



IOWA MOLD TOOLING CO., INC.

P.O. Box 189
Garner, IA 50438
Tel: 641.923.3711
Fax: 641.923.2424
www.imt.com

Manual # 99906495

1730 MCS Technical Specifications

Revised 02-06-2020

Copyright © 2020 Iowa Mold Tooling Co., Inc.
All rights reserved

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior written permission of Iowa Mold Tooling Co., Inc.

Iowa Mold Tooling Co., Inc. is an Oshkosh Corporation Company

 WARNING
Operating, servicing and maintaining this vehicle or equipment can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle or equipment in a well-ventilated area and wear gloves or wash your hands frequently when servicing. For more information go to www.P65Warnings.ca.gov.
70490167

Table of Contents

Section - 1	1
1730 MCS - Specifications.....	2
1730 MCS - Specifications - Continued	3
1730 MCS - Specifications - Metric.....	5
1730 MCS - Metric Specifications - Continued	6
1730 MCS- Metric Specifications - Continued	7
Section - 2	9
1730 MCS - Lifting Capacity Chart, K1	10
1730 MCS - Lifting Capacity Chart, K2	11
1730 MCS - Lifting Capacity Chart, K3	12
1730 MCS - Lifting Capacity Chart, K4	13
1730 MCS - Lifting Capacity Chart, K5	14
1730 MCS - Lifting Capacity Chart, K6	15
1730 MCS - Lifting Capacity Chart, K8	16
1730 MCS - Lifting Capacity with Winch.....	17
Section - 3	19
1730 MCS - Pressure setting diagram, fixed flow pump & Danfoss RC	20
1730 MCS - Hydraulic Diagram - Hydrocontrol, single-circuit fixed 6 fcts. RC med HDL (2 EXV: Grab & Rotator).....	21
1730 MCS - Hydraulic Diagram - Stabilizer circuit – 2 fcts.	22
1730 MCS - Hydraulic Diagram - Stabilizer circuit – 4 fcts.	23
1730 MCS - Hydraulic Diagram, Stabilizer circuit, 4 fcts RC	24
1730 MCS - Hydraulic Diagram - Stabilizer circuit – 4 fcts. + 4 available fcts.	25
1730 MCS - Hydraulic Diagram, Stabilizer circuit, 4 fcts + 4 available fcts RC	26
1730 MCS - Hydraulic Diagram - Hydrocontrol, single-circuit fixed 6 fcts. Std./HS, std./HS dir. valve contr. HDL (2 EXV: Grab + Rotator).....	27
Section - 4	29
1730 MCS - Lubrication Instructions	30
Section - 4	35
1730 MCS - Dimension Sketch.....	36
1730 MCS - Slewing Radius	37
1730 MCS - Dimension Sketch for Truck Mounted Loader.....	38
1730 MCS - Lifting Height at Column	39
1730 MCS - Fixed Stabilizer Legs	40
1730 MCS - Swing-Up Stabilizer Legs 20° - 60° (Manual)	42
1730 MCS - Swing-Up Stabilizer Legs 20° - 60° (Manual)	43
1730 MCS - Dimension Sketch, Swing-Up Stabilizer Legs 180 (Manual & Hydraulic).....	44
1730 MCS - Dimension Sketch, TS, Top Seat (RC).....	46
1730 MCS - Dimension Sketch, TS, Top Seat (HC Linear).....	47
1730 MCS - Dimension Sketch, TS, Top Seat (Danfoss X)	48
1730 MCS - Dimension Sketch, TS Top Seat, (HC X)	49
1730 MCS - Dimension Sketch, Ladder for TS	50
1730 MCS - Technical Data	51
1730 MCS - Dimension Sketch, Winch.....	52
1730 MCS - Dimension Sketch, Stand-Up Platform (Standard)	53
1730 MCS - Dimension Sketch, Stand-Up Platform (Valve Control)	54
1730 MCS - Dimension Sketch, Internal Hose Routing).....	55

1730 MCS - Stowed in Truck Body	56
1730 MCS - Dimension Sketch for Connecting Link.....	57
1730 MCS - Center of Gravity.....	58

This page left intentionally blank

This page left intentionally blank

1730 MCS - Technical Specifications

Section - 1

1730 - 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	116213	112604	109717	106829	103942	101777
Hydraulic reach	ft	20.7'	27.6'	34.4'	42'	49.2'	56.8'
Hydraulic telescopic movement	in	76"	155"	237"	324"	409"	495"
Lifting capacity, hydraulic	lb-ft	8267 - 14.1'	7959 - 14.1'	7606 - 14.4'	7275 - 14.8'	6967 - 15.1'	6702 - 15.1'
		5710 - 20.3'	5423 - 20.7'	5115 - 20.7'	4828 - 21.0'	4564 - 21.3'	4321 - 21.7'
			4079 - 27.2'	3792 - 27.2'	3505 - 27.6'	3263 - 27.9'	3042 - 28.2'
				2998 - 34.1'	2712 - 34.4'	2491 - 34.8'	2271 - 35.1'
					2227 - 41.7'	1984 - 42.0'	1786 - 42.3'
						1676 - 48.9'	1477 - 49.2'
							1279 - 56.4'
Lifting capacity, manual extensions	lb-ft		3086 - 31.1'	2315 - 41.7'	1742 - 49.2'	1345 - 56.4'	992 - 64.3'
			2403 - 41.3'	1830 - 49.2'	1367 - 57.1'	992 - 64.3'	
			1874 - 49.2'	1455 - 56.8'	992 - 64.6'		
Slewing torque, gross	lb-ft	12981					
Slewing angle	°	400°					
Max. heel at max. load moment	°	5					
Slewing speed	°/s	24					

Minimum Chassis Specs	
Front Axle Rating (GAWR)	12000 lbs (5,443 kg)
Rear Axle Rating (GAWR)	21,000 lbs (12,981 kg)
Resistance to Bending Moment	1,755,000 in-lbs (20,220 kg-m)

1) Weights ± 5% because of tolerances for plate thickness.

1730 - Specifications - Continued

Dimensions	Unit	K1	K2	K3	K4	K5	K6
Height above chassis	in	89"					
Width	in	99"					
Width with extra valves (int. hose routing)	in	100"					
Length, no extra valves	in	32.5"					
Length, with extra valves (hose guides)	in	37.4"					
Length, with extra valves (int. hose routing)	in	32.5"					
Stabilizer spread, S1 (standard)	in	181"					
Stabilizer spread, S2	in	220"					
Stabilizer spread, D	in	254"					

Weights, basic loader	Unit	K1	K2	K3	K4	K5	K6
Standard loader 1), excl. stabilizers	lb	3020	3329	3638	3935	4200	4409
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	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	165 143 99	143 99 88	99 88	88
Oil in loader (stowing position)	lb	66	77	88	99	110	110

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

1730 - Specifications - Continued

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	bl	44					
1 extra valve, hose routing	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	087	309	320	353
Winch (1.5 t), single snatch block	lb	386	386	386	386	386	397
Winch (1.5 t), double snatch block	lb	375	375	375	375	375	386
Winch (2.5 t), single snatch block	lb	441	441	441	441	441	452
Winch (2.5 t), double snatch block	lb	430	430	430	430	430	441
High-pressure filter	lb	15					
Oil cooler	lb	55					

Max. Load on stabilizers (per stabilizer cylinder)	Unit	K1	K2	K3	K4	K5	K6
S1, fixed	ft-lb	19108					
S1, swing-up	ft-lb	19108					
S1, hydr. swing-up	ft-lb	19108					
S2, fixed	ft-lb	19108					
S2, swing-up	ft-lb	19108					
S2, hydr. swing-up	ft-lb	19108					
D, fixed	ft-lb	15287					
D, swing-up	ft-lb	15287					
D, hydr. swing-up	ft-lb	15287					

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	13					
Max. pump performance, Hydrocontrol, 2-circuit	g/min	-					

1730 - 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	16.1	15.6	15.2	14.8	14.4	14.1
Hydraulic reach	m	6.3	8.4	10.5	12.8	15.	17.3
Hydraulic telescopic movement	mm	1930	3940	6040	8203	10390	12580
Lifting capacity, hydraulic	kg-m	3750 - 4.3	3610 - 4.3	3450 - 4.4	3300 - 4.5	3160 - 4.6	3040 - 4.6
		2590 - 6.2	2460 - 6.3	2320 - 6.3	2190 - 6.4	2070 - 6.5	1960 - 6.6
			1850 - 8.3	1720 - 8.3	1590 - 8.4	1480 - 8.5	1380 - 8.6
				1360 - 10.4	1230 - 10.5	1130 - 10.6	1030 - 10.7
					1010 - 12.7	900 - 12.8	810 - 12.9
						760 - 14.9	670 - 15
							580 - 17.2
Lifting capacity, manual extensions			1400 - 10.4	1050 - 12.7	790 - 15	610 - 17.2	450 - 19.6
			1090 - 12.6	830 - 15.0	620 - 17.4	450 - 19.6	
			850 - 15.0	660 - 17.3	450 - 19.7		
Slewing torque, gross		17.6	17.6	17.6	17.6	17.6	17.6
Slewing angle	°	400°					
Max. heel at max. load moment	°	5					
Slewing speed	°/s	24					

1730 MCS - Specifications - Continued

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	5590					
Stabilizer, spread D	mm	6470					

Weights, basic loader	Unit	K1	K2	K3	K4	K5	K6
Standard loader 1), excl. stabilizers	kg	1370	1510	1650	1785	1905	2000
Stabilizers S1 fixed	kg	200					
Stabilizers S1 swing-up	kg	205					
Stabilizers, hydr. swing-up	kg	215					
Stabilizer 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
	kg		75	65	45	40	
	kg		65	45	40		
Oil in loader (stowing position)	kg	30	35	40	45	50	50

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

1730 - Metric Specifications - Continued

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	175	175	175	175	180
Winch (1.5 t), double snatch block	kg	170	170	170	170	170	175
Winch (2.5 t), single snatch block	kg	200	200	200	200	200	205
Winch (2.5 t), double snatch block	kg	195	195	195	195	195	200
High-pressure filter	kg	7					
Oil cooler	kg	25					

Max. Load on stabilizers (per stabilizer cylinder)	Unit	K1	K2	K3	K4	K5	K6
S1, fixed	kN	85	85	85	85	85	85
S1, swing-up	kN	85	85	85	85	85	85
S1, hydr. swing-up	kN	85	85	85	85	85	85
S2, fixed	kN	85	85	85	85	85	85
S2, swing-up	kN	85	85	85	85	85	85
S2, hydr. swing-up	kN	85	85	85	85	85	85
D, fixed	kN	68	68	68	68	68	68
D, swing-up	kN	68	68	68	68	68	68
D, hydr. swing-up	kN	68	68	68	68	68	68

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	50					
Max. pump performance, Hydrocontrol, 2-circuit	L/min	-					

This page left intentionally blank

1730 MCS - K1-K6 Load Capacity Charts

Section - 2

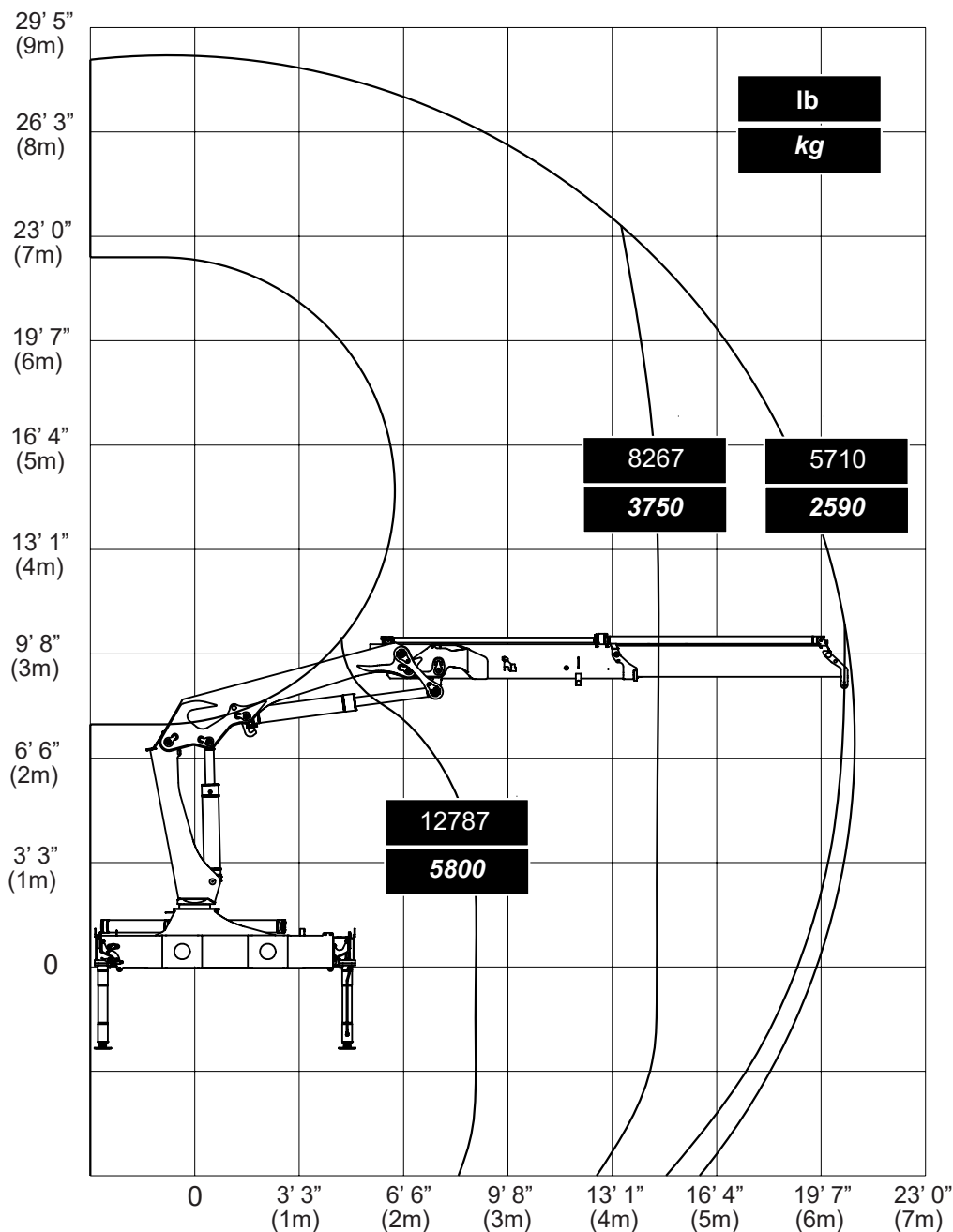
1730 MCS - Lifting Capacity Chart, K1

IMT
MATERIAL HANDLING SYSTEMS

Model 1730 MCS K1

IOWA MOLD TOOLING CO., INC.
BOX 189 • GARNER • IA • 50438 • 641-923-3711

- 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.*



70490261

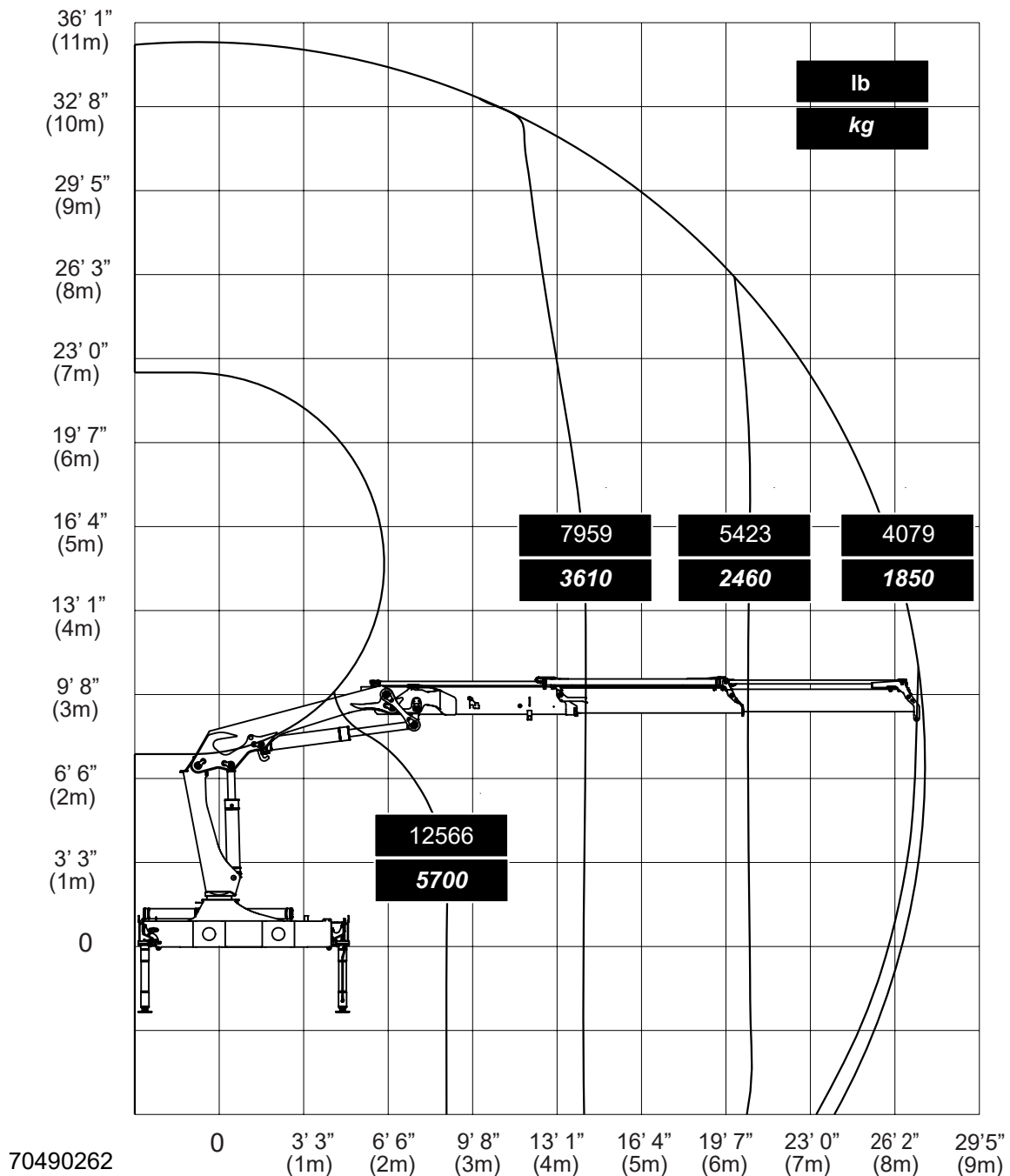
1730 MCS - Lifting Capacity Chart, K2

IMT
MATERIAL HANDLING SYSTEMS

IOWA MOLD TOOLING CO., INC.
BOX 189 • GARNER • IA • 50438 • 641-923-3711

Model 1730 MCS K2

- 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.*



1730 MCS - Lifting Capacity Chart, K3

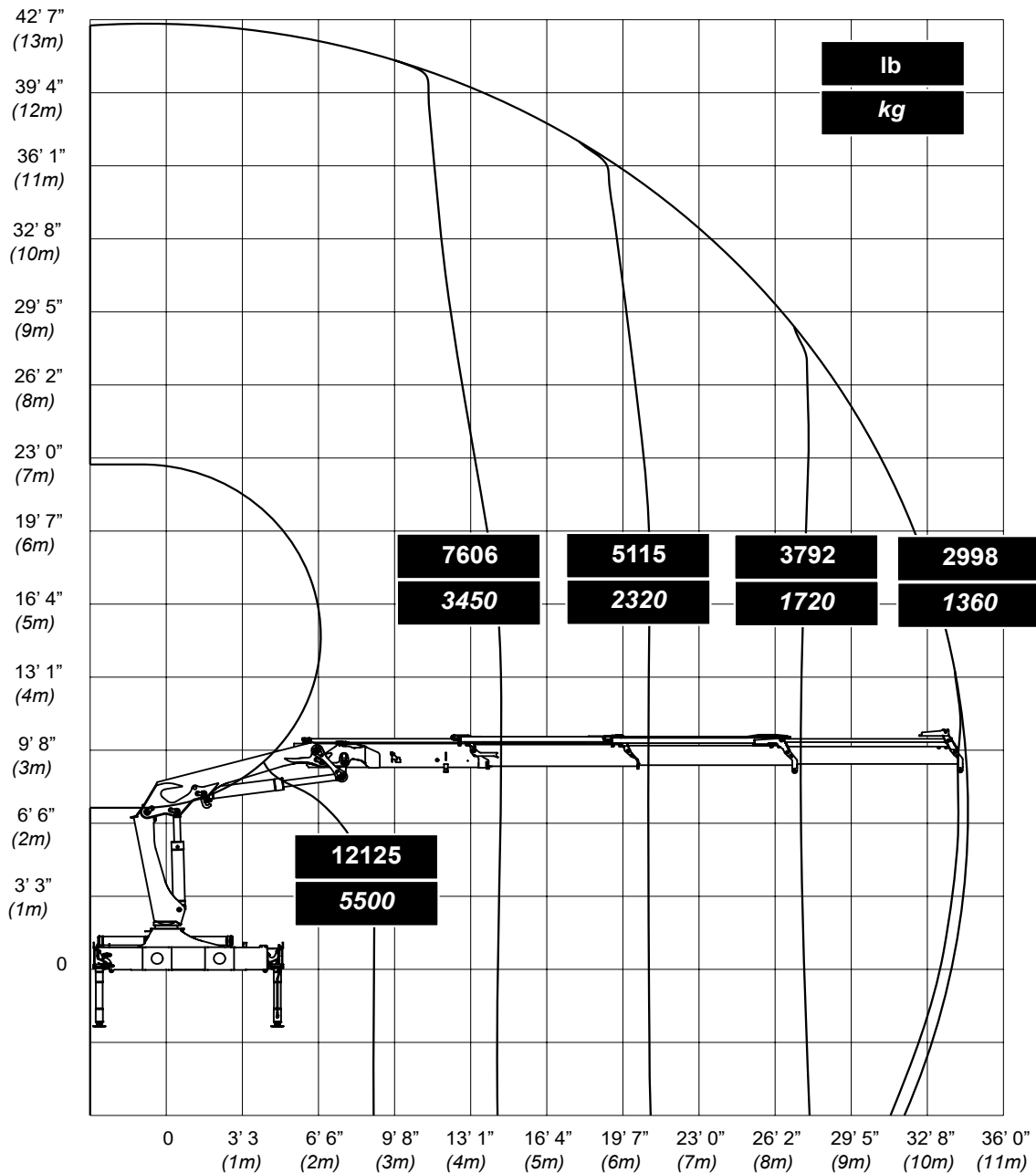
IMT

MATERIAL HANDLING SYSTEMS

Model 1730 MCS K3

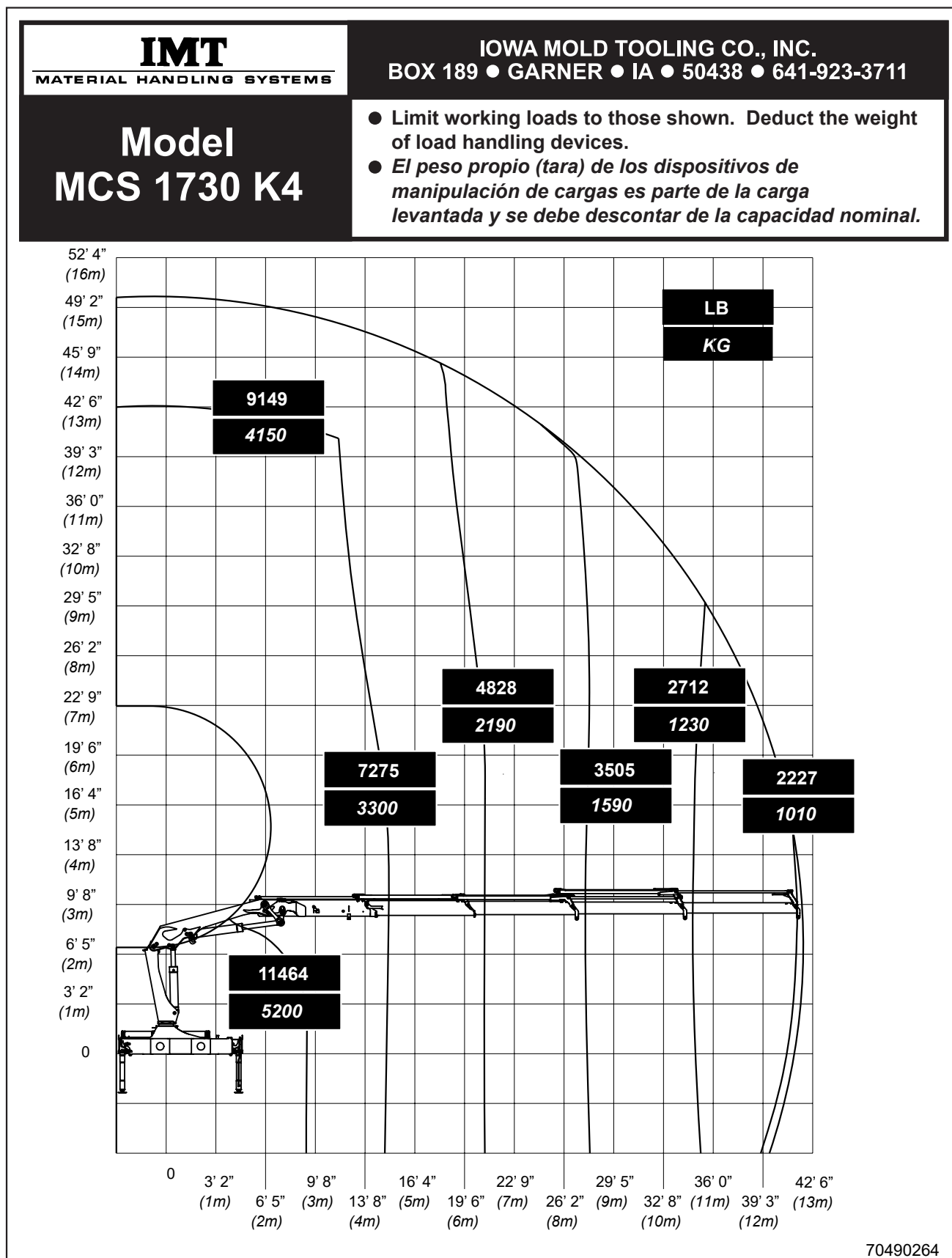
 IOWA MOLD TOOLING CO., INC.
 BOX 189 • GARNER • IA • 50438 • 641-923-3711

- 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.*



70490263

1730 MCS - Lifting Capacity Chart, K4



1730 MCS - Lifting Capacity Chart, K5

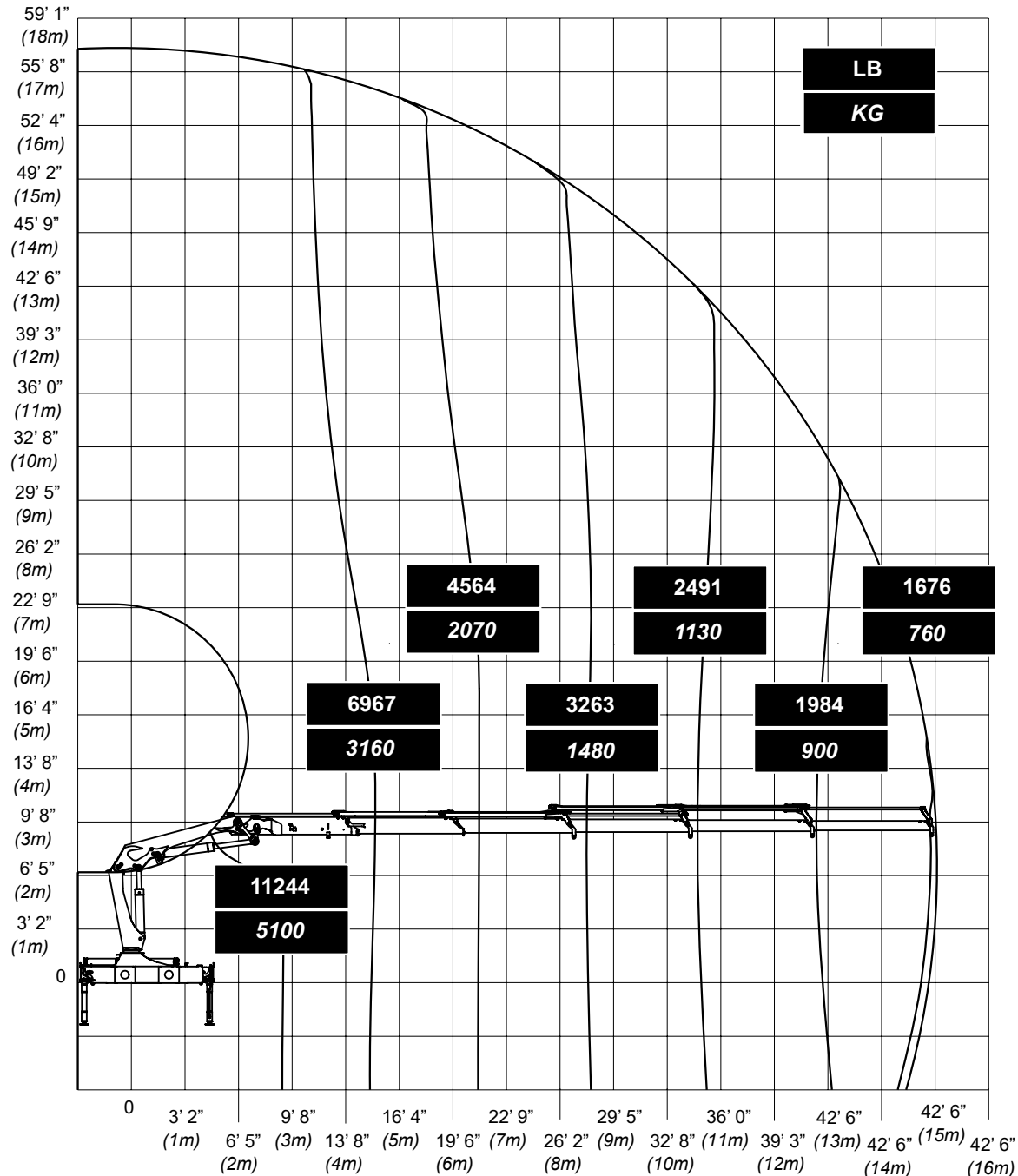
IMT

MATERIAL HANDLING SYSTEMS

 IOWA MOLD TOOLING CO., INC.
 BOX 189 • GARNER • IA • 50438 • 641-923-3711

Model 1730 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.*



70490265

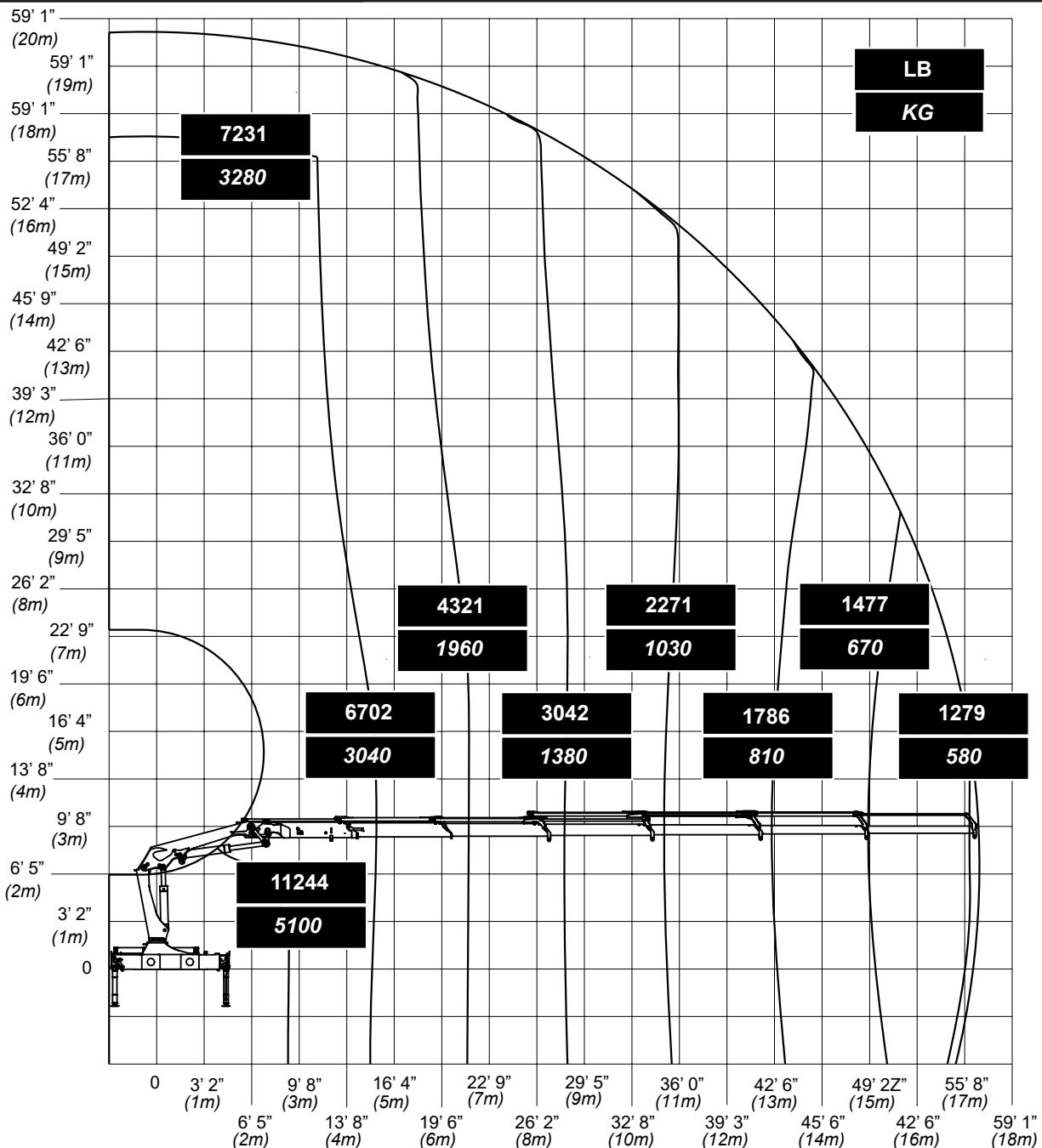
1730 MCS - Lifting Capacity Chart, K6

IMT
MATERIAL HANDLING SYSTEMS

Model 1730 MCS K6

IOWA MOLD TOOLING CO., INC.
BOX 189 • GARNER • IA • 50438 • 641-923-3711

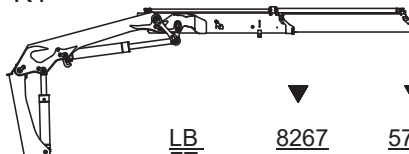
- Limit working loads to those shown. Deduct the weight of load handling devices.
- *El peso propio (tara) de los dispositivos de manipulación de cargas es parte de la carga levantada y se debe descontar de la capacidad nominal.*



70490266

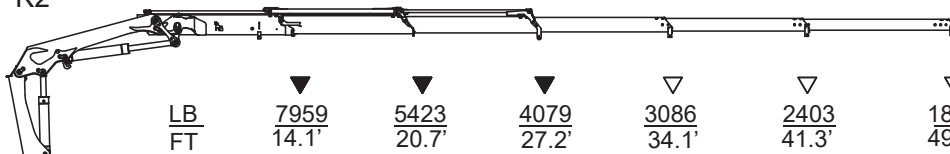
1730 MCS - Lifting Capacity Chart, K8

K1



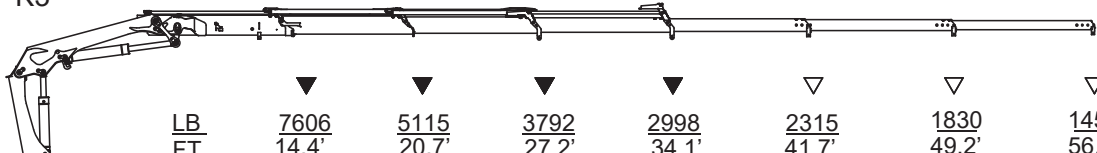
	▼	▼
<u>LB</u>	<u>8267</u>	<u>5710</u>
<u>FT</u>	<u>14.1'</u>	<u>20.3'</u>
<u>KG</u>	<u>3750</u>	<u>2590</u>
<u>M</u>	<u>4,3</u>	<u>6,2</u>

K2



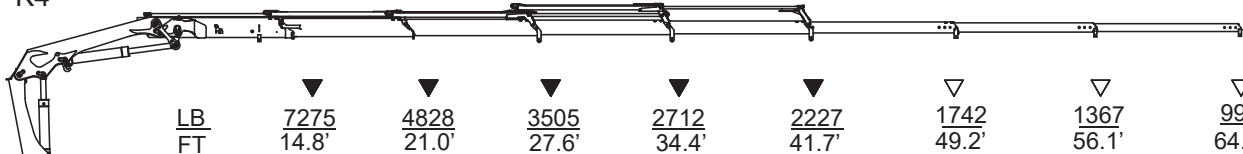
	▼	▼	▼	▽	▽	▽
<u>LB</u>	<u>7959</u>	<u>5423</u>	<u>4079</u>	<u>3086</u>	<u>2403</u>	<u>1874</u>
<u>FT</u>	<u>14.1'</u>	<u>20.7'</u>	<u>27.2'</u>	<u>34.1'</u>	<u>41.3'</u>	<u>49.2'</u>
<u>KG</u>	<u>3610</u>	<u>2460</u>	<u>1850</u>	<u>1400</u>	<u>1090</u>	<u>850</u>
<u>M</u>	<u>4,3</u>	<u>6,3</u>	<u>8,3</u>	<u>10,4</u>	<u>12,6</u>	<u>15,0</u>

K3



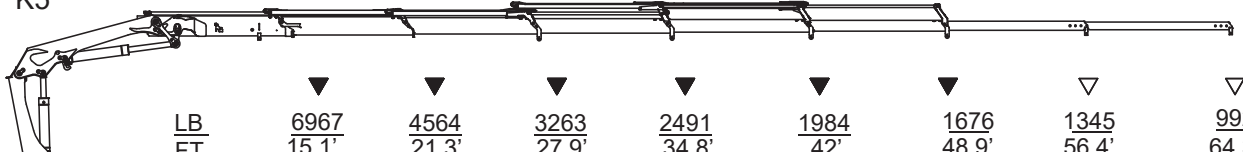
	▼	▼	▼	▼	▽	▽	▽
<u>LB</u>	<u>7606</u>	<u>5115</u>	<u>3792</u>	<u>2998</u>	<u>2315</u>	<u>1830</u>	<u>1455</u>
<u>FT</u>	<u>14.4'</u>	<u>20.7'</u>	<u>27.2'</u>	<u>34.1'</u>	<u>41.7'</u>	<u>49.2'</u>	<u>56.8'</u>
<u>KG</u>	<u>3450</u>	<u>2320</u>	<u>1720</u>	<u>1360</u>	<u>1050</u>	<u>830</u>	<u>660</u>
<u>M</u>	<u>4,4</u>	<u>6,3</u>	<u>8,3</u>	<u>10,4</u>	<u>12,7</u>	<u>15,0</u>	<u>17,3</u>

K4



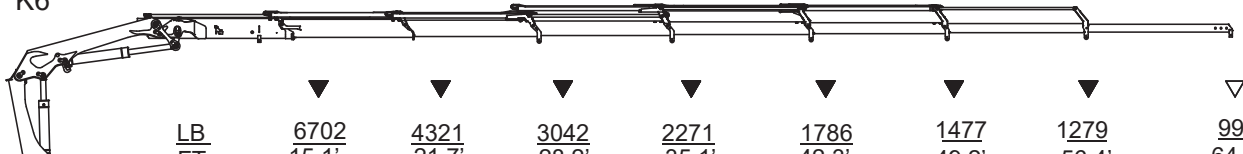
	▼	▼	▼	▼	▼	▽	▽	▽
<u>LB</u>	<u>7275</u>	<u>4828</u>	<u>3505</u>	<u>2712</u>	<u>2227</u>	<u>1742</u>	<u>1367</u>	<u>992</u>
<u>FT</u>	<u>14.8'</u>	<u>21.0'</u>	<u>27.6'</u>	<u>34.4'</u>	<u>41.7'</u>	<u>49.2'</u>	<u>56.1'</u>	<u>64.6'</u>
<u>KG</u>	<u>3300</u>	<u>2190</u>	<u>1590</u>	<u>1230</u>	<u>1010</u>	<u>790</u>	<u>620</u>	<u>450</u>
<u>M</u>	<u>4,5</u>	<u>6,4</u>	<u>8,4</u>	<u>10,5</u>	<u>12,7</u>	<u>15,0</u>	<u>17,4</u>	<u>19,7</u>

K5



	▼	▼	▼	▼	▼	▼	▽	▽
<u>LB</u>	<u>6967</u>	<u>4564</u>	<u>3263</u>	<u>2491</u>	<u>1984</u>	<u>1676</u>	<u>1345</u>	<u>992</u>
<u>FT</u>	<u>15.1'</u>	<u>21.3'</u>	<u>27.9'</u>	<u>34.8'</u>	<u>42'</u>	<u>48.9'</u>	<u>56.4'</u>	<u>64.3'</u>
<u>KG</u>	<u>3160</u>	<u>2070</u>	<u>1480</u>	<u>1130</u>	<u>900</u>	<u>760</u>	<u>610</u>	<u>450</u>
<u>M</u>	<u>4,6</u>	<u>6,5</u>	<u>8,5</u>	<u>10,6</u>	<u>12,8</u>	<u>14,9</u>	<u>17,2</u>	<u>19,6</u>

K6

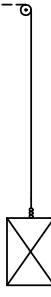


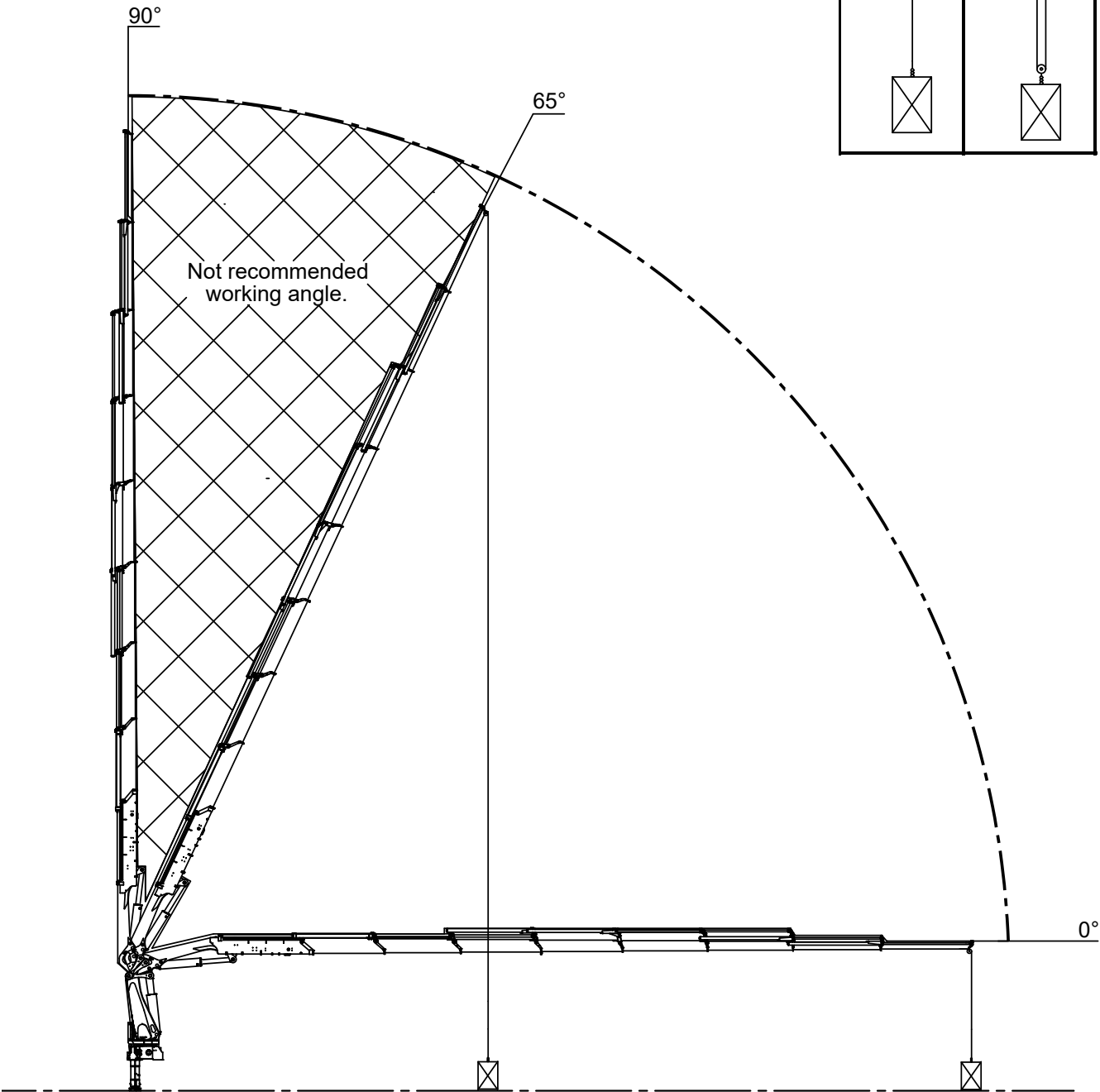
	▼	▼	▼	▼	▼	▼	▼	▽
<u>LB</u>	<u>6702</u>	<u>4321</u>	<u>3042</u>	<u>2271</u>	<u>1786</u>	<u>1477</u>	<u>1279</u>	<u>992</u>
<u>FT</u>	<u>15.1'</u>	<u>21.7'</u>	<u>28.2'</u>	<u>35.1'</u>	<u>42.3'</u>	<u>49.2'</u>	<u>56.4'</u>	<u>64.3'</u>
<u>KG</u>	<u>3040</u>	<u>1960</u>	<u>1380</u>	<u>1030</u>	<u>810</u>	<u>670</u>	<u>580</u>	<u>450</u>
<u>M</u>	<u>4,6</u>	<u>6,6</u>	<u>8,6</u>	<u>10,7</u>	<u>12,9</u>	<u>15,0</u>	<u>17,2</u>	<u>19,6</u>

▽ Lifting capacity with man. extensions

▼ Lifting capacity without man. extensions

1730 MCS - Lifting Capacity with Winch

Hydraulic hoist type	MAXW	MAXWD
Dinamic P9E	3307 lb	6614 lb
Dinamic P15E	5512 lb	11023 lb
Dinamic S 25 Brevini 2500	7055 lb	14110 lb
		



This page left intentionally blank

1730 MCS - Hydraulics

Section - 3

1730 MCS - Pressure setting diagram, fixed flow pump & Danfoss RC

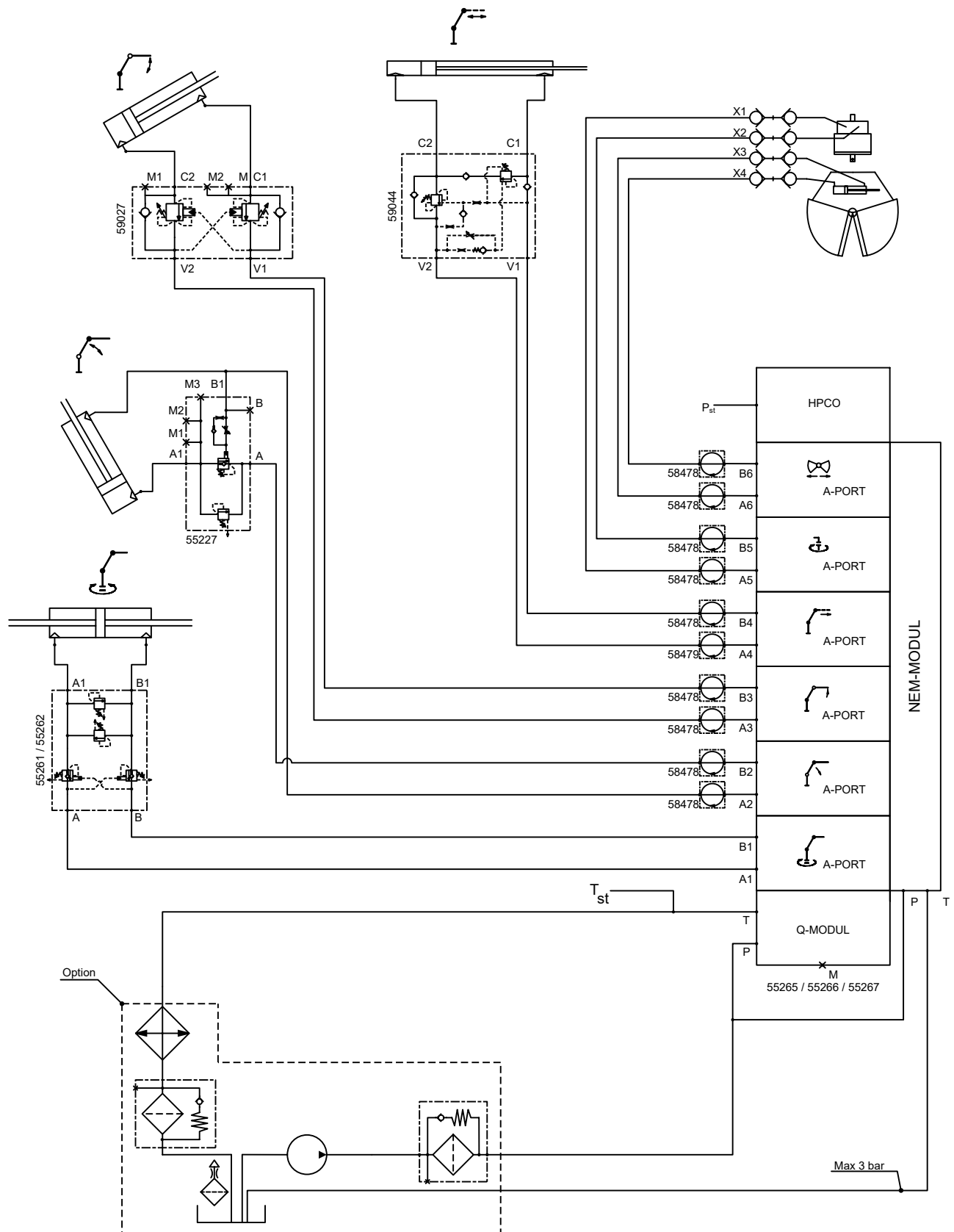
Working Pressure on Main-Relief Valve & Port- Relief Valves				
Function	Direction	Port	1730 MCS K1-K6 (PSI)	1730 MCS K1-K6 (METRIC) (BAR)
Main-relief valve			4786	330
Slewing system	Right	A	P	P
	Left	B	P	P
Boom cylinder	Up	A	1450	100
	Down	B	4931	340
Jib cylinder	Up	A	4931	340
	Down	B	2901	200
Extension cylinders	Extend	A	P	P
	Retract	B	P	P
Grab / Flyjib lift*	Up	A	2901	200
	Down	B	2901	200
Rotator / Fly-jib ext. cylinders*	Extend	A	2901	200
	Retract	B	2901	200
Separate stabilizer valve		All	2176	150

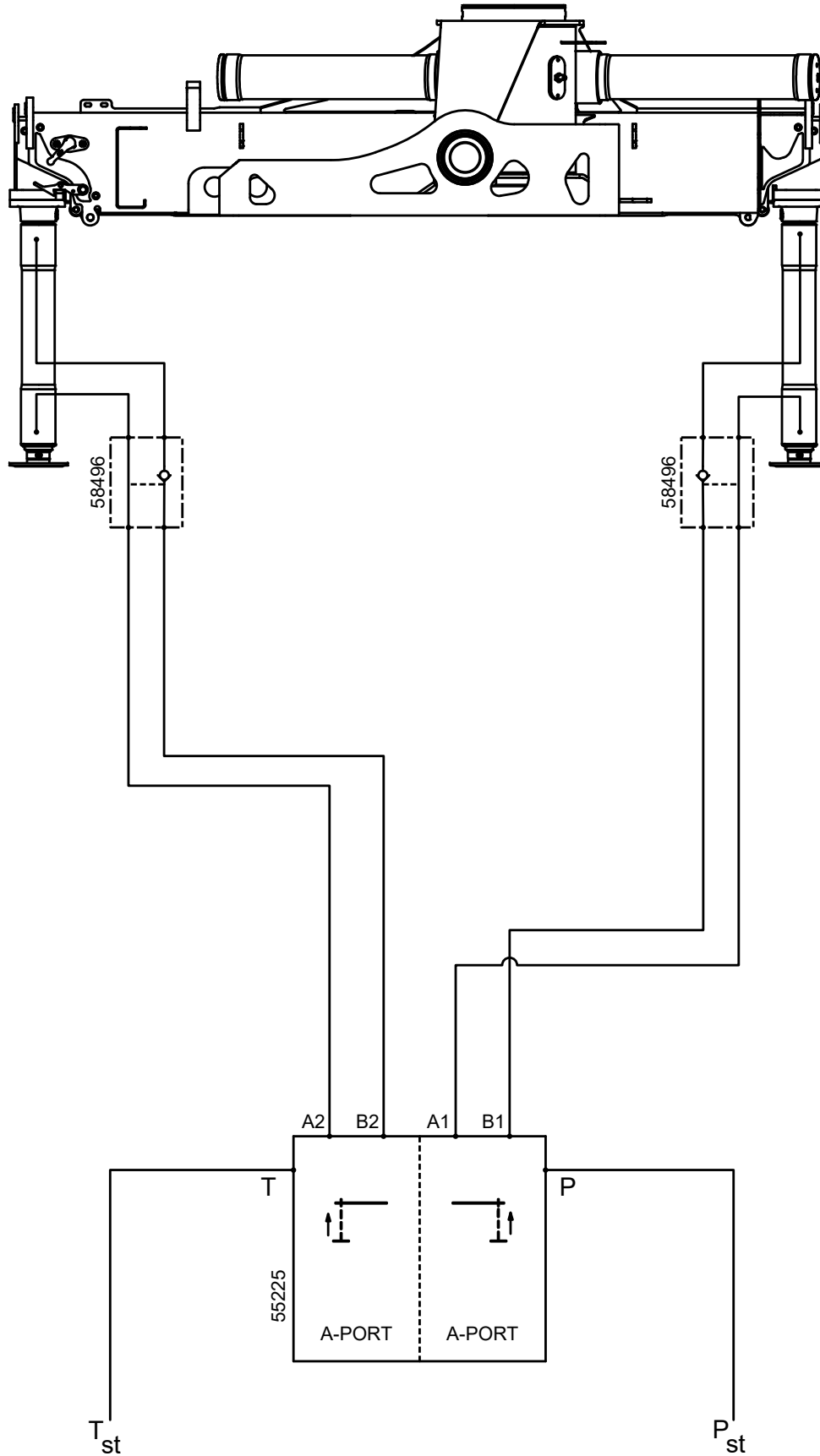
Working Pressure on Load-holding Valves				
Function	Direction	Port	Opening pressure [PSI]	Opening pressure [BAR]
Slewing system			2683	185
Boom cylinder			5076	350
Jib cylinder			5076	350
Extension cylinders	Retract	A	3046	210
	Extend	B	6237	430

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

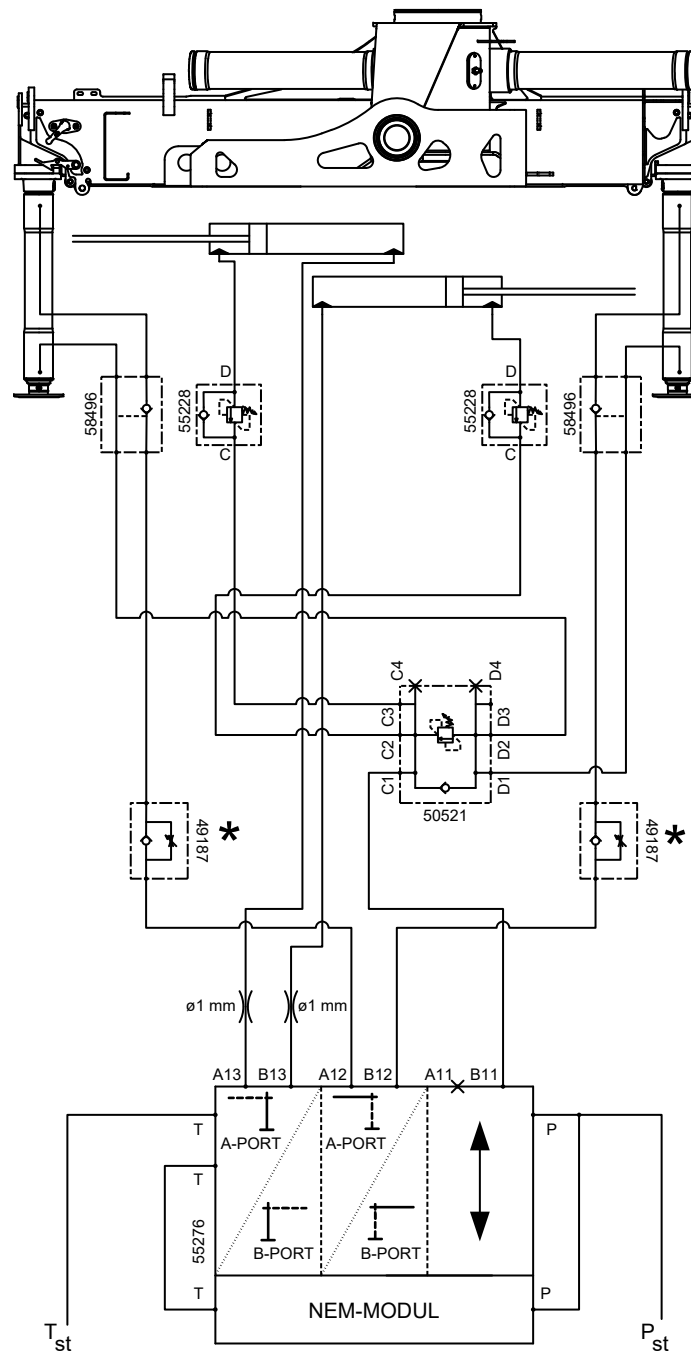
Max. pump performance		
Pump performance, 1-circuit	725	50
Pump performance, 2-circuit	-	-

1730 MCS - Hydraulic Diagram - Hydrocontrol, single-circuit fixed 6 fcts. RC med HDL (2 EXV: Grab & Rotator)



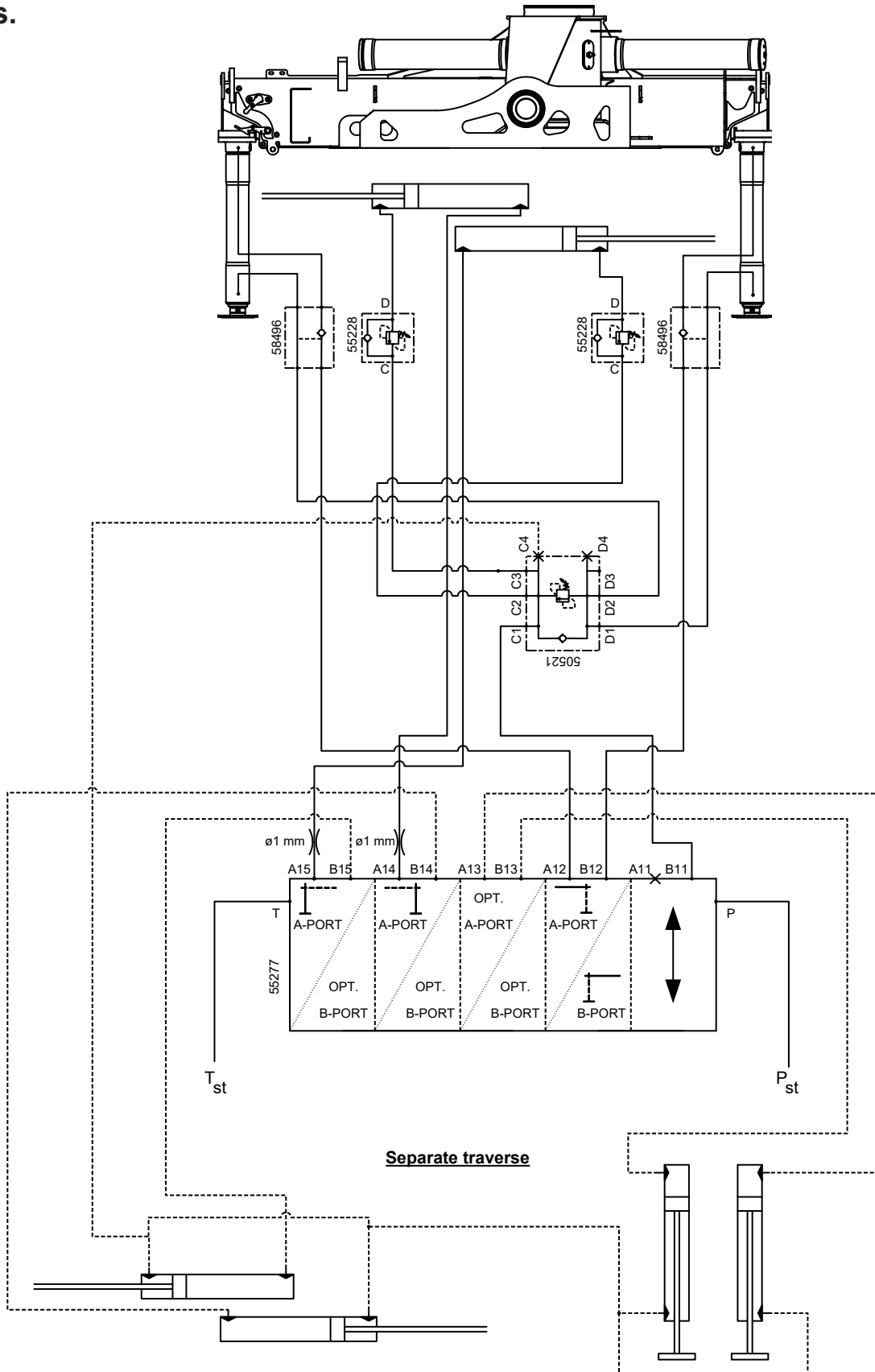
1730 MCS - Hydraulic Diagram - Stabilizer circuit – 2 fcts.

1730 MCS - Hydraulic Diagram, Stabilizer circuit, 4 fcts RC

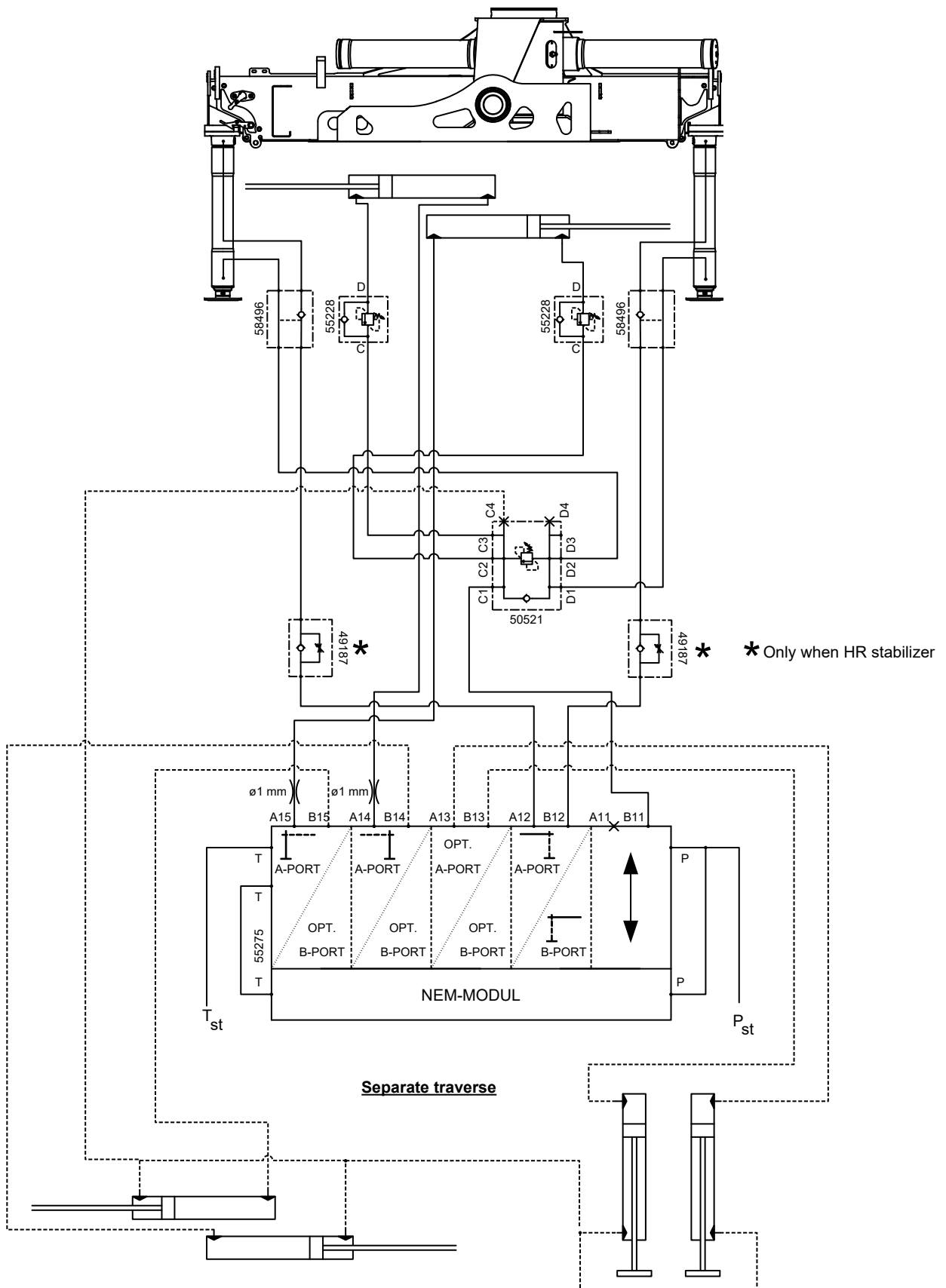


* Only when HR stabilizer

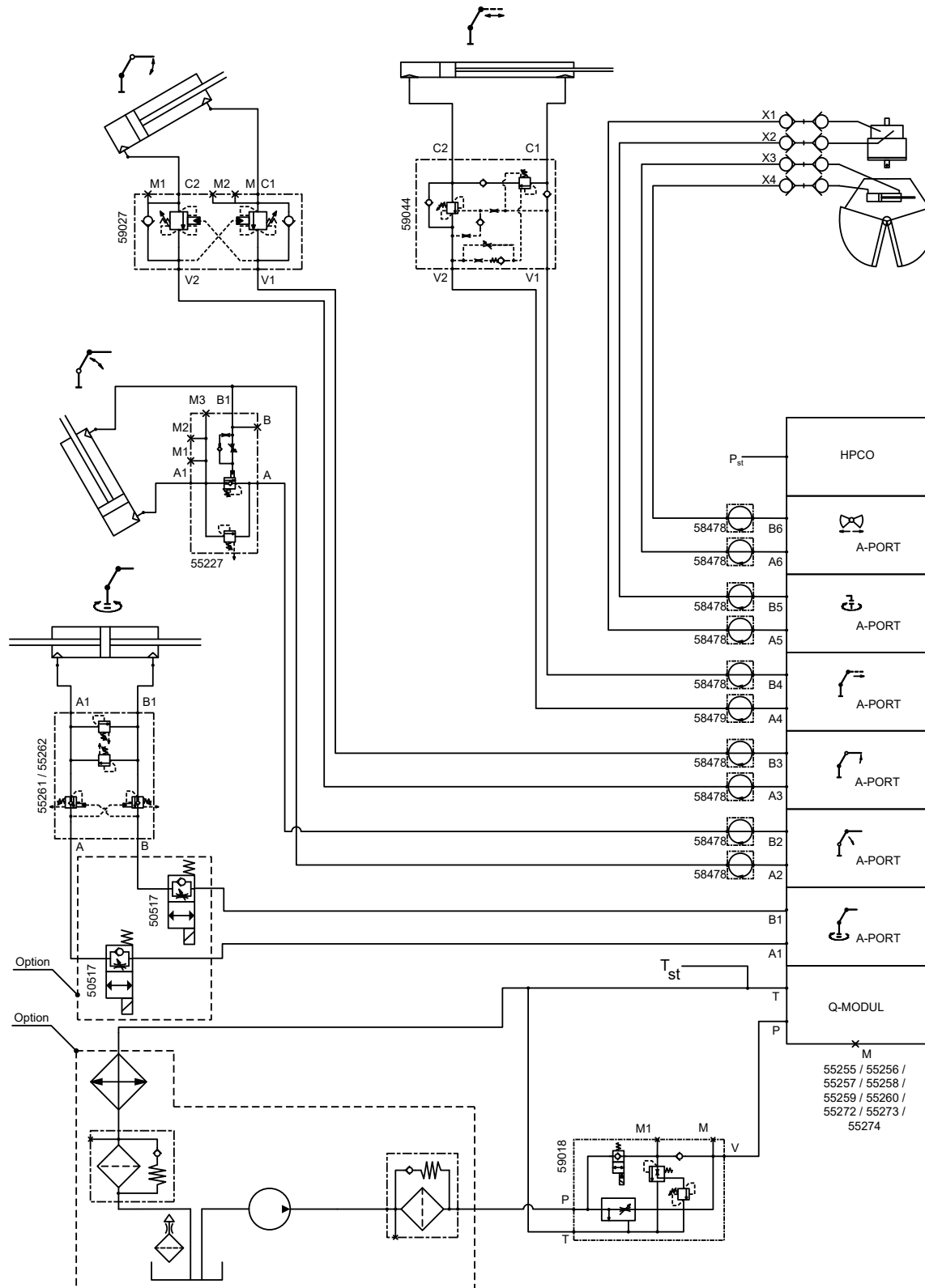
1730 MCS - Hydraulic Diagram - Stabilizer circuit – 4 fcts. + 4 available fcts.



1730 MCS - Hydraulic Diagram, Stabilizer circuit, 4 fcts + 4 available fcts RC



1730 MCS - Hydraulic Diagram - Hydrocontrol, single-circuit fixed6 fcts. Std./HS, std./HS dir. valve contr. HDL (2 EXV: Grab + Rotator)



This page left intentionally blank

1730 MCS - Service Information

Section - 4

1730 MCS - Lubrication Instructions

Please read and follow the instructions for recommended oil and greasing in this section

The 1730 MCS K1-K6 are mainly equipped with maintenance-free composite bearings; however, for a limited number of bearings, regular greasing is required.

The crane has to be greased in the following areas:

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

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.

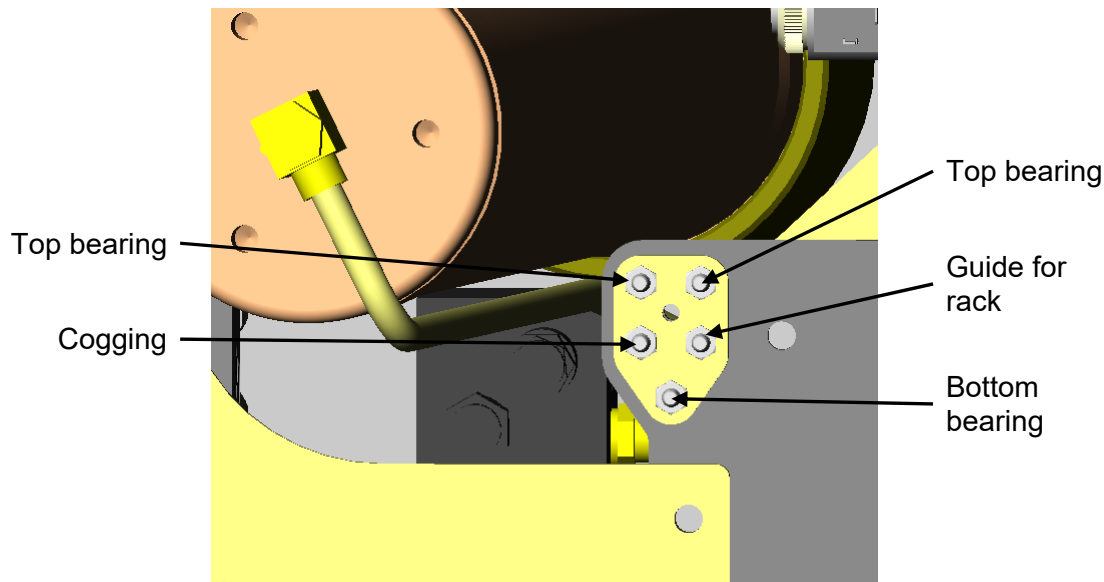


Figure 1 - Central greasing point on the base

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.

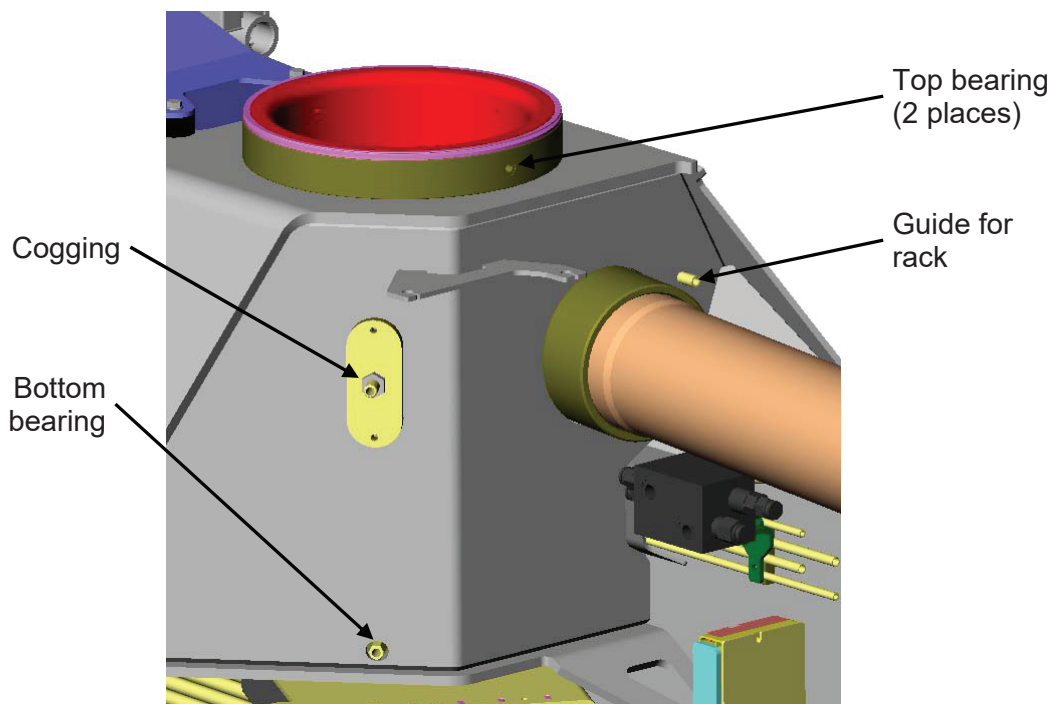


Figure 2 – Connection points on the central part of the base.

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.

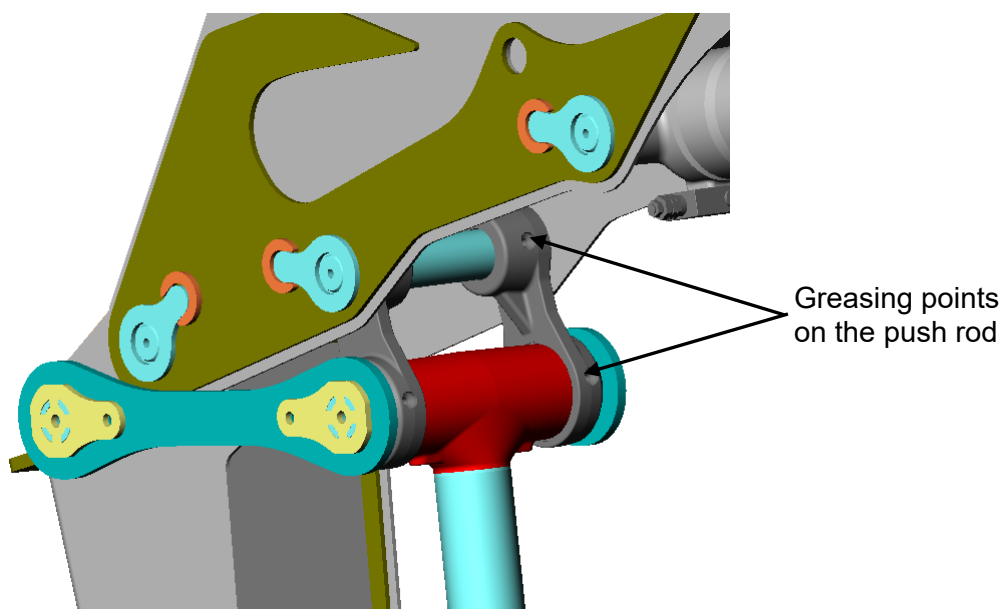


Figure 3 - Greasing points on inner push rods at the boom cylinder

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.

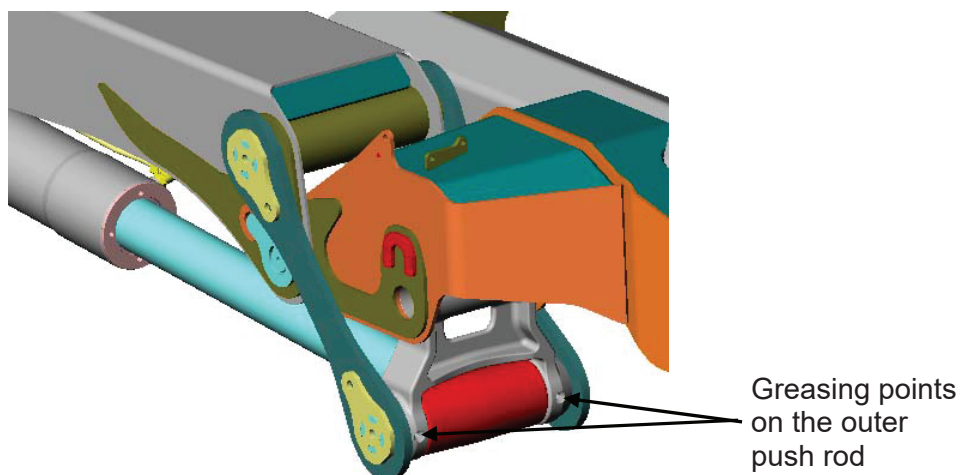
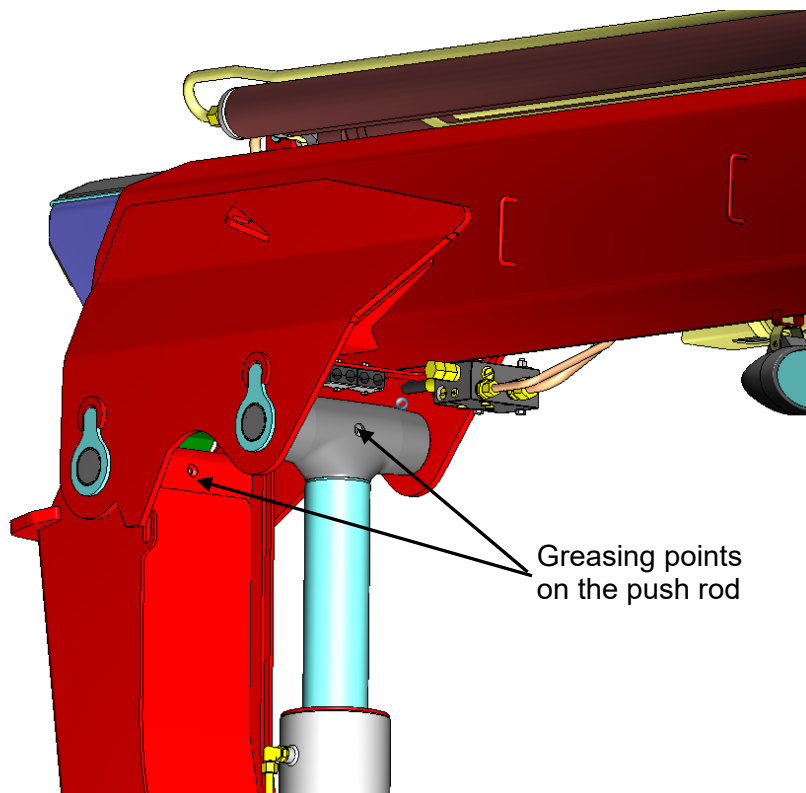


Figure 4 – Greasing points on outer push rod at the jib cylinder

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.



Pins on the Main Boom:

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.

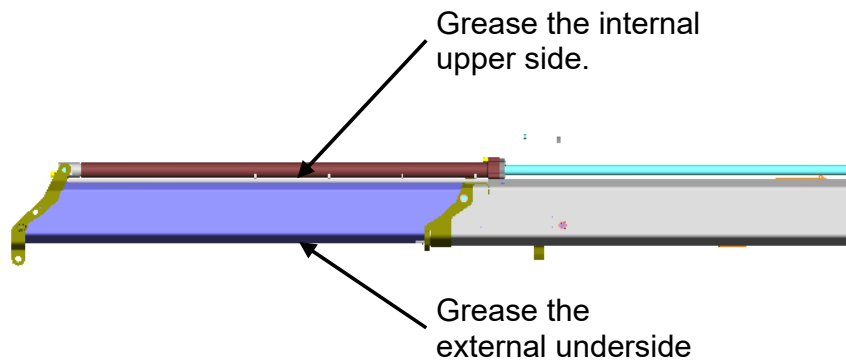


Figure 5 - Boom system with indication of greasing points

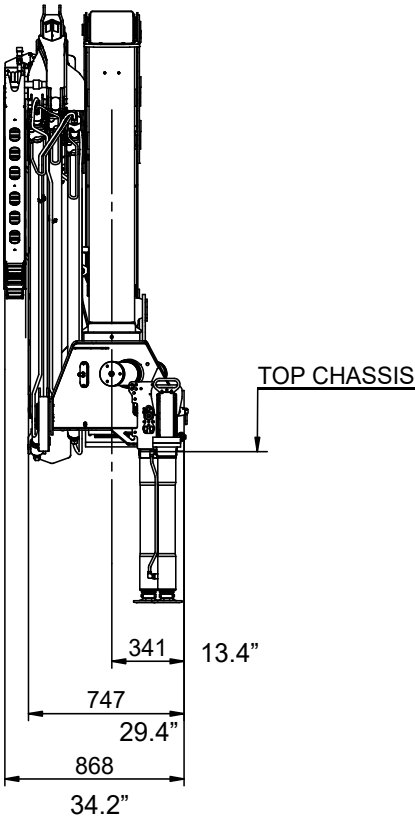
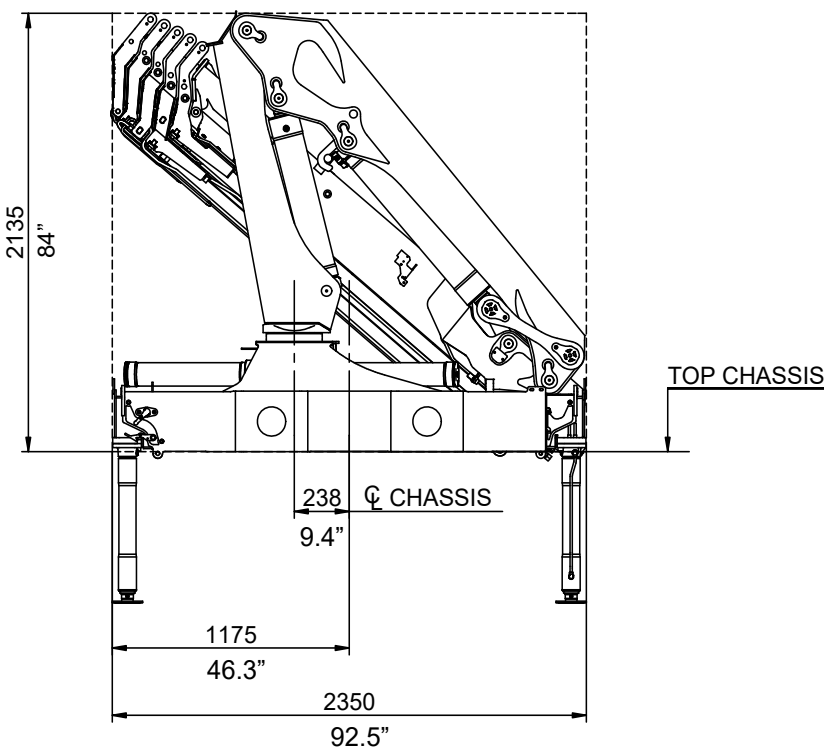
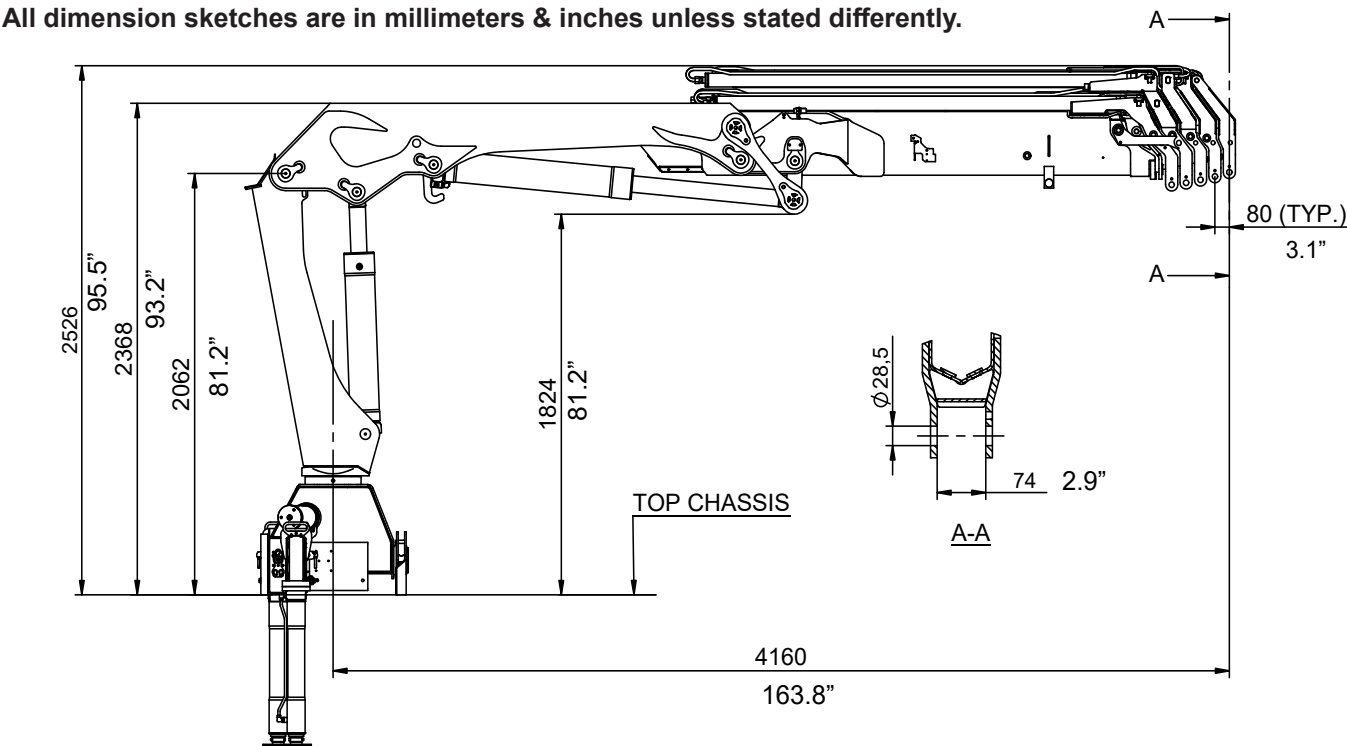
This page left intentionally blank

1730 MCS - Dimension Drawings

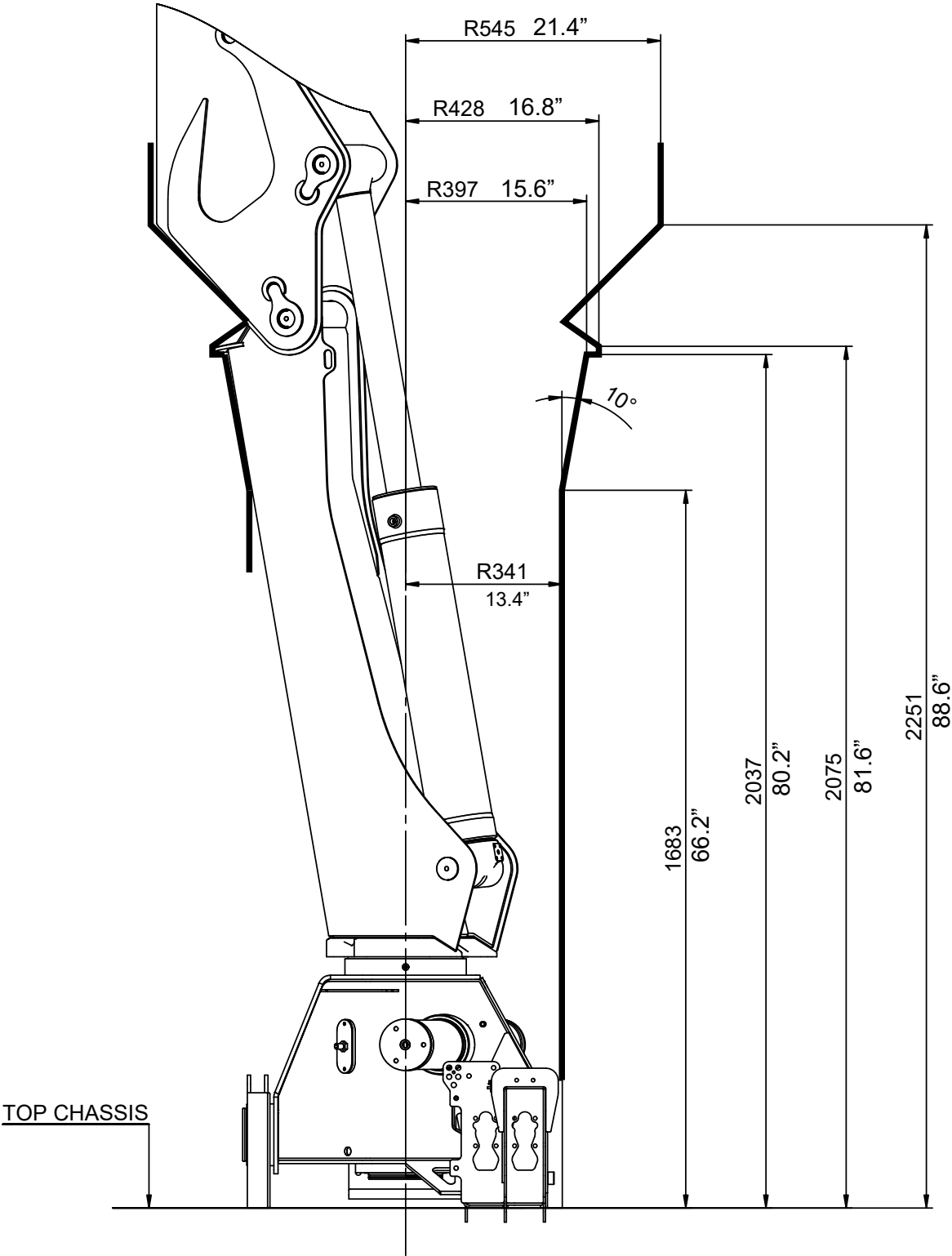
Section - 5

1730 MCS - Dimension Sketch

All dimension sketches are in millimeters & inches unless stated differently.

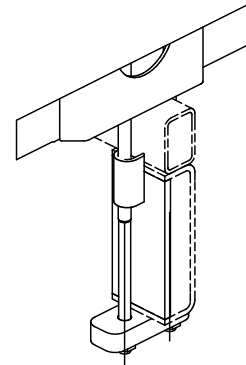
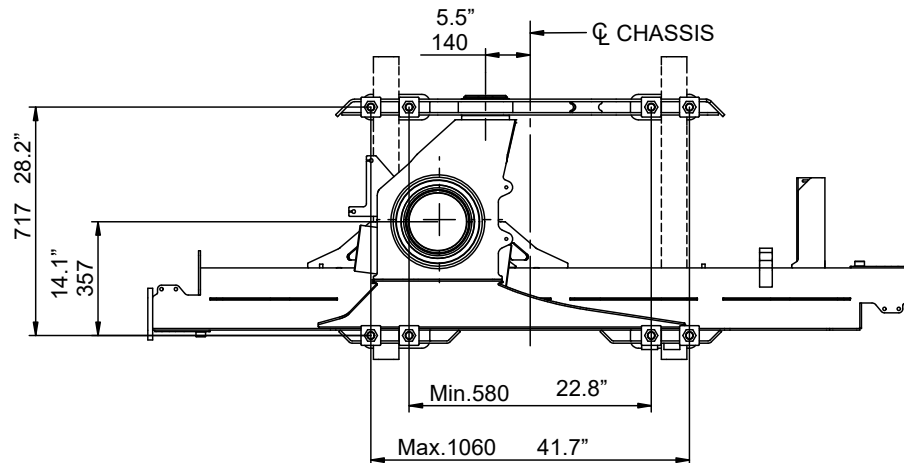


1730 MCS - Slewing Radius



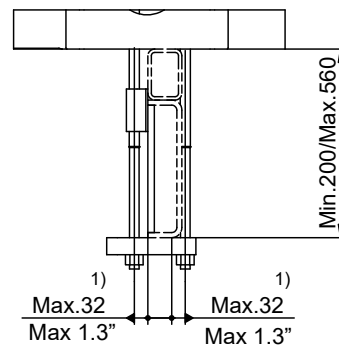
1730 - Dimension Sketch for Truck Mounted Loader

Mounting kit 8 x M24x2 bolts

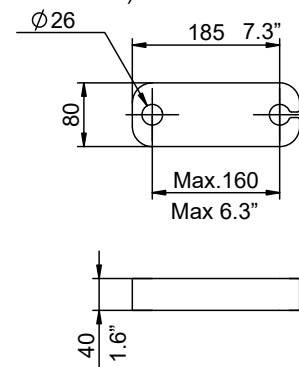


Notes:

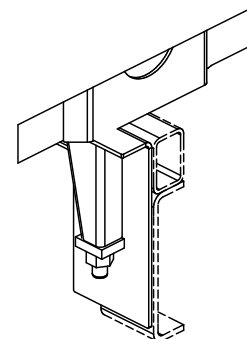
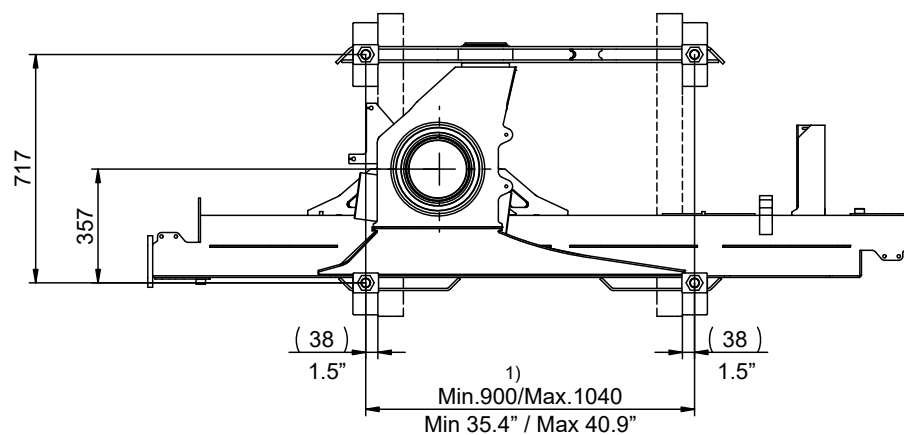
- 1) Values dictated by strength considerations.
- 2) Drill hole when assembling
- 3) As regards installation - please see HMF Installation Manual
- 4) Mounting kits or spare parts - please see the Spare Parts Catalogue of the individual loader



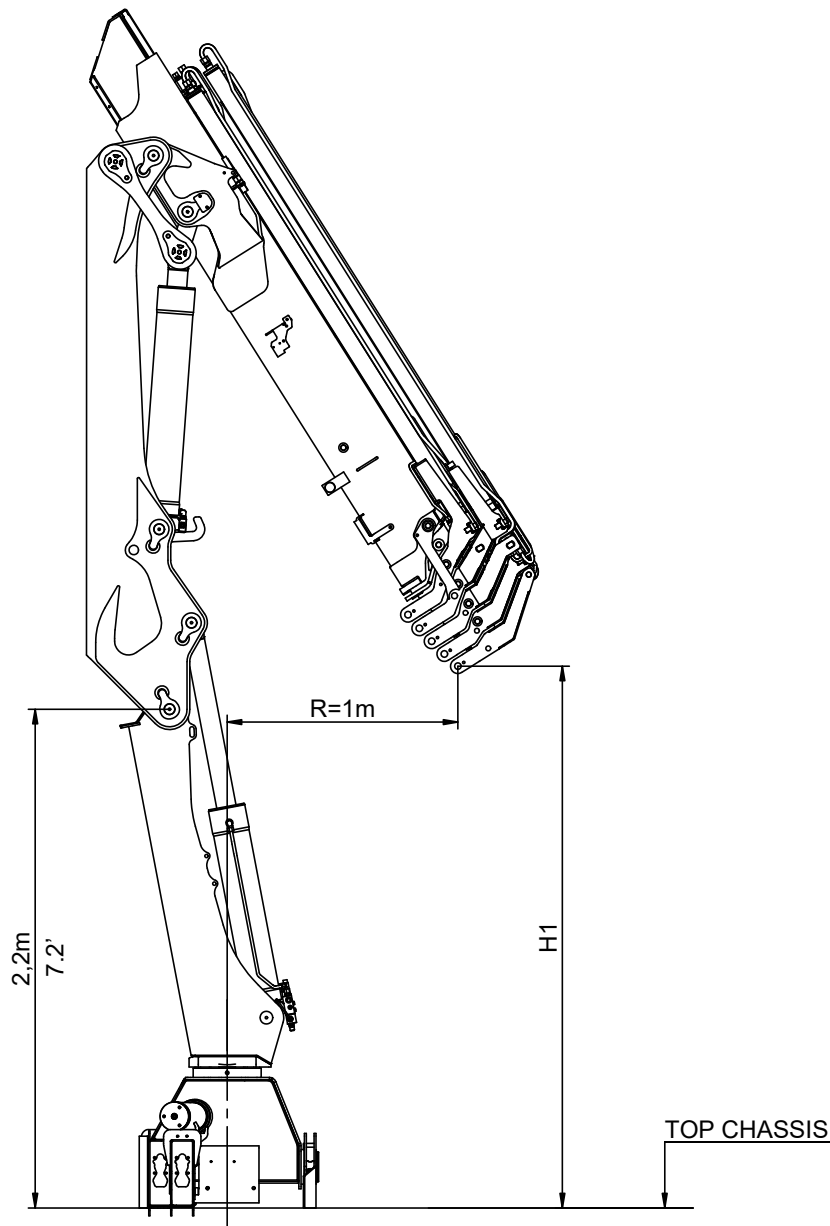
See note 2)



Mounting kit 4 x M30x2 bolts

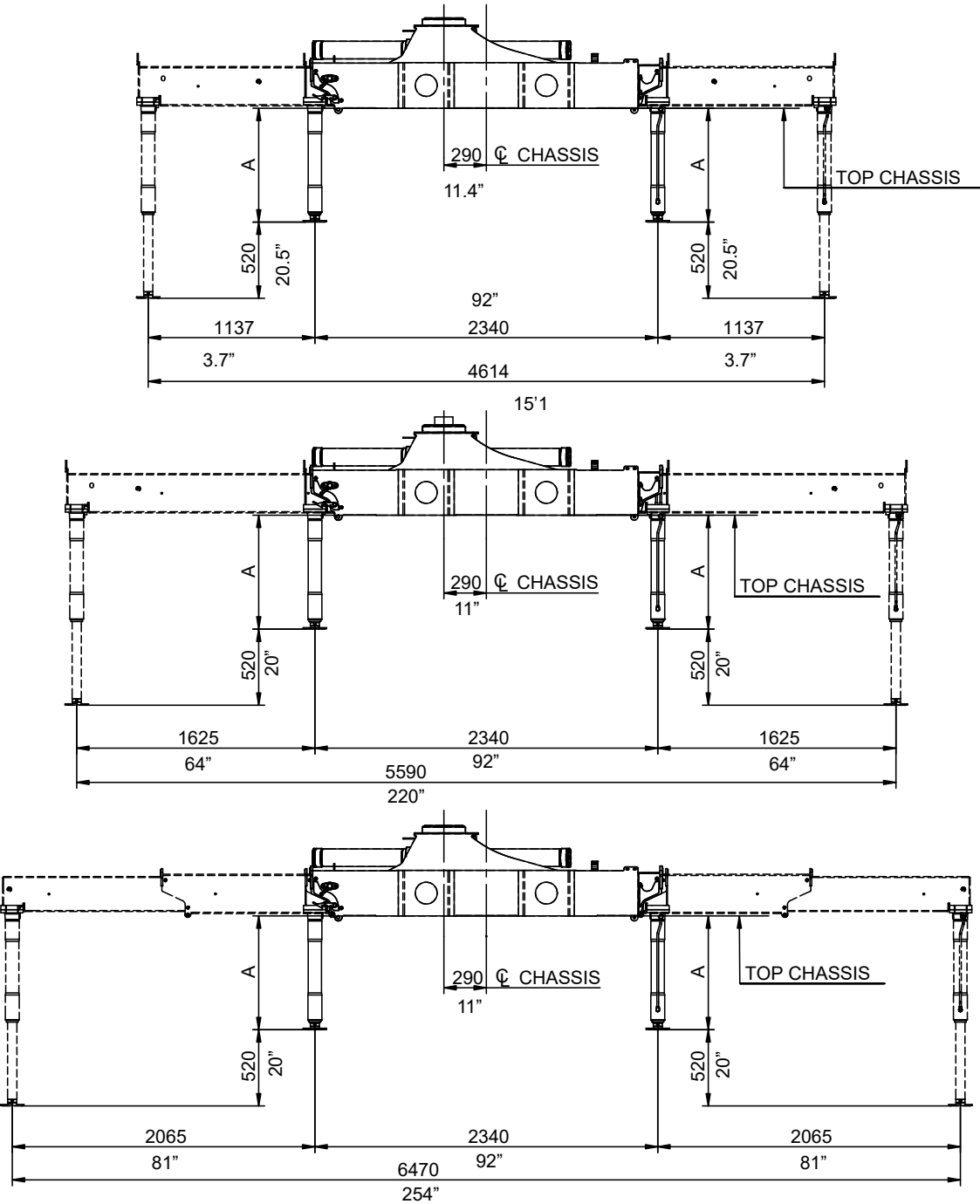


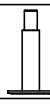
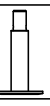
1730 MCS - Lifting Height at Column

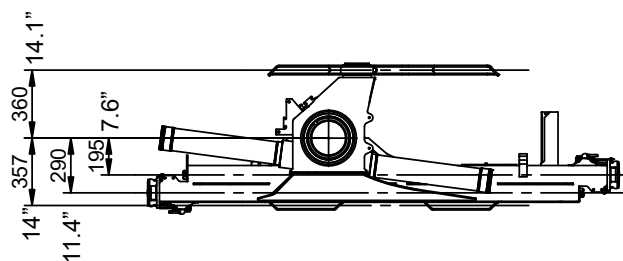
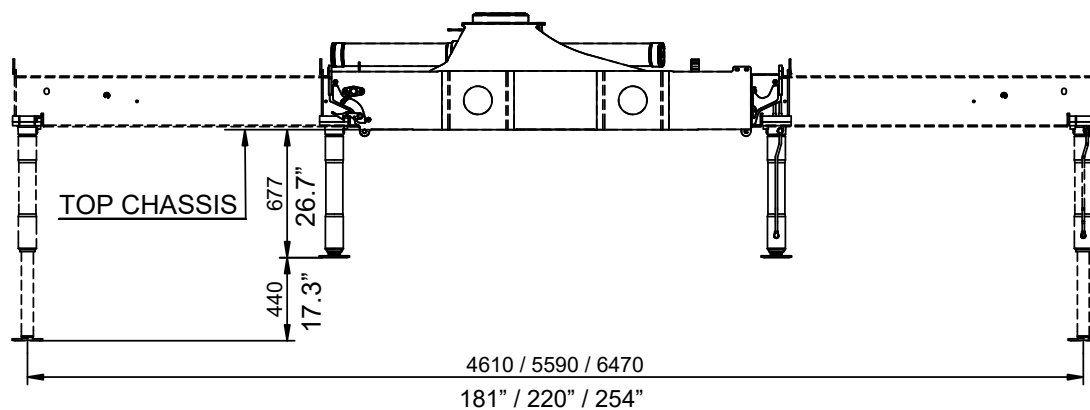


	Feet		Meters
	H1		H1
K1	9.6'	K1	2,94m
K2	9.3'	K2	2,84m
K3	9.0'	K3	2,74m
K4	8.7'	K4	2,64m
K5	8.3'	K5	2,54m

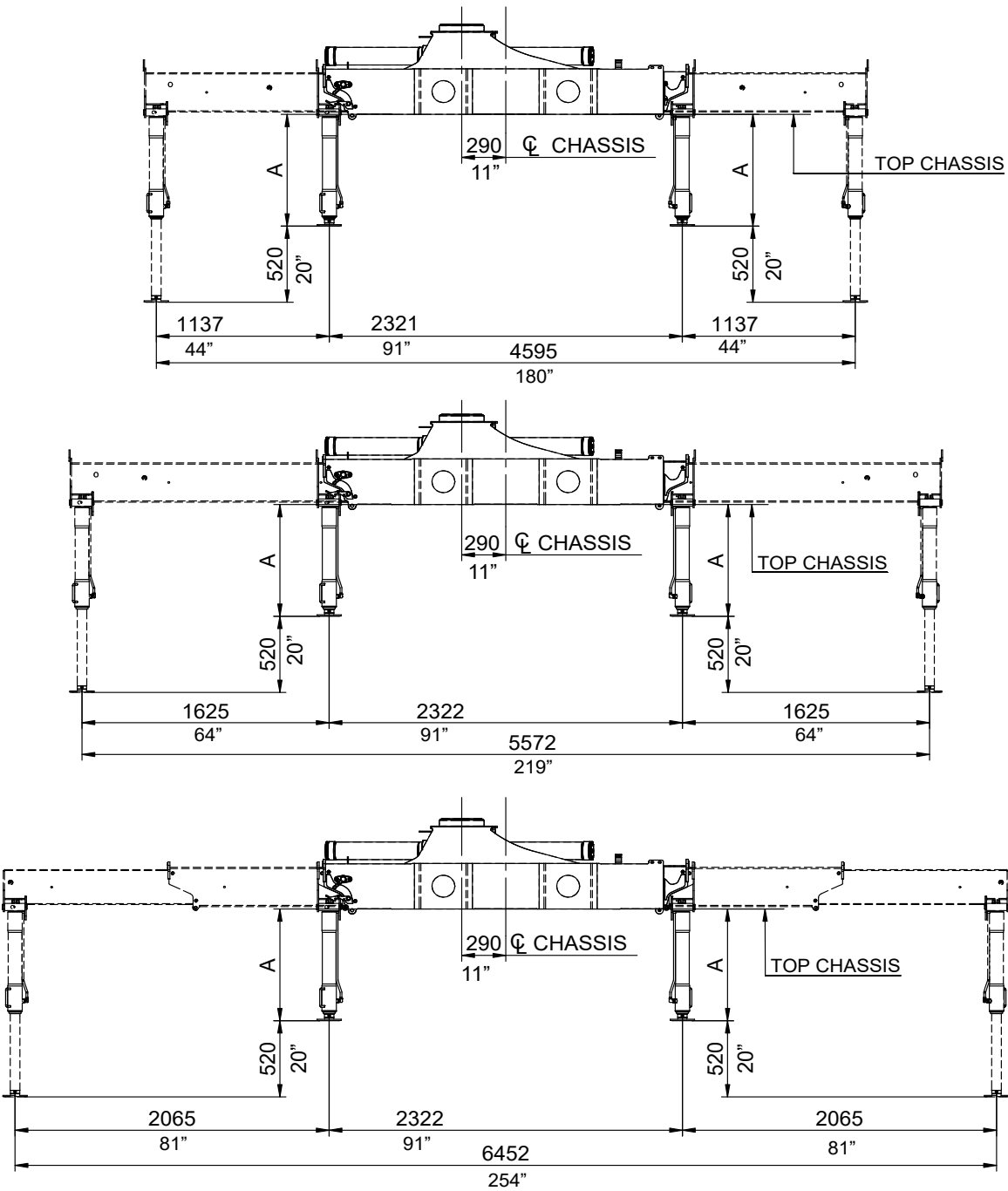
1730 MCS - Fixed Stabilizer Legs



Inches				Metric mm			
							
A	30.6"	34.5"	38.5"	A	777	877	977

1730 MCS - Fixed Stabilizer Legs (continued)Stabilizer cylinder, C80-440

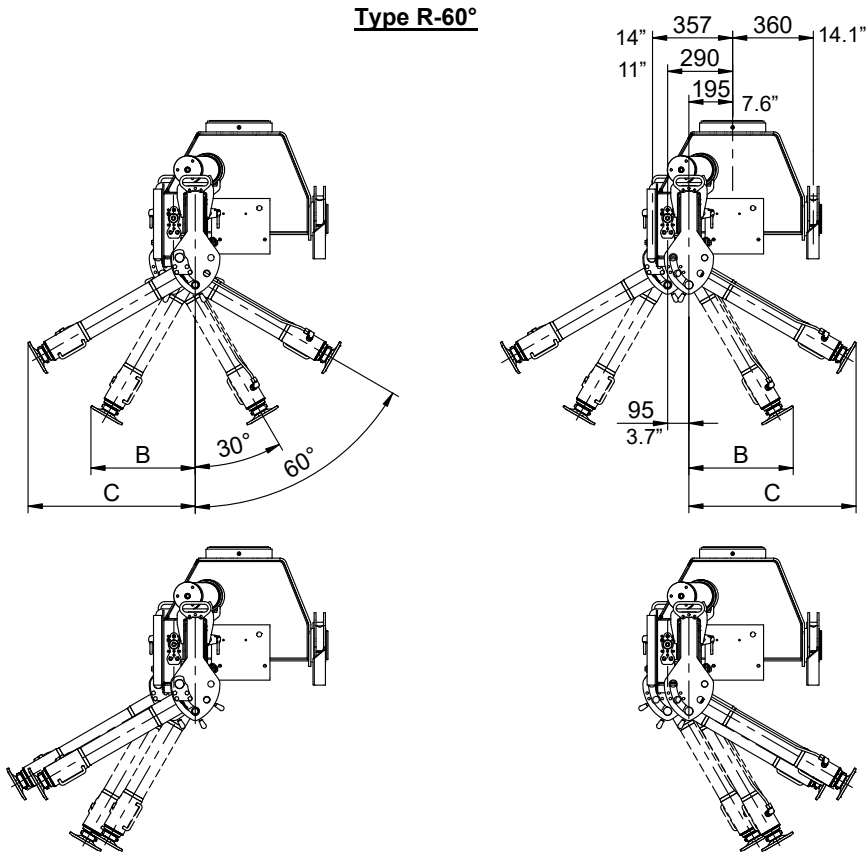
1730 MCS - Swing-Up Stabilizer Legs 20° - 60° (Manual)



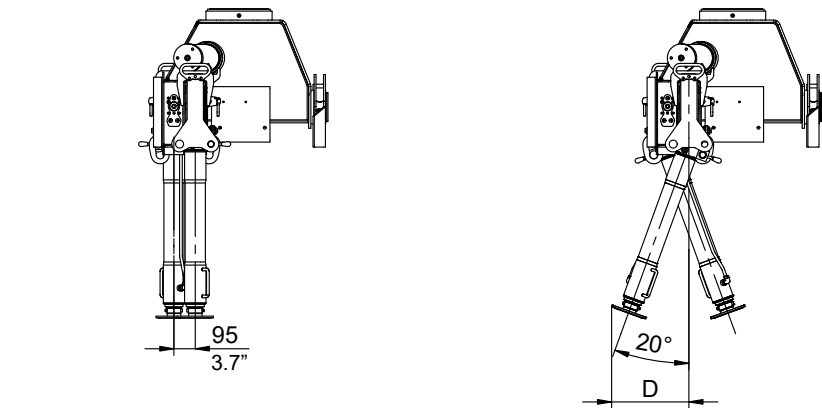
Inches				mm			
A Type R-60°	30.4"	34.3"	38.2"	A Type R-60°	771	871	971
A Type R-20° (Obsolete)	30.0"	34.0"	37.9"	A Type R-20° (Obsolete)	763	863	963

1730 MCS - Swing-Up Stabilizer Legs 20° - 60° (Manual)

Type R-60°

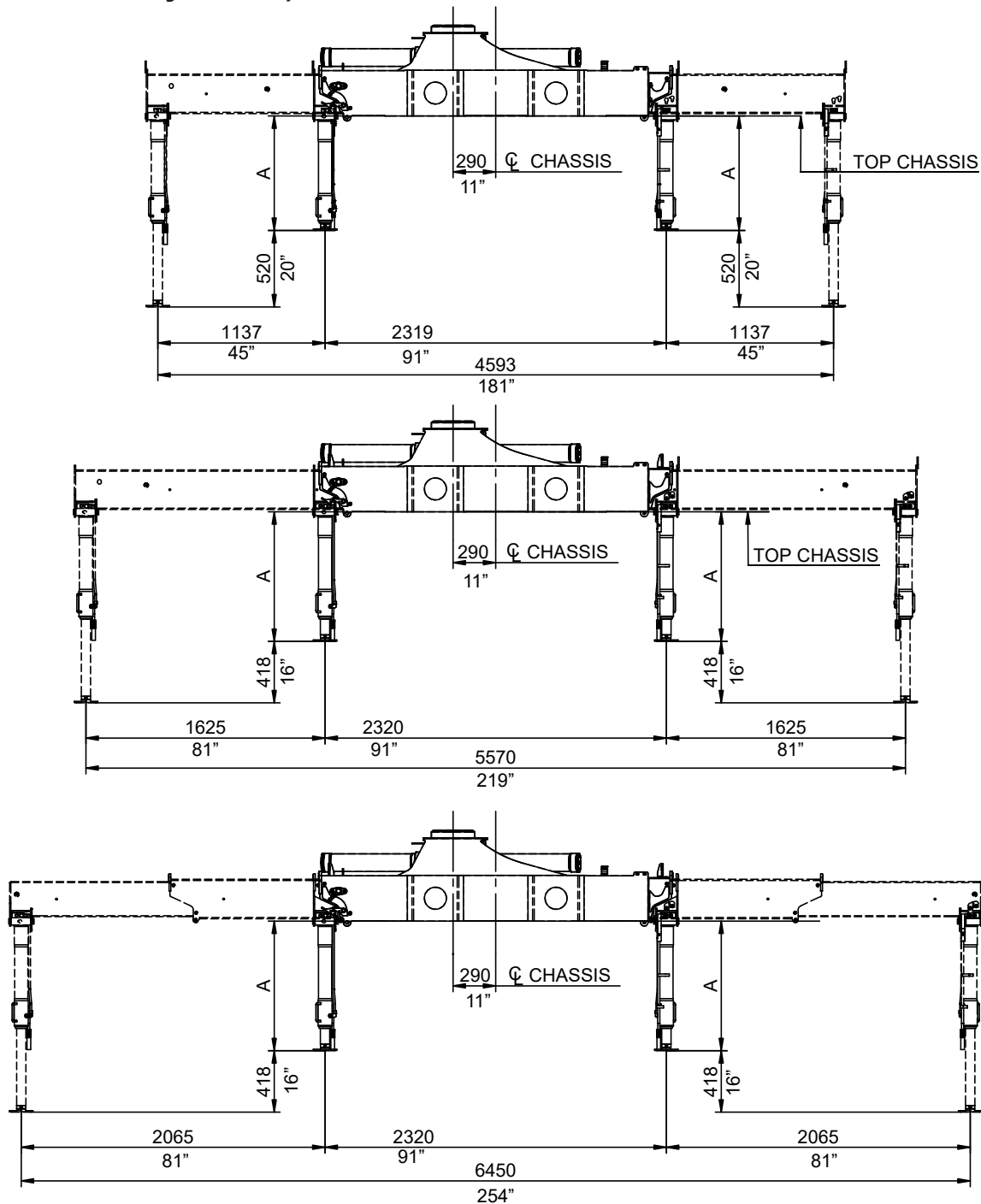


Type R-20° (Obsolete)



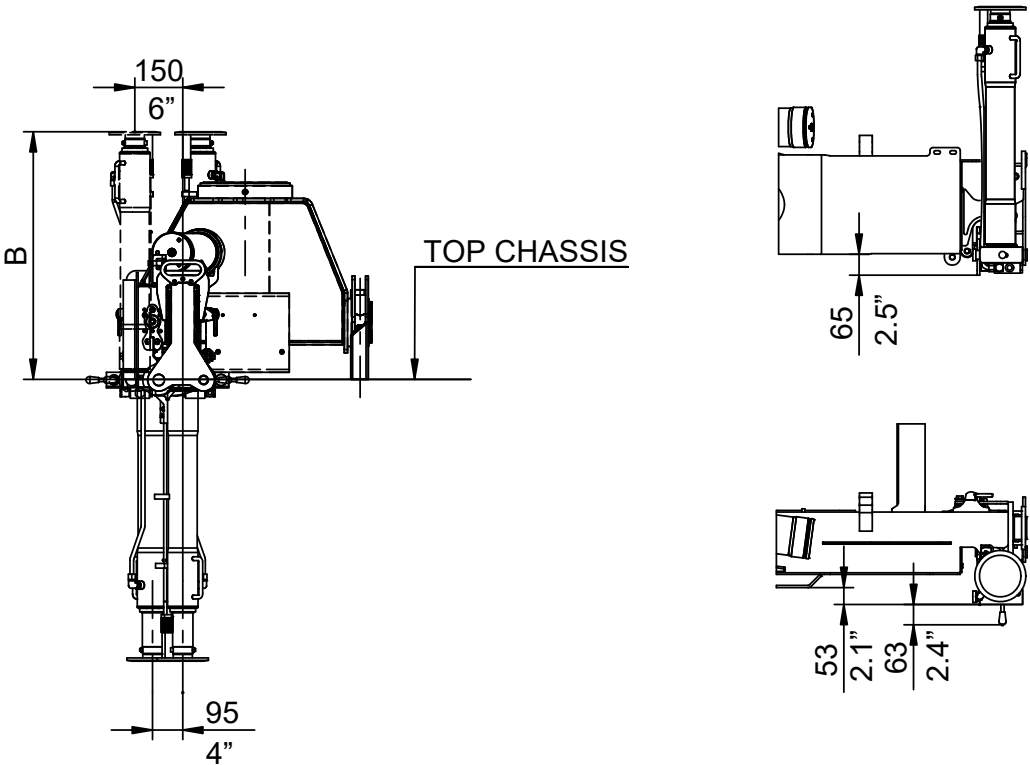
Inches				Metric mm			
							
B	18.3"	20.3"	22.9"	B	465	515	565
C	29.3"	32.7"	36.1"	C	744	831	918
D	13.5"	14.9"	16.2"	D	344	378	412

1730 MCS - Dimension Sketch, Swing-Up Stabilizer Legs 180 (Manual & Hydraulic)

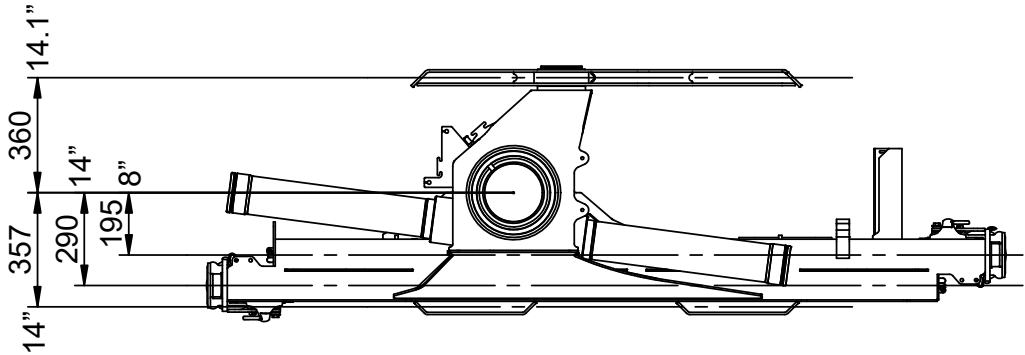


Inches				Metric mm		
						
A	34.7"	38.6"	42.6"	A	881	981
						1081

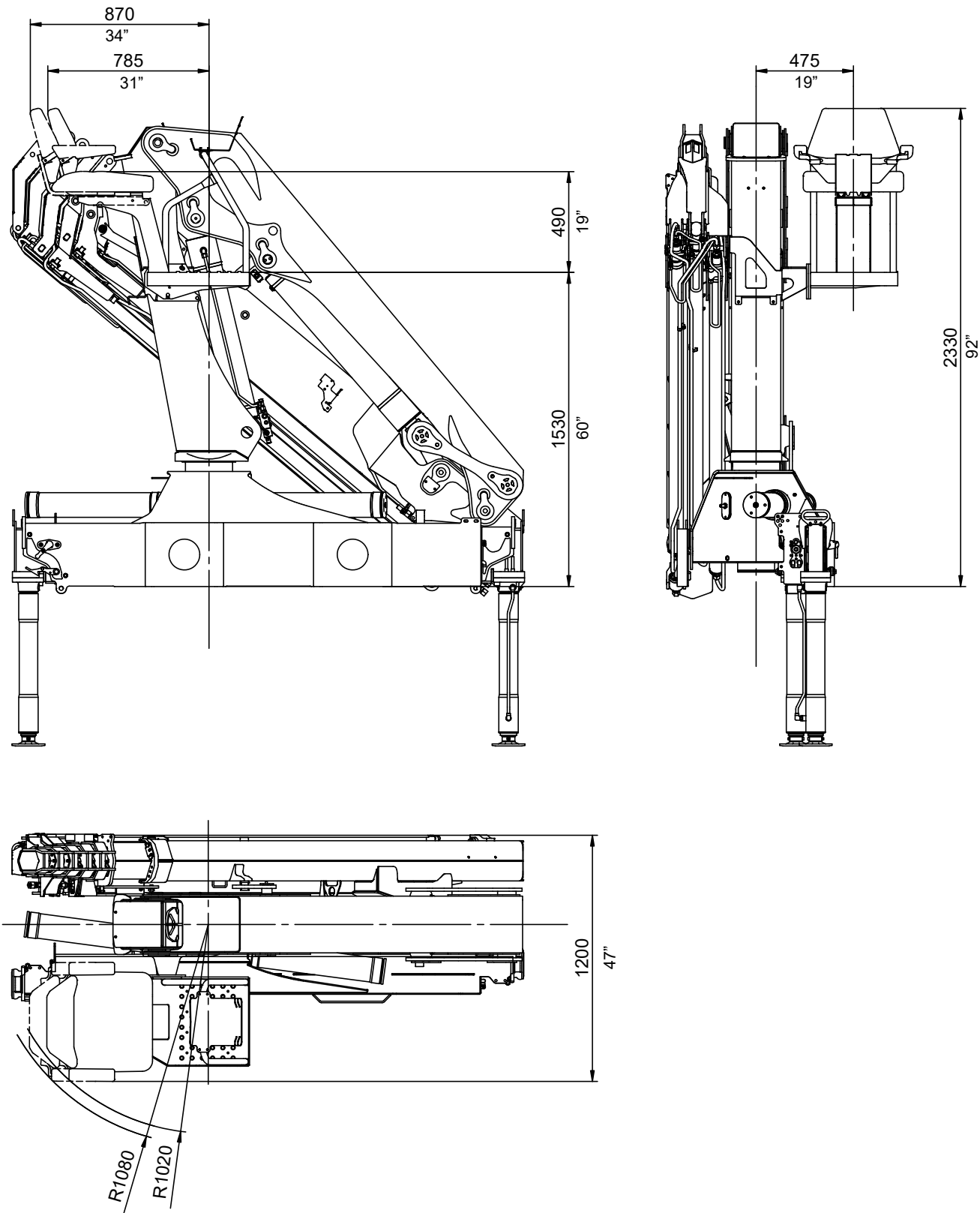
Continued



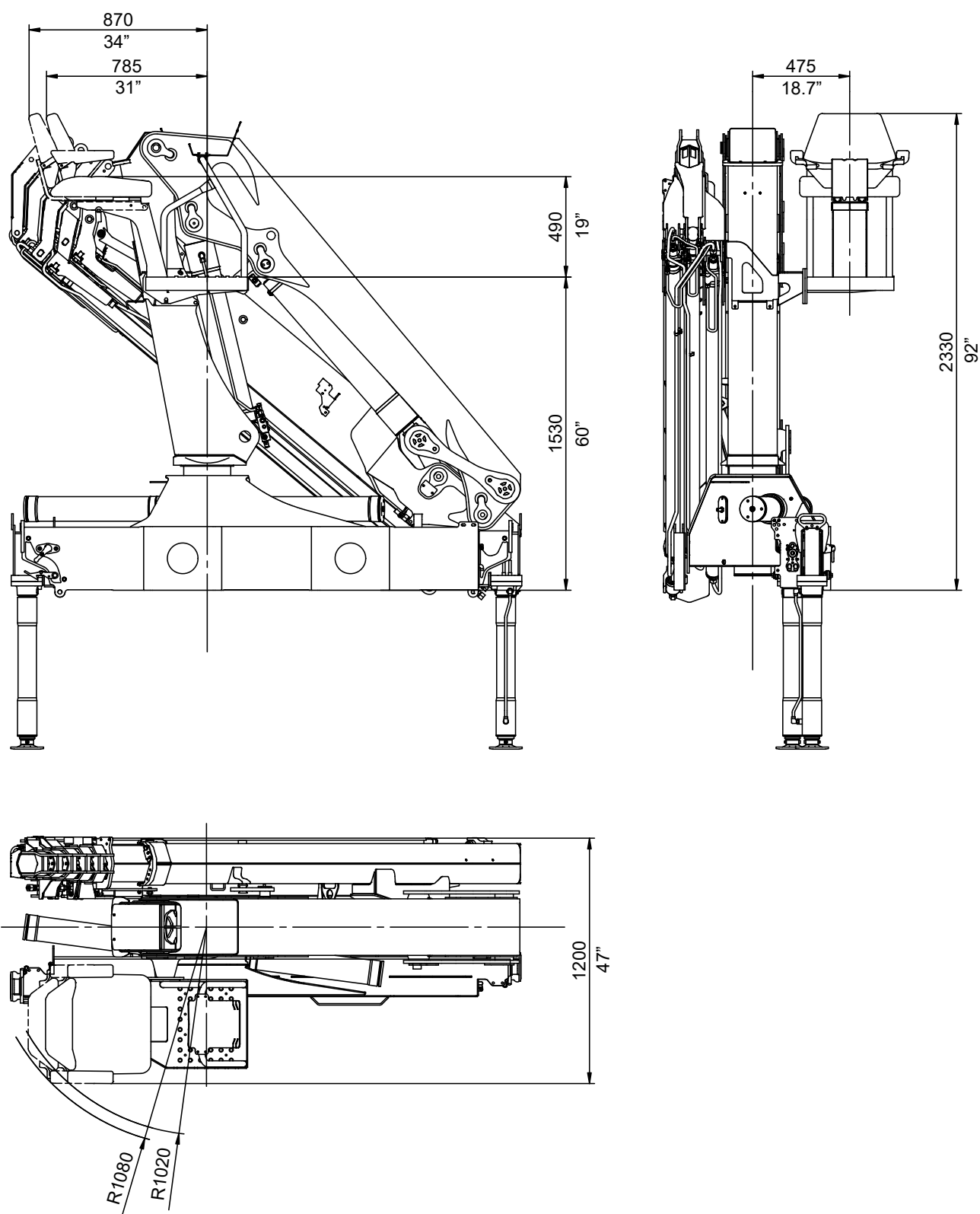
Inches				Metric mm			
B	30.5"	34.4"	38.4"	B	775	875	975



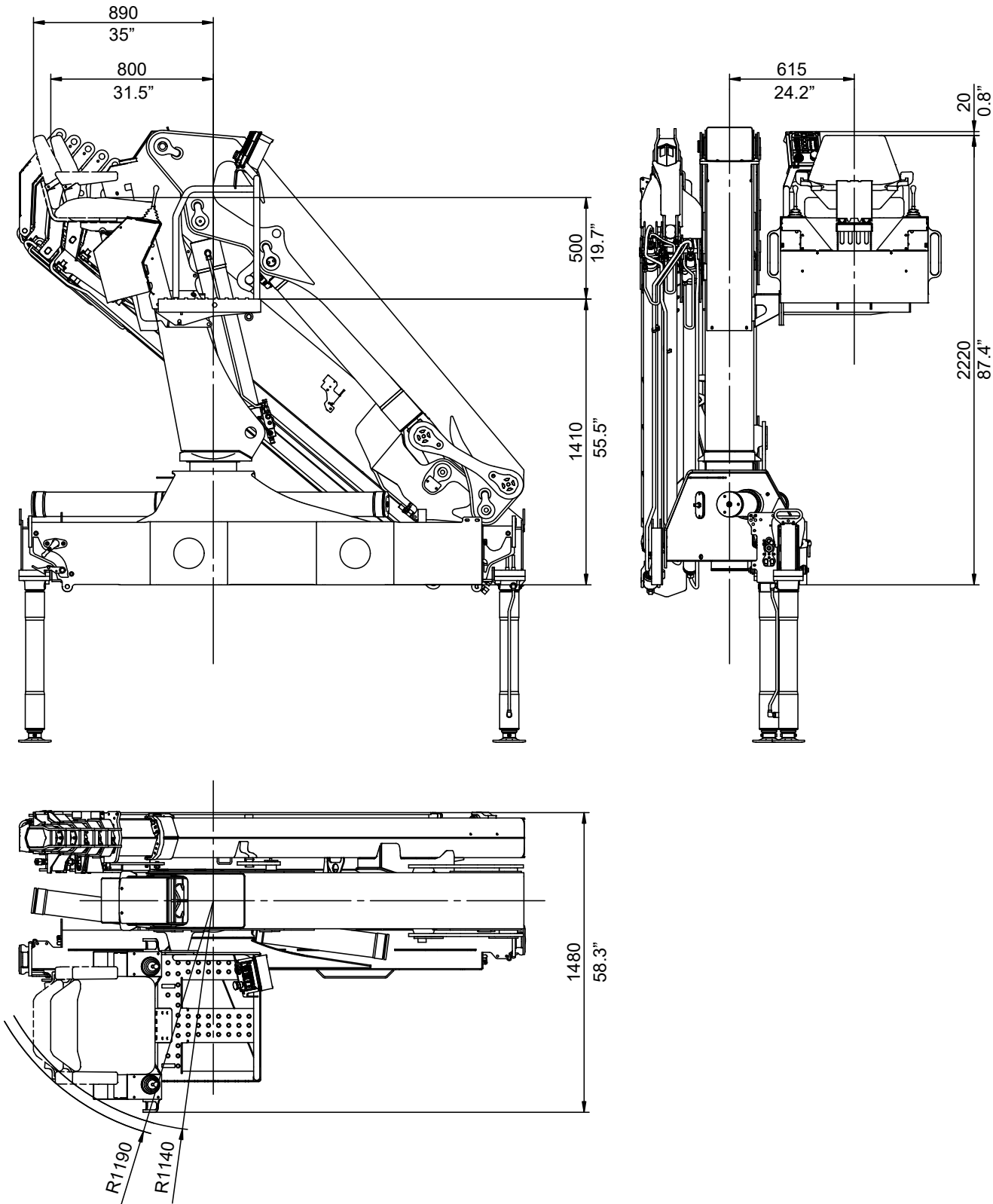
1730 MCS - Dimension Sketch, TS, Top Seat (RC)

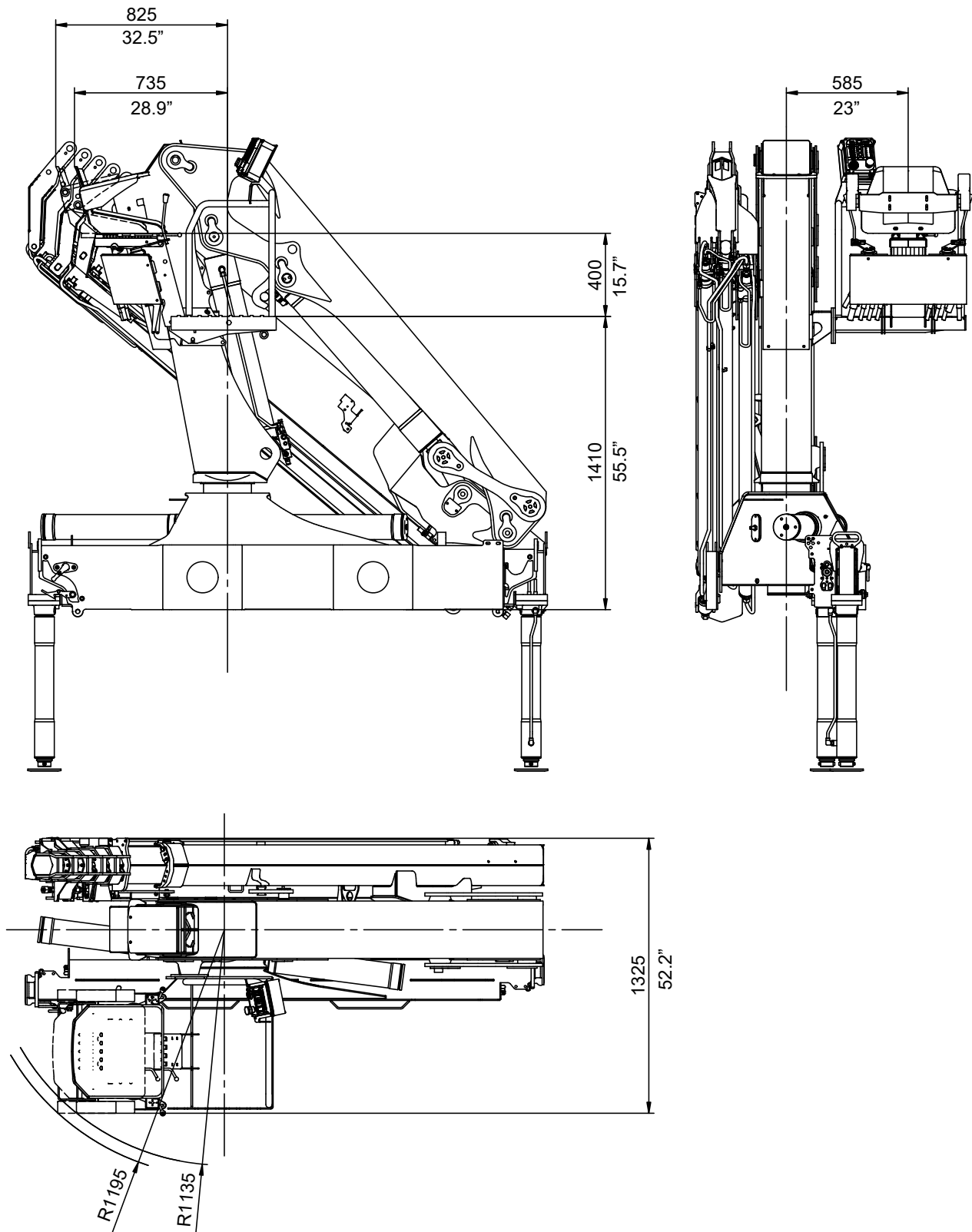


1730 MCS - Dimension Sketch, TS, Top Seat (HC Linear)

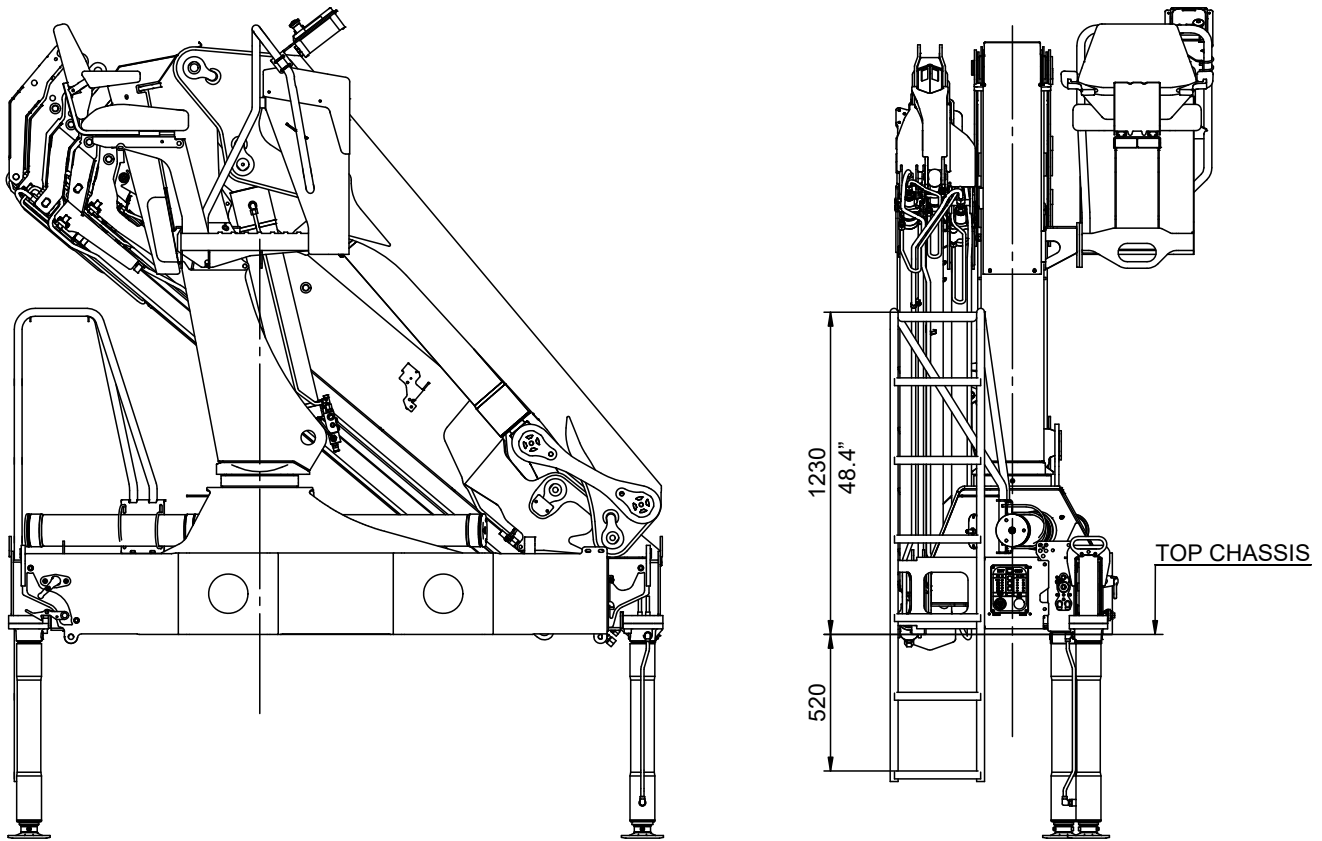


1730 MCS - Dimension Sketch, TS, Top Seat (Danfoss X)



1730 MCS - Dimension Sketch, TS Top Seat, (HC X)

1730 MCS - Dimension Sketch, Ladder for TS

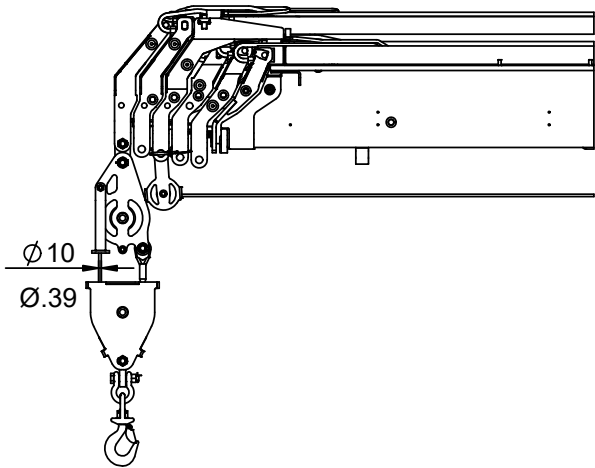
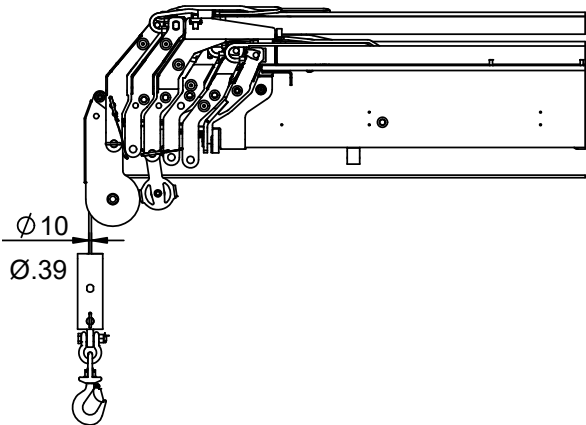
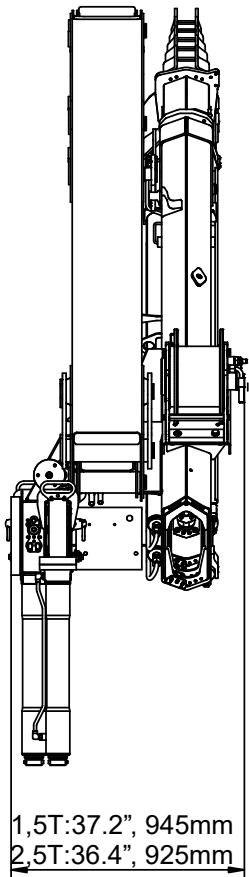
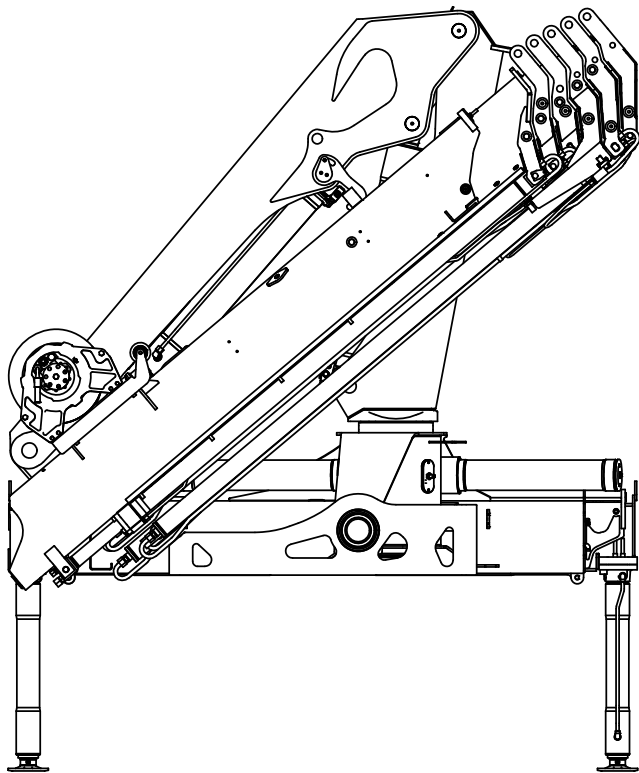
**NOTE:**

1. LADDER CANNOT BE USED FOR TS RC.
2. THERE IS NO ACCESS TO THE TOP SEAT WHEN THE LOADER IS IN STOWING POSITION.

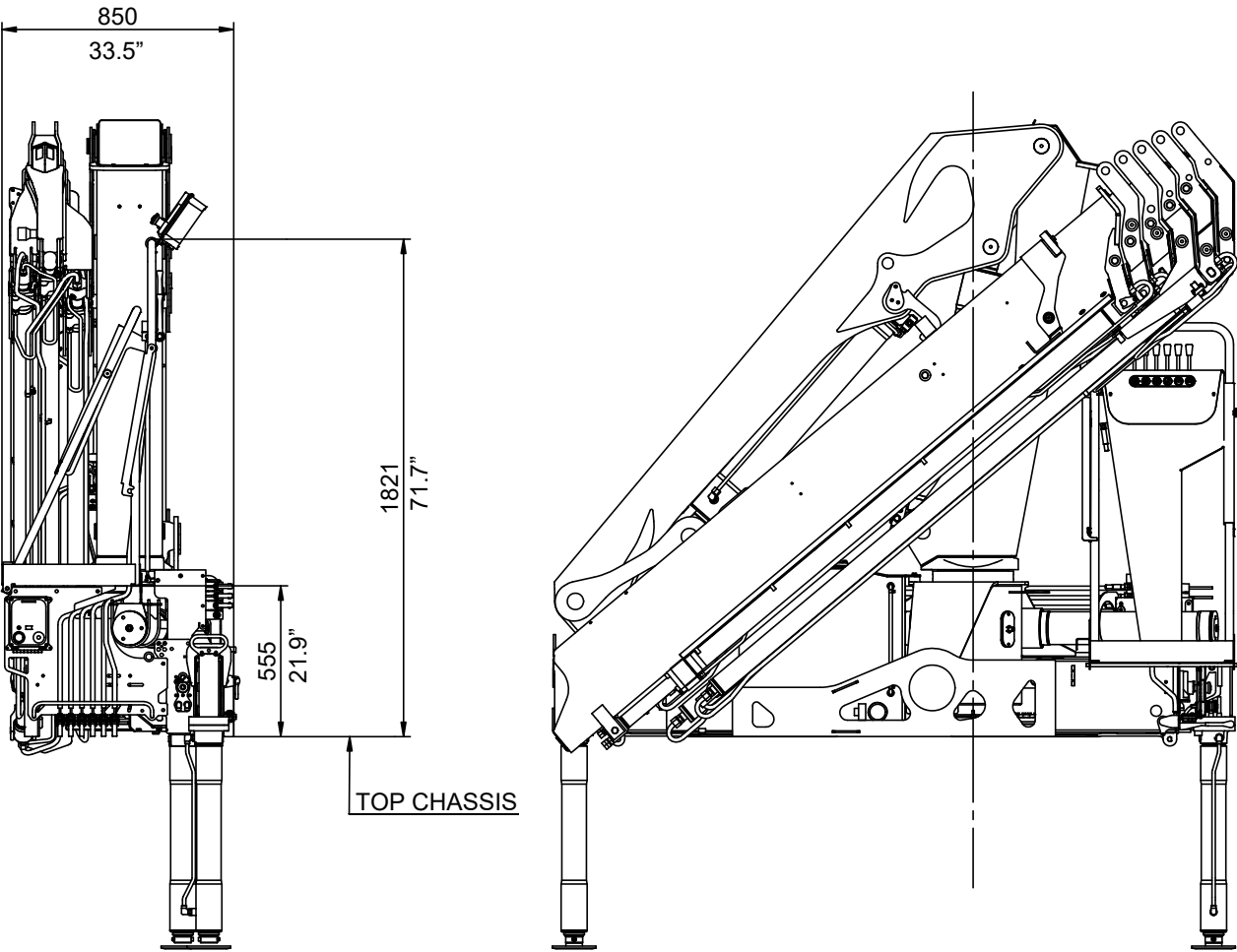
1730 MCS - Technical Data

Performance (at 2176 psi)	50Unit30	1.5T Winch	2.5T Winch
Max. wire pull – 1st layer	30lb40	3307	5512
Max. wire pull – 2nd layer	lb	3020	5071
Max. wire pull – 3rd layer	lb	1260	4630
Max. wire pull – 4th layer	lb	1170	4300
Wire Speed (at 10.6 gpm)	Unit	1.5T Winch	2.5T Winch
Max. wire speed – 1st layer	gpm	72	79
Max. wire speed – 2nd layer	gpm	79	85
Max. wire speed – 3rd layer	gpm	85	92
Max. wire speed – 4th layer	gpm	92	98
Weights	Unit	1.5T Winch	2.5T Winch
Tare weight, winch (CE)	lb	143	198
Fixed parts (valve section, brackets, hoses etc.)	lb	110	110
Wire Ø.39 in x 164 ft	lb	66	66
Spare parts, single snatch block	lb	66	66
Spare parts, double snatch block	lb	88	88
METRIC			
Performance (at 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 L/min)	Unit	1,5T Winch	2,5T Winch
Max. wire speed – 1st layer	m/min	22	24
Max. wire speed – 2nd layer	m/min	24	26
Max. wire speed – 3rd layer	m/min	26	28
Max. wire speed – 4th layer	m/min	28	30
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

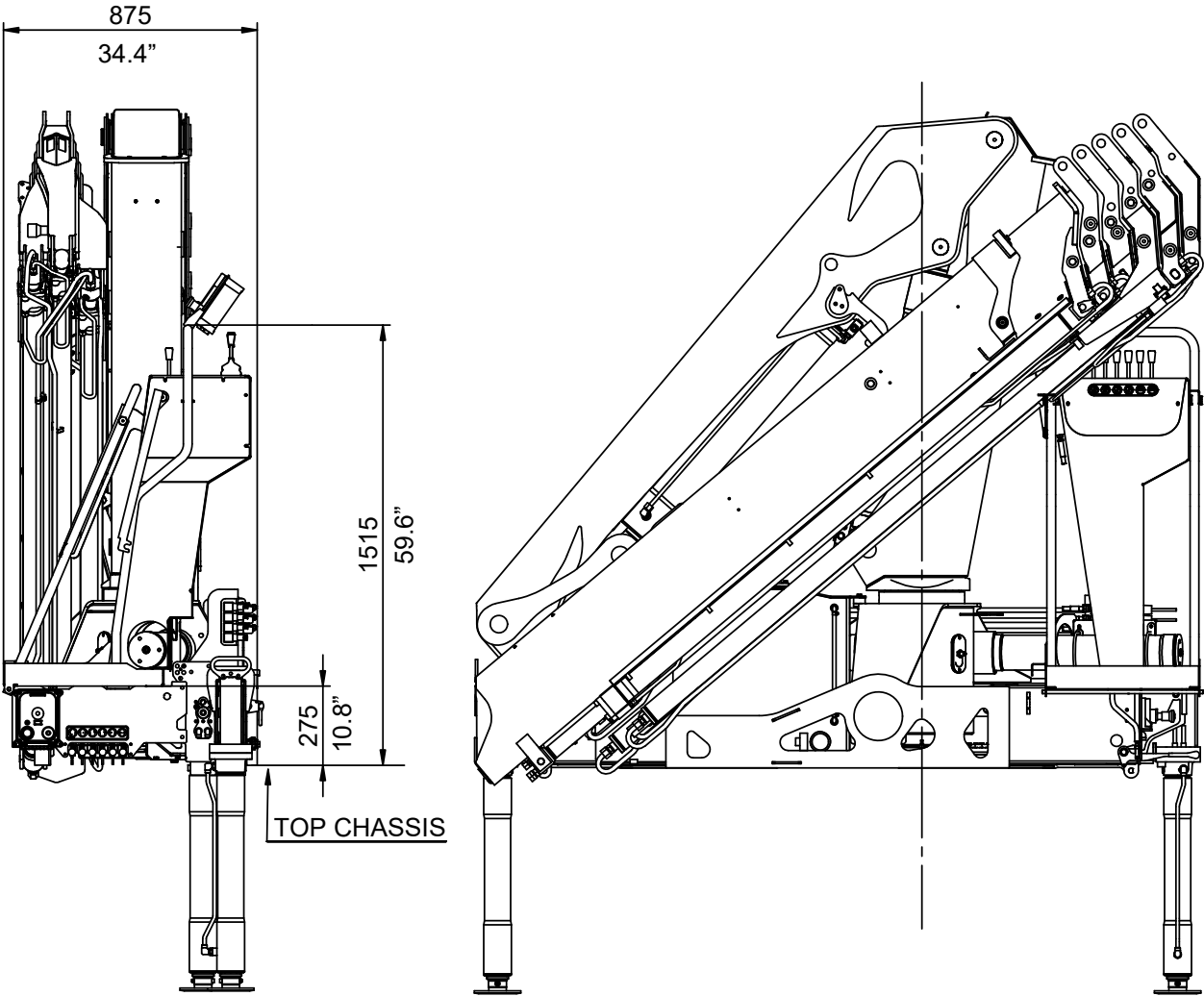
1730 MCS - Dimension Sketch, Winch



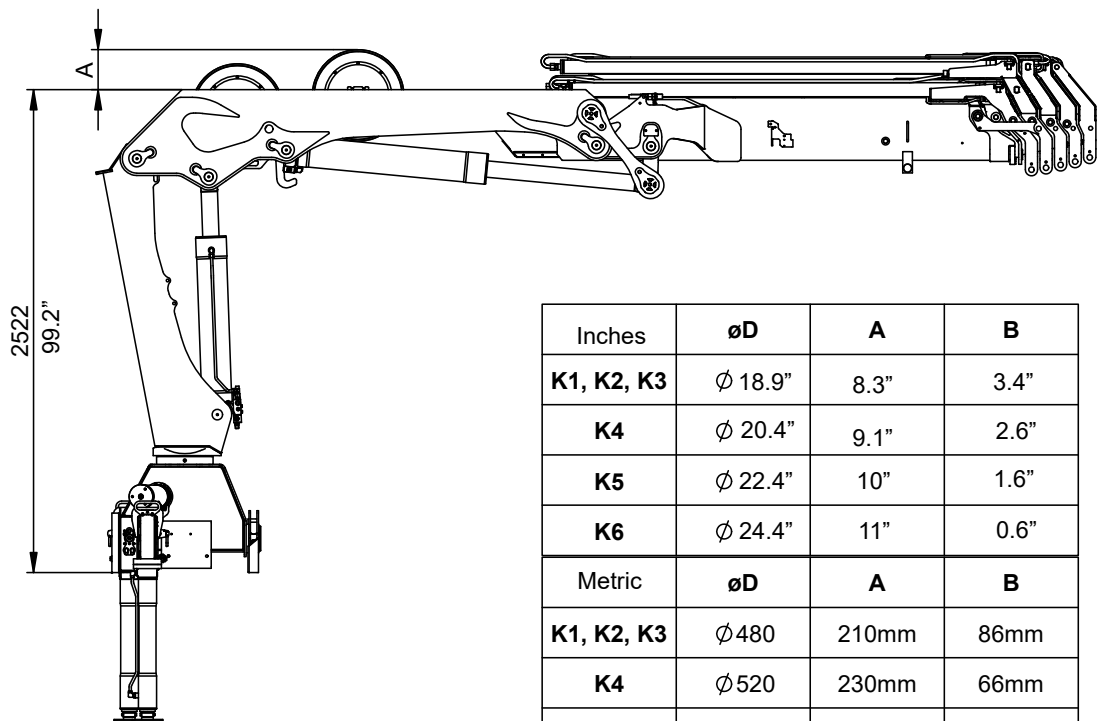
1730 MCS - Dimension Sketch, Stand-Up Platform (Standard)



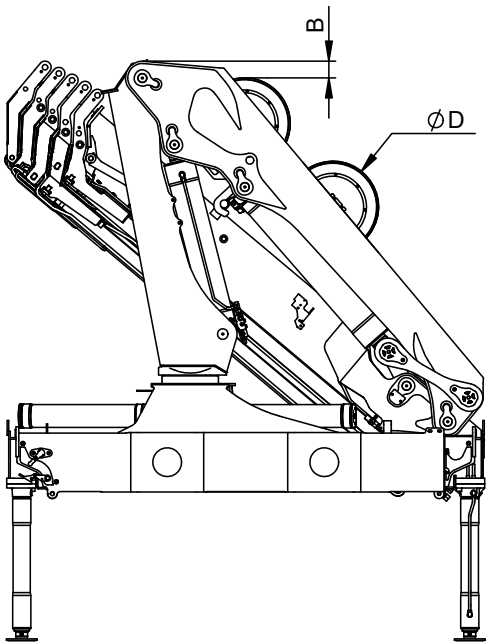
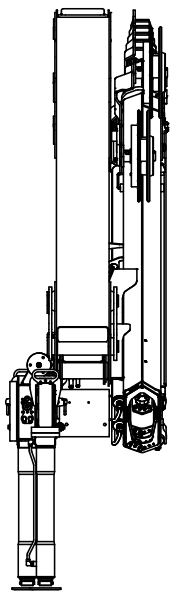
1730 MCS - Dimension Sketch, Stand-Up Platform (Valve Control)



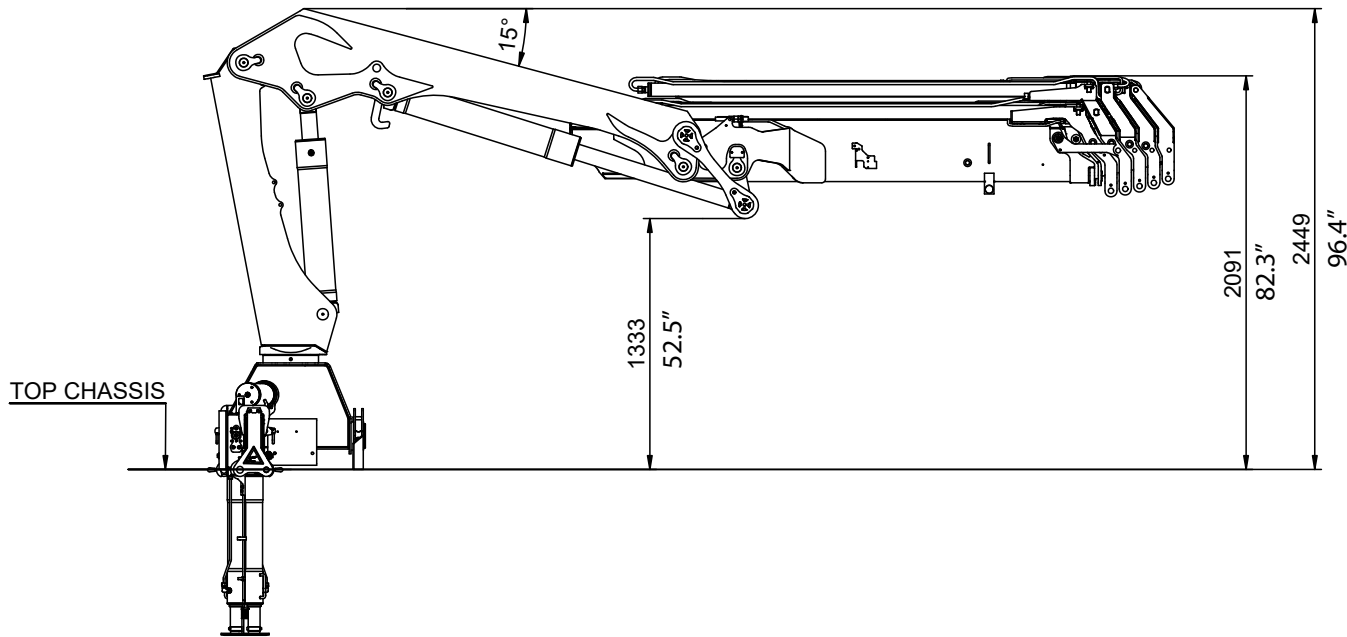
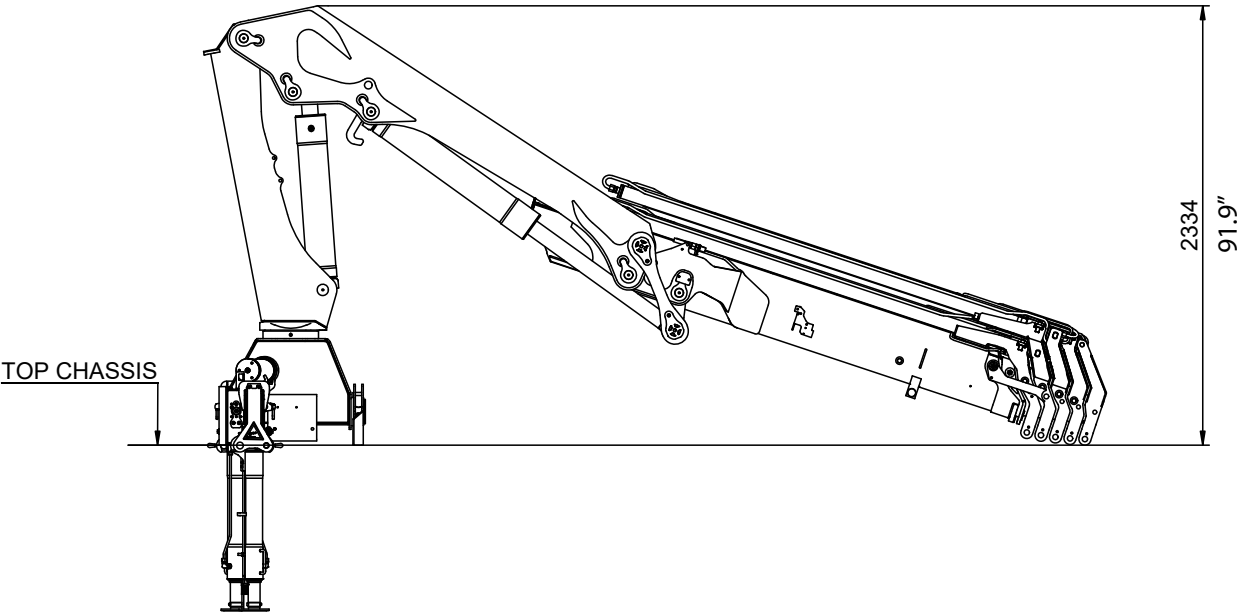
1730 MCS - Dimension Sketch, Internal Hose Routing)



Inches	øD	A	B
K1, K2, K3	Ø 18.9"	8.3"	3.4"
K4	Ø 20.4"	9.1"	2.6"
K5	Ø 22.4"	10"	1.6"
K6	Ø 24.4"	11"	0.6"
Metric	øD	A	B
K1, K2, K3	Ø480	210mm	86mm
K4	Ø520	230mm	66mm
K5	Ø570	255mm	41mm
K6	Ø620	280mm	16mm



1730 MCS - Stowed in Truck Body

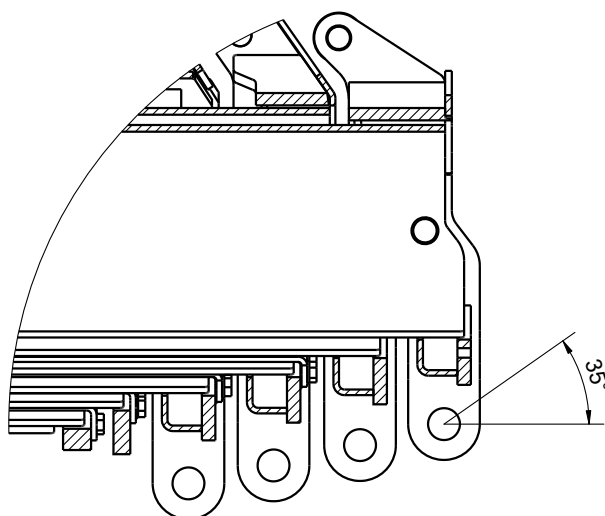


1730 MCS - Dimension Sketch for Connecting Link

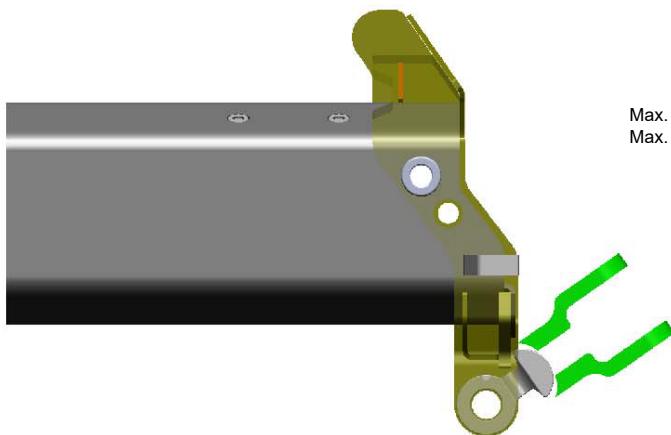
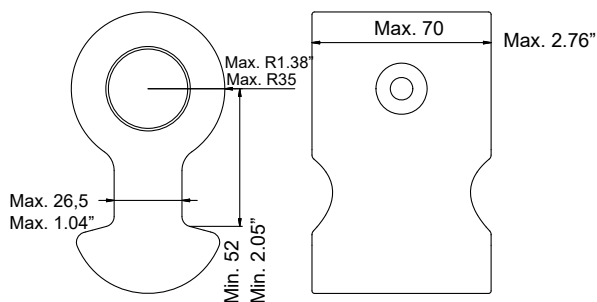
Manufacturing of connecting links for crane equipment:

The following design considerations are recommended to ensure that the connecting link can swing sufficiently when using the equipment connected and when stowing in truck body and/or folding.

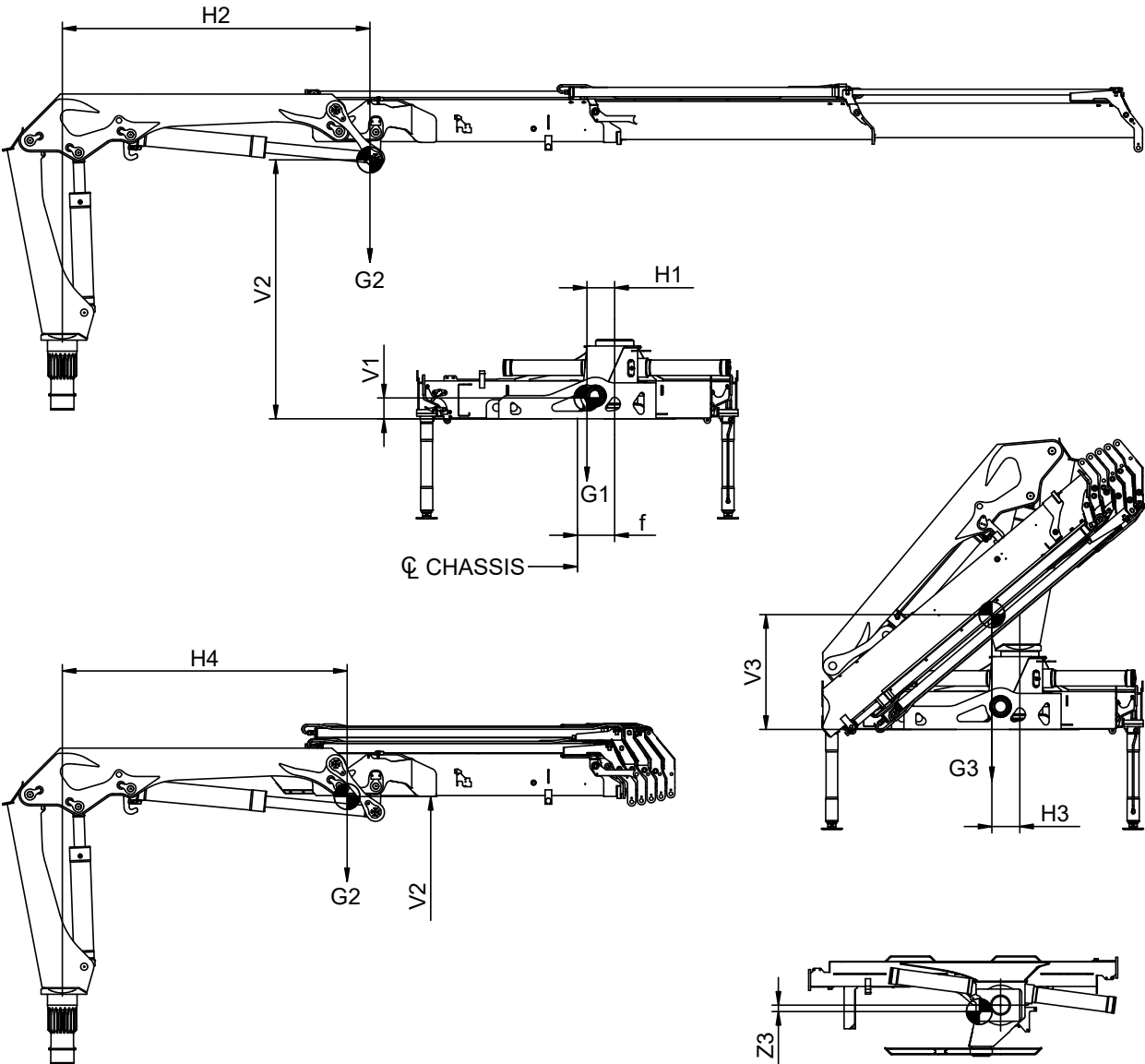
In general, we recommend that the connecting link can move freely in an angle of minimum 35° in both directions in relation to the longitudinal direction of the jib extension. This is to minimize the risk of damage to the hook suspension when placing crane equipment in the truck body.



Recommended dimensions for connecting link.
(mm and inches)



1730 MCS - Cneter of Gravity



	Inches										lb		
	V1	V2	V3	H1	H2	H3	H4	Z3	f		G1	G2	G3
K1	6.5"	76.4"	28.7"	8.5"	66.1"	14.0"	55.9"	0.2"	11.4"		1433	1973	3406
K2	6.5"	78.7"	29.7"	8.5"	94.1"	13.9"	65.5"	1.2"	11.4"		1433	2293	3726
K3	6.5"	80.5"	30.7"	8.5"	123.8"	13.2"	72.8"	1.8"	11.4"		1433	2601	4034
K4	6.5"	81.9"	31.7"	8.5"	155.1"	12.6"	78.7"	2.4"	11.4"		1433	2888	4321
K5	6.5"	82.7"	32.5"	8.5"	184.8"	12.0"	83.3"	2.9"	11.4"		1433	3131	4564
K6	6.5"	83.5"	33.1"	8.5"	210.2"	11.4"	86.6"	3.3"	11.4"		1433	3362	4795
	[mm]										[kg]		
	V1	V2	V3	H1	H2	H3	H4	Z3	f		G1	G2	G3
K1	165	1940	730	215	1680	355	1420	5	290		650	895	1545
K2	165	2000	755	215	2390	350	1665	30	290		650	1040	1690
K3	165	2045	780	215	3145	335	1850	45	290		650	1180	1830
K4	165	2080	805	215	3940	320	2000	60	290		650	1310	1960
K5	165	2100	825	215	4695	305	2115	75	290		650	1420	2070
K6	165	2120	840	215	5340	290	2200	85	290		650	1525	2175



IOWA MOLD TOOLING CO., INC.

P.O. Box 189 Garner, IA 50438

Tel: 641.923.3711

Fax: 641.923.2424

www.imt.com

IMT reserves the right to make changes in engineering, design, specifications, add improvements or discontinue manufacturing at any time without notice or obligation.

IMT and IMT LOGO are registered trademarks of Iowa Mold Tooling Co., Inc., Garner, IA, USA.

© 2020 Iowa Mold Tooling Co., Inc. All Right Reserved.