

## TADANO CARGO CRANE

MODEL : **TM-ZE305HRS**

## CRANE SPECIFICATIONS

CRANE CAPACITY

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

BOOM

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

Retracted length ----- 3.52 m

Extended length ----- 12.3 m

Extending speed ----- 8.78 m / 18 s

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

Elevating speed ----- 1° to 78° / 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 STOWING DEVICE

Mechanically stowed beneath boom top portion

<u>SWING</u>	Hydraulic motor driven    Worm gear speed reduction    Continuous 360° full circle swing on ball bearing slew ring Automatic swing lock Swing speed ----- 2.5 min <sup>-1</sup> {rpm}
<u>OUTRIGGERS</u>	Manually extended sliders and hydraulically extended jacks Integral with crane frame    Power up and down Extension width ----- Min. 2,000 mm Mid. 2,700 mm Full 3,400 mm
<u>HYDRAULICS</u>	Hydraulic pump ----- Single gear pump Hydraulic motors ----- Axial piston type for winch Axial piston type for swing Control valves ----- Multiple control valves with integral safety valve Oil tank capacity ----- approx. 31 L
<u>RADIO CONTROLLER</u>	Model : RCS-F Control functions of boom telescoping, hoisting up and down, boom elevating, swing, acceleration, speed mode selection, working height limiting, Hook-in, Hook-out, horn and emergency stop 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. 576 g (includes batteries)
<u>SAFETY DEVICES</u>	AML(Automatic Moment Limiter) Load indication Load moment ratio to rated load indication Warning alarm Over load limiter WHL(Working Height Limiter) Load meter Radius indicator Emergency stop switch on radio controller Terminal for emergency stop switch Over-winding alarm Hoisting limiter Jack interlock P.T.O indicator lamp Hook safety latch Hydraulic safety valves, check valves and holding valves Level gauge
<u>CRANE MASS</u>	Approx. 1,390 kg (includes standardized mounting parts)

NOTE : Operating speeds of the crane are guaranteed under the condition that the pump delivery is 60 L /min.

## RATED LIFTING CAPACITIES IN KILOGRAMS

### Crane Strength Rated Capacities

Load Radius	3.52 m / 5.75 m Boom		Load Radius	7.95 m Boom	Load Radius	10.1 m Boom	Load Radius	12.3 m Boom
	Extension width of outriggers			Extension width of outriggers		Extension width of outriggers		Extension width of outriggers
	Full	Minimum		Full		Full		Full
2.3 m and below	3,030	1,380	2.7 m and below	2,330	4.0 m and below	1,030	4.5 m and below	760
2.5 m	2,830	1,230	3.0 m	2,130	5.0 m	880	5.0 m	700
3.0 m	2,430	880	3.5 m	1,830	6.0 m	730	6.0 m	580
3.5 m	2,030	680	4.0 m	1,630	7.0 m	630	7.0 m	500
4.0 m	1,730	530	4.5 m	1,480	8.0 m	580	8.0 m	430
4.5 m	1,480	430	5.0 m	1,330	9.0 m	510	9.0 m	380
5.0 m	1,330	380	5.5 m	1,150	9.92m	480	10.0m	330
5.55m	1,150	280	6.0 m	1,050			11.0m	300
			6.5 m	950			12.1m	280
			7.0 m	850				
			7.75m	730				

- NOTES : 1. The mass of hook block (30kg), slings and all similarly used load handling devices must be added to the mass of load.  
 2. 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.

Table A Empty Chassis Rated Capacities

Load Radius	3.52 m / 5.75 m Boom		Load Radius	7.95 m Boom	Load Radius	10.1 m Boom	Load Radius	12.3 m Boom
	Extension width of outriggers			Extension width of outriggers		Extension width of outriggers		Extension width of outriggers
	Full	Minimum		Full		Full		Full
2.3 m and below	3,030	1,280	2.7 m and below	2,230	4.0 m and below	1,030	4.5 m and below	760
2.5 m	2,780	1,180	3.0 m	1,850	5.0 m	650	5.0 m	630
3.0 m	1,880	780	3.5 m	1,330	6.0 m	480	6.0 m	480
3.5 m	1,330	630	4.0 m	1,030	7.0 m	380	7.0 m	380
4.0 m	1,030	480	4.5 m	830	8.0 m	300	8.0 m	300
4.5 m	830	380	5.0 m	680	9.0 m	230	9.0 m	230
5.0 m	680	330	5.5 m	580	9.92m	200	10.0m	200
5.55m	580	280	6.0 m	480			11.0m	180
			6.5 m	430			12.1m	130
			7.0 m	380				
			7.75m	330				

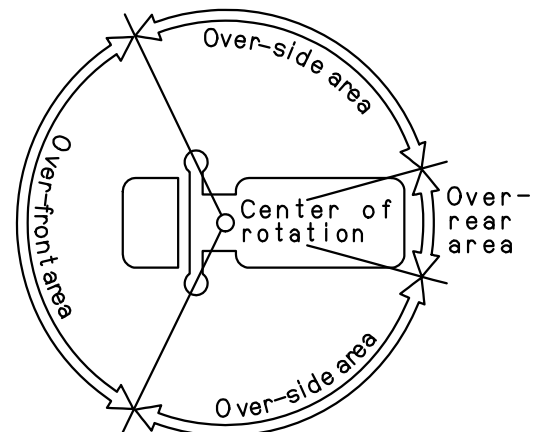
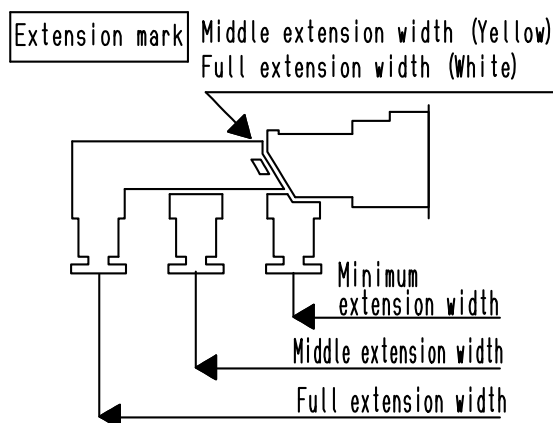
Table C

Load Radius	3.52 m / 5.75 m Boom		Load Radius	7.95 m Boom	Load Radius	10.1 m Boom	Load Radius	12.3 m Boom
	Extension width of outriggers			Extension width of outriggers		Extension width of outriggers		Extension width of outriggers
	Full	Minimum		Full		Full		Full
2.3 m and below	3,030	1,380	2.7 m and below	2,230	4.0 m and below	1,030	4.5 m and below	760
2.5 m	2,780	1,230	3.0 m	2,030	5.0 m	780	5.0 m	630
3.0 m	2,080	880	3.5 m	1,530	6.0 m	580	6.0 m	480
3.5 m	1,530	680	4.0 m	1,180	7.0 m	430	7.0 m	400
4.0 m	1,180	530	4.5 m	980	8.0 m	350	8.0 m	350
4.5 m	980	430	5.0 m	780	9.0 m	300	9.0 m	280
5.0 m	830	380	5.5 m	680	9.92m	280	10.0m	250
5.55m	680	280	6.0 m	580			11.0m	230
			6.5 m	480			12.1m	200
			7.0 m	430				
			7.75m	380				

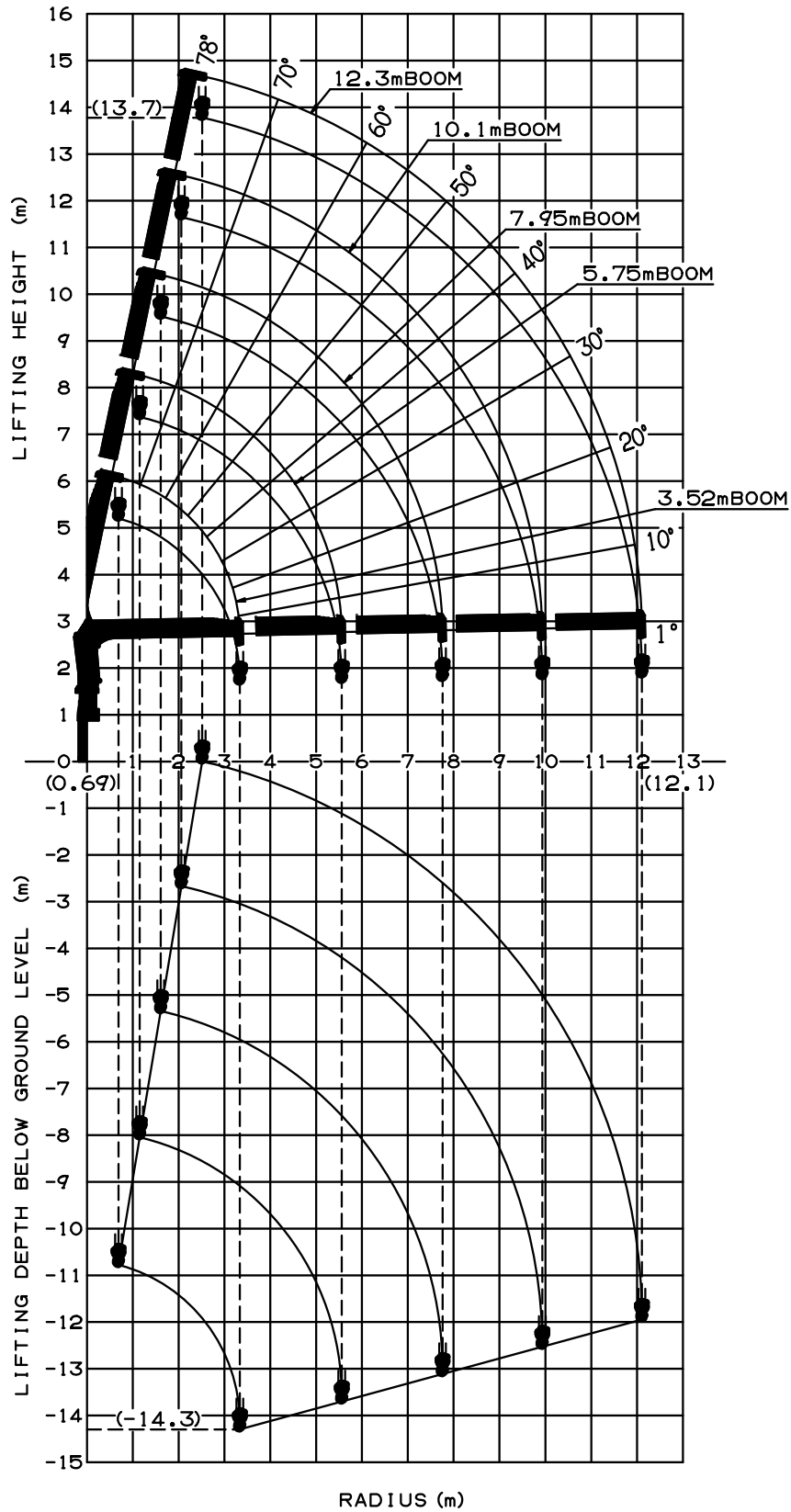
Table D

Load Radius	3.52 m / 5.75 m Boom		Load Radius	7.95 m Boom	Load Radius	10.1 m Boom	Load Radius	12.3 m Boom
	Extension width of outriggers			Extension width of outriggers		Extension width of outriggers		Extension width of outriggers
	Full	Minimum		Full		Full		Full
2.3 m and below	3,030	1,380	2.7 m and below	2,330	4.0 m and below	1,030	4.5 m and below	760
2.5 m	2,830	1,230	3.0 m	2,130	5.0 m	880	5.0 m	700
3.0 m	2,430	880	3.5 m	1,830	6.0 m	730	6.0 m	580
3.5 m	2,030	680	4.0 m	1,630	7.0 m	630	7.0 m	500
4.0 m	1,730	530	4.5 m	1,480	8.0 m	580	8.0 m	430
4.5 m	1,480	430	5.0 m	1,330	9.0 m	510	9.0 m	380
5.0 m	1,330	380	5.5 m	1,150	9.92m	480	10.0m	330
5.55m	1,150	280	6.0 m	1,050			11.0m	300
			6.5 m	950			12.1m	280
			7.0 m	850				
			7.75m	730				

- NOTES :
1. Empty Chassis Rated Capacities in these tables depend on condition that crane is set level on firm level ground.
  2. The mass of hook block (30 kg), slings and all similarly used load handling devices must be added to the mass of load.
  3. For boom lengths not shown, use the rated lifting capacity of next longer boom.
  4. When outriggers are extended to middle extension width, use the rated lifting capacities for outriggers are extended to minimum extension width .
  5. For boom lengths longer than 5.75m, extend outriggers to full extension width.
  6. When the boom length is 10.1 m, a half of the  $\square$  mark on lateral face of the 4th boom section is exposed out of the 3rd boom section.
  7. Empty Chassis Rated Capacities table A ,C and D depend on the types of chassis.
  8. Empty Chassis Rated Capacities are shown for over-side areas and over-rear area. These capacities for over-front area may lowered depending on the types of chassis.



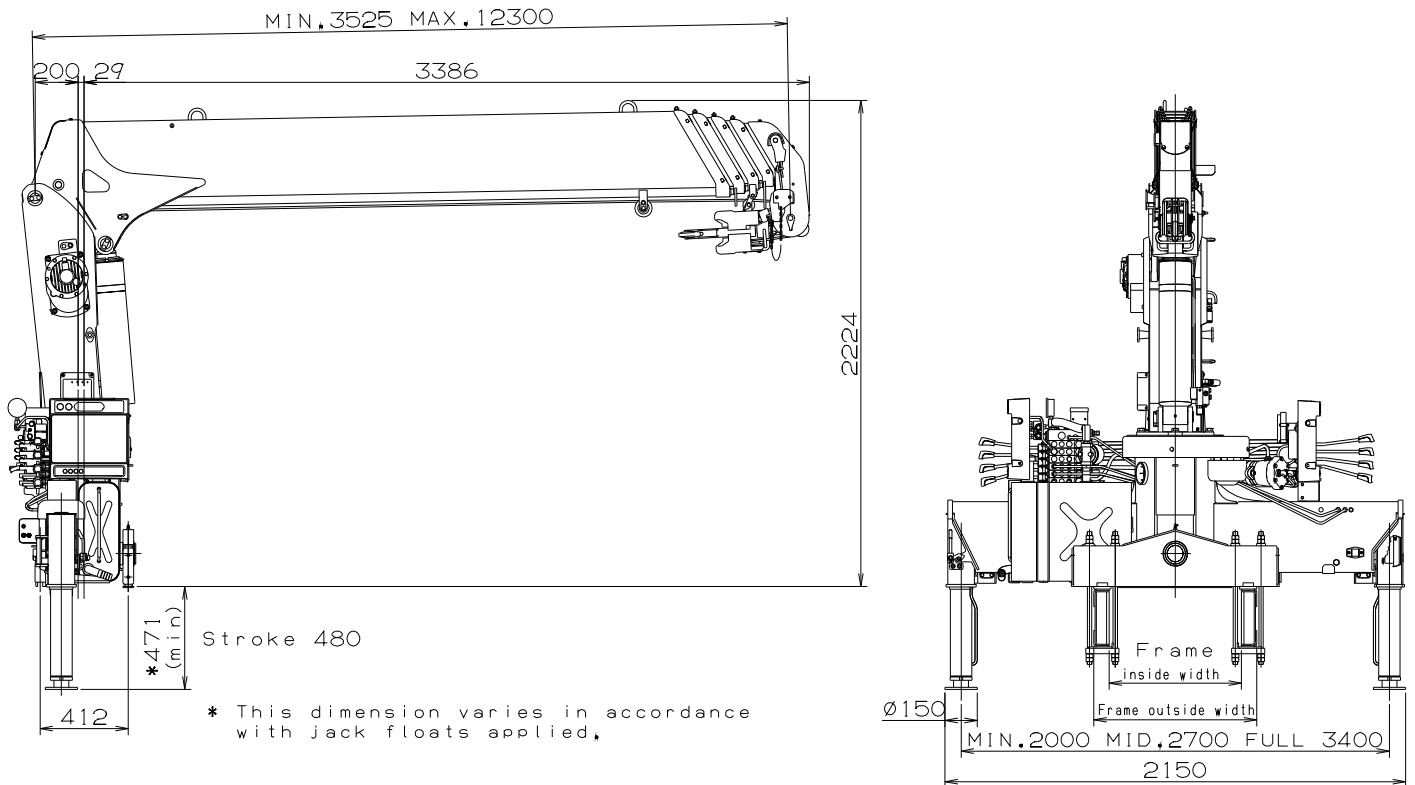
### WORKING RANGE



**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 mass (including crane mass) ----- 8,000 to 11,000 kg
- P.T.O. torque -----190 N-m{19.4 kgf-m} min.
- P.T.O. revolution ----- Approx. 300 to 1,900 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 frame top) ----- Approx. 1,070 mm max.  
(Height of crane mounting base can be changed by combination of jack floats and crane bases)