

TADANO CARGO CRANE

MODEL : **TM-ZE293MH** ----- with hook stowing device

CRANE SPECIFICATIONS

CRANE CAPACITY 3,030 kg at 1.5 m (4-part lines)

BOOM Three-sectioned, fully hydraulic telescoping boom of pentagonal box construction

Retracted length ----- 2.85 m

Extended length ----- 6.6 m

Extending speed ----- 3.75 m / 10.5 s

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

Elevating speed ----- 1° to 76° / 6 s

Boom point ----- 2 sheaves

WINCH Hydraulic motor driven Spur gear speed reduction, provided with mechanical brake

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 45 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

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. 1,720 mm
Mid. 2,900 mm, 2,400 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. 22 L

SAFETY DEVICES

Load meter
Load indicator
Over-winding alarm
Anti-two-block device
P.T.O indicator lamp
Hook safety latch
Hydraulic safety valves, check valves and holding valves
Level gauge

CRANE MASS

Approx. 935 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	2.85 m / 4.74 m Boom	Load Radius	6.6 m Boom
1.5 m and below	3,030	2.2 m and below	1,880
2.0 m	2,330	2.5 m	1,680
2.5 m	1,880	3.0 m	1,430
3.0 m	1,500	3.5 m	1,230
3.5 m	1,250	4.0 m	1,080
4.0 m	1,080	4.5 m	950
4.54m	980	5.0 m	830
		5.5 m	730
		6.0 m	650
		6.4 m	580

- NOTES : 1. The mass of hook block (30kg), slings and all similarly used load lifting 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 A

Load Radius	2.85 m / 4.74 m Boom		Load Radius	6.6 m Boom
	Extension width of outriggers			Extension width of outriggers
	Maximum	Minimum		Maximum
1.5 m and below	3,030	1,580	2.2 m and below	1,880
2.0 m	2,280	980	2.5 m	1,630
2.5 m	1,730	680	3.0 m	1,230
3.0 m	1,230	480	3.5 m	930
3.5 m	930	380	4.0 m	730
4.0 m	730	330	4.5 m	580
4.54m	630	280	5.0 m	480
			5.5 m	430
			6.0 m	380
			6.4 m	350

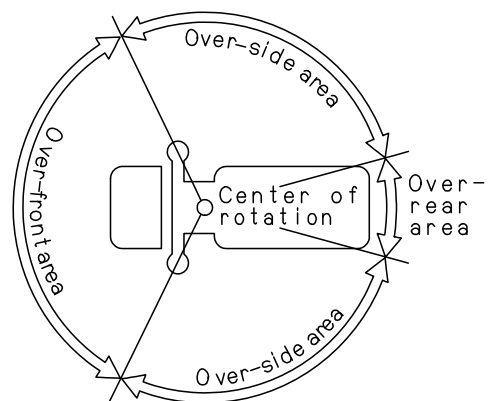
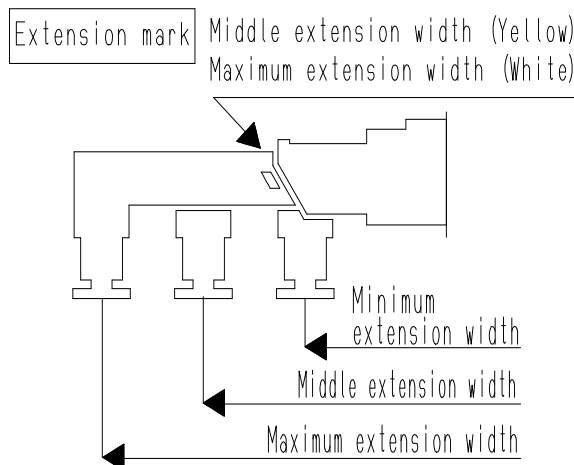
Table C

Load Radius	2.85 m / 4.74 m Boom		Load Radius	6.6 m Boom
	Extension width of outriggers			Extension width of outriggers
	Maximum	Minimum		Maximum
1.5 m and below	3,030	1,580	2.2 m and below	1,880
2.0 m	2,280	980	2.5 m	1,630
2.5 m	1,830	680	3.0 m	1,330
3.0 m	1,430	480	3.5 m	1,030
3.5 m	1,080	380	4.0 m	830
4.0 m	830	330	4.5 m	680
4.54m	730	280	5.0 m	580
			5.5 m	530
			6.0 m	480
			6.4 m	430

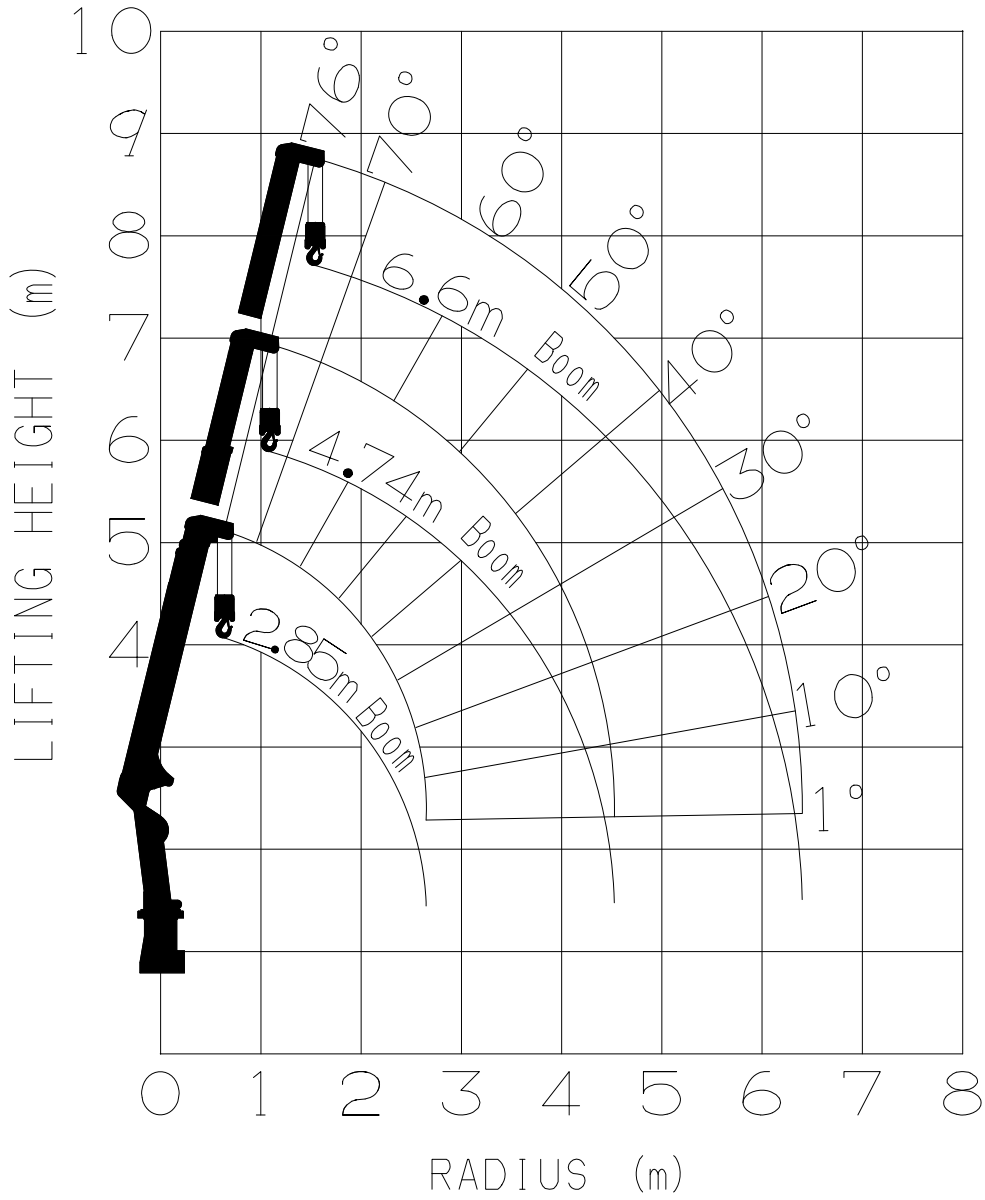
Table D

Load Radius	2.85 m / 4.74 m Boom		Load Radius	6.6 m Boom
	Extension width of outriggers			Extension width of outriggers
	Maximum	Minimum		Maximum
1.5 m and below	3,030	1,580	2.2 m and below	1,880
2.0 m	2,330	980	2.5 m	1,680
2.5 m	1,880	680	3.0 m	1,430
3.0 m	1,500	480	3.5 m	1,230
3.5 m	1,250	380	4.0 m	1,080
4.0 m	1,080	330	4.5 m	950
4.54m	980	280	5.0 m	830
			5.5 m	730
			6.0 m	650
			6.4 m	580

- 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 lifting 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 4.74m, extend outriggers to maximum extension width.
 6. Empty Chassis Rated Capacities table A , C and D depend on the types of chassis.
 7. 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.

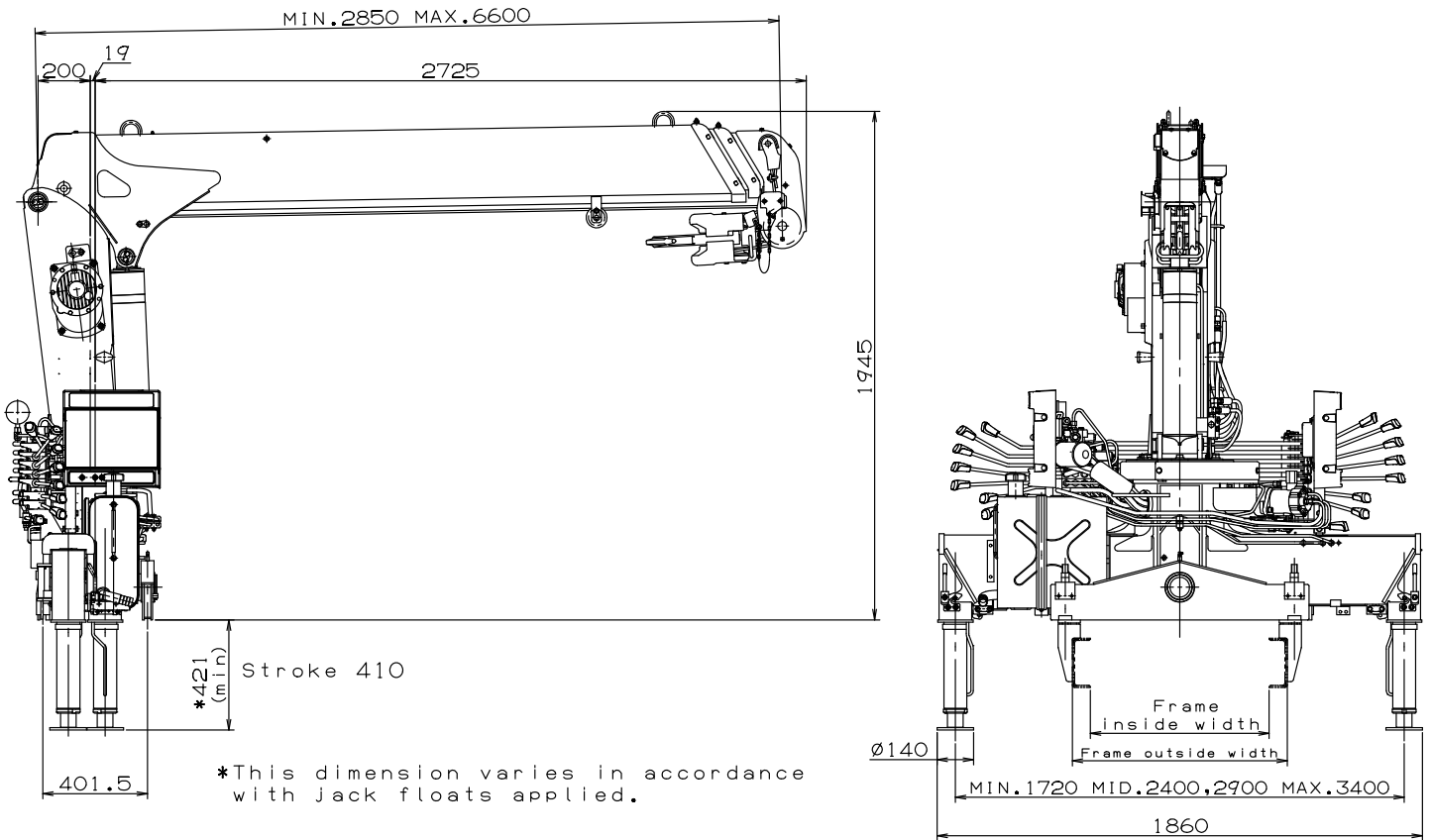


WORKING RANGE



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)