TOTALLY CAPABLE

Just when you need it…

The Schaeff TL80 wheel loader is one of the most powerful and popular compact wheel loaders on the market. Not least because it can be used with great reliability and flexibility on a wide variety of construction sites. A wealth of attachments support a huge range of applications.

Made in Germany

Schaeff has developed and manufactured compact construction machinery for over 75 years, including more than 30 years at the current Crailsheim site.

<table>
<thead>
<tr>
<th>Technical data *</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating weight</td>
<td>4900 kg</td>
</tr>
<tr>
<td>Engine power</td>
<td>45 kW (61 hp)</td>
</tr>
<tr>
<td>Bucket capacity</td>
<td>0.8–1.2 m³</td>
</tr>
<tr>
<td>Steering</td>
<td>Articulated steering</td>
</tr>
</tbody>
</table>
EXTREMELY POWERFUL

... FROM ANY SIDE.

Replacing tools quickly and easily from the cab using the quick-attach system thanks to two-handed operation.

Articulated steering with oscillating rear axle provides stability, ride comfort, and precise maneuverability, particularly during attachment changes.

Articulation steering with oscillating rear axle provides stability, ride comfort, and precise maneuverability, particularly during attachment changes.

New hood styling with 20% bigger ventilation slots for optimised engine cooling.

Less displacement and fuel consumption, more torque and power with the EU Level IIIB / EPA Tier 4 Final engine.

* compared to previous version.

Automatic self-locking differentials on both axles offer excellent traction.

Multi-function joysticks: the 3rd and 4th control circuits are under precise electric proportional control. Various additional functions are integrated directly.

Cab interior with a new performance-enhancing design for a comfortable and productive working environment.

Transversely mounted engine provides easy access for maintenance and acts as a counterweight.

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

4th control circuit with high flow function (optional) for more hydraulic power: 115 l/min.

Fingertip control for fast and precise work.

Electrics directly and easily accessible in the cab.

The latest Schaeff Smart Control operating system for precise, comfortable and productive work.
POWERFUL ENGINE

DELIVERS RESULTS IN TERMS OF OPERATION AND ENVIRONMENTAL PROTECTION.

FEWER EMISSIONS, MORE POWER

Engine: EU Stage III B / Tier 4 Final
Adopting European and American emission levels ensures a significant reduction in particulate emissions compared with previous levels – from 0.4 to 0.025 g/kWh.

TAKE ADVANTAGE OF THE NEW ENGINE TECHNOLOGY:

- Lower fuel consumption really pays off.*
- The machine is delivered without a diesel particulate filter as standard. This saves on servicing costs. A diesel particulate filter is available on request.
- Fresh air: pollutants in the emissions from the TL80 are reduced by up to 90%. Significantly fewer particulates are emitted thanks to the advanced exhaust after-treatment. This is achieved by means of improved combustion and injection systems and a diesel oxidation catalyst (DOC).*
- Drive characteristics have been optimised for the new engine to deliver performance and meet regulations.

* Compared to previous version
MODERN WORKING ENVIRONMENT
INCREASES PRODUCTIVITY AND SATISFACTION.

THE CAB
Even when it’s rough outside, the many features in the cab provide a very pleasant working environment. The control system for the machine uses innovative technology. The machine remains easy to handle, even when used in challenging conditions. This helps driver and machine deliver high productivity.

COMFORTABLE AND FUNCTIONAL
Designed with driver comfort and productivity in mind, the cabs feature noise and vibration damping and are ROPS/FOPS-approved.

SECOND DOOR
- Optimal cab ventilation
- Communication possible on both sides
- Cab easy to clean
- Improved visibility, even at ground level

DISPLAY AND INSTRUMENTS
A central control unit allows the machinery to be adjusted to the application and the driver. The 3.5” display shows machinery and engine data. The modern menu guide is similar to current smart phones. The windscreen, which domes inwards, minimises the mirror effect.

PRECISE FINGERTIP CONTROL
With the fingertip control, electrical proportional activation of hydraulic functions is simple thanks to a thumbwheel on the joystick. This enables the operator to regulate the oil flow with real precision, all the way from “zero” to “full”, which makes it considerably easier to use attachments such as folding buckets, high-tip buckets, or sweepers.

SCHAEFF SMART CONTROL
Schaeff Smart Control is an operating system for compact wheel loaders with new engines in the EU Level III B / EPA Tier 4 Interim and Final class. It has never been easier to match a Schaeff construction machine precisely to the driver and application. Numerous controls have also been redesigned and rearranged for quicker operation and improved machine monitoring.

What this means for you:
- Intuitive operation that is easy to set for each individual driver
- 3rd and 4th electric proportional hydraulic control circuit for operating work attachments
- New display design to enable easy machine monitoring
- Keypad with extra large keys for easy operation
EFFICIENT DRIVE

RIGHT ON TRACK.

Responsive, ready for the task at hand, and intuitive: the wheel loader delivers power exactly where needed – the results are fast work cycles, low fuel consumption, and minimal wear.

ECONOMICAL HYDROSTATIC DRIVE

Operating in a closed circuit, the hydrostatic travel drive delivers lots of power while keeping fuel consumption low. The TL80 loader can achieve up to 20km/h on the road. The optional high-speed version can reach speeds of up to 36 km/h.

ARTICULATED STEERING WITH OSCILLATING REAR AXLE

When used at a densely built-up location or construction sites with limited space, the articulated steering delivers great maneuverability with its 40° steering angle. The articulated steering also allows the bucket to approach the load in a straight line, even at the maximum steering angle. This affords the operator greater flexibility in terms of picking up pallets or setting down loads. The oscillating rear axle has a wide slewing angle of 10°, keeping all 4 wheels in contact with the ground at all times, even when working on uneven ground. The operator also sits parallel to the work attachment at all times. With a Schaeff wheel loader, only the rear axle oscillates — unlike other manufacturers, where the whole of the rear end oscillates. This means the weight of the machine is always moving in the same direction as the bucket, which in turn increases the pressure on the ground when backing up.

AUTOMATIC SELF-LOCKING DIFFERENTIALS

All compact Schaeff wheel loaders are fitted with permanent all-wheel drive and automatic self-locking differentials on the front and rear axles (35% locking effect). Both provide enhanced traction when traveling in a straight line and turning corners — perfect for bucket loading. The self-locking differentials are activated automatically as required.

BRAKE/INCHING PEDAL

Schaeff wheel loaders have a brake/inching pedal for precise maneuver commands and fast work cycles. This function allows the operator to divert the engine’s power from the travel drive to the working hydraulics for fast lifting and setting down of loads.

ROAD PERMISSION

Schaeff wheel loaders may be driven on the road. The TL80 can also be used with an optional towing hitch as a tractor unit.*

* May vary according to country standards
POWERFUL WORK EQUIPMENT

SETTING NEW STANDARDS IN REACH AND POWER.

LIFTING FRAME WITH PARALLEL KINEMATICS SYSTEM

Included as standard on all machines, Schaeff parallel kinematics system allow you to lift a load quickly and precisely without constantly having to adjust the loading angle. While the kinematics system take care of the stroke angle, the operator is free to concentrate on where exactly to set down the load. Schaeff parallel kinematics system optimise work cycles when loading and unloading the second row on a truck. The clever design ensures the tilt control lever does not collide with the body of the truck.

FORK CARRIER

In tandem with the quick-attach system, the fork carrier offers excellent visibility.

HIGHLY EFFECTIVE HYDRAULICS

The working hydraulics operate completely independently of the hydraulics for the drive.
SIMPLE SERVICING
AND QUICK WITH IT.

Simple component layout simplifies service and helps to maximise operating time. Daily tasks can be performed from ground level to save time.

What this means for you:
- Refueling is quick and time-efficient via the easily accessible service hatch.
- Large gas-pressured struts make it easy to open the engine hood. The starter, generator, battery, and injection pump are easy to reach, as are the fuel and air filters.

EXCELLENCE AS STANDARD
WITH PERFECTLY TAILORED ADDITIONAL EQUIPMENT.

In order to provide a wheel loader adapted for the job, Schaeff offers numerous equipment packages and additional equipment. Using equipment tailored to the job helps increase productivity, reduce wear and damage.

PROTECTION PACKAGE FOR HARSH ENVIRONMENTS
This includes:
- Special coating with 2K paint
- Piston rods for lift, tilt, and steering cylinders with chrome/nickel coating (instead of the standard chrome coating)

LIFTING ARM
- Burst valves for lift and tilt cylinders

HYDRAULICS
- Fourth hydraulic control circuit
- Hydraulic shock absorbers
- Biodegradable hydraulic oil

CAB
- FOPS modification kit (protection against falling objects)
- Heated external mirror
- Supplementary diesel heating (independent of engine) with circulation system
- Sliding window on right-hand side
- Air conditioning

MAINTENANCE
- Central lubrication
- Electric refueling pump

OPERATION
- Automatic return to dig position
- Reverse signal
- Electronic immobiliser
- Creeper gear
**DIMENSIONS**

**GENERAL-PURPOSE BUCKET**

- Capacity (ISO 7546): 0.80 m³
- Max. density of material: 1.8 t/m³

**FORK LIFT ATTACHMENT MULTI-PURPOSE BUCKET**

- Capacity (ISO 7546): 0.75 m³
- Max. density of material: 1.6 t/m³

**BUCKET TYPE**

<table>
<thead>
<tr>
<th>Contents</th>
<th>Density</th>
<th>Width</th>
<th>Dump height</th>
</tr>
</thead>
<tbody>
<tr>
<td>General-purpose bucket, QAS, teeth</td>
<td>0.80 m³</td>
<td>1.8 t/m³</td>
<td>1,850 mm</td>
</tr>
<tr>
<td>General-purpose bucket, QAS, bolt-on cutting edge</td>
<td>0.80 m³</td>
<td>1.8 t/m³</td>
<td>1,850 mm</td>
</tr>
<tr>
<td>Earth bucket, QAS, teeth</td>
<td>0.80 m³</td>
<td>1.6 t/m³</td>
<td>1,850 mm</td>
</tr>
<tr>
<td>Earth bucket, QAS, bolt-on cutting edge</td>
<td>0.80 m³</td>
<td>1.6 t/m³</td>
<td>1,850 mm</td>
</tr>
<tr>
<td>Light-material bucket, bolt-on cutting edge</td>
<td>1.00 m³</td>
<td>1.2 t/m³</td>
<td>1,850 mm</td>
</tr>
<tr>
<td>Light-material bucket, bolt-on cutting edge</td>
<td>1.00 m³</td>
<td>0.8 t/m³</td>
<td>1,850 mm</td>
</tr>
<tr>
<td>Multi-purpose bucket, QAS</td>
<td>0.75 m³</td>
<td>1.6 t/m³</td>
<td>1,850 mm</td>
</tr>
<tr>
<td>Multi-purpose bucket, QAS, bolt-on cutting edge</td>
<td>0.75 m³</td>
<td>1.6 t/m³</td>
<td>1,850 mm</td>
</tr>
<tr>
<td>Side-dump bucket, QAS, without teeth</td>
<td>0.70 m³</td>
<td>1.8 t/m³</td>
<td>1,850 mm</td>
</tr>
<tr>
<td>High-tip bucket, QAS, without teeth</td>
<td>0.70 m³</td>
<td>1.8 t/m³</td>
<td>1,850 mm</td>
</tr>
<tr>
<td>Quarry bucket, QAS</td>
<td>0.70 m³</td>
<td>1.8 t/m³</td>
<td>1,850 mm</td>
</tr>
</tbody>
</table>

**EXAMPLES OF MATERIAL DENSITIES**

- Granite, basalt, sand (damp), gravel (damp), slate: 1.8 - 2.2 t/m³
- Topsoil, clay, mineral coal: 1.1 - 1.6 t/m³
- Sandstone, gypsum, limestone, soil (damp), sand (dry), gravel (dry): 1.2 - 1.8 t/m³
- Wood chips (dry), compost, coke: 0.2 - 1.0 t/m³
**SPECIFICATIONS**

**ENGINE**
- Manufacturer, model: Deutz, TED 231/4
- Type: Turbocharged 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 cm³
- Net power rating at 2,300 rpm (ISO 14397): 357 kW
- Max. torque: 2,100 Nm @ 1,800 rpm
- Cooling system: Water

**ELECTRICAL SYSTEM**
- Nominal voltage: 12 V
- Battery: 12 V / 77 Ah / 760 A (DIN-EN50342)
- Starter: 12 V / 2.6 kW (3.5 hp)
- Cold starting aid: Glow plugs 12 V
- Lighting system in compliance with ISO/TDIS and European standards, halogen fogheadlamps, 2-way front headlights

**POWER TRANSMISSION**
- Hydraulic drive, closed-circuit, independent from loader hydraulics. Perfected driving mechanics, automatic optimisation and adjustment of drawbar pull and speed. Hydraulic motor power shift for two speed ranges. Infinitely variable speed control forward and reverse. 4-wheel drive from reduction gear on rear axle via cardboard to front axle. Tech-brake drive pedal for sensitive driving and stopping at high rpm.

**AXLES**
- Front: Right planetary final drive axle, center-mounted disc brake. Limited slip type differential 39%. Rear: Driving axle consisting of planetary final drive axle, with integrated reduction gear. Limited slip type differential 39%.
- Angle of inclination: ±10°

**BRAKES**
- Service brakes: Hydraulically actuated centre-mounted disc brakes, acting on all 4
- Auxiliary brake: Hydraulic through closed-circuit travel drive.
- Parking brake: Mechanically actuated centre-mounted disc brake on front axle.

**STEERING**
- Articulated steering, fully hydraulic, 1 steering cylinder with final positioning damping on both sides, oil supply via Load-Sensing priority valve, quick and easy steering even at engine idle-running speed.
- Articulated steering, fully hydraulic, 1 steering cylinder with final positioning damping on both sides, oil supply via Load-Sensing priority valve, quick and easy steering even at engine idle-running speed.
- Hydraulic installation for hydraulic quick-attach system.
- 4th control circuit, Single-acting, Schaeff ‘Fingertip’ control, (electro-proportional control) and installation on lift frame incl. couplings.
- 4th control circuit, single-acting, Schaeff ‘Fingertip’ control, (electro-proportional control) and installation on lift frame incl. couplings.
- Hydraulic outboard facing forward and rearward, with view switch

**FLUID CAPACITIES**
- Fuel tank: 75 l
- Hydraulic system (incl. tank): 50 l

**NOISE LEVEL**
- Sound pressure level (Lpa) in cabin: 75 dB(A)
- Sound pressure level (Lpa) around the machine according to 3800/14/EC: 101 dB(A)

**OPERATING DATA, STANDARD EQUIPMENT**
- Operating weight (ISO 6016): 4,900 kg
- Tipping load, straight (ISO 14397-1): 3,170 kg
- Tipping load, articulated (ISO 14397-1): 3,300 kg
- Total length, loaded on ground: 5,800 mm
- Total width: 2,100 mm
- Turning radius at outer bucket edge: 4,500 mm
- Wheelbase: 2,500 mm
- Total height (top of cab): 2,940 mm

**HYDRAULIC SYSTEM**
- Pump capacity: 54 l/min
- Marking pressure: 250 bar
- Control unit: Pressure-regulated hydraulic valve with 3 control circuits, supplying work functions "Lift / Ladder", "Lever 1 / Lever 2 (with high-speed control)" and "4th control circuit (4th additional control circuit)"
- Simultaneous, independent control of all boom movements.

**TIES**
- Fork lift attachment: Fork carrier, 1,240 mm wide
- Optional equipment: Quarry bucket 0.75 m³, Light-material bucket* 1.20 m³

**DEVELOPMENT**
- Diesel engine and diesel particulate filter (DPF)
- Guard for tire wheel

**HYDRAULIC SYSTEM**
- 4th control circuit, Schaeff ‘Fingertip’ control, (electro-proportional control) and installation on lift frame incl. couplings and continuous operation e.g. for attachments with 2 lift functions.
- 4th control circuit, single-acting, Schaeff ‘Fingertip’ control, (electro-proportional control) and installation on lift frame incl. couplings.

**QUICK-ATTACH SYSTEMS**
- Quick-attachment system, hydraulic
- Hydraulic installation for hydraulic quick-attachment system

**CAB**
- Operator’s seat MSG 85 (comfort version), hydraulic damping, extra-high backrest, weight-adjustable, high-backrest, adjustable armrests, headrest, seat and backrest heating
- “High” 0-16 / 0-36 kph
- 4 speed ranges (high-speed version optional):
  - Low: 0-5 / 10-10 kph
  - High: 0-16 / 0-36 kph
- Articulated steering, fully hydraulic, 1 steering cylinder with final positioning damping on both sides, oil supply via Load-Sensing priority valve, quick and easy steering even at engine idle-running speed.
- Articulated steering, fully hydraulic, 1 steering cylinder with final positioning damping on both sides, oil supply via Load-Sensing priority valve, quick and easy steering even at engine idle-running speed.
- Hydraulic insertion for hydraulic quick-attachment system.
- Hydraulic outboard facing forward and rearward, with view switch

**PILOT ATTACHMENTS**
- Quarry bucket 0.75 m³, Light-material bucket* 1.20 m³
- 4th control circuit, High-Flow, 115 l/min, (electro-proportional control) and installation on lift frame incl. couplings.

**OTHER OPTIONAL EQUIPMENT**
- High-speed version 36 kph
- Anti-theft device (immobiliser)
- FOPS-skylight guard
- Yellow beacon
- Radio installation kit
- Air-conditioning
- Service brake: Hydraulically actuated centre-mounted disc brake, acting on all 4
- Auxiliary brake: Hydraulic through closed-circuit travel drive.