

TADANO CARGO CRANE

MODEL: TM-ZE553MH

CRANE SPECIFICATIONS

CRANE CAPACITY 5,050 kg at 2.5 m (5-part line)

BOOM Three-sectioned, fully hydraulic telescoping boom of heptagonal

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 point ----- 3 sheaves

<u>WINCH</u> Hydraulic motor driven Spur gear speed reduction, provided

with mechanical brake

Single line pull ----- 9.90 kN{1010 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{5.1 tf}

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

Hook block ----- 2 sheaves

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 speed ----- 2.5 min⁻¹{rpm}

OUTRIGGERS 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 Full 3,800mm

<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. 48 L

SAFETY DEVICES Load meter

Load indicator

Over-winding alarm

Hoisting limiter

P.T.O indicator lamp Hook safety latch

Hydraulic safety valves, check valves and holding valves

Level gauge

<u>CRANE MASS</u> Approx. 1,725 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

	3.47m Boom Extension width of outriggers			5.91m Boom Extension width of		Load Radius	8.31m Boom	
Load			Load				Extension width of	
Radius			Radius	outriggers			outriggers	
	Full	Minimum		Full	Minimum		Full	Minimum
2.5m and below	5,050	3,280	2.6m and below	4,050	3,280	2.6m and below	3,130	3,130
2.95m	4,050	2,730	2.95m	4,050	2,730	3.0m	3,130	2,680
3.25m	3,700	2,380	3.8m	3,130	1,830	3.8m	3,130	1,830
			4.1m	2,930	1,630	4.1m	2,930	1,630
			4.5m	2,630	1,430	4.5m	2,630	1,430
			5.0m	2,380	1,180	5.0m	2,380	1,180
			5.5m	2,180	1,030	5.5m	2,180	1,030
				2,080	980	6.0m	1,980	930
						6.5m	1,830	850
						7.0m	1,680	780
						7.5m	1,530	700
						8.09m	1,430	600

- NOTES: 1. The mass of hook block (45kg), 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

	3.47m Boom			5.91m Boom Extension width of		Load	8.31m Boom	
Load	Extension width of		Load				Extension width of	
Radius	outriç	ggers	Radius outriggers		Radius outrig		ggers	
	Full	Minimum		Full	Minimum		FULL	Minimum
2.5m and below	5,050	2,380	2.6m and below	4,050	2,380	2.6m and below	3,130	2,380
2.8m	4,050	2,130	2.8m	4,050	2,130	3.4m	3,130	1,530
3.25m	3,280	1,680	3.3m	3,280	1,630	3.8m	2,680	1,330
			3.6m	2,930	1,430	4.1m	2,430	1,180
			4.1m	2,430	1,180	4.5m	2,030	980
			4.5m	2,030	980	5.0m	1,730	880
			5.0m	1,730	880	5.5m	1,430	730
			5.5m	1,430	730	6.0m	1,330	630
			5.69m	1,380	680	6.5m	1,180	580
						7.0m	1,030	530
						7.5m	930	480
						8.09m	830	430

Table B

	3.47m Boom Extension width of		Load	5.91m Boom Extension width of		Load Radius	8.31m Boom	
Load							Extension width of	
Radius	outriggers		Radius	outriggers			outriggers	
Naulus	Full	Minimu	Radius	Full	Minimu	ixauius	Full	Minimu
		m			m			m
2.5m and below	5,050	2,980	2.6m and below	4,050	2,730	2.6m and below	3,130	2,730
2.95m	4,050	2,330	2.95m	4,050	2,330	3.5m	3,130	1,730
3.25m	3,650	1,980	3.5m	3,380	1,730	3.8m	3,130	1,580
			4.1m	2,930	1,430	4.1m	2,930	1,430
			4.5m	2,480	1,230	4.5m	2,480	1,230
			5.0m	2,080	1,030	5.0m	2,080	1,030
			5.5m	1,780	930	5.5m	1,780	930
			5.69m	1,680	830	6.0m	1,580	780
						6.5m	1,430	730
						7.0m	1,280	650
						7.5m	1,130	580
						8.09m	1,030	530

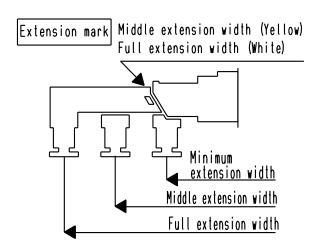
Table C

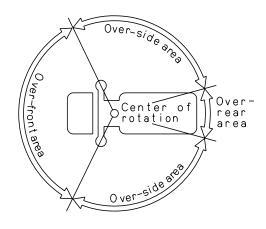
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Load	Extension width of		Load	Extension width of			Extension width of	
Radius	outrig	ggers	Radius	outriggers		Radius	outriggers	
	Full	Minimum		Full	Minimum		Full	Minimum
2.5m and below	5,050	3,130	2.6m and below	4,050	3,130	2.6m and below	3,130	3,130
2.95m	4,050	2,730	2.95m	4,050	2,730	3.0m	3,130	2,680
3.25m	3,700	2,380	3.8m	3,130	1,830	3.8m	3,130	1,830
			4.1m	2,930	1,630	4.1m	2,930	1,630
			4.5m	2,630	1,430	4.5m	2,630	1,430
			5.0m	2,380	1,180	5.0m	2,380	1,180
			5.5m	2,130	1,030	5.5m	2,130	1,030
			5.69m	2,030	980	6.0m	1,880	930
						6.5m	1,730	850
						7.0m	1,530	780
						7.5m	1,380	700
						8.09m	1,230	600

Table D

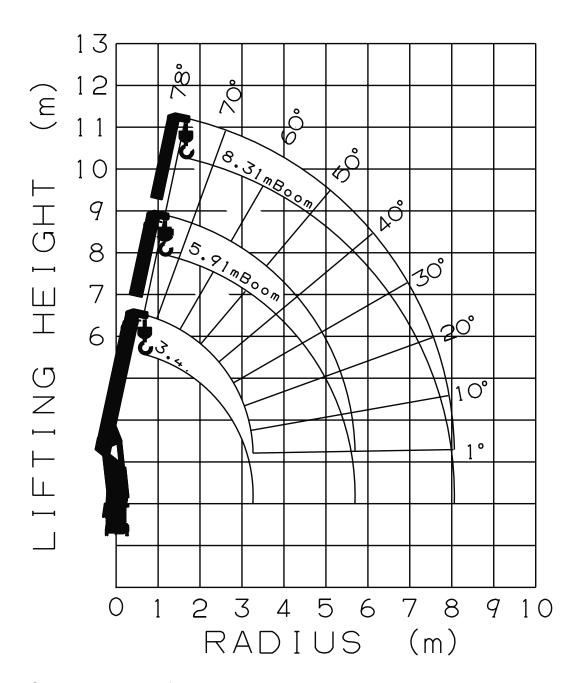
	3.47m Boom Extension width of		Load	5.91m Boom Extension width of outriggers		Load Radius	8.31m Boom	
Load Radius							Extension width of	
	outriggers		Radius				outriggers	
Radius	Full	Minimu Radius	Full	Minimu	rtadius	Full	Minimu	
		m		i uli	m		i uli	m
2.5m and below	5,050	3,280	2.6m and below	4,050	3,280	2.6m and below	3,130	3,130
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3.25m	3,700	2,380	3.8m	3,130	1,830	3.8m	3,130	1,830
			4.1m	2,930	1,630	4.1m	2,930	1,630
			4.5m	2,630	1,430	4.5m	2,630	1,430
			5.0m	2,380	1,180	5.0m	2,380	1,180
			5.5m	2,180	1,030	5.5m	2,180	1,030
			5.69m	2,080	980	6.0m	1,980	930
						6.5m	1,830	850
						7.0m	1,680	780
						7.5m	1,530	700
						8.09m	1,430	600

- 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 (45kg), slings and all similarly used load handling 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. Empty Chassis Rated Capacities table A, B,C and D depend on the types of chassis.
 - 6. 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.



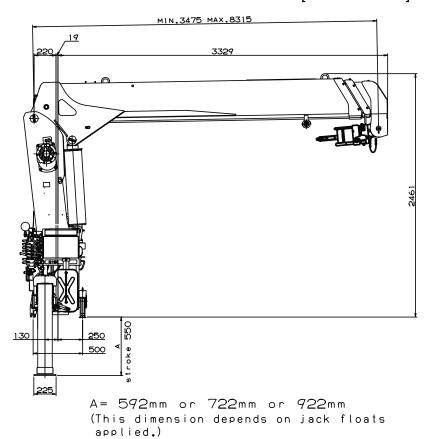


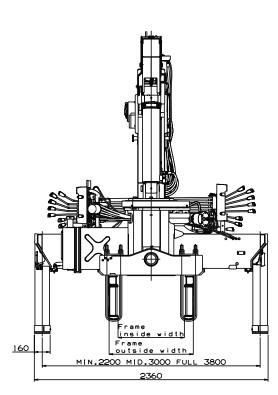
WORKING RANGE



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-ZE553MH]





GENERAL DATA FOR SUITABLE TRUCKS

Gross vehicle mass (including crane mass) --- 12,000 to 25,000 kg

P.T.O. torque ----- 157 N·m{16 kgf·m} min.

P.T.O. revolution ----- Approx. 270 to 2,800 min⁻¹{rpm}

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 960 mm

Frame height (ground to frame top) ------ Approx. 1,235 mm max.

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