

JOB SATISFACTION AND PRODUCTIVITY







OLA BOSTRÖMHEAD OF MARKETING,
KOMATSU FOREST

Caring for you and your machine

We're convinced that job satisfaction and productivity are two sides of the same coin. That's why we want to offer machines and services that optimize both. We're also convinced that it's only in close concert with you, our customers, that we can help create added value for your business.

Following the success of the eightwheeled Komatsu 931XC harvester, now its smaller sibling – the Komatsu 901XC – has proved to be equally eagerly awaited. This harvester is part of Komatsu Forest's new XC product series, especially designed to handle extreme terrain conditions, and you can read more about it in this issue.

The 901XC came about due to high market demand for a smaller eight-wheeled harvester, and this is how our development projects usually begin. Comfort Ride, which is celebrating five years this year, is another example of an innovation developed in close collaboration with our customers, and is now a preferred option on almost all forwarders. This function optimizes not only comfort, but also productivity. When the operator has more energy, it's reflected in their output.

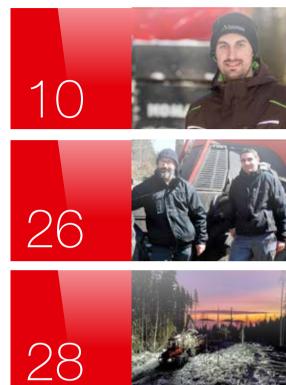
Our new intelligent crane control, SmartFlow, also works along these lines. This is a function that considerably improves handling and reduces operator fatigue. What's more, customer feedback has shown that profitability is the most popular benefit offered by SmartFlow.

However, if your machine is to perform at its best day in and day out, it needs to be properly cared for. Giving your machine the service it deserves and using the most well-suited spare parts and consumables will also ensure the best possible performance. We think it's worth it.

Similarly, we think you deserve a comfortable work environment. On page 23 you'll find, among other things, useful tips from our machine and training instructors about small machine setting adjustments that can have a significant impact on comfort and handling. If you'd like to further hone your skills as an operator, then our simulators can help you. You can read about an exciting project centered on simulator training in this issue.

Happy reading!

CONTENTS



eXtreme Conditions	4
Simulator training	8
ProAct for profitability	10
Five years of Comfort Ride	12
SmartFlow – a boost	16
C heads in focus	18
nvestment in Finland	20
Lubricant news	21
First Valmet in Russia	22
Fips on settings	23
News	
/incent relies on Komatsu	26
Forest machine photographer	
Report from Expoforest	
Australian anniversary	
-	

JUST FOREST INTERNATIONAL MAGAZINE

Publisher: Annelie Persson, annelie.persson@komatsuforest.com

Editor: Gunnar Andersson, gunnar.andersson@tr.se

Address: Just Forest, Komatsu Forest AB, Box 7124, SE-907 04 Umeå, Sweden

Contact: Telephone +46 90 70 93 00 Internet: www.komatsuforest.com Production: TR, Skellefteå Printing: Ågrenshuset, Bjästa, Sweden Paper: Multi art matt 115 g Circulation: 40,000

Languages: Swedish, Finnish, English, German, French, Portuguese, Spanish, and Russian. The content may be quoted if the source is cited.

KOMATSU

Headquarters Umeå, Sweden Telephone +46 90 70 93 00 E-mail: info@komatsuforest.com Address: Komatsu Forest Box 7124, SE-907 04 Umeå, Sweden

THE RIGHT MACHINES FOR E

As competition for land use increases throughout the world, such as for food and bioenergy cultivation, forestry often expands into areas where such uses do not compete for space, which increasingly means steep terrain. In order to harvest and forward timber in such extreme conditions, there is increasing demand for specially adapted machines, which is why Komatsu Forest has developed the XC product series, where XC stands for eXtreme Conditions.

The Komatsu 901XC and Komatsu 931XC are part of Komatsu Forest's new product series featuring machines specially developed for handling difficult conditions. The series also includes tools such as the Komatsu Traction Aid Winch for the Komatsu 911, Komatsu 931, and Komatsu 875.

First 901XC arrives in Finland

Asko Piirainen in Vuokatti was first to take delivery of the new eight-wheeled Komatsu 901XC. "I saw it at Elmia Wood 2017 and placed an order on the spot," says Asko.

ASKO PIIRAINEN, Piirainen OY, has long used four-wheeled harvesters. In 2016, he bought a six-wheeler. Leading up to the summer of 2017, it became apparent that he also had need for an eight-wheeled machine. This need swayed him toward the Komatsu 901XC, which he's now been using since it was delivered in February 2018.

"We needed a small harvester and knew that Komatsu was planning to launch a compact machine, the 901XC. In the forests that we harvest, we need small, nimble machines. That's why we chose the 901XC," Asko explains.

When he saw the 901XC at Elmia Wood, he noticed

that the rear axle had the same design as on a six-wheeled harvester, and realized that the 901XC would work at least as well. He's pleased with the compact XC model.

"Despite its small size, it can navigate deep snow, as we discovered in the heavy snowfall this past winter. I can use it efficiently even where ground conditions are more sensitive," says Asko.

ASKO IS HIGHLY MOTIVATED. As chair of the Finnish Association of Machine Contractors, since 2008 he's succeeded in increasing the net profits of his fellow members. It has, he says, been important to change



XTREME CONDITIONS



the industry so that machine contractors can serve several clients instead of being forced into the exclusive contracts that were previously standard practice.

The company Piirainen OY was founded by Asko's father, Teuvo Piirainen, in the 1960s. Since then, it's grown into a limited company that is well known in the area and is an important employer in Kainuu. Asko wants to be a strong player in the industry and in his own municipality, and with his seven employees they're certainly large enough to succeed.

"A good reputation is important for achieving business success," Asko emphasizes.

Asko Piirainen is a well-known forest machine contractor in and around Sotkamo. He's a second generation business owner and has been chair of the Finnish Association of Machine Contractors since 2008.



EXTREME CONDITIONS



DYLAN TAYLOR owns and runs Coedylan Forestry in North West Wales. He has two employees and only red machines, a Komatsu 855.1 and a Komatsu 931XC.

"This is the third 931 I've owned. Previously, I've had a 931 with a 365 head and a 931.1 with a C144 head," he reveals.

COEDYLAN FORESTRY is based in Conwy and works almost exclusively for forest company Scottish Woodlands and Tilhill Harvesting. The terrain in North Wales is often hilly – and extremely steep in many places. The ground is often soft and waterlogged, and sometimes rocky.

"We're harvesting increasingly more in extreme terrain, with steep slopes or very poor ground conditions. That's why we needed an eight-wheeler," Dylan explains.

He himself operates the new 931XC, which is equipped with a C144 head.

"It's a truly versatile harvester, and can be used for everything from initial thinning to the final logging of large, broad Sitka spruce and Douglas fir."

WHEN DYLAN COMPARES it to his old six-wheeled 931, he believes that much of the work he does today wouldn't be pos-

sible with the six-wheeler.

"My new 931XC makes light work of steep inclines and I'm impressed by its stability. Even on really steep slopes, working with the crane at full reach is never a problem," says Dylan.

Komatsu's eight-wheeled harvester combines old and new. It's based on the well-proven concept of a rigid articulated joint and a swing axle that work together with the cab's tilt cylinders. The 931XC combines the swing axle with Komatsu's Comfort Bogie. The result is a machine with the best possible ground contact and an extremely low center of gravity.

"It's really forgiving when ground conditions are poor and, together with the high ground clearance, it navigates the terrain easily with little impact on the forest floor," Dylan reports.

HE ALSO FINDS the Komatsu 931XC more powerful than his old 931.

"The three-pump hydraulics ensure plenty of hydraulic capacity and I know that the power's always there when needed."

Komatsu's three-pump hydraulics are equipped with pressure and flow optimization that allows you to work considerably faster without compromising the power fed to certain functions. You can perform multiple crane and head operations at the same time with maximum hydraulic power. This enables you to work more efficiently while reducing fuel consumption.

DYLAN IS convinced that the new Komatsu 931XC has improved his productivity.

"I notice that I tire less when operating the eight-wheeler. It's most noticeable when I'm working in steep terrain."

Dylan believes that another reason for the increased productivity is the cab environment.

"I've always liked Komatsu's cab leveling and it's especially important on steep slopes. The new cab offers much better visibility and the interior just feels bigger," he says.

Efficient service and quick access to spare parts are important considerations when Dylan's choosing a machine.

"It all works very well here. We have good access to service. If I call, help's here within two to five hours and I never have to wait more than a day for spare parts," he ends.

Priceless on steep slopes

For ten years, forest company Tauchner OG i Feistritz am Wechsel in the Austrian state of Lower Austria has invested in forest machines from Komatsu Forest.

"So far, the new 931XC has proven its worth during more than 1900 hours of operation," says Florian Tauchner.

"WE WAITED A LONG TIME for an eight-wheeled harvester from Komatsu Forest, but it was more than worthwhile. When the 931XC was first presented in Sweden in 2016, we read up on the technical improvements. The handling of this eight-wheeled harvester convinced us when we tested one on a demo tour, so we bought a demo machine in May 2017," says Florian Tauchner.

Together with his father Johann and his two brothers, he founded the business in 2009. Since then, the company has taken on six more employees. Johann has worked as a contractor since 1996.

Brothers Markus and Florian are trained agricultural machinery technicians, while Stefan switched career paths from carpenter to operator and business partner. Their relationship with Komatsu Forest is long-standing. The first machine they acquired was a black Valmet 840 from Norway. Today, their fleet consists exclusively of Komatsu Forest harvesters and forwarders – a 860.3, three 860.4s, a 911.3, and a 901.3, and then the new 931XC. The eightwheeled harvester has already clocked up 1900 hours of operation in just under 11 months.

THE KOMATSU 931XC is a step forward for Tauchner, especially on the steep slopes of eastern Austria.

"We're impressed by the overview and favorable ergonomics the design offers with its tiltable cab and side-mounted crane. But more so by the two extra wheels, which better distribute ground pressure and increase stability compared to a six-wheeled machine."

"Together, the stronger engine and increased traction enable us to harvest on steep slopes and soft embankments. What's more, with the low ground pressure we can also work in terrain where we'd otherwise need a winch," says 29-year-old Florian. "We're also pleased with the running costs for the 931XC, which is really an added bonus with this machine," says a satisfied Florian.

"

The stronger engine and increased traction enable us to harvest on steep slopes and soft embankments.



Thanks to the double suspension on the bogie of the eight-wheeled harvester and the mounted tracks, it can traverse the soft surface of the steep embankment without causing any damage.

Hone your skills with

SIMULATORS

Are simulators an effective means for experienced forest machine operators to hone their skills and become even better? Swedish forestry company SCA Skog and a few experienced operators, together with Komatsu Forest, hope to find out in a newly started pilot project.

THERE ARE MAJOR DIFFERENCES in a machine's production output depending on who's operating it. This mostly concerns novice as compared to experienced operators, but the fact is that there are even major differences between experienced operators.

Swedish forestry company SCA Skog has long tried to verify the differences and their effect on the profitability of the harvesting company. The use of method and machine instructors has been encouraged, not least to help young, novice operators learn how to better structure their work early on.

"In this pilot project, however, we want to work with experienced operators to develop a training course for those with extensive experience. We want to see if the simulators can enable an intense training course, say 2+1+1 days, that can help experienced operators, and whether interactive learning using simulators can turn good operators into even better operators," says Magnus Bergman, Forest Technology Manager at SCA Skog.

THE PROJECT IS not about operating the joysticks faster, but about working smarter. This can include, for example, how the harvesting is planned, the order in which trees are felled, crane movements, and machine maneuvering. With a simulator, you can harvest the same stand over and

over in different ways, but under the exact same conditions.

"This way, you can use trial and error to see what works well and less well. Our impression is that the most efficient operators appear to work calmly, their crane movements are slow and deliberate. But because their approach is methodic, and mistakes are rare, they get a lot done. We believe that even experienced operators can benefit from refining their approach to avoid stress," Magnus explains.

THE PILOT PROJECT will see four experienced operators test the training potential together with an instructor using Komatsu Forest's latest simulators, in which the machines behave exactly the same as they do in the forest, thanks to real-time simulation.

"Today's simulators are extremely realistic in terms of both the terrain and how the machines move. What's more, we're seeing very interesting developments in VR," says Magnus.



Magnus Bergman



"As close to the real thing as you can get"

SIMULATORS are effective for quantitative training before starting to operate real machines in the forest, as well as for experienced operators trying out new methods that can increase both efficiency and productivity.

Regardless of the need and reason, simulator operation should mimic real-life operation as closely as possible. With Komatsu Forest's simulators, the machines behave exactly the same as they do in the forest, thanks to real-time simulation.

"It's down to things like how the head behaves when coming into contact with the tree or how the logs move when forwarding," says Francesco Pietroni, head of simulator sales at Komatsu Forest.

EVEN THE simulated environment can be tailored to more closely match the environment in which the operator is to work.

"By selecting the appropriate tree species and forest density, you can train under the same conditions as in the actual forest," Francesco explains.

The simulator training program guides the operator through basic training and on to full operation in the forest – and the instructor can easily follow each operator's progress.

"There's an optional instructor station separate from the simulator to provide a better overview and offer interaction with the operator. For example, the instructor can pause the simulation, record videos, and create comments with timestamps," Francesco continues.

It's also possible to work in a group to practice teamwork. Here, the multiplayer function allows several simulators to share the same view. This means, for example, that a forwarder and a harvester can work together in the same simulated environment.

THE SIMULATORS enable you to practice operating all Komatsu harvesters and forwarders with a variety of options to choose from. You can, for instance, choose between a standard crane and a combi crane, S-type and C-type heads, and with or without multi-tree handling.

Other options include a VR headset and soft-

ware for tracked excavators.
The simulators are available in ten language versions and even as a laptop model.

Francesco Pietroni

SIMULATOR KF 500

INCLUDED AS STANDARD:

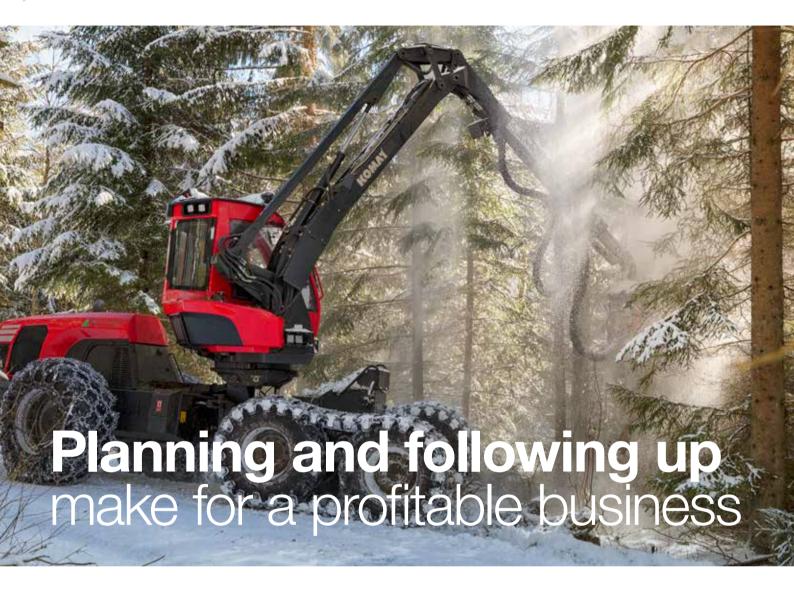
- Harvester and forwarder software
- SMS (Simulator Management System)
- · AgX Dynamics Physics Engine
- KCC joysticks
- Komatsu Original Seat
- Single display, LED 55"
- MaxiXplorer display, 15"

OPTIONS:

- EME joysticks
- Suregrip joysticks
- Triple display, LED 55"
- · Software, tracked excavators
- Instructor station
- Software update for older simulators
- Motion platform
- Head movement tracking
- VR headset



PROACT AND MAXIFLEET



Vidigsson Skogsentreprenad generates profitability through continual improvement.

Detailed planning and regular follow-ups pay off. ProAct and MaxiFleet are two of the tools used by contractor Morgan Vidigsson. "It's rewarding to see that this approach enables us to improve bit by bit each year," he says.

MORGAN VIDIGSSON runs the family business Vidigssons Skogsentreprenad AB together with his father Kent, who founded the company back in 1984. The company is based in Markaryd, Southern Sweden.

For the past seven or eight years, they've been working with a concept that involves planning all work assignments as thoroughly as possible, following things up to make improvements, and investing in preventative service and maintenance.

"It all started when my brother Patrik was a partner. He likes the spreadsheet program Excel and started

using it to compile information," Morgan explains.

Excel documents shared via Google Drive are still part of the management concept, but today MaxiFleet and ProAct are also important tools for both planning and following up.

Vidigssons Skogsentreprenad has six machines and seven employees. Morgan now works solely with planning and managing work assignments and following up and developing the business.

"We greatly value all the information that's available. Since we started with detailed planning and follow-



Morgan Vidigsson now works solely with planning and managing work assignments and following up and developing the business.

We work actively to get employees interested in our day-to-day finances.

ups, we've improved our returns on payroll overheads a few percent every year," says Morgan.

FORESTRY COMPANY Sydved is Vidigsson Skogsentreprenad's principal client. They provide Morgan with an assignment order outlining, for example, crosscutting instructions, plot coordinates, and any special directives from the forest owner.

"I supplement this with additional information. For example, I always visit the plot and contact the forest owner personally," says Morgan.

The supplemented assignment order is then shared via Google Drive, which gives the operators access to the information in their machines. Morgan also uses Google Drive to share a map of the area with details such as planned routes, nature conservation considerations, and price lists.

"The more detailed I can plan things, the more information our drivers have and the better they can do their job," says Morgan.

MAXIFLEET IS AN IMPORTANT TOOL

that provides quick and easy access to all the information collected by MaxiXplorer.

"There's a lot of useful information there, but I've created my own reports using KPIs that are important to us. This enables me, for instance, to compare how different machines are performing," says Morgan.

Another valuable tool he uses is ProAct 2.0, which is based on a proactive approach. By carefully planning service intervals and replacing parts before they fail, the aim is to avoid all unplanned machine downtime. The basic idea is to replace parts before they fail.

"ProAct is a great help when it comes to planning service visits, which we do



Detailed planning and information enable the operators to perform better. Morgan works actively to get employees interested in the day-to-day finances.

together with the workshop. Should I overlook anything, they get in touch as they have access to the same information," says Morgan.

Service and maintenance are planned around assignments and he tries to make every service inspection as comprehensive as possible.

"This results in fewer emergency measures, which means a better work environment for the operators. It also allows me to focus on other things," explains Morgan.

Detailed planning and follow-ups have the added advantage of a more rewarding relationship with their client, Sydved.

"Now we can discuss assignments based on facts and figures, and jointly identify any room for improvement. It creates better conditions for profitability," says Morgan.

Five years of cab comfort

Five years have passed since Komatsu Comfort Ride, the hydraulic cab suspension system for Komatsu forwarders, was first presented. At the time, it was an important innovation for the entire industry, and today most forwarders are fitted with this comfortable option. In Sweden, a full 9 out of 10 new Komatsu forwarders are equipped with Comfort Ride.



Daniel Grabbe, Product Manager Forwarders, believes that ergonomics will remain a central issue.

DANIEL GRABBE, Product Manager Forwarders, doesn't think it's a coincidence that Comfort Ride is now as good as standard on forwarders.

"Comfort Ride is a testament to successful innovations developed in close collaboration with our customers and those who operate our machines," he says.

It all began with strong demand for the ability to reduce the vibrations and jolts experienced in the cab. A forwarder operator spends many long hours in the cab and needs a work environment that doesn't cause unnecessary fatigue. And the results speaks for themselves. Since its launch, more than 500 forwarders have been equipped with Comfort Ride and today almost all Komatsu forwarders in the Nordic region have this option. In Sweden, this figure is more than 9 out of 10 forwarders.

"Sitting in a forest machine all day can be tiring, but Comfort Ride greatly increases comfort. Contractors and operators saying that they feel better and stay sharp thanks to Comfort Ride is the best endorsement we could hope for," says Daniel.

Komatsu Forest's development work is a neverending process, centered on requirements largely based on customer safety, preferences, and opinions. Regular contact with those who operate our machines on a daily basis is of the utmost importance and all new functions are prototyped before going into production.

Komatsu Comfort Ride was developed using detailed behavioral simulations at Komatsu Forest's test center. The design effectively counteracts jolts, swaying, and vibrations. It contributes to a better work environment for the operator as it reduces fatigue, improves job satisfaction, and thereby boosts productivity.

COMFORT RIDE is only one aspect of Komatsu Forest's ongoing work with ergonomics and the work

Mattias – first to embrace Comfort Ride

Mattias Johansson bought the very first forwarder equipped with Comfort Ride. A Komatsu 865 delivered in April 2013 and still working all-out today.

MATTIAS JOHANSSON owns Andersvedja Skog & Mark and has worked in the industry since 1996.

Today, his company has thirteen employees and a fleet comprising three harvesters and three forwarders. His three Komatsu forwarders, an 835, an 845, and an 865, are all fitted with Comfort Ride.

Mattias operates all the machines from time to time, but is usually found in one of the harvesters. When the company was to invest in its first machine with Comfort Ride, a number of staff traveled to Komatsu Forest in Umeå to test drive a demo machine. They all tested the machine and Mattias was bowled over by the cab suspension.



environment. Internationally, Komatsu's forwarders are among the very best when it comes to ergonomics. One core component is the quiet cab environment with its exceptional air quality system, and then there's the generous workspace and legroom. Comfort Bogie, Comfort Controls, and SmartFlow are other examples of good ergonomics.

Daniel is convinced that the work environment and ergonomics will remain central issues. He emphasizes the importance of focusing on the operator.

"We have the best cab suspension on the market

and it dampens bigger bumps than competing solutions. We want to continue doing what we can to make the cab a comfortable and pleasant workplace and hopefully help the forest industry to attract operators," says Daniel.

ONLY TIME WILL tell what the next innovation in this field will be. But one thing's for sure: the cab environment will retain a key role in Komatsu Forest's development work.

Forwarder cab suspension system Komatsu Comfort Ride was launched five years ago.

"I was a little concerned when we bought the first one, as it was unproven technology, but it's worked flawlessly," he says.

THE OVERALL IMPRESSION among Mattias and his employees is that they're not as physically tired after a shift in the machine.

"There's such a difference it's incredible.

A machine without cab suspension just can't compare. We're extremely satisfied – otherwise we wouldn't have invested in two more," says Mattias.

As well as making the company a better

workplace, it improves production as operators can perform better. The machines equipped with the Comfort Ride option exhibit higher production than the ones without. And when operators stay sharp, they also work faster.

Before ordering their latest forwarder, they discussed whether to opt for Comfort Ride.

"But really there wasn't anything to discuss, the operators wanted it. It adds to the cost, of course, but I think it pays for itself. It benefits the operators' well-being, and that's the most important consideration," Mattias ends.



Mattias Johansson is the contractor who bought the first forwarder with Comfort Ride.

Celebrating with Comfort Ride

Manuel Marques da Silva & Filhos Lda is celebrating 50 years in forestry. With so much experience to fall back on, the company knows the importance of operator comfort and recently bought a new Komatsu 875 equipped with Comfort Ride.

BACK IN 1968, Manuel Marques da Silva founded his first company. With a small team and very limited resources, but with a burning desire to succeed, he worked tirelessly to break into the market. The business was focused on technical equipment and high-tech machines, such as cut-tolength machines and conventional timber trucks. The company became a role model

in the region and customers found them to be a competent and professional partner. In order to succeed, the company has invested heavily in its staff and technical training.

TO CELEBRATE the company's 50th anniversary, Manuel Marques da Silva & Filhos Lda has bought a Komatsu 875 from

Cimertex, the Portuguese Komatsu Forest dealer. Rui Marques da Silva, the owner and a highly skilled operator, had a very specific requirement for the new forwarder.

"The machine was to be equipped with Komatsu Comfort Ride. Operator comfort increases productivity and improves safety. And that's priceless! It's not a cost, it's a benefit," he says.





Safe choices for your profitability

We care about you.

Our goal is to make your working day as safe, problem-free and profitable as possible. ProSelect offers you specially selected products that fulfil our strict quality requirements. Original spare parts, accessories and consumables designed for your Komatsu machine. Why take a chance? Let your Komatsu remain a Komatsu.

ProSelect products can be ordered from your service shop.

A boost for operator and company alike

SmartFlow was introduced to the Swedish market about a year ago. The option has proven a success – in terms of both sales and our customers' productivity.

"HIGHER PRODUCTIVITY is the greatest advantage. I see a major difference and it's made our forwarding much more profitable," says Conny Olsson of C. Olsson Logging AB.

The new intelligent crane control system was first introduced at Elmia Wood 2017.
Since then, almost 100 percent of all new 855 and 875 forwarders have been sold with the option.

"We were convinced from the start that this is a good product, and of value to our customers. So we hoped it would be well received. But that we'd receive such a positive response, that we probably hadn't

Conny Olsson.

dared to hope. It really exceeded our expectations," says Peter Hasselryd, VP Marketing and Sales Sweden.

CONNY HAS almost 40 years' experience of forestry work. First employed as an operator, then as owner of C. Olsson Logging AB. Each year, his company harvests more than 2 million cubic feet (about 60,000 cubic meters), and of this some 85 percent comprises final logging, the rest thinning.

During his years employed as an operator, he felt isolated in his role, lacking any real motivation or involvement. When he started his own business, his idea was to do the exact opposite to that of his former employer. He wanted to involve his employees in the company.

"I give them insight into most aspects. We have monthly meetings, we set a budget, and we decide on new machine investments together," Conny explains.

The idea has turned out well. His employees are motivated, take care of company equipment, and appreciate Conny's approach. Ultimately, this all increases productivity. But Conny emphasizes that there are also other factors behind its success.

"I have a highly skilled team with exten-

sive experience and good local knowledge. People who've spent their lives working in the forests, with knowledge about all forms of harvesting."

ALMOST A YEAR AGO, he bought a new Komatsu 875 fitted with the SmartFlow option. Conny's already reaping the benefits. He's recently recruited a new operator and points out that SmartFlow enables new employees to become productive in less time.

"There's a big difference in the learning curve for new operators. The crane doesn't jerk and you don't need the same precision. And when new employees become productive sooner, naturally it benefits the bottom line. Time is money," he says.

FEEDBACK from customers indicates that profitability is, and will remain, the most important benefit offered by SmartFlow. SmartFlow ensures that exactly the right pressure and flow are supplied to the crane at all times, which greatly improves handling and results in less operator fatigue. Conny says that he was surprised by the effect SmartFlow has.

"As an operator, I tire less during longer



Conny Olsson believes that SmartFlow makes it easier for new operators to learn and makes them productive faster.

With MaxiFleet, I can easily see how much money I've earned during the week.

workdays, and can maintain a higher tempo. At the same time, SmartFlow makes the work itself faster," he says.

ANOTHER FUNCTION that simplifies Conny's day-to-day work is MaxiFleet, the follow-up tool. This provides him with an easy means of following up production and the reports provide insight into why profitability sometimes varies, which saves him a great deal of effort in an area where he's previously engaged external help.

It's also easy to see exactly how much he needs to work to stay on budget.

"I can easily see how much money I've earned during the week and how much I need to earn the following week. Then I can basically say, 'No, I need to harvest another two loads before the weekend'," says a satisfied Conny.

IN THE FALL, SmartFlow will be launched in the rest of Europe, as well as for the Komatsu 895.

Smartflow 5 MAJOR

ADVANTAGES

- Increased precision, especially at long reaches
- Improved operator work environment due to reduced vibrations
- Increased productivity
- Better fuel economy (up to 4% lower fuel consumption)
- Faster training of new operators

Increased measurement a

The concept behind Komatsu's C heads is that the feed rollers support the stem. The concept enables low clamping pressure without compromising conditions conducive to good measurement accuracy and an energy-efficient feed.

One of the best selling C heads is the Komatsu C144, which has been on the market since 2014. The new 2018 model offers several quality improvements and several new options.

Here are some of the many advantages our C heads offer.

FOR BOTH FOREST OWNERS and the industry, it's important to maximize timber value, that is, to extract the maximum value from the timber from forest to end product. One important aspect of this is how the tree is crosscut and today there are high expectations on heads in terms of measurement accuracy and length measurement precision. Expectations vary a little between markets, but Komatsu Forest always strives to meet the strictest requirements.

Finland is one of the markets with strict measurement accuracy requirements, which the forestry companies regularly tighten. Feedback from forestry companies has shown that the length measurement accuracy of Komatsu's harvester heads has increased in recent years.

"We can see that length measurements have improved in recent years. We've had favorable responses from both users and forestry companies in Finland regarding the increased measurement accuracy of our heads," confirms Timo Korhonen, head of sales and marketing at Komatsu Forest Oy.

Measurement accuracy has a key role in development and improvement work encompassing Komatsu's heads. On this spread, you can read about a number of the technical solutions found on C heads that provide improvements in areas such as measurement accuracy. Tobias Ettemo, product manager, highlights Length Measuring Advanced as most important of all.

"We've listened to our customers and developed a solution that includes a hydraulic accumulator to help enable more even measuring wheel pressure throughout the feed, which we've seen increase length measurement accuracy. Where necessary, you can also use the additional measuring wheel that measures under the bark, which further improves measurement accuracy."

"We've also refined the control system to increase measurement accuracy and head precision. Adjusting the system settings enables you to achieve the best possible stem holding," Tobias ends.

IMPROVED MULTI-TREE HANDLING

The design of both the outer and inner accumulator arms has been improved to better center stems, which speeds production.

NEW UPPER KNIFE OPTIMIZED FOR LENGTH MEASURING

KVK B is a new upper knife for C heads that's optimized for length measuring and delimbs the path followed by the length measuring wheel. Also suited to harvesting large-diameter trees.

EASIER POSITIONING

Integrated working lights make it easier to position the head against the tree and reduce the risk of sawing rocks and other obstacles in the terrain.

MORE ACCURATE LENGTH MEASUREMENT

Redesigned bearing housing and bearing seals in the length measuring wheel reduce the risk of length measurement deviations. What's more, a fully synthetic engine oil has been introduced as the lubricant.

ENVIRONMENTALLY FRIENDLY GREASE

ECO GLS improves the chances of good adhesion when using grease rather than oil. Less need to clean the machine and its component parts, such as windshields. Benefits both the environment and productivity.



ccuracy

IMPROVED LENGTH MEASUREMENT

The Length Measuring Advanced option provides improved measurement accuracy. Consists of a hydraulic accumulator that enables more even measuring wheel pressure throughout the feed process. Also includes an additional measuring wheel that penetrates the bark, such as for use during the tree sapping period. Length Measuring Advanced will be standard in Sweden and Finland, but optional in other countries.

EASE OF SERVICE

Marking paint, chain oil, and all lubrication points are easily accessed from a single position once the head is set on the ground. The diameter sensors are also easily accessed.

INCREASED MEASUREMENT ACCURACY

The clamping force when engaging a stem has been increased on the C144. This means that the stem is held more firmly when felling, resulting in more accurate crosscutting.

GREATER VERSATILITY

The C144 now has a smaller feed roller motor option. This offers a fast and energy-efficient feed start suitable for stands of smaller trees.

SAFE AND EFFECTIVE CUTTING

For safe and effective cutting, the saw bar and chain must work well together. Komatsu saw equipment ensures the best possible functionality and durability and reduces the risk of splitting.

Komatsu saw bars are of the optimum thickness, making them rigid and durable. Optimized chain grooves ensure that the chain runs smoothly with maximum lubrication. They are also quickly and easily replaced.

Our durable saw chains are extra hard and durable with long service lives. Hard, chrome-plated chain links ensure good cutting ability. Pre-oiled rivets reduce the risk of damage during the running-in period.

MAXIMIZE TIMBER LENGTHS AND REDUCE FOREST WASTE

The Find End option is useful when processing pre-felled forest. When the function is activated, the head reverses to the root end and resets the length measurement without needing to cut the stem. This maximizes both timber lengths and profits.

RIGHT CUTTING SPEED INCREASES PRODUCTIVITY

The Constant Cut saw unit ensures short cutting cycles and constant chain speed, all while minimizing the risks of splitting and running the chain too fast.

Heads in THE C SERIE

KOMATSU C93

a versatile head for thinning.

KOMATSU C123

productive and reliable.

KOMATSU C124

a reliable, versatile head.

KOMATSU C144

a head for logging demanding, large-diameter trees.

KOMATSU C202

a head for the most demanding logging.

KOMATSU C202E

a debarking head for demanding logging.

New facility in Finland

Last fall, a brand new and state-of-the-art facility was inaugurated in Finland, providing customers with many benefits. Now we're taking the next step by bolstering the management team.

IN SEPTEMBER last year, a new facility was inaugurated in Pirkkala. A brand new and custom-built facility designed from the ground up for the business.

"There are many advantages to the new facility, in terms of both the environment and occupational health and safety. In terms of the environment, for instance, we have a strong focus on energy consumption with geothermal heating and efficient heat recovery from the ventilation system," says Timo Korhonen. "And the workshop has been designed to meet modern safety requirements and has the technology needed in our day-to-day work."

Customer access has also been improved. For example, customers can get a code to open the gates so that if they've booked a service, they don't have to work around our opening hours to drop off their machine. Instead, they can finish their shift without stressing.

Other improvements include more efficient handling of spare parts from the central depot in Sweden and new, larger training facilities.

"Customers seem to like our new ProSelect store, the workshop is tidy and well organized, and it's easy to get here," says Timo.

AS FOR THE organization in Finland, Jari Alahuhtala is taking over as CEO of Komatsu Forest Oy and Timo Korhonen will be the new head of sales and marketing.

Jari has worked at the company for 30 years and during that time has been head of sales at both Komatsu Forest Ov and Komatsu Forest AB, CEO of Komatsu Forest Oy, and, most recently, MD of

Komatsu Forest BKCIS in Russia.

"It feels good to return home. I already know most of my colleagues and many of our customers. After 30 years, I still find working with forest machines interesting and exciting," says Jari.

TIMO, who has been CEO of Komatsu Forest Oy since 2010, will now head up sales and marketing.

"Now I can focus on strengthening our sales team, sales activities, and customer relations in both Finland and the Baltics. Naturally, priority number one is to increase sales in both Finland and the Baltics, and I'm really looking forward to getting started. Komatsu Forest's product range is perfectly suited to conditions in Finland and the Baltics," Timo ends.

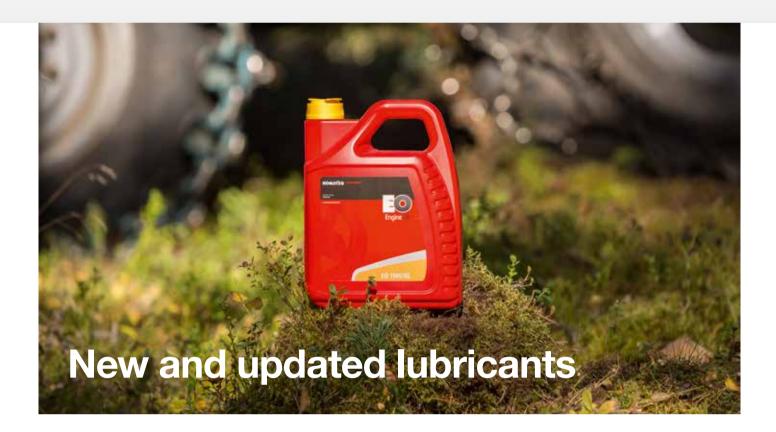








Komatsu Forest Oy's new state-of-the-art facility in Pirkkala.



The spare parts, accessories, and consumables offered in the ProSelect range ensure optimal function over time. Komatsu Forest Lubricants are a series of products developed along the lines of our strict Komatsu Forest Engineering Standards.

Each of the products has a different purpose, so their compositions vary greatly. Not all additives are found in all products, instead the amount and number of additives depends on the lubricant's specific use. The range of lubricants has now been expanded with two new products and improvements have been made to a couple of existing products.

EO 10W/40

Our new engine oil, EO 10W/40, complements and completes our oil range. It offers better performance at high temperatures and is suitable for all engines, especially in colder conditions. An oil which complies with the latest CK-4 specification for optimal engine performance with lower emissions and a more energy efficient solution.

GBO 80W-90

Yet another new addition is our **GBO 80W-90** transmission oil, with additives that offer very good protection against wear and high oxidation resistance.



EO 15W/40

Improvements have also been made to two existing products: **EO 15W/40** and **SCO Natura**. The first oil is well proven and has been shown to have very good properties for use in Komatsu engines. It too has been upgraded to the latest CK-4 specification to incorporate the new improvements added to the standard. This oil is a good choice for all engines and offers better performance at high temperatures. Viscosity is well maintained until the next oil change and the additives provide excellent engine cleanliness and good protection against wear

SCO Natura

Our saw chain oil SCO Natura has been upgraded with a new formula and new characteristics, offering better lubrication and adhesion as well as improved anti-oxidation properties. Favorable properties at low temperatures mean that it now offers easier handling and pumpability. Tests show that chains become smooth and flexible, making them perfect for sharpening. What's more, operators report less misting and oil film on cab windshields when using SCO Natura. Another plus is that the oil is kinder to the environment than previous versions.



The Valmet 448 twin-grip harvester was the first machine to be exported to Russia.



Tim new head in Russia

Tim Bogatenko has been appointed head of the Komatsu CIS Forest Division in St. Petersburg, where Komatsu Forest has its Russian base. He began his new role on April 1 this year.

Tim has worked at Komatsu Forest for many years and has extensive experience of the forest industry and the Russian market. In his new role, Tim is responsible for marketing and sales of Komatsu forest machines in Russia and Belarus.

First Valmet in Russia

This year marks 40 years since the first machine was exported to the Russian market.

IN 1978, a Valmet 448 was exported to the then Soviet Union. The Valmet 448 was a twin-grip harvester with two diesel engines, one for the transmission and one for the hydraulics. The customer was Moscow State Forest University and the machine was acquired to evaluate mechanized harvesting.

Head of operations in Finland at the time was Kim Lönn, who still works within Komatsu Forest Russia. Nowadays, his daughter also works at the group, as head of sales for Komatsu Forest in western Russia.

The following year, 1979, Valmet was able to present its forest machines – the Valmet 448 harvester and the Valmet 886 forwarder – to a slightly wider audience for the first time in the then Soviet Union at the Lesdrevmash trade fair. During the winter of 1981, Valmet presented its 448 harvester and 886 forwarder in operation and successful tests resulted in Valmet signing agreements with the Soviet Union for more than 300 units. In 1984, five years after the trade fair, the machines could be seen in the forests of Russia and Belarus.

Simple settings that make a big difference

Even small adjustments to your machine can have a major impact on both job satisfaction and productivity. Here our machine and method instructors offer a few quick tips on settings and checks you can easily implement yourself.

1. Check the accumulators on the S head

Check the accumulators for the measuring wheel and the feed rollers. This applies to all S heads. Measurements will be more accurate and stem holding will improve.

If the accumulators are correctly adjusted, you shouldn't be able to push a screwdriver through the connector opening and into the accumulator. This takes about 30 minutes and ought to be repeated every 500 hours or when fine-tuning the head.

2. Setting the mouse joystick

Setting the mouse joystick in MaxiXplorer. The mouse sensitivity settings need to be changed in three places. The speed ought to be set to between -7 and -9, the joystick curve should be -5, and then you should uncheck "Slow when over clickable elements". This improves functionality and convenience.

3. Inching joystick sensitivity setting

The inching joystick sensitivity setting should be changed from 80 to 20, which is its lowest value. Changing the inching joystick setting improves responsiveness.







COMPETITION



Help us and win a central lubrication kit!

What do you think the perfect service kit should contain? We need your help to optimize our new service kits.

Now you have the chance to both influence the content and win a complete central lubrication kit.

1ST PRIZE

The best suggestion will be rewarded with a CLS kit. What's more, the winner's name will be printed on the new product.

2ND AND 3RD PRIZES

One Fuse & Relay kit each.

Enter the competition by sending your suggestion to info@komatsuforest.com by August 31, 2018.

The winners will be announced on our website.

Our service kits guarantee that you always have the right parts on hand when you need them. The range currently includes the Nord-Lock, Fuse & Relay, CLS, Caps & Plugs, and O-ring kits.



Leather

A new version of the Be-Ge 3000 seat is being introduced with leather rather than fabric upholstery.

KEEP BETTER TRACK OF CONTROL MEASUREMENTS AND CALIBRATIONS

Control measurements are now automatically sent from the machine to MaxiFleet together with the calibration history.

You can perform a detailed analysis of the accumulated control measurements, generate reports and see how the machine has measured a logging assignment. Or check how many control measurements and calibrations were carried out during an assignment.

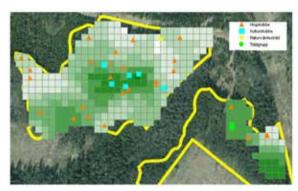
NEW DESIGN!

Forged piston rods for tilt cylinders on C123, C144, and C93.

New cylinders with the entire piston rod forged in one piece will replace the old cylinders with the piston rod welded to the lug.

Stem codes introduced in MaxiXplorer 3.14

Stem codes, a new MaxiXplorer function, improve environmental reporting by automating and simplifying the reporting process for machine operators. The update is available as of MaxiXplorer 3.14 and in machines manufactured during or after February 2018.



The image shows a visualization of the function.

NEW PRODUCTION FOLLOW-UP FUNCTION IN MAXIXPLORER



It's now easier for operators to keep track of their efficiency, directly from the operating screen. The screen displays symbols for volume, number of stems, average stem, time from lifting head to next cut, felling time, fuel consumption and uptime.

The values for the last ten stems, as well as the entire shift, are displayed. Some of the symbols are color coded in green/red, so that if the average for the last ten stems is lower than the average for the entire shift, the symbol turns red. This gives the operator direct feedback on their work efficiency and makes it easier to make adjustments where possible.

Warming up function for SmartFlow forwarders

A new warming up function for the SmartFlow option is now available in MaxiXplorer 3.13 and above.

It's now possible to activate a function in the working hydraulics that warms the hydraulic oil while the machine is standing still or being idled. The function requires that the operator is sitting in the cab with the seat turned toward the bunk. The warming up function has previously been available for harvesters and is a much requested function even for forwarders. Working with cold hydraulics can be detrimental, so this function benefits the machine.



EASIER TO FIND USED MACHINES

A while back, we launched a new website for used machines. It has a clear, straightforward design and is compatible with smartphones. It's easy to find the machine you're looking for and to filter by machine type and country. The website only covers Europe.

.....



Hose wear guard

A new hose guard solution has been developed for the crane on the Komatsu 951.

A protective plate with a soft transition has been mounted over the edge and longer hoses with a higher pressure rating and protective hose sleeve are used. This extends hose service life and improves machine reliability.

KOMATSU FOREST HAS ACQUIRED ORYX SIMULATIONS

Oryx Simulations is a world-leading developer of heavy vehicle simulators. The company has clients all over the world and is headquartered in Umeå, Sweden.

Komatsu Forest and Oryx Simulations share a long history. Back in the 1990s, Komatsu Forest and Umeå University collaborated on a project that laid the foundation for Oryx Simulations. Komatsu Forest has been a client ever since and today we sell simulators developed by Oryx Simulations to our customers all over the world.

Oryx Simulations is a technology company at the forefront of its field and the company's simulators are highly praised by users for their realistic graphics. Such simulators are a great help when training operators.

Following the acquisition, Oryx Simulations will remain independent so as to retain its integrity and customer confidence, a condition both companies considered important.

NEW PREMISES IN FRANCE

September will see the inauguration of Komatsu Forest's new premises in Egleton, France. The specially adapted and state-of-the-art premises are optimized for servicing forest machines as effectively as possible.



Keep an eye out for more information at www.komatsuforest.fr





SERVICE AND SUPPORT IN IRELAND

Since November 1, 2017, McHale Plant Sales Ltd is the official distributor of Komatsu forest machines, as well as spare parts, service, and support, in Ireland. While the company is far from unknown to customers, the new organization offers a number of advantages.

McHale Plant Sales Ltd has two comprehensive service centers

with both workshops and technical support, one in Birdhill and one in Rathcoole. Birdhill is its hub for forest machine operations, as well as used machine sales. The company has service teams comprised of technicians and spare parts personnel on hand at each center, as well as mechanics stationed in other locations closer to customers.





The company SAS Delorme was founded by Michel Delorme, the father of current CEO Vincent Delorme. Vincent, who studied engineering and forestry, began working as a harvester operator in 2000 and likes to consider himself self-taught.

"When I want to know something, I search for it until I find it," he says.

AT 18 YEARS OF AGE, while studying forestry, he began working in the industry clearing stumps with a chainsaw ahead of a harvester, but manual labor was not his goal.

Vincent was fascinated by the technology used in harvesters and it was this technology that attracted him to the forest. At college, his teachers were very understanding and Vincent got to spend more time in the forest performing 'practical work' than in class studying theory. And in his efforts to become a really skilled operator, he wasn't shy of spending his evenings at work. Even today he greatly enjoys operating the machines, and during our visit manages to 'steal' himself a few moments of harvester operation by sending the operator on an errand.

SINCE HE WORKS as a supplier to the French National Forests Office (ONF), as well as to local sawmills and cooperatives, he needs machines that he can rely on. As of a few years ago, the company's entire fleet is comprised of Komatsu machines. He especially appreciates the machines' reliability and productivity.

"The machines are well designed and I appreciate their durability," says Vincent.

He also finds Komatsu Forest's availability and rapid spare part delivery major advantages.

Vincent, who has a technical background, knows the machines almost inside out, but also uses Komatsu Forest's service. Together with his machine operators, he has a good relationship with the technician at Komatsu Forest who keeps an eye on Vincent's extensive fleet. If the technician is unavailable, one of his colleagues helps out instead to keep downtime to a minimum.

vincent does most things at the company. He visits the harvesting plots, transports machines by trailer, sharpens chains, repairs machines, takes care of administrative tasks, and – if necessary – also operates forwarders and harvesters. But this extremely active contractor also makes time for his family and switches his attention to other things, such as riding motocross. Balance is key when he talks about his employees. He's very keen for his operators to be happy with both the environment and the atmosphere at work.

Vincent took over the company in 2009, and in 2014 they moved to new premises, almost 5400 square feet (500 m²) of floor space, all planned and designed by Vincent. In addition to space for the trailer and a service pit and workshop, there's also a storage area for spare parts and consumables. Since he's well aware of the impact our actions have on future generations, he's particularly concerned with ecology and environmental protection. In his world, it's quite natural to service machines with organic oil, to use organic chain oil, and to ensure access to waste processing. Oils, filters, and containers are collected and recycled.

"Earth gives us life and it's our responsibility to take care of it," says Vincent.

SAS DELORME

FACTS:

Founded 2002

8 employees

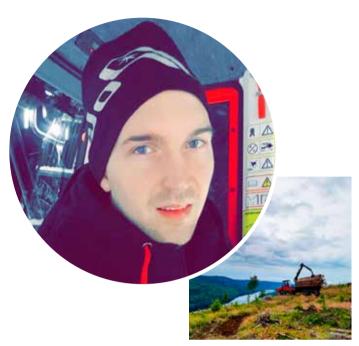
Company headquarters are located in Araules, in the Haute-Loire department, at an altitude of almost 3300 feet (1000 m). The same village is home to a sawmill and a dairy, which bears witness to another industry in the region, animal husbandry and milk production.

The company's work area extends 60 miles (100 km) around Araules.

MACHINES:

Forwarder Komatsu 860.3 Forwarder Komatsu 860.4 Forwarder Komatsu 855.1 Forwarder Komatsu 875 Harvester Komatsu 911.3 Harvester Komatsu 931.1 Harvester Komatsu 931 Excavator Komatsu 180 Skidder John Deere 540

The Komatsu 911.3 harvester from 2005 will soon be superseded by a new harvester equipped with the MaxiFleet follow-up tool.









Hello there...

Pierre Ragnarsson, a forest machine operator who likes taking photos.

HOW DID YOU COME TO PHOTOGRAPH FOREST MACHINES?

"I've always had an interest in photography and I bought my first DSLR as a 15-year-old. Now I work as forwarder and harvester operator, so I tend to take a lot of forest machine pictures."

WHAT CAMERA DO YOU USE?

"All my photos are taken with my cellphone, a Samsung S8. I also edit the images using the standard apps."

DO YOU ONLY PHOTOGRAPH FOREST MACHINES?

"I'm really into motoring, so I take photos of snowmobiles and cars as well."

HOW LONG HAVE YOU BEEN A FOREST MACHINE OPERATOR?

"A little more than six years. I've spent the last four years working for J Amréns Skogsmaskiner in Hammarstrand, Sweden."



Follow Pierre on Instagram: ragnarssonpierre





Where the trees grow 0.4 inches a day

The Expoforest trade fair is held every four years in Brazil, where the forest grows 0.4 inches (1 cm) a day, 365 days a year.

EXPOFOREST is a highly popular trade fair and over its three days attracts some 37,000 visitors. The primary focus is the harvesting and reforestation of eucalyptus, which is the dominant tree species in the Brazilian market.

What makes this fair unique is that exhibitors are able to demonstrate their products for visitors. This year's fair was held outside São Paulo on April 11-13. As to be expected for the time of year, it was hot with temperatures of about 90°F (32°C), but this didn't stop people coming. The Komatsu Forest booth was very popular with visitors, who could see machines

in operation that included the Komatsu PC200F/370E, Komatsu 931XC/370E, Komatsu 895, and Komatsu D85 equipped with a ground preparation head, showcasing the harvesting and debarking of eucalyptus.

ALSO ON SHOW at the booth were the Komatsu 931/V132E, Komatsu 875, Komatsu PC130/S82, and Komatsu S172. The Brazilian forest industry is striving to expand and increase its harvesting volumes. The forest industry is considered to be in a good position and all major manufacturers of forest machines and peripheral equipment attended the fair.







Komatsu's largest forwarder continues to succeed in Australia. The success of the Komatsu 890.3 has been repeated with the Komatsu 895. And now the 100th machine has been delivered to Dean Venturoni.

THE KOMATSU 895 is the forwarder that became a giant in the world of mechanized professional forestry. With its 22-ton (20-metric ton) load capacity, unique powertrain with 28.5-inch bogie and wheels, and one of the market's largest forwarder cranes, it's the preferred choice for heavy final logging in the largest forestry markets.

The new generation 895 has been further developed to improve productivity, which includes a larger load area and improved crane operation. The forwarder also has improvements to simplify servicing the machine.

Dean Venturoni of Rtreev Timber Harvesting Contractors took delivery of the 100th 895 to be sold in Australia.

"An outstanding machine has been

made even better." says Dean about his latest Komatsu 895.

Dean's contact with Komatsu Forest stretches all the way back to 2001. That's

when his father bought a 890.1 that had to work in extremely challenging terrain, working all year round forwarding timber on steep slopes. The service they received for that first machine was superb and is one of the main reasons why they continue to operate red machines.

"Our relationship with Komatsu Forest has been strengthened as the number of forwarders and harvesters we own has grown over the years," says Dean.

The company still has a number of 890.3 forwarders that they find highly reliable and easily serviced. They bought their first 895 a few years ago. The operators

> appreciate the spacious cab, the generous load capacity, and the crane's smooth operation and extreme reach.

"It's quite simply a successful concept

combined with the peace of mind offered by reliable service and support," says Dean.

They took Valmet to Australia

The construction of ANM's new papermill in Albury in 1980-81 signaled the start of mechanized harvesting on plantations in the Tumut/Tumbarumba region. No fewer than ten contractors were engaged to harvest Pinus radiata. Jim Crozier, Crozier Logging, and Dave Nuttal, Ryams Pty Ltd, were two of those contractors and they chose the newly developed Valmet GP940 for their contracts.

IN THE END, eight contractors from Australia and two from New Zealand won the harvesting contracts. Through contacts at Volvo, Dave Nuttal ordered two Valmet GP940 machines and Jim Crozier ordered one GP940. Delivery was made by Summit Machinery & Equipment Pty Ltd.

THESE EARLY PURCHASES led to meetings between Jan Bergholm, CEO of Umeå Mekaniska, and Mike Jones of Summit Machinery. Meetings which in 1982 resulted in a dealership agreement for the Valmet GP940. In 1985, Summit became a dealer for the entire Valmet range of forest machines.

THE FIME trade fair in March 1986 saw the entire Valmet product range on display. The machines exhibited were the 901, the 902, and the 886, all of which were sold within months of the event. Jim bought the first 902, and then a second machine shortly thereafter. In the years that followed, Jim and Dave both bought several Valmet 892s.

IN 1991, Valmet Logging decided to establish its own branch in Sydney, Australia, which became a fully fledged subsidiary in 1992. As a result, it was a given for contractors such as Jim Crozier and Dave Nuttal and their families to continue buying Valmet machines, and today they're major owners with fleets comprised of Komatsu 951 harvesters, Komatsu 895 forwarders, and Komatsu XT tracked machines

CONTACT

DISTRIBUTION CENTERS SALES OFFICES AND DEÁLERS

EUROPE AND RUSSIA

AUSTRIA

Komatsu Forest GmbH Zweigniederlassung Österreich

www.komatsuforest.at Tel: +43 2769 84571

CROATIA

Šuma GM d.o.o. www.sumagm.eu

Tel: +385 1 5628 827

CZECH REPUBLIC Arcon Machinery a.s.

www.arcon.cz Tel: +420 3 2363 7930

DENMARK

Helms TMT Centret AS www.helmstmt.com Tel: +45 9928 2930

ESTONIA Zeigo Service OÜ

www.komatsuforest.ee Tel: + 372 504 4964

FINI AND

Komatsu Forest Ov www.komatsuforest.fi Tel: +358 20 770 1300

FRANCE

Komatsu Forest France www.komatsuforest.fi Tel: +33 3 44 43 40 01

GERMANY

Komatsu Forest GmbH www.komatsuforest.de Tel: +49 7454 96020

HUNGARY

Kuhn Kft. www.kuhn.hu

Tel: +36 128 980 80

IRELAND

McHale Plant Sales I td www.mchaleplantsales.com Tel: +353 61-379112

Sia Haitek I atvia www.komatsuforest.lv Tel: +371 261 31 413

LITHUANIA

Lifore Technika Ltd www.liforetehnika.lt Tel: +370 5 260 2059

NETHERLANDS

W. van den Brink www.lmbbrink.nl Tel: +31 3184 56 228

NORWAY

Komatsu Forest A/S www.komatsuforest.no

Tel: +47 901 78 800

POLAND

Arcon Serwis SP.ZO.O. www.arconserwis.p Tel: +48 22 648 08 10

PORTUGAL

Cimertex, S.A www.cimertex.pt

Tel: +351 22 091 26 00

ROMANIA

ALSER Forest SRL

www.utilajedepadure.ro Tel: +40 741 367 378

RUSSIA

Komatsu CIS

www.komatsuforest.ru Tel: +7 812 44999 07

SPAIN Hitraf S.A

www.hitraf.com

Tel: + +34 986 58 25 20

SWEDEN Komatsu Forest

www.komatsuforest.se Tel: +46 90 70 93 00

SWITZERLAND Intrass AG

www.intrass.ch

Tel: +41 56 640 92 61

UNITED KINGDOM

Komatsu Forest Ltd www.komatsuforest.com

Tel: +44 1228 792 018

NORTH AMERICA

USA. CANADA

Komatsu America Corp. Forest Machine Business Division

Chattanooga, TN Tel: +1 423 267 1066 To find your local dealer/sales representative: www.komatsuforest.us www.komatsuforest.ca

SOUTH AMERICA

ARGENTINA

www.bramag.com.ar Tel: +54 379 4100399

BRAZIL

Komatsu Forest Ltda. www.komatsuforest.b

Tel: +55 41 2102 2828

CHILE

Komatsu Chile S.A. www.komatsu.cl

Tel: +56 41 292 5301

URUGUAY

www.roman.com.uv Tel: +598 2605 0821

OCEANIA

AUSTRAI IA

Komatsu Forest Pty Ltd

www.komatsuforest.com.au Tel: +61 2 9647 3600

Komatsu Forest NZ

www.komatsuforest.com.au Tel: +64 7 343 6917

NEW ZEALAND

OTHER MARKETS

INDONESIA

T Komatsu Marketing Support Indonesia Tel: +62 21 460 4290

PRODUCTION UNITS









NEWS! OUR TRACKS JUST KEEPS GETTING BETTER AND STRONGER

MAXIMUM FLOTATION ~

Straight cross member, specially designed, offers maximum flotation. Optimal grip, both forward and sideways.

OPTIMUM GRIP AGAINST TIRE

Specially designed slip bar for optimum grip against tires.

MINIMAL GROUND IMPACT

Soft ends contribute to minimal ground disturbance and softer turning radius.

BETTER SUPPORT TOWARD TIRE

Extended side support for optimal support against tire side.

WE HAVE INCREASED THE LIFE SPAN

Our improvements make ECO-Tracks stronger, gentler and more viable, it makes your work easier and protect the environment. You can go forward, upward and over, while forest regrowth remains strong.

Welcome to our territory.

