

the right choice...

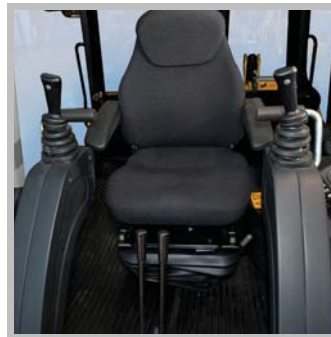
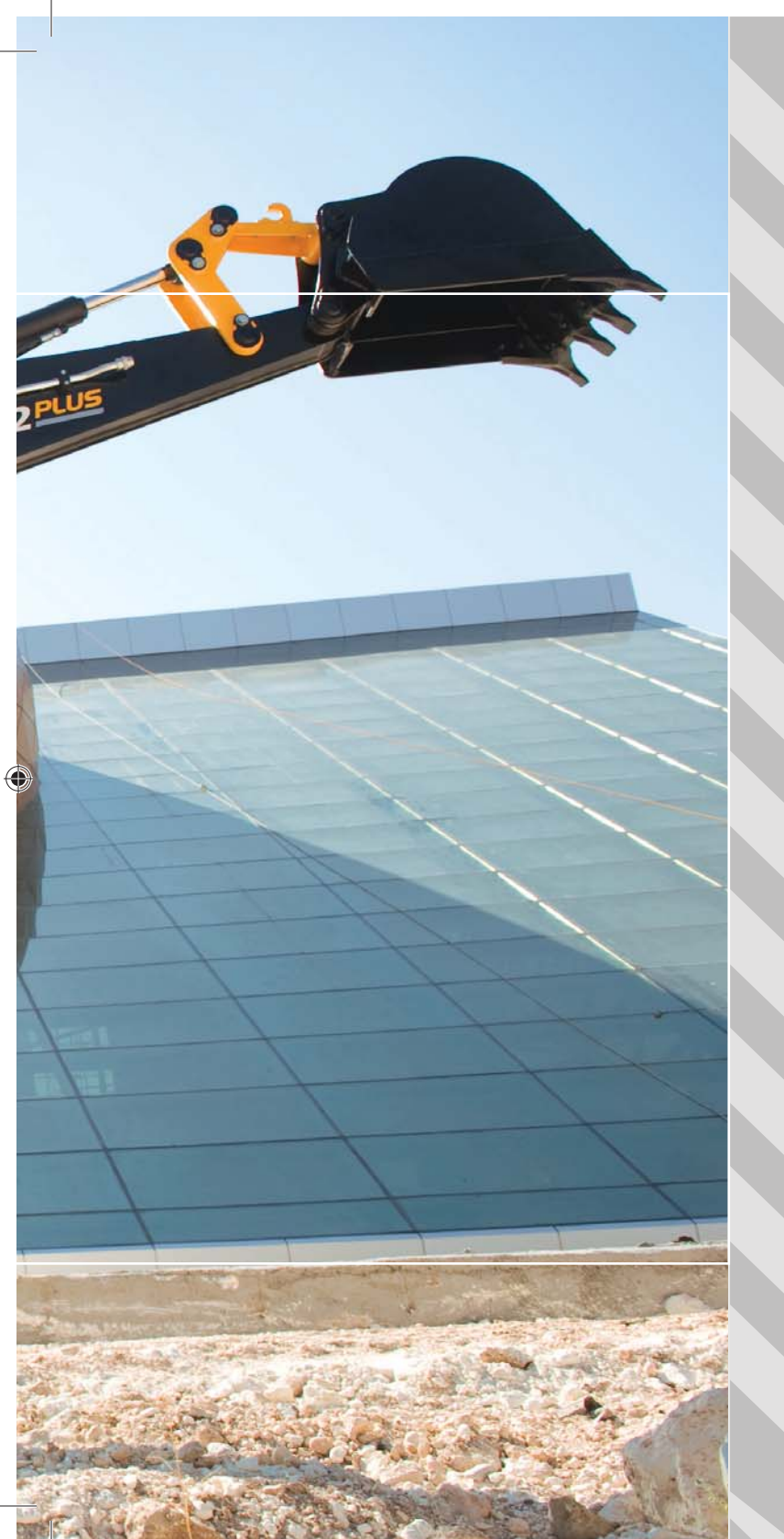


MST

MST BACKHOE LOADER M542 PLUS / M544 PLUS THE RIGHT CHOICE

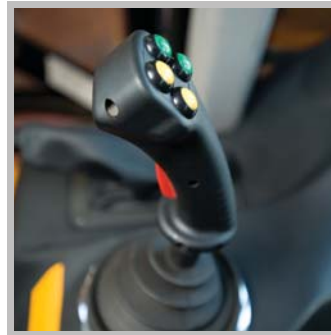


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Modern design, ease of handling and comfort

Ergonomically positioned front and rear joystick control



Components quality-approved all over the world and high-quality materials

Owner's friendly with low operating and maintenance costs and economic fuel consumption



M544 PLUS

M544 PLUS

PRODUCTION WITH ADVANCED TECHNOLOGY...



Defect-free welding technique thanks to robot welding having 3-D processing capacity



One-piece (I) heavy-duty frame, processed with unrivalled 3-D Robot Welding technique



Totally enclosed paint spraying booth which is protected against external factors and longer than a soccer pitch, where every part including the frame can be painted



14.5 litres of muffler capacity. Reinforced flexible exhaust, venturi system outlet pipe mounted on the frame independently of the muffler. Trouble-free operation at temperatures up to 60°C thanks to the new venturi system throwing out the engine heat.



Automobile-type system cable layout with connector which is resistant to dust and water and compliant with the German quality norms.

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Backhoe Loader manufacturing in totally new machine tools and in international standards with world class manufacturing technology.

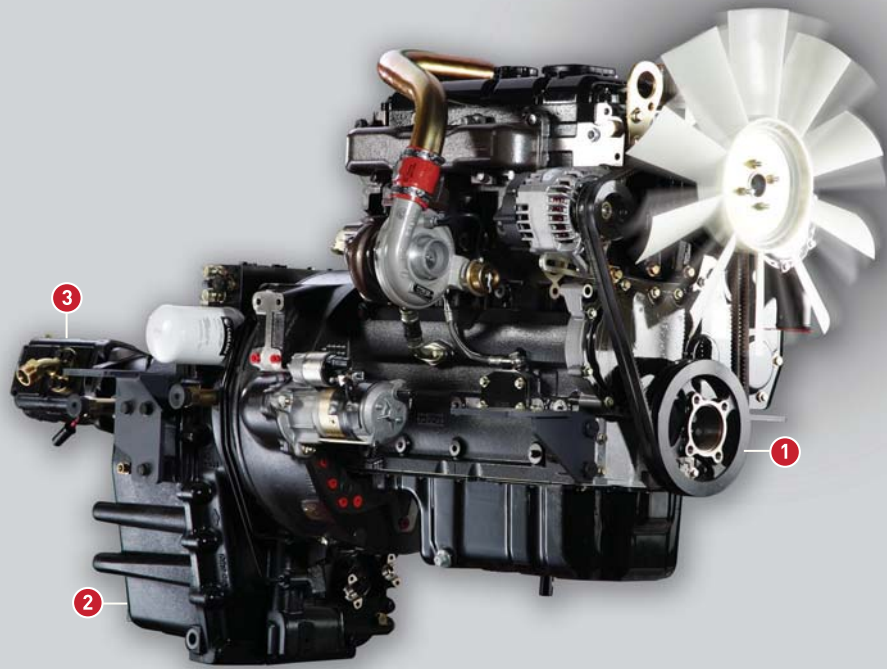
POWER AND PERFORMANCE ...



New M542 Plus and M544 Plus series are productivity oriented. Engine is long-lasting thanks to the high quality components used.

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Engine service life has been extended thanks to the compact cooler core and the pistons cooled with jet nozzles and a quieter and more environment-friendly engine has been developed.

1 Engine

Industrial type produces 413Nm torque at 1350rpm. High torque value reached at low speed provides fuel savings. Readily available spare parts and low maintenance costs make the engine superior to its competitors.

2 Transmission

Fully automatic Powershift transmission. Smooth and jerk-free operation with modulated shifting. Unique technology protecting the engine.

Ratio

2.64/1 compression ratio provides high traction, low consumption and high performance in grading and front bucket works.

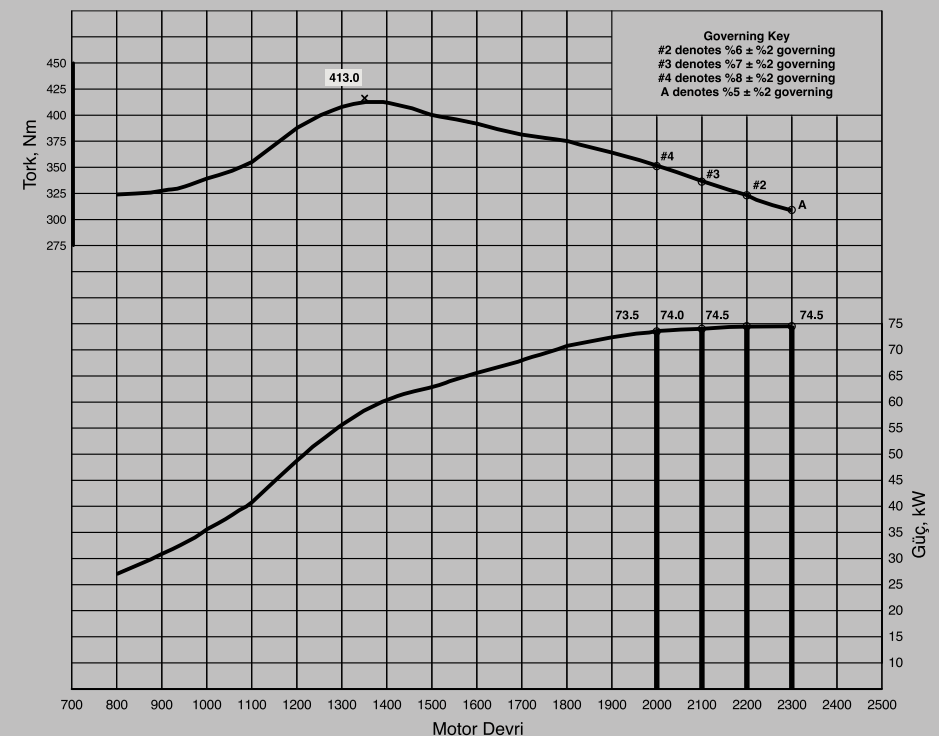
3 Pump

Higher pump efficiency thanks to pump coupled with transmission. Fuel consumptions has been reduced by using less power train. Priority valve controlling the steering is integrated on the pump. Service and spare parts needs have been reduced through the simplified hydraulic system.



New Powerful Differential

Heavy-duty, high strength differential. Limited slip differential (LSD) in rear axle. Totally enclosed optical reproducers, to ensure protection against external factors. Front axles with 16 degree floating allowing the machine to operate comfortably even at the toughest site conditions. Wet type brake system in the rear differential allowing safety and ease of handling. Vibration-free operation and direct power transfer due to the fact that there is no shaft joint.



OPERATOR COMFORT

Operator cabin passed world class ROPS and FOPS tests provides highest level of security. Ergonomic control levers and the control panel designed in an intuitive manner have been put under the command of operator.

- Ergonomically positioned front and rear joystick control
- New instrument panel that can be easily controlled by the operator while operating the backhoe and the loader
- Wide angle of sight
- Forward-rear adjustable operator seat with seat belt and armrest
- Antiperspirant operator seat the height of which can be adjusted according to the operator's weight and by means of compressor air
- Audio system with two speakers

Cabin roof has been manufactured with double wall and its heat and noise insulation have been improved. Cabin roof is ABS fabric covered. Cabin floor has been insulated both from inside with rubber and from outside with special foam material.



M542 PLUS

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Multi-point heating and cooling system



New fuse panel providing service accessibility



Antiperspirant operator seat the height of which can be adjusted according to the operator's weight and by means of compressor air



Up-down and forward-rear adjustable steering wheel



Ergonomic control and instrument panel



Multifunctional instrument panel

VERSATILE PERFORMANCE ...



New buckets reinforced with back shell plates extending service life in firm and rocky grounds.

LOADER...

While the material is loaded, undesirable spillage of material is avoided through the optimized bucket collection angle.



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New teeth improved in compliance with the standards



With its new geometry, turning 1-2 is more resistant and faster.



Rear Bucket Connection
High breakout force and additional carrying hook thanks to newly designed backhoe arm



Rear Stabilizer Foot
Lengthened, box profile rear stabilizers increase durability. Backhoe lock that can be controlled from inside the cabin increases the safety of backhoe. Internal and external foot gap removal operation increases the ease of handling thanks to stabilizer foot fiber rests.



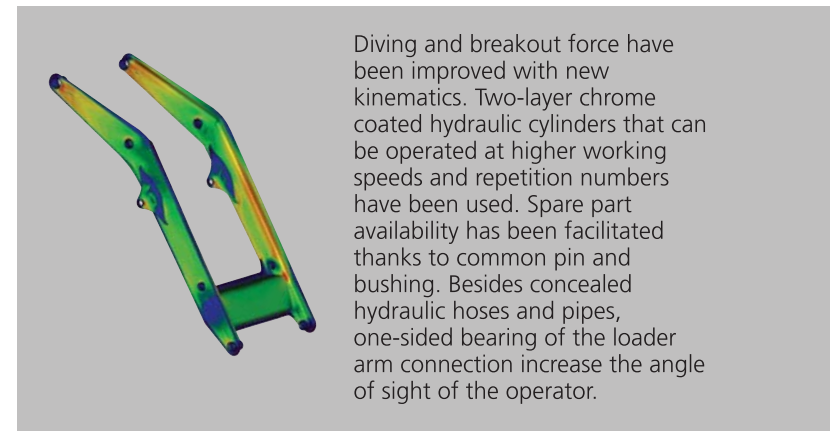
Rear Slider
Over-connected slider provides trouble-free operation and ease of handling



Front bumper with improved geometry
Improved radiator air intake has been obtained by downshifting the battery connection center.



New pump and valve system enable the machine to make multiple movements easily.



Diving and breakout force have been improved with new kinematics. Two-layer chrome coated hydraulic cylinders that can be operated at higher working speeds and repetition numbers have been used. Spare part availability has been facilitated thanks to common pin and bushing. Besides concealed hydraulic hoses and pipes, one-sided bearing of the loader arm connection increase the angle of sight of the operator.



License plate with new lighting system

BACKHOE...

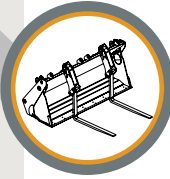
Inclined boom with high strength provides superior breakout force thanks to its reinforced design in the connection parts. Tandem pump with 2 stages enables the operator to make multi-movements easily. Extra durability has been ensured with toughened pins and bushings.



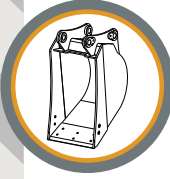
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ATTACHMENTS...

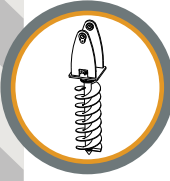
Easily changeable attachment options provide productive use in different working areas.



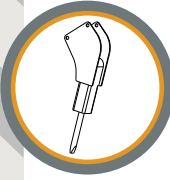
Forklift Fork Folding Bucket



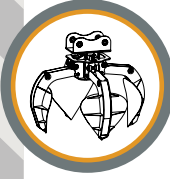
Special Buckets



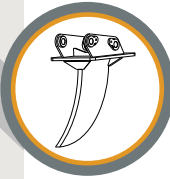
Grading Blade



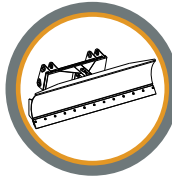
Hydraulic Auger



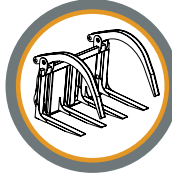
Timber Attachment



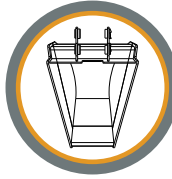
Breaker



Trapezoid Bucket



Polip



Ripper

MAINTENANCE...

Fully-equipped and experienced service network provides SANKO assurance in repair and maintenance works.



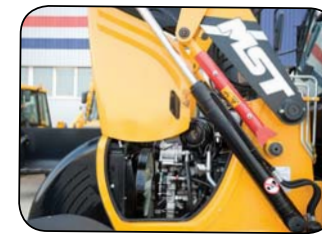
Strong after-sale services, wide service network and rich spare parts stock.



With the new hydraulic and diesel fuel tanks, pump, valve and hydraulic system problems have been avoided thanks to the filtration system in the hydraulic tank. Tanks can be locked to increase security.



Practical and short maintenance time



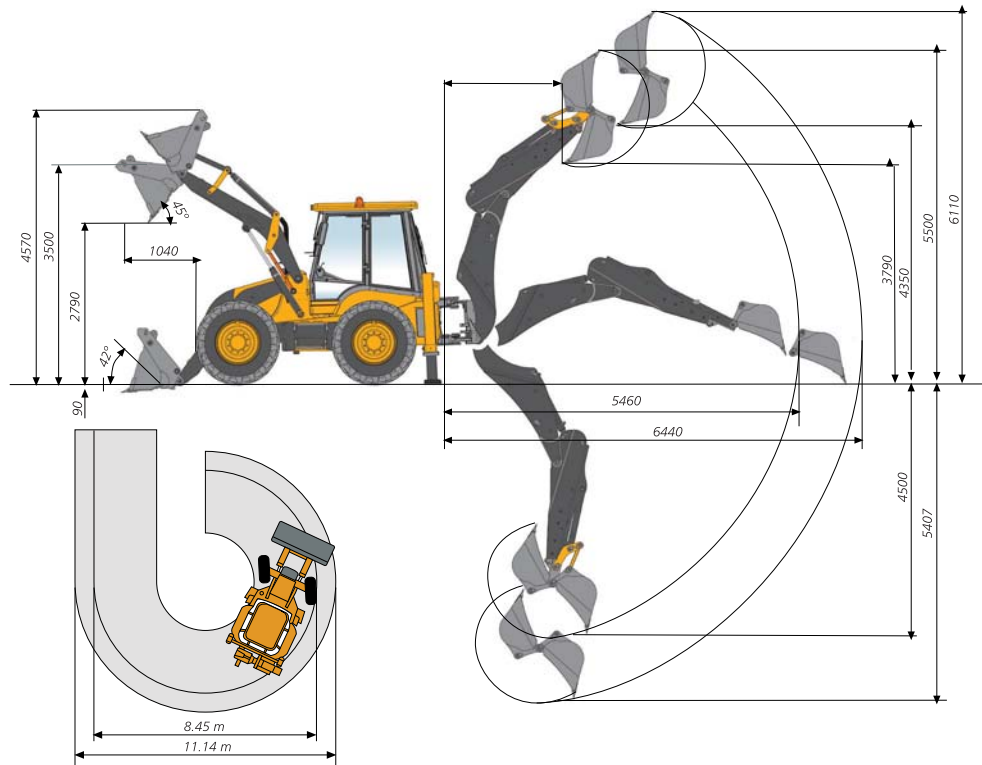
One-piece fiber bonnet provides both easy service accessibility and silent running.



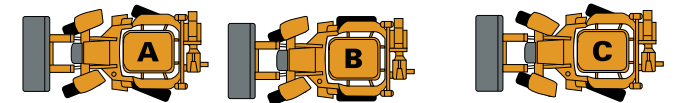
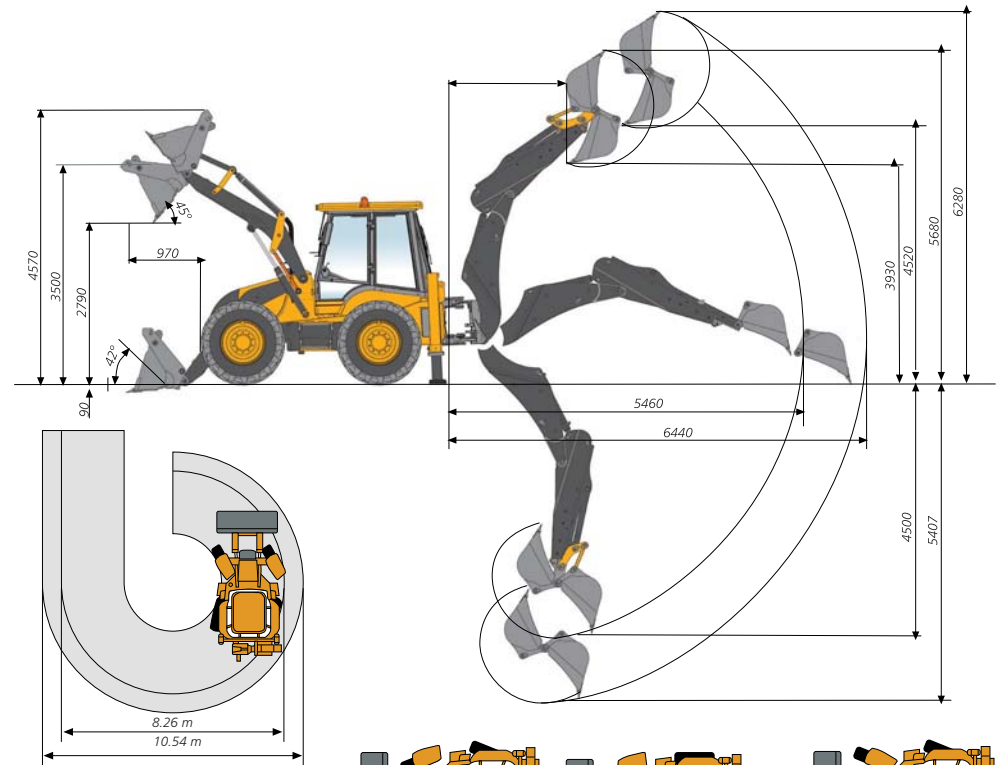
Economical and trouble-free service and repair process with the fragmented hose system.

TECHNICAL SPECIFICATIONS

M542



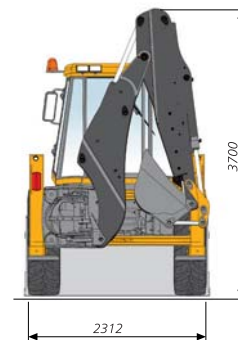
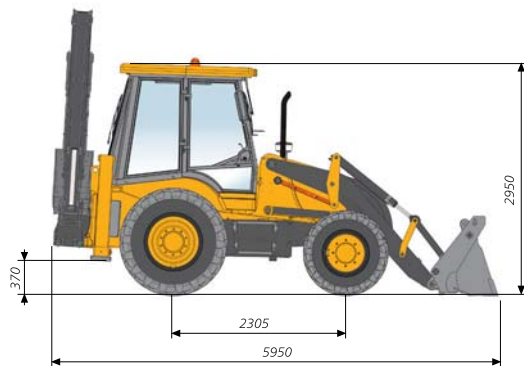
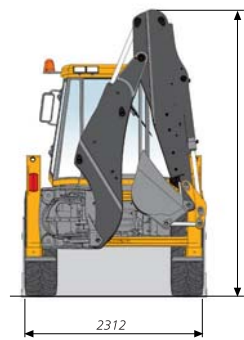
M544



A- ARTICULATED travel that increases the maneuverability during loadings in limited areas.

B- Steering from the FRONT WHEELS during road drives.

C- CRAB travel used in excavations near walls and canals.



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* All the dimensions are in mm.

* Excavator dimensions in the backhoe side are without stabilizers, and backhoe loading dimensions are with the stabilizers on the ground.

Engine

Manufacturer	: PERKINS
Model	: 1104C – 44T (Tier3)
Maximum Power	: 74.5kW / 99 HP (ISO/TR 14396)
Maximum Torque	: 413 Nm @ 1350 rpm
Displacement	: 4.4 lt
Number of Cylinders	: 4
Bore	: 105 mm
Stroke	: 127 mm
Nominal Engine Speed	: 2200 RPM
Air Filter	: Dry type, with two elements, two stage
Cold Start	: Preheating

Transmission

- Heavy-duty 4 forward / 4 reverse speed Powershift Low Speed Transmission provides high traction in all conditions
- **Powershift** Electrically-operated selector provides desired speed and power with the possibility of speed shifting
- Torque converter with 2.64/1 ratio increases the maneuverability of the machine
- Electrically-operated 2-wheel/4-wheel drive selection
- ECU system controls the forward-reverse travel and shift selection electronically, thus prevents transmission failures due to erroneous shift selection.

Axles

Epicycle rear axle with Heavy-duty Limited Slip Differential (LSD) increases traction by transferring the current drive torque at higher ratio in loose and uneven ground conditions.

- Front axle with maximum traction-torque ratio provides superior traction in all working conditions
- Powertrack Rod steering piston in the front axle
- Front axle has a 16° of floating angle to allowing the machine to operate efficiently even at the toughest site conditions.

Speeds

With standard tyres (16.9/14-28) and at 2200 rpm engine speed

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

Brakes

Brake master cylinder with pilot oil and oil-bath disc brake enables the machine to stop efficiently in all working conditions.

Disc diameter	: 255 mm
Friction surface	: 26.207 mm ²

Park brake is of a mechanical type where a disc connected to the rear axle input shaft is squeezed by the brake lining pad.

Hydraulic System

Pump Model	: Integrated steering priority valve, (43+27cc) tandem, helical gear pump
Pump Max. Flow Rate	: 154 lt/min (at 2200 rpm engine speed)
Pump Max. Pressure	: 250 bar*

- Hydraulic system is equipped with special “anti-shock” and “anti-cavitation” valves.
- “Underloader valve” regulates the main and secondary pump automatically according to the flow rate required.
- In the hydraulic system, there is a hydraulic oil cooler that cools hydraulic oil even at hot climate conditions.
- Magnetic filter connected to the hydraulic oil tank return line filters particules in the oil up to 10 microns
- Backhoe joystick and loader control lever has been positioned in such a manner that provides operator ease of use.
- There is a safety system that deactivates hydraulic joysticks during travel.
- Attachment lines are controlled by electrically-operated levers.
- Hydraulic pump can be variable flow type (with axial piston) in line with customer's demand optionally.

Electrical System

Machine is equipped with an electrical start with 12V DC and a 75 A alternator, and a preheating system for cold start. There is a 135 Ah, low maintenance heavy-duty type battery on the machine.

Tyres

	M542 Plus	M544 Plus
Front	: 16.0/70-20 12 layer traction	16.9/14-28 12 layer traction
Rear	: 16.9/14-28 12 layer traction	16.9/14-28 12 layer traction

Turning Capability

	M542 Plus	M544 Plus
From the bucket end	: 11.14 m dia	10.54 m dia
From the wheel track	: 8.45 m dia	8.26 m dia
Steering wheel lock	: 3 ^{3/4} (Full Turn)	3 ^{3/4} (Full Turn)

Loader

Special bend rear body, opening type vessel

- Vessel capacity : 1.2 m³
- Lifting weight at full height : 3100 kg
- Max. Bucket Breakout Force* : 7734 kgf
- Max. Arm Breakout Force* : 5905 kgf

Excavator

- GGG 60 Nodular cast turn
- Hydraulic slide lock
- Box-profile slide stabilizers
- Max. Bucket Breakout Force* : 5523 kgf
- Max. Arm Breakout Force* : 3354 kgf
- Max. Lifting Height : 6280 mm
- Max. Excavation Depth : 5407 mm
- Max. Horizontal Access Range : 6440 mm
- Turning Angle : 180°
- Slide Shift Distance : 1154 mm

Liquid Capacities

Hydraulic system (tank incl.)	: 125 lt
Fuel Tank	: 125 lt
Engine Cooling System	: 25.5 lt
Engine Oil	: 10 lt
Front Axle Differential Oil	: 8.5 lt
Rear Axle Differential Oil	: 13 lt
Front Kingpins	: 1.5 lt
Rear Kingpins	: 2 x 1.5 lt
Gear Box	: 13 lt

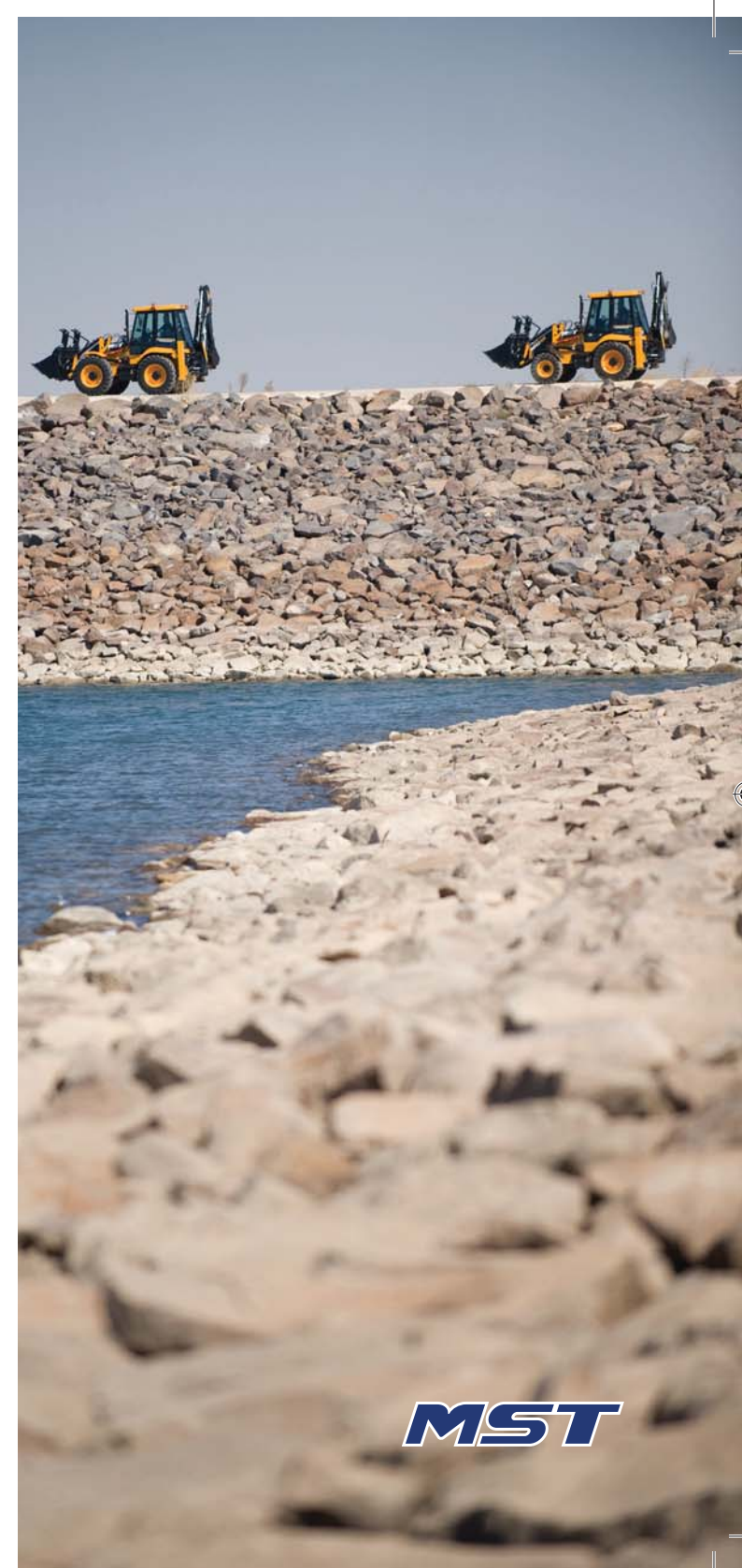
Weight

	M542 Plus	M544 Plus
Standard Machine	: 8500 kg	8900 kg
Telescopic Machine	: 8800 kg	9200 kg

Optional Attachments

- Telescopic Arm
- Refueling Pump
- Hydraulic Breaker Installation
- Air Compressor
- SRS
- 165 Ah battery

* Values can deviate ± %5



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TURQUALITY®



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