
Manual # 99904615

18/124SL Technical Specifications

Revision Date 20120912



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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.
20120910	Drawings	Added stowed dimensions, mounting dimensions, and winch settings drawings.

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.

18/124SL SPECIFICATIONS	
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.	

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)

18/124SL 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)

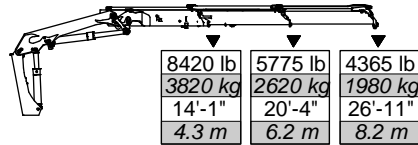
MAXIMUM PUMP PERFORMANCE	
Pump performance	14.5 gal/min (55 l/min)

Winch Technical Data

	1.5 T Winch (P9) (3305 lb / 1500 kg)	2.5 T Winch (P15) (5510 lb / 2500 kg)
PERFORMANCE (at 2175 psi (150 bar))		
Maximum wire pull - 1st layer	3305 lb (1500 kg)	5510 lb (2500 kg)
Maximum wire pull - 2nd layer	3020 lb (1370 kg)	5070 lb (2300 kg)
Maximum wire pull - 3rd layer	2278 lb (1260 kg)	4630 lb (2100 kg)
Maximum wire pull - 4th layer	2580 lb (1170 kg)	4300 lb (1950 kg)
WIRE SPEED (at 10.5 gpm (40 l/min))		
Maximum wire speed - 1st layer	72 ft/min (22 m/min)	79 ft/min (24 m/min)
Maximum wire speed - 2nd layer	79 ft/min (24 m/min)	85 ft/min (26 m/min)
Maximum wire speed - 3rd layer	85 ft/min (26 m/min)	92 ft/min (28 m/min)
Maximum wire speed - 4th layer	92 ft/min (28 m/min)	98 ft/min (30 m/min)
WEIGHTS		
Tare weight, winch	143 lb (65 kg)	198 lb (90 kg)
Fixed parts (valve section, brackets, hoses, etc.)	110 lb (50 kg)	110 lb (50 kg)
Wire 10 mm dia x 50 m	66 lb (30 kg)	66 lb (30 kg)
Spare parts, single snatch block	66 lb (30 kg)	66 lb (30 kg)
Spare parts, double snatch block	88 lb (40 kg)	88 lb (40 kg)

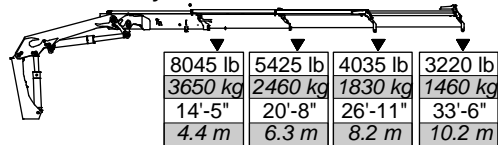
18/124SL Lifting Capacities

18/124SL - 2 Hydraulic



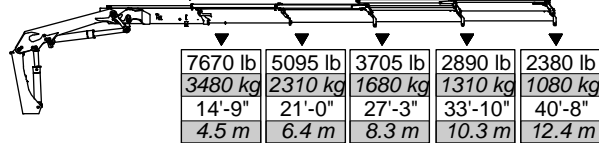
8420 lb 3820 kg	5775 lb 2620 kg	4365 lb 1980 kg
14'-1" 4.3 m	20'-4" 6.2 m	26'-11" 8.2 m

18/124SL - 3 Hydraulic



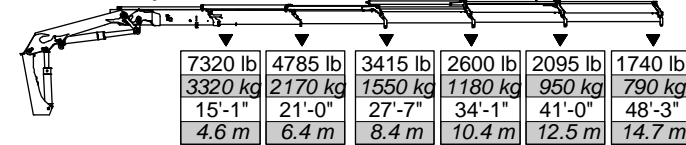
8045 lb 3650 kg	5425 lb 2460 kg	4035 lb 1830 kg	3220 lb 1460 kg
14'-5" 4.4 m	20'-8" 6.3 m	26'-11" 8.2 m	33'-6" 10.2 m

18/124SL - 4 Hydraulic



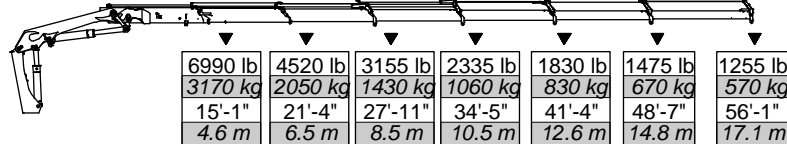
7670 lb 3480 kg	5095 lb 2310 kg	3705 lb 1680 kg	2890 lb 1310 kg	2380 lb 1080 kg
14'-9" 4.5 m	21'-0" 6.4 m	27'-3" 8.3 m	33'-10" 10.3 m	40'-8" 12.4 m

18/124SL - 5 Hydraulic



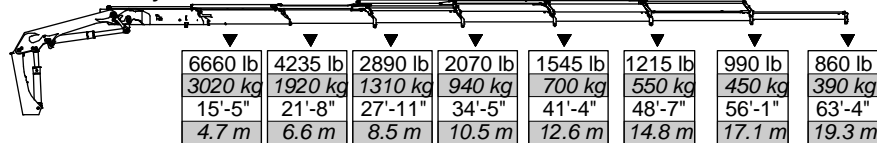
7320 lb 3320 kg	4785 lb 2170 kg	3415 lb 1550 kg	2600 lb 1180 kg	2095 lb 950 kg	1740 lb 790 kg
15'-1" 4.6 m	21'-0" 6.4 m	27'-7" 8.4 m	34'-1" 10.4 m	41'-0" 12.5 m	48'-3" 14.7 m

18/124SL - 6 Hydraulic



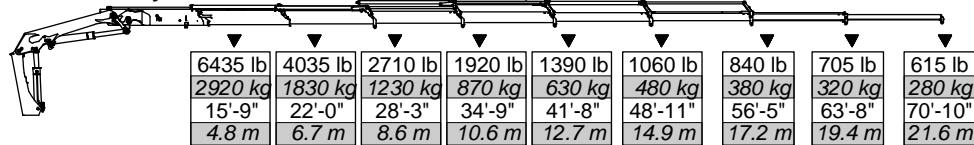
6990 lb 3170 kg	4520 lb 2050 kg	3155 lb 1430 kg	2335 lb 1060 kg	1830 lb 830 kg	1475 lb 670 kg	1255 lb 570 kg
15'-1" 4.6 m	21'-4" 6.5 m	27'-11" 8.5 m	34'-5" 10.5 m	41'-4" 12.6 m	48'-7" 14.8 m	56'-1" 17.1 m

18/124SL - 7 Hydraulic



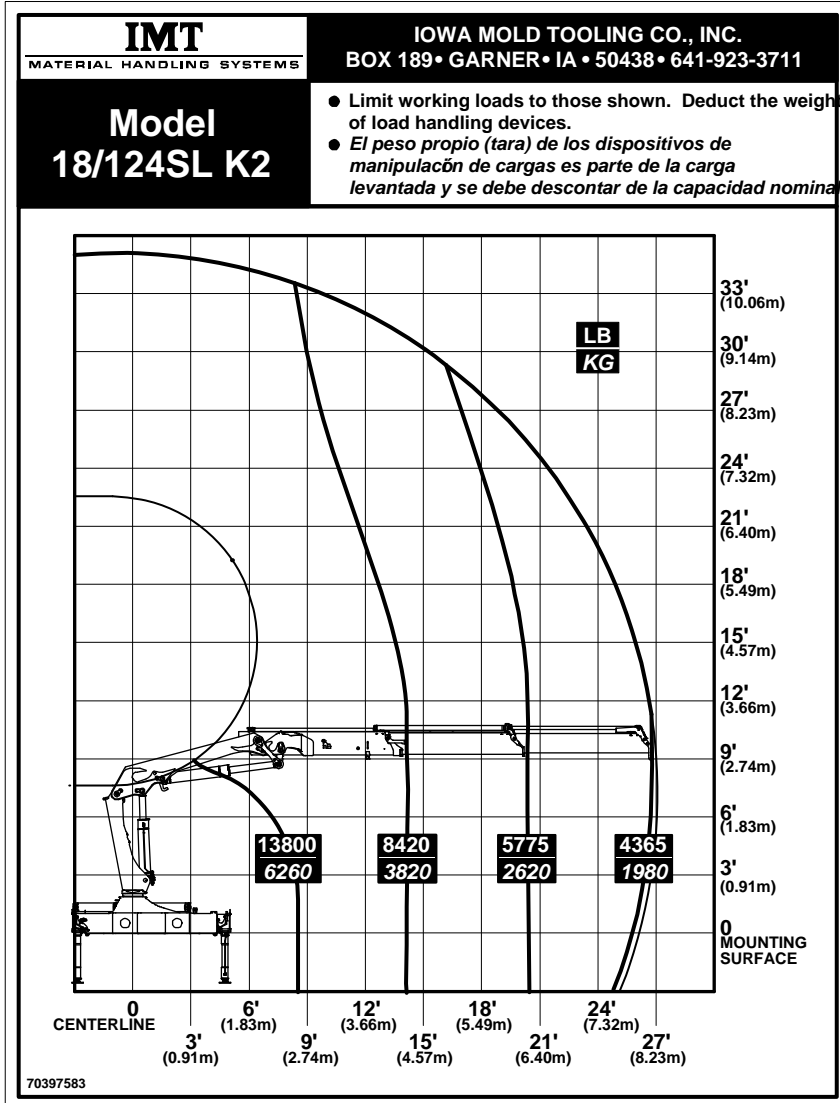
6660 lb 3020 kg	4235 lb 1920 kg	2890 lb 1310 kg	2070 lb 940 kg	1545 lb 700 kg	1215 lb 550 kg	990 lb 450 kg	860 lb 390 kg
15'-5" 4.7 m	21'-8" 6.6 m	27'-11" 8.5 m	34'-5" 10.5 m	41'-4" 12.6 m	48'-7" 14.8 m	56'-1" 17.1 m	63'-4" 19.3 m

18/124SL - 8 Hydraulic

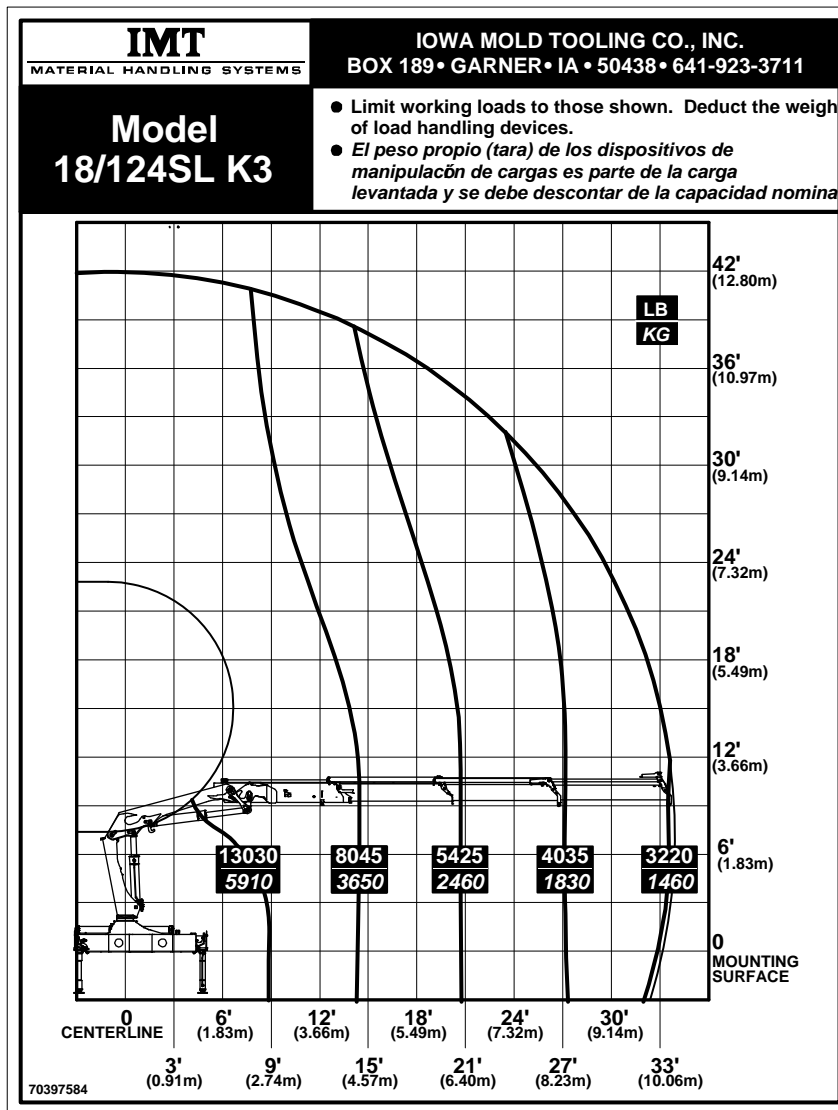


6435 lb 2920 kg	4035 lb 1830 kg	2710 lb 1230 kg	1920 lb 870 kg	1390 lb 630 kg	1060 lb 480 kg	840 lb 380 kg	705 lb 320 kg	615 lb 280 kg
15'-9" 4.8 m	22'-0" 6.7 m	28'-3" 8.6 m	34'-9" 10.6 m	41'-8" 12.7 m	48'-11" 14.9 m	56'-5" 17.2 m	63'-8" 19.4 m	70'-10" 21.6 m

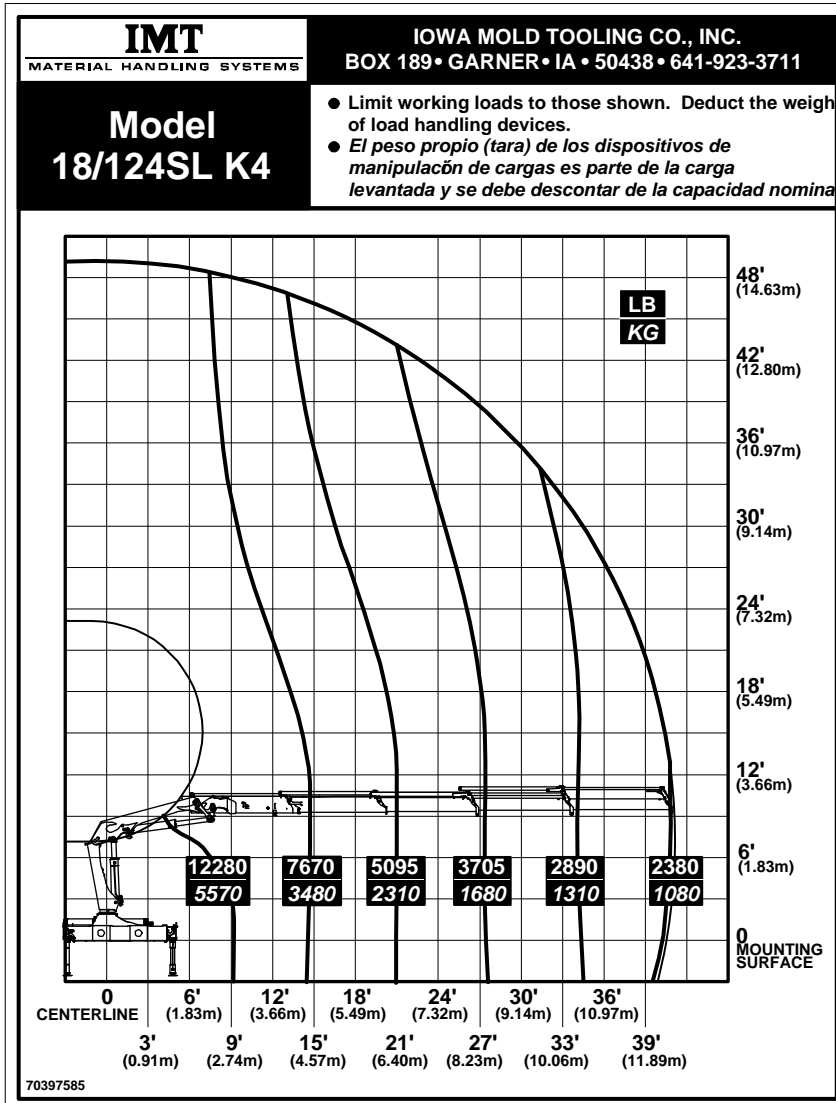
18/124SL K2 Capacity Chart



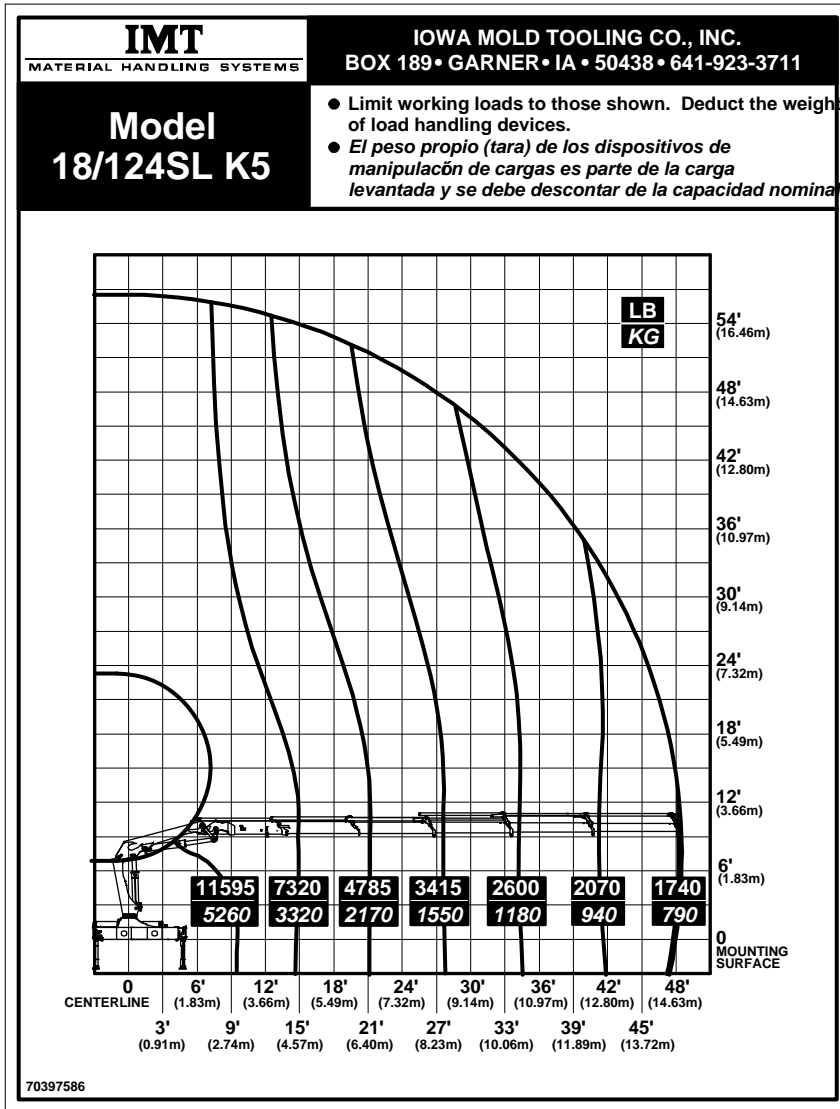
18/124SL K3 Capacity Chart



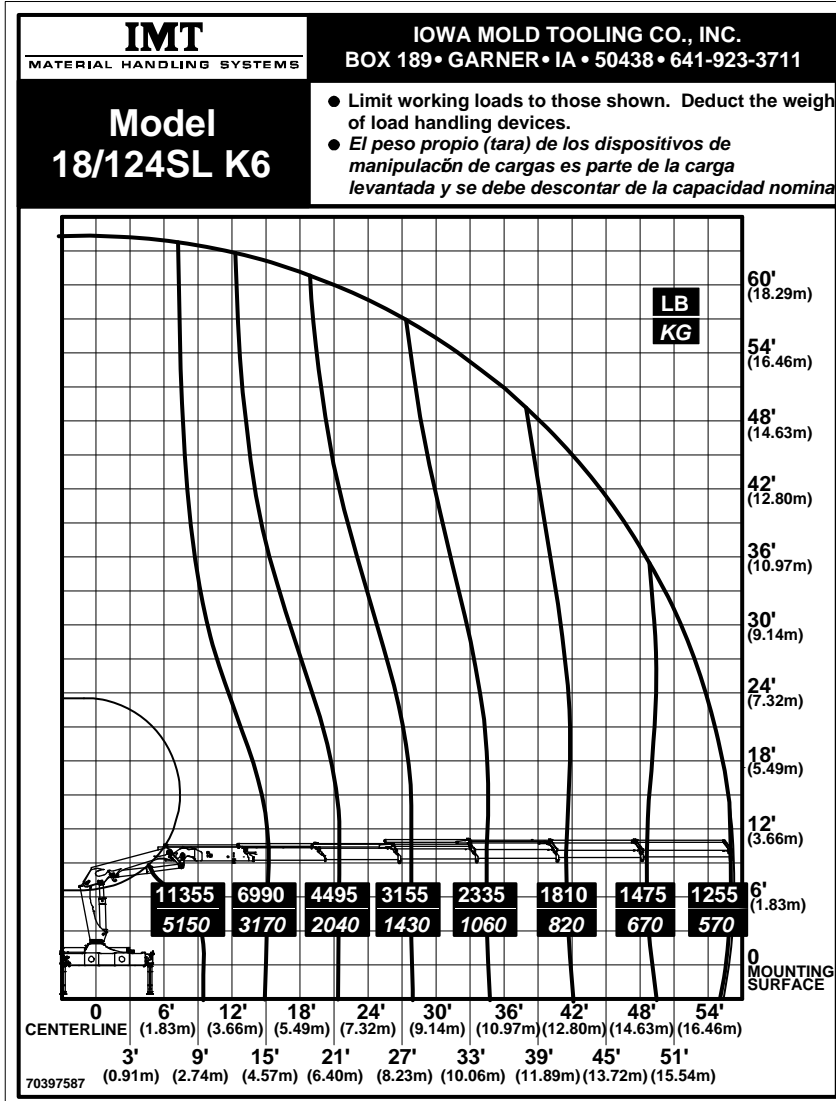
18/124SL K4 Capacity Chart



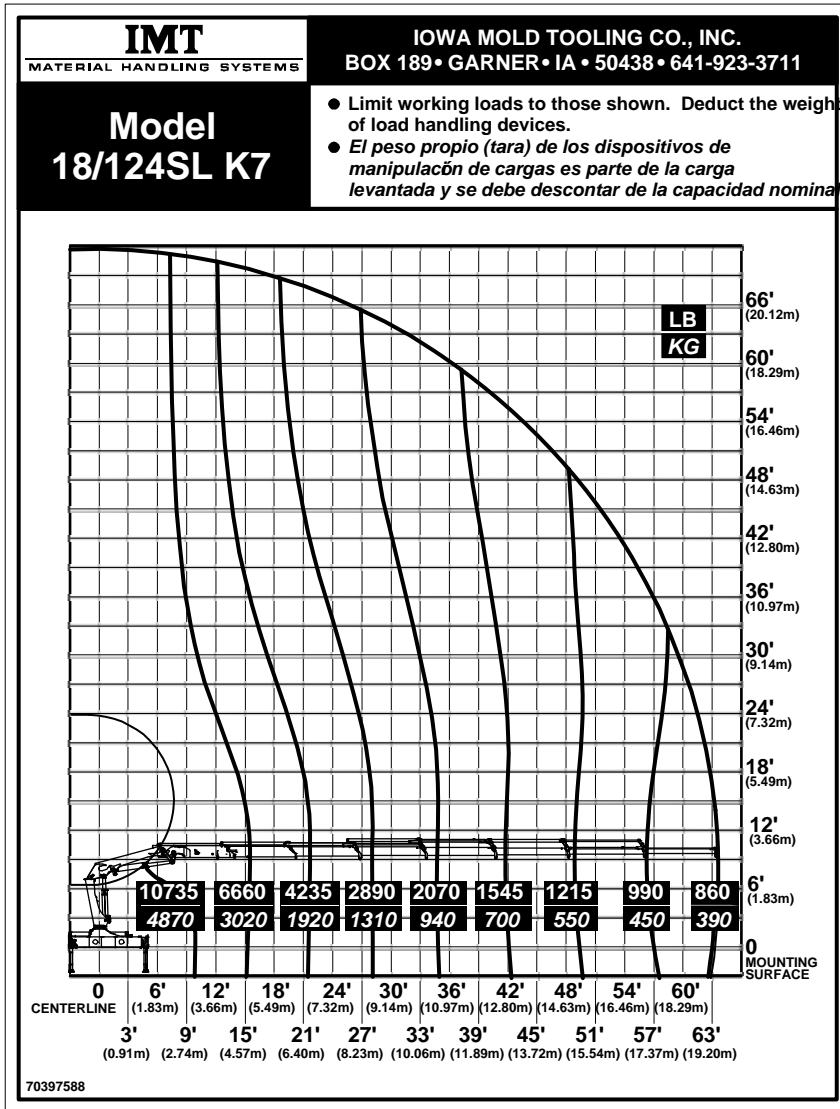
18/124SL K5 Capacity Chart



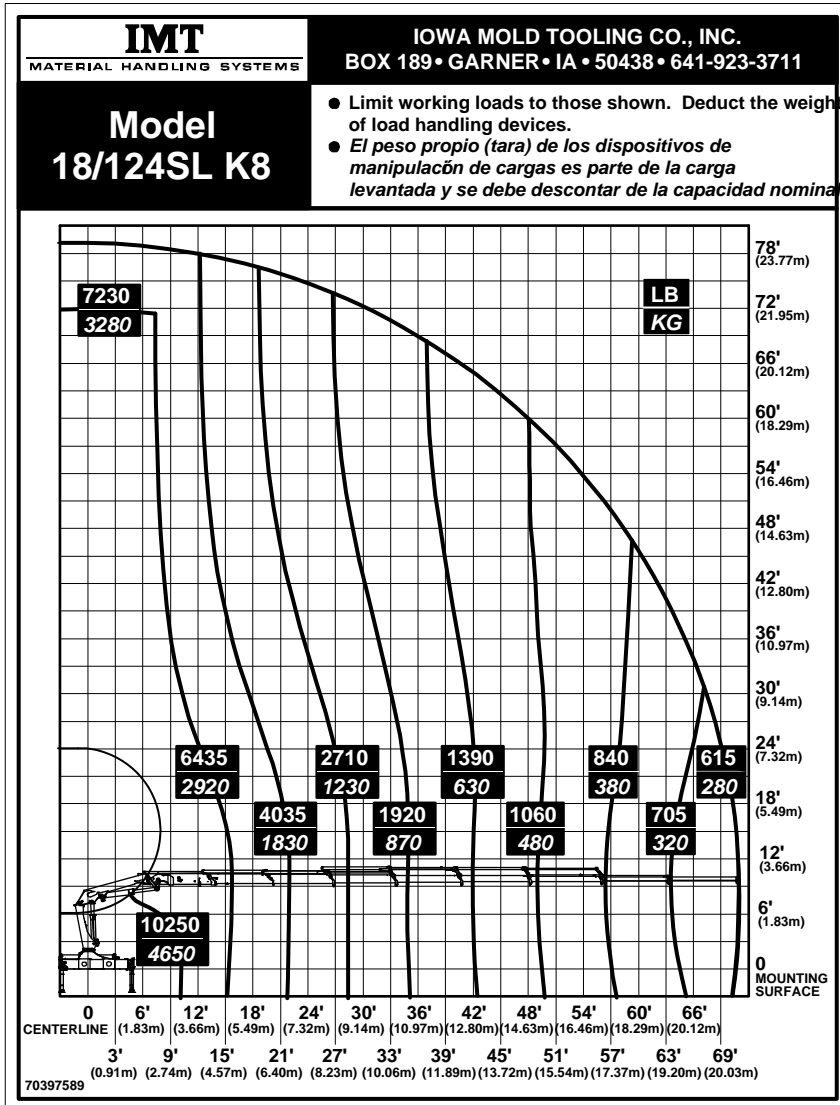
18/124SL K6 Capacity Chart



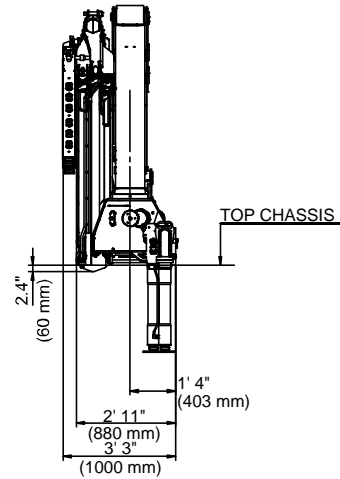
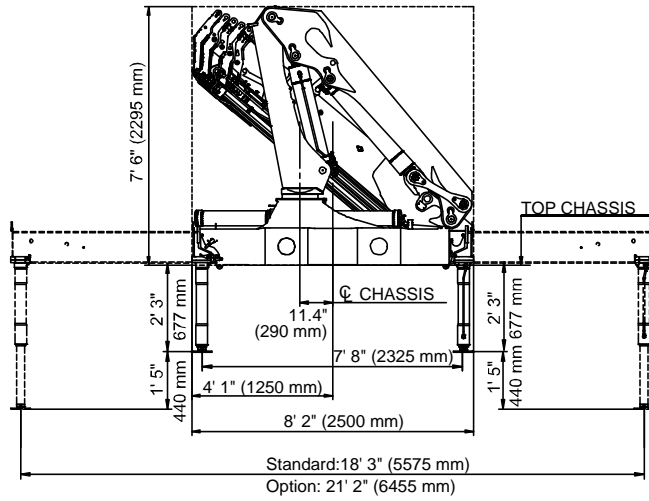
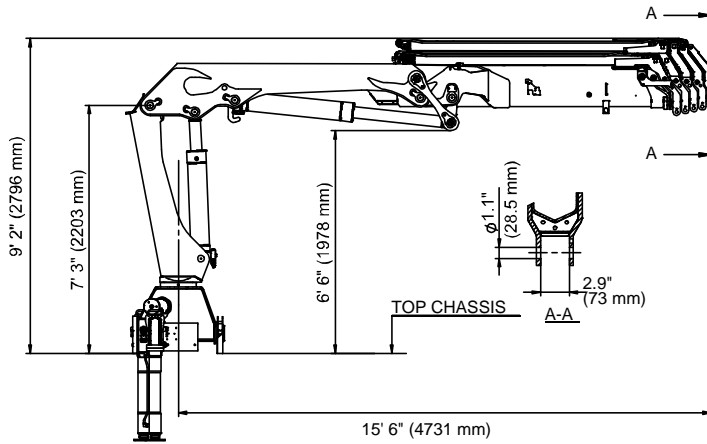
18/124SL K7 Capacity Chart



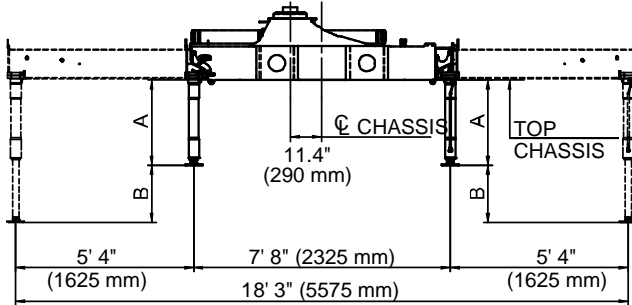
18/124SL K8 Capacity Chart



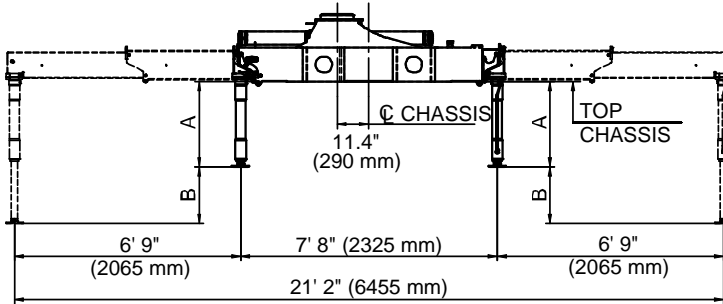
18/124SL Geometric Configuration



Stabilizer Dimensions, Fixed Legs, 18 tm up

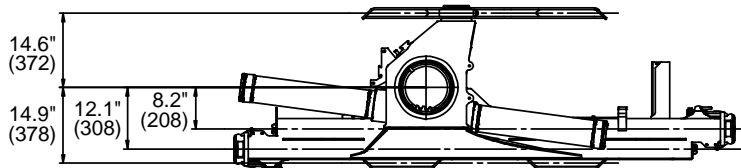
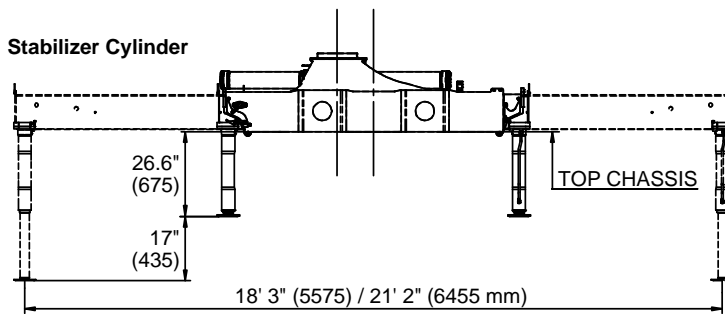


STANDARD
(Hydraulic Out /
Hydraulic Down)

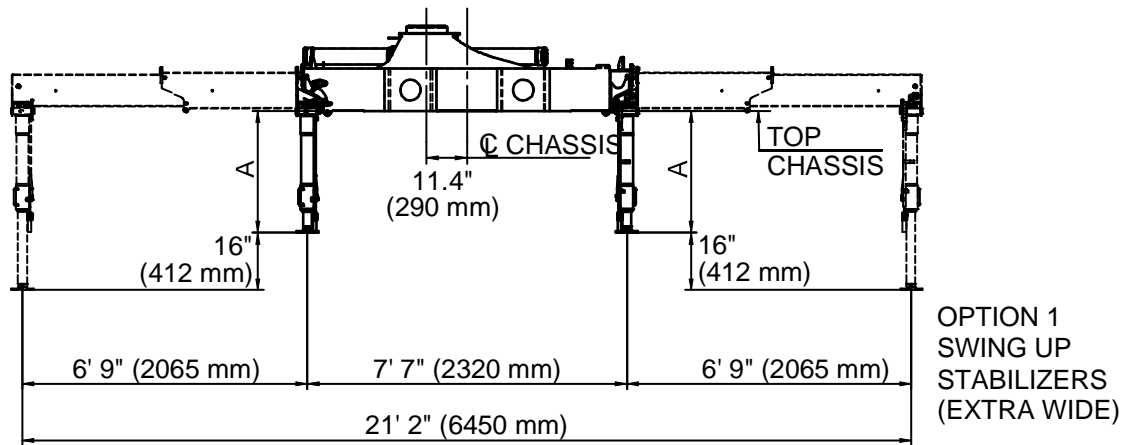
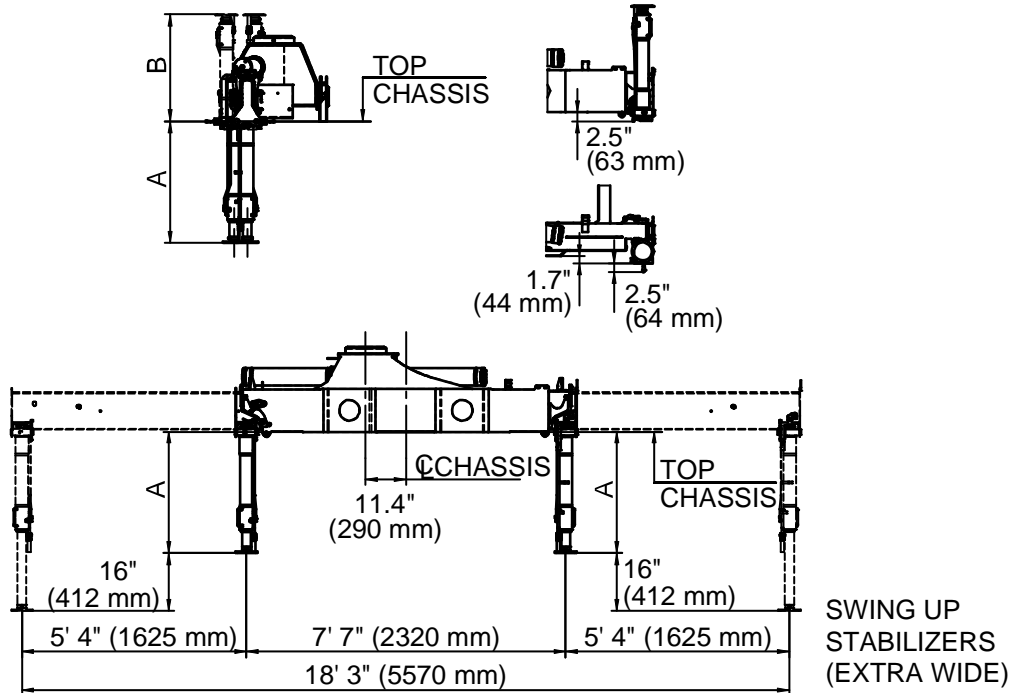




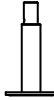
OPTION 1
(Extra Wide
Hydraulic Out /
Hydraulic Down)

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)

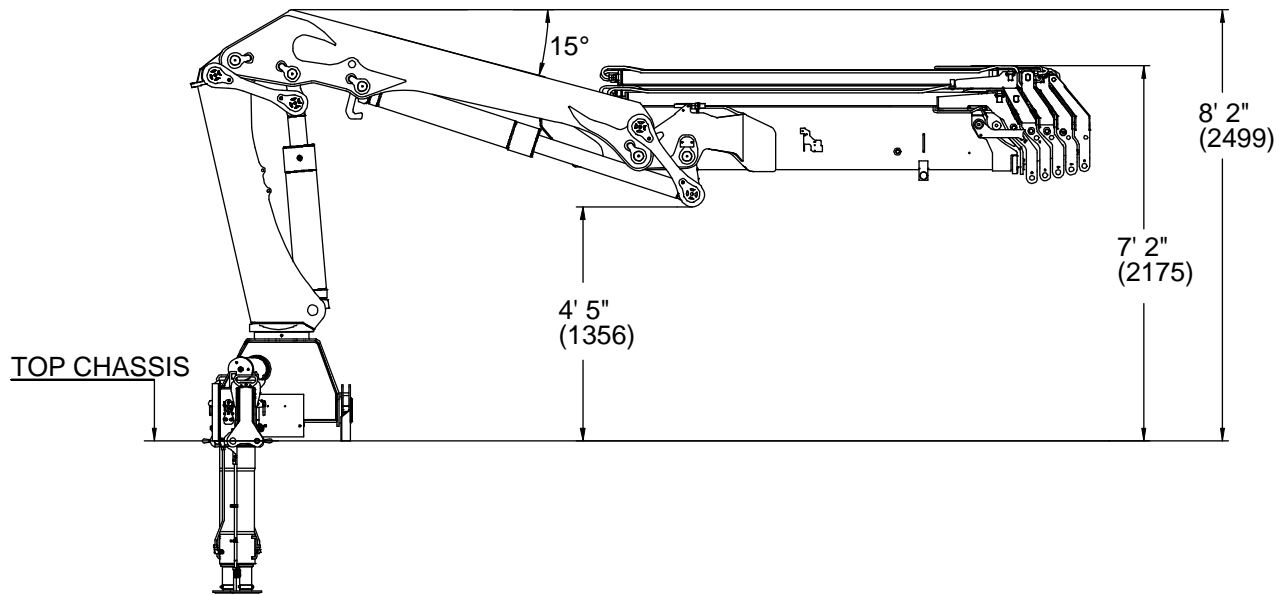
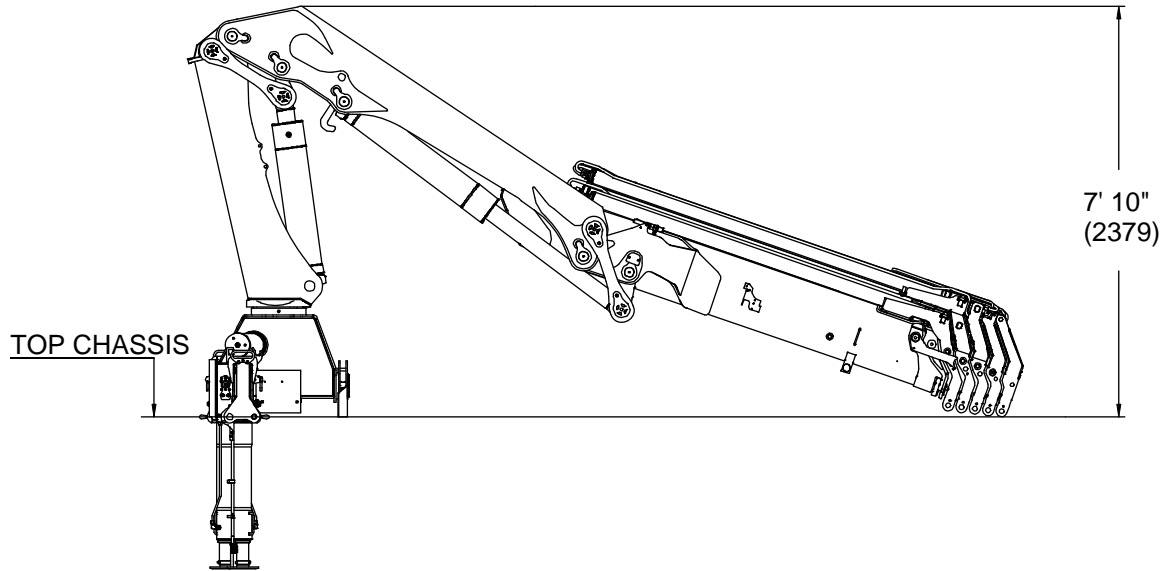


Stabilizer Dimensions, Swing-up, 18 tm up



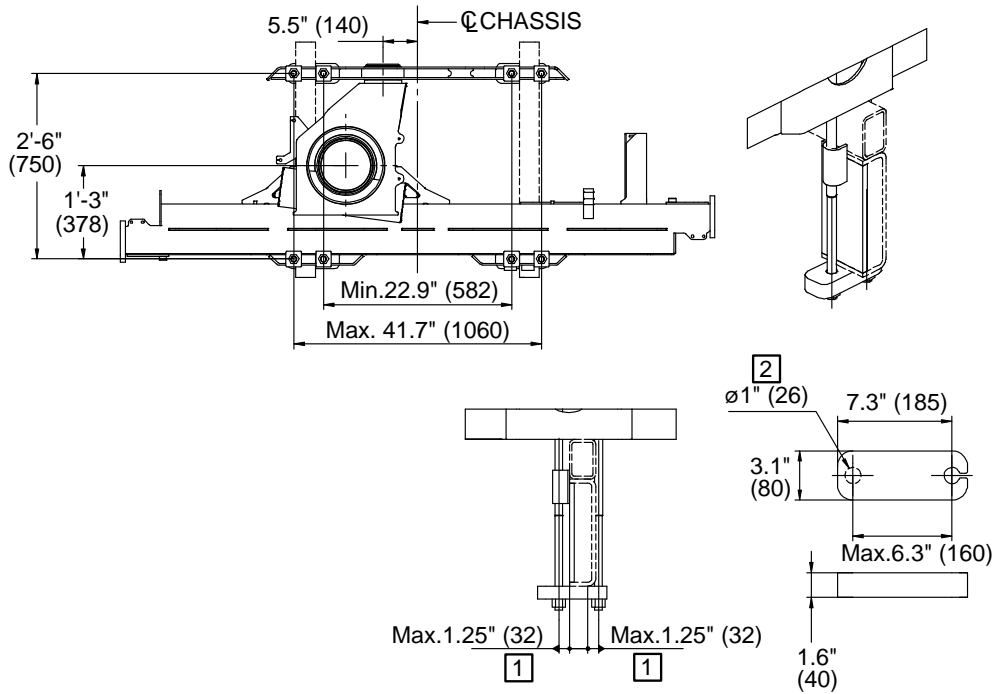
			
A	35" (879 mm)	39" (979 mm)	42.5" (1079 mm)
B	30.5" (777 mm)	34.4" (877 mm)	38.4" (977 mm)

Stowed Dimensions

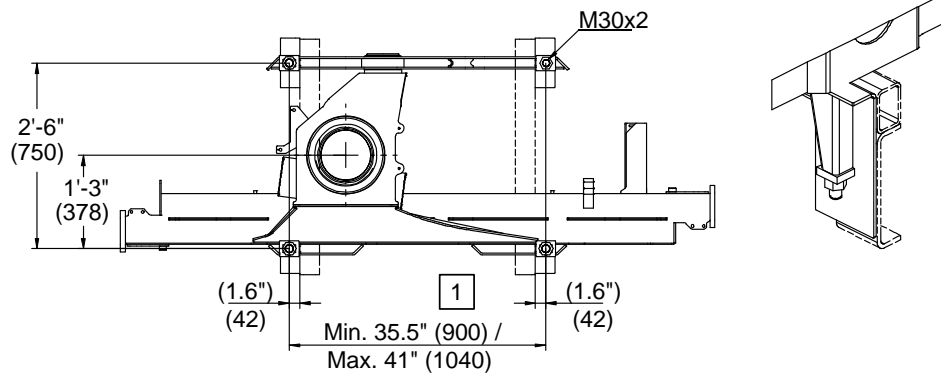


Mounting Dimensions

MOUNTING KIT 8 x M24x2 BOLTS



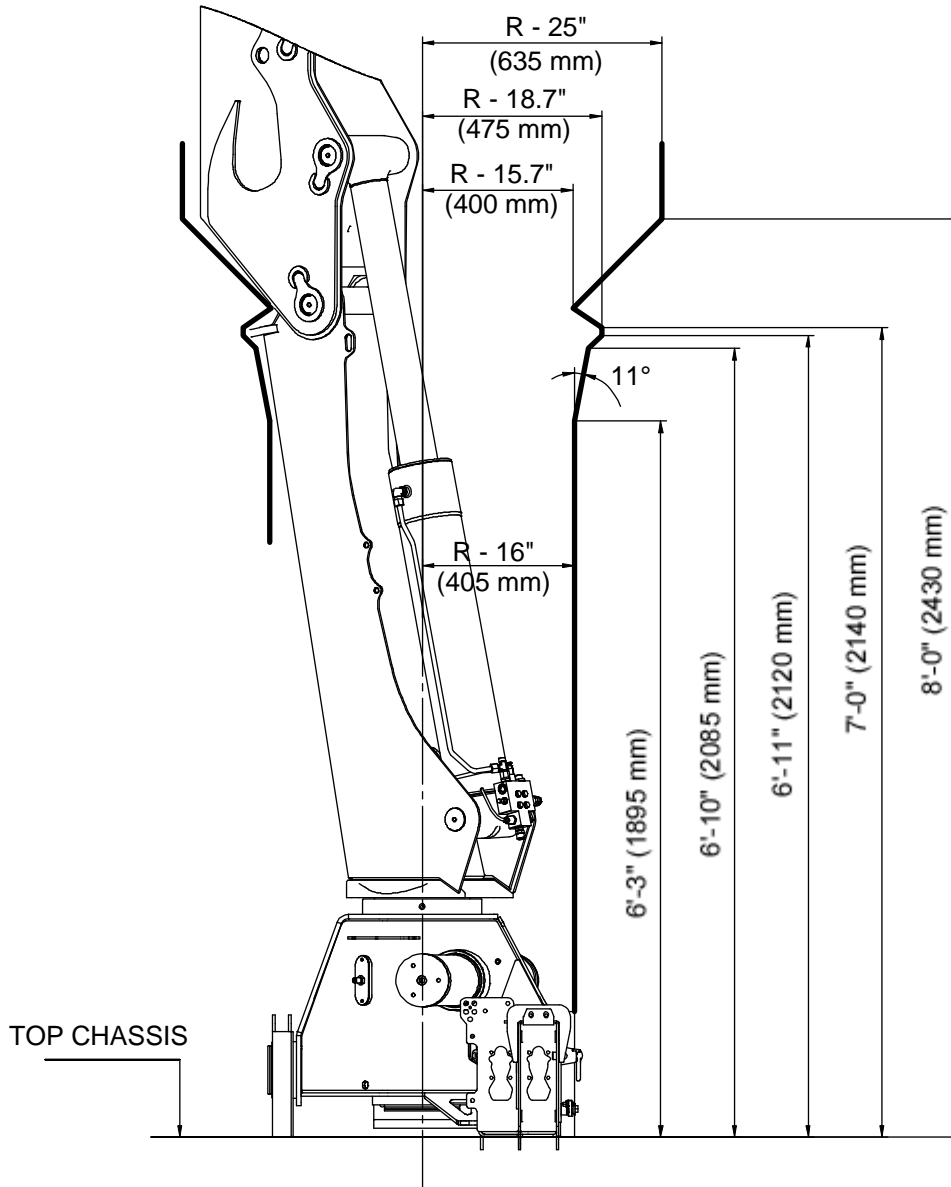
MOUNTING KIT 3 x M33x2 BOLTS + 1 M30x2 BOLT



NOTES (SEE REFERENCE NUMBER IN BOX):

- 1 VALUES DICTATED BY STRENGTH CONSIDERATIONS.
- 2 DRILL HOLE WHEN ASSEMBLING.
- 3 SEE INSTALLATION MANUAL # 99901230 REGARDING INSTALLATION.
- 4 MOUNTING KIT AND REPLACEMENT PART NUMBERS ARE IN THE CRANE PARTS MANUALS.

18/124SL Swing Clearance



CHAPTER 2

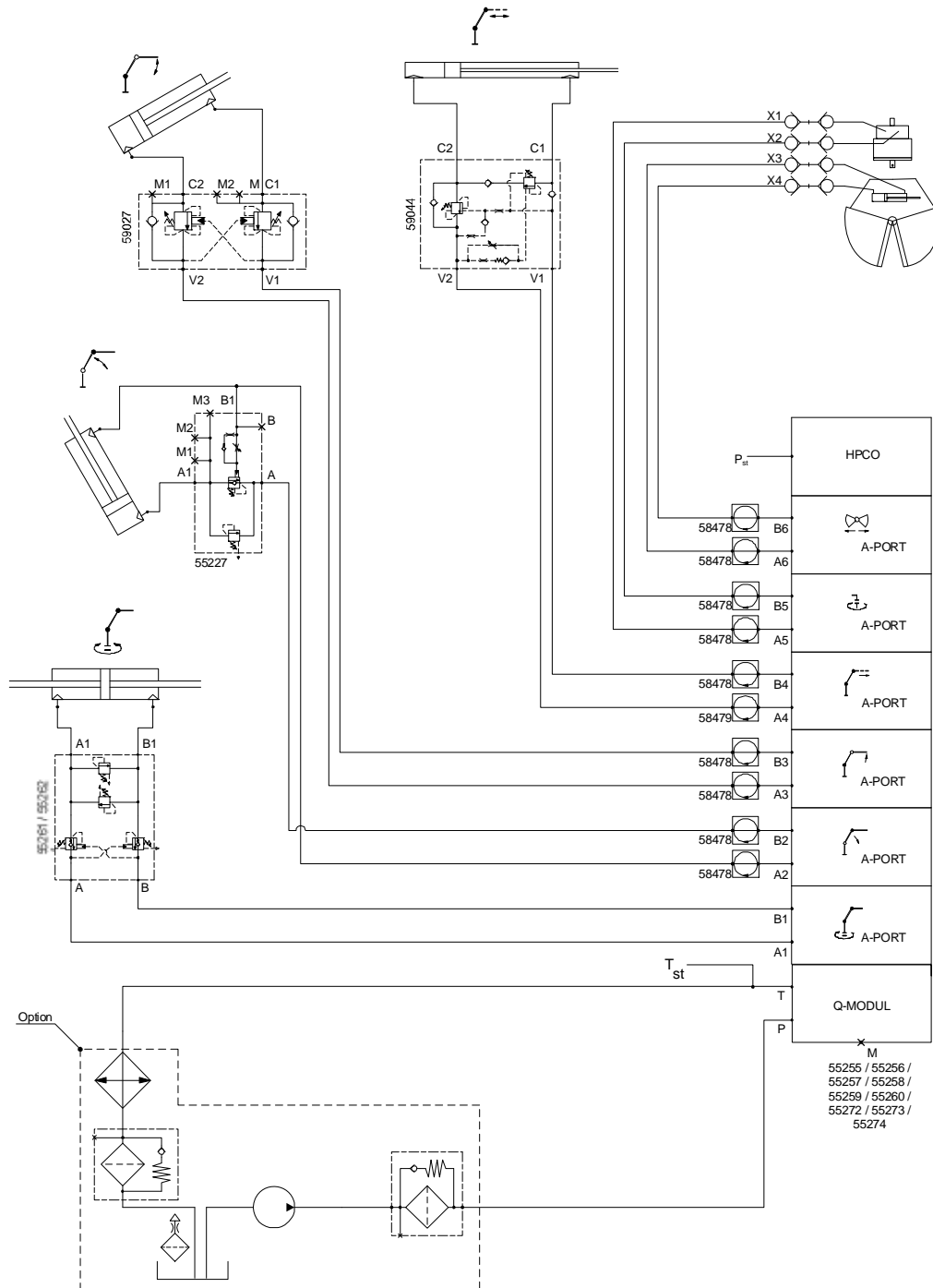
Hydraulic Schematics

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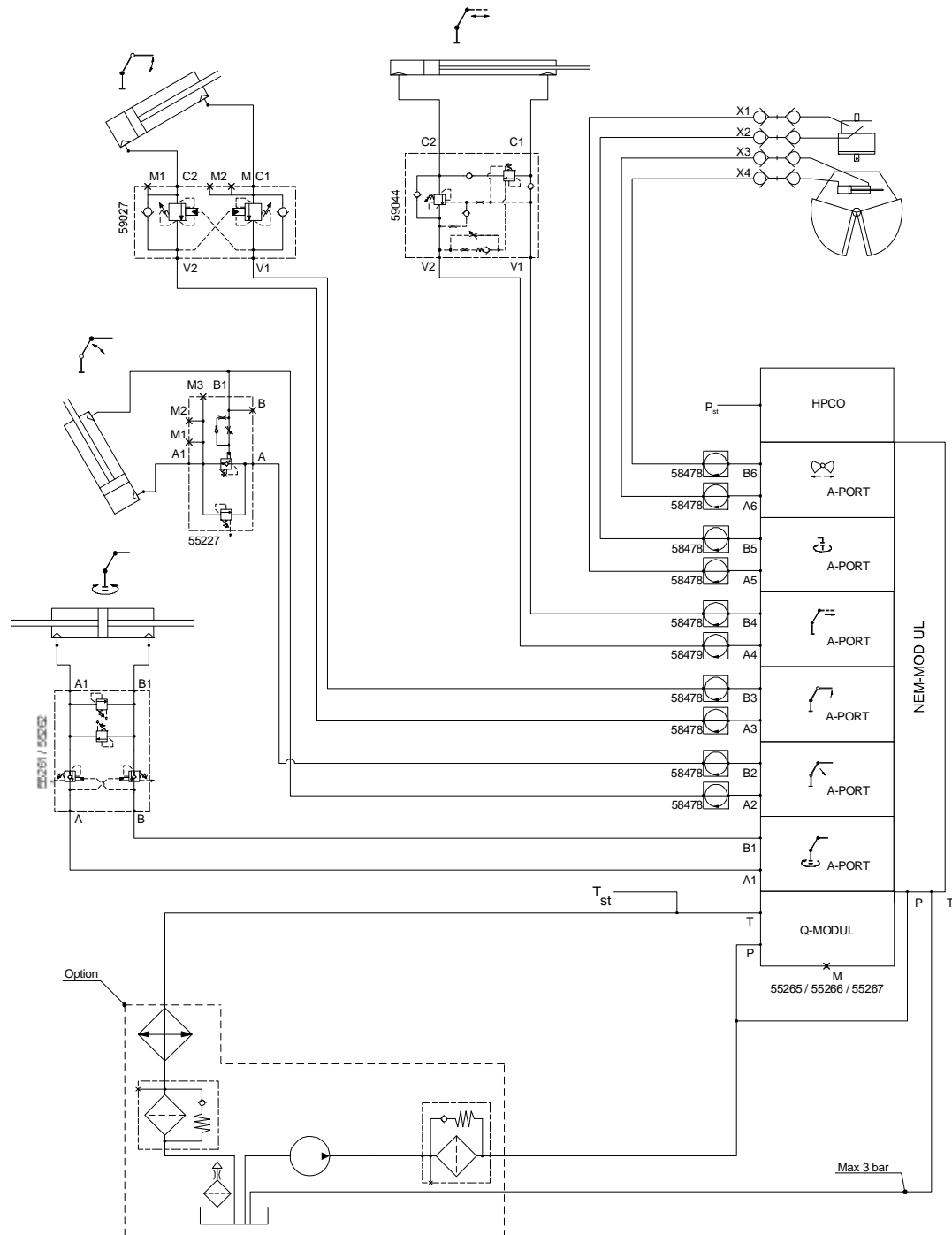
Hydraulic Diagram - 18/124SL Manual Control

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.

