

TADANO CARGO CRANE

MODEL : **TM-ZE296MH** ----- with hook stowing device

CRANE SPECIFICATIONS

<u>CRANE CAPACITY</u>	3,030 kg at 1.4 m (4-part lines)
<u>BOOM</u>	Six-sectioned, fully powered partly synchronized telescoping boom of pentagonal box construction
	Retracted length ----- 3.23 m
	Extended length ----- 12.8 m
	Extending speed ----- 9.57 m / 17 s
	Elevation ----- Elevated by a double-acting hydraulic cylinder
	Elevating speed ----- 1° to 76° / 6 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 ----- 7.45 kN {760 kgf}
	Single line speed ----- 68 m/min (at 4th layer)
	Wire rope
	Diameter x length ----- 8 mm x 75 m
	Breaking strength ----- 43.1 kN {4.39 tf}
	Construction ----- 7 x 7 + 6 x WS(26)
	Hook block ----- 2 sheaves
<u>HOOK STOWING DEVICE</u>	Mechanically stowed beneath boom top portion

SLEWING Hydraulic motor driven Worm gear speed reduction
 Continuous 360° full circle slewing on ball bearing slew ring
 Automatic slewing lock
 Slewing speed ----- 2.5 min⁻¹ {rpm}

OUTRIGGERS Manually extended sliders and hydraulically extended jacks
 Integral with crane frame Power up and down
 Extension width ----- Min. 1,720 mm
 Mid. 2,900 mm, 2,400 mm
 Max. 3,400 mm

REAR OUTRIGGERS (Locally provided)
 Maximum extension width ---- Not less than 2,400 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 capacity ----- approx. 22 L

SAFETY DEVICES Load meter
 Load indicator
 Over-winding alarm
 Anti-two-block device
 P.T.O indicator lamp
 Hook safety latch
 Hydraulic safety valves, check valves and holding valves
 Level gauge

CRANE MASS Approx. 1,195 kg (with standardized mounting parts included)

NOTE : Operating speeds of the crane are guaranteed under the condition that the pump delivery is 53 L/min.

RATED LIFTING CAPACITIES IN KILOGRAMS

Crane Strength Rated Capacities

Load Radius	3.23 m / 5.17 m Boom	Load Radius	7.1 m Boom	Load Radius	9.0 m Boom	Load Radius	10.9 m Boom	Load Radius	12.8 m Boom
1.45 m and below	3,030	2.2 m and below	1,880	3.0 m and below	980	4.0 m and below	580	5.3 m and below	280
2.0 m	2,180	2.5 m	1,680	3.5 m	900	4.5 m	530	6.0 m	250
2.5 m	1,730	3.0 m	1,430	4.0 m	830	5.0 m	480	7.0 m	220
3.0 m	1,430	3.5 m	1,180	5.0 m	680	6.0 m	400	8.0 m	200
3.5 m	1,230	4.0 m	1,030	6.0 m	580	7.0 m	330	9.0 m	180
4.0 m	1,050	4.5 m	880	7.0 m	480	8.0 m	280	10.0m	160
4.5 m	900	5.0 m	780	8.0 m	380	9.0 m	250	11.0m	140
4.97m	800	5.5 m	680	8.8 m	330	10.0 m	230	12.6m	120
		6.0 m	600			10.7 m	210		
		6.9 m	500						

- NOTES : 1. The mass of hook block (30kg), slings and all similarly used load lifting devices must be added to the mass of the load.
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 and the types of the chassis.

Empty Chassis Rated Capacities

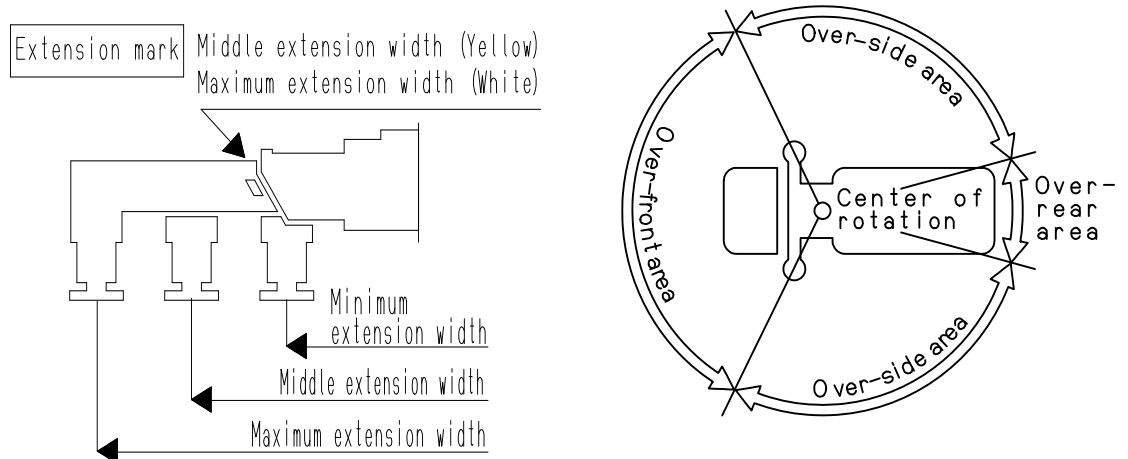
Table C

Load Radius	3.23 m / 5.17 m Boom		Load Radius	7.1 m Boom	Load Radius	9.0 m Boom	Load Radius	10.9 m Boom	Load Radius	12.8 m Boom
	Extension width of outriggers			Extension width of outriggers		Extension width of outriggers		Extension width of outriggers		Extension width of outriggers
	Maximum	Minimum		Maximum		Maximum		Maximum		Maximum
1.4 m and below	3,030	1,580	2.2 m and below	1,730	3.0 m and below	930	4.0 m and below	480	5.3 m and below	280
2.0 m	2,130	1,130	2.5 m	1,530	3.5 m	830	4.5 m	430	6.0 m	240
2.5 m	1,730	730	3.0 m	1,280	4.0 m	730	5.0 m	380	7.0 m	210
3.0 m	1,430	530	3.5 m	1,080	5.0 m	580	6.0 m	300	8.0 m	180
3.5 m	1,230	380	4.0 m	930	6.0 m	480	7.0 m	260	9.0 m	160
4.0 m	1,030	280	4.5 m	780	7.0 m	380	8.0 m	230	10.0m	140
4.5 m	830	230	5.0 m	680	8.0 m	280	9.0 m	200	11.0m	130
4.97m	680	180	5.5 m	580	8.8 m	230	10.0 m	180	12.6m	100
			6.0 m	480			10.7 m	150		
			6.9 m	380						

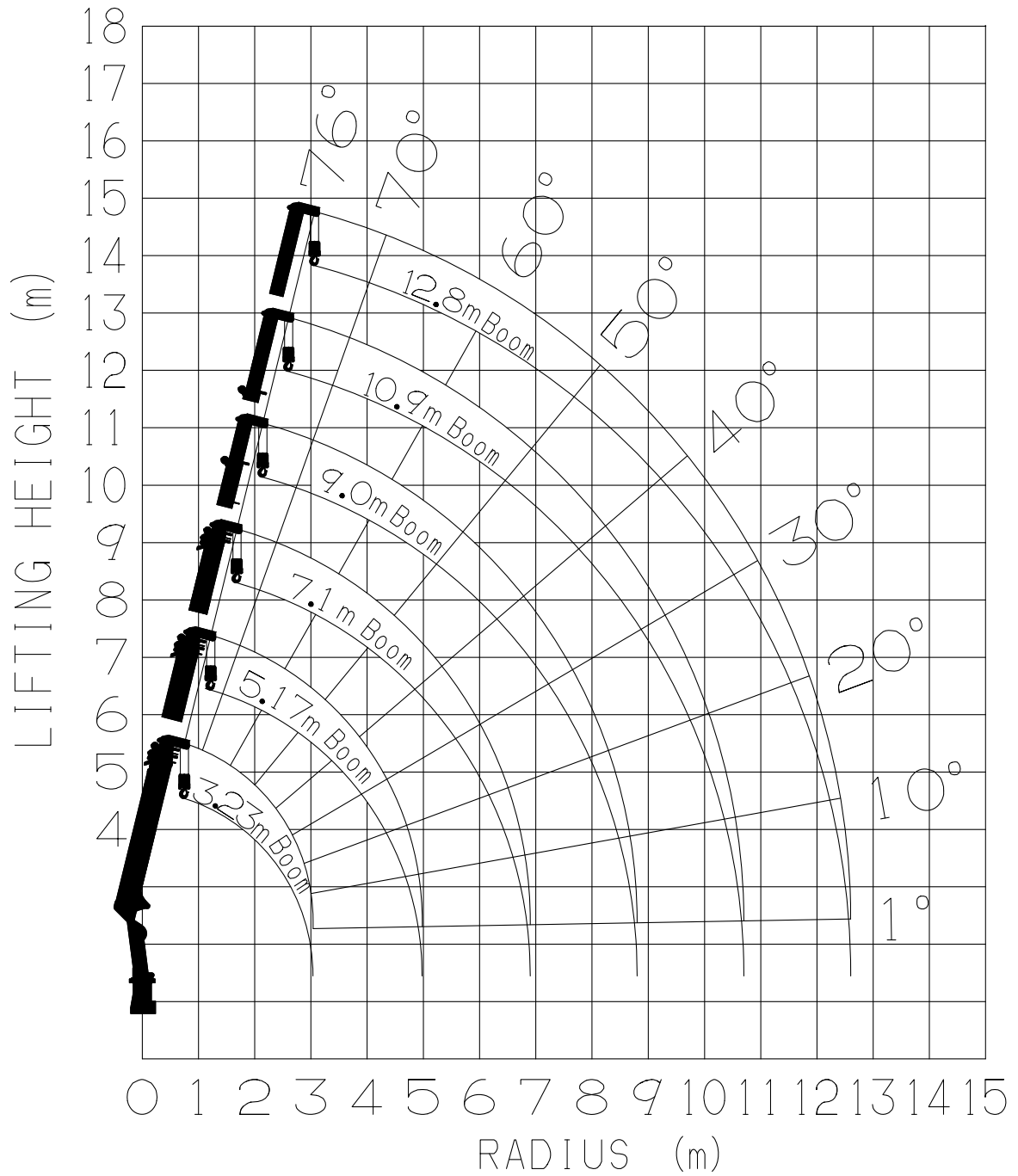
Table D

Load Radius	3.23 m / 5.17 m Boom		Load Radius	7.1 m Boom	Load Radius	9.0 m Boom	Load Radius	10.9 m Boom	Load Radius	12.8 m Boom
	Extension width of outriggers			Extension width of outriggers		Extension width of outriggers		Extension width of outriggers		Extension width of outriggers
	Maximum	Minimum		Maximum		Maximum		Maximum		Maximum
1.45 m and below	3,030	1,580	2.2 m and below	1,880	3.0 m and below	980	4.0 m and below	580	5.3 m and below	280
2.0 m	2,180	1,130	2.5 m	1,680	3.5 m	900	4.5 m	530	6.0 m	250
2.5 m	1,730	730	3.0 m	1,430	4.0 m	830	5.0 m	480	7.0 m	220
3.0 m	1,430	530	3.5 m	1,180	5.0 m	680	6.0 m	400	8.0 m	200
3.5 m	1,230	380	4.0 m	1,030	6.0 m	580	7.0 m	330	9.0 m	180
4.0 m	1,050	280	4.5 m	880	7.0 m	480	8.0 m	280	10.0m	160
4.5 m	900	230	5.0 m	780	8.0 m	380	9.0 m	250	11.0m	140
4.97m	800	180	5.5 m	680	8.8 m	330	10.0 m	230	12.6m	120
			6.0 m	600			10.7 m	210		
			6.9 m	500						

- NOTES :
1. Empty Chassis Rated Capacities in these tables depend on condition that crane is set level on firm level ground.
 2. The mass of hook block (30 kg), slings and all similarly used load lifting devices must be added to the mass of load.
 3. For boom lengths not shown, use the rated lifting capacity of next longer boom.
 4. When front outriggers are extended to middle extension width, use the rated lifting capacities for outriggers are extended to minimum extension width .
 5. For boom lengths longer than 5.17m, extend front outriggers and rear outriggers to maximum extension width.
 6. When the boom length is 9.0 m, a half of the first \sphericalangle mark on lateral face of the 4th boom section is exposed out of the 3rd boom section.
 7. When the boom length is 10.9 m, a half of the second \sphericalangle mark on lateral face of the 4th boom section is exposed out of the 3rd boom section.
 8. Empty Chassis Rated Capacities table C and D depend on the types of chassis.
 9. Empty Chassis Rated Capacities are shown for over-side areas and over-rear area. These capacities for over-front area may be lowered depending on the types of chassis.

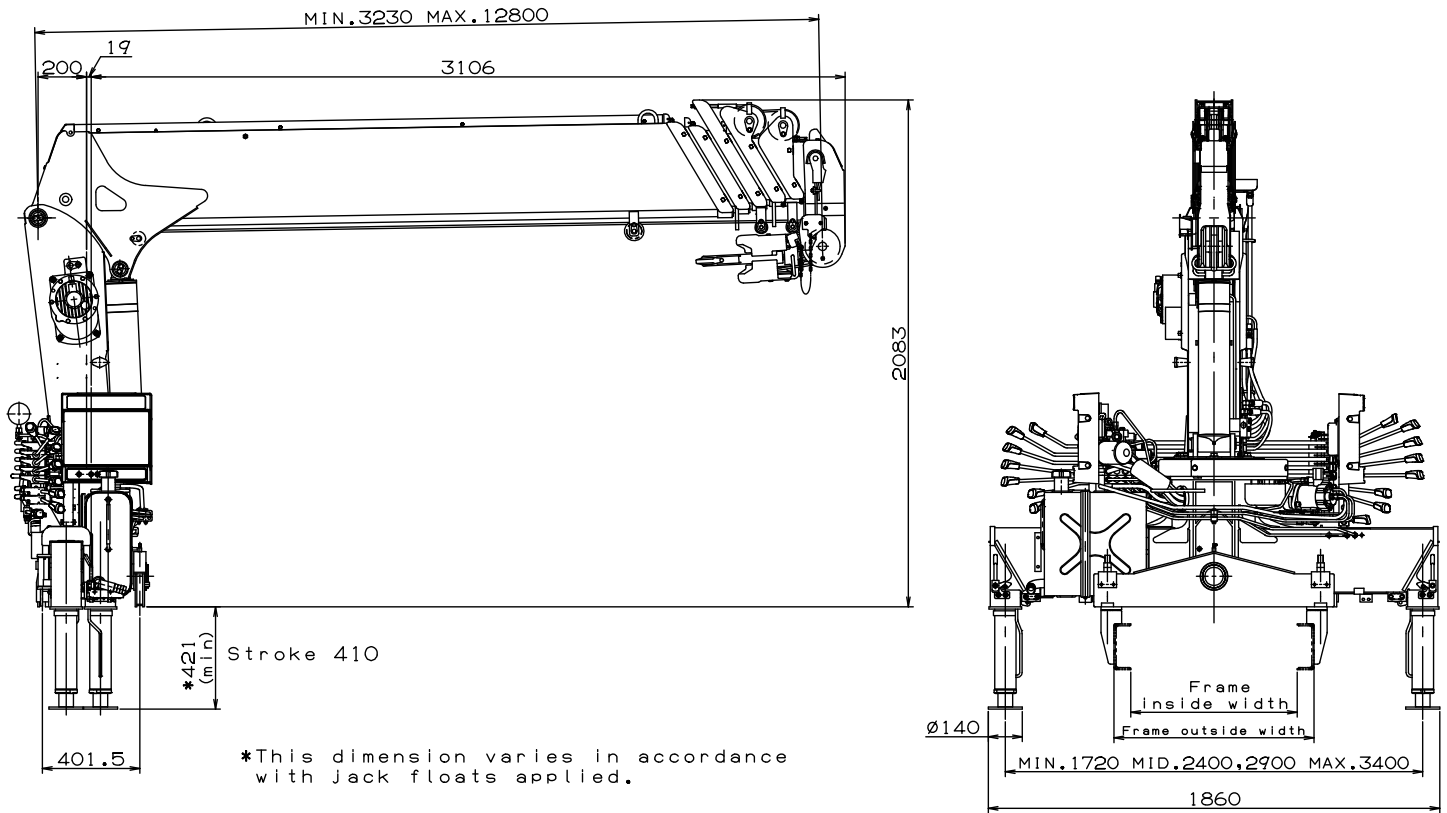


WORKING RANGE



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) ----- 4,500 to 8,000 kg
- P.T.O. torque ----- 140 N-m {14.3 kgf-m} min.
- P.T.O. revolution ----- Approx. 300 to 1,700 min⁻¹ {rpm}
- Width for crane mounting ----- Approx. 605 mm min.
- Frame ----- Weight distribution and frame strength should be calculated for each truck
- Frame width range (inside to outside) ----- Approx. 680 to 860 mm
- Frame height (ground to frame top) ----- Approx. 1,010 mm max.
(Height of crane mounting base can be changed by combination of jack floats and crane bases)