

941.1



Brawn meets brains
for demanding final logging



Highlights

The Valmet 941.1 is the new version of the largest Valmet harvester. This is a giant specially adapted to handle demanding logging in really thick forests, and the advantages are apparent in both the whole and the parts. Here are a few of the highlights:

941.1



Brand new MaxiXplorer control and information system, infinitely more powerful, faster, and easier to use than its predecessor.

Optimum engine control and minimal energy losses for low fuel consumption.

Sturdy chassis, hydraulics, and mechanical components and systems provide high reliability and long service life.

The heavy-duty boom and harvesting head are proportioned to take on large diameter stems in difficult and demanding conditions.

Extremely high-performance work environment with the roomiest cab on the market offering excellent visibility at all times.

Valmet 941.1 – big, strong, and now even exceptionally bright.

Incredibly large, incredibly powerful – and now even incredibly bright – for even greater profits from heavy final logging. That's the impressive résumé of the new Valmet 941.1, the latest version of the biggest rubber-tired harvester in the Valmet lineup.

And the biggest news is MaxiXplorer – a brand new Windows-based computer system with many times more powerful and more intuitive than its predecessor. You'll notice the improvements in everything from faster and more exact length measurement and crosscutting to easier pricelist editing. And, naturally, increased computing power ultimately means optimized productivity and timber value.

MaxiXplorer is part of the 941.1's extremely high-performance work environment. The cab includes, full-circle slewing with standing room that is the most spacious on the market. And it goes without saying that comfort and visibility are on a par, enabling you to maintain maximum productivity even when working long days and shifts.

Much of the 941's muscle comes from its powerful turbo-diesel engine. Maximum torque is reached at a low engine speed,

guaranteeing high-level performance from start to finish. The effective fuel injection system ensures immediate engine response when you increase the workload. All this engine power is combined with remarkably low fuel consumption.

Strength and flexibility also characterize the 941.1's boom, which, despite its huge size, is surprisingly quick and easy to maneuver. The same is true of the harvesting head, which is extremely powerful yet surprisingly quick and easy to maneuver. The overall sturdy design makes the Valmet 941 impressively reliable and easy to service. The end result is a superbly hardened, productive, and smart profit-making machine. Whether you're an operator, or an owner, choosing the Valmet 941.1 will help you harvest more profitability from thick forests.



Easily-accessible inspection points concentrated in strategic locations to facilitate maintenance and servicing.



Information system

Brand new MaxiXplorer control and information system, infinitely more powerful, faster, and easier to use than its predecessor.



Ergonomics

Superb ergonomics, high productivity, and reliable operation make any shift easy and enjoyable.



An optimized combination of strength and flexibility for high productivity and profitability.



The unique boom position beside the cab optimizes visibility and minimizes neck and back discomfort.

941.1

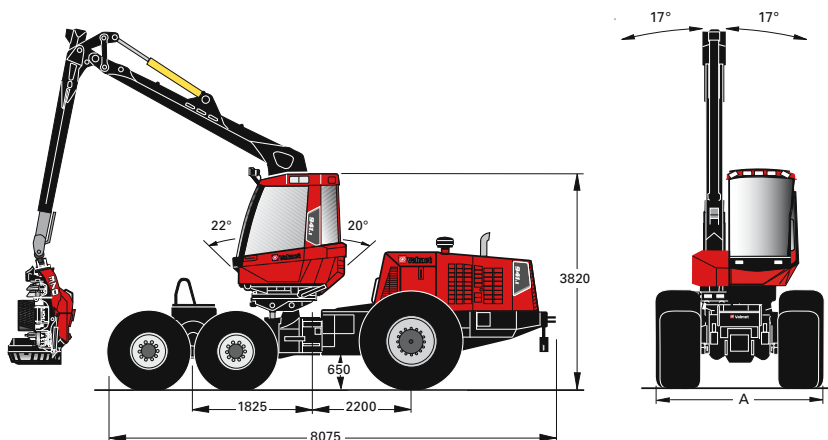


Cab and boom leveling and stabilizer coupling for superior stability and ground contact.



The largest cab on the market, providing optimum visibility, comfort, and ergonomics.

Technical specifications



Wheel options and machine width (A) with different tires

| | Tire | Width (mm/inches) |
|-------------|---------------|-------------------|
| 6WD (front) | 650/65 x 26.5 | 2,980/9'9" |
| | 750/55 x 26.5 | 3,180/ 10'5" |

| | Tire | Width (mm/inches) |
|------------|-------------|-------------------|
| 6WD (rear) | 700/70 x 34 | 2,990/9'10" |

NB: Stated dimensions are nominal and may vary due to manufacturing tolerances.

Weight

Curb weight: from 23,500 kg (25.9 tons)

Engine

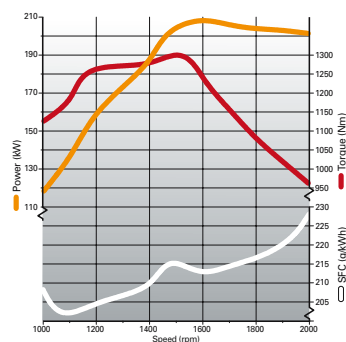
84 CTA. 6-cylinder, turbo with Common-rail. Tier 3.

Stroke volume: 8.4 l (2.2 gal)

Power: 210 kW DIN (285 hp) at 1,600 rpm

Torque: 1,300 Nm (959 lbf-ft) at 1,500 rpm

Fuel tank: approx. 550 l (145.3 gal)



Power transmission

Hydrostatic-mechanical, controlled by MaxiExplorer. Transfer gearbox with 2 positions. Disengageable front-wheel drive.

Differential locks: Mechanical electro-hydraulic control.

Driving speed: 0-25 km/h (0-15.5 mph)

Traction force: 190 kN (42,700 lbf)

Hydraulic system

Single-circuit load-sensing/high-low balanced constant pressure, variable piston pump

Flow: 346 l/min at 1,650 rpm (0-91 gal)

System pressure: 280 bar (4,060 PSI)

Working pressure, boom: CRH24: 260 bar (3,770 PSI)

Hydraulic oil tank: approx. 235 l (62 gal)

Miscellaneous: Pressure filter for hydrost. circuit. Return oil filters for hydrost. drive and hydraulics. Hydraulic oil level warning. Hydraulic booster to comp. pump regulation.

Frame/axes

Axle, front: Bogie. Differential with mechanical differential lock.

Axle, rear: Swing axle with hub reduction. Diff. with mechanical differential lock. Hydraulic stabilizer override with leveling.

Brake system

Fully-hydraulic multi-disc brakes. Hydraulic accumulator charging valve.

Driving brake/Working brake: Multi-disc brakes in an oil bath. Automatically engaged when working.

Parking brake: Spring-action brake with electro-hydraulic control. Emergency brake.

Braking performance: Conforms to ISO 11169:1993 and VVFS 2003:27.

Boom

Model: CRH 24, 10 m CRH 24, 8 m

Reach: 10 m (33') 8.1 m (26')

Lifting torque, gross: 273 kNm (201,300 lbf-ft)

Slewing torque, gross: 51 kNm (37,600 lbf-ft)

Rated power, telesc., gross: 41 kW (30,240 lbf-ft)

Head: 370.2 370E

Steering

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|--------------------|---|
| | Hydraulic articulated joint. |
| Lever steering: | Load-sensing (LS) proportional steering from boom controls/rocker |
| Steering angle: | +/- 40° Electrical end limit damping. |
| Available options: | Load-sensing proportional power-assisted steering. |

Electrical system

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| Voltage: | 24 V |
| Battery capacity: | 2 x 170 Ah |
| Generator: | 2 x 100 A |

Lights

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| | More than 30 lux in work area. Halogen cab, boom, and reversing lights. |
| Available options: | Xenon lights on cab and boom. Roof-mounted work lights, Halogen or Xenon. |

Ergonomics

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| | Autolev – fully-automatic cab and boom leveling. Comfort-enhancing leveling. Cab coupled to stabilizer. Boom and cab on horizontal, rotating platform. Hydraulic stabilization when maneuvering. |
| Horizontal leveling: | Longitudinal 20°/22° and lateral 17° |
| Rotation: | 315° |
| Available options: | Slew damping. Boom damping. |

Cab

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|----------------------|---|
| | Safety-tested. Leveling. Thermal and acoustic insulation. |
| Safety: | Conforms to ROPS ISO 8082, FOPS ISO 8083, and OPS ISO 8084. |
| Seat: | Choice of ergonomically designed seat for individual adjustment of the seat cushion, back and lumbar support, arm rests, and control panels. |
| Windshields: | Forward side windows of 15 mm (0.6") safety glass. |
| Heating/ventilation: | Heating and cooling unit ACC. Filtered intake air with allergen filter. |
| Noise level: | As per ISO standard. |
| Vibrations: | As per ISO standard. |
| Miscellaneous: | Manual tilt. Multi-position safety lock. Electrical kit for com-radio and telephone (12 V). Windshield wiper and washer on front and roof windows. |
| Available options: | Sun blinds. Swivel seat. Electrically-controlled platform under the cab. Radio with MP3 player and USB-port. Air-ventilated KAB seat or air-ventilated BeGe seat with head rest. Microfilter. |

Harvesting head

| | | |
|------------------------------|--------------------------------------|----------------------------------|
| | Valmet 370.2 | Valmet 370E |
| Weight: | fr. 1,470 kg (3,240 lb) | fr. 1,600 kg (3,527 lb) |
| Felling/cutting diameter: | 700 mm (27.5") | 700 mm (27.5") |
| Feed speed: | 0-5 m/s (0-16.4 ft/s) | 0-5 m/s (0-16.4 ft/s) |
| Feed force, gross: | 28.2-30.7 kN. (6,340-6,900 lbf) | 21-30.8 kN. (4,720-6,924 lbf) |
| Opening, upper knives, max.: | 640 mm (25.2") | 640 mm (25.2") |
| Roller opening, max.: | 600 mm (23.6") | 600 mm (23.6") |
| Rotator: | Roller slewing with hydraulic motor. | |
| Control and info. system: | MaxiXplorer | |

Control and information system

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| MaxiXplorer | Integrated system for machine and head control. Operator-specific settings for head, boom, and machine functions. Cross-cutting information and machine status display. Production registration. Administrative tools. |
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PC

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| Processor, clock speed: | 1,4 Ghz |
| Internal memory: | 1 Gb RAM |
| Hard drive, size: | 20 Gb |
| Color screen: | 12", anti-reflection glass |
| DVD player: | Option |
| USB ports: | 8, one of which on the side for easy access |
| Serial ports: | 2 |
| Operating system: | Windows XP Pro |
| Keyboard with trackball: | Included |
| Available options: | A4 printer. GPS antenna. Production reports. |

Documentation

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| | Operating and starting instructions in paper format. |
| | Instruction manual and spare parts catalogue on CD. |

Available options

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| | Sprinkler system. Semi-automatic, Water-based fire extinguishing. Conforms to RUS 127. |
| | Hand-held extinguishers. 2 x 6 kg (13 lb) ABE-3 powder extinguishers |
| | Instruction manual in paper format (also electronic in Maxi) |
| | Spare parts catalogue in paper format (also electronic in Maxi) |
| | Diesel heater 9.1 kW including timer and hydraulic oil heater. |
| | Stump treatment equipment |
| | Biodegradable hydraulic oil |
| | Service ladders |
| | Toolbox with tools |

Notes

The specification describes possible equipment, which can be standard or optional. Weights are based on the standard specification of the featured equipment. Specifications and designs are subject to change without notice.

Why choose a Valmet harvester?

High productivity, low operating costs, innovative technology, superb operator environment – these are just some of the features that make Valmet forestry machines some of the best in the world. Behind all this is a highly-focused strategy to continually build upon the advantages of owning a Valmet harvester. A strategy based on the following principal ideas.

Ergonomics

Your forestry machine is a mobile work environment where the operator's opportunities to perform optimally without tiring are a decisive factor for success. This is an important reference point that has helped develop the unique ergonomic advantages of Valmet harvesters. These include leveling cabs and booms mounted together, keeping the harvesting head centered in the field of vision.

Economy

The ambition to maximize profitability is one of the most important forces driving the development of Valmet harvesters. Each small improvement that increases productivity and reliability, reduces costs, or saves time is of interest. Tangible and quantifiable examples from today's Valmet harvesters include energy-efficient engines, highly efficient hydraulics, fast heads, and unsurpassed productivity.

Productivity

More work in less time – a comment we often hear from contractors who switch from competing brands to Valmet. There are many reasons, large and small. The most important include extremely high-performance operator environments, great maneuverability, effective heads, powerful control and information systems, and large work areas from stationary positions.

Customer Support

Fast and competent service bears directly on forestry machine performance and economy. An extensive service network provides the Valmet owner with a sense of security. Well-trained technicians provide additional assurance, as they are Valmet experts. Another benefit is ProSelect, our special line of accessories and consumables. The range is based on a selection of items that are all of the highest quality and designed for both Valmet and other brands of professional forest machinery.

Environment

Forests are an essential and fragile element of the global ecology. Consequently, every new Valmet product, and all its component parts, is considered from both short-term and long-term environmental perspectives. This has resulted in real environmental improvements such as highly-effective exhaust emission control and low, evenly-distributed ground pressure in Valmet harvesters. Environmental considerations also permeate our broad range of accessories and consumables, such as in our special, rapidly biodegradable oils.

Global Experience

Valmet harvesters are found the world over. Consequently, they are designed to deliver optimum profitability regardless of conditions. The same fundamental concept is applied to our global service and dealer network that provides support to thousands of Valmet owners on a daily basis.

