

TADANO CARGO CRANE

MODEL : **TM-ZE295HRS**

CRANE SPECIFICATIONS

| | |
|----------------------------|---|
| <u>CRANE CAPACITY</u> | 3,030 kg at 1.4 m (4-part lines) |
| <u>BOOM</u> | Five-sectioned, fully powered partly synchronized telescoping boom of pentagonal box construction Retracted length ----- 3.13 m Extended length ----- 10.8 m Extending speed ----- 7.67 m / 15.5 s Elevation ----- Elevated by a double-acting hydraulic cylinder Elevating speed ----- 1° to 76° / 6 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 ----- 7.45 kN {760 kgf} Single line speed ----- 68 m/min (at 4th layer) Wire rope Diameter x length --- 8 mm x 66 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 |

Specifications are subject to change without notice.

| | |
|-------------------------|--|
| <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 ⁻¹ {rpm} |
| <u>OUTRIGGERS</u> | Manually extended sliders and hydraulically extended jacks Integral with crane frame Power up and down Extension width ----- Min. 1,720 mm Mid. 2,900 mm, 2,400 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. 22 L |
| <u>RADIO CONTROLLER</u> | Model : RCS-F (Approved by NCC LP0002) Control functions of boom telescoping, hoisting up and down, boom elevating, swing, acceleration, speed mode selection, Hook-in, Hook-out, horn and emergency stop Frequency ----- 5 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. 569 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 Load indicator Emergency stop switch on radio controller Terminal for emergency stop switch Over-winding alarm Hoisting limiter P.T.O indicator lamp Hook safety latch Hydraulic safety valves, check valves and holding valves Level gauge |
| <u>CRANE MASS</u> | Approx. 1,135 kg (includes standardized mounting parts) |

NOTE : Operating speeds of the crane are guaranteed under the condition that the pump delivery is 53 L /min.

RATED LIFTING CAPACITIES IN KILOGRAMS

Crane Strength Rated Capacities

| Load Radius | 3.13 m / 5.07 m Boom | | Load Radius | 7.0 m Boom | Load Radius | 8.9 m Boom | Load Radius | 10.8 m Boom |
|-----------------|-------------------------------|---------|-----------------|-------------------------------|-----------------|-------------------------------|-----------------|-------------------------------|
| | Extension width of outriggers | | | Extension width of outriggers | | Extension width of outriggers | | Extension width of outriggers |
| | Full | Minimum | | Full | | Full | | Full |
| 1.45m and below | 3,030 | 1,580 | 2.2 m and below | 1,880 | 3.0 m and below | 980 | 4.0 m and below | 580 |
| 2.0 m | 2,180 | 980 | 2.5 m | 1,680 | 3.5 m | 900 | 4.5 m | 530 |
| 2.5 m | 1,730 | 630 | 3.0 m | 1,430 | 4.0 m | 830 | 5.0 m | 480 |
| 3.0 m | 1,430 | 480 | 3.5 m | 1,180 | 5.0 m | 680 | 6.0 m | 400 |
| 3.5 m | 1,230 | 330 | 4.0 m | 1,030 | 6.0 m | 580 | 7.0 m | 330 |
| 4.0 m | 1,080 | 280 | 4.5 m | 880 | 7.0 m | 480 | 8.0 m | 280 |
| 4.5 m | 930 | 230 | 5.0 m | 780 | 8.0 m | 380 | 9.0 m | 250 |
| 4.87m | 830 | 200 | 5.5 m | 680 | 8.7 m | 350 | 10.0 m | 230 |
| | | | 6.0 m | 630 | | | 10.6 m | 210 |
| | | | 6.8 m | 530 | | | | |

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

Empty Chassis Rated Capacities

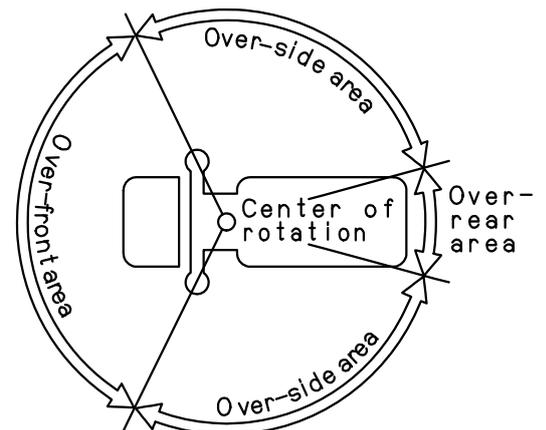
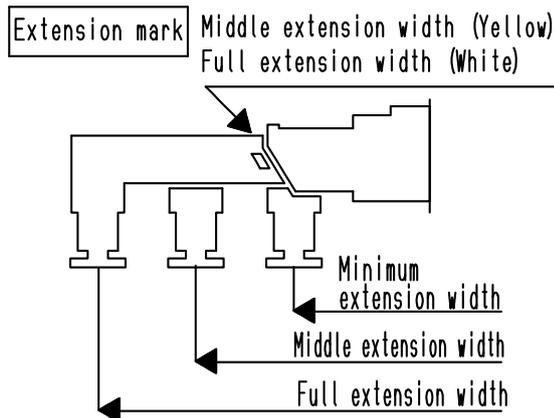
Table C

| Load Radius | 3.13 m / 5.07 m Boom | | Load Radius | 7.0 m Boom | Load Radius | 8.9 m Boom | Load Radius | 10.8 m Boom |
|-----------------|-------------------------------|---------|-----------------|-------------------------------|-----------------|-------------------------------|-----------------|-------------------------------|
| | Extension width of outriggers | | | Extension width of outriggers | | Extension width of outriggers | | Extension width of outriggers |
| | Full | Minimum | | Full | | Full | | Full |
| 1.4 m and below | 3,030 | 1,580 | 2.2 m and below | 1,730 | 3.0 m and below | 930 | 4.0 m and below | 480 |
| 2.0 m | 2,130 | 980 | 2.5 m | 1,530 | 3.5 m | 830 | 4.5 m | 430 |
| 2.5 m | 1,730 | 630 | 3.0 m | 1,280 | 4.0 m | 730 | 5.0 m | 380 |
| 3.0 m | 1,330 | 480 | 3.5 m | 980 | 5.0 m | 480 | 6.0 m | 300 |
| 3.5 m | 980 | 330 | 4.0 m | 780 | 6.0 m | 380 | 7.0 m | 260 |
| 4.0 m | 780 | 280 | 4.5 m | 630 | 7.0 m | 280 | 8.0 m | 230 |
| 4.5 m | 630 | 230 | 5.0 m | 480 | 8.0 m | 230 | 9.0 m | 200 |
| 4.87m | 550 | 200 | 5.5 m | 430 | 8.7 m | 200 | 10.0 m | 180 |
| | | | 6.0 m | 380 | | | 10.6 m | 150 |
| | | | 6.8 m | 300 | | | | |

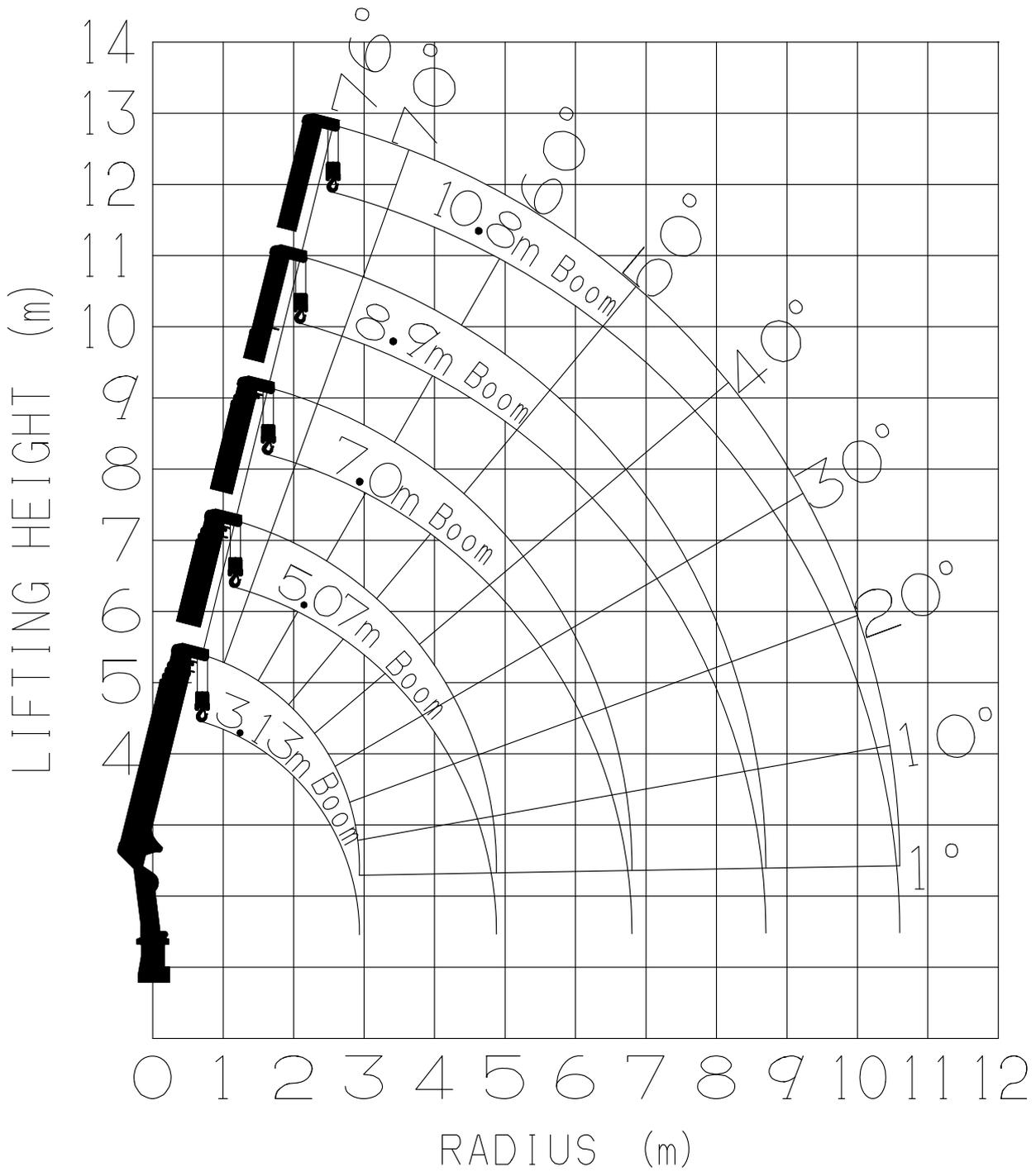
Table D

| Load Radius | 3.13 m / 5.07 m Boom | | Load Radius | 7.0 m Boom | Load Radius | 8.9 m Boom | Load Radius | 10.8 m Boom |
|-----------------|-------------------------------|---------|-----------------|-------------------------------|-----------------|-------------------------------|-----------------|-------------------------------|
| | Extension width of outriggers | | | Extension width of outriggers | | Extension width of outriggers | | Extension width of outriggers |
| | Full | Minimum | | Full | | Full | | Full |
| 1.45m and below | 3,030 | 1,580 | 2.2 m and below | 1,880 | 3.0 m and below | 980 | 4.0 m and below | 580 |
| 2.0 m | 2,180 | 980 | 2.5 m | 1,680 | 3.5 m | 900 | 4.5 m | 530 |
| 2.5 m | 1,730 | 630 | 3.0 m | 1,430 | 4.0 m | 830 | 5.0 m | 480 |
| 3.0 m | 1,430 | 480 | 3.5 m | 1,180 | 5.0 m | 680 | 6.0 m | 400 |
| 3.5 m | 1,230 | 330 | 4.0 m | 1,030 | 6.0 m | 580 | 7.0 m | 330 |
| 4.0 m | 1,080 | 280 | 4.5 m | 880 | 7.0 m | 480 | 8.0 m | 280 |
| 4.5 m | 930 | 230 | 5.0 m | 780 | 8.0 m | 380 | 9.0 m | 250 |
| 4.87m | 830 | 200 | 5.5 m | 680 | 8.7 m | 350 | 10.0 m | 230 |
| | | | 6.0 m | 630 | | | 10.6 m | 210 |
| | | | 6.8 m | 530 | | | | |

- 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 5.07m, extend outriggers to full extension width.
 6. When the boom length is 8.9 m, a half of the \sphericalangle mark on lateral face of the 4th boom section is exposed out of the 3rd boom section.
 7. Empty Chassis Rated Capacities table 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 be lowered depending on the types of chassis.



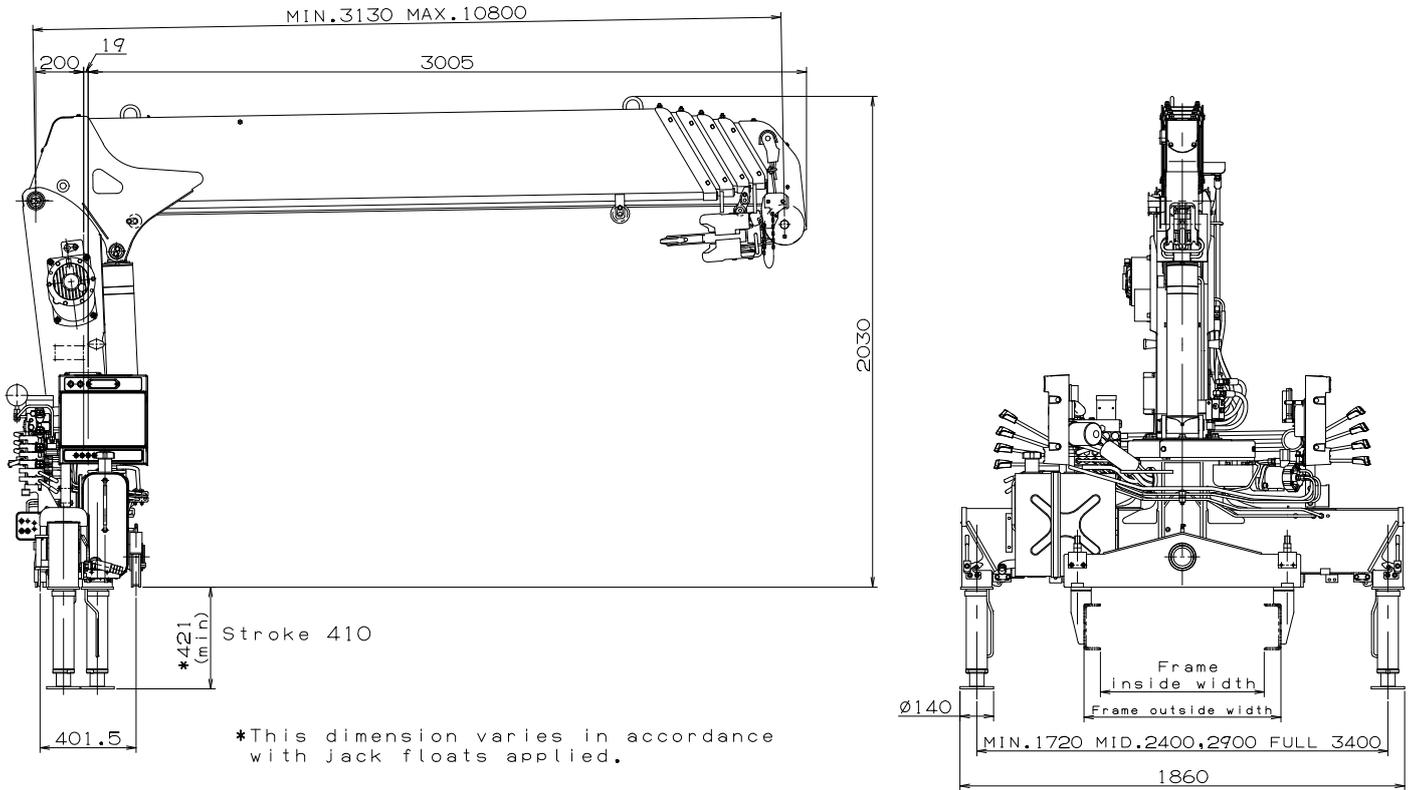
WORKING RANGE



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) ----- 4,500 to 8,000 kg
- P.T.O. torque ----- 140 N-m {14.3 kgf-m} min.
- P.T.O. revolution ----- Approx. 300 to 1,700 min⁻¹ {rpm}
- Width for crane mounting ----- Approx. 605 mm min.
- Frame ----- Weight distribution and frame strength should be calculated for each truck
- Frame width range (inside to outside) ----- Approx. 680 to 860 mm
- Frame height (ground to frame top) ----- Approx. 1,010 mm max.
(Height of crane mounting base can be changed by combination of jack floats and crane bases)