
Manual # 99904620

22/153SL Technical Specifications

Revision Date 20120503



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Revisions

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

CHAPTER 1

Technical Data and Charts

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22/153SL Technical Specifications

	22/153SL K2	22/153SL K3	22/153SL K4	22/153SL K5	22/153SL K6	22/153SL K7	22/153SL K8
Crane Rating*	148,275 ft lb (20.5 tm)	144,660 ft lb (20 tm)	140,320 ft lb (19.4 tm)	137,425 ft lb (19 tm)	133,810 ft lb (18.5 tm)	131,640 ft lb (18.2 tm)	128,745 ft lb (17.8 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	17,065 lb (7740 kg)	16,140 lb (7320 kg)	15,255 lb (6920 kg)	14,460 lb (6560 kg)	14,200 lb (6440 kg)	13,560 lb (6150 kg)	12,895 lb (5850 kg)
Max Cap @ Max Reach	5445 lb (2470 kg)	4055 lb (1840 kg)	3040 lb (1380 kg)	2295 lb (1040 kg)	1655 lb (750 kg)	1235 lb (560 kg)	880 lb (400 kg)
Crane Weight **	4420 lb (2005 kg)	4795 lb (2175 kg)	5235 lb (2375 kg)	5565 lb (2525 kg)	5875 lb (2665 kg)	6105 lb (2770 kg)	6295 lb (2855 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' 6" (760 mm)	2' 7" (785 mm)	2' 8" (810 mm)	2' 9" (830 mm)	2' 9" (845 mm)	2' 10" (865 mm)	2' 11" (880 mm)
Horizontal (C/L RotTo Bridge)	13.6" (345 mm)	13.4" (340 mm)	12.8" (325 mm)	12.2" (310 mm)	11.8" (300 mm)	11.2" (285 mm)	11.0" (280 mm)

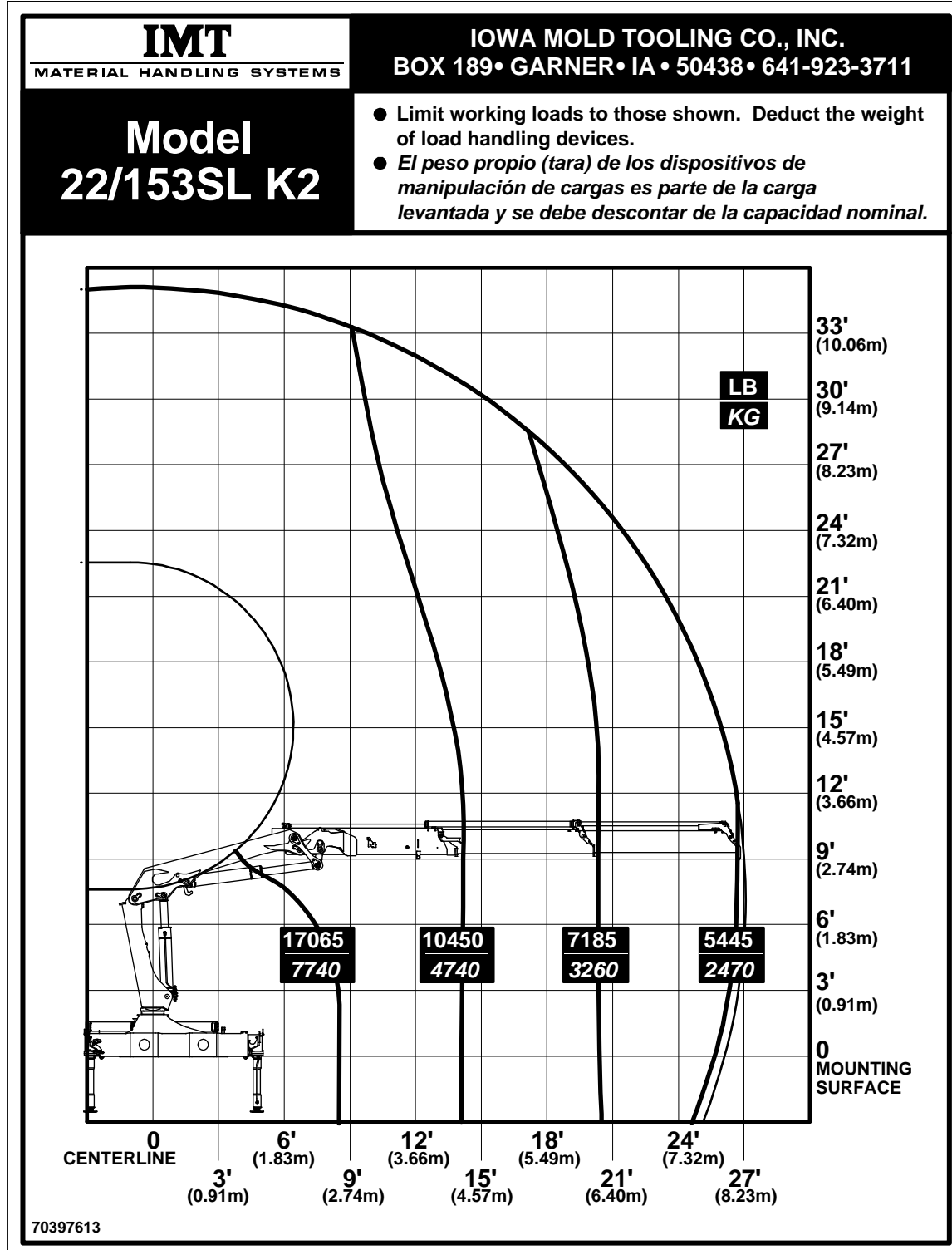
* Crane rating (ft-lb) is the rated load (lb) multiplied by the respective distance (ft) from centerline of rotation with all extensions retracted and the inner and outer booms in a horizontal position, per ANSI B30.22. ** Crane weight is for standard crane with tank & 4-bolt mounting kit. Does not include stabilizers, oil.

22/153SL Specifications	
Stabilizer Pad Diameter	7" (175 mm)
Crane Storage Height	7' 6" (2295 mm)
Mounting Space ***	2' 11" (880 mm)
Rotational Torque	19,990 ft lb (2.8 tm)
Rotation	400°
Optimum Pump Performance	15.9 gpm (60 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	640 lb (290 kg)
Option (hydraulic out / hydraulic down)	21' 2" (6455 mm)
Weight	805 lb (365 kg)
*** Maximum swing clearance radius required is 25" (640 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	2,300,000 in-lb (264,990 kg-m)

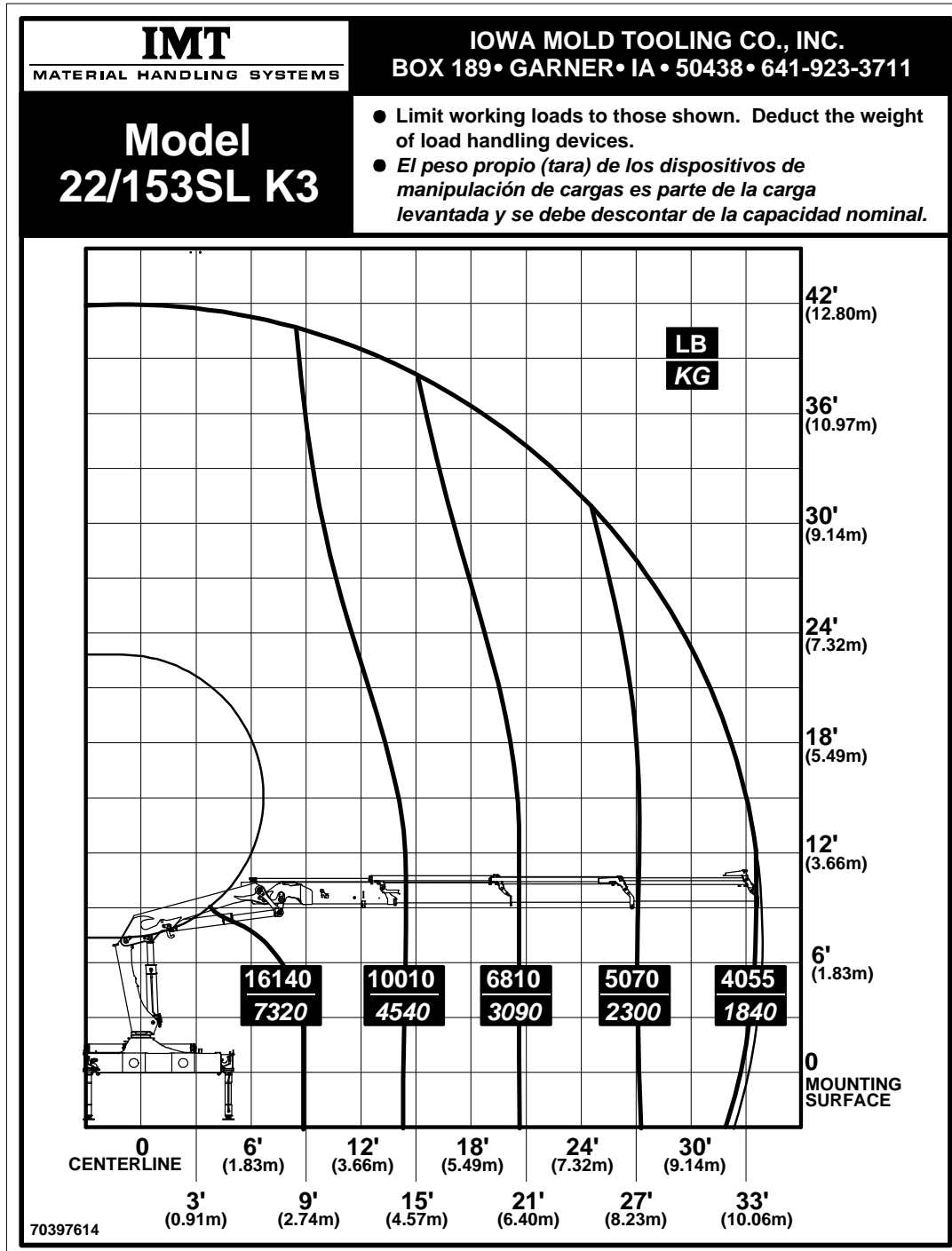
22/153SL-24/169SL Pressure Settings (Hydrocontrol HC-D4)

WORKING PRESSURE ON MAIN-RELIEF VALVE & PORT RELIEF VALVES				
FUNCTION	DIRECTION	PORT	22/153SL	24/169SL
Main-relief valve			4350 psi (300 bar)	4785 psi (330 bar)
Slewing system	Right	A	P	P
	Left	B	P	P
Boom cylinder	Down	A	1450 psi (100 bar)	1450 psi (100 bar)
	Up	B	4715 psi (325 bar)	4930 psi (340 bar)
Jib cylinder	Up	A	4715 psi (325 bar)	4930 psi (340 bar)
	Down	B	2900 psi (200 bar)	2900 psi (200 bar)
Extension cylinders	Extend	A	P	P
	Retract	B	P	P
Rotator	Right	A	2900 psi (200 bar)	2900 psi (200 bar)
	Left	B	2900 psi (200 bar)	2900 psi (200 bar)
Grab	Open	A	2900 psi (200 bar)	2900 psi (200 bar)
	Close	B	2900 psi (200 bar)	2900 psi (200 bar)
Separate stabilizer valve		All	2175 psi (150 bar)	2175 psi (150 bar)
WORKING PRESSURE ON LOAD-HOLDING VALVES				
Function	Direction	Port	Opening Pressure	
Jib cylinder			4785 psi (330 bar)	5075 psi (350 bar)
Slewing system			3045 psi (210 bar)	3045 psi (210 bar)
Extension cylinders	Extend	A	3045 psi (210 bar)	3045 psi (210 bar)
	Retract	B	6235 psi (430 bar)	6235 psi (430 bar)
PRESSURE SETTING FOR LOAD MOMENT LIMITATION (LMB)				
Load moment limitation (LMB)			4205 psi (290 bar)	4640 psi (320 bar)
HDL			-	4205 psi (290 bar)
MAXIMUM PUMP PERFORMANCE				
Pump performance			15.9 gpm (60 l/min)	15.9 gpm (60 l/min)

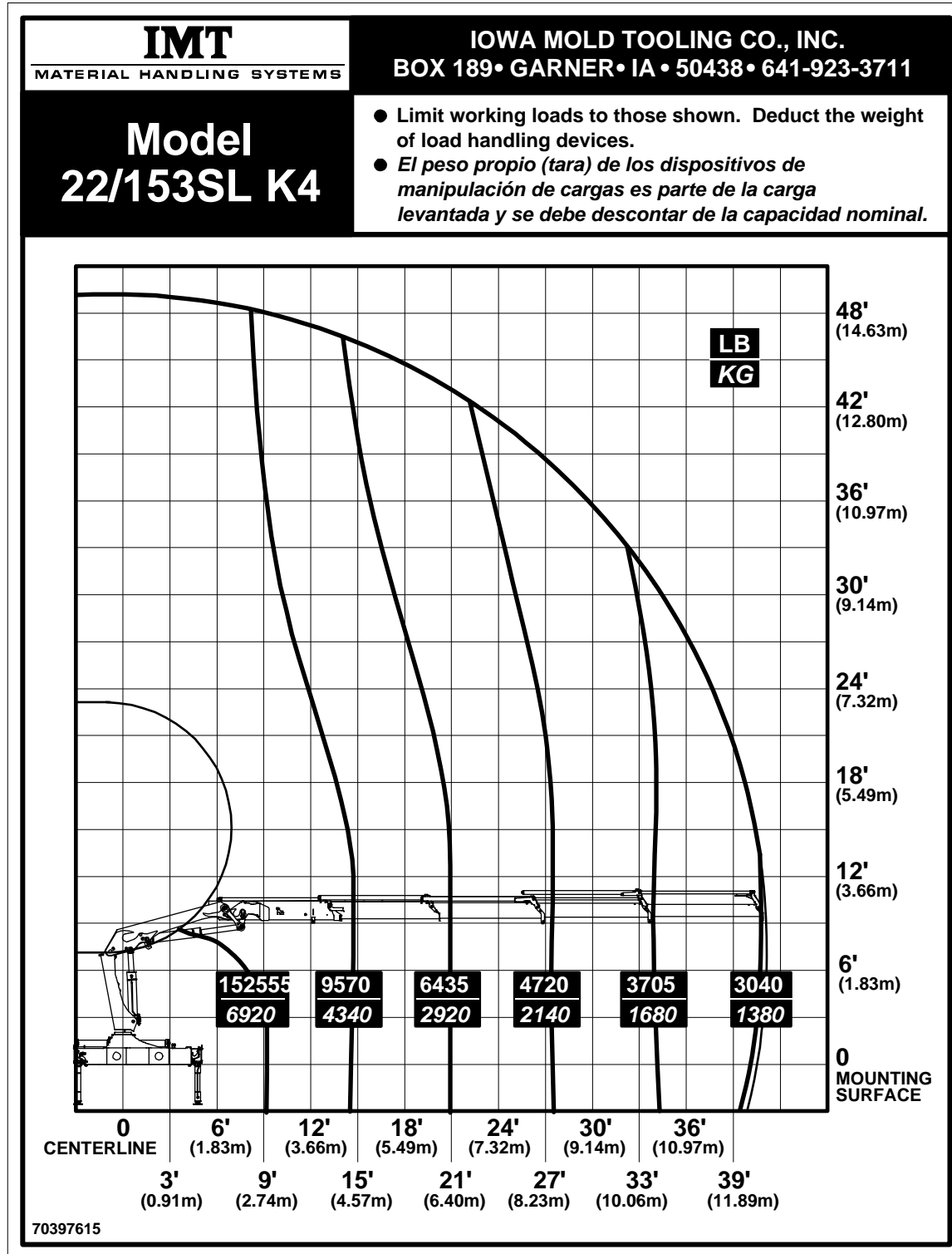
22/153SL K2 Capacity Chart



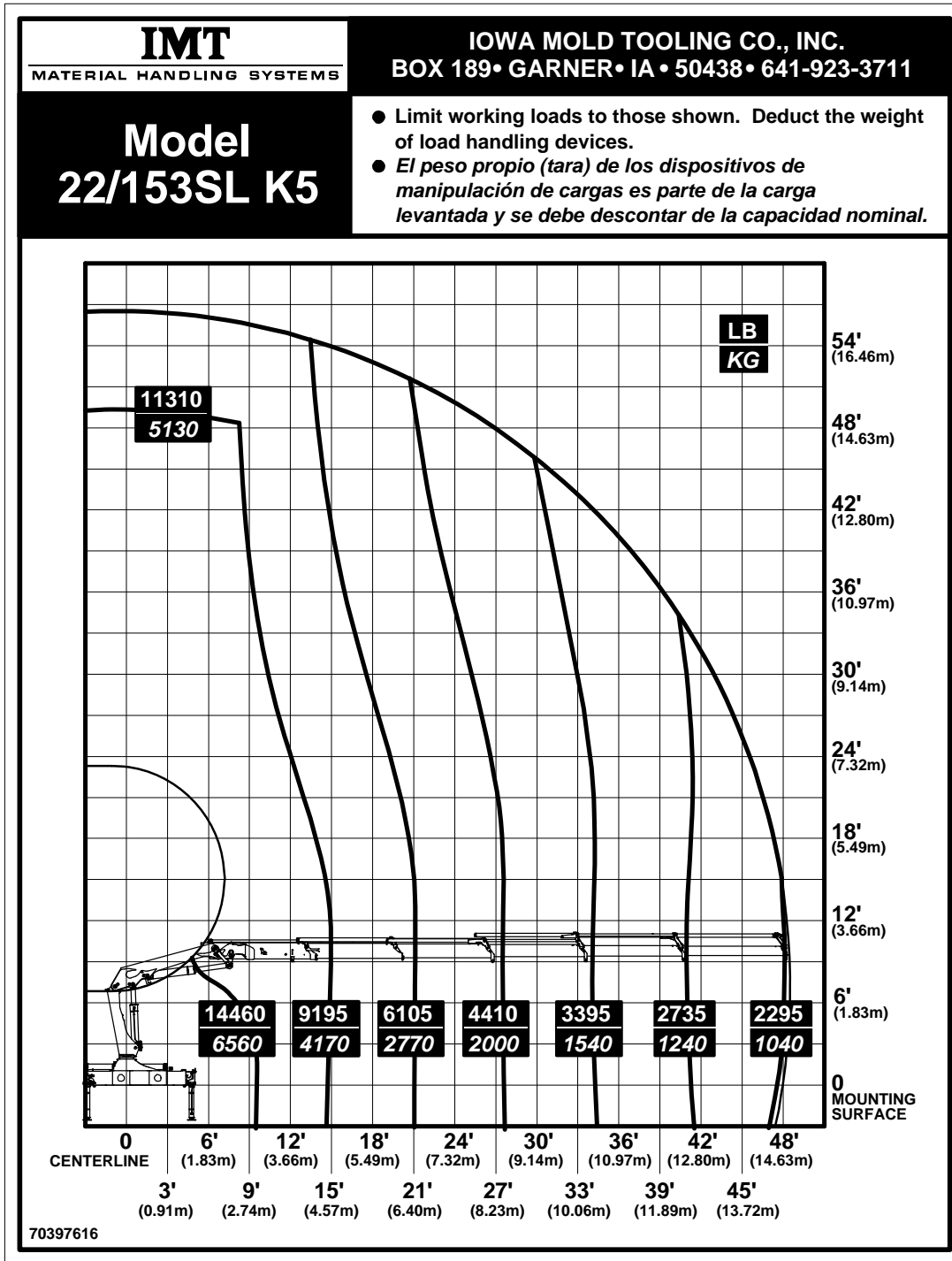
22/153SL K3 Capacity Chart



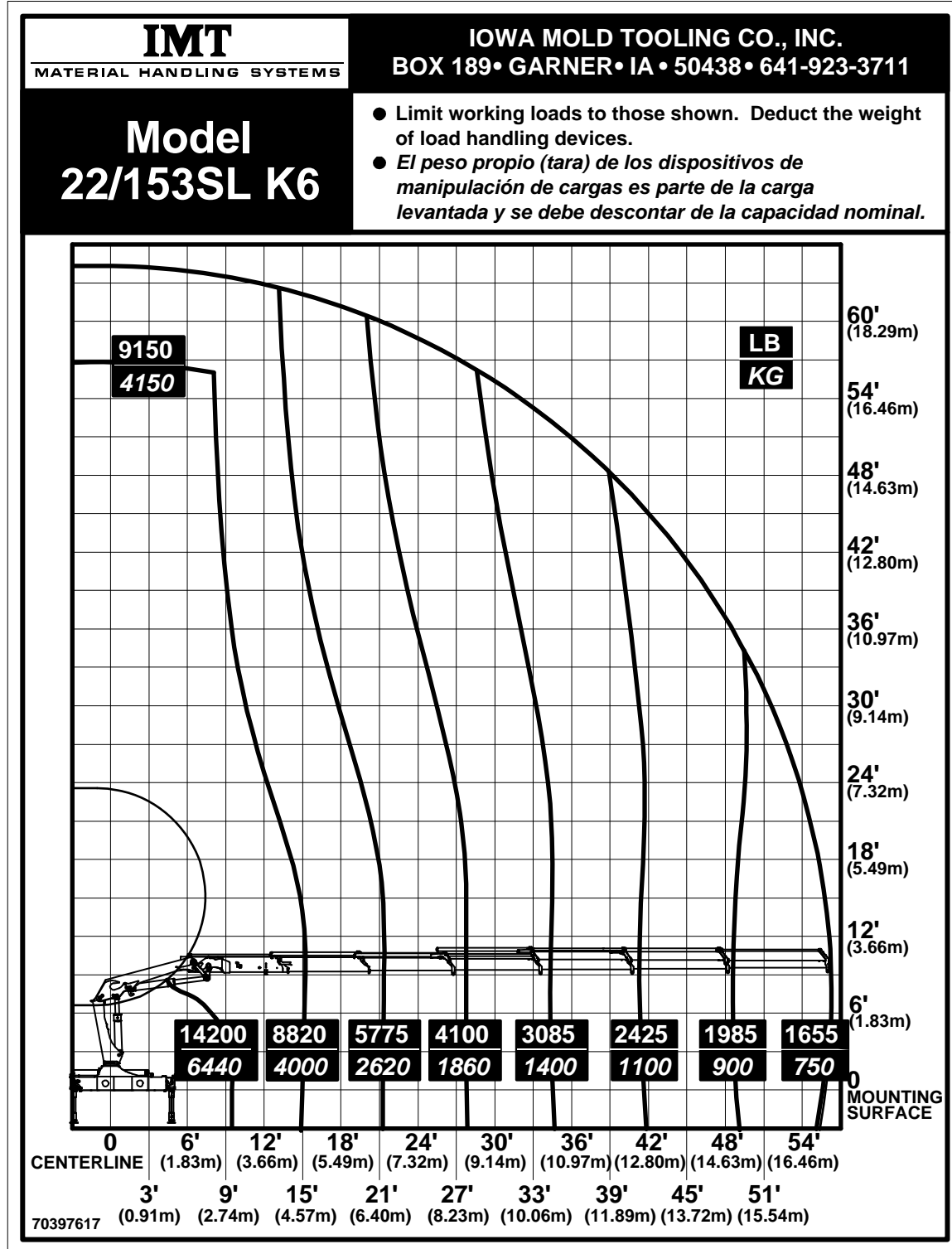
22/153SL K4 Capacity Chart



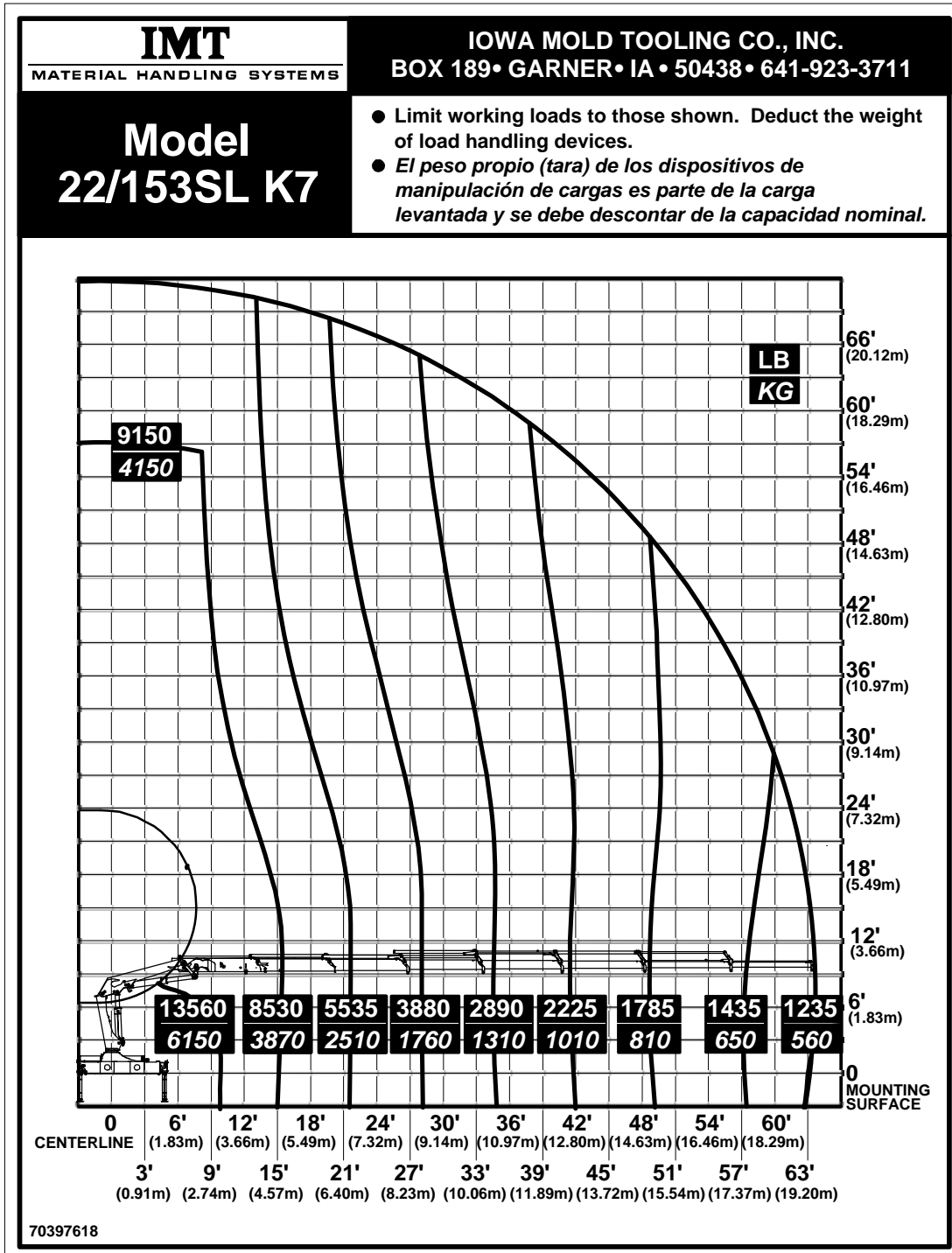
22/153SL K5 Capacity Chart



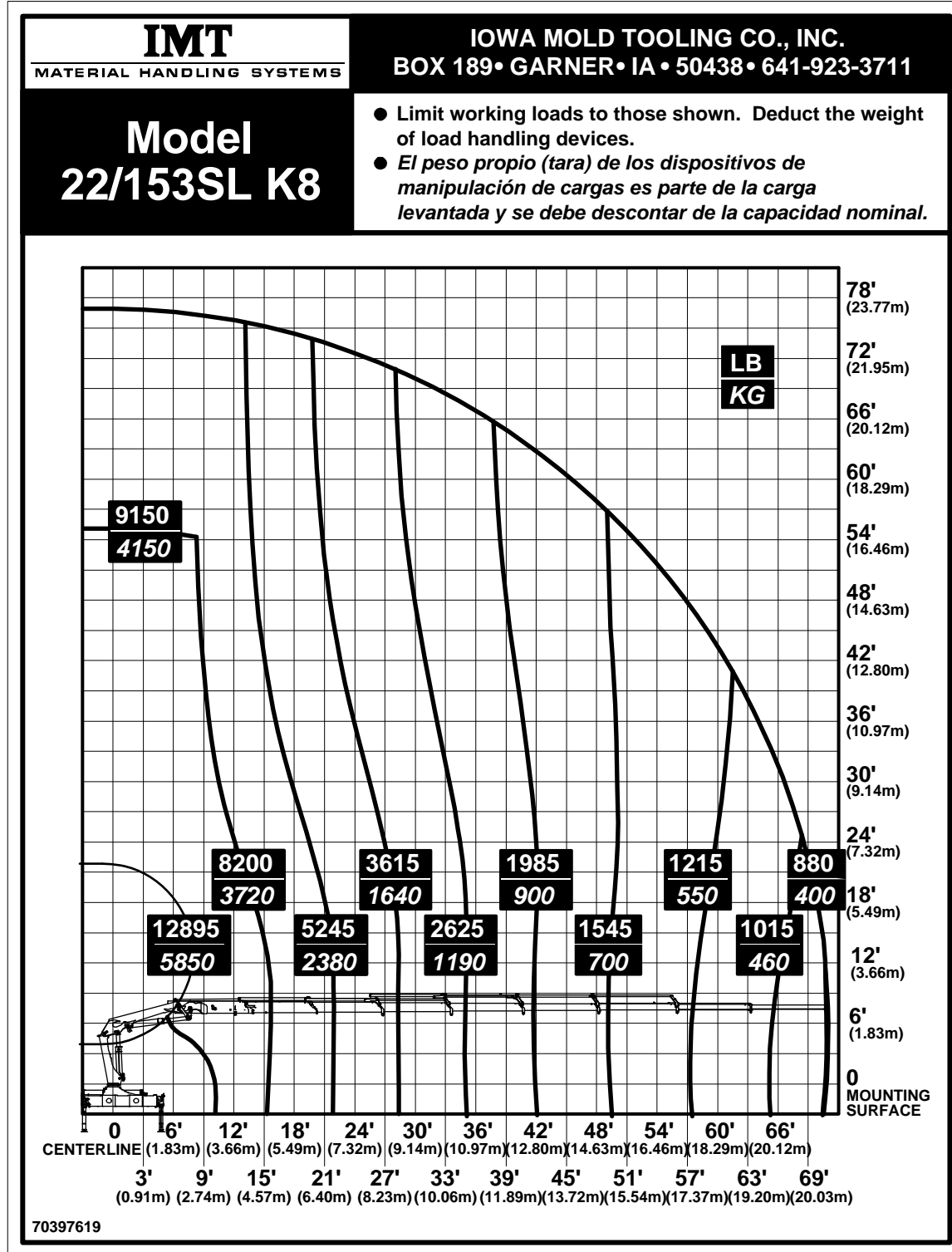
22/153SL K6 Capacity Chart



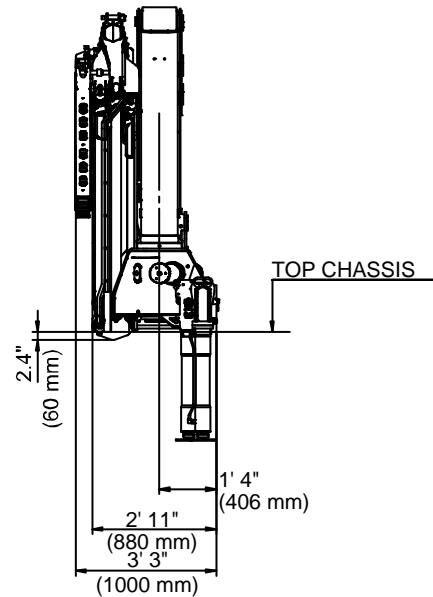
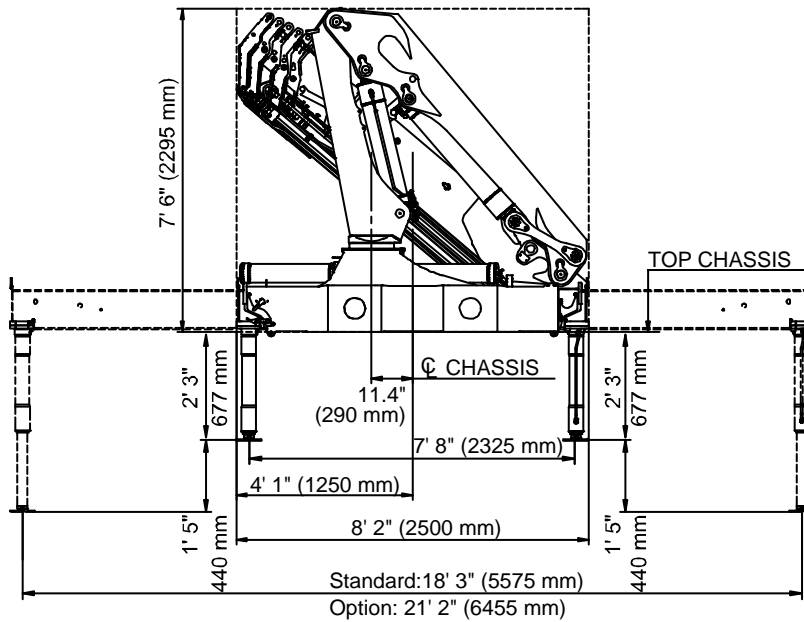
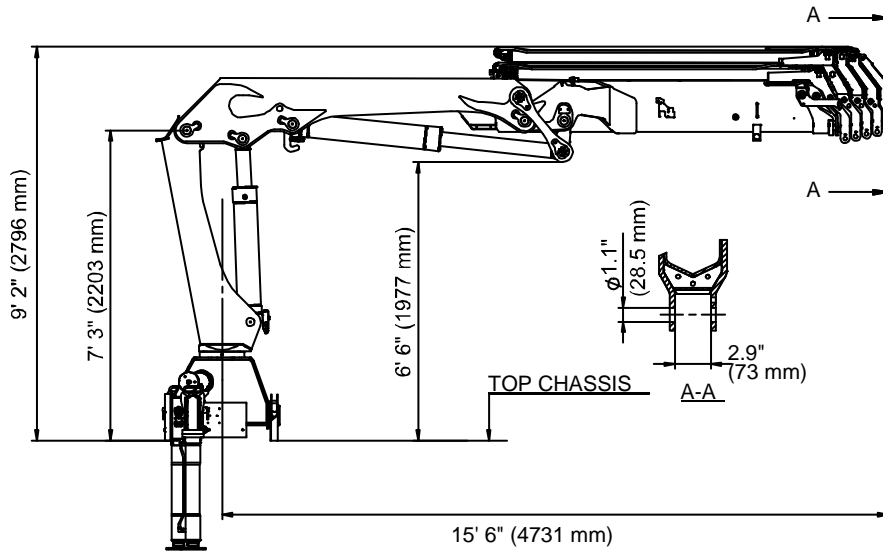
22/153SL K7 Capacity Chart



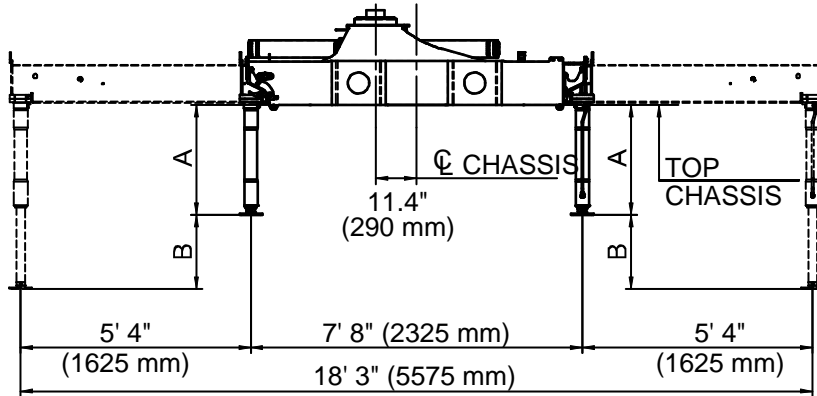
22/153SL K8 Capacity Chart



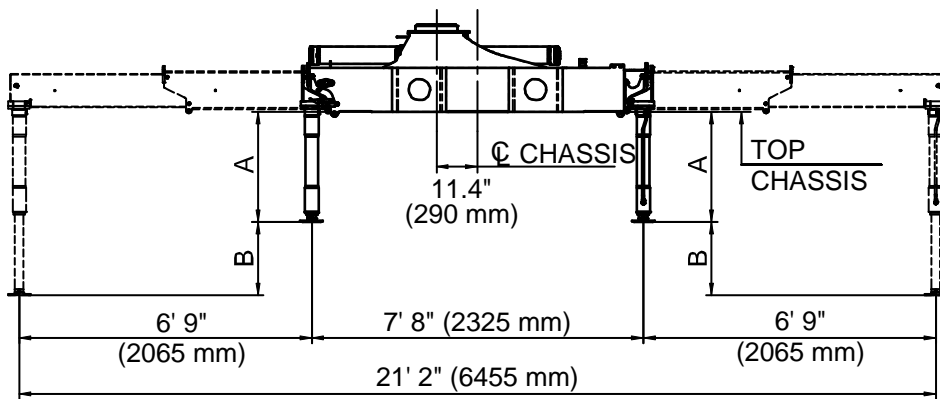
22/153SL Dimensional Drawing







Stabilizer Dimensions, Fixed Legs, 18 tm up



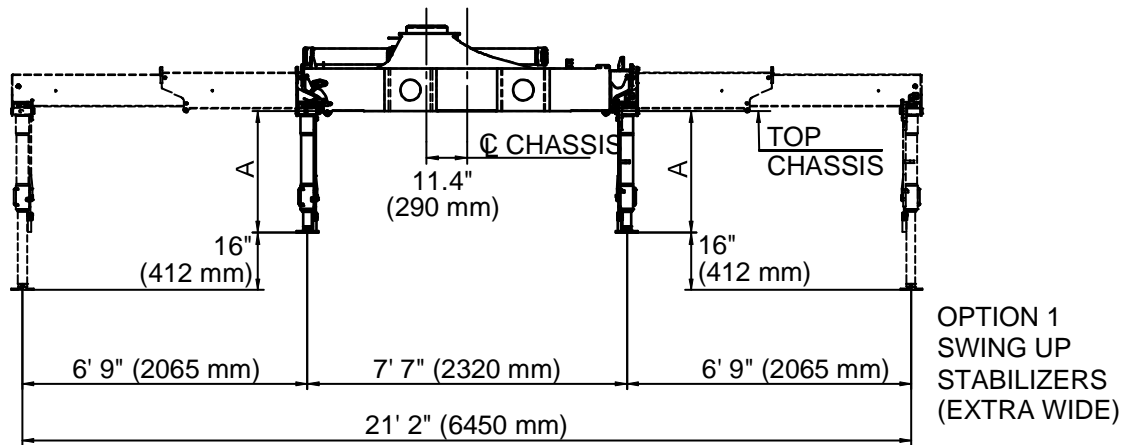
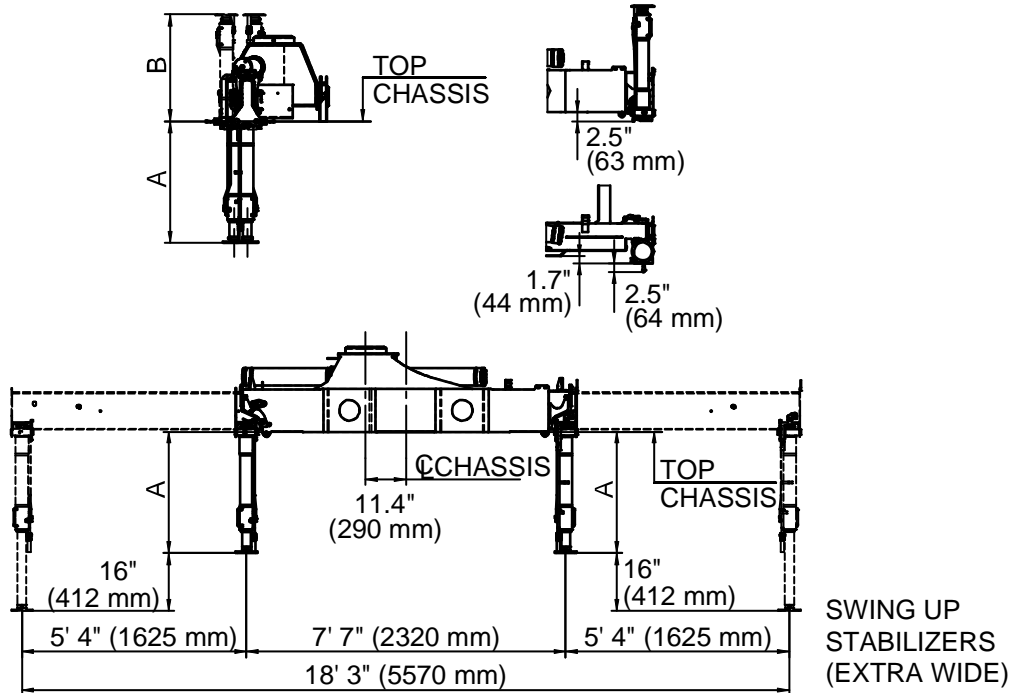
STANDARD
(Hydraulic Out /
Hydraulic Down)



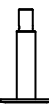


OPTION 1
(Extra Wide
Hydraulic Out /
Hydraulic Down)

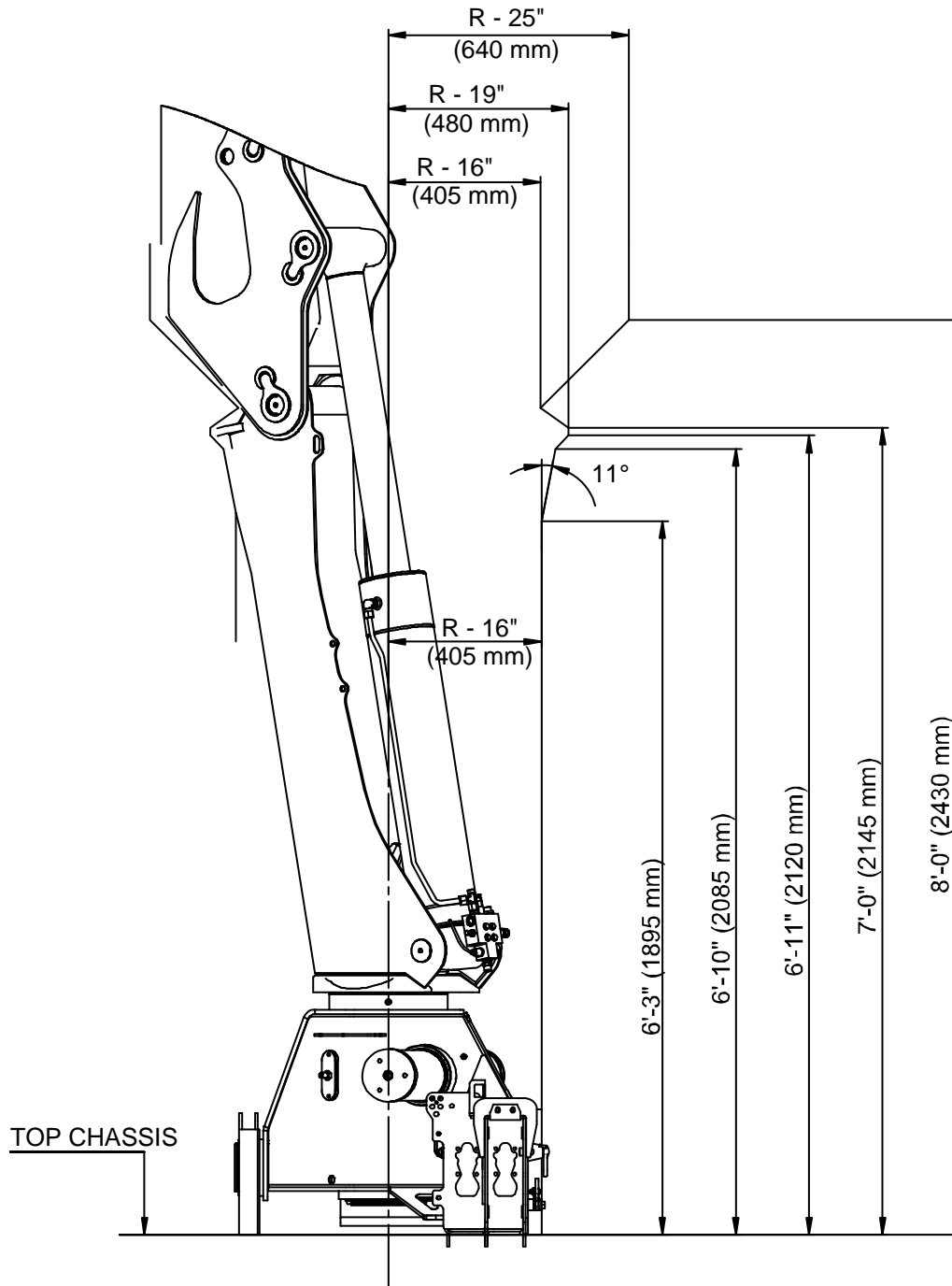
				
A	2' 3" (677 mm)	2' 6" (777 mm)	2' 11" (877 mm)	3' 2" (977 mm)
B	1' 5" (440 mm)	1' 8" (515 mm)	1' 8" (515 mm)	1' 8" (515 mm)

Stabilizer Dimensions, Swing-up, 18 tm up



			
A	35" (879 mm)	39" (979 mm)	42.5" (1079 mm)
B	30.5" (777 mm)	34.4" (877 mm)	38.4" (977 mm)

22/153SL - 24/169SL Swing Clearance



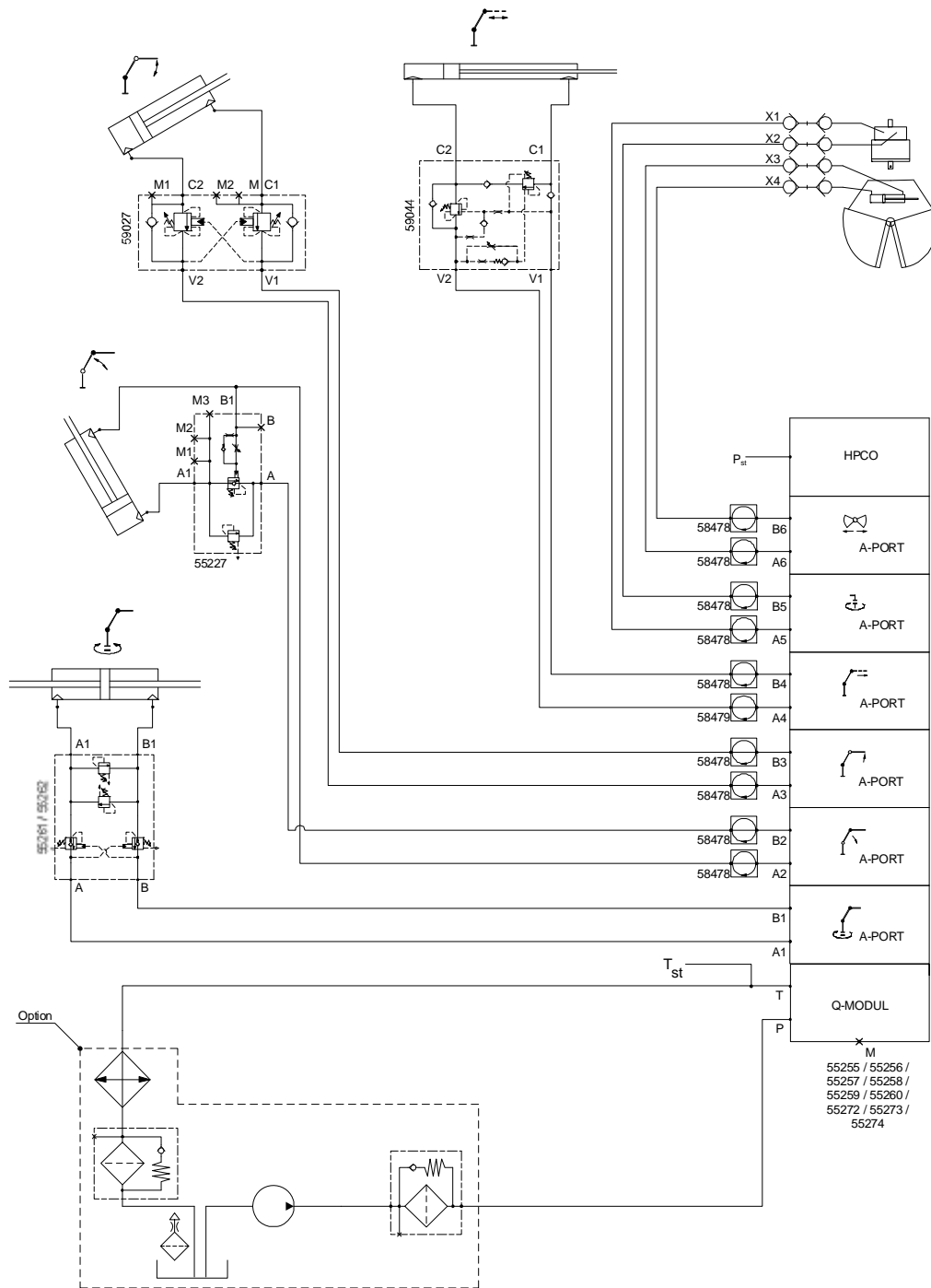
CHAPTER 2

Hydraulic Schematics

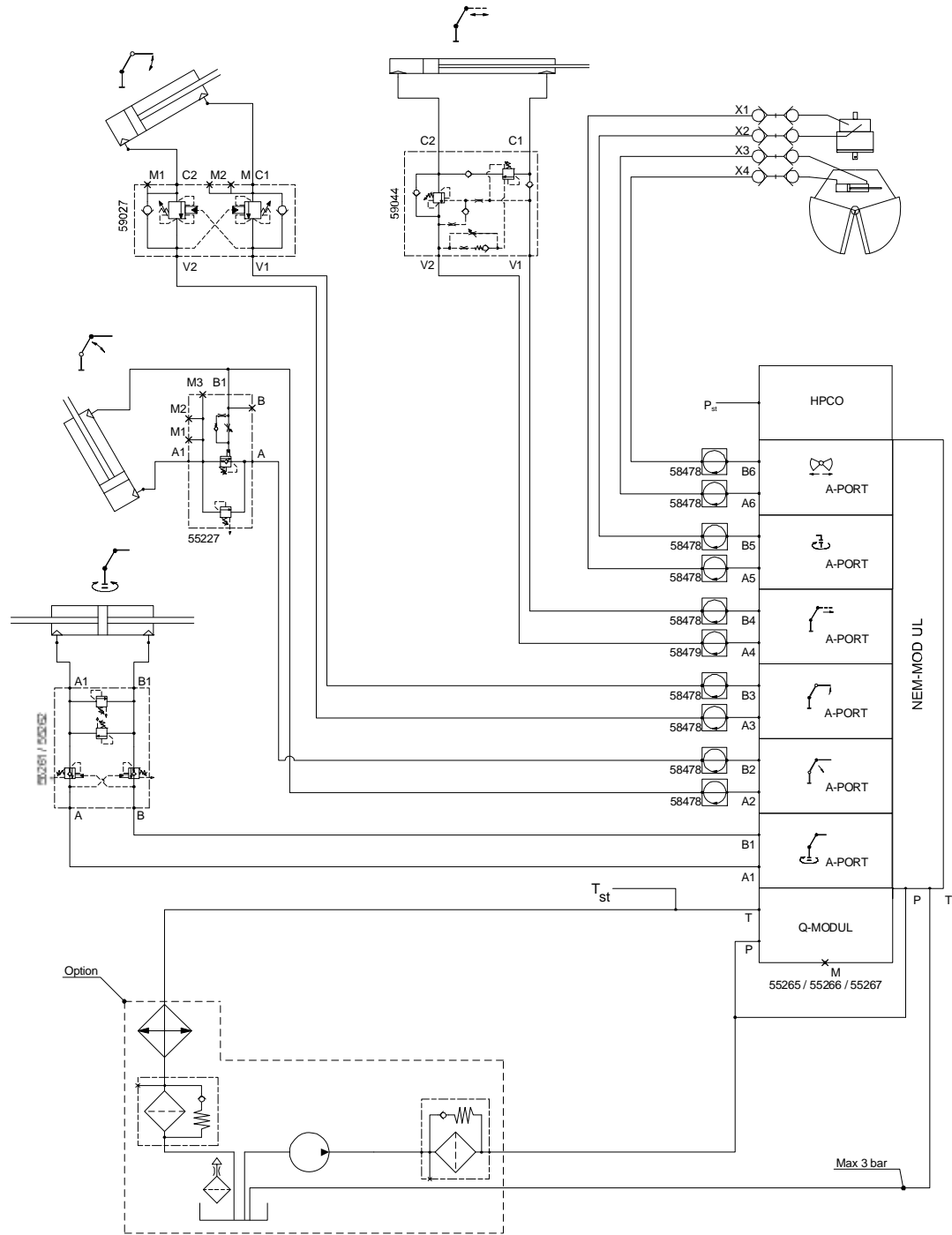
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Hydraulic Diagram - 22/153SL Manual Control



Hydraulic Diagram - 22/153SL Radio Control



Hydraulic Diagram - 22/153SL Top Seat

