

TADANO CARGO CRANE

MODEL: TM-ZE553HS

CRANE SPECIFICATIONS

<u>CRANE CAPACITY</u> 5,000 kg at 2.5 m (5-part line)

BOOM Three-sectioned, fully hydraulic telescoping boom of heptagonal

box construction

Retracted length ----- 3.47 m Extended length ---- 8.31 m

Extending speed ----- 4.84 m / 18 s

Elevation ----- Elevated by a double-acting

hydraulic cylinder

Elevating speed ----- 1° to 78° / 12 s

Boom point ----- 3 sheaves

<u>WINCH</u> Hydraulic motor driven Spur gear speed reduction, provided

with mechanical brake

Single line pull ----- 9.90 kN{1010 kgf}

Single line speed ------66 m/min.(at 4th layer)

Wire rope

Diameter x length ----- 8 mm x 67 m

Breaking strength ----- 50.1 kN{5.1 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}

<u>OUTRIGGERS</u> Manually extended sliders and hydraulically extended jacks

Integral with crane frame Power up and down

Extended width ----- Min. 2,200 mm

Mid. 3.000 mm Max.3,800 mm

Hydraulic pump ----- Single gear pump **HYDRAULICS**

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. 48 L

AML(Automatic Moment Limiter) SAFETY DEVICES

Load indication

Load moment ratio to rated load indication

Warning alarm

Over load limiter

WHL(Working Height Limiter)

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

Approx. 1,740 kg (includes standardized mounting parts) CRANE MASS

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	3.47m Boom	Load Radius	5.91m Boom	Load Radius	8.31m Boom
2.5m and below	5,000	2.6m and below	4,000	2.6m and below	3,080
2.95m	4,000	2.95m	4,000	3.0m	3,080
3.25m	3,650	3.8m	3,080	3.8m	3,080
		4.1m	2,880	4.1m	2,880
		4.5m	2,580	4.5m	2,580
		5.0m	2,330	5.0m	2,330
		5.5m	2,130	5.5m	2,130
		5.69m	2,030	6.0m	1,930
				6.5m	1,780
				7.0m	1,630
				7.5m	1,480
				8.09m	1,380

- NOTES: 1. Capacities in these 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 (45kg).
 - 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

	3.47m	Boom		5.91m	Boom		8.31m	Boom
Load	Load Extension width of Radius outriggers		Load	Extension width of		Load	Extension width of	
Radius			Radius outriggers		ggers	Radius	outriggers	
	Maximum	Minimum		Maximum	Minimum		Maximum	Minimum
2.5m and below	5,000	2,330	2.6m and below	4,000	2,330	2.6m and below	3,080	2,330
2.8m	4,000	2,080	2.8m	4,000	2,080	3.4m	3,080	1,480
3.25m	3,230	1,630	3.3m	3,230	1,580	3.8m	2,630	1,280
			3.6m	2,880	1,380	4.1m	2,380	1,130
			4.1m	2,380	1,130	4.5m	1,980	930
			4.5m	1,980	930	5.0m	1,680	830
			5.0m	1,680	830	5.5m	1,380	680
			5.5m	1,380	680	6.0m	1,280	580
			5.69m	1,330	630	6.5m	1,130	530
						7.0m	980	480
						7.5m	880	430
						8.09m	780	380

Table B

1								
	3.47m	Boom		5.91m	Boom		8.31m Boom	
Load	Extension width of		Load Extension width of		Load	Extension	า width of	
Radius	outrig	ggers	Radius outriggers		Radius outrig		gers	
	Maximum	Minimum		Maximum	Minimum		Maximum	Minimum
2.5m and below	5,000	2,930	2.6m and below	4,000	2,680	2.6m and below	3,080	2,680
2.95m	4,000	2,280	2.95m	4,000	2,280	3.5m	3,080	1,680
3.25m	3,600	1,930	3.5m	3,330	1,680	3.8m	3,080	1,530
			4.1m	2,880	1,380	4.1m	2,880	1,380
			4.5m	2,430	1,180	4.5m	2,430	1,180
			5.0m	2,030	980	5.0m	2,030	980
			5.5m	1,730	880	5.5m	1,730	880
			5.69m	1,630	780	6.0m	1,530	730
						6.5m	1,380	680
						7.0m	1,230	600
						7.5m	1,080	530
						8.09m	980	480

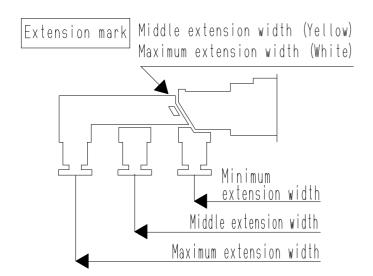
Table C

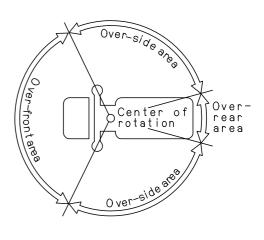
	3.47m Boom			5.91m	Boom		8.31m Boom	
Load	Extension width of		Load Extension width of		Load	Extension	n width of	
Radius	outrig	ggers	Radius	s outriggers		Radius	outriggers	
	Maximum	Minimum		Maximum	Minimum		Maximum	Minimum
2.5m and below	5,000	3,080	2.6m and below	4,000	3,080	2.6m and below	3,080	3,080
2.95m	4,000	2,680	2.95m	4,000	2,680	3.0m	3,080	2,630
3.25m	3,650	2,330	3.8m	3,080	1,780	3.8m	3,080	1,780
			4.1m	2,880	1,580	4.1m	2,880	1,580
			4.5m	2,580	1,380	4.5m	2,580	1,380
			5.0m	2,330	1,130	5.0m	2,330	1,130
			5.5m	2,080	980	5.5m	2,080	980
			5.69m	1,980	930	6.0m	1,830	880
						6.5m	1,680	800
						7.0m	1,480	730
						7.5m	1,330	650
						8.09m	1,180	550

Table D

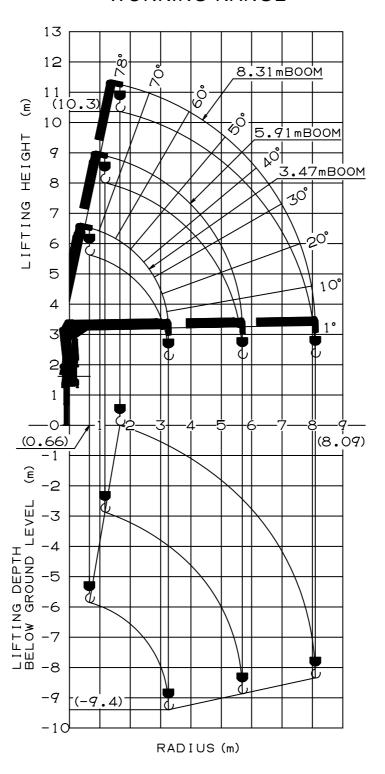
	3.47m	Boom		5.91m	Boom		8.31m	Boom
Load	Extension	n width of	Load	Extension	n width of	Load	Extension	n width of
Radius	outrig	ggers	Radius	outrig	gers	Radius	outrig	ggers
	Maximum	Minimum		Maximum	Minimum		Maximum	Minimum
2.5m and below	5,000	3,230	2.6m and below	4,000	3,230	2.6m and below	3,080	3,080
2.95m	4,000	2,680	2.95m	4,000	2,680	3.0m	3,080	2,630
3.25m	3,650	2,330	3.8m	3,080	1,780	3.8m	3,080	1,780
			4.1m	2,880	1,580	4.1m	2,880	1,580
			4.5m	2,580	1,380	4.5m	2,580	1,380
			5.0m	2,330	1,130	5.0m	2,330	1,130
			5.5m	2,130	980	5.5m	2,130	980
			5.69m	2,030	930	6.0m	1,930	880
						6.5m	1,780	800
						7.0m	1,630	730
						7.5m	1,480	650
						8.09m	1,380	550

- 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 (45kg), slings and all similarly used load lifting devices must be added to the mass of the 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. Empty Chassis Rated Capacities table A, B,C and D depend on the types of chassis.
 - 6. 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.



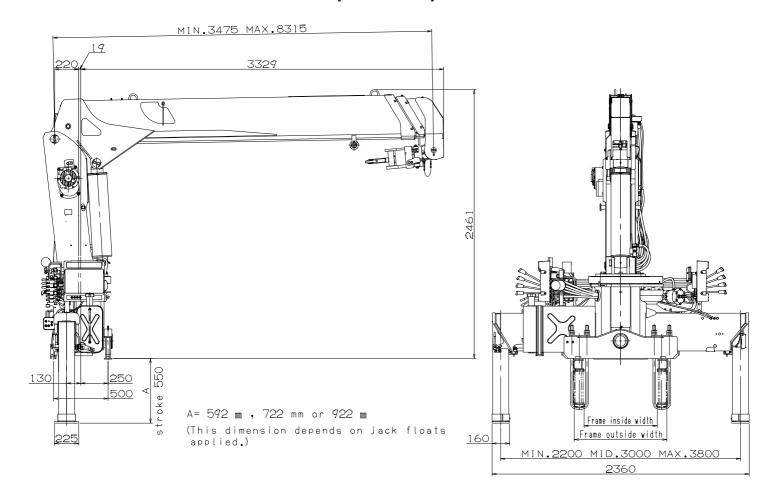


WORKING RANGE



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 [TM-ZE553HS]



GENERAL DATA FOR SUITABLE TRUCKS

Gross vehicle mass (including crane mass)	15,000 to 25,000 kg
P.T.O. torque	157 N·m{16 kgf·m} min.
P.T.O. revolution	- Approx. 270 to 2,800 min ⁻¹ {rpm}
Width for crane mounting	Approx. 750 mm min.
Frame	· Weight distribution and frame strength
	should be calculated for each truck
Frame width range (inside to outside)	Approx. 610 to 960 mm
Frame height (ground to frame top)	- Approx. 1,235 mm max.
	(Height of crane mounting base can be changed
	by combination of jack floats and crane bases)