

# KOMATSU®

## 931

### Strong and smart

Forestry Quality™

931

HARVESTERS



Maximum reliability and productivity



# 931



**The new Komatsu 931 is built for truly demanding logging.** In several decisive areas it provides the benchmark for future needs of maximum production capacity, eco-friendliness and operator comfort – the most important of which are presented here.

## Engine

The Komatsu 931 is the first harvester in its class with a Stage 4/Final engine. It fulfils the most stringent requirements on minimised emissions of environmentally hazardous particles and nitrogen oxides. What's more, the hypermodern engine technology improves fuel economy and considerably reduces noise thanks to its intelligent variable fan control – without compromising engine power.

## Operator environment

The new 931 has an extremely high-performance operator environment. Some of the many examples include the larger cab volume, improved visibility, smarter screen placement and remote control/key for the remote control of locks, hatches, the main circuit breaker and the cab heater. Then we have improved storage solutions, optimised air conditioning, lighting and floor heating (optional), as well as three alternative joystick systems, including EME. Optional extras include our unique Autolev Advanced cab suspension and a complete media hub (MediaZone) with both USB and AUX inputs.

## Hydraulics

One explanation behind the 931's extreme work capacity is the new 3-pump hydraulics, split into dual circuits with separate pressure levels. The system is power-regulated against the diesel engine and offers a class-leading hydraulic capacity of 736 l/min. Unique pressure and flow optimisation enables you to work considerably faster without losing hydraulic power. You can operate several crane and head functions simultaneously with maximum hydraulic power, such as slewing the crane, feeding a log and manoeuvring the machine with optimally low fuel consumption.





## Transmission

An impressive 168 kN of traction force and unique interaction between engine, control system and transmission. This is what the 931's new hydrostatic power-optimised transmission gives you. It enables full use of engine power, which is a great advantage when navigating gradients and difficult terrain. There are also several pre-set and task-specific driving modes. The result is maximised productivity and benefit from every ounce of horsepower and every gallon of fuel.

## Crane placement and work area

The crane's placement together with the large work area provide the Komatsu 931 with unique conditions for high production capacity. The concept is proven and has a simple design, providing market-leading visibility and performance. The coupling between the cab's tilt cylinders and the stabiliser cylinders mounted on the rear axle provides world-class stability. To this we can add the cab's 360-degree rotational ability, which provides a larger work area and enables higher timber concentration and more effective forwarding.





## Unique eco-friendly engine

The new Stage 4/Tier 4 Final engine fulfills the market's most stringent emission requirements for NOx and particles.

# A POWERHOUSE WITH CUTTING-EDGE HARVESTER TECHNOLOGY



## Super stable

The unique solution with the crane placed in the middle of the machine and the coupling between the tilt cylinders and the swing axle provide superior stability.



## Service advantages squared

Everything from improved access to filters and separate hatches for refilling diesel and hydraulic oil to a holder for service protocols on the mid-frame.

A powerhouse that's as nimble as it is robust with future technology benefiting everything from work capacity and operator environment to operating economy and eco-friendliness. All the new technology is centred on Komatsu's unique visibility-optimised and stabilised crane placement. This is what makes the new Komatsu 931 such an exceptional profit-maker in truly demanding logging.

One of the biggest new features of the 931 is the unique and revolutionary 3-pump hydraulics. This new technology gives you all



The cab levelling function means that you are always seated levelly and don't need to stretch and strain to maintain good posture.



New large and noise-reducing cab with larger windows that provide superior visibility upwards, downwards and to the rear.





# 931



the lifting power you need. What's more, the smart pressure and flow optimisation means that you can do several things at once, such as slew and feed, with full hydraulic power and maintain a considerably higher work rate. To this we can add a full 360 degrees of cab rotation that enables you to process more from the same spot, which optimises forwarding.

Another overarching new feature is the 931's new cab. The advantages include everything from improved visibility, air conditioning, lighting and floor heating to the industry's first remote control keyless

system, which can control the heating and the main circuit-breaker/lighting from a distance. Keyless system access is coded by operator, so the operator is automatically logged in to MaxiXplorer when activating the main circuit breaker.

Naturally, you have the option of adding our superb Autolev Advanced cab suspension and a complete audio/media hub (MediaZone). Moreover, you can enjoy incredibly low noise levels thanks to the interaction between the new intelligent engine cooling, the new slewing transmission and

noise-reducing internal and external designs.

The 931 also has a unique new feature under its hood. The new and powerful Stage 4/Final engine that fulfils the industry's most stringent emission requirements and reduces fuel consumption. As for the power train, you also get our superb power-optimised transmission. Two real energy savers on the 931 are service and maintenance, thanks to a host of smart solutions. The result, of course, is a simpler, more convenient and more profitable working day – just as modern forestry demands.

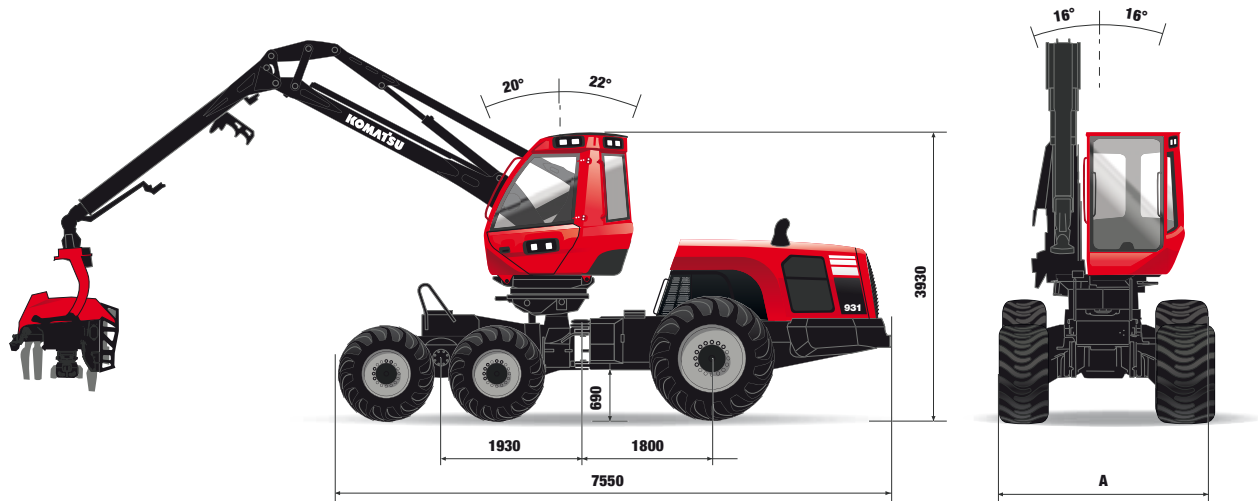


The unique 3-pump hydraulic system means that you can operate several functions simultaneously, such as slewing the crane and feeding a log while manoeuvring the machine, without losing hydraulic power.



**New!** EME joysticks with sequence control. Ergonomic and adjustable hand controls that allow the operator to customise most button functions.

# TECHNICAL SPECIFICATIONS



## WHEEL EQUIPMENT ALTERNATIVES (FRONT AND REAR) AND MACHINE WIDTH (A)

	Tyre selection	Width (mm)
6WD (front)	600/55 x 26.5	2,720
	710/45 x 26.5	2,940

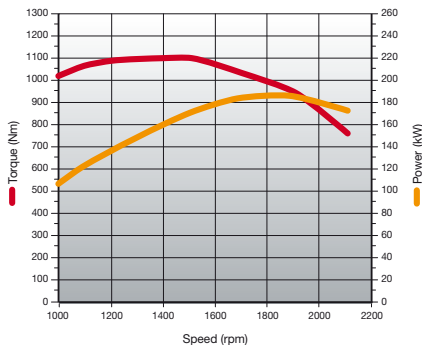
	Tyre selection	Width (mm)
6WD (rear)	600/65 x 34	2,730
	710/55 x 34	2,940

NB: Stated dimensions are nominal and may vary slightly depending on production tolerances.

## WEIGHT

Curb weight: from 19,610 kg

<sup>1)</sup> With 600 wheels.



## ENGINE

AGCO POWER 74 -AWF, 6-cylinder diesel engine with turbo and intercooler. EPA Tier 4 Final and EU Stage 4.

Stroke volume:	7.4 l
Power, max.:	185 kW DIN (251 hp) at 1,900 rpm
Torque:	1,100 Nm at 1,500 rpm
Fuel tank:	approx. 405 l

## POWER TRANSMISSION

Hydrostatic-mechanical, controlled via MaxiXplorer. Transfer gearbox with 2 positions. Disengageable front-wheel drive.

Differential locks:	Front and rear axle. Mechanical electro-hydraulic control.
Driving speed:	0-8/25 km/h (off-road/road)
Traction force:	168 kN

## HYDRAULIC SYSTEM

Dual-circuit load-sensing system with variable piston pumps.

Flow:	528 l/min at 1,600 rpm
System pressure:	280 bar
Hydraulic oil tank:	approx. 220 l
Miscellaneous:	Pressure filter for hydrostatic circuit. Return oil filter for hydrostatic and working hydraulics. Hydraulic oil level warning.

## FRAME/AXLES

Axle, front:	Geared bogie "hi clearance" type with portal axles housed in the rims. Differential with mechanical differential lock.
Axle, rear:	Swing axle with hub reduction. Differential with mechanical differential lock. Hydraulic stabiliser.

## BRAKE SYSTEM

Fully-hydraulic multi-disc brakes. Brake pressure accumulators charged via automatic hydraulic accumulator charging valve.

Driving brake:	Four multi-disc brakes in oil bath acting on front and rear axles.
Working brake:	Same as driving brake. Automatically engaged when working.
Parking brake:	Spring-action brake with electro-hydraulic control. Emergency brake.
Braking performance:	Conforms to ISO 11169 and VVFS 2003:27.

## CRANE

### 230H

Reach:	8.7/10/11 m
Lifting torque, gross:	229 kNm
Slewing torque, gross:	47.5 kNm
Head:	8.7 m: S132, 370.2, C144 10 m: S92, C93, 360.2, 365.1, S132, C144 11 m: S92, C93, 360.2, 365.1



**HARVESTER HEAD**

	<b>Komatsu S92</b>	<b>Komatsu C93</b>	<b>Komatsu 360.2</b>	<b>Komatsu 365.1</b>	<b>Komatsu S132</b>	<b>Komatsu 370.2</b>	<b>Komatsu C144</b>
Weight:	from 951 kg	from 970 kg	from 1,245 kg	from 1,235 kg	from 1,364 kg	from 1,470 kg	from 1,400 kg
Felling/cutting diameter:	630 mm	600 mm	650 mm	650 mm	720 mm	700 mm	710 mm
Feed rate:	0-5 m/s	0-5 m/s	0-5 m/s	0-5 m/s	0-5 m/s	0-5 m/s	0-5 m/s
Feed force, gross:	26.1 kN	20,1/25,3 kN	26,9/29,4 kN	23.7/28.3 kN	28.7/31.1 kN	28.3/30.8 kN	29.6 kN
Opening, front knives, max.:	535 mm	600 mm	640 mm	625 mm	641 mm	640 mm	660 mm
Roller opening, max.:	519 mm	550 mm	550 mm	650 mm	625 mm	600 mm	750 mm

**STEERING**

	Hydraulic articulated joint with 2 dual-acting hydraulic cylinders.
Lever steering:	Load-sensing (LS) proportional steering from crane controls/rocker.
Steering angle:	+/- 40°
Ex. of other equipment:	Electrical limit damping.

**ELECTRICAL SYSTEM**

Voltage:	24 V
Battery capacity:	2 x 180 Ah
Generator:	2 x 100 A

**LIGHTING**

	Halogen: More than 30 lux in the entire work area and at least 60 lux at the head. LED: More than 80 lux in the entire work area and at least 120 lux at the head.
Ex. of other equipment:	Twin reversing lights. Roof-mounted work lighting. Service lighting, hoods. Extra work lighting.

**ERGONOMICS**

	Levelling for good posture. Cab coupled to swing axle. Crane and cab on horizontal, rotating platform. Hydraulic stabilisation when manoeuvring.
Horizontal levelling:	Longitudinal 20°/22° and lateral 16°
Rotation:	360°
Ex. of other equipment:	Autolev – fully-automatic cab and crane levelling. Crane damping. Cab suspension. Slewing damper.

**CAB**

	Safety tested. Levelling. Thermal and acoustic insulation.
Safety:	Conforms to ROPS ISO 8082, FOPS ISO 8083, ISO 3449 and OPS ISO 8084.
Seat:	Choice of ergonomically designed seat for individual adjustment of the seat cushion, back and lumbar support, arm rests and joystick panels. The seats have a suspension and damping system. Alternative seat that also conforms to WCB G603.
Windshields:	Windscreen and side windows of 15-mm safety glass for maximum safety.
Heating/ventilation:	Combined heating and cooling unit or climate control. Filtered intake air via allergy filter.
Noise level:	As per ISO standard.
Vibrations:	As per ISO standard.
Miscellaneous:	Manual tilt. Multi-position safety lock. Connections for two-way radio and telephone (12-24 V). Windscreen wiper and washer on front and roof windows.
Ex. of other equipment:	Sun shades. Swivel seat. Electrically-controlled platform under cab. Radio with MP3 player and USB port. MediaZone. Air-ventilated BeGe seat with head rest. Environment filter for intake air. Refrigerator. Lunch box heater.

**CONTROL AND INFORMATION SYSTEM**

	MaxiXplorer is a CAN-based control system that you use to control all of the machine's functions with the aid of ergonomic hand controls and a user-friendly PC. The system enables you to set crane functions and control the transmission, diesel engine and other machine functions. The system also features object management, integrated production and operational follow-up, troubleshooting and alarms.
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**PC**

	2 computer options	
	MaxiPC X20	MaxiPC X30
Processor	Intel Atom 1.6 GHz	Intel Core 2.4 GHz
RAM	2 GB	4 GB
Hard disk	100 GB HDD	100 GB HDD
Screen	12"	12"
USB ports (incl. screen)	10	10
Serial ports	3	2
Operating system	Windows XP Pro	Windows XP Pro
Ex. of other equipment.	A4 printer, GPS receiver. MaxiFleet-ready.	

**DOCUMENTATION**

	Printed operating and starting instructions.
	Instruction manual and spare parts catalogue on CD.

**EXAMPLES OF OTHER EQUIPMENT**

	Sprinkler system. Semi-automatic water-based fire extinguishing. Conforms to RUS 127.
	Hand-held fire extinguishers. 2 x 6 kg ABE-3.
	Dry powder fire extinguishers.
	Printed instruction manual (also electronic in Maxi).
	Printed spare parts catalogue (also electronic in Maxi).
	Diesel heater 9.1 kW incl. timer and hydraulic oil heater.
	Stump treatment equipment.
	Biodegradable hydraulic oil.
	Service ladders.
	Toolbox with tools.
	Reversing camera as standard (in EES countries in compliance with EU Directive 2006/42/EU).
	Platform at side of cab and ladder on left side of rear frame as standard (in EES countries in compliance with EU Directive 2006/42/EU).
	Belt guard for flat belt as standard (in EES countries in compliance with EU Directive 2006/42/EU).
	Central lubrication.
	Electric diesel filling.

**NOTES**

The specifications describe possible equipment, not which equipment is standard or optional. Standard and optional equipment varies between countries. Your sales representative has an up-to-date list of what is included. Weights are based on the equipment specified in the basic specification. Specifications and designs are subject to alteration without prior notice.



## WHY A KOMATSU HARVESTER?

High productivity, low operating costs, innovative technology, superb operator environment, proactive service and customer care – this broad range of advantages is what makes Komatsu machines some of the very best forestry machines in the world. Behind all this is a highly-focused strategy to continually build upon the advantages of owning a Komatsu harvester. This strategy is based on the following main areas.

### Ergonomics

Your forestry machine is a mobile working environment in which success requires that the operator can perform at their best without tiring. This is an important point of departure that has helped us develop the unique ergonomic advantages of Komatsu harvesters. Good examples are cab levelling and crane placement to the side of the cab so that the head is always well in sight of the operator.

### Economy

Striving for optimal profitability is an important driving force in the development of Komatsu's harvesters. Every improvement that increases productivity or reliability, reduces costs or saves time is of interest. Concrete examples from today's Komatsu harvesters include energy-efficient engines, highly-effective hydraulic systems, fast harvesting heads and unmatched high productivity per unit of time.

### Productivity

More work in less time. This is something we often hear from those who have switched from competing brands to Komatsu harvesters. The reasons are many and are found on all levels. The most important include the extremely high-performance operator environment, the manoeuvrability, the effective harvesting heads, the powerful control and information system and the large work area.

### Proactivity

Fast and competent service is decisive to the performance and economy of any forestry machine. One important cornerstone is our unique proactive concept comprising preventative and planned measures that include remote support via MaxiFleet and tailored training courses to make your forestry machine ownership simpler, safer and more profitable. Other key factors are our highly-trained and competent technicians and our high-quality range of accessories and consumables designed for both Komatsu and other professional forestry machines.

### Environment

Forests are a fragile element of the global ecology. This is why every new Komatsu product and its component parts are examined with an eye to both the short-term and long-term environmental effects. This has resulted in concrete environmental improvements to Komatsu harvesters such as highly-effective exhaust emission control and low, evenly-distributed ground pressure. Environmental considerations also permeate our broad range of accessories and consumables, such as our special, rapidly biodegradable environmental oils.

### Global Experience

Komatsu's harvesters can be found the world over. Consequently, they have been adapted to deliver optimum profitability regardless of operating conditions. The same fundamental idea lies behind the global service and dealer network that provides support to thousands of Komatsu owners on a daily basis.



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