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LOVOL TRACTORS (25 TO 50 HP)

The most equipped and the most robust on the market!
Versatility, efficiency, comfort, the LOVOL tractor has it all to be your best helper for work on small and mid-sized farms.

LOVOL AGRICULTURE

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LOVOL: A WORLD LEADER

Founded in 1998, Foton Lovol Heavy industry LTD has developed in a spectacular way to become a world leader in agricultural equipment, construction machinery, vehicles, financial services and other businesses.

The company now has a total assent of 2.5 billion dollars with 15 000 employees in and beyond China. In 2015, the sales revenue reached 5 billiondollars.

It is today one of the main producers of agricultural machinery from China with 100,000 tractors, 50,000 combine harvesters and 120,000 engines.

RESEARCH AND DEVELOPMENT TEAMS AROUND THE WORLD

The research and development sector occupies a special place at LOVOL. Four teams located in Italy, Japan and China have the task of constantly developing new technology and offering its customers increasingly efficient tractors.

FACTORIES ESTABLISHED IN EUROPE AND IN CHINA

LOVOL has two large production plants for agricultural equipment, one in Italy and the other in China, as well as 12 industrial parks spread across Europe and Asia.

AN INTERNATIONAL DISTRIBUTION NETWORK

LOVOL counts on more than 300 distributors which includes 120 countries forming a global operational network integrating sales, after-sales service, parts supplies, customer training and information communications.

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COMPACT AND VERSATILE TRACTORS

LOVOL multi-functional tractors, featuring a power range of 25-50 horsepower (HP) and a high-torque four-cylinder engine, are generally used for small and mid-sized farms.

Highly efficient, they carry out a wide range of jobs such as mowing, gardening, lawn sowing, fence building, livestock farm work, etc.

The tractors are also equipped with a stronger chassis and synchronized gearbox, ensuring smoother operation for long-lasting durability and reliability.

They can be equipped with a front loader, a backhoe, a trailer, a mower, a spraying machine and other equipment.

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LUXURIOUS AND COMFORTABLE CABIN

Known for their durability, LOVOL tractors are the best equipped on the market. The cabin includes air conditioning, a sunroof window, outstanding cab environment, wide handling space, an adjustable luxury seat, an adjustable steering wheel, a brand new hood assembly, a streamlined LED headlight and a rear light. The entire cabin has been designed with ergonomic, style, safety and comfort in mind.

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Designed as an optimized structure and perfectly integrated into the floor and the frame, the cabin features a robust construction, increased security and outstanding environment.

Wide in the front, narrow in the rear, the hood provides an unrestricted view forward.

The LOVOL tractor has an optimized ergonomic design with right-side full access, a manual suspended accelerator, a clutch pedal and a gearshift arm right below the steering wheel that can be adjusted back and forth.

Air inlet and outlet pipes are appropriately concealed behind one of the cab's B-pillar, providing a better viewing angle. The larger diesel tank allows for longer operating time.

The daytime LED lights, as well as the convex headlight lens with separate high and low beams, come with a high-quality and attractive chrome-plated decorative lamp frame. The tractor rear lights include wide viewing angle, U-shaped LED lights and LED brake lights, perfectly matching tractor design.

A standard tractor is equipped with a waterproof connector, reliable electrical system and fuses, and heat-resisting in-line engine, making it safer and durable.

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Standard four-cylinder engine

High-torque engine provides you with reliability and strong power.

When you choose a LOVOL tractor, you will enjoy all the benefits of the Lovol European design center based in Bologna Italy.
The 4-cylinder in-line diesel engine has a power range of 35-50hp. Both the low fuel consumption and powerful torque output will make your work more effective while saving energy.

High torque reserve
The engine's torque reserve can reach up to 25%, providing enough traction torque, which help you overcome the tillage resistance, without the need to often shift gears. An unmatched work efficiency.

Sophisticated technology and process
The two engines are designed using a sophisticated technology, a proven manufacturing process, and outstanding accessories. Stable and reliable, these engines are engineered to make maintenance and repair easy, letting you work worry free.

An improved cylinder
The newly improved cylinder is connected to the gearbox. Bearing all the weight of the tractor, the high-strength, high-stiffness cylinder will help you handle challenging operations or hard soil conditions. During heavy-duty field operations, the high-strength cylinder will minimize the burden on the chassis, while helping you save in maintenance costs.

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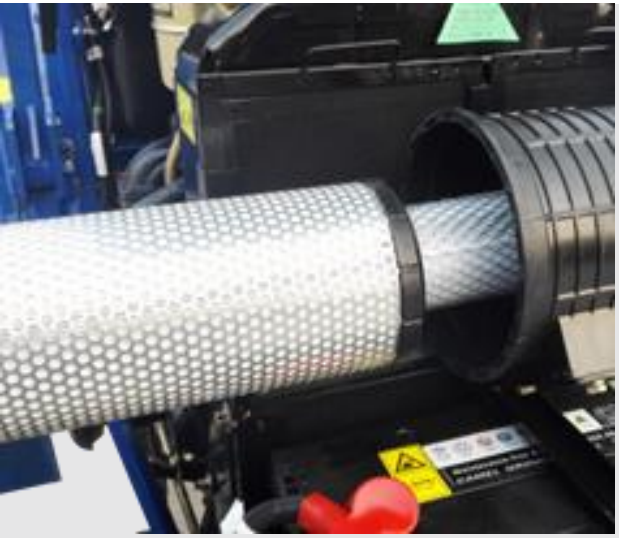
More efficient two-stage dry air filter, and maintenance-free storage battery: this means engine improved efficiency and lower maintenance costs



The LOVOL tractor is equipped with a highly-efficient two-stage dry air filter, which is and easy to maintain. As a result, the tractor reliability and fuel efficiency are improved, and maintenance costs are lower. The engine starts smoothly, making the tractor work better and safer.

Direct injection technology is used in the cylinder to ensure full combustion, making sure that the engine runs longer with more fuel efficiency.

Outfitted with preheating start-up device, the engine can successfully start at temperatures as low as -5°C in winter. It is also possible to install an engine block heater to operate in freezing conditions.

In the two-stage filter, the main filter element is located outside to ensure a filtration efficiency of 99.7%. The safety filter element is located inside and acts as a safety filter, providing the same filtration efficiency, and preventing the dust from entering accidentally the engine during the main filter element replacement. In addition, the filter's radial sealing design can prevent dust penetration through the gap between structures under pressure.

Being maintenance-free, the storage battery does not require any electrolyte, ensuring high reliability and long service life, and significant maintenance cost savings.

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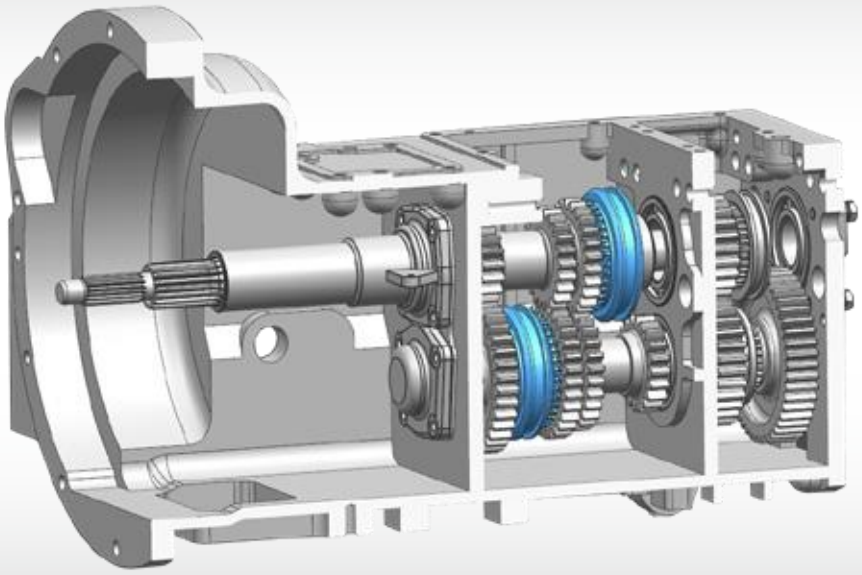
Smooth and convenient gearbox

12+12 gearbox consists of 3 gear levers. The main gear lever A controls 4 gears (1, 2, 3 and 4). The auxiliary gear lever B controls 2 forward speed zones (1, 2 and 3), and the shuttle shift gear lever C controls the forward and reverse gears.

Proper working speed selection allows maximum productivity and cost-efficient operation, and also helps extend the tractor service life. Tractors shall not be allowed to constantly operate at overload; the engine should always have some power reserve.

Field working speed of tractors should make the engine run at less than 80% of its rated load.



Synchronized gearbox

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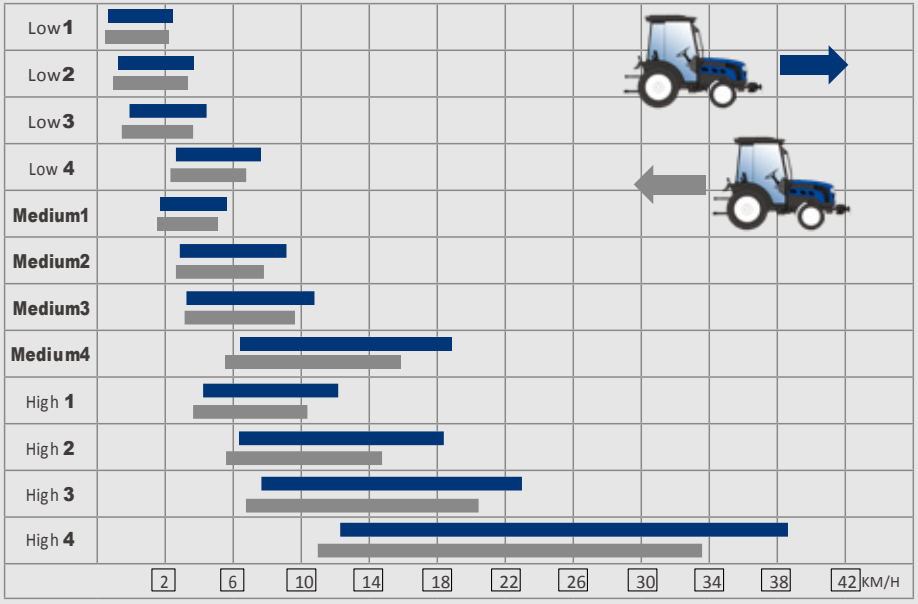
Type 12+12



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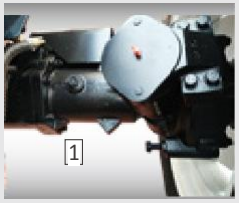
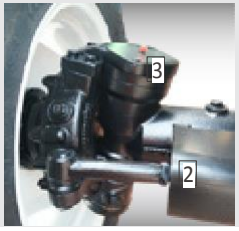
Front axle provides good handling performance and high reliability

The LOVOL tractor front drive is divided into two types: front drive axle and front axle. The front drive axle has a four-wheel drive structure, whereas the front axle is in the mechanism that the two rear wheels drive the front wheel. The front drive axle applies to all TB series products and has the best design. The housing has an integrated shape to increase its load-carrying capacity, and to make dragging and traction easier. It can also be fit to front machines and tools such as the front loader. The double-bevel gear drive structure provides high water-tightness, and performs well in paddy fields, meeting the daily operation requirements, and also minimizing maintenance costs.
The intermediate, double action oil cylinder offers more flexible handling with a larger ground clearance. With oil inlet and outlet functions, the middle, double action oil cylinder shortens the lever between the cylinders, making the structure simpler. One cylinder controls the levers operation on both sides and the hydraulic steering ensure a more flexible handling. With larger ground clearance and better accessibility, the user can drive his machine hassle-free in complex terrains.

1- Step-less adjustable limit bolt
Step-less adjustment of steering angle is possible via the limit bolt.
The steering angle is limited, which not only ensures the steering safety, but also provides more adjustment options for users on the steering radius. It also can handle the local agronomic conditions, making sure that the machine works within the proper steering zone.



2- Regulating lever
Actuation of regulating lever is more accurate.
The regulating lever can be shorter, making the handling more accurate and helping obtain consistent, reliable and strong steering performance in case of uneven terrain. The toe-in has already been adjusted in place before delivery, so there is no need for the customer to calibrate again. This effectively prevents early abrasion of the tires due to improper toe-in regulation, and maximizes the tire service life.



3- Outstanding tightness
The tractor design is optimized, and high-quality seals are provided to achieve high waterproofness. It can easily work even in paddy fields, significantly lowering quality problems and maintenance costs.

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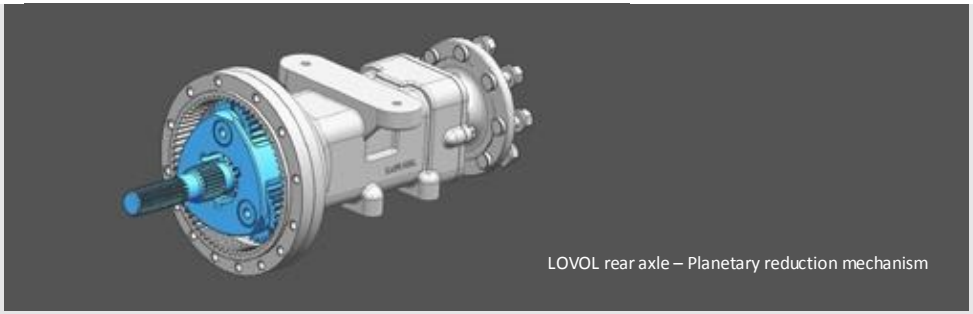
Rear axle highly reliable and with great driving force



LOVOL rear axle – Planetary reduction mechanism

A planetary reduction mechanism, a differential mechanism and wet brake are incorporated into the rear drive axle on all TB series tractors. This axle has increased durability, stability and reliability, and is almost maintenance free under normal conditions. It operates comfortably, safely and reliably.

The built-in final planetary reduction mechanism in the rear axle casing distributes the rear axle's pressure among three gears. Compared with the conventional externally meshing cylindrical gear within the same horsepower range, the planetary reduction mechanism has greatly reduced the stress on single gear and axle, as well as the possibility of gear damage.

The brake durability, stability and reliability are improved, making it nearly maintenance free under normal conditions. In addition, operation comfort and safety are significantly improved. As a result, the customer benefits from a rear axle with longer life and lower maintenance costs. In other words, the customer will enjoy a longer and more efficient operation time.

The differential lock pedal is located on the floor, on the cab right-hand side, so that the driver can hitch the differential lock when releasing the clutch. If the driving forces on both sides of the rear axle are even, the differential lock will automatically be released. In case of skidding, the differential lock ensures that the driving force acts evenly on tires on both sides of the rear axle, so the traction force is maximized and the driver can move hassle-free in the slimy ground.

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Field operations

TB series tractor is equipped with a dual-speed power output shaft.

The power output shaft can be operated using the following steps: turn the control handle to neutral position, remove the safety cover and power output shaft casing, and then connect the operating machinery to the power output shaft.

Step on the clutch pedal to the greatest extent to disconnect the power output clutch, and turn the control handle to the required speed gear. Slightly release the clutch pedal to make the operating machinery run, and throttle down and check the operating conditions before throttling up for normal work.

The driver can choose the optimum PTO speed according to the actual ground conditions; this will improve the working efficiency and reduce the fuel consumption. Both speeds are achieved at the engine rated speed of 2,400 RPM. Low speed is suitable to heavy PTO operations such as rotary tillage, especially when the soil is compact. You can switch to the high PTO speed when the soil is soft in such light PTO operations as secondary rotary tillage or mowing, to maximize the working efficiency and complete the operations faster. As the engine speed is better suited to the working load, fuel efficiency can be maximized, thus saving more costs.

The LOVOL products provide waterproof electrical system configuration for rainy and wet areas. The first-rate water-tightness electrical circuits and connectors ensure a long service life, making you worry-free.

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Lifting and front loading operation

The mutually supported front loader is designed to perfectly fit the tractor structure and the engine power. During tractor operation, the front loader will not interfere with the tractor hood, tire and other components. The equipment is mounted as close as possible to the tractor's longitudinal center so that the weight of front loader and materials is evenly distributed to the front and rear axles. As a result, the tractor's bearing capacity is improved.

High-performance hydraulic control valve

The high quality installed high-performance hydraulic control valve provides a stable performance and high reliability, leading to lower maintenance costs. You can choose the third loop to provide hydraulic control for the multi- functional equipment.

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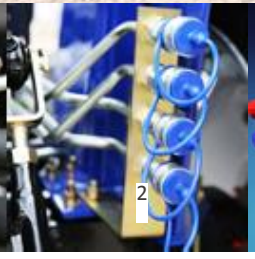
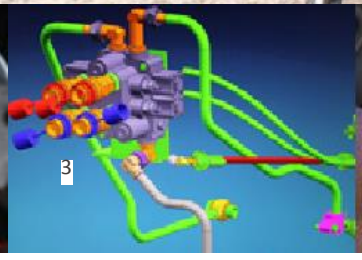
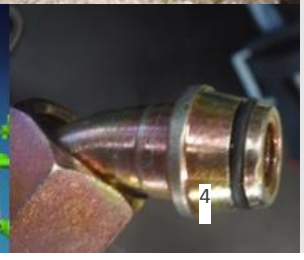
Backhoe Operation







LOVOL backhoe (HWO3 for the TE model and HW05 for the TB model) was designed to work well with LOVOL tractors. With its quick change joint, one person can install or remove it within five minutes. Various hydraulic output options are available: ① Double-loop hydraulic output + single loop hydraulic output. ② Single-loop hydraulic output (standard).

Users can choose the option that best meets their needs. Single-loop hydraulic output is used in transport operation for convenient disassembly on trailer. The double-loop hydraulic output is convenient for attaching various hydraulic machines and tools to complete operations. Filters provided for hydraulic fluid ensure free flowing of fluid into gear pump and cleanliness of hydraulic fluid in valves and cylinder. Also, a quick-change joint structure is fitted to both single and double-loop hydraulic output, featuring easy attachment of various hydraulic machines. The result? Easy disassembly, reliable sealing and zero leakage.

1 Filters for hydraulic fluid

2 Quick-change joint for double-loop hydraulic output; quick-change joint of single loop circuit hydraulic output.

3 Structure improvement of hydraulic pipe and joint.

4 24 degree cone sealing ring at sealing face.

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TE series tractors
Three-cylinder engine

LOVOL TE series tractors are equipped with a standard 3-cylinder diesel engine (25hp). The engine design and adjustment provide a continuous power and torque reserve to keep running when power demand increases; the engine has a rated speed of just 2350 RPM and an insulated muffler minimizing engine noise.

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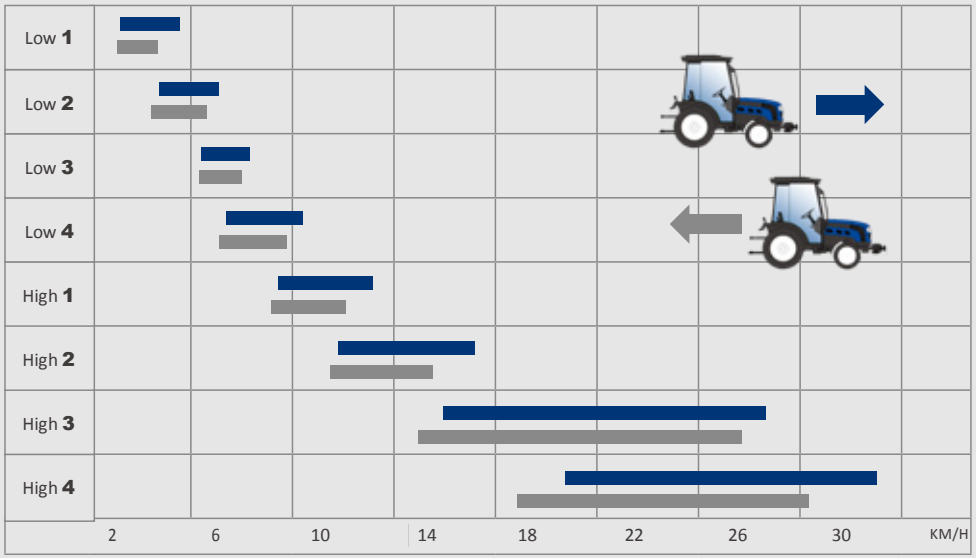
8+8 Synchro-shuttle Type



The synchro-shuttle transmission features a reliable, synchronized gearbox with 8 forward speeds and 8 reverse speeds. If you do a great deal of loading, the synchro-shuttle will be your best option. Being located on the left-hand side of the steering wheel, the shuttle lever makes it easier to move forward and in reverse. The synchronized shuttle gear enables you to shift quickly without stopping the tractor, saving you time.

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Product parameters and specifications	Unit	TE254	TE354	TB504
Engine		KM385	KM422LBT	A495
Rated Engine Power, ISO TR14396-ECE R120	hp/kW	25/18. 4	35/25.7	50 / 36.8
Type		3-cylinder, diesel	4-cylinder, diesel	
Rated Engine Speed	rpm	2350	2350	2400
Max. Torque, ISO TR14396	hp/Nm	≥88	124@[1550-1750]	">215/1600~1800"
Raded PTO Power	hp/kW	16	30	42/31kw
Displacement	ltr	1.65	2.16	3200
Fuel Tank Capacity	ltr	29	32	60
Transmission				
Dry Dual Clutch (Ceramic disk)	in.	8	8	10
8F+2R		○	○	
8F+8R		●	○	
8F+4F Collar shift			○	o
8F+8R Synchro/Shuttle Shift		○	●	o
12F + 12R Collar Shift/Shuttle Shift			○	o
12F + 12R Synchro/Shuttle Shift			○	●
16F + 4R Sliding Gear, Creeper Shift		○	○	
16F + 8F Collar/Creeper Shift			○	o
Speed Range		8F+2R :Forward 1.72-26.02/Reverse 2.25-10.39 8F+8R: Forward 1.71-25.76 / Reverse 1.51-24.00 16F+4R: Forward 0.64-26.02 /Reverse 2.25-10.39		
Differential Lock		●	●	o
Power Take-Off 540/1000 rpm		●	●	o
Power Take-Off 540/760 rpm			○	●
Brake				
Type		Dry disc, mechanical	Wet disc, mechanical	
Parking Brake		Mechanical, independent of main brakes, hand lever operated		
Air Trailer Brake		○	○	o
Drivetrain				
2WD/4WD selectable		●	●	●
2WD		○	○	0

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Product parameters and specifications		Unit	TE254	TE354	T504
Front Axle					
Turning Radius without brake		m	3.5±0.3	4.3±0.3	
Turning Radius with one side brake		m	3.2±0.3	3.8±0.3	
Rear axle/lockable axle (differential lock)			●	●	●
Adjustable axle, rare wheel spacing					
Hydraulic Power Lift					
Type			Position control	Force control, position control, separated force and position control	
Cat. I Three Point Hitch			●	●	o
Hydraulic Flow		l/min	16	35	
Lift Capacity at 610mm behind Hitch Point		kg	580	700	1020
No. of Multi-way Valves					
Cab					
ROPS			●	●	o
Full-View Cab			*Flat floor	○	●
Air conditioning			*	n/a	●
SKD CAB			○	n/a	n/a
Tires and Weights					
Front tires	Standard		6.0-16		8.3-20
	Optional		6.5-16/26*7.5-12turf tire/28*9-15 construction tire/260*70R16radial tire	6.5-16/26*7.5-12turf tire/28*9-15 construction tire/260*70R16radial tire	
Rear tires	Standard		9.5-24		14.9-28
	Optional		11.2-24/11.2-20turf tire/15-19.5 construction tire/280*85R24radial t	11.2-24/11.2-20turf tire/15-19.5 construction tire/280*85R24radial	14.9-24
Structure Weight (ROPS)*		kg	1100	1590	2190
Structure Weight (Cab)*		kg	1280	1730	2370
Tractor Dimensions					
Length		mm	3225	3500	4030
Width		mm	1475	1555	1650
Height		mm	1900	1995	2520
Wheelbase		mm	1639	1806	2040
Ground Clearance		mm	270	320	310

Note: • Standard ○ Optional * Tractor Dry Mass

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LOVOL

The most equipped and robust tractors.

Specifications, designs and prices are subject to change without prior notice.
Machines shown in above illustrations are not always standard models.
Some machines may include optional parts.
The above parameters are subject to change without notice.

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