# COMPACT WHEELED LOADERS COMPACT TRACKED LOADERS



Concrete solutions. Always.

19sk 20tl

Operating weight 4.350 kg Engine power 53,7 kW (73,0 HP)

Operating weight 5.470 kg Engine power 53,7 kW (73,0 HP)



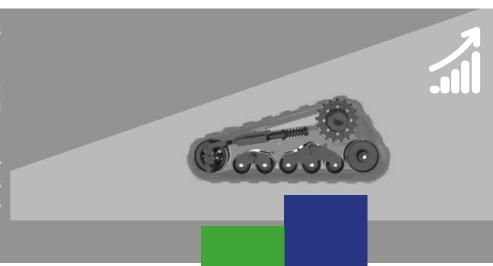


## DRIVING COMFORT.

CARRIAGE WITH OSCILLATING ROLLERS (20TL)

The semi-carriages with five oscillating rollers, offer driving comfort combined with unparalleled operative stability.

The skid moves with agility and safely in any terrain, making full use of the rollers thanks to the width of the 450 mm rubber tracks and a ground pressure of 0.34 kg/cm<sup>2</sup>.



STABILITY COMFORT







#### LISE RADIO

The radio has a BLUETOOTH connection with speakerphone, USB socket, SD/SDHC memory card reader.

## CONTROL AND EFFICIENCY.



#### 7"TFT ACTIVE MATRIX DISPLAY

The multifunctional display allows the operator to control the vehicle's status and select the usage configurations via simple and intuitive commands.

- Management of time and maintenance
- Engine revs
- Working pressure
- Faults

RADIATOR CLEANING FUNCTION: the Fan Drive can be set to rotate in the opposite direction to remove dirt and dust from the radiator.

#### **DRIVING MODES**

The operator's needs are at the centre of the design.

With a simple display command you can choose between three driving modes that reflect the different levels of sensitivity of the driver: a personalised extra to ensure top performance at all times.

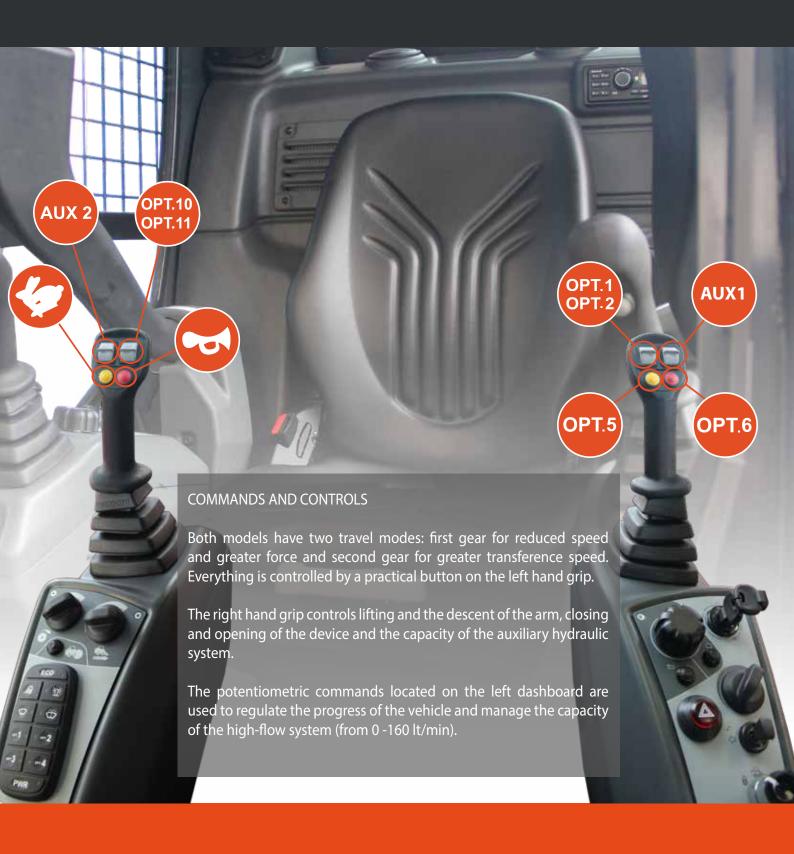
#### HARD

NORMAL SOFT





## **EVERY CONTROL IS IN YOUR HANDS.**







#### **VISIBILITY**

The special design of the protection structures and the particularly low positioning of the arms offers a very extensive visual field.

The windscreen and the large side glass means assure that visibility is optimal in the two skids.

Great attention is dedicated to operative lighting: in additional to the street circulation lights positioned on the arms, the vehicles are equipped with four work lights on the cabin (two front and two back).



## MAINTENANCE HAS NEVER BEEN SO EASY.



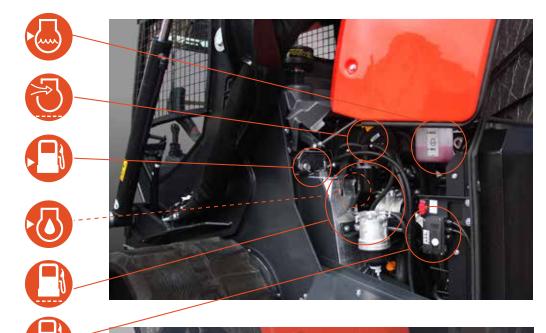


#### **ACCESSIBILITY**

The cabin can be raised via a special practical hydraulic system, the control for which is positioned on the outside of the machine.

Components related to the threephase motor are easily reached by opening the rear hood.

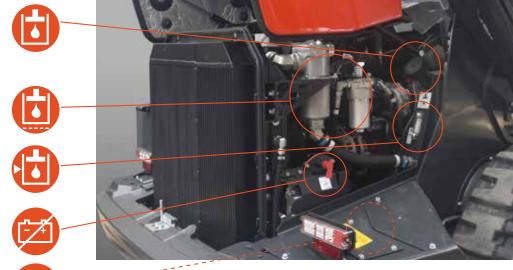
All the filters (gas and air), in additional to the dip stick and the tank for the engine and hydraulic oil, can be found in this part of the machine.



The rear right corner houses the cabin's hydraulic lifting controls.

The driver's foot board has a practical discharge hatch that makes cleaning easy.

The manual and electronic petrol tanks are easily reached on the left side of the machine.



All the access points for daily controls and ordinary maintenance interventions are concentrated in defined areas, making the most of machine stop time.





#### **ACCESSIBILITY**

Common or dedicated access areas make every maintenance operation quick and easy.



## VERSATILITY WITHOUT LIMITS.



The power engine of the 19SK and 20TL compact shovels, in combination with the auxiliary high-flow system with maximum capacity of 160 litres at 280 bars, guarantees considerable versatility of use of all the equipment on the market. Practicality and operative safety are supported by the number of quick connection points and control of unloading pressure.

## FLEXIBILITY, COMPACTNESS, ERGONOMICS.

The rear counterweight ensures excellent stability and solidity and the safety of all the functional parts, protecting them from serious knocks.

#### **EFFICIENCY AND CONSUMPTION**

The heart of the skid is the efficient and silent YANMAR 4TNV98TCT - Stage 5 engine, designed and constructed to optimise performance and lower consumption.

The Fan Drive hydraulic cooling fan, that instantaneously regulates the speed of rotation in line with engine requirements, improves engine performance whilst containing noise and temperature.





The safety bars prevent accidental activation of the machine.

Safety belts, cabin structures and roll-bars certified ROPS/TOPS and FOPS level 1 offer all the safety required in the cabin in case of an accident.



## POWER AND PERFORMANCE

#### PERFORMANCE

Great attention has been paid to the design of the Vertical Lift system that permits a high lifting level maintaining the stability of the machine at every loading position. Operative capacity, at 50% of tilting load, is 2.050 kg for the tracked model and 1.450 kg for the tyre model.

An efficient system of auto-levelling permits the lifting of pallet loads with complete safety and control.

These important features, combined with a travel speed close to 18 km/h, make the shovel suitable to any construction site need.

#### HYDRAULIC SYSTEM

The efficient Loading Sensing system permits fuel savings (up to 15%) due to an efficient distribution of power.

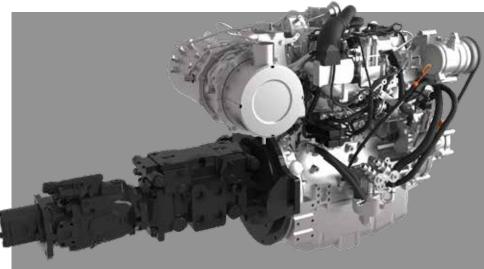
The power of the hydraulic components is assured by a Load Sensing axial piston pump with variable capacity, of 160 litres/minute and maximum pressure of 280 bars.

Hydrostatic transmission is guaranteed by the combination of a tandem electronically-controlled pump and radial engines. The maximum traction force is 4,450 daN for the tyre model and 5,100 daN for the tracked model.



## THE NEW ENGINE





TURBO engine: YANMAR 4TNV98CT - STAGE 5 with EGR, Common Rail and DPF anti-particle filter Power: 53.7 kw / 73 HP @ 2600 rpm

Power: 53.7 kw / 73 HP @ 2600 rpm Cylinders: 3319 cc No. of cylinders: 4

Advantages of rear thermal engine:

- reduced heating (blowing fan)
- reduced cabin noise
- reduced cabin heat
- increased cabin space

In compliance with the current standards for reduction of exhaust emissions, the heat engine is equipped with two exhaust post-treatment systems: DPF particulate filter and DOC oxidation catalyst.

The regeneration system that cleans the DPF starts working automatically but may be disabled during use in areas with a risk of fire.





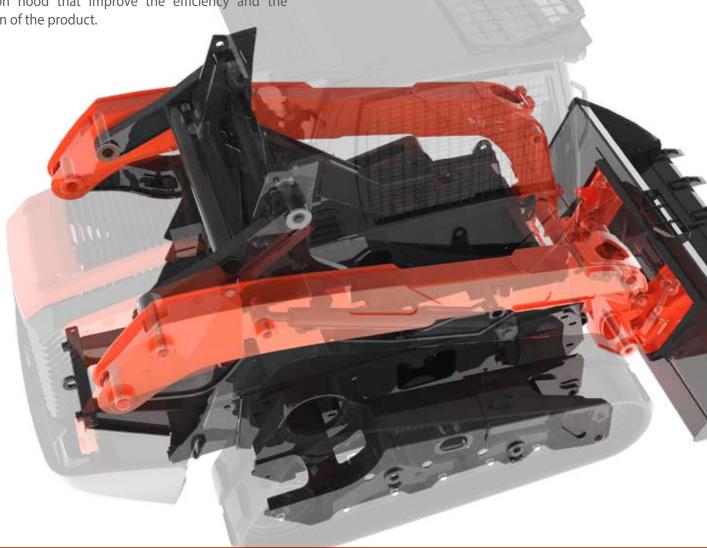
## THE IMPORTANCE OF BEING RELIABLE.

#### RELIABLITY

Designed and tested for high performance coupled with constant reliability.

The definition of the materials, selection of parts and design of the structures have ensured that the machine can cope with the most trying and demanding working requirements.







## EUROCOMACH CONFIGURATION SUPPORT (ECS): ENDLESS POSSIBILITIES OF CUSTOMIZATION.

#### **UTILITIES AND SERVICES**

We listen to all your needs so we can propose the best possible machine solution. We consider our products to be not only simple machines but the best opportunity for our clients. Among the services provided, the following are available:

- Customized paint
- Various types of tracks
- Auxiliary line hookups customized by type and quantity
- Additional equipment

The many configurations available allow you to make the best choice in relation to the work to be performed.



## **SATELLITE MONITORING SYSTEM**



19SK					
20	TL				
ESK 190					
ETL 200					
ENGINE					
Diesel engine, 4 cylinders, cylinders 3319 cc, power 53.7 kW (73.0 HP) Stage 5	1	1	•	•	
Diesel engine, 4 cylinders, cylinders 3319 cc, power 63.9 kW (86.9 HP) Stage 3A	•	•	1	1	
Electronic accelerator	•	•	•	•	
Electric pre-warming	•	•	•	•	
"Cyclone" pre-filter air on air intake	•	•	•	•	
Dry air filter with discharge valve and indication of filter blockage	•	•	•	•	
Double air filter cartridge	•	•	•	•	
Engine oil cartridge filter	•	•	•	•	
Cartridge fuel filter	•	•	•	•	
Fuel filter with water separation tray	•	•	•	•	
Fuel tank discharge hatch	•	•	•	•	
Auxiliary cooling liquid expansion tray	•	•	•	•	
Reversible fan	•	•	•	•	

19SK				
20TL				
ESK 190				
ETL 200				
CABIN				
ROPS/FOPS (Level 1) Cabin	•	•	•	•
Adjustable mechanical suspension seat	•	•	•	•
Adjustable pneumatic suspension seat	0	0	0	0
Adjustable pneumatic heated suspension seat	0	0	0	0
Longitudinal regulation of seat	•	•	•	•
Wrap-around safety belt	•	•	•	•
Arm support elbow with height adjustable elbow	•	•	•	•
Rubber comfort foot board	•	•	•	•
Cabin assembles on 4 elastic vibration-damping supports	•	•	•	•
Air conditioning with automatic regulation	0	0	0	0
Sliding side windows	•	•	•	•
Windscreen with aided opening system (gas springs)	•	•	•	•
Courtesy light	•	•	•	•
On-board computer with multifunctional display	•	•	•	•
Warning light for hydraulic filter and blockage of air engine intake filter	•	•	•	•
Water temperature and fuel level indicators	•	•	•	•
Hour meter	•	•	•	•
Acoustic warning for water temperature	•	•	•	•
Horn	•	•	•	•
AM/FM USM Radio, BLUETOOTH, MEMORY CARD READER	•	•	•	•
Unipolar 12 Volt socket	•	•	•	•
Front and rear wipers with sprayer and speed regulation	•	•	•	•
Glove box	•	•	•	•
Bottle holder	•	•	•	•
SAFETY				
Machine blocking device during exit/access to driving seat	•	•	•	•
Anti-slip boarding plate	•	•	•	•
Boarding and de-boarding handles	•	•	•	•
Emergency water sprinkler	•	•	•	•
Rear view mirrors	•	•	•	•
Rear camera kit	0	0	0	0
Safety valve on lifting arm cylinders and overturn bucket cylinders	0	0	0	0
Pressure accumulator that permits the lowering of the arm in case of engine failure	•	•	•	•
Hydraulic valve that permits the lowering of the arm in case of electric failure	•	•	•	•
4 transport anchorage points	•	•	•	•

19SK				
20TL				
ESK 190				
ETL 200				
ELECTRICAL SYSTEM				
Front and rear lights on cabin	•	•	•	•
Front and rear lights for road circulation	•	•	•	•
Rotating head lamp	•	•	•	•
Isolator switch	•	•	•	•
Sealed connectors (IP67)	•	•	•	•
HYDRAULIC SYSTEM				
REXROTH load-sensing hydraulic system with variable capacity pump	•	•	•	•
ISO/H electronic servo-controls	•	•	•	•
Hydraulic oil intake filter	•	•	•	•
Hand brake	•	•	•	•
Two speed travel system	•	•	•	•
Single/double effect hydraulic system (e.g. demolition or auger) with electric cable	•	•	•	•
High-Flow 3 pipe system: max 160 lt/min, max 280 bars	•	•	•	•
AUX 2 system: max 70 lt/min, max 210 bars	•	•	•	•
Hydraulic draining line direct to tank	•	•	•	•
Rapid release hydraulic bucket	0	0	0	0
Floating arms system		•	•	•
Hydraulic valve auto-levelling bucket (activated only during arm lifting)	•	•	•	•
Self-leveling deactivation	0	0	0	0
UNDERCARRIAGE (ETL 200 e ETL 200 T4)				
Oscillating roller carriage with rubber tracks	•	/	•	/
Carter final drive motors	•	/	•	/

19SK				
20	TL			
ESK 190				
ETL 200				
UTILITY				
Geo-service system for localisation and remote diagnostics	0	0	0	0
Anti-theft system	0	0	0	0
Personalisation of colour (RAL)	0	0	0	0
4 anchorage points for lifting	•	•	•	•
Visual indicator of on-board fuel level	•	•	•	•
Full supply electro-pump with automatic arrest	0	0	0	0
Document glove box	•	•	•	•
Cabin lift hydraulic pump	•	•	•	•

STANDARD EQUIPMENT
OPTIONAL EQUIPMENT
NOT AVAILABLE

perating weight	kg	4.350	
NGINE			
уре	YAN	MAR 4TNV98T - Stage 3A	
lax. Power (2.600 rpm)	kW - HP	63,9 - 86,9	
lax. torque	Nm	296,1 (1.850 rpm)	
isplacement	СС	3.319	
umber of cylinders	n°	4	
ooling		water	
onsumption	lt/h	9	
lternator	V (A)	12 (80)	
attery	V (Ah)	12 (100/850)	
YDRAULIC SYSTEM			
ump type		displacement axial piston pumps wit pad sensing REXROTH	
ump capacity	lt/min	160	
lax. circuit calibration pressure	bar	280	
igh Flow System (standard): Max. capacit		160	
Max. pressur	·	280	
RANSMISSION			
/pe	Hydrostatic with electro-hydraulic tandem pump and rac pistons REXROTH gearboxes		
ravelling speed	km/h	1a: 0 ÷ 9,0 / 2a: 0 ÷ 18,0	
lax. Traction force	daN	4.450	
imensions tires		12 x 16,5	
RAKES		12 / 10/3	
ervice brakes		Hydrostatic	
arking brakes	Negative with multiple disks into oil bath, integrated on gearboxes at electrohydraulic control		
mergency brakes	Electrohydraulic control, acting on parking brakes (integrated on the gearboxes)		
ERFORMANCES	(		
psetting load (ISO 14397)	kg	2.920	
perating load perating load SO 14397, no more than 50% of tipping load)	kg	1.450	
2.2	d a N	3.005	
ucket breaking force	daN m³	3.985	
tandard bucket capacity	m³	0,56	
tandard bucket width	mm	1.860	
lax. slope		60% - 30°	
ILLINGS	1.	140	
uel tank	lt	110	
ydraulic oil tank	lt	55	
ydraulic circuit capacity	lt .	93	
ooling system capacity	lt	12	
ngine oil	lt	10,2	
ONTROLS			
/ре	Ergonomic joystick with electronic controls and onboard safety lock		
ranslation	Electro-hydraulic control on left hand joystick		
	Electric control with right hand joystick for lifting and bucket		

Operating weight with rubber tracks		kg	5.470	
ENGINE				
Туре	YANMAR 4TNV98T - Stage 3A			
Max. Power (2.600 rpm)		kW - HP	63,9 - 86,9	
Max. torque		Nm	296,1 (1850 rpm)	
Displacement		СС	3.319	
Number of cylinders		n°	4	
Cooling			water	
Consumption		lt/h	9	
Alternator		V (A)	12 (80)	
Battery		V (Ah)	12 (100/850)	
HYDRAULIC SYSTEM				
Pump type			displacement axial piston pumps with oad sensing REXROTH	
Pump capacity		lt/min	160	
Max. circuit calibration pressure		bar	280	
High Flow System (standard):	Max. capacity	lt/min	160	
	Max. pressure	bar	280	
TRANSMISSION				
Туре		-	ectro-hydraulic tandem pump and radial ons REXROTH gearboxes	
Travelling speed		km/h	1a: 0 ÷ 6,2 / 2a: 0 ÷ 12,5	
Max. Traction force		daN	5.100	
Tracks width with rubber tracks		mm	450	
BRAKES				
Service brakes			Hydrostatic	
Parking brakes			iple disks into oil bath, integrated on the es at electrohydraulic control	
Emergency brakes	Electrohydraulic control, acting on parking brakes (integrated on the gearboxes)			
PERFORMANCES		(	graces on the geans ones,	
Upsetting load (ISO 14397)		kg	5.143	
Operating load				
(no more than 50% of tipping load)		kg	2.572	
Operating load (ISO 14397, no more than 35% of tipping load)		kg	1.800	
Bucket breaking force		daN	3.985	
Standard bucket capacity		m³	0,64	
Standard bucket width		mm	2.110	
Ground bearing pressure with rubber tracks		kg/cm²	0,34	
Max. slope	60% - 30°			
FILLINGS				
Fuel tank		lt	110	
Hydraulic oil tank		lt	55	
Hydraulic circuit capacity		lt	93	
Cooling system capacity		lt	12	
Engine oil		lt	10,2	
CONTROLS				
Туре	Ergonomic joystick with electronic controls and onboard safety lock			
Translation	Electro-hydraulic control on left hand joystick			
Services			h right hand joystick for lifting and bucket	
	Vertical lifting boom with a standard self-levelling system			
Lifting mechanism	for the bucket (only for boom rising)			

Operating weight		kg	4.350	
ENGINE				
Туре		YANMAR 4TNV98CT - Stage 5		
Max. Power (2.600 rpm)		kW - HP	53,7 - 73,0	
Max. torque		Nm	291 (1.625 rpm)	
Displacement		CC	3.319	
Number of cylinders		n°	4	
Cooling			water	
Consumption		lt/h	11	
Alternator		V (A)	12 (80)	
Battery		V (Ah)	12 (100/850)	
Pump type			displacement axial piston pumps with bad sensing REXROTH	
Pump capacity		lt/min	160	
Max. circuit calibration pressure		bar	280	
High Flow System (standard):	Max. capacity	lt/min	160	
riigii riow system (standard).	Max. pressure	bar	280	
TRANSMISSION	max. pressure	541	200	
Туре		Hydrostatic with electro-hydraulic tandem pump and rad pistons REXROTH gearboxes		
Travelling speed		km/h	1a: 0 ÷ 9,0 / 2a: 0 ÷ 18,0	
Max. Traction force		daN	4.450	
Dimensions tires			12 x 16,5	
BRAKES				
Service brakes			Hydrostatic	
Parking brakes		Negative with multiple disks into oil bath, integrated on t gearboxes at electrohydraulic control		
Emergency brakes		Electrohydraulic control, acting on parking brakes (integrated on the gearboxes)		
PERFORMANCES				
Upsetting load (ISO 14397)		kg	2.920	
Operating load (ISO 14397, no more than 50% of tipping load)		kg	1.450	
Bucket breaking force		daN	3.985	
Standard bucket capacity		m³	0,56	
Standard bucket width		mm	1.860	
Max. slope			60% - 30°	
FILLINGS				
Fuel tank		lt	100	
Hydraulic oil tank		lt	55	
Hydraulic circuit capacity		lt	93	
Cooling system capacity		lt	12	
Engine oil		lt	10,2	
CONTROLS				
Туре		Ergonomic joystick with electronic controls and onboard safety lock		
Translation		Electro-hydraulic control on left hand joystick		
Services		Electric control with right hand joystick for lifting and bucket		
Lifting mechanism		Vertical lifting boom with a standard self-levelling system f the bucket (only for boom rising)		

Operating weight with rubber tracks		kg	5.470		
ENGINE		\/A \	IMAD ATANYOOGT CLASS 5		
Type	YANMAR 4TNV98CT - Stage 5				
Max. Power (2.600 rpm)		kW - HP	53,7 - 73,0		
Max. torque		Nm	291 (1.625 rpm)		
Displacement  Number of sulinders		cc n°	3.319		
Number of cylinders		n			
Consumption		lt/h	water 11		
Consumption Alternator		V (A)			
·		, ,	12 (80)		
Battery HYDRAULIC SYSTEM		V (Ah)	12 (100/850)		
HTDRAULIC STSTEM		N° 1 with variable	displacement axial piston pumps with		
Pump type			oad sensing REXROTH		
Pump capacity		lt/min	160		
Max. circuit calibration pressure		bar	280		
High Flow System (standard):	Max. capacity	lt/min	160		
	Max. pressure	bar	280		
TRANSMISSION	, , , , , , , , , , , , , , , , , , ,				
Туре		Hydrostatic with electro-hydraulic tandem pump and rac pistons REXROTH gearboxes			
Travelling speed		km/h	1a: 0 ÷ 6,2 / 2a: 0 ÷ 12,5		
Max. Traction force		daN	5.100		
Tracks width with rubber tracks		mm	450		
BRAKES					
Service brakes			Hydrostatic		
Parking brakes	Negative with multiple disks into oil bath, integrated on the gearboxes at electrohydraulic control				
			ic control, acting on parking brakes		
Emergency brakes	(integrated on the gearboxes)				
PERFORMANCES					
Upsetting load (ISO 14397)		kg	5.143		
Operating load		kg	2.572		
(no more than 50% of tipping load)			2.372		
Operating load (ISO 14397, no more than 35% of tipping load)		kg	1.800		
Bucket breaking force		daN	3.985		
Standard bucket capacity		m³	0,64		
Standard bucket width		mm	2.110		
Ground bearing pressure with rubber tracks		kg/cm²	0,34		
Max. slope			60% - 30°		
FILLINGS					
Fuel tank		lt	100		
Hydraulic oil tank		lt	55		
Hydraulic circuit capacity		lt	93		
Cooling system capacity		lt	12		
Engine oil		lt	10,2		
CONTROLS					
Туре		Ergonomic joystick with electronic controls and onboard safety lock			
Translation	Electro-hydraulic control on left hand joystick				
Services	Electric control with right hand joystick for lifting and bucket				
Lifting mechanism		Vertical lifting boom with a standard self-levelling system for the bucket (only for boom rising)			

