

## TADANO CARGO CRANE

MODEL : **TM-ZE365** series

MODEL	SPEC.	SPEC. No.
TM-ZE365HRS	Hook-in Radio controller Safety device (AML : Rated capacity indicator/limiter)	TM-36Z-5-03015
TM-ZE365HRS	Hook-in Radio controller Safety device (AML : Rated capacity indicator)	TM-36Z-5-03025
TM-ZE365HS	Hook-in Safety device (AML : Rated capacity indicator/limiter)	TM-36Z-5-03055

Specifications are subject to change without notice.

## CRANE SPECIFICATIONS

### CRANE CAPACITY

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

### BOOM

Five-sectioned, fully powered partly synchronized telescoping boom of heptagonal box construction

Fully retracted length ----- 3.52 m

Fully extended length ----- 12.3 m

Extending speed ----- 8.78 m in 18 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 74 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}

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)

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  
 Tilttable jack float  
 Rear outriggers (outrigger beam extension type)

CRANE MASS

Approx. 1,370 kg  
 (Except crane options and munting 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	3.52 m / 5.75 m BOOM			LOAD RADIUS	7.95 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS			CRANE STRENGTH	EMPTY CHASSIS
		extension width of outriggers				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	2,130	2,130
3.0 m	2,430	2,330	880	3.5 m	1,830	1,830
3.5 m	2,030	1,980	680	4.0 m	1,630	1,580
4.0 m	1,730	1,600	530	4.5 m	1,480	1,280
4.5 m	1,480	1,280	430	5.0 m	1,330	1,050
5.0 m	1,330	1,050	330	5.5 m	1,150	900
5.5 m	1,150	850	280	6.0 m	1,080	780
				6.5 m	980	650
				7.0 m	880	580
				7.75 m	750	480

LOAD RADIUS	10.12 m BOOM		LOAD RADIUS	12.3 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS		CRANE STRENGTH	EMPTY CHASSIS
		extension width of outriggers			extension width of outriggers
		MAX.		MAX.	
4.0 m and below	1,230	1,230	4.5 m and below	930	930
5.0 m	980	980	5.0 m	830	830
6.0 m	830	780	6.0 m	700	700
7.0 m	730	580	7.0 m	600	580
8.0 m	650	450	8.0 m	500	450
9.0 m	580	380	9.0 m	450	380
9.92 m	530	330	10.0 m	400	300
			11.0 m	350	280
			12.1 m	330	230

Table C

LOAD RADIUS	3.52 m / 5.75 m BOOM			LOAD RADIUS	7.95 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS			CRANE STRENGTH	EMPTY CHASSIS
		extension width of outriggers				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	2,130	2,130
3.0 m	2,430	2,430	1,080	3.5 m	1,830	1,830
3.5 m	2,030	2,030	830	4.0 m	1,630	1,630
4.0 m	1,730	1,730	650	4.5 m	1,480	1,430
4.5 m	1,480	1,480	530	5.0 m	1,330	1,280
5.0 m	1,330	1,330	430	5.5 m	1,150	1,130
5.55 m	1,150	1,150	350	6.0 m	1,080	1,030
				6.5 m	980	900
				7.0 m	880	800
				7.75 m	750	650

LOAD RADIUS	10.12 m BOOM			LOAD RADIUS	12.3 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS			CRANE STRENGTH	EMPTY CHASSIS
		extension width of outriggers				extension width of outriggers
		MAX.			MAX.	
4.0 m and below	1,230	1,230		4.5 m and below	930	930
5.0 m	980	980		5.0 m	830	830
6.0 m	830	830		6.0 m	700	700
7.0 m	730	730		7.0 m	600	600
8.0 m	650	650		8.0 m	500	500
9.0 m	580	530		9.0 m	450	450
9.92 m	530	450		10.0 m	400	400
				11.0 m	350	350
				12.1 m	330	330

Table D

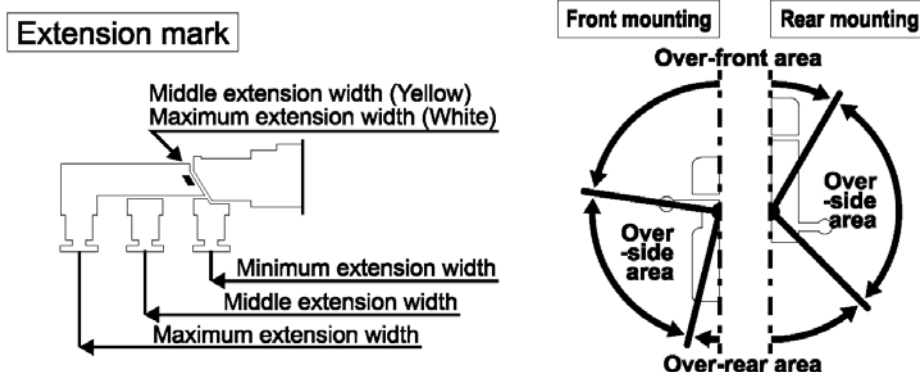
LOAD RADIUS	3.52 m / 5.75 m BOOM			LOAD RADIUS	7.95 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS			CRANE STRENGTH	EMPTY CHASSIS
		extension width of outriggers				extension width of outriggers
		MAX.	MIN.		MAX.	
2.4 m and below	3,030	3,030	1,580	2.7 m and below	2,330	2,330
2.5 m	2,830	2,830	1,480	3.0 m	2,130	2,130
3.0 m	2,430	2,430	1,080	3.5 m	1,830	1,830
3.5 m	2,030	2,030	830	4.0 m	1,630	1,630
4.0 m	1,730	1,730	650	4.5 m	1,480	1,480
4.5 m	1,480	1,480	530	5.0 m	1,330	1,330
5.0 m	1,330	1,330	430	5.5 m	1,150	1,150
5.55 m	1,150	1,150	350	6.0 m	1,080	1,080
				6.5 m	980	980
				7.0 m	880	880
				7.75 m	750	750

LOAD RADIUS	10.12 m BOOM		LOAD RADIUS	12.3 m BOOM	
	CRANE STRENGTH	EMPTY CHASSIS		CRANE STRENGTH	EMPTY CHASSIS
		extension width of outriggers			extension width of outriggers
		MAX.		MAX.	
4.0 m and below	1,230	1,230	4.5 m and below	930	930
5.0 m	980	980	5.0 m	830	830
6.0 m	830	830	6.0 m	700	700
7.0 m	730	730	7.0 m	600	600
8.0 m	650	650	8.0 m	500	500
9.0 m	580	580	9.0 m	450	450
9.92 m	530	530	10.0 m	400	400
			11.0 m	350	350
			12.1 m	330	330

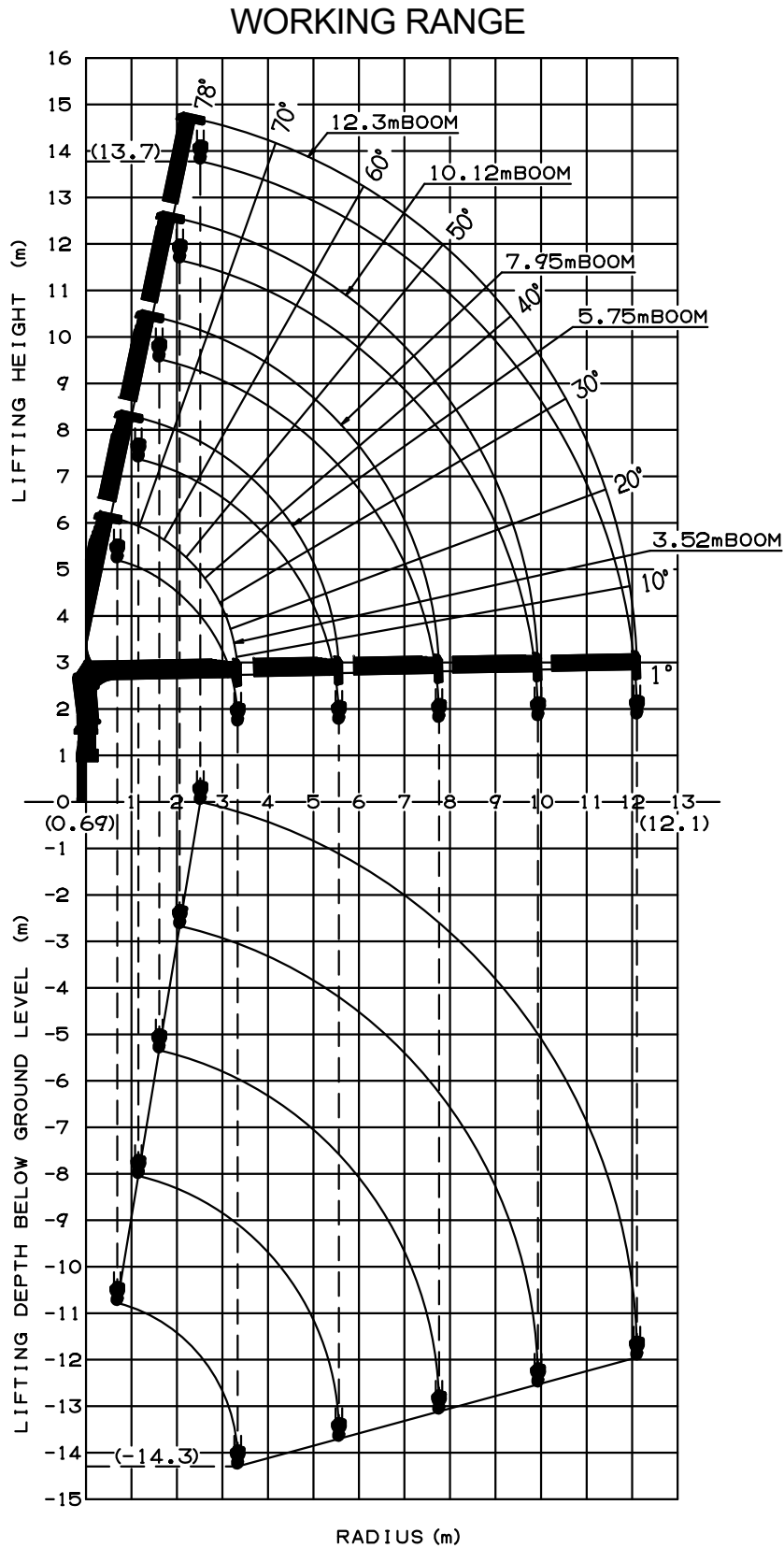
- NOTE :
1. Rated capacity indicator issues warning with the limit warning lamp and the buzzer when the working state approaches the stability limit or the strength limit.
  2. When the AML is equipped with the rated capacity limiter, an operation stops automatically if the rated lifting capacity is exceeded.
  3. When the crane is front mounted, set up the front outriggers so that the front 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 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 10.12 m, a half of the  $\square$  mark on lateral face of the 4th boom section is exposed out of 3rd boom section.
  11. 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.
  12. 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
C	11.0 t ≤ GVW < 17.0 t, 4200 mm ≤ WB (*2)

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

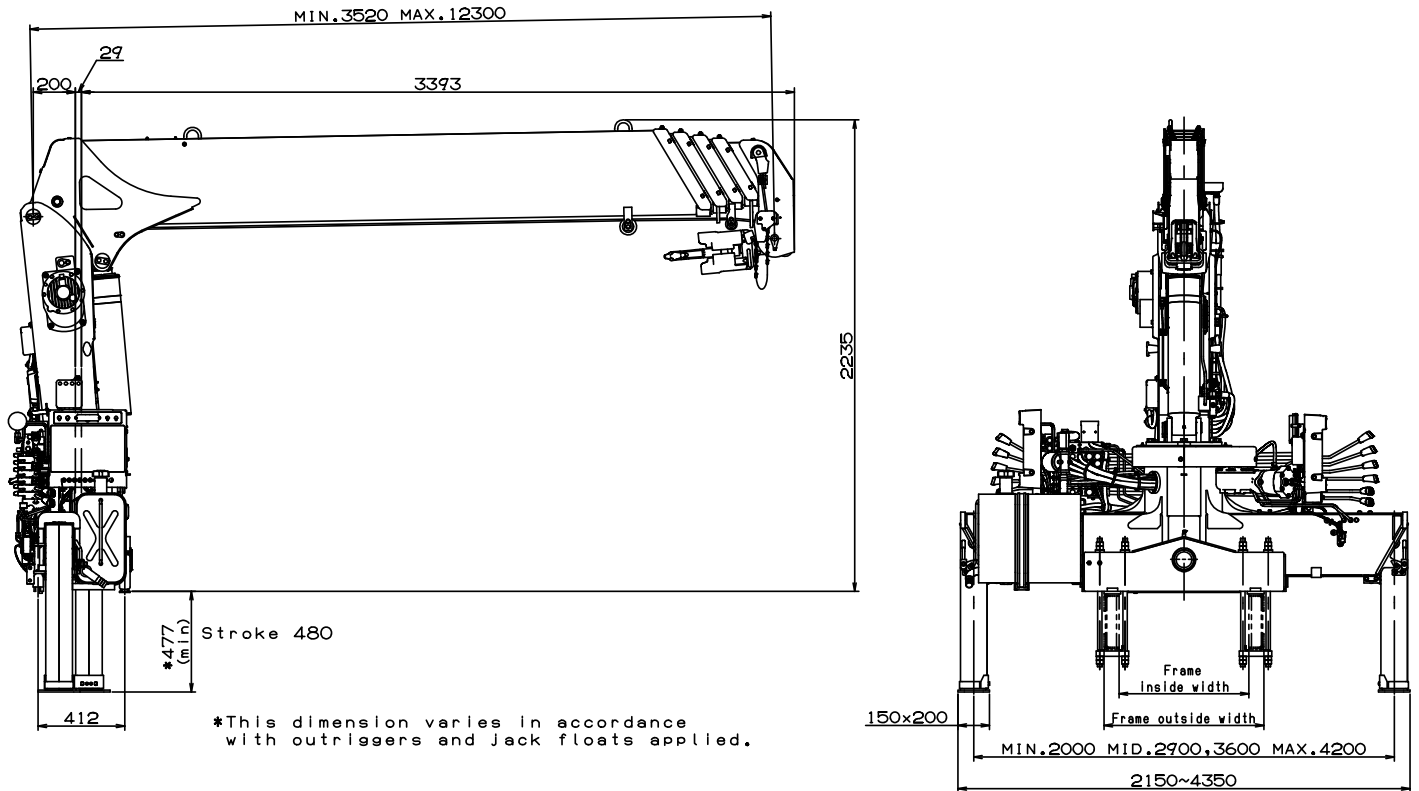






NOTE : The above lifting heights and boom angles are based on a straight (unladen) boom, and allowance should be made for boom deflection obtained under laden conditions.

## 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 <sup>-1</sup> {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 <sup>3</sup> 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<sup>2</sup>

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