

# Patience pays off

When the time came to replace his baler, North Yorkshire farmer John Douglas chose to wait for the arrival of Kuhn's new SB1290iD, and became the baler's first UK owner. *FMJ* went to see it in action

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**T**aking delivery of the first of any new range of unproven farm equipment can often be seen as a risky move but not according to John Douglas, a fourth-generation mixed farmer. He purchased the first Kuhn SB1290iD high-density baler to go to work in the UK from local dealer Hardwick Agricultural Engineers.

***"I'd looked at other balers, but I felt they weren't offering me more performance"***

John currently farms 1200 acres of cereals, beans and temporary grass with his parents, Gena and Mick, near Malton in North Yorkshire. They also

finish 2500 head of beef cattle and run a 500Kw anaerobic digester on their farm. The family own 700 acres while the rest is split between contract farming and short-term tenancy agreements.

The size of the cattle herd means there is always a strong demand for straw and silage on the farm, which ran an old five-string Bonhill Fortshritt more than 20 years ago, before replacing it with a 2008 New Holland BB960 producing 120x90 size bales.

"While the New Holland was a decent baler it was becoming outdated and I'd been contemplating swapping it for something much newer three years ago," says John. "This was mainly due to the BB960's plunger set-up and lack of a drop floor to clear blockages easily from

the chamber in damp silage and dense straw swaths."

Having carefully researched his options, John concluded that either Massey Ferguson's 2270XD or Kuhn's LSB1290D were the two most suitable candidates for his operation.

"I'd looked at other manufacturers' balers too, but in truth I felt they weren't offering me much more performance compared to the BB960 whereas both the design of the Massey Ferguson and Kuhn appeared to have progressed further," he reckons.

## Demo with Deutz

The deciding factor came when John was given a demonstration of Kuhn's LSB1290D behind a 190hp Deutz-Fahr Agrotion supplied by local dealer Hardwick Agricultural Engineers. ▶

## TECH SPECS

### Kuhn SB1290iD

**Bale dimensions**  
120x90cm

**Pick-up width** 2.3m

**Pick-up diameter**  
34cm

**Tine bars** 5

**Bale chamber length**  
3.75m

**Knives** Omnicut  
23-knife rotor

**Knotters** 6

**Tyres** Vredestein  
Flotation Pro  
620/50 R22.5

**Length** 7.9m

**Height** 3.45m

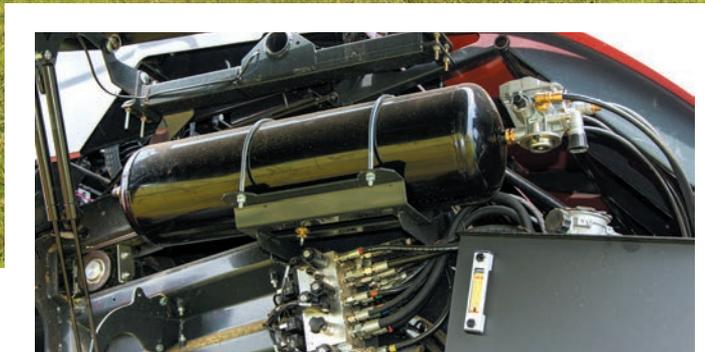
**Min power** 200hp

This picture: John Douglas is pleased he was persuaded to invest in the latest SB1290iD baler

Bottom left inset: When not in use, hoses and cables from the baler can be neatly stored on this arm above the drawbar



**“There’s a clear evolution in the design, and an excellent reputation for reliability”**



► “We had the opportunity to run the Kuhn alongside our existing New Holland BB960 and the Kuhn packed significantly more material into the same size bale, at twice the speed, while not demanding any more power than the BB960 to run efficiently,” he explains.

“That really impressed me given the Xtra-Density Massey Ferguson was going to be more expensive and demand more power to run, so I decided to place an order for the Kuhn we’d demonstrated. However, Hardwick Agricultural Engineers suggested we might want to wait until the revamped range of Kuhn’s SB high-density balers were ready for dispatch.

“We sat down and looked over the specification for the new SB1290iD high-density baler, which includes Kuhn’s clever TwinPact split double plunger system. It’s capable of

packing 25 per cent more material into a 120x90-size bale, and while various other components such as the flywheel had become much heavier, the plunger set-up allowed a 200hp to 250hp tractor to run the baler successfully with

improved output over the LSB version we demonstrated,” he explains. He had no concerns agreeing to buy a brand-new baler from a completely revamped range that he hadn’t seen working before.

“First and foremost I had plenty of confidence in the supplier and dealer, Hardwick, who have provided us with brilliant service and support for the Deutz Fahr tractors and combines we’ve bought from them over the years,” he says. “Secondly Kuhn’s big square baler range has been redeveloped extensively from its Vicor parentage. There’s a clear evolution in the design and their equipment seems to have an excellent reputation for reliability.”



**Above:** Load-sensing hydraulics operate functions such as the locking rear axle, roller chute and bale ejector



**Right:** The SB1290iD comes with a 2.3m-wide cam-track pick-up reel featuring five tine banks and semi-pneumatic guide wheels

**Left:** John fabricated this smart bracket to hold the SB1290iD’s ME Touch control terminal and rear facing camera

**Below:** John Douglas has been very impressed with the shape and consistency of bales produced by the SB1290iD



This picture: The SB1290iD's compact size and steerable rear axle make it very manoeuvrable

Right: John's SB1290iD is equipped with the 60cm-diameter Omnicut rotor featuring 23 knives and Hardox rotor tines



Left: The SB1290iD barely leaves a mark on soft ground thanks to four Vredestein 620/50 R22.5 flotation tyres

Below: A 2015 Deutz Fahr Agrotion 6210 is more than capable of handling the SB1290iD, which replaced a 2008 New Holland BB960 this year



### Latest range

Kuhn unveiled its upgraded range of big square balers during the summer of 2019. Two models were carried over from the previous LSB range, the 870 and 1270, which joined the SB 890, 1270X, 1290 and 1290iD to complete the line-up.

Upgrades over the previous range include a heavier 485kg flywheel to replace the outgoing 285kg unit to improve smoothness of operation, while increased torque loading on the feed driveline gives 15 per cent more intake capacity. Other notable improvements include a brand-new load-sensing hydraulic system to

control components such as the bale ejector and chute rollers.

John Douglas's SB1290iD arrived in June this year, fitted with Kuhn's 2.3-metre cam-track pick-up with five tine bars specified with semi-pneumatic pivoting pick-up wheels for undulating terrain. It came equipped with Kuhn's Omnicut knife rotor equipped with 23 knives and Hardox rotor tines capable of a 45mm cutting length. The 60cm diameter rotor can cope with a wide range of swaths while each knife has independent hydraulic protection too. Crop flow has been improved by positioning the pick-up and rotor ▶

## Operator opinion John Douglas and James Pashby

John says the SB1290iD is the smoothest running baler he has ever used, thanks to the TwinPact plunger, a sentiment shared by regular operator James Pashby.

"It's incredibly quiet and while there are certain conditions a little more power would be beneficial, the 210hp Agrotion is a decent match for the SB1290iD. Also the ME Touch ISObus control terminal inside the cab is very straightforward to use when monitoring the baler's performance and making adjustments," says James.

Four large 125mm rollers fitted with the largest bearings on the market guide the TwinPact plungers, each delivering 46 strokes per minute to maximise compression. Bale density is automatically regulated and kept consistent on all SB models via Kuhn's patented torque density regulation system. It uses plunger rod load pins to measure plunger force while a sensor measures the crank's angle to calculate the exact torque throughout the plunger cycle.

The SB1290iD uses Kuhn's double knotting system, which can be monitored by the operator through the terminal. It will automatically alarm if any issues arise. Once the desired bale length has been reached and the first knot tied, the second knot connects the upper and lower twine again so the next bale can be formed.

The only issue John has encountered with the knotters was when the baler's fans, designed to blow debris away, began forcing chopped silage into the top of the knotters. "We were in some dryer than normal silage on our first day out with the baler, chopping really fine which caused the problem. Once we'd made some adjustments with Hardwick engineer Dan Ridsdale it's performed faultlessly ever since," says John.

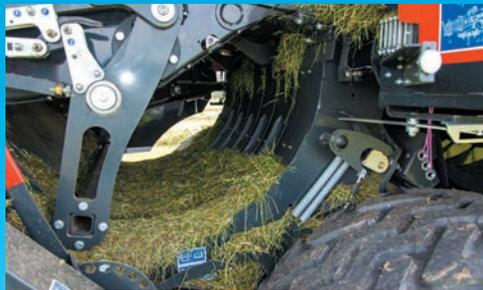
The baler's load-sensing hydraulics are another impressive upgrade, says John, allowing safety features such as the axle locking function and bale ejector to be engaged from the cab without the need to use an extra spool valve.

John's SB1290iD had produced 3074 silage and straw bales by the time of our visit in the summer, 1000 of those with the knives engaged. "In the short time we've run the baler it's been exceptional and I'm really pleased we did our research and waited for the arrival of the SB1290iD and not rush into buying anything else," says John. "We always purchase machines with longevity in mind, and anticipate keeping the SB1290iD for at least a decade."



Top: John Douglas says opting to wait for the new SB1290iD baler was the right decision

Above: Operator James Pashby says the SB1290iD is one of the quietest and smoothest balers he's used



Far left: The 2.3m pick-up is positioned close to the chopping rotor to improve crop flow to the pre-chamber

Left: A single feeder fork is designed to form the bale flake in the pre-chamber, combining two functions in one operation to reduce moving parts

► closer together. The force feed intake also allows higher forward speeds to be achieved.

"The rotor has coped exceptionally well in silage this year, it's very smooth and knife selection can be switched over instantaneously via the ME touch control screen from the comfort of the tractor cab," says John.

Kuhn's Power Density pre-chamber uses a simple single feeder fork design that combines two functions in one operation to cut down on unnecessary moving parts. As the rotor continually delivers material to the pre-chamber the fork forms the bale flake until the measuring plate is pushed back by force dictated by the operator. As soon as the plate is pushed back the feeder fork system completes its second function moving to a different position so the pre-chamber empties, pushing the newly formed flake into the main chamber.

A drop floor inspection hatch is situated and easily accessed below the pre-chamber, allowing for any



Above: The first SB1290iD baler to be sold in the UK making excellent progress on its first day at work

blockages to be dealt with safely. "The drop floor is a massive improvement on the older New Holland baler. It's such a time-saving feature if you do encounter any blockages in less than perfect conditions," says John.

### Denser bales

The bale chamber channel is longer than standard, 3.75m instead of 3.4m, to achieve the desired friction to produce a higher density bale than the standard SB1290, while the compression area of the main chamber is fitted with a Hardox wear plate throughout to increase durability.

It's the design of Kuhn's patented TwinPact plunger system that has impressed John the most when it comes to forming a consistent 500kg-plus bale though. "Most single plunger systems that create a much higher density bale demand a lot more

power over a standard version because they place far higher peak loadings on the baler. As result the drive line on these types of baler has to be beefed up significantly to cope," he says.

"The TwinPact system consists of upper and lower plungers connected via a triangle rod dividing the compression process into two steps to even out loading while the bale is being formed. It means that while some components have been strengthened, the majority of the driveline remains the same as the standard version and allows a tractor like our 210hp Deutz-Fahr to power the baler comfortably without loss of performance in all types of swath." *EMJ*

**"I'm really pleased we waited for the SB1290iD and not rush into buying anything else"**

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