

TADANO CARGO CRANE

MODEL: TM-ZE304MH

CRANE SPECIFICATIONS

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

BOOM Four-sectioned, fully powered partly synchronized telescoping

boom of pentagonal box construction

Retracted length ------ 3.34 m Extended length ----- 10.0 m

Extending speed ----- 6.66 m / 14 s

Elevation -----Elevated by a double-acting

hydraulic cylinder

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

Boom point ----- 2 sheaves

<u>WINCH</u> Hydraulic 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 63 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

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. 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 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

<u>CRANE MASS</u> Approx. 1,250 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	3.34 m / 5.57 m Boom	Load Radius	7.78 m Boom	Load Radius	10.0 m Boom
2.3 m and below	3,030	2.7 m and below	2,330	4.0 m and below	1,030
2.5 m	3,030	3.2 m	2,030	5.0 m	880
3.0 m	2,480	3.5 m	1,830	6.0 m	750
3.5 m	2,080	4.0 m	1,630	7.0 m	650
4.0 m	1,780	4.5 m	1,480	8.0 m	580
4.5 m	1,580	5.0 m	1,330	9.0 m	510
5.0 m	1,380	5.5 m	1,230	9.8 m	480
5.37 m	1,280	6.0 m	1,130		
		6.5 m	1,030		
		7.0 m	950		
		7.58 m	880	1	

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

			1			
	3.34 m / 5.57 m Boom			7.78 m Boom		10.0 m Boom
Load Radius	Extension width of outriggers		Load Radius	Extension width of outriggers	Load Radius	Extension width of outriggers
	Maximum	Minimum		Maximum		Maximum
2.3 m and below	3,030	1,330	2.7 m and below	2,330	4.0 m and below	1,030
2.6 m	2,580	1,080	3.2 m	1,650	5.0 m	730
3.0 m	1,880	830	3.5 m	1,380	6.0 m	530
3.5 m	1,380	630	4.0 m	1,080	7.0 m	430
4.0 m	1,080	530	4.5 m	880	8.0 m	330
4.5 m	880	430	5.0 m	730	9.0 m	280
5.0 m	730	330	5.5 m	630	9.8 m	250
5.37 m	680	330	6.0 m	530		
			6.5 m	480		
			7.0 m	430		
			7.58 m	380		

Table C

	3.34 m / 5.57 m Boom			7.78 m Boom		10.0 m Boom
Load Radius	Extension width of outriggers		Load Radius	Extension width of outriggers	Load Radius	Extension width of outriggers
	Maximum	Minimum		Maximum		Maximum
2.3 m and below	3,030	1,430	2.7 m and below	2,330	4.0 m and below	1,030
2.5 m	3,030	1,200	3.2 m	1,830	5.0 m	830
3.0 m	2,080	930	3.5 m	1,580	6.0 m	630
3.5 m	1,580	680	4.0 m	1,230	7.0 m	480
4.0 m	1,230	580	4.5 m	980	8.0 m	400
4.5 m	980	480	5.0 m	830	9.0 m	350
5.0 m	830	380	5.5 m	730	9.8 m	330
5.37 m	780	330	6.0 m	630		
	•		6.5 m	530		

500 450

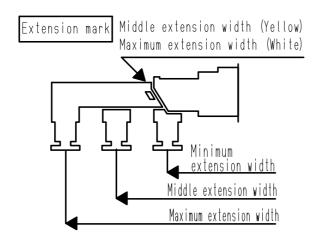
7.0 m

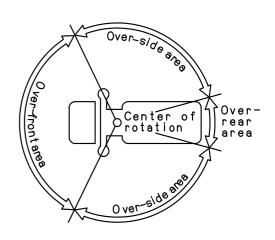
7.58 m

Table D

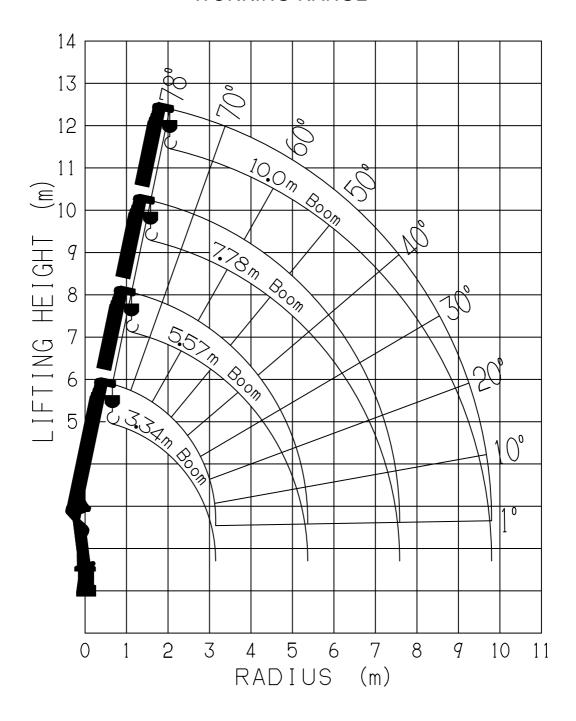
	3.34 m / 5.57 m Boom		Load Radius	7.78 m Boom		10.0 m Boom
Load Radius	Extension width of outriggers			Extension width of outriggers	Load Radius	Extension width of outriggers
	Maximum	Minimum		Maximum		Maximum
2.3 m and below	3,030	1,430	2.7 m and below	2,330	4.0 m and below	1,030
2.5 m	3,030	1,200	3.2 m	2,030	5.0 m	880
3.0 m	2,480	930	3.5 m	1,830	6.0 m	750
3.5 m	2,080	680	4.0 m	1,630	7.0 m	650
4.0 m	1,780	580	4.5 m	1,480	8.0 m	580
4.5 m	1,580	480	5.0 m	1,330	9.0 m	510
5.0 m	1,380	380	5.5 m	1,230	9.8 m	480
5.37 m	1,280	330	6.0 m	1,130		
			6.5 m	1,030		
			7.0 m	950		
			7.58 m	880		

- 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 5.57m, extend outriggers to maximum extension width.
 - 6. When the boom length is 7.78 m, a half of the \square mark on lateral face of the 3rd boom section is exposed out of the 2nd boom section.
 - 7. Empty Chassis Rated Capacities table A, C and D depend on the types of chassis.
 - 8. 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.



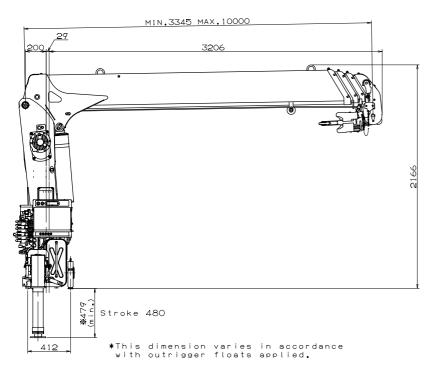


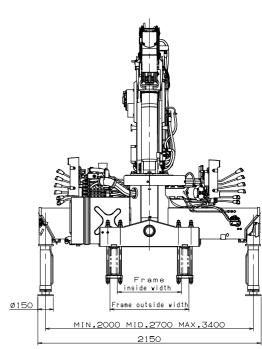
WORKING RANGE



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 ⁻¹ {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)