



KESLA MAKES YOUR TRACTOR A FOREST MACHINE

Kesla knows a tractor's possibilities; the company has developed a wide range of forest machine accessories that make it easy to equip a tractor for timber harvesting. Kesla's product family covers heavy-duty equipment for larger tractors as well as lighter solutions for smaller machine units. Kesla is the solution for the entire timber harvesting production chain - everything from felling and handling to local and long-distance transport. Kesla also offers an extensive selection of equipment for bioenergy harvesting.

In its design and manufacturing processes Kesla utilizes stringent quality criteria. Each product passes through a rigorous quality assurance program as well as practical performance and safety tests. All products are manufactured in Finland.

Kesla is a pioneer in forest technology. For almost 50 years it has developed machines, equipment and special solutions for forestry, timber harvesting, transport and bioenergy harvesting. Long experience and operation in all significant global forestry markets has given Kesla superior know-how.



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A WIDE SELECTION OF LOADERS

Kesla provides an extensive and versatile range of loaders. State-of-the-art production technology ensures dependability as well as superior loading and functional characteristics.



PLENTY OF CONTROL VALVES

A loader's efficiency begins with its usability. A wide range of control units - from mechanical configurations to electrohydraulic control systems fitted with driver-specific adjustment options - is available for Kesla's loaders.

KESLA'S HIGH-PERFORMANCE SOLUTIONS

In timber harvesting and local transport, the basic unit is the loader-trailer combination. Kesla provides pre-engineered high-performance solutions in which the combination's features have been coordinated according to efficiency, safety and functional requirements. Customized, yet fully compatible, solutions can also be built by combining Kesla products.



EXTENSIVE TRAILER SELECTION

Kesla offers an extensive product family designed to enhance a tractor's functional capabilities. Several solution alternatives - pre-engineered high-performance solutions or their combinations - can be found for each functional application and loader size range.



MULTIFACETED DRIVE AND BRAKE SYSTEMS

Kesla's line of timber trailers is comprehensive; wagons equipped with hydraulic or mechanical drive technologies are available. Kesla's brake-equipped trailers operate with disc or drum brakes controlled hydraulically or by compressed air.



KESLA LOADERS TO SUIT THE PURPOSE

Kesla provides a wide range of loaders for agriculture and forestry, designed particularly for timber harvesting and compatible with tractors' forestry accessories.

All Kesla loaders have been designed according to the highest standards of efficiency and usability, without forgetting occupational safety. Each loader is a combination of sturdy effectiveness, reach and agility. In practice it means working precision and power over the entire loading area; the loader obeys its controls with professional exactness.



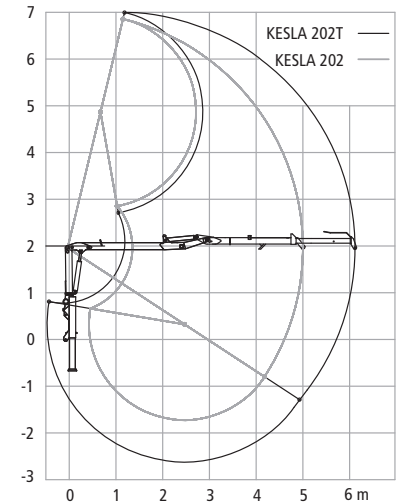
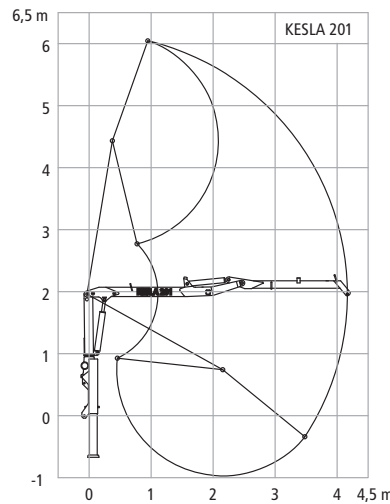
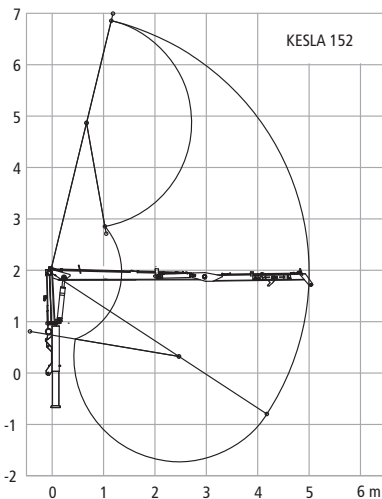
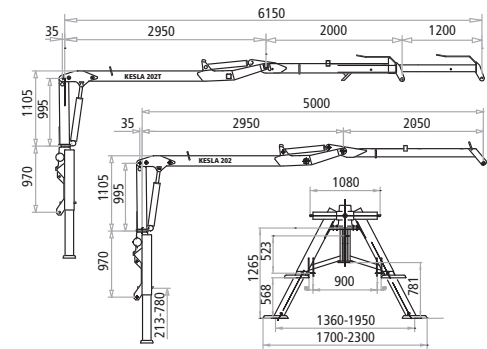
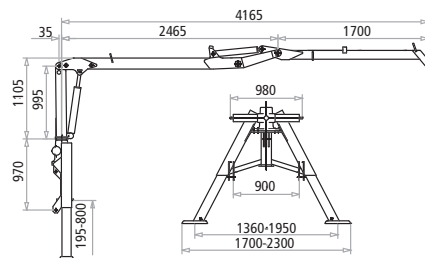
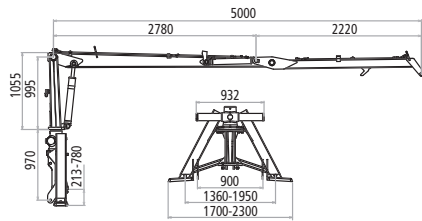




152



202T



100-200 SERIES

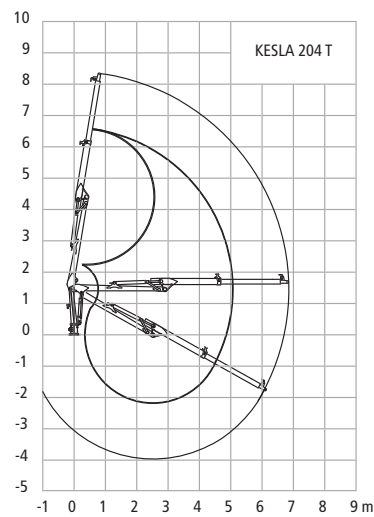
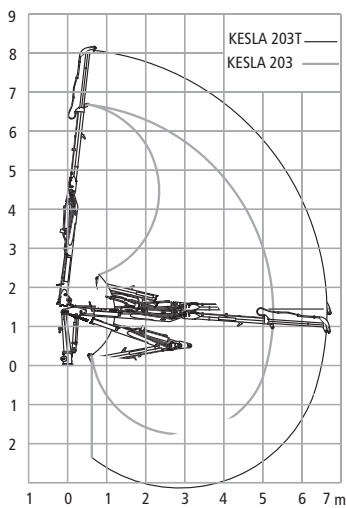
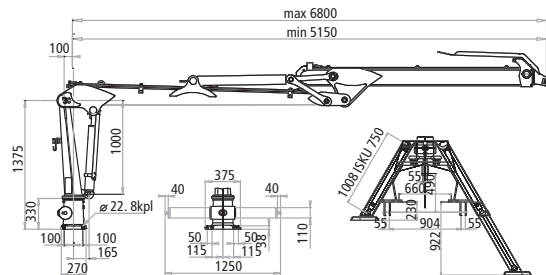
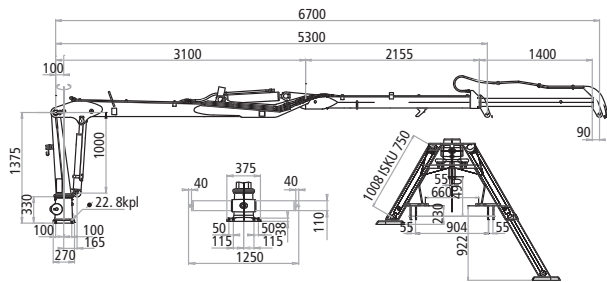
Kesla's 100-200 Series provides an extensive selection of loaders in a practical size class equipped with high-performance features. The models in both series are sturdy and reliable wood collectors. The Xtender boom belonging to the 200 Series' T models brings additional reach.

Loaders can be fitted with hydraulic stabilizer legs. The installation can be made from the rear, above the wagon, or with 3-point attachment. The 204T grapple loader has a wide-angle joint that maintains the power of the transfer boom over its entire working range.

TECHNICAL SPEC.	152		201	
Outreach:	5 m	16' 5"	4,16 m	13' 8"
Boom extension:	-	-	-	-
Lifting torque (net, 4 m):	19.8 kNm	14 600 lb/ft	15.7 kNm	11 500 lb/ft
Lifting torque (brutto, 4 m):	24.6 kNm	18 100 lb/ft	19.0 kNm	14 000 lb/ft
Lifting capacity from 4 m:	525 kg	1 160 lbs	400 kg	880 lbs
Slewing angle:	420 °	420 °	400 °	400 °
Slewing torque:	4.9 kNm	3 600 lb/ft	4.9 kNm	3 600 lb/ft
Grapple:	Kesla 18		Kesla 18	
- area:	0.18 m ²	1.94 sq ft	0.18 m ²	1.94 sq ft
- max. opening:	124 cm	49"	124 cm	49"
Rotator:	750 Nm	550 lb/ft	750 Nm	550 lb/ft
Working pressure:	175 bar	2 540 PSI	175 bar	2 540 PSI
Oil flow:	25-40 l/min	6.6-10.5 GPM (us)	20-30 l/min	5.2-8.0 GPM (us)
Total weight:	680 kg	1 496 lbs	669 kg	1 480 lbs
Timber trailer recommendation:	Kesla 71		Timber trailer recommendation:	

Values without grapple and rotator. The loader's lifting capacity depends on the boom's elevation and reach. Lifting capacity charts for various boom heights and reaches

152 ■ 201 ■ 202 ■ 202T ■ 203 ■ 203T ■ 204T



202		202T		203		203T		204T	
5,00 m	16' 5"	6.15 m	20' 2"	5.3 m	17' 4"	6.7 m	22 "	6.8 m	22'3 "
-	-	1.20 m	3'11 "	-	-	1.40 m	4'6 "	1.65 m	5'4 "
19.8 kNm	14 600 lb/ft	19.2 kNm	14 200 lb/ft	30.5 kNm	22 500 lb/ft	27.5 kNm	20 300 lb/ft	29 kNm	21 380 lb/ft
24.6 kNm	18 100 lb/ft	24.6 kNm	18 100 lb/ft	36.5 kNm	26 920 lb/ft	36.5 kNm	26 920 lb/ft	38 kNm	28 000 lb/ft
525 kg	1 160 lbs	490 kg	1 080 lbs	778 kg	1 720 lbs	700 kg	1 545 lbs	710 kg	1 565 lbs
400 °	400 °	400 °	400 °	380 °	380 °	380 °	380 °	380 °	380 °
7.1 kNm	5 230 lb/ft	7.1 kNm	5 230 lb/ft	8.0 kNm	5 900 lb/ft	8.0 kNm	5 900 lb/ft	8.0 kNm	5 900 lb/ft
Kesla 18		Kesla 18		Kesla 18		Kesla 18		Kesla 19	
0.18 m ²	1.94 sq ft	0.18 m ²	1.94 sq ft	0.18 m ²	1.94 sq ft	0.18 m ²	1.94 sq ft	0.19 m ²	2.05 sq ft
124 cm	49 "	124 cm	49 "	124 cm	49 "	124 cm	49 "	123 cm	49 "
750 Nm	550 lb/ft	750 Nm	550 lb/ft	750 Nm	550 lb/ft	750 Nm	550 lb/ft	750 Nm	550 lb/ft
175 bar	2 540 PSI	175 bar	2 540 PSI	175 bar	2 540 PSI	175 bar	2 540 PSI	175 bar	2 540 PSI
25-40 l/min	6.6-10.5 GPM (US)	30-50 l/min	8.0-13.2 GPM (US)	30-50 l/min	8.0-13.2 GPM (US)	30-50 l/min	8.0-13.2 GPM (US)	30-60 l/min	8.0-16.0 GPM (US)
700 kg	1 540 lbs	765 kg	1 685 lbs	965 kg	2 130 lbs	1 030 kg	2 270 lbs	1 095 kg	2 415 lbs

Kesla 9T / 9HD

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



305T

300 SERIES

The design of the heavy-duty 300 Series has taken the efficiency and reach requirements of professional timber harvesting into account. The loaders are equipped with a wide-angle joint that improves loading in the immediate vicinity of the trailer and maintains the power of the transfer boom evenly over its entire working range, as well as with 4-cylinder slewing mechanism that gives slewing power. The installation can be made from the rear or above the wagon. The loaders can be fitted with hydraulic telescoping A-stabilizer legs or flap-down stabilizer legs, both of which provide excellent support.

TECHNICAL SPEC.	303		304	
Outreach:	6.8 m	22' 3"	6.9 m	22' 6"
Boom extension:	1.65 m	5' 4"	1.8 m	5' 9"
Lifting torque (net, 4 m):	33 kNm	23 340 lb/ft	37 kNm	27 800 lb/ft
Lifting torque (brutto, 4 m):	41.9 kNm	30 900 lb/ft	46 kNm	33 930 lb/ft
Lifting capacity from 4 m:	800 kg	1 760 lbs	930 kg	2 050 lbs
Slewing angle:	380 °	380 °	380 °	380 °
Slewing torque:	13.5 kNm	9 950 lb/ft	13.5 kNm	9 950 lb/ft
Grapple:	Kesla 19		Kesla 24	
- area:	0.19 m ²	2.05 sq ft	0.24 m ²	2.6 sq ft
- max. opening:	123 cm	48"	126 cm	50"
Rotator:	750 Nm	550 lb/ft	900 Nm	660 lb/ft
Working pressure:	190 bar	2 750 PSI	190 bar	2 750 PSI
Oil flow:	30-60 l/min	8.0-16.0 GPM (us)	35-60 l/min	9.0-16.0 GPM (us)
Total weight:	885 kg	1 950 lbs	975 kg	2 150 lbs
Timber trailer recommendation:	Kesla 10T / 10H / 10HD / 10ND / 12T / 12HD / 12ND / 12 MD/MDH			

Values without grapple and rotator. The loader's lifting capacity depends on the boom's elevation and reach. Lifting capacity charts for various boom heights and reaches

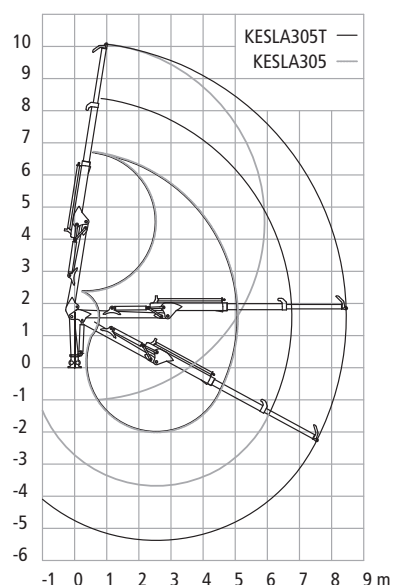
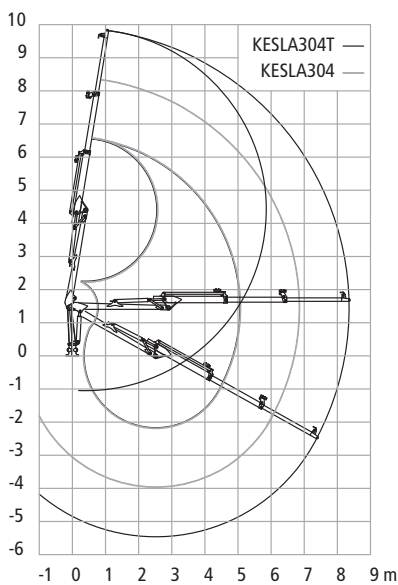
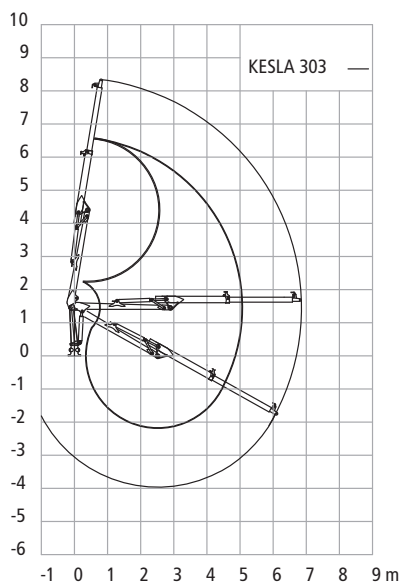
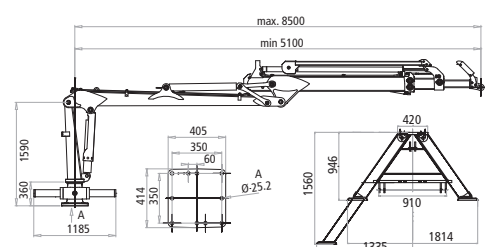
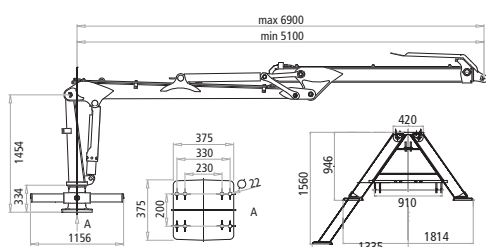
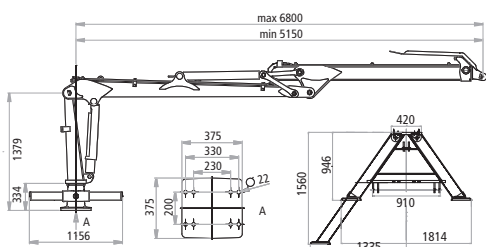
303 ■ 304 ■ 304T ■ 305 ■ 305T



303



304



304T		305		305T	
8.5 m	27' 10"	6.9 m	22' 7"	8.5 m	27' 10"
3.4 m	11' 2"	1.8 m	5' 9"	3.4 m	11' 2"
33 kNm	24 340 lb/ft	46 kNm	33 930 lb/ft	42 kNm	30 980 lb/ft
46 kNm	35 400 lb/ft	59 kNm	43 515 lb/ft	59 kNm	43 515 lb/ft
840 kg	1 850 lbs	1 170 kg	2 580 lbs	1 050 kg	2 310 lbs
380 °	380 °	380 °	380 °	380 °	380 °
13.5 kNm	9 950 lb/ft	16 kNm	11 800 lb/ft	16 kNm	11 800 lb/ft
Kesla 24		Kesla 24		Kesla 24	
0.24 m ²	2.6 sq ft	0.24 m ²	2.6 sq ft	0.24 m ²	2.6 sq ft
126 cm	50 "	126 cm	50 "	126 cm	50 "
900 Nm	660 lb/ft	900 Nm	660 lb/ft	900 Nm	660 lbf
190 bar	2 750 PSI	190 bar	2 750 PSI	190 bar	2 750 PSI
35-60 l/min	9-16 GPM (US)	40-70 l/min	10-18 GPM (US)	40-70 l/min	10-18 GPM (US)
1 070 kg	2 360 lbs	1 260 kg	2 780 lbs	1 370 kg	3 020 lbs



305T

KESLA TRAILERS ARE KNOWN FOR THEIR DURABILITY

Kesla is the world's leading manufacturer of timber trailers. It offers one of the market's widest selections of timber trailers for wood harvesting and transport, as well as a range of trailers - 12 models for 7-15-ton net loadings - used with tractors.

Because Kesla timber trailers are made to withstand tough year-round use, they undergo rigorous quality and safety testing. The stability, load-carrying capacities, drive and terrain handling characteristics of Kesla wagons are superb. The wagon's drive path remains steady and it readily obeys the driver. In demanding timber harvesting Kesla is the best co-worker!

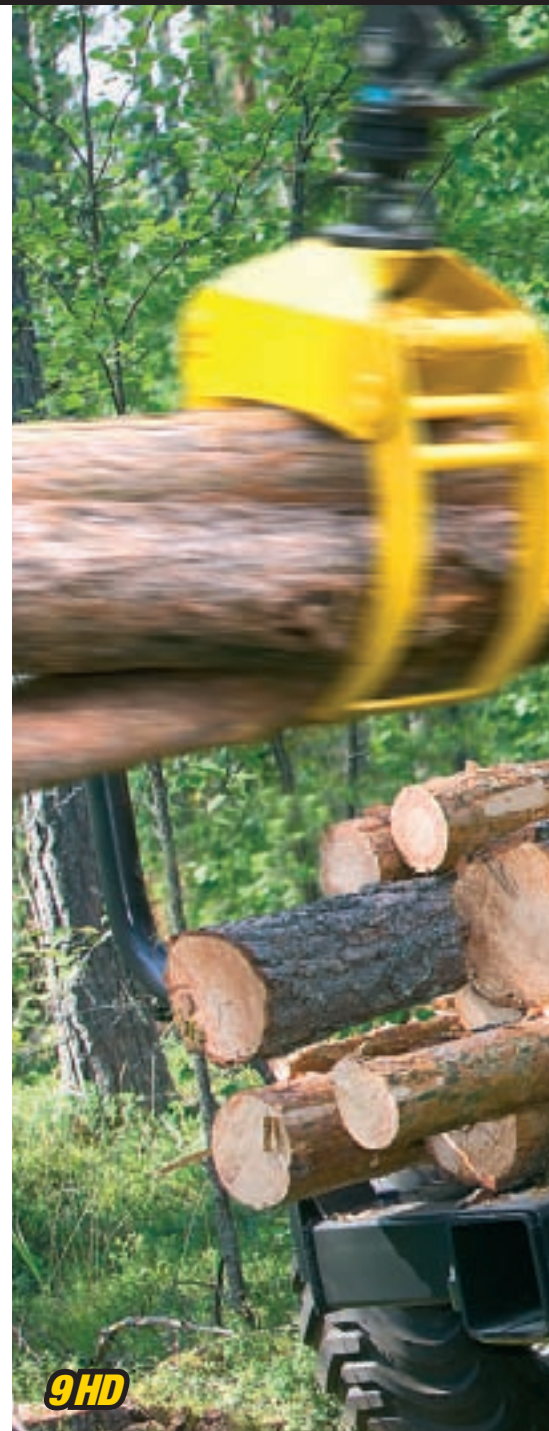




HD



10ND



9HD

CARRYING CAPACITY AND TRACTION

Kesla timber trailers offer genuine load-carrying capacity in all conditions. The wide-motion tandem axle provides excellent driving properties in difficult terrain in the summer and winter. Besides the wagon models without drives, 2- or 4-wheel drive timber trailers are also equipped with hydraulic capstan wheel or wheel motor drives. Models equipped with mechanical or hydrostatic-mechanical drives are also part of Kesla's selection. Disc or drum brakes operated hydraulically or by compressed air are available. The two cylinder-controlled bushing is strong and significantly enhances the wagon's agility, even in difficult terrain.

TECHNICAL SPEC. 71

Max. load netto:	7 ton	15 400 lbs
Total length:	4 227 mm	14 ' 9"
Total width:	2 070 mm	6' 9"
Load space area:	1.5 m ²	16.2 sq ft
Load space length:	3 400 mm	11' 2"
Ground clearance:	505 mm	20 "
Number of bunks:	2	
Weight basic trailer:	900 kg	1 980 lbs
Steering angle:	-	-
Tyre size:	11.5/80x15.3	
Number of ply:	10	
Drive power:	-	
Max pressure:	-	-
Max speed:	-	-
Grapple loader recommendation:	Kesla 152	



71

TECHNICAL SPEC. 9T

Max. load netto:	9 ton	19 800 lbs
Total length:	5 420 mm	17' 9"
Total width:	2 180 mm	7' 2"
Load space area:	1.8 m ²	19.4 sq ft
Load space length:	3 500 mm	11' 5"
Ground clearance:	520 mm	20 1/2"
Number of bunks:	2	
Weight basic trailer:	1 020 kg	2 250 lbs
Steering angle:	± 38 °	± 38 °
Tyre size:	400/60x15.5	
Number of ply:	14	
Drive power:	-	
Max pressure:	-	-
Max speed:	-	-

Grapple loader recommendation: Kesla 201 / 202 / 202T / 203 /

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes. The loaders

71 · 9T · 9HD · 10T · 10H · 10HD · 10ND



9HD		10T		10H		10HD		10ND	
9 ton	18 800 lbs	10 ton	22 000 lbs	10 ton	22 000 lbs	10 ton	22 000 lbs	10 ton	22 000 lbs
5 420 mm	17' 9"	6 050 mm	19' 10"	6 050 mm	19' 10"	6 050 mm	19' 10"	6 050 mm	19' 10"
2 080 mm	6' 10"	2 260 mm	7' 5"	2 260 mm	7' 5"	2 260 mm	7' 5"	2 445 mm	7' 5"
1.8 m ²	19.4 sq ft	2.4 m ²	26 sq ft	2.4 m ²	26 sq ft	2.4 m ²	26 sq ft	2.4 m ²	26 sq ft
3 500 mm	11' 5"	3 900 mm	12' 8"	3 900 mm	12' 8"	3 900 mm	12' 8"	3 900 mm	12' 8"
520 mm	20 1/2"	550 mm	21 1/2"	550 mm	21 2/3"	530-560 mm	20 3/4" - 22"	560 mm	22 "
2		3		3		3		3	
1 130 kg	2 486 lbs	1 490 kg	3 290 lbs	2 030 kg	4 480 lbs	2 180 kg	4 805 lbs	2 250 kg	4 960 lbs
± 38 °	± 38 °	± 40 °	± 40 °	± 40 °	± 40 °	± 40 °	± 40 °	± 40 °	± 40 °
400/60x15.5		400/60x15.5; 15/70x18; 500/55x17		500/55x17		500/55x17; 400/55x22.5		400/55x22.5	
14		12-14		12-14		12-14		12-14	
1.2 ton	2 645 lbs	-		Hydraulic drive available as option (also retrofitted)		1.4 ton 3 090 lbs		1.5-3.0 ton 3 300 - 6 600 lbs	
175 bar	2 540 PSI	-				175 bar	2 540 PSI	175 bar	2 540 PSI
5.0 km/h	3.1 mph	-				4.0 km/h	2.5 mph	4.0 (2-wd) km/h	2.5 (2-wd) mph

203T / 204T Grapple loader recommendation: Kesla 303 / 304 / 304T / 305 / 305T

and trailers shown may have additional accessories.

A NEW SERIES OF HEAVY-WEIGHT TIMBER TRAILERS

Kesla's over 12-ton timber trailers have been designed for professional use with the market's largest tractors. Their terrain handling characteristics are in a class of their own, and the models include timber trailers whose pulling capacity is as high as 5 tons. In difficult conditions the terrain handling characteristics can be improved with chains and tracks. The drive release facilitates faster driving speeds in highway traffic. The sturdily built and large capacity Kesla 15T/ND has been designed particularly for average-length local and highway transports.



12MD



15ND

TECHNICAL SPEC.	12T		12HD		12ND		12MD	
Max. load:	12 ton	26 000 lbs	12 ton	26 000 lbs	12 ton	26 000 lbs	12 ton	26 000 lbs
Total length:	6 050 mm	19' 10"	6 050 mm	19' 10"	6 050 mm	19' 10"	6 210 mm	20' 4"
Total width:	2 550 mm	8' 4"	2 500 mm	8' 2"	2 500 mm	8' 2"	2 250 mm	7' 4"
Load space area:	3.15 m ²	34 sq ft	3.15 m ²	34 sq ft	3.15 m ²	34 sq ft	3.15 m ²	34 sq ft
Load space length:	3 900 mm	12'8 "	3 900 mm	12'8 "	3 900 mm	12'8 "	4 050 mm	13'3 "
Ground clearance:	560 mm	22 "	560 mm	22 "	560 mm	22 "	550-580 mm	21 1/2" - 23"
Number of bunks:	4		4		4		4	
Weight basic trailer:	2 244 kg	4 947 lbs	2 934 kg	6 468 lbs	3 004 kg	6 622 lbs	3 220 kg	7 100 lbs
Steering angle:	± 40 °	± 40 °	± 40 °	± 40 °	± 40 °	± 40 °	± 40 °	± 40 °
Tyre size:	550/45x22.5		550/45x22.5		550/45x22.5		400/55x22.5; 550/45x22.5; 600/50x22.5	
Number of ply:	12-14		12-14		12-14		12-14	
Drive power:	-	-	1.4 ton	3 100 lbs	1.5-3.0 ton	3 300 - 6 600 lbs	5.3 ton	11 465 lbs
Max pressure:	-	-	175 bar	2 540 PSI	175 bar	2 540 PSI	-	-
Max speed:	-	-	4.0 km/h	2.5 mph	4.0-2.5 km/h	2.5-1.6 mph	15.0 km/h	9.3 mph

Grapple loader recommendation: Kesla 303 / 304 / 304T / 305 / 305T / 500 / 500T

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

12T · 12HD · 12ND · 12MD/MDH · 15T/ND



12MDH		15T		15ND	
12 ton	26 000 lbs	15 ton	33 000 lbs	15 ton	33 000 lbs
6 210 mm	20'4 "	7 500 mm	24'6 "	7 500 mm	24'6 "
2 250 mm	7'4 "	2 550 mm	8'4 "	2 550 mm	8'4 "
3.15 m ²	34 sq ft	4 m ²	43 sq ft	4 m ²	43 sq ft
4 050 mm	13'3 "	6 000 mm	19'7 "	6 000 mm	19'7 "
550-580 mm	21 1/2" - 23"	400 mm	16 "	500 mm	20 "
4		4		4	
3 700 kg	8 160 lbs	5 100 kg	11 240 lbs	5 950 kg	13 115 lbs
± 40 °	± 40 °	± 35 °	± 35 °	± 35 °	± 35 °
400/55x22.5; 550/45x22.5; 600/50x22.5		560/60x22.5		560/60x22.5	
12-14		TR 18		TR 18	
4.8 ton	10 580 lbs	-	-	1.5 ton	3 300 lbs
250 bar	3 625 PSI	-	-	250 bar	3 625 PSI
5.0 km/h	3.1 mph	-	-	5.0 km/h	3.1 mph
Kesla 303 / 304 / 304T / 305 / 305T / 500 / 500T / 600 / 600T / 700 / 700T					



KESLA – FROM CHIPS TO BIOENERGY

Kesla provides a comprehensive solution for the harvesting and chipping of energy wood. The G-Series felling heads suit felling as well as loading, and the E Series energy grapple has been designed to handle mixed tree material. The tractor's bioenergy package is completely compatible with the C645 chipper's chassis, loader and control system. The chipper's patented drum solution with six delimiting knives is extremely productive, and the effective tandem drive offers superior manoeuvrability over the terrain.



C645T



TECH. SPEC. C645	C645S		C645T		C645C	
Total weight (without loader):	6 850 kg	15 000 lbs	8 050 kg	17 750 lbs	12 500 kg	27 500 lbs
Total length:	5 540 mm	18' 2"	6 860 mm	22' 5"	7 750 mm	25' 5"
Total width:	2 350 mm	7' 8"	2 550 mm	8' 4"	2 650 mm	8' 8"
Max. height (without loader):	4 650 mm	15' 3"	4 750 mm	15' 7"	3 800 mm	12' 6"
Ground clearance:	360 mm	14 "	420 mm	16.5 "	600 mm	23.6 "
Tyre size	400/55x22.5		550/45x22.5		700/45x22.5	
Width of feed orifice:			600 mm	23.6 "		
Height of feed orificer:			450 mm	17.7 "		
Drum diameter:			570 mm	22.4 "		
Number of knives:			6			
Drum speed:			max. 1 000 rpm			
Screen size:			20-100 mm	0.8-4 "		
Infeed:	Hydraulic, automatic feeding control with Parker IQAN® system					
Chip output:			...160 m³/h	...5 718 ft³/h		
Height of discharge chute:	3 150-4 650 mm	10'4"-15'3 "	3070-4 750 mm	10'1"-15'7 "	3 700 mm	12'1 "
Slewing angle of the chute:	270 °					
Tipping height of container:	-	-	-	-	3 160 mm	10'4 "
Container volume:	-	-	-	-	16 m³	600 ft³
Power requirement:			100-150 kW	130-200 hp		
Electric system:	12 V DC					
Loader options:	KESLA 500		KESLA 500/600/700			



FELLING HEAD 19G

The felling head has been designed for the simultaneous felling and loading of energy wood. Its straightforward construction and operating principle make it extremely dependable. The fixed knife is easy to service. Switching the felling head in the loader is quick and no additional hosing is necessary. The tilt function is integrated into the device. The 19G is used with the Kesla 500-700 Series loaders.



TECHNICAL SPEC.	19G	
Max. cutting diameter:	180 mm	7 "
Max. opening of the grapple:	770 mm	25 "
Max. pressure:	190 bar	2 750 PSI
Recommended oil flow:	40-60 l/min	10-16 gal/min
Height in felling position:	440 mm	17.3 "
Weight:	180 kg	350 lbs
Recommended carrier:	Farm tractor	

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes.

FELLING HEAD 23G / 25G

The felling head has been designed for the simultaneous felling and loading of energy wood. The 23G felling head can be installed on the Kesla 100-500 Series loaders. The 25G is used with the Kesla 500-700 Series loaders. Switching the loaders' felling heads is quick. The hydraulically operated knife is more dependable than a traditional saw.



TECHNICAL SPEC.	23G		25G	
Max. cutting diameter:	230 mm	9 "	250 mm	10 "
Max. opening of the grapple:	630 mm	24.8 "	920 mm	36.2 "
Cutting force:	95 kN	21 356 lb/ft	95 kN	21 356 lb/ft
Max. pressure:	200 bar	2 900 PSI	200 bar	2 900 PSI
Recommended oil flow:	40-60 l/min	10-16 gal/min	50-100 l/min	13-26 gal/min
Height in felling position:	700 mm	27 1/2 "	860 mm	33.8 "
Weight:	160 kg	350 lbs	290 kg	640 lbs
Recommended carrier:	Farm tractor		Forwarder	

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

CHIPPER C645

The Kesla C645 drum chipper is the solution for professional chipping. Due to its modular set-up structure, it can be equipped with appropriate features to satisfy the user's requirements: chipper, chassis, axles, drive, 16m³ container, crane and industrial versions. The output is up to 160m³ per hour and both circular timber and sawing waste can be used.



ENERGY WOOD GRAPPLE 15E / 20E

Kesla's energy wood grapples have been designed to handle mixed silage and hay. They work excellently in combination with chippers. The grapple is extremely sturdy and dependable.



TECHNICAL SPEC.	15E		20E	
Gripping area tip to tip:	0.12 m ²	1.3 sq ft	0.18 m ²	1.94 sq ft
Working pressure max:	175 bar	2 500 PSI	230 bar	3 336 PSI
Gripping force tip to tip:	10.7 kN	2 400 lb/ft	15.3 kN	3 440 lb/ft
Opening time at 50 l/min (13 gpm imp) flow:	1 s		1.1 s	
Closing time:	1.3 s		1.5 s	
Weight:	127 kg	280 lbs	120 kg	265 lbs

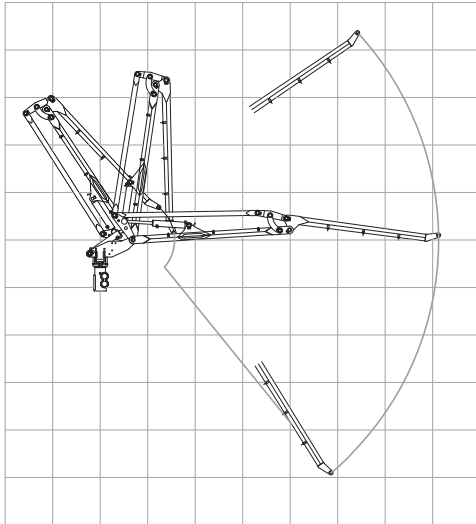
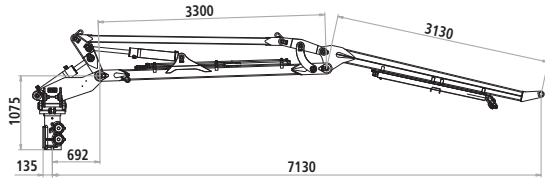
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A POWER PACKAGE FOR THINNING

Kesla also equips tractors with an effective solution for thinning. The reach crane, 18RHS roller head and measuring device mounted on the tractor is excellently suited to first thinning and harvesting at locations where the trees' average diameter is less than 20cm.





TECHNICAL SPEC. 18RHS

Width head open:	1 130 mm	44 1/2 "
Width head closed:	870 mm	34 1/4 "
Length:	1 140 mm	45 "
Height without rotator:	1 100 mm	43 1/4 "
Weight (without rotator):	445 kg	980 lbs

CHAIN SAW

Max cutting diameter:	450 mm	18 "
Guide bar length:	18 "	
Motor displacement:	10 cc	
Feeding:	2 rollers	
Max opening of rollers:	400 mm	16 "
Feeding force:	15.1 kN	3.400 lbf
Speed max:	5 m/s	16 1/2 ft/s

DELIMITING

Knives:	2 moving, 1 fixed	
Diameter tip-to-tip:	330 mm	13 "
Max opening front knives:	480 mm	19 "
Max opening rear knives:	-	-

HYDRAULIC REQUIREMENTS

Operating pressure:	210-240 bar	3 050 - 3 500 PSI
Flow required:	125-150 l/min	33-40 gpm (US)
Power required:	48-60 kW	65-80 hp

TECHNICAL SPEC. 671H

Lifting torque, brut:	55 kNm	28 027 ftlb
Lifting torque, net:	43 kNm	28 027 ftlb
Outreach:	7 120 mm	23'5 "
Slewing torque, gross:	17 kNm	11 801 ftlb
Slewing angle:	220 °	220 °
Tilt angle:	21 °	21 °
Weight without oil, grapple and rotator:	1 200 kg	2 601 lb

PUMP RECOMMENDATION

Working pressure:	21 MPa	2 756 PSI
Flow:	70-100 l/min	18-24 gpm
Power input:	22-32 kW	30-38 hp

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes.

STROKE DELIMBER 40LF

The Kesla 40LF stroke delimeter used in combination with the Kesla 203T or 204T grapple loaders forms an effective tool for timber delimiting, crosscutting and bunching. The stroke delimeter can be integrated with the loader's stabilizer frame or it can be installed over a Kesla timber trailer.



TECHNICAL SPEC. 40LF

Delimiting diameter:	350 mm	14 "
Cutting diameter:	400 mm	16 "
Stroke of delimiting cylinder:	1 000 mm	39 "

DELIMITING POWER AT 210 BAR (3 045 PSI) PRESSURE

- with ø 40 mm cylinder:	25.8 kN	5 800 lbs
- with ø 50 mm cylinder:	40.8 kN	9 170 lbs

DELIMITING SPEED, STROKE OUT AT 50 L/MIN (13 GPM)

- with ø 40 mm cylinder:	0.66 m/s	26 "/s
- with ø 50 mm cylinder:	0.44 m/s	16 "/s

DELIMITING SPEED, STROKE IN AT 50 L/MIN (13 GPM)

- with ø 40 mm cylinder:	1.20 m/s	47 "/s
- with ø 50 mm cylinder:	0.80 m/s	32 "/s

Slewing angle:	260 °	260 °
Slewing torque:	1 100-2 200 Nm	800-1 600 lb/ft

TILTING ANGLE

- knife end:	15 "	15 "
- saw end:	5 "	5 "

HYDRAULIC CROSS-CUTTING SAW

- chain:	.404 "	.404 "
- bar:	16 "	16 "
- chain speed at 50 l/min (13 gpm):	38 m/s	125 "/s
- power at 175 bar, 50 l/min (2 500 PSI, 13 gpm):	12 kW	16 hp
Weight:	540 kg	1 190 lbs

PUMP RECOMMENDATION

- oil flow:	45-50 l/min	12-13 gpm
- working pressure:	175-210 bar	2 540-3 045 PSI
- power input:	16-18 kW	22-24 hp

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes.



THE RIGHT CONTROL SYSTEM MEANS MORE POWER

Selecting the right control system ensures that the loader and trailer will work together effectively and dependably. Components made by the sector's leading valve manufacturers form the basis for Kesla's control systems. The mechanical, hydraulic or electrohydraulic control valves that best satisfy the requirements set by the nature of the work, the output and pressure of the tractor's hydraulics, and the loader-trailer combination, can be selected from Kesla's extensive range.



MECHANICAL CONTROL VALVE

Mechanical control valves can also be installed in Kesla loaders. The valves' construction and the 2-joystick system's smooth movements enhance the controls' effectiveness. The working is precise and starts and stops are gradual. The valves' open-ended construction also facilitates the use of the control systems in the larger Kesla loaders.



HYDRAULIC PILOT CONTROL

Hydraulic pilot control facilitates the hydraulic control of main functions such as the lifting and folding boom, rotator and slewing mechanism. The control of the grapple, Xtender boom and stabilizer legs are electrohydraulic. The solution achieves excellent ergonomics as well as smoothness and precision for the controls. Installing the device in the tractor's cabin is also easy.



ELECTROHYDRAULIC PILOT CONTROL

Electrohydraulic pilot control facilitates the simultaneous utilization of separate control functions. Control independent of the loading brings precision and power for individual functions. A system that records driver-specific control and adjustment settings can also be obtained for the system.





TIMBER GRAPPLE 18 / 19 / 24

Kesla's timber grapple has been designed for the effective handling of tree stems. It obeys the system's controls precisely and collects the logs into neat bunches. Installing and detaching the grapple is simple and quick.

TECHNICAL SPEC.	KESLA 18		KESLA 19		KESLA 24	
Gripping area tip to tip:	0.18 m ²	1.94 sq ft	0.18 m ²	1.94 sq ft	0.24 m ²	2.58 sq ft
Working pressure max:	175 bar	2 538 PSI	190 bar	2 756 PSI	175 bar	2 539 PSI
Gripping force tip to tip:	6.4 kN	1 440 lb/ft	6.6 kN	1 484 lb/ft	8.5 kN	1 910 lb/ft
Opening time at 50 l/min (13 gpm imp) flow:	0.6 s		0.6 s		1.0 s	
Closing time:	0.9 s		1.0 s		1.3 s	
Weight:	67 kg	148 lbs	80 kg	176 lbs	115 kg	253 lbs

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EXCAVATION ACCESSORIES

Excavation accessories turn a Kesla loader into a versatile and effective excavator, expanding a tractor's functional capabilities in agriculture as well as forestry. No special tools are required when attaching the excavation accessories; the hydraulic hoses' quick couplings speed up the mounting. A ditch forming bucket and drain bucket are also available.

TECHNICAL SPEC.	KESLA DIGGING DEVICE	
Bucket volume		
- ditch forming bucket:	120 l	32 gal (US)
- drain bucket:	60 l	16 gal (US)
Bucket width		
- ditch forming bucket:	1 100 / 180 mm	43" / 7"
- drain bucket:	330 mm	13"
Breaking force at bucket tip pressure:	20 kN at 175 bar	4 496 lbs at 2 500 PSI
Boom and cylinder:	63 kg	139 lbs
Ditch forming bucket:	86 kg	189 lbs
Drain bucket:	64 kg	141 lbs

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes.

WINCH K1400

A Kesla winch significantly increases a loader's reach. A radio-controlled control system facilitates, for example, the dragging of tree stems at distances of even 40 metres.



TECHNICAL SPEC.	K1400	
Pulling force:	1 400 kg / 175 bar	3 086 lbs / 2 500 PSI
Speed:	27 m/min	17.7" / min
Wire rope ø/length :	6 mm / 40 m	0.24" / 130'
Weight:	45 kg	99 lbs

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes.

FEED/ FERTILIZER BUCKET

The feed bucket mounted on the Kesla timber grapple is well suited to the handling of fresh feed, dry hay and fertilizer. It is also convenient for handling chopped firewood.



BUCKET	KESLA 18		KESLA 19/24	
Number of tines:	4		4	
Width:	675 mm	26 1/2"	710 mm	28"
Weight:	38 kg	84 lbs	43 kg	95 lbs

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes.

GRAVEL BUCKET

The gravel bucket mounted on Kesla's timber grapple loads soil or, for example, bulk fertilizer effectively. Thanks to the narrow shape of the tip, the bucket sinks well into the ground. Attaching and detaching the bucket's parts is quick and easy.



BUCKET	KESLA 18		KESLA 19/24	
Width min.:	350 mm	13.8"	370 mm	14.6"
Width max.:	750 mm	29 1/2"	800 mm	31 1/2"
Volume/pair:	120 l	31.5 gal imp.	150 l	39.6 gal imp.
Weight:	56 kg	123 lbs	71 kg	156 lbs

The values provided by the manufacturer are indicative. Kesla reserves the right to make changes.



KESLA

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

Manufacturer

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