

**KESLA** HARVESTER HEADS



 **KESLA**  
THE MULTI-TALENT IN FOREST TECHNOLOGY

# THE MULTI-TALENT IN HARVESTER TECHNOLOGY

Kesla's extensive experience in forest technology has given it superior expertise as a developer of harvesters. Kesla's harvester family offers the market's most comprehensive line of both roller and stroke harvester heads. The product family also includes excavator harvester packages as well as special harvesters for eucalyptus handling.

Kesla is a pioneer in the outfitting of excavators for harvester use. Kesla has an in-depth knowledge of almost all the excavator brands and their special requirements. When it comes to stroke harvesters, Kesla is also the world's market and technology leader. An extensive selection of cranes designed specifically for harvesting use supplements the range of harvester products.

The design and manufacturing of Kesla's forest machines complies with all applicable international quality criteria. All products pass through a rigorous quality assurance program as well as practical performance and safety tests; the principles of sustainable development guide every aspect of Kesla's operations.

## COMPREHENSIVE SOLUTIONS:

- ▶ cut-to-length thinning and final felling
- ▶ gentle processing of valuable special timber
- ▶ harvesting of hardwoods and trees with robust branches
- ▶ cutting and debarking of eucalyptus trees
- ▶ processing as a part of a tree-length harvesting chain
- ▶ harvester accessories for excavators

## SUPERIOR DURABILITY AND PERFORMANCE

### **KESLA PROCON**

Besides bringing power and fluency to delimiting, the stepless adjustable feeding speed results in unprecedentedly accurate feed to the correct cutting length. The computer-controlled pressure adjustment is based on tree diameter ensuring optimal clamping force throughout the feeding; the feed rollers' grip and delimiting power is maximized without wasting energy on unnecessary clamping.

### **KESLA HYDCON**

The computer-controlled HydCON length measuring wheel follows the timber surface precisely in all conditions which significantly improves measuring accuracy. When gripping on a new tree the measuring wheel is retracted, substantially facilitating and speeding up picking of trees.

### **Automatic chain tightener**

RH and RHS models

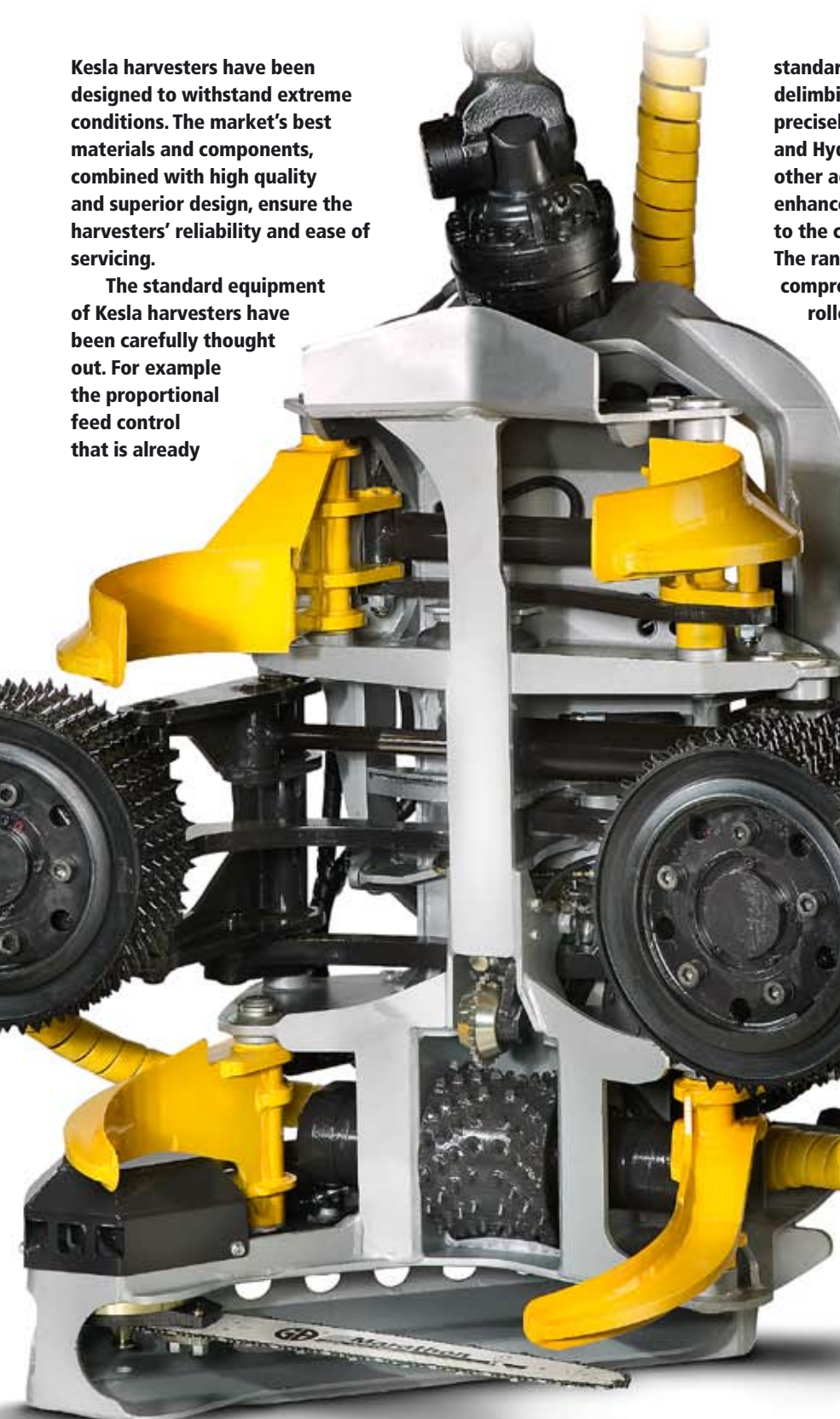


Kesla harvesters have been designed to withstand extreme conditions. The market's best materials and components, combined with high quality and superior design, ensure the harvesters' reliability and ease of servicing.

The standard equipment of Kesla harvesters have been carefully thought out. For example the proportional feed control that is already

standard in all RH and RHS models makes the delimiting efficient and fluent, and feeding stops precisely to the desired cutting length. The ProCon and HydCon features, as well as a broad range of other additional accessories, can be added to further enhance the harvesters' efficiency and suitability to the customer's needs and working conditions. The range of standard accessories also includes a comprehensive range of rotators as well as feed rollers designed for different conditions.

Kesla harvesters are available with several measuring computer alternatives as well as installation kits. The harvester heads are also directly compatible with the most of the harvester control systems at the market.



**EUCAPRO**

The EucaPro has been developed specifically for the efficient cutting and debarking of eucalyptus trees. The accessory package includes feeding rollers and delimiting knives specifically designed for eucalyptus tree, as well as special software for measuring computer.

**Topping saw**  
30RH and RHS models

**Color marking device**  
RH and RHS models

**Stump treatment device**  
RH and RHS models



The Kesla 18RH and 18RHS are genuine powerhouses when it comes to thinning. The feeding and sawing forces are exceptionally high compared to the head's weight. 18RH and 18RHS are at their best in thinning where the trees' average diameter is less than 25 cm. The head's maximum opening is 40 cm. The head's compact construction also enables it to process crooked stems effectively. Additional accessories include the HydCon measuring roller, color marking device, automatic chain tightener and stump treatment device. The Kesla 18RH and 18RHS are best suited to 7-10 ton wheeled harvesters.

TECHNICAL SPEC.	18RH		18RHS	
Width head open:	1 130 mm	44 1/2 "	1 130 mm	44 1/2 "
Width head closed:	870 mm	34 1/4 "	870 mm	34 1/4 "
Length:	1 140 mm	45 "	1 140 mm	45 "
Height without rotator:	1 100 mm	43 1/4 "	1 100 mm	43 1/4 "
Weight (without rotator):	450 kg	992 lbs	445 kg	980 lbs
<b>Chain saw</b>				
Max cutting diameter:	450 mm	18 "	450 mm	18 "
Guide bar length:	18 "		18 "	
Motor displacement:	19 cc		10 cc	
Feeding:	2 rollers		2 rollers	
Max opening of rollers:	400 mm	16 "	400 mm	16 "
Feeding force:	19 kN	4,270 lbf	15,1 kN	3,400 lbf
Speed max:	5 m/s	16 1/2 ft/s	5 m/s	16 1/2 ft/s
<b>Delimiting</b>				
Knives:	2 moving, 1 fixed		2 moving, 1 fixed	
Diameter tip-to-tip:	330 mm	13 "	330 mm	13 "
Max opening front knives:	480 mm	19 "	480 mm	19 "
Max opening rear knives:	-		-	
<b>Hydraulic requirements</b>				
Operating pressure:	210-240 bar		210-240 bar	
	3,045-3,480 PSI		3,045-3,480 PSI	
Flow required:	170-200 l/min		125-150 l/min	
	45-53 gpm (US)		33-40 gpm (US)	
Power required:	60-80 kW	80-107 hp	48-60 kW	65-80 hp
Crane recommendation:	Kesla H561, Kesla H571			





The Kesla 20RH and 20RHS are fast and agile heads for thinning and final fellings where the trees' average diameter is less than 30 cm. The head's maximum opening is 45 cm. Considering their size class, these lightweight yet sturdily constructed harvesters provide exceptionally powerful feeding and sawing forces. Thanks to the 4 delimiting knives, the picking properties and delimiting quality are excellent. Additional accessories include the ProCon and HydCon features as well as color marking device, automatic chain tightener and stump treatment device. The Kesla 20RH and 20RHS suit 8-13 ton wheeled harvesters.

TECHNICAL SPEC.	20RH		20RHS	
Width head open:	1 150 mm	45 1/3 "	1 150 mm	45 1/3 "
Width head closed:	900 mm	35 1/2 "	900 mm	35 1/2 "
Length:	1 275 mm	50 "	1 275 mm	50 "
Height without rotator:	1 220 mm	48 "	1 220 mm	48 "
Weight (without rotator):	570 kg	1,256 lbs	570 kg	1,256 lbs
<b>Chain saw</b>				
Max cutting diameter:	450 mm	18 "	450 mm	18 "
	(520 mm)	(20 1/2 ")	(520 mm)	(20 1/2 ")
Guide bar length:	18 " (20")		18 " (20")	
Motor displacement:	19 cc		10 cc	
Feeding:	2 rollers synchronized		2 rollers synchronized	
Max opening of rollers:	450 mm	18 "	450 mm	18 "
Feeding force:	19 kN	4,270 lbf	15,1 kN	3,400 lbf
Speed max:	5 m/s	16 1/2 ft/s	5 m/s	16 1/2 ft/s
<b>Delimiting</b>				
Knives:	4 moving, 1 fixed		4 moving, 1 fixed	
Diameter tip-to-tip:	330 mm	13 "	330 mm	13 "
Max opening front knives:	480 mm	19 "	480 mm	19 "
Max opening rear knives:	520 mm	20 "	520 mm	20 "
<b>Hydraulic requirements</b>				
Operating pressure:	210-240 bar 3,045-3,480 PSI		210-240 bar 3,045-3,480 PSI	
Flow required:	170-200 l/min 45-53 gpm (US)		135-160 l/min 36-42 gpm (US)	
Power required:	60-80 kW	80-107 hp	50-65 kW	67-87 hp
Crane recommendation:	Kesla H1395, Kesla H13105			

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes. The harvesters shown may have additional accessories.





The Kesla 25RH and 25RHS are truly versatile harvester heads for thinning and final fellings where the trees' average diameters are less than 40 cm. The head's maximum opening is 58 cm. The excellent balance, combined with the geometry of the rollers and knives, facilitates and speeds up the picking of trees either standing or laying on the ground, either vertically or from bundles lying on the ground. The head is also well suited to the processing on landing. Additional accessories include the ProCon, HydCon and EucaPRO features as well as color marking device, automatic chain tightener as well as stump treatment device. Kesla 25RH and 25RHS are best suited to 12-20 ton base machines. The 25RHS has been designed especially for use with excavators.



TECHNICAL SPEC.	25RH		25RHS	
Width head open:	1 350 mm	53 "	1 350 mm	53 "
Width head closed:	980 mm	38 1/2 "	980 mm	38 1/2 "
Length:	1 400 mm	55 "	1 400 mm	55 "
Height without rotator:	1 390 mm	54 3/4 "	1 390 mm	54 3/4 "
Weight (without rotator):	790 kg	1,740 lbs	790 kg	1,740 lbs
<b>Chain saw</b>				
Max cutting diameter:	670 mm	26 1/4 "	560 mm (670 mm)	22 " (26 1/4 ")
Guide bar length:	25 "		22 "	(25")
Motor displacement:	19 cc		19 cc	
Feeding:	2 rollers synchronized		2 rollers synchronized	
Max opening of rollers:	580 mm	23 "	580 mm	23 "
Feeding force:	24 kN	5,400 lbf	20 kN	4,500 lbf
Speed max:	5 m/s	16 1/2 ft/s	5 m/s	16 1/2 ft/s
<b>Delimiting</b>				
Knives:	4 moving, 1 fixed		4 moving, 1 fixed	
Diameter tip-to-tip:	390 mm	15 1/2 "	390 mm	15 1/2 "
Max opening front knives:	600 mm	23 3/4 "	600 mm	23 3/4 "
Max opening rear knives:	680 mm	26 3/4 "	680 mm	26 3/4 "
<b>Hydraulic requirements</b>				
Operating pressure:	210-240 bar 3,045-3,480 PSI		210-240 bar 3,045-3,480 PSI	
Flow required:	200-250 l/min 53-66 gpm (US)		170-210 l/min 45-55 gpm (US)	
Power required:	75-100 kW	100-135 hp	60-85 kW	80-115 hp
Crane recommendation:	Kesla H1395, Kesla H13105			

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes. The harvesters shown may have additional accessories.



The Kesla 30RH and 30RHS roller heads are sturdily constructed for heavy-duty final fellings where the trees' average diameter can be as large as 50 cm. The head's maximum opening is 68 cm. The efficient, fully synchronized 3-roller drive provides plenty of power for the processing of even the most robustly branched trees. The head is also well suited for the processing of trees lying on the ground or in piles. Additional accessories include the ProCon, HydCon and EucaPRO features as well as color marking device, automatic chain tightener and stump treatment device. The Kesla 30RH and 30RHS are best suited to 18-25 ton track-based machines or heavy-duty wheeled harvesters. The 30RHS has been designed especially for excavator use.



TECHNICAL SPEC.	30RH	30RHS
Width head open:	1 695 mm 66 ¾ "	1 695 mm 66 ¾ "
Width head closed:	1 130 mm 44 ½ "	1 130 mm 44 ½ "
Length:	1 690 mm 66 ¾ "	1 690 mm 66 ¾ "
Height without rotator:	1 610 mm 63 ½ "	1 610 mm 63 ½ "
Weight (without rotator):	1 400 kg 3,086 lbs	1 400 kg 3,086 lbs
<b>Chain saw</b>		
Max cutting diameter:	670 mm 26 ¼ " (750 mm) (29 ½ ")	670 mm 26 ¼ " (750 mm) (29 ½ ")
Guide bar length:	25 " (28")	25 " (28")
Motor displacement:	30 cc	30 cc
Feeding:	3 rollers synchronized	3 rollers synchronized
Max opening of rollers:	680 mm 26 ¾ "	680 mm 26 ¾ "
Feeding force:	30 kN 6,750 lbf	27 kN 6,070 lbf
Speed max:	4 m/s 13 ft/s	5 m/s 16 1/2 ft/s
<b>Delimiting</b>		
Knives:	4 moving, 1 fixed	4 moving, 1 fixed
Diameter tip-to-tip:	480 mm 19 "	480 mm 19 "
Max opening front knives:	720 mm 28 ⅓ "	720 mm 28 ⅓ "
Max opening rear knives:	760 mm 30 "	760 mm 30 "
<b>Hydraulic requirements</b>		
Operating pressure:	230-250 bar 3,335-3,625 PSI	230-270 bar 3,335-3,916 PSI
Flow required:	250-300 l/min 66-80 gpm (US)	220-270 l/min 58-71 gpm (US)
Power required:	120-150 kW 160-200 hp	100-130 kW 135-175 hp

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes. The harvesters shown may have additional accessories.

# LEADING STROKE HARVESTER TECHNOLOGY

Kesla is the world's leading manufacturer of stroke harvesters. The stroke technology results in substantial delimiting force achieved with minimum hydraulic requirements. Kesla stroke harvesters particularly suit excavator bases. At their best they supply the raw delimiting power required for the harvesting of trees with robust branches; on the other hand are also able to process valuable special trees gently. The unique ProStroke partial stroke feed facilitates the delimiting of even crooked trees. Thanks to their excellent features for picking of trees, the Kesla stroke harvesters excellently suit the cut-to-length harvesting of standing trees as well as the processing on landing as a part of tree-length logging chain.





**KESLA  
PROSTROKE**

The Kesla 20SH stroke harvester is particularly well suited to the effective processing of robustly branched trees, either standing or in piles. Processing of valuable special trees without damaging timber surface is also easy with this harvester head. Thanks to the ProStroke partial stroke function, even the delimiting of crooked trees is efficient. The optimum diameter of trees is 25 cm. The Kesla 20SH suits 7-13 ton base machines.

The Kesla 560SH stroke harvester is at its best when processing robustly branched trees – standing or in piles – requiring substantial delimiting force. The stroke technology ensures that the tree's surface is not damaged, facilitating the gentle handling of valuable timber. The optimum tree diameter is 40 cm. The Kesla 560SH suits 10-15 ton base machines.



TECHNICAL SPEC.	20SH		560SH	
Width head open:	950 mm	37 1/2 "	1 120 mm	44 "
Width head closed:	855 mm	33 1/2 "	1 015 mm	40 "
Length:	1 400-2 150 mm	55-84 1/2 "	1 580-2 430 mm	62 1/4-95 1/2 "
Height without rotator:	1 275 mm	50 "	1 485 mm	58 1/2 "
Weight (without rotator):	520 kg	1,146 lbf	800 kg	1,763 lbf
<b>Chain saw</b>				
Max cutting diameter:	450 mm	18 "	670 mm	26 1/4 "
Guide bar length:	18 "		25 "	
Motor displacement:	10 cc		19 cc	
Feeding:	stroke feed		stroke feed	
Max opening of rollers:	-		-	
Feeding force:	41 kN	9,217 lbf	65 kN	14,613 lbf
<b>Delimiting</b>				
Knives:	2 moving, 1 fixed		2 moving, 1 fixed	
Diameter tip-to-tip:	330 mm	13 "	390 mm	15 1/2 "
Max opening front knives:	480 mm	19 "	600 mm	23 1/2 "
Max opening rear knives:	520 mm	20 1/2 "	720 mm	28 1/2 "
<b>Hydraulic requirements</b>				
Operating pressure:	175-220 bar 2,538-3,190 PSI		175-220 bar 2,538-3,190 PSI	
Flow required:	70-120 l/min 18-32 gpm (US)		120-180 l/min 32-48 gpm (US)	
Power required:	20-44 kW	27-60 hp	40-75 kW	53-100 hp

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes. The harvesters shown may have additional accessories.



## COMPLETE EXCAVATOR PACKAGES:

- ▶ harvesters accessories for the most of the excavators
- ▶ installation
- ▶ measuring and control systems
- ▶ comprehensive safety equipment

# KESLA KNOWS EXCAVATORS

Most Kesla harvester heads also suit track-based machines. Besides its extensive harvester head range suiting almost all excavator models, Kesla also provides comprehensive installation services and extensive accessory packages. Options that can be selected by customers for their machines include, for example, a hydraulics package, measuring and control system, Xtender boom, protective steel plating and a full range of safety features. The accessory package can also contain a harvester head especially designed for the cutting and debarking of eucalyptus trees.

Supplied with the measuring system is a kit that makes its installation quick and easy; sensitive components are protected, and the finished result is stylish and user-friendly.

State-of-the-art control and measuring system, effective work lights and comprehensive safety features are an essential part of Kesla's excavator accessory package.



The Kesla Xtender boom expands the excavator's working range, improves the boom's geometry and facilitates movement through the terrain, resulting in a dramatic increase in productivity. Besides making it easy to set the transport position as well as extremely low-slung transport heights, the Xtender can be customized to fit almost any excavator.



The Kesla Xtender provides additional assistance in difficult terrain.



TECHNICAL SPEC.	Kesla Xtender	
Length (telescope in):	2 615 mm	103 "
Max length of extension (depending on weight of the harvester head):	1 450 mm	57 "
Weight (depending on the fittings):	450 kg	992 lbs

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes. The harvesters shown may have additional accessories.



# **KESLA**

Kesla is a dynamically evolving machine engineering group with almost 50 years of experience as a developer and manufacturer of forest technology. Our technical know-how and continuous customer-oriented product development has enabled us to export our products to over 25 countries. Kesla controls the entire production chain by providing the best machines and equipment for wood harvesting, transport and chipping.

Manufactured by:



Kuurnankatu 24

FI-80100 Joensuu, FINLAND

Tel. +358 13 682 841

Fax +358 13 682 8300

[www.kestla.com](http://www.kestla.com)

Distributed by:

Sales and service: