
Manual # 99904611

17/117DL Technical Specifications

Revision Date 20120910



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Revisions

DATE	LOCATION	DESCRIPTION
20090813		Added swing clearance drawing and dimensions.
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 mtg kit, tank.
20120910	Drawings	Added manual swing-up stabilizers, stowed dimensions, and winch settings drawings.

CHAPTER 1

Technical Data and Charts

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17/117DL Technical Specifications

17/117DL	1-HYDRAULIC	2-HYDRAULIC	3-HYDRAULIC	4-HYDRAULIC	5-HYDRAULIC	6-HYDRAULIC
Crane Rating*	115,730 ft lb (16.0 tm)	112,835 ft lb (15.6 tm)	109,220 ft lb (15.1 tm)	106,325 ft lb (14.7 tm)	104,155 ft lb (14.4 tm)	101,260 ft lb (14.0 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' 6" (8.7 m)	35' 5" (10.8 m)	42' 6" (12.9 m)	49' 11" (15.2 m)	57' 1" (17.4 m)	64' 7" (19.7 m)
Maximum Capacity	14,835 lb (6,730 kg)	14,460 lb (6,560 kg)	13,825 lb (6,270 kg)	13,230 lb (6,000 kg)	12,700 lb (5,760 kg)	12,190 lb (5,530 kg)
Max Cap @ Max Reach	5,710 lb (2,590 kg)	4,080 lb (1,850 kg)	3,000 lb (1,360 kg)	2,205 lb (1,000 kg)	1,675 lb (760 kg)	1,255 lb (570 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.

17/117 SPECIFICATIONS	
Stabilizer Pad Diameter	6" (160 mm)
Crane Storage Height	7' 5" (2,250 mm)
Mounting Space ***	2' 8" (820 mm)
Rotational Torque	14,465 ft lb (2.0 tm)
Rotation	400°
Optimum Pump Performance	13.2 gpm (50 L/min)
System Pressure	4,785 psi (330 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	560 lb (254 kg)
Opt. 2 (hydraulic out / hydraulic down)	21' 3" (6,470 mm)
Weight	640 lb (290 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)

17/117DL Pressure Settings

WORKING PRESSURE ON MAIN-RELIEF VALVES & PORT RELIEF VALVES			
Function	Direction	Port	Pressure Setting
Main-relief valve			4785 psi (330 bar)
Rotation system	Right	A	P
	Left	B	P
Boom cylinder	Down	A	1450 psi (100 bar)
	Up	B	4930 psi (340 bar)
Jib cylinder	Up	A	4930 psi (340 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			5075 psi (350 bar)
Jib cylinder			5075 psi (350 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)	4640 psi (320 bar)
HDL	4205 psi (290 bar)

MAXIMUM PUMP PERFORMANCE	
Pump performance	13.2 gal/min (50 l/min)

17/117DL Pressure Settings with Remote Control

WORKING PRESSURE ON MAIN-RELIEF VALVES & PORT RELIEF VALVES				
Function	Direction	Port	Port-Relief Valve Pressure Setting	Load-Sense Pressure Adjustment
Main-relief valve			4785 psi (330 bar)	4785 psi (330 bar)
Rotation system	Right	A	P	2610 psi (180 bar)
	Left	B	P	2610 psi (180 bar)
Boom cylinder	Down	A	1815 psi (125 bar)	1450 psi (100 bar)
	Up	B	5075 psi (350 bar)	5075 psi (350 bar)
Jib cylinder	Up	A	5075 psi (350 bar)	5075 psi (350 bar)
	Down	B	2755 psi (190 bar)	2320 psi (160 bar)
Extension cylinders	Extend	A	P	-
	Retract	B	P	-
Rotator	Right	A	P	725 - 4350 psi (50-300 bar)
	Left	B	P	725 - 4350 psi (50-300 bar)
Grab	Open	A	P	725 - 4350 psi (50-300 bar)
	Close	B	P	725 - 4350 psi (50-300 bar)
Winch (1.5 metric T)	Lift	A	P	2320 psi (160 bar)
	Lower	B	P	2320 psi (160 bar)
Winch (2.5 metric T)	Lift	A	P	2685 psi (185 bar)
	Lower	B	P	2685 psi (185 bar)
Separate stabilizer valve		All	2175 psi (150 bar)	2175 psi (150 bar)

WORKING PRESSURE ON LOAD-HOLDING VALVES

Function	Direction	Opening Pressure
Rotation System	Right	2685 psi (185 bar)
	Left	2685 psi (185 bar)
Boom cylinder	Up	5075 psi (350 bar)
	Down	-
Jib cylinder	Up	5075 psi (350 bar)
	Down	3045 psi (210 bar)
Extension cylinders	Extend	3045 psi (210 bar)
	Retract	6235 psi (430 bar)

PRESSURE SETTINGS FOR LOAD-MOMENT LIMITATION (LMB)

Load moment limitation (LMB)	4570 psi (315 bar)
HDL	4135 psi (285 bar)

MAXIMUM PUMP PERFORMANCE

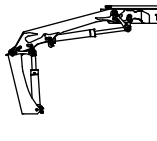
Pump performance	18.5 gal/min (70 l/min)
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Winch Technical Data

	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)

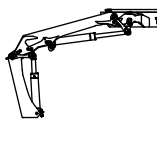
17/117DL Lifting Capacities

17/117DL - 1 Hydraulic



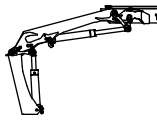
8245 lb 3740 kg 14'-2" 4.3 m	5710 lb 2590 kg 20'-4" 6.2 m
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17/117DL - 2 Hydraulic



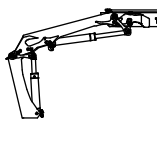
7960 lb 3610 kg 14'-2" 4.3 m	5400 lb 2450 kg 20'-8" 6.3 m	4080 lb 1850 kg 27'-3" 8.3 m
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17/117DL - 3 Hydraulic



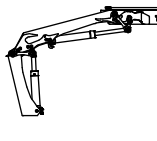
7585 lb 3440 kg 14'-6" 4.4 m	5095 lb 2310 kg 20'-8" 6.3 m	3790 lb 1720 kg 27'-3" 8.3 m	3000 lb 1360 kg 34'-1" 10.4 m
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17/117DL - 4 Hydraulic



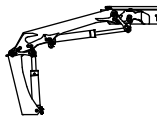
7255 lb 3290 kg 14'-10" 4.5 m	4805 lb 2180 kg 20'-10" 6.4 m	3505 lb 1590 kg 27'-7" 8.4 m	2710 lb 1230 kg 34'-5" 10.5 m	2205 lb 1000 kg 41'-8" 12.7 m
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17/117DL - 5 Hydraulic



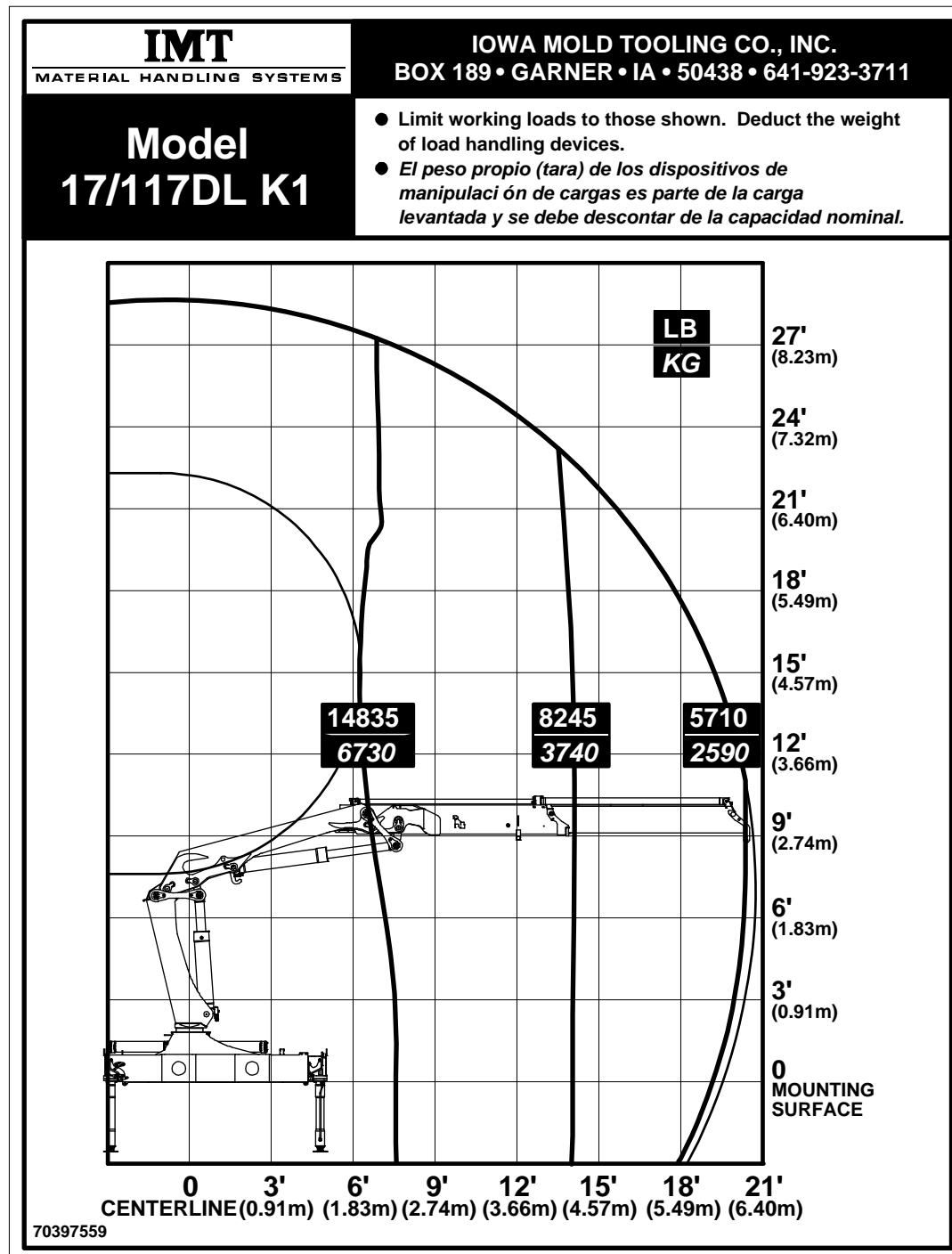
6965 lb 3160 kg 15'-1" 4.6 m	4565 lb 2070 kg 21'-4" 6.5 m	3265 lb 1480 kg 27'-11" 8.5 m	2470 lb 1120 kg 34'-10" 10.6 m	1985 lb 900 kg 42'-0" 12.8 m	1675 lb 760 kg 48'-11" 14.9 m
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17/117DL - 6 Hydraulic

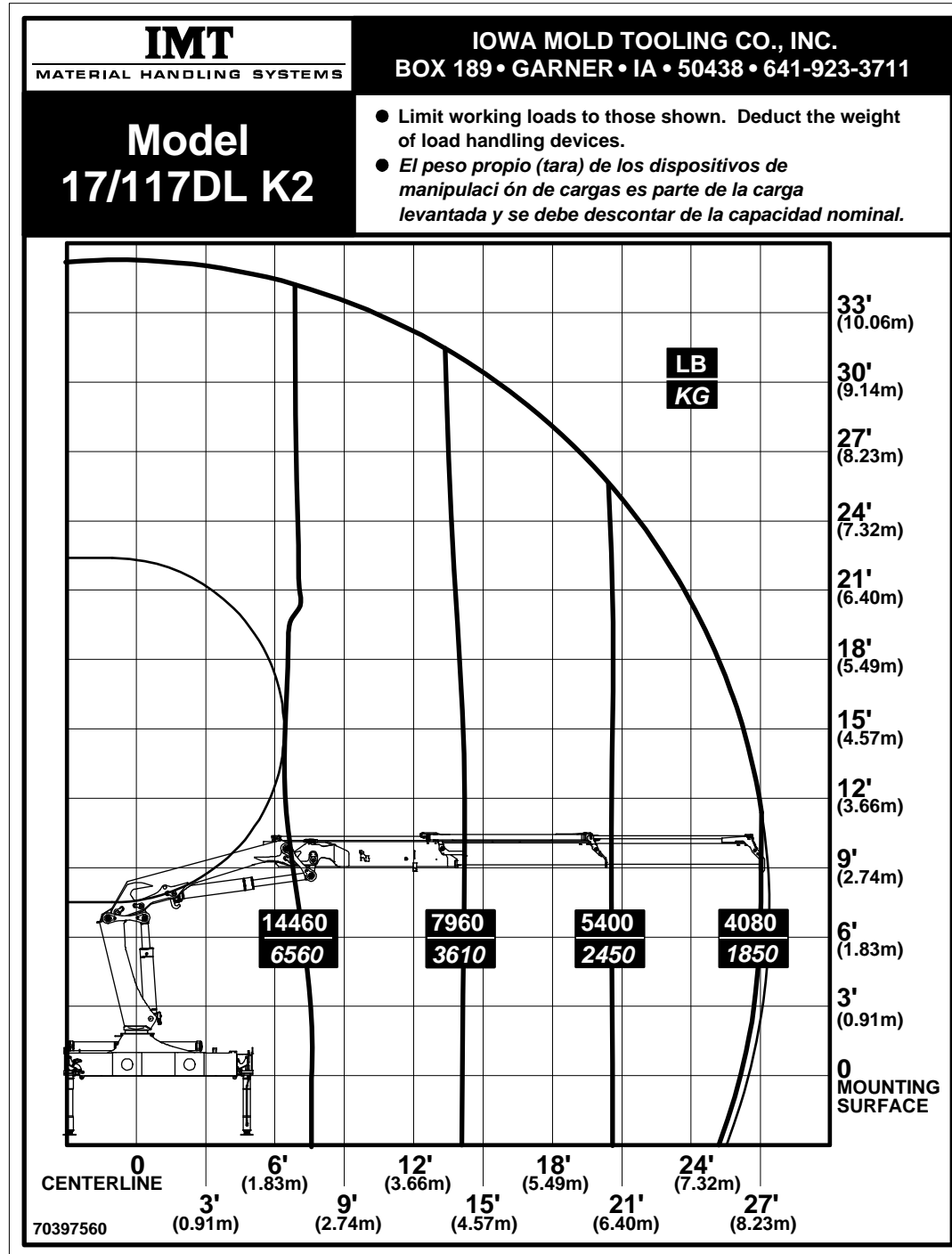


6680 lb 3030 kg 15'-1" 4.6 m	4320 lb 1960 kg 21'-8" 6.6 m	3040 lb 1380 kg 28'-2" 8.6 m	2270 lb 1030 kg 35'-1" 10.7 m	1765 lb 800 kg 42'-4" 12.9 m	1455 lb 660 kg 49'-2" 15.0 m	1255 lb 570 kg 56'-5" 17.2 m
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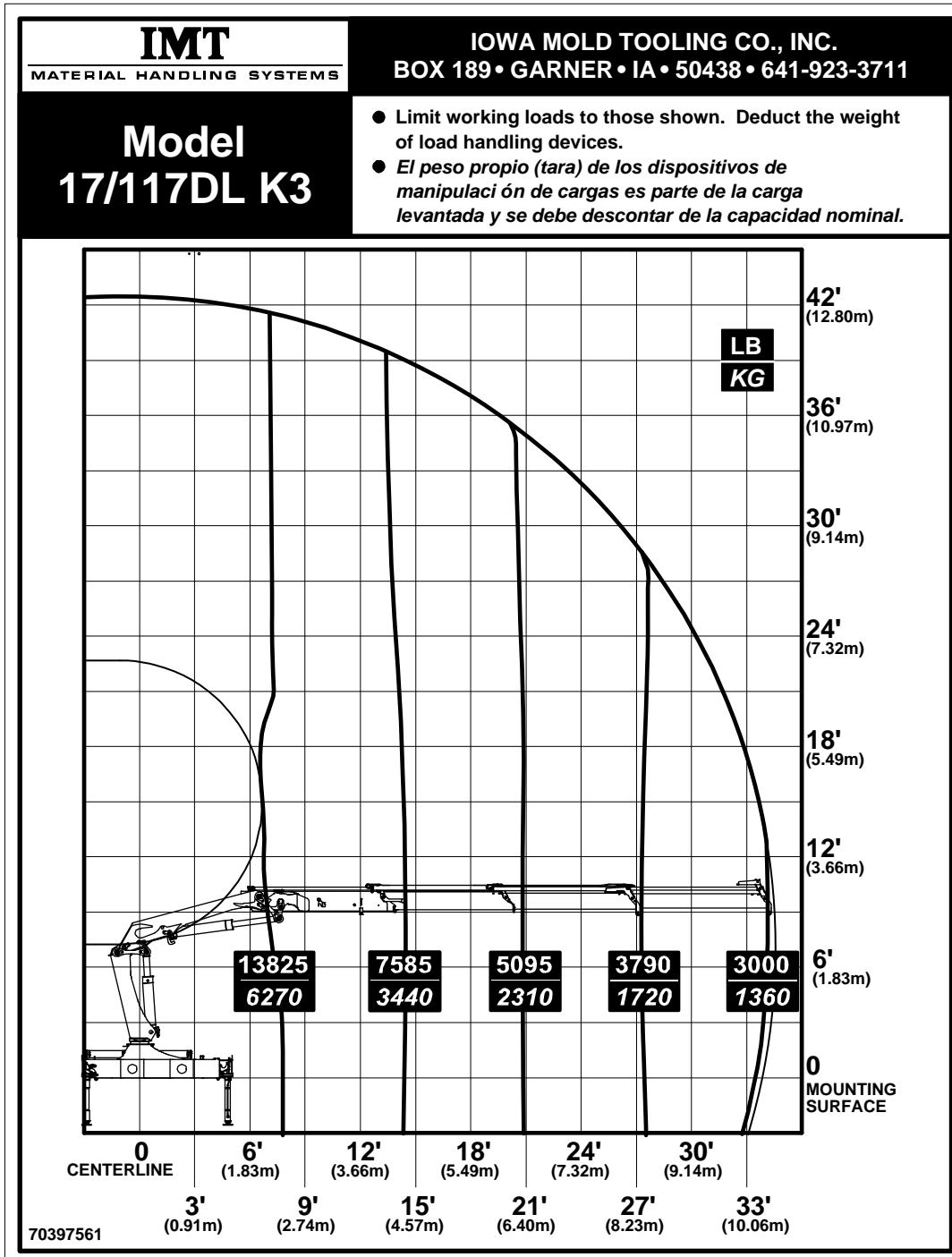
17/117DL K1 Capacity Chart



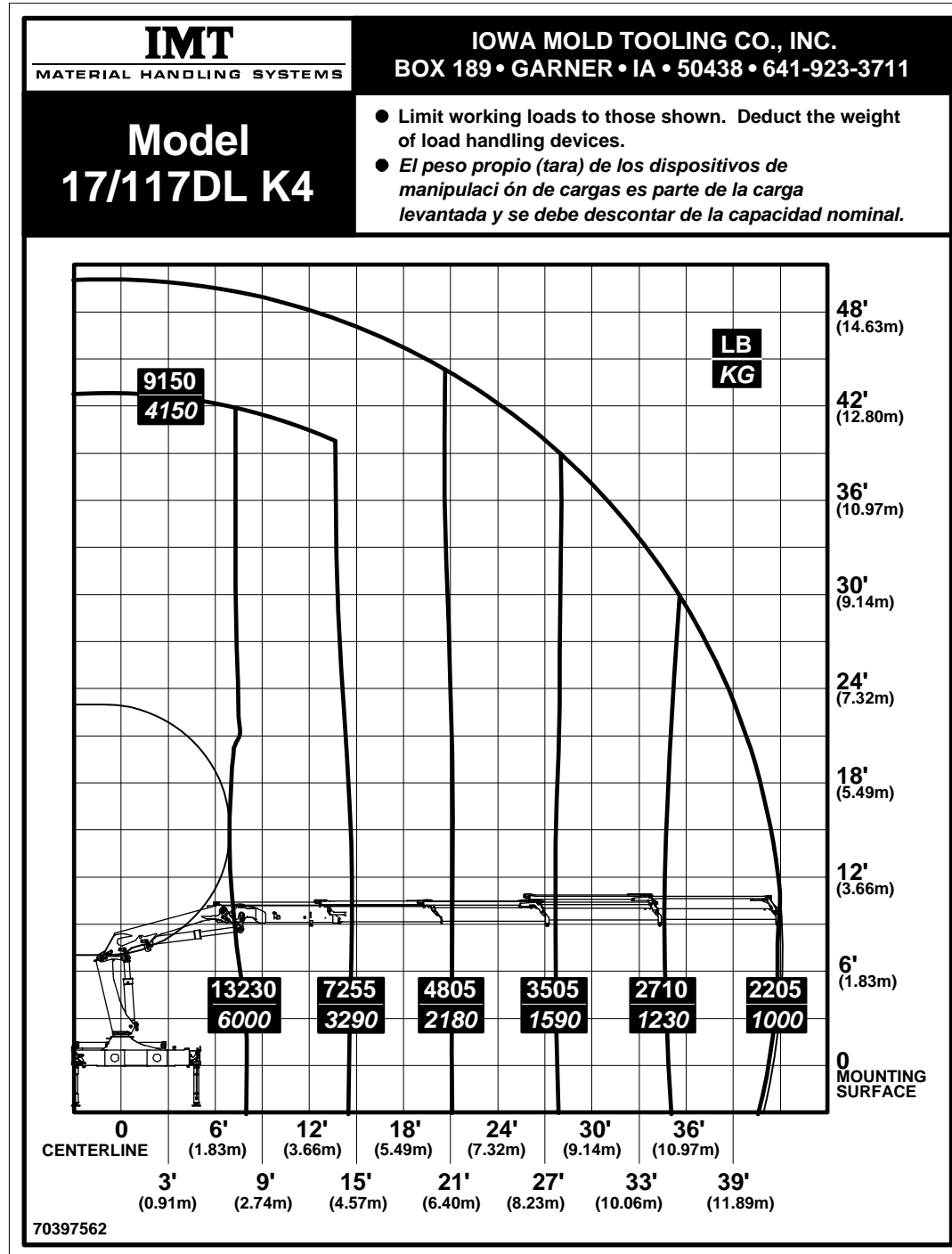
17/117DL K2 Capacity Chart



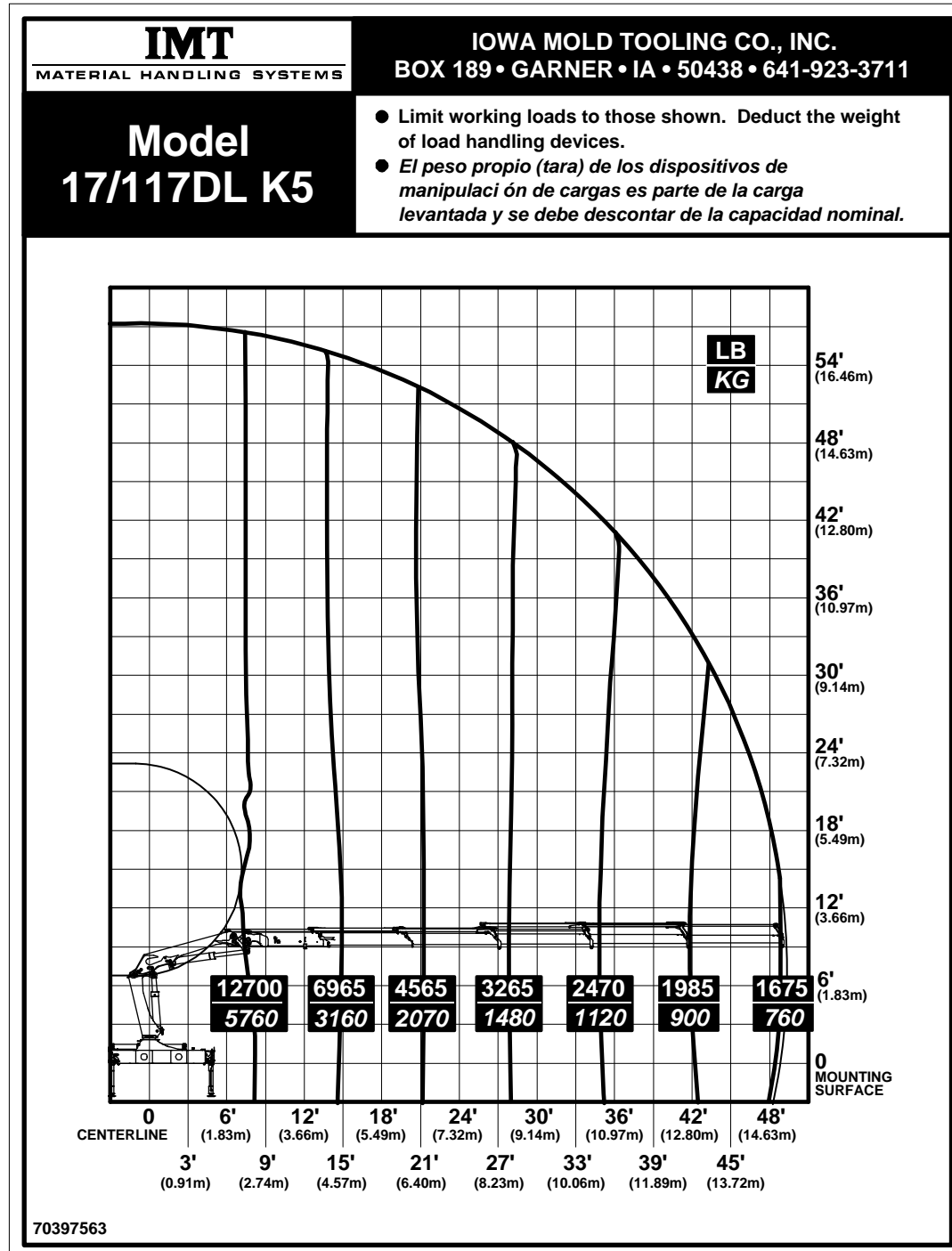
17/117DL K3 Capacity Chart



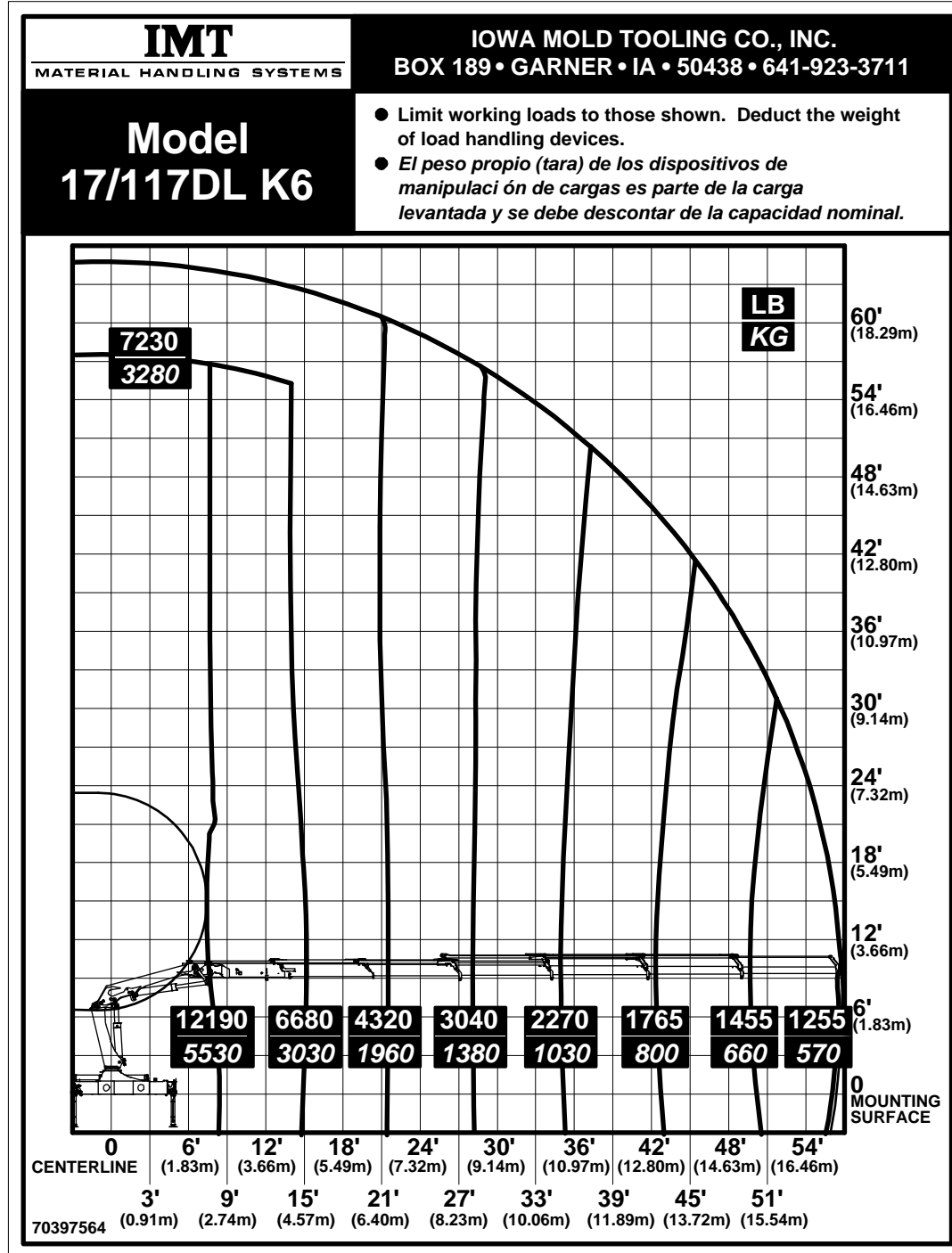
17/117DL K4 Capacity Chart



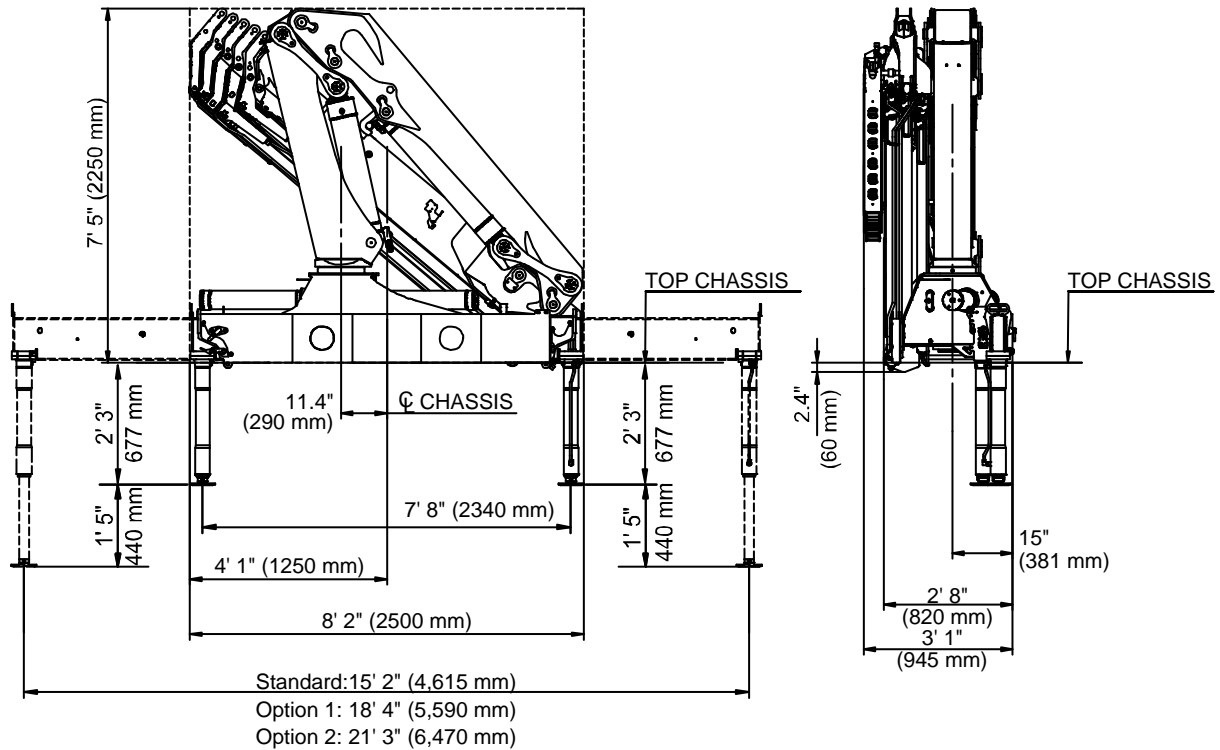
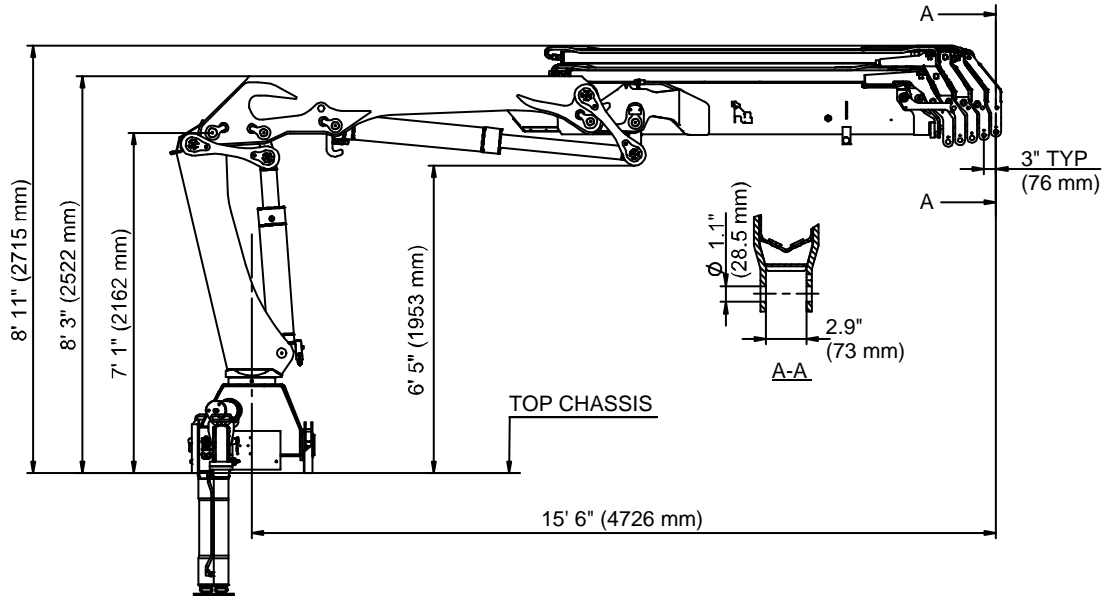
17/117DL K5 Capacity Chart



17/117DL K6 Capacity Chart

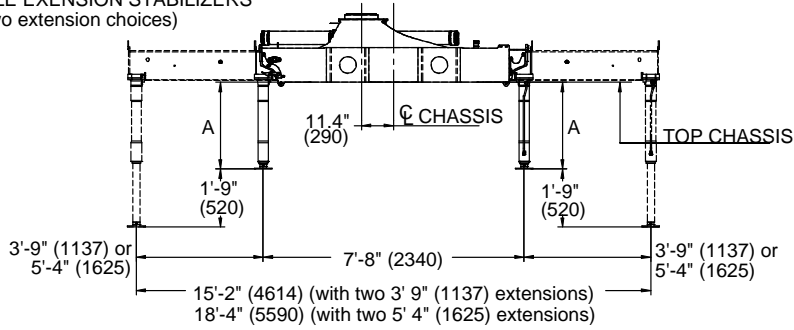


17/117DL Geometric Configuration

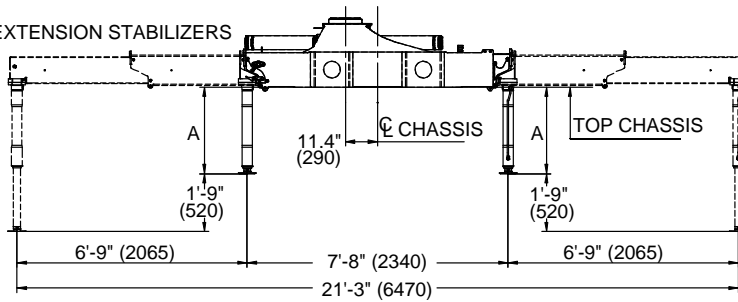


Stabilizer Dimensions, Fixed Legs

SINGLE EXTENSION STABILIZERS (Two extension choices)



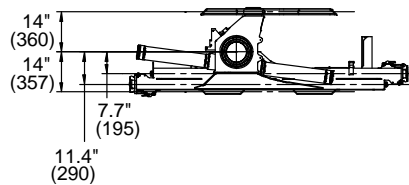
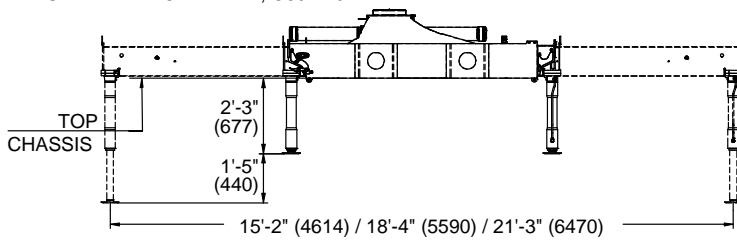
DOUBLE EXTENSION STABILIZERS



STABILIZER LEG EXTENSIONS

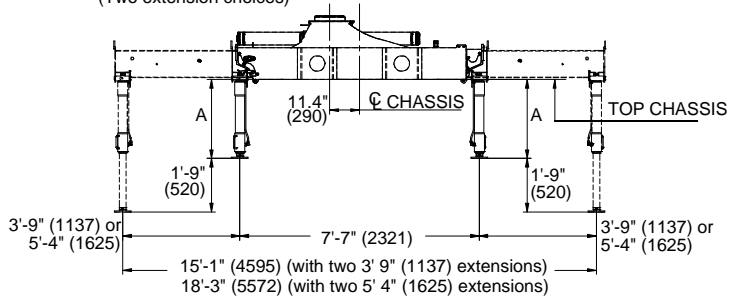
A	2'-6" (777)	2'-11" (877)	3'-2" (977)

STABILIZER CYLINDER, C80-440

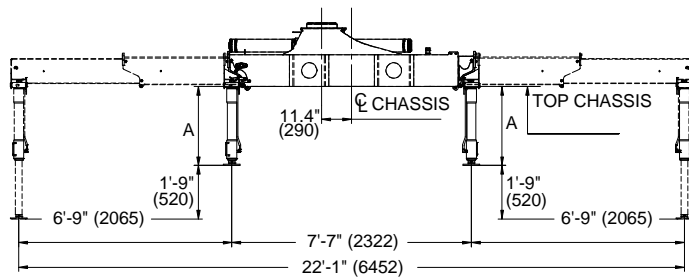


Stabilizer Dimensions, Manual Swing-Up Legs




SINGLE EXTENSION STABILIZERS WITH MANUAL SWING-UP LEGS
(Two extension choices)



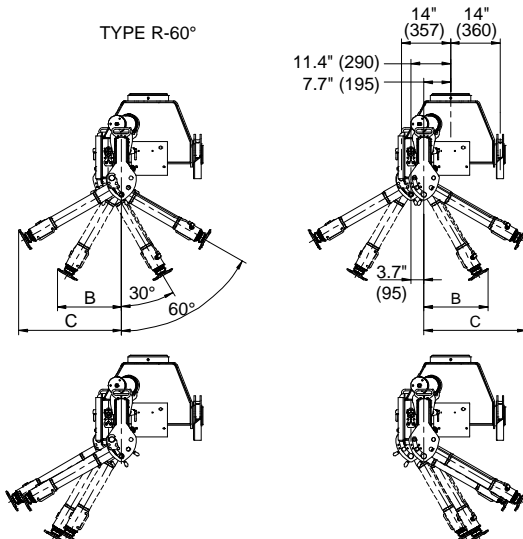
DOUBLE EXTENSION STABILIZERS WITH MANUAL SWING-UP LEGS






STABILIZER LEG EXTENSIONS

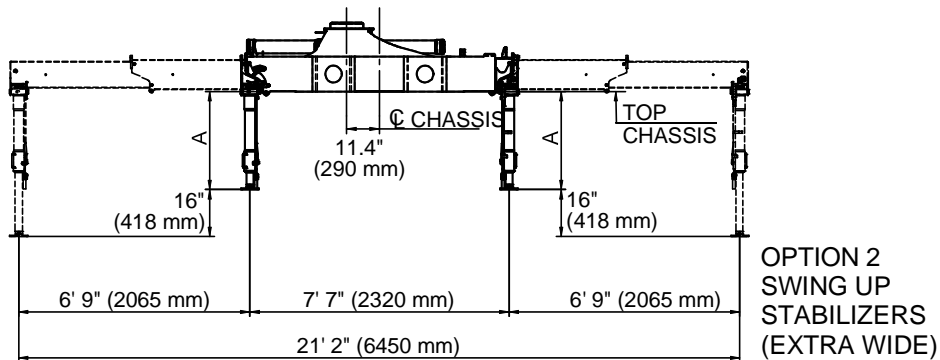
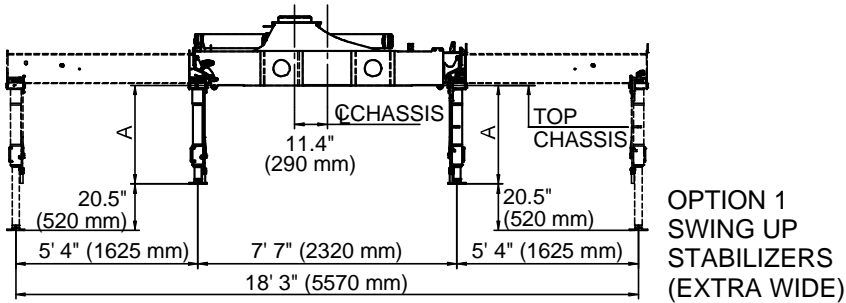
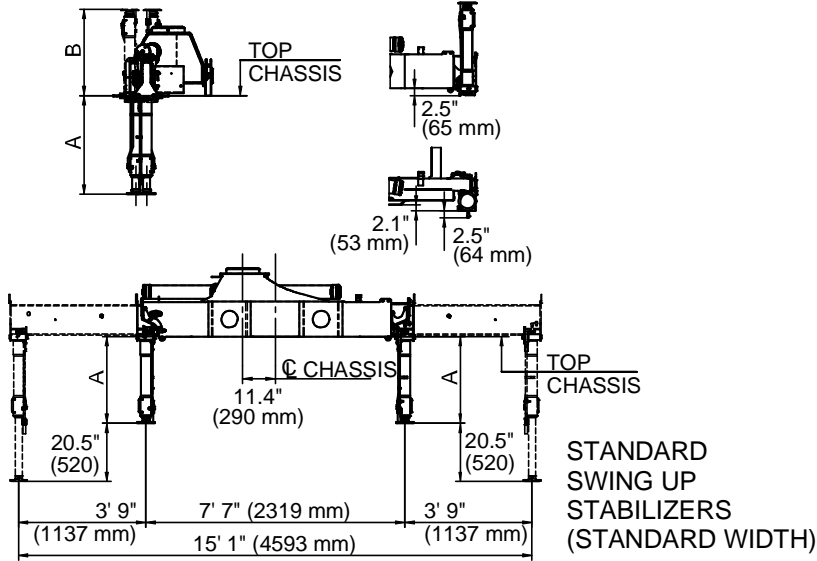
			
A	2'-6"	2'-10"	3'-2"
Type R-60°	(771)	(871)	(971)




TYPE R-60°



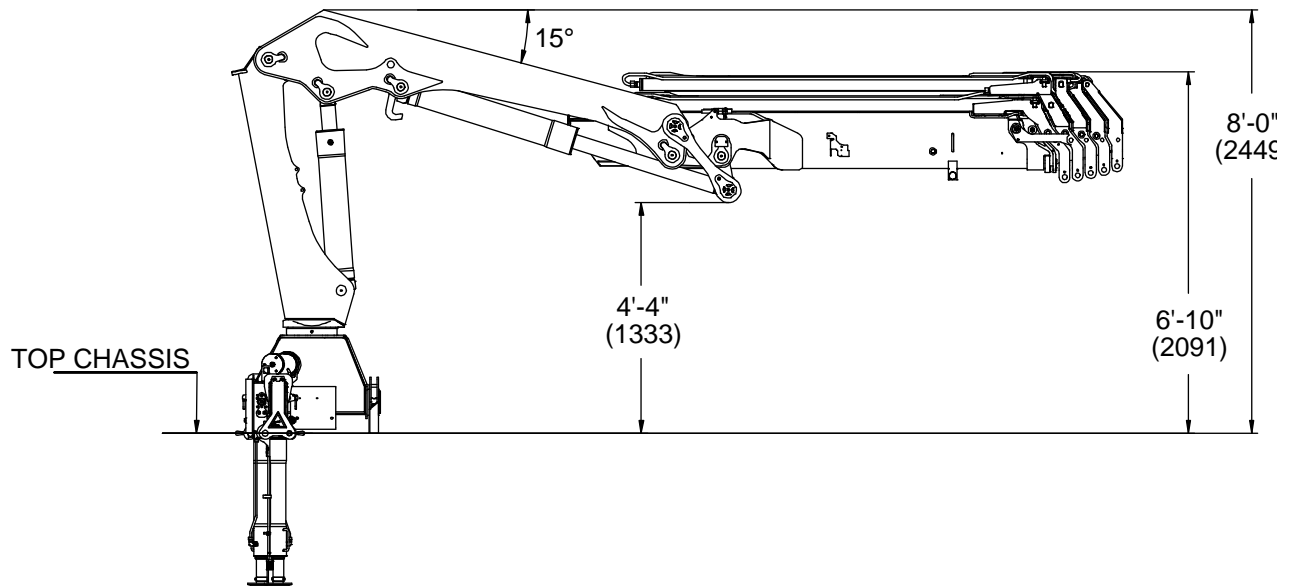
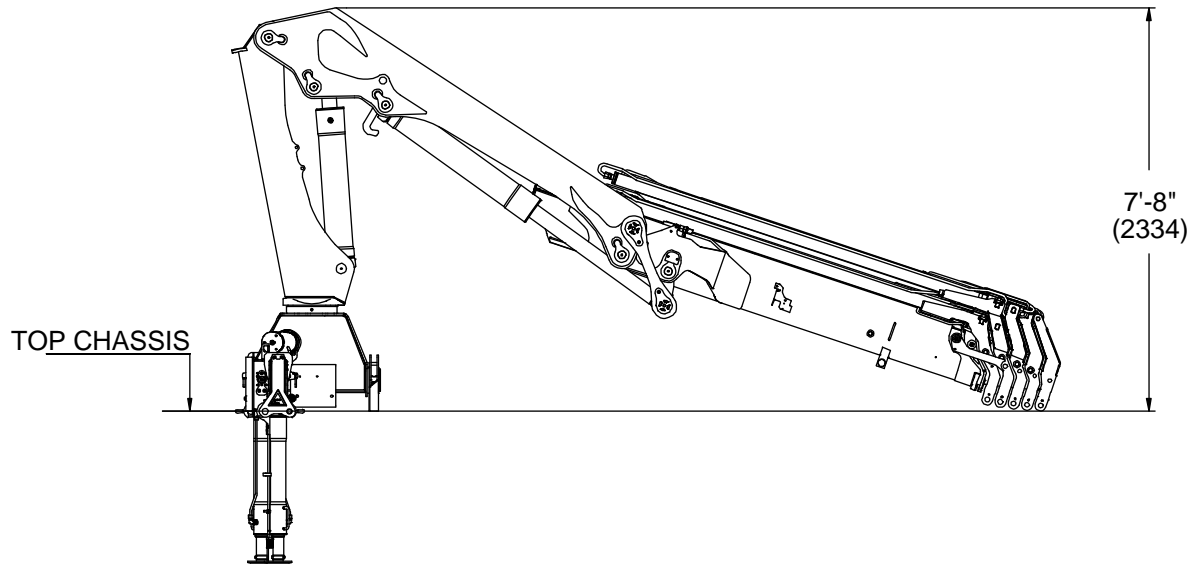
			
B	18.3"	20.3"	21.9"
	(465)	(515)	(565)
C	29.3"	32.7"	36.1"
	(744)	(831)	(918)

Stabilizer Dimensions, Hyd Swing-Up Legs



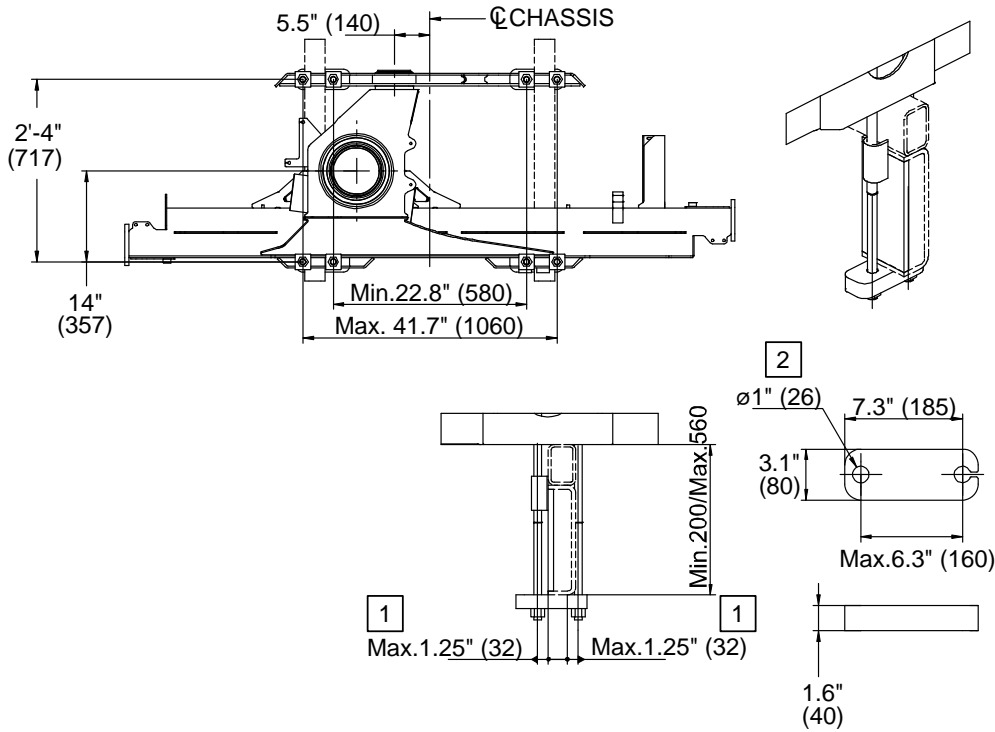
			
A	35" (881 mm)	39" (981 mm)	42.5" (1081 mm)
B	30.5" (775 mm)	34.4" (875 mm)	38.4" (975 mm)

Stowed Dimensions

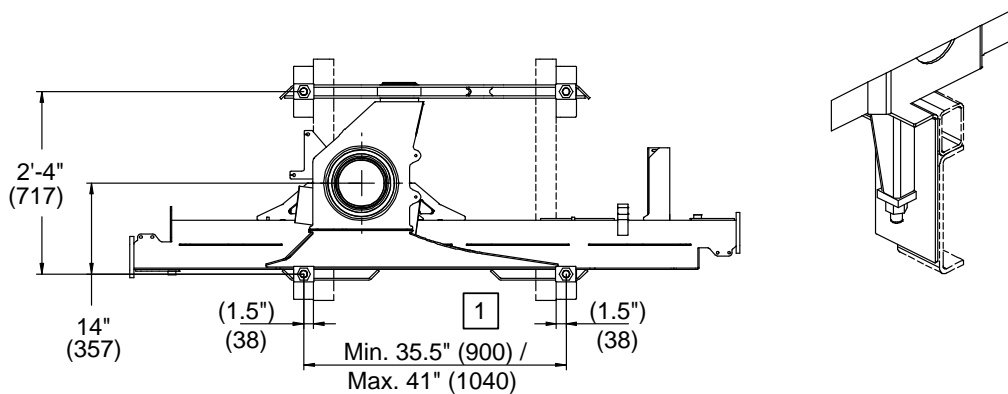


Mounting Dimensions

MOUNTING KIT 8 x M24x2 BOLTS



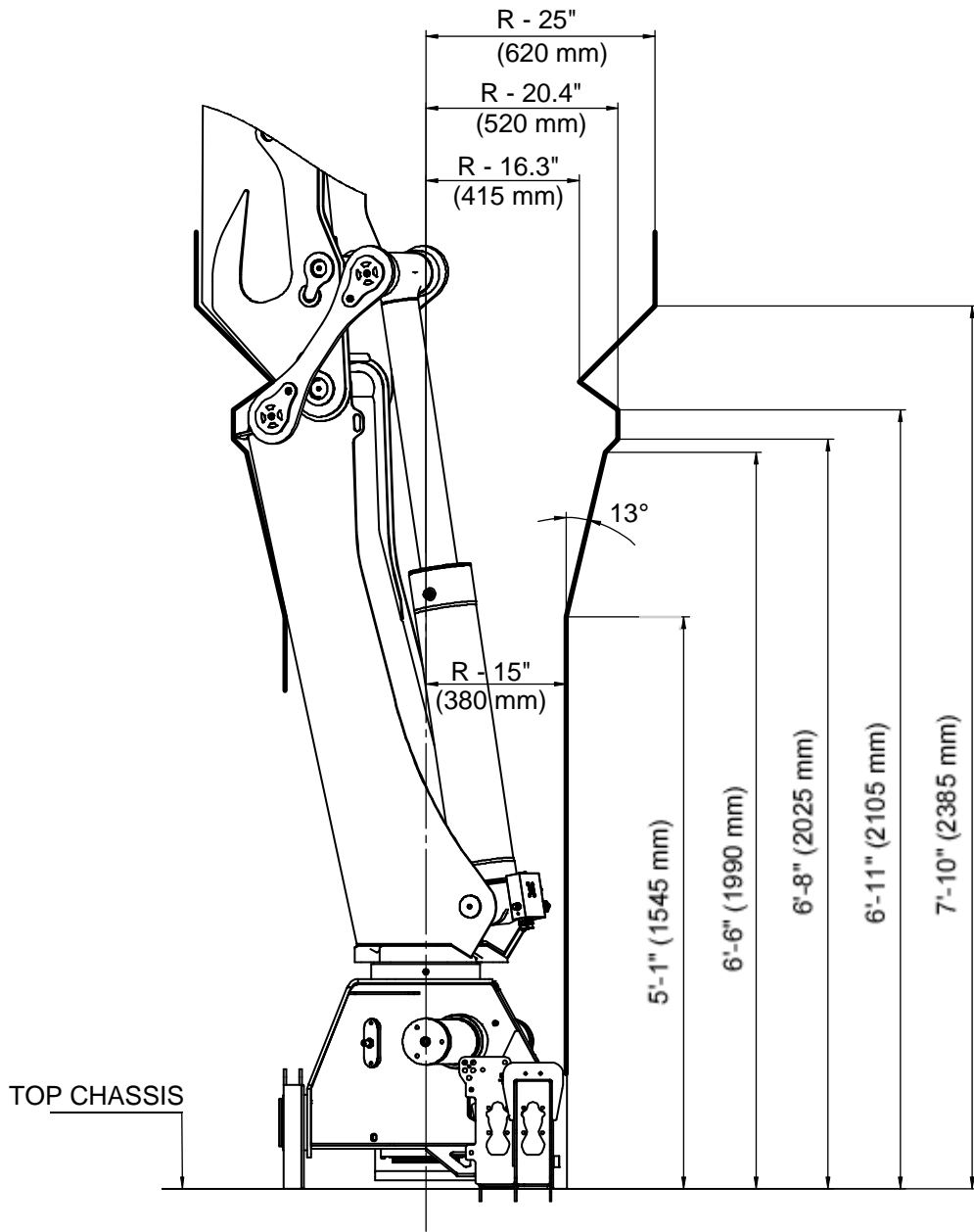
MOUNTING KIT 4 x M30x2 BOLTS



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.

17/117DL Swing Clearance



CHAPTER 2

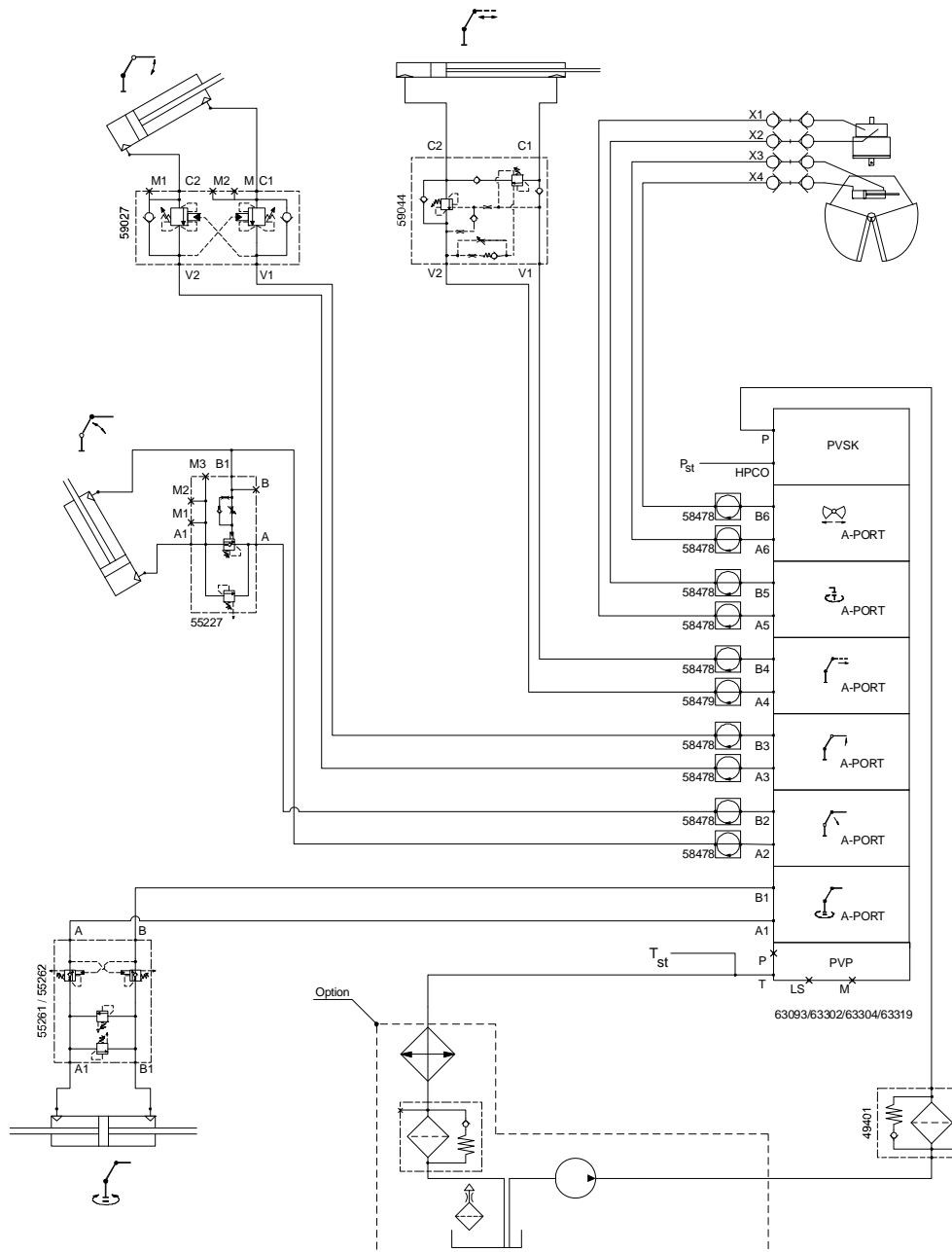
Hydraulic Schematics

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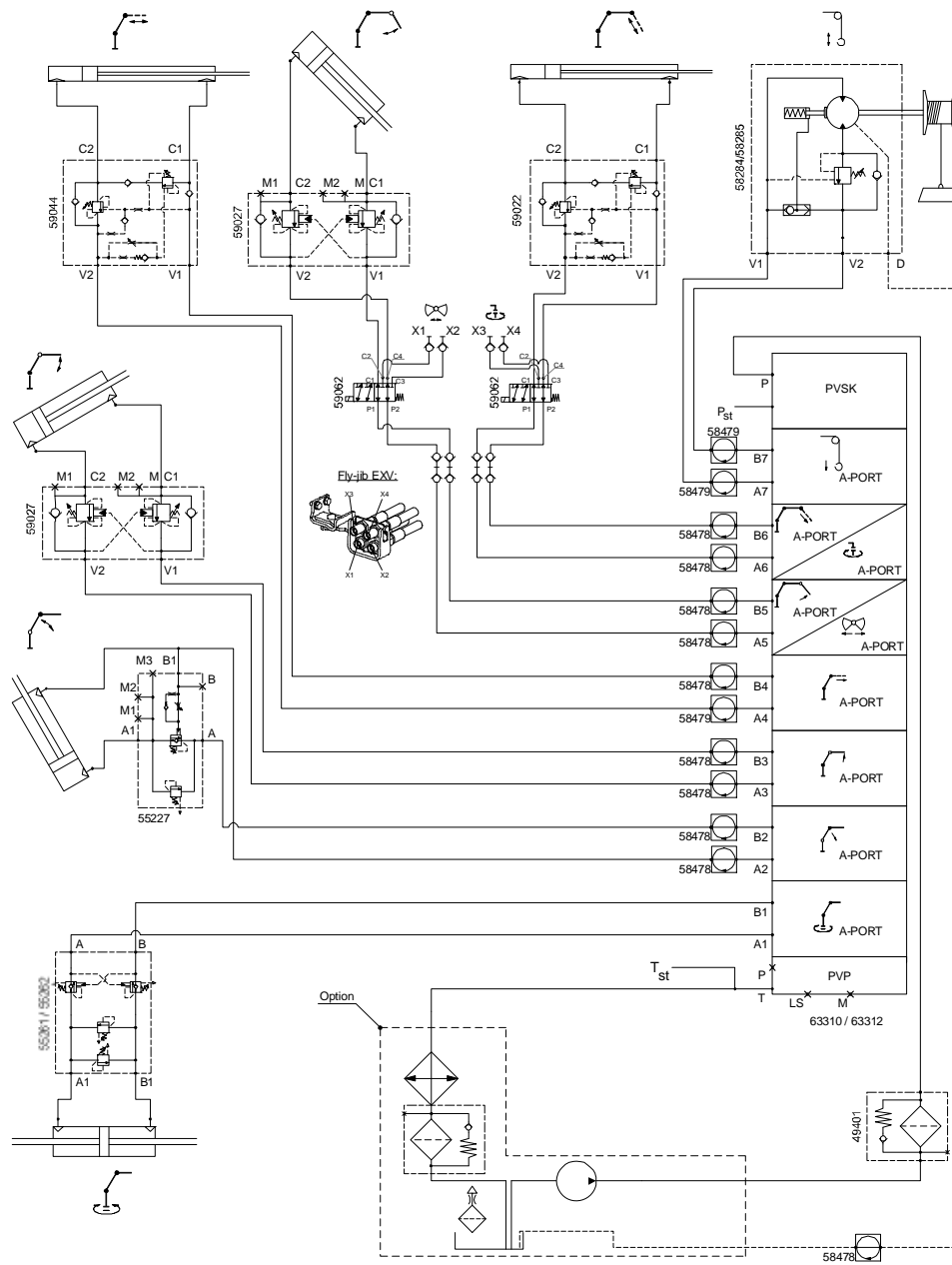
Hydraulic Diagram - 17/117DL Danfoss 6-Function Radio

This diagram applies to a 17/117DL crane with a single-circuit fixed pump, and 6-function Danfoss radio controls.



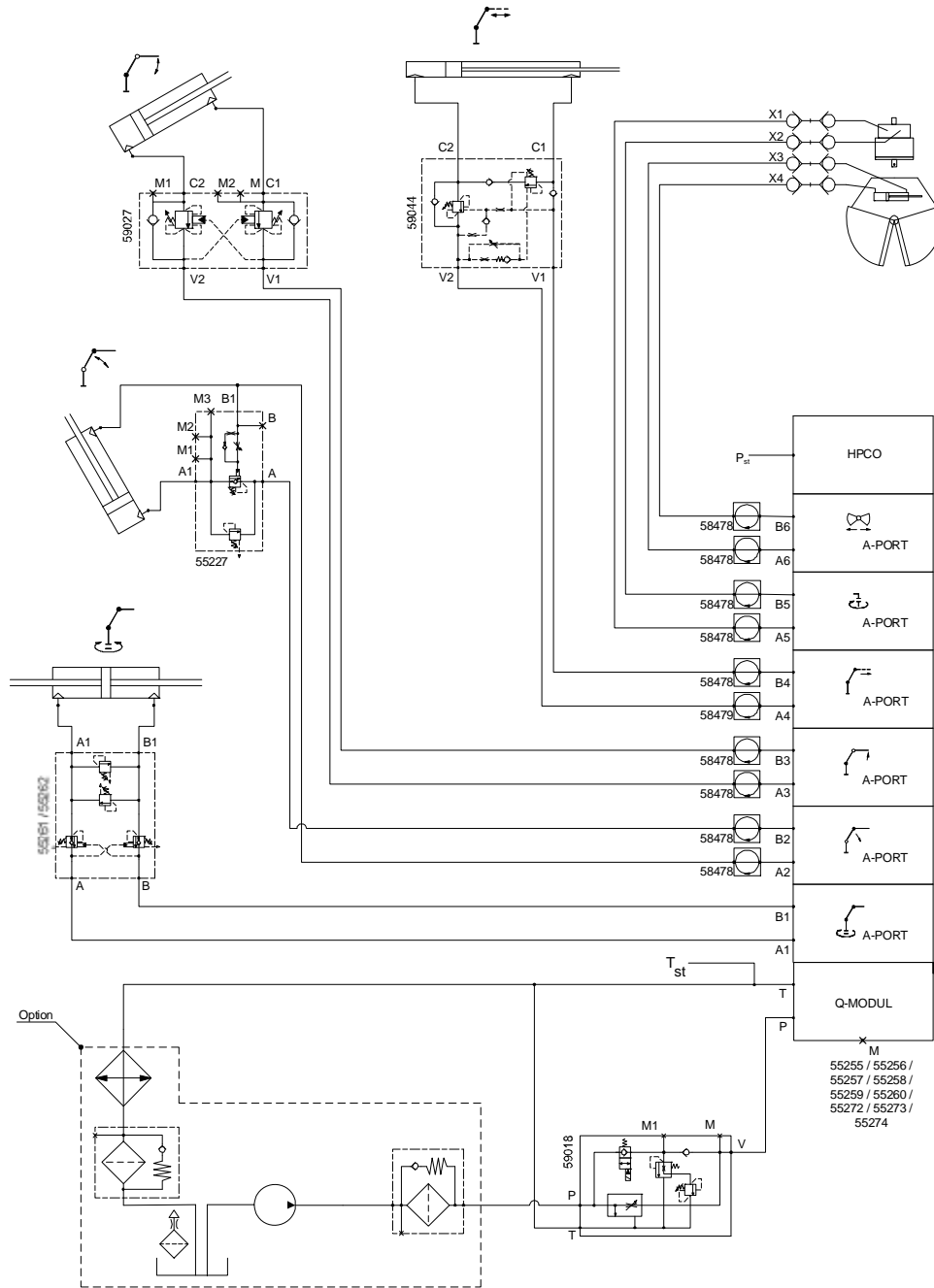
Hydraulic Diagram - 17/117DL Danfoss 7-Function Radio

This diagram applies to a 17/117DL crane with a single-circuit fixed pump, and 7-function Danfoss radio controls.



Hydraulic Diagram - 17/117DL Hydrocontrol 6-Function Manual

This diagram applies to a 17/117DL crane with a single-circuit fixed pump, and 6-function Hydrocontrol manual controls.



Hydraulic Diagram - 17/117DL Hydrocontrol 6-Function Radio

This diagram applies to a 17/117DL crane with a single-circuit fixed pump, and 6-function Hydrocontrol radio controls.

