ded Lifting Co

Rated Lifting Capacities				
Table A	Table C	Table D		
M-ZE293HRB	TM-ZE293HRB	TM-ZE293HRB		
2.85 m / 4.74 m Boom	● 2.85 m / 4.74 m Boom			
DAD RADIUS (m) 1.6 below 2.0 2.5 3.0 3.5 4.0 4.54	LOAD RADIUS (m) 1.6 below 2.0 2.5 3.0 3.5 4.0 4.54	LOAD RADIUS (m) 1.6 ^{2nd} 2.0 2.5 3.0 3.5 4.0 4.54		
RANE STRENGTH 3,030 2,330 1,880 1,500 1,250 1,080 980	CRANE STRENGTH 3,030 2,330 1,880 1,500 1,250 1,080 980	CRANE STRENGTH 3,030 2,330 1,880 1,500 1,250 1,080 980		
MAX. 3,030 2,330 1,730 1,230 930 730 630	EMPTY Extension MAX. 3,030 2,330 1,880 1,480 1,100 850 730	EMPTY Extension MAX. 3,030 2,330 1,880 1,500 1,250 1,080 980		
ASSIS outriggers MIN. 1,580 980 680 480 380 330 280	CHASSIS outriggers MIN. 1,580 980 680 480 380 330 280	CHASSIS outriggers MIN. 1,580 980 680 480 380 330 280		
6.6 m Boom	● 6.6 m Boom	● 6.6 m Boom		
DAD RADIUS (m) 2.2 and 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.4	LOAD RADIUS (m) 2.2 ad 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.4	LOAD RADIUS (m) 2.2 std 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.4		
RANE STRENGTH 1,880 1,680 1,430 1,230 1,080 980 900 800 730 680	CRANE STRENGTH 1,880 1,680 1,430 1,230 1,080 980 900 800 730 680	CRANE STRENGTH 1,880 1,680 1,430 1,230 1,080 980 900 800 730 680		
MPTY Edition width of outlogges MAX. 1,880 1,630 1,230 930 730 600 500 430 380 350	EMPTY Extension width MAX 1,880 1,680 1,400 1,100 850 700 600 530 480 430	EMPTY Extension width MAX 1,880 1,680 1,430 1,230 1,080 980 900 800 730 680		
M-ZE294HRB	TM-ZE294HRB	TM-ZE294HRB		
3.17 m / 5.12 m Boom	• 3.17 m / 5.12 m Boom	• 3.17 m / 5.12 m Boom		
DAD RADIUS (m) 1.6 and 2.0 2.5 3.0 3.5 4.0 4.5 4.92	LOAD RADIUS (m) 1.6 below 2.0 2.5 3.0 3.5 4.0 4.5 4.92	LOAD RADIUS (m) 1.6 below 2.0 2.5 3.0 3.5 4.0 4.5 4.92		
RANE STRENGTH 3,030 2,330 1,880 1,500 1,250 1,080 930 850 [April 10,000 1,250 1,080 930 850 850 850 850 850 850 850 850 850 85	CRANE STRENGTH 3,030 2,330 1,880 1,500 1,250 1,080 930 850 EMPTY Extension MAX 3,030 2,330 1,880 1,500 1,100 880 700 600	CRANE STRENGTH 3,030 2,330 1,880 1,500 1,250 1,080 930 850		
MPTY (width of SASIS) Extension (MAX) (3,030) 2,330 1,800 1,250 930 730 580 530 730	EMPTY Extension IMAX 3,030 2,330 1,880 1,500 1,100 880 700 600 CHASSIS MIN 1,580 980 680 480 380 300 250 230	EMPTY CHASSO duffigers MIN. 1,580 980 680 480 380 300 250 230		
7.01 m Boom	• 7.01 m Boom	• 7.01 m Boom		
DAD RADIUS (m) 2.2 ad 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.81	LOAD RADIUS (m) 2.2 ml 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.81	LOAD RADIUS (m) 2.2 and 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.81		
RANE STRENGTH 1,880 1,680 1,430 1,230 1,080 930 830 730 650 580	CRANE STRENGTH 1,880 1,680 1,430 1,230 1,080 930 830 730 650 580	CRANE STRENGTH 1,880 1,680 1,430 1,230 1,080 930 830 730 650 580		
/PTV Edistion width MAX. 1,880 1,680 1,250 930 730 580 500 430 350 300	EMPTY Extension width MAX, 1,880 1,680 1,400 1,100 880 700 600 530 450 350 (CHASSIS)	EMPTY Entersion width MAX. 1,880 1,680 1,430 1,230 1,080 930 830 730 650 580		
8.9 m Boom	● 8.9 m Boom	● 8.9 m Boom		
DAD RADIUS (m) 3.0 and below 3.5 4.0 5.0 6.0 7.0 8.0 8.7	LOAD RADIUS (m) 3.0 and below 3.5 4.0 5.0 6.0 7.0 8.0 8.7	LOAD RADIUS (m) 3.0 and 3.5 4.0 5.0 6.0 7.0 8.0 8.7		
RANE STRENGTH 1,080 1,080 980 780 650 550 480 430	CRANE STRENGTH 1,080 1,080 980 780 650 550 480 430	CRANE STRENGTH 1,080 1,080 980 780 650 550 480 430		
APTY Skills of outgoes MAX. 1,080 930 730 500 350 280 230 200	EMPTY Extension width MAX 1,080 1,080 880 600 450 350 280 250	EMPTY Edgreson width CHASSIS of outroges MAX 1,080 1,080 980 780 650 550 480 430		
	TM-ZE295HRB	TM-ZE295HRB		
	● 3.13 m / 5.07 m Boom	● 3.13 m / 5.07 m Boom		
	LOAD RADIUS (m) 1.5 and 2.0 2.5 3.0 3.5 4.0 4.5 4.87	LOAD RADIUS (m) 1.5 and 2.0 2.5 3.0 3.5 4.0 4.5 4.87		
	CRANE STRENGTH 3,030 2,180 1,730 1,430 1,230 1,080 930 830	CRANE STRENGTH 3,030 2,180 1,730 1,430 1,230 1,080 930 830		
	BMPT/ Extension MAX 3,030 2,180 1,730 1,430 1,130 850 680 580 CHASSIO unifinger MIN 1,580 980 630 480 380 280 230 200	EMPTY Extension MAX. 3,030 2,180 1,730 1,430 1,230 1,080 930 830 CHASSIO OUTGGBER MINI. 1,580 980 630 480 380 280 230 200		
	CHASSIS outriggers MIN. 1,580 980 630 480 380 280 230 200 ● 7.0 m Boom	UTHSSIS outriggers MIN. 1,580 980 630 480 380 280 230 200 ● 7.0 m Boom		
	LOAD RADIUS (m) 2.2 m 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.8	LOAD RADIUS (m) 2.2 m/2 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.8		
	CRANE STRENGTH 1,880 1,680 1,430 1,180 1,030 880 780 680 630 530	CRANE STRENGTH 1,880 1,680 1,430 1,180 1,030 880 780 680 630 530		
	EMPTY Expression width MAX. 1,880 1,680 1,400 1,130 850 680 550 450 400 300	EMPTY Extension width MAX. 1,880 1,680 1,430 1,180 1,030 880 780 680 630 530		
	● 8.9 m Boom	● 8.9 m Boom		
	LOAD RADIUS (m) 3.0 and 3.5 4.0 5.0 6.0 7.0 8.0 8.7	LOAD RADIUS (m) 3.0 and 3.5 4.0 5.0 6.0 7.0 8.0 8.7		
	CRANE STRENGTH 1,030 950 830 680 580 500 430 400	CRANE STRENGTH 1,030 950 830 680 580 500 430 400		
	EMPTY Extrision width CHASSIS droutingges MAX 1,030 900 780 550 400 300 230 200	EMPTY Extension width CHASSIS droutingges MAX. 1,030 950 830 680 580 500 430 400		
	● 10.8 m Boom	● 10.8 m Boom		
	LOAD RADIUS (m) 4.0 and 4.5 5.0 6.0 7.0 8.0 9.0 10.0 10.6	LOAD RADIUS (m) 4.0 and 4.5 5.0 6.0 7.0 8.0 9.0 10.0 10.6		
	CRANE STRENGTH 680 630 580 480 400 350 300 250 230	CRANE STRENGTH 680 630 580 480 400 350 300 250 230		
	EMPTY Extension width CAASSIS Extension width MAX. 680 600 530 400 300 230 200 180 150	EMPTY [Extension width MAX. 680 630 580 480 400 350 300 250 230		
	TM-ZE296HRB	TM-ZE296HRB		
	● 3.23 m / 5.17 m Boom LOAD RADIUS (m) 1.5 helpful 2.0 2.5 3.0 3.5 4.0 4.5 4.97	● 3.23 m / 5.17 m Boom LOAD RADIUS (m) 1.5 m/s 2.0 2.5 3.0 3.5 4.0 4.5 4.97		
	CRANE STRENGTH 3,030 2,180 1,730 1,430 1,230 1,050 900 800	CRANE STRENGTH 3,030 2,180 1,730 1,430 1,230 1,050 900 800		
	EMPTY Extension MAX 3,030 2,180 1,730 1,430 1,230 1,030 830 680	Extension MAX. 3,030 2,180 1,730 1,430 1,230 1,050 900 800		
	CHASSIS outriggers MIN. 1,580 1,130 730 530 380 280 230 180	CHASSIS outriggers MIN. 1,580 1,130 730 530 380 280 230 180		
	● 7.1 m Boom	● 7.1 m Boom		
	LOAD RADIUS (m) 2.2 ad 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.9	LOAD RADIUS (m) 2.2 and 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.9		
		CRANE STRENGTH 1,880 1,680 1,430 1,180 1,030 880 780 680 600 500		
	EMPTY CHASSIS of outligges MAX. 1,880 1,680 1,430 1,150 930 780 680 580 480 380	EMPTY Extension width CHASSIS of outlogers MAX. 1,880 1,680 1,430 1,180 1,030 880 780 680 600 500		
	● 9.0 m Boom	● 9.0 m Boom		
		LOAD RADIUS (m) 3.0 and 3.5 4.0 5.0 6.0 7.0 8.0 8.8		
	CRANE STRENGTH 900 900 830 680 580 500 430 350	CRANE STRENGTH 900 900 830 680 580 500 430 350		
	EMPTY CHASSIS Extension width of outlogers MAX. 900 900 800 600 480 380 280 230	EMPTY Extension width CHASSIS Extension width of outlages MAX. 900 900 830 680 580 500 430 350		
	● 10.9 m Boom	• 10.9 m Boom		
		LOAD RADIUS (m) 4.0 and 4.5 5.0 6.0 7.0 8.0 9.0 10.0 10.7		
	CRANE STRENGTH 680 630 580 480 400 350 300 250 230 EMPTV Starson with Lass of Chassis	CRANE STRENGTH 680 630 580 480 400 350 300 250 230		
		EMPTY Etersian with MAX. 680 630 580 480 400 350 300 250 230		
	● 12.8 m Boom LOAD RADIUS (m) 5.3 and 6.0 7.0 8.0 9.0 10.0 11.0 12.6	● 12.8 m Boom LOAD RADIUS (m) 5.3 and 6.0 7.0 8.0 9.0 10.0 11.0 12.6		
	5000	CRANE STRENGTH 280 250 220 200 180 160 140 120		
	EMPTY Extension with MAY 280 250 220 100 160 140 130 120			

- Rated capacity indicator issues warning with the limit warning lamp and the buzzer when the working state approaches the empty chassis rated lifting capacity. If the limit alarm is issued, stop
- 2. When the AML is equipped with the rated capacity limiter, an operation stops automatically if the empty chassis rated lifting capacity is exceeded.

 3. Empty Chassis Rated Capacities in these tables depend on condition that crane is set level on firm
- level ground.

 4. This value includes the mass of lifting devices such as hook block (30kg).

 5. When the outriggers are extended to the middle width, read the capacities rated for the minimum
- extension width.

 6. This load radius shows actual load radius which includes boom deflection.

 7. If the boom length exceeds the table value even a little, the performance is limited to the

- 7. If the boom length exceeds the table value even a little, the performance is limited to the performance of the next boom length.

 8. Empty chassis rated lifting capacity varies according to the working area.

 Front mounting <over-side, over-rear area>: 100%

 <over-front area>: 25% (*1) or 60% (*1) or 100% (*1)

 Rear mounting <over-front, over-rear area>: 100%

 <over-side area>: 30%

 *1: Depend on the types of chassis.

 9. Empty Chassis Rated Capacities table A,C and D (*2) depend on the types of chassis. (The following table shows guidelines for bodywork vehicles that can achieve the rated lifting capacity tables A and C for vehicles. The rated lifting capacity may not be applicable depending on vehicle specifications. Be sure to carry out a stability inspection to determine which rated lifting capacity tables to apply.)

 *2: TM-ZE295HRB & TM-ZE296HRB for C and D only

TM-ZE293HRB & TM-ZE294HRB

EMPTY Extension width MAX. 280 250 220 190 160 140 130 120 EMPTY Green width MAX. 280 250 220 200 180 160 140 120 CHASSIS drodugus MAX. 280 250 220 200 180 160 140 120

A $4.5 \text{ t} \le \text{GVW} < 8.0 \text{ t}, 2,750 \text{ mm} \le \text{WB (*3)}$

C 4.5 t ≤ GVW < 8.0 t, 3,395 mm ≤ WB (*3), 1,995 mm ≤ Vehicle width

4.5 t ≤ GVW < 8.0 t, 3,395 mm ≤ WB (*3), 1,995 mm ≤ Vehicle width (TM-ZE296HRB must be set up the rear outrigger.)

*3; From the front axle to the farthest rear axle.

Extension mark Middle extension width (Yellow) Maximum extension width (White) extension width Middle extension width

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TADANO



TRUCK LOADER CRANE

TM-ZE290 Series

TM-ZE293HRB TM-ZE294HRB TM-ZE295HRB TM-ZE296HRB





Tadano QUALITY: advanced safety and power in a single package

The TM-ZE290HRB is a more powerful crane that comes with the sophisticated, high-quality Eyes system as standard equipment.

It delivers greater safety and peace of mind.

TM-ZE290HRB



Radio Controller with Color LCD* Display *Liquid Crystal Display

A radio controller for remotely operating the crane is provided as standard.

In addition to displaying the actual load, rated load, and moment load ratio, it also features 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 function.

The "load weight" function makes it possible to check the work progress and the load weight on the vehicle, and also prevents overloading. These features contribute not only to the safety of crane work, but also to the safety of the vehicle when it is traveling.

*The IP rating indicates waterproofness and dust protection as defined in IEC 60529. An IP66K rating indicates an exceptional level of waterproofness and



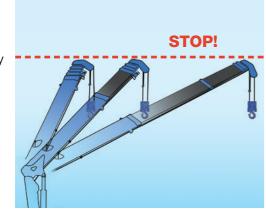


Emergency stop



Working Height Limit Function

This function presets the upper limit of the boom height (stop position). This is highly effective in work sites where attention is required to the boom height, such as under power lines and indoors.



Jack Interlock

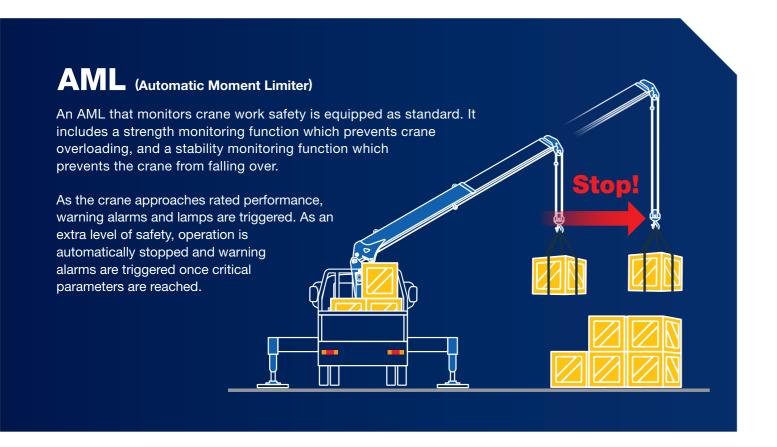
Disables crane operation when the left or right jack is not in contact with the ground.





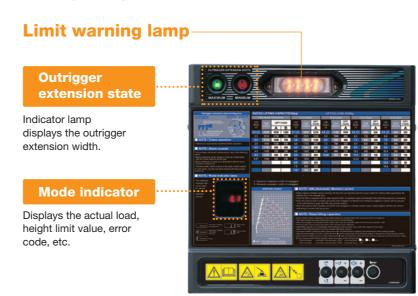
TM-ZE290HRB

Cargo Crane for Small Size Vehicles



Centralized Control Panel Equipped with Safety Lamp

The lifting chart and switches for crane operation are grouped on both sides of the control panel, and warning lights are installed at the top of the panel.



Limit Warning Lamps

The warning lights on the control panel, moment indicator in the radio controller, three-color limit warning lamp on the crane post, and warning alarm function interlinked with one another.



3 *Actual specifications may differ. 4

Hook-in/out System

Tadano's hook-in system is equipped as standard and enhances work efficiency. During hook-out, the boom raises automatically to avoid hitting cargo.

Anti-two-block Function

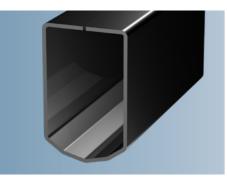
This function stops crane operation (hoisting up, boom elevation, and boom extension) when the hook block touches the weight, and warns the operator with an alarm, to prevent the hook block from hitting the boom head.



Powerful Heptagonal Boom

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







Emergency Stop

Use this switch to stop machine movement if the machine cannot be controlled during crane operation, or in an emergency. (Outrigger operation does not stop.)



Automatic Slewing Lock System

This system prevents accidental boom slewing when no slewing operation takes place.

Outrigger Mechanism for Quicker Work

The outrigger sliders can be operated easy with grip to lock or release and extend or retract them. A lock system also prevents the outriggers from extending during driving.



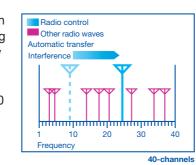
Spirit Level

Used to check that the machine is set level in lateral direction when the outriggers are set



High-powered Radio Controller

Radio Controller with powerful transmitting output automatically selects a frequency free of interference out of as many as 40 channels to avoid trouble caused by interference.

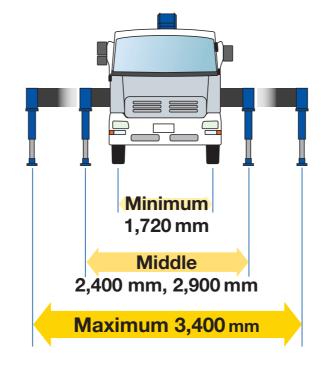


Cable Follower

The cable follower prevents disorderly cable (wire rope) winding by always pressing the cable onto the winch drum, and keeps the wire rope in the right position.

Broader Outrigger Width

The employment of parabox-type outriggers enables the outriggers to secure a four-stage extension width up to a maximum of 3.4 meters, substantially enhancing crane performance.



*Actual specifications may differ. 6

TM-ZE290HRB series

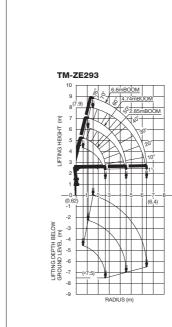
Technical Specifications

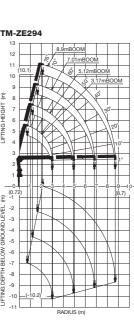
Model	TM-ZE293HRB	TM-ZE294HRB	TM-ZE295HRB	TM-ZE296HRB	
CRANE CAPACITY	3,030 kg at 1.6 m (4-part lines)	3,030 kg at 1.6 m (4-part lines)	3,030 kg at 1.5 m (4-part lines)	3,030 kg at 1.5 m (4-part lines)	
воом	Three-sectioned, fully hydraulic telescoping	Four-sectioned, fully powered partly synchronized	Five-sectioned, fully powered partly synchronized	Six-sectioned, fully powered partly synchronized	
	boom of heptagonal box construction	telescoping boom of heptagonal box construction	telescoping boom of heptagonal box construction	telescoping boom of heptagonal box construction	
Retracted length	2.85 m	3.17 m	3.13 m	3.23 m	
Extended length	6.6 m	8.9 m	10.8 m	12.8 m	
Extending speed	3.75 m in 10.5 s	5.73 m in 13 s	7.67 m in 15.5 s	9.57 m in 17 s	
Elevation	Elevated by a double-acting hydraulic cylinder				
Raising speed	1° to 76° in 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 45 m	8 mm x 56 m	8 mm x 66 m	8 mm x 75 m	
Wire rope (Breaking strength)					
Wire rope (Construction)	7x7+6xWS(26)				
Hook block	2 sheaves				
HOOK BLOCK STOWING DEVICE	Hook-in (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 min¹ {rpm}				
OUTRIGGERS	Manually operated beams and hydraulically operated jacks integral with crane frame.				
Extension width	Min. 1,720 mm center to center(1,870 mm outer to outer), Mid. 2,400 mm center to center(2,550 mm outer to outer), Mid. 2,900 mm center to center(3,050 mm outer to outer), Mid. 2,000 mm center to center(3,050 mm outer to ou				
HYDRAULIC SYSTEM					
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. 28.7 L				
	Model: RCS-F (with colored display), Control functions of telescoping, hoisting up and down, elevating,				
RADIO CONTROLLER	NTROLLER slewing, acceleration, Hook-in, Hook-in, thorn, stop operation, outrigger operation and working height limit.				
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. 670 g (includes batteries)				
	Anti-two-block-device • AML (Automatic Moment Limiter) < Load indication, Load moment ratio indication, Warning alarm, Rated capacity indicator/limiter,				
SAFETY DEVICES	Limit warning lamp, Outrigger length detector, Outrigger asymmetric extension width control> •WHL (Working Height Limiter) •Boom angle indicator •Load indicator •Load meter				
	*Over-unwinding prevention *Hook safety latch *Spirit level *Jack interlock *Stop switch on radio controller *Hydraulic safety valves, check valves and holding valves				
	•Limit warning lamp (three-color) •Emergency stop switch •Boom outrigger stowed warning •Rear outrigger extension width detection				
OPTIONAL EQUIPMENT	Emergency hydraulic pump •Outrigger pads •Rear outriggers (outrigger beam extension type)				
CRANE MASS	Approx. 880 kg	Approx. 990 kg	Approx. 1,080 kg	Approx. 1,150 kg	
	(Except crane options and mounting parts.)	(Except crane options and munting parts.)	(Except crane options and munting parts.)	(Except crane options and mounting parts.)	

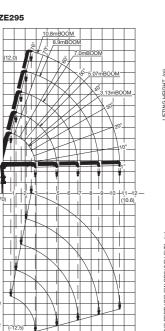
Note: Each operating speeds show the value when there is no load conditions and the pump delivery is the following conditions

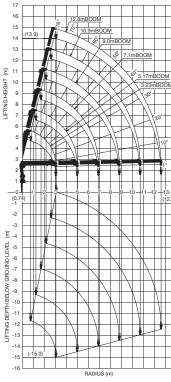
•53 L/min (•BOOM: Extending speed, Raising speed •WINCH: Single line speed)

Working Range









TM-ZE296

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