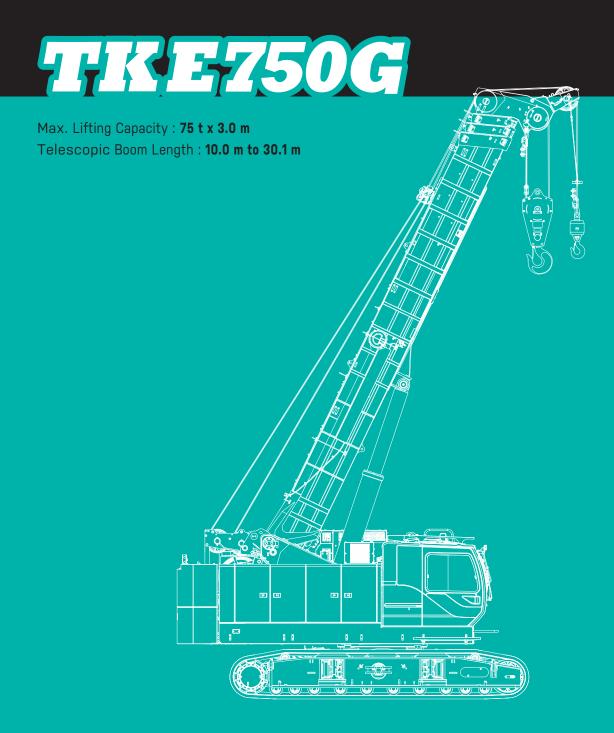
Telescopic Boom Crawler Crane









TKE750G CONTENTS

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SPECIFICATIONS



Power Plant

Model: Mercedes-Benz E9H01 (Daimler OM936LA)

Type: Water cooled 4 cycle, 6 cylinder, direct injection diesel

with turbocharger, intercooler

Complies with NRMM (Europe) Stage V

Displacement: 7.697 L

Rated power: 254 kW/2,000 min⁻¹
Max. torque: 1,245 N·m/1,400 min⁻¹
Cooling system: Water-cooled

Starter: 24 V-3.9 kW

Radiator: Corrugated type core, thermostatically controlled Air cleaner: Dry type with replaceable paper element Throttle: Twist grip type hand throttle, electrically actuated

Fuel filter: Replaceable paper element

Batteries: Two 12 V x 136 Ah/5 HR capacity batteries, series

connected

Fuel tank capacity: 400 L

AdBlue® tank usable volume: 40 L



Hydraulic System

Main pumps: 4-pumps (2 variable plunger pumps + 2 gear pumps) + 4-pumps (2 variable plunger pumps + 2 gear pumps)

Control: Full-flow hydraulic control system for infinitely variable pressure to all winches, propel and swing. Controls respond instantly to the touch, delivering smooth function operation.

Cooling: Oil-to-air heat exchanger (plate-fin type)

Filtration: Full-flow and bypass type with replaceable element

Max. relief valve pressure:

Load hoist and propel system: 31.9 MPa

Swing system (free): 27.5 MPa Swing system (brake): 24.5 MPa

Control system: 6.6 MPa

2nd/3rd boom telescope (extend): 20.6 MPa 2nd/3rd boom telescope (retract): 20.6 MPa Top boom telescope (extend): 16.7 MPa Top boom telescope (retract): 20.6 MPa

Boom hoist (lower): 9.5 MPa Boom hoist (raise): 27.5 MPa

Oil Quantity (at the reference level): 791 L



Load Hoisting System

Hydraulic motor drive with spur gear reduction with auto-brake, independent 2 winches, with third winch (option)

Negative brake: A spring-set, hydraulically released multipledisk brake is mounted on the hoist motor and operated through a counter-balance valve. (Positive free fall brake is standard)

Drum lock: External ratchet for locking drum

Drums:

Main drum: 550 mm P.C.D x 545 mm wide drum, grooved for 22 mm wire rope. Rope capacity is 170 m working length and 335 m storage length.

Aux. drum: 550 mm P.C.D \times 545 mm wide drum, grooved for 22 mm wire rope. Rope capacity is 75 m working length and 335 m storage length.

Third drum without free fall (option): 360 mm P.C.D x 419 mm wide drum, grooved for 18 mm wire rope. Rope capacity is 170 m working length and 205 m storage length.

Diameter of wire rope

Main winch: 22 mm x 170 m Aux. winch: 22 mm x 75 m

Third winch without free fall (option): 18 mm \times 170 m

Max. line speed*

Main winch: 110 m/min Aux. winch: 110 m/min

Third winch without free fall (option): 87 m/min

Max. line pull** (Referential performance)

Main winch: 153.1 kN {15.6 tf} Aux. winch: 153.1 kN {15.6 tf}

Third winch without free fall (option): 107.0 kN {10.9 tf}

Rated line pull:

Main winch: 68.6 kN {7.0 tf}
Aux. winch: 68.6 kN {7.0 tf}

Third winch without free fall (option): 52.0 kN {5.3 tf}

General service winch / 4th winch (option)

Diameter of wire rope: 10 mm x 45 m

Max. line pull**: 11.96 kN {1.2 tf}

*Single line on first drum layer

**Max. line pull is not based on wire rope strength



Swing System

Swing unit is powered by hydraulic motor driving spur gears through planetary reducer, the swing system provides 360° rotation. **Swing parking brakes:** A spring-set, hydraulically released

multiple-disk brake is mounted on swing motor.

Swing circle: Single-row ball bearing with an integral internally

cut swing gear.

Swing lock: Manually, four position lock for transportation

Swing speed: 2.5 min⁻¹



Upper Structure

Torsion-free precision machined upper frame. All components are located clearly and service friendly. Engine will with low noise level.

Counterweight: 17.2 ton



Cab & Control

Totally enclosed, full vision cab with safety glass, fully adjustable, high backed seat with a headrest and armrests, and intermittent wiper and window washer (skylight and front window).

Cab fittings:

Air conditioner*, convenient compartment (for tool), cup holder, cigarette lighter, sun visor, roof blind, tinted glass, floor mat, footrest, and shoe tray.

*The air conditioning system on this machine contains fluorinated greenhouse gas HFC-134a (GWP 1430).

Quantity of gas 1.1 kg (CO2 equivalent 1.6 t).



Lower Structure

Steel-welded carbody with axles. Crawler assemblies can be hydraulically extended for wide-track operation or retracted for transportation. Crawler belt tension is maintained by hydraulic jack force on the track-adjusting bearing block.

Crawler drive: Independent hydraulic propel drive is built into each crawler side frame. Each drive consists of a hydraulic motor propelling a driving tumbler through a planetary gear box.

Hydraulic motor and gear box are built into the crawler side frame within the shoe width.

Crawler brakes: Spring-set, hydraulically released parking brakes are built into each propel drive.

Steering mechanism: A hydraulic propel system provides both skid steering (driving one track only) and counter-rotating steering (driving each track in opposite directions).

Track rollers: Sealed track rollers for maintenance-free operation.

Shoe (flat): 800 mm wide each crawler

Max. gradeability: 40%



Weight

Including upper and lower machine, 17.2 ton counterweight, boom, hook, and other accessories.

Weight: 70.2 ton

Ground pressure: 83.8 kPa



Attachment

Boom:

Four section, box construction, 2nd and 3rd simultaneously telescoping, 4th independently telescoping.

Boom length

	Min. Length	Max. Length
Telescopic Boom	10.0 m	30.1 m

Main Specifications TKE750G (Model: TK750G-2)

Crane Performance				
	10.0 m boom	75.0 t x 3.0 m (11-lines)		
	16.7 m boom	36.0 t x 4.5 m (6-lines)		
Max. Rated Load	23.4 m boom	29.0 t x 6.0 m (5-lines)		
	30.1 m boom	18.5 t x 8.0 m (4-lines)		
	Aux. Sheave (Max.)	7.0 t (1-line)		
Main Boom Leng	th	10.0 m to 30.1 m		
Main Hook Max.	Hoist Height	30.4 m		
Main Hook Max.	Operating Radius	27.8 m		
Winch (Main / A	ux.)			
Max. Line Speed	(1st layer)	110 m/min		
Rated Line Pull (Single line)	68.6 kN {7.0 tf}		
Max. Line Pull (Refer	ential performance)*2	153.1 kN {15.6 tf}		
Wire Rope Diame	ter	22 mm		
Wire Rope Lengtl	า	170 m (Main), 75 m (Aux.)		
Brake Type (Free	fall)	Wet-type multiple disc brake		
Winch (Third [wi	thout free fall]*1)			
Max. Line Speed	(1st layer)	87 m/min		
Rated Line Pull (Single line)	52.0 kN {5.3 tf}		
Max. Line Pull (Refer	ential performance)*2	107.0 kN {10.9 tf}		
Wire Rope Diame	ter	18 mm		
Wire Rope Lengtl	ı	170 m		
Working Speed				
Swing Speed		2.5 min ⁻¹ {rpm}		
Travel Speed		1.6 / 1.1 km/h (high / low select)		
Boom Telescopin	g Speed	125 / 20.1 sec/m		
Boom Raising Sp	eed	64 sec / 0 to 83 degrees		

Power Plant				
Model		Mercedes-Benz E9H01 (Daimler OM936LA)		
Engine Output		254 kW / 2,000 min ⁻¹		
Fuel Tank		400 L		
AdBlue® Tank L	Jsable Volume	40 L		
Hydraulic Syst	em			
Main Pumps		4 pumps (2 variable plunger pumps + 2 gear pumps) + 4 pumps (2 variable plunger pumps + 2 gear pumps)		
Max. Pressure		31.9 MPa {325 kgf/cm²}		
Oil Quantity (at th	e reference level)	791 L		
Self-Removal I	Device (Option)			
		Counterweight		
Weight				
Operating Weig	ht	70.2 t		
Ground Pressu	re	83.8 kPa {0.86 kgf/cm²}		
Counterweight		17,200 kg		
Transport Weig	ht	52,900 kg *3 (55,800 kg *4)		
Hydraulic Outle	et (Option)			
Output	Max. Flow	145 kW (200 ps)		
Horsepower	Max. Pressure	140 kW (190 ps)		
Max. Operating	Max. Flow	21.0 MPa (215 kgf/cm²)		
Pressure	Max. Pressure	30.0 MPa (305 kgf/cm²)		
Max. Supply	Max. Flow	425 L/min		
Flow Rate	Max. Pressure	280 L/min		

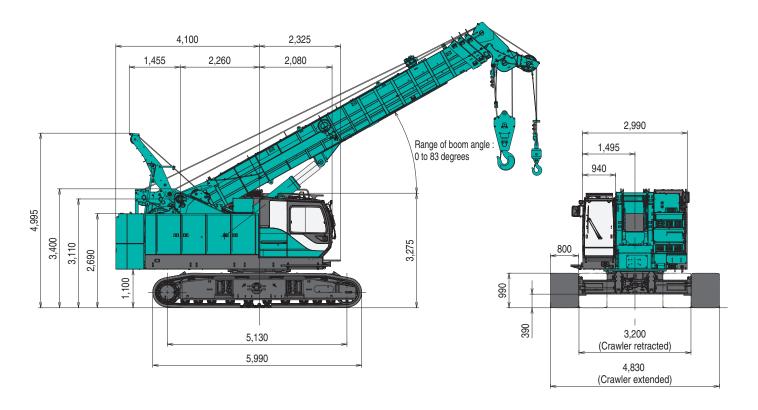
Units are SI units. $\{\ \}$ indicates conventional units.

Line speeds in table are for light loads. Line speed varies with load.

- *1 Third winch is optional.
- *2 Max. line pull is not based on wire rope strength.
- $^{\rm *3}$ Base machine with hook, without counterweight
- *4 With third winch and other optional parts / attachments

Counterweight Self-Removal Device Extended

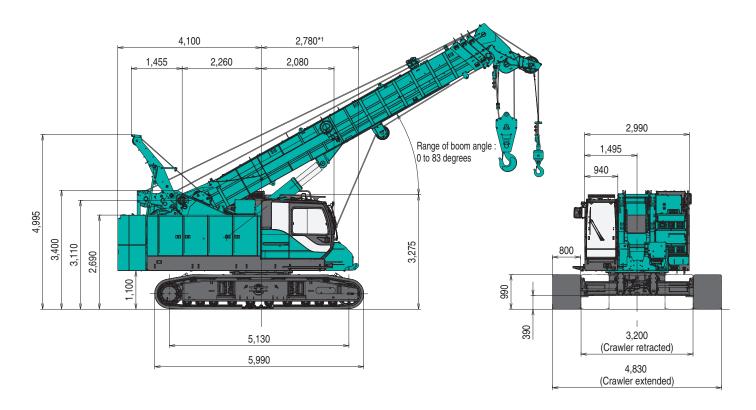
(Unit: mm)



With Third Drum (Option)

Counterweight Self-Removal Device Extended

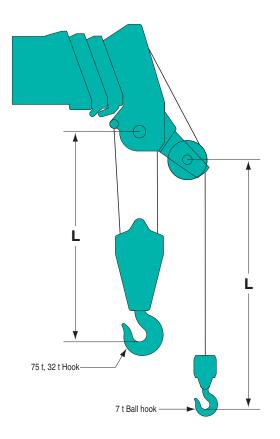
(Unit: mm)



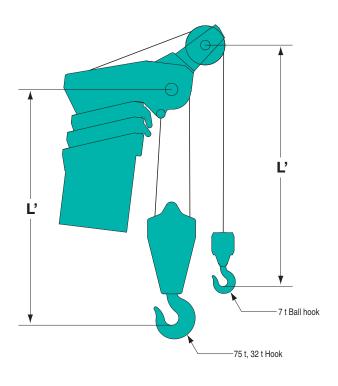
*1 Third winch without free fall

Limit of Hook Lifting

Boom Horizontal



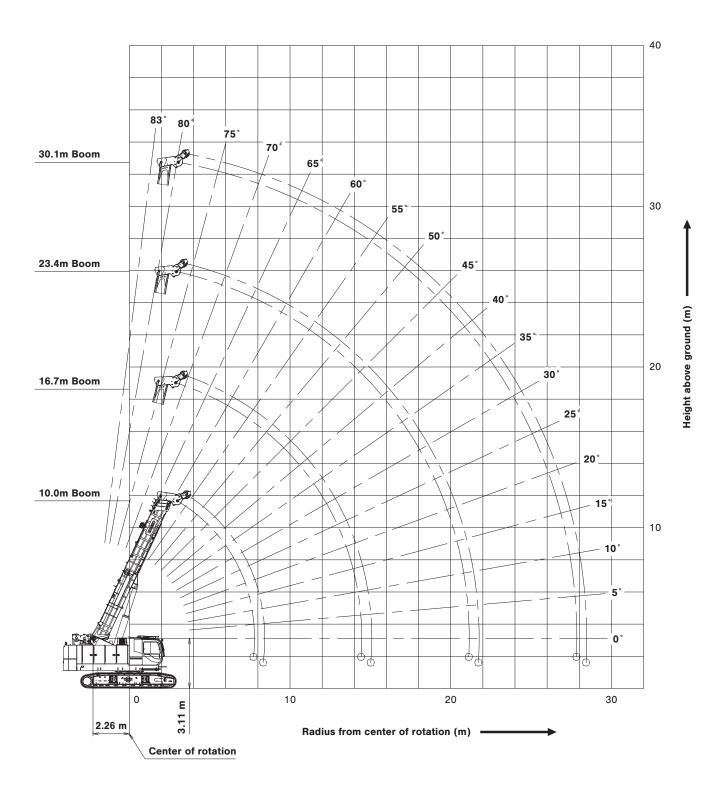
Boom at Maximum Angle



Auxiliary Sheave (Single Sheave)

Hook	L	Ľ
75 t	2,540 mm	2,845 mm
32 t	2,275 mm	2,580 mm
7 t Ball hook	2,955 mm	2,855 mm

WORKING RANGES



SUPPLEMENTAL DATA

1. Ratings according to EN13000.

The crane rated loads are including the weight of hooks and other lifting gears.

Values marked with _____ are decided according to strength of the machine.

Other values are decided according to stability of the machine.

Type of hook	75 t	32 t	7 t	7 t Lightweight type (option)
Weight	800 kg	500 kg	160 kg	60 kg

A CAUTION

When uses of the lightweight hook (option), it may not be lowered depending on the boom length, boom angle and/or the hook height.

In case of the hook is not lowered, add the suitable weights adjusted up to the weight of the ball hook.

- 2. Even when it is intended to lift a crane rated load, the operator shall be responsible for ensuring safety depending on the actual condition such as reducing of the load and reduction of a working speed, if applicable conditions such as the influence of wind, ground condition, working speed and others are likely to cause safety problems.
- A working radius shall mean a horizontal distance from the center line of center of rotation of the crane to the center of gravity of the load to be lifted.

The working radius is based on an actual value with the factor of defection of the boom taken into considerations.

Thus, be sure to conduct the crane work while referencing the working radius.

4. Be sure to keep the crawler frame extended up to the specified position during execution of the crane work.

- The rated capacity of the auxiliary sheave shall be equal to the rated capacity of the boom minus the weight of the hook used for the main lift, and shall be limited to 7,000 kg.
- 6. As to the crane rated loads of third drum (without free fall), the crane rated loads of the boom applies, but the limit shall be (a single part of line) 5,300 kg.
- When the boom length is in excess of the specified value, conduct the crane work under a rated crane load of the boom of the specified length or a boom of one stage above, whichever is smaller.
- Where no value is given in the columns of the crane rated loads chart, no execution of work is allowed.
 (If the boom should be inclined to an angle smaller than the minimum boom angle, be fully careful, since the basic machine may overturn with no load.)
- The minimum number of parts line of the main hook in the main winch lifting is decided within a range not to exceed the value of 7,000 kg per single wire rope.

The standard numbers of parts line by boom length are as shown below.

Boom length : m	10.0	16.7	23.4	30.1
Hook : t	75		32	
Number of parts line	11	6	5	4

10. The minimum number of part lines of the main hook in the third drum without free fall function winch lifting is decided within a range not to exceed the value of 5,300 kg per single wire rope. The standard numbers of parts line by boom length are as shown below.

Boom length : m	10.0	16.7	23.4	30.1
Hook : t	75		32	
Number of parts line	6	6	4	4

11. To prevent a load being lifted and carried from falling due to wrong operation or others, do not perform a free fall work in the crane work.

LIFTING CAPACITIES

	Crane Rated	Load Chart			weight: 17.2 t
Boom length Working (m) radius (m)	10.0	16.7	23.4	30.1	Boom length (m) Working radius (m)
3.0	75.0	36.0	29.0	18.5	3.0
3.5	60.0	36.0	29.0	18.5	3.5
3.7	56.0	36.0	29.0	18.5	3.7
4.0	51.0	36.0	29.0	18.5	4.0
4.5	47.0	36.0	29.0	18.5	4.5
5.0	43.2	35.0	29.0	18.5	5.0
5.5	38.8	33.0	29.0	18.5	5.5
6.0	35.2	30.7	29.0	18.5	6.0
6.5	31.8	29.8	26.1	18.5	6.5
7.0	29.0	27.2	23.2	18.5	7.0
7.5	26.4	25.1	21.6	18.5	7.5
8.0	7.7m/16.2	23.3	20.0	18.5	8.0
8.5		21.4	19.0	17.0	8.5
9.0		19.7	18.1	15.5	9.0
9.5		18.1	17.0	14.5	9.5
10.0		16.8	16.3	13.5	10.0
11.0		14.4	14.3	12.8	11.0
12.0		12.5	12.4	11.8	12.0
13.0		11.0	10.9	11.0	13.0
14.0		9.7	9.6	9.9	14.0
15.0		14.4m/9.3	8.5	9.0	15.0
16.0			7.6	8.2	16.0
17.0			6.8	7.4	17.0
18.0			6.2	6.7	18.0
19.0			5.6	6.1	19.0
20.0			5.0	5.5	20.0
21.0			4.5	5.1	21.0
22.0			21.1m/4.5	4.6	22.0
23.0				4.2	23.0
24.0				3.9	24.0
25.0				3.5	25.0
26.0				3.1	26.0
27.0				2.8	27.0
28.0				27.8m/2.7	28.0
Max. boom angle	65°	76°	80°	82°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note: Ratings according to EN13000.

Ratings shown in _____ are determined by the strength of the boom or other structural components.

Lifting capacities may vary depending on hook used.

Please refer rated chart in operator's cabin.

	Crane Rated	Load Chart		Counterweight Special type be	
Boom length Working (m) radius (m)	10.0	16.7	23.4	30.1	Boom length (m) Working radius (m)
3.0	75.0	36.0	29.0	18.5	3.0
3.5	60.0	36.0	29.0	18.5	3.5
3.7	56.0	36.0	29.0	18.5	3.7
4.0	51.0	36.0	29.0	18.5	4.0
4.5	44.5	36.0	29.0	18.5	4.5
5.0	37.2	34.5	29.0	18.5	5.0
5.5	31.3	30.4	26.8	18.5	5.5
6.0	26.9	26.5	24.0	18.5	6.0
6.5	23.5	23.1	21.7	18.5	6.5
7.0	20.8	20.4	19.7	18.5	7.0
7.5	18.6	18.1	17.9	17.4	7.5
8.0	7.7m/16.2	16.3	16.1	16.1	8.0
8.5		14.8	14.5	14.9	8.5
9.0		13.4	13.2	13.8	9.0
9.5		12.3	12.0	12.7	9.5
10.0		11.2	11.0	11.7	10.0
11.0		9.6	9.3	10.0	11.0
12.0		8.2	8.0	8.6	12.0
13.0		7.1	6.9	7.5	13.0
14.0		6.2	6.0	6.6	14.0
15.0		14.4m/5.8	5.2	5.8	15.0
16.0			4.6	5.1	16.0
17.0			4.0	4.5	17.0
18.0			3.5	4.0	18.0
19.0			3.0	3.6	19.0
20.0			2.6	3.2	20.0
21.0			2.2	2.8	21.0
22.0			21.1m/2.1	2.4	22.0
23.0				2.1	23.0
24.0				1.8	24.0
25.0				1.5	25.0
26.0				1.3	26.0
Max. boom angle	65°	76°	80°	82°	Max. boom angle
Min. boom angle	0°	0°	0°	0°	Min. boom angle

Note: Ratings according to EN13000.

Ratings shown in _____ are determined by the strength of the boom or other structural components.

Lifting capacities $\overline{\text{may vary}}$ depending on hook used.

Please refer rated chart in operator's cabin.

	Crane Rated Load Chart	Without Counterweig Special type boom	rated load
		(Unit:	metric tons)
Boom length Working (m) radius (m)	10.0	16.7	Boom length (m) Working radius (m)
3.0	30.0	20.0	3.0
3.5	30.0	20.0	3.5
3.7	30.0	20.0	3.7
4.0	30.0	20.0	4.0
4.5	30.0	20.0	4.5
5.0	24.5	20.0	5.0
5.5	20.5	20.0	5.5
6.0	17.5	17.1	6.0
6.5	15.1	14.8	6.5
7.0	13.3	12.9	7.0
7.5	11.8	11.4	7.5
8.0	7.7m/10.9	10.1	8.0
8.5		9.1	8.5
9.0		8.1	9.0
9.5		7.4	9.5
10.0		6.7	10.0
11.0		5.5	11.0
12.0		4.6	12.0
13.0		3.9	13.0
14.0		3.3	14.0
15.0		14.4m/3.0	15.0
Max. boom angle	65°	76°	Max. boom angle
Min. boom angle	0°	0°	Min. boom angle

Note: Ratings according to EN13000.

Ratings shown in _____ are determined by the strength of the boom or other structural components.

Lifting capacities may vary depending on hook used.

Please refer rated chart in operator's cabin.

LIFTING CAPACITIES

	Pick & Carry Rated Load Ch	art	Counterweight: 17.2 t
			(Unit: metric tons)
Boom length Working (m) radius (m)	10.0	16.7	Boom length (m) Working radius (m)
3.0	44.5	33.9	3.0
3.5	44.5	33.9	3.5
3.7	44.5	33.9	3.7
4.0	44.5	33.9	4.0
4.5	44.5	33.9	4.5
5.0	40.8	33.0	5.0
5.5	36.6	31.1	5.5
6.0	33.2	28.9	6.0
6.5	29.9	28.0	6.5
7.0	27.3	25.5	7.0
7.5	24.8	23.5	7.5
8.0	7.7m/15.0	21.8	8.0
8.5		20.0	8.5
9.0		18.4	9.0
9.5		16.9	9.5
10.0		15.6	10.0
11.0		13.3	11.0
12.0		11.5	12.0
13.0		10.1	13.0
14.0		8.8	14.0
15.0		14.4m/8.4	15.0
Max. boom angle	65°	76°	Max. boom angle
Min. boom angle	0°	0°	Min. boom angle

Note: Ratings according to EN13000.

Ratings shown in _____ are determined by the strength of the boom or other structural components.

Lifting capacities may vary depending on hook used.

Perform that the travel must be low speed (0.5 km/h [0.14 m/s]) or slower and perform the travel without cause to movement to the lifting load.

In the pick and carry operation, the travel speed is limited to 0.5 km/h (0.14 m/s) or less.

Please refer rated chart in operator's cabin.

	Pick & Carry Rated Load	Chart Counters	veight: 8.2 t (Option) ype boom rated load	
			(Unit: metric tons)	
Boom length (m) radius (m)	10.0	16.7	Boom length (m) Working radius (m)	
3.0	42.1	33.9	3.0	
3.5	42.1	33.9	3.5	
3.7	42.1	33.9	3.7	
4.0	42.1	33.9	4.0	
4.5	42.1	33.9	4.5	
5.0	35.1	32.9	5.0	
5.5	29.5	29.1	5.5	
6.0	25.3	24.9	6.0	
6.5	22.0	21.6	6.5	
7.0	19.4	19.0	7.0	
7.5	17.3	16.9	7.5	
8.0	7.7m/15.0	15.1	8.0	
8.5		13.7	8.5	
9.0		12.4	9.0	
9.5		11.3	9.5	
10.0		10.3	10.0	
11.0		8.7	11.0	
12.0		7.4	12.0	
13.0		6.3	13.0	
14.0		5.5	14.0	
15.0		14.4m/5.1	15.0	
Max. boom angle	65°	76°	Max. boom angle	
Min. boom angle	0°	0°	Min. boom angle	

Note: Ratings according to EN13000.

Ratings shown in _____ are determined by the strength of the boom or other structural components.

Lifting capacities may vary depending on hook used.

Perform that the travel must be low speed (0.5 km/h [0.14 m/s]) or slower and perform the travel without cause to movement to the lifting load.

In the pick and carry operation, the travel speed is limited to 0.5 km/h (0.14 m/s) or less.

Please refer rated chart in operator's cabin.

	Pick & Carry Rated Load Chart	Without Speci	Without Counterweight (Option) Special type boom rated load (Unit: metric tons)	
Boom length Working (m) radius (m)	10.0	16.7	Boom length (m) Working radius (m)	
3.0	28.2	18.7	3.0	
3.5	28.2	18.7	3.5	
3.7	28.2	18.7	3.7	
4.0	28.2	18.7	4.0	
4.5	28.2	18.7	4.5	
5.0	23.0	18.7	5.0	
5.5	19.1	18.7	5.5	
6.0	16.2	15.8	6.0	
6.5	14.0	13.7	6.5	
7.0	12.2	11.9	7.0	
7.5	10.8	10.4	7.5	
8.0	7.7m/9.9	9.2	8.0	
8.5		8.2	8.5	
9.0		7.3	9.0	
9.5		6.6	9.5	
10.0		5.9	10.0	
11.0		4.8	11.0	
12.0		4.0	12.0	
13.0		3.2	13.0	
14.0		2.7	14.0	

14.4m/2.4

76°

0°

Note: Ratings according to EN13000.

15.0

Max. boom angle Min. boom angle

Ratings shown in _____ are determined by the strength of the boom or other structural components.

65°

0°

Lifting capacities may vary depending on hook used.

Perform that the travel must be low speed (0.5 km/h [0.14 m/s]) or slower and perform the travel without cause to movement to the lifting load.

In the pick and carry operation, the travel speed is limited to 0.5 km/h (0.14 m/s) or less.

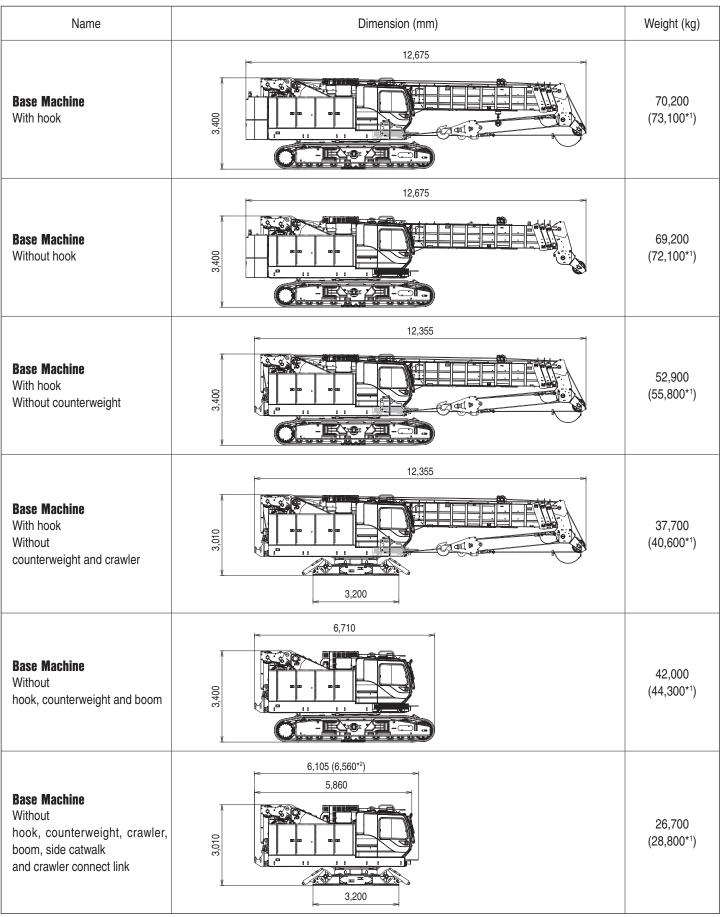
Please refer rated chart in operator's cabin.

15.0

Max. boom angle

Min. boom angle

TRANSPORTATION PLAN



^{*1} With third winch and other optional parts / attachments

^{*2} With third winch (without free fall)

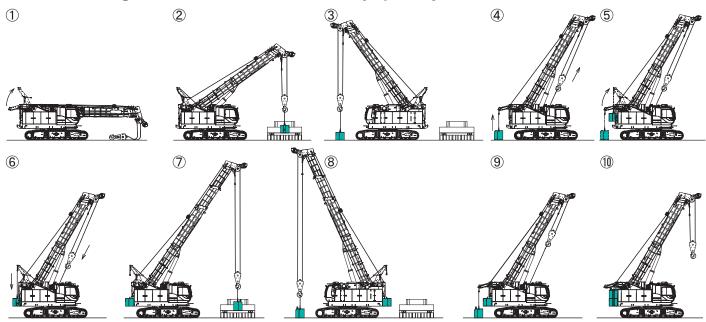
PARTS AND ATTACHMENTS

Name	Dimension (mm)	Weight (kg)
Crawler	5,990	7,500
Translifter (4 pieces)	1,695	345 / 1 piece
Counterweight (1) Without securing bolt	3,180	8,200
Counterweight (2) Without securing bolt Without storage bracket	3,180	9,000
Boom Assy	10,480	9,820
Auxiliary Sheave (Single Sheave)	540 650	105

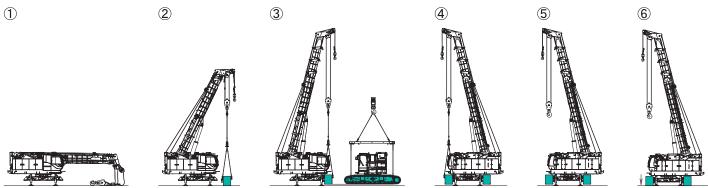
PARTS AND ATTACHMENTS

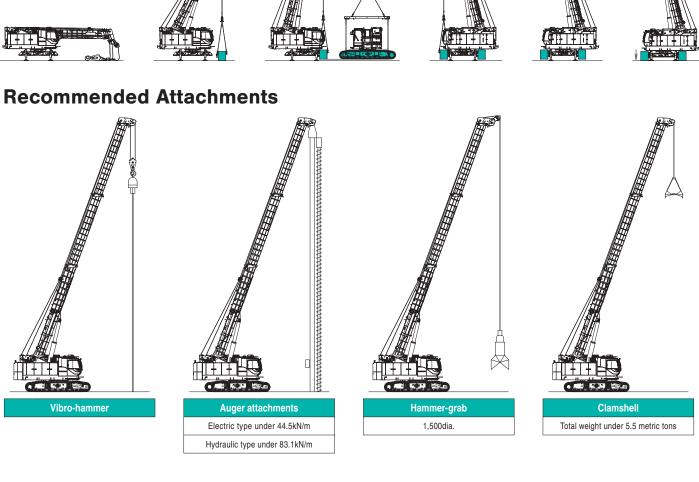
Name	Dimension (mm)	Weight (kg)
75 t Hook (Single Hook)	535 600	800
32 t Hook (Single Hook)	330 590	500
7 t Ball Hook	ф290 Ф290	160
75 t Hook (Double Hook) (Option)	535 600	800
7 t Light Weight Swivel Hook (Option)	Ф140 • •	60

Counterweight Self-Removal Device (Option)



Crawler Self-Removal Device







Note: This catalog may contain photographs of machines with specifications, attachments and optional equipment not certified for operation in your country. Please consult KOBELCO for those items you may require. Due to our policy of continual product improvements all designs and specifications are subject to change without advance notice.

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