

Sip

ALWAYS AHEAD



SP 561 LF

– fast, agile and efficient

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.

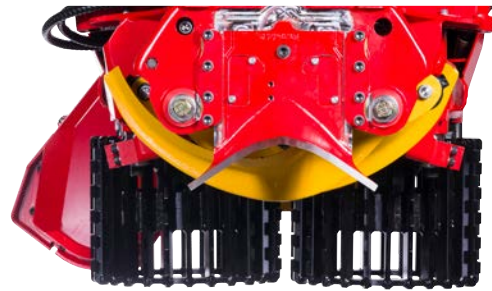
LF minimises the friction during feeding, thereby maximising the harvester head’s performance and production. The low friction also minimises damage to the trunk, wear on the harvester head and fuel consumption.

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 rollers 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. 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 of 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 in 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 561 LF

- fast, agile and efficient

The SP 561 LF is a high-performance all-round harvester head. It is designed according to the LF principle for maximum productivity. The SP 561 LF is specifically designed for varied jobs and offers very good characteristics all the way from first thinning to medium final cut.

The compact measurements in combination with a perfect delimiting down to 30mm make sure that the first thinning can be done fast and efficient with the highest quality. In final cutting, i.e. when handling large diameter trees, the smart SP patents LogHold and proportionally angled feed rollers turns the SP 561 LF into a harvester head with an impressive capacity/weight ratio and unrivalled productivity. The SP 561 LF is without a doubt both fast, agile and efficient.

SP 561 LF reaches top performance in stands with a diameter of 15 to 35cm dbh but is thanks to the LF principle also capable of efficiently working with larger tree sizes.



The SP 561 LF has many smart solutions and patents e.g. LogHold, proportionally angled feeder rollers and separate delimiting knife control. All of this to maximise the productivity in varying stands.



SP's QuickCut combined with the extremely strong SUPER-CUT100 saw unit ensures that cutting cracks are minimised.



The compact design combined with multi-tree equipment provides the highest possible productivity during small diameter thinning.

SP 561 LF



SP 561 LF - Details

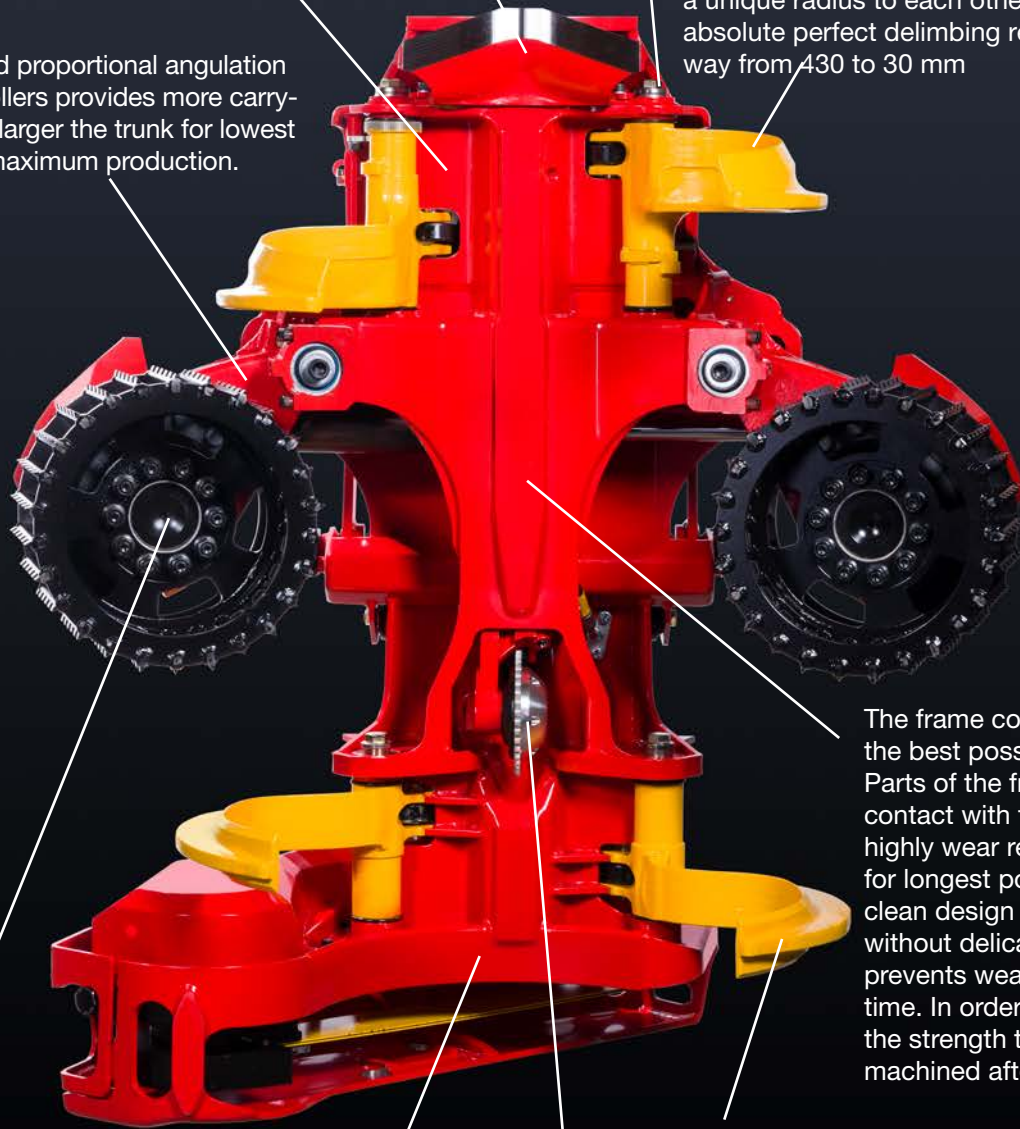
The floating top knife gives an excellent delimiting, lower friction as well as an easier processing of crooked stems.

The exposed pins are of expander type for maximized strength and minimized need for maintenance.

Robust protection plates for hoses and cylinders prevent wear and downtime.

The four 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 430 to 30 mm

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



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

The SP 561 LF is run by powerful piston motors, known for their torque and quality. The motor arms are casted in high strength steel for best durability.

Dual lower knives ensure an easy processing of large diameter trunks as well as a perfect delimiting of the lower part of the trunk. For optimum performance the SP 561 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 trunks an easy task

Delimiting knife number 6 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 561 LF - Details

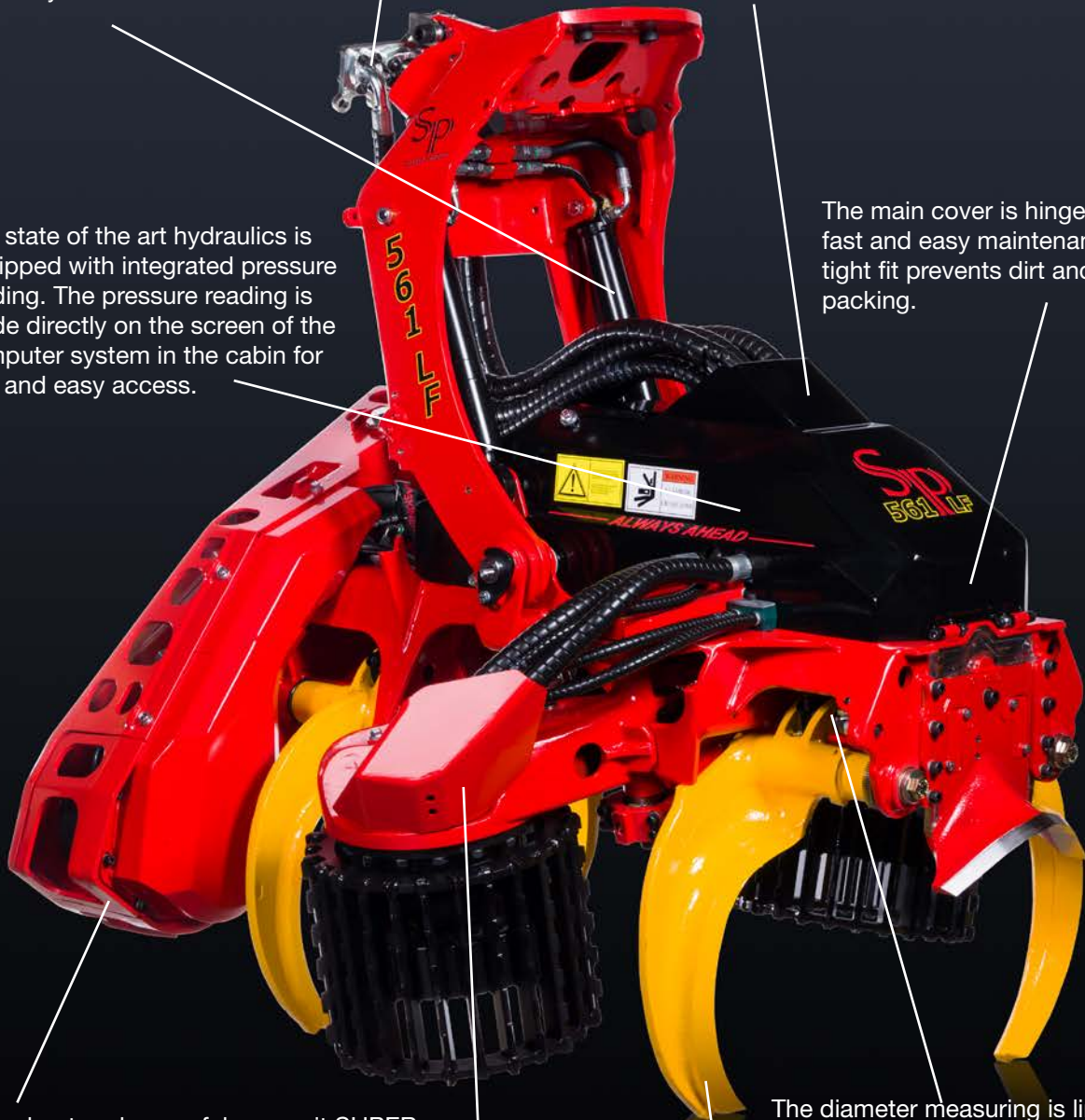
The movable accumulating block for incoming hoses minimizes wear on both hoses as well as on the valve bank.

Tiltcylinders are placed inside of the tiltframe for best protection and reliability.

The state of the art hydraulics is equipped with integrated pressure reading. The pressure reading is made directly on the screen of the computer system in the cabin for fast and easy access.

All functions of the harvester head 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 561 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.



The robust and powerful saw unit SUPER-CUT100 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 motor arms are equipped with robust protection plates for hydraulic fittings for less wear and down time.

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 delimiting knives are equipped with long and perfectly designed cutting edges. This ensures that the limbs are smoothly cut off and not broken off. This minimizes the friction during the feeding and gives a perfect delimiting result.

SP 561 LF



Technical data and recommendations

Hydraulics

| | |
|-----------------------|--|
| Min. pump capacity | 195 l/min |
| Rec. working pressure | 23 – 25 MPa (625 cc roller motor) 23 – 28 Mpa (514 + 560 cc roller motor) |

Feeding

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

| | |
|----------------------|-----------------------|
| Roller motors | 514, 560 eller 625 cc |
| Max. opening: | 500 mm |
| Feeding force | 25 kN |
| Feed speed | 0 – 6 m/s |
| Proportionella tryck | Yes |

Cutting

SuperCut 100 är en mycket kraftfull enhet med integrerad kedjesmörjning och hydraulisk sträckning av kedjan. I kombination med SP's QuickCut optimeras kaptiden och risken för kapsprickor minimeras.

| | |
|------------------|--------------------------|
| Cutting diameter | 600 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 | 5 inkl topp kniv |
| Fixed knives | 1 |
| Min. delimiting diameter | 30 mm |
| Delimiting diameter tip to tip | 430 mm |
| Proportional pressure | Yes |
| LogHold | Yes |
| Separate knife control | Yes |

Weight and dimensions

With compact dimensions and a very low weight in relation to its high capacity, the SP 561 is perfectly suited for a range of felling jobs.

| | |
|----------------------|---------|
| Width closed | 900 mm |
| Width open | 1500 mm |
| Height | 1500 mm |
| Weight excl. rotator | 980 kg |

Recommendations

Carriers

The SP 561 LF can be fitted to a variety of different carriers, such as conventional forest machines, excavators and forestry tractors. In order to ensure good function, please consult your nearest SP dealer or SP staff.

Tree sizes

| | |
|---------------------------|------------|
| Optimum tree size dbh*: | 15 – 35 cm |
| Max. rec. tree size dbh*: | 43 cm |

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

SP 561 LF

Accessories and equipment

SP 561 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



Colour tanks on tilt frame

Hydraulic motors:

To optimise the SP 561 LF for different machines and felling conditions, there are three different sizes of hydraulic motor available. 514 - 560 - 625 cc.

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.



Feed rollers

Different feed rollers for different species and conditions.



Moipu



SP Stålvals



Mense



Tireco

Find end sensor

Makes work easier in forests that are already felled since this function, at the push of a button, allows the head to automatically find the root end and zero the length.



Complete measurement and control system

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

Dasa4 dxPC - Dasa4Compact - Dasa5 - Dasa Forester

Motomit IT - Motomit PC



Retrofitting measurement & control Systems

The SP 561 LF can be equipped for mounting machinery with the following measurement & control systems:

Dasa280 - Dasa380 - Dasa4 dxPC - Dasa4Compact - Dasa5 - Dasa Forester

Motomit IT - Motomit PC

Valmet MAXI

JohnDeere Timbermatic 300 / 3000

Technomatic

Aptor20

Other options

Rotators - Swing dampers - Joysticks - Parts kits - Rotator valve



SP

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Distributor

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