



Manual # 99905404

11/78 Technical Specifications

Revision 20120210



IOWA MOLD TOOLING CO., INC.

PO Box 189

Garner, IA 50438

Tel: 641-923-3711 FAX: 641-923-2424

Website: <http://www.imt.com>

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C H A P T E R 1

Technical Data and Charts

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11/78 Technical Specifications

11/78	1-HYDRAULIC	2-HYDRAULIC	3-HYDRAULIC	4-HYDRAULIC	5-HYDRAULIC
Crane Rating (Single Link)	77,395 ft-lb (10.7 tm)	74,500 ft-lb (10.3 tm)	72,330 ft-lb (10.0 tm)	70,160 ft-lb (9.7 tm)	67,990 ft-lb (9.4 tm)
Crane Rating (Double Link)	76,670 ft-lb (10.6 tm)	73,775 ft-lb (10.2 tm)	71,605 ft-lb (9.9 tm)	69,435 ft-lb (9.6 tm)	67,265 ft-lb (9.3 tm)
Maximum Horizontal Reach	20'-0" (6.1 m)	26'-11" (8.2 m)	34'-5" (10.5 m)	41'-8" (12.7 m)	49'-3" (15.0 m)
Maximum Vertical Reach	27'-5" (8.35 m)	34'-6" (10.5 m)	41'-10" (12.76 m)	46'-5" (15.05 m)	56'-9" (17.31 m)
Capacity - Single Link Cranes					
Maximum Capacity	9170 lb (4160 kg)	8905 lb (4040 kg)	8355 lb (3790 kg)	7870 lb (3570 kg)	7430 lb (3370 kg)
Max Capacity @ Max Reach	3945 lb (1790 kg)	2710 lb (1230 kg)	1920 lb (870 kg)	1390 lb (630 kg)	1015 lb (460 kg)
Capacity - Double Link Cranes					
Maximum Capacity	9280 lb (4210 kg)	8820 lb (4000 kg)	8380 lb (3800 kg)	7980 lb (3620 kg)	7630 lb (3460 kg)
Max Capacity @ Max Reach	3880 lb (1760 kg)	2670 lb (1210 kg)	1875 lb (850 kg)	1365 lb (620 kg)	1015 lb (460 kg)
Crane Weight**	2570 lb (1165 kg)	2845 lb (1290 kg)	3085 lb (1400 kg)	3295 lb (1495 kg)	3485 lb (1580 kg)
Hook Approach					
Vertical	9'-1" (2.78 m)	8'-10" (2.70 m)	8'-6" (2.60 m)	8'-3" (2.51 m)	7'-11" (2.41 m)
Horizontal	2'-7" (0.79 m)	2'-9" (0.84 m)	2'-11" (0.89 m)	3'-1" (0.94 m)	3'-3" (1.0 m)
Center of Gravity-Stored (Single Link)					
Vertical	24.5" (622 mm)	25.8" (654 mm)	26.3" (684 mm)	27.8" (706 mm)	28.5" (725 mm)
Horizontal (C/L Rotation to Bridge)	13.2" (336 mm)	13.1" (332 mm)	12.8" (324 mm)	12.2" (311 mm)	11.7" (298 mm)
Center of Gravity-Stored (Double Link)					
Vertical	25.7" (654 mm)	27" (683 mm)	28" (710 mm)	29" (731 mm)	29.3" (745 mm)
Horizontal (C/L Rotation to Bridge)	12.6" (320 mm)	12.5" (318 mm)	12.2" (311 mm)	11.8" (299 mm)	11.4" (289 mm)

* Crane rating (ft-lb) is the rated load (lb) multiplied by the respective distance (ft) from the centerline of rotation with all extensions retracted, and the inner and outer booms in a horizontal position, per ANSI B30.22.

** Crane weight is for standard single-link crane with tank & mounting kit. Does not include stabilizers, oil. Add 75 lb (35 kg) for double link.



Dimensions & Performance

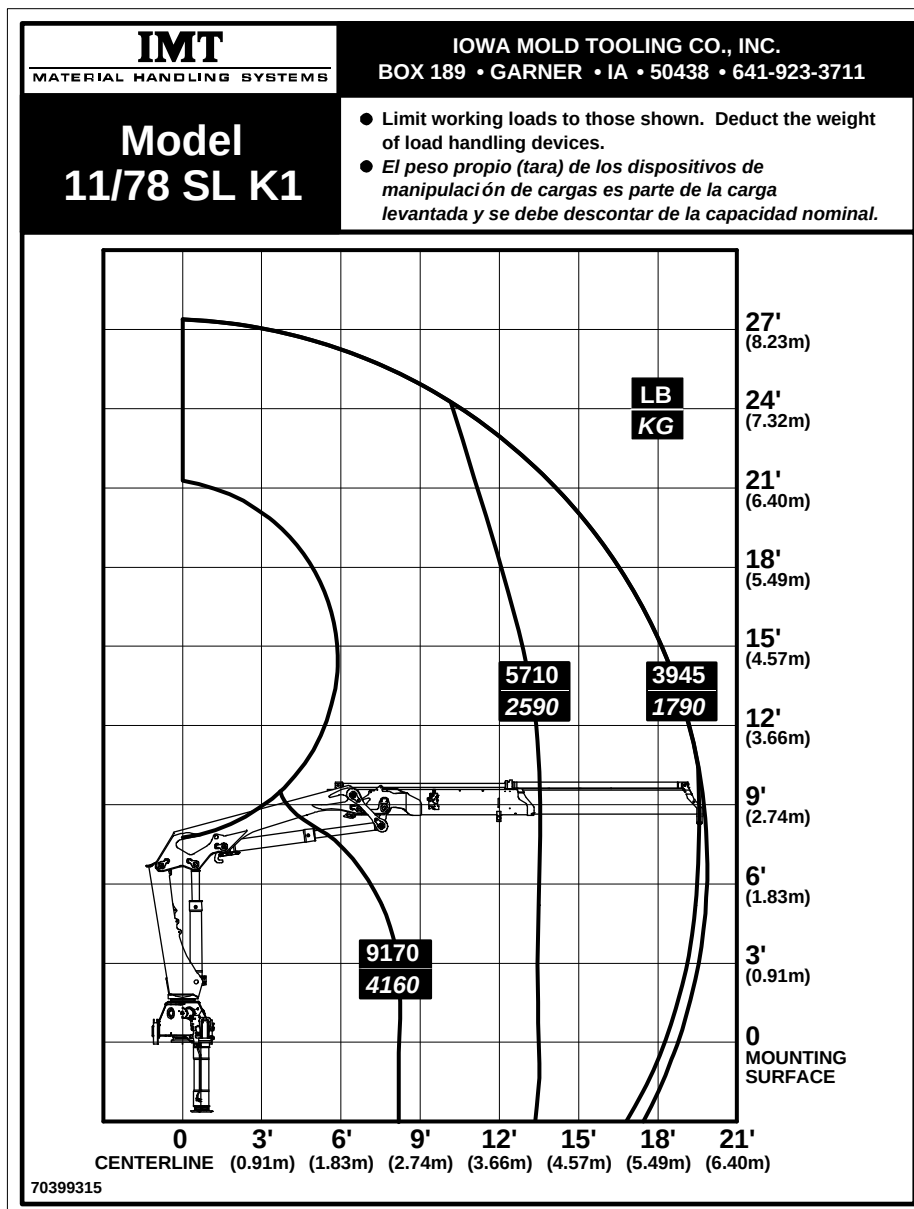
DIMENSIONS & PERFORMANCE	
Crane Storage Height	7'-0" (2135 mm)
Width	8'-2" (2500 mm)
Mounting Space	2'-5" (747 mm)
Maximum Swing Clearance (from top of chassis frame)	23.1" (587 mm) at 7'-7" (2313 mm)
Rotational Torque	9665 ft-lb (1.3 tm)
Rotation	420 degrees
Optimum Pump Performance	10.5 GPM (40 L/min)
System Pressure	4350 psi (300 bar)
Oil Reservoir Capacity	17.2 gal (65 L)

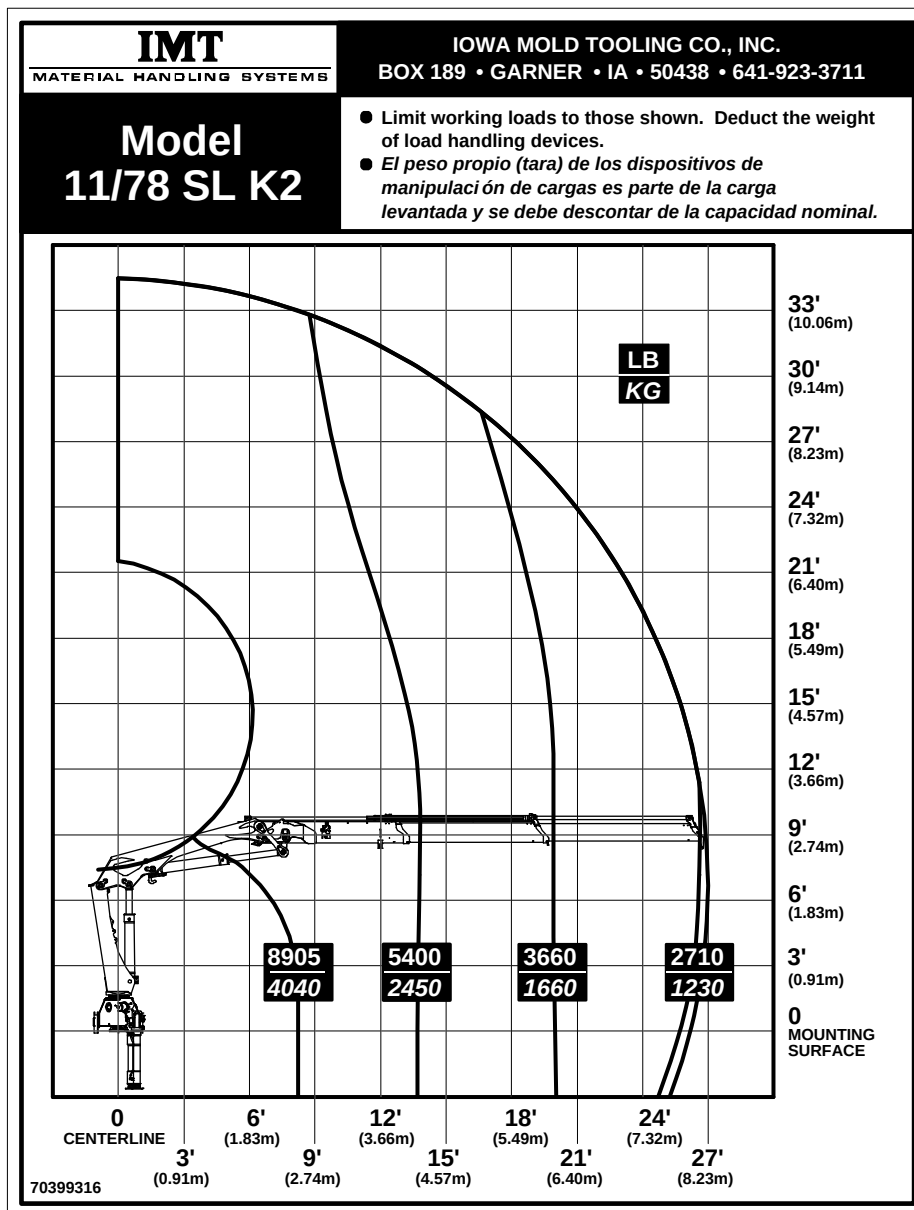
STABILIZERS	
Stabilizer Pad Diameter	6" (158 mm)
Stabilizer Weights	
Standard Man Out/Hyd Down, Fixed	375 lb (170 kg)
Standard Man Out/Hyd Down, Swing-Up	385 lb (175 kg)
Extended Reach Hyd Out/Down, Fixed	430 lb (195 kg)
Extended Reach Hyd Out/Down, Swing Up	440 lb (200 kg)
Stabilizer Spread, Standard	15'-2" (4615 mm)
Stabilizer Spread, Extended Reach	18'-4" (5590 mm)

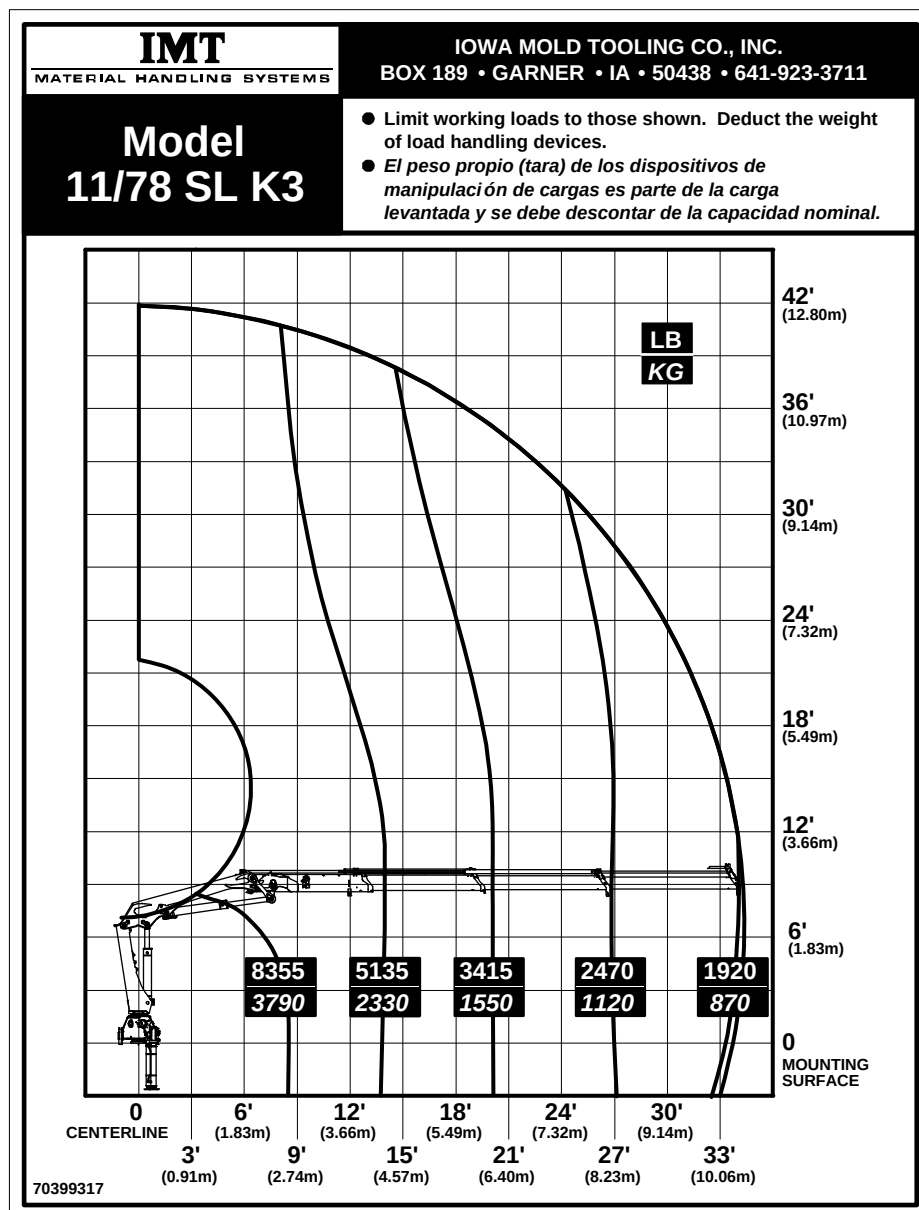
CHASSIS SPECIFICATIONS	
Front Axle Rating (GAWR)	8000 lb (3630 kg)
Rear Axle Rating (GAWR)	16,000 lb (7260 kg)
Resistance to Bending Moment	1,170,000 in-lb (134,800 kg-m)

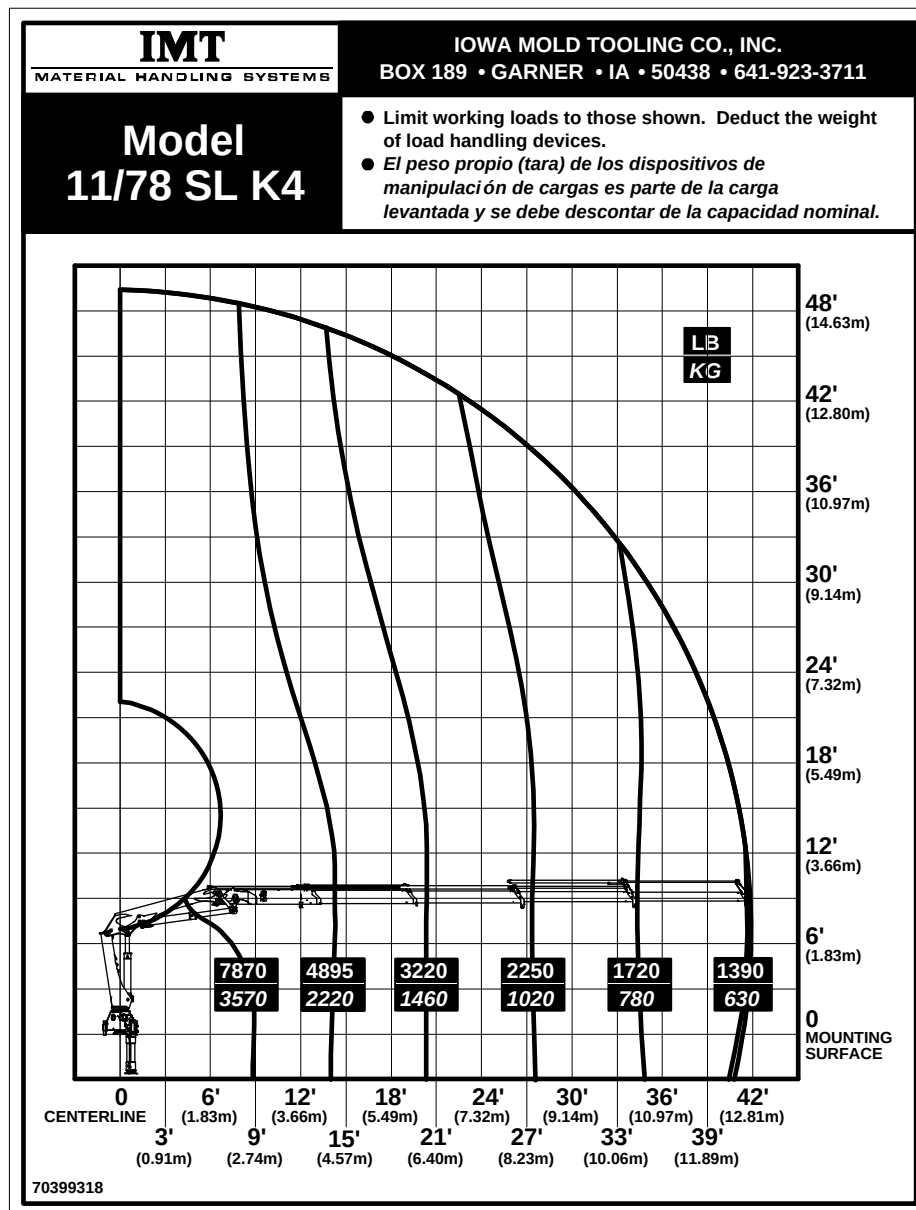


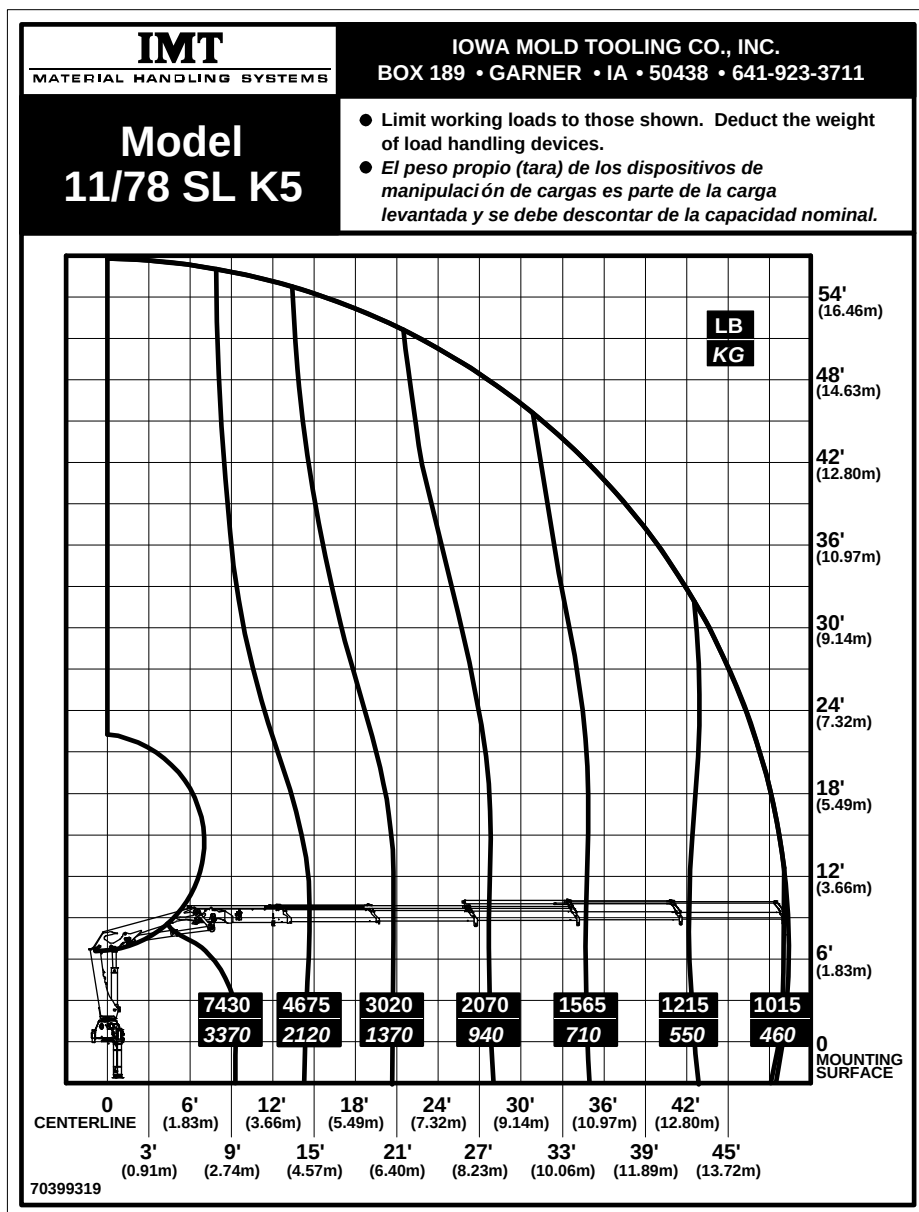
11/78 Series Single Link Capacity Charts





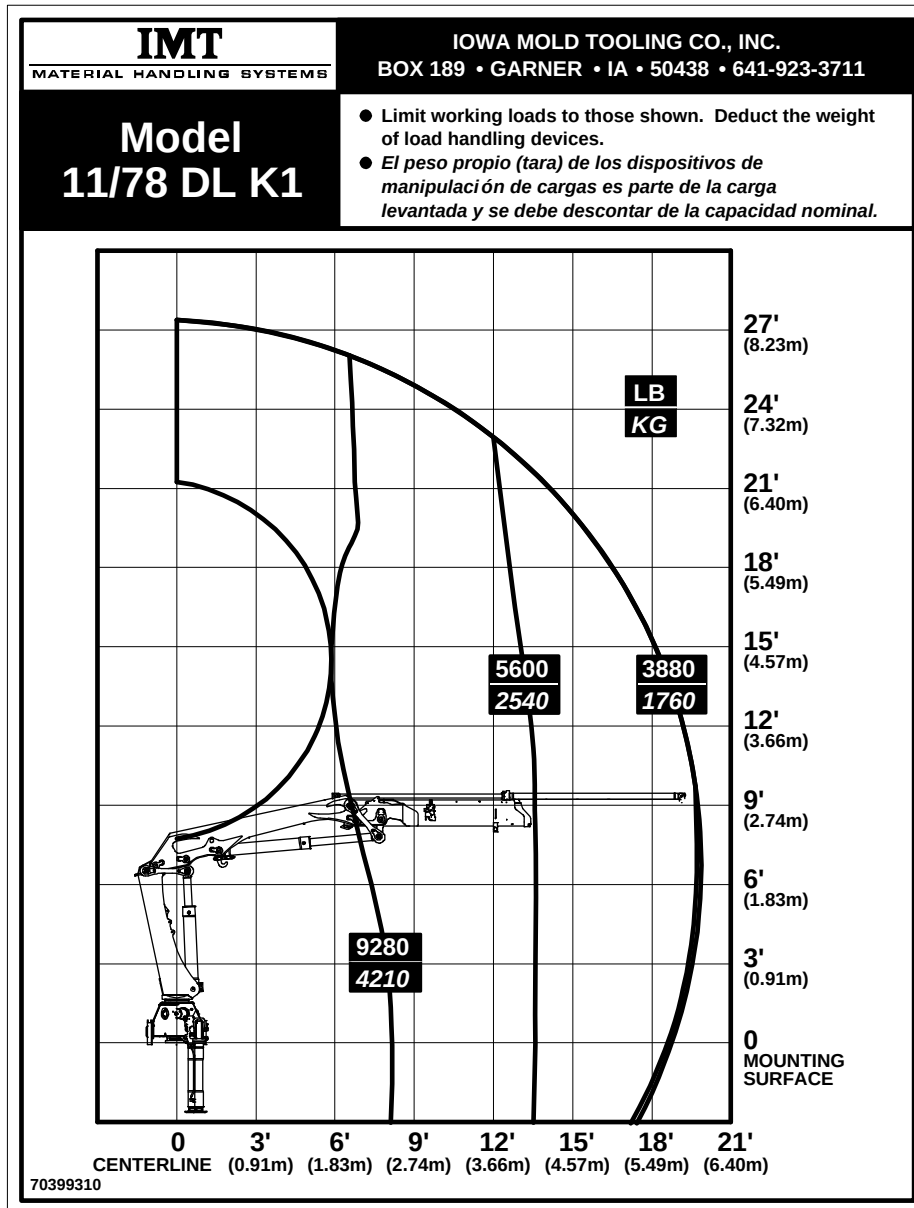


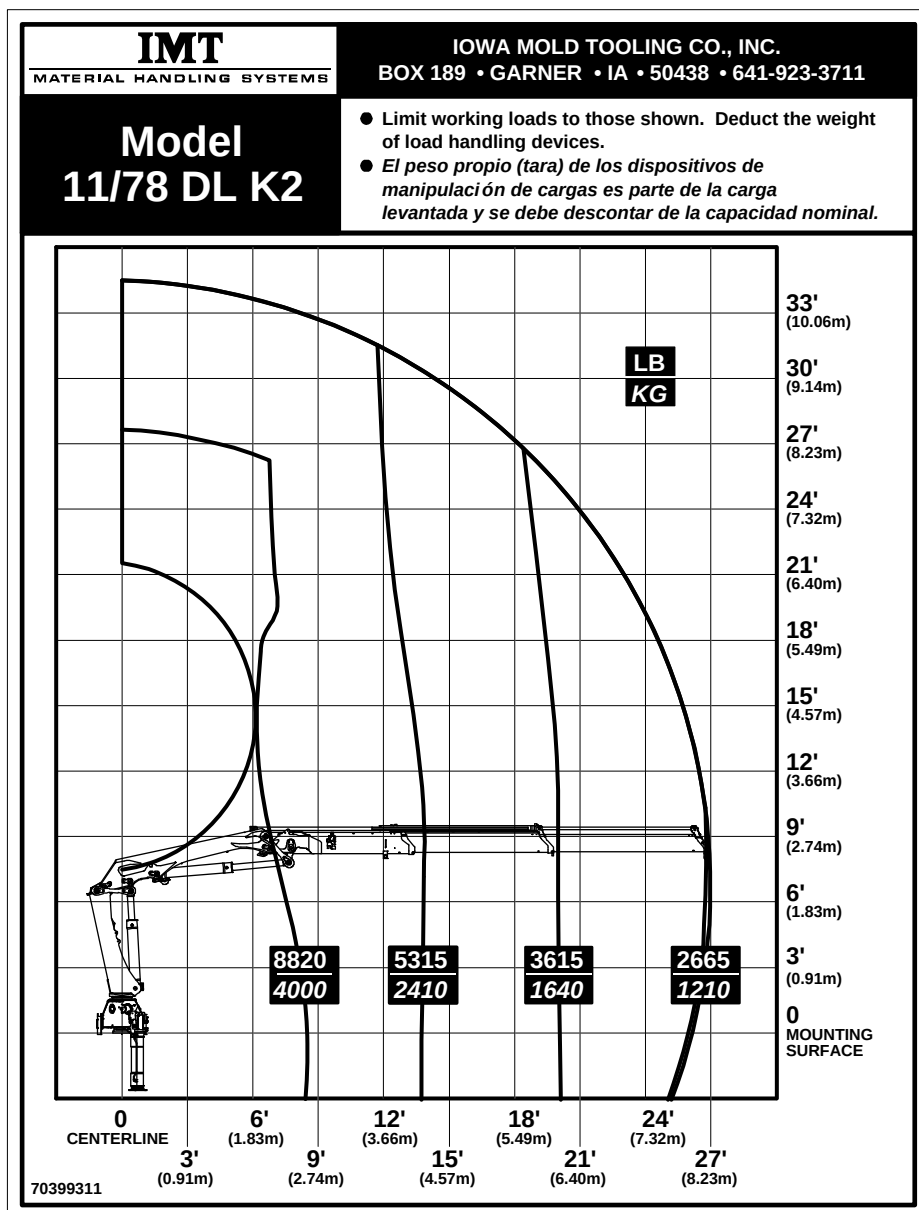


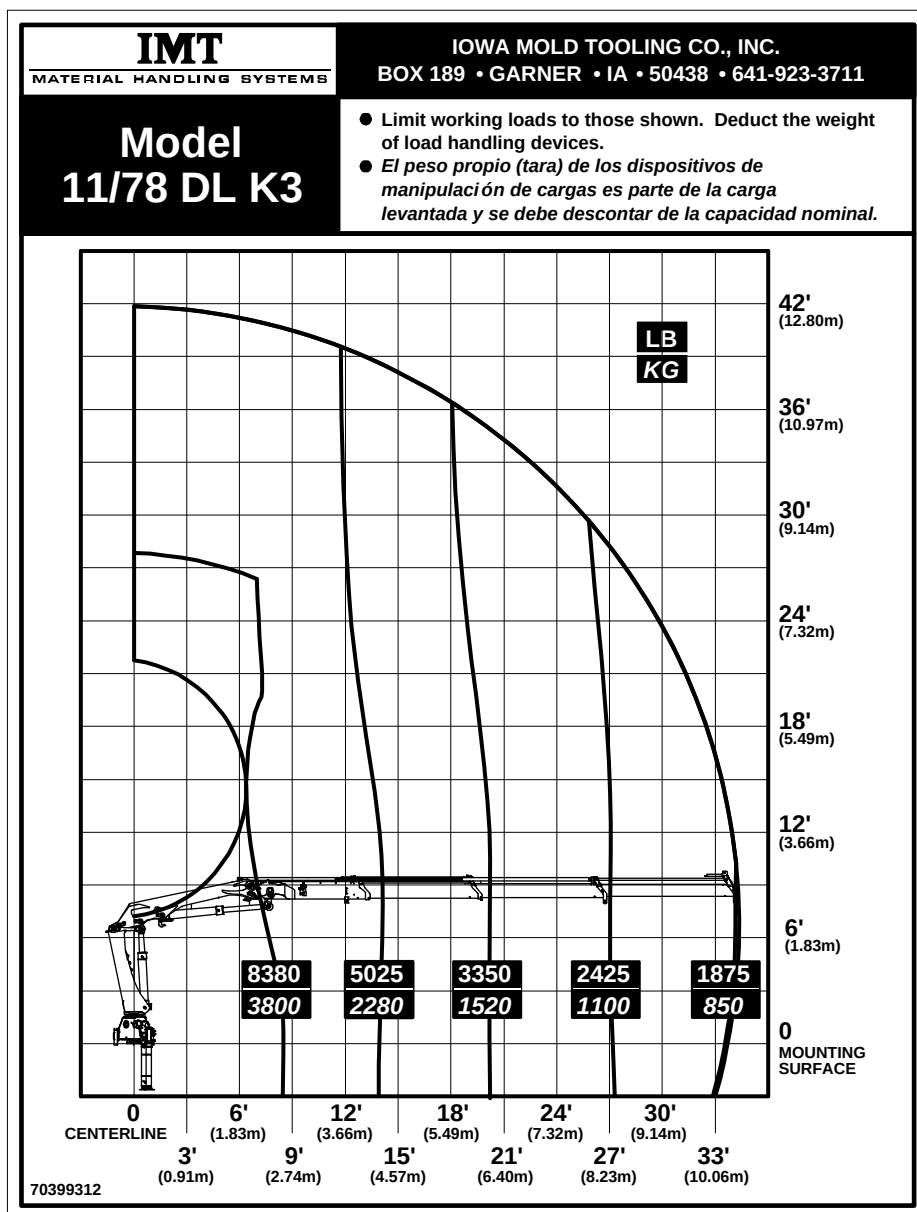


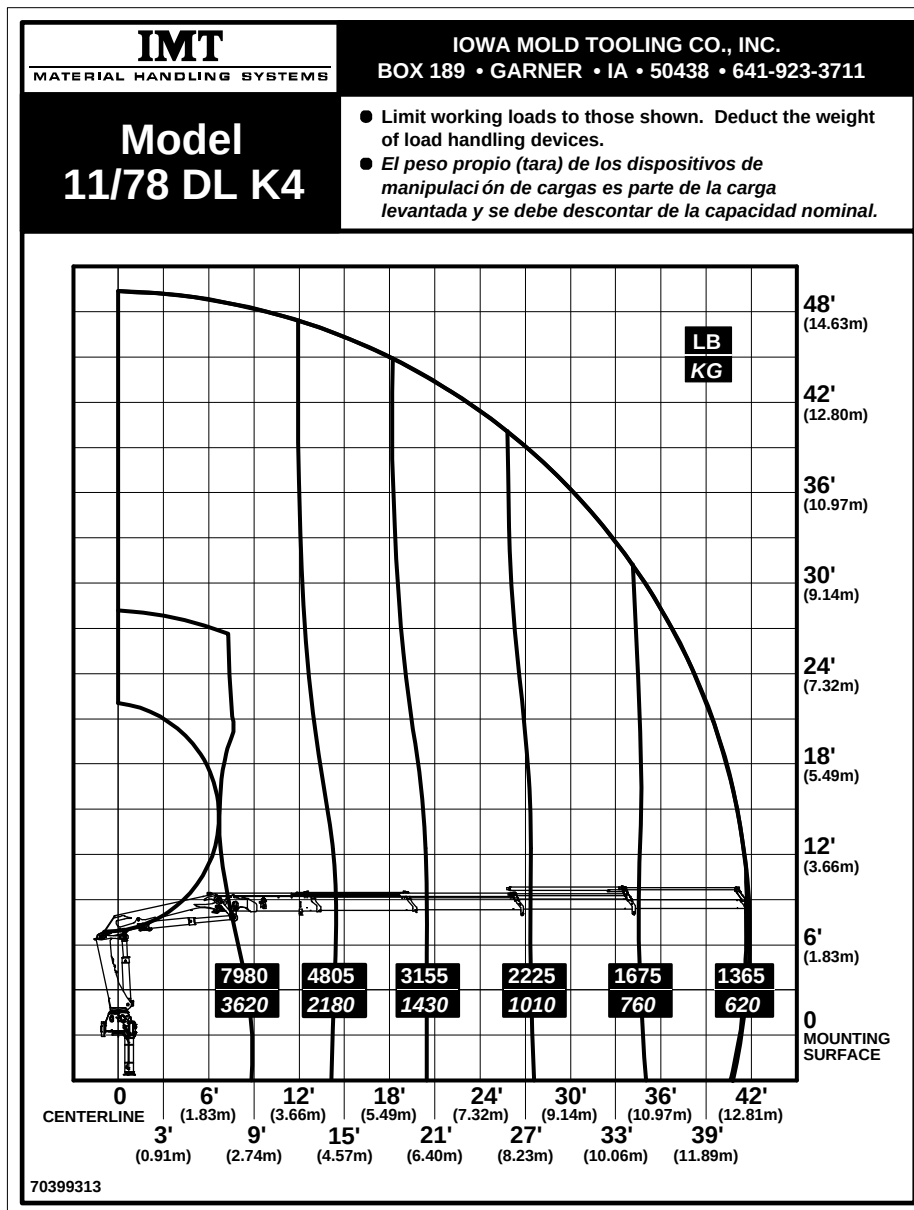


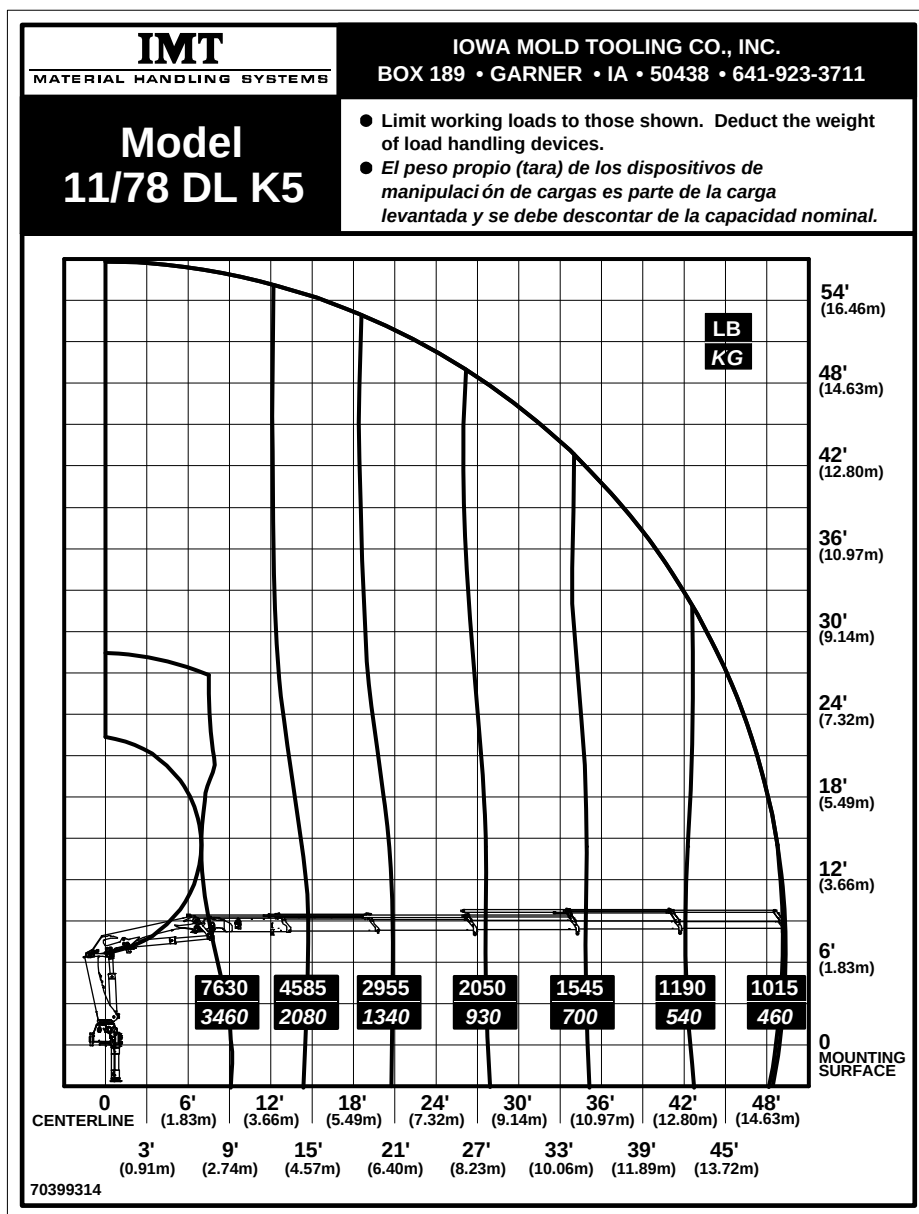
11/78 Series Double Link Capacity Charts





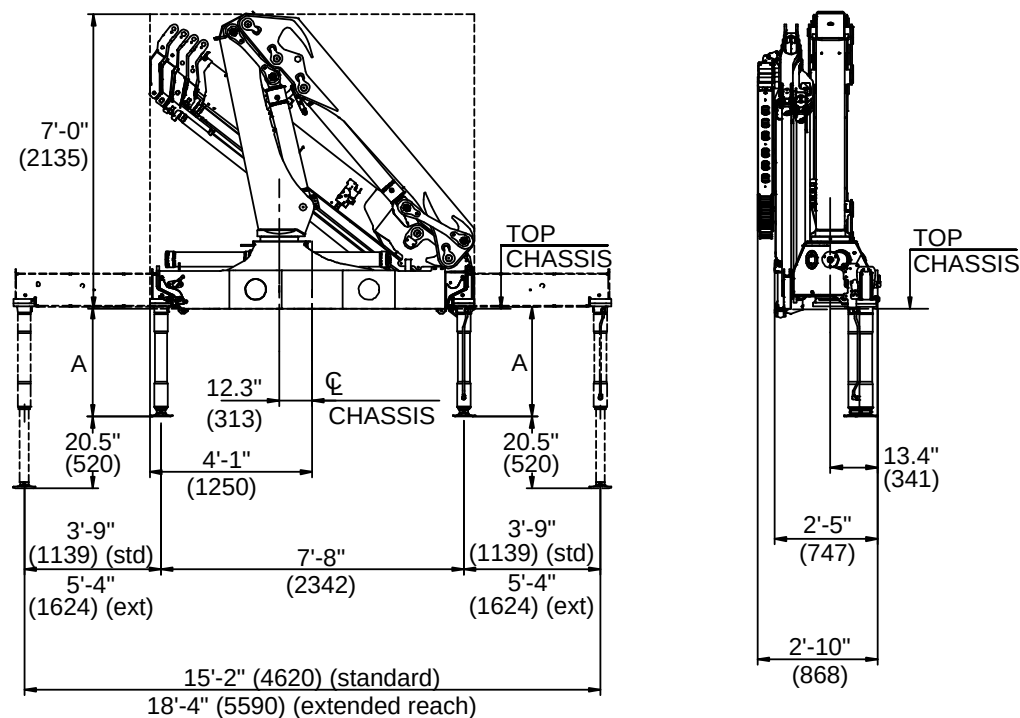
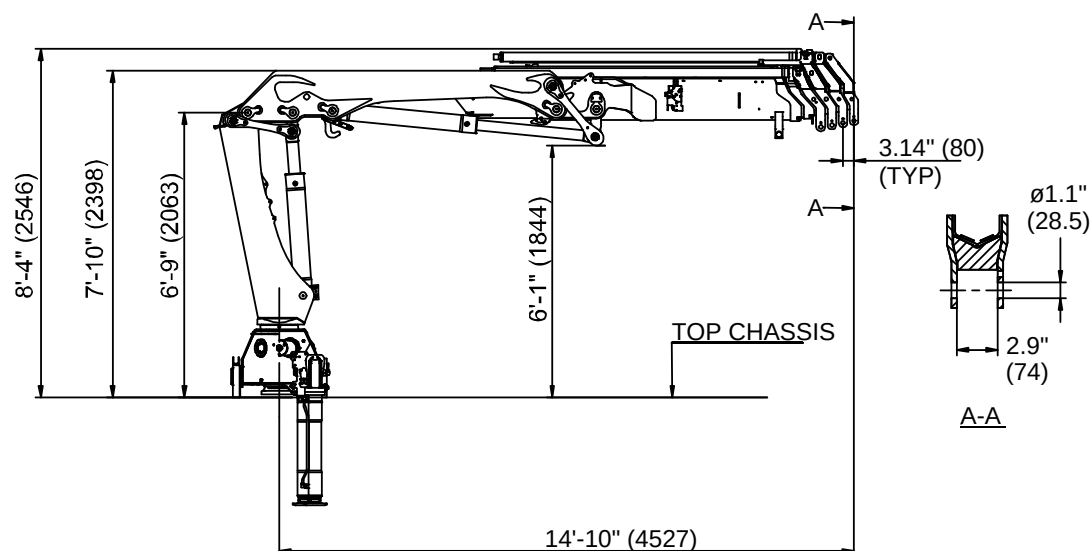








Dimensions

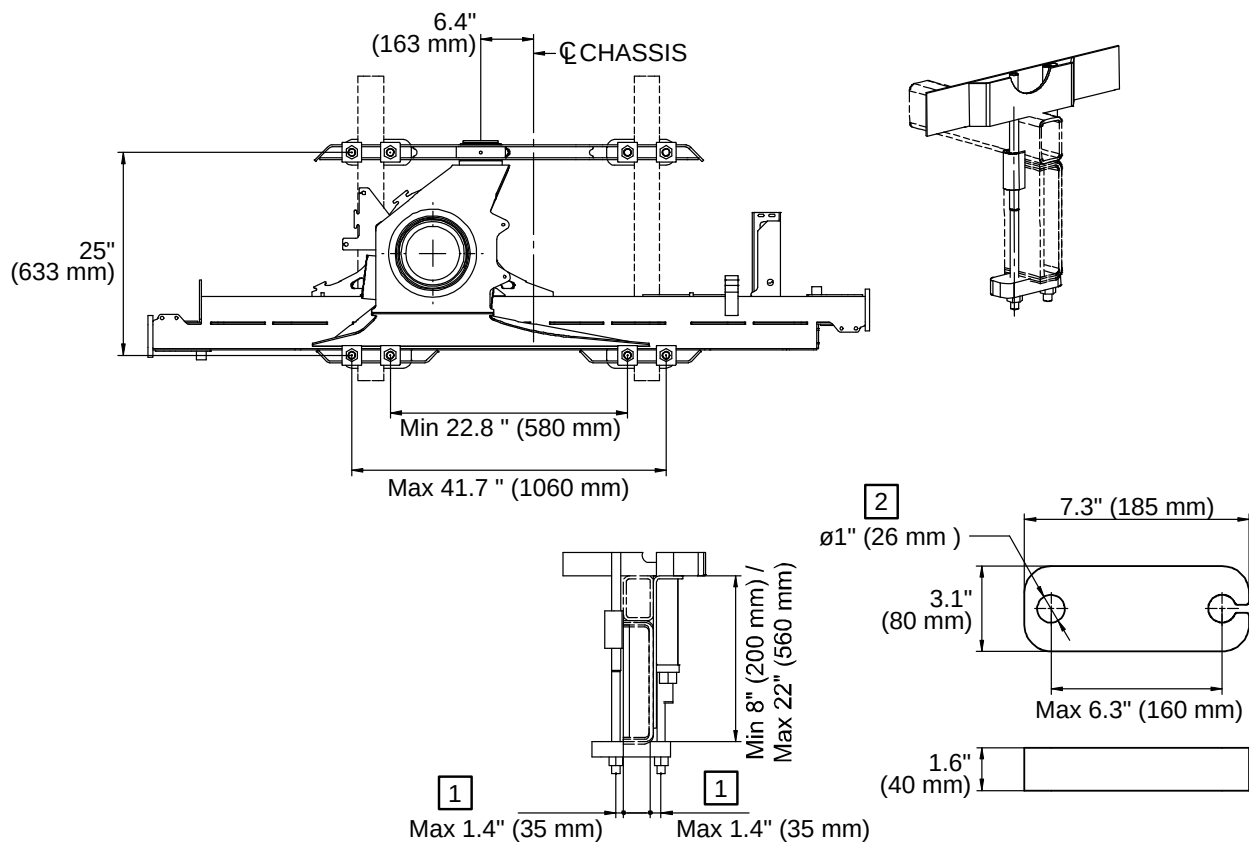


Double link crane shown. Single link dimensions are the same.
Dimensions shown in ft-in (mm).

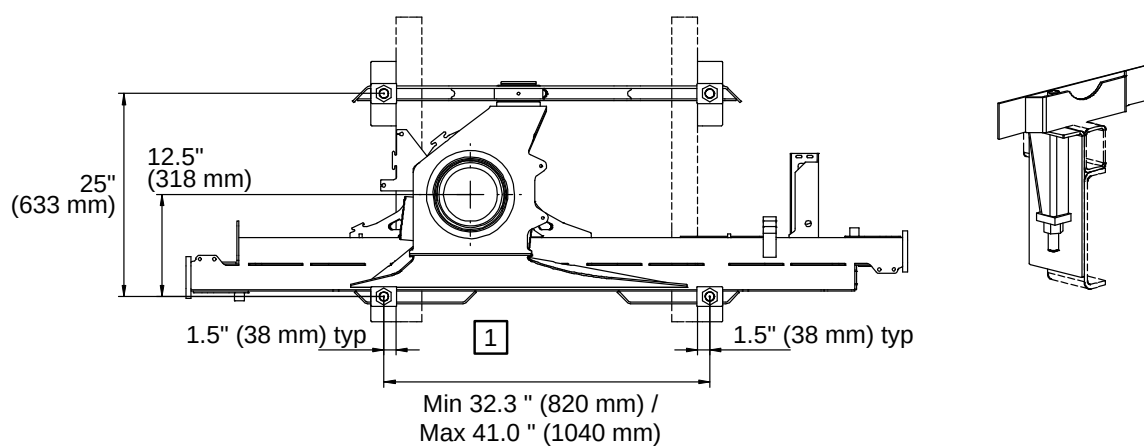


Mounting Dimensions

8 mounting holes - M24 x 2 bolt

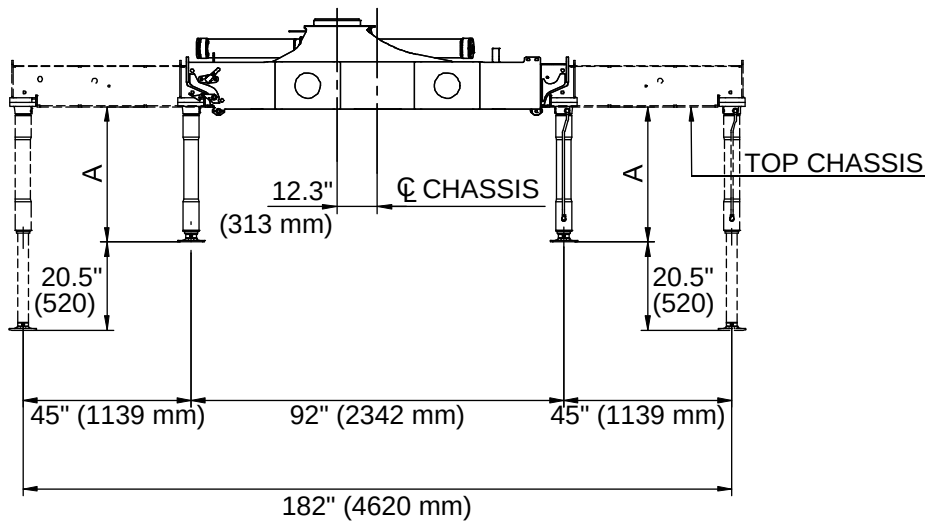
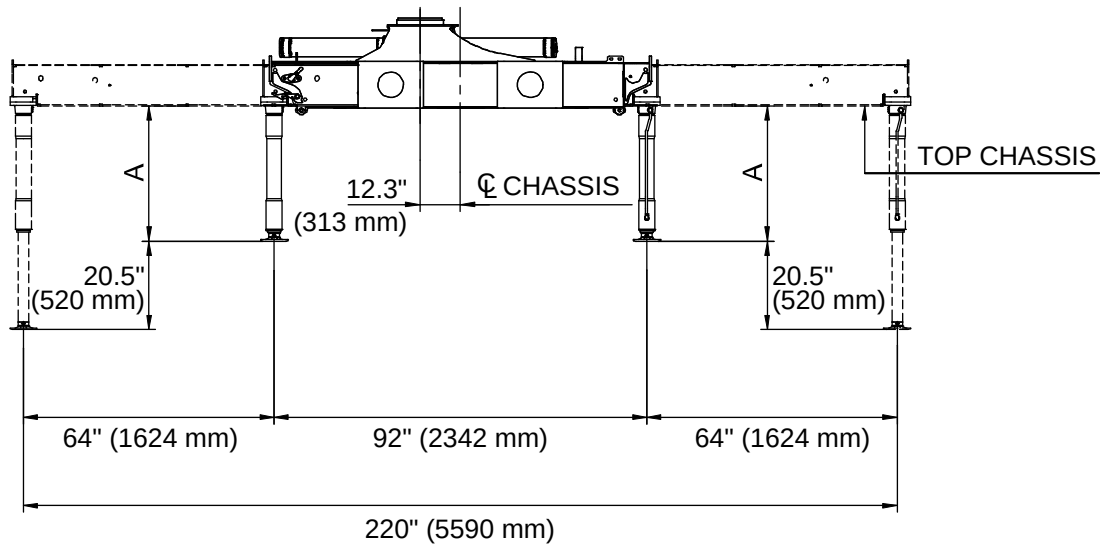


4 mounting holes - M30 x 2 bolt





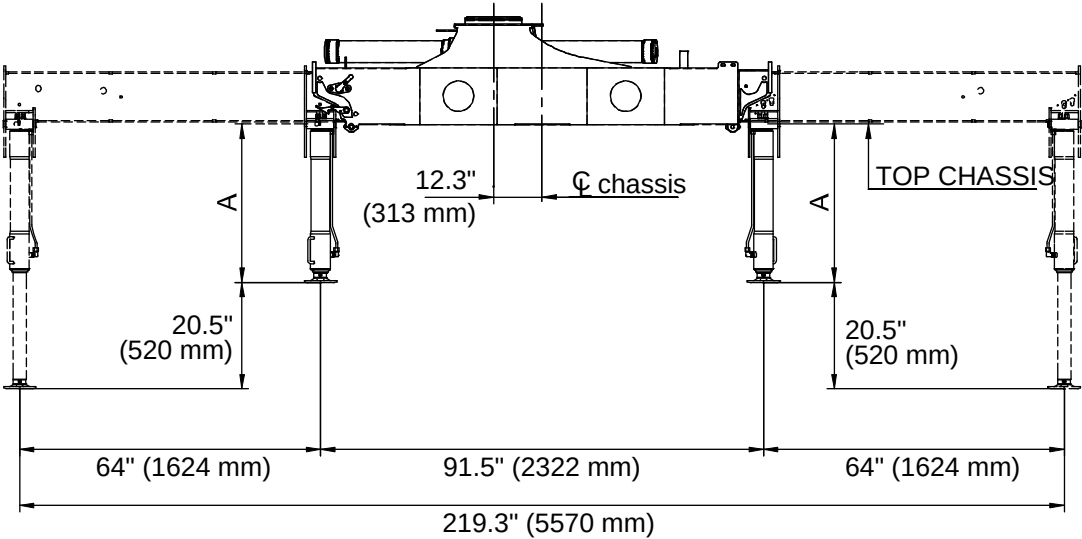
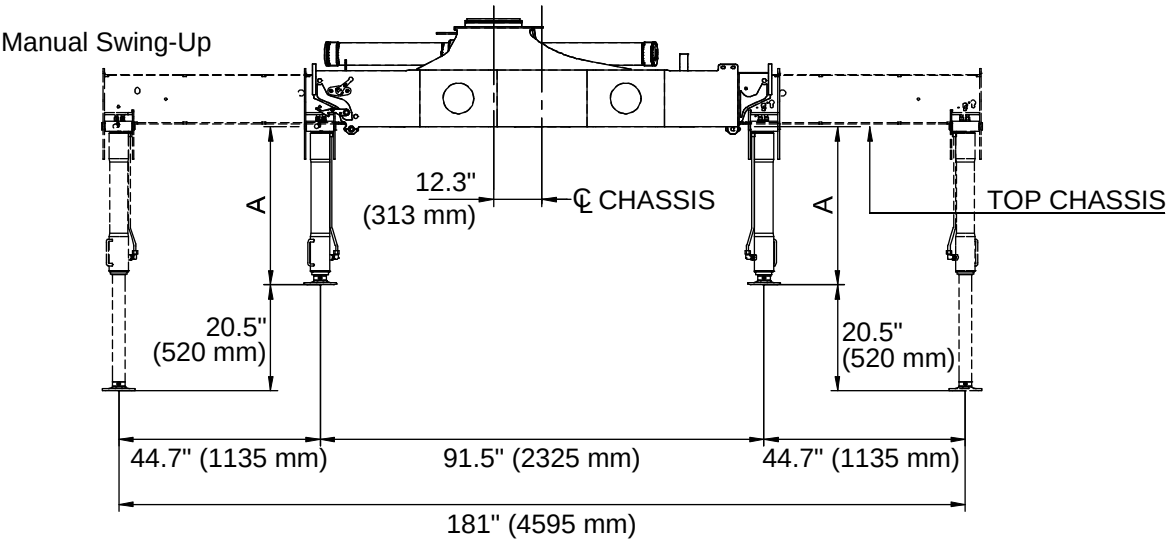
Dimensions, Fixed Stabilizer Legs



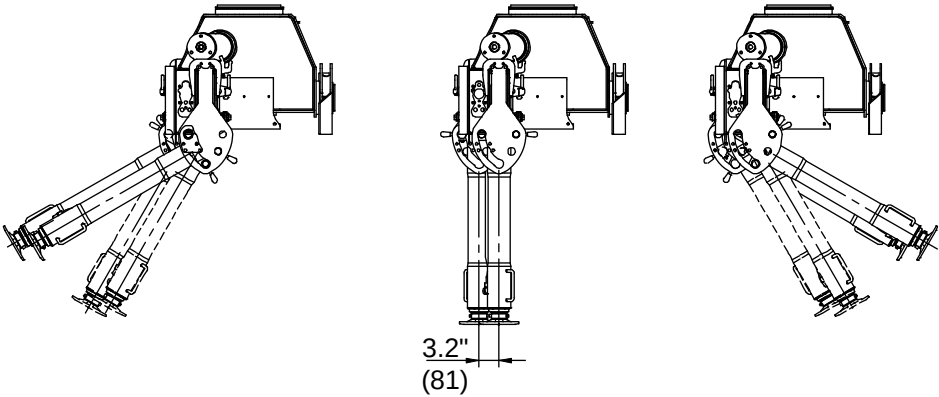
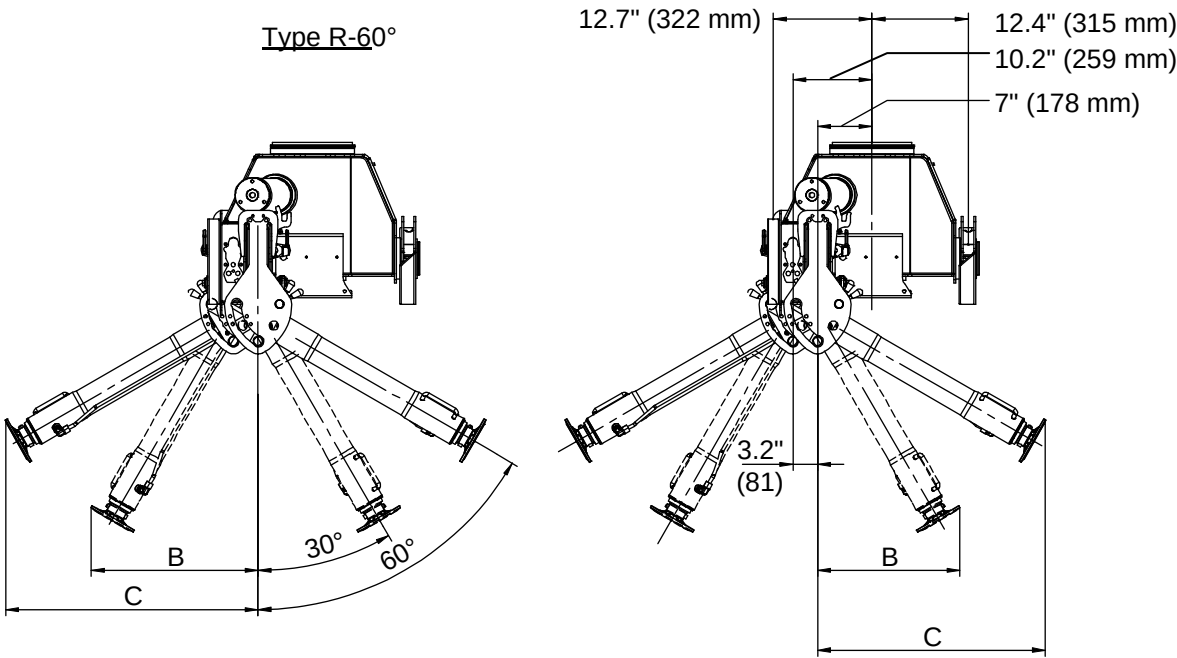
A	30.6" (777)	34.5" (877)	38.5" (977)



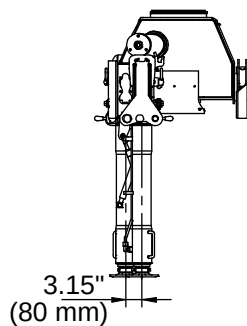
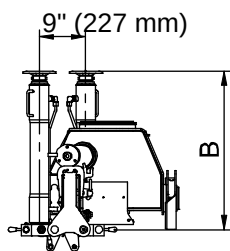
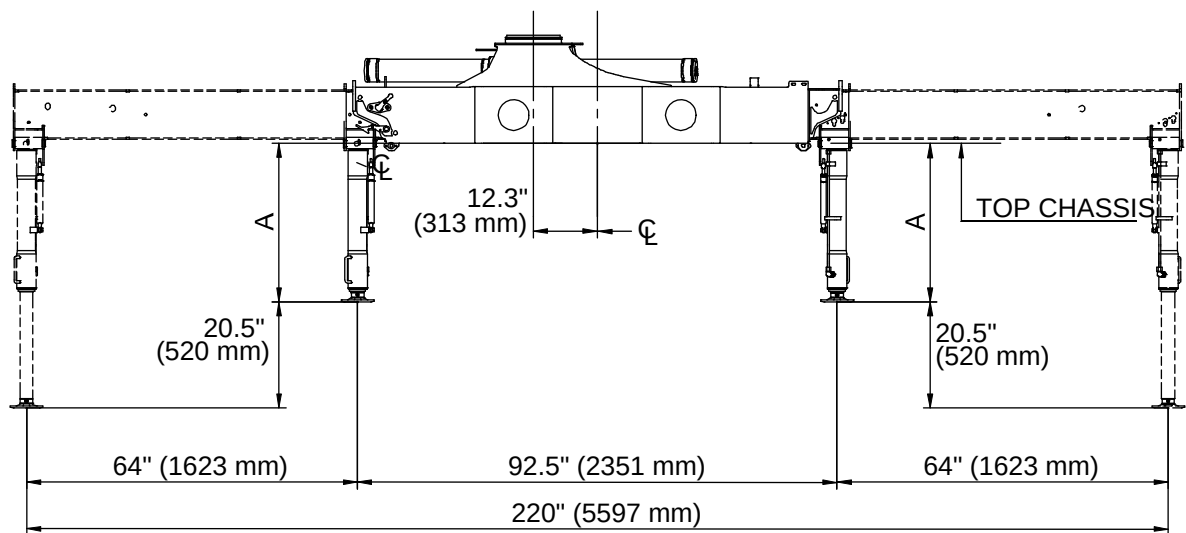
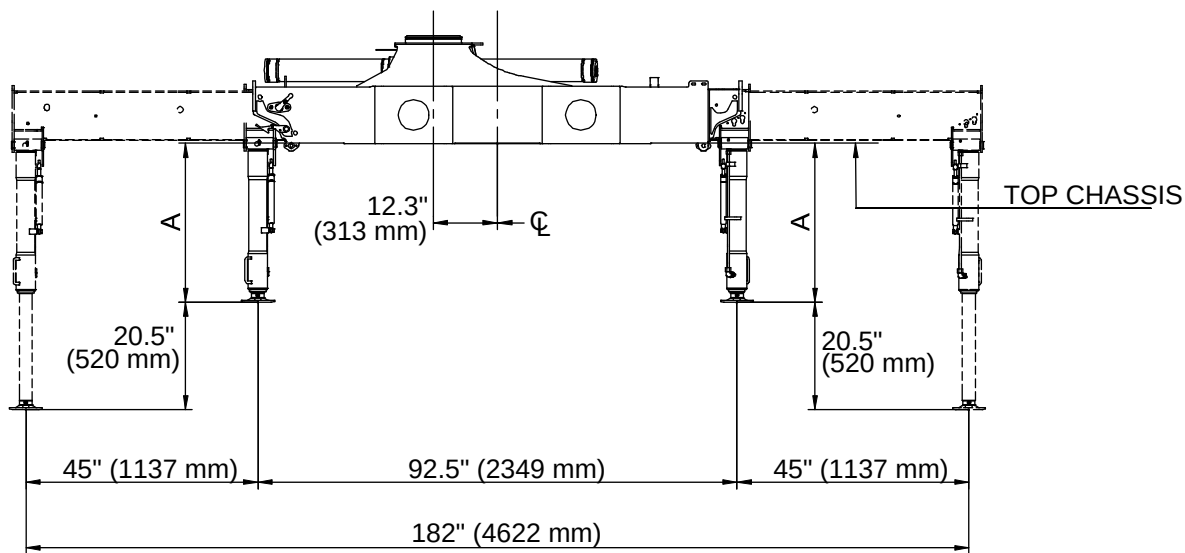
Swing-Up Stabilizer Legs



A	30.6" 775	34.5" 875	38.5" 975



B	18.3" (465)	20.3" (515)	22.2" (565)
C	29.3" (745)	32.7" (831)	36.1" (918)

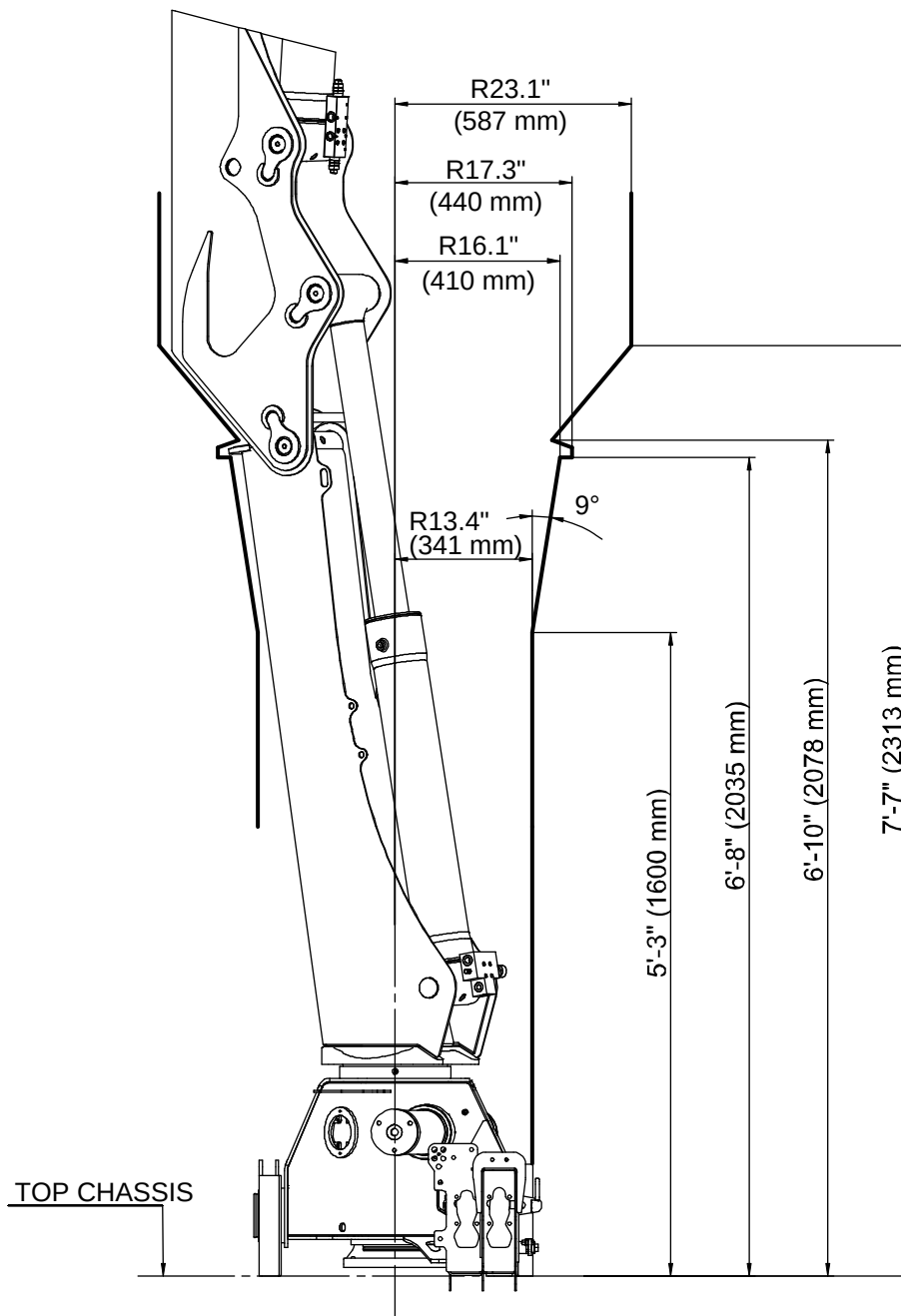


			
A	30.9" (785)	34.8" (885)	38.8" (985)
B	30.6" (775)	34.5" (875)	38.5" (975)



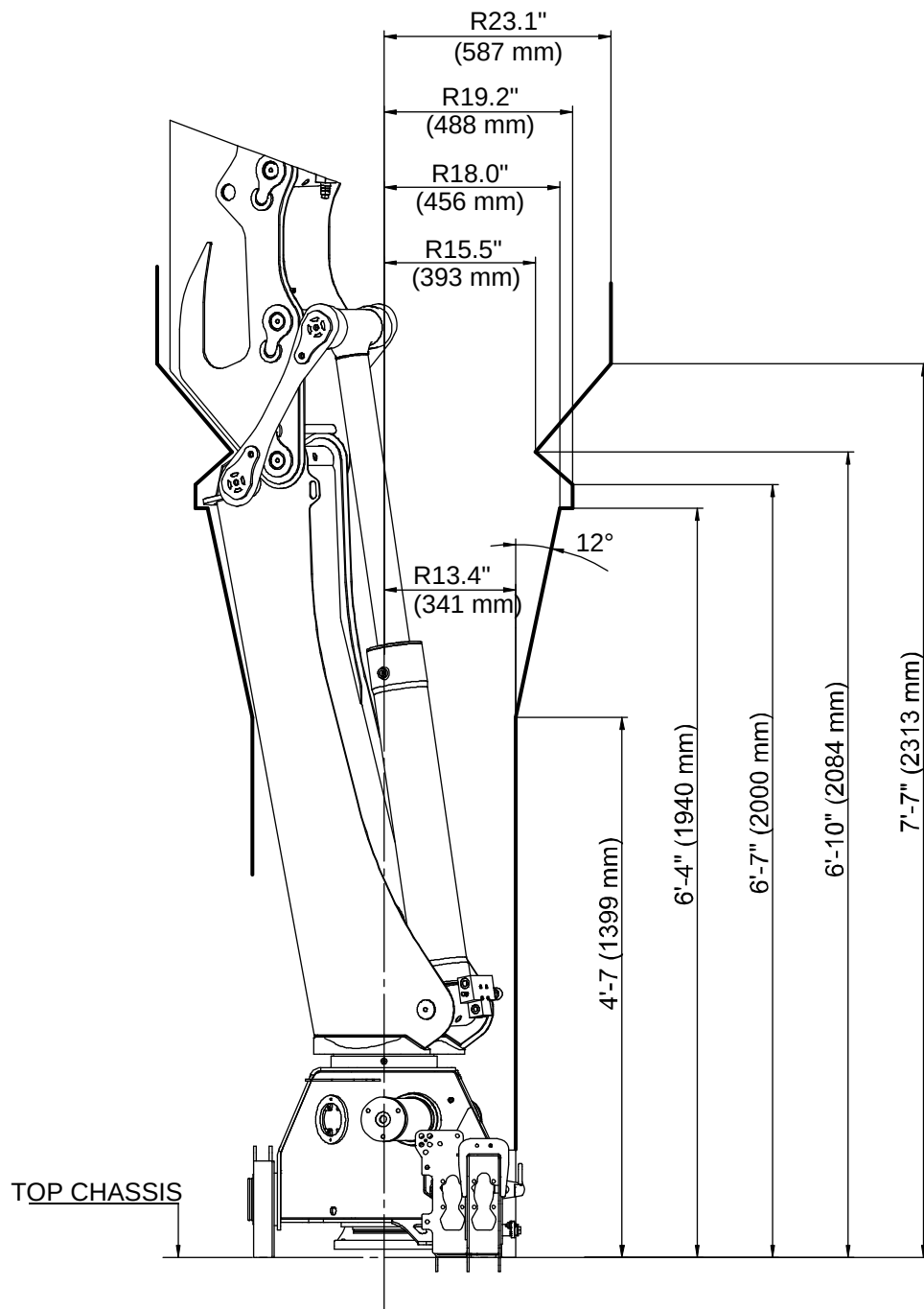
Swing Clearance Drawings

Single Link Swing Clearance





Double Link Swing Clearance







CHAPTER 2

Pressure Settings & Hydraulic Schematics

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Pressure Settings

Working Pressure on Main-Relief Valve & Port-Relief Valves			
Function	Direction	Port	11/72 Pressure psi (bar)
Main-relief valve			4350 (300)
Slewing system	Right	A	P
	Left	B	P
Boom cylinder	Down	A	1450 (100)
	Up	B	4715 (325)
Jib cylinder	Up	A	4715 (325)
	Down	B	2900 (200)
Extension cylinders	Extend	A	P
	Retract	B	P
Rotator	Right	A	2900 (200)
	Left	B	2900 (200)
Grab	Open	A	2900 (200)
	Close	B	2900 (200)
Separate stabilizer valve		All	2175 (150)

Working Pressure on Load-Holding Valves			
Function	Direction	Port	Opening Pressure psi (bar)
Boom cylinder			4715 (325)
Jib cylinder	Up	A	4785 (330)
	Down	B	
Slewing system			3045 (210)
Extension cylinders	Extend	A	3045 (210)
	Retract	B	6235 (430)

Pressure Setting for Load Moment Limitation (LMB)	
Load moment limitation (LMB)	4205 (290)
Maximum Pump Performance	
Pump performance, 1-circuit	10.5 gpm (40 l/min)



Hydraulic Schematic

