

JUST FOREST

01



A PROFITABLE DAY IN THE FOREST



New features for 2020



Combatting bark beetle with MaxiVision



A mechanic with a focus on productivity

Operating your machine smartly benefits both productivity and fuel economy while providing you, the operator, with a more comfortable work environment.



Komatsu 2020

Big advantages. Even in the smallest details.

We've refined our forest machines and the result is a bunch of new features for simpler, more profitable days in the forest. A powerful new Stage V engine with an upgraded DEF system. A next-generation control system. A continuously variable transmission. Easier servicing and maintenance. MaxiVision for production planning and improved harvester/forwarder interaction. The list goes on, with more new features to make your working day more productive and convenient.

Discover Komatsu 2020 at komatsuforest.com



OLA BOSTRÖM
HEAD OF MARKETING,
KOMATSU FOREST

A profitable day in the forest

This is a busy time for Komatsu Forest. Not only are we launching a large number of new machine models on the market, we're also going to be taking a giant step into the future this winter when we move into our brand-new factory. A factory that will offer us unprecedented opportunities.

Our current factory recorded an all-time-high last year, producing more forest machines than ever before. At the same time, we're preparing for the future. For even larger volumes. Our products are needed by an industry that's optimistic about the future. In the future, new products will be sourced from the forest, which will require more raw materials. In principle, just about everything made from oil can also be made from different forest products.

This makes it important for us to keep up with developments and to offer you profitable and complete solutions. Our ambition has always been to maintain a long-term relationship with you, our customers, and we want to contribute in every way we can with our machines, services, and expertise. Our goal is to offer you the most profitable and complete solutions and to stand by your side every step of the way.

I'm convinced this is the very key to success – continually striving to

improve and listening intently to our customers. Many of you are good at providing constructive feedback, for which we are grateful. And for our part, as an organization we're good at translating this feedback into improvements in our products, services, and servicing.

The 2020 models are confirmation of this. This year's launches encompass everything from brand-new products and upgraded machines through a new engine installation and control system to new services and smart functions. Common to all these improvements is that in some way or other they help to increase productivity, and as such should help to increase your profitability.

In turn, by operating your machine smartly, you too can boost both productivity and fuel economy while providing yourself with a more comfortable work environment. You can read more about how to achieve this elsewhere in this issue.

This spring, I'll be retiring, so I'd like to take the opportunity to express my thanks. I have fond memories of all the rewarding meetings I've had with so many amazing contractors around the world, all pushing the envelope in forestry!

Happy reading!

CONTENTS



- New features for 2020** 4
- Combatting bark beetle**.....8
- Emil – a budding machine operator**.....10
- Switched to the forest industry**.....12
- Taking harvesting to a new level**.....14
- When old met new**16
- Sustainable work method delivers results**.....18
- MaxiFleet at college** 20
- A mechanic focused on productivity** 22
- What does good productivity mean to you?** . 25
- Building a future-proof factory** 24
- New head of marketing 2020** 26
- New faces and roles**..... 27
- News from around the world** 28
- Rewarding convention meetings** 30

JUST FOREST INTERNATIONAL MAGAZINE

Publisher: Annelie Persson, annelie.persson@komatsuforest.com
Editor: Terese Johansson, terese.johansson@komatsuforest.com
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 development work behind our

PRODUCTIVE IMPROVEMENTS FOR 2020

The presentation of our 2020 models, back in June 2019, revealed many new features, both big and small. Everything from upgraded machines through a new engine installation and control system to new services and smart functions. Common to all these new features is that in some way or other they help to increase productivity, and as such should help to increase your profitability. But what was the actual process behind all this? Here, we get to go behind the scenes at the product planning department.



New engine installation with improved after-treatment system (SCR)

One of the biggest new features of the 2020 launch is the new engine installation, which complies with the latest emission legislation for diesel engines (Stage V). The new engine installation brings a number of benefits, including a brand-new and completely redesigned DEF system with a focus on greater reliability.

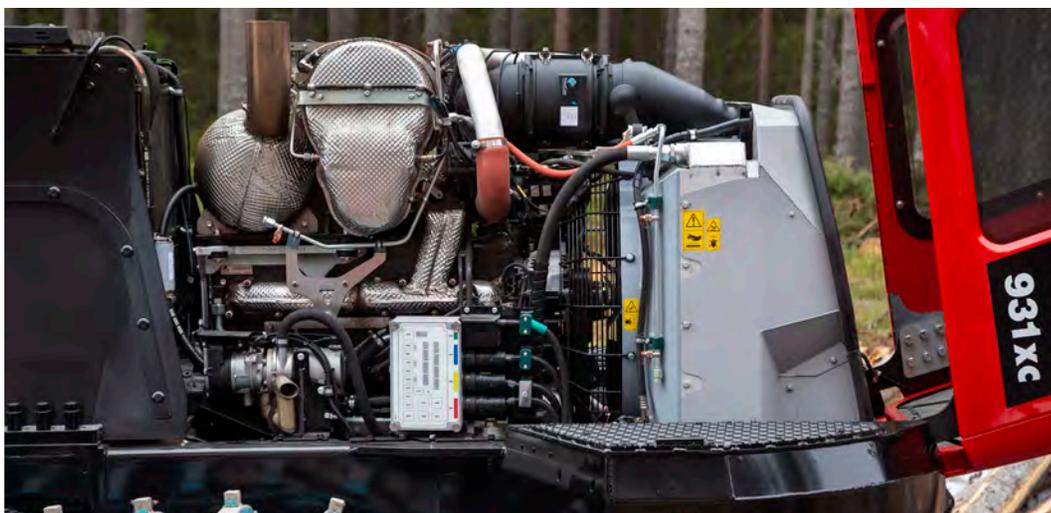
The experience gained from previous machine models and a successful pilot study offered important lessons for the development of the new after-treatment system. Tobias Ettemo, Product Manager Harvesters and Harvester Heads, explains more:

“To aid our development work, we turned to a pilot installation that’s been used for harvesting for many years. The experience from the pilot machine helped us to resolve

the problems we’d had with earlier machine models. With the new DEF system, for example, we’ve been able to develop a solution with new hoses, improved hose couplings, and a new pump, which reduce the risk of the DEF pump freezing,” says Tobias.

Easier DEF filling

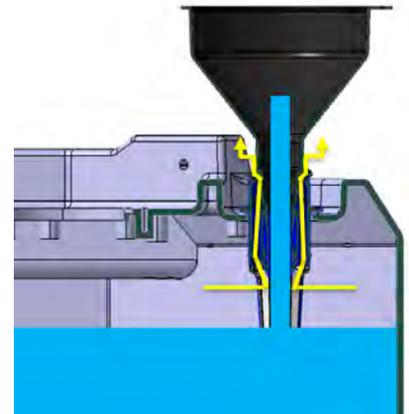
The DEF tank has been redesigned with a spill guard and an improved filtering



New engine installation compliant with the latest emission legislation. This brings with it a number of benefits, such as a brand-new DEF system, a new exhaust system, and hydraulic valve lifters.



“We’ve completely redesigned the DEF system for greater reliability.”



▲ New filter and funnel for refilling DEF. The yellow arrows show the venting channels, which make for faster filling.

◀ The new DEF tank with spill guard and improved cap, seen here on a forwarder. Also illustrated is the new placement of the DEF tank at the front of the machine.

solution. It also has a specially designed funnel with venting channels for faster filling. Another improvement is the placement of the DEF tank on forwarders. Previously, forwarder operators needed to climb up to top up the DEF, now they can do so more conveniently from the ground.

“All these factors simplify the machine’s daily maintenance, which was our goal,” Tobias explains. It’s also important to remember that the DEF system must be used as instructed to avoid unnecessary downtime and to maintain high production, Tobias adds.

Hydraulic valve lifters simplify servicing

Efforts in recent years to develop engines compliant with ever-stricter emission control requirements have meant that we’ve integrated more and more components with the engines, making it increasingly difficult to access the valve lifters for servicing. As a result, the introduction of hydraulic valve lifters has been a decade-long ambition.

“We’ve always known that the need would only grow as engine emission control requirements became stricter. It’s taken us this long simply because we wanted to

conduct extensive testing and verification to ensure the necessary functionality and quality. It feels really great to finally be able to offer them now,” says Tobias.

New control system taking us into the future

Another new feature is the MaxiXT control system, the machine’s central nervous system, controlling everything from the engine to the crane and the head.

Daniel Grabbe, Product Manager Forwarders, reveals the story behind the new control system.

“In the future, we’ll be introducing a lot of functionality that our previous control system, MaxiXplorer, wouldn’t be able to handle. So, in order to future-proof our products, we needed to develop a control system from scratch in terms of the software. While this isn’t anything that our customers will benefit from right now, it’s necessary to ensure future development opportunities,” Daniel explains.

However, MaxiXT does already boast several new features, all of which were

in some way or other requested by our customers. Harvesters, for example, now have improved value crosscutting.

“It’s quicker at finding the right place to cut, which means faster processing and higher hourly production. In the past, we’ve been criticized by some who felt that our machines were a little too slow, but we’ve resolved this now,” says Tobias.

Better off-road maneuverability for harvesters

For harvesters, off-road

maneuverability has been improved in several areas.

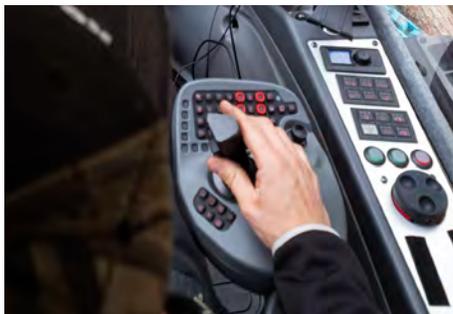
Parts of the rear axle have been redesigned, providing higher ground clearance and making it easier to cross steep ditches and other obstacles in difficult terrain.

We’ve had many requests for higher ground clearance, especially from countries with a lot of harvesting on steep slopes.

“If the machine scrapes the ground when climbing a steep slope, it puts a heavy load on the frame, so we take this



Daniel Grabbe



▲ The machines have a brand-new control system, MaxiXT, which includes a number of smart new functions for a simpler and smarter working day.

◀◀ New control panels with a high-quality finish. Optional additional control panel, which is programmable for a more personalized experience.

◀ The Orbitrol steering wheel has been replaced with an electric mini steering wheel. A more convenient solution that also helps to keep noise levels down in the cab.

matter seriously. What's more, we've redesigned the frame components to better match the size of the machine," explains Tobias.

Other important new features are improvements to both traction and the power steering, contributing to improved off-road maneuverability and increased productivity. The traction has also been adjusted for a better balance relative to machine weight.

"We're now better utilizing the potential offered by the components. It's not so much a case of new components, more that we've refined and adapted the components we already have to increase the amount of traction per ton machine weight," says Tobias.

Automatic gear changes with SpeedShift

Another major new feature is the SpeedShift option. This enables the operator to use the machine's entire speed range without having to stop to change gears. SpeedShift automatically changes to a higher gear as the operator increases speed, resulting in both lower fuel consumption and higher average transport speed. Since the engine speed can be kept lower, it also provides a more comfortable work environment and lower noise levels.

"For a long time, the transmission has required you to stop the machine before changing gear. This has meant that the road has to be pretty long before the operator thinks it's worth changing gear. Operators stay in a lower gear and

increase their speed – which means that the machine uses a lot more fuel. However, they can't reach the same speed as we can now with SpeedShift," Daniel explains.

Development in collaboration with test hosts

SpeedShift has faced a number of setbacks during its development. The option was originally launched back in 2017, but late in the test process the test machines encountered problems and the product was withdrawn immediately after being unveiled.

"That was extremely tough! We felt terrible having to withdraw the product right after we'd just started marketing it. But it has to work, that's the most important thing," says Daniel.

It was back to the drawing board for SpeedShift, followed by further assessment and testing. About two years later, the development department finally crossed the finish line and the option was ready for a broad market launch.

“It feels great! Several test hosts have been trialing SpeedShift and they’re very satisfied. We firmly believe that this option will dramatically improve productivity. If used correctly, it also enables you to save fuel, which of course boosts profitability,” says a content Daniel.

SpeedShift includes the overspeed protection option, a hydraulic brake which ensures that vital transmission components are not overloaded – including the diesel engine and the hydrostatic motor. Overspeed protection is also available as a separate option.

New crane option for Komatsu 855

Previously, the Komatsu 855 has only had one crane option, the Komatsu 130F. One of the new features of the 2020 Komatsu

855 is that it can also be equipped with the Komatsu 145F. This is a more powerful crane with both greater lifting capacity and stronger slewing force.

“We’ve developed this crane so that customers who work with very heavy timber, such as in Europe, can choose a crane with greater lifting force. We’ve seen enormous demand for this option in European countries for a long time, so it’s great to be able to present it,” says Daniel.

It’s important to note that a Komatsu 855/Komatsu 145F combination requires a greater hydraulic flow to achieve the same speed, which means higher fuel consumption. However, in situations where power rather than speed is the priority, the 855 paired with the 145F is a good match.

Big advantages. Even in the smallest details.

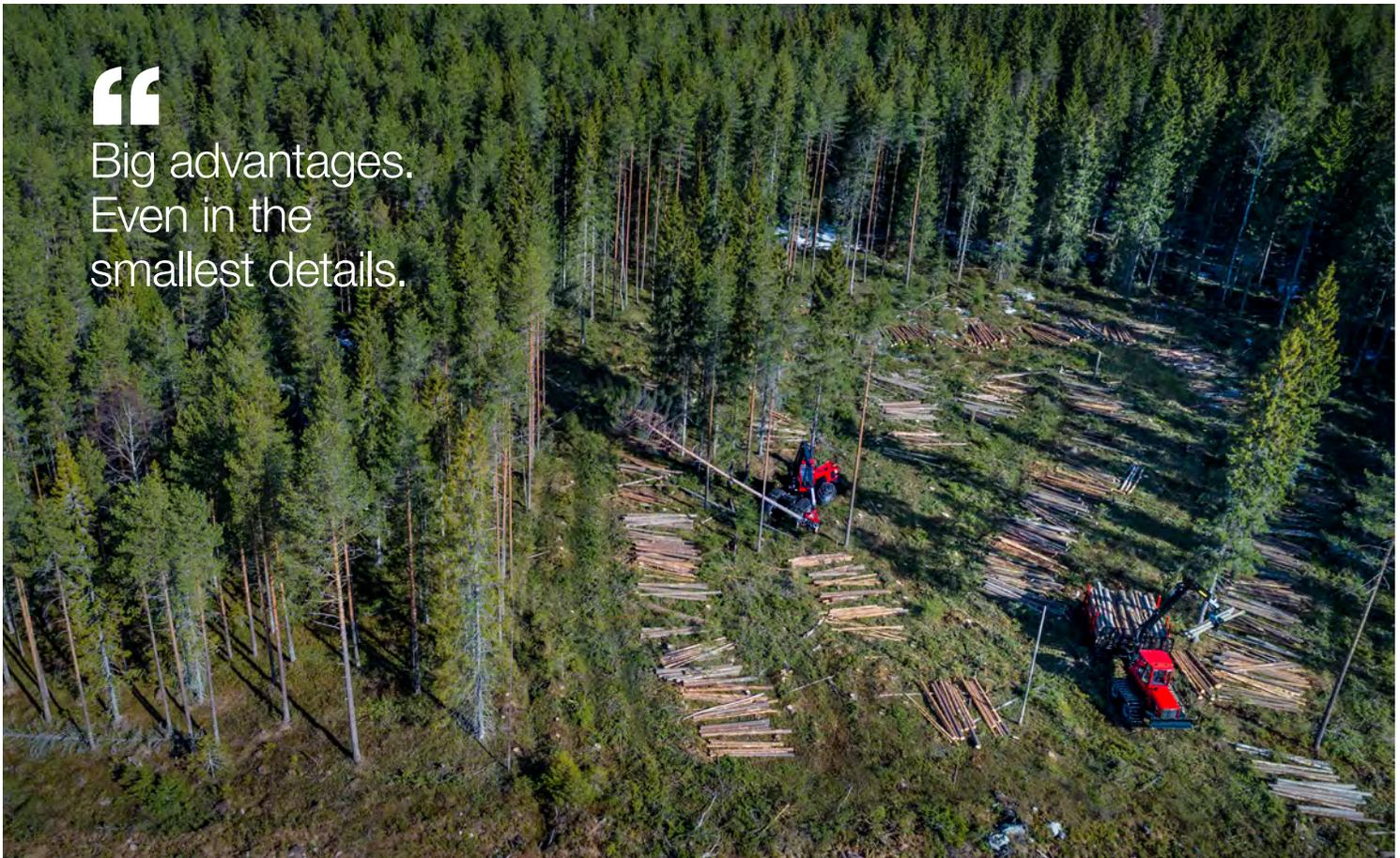
The new features for 2020 have been launched using the slogan “Big advantages. Even in the smallest details.” And this is something that Tobias is happy to attest to.

“Alongside the major new features, we identified a wide range of areas where we could make smaller improvements, improvements that we felt our customers would appreciate. More storage areas, such as compartments in the cab and a flat surface to put your coffee mug on. Another handy improvement is that you can monitor the central lubrication from the cab, meaning that you’re less likely to run the system on empty,” he notes.

Daniel mentions the ability to record signal sequences for easier and faster troubleshooting as an important advantage, adding:

“What’s more, we’ve phased out the clumsy Orbitrol steering wheel, which means both faster transport speed and a quieter, more spacious work environment in the cab. We hope – and truly believe – that our customers will notice the many improvements in the new machines,” he ends.

“
Big advantages.
Even in the
smallest details.”



Combating bark beetle with MaxiVision

Since the beginning of 2019, Forstservice Zitterbart has been using the new geoinformation system MaxiVision. Together with MaxiFleet, it helps the team supporting CEO Bianca Stockburger to deal with bark beetle infestations.



Members of the Zitterbart team (from left to right): Xaver Gebhart, Maximilian Steiniger, Heiko Stockburger, Ramon Kämmer, Tobias Rech

IN RECENT TIMES, large parts of Germany have suffered many storms and extreme drought. As a result, the bark beetle has managed to multiply, and millions of infested trees have had to be felled. This is the case in eastern Germany, where Forstservice Zitterbart operates. The company was founded in 1992 and currently operates four forest machines.

“We’ve had to adapt to the changing working conditions. In many cases, the infestations are very widespread. Without technical aids, it’s as good as impossible to find the timber without time-consuming searches,” says the company’s owner, Heiko Stockburger.

MaxiVision provides the necessary overview. The company Forstservice Zitterbart has retrofitted the system on three of its machines. While working, the route and production data from the two machines in the team are automatically registered in MaxiVision without operator intervention. Moreover, the operator has the option of using the editing tools to add additional information to the map at any time.

EVEN BEFORE the forwarder arrives at a new location, operator Jan Windisch can check the initial overview of the prevailing conditions on the machine’s display. The map clearly shows routes, processed assortments, obstacles, and any other information from the harvester. With the aid of the mark-up tools, based on needs, you can forward the volumes of different assortments from each strip road. When the forwarder then unloads the timber, its volume and position are easily transferred at the touch of a button. MaxiFleet, Komatsu Forest’s fleet management system, automatically shares the information between the machines and the office. This ensures an optimal overview and fast and efficient administration, which are prerequisites for high productivity.

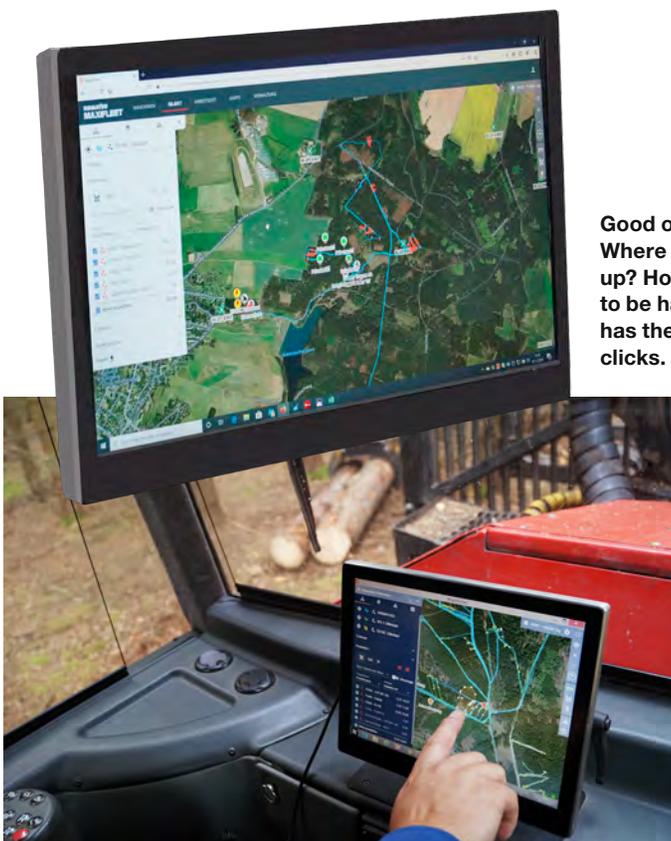
Harvester operator Tobias Rech also appreciates the benefits offered by MaxiVision.

“We often receive digital maps with the infested trees already highlighted by the forest owner. These can then be displayed in the machine with just a few clicks,” he says.

For Forstservice Zitterbart, MaxiVision will remain an integral part of the machine lineup even after the infested trees have been cleared. The new forwarder the company has on order includes the option.



The harvester's production and operating data are automatically shared with the forwarder and the office.



Good overview in the office: Where was the timber piled up? How large is the area to be harvested? MaxiFleet has the answer in just a few clicks.

Jan Windisch checks the overview of the available assortments from the cab of his Komatsu 840.4

ABOUT MAXIVISION

- Standalone, cloud-based map and GIS service (geoinformation system)
- The basic maps are available in several versions, such as satellite, orthophoto, and hybrid
- Different information layers can be added to the map layer to provide useful details about the plot
- Simplifies harvester/forwarder interaction
- Areas from the client can be imported and combined with the basic map
- Depending on the market, different maps and information layers are available (e.g., rescue points, ground moisture maps)
- MaxiVision is part of MaxiFleet Advanced Plus

Emil enjoys the freedom of the forest

Emil Sundberg started his own business as a 16-year-old and won the 2019 Swedish School Championship in Forwarding. He already knows what he's going to do once he's graduated from the agricultural high school in Svenljunga, western Sweden.

"I enjoy the freedom of the forest, so I plan to continue operating forwarders and harvesters in my company," he says.

EMIL'S DAD, Lars-Inge, is a truck driver, but also has his own forestry company. This is how Emil came into contact with forest machines at an early age, with the chance to try them out at the tender age of ten, helping to make him skilled enough to win the Swedish School Championship.

"Sure, I've had a good start. You need to clock up a lot of hours in a machine to become a skilled operator."

Exciting competition

The 2019 Swedish School Championship was held in Umeå, northern Sweden, in conjunction with the Skogsnolia convention.

Nine participants from different agricultural high schools in Sweden competed for a place on the podium. The competition involved covering a shorter off-road course, loading a number of logs from both sides of the machine, building a tower from a number of blocks, and finally forwarding and unloading the timber in the designated log pile. The course also had a number of obstacles, and if these were knocked down the participants were penalized with additional logs. All of this was a race against time.

"It felt really great to win. The margins were small, it was a matter of seconds in the final. I had a good day, a bit of luck, and was able to keep my cool."



Emil Sundberg accepts his prize as winner of the 2019 Swedish School Championship in Forwarding.



Despite his young age, Emil Sundberg is already an experienced forest machine operator.

His victory was awarded with a trophy, a toolbox, and a trip to Komatsu Forest in Umeå. There, he got to visit the company's factory, stay at a hotel, and enjoy restaurant meals.

Operates harvesters and forwarders alike

Since forest machines became part of his life at an early age, Emil was able to start his own business at just 16 years of age. He did this when he started operating a forwarder on the weekend for David Johansson, who runs the company Sörgårdens såg och lantbruk. David has three machines, including a Komatsu 931 and a Komatsu 830.

"Now I mostly operate harvesters, which are a little more

advanced than forwarders. A different type of crane and more buttons to keep track of."

He enjoys operating both of the Komatsu machines; the forwarder because it offers such good comfort and an easily operated crane setup, the harvester because it offers good visibility and favorable crane placement.

"They're reliable machines, the larger components rarely go wrong and that's reassuring."

Important to plan ahead

When Emil started studying the machine operator program at the agricultural high school in Svenljunga, he was already an experienced operator, although he believes he's learned a lot more about machine operation at high school.

"Among other things, I've learned to plan my harvesting and forwarding to be as efficient as possible and to avoid unnecessary work steps. Then, of course, you never stop learning when it comes to the forest and the environment. Once you've learned the basics, you have to keep up with all the developments."

He says he was lucky to get a good client right off the bat, one that gave him time to learn the machines and work areas. This makes it a given for him to continue working with Sörgårdens såg och lantbruk as soon as he graduates. He's also considering entering the Swedish School Championship in Forwarding once more before finishing high school.

"I'm a little curious to see if I can win again."



From the office to the forest

Marina Kajgård is a social worker who switched careers to become a machine operator in the family business Bjursingen Skog & Transport AB.

“I have a lot of fun at work, my working days just fly by,” she says.

MARINA BEGAN STUDYING social work right after high school, working at rehabilitation clinics and for social services for a few years before starting a family. When she was to return to work after her maternity leave, she didn't really have the same passion anymore. At the same time, the family business, comprised of her husband Niklas and one employee, needed another operator. Marina was asked if she'd like to give it a go and that's how it all began. This was eleven years ago, and Marina hasn't looked back since, quite the opposite, in fact.

“Many people ask whether it's a lonely job, but I've never felt that way. I spend a lot of time listening to the radio and podcasts when I'm working, which also keeps me up-to-date on what's happening in the world.”

Reliable machines

The family business, which started out as a sole proprietorship, is now a limited liability company with six employees. Operations are centered on thinning assignments for the forest company Stora Enso. The ma-

chine lineup includes two harvesters and two forwarders, all from Komatsu Forest. “They're nice, reliable machines. We work in a stressful industry and have to be able to rely on our machines, on good service when it's needed. If a forwarder or a harvester is at a standstill, we lose money.”

Cab suspension and MaxiFleet

One major advantage of Komatsu Forest's machines, and which Marina happily endorses, is the cab suspension, which absorbs jolts and makes the job easier on the body. She's also very pleased with the MaxiFleet system, which enables you to localize and track your machines, monitor machine production and status, coordinate your fleet, and work with preventative maintenance.

“MaxiFleet gives us a complete overview of our machines directly on our cellphones, it's convenient, and it saves us time.”

Her sons also want to work in the forest

Although Marina is self-taught, she believes

that the best thing anyone who wants to make a career out of being a machine operator can do is to get a good basic education.

“That gives you the best chance of getting a job. And you also need to keep on learning, especially about the environment where so much is happening.”

According to Marina, the most important personal traits for a machine operator are to be cool-headed, conscientious, calm under pressure, and self-reliant. The fact that it's a sedentary profession is something she gets around by exercising a lot in her spare time, whether that means soccer, floorball, running, aerobics, or walking the dogs.

“My sons have seen how much I enjoy my job, so it seems like they want to work in the forest too when they grow up.”

An industry facing challenges

Naturally, it's difficult to say what the industry will look like in the future, but it's no wild guess to say that it will see great change.

“I wouldn't be surprised if there are





ABOUT MARINA KAJGÅRD

Age: 39.

Family: Husband Niklas, sons Edvin, 13, and Arvid, 11, dogs Nisse and Berta, and cat Tora.

Lives: On a small farm in Bjursås outside Falun, central Sweden.

Does: Runs the family business Bjursingen Skog & Transport AB, where she also works as a machine operator.

Leisure interests: Plays soccer and floorball, listens to podcasts, reads books, manages the farm with its calves and sheep.

The company's Komatsu machines: 901XC, 911.5 and two 855.

far more remote-controlled, driverless machines in the future. Maybe robots will be doing my job by then. The milder winters have already forced us to change how we work. For example, there's less ground frost in many places, which means we can't drive everywhere. If this development continues, it'll threaten both the environment and our industry."

Women are the minority among forest machine operators, and Marina feels that we have much to learn from the haulage industry.

"They've managed to get more women interested in becoming truck drivers. Many people, perhaps women in particular, probably have preconceived ideas that operating a forest machine is lonely and physically demanding. One thing that could help change this is if more female machine operators visited schools to speak about their career choice."



CTL Machines

Take Hardwood Logger to the Next Level

Jack McCoy (70) has operated J. McCoy Lumber Company Ltd. in the foothills of the Appalachian Mountain range of southern Ohio since 1978. The company is a vertically integrated hardwood logging and lumber company with a sustainable yield of high-value hardwood timber that is in balance with harvesting its 10,000-acre (4047 hectares) land holdings.

TRADITIONAL mechanical felling operations in the region require more men and machines to extract timber from the forest than more modern harvesting

techniques. They also cause a greater environmental impact. About one year ago, the McCoy's studied the environmental and operational costs of their logging

business and decided there had to be a better way.

Sons, Chad (46) and younger brother Lear (36) helped lead the charge for a new way to harvest their timber. The McCoy's were very mindful of the impact on their land. Chad says, "Even though we were using 'best practices' we did not like the way our jobs looked using the traditional methods.

"Eventually, we considered the benefits of cut-to-length harvesting and had to discard our misconceptions that Scandinavian harvesters and forwarders could not handle our type of logging."

THE MCCOY'S TESTED all the major brands of CTL machines. In the end, the family worked with their local Komatsu distributor, Columbus Equipment Company, to purchase a new Komatsu 931XC Harvester equipped with a Komatsu C144 harvesting head. They also chose a new Komatsu 875 8WD Forwarder. Chad says, "The Komatsu machines offered the best combination of strength, precision, and production volume to meet our needs. The machines are strong, stable and can handle our difficult terrain.



From left Lear, Jack and Chad McCoy.



J. McCoy Lumber Company Ltd. converted to the CTL method utilizing Komatsu's 931XC Harvester fitted with the C144 Head, and the 875 Forwarder to maximize their operation's efficiency.

“THE MACHINES have been game changers. They are so quiet you would hardly know they are at a job site. They are very maneuverable. When the jobs are finished, you would hardly know the two machines had been there. There is virtually no damage to the standing timber. We are very proud of the way our completed jobs look.

“The machines are also very comfortable and easy to operate. They are like driving in a luxury car. You can operate

them with just your fingertips. The visibility is perfect, and the daily maintenance is so simple. As an owner, we look at what the machines do for our business. Two men and two machines can do it all. We are amazed at the production, the reduction in fuel use, and the overall efficiency.”

Chad concludes, “These Komatsu machines serve our customers well and are helping us to be even better stewards of the forest.”

“

When the jobs are finished, you would hardly know the two machines had been there.

When old met new at a customer event

Komatsu's machines have seen a lot of changes since the 1980s, and this became particularly evident at a customer event in Skellefteå, northern Sweden. During the event, old met new when a popular model from 1988 was parked up next to its latest reincarnation.

THE EVENT saw the unveiling of the new 2020 Komatsu 901, stood next to one of its oldest predecessors. Both the owner of the older model and one of the first people to order the latest 901 were on hand to discuss the contrasts and development.

"I'm actually switching from another brand. I'm most looking forward to the comfort, the hydraulics, and the great visibility. This is a powerful machine of the right size, and it'll give me a real boost," says Joel Wikström, who's awaiting the delivery of his Komatsu 901.

The Komatsu 901 was originally launched at the 1984 Skogsnolia convention. One of the first examples to be delivered is now on display at the Museum of Forestry in Lycksele, northern Sweden, and a former owner of that particular machine was at the event that evening.

"My dad bought the machine shortly after it came out, and I later inherited it. Maybe I kept it a little too long, because they exhibited it at the museum when I sold it," says Mattias Stenmark, laughing.

THE OLD 901 at the event has clocked up 18,231 hours and was in operation up until five years ago. The current owner, Jörgen Enmark, bought it for fun and plans to refurbish it.

"I'm actually considering repainting it, so that it looks new. That wouldn't be bad," he says.

How these machines are serviced has changed a lot since the first 901 saw the light of day. This became particularly evident this evening for Robert Karlsson, a technician

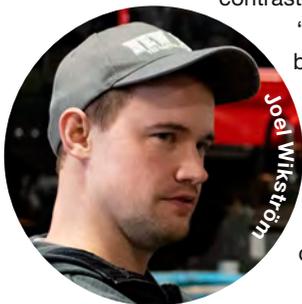
who's been servicing forest machines since 1989. Robert gets a little nostalgic when he sees old and new machines meet.

"I've tinkered a fair bit with the machine on display at the Museum of Forestry. The older machines have a little more sentimental value to me. There aren't that many people who've been working with them for as long as I have, and I still have almost everything you need. Which means I often get calls about them," says Robert.

ONE OF THE CUSTOMERS at this evening's event was Anna Eneslätt, who by day operates a harvester in the forests of northern Sweden. She feels that the operator's environment has changed a lot over the years a forest machine has been her workplace.

"I've been in the industry since 2005, operating forwarders until about five years ago when I switched to harvesters for the greater comfort. The operator's environment has improved a lot since then, although there's still room for improvement. For example, I'd like to see more personal settings, that's somewhere we can probably learn a lot from modern trucks," she says.

THE EVENT WAS AN EVENING marked by contrasts and perspectives. The attendees included both mechanics and machine operators, all of whom had their own expertise to offer. A successful evening that brought 2019 to a nice close for the service center.



customer event



“

Maybe I kept it a little too long, because they exhibited it at the museum when I sold it.



Sustainable work methods

With a Komatsu forest machine, efficient forest work is easy. The machines are powerful, easy to control, and stable in all types of terrain. Operating your machine smartly benefits both productivity and fuel economy while providing you, the operator, with a more comfortable work environment.

HERE AT KOMATSU FOREST, we always strive to enable you as an operator to work smarter and easier without stressing – to have a more productive working day, quite simply. However, in order to increase productivity and reduce stress, we need to raise

awareness of focusing on work steps that create value. By avoiding unnecessary work steps, you can spend as much time as possible focused on value creation.

Here are a few simple tips to simplify your working day:

Harvesters

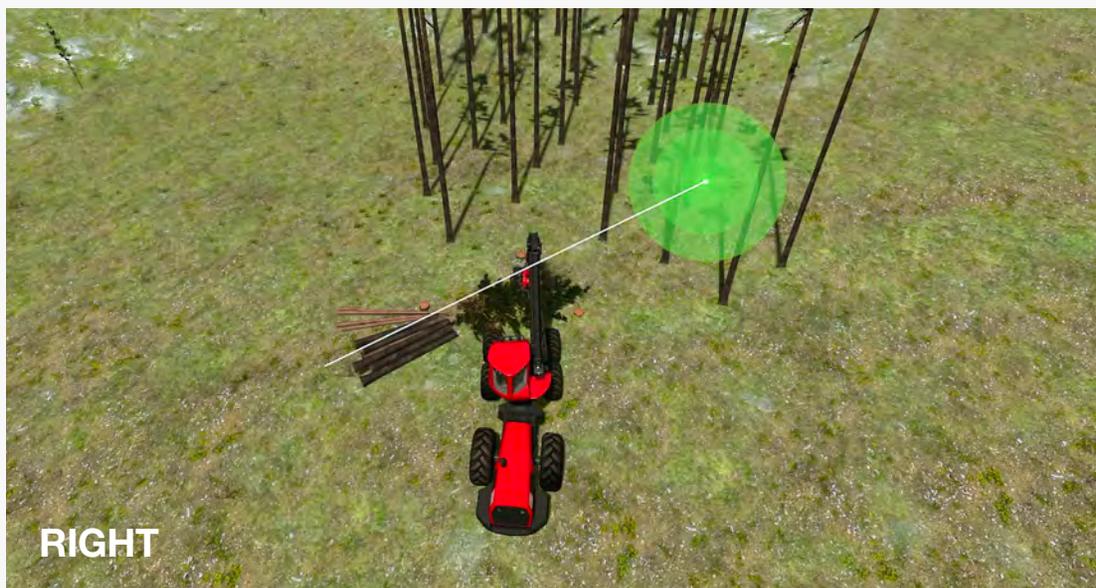
- **Engagement.** Correctly engaging the tree before felling can save both time and energy.
- **Cutting point.** With the right machine settings, the head can find the right cutting point immediately. This saves time while also ensuring good measurement accuracy.
- **Deep harvesting from one side.** With poor ground conditions and soft

terrain, you can work from one side and use a long reach. Note, however, that this approach requires more crane operation and so higher fuel consumption. This also affects the forwarder as it has to follow each and every strip road, which is less efficient.

- **Shallow harvesting from one side.** With good ground conditions and firm terrain, you can work from one side with

a short reach, resulting in less crane operation and lower fuel consumption. The shorter distance between strip roads also means that the forwarder can load timber from both sides.

- **Felling direction.** Planned felling in a clear direction results in faster processing and easier assortment grading. It also allows for more efficient forwarding.



Planned felling in a clear direction allows for more efficient forwarding.

Good delivers results

Forwarders

- **Efficient crane operation.** If you move the crane along the shortest path between the timber and the bunk, you can save both time and energy.
- **Grappling point.** Finding the right grappling point and getting the timber evenly balanced allows you to take the shortest path over the stakes.
- **Grappling the timber.** Adjusting the grapple opening to the width of the timber pile reduces the risk of picking up brushwood and debris.
- **Extender use.** Making minimal use of the main arm and more effective use of the extender helps to reduce energy consumption.
- **Combined loads.** Combining several piles of timber on the ground before lifting them onto the bunk avoids lifting the crane several times for the same amount of timber.
- **Active machine repositioning.** Actively repositioning the machine saves time and improves efficiency.



Making more effective use of the extender helps to reduce energy consumption.

Keep in mind:

When you take delivery of a new forest machine, instruction is included in the initial machine setup. However, over time, the machine's characteristics and handling change and it can be difficult to notice the small, gradual changes taking place over a longer period. For this reason, the machine may need to be regularly looked over by someone with a trained pair of eyes.

Simulated reality a shortcut

A Komatsu simulator can help even an experienced operator to work more efficiently. The simulators have a built-in forest editor, which means you can create a realistic work environment. You can then perform exactly the same work, in the same stand, on two different occasions. By refining your work method and avoiding unnecessary work steps, you can increase the share of value creation, offering you the ideal shortcut to acquiring

new knowledge and improved skills. The results from such sessions have shown major differences in terms of both increased productivity and lower fuel consumption.

Visualize the results

Profitability is founded on factual information about day-to-day operations and machine performance. Such information is available to you through MaxiFleet, which presents and analyzes machine and production data in the form of maps, machine analyses, various reports, and administrative aids.

Since this is where all the facts are stored, it's a fountain of knowledge for self-learning and personal development. As an operator, you get both real-time feedback and web-based access to the information, regardless of time or place. Even from home. This allows you to continually monitor the machine's performance and detect any faults and shortcomings in good time.



MaxiFleet as a teaching me

Tampere Vocational College's Tredu campus in Kuru, Finland, first acquired MaxiFleet in the summer of 2019. Based on previous experience, they knew that machine data plays an important role in an operator's learning and development. MaxiFleet offers operators real-time feedback on their work and access to this information regardless of time and place.



JANNE RUOKONEN teaches forest machine operation at Tampere Vocational College's Tredu campus in Kuru, Finland. He saw an opportunity to combine his teaching skills with his practical experience of forest machine operation to refine how students are taught. Using MaxiFleet during their studies prepares students for the world that awaits them after graduation. The machine time registered and presented in MaxiFleet is accurate and

reliable. It provides a good starting point for evaluating personal work methods, as well as important information – for both operator and instructor – during operator training.

MaxiFleet is installed on the college's entire Komatsu lineup. MaxiFleet, which already has thousands of users, enables comparisons with machines similar to those used by the students at the Tredu campus. The information collected by MaxiFleet is a great source of feedback for students and

a great aid for teaching and constructive criticism. The collected information can be used to identify not only strengths, but also areas for improvement that ought to be the focus of future training sessions.

Operational monitoring key to learning

The school has introduced weekly operational monitoring reports. These reports present key performance indicators



Tampere Vocational College is using MaxiFleet as a teaching aid with great success.

method

for machine performance, which reflect how the operator's skills are developing. The instructor can, for example, analyze the operator's tree selection, in terms of both diameter and the time it takes them to decide, both of which may need improvement. Machine time in particular is an important key to learning. For example, the time spent on crane operation or maneuvering, or a combination of the two, can reveal a great deal about the student's skills and operating technique.

Under continual development

MaxiFleet can also present data that can predict faults the machine will soon develop and provide an overall picture of its productivity. Say, for example, that fuel consumption increases during cutting, this will be visible directly in the application. This information can help to determine



As a teaching aid, MaxiFleet opens the way for increased quality of learning.

whether it's a machine setting or the operating technique that needs modification.

However, compared to contractors working in the real world, the development seen in a college environment is relatively modest. Used as a teaching aid, MaxiFleet opens the way for increased quality of learning. Students also get a more realistic picture of their future profession as a machine operator, a future in which operator productivity and machine productivity are constantly evolving and decisions are based on real-world data.

In the future, Janne hopes that the information from MaxiFleet can become a natural part of the student's portfolio, which they can then present to prospective employers. The aim is to reduce the gap between college and real-life work while also offering any future employer better insight into the young student's abilities.

A mechanic with a focus on productivity

We have hundreds of mechanics spread throughout the world, working on our machines every day. All with the same purpose – to help and enable our customers' productivity. Julia Wikström of Ljusdal, Sweden, is one of them.

JULIA WIKSTRÖM was born and raised in Ljusdal, central Sweden. She was also born into a world of heavy machinery. With a dad who's worked as both a truck driver and a forest machine operator (and is now a forest machine instructor), machines and the forest have been part of her everyday life since childhood. A career as a mechanic, however, is a separate path that she laid out herself:

"Well, in high school I trained as a machine operator at an agricultural high school. But I've always had an interest in engines and tinkering. And now I'm here, at Komatsu Forest's workshop in Ljusdal," says Julia.

JULIA HAS been a full-time employee since mid-June 2019. However, her time with us stretches back further. In the spring

of 2018, she took up an internship with us and continued to work over the summer. She really enjoyed herself and after that took the opportunity to work during almost every school break.

"So, by the time I started working full-time, I was already pretty comfortable with the work. It was a case of simply jumping right in. These are complex machines – so of course I still have a lot to learn – and I do, every day."

JULIA SAYS that personal development, interacting with customers, and the variety are what she appreciates most about the job.

"Sometimes I'm in the workshop, sometimes in the field. Some days it's a scheduled service, some days it's an emergency. My days and work vary so much – but it's

always about helping the customer."

Ultimately, helping the customer is exactly what it's all about – a machine that runs and does so optimally. And that's a connection that Julia clearly sees in her role as a mechanic:

"Really, it all boils down to profitability as far as contractors and operators are concerned – and my job is about either preventing or solving downtime. Making sure that the machine is up and running, quite simply. It's pretty obvious that productivity is the most important thing. Customers want us to be fast and efficient."

Julia is driven by her determination to help customers, and she has a great understanding of their working day. Just like our hundreds of other mechanics spread throughout the world.

07.15

I usually start by changing the filters, this time too. Sometimes two of us work on the machine, but today I'm working alone. Once I'm through with all the filters, I start draining the oils.

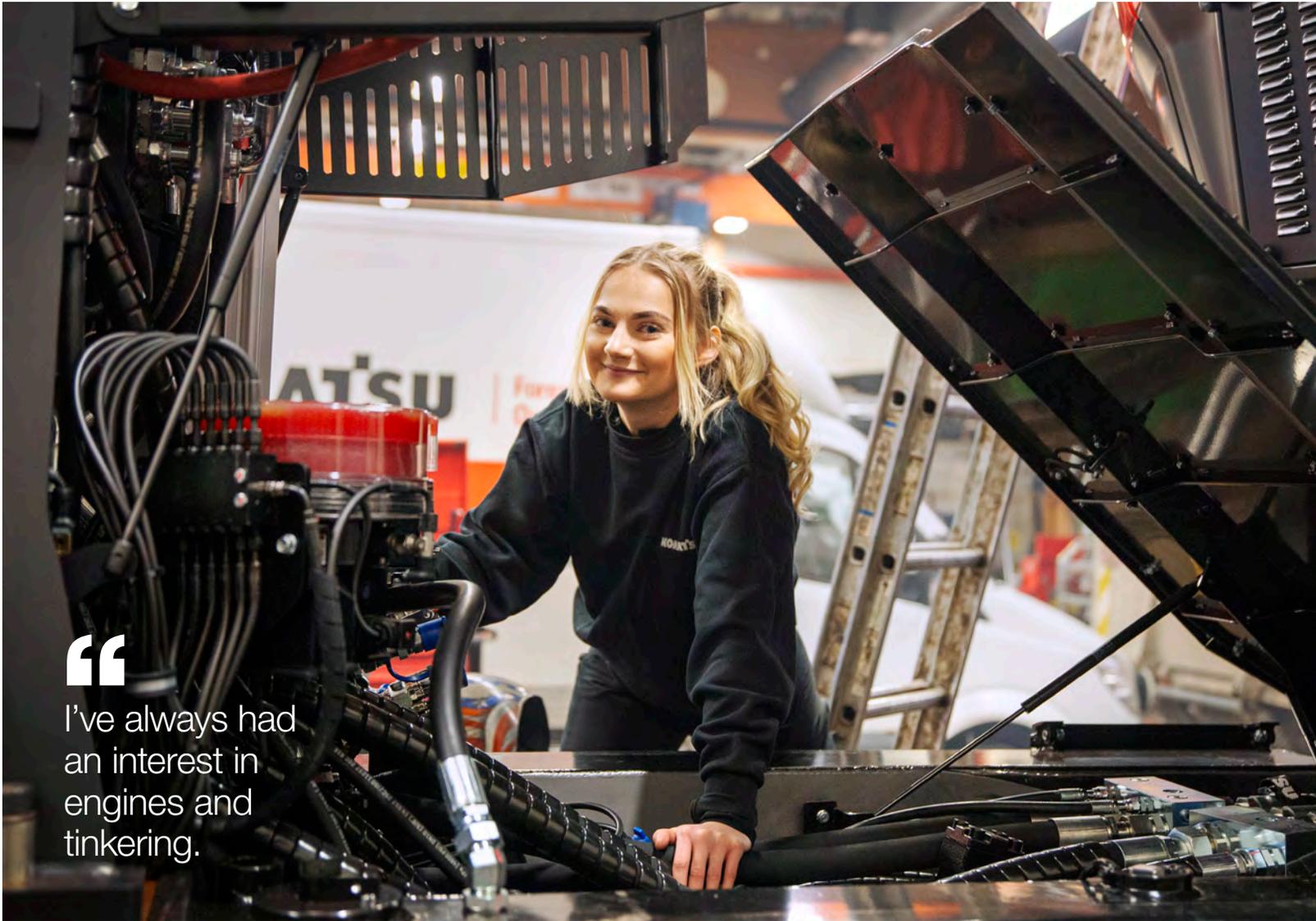
A day at work with Julia

06.15

My phone alarm wakes me. I rub my eyes, get ready, and get in my car for the short drive to work. I eat breakfast at work.

07.00

A 931XC has come in today – for a major service including all oils, all filters, and a whole bunch of inspection points. I print the protocol, read through it, and collect everything I need from storage.



“

I've always had an interest in engines and tinkering.

Julia Wikström appreciates the variety that her job as a mechanic offers.

09.15

I continue with the oils – and refill them.

12.45

I continue with the last of the oils and then start going through the inspection points. I check for leaks, lubricate, and everything looks good. I check whether anything's worked itself loose, and that nothing's missing. No major adjustments needed today, everything's in good working order.

15.15

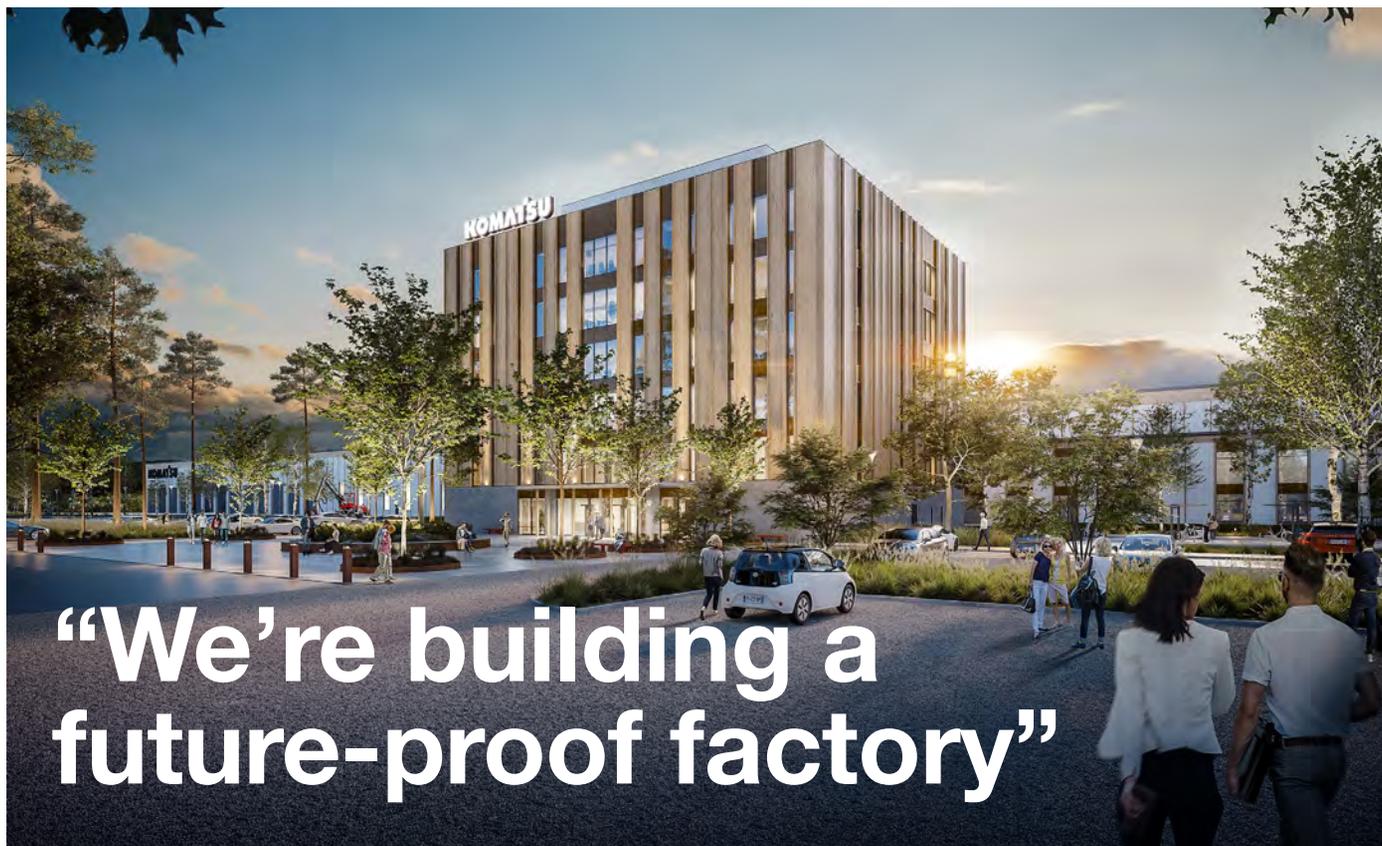
I finish up the work on the machine. Then I wipe it down, prepare the order, and finish by filling out the inspection report. Then I finish for the day and go home.

12.00

Time for lunch – yesterday's leftover spaghetti and meat sauce that I brought with me. Then a coffee and a chat with my colleagues covering just about everything.

15.00

A 15-minute coffee break. Sometimes I have time for it, sometimes I skip it, and sometimes I have an instant coffee. It depends what my day looks like.



“We’re building a future-proof factory”

The construction of Komatsu Forest’s new factory is well under way. Covering more than 430,000 ft², the factory will be completed in 2021. The factory is being built in an industrial area called Klockarbäcken on the western outskirts of Umeå.

A rendered image of Komatsu Forest’s new future-proof factory, which is being built on the western outskirts of Umeå, northern Sweden.

AT THE TIME OF WRITING, the piling work is well under way and construction of the actual factory will soon begin. The production facility will be completed first, followed by the office building.

“We’re building a future-proof factory, one where we can lay the foundation for the next generation of forest machines. We’re investing in a factory that meets our current needs, yet also offers room for future growth,” says factory manager Martin Årlestig.

When planning and designing the new factory, we made plenty of allowances to ensure that the factory is future-proof, which was reflected in a strong focus on sustainability and IoT.

Goal to reduce CO₂ emissions

As for sustainability, the goal is for production at the factory to be carbon neutral. Its location in the Klockarbäcken industrial area is important as it enables increased use of logistics methods that cut CO₂ emissions, namely sea and rail. The new factory will incorporate an efficient energy supply, with geothermal energy and solar panels forming the backbone. The solar panels will enable us to produce clean electricity to meet our own needs, with any surplus fed into the regional power grid. We’ll also be modifying processes to use less diesel when operating machines on the

factory site, and we’ll even be using more HVO diesel. We intend to recover surplus heat from the machines and test benches, as well as recover and store the energy found in overhead cranes.

IoT

In terms of IoT, the Internet of Things, Komatsu Forest will be taking a step towards the fourth industrial revolution, with the company’s manufacturing process to be connected.

“This offers many advantages, including the fact that digitalization will help us to effectively monitor quality and availability, which benefits our customers. It will also enable us to further improve the work environment for our employees,” says Martin.

“By always working with conscious choices, in terms of the environment, the work environment, safety, and quality, we take our corporate responsibility within sustainability very seriously. At the same time, we’re building a factory where we can produce high-quality forest machines and create a workplace that offers employees a pleasant environment that promotes well-being,” Martin ends.

What does good productivity mean to you?

GERALD DUBERN, manager at Travaux Forestiers Dubern Sarl in Biscarosse, France:

“ Since we’ve chosen to work with several clients, we have a high workload and a tight schedule that doesn’t really allow for downtime. To make up for the level of remuneration, we need to work with high volumes, so maintaining high productivity is very important to our company. This means we need to transport as much timber as possible in each forwarding cycle and to minimize machine downtime.

To achieve this, we’ve chosen to work with a fleet of new or almost new machines, all well maintained and reliable. We like the Komatsu 875 forwarder, for instance. It has a bunk with an adjustable width, which – if ground conditions permit – enables us to transport more timber while maintaining stability. For the sake of our employees, we’ve also chosen the Comfort Ride option, so that they can work comfortably and reduce the risk of injury and muscle strain.



Gerald Dubern values a fleet of reliable, well-maintained machines.

ANDREAS WIRTH, owner of Holzrückeunternehmen Wirth, Saalburg, Germany:

“ As a forest contractor, good productivity is mainly reflected in good machine performance, and our Komatsu Forest machines play an important role in this. The overall design concept combined with fast and powerful machines provides a foundation for high productivity.

In addition to a lineup of newer machines, well-trained specialists and operators are vital for achieving good results.

Lucas Seifert, Andreas Wirth, and operator Jörg Kretzmar appreciate fast and powerful machines



CÉDRIC CHANTEAU, owner of Chateau Travaux Forestiers Sas in Cussac, France:



“ Achieving good productivity requires the right equipment adapted to the prevailing conditions. I work with forests of all sizes, both deciduous and coniferous, so I need a versatile harvester.

The Komatsu 931XC meets these requirements. It’s agile in all types of terrain, and it’s effective at harvesting different tree species. I can also rely on the dynamic team at the Komatsu workshop in Egletons resolving any problems as quickly as possible.



Ola Boström with his successor Peter Hasselryd.

“

The industry's always been full of wonderful, friendly people, and they've made it easy for me to enjoy my work.

Peter new head of marketing

Komatsu Forest's head of marketing Ola Boström is retiring, so as of April 1, 2020, Peter Hasselryd will be the new head of marketing. Both Ola and Peter have long and impressive careers at our company and in the industry.

OLA JOINED the company as a designer in the early 1980s. At that time, the company had less than 100 employees, three of whom were designers. Over the years, the company has seen extensive product development and technological leaps in the forest machine industry, as well as growth and expansion into new markets, takeovers, and several changes in ownership, all of which have resulted in the global company we are today, with 1,400 employees and operations on five continents.

“If you think about it, so much has happened,” says Ola. The forest machine industry has seen incredible development, and it's great to have been a part of that. I'm an engineer at heart, so product development and leading-edge technology have always been driving forces. What's more, the industry's always been full of wonderful, friendly people, and they've made it easy for me to enjoy my work,” Ola ends.

PETER HASSELRYD joined the company in the mid-1990s, starting out as an area manager, first for Sweden and then for Southern Europe. The job entailed being the link between the factory and the

local market, supporting our dealers and communicating market-specific needs and product improvement suggestions to the design department in Umeå, Sweden. During his ten years as an area manager, Peter got to work all over the world.

“There weren't that many of us back then, so you had to be everywhere,” he says.

PETER EVEN SPENT a few years working at other companies in the machine industry, before returning to Komatsu Forest in 2013 after being headhunted, this time to take care of sales and after-market in Sweden, a position he held until now.

“It felt great, being able to return. That interaction, working closely with both customers and R&D, is a very successful combination and makes the job incredibly enjoyable,” he continues.

As to how he views the future in his new role, he says:

“We'll continue to do what we do well – which is to support our sales companies so that they can work well with customers. Moreover, we still have markets with development potential, and I look forward to increasing the focus on them,” Peter ends.

New faces and new roles



Jean-Christophe Le-Mestre, new CEO of Komatsu Forest's French sales company



Irene Dubois-Mesere, new head of marketing at our French sales company

New CEO in France

AS OF LAST YEAR, Jean-Christophe Le-Mestre is the new CEO of Komatsu Forest's French sales company. Jean-Christophe was previously a customer service manager, working on improving our aftermarket. Now, he'll be continuing the work to increase our market share in France.

After six years in the role, former CEO Irene Dubois-Mesere is now head of marketing at our French sales company.

Jari replacing Jari

APRIL 2020 will see a change in management at Komatsu Forest Oy, our Finnish sales company. The board has appointed former customer service manager Jari Nurminen as the new CEO. Jari has been at the company since 2010, working steadfastly to improve customer support and service.

Jari Nurminen will replace former Komatsu Forest Oy CEO Jari Alahuhtala, who retired at the end of March after holding a number of different positions at the company over a period of 32 years. We welcome Jari Nurminen in his new role and thank Jari Alahuhtala for his many years of dedication at the company.



Jari Alahuhtala is handing over the role of CEO to Jari Nurminen.

Experienced forest specialist new sales manager in Germany

THOMAS WEHNER is now head of sales at Komatsu Forest GmbH, our German sales company. He's previously worked for the German forest machine manufacturer HSM and the German forestry convention KWF.

"I'm very pleased to be joining Komatsu Forest, and to offer my expertise. It's a fascinating job and I hope to influence the industry together with my colleagues and our partners," says Thomas.



Erik wants to see more red machines in Sweden

ERIK BERGSTRÖM previously worked for Ålö AB, a company that develops and manufactures front loaders for agricultural use. There, he was product manager for front loaders marketed under the company's proprietary brands. Now, though, he's focusing on selling more of our machines in the Swedish market – where he believes face-to-face meetings are key:

"I believe that business is done between people, not from behind a desk. I want us to build trust, to get to know the customer's needs, and to ensure mutual benefits."

THE LAST KOMATSU 370.2 TO LEAVE THE PRODUCTION LINE

The first head was made in June 2005 and was sold together with a Komatsu 941 in Germany. Over the years, it's been sold in most of our markets, including through dealers in the USA, Russia, and Chile. It's has been a popular head in markets with heavy and demanding final felling. The last Komatsu 370.2 was made in November, making a total of 375 manufactured units.

500 MACHINES WITH PROACT 2.0

In October 2019, the five-hundredth ProAct 2.0 agreement was entered into together with our customer Svea Skog! ProAct 2.0 is an offering based on preventative maintenance to keep a machine in prime condition throughout its lifecycle.

This service is already well established in the Swedish market and is just starting to be introduced in other countries, including Norway and the UK.

GREAT LAKES FORWARDER OPERATOR CHALLENGE

The 16th Annual Great Lakes Forwarder Operator Challenge was held on September 6–7, 2019, in Escanaba, Michigan, arranged in partnership with the Great Lakes Timber Producers Association, Roland Machinery Company, and Komatsu America Corp.

A large and enthusiastic crowd attended the events of the two-day competition. Twenty contestants

NEWS FROM SOUTH AMERICA

South America will be an important future market for Komatsu Forest and our ambition is to further improve and expand our presence. As part of these efforts, we've appointed Bramaq SLA as our distributor for the Argentine market. The agreement was signed in June 2019.

Another measure was the appointment of an area manager for the region with a focus on Spanish-speaking Latin America (SSLATAM). This position was filled by a former colleague from Brazil, Lonard Santos, who will work on location in South America.

Technical news

NEW PROPYLENE GLYCOL WITH IMPROVED PROPERTIES

We've developed a new propylene glycol with improved cavitation and rust protection properties. It's called OCP Natura and replaces the older OCP.

IMPROVED LENGTH MEASURING ARM MOUNT ON C124 AND C144

The length measuring arm now has an improved mount, locking the length measuring axis more firmly and reducing the risk of play. The new solution also reduces the risk of the measuring wheels being damaged by the frame.

GREATER HEAT OUTPUT FROM HYDRAULIC OIL HEATER

A new tank heater, with 30% higher output, has been introduced on our harvesters. This enables the machine to reach its working temperature faster.

KOMATSU FOREST LTD BOLSTERING OPERATIONS IN SCOTLAND

Komatsu Forest and the logistics company Menzies Distribution have entered into a partnership for the express delivery of spare parts for forest machines used in remote and secluded areas.

Per Annemalm, CEO of Komatsu Forest Ltd, says:

"We're pleased to be working with Menzies Distribution, which has significantly increased the speed of our customer service. Thanks to Menzies, we can now offer a 24-hour delivery service, which cuts waiting times for our customers and generally increases the efficiency of our UK operations. An additional storage facility in Inverness also means that we can shorten the lead time from order to delivery."



Jim Williams, Clay Wiley, Mitsuhiro Utsumi, Alex Johnson II (4th), Aaron Yoder (3rd), Jake Piwarski (2nd), Manley Murray (1st), Marcus Steigerwaldt, Henry Schienebeck (GLTPA), and Perry Hughes (Roland Machinery). Not pictured: Caleb Patz (5th).



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.

MANY REWARDING MEETINGS

INTERNATIONAL conventions are important gatherings, giving us the opportunity to meet you, our customers. Such meetings are extremely valuable to us and we welcome your experiences, incorporating them in our ongoing efforts to develop not only the forest machines of the future, but also peripheral services and solutions to make your working day that bit easier.

The highlight of 2019 was Komatsu Days, when almost 1,000 machine owners, contractors, and

operators from all over the world converged on Umeå, northern Sweden. This was where, among other things, we first unveiled our 2020 machines. Other important gatherings included Skogsnolia in Sweden, Forestry Expo in Scotland, and Austrofoma in Austria, to name but a few.

BELOW are a few memories from a great year of conventions. A big thank you to everyone who visited our booths!



TINGS



CONTACT

DISTRIBUTION CENTERS, SALES OFFICES AND DEALERS

EUROPE AND RUSSIA

DENMARK

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

ESTONIA

MFO OÜ
www.mfo.ee
Tel: +372 515 58 88

FINLAND

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

FRANCE

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

IRELAND

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

CROATIA

Šuma GM d.o.o.
www.sumagn.eu
Tel: +385 1 5628 827

LATVIA

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

LITHUANIA

UAB Dojus Agro
www.dojusagro.lt
Tel: +370 5 266 22 66

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.pl
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

SWITZERLAND

Intrass AG
www.intrass.ch
Tel: +41 56 640 92 61

SPAIN

Hitraf S.A.
www.hitraf.com
Tel: +34 986 58 25 20

SLOVAKIA

ARCON Slovakia s.r.o.
www.arcon.sk
Tel: +421 2 40 20 80 30

UNITED KINGDOM

Komatsu Forest Ltd
www.komatsuforest.com
Tel: +44 1228 792 018

SWEDEN

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

CZECH REPUBLIC

Arcon Machinery a.s.
www.arcon.cz
Tel: +420 3 2363 7930

GERMANY

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

HUNGARY

Kuhn Kft.
www.kuhn.hu
Tel: +36 128 980 80

AUSTRIA

Komatsu Forest GmbH
Zweigniederlassung
Österreich
www.komatsuforest.at
Tel: +43 2769 84571

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

Bramaq S.R.L.
www.bramaq.com.ar
Tel: +54 379 4100399

CHILE

Komatsu Chile S.A.
www.komatsu.cl
Tel: +56 41 292 5301

URUGUAY

Roman S.A.
www.roman.com.uy
Tel: +598 2605 0821

BRAZIL

Komatsu Forest Ltda.
www.komatsuforest.com.br
Tel: +55 41 2102 2828

COLOMBIA

Roman de Colombia S.A.S.
www.roman-group.com
Tel: +57 1638 1081

OCEANIA

AUSTRALIA

Komatsu Forest Pty Ltd
www.komatsuforest.com.au
Tel: +61 2 9647 3600

NEW ZEALAND

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

OTHER MARKETS

INDONESIA

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

JAPAN

Komatsu Japan
www.komatsu.co.jp

PRODUCTION UNITS

Headquarters
 **Komatsu Forest AB**
www.komatsuforest.com
Tel: +46 90 70 93 00

 **Komatsu America Corp**
www.komatsuforest.us
Tel: +1 423 267 1066



KOMATSU | Forestry
Quality.

CLOTHES FOR EVERY OCCASION

We have the right clothes for you. Our clothes and products are designed to match your needs – whether that means functional work wear to keep you warm and dry in the forest or a comfortable hoodie to throw on at the end of your working day. Whatever the occasion, hopefully we have something for you.

Visit our online store at komatsuforest.us/shop