

## TADANO CARGO CRANE

MODEL : **TM-ZE306MH**

## CRANE SPECIFICATIONS

CRANE CAPACITY

3,030 kg at 2.3 m (4-part lines)

BOOM

Six-sectioned, fully powered partly synchronized telescoping boom of pentagonal box construction

Retracted length -----3.65 m

Extended length -----14.6 m

Extending speed -----10.95 m / 19 s

Elevation -----Elevated by a double-acting  
hydraulic cylinder

Elevating speed -----1° to 78° / 7.5 s

Boom point -----2 sheaves

WINCH

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 -----76 m/min (at 4th layer)

Wire rope

Diameter x length ----- 8 mm x 85 m

Breaking strength ----- 43.1 kN {4.39 tf}

Construction ----- 7 x 7 + 6 x WS (26)

Hook block -----2 sheaves

HOOK STOWING DEVICE

Mechanically stowed beneath boom top portion

Specifications are subject to change without notice.

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<sup>-1</sup> {rpm}

OUTRIGGERS

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

REAR OUTRIGGERS (Locally provided)

Maximum extension width -----Not less than 2,800 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 capacity ----- Approx. 31 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. 1,445 kg (with standardized mounting parts included)

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

# RATED LIFTING CAPACITIES IN KILOGRAMS

## Crane Strength Rated Capacities

Load Radius	3.65 m / 5.87 m Boom	Load Radius	8.07 m Boom	Load Radius	10.2 m Boom	Load Radius	12.4 m Boom	Load Radius	14.6 m Boom
2.3 m and below	3,030	2.7 m and below	2,330	4.0 m and below	1,030	5.0 m and below	700	4.9 m and below	400
2.5 m	2,830	3.0 m	2,130	5.0 m	880	6.0 m	580	6.0 m	360
3.0 m	2,380	3.5 m	1,880	6.0 m	730	7.0 m	500	7.0 m	330
3.5 m	1,980	4.0 m	1,630	7.0 m	630	8.0 m	430	8.0 m	300
4.0 m	1,680	4.5 m	1,450	8.0 m	580	9.0 m	380	9.0 m	280
4.5 m	1,450	5.0 m	1,280	9.0 m	510	10.0 m	330	10.0 m	260
5.0 m	1,280	5.5 m	1,130	10.05 m	480	11.0 m	300	11.0 m	240
5.67 m	1,080	6.0 m	1,000			12.22 m	280	12.0 m	220
		6.5 m	880					13.0 m	200
		7.0 m	800					14.4 m	180
		7.87 m	680						

- 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 A



Load Radius	3.65 m / 5.87 m Boom		Load Radius	8.07 m Boom	Load Radius	10.2 m Boom	Load Radius	12.4 m Boom	Load Radius	14.6 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
2.3 m and below	3,030	1,280	2.7 m and below	2,230	3.9 m and below	1,030	5.0 m and below	630	4.9 m and below	330
2.5 m	2,780	1,130	3.0 m	1,830	5.0 m	650	6.0 m	480	6.0 m	280
3.0 m	1,880	780	3.5 m	1,330	6.0 m	480	7.0 m	330	7.0 m	250
3.5 m	1,330	580	4.0 m	980	7.0 m	330	8.0 m	280	8.0 m	230
4.0 m	980	480	4.5 m	830	8.0 m	280	9.0 m	230	9.0 m	180
4.5 m	830	380	5.0 m	680	9.0 m	230	10.0 m	180	10.0 m	150
5.0 m	680	280	5.5 m	550	10.05 m	180	11.0 m	130	11.0 m	130
5.67 m	580	230	6.0 m	480			12.2 m	100	12.0 m	100
		6.5 m	400	13.0 m			80			
		7.0 m	330	14.4 m			50			
		7.87 m	280							

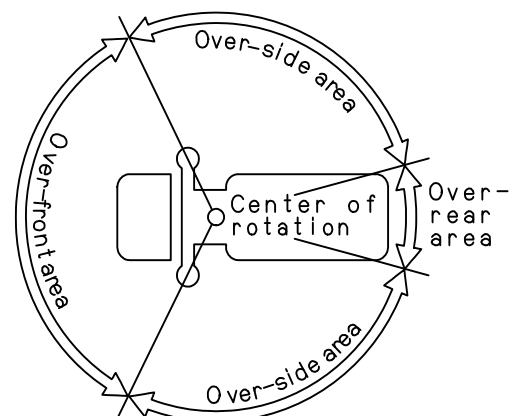
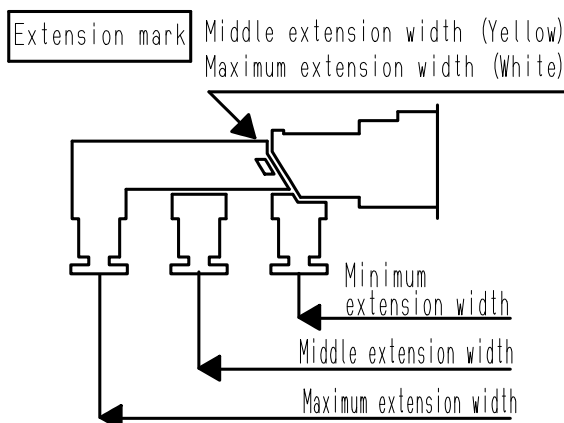
Table C

Load Radius	3.65 m / 5.87 m Boom		Load Radius	8.07 m Boom	Load Radius	10.2 m Boom	Load Radius	12.4 m Boom	Load Radius	14.6 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	Maximum
2.3 m and below	3,030	1,380	2.7 m and below	2,230	4.0 m and below	1,030	5.0 m and below	630	4.9 m and below	330	
2.5 m	2,780	1,230	3.0 m	2,030	5.0 m	730	6.0 m	480	6.0 m	280	
3.0 m	2,080	880	3.5 m	1,530	6.0 m	530	7.0 m	400	7.0 m	250	
3.5 m	1,530	680	4.0 m	1,130	7.0 m	430	8.0 m	330	8.0 m	230	
4.0 m	1,180	530	4.5 m	930	8.0 m	330	9.0 m	280	9.0 m	210	
4.5 m	930	430	5.0 m	780	9.0 m	280	10.0 m	230	10.0 m	190	
5.0 m	780	330	5.5 m	630	10.05 m	230	11.0 m	180	11.0 m	170	
5.67 m	630	280	6.0 m	530			12.2 m	130	12.0 m	130	
			6.5 m	480						13.0 m	130
			7.0 m	430						14.4 m	80
			7.87 m	330							

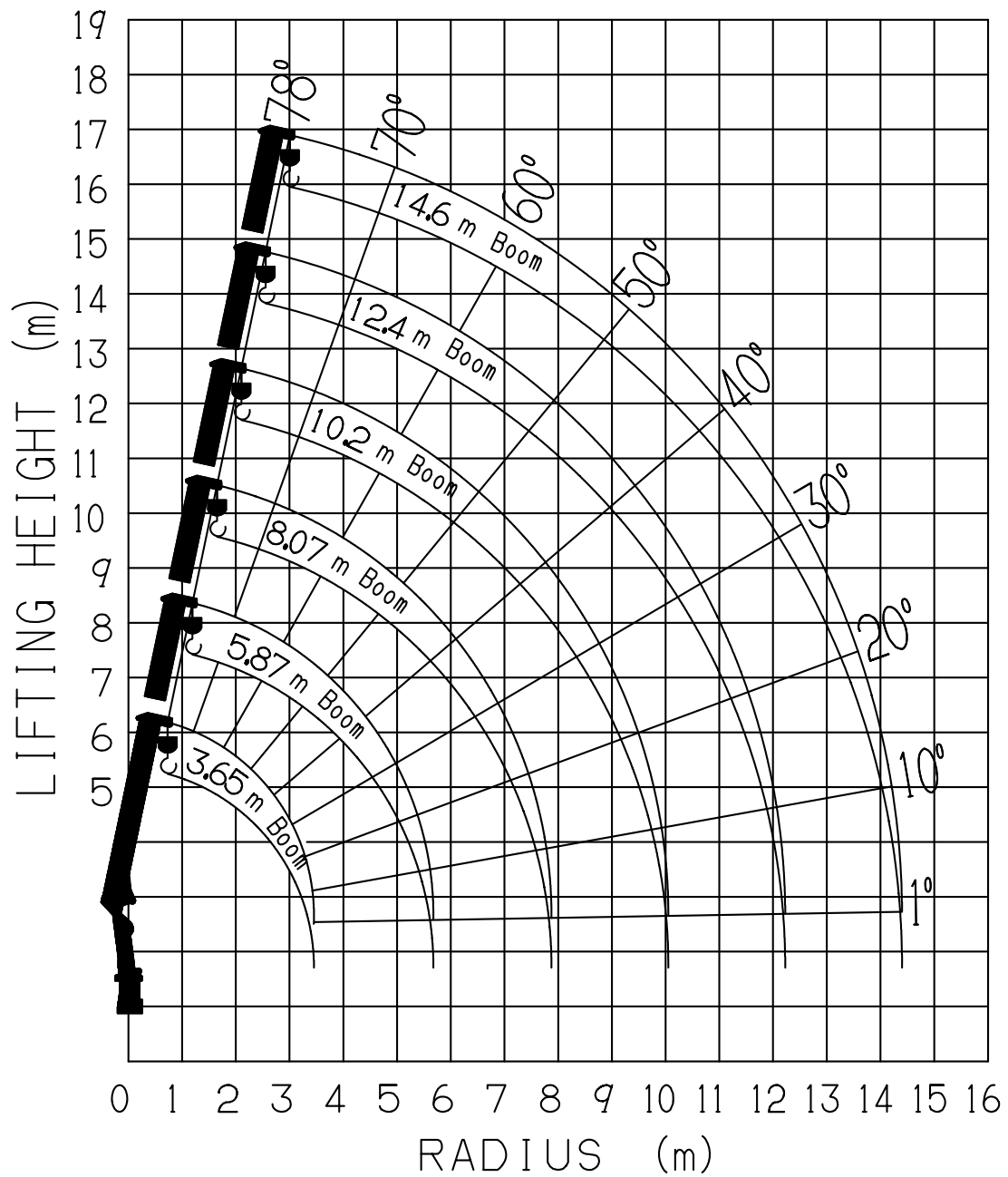
Table D

Load Radius	3.65 m / 5.87 m Boom		Load Radius	8.07 m Boom	Load Radius	10.2 m Boom	Load Radius	12.4 m Boom	Load Radius	14.6 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
2.3 m and below	3,030	1,380	2.7 m and below	2,330	4.0 m and below	1,030	5.0 m and below	700	4.9 m and below	400
2.5 m	2,830	1,230	3.0 m	2,130	5.0 m	880	6.0 m	580	6.0 m	360
3.0 m	2,380	880	3.5 m	1,880	6.0 m	730	7.0 m	500	7.0 m	330
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4.5 m	1,450	430	5.0 m	1,280	9.0 m	510	10.0 m	330	10.0 m	260
5.0 m	1,280	330	5.5 m	1,130	10.05 m	480	11.0 m	300	11.0 m	240
5.67 m	1,080	280	6.0 m	1,000			12.22 m	280	12.0 m	220
			6.5 m	880					13.0 m	200
			7.0 m	800					14.4 m	180
			7.87 m	680						

- 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 the load.
  3. For boom lengths not shown, use the rated lifting capacity of next longer boom.
  4. When 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 5.87m, extend outriggers to maximum extension width.
  6. When the boom length is 10.2 m, a half of the first  mark on lateral face of the 4th boom section is exposed out of the 3rd boom section.
  7. When the boom length is 12.4 m, a half of the second  mark on lateral face of the 4th boom section is exposed out of the 3rd boom section.
  8. Empty Chassis Rated Capacities table A , 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 lowered depending on the types of chassis.

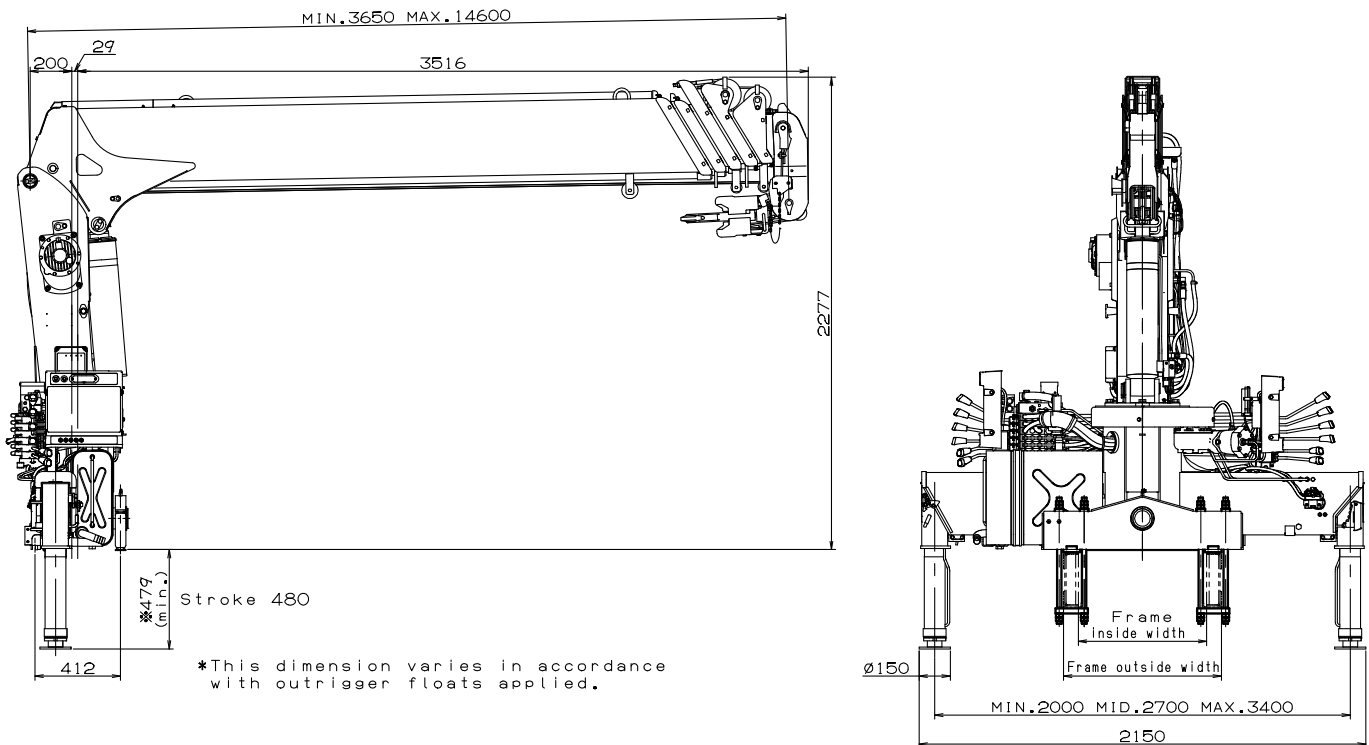


## WORKING RANGE



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. 1,070 mm max.

(Height of crane mounting base can be  
changed by combination of jack floats and  
crane bases)