

 SPEC. SHEET No. TM-30Z-6-03453/R-01

 DATE
 May, 2020

TADANO CARGO CRANE

# MODEL: TM-ZE303HS

## CRANE SPECIFICATIONS

CRANE CAPACITY	3,000 kg at 2.7 m (4-part lines)		
BOOM	Three-sectioned, fully hydraulic telescoping boom of heptagonal box construction		
	Retracted length 3.28 m		
	Extended length 7.71 m		
	Extending speed 4.43 m / 12 s		
	Elevation Elevated by a double-acting		
	hydraulic cylinder		
	Elevating speed 1º to 78º / 7.5 s		
	Boom point 2 sheaves		
<u>WINCH</u>	Hydraulic motor driven Spur gear speed reduction, provided with		
	mechanical brake and cable follower		
	Single line pull 7.35 kN{750 kgf}		
	Single line speed 76 m/min (at 4th layer)		
	Wire rope		
	Diameter x length 8 mm x 51 m		
	Breaking strength 43.1 kN{4.39 tf}		
	Construction7 x 7 + 6 x WS(26)		
	Hook block 2 sheaves		

HOOK STOWING DEVICE Mechanically stowed beneath boom top portion

<u>SLEWING</u>	Hydraulic motor driven Worm gear speed reduction Continuous 360° full circle slewing on ball bearing slew ring Automatic slewing lock Slewing speed2.5 min <sup>-1</sup> {rpm}
<u>OUTRIGGERS</u>	Manually extended sliders and hydraulically extended jacks Integral with crane frame Power up and down Extension width Min. 2,000 mm Mid. 2,700 mm Max.3,400 mm
<u>HYDRAULICS</u>	Hydraulic pump Single gear pump Hydraulic motors Axial piston type for winch Axial piston type for slewing Control valves Multiple control valves with integral safety Valve Oil tank capacity approx. 31 L
SAFETY DEVICES	AML(Automatic Moment Limiter) Load indication Load moment ratio to rated load indication Warning alarm Over load limiter (stop) WHL(Working Height Limiter) Load meter Load indicator Over-unwinding prevention Terminal for emergency stop switch Over-winding alarm Anti-two-block device Hook safety latch Hydraulic safety valves, check valves and holding valves Level gauge
CRANE MASS	Approx. 1,190 kg (includes standardized mounting parts)

NOTE : Operating speeds of the crane are guaranteed under the condition that the pump delivery is 60 L /min.

## RATED LIFTING CAPACITIES IN KILOGRAMS

	0 1		
Load Radius	3.28 m / 5.51 m Boom	Load Radius	7.71 m Boom
2.4 m and below	3,000	2.7 m and below	2,370
2.7 m	3,000	3.2 m	2,050
3.0 m	2,550	3.5 m	1,900
3.5 m	2,150	4.0 m	1,650
4.0 m	1,850	4.5 m	1,500
4.5 m	1,650	5.0 m	1,350
5.0 m	1,450	5.5 m	1,250
5.31 m	1,350	6.0 m	1,150
		6.5 m	1,050
		7.0 m	970
		7.51 m	900

#### Crane Strength Rated Capacities

- NOTES : 1. Capacities in above tables include slings and similarly used load lifting devices, and they must be added to the mass of the load. They don't, however, include the mass of hook block (30kg)
  - 2. The above numerical values of total rated loads are based on crane strength only. The total rated loads based on stability may lower than those in the above table depending on the loading conditions, the types of the chassis and extension width of outriggers.

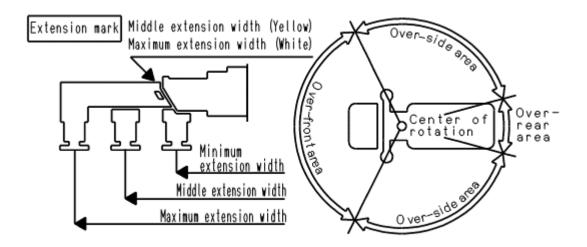
Table A	3.28 m / 5.51 m Boom				7.71 m Boom
	Lood Dodius			Load Radius	Extension width
	Load Radius	Extension widt	Extension width of outriggers		of outriggers
		Maximum	Minimum		Maximum
	2.4 m and below	3,000	1,350	2.7 m and below	2,370
	2.7 m	2,570	1,100	3.2 m	1,870
	3.0 m	2,070	900	3.5 m	1,550
	3.5 m	1,550	700	4.0 m	1,220
	4.0 m	1,220	550	4.5 m	1,000
	4.5 m	1,000	450	5.0 m	850
	5.0 m	850	400	5.5 m	750
	5.31 m	770	350	6.0 m	650
				6.5 m	570
				7.0 m	500
				7.51 m	450
Table C		3.28 m / 5.8	51 m Boom		7.71 m Boom
Table C	Load Radius				7.71 m Boom Extension width
Table C	Load Radius	3.28 m / 5.5 Extension widt		Load Radius	
Table C				Load Radius	Extension width
Table C	Load Radius 2.4 m and below	Extension widt	h of outriggers		Extension width of outriggers
Table C	2.4 m	Extension widt Maximum	h of outriggers Minimum	Load Radius 2.7 m	Extension width of outriggers Maximum
Table C	2.4 m and below	Extension widt Maximum 3,000	h of outriggers Minimum 1,600	Load Radius 2.7 m and below	Extension width of outriggers Maximum 2,370
Table C	2.4 m and below 2.7 m	Extension widt Maximum 3,000 3,000	h of outriggers Minimum 1,600 1,300	Load Radius 2.7 m and below 3.2 m	Extension width of outriggers Maximum 2,370 2,050
Table C	2.4 m and below 2.7 m 3.0 m 3.5 m 4.0 m	Extension widt Maximum 3,000 3,000 2,550	h of outriggers Minimum 1,600 1,300 1,070	Load Radius 2.7 m and below 3.2 m 3.5 m	Extension width of outriggers Maximum 2,370 2,050 1,870
Table C	2.4 m and below 2.7 m 3.0 m 3.5 m	Extension widt Maximum 3,000 3,000 2,550 1,950	h of outriggers Minimum 1,600 1,300 1,070 850	Load Radius 2.7 m and below 3.2 m 3.5 m 4.0 m	Extension width of outriggers Maximum 2,370 2,050 1,870 1,520
Table C	2.4 m and below 2.7 m 3.0 m 3.5 m 4.0 m 4.5 m 5.0 m	Extension widt Maximum 3,000 2,550 1,950 1,520	h of outriggers Minimum 1,600 1,300 1,070 850 670	Load Radius 2.7 m and below 3.2 m 3.5 m 4.0 m 4.5 m	Extension width of outriggers Maximum 2,370 2,050 1,870 1,520 1,220
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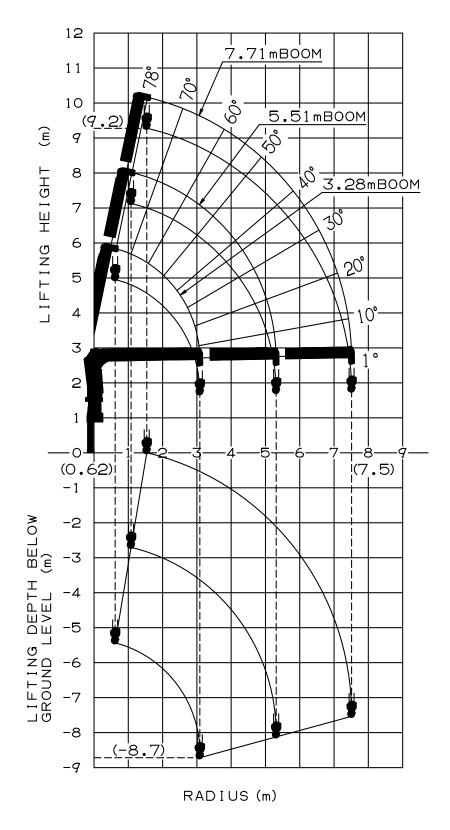
#### **Empty Chassis Rated Capacities**

	3.28 m / 5.51 m Boom			7.71 m Boom
Load Radius	Extension width of outriggers		Load Radius	Extension width
LUau Maulus				of outriggers
	Maximum	Minimum		Maximum
2.4 m and below	3,000	1,600	2.7 m and below	2,370
2.7 m	3,000	1,300	3.2 m	2,050
3.0 m	2,550	1,070	3.5 m	1,900
3.5 m	2,150	850	4.0 m	1,650
4.0 m	1,850	670	4.5 m	1,500
4.5 m	1,650	550	5.0 m	1,350
5.0 m	1,450	450	5.5 m	1,250
5.31 m	1,350	400	6.0 m	1,150
			6.5 m	1,050
			7.0 m	970
			7.51 m	900
	and below 2.7 m 3.0 m 3.5 m 4.0 m 4.5 m 5.0 m	Load Radius         Extension widt           2.4 m         3,000           and below         3,000           2.7 m         3,000           3.0 m         2,550           3.5 m         2,150           4.0 m         1,850           4.5 m         1,650           5.0 m         1,450	Load RadiusExtension width of outriggersMaximumMinimum2.4 m and below3,0001,6002.7 m3,0001,3003.0 m2,5501,0703.5 m2,1508504.0 m1,8506704.5 m1,6505505.0 m1,450450	Load Radius         Extension width of outriggers         Load Radius           Maximum         Minimum         2.7 m           3,000         1,600         2.7 m           3,000         1,300         3.2 m           3.0 m         2,550         1,070         3.5 m           3.5 m         2,150         850         4.0 m           4.0 m         1,850         670         4.5 m           4.5 m         1,650         550         5.0 m           5.0 m         1,350         400         6.0 m           5.31 m         1,350         400         6.5 m           7.0 m         1,350         400         6.7 m

NOTES :1. Empty Chassis Rated Capacities in these tables depend on condition that crane is set level on firm level ground.

- 2. Capacities in these tables include slings and similarly used load handling devices, and they must be added to the mass of the load. They don't, however, include the mass of hook block(30kg).
- 3. When the outriggers are extended to the middle extension width, read the capacities rated for the minimum extension width.
- 4. This load radius shows actual load radius which includes boom deflection.
- 5. If the boom length exceeds the table value even a little, the performance is limited to the performance of the next boom length.
- 6. For boom lengths longer than 5.51m, extend outriggers to maximum extension width.
- 7. Empty Chassis Rated Capacities table A, C and D depend on the types of chassis.
- Empty Chassis Rated Capacities are shown for over-side areas and over-rear area. These capacities for over-front area may lowered depending on the types of chassis.

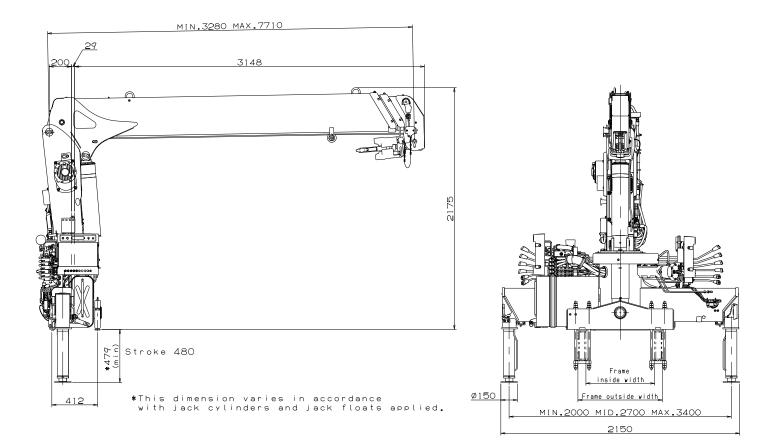




## WORKING RANGE

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 conditions.

## DIMENSIONS



## GENERAL DATA FOR SUITABLE TRUCKS

Gross vehicle mass (including crane mass)	8,000 to 14,500 kg
P.T.O. torque	190 N-m{19.4 kgf-m} min.
P.T.O. revolution	Approx. 300 to 1,900 min <sup>-1</sup> {rpm}
Width for crane mounting	Approx. 640 mm min.
Frame	Weight distribution and frame strength
	should be calculated for each truck
Frame width range (inside to outside)	- Approx. 610 to 860 mm
Frame height (ground to frame top)	- Approx. 1,015 mm max.
	(Height of crane mounting base can be
	changed by combination of jack floats and
	crane bases)