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Manual # 99904615

# 18/124SL Technical Specifications

Revision Date 20120503



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## Revisions

DATE	LOCATION	DESCRIPTION
20090813		Added swing clearance dimensions.
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 tank, mounting kit.

## CHAPTER 1

# Technical Data and Charts

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# 18/124SL Technical Specifications

18/124SL	2-HYDRAULIC	3-HYDRAULIC	4-HYDRAULIC	5-HYDRAULIC	6-HYDRAULIC	7-HYDRAULIC	8-HYDRAULIC
Crane Rating*	119,345 ft lb (16.5 tm)	116,450 ft lb (16.1 tm)	112,835 ft lb (15.6 tm)	109,220 ft lb (15.1 tm)	106,325 ft lb (14.7 tm)	102,710 ft lb (14.2 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	13,800 lb (6260 kg)	13,030 lb (5910 kg)	12,280 lb (5570 kg)	11,595 lb (5260 kg)	11,355 lb (5150 kg)	10,735 lb (4870 kg)	10,250 lb (4650 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 **	4145 lb (1880 kg)	4485 lb (2035 kg)	4830 lb (2190 kg)	5135 lb (2330 kg)	5410 lb (2455 kg)	5645 lb (2560 kg)	5830 lb (2645 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" (770 mm)	2' 8" (820 mm)	2' 8" (815 mm)	2' 9" (835 mm)	2' 10" (855 mm)	2' 10" (875 mm)	2' 11" (890 mm)
Horizontal (C/L RotTo Bridge)	13.4" (340 mm)	12.4" (315 mm)	12.2" (310 mm)	11.8" (300 mm)	11.2" (285 mm)	10.6" (270 mm)	10.4" (265 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.

<b>18/124SL SPECIFICATIONS</b>	
Stabilizers Pad Diameter	7" (1755 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.	

<b>MINIMUM CHASSIS SPECIFICATIONS</b>	
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)

## 18/124SL Pressure Settings

<b>WORKING PRESSURE ON MAIN-RELIEF VALVES &amp; PORT RELIEF VALVES</b>			
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)

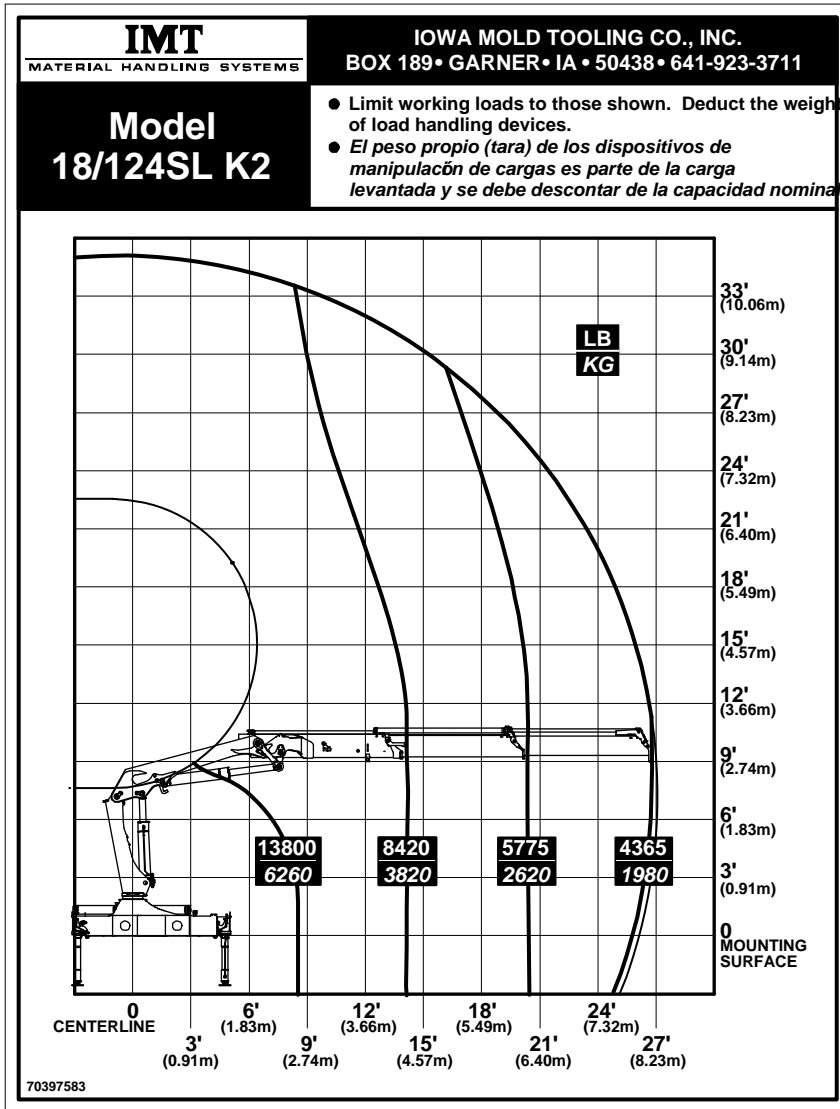
<b>WORKING PRESSURE ON LOAD-HOLDING VALVES</b>			
Function	Direction	Port	Opening Pressure
Boom cylinder			4715 psi (325 bar)
Jib cylinder			4785 psi (330 bar)
Rotation system			2685 psi (185 bar)
Extension cylinders	Extend	A	3045 psi (210 bar)
	Retract	B	6235 psi (430 bar)

<b>PRESSURE SETTING FOR LOAD-MOMENT LIMITATION (LMB)</b>	
Load moment limitation (LMB)	4205 psi (290 bar)

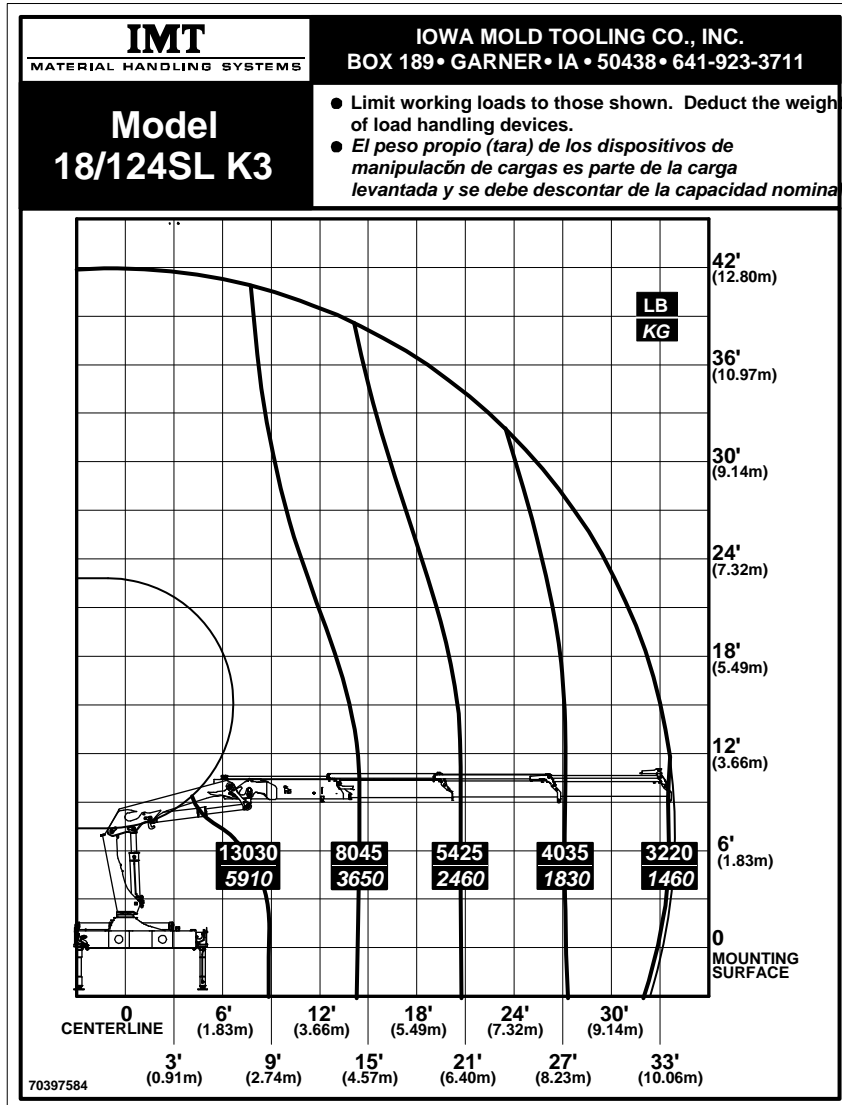
<b>MAXIMUM PUMP PERFORMANCE</b>	
Pump performance	14.5 gal/min (55 l/min)



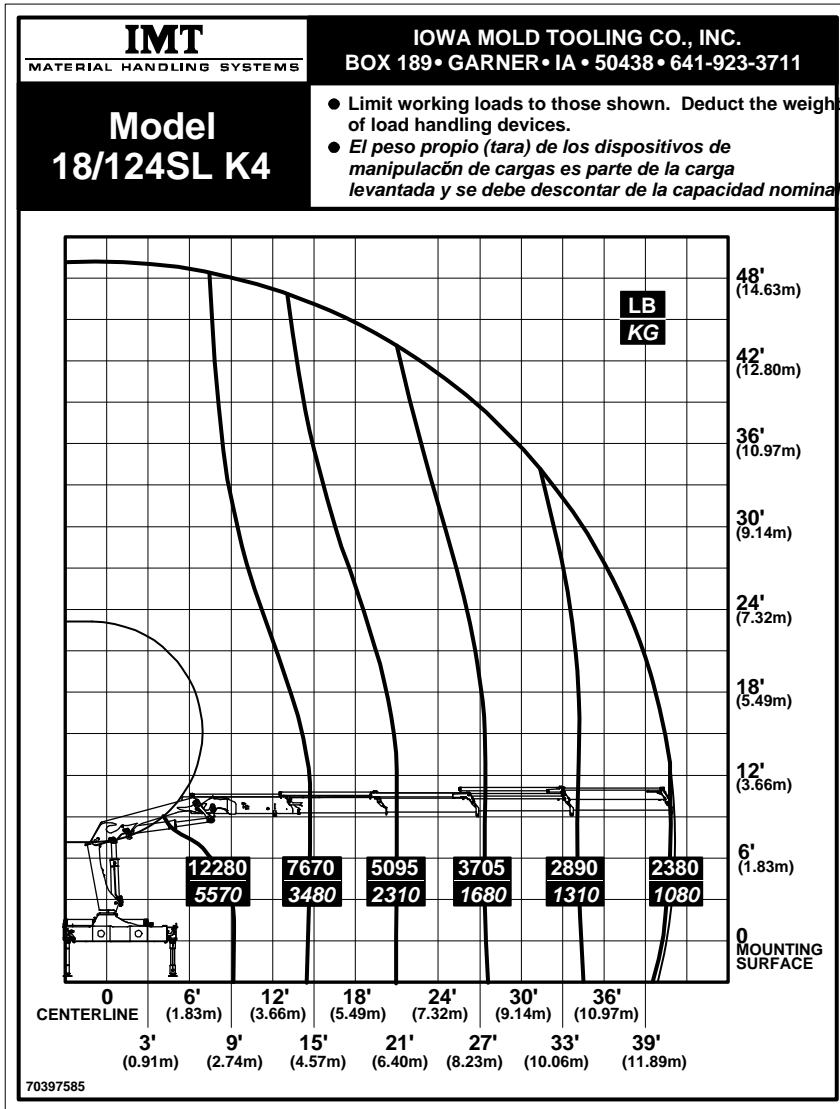
# 18/124SL K2 Capacity Chart



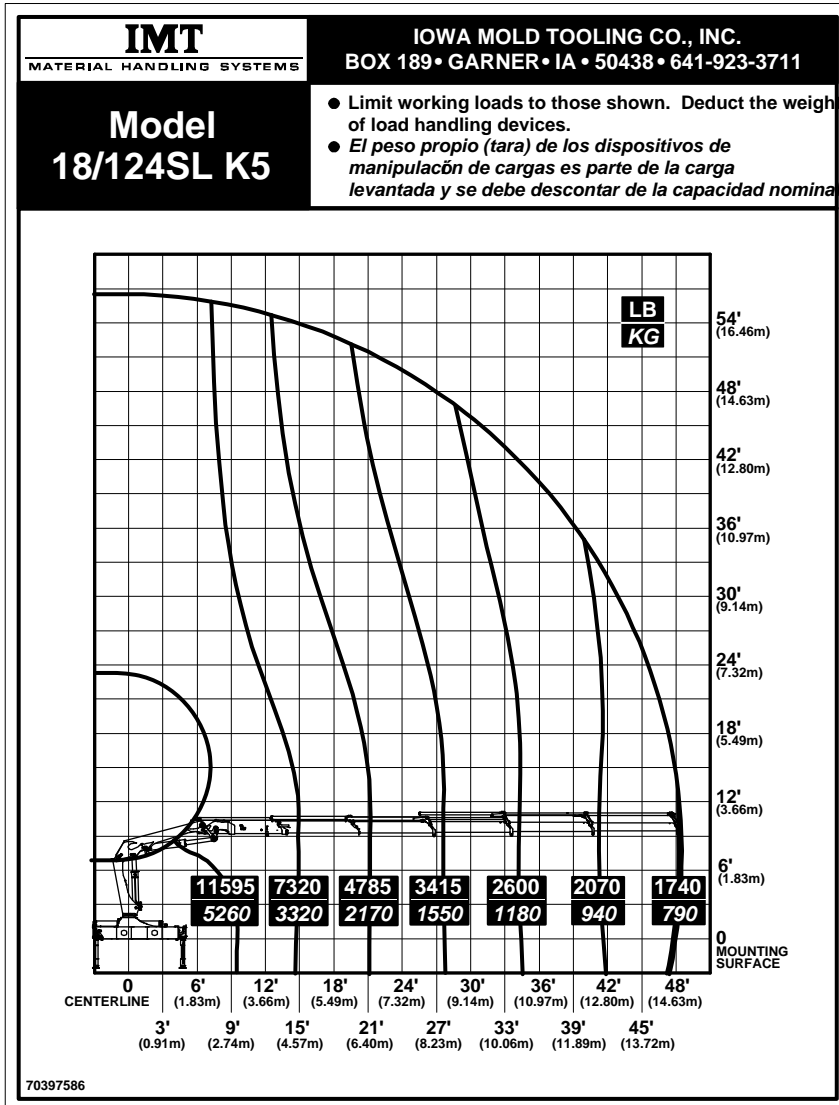
# 18/124SL K3 Capacity Chart



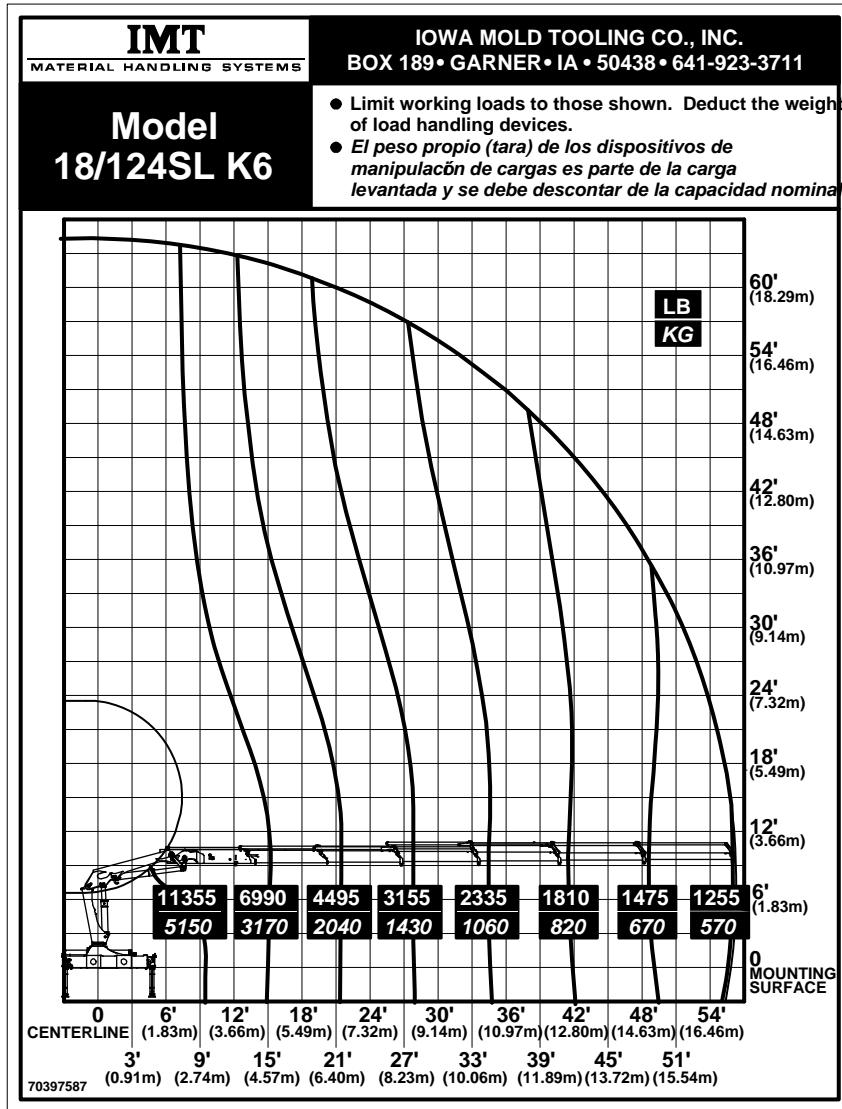
# 18/124SL K4 Capacity Chart



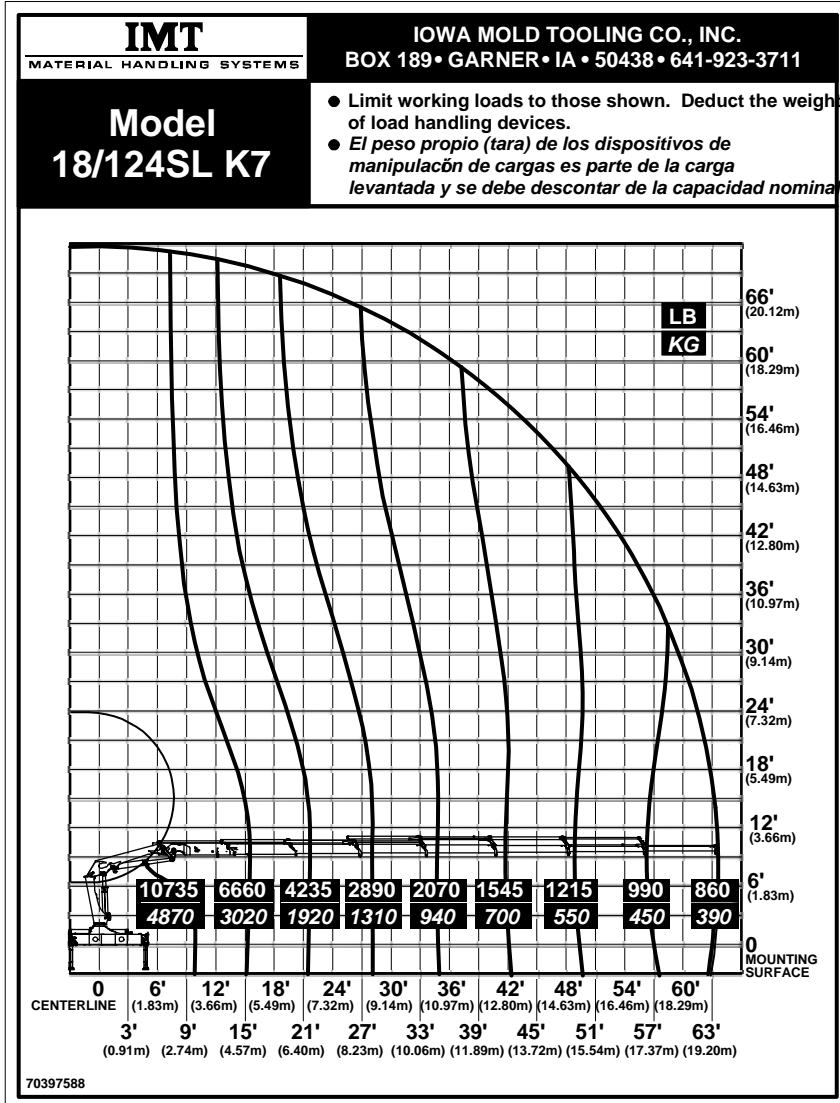
# 18/124SL K5 Capacity Chart



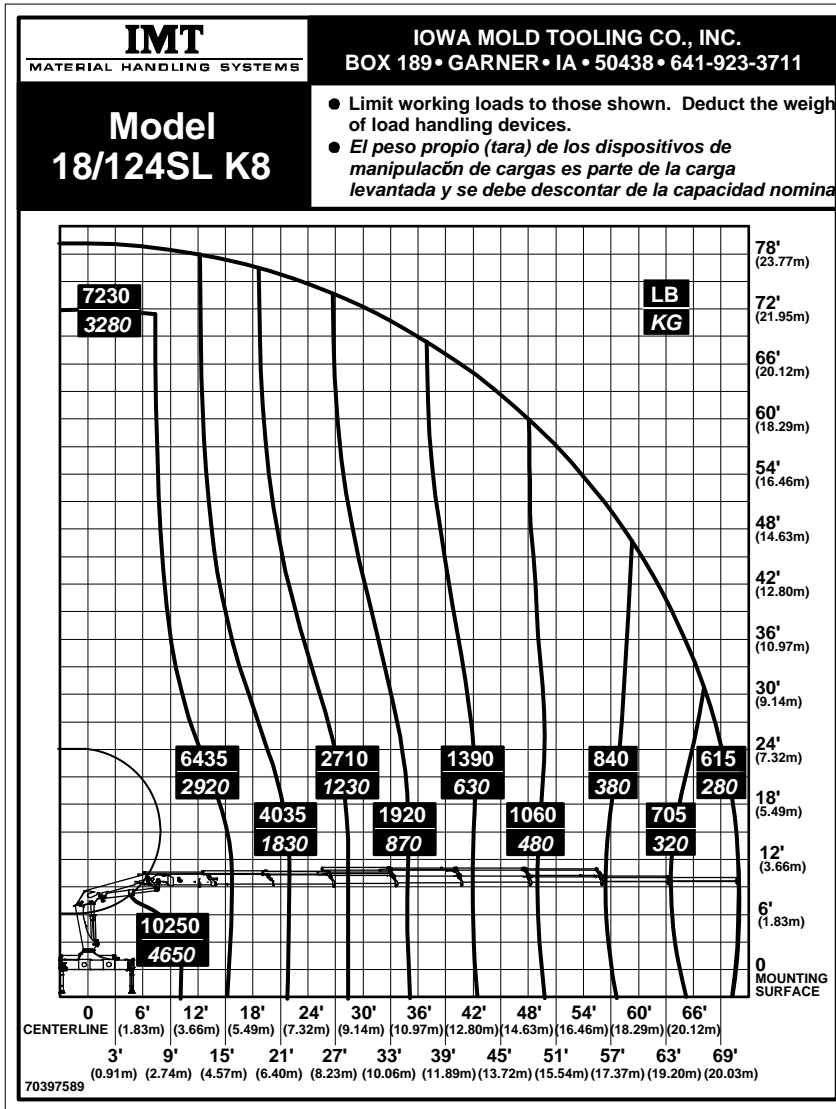
# 18/124SL K6 Capacity Chart



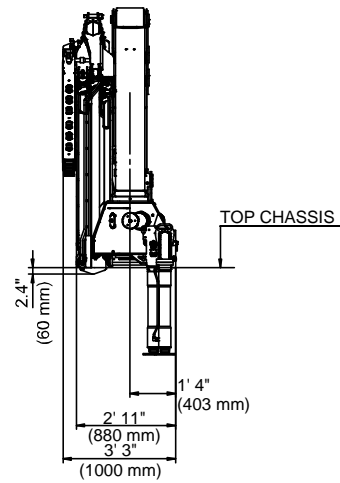
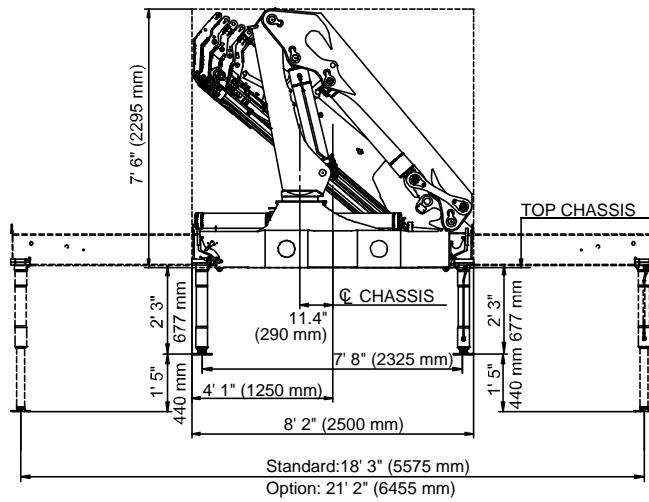
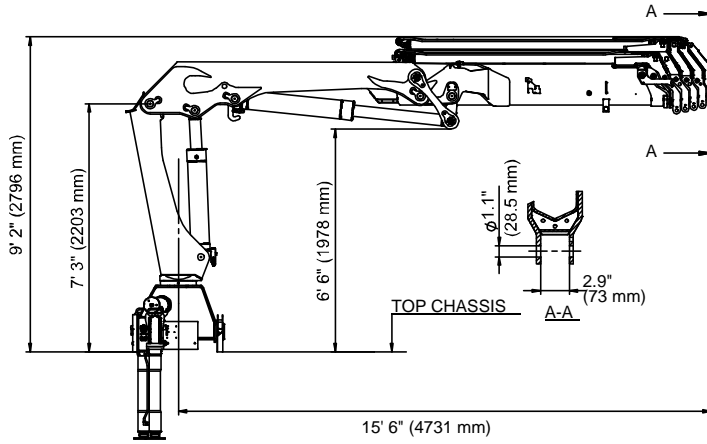
# 18/124SL K7 Capacity Chart



# 18/124SL K8 Capacity Chart

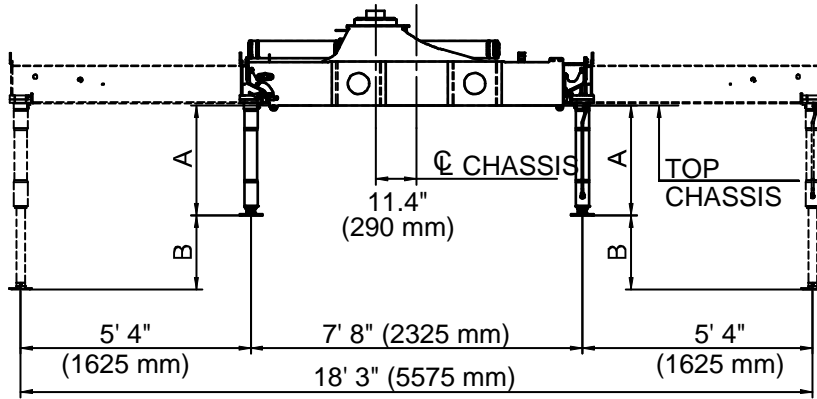


# 18/124SL Geometric Configuration

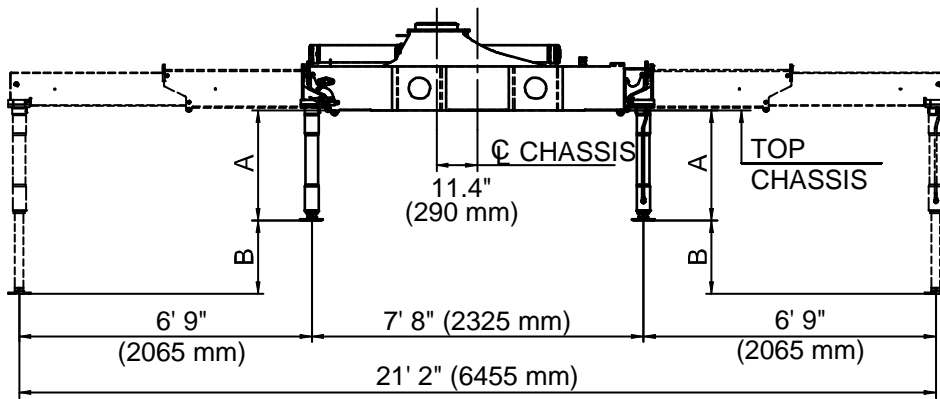








# Stabilizer Dimensions, Fixed Legs, 18 tm up



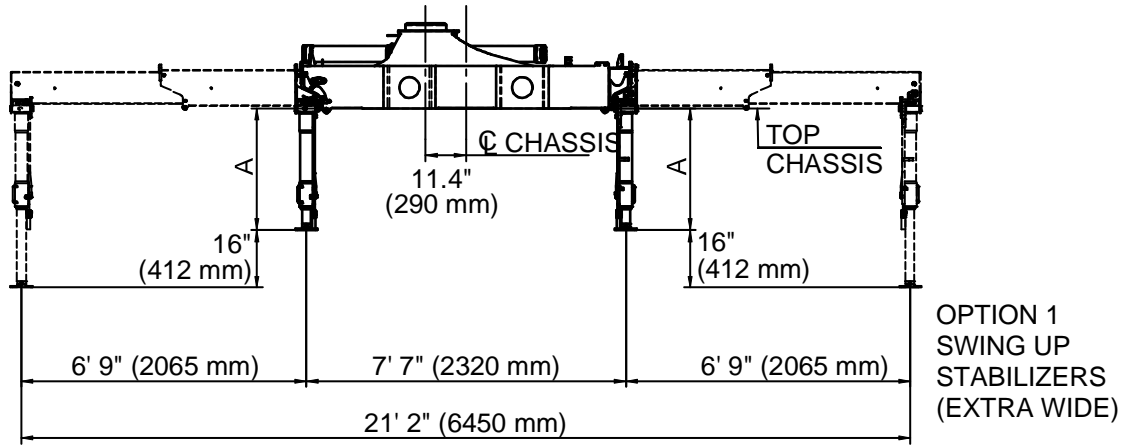
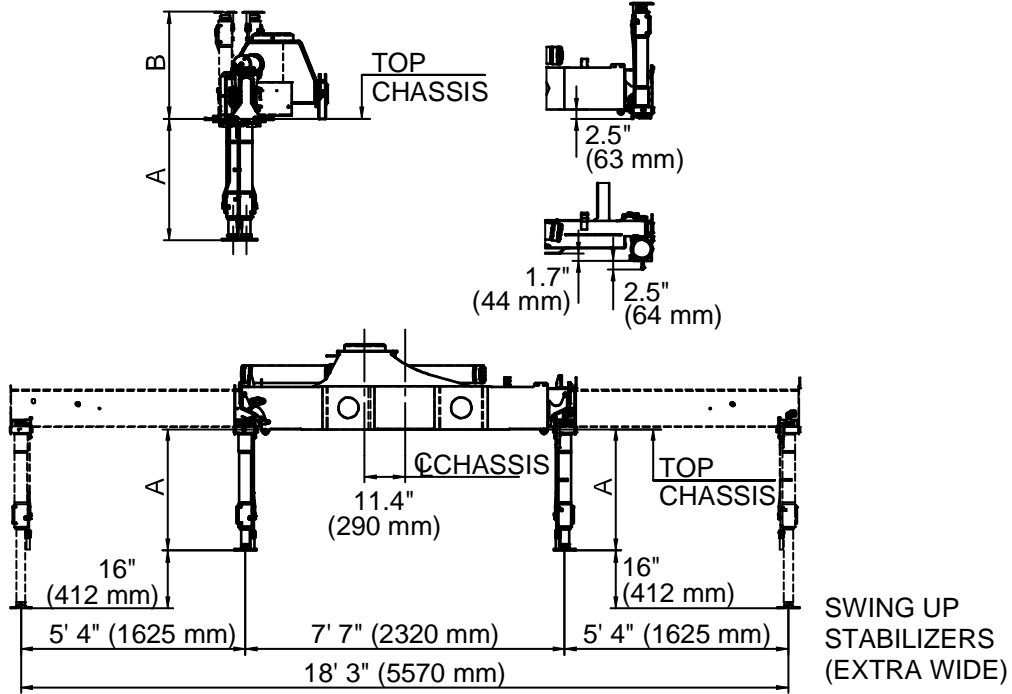
STANDARD  
(Hydraulic Out /  
Hydraulic Down)






OPTION 1  
(Extra Wide  
Hydraulic Out /  
Hydraulic Down)

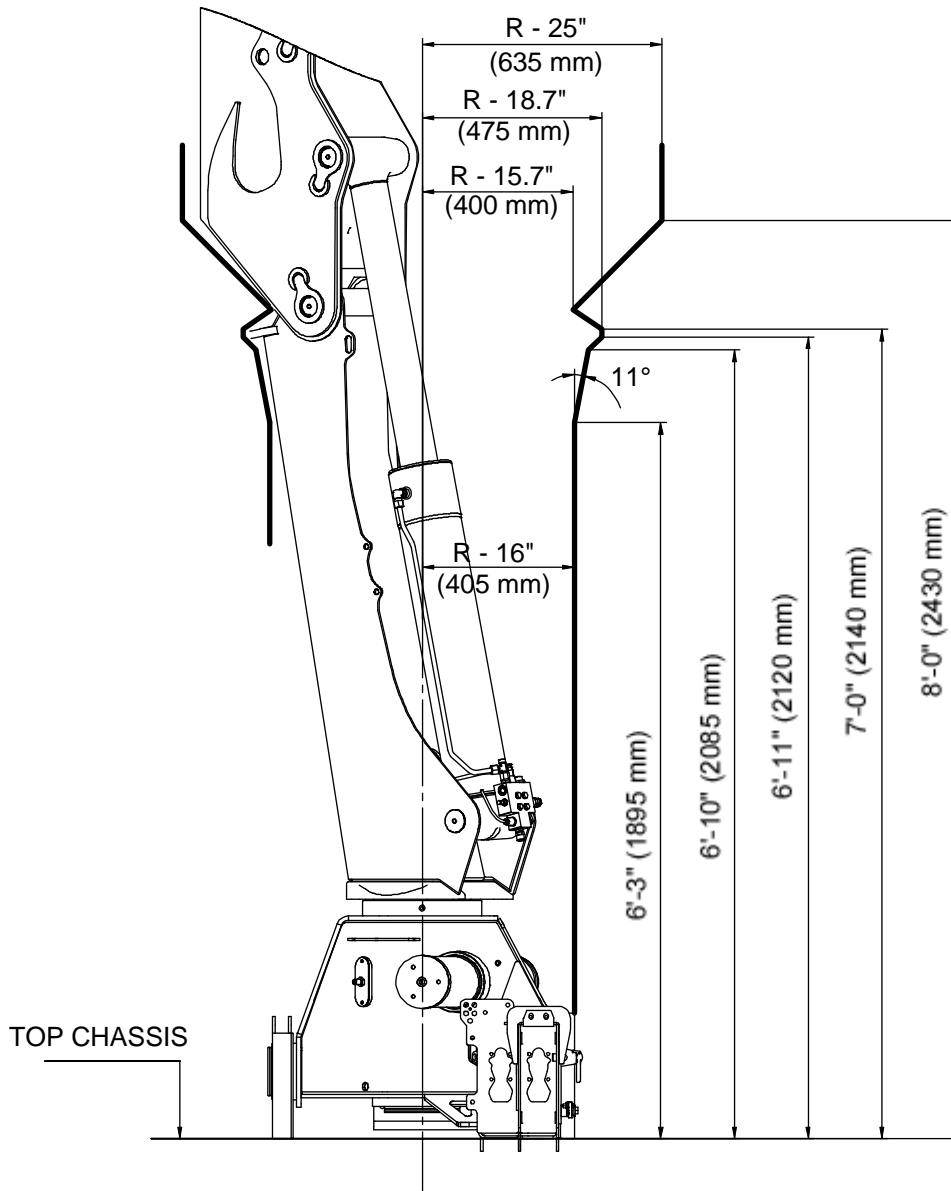
				
A	2' 3" (677 mm)	2' 6" (777 mm)	2' 11" (877 mm)	3' 2" (977 mm)
B	1' 5" (440 mm)	1' 8" (515 mm)	1' 8" (515 mm)	1' 8" (515 mm)

# Stabilizer Dimensions, Swing-up, 18 tm up



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

# 18/124SL Swing Clearance





## CHAPTER 2

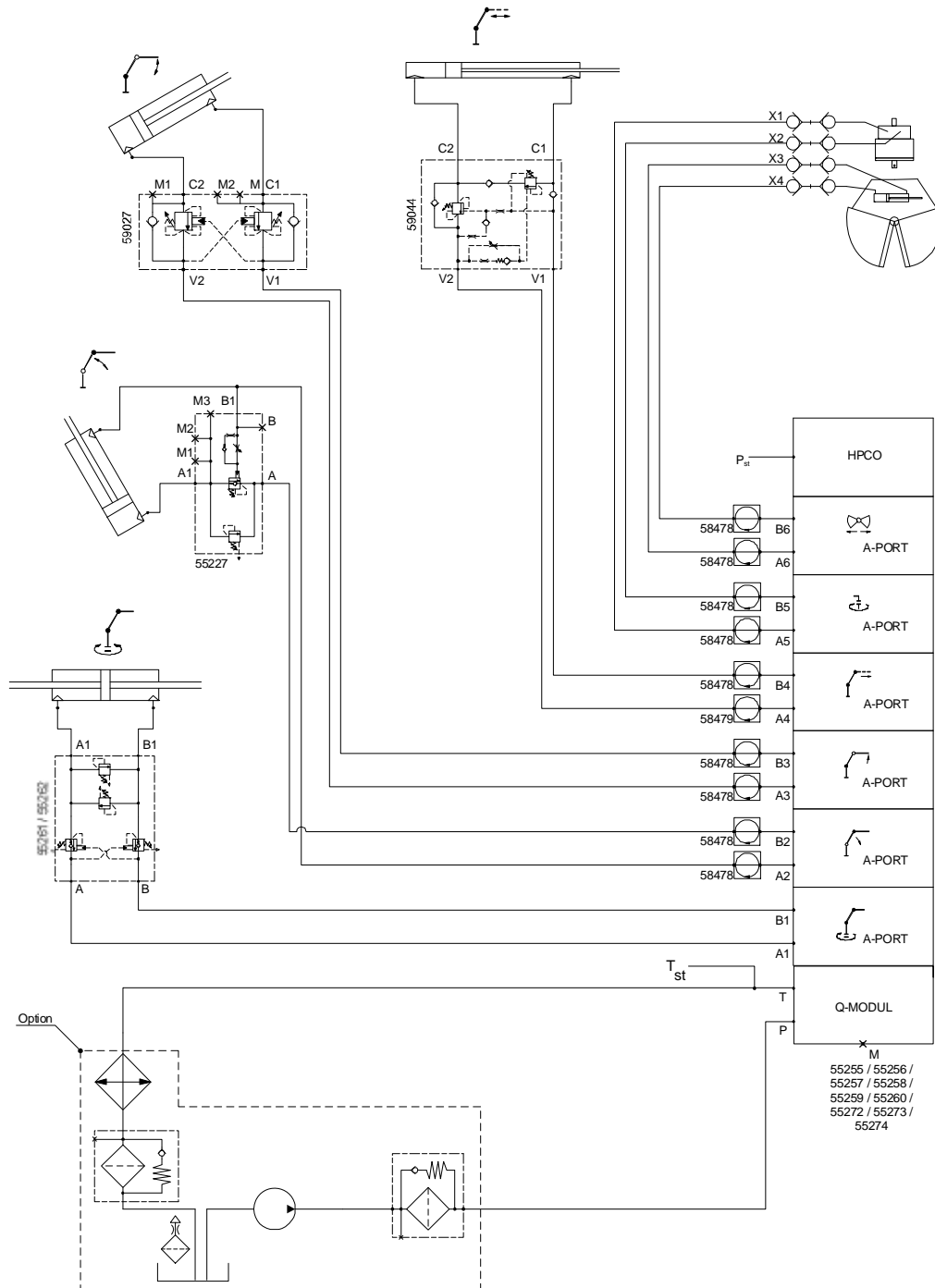
# Hydraulic Schematics

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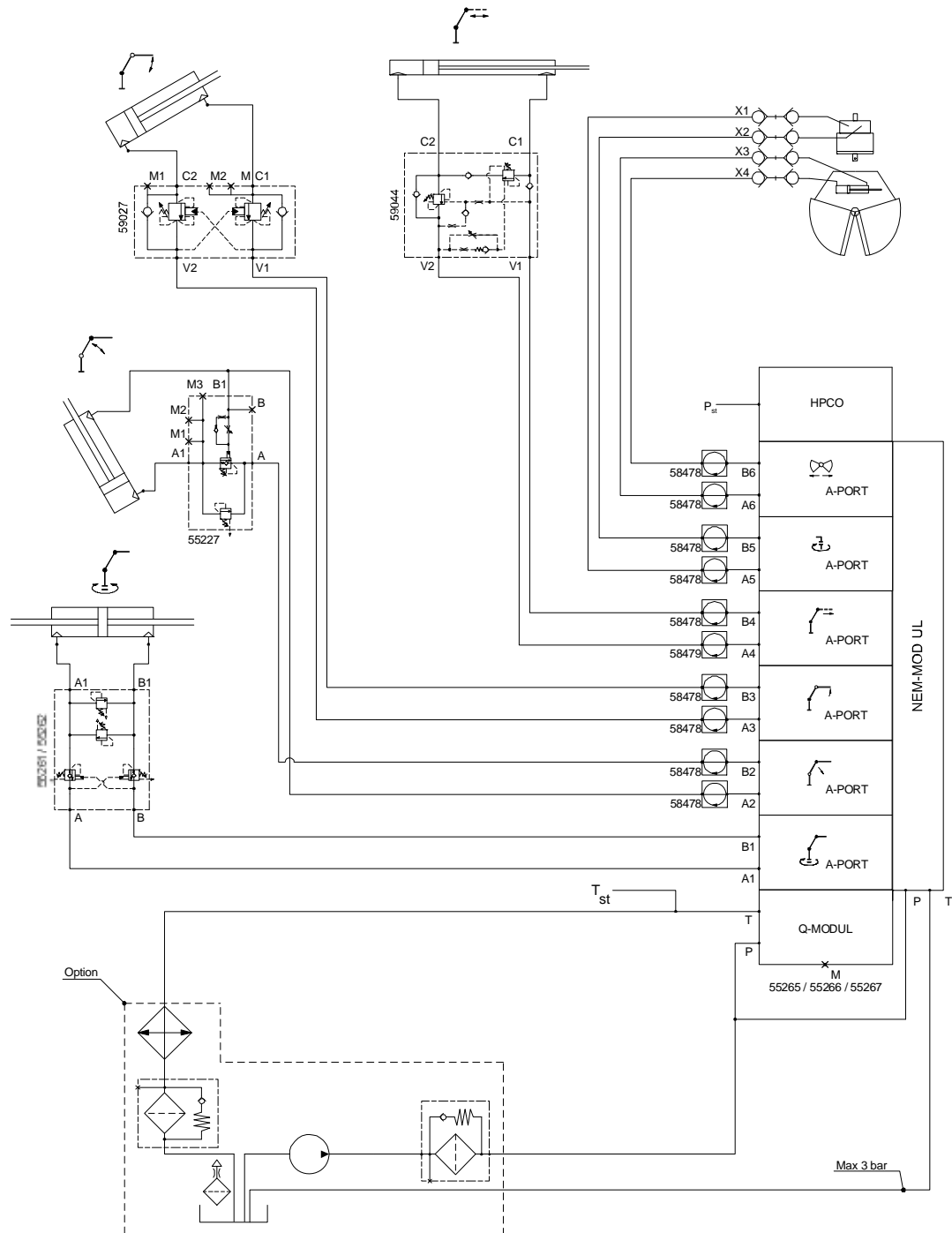
# Hydraulic Diagram - 18/124SL Manual Control

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



# Hydraulic Diagram - 18/124SL Radio Control

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



# Hydraulic Diagram - 18/124SL Top Seat Control

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

