



Manual # 99904614

18/124DL Technical Specifications

Revision Date 20120503



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Revisions

DATE	LOCATION	DESCRIPTION
20090813		Added swing clearance drawing and specification.
20100118	Geometric configuration	Added stabilizer length and extension.
20111214	Specs, Stabilizer drawings	ECN 11628 - Updated stabilizer wording.
20120502	Specifications	Updated crane weight to include mounting kit, tank.



CHAPTER 1

Technical Data and Charts

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18/124DL Technical Specifications

18/124DL	2-HYDRAULIC	3-HYDRAULIC	4-HYDRAULIC	5-HYDRAULIC	6-HYDRAULIC	7-HYDRAULIC	8-HYDRAULIC
Crane Rating*	120,070 ft lb (16.6 tm)	116,450 ft lb (16.1 tm)	112,835 ft lb (15.6 tm)	109,940 ft lb (15.2 tm)	106,325 ft lb (14.7 tm)	103,430 ft lb (14.3 tm)	101,260 ft lb (14 tm)
Maximum Horizontal Reach	27' 3" (8.3 m)	33' 10" (10.3 m)	41' 0" (12.5 m)	48' 7" (14.8 m)	56' 5" (17.2 m)	63' 8" (19.4 m)	71' 2" (21.7 m)
Maximum Vertical Reach	35' 1" (10.7 m)	42' 0" (12.8 m)	49' 3" (15.0 m)	56' 5" (17.2 m)	64' 4" (19.6 m)	71' 10" (21.9 m)	79' 1" (24.1 m)
Maximum Capacity	14,265 lb (6470 kg)	13,625 lb (6180 kg)	13,005 lb (5900 kg)	12,435 lb (5640 kg)	11,925 lb (5410 kg)	11,400 lb (5170 kg)	10,980 lb (4980 kg)
Max Cap @ Max Reach	4365 lb (1980 kg)	3220 lb (1460 kg)	2380 lb (1080 kg)	1740 lb (790 kg)	1255 lb (570 kg)	860 lb (390 kg)	615 lb (280 kg)
Crane Weight **	4300 lb (1950 kg)	4640 lb (2105 kg)	5050 lb (2290 kg)	5355 lb (2430 kg)	5635 lb (2555 kg)	5865 lb (2660 kg)	6050 lb (2745 kg)
Hook Approach							
Vertical	7' 3" (2.21 m)	7' 6" (2.29 m)	7' 10" (2.38 m)	8' 1" (2.47 m)	8' 5" (2.56 m)	8' 8" (2.65 m)	9' 0" (2.74 m)
Horizontal	2' 3" (0.69 m)	2' 5" (0.74 m)	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							
Vertical	2' 7" (795 mm)	2' 8" (820 mm)	2' 9" (840 mm)	2' 10" (855 mm)	2' 10" (870 mm)	2' 11" (890 mm)	3' 0" (910 mm)
Horizontal (C/L RotTo Bridge)	12.8" (325 mm)	12.4" (315 mm)	12.0" (305 mm)	11.4" (290 mm)	10.8" (275 mm)	10.4" (265 mm)	10.0" (255 mm)

* Crane rating (ft-lb) is the rated load (lb) multiplied by the respective distance (ft) from 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 crane with tank & 4-bolt mounting kit. Does not include stabilizers, oil.



18/124DL SPECIFICATIONS	
Stabilizer Pad Diameter	7" (175 mm)
Crane Storage Height	7' 6" (2295 mm)
Mounting Space ***	2' 11" (880 mm)
Rotational Torque	17,555 ft lb (2.4 tm)
Rotation	400°
Optimum Pump Performance	14.5 gpm (55 L/min)
System Pressure	4,350 psi (300 Bar)
Oil Reservoir Capacity	23.8 gal (90 L)
Stabilizer Extension Span	
Standard (manual out / hydraulic down)	18' 3" (5575 mm)
Weight	605 lb (275 kg)
Option (hydraulic out / hydraulic down)	21' 2" (6455 mm)
Weight	785 lb (355 kg)
*** Maximum swing clearance radius required is 25" (635 mm) at 8' (2430 mm) from top of chassis frame.	

MINIMUM CHASSIS SPECIFICATIONS	
Front Axle Rating (GAWR)	14,000 lb (6350 kg)
Rear Axle Rating (GAWR)	40,000 lb (18,145 kg)
Resistance To Bending Moment	1,850,000 in-lb (213,145 kg-m)



18/124DL Pressure Settings

WORKING PRESSURE ON MAIN-RELIEF VALVES & PORT RELIEF VALVES

Function	Direction	Port	Pressure Setting
Main-relief valve			4350 psi (300 bar)
Rotation system	Right	A	P
	Left	B	P
Boom cylinder	Down	A	1450 psi (100 bar)
	Up	B	4715 psi (325 bar)
Jib cylinder	Up	A	4715 psi (325 bar)
	Down	B	2900 psi (200 bar)
Extension cylinders	Extend	A	P
	Retract	B	P
Rotator	Right	A	2900 psi (200 bar)
	Left	B	2900 psi (200 bar)
Grab	Open	A	2900 psi (200 bar)
	Close	B	2900 psi (200 bar)
Separate stabilizer valve		All	2175 psi (150 bar)

WORKING PRESSURE ON LOAD-HOLDING VALVES

Function	Direction	Port	Opening Pressure
Boom cylinder			4715 psi (325 bar)
Jib cylinder			4785 psi (330 bar)
Rotation system			2685 psi (185 bar)
Extension cylinders	Extend	A	3045 psi (210 bar)
	Retract	B	6235 psi (430 bar)

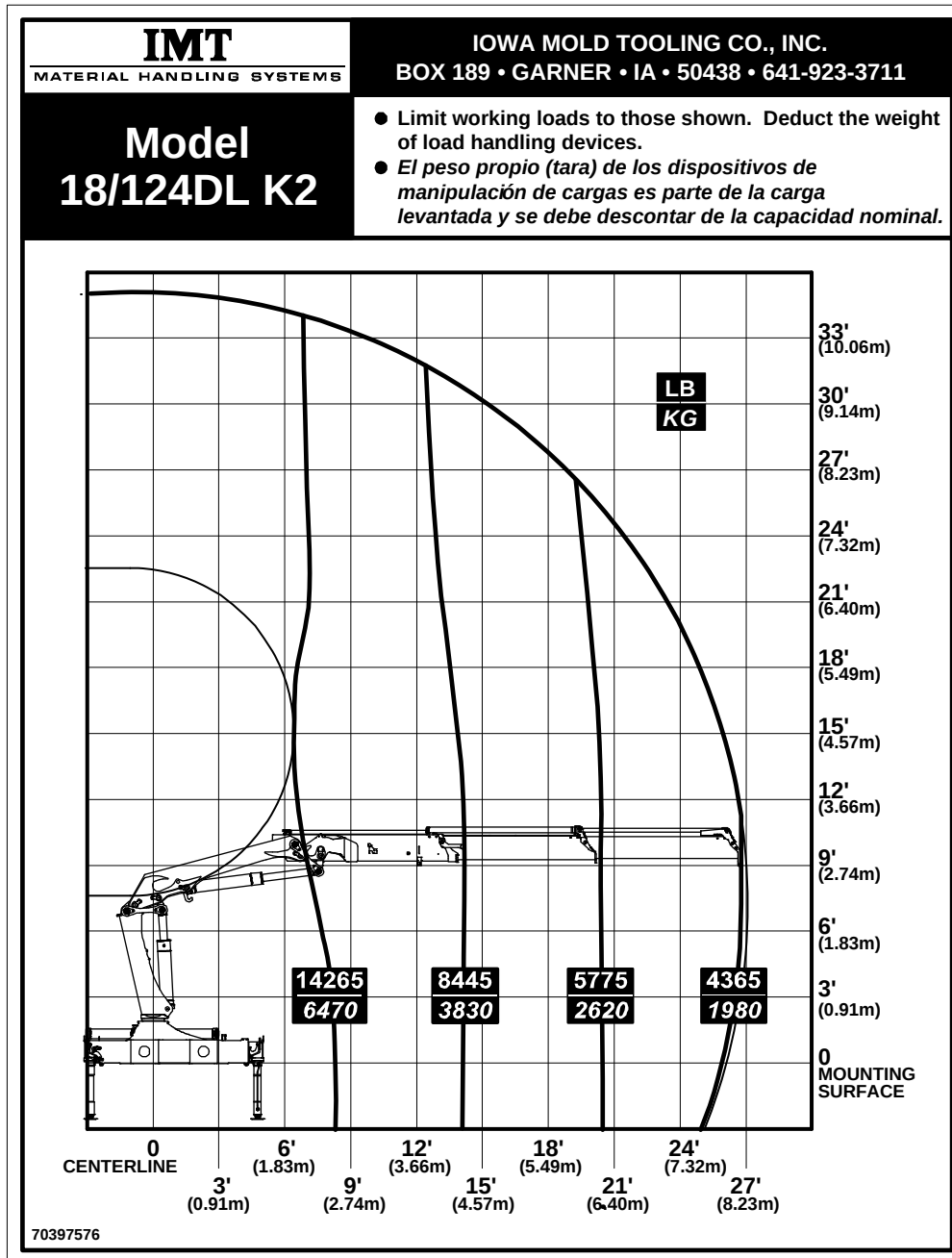
PRESSURE SETTING FOR LOAD-MOMENT LIMITATION (LMB)

Load moment limitation (LMB)	4205 psi (290 bar)
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MAXIMUM PUMP PERFORMANCE

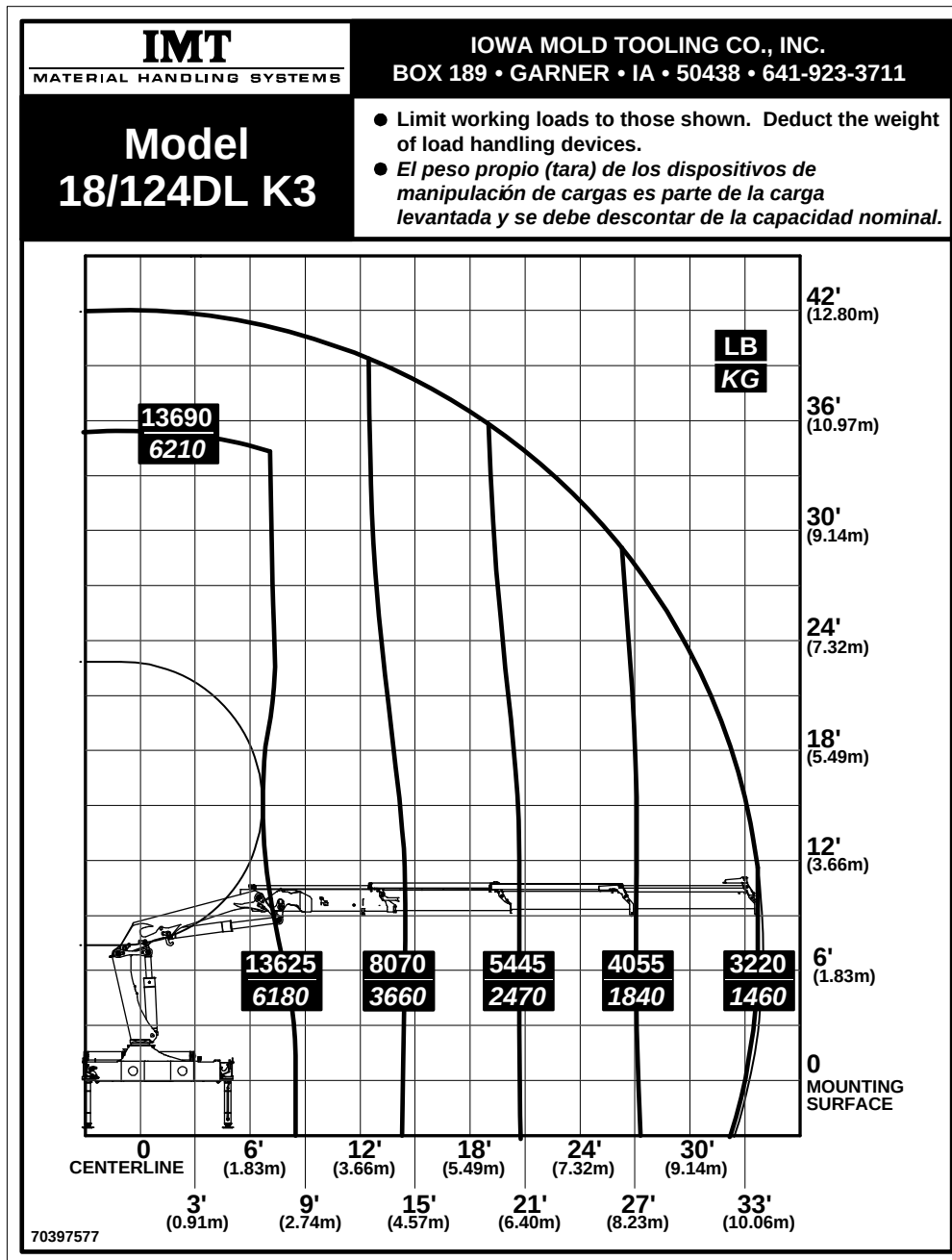
Pump performance	14.5 gal/min (55 l/min)
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18/124DL K2 Capacity Chart



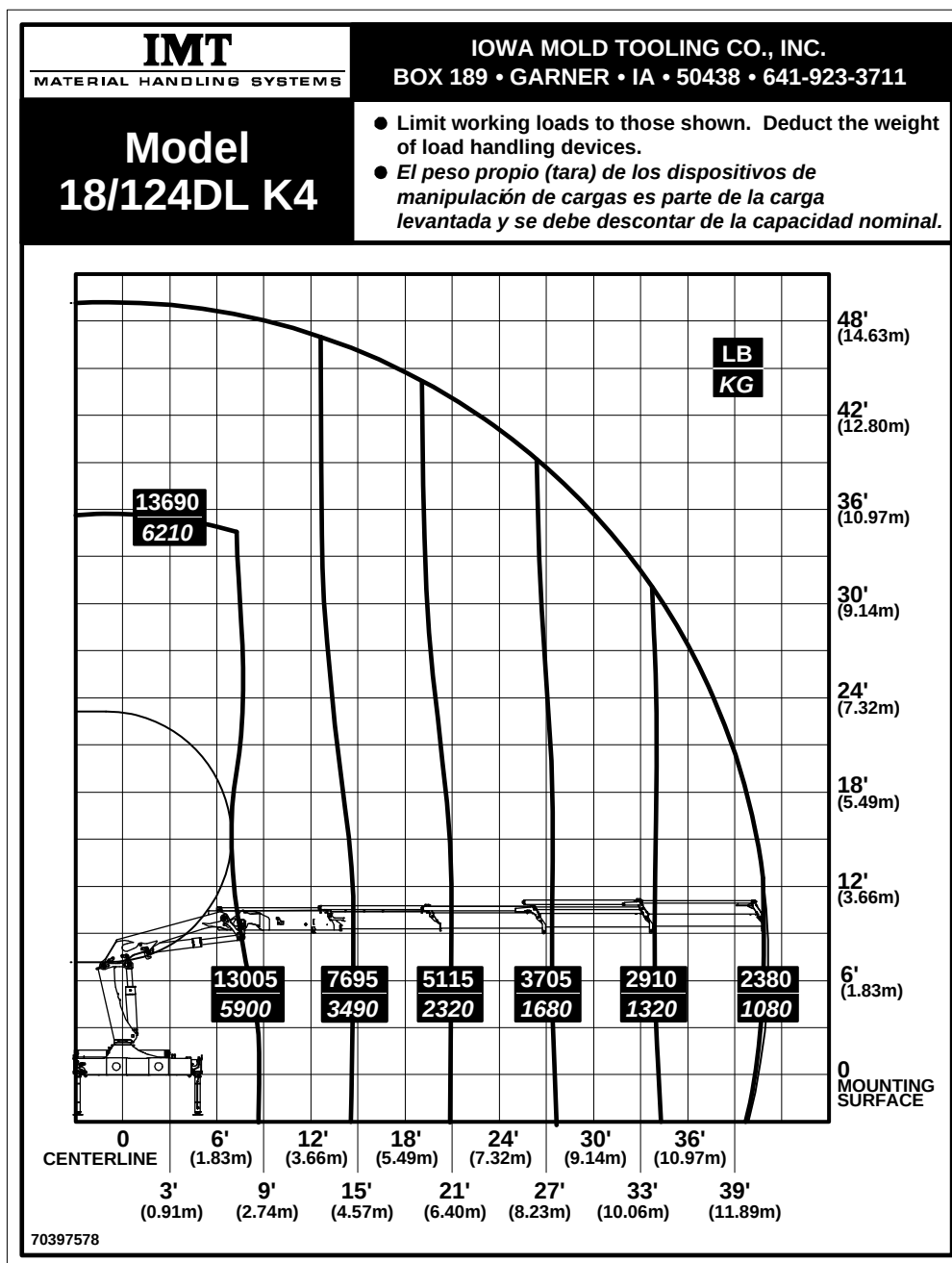


18/124DL K3 Capacity Chart

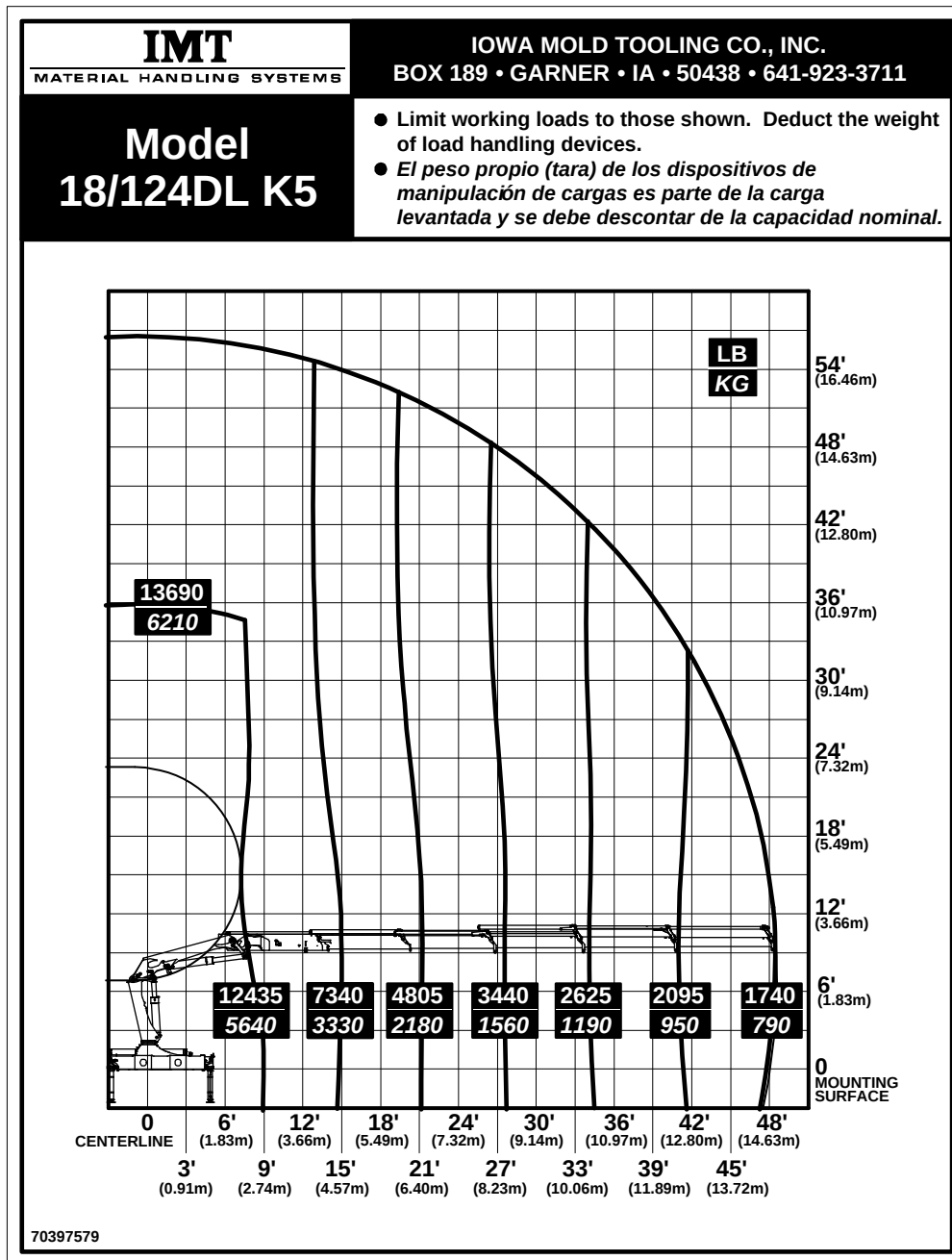




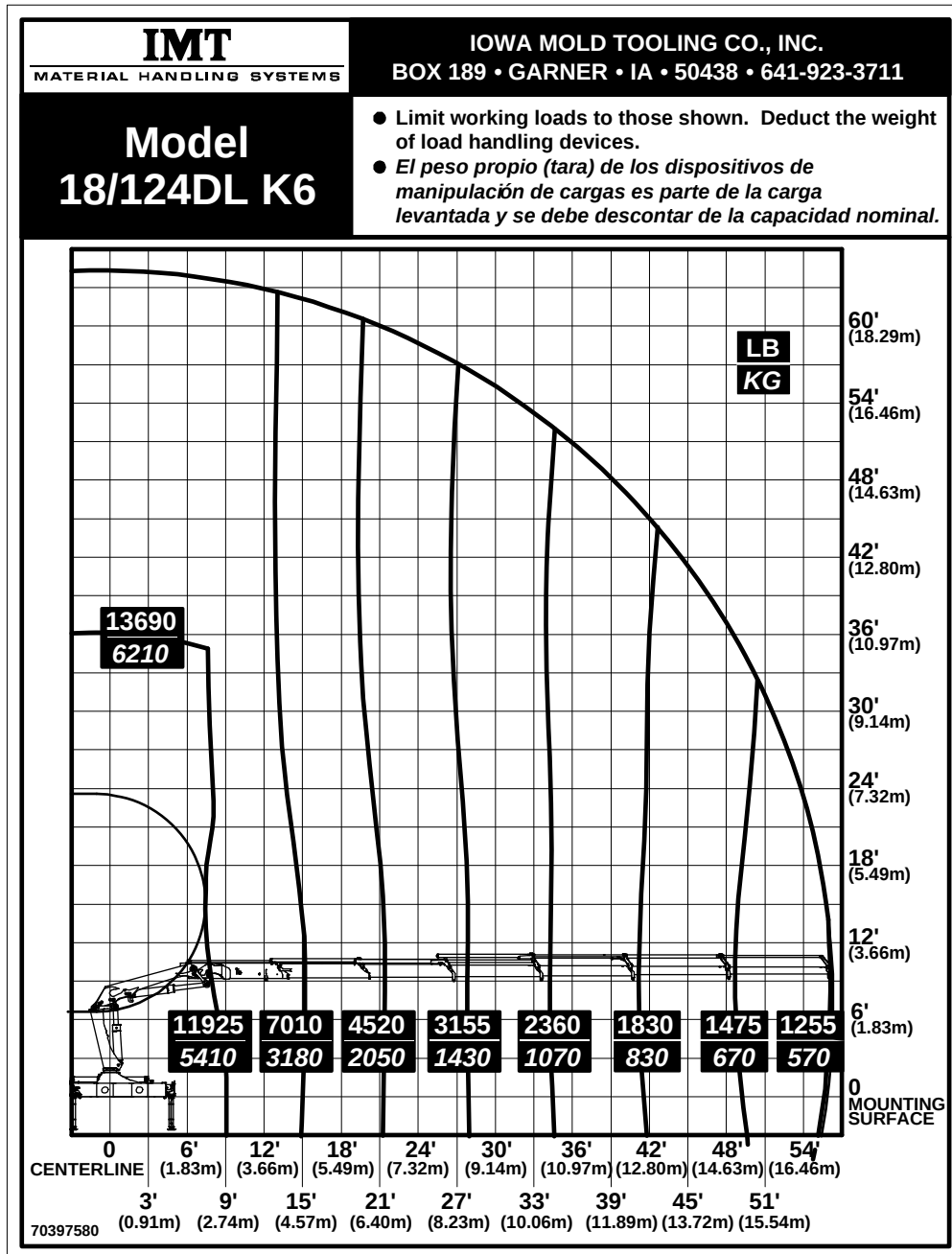
18/124DL K4 Capacity Chart



18/124DL K5 Capacity Chart

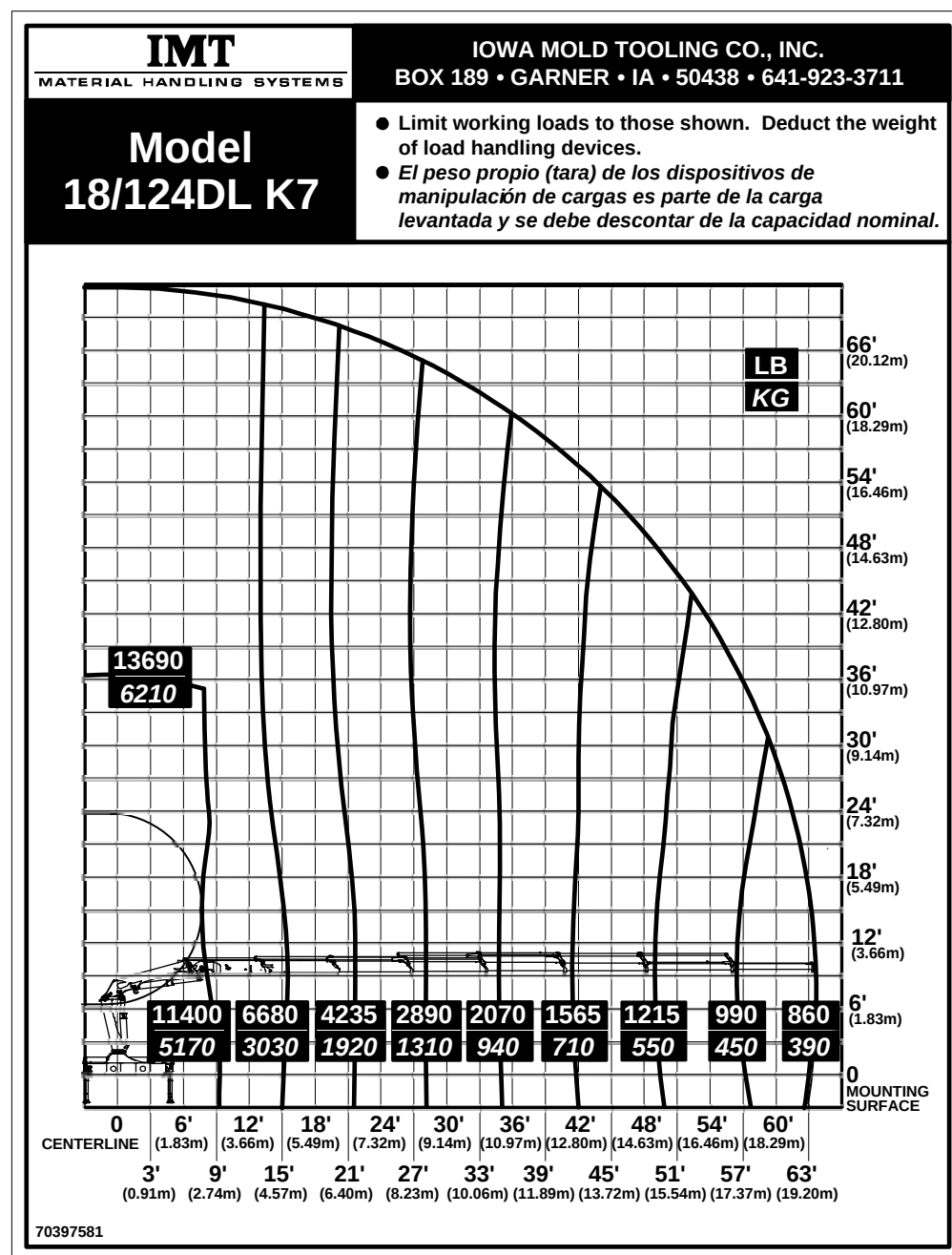


18/124DL K6 Capacity Chart



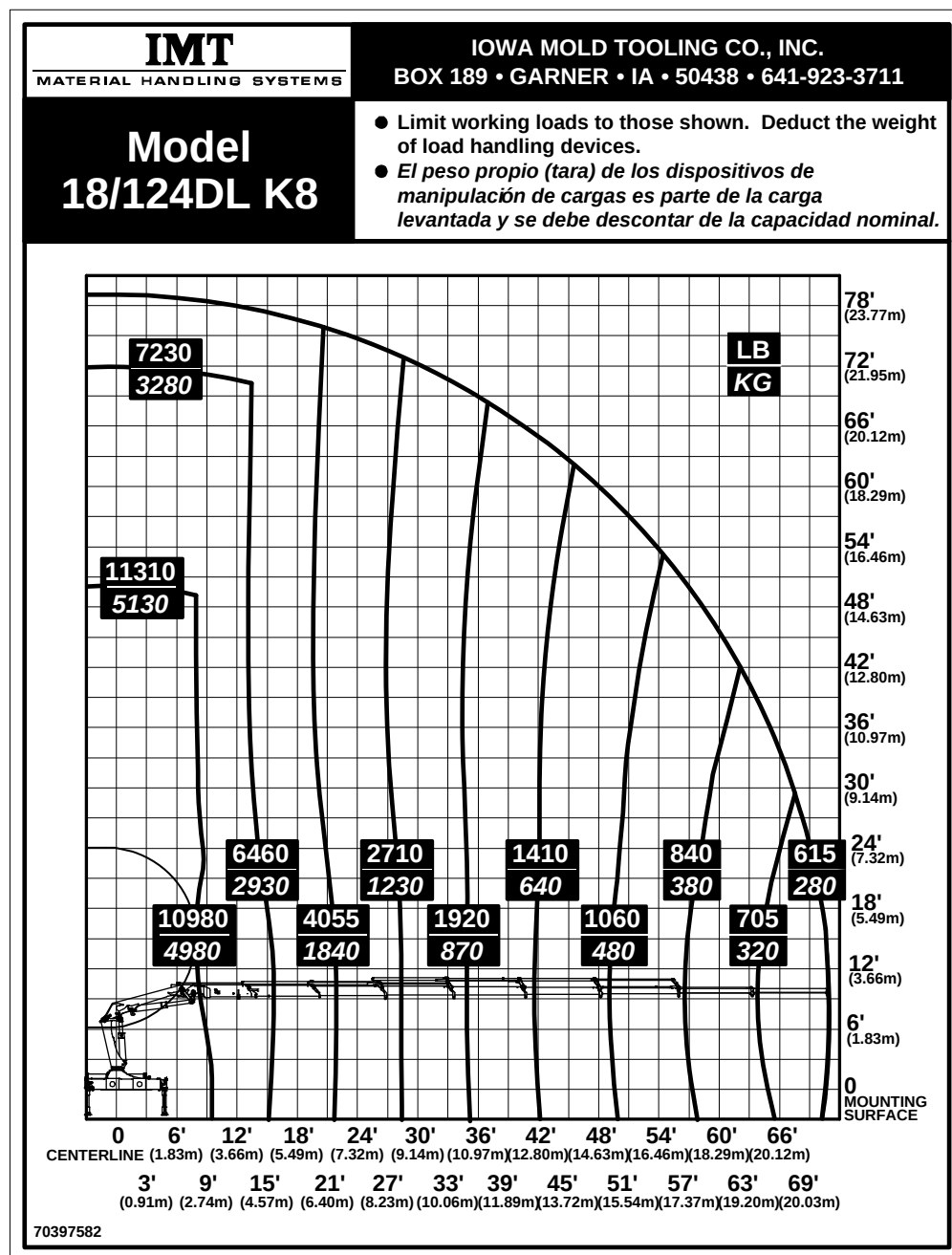


18/124DL K7 Capacity Chart

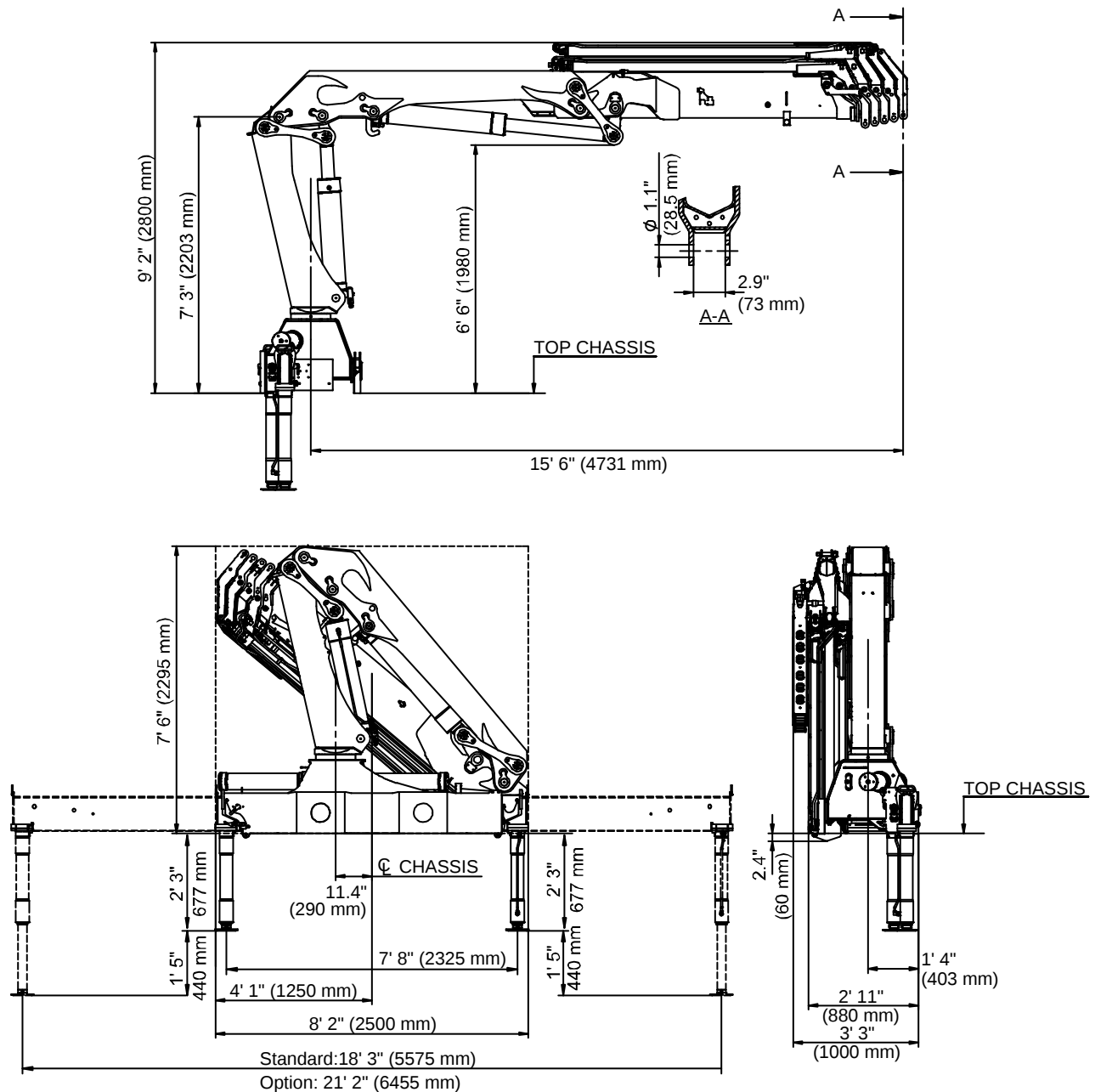




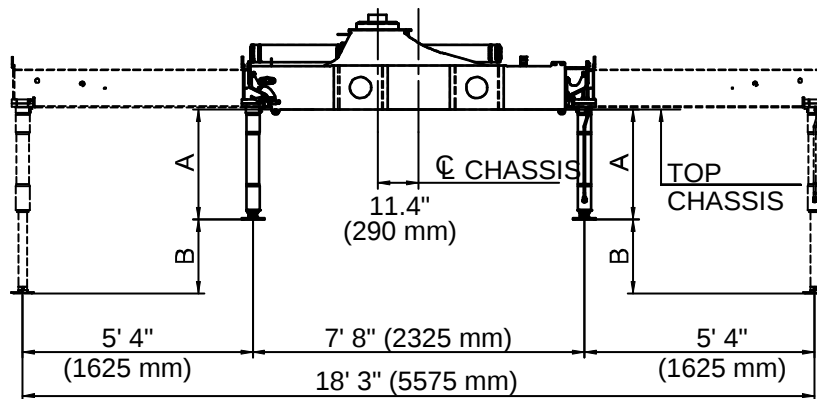
18/124DL K8 Capacity Chart



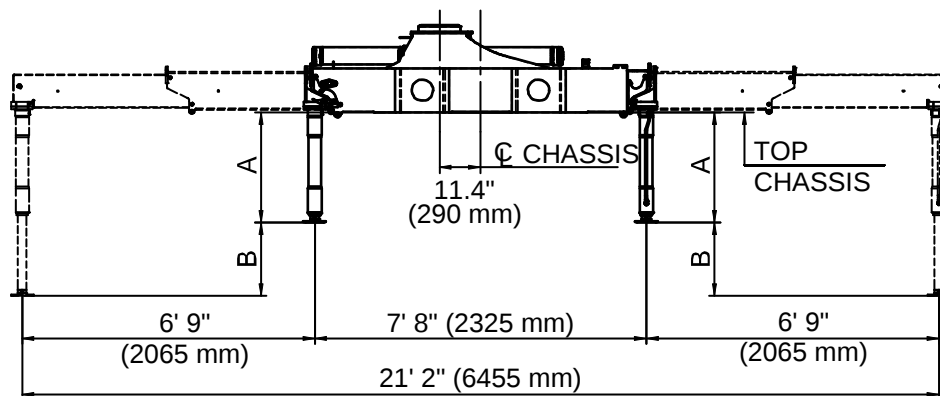
18/124DL Geometric Configuration



Stabilizer Dimensions, Fixed Legs, 18 tm up



STANDARD
(Hydraulic Out /
Hydraulic Down)

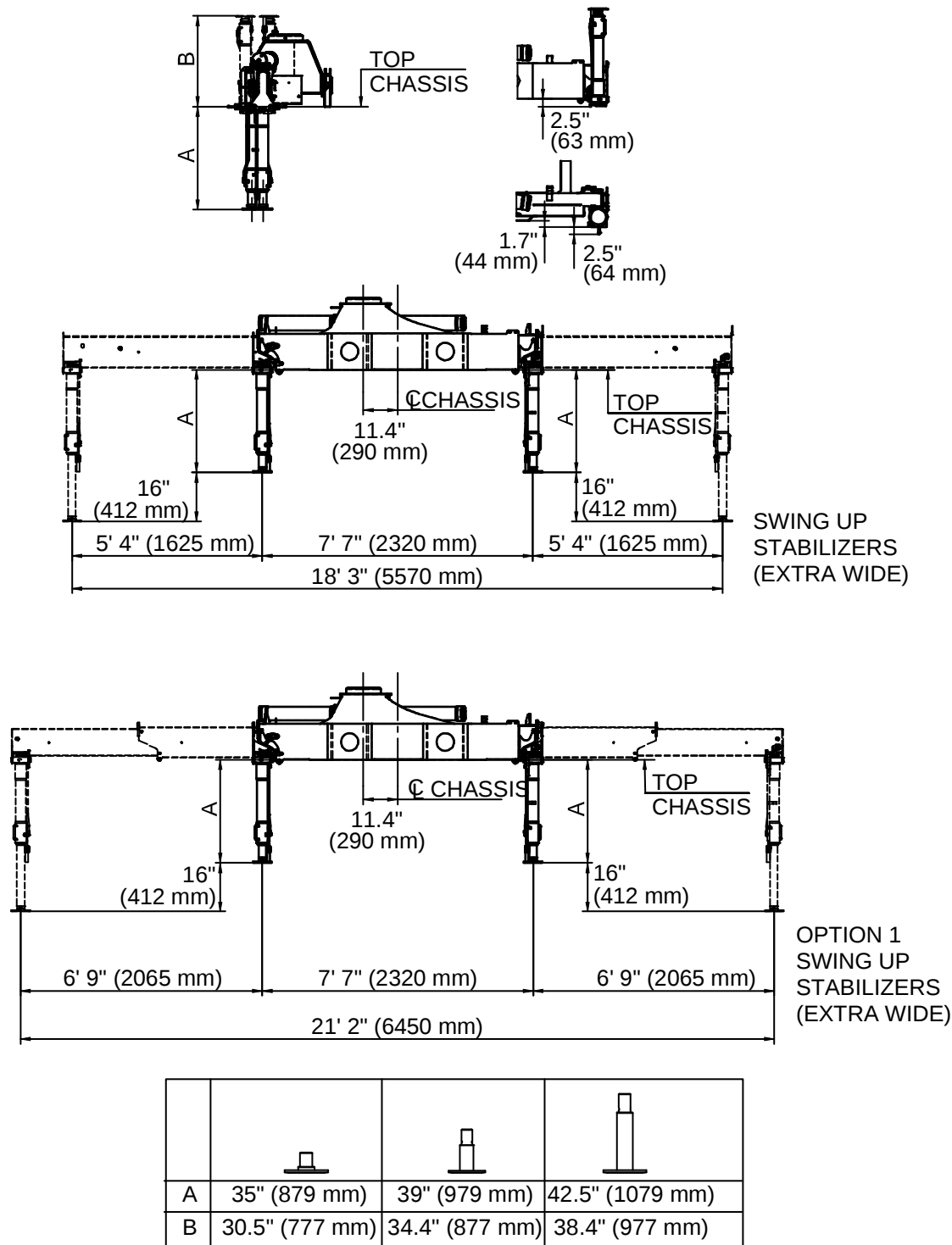


OPTION 1
(Extra Wide
Hydraulic Out /
Hydraulic Down)

				
A	2' 3" (677 mm)	2' 6" (777 mm)	2' 11" (877 mm)	3' 2" (977 mm)
B	1' 5" (440 mm)	1' 8" (515 mm)	1' 8" (515 mm)	1' 8" (515 mm)

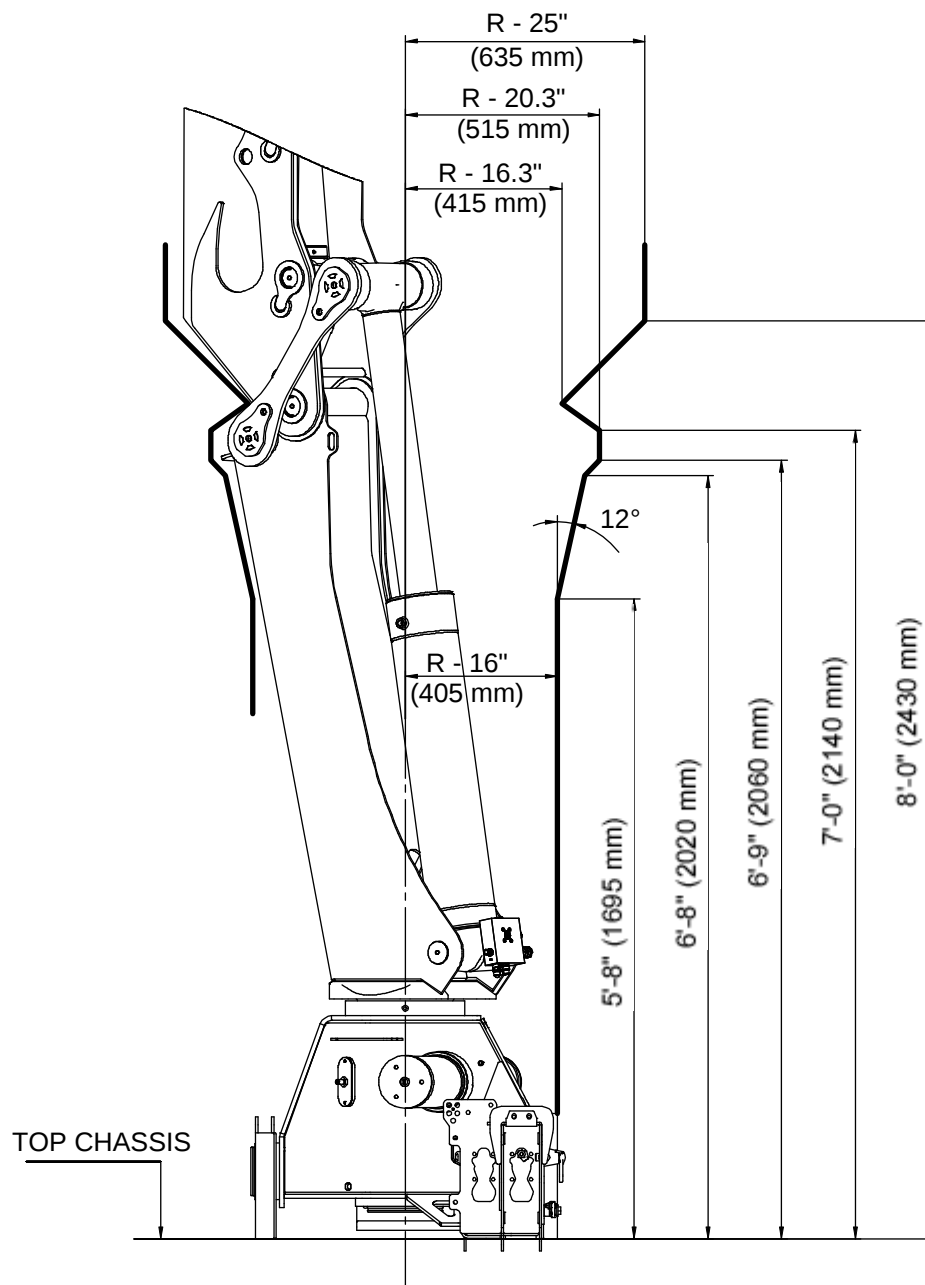


Stabilizer Dimensions, Swing-up, 18 tm up





18/124DL Swing Clearance







CHAPTER 2

Hydraulic Schematics

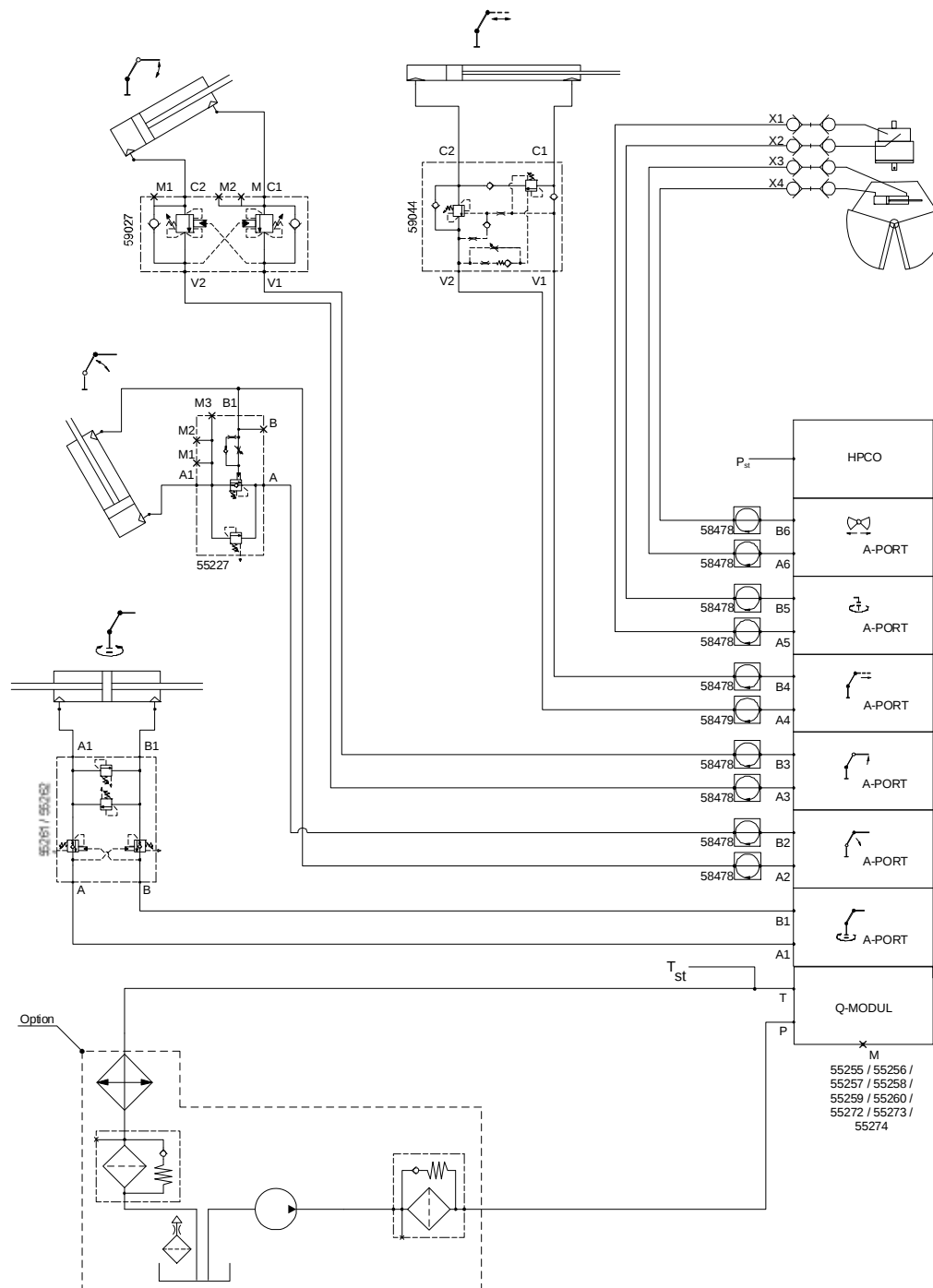
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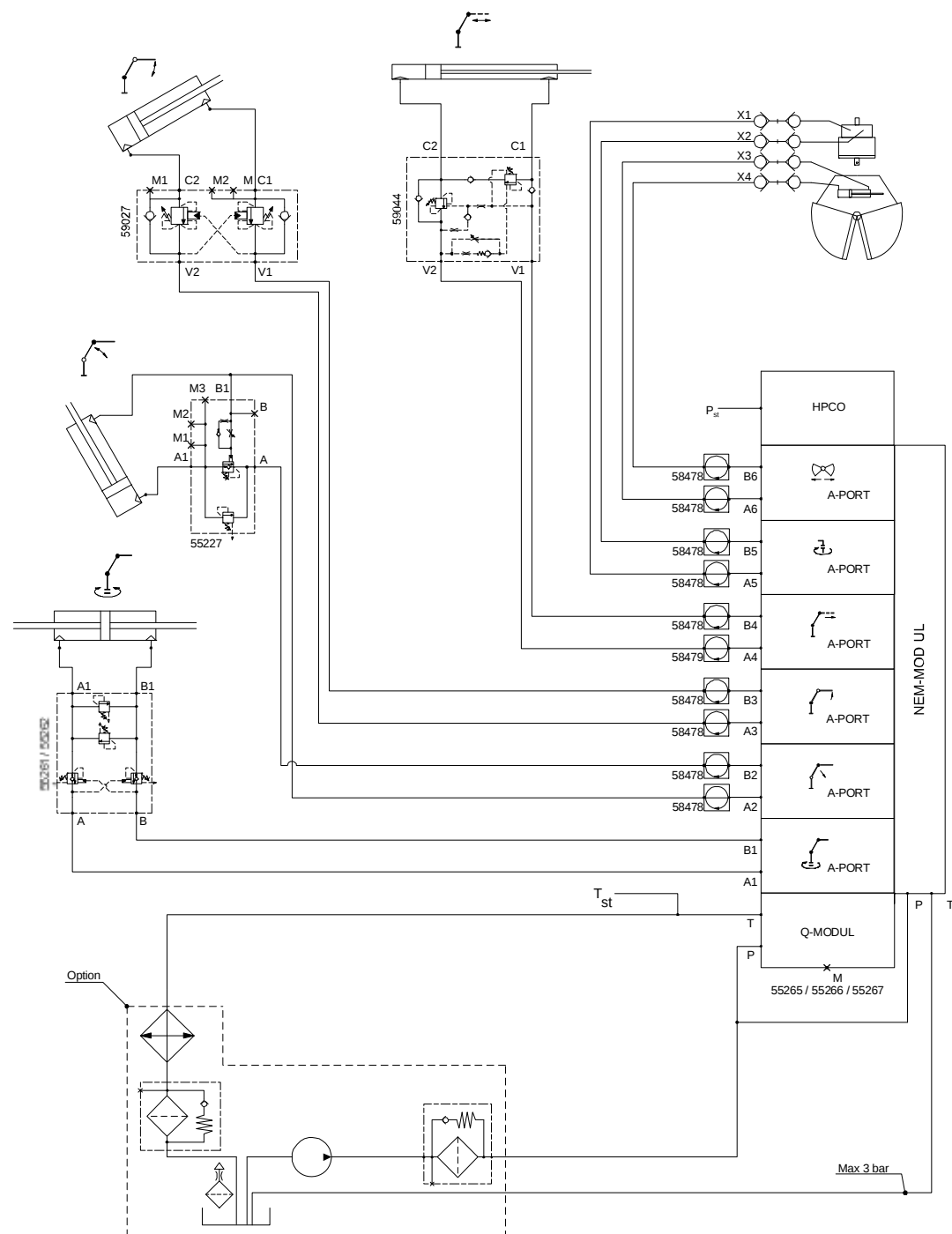
Hydraulic Diagram - 18/124DL Manual Control

This diagram applies to a 18/124DL crane with a single-circuit fixed pump and 6-function manual controls.



Hydraulic Diagram - 18/124DL Radio Control

This diagram applies to a 18/124DL crane with a single-circuit fixed pump and 6-function radio controls.



Hydraulic Diagram - 18/124DL Top Seat Control

This diagram applies to a 18/124DL crane with a single-circuit fixed pump and 6-function top seat.

