

MST

5 Series



THE FUTURE CONSTRUCTOR



The new **MST 5 Series** has top performance at the core of its design. The front loader boasts the highest breakout force in its class. Furthermore, the pin height and truck approach distance values are able to meet the needs of the operator in the best way possible. The positioning of the ergonomic loader control levers ensures maximum comfort for the machine operator.

The **MST 5 Series** powerful, heavy-duty front loader can take on the most demanding tasks. The opening-claw front loader bucket

is manufactured from abrasion-resistant **HARDOX** steel, and has a volume of 1.2 m³. This provides a loading capability which is about 10% greater than that the competitors.



HIGH PRODUCTIVITY & FUEL EFFICIENCY

This newly designed backhoe series brings together increased excavation performance and delicate precision. A sturdy steel construction lets the **MST 5 Series** tackle even the toughest jobs with ease. The extendable boom (optional) reaches farther and deeper than ever before.



The backhoe bucket can be mounted to two different points on the backhoe arm. This allows the operator to change the pin position as needed, and work with more **power (P)** or more **speed (S)**.

ENGINE

The 100 HP PERKINS diesel engine has been specifically designed for backhoe loader applications and has a volume of 4.4 liters. Its turbocharger feature means that high torque can be achieved even at low rpm, allowing the engine to run with increased power and efficiency.

TRANSMISSION

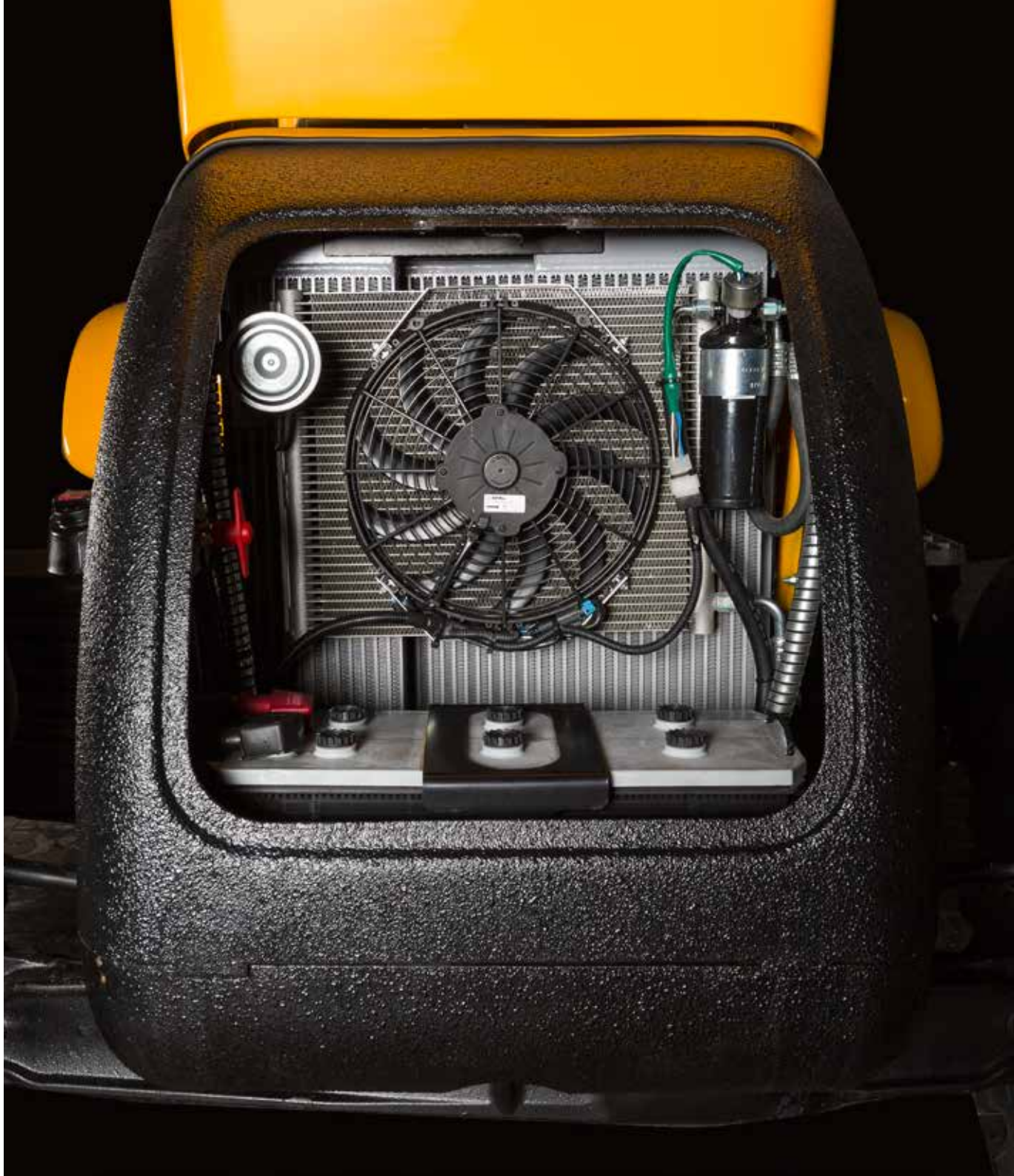
The Auto PowerShift transmission is one of the main components which provide the MST 5 Series with its incredible power. The heavy-duty gearbox includes 4 forward and 4 reverse gears, and has Autoshift capability. The transmission and engine work together in perfect harmony, which means fuel consumption is kept to a minimum.

The gearbox performs seamless automatic gear changes and offers a 4-wheel drive feature while on the job. This feature is automatically disabled in 3rd and 4th gear to maximize fuel economy.

AXELS

The heavy-duty axles used in the **MST 5 Series** provide high load-carrying capability and are integral to the machine's robust, sturdy construction.

The LSD (limited slip differential) on the rear axle is able to deliver different levels of torque to the left and right wheels, which reduces the risk of skidding and provides maximum traction, even on challenging worksites and slippery surfaces with this unique function not only tires' lifetime are being extended but also fuel efficiency and work cycle times are being improved.







CONFORTABLE & USER FRIENDLY

The cabin designed to provide the machine operator with the best possible working environment and to allow for maximum efficiency. This class-leading cab boasts a panoramic field of vision, enhanced ergonomics and a spacious interior.

- The operator cab is ROPS and FOPS certified.
- The rear boom can be kept stable with the hydraulic boom lock.
- The rear stabilization legs feature a large surface area and guarantee stability, even on uneven surfaces.
- High-powered working lights ensure safe working conditions at night.
- Seatbelts are integrated with the operator seat for safety on the job or on the road.
- Operator seat with anti-fatigue with mechanical suspension for heavy-duty use over extended periods.
- Improved A/C system
- Steering column's height and angle can be adjusted
- Ergonomic lever type loader controls
- Ergonomic lever type back-hoe controls
- Stylish breaker pedal
- Radio / MP3 / USB Player
- Coat hook



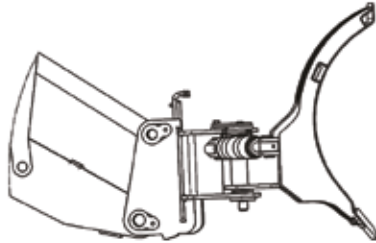


POWERFUL & DURABLE

OPTIONAL ATTACHMENTS

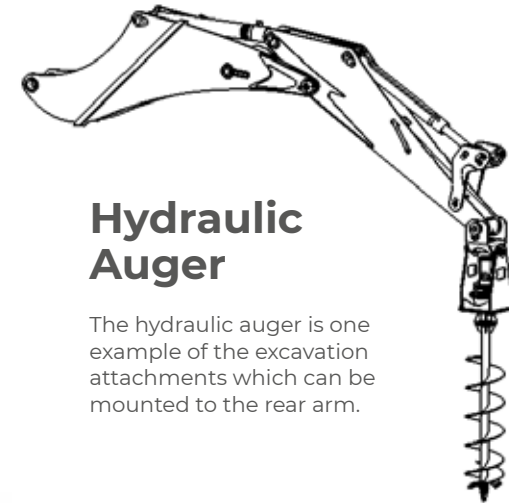
Grading Blade

Rotating grading blade which can be mounted to the arm quickly and easily.



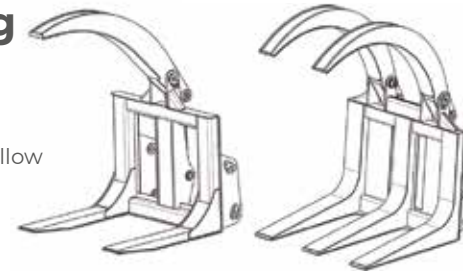
Hydraulic Auger

The hydraulic auger is one example of the excavation attachments which can be mounted to the rear arm.



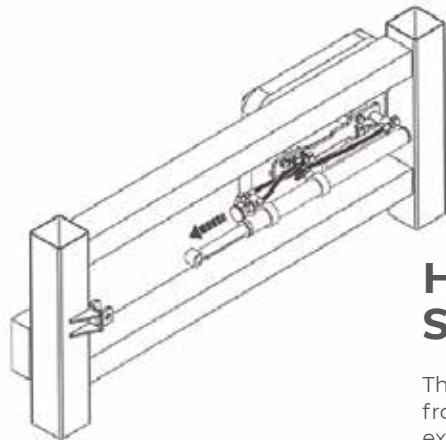
Single and Double Log Grapplers

Hydraulic single and double log grapplers allow logs of any size to be lifted and stacked.



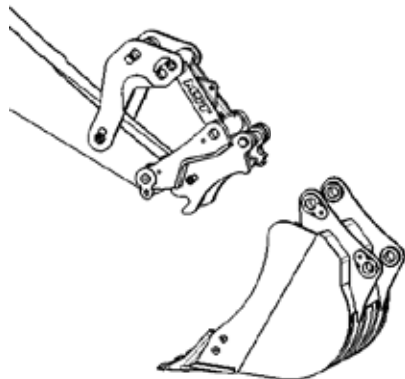
Hydraulic Side-Shifter

The hydraulic side-shifter is controlled from the cab and can slide the excavation set to the right or left. Can be fixed at the desired point.



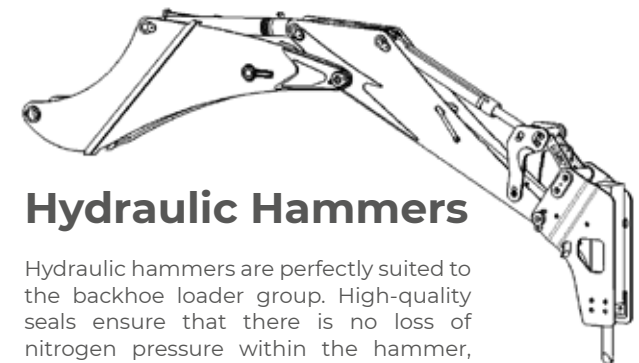
Mechanical Back-hoe Quick Coupler

Allows for fast and easy excavation attachment changes.



Hydraulic Hammers

Hydraulic hammers are perfectly suited to the backhoe loader group. High-quality seals ensure that there is no loss of nitrogen pressure within the hammer, providing continuous highpowered impact.



ENGINE	
Model	PERKINS 1104C-44T
Type	Water cooled diesel engine with, 4 cycles, 4 cylinders, water cooled, turbocharger.
Emmission Class	Stage II (Tier 2)
Cylinders	4
Displacement	4,400 cc
Max. Power	74,5 kW / 100 HP (@2200 rpm)
Max. Torque	408 Nm (@1400 rpm)

· Compatible with the Emission Regulations EU Stage II and U.S EPA Tier2

TRANSMISSION	
· Heavy duty Auto Powershift transmission	
· 4 forward and 4 reverse gears	
· Maximum travel speed 40 km/h	
· 2 or 4 - wheel drive switch	
· 2.64/1 stall ratio converter	
· Transmission lubricant cooling	

AXLES	
· Heavy duty axles	
· 16 degrees front axle oscilation	
· Outboard planetary reduction	
· LSD (Limited Slip Differantial) on rear axle	

HYDRAULIC SYSTEM	
· Main Pump	
Type	Gear Type
Max. Flow Rate	90 l/min
Pressure	240 bar
· Auxillary Pump	
Type	Gear Type
Flow Rate	57 l/min
Pressure	207 bar

· Highly efficient tandem gear pump; open-center hydraulic system.

WEIGHT	STANDARD	TELESCOPIC
542	8520 kg	8800 kg
544	8930 kg	9210 kg

· With full fuel tank, hydraulic system and all service fluids and 75 kg operator weight are included

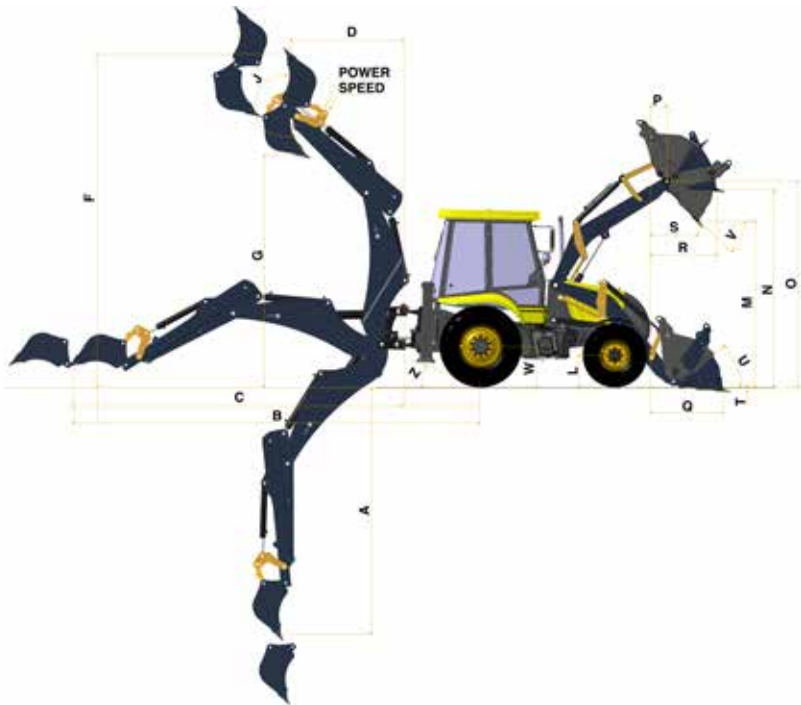
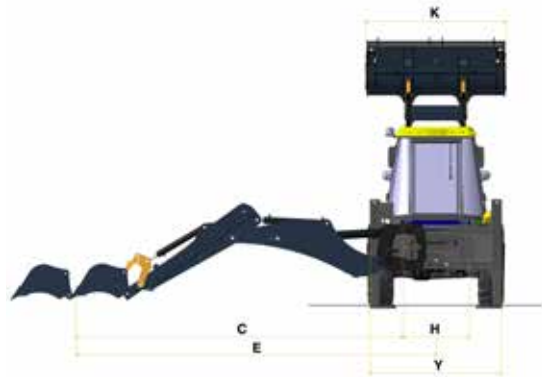
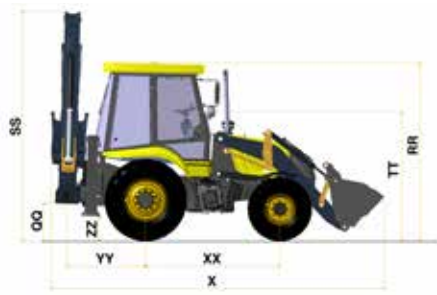
LOADER PERFORMANCE	
Bucket Capacity	1,2 m ³
Bucket Breakout Force	7734 kgf
Arm Breakout Force	5905 kgf
Max. Height Lifting Capacity	3100 kg

TIRES	FRONT	REAR
542	405-70 / 20 (12 layers)	16.9 - 28 (12 Layers)
544	16.9 - 28 (12 layers)	16.9 - 28 (12 layers)

FILLING CAPACITIES	542	544
Engine Oil	7,7 l	7,7 l
Engine Cooling System	18 l	18 l
Fuel Tank	140 l	140 l
Front Axle Differential	6,5 l	8,5 l
Front Axle Heads	2 x 0,8 l	2 x 1,5 l
Rear Axle Differential	13 l	13 l
Rear Axle Heads	2 x 1,5 l	2 x 1,5 l
Transmission	21 l	21 l
Hydraulic System (Total)	160 l	160 l

BACKHOE PERFORMANCE	
Rear Bucket Capacity	0,17 m ³
Bucket Breakout Force	6424 kgf
Arm Breakout Force	3461 kgf

ELECTRICAL SYSTEM	
Voltage	12 V
Battery	135 Amp
Alternator	85 A



GENERAL DIMENSIONS

542

		Fixed dipper	Retracted	Extended
A	SAE maximum dig depth (mm)	4018	5310	4215
A	Maximum dig depth (mm)	4518	5810	4715
B	Reach - ground level to rear wheel centre (mm)	6797	7958	6957
C	Reach - ground level to slew centre (mm)	5479	6639	5637
D	Reach - at full high to slew centre (mm)	1727	2790	1948
E	Side reach -to centre line of machine (mm)	6005	7160	6159
F	SAE operating height (mm)	5570		5698
G	Max loadover height (mm)	3826	4677	3970
J	Bucket rotation (°)	205		
K	Shovel Width (mm)	2400		
Y	Rear frame width (mm)	2250		
SS	Total travel clearance (mm)	3878		
QQ	Kingpost clearance (mm)	580		
Z	Departure angle (°)	21,6		
ZZ	Stabilizer feet clearance (mm)	373		
YY	Slew centre to rear axle centre distance (mm)	1322		
XX	Axle centreline distance (mm)	2292		
X	Total travel length (mm)	5700		
TT	Steering wheel centre height (mm)	2158		
RR	Cab roof height (mm)	2986		
P	Pin forward reach (mm)	290		
S	Reach at full height fully dumped (mm)	818		
R	Max. reach at full height (mm)	1135		
V	Dump angle (°)	42		
M	Dump height (mm)	2796		
N	Load over height (mm)	3328		
O	Loader hinge pin height (mm)	3472		
U	Roll back at ground (°)	44		
T	Dig depth (mm)	94		
Q	Reach at ground (toe plate horizontal)(mm)	1245		
H	Total kingpost travel (mm)	1140		
W	Rear wheel centre to ground (mm)	643		
L	Front wheel centre to ground (mm)	496		

GENERAL DIMENSIONS

544

		Fixed dipper	Retracted	Extended
A	SAE maximum dig depth (mm)	3917	5206	4110
A	Maximum dig depth (mm)	4417	5706	4610
B	Reach - ground level to rear wheel centre (mm)	6832	7996	6995
C	Reach - ground level to slew centre (mm)	5490	6654	5654
D	Reach - at full high to slew centre (mm)	1664	2701	1872
E	Side reach -to centre line of machine (mm)	6005	7160	6159
F	SAE operating height (mm)	5662	6516	5793
G	Max loadover height (mm)	3918	4789	4066
J	Bucket rotation (°)	205		
K	Shovel Width (mm)	2400		
Y	Rear frame width (mm)	2250		
SS	Total travel clearance (mm)	3930		
QQ	Kingpost clearance (mm)	633		
Z	Departure angle (°)	23,5		
ZZ	Stabilizer feet clearance (mm)	421		
YY	Slew centre to rear axle centre distance (mm)	1341		
XX	Axle centreline distance (mm)	2268		
X	Total travel length (mm)	5700		
TT	Steering wheel centre height (mm)	2168		
RR	Cab roof height (mm)	3030		
P	Pin forward reach (mm)	315		
S	Reach at full height fully dumped (mm)	834		
R	Max. reach at full height (mm)	1158		
V	Dump angle (°)	43		
M	Dump height (mm)	2755		
N	Load over height (mm)	3281		
O	Loader hinge pin height (mm)	3440		
U	Roll back at ground (°)	43		
T	Dig depth (mm)	137		
Q	Reach at ground (toe plate horizontal)(mm)	1207		
H	Total kingpost travel (mm)	1140		
W	Rear wheel centre to ground (mm)	643		
L	Front wheel centre to ground (mm)	643		

MST

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MST CONSTRUCTION EQUIPMENT YATIRIM A.Ş.

4. Organize Sanayi Bölgesi 83426. Cad. No:1 P.K. 27120 Başpınar / Gaziantep / TURKEY
P 00 90 342 211 59 00 F 00 90 342 357 00 32 • www.mst-tr.com • export@mst-tr.com

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