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Manual # 99906329

1430 MCS Technical Specifications

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1430 MCS, Technical Specifications

Section - 1

1430 MCS - Specifications

Performance	Unit	K1	K2	K3	K4	K5	K6
Loading group (EN12999)		H1/B3	H1/B3	H1/B3	H1/B3	H1/B3	H1/B3
Load moment	ft-lb	97446	93837	90949	88062	85175	83009
Hydraulic reach	ft	20'8"	27'7"	34'5"	42'0"	49'3"	56'9"
Hydraulic telescopic movement	ft	6'3"	12'9"	19'8"	27'0"	34'1"	41'3"
Lifting capacity, hydraulic	lb-ft	6945-14'1"	6658-14'1"	6327-14'5"	6019-14'9"	5732-15'2"	5490-15'2"
	lb-ft	4784-20'4"	4519-20'8"	4211-20'8"	3924-21'0"	3682-21'4"	3461-21'8"
	lb-ft		3395-27'2"	3086-27'2"	2822-27'7"	2579-27'11"	2381-28'3"
	lb-ft			2447-34'1"	2161-34'5"	1940-34'9"	1720-35'1"
	lb-ft				1764-41'8"	1521-42'0"	1323-42'4"
	lb-ft					1279-48'11"	1080-49'3"
	lb-ft						926-56'5"
Lifting Capacities, Manual Extensions	lb-ft		2535-34'1"	1852-41'8"	1345-49'3"	1014-56'5"	750-64'4"
	lb-ft		1962-41'4"	1433-49'3"	1080-57'1"	816-64'4"	
	lb-ft		1521-49'3"	1190-56'9"	882-64'8"		
Slewing torque, gross	lb-ft	3956					
Slewing angle	°	400					
Max. heel at max. load moment	°	5					
Slewing speed	°/s	24					

Dimensions	Unit	K1	K2	K3	K4	K5	K6
Height above chassis	ft-in	7' 4"					
Width	ft-in	8' 2"					
Width with extra valves (int. hose routing)	ft-in	8' 3"					
Length, no extra valves	ft-in	2' 7"					
Length, with extra valves (hose guides)	ft-in	3' 1"					
Length, with extra valves (int. hose routing)	ft-in	2' 7"					
Stabilizer spread, S1 (standard)	ft-in	15' 1"					
Stabilizer spread, S2	ft-in	18' 3"					
Stabilizer spread, D	ft-in	21' 2"					

1) Weights $\pm 5\%$ because of tolerances for plate thickness

1430 MCS - Specifications - continued

Weights, basic loader	Unit	K1	K2	K3	K4	K5	K6
Standard loader 1), excl. stabilizers	lb	2888	3197	3505	3803	4068	4277
Stabilizers, S1 fixed	lb	441					
Stabilizers, S1 swing-up	lb	452					
Stabilizers, S1 hydr. swing-up	lb	474					
Stabilizers, S2 fixed	lb	518					
Stabilizers, S2 swing-up	lb	529					
Stabilizers, S2 hydr. swing-up	lb	551					
Stabilizers, D fixed	lb	661					
Stabilizers, D swing-up	lb	561					
Stabilizers, D hydr. swing-up	lb	694					
Mounting kit, 4 bolts	lb	121					
Mounting kit, 8 bolts	lb	132					
Tank, excl. oil (fitted on loader)	lb	99					
Manual extensions	lb	—	187	165	143	99	88
			165	143	99	88	
			143	99	88	88	
Oil in loader	lb	55	66	77	88	99	99

Weights, equipment	Unit	K1	K2	K3	K4	K5	K6
Stand-up controls (HS), std.	lb	132					
Stand-up controls (HS), direct valve control	lb	154					
Top seat (TS)	lb	198					
Top seat, ladder	lb	44					
1 extra valve, hose guides	lb	88	121	143	165	187	209
1 extra valve, int. hose routing	lb	165	165	165	176	176	187
2 extra valves, hose guides	lb	132	165	198	231	265	298
2 extra valves, int. hose routing	lb	287	287	287	309	320	331
Winch (1.5 t), single snatch block	lb	386					397
Winch (1.5 t), double snatch block	lb	375					386
Winch (2.5 t), single snatch block	lb	441					452
Winch (2.5 t), double snatch block	lb	430					441
High-pressure filiter	lb	15					
Oil cooler	lb	55					

Max. load on stabilizer (per stab. cylinder)	Unit	K1	K2	K3	K4	K5	K6
S1, fixed	ft-lb	62693					
S1, swing-up	ft-lb						
S1, hyd swing-up	ft-lb						
S2, fixed	ft-lb						
S2, Swing-up	ft-lb						
S2, hyd swing-up	ft-lb						
D, fixed	ft-lb	50154					
D, swing-up	ft-lb						
D, hyd swing-up	ft-lb						

1430 MCS Technical Specifications - Continued

Power consumption / oil capacity	Unit	K1	K2	K3	K4	K5	K6
Working pressure	psi	4786					
Tank capacity (fitted on loader)	gal	24					
Max. pump performance, Hydrocontrol 1-circuit	g/min	11.9					
Max. pump performance, Danfoss fixed flow	g/min	18.5					
Max. pump performance, Danfoss variable	g/min	26.4					

1430 - Specifications, Metric

Performance	Unit	K1	K2	K3	K4	K5	K6
Loading group (EN12999)		H1/B3	H1/B3	H1/B3	H1/B3	H1/B3	H1/B3
Load moment	tm	13.5	13	12.6	12.2	11.8	11.5
Hydraulic reach	m	6.3	8.4	10.5	12.8	15.0	17.3
Hydraulic telescopic movement	mm	1930	3940	6040	8230	10390	12580
Lifting capacity, hydraulic	kg-m	3150-4.3	3030-4.3	2870-4.4	2730-4.5	2600-4.6	2490-4.6
	kg-m	2170-6.2	2040-6.3	1910-6.3	1780-6.4	1670-6.5	1570-6.6
	kg-m		1540-8.3	1400-8.3	1280-8.4	1170-8.5	1080-8.6
	kg-m			1110-10.4	980-10.5	880-10.6	780-10.7
	kg-m				800-12.7	690-12.8	600-12.9
	kg-m					580-14.9	490-15.0
	kg-m						420-17.2
Lifting Capacities, Manual Extensions	kg-m		1150-10.4	840-12.7	610-15.1	460-17.2	340-19.6
	kg-m		890-12.6	650-15.0	490-17.4	370-19.6	
	kg-m		690-15.0	540-17.3	400-19.7		
Slewing torque, gross	kNm	17.6					
Slewing angle	°	400					
Max. heel at max. load moment	°	5					
Slewing speed	°/s	24					

Dimensions	Unit	K1	K2	K3	K4	K5	K6
Height above chassis	mm	2250					
Width	mm	2500					
Width with extra valves (int. hose routing)	mm	2535					
Length, no extra valves	mm	825					
Length, with extra valves (hose guides)	mm	950					
Length, with extra valves (int. hose routing)	mm	825					
Stabilizer spread, S1 (standard)	mm	4615					
Stabilizer spread, S2	mm	5900					
Stabilizer spread, D	mm	6470					

1) Weights $\pm 5\%$ because of tolerances for plate thickness

1430 MCS Specifications - Metric, continued

Weights, basic loader	Unit	K1	K2	K3	K4	K5	K6
Standard loader 1), excl. stabilizers	kg	1310	1450	1590	1725	1845	1940
Stabilizers, S1 fixed	kg	200					
Stabilizers, S1 swing-up	kg	205					
Stabilizers, S1 hydr. swing-up	kg	215					
Stabilizers, S2 fixed	kg	235					
Stabilizers, S2 swing-up	kg	240					
Stabilizers, S2 hydr. swing-up	kg	250					
Stabilizers, D fixed	kg	300					
Stabilizers, D swing-up	kg	300					
Stabilizers, D hydr. swing-up	kg	315					
Mounting kit, 4 bolts	kg	55					
Mounting kit, 8 bolts	kg	60					
Tank, excl. oil (fitted on loader)	kg	45					
Manual extensions	kg	—	85	75	65	45	40
			75	65	45	40	
			65	45	40		
Oil in loader	kg	25	30	35	40	45	45

Weights, equipment	Unit	K1	K2	K3	K4	K5	K6
Stand-up controls (HS), std.	kg	60					
Stand-up controls (HS), direct valve control	kg	70					
Top seat (TS)	kg	90					
Top seat, ladder	kg	20					
1 extra valve, hose guides	kg	40	55	65	75	85	95
1 extra valve, int. hose routing	kg	75	75	75	80	80	85
2 extra valves, hose guides	kg	60	75	90	105	120	135
2 extra valves, int. hose routing	kg	130	130	130	140	145	150
Winch (1.5 t), single snatch block	kg	175					180
Winch (1.5 t), double snatch block	kg	170					175
Winch (2.5 t), single snatch block	kg	200					205
Winch (2.5 t), double snatch block	kg	195					200
High-pressure filter	kg	7					
Oil cooler	kg	25					

Max. load on stabilizer (per stab. cylinder)	Unit	K1	K2	K3	K4	K5	K6
S1, fixed	kN	85					
S1, swing-up	kN						
S1, hyd swing-up	kN						
S2, fixed	kN						
S2, Swing-up	kN						
S2, hyd swing-up	kN						
D, fixed	kN	68					
D, swing-up	kN						
D, hyd swing-up	kN						

1430 Specifications - Metric, continued

Power consumption / oil capacity	Unit	K1	K2	K3	K4	K5	K6
Working pressure	Bar			330			
Tank capacity (fitted on loader)	L			90			
Max. pump performance, Hydrocontrol 1-circuit	L/min			45			
Max. pump performance, Danfoss fixed flow	L/min			70			
Max. pump performance, Danfoss variable	L/min			100			

Minimum Chassis Specs	
Front Axle Rating (GAWR)	12,000 (5443 kg)
Rear Axle Rating (GAWR)	21,000 (9525 kg)
Resistance to Bending Moment	1,400,000 (16134 kg-m)

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1430 MCS Load Capacity Charts

Section - 2

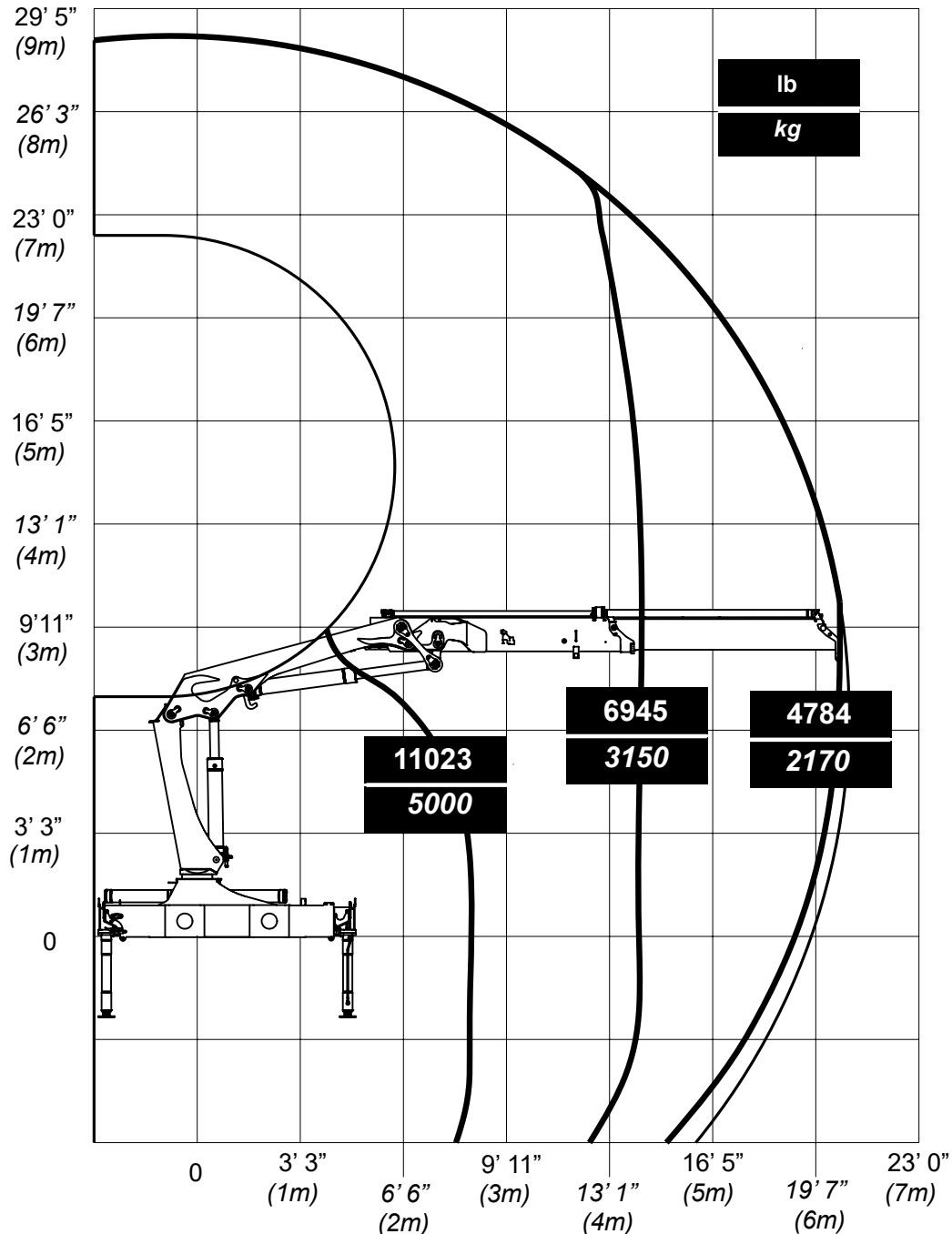
1430 MCS-K1, Lifting Capacity Chart

IMT
MATERIAL HANDLING SYSTEMS

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MODEL 1430 MCS K1

- Limit working loads to those shown. Deduct the weight of load handling devices.
- *El peso propio (tara) de los dispositivos de manipulación de cargas es parte de la carga levantada y se debe descontar de la capacidad nominal.*



70490149

1430 MCS-K2, Lifting Capacity Chart

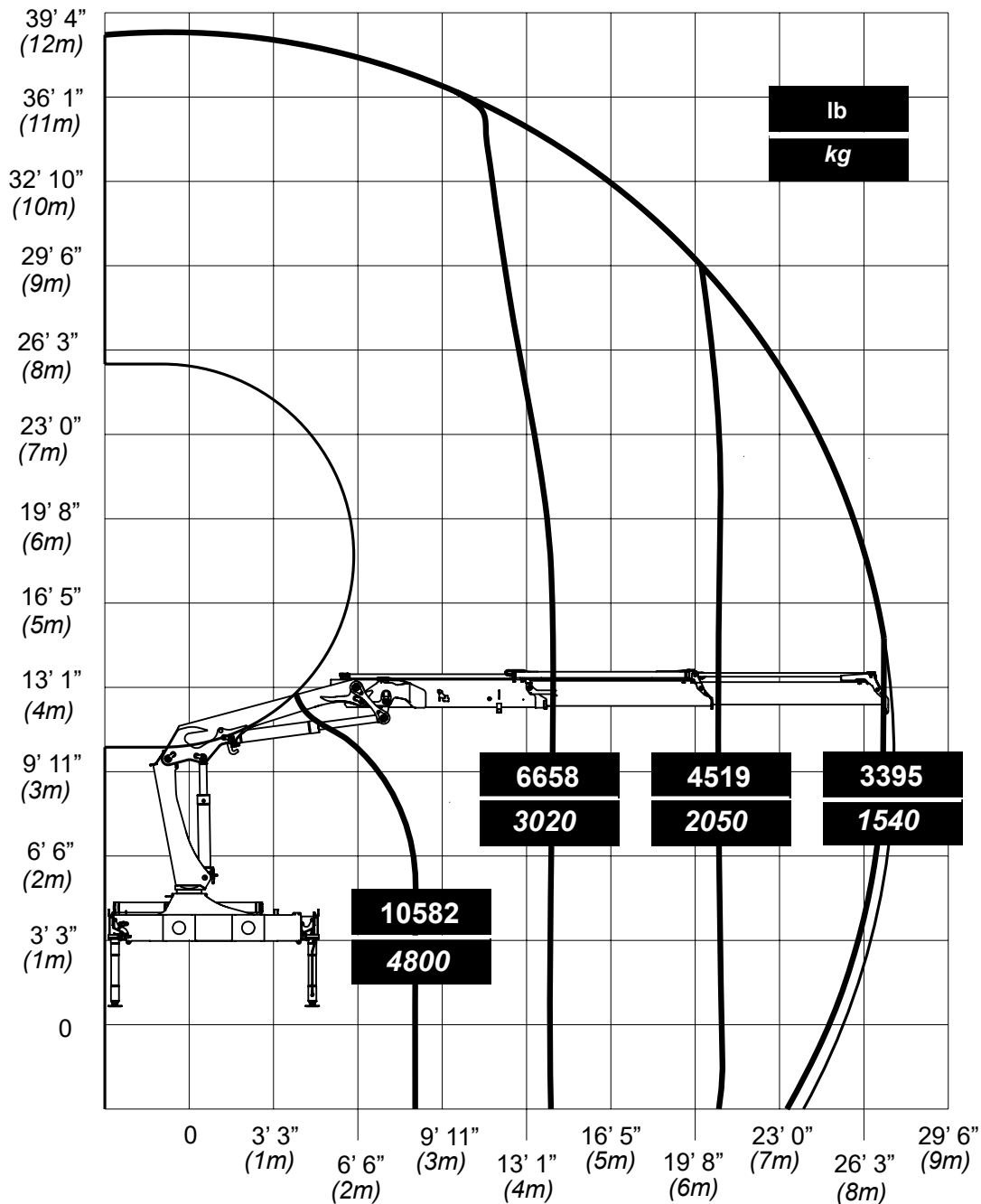
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MATERIAL HANDLING SYSTEMS

MODEL 1430 MCS K2

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- Limit working loads to those shown. Deduct the weight of load handling devices.
- *El peso propio (tara) de los dispositivos de manipulación de cargas es parte de la carga levantada y se debe descontar de la capacidad nominal.*



70490150

1430 MCS-K3, Lifting Capacity Chart

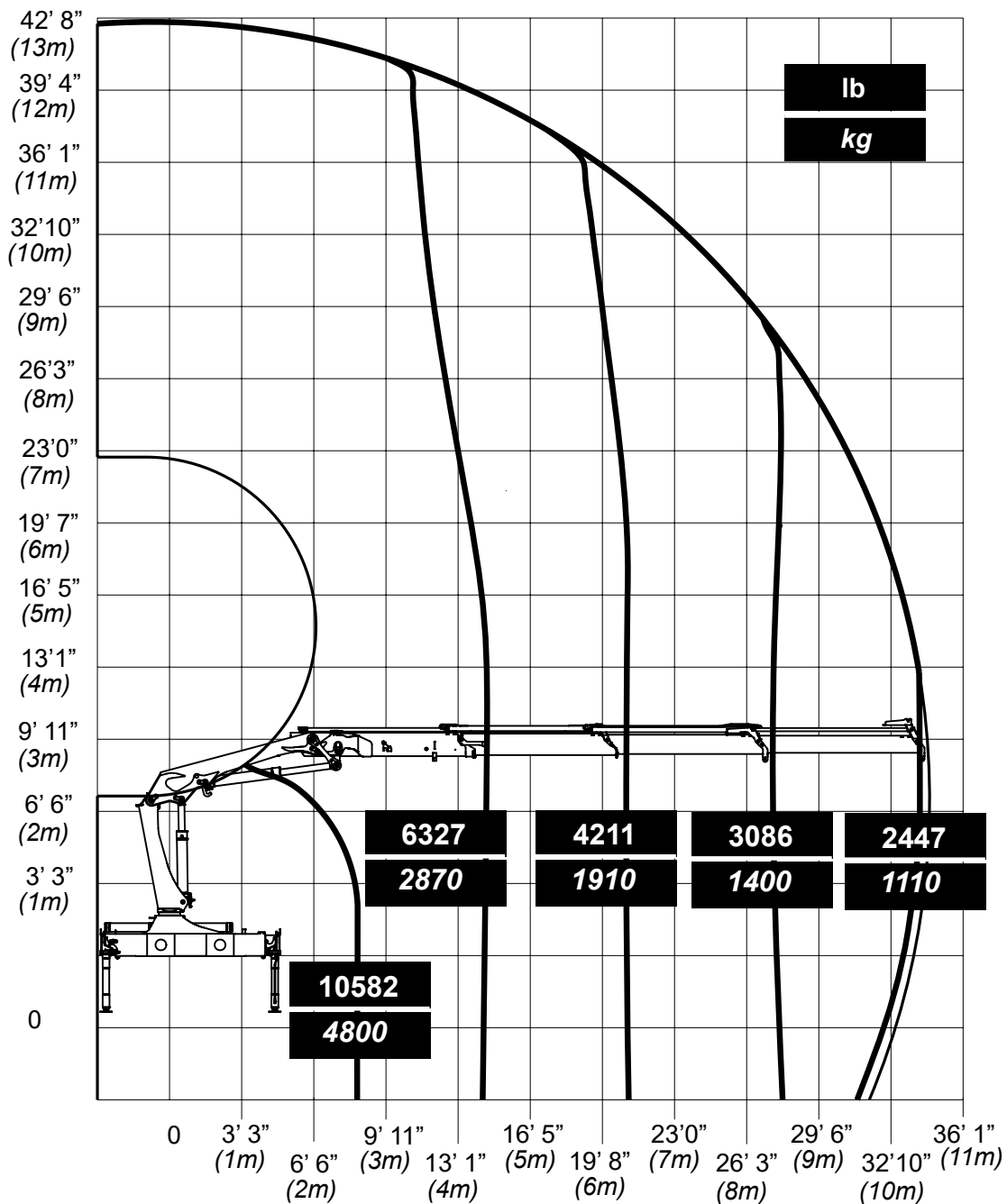
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MATERIAL HANDLING SYSTEMS

MODEL 1430 MCS K3

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- Limit working loads to those shown. Deduct the weight of load handling devices.
- *El peso propio (tara) de los dispositivos de manipulación de cargas es parte de la carga levantada y se debe descontar de la capacidad nominal.*



70490151

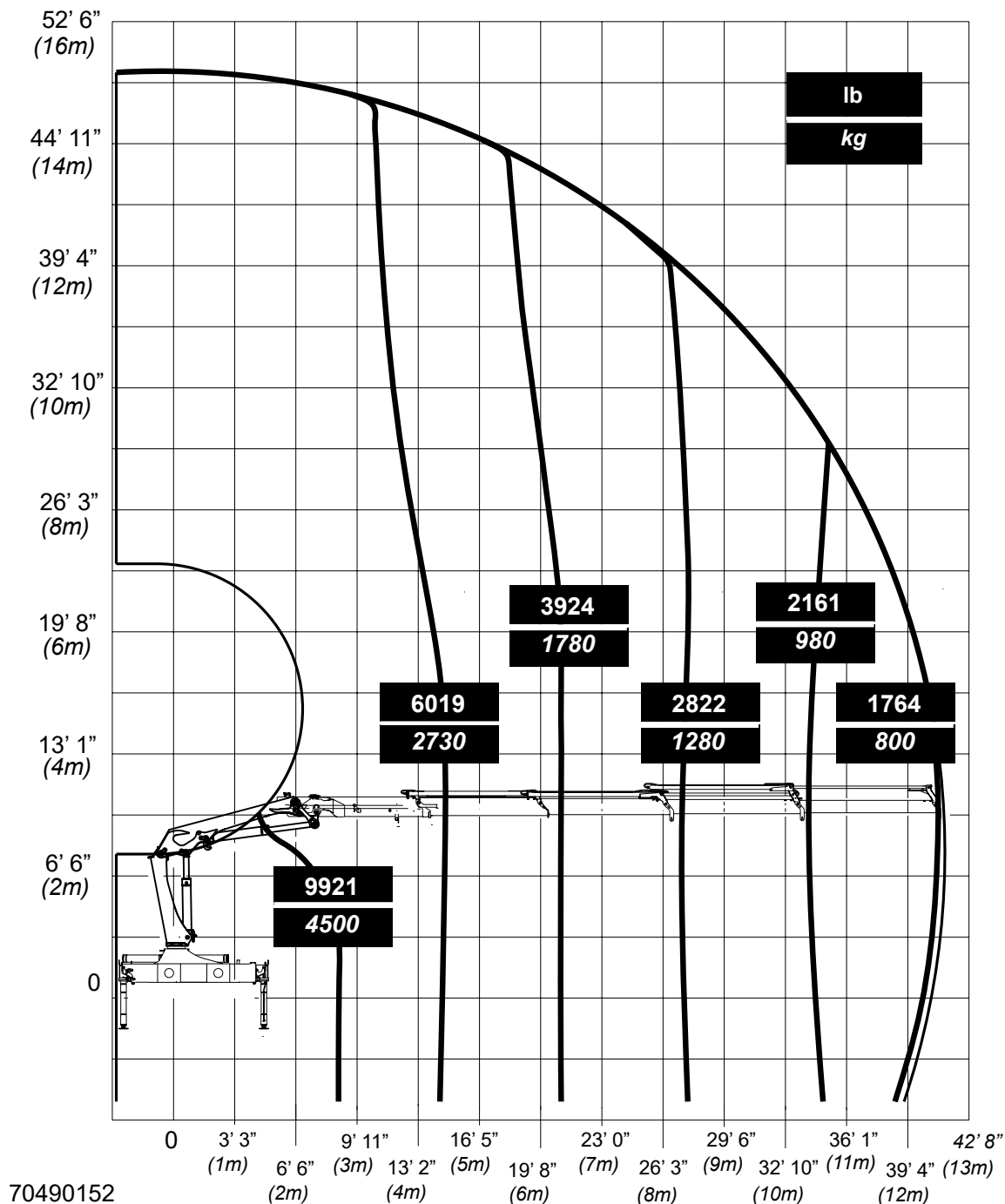
1430 MCS-K4, Lifting Capacity Chart

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MODEL 1430 MCS K4

- Limit working loads to those shown. Deduct the weight of load handling devices.
- *El peso propio (tara) de los dispositivos de manipulación de cargas es parte de la carga levantada y se debe descontar de la capacidad nominal.*



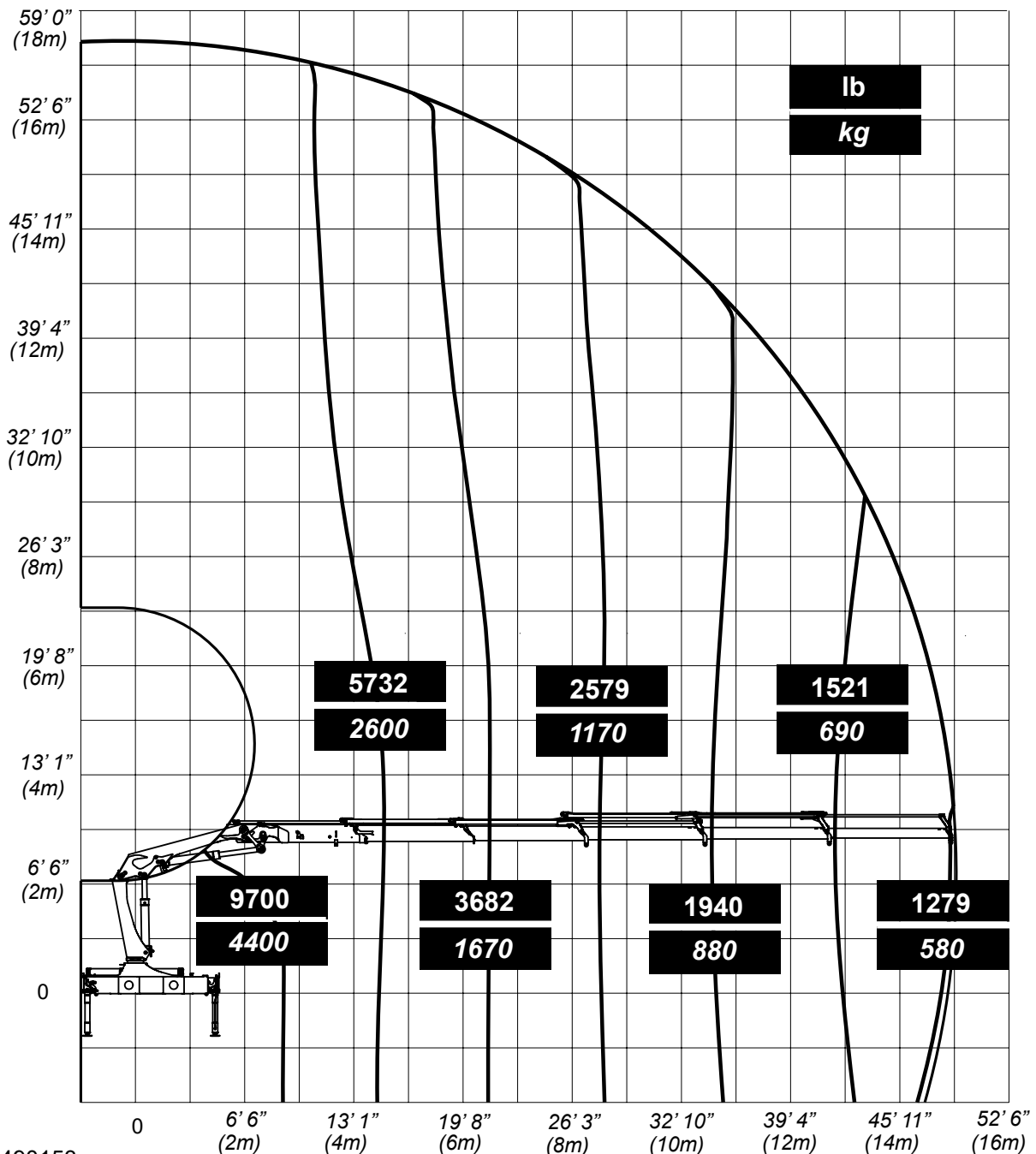
1430 MCS-K5, Lifting Capacity Chart

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MODEL 1430 MCS K5

- Limit working loads to those shown. Deduct the weight of load handling devices.
- *El peso propio (tara) de los dispositivos de manipulación de cargas es parte de la carga levantada y se debe descontar de la capacidad nominal.*



70490153

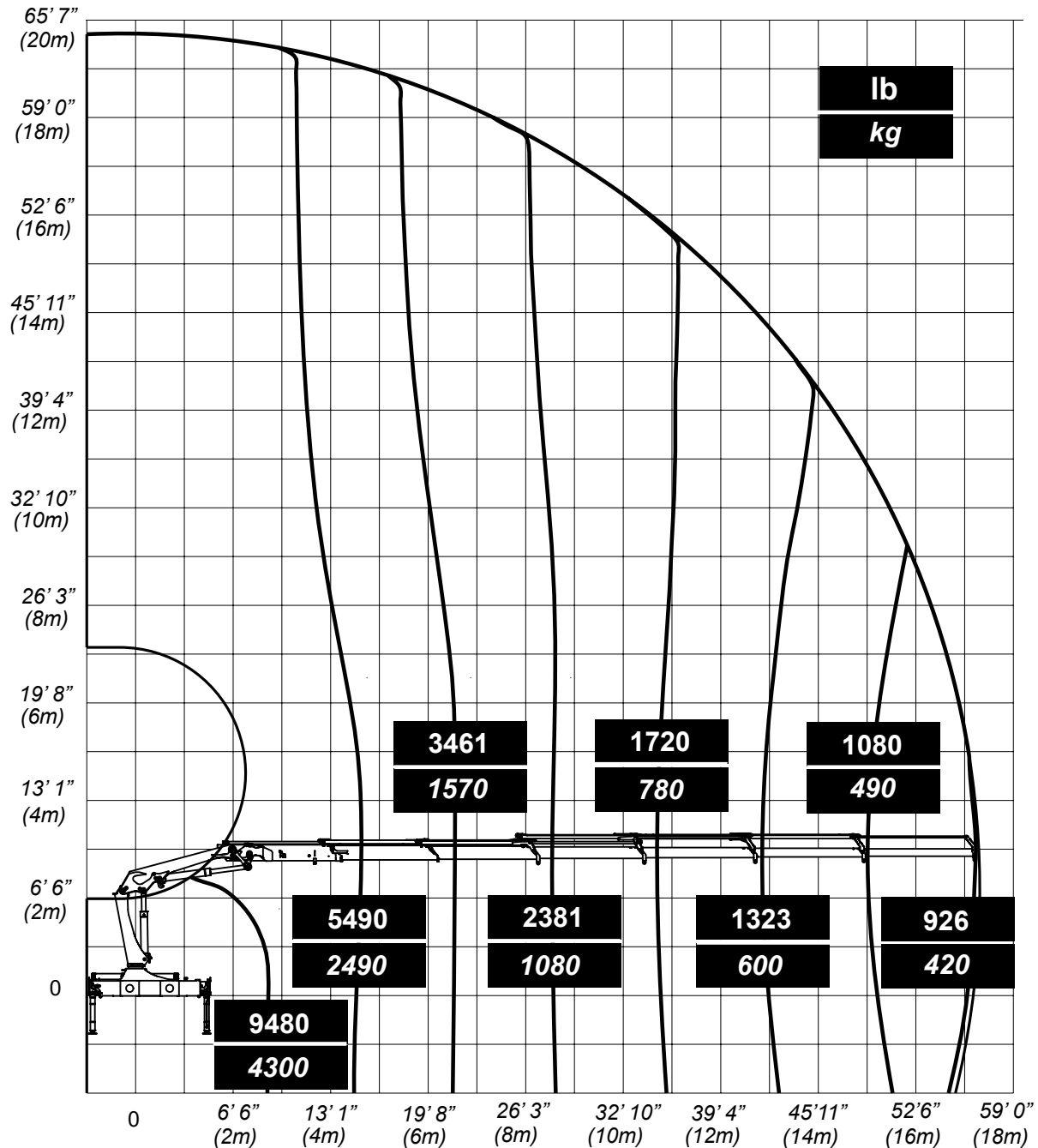
1430 MCS-K6, Lifting Capacity Chart

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MATERIAL HANDLING SYSTEMS

MODEL 1430 MCS K6

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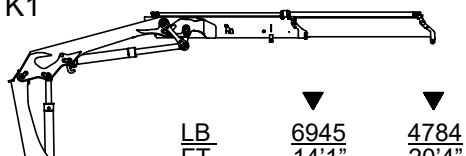
- Limit working loads to those shown. Deduct the weight of load handling devices.
- *El peso propio (tara) de los dispositivos de manipulación de cargas es parte de la carga levantada y se debe descontar de la capacidad nominal.*



70490154

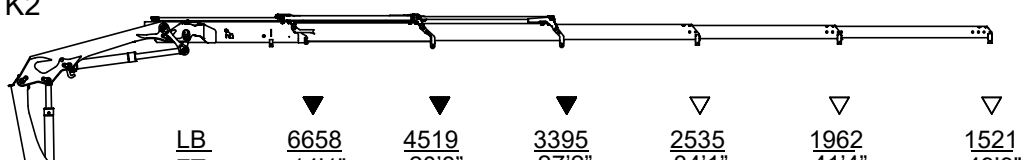
1430 MCS - K1-K6, Lifting Capacity

K1



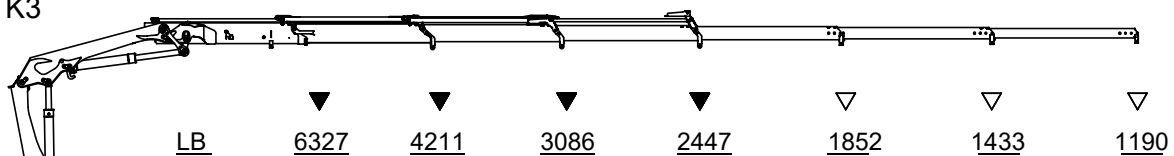
	▼	▼
<u>LB</u>	6945	4784
<u>FT</u>	14'1"	20'4"
<u>KG</u>	3150	2170
<u>M</u>	4,3	6,2

K2



	▼	▼	▼	▽	▽	▽
<u>LB</u>	6658	4519	3395	2535	1962	1521
<u>FT</u>	14'1"	20'8"	27'2"	34'1"	41'4"	49'3"
<u>KG</u>	3020	2050	1540	1150	890	690
<u>M</u>	4,3	6,3	8,3	10,4	12,6	15,0

K3



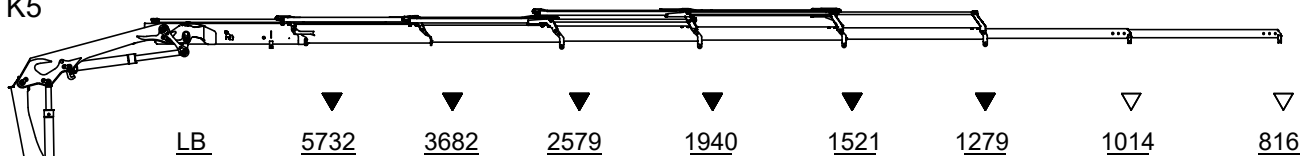
	▼	▼	▼	▼	▽	▽	▽
<u>LB</u>	6327	4211	3086	2447	1852	1433	1190
<u>FT</u>	14'5"	20'8"	27'2"	34'1"	41'8"	49'3"	56'9"
<u>KG</u>	2870	1910	1400	1110	840	650	540
<u>M</u>	4,4	6,3	8,3	10,4	12,7	15,0	17,3

K4



	▼	▼	▼	▼	▼	▽	▽	▽
<u>LB</u>	6019	3924	2822	2161	1764	1345	1080	882
<u>FT</u>	14'9"	21'0"	27'7"	34'5"	41'8"	49'3"	57'1"	64'8"
<u>KG</u>	2730	1780	1280	980	800	610	490	400
<u>M</u>	4,5	6,4	8,4	10,5	12,7	15,0	17,4	19,7

K5



	▼	▼	▼	▼	▼	▼	▽	▽
<u>LB</u>	5732	3682	2579	1940	1521	1279	1014	816
<u>FT</u>	15'2"	21'4"	27'11"	34'9"	42'0"	48'11"	56'5"	64'4"
<u>KG</u>	2600	1670	1170	880	690	580	460	370
<u>M</u>	4,6	6,5	8,5	10,6	12,8	14,9	17,2	19,6

K6



	▼	▼	▼	▼	▼	▼	▼	▽
<u>LB</u>	5490	3641	2381	1720	1323	1080	926	750
<u>FT</u>	15'2"	21'8"	28'3"	35'1"	42'4"	49'3"	56'5"	64'4"
<u>KG</u>	2490	1570	1080	780	600	490	420	340
<u>M</u>	4,6	6,6	8,6	10,7	12,9	15,0	17,2	19,6

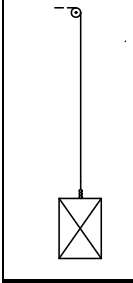
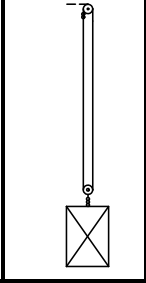
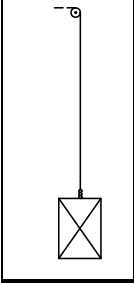
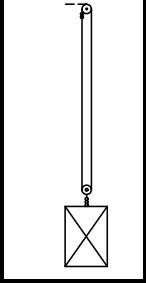
▽ LIFTING CAPACITY WITH MANUAL EXTENSIONS

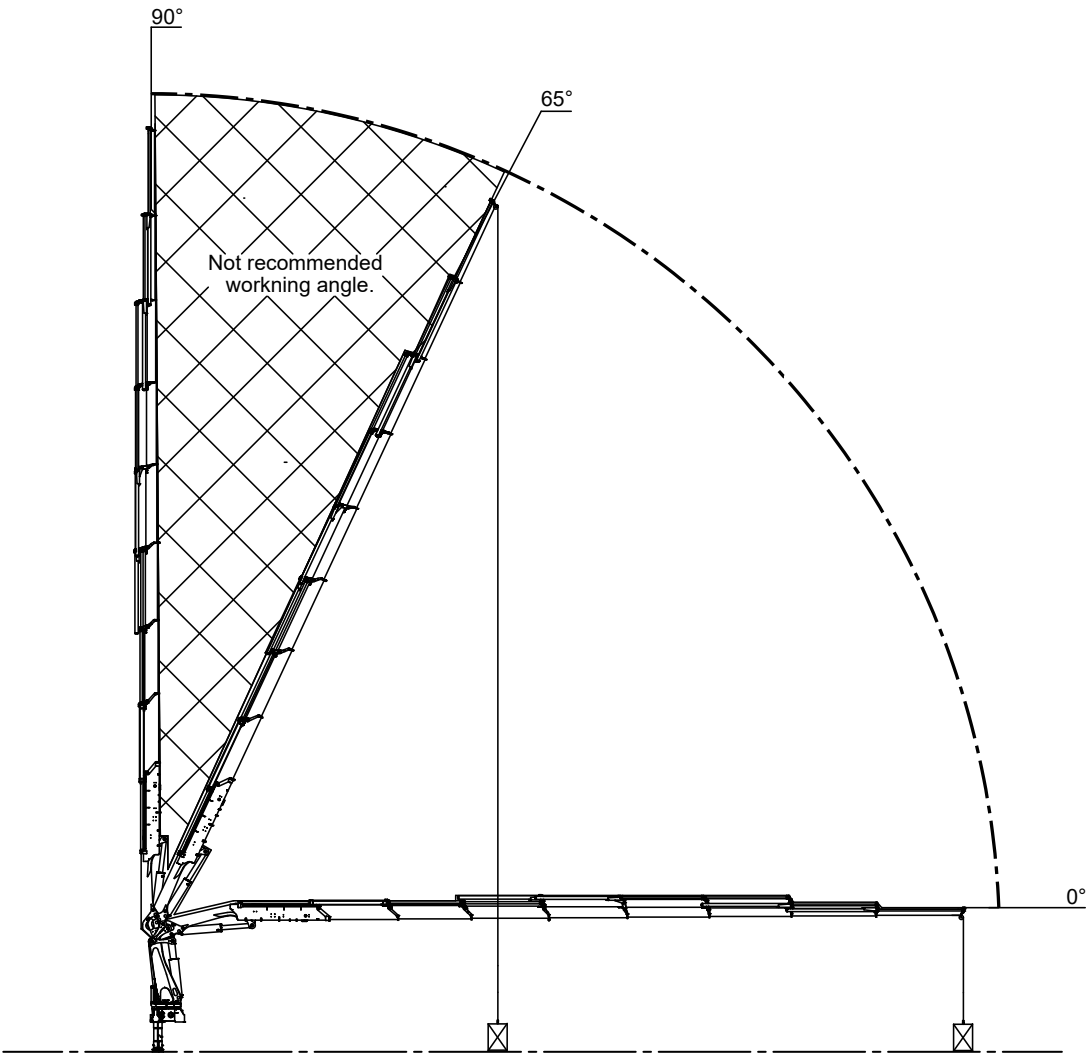
▼ LIFTING CAPACITY WITHOUT MANUAL EXTENSIONS

1430 MCS, Dimension Drawings

Section - 3

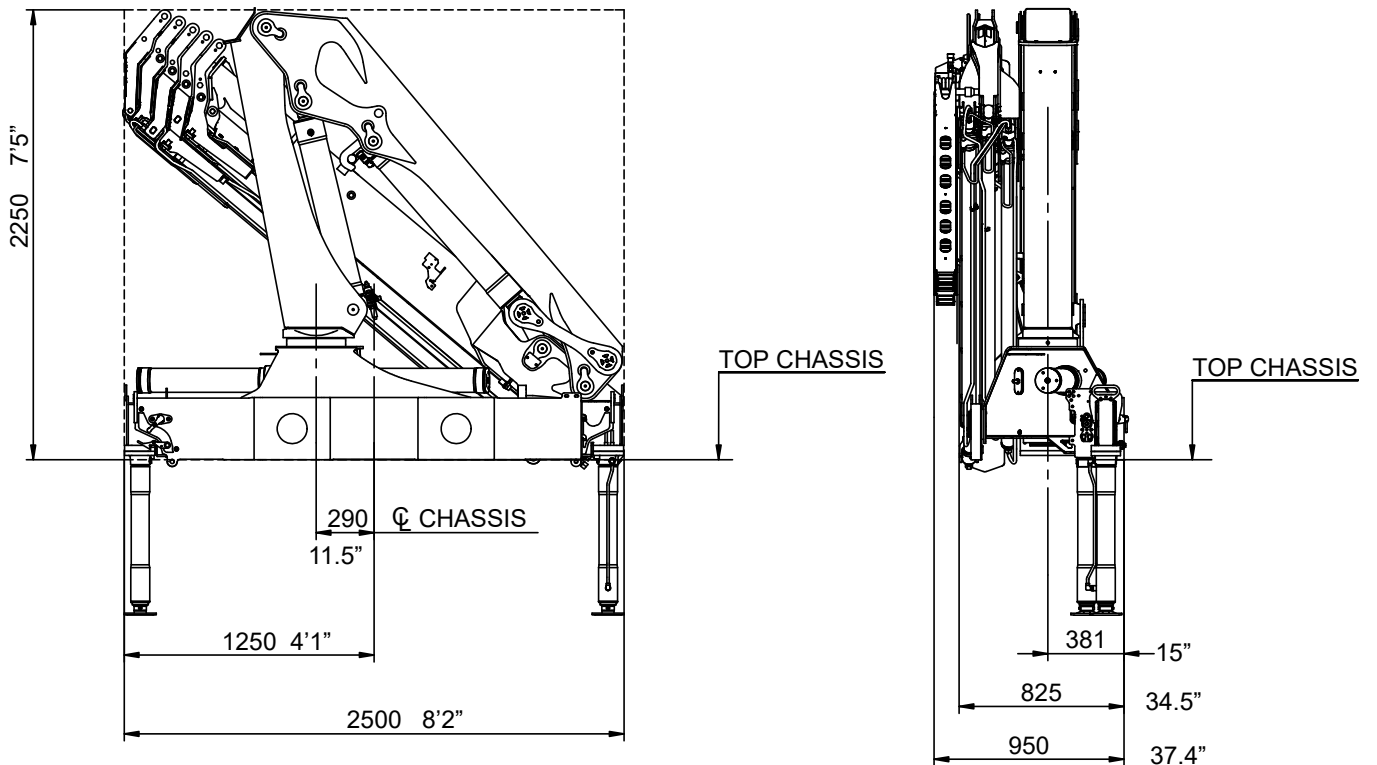
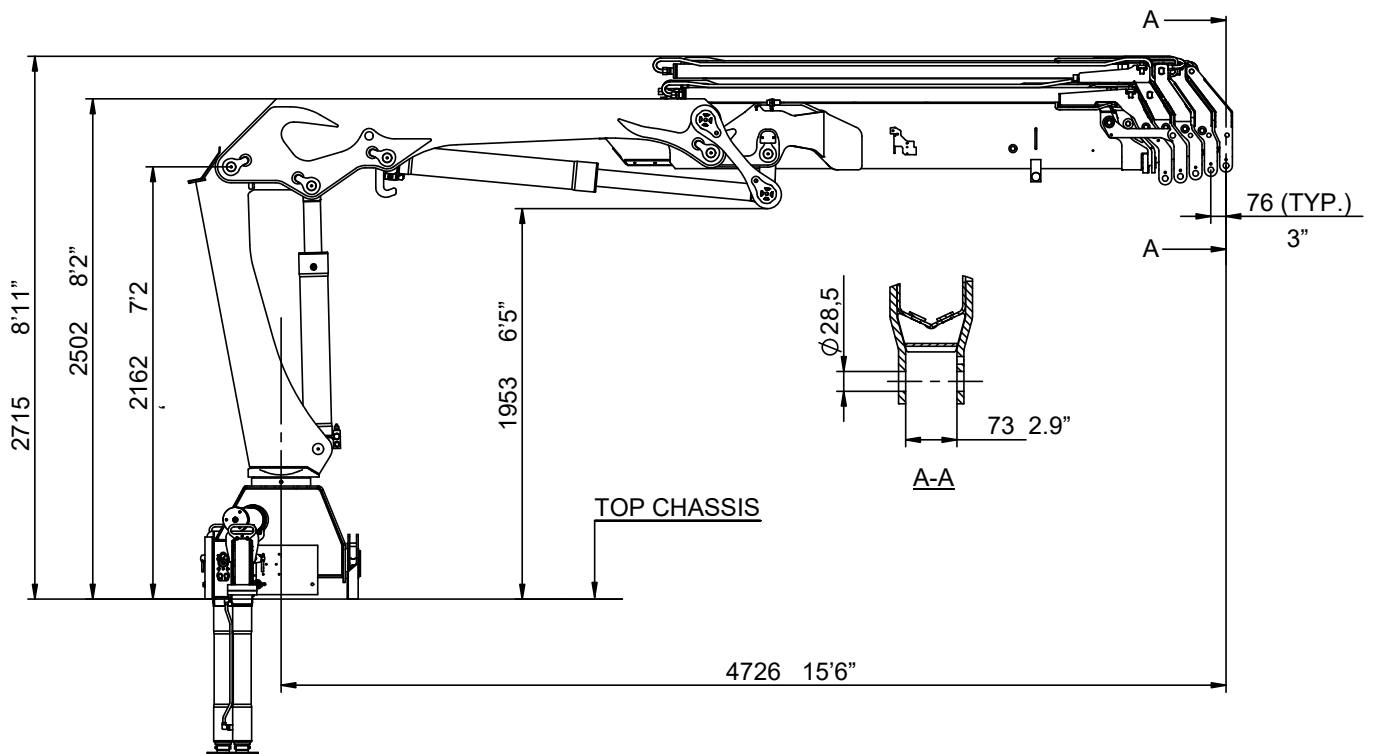
Lifting capacity with winch

Hydraulic hoist type	MAXW	MAXWD	Hydraulic hoist type	MAXW	MAXWD
Dinamic P9E	1500 kg	3000 kg	Dinamic P9E	3307 lb	6614 lb
Dinamic P15E	2500 kg	5000 kg	Dinamic P15E	5512 lb	11023 lb
Dinamic S 25 Brevini 2500	3200 kg	6400 kg	Dinamic S 25 Brevini 2500	7055 lb	14110 lb
					

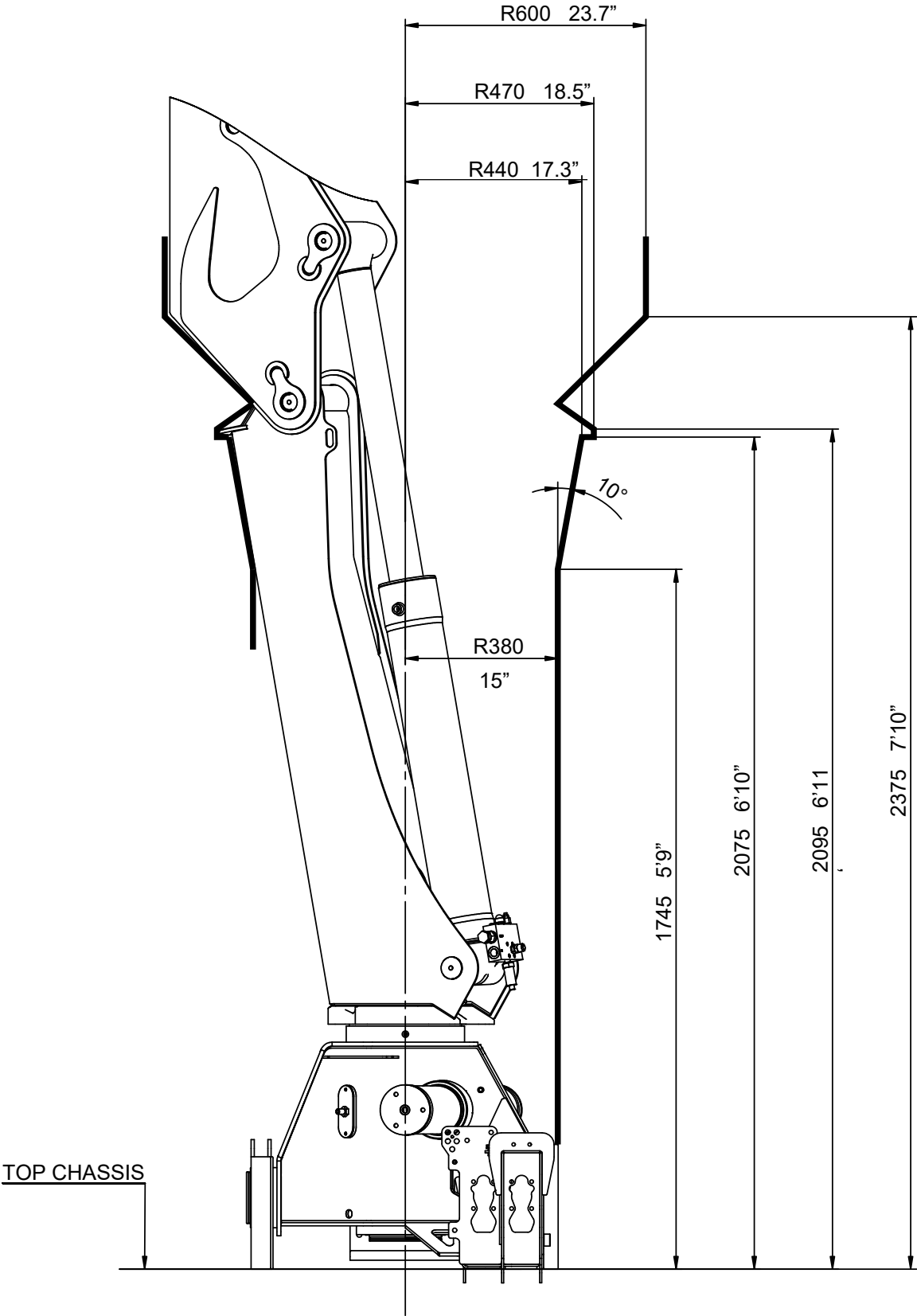


1430 MCS - Dimension Sketch

Metric=Millimeters

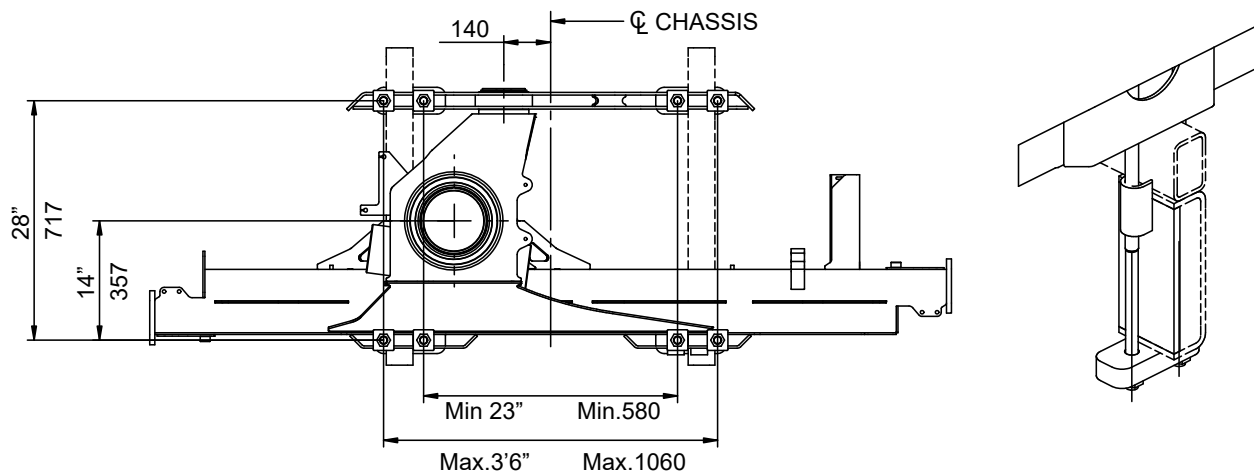


1430 MCS - Slewing Radius



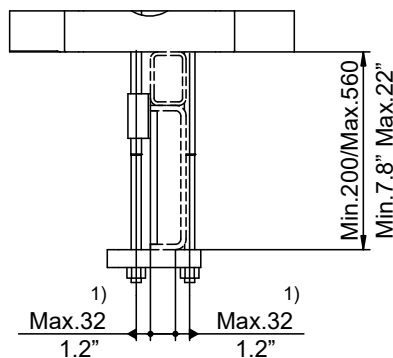
1430 MCS - Dimension Sketch, Truck-Mounted Loader

Mounting kit 8 x M24x2 bolts

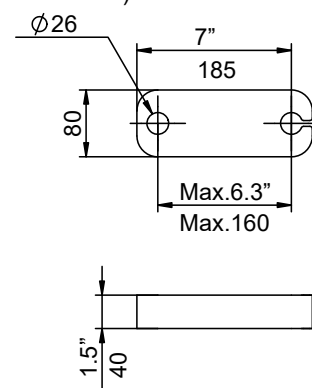


Notes:

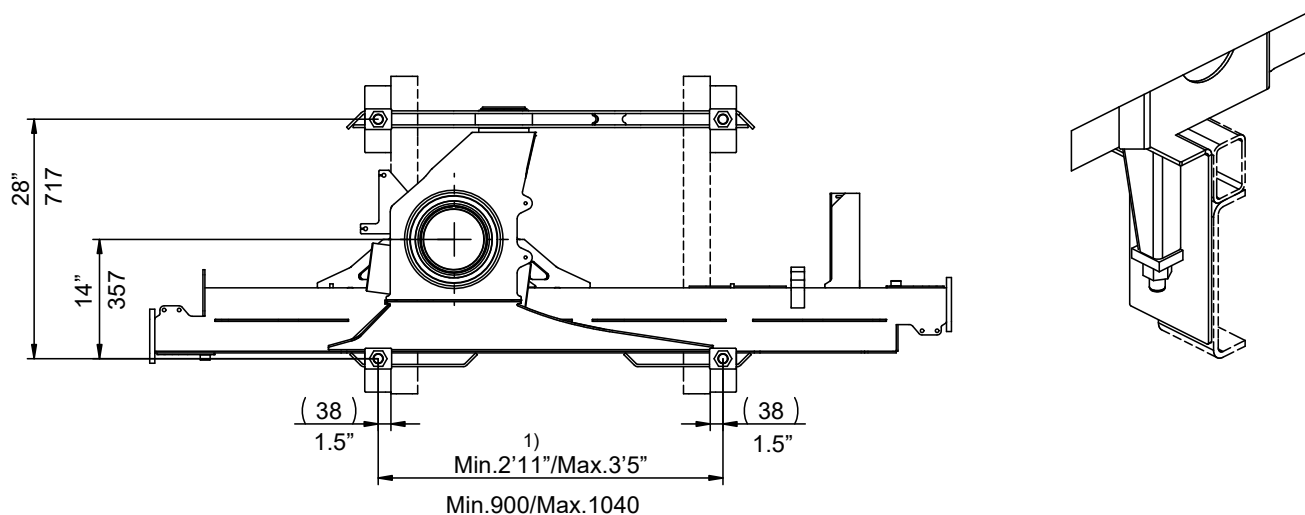
- 1) Values dictated by strength considerations.
- 2) Drill hole when assembling
- 3) As regards installation - please see HMF Installation Manual
- 4) Mounting kits or spare parts - please see the Spare Parts Catalogue of the individual loader



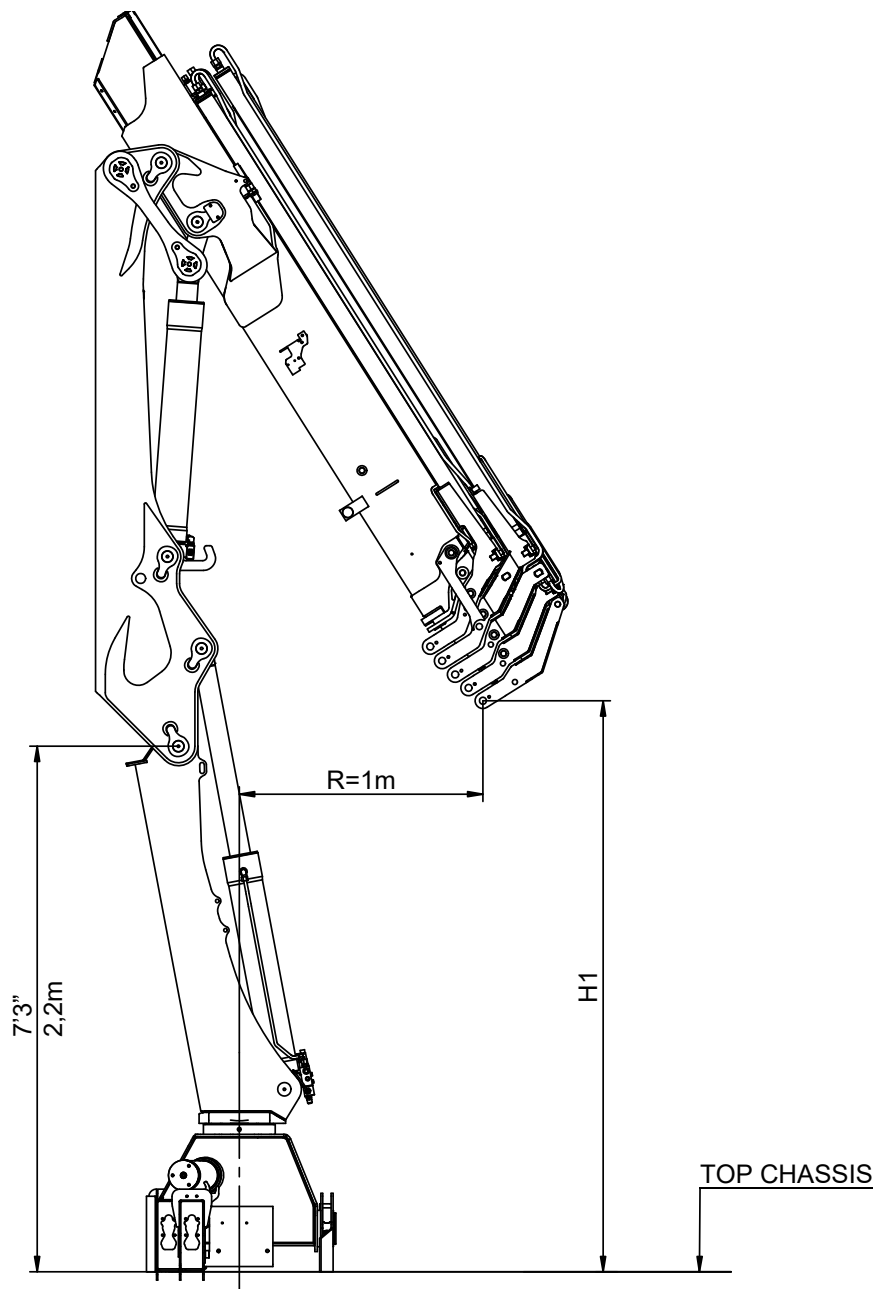
See note 2)



Mounting kit 4 x M30x2 bolts

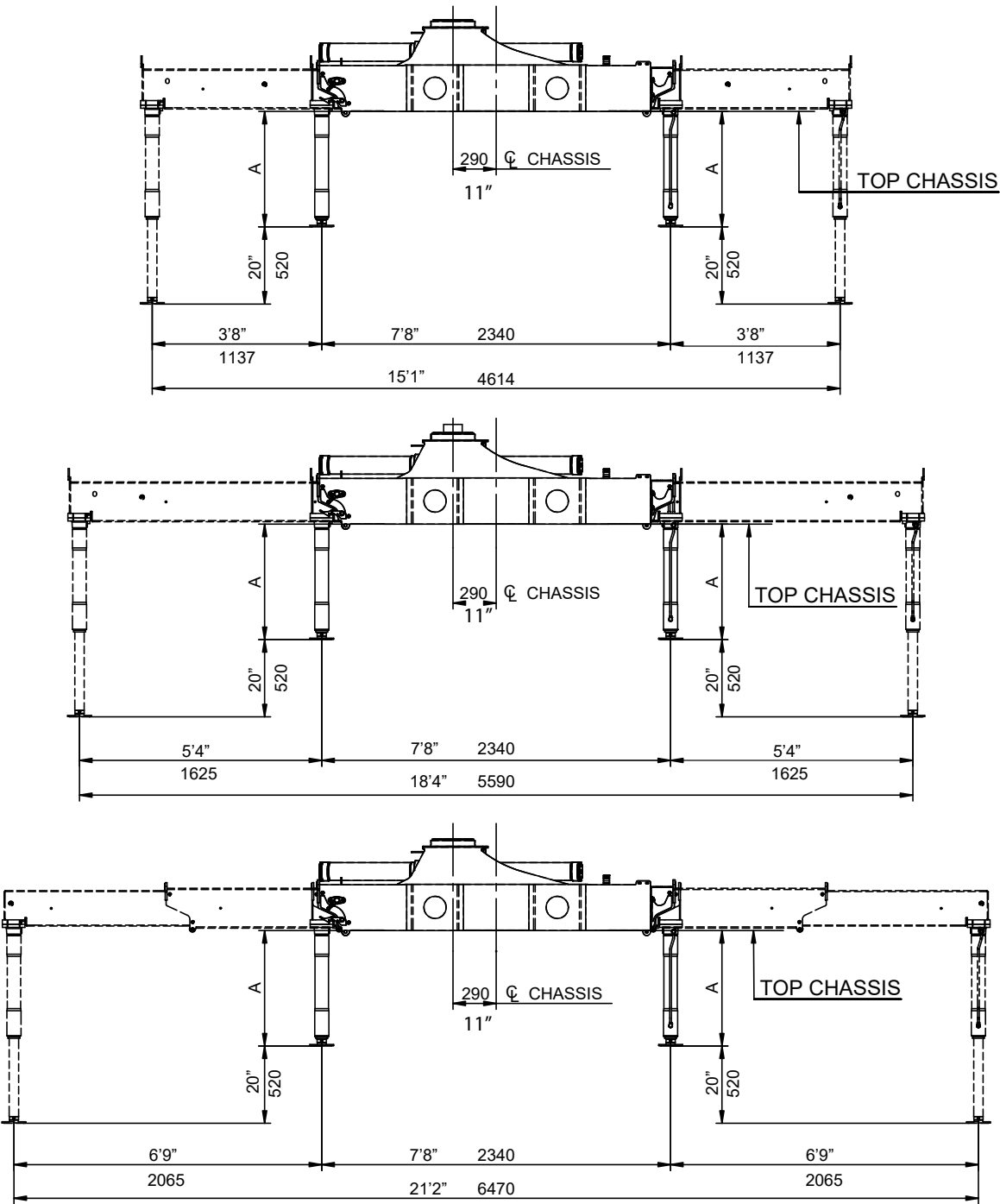


1430 MCS - Lifting Height at Column



	H1		H1
K1	9'0"	K1	2,76m
K2	8'10"	K2	2,71m
K3	8'7"	K3	2,62m
K4	8'4"	K4	2,53m
K5	8'0"	K5	2,44m
K6	7'8"	K6	2,35m

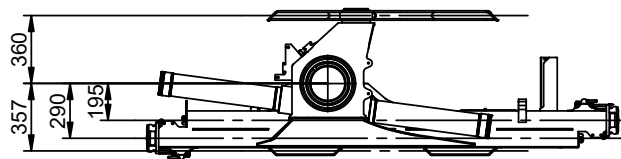
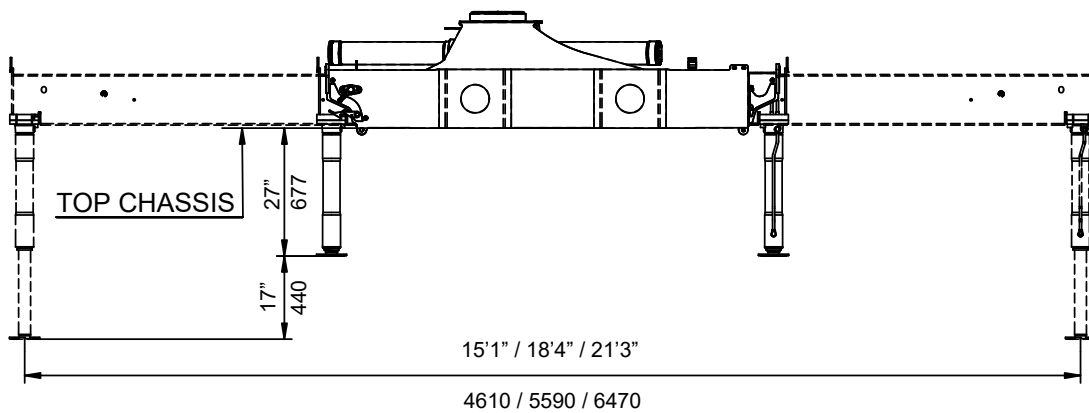
1430 MCS - Dimension Sketch, Fixed Stabilizer Legs



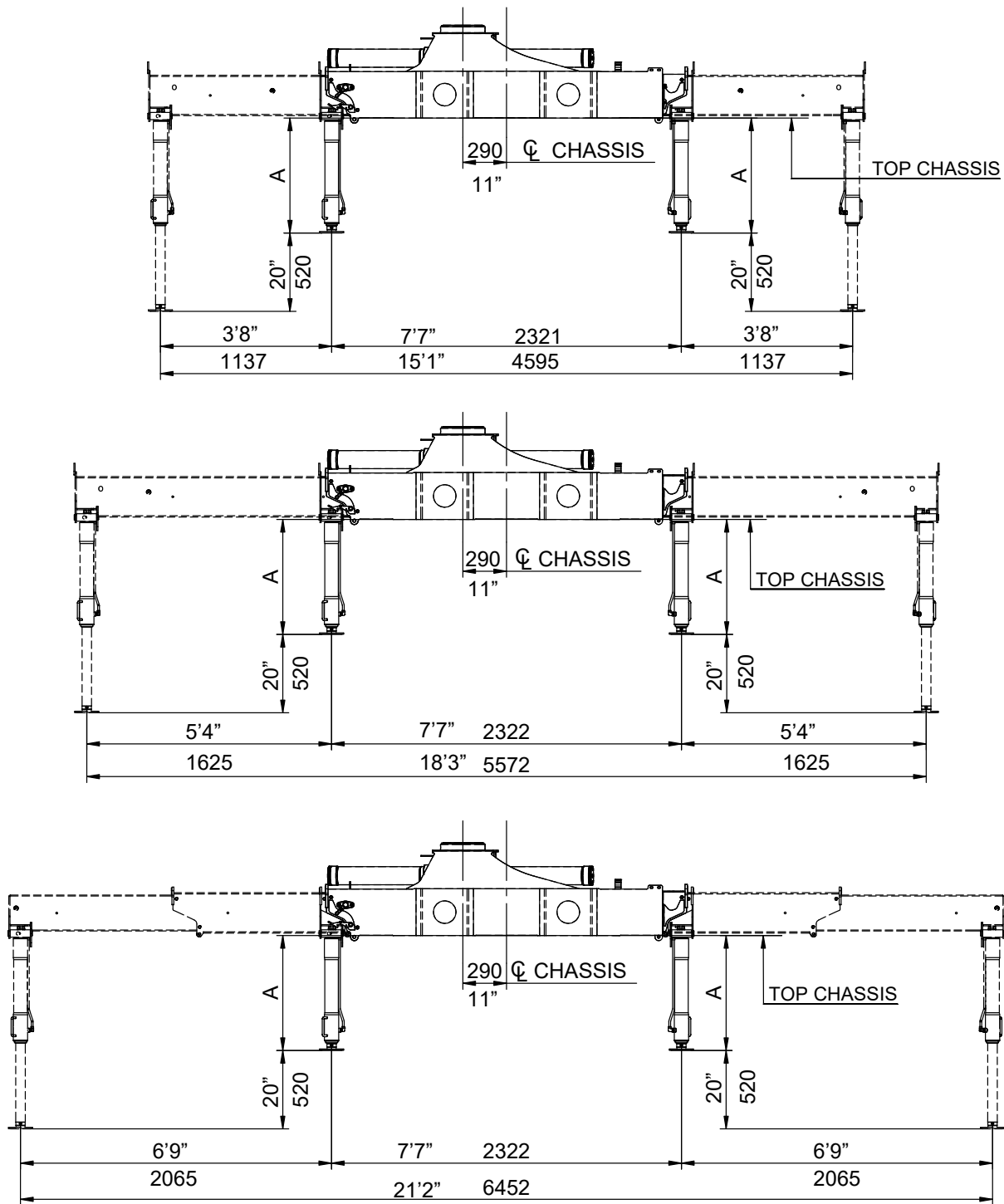
			
A	2'6"	2'11"	3'2"
			
A	777	877	977

1430 MCS - Dimension Sketch, Fixed Stabilizer Legs

Stabilizer cylinder, C80-440



1430 MCS - Dimension Sketch, Swing-up Stabilizer Legs 20°- 60°(Manual)

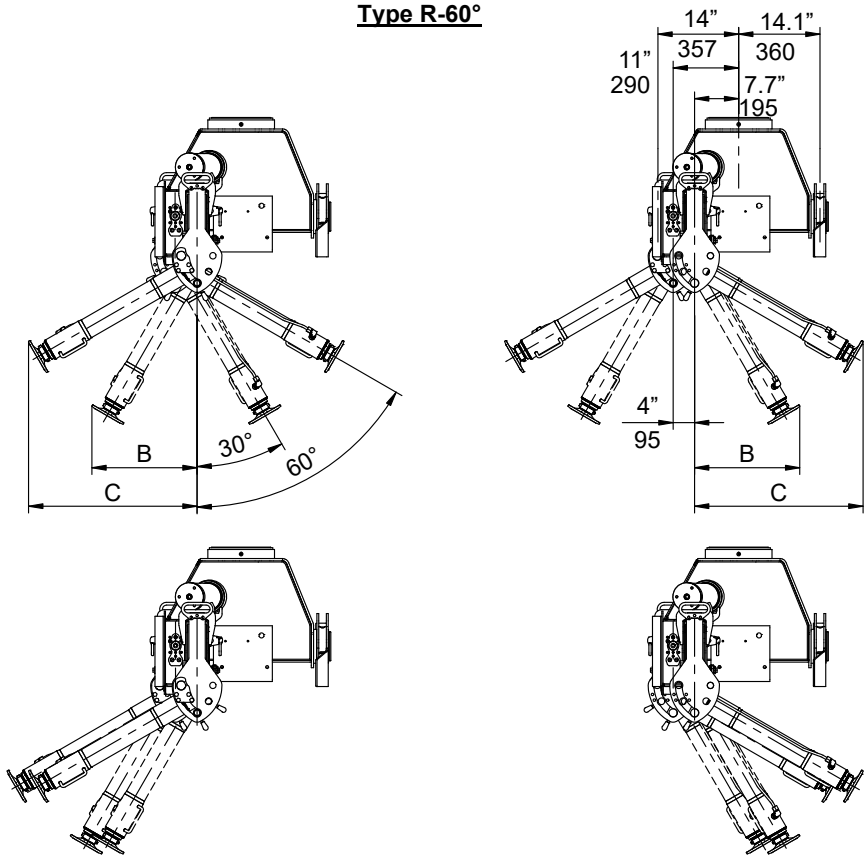


							
A Type R-60°	2'6"	2'10"	3'2"	A Type R-60°	771	871	971
A Type R-20° (Obsolete)	2'6"	2'9"	3'1"	A Type R-20° (Obsolete)	763	863	963

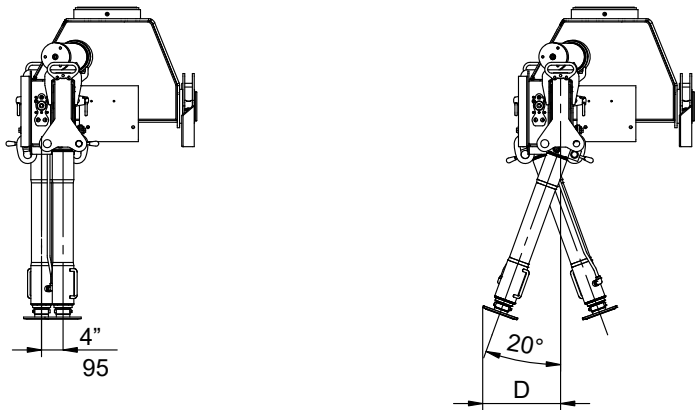
1430 MCS - Dimension Sketch, Swing-up Stabilizer Legs 20°- 60°(Manual)

Type R-60°

Type R-60°

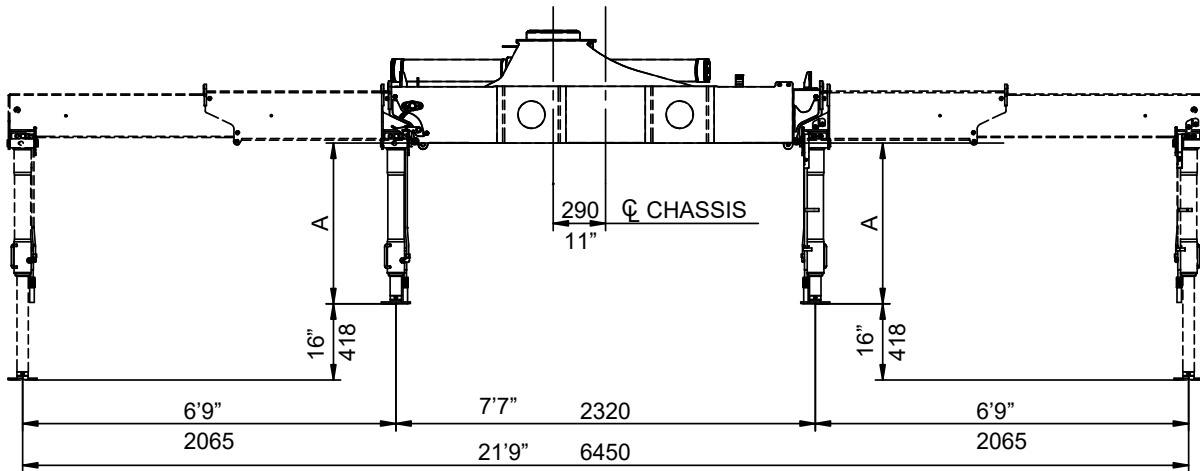
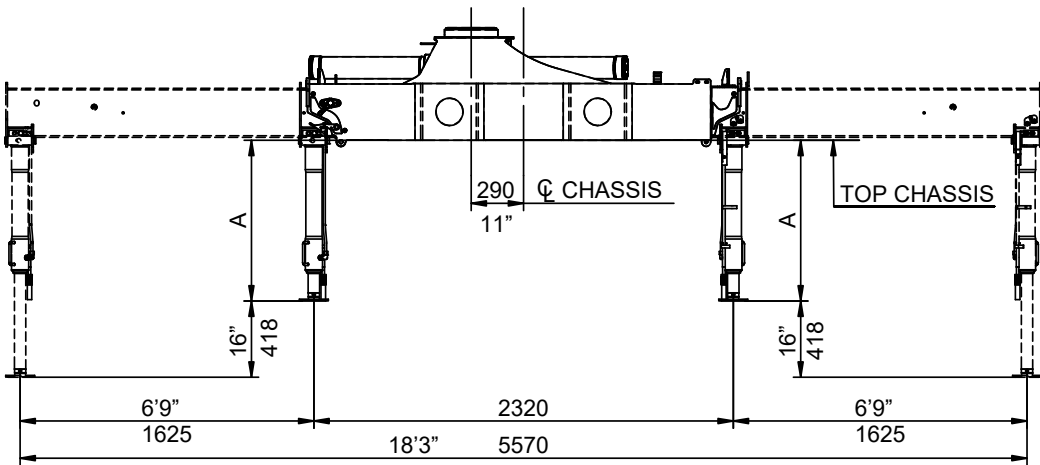
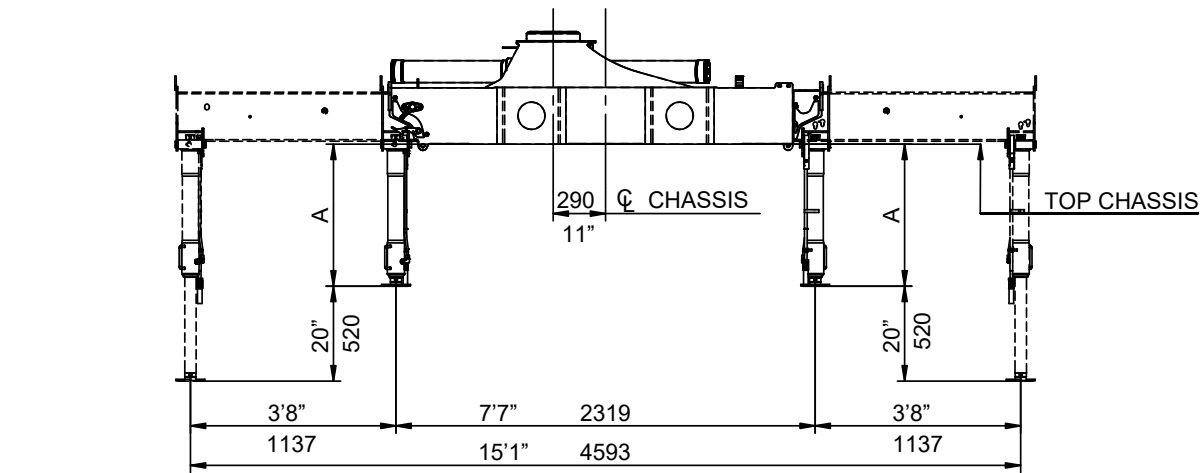


Type R-20° (Obsolete)



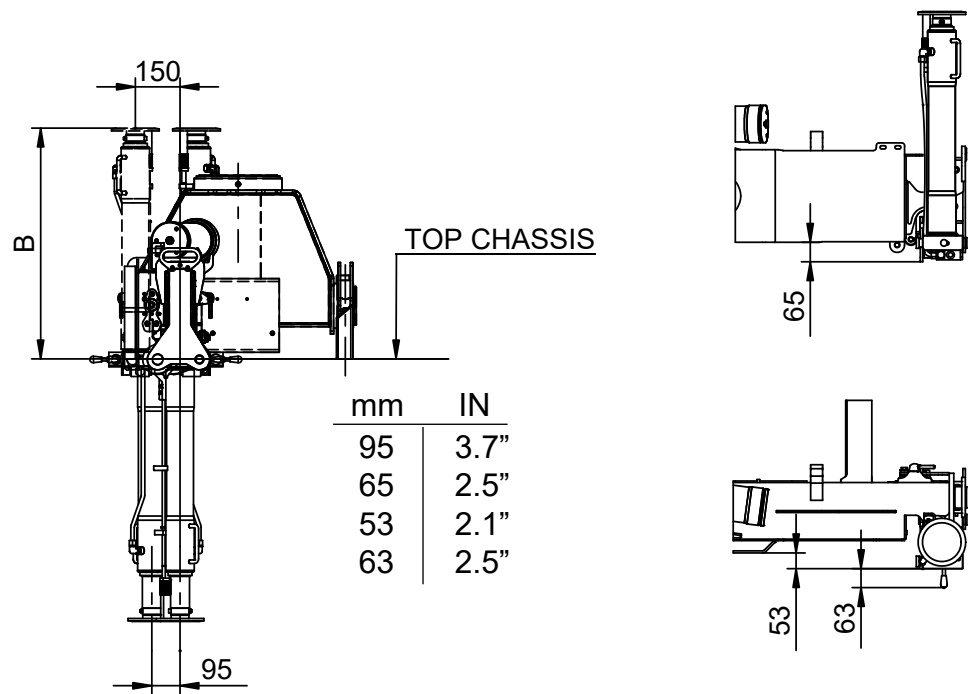
							
B	18"	20"	22"	B	465	515	565
C	29"	33"	36"	C	744	831	918
D	13"	15"	16"	D	344	378	412

1430 MCS - Dimension Sketch, Swing-up Stabilizer Legs 180°(Manual & Hydraulic)

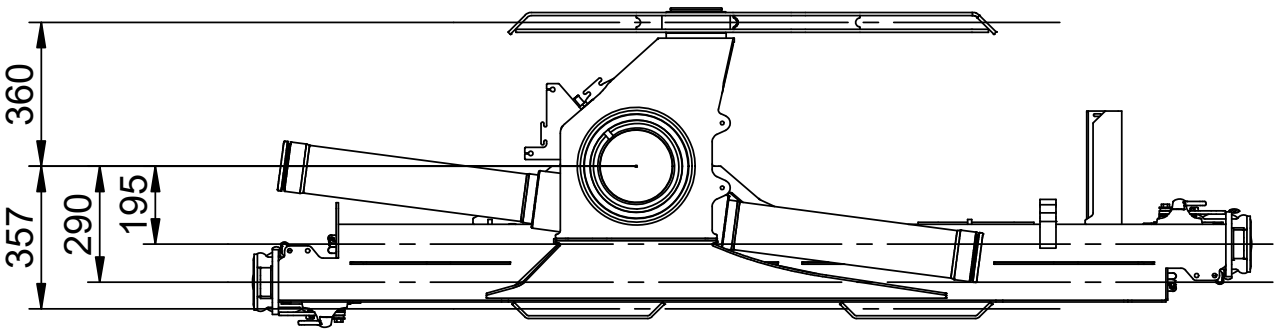


							
A	35"	37"	43"	A	881	981	1081

1430 MCS - Dimension Sketch, Swing-up Stabilizer Legs 180°(Manual & Hydraulic)

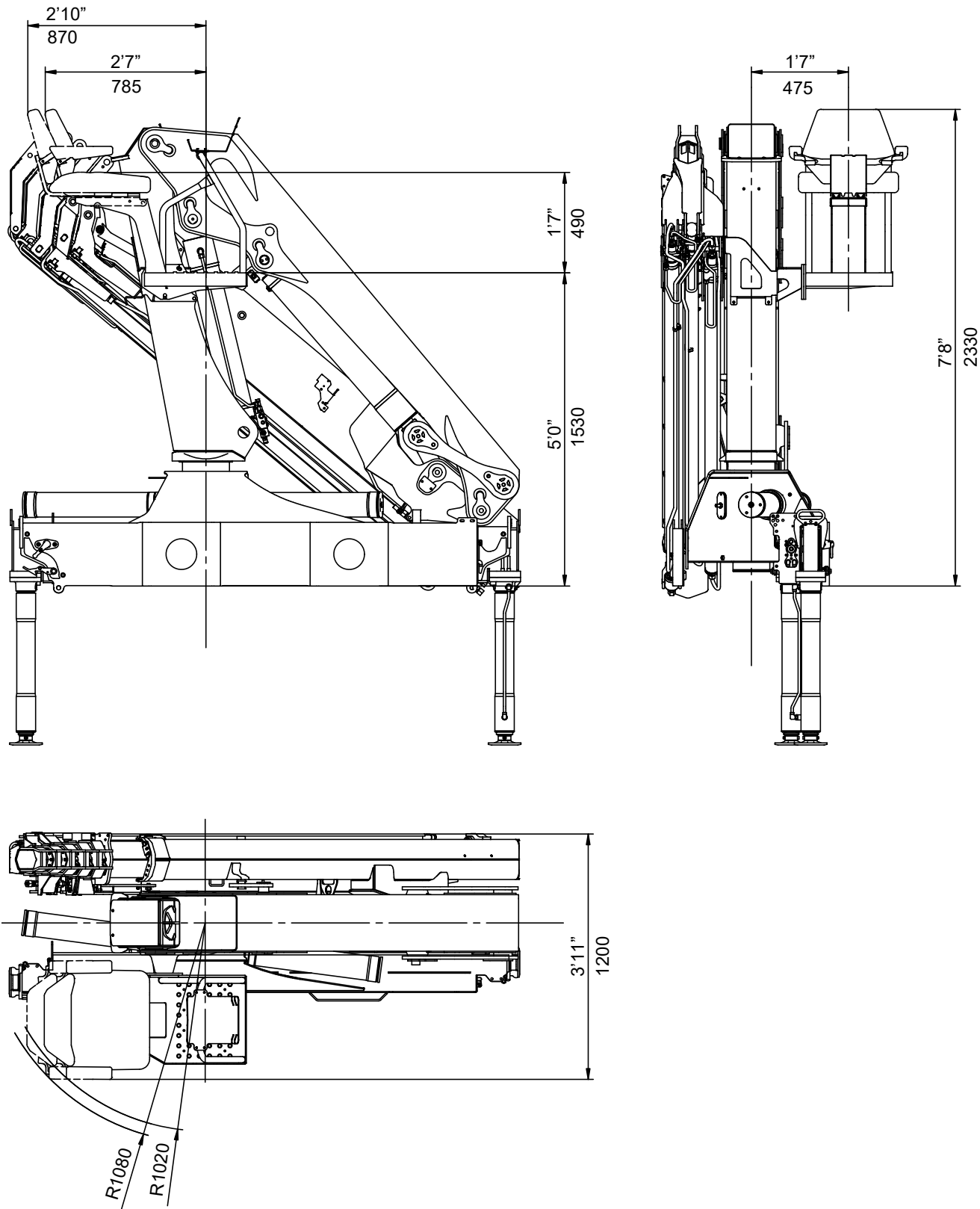


B	31"	34"	38"	B	775	875	975

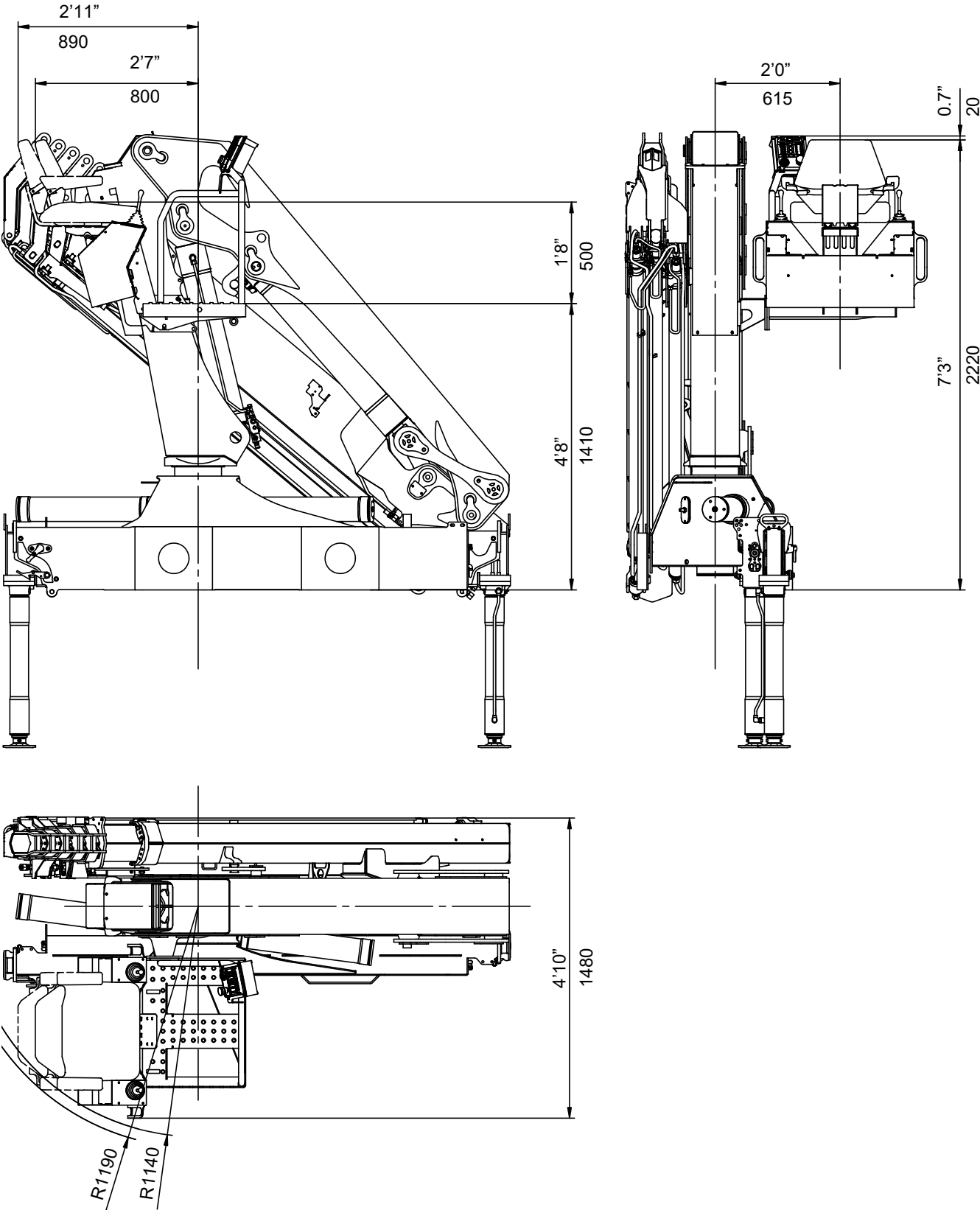


mm	IN
357	14"
360	14.1"
290	11"
195	7.7"

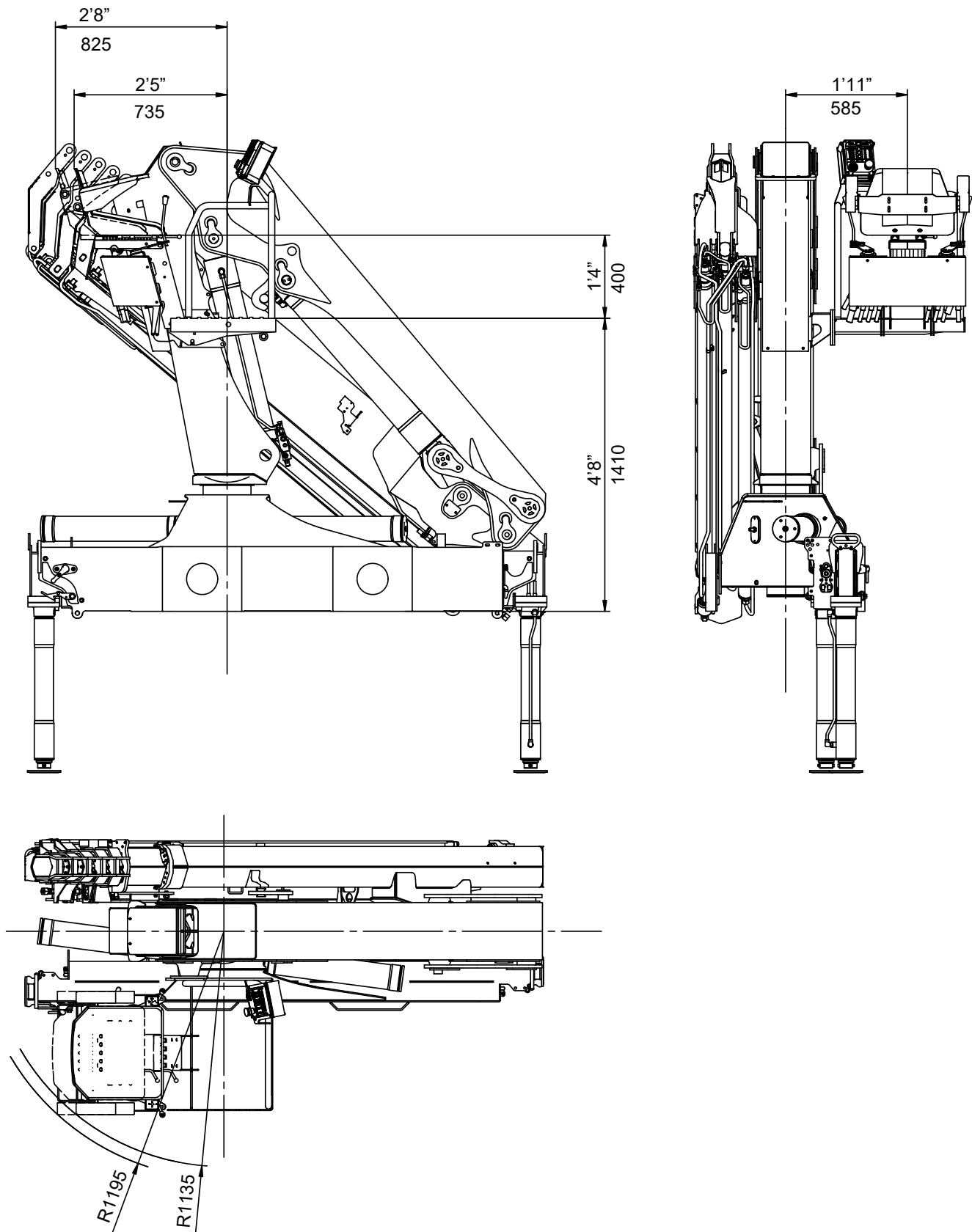
1430 MCS - Dimension Sketch Top Seat, RC & HC Linear



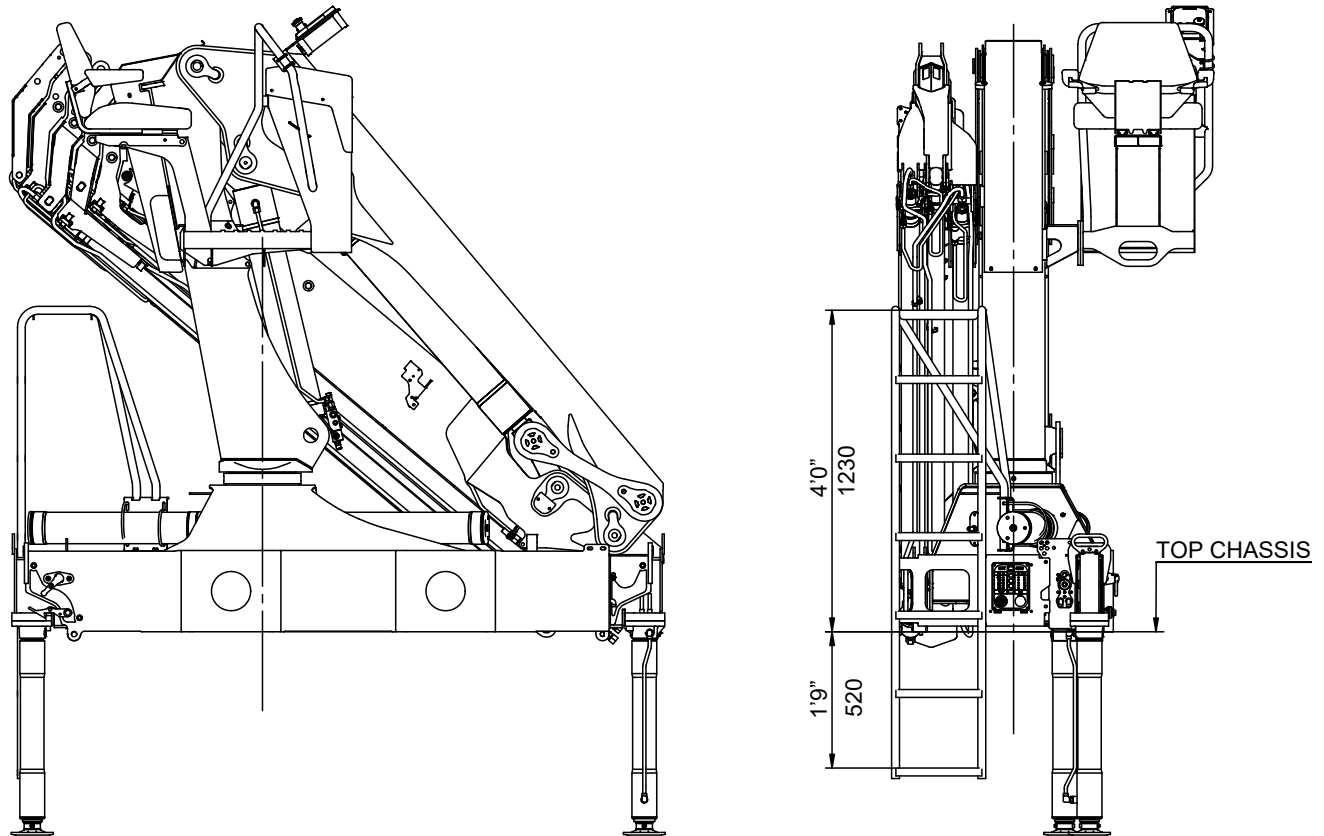
1430 MCS - Dimension Sketch, Top Seat (Danfoss X)



1430 MCS - Dimension Sketch, Top Seat (HC X)



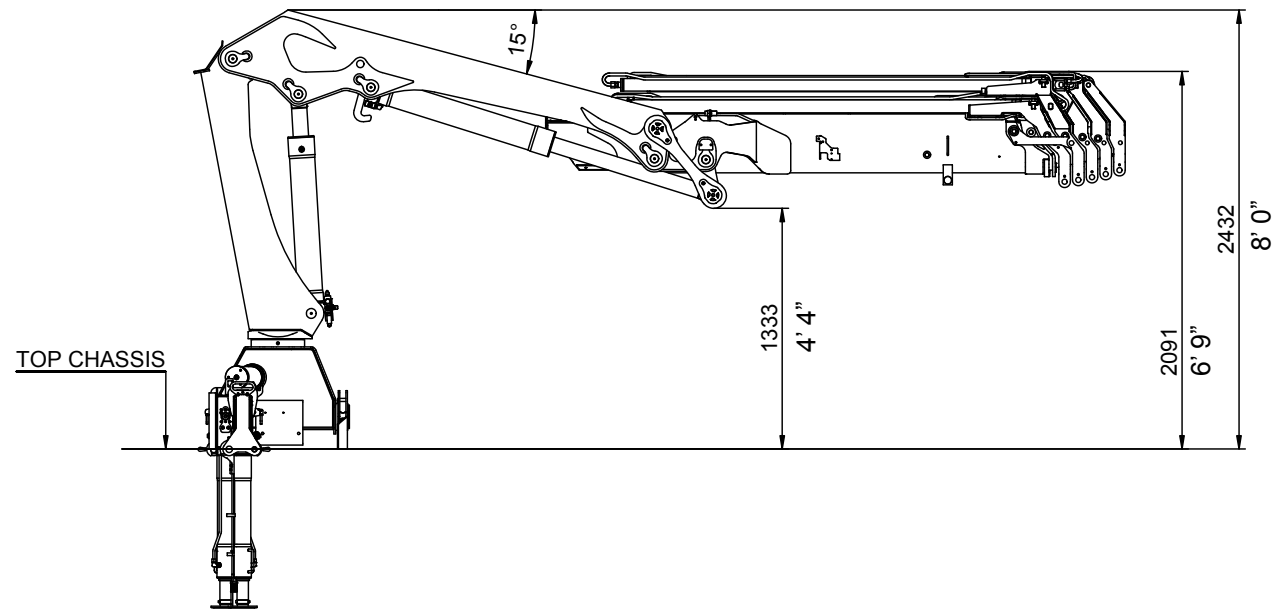
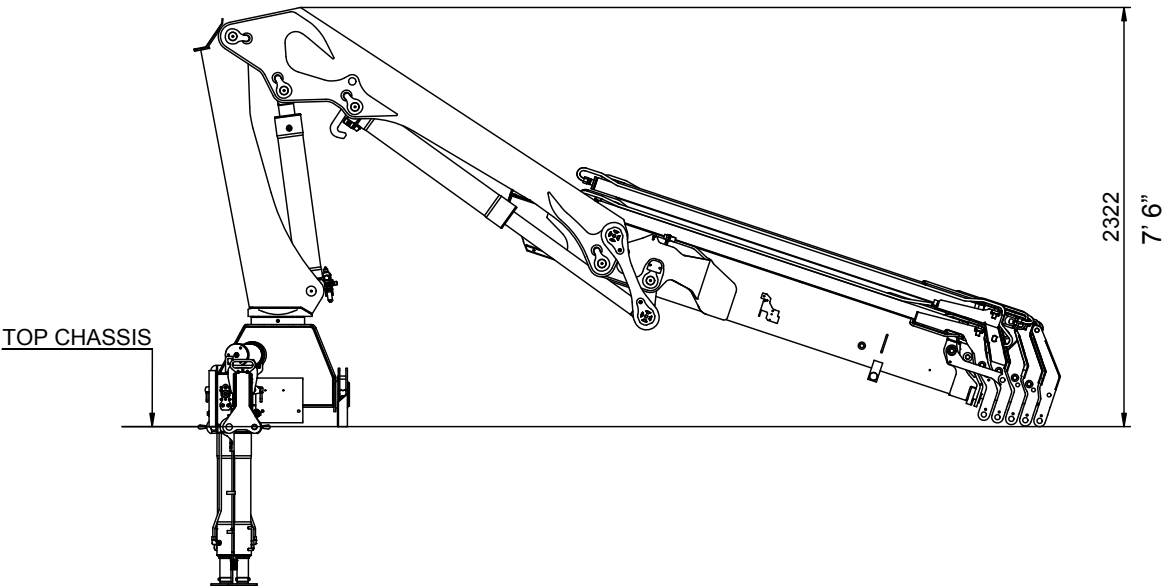
1430 MCS - Dimension Sketch, Ladder for TS



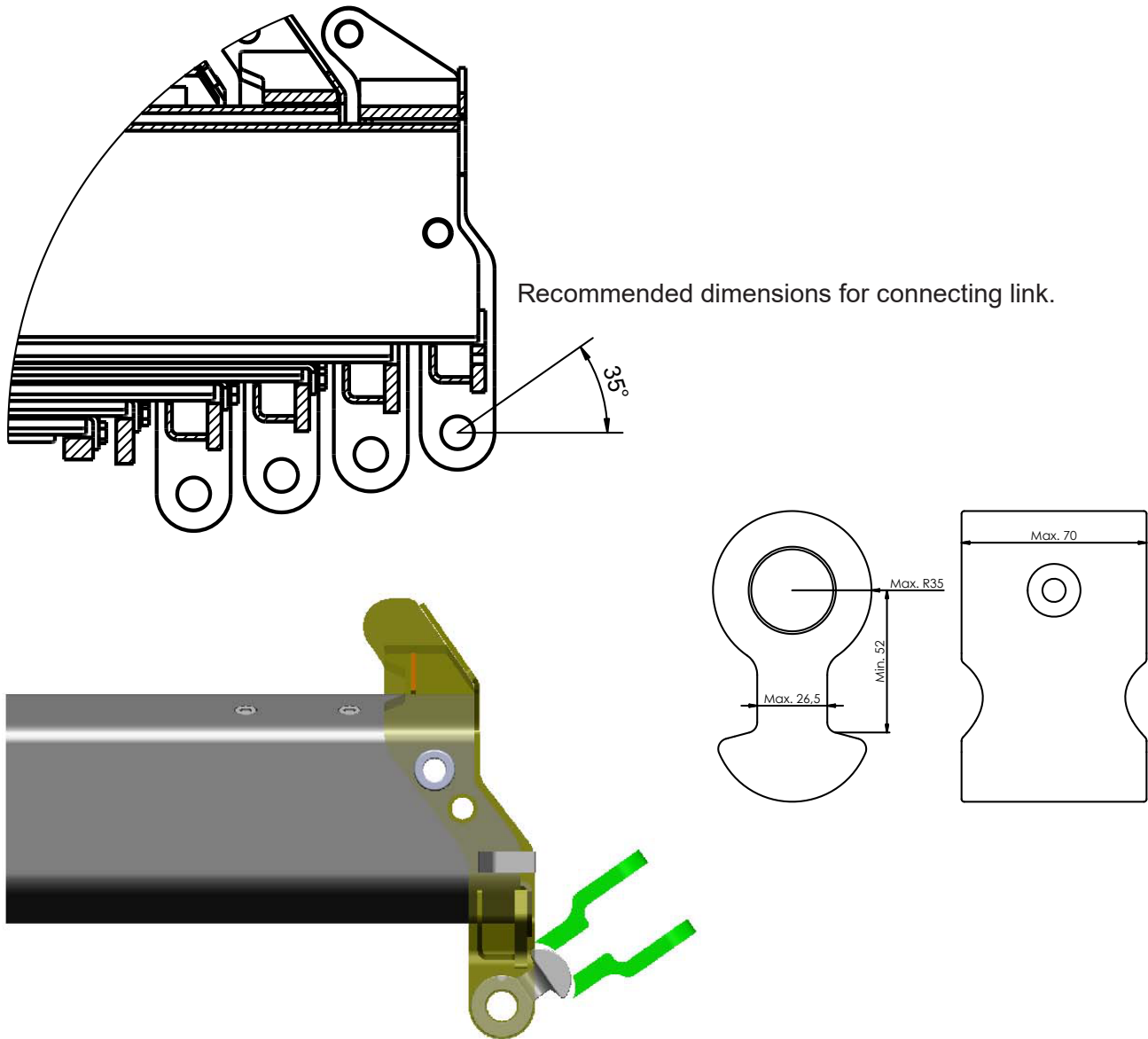
Notes:

- 1) Ladder cannot be used for TS RC
- 2) There is no access to the top seat when the loader is in stowing position

1430 MCS - Stowed in Truck Body



1430 MCS - Dimension Sketch for Connecting Link



The following design is recommended so the connecting link can swing sufficiently when using the equipment or when stowing and/or folding in the truck body.

The connecting link must be able to move freely at an angle of 35° (minimum) in both directions of the jib extension. This is to minimize the risk of damage to the hook suspension when placing crane equipment in the truck body.

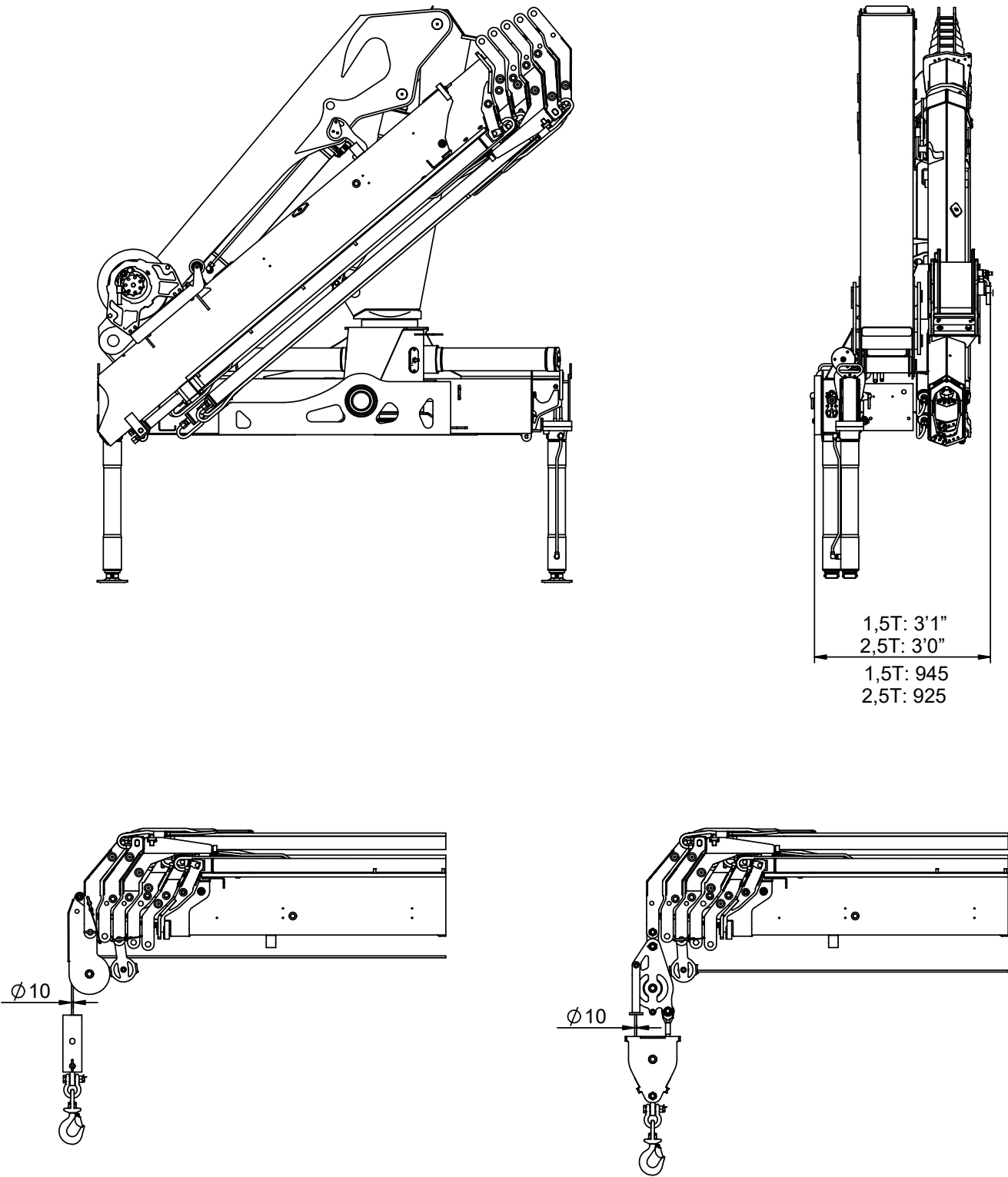
1430 MCS - Technical Data, Winch

PERFORMANCE (AT 2176 PSI)	UNIT	1.5T WINCH	2.5T WINCH
Max. wire pull – 1st layer	lbs	3307	5512
Max. wire pull – 2nd layer	lbs	3020	5071
Max. wire pull – 3rd layer	lbs	2778	4630
Max. wire pull – 4th layer	lbs	2579	4299
PERFORMANCE (150 BAR)	UNIT	1.5T WINCH	2.5T WINCH
Max. wire pull – 1st layer	kg	1500	2500
Max. wire pull – 2nd layer	kg	1370	2300
Max. wire pull – 3rd layer	kg	1260	2100
Max. wire pull – 4th layer	kg	1170	1950

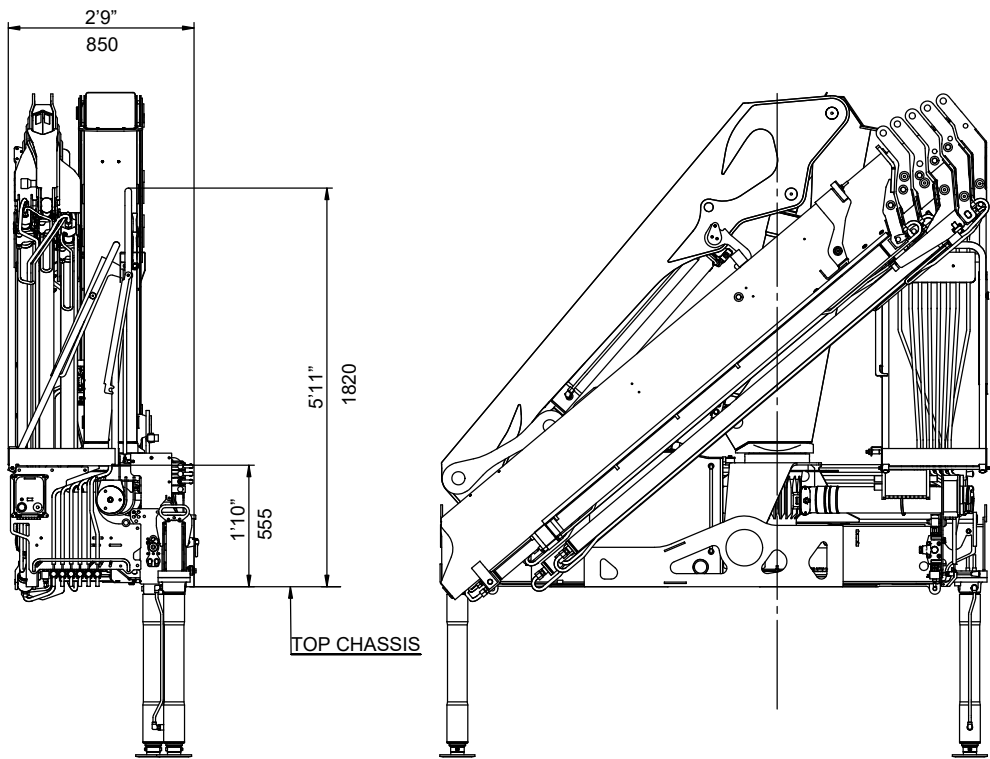
WIRE SPEED (AT 40 G/MIN)	UNIT	1.5T WINCH	2.5T WINCH
Max. wire pull – 1st layer	g/min	5.8	6.3
Max. wire pull – 2nd layer	g/min	6.3	6.9
Max. wire pull – 3rd layer	g/min	6.9	7.4
Max. wire pull – 4th layer	g/min	7.4	7.9
WIRE SPEED (AT 40 L/MIN)	UNIT	1.5T WINCH	2.5T WINCH
Max. wire pull – 1st layer	m/min	22	24
Max. wire pull – 2nd layer	m/min	24	26
Max. wire pull – 3rd layer	m/min	26	28
Max. wire pull – 4th layer	m/min	28	30

WEIGHTS	UNIT	1.5T WINCH	2.5T WINCH
Tare weight, winch (CE)	lbs	143	198
Fixed parts (valve section, brackets, hoses etc.)	lbs	110	110
Wire Ø10 x 50 m	lbs	66	66
Spare parts, single snatch block	lbs	66	66
Spare parts, double snatch block	lbs	88	88
WEIGHTS	UNIT	1.5T WINCH	2.5T WINCH
Tare weight, winch (CE)	kg	65	90
Fixed parts (valve section, brackets, hoses etc.)	kg	50	50
Wire Ø10 x 50 m	kg	30	30
Spare parts, single snatch block	kg	30	30
Spare parts, double snatch block	kg	40	40

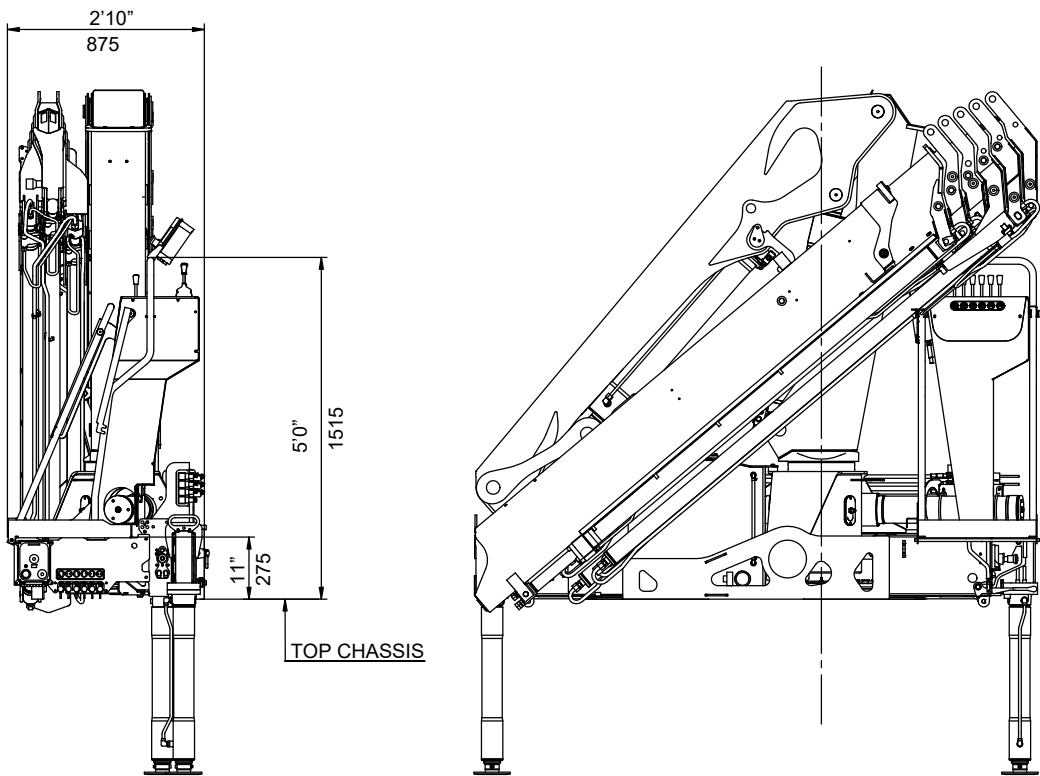
1430 MCS - Dimension Sketch, Winch



1430 MCS - Dimension sketch, Stand-Up Platform (STD & Valve Control)

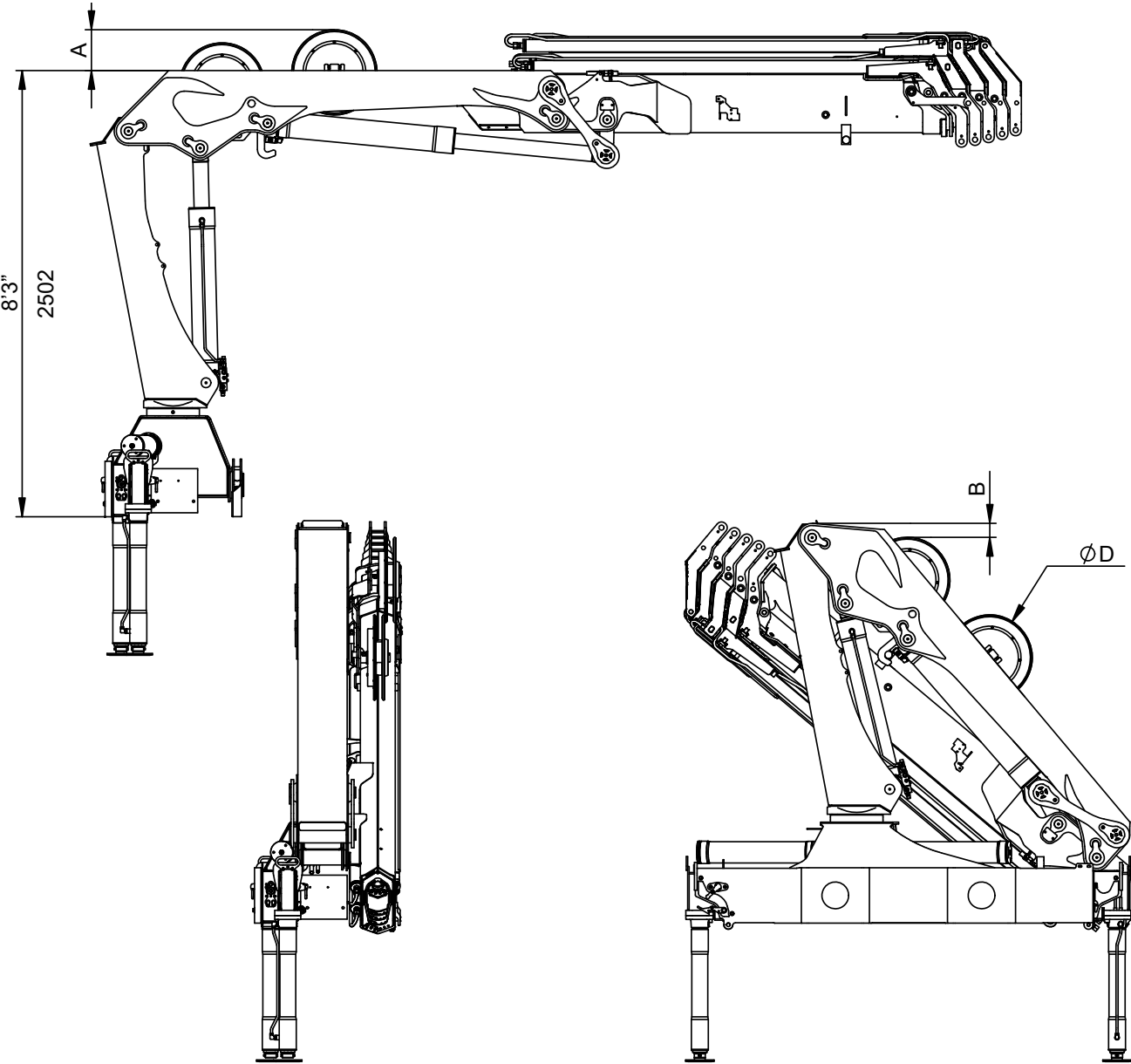


Stand-Uo Platform (STD)



Stand-Up Platform (Valve Control)

1430 MCS - Dimension Sketch, Internal Hose Routing



Feet / Inches

Metric

	øD	A	B		øD	A	B
K1, K2, K3	ø480	9.1"	3.1"	K1, K2, K3	ø480	230mm	78mm
K4	ø520	9.8"	2.3"	K4	ø520	250mm	58mm
K5	ø570	10.8"	1.3"	K5	ø570	275mm	33mm
K6	ø620	11.8"	0.3"	K6	ø620	300mm	8mm

1430 MCS, Hydraulic Drawings

Section - 4

1430 MCS - Pressure Setting Diagram, Manual

Working Pressure on Main-Relief Valve & Port- Relief Valves				
Function	Direction	Port	HDL (BAR)	HDL [PSI]
Main-relief valve			330	4786
Slewing system	Right	A	P	P
	Left	B	P	P
Boom cylinder	Down	A	100	1450
	Up	B	340	4931
Jib cylinder	Up	A	340	4931
	Down	B	200	2901
Extension cylinders	Extend	A	P	P
	Retract	B	P	P
Rotator	Right	A	200	2901
	Left	B	200	2901
Grab	Open	A	200	2901
	Close	B	200	2901
Separate stabilizer valve		All	150	2176

Working Pressure on Load-holding Valves				
Function	Direction	Port	Opening Pressure [BAR]	Opening pressure [PSI]
Boom cylinder			350	5076
Jib cylinder			350	5076
Slewing system			185	2683
Extension cylinders	Retract	A	210	3046
	Extend	B	430	6237

Pressure setting for Load Moment Limitation (LMB)		
Load moment limitation (LMB)	320 [BAR]	4641 [PSI]
HDL	290 [BAR]	4206 [PSI]

Max. pump performance		
Pump performance, 1 Circuit	45 L/min	11.9 g/pm

1430 MCS - Pressure Setting Diagram, Fixed Flow Pump & Danfoss (Man)

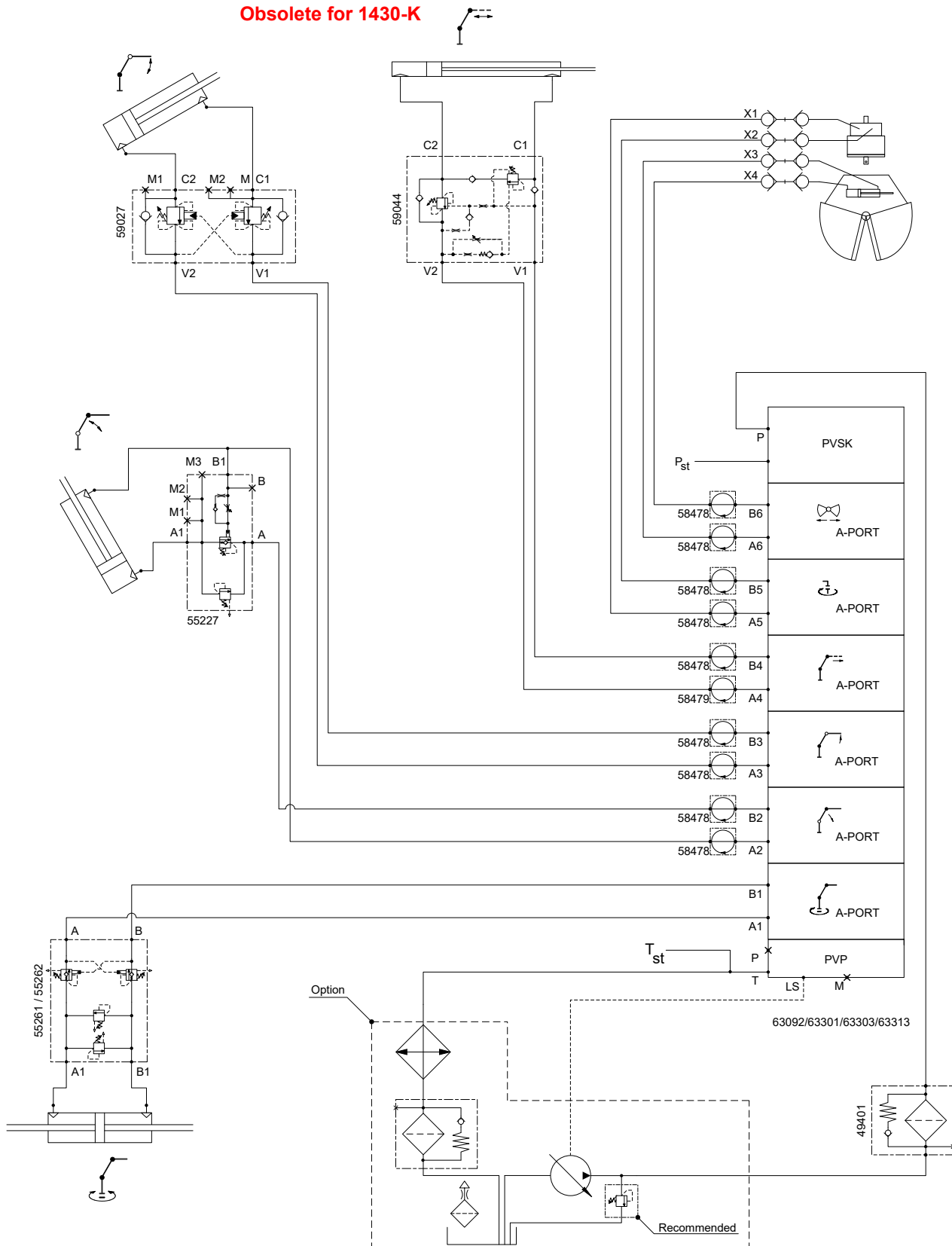
Working Pressure on Main-Relief Valve & Port- Relief Valves						
Function	Direction	Port	Port Relief (BAR)	LS Pressure [BAR]	Port Relief [PSI]	LS Pressure [PSI]
Main-relief valve			300		4351	
Slewing system	Right	A	P	180	P	2611
	Left	B	P	180	P	2611
Boom cylinder	Down	A	125	100	1813	1450
	Up	B	320	350	4641	5076
Jib cylinder	Up	A	350	350	5076	5076
	Down	B	250	230	3626	3336
Extension cylinders	Extend	A	P	280	P	4061
	Retract	B	P	280	P	4061
Rotator	Right	A	P	50-300	P	725-4351
	Left	B	P	50-300	P	725-4351
Grab	Open	A	P	50-300	P	725-4351
	Close	B	P	50-300	P	725-4351
Separate stabilizer valve		All	150		2176	

Working Pressure on Load-holding Valves			
Function	Direction	Opening Pressure [BAR]	Opening pressure [PSI]
Slewing system	Right	185	2683
	Left	185	2683
Boom cylinder	Up	325	4714
	Down	-	-
Jib cylinder	Up	350	5076
	Down	300	4351
Extension cylinders	Retract	430	6237
	Extend	210	3046

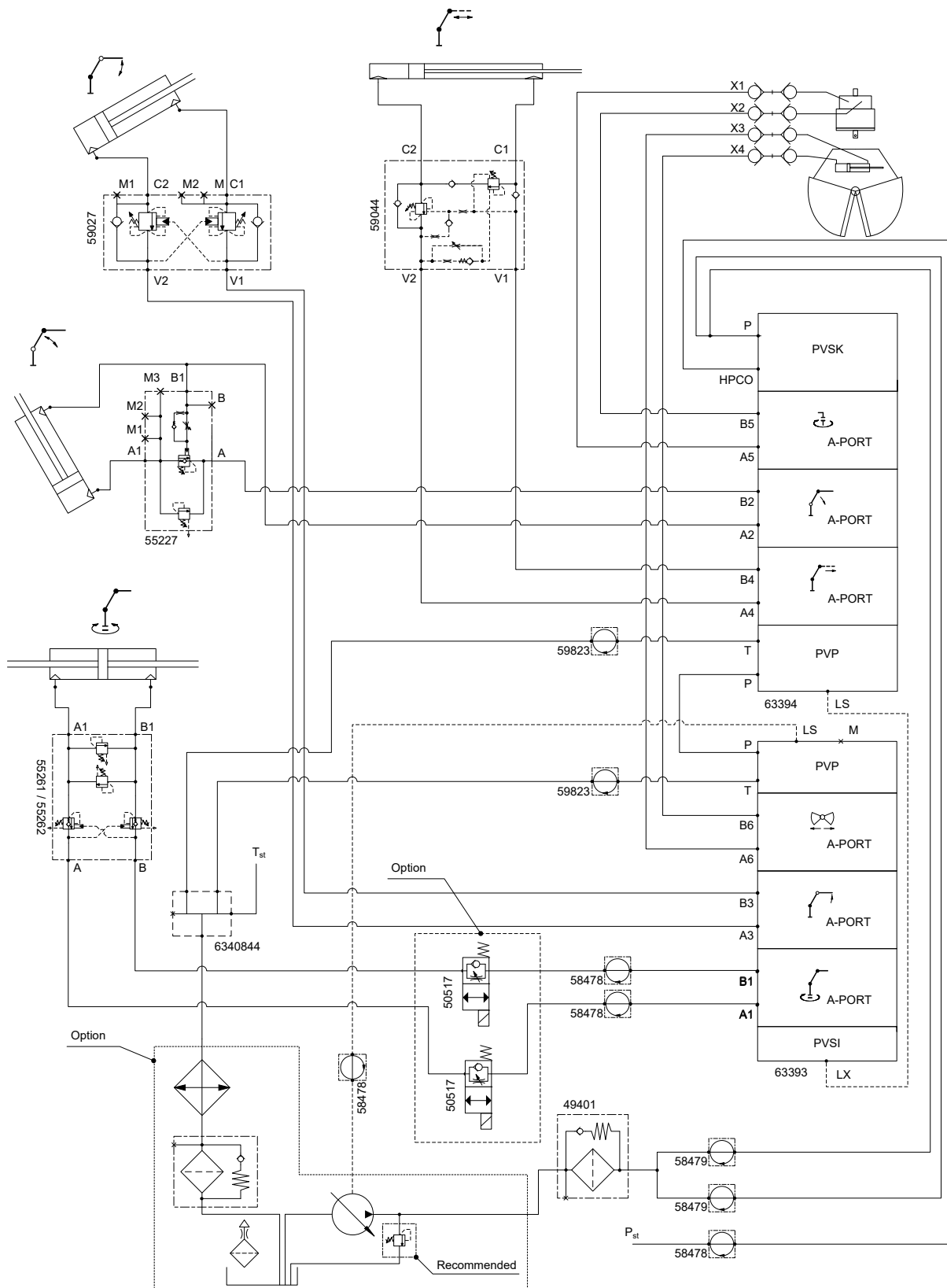
Pressure setting for Load Moment Limitation (LMB)		
Load moment limitation (LMB)	285 [bar]	4134 [PSI]
Max. pump performance		
Choice of pump	1 x Fixed	1 x Fixed
Pump performance	70 L/min	18.5 g/pm

1430 MCS - Danfoss, Single-Circuit Fixed 6 FCTS. RC (2 EXV: Grab + Rotator)

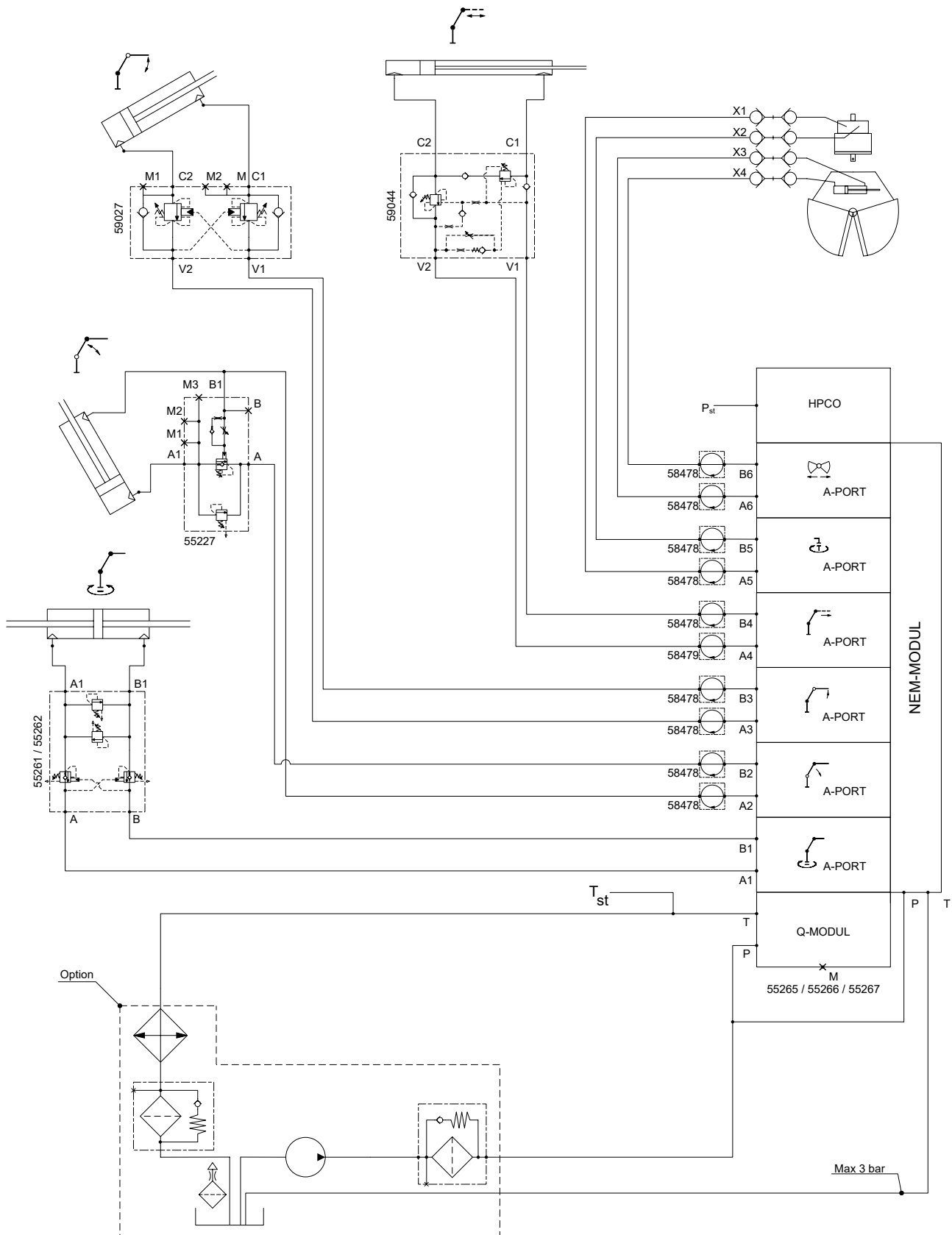
Obsolete for 1430-K



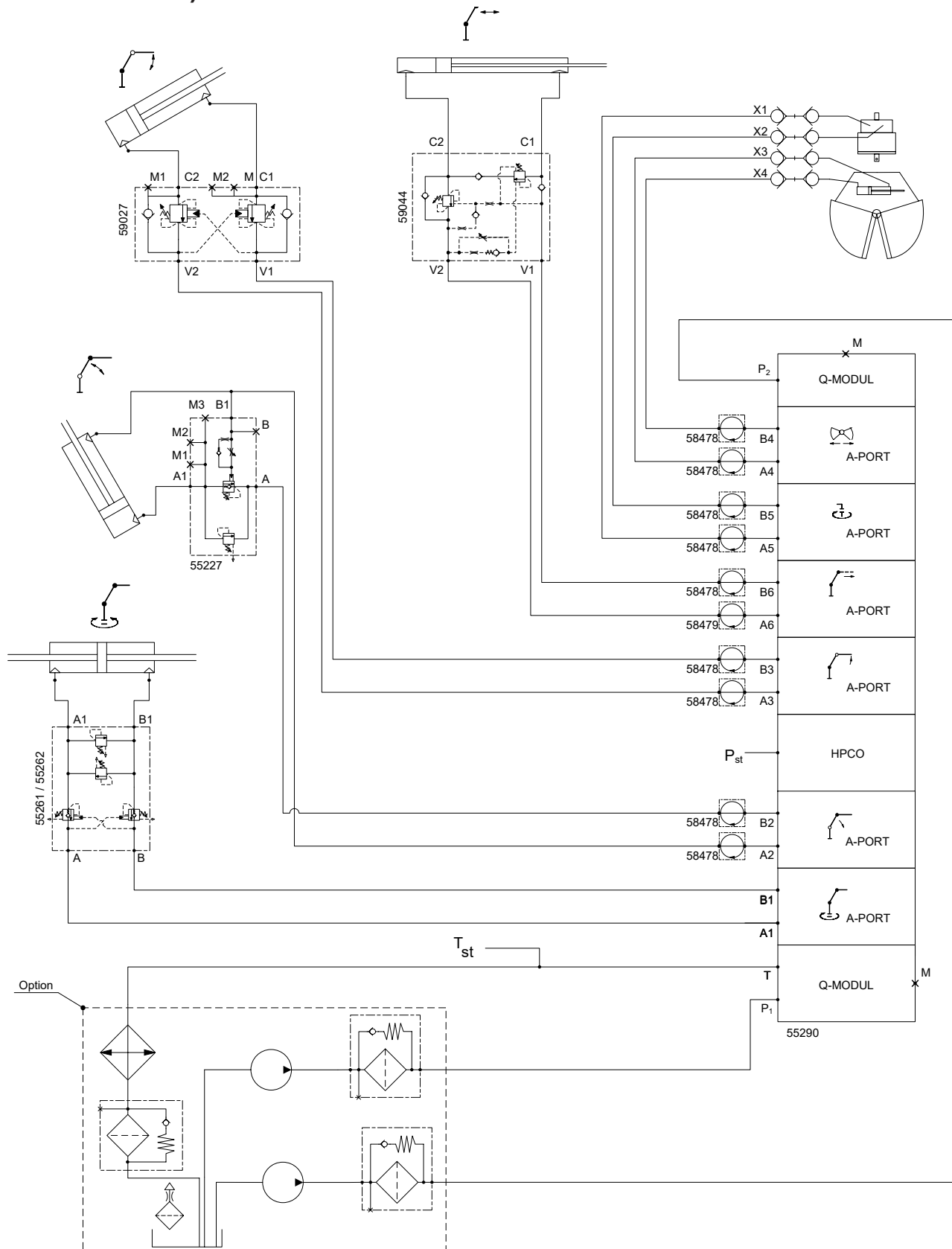
1430 MCS - Danfoss, single-circuit variable6 fcts. RC/HS dir. valve contr. (2 EXV: Grab + Rotator)

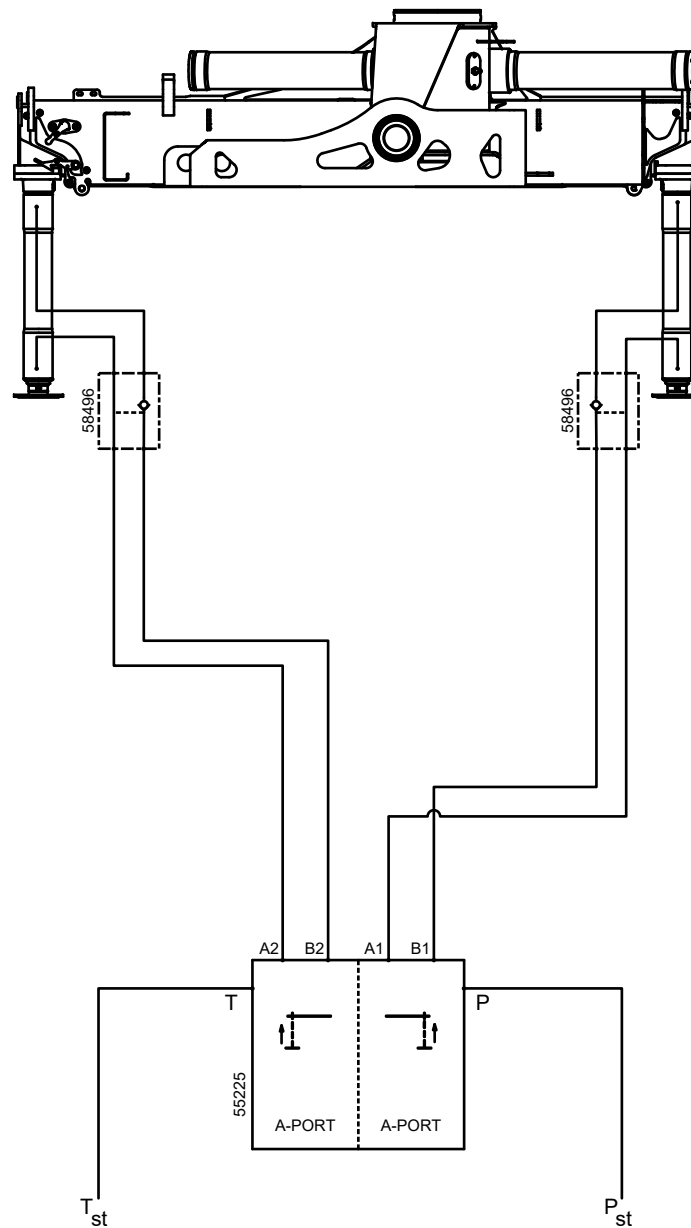


1430 MCS - Hydrocontrol, single-circuit fixed 6 fcts. Std./HS, std./HS dir. valve contr. HDL (2 EXV: Grab + Rotator)

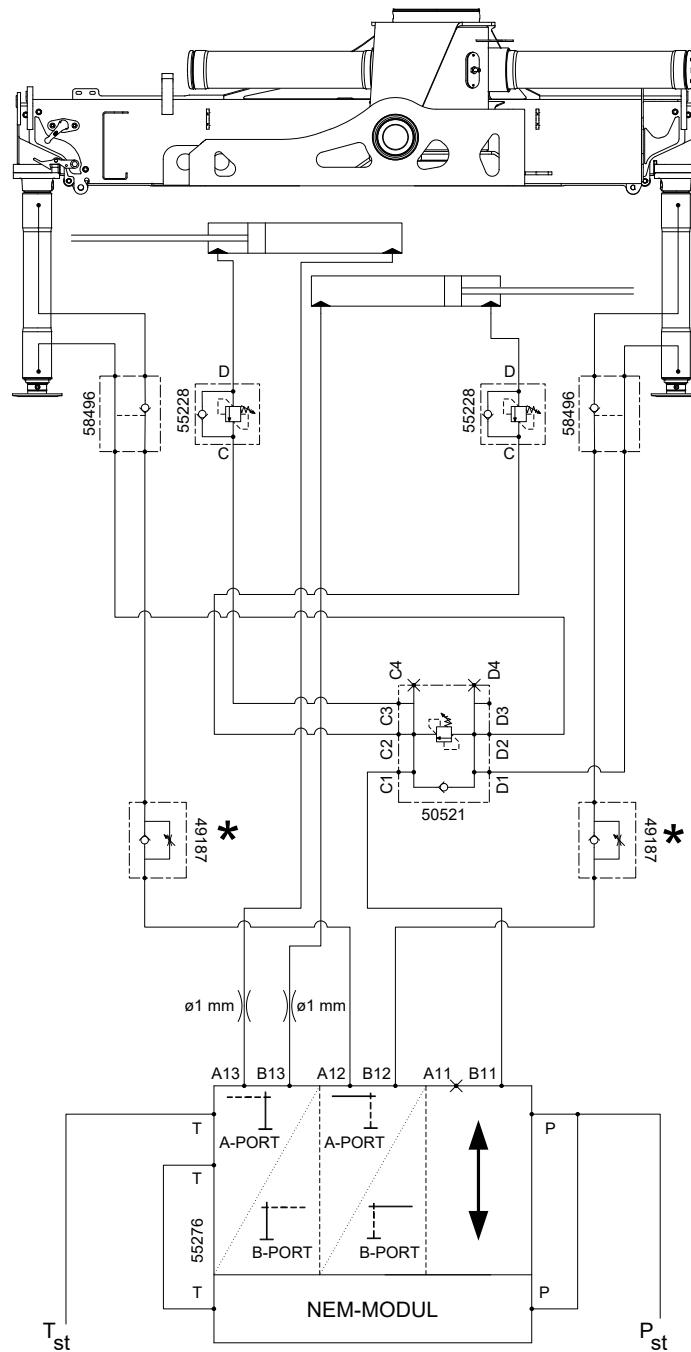


1430 MCS - Hydrocontrol, single-circuit fixed 6 fcts. RC med HDL (2 EXV: Grab + Rotator)

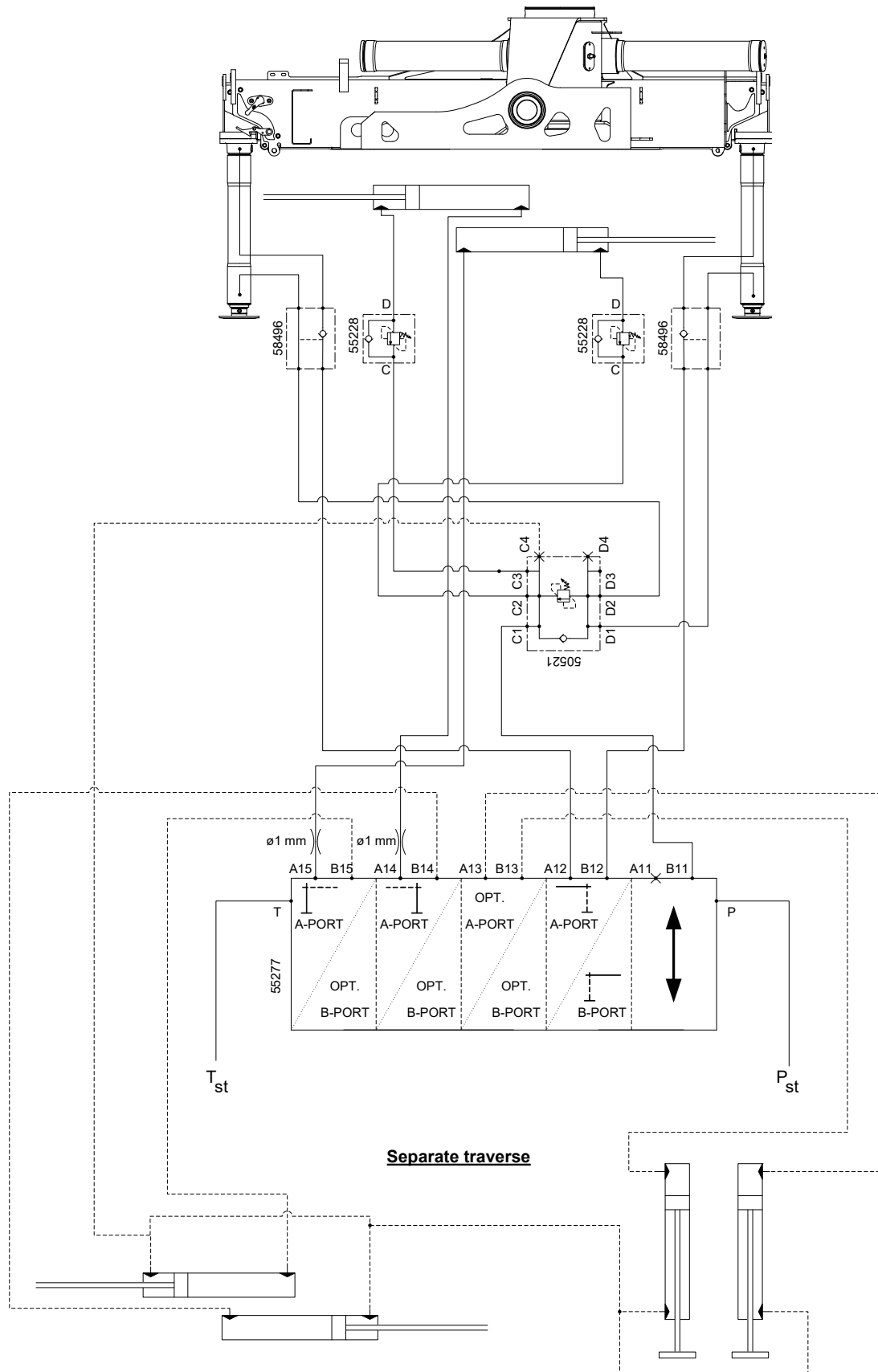


1430 MCS - Hydraulic Diagram - Stabilizer circuit – 2 fcts.

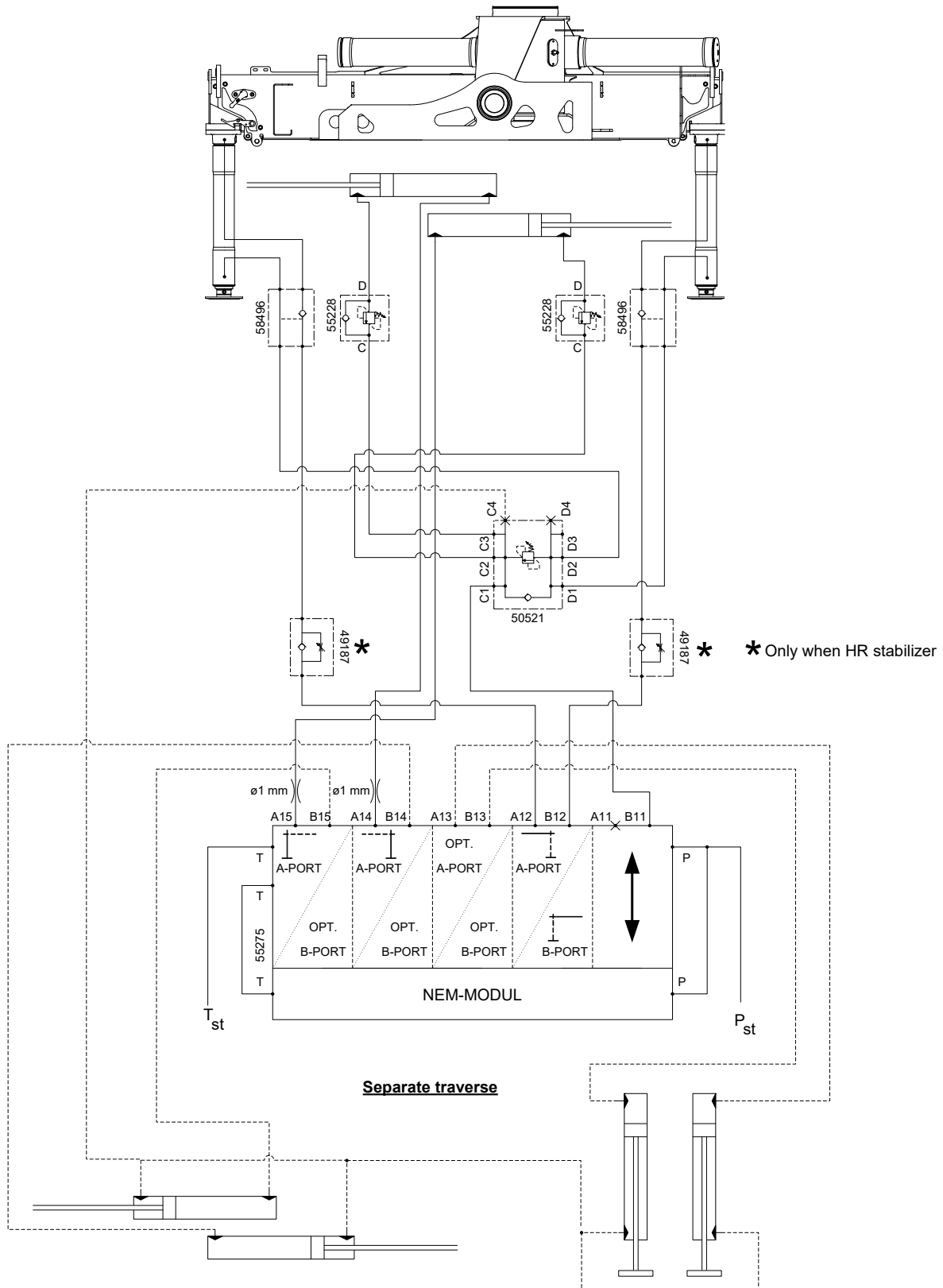
1430 MCS - Hydraulic Diagram - Stabilizer circuit – 4 fcts. RC



* Only when HR stabilizer

1430 MCS - Hydraulic Diagram - Stabilizer circuit – 4 fcts. + 4 available fcts.

1430 MCS - Hydraulic Diagram - Stabilizer circuit – 4 fcts. + 4 available fcts. RC



1430 MCS - Lubrication instructions

The present instructions are valid for the following loader cranes:

For the K-Series

Cranes	Catalogue
1300-K / 1420-K / 1520-K	38 084
1310-K / 1430-K / 1530-K	38 085
1500-K / 1720-K / 1820-K	38 086
1510-K / 1730-K / 1830-K	38 087
1800-K / 2020-K / 2120-K	38 088
1810-K / 2030-K / 2130-K	38 089
2200-K / 2420-K / 2620-K	38 090
2210-K / 2430-K / 2630-K	38 091

For the T-Series

Cranes	Catalogue
1410-T / 1530-T / 1630-T	38 100
1910-T / 2030-T / 2130-T	38 101

The crane models concerned by these instructions are to a great extent equipped with maintenance-free composite bearings. However, for a limited number of bearings, regular lubrication has to be carried out according to these instructions.

The crane has to be greased in the following places:

1. Central greasing on the base.
2. The push rods at the boom and jib cylinders .
3. Sliding surfaces in the boom system.

Please see the Instruction Manual, Cranes, for recommended oil and grease.

Re 1) Central lubrication on the base:

The base is equipped with a central greasing point where all lubrication of moving parts in the slewing system is carried out.

The central greasing point is placed on the cross beam of the base and is indicated in the figure below.

1430 MCS - Lubrication instructions

Lubrication instructions

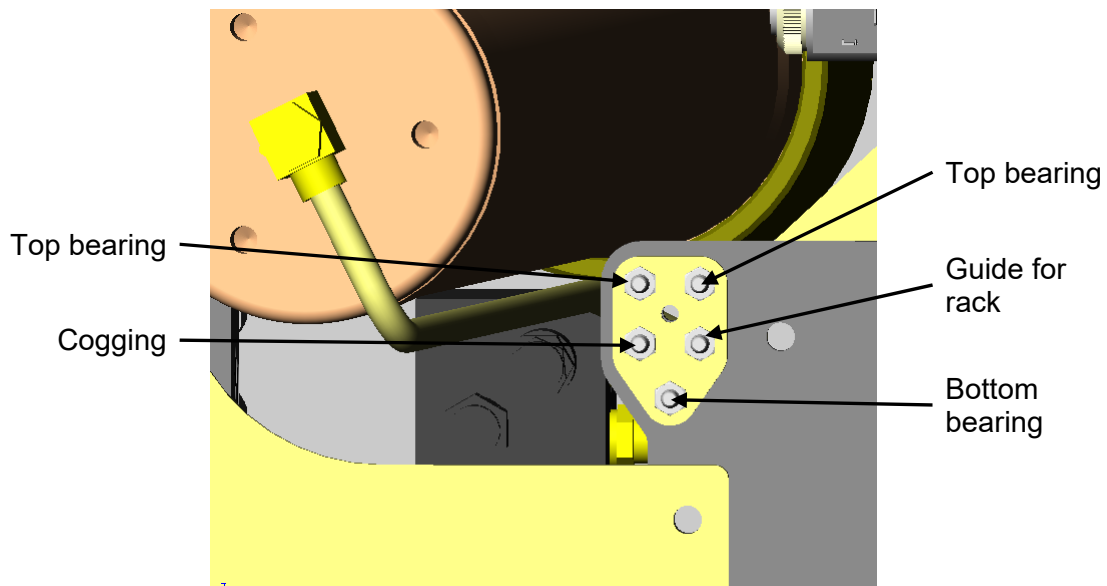
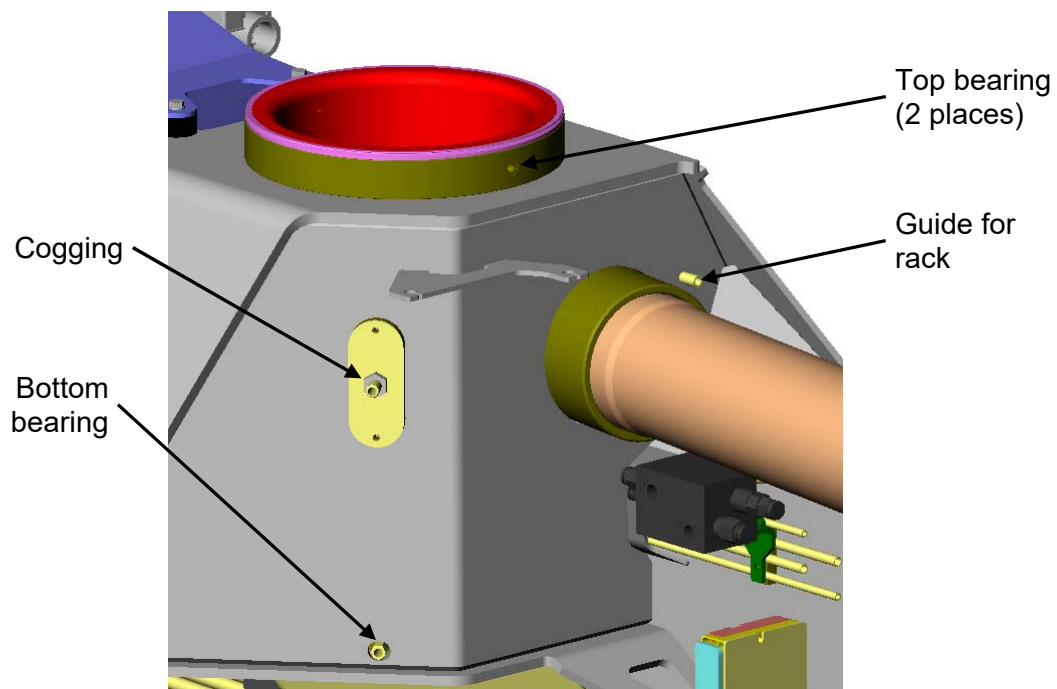


Figure 1 - Central greasing point on the base

Greasing has to be carried out at the greasing points indicated above, while the crane is swung from stop to stop. Repeat the lubrication of the cogging twice. The crane has to be lubricated again after 50 hours of operation or as a minimum every month. Furthermore the crane has to be lubricated right before a longer period of standstill.

Below is indicated where the central greasing points are connected on the central part of the base.



Re 2) For the K-Series:**The push rods at the boom and jib cylinders:**

Lubricate the crane's push rods at the boom cylinder at the points indicated below. They have to be greased after 250 hours of operation or every third month as a minimum.

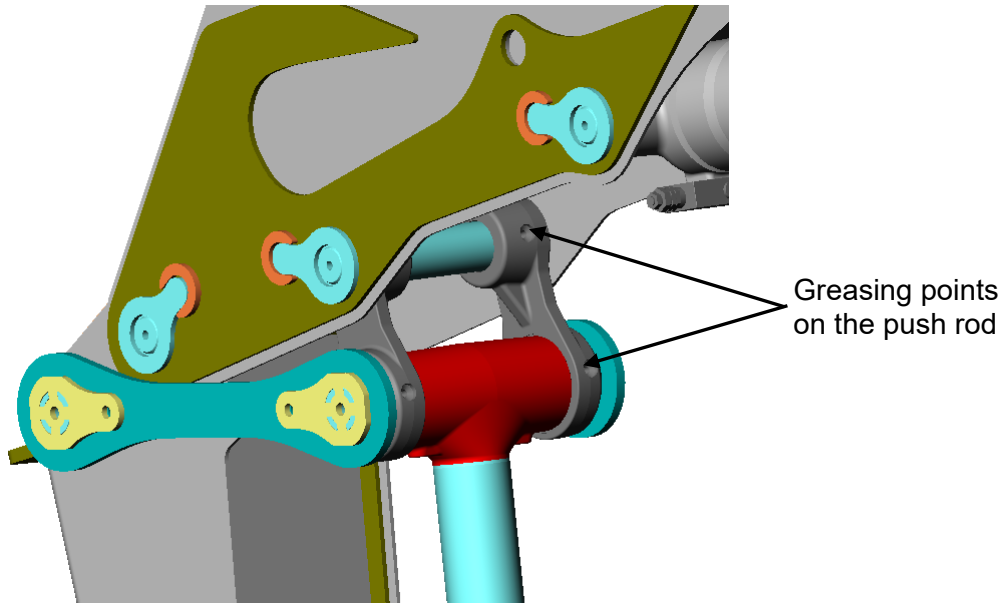


Figure 3 - Greasing points on inner push rods at the boom cylinder

Note:

The 1310K, 1430K, 1530K, 1510K, 1730K, 1830K, 1810K, 2030K, 2130, 2210K, 2430K, 2630K Series only have a push rod at the jib cylinder.

Lubricate the crane's outer push rod at the jib cylinder at the points indicated below. They have to be greased after 250 hours of operation or every third month as a minimum.

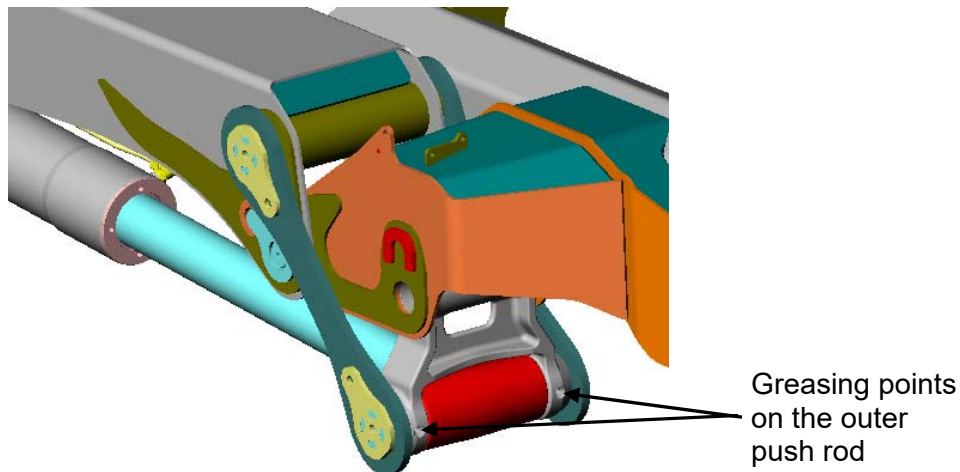


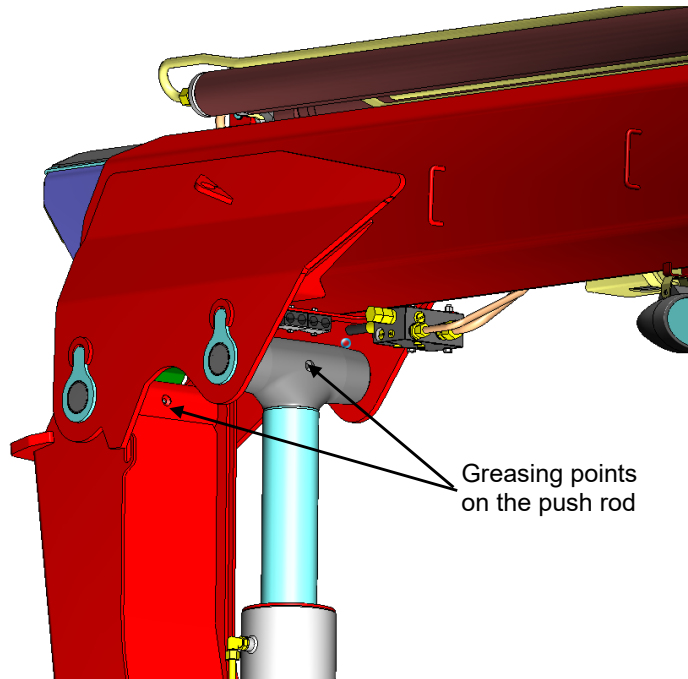
Figure 4 – Greasing points on outer push rod at the jib cylinder

Lubrication instructions

Re 3) For the T-Series:

Pins on the main boom:

Lubricate the pins of the crane on the main boom at the points indicated below. They have to be greased after 250 hours of operation or every third month as a minimum.



Lubrication instructions

Re 4) Sliding surfaces in the boom system:

Grease the boom system on all surfaces where the bearing slide blocks are running. I.e. grease the extensions externally on the underside and internally on the upper side.

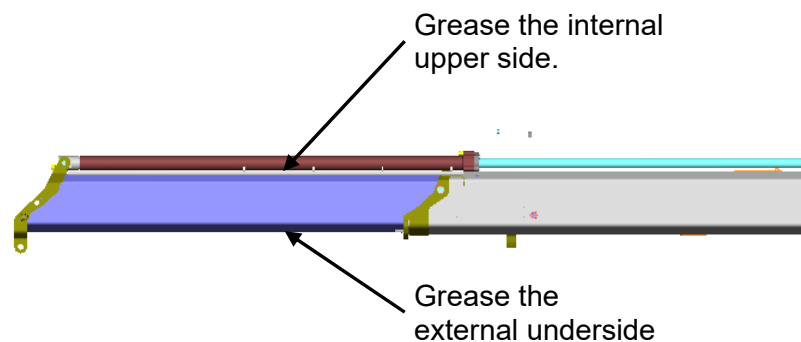


Figure 5 - Boom system with indication of greasing points

The boom system has to be greased after 100 hours of operation or every month as a minimum. Furthermore the boom system has to be lubricated right before a longer period of standstill.

1430 MCS - Change of slewing area

Change of slewing area

The present instructions are valid for the following loader cranes:

For the K-Series

Cranes	Catalogue
1300-K / 1420-K / 1520-K	38 084
1310-K / 1430-K / 1530-K	38 085
1500-K / 1720-K / 1820-K	38 086
1510-K / 1730-K / 1830-K	38 087
1800-K / 2020-K / 2120-K	38 088
1810-K / 2030-K / 2130-K	38 089
2200-K / 2420-K / 2620-K	38 090
2210-K / 2430-K / 2630-K	38 091

For the T-Series

Cranes	Catalogue
1410-T / 1530-T / 1630-T	38 100
1910-T / 2030-T / 2130-T	38 101

These instructions describe how to change the slewing area of a ready-mounted crane.

It is important to mention that change of slewing area should be avoided by a necessary drawing up of the installation in connection with making the quotation and placing of the order. Otherwise expenses for changing the slewing area must be considered a direct economic loss for the seller (vendor).

Procedure:

1. Take off the lubricating brush and the slewing sensor (- if the crane is equipped with a such). The components are fitted on the side of the central part of the base. Each component is fitted with two (2) x M6 screws.

Change of slewing area



Figure 1 – Cover for lubricating brush on the side of the central part of the base.

2. All hoses coming out of the column are removed from the control valve.

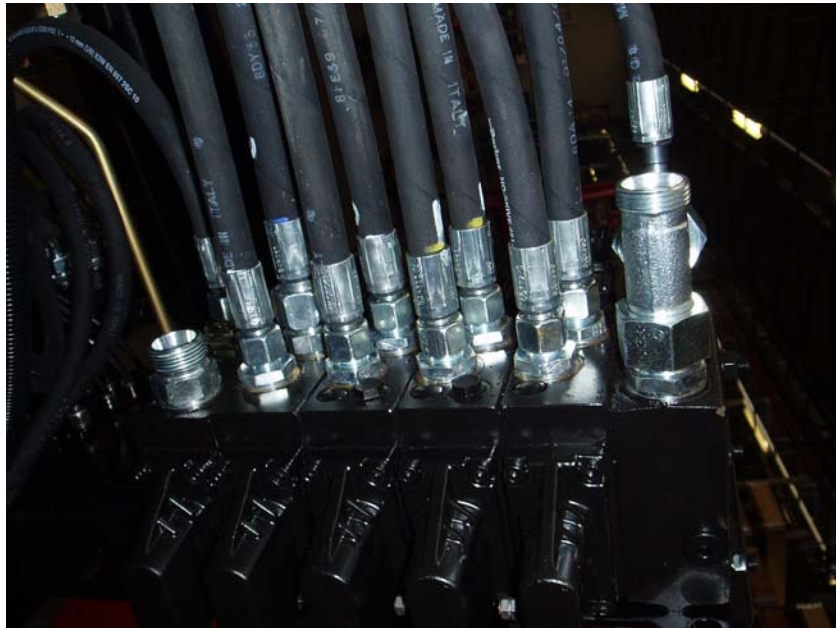


Figure 2 – Hose connection for control valve

Change of slewing area

3. Take off the protection plate. The plate is fitted with two (2) x M8 bolts with nuts.



Figure 3 – The underside of the crane with protection plate fitted.

4. Remove the hose clamp fixing the hoses at the protection plate.

Please note:

If there is no marking of the function of each individual hose, this has to be added before disassembling. It should also be marked where the hose clamp fixes the hoses. This should be done to be able to recreate the correct length of each hose from the hose clamp to the control valve.



5. Loosen the hose connection and pull it downwards until the circlip on the bottom of the column is visible and can be reached. The hose connection is fitted by means of four (4) x M8 button head screws. Take off the circlip on the bottom of the column.



Figure 5 – The underside of the crane with protection plate and hose connection removed.

6. It is now possible to lift up the column and place it again in the new slewing area required.

Please note:

Make sure that the column is free of the top and bottom bearings, when it has been raised approx. 75 mm. We recommend that lifting of the column with boom system is carried out as a two-point lift so that the burden is kept stable when it is no longer supported by the top and bottom bearings. Otherwise bearings, coggings and hose connections may be damaged.

Depending on the crane model, we recommend the following lift of the column in connection with change of slewing area:

The K-Series:

The 1300-K – 1830-K Series: 140 mm

The 1800-K – 2630-K Series: 150 mm

The T-Series:

The 1410-T - 1630-T Series: 140 mm

The 1910-T - 2130-T Series: 150 mm

In the picture below, you see a cross-section through the lower part of a column and the central part of a base. You see the column lifted up to the area where the slewing area can be changed. Please note the dirt-repelling recess above the lower column bearing. If

the column is lifted too high, it will hit against the rack, if the column is not tilted away from the rack.

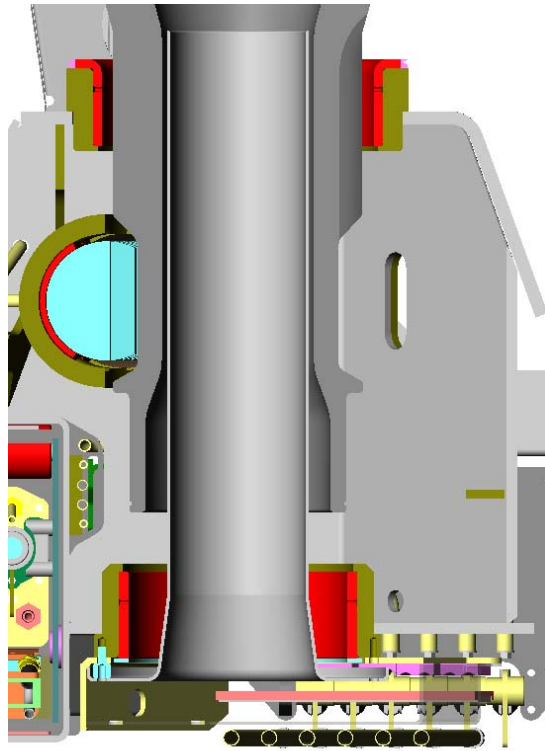


Figure 6 – Picture of the cross-section of the central part of a base with the column lifted.

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Assembling takes place in the opposite order as the items above. Make sure that the hose connections coming out of the column are positioned without the hoses being mutually twisted. This is how to ensure the longest possible life span of the hose routing inside the column.

Before tightening the hose clamp on the protection plate for fixing of hoses, each hose has to be positioned with correct length from the hose clamp to the control valve. This is to ensure that there is enough free hose length inside the column. (- this is used for instance in case of replacement of hoses.). In this connection it may be easiest to carry out the adjustment of the length of the hose by temporarily loosening and lifting the complete kit of hoses through the protection plate at the top of the column. Please see Service Information for replacement of hoses inside the column.

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1430 MCS - Replacement of hydraulic hoses in column

Replacement of hydraulic hoses in column

The present instructions are valid for the following loader cranes:

For the K-Series

Cranes	Catalogue
1300-K / 1420-K / 1520-K	38 084
1310-K / 1430-K / 1530-K	38 085
1500-K / 1720-K / 1820-K	38 086
1510-K / 1730-K / 1830-K	38 087
1800-K / 2020-K / 2120-K	38 088
1810-K / 2030-K / 2130-K	38 089
2200-K / 2420-K / 2620-K	38 090
2210-K / 2430-K / 2630-K	38 091

For the T-Series

Cranes	Catalogue
1410-T / 1530-T / 1630-T	38 100
1910-T / 2030-T / 2130-T	38 101

These instructions describe how to change hydraulic hoses in the column.

Replacement of hoses with internal hose routing inside the column is more demanding than for crane models with hose routing on the outside of the column. However, a longer life span for the internal hose routing and a more functional crane design compensates for this.

In case of urgent repair of hose rupture, carry out emergency repair as described in the Service Information no. 38 0XX 230 – “By-pass hose routing for emergency repair”.

If you have problems locating which one of the hoses that have been damaged it may be necessary to carry out a separate pressure test for each individual hose.

Procedure:

1. Dismount the hose shield at the top of the column.



Figure 1 – Photo of the upper part of the column with hose shield

2. Lift up the bundle of hoses either by means of a workshop crane or by means of the HMF service tools P/N 82 00 030 (please see spare parts catalogue). When using the service tools, fit the threaded pins into the hole plate for the bundle of hoses at the top of the column. Then fit the service tools onto the flange at the top of the column. Thereupon connect the threaded pins to the lifting tools. Dismount the screws at the back of the column holding the hole plate. Then lift the bundle of hoses using the service tools. Now there is access to the hole plate with swivel coupling and hose ends.



Figure 2 – Photo of the top of the column with the bundle of hoses lifted using the service tools.

3. Take off the end of the damaged hose from the swivel coupling on the hole plate. Screw the end of the damaged hose together with the end of the new hose. (In case of limited space under the crane, it may be necessary to pull the new hose through using a string or the like instead of direct connection to the damaged hose. This is because the rigid part next to the connection cannot be turned out into the open at the bottom of the column).

4. Dismount the protection plate underneath the base.

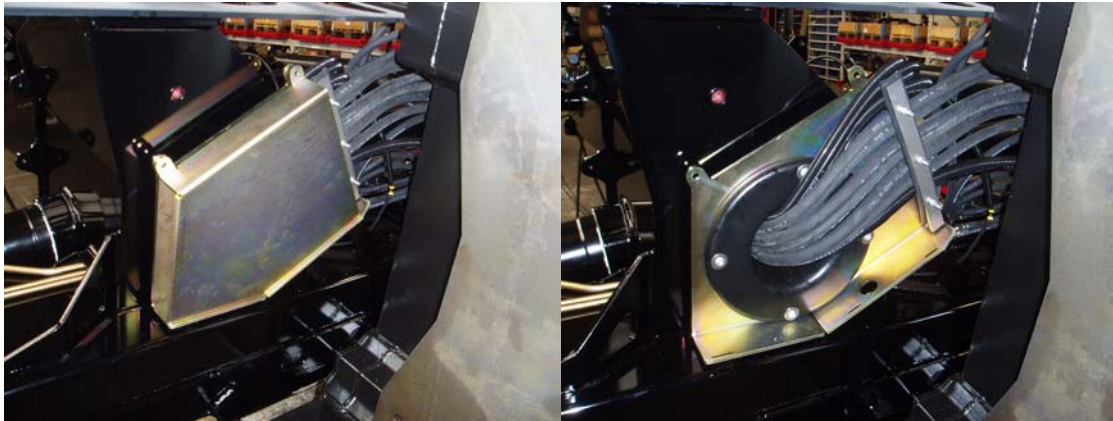


Figure 3 – Photos of the protection underneath the base with and without protection plate.

5. Take off the end of the damaged hose from the control valve.
6. Loosen the clamp fixing the hoses at the protection plate to the point where the upper hose end can come through.
7. Pull out the damaged hose (- with the new one connected to the upper end) down through the column. Pull the hose from below.
8. Connect the hose ends to the swivel coupling on the hole plate as well as to the control valve.
9. Tighten the hose clamp and mount the protection plate.
10. Lower the hole plate into the column and mount it again. Dismount the service tools.
11. Mount the hose shield onto the column again.

In case of hose rupture you have to consider whether you should pull up the entire hose kit and change all hoses fed inside the column instead. One or several of the other hoses may also be worn and need replacement.

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Change hoses led out of the front plate of the column for connection to the boom cylinder in the following way:

1. Dismount the hose connection on the load-holding valve on the boom cylinder.
2. Take off the nuts on the front plate behind the boom cylinder. (It may appear easier to dismount the lower pin in the boom cylinder and turn it away. The crane must be properly supported before dismounting the pin).
3. Dismount both hose connections for the boom cylinder on the control valve.
4. Tie the two lowest hose ends together with a string. This string must have a free end of at least 2 metres.
5. Pull out the hose kit from the top of the column.

Change the damaged hose, and both of them if necessary. To remount the hose/s, reverse the procedure.

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1430 MCS - By-pass hose routing for emergency repair

The present information is valid for the following cranes:

For the K-Series

Cranes	Catalogue
1300-K / 1420-K / 1520-K	38 084
1310-K / 1430-K / 1530-K	38 085
1500-K / 1720-K / 1820-K	38 086
1510-K / 1730-K / 1830-K	38 087
1800-K / 2020-K / 2120-K	38 088
1810-K / 2030-K / 2130-K	38 089
2200-K / 2420-K / 2620-K	38 090
2210-K / 2430-K / 2630-K	38 091

For the T-Series

Cranes	Catalogue
1410-T / 1530-T / 1630-T	38 100
1910-T / 2030-T / 2130-T	38 101

This information describes establishing of an emergency hose connection for the crane functions in case of hose rupture on the part of the crane's hose routing that is fed inside the column.

The emergency hose connection can be used until you reach a service point.

The following hoses can be used for emergency purpose:

Hose connection from – to:	Hose no.:
Control valve – Boom "up/down"	00 15 250
Control valve – Jib "extend/retract"	00 17 610
Control valve – Extension "extend" (hole plate on jib)	56 524
Control valve – Extension "retract" (hole plate on jib)	00 17 550
Control valve – Extra valves (hole plate on jib)	00 17 550
Control valve – Winch (hole plate on jib)	56 524

All permanent hose equipment, which is fitted on the crane, appears from the spare parts catalogue of the crane in question.

By-pass hose routing for emergency repair

In the following it is indicated in the photos how the different emergency hoses are fitted.

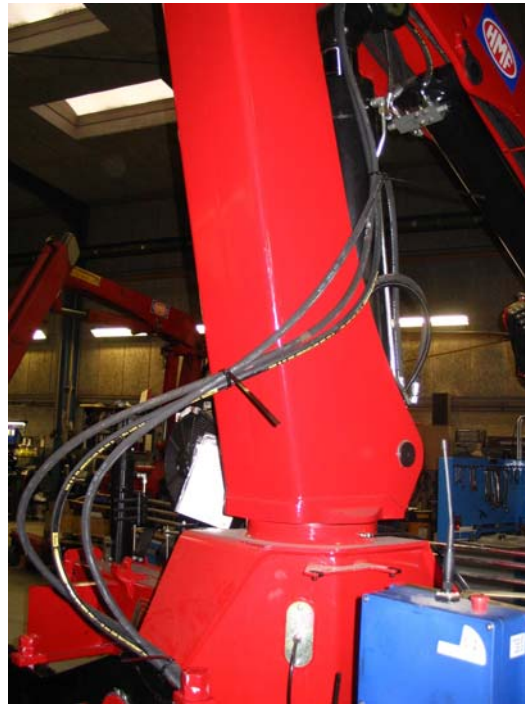


Figure 1 – Illustration of fitting of the hose loop from the control valve and further onto the crane. Please note the first fixing of the upper end of the hose loop on the boom cylinder as well as hydraulic connection down to the boom cylinder.



Figure 2 – Illustration of the hose routing further up to the connection on the jib cylinder.



Figure 3 – Illustration of the hose routing further out under the main boom.

Cut off the part of the damaged hose placed below the main boom. Cut it as far to the back below the boom as you can reach, and take off the part of the hose which is fitted on the hole plate on the jib. Remove the piece of hose.

Instead of mounting by means of cable ties, it may be advantageous to fit the emergency hose under the hose clamps below the boom.

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Handling equipment

Lifting yoke for handling of loader

The present instructions are valid for the following loaders:

Loaders	Catalogue
1300-K / 1420-K / 1520-K	38 084
1310-K / 1430-K / 1530-K	38 085
1500-K / 1720-K / 1820-K	38 086
1510-K / 1730-K / 1830-K	38 087
1800-K / 2020-K / 2120-K	38 088
1810-K / 2030-K / 2130-K	38 089
2200-K / 2420-K / 2620-K	38 090
2210-K / 2430-K / 2630-K	38 091

This information serves as instruction for safe internal handling of the loader in case of lifting when moving and mounting it on a truck, etc.

The figure 1 below shows a complete lifting yoke (82 00 010).



Figure 1 – Complete lifting yoke

Spare parts numbers of the lifting yoke parts appear from the spare parts catalogue of the loader in question.

The figure below shows the positioning of the lifting yoke in connection with lifting.

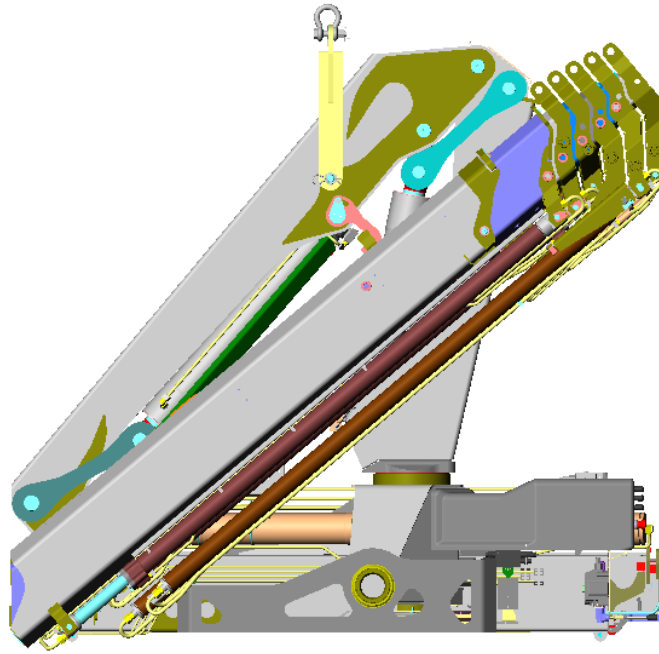


Figure 2 – Loader with lifting yoke seen from the side

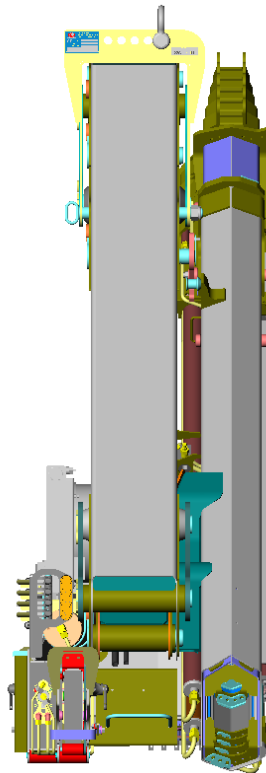


Figure 3 – Loader with lifting yoke seen from the rear.

Lifting Instructions:

The max. permissible lifting capacity of the lifting yoke is 4.0 t.

The following instructions have to be followed when using the lifting yoke:

- The loader must be locked in stowing position while handling it by means of the lifting yoke. (Locking can take place by fitting of a pin in the stowing bracket or by securing of the main boom to the base).
- The lifting yoke is equipped with a row of holes used for attachment over the centre of gravity of the loader. (cf. figure 3).
- Never lift the loader with a Fly-Jib fitted in the boom system.
- When lifting, always keep at least a 5 metres safety distance from the loader.

The positioning of the centre of gravity of the loader depends on the loader configuration as regards the number of extensions and the equipment, etc. Therefore, the loader may, in certain loader configurations, not be completely in vertical position during lifting. In this connection, please pay attention to the fact that the loader may skid on the surface when it is lifted.



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