



TAJFUNLIV®



HYDRAULIC CRANES

www.tajfun-liv.si



Tajfun Liv d.o.o.

We are a specialized European company in manufacturing hydraulic loader cranes. With in-house development and production we have become an important manufacturer of equipment for handling timber and waste material. Forty years of experience in development, production and sales of cranes is our advantage and guarantee for reliable and quality products, made of material from renowned European producers.

A wide range of cranes with capacity from 60 to 297 kNm and outreach of up to 14.5 m provides the users with the optimal choice regarding the type and requirements of the job. Significantly facilitated and simplified work, flexibility in performing various tasks and great extent of efficiency and durability of the entire equipment are only some of the benefits brought to you by investing in LIV cranes.

Skilled and trained employees in development, technology and production are the warranty for the high quality of our products, which render the efficient and safe work in any environment possible. Our strategy is to manufacture and market reliable, user- and environment-friendly cranes with top technical characteristics.



High reliability cranes

The EN 12999 standard distinguishes timber handling cranes from other cranes. Timber handling cranes are intended exclusively for handling of timber by using grapples. Cranes for handling secondary raw material are for the purpose of safety at work equipped with over-centre valves and stability system of new generation.

Cranes' slewing range of 425° ensures efficient and smooth work. The control valves, from well-renowned manufacturers, enable soft, precise and at the same time fast operation without any jerky movements.

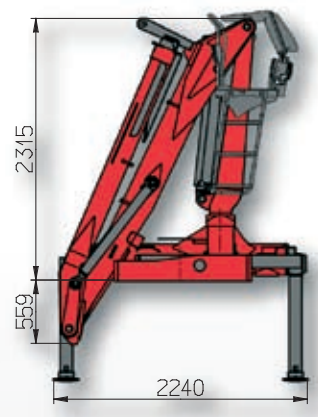
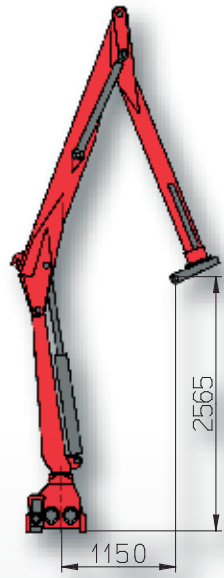
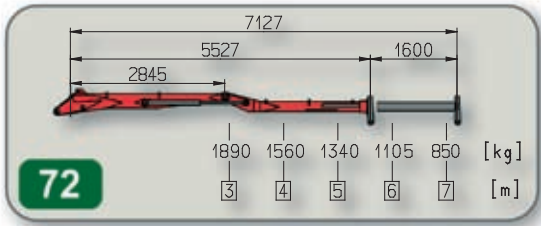
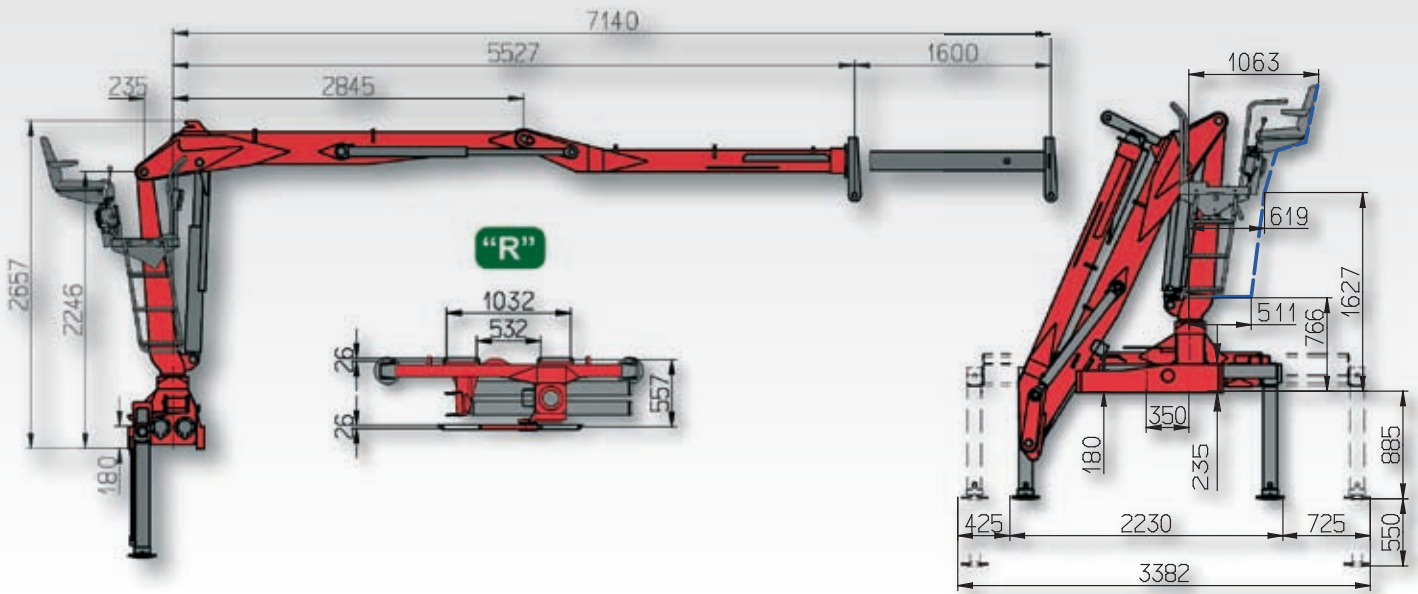
Accessories include various equipments for easy and safe work: cabin and proportional electro-hydraulic controls, crane hood, heated seat, remote radio control, fixed heel for long timber, hook for grapple parking, spot lights, 45° or 180° stabilizer fold-up system, etc.



»LIV 60Z«

Transversely folding cranes take the minimum installation space in transport position on the truck and possess excellent working characteristics. Cranes with capacity of 60 kNm were developed specially for loading short wood. Although these cranes were designed for this purpose, they are more and more used to handle waste materials.

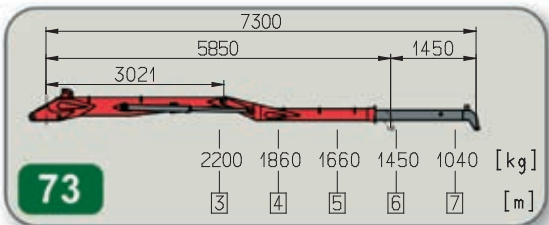
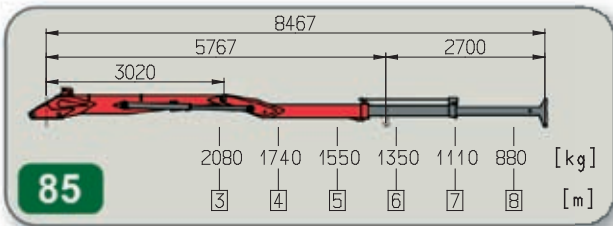
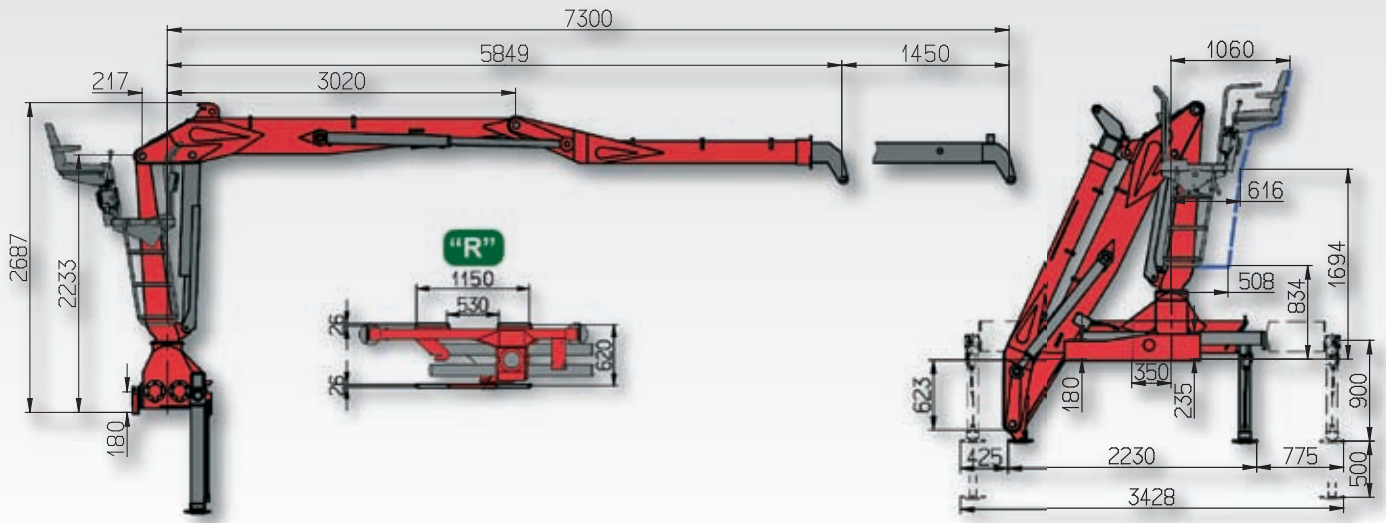
LIV 60Z



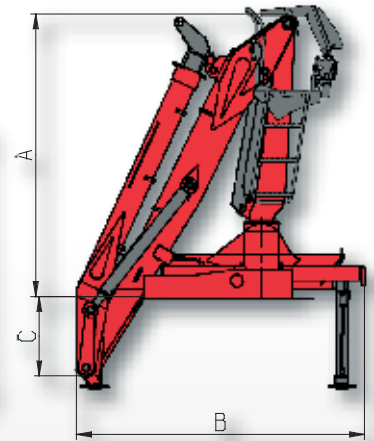
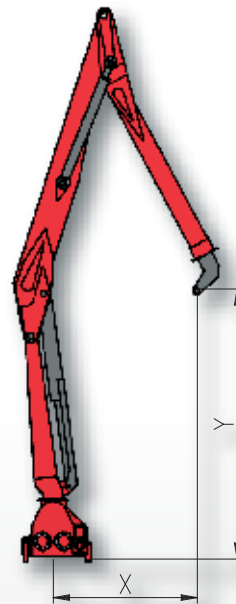


»LIV 80Z«

Transversely folding cranes take the minimum installation space in transport position on the truck and possess excellent working characteristics. Cranes with capacity of 80 kNm were developed for handling of short wood. They are manufactured with outreach from 7.3 to 8.5 m with single or double telescope. Although these cranes were designed for handling with wood, they are more and more used also for handling of waste materials.

LIV 80Z


LIV 80Z	X	Y
.73	1428	2681
.85	1416	2770

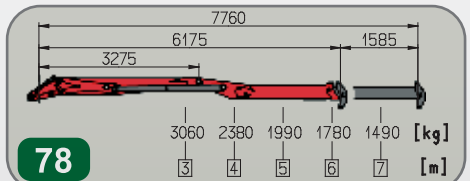
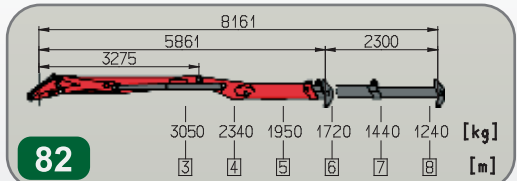
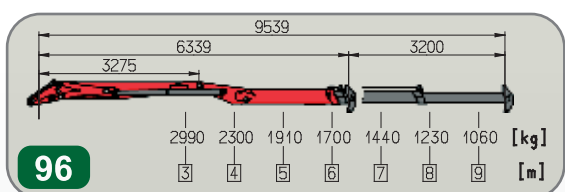
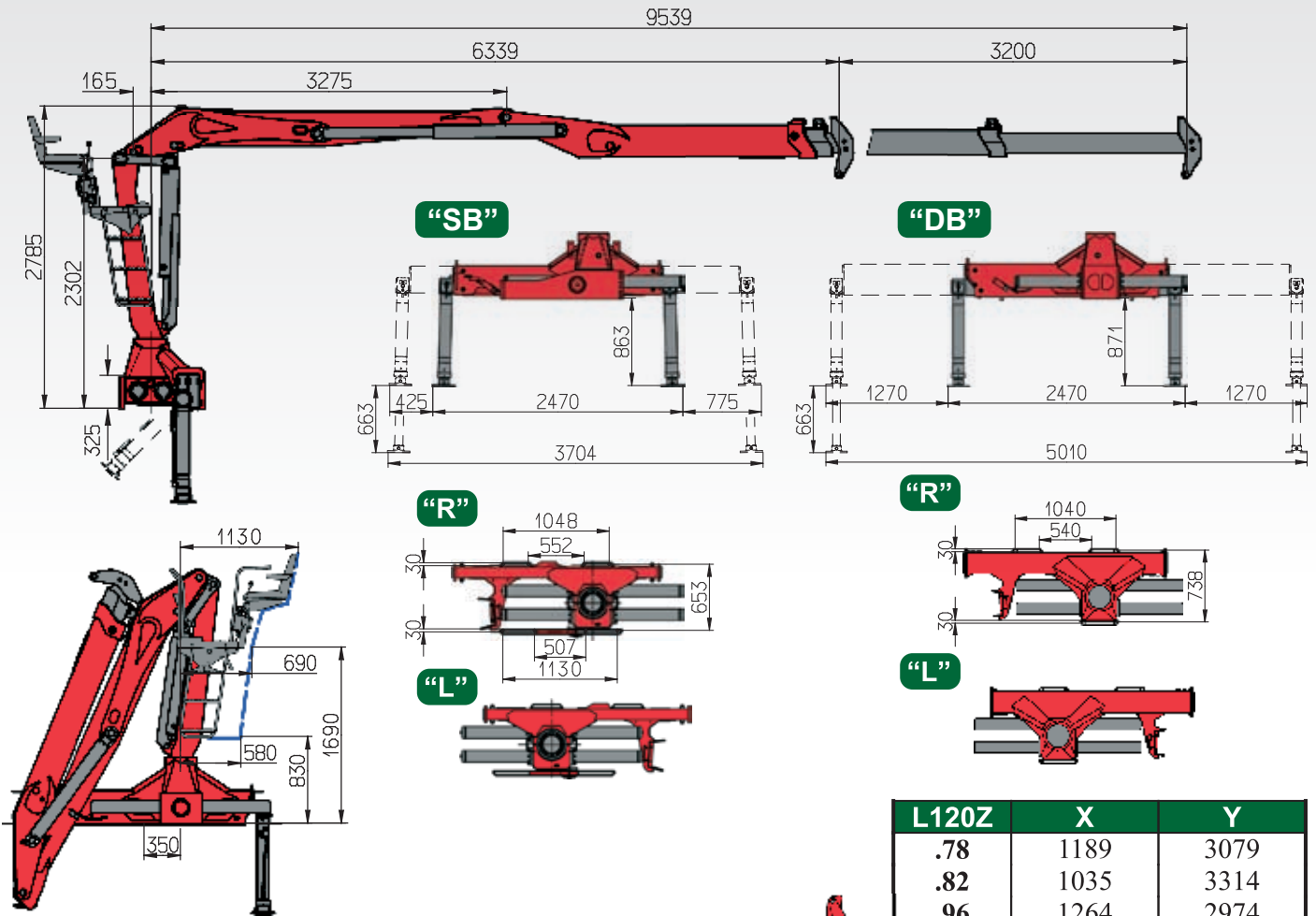


LIV 80Z	A	B	C
.73	2303	2350	623
.85	2303	2350	623

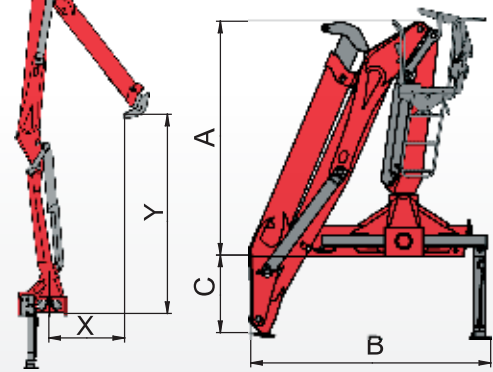


»LIV 120Z - LIV 300ZinF«

»Z« cranes have been the best sellers in recent years. Transversely folding or »Z« cranes in transport position on a truck take the least installation space and possess excellent work characteristics. A power link on the main boom provides good lifting characteristics in the entire range of operation. These cranes are distinguished from other »Z« models by a new generation of boom systems with inner hoses and double extension of outriggers till 5.5m which enables the best stability among all cranes on the market. Cranes were developed for loading short wood and timber. They are manufactured with outreaches from 7.8 to 9.6 m and capacity from 108 to 276 kNm, with single or simultaneously extendable double telescopic extension. Although cranes were designed for loading timber, they are increasingly being used to handle waste materials.

LIV 120Z


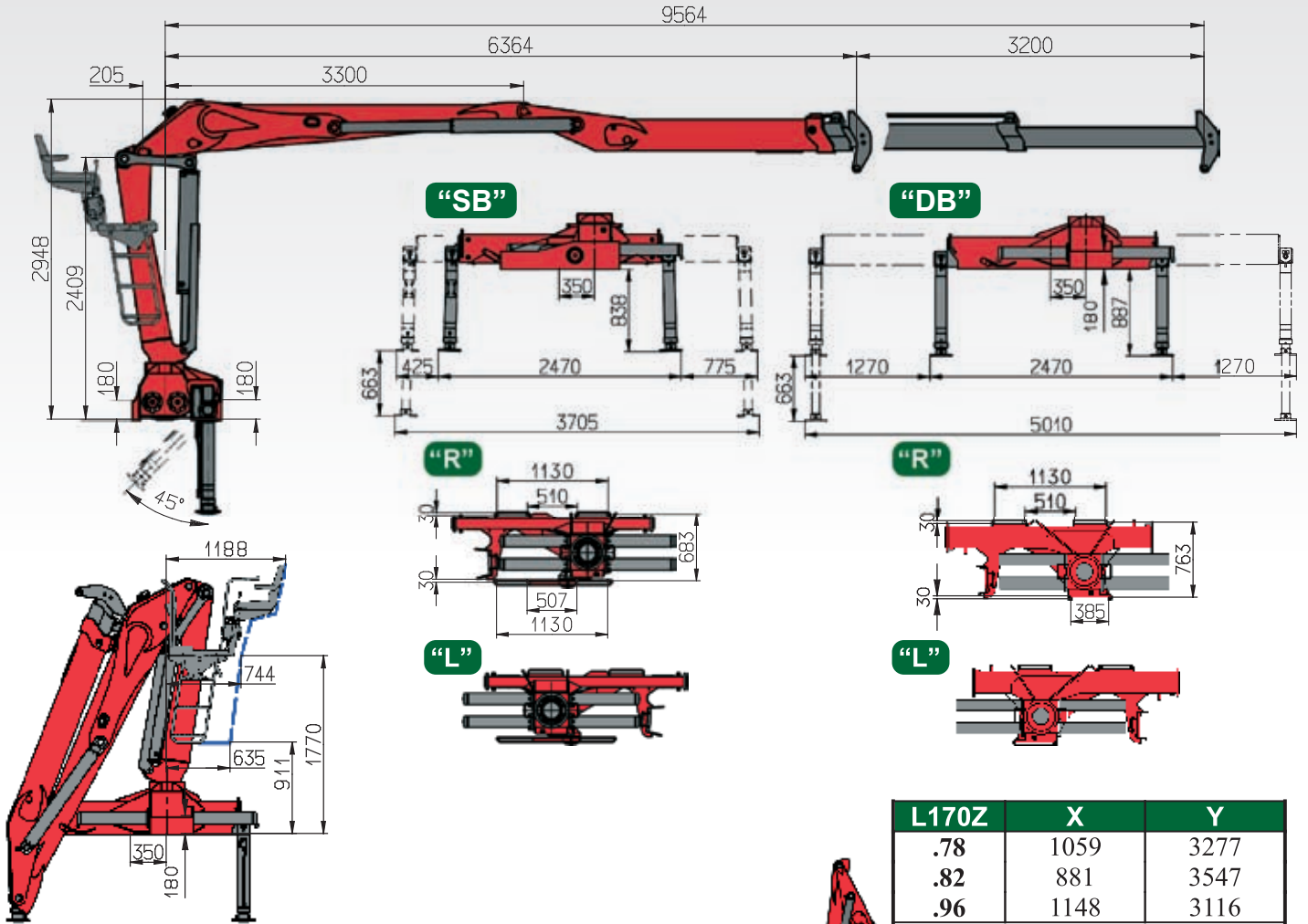
L120Z	X	Y
.78	1189	3079
.82	1035	3314
.96	1264	2974



L120Z	A	B	C
.78	2470	2500	810
.82	2470	2500	810
.96	2470	2500	810

»Z«

LIV 150Z / LIV 170Z / LIV 190Z



L170Z	X	Y
.78	1059	3277
.82	881	3547
.96	1148	3116

	3	4	5	6	7	8	9
L190Z	5110	3950	3280	2890	2460	2100	1820
L170Z	4630	3560	2950	2570	2130	1860	1620
L150Z	4220	3250	2690	2350	1980	1620	1430

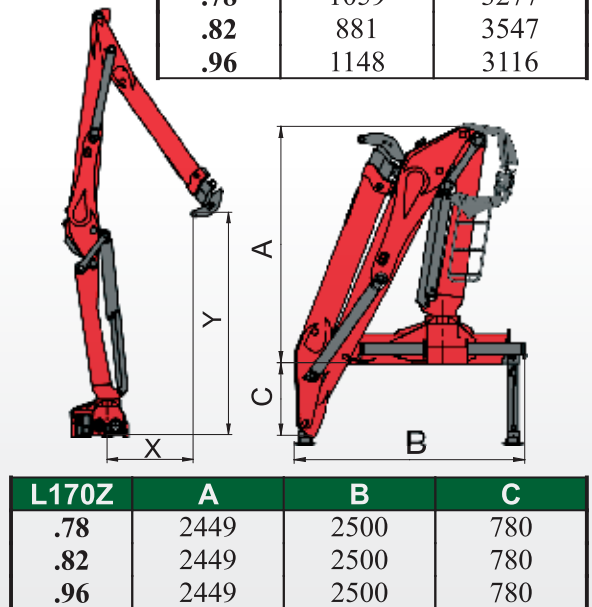
96 [kg] [m]

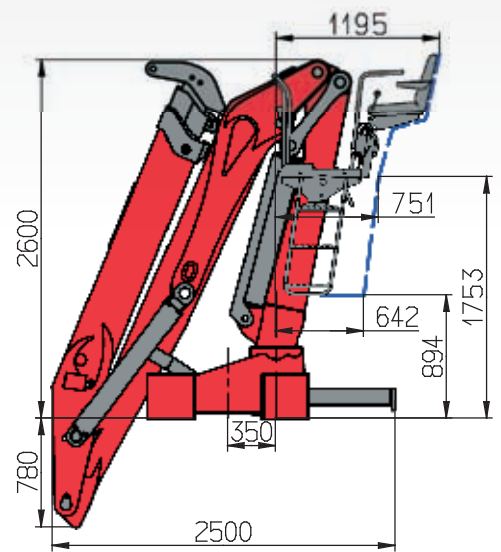
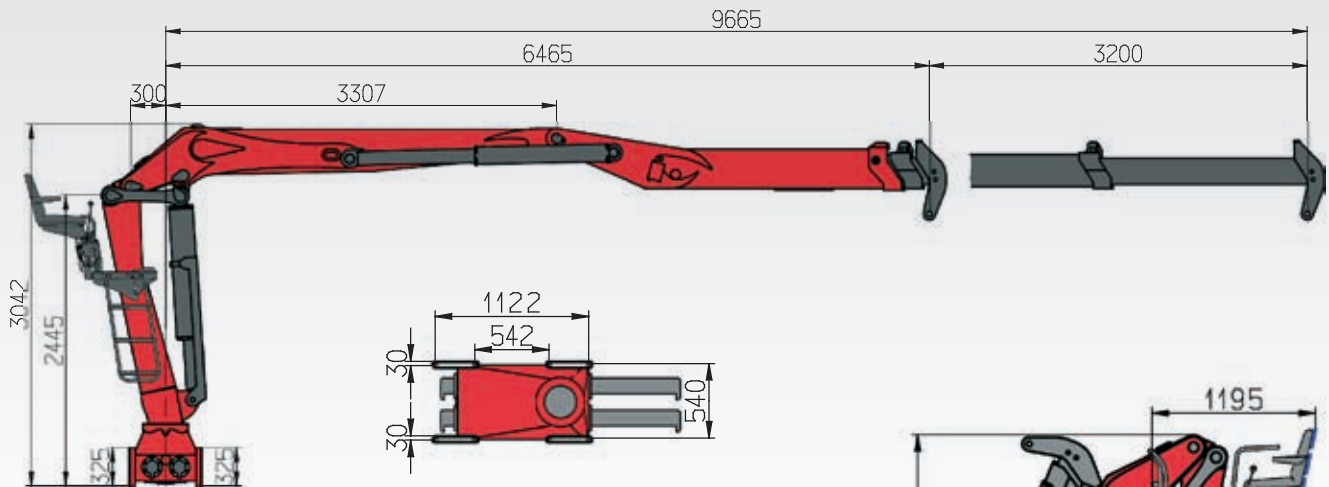
	3	4	5	6	7	8
L190Z	5160	3990	3310	2910	2500	2144
L170Z	4680	3620	3000	2620	2140	1880
L150Z	4280	3300	2730	2390	1960	1710

82 [kg] [m]

	3	4	5	6	7
L190Z	5220	4050	3370	2980	2540
L170Z	4730	3670	3070	2660	2200
L150Z	4330	3340	2780	2430	2020

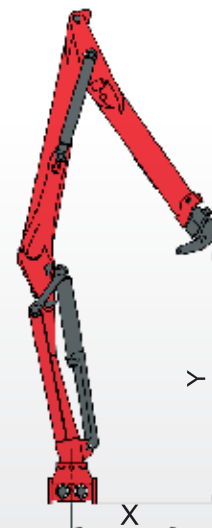
78 [kg] [m]



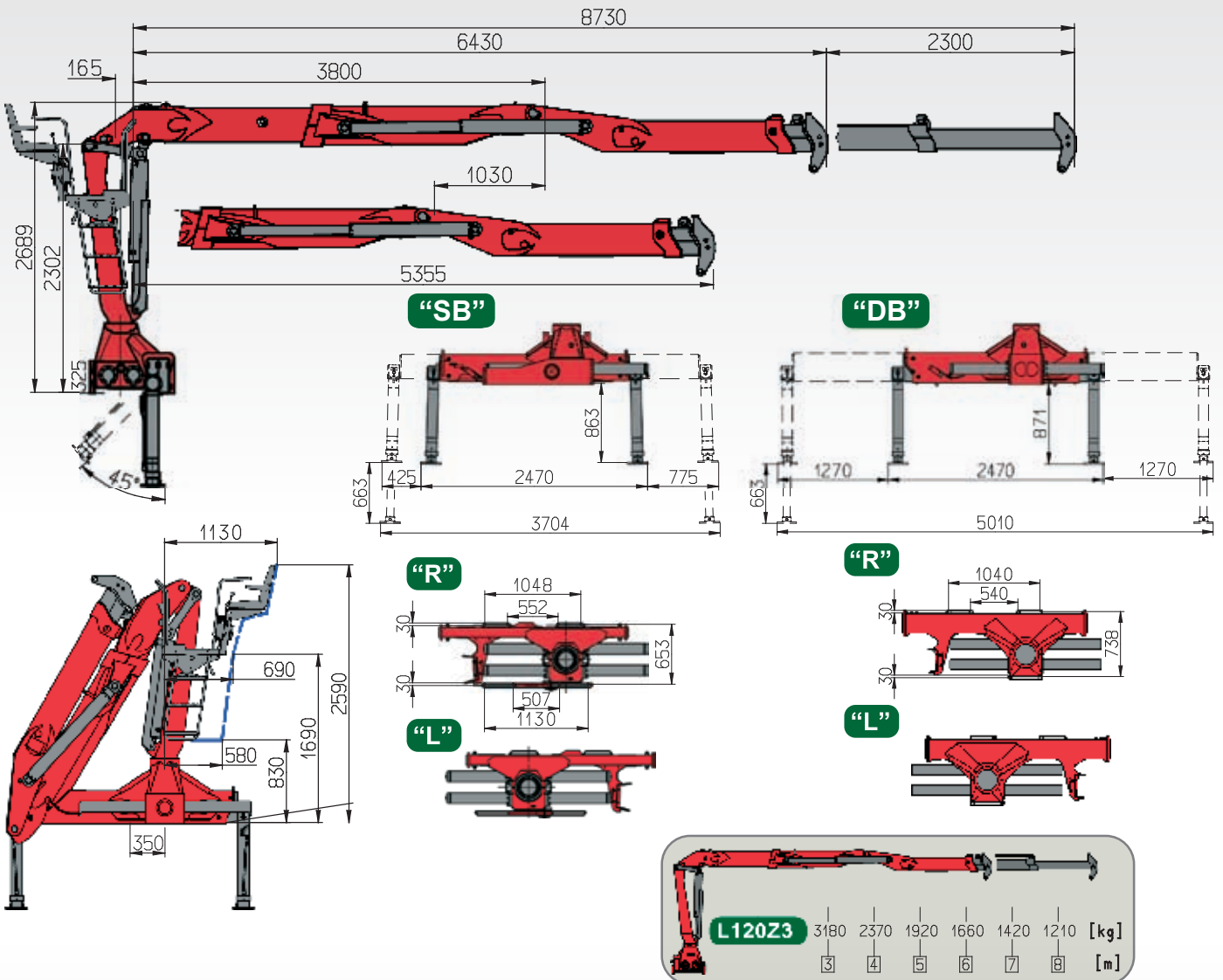
LIV 230Z / LIV 270Z / LIV 300ZinF


96		9665	6465	3307	3200				
	L300Z	7966	6194	5154	4537	3794	3210	2800	
	L270Z	6970	5420	4510	3970	3320	2810	2450	
	L230Z	6130	4750	3940	3430	2830	2370	2030	
									[kg]
									[m]

80		7920	6320	3307	1600	
	L300Z	8020	6251	5204	4582	3825
	L270Z	7020	5470	4560	4010	3350
	L230Z	6220	4840	4030	3520	2920

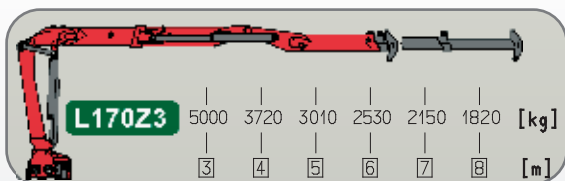
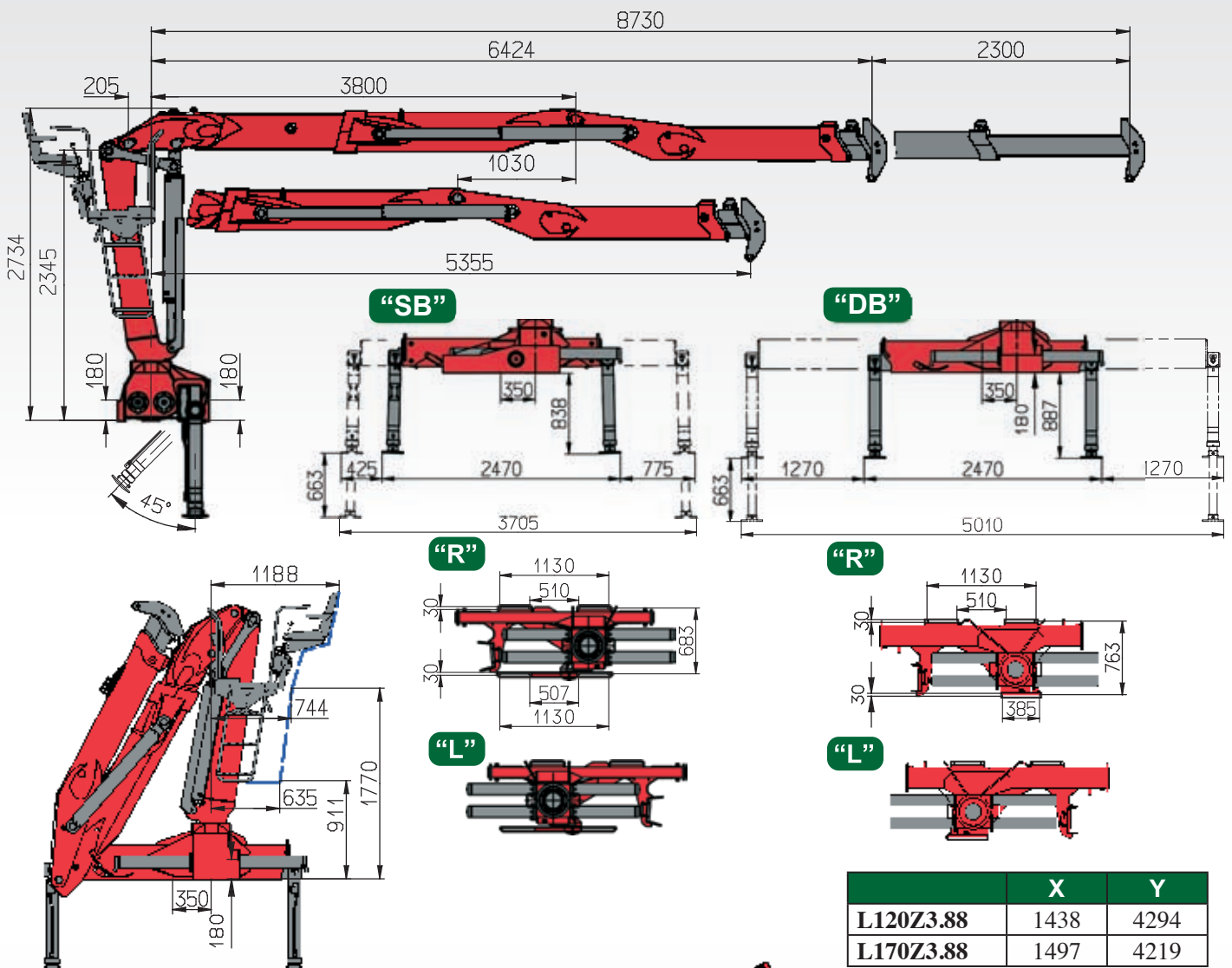


	X	Y
.96	1375	3190
.80	1280	3300

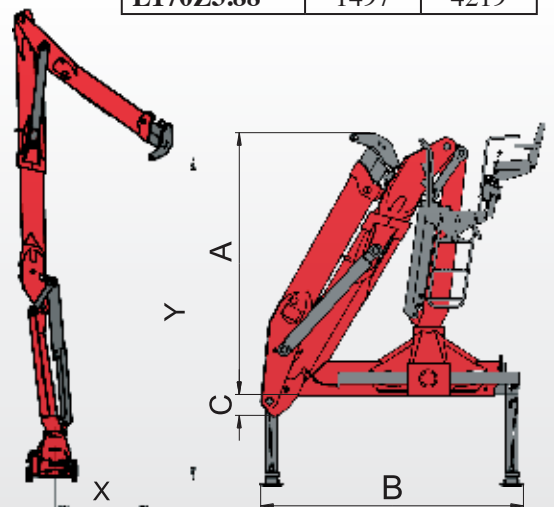
»Z«
LIV 120Z3

»Z3«

Transversely folding cranes which besides all advantages of »Z« cranes enable mounting on hook lifts and trucks where there is a lack of space for positioning of the boom system. It is achieved with a very compact boom mechanism with a telescopic main boom enabling an improved kinematics. Due to their all - purpose possibilities these cranes can be used for handling different loads from waste materials to short wood and timbers. They are manufactured with outreach of 8.8 m and capacity from 102 to 156 kNm.

LIV 170Z3



	A	B	C
L120Z3.88	2520	2493	199
L170Z3.88	2548	2520	195



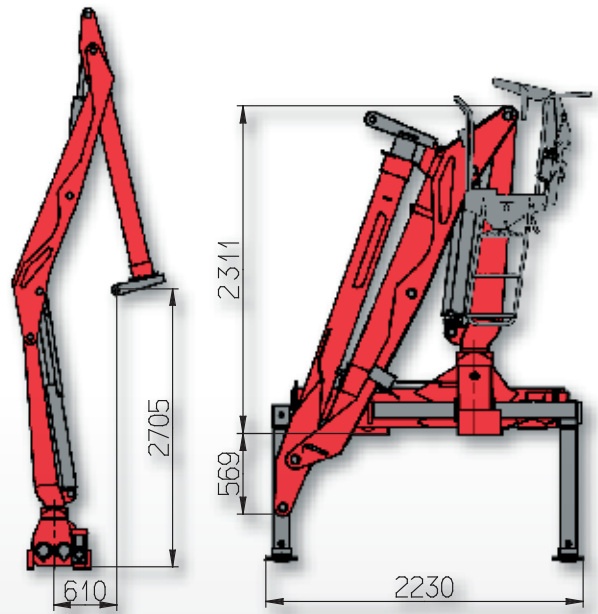
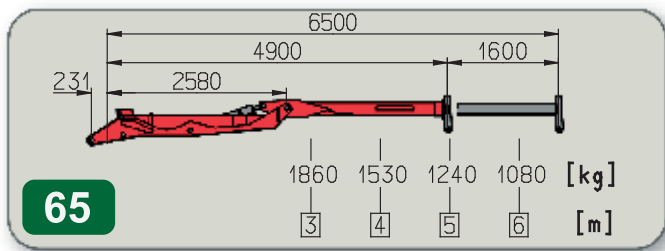
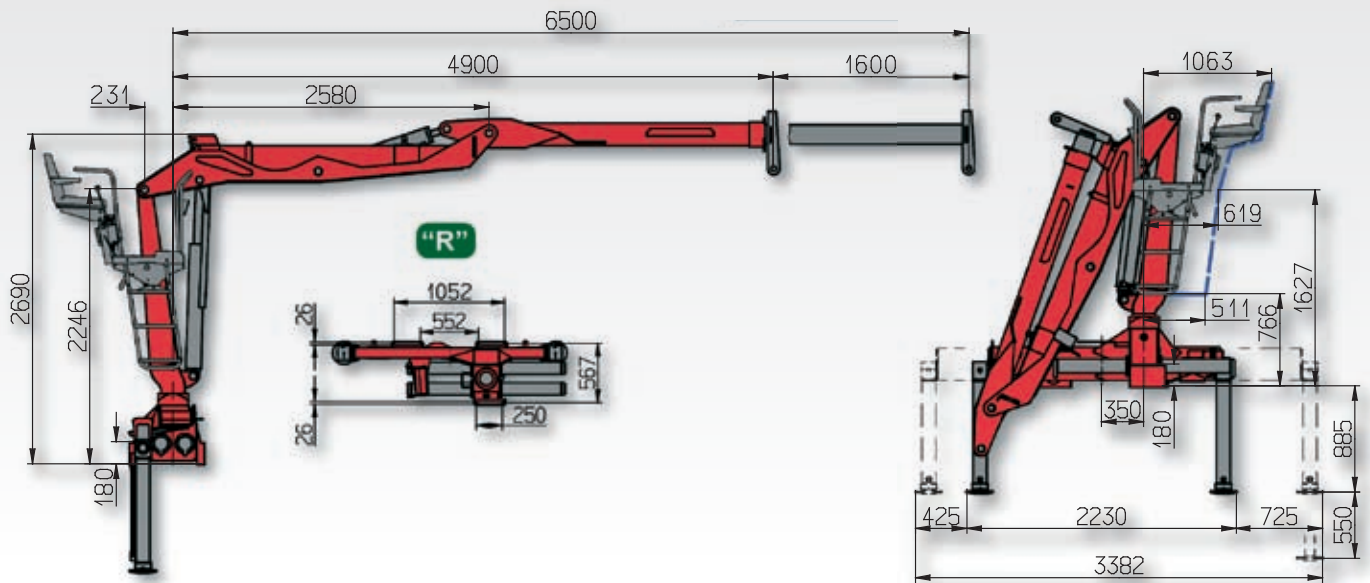


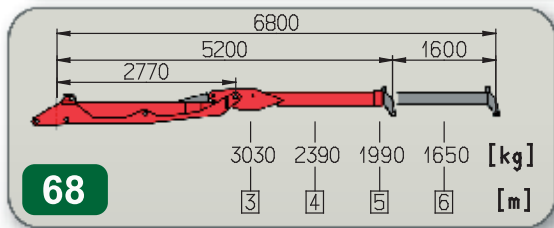
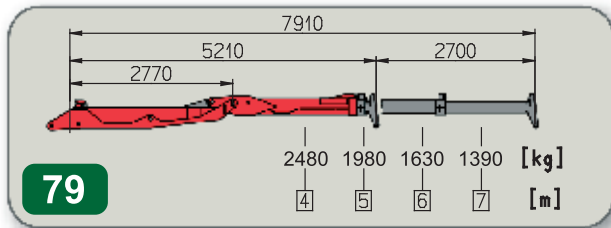
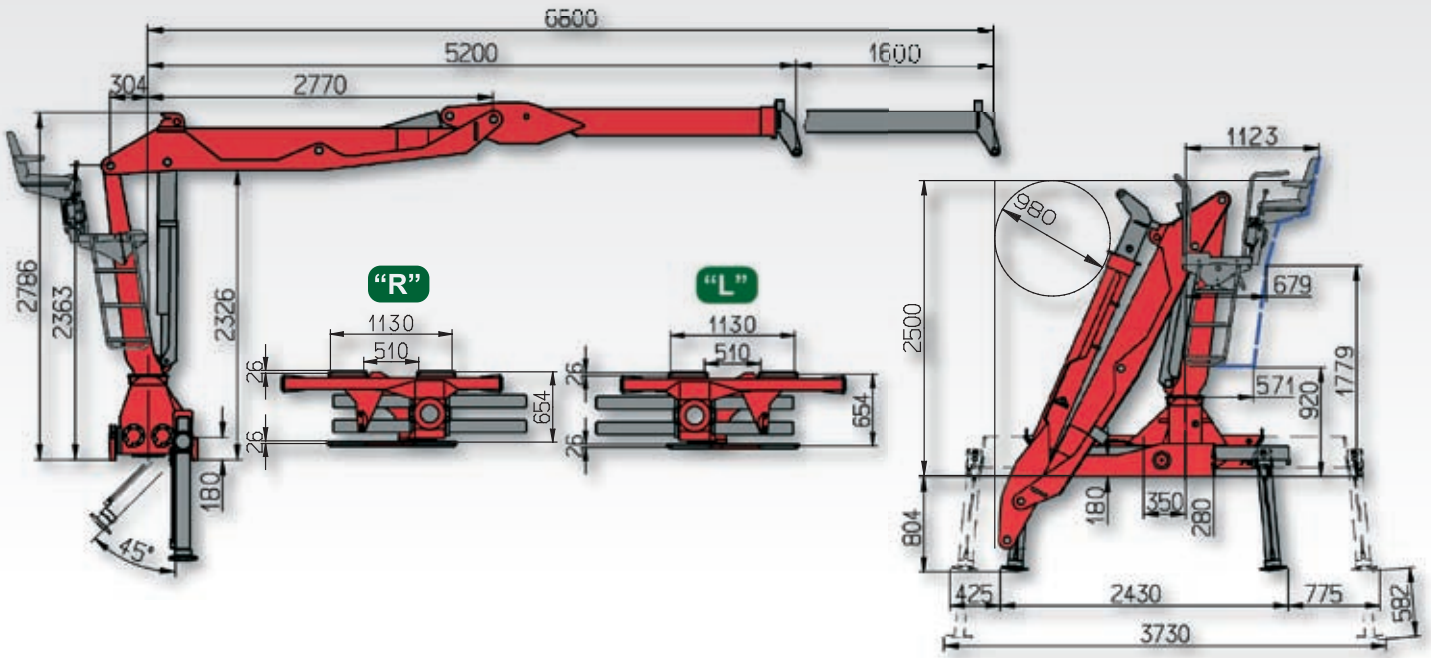
»NZ«

The »NZ« family is specialized cranes for working with waste materials. They combine all good qualities of the »Z« family cranes, but they have only one outer boom cylinder. The advantage of these models is the reduced possibility of outer boom cylinder damages when working with waste material, namely larger pieces of scrap metal. Besides this advantage a special construction allows the mounting of a polyp grapple up to 320 liters. They are manufactured in capacity range from 63 to 140 kNm in versions with one or two telescopic extensions.

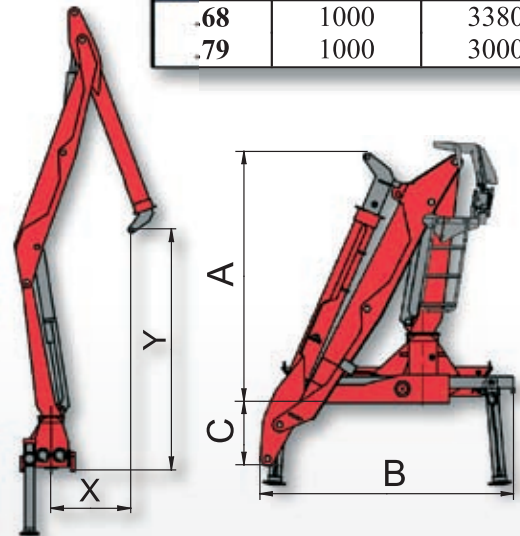
»NZ«

LIV 60NZ

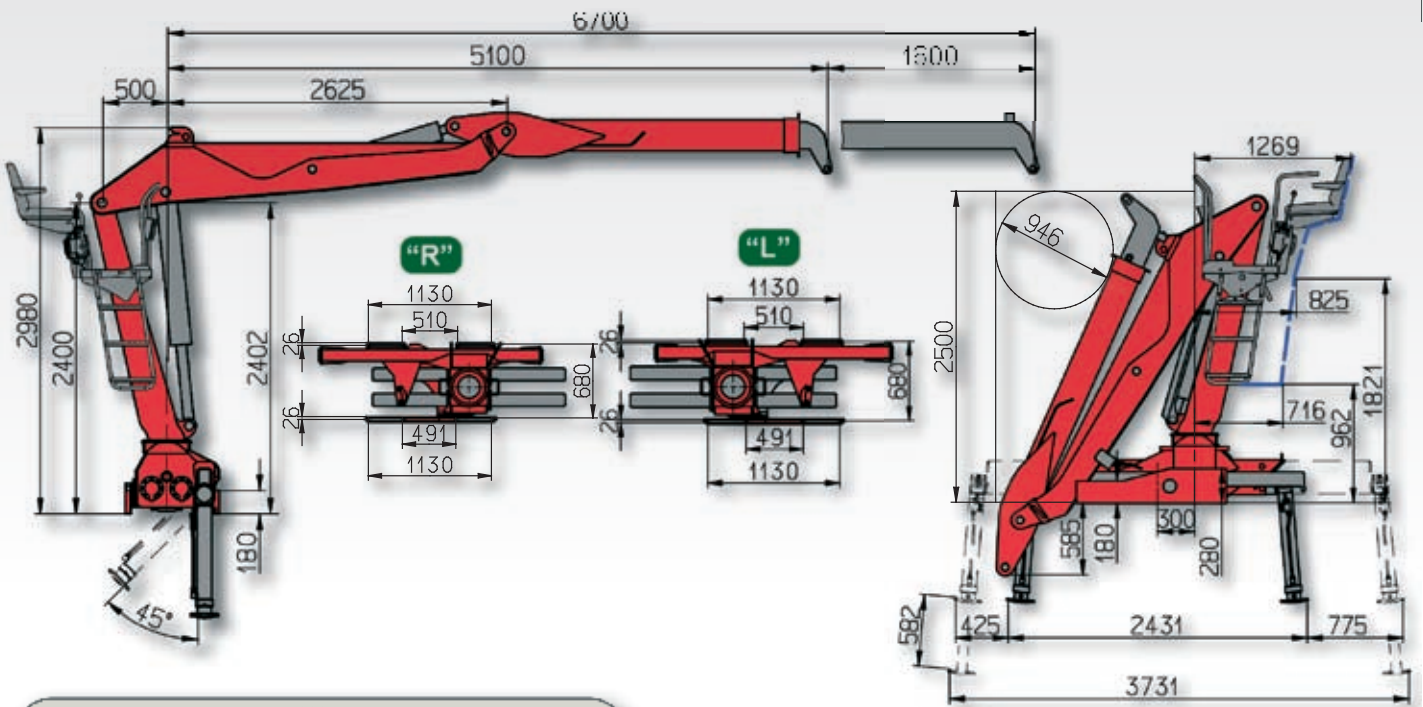


»NZ«
LIV 110NZ


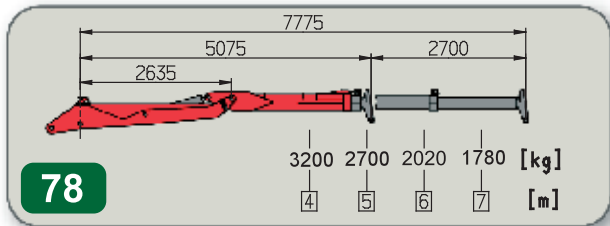
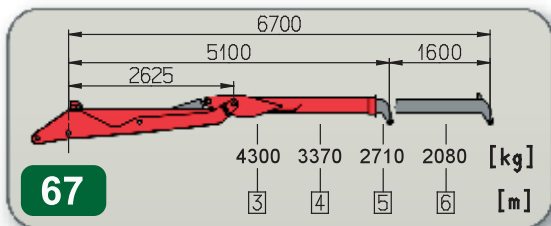
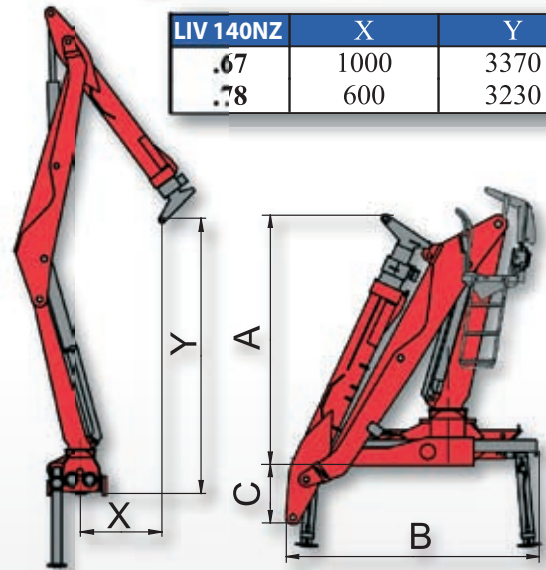
LIV 110NZ	X	Y
.68	1000	3380
.79	1000	3000



LIV 110NZ	A	B	C
.68	2452	2490	615
.79	2500	2500	585

»NZ«
LIV 140NZ


LIV 140NZ	X	Y
.67	1000	3370
.78	600	3230


78

67


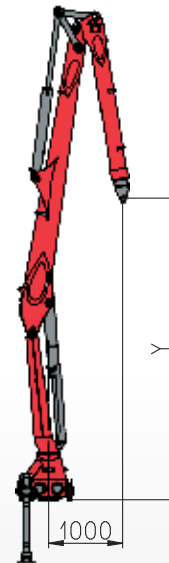
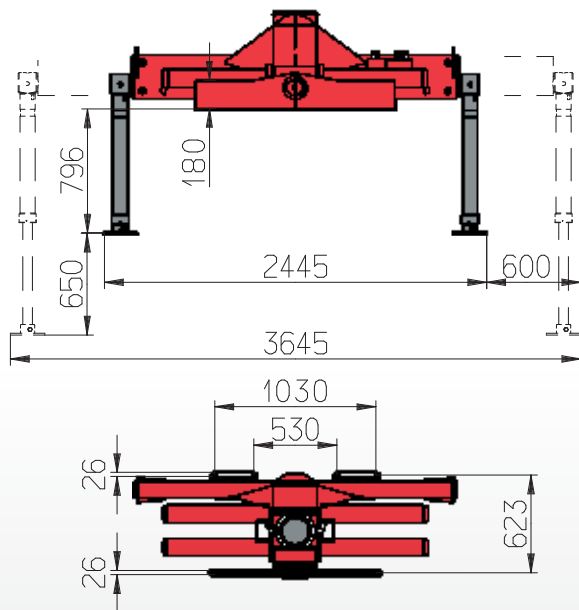
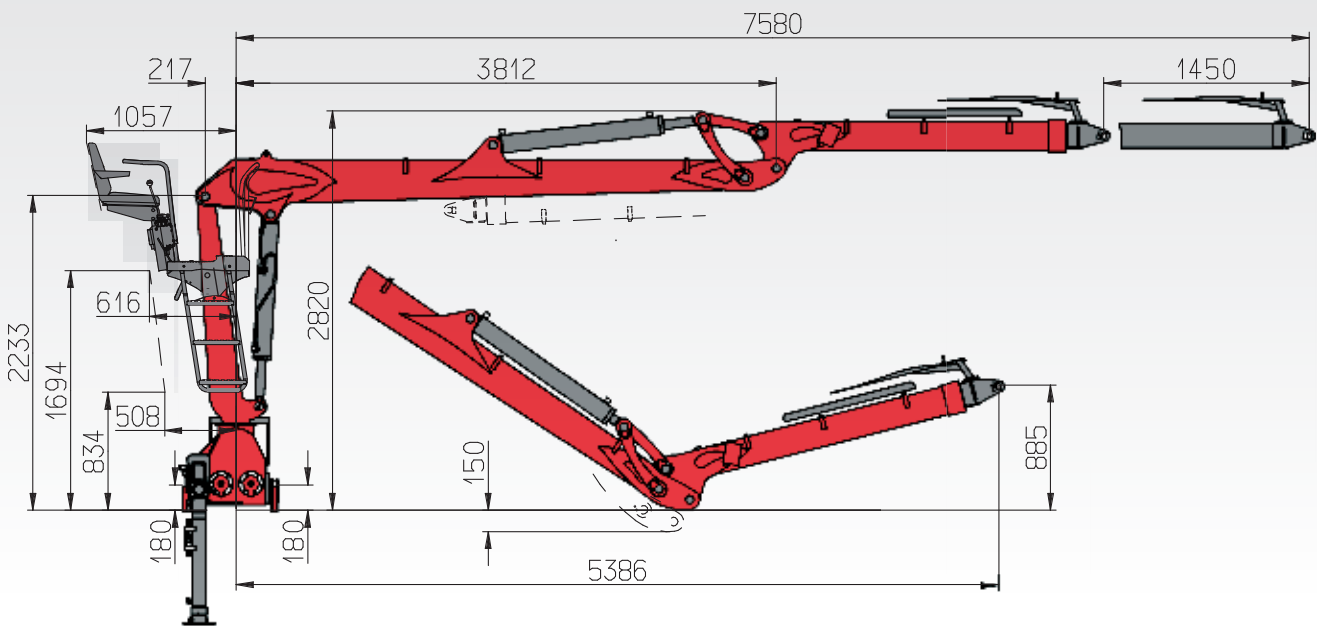
LIV 140NZ	A	B	C
.67	2500	2490	585
.78	2500	2500	585




»80K«



LIV 80K



	Y
.76	3975



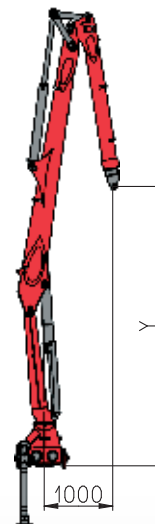
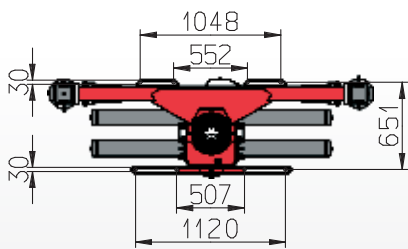
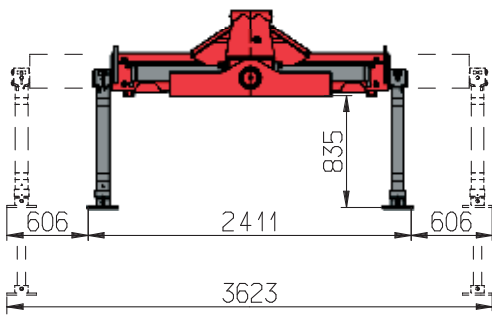
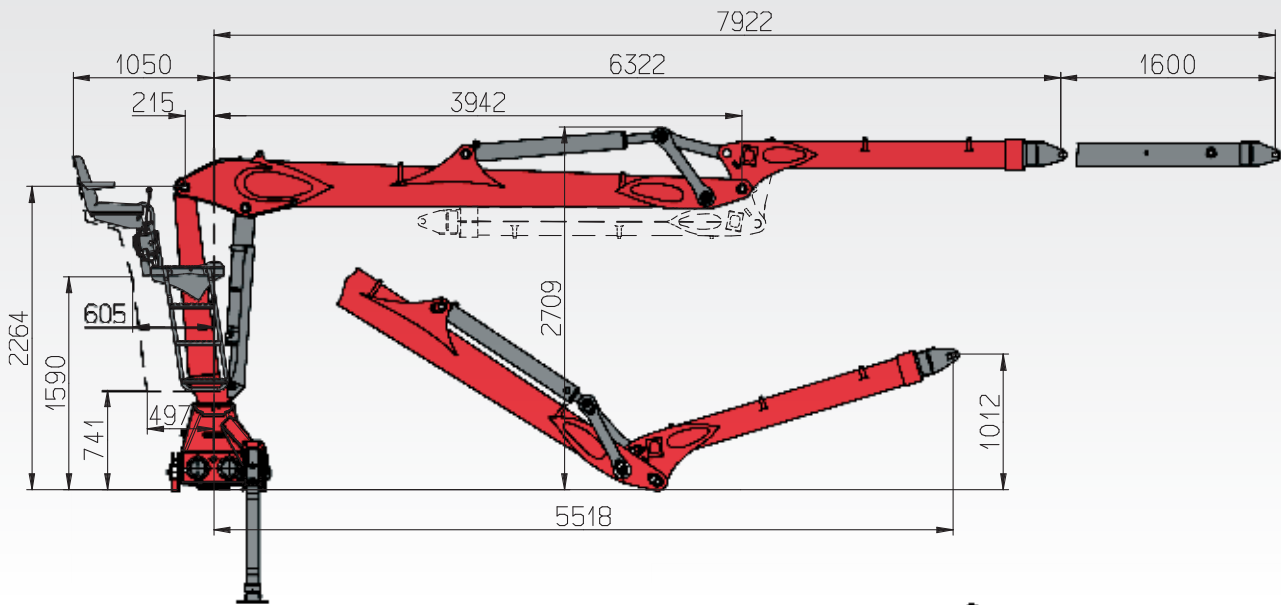
[kg]	2010	1590	1280	1070
[m]	4	5	6	7

76



»100K«

LIV 100K



	Y
.78	4066
.88	4179

88

2950	2250	1803	1510	1280	1125 [kg]
3	4	5	6	7	8 [m]

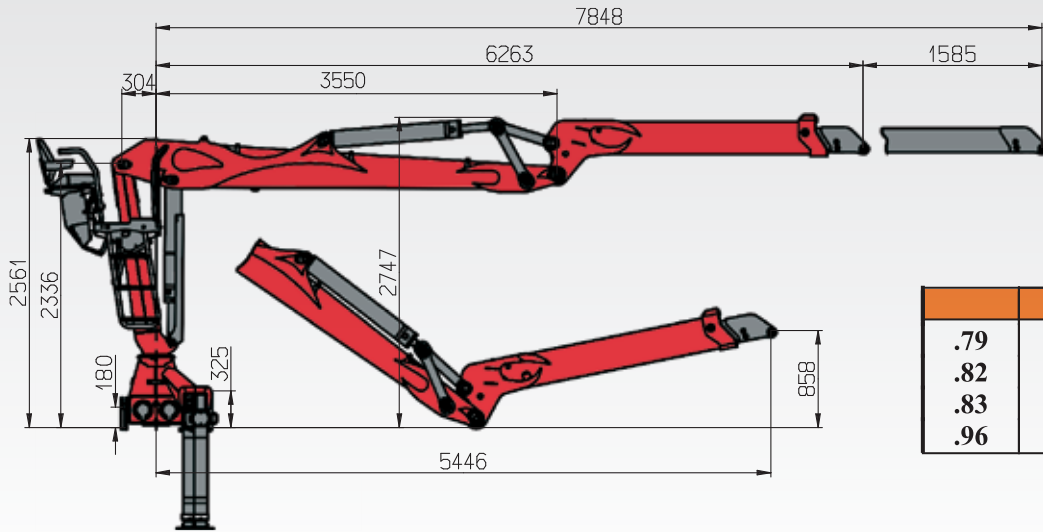
78

2965	2366	1919	1625	1352 [kg]
3	4	5	6	7 [m]

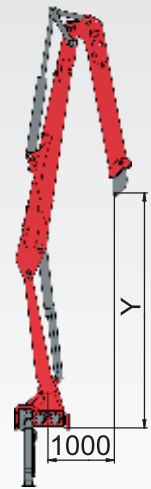
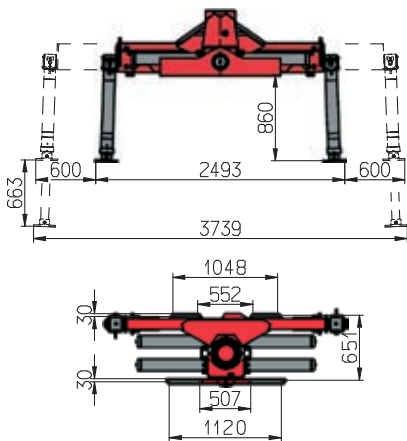
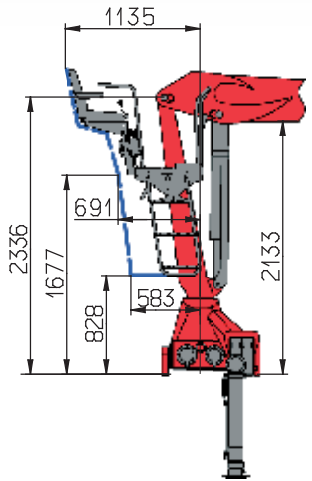
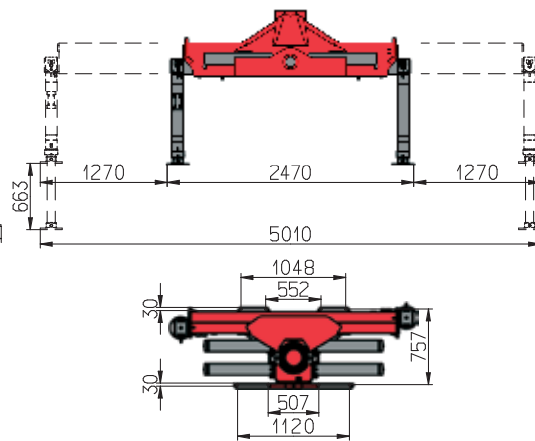
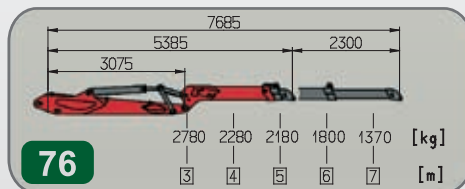
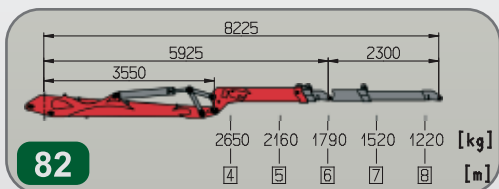
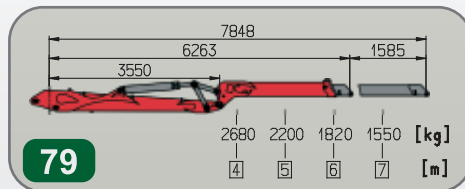
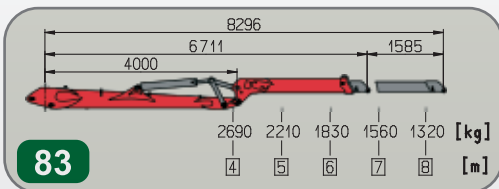
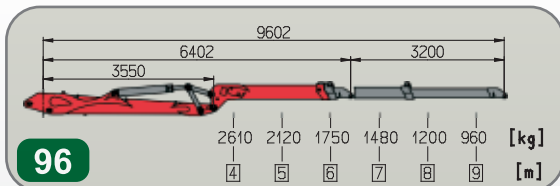
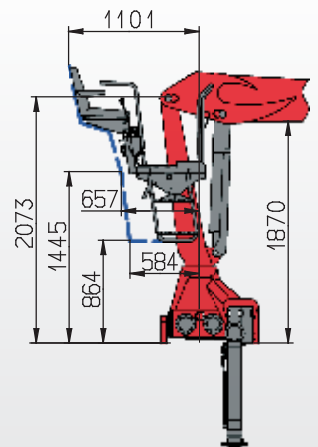


»120K - 170K«

The »K« family cranes are distinguished by their power and robustness. During transport, these cranes can be parked longitudinally on the load or in the loading area. They are distinguished from other non-folding cranes by the power link between the main and outer boom. This enables additional increase of the lifting moment in the horizontal position. The K-cranes with a great variety of boom systems, single or double telescopic extension, comply with most of the customer requirements. These are versatile cranes for loading short and long timber and also waste materials. Besides the model L120K this family includes a new generation of cranes with inner hoses and double extension of outriggers up to 5.1 m, which enables the best stability among all cranes on the market. These are all - purpose cranes for handling all dimensions of wood and waste materials. They are manufactured in capacity range from 77 to 160 kNm and are suitable for truck, as well as for static mounting.

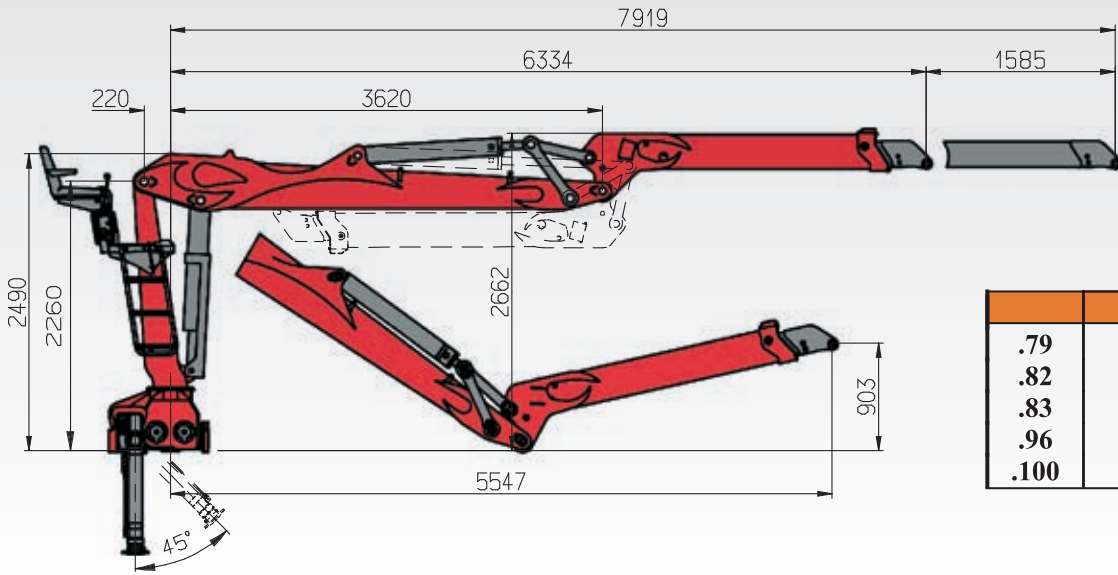
LIV 120K


	Y
.79	3700
.82	4060
.83	4130
.96	3550

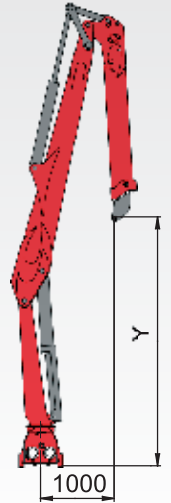

“SB”

“DB”

“N”


»K«

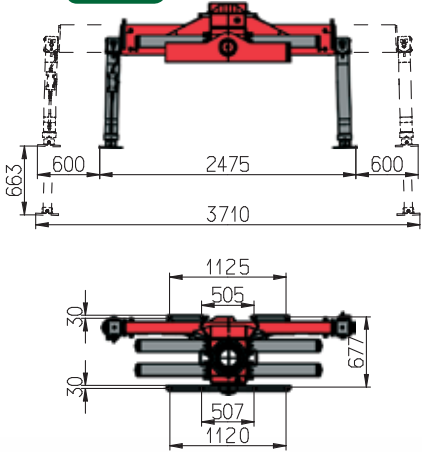
LIV 130K / LIV 150K



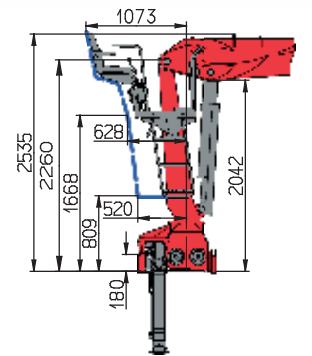
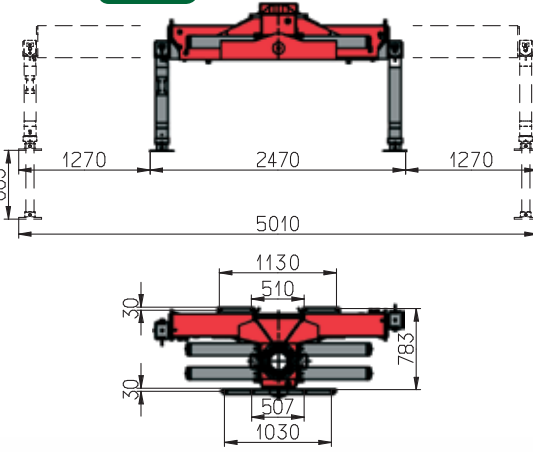
	Y
.79	3258
.82	3560
.83	3615
.96	3119
.100	3665



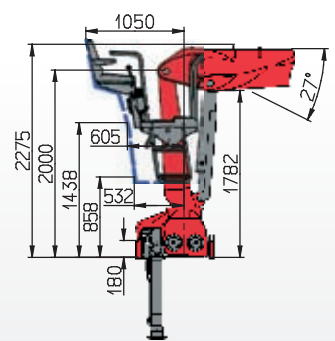
“SB”



“DB”



“N”



100	L150K	2740	2390	2050	1740	1460	[kg]
	L130K	2480	2160	1800	1560	1320	
		5	6	7	8	9	[m]

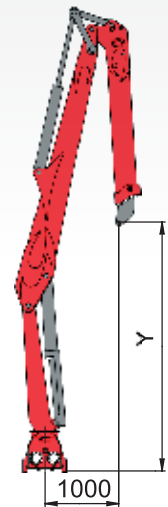
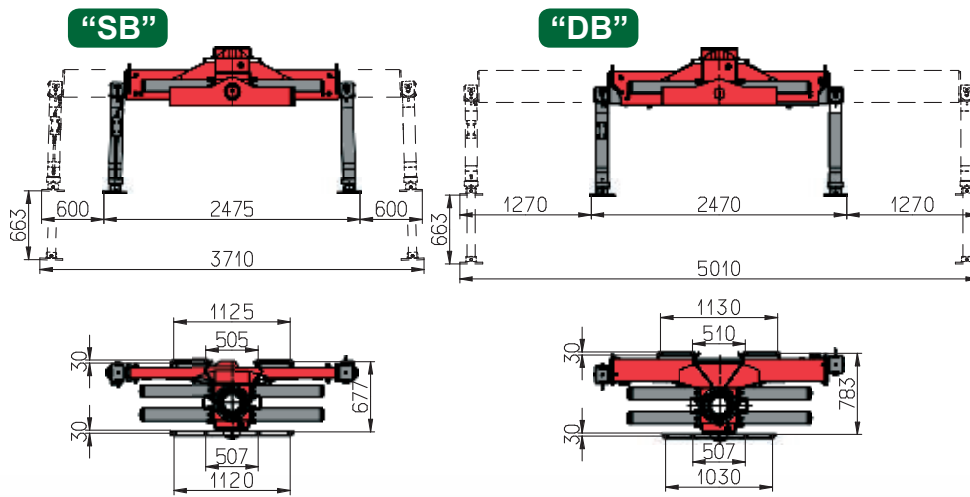
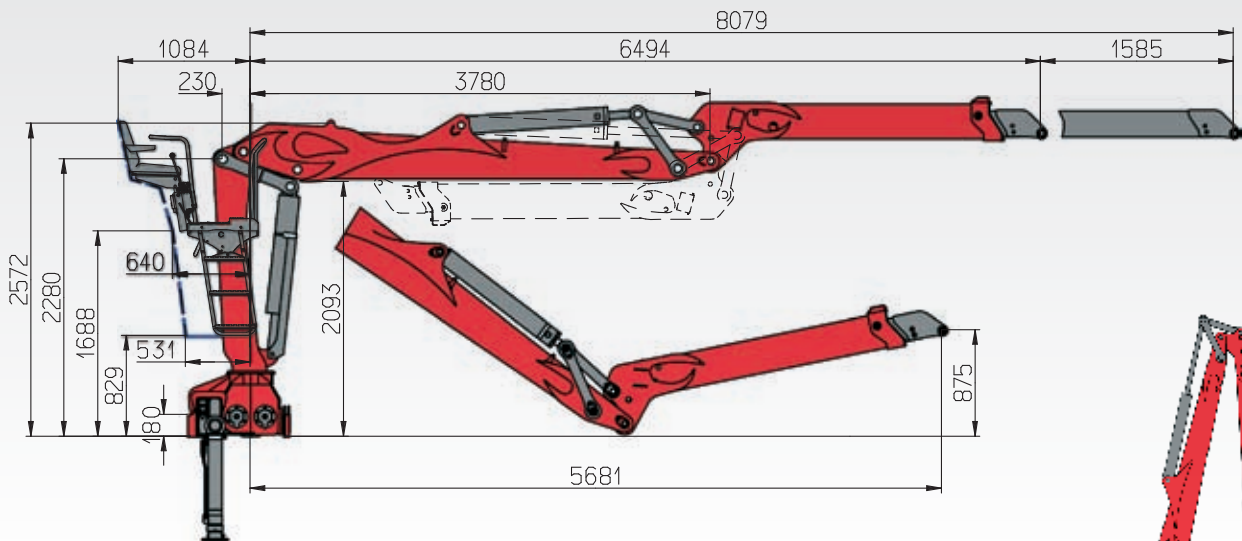
82	L150K	4460	3460	2890	2460	2110	1720	[kg]
	L130K	3940	3040	2620	2230	1910	1570	
		3	4	5	6	7	8	[m]

96	L150K	2740	2390	2050	1670	1360	[kg]
	L130K	2480	2160	1850	1530	1230	
		5	6	7	8	9	[m]

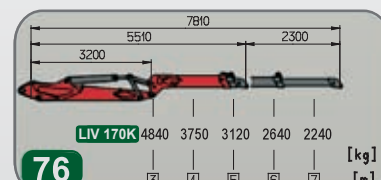
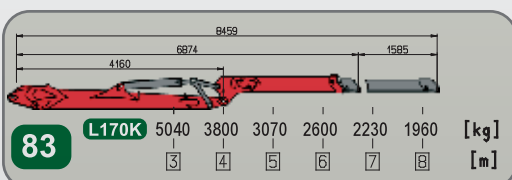
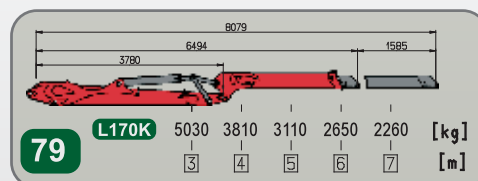
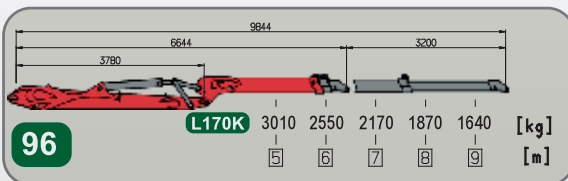
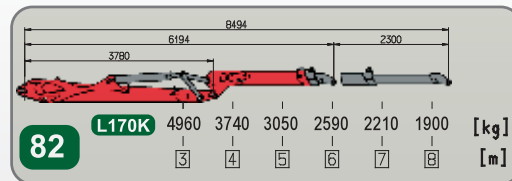
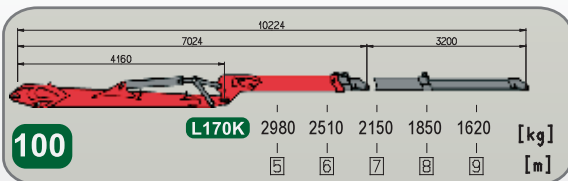
79	L150K	4280	3360	2830	2460	2120	[kg]
	L130K	3880	3050	2580	2230	1910	
		3	4	5	6	7	[m]

83	L150K	4340	3370	2810	2430	2100	1830	[kg]
	L130K	3950	3060	2550	2200	1890	1650	
		3	4	5	6	7	8	[m]

76	LIV 150K	3280	2980	2950	2370	1790	[kg]
	LIV 130K	3020	2730	2710	2170	1640	
		3	4	5	6	7	[m]

LIV 170K


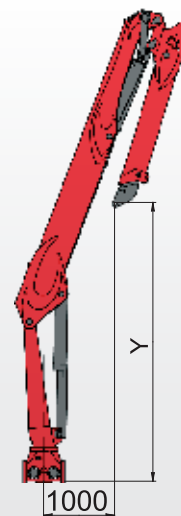
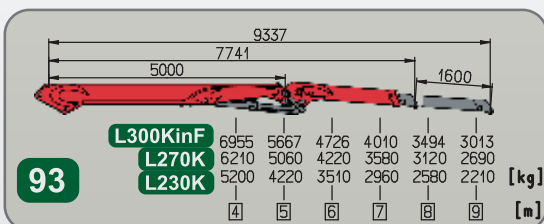
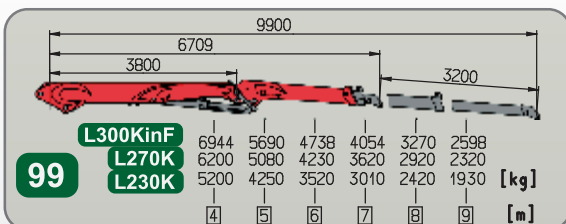
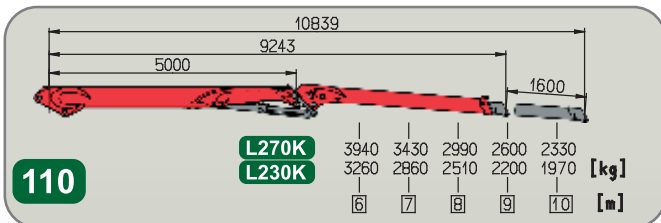
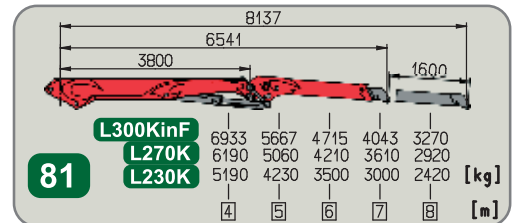
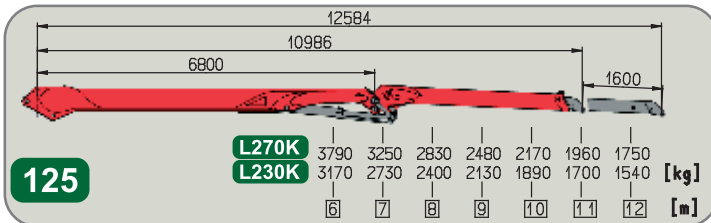
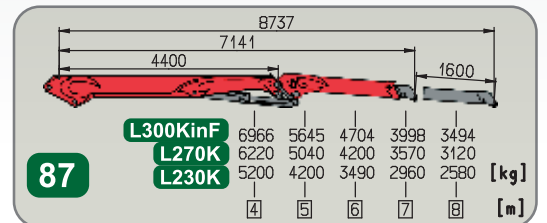
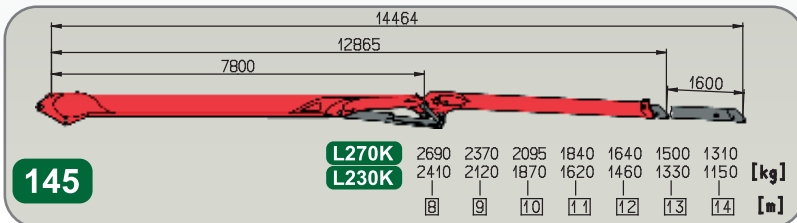
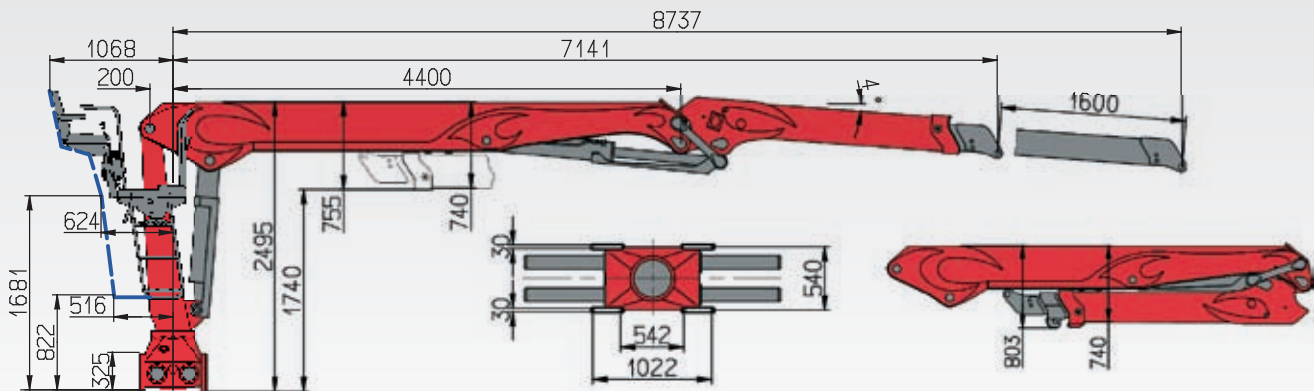
	Y
.79	3310
.82	3605
.83	3674
.96	3606
.100	3801





»230K - 270K - 300KinF«

This family of cranes is distinguished by power and robustness. Besides advantages of other »K« models these cranes allow also very long outreaches. Due to their conception they can be used for truck as well as for stationary mounting and for loading long wood and waste materials. They are manufactured with capacities from 216 to 297 kNm and outreaches up to 14.5 m.

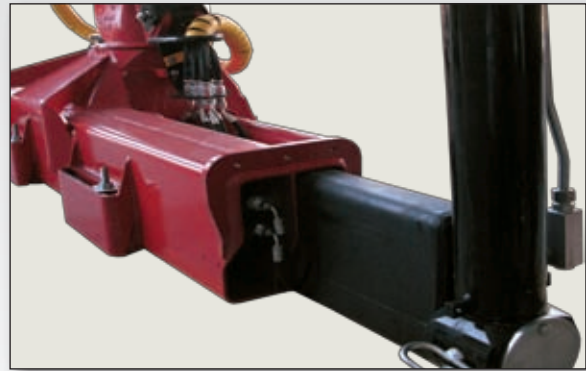
LIV 230K / LIV 270K / LIV 300KinF


	Y
.81	3272
.87	3845
.93	4455
.99	3123
.110	2865
.125	4840
.145	4930

Cranes equipment



Hour counter



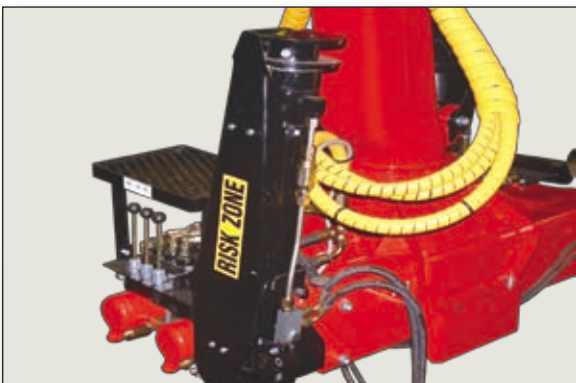
Double extension stabilising bridge (from LIV 120 »Z« and »K«)



LED pot lights on outer boom



Overcentre valves and rated moment limiter



180 deg. fold up kit



LED Spot lights on top seat



Controls of stabilizers by electro - hydraulic valves Danfoss



High level of security guaranteed by cast lower part of column

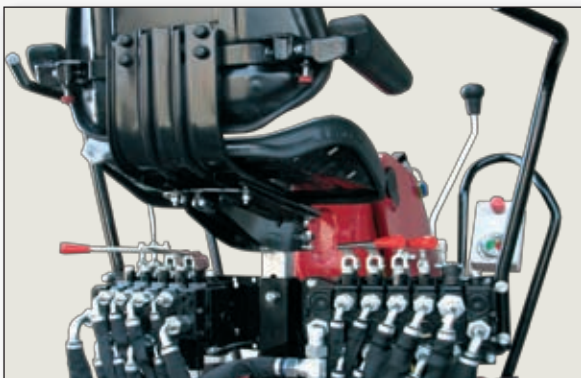
Cranes equipment



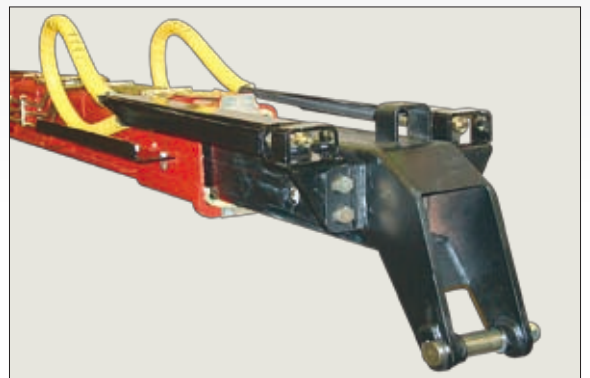
Control panel with "STOP" switch



Lifting cylinder protection



Lateral valves Top Seat »Standard«



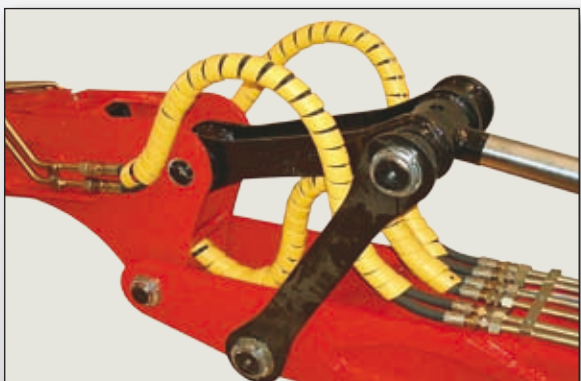
Hose guard »CB« (Standard for LIV 60Z, LIV 80Z, LIV 80K, LIV 100K and »NZ«)



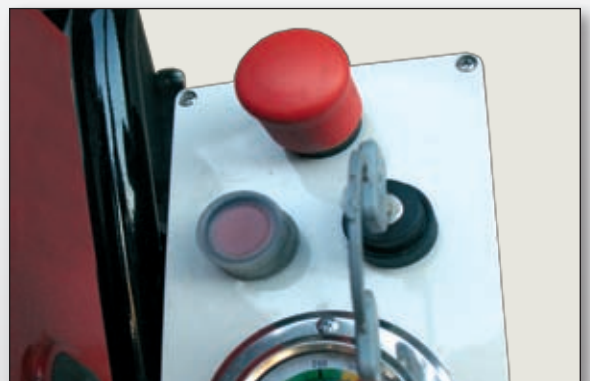
Power link on lifting cylinder



Inner hoses on outer boom »CN« (Standard for »Z« and »K« models)

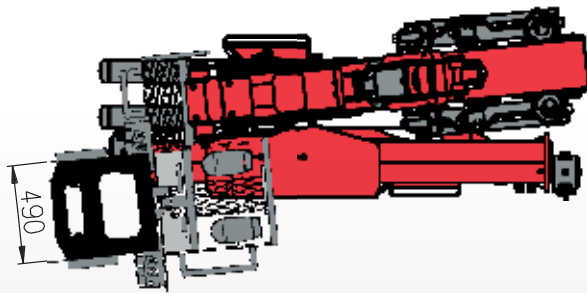
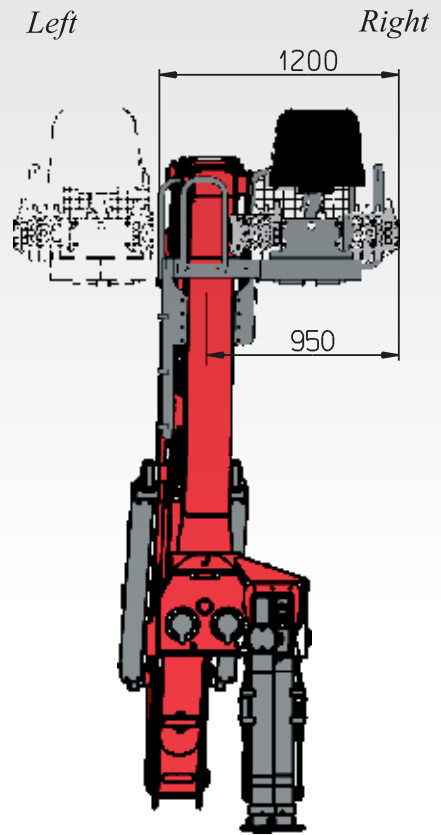
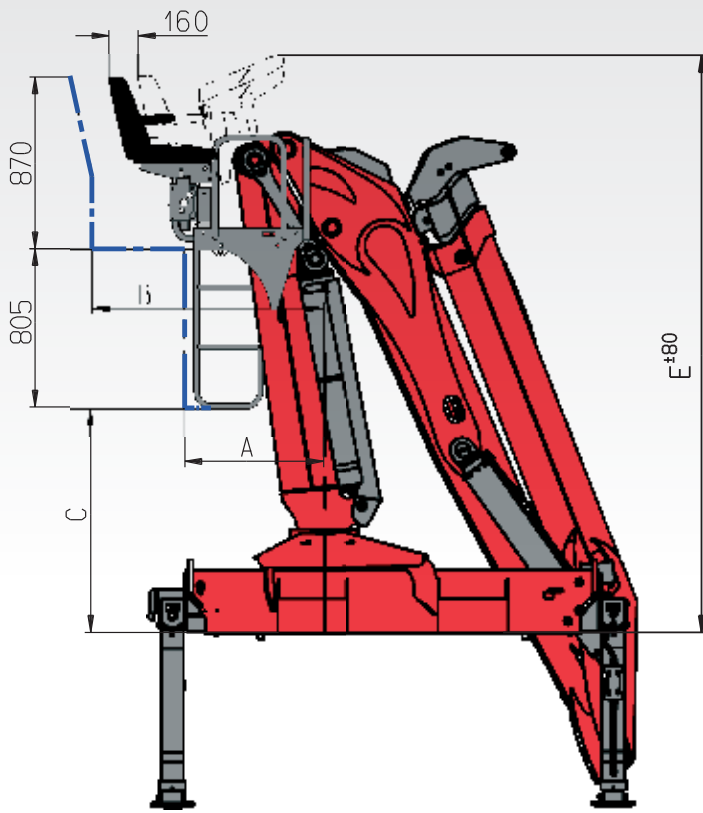


Power link on »K« models



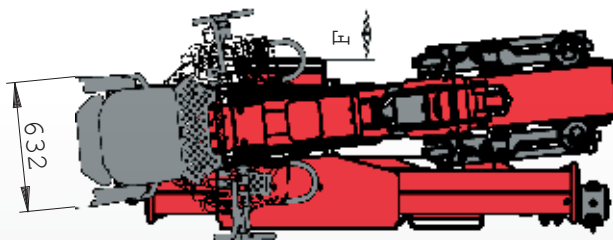
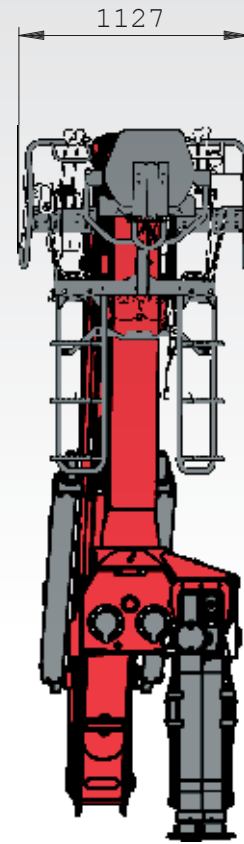
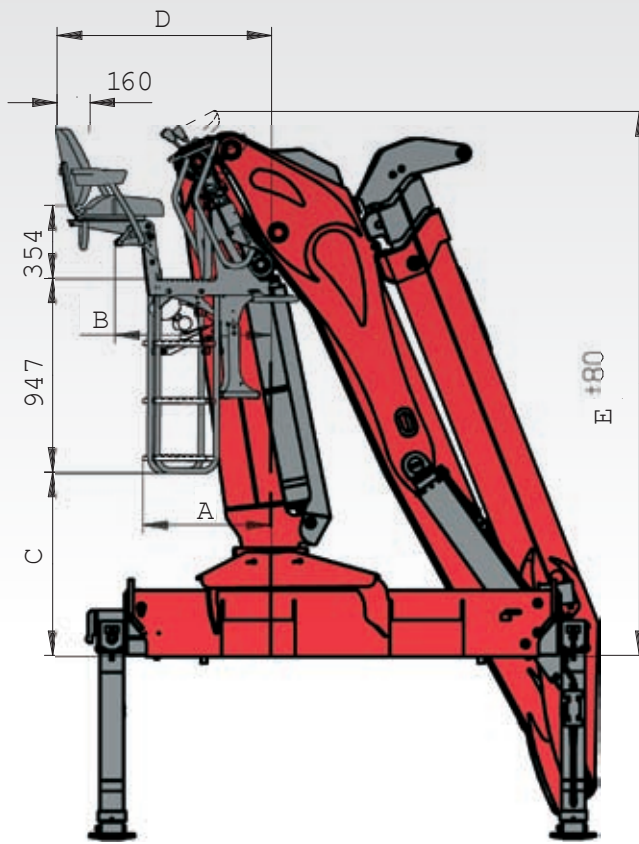
Load moment limiter „Recycling“

Top Seat »SS«



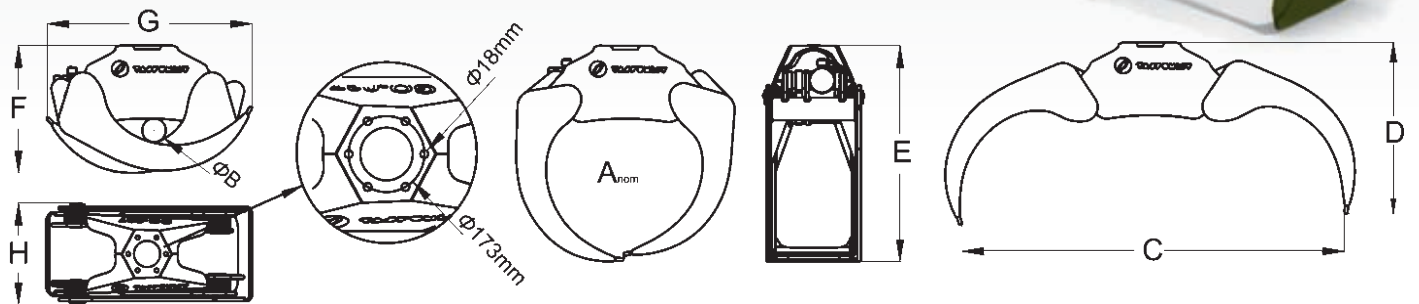
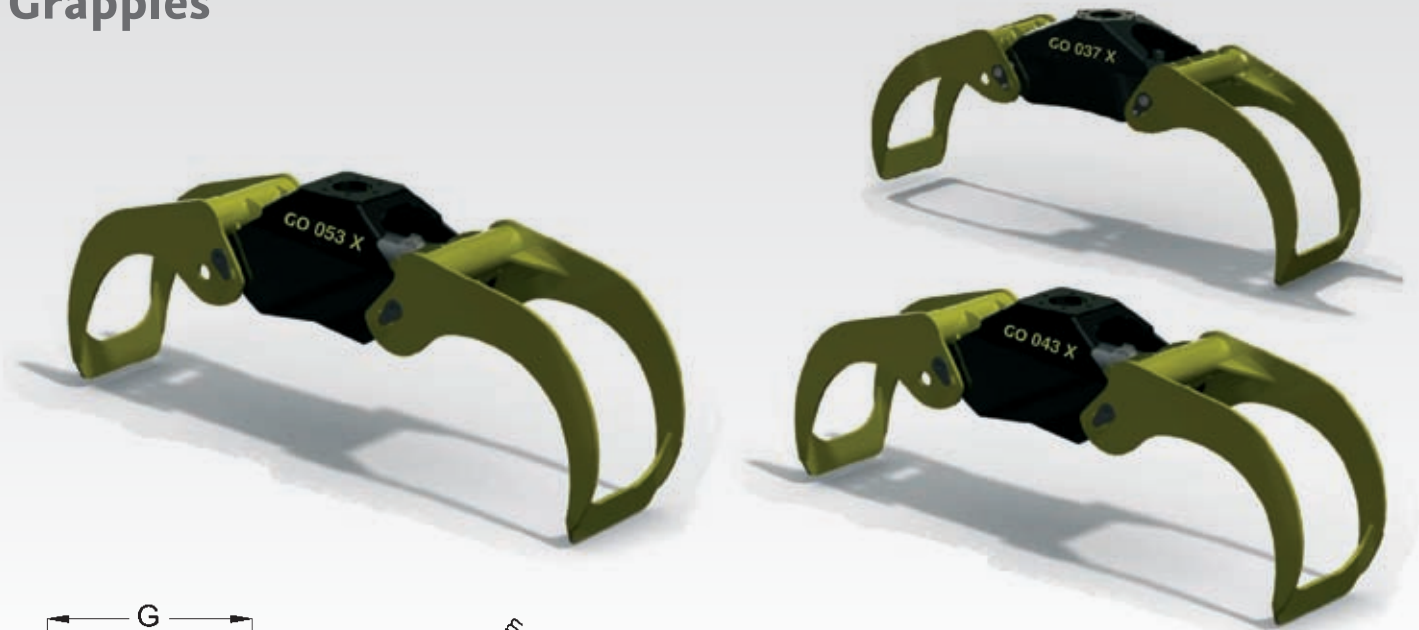
	A	B	C	E
LIV 120Z, LIV 120Z3	660	1135	1120	2810
LIV 120K, LIV 110NZ	665	1140	1130	2820
LIV 150Z, LIV 170Z, LIV 190Z, LIV 170Z3	705	1175	1140	2830
LIV 130K, LIV 150K, LIV 140NZ	605	1050	1030	2720
LIV 170K	610	1055	1030	2720
LIV 230K, LIV 270K, LIV 300KinF	605	1060	1035	2720
LIV 230Z, LIV 270Z, LIV 300ZinF	620	1080	1120	2820

Top Seat »P«



	A	B	C	D	E	F
LIV 120Z, LIV 120Z3	571	761	843	1050	2598	240
LIV 120K, LIV 110NZ	567	709	890	1043	2643	240
LIV 150Z, LIV 170Z, LIV 190Z, LIV 170Z3	645	770	882	1112	2646	245
LIV 130K, LIV 150K, LIV 140NZ	526	673	763	1003	2646	245
LIV 170K	526	673	763	1003	2646	245
LIV 230K, LIV 270K, LIV 300KinF	521	667	807	996	2569	290
LIV 230Z, LIV 270Z, LIV 300ZinF	641	791	877	1128	2636	290

Grapples



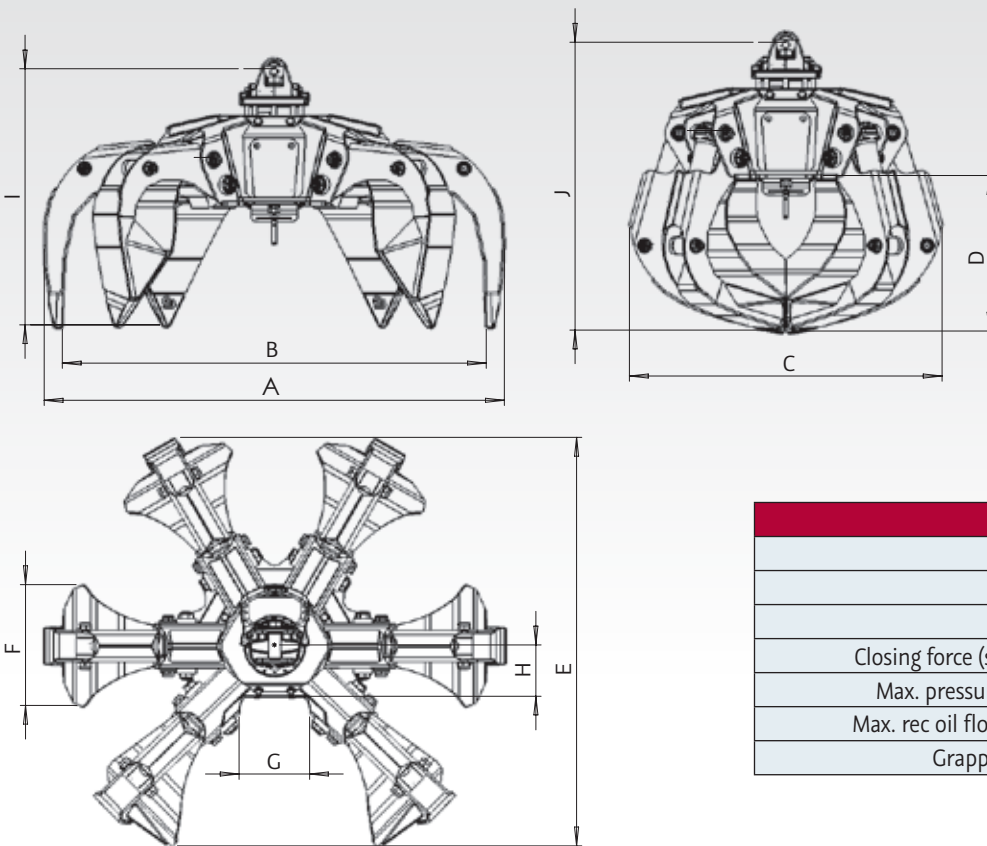
		GO 022 X	GO 026 X	GO 037 X	GO 043 X	GO 053 X
A _{nom}	m ²	0,22	0,26	0,36	0,41	0,51
B	m	0,070	0,085	0,11	0,115	0,16
C	m	1,30	1,51	1,75	1,86	2,07
D	m	0,60	0,72	0,83	0,91	0,85
E	m	0,74	0,87	0,98	1,07	1,12
F	m	0,44	0,51	0,58	0,63	0,68
G	m	0,70	0,81	0,94	1,02	1,1
H	m	0,32	0,4	0,45	0,49	0,49
Opening time at 50 l/min	s	1,7	1,8	1,8	2,1	2,1
Closing time at 50 l/min	s	1,6	1,7	2,7	3,1	3,1
Gripping force (A _{nom})	kN	12,5	14,4	19,4	20	18
Max. operating pressure	MPa	25	23	23	23	23
Max. load	kN	30	40	40	50	50
Weight	kg	100	155	215	245	260





Polyp grapple

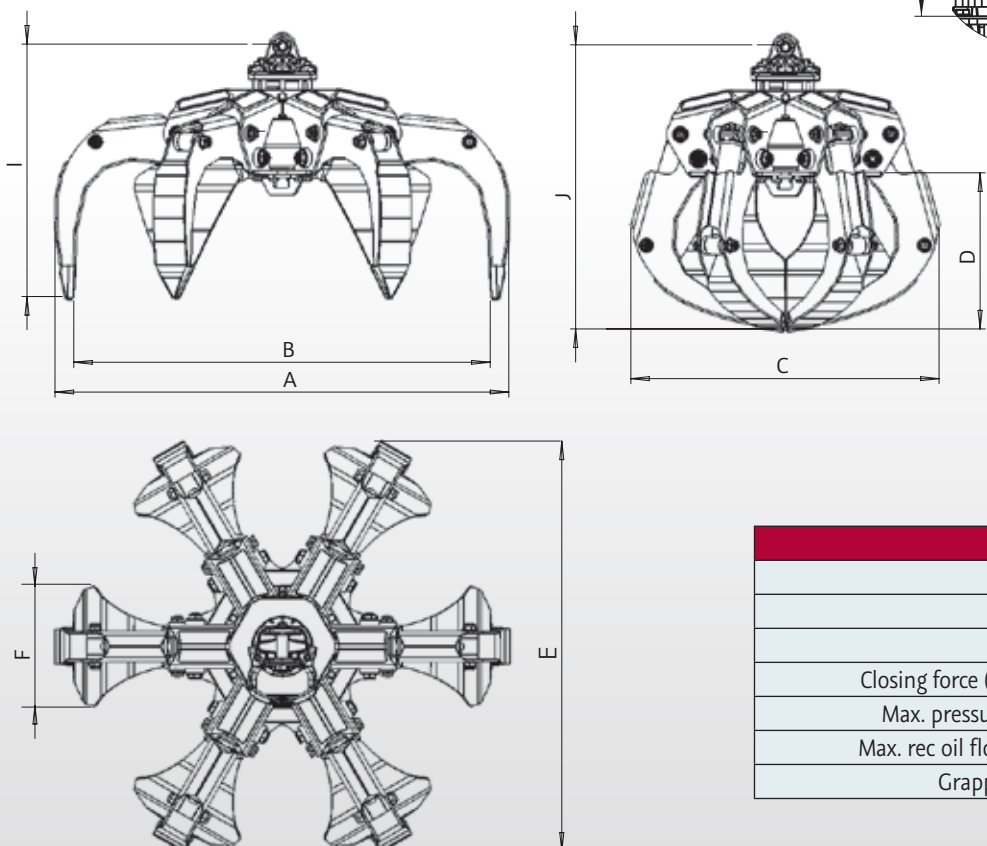
SHZ



	SHZ250	SHZ300
A	1560	1800
B	1440	1660
C	1060	1130
D	529	656
E	1389	1594
F	411	445
G	260	260
H	174	174
I	870	912
J	980	1110

		SHZ250	SHZ300
Capacity	m ³	0,25	0,3
Tines		6	6
Max load	t	2,5	3
Closing force (single tine)	kN	14	15
Max. pressure - Bucket	bar	320	320
Max. rec oil flow - Bucket	l/min	70	80
Grapple weight	kg	436	470

SHT

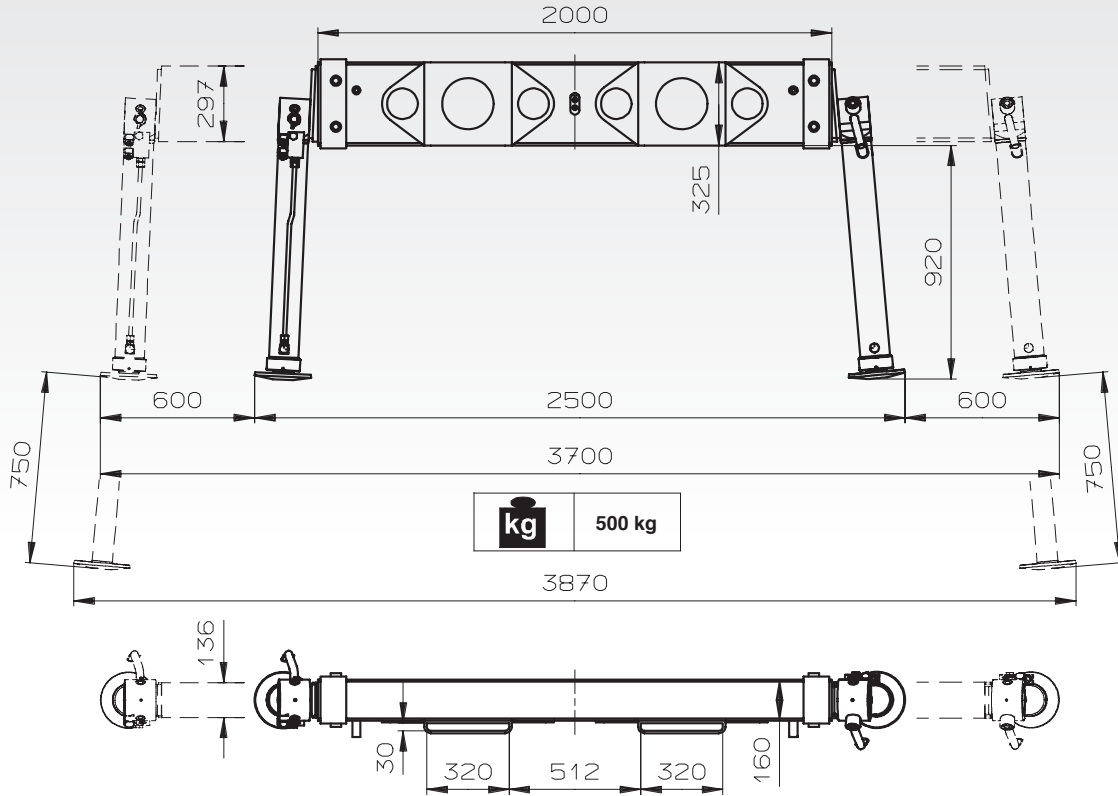


	SHT250	SHT300
A	1560	1800
B	1440	1655
C	1060	1190
D	539	659
E	1414	1621
F	411	444
I	870	915
J	980	1100

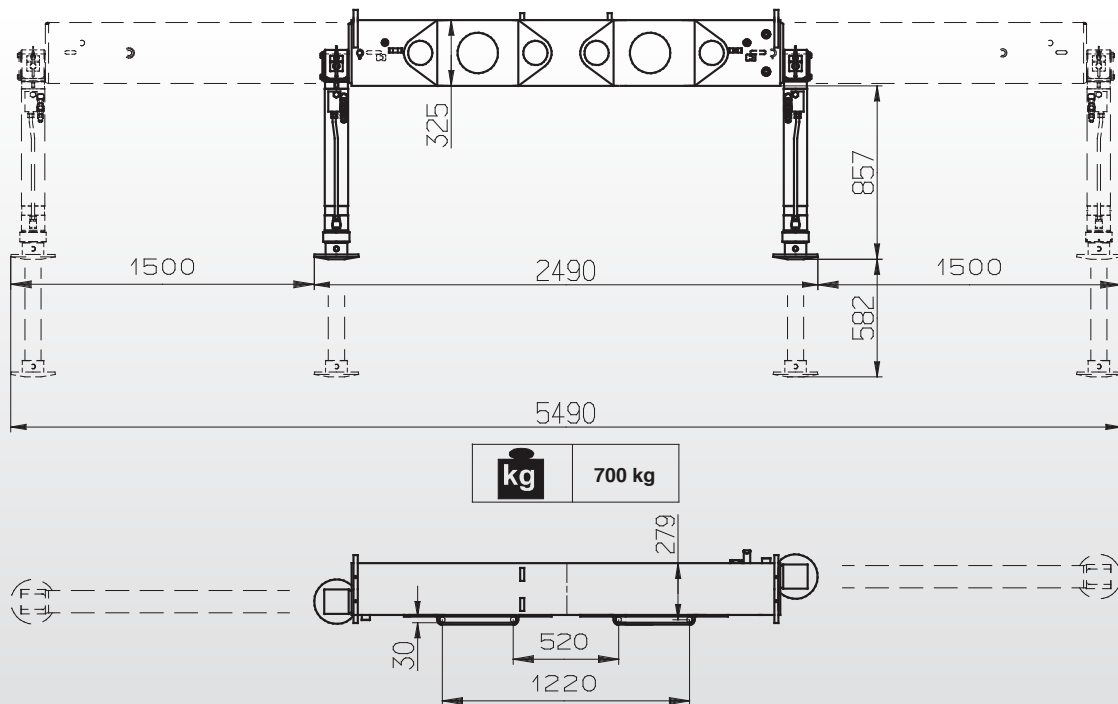
		SHT250	SHT300
Capacity	m ³	0,25	0,3
Tines		6	6
Max load	t	2,5	3
Closing force (single tine)	kN	24	15
Max. pressure - Bucket	bar	320	320
Max. rec oil flow - Bucket	l/min	70	80
Grapple weight	kg	420	446

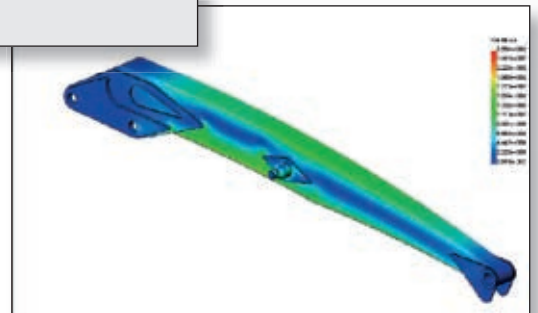
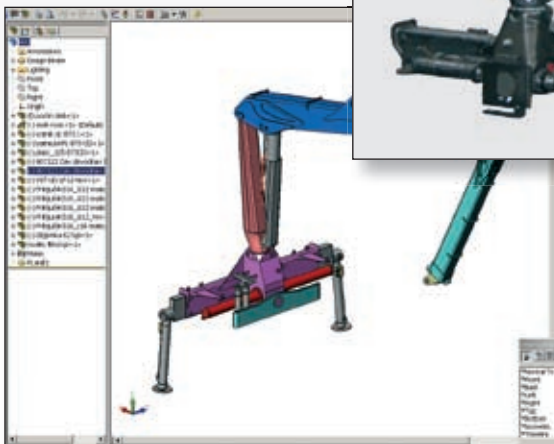
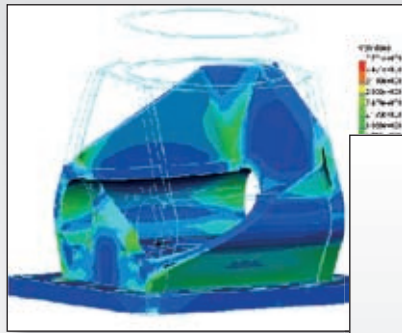
Equipment

2 x 600



2 x 1500





Development and production

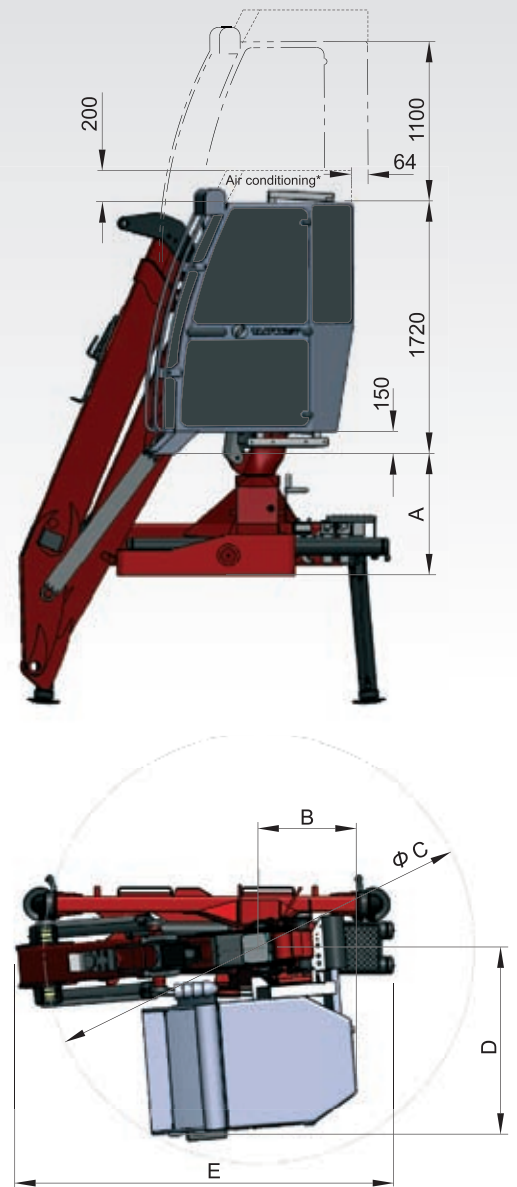
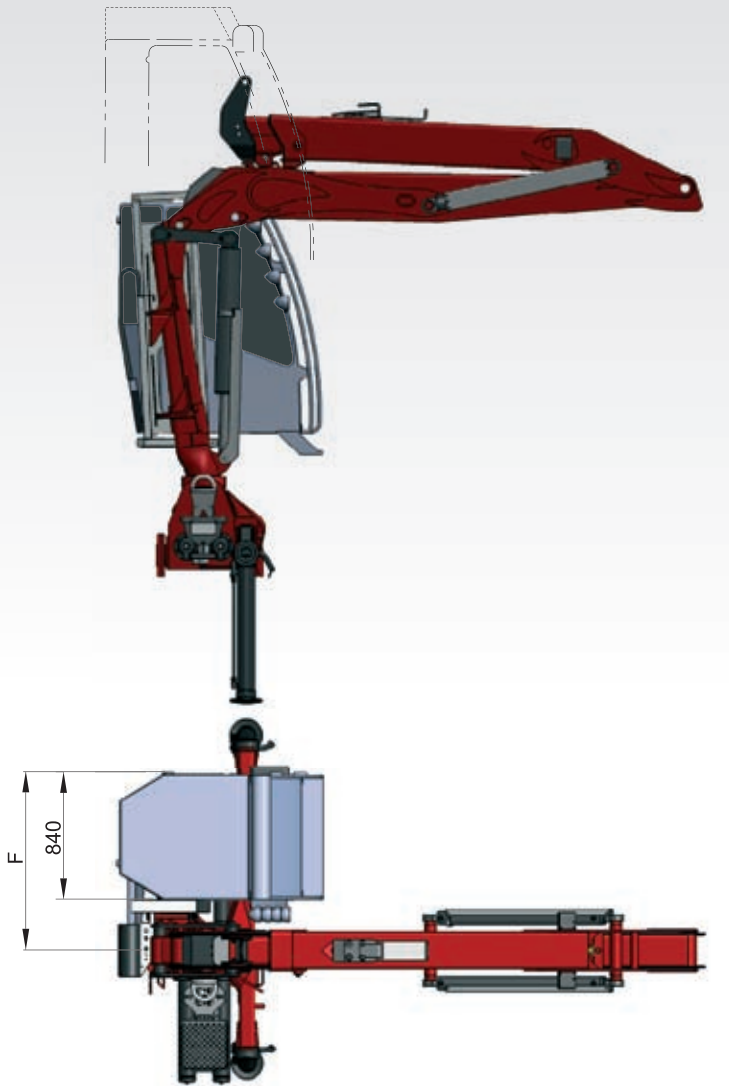
Stress and structure kinematics analyses, based on 3D models, are performed by using the Finite Element Method (FEM). After the majority of critical points are eliminated in the design stage, the durability testing of the prototype is used to eliminate the weaknesses that the computer simulation was unable to detect. The result is a product able to withstand even the heaviest loads in all working environments.

High product quality is ensured by compliance of cranes and accessories with European standards. All structural parts are made of fine-grain micro-alloyed steel of highest quality. Most hydraulic cylinder jackets are precision-rolled, thus featuring an excellent glide surface, smoother and stiffer, compared to usual honing. The lower part of the column is made of thermally treated alloy-steel casting, ensuring high level of strength and stability. The entire slewing system is submerged in oil bath, ensuring operational longevity. The boom system is designed to provide solid lifting characteristics in the entire lifting area.

Constant upgrading of products and development of new crane types is performed according to the Machine Safety Directive 06/42/EEC. Products are classified as HC1S4 according to the EN 12999 standard - Loader Cranes. Quality of products and processes and protection of the environment are managed according to the ISO 9001 and ISO 14001 standards.



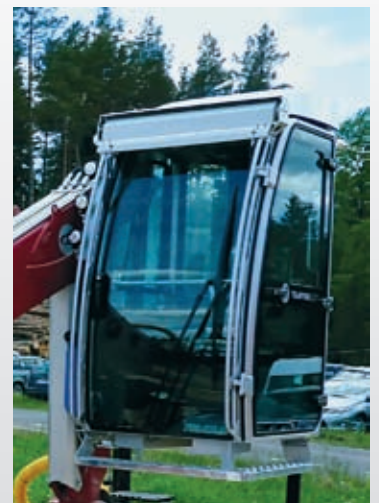
Cabin »LK«



Technical data

- Heating 24V
- Colour RAL 9006
- Sound insulation
- 4 Spot lights (LED)
- Interior lights
- Stereo
- Windscreen wipers with interval function
- Windscreen washer
- Weight 350kg
- Options:
 - Air condition, m=50 kg
 - Diesel heating, m=40 kg
 - Electro heating 230V (Stationary cranes)
 - Right version

	A	B	C	D	E	F
LIV 120Z, LIV 120Z3	780	650	2865	1245	2460	1245
LIV 120K, LIV 110NZ	780	650	2800	1210	2430	1235
LIV 150Z, LIV 170Z, LIV 190Z, LIV 170Z3	780	790	2930	1270	2460	1280
LIV 130K, LIV 150K, LIV 140NZ	780	670	2850	1227	2430	1252
LIV 170K	780	670	2850	1270	2460	1295
LIV 230K, LIV 270K, LIV 300KinF	735	645	2780	1237	2250	1262
LIV 230Z, LIV 270Z, LIV 300ZinF	685	710	2945	1340	2500	1365



		L60Z.72	L80Z.73	L80Z.85	L120Z.78	L120Z.82	L120Z.96	L120Z3.88	L150Z.78	L150Z.82	L150Z.96	L170Z.78	L170Z.82	L170Z.96	L170Z3.88
Tm	kNm	60	79	78	107	106	103	102	150	145	141	164	161	157	156
	°	415	412	412	425	425	425	425	425	425	425	425	425	425	425
Q	l/min	2X50	1X70 / 2X55 / 1X120LS		1x80 / 2x70 / 1x150LS				1x90 / 2x80 / 1x150LS						
	MPa	21	23	25	25	25	25	25	24	24	24	26	26	26	25
	mm	7140	7300	8500	7760	8161	9539	8730	7785	8186	9564	7785	8186	9564	8730
	kNm	21	22	22	28	28	28	28	28	28	28	28	28	28	28
	mm	1600	1450	2700	1585	2300	3200	2300	1585	2300	3200	1585	2300	3200	2300
	kg	1717	1940	2119	2266	2324	2363	2496	2506	2563	2602	2516	2573	2612	2756

Z

		L190Z.78	L190Z.82	L190Z.96	L230Z.80	L230Z.96	L270Z.80	L270Z.96	L300Z.80	L300Z.96
Tm	kNm	184	179	176	211	206	244	241	276	274
	°	425	425	425	390	390	390	390	390	390
Q	l/min	1x90 / 2x90 / 1x180LS								
	MPa	25	25	25	25	25	28	28	32	32
	mm	7785	8186	9564	7920	9665	7920	9665	7920	9665
	kNm	28	28	28	30	30	33	33	33	33
	mm	1585	2300	3200	1600	3200	1600	3200	1600	3200
	kg	2731	2813	2857	2585	2779	2590	2755	2605	2770

Z

		L60NZ.65	L110NZ.68	L110NZ.79	L140NZ.67	L140NZ.78
Tm	kNm	63	108	106	140	135
	°	415	425	425	425	425
Q	l/min	2X50	1x70 / 2x60 / 1x120LS		1x80 / 2x70 / 1x120LS	
	MPa	23	25	25	25	25
	mm	6500	6800	7900	6700	7775
	kNm	21	28	28	28	28
	mm	1600	1600	2700	1600	2700
	kg	1675	2191	2248	2441	2498

NZ

		L80K.76	L100K.78	L100K.88	L120K.76	L120K.79	L120K.82	L120K.83	L120K.96	
Tm	kNm	77	95	90	113	114	110	115	107	
	°	412	425	425	425	425	425	425	425	
Q	l/min	1x60 / 2x50 / 1x120LS			1x70 / 2x60 / 1x150LS					
	MPa	21	23	23	25	25	25	25	25	
	mm	7580	7922	8917	7685	7778	8160	8228	9537	
	kNm	24	26	26	28	28	28	28	28	
	mm	1450	1600	2700	2300	1585	2300	1585	2300	
	kg	1970	2120	2197	2280	2270	2327	2285	2366	

K

		L130K.76	L130K.79	L130K.82	L130K.83	L130K.96	L130K.100	L150K.76	L150K.79	L150K.82	L150K.83	L150K.96	L150K.100
Tm	kNm	131	132	128	131	124	121	149	150	148	153	143	141
	°	425	425	425	425	425	425	425	425	425	425	425	425
Q	l/min	1x80 / 2x70 / 1x150LS											
	MPa	23	23	23	23	23	23	26	26	26	26	26	26
	mm	7639	7848	8230	8228	9607	9987	7639	7848	8230	8228	9607	9987
	kNm	28	28	28	28	28	28	28	28	28	28	28	28
	mm	2300	1585	2300	1585	3200	3200	2300	1585	2300	1585	2300	2300
	kg	2480	2470	2527	2485	2566	2581	2500	2490	2547	2505	2586	2601

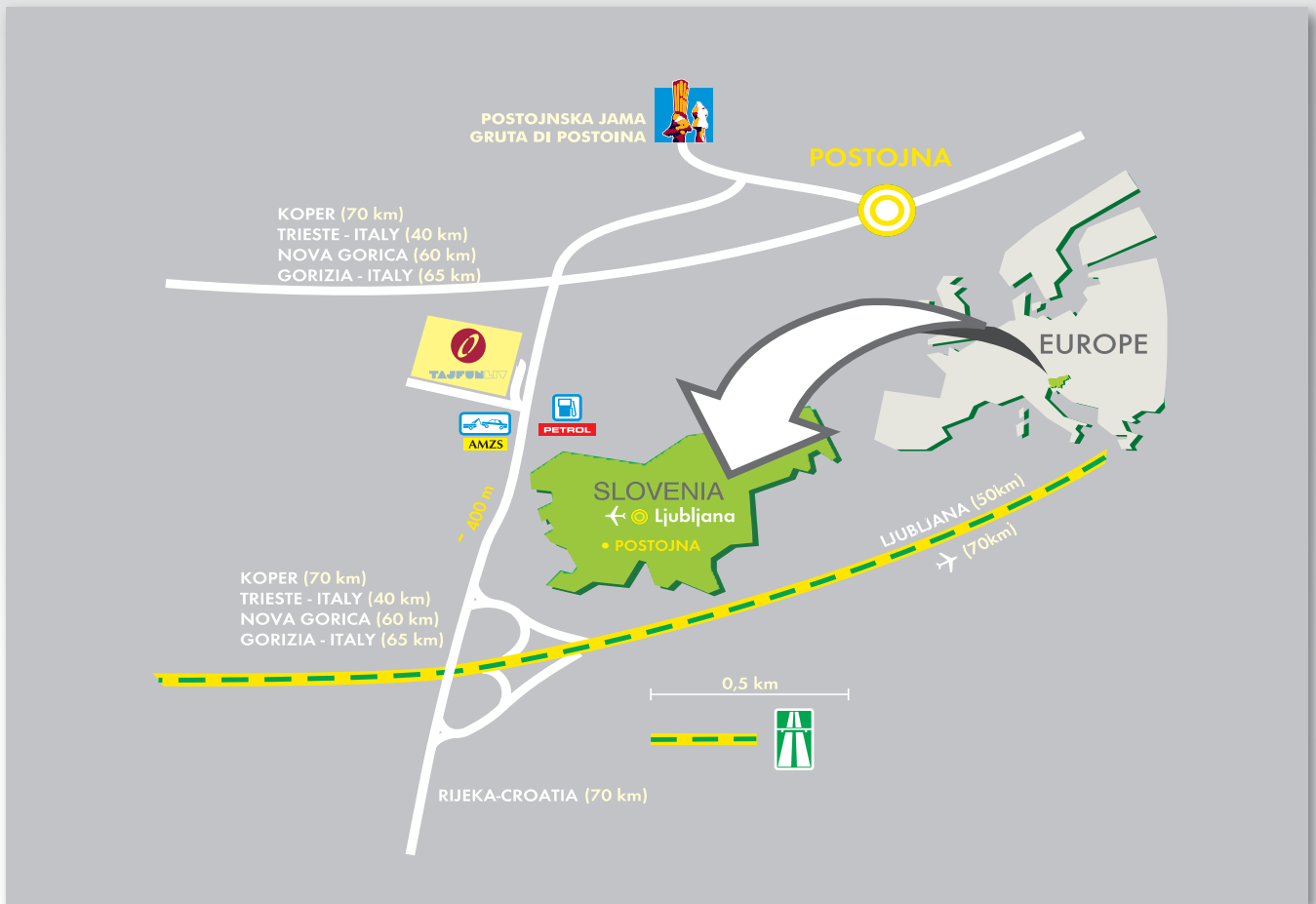
K

		L170K.76	L170K.79	L170K.82	L170K.83	L170K.96	L170K.100	L230K.81	L230K.87	L230K.93	L230K.99	L230K.110	L230K.125	L230K.145	
Tm	kNm	159	160	156	157	152	151	216	215	213	212	205	198	185	
	°	425	425	425	425	425	425	405	405	405	405	405	405	405	
Q	l/min	1x90 / 2x80 / 1x150LS						1x90 / 2x90 / 1x180LS							
	MPa	25	25	25	25	25	25	23	23	23	23	23	23	23	
	mm	7810	7848	8230	8228	9607	9987	8070	8670	9270	9823	10784	12584	14464	
	kNm	28	28	28	28	28	28	41	41	41	41	41	41	41	
	mm	2300	1585	2300	1585	2300	2300	1600	1600	1600	3200	3200	1600	3200	
	kg	2560	2550	2607	2565	2646	2661	2587	2621	2782	3017	2868	3065	3182	

K

		L270K.81	L270K.87	L270K.93	L270K.99	L270K.110	L270K.125	L270K.145	L300K.81	L300K.87	L300K.93	L300K.99	
Tm	kNm	261	260	257	260	245	221	206	297	295	292	295	
	°	405	405	405	405	405	405	405	405	405	405	405	
Q	l/min	1x90 / 2x90 / 1x180LS											
	MPa	25	25	25	25	25	25	25	32	32	32	32	
	mm	8070	8670	9270	9823	10784	12584	14446	8070	8670	9270	9823	
	kNm	41	41	41	41	41	41	41	41	41	41	41	
	mm	1600	1600	1600	3200	3200	1600	3200	1600	1600	1600	3200	
	kg	2622	2656	2817	3052	2903	3100	3217	2637	2671	2832	3067	

K


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