TADANO CARGO CRANE

MODEL : TM-ZE295HRS

CRANE SPECIFICATIONS

CRANE CAPACITY	3,030 kg at 1.4 m (4-part lines)
BOOM	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^{o} to 76^{o} / 6 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 ------- 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
HOOK STOWING DEVICE	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. 2,900 mm, 2,400 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

RADIO CONTROLLER

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)

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
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

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 Extension width of outriggers		Load Radius	7.0 m Boom Extension width of outriggers	Load Radius	8.9 m Boom Extension width of outriggers	Load Radius	10.8 m Boom 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 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 C

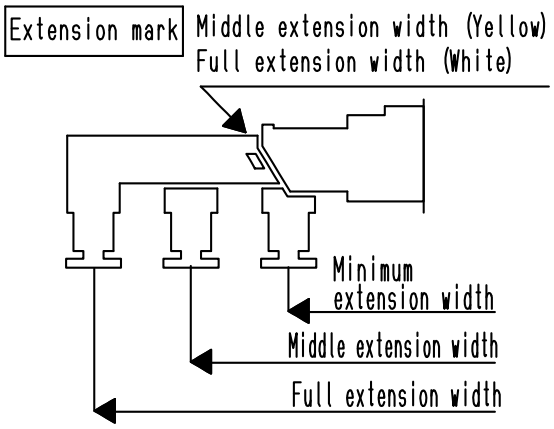
Empty Chassis Rated Capacities

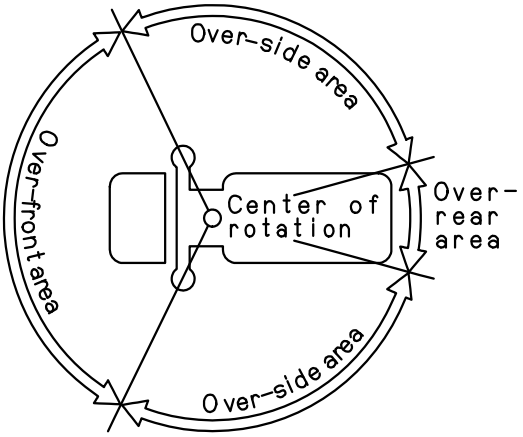
Load Radius	3.13 m / 5.07 m Boom Extension width of outriggers		Load Radius	7.0 m Boom Extension width of outriggers	Load Radius	8.9 m Boom Extension width of outriggers	Load Radius	10.8 m Boom Extension width of outriggers
	Full	Minimum		Full		Full		Full
1.4 m and below	3,030	1,580	2.2 m and below	1,730	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

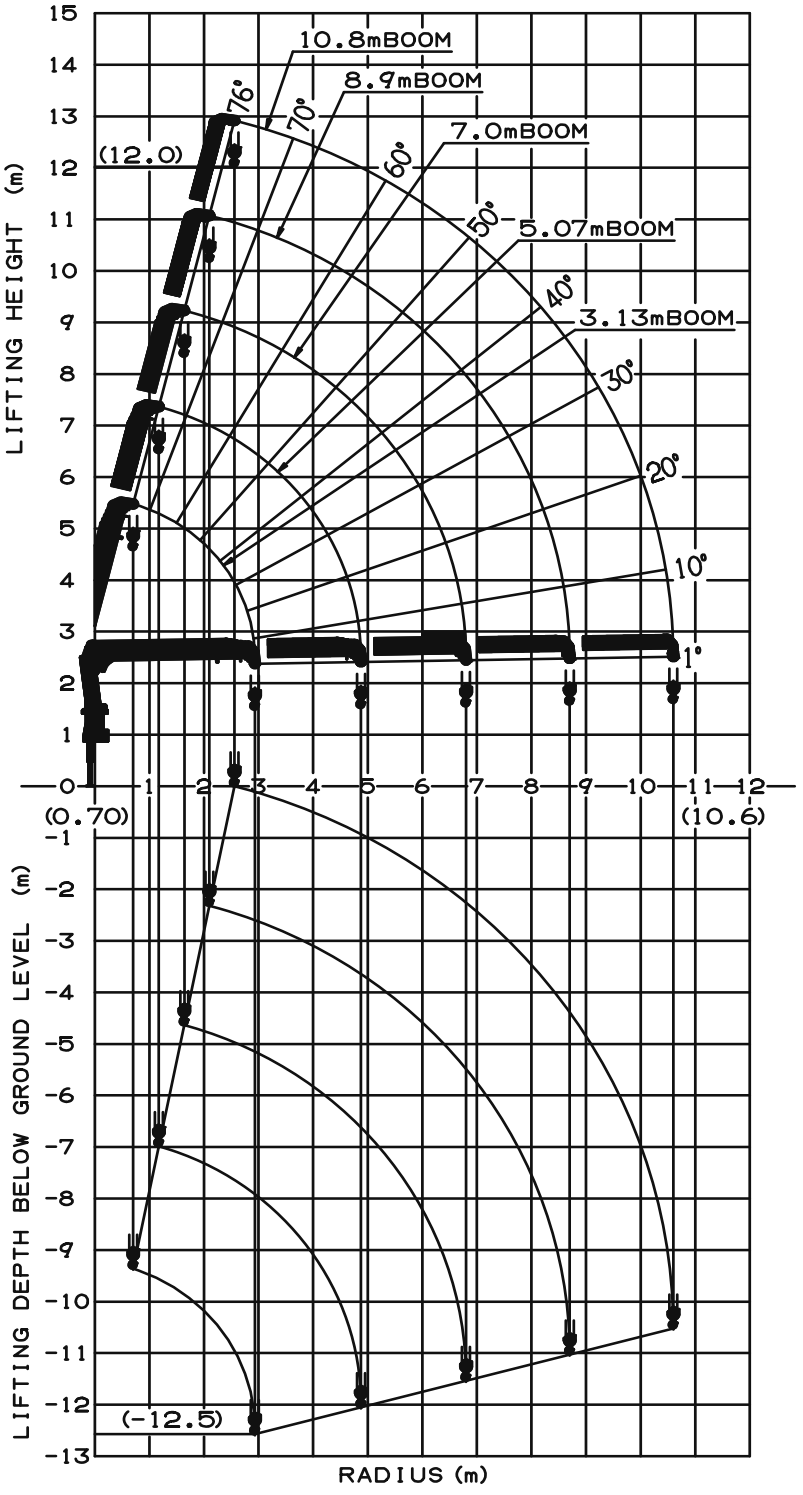
Load Radius	3.13 m / 5.07 m Boom Extension width of outriggers		Load Radius	7.0 m Boom Extension width of outriggers	Load Radius	8.9 m Boom Extension width of outriggers	Load Radius	10.8 m Boom Extension width of outriggers
	Full	Minimum		Full		Full		Full
1.45m and below	3,030	1,580	2.2 m and below	1,880	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 ▱ 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.





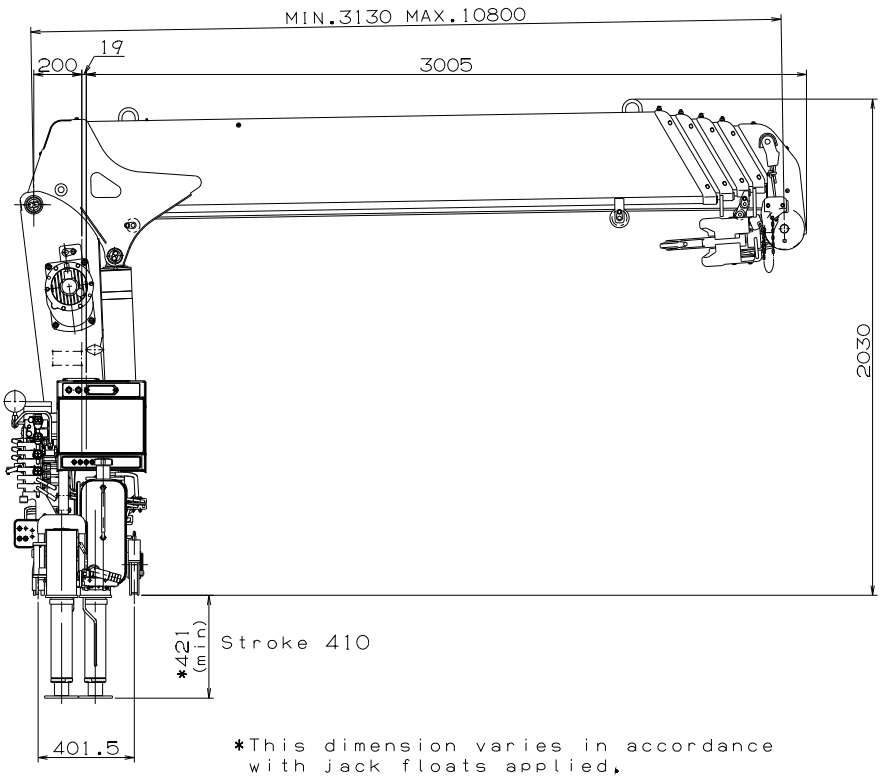
WORKING RANGE

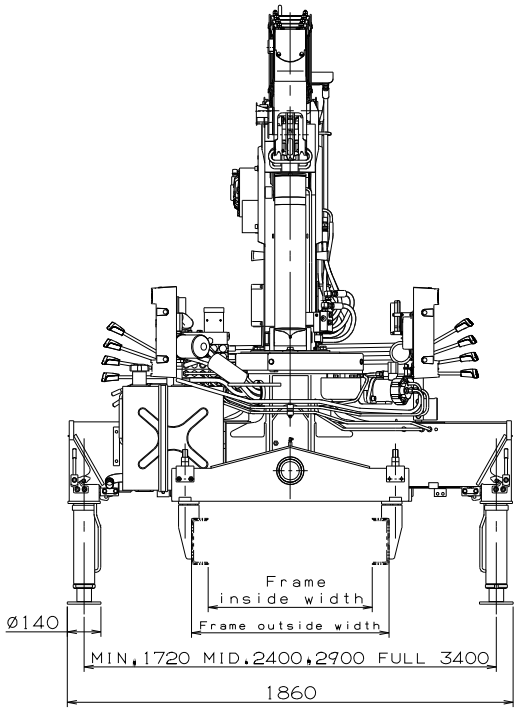


NOTE:

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)