

## TADANO CARGO CRANE

MODEL : **TM-ZE303MH**

## CRANE SPECIFICATIONS

CRANE CAPACITY

3,030 kg at 2.5 m (4-part lines)

BOOM

Three-sectioned, fully hydraulic telescoping boom of pentagonal 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-----1° to 78° / 7.5 s

Boom point-----2 sheaves

WINCHHydraulic motor driven    Spur gear speed reduction, provided with  
mechanical brake

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 51 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

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. 1,160 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

### Crane Strength Rated Capacities

Load Radius	3.28 m / 5.51 m Boom	Load Radius	7.71 m Boom
2.3 m and below	3,030	2.7 m and below	2,330
2.5 m	3,030	3.2 m	2,030
3.0 m	2,580	3.5 m	1,830
3.5 m	2,180	4.0 m	1,630
4.0 m	1,880	4.5 m	1,480
4.5 m	1,680	5.0 m	1,330
5.0 m	1,480	5.5 m	1,230
5.3 m	1,380	6.0 m	1,130
		6.5 m	1,050
		7.0 m	980
		7.5 m	930

- NOTES :
1. The mass of hook block (30kg), slings and all similarly used load handling 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	3.28 m / 5.51 m Boom		Load Radius	7.71 m Boom
	Extension width of outriggers			Extension width of outriggers
	Maximum	Minimum		Maximum
2.3 m and below	3,030	1,330	2.7 m and below	2,330
2.7 m	2,380	1,080	3.2 m	1,650
3.0 m	1,880	880	3.5 m	1,380
3.5 m	1,380	680	4.0 m	1,080
4.0 m	1,130	530	4.5 m	880
4.5 m	930	430	5.0 m	730
5.0 m	780	380	5.5 m	630
5.3 m	730	330	6.0 m	580
			6.5 m	530
			7.0 m	480
			7.5 m	430

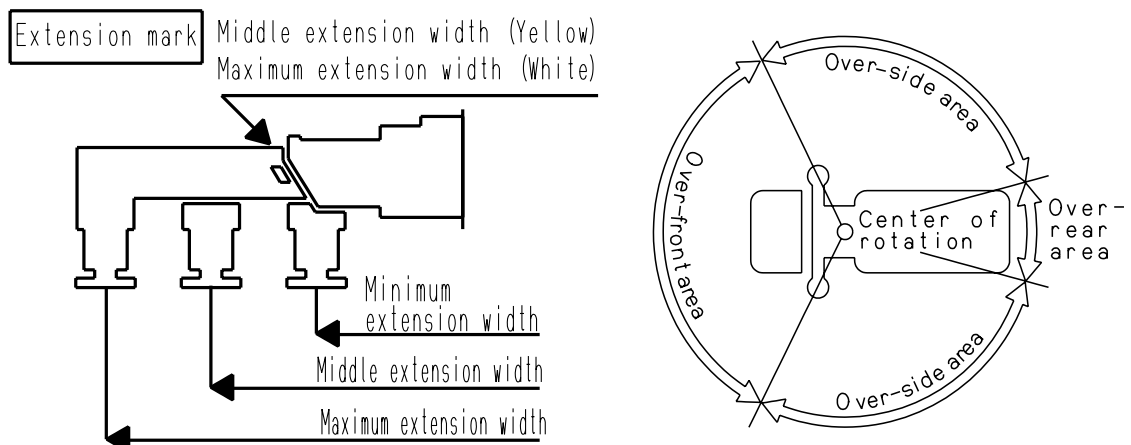
Table C

Load Radius	3.28 m / 5.51 m Boom		Load Radius	7.71 m Boom
	Extension width of outriggers			Extension width of outriggers
	Maximum	Minimum		Maximum
2.3 m and below	3,030	1,430	2.7 m and below	2,330
2.5 m	3,030	1,200	3.2 m	1,880
3.0 m	2,180	930	3.5 m	1,580
3.5 m	1,580	730	4.0 m	1,250
4.0 m	1,250	580	4.5 m	1,030
4.5 m	1,050	480	5.0 m	880
5.0 m	900	430	5.5 m	730
5.3 m	830	380	6.0 m	660
			6.5 m	580
			7.0 m	540
			7.5 m	500

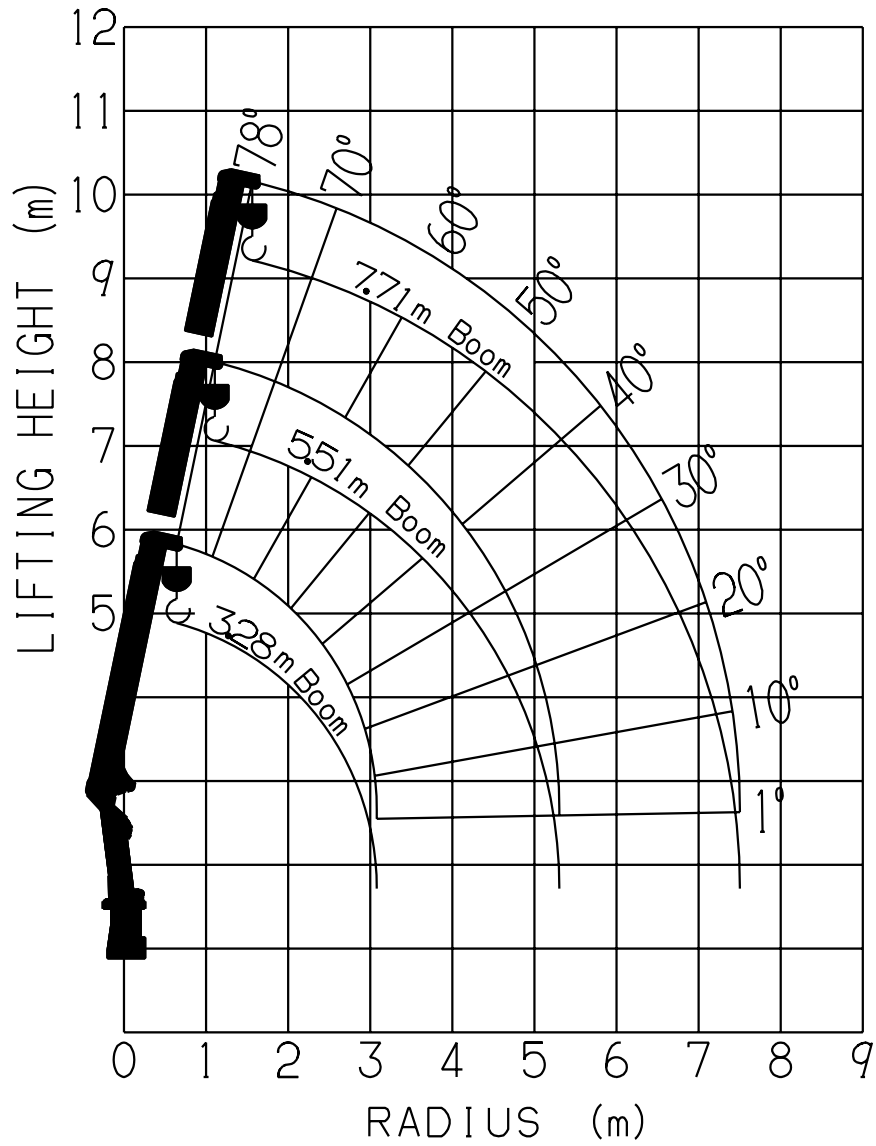
Table D

Load Radius	3.28 m / 5.51 m Boom		Load Radius	7.71 m Boom
	Extension width of outriggers			Extension width of outriggers
	Maximum	Minimum		Maximum
2.3 m and below	3,030	1,430	2.7 m and below	2,330
2.5 m	3,030	1,200	3.2 m	2,030
3.0 m	2,580	930	3.5 m	1,830
3.5 m	2,180	730	4.0 m	1,630
4.0 m	1,880	580	4.5 m	1,480
4.5 m	1,680	480	5.0 m	1,330
5.0 m	1,480	430	5.5 m	1,230
5.3 m	1,380	380	6.0 m	1,130
			6.5 m	1,050
			7.0 m	980
			7.5 m	930

- 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 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 5.51m, extend outriggers to maximum extension width.
  6. Empty Chassis Rated Capacities table A , C and D depend on the types of chassis.
  7. 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.

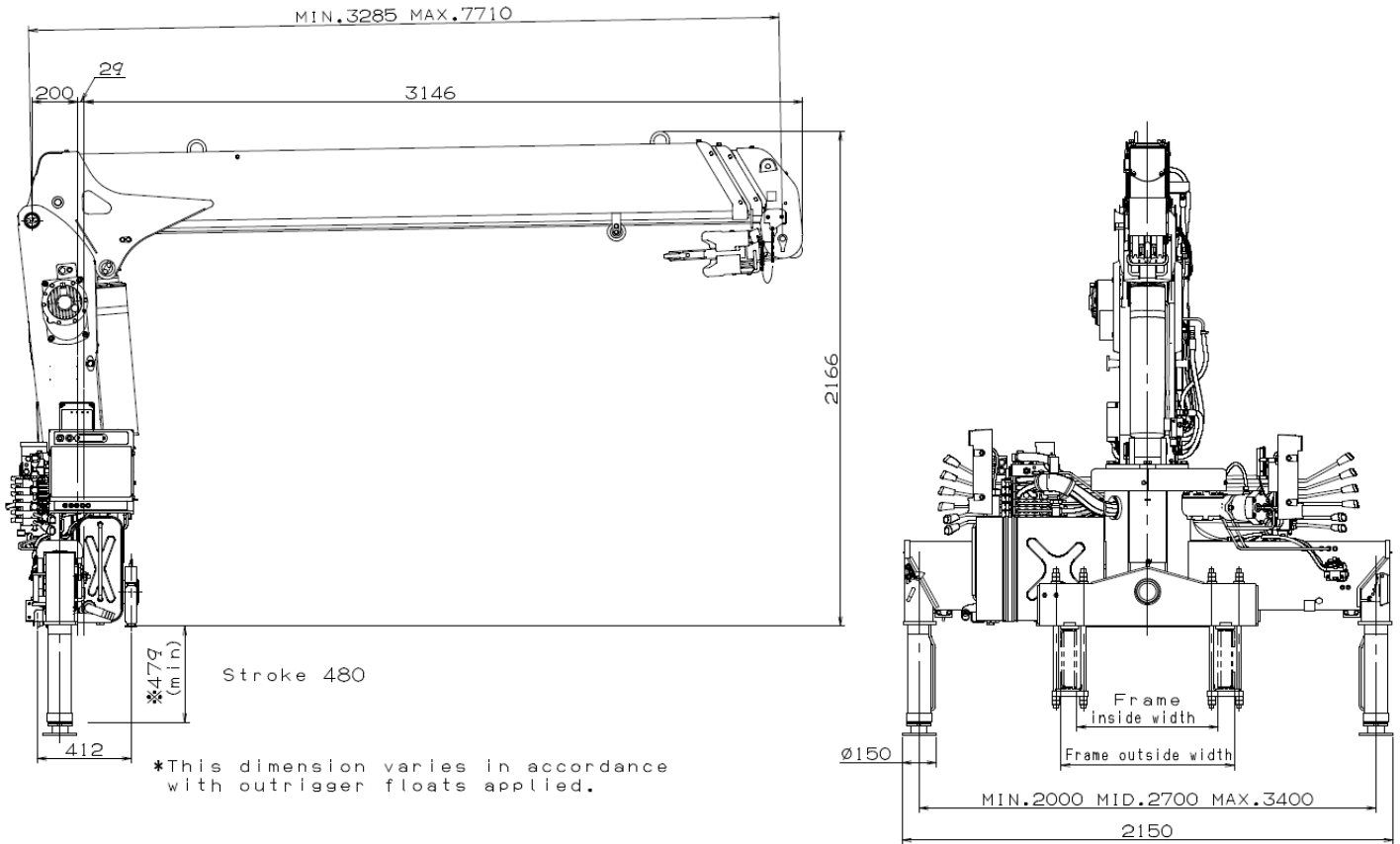


## WORKING RANGE



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 [TM-ZE303MH]



## 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 hanged by combination of jack floats and crane bases)