



# TRACTOR ATTACHMENTS

#yourlifefinmatch





### My Inner Strenx™

KESLA tractor loaders are participating in the My Inner Strenx™ -program by SSAB. Only the best products are selected for the program, which fulfil strict quality requirements and are made of extra strong Strenx-structural steel.

### PATU

#### When the Patu brand became the KESLA brand

The well-known, durable and reliable PATU, brand of tractor attachments, was changed to KESLA in the year 2006, when the Kesla trademarks were brought together. The products continue to be the same people oriented and durable product line.

## KESLA #yourlifetimematch

Kesla was founded by farmer Antti Kärkkäinen in 1960. The business operations of the company were based on Antti's invented products for agriculture and later on for forestry sector's products. The real passion for Antti was to do things better, as it is for Kesla's personnel today to make a product genuinely in line with customer needs. By listening to the customers' wishes and doing things together we truly create the solutions which will meet the needs and bring benefits to customers throughout their life cycle.

Today Kesla is a strong player in forest technology and material handling, with about 250 employees in three locations in Finland and one subsidiary in Germany. Kesla's 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 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.



INTRODUCTION

## KESLA loaders features



### ROTATOR AND LINK

Reliable, unlimited rotating rotator. Several link alternatives: brakeless, 1-directional and 2-directional brake link.

### BOOM EXTENSION

The boom extension gives considerably more outreach.

### BOOM AND EXTENSION HOISING

The hydraulics are protected on top of the boom system. In machines with 2 extensions the hoses of the extension are neatly protected with the roller guides.

### CONTROL VALVE

There are several different control valves available: mechanical, hydraulically pre-pilot or electrically pre-pilot control valve. Electrically operated pre-pilot control valves are mounted on the loader boom.



### PROTECTION FOR MAIN LIFTING CYLINDER

Standard on the 203T-316T-models.

### HOSE HOLDER FOR PILLAR

Prevents the hoses from dropping down from the pillar and makes it easier to change hoses.

### KESLA proG GRAPPLES

Features: large jaw width, right geometry, huge compression force.

### BOOM SYSTEM

The boom system is entirely made from quality, Finnish Ruukki SSAB STRENX™ steel.



### WIDE ANGLED JOINT

Professionally rated loading geometry starting from the 204T.

### SLEWING MECHANISM

In all models there is a cast slewing mechanism in an oil bath.

#### COMPATIBILITY SYMBOLS EXPLANATIONS:



104 | 114



114 | 124



144 | 12



#### COMPATIBILITY SYMBOLS EXPLANATIONS:



202T-204T



303 | 314/T | 305/T



316/T | 600/T | 700/T



## The KESLA loader is especially ideal for municipal engineering contracting

KESLA loaders and trailers are also great partners for municipal engineering and urban contracting. The grapple loader is accurate to use, and the grapple accessories can be used to expand the range of applications. Safety has already been considered in Kesla machines.

### Rear axle mounting provides flexibility

Attaching the loader to the rear platform of the tractor increases the possibilities of using the crane, as with a tractor loader combination, for example with an earth moving trailer or loader it can be used without the trailer even in narrow places.

### More operating opportunities

KESLA proG grapples are available with accessories such as material claws, and especially gravel buckets that greatly increase the potential for use. Gravel buckets are ideal for handling gravel, sand, grass or leaves, spreading fertilizer, sanding, or dredging ditches, for example. The material claws in turn are convenient for handling for example, brushwood. Several forest trailers are equipped

with a biomass box that allows the use of a forest trailer for transporting, for example, brushwood, leaves or grass.

### Safety with CE-equipment

Safety can easily be increased with basic equipment such as load-lowering equipment, work lights, support legs, etc. The largest KESLA 300 series loaders also have CE-specific equipment specially designed for urban conditions, which maintains the balance of the support legs, the maximum load and transporting height of the loader.



### Examples of municipal work

- Sand, gravel, fertilizer loading and spreading
- Demolition and mounting work on building sites
- Gathering and moving of grass and leaf waste
- Indoor and outdoor building work
- Installation of foundation stones
- Sandbox filling
- Garden landscaping
- Ditch dredging
- Beach cleaning
- Embankment works
- Excavation works
- Park works



MULTIPLE USE - MUNICIPAL WORKS



## The KESLA loader is an excellent farm assistant

KESLA loaders and trailers are also great partners for agricultural work. The grapple loader is accurate to use, and the grapple accessories can be used to expand the range of applications. Many farm owners have said that the grapple loader is in fact many times more convenient than the front loader of the tractor.

### Rear axle mounting provides flexibility

Installing the loader on the rear platform of the tractor is particularly sensible on a farm where the loader is only rarely needed to help the forestry trailer. The loader is always available, and the combination remains agile despite the loader. If desired, the loader can be combined with any tractor trailer according to the purpose.

### More operating opportunities

KESLA proG grapples are available with accessories such as bale - and material claws, and especially gravel buckets that greatly increase the potential for use. Gravel buckets are handy for example when handling plastic sheeting for hay or silage. Material claws are originally designed for manure handling, but they are also convenient whilst fire-

wood contracting. The bale pincers allow the bales to be gently moved, without breaking the plastic, into a trailer that can be transported to the desired location, a larger amount per round per trip. Original KESLA accessories are easy to remove or mount in place.

### Help for "everything small"

Usually farm work is a combination of all duties and only imagination sets limits on the loader's use. Many customers have used loaders, for example, for rock collection, lifting tasks at building sites, erecting fences and even dropping snow from the roof!



### Examples of agricultural works

- Lifting of fertilizers/seed sacks
- Lifting of square or round bales
- Cattle feeding
- Cleaning and spreading of cattle bedding
- Coverage and opening of silage silos
- Collecting stones
- Collecting stumps
- Spreading sand and fertilising
- Loading and transport of gravel and other land materials
- Helping with small construction works



MULTIPLE USE - AGRICULTURE



### Examples of forestry work

- Loading and transport of logs
- Cutting and trimming logs
- Energy wood cutting, loading, stacking and transportation
- Chipping
- Ditch digging
- Ditch cleaning



## KESLA tractor attachments - at home in the woods

KESLA tractor attachments are the first choice for forestry work - whether you are a farmer forest owner or a heavy-duty contractor. In the KESLA range you will find for forestry work - forest trailers, loaders, wood and bio-energy grapples, stroke delimiters, harvesters as well as wood chippers.

#### Get the wood moving with the forest trailer

KESLA forest trailers are a tough brand. They move in the forest like being at home - even in difficult terrain. Drive, brake and wheel options are available for many of the trailers. In addition, there are plenty of equipment available for trailers to increase usability.

#### With a strong loader you get the timber quickly picked up

KESLA loaders are known for their strength and durability. Loaders can be found in several sizes. Control options are available in both mechanical, hydraulic as well as with electrical applications. With accessories you can further increase the usability of the loader. Two support models are available

for increased robustness. Kesla has its own top-of-the-line proG timber and bio energy grapples and accessories for timber cutting.

#### Wood processing with stroke delimeter, harvester or chipper

Kesla also offers other equipment for tractors. With a stroke delimeter, you will easily delimb and cut timber into pieces. The harvester grapple can be connected to larger loaders, allowing the tractor to make logging contracts if necessary. For the chipping there are several alternatives available for tractor powered chippers.



MULTIPLE USE - FORESTRY

## KESLA 200 SERIES

The KESLA 200 series loader is suitable for private use and small contracting work. The strengths of the series: transporting position, the fitting of the digging equipment and in the 204T model also a wide-angle joint which ensures excellent loading features.

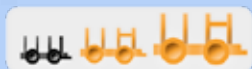


TECHNICAL SPECIFICATION	202T	203T	204T
Outreach	6,15 m	6,70 m	6,80 m
Length of extension	1,20 m	1,40 m	1,65 m
Lifting torque (net, 4 m)	24,6 kNm	36,5 kNm	42 kNm
Lifting capacity from 3 meter*	605 kg	805 kg	900 kg
Lifting capacity from 4 meter*	425 kg	690 kg	795 kg
Lifting capacity with maximum outreach*	275 kg	405 kg	410 kg
Turning angle	420 °	380 °	380 °
Slewing torque	7,1 kNm	8,0 kNm	8,0 kNm
Grapple	proG20	proG20	proG20
- surface area	0,18 m <sup>2</sup>	0,18 m <sup>2</sup>	0,18 m <sup>2</sup>
- biggest opening	124 cm	124 cm	124 cm
Rotator	CR300 / 750 Nm	CR300 / 750 Nm	CR300 / 750 Nm
Work pressure	175 bar	175 bar	190 bar
Oil flow recommended** fixed	30-50 l/min	30-50 l/min	30-60 l/min
Weight***	900 kg	1 030 kg	1 095 kg
Trailer recommendation	KESLA 104/114HD		

\* Lifting capacity without loader and rotator. The lifting capacity of the loader depends on the height position of the boom and outreach.  
 \*\*The oil flow recommendation depends on the selected valves.  
 \*\*\*The machine weight includes the loader, rotator, link and mechanical valve without base.

## KESLA 300 SERIES

The KESLA 300 series loaders are very suitable for professional contract work in addition to active private use. The strengths of the series: powerful, 4-cylinder slewing mechanism, powerful stabilizer leg alternatives and extraordinary loader features. There is also a 2 200 kg winch available for the models.



TECHNICAL SPECIFICATION	303	314	314T	305	305T	316	316T
Outreach	6,80 m	7,10 m	8,70 m	6,90 m	8,50 m	7,20 m	8,80 m
Length of extension	1,65 m	1,80 m	2 x 1,70 m	1,80 m	2 x 1,70 m	1,8 m	2x1,7 m
Lifting torque (gross, 4 m)	42 kNm	59 kNm	59 kNm	65 kNm	65 kNm	80 kNm	80 kNm
Lifting capacity from 3 meter*	900 kg	1 565 kg	1 360 kg	1 650 kg	1 500 kg	2 150 kg	1 850 kg
Lifting capacity from 4 meter*	795 kg	1 165 kg	1 065 kg	1 290 kg	1 150 kg	1 540 kg	1 360 kg
Lifting capacity with maximum outreach*	410 kg	620 kg	440 kg	720 kg	490 kg	840 kg	530 kg
Turning angle	380 °	380 °	380 °	380 °	380 °	380 °	380 °
Slewing torque	13,5 kNm	13,5 kNm	13,5 kNm	16 kNm	16 kNm	19,5 kNm	19,5 kNm
Grapple	proG20	proG26	proG26	proG26	proG26	proG26	proG26
- surface area	0,18 m <sup>2</sup>	0,24 m <sup>2</sup>	0,24 m <sup>2</sup>	0,24 m <sup>2</sup>	0,24 m <sup>2</sup>	0,24 m <sup>2</sup>	0,24 m <sup>2</sup>
- biggest opening	124 cm	132 cm	132 cm	132 cm	132 cm	132 cm	132 cm
Rotator	CR300 / 820 Nm	CR500 / 900 Nm	CR500 / 900 Nm	CR500 / 1 100 Nm	CR500 / 1 100 Nm	CR600FW / 1 500 Nm	CR600FW / 1 500 Nm
Work pressure	190 bar	190 bar	190 bar	190 bar	190 bar	210 bar	210 bar
Oil flow recommended**fixed	30-50 l/min	40-70 l/min	40-70 l/min	50-80 l/min	50-80 l/min	50-80 l/min	50-80 l/min
LS-system	100-120 l/min	100-130 l/min	100-130 l/min	110-140 l/min	110-140 l/min	110-140 l/min	110-140 l/min
Weight***	885 kg	980 kg	1 080 kg	1 260 kg	1 370 kg	1 445 kg	1 570 kg
Trailer recommendation	104, 114HD	114HD, 124H/HD, 144HD/ND, 12MD/MDH				144HD/ND, 12MD/MDH	

\* Lifting capacity without loader and rotator. The lifting capacity of the loader depends on the height position of the boom and outreach.

\*\*The oil flow recommendation depends on the selected valves.

\*\*\*The machine weight includes the loader, rotator, link and mechanical valve without base.





## KESLA 600-700 SERIES

The KESLA 600-700 series loaders are suitable for powerful professional work. The strengths of the series are: the rotator and link alternatives in the forwarder class, spacious hosing, wide trajectory, the V-bottom of the outer boom and sturdy structure.

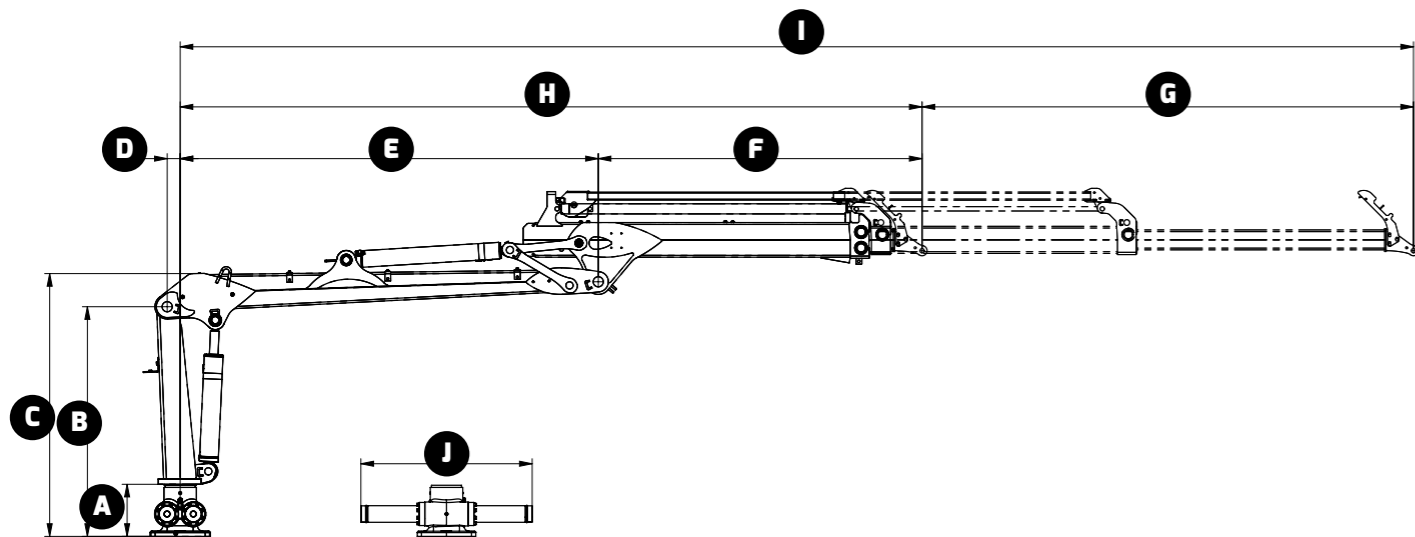


TECHNICAL SPECIFICATION	600	600T	700	700T
Outreach	8,20 m	10,30 m	8,20 m	10,30 m
Length of extension	2,05 m	2 x 2,05 m	2,05 m	2 x 2,05 m
Lifting torque (net)	60 kNm	53 kNm	70 kNm	64 kNm
Lifting torque (gross)	80 kNm	80 kNm	95 kNm	95 kNm
Lifting capacity from 4 meter*	1 600 kg	1 350 kg	1 800 kg	1 600 kg
Lifting capacity with maximum outreach*	750 kg	450 kg	850 kg	550 kg
Turning angle	380 °	380 °	380 °	380 °
Slewing torque (kNm)	24 kNm	24 kNm	24 kNm	24 kNm
Grapple:	proG28	proG28	proG28	proG28
- surface area	0,27 m <sup>2</sup>	0,27 m <sup>2</sup>	0,27 m <sup>2</sup>	0,27 m <sup>2</sup>
- biggest opening	161 cm	161 cm	161 cm	161 cm
Work pressure	220 bar	220 bar	190 bar	190 bar
Oil flow recommended** fixed	70-90 l/min	70-90 l/min	80-100 l/min	80-100 l/min
LS-system	140-160 l/min	140-160 l/min	150-170 l/min	150-170 l/min
Weight***	1 425 kg	1 610 kg	1 445 kg	1 630 kg

\* Lifting capacity without loader and rotator. The lifting capacity of the loader depends on the height position of the boom and outreach.  
 \*\*The oil flow recommendation depends on the selected valves.  
 \*\*\*The machine weight includes the loader, rotator, link and mechanical valve without base.

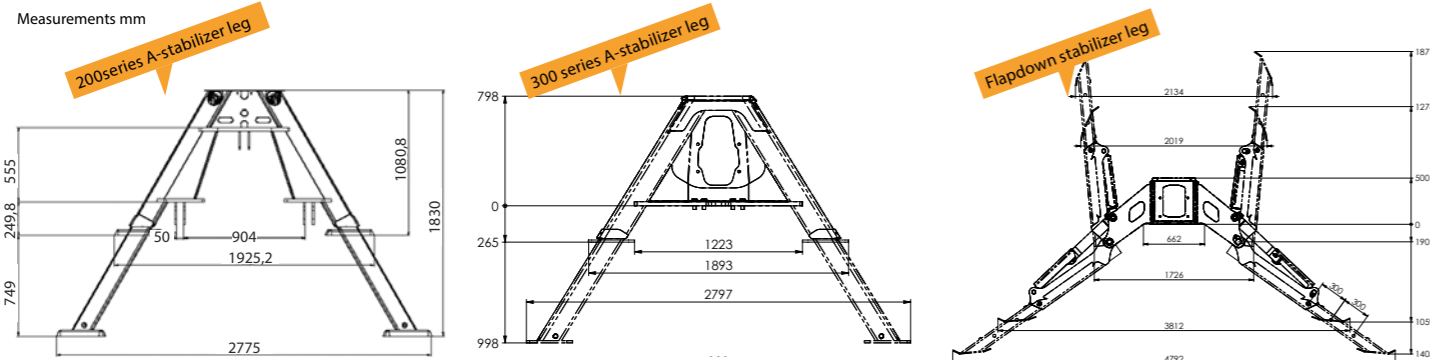


## KESLA loaders measurements



MODEL	A	B	C	D	E	F	G	H	I	J
202T	320	1 324	1 434	35	2 950	2 000	1 200	4 950	6 150	1 150
203T	330	1 375	1 510	100	3 000	2 250	1 400	5 250	6 650	1 250
204T	330	1 375	1 510	100	2 900	2 200	1 650	5 155	6 800	1 250
303	334	1 375	1 515	90	2 900	2 200	1 650	5 150	6 800	1 156
314	334	1 454	1 625	90	3 050	2 240	1 800	5 288	7 090	1 156
314T	334	1 454	1 625	90	3 050	2 259	3 400	5 306	8 709	1 156
305	356	1 590	1 808	90	2 900	2 200	1 800	5 100	6 900	1 186
305T	356	1 590	1 808	90	2 900	2 200	3 400	5 100	8 500	1 186
316	365	1 648	1 866	100	3 100	2 307	1 800	5 407	7 206	1 312
316T	365	1 648	1 866	100	3 100	2 307	3 394	5 407	8 800	1 312
600	470	1 900	2 260	170	3 780	2 370	2 050	6 150	8 200	1 418
600T	470	1 900	2 260	170	3 780	2 500	4 100	6 280	10 380	1 418
700	470	1 900	2 260	170	3 780	2 370	2 050	6 150	8 200	1 418
700T	470	1 900	2 260	170	3 780	2 500	4 100	6 280	10 380	1 418

Measurements mm



## CUSTOMIZE YOUR CRANE

With different alternatives for control and optional equipment you can customize your crane to suit Your demands and for the best serving crane unit, down to the color of your mind. The standard color of the KESLA loaders is silver grey, and for forestry machine cranes - black, but you can order any RAL shade you like.



## Alternatives for control valves

There are mechanical, hydraulic or electrohydraulic control valves available for the KESLA loaders. With a prepilote valve the detaching and attaching of the loader is easy and smooth.



### Mechanical control valve RS-218

It is possible to install mechanical control valves on the KESLA loaders. The structure of the valve and the sensitive 2-lever system make the control efficient, accurate and smooth.



### Hydraulic prepilote control Walvoil

The hydraulic prepilote control enables the main functions to be controlled hydraulically like the control of lift and outer boom, rotator and slew. The grapple, boom extension and stabilizer legs are electrohydraulic controlled. With this solution you get very good ergonomics, light and accuracy in controlling.



Walvoil Danfoss

### Electrohydraulic prepilote control Walvoil and Danfoss

The electrohydraulic prepilote control enables simultaneous use of all single control functions. The control is independent of the load and brings accuracy and efficiency for the single functions. The electrohydraulic prepilote control enables versatile individual adjustments; depending on the system they also can be saved for each individual driver. Work ergonomics and work productivity improve when the prepilote controls are mounted on the armrests of the tractor seat.

## KESLA PROC CONTROL SYSTEM

The new KESLA proC control system is suitable for the control of the loaders together with the electronic control valve. The control valve can be any current controlled electronic control valve like Parker or Walvoil. The control system is very comfortable to use: its movement speed is individually adjustable, and the response time is fast. The speed of the loader movements can be adjusted for every function to suit you and individual settings can be saved for several people or for multiple use.



**KESLA RECOMMENDS!**

### Operating valve installed on the lifting boom

An electronically pre-pilot controlled operating valve can be installed onto the lift boom of the KESLA loaders (for example Walvoil DPX100 and Parker L90LS). It is recommended to use this equipment when the KESLA loader is mounted on the rear platform.



### Operating valve harvester reservation

The KESLA 314/T, 305/T, 316/T-loaders can be equipped with the harvester ready electronic pre-pilot controlled operating valve, including the KESLA proC control system and Combi Otto joysticks. A Walvoil DPX100 and Parker L90LS are the operating valve alternatives. The valve is equipped and adjusted in the factory for optimal harvester use.



### Additional piping for the boom system

Additional piping for the boom system KESLA 314-316/T, for example, for harvester use. Includes 3 x hydraulic hoses and pipes, and 1 x hose for electric cable along the lift and outer booms up to the link.



### Load lowering equipment

Load lowering equipment is available for the lift, outer and extension cylinders. The safety equipment prevents the boom system from uncontrolled falling in the event of hose breakage.



### Upper control equipment Mini-E mounted on the KESLA loader pillar

Including a Finnhydraulic RS214 x2 mechanical operating valve, fasteners to the pillar, control cage and seat.



Walvoil DPX 100 electronic pre-pilot control, Walvoil joysticks mounts to the pillar, control lever and seat. (only for Japanese market).

### LS control standby

The electronically controlled pre-pilot operating valve alternatives for the KESLA loader includes also an alternative with a LS control standby. We highly recommend this alternative if there is a LS hydraulic system in your tractor.



### Links

The links available are: without brake, 1-direction brake, 2-direction brake and KesLINK link. The link with brake improves the operation of the grapple in the use of the loader.



### Grapple rotators

There are standard powered and more powerful grapple rotator alternatives available from the model specific range for the KESLA loaders. Most of the grapple rotator alternatives are flange mounted models.



### Floating

Thanks to floating you get the lift and slew cylinders set in the floating position during transport. This is recommended equipment especially in KESLA loaders mounted on the rear platform or on the rear lift device.



### Armrest-equipment

In connection with the electronically controlled pre-pilot loader you have the possibility to order suitable armrest equipment for your tractor from three alternatives: Walvoil and Danfoss compatible, KESLA proC minijoystick-compatible or Valtra Arm-compatible.



### Quick coupling 314-316/T

There is a quick coupling set available between the grapple rotator and the grapple. The quick coupling speeds up the change time between different grapples. The quick coupling set includes one grapple rotator coupling and two grapple couplings. It is available with Indexator rotator and KESLA proG26 together with larger grapples.



### LED work light set

You can choose between two different work light sets for your loader. Also, forwarder classified work lights are available for the outer boom. The equipment includes the work light protection steel bars. The KESLA LED work light set considerably improves the loader use during the dark, because the light is always directed in the right direction.



### Winch for the lifting boom

There are two winch alternatives in the range: 1 400 kg and 2 200 kg. The winch set includes the wire, hoses, remote control and batteries. The winch is an invaluable aid when you need it, for example, when skidding a load nearer to the loader.



KESLA	1400	2200
Weight	45 kg	45 kg
Tractive force	1400 kg / 175 bar	2 200 kg / 175 bar
Speed	27 m/min	17,4 m/min
Wire diameter/length	6 mm / 40 m	8 mm / 35 m

### Using power for the winch

The power for the KESLA loader winch can be taken from the tractor's rear hydraulics or from the KESLA loader's operating valve.



### Additional plates A and Flapdown stabilizer legs

The additional plates mounted on the stabilizers reduce the sinking of the stabilizers while working in soft terrain.



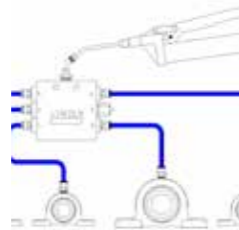
### Lock valve for KESLA proG grapples

The lock valve mounted on the grapple is a safety equipment that prevents the grapple from being out of control in case of a hose breakage failure.



### Central lubrication

Thanks to the central lubrication you can easily lubricate the topmost 4 or 6 nipples on the loader from one central lubrication point. The number of points to be lubricated depends on the loader model.



### KESLA special color

You can now outfit your KESLA loader with the special color of your imagination. A loader with a special color looks individual but the painting method and quality are still the same as for the original KESLA loader color. The lift and outer booms are painted with special colors.



### Digging equipment

Digging equipment, without bucket (replacing the outer boom). (202T-203T)



### Buckets

A shaped bucket in the digging equipment range.

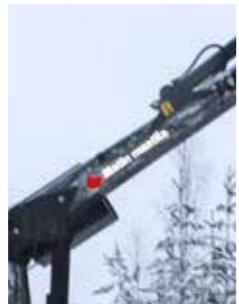


A drainage ditch bucket in the digging equipment range. (202T-203T)



### Tapings for the lift boom

You can now individualise your loader with tapings you desired. There are three taping alternatives: name (for example the company name), side taping of the lift boom (picture of your choice) and side taping with name.



### 3-point adapter for the Flapdown stabilizer leg

It's now possible to mount Flapdown stabilizer legs to the tractor's rear lifting device, by using a 3-point adapter.



**INCREDIBLE STURDINESS**

## Stabilizer legs

There are very strong stabiliser legs available for the KESLA loaders.

**The width of the A stabilizer legs in the KESLA 200 series** is a maximum of 2 775 mm. The stabilizer legs turn a bit towards the trailer thus they are not blocking anything when turning. The stabilizers can also be attached onto the tractor's rear lifting device.

**The width of the A stabilizer legs in the KESLA 300 series** is a maximum of 2 792 mm. The stabilizers firmly reach the ground also with a higher trailer. The inside hoses and cylinders. Also, a KESLA pump set can be integrated inside the stabilizer legs. The stabiliser legs are suitable for KESLA 200 and 300 series loaders.

**KESLA Flapdown stabilizer legs** offer balance also in extremely demanding conditions. The maximum width of the stabilizer legs is 4 792 mm. A KESLA pump set can be integrated inside the stabilizers. There are cylinder protection covers available as optional equipment for the Flapdown stabilizers. The stabilizer legs are suitable for the KESLA 200, 300, and 600 series loaders.



There are additional plates available for the KESLA 300 series A and Flapdown stabilizer legs.



## KESLA 19GX versatile felling head

KESLA 19gx versatile felling head is designed for felling and loading of biomass wood. It is easy to mount because there are no additional hosing or electrical installation required. There is an ingenious integrated TILT-function in the device which helps the driver to decide when the tree can fall. The blade of the felling head can easily be turned away thus the felling head can be used as a normal grapple. So all the work steps are done with the same grapple!



KESLA	19 GX
Cutting diameter	180 mm
Maximum width	770 mm
Maximum pressure	19 Mbar
Recommended oil flow	40-60 l/min
Weight	185 kg

## KESLA proG grapples

There are both timber and biomass wood grapples available in the KESLA proG series.

With the **KESLA proG timber grapples** you are able to efficiently collect round wood and biomass wood whether in the boreal forests in the north or in the eucalyptus plantations in the south. The grapple's jaws penetrate perfectly into the wood and straighten the various stacks of wood effortlessly. Picking of single trees is easy without any soil coming along as well.



**KESLA proG biomass timber grapples** are designed to handle bunches of wood of mixed quality. Thanks to the open and sturdy structure the operation is smooth and there is no excess soil in the stacks of wood. The grapples are very suitable for use in biomass wood driving and for feeding chippers.



## Optional equipment for grapples

### Material claws

With material handling claws mounted on the KESLA proG timber grapple you can efficiently handle firewood, stones, stumps, fresh fodder, dry hay etc.



	proG 20	proG26
Weight (kg)	33	52
Width (mm)	650	700

### Bale claws

With the bale claws mounted on the KESLA proG26 timber grapple it is possible to move round or square bales with the grapple without damaging the plastic covers.



	proG26
Weight (kg)	19 kg

### Gravel buckets

With the gravel bucket mounted on the KESLA proG timber grapple it is easy to handle soil or dredging ditches. Thanks to the shaped tip of the grapple bites well into the soil. The attachment and detachment of the grapple is easy and fast.



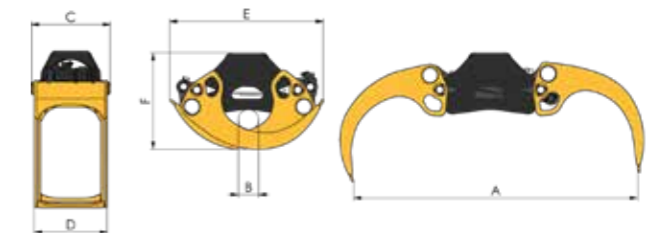
	proG20	proG26
Weight (kg)	53	83
Volume (l)	150	230
Maximum width (mm)	800	900
Minimum width (mm)	420	450

### Straight-walled gravel buckets

With the straight-walled gravel bucket mounted on the KESLA proG26 timber grapple it is possible to move up to 315 litres of gravel at a time. It is suitable for soil handling or for instance work in the municipal sector.



	proG26
Weight (kg)	100
Volume (l)	315
Maximum width (mm)	810



	proG 20	proG26	proG28	proG26E	proG30E	proG25P
Weight (kg)	70	130	170	140	245	110
Area (m <sup>2</sup> )	0,18	0,24	0,27	0,15	0,21	0,2
Work pressure	17,5	21	25	21	25	19
Jaw power (kN)	7	11	13	12	18	11
Maximum load (kg)	1 500	2 000	3 000	2 000	3 500	2 000
A	1 235	1 315	1 610	1 343	1 620	1 395
B	65	80	100	45	70	40
C	320	404	480	404	510	345
D	298	377	442	404	500	185
E	670	810	890	825	820	735
F	470	530	580	492	570	480

LOADERS	202T	203T	204T	303	314/T	305/T/Energy	316/T	600/T	700/T
<b>Mounting alternatives</b>									
On KESLA forest trailer drawbar	●	●	●	●	●	●	●	●	-
On rear platform of a tractor	●	●	●	●	●	●	●	●	●
On tractor's rear lifting device	●	●	●	●	●	●	●	-	-
On forest machine	-	-	-	-	●	●	●	●	●
On truck	-	-	-	-	●	-	●	-	-
<b>Valve alternatives</b>									
Finnhydraulic RS218 /8, mechanical 2-lever control	●	●	●	●	●	●	●	-	-
Walvoil SD-8 hydraulic prepilot control	●	●	●	●	●	●	-	-	-
Walvoil DPX 100 /6+2, electronic prepilot control, proC is also available	●	●	●	●	●	●	●	-	-
Parker LS90 /6 or /8 electronic prepilot control	-	-	-	-	●	●	●	●	●
Danfoss PVG32 /6 or 6+2, electronic prepilot control	-	-	-	-	●	●	●	●	●
Walvoil DPX 100 /6+2, electronic prepilot control, HARVESTER RESERVATION	-	-	-	-	●	●	●	-	-
Parker LS90 /6 or 6+2 electronic prepilot control, HARVESTER RESERVATION, KESLA proC	-	-	-	-	●	●	●	-	-
Upper control equipment MiniE (inc. Finnhydraulic RS214 x2 /8)	●	●	●	●	●	●	●	-	-
Upper control equipment MiniE (inc. Walvoil DPX 100 electronic prepilot control, Walvoil joysticks)	-	-	-	-	●	-	-	-	-
<b>LS-control, Walvoil DPX 100 -valve (installed in the valve table)</b>	●	●	●	●	●	●	●	-	-
<b>Floating, lift and slew cylinders (installed in the valve table)</b>	●	●	●	●	●	●	●	●	●
<b>Armrest equipment</b>	●	●	●	●	●	●	●	●	●
<b>Thicker piping for energy grappler use</b>	-	-	-	-	●	●	●	-	-
<b>Additional piping for the boom system (for example for harvester use)</b>	-	-	-	-	●	●	●	●	●
<b>Links</b>									
Link, without brake	●	●	●	●	-	-	-	-	-
Link, Keslink	-	-	-	-	-	-	●	●	●
Link, 1-direction brake	●	●	●	●	●	●	-	●	●
Link, 2-direction brake	-	-	●	●	●	●	●	●	●
<b>Rotators</b>									
Loader rotator CR 300	●	●	●	●	-	-	-	-	-
Loader rotator CR 400	-	-	●	●	-	-	-	-	-
Loader rotator CR 500	-	-	-	-	●	●	-	-	-
Loader rotator CR 600	-	-	-	-	-	-	●	-	-
Loader rotator GV-6	-	-	-	-	●	●	●	●	●
Loader rotator GV-12	-	-	-	-	-	-	-	●	●
<b>Grapples</b>									
Grapple, KESLA proG 20, area 0,18 m <sup>2</sup>	●	●	●	●	●	-	-	-	-
Grapple, KESLA proG 26, area 0,24 m <sup>2</sup>	-	-	●	●	●	●	●	-	-
Grapple, KESLA proG 28, area 0,27 m <sup>2</sup>	-	-	-	-	-	-	●	●	●
Grapple, KESLA proG 26E, area 0,15 m <sup>2</sup> (brushwood grapple)	●	●	●	●	●	●	●	●	●
Grapple, KESLA proG 30E, area 0,21 m <sup>2</sup> (brushwood grapple)	-	-	-	-	-	-	-	●	●
Grapple, KESLA proG 25P, surface area 0,15 m <sup>2</sup> (ripper grapple)	●	●	●	●	●	●	●	-	-
There is a quick coupling set available for coupling between the grapple and the rotator.	-	-	-	-	●	●	●	-	-
<b>Stabilizer legs</b>									
A stabilizer leg	●	●	●	●	●	●	-	-	-
Flapdown stabilizer leg	●	●	●	●	●	●	●	●	-
<b>Work lights</b>									
Work light set (2 x 20 W LED, in the pillar)	●	●	-	-	-	-	-	-	-
Work light set (2 x 20 W LED or Nordic lights 2 x 35 kW in the moving boom)	-	-	●	●	●	●	●	●	●
<b>Winch, drive from the loader's or tractor's block</b>									
Radio-controlled winch 1 400 kg in the lifting boom	●	●	●	●	●	●	●	-	-
Radio-controlled winch 2 200 kg in the lifting boom	-	-	-	●	●	●	●	-	-
<b>Central lubrication for the uppermost grease nipples</b>									
KESLA special color (RAL) or taping on the lifting boom	●	●	●	●	●	●	●	●	●

Product information is only indicative. We reserve the right for technical changes. The products shown in the images may contain accessories.

# KESLA FOREST TRAILERS FEATURES



The KESLA forest trailers are suitable for the transportation of wood, everything from tree stumps, branches and logs. With help of a biomass box (optional equipment) the trailer can be used for the transportation of stones, firewood, brushwood or other materials.

## COMPATIBLE KESLA LOADERS AND GRAPPLES

## STURDY BUNKS AND POLES

At the bottom of the bunk there is a toothing that keeps the trees from sliding in the longitudinal direction. Poles have received reinforcements at the bending point. The stiff bunks are attached directly to the trailer chassis tube and are freely movable. The rotation prevention plugs in the bottom of the poles prevent the poles from rotating and falling off.

## PRACTICAL LOAD SPACE

Most KESLA forest trailer models have been upgraded with this new range. For larger 144 series trailer models, there is also a load compartment with plate bunks.

## STRONG SINGLE BEAM FRAME

Strong and torsional single beam frame (200 x 200 mm) is sturdy but lightweight in structure. It enables a bigger payload.

## WIDE RANGE OF WHEELS

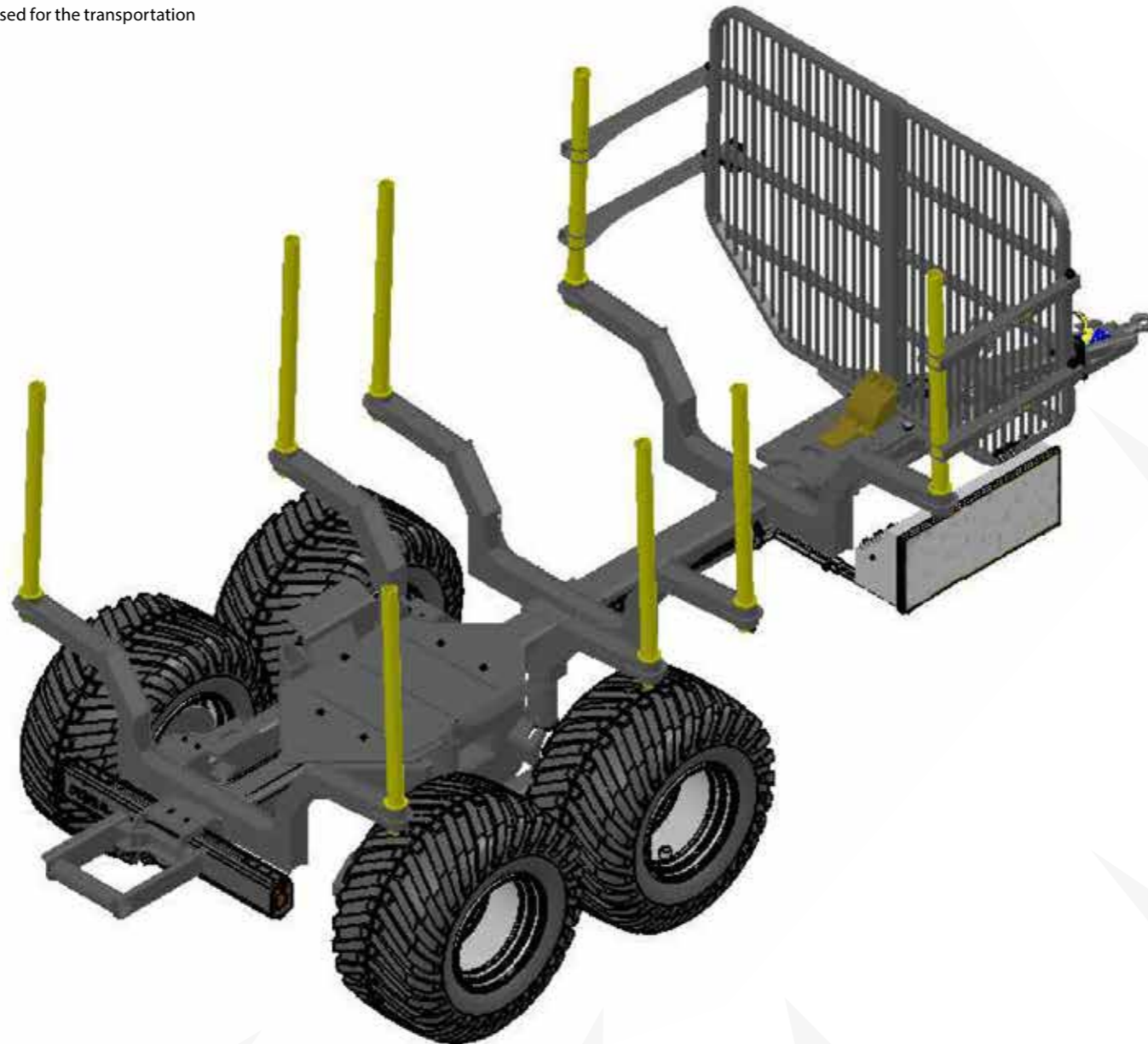
There are narrow and wide wheel alternatives for the KESLA forest trailers. In all the wheels are rubber inner tubes and almost all wheel sets have reinforced forest rims and have protected valves.

## VERSATILE BRAKE ALTERNATIVES

Depending on the model the trailers can be equipped with drum brakes or hydraulic disc brakes on two or four wheels. The compressed air brake is available for almost all trailer models as well as being equipped with a parking brake.

## VERSATILE DRIVE ALTERNATIVES

There are trailer models in the KESLA trailer range that can be equipped with hydraulic scroll or hub drive (optional factory equipment). The H-model forest trailers can also be equipped with HD-rolldrive later on.



## DRAWBAR

The drawbar is pivotable and is equipped with two cylinders. The drawbar can be locked to a fixed one for example for road driving. New models have even stronger locking. There are several eye options available for the drawbar.

## FRONT SCREEN AND SUPPORTS

In all KESLA forest trailers, the partition space can be changed when the load is moved. This additional feature improves trailer's availability when the loader is placed on the tractor's rear platform. The front support gives additional support to the partition and always keeps the first pair of bunks in the right position.

## KESLA proTRACTION

The first ISOBUS-compatible drive control system for forest trailers. The KESLA proTRACTION-equipped trailer automatically travels in the same direction as the tractor at the same hourly speed. The traction force of the trailer can be controlled by the loader joystick and with KESLA proC. (Available for 144ND models).

### COMPATIBILITY SYMBOLS EXPLANATIONS:



202T-204T



303-314T



305/T-600/T



## KESLA FOREST TRAILERS DRIVE ALTERNATIVES

### H HD

**H versions** have the option to add a later HD drive. The trailer is more robust from its bogies and gives a good counter weight to the crane mounted on the trailer's drawbar.

**The HD versions** are equipped with a hydraulic scroll drive. Thanks to this drive they are suitable for the most difficult conditions like in soft soil and with a thick layer of snow. When the hydraulic pressure is turned on the scroll drive starts to rotate and press against the tyres and the drive is on. The scroll drive is intended to be used as a momentarily aiding power.



### ND

**The ND version** is equipped with a hub motor. In the 2WD model the hub motors are on the rearmost axle. In the 4WD model the hub motors are on all four tyres. Tracks or chains can be used on the ND trailer tyres in order to get better carrying capacity and grip.

### KESLA proTRACTION

**KESLA proTRACTION** is a drive control system for ND drive trailers. It utilizes the information available through the tractor's ISOBUS communication bus. For example, the driving speed and direction are automatically determined by the tractor.



### MD MDH

**The MD version** is equipped with a mechanical transmission. The MD trailer is connected to the tractor's power take off (PTO). The trailer's transmission is adapted to be compatible with the tractor with help of the gearing. The trailer has got a really good traction power. Tracks and chains can be used.

**The MDH version** has a hydrostatic mechanical transmission. The components are similar to the MD version. Hydraulics with positive displacement volume is standard on the MDH trailers for use by both the loader and trailer. The power for the loader and the strong traction of the trailer is obtained from the trailer's hydraulics.



### KESLA proTRACTION

First ISOBUS-compatible forest trailers drive control system. The KESLA proTRACTION equipped trailer automatically travels in the same direction as the tractor at the same speed. The traction force of the trailer can be controlled by the loader joystick and through KESLA proC. (Available for 144ND models).

## KESLA FOREST TRAILERS BRAKE ALTERNATIVES

### 4-wheel drum brake

- KESLA 104-114HD forest trailer.
- The brakes are protected from external material that otherwise would interfere with the functionality of the brakes.
- There is also a brake valve available.

### 2 or 4 wheel disc brakes

- KESLA 124H/HD, 144HD/ND and 12MD/ MDH / MDV forest trailers.
- Very good braking power in all conditions.
- Automatic cleaning structure.
- Installed on the rims for protection, so that branches etc cannot disrupt the functionality.
- There is also a brake valve available.

### Parking brake

- 4-wheel disc brakes are available together with KESLA 124H/HD and 144HD/ND forest trailers.
- Available with compressed air brake for other models except 12MD/MDH/MDV.





### KESLA 104 and 114 SERIES for farming work

The KESLA 104 series forest trailers are very suitable for farmer's transporting wood or for small contract work. The trailer has a load area of 2 m<sup>2</sup>. Both trailers are also equipped with handy frame extensions that allows you to carry longer branches. KESLA 114HD models are equipped with a hydraulic Robson-rolldrive.



KESLA	104	114HD
Load capacity	9 tn	9 tn
Total length	5 562 mm	5 562 mm
Overall width	2 213-2 469 mm	2 275 mm
Load space area	2,0 m <sup>2</sup>	2,0 m <sup>2</sup>
Length of the load space	3 455-3 878 mm	3 665-4 245 mm
Ground clearance	550-600 mm	550-600 mm
Bunks/poles (standard)	3/6	3/6
Weight when equipped	1 620 kg	1 960 kg
Hydraulic jointed drawbar	±33°	±33°
Wheel size	400/60x15,5 15.0/70x18	500/55x17
Woven interlayers	12-16	12-16
Tractive force	-	1,2 tn
Operating pressure	-	175 bat
Maximum work pressure	-	210 bar
Oil flow	-	76 l/min



KESLA 202T-303



KESLA 202T-305/T



## KESLA 124 SERIES is suitable for contract work

The KESLA 124 series forest trailers are very suitable for the farmers when transporting large amounts of timber or for contract work. The model series includes an H version, which can later be fitted with a hydraulic roller drive and an HD version with roller drive ready. Load space area on this model is about 2,6 m<sup>2</sup>. These series of trailers are also equipped with handy chassis extensions that allows you to carry longer branches. With accessories such as extra bunks, lights, toolbox and grapple rack, you shape the trailer working package.



KESLA	124H	124HD
Load capacity	10 tn	10 tn
Total length	6 245 mm	6 245 mm
Overall width	2 458-2 598 mm	2 458-2 598 mm
Load space area	2,6 m <sup>2</sup>	2,6 m <sup>2</sup>
Length of the load space	4 000-4 580 mm	4 000-4 580 mm
Ground clearance	570-610 mm	570-610 mm
Bunks/poles (standard)	3/6	3/6
Weight when equipped	2 261 kg	2 836 kg
Hydraulic jointed drawbar	±35°	±35°
Wheel size	500/55X17 550/45X22,5 600/50X22,5	500/55x17 550/45x22,5 600/50x22,5
Woven interlayers	12-16	12-16
Tractive force	Optional equipment	1,8 tn
Operating pressure	-	175 bar
Maximum work pressure	-	210 bar

KESLA 303-305/T



## KESLA 144 and 12 SERIES choice of professionals

The KESLA 144 and 12 series trailers are very suitable for contract work. The load space area is more than 3m<sup>2</sup> and the carrying gross capacity is 12 tons. The KESLA 144 series trailer is available with both hydraulic roller drive and hub drive. The hub drive trailer is available with KESLA proTRACTION drive control system. KESLA 12 series forest trailers have both a rigid mechanical and hydrostatic drive options.



**NEW!  
KESLA 144 IS  
ALSO AVAILABLE  
WITH  
PLATE BUNKS!**

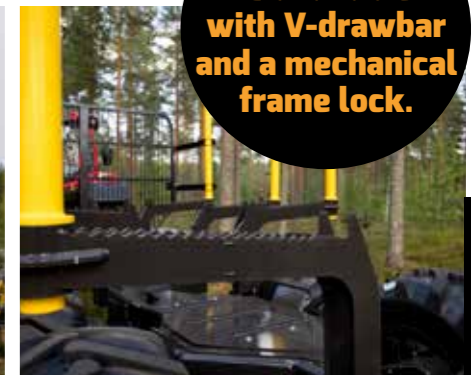
KESLA	144HD	144ND	12MD	12MDH
Load capacity	12 tn	12 tn	12 tn	12 tn
Total length	6 245 mm	6 245 mm	6 210 mm	6 210 mm
Overall width	2 458-2 598 mm	2 500-2 600 mm	2 250 mm	2 250 mm
Load space area	3,2 m <sup>2</sup>	3,20 m <sup>2</sup>	3,15 m <sup>2</sup>	3,15 m <sup>2</sup>
Length of the load space	4 000-4 580 mm	4 000-4 580 mm	4 050 mm	4 050 mm
Ground clearance	570-610 mm	570-610 mm	530-560 mm	530-560 mm
Bunks/poles (standard)	3/6	3/6	4/8	4/8
Weight when equipped	2 737 kg	2 817/2 987 kg	3 220 kg	3 700 kg
Hydraulic jointed drawbar	±35°	±35°	±40°	±40°
Wheel size	550/45x22,5 600/50x22	550/45x22,5 600/50x22	400/55x22,5 550/45x22,5	400/55x22,5 550/45x22,5
Woven interlayers	12-16	12-14	12-14	12-14
Tractive force	1,8 tn	1,5/2,2 tn (2 WD) 3,0/4,4 tn (4 WD)	5,3 tn	4,8 tn
Operating pressure	175 bar	175 bar	-	250 bar vaunun hydrauliikasta
Maximum work pressure	210 bar	250 bar		
Oil flow	76 l/min	100 l/min		
Maximum drive speed (40-100 l/min)	1,9-4,9 km/h	1,3-3,2 km/h 0,5-5,0 km/h proTRACTION	10,0 km/h	5,0 km/h

\*The traction depends on the type of drive (2WD/4WD).  
The drive speed depends on the type of drive and the hydraulic flow.

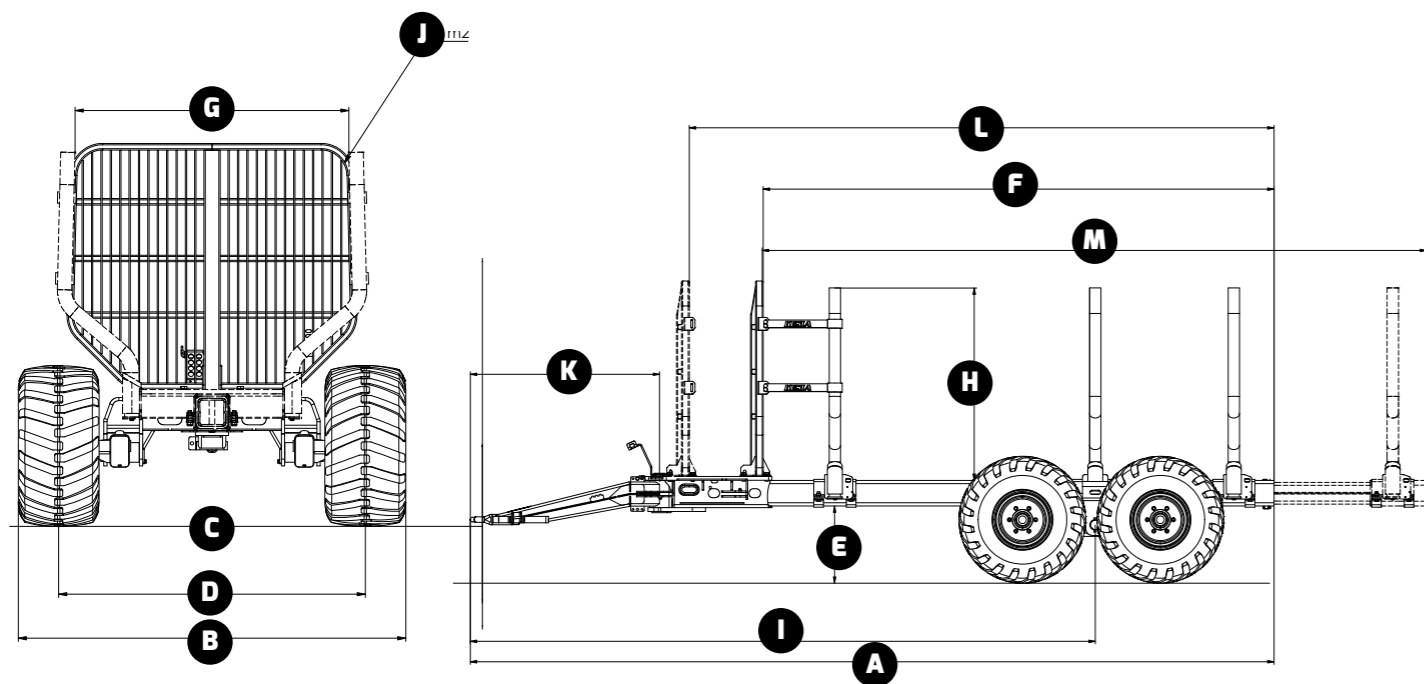
KESLA 305/T-600/T



**12MDV  
is available  
with V-drawbar  
and a mechanical  
frame lock.**



## KESLA forest trailers measurements



	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)	L (mm)	M (mm)
<b>104</b>	5 999	2 214-2 220	2 166-2 244	1 820	544-602	3 485	1 658	1 385	4 583	2	1 464	4 135	3 905-4 570
<b>114HD</b>	6 078	2 275	2 241	1 175	615	3 794	1 658	1 385	4 861	2	1 480	4 370	4 334-4989
<b>124H</b>	6 327	2 458-2 598	2 414-2 512	1 991	652-750	4 029	1 947	1 520	4 840	2,6	1 480	4 609	4 469-4 960
<b>124HD</b>	6 327	2 458-2 598	2 414-2 512	1 991	652-750	4 029	1 947	1 520	4 840	2,6	1 480	4 609	4 469-4 960
<b>144HD</b>	6 327	2 458-2 598	2 414-2 512	1 991	652-750	4 029	1 947	1 520	4 840	2,6	1 480	4 609	4 469-4 960
<b>144ND 2WD</b>	6 327	2 458-2 598	2 414-2 512	1 991	652-750	4 029	2 184	1 690	4 840	3,2	1 480	4 609	4 469-4 960
<b>144ND 4WD</b>	6 327	2 458-2 598	2 414-2 512	1 991	652-750	4 029	2 184	1 690	4 840	3,2	1 480	4 609	4 469-4 960
<b>12MD</b>	6 190	2 500	2 502	1 953	580	4 020	2 123	1 691	4 755	3,2	1 332	4 370	4 420-5 040
<b>12MDH</b>	6 190	2 500-2 600	2 502-2 750	1 953-2 003	580-620	4 020	2 123	1 691	4 755	3,2	1 332	4 370	4 420-5 040
<b>12MDV</b>	6 190	2 500	2 502	1 953	580	4 020	2 123	1 691	4 755	3,2	1 100	4 370	4 420-5 040

### Biomass box

The biomass box makes it easier to transport biomass wood, when the brushwood and trees crowns cannot fall off between the poles. The biomass box is equipped with model specific solid boards for the trailers loading areas for KESLA forest trailers. The BIO-load space trailer can also be equipped with a biomass box.



### Additional bunks and poles

All the trailer models available with 2-4 different alternatives for additional bunks and poles. In the bigger trailers double bunks are also available. Additional bunks and poles are recommended when the KESLA trailers are equipped with a frame extension.



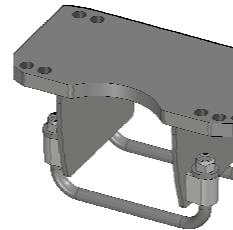
### Front screen installed on the loader

The front screen can be placed on the loader's point in all the KESLA forest trailers. The front screen is placed like this, it is recommended when the loader is placed on the tractor's rear platform.



### Sliding front screen

With help of the sliding, the front screen can be moved. For the KESLA 12MD-MDH models there is also a hydraulic movable front screen available.



### Drawbar and drawbar eye alternatives

In addition to the standard drawbar there are several alternatives for this. There are also various drawbar eyes and traction devices available as factory additional equipment.



### Eyelet alternatives

Rotating (vertical fastening flange, Scharmüller). Fixed (vertical fastening flange, Scharmüller). Ball hitch device K80 mm (vertical fastening flange, Scharmüller).



### Wheel alternatives

Wheels 400/60x15,5" (14 PR), reinforced rims and valve protection.



Wheels 500/55x17" Forestry Alliance 328 (12PR), puncture proof, reinforced rims and valve protection.



Wheels 550/45x22,5" Alliance 328 (16 PR), reinforced rims and valve protection.



Wheels 600/50x22,5" Alliance 328 (16 PR), reinforced rims and valve protection.



Wheels 600/50x22,5" Nokia Forest King TRS (20 PR) (ND), puncture-proof, reinforced rims and valve protection.



Wheels 500/55x17" Alliance (12 PR), reinforced rims and valve protection.



Wheels 15.0/70x18" for KESLA 104 trailers (16 PR).



Wheels 550/45x22,5" Alliance 331 (12PR) (ND), reinforced rims and valve protection.

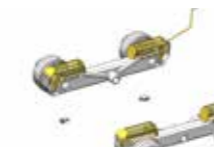


Wheels 600/50x22,5" Nokia Forest King Nordman (16 PR) (ND), puncture proof, reinforced rims and valve protection.



### Brake alternatives

Hydraulic 4-wheel drum brake, available also with brake valve equipment.



Hydraulic 4-wheel disc brake, available also with brake valve equipment.



Hydraulic 2-wheel disc brake, available also with brake valve equipment.



Hydraulic 4-wheel disc brake (with negative parking brake), available also with brake valve equipment.



Hydraulic 4-wheel disc brake with compressed air converter (with negative parking brake).



### KESLA additional hydraulic set

There is a fixed displacement pump for the tractor's VUO-axle. Max. 70 l/min (210 bar). Hydraulic oil tank 60 l.



A LS pump set for 300-series loaders with stabilizers. Hydraulic flow max. 150 l/min (max. 280 bar). Hydraulic oil tank 110 l.



There is an electronic drive valve available for KESLA forest trailers equipped with HD- and ND drives. The drive valve equipment is always installed in conjunction with standard volume and LS pump sets.



### Work lights for the front screen

2 x 25 W LED work lights on both sides of the screen.



### LED rear work light

The LED rear work light is installed in the tubular frame. It includes a 1x 25 W LED work light, the cabling set and protective glass for the work light.



### KESLA proTRACTION

First ISOBUS-compatible forest trailer drive control system. The KESLA proTRACTION equipped trailer automatically travels in the same direction as the tractor and at the same speed. Available on 144ND 2W and 4WD models.



### Drawbar attachment plates

There is one drawbar attachment plate for the 200 series loaders (A stabilizer leg) and one for the 303 series loaders (A stabilizer leg) for attaching to the 104/114HD trailer drawbar.



### Traffic series

Most KESLA forest trailers are equipped with a traffic series set. There is a choice 25 km/h and 40 km/h equipment.



### KESLA special color

You can choose the special color of your dream for your KESLA forest trailer. A forest trailer with a special color looks individual but the painting method and quality are still the same as for the original KESLA forest trailer color. The drawbar, frame and bogies are painted in the special color.



### Assembled and tested

The KESLA forest trailer is delivered ready assembled and tested at the factory with all the ordered equipment on the trailer.



### Tapings for the biomass box

You can now individualise the forestry trailers biomass box with your own taping. The taping may be for instance the company logo or a picture.



### Frame extension

The frame extension extends the load space of the KESLA forest trailer depending on the max. 1 000 or 1 200 mm, depending on the model and can be mounted with three different lengths. It is highly recommended to choose at least one additional bunk and one pair of poles more if the frame extension is to be used.



### Grapple rack

The rear grapple rack, located behind the trailer, makes it easy to put the grapple in the transport position.



### Assembled package

The KESLA trailer and loaders can be assembled in the factory as a ready KESLA package, with all the ordered optional equipment ready and tested.



### Drawbar adapter

There is a drawbar adapter available for a vertical flange drawbar with bolt fastened drawbar eye.



### Control equipment when operating from the drawbar

For most of the KESLA forest trailers there is available control equipment available to operate from the drawbar. Thanks to this you can operate the loader manually from the trailer's drawbar.



### Toolbox

A large, lockable toolbox can be placed either on one or both sides of the trailer. The lid of the box is conveniently folded to the working level.



### Rear light column with 12 V LED lights

Rear light column, with 12 V LED lights The telescopic rear lights are protected inside a robust beam. It is available with a license plate bracket (12 MD model where turning rear lights)



### Warning triangle for slow vehicles

### Load space sorter



### Universal joint for the pump equipment

You can equip the KESLA forest trailer with pump equipment that has a suitable universal joint and shaft.



FOREST TRAILERS	104	114HD	124H	124HD	144HD	144ND 2WD	144ND 4WD	12MD	12MDV	12MDH
<b>ProTraction trailer drive control, ISOBUS-compatible</b>	-	-	-	-	-	●	●	-	-	-
<b>Biomass box, bunks and poles</b>										
Biomass box	-	-	●	●	●	●	●	●	●	●
3 bunks (6 poles)	●	●	●	●	●	●	●	-	-	-
4 bunks (10 poles)(double bunk at rear)	-	-	●	●	●	●	●	●	●	●
4 bunks (8 poles)	●	●	●	●	●	●	●	-	-	-
5 bunks (12 poles)(double bunk at rear)	-	-	●	●	●	●	●	●	●	●
5 bunks (10 poles)	-	-	●	●	●	●	●	-	-	-
6 bunks (14 poles)(double bunk at rear)	-	-	-	-	-	-	●	●	●	●
<b>Front screen</b>										
Front screen load area (incl. Long screen supports 4 pcs)	●	●	●	●	●	●	●	●	●	●
Sliding fixing of the front screen	●	●	●	●	●	●	●	●	●	●
Hydraulic. movable front screen	-	-	-	-	-	-	-	-	●	●
Sliding fixing of the front screen	-	●	●	●	●	●	●	●	●	●
<b>Wheels</b>										
Wheels 400/60x15.5"	●	-	-	-	-	-	-	-	-	-
Wheels 500/55x17" Alliance	-	●	●	●	-	-	-	-	-	-
Wheels 500/55x17" Forestry Alliance 328 (12PR)	-	●	●	●	-	-	-	-	-	-
Wheels 15.0/70x18" AW	●	-	-	-	-	-	-	-	-	-
Wheels 550/45x22,5" Alliance 328	-	-	●	●	●	●	●	●	●	●
Wheels 550/45x22,5" Alliance 331	-	-	-	-	-	●	●	●	●	●
Wheels 600/50x22,5" Alliance 328	-	-	●	●	●	●	●	-	-	●
Wheels 600/50x22,5" Nokian Forest King Nordman	-	-	-	-	-	●	●	-	-	●
Wheels 600/50x22,5" Nokian Forest King TRS	-	-	-	-	-	●	●	-	-	●
<b>Brakes</b>										
Hydraulic 4-wheel drum brake	●	●	-	-	-	-	-	-	-	-
Hydraulic 2-wheel or 4-wheel disc brake	-	-	●	●	●	●	●	●	●	●
Hydraulic 4-wheel disc brake (with negative park-ing brake)	-	-	-	-	●	●	●	-	-	-
Brake valve set for KESLA forest trailer (hydraulic)	●	●	●	●	●	●	●	●	●	●
Compressed air 4-wheel drum brake, with parking brake	●	●	-	-	-	-	-	-	-	-
Compressed air converter, hydraulic 4-wheel disc brake (with parking brake)	-	-	●	●	●	●	●	●	●	●
<b>KESLA additional hydraulics -series</b>										
There is a fixed displacement pump for the tractor's VUO-axle (including driving valve.	-	●	●	●	●	●	●	-	-	-
LS pump series (including driving valve)	-	●	●	●	●	●	●	-	-	●
<b>Electrical driving valve</b>	-	●	-	●	●	●	●	-	-	●
<b>Drawbar mounting plate for 200 series loaders</b>	●	●	-	-	-	-	-	-	-	-
<b>Frame extension</b>	●	●	●	●	●	●	●	●	●	●
<b>Rear grapple rack</b>	●	●	●	●	●	●	●	-	-	-
<b>Toolbox (right and/or left)</b>	●	●	●	●	●	●	●	●	●	●
<b>Lights</b>								●	●	●
Rear bar of rear lights 12 V and license plate holder	●	●	●	●	●	●	●	●	●	●
The LED rear work light is installed in the tubular frame, Walonia 25 W	●	●	●	●	●	●	●	●	●	●
Work light set for front partition, Walonia 2 x 25 W	●	●	●	●	●	●	●	-	-	-
<b>TÜV package 25 km/h or 40km/h</b>	●	●	●	●	●	●	●	-	-	-
<b>KESLA special color (RAL) or taping</b>	●	●	●	●	●	●	●	●	●	●
<b>Lock valve</b>	●	●	●	●	●	●	●	●	●	●
<b>Control equipment when operating from the drawbar</b>	●	●	●	●	●	●	●	-	-	-
<b>Slow vehicle triangle</b>	●	●	●	●	●	●	●	●	●	●
<b>Load space distributor</b>	●	●	●	●	●	●	●	●	●	●

Product information is only indicative. We reserve the right for technical changes. The products shown in the images may contain accessories.

## KESLA 40LFE STROKE DELIMBER

### CHAIN OIL RESERVOIR

The location and position of the chain oil tank is excellent for refilling the tank. The tank capacity is 2 liters. Chain oil tank tap is automatic.

### SAWBAR

The sawbar's length 16", chain type 404" and chain cutting speed of 38 m/s (50 l/min / 175 bar).

### HYDRAULIC CHAINSAW

The tree trunk is cut off at the desired point and after cutting, the log falls to the ground at the desired location.

### GRAPPLE JAWS 2 PCS

The grapple jaws grip the tree trunk and move the wood through the cutter blades toward a suitable cutting length.

### STROKE LENGTH ADJUSTMENT

Stroke length can be adjusted as: 1 000 mm, 1 220 mm, 1 250 mm.

### STABILIZER LEGS

Together with the stroke delimeter, support legs are supplied to keep the stroke delimeter in a stable position when the machine is not in use.

### SLEWING ARM

The swivel arm allows the stroke delimeter processor to move vertically, which facilitates the operation of the stroke delimeter and lightens the load on the chassis.

### DELIMBING TABLE

The structure of delimiting table assures safe falling of branches on the ground. The transport locking mechanism prevents delimiting table from

### DELIMBING KNIVES 4 PCS

Curved delimiting knives fit firmly against a tree trunk and assure delimiting of branches. Maximum delimiting width is approx. 350 mm.



### SLEWING ANGLE 260°

A wide slewing angle allows to work on both sides of the forest road.

### MOUNTING POSSIBILITIES

The stroke delimeter can be mounted onto the rear platform of a tractor by several ways. There are 2 different mounting parts in standard delivery package: for tractor's 3-point linkage and for KESLA 200 series crane. More mounting parts are available as an option.

### USER-FRIENDLY CONTROL

All movements of 40LFe are managed by using one electrical joystick. The joystick moves the stroke and grapple jaws forward, back and sideways. Delimiting knives and stroke delimeter turnings are controlled via rocker buttons of the joystick. Stroke delimeter's hydraulic chainsaw is controlled by using push button of joystick's rear side.



### KESLA chippers for tractor use

Kesla has been manufacturing chippers for two decades. With history, just less than 400 pieces of chippers have gone to the world in over 25 countries. Durability has been the strength for Kesla from the very beginning along with usability and service friendliness. KESLA chippers are manufactured with Finnish expertise in Keslähti.

#### Two whole classes

The KESLA C645 series includes chippers, both single and double axle. In addition, both axle alternatives are available for road traffic approval. In addition, a C645C container cutter is available. KESLA C860T, in turn is a two-axle chipper for heavy chipping. All chippers are drum chippers. Kesla's range also includes brilliant loader options for wood chipping feeders.

#### KESLA proCHIPPER

Control of both the chipper and the loader is done by Kesla's own KESLA proCHIPPER system, which offers excellent adjustability and usability.

### KESLA 40LFe stroke delimeter

The KESLA 40 LF/e stroke delimeter combined with a KESLA loader is an efficient and reliable tool for delimiting, cutting and stacking timber. KESLA 40 LF/e can be installed on the A stabilizer leg of KESLA 200-series loaders, KESLA forest trailers, or a 3-point hitch of a tractor. The control valve of the 40 LFe is integrated into the stroke delimeter, and the controls can be handled from the tractor cabin using a single electric joystick. This facilitates installation and provides a significant improvement to work ergonomics.

KESLA	40LFe
Thinning diameter	350 mm
Cutting diameter	400 mm
Feeding cylinder stroke	1000/1250 mm
<b>Thinning power, pressure 210 bar</b>	
Cylinder diameter 40 mm	25,8 kN
Cylinder diameter 50 mm	40,8 kN
<b>Thinning speed, outer cylinder (50 l/min)</b>	
Cylinder diameter 40 mm	0,66 m/s
Cylinder diameter 50 mm	0,44 m/s
<b>Thinning speed, inside cylinder (50 l/min)</b>	
Cylinder diameter 40 mm	1,20 m/s
Cylinder diameter 50 mm	0,80 m/s
Turning angle	260 °
Slewing torque	1100-2200 Nm
<b>Hydraulic cutting saw</b>	
Saw chain	404 "
Saw bar length	16 "
Feeding speed (50 l/min)	38 m/s
Power, pressure 175 bar 50 l/min	12 kW
Weight	540 kg
<b>Pump recommendation</b>	
Output	50-60 l/min
Work pressure	175-210 bar
Power required	16-18 kW

KESLA 40LFe STROKE DELIMBER

	C645S/T	C645S/T-II	C645C	C860T
Chipping power	160 m³/h	160 m³/h	160 m³/h	180 m³/h
Fuel consumption	0,5 l/m³	0,5 l/m³	0,5 l/m³	0,5 l/m
Power required	100-220 kW	100-220 kW	100-220 kW	220-230 kW
Feeder opening size	600x450 mm	600x450 mm	600x450 mm	800x600 mm
Drum diameter	570 mm	570 mm	570 mm	860 mm
Blades	6	6	6	8
Speed of drum rotation	800-1000 rpm	800-1000 rpm	800-1000 rpm	550-600 rpm
Voltage	12 V DC	12 V DC	12 V DC	12 V / 24 DC
Weight without crane	7 800 - 8 900 kg	7900 - 8 200 kg	19500 kg	14 000 kg
Length	5 540 - 6 860 mm	5 660 mm	7750 mm	6 200 mm
Width	2 350 - 2 550 mm	2 550 mm	2650 mm	2 550 mm
Max height.	3640 mm	4 000 mm	4000 mm	4 000 mm
Ground clearance	360 - 420 mm	420 mm	600 mm	330 mm
Axles	1/2	1/2	2	2
Funnel height.	4 850 mm	5300 mm		5 000 mm
Container volume			16	
Crane alternatives	KESLA 305T-700T			KESLA 316T, 600T, 700T, 800T

We reserve the right to make changes. The harvesters shown may have additional accessories.





**NEW!**

### The tractor can also be used as a harvester base machine

The rigid tractor can also be used as a harvester base machine. In this case, the tractor owner will be able to use his tractor for more and more uses and increase the hours of use. For harvester use, a rigid loader with sufficient hydraulic output is recommended. Suitable loaders are the 314, 305 and 316 series models.

#### Loader equipment for harvester use at the factory

The loader should be fitted with a suitable harvester head at the factory. In this case, an operating valve suitable for harvester use, suitable controls and harvester piping are selected for the loader. It is easy to change the harvester head to the normal grapple when selecting a quick fixing attachment between the rotator and the grapple as an accessory.

#### The smallest models in the KESLA harvester range are suitable for tractor use

Kesla is the world's leading harvester grapple manufacturer, independent of chassis machines. Our smallest grapple models (16RH and 18RH-II) are also suitable for tractor use.

#### KESLA tractor harvester

Suitable loaders KESLA 314, 305, 316.

Suitable harvester heads KESLA 16RH, 18RH-II

Factory optional extras: operating valve (Walvoil DPX or Parker LS90), KESLA proC-control system, Combi Otto joysticks, additional piping for harvester use



**CHECK ALSO OUR OTHER PRODUCTS!**  
**TIMBER, INDUSTRIAL, BIOENERGY AND CITY CRANES |**  
**FOREST MACHINE CRANES | CHIPPERS | HARVESTER HEADS | GRAPPLES**

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