



- 2 cylinders
- 654 cm<sup>3</sup>
- 12 kW/16.3 HP
- 3600 r.p.m.
- Nm. 32@2400

## Homologation

- ECE R 24-03 ▲

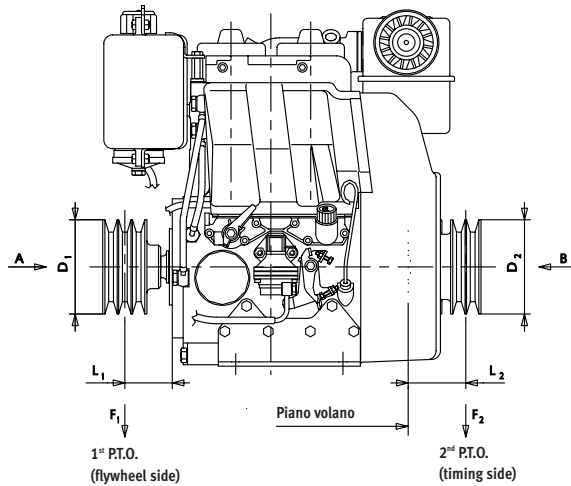
## Construction

- 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 mechanical fuel supplement
- 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

## Specifications

Cylinders	N.	2
Displacement	cm <sup>3</sup>	654
Bore	mm	80
Stroke	mm	65
Compression ratio		19:1
Rating kW/HP	N (80/1269/CEE) ISO 1585	12/16.3
	NB ISO 3046 IFN	11.2/15.2
	NA ISO 3046 ICXN	10.3/14.0
Max. torque	Nm.	32@2400
Max. torque 3 P.T.O.	Nm.	18.0
Counterclockwise rotation		
Engine speed - 3 P.T.O. ratio		1:0.87
Minimum idling speed r.p.m.		1000
Fuel tank capacity	l	4
Oil consumption	kg/h.	0.007
Oil sump capacity	l	1,8
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.	1050/875
Vol. of air required for correct cooling @ 3600/3000 r.p.m.	l/min.	11700/9750
Dry weight	kg	60
Recommended battery	V/Ah	12/55
Axial load	(continuous)	kg 100
	(intermittent)	kg 300

## Minimum pulley diameters for belt drive

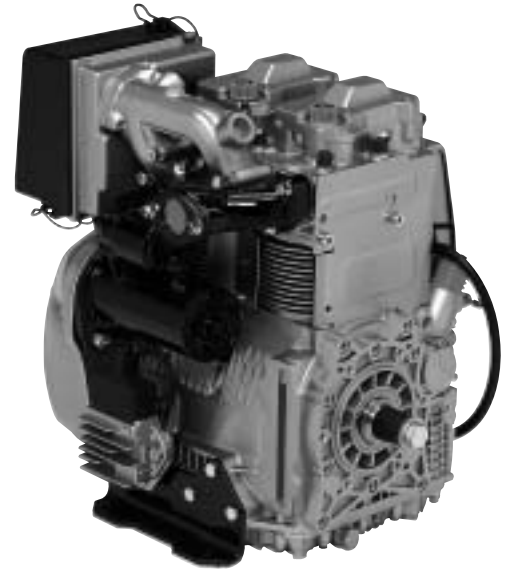


$$D_1 \text{ (mm)} \geq 585 \cdot [49 + L_1 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (RPM)}}$$

$$D_2 \text{ (mm)} \geq 1030 \cdot [31 + L_2 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (RPM)}}$$

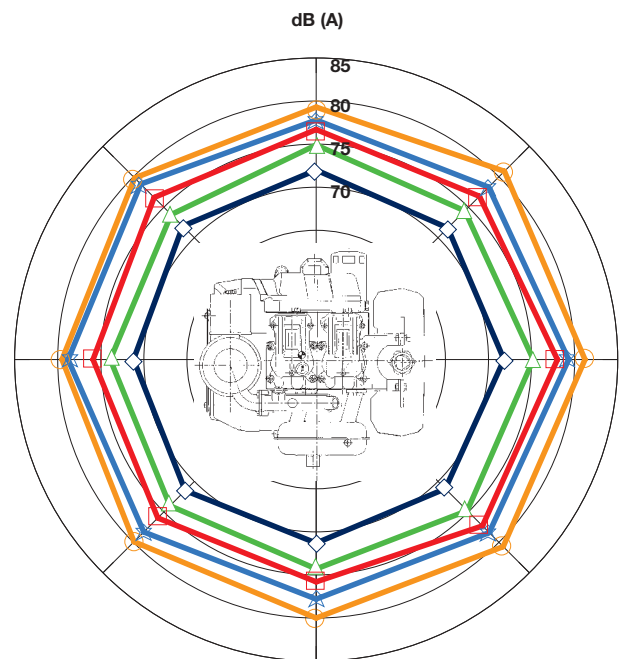
$$F_1 \text{ (N)} = \frac{98000}{49 + L_1 \text{ (mm)}}$$

$$F_2 \text{ (N)} = \frac{55600}{31 + L_2 \text{ (mm)}}$$



## Sound pressure level dB (A)

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

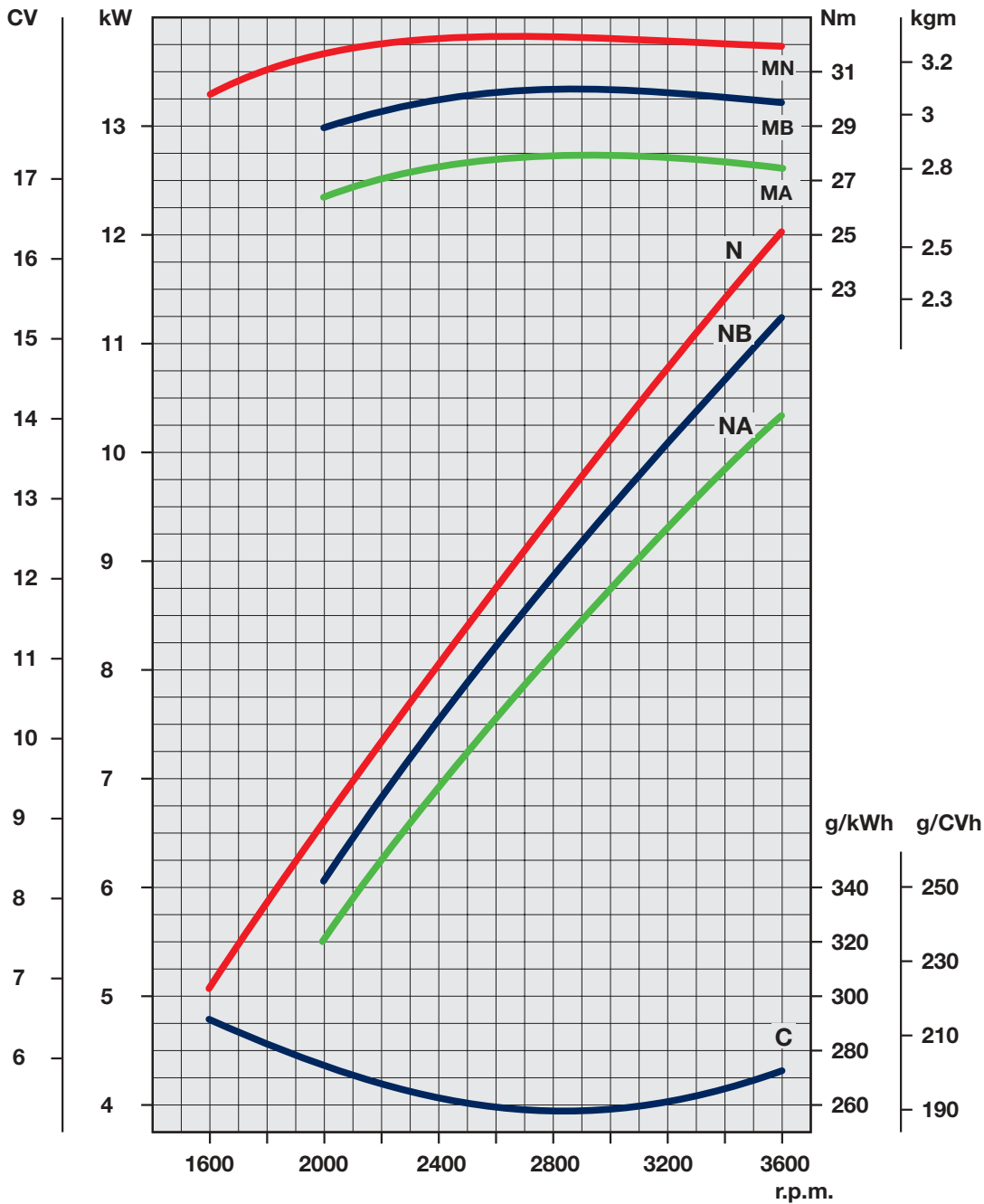


1500 RPM 2000 RPM 2500 RPM 3000 RPM 3600 RPM

# SERIE MD

## Curves

MD151 @ 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)

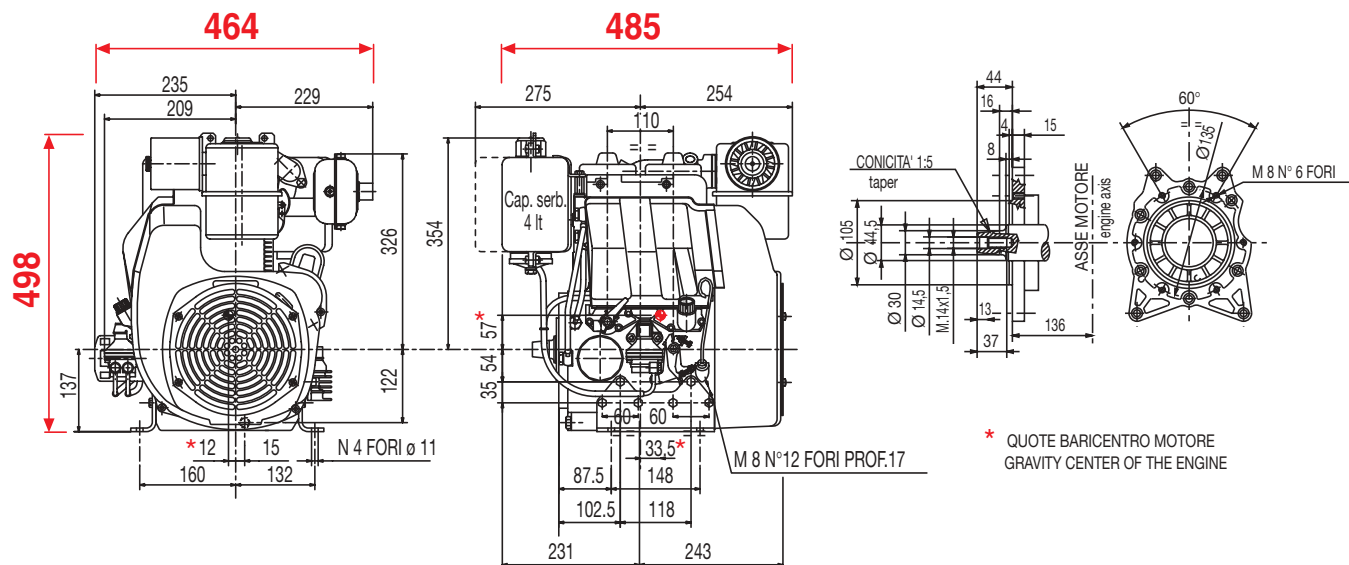
### Output power for fixed speed application (including generating sets)

#### Engine power kW

r.p.m.	Intermittent (NB)	Continuous (NA)
3600	11.2	10.3
3000	9.4	8.6



## Technical drawings \*



\* More specific dimensions are available on [www.ruggerini.it](http://www.ruggerini.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 with prefilter
- Internal oil filter with net
- Oil pressure switch
- Combined manifold and exhaust muffler
- Ø 30 mm conical shaft power take off
- Fuel lift pump
- Counter-clockwise rotation on power take-off side
- Fuel tank with filter
- Automatic mechanical supplement
- User maintenance - spare parts booklet

## Accessories on request

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



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Files for this product available on [www.ruggerini.it](http://www.ruggerini.it)

Data sheet	MD151DS.PDF
Owner manual	MD151OM.PDF
Service manual	MD151SM.PDF
Technical drawing	MD151TD.DWG
Power curve	MD151PC.PDF

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