



INTERFORST

Interforst 2014 took place in Munich from 16 to 20 July

Interforst 2014 drew 450 exhibitors – 288 from Germany and 162 others who came from 27 countries.

And once again, some 50,000 visitors (from 72 countries) came to the Munich exhibition ground on the five days of the show.

It was hideously hot for the duration of the show, with temperatures peaking in the upper thirties on the Saturday. One option to evade the heat was to head from the baking showground into one of the exhibition halls. Here, as well as the stalls of the various exhibitors, there were displays of safe felling techniques, and also many learned forums and discussions on topics ranging from the future of forest machinery to the effects of set-aside forests.

www.interforst.de



Custom made in Germany

Atlas Kern – which is not to be confused with the well known excavator and crane manufacturer, Atlas Maschinen GmbH – is based in Steinach, in the south of Germany. The company is thirty years old, and for half that time it has been involved in the manufacture of forest machines.

They make exclusively tracked harvesters. On display on their stand was the Kern 40T, which weighs 43 tonnes without the harvester head. Just 18 or 20 harvesters are made every year, to customers' specifications. Any make of head can be fitted.

The cabin and engine are bought in, but the rest of the machine is manufactured by Kern themselves. What are the advantages over other excavator based harvesters? "Performance," we were told.

As can be seen in the picture, an extra grapple was fitted on the display machine above the head, to keep trees upright, which is useful in thinnings. (A 43 tonne machine in thinnings? This is Germany.)

The tracks are fitted with spikes, which are especially useful in steep, icy conditions.

If you would like one of these machines, you will have to move to Germany. The company says it could not support a machine in Britain, and, "Without service, there is no machine."

www.kern-baumaschinen.de



Palax export manager Sari Hirvelä (left) with MD Martti Vaurio. The diesel engine and its vertical exhaust is visible in the middle of the picture.

Little extras

The German Palax dealer is an enterprising chap. Not content with off-the-shelf offerings, he has added a few optional extras for his customers.

Palax's Power 100 has been around for ten years, but in Germany it is now available with its own diesel engine. Normally it uses a 15kW electric motor, or is powered by a tractor PTO.

Also, the KS45, which is the biggest chainsaw processor in the Palax range, has now been put on wheels and can be towed at up to 40km/h, behind a tractor, for instance.

Palax's newest model, the KS40, was also on the stand. „Ich bin der Schnellste!" ("I am the fastest!") boasted the sign above it. It automatically senses the splitting force needed for a log – 5, 8 or 13 tonnes; the lower the splitting force, the higher the splitting speed.

2014 is an auspicious year for Palax. Founded in 1954, the company is celebrating its diamond anniversary.

Caledonian Forestry Services 01764 663798
www.caledonianforestryservices.co.uk

Woody 61

Konrad Forsttechnik have renewed their Woody harvesting head.

With a new control system and four feed wheels, the Woody 61 takes over from the Woody 60. A major difference is that, because of its architecture, the 60 tended not to assume a vertical position when placed against a tree. Operators skilled with the head were able to overcome this, but it took a little skill.

This is no longer the case with the 61, which also has a higher feed speed and feeding force. The two extra feed wheels are placed in the centre of the chassis, so the tree is fed in a triangular grip. The Woody 61 still retains the grapple function, using its long knives for this purpose.

Exc@v8 07791 675614
www.forsttechnik.at





Top prize for Ponsse

The KWF Innovation Medal in the forest machinery category went to Ponsse's Scorpion harvester, which has been travelling around Germany, performing in a roadshow.

The judges' citation read: "This harvester features an innovative three-frame concept with an intelligent stabilisation system. In connection with the new type of crane construction, this results in an optimised visibility over the work environment while improving the machine's stability. This innovation is a contribution to productivity, ergonomics and safety in timber harvesting technology."

On Wahlers' stand were Ponsse President and CEO Juho Nummela and Deputy CEO Jarmo Vidgrén. Whilst they had been pleased with previous roadshows featuring the Ergo, they were delighted to note that the Scorpion was attracting customers from other manufacturers.

The Scorpion is now off on a world tour, starting in the USA, followed by Latin America and Russia. The order book is already full – the earliest you can get one is next February. The factory is working two shifts, but doesn't want to expand too fast, since quality is the highest priority. The company now employs 1,200 people, including some who offer a 24/7 service in Brazil. There are around 500 employees at the factory, 250 of them in production, and 85, no less, in R&D. All sorts of new products are under development. Recently we have seen the 2015 Bear (it was at the Harvesting Demo in May – a year ahead of schedule, apparently. "We wanted you to be the first to see it!" said Jarmo Vidgrén. Another recent addition to the Ponsse range has been the large H10 head, not to mention the H77, which is designed for harvesting eucalyptus.

Enabling technologies surfacing at present, for instance hydraulic/electric hybrid systems, are always opening new possibilities, and products



Ponsse President and CEO Juho Nummela (left) and Deputy CEO Jarmo Vidgrén.

evolve continuously.

Ponsse UK continues to thrive under the leadership of Gary Glendinning, but Jarmo Vidgrén expressed concern at the prospects for Gary's beloved Manchester United in the coming season, saying he hoped for Gary's sake that they would avoid relegation. What a thoughtful chap he is.

Ponsse UK 01576 203000
www.ponsse.com



Elegant Epsilon

Epsilon Palfinger used Interforst to show off their new M-series cranes with an M12Z 105 model on the stand. To embark on this new series, they approached a design bureau with a view to taking a fresh look how cranes are configured. The design company knew very little about cranes, but this was an advantage, since it allowed them to start from scratch.

The new design had to be functional, of course, but also good looking. "Lorries are so often beautiful things," we were told, "but then you see an ugly looking crane on them."

The starting point for the new design was the seat, with the rest of the crane

being developed around it. The Kramer seat is damped against shocks, making loading and unloading a far more comfortable experience for the operator. It also comes with a see-through, protective hood to keep out the elements.

All hoses are carried internally to protect them from damage, and, although the crane is more compact when folded, an extra 900mm has been added to its reach.

Outreach 01324 889000
www.outreachltd.co.uk



The new, damped 'Epshood' seat folds away very neatly when not in use.



Versatile tractor conversions

The tractor plays a leading role in forestry operations in Germany. There were many examples at the show, from companies such as MHD Forsttechnik, Ritter Maschinen, Welte, Pfanzelt and, of course, Kotschenreuther, who were appointed as a dealer for John Deere forwarders and harvesters on the basis of their success in equipping Deere tractors for work in the forest.

A Kotschenreuther representative explained that, while the purpose-built machines are put to work on shorter timber, their R-Series tractors spend most of their time working on pole-length extraction.

There are no half measures with these machines. They are fitted with blades and Adler winches at the front, and carry cranes, clam-bunks, skidding grapples, even harvester heads, on the back. They are forest machines through and through, and attention to detail even extends to features such as a chainsaw holder.

The new trailer/crane combination in the picture had been tested by the KWF and certified as fulfilling the criteria needed to score as many points as an eight-wheeled forwarder when tendering for state contracts. The computer controlled, hydraulically driven trailer synchronises perfectly with the speed of the tractor.

Kotschenreuther 0049 9260 9630640
www.kotschenreuther-neufang.de

Debüt of the SteepHunter

UK Eco Log agent Phil Cooper was present on the WFW stand where the star attraction was Eco Log's brand new eight-wheeled harvester, the 688 SteepHunter.

The SteepHunter is powered by a 301hp Mercedes-Benz diesel engine. Its hydraulic system has twin pumps as standard, one for the crane and one for the head, giving oil flow of 560 litres at 1,600 rpm.

It comes with widths of 2640, 2850 or 2981 millimetres depending on 600, 710 or 800 x 26.5 tyres respectively.

The familiar Eco Log cabin with side-mounted crane rotates through 350 degrees and has two slew motors giving 50kNm slewing force.

The EC260 crane has 270kNm lifting force and comes with options of 10, 11 and 11.5 metres reach depending on choice of head.

200kNm of tractive force, eight wheels and the option of balanced bogies with bogie lift maximise the SteepHunter's ability to maintain good contact with the ground, even on steep terrain.

The centre joint pivot can swing ± 24 degrees and the steering angle is ± 43 degrees. The cab can tilt ± 16 degrees laterally and also has automatic tilt that compensates 15 degrees forwards and 11 degrees backwards to provide comfort for the operator and optimised balance for the cab and crane.

The 688 SteepHunter is also very service-friendly, with a folding platform so the operator can walk along the back frame safely, and a belly plate under the engine that can be removed and replaced by means of a winch mechanism. Also, all debris such as pine needles around the coolers can easily be discarded.

Phil Cooper Forestry Machinery will be offering the Eco Log 688 SteepHunter with a choice of harvesting head in the UK – either a Log Max 5000 or 6000, or a Viking 625 or 650. The Dasa Forester measuring



system will be used.

Also on show was the Eco Log 564D 12-tonne forwarder, one of four in the range of the new 'D' series forwarders, which also includes the 554D, 574D and 594D, weighing 10, 14 and 19.5 tonnes respectively. All are powered by Mercedes-Benz diesel engines from 173hp to 301hp, although the 554D has an option to be fitted with 205hp engine (the same as the 564D).

Phil Cooper Forestry Machinery Ltd 01377 271399 or 07831 210745

www.eco-log.com

John Deere

We've known since Elmia last year that John Deere will once again be offering fixed cabs on their forwarders, but the 1110E at Interforst was the finished article – no longer a prototype. The fixed cab is available on all six forwarders in the Deere range. "At first sight the fixed cab may look similar to previous models," said Jari Mennala, general manager, European sales operations, "but it has a much lower 'waistline' – in other words, the bottom of the windows is much lower. It is important to be able to see the wheels in thinnings and in tight places." Another improvement over the D models is that noise levels have been slightly reduced.

Hydraulic damping is an option on the rotating cabs, but this is not yet available on the fixed cabs.

John Deere have also brought out a new crane, the CH9, to replace the CH8 on the 1470. The focus on the new model has mainly been on durability, although there is some improvement in operation, despite the fact that customers already seemed quite satisfied with the CH8's performance. The key points for the CH9 are:

- Retaining the manoeuvrability of the CH8 boom it replaces
- Increased gross lift to 225 kNm (the CH8 was 210 kNm)
- Increased gross slew 59 kNm (the CH8 was 55 kNm)
- More sleek and durable design
- Improved serviceability and visibility.



The JDLink 'work time utilisation' screen. This makes it possible to analyse how many hours a machine has been working and how effectively it has been operated.

Intelligent Boom Control is being phased in across the range. This is particularly effective in increasing productivity among beginners, but is also proving popular with experienced operators.

Sami Törmä then ran us through the ForestSight system. Deere already offers FarmSight on its agricultural machines, and WorkSight on construction equipment.

ForestSight comes in four modules, the first covering service agreements, to keep the machine in optimum condition. It can extend to 6,000 or 8,000 hours. Oil analysis can be included, and remote diagnostics are available as an option.

The next module, JDLink, analyses a machine's performance, including key metrics such as fuel consumption per cubic metre. It is always possible to see a machine's location on a map, and monitor its working hours and utilisation. JDLink is standard on new machines with IT4 engines, and is free for three years. Customers who need even more analysis can use TimberOffice. The final two modules are TimberSkills, which makes simulator learning more efficient, and Parts Solutions, which covers remanufactured components and different kits (oils, lubricants, etc) as well as attachments such as grapples.

John Deere Forestry 01228 574055

www.johndeere.com



Ahead on points

Interforst gave us our first opportunity to see Logset's new, eight-wheel harvester, the 8H GTE (the 'E' stands for 'eight').

There are some very good reasons for buying an eight-wheeler in Germany. On state contracts, a points system is being introduced, and eight-wheelers score more points than six-wheelers. The width of the tyres, too, has a bearing on the points quota, and there is a recommendation that weight should not exceed 3.5 tonnes per wheel. In some areas, six-wheelers simply aren't allowed to work.

Whilst all the components under the hood of the 8H GTE are the same as on the six-wheeler, Logset have taken the opportunity to update the cab, which offers better visibility, and to improve the design with regard to the transportation position. Transmission power has been increased – it is now the same as the 8F, which has a tractive effort of 190kN. There is also a smaller version of the eight-wheeler, the 6HP GTE, which is aimed more at thinning than clearfell.

But six-wheelers still have some advantages. They are more agile, lighter, cheaper, and some countries simply do not have the hilly terrain that demands an eight-wheeler.

The 8H GTE is already in serial production, with ten sold already and more on the production line. There will be one at the APF in September.



Logset (R) Fukes) 01550 721641 – Shaun Harper 07825 579441
www.logset.com

Penz

Jason Lowthorpe, the UK/Ireland manager for Austrian manufacturer Penz Crane, is in the process of appointing dealerships in key areas throughout the UK. Five are already in place, from the Midlands to Inverness, and more are planned further south. The dealers will work directly with the factory, not through an importer.

Penz has a long history. Founded in 1966, they are the inventors of the Z-crane, for which they held the patent for 20 years. They now have the L-crane, which folds under itself, rather than back on itself like the Z, and is normally carried in a 'trench' on top of the load.

Jason Lowthorpe has been involved with cranes for over 20 years. He spent 15 of them working on installation and testing, and went on to run a crane installation and repair workshop prior to moving into area management. He views his recent appointment by Penz as a natural progression in his career path.

Based on his experience, he says he is very impressed with the quality of the Penz product. He finds them 'tidier' than most cranes because a high proportion of steel pipes are used in place of hoses. Also, he says, stresses build up during the manufacturing process, but, to overcome this, Penz carry out a process termed 'annealing', which involves keeping the finished crane at a temperature of 530°C for 1½ hours before cooling it slowly. This process results in stronger structural components, reducing downtime and whole-life costs.

The Penz manufacturing facility is home to over 70 employees, and, as well as cranes, they manufacture their own timber grapples complete with Baltrotors and Indexator rotators.

Jason Lowthorpe 07949 644707 – www.penz-crane.at



The shape of things to come?

Hellgeth make all sorts of vehicles that can access the most demanding of terrains. These include high-speed tracked machines for oil exploration and pipeline maintenance.

They have now modified one such vehicle with a view to entering the forest machinery sector. Its undercarriage is designed to operate on soft ground, with hydrostatic drive, and it also features a slewing cab. It was fitted with a 7.1m Palms loader, and had a top speed of 32km/h.

The company was at Interforst to gauge the level of interest such a machine might receive. It was not a great deal, according to their representative on the stand, but those who did express an interest had very specific ideas in mind.

Without its existing activities in the oil sector, the company would not be able to contemplate the development of a lightweight forwarder, and even if they do complete the project, they anticipate they might sell just two or three machines a year. Concerns were expressed at the show that the machine would be too expensive in comparison with its payload, but for special deployments, this might not be a problem.

The undercarriage is designed for high-speed operation, and so it absorbs vibrations well. The machine would prove very capable on swamps and in snow, although the tracks would have to be made more robust for forestry operations. However, their design is such that they are not easily thrown off the machine. The tracks are 72cm wide, giving a



ground pressure under load of just .149 bar.

The machine has a 6.2 litre Mercedes engine and will be tested later this year. Whether a second prototype of the ten-tonne machine with a four-tonne payload will see the light of day in early 2015 will depend on the results of the tests and the reaction of potential customers.

Hellgeth 0049 36652 35510 – www.hellgeth.de

Intelligent cab suspension

Komatsu Forest GmbH received a KWF innovation award for Komatsu's 'Comfort Ride' four-point cab suspension system.

Komatsu Comfort Ride has an underlying construction comprised of two frames, one on top of the other. Between the frames are hydraulic cylinders, fitted with integrated remote position sensors to keep the cab in the centre position. The four-point suspension creates long and free movements in the suspension compared to other designs, which provides good damping, making it less likely for a cylinder to bottom out compared to designs with shorter travel.

The large support area created by the four-point suspension, with the cylinders placed far apart, also provides balanced damping. Rocking movements are gentler compared to, for example, three-point suspension. A hydraulic stabiliser also prevents the cab from rolling from side to side as much. The Ride Height Control function compensates movements so that the cab is always in the centre of the cylinders regardless of any shift in the centre of gravity of the cab, forward, backward, or sideways.

To use Komatsu Ride, the operator simply presses a button to activate the suspension system. It enters driving mode, and driving can begin. The operator can also press the button a second time to raise the cab to the cylinders' highest position. This can be used when unloading the machine and provides an improved view of the bunk. When the operator next presses the throttle, the system automatically returns to driving mode.

Komatsu Comfort Ride cab suspension has a mechanical lock function to secure the cab against the frame during transport and service. The cab



can be tilted just as usual, and the addition of cab suspension provides even easier service point access, as all equipment rises during tilting. The guard plates on the right side of the cab automatically fold away, avoiding any risk of touching the wheels when the cab is tilted.

Komatsu Comfort Ride is integrated with MaxiXplorer, enabling function status to be displayed directly on the operating screen. MaxiXplorer also generates an alarm if any of the position sensors fail.

Komatsu Forest Ltd 01228 792018 – www.komatsuforest.com

The forwarder that speaks Italian

Tractors with timber trailers remain widely used in Italy. Bernardi's eight-wheel B248 was developed at the request of a customer to overcome certain drawbacks associated with purpose-built forwarders, as perceived through Italian eyes, at least.

The first disadvantage it overcomes is the slow speed of conventional forwarders. The B248 can travel at 40km/h. Secondly, it can travel on the open road. The maximum width for road travel in Italy is 2.5 metres. Depending on what tyres are used, the B248 can be as narrow as 2.37 metres. It can therefore dispense with the need for timber wagons, instead driving to and from your local sawmill. Thirdly, it can move from site to site without a low loader.

Not normally the way we work here, but for anyone moving from site to site, always within reach of a sawmill, it might bring advantages.

The forwarder has a carrying capacity of 15 tonnes. It has NAF bogies, and is fitted with oil coolers to stop the bogies and wheels overheating at high speeds. The engine is a six-cylinder, 6.7 litre Iveco producing 115kNm at 2,200 rpm. The nine-metre double-telescope crane will lift a tonne at full extension.

Bernardi has a long history in the manufacture of forestry equipment. There was a wide array of winches on the stand which incorporated some patented features, and addressed what Bernardi described as technical errors in commonly used models, especially with regard to ease of maintenance,



access to moving parts being possible via a hatch in the butt plate.

Bernardi sas 0039 0438 82248

www.bernardimacchine.it

GreenMech

Tony Turner was delighted to tell us that he had it on good authority that GreenMech has the largest turnover in Europe in the 6" to 10" chipper manufacturing sector.

GreenMech has invested heavily in manufacturing, and 60% of the company's produce was exported last year. This year that has gone down to 50%, but only because the home market is so buoyant.

GreenMech have enjoyed great success in Germany, where they have had their own sales and support operation for four years now. Deutsche Bahn, the German railway, almost exclusively use their SafeTrak machines. Tony Turner estimates there are 200 working on the railway, which owns 40 of them and rents another 30, while contractors have the rest.

He was also pleased to note that 40% of the company's exports went outside Europe.

GreenMech 01789 400044 – www.greenmech.co.uk





Reinventing the skidder

French company Forest Tract have waded into the skidder market. They were at pains to point out that, if the prospect of a 250hp T4-XXL, like the one on the stand, seems a bit over the top, then there are two other, smaller models to choose from.

The machine has taken three years to develop and will begin testing in September. Forest Tract is a part of the large MCM group, and, apart from the engine, the whole machine is manufactured in house.

The 10-metre levelling crane ($\pm 15^\circ$) will lift 2.5 tonnes at full outreach and 8 tonnes at 4 metres. It is particularly sturdy: "Other skidders have to fit a new crane half way through the lifetime of the machine!" said the Forest Tract representative. Not this machine, though. Forest Tract's benchmarking suggest that this skidder will prove 30% more productive over a 7-10 year (10,000 hour) period than a conventional skidder.

The machine carries a 16-tonne double-drum winch, and may be fitted with a clambunk.

The machine has a hydraulic pump for each wheel. The two front wheels have their own 140kW motor, and the two rear wheels each have a 200kW motor. The fact that all the wheels are independent means less ground damage as well as a longer tyre life, and greater fuel efficiency.

Forest Tract 0033 (0)3 2505 8181 – www.forest-tract.com



Sizing up timber stacks

Danish company Dralle were showing off their sScale module. Mounted on a car or four-wheel drive, it takes 22 pictures a second using two cameras to form a 3D image of timber standing at roadside, enabling accurate calculation of the volume of timber in the stack.

The module has three LED lights (in the middle, between the cameras) meaning it can be used day and night, and can measure up to 300,000 cubic metres a year. According to Dralle, it is much cheaper than the laser systems used in sawmills, though these are possibly 2% more accurate.

"Everybody gets paid a lot earlier, while the timber's at the roadside. That's the beauty of it," said Søren Freiesleben (pictured).

The system is available on lease, starting at €2,100 per annum, depending on the volume of timber scanned.

Dralle 0045 2711 0075 – www.dralle.dk



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