- 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.



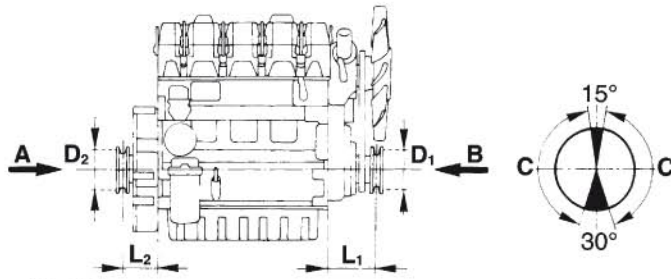
Applications

- Fork lift
- Excavator
- Gen set
- Compressor
- Sweeper
- Tractor

Specifications

Cylinders	N.	4
Displacement	cm ³	2199
Bore	mm	88
Stroke	mm	90,4
Compression ratio		22,8:1
Rating kW/HP	N (80/1269/CEE) ISO 1585	47,0/63,9
	NB ISO 3046 IFN	44,3/60,2
	NA ISO 3046 ICXN	40,8/55,5
Max. torque	Nm	190,0@1800
Max. torque 3 P.T.O.	Nm	39,2@3000
Min. idling speed		900
Water pump delivery at 3000 r.p.m.	l/min.	128
Oil consumption	kg/h.	0,032
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.	4200
Cap. of air required for correct cooling @ 3000 r.p.m.	m ³ /min.	180
Dry weight	kg	197
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	46,0
Max. torque	Nm	178,0@1700

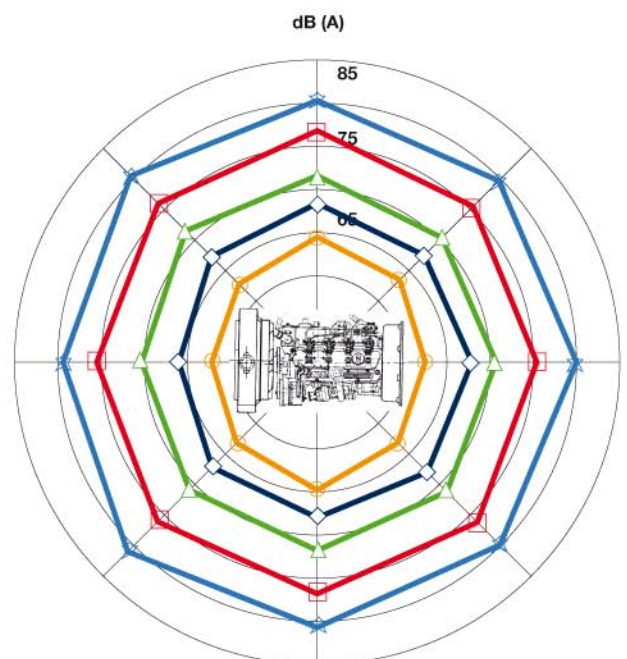
HOMOLOGATIONS ECE R24

Rating kW @ 3000 rpm	ISO 14396	44,0
Max. torque	Nm	176,0@1700



Sound pressure level dB (A)

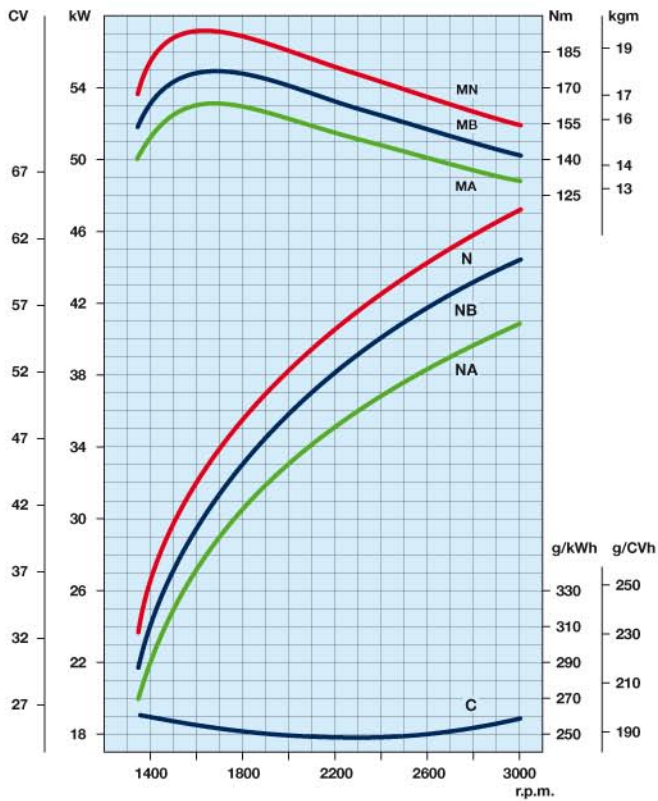
Sound level polar diagram open field - 7 meters microphone - no load running engine.



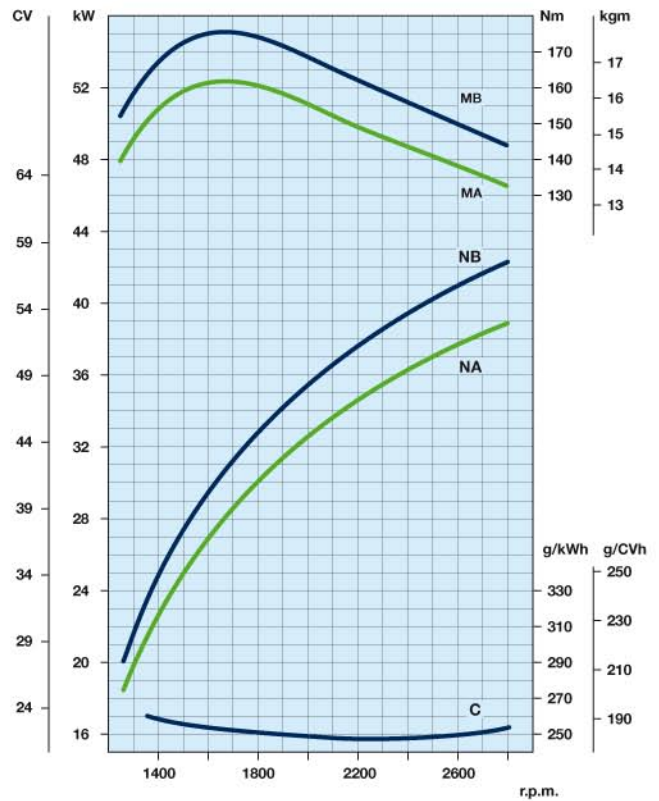
1000 RPM 1500 RPM 2000 RPM 2500 RPM 3000 RPM

Curves

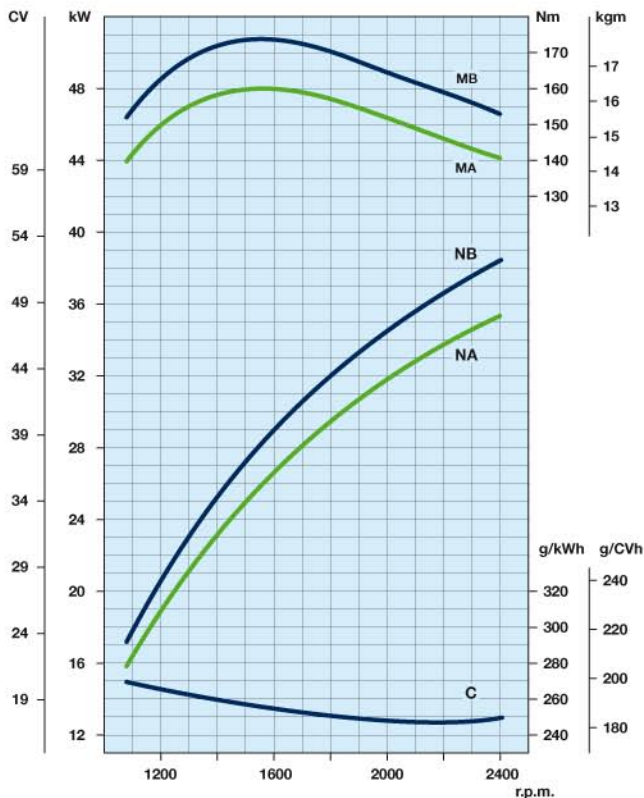
LDW 2204/T @ 3000 r.p.m.



LDW 2204/T B1 @ 2800 r.p.m. ❖ ▲



LDW 2204/T B3 @ 2400 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)

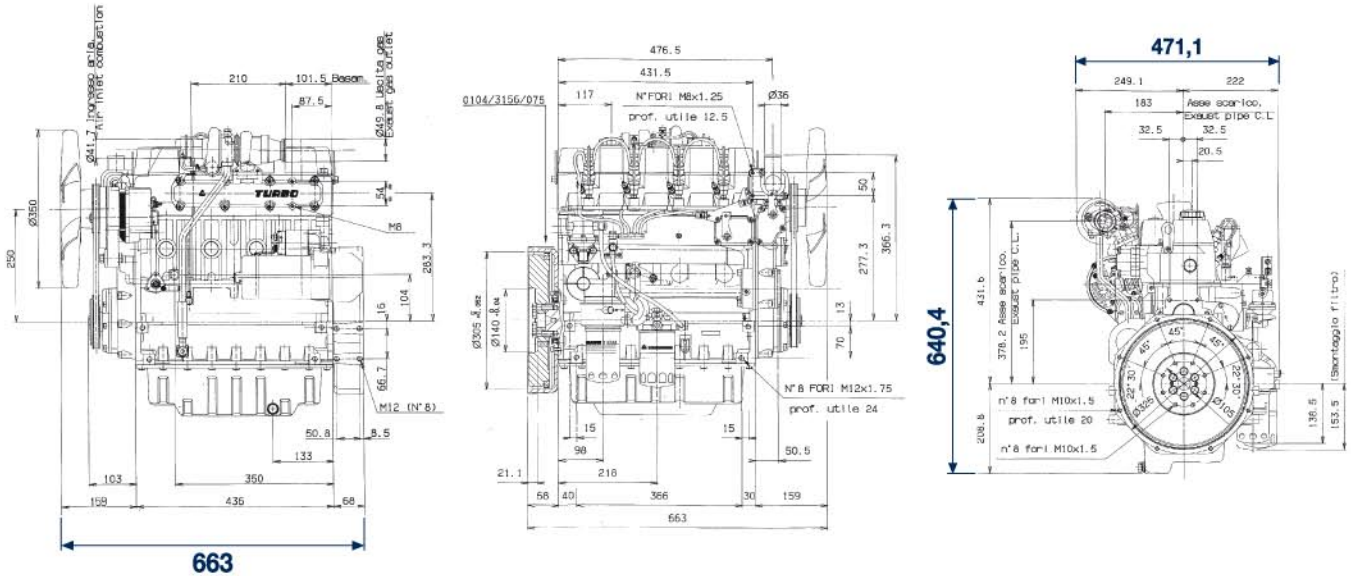
Power ratings refer to engines equiped with air filter, standard muffler, after being run in and in ambient conditions of 20°C and 1 bar. Power levels drop by 1% every 100m altitude and by 2% every 5°C above 20°C.

Output power for fixed speed application (including generating sets)

Engine power kW

r.p.m.	Intermittent (NB)	Continuous (NA)
3000	44,0	40,0
1800	31,5	28,6
1500	26,0	23,6

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 separated
- Dry air-cleaners 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	LDW2204TDS.PDF
Owner manual	LDW2204TOM.PDF
Service manual	LDW2204TSM.PDF
Technical drawing	LDW2204TTD.DWG
Power curve	LDW2204TPC.PDF

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