



Lifting your dreams

LOADER CRANE

TM-ZE550HRS

For Large Size Vehicles

CARGO CRANE



IDEAL Cargo Crane, TADANO T

The ZE features all the Tadano Cargo Crane technologies that are recognized the world over. The key development concepts remain: EXCELLENT QUALITY, EASY OPERATION AND EASY MAINTENANCE. The TM-ZE550HRS with the maximum lifting capacity of 5.05 tons has a choice of 3 different boom lengths to meet your lifting requirements.



RADIO REMOTE CONTROLLING WITH COLOR LCD DISPLAY HANDHELD UNIT

The loader crane is equipped with a remote control, which employs a large-screen and power-saving color LCD display, has a feature that can customize speed adjustment for various operations, and has an emergency stop switch in addition to displaying actual load, rated load, and moment load ratio. The newly developed "load weight" function calculates and displays load weight during loading and unloading, enabling work progress and the load weight on the vehicle to be checked, which also prevents overloading. These features contribute to not only the safety of crane work, but also to the safety of the vehicle when it is traveling.



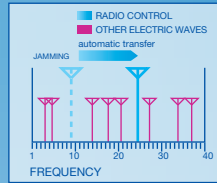
Water-resistance



Emergency stop button

High-Powered Radio Controller

Radio Controller with powerful transmitting output automatically selects a frequency free of jamming, out of as many frequencies as 40 channels, to avoid interference troubles.



40-channels



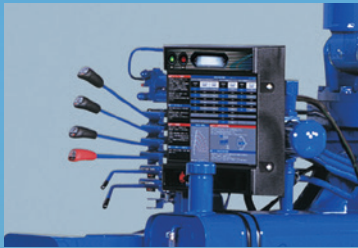
HOOK IN

The "Hook-In" system further enhances work efficiency. When the "Hook-In" switch and slewing switch are operated, the crane boom and jacks are stowed automatically.



RESPONDING TO OPERATOR'S COMMAND

Equipped with an optimally matched, high-performance control valve, the



CONTROL LEVER

operating levers provide improved responsiveness and fine-tuned control. Operation is fast or slow in accordance with operator's command. The rods between left and right operation levers are provided in stainless steel as standard.

CENTRALIZED CONTROL PANELS

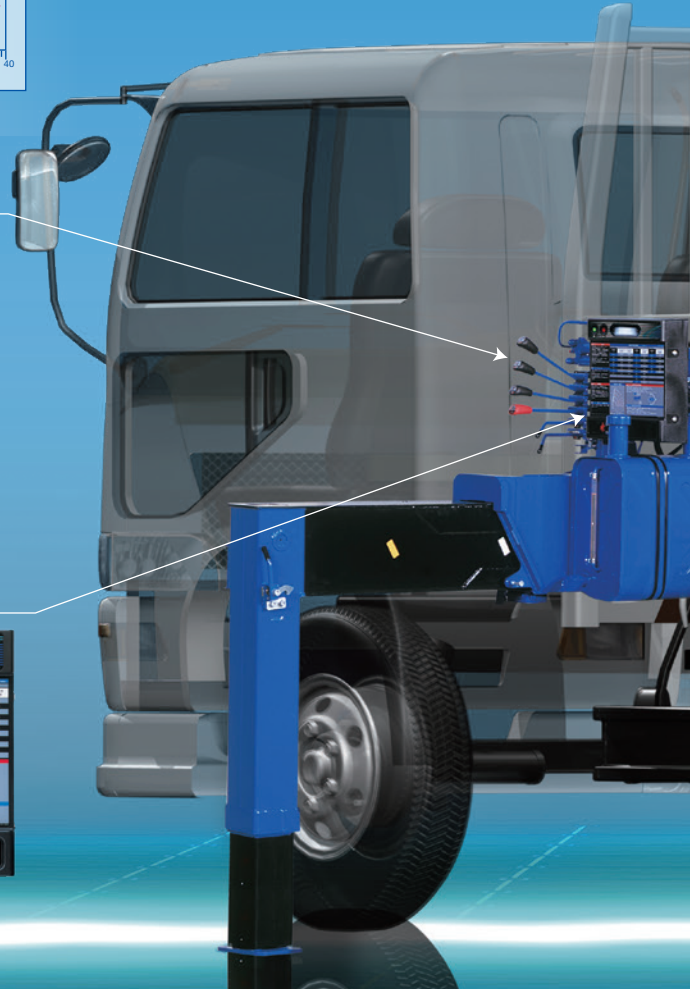
Installed on both sides of the crane frame are the centralized control panels, where operating switches and the lifting charts needed for crane operation are grouped together and arranged on single panels.



Left-hand side



Right-hand side



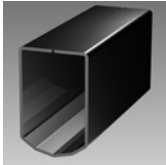
BOOM HEIGHT LIMIT FUNCTION

The WHL (Working Height Limiter) is designed to stop boom elevation or telescoping when the boom tip reaches the registered height (as pre-programmed by the operator). This function secures safety particularly when you are working under a roof or in a tunnel or in any height-restricted conditions.



HEPTAGONAL BOOM

Tadano's unique heptagonal boom is made of high-tensile steel. The boom is of a structure of one piece steel plate for lower boom weight and powerful lifting capacity. Special valves enable smooth boom extension and retraction for smoother operation to reduce a shock when telescoping the boom. The cables and sheaves are all internal - for a clean, clutter-free appearance.

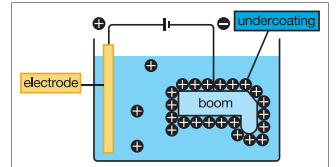


AML (Automatic Moment Limiter)

The AML that monitors crane work safety is equipped as standard and it provides a "strength monitoring" function, which prevents crane overloading, and a "stability monitoring" function, which prevents the crane from falling over.

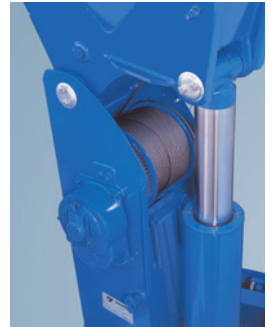
CATIONIC ELECTRO-DEPOSITION COATING

The undercoating of the crane is done by Cationic Electro-deposition coating. This process involves soaking of each material, even the narrowest inner booms and frames, and they are thoroughly undercoated.



STRONGER WINCH

The advantages of the enlarged winch drum and plunger motor are evident during start-up when maximum power is required. Re-hoisting with a load on the hook can also be handled with ease. The winch reduction gear comes equipped with a failsafe automatic brake. From the pitch of the drum grooves to the fitting of the guide sheave, cable winding has been improved in every detail so as to prevent the cable from winding off position.



JACK INTERLOCK

Disables crane operation when the left or right jack is not in contact with the ground.

FULL CIRCLE, CONTINUOUS SLEWING

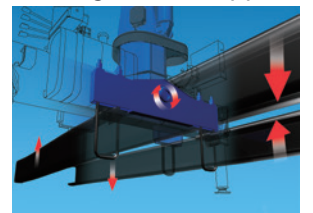
The newly designed compact slewing post improves performance providing FULL CIRCLE, continuous rotation for more efficient operations.

AUTOMATIC SLEWING LOCK: The boom is mechanically locked at the slewing post base which prevents boom rotation during vehicle travel.



THREE-POINT SUPPORT SYSTEM (Equalizer Crane Support)

The equalizer crane support system protects the chassis frame by evenly distributing the load applied to the frame during vehicle traveling to prevent excessive stress from concentrating at any one point.



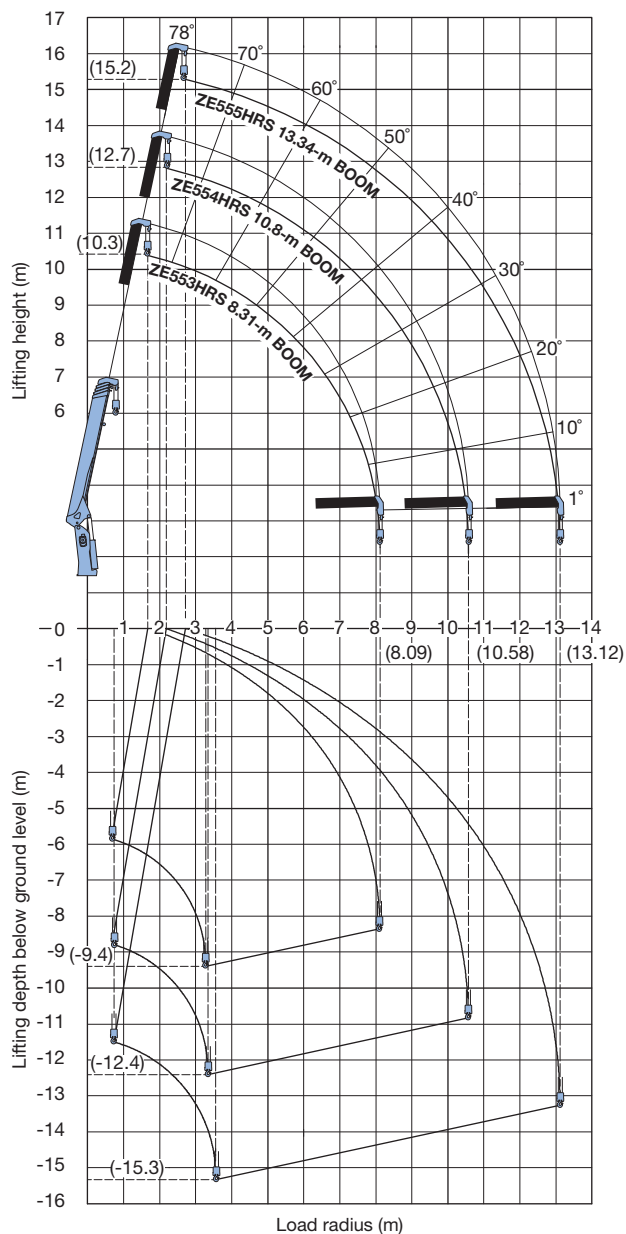


OUTRIGGER MECHANISM FOR QUICKER WORK

The outrigger beams can be easily operated, using a grip to lock or release and extend or retract. To further ensure safety, the lock system prevents the outrigger beams from extending during traveling. A level gauge is provided as standard equipment.

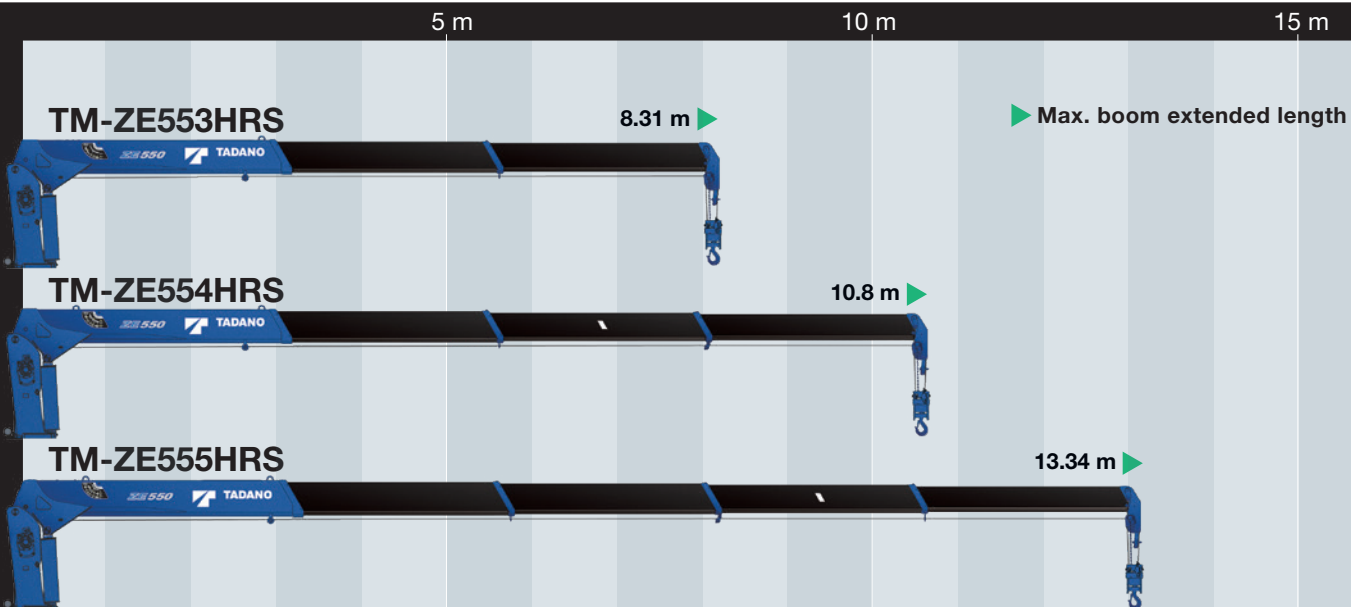


WORKING RANGE



NOTES FOR WORKING RANGE:

The above lifting heights and boom angles are based on a straight (unladen) boom, and allowance should be made for boom deflection under laden conditions.



Note: The cables and sheaves are all internal - for a clean, clutter - free appearance.

TECHNICAL SPECIFICATIONS

MODEL	TM-ZE553HRS	TM-ZE554HRS	TM-ZE555HRS
CRANE CAPACITY	5,050 kg at 2.5 m (5 parts of lines)		
BOOM	Fully hydraulic telescoping boom of heptagonal box construction	Fully powered partly synchronized telescoping boom of heptagonal box construction	
Sections	3	4	5
Length	3.47 m–8.31 m	3.55 m–10.8 m	3.77 m–13.34 m
Extending Speed	4.84 m / 18 s	7.25 m / 21 s	9.57 m / 25 s
Elevation Range/Speed	1° to 78° / 12 s		
Max. Hook Height*	Approx. 10.3 m*	Approx. 12.7 m*	Approx. 15.2 m*
Max. Load Radius*	8.09 m*	10.58 m*	13.12 m*
WINCH	Hydraulic motor driven. Spur gear speed reduction, provided with mechanical brake.		
Max. Single Line Pull	9.90 kN {1,010 kgf}		
Max. Single Line Speed	66 m/min. (at 4th layer)		
Wire rope (Diameter x length)	8 mm x 67 m	8 mm x 82 m	8 mm x 97 m
SLEWING	Hydraulic motor driven. Worm gear speed reduction. Continuous 360° full circle slewing on ball bearing slewing ring. Automatic slewing lock.		
Speed	2.5 min ⁻¹ {rpm}		
OUTRIGGERS	Manually extended sliders and hydraulically extended jacks Integral with crane frame.		
Extended Width	Max.: 3.8 m, Mid.: 3.0 m, Min.: 2.2 m		
HYDRAULIC SYSTEM	Multiple control valves with integral safety valve		
Control Valves			
STANDARD SAFETY EQUIPMENT	<ul style="list-style-type: none"> •AML (Automatic Moment Limiter) <Load indication, Load moment ratio to rated load indication, Warning alarm, Over load limiter> •WHL (Working Height Limiter) •Load indicator •Emergency stop switch on radio controller •Terminal for emergency stop switch •Over-winding alarm •Over-unwinding prevention •Anti-two-block device •Jack interlock •Hook safety latch •Hydraulic safety valves, check valves and holding valves •Level gauge 		
OPTIONAL EQUIPMENT	<ul style="list-style-type: none"> •Limit warning lamp (three-color) •Boom outrigger stowed warning •Radius indicator •Tiltable jack float •Emergency stop switch •Rear outrigger extension width detection 		
SUITABLE TRUCKS	Gross vehicle mass 15,000 to 25,000 kg		

RATED LIFTING CAPACITIES (With empty chassis)

Table A

TM-ZE553HRS

• 3.47-m boom

Load radius (m)	2.5 and below	2.8	3.25	
Rated lifting capacity (kg)	5,050	4,050	3,280	

• 5.91-m boom

Load radius (m)	2.6 and below	2.8	3.3	3.6	4.1	4.5	5.0	5.5	5.69
Rated lifting capacity (kg)	4,050	4,050	3,280	2,930	2,430	2,030	1,730	1,430	1,380

• 8.31-m boom

Load radius (m)	2.6 and below	3.4	3.8	4.1	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.09
Rated lifting capacity (kg)	3,130	3,130	2,680	2,430	2,030	1,730	1,430	1,330	1,180	1,030	930	830

TM-ZE554HRS

• 3.55-m boom

Load radius (m)	2.5 and below	2.8	3.33	
Rated lifting capacity (kg)	5,050	4,050	3,250	

• 5.99-m boom

Load radius (m)	2.6 and below	2.8	3.6	4.0	4.5	5.0	5.77
Rated lifting capacity (kg)	4,050	4,050	2,930	2,430	1,980	1,680	1,330

• 8.39-m boom

Load radius (m)	2.6 and below	3.0	3.6	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.17
Rated lifting capacity (kg)	3,130	3,130	2,930	2,430	1,980	1,680	1,430	1,180	1,130	1,000	900	780

• 10.8-m boom

Load radius (m)	3.5 and below	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0	10.58
Rated lifting capacity (kg)	2,130	2,130	1,980	1,630	1,180	1,000	800	680	580	550

TM-ZE555HRS

• 3.77-m boom

Load radius (m)	2.5 and below	2.8	3.55	
Rated lifting capacity (kg)	5,050	4,050	2,950	

• 6.21-m boom

Load radius (m)	2.6 and below	2.8	3.6	3.9	4.5	5.0	5.5	5.99
Rated lifting capacity (kg)	4,050	4,050	2,930	2,530	1,930	1,630	1,380	1,130

• 8.59-m boom

Load radius (m)	2.6 and below	3.4	3.6	3.9	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.37
Rated lifting capacity (kg)	3,130	3,130	2,930	2,530	1,930	1,630	1,380	1,130	1,050	930	830	650

• 10.97-m boom

Load radius (m)	4.0 and below	4.5	5.0	6.0	7.0	8.0	9.0	10.0	10.75
Rated lifting capacity (kg)	2,230	1,930	1,580	1,130	900	700	550	500	450

• 13.34-m boom

Load radius (m)	5.0 and below	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.12
Rated lifting capacity (kg)	1,430	1,130	900	700	550	500	430	400	350

Table D

TM-ZE553HRS

• 3.47-m boom

Load radius (m)	2.5 and below	2.95	3.25	
Rated lifting capacity (kg)	5,050	4,050	3,700	

• 5.91-m boom

Load radius (m)	2.6 and below	2.95	3.8	4.1	4.5	5.0	5.5	5.69
Rated lifting capacity (kg)	4,050	4,050	3,130	2,930	2,630	2,380	2,180	2,080

• 8.31-m boom

Load radius (m)	2.6 and below	3.0	3.8	4.1	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.09
Rated lifting capacity (kg)	3,130	3,130	3,130	2,930	2,630	2,380	2,180	1,980	1,830	1,680	1,530	1,430

TM-ZE554HRS

• 3.55-m boom

Load radius (m)	2.5 and below	2.9	3.33	
Rated lifting capacity (kg)	5,050	4,050	3,550	

• 5.99-m boom

Load radius (m)	2.5 and below	2.9	3.7	4.0	4.5	5.0	5.77
Rated lifting capacity (kg)	4,050	4,050	3,130	2,930	2,580	2,330	2,030

• 8.39-m boom

Load radius (m)	2.5 and below	3.0	3.7	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.17
Rated lifting capacity (kg)	3,130	3,130	3,130	2,930	2,580	2,330	2,080	1,930	1,780	1,630	1,480	1,380

• 10.8-m boom

Load radius (m)	3.5 and below	4.5	5.0	6.0	7.0	8.0	9.0	10.0	10.58
Rated lifting capacity (kg)	2,130	2,130	2,030	1,780	1,530	1,380	1,200	1,050	1,000

TM-ZE555HRS

• 3.77-m boom

Load radius (m)	2.5 and below	2.8	3.55	
Rated lifting capacity (kg)	5,050	4,050	3,150	

• 6.21-m boom

Load radius (m)	2.5 and below	2.8	3.6	3.9	4.5	5.0	5.5	5.99
Rated lifting capacity (kg)	4,050	4,050	3,130	2,930	2,530	2,230	1,980	1,780

• 8.59-m boom

Load radius (m)	2.5 and below	3.0	3.6	3.9	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.37
Rated lifting capacity (kg)	3,130	3,130	3,130	2,930	2,530	2,230	1,980	1,780	1,630	1,480	1,380	1,180

• 10.97-m boom

Load radius (m)	4.0 and below	4.5	5.0	6.0	7.0	8.0	9.0	10.0	10.75
Rated lifting capacity (kg)	2,230	2,180	2,030	1,730	1,430	1,230	1,080	980	900

• 13.34-m boom

Load radius (m)	5.0 and below	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.12
Rated lifting capacity (kg)	1,430	1,330	1,230	1,080	980	880	800	730	650

NOTES FOR TECHNICAL SPECIFICATIONS:

Operating speeds of the crane are guaranteed under the condition that the pump delivery is 60 L/min.

* Boom deflection, and subsequent radius and boom angle change must be accounted for when applying load to hook.

NOTES FOR RATED LIFTING CAPACITIES:

The mass of hook (45 kg), slings and all other lifting devices must be added to the mass of the load.

Note: Some specifications are subject to change.



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