
Manual # 99904612

17/117SL Technical Specifications

Revision Date 20120910



IOWA MOLD TOOLING CO., INC.

PO Box 189

Garner, IA 50438

Tel: 641-923-3711 FAX: 641-923-2424

Website: <http://www.imt.com>

Copyright © 2012 Iowa Mold Tooling Co., Inc.
All rights reserved

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior written permission of Iowa Mold Tooling Co., Inc.

Iowa Mold Tooling Co., Inc. is an Oshkosh Corporation company.

Contents

Revisions	ii
Technical Data and Charts	3
17/117SL Technical Specifications	4
17/117SL Pressure Settings	5
17/117SL Pressure Settings with Remote Control.....	6
Winch Technical Data	7
17/117SL Lifting Capacities.....	8
17/117SL K1 Capacity Chart.....	9
17/117SL K2 Capacity Chart.....	10
17/117SL K3 Capacity Chart.....	11
17/117SL K4 Capacity Chart.....	12
17/117SL K5 Capacity Chart.....	13
17/117SL K6 Capacity Chart.....	14
Geometric Configuration	15
Stabilizer Dimensions, Fixed Legs	16
Stabilizer Dimensions, Manual Swing-Up Legs.....	17
Stabilizer Dimensions, Hyd Swing-Up Legs	18
Stowed Dimensions	19
Mounting Dimensions.....	20
17/117SL Swing Clearance	21
Hydraulic Schematics	23
Hydraulic Diagram - 17/117SL Danfoss 6-Function Radio.....	24
Hydraulic Diagram - 17/117SL Danfoss 7-Function Radio.....	25
Hydraulic Diagram - 17/117SL Hydrocontrol 6-Function Manual.....	26
Hydraulic Diagram - 17/117SL Hydrocontrol 6-Function Radio	27

Revisions

DATE	LOCATION	DESCRIPTION
20090813		Added swing clearance drawing.
20100118	Geometric Configuration	Added stabilizer height, extension distance, stabilizer drawings.
20111214	Specs, stabilizer drawings.	ECN 11628 - Updated stabilizer wording.
20120502	Specifications	Updated crane weight to include mounting kit and tank.
20120910	Drawings	Added manual swing-up stabilizers, stowed dimensions, and winch settings drawings.

CHAPTER 1

Technical Data and Charts

In This Chapter

17/117SL Technical Specifications	3
17/117SL Pressure Settings.....	5
17/117SL Pressure Settings with Remote Control	5
Winch Technical Data	7
17/117SL Lifting Capacities.....	8
17/117SL K1 Capacity Chart.....	9
17/117SL K2 Capacity Chart.....	10
17/117SL K3 Capacity Chart.....	11
17/117SL K4 Capacity Chart.....	12
17/117SL K5 Capacity Chart.....	13
17/117SL K6 Capacity Chart.....	14
Geometric Configuration	15
Stabilizer Dimensions, Fixed Legs	16
Stabilizer Dimensions, Manual Swing-Up Legs.....	17
Stabilizer Dimensions, Hyd Swing-Up Legs	18
Stowed Dimensions.....	19
Mounting Dimensions.....	20
17/117SL Swing Clearance.....	21

17/117SL Technical Specifications

17/117SL	1-HYDRAULIC	2-HYDRAULIC	3-HYDRAULIC	4-HYDRAULIC	5-HYDRAULIC	6-HYDRAULIC
Crane Rating*	116,450 ft lb (16.1 tm)	112,835 ft lb (15.6 tm)	109,940 ft lb (15.2 tm)	107,050 ft lb (14.8 tm)	104,155 ft lb (14.4 tm)	101,985 ft lb (14.1 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	12,785 lb (5,800 kg)	12,565 lb (5,700 kg)	12,125 lb (5,500 kg)	11,465 lb (5,200 kg)	11,245 lb (5,100 kg)	11,245 lb (5,100 kg)
Max Cap @ Max Reach	5,710 lb (2,590 kg)	4,080 lb (1,850 kg)	3,000 lb (1,360 kg)	2,225 lb (1,010 kg)	1,675 lb (760 kg)	1,280 lb (580 kg)
Crane Weight **	3,240 lb (1,470 kg)	3,550 lb (1,610 kg)	3,860 lb (1,750 kg)	4,155 lb (1,885 kg)	4,420 lb (2,005 kg)	4,630 lb (2,100 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' 5" (730 mm)	2' 6" (755 mm)	2' 7" (780 mm)	2' 8" (805 mm)	2' 8" (825 mm)	2' 9" (840 mm)
Horizontal (C/L RotTo Bridge)	14.0" (355 mm)	13.8" (350 mm)	13.2" (335 mm)	12.6" (320 mm)	12.0" (305 mm)	11.4" (290 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.

17/117SL SPECIFICATIONS	
Stabilizer Pad Diameter	6" (160 mm)
Crane Storage Height	7' 4" (2,245 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" (2390 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)

17/117SL 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)

17/117SL 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)

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)

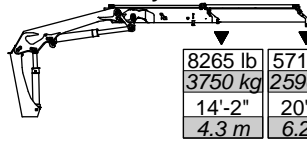
PRESSURE SETTING FOR LOAD-MOMENT LIMITATION (LMB)	
Load moment limitation (LMB)	4570 psi (315 bar)
HDL	4135 psi (285 bar)
MAXIMUM PUMP PERFORMANCE	
Pump performance	18.5 gal/min (70 l/min)

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)

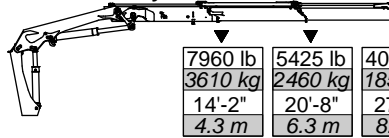
17/117SL Lifting Capacities

17/117SL - 1 Hydraulic



8265 lb	5710 lb
3750 kg	2590 kg
14'-2"	20'-4"
4.3 m	6.2 m

17/117SL - 2 Hydraulic



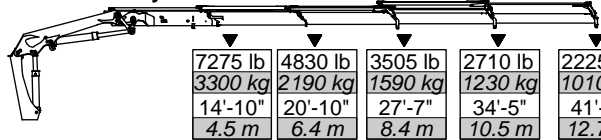
7960 lb	5425 lb	4080 lb
3610 kg	2460 kg	1850 kg
14'-2"	20'-8"	27'-3"
4.3 m	6.3 m	8.3 m

17/117SL - 3 Hydraulic



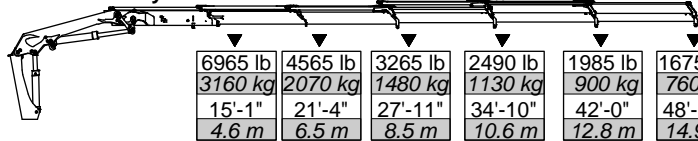
7605 lb	5115 lb	3790 lb	3000 lb
3450 kg	2320 kg	1720 kg	1360 kg
14'-6"	20'-8"	27'-3"	34'-1"
4.4 m	6.3 m	8.3 m	10.4 m

17/117SL - 4 Hydraulic



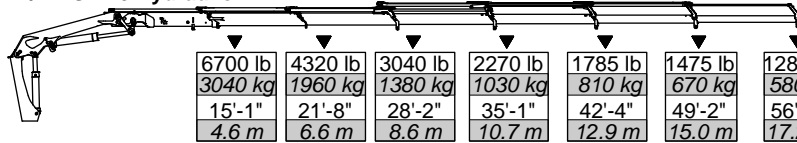
7275 lb	4830 lb	3505 lb	2710 lb	2225 lb
3300 kg	2190 kg	1590 kg	1230 kg	1010 kg
14'-10"	20'-10"	27'-7"	34'-5"	41'-8"
4.5 m	6.4 m	8.4 m	10.5 m	12.7 m

17/117SL - 5 Hydraulic



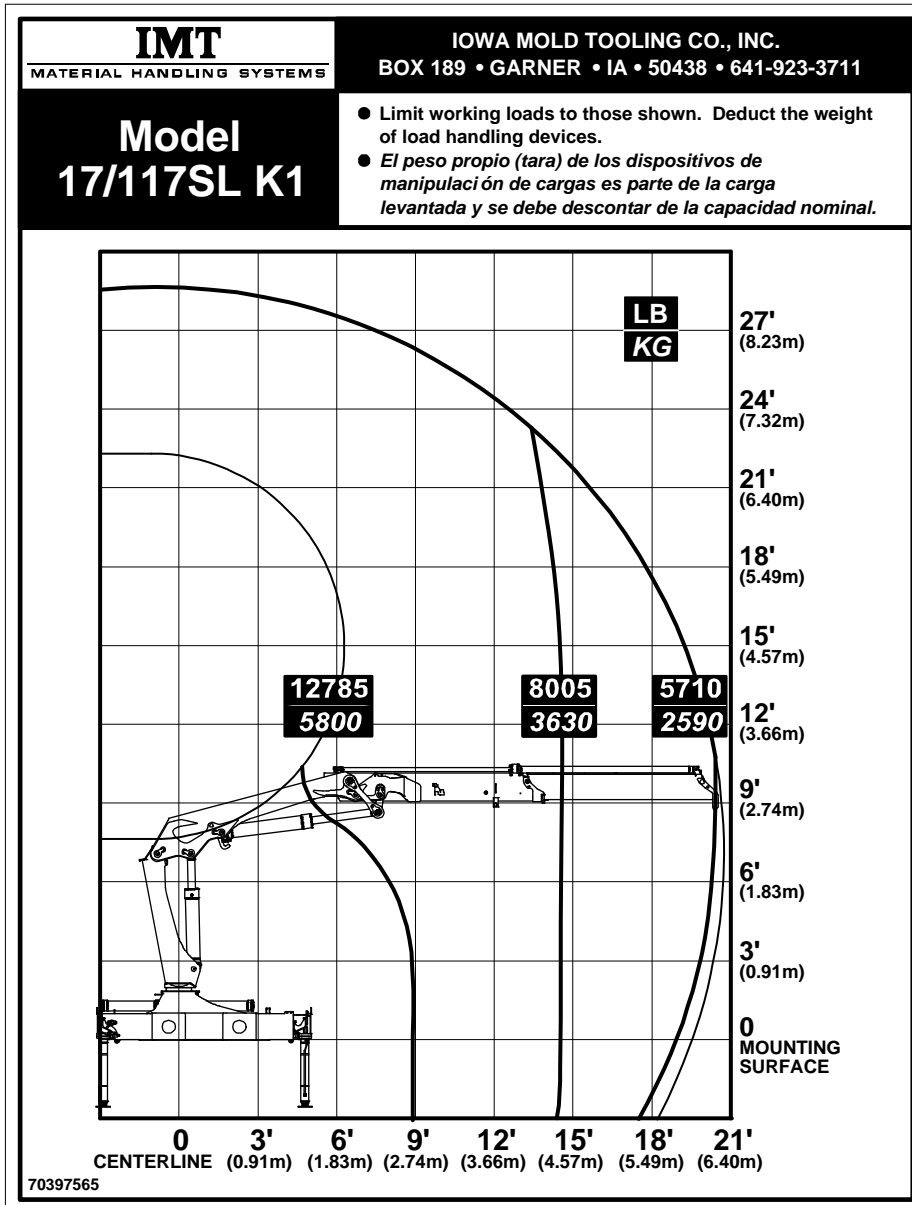
6965 lb	4565 lb	3265 lb	2490 lb	1985 lb	1675 lb
3160 kg	2070 kg	1480 kg	1130 kg	900 kg	760 kg
15'-1"	21'-4"	27'-11"	34'-10"	42'-0"	48'-11"
4.6 m	6.5 m	8.5 m	10.6 m	12.8 m	14.9 m

17/117SL - 6 Hydraulic

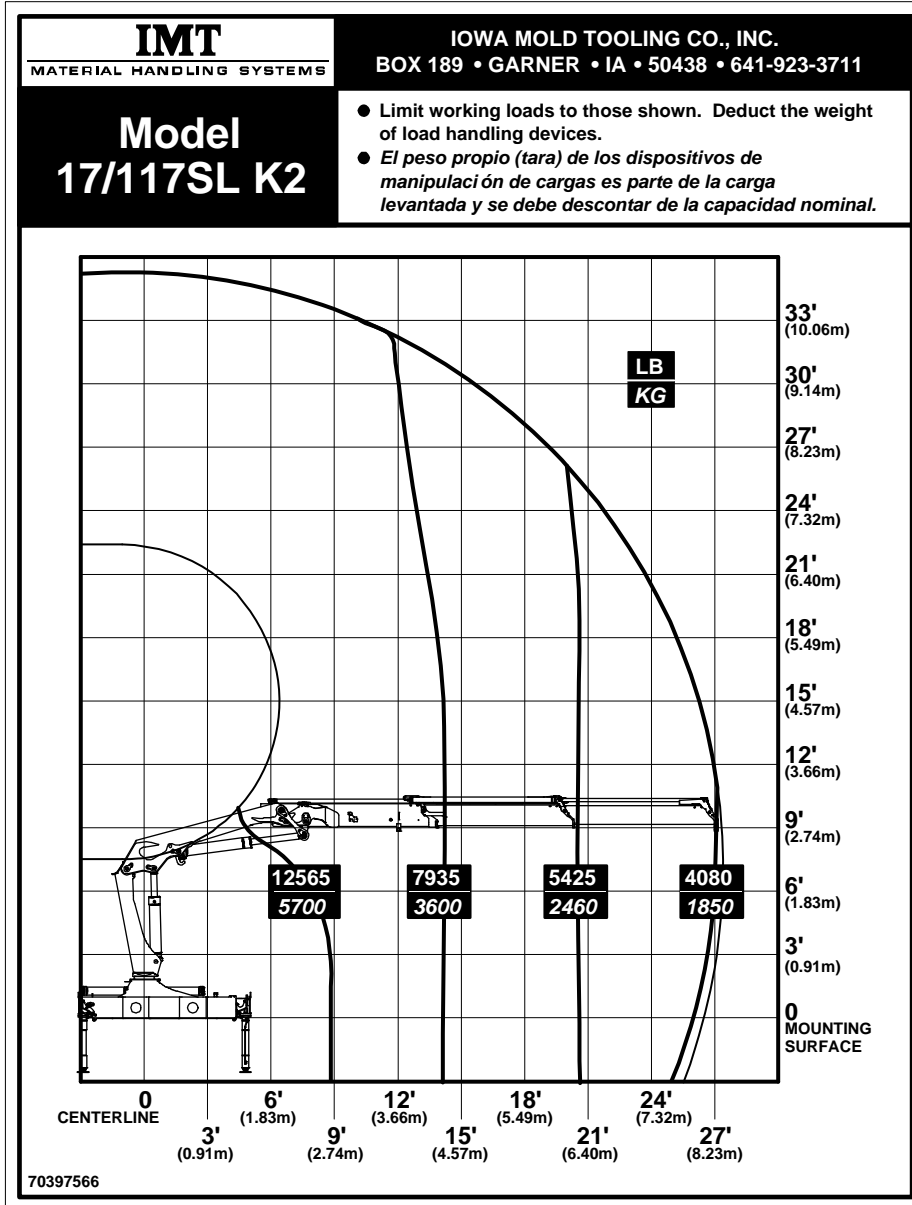


6700 lb	4320 lb	3040 lb	2270 lb	1785 lb	1475 lb	1280 lb
3040 kg	1960 kg	1380 kg	1030 kg	810 kg	670 kg	580 kg
15'-1"	21'-8"	28'-2"	35'-1"	42'-4"	49'-2"	56'-5"
4.6 m	6.6 m	8.6 m	10.7 m	12.9 m	15.0 m	17.2 m

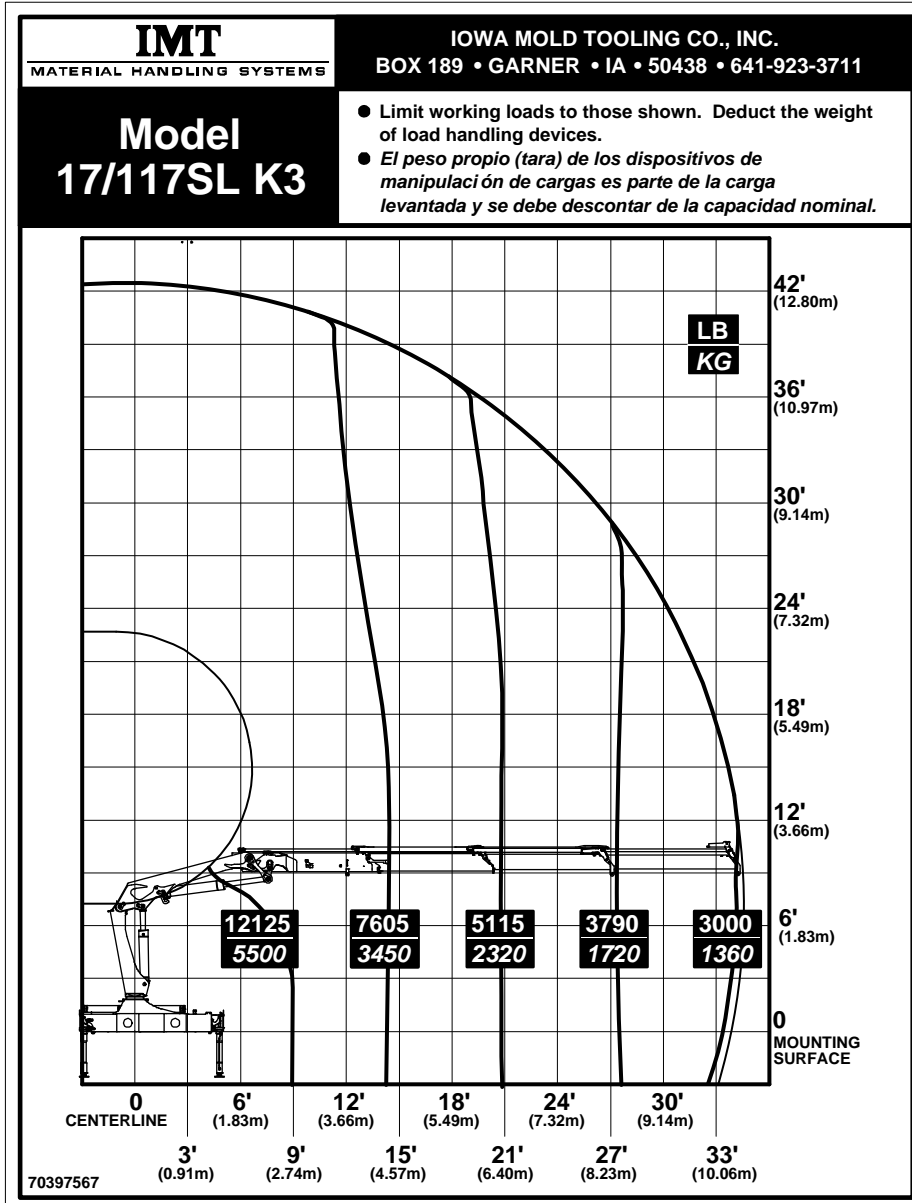
17/117SL K1 Capacity Chart



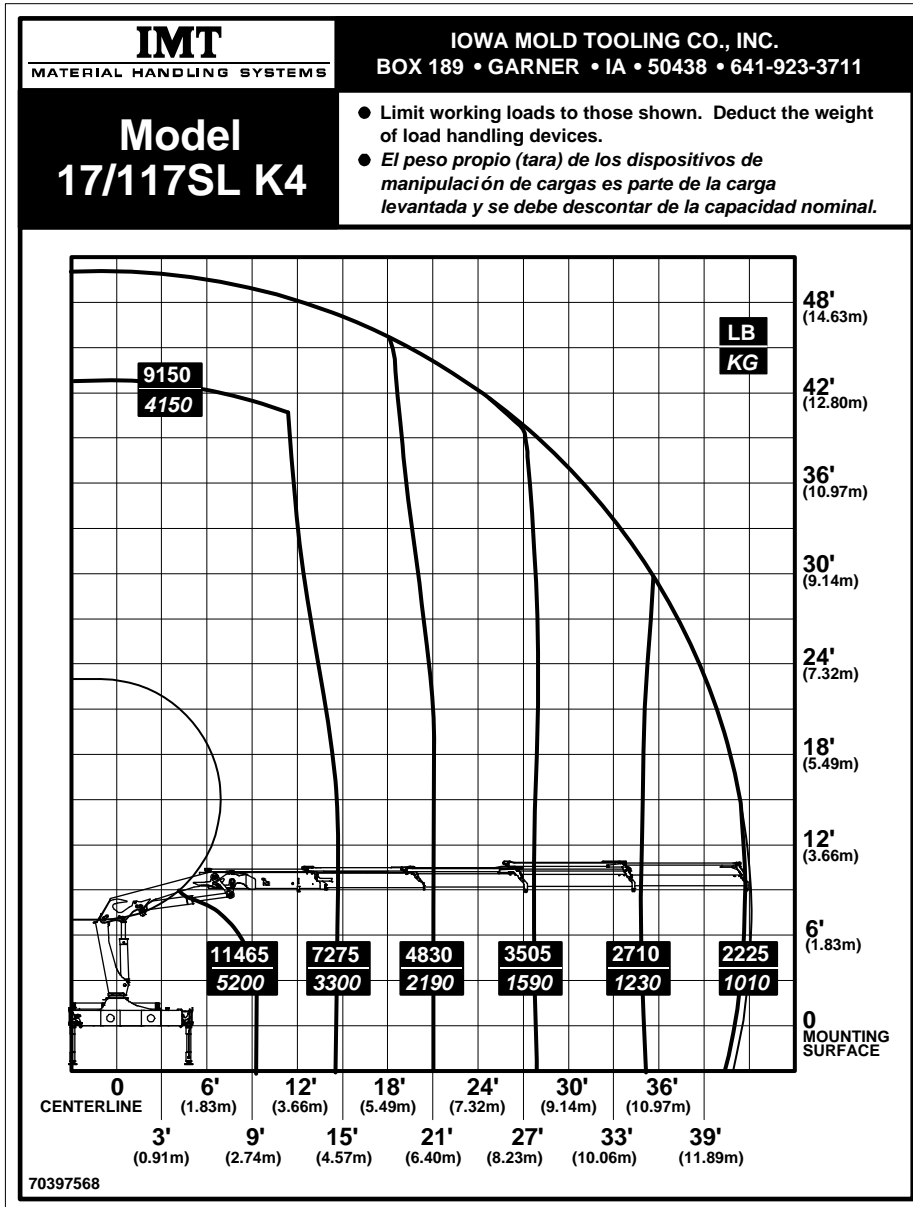
17/117SL K2 Capacity Chart



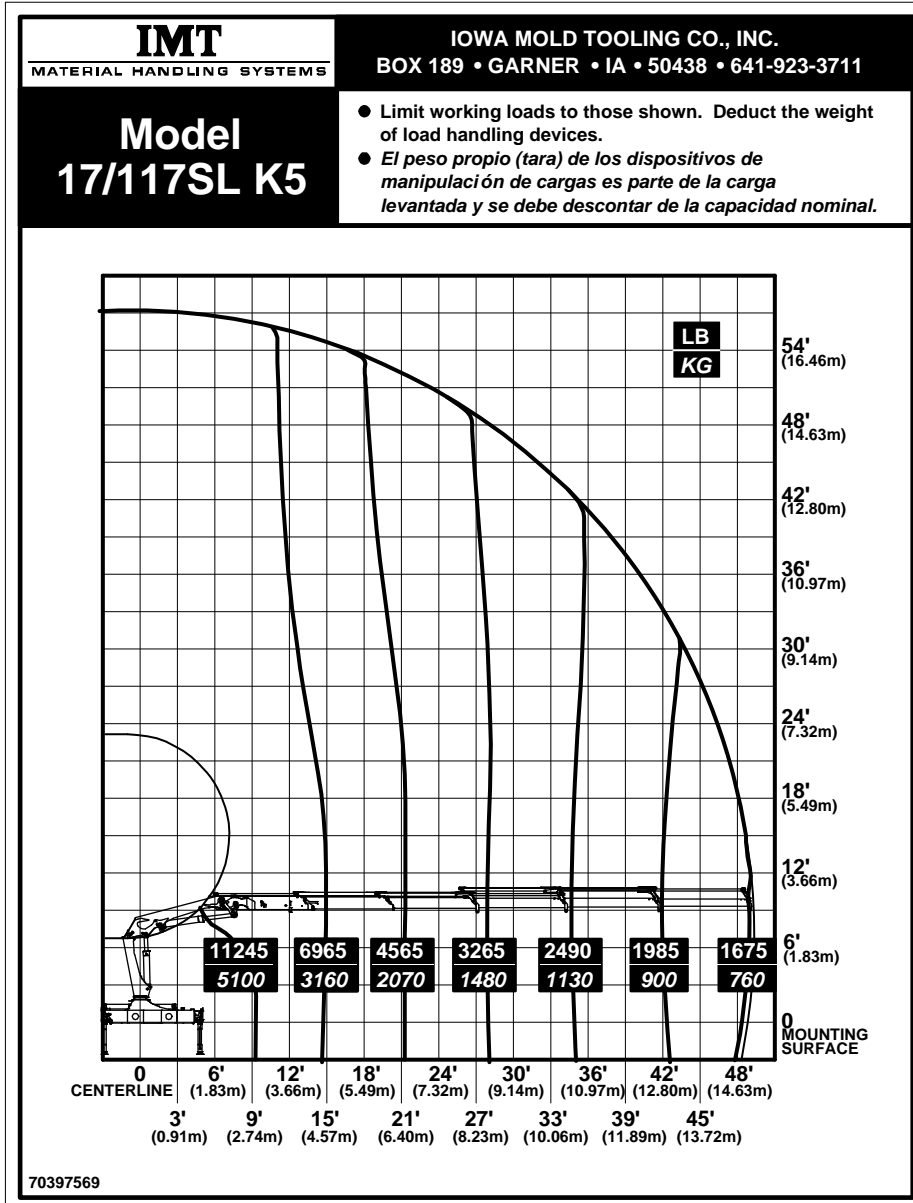
17/117SL K3 Capacity Chart



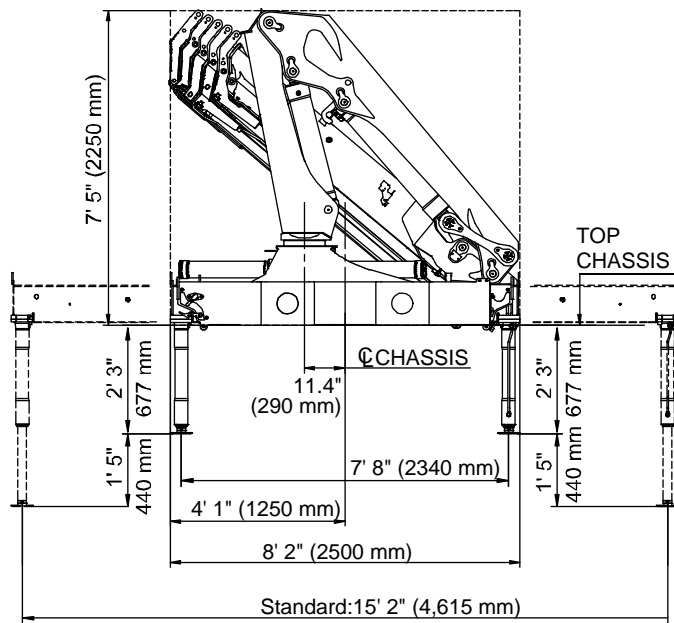
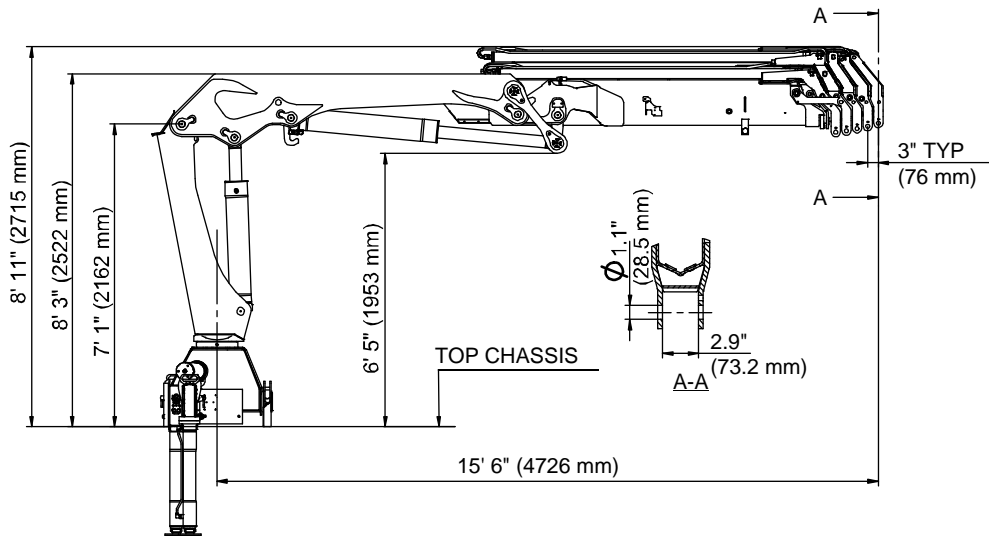
17/117SL K4 Capacity Chart



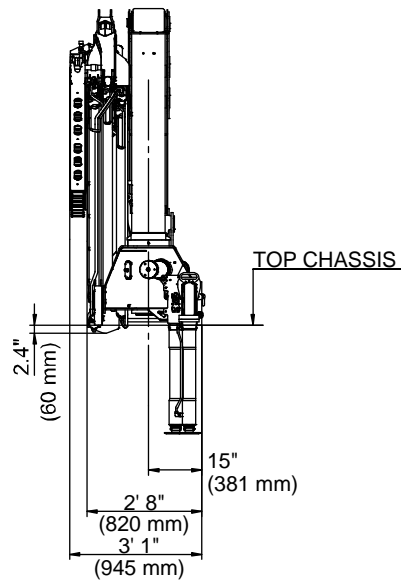
17/117SL K5 Capacity Chart



Geometric Configuration

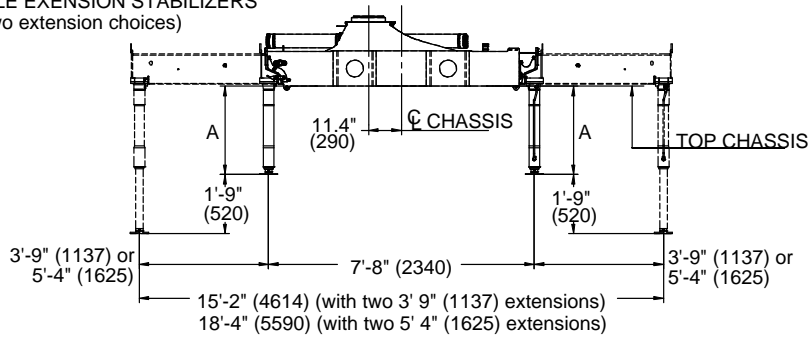


- Standard: 15' 2" (4,615 mm)
- Option 1: 18' 4" (5,590 mm)
- Option 2: 21' 3" (6,470 mm)

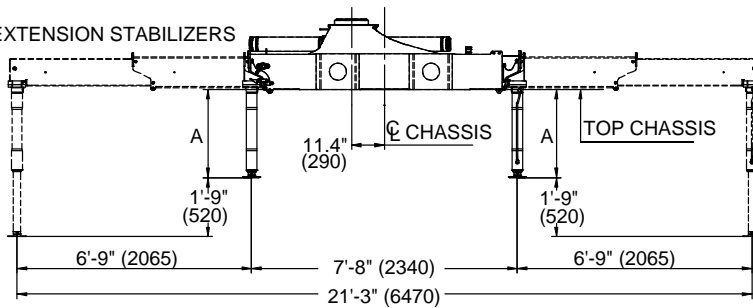


Stabilizer Dimensions, Fixed Legs




SINGLE EXTENSION STABILIZERS (Two extension choices)



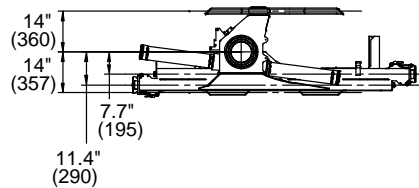
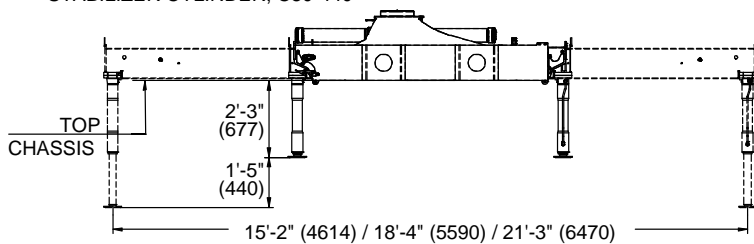
DOUBLE EXTENSION STABILIZERS



STABILIZER LEG EXTENSIONS

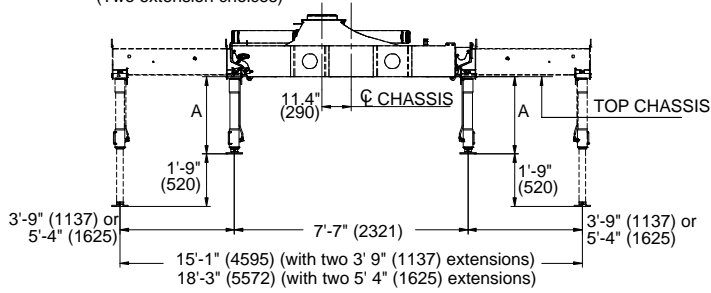
			
	2'-6" (777)	2'-11" (877)	3'-2" (977)
A			

STABILIZER CYLINDER, C80-440

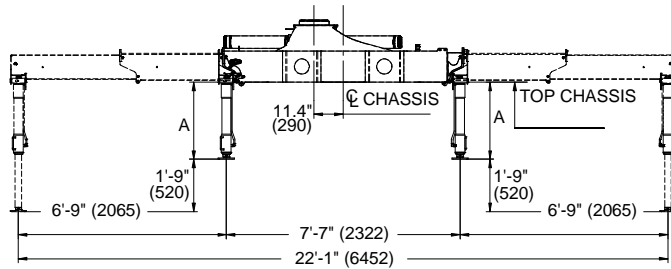


Stabilizer Dimensions, Manual Swing-Up Legs




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



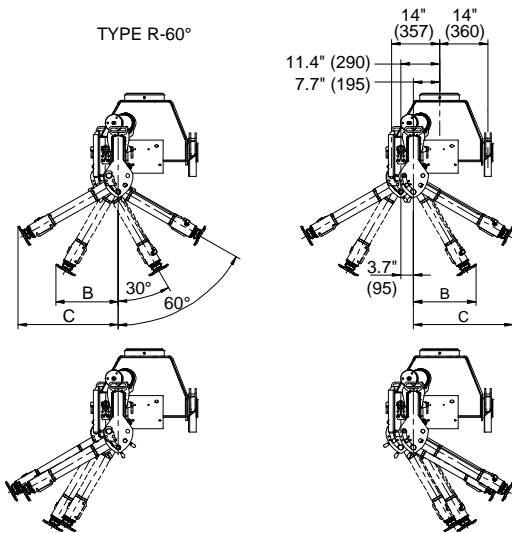
DOUBLE EXTENSION STABILIZERS WITH MANUAL SWING-UP LEGS






STABILIZER LEG EXTENSIONS

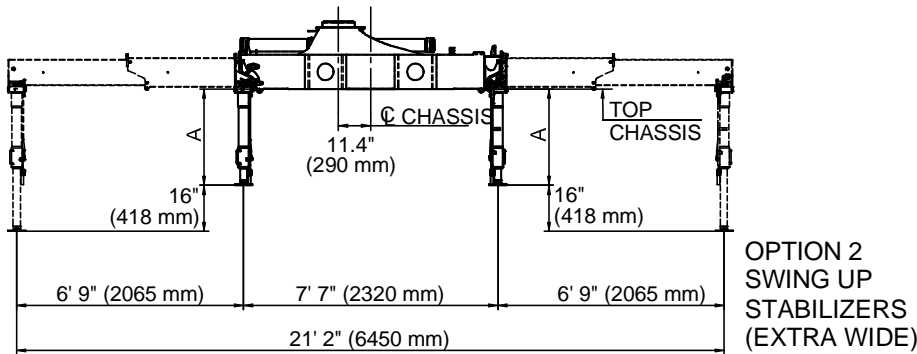
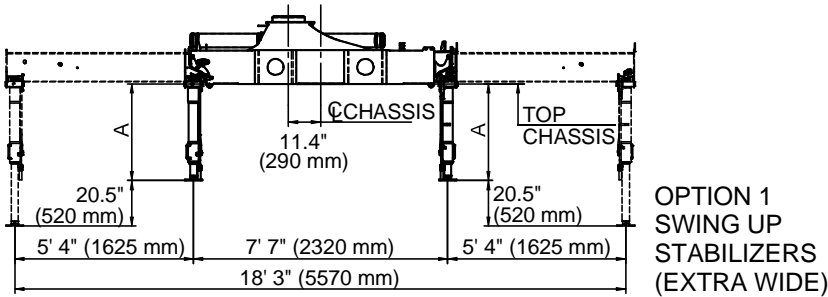
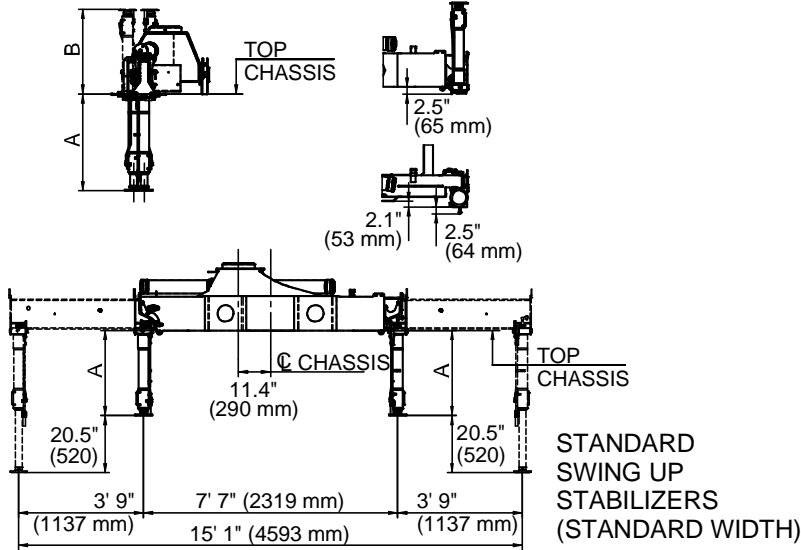
			
A	2'-6"	2'-10"	3'-2"
Type R-60°	(771)	(871)	(971)

TYPE R-60°



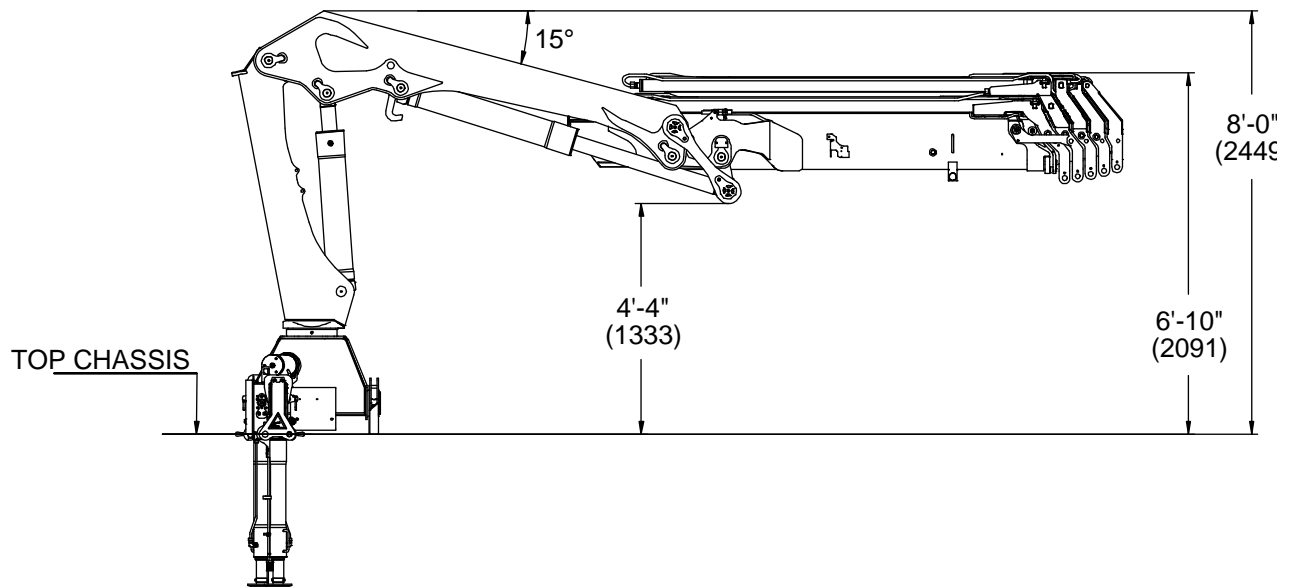
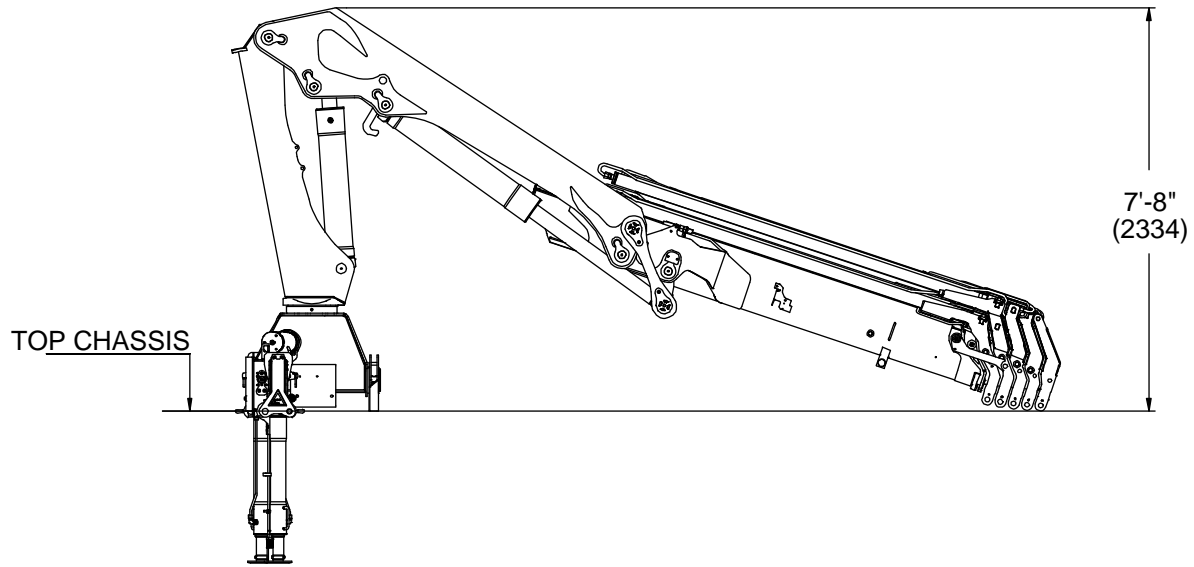
			
B	18.3"	20.3"	21.9"
	(465)	(515)	(565)
C	29.3"	32.7"	36.1"
	(744)	(831)	(918)

Stabilizer Dimensions, Hyd Swing-Up Legs



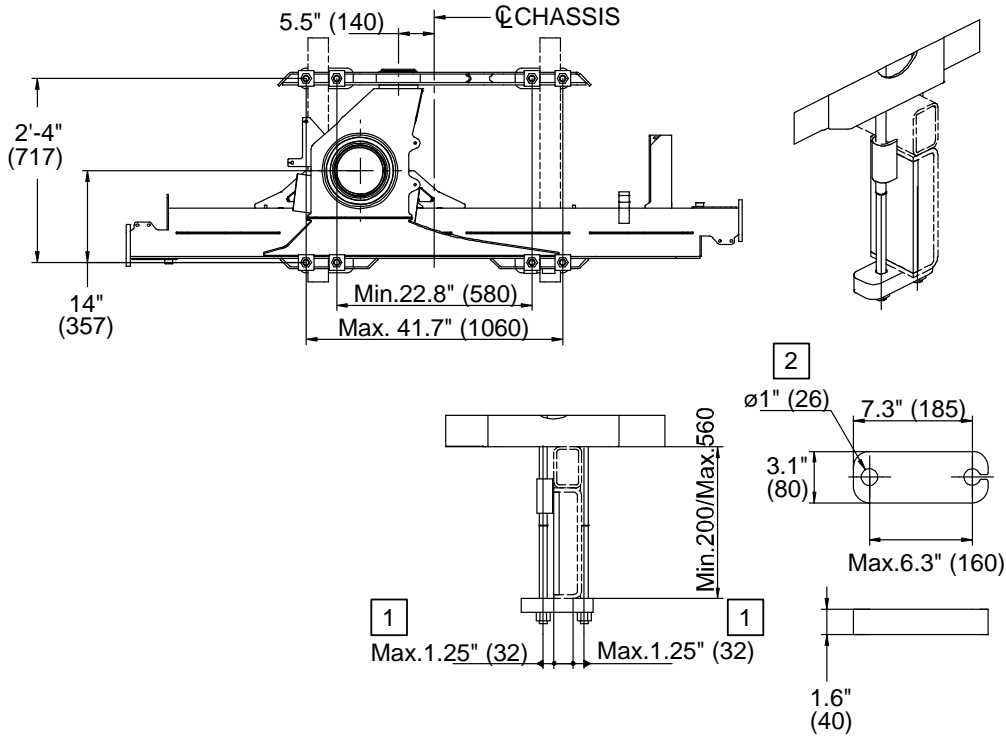
A	35" (881 mm)	39" (981 mm)	42.5" (1081 mm)
B	30.5" (775 mm)	34.4" (875 mm)	38.4" (975 mm)

Stowed Dimensions

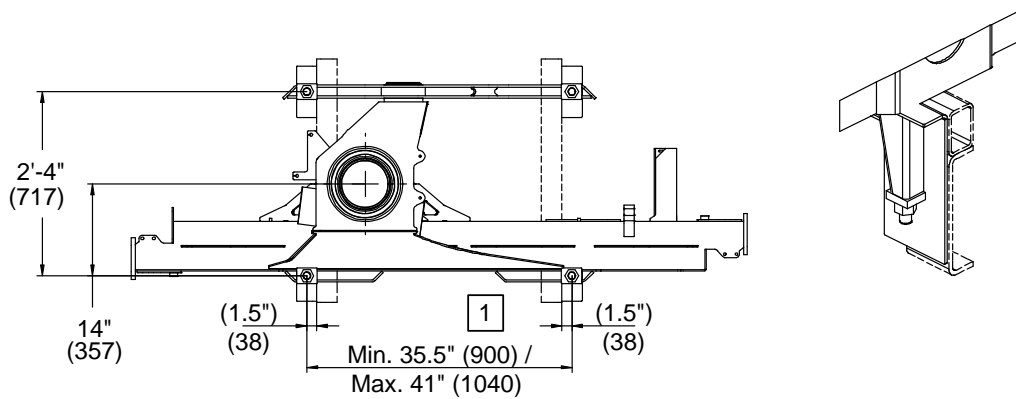


Mounting Dimensions

MOUNTING KIT 8 x M24x2 BOLTS



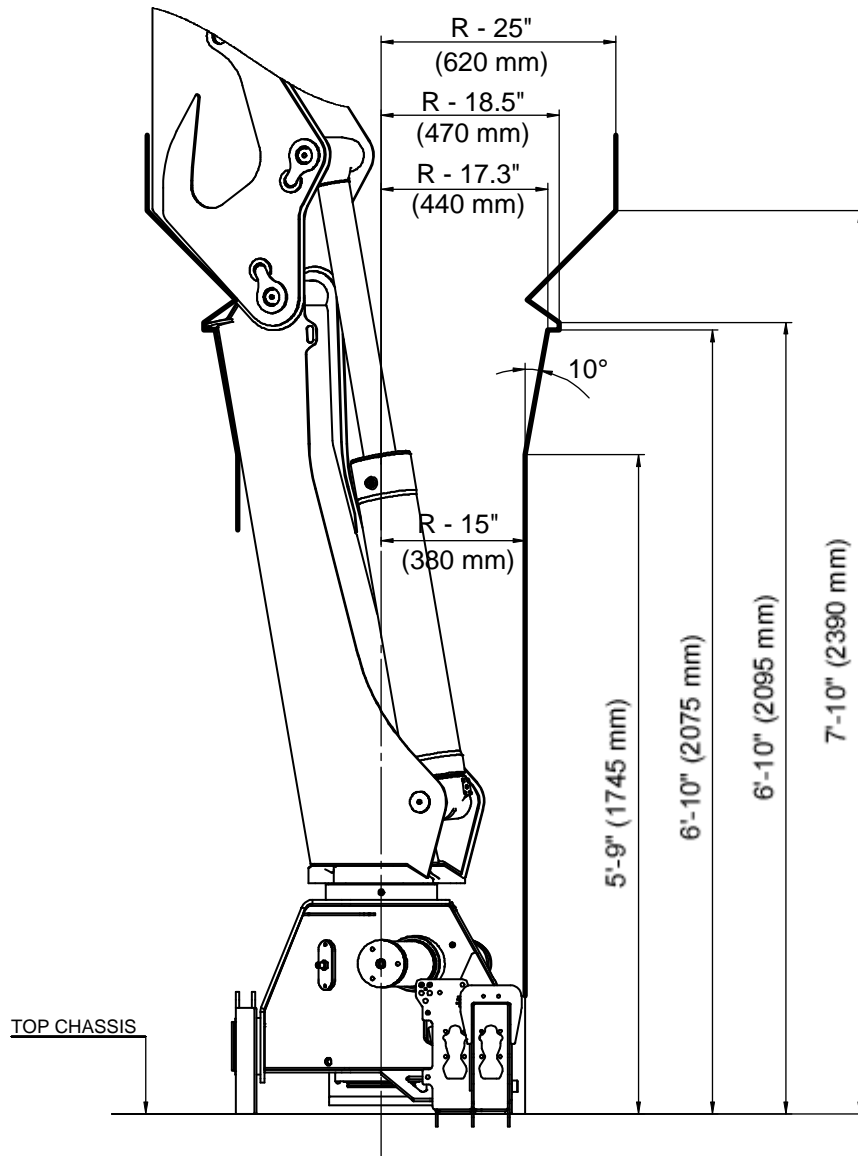
MOUNTING KIT 4 x M30x2 BOLTS



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.

17/117SL Swing Clearance



CHAPTER 2

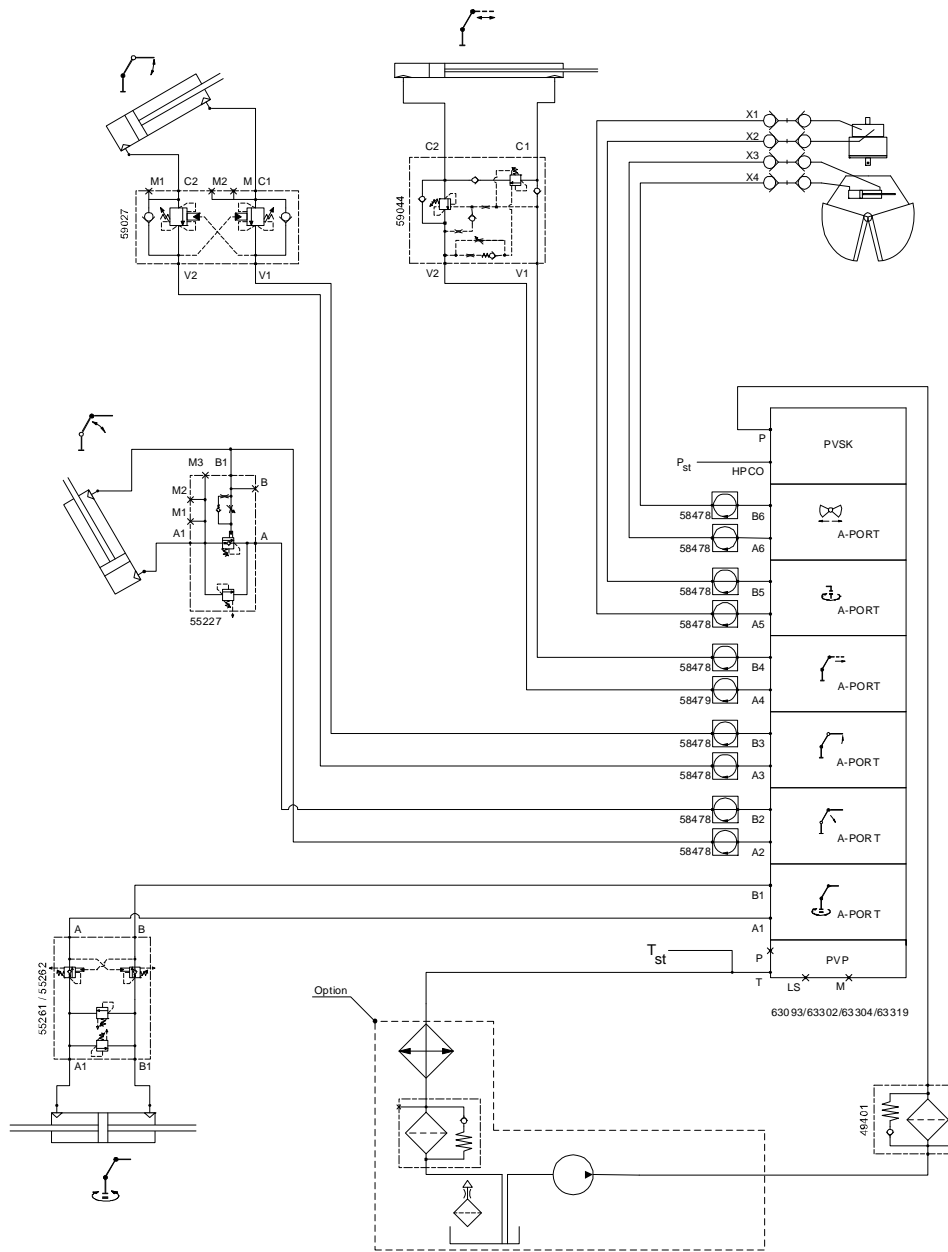
Hydraulic Schematics

In This Chapter

Hydraulic Diagram - 17/117SL Danfoss 6-Function Radio.....	24
Hydraulic Diagram - 17/117SL Danfoss 7-Function Radio.....	25
Hydraulic Diagram - 17/117SL Hydrocontrol 6-Function Manual	26
Hydraulic Diagram - 17/117SL Hydrocontrol 6-Function Radio	27

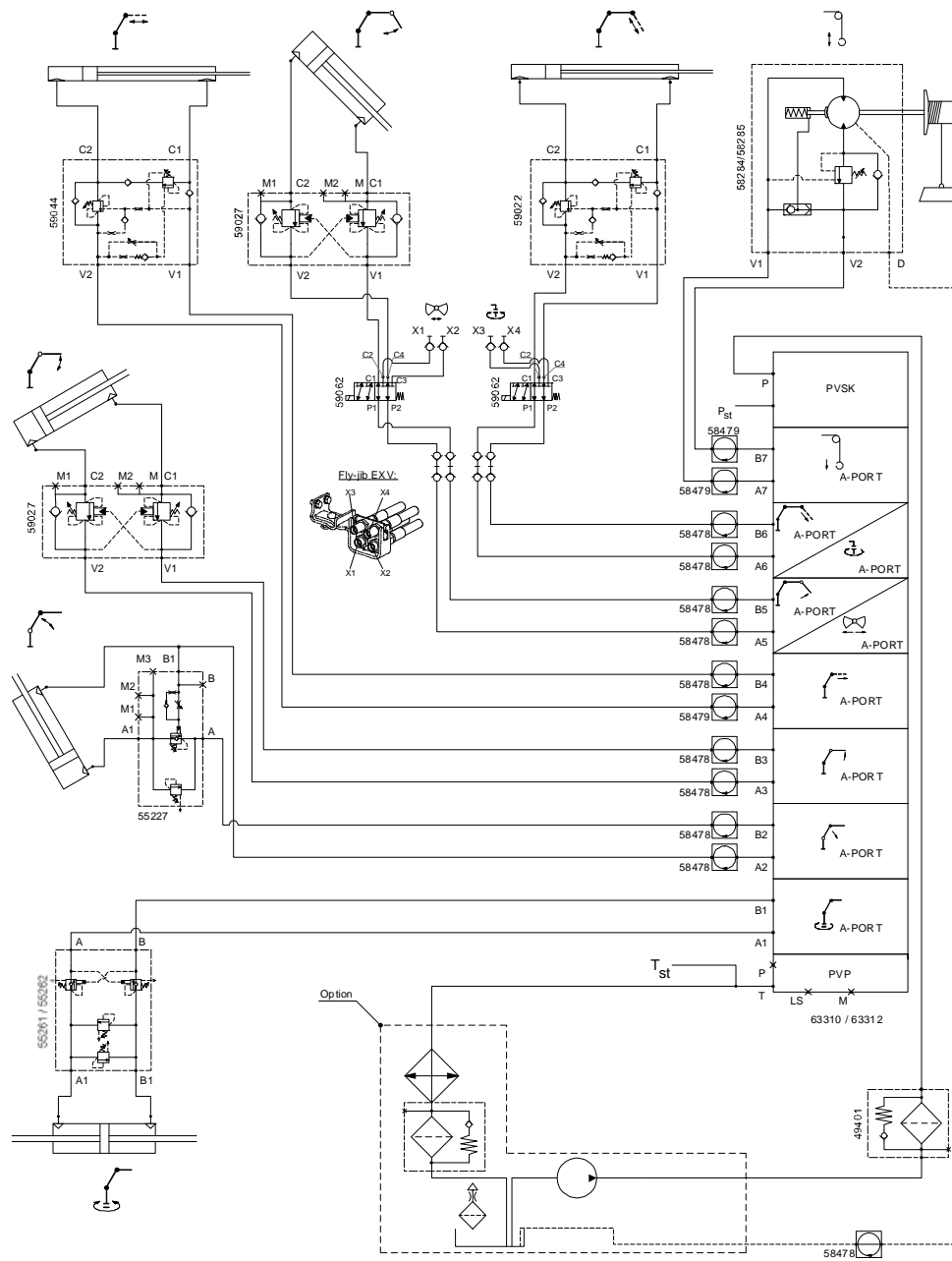
Hydraulic Diagram - 17/117SL Danfoss 6-Function Radio

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



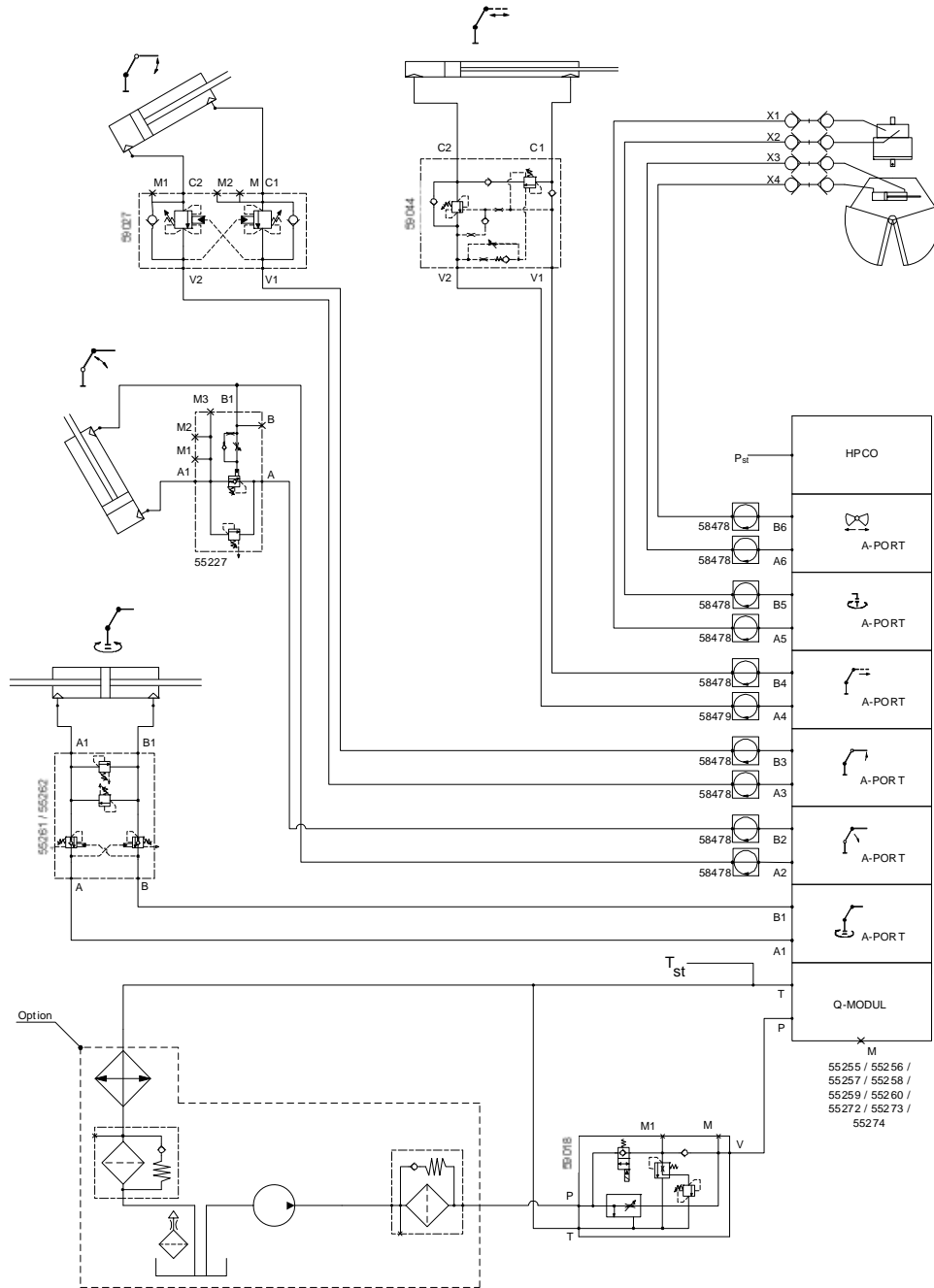
Hydraulic Diagram - 17/117SL Danfoss 7-Function Radio

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



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

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



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

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

