TADANO

SPEC. SHEET No.TM-36Z-5-03017,03027,03057/EX-07
DATE February, 2023

TADANO CARGO CRANE

MODEL : **TM-ZE366** series

MODEL	SPEC.	SPEC. No.
TM-ZE366HRS	Hook-in Radio controller Safety device (AML : Rated capacity indicator/limiter)	TM-36Z-5-03017
TM-ZE366HRS	Hook-in Radio controller Safety device (AML : Rated capacity indicator)	TM-36Z-5-03027
TM-ZE366HS	Hook-in Safety device (AML : Rated capacity indicator/limiter)	TM-36Z-5-03057

Specifications are subject to change without notice.

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 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}

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

(*1) RADIO CONTROLLER
Model : RCS-F (with colored display)
Control functions of telescoping, hoisting up and down, elevating, slewing, acceleration, Hook-in, Hook-out, horn, stop operation outrigger operation and working height limit.
Frequency ---------- 40 frequencies in 433 MHz band
Operating power supply
Transmitter ---------- 6V DC, Dry battery R6P (SUM-3) x 4
Control unit ---------- 24V DC, Vehicle battery
Transmitter mass ---------- Approx. 670 g (includes batteries)

SAFETY DEVICES	Anti-two-block-device
	AML (Automatic Moment Limiter)
	Load indication
	Load moment ratio indication
	Warning alarm
	Rated capacity indicator/limiter or Rated capacity indicator
	Limit warning lamp
	Outrigger length detector
	Outrigger asymmetric extension width control
	Limit warning lamp(three-color)
	WHL (Working Height Limiter)
	Boom angle indicator
	Load indicator
	Load meter
	Over-unwinding prevention
	Hook safety latch
	Spirit level
	Jack interlock
	Boom/outrigger stowing reminder alarm
	Emergency stop switch
	(*1) Stop switch on radio controller
	Hydraulic safety valves, check valves and holding valves
OPTIONAL EQUIPMENT	Emergency hydraulic pump
	Outrigger pads
	Oil cooler
	Tiltable jack float
	Rear outriggers (outrigger beam extension type)
CRANE MASS	Approx. 1,440 kg
	(Except crane options and mounting parts.)

NOTE : 1. 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)

2. *1 mark applies only to HRS specifications.

RATED LIFTING CAPACITIES (kg)

Table A

LOAD RADIUS	3.65 m / 5.87 m BOOM		
	CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers	
		MAX.	MIN.
2.4 m and below	3,030	3,030	1,330
2.5 m	2,830	2,780	1,230
3.0 m	2,380	2,330	880
3.5 m	1,980	1,980	680
4.0 m	1,700	1,650	530
4.5 m	1,480	1,330	430
5.0 m	1,300	1,100	330
5.67 m	1,100	900	250

LOAD RADIUS	8.07 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers
		MAX.
2.7 m and below	2,330	2,330
3.0 m	2,200	2,130
3.5 m	1,930	1,830
4.0 m	1,700	1,580
4.5 m	1,480	1,330
5.0 m	1,300	1,100
5.5 m	1,150	930
6.0 m	1,030	780
6.5 m	930	650
7.0 m	830	580
7.87 m	700	450

LOAD RADIUS	10.25 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers
		MAX.
4.0 m and below	1,130	1,130
5.0 m	1,050	980
6.0 m	880	780
7.0 m	750	580
8.0 m	650	450
9.0 m	600	380
10.05 m	500	300

LOAD RADIUS	12.4 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers
		MAX.
5.0 m and below	880	880
6.0 m	730	700
7.0 m	630	580
8.0 m	530	450
9.0 m	480	380
10.0 m	400	300
11.0 m	380	250
12.2 m	330	210

LOAD RADIUS	14.6 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers
		MAX.
4.9 m and below	430	430
6.0 m	380	380
7.0 m	330	330
8.0 m	300	300
9.0 m	280	280
10.0 m	260	250
11.0 m	240	230
12.0 m	220	200
13.0 m	200	180
14.4 m	180	150

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	1,850
3.5 m	1,980	1,980	780	4.0 m	1,700	1,600
4.0 m	1,700	1,700	600	4.5 m	1,480	1,430
4.5 m	1,480	1,480	480	5.0 m	1,300	1,280
5.0 m	1,300	1,300	380	5.5 m	1,150	1,130
5.67 m	1,100	1,100	280	6.0 m	1,030	1,000
				6.5 m	930	880
				7.0 m	830	780
				7.87 m	700	630

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	880	4.9 m and below	430	430
5.0 m	1,050	1,050	6.0 m	730	730	6.0 m	380	380
6.0 m	880	880	7.0 m	630	630	7.0 m	330	330
7.0 m	750	750	8.0 m	530	530	8.0 m	300	300
8.0 m	650	600	9.0 m	480	450	9.0 m	280	280
9.0 m	600	500	10.0 m	400	400	10.0 m	260	260
10.05 m	500	430	11.0 m	380	350	11.0 m	240	240
			12.2 m	330	300	12.0 m	220	220
						13.0 m	200	200
						14.4 m	180	180

Table D

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	2,200
3.0 m	2,380	2,380	1,050	3.5 m	1,930	1,930
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

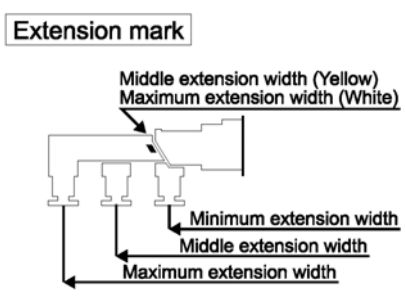
LOAD RADIUS	10.25 m BOOM		LOAD RADIUS	12.4 m BOOM		LOAD RADIUS	14.6 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers		CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers		CRANE STRENGTH	EMPTY CHASSIS extension width of outriggers
		MAX.			MAX.			MAX.
4.0 m and below	1,130	1,130	5.0 m and below	880	880	4.9 m and below	430	430
5.0 m	1,050	1,050	6.0 m	730	730	6.0 m	380	380
6.0 m	880	880	7.0 m	630	630	7.0 m	330	330
7.0 m	750	750	8.0 m	530	530	8.0 m	300	300
8.0 m	650	650	9.0 m	480	480	9.0 m	280	280
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

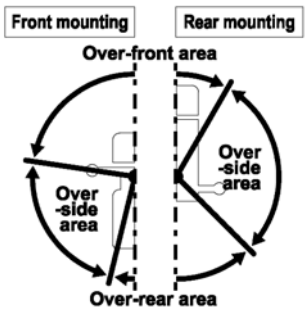
NOTE :
1. Rated capacity indicator issues warning with the limit warning lamp and the buzzer when the working state approaches the stability limit or the strength limit.
2. When the AML is equipped with the rated capacity limiter, an operation stops automatically if the rated lifting capacity is exceeded.
3. When the crane is front mounted, set up the front and rear outriggers so that the front and rear wheels are slightly in contact with the ground. (If tire deformation is large, AML may activate earlier.)
4. Empty Chassis Rated Capacities in these tables depend on condition that crane is set level on firm level ground.
5. This value includes the mass of lifting devices such as hook block (30kg).
6. When the front outriggers are extended to the middle width, read the capacities rated for the minimum extension width.
7. This load radius shows actual load radius which includes boom deflection.
8. Rated lifting capacity is in consideration of the loading on the truck bed, and is within the range from the empty chassis rated lifting capacity to the crane strength rated lifting capacity.
9. If the boom length exceeds the table value even a little, the performance is limited to the performance of the next boom length.
10. 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.
11. 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.
12. Empty chassis rated lifting capacity varies according to the working area.
    - Front mounting <over-side, over-rear area> : 100%
      <over-front area> : 25% (*1) or 60% (*1) or 100% (*1)
    - Rear mounting <over-front, over-rear area> : 100%
      <over-side area> : 30%

    *1 : Depend on the types of chassis.
13. 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.)

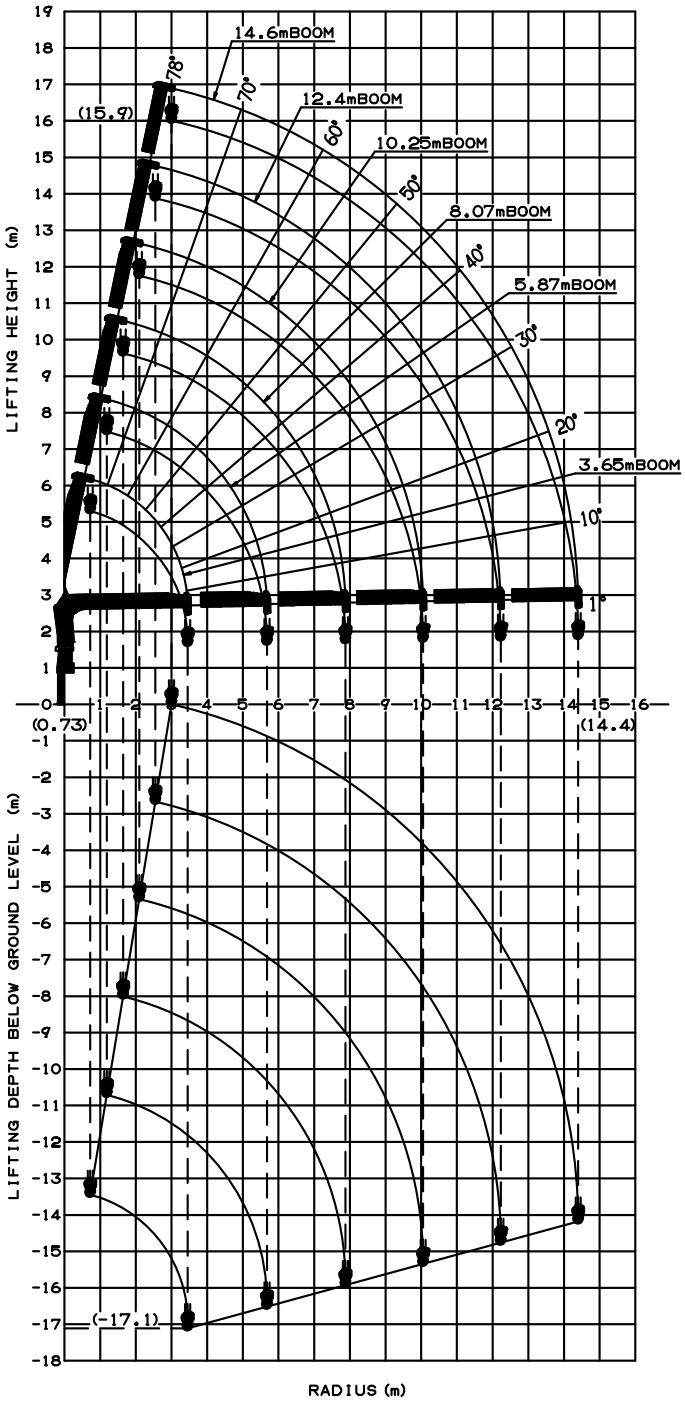
A	8.0 t ≤ GVW < 17.0 t (Must be set up the rear outrigger.)
C	11.0 t ≤ GVW < 17.0 t, 4200 mm ≤ WB (*2) (Must be set up the rear outrigger.)

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



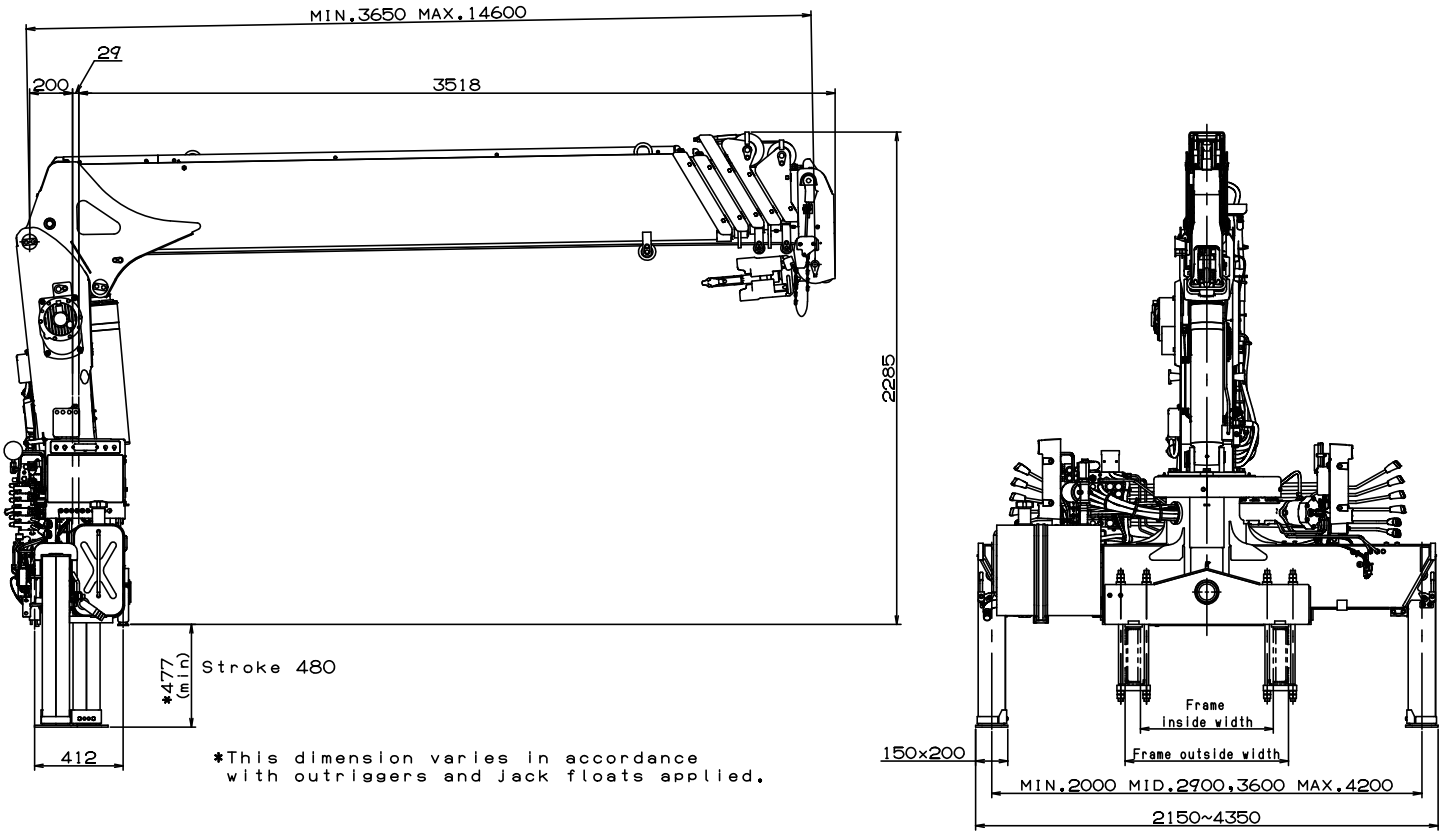


WORKING RANGE



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. 615 to 810 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