

## TADANO CARGO CRANE

MODEL : **TM-ZE293MH**

## CRANE SPECIFICATIONS

CRANE CAPACITY

3,030 kg at 1.6 m (4-part lines)

BOOM

Three-sectioned, fully hydraulic telescoping boom of heptagonal box construction

Fully retracted length ----- 2.85 m

Fully extended length ----- 6.6 m

Extending speed ----- 3.75 m in 10.5 s

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

Raising speed ----- 1° to 76° in 6 s

Boom point ----- 2 sheaves

WINCH

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

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 45 m

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

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

Hook block ----- 2 sheaves

HOOK BLOCK STOWING DEVICE

Hook-in (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<sup>-1</sup> {rpm}

Specifications are subject to change without notice.

OUTRIGGERS

Manually operated beams and hydraulically operated jacks  
Integral with crane frame

Extension width ----- Min. 1,720 mm center to center  
(1,860 mm outer to outer)  
Mid. 2,400 mm center to center  
(2,540 mm outer to outer)  
Mid. 2,900 mm center to center  
(3,040 mm outer to outer)  
Max. 3,400 mm center to center  
(3,540 mm outer to outer)

HYDRAULIC SYSTEM

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. 28.7 L

SAFETY DEVICES

Anti-two-block device  
Boom angle indicator  
Load indicator  
Load meter  
Hook safety latch  
Spirit level  
Hydraulic safety valves, check valves and holding valves

OPTIONAL EQUIPMENT

Emergency hydraulic pump  
Outrigger pads  
Rear outriggers (outrigger beam extension type)

CRANE MASS

Approx. 860 kg  
(Except crane options and mounting parts.)

NOTE : Each operating speeds show the value when there is no load conditions and the pump delivery is the following conditions.

- 32 L/min (Slewing speed)
- 53 L/min (BOOM : Extending speed, Raising speed WINCH : Single line speed)

## RATED LIFTING CAPACITIES (kg)

Table A

LOAD RADIUS	2.85 m / 4.74 m BOOM			LOAD RADIUS	6.6 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS			CRANE STRENGTH	EMPTY CHASSIS
		extension width of outriggers				extension width of outriggers
		MAX.	MIN.		MAX.	
1.6 m and below	3,030	3,030	1,580	2.2 m and below	1,880	1,880
2.0 m	2,330	2,330	980	2.5 m	1,680	1,630
2.5 m	1,880	1,730	680	3.0 m	1,430	1,230
3.0 m	1,500	1,230	480	3.5 m	1,230	930
3.5 m	1,250	930	380	4.0 m	1,080	730
4.0 m	1,080	730	330	4.5 m	980	600
4.54 m	980	630	280	5.0 m	900	500
				5.5 m	800	430
				6.0 m	730	380
				6.4 m	680	350

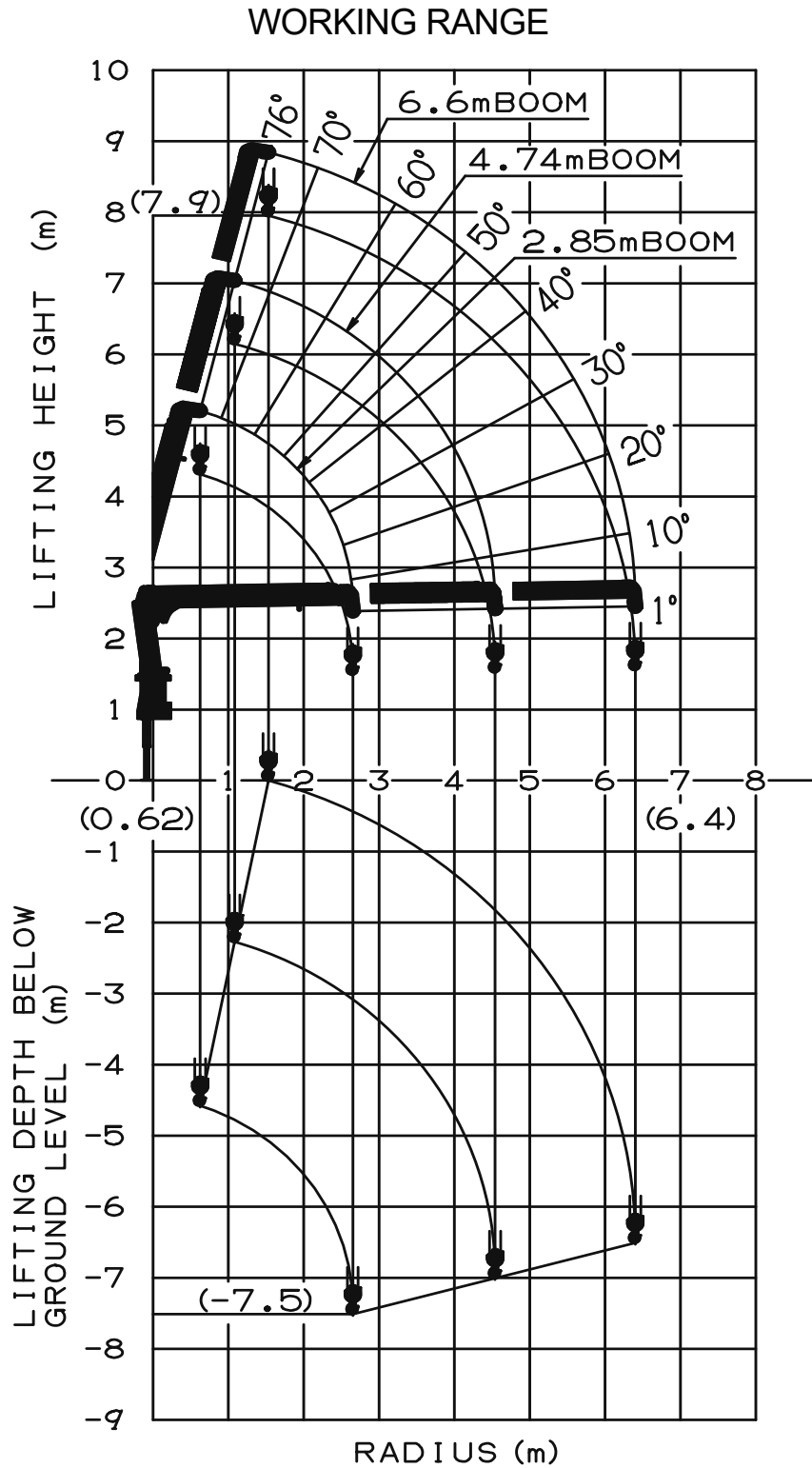
Table C

LOAD RADIUS	2.85 m / 4.74 m BOOM			LOAD RADIUS	6.6 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS			CRANE STRENGTH	EMPTY CHASSIS
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		MAX.	MIN.		MAX.	
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2.0 m	2,330	2,330	980	2.5 m	1,680	1,680
2.5 m	1,880	1,880	680	3.0 m	1,430	1,400
3.0 m	1,500	1,480	480	3.5 m	1,230	1,100
3.5 m	1,250	1,100	380	4.0 m	1,080	850
4.0 m	1,080	850	330	4.5 m	980	700
4.54 m	980	730	280	5.0 m	900	600
				5.5 m	800	530
				6.0 m	730	480
				6.4 m	680	430

Table D

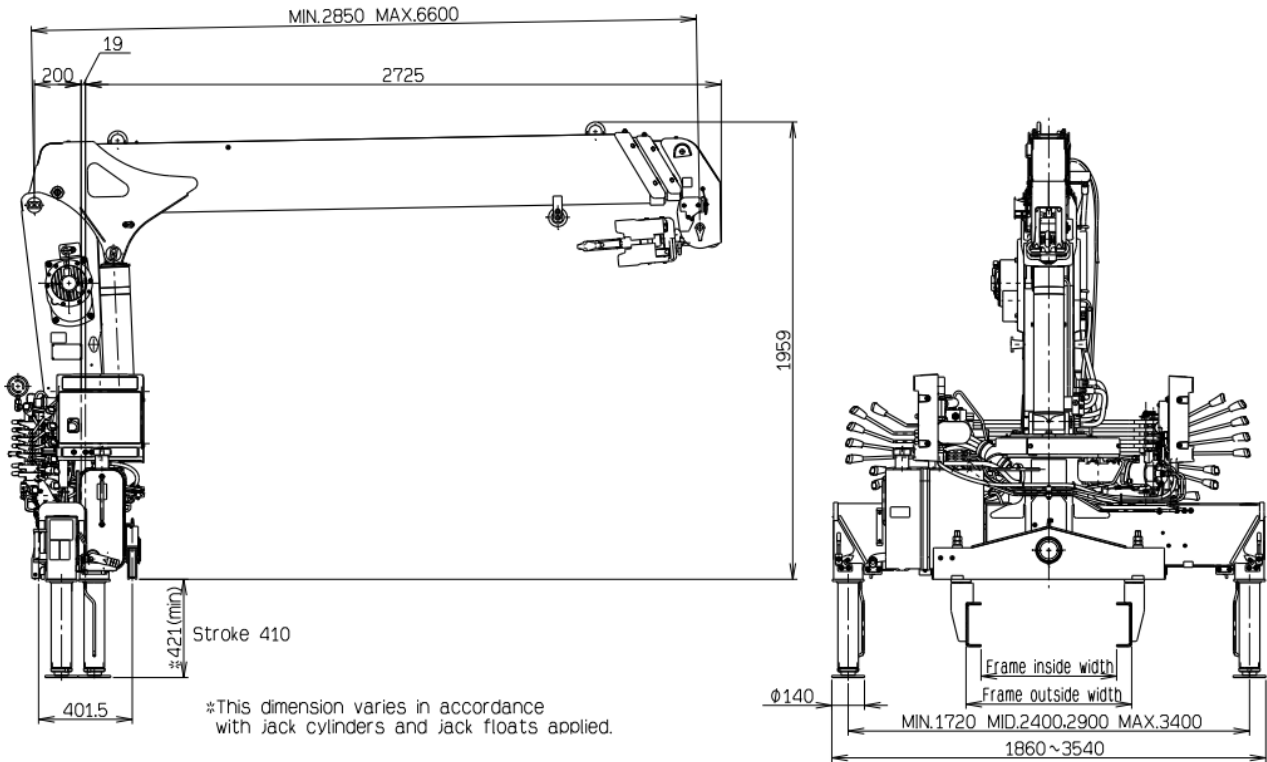
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2.0 m	2,330	2,330	980	2.5 m	1,680	1,680
2.5 m	1,880	1,880	680	3.0 m	1,430	1,430
3.0 m	1,500	1,500	480	3.5 m	1,230	1,230
3.5 m	1,250	1,250	380	4.0 m	1,080	1,080
4.0 m	1,080	1,080	330	4.5 m	980	980
4.54 m	980	980	280	5.0 m	900	900
				5.5 m	800	800
				6.0 m	730	730
				6.4 m	680	680





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

Even within range of this data, bodywork may not be possible depending on the specifications of the truck.

Gross vehicle weight	4,500 to 8,000 kg
Wheel base (*1)	2,750 mm min.
P.T.O. torque	140 N·m {14.3 kgf·m} min.
P.T.O. revolution range of use (min. to max.)	Approx. 350 to 1,360 min <sup>-1</sup> {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 chassis frame top) (*2)	Approx. 640 to 760 mm
Chassis frame section modulus (*3)	70 cm <sup>3</sup> min.

\*1 From the front axle to the farthest rear axle.

\*2 Height of crane mounting surface is changed by crane bases.

\*3 The chassis frame material must meet the following conditions at the crane mounting location.

—Yield point : 392 N/mm<sup>2</sup>

—Tensile strength : 540 N/mm<sup>2</sup>