HYDRAULIC CRAWLER CRANE

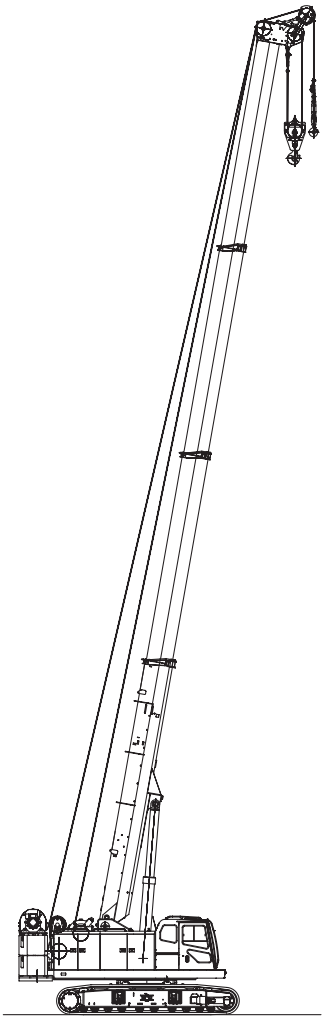
HSC CRANES

1812 Ⓑ 05H.EA319-1a

Variation of The Attachment

Line Speed *	Front / Rear Winch	m/min	105
	Third Winch		105
Boom Raising Speed*		sec/degree	52 / 0 to 78.0
Swing Speed		min^{-1} (rpm)	4.5
Travel Speed High / Low *		km/h	1.7 / 1.2
Gradeability		% (Degree)	30 (17)
Engine Model			ISUZU 6HK1 (Stage Ⅲ B, Int.Tier 4)
Engine Rated Output Power		kW/min^{-1} (ps/rpm)	210 / 1900 (285 / 1900)

Note : Speeds marked with "*" may vary depending on load applied.



Crane Specification
(Boom Longest Length)

Boom Length	m	10 to 30.1
Ground Contact Pressure	kPa (kgf/cm^2)	92.4 (0.94) (with 65 t hook)
Ground Contact Pressure (When Third Winch Attached)	kPa (kgf/cm^2)	93.4 (0.95)
Overall Operating Weight	t	70.9 (with 65 t hook)
Overall Operating Weight (When Third Winch Attached)	t	71.7

VARIATION

SPECIFICATIONS

TECHNICAL DATA

Specifications

Engine

Model	ISUZU 6HK1
Type	4-cycle, Water-cooled, Direct injection, Turbo-charged, Diesel engine
Displacement	7.79 liters
Rated Output	210 kW / 1,900 min^{-1} (285 ps / 1,900 rpm)
Fuel Tank Capacity	400 liters
Notes	Engine meets Stage Ⅲ B / Int. Tier 4 of engine exhaust gas emission regulations in USA, Europe, and Japan. Engine rated horsepower is based on international rating formula that includes engine alternator and without fan.

Control

Control System	Main actuators are actuated by main hydraulic system controlled with pilot hydraulic system. Safety devices are securely operated by combined various electronic control with hydraulic system. Working speed can be precisely controlled according to control lever stroke and control dials depending on work.
Control Levers	Designed and positioned based on ergonomics. Arm-chair lever type is standard.
Display Panel Design	8 inches size. Located to check work state easily without disturbing the view of the operator.

Hydraulic System

Hydraulic Oil Tank Capacity	800 liters		
Hydraulic Pump Capacity	Max.	31.4 MPa	
	P1	266 L / min	Front winch, Third winch, Auger, Boom telescoping and Travel
	P2	266 L / min	Rear winch, Auger, Boom hoist and Travel
	P3	152 L / min	Swing, Jack, Crawler sideframe extend-retract and External hydraulic power equipment B
	P4	38 L / min	Pilot control, External hydraulic power equipment A and others.
	P5	38 L / min	
	P6	38 L / min	
	P7	30 L / min	

Winch

Front and Rear Winch				
Winch		Front	Rear	
Rope Diameter		22.4mm	22.4mm	
Rope Winding Length	Standard	175 m	175 m (Optional : 76 m)	for Aux. sheave
	Max. (In non-work)	260 m	260 m	
Line Pull	Rated	69 kN	69 kN	
Standard Equipment		Free fall winch with brake controled by pedal operation.		

Third Winch		
Rope Diameter		22.4mm
Rope Winding Length	Standard	175 m
	Max. (In non-work)	260 m (With free fall) 280 m (Without free fall)
Line Pull	Rated	69 kN
Notes		Free fall winch with brake controled by pedal operation or winch without free fall (optional).

Swing System

	Consisted of hydraulic motor with reduction gear and multi-disc brakes and a swing bearing which has inner tooth.

Counter Weight

Counter Weight (Without self assembly unit)	Total Weight	14.0 ton
	3.0 ton Base Weight	1 piece
	2.7 ton Right Weight	2 pieces
	2.8 ton Left Weight	2 pieces
Counter Weight (With self assembly unit)	Total Weight	13.6 ton
	2.6 ton Base Weight	1 piece
	2.7 ton Right Weight	2 pieces
	2.8 ton Left Weight	2 pieces

Carbody

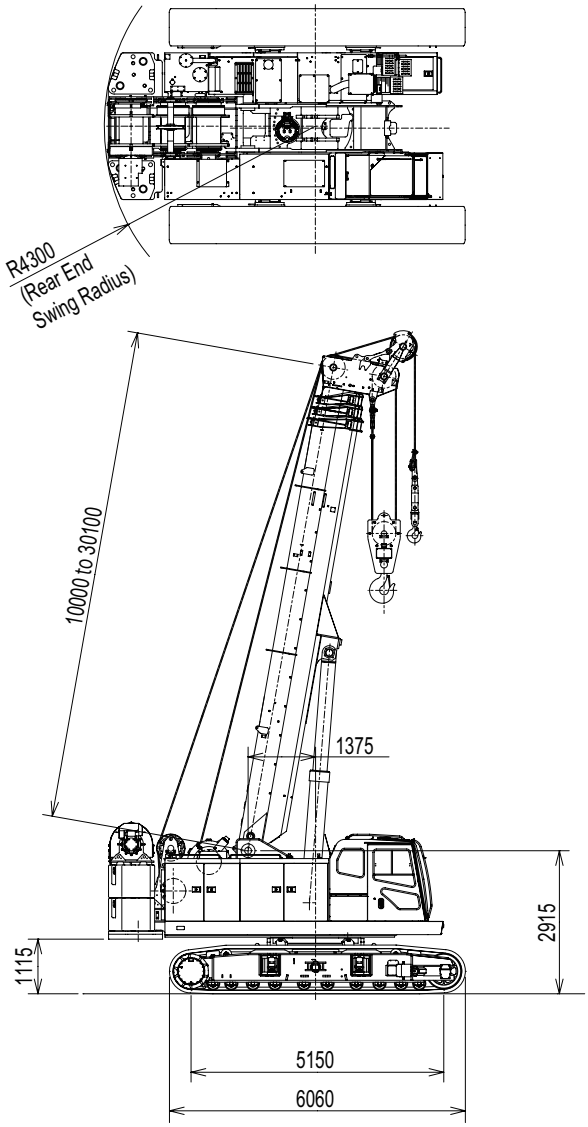
	Welded steel construction with crawler sideframe extend-retract cylinders.

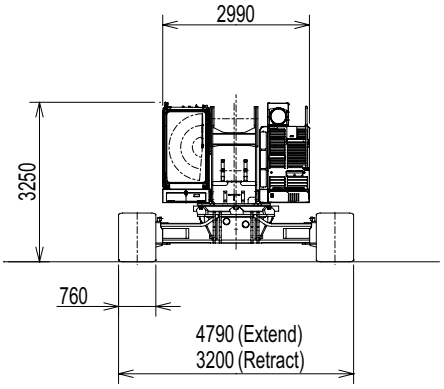
Crawler Sideframe

Frame	Welded steel box construction, and can be retracted.	
Shoe	Cast iron 760 mm width shoe each side.	
Upper Roller	2 pieces each side.	
Lower Roller	10 pieces each side.	
	Forging heat treated steel with double flange type. 2 plane bearing with floating seal for lifetime lubrication.	
Travel Device	1 piece each side.	
	Hydraulic travel device (Hydrayulic motor and reducer)	
	Travel speed (Gradability : 30%)	High : 1.7 km/h
		Low : 1.2 km/h

Crane Specifications

Dimensions and Specifications





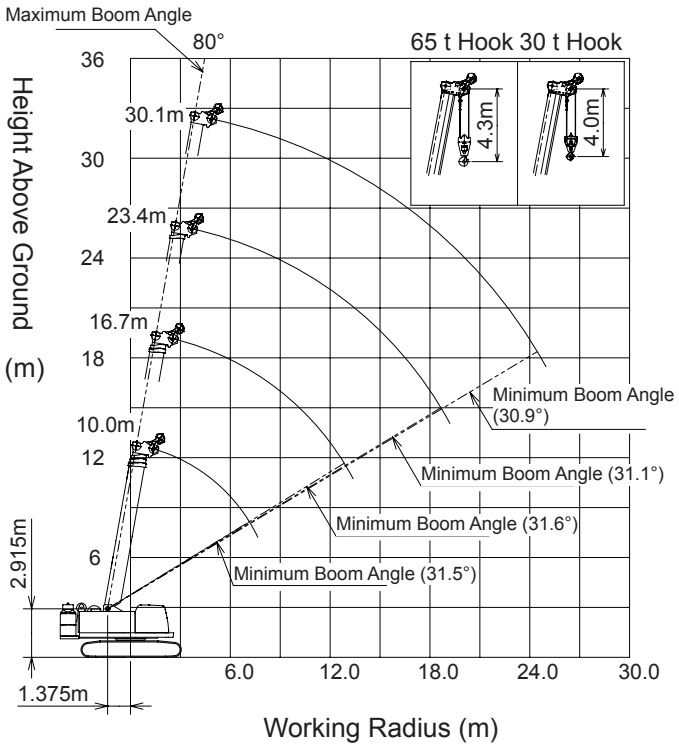
Crane Specifications		
Max. Lifting Load × Working Radius	t × m	65×3.0
Basic Boom Length	m	10.0
Max. Boom Length	m	30.1
Ground Contact Pressure	kPa (kgf/cm²)	92.4 (0.94) (w / 65 t Hook)
Ground Contact Pressure (When Third Winch Attached)	kPa (kgf/cm²)	93.4 (0.95)
Overall Operating Weight	t	70.9 (w / 65 t Hook)
Overall Operating Weight (When Third Winch Attached)	t	71.7

Hook Weight	
65 t	800 kg
30 t	520 kg
7 t	105 kg

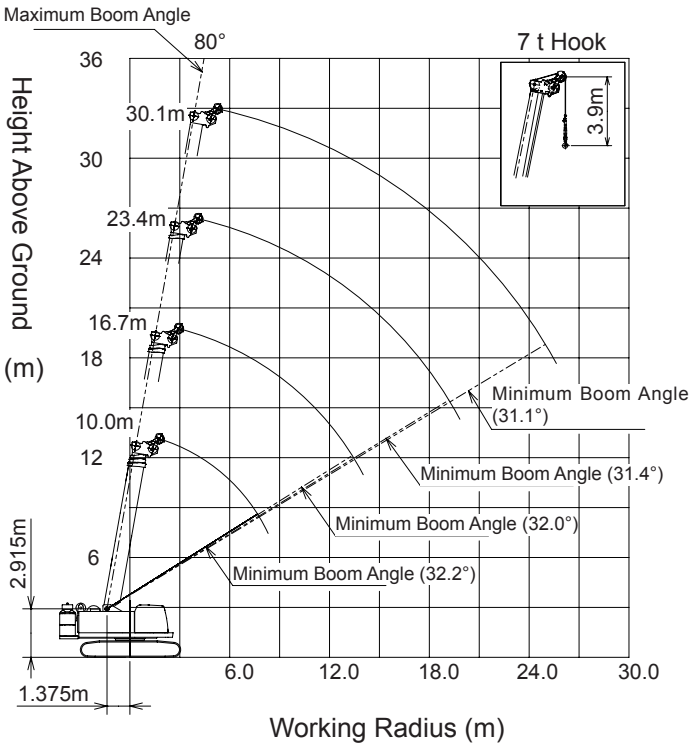
NOTE : Data is expressed in SI units followed by conventional units in ( ).

Working Ranges: Front Winch

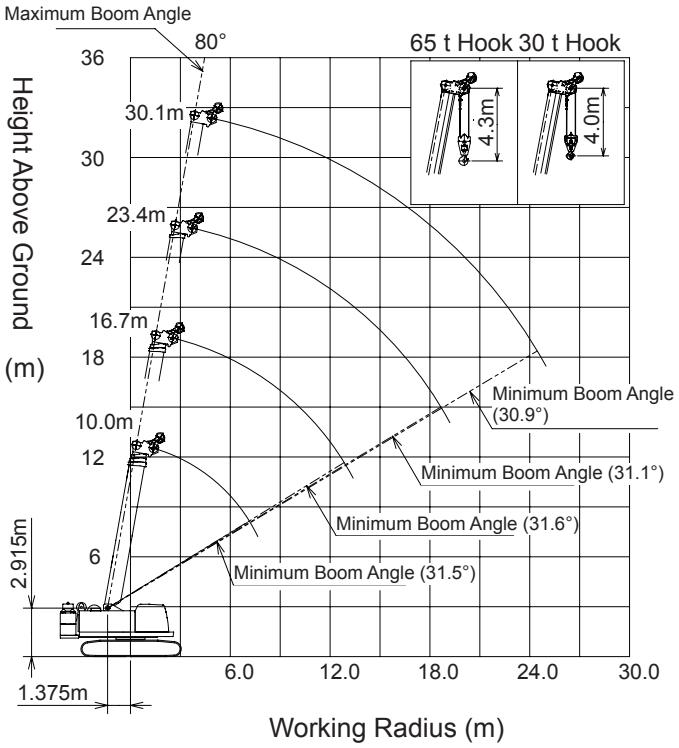
■ Main Boom with Aux. Sheave



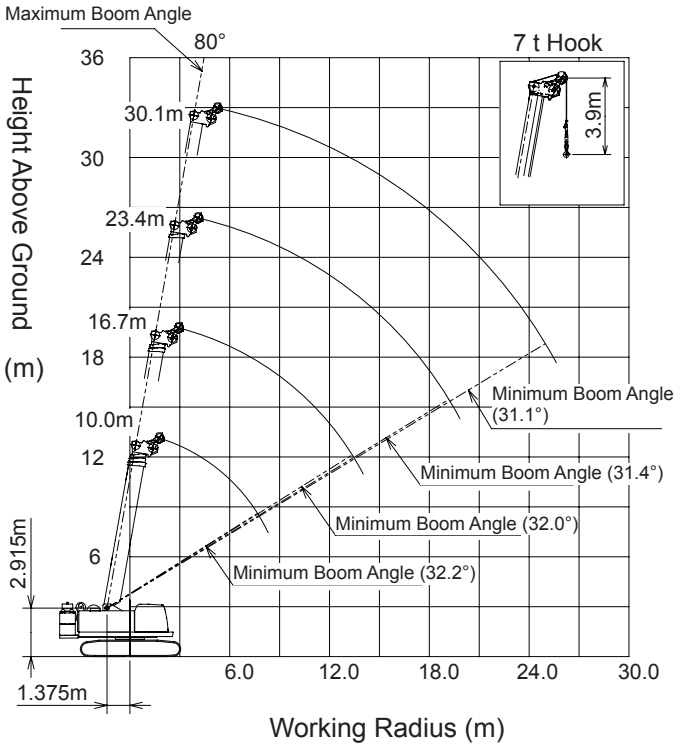
■ Aux. Sheave



■ Main Boom with Aux. Sheave (2 Sheaves)

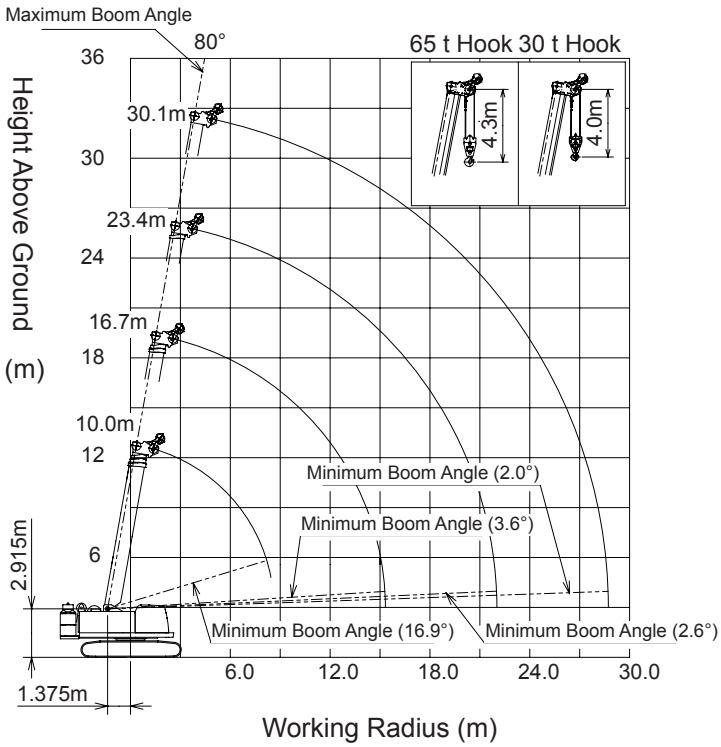


■ Aux.Sheave (2 Sheaves)

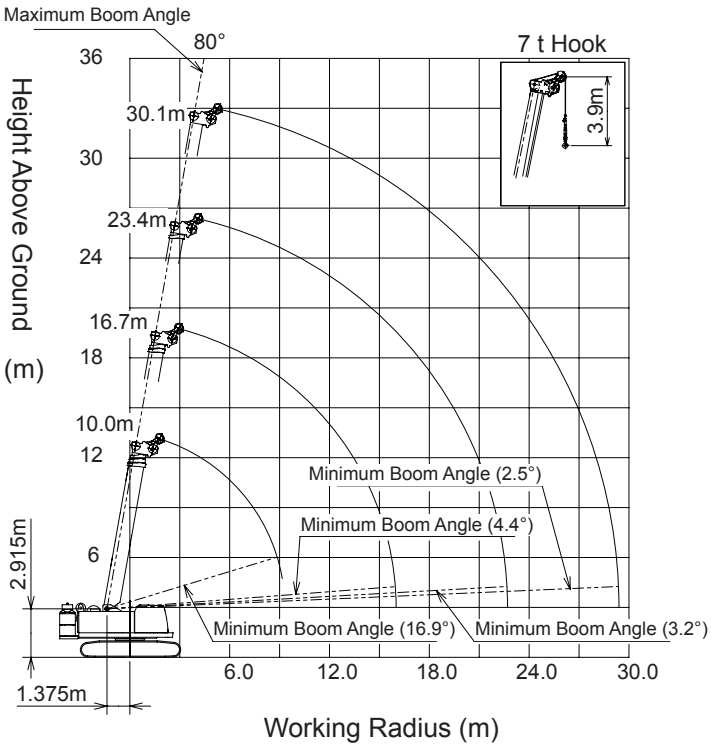


Working Ranges: Rear and Third Winch

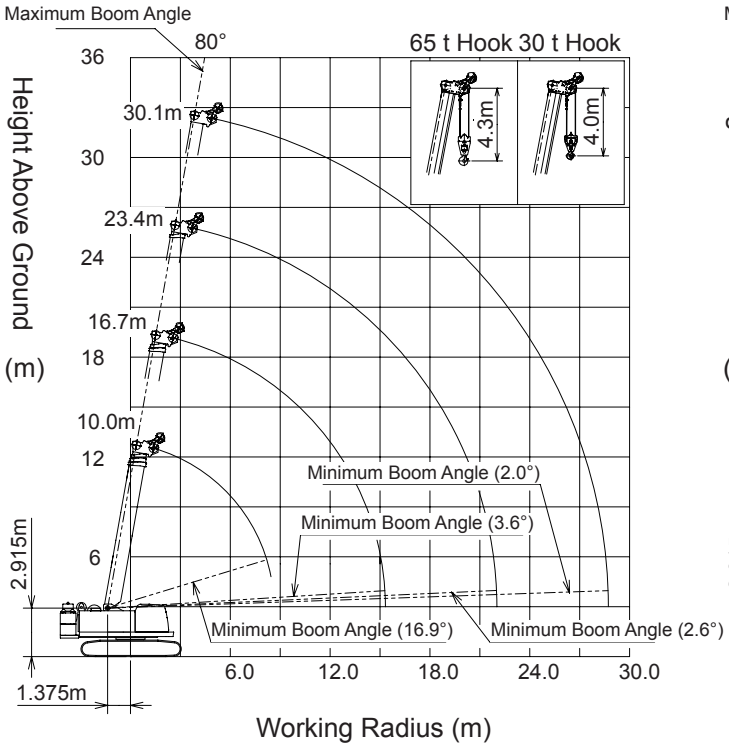
■ Main Boom with Aux. Sheave



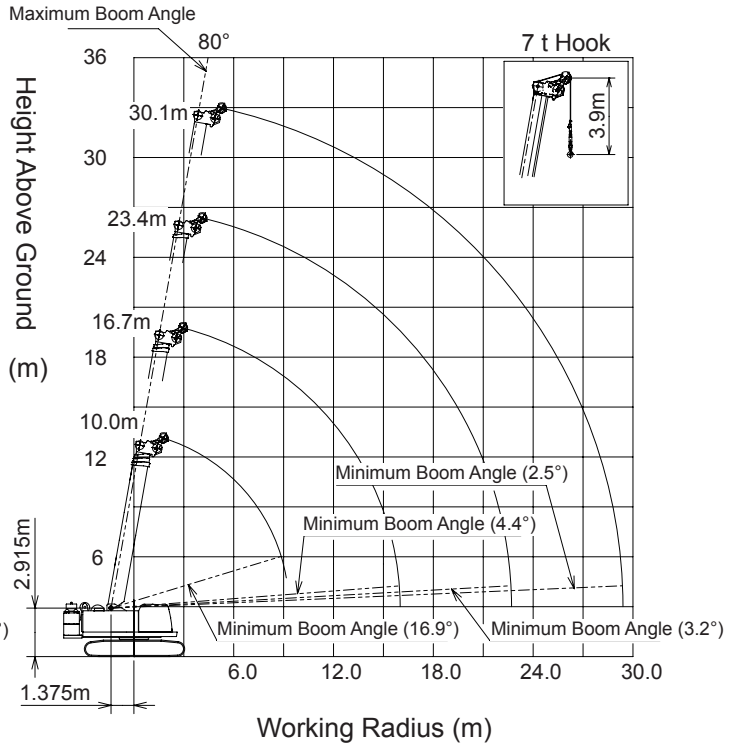
■ Aux. Sheave (Rear Winch Only)



■ Main Boom with Aux. Sheave (2 Sheaves)

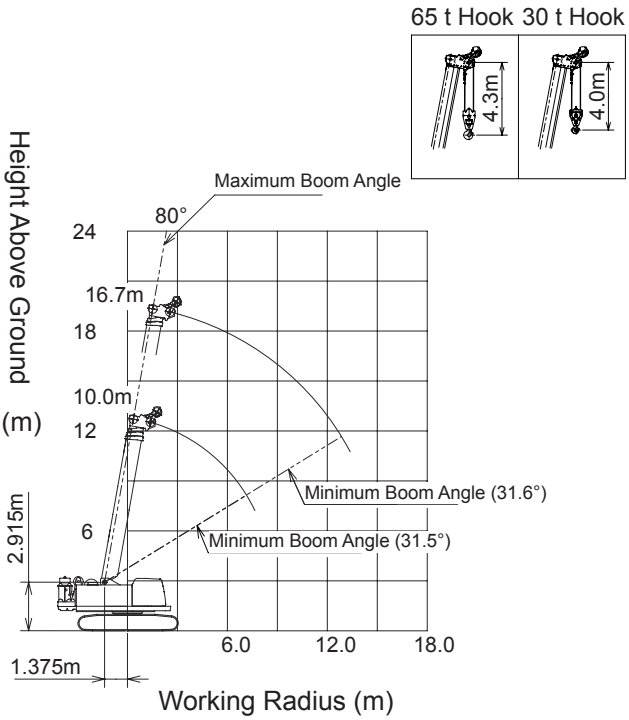


■ Aux.Sheave (2 Sheaves) (Rear Winch Only)

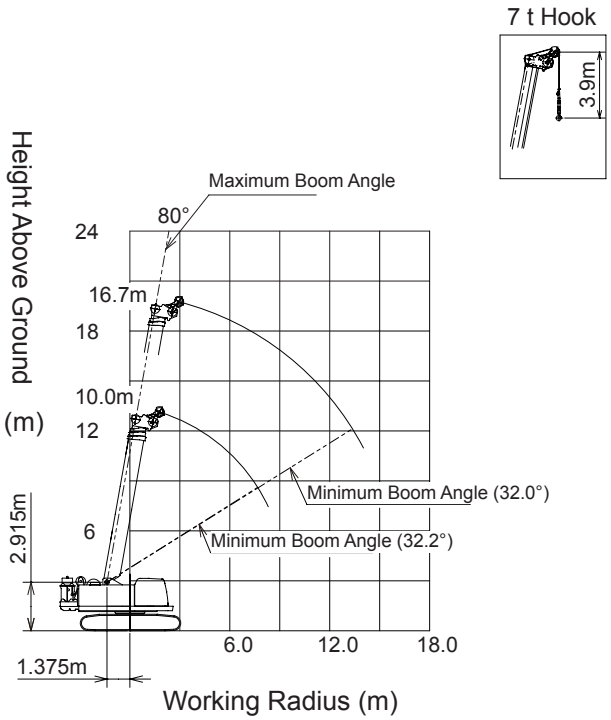


Working Ranges: Front Winch without Counter Weight

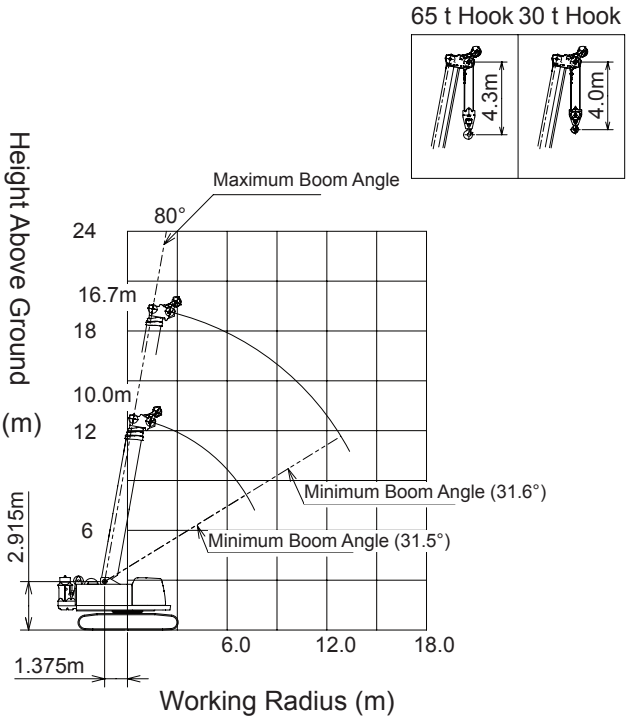
■ Main Boom with Aux. Sheave



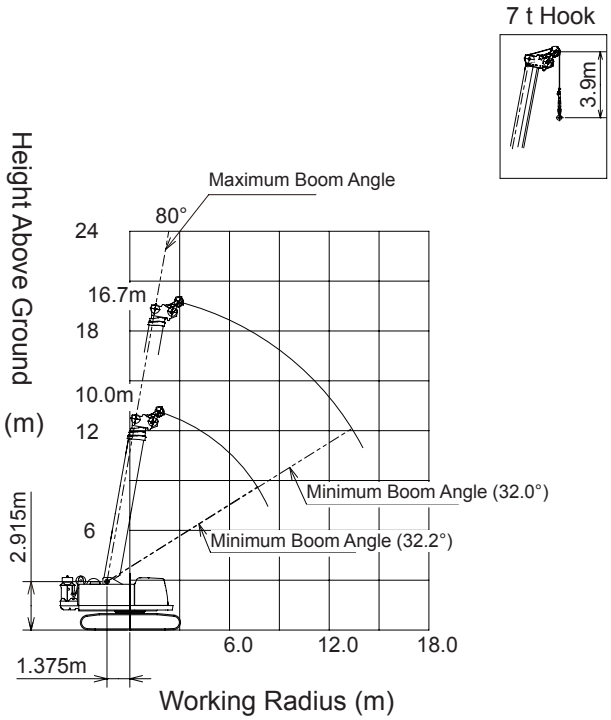
■ Aux. Sheave



■ Main Boom with Aux. Sheave (2 Sheaves)

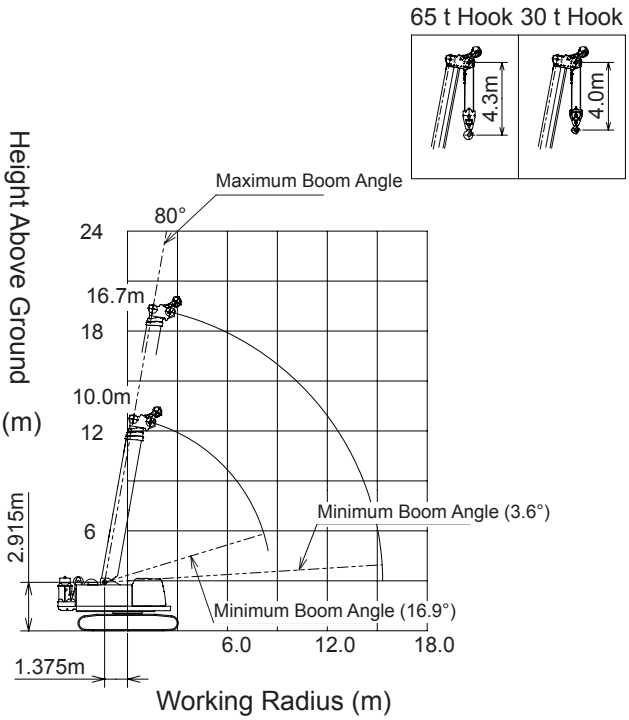


■ Aux.Sheave (2 Sheaves)

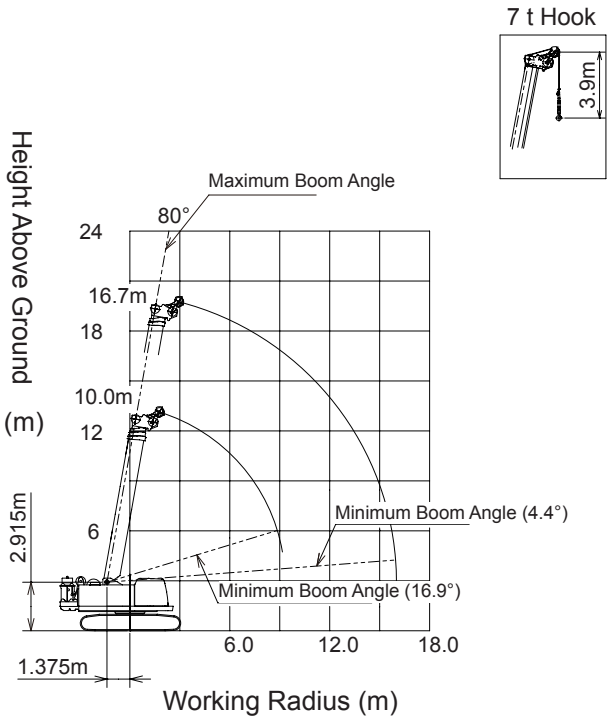


Working Ranges: Rear and Third Winch without Counter Weight

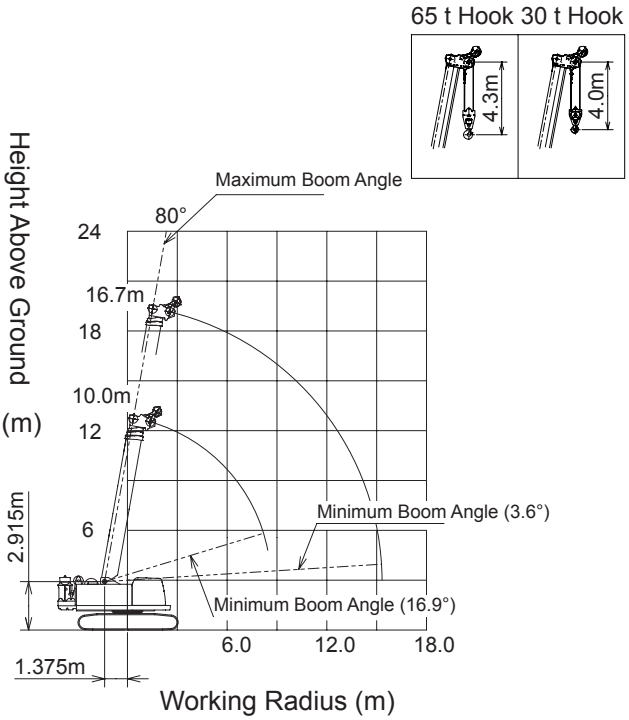
■ Main Boom with Aux. Sheave



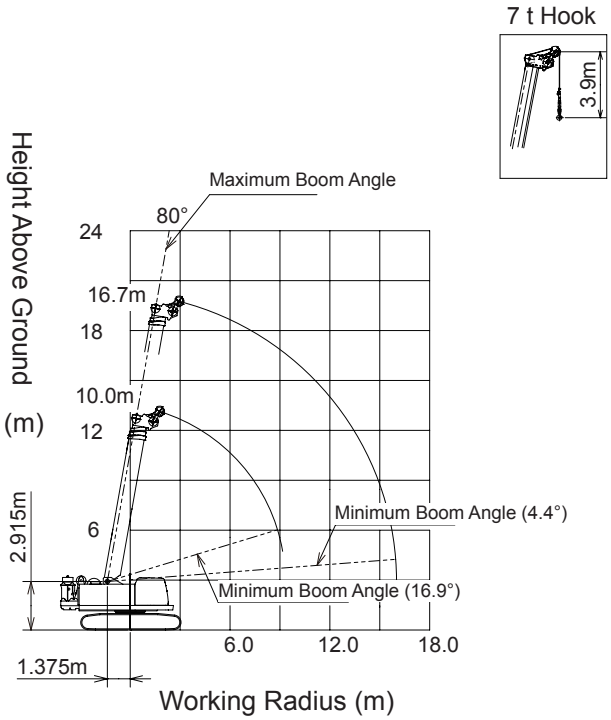
■ Aux. Sheave (Rear Winch Only)



■ Main Boom with Aux. Sheave (2 Sheaves)

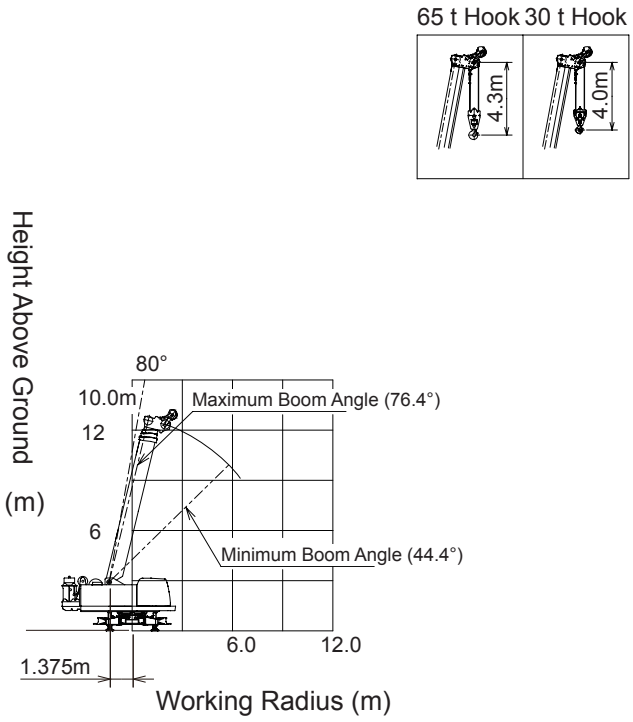


■ Aux.Sheave (2 Sheaves) (Rear Winch Only)

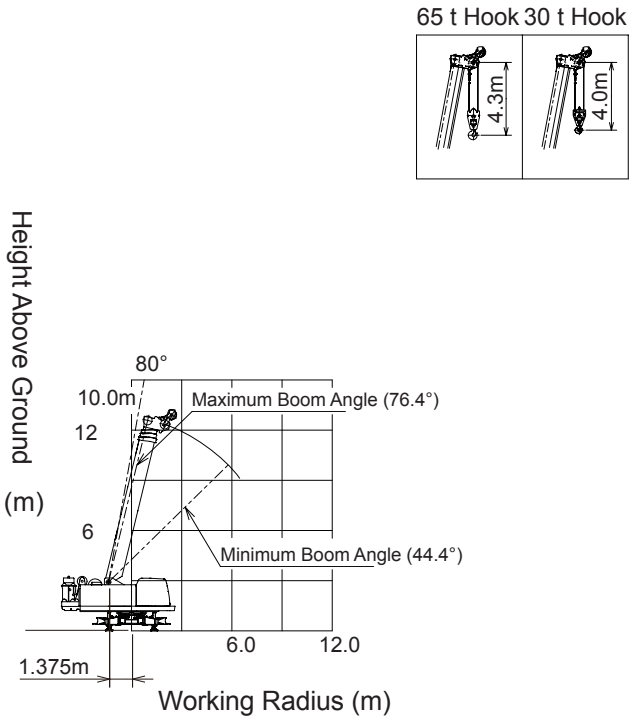


Working Ranges: When Jacking Up, Without Counter Weight

■ Main Boom with Aux. Sheave



■ Main Boom with Aux. Sheave (2 Sheaves)



Gross Rated Load Table

■ Main Boom with Aux. Sheave (Front Winch)

Unit: ton

Working Radius (m)	Boom Length (m)				Working Radius (m)
	10.0	16.7	23.4	30.1	
2	65.0				2
2.5	65.0				2.5
3	65.0	32.0			3
3.5	55.0	32.0			3.5
4	48.0	32.0	26.0		4
4.5	41.5	32.0	26.0		4.5
5	37.0	30.5	26.0	16.0	5
5.5	34.0	28.8	25.0	16.0	5.5
6	32.5	26.5	23.0	16.0	6
7	26.3	23.0	20.2	16.0	7
8	7.7m x 22.5t	19.7	17.8	15.0	8
9		16.7	15.5	13.4	9
10		14.3	13.5	12.0	10
12		10.5	10.3	9.9	12
14		13.4m x 8.6t	7.9	8.0	14
16			6.0	6.5	16
18			4.6	5.2	18
20			19.2m x 3.9t	4.1	20
22				3.1	22
24				2.3	24
26				25.0m x 2.0t	26

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. 14 ton counter weight is required for all capacities on this chart.
6. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)	Usable Boom Length (m)	Maximum Rated Loads (t)							
			10 falls	8 falls	6 falls	5 falls	4 falls	3 falls	2 falls	1 fall
65	0.80	10 to 16.7	65	56	42	-	28	-	14	-
30	0.52	10 to 30.1	-	-	-	30	28	21	14	-
7	0.11	10 to 30.1	-	-	-	-	-	-	-	7

■ Main Boom with Aux. Sheave (Rear/Third Winch)

Unit: ton

Working Radius (m)	Boom Length (m)				Working Radius (m)
	10.0	16.7	23.4	30.1	
2	65.0				2
2.5	65.0				2.5
3	65.0	32.0			3
3.5	55.0	32.0			3.5
4	48.0	32.0	26.0		4
4.5	41.5	32.0	26.0		4.5
5	37.0	30.5	26.0	16.0	5
5.5	34.0	28.8	25.0	16.0	5.5
6	32.5	26.5	23.0	16.0	6
7	26.3	23.0	20.2	16.0	7
8	21.0	19.7	17.8	15.0	8
9	8.5m x 18.9t	16.7	15.5	13.4	9
10	*8.7m x 7.0t	14.3	13.5	12.0	10
12		10.5	10.3	9.9	12
14		7.7	7.9	8.0	14
16		15.4m x 6.3t	6.0	6.5	16
18		*15.6m x 6.1t	4.6	5.2	18
20			3.4	4.1	20
22			2.3	3.1	22
24			22.1m x 2.3t	2.3	24
26			*22.3m x 2.2t	1.7	26
28				1.2	28
30				28.7m x 1.0t	30
				*29.0m x 0.9t	

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. 14 ton counter weight is required for all capacities on this chart.
6. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)	Usable Boom Length (m)	Maximum Rated Loads (t)							
			10 falls	8 falls	6 falls	5falls	4falls	3 falls	2 falls	1 fall
65	0.80	10 to 16.7	65	56	42	-	28	-	14	-
30	0.52	10 to 30.1	-	-	-	30	28	21	14	-
7	0.11	10 to 30.1	-	-	-	-	-	-	-	7

7. The weight when lifting with the third winch is the same as the gross rated load.
8. This table shows multiple fall values. However, the working radius marked with * shows a maximum working radius of 1 fall.

Aux. Sheave (Front Winch)

Unit: ton

Working Radius (m)	Boom Length (m)				Working Radius (m)
	10.0	16.7	23.4	30.1	
2.5	7.0				2.5
3	7.0				3
3.5	7.0	7.0			3.5
4	7.0	7.0			4
4.5	7.0	7.0	7.0		4.5
5	7.0	7.0	7.0		5
5.5	7.0	7.0	7.0	7.0	5.5
6	7.0	7.0	7.0	7.0	6
7	7.0	7.0	7.0	7.0	7
8	7.0	7.0	7.0	7.0	8
9	8.6m x 7.0t	7.0	7.0	7.0	9
10		7.0	7.0	7.0	10
12		7.0	7.0	7.0	12
14		7.0	7.0	7.0	14
16		14.3m x 7.0t	6.0	6.5	16
18			4.6	5.2	18
20			3.4	4.1	20
22			20.1m x 3.3t	3.1	22
24				2.3	24
26				25.9m x 1.7t	26

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. 14 ton counter weight is required for all capacities on this chart.
6. Hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)
7	0.11

■ Aux. Sheave (Rear Winch)

Unit: ton

Working Radius (m)	Boom Length (m)				Working Radius (m)
	10.0	16.7	23.4	30.1	
2.5	7.0				2.5
3	7.0				3
3.5	7.0	7.0			3.5
4	7.0	7.0			4
4.5	7.0	7.0	7.0		4.5
5	7.0	7.0	7.0		5
5.5	7.0	7.0	7.0	7.0	5.5
6	7.0	7.0	7.0	7.0	6
7	7.0	7.0	7.0	7.0	7
8	7.0	7.0	7.0	7.0	8
9	7.0	7.0	7.0	7.0	9
10	9.5m x 7.0t	7.0	7.0	7.0	10
12		7.0	7.0	7.0	12
14		7.0	7.0	7.0	14
16		5.6	6.0	6.5	16
18		16.3m x 5.5t	4.6	5.2	18
20			3.4	4.1	20
22			2.3	3.1	22
24			23.0m x 2.0t	2.3	24
26				1.7	26
28				1.2	28
30				29.7m x 0.8t	30

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. 14 ton counter weight is required for all capacities on this chart.
6. Hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)
7	0.11

Main Boom with Aux. Sheave (2 Sheaves) (Front Winch)

Unit: ton

Working Radius (m)	Boom Length (m)				Working Radius (m)
	10.0	16.7	23.4	30.1	
2	65.0				2
2.5	65.0				2.5
3	65.0	31.9			3
3.5	54.9	31.9			3.5
4	47.9	31.9	25.9		4
4.5	41.4	31.9	25.9		4.5
5	36.9	30.4	25.9	15.9	5
5.5	33.9	28.7	24.9	15.9	5.5
6	32.4	26.4	22.9	15.9	6
7	26.2	22.9	20.1	15.9	7
8	7.7m x 22.4t	19.6	17.7	14.9	8
9		16.6	15.4	13.3	9
10		14.2	13.4	11.9	10
12		10.4	10.2	9.8	12
14		13.4m x 8.5t	7.8	7.9	14
16			5.9	6.4	16
18			4.6	5.1	18
20			19.2m x 3.8t	4.0	20
22				3.0	22
24				2.2	24
26				25.0m x 1.9t	26

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. 14 ton counter weight is required for all capacities on this chart.
6. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)	Usable Boom Length (m)	Maximum Rated Loads (t)							
			10 falls	8 falls	6 falls	5 falls	4 falls	3 falls	2 falls	1 fall
65	0.80	10 to 16.7	65	56	42	-	28	-	14	-
30	0.52	10 to 30.1	-	-	-	30	28	21	14	-
7	0.11	10 to 30.1	-	-	-	-	-	-	-	7

■ Main Boom with Aux. Sheave (2 Sheaves) (Rear/Third Winch)

Unit: ton

Working Radius (m)	Boom Length (m)				Working Radius (m)
	10.0	16.7	23.4	30.1	
2	65.0				2
2.5	65.0				2.5
3	65.0	31.9			3
3.5	54.9	31.9			3.5
4	47.9	31.9	25.9		4
4.5	41.4	31.9	25.9		4.5
5	36.9	30.4	25.9	15.9	5
5.5	33.9	28.7	24.9	15.9	5.5
6	32.4	26.4	22.9	15.9	6
7	26.2	22.9	20.1	15.9	7
8	20.9	19.6	17.7	14.9	8
9	8.5m x 18.8t	16.6	15.4	13.3	9
10	*8.7m x 7.0t	14.2	13.4	11.9	10
12		10.4	10.2	9.8	12
14		7.6	7.8	7.9	14
16		15.4m x 6.2t	5.9	6.4	16
18		*15.6m x 6.0t	4.5	5.1	18
20			3.3	4.0	20
22			2.2	3.0	22
24			22.1m x 2.2t	2.2	24
26			*22.3m x 2.1t	1.6	26
28				1.1	28
30				28.7m x 0.9t	30
				*29.0m x 0.8t	

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. 14 ton counter weight is required for all capacities on this chart.
6. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)	Usable Boom Length (m)	Maximum Rated Loads (t)							
			10 falls	8 falls	6 falls	5 falls	4 falls	3 falls	2 falls	1 fall
65	0.80	10 to 16.7	65	56	42	-	28	-	14	-
30	0.52	10 to 30.1	-	-	-	30	28	21	14	-
7	0.11	10 to 30.1	-	-	-	-	-	-	-	7

7. The weight when lifting with the third winch is the same as the gross rated load.
8. This table shows multiple fall values. However, the working radius marked with * shows a maximum working radius of 1 fall.

Aux. Sheave (2 Sheaves) (Front Winch)

Unit: ton

Working Radius (m)	Boom Length (m)				Working Radius (m)
	10.0	16.7	23.4	30.1	
2.5	7.0				2.5
3	7.0				3
3.5	7.0	7.0			3.5
4	7.0	7.0			4
4.5	7.0	7.0	7.0		4.5
5	7.0	7.0	7.0		5
5.5	7.0	7.0	7.0	7.0	5.5
6	7.0	7.0	7.0	7.0	6
7	7.0	7.0	7.0	7.0	7
8	7.0	7.0	7.0	7.0	8
9	8.6m x 7.0t	7.0	7.0	7.0	9
10		7.0	7.0	7.0	10
12		7.0	7.0	7.0	12
14		7.0	7.0	7.0	14
16		14.3m x 7.0t	5.9	6.4	16
18			4.5	5.1	18
20			3.3	4.0	20
22			20.1m x 3.2t	3.0	22
24				2.2	24
26				25.9m x 1.6t	26

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. 14 ton counter weight is required for all capacities on this chart.
6. Hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)
7	0.11

■ Aux. Sheave (2 Sheaves) (Rear Winch)

Unit: ton

Working Radius (m)	Boom Length (m)				Working Radius (m)
	10.0	16.7	23.4	30.1	
2.5	7.0				2.5
3	7.0				3
3.5	7.0	7.0			3.5
4	7.0	7.0			4
4.5	7.0	7.0	7.0		4.5
5	7.0	7.0	7.0		5
5.5	7.0	7.0	7.0	7.0	5.5
6	7.0	7.0	7.0	7.0	6
7	7.0	7.0	7.0	7.0	7
8	7.0	7.0	7.0	7.0	8
9	7.0	7.0	7.0	7.0	9
10	9.5m x 7.0t	7.0	7.0	7.0	10
12		7.0	7.0	7.0	12
14		7.0	7.0	7.0	14
16		5.5	5.9	6.4	16
18		16.3m x 5.4t	4.5	5.1	18
20			3.3	4.0	20
22			2.2	3.0	22
24			23.0m x 1.9t	2.2	24
26				1.6	26
28				1.1	28
30				29.7m x 0.7t	30

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. 14 ton counter weight is required for all capacities on this chart.
6. Hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)
7	0.11

Main Boom with Aux. Sheave (Front Winch without Counter Weight)

Unit: ton

Working Radius (m)	Boom Length (m)		Working Radius (m)
	10.0	16.7	
2	26.0		2
2.5	26.0		2.5
3	26.0	19.0	3
3.5	26.0	19.0	3.5
4	26.0	19.0	4
4.5	26.0	19.0	4.5
5	21.8	19.0	5
5.5	18.0	16.5	5.5
6	15.3	14.0	6
7	11.4	10.5	7
8	7.7m x 9.5t	8.2	8
9		6.5	9
10		5.3	10
12		3.6	12
14		13.4m x 2.7t	14

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
4. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)	Usable Boom Length (m)	Maximum Rated Loads (t)			
			4 falls	3 falls	2 falls	1 fall
65	0.80	10 to 16.7	28	-	14	-
30	0.52	10 to 30.1	28	21	14	-
7	0.11	10 to 30.1	-	-	-	7

■ Main Boom with Aux. Sheave (Rear/Third Winch without Counter Weight)

Unit: ton

Working Radius (m)	Boom Length (m)		Working Radius (m)
	10.0	16.7	
2	26.0		2
2.5	26.0		2.5
3	26.0	19.0	3
3.5	26.0	19.0	3.5
4	26.0	19.0	4
4.5	26.0	19.0	4.5
5	21.8	19.0	5
5.5	18.0	16.5	5.5
6	15.3	14.0	6
7	11.4	10.5	7
8	8.7	8.2	8
9	8.5m x 7.5t	6.5	9
10	*8.7m x 6.9t	5.3	10
12		3.6	12
14		2.2	14
16		15.4m x 1.3t	16
		*15.6m x 1.1t	

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
4. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)	Usable Boom Length (m)	Maximum Rated Loads (t)			
			4 falls	3 falls	2 falls	1 fall
65	0.80	10 to 16.7	28	-	14	-
30	0.52	10 to 30.1	28	21	14	-
7	0.11	10 to 30.1	-	-	-	7

5. The weight when lifting with the third winch is the same as the gross rated load.
6. This table shows multiple fall values. However, the working radius marked with * shows a maximum working radius of 1 fall.

Aux. Sheave (Front Winch without Counter Weight)

Unit: ton

Working Radius (m)	Boom Length (m)		Working Radius (m)
	10.0	16.7	
2.5	7.0		2.5
3	7.0		3
3.5	7.0	7.0	3.5
4	7.0	7.0	4
4.5	7.0	7.0	4.5
5	7.0	7.0	5
5.5	7.0	7.0	5.5
6	7.0	7.0	6
7	7.0	7.0	7
8	7.0	7.0	8
9	8.6m x 6.9t	6.5	9
10		5.3	10
12		3.6	12
14		2.2	14
16		14.3m x 2.0t	16

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. Hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)
7	0.11

Aux. Sheave (Rear Winch without Counter Weight)

Unit: ton

Working Radius (m)	Boom Length (m)		Working Radius (m)
	10.0	16.7	
2.5	7.0		2.5
3	7.0		3
3.5	7.0	7.0	3.5
4	7.0	7.0	4
4.5	7.0	7.0	4.5
5	7.0	7.0	5
5.5	7.0	7.0	5.5
6	7.0	7.0	6
7	7.0	7.0	7
8	7.0	7.0	8
9	5.8	6.5	9
10	9.5m x 5.0t	5.3	10
12		3.6	12
14		2.2	14
16		1.0	16
18		16.3m x 0.8t	18

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. Hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)
7	0.11

Main Boom with Aux. Sheave (2 Sheaves) (Front Winch without Counter Weight)

Unit: ton

Working Radius (m)	Boom Length (m)		Working Radius (m)
	10.0	16.7	
2	26.0		2
2.5	26.0		2.5
3	26.0	18.9	3
3.5	26.0	18.9	3.5
4	26.0	18.9	4
4.5	26.0	18.9	4.5
5	21.7	18.9	5
5.5	17.9	16.4	5.5
6	15.2	13.9	6
7	11.3	10.4	7
8	7.7m x 9.4t	8.1	8
9		6.4	9
10		5.2	10
12		3.5	12
14		13.4m x 2.6t	14

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
4. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)	Usable Boom Length (m)	Maximum Rated Loads (t)			
			4 falls	3 falls	2 falls	1 fall
65	0.80	10 to 16.7	28	-	14	-
30	0.52	10 to 30.1	28	21	14	-
7	0.11	10 to 30.1	-	-	-	7

■ Main Boom with Aux. Sheave (2 Sheaves) (Rear/Third Winch without Counter Weight)

Unit: ton

Working Radius (m)	Boom Length (m)		Working Radius (m)
	10.0	16.7	
2	26.0		2
2.5	26.0		2.5
3	26.0	18.9	3
3.5	26.0	18.9	3.5
4	26.0	18.9	4
4.5	26.0	18.9	4.5
5	21.7	18.9	5
5.5	17.9	16.4	5.5
6	15.2	13.9	6
7	11.3	10.4	7
8	8.6	8.1	8
9	8.5m x 7.4t	6.4	9
10	*8.7m x 6.8t	5.2	10
12		3.5	12
14		2.1	14
16		15.4m x 1.2t	16
		*15.6m x 1.0t	

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
4. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)	Usable Boom Length (m)	Maximum Rated Loads (t)			
			4 falls	3 falls	2 falls	1 fall
65	0.80	10 to 16.7	28	-	14	-
30	0.52	10 to 30.1	28	21	14	-
7	0.11	10 to 30.1	-	-	-	7

5. The weight when lifting with the third winch is the same as the gross rated load.
6. This table shows multiple fall values. However, the working radius marked with * shows a maximum working radius of 1 fall.

Aux. Sheave (2 Sheaves) (Front Winch without Counter Weight)

Unit: ton

Working Radius (m)	Boom Length (m)		Working Radius (m)
	10.0	16.7	
2.5	7.0		2.5
3	7.0		3
3.5	7.0	7.0	3.5
4	7.0	7.0	4
4.5	7.0	7.0	4.5
5	7.0	7.0	5
5.5	7.0	7.0	5.5
6	7.0	7.0	6
7	7.0	7.0	7
8	7.0	7.0	8
9	8.6m x 6.8t	6.4	9
10		5.2	10
12		3.5	12
14		2.1	14
16		14.3m x 1.9t	16

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. Hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)
7	0.11

■ Aux. Sheave (2 Sheaves) (Rear Winch without Counter Weight)

Unit: ton

Working Radius (m)	Boom Length (m)		Working Radius (m)
	10.0	16.7	
2.5	7.0		2.5
3	7.0		3
3.5	7.0	7.0	3.5
4	7.0	7.0	4
4.5	7.0	7.0	4.5
5	7.0	7.0	5
5.5	7.0	7.0	5.5
6	7.0	7.0	6
7	7.0	7.0	7
8	7.0	7.0	8
9	5.7	6.4	9
10	9.5m x 4.9t	5.2	10
12		3.5	12
14		2.1	14
16		0.9	16
18		16.3m x 0.7t	18

1. The maximum rated loads as above are the value of the stationary loads on a firm and level surface, are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
2. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories, such as a hook, from figures shown above.
3. Capacities surrounded by bold lines are based on factors other than those which would cause a tipping condition.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. Hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)
7	0.11

■ Main Boom with Aux. Sheave (When Jacking Up, Without Counter Weight)

Unit: ton

Working Radius (m)	Boom Length (m)
	10.0
2	9.5
2.5	9.5
3	9.5
3.5	9.5
4	9.5
4.5	9.5
5	9.5
5.5	7.5
6	6.0
6.5	5.0

1. This gross rated load table is for the crawler side frame self removal/installation.
   Do not use this for other than self removal/installation.
2. The maximum rated loads as above are the value of the stationary loads on a firm and level surface,
   are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
3. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories,
   such as a hook, from figures shown above.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

Hook Capacity (t)	Hook Mass (t)	Maximum Rated Loads (t)	
		2 falls	1 fall
65	0.80	14	-
30	0.52	14	-
7	0.11	-	7

■ Main Boom with Aux. Sheave (2 Sheaves) (When Jacking Up, Without Counter Weight)

Unit: ton

Working Radius (m)	Boom Length (m)
	10.0
2	9.5
2.5	9.5
3	9.5
3.5	9.5
4	9.5
4.5	9.5
5	9.5
5.5	7.4
6	5.9
6.5	4.9

1. This gross rated load table is for the crawler side frame self removal/installation.
   Do not use this for other than self removal/installation.
2. The maximum rated loads as above are the value of the stationary loads on a firm and level surface,
   are not more than 78% of minimum tipping loads, and 1.15 or more as specified in mobile crane structure specifications.
3. To calculate the maximum load that can actually be lifted, deduct mass of all lifting accessories,
   such as a hook, from figures shown above.
4. Working radius is the horizontal distance from the slewing center to the center of gravity of a lifted load.
5. Correlation between the number of reeved lines, maximum rated loads, hook mass are shown in the table below.

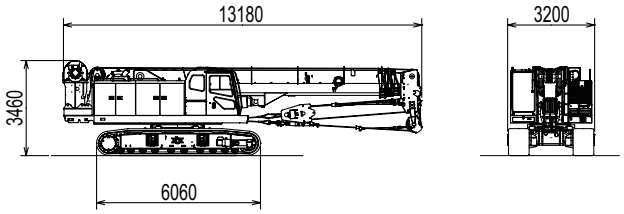
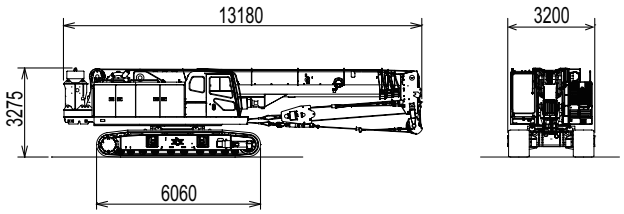
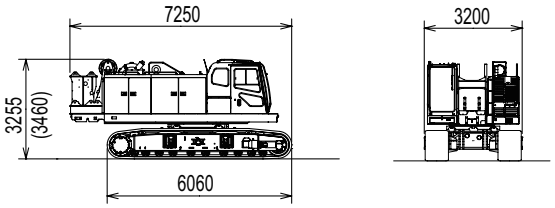
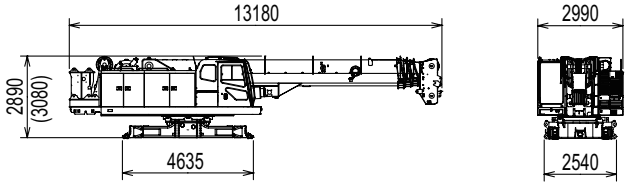
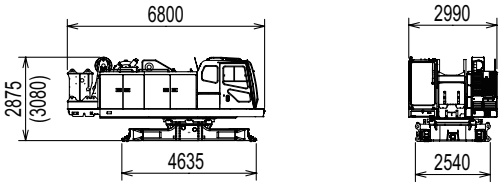
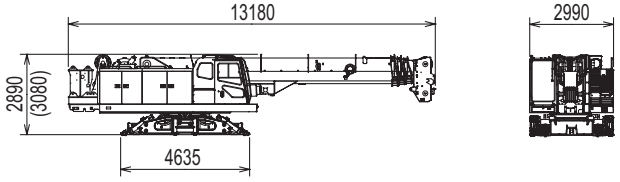
Hook Capacity (t)	Hook Mass (t)	Maximum Rated Loads (t)	
		2 falls	1 fall
65	0.80	14	-
30	0.52	14	-
7	0.11	-	7

Weights and Dimensions of Disassembled Units

Weights and Dimensions List

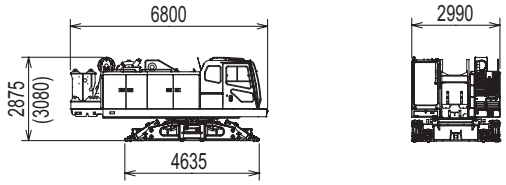
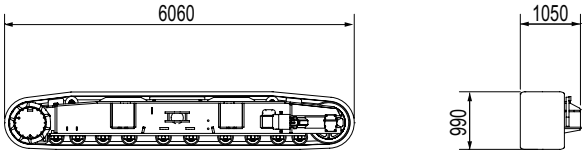
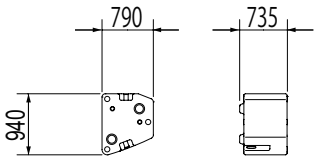
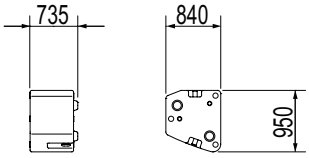
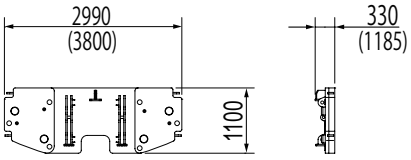
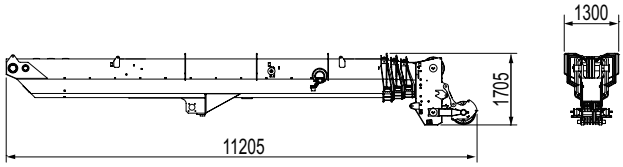
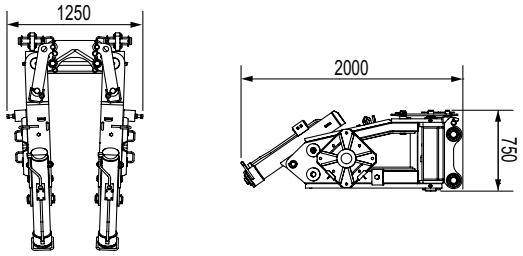
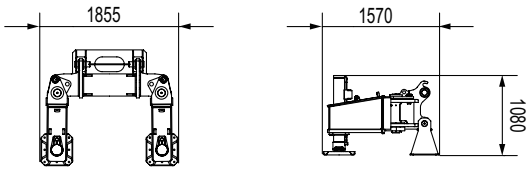
Comply with the regulations when transporting.
"Qty" indicates the number of the fully-equipped item and "Weight" indicates the mass of each unit.

Weights and Dimensions of Disassembled Units

Description	Qty	Dimensions (mm)	Weight (kg)
Base Crane with: Third Winch Aux. Sheave (2 Sheaves), Boom Front Wintch Wire Rope Rear Wintch Wire Rope Crawlers 65 t Hook, 7 t Hook	1		57600
Base Crane with: Aux. Sheave, Boom Front Wintch Wire Rope Rear Wintch Wire Rope Crawlers 65 t Hook, 7 t Hook Auxiliary Weight	1		56800
Base Crane with: Crawlers Boom Hoist Cylinder Without: Wire Rope Auxiliary Weight	1		42600 (44600)
Base Crane with: Boom Without: Aux. Sheave Wire Rope Hook Auxiliary Weight	1		38800 (40800)
Base Crane with: Boom Hoist Cylinder Without: Wire Rope Auxiliary Weight	1		27900 (29900)
Base Crane with: Boom Folding Type Jack Beam Without: Aux. Sheave Wire Rope Hook Auxiliary Weight	1		41600 (43600)

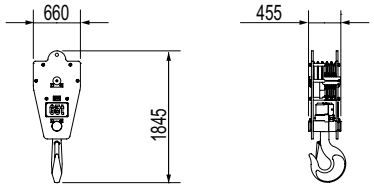
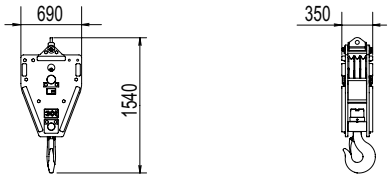
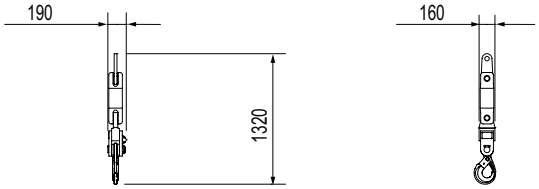
* The value within ( ) shows the case of the third winch attached. With the third winch, auxiliary weight is not attached.

Weights and Dimensions of Disassembled Units

Description	Qty	Dimensions (mm)	Weight (kg)
Base Crane with: Boom Hoist Cylinder Folding Type Jack Beam Without: Wire Rope Auxiliary Weight	1		30700 (32700)
Crawler	2		7390
Counter Weight (R)	2		2730
Counter Weight (L)	2		2780
Counter Weight (Base)	1	 * ( ) is attached the self assembly unit (OPT).	2960 (2570)
Boom (with Aux. Sheave)	1		11200
Folding Type Jack Beam	2		1400
Jack Beam	2		1410

* The value within ( ) shows the case of the third winch attached. With the third winch, auxiliary weight is not attached.

Weights and Dimensions of Disassembled Units

Description	Qty	Dimensions (mm)	Weight (kg)
65 t Hook	1		800
30 t Hook	1		520
7 t Hook	1		105

Equipment List

Standard and Optional Equipment

○ : Standard ● : Optional

Item		
Lower Structure	760 mm Crawler Shoe	○
	Crawler Extension/Retraction System	○
	Steps	○
	Folding Type Jack Beam*1	●
	Jack Beam*1	●
	Shoe Tension Unit (Hydraulic)	●
Upper Structure	Cab Up/Down Catwalk	○
	Upper House Handrails (For Catwalk)	○
	Under Cover (Bed Lower Surface)	○
	Working Light (× 2)	○
	Back Mirror (Left and Right)	○
	Drum Flange Cover	○
	Winch Rope Retainer (Front Winch)	●
	Winch Rope Retainer (Rear Winch)	○
	Winch Rope Retainer (Third Winch)	●
	Catwalk (Folding Type, Left and Right)	●
	Electric Fuel Pump	●
	Handrail (Folding Type)	●
	Front, Rear Winch (ϕ22.4mm with Free Fall, Brake Mode Select Switch)	○
	Third Winch (ϕ22.4mm with Free Fall, Guide Sheave, Winch Drum Lock, Rope, and Aux. Sheave (2 Sheaves))	○
	Third Winch (ϕ22.4mm without Free Fall, with Guide Sheave, Winch Drum Lock, Rope, and Aux. Sheave (2 Sheaves))	●
	Standard Counter Weight (2990mm Width)	○
	Counter Weight with Self Assembly Unit (Counter Weight 3800mm Width)	●
Cab	Air Conditioner	○
	Sunvisor	○
	Sunshade	○
	Wiper with Washer (Front Window, Cab Roof Window)	○
	Microphone & Loud-speaker	○
	AM / FM Radio (With Clock)	○
	Room Lamp	○
	Cup Holder	○
	24 V Power Socket (× 2)	○
	Floor Carpet	○
	Level Gauge (In Cab)	○
	Arm Chair Lever	○
	Accelerator Grip	○
	Accelerator Pedal (Right Side)	●
	Drum Rotation Sensor (Front/Rear)	○
	Speed Control Dial (Boom Hoist/Swing)	○
	Boom Hoist Operation Pedal	○
	Boom Hoist Operation Lever (Third Winch Lever is Replaced Forward)	●
	Fire Extinguisher (ABC No.4)	●
	Fan	●
	Life Hammer	○

*1 Jack beam and folding type jack beam cannot be attached at the same time.

○ : Standard ● : Optional

Item			
Attachment	4-Section Telescopic Boom (10 to 30.1m)		○
	Boom Transportation Mount		●
	Boom Assembly/Disassembly Transport Mount		●
	Boom Foot Pin Assembly/Disassembly Jig and Tool		●
	Tool Box for Boom Foot Pin Assembly/Disassembly Jig		●
	Aux. Sheave (1 Sheave) [Aux. Sheave and Anti-two Block]		●
	Aux. Sheave (2 Sheaves)		○
	65 t Hook (5 Sheaves)		○
	30 t Hook (3 Sheaves)		●
	7t Hook (Light Type with Lock (105kg)) * It may not fall by its own weight depends on the boom length.		○
Wire Rope	Front Winch (ϕ 22.4)	XP IWRC6 x WS (31)	○
		3 x F (40)	●
		P・S (19) + 39 x P・7	●
	Rear Winch (ϕ 22.4)	XP IWRC6 x WS (31)	○
		3 x F (40)	●
		P・S (19) + 39 x P・7	●
	Third Winch (ϕ 22.4)	XP IWRC6 x WS (31)	○
		3 x F (40)	●
		P・S (19) + 39 x P・7	●
Safety Device	Moment Limiter		○
	3 Color Percentage Indicator Light		○
	Mode Select Switch (Crane/Excavation)		○
	Gate Lock Lever		○
	Individual Operation Lever Lock (Front, Rear, Boom Hoist, Travel)		○
	Winch Drum Lock (Front and Rear)		○
	Swing Lock		○
	Swing Alarm		○
	Travel Alarm		○
	Auto Slowdown (Slow Stop)		○
	Warning Alarm		○
	Engine Start Interlock System		○
	Emergency Engine Stop Switch (In Cab)		○
	Lifting Height Indication Device		○
	Swing Neutral Free/Brake Selection Switch		○
	Anti-two Block		○
	Swing Restriction Unit		●
	Drum and Rear View Monitor System (× 3)		●
	Cab Roof Window Guard		●
Common Parts	Remote Sensing (Mobile Communication Terminal, Data Logging Device)		○
	Without Counter Weight (Reduced Counter Weight) Specification		○
	Hydraulic Power Outlet for Auger (Including the boom side piping, maximum pressure: 31.4MPa, maximum flow rate: 520L/min)		●
	External Hydraulic Power Outlet A (Maximum Pressure: 13.7MPa, Maximum Flow Rate: 38L/min)		●
	External Hydraulic Power Outlet B (Maximum Pressure: 27.4MPa, Maximum Flow Rate: 150L/min)		●
	Auger Speed Selecter Panel (On the Right Side of the Cab)		●
	Sling Ropes for Disassembly and Assembly (for Counter Weights, Crawlers, Boom)		●
	Boom Stanchion		●
	Reeving Winch Cum Hydraulic Tagline (6 x Fi (29) ϕ10mm x 55m)		● *2
	Tool Box (On the Front of the Right Bed)		○
	Additional Fuel Filter (Triple Filter)		●
	Additional Spare Parts (Hydraulic Oil Filter)		●
	Additional Tools (Large Hammer, Crowbar, Chisel)		●
Other	Standard Supplied Tools		○
	Special Tools (When Hydraulic Power Outlet for Auger is Attached)		●
	Standard Spare Parts		○

*2 Reeving Winch Cum Hydraulic Tagline
(Maxmum line pull: 1.4 kN (150 kgf) for hydraulic tagline / 2.9 kN (300 kgf) for reeving winch)

- We are constantly improving our products and therefore reserve the right to change designs and specifications without notice.
- Units in this specification are shown under International System of Units; the figures in parenthesis are under Gravitational System of Units as old one.

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