

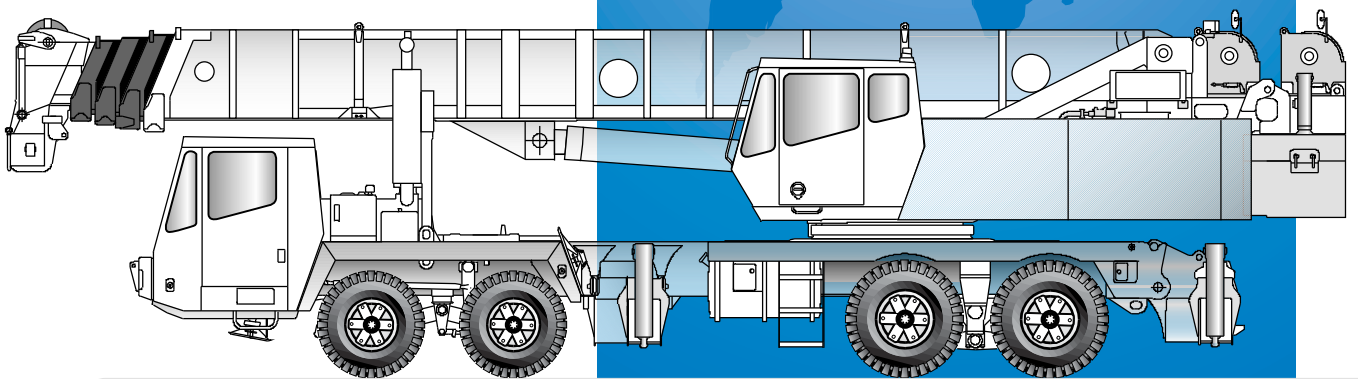


**GROVE**<sup>®</sup>  
**CRANE**



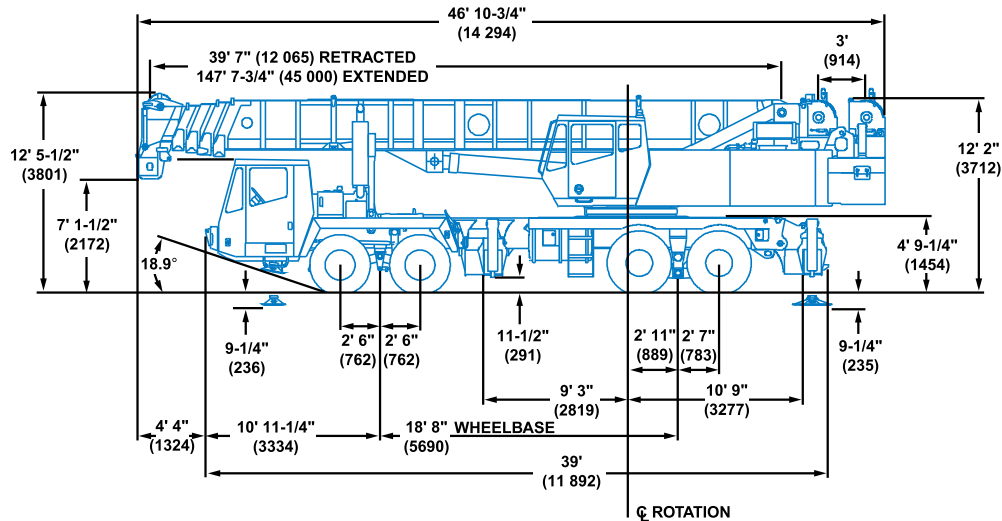
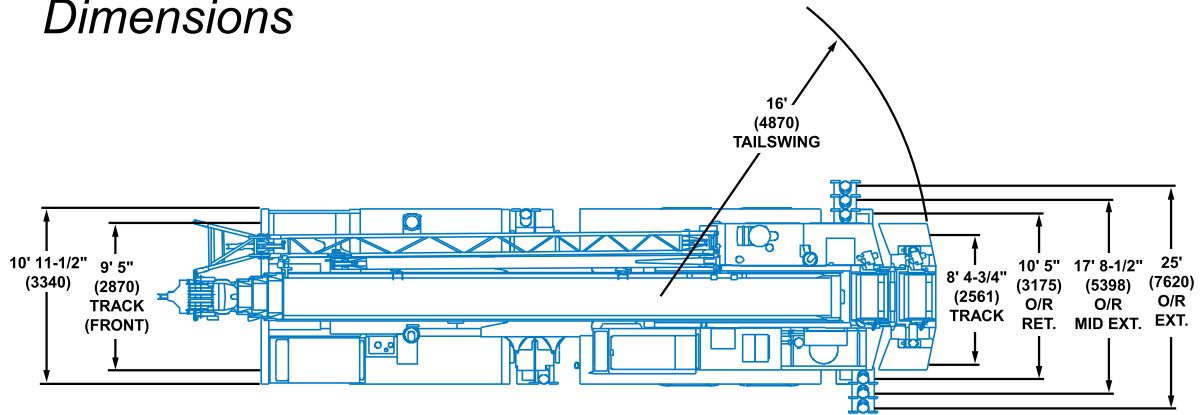
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# TM9100



**Truck Mounted Hydraulic Crane**

# Dimensions



Note: ( ) Reference dimensions in mm

**Curb Turning Radius . . . . . 41' (12 500 mm)**

ALLOWABLE WEIGHTS	FRONT	REAR	GROSS
Axle/Tire Capacities	49,200 lbs. (22 317 kg)	76,880 lbs. (34 873 kg)	126,080 lbs. (57 190 kg)

FIVE SECTION BOOM	FRONT	REAR	GROSS
Base machine with 148 ft. (45 m) boom, aluminum wheels	40,881 lbs. (18 544 kg)	64,377 lbs. (29 201 kg)	105,258 lbs. (47 745 kg)
31 - 56 ft. (9.5 - 17 m) folding swingaway	2,174 lbs. (986 kg)	139 lbs. (63 kg)	2,313 lbs. (1049 kg)
Auxiliary hoist w/rope & mtg.	- 2,225 lbs. (- 1009 kg)	5,745 lbs. (2606 kg)	3,520 lbs. (1597 kg)
Auxiliary boom nose	292 lbs. (132 kg)	- 136 lbs. (- 62 kg)	156 lbs. (71 kg)
100 ton block	3,647 lbs. (1654 kg)	- 1,094 lbs. (- 496 kg)	2,553 lbs. (1158 kg)
65 ton block	2,249 lbs. (1020 kg)	- 675 lbs. (- 306 kg)	1,574 lbs. (714 kg)
45 ton block	1,564 lbs. (709 kg)	- 469 lbs. (- 213 kg)	1,095 lbs. (497 kg)
10 ton ball	800 lbs. (363 kg)	- 240 lbs. (- 109 kg)	560 lbs. (254 kg)
16,300 lbs. (7400 kg) counterweight on s/s	- 9,969 lbs. (- 4522 kg)	26,269 lbs. (11 916 kg)	16,300 lbs. (7394 kg)
16,300 lbs. (7400 kg) counterweight on carrier	N/A	N/A	16,300 lbs. (7394 kg)
7,700 lbs. (3500 kg) counterweight on s/s	- 4,709 lbs. (- 2136 kg)	12,409 lbs. (5629 kg)	7,700 lbs. (3493 kg)
7,700 lbs. (3500 kg) counterweight on carrier	N/A	N/A	7,700 lbs. (3493 kg)
Remove front outrigger box	- 4,098 lbs. (- 1859 kg)	- 2,190 lbs. (- 993 kg)	- 6,288 lbs. (- 2852 kg)
Remove rear outrigger box	2,721 lbs. (1234 kg)	- 9,206 lbs. (- 4176 kg)	- 6,485 lbs. (- 2942 kg)

Note: Weights may vary 3% due to manufacturing tolerances

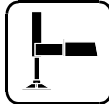
# Working Range



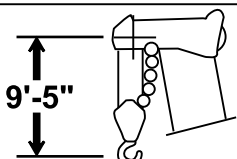
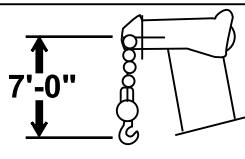
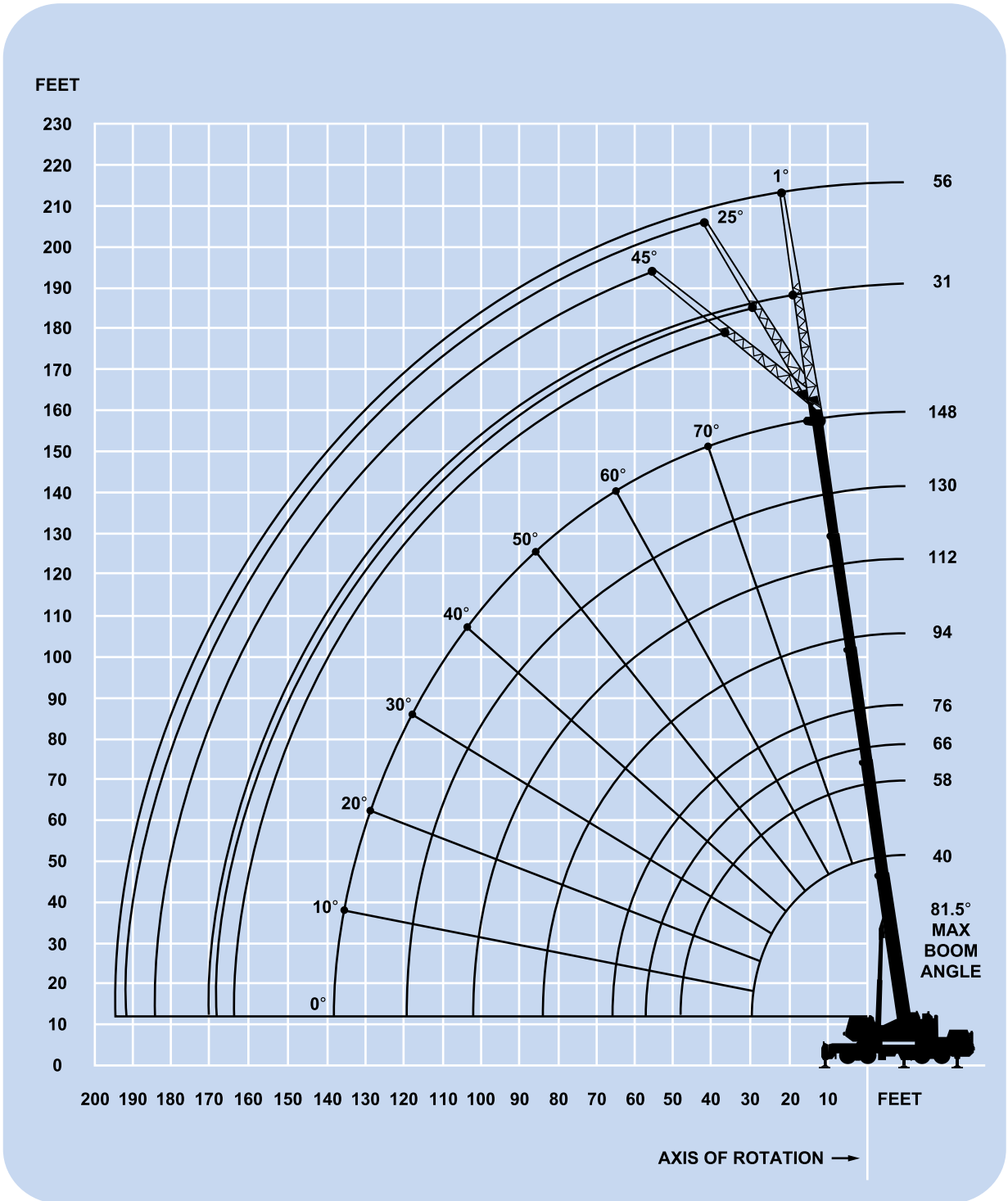
40 - 148 ft.  
(12.1 - 45.0 m)



31 - 56 ft.  
(9.5 - 17.0 m)



360°



**DIMENSIONS ARE FOR LARGEST GROVE FURNISHED HOOK BLOCK AND HEADACHE BALL, WITH ANTI-TWO BLOCK ACTIVATED.**



40 - 148 ft.  
(12.1 - 45.0 m)



24,000 lbs.  
(10 886 kg)



100%



360°



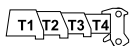
Pounds

(Feet)	39.6	66.6	93.6	111.6	147.6
10	200,000 (66)	68,800 (76.5)	47,000 (81.5)		
12	154,500 (62.5)	68,800 (74.5)	47,000 (80.5)	*37,600 (81.5)	
15	133,500 (57)	68,800 (72)	47,000 (78.5)	37,600 (81)	
20	106,500 (47)	68,300 (67.5)	46,500 (75.5)	35,800 (78.5)	*24,300 (81.5)
25	82,100 (35)	59,900 (62.5)	43,400 (72)	33,700 (76)	24,300 (80.5)
30	51,900 (12)	52,300 (57)	39,850 (68.5)	31,300 (73.5)	24,300 (78.5)
35		46,700 (51.5)	35,250 (65.5)	29,300 (70.5)	24,000 (76.5)
40		41,800 (45.5)	31,300 (62)	27,300 (67.5)	23,200 (74.5)
45		37,800 (39)	28,000 (58)	24,500 (65)	22,100 (72)
50		31,750 (30.5)	25,300 (54)	22,200 (62)	20,900 (70)
60			20,900 (46)	18,300 (55.5)	17,100 (66)
70			17,650 (35.5)	15,400 (48.5)	14,400 (61.5)
80			13,950 (21)	13,000 (41)	11,850 (56.5)
90				11,000 (31)	9,800 (51.5)
100				8,560 (15.5)	8,000 (46)
110					6,080 (40)
120					4,350 (32.5)
130					2,910 (23)
Min. boom angle (deg.) for indicated length (no load)					22
Max. boom length (ft.) at 0 degree boom angle (no load)					111.6
Note: ( ) Boom angles are in degrees.					
*This capacity is based on maximum boom angle.					

Boom Angle	39.6	66.6	93.6	111.6
0°	31,900 (30.2)	13,000 (57.2)	7,460 (84.2)	5,250 (102.2)

Note: ( ) Reference radii in feet.

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%

MODE A

	T1	T2	T3	T4
T1	0	0	0	100
T2	0	100	100	100
T3	0	0	50	100
T4	0	0	50	100



40 - 148 ft.  
(12.1 - 45.0 m)



7,700 lbs.  
(3493 kg)



100%



360°



Pounds

(Feet)	39.6	66.6	93.6	111.6	147.6
10	196,000 (66)	68,800 (76.5)	47,000 (81.5)		
12	154,500 (62.5)	68,800 (74.5)	47,000 (80.5)	*37,600 (81.5)	
15	133,500 (57)	68,800 (72)	47,000 (78.5)	37,600 (81)	
20	106,500 (47)	68,300 (67.5)	46,500 (75.5)	35,800 (78.5)	*24,300 (81.5)
25	76,800 (35)	59,900 (62.5)	43,400 (72)	33,700 (76)	24,300 (80.5)
30	51,900 (12)	52,300 (57)	39,850 (68.5)	31,300 (73.5)	24,300 (78.5)
35		45,700 (51.5)	35,250 (65.5)	29,300 (70.5)	24,000 (76.5)
40		35,150 (45.5)	31,300 (62)	27,300 (67.5)	23,200 (74.5)
45		27,800 (39)	28,000 (58)	24,500 (65)	22,100 (72)
50		22,450 (30.5)	25,300 (54)	22,200 (62)	20,900 (70)
60			17,650 (46)	18,300 (55.5)	17,100 (66)
70			12,500 (35.5)	14,000 (48.5)	12,500 (61.5)
80			8,910 (21)	10,200 (41)	8,820 (56.5)
90				7,450 (31)	6,070 (51.5)
100				5,270 (15.5)	3,950 (46)
110					2,260 (40)

Min. boom angle (deg.) for indicated length (no load) 33

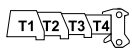
Max. boom length (ft.) at 0 degree boom angle (no load) 111.6

Note: ( ) Boom angles are in degrees.  
\*This capacity is based on maximum boom angle.

Boom Angle	39.6	66.6	93.6	111.6
0°	31,900 (30.2)	13,000 (57.2)	7,460 (84.2)	4,840 (102.2)

Note: ( ) Reference radii in feet.

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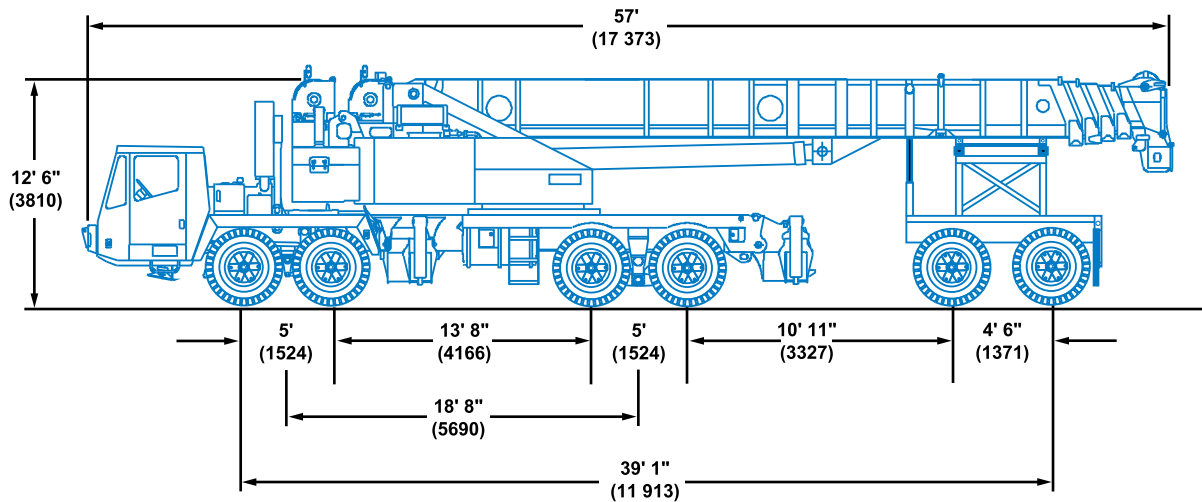


%

MODE A

	T1	T2	T3	T4
T1	0	0	0	100
T2	0	100	100	100
T3	0	0	50	100
T4	0	0	50	100

## Travel proposal



Note: ( ) Reference dimensions in mm

### **FRONT**

42,653 lbs.  
(19 347 kg)

### **REAR**

44,132 lbs.  
(20 018 kg)

### **DOLLY**

32,117 lbs.  
(14 568 kg)

### **GVW**

118,902 lbs.  
(53 934 kg)

### **INSTALLED**

- | 148 ft. (45.0 m) 5-section boom
- | 5,700 lbs.(2586 kg) two axle boom dolly
- | Main and auxiliary hoist w/rope
- | 56 ft. (17.0 m) bi-fold boom extension
- | 10 ton (560 lbs.) ball on carier
- | 65 ton (1,040 lbs.) dock at boom point.
- | Boom extended 0 ft. (0 m) w/aux. nose
- | Front and rear O/R boxes
- | 175 lbs.(79.4 kg) operator

### **REMOVED**

- | Counterweight (24,000 lbs.[10 900 kg])

### **TIRES**

Front: 4X 445/65R22.5

Rear: 8X 14:00R20

Dolly: 8X 11-22.5

Note: Weights may vary 3% due to manufacturing tolerances.

# Rated Lifting Capacities

## IMPORTANT NOTES:

### WARNING: THIS CHART IS ONLY A GUIDE.

The notes below are for illustration only and should not be relied upon to operate the crane. The individual crane's load chart, operating instructions and other instruction plates must be read and understood prior to operating the crane.

1. All rated loads meet ANSI/ASME B30.5, Mobile and Locomotive Cranes. Testing and development were performed to SAEJ1063, Cantilevered Boom Crane Structures - Method of Test, and SAEJ765 Crane Stability Test Code.

2. Rated loads include the weight of hookblock, slings and auxiliary lifting devices and their weights shall be subtracted from the listed rating to obtain the net load to be lifted. When more than the minimum required hoist reeving is used, the additional rope weight shall be considered part of the load to be handled.





































3. Capacities appearing above the bold line are based on structural strength. Tipping should not be relied upon as a capacity indication.

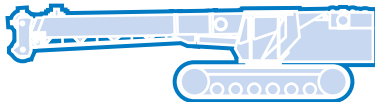
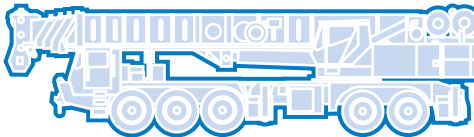
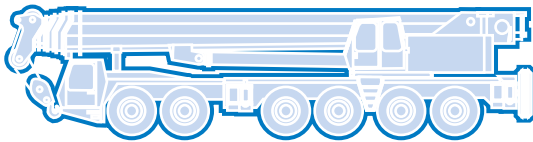
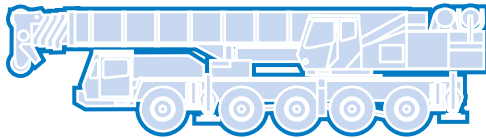
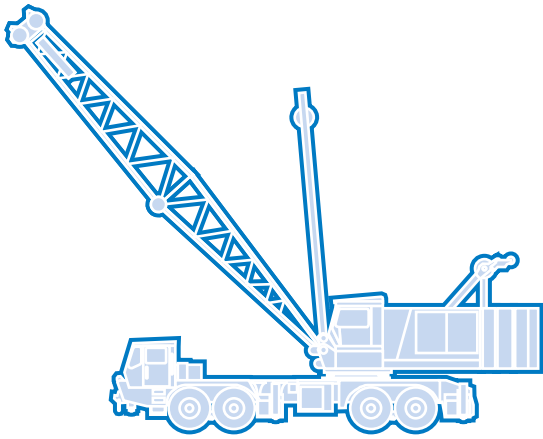
4. The machine shall be leveled on a firm supporting surface. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger floats or tires to spread the load to a larger bearing surface.

5. When either boom length or radius or both are between values listed, the smallest load shown at either the next larger radius or next longer or shorter boom length shall be used.

6. For outrigger operation, outriggers shall be properly extended with tires raised free of crane weight before operating the boom or lifting loads.

# Symbols Glossary

	Frame		Steering
	Outriggers		Transmission
	Outrigger Controls		Axles
	Engine		Brakes
	Fuel Tank Capacity		Tires
	Electrical System		Suspension
	Drive		Rotation
	Lights		Boom Elevation
	Cab		Swing
	Boom		Counterweight
	Fixed Swingaway		Oil
	Tele-Swingaway		Hydraulic System
	Jib		Hoist
	Boom Nose		Radius
	Boom Extension		Boom Length
	Speed		Hookblock
	Grade		Gear
	Lattice Extension		Luffing Jib



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