TADANO CARGO CRANE

MODEL : TM-ZE366MH

CRANE SPECIFICATIONS

CRANE CAPACITY — 3,030 kg at 2.3 m (4-part lines)

BOOM — Six-sectioned, fully powered partly synchronized telescoping boom of pentagonal 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 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^{-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. 2,900 mm center to center
(3,050 mm outer to outer)
Mid. 3,600 mm center to center
(3,750 mm outer to outer)
Max.4,200 mm center to center
(4,350 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. 41.1 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. 1,440 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)

Crane Strength Rated Capacities

LOAD RADIUS	3.65 m / 5.87 m BOOM	LOAD RADIUS	8.07 m BOOM	LOAD RADIUS	10.2 m BOOM	LOAD RADIUS	12.4 m BOOM	LOAD RADIUS	14.6 m BOOM
2.3 m and below	3,030	2.7 m and below	2,330	4.0 m and below	1,030	5.0 m and below	700	4.9 m and below	400
2.5 m	2,830	3.0 m	2,130	5.0 m	880	6.0 m	580	6.0 m	360
3.0 m	2,380	3.5 m	1,880	6.0 m	730	7.0 m	500	7.0 m	330
3.5 m	1,980	4.0 m	1,630	7.0 m	630	8.0 m	430	8.0 m	300
4.0 m	1,680	4.5 m	1,450	8.0 m	580	9.0 m	380	9.0 m	280
4.5 m	1,450	5.0 m	1,280	9.0 m	510	10.0 m	330	10.0 m	260
5.0 m	1,280	5.5 m	1,130	10.05 m	480	11.0 m	300	11.0 m	240
5.67 m	1,080	6.0 m	1,000			12.22 m	280	12.0 m	220
		6.5 m	880					13.0 m	200
		7.0 m	800					14.4 m	180
		7.87 m	680						

NOTE :
1. 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.
2. This value includes the mass of lifting devices such as hook block (30kg).
3. This load radius shows actual load radius which includes boom deflection.
4. If the boom length exceeds the table value even a little, the performance is limited to the performance of the next boom length.
5. When the boom length is 10.2 m, a half of the first ▱ mark on lateral face of the 4th boom section is exposed out of 3rd boom section.
6. 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.

Empty Chassis Rated Capacities

Table A

LOAD RADIUS	3.65 m / 5.87 m BOOM extension width of outriggers		LOAD RADIUS	8.07 m BOOM extension width of outriggers	LOAD RADIUS	10.2 m BOOM extension width of outriggers	LOAD RADIUS	12.4 m BOOM extension width of outriggers	LOAD RADIUS	14.6 m BOOM extension width of outriggers
	MAX.	MIN.		MAX.		MAX.		MAX.		MAX.
2.3 m and below	3,030	1,280	2.7 m and below	2,230	4.0 m and below	1,030	5.0 m and below	630	4.9 m and below	330
2.5 m	2,780	1,130	3.0 m	2,030	5.0 m	830	6.0 m	480	6.0 m	280
3.0 m	2,280	780	3.5 m	1,680	6.0 m	700	7.0 m	400	7.0 m	250
3.5 m	1,880	580	4.0 m	1,380	7.0 m	530	8.0 m	350	8.0 m	230
4.0 m	1,430	480	4.5 m	1,180	8.0 m	430	9.0 m	310	9.0 m	210
4.5 m	1,180	380	5.0 m	980	9.0 m	350	10.0 m	280	10.0 m	190
5.0 m	980	280	5.5 m	830	10.05 m	300	11.0 m	250	11.0 m	170
5.67 m	820	230	6.0 m	700			12.22 m	210	12.0 m	160
			6.5 m	600					13.0 m	140
			7.0 m	530					14.4 m	130
			7.87 m	450						

Table C

LOAD RADIUS	3.65 m / 5.87 m BOOM extension width of outriggers		LOAD RADIUS	8.07 m BOOM extension width of outriggers	LOAD RADIUS	10.2 m BOOM extension width of outriggers	LOAD RADIUS	12.4 m BOOM extension width of outriggers	LOAD RADIUS	14.6 m BOOM extension width of outriggers
	MAX.	MIN.		MAX.		MAX.		MAX.		MAX.
2.3 m and below	3,030	1,380	2.7 m and below	2,230	4.0 m and below	1,030	5.0 m and below	630	4.9 m and below	330
2.5 m	2,780	1,230	3.0 m	2,030	5.0 m	830	6.0 m	480	6.0 m	280
3.0 m	2,280	880	3.5 m	1,680	6.0 m	730	7.0 m	400	7.0 m	250
3.5 m	1,930	680	4.0 m	1,380	7.0 m	600	8.0 m	350	8.0 m	230
4.0 m	1,630	530	4.5 m	1,180	8.0 m	480	9.0 m	310	9.0 m	210
4.5 m	1,330	430	5.0 m	1,050	9.0 m	400	10.0 m	280	10.0 m	190
5.0 m	1,080	330	5.5 m	880	10.05 m	330	11.0 m	250	11.0 m	170
5.67 m	880	280	6.0 m	780			12.22 m	230	12.0 m	160
			6.5 m	680					13.0 m	140
			7.0 m	600					14.4 m	130
			7.87 m	500						

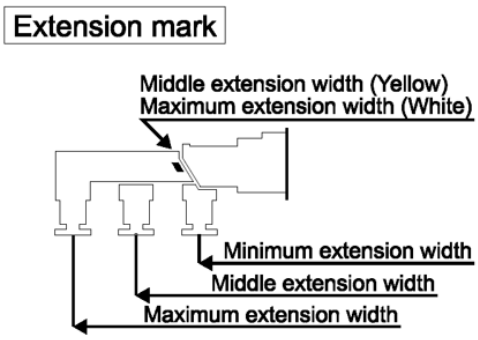
Table D

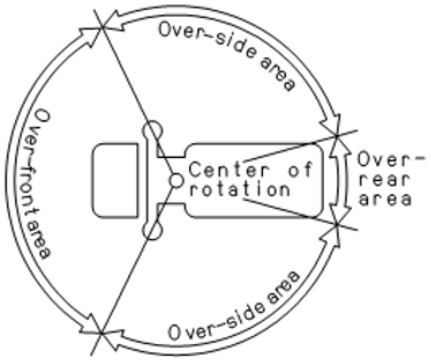
LOAD RADIUS	3.65 m / 5.87 m BOOM extension width of outriggers		LOAD RADIUS	8.07 m BOOM extension width of outriggers	LOAD RADIUS	10.2 m BOOM extension width of outriggers	LOAD RADIUS	12.4 m BOOM extension width of outriggers	LOAD RADIUS	14.6 m BOOM extension width of outriggers
	MAX.	MIN.		MAX.		MAX.		MAX.		MAX.
2.3 m and below	3,030	1,380	2.7 m and below	2,330	4.0 m and below	1,030	5.0 m and below	700	4.9 m and below	400
2.5 m	2,830	1,230	3.0 m	2,130	5.0 m	880	6.0 m	580	6.0 m	360
3.0 m	2,380	880	3.5 m	1,880	6.0 m	730	7.0 m	500	7.0 m	330
3.5 m	1,980	680	4.0 m	1,630	7.0 m	630	8.0 m	430	8.0 m	300
4.0 m	1,680	530	4.5 m	1,450	8.0 m	580	9.0 m	380	9.0 m	280
4.5 m	1,450	430	5.0 m	1,280	9.0 m	510	10.0 m	330	10.0 m	260
5.0 m	1,280	330	5.5 m	1,130	10.05 m	480	11.0 m	300	11.0 m	240
5.67 m	1,080	280	6.0 m	1,000			12.22 m	280	12.0 m	220
			6.5 m	880					13.0 m	200
			7.0 m	800					14.4 m	180
			7.87 m	680						

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. This load radius shows actual load radius which includes boom deflection.
5. If the boom length exceeds the table value even a little, the performance is limited to the performance of the next boom length.
6. When the boom length is 10.2 m, a half of the first ▱ mark on lateral face of the 4th boom section is exposed out of 3rd boom section.
7. 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.
8. Empty chassis rated lifting capacity varies according to the working area.
<over-side, over-rear area> : 100%
<over-front area> : 25%
9. 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. Be sure to carry out a stability inspection to determine which performance to apply.)

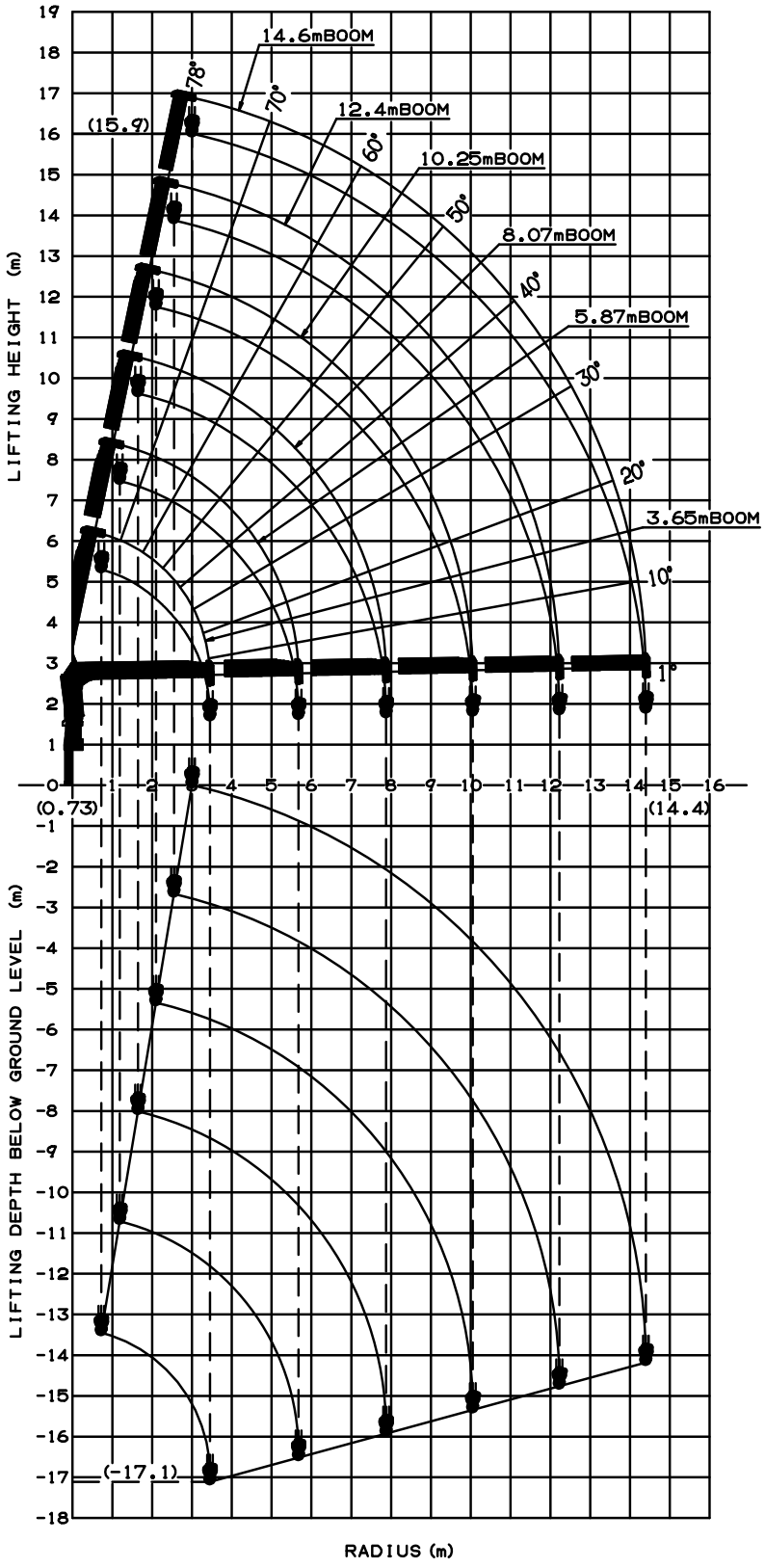
A	8.0 t ≤ GVW < 17.0 t (Must be set up the rear outrigger.)
C	11.0 t ≤ GVW < 17.0 t, 4200 mm ≤ WB (*1) (Must be set up the rear outrigger.)

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



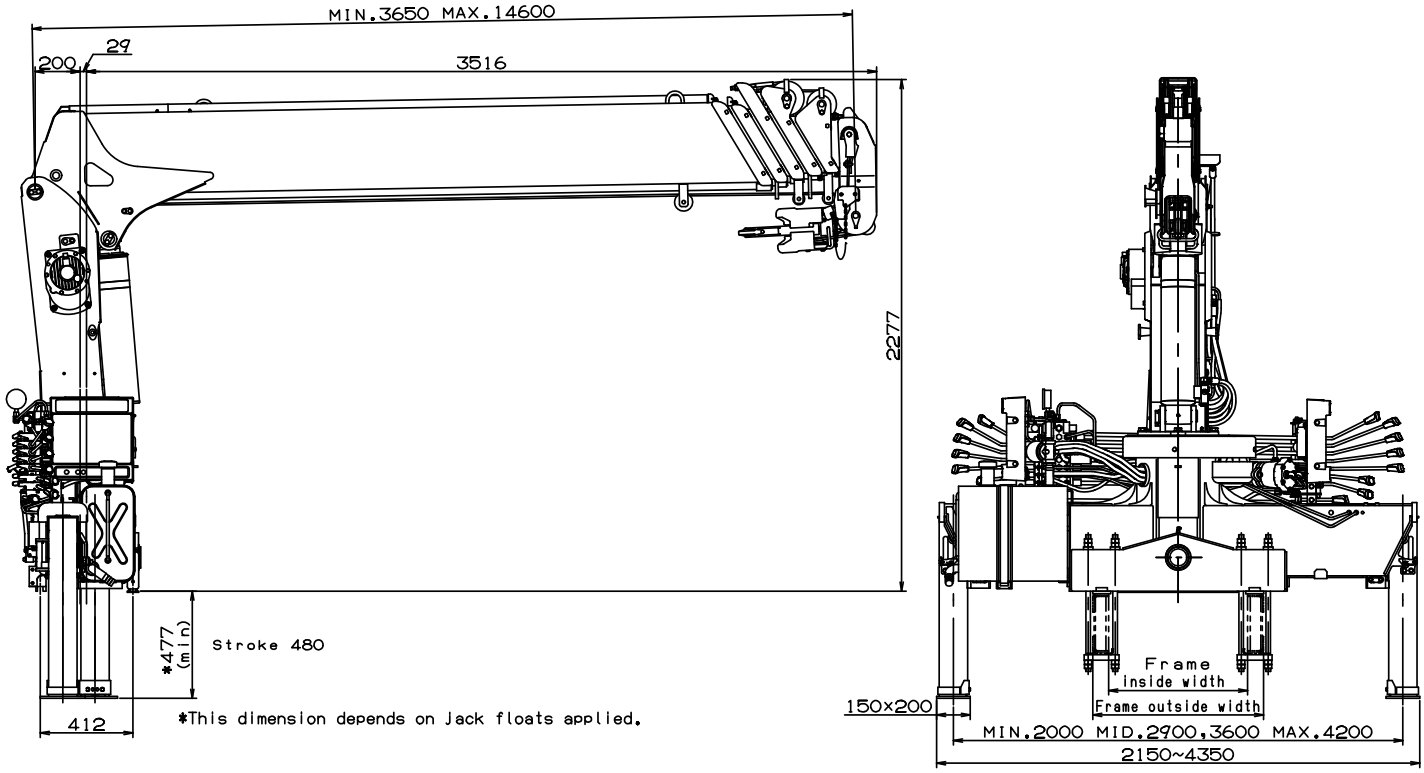


WORKING RANGE



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

Gross vehicle weight	8,000 to 17,000 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. 560 to 1,090 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