

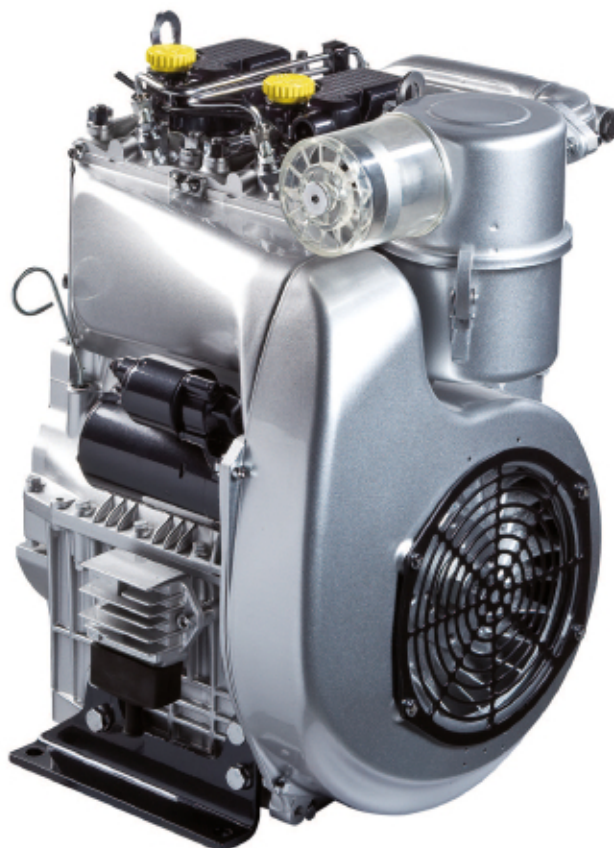
**2 cylinders**  
**954 cm<sup>3</sup>**  
**16,8 kW/23,1 HP**  
**3600 r.p.m.**  
**Nm 55,0@2100**

## 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
- 3 years warranty.



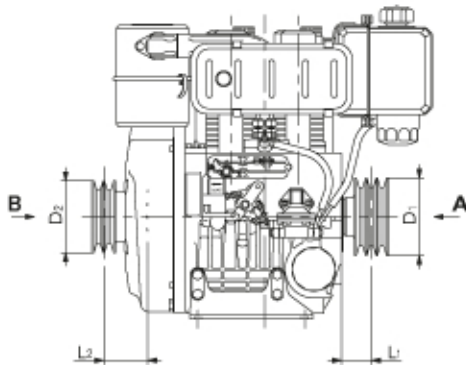
## Applications

- 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 <sup>3</sup>	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

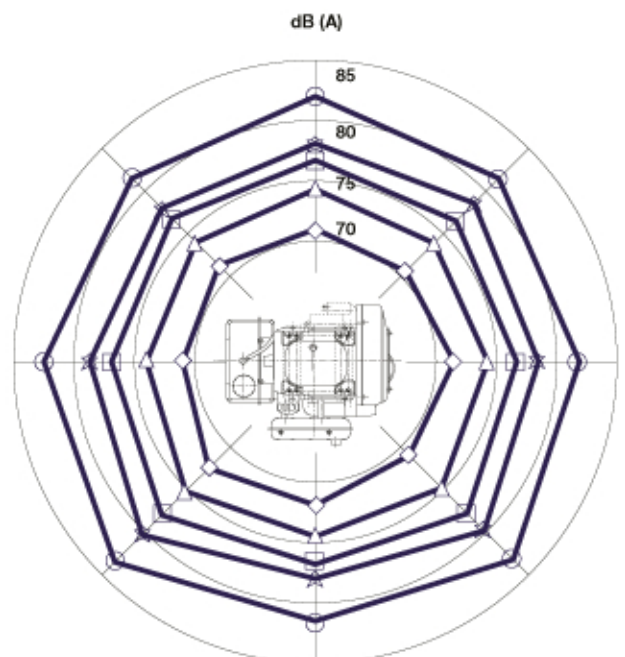
HOMOLOGATION ECE R 24 ▲

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



### Sound pressure level dB (A)

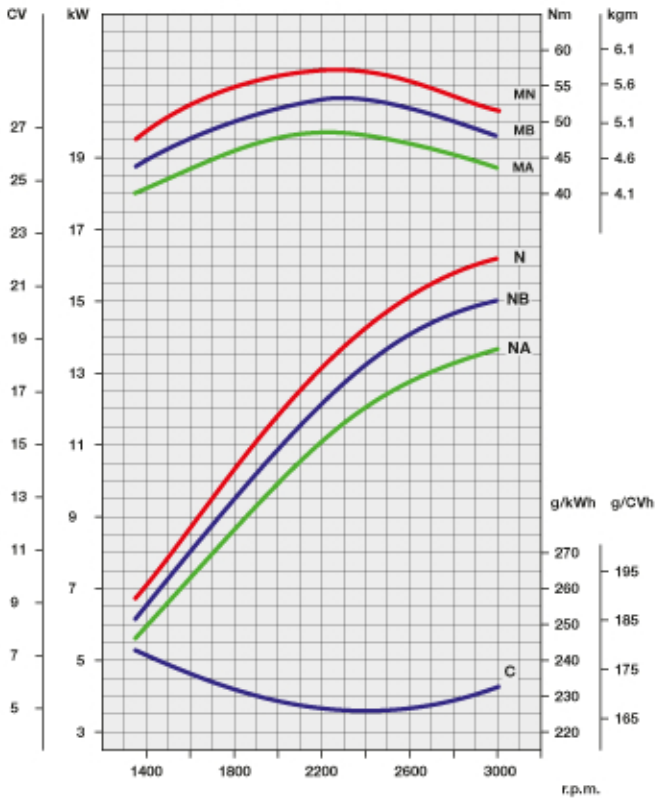
Sound level polar diagram open field - 7 meters microphone - no load running engine.



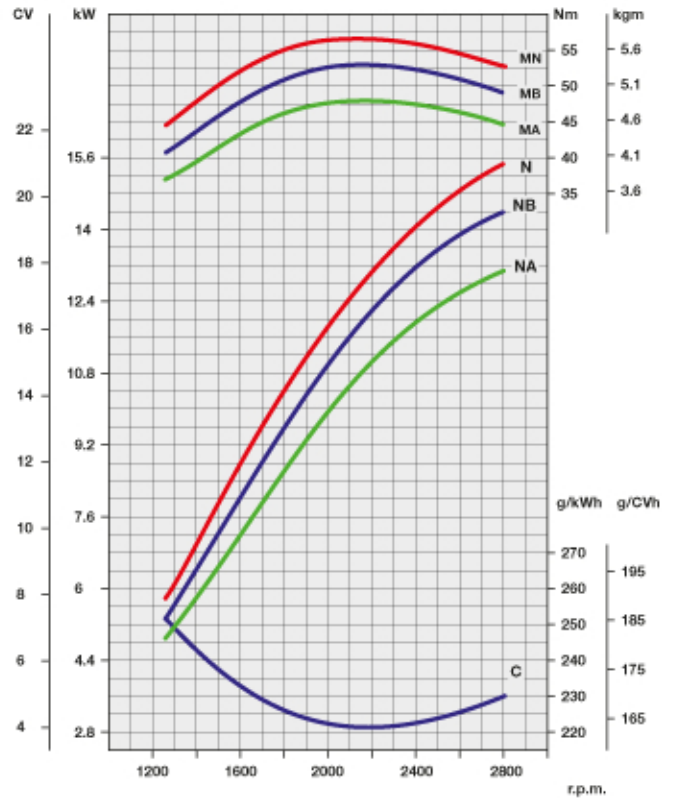
1500 RPM  
  2000 RPM  
  2500 RPM  
  3000 RPM  
  3600 RPM

## Curves

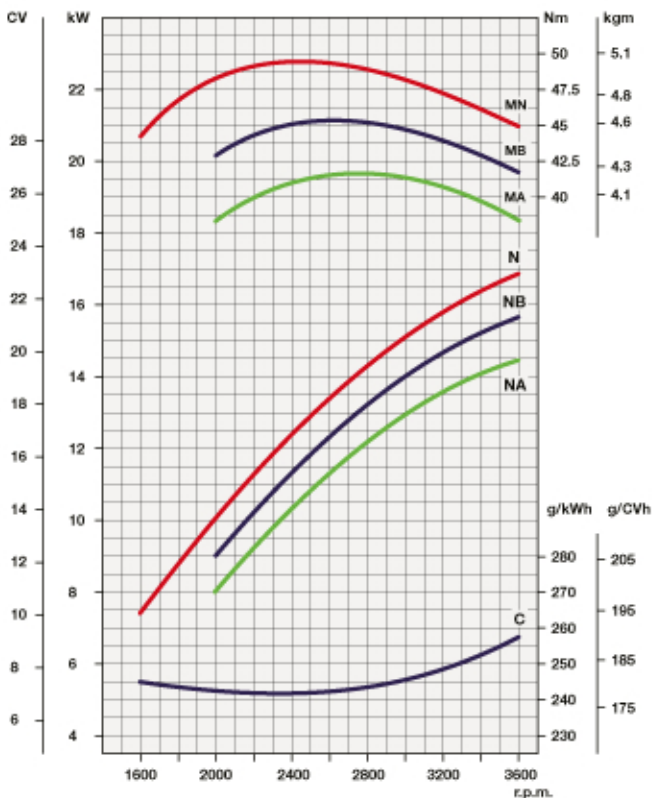
### KD 477-2 B1 @ 3000 r.p.m. ▲



### KD 477-2 B2 @ 2800 r.p.m. ▲



### KD 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)

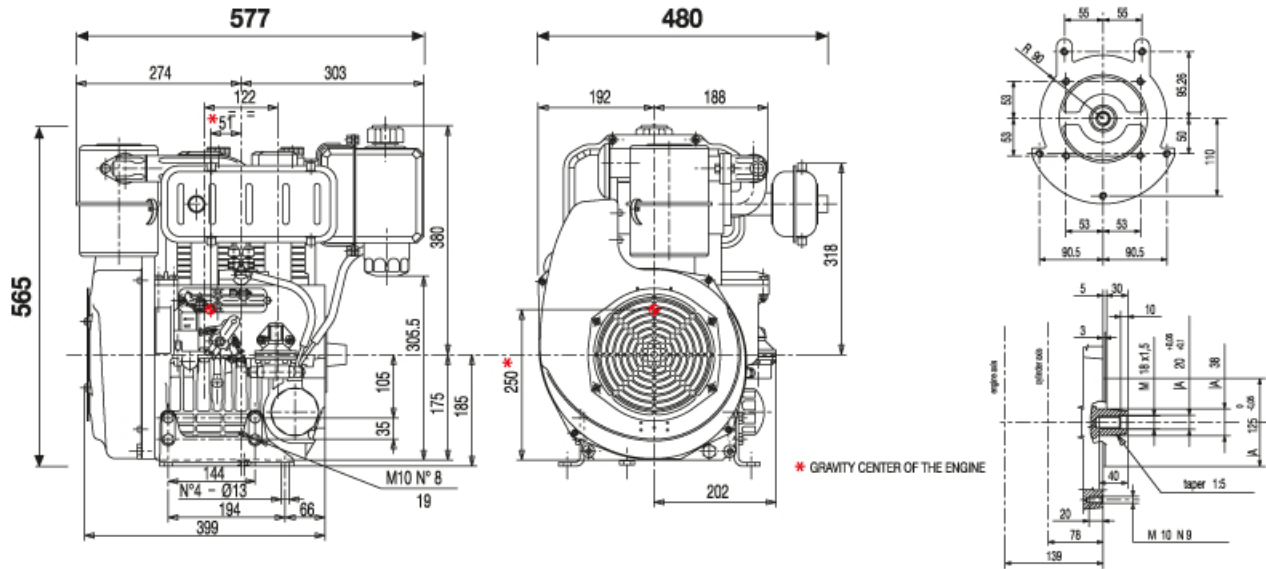
Power ratings refer to engines equiped with air filter, standard muffler, after being run in and in ambient conditions of 20°C and 1 bar. Power levels drop by 1% every 100m altitude and by 2% every 5°C above 20°C.

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

#### Engine power kW

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

### Technical drawings \*



#### 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



LOMBARDINI S.r.l. a Socio unico  
 Cap. Soc. € 44.000.000,00 int. ver. R.E.A. 227083  
 Reg. Imp. RE/CEE Code/P.IVA (IT) 01829970357  
 Via Cav. del Lavoro Adelmo Lombardini, 2  
 42124 Reggio Emilia - Italia  
 Tel. +39.0522.3891 - Fax +39.0522.389503  
 info@lombardini.it [www.lombardini.it](http://www.lombardini.it)



KOHLER RESERVES THE RIGHT TO MAKE MODIFICATIONS WITHOUT PRIOR NOTICE

3558392 - 01-2011

#### KOHLER LOMBARDINI ASIA PACIFIC

26B Keong Saik Road - 089133 Singapore  
 Tel. +65-6225-0556 - Fax +65-6225-0551