

John Deere presents...

THE general introduction discussed the global trends affecting both forestry and construction and the key economic drivers in forestry – increased house building representing an increased need for timber which in turn puts up timber and pulp prices. Following this, Tommi Ekman, General Manager, marketing and order fulfilment, explained the new innovations in the G-Series harvesters.

The first of these is the totally new rear chassis with a new layout for the engine, hydraulic oil and fuel tanks, and placements of the pumps in the new 1070G and 1170G harvesters. In both models, the engine has been turned 180 degrees, the hydraulic oil and fuel tanks and pumps have been placed in front of the engine, and the fan at the rear of the machine. The changes make the cab very quiet and, as the engine hood is lower, the operator's visibility to the rear has significantly improved.

Available as a 6- or 8-wheeled version, the 1170G offers outstanding stability, low surface pressure, agile forward movement, climbing ability on slopes, and excellent productivity in all these conditions.

The 6-wheeled version replaces the popular 1170E and its front frame can now be equipped with either 24.5 or 26.5 inch tyres. The bigger 190 cm³ work pump gives the machine more hydraulic power than its predecessor. The CH6 boom is available with a 10 or 11.3 metre reach, and can be equipped with an H412, H413 or H414

Forestry Journal, along with over twenty representatives from the international forestry press, were invited to a press event hosted by John Deere in Klink, Germany in early March. Upon arriving at the magnificently impressive hotel, a castle no less, press attendees were able to chat with a similar number of John Deere staff and dealer representatives from Germany, Austria, France, Sweden and, of course, Finland, over an informal buffet dinner. The next morning, replete after a leisurely breakfast, we gathered for the formal press event held within the hotel.



A castle, no less!

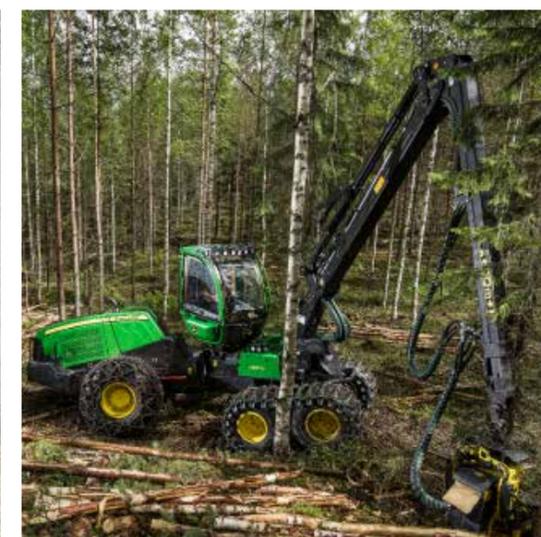
harvester head.

The 8-wheeled 1170G is the industry's most versatile harvester for thinning and regeneration felling, especially on soft terrain and slopes. The weight of the 8-wheeled model with the H412 harvester head and without tracks is about 19,500 kg, and the 6-wheeled machine with the H412 harvester head weighs about 17,800 kg. The presentation included comments from satisfied users – Vese Kärkkäinen says of the 8-wheeled 1170G: "We can log year-round on terrain that we otherwise would be able to log only in winter."

Thanks to its compact size and ease of manoeuvrability, the new 1070G is ideal for thinning even on sensitive ground. It can operate easily in areas with dense growth while the wide tyres and well-balanced



The 8-wheeled 1170G.



Above left: The 1170G at work.
Above: The 6-wheeled 1070G.
Left: Gunther Jost of Forex.
Below: Plenty of opportunity to get up close.

available for the 1170G harvester in late 2017.

IBC is not just an automatically operating boom extension or damped valves; it is a truly intelligent system with sensors that detect the position of the harvester head and algorithms that adjust the boom's trajectory in one continuous and efficient motion. IBC also serves as a platform for new features to be launched in the future to make the operator's work more enjoyable.



The IBC operation

automatically follows the harvester's work cycle. The boom's trajectory and operation are adjusted as the harvester head is taken to a tree and when the tree is in the harvester head. There is no need for the operator to control the different sections of the boom individually. IBC ensures the most efficient and precise operation practices. The boom's electronic end damping makes for smooth work which reduces stress on the entire boom. IBC improves work ergonomics and increases the machine's productivity remarkably.

Once again Tommi's presentation included comment by current users: "Control of boom movements is on a totally new level. The boom is much easier to use and the operator is able to maintain good productivity in the long term," says contractor Villa Hänninen.

"Similar to forwarders, most of the customers want to have IBC in their harvester. For example, for the 1170G, the

frame protect the ground from damage.

The 180S boom is available with an 8.6, 10, or 10.8 metre reach, and the machine can be equipped with an H412, H413 or H414 harvester head. The weight of the 6-wheeled machine with the H412 harvester head and without tracks is about 16,000 kg and the 4-wheeled version weighs about 15,200 kg.

Adaptive Driveline Control, another unique feature from John Deere, is available as standard in the G-Series harvesters. The system improves the machine's drivability and productivity by automatically adjusting the engine's rpm to correspond with the engine load. High rpm are used only when needed, which also reduces the machine's average noise level. During high-load situations, Adaptive Driveline Control ensures that the diesel engine runs smoothly and maximises the tractive force.

The mid-size G-Series harvesters are equipped with a 6.8 litre John Deere 6068 engine which is compliant with the Final Tier 4/Stage IV emissions regulations. This more powerful engine, together with the new control system, make harvester work more precise and efficient, and increase the productivity of the machine.

In order to meet the more stringent emissions standards, a Selective Catalytic Reduction and a urea tank have been added

to the exhaust gas treatment system. The new engine technology significantly improves the fuel efficiency in relation to machine productivity.

In Europe, the Stage V emission regulation for new forest machines with engine power over 130kW becomes effective at the beginning of 2019. The G-Series forwarders and harvesters already meet these Stage V requirements.

All G-Series machines are equipped with new MECA control modules, simple CAN busses and an optimised electrical system to make the machine functions more efficient. The Processing Power Control (PPC) system adjusts the processing power and fuel economy to correspond with the work requirements. The system has three different power levels to choose from, and it anticipates the engine load and responds with the right power boost for each situation, thereby improving both productivity and fuel efficiency.

Tommi then moved on to talk about the revolutionary Intelligent Boom Control (IBC). First introduced for the 1270G harvester at ElmiaWood 2017, the IBC option became

JOHN DEERE EVENT



IBC take rate is over 90%", smiles Tommi.

There is no doubt from elements of Tommi's presentation that John Deere have a few more tricks up their sleeve for the future. All we can say is, watch this space!

Following the morning's presentation, attendees boarded a bus to leave for the afternoon's scheduled events.

First stop was to John Deere dealer Forex's premises, where attendees were given a tour of the premises and told a little of the history of the business. Forex have 25 employees and are responsible for servicing approximately 1,100 machines.

Working through the admin block and the workshops, we reach the parts department, where Forex store over 10,000 different parts. The parts system is a totally manual one but automation will be the next step. There are currently four people working full-time in the parts department, with a further two in the additional facility at Saxonia.

Outside of the main building and on the roadside is a large grey box. It was explained that if a customer requires a part outside of business hours (6.45 am to 5 pm),

the part would be deposited in the box for the customer to collect, using a given code and instructed to take only their own parts. A very trusting arrangement!

From the Forex facility the group travelled to the main demo site, in the private forestry district of Waldgut Glashütte, situated within the Nossentiner Schwinzer Heide landscape conservation area. The total area is 854 hectares, of which 821 are wooded, with 33 hectares of marsh. Within the district there is 19% hardwood and 81% softwood. Species spread is 80% pine, 6% other softwood (Douglas, larch, spruce), 4% oak, 3% copper beech and 7% other hardwood. The average age of the stand was 67 years.

The demo area consisted of 1.5 hectares of pine, age 99 years with an average height of 25.4 metres and average diameter of 32

cm. The last operation on the site was ten years ago, in 2008.

After a delicious lunch, catered quite spectacularly given the location, this was where we would see Tommi's earlier presentation 'come to life'. There was plenty of opportunity to get up close with both machines while members of John Deere staff used microphones to ensure everyone could hear while each component was explained in detail. One question was asked immediately - why was one machine a different colour combination - grey and green as opposed to black and green? Timmo explained that this was a branding decision and that the base colour of the new machines would be grey.

There was then ample opportunity to see at first hand the new engine layout, before the 1170G was put through its paces.

Attendees were given the opportunity to test out the IBC for themselves. Not wishing to cause any damage, I declined - but did get to experience the operation from inside the cab where the changes Tommi referred to in the morning session (regarding the reduced noise levels and increased visibility) were quite apparent.

Ever up for a challenge, my colleague Anne was the first volunteer to get behind the controls and experience the benefits of the IBC system - and very ably she demonstrated it too - though I wouldn't suggest she swaps her current job just yet!

After the demo itself, attendees were taken by coach for a late afternoon boat trip on the local lake (part of which, quite surprisingly, was frozen solid) and a spot of beer tasting, with the opportunity to sample several kinds of lager and wheat beer, before returning to the hotel for a short rest before the evening's formal dinner.

Much discussion ensued around the new machines and Tommi thanked the press for their attendance. As ever, thanks must go to the staff of John Deere for arranging and hosting such an informative and well-organised event.



Top: The boom's trajectory is adjusted in one continuous and efficient motion...

Above left: As demonstrated by Anne Berry of Forestry Journal!

Inset: Inside the cab there was virtually no sound at all.