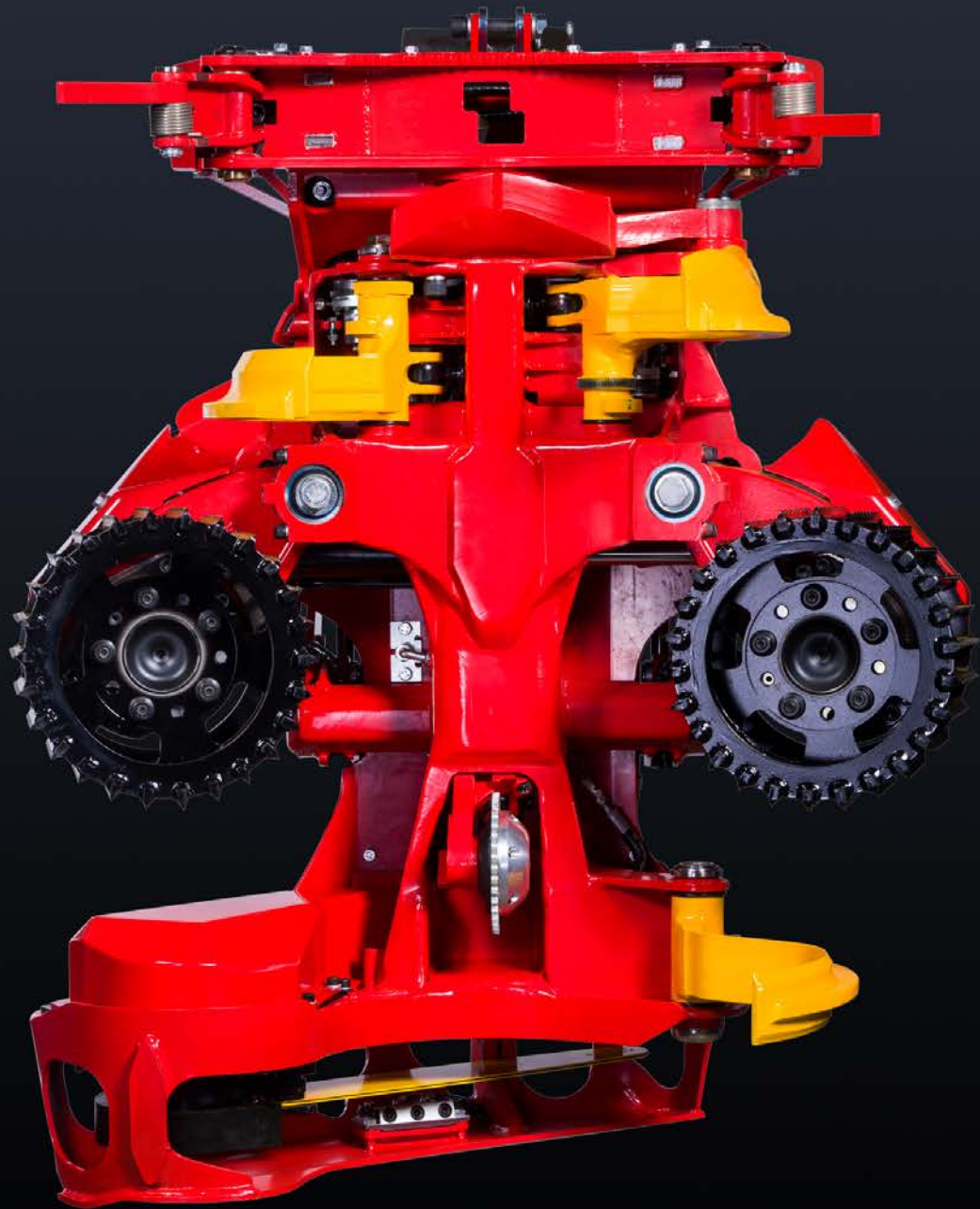


Sip

ALWAYS AHEAD



SP 461 LF

– a big little harvester head

Maximum production and minimum friction

LF stands for “Low Friction” and refers to the very low friction that arises between trunk and harvester head in the LF series.

LF minimises the friction during feeding, thereby maximising the harvester head’s performance and production. The low friction also minimises damage to the trunk, wear on the harvester head and fuel consumption.

The LF harvester heads have a low weight in relation to their capacity, and their compact design means that they can also be manoeuvred easily in dense stands. LF comprises four smart systems that help to minimise friction and maximise production.



LF - Low friction

1. Proportionally angled feed rollers mean that when the harvester head is fully open (at maximum tree size) the feed roller provide maximum angle and carrying force in relation to the trunk. The larger the trunk, the greater the carrying force. This means that the harvester head feeds the trunk through quickly and easily, which in turn increases production.
(SP patent)



2. The proportional pressure means that the harvester head automatically works with the correct trunk diameter. This minimises both energy consumption and wear. Various settings for different tree types maximise production and minimise trunk damage.



3. LogHold is a further development for the proportional pressure and means that the delimiting knife pressure against the trunk can be reduced without the risk of the trunk being dropped. If the trunk is about to fall, LogHold regulates the knife pressure so that the trunk is held in the right position. The amount by which the diameter may increase before LogHold takes action is set the control system. No additional sensors are required.
(SP patent)

4. The delimiting knives are cast in high-strength steel and equipped with long cutting edges. This means that the limbs are cut off instead of being broken off. This minimises friction during delimiting and allows the trunk to be fed through easily.



In summary:

The LF principle gives our harvester heads the greatest possible performance and our customers the greatest possible production and yield.

SP 461 LF

- a big little harvester head

The SP 461 LF is a very fast, nimble high performance harvester head. It is designed according to SP's Low Friction principle for minimum friction and maximum productivity. The SP 461 LF is perfectly suited to work on midsize thinning carriers with long reach as well as smaller in stand thinning carriers.

Fast feeding in combination with low weight and very compact measurements ensures highest efficiency and productivity even in dense small diameter thinning. In larger diameter thinning the clever SP patents LogHold and proportional angled feed rollers gives the SP 461 LF an impressive handling and capacity. The SP 461 LF is in all respects - a big little harvester head.

The SP 461 LF reaches top performance in stands with a diameter of 10 – 25cm (4-10") dbh, but is thanks to the LF principle also capable of efficiently working with larger tree sizes.



Pressed for time, dense stand and meticulous? No problem, the SP 461 LF is a complete, light harvester head that works quickly and efficiently with the highest quality.



The SP 461 LF is a great small harvester head that, thanks to the LF principle, manages more than just small diameter thinning.



The 461's compact and flexible design gives characteristics perfect for fast and productive multi-tree processing.

SP 461 LF



SP 461 LF - Details

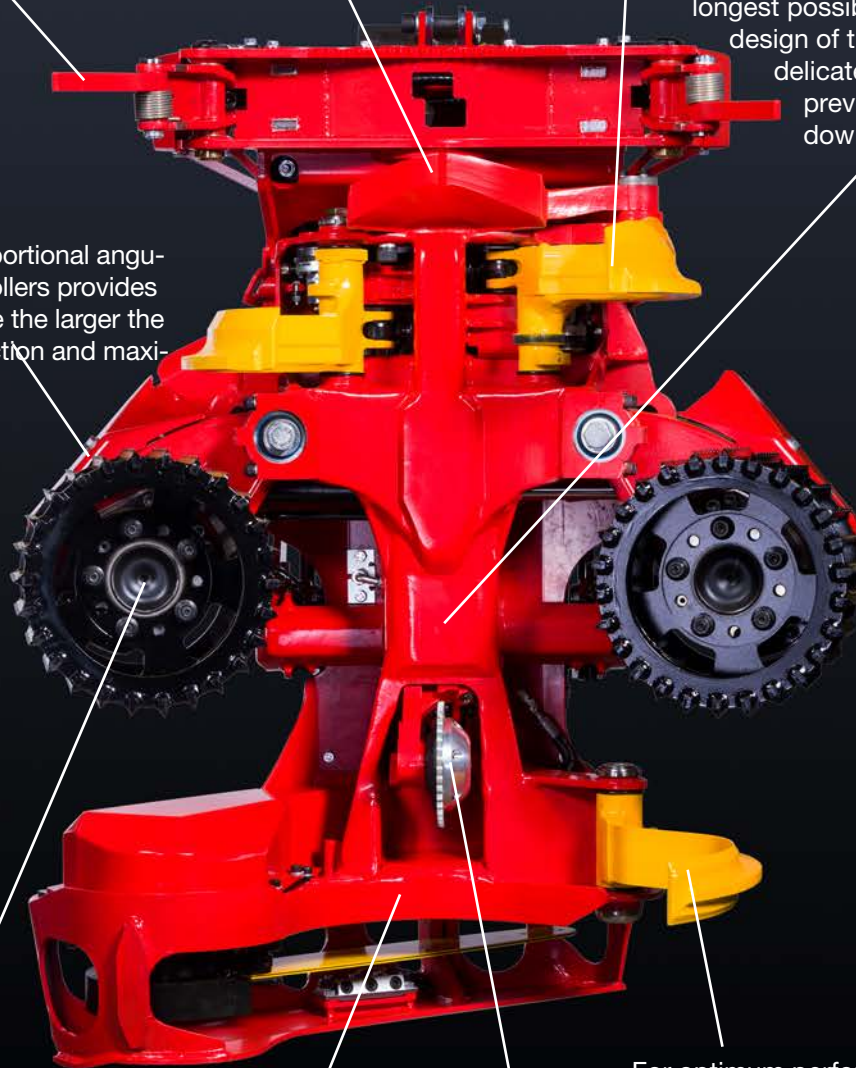
The floating top knife gives an excellent delimiting, lower friction as well as an easier processing of crooked stems. Casted in high strength steel for best durability.

The three movable delimiting knives are casted in high strength steel for best durability. The upper and lower knives have a unique radius to each other providing an absolute perfect delimiting result all the way from 350 to 30mm.

The Multi-Tree Equipment option is integrated in the tilt frame, which provides a durable, compact and flexible design.

The frame consists of only the best possible materials. Parts of the frame that are in contact with the trunk is of a highly wear resistant material for longest possible life. The clean design of the frame without delicate components prevents wear and downtime..

SP's patented proportional angulation of the feed rollers provides more carrying force the larger the trunk for lowest friction and maximum production..



The SP 461 LF is run by powerful piston motors, known for their high torque and quality. The motor arms are casted in high strength steel for best durability.

For optimum performance the SP 461 LF is standard equipped with separate knife control. This makes for example the processing of crooked trees as well as the reversing of large diameter trees an easy task.

Delimiting knife number 5 is integrated in the saw box and helps with the delimiting of the lower part of the tree when positioning for the felling.

The length measuring unit is controlled by a strong and fast cylinder. In combination with the large movement of the measuring unit this ensures perfect measuring results also on bumpy and uneven stems.

SP 461 LF - Details

The movable accumulating block for incoming hoses minimizes wear on both hoses as well as on the valve bank.

The colour marking system SUPERMARK is one of many clever options. The colour tanks are strategically placed for best function and protection.

All functions of the harvester heads are integrated in one compact valve bank for a minimum of hoses. The perfectly adjusted hydraulics works very efficient with a minimum of losses. In combination with the LF principle this makes the SP 461 LF a very fast and easy to work with harvester head with an unrivalled productivity.

The main cover is hinged for fast and easy maintenance. The tight fit prevents dirt and snow packing.

Exposed pins are an expander type for the maximum reliability and minimum need for maintenance.

The robust and powerful saw unit SUPERCUT100 features integrated chain lubrication and an automatic hydraulic tensioning of the chain. The unique gear rack solution provides superior power through out the whole cutting cycle. Together with SP's QuickCut this ensures an optimized cutting time and a minimized risk of cutting cracks.

The diameter measuring is linked to both upper delimiting knives for best accuracy. The diameter encoders are well protected in sealed housings for minimum wear and longest life.

The motor arms are equipped with robust protection plates for hydraulic fittings for less wear and downtime.

The delimiting knives are equipped with long and perfectly designed cutting edges. This ensures that the limbs are smoothly cut of instead of broken off. This minimizes the friction during the feeding and gives a perfect delimiting result.

SP 461 LF



Technical data and recommendations

Hydraulics

Min. pump capacity	185 l/min
Rec. working pressure	23 – 25 MPa

Feeding

Proportional clamping pressure of the feed rollers in relation to trunk diameter, individual settings for different species for optimum performance.

Roller motors	398, 450 cc
Max. opening	420 mm
Feeding force	20 kN
Feed speed	5 m/s
Proportional pressure	Yes

Cutting

The SuperCut 100 is a very powerful saw unit with integrated chain lubrication and hydraulic tensioning of the chain. Together with SP's QuickCut, this optimises cutting time and minimises the risk of cutting cracks.

Cutting diameter	530 mm
Chain speed	40 m/s
Saw motor	20 cc
Saw unit	Automatic - SuperCut 100
QuickCut	Yes

Delimiting

Proportional delimiting knife pressure in relation to trunk diameter for minimum friction and maximum production. Individual setting of upper/lower knives and for different tree species for optimum performance.

Movable knives	4 inkl topp kniv
Fixed knives	1
Min. delimiting diameter	30 mm
Delimiting diameter tip to tip	350 mm
Proportional pressure	Yes
LogHold	Yes
Separate knife control	Yes

Weight and dimensions

With extremely compact measurements and low weight, the SP 461 LF is perfectly suited for thinning operations in dense stands.

Width closed	850 mm
Width open	1130 mm
Height	1230 mm
Weight excl. rotator	726 kg

Recommendations

Carriers

The SP 461 LF can be fitted to a variety of different carriers such as conventional forest machines and excavators. In order to ensure good function, please consult your nearest SP dealer or SP staff.

Tree sizes

Optimum tree size dbh*:	10 – 25 cm
Max. rec. tree size dbh*:	35 cm

* Diameter breast height, measured 1.3 m up from the ground.

We reserve the right to change specifications and design. Harvester heads pictured may have some extra equipment. All stated measurements/values are approximate and refer to standard equipment.

SP 461 LF

Accessories and equipment

SP 461 LF come with a high level of equipment as standard. However, a number of different accessories are available in order to optimise the harvester head for different needs, carriers and felling conditions. The most common accessories are described below.

For more information about accessories, please contact your nearest SP dealer or SP Maskiner.

Colour marking SUPERMARK

Used to facilitate forwarding when the assortment is difficult to distinguish with the naked eye. When the saw cuts through the log, the SUPERMARK marks the end by spraying a jet of paint on the cut end. A very reliable and well tested system.



Colour tanks on tilt frame



Marking unit in saw box

Multi-tree equipment

High productivity equipment for small diameter stands because using SP's multi-tree equipment it is possible to fell and gather several trunks before processing them simultaneously. The multi-tree equipment is integrated in the tilt frame, which provides a durable, compact and flexible design.



ICE saw box

A saw box specially designed to facilitate felling in areas with much snow.

Feed rollers

Different feed rollers for different species and conditions.



Moipu



Finnskog roller



Skeleton

Complete measurement and control system

SP harvester heads can be installed on machines equipped within any of the following control systems:

Dasa5 Bucking – Dasa5 Bucking Prio – Dasa5 Bucking Prio C - Dasa Forester - Technion



Retrofitting Measurement & Control Systems

The SP 461 LF can be equipped for mounting machinery with the following measurement & control systems:

Dasa4 dxPC - Dasa4Compact - Dasa 5 - Dasa Forester
Motomit IT - Motomit PC

JohnDeere Timbermatic 300 / 3000 / H09

Technomatic - Technion

Other options

Rotators - Swing dampers - Joysticks - Parts kits - Rotator valve -
Contorta knife - Feed roller guard



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Distributor:

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