



Manual # 99905499

50/345 Technical Specifications

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CHAPTER 1

Technical Data and Charts

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50/345 Technical Specifications

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Crane Rating*	345,015 ft lb (47.7 tm)	334,165 ft lb (46.2 tm)	331,995 ft lb (45.9 tm)	323,315 ft lb (44.7 tm)	315,360 ft lb (43.6 tm)	313,910 ft lb (43.4 tm)	306,680 ft lb (42.4 tm)
Maximum Horizontal Reach	26' 11" (8.2 m)	33' 6" (10.2 m)	40' 4" (12.3 m)	47' 3" (14.4 m)	54' 9" (16.7 m)	62' 4" (19.0 m)	70' 3" (21.4 m)
Maximum Vertical Reach	35' 4" (10.8 m)	42'-4" (12.9 m)	49' (14.9 m)	56' 3" (17.2 m)	63' 2" (19.3 m)	71' 2" (21.7 m)	78'-11" (24.1 m)
Maximum Capacity	22,840 lb (10360 kg)	22,155 lb (10050 kg)	21,540 lb (9770 kg)	20,965 lb (9510 kg)	20,435 lb (9270 kg)	19,930 lb (9040 kg)	19,490 lb (8840 kg)
Max Cap @ Max Reach	12,675 lb (5750 kg)	9680 lb (4390 kg)	7585 lb (3440 kg)	5975 lb (2710 kg)	4740 lb (2150 kg)	3815 lb (1730 kg)	3085 lb (1400 kg)
Crane Weight **	8180 lb (3710 kg)	8820 lb (4000 kg)	9415 lb (4270 kg)	9965 lb (4520 kg)	10,405 lb (4720 kg)	10,805 lb (4900 kg)	11,190 lb (5075 kg)
Hook Approach							
Vertical	9' 5" (2.88 m)	9' 1" (2.78 m)	8' 11" (2.73 m)	8' 9" (2.67 m)	8' 7" (2.62 m)	8' 5" (2.56 m)	8' 3" (2.51 m)
Horizontal	3' 11" (1.19 m)	4' 1" (1.24 m)	4' 3" (1.29 m)	4' 5" (1.35 m)	4' 7" (1.40 m)	4' 9" (1.45 m)	4' 11" (1.5 m)
Center of Gravity - Stored							
Vertical	3' 1" (937 mm)	3' 1" (947 mm)	3' 2" (958 mm)	3' 2" (966 mm)	3' 2" (974 mm)	3' 3" (985 mm)	3' 3" (995 mm)
Horizontal (C/L RotTo Bridge)	14.5" (368 mm)	14.5" (368 mm)	14.3" (362 mm)	14.1" (357 mm)	13.9" (353 mm)	13.7" (347 mm)	13.5" (344 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 & 8-bolt long mounting kit. Does not include stabilizers, tank, or oil.



50/345 Specifications	
Stabilizer Pad Diameter	8" (200 mm)
Crane Storage Height	7' 10" (2398 mm)
Mounting Space ***	3' 11" (1198 mm)
Rotational Torque	36,880 ft lb (50 kNm)
Rotation	Infinite
Optimum Pump Performance	21.1 gpm (80 L/min)
System Pressure	5295 psi (365 Bar)
Stabilizer Extension Span	
Minimum (2 beams - 64" (1625 mm) long)	18' 3" (5550 mm)
Maximum (2 beams - 108" (2735 mm) long)	25' 6" (7770 mm)
Stabilizer Weights	
Stabilizer Beam 64" (1625 mm)	410 lb (185 kg)
Stabilizer Beam 81" (2065 mm)	630 lb (285 kg)
Stabilizer Beam 108" (2735 mm)	685 lb (310 kg)
Stabilizer Cylinder, 1x swing-up	145 lb (65 kg)
Stabilizer Cylinder, 1x hydr swing-up	160 lb (72 kg)
*** Maximum swing clearance radius required is 31" (795 mm) at 8' 7" (2617 mm) from top of chassis frame.	
Minimum Chassis Specifications	
Front Axle Rating (GAWR)	20,000 lb (9070 kg)
Rear Axle Rating (GAWR)	46,000 lb (20,865 kg)
Resistance To Bending Moment	5,175,000 in-lb (596,224 kg-m)

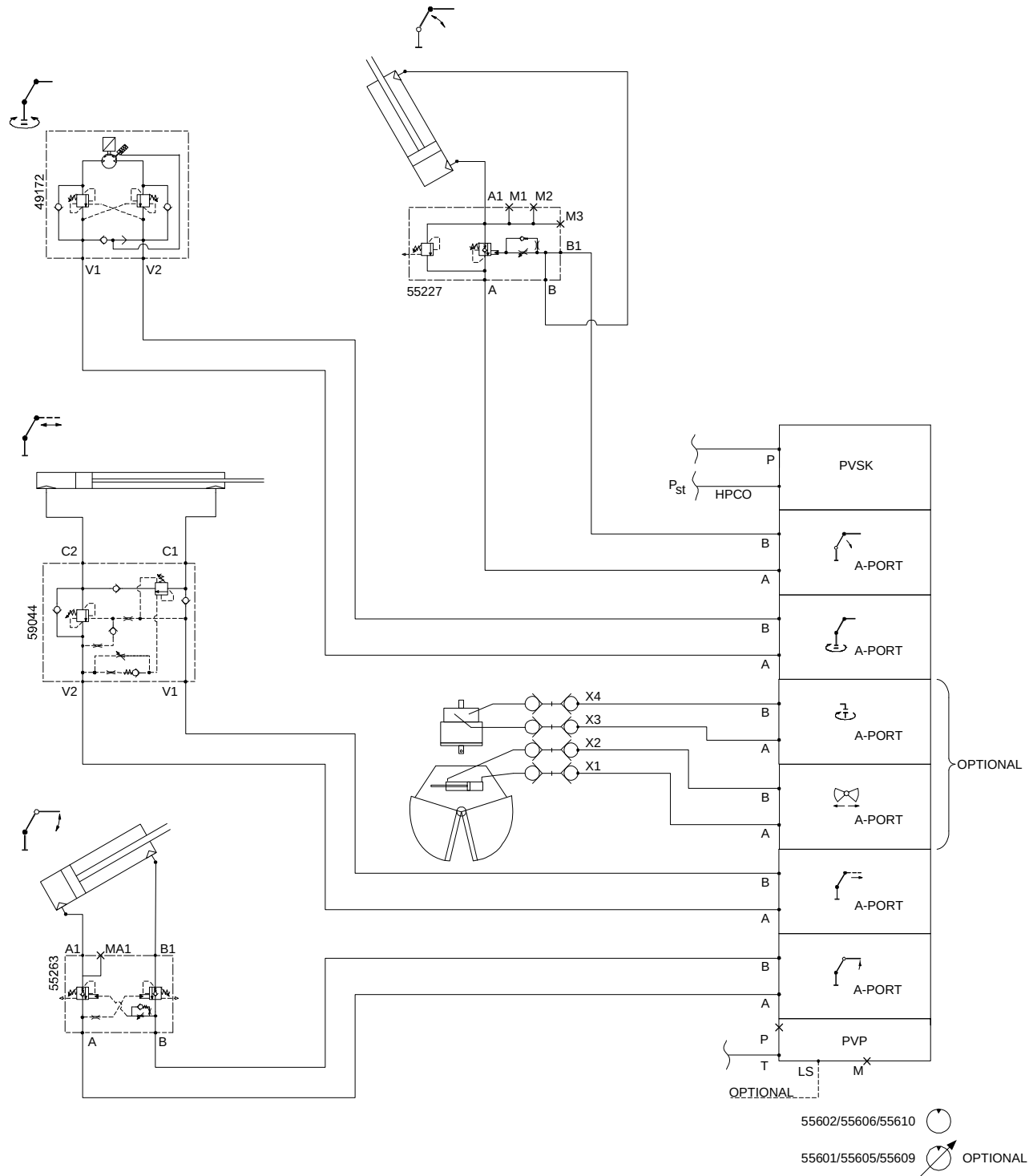


50/345 Pressure Settings

WORKING PRESSURE ON MAIN-RELIEF VALVE & PORT RELIEF VALVES				
Main-relief valve				5655 psi (390 bar)
FUNCTION	DIRECTION	PORT	PORT-RELIEF VALVES	LS-PRESSURE ADJUSTMENT
Slewing system	Right	A	P	2175 psi (150 bar)
	Left	B	P	2175 psi (150 bar)
Boom cylinder	Up	A	5510 psi (380 bar)	5295 psi (365 bar)
	Down	B	1815 psi (125 bar)	1450 psi (100 bar)
Jib cylinder	Up	A	5510 psi (380 bar)	5295 psi (365 bar)
	Down	B	2900 psi (200 bar)	2540 psi (175 bar)
Extension cylinders	Extend	A	P	4350 psi (300 bar)
	Retract	B	P	4350 psi (300 bar)
Rotator	Right	A	P	725-4350 psi (50-300 bar)
	Left	B	P	725-4350 psi (50-300 bar)
Grab	Open	A	4350 psi (300 bar)	725-4350 psi (50-300 bar)
	Close	B	4350 psi (300 bar)	725-4350 psi (50-300 bar)
Winch 3.2T	Lift	A	P	3045 psi (210 bar)
	Lower	B	P	3045 psi (210 bar)
Winch 2.5T	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	Port	Opening Pressure	
Slewing system	Right		2320 psi (160 bar)	
	Left		2320 psi (160 bar)	
Boom cylinder	Up		5510 psi (380 bar)	
	Down		-	
Jib cylinder	Up		5510 psi (380 bar)	
	Down		3045 psi (210 bar)	
Extension cylinders	Retract		6235 psi (430 bar)	
	Extend		3045 psi (210 bar)	
PRESSURE SETTING FOR LOAD MOMENT LIMITATION (LMB)				
Load moment limitation (LMB)			5075 psi (350 bar)	
HDL			4060 psi (280 bar)	
MAXIMUM PUMP PERFORMANCE				
Pump performance (1 x fixed)			21.1 gpm (80 l/min)	



Hydraulic Diagram





CHAPTER 2

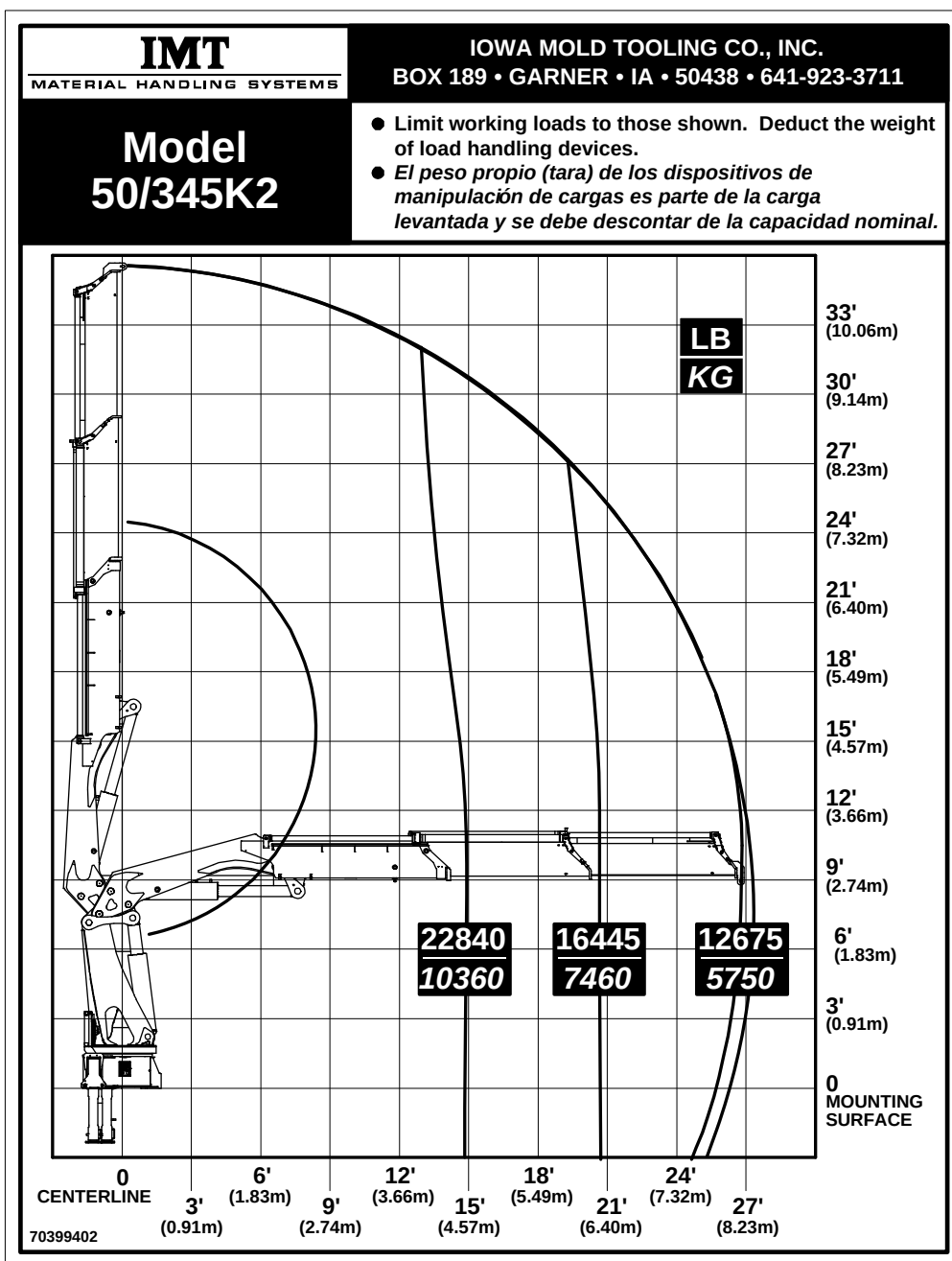
Capacity Charts

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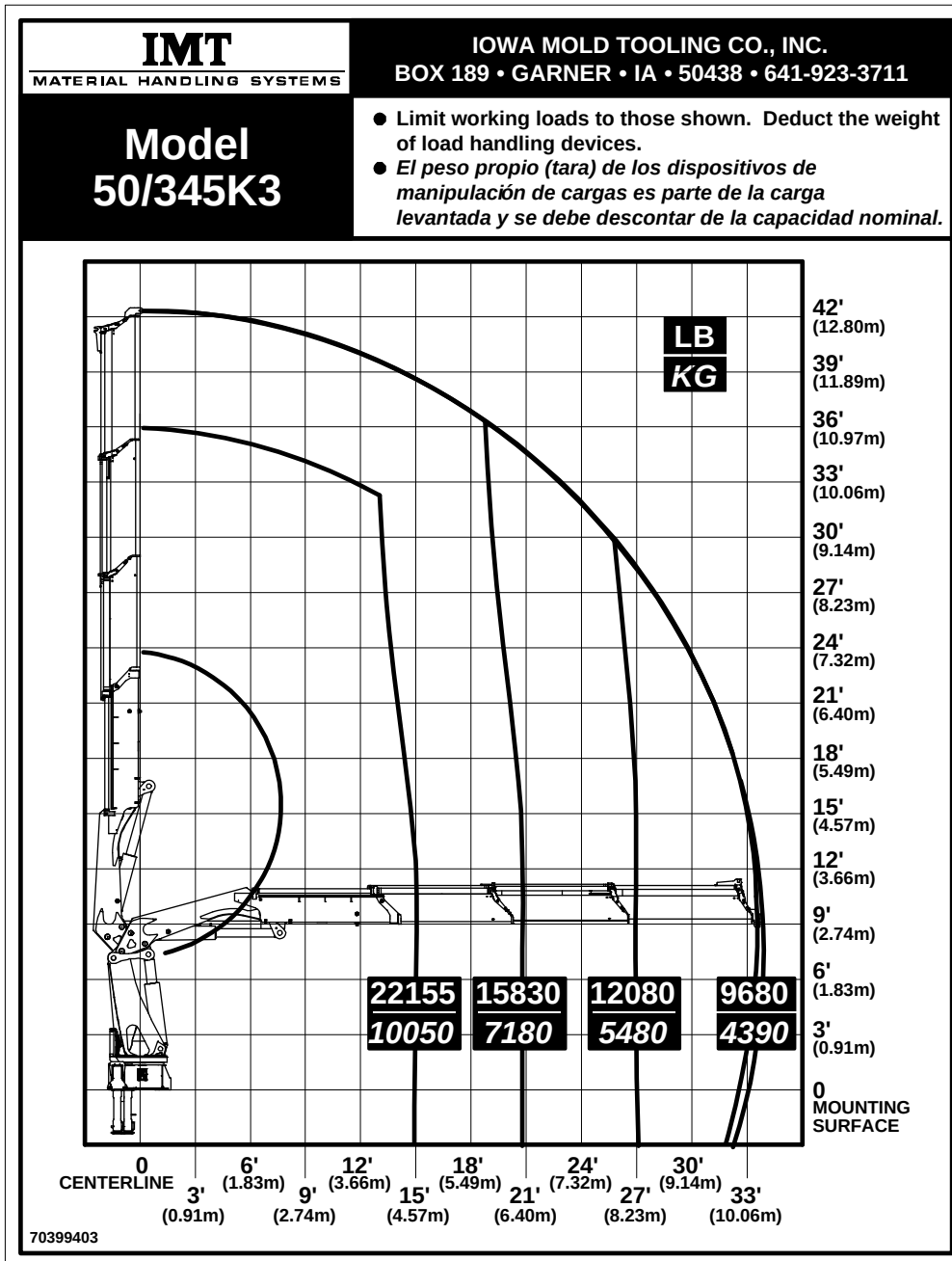
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50/345 K2 Capacity Chart

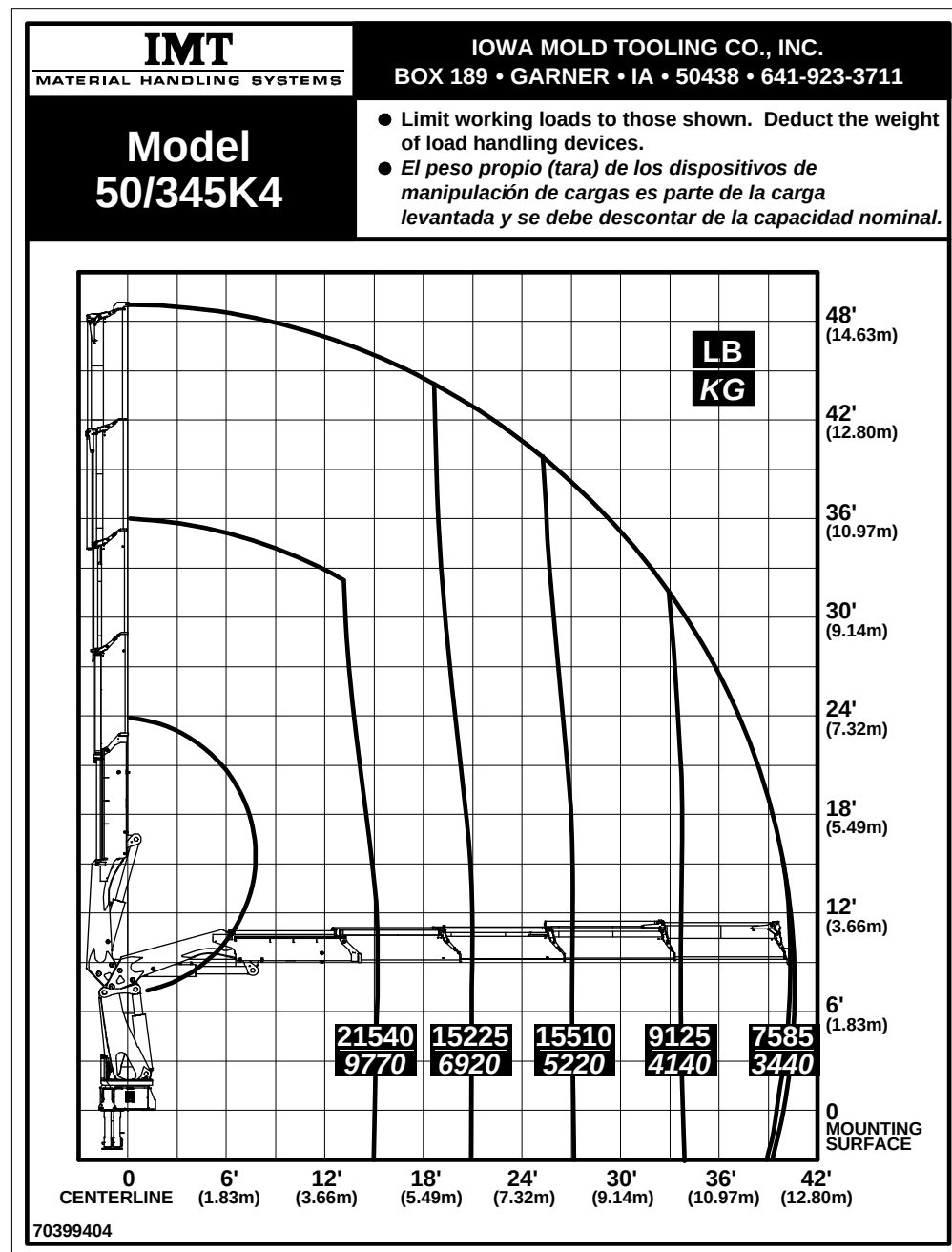


50/345 K3 Capacity Chart



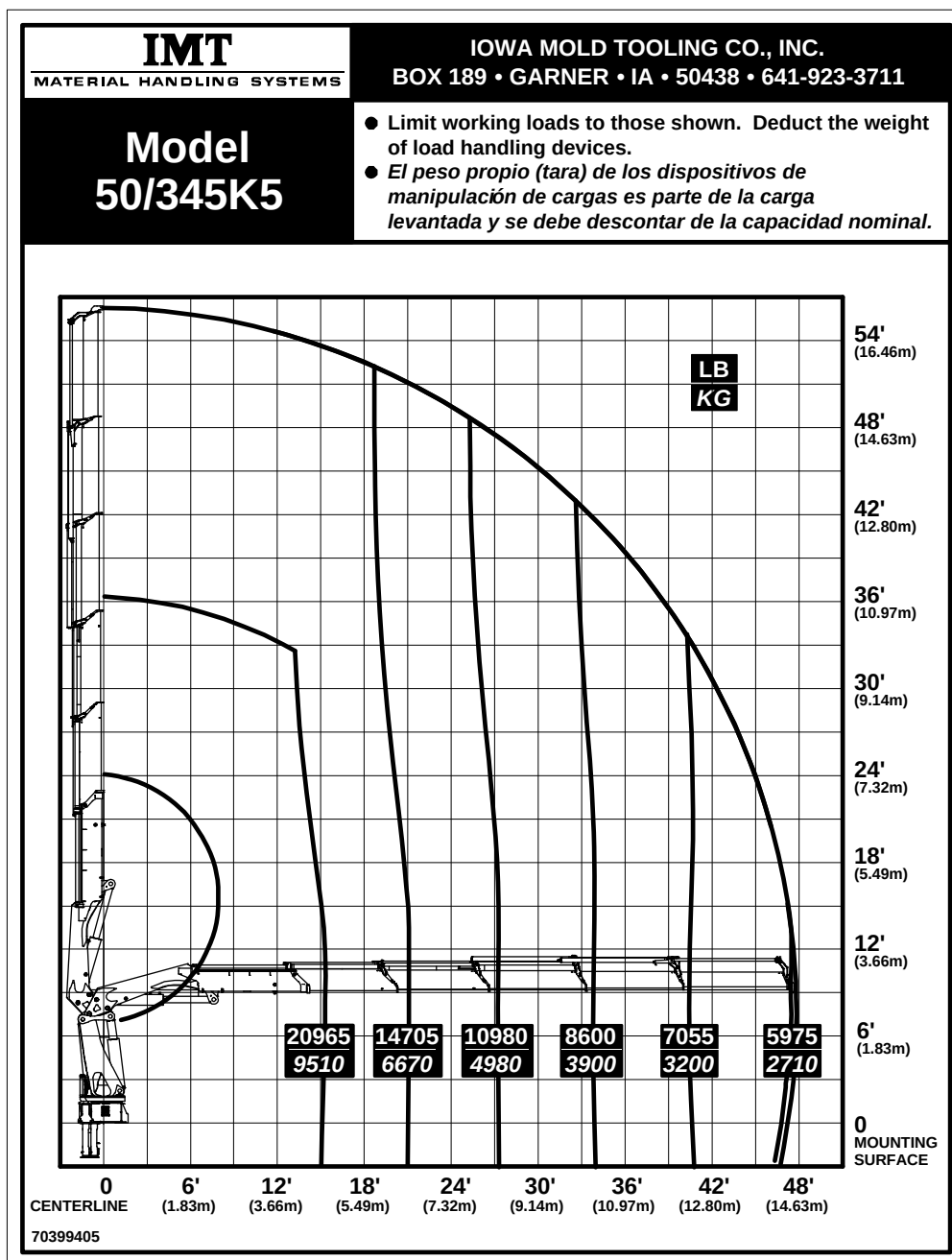


50/345 K4 Capacity Chart

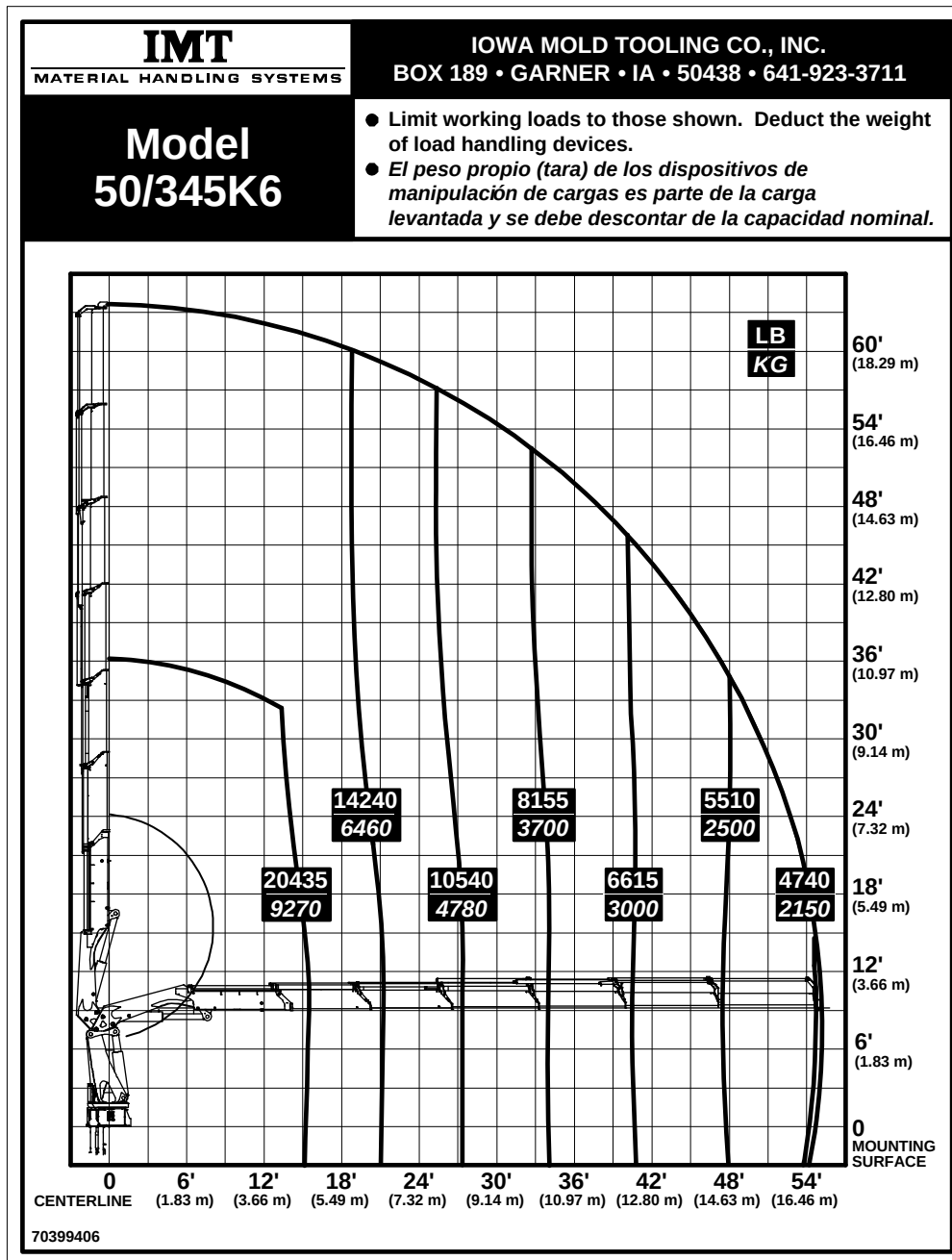




50/345 K5 Capacity Chart

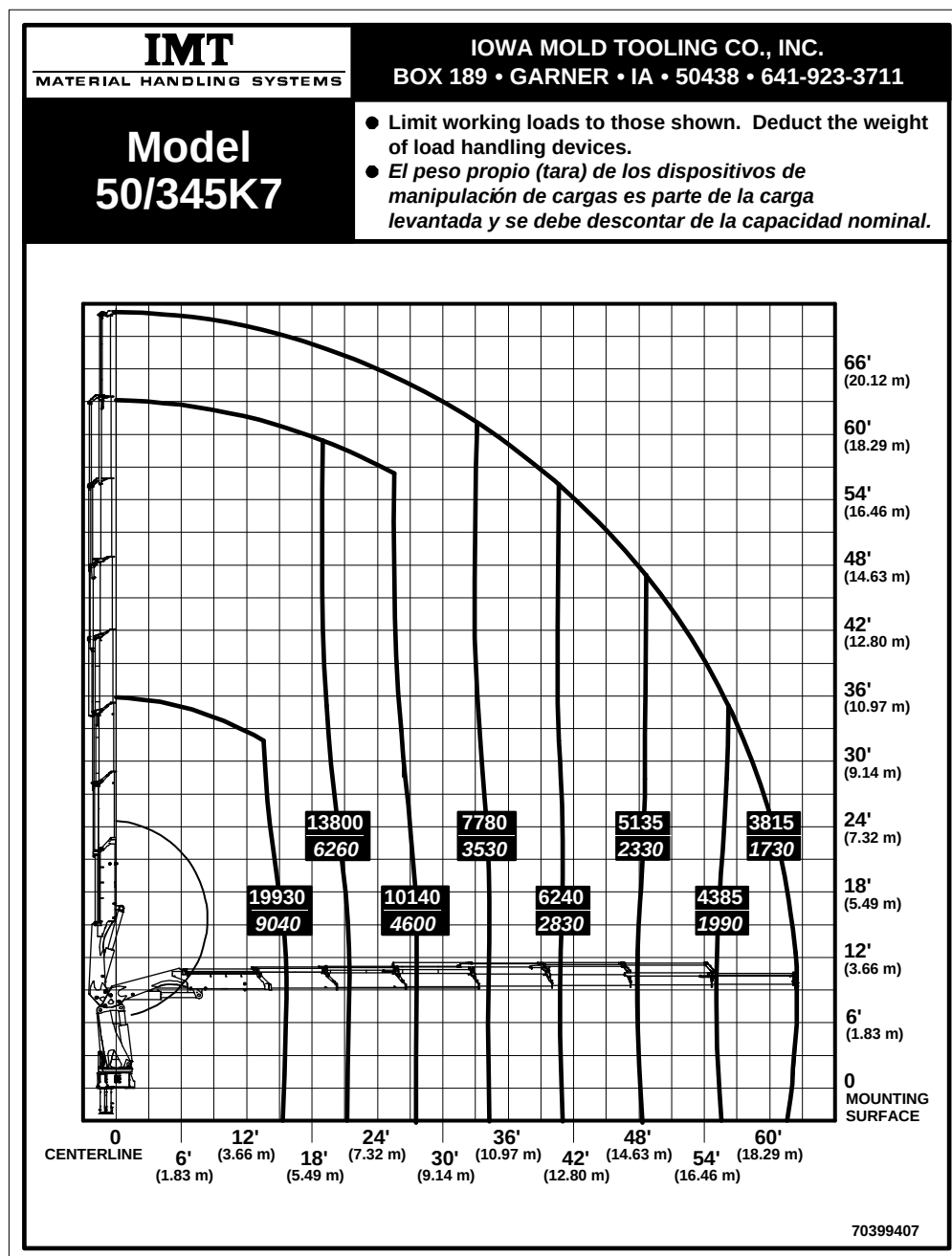


50/345 K6 Capacity Chart



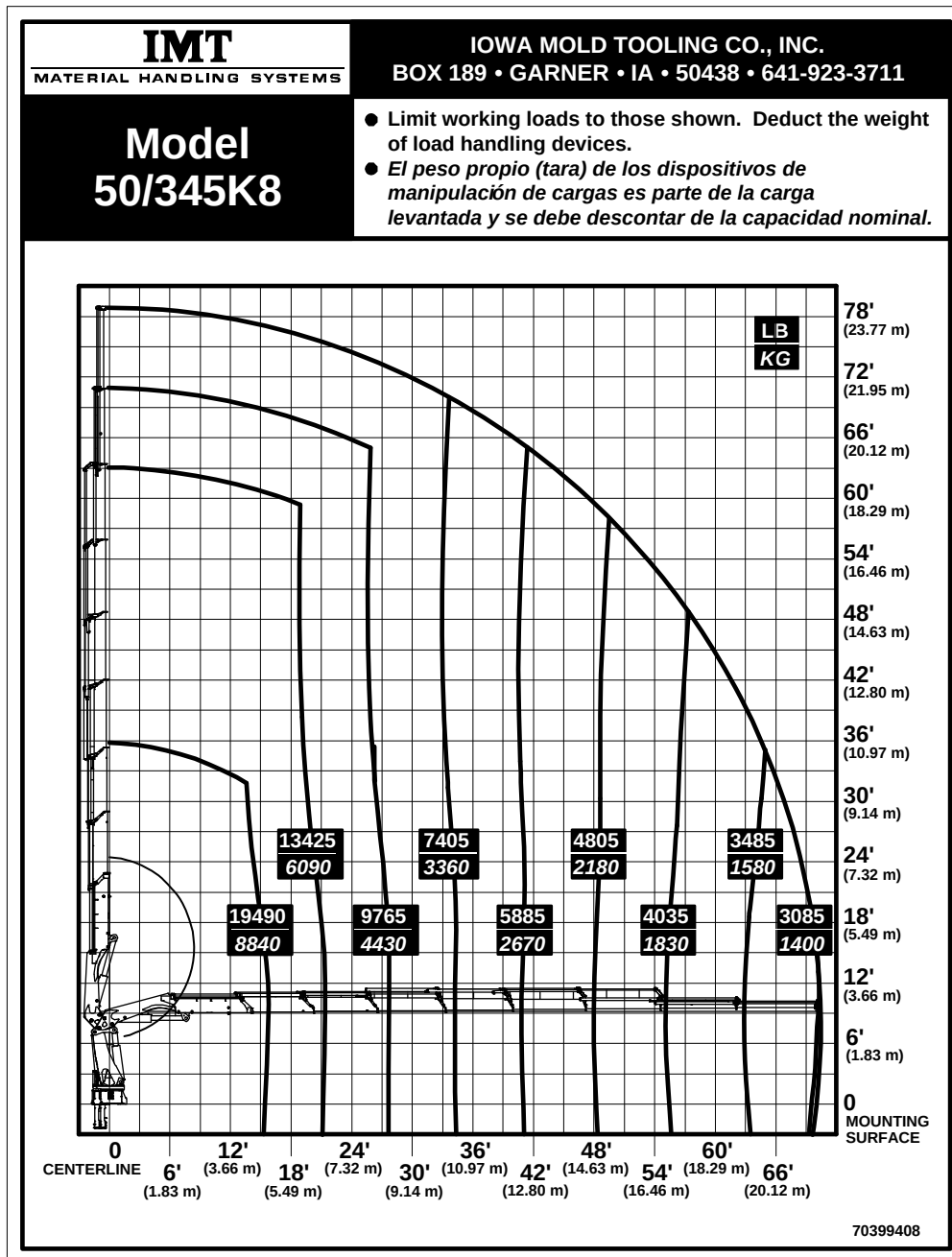


50/345 K7 Capacity Chart





50/345 K8 Capacity Chart





CHAPTER 3

Dimensional Drawings

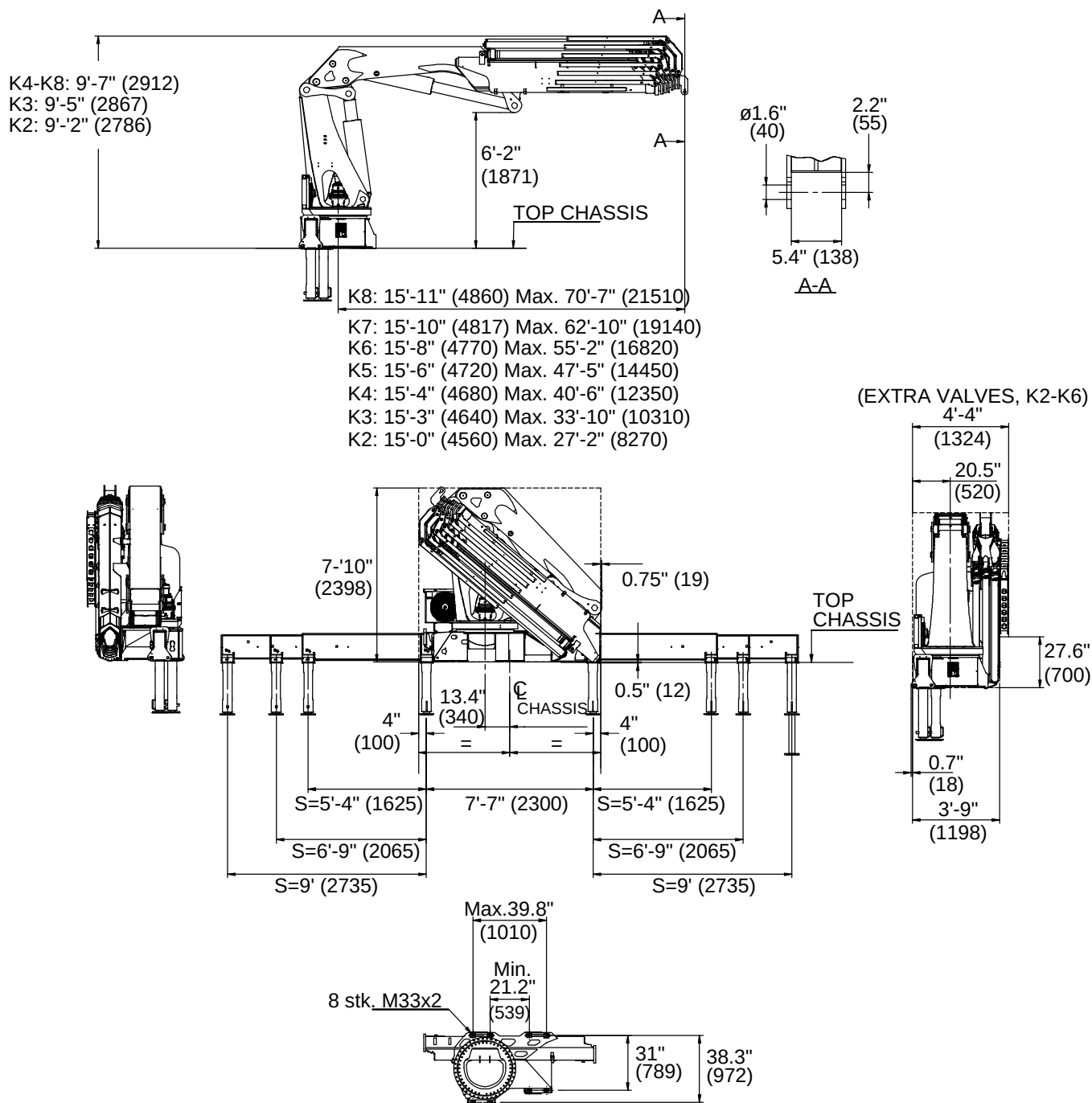
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50/345 Dimensions

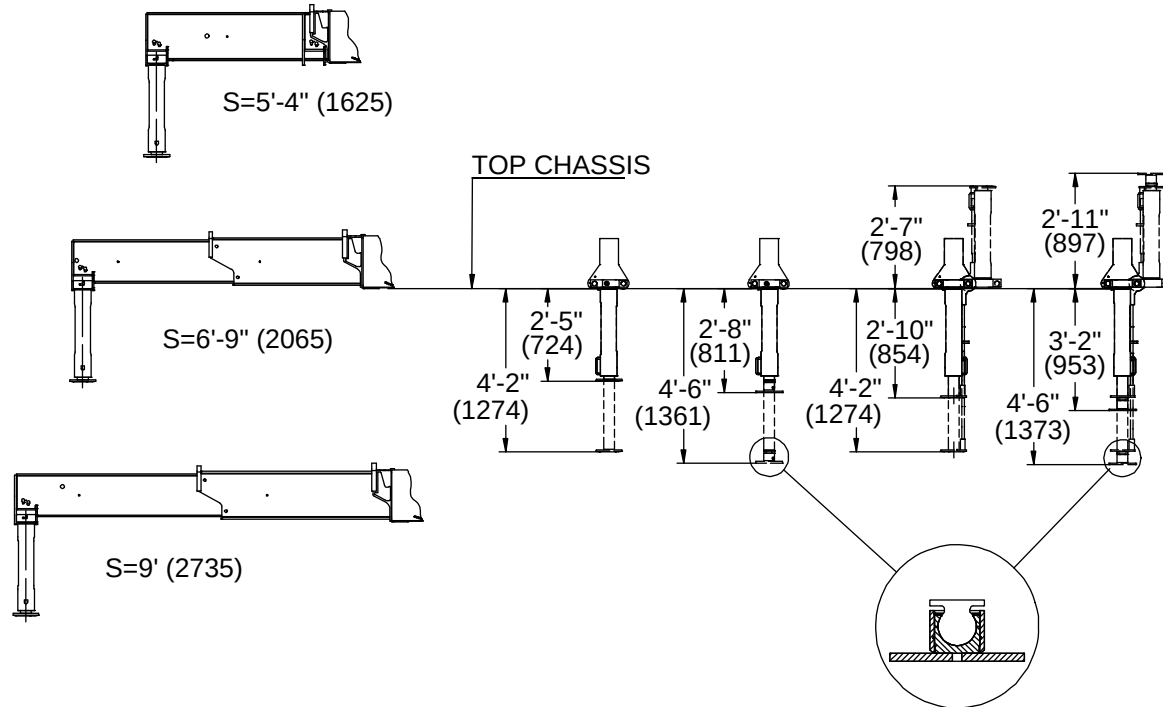
Dimensions in ft-inches (mm).





Stabilizer Drawing

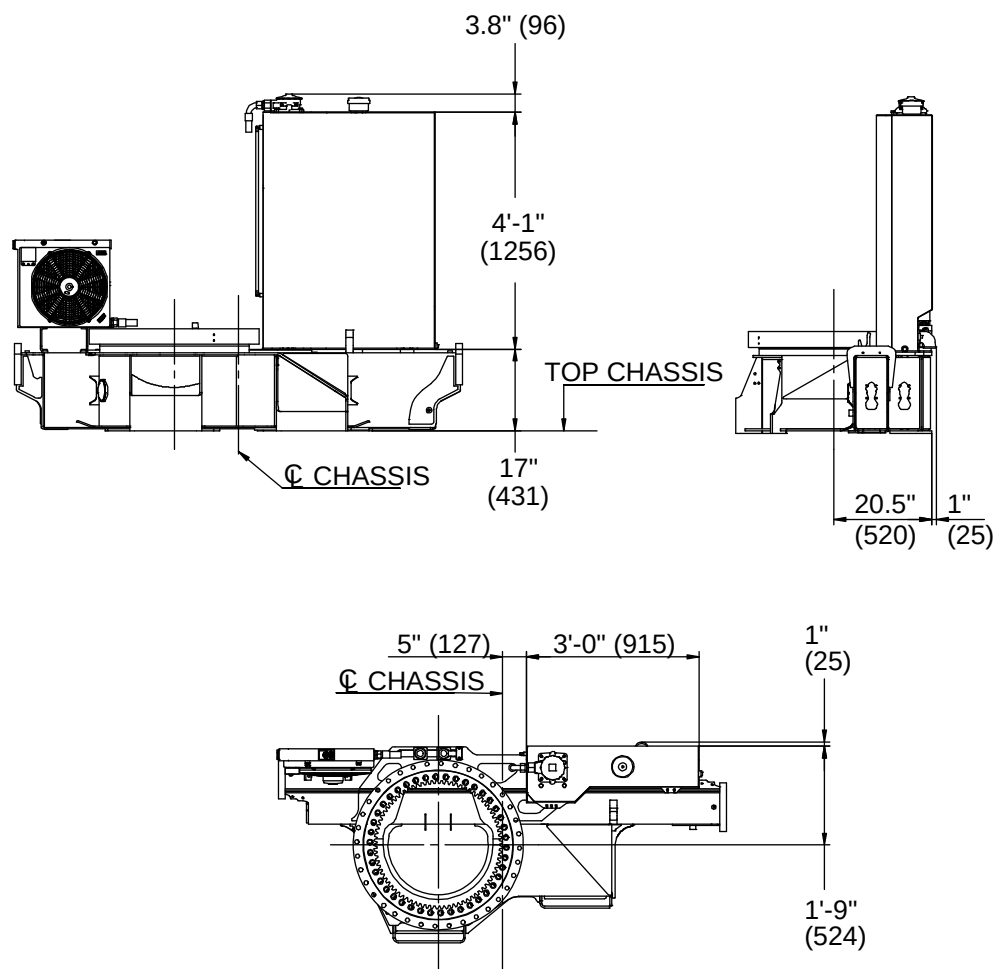
Dimensions in ft-inches (mm).





50/345 Base Tank Dimensions

Dimensions in ft-inches (mm).

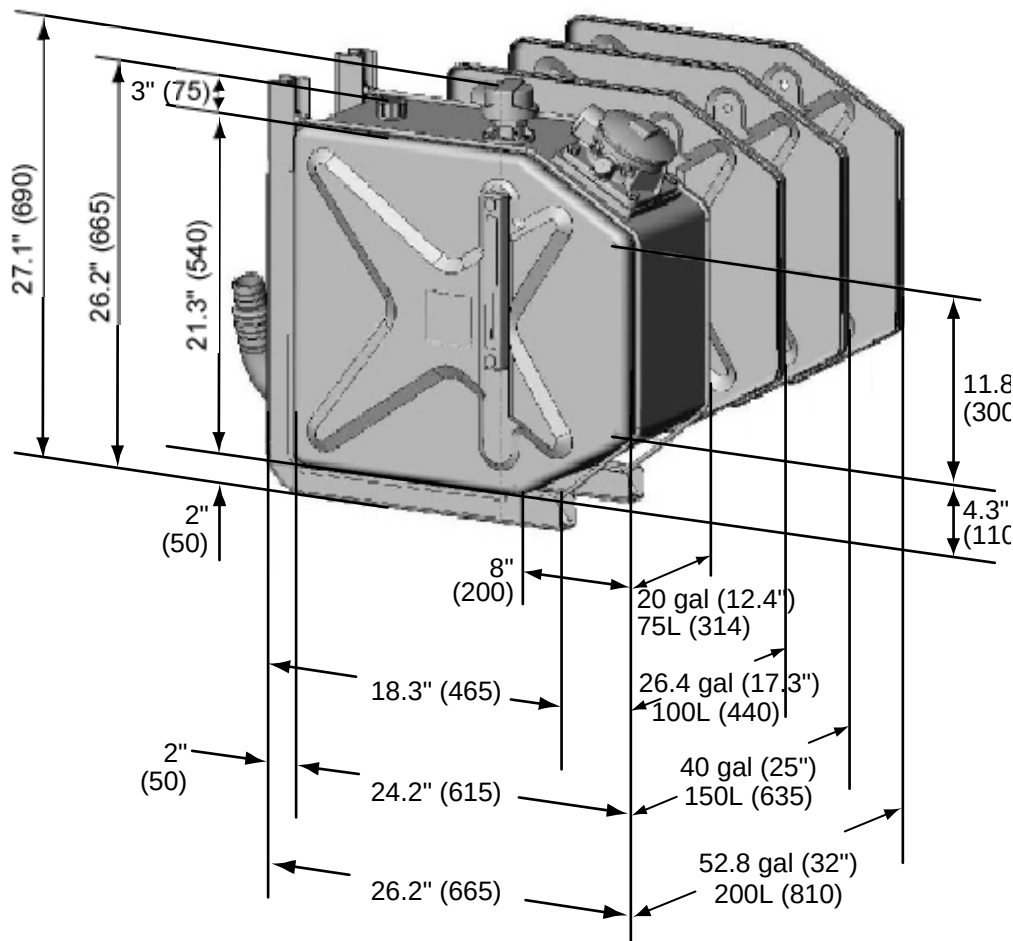




Chassis Mounted Tank Dimensions

Dimensions in inches (mm).

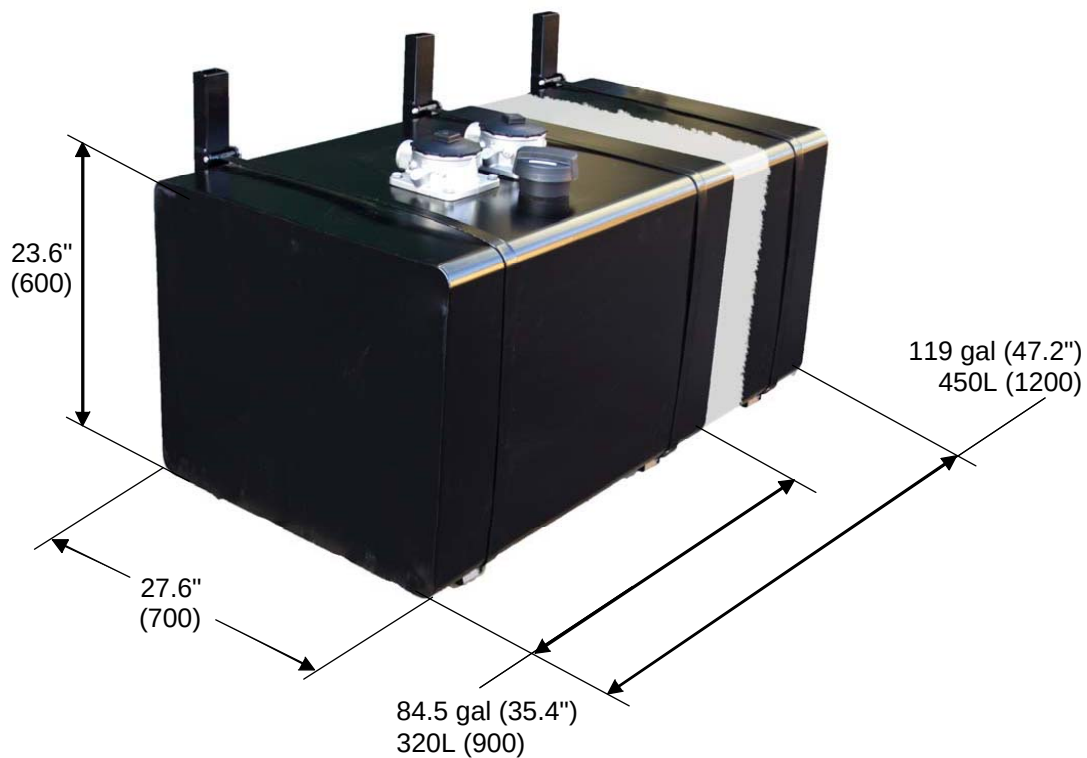
20-53 Gallon (75-200L) Tanks



- Side-mounted chassis tanks include tank suspension, filters, suction socket and oil level indicator.
- Option right or left-side fitting.
- Suction socket for 2" and 2-1/2" suction hoses.
- Tank lengths include oil level indicator.
- **Larger tanks include 2 return filters.**



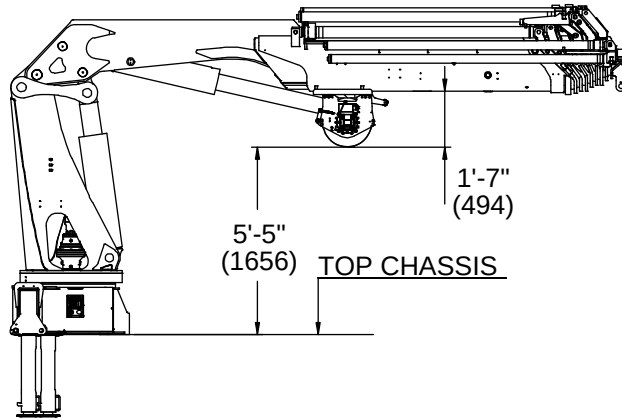
84.5-119 Gallon (320-450L) Tanks



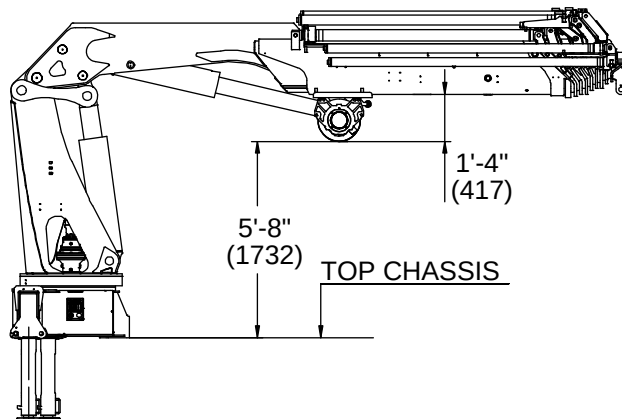
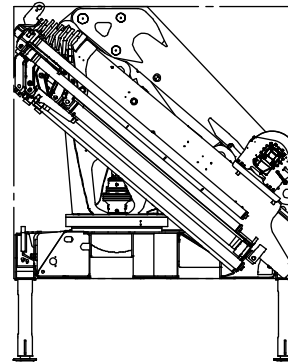


Winch Dimensions

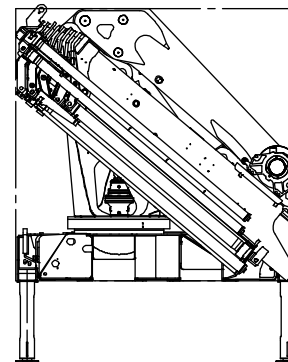
Dimensions in ft-inches (mm).



7055 lb (3.2T) winch

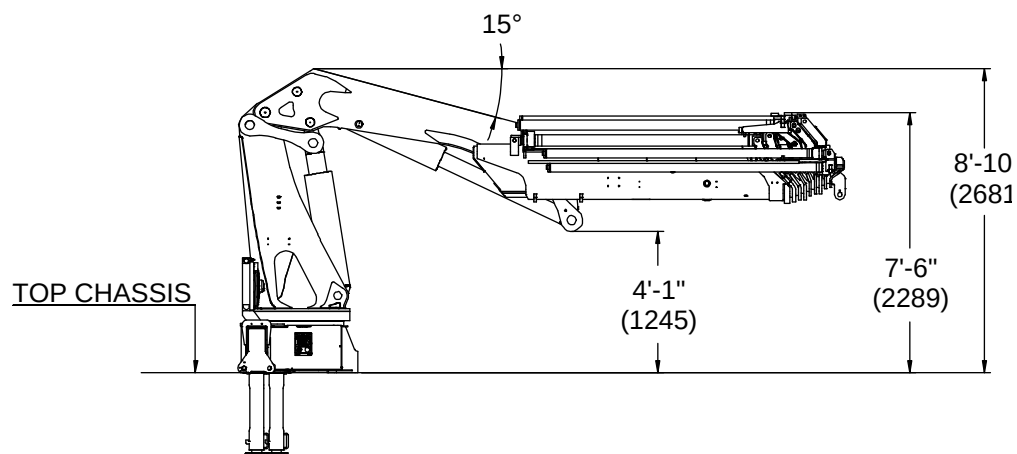
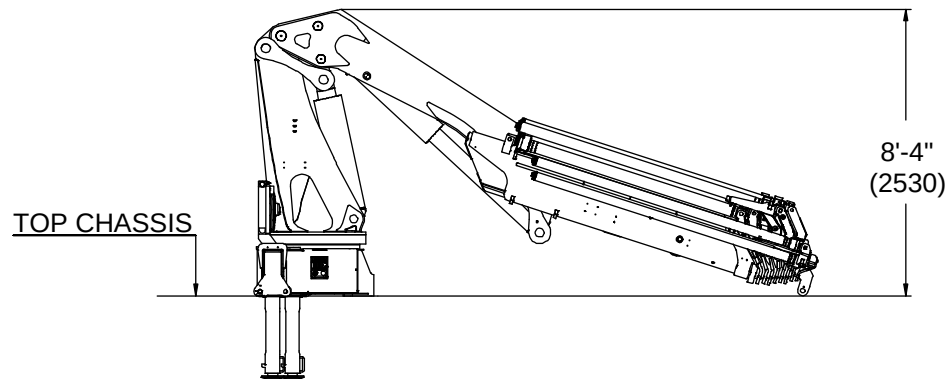


5510 lb (2.5T) winch (P15)





Dimensions, Stowed in Truck





50/345 Swing Clearance Radius

