



PROFI 50 HARVESTER



# PROFI 50



## Efficient

The Profi 50 is suited for all types of terrain and travels smoothly while protecting soft soil from wear. The harvester's small turning radius and large turning angle (52°) make the machine agile and efficient for moving through dense forest. The harvester's low centre of gravity adds to its stability and reach on sloping terrain.



## Productive and economical

The Profi 50 can be equipped with cranes and harvester heads made by various manufactures. This versatility of choice adds to the harvester's operating efficiency and economic performance when moving from one tree stand type to another. For example, the 11 metre long crane and multi stem processing harvester head are an efficient combination for harvesting and felling bio energy wood and all types of thinning. The harvester can be equipped with a larger harvester head for final felling and tree thinning.

The hydrostatic, electronically controlled transmission and large turning angle of the articulated joint as well as the well-placed smooth trajectory parallel crane make the Profi 50 the most agile and efficient forest machine in its class for year-round thinning. The 4.9 litre Sisu Diesel engine and its properly proportioned hydraulics guarantee an energy efficient result.

The cab, which is mounted on the front frame, was designed with the driver in mind: the safety cab is acoustically and thermally insulated and equipped with a heating and air-conditioning system. The noise level in the cab is low (51-70 decibels), making it a very pleasant work environment. All the control functions can be programmed freely, enabling the operator to customise the key layout to suit their own preference.

The harvester's powerful Sisu Diesel Engine is covered by a simple-to-lift bonnet making maintenance simpler. Similarly, the valve block is easy to access, as its casing can be flipped down.

The Profi 50 has been designed with care down to the last detail: The cab is surrounded by an access level making maintenance and cleaning significantly simpler. An optional air compressor and tank further facilitate cleaning and maintenance. Additionally, the harvester's steps automatically lift up, and the turning brake releases when the harvester's ignition is switched on.

The PMC control system is based on remote information technology, enabling remote maintenance anywhere within a GSM network and thus significantly cutting down maintenance costs.

Operating the Profi 50 is simple and fast, as its automation and other machine controls are centralised in the display panel. Its automated system is versatile, and all its controls are easy to manage. Total consumption and worksite-specific consumption are easy to monitor on the machine's display.



## Individual

The wishes of the field experts, the drivers themselves, have been taken into consideration when developing the Profi 50's cab's ergonomic features. This has guaranteed cab solutions that include excellent visibility in all working directions, decreasing muscle stress to the driver in uneven terrain and when felling is carried out on either side of the harvester. All the buttons on each lever can be programmed on the large clear touch display to suit a driver's individual preference. The number of buttons and switches has been greatly reduced, due to the functions of the touch display. The operator can use the large display as a computer / measuring device, as well as a monitoring and warning display for engine and machine base functions. The machine's automation functions can also be monitored, adjusted and tested via the display panel.



## Progressive

The Profi 50's electrical systems are based on well-known and reliable solutions that are used broadly around the world. The present PMC automation system has replaced separate ventilation control, drive automation and base machine control. The machine's diesel engine is also controlled by the PMC system. It has also been possible to connect the harvester's and crane's controls to the system, because all information travels through the CAN channel. A remote connection allows easy adjustment of controls. The remote connection also allows reading of error codes irrespective of where the harvester is situated.

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## TECHNICAL INFORMATION

\* The measurements given have been measured during felling in Finland.

### Engine

manufacturer/ make Sisu Diesel 49 CWA, cylinders 4  
Air intake: turbo charged, air/air intercooling  
Cylinder displacement 4.9 litres  
Engine power 120 kW/2,200 rpm  
Torque 700 Nm/1,500 rpm  
Fuel tank volume: 267 l  
Fuel consumption: 7-10 l/h\*

### Transmission

Electronically controlled, hydrostatic  
Drive type: 6-wheel drive  
Drive pump 2x89 cm<sup>3</sup>  
Radial piston motors: Rexroth MCR 05  
Hydraulic piston motor: 680 cm<sup>3</sup> (2 pcs)  
Hydraulic piston motor: 470 cm<sup>3</sup> (2 pcs)  
Tractive force 135 kN

### Driving speed

The driving speed is controlled with a stepless drive pedal:  
Slow range 0 to 5.3 km/h  
Fast range 0 to 10.5 km/h

### Dimensions

Weight from 12,500 kg (in functioning condition)  
Weight 14,800 kg (with liquid-filled tyres)  
Length 6450 mm  
Width 2650 mm (2400 to 2850 mm depending on the harvester's tyres)  
Height: cab 3550 mm  
Ground clearance 620 mm, wheelbase 3400 mm  
Front tyres 600/22.5 (also 500 and 700)  
Rear tyres 600/26.5 (also 500 and 700)  
Tyre pressure 270 kPa

### Controls

Hydraulic frame steering, steering with control lever  
Turning angle +/- 52°  
Turning radius from the outer edge of the tyre 5.5 m

### Brakes

The hydrostatic transmission acts as a service brake for all the harvester's wheels. Negative plate-compressor brakes operate as work and service brakes for all traction motors.

### Electrical system

Voltage: 24 VDC, batteries: 2 x 140 Ah, generator: 100 A

### Measuring device

Motomit PC or Motomit IT

### Frame structure

Box type steel frame, the pitman arm is situated between the front and rear frames, and there is a round slewing bearing as the horizontal joint. The crane's chassis tilts in the direction of travel.

### Cab

The cab is mounted on the front frame and is acoustically and thermally insulated. It is equipped with automatic heating and air-conditioning. The cab's noise level is from 51 to 70 decibels.

### Crane (turning angle 240°)

Logmer (models): 10-90, 10-95, 10-10 and 10-11  
Range 9.2 to 11.2 metres depending on the model or Kesla (models) 1395H and 13105H  
Range 9.5 to 10.5 metres depending on the model

### Hydraulics

Load-detecting hydraulic system  
Standard delivery:  
Pump Rexroth A 11 VLO 190 EP 2S  
Operating pressure 220 bar  
Output (max) 483 l/min./2500 rpm  
Hydraulic system volume 250 l  
Hydraulic oil tank volume 150 l

### Harvester head

Keto, AFM, Kesla, LogMax, Waratah, SP or other manufacturer according to customer specifications

### Standard equipment

Automatic heating/ air-conditioning device  
Dry powder extinguisher (2 pcs) and a stereo radio/ CD player

### Optional accessories

Sun blinds for the cab, first aid kit,  
Xenon headlights, stump treatment, chains,  
control callipers, electric cool box,  
engine heater (Webasto), central lubrication  
of the crane, navigation system, air compressor,  
rear view camera for reversing,  
long wiper blade (1200 mm),  
bulldozer blade for steep terrain, liquid-filled tyres,  
fire extinguisher system, electric vacuum pump,  
electric hydraulic oil fill pump, electric refuelling pump,  
rollers, data transfer, colour marking,  
and 500-series and 700-series tyres.



**When you have to decide today what you will need tomorrow  
the PROFI 50 HARVESTER is your choice.**



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