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LANDWIRTSCHAFT AUF DEN PUNKT GEBRACHT



The slatted bodies on Teres 300 have hydraulic overload protection. We appreciated the tidy finish.

THE FAST WAY TO A CLEAN FURROW

The new **AutoAdapt system on this mounted plough** setting up a much easier job and allows the front furrow width to adapt automatically to the current working width. Here is our impression of this innovation and more



1 Our Teres 300 was kitted out with STU-40 slatted bodies and M1 skims, trash boards and spring-loaded disc coulters.

2 Stand-out details on the headstock are the hollow turnover shaft which accommodates the oil lines and the coupling shaft with integral balls and mounted in bearings for damping.

3 Two rams adjust the front furrow width and the working width. One ram also retracts the bodies in preparation of the turnover. The pitch is set up on two turnbuckles.



4 The disc cut a clean furrow wall. The slatted body effectively cleared out the furrow for the tractor wheel to run in.

5 The point covers the wing. The large mouldboard shin protects the slats from premature wear at high forward speeds.

The Teres 300 VS series is Amazone's most recent plough line which combines the best of two Amazone worlds and models – the Cayron and Cayros XS (see *agrarteute*, March 2019). Boasting a stand-out setting system and modern bodies, Cayron was an Amazone inhouse development and the company's admission ticket to the plough sector in 2013.

Then in 2016, Amazone acquired the Vogel & Noot plough factory in Mosonmagyaróvár, Hungary. After the new products were integrated in the Amazone programme, Cayron and Cayros were marketed side by side for a number of years. Teres 300 is the company's first inhouse development and a

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- Teres 300 is a five-to-six-furrow mounted reversible plough.
- Its AutoAdapt system makes for convenient front furrow and width adjustment.
- The SpeedBlade mouldboard has a large shin which reduces wear on the slats.

100-percent Amazone breed. The benefits of the Vogel & Noot ploughs live on in the Cayros models. Two of them, the Non-Stop breakback system and the modular four-to-six-furrow design, were also transferred to Teres. The Teres 300 models are four-to-six-furrow ploughs that offer a similar modular design as the Cayros XS, which translates into 4+0, 4+1, 5+0 and 5+1 versions. If you opt for a +0 version, you can add one furrow (+1) to match a more powerful tractor or larger field.

All mounted ploughs are approved for up to 300hp tractors. As for stats, the beam measures 150mm by 150mm by 8.8mm and the bodies are arranged 100cm apart.

The underbeam clearance is 80cm or 85cm, the latter being available with a shear pin only for overload protection. Cayros users will feel familiar with the hydraulic Non-Stop breakback system, the effectiveness of which we confirmed in our 2018 test. The hollow and 130mm diameter turnover shaft mounts in massive bearings and does an equally effective job. It also accommodates the oil lines – a practical and safe solution.

Further down, the ProtectShaft coupling shaft has integral balls and is mounted in bearings for damping and extended life. This type of mounting allows the shaft to rotate slightly during lift / lower for reduced wear on the couplers and balls. Buyers can choose between this type of cross shaft and one with cone clamping elements.

33-55CM WORK WIDTHS

All Teres 300 ploughs have hydraulic work width adjustment and depth wheels that are designed either as pivoting wheels or combi wheels with mechanical or hydraulic depth control.

Our Teres 300 test plough was a five-furrow unit (5+0) with hydraulic overload protection, a hydraulic combi wheel and STU-40 slatted bodies. It also came with a packer arm which we didn't use in the test. Amazone sources its furrow presses from Tigges which produce single- and double-ring packers of various designs and diameters – and all painted in Amazone livery.

FIVE TYPES OF SHARES

Teres is marketed with a choice of three different mouldboards and two types of slatted bodies to suit various soils. Our test plough had the STU 40 slatted bodies for light and heavy soils which were claimed to ensure light pulling, excellent clod crushing and a wide furrow bottom. We can confirm these qualities except the one on light pulling, as we weren't able to do a comparison test.

Stand-out feature on Amazone bodies is the SpeedBlade which refers to the relatively large and solid shin. Unlike traditional mouldboards with small shins where the slats or the mouldboard itself need replacing in case of wear, the special mouldboard with SpeedBlade shin offers the advantage of transferring the point of wear to the rear at high ground speeds, thereby reducing wear and costs.

And with the share point covering the front end of the wing, no trash can build up



Transport / work changeovers are quick and straightforward by refitting two pins on the combi wheel.

between these two elements and affect the quality of work. Beyond that, it is possible to adjust the pitch of the bodies. The advantage of this is improved penetration under extremely hard conditions.

Amazone applies so-called C-plus technique for hardening the share parts. This special technique produces a harder front side compared to the back, which is reckoned to increase resistance to impacts and improve light pulling. Unlike tempering, this technique results in a certain elasticity and better protection from damage. A choice of points including wear-resistant points are available to adapt the body to individual conditions.

Our plough had trash boards and M1 skims. The benefit of using trash boards is lighter pulling yet at the cost of a certain depth to ensure organic material is ploughed in effectively. Not so the skims which adjust to the required depth without the need of tools.

G1 skims are also available and the best option in grassland and heavy soils. The available accessories comprise various sword landsides and disc coulters. Making up the rear on our plough was the 550mm coulters disc which cut a clean furrow.

And as the combi wheel runs within the working width, it is not in the way when working along hedges or fences. The wheel on our plough had hydraulic depth control for quick changeovers from work to transport for safe travel.

EASY SET-UP

The ideal plough is easy to use and produces a tidy finish. Teres is set up from the Smart-Center and with AutoAdapt that control a parallel linkage. When you alter the working width on the move, AutoAdapt adapts the first furrow width automatically, thanks to an oil line that connects the work width and the front furrow controlling rams.

This means operators need to set the front furrow width only once. The point of draft is a default setting and should not change when the working width is altered. If necessary, you can adjust it on a turnbuckle.

In preparing for the turnover, the plough aligns behind the tractor without the bodies changing their positions, which means the working width is not altered by the aligning ram. To ensure sufficient ground clearance, the work width controlling ram operates a cable which in turn controls the stroke of the aligning ram.

As the current working width and the front furrow width are indicated on two



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separate scales, it is easy to alter the front furrow width in varying soils. You can operate each function either from two separate spools or from a cross-valve that controls both functions from one spool. The pitch is set as usual on two turnbuckles left and right on the headstock.

We tested the plough in medium soils working at 7.5km/h with depth set at 25cm and width at 45cm. Setting up was a quick affair. Once the plough is set up properly, adjusting the work width is straightforward as you needn't bother about the front furrow width. Swinging the combi wheel into work position is also fast by refitting two pins. ●

AMAZONE PFLUG TERES 300 VS

LOB + TADEL

- ⊕ SpadeBlade mouldboards reduce wear and costs
- ⊕ AutoAdapt makes setting up a doddle.
- ⊕ The front furrow width adapts automatically to the current working width.
- ⊕ The working width is maintained as the plough aligns behind the tractor in preparation of the turnover.
- ⊖ Four da spools and one sa spool are required by a full-spec. plough.

Minimum use
273ha/year

$$MU = \frac{fc}{rc - vc} = \frac{€4,907/\text{year}}{€30/\text{ha} - €12/\text{ha}} = 273\text{ha}/\text{year}$$

Explanation

MU	Minimum use
fc	fixed costs: €4,907/year (= 10% of the purchase price)
Vc	variable costs/ha: €12/ha (wear, maintenance)
RC	Rental costs: €30/ha

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Technical data

Manufacturer	Amazone
Model	Teres 300 VS
Type	Mounted turnover plough
Number of furrows	5
Weight	2,200kg
Working width per body	33-55cm
Work width control	Hydraulic
Tractor power	up to 300hp
Body spacing	100cm
Underbeam clearance	80cm
Beam dimensions	150mm x 150mm
Beam wall thickness	8.8mm
Turnover shaft diameter	130mm
Body (slatted)	STU 40
Overload protection	Hydraulic
Hydraulic spools	4 DA, 1 SA

Prices

Teres 300 VS 5+0	€16,700
STU 40 bodies	€8,450
Reversible points	€1,050
M0 skims	€1,590
500mm D disc coulter, serrated	€535
5+0 combi wheel	€4,800
Light and warning panel	€520

Total incl. options

€49,074