

TADANO CARGO CRANE

MODEL : **TM-ZE304HS**

CRANE SPECIFICATIONS

<u>CRANE CAPACITY</u>	3,000 kg at 2.6 m (4-part lines)
<u>BOOM</u>	Four-sectioned, fully powered partly synchronized telescoping boom of heptagonal box construction Retracted length ----- 3.34 m Extended length ----- 10.0 m Extending speed ----- 6.66 m / 14 s Elevation ----- Elevated by a double-acting hydraulic cylinder Elevating speed ----- 1° to 78° / 7.5 s Boom point ----- 2 sheaves
<u>WINCH</u>	Hydraulic motor driven Spur gear speed reduction, provided with mechanical brake and cable follower Single line pull ----- 7.35 kN {750 kgf} Single line speed ----- 76 m/min.(at 4th layer) Wire rope Diameter x length ---- 8 mm x 63 m Breaking strength ---- 43.1 kN {4.39 tf} Construction ----- 7 x 7 + 6 x WS(26) Hook block -----2 sheaves
<u>HOOK STOWING DEVICE</u>	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 extended sliders and hydraulically extended jacks
 Integral with crane frame Power up and down
 Extension width ----- Min. 2,000 mm
 Mid. 2,700 mm
 Max.3,400 mm

HYDRAULICS

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. 31 L

SAFETY DEVICES

AML(Automatic Moment Limiter)
 Load indication
 Load moment ratio to rated load indication
 Warning alarm
 Over load limiter(stop)
 WHL(Working Height Limiter)
 Load meter
 Load indicator
 Over-unwinding prevention
 Terminal for emergency stop switch
 Over-winding alarm
 Anti-two-block device
 Hook safety latch
 Hydraulic safety valves, check valves and holding valves
 Level gauge

CRANE MASS

Approx. 1,280 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	3.34 m / 5.57 m Boom	Load Radius	7.78 m Boom	Load Radius	10.0 m Boom
2.4 m and below	3,000	2.7 m and below	2,300	4.0 m and below	1,300
2.6 m	3,000	3.2 m	2,000	5.0 m	1,070
3.0 m	2,450	3.5 m	1,800	6.0 m	900
3.5 m	2,050	4.0 m	1,600	7.0 m	770
4.0 m	1,750	4.5 m	1,450	8.0 m	670
4.5 m	1,550	5.0 m	1,300	9.0 m	600
5.0 m	1,350	5.5 m	1,200	9.8 m	550
5.37m	1,250	6.0 m	1,100		
		6.5 m	1,000		
		7.0 m	920		
		7.58m	850		

- NOTES : 1. Capacities in above tables include slings and similarly used load lifting devices, and they must be added to the mass of the load. They don't, however, include the mass of hook block (30kg)
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, the types of the chassis and extension width of outriggers.

Empty Chassis Rated Capacities

Table A

Load Radius	3.34 m / 5.57 m Boom		Load Radius	7.78 m Boom	Load Radius	10.0 m Boom
	Extension width of outriggers			Extension width of outriggers		Extension width of outriggers
	Maximum	Minimum		Maximum		Maximum
2.4 m and below	3,000	1,350	2.7 m and below	2,300	4.0 m and below	1,200
2.6 m	2,820	1,150	3.2 m	1,870	5.0 m	770
3.0 m	2,070	900	3.5 m	1,520	6.0 m	600
3.5 m	1,520	650	4.0 m	1,200	7.0 m	470
4.0 m	1,200	500	4.5 m	970	8.0 m	370
4.5 m	970	420	5.0 m	770	9.0 m	300
5.0 m	770	350	5.5 m	700	9.8 m	250
5.37m	700	300	6.0 m	600		
			6.5 m	520		
			7.0 m	470		
			7.58m	400		

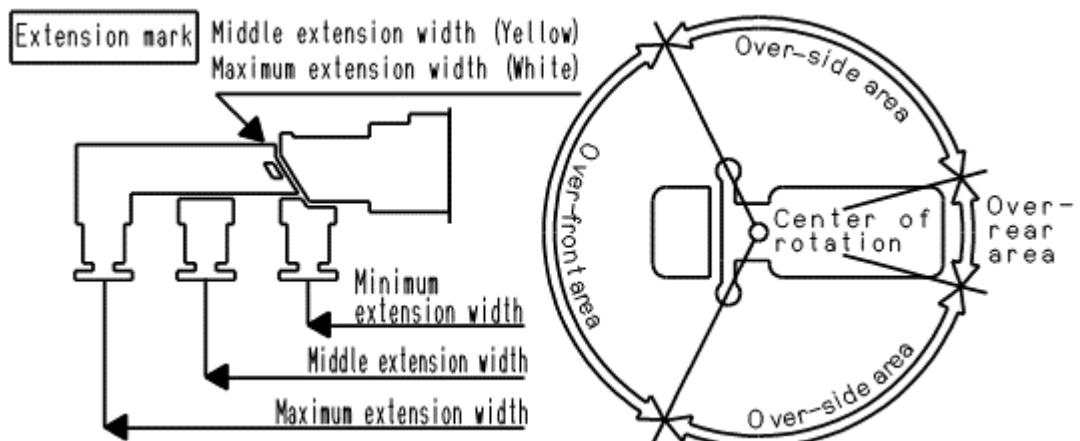
Table C

Load Radius	3.34 m / 5.57 m Boom		Load Radius	7.78 m Boom	Load Radius	10.0 m Boom
	Extension width of outriggers			Extension width of outriggers		Extension width of outriggers
	Maximum	Minimum		Maximum		Maximum
2.4 m and below	3,000	1,600	2.7 m and below	2,300	4.0 m and below	1,300
2.6 m	3,000	1,370	3.2 m	2,000	5.0 m	1,020
3.0 m	2,450	1,050	3.5 m	1,800	6.0 m	770
3.5 m	1,970	800	4.0 m	1,550	7.0 m	600
4.0 m	1,550	620	4.5 m	1,250	8.0 m	500
4.5 m	1,250	500	5.0 m	1,020	9.0 m	400
5.0 m	1,020	400	5.5 m	900	9.8 m	320
5.37m	900	350	6.0 m	770		
			6.5 m	670		
			7.0 m	600		
			7.58m	520		

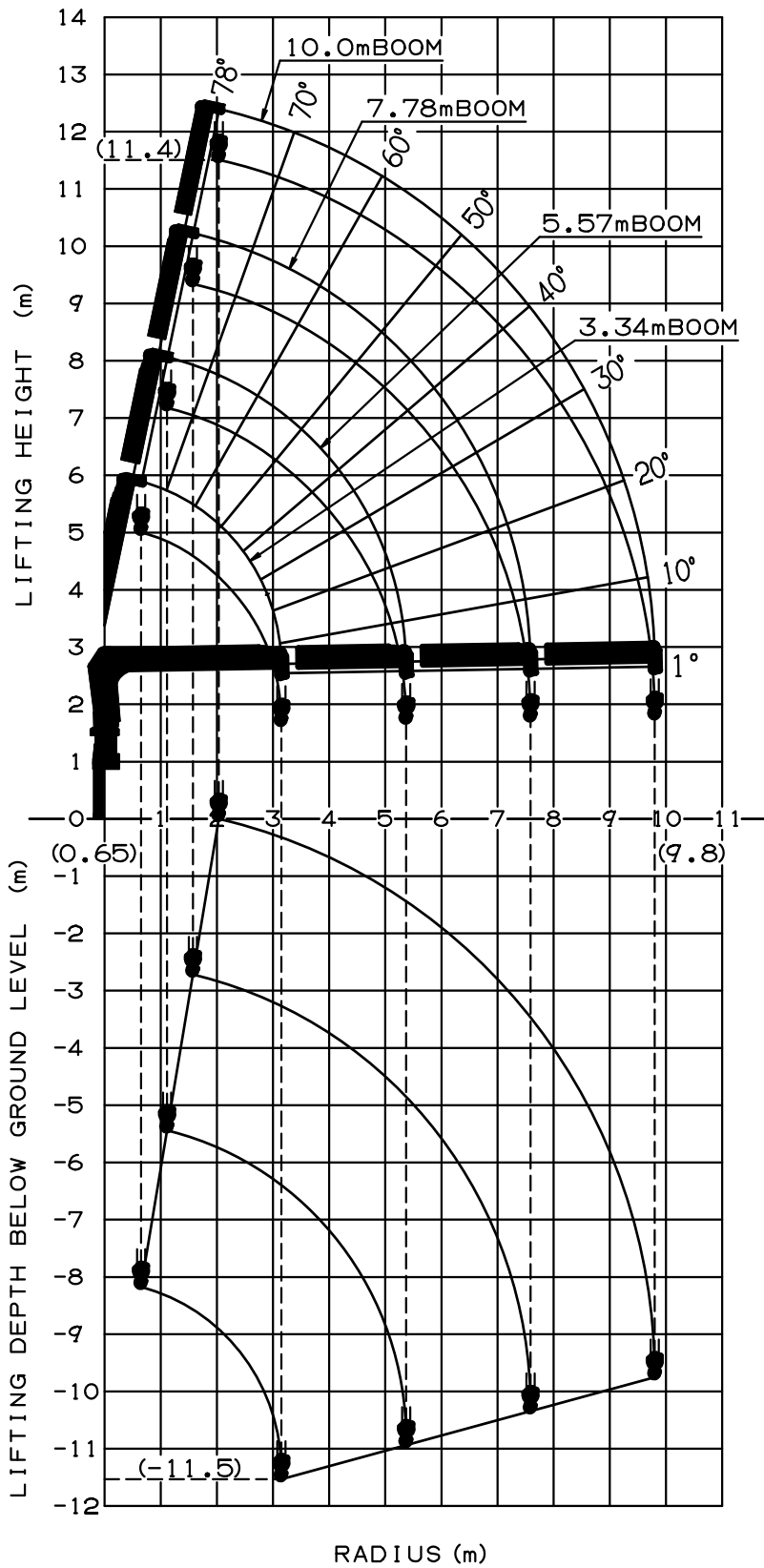
Table D

Load Radius	3.34 m / 5.57 m Boom		Load Radius	7.78 m Boom	Load Radius	10.0 m Boom
	Extension width of outriggers			Extension width of outriggers		Extension width of outriggers
	Maximum	Minimum		Maximum		Maximum
2.4 m and below	3,000	1,600	2.7 m and below	2,300	4.0 m and below	1,300
2.6 m	3,000	1,370	3.2 m	2,000	5.0 m	1,070
3.0 m	2,450	1,050	3.5 m	1,800	6.0 m	900
3.5 m	2,050	800	4.0 m	1,600	7.0 m	770
4.0 m	1,750	620	4.5 m	1,450	8.0 m	670
4.5 m	1,550	500	5.0 m	1,300	9.0 m	600
5.0 m	1,350	400	5.5 m	1,200	9.8 m	550
5.37m	1,250	350	6.0 m	1,100		
			6.5 m	1,000		
			7.0 m	920		
			7.58m	850		

- NOTES :
1. Empty Chassis Rated Capacities in these tables depend on condition that crane is set level on firm level ground.
 2. Capacities in these tables include slings and similarly used load handling devices, and they must be added to the mass of the load. They don't, however, include the mass of hook block(30kg).
 3. When the outriggers are extended to the middle extension 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. For boom lengths longer than 5.57m, extend outriggers to maximum extension width.
 7. When the boom length is 7.78m, a half of the \sphericalangle mark on lateral face of the 3rd boom section is exposed out of the 2nd boom section.
 8. Empty Chassis Rated Capacities table A ,C and D depend on the types of chassis.
 9. 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.



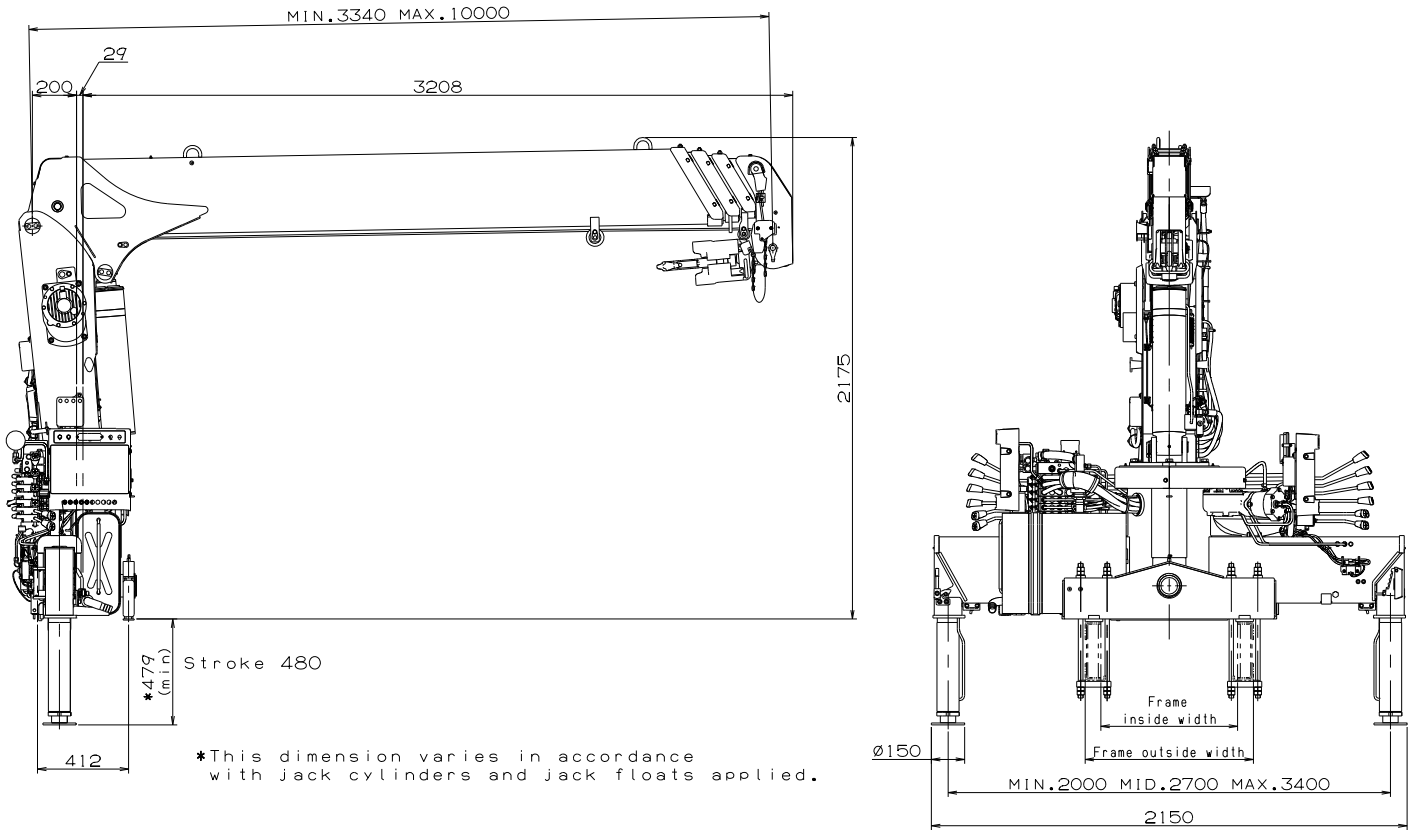
WORKING RANGE



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 14,500 kg
- P.T.O. torque -----190 N-m {19.4 kgf-m} min.
- P.T.O. revolution ----- Approx. 300 to 1,900 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 frame top) ----- Approx. 1,015 mm max.
(Height of crane mounting base can be
changed by combination of jack floats and
crane bases)