

MACHINERY AND TRACTOR

The SIWI combi-hitch is a new quick-hitch system from Denmark, which has transformed the process of attaching a tractor or forage harvester to a trailer or trailed implement. **Simon Henley** reports.

Quick-hitch revolution

Several years ago, York-based lime and fertiliser spreading contractor Peter Davey watched a video on YouTube which featured an ingenious hitching system. Developed in Denmark, the SIWI combi-hitch claimed to not only significantly reduce the amount of time to required drop off and/or attach a trailed implement, but the driver did not need to leave the cab seat.

Anyone who has worked on a farm where you have to continually keep dropping off or swapping a trailed implement will know it can be time-consuming and often frustrating. How many times have you encountered spool valve couplings which refuse to co-operate or a weighty pto shaft which refuses to slide on or off the tractor output shaft without an intense struggle?

In short, a SIWI combi-hitch is an automatic tractor/implement hitching system which uses a coupling mounted on the tractor's rear linkage to hook into an attachment mounted on the implement/trailer drawbar.

The system was invented by Rasmus Helms, who developed his idea while working on a dairy farm in Denmark. Trained as an engineer, his first design was primarily for pulling trailers behind forage



Peter Davey first saw the SIWI combi-hitch being used on a YouTube video.

harvesters. Launched in 2012, it soon became popular in Denmark, however feedback from customers revealed he needed to design a second generation hitch which also connected the pto.

In 2016, the new SIWI hitch with pto capability was introduced and to date more than 250 have found homes in more than a dozen countries worldwide. Today, this clever design enables the tractor driver to simultaneously connect or disconnect up to eight hydraulic couplers, pneumatic brakes, two seven-pin light

sockets, multiple electronic systems including IsoBus terminals, cameras or control boxes, and the pto drive-line; all at the push of a button.

Cost

Back in Yorkshire, having contacted the Danish manufacturer directly, Mr Davey was informed the cost of buying the hitch would be about £20,000. At the time, that kind of investment seemed prohibitive, however last March he received a phone call from Keith Rennie Machinery (KRM).

"I have been using KRM products for several years," explains Mr Davey, who currently operates a KRM Bredal K105 trailed spreader behind a Fendt 724 Vario tractor equipped with a Fendt loader.

"The SIWI hitch appealed to me, because I am essentially a one-man operation. When KRM called me and explained they had established an agreement to distribute SIWI products in the UK, I decided it was time to take the plunge and buy one."

Mr Davey has been spreading lime for the past 12 years. His business has continually grown and last year, he spread more than 10,000 tonnes of lime and fertilised more than 800 hectares for local farmers.

"The speed and ease with which hitching is accomplished is quite astounding. Time is a big consideration when I am working alone, and hitching on and off the spreader is where you lose the most productivity.

"With this combi-hitch, I am typically saving between 60 and 90 minutes of hitching and unhitching time per day. That allows me to spread an additional 30-40t of lime, which equates to an average of 250t a week during peak season.

"When it arrived, we spent several hours setting it up, which included getting the hydraulic pipes in the right place so they matched the spool valve controls in the tractor.

"All connections on both the tractor linkage attachment and the drawbar receiver are quick-attach, so you can remove the system easily and attach it to another implement.

"To attach the implement using the SIWI hitch, you simply back up as if you were using a pick-up hitch. As you lift the link arms to hook up to the drawbar attachment, you press a button [spool valve] which pushes the pto and hydraulic couplings together.

Mr Davey adds: "Very occasionally, the pto might not quite line-up and will not engage first time.

"I have found flicking the pto in and out of gear to line up the shaft connection will resolve this.

Mr Davey uses his SIWI to pull a KRM Bredal K105 trailed spreader behind a 2018 Fendt 724 Vario tractor equipped with a Fendt loader.





According to Mr Davey, the combi-hitch adds about one metre to the length of the tractor/spreader combination.



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PETER DAVEY

“Debris can also prevent an immediate connection, but 99 per cent of the time the only thing which will affect the hitching process, is operator error. It is literally fool proof.”

Maintenance

In terms of maintenance, Mr Davey states that besides greasing the pto and using electrical cleaner to spray the connectors occasionally, there is little else to do. What should be noted, is the integration of the system extends the overall length of the tractor/spreader combo by about a metre.

“In most conditions, there are no limitations to using the tractor,” confesses Mr Davey. “You can make tight turns with the pto running in the same way you can without the SIWI fitted. There is also a large skid plate on the drawbar, so I can drop the spreader off without fear of it sinking into the ground.

“One thing I have noticed, is with

a full load the additional length increases the weight on the rear axle, which inherently takes weight off the front wheels. In most conditions it makes no difference, but if its wet, even with the weight of the front loader for ballast, it can make the tractor more difficult to steer.

“In these rare situations, since I always spread using GPS, if necessary I will make wider turns and work in bouts to prevent scuffing on the headlands. On the plus side, you have got very little chance of getting stuck.”

Indispensable

He says: “The hitch was quite expensive, but it has already become virtually indispensable. My aim has always been to keep my costs down, and it helps me maintain an affordable service to my customers.

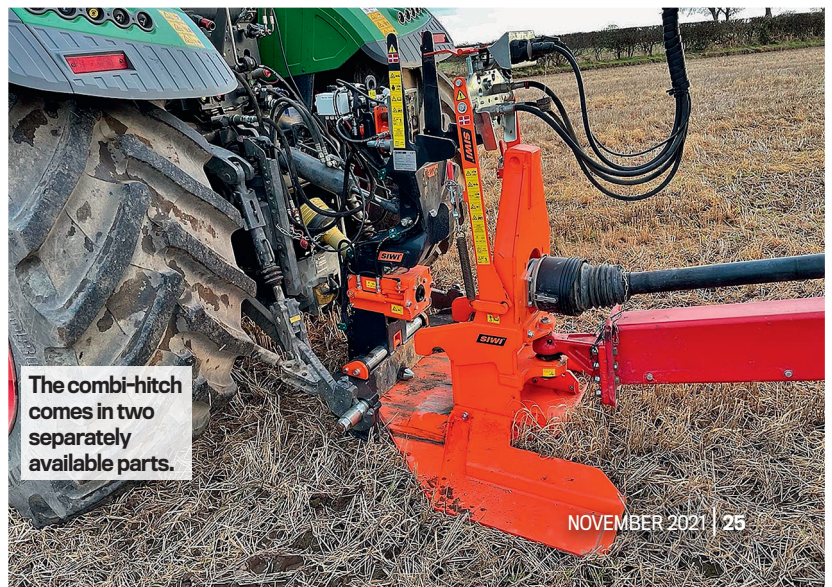
“My operational output has now increased to a level comparable with a contractor using a telehandler in the field to load the spreader. Because I only have to move the tractor and spreader to the next job, there is no back-tracking to fetch a telehandler, or time wasted loading the spreader and telehandler onto a low-loader to pull behind the tractor.

“When I pull into a field, I can literally drop the spreader off in a matter of 30 seconds and get straight to work. It is an extremely simple yet highly effective concept.

“In the long-term, using the hitch will reduce tractor hours, which means lower operating costs and less wear and tear on the tractor and spreader. It is proving to be a very worthwhile investment and I am already wondering how I managed all these years without it.”



Once the hitch is locked into the drawbar attachment, the operator activates a spool valve which automatically engages the hydraulics, brake, electronics and pto services.



The combi-hitch comes in two separately available parts.