

SPECIAL REPRINT

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Krone KWT 1300 tedder:

Pick up the pace

For the farmer or contractor who wants to get a wriggle on between fields, Krone has fitted some high- speed-friendly running gear to its wider working tedders. We take a look at the 12-rotor KWT 1300

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ith the need to get over ground as efficiently as possible there is a growing trend to investing in ever wider working tedders. And to make moving between fields quicker and easier, they are getting faster running gear and more compact folding. Krone's KWT 1300 is such a machine, with its dozen 1.53m rotors covering 13.0m with each pass. There are two coupling options: hitch directly to the drawbar, or to the three-point linkage. If you go with the hitch, then there is

also a K80 ball option. Those buyers that opt for the lift arms have a tension spring, to overcome any negative tongue loads when the 12 rotors are raised out of work on

the headland.

Once hitched on the tractor, the pto shaft and four hoses (two double-acting) that supply the folding mechanism need coupling. The hefty 2.7t



Our German spec machine had a top mount hitch, but this can be repositioned for lower mounting. A headstock for coupling to the lift arms is an option.

tedder sits nice and low on the road and can safely be towed at 40km/hr despite not having any braking system. In the field it takes about 30 seconds for the sequence-controlled rotors to unfold. The second spool is used to raise the rotors on the headland, provided you want that. Indeed, you may not want to do this, as the KWT 1300 tedder has a new feature for the headland. The 12 rotors are rigidly linked to the running gear and chassis, meaning the transport wheels scuff when the machine turns a corner. So in tight curves or on

12 rotors follow behind the running gear – the new KWT 1300 from Krone.

Data sheet Kropp KWT 1300

	KIOHE KWI 1300	
	Working width (DIN)	13.10m
	Number of rotors	12
	Tine arms per rotor	Six
	Rotor diameter	1.53m
	Spreading angle	13-19 °
	Rotor wheels 18.5 x 8.5-8 ¹⁾ a	and 16 x 6.5-8
	Tyres for chassis	15.0/55-17
	Weight	2,700kg
	Length	5.90m
	Width	2.99m
	Height	2.50m
	Power requirement	44kW/60hp
	Price (from)	£29,205
	Price (as tested)	£33,050
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Manufacturer's information, ¹⁾ central pair of rotors

wet ground the wheels can damage the sward. To avoid this, operators usually lift the machine out of work and reverse into a corner, for instance. On the KWT you can do just that with the tedder still in work, even with the optional suspension system fitted. **So how does it work?** Operate the spool for headland lift-out in the opposite direction so oil is sent to a nitrogen accumulator, which is coupled to the hydraulic cylinder for controlling the rotors. By applying the full pressure, the system shifts the load from the transport running gear to the large rotor wheels, eliminating the risk of damaging the pasture. Although this optional feature does add around £895, it's standard with the Plus version, which hitches by the lower links. One grumble with the system is activated or not. A pressure gauge would help here.

It was nice tedding with the 'in front' running gear. The large 15.0/55-17 wheels used for carrying the machine in transport give good height control to the 72 tines, of which the two that make up a pair have different lengths. And their working height is easily set by a crank to the left of the tedder. As for the rotors themselves, there have been no changes to them since our tedder comparison in the March and April 2015 issues.

Measuring 1.53m in diameter and each armed with six 38mm tine arms, the rotors ted the crop effectively. Two rotors make up each



Oil is directed to the nitrogen accumulator by the lift ram. When the accumulator is filled, the transport running gear is suspended by the rams which shifts the weight to the rotor wheels.





pivoting section – the typical Krone design. There are still four spreading angle settings ranging between 13° and 19°, which are set by refitting split pins. The drivelines between the rotors interlock via the so called 'Octo-Link', which consists of eight interlocking fingers and allows the rotors to work through a large pivot range from -7° to 180°, which is ideal for folding the KWT into a compact roadgoing package. The gearboxes of the rotors are lubricated with semi-fluid grease. Unlike the smaller tedder models, the 1300 has the steel truss frame from the biggest KWT 1600, which increases the strength and stability of the hoop guards.

Our tractor for the day was a John Deere 6105R which we worked at 6km/hr and 500rpm. The tedder did excellent work in our test. Krone recommends a minimum of 60hp, which we think is on the low side – 80hp would be a better starting point for throwing out grass silage.

A gear ratio of 1.0:2.6 generates a high rotor speed with a low pto speed. By the way, at this working width it is easy to match up with the previous pass. In fact, we preferred this to lifting out on the headland. Using a clevis hitch, the turn may be restricted by the tractor tyres fouling with the drawbar. The combination is clearly more agile when attached to the lift arms as the pivot point is pushed farther back.

Other business:

- Our test machine had the optional £1,200 night swathing gearbox
- Road lights are standard
- Side guards fold automatically when the tedder moves into its transport position

- Hydraulic curtain is an option (£915) on the right side for border spreading. It is dis/ engaged by a two-way ram
- Price tag for the KWT 1300 is £30,935, but with the optional extras our test machine would cost £33,050.

Summary: There is a growing trend with tedder manufacturers to position the running gear ahead of the rotors, and this is exactly what Krone has done with the KWT 1300. This design change allows for faster folding and less 'tail wagging' when running down the road. There is a risk of the transport wheels scuffing in tight turns, but Krone gets round this by hydraulically suspending the axle. It is an option and one we think is only needed in wet conditions. The rotors have not changed and did a good job of spreading our high yielding, first-cut crop at 6km/hr. **TB**

The rotors are raised out of work by a single-acting spool for headland turns. The steel section tubes not only act as a safety guard but also aid stability.