



# COMPACT WHEELED EXCAVATOR



**TW75**

# COMPACT URBAN EXCAVATOR AND LANDSCAPING SPECIALIST

## Compact, maneuverable, and strong...

The TW75 excavator is both an ideal urban excavator and a specialist landscaping device. It does not need much space or fuel, so is convenient for the operator to operate and service. The TW75 excavator is designed to help save time. From work cycles to maintenance, it is quick and easy to manage.

Among the many highlights are the Schaeff control system, the high-quality equipment offered as standard, and the many options for precisely configuring the machine for the job at hand.

With over 50 years' experience in wheeled excavator technology, Schaeff has a wealth of specialist knowledge – exactly what is required to manufacture a compact wheeled excavator combining high quality for a wealth of possible applications.

## Technical data

Operating weight	7.4 - 8 t
Engine power	55.4 kW (75 hp)
Bucket capacity	87 - 303 l
Dig depth	3.5 - 3.9 m
Reach	6.9 - 7.1 m



# COMPACT WHEELED EXCAVATOR TW75



# SHORT AND SWEET

Precise work cycles thanks to Schaeff fingertip control.

4 independent additional control circuits for operating standard work attachments (optional).

The working hydraulics are independent of the travel drive. Making power available when and where you need it.

Travel speeds of up to 30 km/h for fast transfers between jobs.

# COMPACT WHEELED EXCAVATOR TW75

Schaeff Smart Control system offers the operator superb control over the excavator. A host of excavator functions can be precisely tailored to suit the operator and construction site.

Ergonomic ROPS cab (FOPS optional) with excellent visibility and a high level of comfort.

Klimatronic: air conditioning (optional) with improved performance and ventilation nozzle positions for comfortable working conditions.

Intelligent cab ventilation thanks to targeted air distribution – depending on whether heating or air conditioning are in operation.

Powerful, economical, and environmentally friendly engine based on EU Level IIIB / EPA Tier 4 Final.

Steady under heavy working loads. Short-tail – ideal where space is at a premium.

14° axle oscillation for stability, even on rough ground.

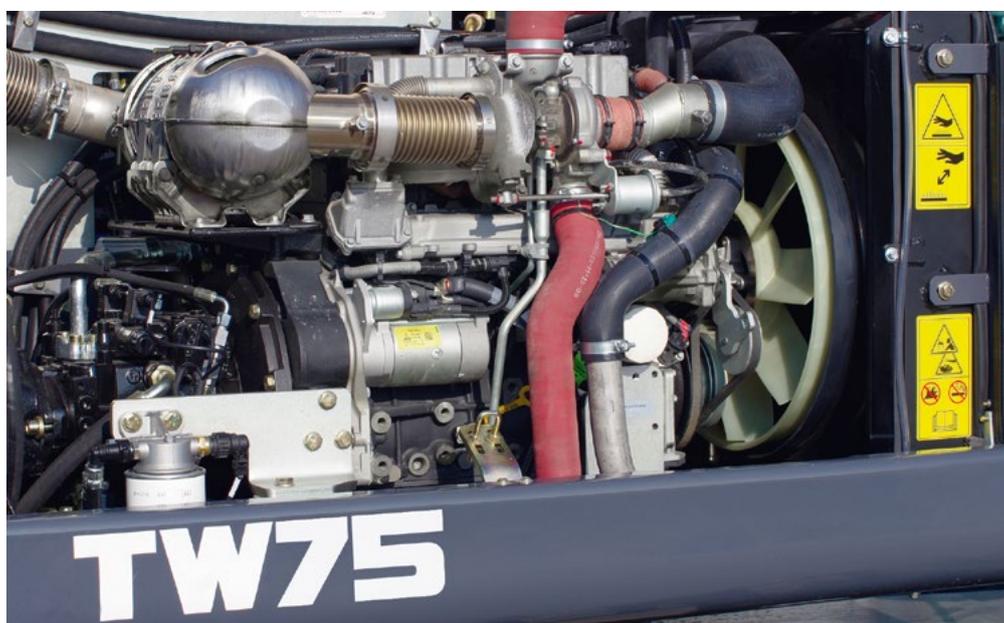
Smooth automatic drive and additional accelerator pedal for delicate machine movements.

# EFFICIENT OPERATION

## The engine

The Schaeff TW75 wheeled excavator is powered by an EU Level IIIB / EPA Tier 4 Final compliant engine. Exhaust after-treatment reduces pollutants by up to 90%, as well as nitrous oxides (NOx), hydrocarbons (HC), and fine particulates. This is achieved by means of an improved combustion and injection system and a diesel oxidation catalyst (DOC). The engine does not need a particulate filter.

- ▶ 8% more power.\* 55.4 kW (previously 51.3 kW) give the wheeled excavator noticeably more power during work cycles.



## AUTO-IDLING SYSTEM

The auto-idling system (optional) saves fuel. The engine switches to idle mode during periods of inactivity, reducing emissions and operating costs.

\* Compared to the previous version



# COMPACT WHEELED EXCAVATOR TW75





## The cab

The ergonomically designed cab provides the operator with an extremely comfortable environment to help boost productivity levels.

From the easy-to-understand and clearly laid out displays to the generous storage compartments, soft-touch interior, and optional Klimatronik – it all points to one thing: the working environment in the Schaeff TW75 wheeled excavator has been designed with the driver in mind.

### DISPLAY AND INSTRUMENTS

Work functions and machinery information are in a central location and can be understood at a glance for a better overview and more comfort. The data is arranged and shown in tiles. The 7" anti-glare screen has very good visibility and is also used as a monitor for the optional rear-view camera.

### KEYPAD

Extra-wide touchpad makes it easier to ensure safe operation, even with gloves on. The operation of the optional immobiliser is possible.



### FURTHER ADVANTAGES

- ▶ ROPS-certified cab (FOPS optional)
- ▶ Tilting cab for easy maintenance access
- ▶ Modern interior reminiscent of a passenger vehicle
- ▶ Intelligent cab ventilation

## COMPACT WHEELED EXCAVATOR TW75

# ENJOY THE COMFORT



# PRECISE CONTROL



## Schaeff Smart Control

The Schaeff Smart Control system offers the operator a superb control over the excavator. A host of excavator functions can be precisely tailored to suit the operator and the job. The ability to configure makes the excavator more efficient and productive.

- ▶ **Hydraulic control circuits** can be operated quickly. The litre quantity of the control circuits is also adjusted during continuous operation as a percentage via the bar graph according to the operation and the attachment.
- ▶ **Eco-mode** can be switched on at the touch of a button.
- ▶ **Climate control** Heating and defrosting can be set to the desired control conditions, with automatic air conditioning optional.



## **Schaeff fingertip control**

**Sensitive inputs at the joystick allow a high level of precision and operator comfort. The twin-circuit hydraulic system with LUDV (load-independent flow distribution) allows working movements to be performed simultaneously but independently of each other. Economical load-sensing technology provides precise volume control, saving fuel in the process.**



**MAKE THINGS  
HAPPEN**



# COMPACT WHEELED EXCAVATOR TW75

## The undercarriage

The undercarriage combines off-road agility with drive power. Thanks to the numerous types of equipment, it can be configured as required.

### ► UNDERCARRIAGE OPTIONS

- Stabilisers
- Support plate
- Front dozer blade
- Narrow plate combined with single tires (1990 mm)

### ► TYRE OPTIONS

Balloon and twin tires or wide-base tires are available.

### ► STEERING SYSTEM

Can be fitted with 2-wheel or all-wheel steering.

### ► SPEED

With speeds of up to 30 km/h, transfer between construction sites or jobs is quick and unproductive transport times are kept to a minimum.

### ► OSCILLATING AXLE

The oscillating axle with its 14° oscillation keeps the wheeled excavator stable, even on rough ground.

### ► LEVELLING

The optional float function for the dozer blade makes it easier to level the ground, fill it in, or clean up the construction site.

## FURTHER ADVANTAGES

- Hydrostatic travel drive independent of the working hydraulics – also functions as an additional brake system.
- Automatic drive and additional accelerator pedal for delicate machine movements.



# FASTER RESULTS

## Boom and hydraulics

Schaeff has the right boom system for various applications. The excavation is performed effectively and the desired results are achieved quickly.

### ▶ STANDARD ARTICULATED BOOM

Standard articulated booms are suitable for heavy-duty excavation, transport, and precise positioning of heavy loads – the operating range is designed for a wide working area.



### ▶ CIRCULAR BOOM

The circular boom, with its small working envelope, is suitable for construction sites where space is limited.

### ▶ EXTENDED DIPPER STICK

The TW75 wheeled excavator can extend its reach by 1950 mm by having an extended dipper stick on the articulated boom.

## FURTHER ADVANTAGES

- ▶ Articulated joint with wide angle of articulation for excavation directly along walls
- ▶ End-position damping at all cylinders for anti-vibration operations
- ▶ Pilot control for all control elements, ensuring smooth and comfortable work cycles

## WEIGHT DISTRIBUTION AND LIFTING CAPACITY

The side-mounted engine stabilises the machine, particularly when the boom is fully extended and moved to another position. An additional rear weight (optional) means the TW75 excavator can compete in the 8 ton class.

## HYDRAULICS WITH 4 INDEPENDENT CONTROL CIRCUITS

The four independent control circuits allow the TW75 wheeled excavator to deliver exceptional performance with attachments. The driver operates both a tilt rotator, including a hydraulic quick-attach system, and a hydraulic attachment such as a sorting grab, asphalt cutter, or cutting unit. The control circuits can be operated simultaneously without affecting on each other.

## Attachments

Numerous options and attachments provide a high level of versatility.

- ▶ Bucket for light loads
- ▶ Standard bucket
- ▶ Ditch-cleaning bucket
- ▶ Swing bucket
- ▶ Hydraulic cutting units
- ▶ Ripper tooth
- ▶ Hammer adapter
- ▶ Load hook
- ▶ Load hook, screwed
- ▶ Mechanical quick-attach system
- ▶ Hydraulic quick-attach system
- ▶ Pallet forks





# MINIMISING DOWNTIME

## Servicing

A service bar with the central electrical system is integrated into the service ladder, so all relays and fuses are easily accessible from the ground. The service hatch can be opened without tools.

The stairs are extended toward the ground near the service hatch to facilitate access. The hatch has rubber buffers and rests gently against the extended stairs to help prevent any damage or wear to material.

None of the main hydraulic components are located under the cab. So there is no need to tilt the cab (although this is possible if required).



### DIAGNOSTIC CONNECTOR

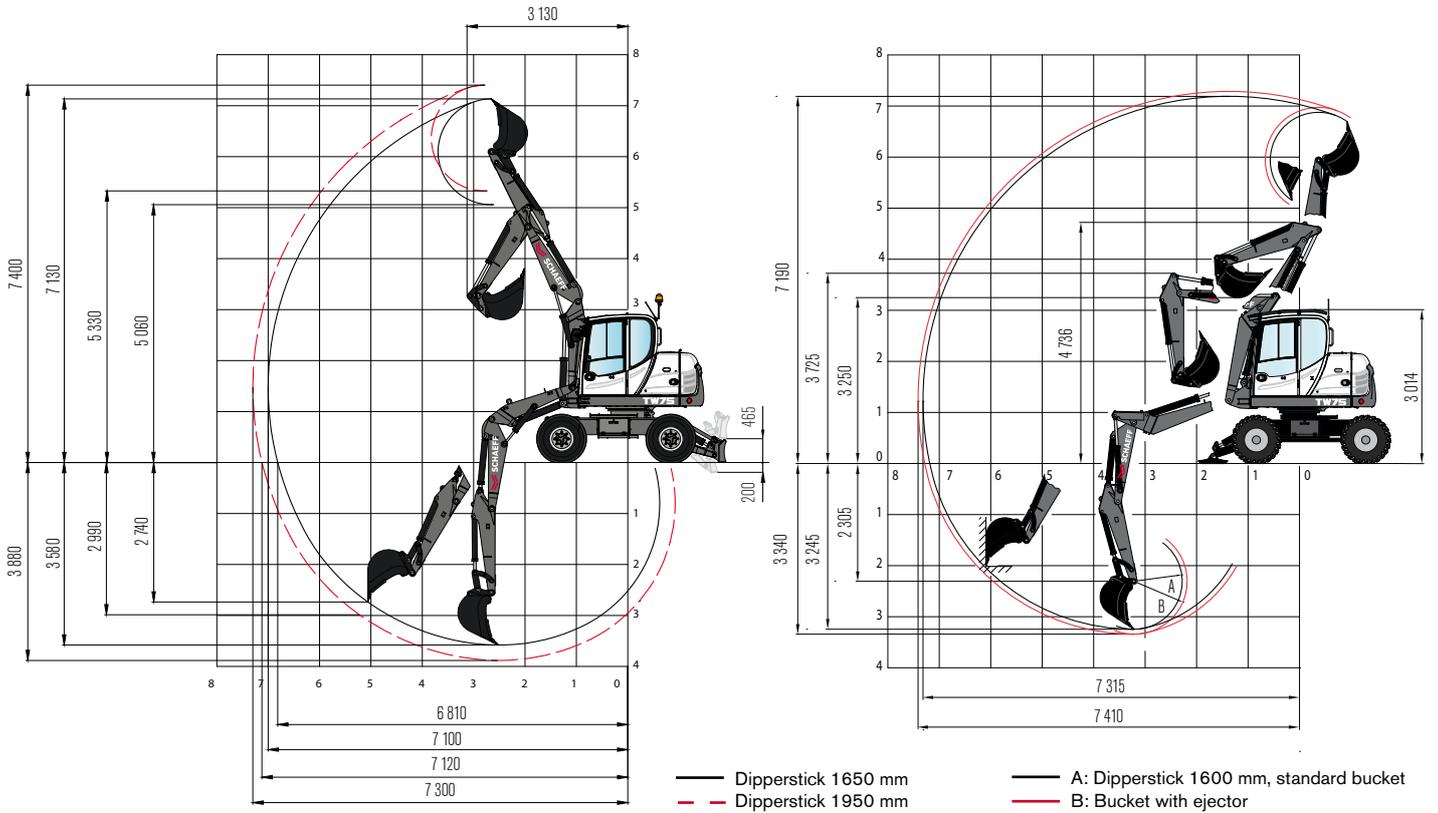
The diagnostic connector for engine and machinery data speeds up maintenance and servicing by improving communication between man and machine. Canbus data is shown on the display.

### FURTHER ADVANTAGES

- ▶ Easy access to the engine helps reduce maintenance time.
- ▶ Daily servicing tasks can be performed from ground level to save time.

# SPECIFICATIONS

## WORKING RANGES & DIMENSIONS: TWO-PIECE ARTICULATED BOOM / CIRCULAR BOOM



## LIFTING CAPACITIES

Bucket hinge height		Load radius from center of ring gear															
		3.0 m				4.0 m				5.0 m				6.0 m			
Dipperstick TPA 1,650 mm		3.0 m		4.0 m		5.0 m		6.0 m		3.0 m		4.0 m		5.0 m		6.0 m	
Dipperstick CB 1,600 mm		3.0 m		4.0 m		5.0 m		6.0 m		3.0 m		4.0 m		5.0 m		6.0 m	
		TPA	CB	TPA	CB	TPA	CB	TPA	CB	TPA	CB	TPA	CB	TPA	CB	TPA	CB
3.0 m		-	3.00	-	2.46	1.40	1.78	1.33	1.35	0.87	1.27	1.07	0.97	0.95	0.73	0.87	0.59
		-	1.91	-	2.42	1.40	1.26	1.36	1.32	0.86	0.88	1.07	0.93	0.68	0.57	0.80	0.59
1.5 m		1.58	2.14	2.34	1.61	1.26	1.87	1.47	1.24	0.99	1.33	1.06	0.92	0.92	0.89	0.65	0.64
		1.40	2.05	2.17	1.58	1.25	1.44	1.41	1.22	0.98	0.83	1.01	0.87	0.63	0.57	0.62	0.62
0 m		2.41	3.05	1.91	1.76	1.53	1.89	1.26	1.19	1.00	1.74	0.90	0.83	0.88	0.78	0.81	0.70
		1.69	1.60	1.76	1.67	1.14	1.07	1.18	1.16	0.82	0.75	0.86	0.81	0.76	0.62	0.78	0.69
- 0.9 m		2.67	2.70	1.95	1.74	1.72	1.63	1.31	1.16	1.07	1.24	1.11	0.96	-	-	-	-
		1.72	1.58	1.78	1.69	1.16	1.03	1.20	1.10	0.83	0.86	0.98	0.91	-	-	-	-

All values in tons (t) were determined acc. to ISO 10567 and include a stability factor of 1.33 or 87% of the hydraulic lifting capacity. All values were determined with load hook. With bucket attached, the weight difference between bucket and load hook must be deducted from the permissible operating loads. When used for load hook applications, excavators must be equipped with hose-rupture valves and overload warning device in compliance with EN 474-5.

Working equipment: Two-piece articulated boom, dipperstick 1,650 mm; circular boom, dipperstick 1,600 mm, twin tires 8.25-20/wide tires 500/45-20.

Abbreviations: TPA = Two-piece articulated boom, CB = Circular boom

## DIMENSIONS

Fig. 1: Excavation within the entire width of the machine

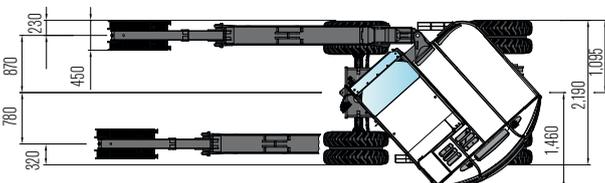


Fig. 2: Working envelope

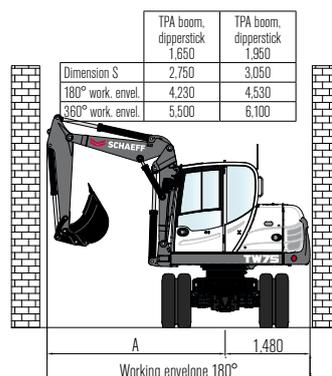
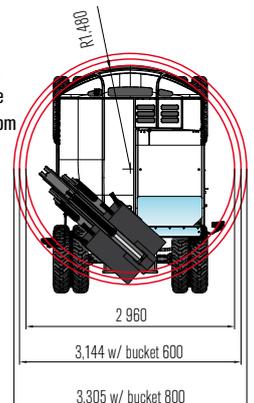


Fig. 3: Working envelope Circ. boom



## ENGINE

Manufacturer, model	Deutz, TCD 2.9 L4
Type	Turbo diesel engine with intercooler, exhaust-gas optimised EU Stage III B, EPA TIER IV final
Combustion	4-stroke cycle, Common Rail injection
Number of cylinders	4 in line
Displacement	2,900 cm <sup>3</sup>
Net power rating at 2,200 rpm (ISO 14396)	55.4 kW (75 hp)
Max. torque	300 Nm at 1,600 rpm
Cooling system	Water

## ELECTRICAL SYSTEM

Nominal voltage	12 V
Battery	12 V / 105 Ah
Generator	14 V / 95 A
Starter	12 V / 2.6 kW (3.5 hp)

## TRANSMISSION

Hydrostatic travel drive, closed circuit, with automatic adjustment of drawbar pull and speed, independent from working hydraulics. 4-wheel drive from reduction gear on front axle via cardan shaft to rear axle. Infinitely variable speed control forward and reverse.

2 speed ranges:

"Low"	0-6 kph
"High"	0-20 kph

4 speed ranges (high-speed version optional):

"Low"	0-6 / 0-17 kph
"High"	0-11 / 0-30 kph

## AXLES

Front: Oscillating planetary drive axle, oscillating angle 14°.

Rear: Rigid planetary drive axle.

## TIRES

Standard	8.25-20, 12 PR twin tires
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## BRAKES

Service brake: Hydraulic pump accumulator two-circuit brake, acting on oil-immersed multi-disc brakes of front and rear axle.

Excavator brake: Acting on front and rear axle due to lockable service brake.

Auxiliary brake: Hydrostatic travel drive in closed circuit acting as non-wearing auxiliary brake.

Parking brake: Hydraulic spring-loaded brake, electrically actuated

## STEERING

Fully hydraulically controlled front axle with integrated steering cylinder.

Max. steering angle	35 °
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## SWING SYSTEM

Hydrostatic drive with 2-stage planetary gear and axial piston fixed displacement motor, also acts as wear-resistant brake. In addition, spring-loaded multi-disc brake acting as parking brake.

Swing speed	0-10 rpm
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## KNICKMATIK®

Lateral parallel adjustment of boom arrangement at full dig depth.

Angle of articulation / lateral adjustment left	48° / 735 mm
Angle of articulation / lateral adjustment right	72° / 880 mm

## FLUID CAPACITIES

Fuel tank	150 l
Hydraulic system (incl. tank)	210 l

## OPERATING DATA, STANDARD EQUIPMENT

Operating weight (two-piece articulated boom "TPA") acc. to ISO 6016	7,400 kg
Operating weight (circular boom) acc. to ISO 6016	7,600 kg
Total length, travel position (TPA boom)	5,210 mm
Total height, travel position (TPA boom)	3,595 mm
Transport dimensions: TPA boom / Circular boom (L x H)	5,710 x 2,920 mm
Total width (twin tires)	2,190 mm
Total height (top of cab)	2,935 mm
Track width	1,682 mm
Wheelbase	2,125 mm
Ground clearance below cardan shaft	420 mm
Turning radius (front-axle steering / 4-wheel steering)	6,700 / 5,700 mm
Uppercarriage tailswing	1,480 mm
Uppercarriage frontswing	2,750 mm
Working envelope 180°	4,200 mm
Working envelope 360°	5,500 mm
Bucket digging force acc. to ISO 6015	38,000 N
Stick digging force acc. to ISO 6015	30,000 N

## HYDRAULIC SYSTEM

Travel hydraulics: Closed circuit, independent from working hydraulics.

Pump capacity, max.	88 l/min
Working pressure, max.	420 bar

Working hydraulics: Axial piston variable-capacity pump with flow rate adjustment and pressure cut-off. 2-circuit hydraulic system. Sensitive maneuvers irrespective of loads.

Max. pump capacity	138 l/min
Working pressure, max.	250 bar

The thermostatically controlled oil circuit ensures that the oil temperature is promptly reached and avoids overheating. Return filter installed in oil tank allows for eco-friendly replacement of filter elements.

Variable displacement pump for all positioning and swing movements.

Max. pump capacity	41 l/min
Working pressure, max.	210 bar

Control circuit for work attachments, proportionally operated:

Pump capacity, progressively adjustable	90 l/min
Working pressure, max.	250 bar

Two servo-assisted joystick controls (ISO) for excavator operations.

## CAB

Spacious, sound-insulated full-vision steel cab (ROPS certified). Sliding window in cab door. Safety glass windows, thermo windows tinted in green. Skylight thermo window, bronze tinted. Panoramic rear window. Front window supported by pneumatic springs, lockable for ventilation and slidable under cab roof. windscreen washer system. Storage compartment. Preparation for radio installation. Left-hand outside rear-view mirror.

Cab heating with front window defroster by coolant heat exchanger with stepless fan. Fresh air and recirculating air filters.

Operator's seat MSG 85 (comfort version), hydraulic damping, extra-high backrest, tilt-adjustable armrests, longitudinal-horizontal suspension, mechanical lumbar support. Lap belt.

Instrument panel on the right-hand side of the operator's seat with visual & acoustic warning device, hour-meter and safety module.

Working floodlights Halogen H-3.

## NOISE LEVEL

Sound pressure level ( $L_{pa}$ ) in cab	77 dB(A)
Sound power level ( $L_{wa}$ ) around the machine according to 2000/14/EC	99 dB(A)

# EQUIPMENT

## DIESEL ENGINE

	Standard	Option
Intercooler	•	
Direct electronic fuel injection / common rail	•	
Diesel particulate filter (DPF)	Country specific	
Automatic idle		•
Automatic engine shut down		•
Temperature-dependent reversing fan	•	

## BOOM SYSTEMS

Two-piece articulated boom (TPA), with dipperstick 1650 mm	•	
Two-piece articulated boom (TPA), with dipperstick 1950 mm		•
Circular boom, with dipperstick 1600 mm		•

## TRAVEL DRIVE

All-wheel drive, single-axle steering, 20 kph	•	
All-wheel drive, single-axle steering, 25 or 30 kph		•
All-wheel drive, all-wheel steering, 20 or 25 kph		•

## SUPPORT SYSTEMS

Front dozer blade, 2200 mm wide		•
Rear support blade, 1990 or 2200 mm wide		•
Rear outrigger plates, flat	•	
Rear outrigger plates, rubber-coated		•

## TIRES

Twin tires 8.25-20 12PR, with intermediate rings	•	
Narrow track tires 365/70 R18 MPT E-70		•
Single tires 500/45-20		•

## HYDRAULIC SYSTEM

LUDV working hydraulics, axial piston pump with load sensing	•	
Control circuit for work attachments with continuous operation	•	
Schaeff 'Fingertip' control incl. 2nd additional control circuit on left joystick		•
Schaeff 'Fingertip' control incl. 2nd & 3rd additional control circuit on left joystick		•
Dozer blade float position		•
Excavator control changeover: ISO-SCHAEFF		•
Excavator control changeover: ISO-SAE		•
Bucket control changeover in case of forklift operation		•
Steering change-over in case of blade operation		•
Hydraulic installation for quick-attach system		•
Open return	•	
Hose-rupture / load-retaining valves for boom, intermediate boom and dipperstick cylinders	•	
Supplementary set hose-rupture / load-retaining valves for TPA boom, bucket cylinder		•
Biodegradable hydraulic oil / ester-based HLP 68 (Panolin)		•

## QUICK-ATTACH SYSTEM

Quick-attach system, mechanical, incl. pins for mounting of quick-attach system	•	
Bucket pins for quick-attach system / Schaeff		•
Bucket pins for direct mounting / Lehnhoff QAS		•
Quick-attach system, mechanical (Lehnhoff) MS08, with load hook		•
Quick-attach system, hydraulic (Lehnhoff) type HS 08, with load hook		•

## CAB

	Standard	Option
ROPS steel cab, safety glazing, skylight window, hot water heating, sliding window in cab door, window washing system, working floodlight	•	
Operator's seat MSG 85, comfort version, hydraulic damping, extra-high backrest, longitudinal-horizontal suspension, mechanical lumbar support	•	
Operator's seat MSG 95, premium version, air damping, extra-high backrest, longitudinal-horizontal suspension, seat and backrest heating, mechanical lumbar support		•
Sliding window on right-hand side		•
FOPS-Guard for skylight window		•
Independent diesel heating with fresh air circulation and timer		•
2 kg ABC powder fire extinguisher		•
Schaeff coolbox		•
Air-conditioning (Climatronic)		•
Radio installation kit (without radio, incl. speakers)		•
Headrest		•

## OTHER OPTIONAL EQUIPMENT

Rear view camera	•	
Battery disconnecter	•	
Option package Lighting: rotating beacon, working floodlight cab-mounted, rear right and front right, working floodlight boom-mounted		•
Option package Safety: immobilizer (coded key), motion alarm, fire extinguisher 2 kg		•
Option package Comfort: MSG 95, auto idling, air-conditioning		•
Additional rear weight, 110 kg		•
Anti-theft device (immobilizer)		•
Electrical refuelling pump		•
Boom-mounted working floodlight		•
Lighting package: Double beam working floodlight - cab-mounted rear right, working floodlight cab-mounted - front right		•
Yellow rotating beacon, attachable		•
Back-up alarm, signal-horn		•
Central lubrication system		•
Grab transport lock / piped		•
Outside rear-view mirror, heatable		•
Additional tool box		•

## WORK ATTACHMENTS (BUCKETS)

Option package Bucket 1: bucket 400 mm / 127 l, bucket 600 mm / 212 l, bucket 800 mm / 303 l, swing bucket 1500 mm / 305 l		•
Bucket, 400 mm wide, QAS, capacity 127 l		•
Bucket, 600 mm wide, QAS, capacity 212 l		•
Bucket, 800 mm wide, QAS, capacity 303 l (max. 1.0 t/m <sup>3</sup> )		•
Swing bucket, 1500 mm wide, QAS, capacity 305 l (max. 0.6 t/m <sup>3</sup> )		•

## OTHER WORK ATTACHMENTS

Hammer holder, plate without boring, QAS, Schaeff		•
Bolt-on load hook for bucket rod		•
Further optional equipment available on request		



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