

**TM-ZR300XL  
SERIES**



**TADANO**



MAXIMUM LIFTING CAPACITY; 7,000 lbs  
EXTENDED LENGTH; 35.43' (TM-ZR305XL)

**Telescoping boom truck mounted crane**

*Known World Wide. TADANO Quality in North America*

# TM-ZR300XL SERIES CRANE SPECIFICATION

	MODEL : TM-ZR303XL	MODEL : TM-ZR304XL
<b>MAXIMUM LIFTING CAPACITY</b>	7,000 lbs. @ 4.6' (4-part lines).	
<b>CRANE CAPACITY</b>	5,600 lbs. @ 6' (4-part lines)	
<b>BOOM</b> <i>Fully powered synchronized telescoping boom of pentagonal box construction</i>	3-sectioned <i>Retracted length: 9.35'</i> <i>Extended length: 21.65'</i> <i>Extended speed: 12.30' / 10 s</i> <i>Elevation: Elevated by a double-acting hydraulic cylinder</i>  <i>Elevation speed: 1° to 76° / 6 s</i> <i>Boom point: 2 sheaves</i>	4-sectioned <i>Retracted length: 10.41'</i> <i>Extended length: 29.19'</i> <i>Extended speed: 18.78' / 13 s</i> <i>Elevation: Elevated by a double-acting hydraulic cylinder</i>  <i>Elevation speed: 1° to 76° / 6 s</i> <i>Boom point: 2 sheaves</i>
<b>WINCH</b> <i>Hydraulic motor driven Spur gear speed reduction, provided with mechanical brake and cable follower.</i>	Single line pull: 1,750 lbs. Single line speed: 216 FPM (@ 4rd layer) Wire rope. <i>Diameter x length: 5/16" (8mm) x 148'</i> <i>Breaking strength: 9,680 lbs.</i> <i>Construction: 7 X 7 + 6 X WS(26)</i> Hook block: 2 sheaves	Single line pull: 1,750 lbs. Single line speed: 216 FPM (@ 4rd layer) Wire rope. <i>Diameter x length: 5/16" (8mm) x 184'</i> <i>Breaking strength: 9,680 lbs.</i> <i>Construction: 7 X 7 + 6 X WS(26)</i> Hook block: 2 sheaves
<b>SWING</b>	<i>Hydraulic motor driven, Worm gear speed reduction, Continuous 360° full circle swing on</i> Swing speed: 2.5 rpm.	
<b>HOOK STOWING DEVICE</b>	<i>Mechanically stowed beneath boom top portion</i> <i>See picture to the right</i>	
<b>OUTRIGGERS</b>	<i>Manually extended sliders and hydraulically extended jacks, Integral up and down. Easy grab type grips lock and unlock sliders position and double</i> Extended width Min. 6' 6 3/4" Mid. 8' 9 1/2" Max. 10' 5 3/16"	
<b>HYDRAULICS</b>	Hydraulic motor <i>Axial piston type for winch and swing</i> Control valves <i>Multiple control valves with integral safety valve</i> Recommended hydraulic pump Pressure: Max. 2,490 PSI capacity Delivery: Max. 14 GPM capacity	
<b>ELECTRICAL SYSTEM</b>	Power supply: DC12V	
<b>SAFETY DEVICES</b>	Anti-two-block with alarm Hook safety latch Level gauge Hydraulic safety valves, check valves and holding valves Over load alert with load indicator <i>Load indication</i> <i>Load moment ratio to rated load indication</i> Audible warning External warning lamps	
<b>CRANE WEIGHT</b>	Approx. 1,910 lbs. (crane bare)	Approx. 2,120 lbs. (crane bare)

NOTE: Max. operating speeds of the crane are performed under the condition that the pump delivery is 14 GPM.

**MODEL : TM-ZR305XL**

7,000 lbs. @ 4.4' (4-part lines).

5,600 lbs. @ 5' (4-part lines)

5-sectioned

Retracted length: 10.26'  
 Extended length: 35.43'  
 Extended speed: 25.17' / 15.5 s  
 Elevation: Elevated by a double-acting hydraulic cylinder  
 Elevation speed: 1° to 76° / 6 s  
 Boom point: 2 sheaves

Single line pull: 1,750 lbs.  
 Single line speed: 216 FPM (@ 4rd layer)  
 Wire rope:  
 Diameter x length: 5/16" (8mm) x 217'  
 Breaking strength: 9,680 lbs.  
 Construction: 7 X 7 + 6 X WS(26).  
 Hook block: 2 sheaves

ball bearing slew ring, Automatic swing lock

with crane frame. Power lock pins for storage position.



**Hook Stowing Device**



**Radio Remote Control**  
 (Full proportional handheld type)

Approx. 2,330 lbs. (crane bare)

## RATED LIFTING CAPACITIES (IN POUNDS)

MODEL : TM-ZR303XL CAPACITY CHART ; D

Load Radius (ft)	9.4 ft Boom			15.5 ft Boom			21.7 ft Boom	
	Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended Max.
		Max.	Min.		Max.	Min.		
4.6	60°	7000	5300	74°	7000	5300		
5	57°	6600	4800	72°	6600	4800		
6	49°	5600	4000	68°	5600	4000	75°	4100
8	27°	4100	2600	59°	4100	2600	70°	3700
10				50°	3200	1800	64°	2900
12				38°	2600	1400	57°	2300
14				22°	2200	1100	50°	2000
16							43°	1750
20							21°	1350
	1°	3800	2300	1°	2100	1000	1°	1250
		(8.7ft.)			(14.8ft.)			(21.0ft.)

MODEL : TM-ZR303XL CAPACITY CHART ; A

Load Radius (ft)	9.4 ft Boom			15.5 ft Boom			21.7 ft Boom	
	Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended Max.
		Max.	Min.		Max.	Min.		
4.6	60°	7000	5300	74°	7000	5300		
5	57°	6600	4800	72°	6600	4800		
6	49°	5600	4000	68°	5600	4000	75°	4100
8	27°	4100	2600	59°	4100	2600	70°	3700
10				50°	3200	1800	64°	2900
12				38°	2500	1400	57°	2300
14				22°	2050	1100	50°	1950
16							43°	1600
20							21°	1200
	1°	3800	2300	1°	1900	1000	1°	1150
		(8.7ft.)			(14.8ft.)			(21.0ft.)

### NOTE :

- Rated lifting capacities on this chart show maximum allowable loads with the outriggers properly extended on a firm surface and the crane leveled and mounted on a factory recommended truck. The rated lifting capacities in shade area are based on crane strength and others, on its stability(not to exceed 85% of tipping).
- The weight of handling devices such as hook block (65lbs.), slings, etc., must be considered part of the load and must be deducted from the rated lifting capacities.

- The operator must reduce loads to allow for such factors as wind, ground conditions, operating speed and the effects of freely suspended loads such as boom deflection.
- For boom lengths not shown, use the rated lifting capacity of next longer boom.
- When outriggers are extended to mid position, use the rated lifting capacities for outriggers extended to min. position.
- For boom lengths longer than 16.7 ft., extend outriggers to max.
- 29.2 ft. boom means mark on 4th boom section side plate is half visible.



MODEL : TM-ZR304XL CAPACITY CHART ; D

Load Radius (ft)	10.4 ft Boom			16.8 ft Boom			23.0 ft Boom		29.2 ft Boom	
	Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended Max.	Boom ∠	Outriggers Extended Max.
		Max.	Min.		Max.	Min.				
4.6	63°	7000	5300	75°	7000	5300				
5	61°	6600	4800	73°	6600	4800				
6	54°	5600	4000	70°	5600	4000	76°	4100		
8	37°	4100	2600	62°	4100	2600	71°	3700	75°	2100
10				54°	3200	1750	65°	2900	71°	2100
12				44°	2600	1300	59°	2300	67°	1850
14				32°	2200	1000	53°	2000	63°	1600
16							46°	1750	58°	1400
20							29°	1350	48°	1100
25									31°	850
	1°	3300	1850	1°	1850	800	1°	1150	1°	700
		(9.8ft.)			(16.1ft.)			(22.3ft.)		(28.5ft.)

MODEL : TM-ZR304XL CAPACITY CHART ; A

Load Radius (ft)	10.4 ft Boom			16.8 ft Boom			23.0 ft Boom		29.2 ft Boom	
	Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended Max.	Boom ∠	Outriggers Extended Max.
		Max.	Min.		Max.	Min.				
4.6	63°	7000	5300	75°	7000	5300				
5	61°	6600	4800	73°	6600	4800				
6	54°	5600	4000	60°	5600	4000	76°	4100		
8	37°	4100	2600	62°	4100	2600	71°	3700	75°	2100
10				54°	3100	1750	65°	2900	71°	2100
12				44°	2400	1300	59°	2300	67°	1850
14				32°	2000	1100	53°	1900	53°	1600
16							46°	1550	58°	1400
20							29°	1100	48°	1050
25									31°	800
	1°	3200	1850	1°	1650	800	1°	950	1°	650
		(9.8ft.)			(16.1ft.)			(22.3ft.)		(28.5ft.)



**RATED LIFTING CAPACITIES (IN POUNDS)**

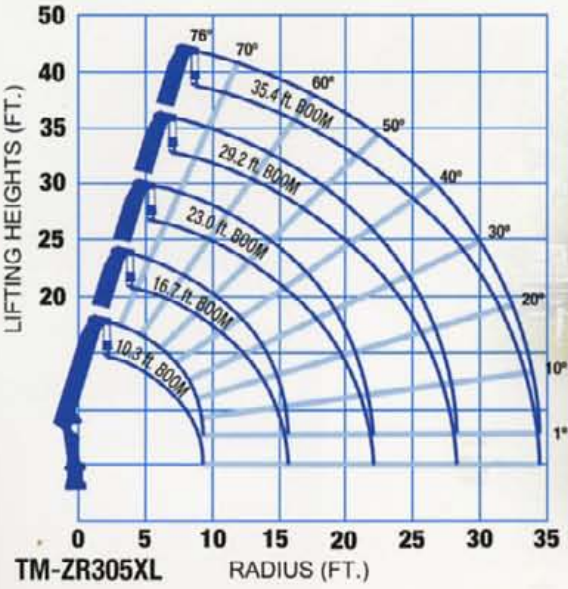
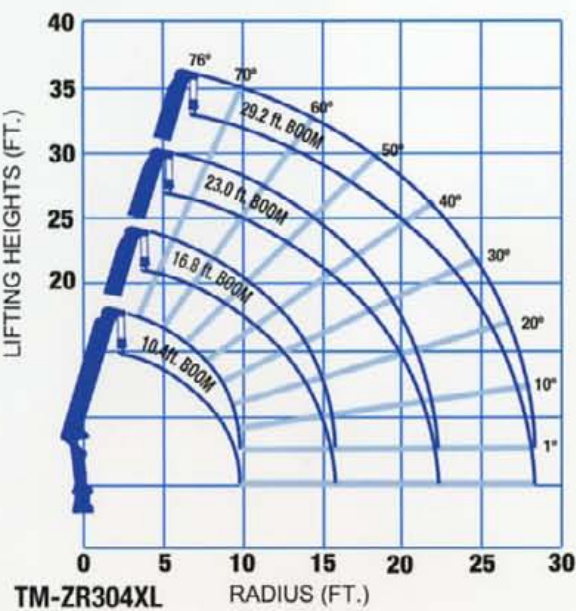
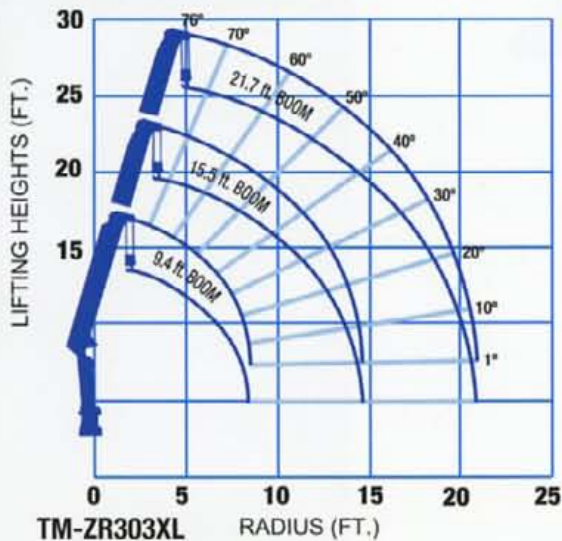
MODEL : TM-ZR305XL CAPACITY CHART ; D

Load Radius (ft)	10.3 ft Boom			16.7 ft Boom			23.0 ft Boom		29.2 ft Boom		35.4 ft Boom	
	Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended Max.	Boom ∠	Outriggers Extended Max.	Boom ∠	Outriggers Extended Max.
		Max.	Min.		Max.	Min.						
4.4	64°	7000	5300	75°	7000	5300						
5	60°	6300	4700	73°	6300	4700						
6	53°	5200	3900	69°	5200	3900	76°	3800				
8	36°	3900	2500	61°	3900	2500	70°	3400	75°	2000		
10				53°	3100	1650	65°	2700	71°	2000	75°	1050
12				43°	2500	1200	59°	2200	67°	1750	71°	1050
14				31°	2100	900	53°	1900	62°	1500	68°	950
16							46°	1650	58°	1300	64°	850
20							28°	1300	47°	1000	57°	650
25									31°	800	46°	500
30											32°	400
	1°	3200	1800	1°	1800	700	1°	1150	1°	700	1°	350
		(9.6ft.)			(16.0ft.)			(22.3ft.)		(28.5ft.)		(34.8ft.)

MODEL : TM-ZR305XL CAPACITY CHART ; A

Load Radius (ft)	10.3 ft Boom			16.7 ft Boom			23.0 ft Boom		29.2 ft Boom		35.4 ft Boom	
	Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended		Boom ∠	Outriggers Extended Max.	Boom ∠	Outriggers Extended Max.	Boom ∠	Outriggers Extended Max.
		Max.	Min.		Max.	Min.						
4.4	64°	7000	5300	75°	7000	5300						
5	60°	6300	4700	73°	6300	4700						
6	53°	5200	3900	69°	5200	3900	76°	3800				
8	36°	3900	2500	61°	3900	2500	70°	3400	75°	2000		
10				53°	3000	1650	65°	2700	71°	2000	75°	1050
12				43°	2300	1200	59°	2200	67°	1750	71°	1050
14				31°	1900	900	53°	1800	62°	1500	68°	950
16							46°	1450	58°	1300	64°	850
20							28°	1000	47°	950	57°	650
25									31°	750	46°	500
30											32°	400
	1°	3200	1800	1°	1600	700	1°	850	1°	600	1°	300
		(9.6ft.)			(16.0ft.)			(22.3ft.)		(28.5ft.)		(34.8ft.)

**WORKING RANGE CHARTS**



**NOTE:** The above lifting heights and boom angles are based on a straight (unladen) boom, and allowance should be made for boom deflection obtained under laden condition.

**GENERAL DATA FOR SUITABLE TRUCKS**

**CAPACITY; A**

- Gross Axle Weight Rating (GAWR), front... 5,000 lbs. or more.
- Gross Axle Weight Rating (GAWR), rear.... 10,000 lbs. or more
- Gross Vehicle Weight Rating..... 15,000 to 26,100 lb.
- Wheelbase (WB)..... 145 to 215"

**CAPACITY; D**

- Gross Axle Weight Rating (GAWR), front.... 5,500 lbs. or more
- Gross Axle Weight Rating (GAWR), rear .... 10,000 lbs. or more

Frame Section Modulus(SM)  
under crane; (per rail)..... 10 cu. inch 110,000 PSI

Frame Section Modulus (SM)  
over rear spring hanger;  
(per rail )..... 10 cu. inch 110,000 PSI

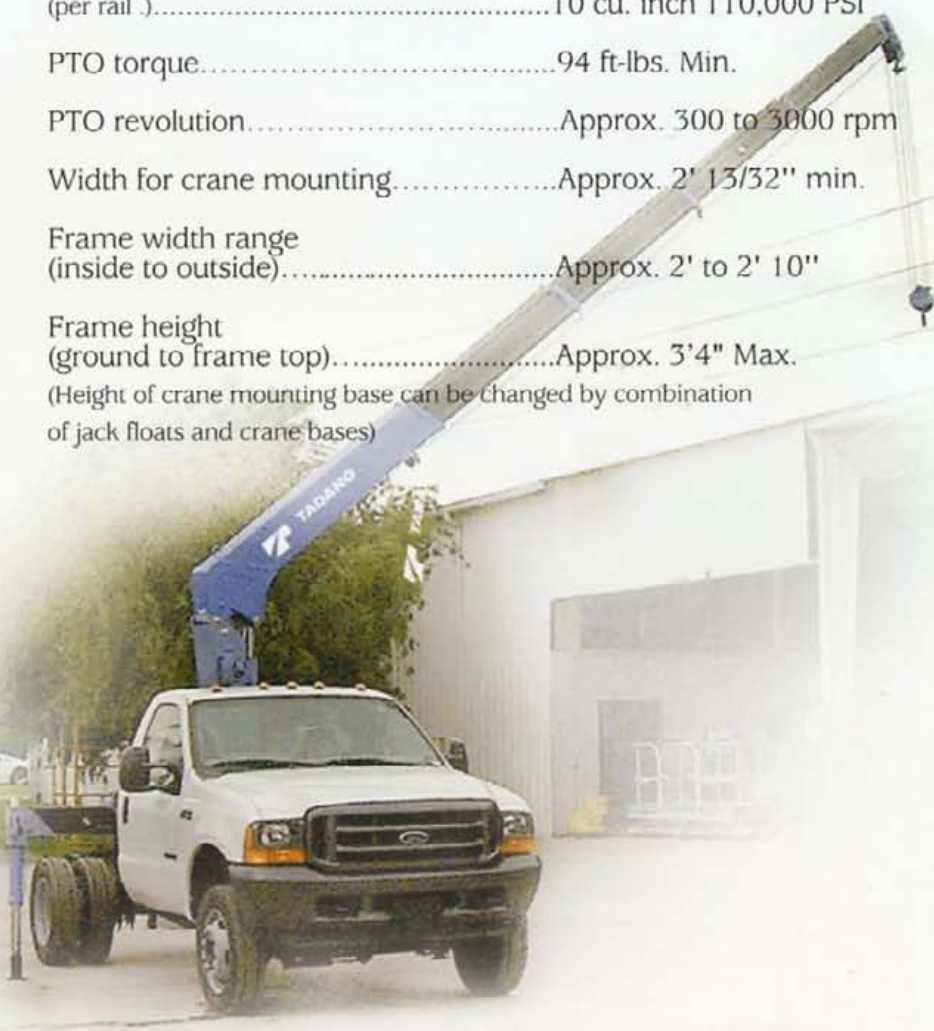
PTO torque..... 94 ft-lbs. Min.

PTO revolution..... Approx. 300 to 3000 rpm

Width for crane mounting..... Approx. 2' 13/32" min.

Frame width range  
(inside to outside)..... Approx. 2' to 2' 10"

Frame height  
(ground to frame top)..... Approx. 3'4" Max.  
(Height of crane mounting base can be changed by combination  
of jack floats and crane bases)





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