

Amazone UX4201 Super trailed sprayer:

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The UX4201 Super with ContourControl is in the premier league of trailed sprayers when it comes to operation and boom control. Unfortunately, this also means it comes with a premier league price, £123,425 with the optional spec.

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About the range

As far as the UK is concerned Amazone offers three ranges of trailed sprayer – the Super S2 boomed entry-level 2,400 and 3,200-litre UG from 15m to 28m and then offering more capacity, is the 3,200, 4,200 and now 5,200 litre UX Special with booms spanning up to 36m. Then top of the pile, is the featured range, the UX 01 Super which has a choice of tank sizes (4,200, 5,200 and 6,200 litres) and booms up to 40m. Of course it is also worth mentioning the tandem axle 12,000 litre UX11201 Super as well for those with vast fields and dry ground.

The UX trailed sprayers were first introduced in 2005 with only minor tweaks until the next generation 01 hit the market in 2017. The big changes happened around the operator zone and the control system for the boom which instead of the traditional damping systems bristles with sensors and hydraulic features. Enough changes to warrant a closer look and one of our in-depth practical tests.

The supplied test machine was a rather well kitted out UX4201 Super with a 4,200-litre rated tank and a 27m boom. The spec sheet included the Super L2 boom with ContourControl, SwingStop, 25cm nozzle spacing, an ISObus Comfort Pack, AmaTron4 Terminal with AmaPilot+ multi-function joystick, GPS-Switch, GPS-Track....

Another noteworthy feature is the load-sensing control which is available with an extended accumulator charging function which has a second nitrogen damper to suit tractors with low oil flow. But we are getting ahead of ourselves. Let's start at the front of the UX.

No quibbles with the slim, top-mounted drawbar, the pto-driven AR280BP (2 x 260l/min) double pumps and the gyroscope-controlled Ackermann steering. The clever steering system limits the turn angle relative to the current speed which is shown on the in-cab terminal. If you exceed 25km/hr with the boom extended the sprayer will lock the steering, likewise with the boom folded it will do the same when you go over 15km/hr. Superb.



TEST ASSESSMENT

Amazone UX4201 Super

Technical

Tractor attachment	++
Running gear	+
Steering	++
Ground clearance	+
Tank	++
Agitator	++
Pumps	++
Tank level gauge	++
Clean water tank	++
Hand wash tank	+
Inductor hopper	++

Boom

Folding mechanism	+
Stability	+
Changing nozzles	○
Pipework	++
Slant control	++
Vertical damping	++
Horizontal damping	++

In-field work

Filling	++
Metering	+
Sprayer controls	+
Emptying the tank	+
On-board computer	++

General

Stability/build quality	++
Chemical resistance	++
Handling	+
Cleaning	+
Manual/parts list	+

Grading: ++ = very good; + = good; ○ = average; □ = below average; ■ = poor



Test machine spec included a top-mounted drawbar and pto/belt driven pump. The load-sensing system with accumulator charging function was an interesting feature.

As for filling the tank, our UX4201 had the 'Comfort Pack' so you get an electric suction tap that is operated from the 3.0 inch monochrome TwinTerminal 3.0 display at the operating zone or from the in-cab terminal. The package not only stops filling the tank and agitator automatically but also allows operators to rinse the boom and the tank by sucking water from the clean water tank. We measured that the 3in suction hose working in combination with an injector

sucked up a whopping 705l/min. Very good. Our only criticism was water leaked from the suction port, but this was quickly solved by fitting a diaphragm valve which is usually supplied loose after the sprayer has been drained at the factory. The filling station lives behind a large cover, good LED lights and dust-tight storage compartments. The suction filter even has a transparent lid so operators can see whether air or objects are being sucked in. The



The induction hopper has an astounding suction rate. If specified with a double-pump and injector, this rate is a whopping 705l/min.



The Comfort Pack buys an electric suction tap with neighbouring LCD Display. The selector valve on the pressure side is still operated manually.



The nozzle holders with extension kit for 25cm spacings are controlled individually and can be fitted with drag hoses.

comprehensive package can be extended even more by upgrading to the Comfort Pack Plus featuring an electric valve on the suction side, a 7in display screen and a hydraulically powered clean water pump as an option. This allows operators to rinse the induction hopper automatically.

The large induction hopper conveniently folds in and out while the sturdy lid not only offers a safe spot for placing the measuring jug but also has holders for the rinsed cans to drain. All this is topped off by having a powerful jet nozzle and a suction rate as high as 240l/min which cuts the filling time to less than seven minutes.

On the road we didn't miss a suspension system, especially as the braking force is

controlled relative to the amount of spray in the tank. The UX is also very light, weighing just about 5.0t despite the comprehensive spec. With a gross weight of 12.5t, the Amazone is rated for 60km/hr travel (or 14t at 25km/hr), so liquid fertiliser will not pose a problem. The 520/85 R42 tyres have the necessary load rating and all the brake components are positioned on top of the axle so they do not hamper the 80cm ground clearance. Our tyre choice meant a 2.25m track width and 2.80m overall width. The four-section boom folds to a compact 2.65m width and the total height is 3.40m. The Agroturm Ackermann steering system is an option and allows the sprayer to run on 520/85 R42 tyres and still maintain a track width of 2.25m and a turn through 26° with accurate tracking and tight 10m turns. Excellent. In the field the booms fold out within 40 seconds – possibly not a record rate but is okay, especially as folding into the transport position is as quick (thanks to an angle-sensor controlled sequence). Add to this a massive 15°/19° slant correction (left/right) and a large setting range for the parallelogram frame. We measured nozzle heights ranging from a low 25cm and 2.65m. Very good.

And this takes us to a highlight of the new

UX, its boom control. Once a processor was replaced and a second accumulator fitted very early in the test then everything worked perfectly thanks to the ContourControl and SwingStop which surprised us as we didn't think a boom could work as well without traditional mechanical damping.

Six ultra-sound sensors control the height of the parallelogram frame, provide slant correction and govern the boom angle (positive and negative). This is an absolute boon in undulating terrain, especially when you want to drive faster and keep the boom closer to the ground. Fast is the cue for SwingStop, an active hydraulic compensation system that relies on acceleration sensors on the boom tips to control the horizontal boom movements. The system interacts at an early stage before the operator even notices any movement.

The nozzles were also top notch. The conical spray lines with pressure circulation, switch the nozzles individually on a manually adjusted four-nozzle holder. The line was specified with 25cm nozzle spacings and can also be used with drag hoses – very practical. Just watch out when swapping nozzles because the actuators on the joints require the nozzle holders to be threaded into place in two different senses.

MEASUREMENTS

Amazone UX 4201 Super

Dimensions

Length	7.45m
Transport width	2.80m
Transport height	3.40m
Ground clearance	0.80m

Pumps

Manufacturer/Model	AR280BP
Suction rate	705l/min
Induction hopper capacity	60-litres
Induction hopper rate	239l/min

Tanks

Rated /actual capacity	4,200/4,910 litres
Clean water tank capacity	530 litres

Boom

Folding in/out	42/40s
Boom height	minimum 0.25m, max. 2.65m
Slant correction (left/right)	15°/19°
Test tyres	520/85 R42
Track width in test	2.25m

Weights

Tongue load ¹⁾	2,500kg
Max axle load ¹⁾	10,000kg
Kerb weight	5,030kg
Drawbar load, tank filled ²⁾	2,110kg
Axle load, tank filled ²⁾	8,360kg

¹⁾ Manufacturer information, ²⁾ Main tank and clean water tank filled



The locker is huge and dust proof with the option of lighting. Excellent.

This is not an issue if you opt for the AmaSelect selectable nozzles which also come with individual lights for each nozzle. The price for this level of spec adds another £10,035. But for those who want it there is even more tech available. The AmaSpot



Joystick controls are customisable. We'll discuss the AmaTron4 terminal in our next issue.

option adding pulse width adjustment and pulse frequency modulation for variable rate treatment.

Getting back to the test 4201. The GPS-controlled AmaSwitch individual nozzle control feature is not exactly chump change



The new boom ContourControl uses a central hydraulic cylinder which actively counteracts vibrations.



The Super L boom swiftly folds into a compact package. Load-sensing brakes and a 12.5t gross weight allow you to travel at 60km/hr even when filled with ammonium nitrate urea solution.

at £8,635 but is certainly recommendable. It allows operators to customise the number of manual sections and then have the 54 nozzles controlled by GPS. This worked really well, especially on corners. Our test sprayer had the 'basket' on the ends of the boom retrofitted. These protect the nozzle holders from getting damaged and are now part of the standard UX Super spec. And that extra protection is more than welcomed as each of the complex holders including the spacing kit and selectable controls cost nearly £180 if they need replacing.

Our UX4201 had the ISObus package, the AmaTron4 terminal and AmaPilot+ joystick. We found the system to be straightforward to use, especially the joystick controls which can be customised. Every time you start with the machine you must confirm your profile to avoid any surprises. You can program a 'Go' sequence of several functions to the central rocker switch. Press the master switch, one button sets section control, boom control and steering to 'Auto' and get cracking. If you look hard you can find faults with the terminal such as the way the section control is indicated. The GPS mode only shows on the moving boom which sections are being enabled so, the operator must swap views manually when the section control is enabled to see the nozzles up closer (boundaries, drainage ditches...). AmaTron4 is capable of way more than we can explain here so we will be taking a separate look at it in the next issue.

Further details:

- The UX tested had four LED lights on the boom that also illuminate the surroundings rather than the individual light on each nozzle option.
- The ladder leading to the platform no longer reaches the ground. The tank lid has a practical locking system to prevent leak out down the tank.
- The hydraulic parking stand has a large foot plate and its up/down position is shown on the terminal.
- Integrated into the side panel is a hand-wash tank but there is no towel holder.
- The job processor lives under a cover; the entire electric system of the boom sits on the central frame.
- Positioned on the right is a storage box with a massive capacity of 240-litres. It is dust proof and lockable.
- The clean water tank can be filled with the spray pump.

So how much is a UX4201 Super going to set you back? In its base spec, you can have this 4,200-litre sprayer for £85,785 but there is a long list of options. The Contour Control for the 27m Super L2 boom is £11,500 and £1,845 for the 25cm nozzle spacing, which is moderate compared to nearly £3,130 for the Comfort Pack. Add to this the 520 tyres (£3,640), the GPS section control including receiver (£2,950) and the full package of nozzles including drag



A 2.25m track-width offers enough room for 520/85 R42 rubber and 26° turns. Ground clearance is 0.80m.

hoses (£1,830) and you will be looking at a total investment of £123,245.

Summary: The new UX4201 deserves its super name with respect to filling, operation and boom control. If you have more money in the budget, you can opt for the Comfort Pack Plus for £3,185 and AmaSelect (£10,035) selectable nozzles. In test specification our machine carries a book price of over £123,000. Let's just hope there is a good discount structure.

Hubert Wilmer

GOOD TO KNOW

- ▶ The UX4201 Super has excellent boom control and tank filling features.
- ▶ There is individual nozzle control, an electric suction tap but no selectable nozzles.
- ▶ There is a lengthy options list and our test machine had most of the extras fitted.