

- 1 cylinder
- 441 cm³
- 8,0 kW/10,9 HP
- 3600 rpm
- Nm 24,5@2200

Available homologation

- EPA TIER II ●
- ECE R 24 ▲

Construction

- 4 -stroke air cooled diesel engine.
- Conical power take-off on crankshaft.
- Anticlockwise rotation.
- Direct injection.
- Forced lubrication with oil pump.
- Centrifugal mass governor.
- Built-in full flow oil filter.
- Oil breathing blow-by with safety device.
- Automatic extra fuel starting device.
- Self bleeding fuel system.
- Torque regulator.
- Automatic compression release.
- Die-cast aluminium crankcase with integral cast iron cylinder liner.
- Aluminium alloy cylinder head.
- Built-in rigid feet.
- Hydraulic tappets.
- 3 years warranty.

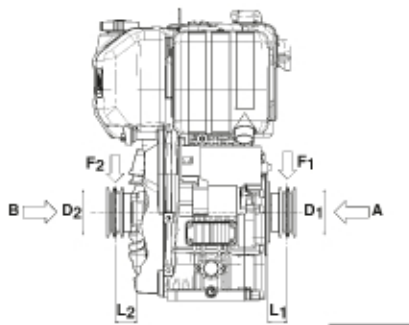


Applications

- Two-wheel tractor
- Agricultural mower
- Agricultural pump
- High pressure cleaner
- Generating set
- Vibrating plate

Specifications

Cylinders	N.	1
Displacement	cm ³	441
Bore	mm	86
Stroke	mm	76
Compression ratio		20,3:1
Rating kW/HP	N (80/1269/CEE) ISO 1585	8,0/10,9
	NB ISO 3046 IFN	7,4/10,1
	NA ISO 3046 ICXN	6,7/9,1
Max. torque	Nm	24,5@2200
Min. idling speed		1050÷1150
Fuel tank capacity	l	5
Oil consumption	kg/h.	0,0048
Oil sump capacity	l	1,5
Min. allowable oil pressure	bar	1+1,5
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 r.p.m.	l/min.	640
Cap. of air required for correct cooling @ 3600 r.p.m.	l/min.	5500
Dry weight	kg	45
Recommended battery	V/Ah	12/44
Minimum pulley diameters for belt drive		



$$D_2 \text{ (mm)} \geq 620 [66 + L_2 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (RPM)}}$$

$$D_1 \text{ (mm)} \geq 650 [53 + L_1 \text{ (mm)}] \frac{N \text{ (kW)}}{n \text{ (RPM)}}$$

Max. intermittent axial load in both directions A-B = 200 kg

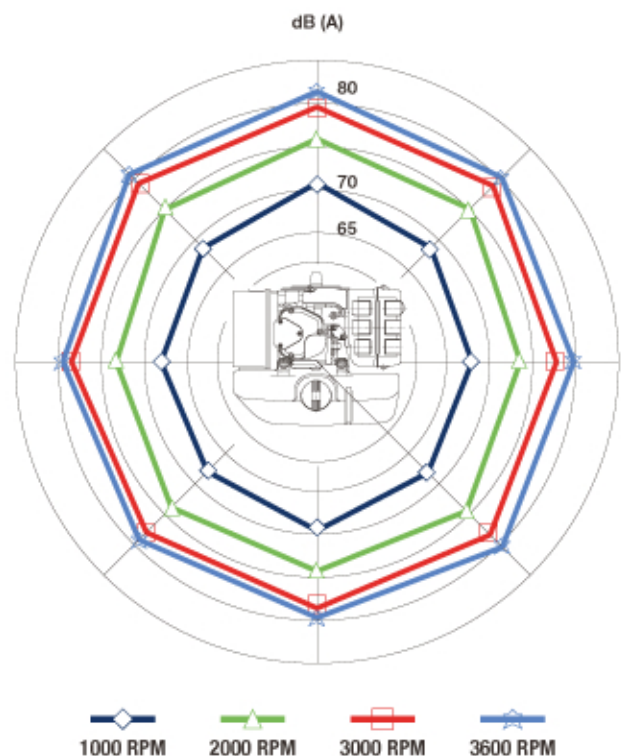
$$F_2 \text{ (N)} \leq \frac{92000}{66 + L_2 \text{ (mm)}}$$

$$F_1 \text{ (N)} \leq \frac{89000}{53 + L_1 \text{ (mm)}}$$

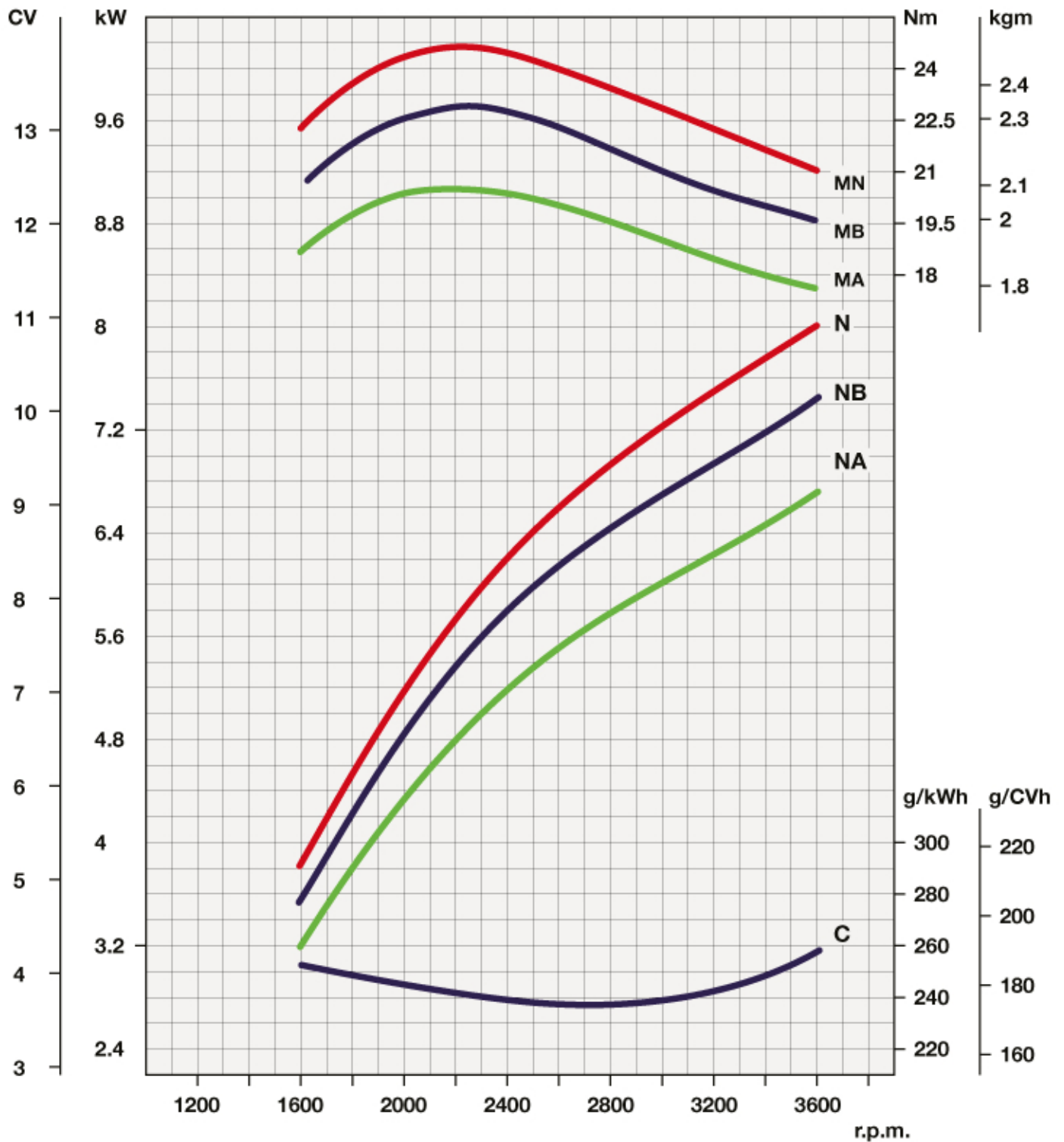
Maximum radial force on pulley for belt drive

Sound pressure level dB (A)

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



Curves KD440 ▲



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

NB Power curve - ISO 3046 - IFN -

NA Power curve - ISO 3046 - ICXN -

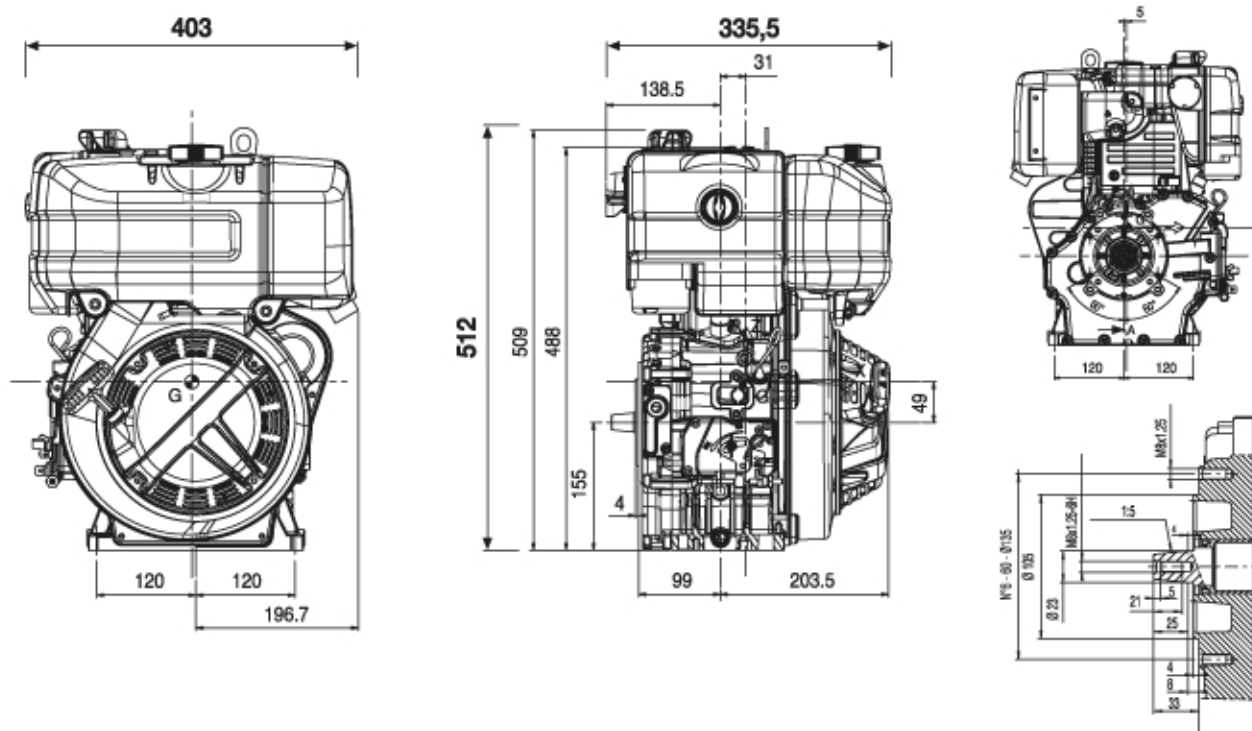
MN Torque curve - (N curve)

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

C Specific fuel consumption - (NB curve)

Power ratings refer to engines equippe 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.

Technical drawings



Standard equipment

- Recoil starting and automatic compression release
- Fuel tank
- Fuel filter
- Dry-air cleaner
- Muffler with guard
- Accelerator and stop manual control
- User maintenance-spare parts booklet

Accessories

- Power take-off flywheel side (engines with electrical starting)
- Power take-offs with flanging and special shaft
- Parallel crankshaft
- Internal dynamic balancer
- Oil-bath air-cleaner
- Electric start 12 V / 24 V
- Keyswitch panel
- Emergency stop through electrovalve
- Accelerator and stop remote control
- Key start panel with shutdown device
- Fuel lift pump
- Oil dipstick on cylinder head
- Oil pressure switch
- Oil temperature switch
- Glow plug on intake manifold
- Recoil with denoising cover
- Grass protection for engine cooling



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