



Professional handling of Scottish logs

At Ridings, all softwood species from 140 mm up to 680 mm diameter are cut

A new log yard concept at Ridings Sawmills improves log availability and reduces handling costs

Preparing the logs before the cutting process meant a lot of handling effort at company Ridings Sawmills in the past. This needed to change to improve margins and so Frank Ridings and his family re-organised the log yard completely, implementing proven as well as innovative solutions at the site.

The former log yard at Ridings consisted of a log sorter with integrated debarker, 1D scanner system and six sorting boxes. Parts of the line were more than 30 years old.

“We were not able to butt-reduce our big Scottish logs with butt ends like a ‘trumpet’ and bad ‘dog-legs’,” Frank Ridings, founder, owner and manager of the family business at the Scottish West coast told *International Forest Industries*.

“Our log sorter did not have a metal detector unit and could not keep up with the sawline.”

With the rough pre-sorting of logs, the log sorter became the limiting factor for the sawline and

the whole mill. After more than two years planning, Ridings placed the order with Holtec and Balier & Zembrod in 2014, before starting work in the Christmas holidays that year.

“Holtec is responsible for the new log sorter, [while] BZ [is responsible] for the manipulation of logs after the sorting,” Frank’s son and Technical Manager, Dave Ridings, said.

“Really soon we saw that the two partners would provide us with the best log yard concept. From the very first discussion, the Germans had good ideas to meet our requirements, which fit into the limited site and give us additional

benefit.”

The log yard is 120 m by 55 m in size. The log sorter operates under a rail-mounted portal crane system – the first one in the UK.

Outside the rail system there is space to store about 9,000 m³ of logs with an average stocking height of 6 m.

“A portal crane has several advantages.” Lindsay McKechnie, Frank’s daughter and Administration Director, explained.

“The system is operated with electric power, not with diesel. This reduces the operation costs for the log handling significantly.

“Machine tracks between the log piles are not required, so we

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Dave Ridings

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HOLTEC

are able to store a higher volume of logs. The moving distances are much shorter compared to mobile-driven machines.

"We can take orders from our customers large and small – we quote, produce and supply everything from 1 to 1 million sawn pieces. Correspondingly the crane has to manipulate individual logs, too."

The portal crane empties the sorting boxes, builds up stock and feeds the sawmill.

At Ridings, all softwood species from 140 mm up to 680 mm diameter are cut. The sorted lengths variate from 2.5 m up to 4.9 m.

After passing the weigh bridge, the logs are directly brought onto the log deck of the log sorting line. From here the logs are singulated by an electric driven step feeder system.

The operator in the pre-installed delivered cabin classifies the logs

during cross-conveying and makes the decision, whether a log needs to be butt-reduced. In this case the operator actuates only a foot switch.

During the reducing process, the stock diameter is also assessed by the butt-reducer unit. If a log is too big for the subsequent Valon Kone debarker Type VK5000HD, the log is automatically taken out of the line.

Behind the debarker, the logs run through a metal detector unit and a 3D scanner system from Joerg Electronic. The log volume is calculated according to the British Forestry Commission Rules.

Due to the fact Ridings cuts metric and imperial lengths, the scanner and sorting conveyor need high length accuracy. All scanner protocols and data are transferred via W-LAN connection to the crane.

After scanning, the log is sorted in one of the 20 sorting bins. The whole sorting line is equipped with



Frank Ridings

scraper conveyors.

Bark and butt-reducer shavings are stored separately providing Ridings additional value in selling of these by-products.

"With the elimination of butt-ends we can operate the sawmill faster and with a higher availability," said Dave.

McKechnie added: "After the first days of log sorting we are starting to see the benefits of the log sorting in the main sawmill already, which is great.

"Because of the fine log grading we can faster produce our main products for fencing, carcassing and packaging timber. This will

reduce our delivery time again."

Frank is convinced.

"Furthermore it improves the yield due to the better classification at the log yard," he said. "The lower operation costs also bring additional benefit for us."



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