

- 2 cylinders
- 954 cm³
- 16,8 kW/23,1 HP
- 3600 r.p.m.
- Nm 55,0@2100

Available homologation

- ECE R 24 ▲
- EPA TIER IV ■

Construction

- 4-stroke air cooled diesel engine
- Direct injection
- Air cooled by fan integral to the flywheel
- Mechanical fuel lift pump
- Forced lubrication with oil pump
- Full flow oil filtration with external cartridge filter
- Automatic extra fuel starting device
- Torque regulator
- Centrifugal speed governor
- Crankcase in die-cast aluminium
- Electric starting
- Counter-clockwise rotation (viewed from power take-off side)
- Aluminium alloy independent heads
- Independent cast-iron cylinders
- Power take-off on crankshaft



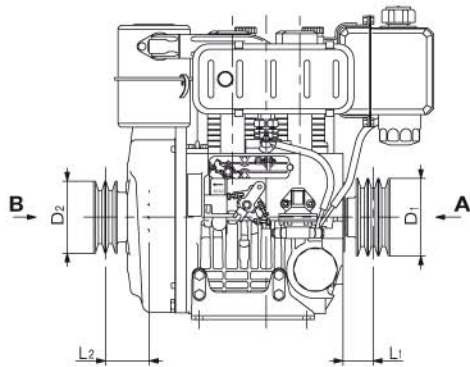
Applications

- Dumper
- Vibrating Roller
- Generating Set
- Welding Set
- High pressure cleaner
- Transporter
- Hydraulic power pack
- Agricultural pump
- Two-wheel tractor

Specifications

Cylinders	N.	2
Displacement	cm ³	954
Bore	mm	90
Stroke	mm	75
Compression ratio		19:1
Rating kW/HP	N (80/1269/CEE) ISO 1585	16,8/22,8
	NB ISO 3046 IFN	15,7/21,4
	NA ISO 3046 ICXN	14,5/19,7
Max. torque	Nm	55,0@2100
Max. torque 3 P.T.O.	Nm	25,0
Counterclockwise rotation		
Engine speed - 3 P.T.O. ratio		1:0,89
Minimum idling speed r.p.m.		1000
Fuel tank capacity	l	7
Oil consumption	kg/h.	0,011
Oil sump capacity	l	3
Min. allowable oil pressure	bar	0,8
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 @ 3600/3000 r.p.m.	l/min.	1500/1220
Cap. of air required for correct cooling @ 3600/3000 r.p.m.	l/min.	15800/13200
Dry weight	kg	78
Recommended battery	V/Ah	12/55
Axial load	(continuous)	kg 100
	(intermittent)	kg 350

Minimum pulley diameters for belt drive



$$D_1 \text{ (mm)} \geq 220 [78+L_1 \text{ (mm)}] \quad \frac{N \text{ (kW)}}{n \text{ (RPM)}}$$

$$D_2 \text{ (mm)} \geq 196 [150+L_2 \text{ (mm)}] \quad \frac{N \text{ (kW)}}{n \text{ (RPM)}}$$

Max. intermittent axial load in both directions A-B = 350 kg

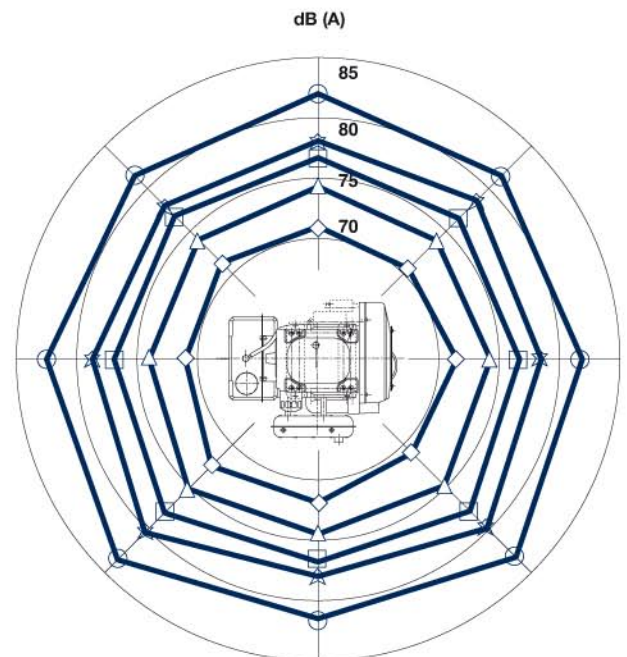
HOMOLOGATION ECE R 24 ▲

Rating kW @ 3600 rpm	ISO 14396	16,2
Max. torque	Nm	53,0@2400



Sound pressure level dB (A)

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

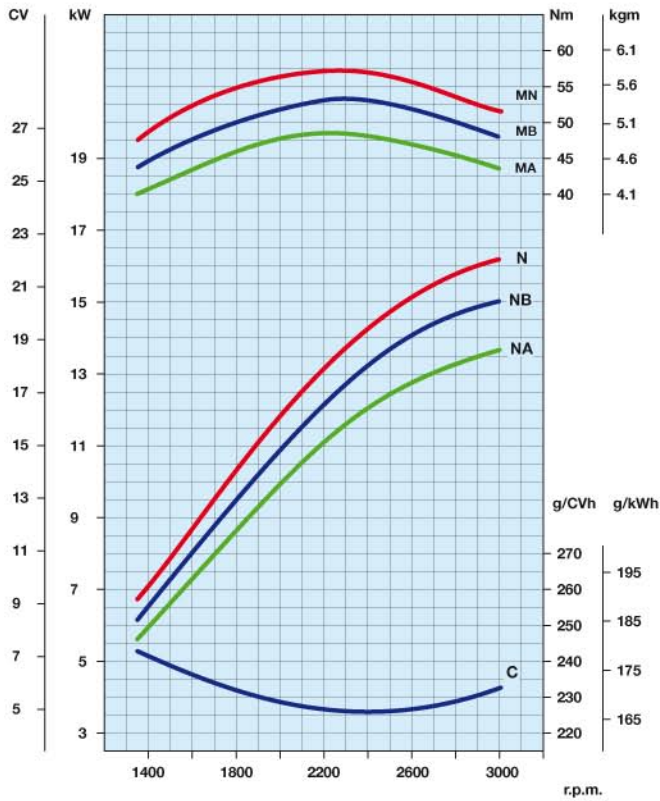


1500 RPM 2000 RPM 2500 RPM 3000 RPM 3600 RPM

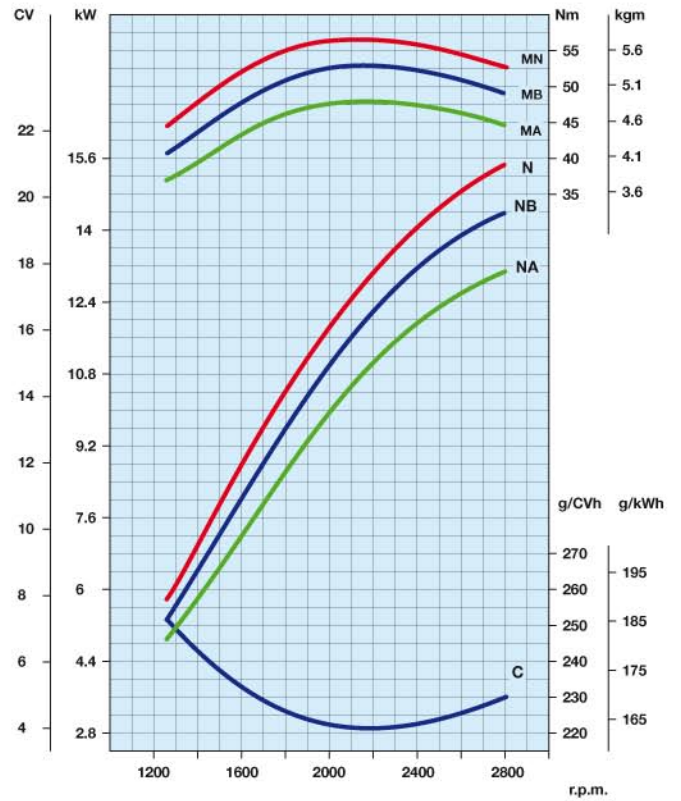
SERIE 12LD

Curves

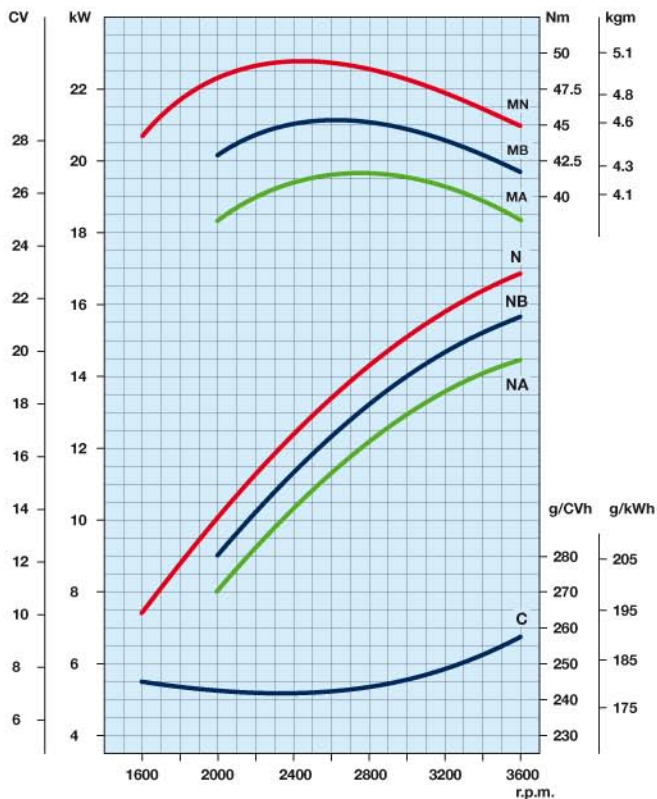
12LD 477/2 B1 @ 3000 r.p.m. ▲



12LD 477/2 B2 @ 2800 r.p.m. ▲



12LD 477/2 @ 3600 r.p.m. (homologation UTI)



- 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)

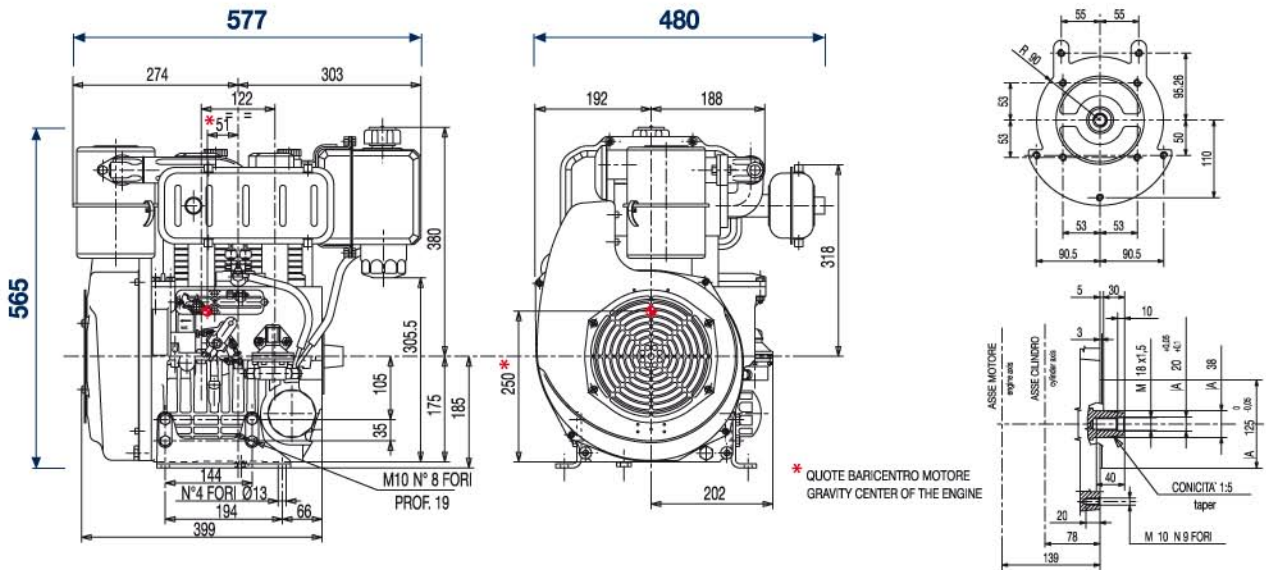
Power ratings refer to engines equipped with air filter, standard muffler, after being run in and in ambient conditions of 20°C and 1 bar. Power levels drop by 1% every 100m altitude and by 2% every 5°C above 20°C.

Output power for fixed speed application (including generating sets)

Engine power kW

r.p.m.	Intermittent (NB)	Continuous (NA)
3600	15,7	14,5
3000	14,9	13,5
1800	9,0	8,1
1500	7,7	7,0

Technical drawings *



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

Standard equipment

- Electric starter with 12V alternator
- Black paint on sheet metal parts
- Remote throttle
- Oil bath air filter
- External oil filter
- Oil pressure switch
- Combined manifold and exhaust muffler
- Engine feet
- Power take-off on crankshaft
- Keyswitch panel
- Fuel lift pump
- Counter-clockwise rotation on power take-off side
- Fuel tank with filter
- Automatic extra fuel device
- Use, maintenance, and spare parts booklet

Accessories

- Different guards according to use
- Range of alternative alternators
- Compression release
- Flanges
- Detached dry air filter
- External fuel filter
- Clutches
- Range of flywheels for various clutches
- Hydraulic pump adapters
- Range of fuel tanks of various sizes
- Mufflers and exhaust pipes
- Controls
- Pulleys
- Varnishing



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	12LD477DS.PDF
Owner manual	12LD477OM.PDF
Service manual	12LD477SM.PDF
Technical drawing	12LD477TD.DWG
Power curve	12LD477PC.PDF

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cod. 3558260 - 07-2008