HARVESTER HEADS

#yourlifetimematch
KESLA #yourlifetimematch

Kesla was founded by farmer Antti Kärkkäinen in 1960. The business was based on products that Antti invented for agriculture and later on for forestry. The real passion for Antti was to do things better, as it is for Kesla’s personnel today. By listening to the customers and doing things better together we truly create the solutions which will meet the customer’s needs. These solutions, KESLA machines, integrate with the base machines easily and benefit the customer throughout the machines’ entire life cycle.

Today, Kesla is a strong forestry technology and material handling specialist, employing some 250 people in three locations in Finland and its subsidiary in Germany. KESLA products are exported to over 35 countries around the world.

We are proud members of the KESLA-team. We also welcome you, our valued customer, to join our team.

ISO 9001 tells it all about the quality of the operations

Kesla has been granted an ISO 9001 quality certificate. It is a certificate of the overall, innovative development activities which enable the offering of quality products and services. The ISO standard affects not only the material and manufacture of the products, but also all of the activities of the company.
KESLA HARVESTER HEADS

ARGUMENTS

1. CONTROLLLED PROCESSING
   An excellent example of the wide range of options available to KESLA harvesters is the pressure control that can be implemented with mechanical or electrical pressure regulators. The electric KESLA proCON control enables the clamping force of the delimbing knives and feed rollers as well as feeding force of saw bar to be optimized according to diameter, tree species, work stage and working conditions. The change of the pressure regulators from mechanical to electric ones can be easily done also to an existing KESLA head.

2. LIGHT BUT DURABLE CONSTRUCTION
   The wide-bodied frame structure is an overwhelming solution for a lightweight but durable construction.

3. STRONG TILT
   The wide tilt arm with straight forward side profile is a very strong construction compared with its weight. Thanks to tilt’s wide tilting angle, processing is efficient and less-straining on the head’s structure even when working in hilly areas.

4. HIGH DELIMBING QUALITY AND EASY PICKING OF TIMBER
   Optimal knife geometry is achieved thanks to the wide space between the delimbing knives and the correct shape of the knives. The shape accuracy and structural rigidity of the front delimbing knives that are cast made give additional delimbing power in comparison with welded knives. The floating attachment of the stabilizer bar between the knives allows the knives to move more freely according to the form of the tree. The delimbing of even the most crooked trees is efficient, the delimbing quality is good, and picking up still standing or already fallen trees is easy.

5. CORRECTLY POSITIONED CENTER ROLLER
   The support roller in the frame and the feed roller in JWD models are located optimally behind the main feed rollers which carry the timber. On the chassis there are support rollers as on the JWD models, it has a pulling center roller behind the wood supporting side rollers, positioned correctly in the longitudinal direction of the head. The roller is firmly mounted with strong bearings on the chassis.

6. FEEDING MOTORS BY THE NEED
   Strong radial piston motors are used in the feed rollers, the size of which can be selected from a wide range regarding the hydraulic output of the base machine and the trees to be handled. For debarking processing, motors can also be equipped with internal length measuring sensors. The feed rollers are shaped so that the load on the motor shaft is as close as possible to the bearing, which maximizes the lifetime of the motors.

7. POWERFUL HYDRAULICS
   Compact mobile valves with good of flow for feeding and standard NOS valves for other functions are an excellent combination. Individually detachable function-specific valve packages are easy to maintain and, thanks to the spacious design allow easy hose replacement. The modular valve structure makes it easy to change the valve specification also in existing heads if necessary.

8. ACCURATE LENGTH MEASURING
   The length measuring wheel is optimally located and pivoted in the feeding direction of the timber. These, together with a wide movement range of the wheel, provide excellent length measurement accuracy. The support roller behind the length measuring wheel feed roller in the JWD models effectively removes the wood bark and other debris from interfering with measuring. The contactless sensor is completely waterproof. The KESLA HydCON measuring wheel with a 2 action cylinder further increases the accuracy of the measurement.

9. RELIABLE SAW
   The standard KESLA saw is without compromise simple and reliable. The saw swivel arm has precision machined surfaces that are continuously lubricated by saw chain oil. There is no need for separate separable bearings nor maintenance for them. Maintenance is easy because the structure can be detached from both the motor and the sprocket side without disassembling the entire saw mechanism.

10. ALTERNATIVE IPS R5500-SAW
    Increases the energy efficiency of sawing to a totally new level. The large, high torque motor and the large diameter sprocket enable high cutting power at low saw motor rpm. Pressure losses are low, which means better efficiency and lower waste heat output. The extra wide guide bar is rigid and durable. The fully integrated pivot mechanism eliminates the problems caused by brushwood, boxed snow and wood chips. Saw is available in both 404 and 414 versions.

11. REACHABLE AND OPTIMIZED GEOMETRY FOR REAR DELIMBING KNIVES
    Makes harvesting easy and efficient and ensures quality results. The range includes models both with one and two rear delimbing knives.

12. EXCELLENT ACCURACY OF DIAMETER MEASURING
    The diameter is measured at the front delimbing knives, so that changes in the hardness of the wood due to weather conditions etc. do not affect the accuracy of the measurement. Since the feed rollers carry most of the weight of the wood, it is also accurate to measure heavy and large diameter logs with a delimbing knife. The sensor is a non-contact linear sensor. Alternately, measurement can also be made with two non-contact magnetic pulse sensors that are very well protected against shocks and other external factors.

Superior advantages of progressive roller geometry

- With large diameter and heavy trees, the rollers carry the tree, and the grip is strengthened by the mass of the stem. The weight of the stem causes less strain on the delimbing knives, and friction between the head and the wood is minimal.
- As the diameter decreases, the rollers turn step by step to touch the stem from side to side against each other. The small tree is not pressed against the head’s body, but the tree is transported gently between the feed rollers, whereby the friction between the head and the wood remains low and maximum grip is also achieved with knobby top parts.
- The floating attachment of the stabilizer bar between the feed rollers allows the stem to roll more freely, while still retaining its tight grip. Feeding crooked trees is also light and smooth.

9. KESLA’s unique progressive roller geometry combines the strengths of side-squeezing 2WD - heads (A) and traditional triangular geometry 3WD/4WD (B) heads without any compromise.

10. The pressure compensation between the feed motors prevents slippage but allows for differences in speed between the rolls of the wood due to bends and flats.
- In multi-stem processing both collecting and processing of multiple trees are effective.
- Depending on the size class of the head, the weight saving is 100-200 kg compared to a JWD or a 4WD head.
- The pressure loss ratio of KESLA harvesters heads increases the productivity and improves energy efficiency.
- The 2-motor hydraulic system is excellent for oil flow. The system’s pressure losses are up to 20% lower, which means better net power and fuel economy.
- The simpler 2WD construction also makes harvester head maintenance easier.
KESLA 16RH is the market’s lightest full-blooded harvester head for professional use. Four delimbing knives and multi-stem processing capabilities, combined with the unique KESLA proAX cutting knife (optional equipment) make it a particularly efficient head for integrated harvesting of pulp and biomass wood.

KESLA 16RH is suitable for installation on tractors and max. 10-tonne wheeled harvesters.

KESLA reserves the rights for technical changes. The products shown in the images may have additional accessories.
KESLA 18RH-II has been renewed. The result is a head with better durability and less maintenance.

KESLA 18RH-II has the large head’s hydraulics and power in a small, thinning friendly package. This head well known for its superior power/weight ratio is now further improved, e.g. the new frame structure is even more long lasting even under the toughest operating conditions. The 18RH-II is now always equipped with three delimbing knives, which makes tree picking and delimbing more efficient and easier especially for processing large trees.

The KESLA 18RH-II, like larger KESLA heads, can be equipped with a wide range of equipment to meet the customer’s needs. 18RH II is suitable for installation on max. 10-tonne wheeled harvesters and excavators.

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KESLA 18RH-II

| Parameter                     | Value
|-------------------------------|-------
| Weight starting from (w/o rotator) | 560 kg, 1,235 lbs
| CHAIN SAW                    |      
| Max cutting diameter          | 500 mm
| Guide bar / chain             | 20” / 404” (3/4” opt.) 1.16 / 1.8 / 1.95 cu in
| Guide bar / chain             | 19 cc / 30 to 32 cc 1.04 / 1.57 lbs
| FEEDING                      |      
| Max opening of feed rollers    | 420 mm
| Feed motors                   | 300 / 400 cc 18.3 / 24.4 cu in
| Feeding force @ 240 bar (4,000 PSI) | 35 / 19 kN 3,370 / 4,270 lbf
| Feeding speed @ 200 l/min (53 gpm) | 1.73 / 1.19 m/s
| DELIMBING                    |      
| Delimbing diameter (tip-to-tip) | 330 mm
| Front knives max opening      | 480 mm 18.9”
| Rear knives max opening       | 520 mm 20.7”
| HYDRAULICS                   |      
| Max pressure level            | 240 bar 3,480 PSI
| Min. hydraulic output and engine power | 200 cc
|                             | 185 l/min, 54 kW 35 gpm, 73 hp
|                             | 400 cc 160 l/min, 65 kW 42 gpm, 88 hp

B = optimum tree diameter
A = delimbing diameter (tip-to-tip)
B = maximum diameter (opening of head rollers)
C = maximum cutting diameter

NOW WITH THREE KNIVES!
KESLA 20RH-II is a powerful and agile harvester head for thinning and final felling of light trees. Considering its size class, this lightweight yet sturdily constructed harvester head provides exceptionally powerful feeding force and sawing power. Thanks to the four delimbing knives, the wood is easy to pick up and the delimbing result is excellent.

Extensive additional accessories include the proCON and hydCON features as well as color marking, automatic chain tensioner and stump treatment device. The 20RH-II can be equipped also for efficient biomass harvesting with the unique market leading Kesla proAX-cutting system and multi-stem functions. KESLA 20RH-II is an ideal head for medium-sized thinning harvesters and 8 to 13 ton tracked excavators.

KESLA 20RH-II specifications:
- Weight starting from (w/o rotator) 650 kg / 1,430 lbs
- Chain saw with manual or automatic chain tensioning
  - Max sawing diameter 540 mm / 22"  
  - Guide bar / chain 22" / .404" (.375" opt.)  
  - Saw motor 19 cc / 30 cc / 32 cc 1.16 / 1.8 / 1.95 cu.in
- Feeding 2WD anti-slipping control
  - Max opening of feed rollers 420 mm / 17"  
  - Feed motors 300 / 400 cc 18.3 / 24.4 cu.in
  - Feeding force @ 230 bar (3,300 PSI) 15 / 19 kN 3,370 / 4,270 lbf
  - Feeding speed @ 220 l/min (74 gpm) 5.3 / 4.2 m/s 17.4 / 13.7 ft/s
- Delimbing 4 moving + 1 fixed delimbing knife
  - Delimbing diameter (tip-to-tip) 330 mm / 13"  
  - Front knives max opening 480 mm / 18.9"  
  - Rear knives max opening 520 mm / 20.5"
- Hydraulics
  - Max pressure level 240 bar / 3,480 PSI
  - Min. hydraulic output and engine power
    - 325 cc 135 l/min, 54 kW 73 hp
    - 400 cc 160 l/min, 65 kW 88 hp

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 Kesla's best-selling harvester head 25RH-II is a real all-round tool from thinning to final felling. Excellent balance combined with excellent roller and knife geometry makes it easy and fast to pick up trees, both standing and pre-felled. 25RH-II is also ideal for processing piled logs. Extensive additional accessories include the proCON and hydCON features as well as colour marking, automatic chain tensioner and stump treatment device. For efficient biomass harvesting the 25RH-II can be equipped also with the unique market leading KESLA proAX-cutting system and multi-stem functions.

From the wide range of feed motors can be found the right choice to match the hydraulic power of different base machines. KESLA 25RH-II is especially ideal for medium to heavy duty, 15 to 20 ton wheeled harvesters and 12 to 15 ton tracked excavators.

KESLA 25RH-II is a true multi-purpose machine from thinning to final felling, where the average diameter of the tree is less than 40 cm.

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### KESLA 25RH-II

- **Weight starting from (w/o rotator):** 862 kg / 1,895 lbs
- **Max sawing diameter:** 675 mm / 26"
- **Guide bar / chain:** 25" / .404" (3/4" opt.) / 25" / 0.404" (3/4" opt.)
- **Saw motor:** 19 cc / 50 cc / 32 cc
- **Max opening of feed rollers:** 580 mm / 23"
- **Feeding motors:** 380 / 470 / 565 cc
- **Max opening of feed rollers:** 580 mm / 23"
- **Max diameter:** 80 cm / 31 ½"
- **Max cutting diameter:** 80 cm / 31 ½"
- **Max pressure level:** 240 bar / 3,480 PSI
- **Min. hydraulic output and engine power:**
  - 380 cc: 173 l/min, 40 kW / 56 gpm, 54 hp
  - 470 cc: 200 l/min, 52 kW / 78 gpm, 69 hp
  - 565 cc: 220 l/min, 60 kW / 97 gpm, 80 hp

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### 25RH-II

<table>
<thead>
<tr>
<th>Product</th>
<th>Weight (kg)</th>
<th>Saw Motor</th>
<th>Max Sawing Diameter</th>
<th>Guide Bar/Chain</th>
<th>Saw Motor</th>
<th>Max Opening of Feed Rollers</th>
<th>Feeding Motors</th>
</tr>
</thead>
<tbody>
<tr>
<td>25RH-II</td>
<td>862</td>
<td>19 cc</td>
<td>675 mm</td>
<td>25&quot; / .404&quot;</td>
<td>19 cc</td>
<td>580 mm</td>
<td>380 / 470 / 565</td>
</tr>
</tbody>
</table>

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KESLA 27RH-II

The most powerful product family of KESLA harvester heads represents the latest design and technology on the market. Based on the unique modular design, the range covers an unprecedented wide selection of applications, without compromise. The robust, modular frame construction of the head is designed to increase durability and easy-up maintenance. Special attention has been paid to the protection of cylinders, hoses and sensors. Kesla’s unique progressive feed roller geometry and high-flow hydraulics make the harvester head unbeatably energy efficient. Thanks to the wide range of feed motors and accessories, the heads can be adapted to a wide range of base machines of different power classes.

KESLA 27RH-II

KESLA 27RH-II is the lightest model in the series. Its short and compact body with one rear delimbing knife makes the harvester head particularly efficient in handling crooked trees. The excellent power/weight ratio of the harvester head and the wide range of feed motors make it suitable for a wide range of base machines and applications. It is suitable for medium-sized wheeled harvesters and 15 to 20 ton tracked excavators.

KESLA 28RH-II

KESLA 28RH-II is equipped with four delimbing knives, unlike its brother model the 27RH-II. The harvester head is optionally available in either 2WD or 3WD versions, according to the intended use and preferences. Thanks to the modular design, the 2WD/3WD conversion can also be done afterwards, which increases security to the investment for ever changing operating conditions. 28RH-II can be well accessorized for final felling for rough hardwood and deciduous trees, like e.g. acacia and eucalyptus debarking. A suitable base machine is a heavy wheeled harvester, or an 18-20 ton tracked excavator.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>27RH-II</th>
<th>28RH-II 2WD</th>
<th>28RH-II 3WD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight starting from (w/o rotator)</td>
<td>1,280 kg</td>
<td>2,340 lbs</td>
<td>2,170 lbs</td>
</tr>
<tr>
<td><strong>CHAIN SAW</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saw</td>
<td>saw with manual or automatic chain tensioning</td>
<td>saw with manual or automatic chain tensioning</td>
<td>saw with manual or automatic chain tensioning</td>
</tr>
<tr>
<td>Max. sawing diameter</td>
<td>760 mm</td>
<td>760 mm</td>
<td>760 mm</td>
</tr>
<tr>
<td>Stroke bar / chain</td>
<td>30&quot; - 40&quot; (2.4&quot; opt.)</td>
<td>30&quot; - 40&quot; (2.4&quot; opt.)</td>
<td>30&quot; - 40&quot; (2.4&quot; opt.)</td>
</tr>
<tr>
<td>Saw motor</td>
<td>16 cc / 41 cc</td>
<td>16 cc / 41 cc</td>
<td>16 cc / 41 cc</td>
</tr>
<tr>
<td><strong>FEEDING</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max opening of feed rollers</td>
<td>700 mm</td>
<td>700 mm</td>
<td>700 mm</td>
</tr>
<tr>
<td>Feed motors</td>
<td>520 - 620 cc (280 l/min)</td>
<td>520 - 620 cc (280 l/min)</td>
<td>520 - 620 cc (280 l/min)</td>
</tr>
<tr>
<td>Feeding force at 280 bar</td>
<td>23 / 27 / 30 / 36 kN</td>
<td>23 / 27 / 30 / 36 kN</td>
<td>23 / 27 / 30 / 36 kN</td>
</tr>
<tr>
<td>Feeding speed at 280 bar (gpm)</td>
<td>5,7 / 4,8 / 4,5 / 3,7 m/s</td>
<td>5,7 / 4,8 / 4,5 / 3,7 m/s</td>
<td>4,5 m/s</td>
</tr>
<tr>
<td><strong>DELIMBING</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delimbing diameter (tip-to-tip)</td>
<td>480 mm</td>
<td>480 mm</td>
<td>480 mm</td>
</tr>
<tr>
<td>Front knives max opening</td>
<td>720 mm</td>
<td>720 mm</td>
<td>720 mm</td>
</tr>
<tr>
<td>Rear knives max opening</td>
<td>760 mm</td>
<td>760 mm</td>
<td>760 mm</td>
</tr>
<tr>
<td><strong>HYDRAULICS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max pressure level</td>
<td>280 bar</td>
<td>280 bar</td>
<td>4,600 PSI</td>
</tr>
<tr>
<td>Min. hydraulic output and engine power</td>
<td>520 cc, 200 l/min, 82 kW</td>
<td>520 cc, 200 l/min, 82 kW</td>
<td>520 cc, 200 l/min, 82 kW</td>
</tr>
</tbody>
</table>

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**29RH-II**

Weight starting from (w/o rotator) 1 540 kg 3,395 lbs

**30RH-II**

Weight starting from (w/o rotator) 1 660 kg 3,660 lbs

**29RH-II TS**

Weight starting from (w/o rotator) 1 630 kg 3,600 lbs

**30RH-II TS**

Weight starting from (w/o rotator) 1 690 kg 3,730 lbs

**29RH-II 2WD**

Weight starting from (w/o rotator) 1 750 kg 3,860 lbs

**30RH-II 2WD**

Weight starting from (w/o rotator) 1 810 kg 3,990 lbs

Guide bar / chain 30" / .404" (3/4" opt.)

Max sawing diameter 780 mm 30"

Saw motor 30 cc / 41 cc 1.8 / 2.5 cu.in

**30RH-II TS 2WD**

Weight starting from (w/o rotator) 1 740 kg 3,860 lbs

**30RH-II TS 3WD**

Weight starting from (w/o rotator) 1 820 kg 3,590 lbs

Guide bar / chain 30" / .404" (3/4" opt.)

Max sawing diameter 780 mm 30"

Saw motor 30 cc / 41 cc 1.8 / 2.5 cu.in

### ALSO TOP SAW ALTERNATIVES

29RH-II

- **29RH-II** is a little brother to **27RH-II**, equipped with four delimbing knives. The technology is equivalent to the **27RH-II**, but instead of the ultimate power/weight ratio the construction is made to last in the most demanding working conditions. Due to its compact design, the 2WD / 3WD conversion can also be done afterwards, which increases the security of machine investment in case of changing working conditions.

**29RH-II TS**

- **29RH-II TS** is also available with an integrated top saw (29RH-II TS).

**29RH-II 2WD**

- **29RH-II 2WD** is suitable for installation on the heaviest wheeled and track equipped harvesters and 20-30 ton tracked excavators.

30RH-II

- **30RH-II** is a sister model of **29RH-II**, equipped with four delimbing knives. The harvester head is optionally available as whether 2WD - or 3WD versions, according to intended use and preferences. Thanks to the modular design, the 2WD / 3WD conversion can also be done afterwards, which increases the security of machine investment in case of changing working conditions.

**30RH-II TS**

- **30RH-II TS** is also available with an integrated top saw (30RH-II TS).

**30RH-II 2WD**

- **30RH-II 2WD** is suitable for installation on the heaviest wheeled and track equipped harvesters and 20-30 ton tracked excavators.

**30RH-II TS 2WD**

- **30RH-II TS 2WD** is suitable for installation on the heaviest wheeled and track equipped harvesters and 20-30 ton tracked excavators.

### HYDRAULICS

**Feed motors**

- **Feed motors** 520 / 620 / 680 / 820 cc 31.7 / 37.8 / 45.5 / 50 cu.in

### FEEDING

- **FEEDING** 2WD anti-slogging control

### DELIMBING

- **Delimbing diameter (tip-to-tip)**: 480 mm 18.9"

### FRONT NOZZLES (max. opening)

- **Front knives max. opening**: 720 mm 28.3"

### FEEDING SPEED

- **Feeding speed @ 280 l/min (74 gpm)**: 6,4 / 5,4 / 4,9 / 4,1 m/s 21 / 17.7 / 16 / 13.5 ft/s

### FEEDING FORCE

- **Feeding force @ 280 bar (4,600 PSI)**: 20 / 24 / 27 / 32 kN 4,500 / 5,400 / 6,070 / 7,200 lbf

### 2WD ANTI-SLIPPING CONTROL

- **2WD anti-slogging control**: 21 / 17.7 / 16 / 13.5 ft/s

### 3WD ANTI-SLIPPING CONTROL

- **3WD anti-slogging control**: 6,4 / 5,4 / 4,9 / 4,1 m/s 21 / 17.7 / 16 / 13.5 ft/s

### DELIMBING FORCE

- **Delimbing force**: 3200 N 717 lbf

### FRONT/REAR NOZZLES (max. opening)

- **Front knives max. opening**: 720 mm 28.3"

### FEEDING ROLLERS (max. opening)

- **Max. opening of feed rollers**: 700 mm 27.5"
KESLA SH-HARVESTER HEADS – LEADING STROKE HARVESTER TECHNOLOGY

Kesla, the world’s leading manufacturer of stroke harvesters, has brought advanced stroke harvester quality and technology to an entirely new level. The KESLA 20SH-II and 25SH-II stroke harvesters are largely based on the same components and technical solutions as the roller feed KESLA RH-II series stroke harvesters.

The guiding idea behind KESLA SH-II stroke harvester heads is to produce maximum delimbing force with a low base machine power without damage to the wood caused by feed rollers. KESLA stroke harvester heads are an overwhelming tool for efficient processing of large and branched trees with low-power excavators. The harvester heads are ideal for use, for example, for mountainous conditions when base machine size is limited, and for efficient but gentle harvesting of valuable tree species.

The excellent geometry of the delimbing knives and feeding jaws of the SH-II harvester heads makes it easy to pick up both standing and pre-felled trees, so they are also ideal for processing wood from piles. Thanks to their easy grip, they can also be efficiently used to handle and load cut timber.

DELIMBING FORCE
The hydraulic cylinder can produce tremendous delimbing force even with very modest hydraulic power of the base machine. The maximum feed speed is slower than with the roller feed, but the huge delimbing force allows even the most difficult branches to be delimbed at once without reversing, which makes it very efficient in handling branched trees even with a small base machine.

STRONG TILT
The KESLA SH harvester head has a strong tilt with wide tilting angle, which allows efficient processing even on steep slopes. The wide and side profile straightforward fit is a very strong construction with respect to its weight.

LIGHT BUT DURABLE STRUCTURE
The capsular construction of the stroke harvester’s frame forms a very strong structure relative to its weight.

EXCELLENT SERVICABILITY
The simple and spacious design of the stroke harvester head makes its maintaining easy.

ACCURATE MEASURING AND CONTROL
KESLA SH-II head uses the same simple and very accurate measuring sensors as the RH-II head. The KESLA proLOG measurement and control system offers the SH-II series the same latest features and functions on the market as in the RH-II.

POWERFUL AND RELIABLE CHAIN SAW
KESLA-stroke harvester head uses the same simple and reliable saw such as the RH-II harvester head. Alternatively, there is the KESLA saw device available.

EXCLUSIVE PROSTROKE PARTIAL STROKE FUNCTION
With the partial stroke function, the total length of the head during the feeding sequence can be minimized, which helps processing of crooked trees.

KESLA 20SH-II is equipped with two moving delimbing knives. It is a lightweight, but highly efficient harvester head for hardwood and other heavy-branched trees. It is best suited for installation on 7-10 ton tracked excavators and other base machines with limited hydraulic power, such as skidders.

KESLA 25SH-II mounted on a 7-ton excavator is capable of efficiently handle heavily branched trees up to 40 cm diameter. The optimal wood size for the head is up to 30 cm.

KESLA 25SH-II is a stroke harvester head with four moving delimbing knives for handling heavy and very difficult branched wood. Delimbing knife/jaw in the middle of the head adds extra strength when carrying heavy trees and improves delimbing results.

KESLA SH-II and SH-III harvesters are an overwhelming tool for efficient processing of large and branched trees with low-power excavators. The harvester heads are ideal for use, for example, for mountainous conditions when base machine size is limited, and for efficient but gentle harvesting of valuable tree species.

It is easy to pick up both standing and pre-felled trees, so they are also ideal for processing wood from piles. Thanks to their easy grip, they can also be efficiently used to handle and load cut timber.

DELIMBING
- Maximum cutting diameter: A
- Maximum diameter (opening of feed rollers): B
- Maximum diameter (tip-to-tip): C

CHAIN SAW
- Saw with manual or automatic chain tensioning

FEEDING
- Stroke feed with hydraulic cylinder

DELIMBING
- 2 + 1 fixed delimbing knife + feeding jaws

HYDRAULICS
- Max pressure level
- Nm. hydraulic output and engine power

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Kesla has overwhelming expertise in excavator harvester applications under different conditions, from the Nordic coniferous forests, hardwood harvesting, Alpine forestry and Japanese mountainous conditions such as the southern eucalyptus plantations. Long experience and cooperation with number of excavator manufacturers and dealers has brought solid know-how to equip various base machines with a harvester head.

In addition to the broadest range of excavator harvester heads available on the market, Kesla offers comprehensive expertise for the easy installation of efficient excavator harvesters. Accessories include, for example, different hydraulic installation kits, measurement and control system installation packages, Kesla Xtender booms and safety equipment, as well as knowledgeable assistance in installation and maintenance. The advantage of highly customized solutions is not only easy installation, but also documentation that supports after-sales service and increases machine resale value.

**Kesla Xtender booms**

Kesla Xtender boom can be used to extend the working radius of the excavator boom and to improve the boom geometry, and significantly improve the machine’s ability to move in the terrain. In practice, this means more comfortable work and a significant increase in productivity. The Xtender boom also makes it easier to fold the excavator boom and harvester in the transport position and enables a very low transportation height. The four sizes of the Xtender booms cover all sizes of Kesla harvester heads and are suitable for all sizes of excavator and can be fitted to almost any excavator using the adapter parts.

**Measuring systems are also available with an electronic calipers for easy and accurate calibration.**

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**KESLA - NUMBER ONE FOR EXCAVATOR HARVESTERS**

**CONTROL SYSTEM WORLD-CLASS CONTROL SYSTEM AND MEASUREMENT ACCURACY**

- 7” wide screen
- Clear production reports, easy to save in the internal SD memory or USB memory stick in the form of a PDF file.
- Easy-to-use interface, controlled with six control buttons, standard USB keyboard or mouse.
- StandforD 2010-compliant (with limitations):
  - Different wood species and site information from an APT-File
  - Saving production and calibration files to standard files (PRD, PRI, HPR)
- Thanks to comprehensive adjustment possibilities, resulting in a high output in all conditions. All adjustment values and settings can be downloaded and saved to a file.
- Fully localized user interface in most languages (incl. English, German, Russian, Spanish, Japanese).
- Great computing power enables precise control of the head functions:
  - Fast and instantaneous operations
  - Quick dimension search and cutting
  - Higher productivity
  - More accurate measuring
- The all-new innovative cutting optimization (length class prioritization):
  - Higher productivity
  - Higher value of the timber produced
- Optional equipment:
  - Elegant and finished mounting kit for easy installation
  - Various joystick options (e.g., SureGrip and KESLAgrip)
  - Electronic measuring caliper for calibration
  - Printer

**KESLA xLogger**

In addition to the full StandforD 2010 compatibility:

- 12“ touch screen
- value and distribution bucking

**EXCAVATOR HARVESTERS EQUIPMENT | MEASURING CONTROL SYSTEMS**

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**Xtender 8, Xtender 10, Xtender 15, Xtender 15H, Xtender 20 & 20-II**

<table>
<thead>
<tr>
<th>Specification</th>
<th>8</th>
<th>10</th>
<th>15</th>
<th>15H</th>
<th>20 &amp; 20-II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height starting from (depending on fitting)</td>
<td>133 kg (293 lbs)</td>
<td>250 kg (550 lbs)</td>
<td>307 kg (675 lbs)</td>
<td>300 kg (660 lbs)</td>
<td>405 kg (890 lbs)</td>
</tr>
<tr>
<td>Base machine weight class</td>
<td>max 3.8 tn</td>
<td>max 7.6 tn</td>
<td>max 10.1 tn</td>
<td>10 - 14 tn</td>
<td>16 - 20 tn</td>
</tr>
<tr>
<td>Width</td>
<td>1.180 m (46.5&quot;)</td>
<td>1.195 m (47&quot;)</td>
<td>1.380 m (54.3&quot;)</td>
<td>1.420 m (56.2&quot;)</td>
<td>1.740 m (68.5&quot;)</td>
</tr>
<tr>
<td>Height</td>
<td>1.255 m (27.8&quot;)</td>
<td>1.260 m (45.3&quot;)</td>
<td>1.385 m (54.4&quot;)</td>
<td>1.430 m (56.3&quot;)</td>
<td>1.665 m (65.6&quot;)</td>
</tr>
<tr>
<td>Capacity</td>
<td>150 mm (27&quot;)</td>
<td>150 mm (27&quot;)</td>
<td>150 mm (27&quot;)</td>
<td>200 mm (79&quot;)</td>
<td>225 mm (89&quot;)</td>
</tr>
<tr>
<td>Capacity</td>
<td>150 mm (6&quot;)</td>
<td>150 mm (6&quot;)</td>
<td>150 mm (6&quot;)</td>
<td>225 mm (89&quot;)</td>
<td>250 mm (98&quot;)</td>
</tr>
</tbody>
</table>

**KESLA has overwhelming expertise in excavator harvester applications under different conditions, from the Nordic coniferous forests, hardwood harvesting, Alpine forestry and Japanese mountainous conditions such as the southern eucalyptus plantations. Long experience and cooperation with number of excavator manufacturers and dealers has brought solid know-how to equip various base machines with a harvester head.**
**EQUIP YOUR HARVESTER HEAD**

<table>
<thead>
<tr>
<th>Model</th>
<th>Standard equipment</th>
<th>Optional equipment</th>
<th>Not available</th>
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</thead>
<tbody>
<tr>
<td><strong>KESLA 18RH</strong></td>
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<tr>
<td><strong>KESLA 18RH-9</strong></td>
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<tr>
<td><strong>KESLA 20RH</strong></td>
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<td><strong>KESLA 20RH-9</strong></td>
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<tr>
<td><strong>KESLA 25RH</strong></td>
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<tr>
<td><strong>KESLA 25RH-9</strong></td>
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<td><strong>KESLA 27RH</strong></td>
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<td><strong>KESLA 27RH-9</strong></td>
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<tr>
<td><strong>KESLA 29RH</strong></td>
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<tr>
<td><strong>KESLA 30RH</strong></td>
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<td><strong>KESLA 30RH-9</strong></td>
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<tr>
<td><strong>KESLA 30RH-2/3WD</strong></td>
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<tr>
<td><strong>KESLA 28RH</strong></td>
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<tr>
<td><strong>KESLA 27RH-2/3WD</strong></td>
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<tr>
<td><strong>KESLA 25RH-2/3WD</strong></td>
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<td><strong>KESLA 20RH-2/3WD</strong></td>
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<tr>
<td><strong>KESLA 18RH-2/3WD</strong></td>
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<tr>
<td><strong>KESLA 16RH</strong></td>
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</table>

**SPARE HOSE KIT**

A model-specific hose kit, which includes all the hoses of the basic-equipped head, the same high hose quality as used in the original factory assembly.

**SPARE PARTS PACKAGES**

A carefully considered model-specific package includes parts to fix the most common minor operating malfunctions.

**FEED ROLLERS**

- KESLA steel rollers
- KESLA euca rollers for debarking
- KESLA multi stem-feed rollers
- Ribbed rollers with rubber damping
- KESLA xtraGRIP rollers
- Steel rib rollers

**COLOR MARKING EQUIPMENT**

The color marking helps separation of timber assortments during transport. The two-color marking device enables three different color codes. The high-pressure nozzles placed on the rear delimbing knife draw distinctive color stripes.

**KESLA HYDCON AND HYDCON+**

In the HydCON system, the traditional measuring wheel spring is replaced by a double-acting hydraulic cylinder, which allows the measuring wheel to be automatically retracted during the work steps other than delimbing. The HydCON+ system has a spring and a double-acting hydraulic cylinder in parallel. The retracted measuring wheel, when gripping wood, is better protected from dents and makes it easier to place the head on the tree. Thanks to the adjustable hydraulic pressure, length measurement is more accurate.

**TOP SAW**

The top saw is a saw unit mounted on the front of the harvester head, which allows from top limbed and top damaged trees maximum utilization. The 20/25RH-II and 20/25SH-II harvester heads’ top saw is retrofitting unit to mount on the top knife’s place. In the 20/30RH-II, the harvester head’s top saw is rigid, a fixed part of the grapple’s front module.

**BUTT-LOG SENSOR**

The optical sensor detects the base of the wood, allowing the log to return to the base of the log and reset the length measurement without cutting.

**HOSE CONNECTION BLOCK**

Moves the connection point of the boom hoses from the inside the head to the block located in the tilt frame under the rotor. The hose bundle to the head is shorter and more compact.

**KESLA PROAX**

The unprecedented KESLA proAX cutting knife combines the advantages of saw and guillotine cutting in the same harvester head. When small-diameter wood is cut, it speeds up cutting and minimizes consumption of saw chains and bars. In addition to smaller chain and bar area, savings are also made in fuel costs, as cutting with a cylinder takes up much less energy than a saw motor.

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