

TADANO CARGO CRANE

MODEL : **TM-ZE295HS**

CRANE SPECIFICATIONS

| | |
|----------------------------|---|
| <u>CRANE CAPACITY</u> | 3,000 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 ----- 7.35 kN {750 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.

SWING 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}

OUTRIGGERS Manually extended sliders and hydraulically extended jacks
 Integral with crane frame Power up and down
 Extension width ----- Min. 1,720 mm
 Mid. 2,400 mm, 2,900 mm
 Full 3,400 mm

HYDRAULICS 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

SAFETY DEVICES 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
 Over-unwinding prevention
 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

CRANE MASS 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 | 3,000 | 1,550 | 2.2 m and below | 1,850 | 3.0 m and below | 950 | 4.0 m and below | 550 |
| 2.0 m | 2,150 | 950 | 2.5 m | 1,650 | 3.5 m | 870 | 4.5 m | 500 |
| 2.5 m | 1,700 | 600 | 3.0 m | 1,400 | 4.0 m | 800 | 5.0 m | 450 |
| 3.0 m | 1,400 | 450 | 3.5 m | 1,150 | 5.0 m | 650 | 6.0 m | 370 |
| 3.5 m | 1,200 | 300 | 4.0 m | 1,000 | 6.0 m | 550 | 7.0 m | 300 |
| 4.0 m | 1,050 | 250 | 4.5 m | 850 | 7.0 m | 450 | 8.0 m | 250 |
| 4.5 m | 900 | 200 | 5.0 m | 750 | 8.0 m | 350 | 9.0 m | 220 |
| 4.87m | 800 | 170 | 5.5 m | 650 | 8.7 m | 320 | 10.0 m | 200 |
| | | | 6.0 m | 600 | | | 10.6 m | 180 |
| | | | 6.8 m | 500 | | | | |

- NOTES : 1. Capacities in above 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)
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

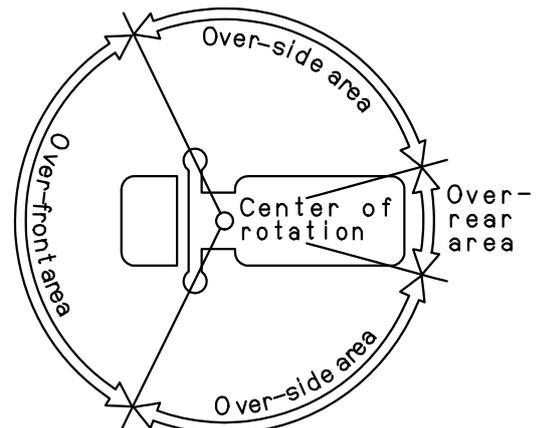
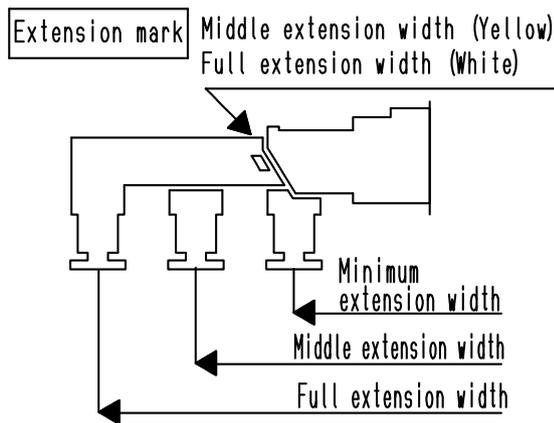
Table C

| 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 | 3,000 | 1,550 | 2.2 m and below | 1,700 | 3.0 m and below | 900 | 4.0 m and below | 450 |
| 2.0 m | 2,100 | 950 | 2.5 m | 1,500 | 3.5 m | 800 | 4.5 m | 400 |
| 2.5 m | 1,700 | 600 | 3.0 m | 1,250 | 4.0 m | 700 | 5.0 m | 350 |
| 3.0 m | 1,300 | 450 | 3.5 m | 950 | 5.0 m | 450 | 6.0 m | 270 |
| 3.5 m | 950 | 300 | 4.0 m | 750 | 6.0 m | 350 | 7.0 m | 230 |
| 4.0 m | 750 | 250 | 4.5 m | 600 | 7.0 m | 250 | 8.0 m | 200 |
| 4.5 m | 600 | 200 | 5.0 m | 450 | 8.0 m | 200 | 9.0 m | 170 |
| 4.87m | 520 | 170 | 5.5 m | 400 | 8.7 m | 170 | 10.0 m | 150 |
| | | | 6.0 m | 350 | | | 10.6 m | 120 |
| | | | 6.8 m | 270 | | | | |

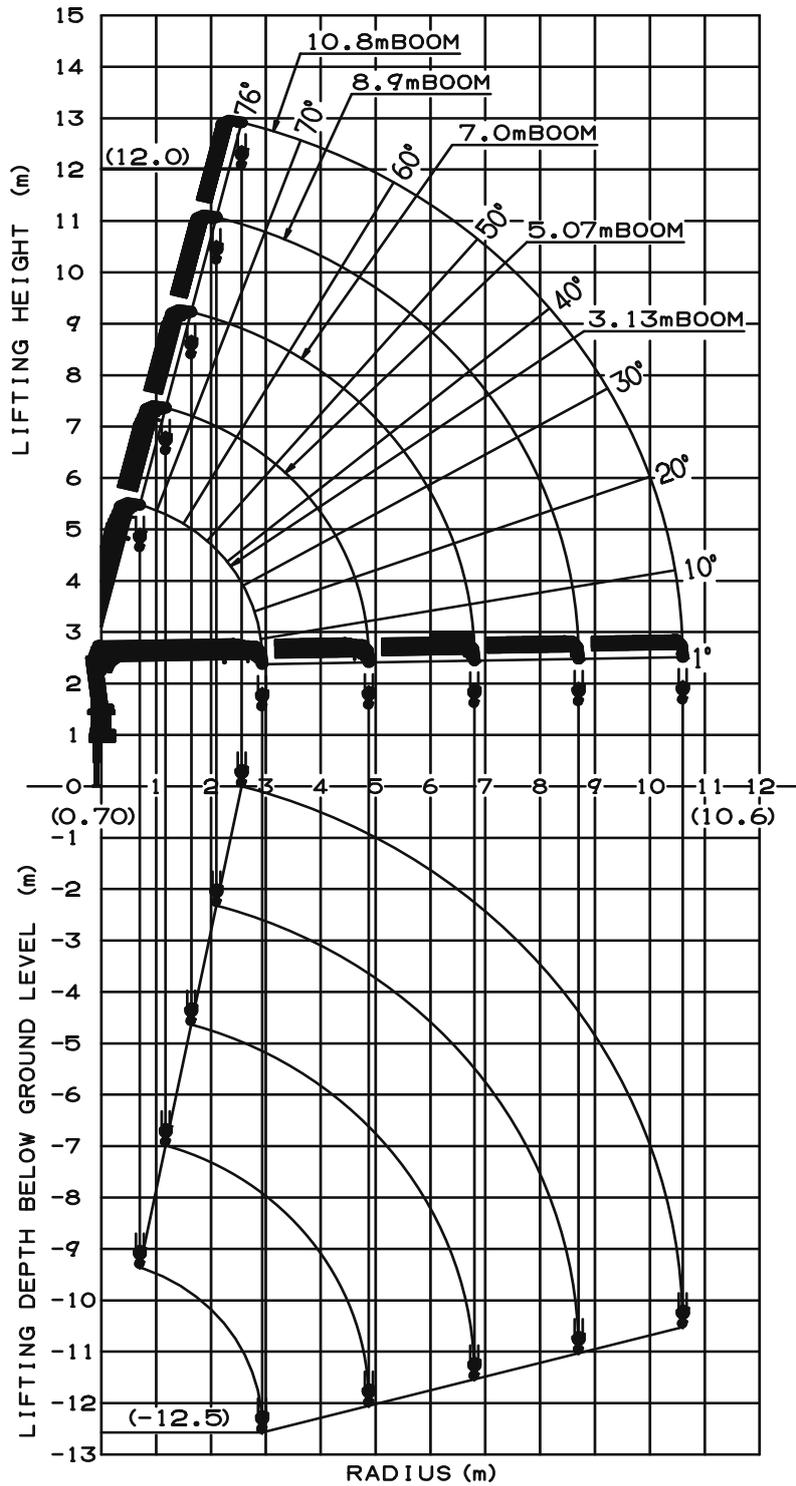
Table D

| 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 | 3,000 | 1,550 | 2.2 m and below | 1,850 | 3.0 m and below | 950 | 4.0 m and below | 550 |
| 2.0 m | 2,150 | 950 | 2.5 m | 1,650 | 3.5 m | 870 | 4.5 m | 500 |
| 2.5 m | 1,700 | 600 | 3.0 m | 1,400 | 4.0 m | 800 | 5.0 m | 450 |
| 3.0 m | 1,400 | 450 | 3.5 m | 1,150 | 5.0 m | 650 | 6.0 m | 370 |
| 3.5 m | 1,200 | 300 | 4.0 m | 1,000 | 6.0 m | 550 | 7.0 m | 300 |
| 4.0 m | 1,050 | 250 | 4.5 m | 850 | 7.0 m | 450 | 8.0 m | 250 |
| 4.5 m | 900 | 200 | 5.0 m | 750 | 8.0 m | 350 | 9.0 m | 220 |
| 4.87m | 800 | 170 | 5.5 m | 650 | 8.7 m | 320 | 10.0 m | 200 |
| | | | 6.0 m | 600 | | | 10.6 m | 180 |
| | | | 6.8 m | 500 | | | | |

- 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. 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 \square 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.



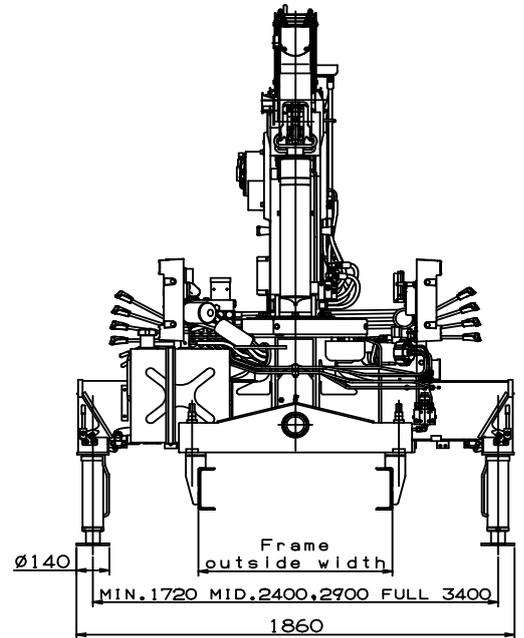
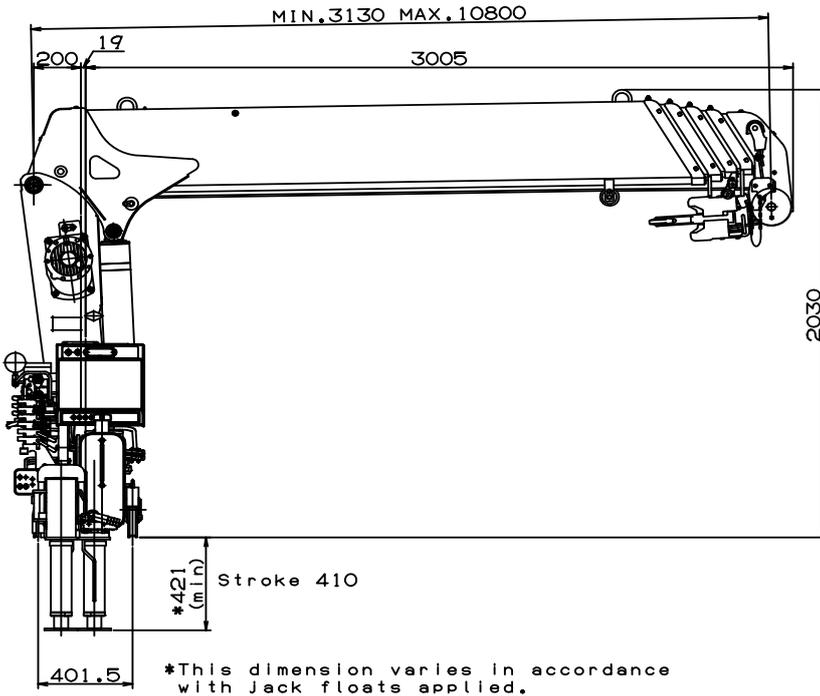
WORKING RANGE



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 outside width range ----- Approx. 680 to 860 mm
 - Frame height (ground to frame top) ----- Approx. 1010 mm max.
- (Height of crane mounting base can be changed by combination of jack floats and crane bases)