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Manual # 99905811

# 32/222 Technical Specifications

Manual Effective May 9, 2014



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## Revisions

DATE	LOCATION	DESCRIPTION

## CHAPTER 1

# Technical Data and Charts

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## 32/222 Technical Specifications

32/222	2-Hydraulic	3-Hydraulic	4-Hydraulic	5-Hydraulic	6-Hydraulic	7-Hydraulic	8-Hydraulic
Crane Rating*	222,050 ft-lb (30.7 tm)	215,540 ft-lb (29.8 tm)	213,370 ft-lb (29.5 tm)	207,590 ft-lb (28.7 tm)	201,800 ft-lb (27.9 tm)	201,080 ft-lb (27.8)	196,010 ft-lb (27.1 tm)
Maximum Horizontal Reach	26' 11" (8.2 m)	33' 6" (10.2 m)	40' 4" (12.3 m)	47' 7" (14.5 m)	54' 10" (16.7 m)	62' 1" (18.9 m)	69' 7" (21.2 m)
Maximum Vertical Reach from Mounting Surface	----- See Load Chart -----						
Maximum Capacity	15,058 lb (6830 kg)	14,617 lb (6630 kg)	14,132 lb (6410 kg)	13,735 lb (6230 kg)	13,382 lb (6070 kg)	13,029 lb (5910 kg)	12,721 lb (5770 kg)
Max Cap @ Max Reach	7,209 lb (3270 kg)	6,217 lb (2820kg)	4,784 lb (2170 kg)	3,748 lb (1700 kg)	2,932 lb (1330 kg)	2,293 (1040 kg)	1,764 lb (800 kg)
Crane Weight **	5,710 lb (2590 kg)	6,151 lb (2790 kg)	6,592 lb (2990 kg)	6,967 lb (3160 kg)	7,319 lb (3320 kg)	7,650 lb (3470 kg)	7,926 lb (3595 kg)
Hook Approach							
Vertical	8' 3" (2.51 m)	8' 1" (2.46 m)	7' 11" (2.41 m)	7' 9" (2.37 m)	7' 8" (2.34 m)	7' 7" (2.30 m)	7' 5" (2.27 m)
Horizontal	27'-2" (8.2 m)	33'-9" (10.29 m)	40'-8" (12.40 m)	47'-10" (14.58 m)	55'-1" (16.79 m)	62'-4" (19.00 m)	69'-10" (21.29 m)
Center of Gravity - Stored							
Vertical	2' 9" (825 mm)	2' 9" (845 mm)	2' 10" (870 mm)	2' 11" (875 mm)	3' 11" (885 mm)	2' 12" (900 mm)	3' (920 mm)
Horizontal (C/L RotTo Bridge)	13.2" (335 mm)	13.2" (335 mm)	12.8" (325 mm)	12.6" (320 mm)	12.4" (315 mm)	12.0" (305 mm)	11.6" (295 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. Does not include stabilizers, tank, or oil.							

32/222 Specifications	
Stabilizer Pad Diameter	8"
Crane Storage Height	7' 9" (2350 mm)
Mounting Space ***	3' 4" (1024 mm)
Rotational Torque	28,027 ft-lb (3.9 tm)
Rotation	Continuous
Optimum Pump Performance	21.1 gpm (80 L/min)
System Pressure	5295 psi (365 Bar)
Oil Reservoir Capacity	42 gal (160L)
Stabilizer Extension Span	
Minimum (2 beams – 64" (1625 mm) long)	18' 3" (5550 mm)
Maximum (2 beams – 81" (2065 mm) long)	21' 1" (6430 mm)
Stabilizer Weights	
Stabilizer Beam 64" (1625 mm)	298 lb (135 kg)
Stabilizer Beam 81" (2065 mm)	397 lb (180 kg)
Stabilizer Cylinder, 1x swing-up	110 lb (50 kg)
*** Maximum swing clearance radius required is 1'-5" (427 mm) at 8'-1" (2465 mm) from top of chassis frame.	

Minimum Chassis Specs	
Front Axle Rating (GAWR)	16,000 lb (7260 kg)
Rear Axle Rating (GAWR)	40,000 lb (18,145 kg)
Resistance To Bending Moment	3,441,775 lb-in (396,535 kg-m)
Section Modules	43 in <sup>3</sup> (704.6 cm <sup>3</sup> )

## 32/222 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)
Grab	Up	A	4350 psi (300 bar)	725-4350 psi (50-300 bar)
	Down	B	4350 psi (300 bar)	725-4350 psi (50-300 bar)
Rotator	Extend	A	P	725-4350 psi (50-300 bar)
	Retract	B	P	725-4350 psi (50-300 bar)
Winch 2.5 T	Lift	A	P	2685 psi (185 bar)
	Lower	B	P	2685 psi (185 bar)
Separate stabilizer valve		All		2175 psi (150 bar)

**NOTE: Keep outer boom (jib) horizontal when testing and adjusting valves.**

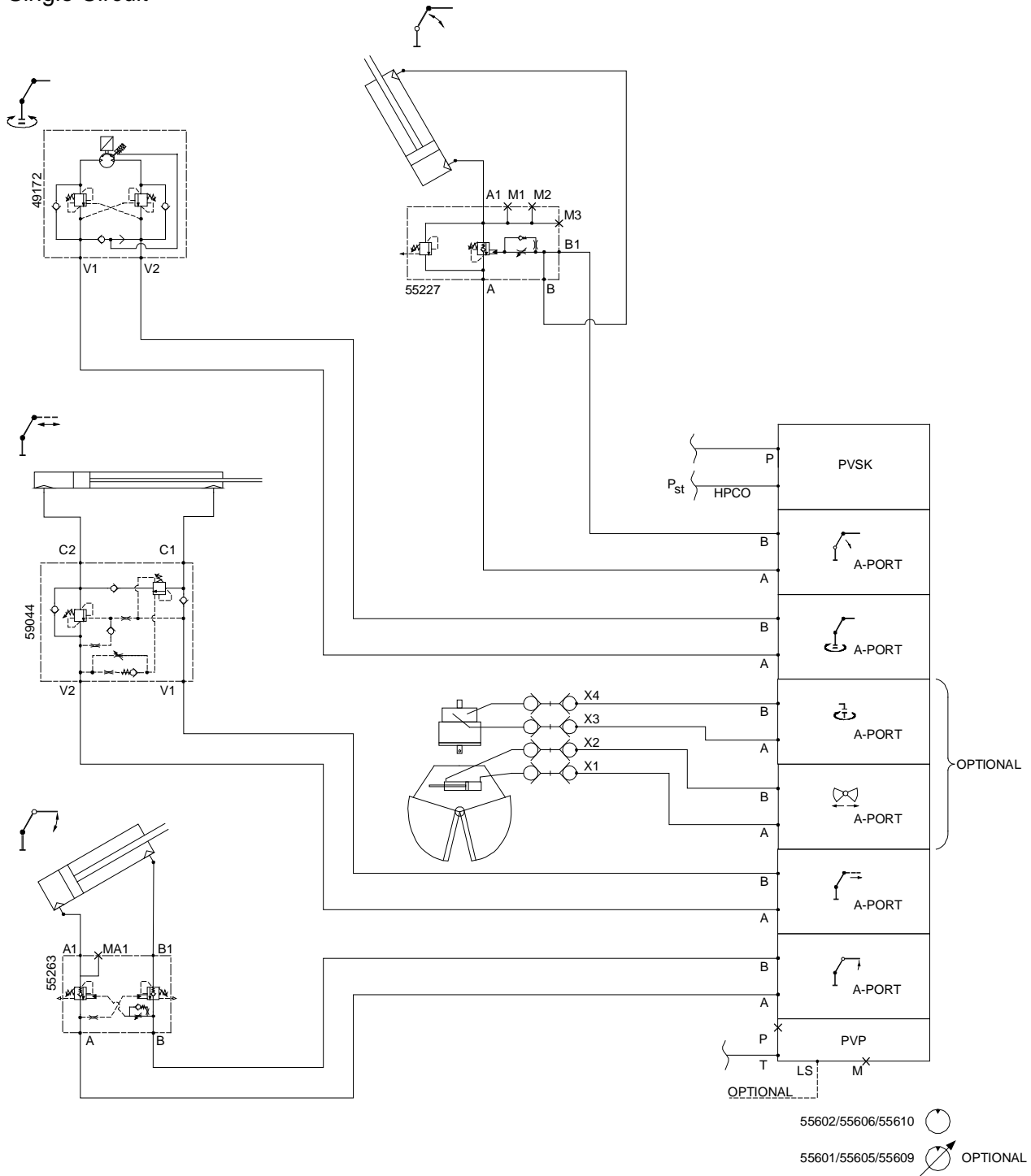
WORKING PRESSURE ON LOAD-HOLDING VALVES		
FUNCTION	DIRECTION	OPENING PRESSURE
Slewing System	Right	2320 psi (160 bar)
	Left	2320 psi (160 bar)
Boom Cylinder	Up	5510 (380 bar)
	Down	-
Jib Cylinder	Up	5510 psi (380 bar)
	Down	3045 psi (210 bar)
Extension Cylinders	Retract	6235 psi (430 bar)
	Extend	3045 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 (fixed)	21.1 gpm (80 lpm)

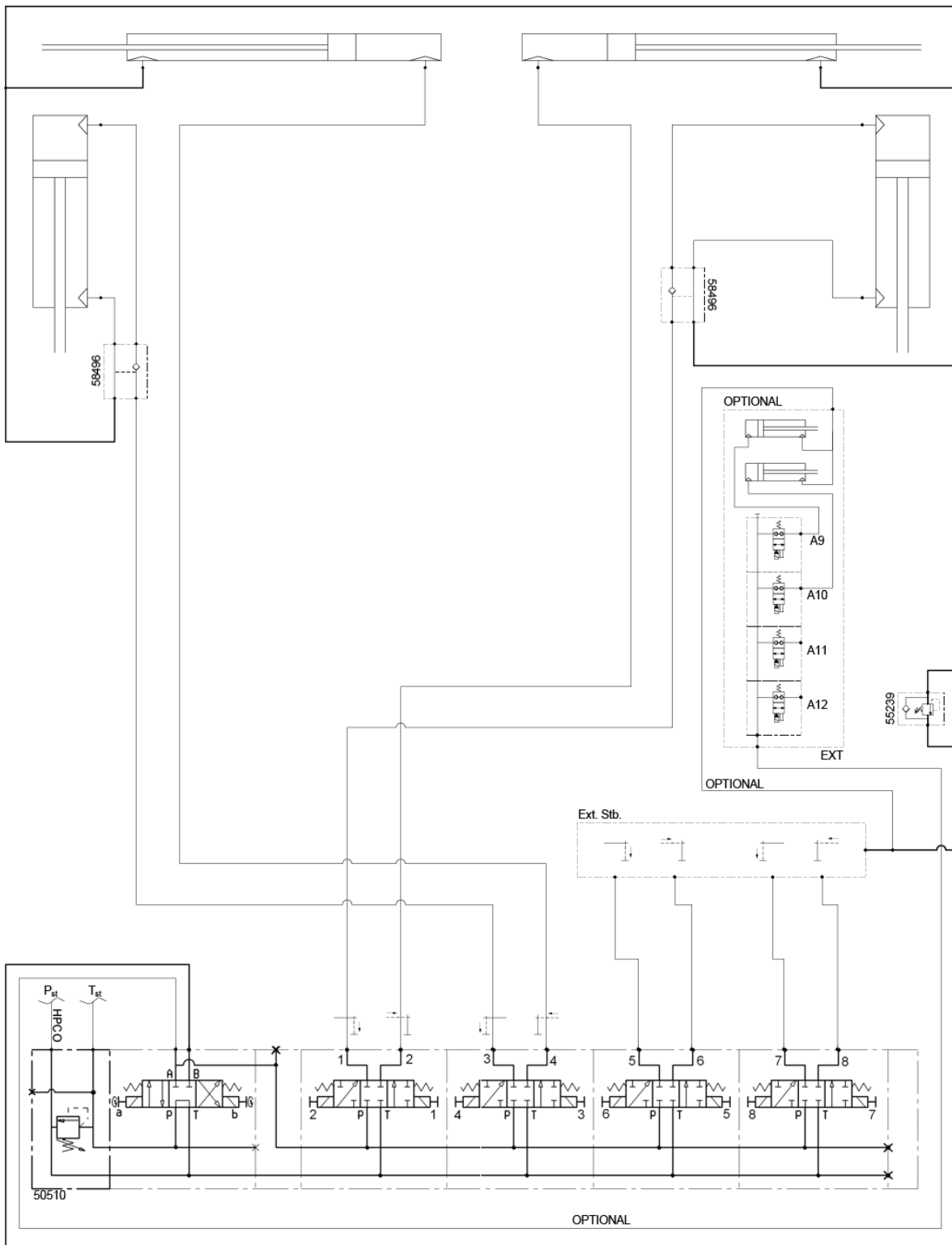
# 32/222 Hydraulic Diagrams

## Single Circuit





Stabilizer Circuit



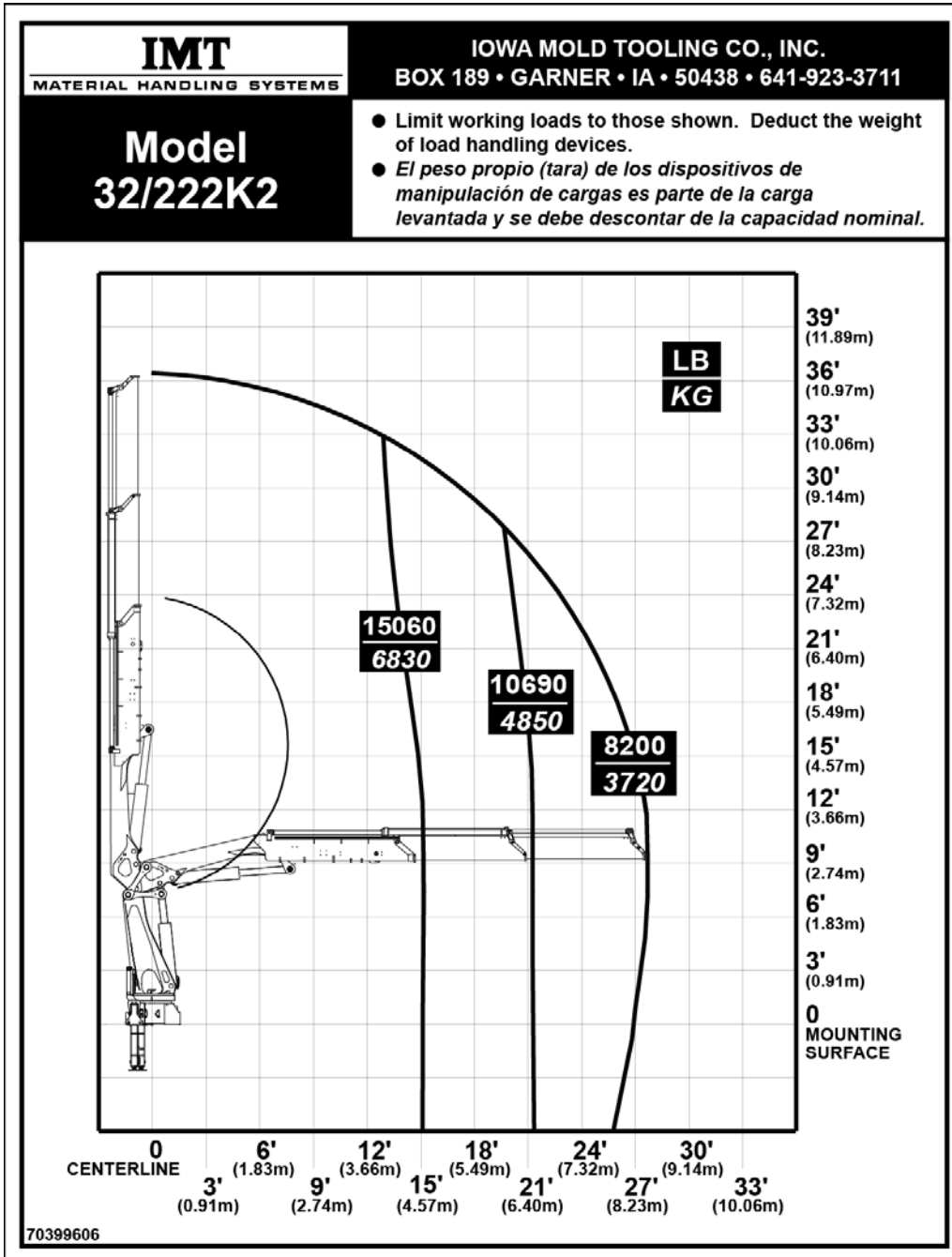
## CHAPTER 2

# Capacity Charts

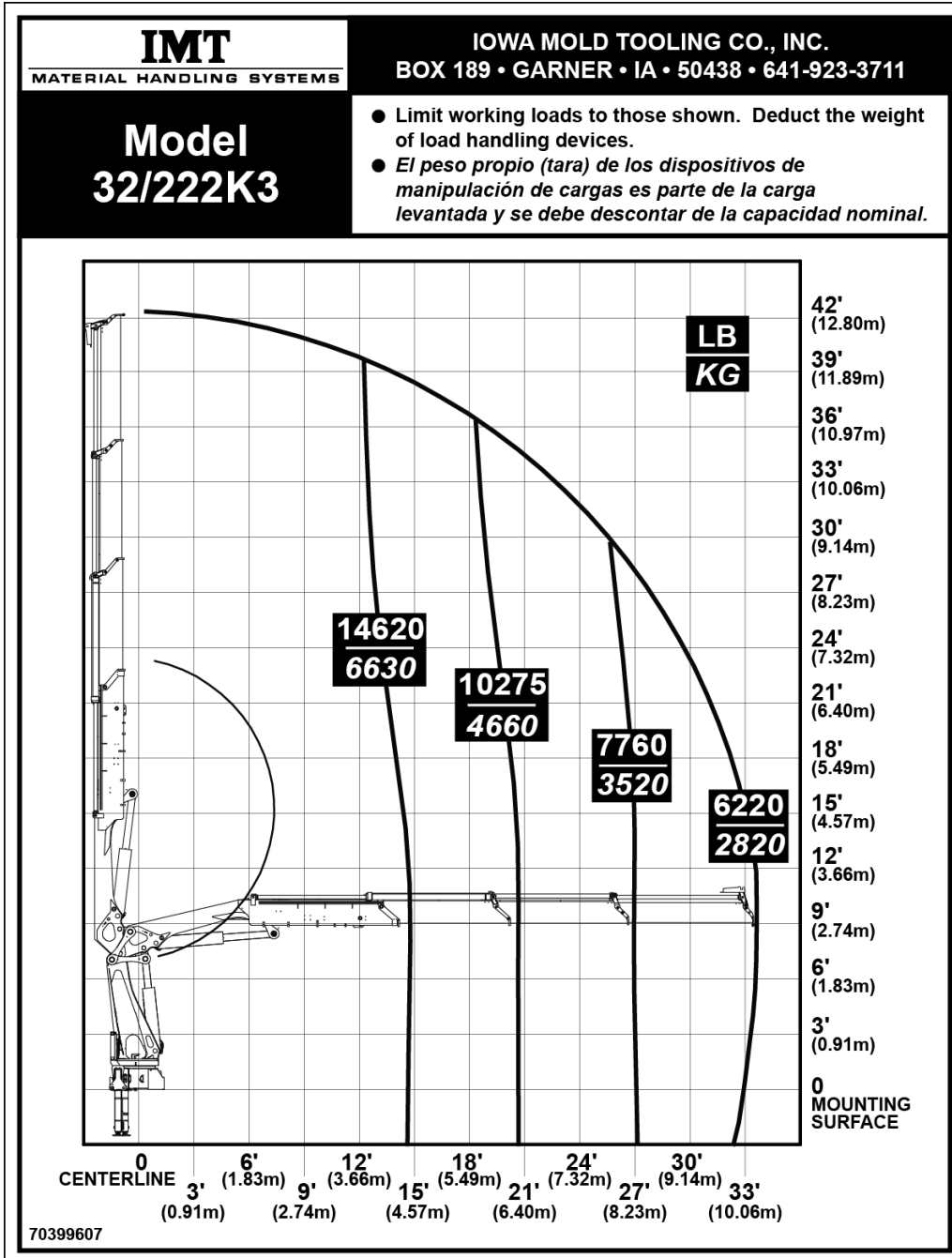
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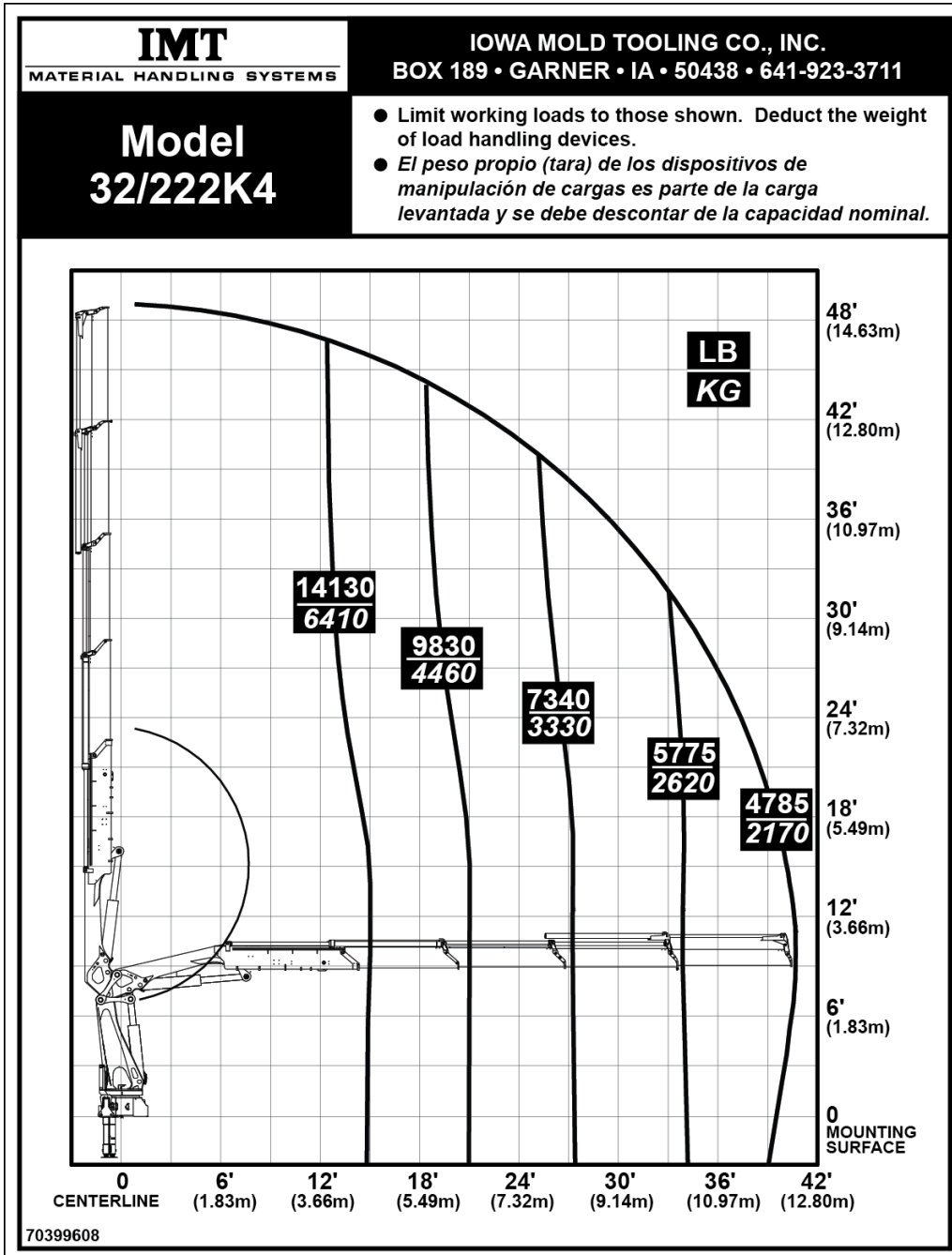
# 32/222K2 Capacity Chart



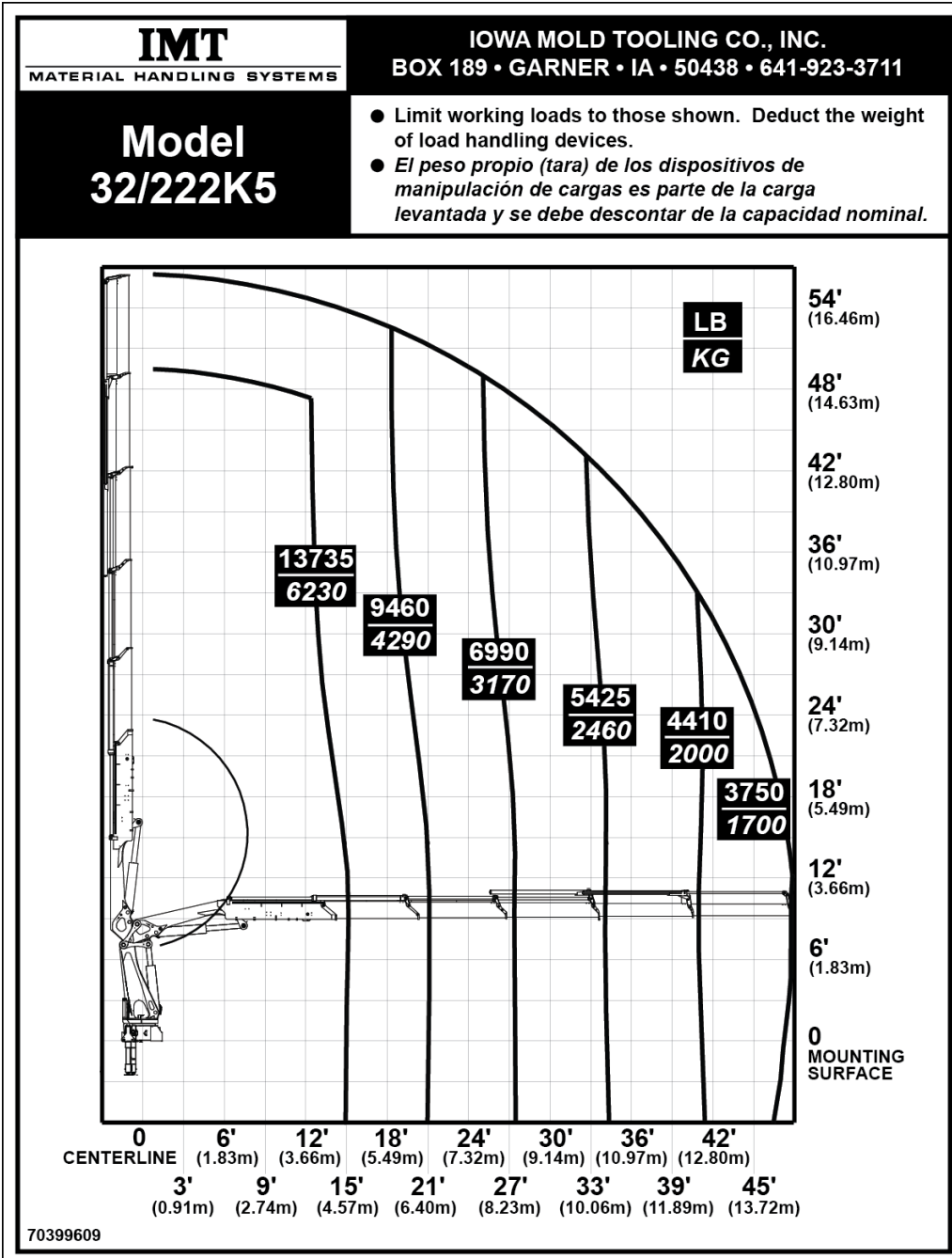
# 32/222K3 Capacity Chart



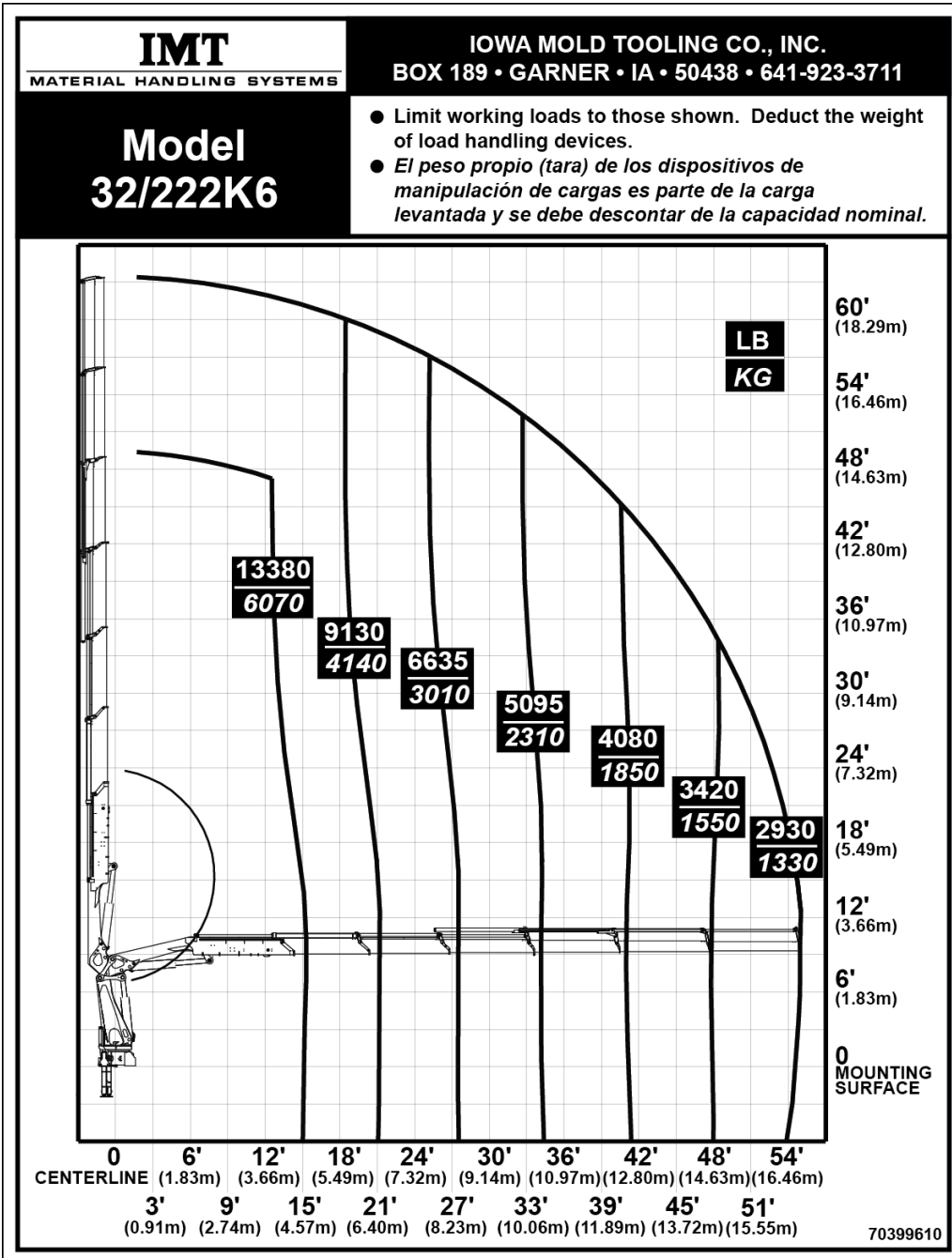
# 32/222K4 Capacity Chart



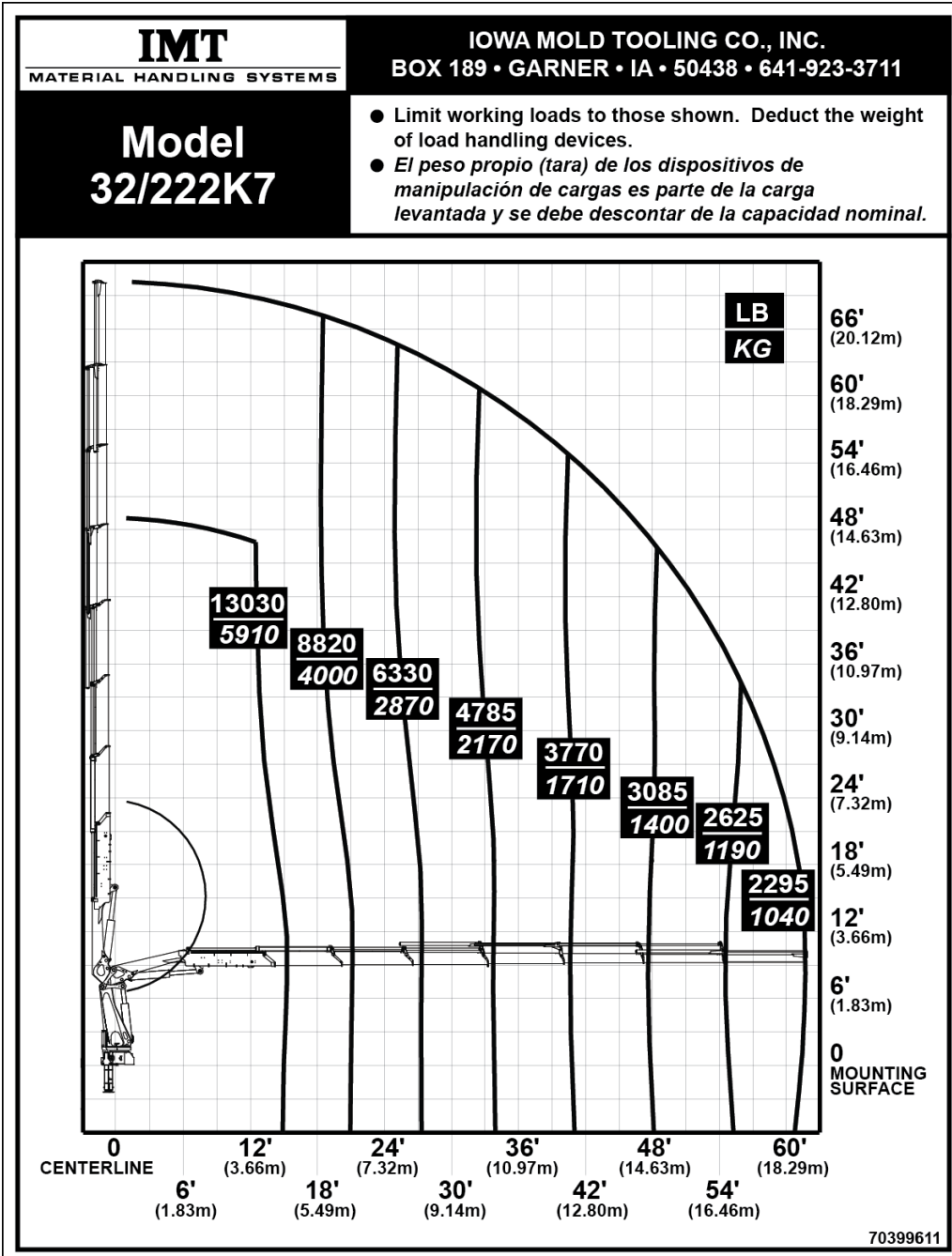
# 32/222K5 Capacity Chart



# 32/222K6 Capacity Chart

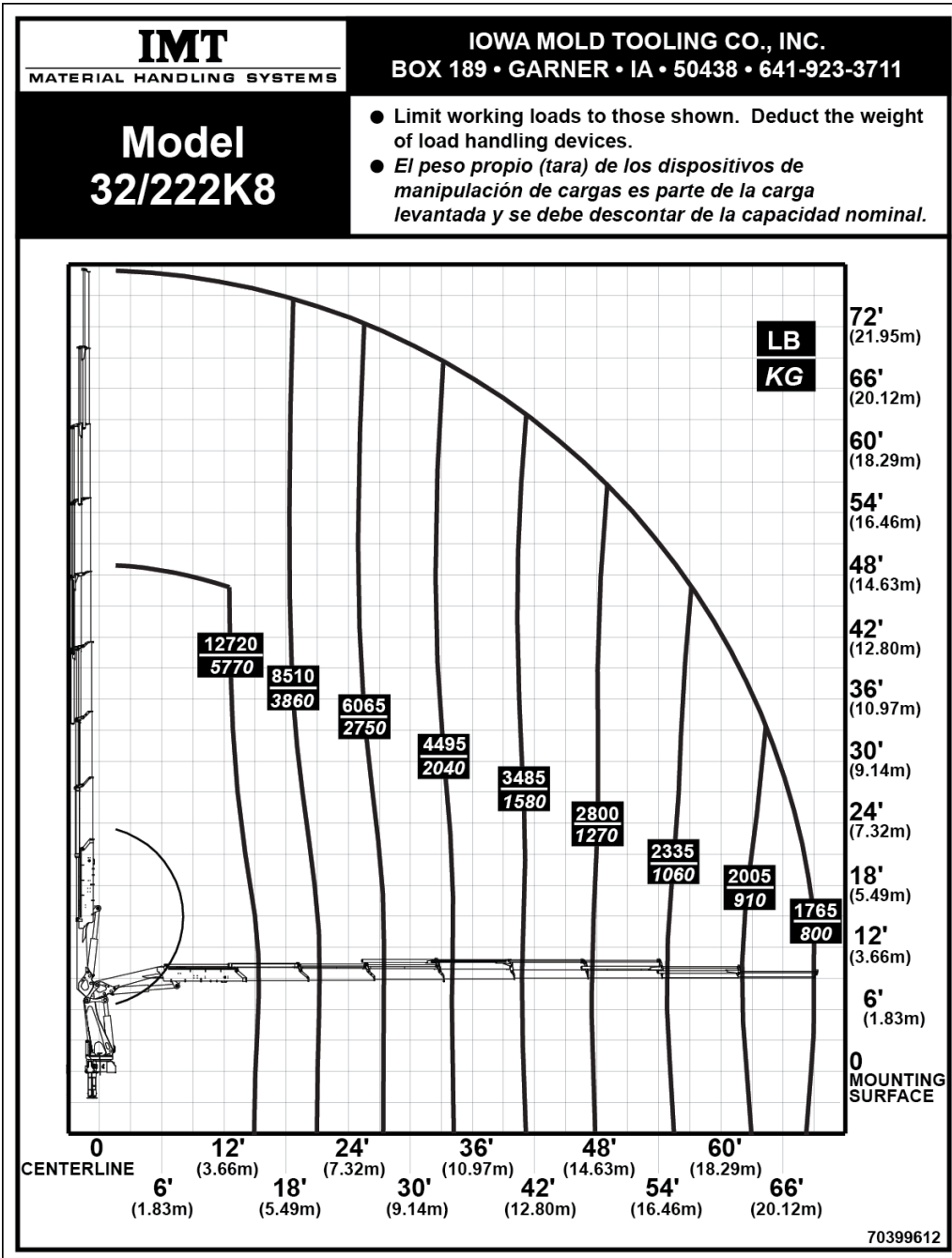


# 32/222K7 Capacity Chart





# 32/222K8 Capacity Chart



CHAPTER 3

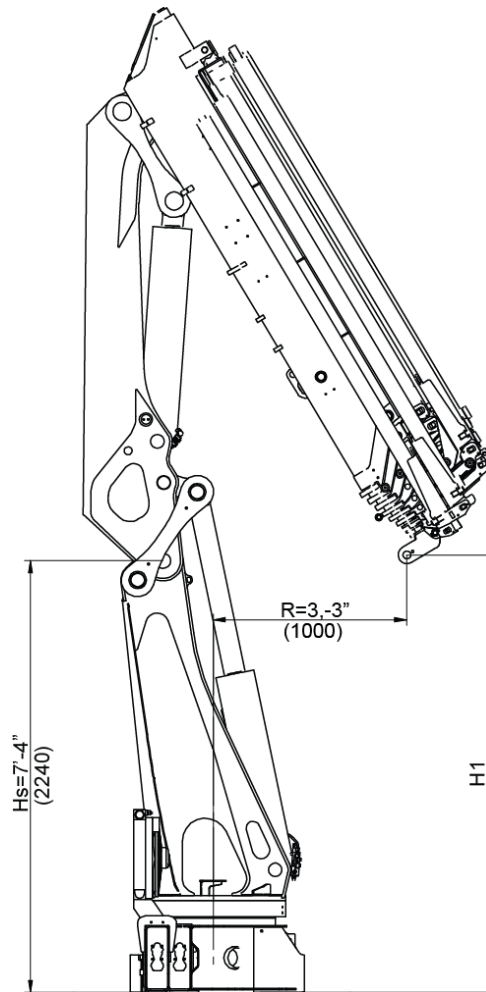
# Dimensional Drawings

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# 32/222 Vertical Hook Approach

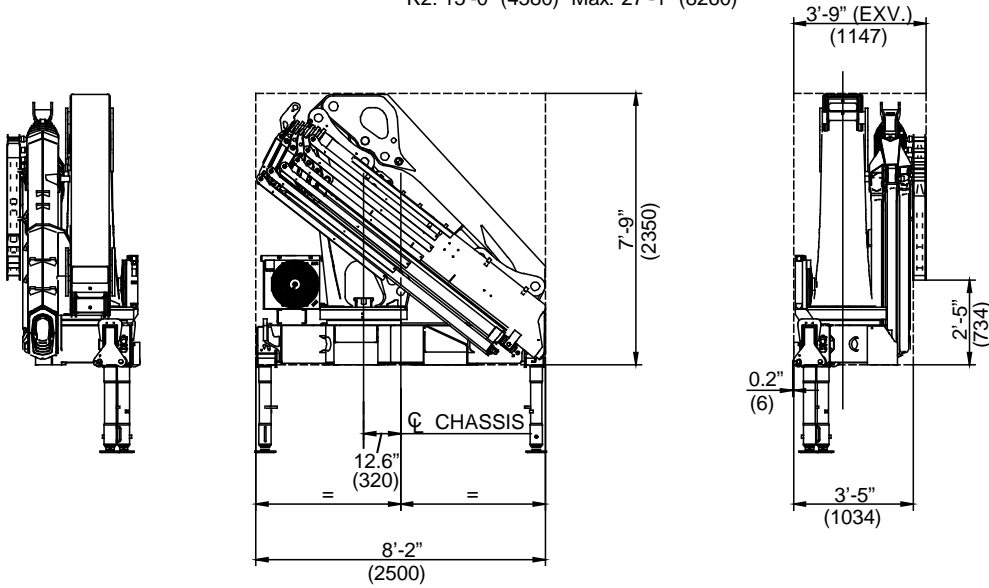
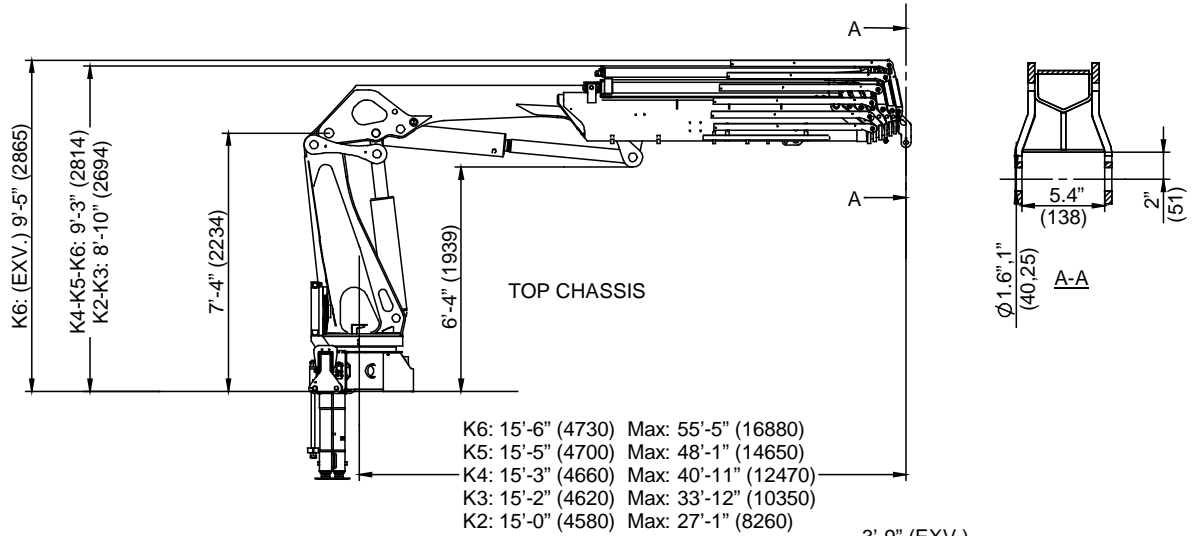
Dimensions in ft-inches (mm).



	H1
K2	8'-3" (2510mm)
K3	8'-1" (2460mm)
K4	7'-11" (2410mm)
K5	7'-9" (2370mm)
K6	7'-8" (2340mm)
K7	7'-7" (2300mm)
K8	7'-5" (2270mm)

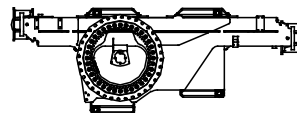
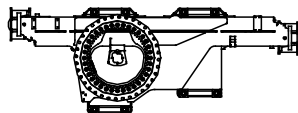
# K2-K6 Dimensional Drawing

Dimensions in ft-inches (mm).



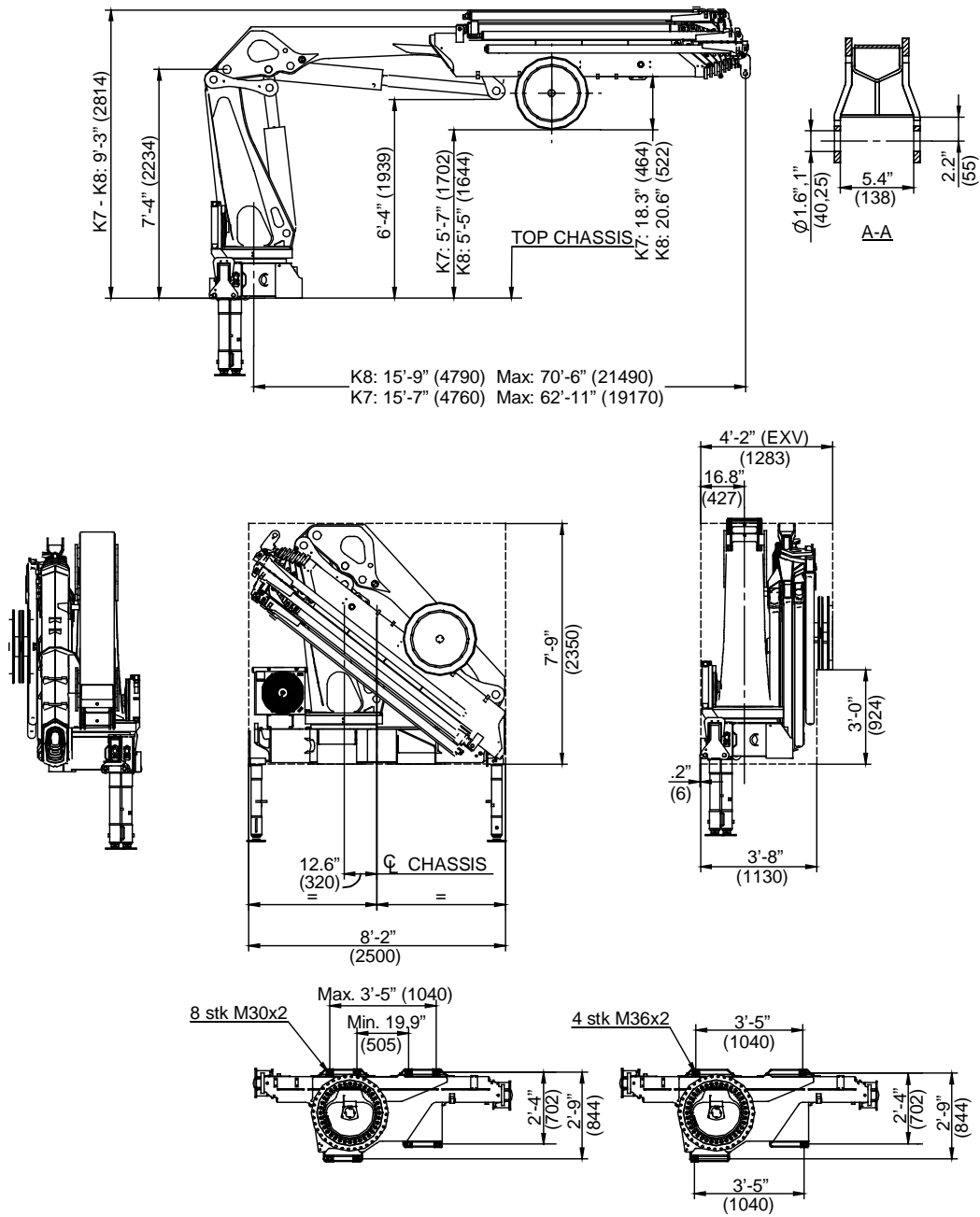
8 stk M30x2

4 stk M36x2



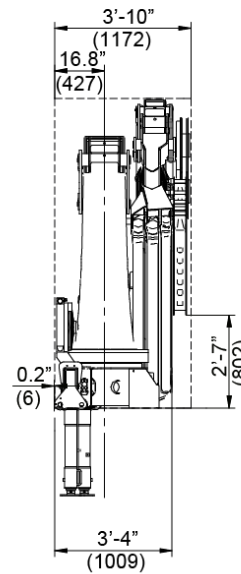
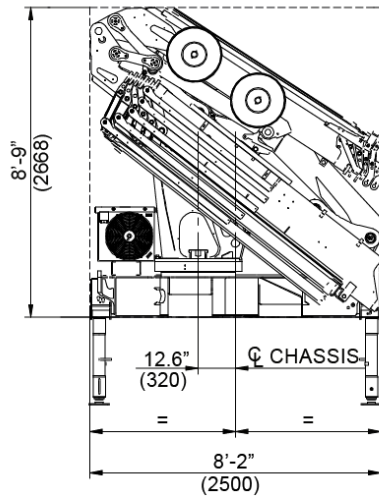
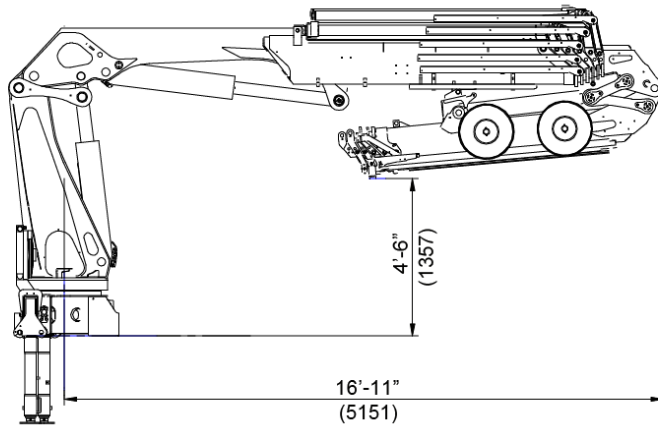
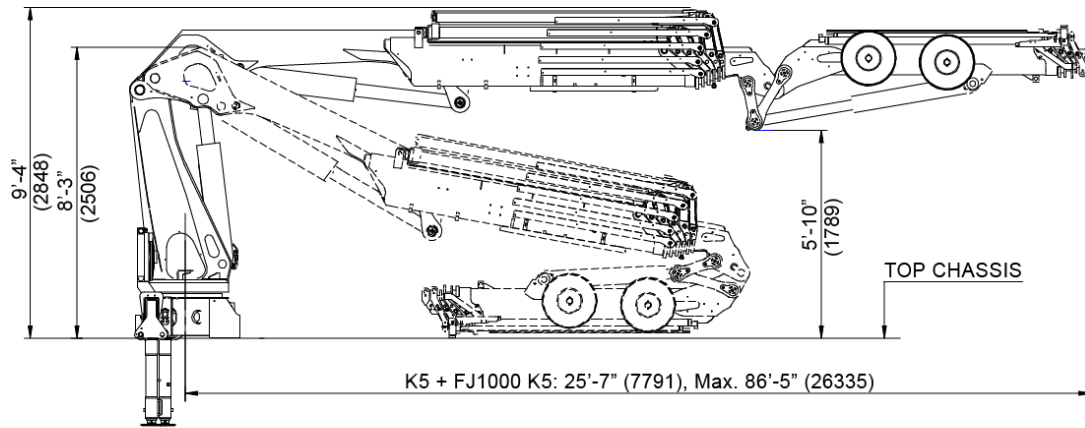
# K7-K8 Dimensional Drawing

Dimensions in ft-inches (mm).



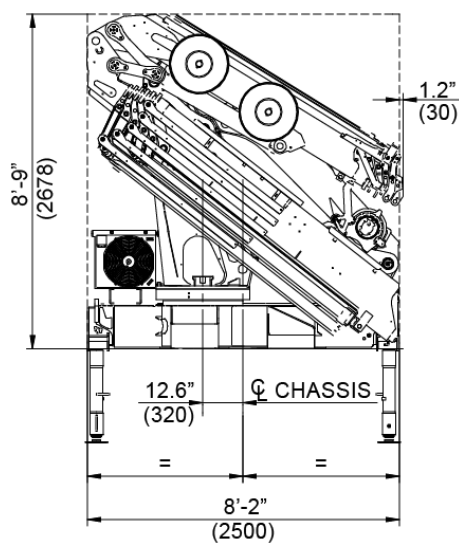
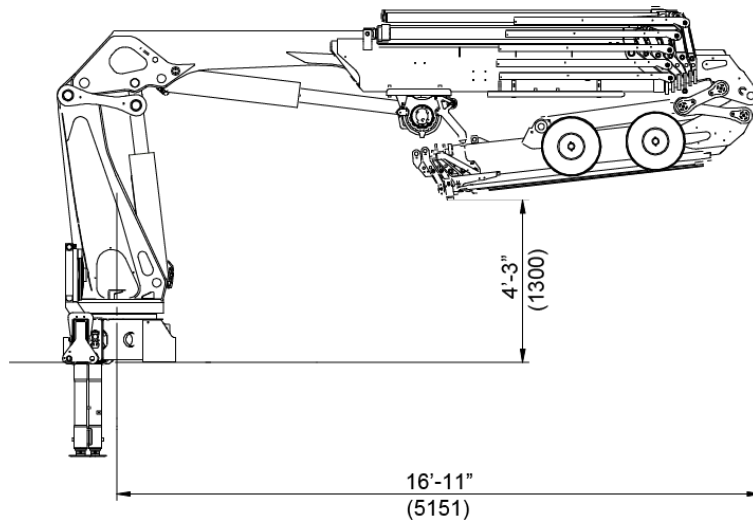
# 32/222K5 w/FJ1000 Dimensional Drawing

Dimensions in ft-inches (mm).



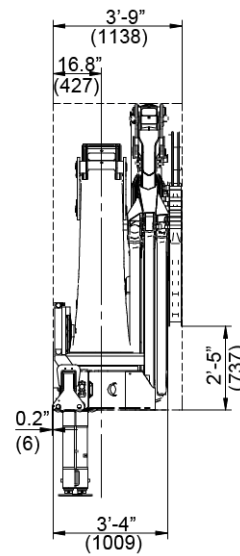
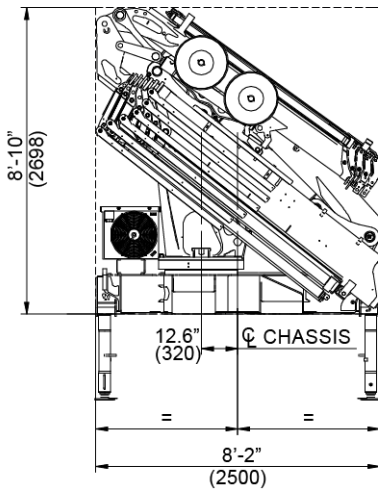
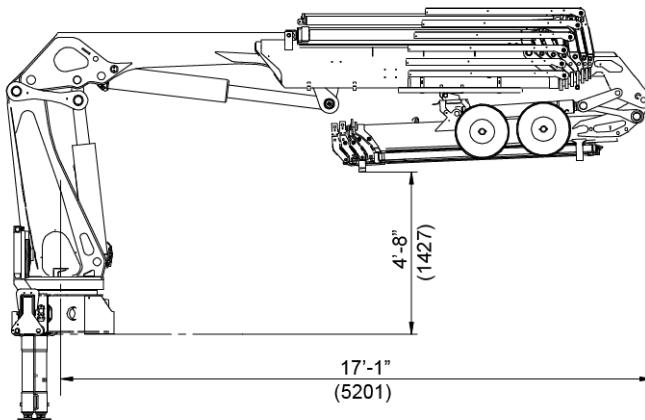
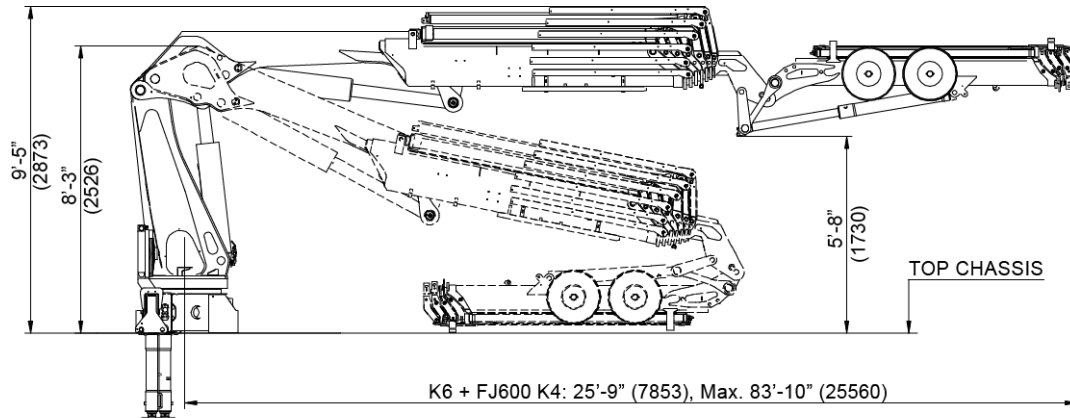
# 32/222K5 w/FJ1000 with Winch Dimensional Drawing

Dimensions in ft-inches (mm).



# 32/222K6 w/FJ600 Dimensional Drawing

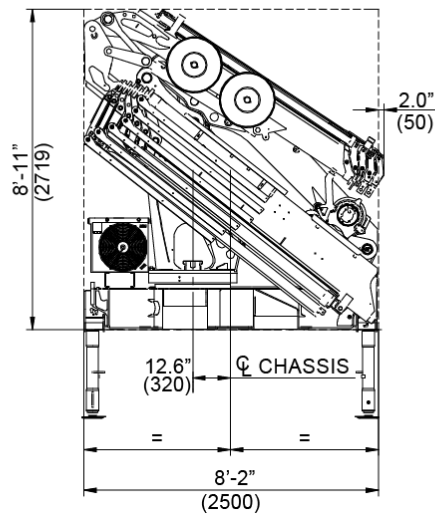
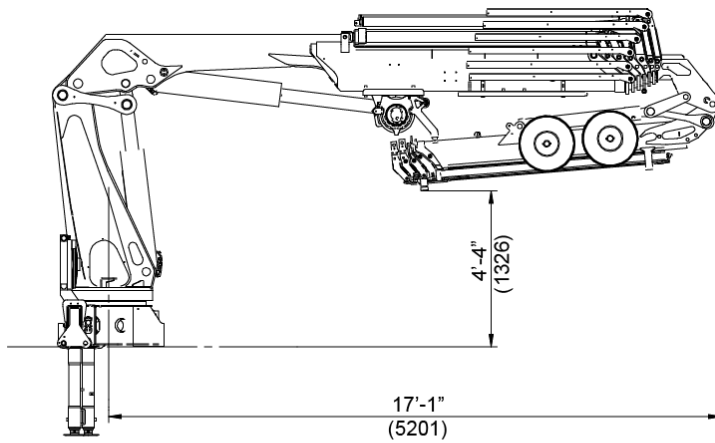
Dimensions in ft-inches (mm).





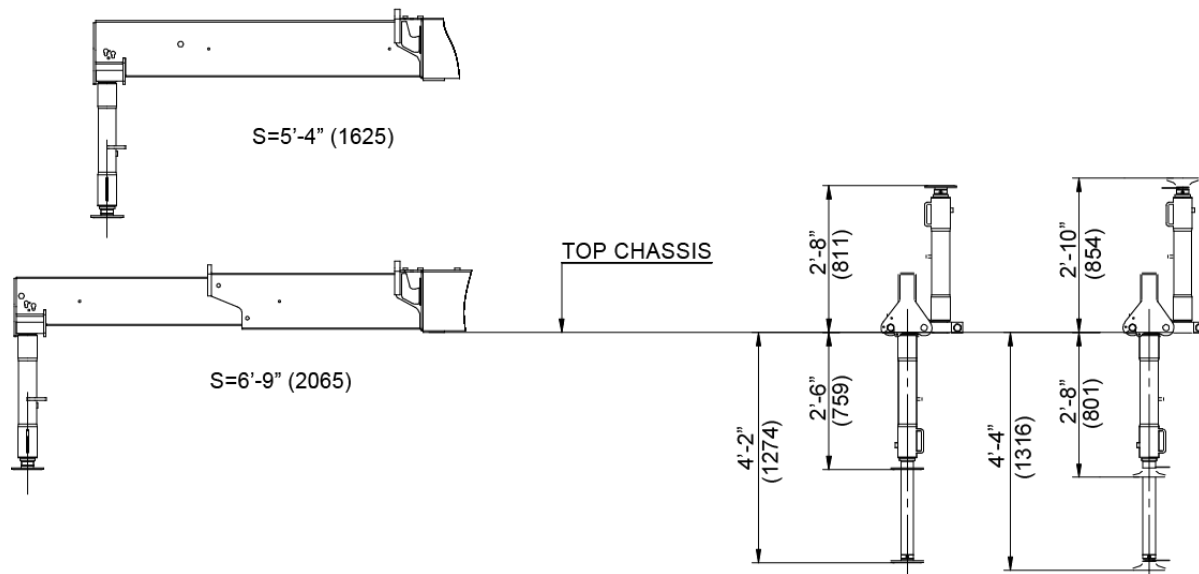
# 32/222K6 w/F J600 with Winch Dimensional Drawing

Dimensions in ft-inches (mm).



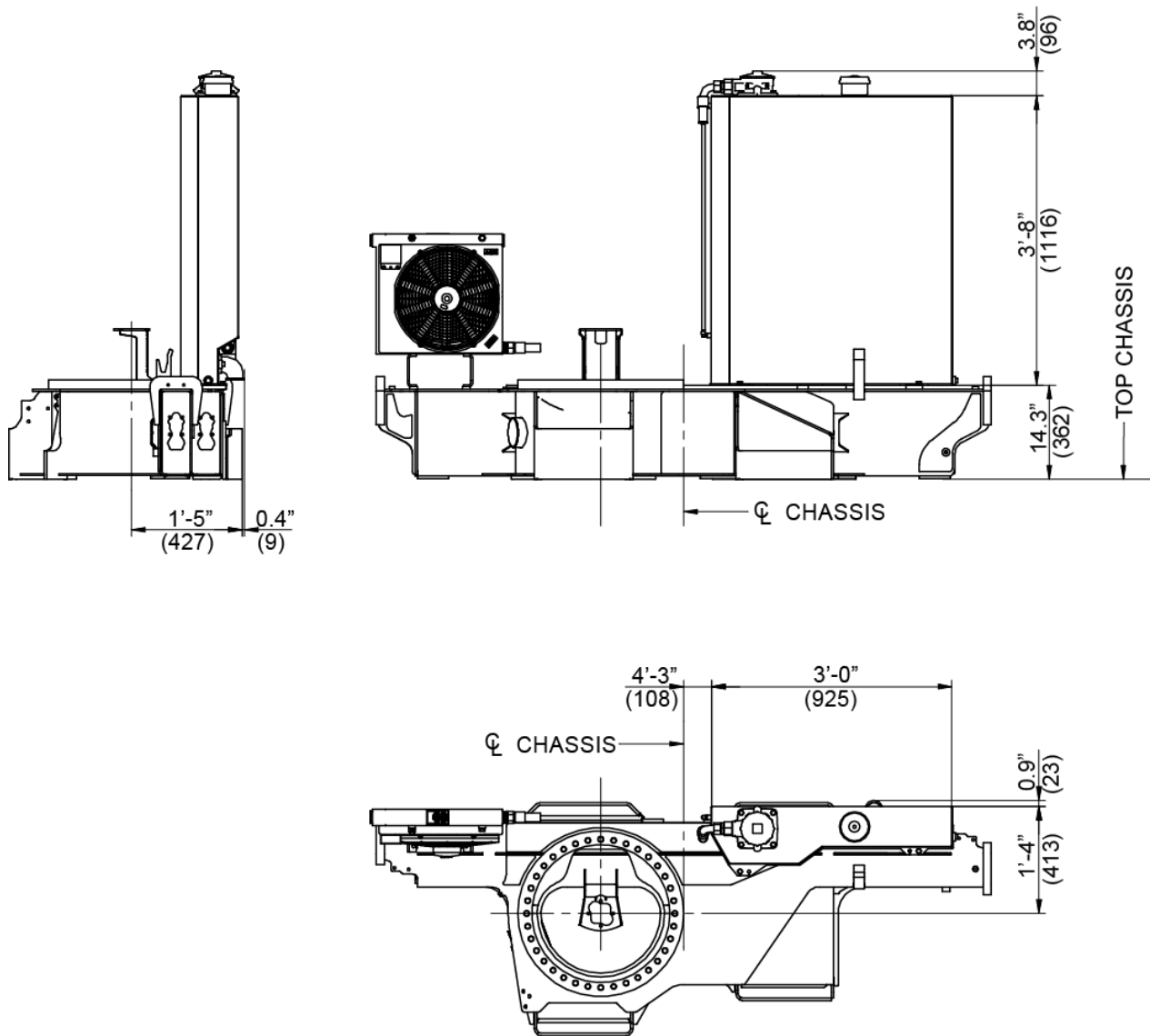
# Stabilizer Drawing

Dimensions in ft-inches (mm).



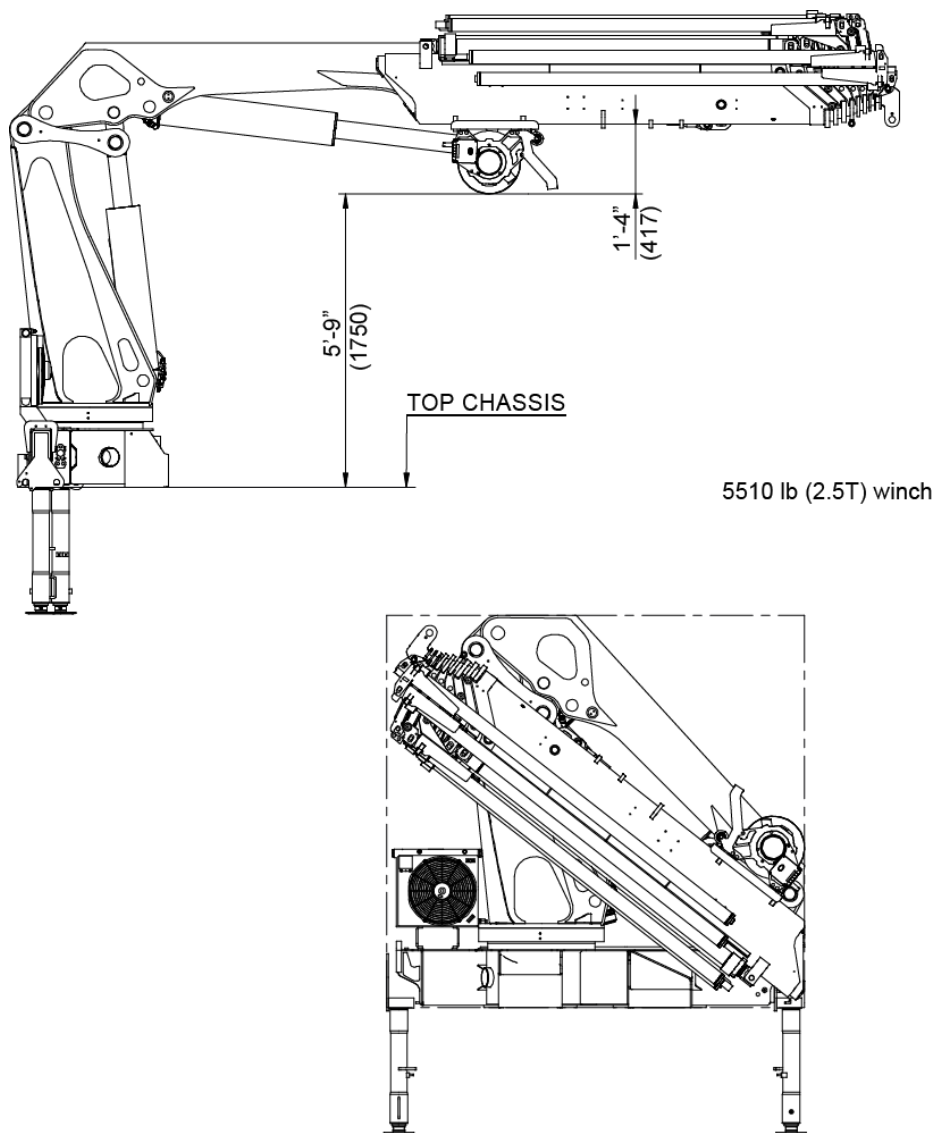
# Tank Dimensions

Dimensions in ft-inches (mm).



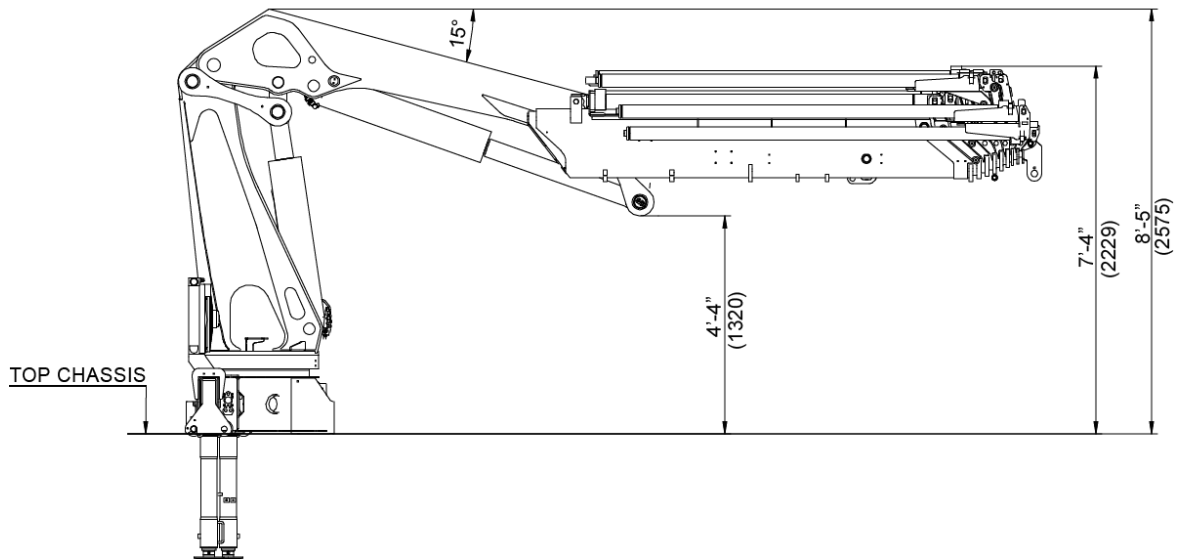
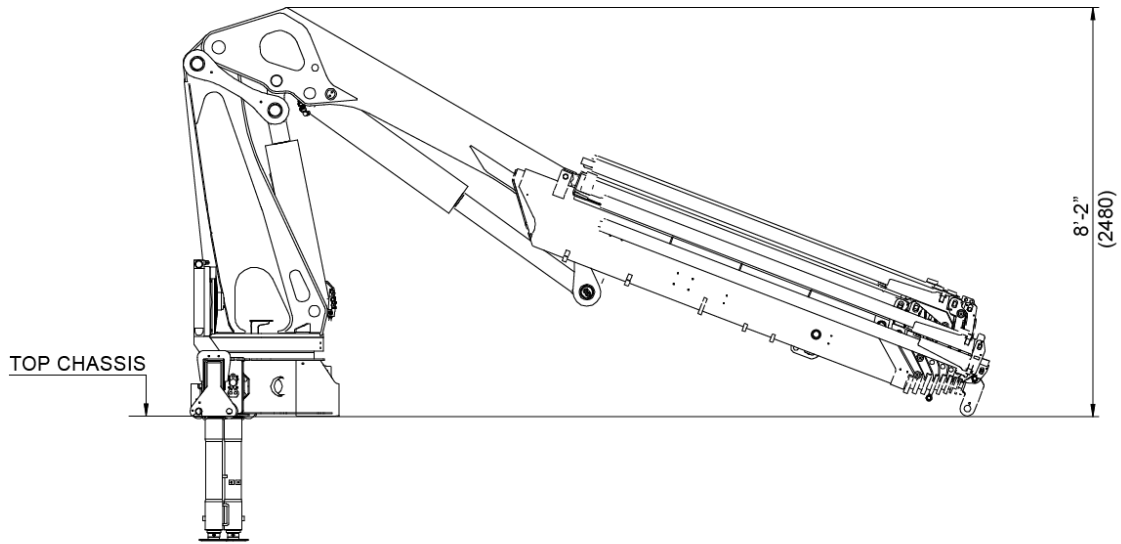
# 32/222 Winch Dimensions

Dimensions in ft-inches (mm).



# 32/222 Dimensions when Stowed in Truck

Dimensions in ft-inches (mm).



## 32/222 Swing Radius

Dimensions in ft-inches (mm).

