



A versatile pro

The Fendt Tigo PR forage wagons stand out for multiple options. We tested the flagship, the PR 60 D, on a dairy farm for a whole season. The name Tigo stems from the time when it was still

A lovely machine in red-white livery; and apart from the name the new owners also retained most of the design while tweaking a number of details since they acquired the programme in 2017. The PR 60 D is a medium-sized model which was tucked into typical forage loading and maize hauling jobs for one season.

tor and wagon and controls the rear steering axle by operating a system of linkages. Providing offset steering / crab steering, the system allows the machine to climb uphill, for example.

Boots size 750/45 R26.5 ensure ground-friendly treading. Since the to-

tal width is clearly less than the statutory 3m – 2.86m to be exact – owners can fit even 800-inch tyres for even lighter treading. Courtesy of the 1.81m axle base, the machine offers a tongue load of 4 tonnes and a gross weight of 24 tonnes. In full specification, it tips

THE FULL PROGRAMME

The Fendt Tigo programme lines up as many as eight different model ranges, the top of which are the PR, VR and XR series for professional applications. PR stands for ‘professional’ and describes the three compact models with standard volumes of 31-36m³.

Our Tigo PR 60 D was the largest machine in this line. The D in the badge name refers to ‘discharge rollers’ - two of which are standard (the test specification), three an option. Sharing basically the same structure, the PR, VR and XR models differ only in pick-up and rotor widths. Those who want a wider pick-up will choose the XR which gives the same nominal 37mm cutting length from 45 blades.

STABLE FOOTING

We hitched the Tigo to the bottom-mount K80 ball. The wagon is controlled electro-hydraulically courtesy of Power Beyond and Isobus. Our machine had also the optional and electric forced steering system with K50 ball. This system is based on a sensor that measures the angle between trac-



1



2



3

Photos: Huesmann

Photo: Tastowe

△ 1) The chain-and-slat floor slopes 25cm on a length of 1.60m towards the front. There are two pairs of chains with slats. 2) The quality of cut is good. The nominal cutting length is 37mm. 3) The two discharge rollers unloaded the material in a fluffy and uniform mat. A third roller is an option.

FURTHER
INFORMATION

On this article



www.topagrar.com/
tigo2022

the scales at a kerb weight of 10 tonnes, which translates into a payload of 14 tonnes. Indeed, we were able to load that quantity of wet grass silage.

Our testers praised the hydropneumatic tandem axle (22t or 24t boogie axles are available, too). Tridem axles are available only for the XR models. The cylinder that operates the articulated drawbar has a nitrogen damper that absorbs the shockloads instead of transferring them to the tractor. Hence road travel was smooth and quiet also at 50km/h. A 60km/h version incl. the necessary approval is available as an option. The running gear literally puts the machine in the curve albeit with a slight delay - a feature Fendt calls FSC (Fendt Stability Control) and that is certainly very useful for those who do a lot of slope work. In addition, the operator can raise and lower the running gear in percentage steps from the settings menu and also lock the suspension. Our Tigo reached its maximum 4m height already at the 10% setting,

courtesy of the optional extensions – something one has to bear in mind for road work.

TIDY RAKES

The standard pick-up version is mechanical and camless. The unit on the Tigo PR 60 is 1.90m wide and rakes at a width of 1.65m. Our test candidate had the optional hydraulic pick-up with a tine-to-tine width of 1.78m and a 10cm wider total width. By comparison, the optional predecessor in Lely livery measured 1.62m. 17 double tines per row are spaced at 54mm. Camless and arranged in seven straight rows, they give a clean rake. The scrapers are made of plastic and hardly pick up any soil at all. The pick-up speed is adjusted hydraulically and infinitely variably between 70rpm and 150rpm yet not relative to the current forward speed. 100rpm would still give a clean rake at 20km/h forward speed. The in-board hydromotor stops when the pick-up is raised on the headland.

SUMMARY

The Tigo forage wagons from Fendt boast many optional features. We tested the PR 60 D for grass and maize silage in a long-term test.

In our view, the machine scored on its hydro-pneumatic running gear and electronic forced steering.

The quality of cut was impressive.

The 36m³ Tigo was tucked into loading jobs and hauling whole crop and silage maize.

The suspension, too, is adjusted hydraulically. Its pressure is changed from a knurled screw on the small valve chest mounted on the side of the machine together with a pressure gauge. An 80cm wide roller ensures the tines work at a sufficient distance from the ground. Adjusting the roller depth takes some spannering in awkward

Tigo PR 60 D proved itself on a dairy farm for one season.



Photos: Tastowe



△ We used the tractor terminal for visualising the loading/unloading processes.



△ The actual machine functions were best operated from the Tigo control box.

space and is appropriately time-consuming. Fendt says they are going to address that. In rolling land, 16 x 6.50-8 gauge wheels on both sides help with depth control. Their height is adjusted on hole patterns.

GREAT CUTTING QUALITY

The gearbox that drives the rotor is integrated in the frame and handles torques of up to 2,000Nm. In fact, our approx. 200hp tractor wasn't able to leave the wagon struggling. The rotor cutter measures 1.63m in width and 800mm in diameter. Its 41 Hardox stars are 25mm wide and lined in a helical arrangement on the rotor. There are three individual star segments and each is fixed in place by two welded joiners for easy replacement in case of damage. The material is pulled through 3.5mm gaps and cut to a nominal length of 37mm. The quality of cut was impressive and so was the crop flow. No blockage was reported despite the narrow gap between the pick-up and the rotor. In fact, the advantage of the narrow arrangement is that the crop stream reaches the rotor earlier and the pick-up doesn't have to throw it over a large distance. Feeding silage, the rotor delivered a smooth flow from 30% DM onwards.

A drawbar position control is available as an option. An angle sensor measures the current angle of the pick-up and keeps adjusting it until it is identical with the pre-set angle. Yet, we found that from 12km/h onwards the system responded a bit sluggishly.

For replacing the blades in the cutting system, the blade cassette is lowered hydraulically either by pressing a button in the cab or on the left side of the machine. After the locking pins are removed and the hydraulic ram is released without the need of tools, the cassette pulls out on a linkage. Then all blades are released with one movement of a lever and can then be removed.

The Fendt Tigo

PR 60 chops the material

to a nominal length of

37mm.

The blades have kinked springs for individual protection.

LOADING MADE EASY

The loading unit is 1.65m wide and comprises the funnel-shaped headboard which pivots on three pins on the cross beam down in the frame. The sides are linked by a top cross bar at the front end. The sheets in the pivoting area of the headboard are made from smooth and galvanized steel and the ram-operated headboard is sealed by rubber strips on the sides. The hydraulic cylinders also have integral pressure sensors that measure the level of compression and operate the automatic loading system accordingly. We had the automatic loading system enabled nearly all the time. Drawback here is that the initial setting is mere guesswork. So, only

when you find that the load on the drive is excessive or that the rotor is pulling material downward will you know that the compression level is too high. Hence, the right setting requires some experience with various crop conditions.

We were very happy with the distribution of the material inside the machine which was filled consistently and all the way to the rear end. As a last step in the automatic loading process, the headboard slowly pivots towards the tractor to free some 6m³ of extra volume. When the headboard is in this forward position, it is helpful to follow the swath in a zigzag line in order to fill every corner.

AUTO UNLOADING

The Tigo has a hot-galvanised floor. In this context, we'd also praise the general build quality of the machine, especially the paint job. Each of the four floor chains has a break load of 12.5t says Fendt. Like loading, unloading can be automatic, too, on the Tigo. After the system is started, the tailgate opens slightly (selectable), the rotor shuts off and the discharge rollers start spinning – albeit a bit sluggishly. An audible alarm signals the operator to start the pto. The chains and the headboard are started in synch, which is intended because it reduces the start-off torque of the hydraulic chains, as we found out in wet silage. The chains move at nine selectable speeds which must indeed be carefully selected to suit the current conditions. You can operate them at nearly full speed to clear out maize chops. When unloading silage, we operated them at 2/3 of the maximum speed. Unloading takes about 60 seconds in grass silage, which is good. The fast mode ensures the last lumps are cleared out rapidly.

The two discharge rollers spread the material in a uniform mat. Our compacting tractor had no issue distributing the mat with a disc distributor. A uniform thickness down the length of the mat however takes a skilled operator.

USING THREE CONTROLS IS BEST

We usually operated the Tigo from all three control units that were available to us: the joystick, the Tigo terminal and the tractor terminal. Of course, you can operate the machine from just one of them, but you'll find that the control box is a pain to set up. This is



△ We used the Tigo for loading grass silage and hauling maize and rye whole crop silage (pictured). The crop covers are an option.

easier on one of the terminals. Yet, we did like the control box for its push buttons that start/stop loading and unloading. This is more awkward on the terminal which requires you to click each function twice. A single click would do, we find. In the settings you also alter the drawbar height for loading and road work. The tractor terminal was best for visualising the various processes, such as indicating the current filling level or tonnes loaded.

BOOSTED VERSATILITY

We operated our Tigo for loading and transporting grass silage and silage maize. Hence, a demountable pick-up would be nice but is not available. To make up, the loading elements can be covered by a plate.

Machine clear-out was effective both in grass and maize. Visibility into the load area was average. The camera in the cargo space is useful in maize jobs. We noticed that the stanchions are

channel steels which naturally collect a lot of material when following the forager. Another niggle goes to the sides which should slightly slant towards the top to prevent material collecting here.

On the whole, we enjoyed working with the Fendt Tigo, which is certainly also attributed to the extensive level of specification. Especially the loading and unloading rates as well as the hydropneumatic running gear impressed us. The weighing system was accurate down to 100kg. The test specification Tigo comes with a whopping price tag: €167,045 (net, list price) will make the machine an intriguing option more for contractors and machine pools. A base specification machine is priced €25,788 less, which could catch the interest of some individual and smaller farming operations. This money buys 26.5-inch boogie axles, discharge rollers, caster-steer axle, mechanical pick-up yet no crop covers.

Editor:

andreas.huesmann@topagrar.com.

Translated into English by trans-agrar