

TM-ZE500G/500

For Large Size Vehicles

CARGO CRANE



IDEAL Cargo Crane, TADANO ZE

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-ZE500G with the maximum lifting capacity of 4.04 tons has a choice of 3 different lengths of the boom while the TM-ZE500 with the maximum lifting capacity of 3.13 tons has a choice of 4 different lengths of the boom, to meet your lifting requirements.

HOOK IN SYSTEM

The TM-ZE500GMH and TM-ZE500MH features the "Hook-In" system to further enhance work efficiency. A pull of a lever and the crane hook is stowed automatically. No more manual fixing.



RESPONDING TO OPERATOR'S COMMAND

Equipped with optimally matched, high-performance control valves, the operating levers provide improved responsiveness and fine-tuned control. Operation is fast or slow in accordance with operator's command. The stainless rods between the left and right operation levers are provided as standard.



CONTROL LEVER

CENTRALIZED CONTROL PANELS

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

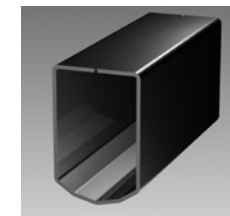


LEFT-HAND SIDE

RIGHT-HAND SIDE

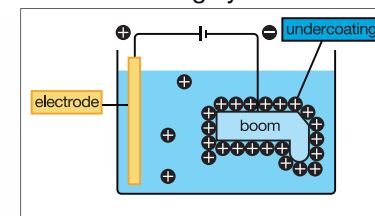
NEW HEPTAGONAL BOOM

Tadano's unique heptagonal boom is even more strong. And the new boom has a structure of bended one-piece steel plate for lighter boom weight and powerful lifting capability. 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.



CATIONIC ELECTRO-DEPOSITION COATING

The crane is undercoated by Cationic Electro-deposition method. The parts are dipped in cationic solution, and even the narrow inner booms and frames are thoroughly undercoated.

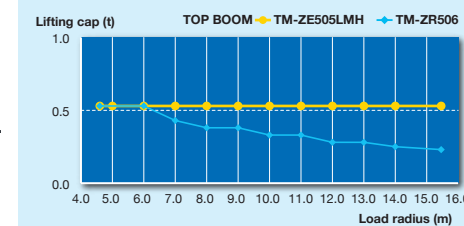


* Except 5L section boom

NEW FIVE-SECTION LONG BOOM

The TM-ZE505L with a five-section long boom makes its debut in the market, supplanting the previous TM-ZR506 with a six-section boom. The newly developed five-section boom makes the same length as the conventional six-section boom and enhances crane performance by max. 130% compared to the conventional six-section boom.

TM-ZE505LMH vs TM-ZR506 (Previous model)
Lifting Chart at Full boom extension



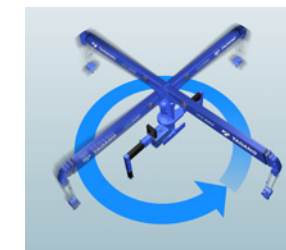
STRONGER WINCH

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.



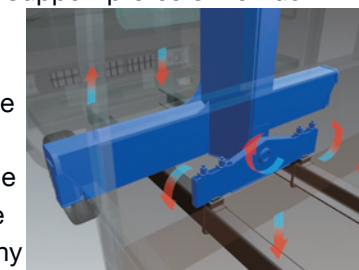
FULL CIRCLE, CONTINUOUS SLEWING

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 traveling.



THREE-POINT SUPPORT SYSTEM (Equalizer Crane Support)

Tadano's Equalizer Crane Support protects the truck frame from stress. The crane is mounted to the truck chassis with the Equalizer Crane Support that evenly distributes the load to prevent excessive stress concentration at any one point.

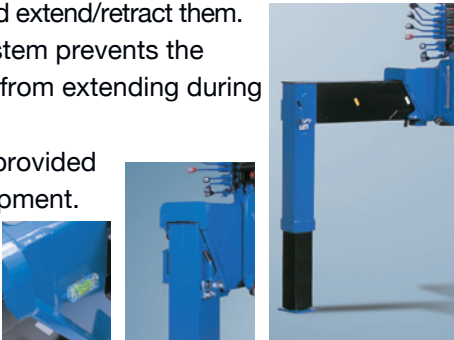


TM-ZE500G series

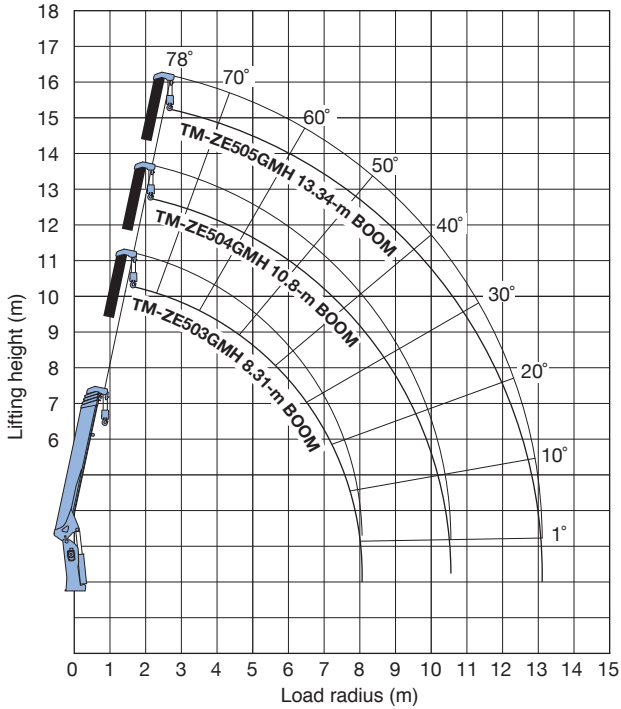


QUICKER WORK WITH ADVANCED OUTRIGGER MECHANISM

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



WORKING RANGE



NOTES FOR WORKING RANGE:
Boom deflection, and subsequent radius and boom angle change must be accounted for when applying load to hook.



TECHNICAL SPECIFICATIONS

MODEL	TM-ZE503GMH*		TM-ZE504GMH*	TM-ZE505GMH*
CRANE CAPACITY	4,040 kg at 2.95 m (5-parts of line)		4,040 kg at 2.9 m (5-parts of line)	4,040 kg at 2.8 m (5-parts of line)
BOOM	Fully powered telescoping boom of heptagonal box construction.			
Number of 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
Elevating range/speed	1° to 78° / 12 s			
Max. lifting 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	7.92 kN {808 kgf}			
Max. single line speed	76 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 slew ring. Automatic slewing lock.			
Slewing speed	2.5 min ⁻¹ {rpm}			
OUTRIGGERS	Manually extended sliders and hydraulically extended jacks Integral with crane frame			
Extension width	Max. : 3.8 m, Mid. : 3.0 m, Min. : 2.2 m			
HYDRAULIC SYSTEM	Multiple control valves with integral safety valves			
Control valves	•Load meter •Load indicator •Anti-two-block alarm •Hoisting limiter •P.T.O. indicator lamp			
STANDARD SAFETY DEVICES	•Hook safety latch •Hydraulic safety valves, check valves and holding valves •Level gauge			
SUITABLE TRUCKS	Gross vehicle mass 12,000 to 25,000 kg			

* WITH HOOK STOWING DEVICE. Mechanically stows hook beneath boom head.
** Boom deflection, and subsequent radius and boom angle change must be accounted for when applying load to hook.

RATED LIFTING CAPACITIES (With empty chassis)

Table A										
TM-ZE503GMH										
• 3.47-m/5.91-m boom										
Load radius (m)	2.8 and below	3.3	3.6	4.1	4.5	5.0	5.5	5.69		
Rated lifting capacity (kg)	4,040	3,280	2,930	2,430	2,030	1,730	1,430	1,380		
• 8.31-m boom										
Load radius (m)	3.4 and below	3.8	4.1	4.5	5.0	5.5	6.0	6.5	7.0	7.5
Rated lifting capacity (kg)	3,130	2,680	2,430	2,030	1,730	1,430	1,180	1,030	930	830
TM-ZE504GMH										
• 3.55-m/5.99-m boom										
Load radius (m)	2.8 and below	3.6	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5
Rated lifting capacity (kg)	4,040	2,930	2,430	2,030	1,980	1,680	1,380	1,130	900	780
• 8.39-m boom										
Load radius (m)	3.0 and below	3.6	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5
Rated lifting capacity (kg)	3,130	2,930	2,430	1,980	1,680	1,430	1,180	1,130	1,000	900
• 10.8-m boom										
Load radius (m)	4.0 and below	4.5	5.0	6.0	7.0	8.0	9.0	10.0	10.58	
Rated lifting capacity (kg)	2,130	1,980	1,630	1,180	1,000	800	680	580	550	
TM-ZE505GMH										
• 3.77-m/6.21-m boom										
Load radius (m)	2.8 and below	3.6	3.9	4.5	5.0	5.5	6.0	6.5	7.0	7.5
Rated lifting capacity (kg)	4,040	2,930	2,530	1,930	1,630	1,380	1,130	930	830	650
• 8.59-m boom										
Load radius (m)	3.4 and below	3.6	3.9	4.5	5.0	5.5	6.0	6.5	7.0	7.5
Rated lifting capacity (kg)	3,130	2,930	2,530	1,930	1,630	1,380	1,130	1,050	930	830
• 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 B										
TM-ZE503GMH										
• 3.47-m/5.91-m boom										
Load radius (m)	2.95 and below	3.5	4.1	4.5	5.0	5.5	5.69			
Rated lifting capacity (kg)	4,040	3,380	2,930	2,480	2,080	1,780	1,680			
• 8.31-m boom										
Load radius (m)	3.8 and below	4.1	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.09
Rated lifting capacity (kg)	3,130	2,930	2,480	2,080	1,780	1,580	1,430	1,280	1,130	1,030
TM-ZE504GMH										
• 3.55-m/5.99-m boom										
Load radius (m)	2.9 and below	3.7	4.0	4.5	5.0	5.5	5.77			
Rated lifting capacity (kg)	4,040	3,130	2,930	2,430	2,030	1,630				
• 8.39-m boom										
Load radius (m)	3.7 and below	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.17
Rated lifting capacity (kg)	3,130	2,930	2,430	2,030	1,730	1,480	1,380	1,230	1,080	980
• 10.8-m boom										
Load radius (m)	4.5 and below	5.0	6.0	7.0	8.0	9.0	10.0	10.58		
Rated lifting capacity (kg)	2,130	1,980	1,480	1,180	950	880	730	680		
TM-ZE505GMH										
• 3.77-m/6.21-m boom										
Load radius (m)	2.8 and below	3.6	3.9	4.5	5.0	5.5	5.99			
Rated lifting capacity (kg)	4,040	3,130	2,930	2,430	1,980	1,680	1,430			
• 8.59-m boom										
Load radius (m)	3.6 and below	3.9	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.37
Rated lifting capacity (kg)	3,130	2,930	2,430	1,980	1,680	1,430	1,280	1,130	1,030	830
• 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	1,930	1,430	1,130	880	730	650	580	
• 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	1,130	880	730	650	550	500	430	

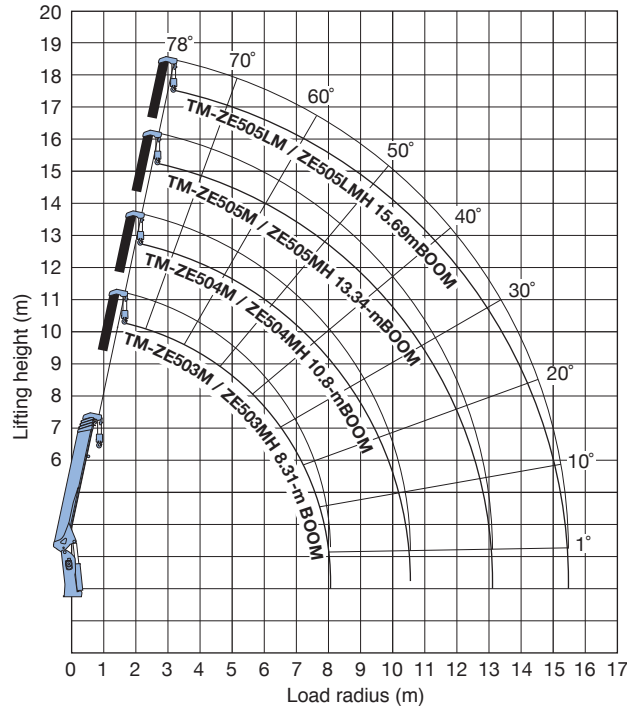
NOTES FOR TECHNICAL SPECIFICATIONS:
Operating speeds of the crane are guaranteed under the conditions that the pump delivery is 60 L/min.
NOTES FOR RATED LIFTING CAPACITIES:
The mass of hook (30 kg), slings and all other lifting devices must be added to the mass of the load.

Table C										
TM-ZE503GMH										
• 3.47-m/5.91-m boom										
Load radius (m)	2.95 and below	3.8	4.1	4.5	5.0	5.5	5.69			
Rated lifting capacity (kg)	4,040	3,130	2,930	2,630	2,380	2,130	2,030			
• 8.31-m boom										
Load radius (m)	3.8 and below	4.1	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.09
Rated lifting capacity (kg)	3,130	2,930	2,630	2,380	2,130	1,880	1,730	1,530	1,380	1,230
TM-ZE504GMH										
• 3.55-m/5.99-m boom										
Load radius (m)	2.9 and below	3.7	4.0	4.5	5.0	5.5	5.77			
Rated lifting capacity (kg)	4,040	3,130	2,930	2,580	2,330	2,030				
• 8.39-m boom										
Load radius (m)	3.7 and below	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.17
Rated lifting capacity (kg)	3,130	2,930	2,580	2,330	2,030	1,830	1,650	1,480	1,350	1,180
• 10.8-m boom										
Load radius (m)	4.5 and below	5.0	6.0	7.0	8.0	9.0	10.0	10.58		
Rated lifting capacity (kg)	2,130	2,030	1,780	1,480	1,200	1,030	900	830		
TM-ZE505GMH										
• 3.77-m/6.21-m boom										
Load radius (m)	2.8 and below	3.6	3.9	4.5	5.0	5.5	5.99			
Rated lifting capacity (kg)	4,040	3,130	2,930	2,530	2,230	1,980	1,730			
• 8.59-m boom										
Load radius (m)	3.6 and below	3.9	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.37
Rated lifting capacity (kg)	3,130	2,930	2,530	2,230	1,980	1,730	1,580	1,430	1,250	1,050
• 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	1,400	1,100	950	800	730	
• 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	950	800	700	630	530	

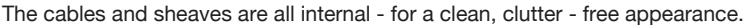
Table D										
TM-ZE503GMH										
• 3.47-m/5.91-m boom										
Load radius (m)	2.95 and below	3.8	4.1	4.5	5.0	5.5	5.69			
Rated lifting capacity (kg)	4,040	3,130	2,930	2,630	2,380	2,180	2,080			
• 8.31-m boom										
Load radius (m)	3.8 and below	4.1	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.09
Rated lifting capacity (kg)	3,130	2,930	2,630	2,380	2,180	1,980	1,830	1,680	1,530	1,430
TM-ZE504GMH										
• 3.55-m/5.99-m boom										
Load radius (m)	2.9 and below	3.7	4.0	4.5	5.0	5.5	5.77			
Rated lifting capacity (kg)	4,040	3,130	2,930	2,580	2,330	2,030				
• 8.39-m boom										
Load radius (m)	3.7 and below	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.17
Rated lifting capacity (kg)	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)	4.5 and below	5.0	6.0	7.0	8.0	9.0	10.0	10.58		
Rated lifting capacity (kg)	2,130	2,030	1,780	1,530	1,380	1,200	1,050	1,000		
TM-ZE505GMH										
• 3.77-m/6.21-m boom										
Load radius (m)	2.8 and below	3.6	3.9	4.5	5.0	5.5	5.99			
Rated lifting capacity (kg)	4,040	3,130	2,930	2,530	2,230	1,980	1,780			
• 8.59-m boom										
Load radius (m)	3.6 and below	3.9	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.37
Rated lifting capacity (kg)	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	

A rear view of a truck chassis with a blue Tadano crane mounted on it. The crane is extended upwards and to the right. A yellow double-headed arrow at the bottom indicates the maximum width of the chassis, labeled "Maximum 3,800 mm".

The outrigger beams can be easily operated, using a grip to lock/release and extend/retract them. Further more safety, new lock system prevents the outrigger beams from extending during traveling. A level gauge is provided as standard equipment.



A white Tadano truck with a blue hydraulic crane mounted on the back, set against a blue background. The crane is extended upwards and to the right. The truck has a white cab and a white flatbed trailer. The Tadano logo is visible on the crane arm.

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RATED LIFTING CAPACITIES (With empty chassis)

TM-ZE503M / ZE503MH												
• 3.47-m/5.91-m/8.31-m boom												
Load radius (m)	3.4	3.6	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	2,680	2,430	2,030	1,730	1,430	1,330	1,180	1,030	930	830	
TM-ZE504M / ZE504MH												
• 3.55-m/5.99-m/8.39-m boom												
Load radius (m)	3.4	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	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)	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0	10.58			
Rated lifting capacity (kg)	2,130	1,980	1,630	1,180	1,000	800	680	580	550			
TM-ZE505M / ZE505MH												
• 3.77-m/6.21-m/8.59-m boom												
Load radius (m)	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	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	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	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			

TM-ZE503M / ZE503MH												
• 3.47-m/5.91-m/8.31-m boom												
Load radius (m)	3.8	^{and below} 4.1	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.09		
Rated lifting capacity (kg)	3,130	2,930	2,480	2,080	1,780	1,580	1,430	1,280	1,130	1,030		
TM-ZE504M / ZE504MH												
• 3.55-m/5.99-m/8.39-m boom												
Load radius (m)	3.7	^{and below} 4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.17		
Rated lifting capacity (kg)	3,130	2,930	2,430	2,030	1,730	1,480	1,380	1,230	1,080	980		
• 10.8-m boom												
Load radius (m)	4.5	^{and below} 5.0	5.0	6.0	7.0	8.0	9.0	10.0	10.58			
Rated lifting capacity (kg)	2,130	1,980	1,480	1,180	950		880	730	680			
TM-ZE505M / ZE505MH												
• 3.77-m/6.21-m/8.59-m boom												
Load radius (m)	3.6	^{and below} 3.9	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.37		
Rated lifting capacity (kg)	3,130	2,930	2,430	1,980	1,680	1,430	1,330	1,130	1,030	830		
• 10.97-m boom												
Load radius (m)	4.0	^{and below} 4.5	4.5	5.0	6.0	7.0	8.0	9.0	10.0	10.75		
Rated lifting capacity (kg)	2,230	2,180	1,930	1,430	1,130	880	730	650	580			
• 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	1,130	880	730	650	550	500	430			
TM-ZE505LM / ZE505LMH												
• 4.32-m/7.21-m/10.04-m boom												
Load radius (m)	3.6	^{and below} 3.9	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	9.82	
Rated lifting capacity (kg)	3,130	2,930	2,380	1,980	1,680	1,430	1,230	1,030	880	680	600	
• 12.87-m boom												
Load radius (m)	4.0	^{and below} 4.5	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	12.65	
Rated lifting capacity (kg)	1,980	1,930	1,830	1,380	1,030	880	650	580	500	430	400	
• 15.69-m boom												
Load radius (m)	10.0	^{and below} 11.0	11.0	12.0	13.0	14.0	15.47					
Rated lifting capacity (kg)	530	500	430	380	350	280						

NOTES FOR TECHNICAL SPECIFICATIONS:
Operating speeds of the crane are guaranteed under the conditions that the pump delivery is 60 L/min.

NOTES FOR RATED LIFTING CAPACITIES:
The mass of hook (30 kg), slings and all other lifting devices must be added to the mass of the load.

TM-ZE503M / ZE503MH											
• 3.47-m/5.91-m/8.31-m boom											
Load radius (m)	3.8 <small>and below</small>	4.1	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.09	
Rated lifting capacity (kg)	3,130	2,930	2,630	2,380	2,130	1,880	1,730	1,530	1,380	1,230	
TM-ZE504M / ZE504MH											
• 3.55-m/5.99-m/8.39-m boom											
Load radius (m)	3.7 <small>and below</small>	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.17	
Rated lifting capacity (kg)	3,130	2,930	2,580	2,330	2,030	1,830	1,650	1,480	1,350	1,180	
• 10.8-m boom											
Load radius (m)	4.5 <small>and below</small>	5.0	6.0	7.0	8.0	9.0	10.0	10.8			
Rated lifting capacity (kg)	2,130	2,030	1,780	1,480	1,200	1,030	900	830			
TM-ZE505M / ZE505MH											
• 3.77-m/6.21-m/8.59-m boom											
Load radius (m)	3.6 <small>and below</small>	3.9	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.37	
Rated lifting capacity (kg)	3,130	2,930	2,530	2,230	1,980	1,730	1,580	1,430	1,250	1,050	
• 10.97-m boom											
Load radius (m)	4.0 <small>and below</small>	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	1,400	1,100	950	800	730		
• 13.34-m boom											
Load radius (m)	5.0 <small>and below</small>	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	950	800	700	630	530		
TM-ZE505LM / ZE505LMH											
• 4.32-m/7.21-m/10.04-m boom											
Load radius (m)	3.6 <small>and below</small>	3.9	4.5	5.0	5.5	6.0	6.5	7.0	8.0	9.0	9.82
Rated lifting capacity (kg)	3,130	2,930	2,480	2,180	1,930	1,730	1,530	1,330	1,080	880	750
• 12.87-m boom											
Load radius (m)	4.0 <small>and below</small>	4.5	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	12.65
Rated lifting capacity (kg)	1,980	1,930	1,830	1,580	1,330	1,080	830	730	650	580	530
• 15.69-m boom											
Load radius (m)	12.0 <small>and below</small>		13.0		14.0		15.47				
Rated lifting capacity (kg)	530		500		450		380				

[illegible]