



MJ Petty Contractors, Bedfordshire:

Attached to spreading

The search for a labour saving, cost effective way to load a bulk spreader has led a Bedfordshire contractor to a novel hitch system

As harvest windows get tighter and spring weather more unpredictable, 'time and motion' is key for contractors who specialise in applications. With a high-capacity outfit such as a bulk spreader, the debate always concerns how to load for greatest efficiency, and it is this that led Mark Petty to the SiWi hitch, which allows him to use his tractor for loading without wasting too much time hitching and unhitching.

Search for a solution

"Where the job entails spreading 500-600

tonnes, I can justify employing a man to load with his wheeled loader, but much of the workload is smaller amounts," explains Mark Petty. "I've tried a 360° crane which was towed behind the spreader, but it was slow and made for a very long unit on the road. A crane mounted on the spreader is another option, but adds an extra 2 tonnes to its weight, are costly and the only supplier with anything suitable is at the other end of the country. I've even considered using a forklift and putting that and the spreader on a low loader behind the tractor - aside from the cost, the downside of that is

the risk of grounding out when going into some rougher fields."

Mark spotted the Danish-made SiWi Combi Hitch on YouTube, and enquired about it via UK importer KRM, which also supplies the Bredal spreaders he has used for many years. "They suggested that I wouldn't like the price, and it's not cheap, but being able to hitch up so quickly between loads means that I can spread another 30 tonnes a day, which means it will pay for itself in three seasons. It also means that for most jobs, spreading is a truly one-man operation," he says.

Mr Petty loads the spreader using a fore end loader on his JCB Fastrac 4220.



MJ Petty

Location

Haynes, Bedfordshire

Services

Bulk spreading of lime, chalk and fertiliser
Gritting and snow ploughing
Fencing and digger work

Staff

Mark Petty plus self-employed drivers for winter work and occasional loading

Key machinery

JCB Fastrac 4220 with T418 front loader
KRM Bredal K135 bulk spreader

Winter equipment

Three Saltdogg trailer mounted gritters
Albutt loader-mounted snow plough

MJ Petty offers a bulk spreading service as a one-man operation from its base in Bedfordshire.

How it works

The SiWi Hitch fits between the tractor and trailer, connecting the hydraulics, pto and electric in one operation from the driver's seat. A frame is fitted to the three-point linkage of the tractor, with a connector block at the top for oil, air and electric lines, a pto shaft input in the centre and hooks below to latch onto the corresponding frame on the implement side and a mechanical lock to connect the two halves.

Connected to the spreader via a ball hitch is its own SiWi frame with a large footplate, which supports the spreader when unhitched, and a receiver for the hooks. Connections for the hydraulic/electric block and pto slot them in when tractor and trailer are joined together. To hitch up, the tractor linkage is lowered, the tractor backed so it is under the spreader frame and then lifted. The hooks engage and lift the drawbar. A single spool is used to engage the hydraulics, electrics and pto, and a mechanical interlocking latch between the two halves is activated.

Tailored for the job

Various specifications are available to suit the needs of the operation: for the Bredal spreader it includes connections for air brakes, lights and a port for the rear camera as well as seven hydraulic lines including flow and return as well as the pto.



The T418 loader was specified to work with the JCB and offers 3.05 tonnes lift capacity and 4.6m lift height to reach over the side of the high capacity spreader.



The Bredal K135, imported by KRM, has a capacity of up to 20 tonnes and can spread fertiliser to 24m bouts.

"Aside from the simplicity and speed, the improved safety also appealed to me as you are not in the hitch area when connecting up," comments Mark. "The ball hitch cost an extra £700 but is also safer on the roads and more practical - it doesn't move or wear." The spreader is slightly further back from the tractor, which improves the turning circle of the outfit, he adds, and while the spreader's weight is also carried further back on the



The SiWi hitch connects all services from the tractor to the spreader at once, controlled from the cab.

tractor wheels, this is countered by the front-end loader.

"The SiWi hitch took a bit of getting used to, and it's definitely easier to hitch up on level ground. But we've had excellent support from KRM, although it was very much as expected because that's how they back up the spreaders. It also came complete with all the required connections and some spares," points out Mark.



The 'trailer side' of the hitch showing the connections for the pto and hydraulic services, plus the large footplate which supports the spreader while it is being loaded.

The tractor side - to hitch up, the tractor linkage is lowered, the tractor backed so it is under the trailer frame and then lifted. The hooks engage and lift the drawbar.

some issues with other loaders in the past and MX was recommended to me. The company was very helpful in specifying exactly the right model for the tractor and my needs, especially as higher horsepower tractors doing this sort of loading work are few and far between. I'm really pleased with the results - the ergonomics are superb and I've got a clear view of the bucket at all times." Apart from a brief spell with another make, Mr Petty has always relied on Bredal spreaders. "It really comes down to reliability as I can't afford to be out of action. The Bredal K135 spreads lime and chalk to 12m - it's hard to get those products to spread evenly above that - and fertiliser to 24m. We mainly work on stubble, but even on cultivated land that's

Costings

The SiWi hitch tractor and trailer components are sold separately so that if the customer has one tractor plus a spreader and a forage trailer for example, he can purchase one 'tractor side' and two 'trailer sides' to suit.

Base units for tractor and trailed implement are priced at £9,810 and £4,680 bringing the package price £14,490, however, most customers would usually require the PTO option which would make it £13,320 (tractor) and £7,840 (implement) adds up to £21,160.

An 80mm ball hitch for a Bredal trailed spreader (if required) adds £600. Air brakes add £100 per side, while a load sensing kit is £1,100 (tractor) and £900 (implement). KRM offers the full range of SiWi Hitches, and can supply a wide range of control connections are required.



Boost in efficiency

It all adds to the impressive and efficient spreading combination. The 220hp JCB Fastrac 4220 is in its third season, with Mr Petty having made a switch from another brand.

"You need plenty of power and weight especially on some of the steeper land we cover, and it's obviously a good tractor on the road," he explains. "I've made a few changes from my previous set-up - the auto steer is integrated with the tractor hydraulics rather than on the steering wheel which is much smoother and more responsive. The Fastrac came Trimble-ready, so I've been able to swap the Trimble ISOBus display from my previous

tractor, which uploads spreading maps produced by the lime or fertiliser company rep on a Trimble hand held unit according to field samples."

Back-up was an important consideration here too - dealer Olivers is close by and has mechanics handy for all of the counties he covers.

Quick loading

Key to the loading operation is an T418 fore end loader, which can lift to 4.6m at the implement pivot and has a lift capacity of 3.05 tonnes.

"I can load the 20 tonne capacity Bredal in four and a half minutes," notes Mark. "I'd had

wide enough for the majority of our customers.

"Over the years various boom and auger systems have come onto the market to spread wider, but when loading from the floor there's always the risk of debris which can block that type of machine."

Annual workload

Work rates average at 300 tonnes per day, and he reckons to cover 3,400-4,000ha on fertiliser work and spread 6,000-10,000 tonnes of chalk and lime each year, working on contract to two quarries and other suppliers.

"The dry summers and wet autumns make



With the hitch in place, it makes for a slightly longer outfit, but Mr Petty says that turning circle is actually improved as the drawbar is further from the tractor wheels.

that end of the season short and there's always a lot of pressure to get round the customers. We can get on in early July after oilseed rape is harvested and then onto the barley land which helps to spread the workload, and the increasing acreage of spring crops also helps. We used to do a lot of spring spreading, including for market gardeners wanting lime to combat club root in brassicas, but many of those growers have gone."

Gritting was added to the list of services in 2001, after FMD brought an end to his contract lambing enterprise.

"I used my bulk spreader and tractor to begin with, but at the time there was a conflict with using red diesel, so I swapped to trailer-mounted gritters to tow behind a pick-up."

After trying a number of units, he settled on Saltdogg from Buyers Products, supplied in the UK by Grittex. The PE hopper has a 2,000kg capacity with electric drive to a 35cm diameter polyethylene spinner disc.

"We've got three units to cover private land which is not served by councils, from business parks and supermarkets to private roads," he explains. "It's good work but there's lots of competition; companies will undercut you, go out of business after a season and then there's the challenge of trying to get the price up to a sensible level again."

Mr Petty also offers a snow ploughing service using an Albutt plough which is fitted to the loader avoiding its removal, and also contracts out winter work to other local farmers. Other winter jobs include digger work and fencing.



Mr Petty also offers a gritting service to private sector clients, using a trailer mounted spreader.

MJ Petty became a specialist service provider in 1992 after Mr Petty started out in general contracting in the previous decade, and he comments that there has always been plenty of work out there.

"Farmers have become more and more aware of the need to get nutrition right, and the value of variable rate application. Lime is easy to overlook, but if the pH in the soil is not right, nutrients are locked up. We have a number of regular customers who aim to treat a third or a quarter of their land each year, and although the tractor and spreader looks like a big unit, as long as the access is adequate and the price is right I'm as happy to treat a few horse paddocks as to take on a large estate."

Jane Carley



A specialist contractor, Mark Petty is finding ongoing demand for his services as farmers become more conscious of the benefits of liming and cost effective nutrition.