

- 2 cylinders
- 954 cm³
- 17 kW/23.1 HP
- 3600 r.p.m.
- Nm. 55@2100

Homologation

- ECE R 24-03 ▲

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
- Re-borable independent cast-iron cylinders
- Power take-off on crankshaft



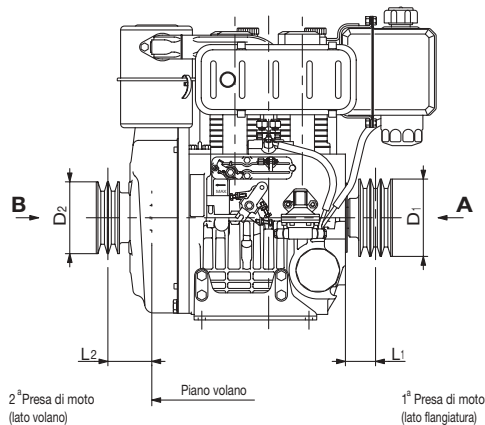
Applications

- Dumper
- Vibrating Roller
- Generating Set
- Welding Set
- High pressure cleaner
- 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 | 17/23.1 |
| | NB ISO 3046 IFN | 15.7/21.4 |
| | NA ISO 3046 ICXN | 14.5/19.7 |
| Max. torque | Nm. | 55@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 (peak values) | | 25° (35°) |
| Vol. of air required for correct combustion @ 3600/3000 r.p.m. | l/min. | 1500/1220 |
| Vol. 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



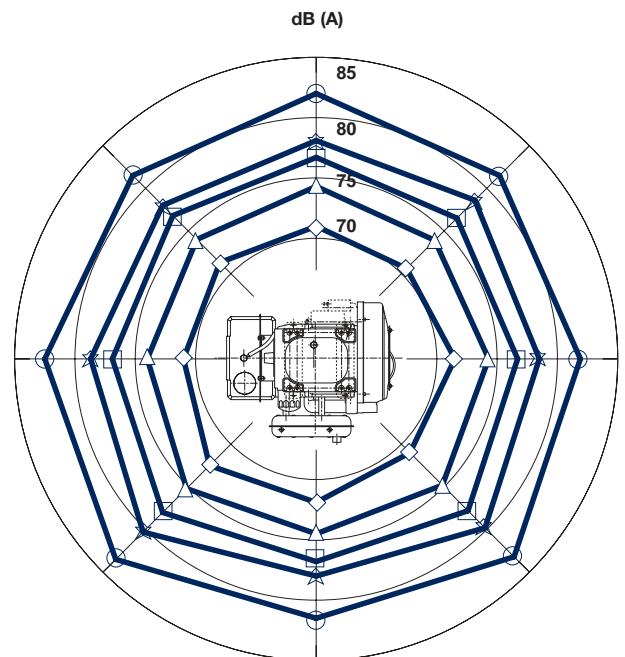
$$D_1 \text{ (mm)} \geq 220 [78+L_1 \text{ (mm)}] \quad \frac{N \text{ (kW)}}{n \text{ (RPM)}}$$

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



Sound pressure level dB (A)

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

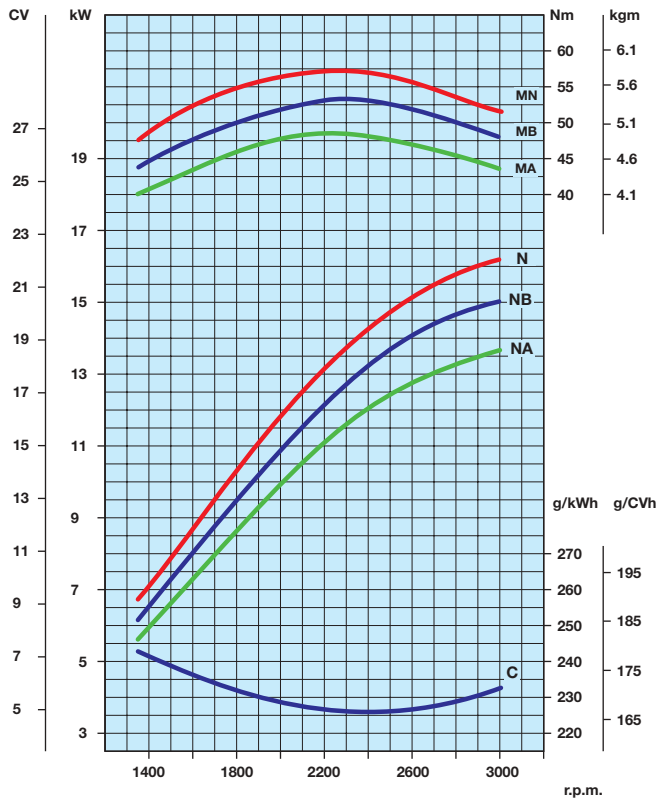


1500 RPM 2000 RPM 2500 RPM 3000 RPM 3600 RPM

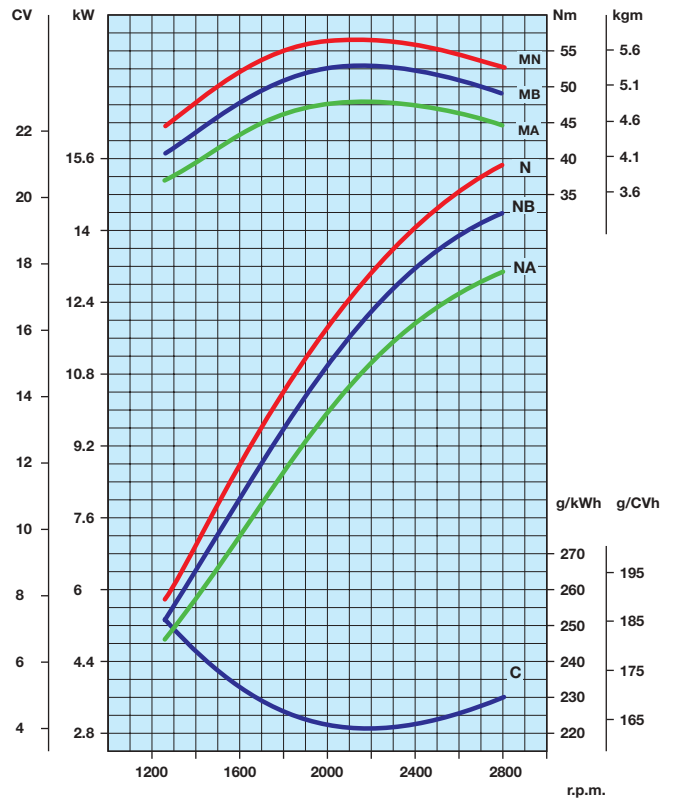
SERIE 12LD

Curves

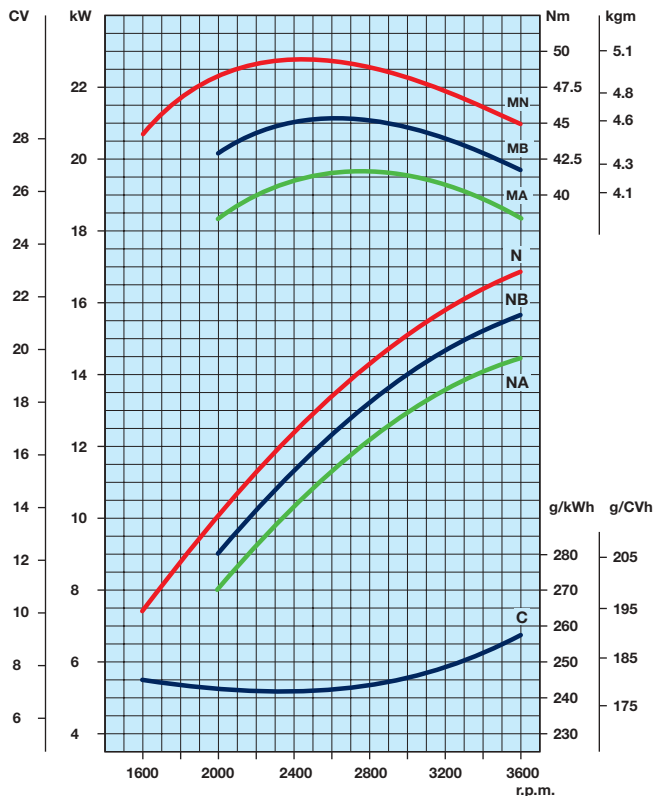
12LD 477/2 B1 @ 3000 r.p.m. ▲



12LD 477/2 B2 @ 2800 r.p.m. ▲



12LD 477/2 @ 3600 r.p.m.



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)

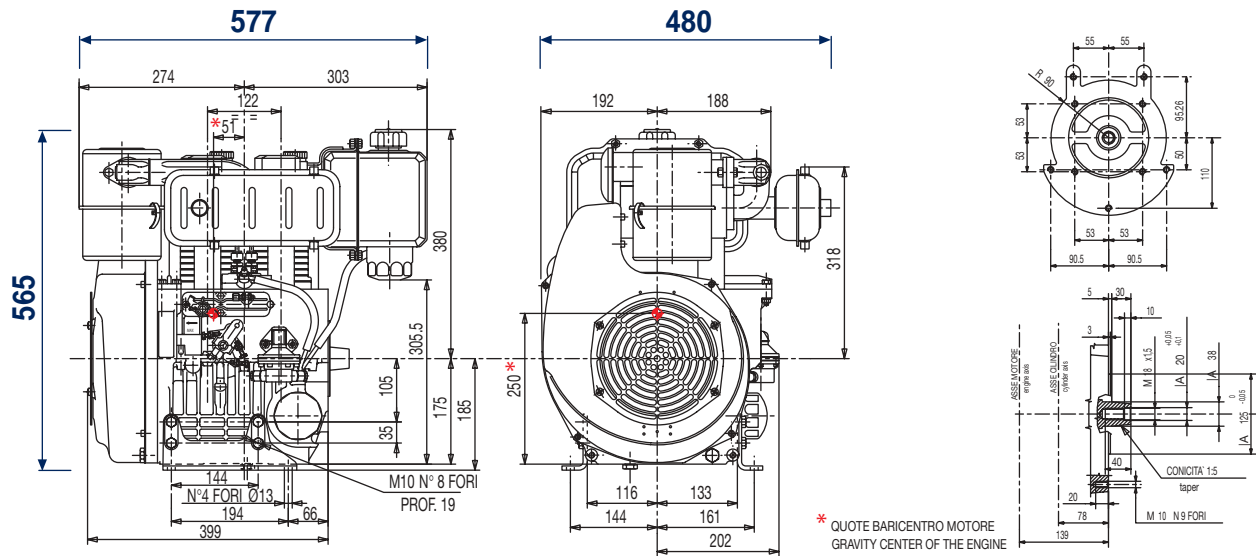
C Specific fuel consumption - (NB curve)

Output power for fixed speed application (including 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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mod. 51041/5