

Amazone Tyrok 400V 6+1 plough:

# Really good work ...

... but some cause for criticism. The semi-mounted Tyrok reversible, with new STW35 slatted bodies, reached its limits with us in just the one set of conditions. And its handling and operation were equally impressive.



*Last season we used the seven-furrow Tyrok – and we were impressed.*

This is not our first interaction with Amazone's semi-mounted plough – we had a look at the Tyrok 400VS for a driving impression in the 02/2022 magazine as an eight-furrow. Since then, a six-furrow version has been added, while a nine-furrow remains the biggest. So let's meet our test candidate, which we used throughout last autumn – a Tyrok 400 6+1 V with hydraulic vari-width, a bolted-on extra set of bodies and the new STW35 slatted boards. Amazone says that this new board was developed for medium and heavy soils, but it should also work well in lighter stuff. More on that later.

## Space saving

With four folding parking stands, the plough can be stood in its transport position, helping save space provided that the ground is firm

and level. Otherwise, to park the Tyrok in its working position, you will need to adjust the inclination turnbuckle to avoid tension between tractor linkage and headstock. Whether you position the Cat III headstock in front of or behind the lower pivot point is a matter of taste or the size of tractor. If you have the pivot at the front, the line of draft is optimised; spin the headstock 180 so the pivot is behind, and then manoeuvrability is improved. We opted for the latter, mainly using 240-300hp tractors, and because this is a profi test, and we don't like to leave any stone unturned, we also tried it with a 180hp Fendt 916 Vario, which would certainly be at the lower end of the power requirement for a seven-furrow plough. Nonetheless we didn't have any issues. All of the pipes are routed to go through the impressive hose rack that has an extendable

## KEEPING IT BRIEF

The 6+1 Tyrok 400 V is keenly priced.

New STW35 slatted boards performed well in medium-heavy and heavy soils but bunged up in lighter soils and in maize stubble.

Large depth wheel with AS tyre works effectively.

Servicing the wheel is time-consuming but acceptable

Is manufactured in Mosonmagyaróvár in Hungary.



*Saving space, four parking stands help secure the unhitched Tyrok in its storage position. It goes without saying that a solid surface is a necessity.*

the front axle and only 30% from the plough, so a decent lump of front ballast is a must. The oil pressure is set after opening a valve by the hose rack: the system is cushioned by three accumulators, also located on the rack. A positive side effect of the booster is that you do not have to lock the drawbar with the top link pin when unhitching the plough.

The traction booster did reduce wheel slip and fuel consumption. Running a Claas Axion 830 with a 1.8t weight on the front linkage, we used between 16 and 18l/ha (the plough was worked at 4.20m wide, 25cm deep and 7.5km/hr in hilly but dry medium soil).

### Relaxed on the headland

When the plough is raised on the land wheel at the headland, the pressure in the traction booster is released when both single-acting rams are on the same spool. This prevents any unwanted tension between the tractor and plough. When lowered again, the traction booster is pressurised again.

The turnover cycle is also very relaxed with



*The plough's turnover ram has a three-step end-of-stroke cushioning system.*

section that slides out so you can tailor it to the host tractor – though it would be ideal if you could adjust the angle, too, for securing the longer hoses. The grippy handles on the hydraulic connectors are all suitably marked, and there is a useful decal for their functions. Downside of the large handles is if there isn't enough room around the tractor's spools. In all, four double-acting spools are needed: turnover, vari-width, front furrow width and the rear wheel/traction booster. A fifth for the hydraulic top link is also recommended.

### Good traction

For lighter tractors, we would recommend the traction booster, which is a £1,880 extra. We measured this with the outfit standing in the yard, and, with a maximum pressure of 180 bar, it placed 870kg on the tractor's back wheels. Around 70% of this comes from



*The headstock can be rotated 180° to either suit manoeuvrability (shown here) or better draft control.*

## TEST ASSESSMENT

### TYROK 400V 6+1

Attachment to tractor	+
Turnover mechanism	++
Inter-row clearance	++
Work width adjustment	++
Overload protection	○
Disc couler	++
Transport/rear wheel	++
Manure skimmers	+
Road transport	+
Weight	○
Quality of work	++
Risk of blockage <sup>1)</sup>	++/-
Draft requirement	+
Setting the rear wheel	+
Pitch adjustment	○
Setting the front furrow width	++
Setting the cutting width	++
Setting the skimmers <sup>2)</sup>	++/-
Transport changeover	+
Maintenance costs	-
Wearing metal change	○
Build quality	++
Hose routing	++
Tools	++
Lights	++
Operator manual	○

<sup>1)</sup> in lighter soils with maize stalks

<sup>2)</sup> for angle adjustment

Ratings: ++ = very good; + = good;

○ = average; - = below average; -- = poor



## 🔍 PRACTICAL TEST

a consistently smooth movement. The two turnover rams are cushioned in three stages so there are no unwanted jerks or bumps. It takes just 12 seconds to turn over from one side to the other, making it possible to turn on a 24m headland without any shunting and be ready in time to return to work.

Speaking of the turnover rams. Each one has a shut-off valve for transport. On the road, the overall width is 2.0m, and because the rear wheel is damped with an accumulator as soon as the plough is slightly raised, it's a pretty comfortable machine to tow.

We did say about a 24m headland, but you still have the option to 'steer' the back wheel by how much the plough is turned to either

### MEASUREMENTS

#### TYROK 400V 6+1

Number of furrows	Seven
Body <sup>1)</sup>	STW 35
Body working width	30-61 cm
Working width	2.10m-4.27m
Beam size	150 x 200mm
Beam thickness	10mm
Underbeam clearance	80cm
Interbody clearance	98cm
Linkage	Cat III
Turnover time	12sec
Disc coulter	50cm
Tyre size	500/60-22.5
Wheel protrusion <sup>2)</sup>	59/0cm
Weight	4,570kg
Axle/wheel load	1,710/2,860kg

#### Traction booster

Max pressure	180 bar
Max rear axle load	+ 870kg
Max front axle load	-620kg
Max support wheel load	-250kg

#### General

No. of grease nipples	52 every 50 hours
Length/width <sup>3)</sup>	8.93m/2.00m
Max tractor power <sup>1)</sup>	294kW/400hp

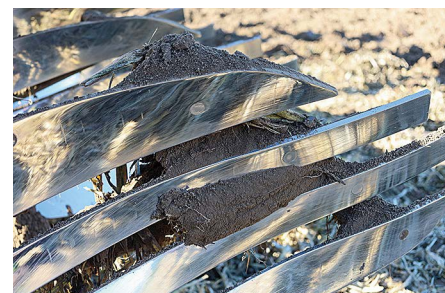
#### List price<sup>1)</sup>

...Base spec price	£40,265
...Test spec price	£56,050

<sup>1)</sup> Manufacturer data, list prices excl. VAT;  
<sup>2)</sup> smallest/largest cutting width; <sup>3)</sup> Transport



The STW35 body worked well in medium and heavy soils in all conditions...



... but in lighter soils with maize trash, soil built up until the bodies eventually clogged.



Three settings are changed hydraulically on the Tyrok 400V: front furrow width (left), depth (upper right) and working width (lower right). Operators have little cause for complaint on the setting options.

side. In this instance a 15m wide headland is sufficient. One benefit of a semi- versus a fully-mounted plough is the ability to delay lifting the back furrows, leading to shorter ins and outs at the headland, too, and a much tidier overall finish.

### Tidy ploughing pattern

The ploughing finish was good. The STW35 slatted bodies and the medium-size M2 skimmers (a £2,720 extra) do top quality work on medium to heavy soils.

Harvest residue, including maize stalks, are incorporated very well without blocking. Even the 50cm diameter disc (£945 with the extra-long holder) didn't need removing in grain maize fields courtesy of its forward

position – something we rarely experience getting away with.

Only in maize stubble on lighter soils did the boards reach their limit. Although the quality of the work was good, the space behind the slats would fill up with a mixture of chopped maize straw and soil causing the board to quickly fill with soil.

We have to praise the plough's hard-faced points (£630) and their ability to penetrate and leave a clean furrow bottom. Even the 710 rear tyres don't compact too much of the freshly turned ground. Working 27cm deep, the body still had room to take on some more soil, so we don't have any issues with the maker's 30cm maximum ploughing depth recommendation.

## Easy setting

The setting options are nearly perfect: two turnbuckles for setting the inclination, clips on the ram to limit the rear wheel depth, hydraulic front furrow and vari-width with durable, easy-to-read scales. The 'nearly' refers to the scale on the rear wheel, which is quickly covered in mud. Amazone says a decal has since been added to help choose the correct clips for the desired depth. An alternative to the manual set-up, there is a memory ram option that can be adjusted once a valve is opened.

The 'V' refers to hydraulic vari-width from 30cm to 61cm, or 2.10m to 4.27m on our seven-furrow. We mostly ploughed between 3.50 and 4.00m – as has already been said we were very happy with the quality of the ploughing it produced.

Amazone promises that when the working width is changed, the front furrow width adjusts automatically. We found there was



*Amazone says that the weak point inside the pivot point of the land wheel has now been eliminated and shouldn't be a problem.*

## TYROK NOW ALSO AVAILABLE FOR ON-LAND

On-land ploughing is gaining in popularity, especially with semi-mounted ploughs, as these bigger units are generally hitched to tractors on wider rubber that no longer fits in the furrow. The same applies to tracked tractors. Not to mention autosteer makes driving alongside the furrow a doddle. Another argument in favour of on-land is the better draft line.

For tractors with a max external width of 4.0m, Amazone offers the Tyrok 4000L 100 as an on-land plough.

- This has shear pins and manual width adjustment, six to nine furrows.
- Hydraulic auto-reset and/or vari-width adjustment of up to eight furrows.

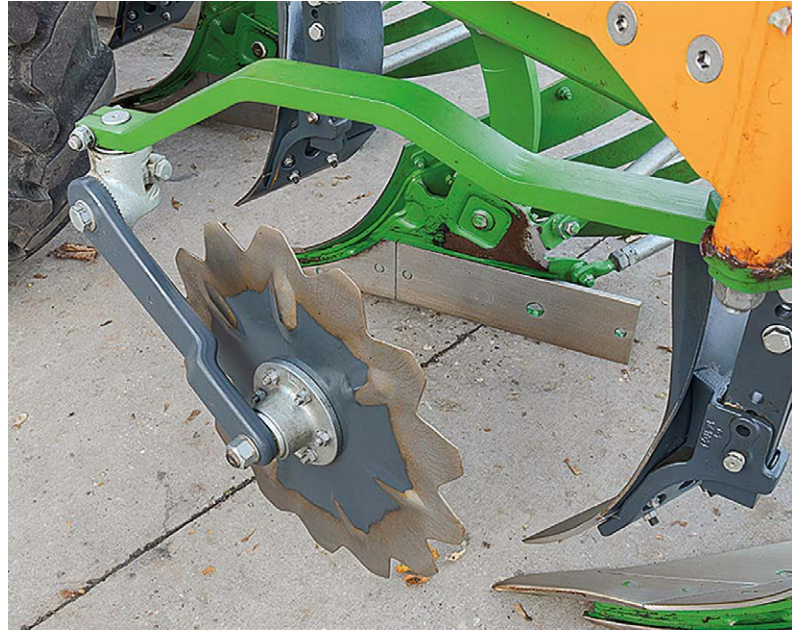
Two hydraulic rams are used with the extended turnover frame, along with a

pair of front wheels: an extended ram for setting the front furrow width to suit a tractor up to 3.50m wide; and a small additional ram for on-land operation behind 3.50-4.00m wide tractors. Changing between on-land operation and running in the furrow is straightforward.

According to the firm's list, an on-land version of our test plough would cost around £64,755.



*For the on-land version of the Tyrok, the 4000L V100, the price increases by around 15%.*



The depth and skimmer over/underlap can be adjusted by repositioning the plate (left). The disc in its far forward position didn't block once.



The sturdy box stores tools and other essentials (left). A 24/30 spanner is supplied with the machine. Not all of the grease nipples are easy to reach.

still room for fine-tuning. It also happened that the settings from the day before, no longer matched the next morning, therefore the hydraulic cylinder with a very nice scale helped with the setting up. Besides, people like to make this adjustment, and not just in hilly fields.

As mentioned, our test plough had the disc on the back furrow and medium size M2 skimmers (more than £2,000), which did a good job. Even chopped maize was reliably incorporated. The skimmer is adjusted on depth holes that are straightforward and also precise enough. Our test plough was fitted with a prototype angle adjuster, but this has since been ditched because it was a pain to use.

### Large, wide and good tread

We liked the 500/60-22.5 land wheel (£475

extra compared to the standard 400/55-22.5). With a height of 1.25m, it is generously sized and has an AS tread for directional stability, even in tricky conditions.

On the 6+1 plough with the bolted-on extra furrow, the wheel runs adjacent to the fifth furrow. When set to its maximum width, the plough can work right up to the field edge, but, when narrowed in to its minimum width, the wheel sticks out 60cm. With the 7+0 plough, the wheel is next to the sixth body which makes it awkward for tidy headland ploughing.

The 16mm pin on the rear wheel linkage did shear off during the test, but Amazone says the design has been modified so it shouldn't be an issue going forward.

### Other details

● The test plough had a total of 52 grease

nipples, which need attention every 50 hours. This is a time-consuming chore and requires the plough to be moved several times. Some of the grease nipples were not fitted properly, with the end-result being that grease leaked from the threads. Others were not accessible because of their 45° design or concealed location. At the main pivot points, Amazone goes with spherical bearings, each with three grease nipples.

- At £780 the proper warning panel/lighting board is OK. While the wiring running along the plough's frame is fine, you need to unplug the lighting frame and leave it at the side of the field when working. The two fold-out arms with reflectors must be folded before turning the plough over or they'll get damaged.
- In its base configuration, the Tyrok 400 6



*In its upright butterfly position the transport width is just 2.0m, with the cushioned wheel helping its on-road performance. To the right are the optional (£780) warning panels and lights that weren't fitted on our test plough.*

with manual vari-width costs £40,265. Add hydraulic vari-width (£5,430), the extra furrow (£4,390) and other features to our 4.6t test plough, and the list price rises to £56,050. Hydraulic auto-reset is also on the options list, which on a 6+1 would add £8,285 to the price.



## Summary

Our practical test of the seven-furrow Tyrok 400V 6+1 confirms our initial thoughts of the semi-mounted Amazone ... from when we got hold of the eight-furrow version for a driving impression. Having spent longer with this 6+1 version with the STW35 slatted boards, the quality of work in medium and heavy soils was great, but we struggled in lighter fields and when dealing with grain maize trash.

We were also impressed with the plough's build quality – according to Amazone, the weak point on the wheel mounting has been fixed. That large wheel does make it easy to handle, but we weren't fond of the number of grease nipples on the plough.

We were pleasantly surprised with the list

price for the test Tyrok (£56,050), especially when you consider the five-furrow, fully-mounted Kverneland we tested last year (10/2022) listed at around £52k. To be fair, though, the KV did have auto-reset.

**Gottfried Eikel**

profi international, Kelsey Publishing, The Granary, Downs Court, Yalding Hill, Yalding, Maidstone, Kent ME18 6AL, UK Email: Mark.Brazier@kelsey.co.uk Tel: 07813 671484