

Inheriting from the world's leading technology



**Leading technology, Strong power, Good fuel economy and environmental protection, Excellent manufacture**

**■ Diesel Engines for Construction Machinery**

LOVOL 1000 series engine is a special power platform developed based on nearly one hundred years of professional technical experience of Europe and combining present advanced design concept of engine and divided into 1000 series diesel engine for agriculture and construction machinery, 1000 series diesel engine for generator set, 1000 series diesel engine for water pump and 1000 series auxiliary generator for vessel according to purpose. Meeting EPA emission standard of U.S.A. and enjoying high torque output and 30-35% torque reserve factor, being widely used as supporting engine of fork, loader, hydraulic excavator, excavating loader, land leveling machine, well drill, concrete pump, air compressor set, combine harvester, tractor, agricultural machinery, water pump set and generator set.



Performance Parameter				
Item	1004-4	1004-4T	1004D-4TA	1004-4TW
Cylinder number	4	4	4	4
Cylinder arrangement	In line	In line	In line	In line
Induction system	Naturally aspirated	Turbocharged	Turbocharged air-to-air charge cooled	Turbocharged air-to-air charge cooled
Borestroke (mm)	100 x 127	100 x 127	100 x 127	100 x 127
Displacement (L)	3.99	3.99	3.99	3.99
Compression ratio	16.5	17.5	17.5	17.5
Firing order	1,3,4,2	1,3,4,2	1,3,4,2	1,3,4,2
Rated power /speed ( kW/rpm )	58/2200	74/2300	74/2200	81/2300
Maximal torsion/ speed(N.m/rpm)	260/(1400-1600)	336/(1400-1600)	390/(1400-1600)	405/(1400-1600)
Min. fuel consumption (g/kWh)	≤225	≤230	≤220	≤220
Average sound dB(A)	96	96	93	96
Emission	Tier1	Tier2	Tier3	Tier2
Weight (kg)	273	279	300	300
Overall dimensions(mm)LxWxH	711 x 610 x 767	711 x 614 x 767	711 x 614 x 767	711 x 610 x 845

  

Item	1006-6	1006-6T	1006-6TA	1006D-6TA	1006-6TW
Cylinder number	6	6	6	6	6
Cylinder arrangement	In line	In line	In line	In line	In line
Induction system	Naturally aspirated	Turbocharged	Turbocharged air-to-air charge cooled	Turbocharged air-to-air charge cooled	Turbocharged air-to-air charge cooled
Borestroke (mm)	100 x 127	100 x 127	100 x 127	100 x 127	100 x 127
Displacement (L)	5.99	5.99	5.99	5.99	5.99
Compression ratio	16.5	17.5	17.5	17.5	17.5
Firing order	1,5,3,6,2,4	1,5,3,6,2,4	1,5,3,6,2,4	1,5,3,6,2,4	1,5,3,6,2,4
Rated power /speed ( kW/rpm )	88/2400	114/2300	142/2300	115/2300	132/2300
Maximal torsion/ speed(N.m/rpm)	410/(1400-1600)	568/(1400-1600)	740/(1400-1600)	610/1600	640/(1400-1600)
Min. fuel consumption (g/kWh)	≤220	≤215	≤215	≤215	≤215
Average sound dB(A)	98.7	98.7	98.7	93	95
Emission	Tier1	Tier1	Tier2	Tier3	Tier1
Weight (kg)	410	419	430	430	419
Overall dimensions(mm)LxWxH	945 x 610 x 780	945 x 677 x 780	945 x 677 x 780	945 x 677 x 780	945 x 677 x 780

**Product Superiority**

**LEADING TECHNOLOGY—**  
PERFECTLY EXHIBITS 100 YEARS HISTORICAL EXPERIENCES ANDADVANCED DESIGN CONCEPT

- Optimized structure strengthening design: power per liter and torque per liter are superior to other similar engines.
- Purchased parts and components are all from high level domestic suppliers.
- The water pump is gear-driven, which has a high efficiency and reliability, so engine overheat caused by failure of belt transmission is avoided. The dual-thermostat design further enhances the reliability of the cooling system.
- Main maintenance parts as oil filters, fuel filters and fuel injection pump, etc. are all mounted on the left side of the engine while inlet and outlet manifolds on the right side, making the maintenance more convenient.
- Separate rear oil seal from flywheel housing results in convenient maintenance.
- Good cold starting performance ensures the engine is simple to use.
- The adoption of turbocharged and intercooling technology guarantees enough air intake

**STRONG POWER—**  
BEST POWER WITH MINIMUM CUBAGE

Diversified performance curves: 1000 series engines with power output ranging from 60HP to 230HP, such as 1004-4, 1004-4T, 1004-4TW, 1006-6, 1006-6T, 1006-6TW, 1006-6TA, these engine model are specially developed for non-road application and have diversified performance curves, which can be equipped with all kinds of non-road machinery and power is quite strong.

**GOOD FUEL ECONOMY AND ENVIRONMENTAL PROTECTION—**  
THE FUEL CONSUMPTION IS OVER 10% LESS THAN DOMESTIC SIMILAR PRODUCTS.

- Ultra low oil consumption: the oil consumption rate is only 2 thousandth of the fuel consumption rate.
- Low noises: The patented combustion system, the timing case cover made of special 2. sound-proof composite, the cylinder head cover and the oil sump made of aluminum alloy and all grinded gears help to reduce noises. 3. High emission standard: we can supply whole series engines which can meet National III/ emission standard.

**EXCELLENT MANUFACTURE—**  
GOOD STRUCTURE AND RELIABLE QUALITY CANBE ASSURED.

- Modern production lines: more than 80% of the processing equipments are imported from Europe and America, these guarantee the process and assembly of precise parts.
- Advanced sealing technology.
- All bolts are self-locking, eliminating the need of washers and ensuring firm joints.
- Dry cylinder liner honed by silicon carbide, top ring grooves with embedded heat-resistant alloy ring is covered with durable plasma molybdenum layer, all these special treatments enhance the wear resistance