

PALMS FIFTH GENERATION INNOVATIONS

Palmse Mehaanikakoda (PALMS) is a family business founded in 1992 by father and son.

Today, PALMS is the largest producer of forestry trailers and cranes in Europe. We have achieved the leading position through persistent work and continuous product development.

PALMS is founded on 4 core values:

- **Passion** for building the best equipment in our field.
- **Innovation** that makes forestry easier for our customers.
- Uncompromising product **quality**.
- Value of long-lasting customer relationships.

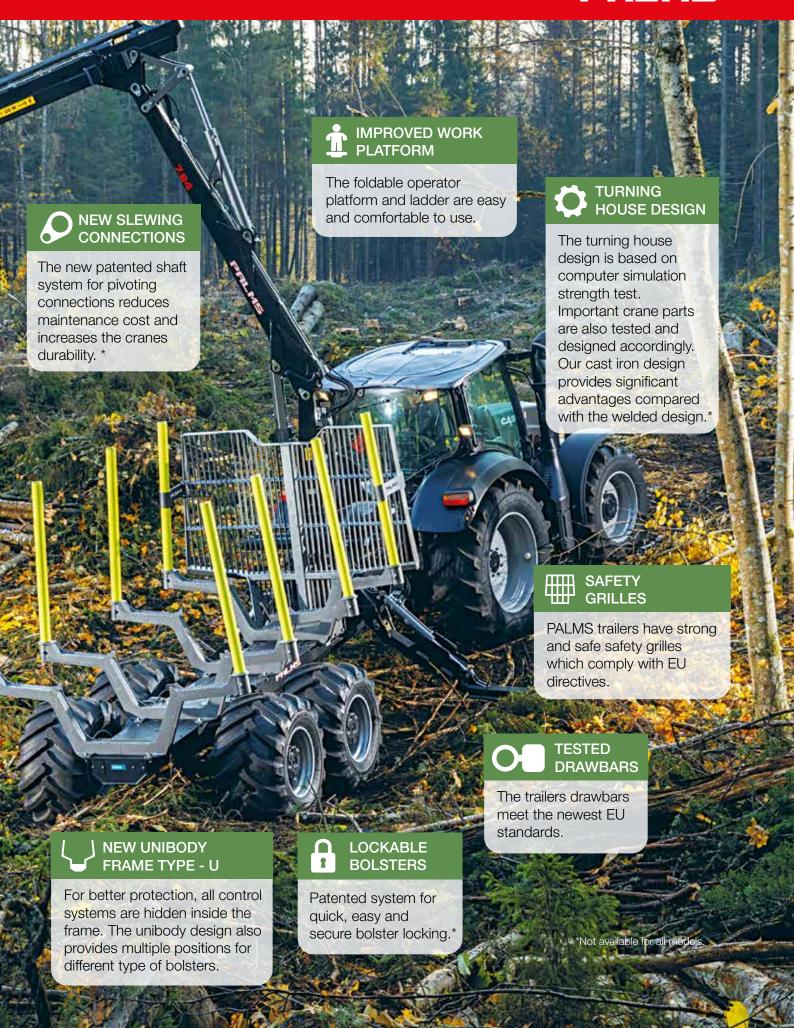
Our latest fifth generation of PALMS forest cranes and widened trailer model range is not plainly playing with words. Those are the products that are among the best, you can buy.

Join the PALMS family and choose a reliable tool appropriate for your needs.

Anti Puusepp Palmse Mehaanikakoda co-founder



higher resale value.







FORESTRY CRANES - 2ND SERIES / 2.54



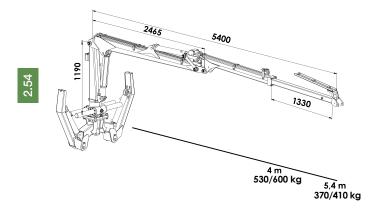


NEW GENERATION COATING TECHNOLOGY: KTL + POWDER

From 2017 onwards, all PALMS products first receive a EPO primer coating by cataphoresis treatment before being powder coated. Quality surface coatings keep away rust and provide the product a higher resale value. PALMS is the first producer in forestry crane and trailer segment, in the Northern Europe, using KTL + powder coating technology.







	PALMS 2.54			
Maximum reach	5,4 m			
Lifting torque, gross	29 kNm			
Lifting torque (190 bar)	26 kNm			
Telescope boom length	1,33 m			
Slewing cylinder quantity	4 pcs			
Slewing torque	7,8 kNm			
Working pressure	215 bar			
Rotator maximum load	30 kN(FL)			
FITS TRAILERS	6S			

^{*} Detailed info on additional equipment and combinability possibilities can be found on the last pages of the catalogue. In case of additional questions contact your local PALMS dealer.

FORESTRY CRANES - 3RD SERIES / 3.67



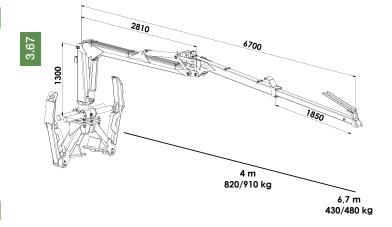
BROAD PRODUCT SELECTION

Every customer has unique needs. Combine our products to create equipment for your specific needs. Combination possibilities are explained on the last pages of the catalogue.





	PALMS 3.67		
Maximum reach	6,7 m		
Lifting torque, gross	45 kNm		
Lifting torque (190 bar)	41 kNm		
Telescope boom length	1,85 m		
Slewing cylinder quantity	4 pcs		
Slewing torque	12 kNm		
Working pressure	215 bar		
Rotator maximum load	30 kN(FL)		
FITS TRAILERS	8SX; 9S; 10D		



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FORESTRY CRANES - 4th SERIES / 4.70



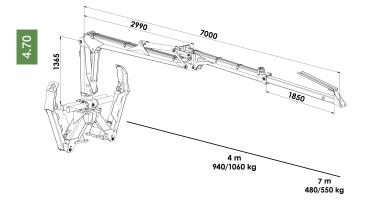


NEW SLEWING CONNECTIONS (PATENT EP 3 239 540 A1)

The new crane boom shaft system is designed to reduce maintenance costs and increase the crane's durability. The special coating of the boom shafts makes connections more durable and gives them a lower friction coefficient which in turn reduces fuel consumption. The boom shaft's lubrication points are now conveniently located on the side of the boom. The new boom shaft's are fitted on the 4th, 5th and 7th series cranes.



	PALMS 4.70
Maximum reach	7,0 m
Lifting torque, gross	52 kNm
Lifting torque (190 bar)	47 kNm
Telescope boom length	1,85 m
Slewing cylinder quantity	4 pcs
Slewing torque	15 kNm
Working pressure	215 bar
Rotator maximum load	45 kN(FL)
FITS TRAILERS	8SX; 9S; 10D; 13D; 10U; 13U



 $^{^{\}star}$ Detailed info on additional equipment and combinability possibilities can be found on the last pages of the catalogue. In case of additional questions contact your local PALMS dealer.

FORESTRY CRANES - 5TH SERIES / 5.72; 5.85



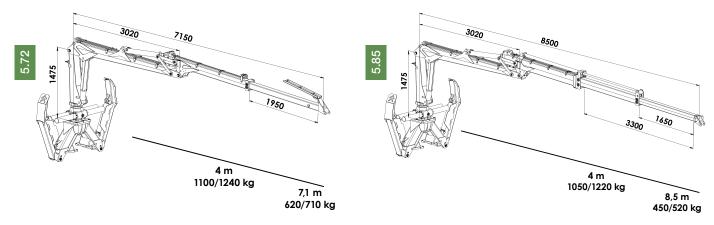
HIDDEN HYDRAULIC HOSES

The forest cranes most vulnerable component is hydraulics. Damaged hydraulic hoses mean wasted work days. For better protection PALMS designers hid the hydraulic components inside the telescopic boom.

PPR - PALMS Protected Hose Routing Solution between boom and rotator has passed hardest tests in the forest.







	PALMS 5.72	PALMS 5.85
Maximum reach	7,15 m	8,5 m
Lifting torque, gross	63 kNm	63 kNm
Lifting torque (190 bars)	56 kNm	56 kNm
Telescope boom length	1,95 m	3,3 m
Slewing cylinder quantity	4 pcs	4 pcs
Slewing torque	17 kNm	17 kNm
Working pressure	215 bar	215 bar
Rotator maximum load	50 kN(FL)	50 kN(FL)
FITS TRAILERS	9S; 10D; 13D; 10U; 13U; MWD 3.2; HMWD 3.2	9S; 10D; 13D; 10U; 13U; MWD 3.2 HMWD 3.2

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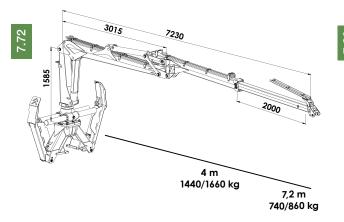
FORESTRY CRANES – 7TH SERIES / 7.72; 7.86; 7.94

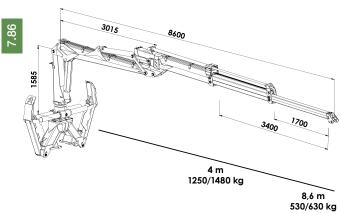


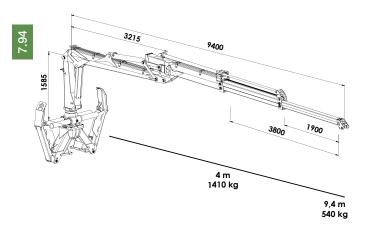
	PALMS 7.72	PALMS 7.86	PALMS 7.94
Maximum reach	7,2 m	8,6 m	9,4 m
Lifting torque, gross	83 kNm	83 kNm	83 kNm
Lifting torque (190 bars)	74 kNm	74 kNm	-
Telescope boom length	2,0 m	3,4 m	3,8 m
Slewing cylinder quantity	4 pcs	4 pcs	4 pcs
Slewing torque	21 kNm	21 kNm	21 kNm
Working pressure	215 bar	215 bar	215 bar
Rotator maximum load	60 kN(FL)	60 kN(FL)	60 kN(FL)
FITS TRAILERS	13D; 10U; 13U; MWD 3.2; HMWD 3.2	13D; 10U; 13U; MWD 3.2; HMWD 3.2	13D; 10U; 13U; MWD 3.2; HMWD 3.2

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TUNING HOUSE DESIGN

The slewing mechanism is the heart of the crane. The fifth generation crane models are equipped with an improved cast iron turning house, which is even more durable than the previous model. Improved turning houses are used on 2nd, 5th and 7th series cranes.

TRAILERS



FORESTRY TRAILERS - S-SERIES / 6S, 8SX, 9S



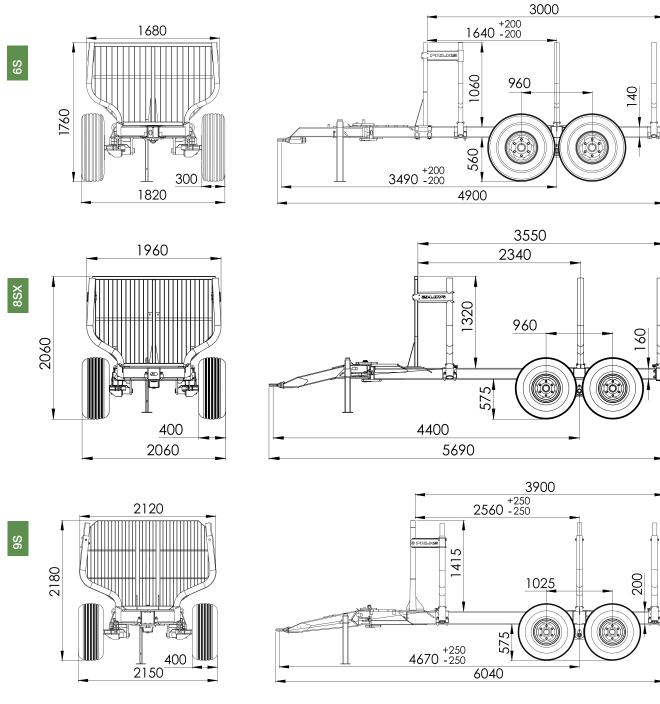


When it comes to forestry trailers, the load area becomes more important than loading capacity. A larger load area means that you can fit more logs onto the trailer.

As an extra option we provide:

- bolster extensions
- loading area widening system on U-type and MWD 3.2 trailers.





	PALMS 6S	PALMS 8SX	PALMS 9S
Gross weight	8000 kg	10 000 kg	12 000 kg
Curb weight	815 kg	1140 kg	1375 kg
Chassis	140 x 140 x 6 mm	160 x 160 x 8 mm	200 x 200 x 8 mm
Load area cross-section	1,5 m ²	2,0 m ²	2,25 m ²
Max crane size by lifting torque	32 kNm	47 kNm	65 kNm
Drawbar control cylinders, standard / (optional)	1/(0) pcs	2 pcs	2 pcs
Frame extension length (optional)	-	0,61 m	0,7 m
FITS CRANES	2.54	3.67; 4.70	3.67; 4.70; 5.72; 5.85

^{*} Detailed info on additional equipment and combinability possibilities can be found on the last pages of the catalogue. In case of additional questions contact your local PALMS dealer. Final dimensions and weights might be different depending on the equipment level.

FORESTRY TRAILERS - D-SERIES / 10D; 13D

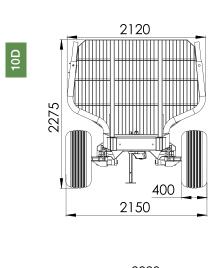


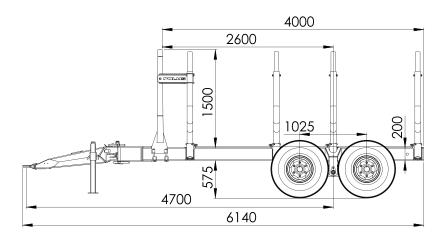
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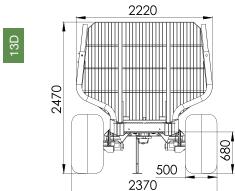
LOCKABLE BOLSTERS (PATENT EP 3284659)

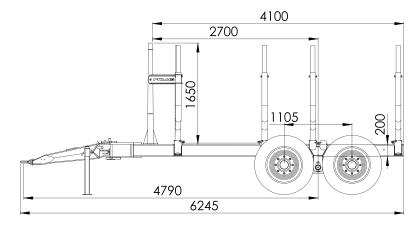
PALMS engineers have created and patented a unique locking system for bolsters. The bolsters are locked quickly and securely into their sockets. No tools are required for attaching the bolsters to the trailer. The innovation is standard equipment for 9S, 10D, 13D, 10U and 13U trailers.









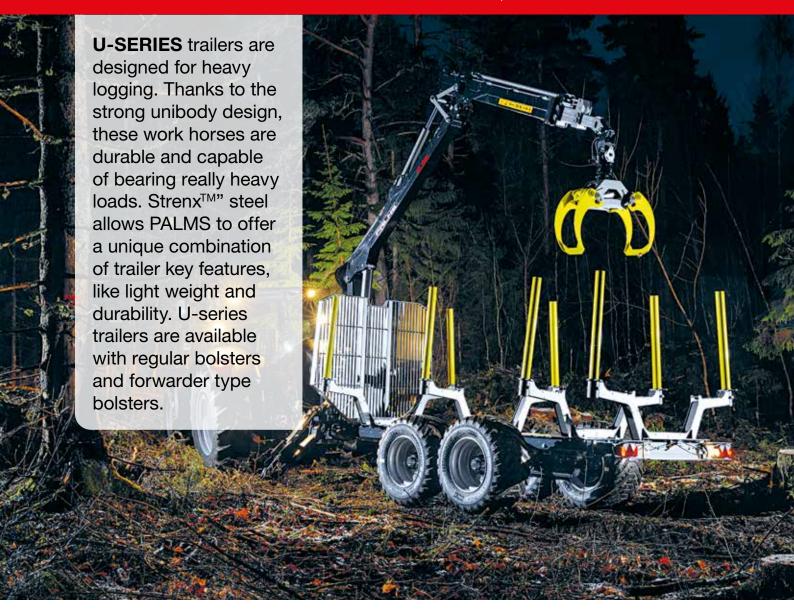


	PALMS 10D	PALMS 13D	
Gross weight	13 000 kg	16 000 kg	
Curb weight	1570 kg	2000 kg	
Chassis	2 x 200 x 100 x 8 mm	2 x 200 x 120 x 8 mm	
Load area crosssection	2,4 m ²	2,85 m ²	
Max crane size by lifting torque	75 kNm	85 kNm	
Drawbar control cylinders	2 pcs	2 pcs	
Frame extension length (optional)	0,85 m	0,85 m	
FITS CRANES	3.67; 4.70; 5.72; 5.85	4.70; 5.72; 5.85; 7.72; 7.86	

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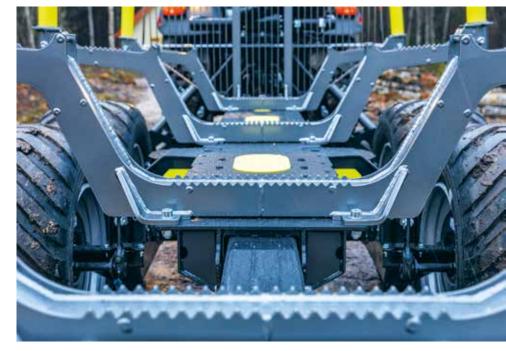
FORESTRY TRAILERS - U-SERIES / 10U; 13U

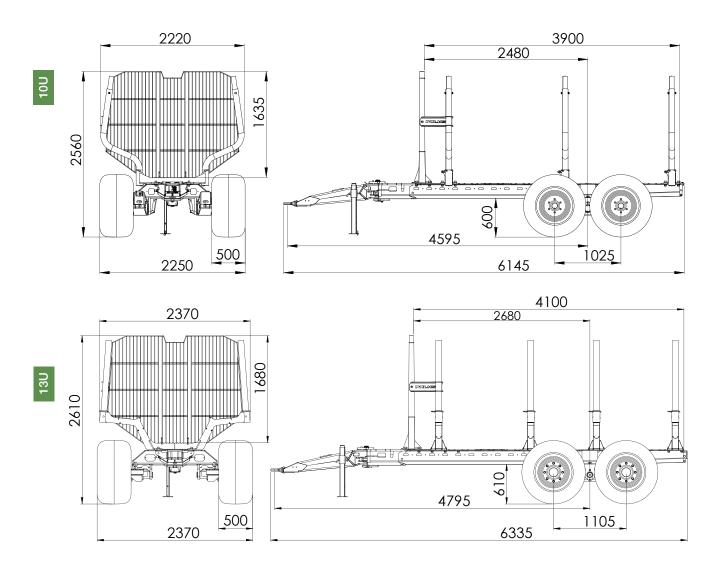




EXTENDABLE FRAME

All trailers can be ordered with an option of extendable frame. The frames can be extended up to 1 m of extra length. Extensions are provided with and without bolsters and bunk. To provide maximum customizability, the trailer has multiple bolster locking positions. U and MWD series have a hydraulic extension option.





	PALMS 10U	PALMS 13U
Gross weight	14 000 kg	18 000 kg
Chassis	unibody	unibody
Load area cross-section	2,6 m ²	3,0 m ²
Max crane size by lifting torque	85 kNm	85 kNm
Drawbar control cylinders	2 pcs	2 pcs
Frame extension length (optional)	0,99 m	0,99 m
FITS CRANES	4.70; 5.72; 5.85; 7.72; 7.86; 7.94	4.70; 5.72; 5.85; 7.72; 7.86; 7.94

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FORESTRY TRAILERS - MWD 3.2 / MWD 3.2; HMWD 3.2





MWD-SYSTEMS

You can choose between two different 4WD systems:

- Fully mechanical MWD 3.2 needs a customized transmission box between the tractor's ground speed PTO and trailer axles. Therefore, the MWD 3.2 can only be used with tractor for which this trailer has been designed.
- Hydro mechanical HMWD 3.2 has a hydro mechanical transmission, between the tractor's PTO and axles. This 4x4 system is universal and fits onto all suitable sized tractors with PTO. LS hydraulic pump allows to operate trailer as well as crane.

MWD 3.2; HMWD 3.2 5370 A 4235 B 2470 C 2450 Guard movement: MWD 450 mm H-MWD 400 mm 2870 1595 880 90 605 1300 600 (0 offset) Track Width 1870 7565 D Overall Width2470 6430 E 4665 F 200 Standard HMWD Standard Long HMWD Long Α 5370 5320 5780 5730 В 4235 4185 4645 4595 С 2470 2420 2880 2830 D 7565 7565 7975 7975 Ε 6430 6430 6840 6840 F 4665 4665 5075 5075 1500

	PALMS MWD 3.2	PALMS HMWD 3.2		
Gross weight	18 000 kg	18 000 kg		
Curb weight	4020 kg	4100 kg		
Chassis	unibody	unibody		
Load area cross section	3,2 m ²	3,2 m ²		
Load area wideners	2 x 300 mm will increase LACS by 0,66 m², total 3,86 m²	2 x 300 mm will increase LACS by 0,66 m², total 3,86 m²		
Max crane size by lifting torque	120 kNm	120 kNm		
Drawbar control cylinders	2 pcs	2 pcs		
Lenghts of loading areas	4,23 m / 4,64 m	4,18 m / 4,59 m		
Y-drawbar option	yes	yes		
Trailer pushing power	max 75 kN	max 60 kN		
Tyres	Standard 600/50/22,5 Nokia Forest Optional 710/40/22,5	Standard 600/50/22,5 Nokia Forest Optional 710/40/22,5		
Driving speed	max 10km/h with traction max 40km/h without traction	max 5 km/h with traction max 40 km/h without traction		
FITS CRANES	4.70; 5.72; 5.85; 7.72; 7.86; 7.94	4.70; 5.72; 5.85; 7.72; 7.86; 7.94		

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ADDITIONAL EQUIPMENT

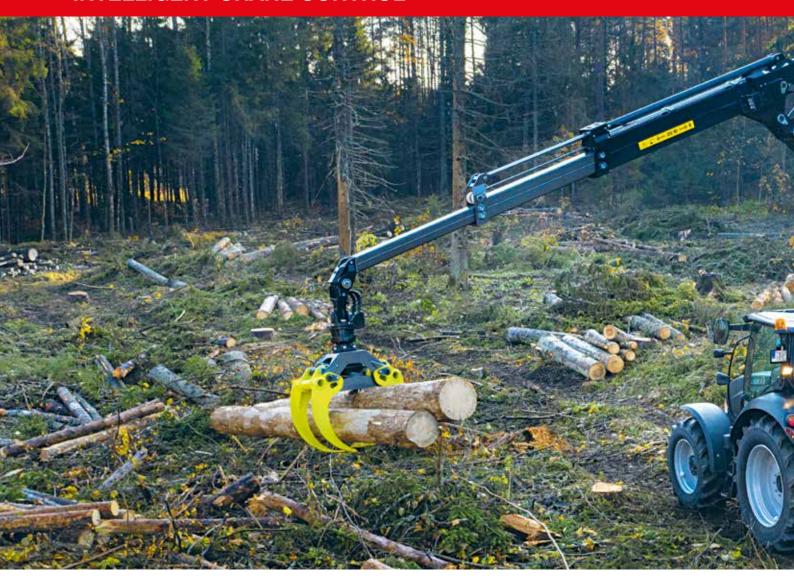
CRANES	2.54	3.67	4.70	5.72	5.85	7.72	7.86	7.94
Maximum reach, m	5,4	6,7	7	7,15	8,5	7,2	8,6	9,4
Lifting torque, gross kNm	29	45	50	63	63	83	83	83
Lifting torque (190 bars), kNm	26	41	47	56	56	74	74	-
Lifting capacity at 4 m without grapple and rotator, kg	600	910	1020	1240	1220	1660	1480	1410
Lifting capacity at full reach without grapple and rotator, kg	410	480	530	710	520	860	630	540
Lifting capacity by 190 bars at 4 m without grapple and rotator, kg	530	820	940	1100	1050	1440	1250	-
Lifting capacity by 190 bars at full reach without grapple and rotator, kg	370	430	480	620	450	740	530	-
Telescopic boom stroke length	1,33	1,85	1,85	1,95	3,3	2	3,4	3,8
Slewing cylinder amount	4	4	4	4	4	4	4	4
Slewing torque, kNm	7,8	12	15	17	17	21	21	21
Working pressure, bar	215	215	215	215	215	215	215	215
Rotator maximum load, kN	30	30	45	55	55	60	60	60
Crane weight without support leg & valve block	400	620	710	820	900	1160	1280	1310
Pillar slewing angle, °	370	370	370	380	380	380	380	380
Recommended oil flow, L/min	20-35	30-45	45-70	50-90	50-90	60-120	60-120	60-120
CONTROL VALVES								
A4, 4/8 XY+2x el.on-off valve	+	+	+	+	+	+	+	-
A7, 4/8 XYZ control valve	+	+	+	+	+	+	+	-
A11, 2/8 Pre-hydraulic,+2x el.propo Parker P70	_	+	+	+	+	+	+	+
A12, 2/8 Pre-hydraulic, +2x el.propo	_	+	+	+	+	+	+	+
A15, propo el, ministick, Parker P70, display optional	_	+	+	+	+	+	+	+
A 23, propo el, ministick, Parker L90, display optional	-		+	+	+	+	+	+
A26, radio control	-	_						
	-	-	+	+	+	+	+	+
A31, PALMS PLUS, display, Parker mini joysticks and L90	-	-	-	+	+	+	+	+
A37, combi control (Radio+A31) and L90	-	-	-	+	+	+	+	+
A 41, PALMS Tip Control Parker Mini Joysticks L90	-	-	-	-	-	-	+	+
SUPPORT LEGS								
A-type support legs	+	+	+	+	+	-	-	-
FD-type support legs	-	+	+	+	+	+	+	+
GRAPPLES								
Grapple C02	+	+	-	-	-	-	-	-
Grapple C1	+	+	+	+	+	-	-	-
Grapple C3	-	+	+	+	+	+	+	+
Grapple C5	-	-	-	+	+	+	+	+
Energy wood grapple C6	-	+	+	+	+	+	+	+
Energy wood grapple C7	-	-	-	+	+	+	+	+
OTHER EXTRAS								
Radio-controlled winch	+	+	+	+	+	+	+	+
Joystick holders	+	+	+	+	+	+	+	+
LED-work lights	-	+	+	+	+	+	+	+
Operator seat on boom	-	-	+	+	+	+	+	+
Oil cooling kit	-	+	+	+	+	+	+	+
Electronic floating position for lifting and slewing	+	+	+	+	+	+	+	+
Valve block attached to main beam	-	+	+	+	+	+	+	+
Slewing gear hydraulic damping	-	-	+	+	+	+	+	+
Slewing gear and lifting cylinder hydraulic damping High-pressure oil filter	-	+	+	+	+	+	+ +	+
Rotator double brake	+	+	+	+	+	+	+	+
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TRAILERS	6 S	8SX	98	10D	13D	10U	13U	MWD 3.2
Gross weight, kg	8000	10000	12000	13000	16000	14000	18000	18000
Curb weight (without options), kg	815	1140	1375	1570	2000	1950	2000	4020
Total length. mm	4900	5690	6040	6140	6240	6145	6335	6700
Width with standard wheels, mm	1820	2060	2150	2150	2370	2250	2370	2510
Standard wheel size	11,5/80-15,3	400/60-15,5	400/60-15,5	400/55-22,5	500/50-17	500/50-17	500/50-17	600x50x22,5
Load area cross-section, m ²	1,5	2,0	2,25	2,4	2,85	2,6	3,0	3,2
Load area length mm	3000	3550	3900	4000	4100	3900	4100	4230/4640
Chassis, mm	140x140	160x160	200x200	2x200x100	2x200x120	unibody	unibody	unibody
Bolster pairs standard	3	3	3	3	3	3	3	4
2WD-hub motor drive	-	-	+	+	+	+	+	-
4WD-roller drive	-	-	+	+	+	+	+	-
Hydraulic brakes	+	+	+	+	+	+	+	+
Air brakes	+	+	+	+	+	+	+	+
Drawbar control cylinders standard / (optional), pcs	1/(0)	2	2	2	2	2	2	2
Max crane size by lifting torque, kNm	32	47	65	75	85	85	85	120
Frame extension length (optional), m	-	0,61	0,70	0,85	0,85	0,99	0,99	0,9
WHEELS			•		•		•	
Wheels 340/55-16	+	+	-	-	-	-	-	-
Wheels 400/60-15,5 RF-rim	+	+	+	+	-	-	-	-
Wheels 480/45-17 RF-rim	-	+	+	+	-	+	-	-
Wheels 500/50-17 RF-rim	-	-	+	+	+	+	+	-
Wheels 400/55-22,5 RF-rim	-	-	+	+	-	+	-	-
Wheels 500/50-22,5 RF-rim	-	-	-	-	+	-	+	-
Wheels 550/45-22,5 RF-rim	-	-	-	-	+	-	+	-
Wheels 600/50-22,5 RF-rim	-	-	-	-	+	-	+	+
Wheels 710/40-22,5 RF-rim	-	-	-	-	-	-	-	+
HYDRAULICS			•		•		•	
Piston pump on trailer drawbar	-	+	+	+	+	+	+	-
Piston pump with multiplier for PTO	-	+	+	+	+	+	+	+
Piston pump with multiplier on drawbar	-	+	+	+	+	+	+	+
Variable pump on drawbar	-	-	+	+	+	+	+	+
Tank, 100l	-	+	+	+	+	+	+	+
Tank, 100l filled with HVLP oil	-	+	+	+	+	+	+	+
OTHER ADDITIONAL EQUIPMENT		1	i	i	i		i	
Tail lights	+	+	+	+	+	+	+	+
Support links for first bolster pair	-	+	+	+	+	+	+	-
Additional bolsters	+	+	+	+	+	+	+	-
Bolster extensions	_	-	+	+		+	+	+
Frame extension	_	+	+	+	+	+	+	+
Operator work platform on drawbar	_	+	+	+	+	+	+	
Base frame for sorting		+	+	+	+	+	+	+

CRANES									
	2.54	3.67	4.70	5.72	5.85	7.72	7.86	7.94	
6 S	+	-	-	-	-	-	-	-	
8SX	-	+	+	-	-	-	-	-	
9 S	-	+	+	+	+	-	-	-	
10D	-	+	+	+	+	-	-	-	
13D	-	-	+	+	+	+	+	+	
10U	-	-	+	+	+	+	+	+	
13U	-	-	+	+	+	+	+	+	
MWD 3.2	-	-	-	+	+	+	+	+	

^{*}Final dimensions and weights might be different depending on equipment level.

INTELLIGENT CRANE CONTROL



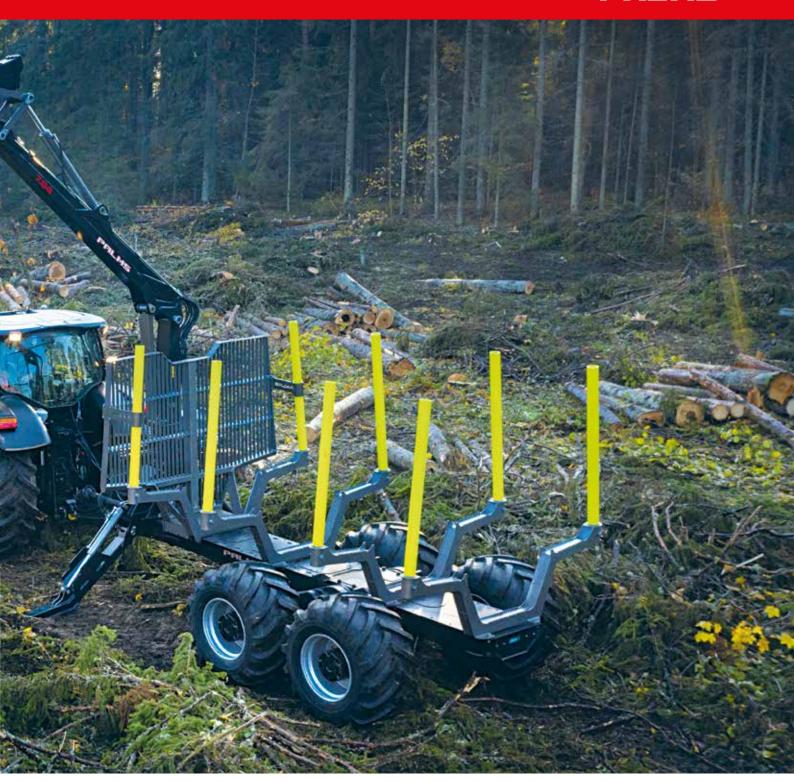
PALMS Plus enables multiple crane movements simultaneously with one control from the joysticks.

With **PALMS Plus**, the traditional forestry crane works as a parallel crane. With the automatic extension activated the lift boom, outer boom and extension can be controlled at the same time with one left-hand joystick movement.

With **PALMS Tip Control**, the operator controls the tip of the boom instead of controlling each cylinder separately. End cushions for the lift boom, outer boom and extension movements increase well-being at work and the lifetime of the crane.

OPERATOR BENEFITS

- Performance and productivity: the PALMS control system is fast, smooth, and very accurate.
- User-friendly: the logical PALMS user interface is quick to learn and easy to use.
- A tool for real professionals, but thanks to its userfriendliness, it is also the best choice for operators who do not require professional level adjustability.
- Well proven and a reliable product for harsh field conditions.





CONTROL OPTIONS

The PALMS system can be controlled with the local joysticks, a radio, or with both options. The selection of control method is done on the touch screen.



Scan this QR-code to watch a feature demonstration of the PALMS graphical user interface.

Links to **more PALMS videos** can be found in the description of the video.

ADDITIONAL EQUIPMENT / Incomplete selection of equipment on photos

CONTROL VALVES



A4, hydraulic 4/8 XY + pre-control 2x el. on-off



A7, mechanical 4/8 XYZ



A11/A11+/A12/A12+, pre-hydraulic 2/8 with hydraulic + 2x el. propo



A19/ A21 propo el, joysticks



A18/A26 electric radio control





Parker joysticks

A37





Parker joysticks



Radio



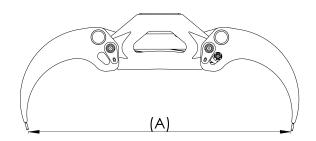


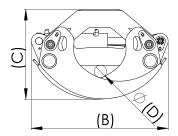


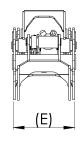


Parker or Danfoss joysticks

GRAPPLES



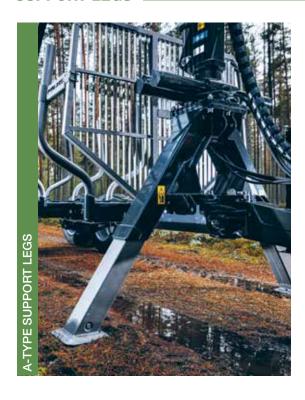






	MASS (kg)	AREA (m²)	DIMENSION A (mm)	DIMENSION B (mm)	DIMENSION C (mm)	DIMENSION D (mm)	DIMENSION E (mm)
PALMS C02	69	0,15	1040	670	410	60	305
PALMS C1	88	0,18	1230	690	480	80	315
PALMS C3	114	0,23	1465	760	500	69	340
PALMS C5	148	0,265	1400	800	580	80	380
Palms C6 energywood	127	0,21	1475	760	500	60	370
Palms C7 energywood	148	0,245	1400	800	580	80	380
Cutting head Nisula 175E	183	0,245	765	680	760	80	520
Gravel bucket GB3	81	0,36 / 200	1520	930	843	-	574

SUPPORT LEGS







ADDITIONAL EQUIPMENT





Biobox



LED-work lights with safety glass



Loading area widening for forwarder type bolsters



Working platform with ladder



Two models of foldable rear lights





PALMS 4 WD (roller drive between wheels)



Base frame for sorting



Support links for first bolster pair



Radio-controlled winch



Oil pump



Joystick holders



BB remote



LIFTING DIAGRAMS

