



SAMPO ROSENLEW

www.sampo-rosenlew.fi



HR46 HARVESTER

Thinning Specialist

The history of Sampo Rosenlew forest machines

The founder of Sampo Rosenlew, mr Timo Prihti was born and raised on a farm. In Finland this means that he was used to work hard not only on the fields but also and especially in the forest. In this environment mr Prihti learned that it is not only fields that require constant attention but also forest. It must be managed – and managed well.

When mr Prihti in early 1990's decided to continue the long industrial traditions of company Rosenlew by launching Sampo Rosenlew, there was a demand for new products. At the same time he noticed that management of young forest was suffering from lack of manual workers and lack of suitable machinery. This led to a decision to start production of special harvesters for thinning harvesting.

Mr Prihti is now very pleased to see that it was a good decision. Harvesters manufactured by Sampo Rosenlew are used to manage hundreds of hectares young forest every day. This forest will produce high quality wood for the needs of future generations.



Sampo Rosenlew today

Sampo Rosenlew is a family company producing machinery for agriculture and forestry. It is located in Pori, Finland. Sampo Rosenlew designs and produces high quality combine harvesters and forest machines. The company was founded 1991. Industrial traditions start, however, from 1853, when the predecessor Rosenlew was founded. Combine harvester manufacturing was launched 1957 and forest machines have been in the production since 1997.



HR46 Harvester

An enterprise has a future only if it is economically sound and forest is no exception in this rule.

Economy in the forest

When we are growing wood in a forest, we aim at maximizing the production, and not only in the terms of volume but also in the terms of quality. When forest has been generated, the most important tool in controlling the wood production is thinning.

The purpose of thinning is to concentrate soil production capacity and growth in certain chosen trees. The goal is normally to grow large trees with high technical quality. The entire land area is reserved for the use of dense, healthy forest.

The forest owner/wood producer is merely interested in what is mentioned above. Technical details can only be relevant if they work for correct, good thinning harvesting.



Economy of the contractor

Forest contracting is economical activity that must be profitable. Things that make it difficult in thinning harvesting are the small yield per hectare and the fact that the remaining trees must not be damaged. Cost control is the most efficient tool for a contractor in aiming for profitability.

Sampo Rosenlew forest machines are designed specially keeping in mind the conditions in thinning. Not only are their technical features are very suitable for thinning, but they also are economically superior.

Appropriate size for thinning, durability and clear construction result to capital and running costs that are clearly more reasonable than those of the competitors.

HR46 Harvester

Profitable decisions are made in the cabin

Sampo Rosenlew HR46 cabin is a silent, safe and comfortable place for the operator. Visibility is good even to tree tops. There are also special lights on the roof pointing upwards to ensure the necessary visibility. The outside dimensions and forms are planned to minimize damage for the trees and for the cabin.

Unbeatable maneuverability

Sampo Rosenlew HR46 is specially designed for thinning conditions. The maneuverability of the harvester is unique thanks to big turning angle and small dimensions. This helps the harvester to move in the terrain and makes the work quality better. It also helps the forwarder to work more efficiently.

HR46 - Small but strong

Plenty of power is packed in the small dimensions of HR46. The diesel torque is high already in low rpm. The big hydraulic pump in work circuit utilizes the engine power in full. Harvesting work goes on swiftly, and the tree trunks are running through the head without pauses.



HR46 is easy to use

A small harvester is easy to move from site to another. Since Sampo Rosenlew HR46 is a 4-wheel harvester, it is also practical to drive on the road. Filters and lubrication points are easy to reach, which helps to make service measures rapidly. This leaves more time for productive harvesting work.

Design is very practical

Sampo Rosenlew HR46-harvester design is a result of thorough consideration. Maneuvering in the dense young forest requires that the outer surface is even and clean. It helps to avoid damages both for the remaining trees and for the harvester. Visibility is unlimited to all directions without blind areas.

There is reason

Sampo Rosenlew HR46 – harvester has everything that is necessary. What is not needed has been left away. This means that the capital and running cost is low but the production is, however, higher than what many heavier competitors can do. HR 46 is the choice of a reasoning contractor.

Less damage to soil

TRAIL DEPTH



Sampo Rosenlew HR46 wheel size: 650/60-26.5
6-wheel harvester wheel size front 650/45-22.5 (bogie), rear 650/60-26.5

Trail depth comes from a calculation model for forest machine ground pressure and trail depth. This model was developed by the research institutes VTT and Metsäteho Oy. For further information please consult www.metsateho.fi.

New improvements

Harvester equipments have been improved in many ways. For example the container for stump spraying liquid is now made of material that can tolerate all the relevant chemicals. It is also easy to fill. Sampo Rosenlew HR46 refueling is done with an electrical pump. The battery is also more efficient than before.



100% hydrostatic

Drive transmission is now 100% hydrostatic. In this system there are no vulnerable axles and there is no train of gears. Movements are smooth and it is comfortable to drive. The harvester is also more silent than before. Changing from one gear to the next is done electrically and automatic function is also possible.

Brakes in every wheel

HR 46 has oil immersed multi disc brakes. They are inside the wheel motors, completely protected from dirt or grease. Since the brakes affect directly to each wheel, there is no backlash. The harvester stands steadily without moving back and forth, which is very pleasant for the operator.

More Space

In the new cabin there is more space for the operator and for the things that are necessary to have there. The items that are needed often, like spare sawbar and chain, can be placed into a locker outside the cabin. We have even succeeded in making visibility from the cabin better.

More power

The hydraulic work pump is bigger than earlier. This means that the engine rpm can be reduced: we recommend 1300 rpm. Fuel consumption and noise also decrease together with lower rpm. Speed of wood processing is still good and efficiency of work is top class.

In shape

The new forms of the outer covers reject branches and bushes. Opening of all covers has been improved. The main engine hood is opened with an electric motor. Cooler grill works with hinges and opens practically to the side.

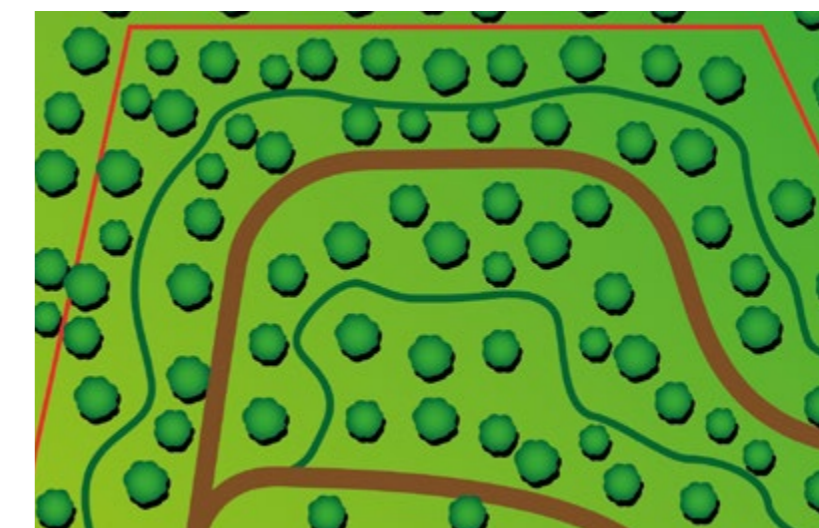
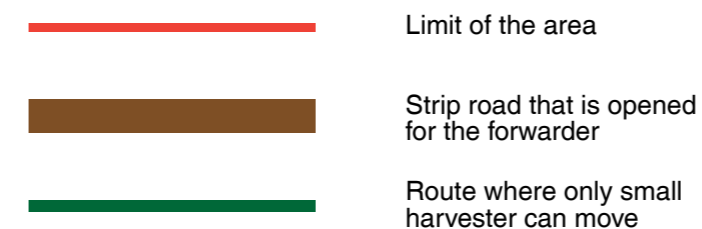
Technical Specification

Weight	Weight at work	8, 000-9, 500 kg
	Length	4900 mm
	Width	2100-2400 mm
	Wheelbase	2735 mm
	Ground clearance	670 mm
Engine	Height	3140 mm
	Agco Power	44 CTA, max. 84 kW @ 2200 rpm
	Fuel tank	135 l
Transmission	Type	Hydrostatic
	Turning radius	4020 mm
	Steering angle	50°
	Speed	0-13 km/h
	Traction force	130 kNm
Wheels	Front and rear	500/70-28, 600/55-26.5, 540/65-28, 650/60-26.5
Hydraulics	Pump	Rexroth A10V0 135cc/ 297 l/min/2200 rpm
	Hydraulic oil tank	110 l
	Working pressure	230 bar
Electrics	Batteries	24 V, 2 x 145 Ah
	Charging generator	100 A
Crane	Reach	7,1 m
	Lifting torque, gross	55 kNm
	Turning torque	17 kNm
Head	Keto 51-55	
	Kesla 18RH	
	Nisula 400H	
Max. delimiting diameter computer		n. 320 mm
Brakes	Type	Motomit
		Multi-disk brakes
Cabin		Quiet safety cab
	Standards	(FOPS, ROPS, OPS)
	Windows	12 mm polycarbonate

Sampo-thinning

SampoRosenlew HR46 –harvester is able to utilize Sampo -thinningmethod. The basic idea is that since the thinning harvester is small and very maneuverable, it can move in the forest outside the road system, which is opened for the forwarder. This brings many benefits.

1. The distance between forwarder roads can be flexibly changed.
2. Forwarder road system can be very clear with straight roads.
3. If the terrain is difficult, the roads can be taken to the best possible routes.
4. After thinning the density of trees is same in all parts of the forest.





SAMPO ROSENLEW



Sampo Rosenlew Ltd

Konepajanranta 2A

P.O. Box 50

FI-28101 Pori, Finland

Tel. +358 207 550 555

Fax. +358 2 632 6546

www.sampo-rosenlew.fi