



MST 44

the right choice

SANKO MAKİNA SANAYİ VE TİCARET A.Ş.
www.sankomakina.com.tr
e-mail: info@sankomakina.com.tr

HEAD OFFICE
Yakacık, Hürriyet Mah. E5 Yan Yol Üzeri No: 57 Kartal İstanbul TURKEY
Tel: +90 216 453 04 00 pbx Fax: +90 216 453 04 01

FACTORY
4. Organize Sanayi Bölgesi Başpınar Gaziantep TURKEY
Tel: +90 342 357 00 33 Fax: +90 342 357 00 46-32

Specifications in this catalogue are subject to change without prior notice for quality enhancement.



MST
BACKHOE LOADER



MST
BACKHOE LOADER

New : Modern design, convenience in usage and comfort
Strong : World-wide approved components and high quality material.

Cost Efficient : Low operation and maintenance costs, and low fuel consumption.



M544

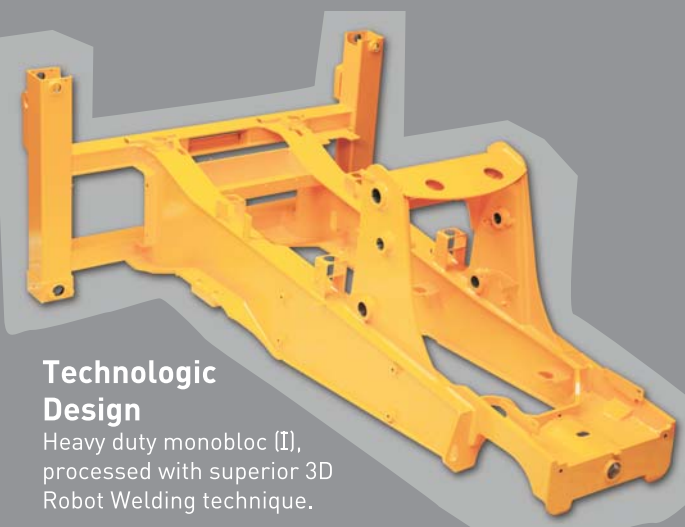
INNOVATIONS...

High technology Backhoe Loader production in world standards by using all new machine tools.



Welding Technology

High Technology 3D robot welding process.



Technologic Design

Heavy duty monobloc (I), processed with superior 3D Robot Welding technique.



Paint Shop

Fully closed painting line where all parts including chassis are painted and protected from external influences.



Venturi Exhaust

14,5 liters Muffler. Reinforced flexible exhaust, independent of muffler, chassis mounted venturi system outlet pipe. Ejection of engine heat by the new venturi system provides problem-free operation even in temperatures up to 60 degrees.



Electrical System

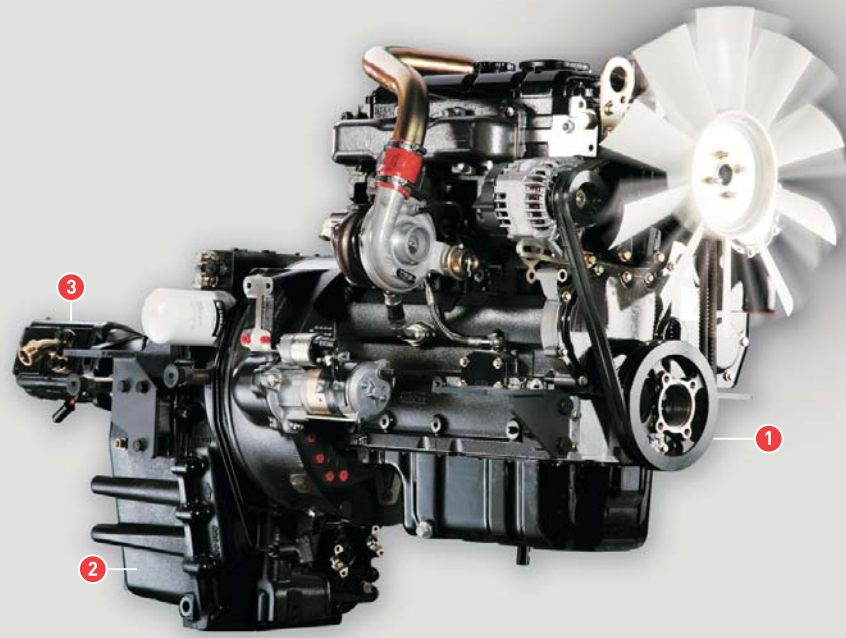
Car type plugged water and dust proof wiring system in international quality.



M544

POWER AND PERFORMANCE...

M544's performance is efficiency-oriented. High quality supported components provide a long life engine and longer interval for periodic service.



1 Engine

Industrial type engine produces 413 Nm of torque in 1350 rpm. High torque value reached in low rpm, provides a fuel economy up to 10% in comparison with its peers. Easy-find spare parts and low maintenance costs render the engine superior to its competitors.

2 Transmission

Auto Powershift low speed Gearbox. Utilizes ECU system that electronically control forward/reverse drive and speed selection and protects the gearbox from all possible damages such as gear change at improper speeds and steering modes.

Cycle Ratio:

2.64/1 ratio torque converter increases working capacity of the machine

3 Pump

Higher pump efficiency has been provided by means of the transmission and coupled pump. Fuel consumption has been reduced by using less transmission components. Main valve controlling the steering is integrated on the pump.

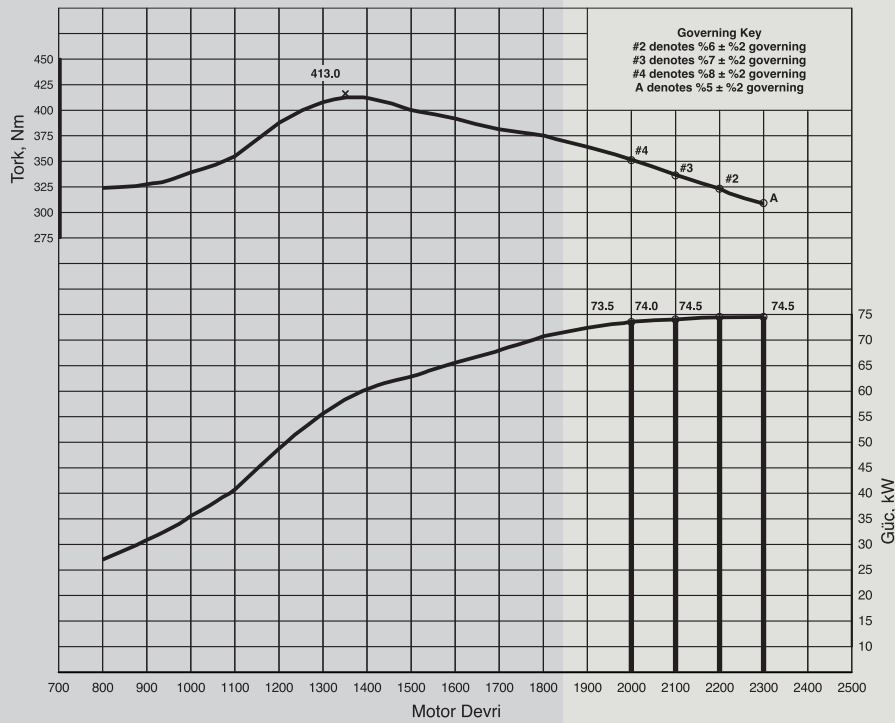


Powerful Axles

Heavy duty type epicycle rear axle with limited slip differential (LSD) causes traction force increase by transferring the present drive torque with a higher ratio.

- Front axle with maximum traction-torque ratio provides superior traction force under all working conditions.
- Powertrack rode steering piston and front axle.
- Front axle has a 16°C oscillation capability to secure and effective steering control even under most adverse terrain conditions

Wet type brake system in the rear axles ensure the machine to stop securely, and convenience in usage. Since there are no shaft joints, non-vibrating operation and direct power transmission.



MS44

COMFORT...

Cab processing ROPS and FOBS international safety regulation certificate, offers excellent vision by means of its wide windows. And tiniest detailed control panel has been improved for the operator.

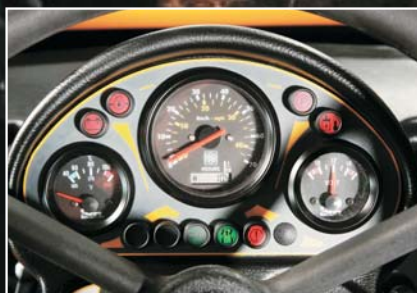
A comfortable working environment in the cabin in all seasons is secured thanks to the high tech installation material laid under the floor and the cab ceiling which provides the sound and heat insulation.



Steering wheel adjustable in all directions.



Ergonomic indication panel.



Multifunctional front panel.



- Cab has two doors, lockable both either from inside or outside.
- Side and rear windows are so designed that they can be opened fully.
- Wide rear-view mirrors, interior lighting, variable-speed wipers for the wind shield and rear window, wind shield water spraying system, horn and back-up warning siren, rotating beacon on top.
- Travelling and working lights.
- Two-stage heating and ventilation system.
- Engine rpm gauge, machine operating hours, engine coolant temperature and fuel level can be monitored on the control panel on right side.
- Audio and visual warning systems exist on the control panel for any change outside the acceptable levels of, engine coolant temperature, engine oil pressure, engine oil temperature, differential oil pressure and air filter.
- Anti-mist resistant heater for the rear window.
- New style steering column with tilting and telescopic adjustment capability for maximum steering comfort.
- Operator's seat that can swivel 360°, with weight adjustment, with forward and backwards and height adjustability besides various other capabilities, provides the operator with the most comfortable working position to offer utmost productivity over extended periods.

MS44 BACKHOE...

Boom's sloppy shape increases the machine's breakout force. The new design of the joints and modern welding machines ensures high endurance to the boom and the arm.

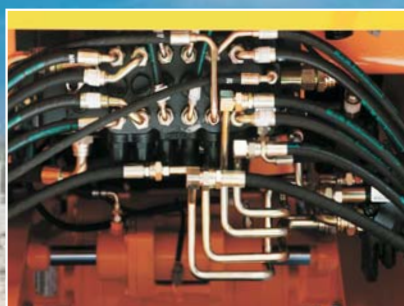


More stable and more swift swinging is provided by well equipped King post.



Rear Stabilizer Stands

Rear stabilizer stands produced from lengthened box profile gives much more endurance. Backhoe lock that can be controlled from the cabin increases backhoe's security.



High quality pump and valve system ensure the machine to make the multiple movements easily.



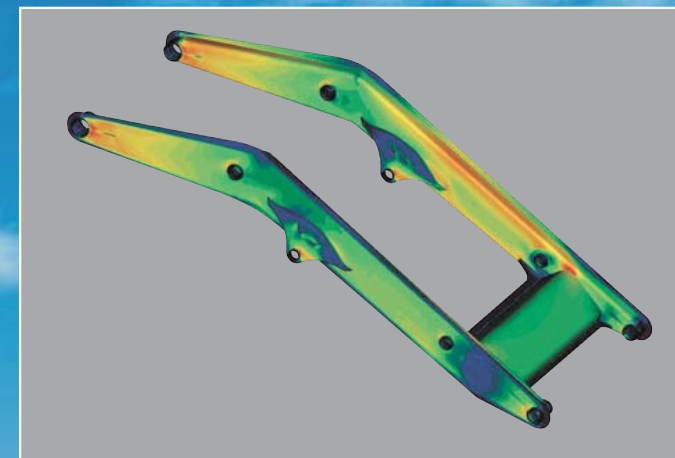
Rear Sliding Backhoe

Sliding backhoe ensures easy operation and convenience in usage.

Special bended boom with high endurance ensures superior breakout force thanks to its reinforced design in joints. 2 level tandem pumps ensure the operator do the multiple movements easily. Extra sturdiness has been ensured by the pins and bushes, hardened to the core.

MS44 ...LOADER

During loading unexpected spillage of the material is prevented by means of well optimized bucket collecting angle.



High performance of plunging into material and breakout force is provided by the modern kinematics. Double chrome plated pistons are used for faster and high frequent working. Hoses and pipes are hidden.

Front Bucket

Special shape of the bucket ensures a strong breakout force. Automatic leveling ensures convenience in usage for the operator.



M544

ATTACHMENTS...

Easy replacement attachment options provide efficient usage in different operation areas.



Breaker Pipping



Telescopic Arm



Polip



Special Bucket



A/C



Forklift Attachment



Hydraulic Auger



Ripper



Hydraulic Angled Front Leveling



Timbergrab



SRS

M544

...INTERNATIONAL TECHNICAL SUPPORTS

Fully equipped and experienced widespread service network in repair and maintenance service shops all around the world.



Strong after sales service network and a wide range of spare parts stock.



Malfunctions in the pump, valve and hydraulic system have been prevented by means of the modern designed oil and diesel tanks and the filtration system in the hydraulic tank. Locking of the tanks provides safety.



Practical and short maintenance period.



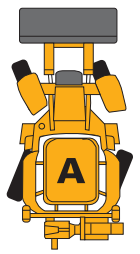
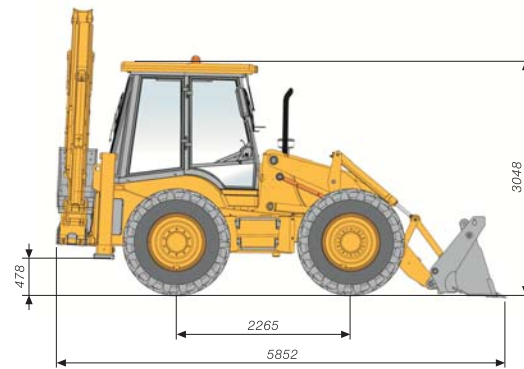
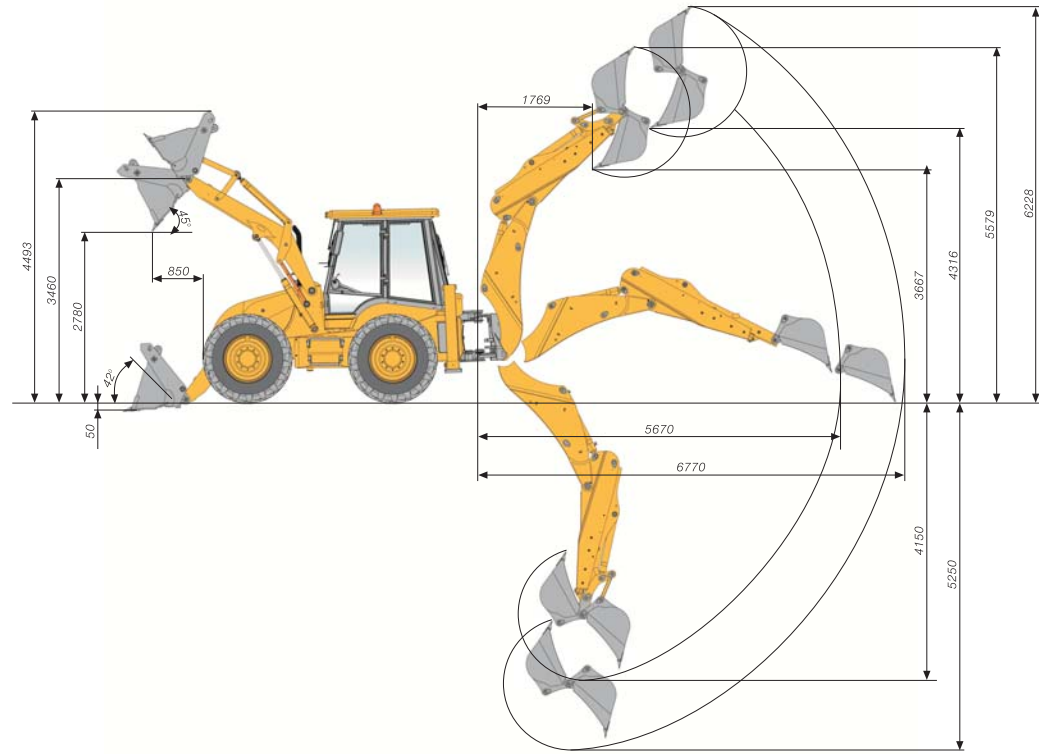
Monobloc fiber hood ensures easy service and quiet operation.



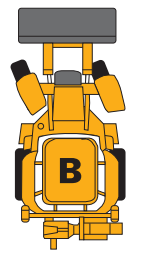
Separated hose system ensures economical, quick service and short repair period.

MS44

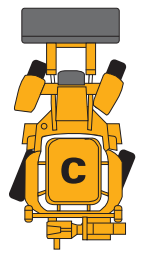
TECHNICAL SPECIFICATIONS...



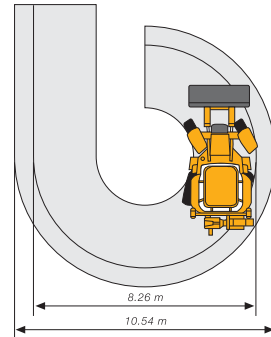
A-WAIST BREAK walk that increases maneuvering capacity during loading in narrow spaces



B-Steering from the FRONT WHEEL, used in road walk



C-CRAB walk, used in excavations near walls and channels



Engine

Manufacturer	: PERKINS
Model	: 1104C - 44T (New Euro II Green Engine)
Maximum Power	: 74,5 kW / 99 HP (ISO/TR 14396)
Maximum Torque	: 413 Nm @ 1350 rpm
Engine Displacement	: 4.4 lt.
Number of Cylinders	: 4
Cylinder Bore	: 105 mm
Stroke	: 127 mm
Nominal Engine Speed	: 2200 rpm
Air Filter	: Dual elements, two stage, dry type
Cold Start	: Pre-heated

Transmission

- Heavy-Duty type Auto Power Shift Low Speed Gearbox with 4 forward/4 reverse speeds provides high traction power under all conditions.
- Electrically driven speed selector provides quick gear shifting capability to obtain desired speed and force for work.
- **PowerShift** 2.64/1 ratio torque converter increases working capacity of the machine.
- Electrical selection for 2-wheel drive or 4-wheel drive.
- Utilizes ECU system that electronically controls forward/reverse drive and speed selection and protects the gearbox from all possible damages such as gear shifting at improper speeds.

Axles

- Heavy duty type, epicycle rear axle with Limited Slip Differential (LSD) transmits the existing driving torque in higher ratios in soft and broken ground conditions and increases traction.
- Max-trac torque proportional front axle provides superior traction in all operating conditions.
- Powertrack Rod steering piston in the front axle.
- The front axle has an oscillation angle of 16° in order to obtain efficient driving, even in the toughest ground conditions.

Road Speeds

With standard tires (16.9/14-28) and in 2200 rpm engine speed

Gear	km/h
1	06.14
2	10.11
3	22.18
4	41.93

Brakes

- Remotely powered, oil cooled disc brakes provides the machine safety in all conditions.
- Disc Diameter : 255mm,
- Friction Area : 26.207 mm²
- Hand brake is mechanical type that works on a disc connected to the gearbox drive shaft, to be arrested by brake pads.

Hydraulic system

- Model : Helical gear type tandem pump (43+27 c.c.) with integrated priority valve
- Maximum Pump Flow : 154 lt/min, (at 2.200 rpm)
- Maximum Pump Pressure : 250 bars
- Hydraulic system equipped with "anti-shock" and "anti-cavitations" Valves.
- Unloader valve automatically regulates the main and the auxiliary Pumps for required flow.
- Hydraulic system temperature is controlled by oil cooler that is located in front of the water cooler for improved cooling performance even under hot climate conditions.
- Oil filter on the hydraulic fluid return line can trap possible particles over 10 microns.
- Backhoe and loader control levers are suitably positioned as to provide ease of use to the operator.

Electrical system

Engine is equipped with a 12V DC and 65A alternator, electrical starting motor and pre-heater for cold start.
A 135 Ah heavy-duty and low-maintenance type battery is provided. Special IP65 connectors and shrink type protectors are used at all necessary points to provide a rugged and weather-proof harness. Easy- to-access fuse box and relay group located inside the cabin.

Tyres

Front / Rear	
Standard	: 16.9/14-28,12 PR

Maneuverability

Turning Diameter (By bucket end)	: 10.54 m
Turning Diameter (Wheel Track)	: 8.26 m
Steering Wheel Travel (No.Turns, Lock-Lock)	: 3 3/4 (Full Revolutions)

Loader

Special twist, rear body	
• Bucket Capacity	: 1.2 m ³
• Max. Lifting Capacity	: 3100 kg
• Maximum Break-Out Force (Bucket)	: 7232 kg
• Maximum Break-Out Force (Boom)	: 5758 kg

Backhoe

- GGG 70 ductile iron backhoe king post.
- Cast Skid.
- Hydraulic skid lock.
- Box profiled skid balancing pedestal.
- Max. Bucket Break-Off Power : 5078 kg
- Max. Arm Breakout Force : 3351 kgf
- Max. Lifting Height : 6228 mm
- Max. Digging Depth : 5250 mm
- Max. Horizontal Access Distance : 6770 mm
- Turning Ratio : 180°
- Side Shifting Distance : 1154 mm

Liquid Capacities

Hydraulic System (Including Tank)	: 125 l
Fuel Tank	: 125 l
Engine Cooling System	: 25.5 l
Engine Oil	: 10 l
Front Axle Differential Oil	: 8.5 l
Rear Axle Differential Oil	: 13 l
Front Heads	: 1.5 l
Rear Heads	: 2 x 1.5 l
Gear box	: 13 l

Weight

Standard Machine Operation Weight	: 8750 kg
-----------------------------------	-----------

Optional Equipments

- Air conditioner
- Telescopic Arm
- Refueling Pump
- Hydraulic Breaker System
- Air Compressor
- SRS
- 165 Ah Battery