TADANO

SPEC. SHEET No.TM-30Z-6-03867/EX-01
DATE May, 2023

TADANO CARGO CRANE

MODEL : TM-ZE306MH

CRANE SPECIFICATIONS

CRANE CAPACITY — 3,030 kg at 2.4 m (4-part lines)

BOOM — Six-sectioned, fully powered partly synchronized telescoping boom of heptagonal box construction

- Fully retracted length ---------- 3.65 m
- Fully extended length ---------- 14.6 m
- Extending speed ---------- 10.95 m in 19 s
- Elevation ---------- Elevated by a double-acting hydraulic cylinder
- Raising speed ---------- 1° to 78° in 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 BIOCK 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^{-1} {rpm}

Specifications are subject to change without notice.

OUTRIGGERS Manually operated beams and hydraulically operated jacks
Integral with crane frame
Extension width ---------- Min. 2,000 mm center to center
(2,150 mm outer to outer)
Mid. 2,700 mm center to center
(2,850 mm outer to outer)
Max. 3,400 mm center to center
(3,550 mm outer to outer)

REAR OUTRIGGERS (Locally provided)

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. 43.0 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
Oil cooler
Rear outriggers (outrigger beam extension type)

CRANE MASS
Approx. 1,360 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.
・36 L/min (Slewing speed)
・60 L/min (BOOM：Extending speed, Raising speed　WINCH：Single line speed)

RATED LIFTING CAPACITIES (kg)

Table A

LOAD RADIUS	3.65 m / 5.87 m BOOM			LOAD RADIUS	8.07 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers			CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers
		MAX.	MIN.			MAX.
2.4 m and below	3,030	3,030	1,330	2.7 m and below	2,330	2,330
2.5 m	2,830	2,780	1,230	3.0 m	2,200	2,080
3.0 m	2,380	2,180	880	3.5 m	1,930	1,680
3.5 m	1,980	1,730	680	4.0 m	1,700	1,350
4.0 m	1,700	1,350	530	4.5 m	1,480	1,080
4.5 m	1,480	1,080	430	5.0 m	1,300	880
5.0 m	1,300	880	330	5.5 m	1,150	700
5.67 m	1,100	680	250	6.0 m	1,030	580
				6.5 m	930	500
				7.0 m	830	430
				7.87 m	700	350

LOAD RADIUS	10.25 m BOOM		LOAD RADIUS	12.4 m BOOM		LOAD RADIUS	14.6 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers		CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers		CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers
		MAX.			MAX.			MAX.
4.0 m and below	1,130	1,130	5.0 m and below	880	830	4.9 m and below	430	430
5.0 m	1,050	830	6.0 m	730	580	6.0 m	380	380
6.0 m	880	580	7.0 m	630	430	7.0 m	330	330
7.0 m	750	430	8.0 m	530	330	8.0 m	300	280
8.0 m	650	330	9.0 m	480	280	9.0 m	280	250
9.0 m	600	280	10.0 m	400	220	10.0 m	260	220
10.05 m	500	230	11.0 m	380	180	11.0 m	240	180
			12.2 m	330	150	12.0 m	220	150
						13.0 m	200	130
						14.4 m	180	100

Table C

LOAD RADIUS	3.65 m / 5.87 m BOOM			LOAD RADIUS	8.07 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers			CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers
		MAX.	MIN.			MAX.
2.4 m and below	3,030	3,030	1,580	2.7 m and below	2,330	2,330
2.5 m	2,830	2,830	1,480	3.0 m	2,200	2,130
3.0 m	2,380	2,380	1,050	3.5 m	1,930	1,830
3.5 m	1,980	1,980	780	4.0 m	1,700	1,530
4.0 m	1,700	1,650	600	4.5 m	1,480	1,280
4.5 m	1,480	1,380	480	5.0 m	1,300	1,080
5.0 m	1,300	1,130	380	5.5 m	1,150	930
5.67 m	1,100	930	280	6.0 m	1,030	800
				6.5 m	930	700
				7.0 m	830	630
				7.87 m	700	530

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8.0 m	650	480	9.0 m	480	380	9.0 m	280	280
9.0 m	600	400	10.0 m	400	300	10.0 m	260	260
10.05 m	500	330	11.0 m	380	250	11.0 m	240	240
			12.2 m	330	230	12.0 m	220	220
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Table D

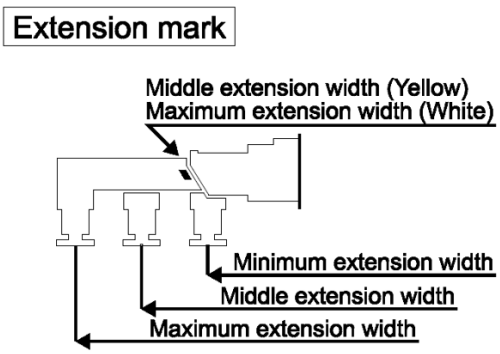
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3.5 m	1,980	1,980	780	4.0 m	1,700	1,700
4.0 m	1,700	1,700	600	4.5 m	1,480	1,480
4.5 m	1,480	1,480	480	5.0 m	1,300	1,300
5.0 m	1,300	1,300	380	5.5 m	1,150	1,150
5.67 m	1,100	1,100	280	6.0 m	1,030	1,030
				6.5 m	930	930
				7.0 m	830	830
				7.87 m	700	700

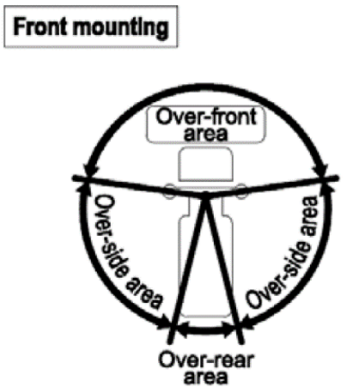
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7.0 m	750	750	8.0 m	530	530	8.0 m	300	300
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9.0 m	600	600	10.0 m	400	400	10.0 m	260	260
10.05 m	500	500	11.0 m	380	380	11.0 m	240	240
			12.2 m	330	330	12.0 m	220	220
						13.0 m	200	200
						14.4 m	180	180

NOTE : 1. Empty Chassis Rated Capacities in these tables depend on condition that crane is set level on firm level ground.
2. This value includes the mass of lifting devices such as hook block (30kg).
3. When the front outriggers are extended to the middle width, read the capacities rated for the minimum extension width.
4. Fully extend the front outriggers when working with a boom length exceeding 5.87m.
5. This load radius shows actual load radius which includes boom deflection.
6. If the boom length exceeds the table value even a little, the performance is limited to the performance of the next boom length.
7. When the boom length is 10.25 m, a half of the first ▱ mark on lateral face of the 4th boom section is exposed out of 3rd boom section.
8. 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 3rd boom section.
9. Empty chassis rated lifting capacity varies according to the working area.
・Front mounting <over-side, over-rear area> : 100%
<over-front area> : 25%
10. Empty Chassis Rated Capacities table A, C and D depend on the types of chassis.
(The following table shows guidelines for bodywork vehicles that can achieve the rated lifting capacity table A and C for vehicles. The rated lifting capacity may not be applicable depending on vehicle specifications. Be sure to carry out a stability inspection to determine which rated lifting capacity tables to apply.)

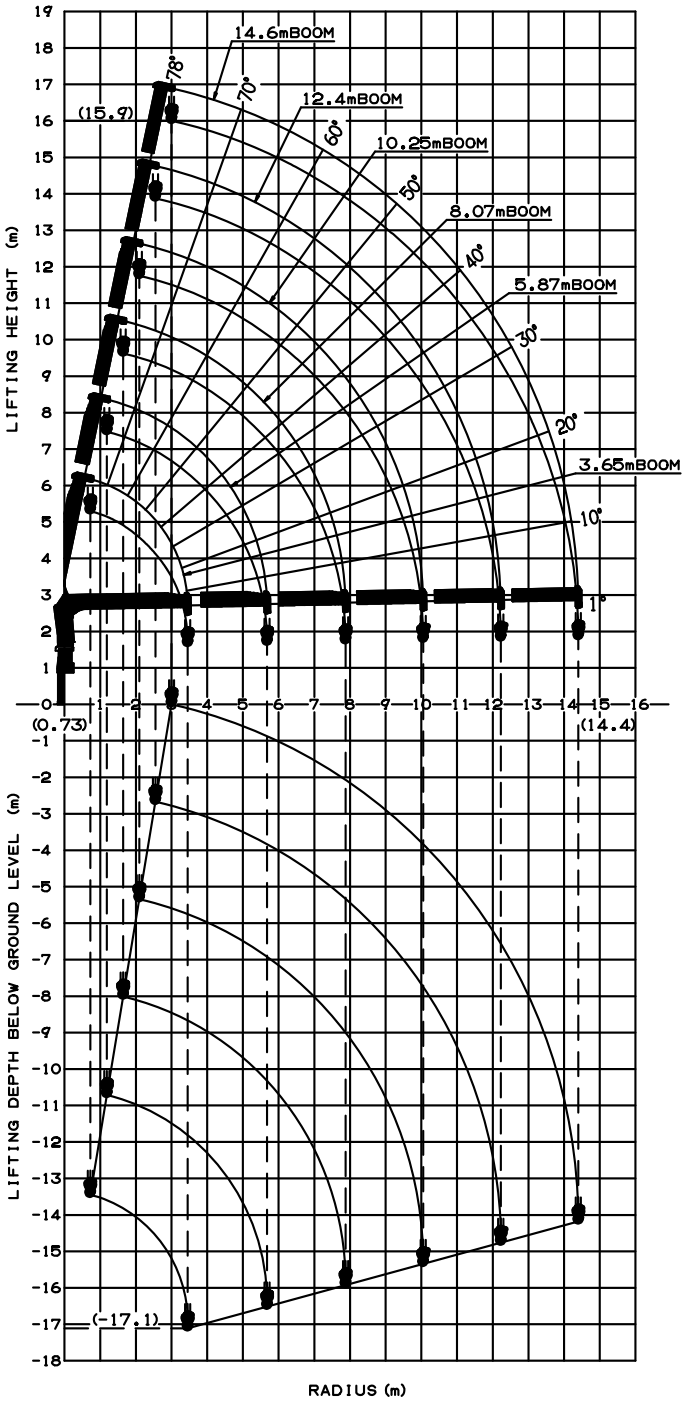
A	8.0 t ≤ GVW < 14.5 t (Must be set up the rear outrigger.)
C	11.0 t ≤ GVW <14.5 t, 4200 mm ≤ WB (*1) (Must be set up the rear outrigger.)

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



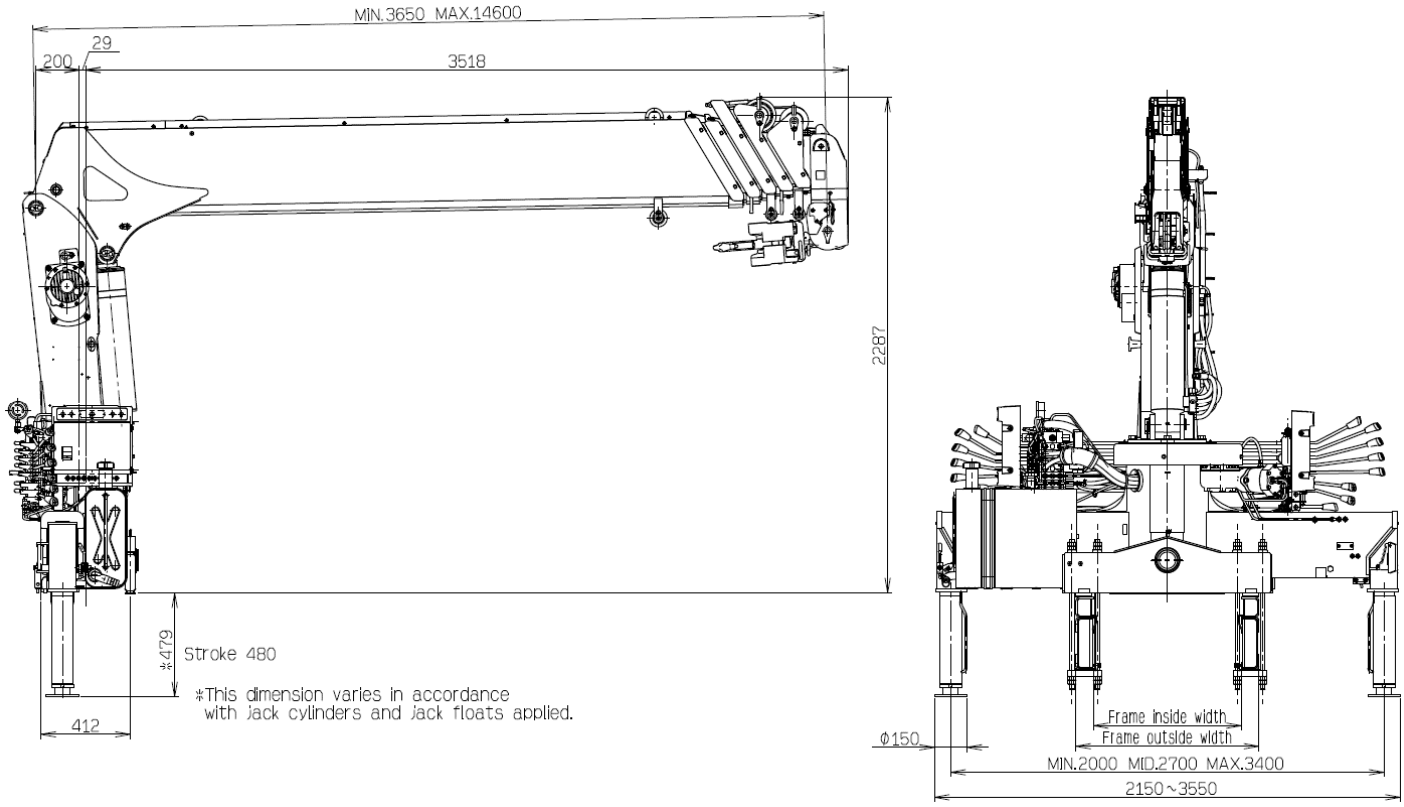


WORKING RANGE



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

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

Gross vehicle weight	8,000 to 14,500 kg
P.T.O. torque	190 N·m {19.4 kgf·m} min.
P.T.O. revolution range of use (min. to max.)	Approx. 350 to 1,300 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 chassis frame top) (※1)	Approx. 655 to 785 mm
Chassis frame section modulus (※2)	238 cm^3 min.

※1 Height of crane mounting surface is changed by crane bases.

※2 The chassis frame material must meet the following conditions at the crane mounting location.

－Yield point：392 N/mm^2

－Tensile strength：540 N/mm^2