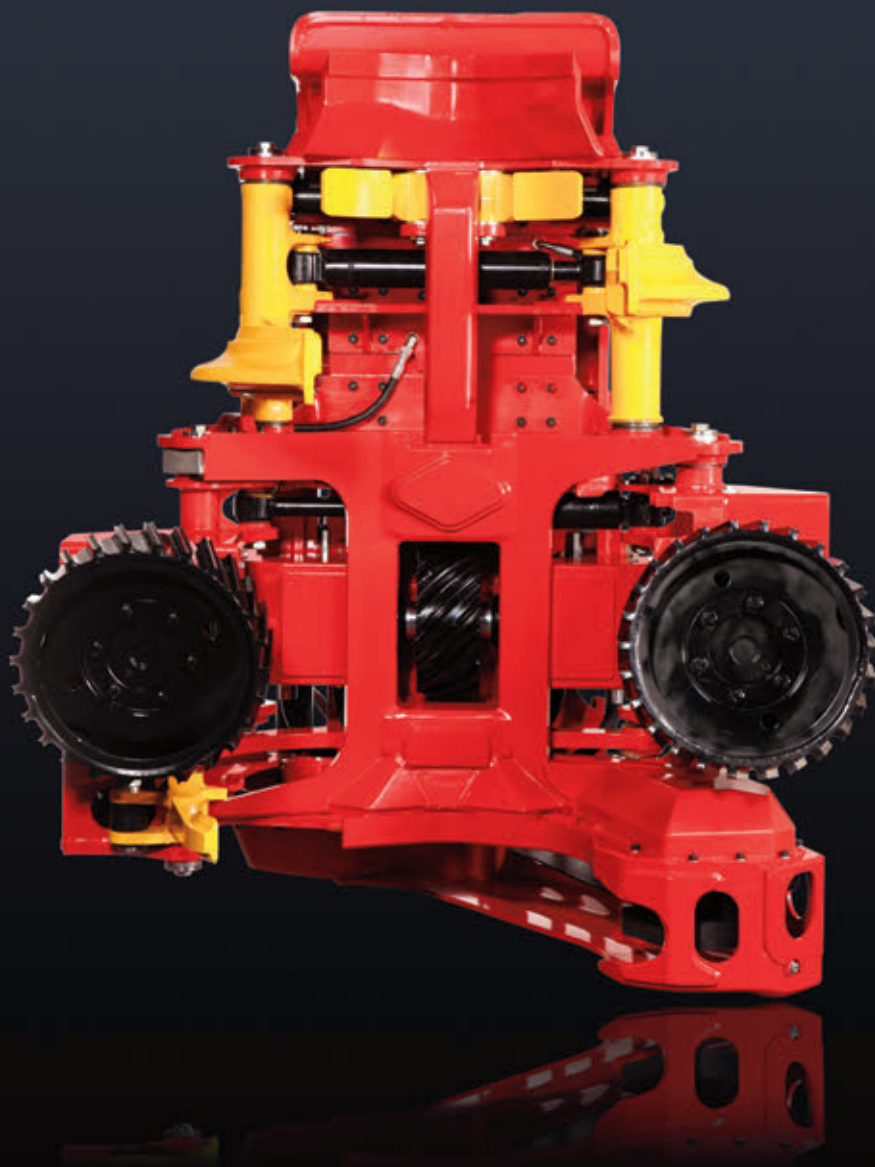


Sip

ALWAYS AHEAD



SP 591 LX G2

-high speed powerhouse for xtreme jobs

Without compromises for xtreme jobs

LX stands for Logging Xtreme, referring to the xtreme conditions that the LX harvester heads are designed to be able to handle without surrendering. Thanks to a number of both smart as well as simple solutions, the LX harvester heads offers a unique combination of maximized productivity, performance and uptime together with a minimum need for service and maintenance.

The LX harvester heads are first and foremost known for their xtreme strength, reliability and toughness, but thanks to performance and productivity increasing solutions like the SP patent LogHold, proportional pressures, and SP's highly developed computer software, they are also xtremely fast, efficient and easy to work with.

LX consists of four main features contributing to a maximized reliability and minimized need for service and maintenance, even under the toughest conditions. However when looking closer and in detail the LX harvester heads are packed with solutions adding up to the unique LX design.

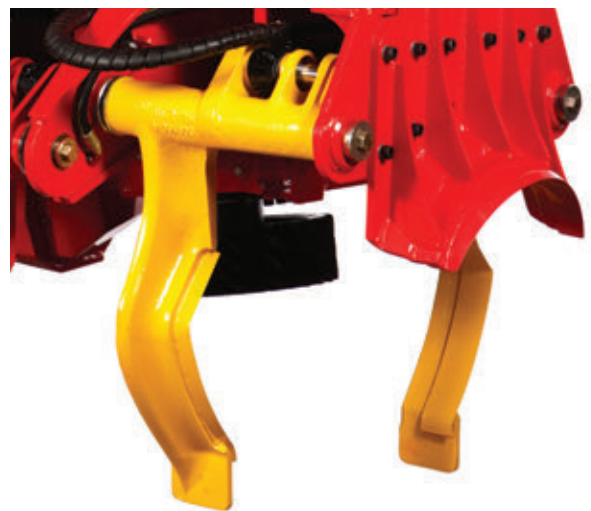


LX - Logging xtreme

1. The frame consists of very thick high quality steel plates. Together with the compact design this makes the frame extremely strong and durable. In order to minimize tension and to maximize strength the frame is machined after the welding process. Heavy duty wear plates in the frame distributes the log pressure for minimum wear and longest life.



2. The extremely robust delimiting knives are casted in high strength steel. In order to simplify the maintenance the knives are equipped with replaceable cutting edges. The cutting edges are made of an extra wear resistant material for longest possible life.



3. All components are strategically placed for best protection against external wear. In order to minimize internal wear and vibrations the LX harvester heads are equipped with integrated hydraulic dampening on exposed cylinders as well as mechanical dampening of movable parts. These solutions ensure a smooth, silent and virtually vibration free harvester head.

4. Cylinder pins are of very large diameters, both hardened and achromatized for highest possible wear resistance. Pins for knives, roller arms and tilt frame are of large diameter expander type and completely sealed off from debris. This guarantees maximum life and reliability as well as a minimum need for maintenance.



SP 591 LX G2

- high speed powerhouse for xtreme jobs

The SP 591 LX G2 is purpose built for harvesting and debarking of plantation grown eucalyptus. It is an extremely strong and tough harvester head, designed according to the LX principle for maximum reliability and productivity even under the toughest conditions. The uncompromised LX design is to be found all throughout the harvester head, from large components like frame and knives down to pins and seals. In spite of its brute and tough appearance the SP 591 LX G2 does not just offer strength and reliability. Smart solutions like proportional pressures in combination with an unprecedented debarking efficiency also make the SP 591 LX an extremely fast, productive and fuel efficient harvester head – the SP 591 LX truly is a high speed powerhouse for xtreme jobs.

The SP 591 LX G2 is optimized for best productivity and performance handling tree sizes from 10 to 35 cm (4-14”) and is equally productive working in a CTL application as it is processing decked wood out of a pile.



Thanks to an unprecedented debarking efficiency in combination with proportional pressures and SP's highly developed software, the SP 591 LX G2 is able to present perfectly debarked logs with minimum fiber damage at highest possible productivity level.



SP 591 LX G2 offers a unique combination of highest productivity, longest life time and lowest operating cost.



With feed speeds exceeding 7m/s the SP 591 LX really lives up to the description – high speed powerhouse.

SP 591 LX G2



SP 591 LX G2 - Details

The robust frame consists of plates of special high strength steel. Together with the compact design this makes the frame extremely strong and torsion resistant. The frame is machined after the welding to ensure a perfect fit and a minimum of tension when assembled.

The two wrap around knives are casted in high strength steel and are of an extremely robust design with a weight of 70 kg's each. Equipped with replaceable knife inserts for a minimum, cost effective and quick maintenance.

The robust top knife is equipped with a replaceable cutting edge of highest quality for a minimum, cost effective and easy maintenance.

Pins for cylinders are both hardened and chromed. In combination with large diameters (40mm) this gives a very reliable design with a minimum need for maintenance

Large diameter cylinders for highest strength. All cylinders have the same diameter and thus shares the same seal kit for easier parts stocking.

The heavy duty feed motors are built to handle very high revolutions and are perfectly suited for high speed debarking of eucalyptus. Length measuring is integrated in feed motor for a minimum of maintenance.

Thick wear plates spreads the pressure of the tree and prevents the actual surface of the frame from wearing.

The 4 motor/3 roller feeding system provides great grip, pulling force and debarking. All three feed rollers are virtually in line which makes the handling of crooked timber an easy task.

The cutting device is the robust and fully automatic Hultdins Supercut 100 with integrated chain lubrication and hydraulic tensioning of the chain.

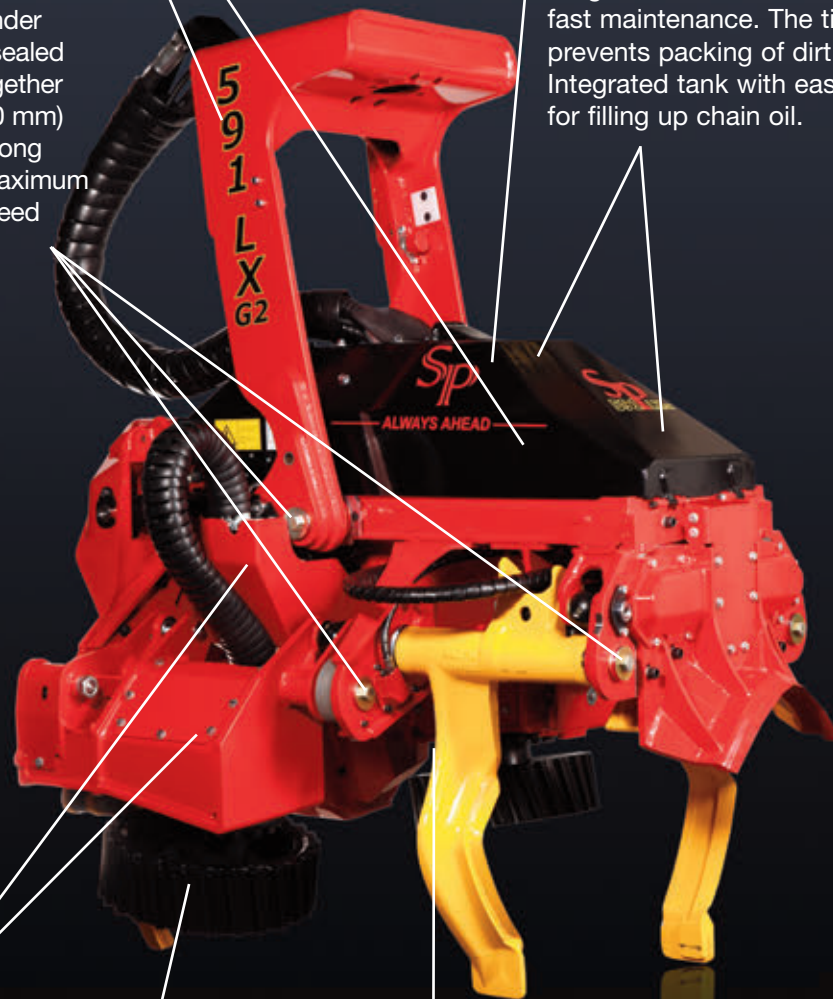
SP 591 LX G2 - Details

Extremely and robust and torsion resistant tilt frame. Soft dampers on both tilt up and down minimizes vibrations and wear.

The hydraulic valve bank is of the brand Parker. It is working with very good hydraulic efficiency and small energy losses. Together with the proportional pressure system this makes the SP 591 LX a very fast and easy to work with harvester head with an impressive speed and productivity.

Pins for tilt frame, knives and roller arms are all of expander type. The pins are totally sealed off from sand and dirt. Together with the large diameter (50 mm) this gives an extremely strong and reliable solution for maximum lifetime and a minimum need for maintenance.

Hinged valve cover for easy and fast maintenance. The tight fit prevents packing of dirt and debris. Integrated tank with easy access for filling up chain oil.



All hydraulic fittings are well protected for less wear and downtime.

The of set feed rollers gives an increased spiralling of the tree resulting in a faster and more effective debarking.

Encoders for diameter measuring are well protected and integrated in the frame. Mounted in sealed housings for longest life and minimum wear.

SP 591 LX G2



Technical data / recommendations

Hydraulics

	Metric	U.S.
Min. pump capacity	166 l/min	44 gpm
Rec. working pressure	25 - 30 Mpa	3626 – 4350 psi

Feeding

Proportional clamping pressure of the feed rollers. Individual settings for different species for optimum performance.

Hydraulic motors	500/315, 630/400, 800/500 cc	30,5/19,2 - 38,4/24,4 - 48,8/30,5 cui
Max. opening	640 mm	25,2"
Feeding force	30 kN	6 744 lbf
Feed speed	0 – 7 m/s	0 – 23 ft/s
Proportional pressure	Yes	Yes

Felling / Cutting

The SuperCut 100 is a very robust and powerful saw unit with integrated chain lubrication and automatic hydraulic tensioning of the chain.

Cutting diameter	600 mm	23,6"
Chain speed	40 m/s	121 ft/s
Saw motor	20 cc	1,22 cui
Saw unit	Automatic - SuperCut 100	Automatic - SuperCut 100

Delimiting

Proportional pressure on delimiting knives. Individual settings for different species for optimum performance.

Movable knives	2	2
Fixed knives	2	2
Diameter min.	30 mm	1,2"
Diameter tip to tip	430 mm	16,9"
Proportional pressure	Yes	Yes
LogHold	Yes	Yes

Weight and dimensions

In spite of the very robust LX design the weight of the SP 591 LX makes it suitable for a variety of different carriers. Thanks to the compact height the SP 591 LX handles crooked timber with ease and efficiency.

Width closed	1250 mm	49,2"
Width open	1550 mm	61"
Height excl. tilt frame	1670 mm	65,8"
Weight excl. rotator	1800 kg	3968 lb

Recommendations

Carriers

The SP 591 LX can be fitted to a variety of different carriers such as conventional forest machines or excavators. In order to secure a good function please consult your nearest SP dealer.

Tree sizes

Optimum tree size dbh*:	15 – 35 cm	6 – 14"
Max. rec. tree size dbh*:	40 cm	16"

* Diameter breast height, measured 1,3 m (51,2") up from the ground.

We reserve the right to change specification and design without further notice. The pictured harvester heads can be equipped with optional equipment. All measures are approximate and apply to a standard equipped harvester head.

SP 591 LX G2

Optional equipment

The SP 591 LX has a very high level of standard equipment. However a number of different options are available for being able to optimize the harvester head for different needs, carriers and conditions. The below list contains the most common options. For more information please contact your nearest SP dealer.

Additional upper debarking knives

When harvesting and debarking certain species of trees under certain conditions the additional debarking knives enables the SP 591 LX G2 to debark the tree in one pass. This dramatically increases the productivity as well as minimizes the wear on the harvester head.



Lower debarking knife

The lower knife main task is to prevent already loosened bark to contaminate the log pile. Together with the additional upper debarking knives this option gives the SP 591 LX G2 an unprecedented debarking efficiency.



Feed motors

In order to optimize the SP 591 LX for different carriers and conditions there are 3 different motor sizes to choose from.

500/315 - 630/400 - 800/500 cc (30,5/19,2 - 38,4/24,4 - 48,8/30,5 cui)



Feed rollers

Different feed rollers for different species and conditions.



SP steel



SP eucalyptus dual



SP eucalyptus single



Moipu

3/4" saw unit

The SP 591 LX can be equipped with a 3/4" version of the Hultdins SuperCut100 automatic saw unit.



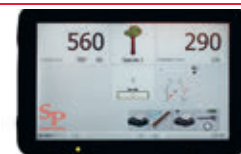
Find end sensor

Makes operations in pre felled woods easier and more productive. With the find end sensor the harvester head reverses down to the butt end of the stem, stops and sets the length to zero, all with the press of one button.



Complete measuring systems

The SP 591 LX can be supplied with one of the following three different measuring systems: Dasa5 Bucking – Dasa5 Bucking Prio – Dasa5 Bucking Prio C



Preparation for measuring systems

The SP 591 LX can be supplied prepared for machines equipped with any of the following measuring systems:
Dasa5 - Dasa4 dxPC - Dasa4Compact
Motomit IT - Motomit PC
Valmet MAXI
JohnDeere Timbermatic 300 / 3000
Technomatic





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