- 2 cylinders in line
- 440 cm<sup>3</sup>
- 4.0 kW/5.4 HP @ 3600 rpm
- 8.5 kW/11.5 HP @ 4400 rpm
- Nm. 25@2000 rpm

### **Homologation**

EURO 2 (EURO 3) Quadricycle

### **Construction**

- 4-stroke diesel engine with 2 cylinder in line
- Liquid-cooled (loose radiator with electrical fan optional)
- Tilted position of 40° towards exhaust and inlet manifolds
- Die-casted aluminium engine block with re-borable cast iron integral liners
- Aluminium cylinder head
- "Uni flow" intake and exhaust manifold cab side
- Exhaust manifold complete with thermal protection
- Dry air cleaner on the flywheel side
- Breather return oil steam
- Double balance shaft
- Belt- driven Single overhead camshaft
- Rocker arm with hydraulic tappets
- Direct injection "common rail" system with electronic control
- High pressure pump on cylinder head
- Forced lubrication with vane pump
- Full flow external oil filter
- High capacity denoised oil sump
- Water pump in engine bloc
- Heating cab system provision
- Electrical starting with starter motor and external alternator (40 Amp)
- Pre-heating glow plugs controlled by the ECU



- Complete electrical harness and fuses box
- Single connector cab interface
- Denoised cover

### **CVT** characteristics

- Dry centrifugal clutch on driving pulley
- Engine brake effect with shaft on driving pulley
- Free wheel device

### **Reduction gear / Differential**

- Transmission range: 1 gear forward and 1 reverse
- Two speed ratio available
- Helicoids teeth pinion
- Speed detector for electronic vehicle speedometer

## Main applications

- Mini cars
- A.T.V. (All Terrain Vehicles)

## **Specifications**

Cylinders	N.	2			
Displacement	cm <sup>3</sup>	440			
Bore	mm	68.0			
Stroke	mm	60,6			
Compression ratio		20:1			
Combustion	degrees	360			
Rating kW/HP max	N (80/1269/CEE) ISO 1585	8.5/11.5			
Max torque	Nm	25@2000			
Min.idle speed	rpm	1000			
Water pump delivery	at 5000 rpm l/min	55			
Oil consumption	kg/h	0.004			
Oil sump capacity	l	2+0.1			
Max allowable inclination for short period					
of operation (peak	value) degrees	30° (20°) *			
Air combustion volume	<b>@ 3600 rpm</b> m <sup>3</sup> /h	41			
Air combustion volume	<b>@ 4400 rpm</b> m <sup>3</sup> /h	49			
Dry weight	kg	70			
Recommended batter	y V/Ah	11/44 400 A (EN)			
Starter	kW	1.1			
	·				

<sup>\*</sup> Intake/Exhaust manifold side

**CVT Specifications** 

Continuous variation ratio		0.38 - 2.2
Transmission range		5.8
Clutch connection rate	rpm	1200

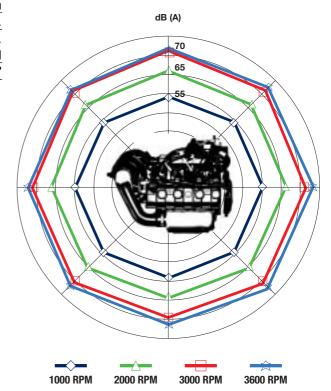
**Reduction gear / Differential Specification** 

Transmission range	1 forward motion -	- 1 reverse motion
Speed ratio (forward-reverse)		12.25:1-10:1
Gearbox oil	l	1
	Туре	ZC75 SYNTH
Speed sensor for electronic spee	dometer	"effect hall"



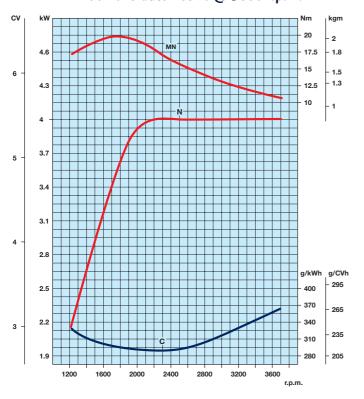
### Sound pressure level dB (A)

Sound level polar diagram open field – 7 meters micro-phone – no loud running engine

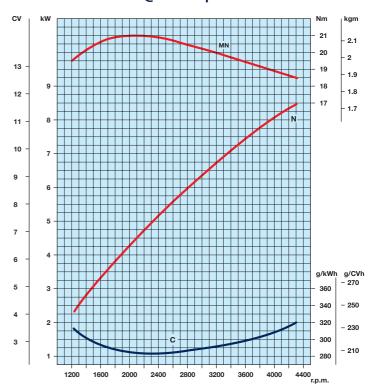


## **Curves**

LDW 442 CRS automotive @ 3600 r.p.m.



#### LDW 442 CRS @ 4400 r.p.m. ■



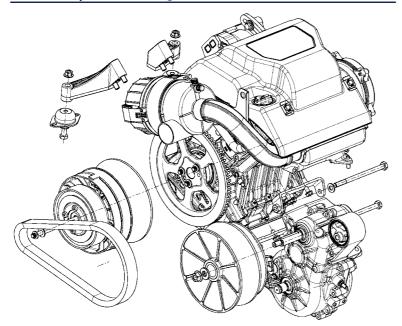
Power curve	80/1269/CFF	- ISO 1585 ·

MN Torque curve - (N curve)

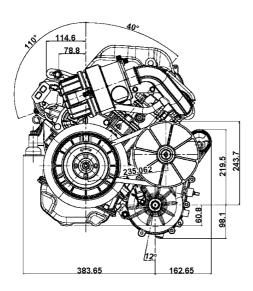
MB (B curve - MA (A curve)

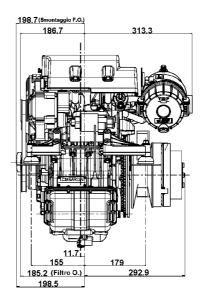
C Specific fuel consumption - (NB curve)

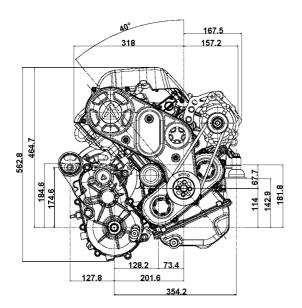
### CT Move Exploded drawing



## Technical drawings \*







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

#### **Standard equipment**

- Accelerator pedal with potentiometer
- Fuses and relays box
- Engine electronic control unit (ECU)
- Fuel filter with water indicator
- Three anti-shock absorber elastic plates (2 forward and 1 rear)
- Electrical fuel feeding pump





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