

SPEC. SHEET No.TM-50ZT-2-00013/T-02 DATE June, 2016

TADANO CARGO CRANE

MODEL : TM-ZT503H

CRANE SPECIFICATIONS

CRANE CAPACITY	5,050 kg at 2.5 m (5-part line)
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BOOM	Three-sectioned, fully hydraulic telescoping boom of pentagon			
	box construction			
	Retracted length 3.47 m			
	Extended length 8.31 m			
	Extending speed 4.84 m / 18 s			
	Elevation Elevated by a double-acting			
	hydraulic cylinder			
	Elevating speed 1° to 78° / 12 s			
	Boom point3 sheaves			
<u>WINCH</u>	Hydraulic motor driven Spur gear speed reduction, provided			
<u>WINCH</u>	Hydraulic motor driven Spur gear speed reduction, provided with mechanical brake			
<u>WINCH</u>				
<u>WINCH</u>	with mechanical brake			
<u>WINCH</u>	with mechanical brake Single line pull 9.90 kN{1,010 kgf}			
<u>WINCH</u>	with mechanical brake Single line pull 9.90 kN{1,010 kgf} Single line speed66 m/min.(at 4th layer)			
<u>WINCH</u>	with mechanical brake Single line pull 9.90 kN{1,010 kgf} Single line speed66 m/min.(at 4th layer) Wire rope			
<u>WINCH</u>	with mechanical brake Single line pull 9.90 kN{1,010 kgf} Single line speed66 m/min.(at 4th layer) Wire rope Diameter x length 8 mm x 67 m			
<u>WINCH</u>	with mechanical brake Single line pull 9.90 kN{1,010 kgf} Single line speed 66 m/min.(at 4th layer) Wire rope Diameter x length 8 mm x 67 m Breaking strength 50.1 kN{5,100 kgf}			

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 ⁻¹ {rpm}				
<u>OUTRIGGERS</u>	Manually extended sliders and hydraulically extended jacks Integral with crane frame Power up and down				
	Extended width Min. 2,200 mm				
	Mid. 3,000 mm				
	Max.3,800 mm				
HYDRAULICS	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 capacityApprox. 90 L				
SAFETY DEVICES	Load meter				
	Load indicator				
	Over-winding alarm				
	Anti-two-block device				
	Hook safety latch				
	Hydraulic safety valves, check valves and holding valves				
	Level gauge				
CRANE MASS	Approx. 1,610 kg (except 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

Load Radius	3.47 m Boom	Load Radius	5.91 m Boom	Load Radius	8.31 m Boom
2.5 m and below	5,050	2.95 m and below	4,050	3.8 m and below	3,130
2.95 m	4,050	3.8 m	3,130	4.1 m	2,930
3.25 m	3,700	4.1 m	2,930	4.5 m	2,580
		4.5 m	2,580	5.0 m	2,280
		5.0 m	2,280	5.5 m	2,030
		5.69 m	1,950	6.0 m	1,830
				6.5 m	1,680
				7.0 m	1,550
				7.5 m	1,430
				8.09m	1,280

Crane Strength Rated Capacities

- NOTES : 1. 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 and the types of the chassis.
 - 2. Rated Lifting Capacities in these tables depend on condition that crane is set level on firm level ground.
 - 3. The mass of hook block (50kg), slings and all similarly used load lifting devices must be added to the mass of the load.
 - 4. For boom lengths not shown, use the rated lifting capacity of next longer boom.



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) 15,000 kg or more
P.T.O. torque 180 N · m{18.4 kgf · m} min.
P.T.O. revolution Approx. 1,200 min ⁻¹ {rpm} max.
Width for crane mounting Approx. 750 mm min.
Frame Weight distribution and frame strength
should be calculated for each truck
Frame width range (inside to outside) Approx. 610 to 940 mm
Frame height (ground to frame top) Approx. 1,290 mm max.
(Height of crane mounting base can be changed
by combination of jack floats and crane bases)