



Manual # 99904610

15/105DL Technical Specifications

Revision Date 20120503



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Contents

Revisions	ii
Technical Data and Charts	3
15/105DL Technical Specifications.....	3
15/105DL Pressure Settings.....	5
15/105DL K1 Capacity Chart.....	6
15/105DL K2 Capacity Chart.....	7
15/105DL K3 Capacity Chart.....	8
15/105DL K4 Capacity Chart.....	9
15/105DL K5 Capacity Chart.....	10
15/105DL K6 Capacity Chart.....	11
15/105DL Geometric Configuration.....	12
Stabilizer Dimensions, Fixed Legs	13
Stabilizer Dimensions, Hyd Swing-Up Legs	14
15/105DL Swing Clearance.....	15
Hydraulic Schematics	17
Hydraulic Diagram - 15/105DL Manual Control.....	18
Hydraulic Diagram - 15/105DL Radio Control	19
Hydraulic Diagram - 15/105DL Top Seat Control	20



Revisions

DATE	LOCATION	DESCRIPTION
20090715		Added swing clearance information.
20100118	Geometric. configuration	Added stabilizer length and extension dimensions, stabilizer drawings.
20111214	Specs, stabilizer drawings.	ECN 11628 - Updated stabilizer wording.
20120502	Specifications	Updated crane weight to include tank, mtg bolts.



CHAPTER 1

Technical Data and Charts

In This Chapter

15/105DL Technical Specifications	3
15/105DL Pressure Settings	4
15/105DL K1 Capacity Chart.....	6
15/105DL K2 Capacity Chart.....	7
15/105DL K3 Capacity Chart.....	8
15/105DL K4 Capacity Chart.....	9
15/105DL K5 Capacity Chart.....	10
15/105DL K6 Capacity Chart.....	11
15/105DL Geometric Configuration.....	12
Stabilizer Dimensions, Fixed Legs	13
Stabilizer Dimensions, Hyd Swing-Up Legs	14
15/105DL Swing Clearance.....	15

15/105DL Technical Specifications

15/105DL	1-HYDRAULIC	2-HYDRAULIC	3-HYDRAULIC	4-HYDRAULIC	5-HYDRAULIC	6-HYDRAULIC
Crane Rating*	104,880 ft-lb (14.5 tm)	101,260 ft-lb (14.0 tm)	98,370 ft-lb (13.6 tm)	95,475 ft-lb (13.2 tm)	92,580 ft-lb (12.8 tm)	90,410 ft-lb (12.5 tm)
Maximum Horizontal Reach	20' 4" (6.2 m)	27' 3" (8.3 m)	34' 1" (10.4 m)	41' 8" (12.7 m)	48' 11" (14.9 m)	56' 5" (17.2 m)
Maximum Vertical Reach	28' 7" (8.7 m)	35' 5" (10.8 m)	42' 4" (12.9 m)	49' 10" (15.2 m)	57' 1" (17.4 m)	64' 8" (19.7 m)
Maximum Capacity	13,470 lb (6,110 kg)	13,115 lb (5,950 kg)	12,520 lb (5,680 kg)	11,970 lb (5,430 kg)	11,465 lb (5,200 kg)	11,000 lb (4,990 kg)
Max Cap @ Max Reach	5,135 lb (2,330 kg)	3,640 lb (1,650 kg)	2,645 lb (1,200 kg)	1,940 lb (880 kg)	1,435 lb (650 kg)	1,060 lb (480 kg)
Crane Weight **	3,350 lb (1,520 kg)	3,660 lb (1,660 kg)	3,970 lb (1,800 kg)	4,265 lb (1,935 kg)	4,530 lb (2,055 kg)	4,740 lb (2,150 kg)
Hook Approach						
Vertical	9' 1" (2.76 m)	8' 11" (2.71 m)	8' 7" (2.62 m)	8' 4" (2.53 m)	8' 0" (2.44 m)	7' 9" (2.35 m)
Horizontal	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" (785 mm)	2' 7" (800 mm)	2' 8" (820 mm)	2' 9" (835 mm)	2' 9" (850 mm)	2' 10" (860 mm)
Horizontal (C/L RotTo Bridge)	13.0" (330 mm)	12.8" (325 mm)	12.4" (315 mm)	12.0" (305 mm)	11.8" (300 mm)	11.0" (280 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.



15/105DL SPECIFICATIONS	
Stabilizer Pad Diameter	
Crane Storage Height	7' 5" (2,250 mm)
Mounting Space ***	2' 8" (820 mm)
Rotational Torque	12,295 ft-lb (1.7 tm)
Rotation	400°
Optimum Pump Performance	13.2 gpm (50 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)	15' 2" (4,615 mm)
Weight	440 lb (200 kg)
Opt. 1 (manual out / hydraulic down)	18' 4" (5,590 mm)
Weight	518 lb (235 kg)
Opt. 2 (hydraulic out / hydraulic down)	21' 3" (6,470 mm)
Weight	660 lb (300 kg)
*** Maximum swing clearance radius required is 25" (620 mm) at 7'-10" (2385 mm) from top of chassis frame.	

MINIMUM CHASSIS SPECIFICATIONS	
Front Axle Rating (GAWR)	12,000 lb (5,445 kg)
Rear Axle Rating (GAWR)	21,000 lb (9,525 kg)
Resistance To Bending Moment	1,850,000 in-lb (213,145 kg-m)



15/105DL 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)

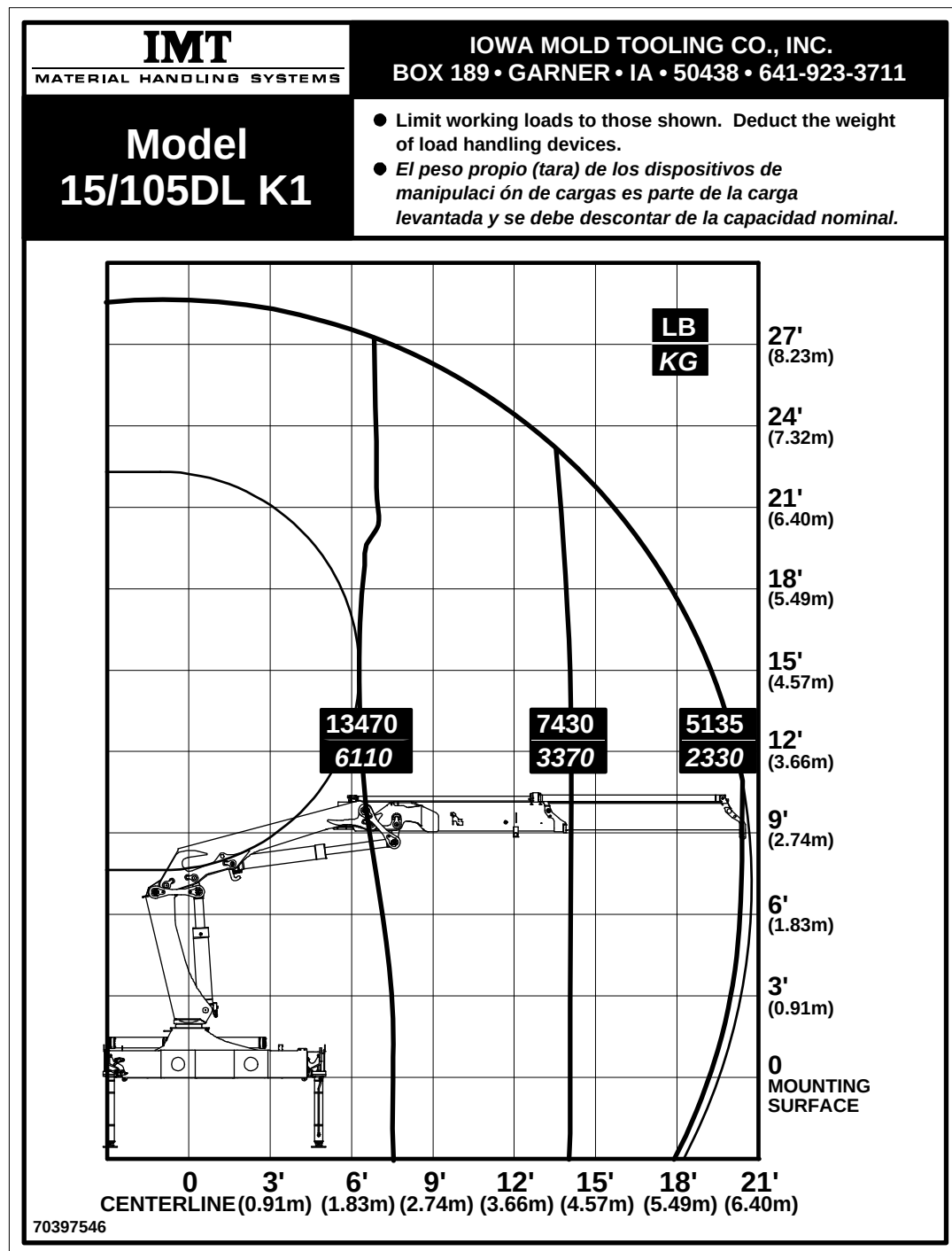
Load moment limitation (LMB)	4205 psi (290 bar)
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MAXIMUM PUMP PERFORMANCE

Pump performance	13.2 gal/min (50 l/min)
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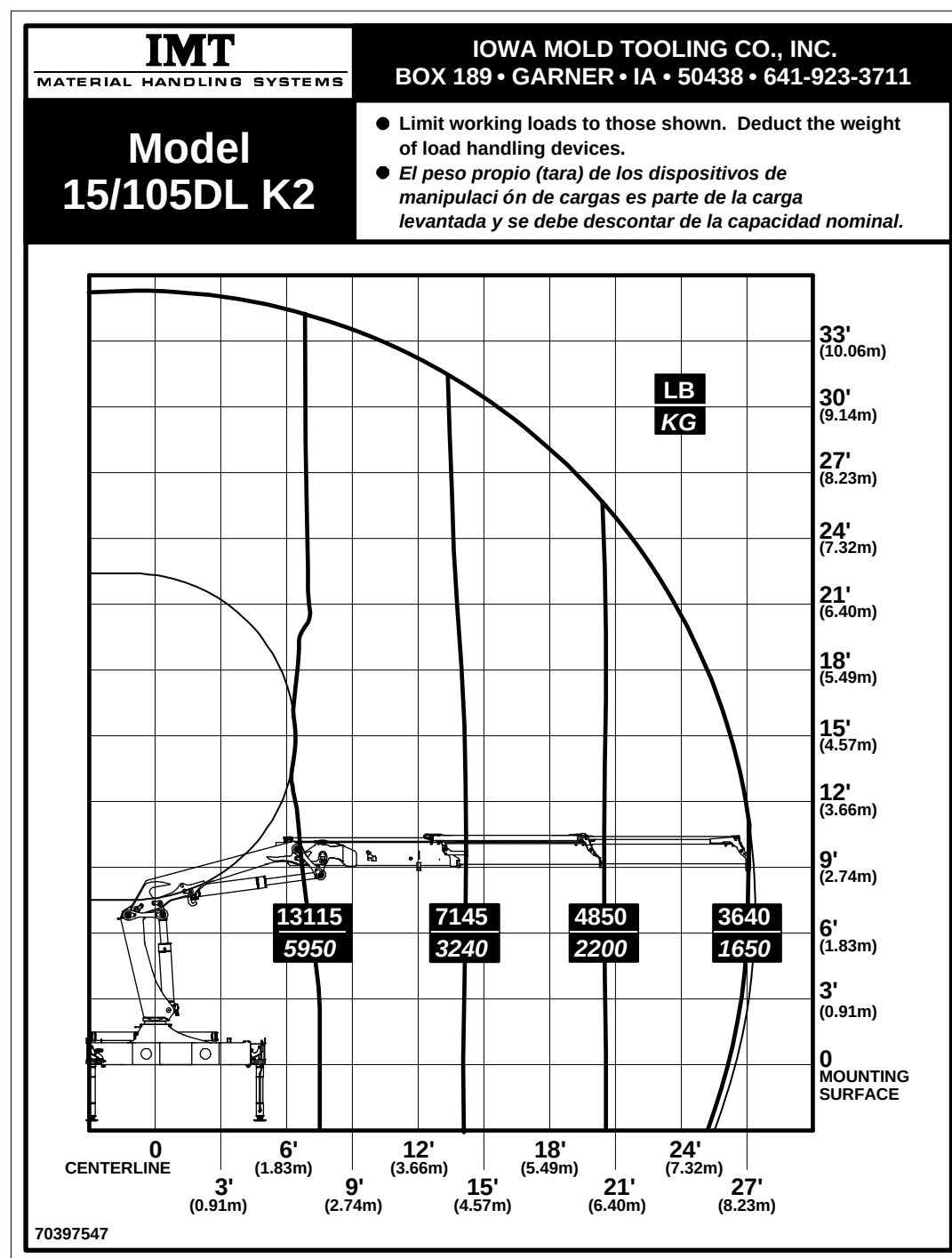


15/105DL K1 Capacity Chart

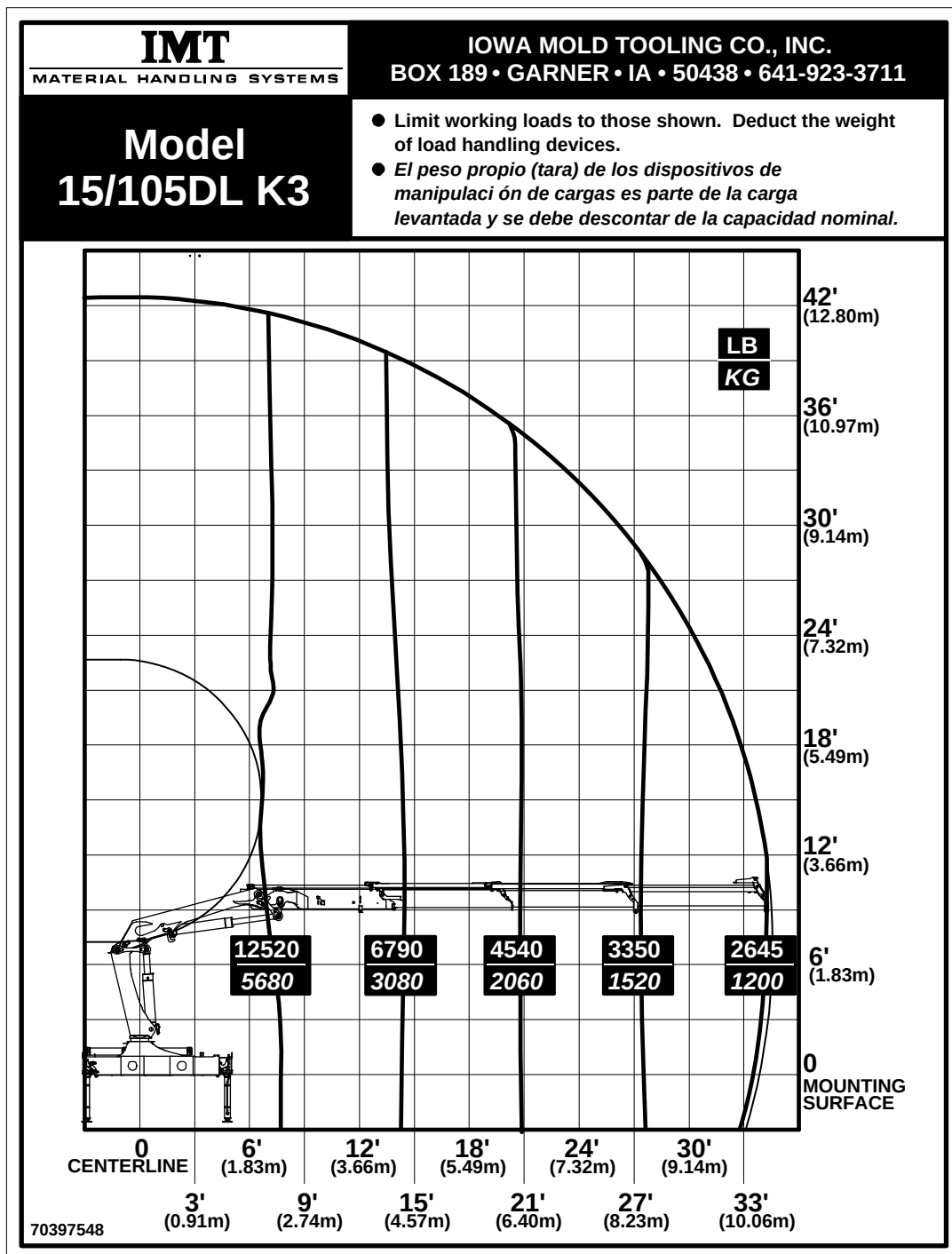




15/105DL K2 Capacity Chart

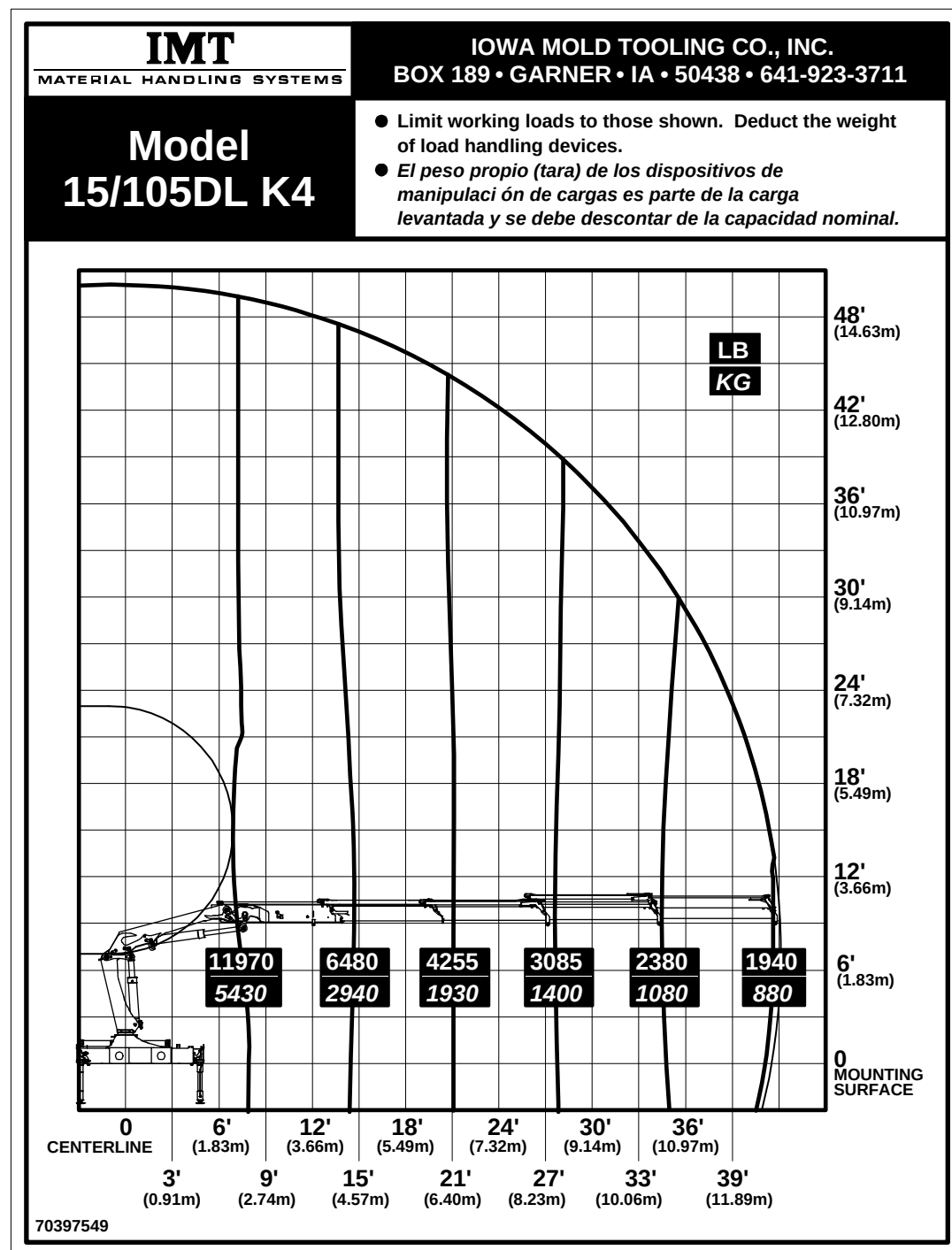


15/105DL K3 Capacity Chart



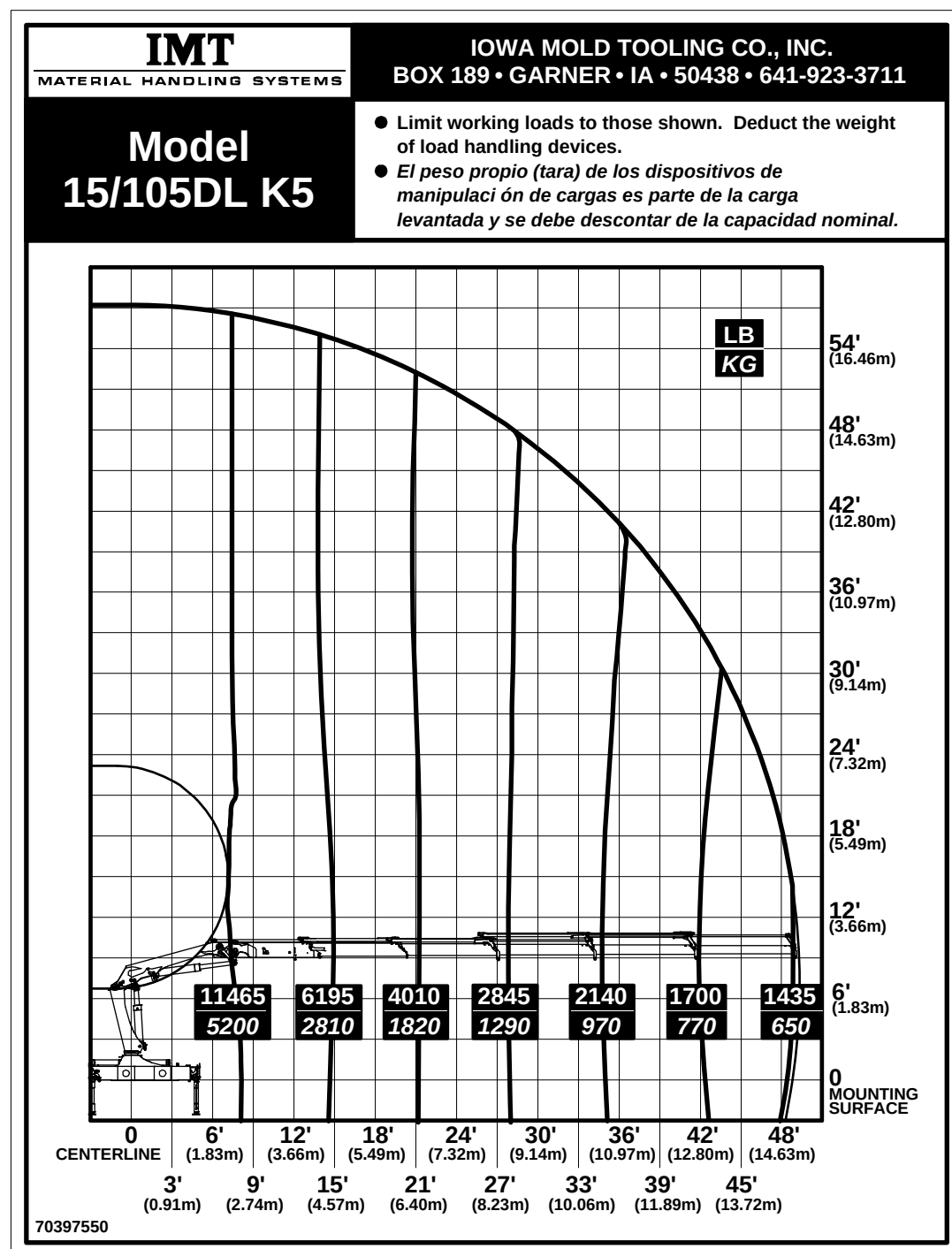


15/105DL K4 Capacity Chart

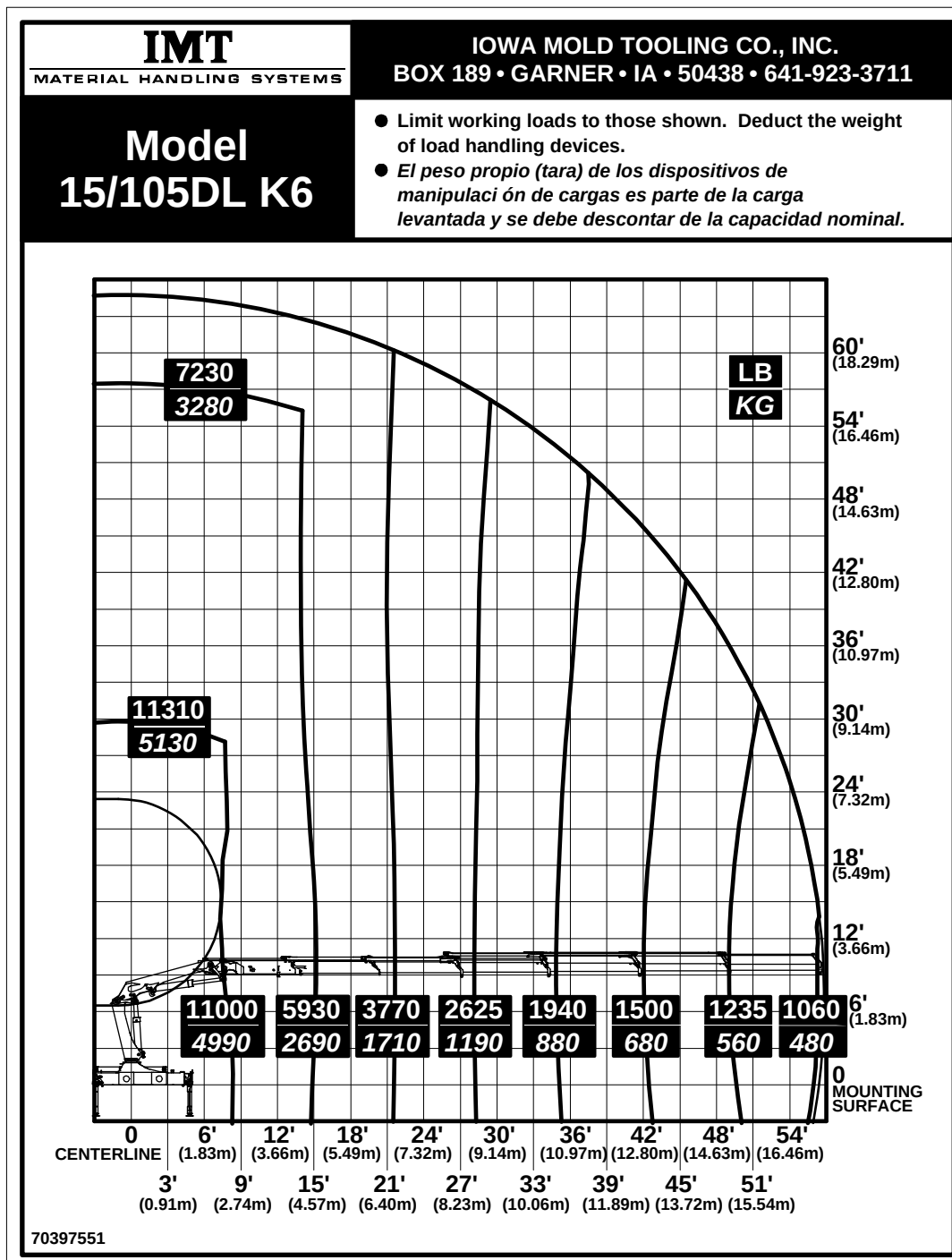




15/105DL K5 Capacity Chart

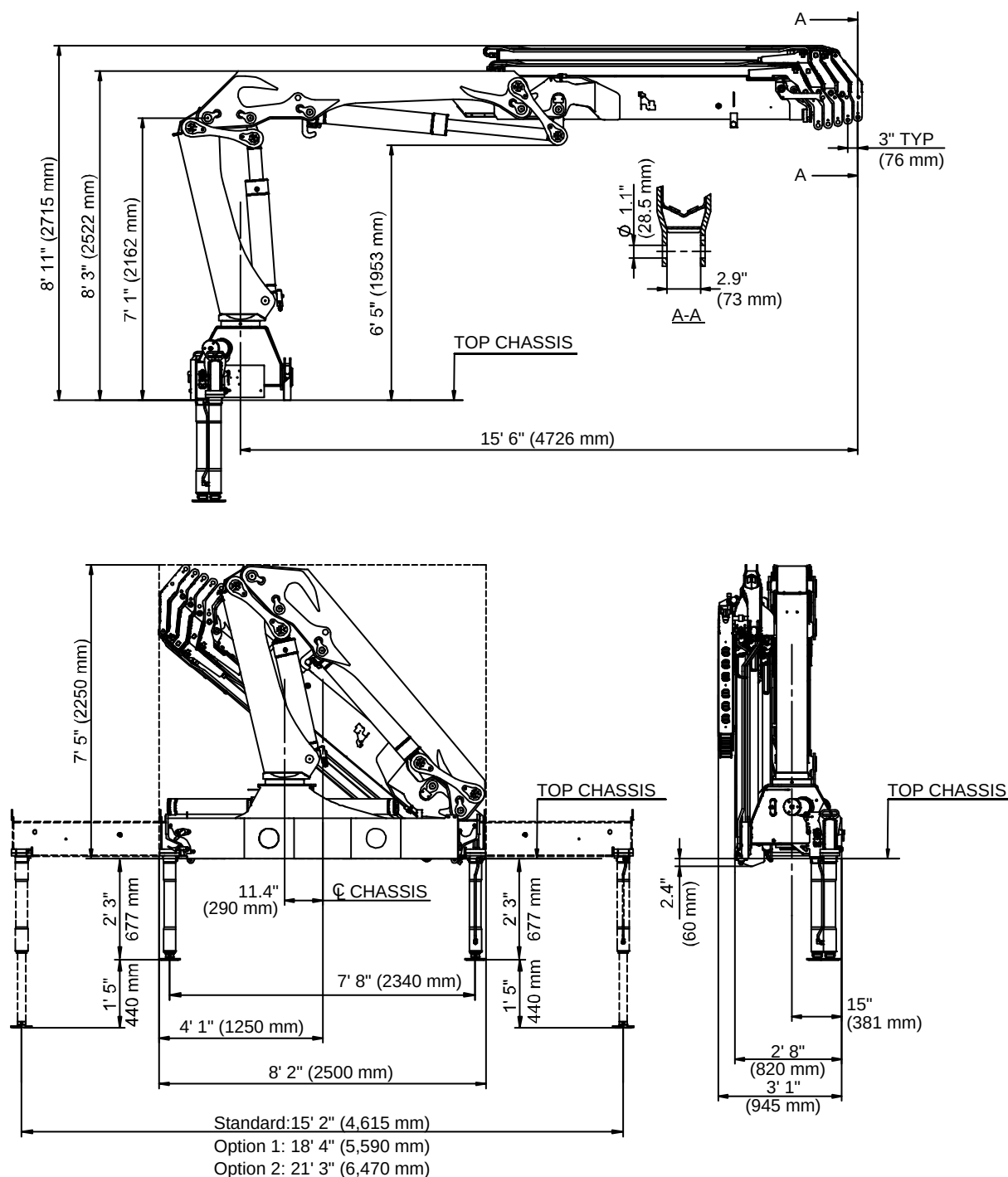


15/105DL K6 Capacity Chart



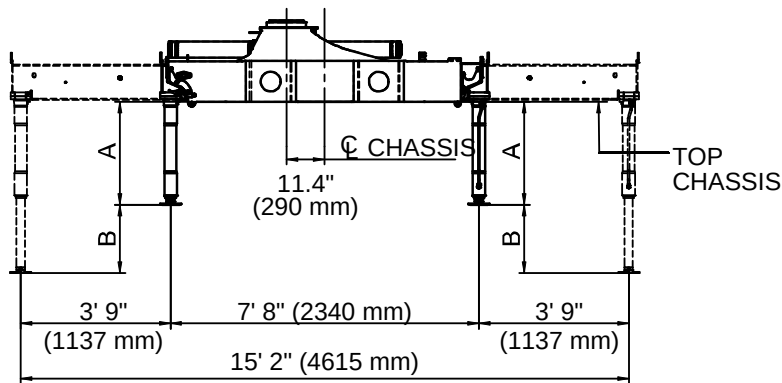


15/105DL Geometric Configuration

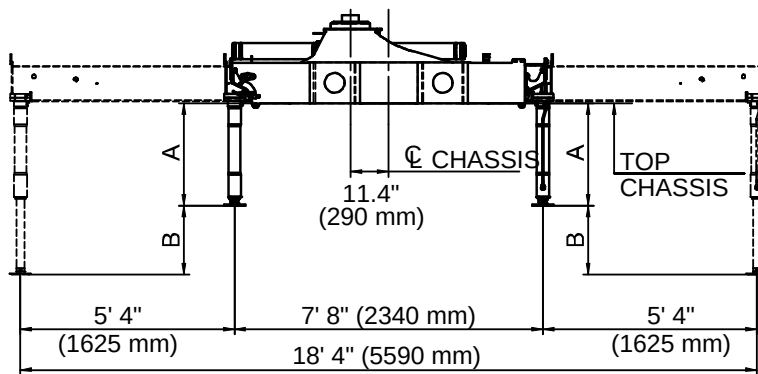




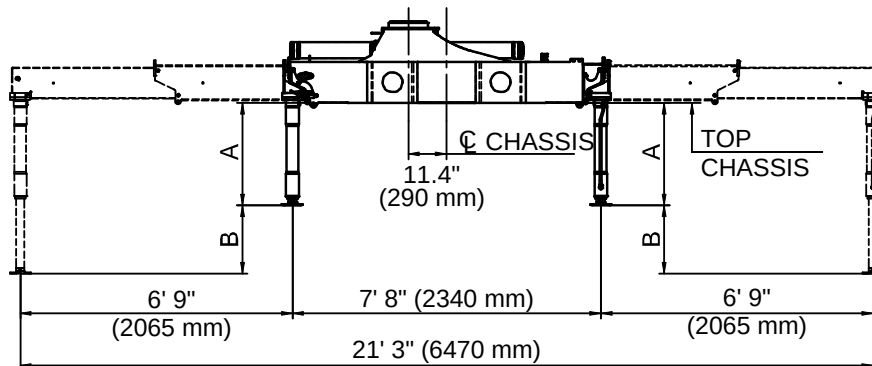
Stabilizer Dimensions, Fixed Legs



STANDARD



OPTION 1
(Manual Out /
Hydraulic Down)

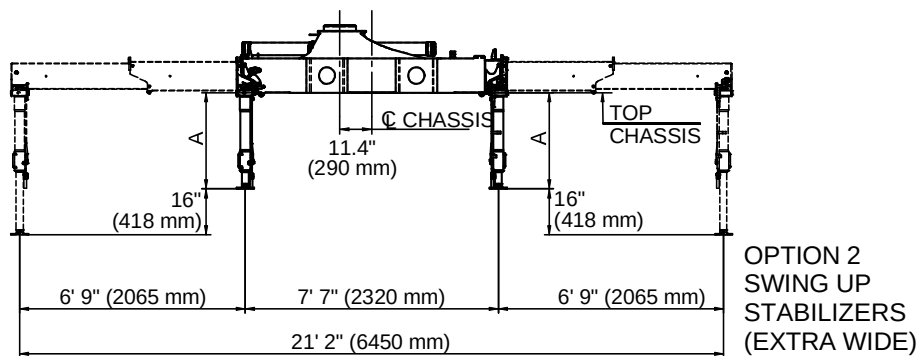
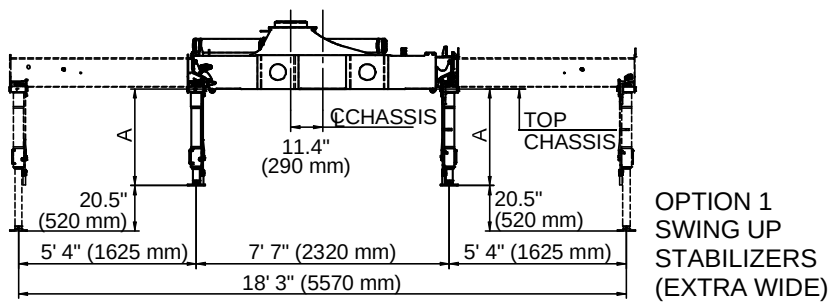
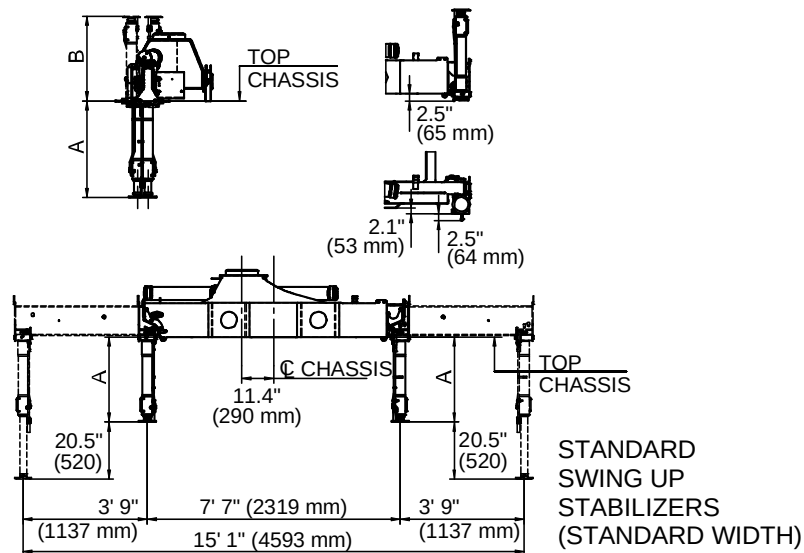


OPTION 2
(Hydraulic Out /
Hydraulic Down)

A	2' 3" (677 mm)	2' 6" (777 mm)	2' 11" (877 mm)	3' 2" (977 mm)
B	1' 5" (440 mm)	1' 8" (520 mm)	1' 8" (520 mm)	1' 8" (520 mm)



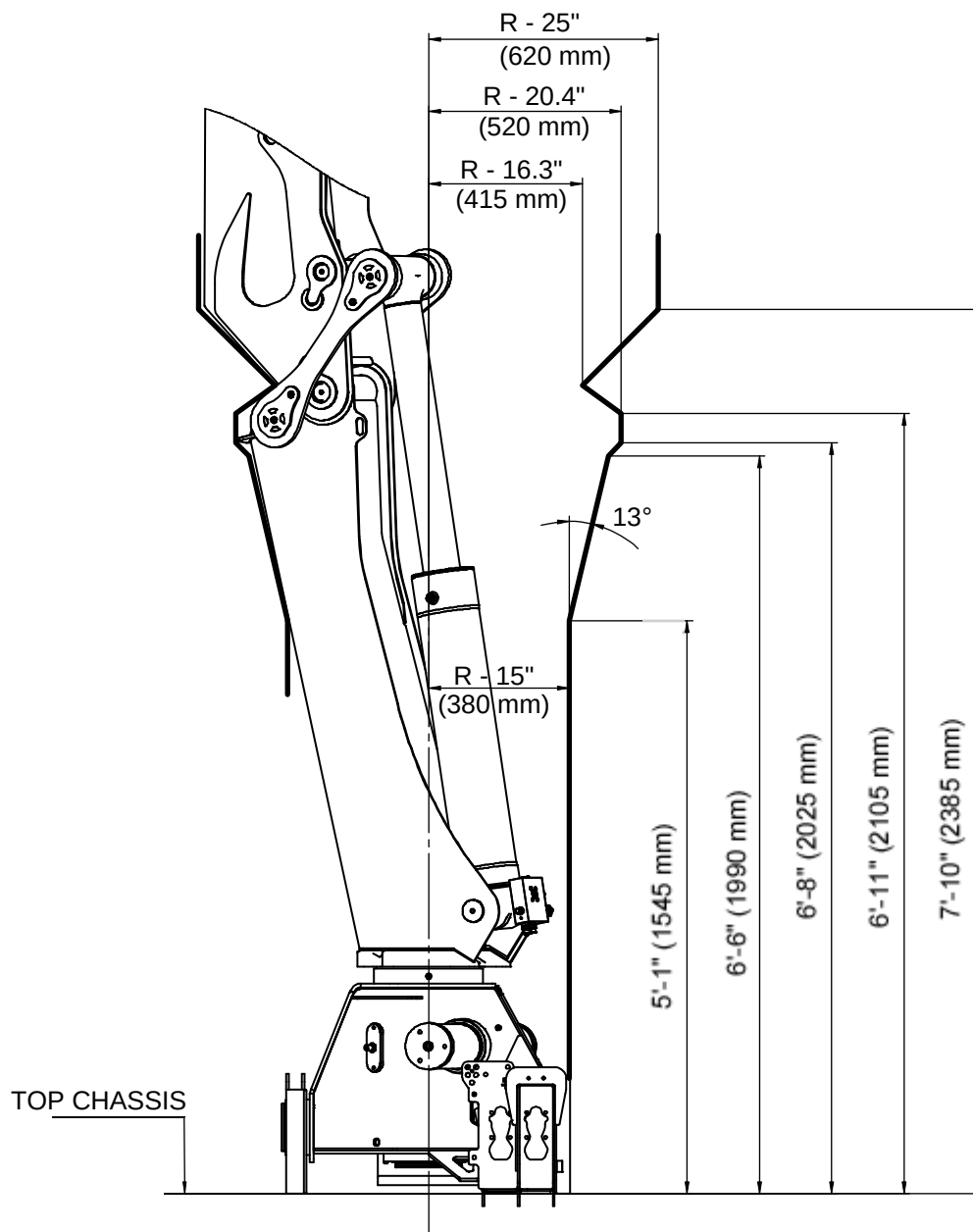
Stabilizer Dimensions, Hyd Swing-Up Legs



A	35" (881 mm)	39" (981 mm)	42.5" (1081 mm)
B	30.5" (775 mm)	34.4" (875 mm)	38.4" (975 mm)



15/105DL Swing Clearance







CHAPTER 2

Hydraulic Schematics

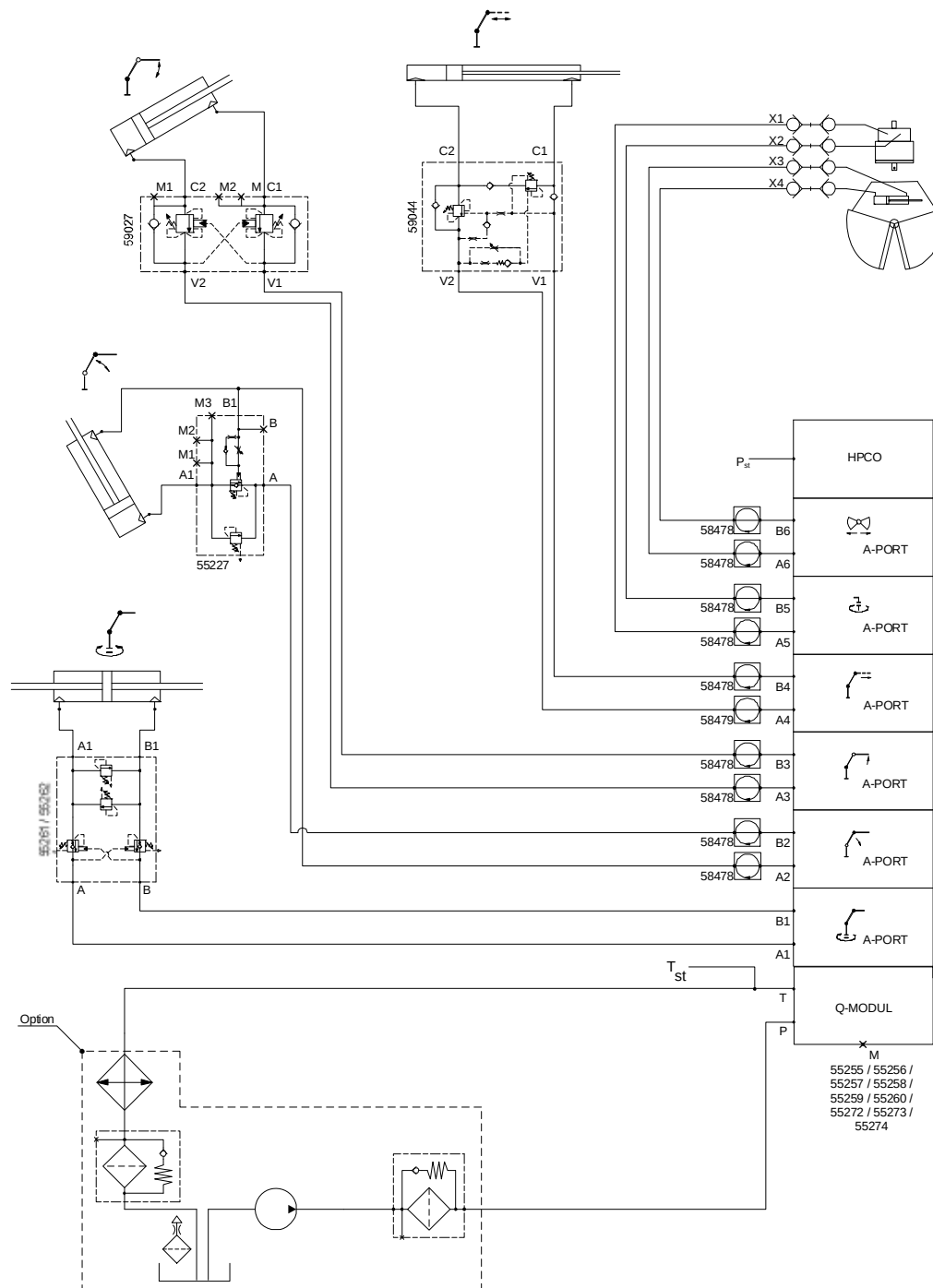
In This Chapter

Hydraulic Diagram - 15/105DL Manual Control.....	18
Hydraulic Diagram - 15/105DL Radio Control	19
Hydraulic Diagram - 15/105DL Top Seat Control	20



Hydraulic Diagram - 15/105DL Manual Control

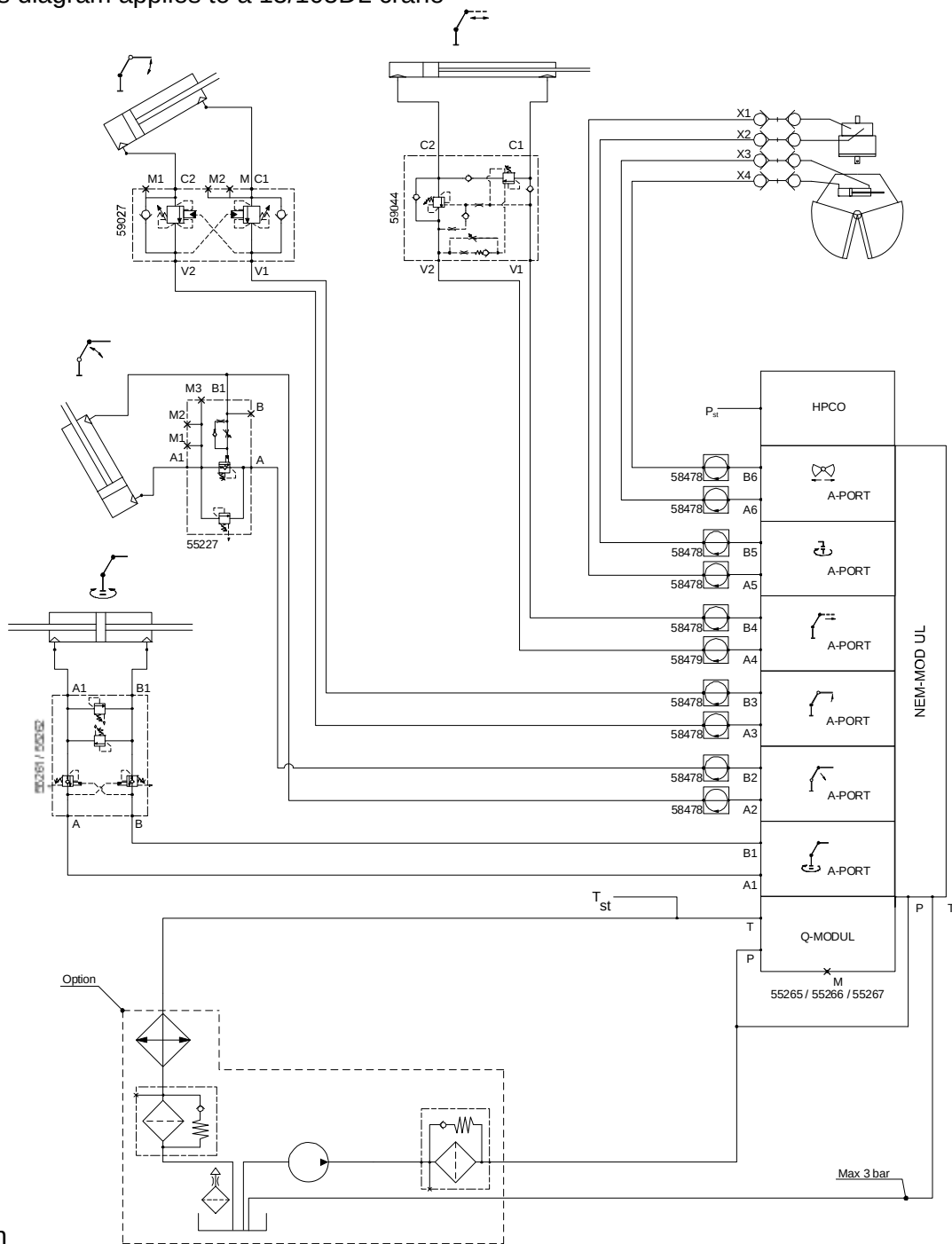
This diagram applies to a 15/105DL crane with a single-circuit fixed pump and 6-function manual controls.





Hydraulic Diagram - 15/105DL Radio Control

This diagram applies to a 15/105DL crane



with
circuit fixed pump and 6-function radio controls.

a single-



Hydraulic Diagram - 15/105DL Top Seat Control

This diagram applies to a 15/105DL crane with a single-circuit fixed pump and 6-function top seat controls.

