

@agrارheute

LANDWIRTSCHAFT AUF DEN PUNKT GEBRACHT

9640 T:

**THE RIGHT SHOVE
FOR EACH JOB**



With compliments from

Schaeffer

www.schaeffer.de/en

THE RIGHT SHOVE FOR EACH JOB

The **Schäffer 9640 T** telescopic wheel loader offers a 4.2t lift capacity and 5.4m **lift height** and as such plenty of power and reach, especially for large operations. The telescopic arm makes it a very versatile machine. We mounted the loader to get an impression.



The Schäffer 9640 T made a compelling impression in all types of work – stacking bales and handling grain, but also moving soil.



IN A NUTSHELL

- The Schäffer 9640 T has a 4.2t lift capacity and a maximum lift height of 5.4m.
- Pushing power is boosted from 4,000daN to 8,700daN in the low speed range of the two-speed powershift transmission.
- The hydraulics are powerful for swift and well-modulated work cycles.

Lift capacity and lift height are usually the main talking points when purchasing a telescopic wheel loader. The telescopic arm of this loader makes it a great bale stacker. Offering a 4.2t lift force and 5.4m lift height, the 9640 T is the right machine for large-scale farmers, contractors and operators of biogas plants.

The 40km/h version is indeed a speedy road machine thanks to the in-house-developed and patented SDCT double-clutch gearbox. This 'Schäffer Dual Clutch Transmission' has two travel ranges that can be selected under load. Normally, the higher speed range handles all speeds all the way up to 40km/h, changing them infinitely variably. The operator interferes only when high pushing powers are needed. Then pressing a button shifts down one gear. This is necessary when pushing up grass silage in the clamp, for example. We operated the machine in the high speed range most of the time.

PLENTY OF SHOVE

The hydrostatic transmission develops plenty of shove when removing silage from the clamp. So filling the bucket or shear grab is an easy job. Pushing off soil, too, was easy for us, because the two-speed powershift transmission more than doubled the lugging power from 4,000daN to 8,700daN when in range 1. The automotive drive makes for

pleasant rides, because it has the engine revving at the speed that is necessary for the desired ground speed and required pushing power – to the effect that the machine works at comfortably low engine speeds – easy on your ears and wallet.

Those looking for even better fuel economy can use the Eco mode when travelling on roads. In this mode, the engine does not develop its maximum speed of 2,300rpm, but is instead capped at 1,800rpm for fuel-efficient travel. More nice features – road work is enjoyable. The 9640 allowed us to travel at a swift 40km/h on public roads. The ride, too, was beyond reproach at 40km/h. You can even hitch a load of up to 16 tonnes, but caution – the tongue load is a modest 50kg, so tandem trailers are out of question. But Schäffer offers the machine in various versions and homologations, depending on the level of brake specification.

A further option is the drive pedal mode. For this mode, you set the engine speed to a specific rpm from the stepless dial on the B-post under the display screen. In pedal mode, the automotive transmission shuts off automatically so the operator can change or maintain the current forward speed using the pedal – irrespective of the current engine speed. This is a very useful option for all who want to attach a brush or a silage dispenser.

Access to the cab is convenient and up three steps. The door opens wide and inside the SCV+ cab you find all controls well laid out. A noise level of 71dB(A) makes for a pleasantly quiet environment that also offers a comfy air seat.

The dash board now has a new display which gives operators a full overview of all gauges and indicators. Another new feature is the small display screen on the B-post which shows all engine and exhaust system functions. Ignition lock, climate controls and heating elements on the side console fall readily to hand. The parking brake lever sits between the console and the armrest and is designed as a spring-loaded brake which blocks the machine automatically when the oil pressure drops, meaning also when the engine shuts off.

GOOD OPERABILITY

The developers treated the Schäffer loader to a new joystick where all gearbox, transmission and loading controls fall ergonomically to your right hand. The traditional cross control operates the hydraulics and the red slider selects the direction of travel.

The blue rocker at the front operates the telescopic arm; the blue rocker at the rear either locks the implement hydraulically or operates the remotes, for example for the silage grab. All blue rockers offer proportional control. A powershift control button is on the side. The orange button to the right of the stick defaults the bucket to return-to-dig, which returns it automatically into loading position. We fared really well with the joystick which gave very modulated control of all loader functions.

HIGH LIFT POWERS ...

According to the manufacturer, lift capacity is 4.2t and tipping load is 5.35t when the machine is parked on level ground. These stats suggest enough capacity for good machine stability. We always felt safe in our handling jobs, even in articulated position. For extra stability, we had fitted a 325kg counterweight at the rear.

The manufacturer says maximum lift height of the two-piece boom is 5.40m, measured at the bucket pivot pin. The maximum lift/dump height is 5.20m for the pallet fork. We measured 4m for the bucket with the boom retracted. These measurements are identical with the information in the brochure.

When you tip the bucket to full dump angle, the gap to the wheels is 35cm. Reach is 2.97m, says the manufacturer. Work cycles are quite speedy – extending the arm takes less than 4 seconds; retracting it takes a bit less at 3.3 secs. Raising the arm takes less than 5 seconds and lowering it about 7 secs, courtesy of the load-holding, drop rate-braking valve. Crowding the bucket takes 3 to 3.5 seconds and emptying it 2.5 seconds.

A practical detail is that a sensor on the carriage allows operators to preset a crowd angle and adapt it to an existing bucket, so no material is spilled over its back wall. However, the bucket wouldn't always crowd all the way in our test. When this happened, we had to dump and crowd

again. The problem is sorted now by replacing the mechanical sensor with an electronic angle sensor.

... AND GOOD VISIBILITY

Courtesy of the curved front screen, the operator enjoys a good view of the attachment – even when the boom is extended and raised to full height. The other way round, when down and retracted it doesn't hide the coupling points. You just have to lean a bit to the side to view past the arm. Attachment changeovers are fast, courtesy of the hydraulic mechanism. Handling maize silage for the digester and stacking square bales, we appreciated the loader's high lift powers. Loading grain worked well, too, after we tweaked the bucket crowd.

136HP ENGINE

The necessary punch comes from the 3.6l, 4-cyl. Deutz engine. It meets Tier 4 final emission standards using a diesel oxidation catalyst and an SCR catalyst, a technology that does without particulate filters. The emission cleaning system is more or less maintenance-free. The rated output is 100kW or 136hp, says the manufacturer. This is enough to power the 145l load-sensing pump.

The heavy-duty ZF axles have a carrying capacity of 17,600daN on the stationary machine, which translates into nearly 17.3 tonnes. That's more than enough for a loader with an operating weight of 8.4-9.7t (depending on level of specification, weights fitted and tyres). The standard spec. machine stands on 24inch tyres. Our test machine was clad with 600mm rubber on 26.5inch rims. In this outfit, the machine's total width measures 2.38m and total height 2.86m. A 10cm lower cab is an option.

SUMMARY

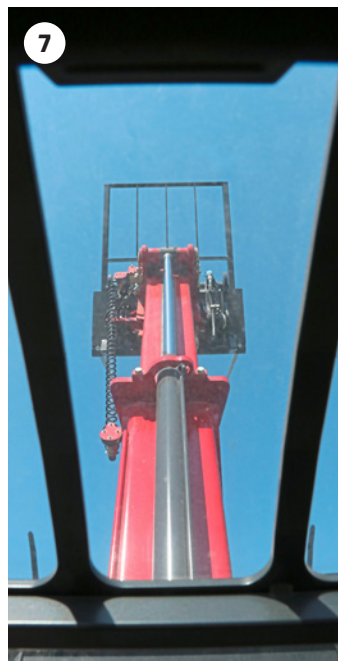
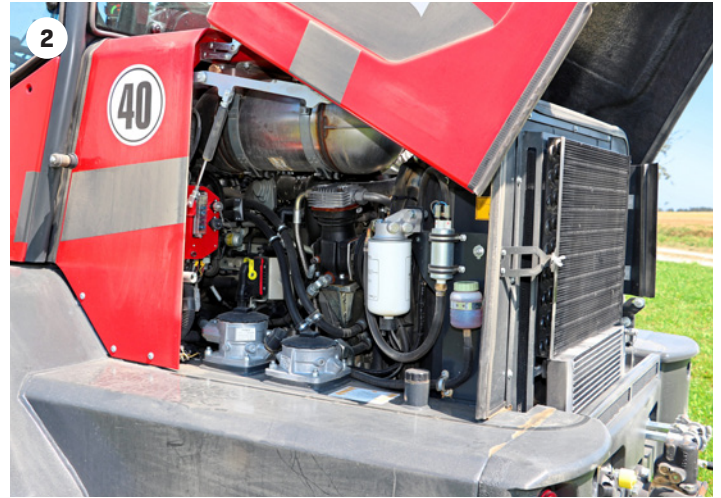
Schäffer 9640 T is a well-made loader with good lift forces and a reasonable reach. At the same time, it offers straightforward operation from ergonomic controls in a well-laid out and spacious cab. We appreciated the automotive drive with Eco mode option, which makes for quiet and fuel-efficient road work. When significant pushing power is required, the operator presses a button and reduces the speed ratio. Road travel at 40 km/h is very pleasant, too. ●



Bernd Feuerborn

Editor

bernd.feuerborn@agrarteheute.com



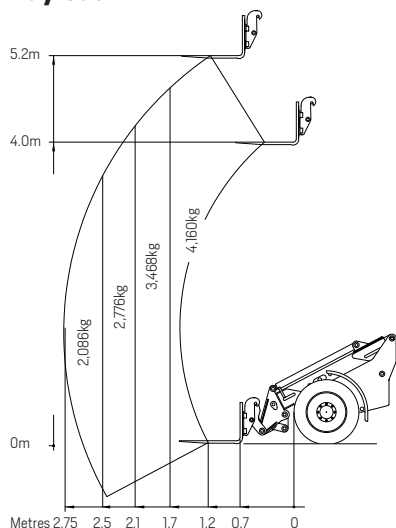
- 1** The dash is clear and uncluttered. All controls are grouped well.
- 2** The 4-cyl. Deutz engine develops 136hp from a 3.6l displacement.
- 3** Access to the spacious cab is convenient.
- 4** The joystick controls all functions with precision.
- 5** The rear axle pivots for safe travel in rough terrain.
- 6** Its telescopic arm gives the 9640 T a maximum lift height of 5.4m.
- 7** Implement visibility is good, also with the arm out and up.
- 8** Implement z-kinematics offer high break-out forces.

SCHÄFFER 9640 T – SPECIFICATIONS

9640 T linkage

Lift power	4,200kg
Tipping load, straight	5,350kg
Digging depth	70mm
Reach	2.97m
Maximum height at bucket pivot pin	5.40m
Pallet fork loading height	5.17m
Dump height	4.57m
Dump reach	0.74m

Payload



The graph shows lift power decreases as the boom retracts. At maximum extension, the boom has enough reserve to heft more than 2 tonnes.

Technical data

Engine	4-cylinder Deutz TCD 3.6 L4
Displacement	3.6l
Engine power	100kW (136hp)
Emission treatment technology*	DOC, SCR, Tier 4 final
Transmission	Automotive hydrostat
Hydraulic output	145l/min
Hydraulic system	Load-Sensing
Steering system	Articulation
Brake	Hydrostatic/multi-disc
Axles	ZF, pivoting rear axle
Speeds	0 - 40km/h
No. of travel ranges	2
Fuel tank	150l
AdBlue tank	20l
Available oil	130l
Tyres	600/50 R26.5
Operating weight	8,400kg - 9,700kg
Total length incl. standard bucket	6.26m
Total width	2.38m
Height over cab	2.86m
Turning circle on outside wheel	3.98m
Turning circle measured on bucket edge	4.53m

Prices

Base price including SCV Plus cab	€97,200
SDCT transmission (40km/h)	€8,498
Case weight	€1,134
Tyre size 600/50 R 26.5	€3,220
Proportional 3rd service control	€746
Comfort package c/w air con, radio and air seat	€4,626
Drive pedal control	€1,740
Tractor/ tool carrier homologation 12t permissible towing capacity incl. air brake	€4,817
Light material bucket 3,125l	€3,323
Total price	€125,304

Source: Manufacturer information, list prices excl. VAT, *DOC = diesel oxidation catalyst, SCR = selective catalytic reduction

Minimum use: 783h/year

$$MU = \frac{Fc}{rc - vc} = \frac{€12,530}{€22 - €6} = 783\text{h/year}$$

Explanation

MU	Minimum use
Fc	fixed costs/year: €12,530/year (= 10% off the purchase price)
Vc	variable costs/ha: €6/h (wear, service)
RC	Rental costs: €22/h

 www.agrarheute.com, 8/2019 issue