

KOMATSU[®]

MaxiXT

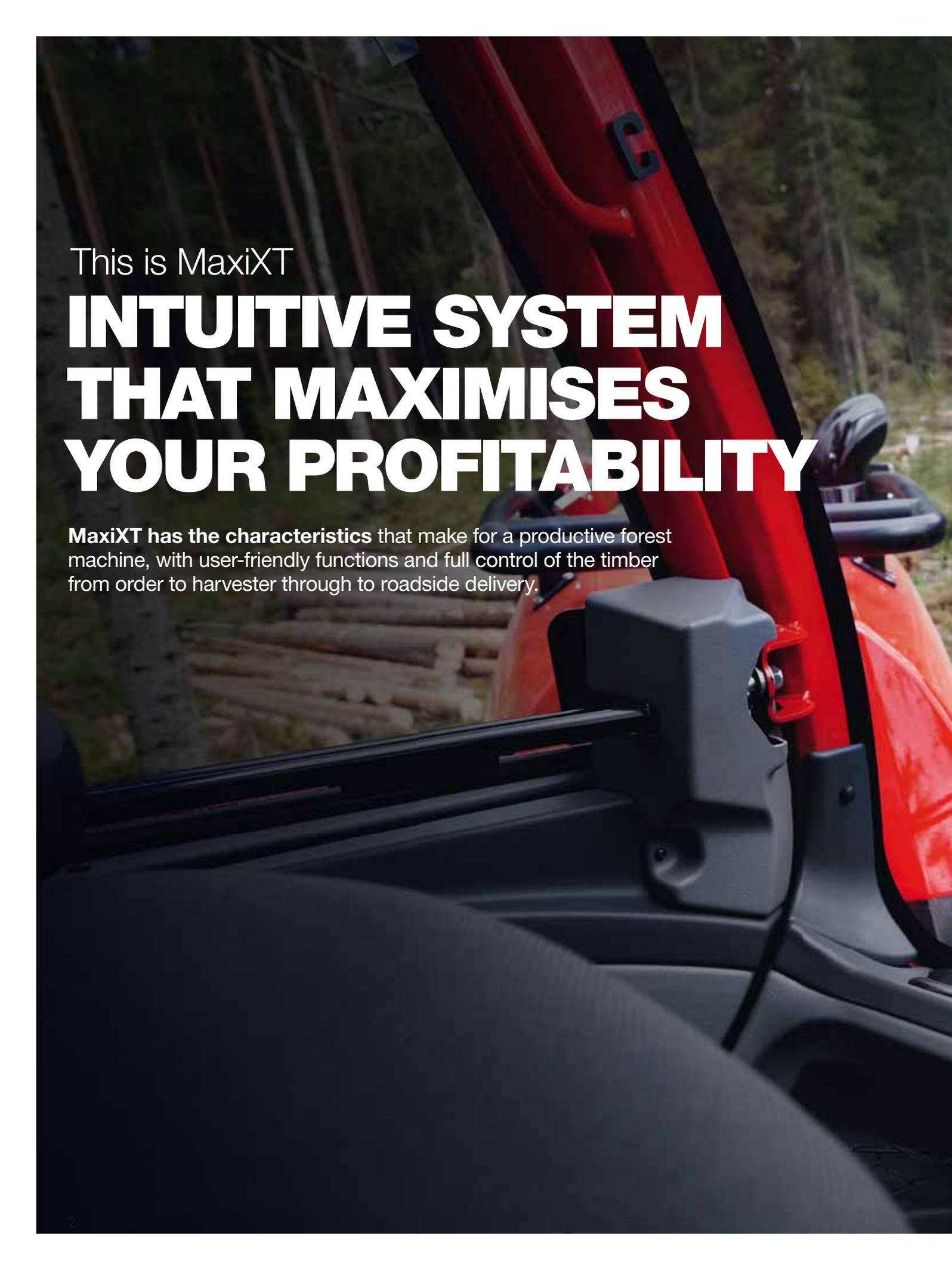
Forestry Quality[™]

Maxi

CONTROL AND
INFORMATION SYSTEM



MaxiXT gives you full control



This is MaxiXT

INTUITIVE SYSTEM THAT MAXIMISES YOUR PROFITABILITY

MaxiXT has the characteristics that make for a productive forest machine, with user-friendly functions and full control of the timber from order to harvester through to roadside delivery.

MaxiXT

MaxiXT

The most modern control system on the market

MaxiXT is a control system for Komatsu's harvesters and forwarders alike, and one of the most modern you can find on the market. It is a complete system for machine and head control, bucking, crane settings and administration, with optimal productivity, flexibility and user friendliness. The results are unbeatable overviews and follow-ups of your felling assignments, as well as complete control of your entire logistics chain.

MaxiXT Head

The best of Komatsu's head control and bucking

MaxiXT Head is a separate control system for Komatsu harvester heads mounted on older harvesters or other base machines, such as excavators equipped with harvester heads. MaxiXT Head is installed parallel to the machine's integrated control system and offers the same sophisticated functionality as MaxiXT running on a harvester. The system is available with full value-optimised bucking or simpler length-optimised bucking.



MORE POWER AND SPEED

More user friendly than anything else

And yet so simple. That is the short description of MaxiXT, Komatsu's control system, which is also one of the most modern on the market. And one that paves the way for continuous, optimal productivity.

One important profitability factor is the exceptional user friendliness. The modern graphic user interface and simple menu structures make MaxiXT both easy to learn and easy to use. The result is an astonishingly short learning curve to reach maximum productivity. The system is also easy to maintain, adapt and further develop to suit individual needs.

We are also talking top class when it comes to performance. Powerful hardware combined with sophisticated software provides faster bucking and computer processing of large quantities of data.

The database-oriented area management and the report system provide you with superb flexibility. You can, for example, create reports for any time period as needed. This offers you flexible and "all-in-one" follow-ups rather than separate files, providing an unbeatably good overview and a sense of order.

The working mode in MaxiXT also has an easily navigated menu system and presents relevant information at a glance covering everything from bucking to indicators. And the machine control alone offers many crucial advantages. Such as everything from computer communication to the electrical system and much more. To put it briefly, MaxiXT provides your Komatsu machine with maximum computer-aided productivity!



Harvester reporting

- Production data (right down to log level)
- Operation reports
- Updated GIS data (production plotted on the map, site information stored in map layers added by operator)
- Control measurement data (with random log selection)
- Stem profiles



Harvester

INTERNET @ MAIL



Client / contractor

Harvester directives

- Crosscutting instructions
- Order
- Maps and GIS data

GIS and production data
(production plotted on the map, simple route export)

INTERNET @ MAIL



Forwarder

Forwarder reporting

- Production data with new production files for forwarders
- Operation reports
- Updated maps and GIS data

SYSTEMATIC PRODUCTIVITY



A working mode adapted to HMI (Human Machine Interaction) is provided, with various tabs that can show current production, operational monitoring information, machine alarms and much more. The modern working mode features a colour palette, contrasting elements and opti-

mally positioned symbols and data fields. The joystick buttons can be configured exactly as the operator wishes. The menu system is simple and logical to both understand and use. The hand controller can be used as a mouse, is easy to use and offers good accessibility.

A user-friendly portal makes it easy to access installed programs. A graphic HMI, menus with buttons, drop-down lists and diagrams make machine adjustments incredibly intuitive.

Machine control

MaxiXT's machine control is a market leader thanks to its full integration with other systems. Everything from crane control and cab levelling to the transmission and ladders are encompassed. An unlimited number of users are easily created, as are a number of different operator profiles for working in different conditions.

The crane and cab levelling are easily controlled from a single dialogue box. All operator-specific functions can be fine-tuned to achieve the exact sensitivity and speed – or smoothness and accuracy – that each operator prefers.

Crane speed can be quickly adjusted with a single setting, such as when repeatedly switching between final logging and thinning. Transmission control optimises traction and transport speed to match current circumstances. Engine control regulates engine power output quickly and accurately with maximum fuel savings, thereby sparing the environment.





BUCKING

MaxiXT can handle all bucking requirements, from the simplest to full value-optimised bucking. Creating bucking instructions to optimise lengths is easy, using a method where the system selects the assortment and length based on a list of priorities. Buttons can be mapped to bucking alternatives for manual length selection.

MaxiXT with value-optimised bucking offers some of the market's most efficient bucking, optimising value extraction based on sawmill

preferences. Apportion bucking can be used to control the outcome in terms of lengths and diameters to more exactly match sawmill preferences. Each instruction can be freely altered within the same area, length classes can be changed, assortments can be switched and much more. Based on the documented exceptional measurement accuracy of Komatsu heads, volumes are calculated with great precision.

MaxiXT is compatible with both the old

StanForD standard and the new (StanForD 2010). Production reports provide a clear overview. Both the area type (area or sub-area) and report type (production file or printout) can be selected. The report can be limited to an entire area, data that has not yet been reported, production per break, and production within the area during a set time interval. The printouts for production, operation and stem data are clearly laid out and include all the data needed for com-



MaxiXT

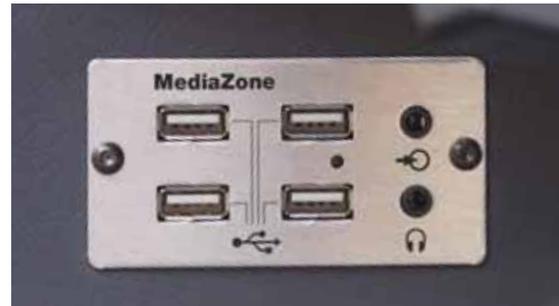


prehensive reporting. There is also a separate production report listing each harvested log together with its volume, length, diameter, class and so on.

MaxiXT's bucking learns the forest and makes very accurate tree shape forecasts for value-optimised bucking. The system bases all optimisation on the entire tree. Functions such as adaptive stem forecast and near-optimal method enable the system to learn quickly.

With quality bucking the operator can mark quality limits on the stem, such as the limit for dry limbs, and easily control the bucking so that the assortment choice is adapted to the tree's quality limits. MaxiXT even supports important country-specific functions, including debarking in accordance with Skogforsk principles, Finnish diameter section measuring and area parameters in accordance with HKS.

MaxiXT features a real-time graphic display of the tree during processing, including level areas, giving the operator complete control of harvesting to ensure maximum timber value.



Equipment

PC designed especially for demanding forest machine environments. The hard drive is an SSD, which means fast read and write times, and the lack of moving parts means greater reliability and durability. Machine startup time is very short, with fast switching between operators and areas and rapid report printouts. The PC also has a proprietary power supply and fanless cooling to further increase reliability.

Display with adjustable mount for optimal visibility. USB port for quick and easy data transfers to and from USB flash drives. Transfer compatibility with GSM modem, GPRS, EDGE, CDMA450, WLAN, satellite and more.

The optional 12-inch touchscreen can register clicks, gestures and swipes in the same way as a tablet PC or smartphone.

With the standard display, the mouse pointer is controlled using the mouse function of the hand controllers. The KCC EME version of the Comfort Controls for harvesters is even fitted with a touchpad. Well-protected A4 colour printer with easy access.

MediaZone with four USB connectors, which is connected to the machine computer for simple file management. Automatic data callipers with docking station for trickle charging and constant data communication with the Maxi system. MP3-compatible radio with USB connector and memory card slot.

Two joystick options:

- Joystick with wooden handle and ergonomically placed buttons.
- Mini joysticks with the most commonly used buttons on the joysticks.

Servicing and calibration

MaxiXT displays alarms in working mode, indicating the cause and error code if anything goes wrong. Following acknowledgement the alarm is saved in an exportable log file. All confirmed alarms are collected in a clear alarm list. Komatsu's unique spare parts system, ESS, includes all machine components, article numbers, exploded views and more. The user-friendly troubleshooting tool enables extensive troubleshooting of the system's hardware and network.

Log dimensions can be checked with the automatic data callipers at any time. No manual actions are required to send the data to the callipers. All measurement data is kept and can be used for calibration or quality assurance. The system's regression calibration for accurate calibration across the entire diameter interval saves a great deal of time. Collected stem profiles for control measurements or stem data collection are easily reviewed in MaxiS, which shows whether the pressure in the head is correctly adjusted and whether the knives follow the stem closely.

The operator can choose which control measurements (logs) are included to ensure the most favourable basis for calibration. The system features an easily understood graphic display showing diameter measurement errors by diameter class. The calibration history can be



found in the production and control measurement files.



Other features

The system has an integrated operational monitoring system that can register activities conducted by both the machine and the operator. The operator's shift times and work other than machine operation can be registered. Uptime, effective work time, downtime and causes of downtime can also be registered, as can productivity per hour and fuel consumption.

The operator can even enter additional information about downtime, such as the article numbers of replaced parts. This information is shown on a tab in working mode, from which operational monitoring

reports and a DRF file can be created. The information can also be exported as an Excel file for computer processing.

The GIS program for forwarders and harvesters, MaxiVision, offers user-friendly management of GIS information and maps. The program plots production on a map and production in a particular area can be displayed by selecting it. Naturally, the system also has an e-mail client and a web browser.

DECISION SUPPORT FOR OPTIMISATION

MaxiXT also includes a number of advanced decision support systems and aids, such as for optimising off-road driving, measurement quality and simplifying communication with the outside world.



MaxiS

Display stem profiles and print tree notes

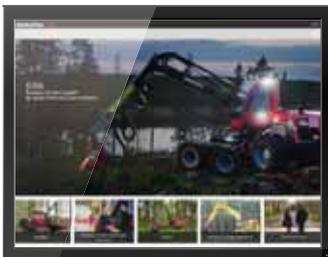
A stem profile is created each time a stem is harvested. MaxiS offers the operator a graphic view of the stem profile with detailed stem data.



MaxiVision

Manage maps in the machine and plot production

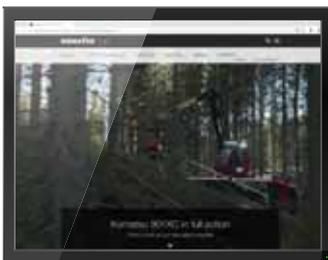
Import areas with maps and GIS information. Display layers with area information. Plot tracks and production on the map. Display volumes for a marked area. Calculate areas and distances. Follows the standard for site directives in accordance with StanForD. Now integrated with the operating screen.



ESS

Search among the machine's spare parts

The system has a spare parts structure that makes it easy to find the right component. Display exploded views that can also be used as an aid during assembly. The operator can copy spare parts to an order form that can be e-mailed to a spare parts stockist. The system can show where in the machine a particular component is located. Also includes manuals.



Internet

Connect to the outside world

You can easily connect to the Internet and use the Internet Explorer web browser to communicate with clients.



E-mail

Send e-mail

You can also e-mail, for example, your office or clients using the Windows Live Mail e-mail client.

MAXIFLEET

The world's first fleet management system for forest machines



MaxiXT is also at the heart of MaxiFleet, which enables everything from remote control of the cab heater and remote technical support to powerful machine and production data reports for all of your forest machines. Moreover, you can do all of this at any time and from anywhere via your computer, tablet PC or smartphone.

The system's GPS function gives you complete control of where your machines are located and can create time-

saving directions for shift changes and technicians, for example.

MaxiFleet also provides you with full control of the condition of your machines so that you can plan preventative servicing and maintenance to minimise costly downtime. You have access to all machine-related events, alarms and deviations in clear event reports.

Moreover, you gain extremely powerful monitoring options for all that you consider

important. You can quickly and easily retrieve key data from your machines. Everything from downtime and production data to fuel consumption and more. MaxiFleet is quite simply the difference between believing and knowing, between hindsight and foresight – and thereby being able to increase your profitability.

THE ADVANTAGES

General

- Fast system with very high capacity
- Modern, high-quality platform that is easily expanded
- GUI that is appealing, modern and Windows-compliant
- Menu system that is user-friendly with configuration options
- Working mode that is HMI-compliant with configurable information tabs
- User-friendly and rationalised area and operator management
- Internet and e-mail access with Internet Explorer and Windows Live Mail
- Integrated crane or machine control system
- Fully integrated, automatic levelling system for the greatest operator comfort
- Fully searchable ESS system with a spare parts structure that makes it easy to find the right component

Bucking

- Handles all bucking requirements from the simplest to value-optimised bucking
- Separate, embedded bucking system with no risk of interference from PC programs
- Among the market's most efficient bucking
- Automatic head tilt up
- Healthy limb bucking
- Easy to create bucking instructions to optimise lengths
- Apportion bucking to control the outcome in terms of lengths and diameters more exactly
- Compatible with both the old StanForD standard and StanForD 2010
- Learns the forest and makes accurate forecasts for value-optimised bucking

Head control

- The most multifaceted head control on the market
- Powerful head control with the ability to fine-tune the head for maximum productivity
- Proportional control of feed rollers and delimiting knives with knife pressure determined by diameter class and tree species
- Bar rescue and proportional clearing function
- Intelligent function for multi-tree handling

Machine control

- Complete integration with everything from crane control and cab levelling to transmission and ladders
- An unlimited number of users are easily created, as are a number of different operator profiles
- Transmission control optimises traction and transport speed to match circumstances
- Engine control regulates engine power output quickly and accurately with maximum fuel savings, thereby sparing the environment
- Economy mode with a number of settings that can help save fuel
- Configurable functions that include everything from reducing engine speed and limiting crane speed to power saving mode for working lights
- Transition from Power mode to Economy mode accomplished quickly and easily with a single button push on the joystick base
- Quick and easy crane speed adjustment



Area management

- Database-oriented area management rather than file-oriented
- Create areas with which information is associated during harvesting
- An unlimited number of areas can be created
- Sub-areas can be created under each area
- Clear and simple area overview presenting the most important information

Operational monitoring and production follow-ups

- Integrated production follow-ups and operational monitoring
- All reporting can be fully automated
- Proportional overview offers production information at a glance
- MaxiS – graphic stem profile display with detailed stem data
- MaxiVision – import areas with maps and GIS information
- Plot tracks and production on the map, display volumes from marked area, calculate areas and distances
- GIS program that plots production
- Alarm logs and troubleshooting function
- Integrated scales with LoadFlex system
- Supports crane scale function, with automatic weighing and wireless data transfer
- Production follow-ups in accordance with the latest StanForD standard
- Database-oriented production follow-ups/operational monitoring rather than file-oriented

Computer and hand controllers

Hardware

- Choice of joysticks: large ergonomic joysticks with integrated buttons or mini joysticks
- Mouse control via hand controller
- Mini joysticks with sequence control
- Programmable buttons
- MaxiPC X40, computer with a modern Windows operating system
- Fast SSD-type hard drive with high reliability
- Optional touchscreen
- Computer specially designed for demanding forest machine environments
- Short machine startup time, fast switching between operators and areas and rapid report printouts
- Proprietary power supply and fanless cooling increase reliability
- Optional 12-inch touchscreen
- Large capacity backup solution
- Service tool for creating a system image of the hard drive



FORESTRY QUALITY

Modern forestry demands a holistic approach. With high productivity, low operating costs and innovative technology. With good ergonomics and a long-term approach to ecology. And with a responsive combination of service and customer care.

We summarise all of this as Forestry Quality – the quality required in the forest. This holistic approach permeates everything we do, and we have but a single focus: your working day. We strive to ensure that machine owners and operators always feel that their relationship with Komatsu Forest is characterised by closeness, knowledge and peace of mind. That we understand your situation and use all of our experience, expertise and capacity to fulfil your needs.

And yes, it is true that Komatsu Forest's technologically advanced harvesters, forwarders and heads continually push the envelope for what can be achieved with a modern forest machine. Equally true is that our integrated information systems and proactive service and support create new opportunities for long-term profitability.

However, at its core, Komatsu Forest's promise concerns the whole. And the combined advantages offered throughout the entire production chain and the machine's entire service life. Today and tomorrow.

That is Forestry Quality.

Notes

Some functions and equipment mentioned in this product sheet may be optional. Standard and optional equipment are market-dependent and vary between countries. The specifications describe possible equipment configurations, not which equipment is standard or optional. Specifications and designs are subject to alteration without prior notice.



KOMATSU

Komatsu Forest AB
www.komatsuforest.com