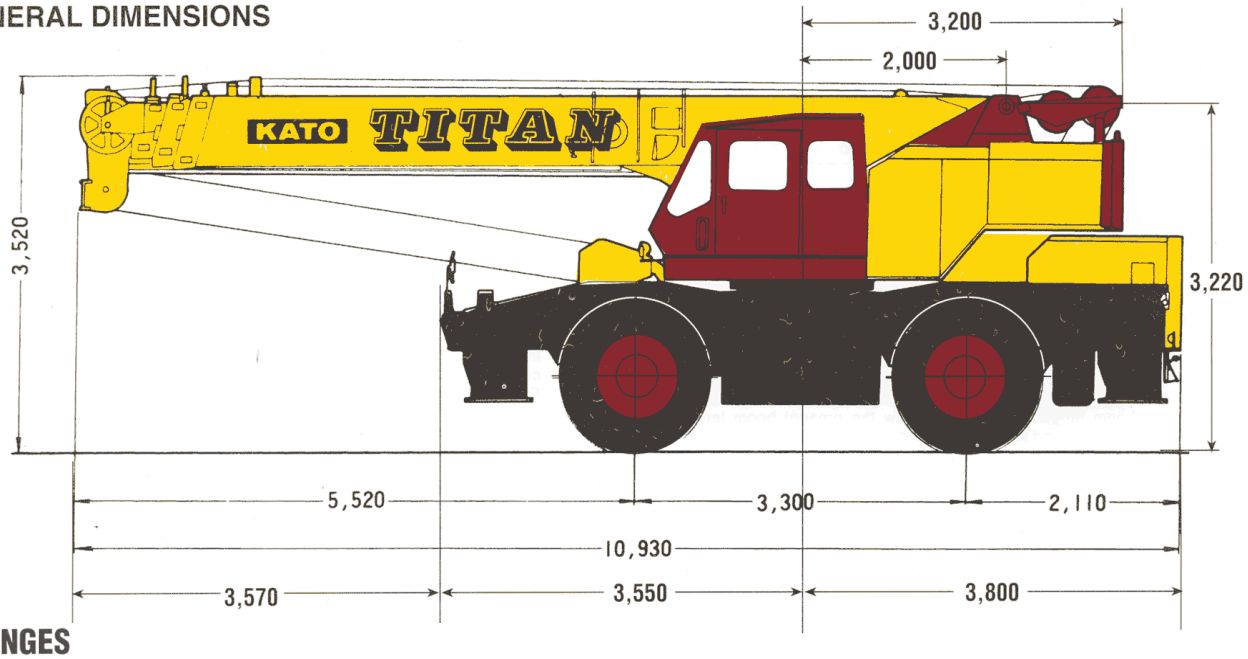
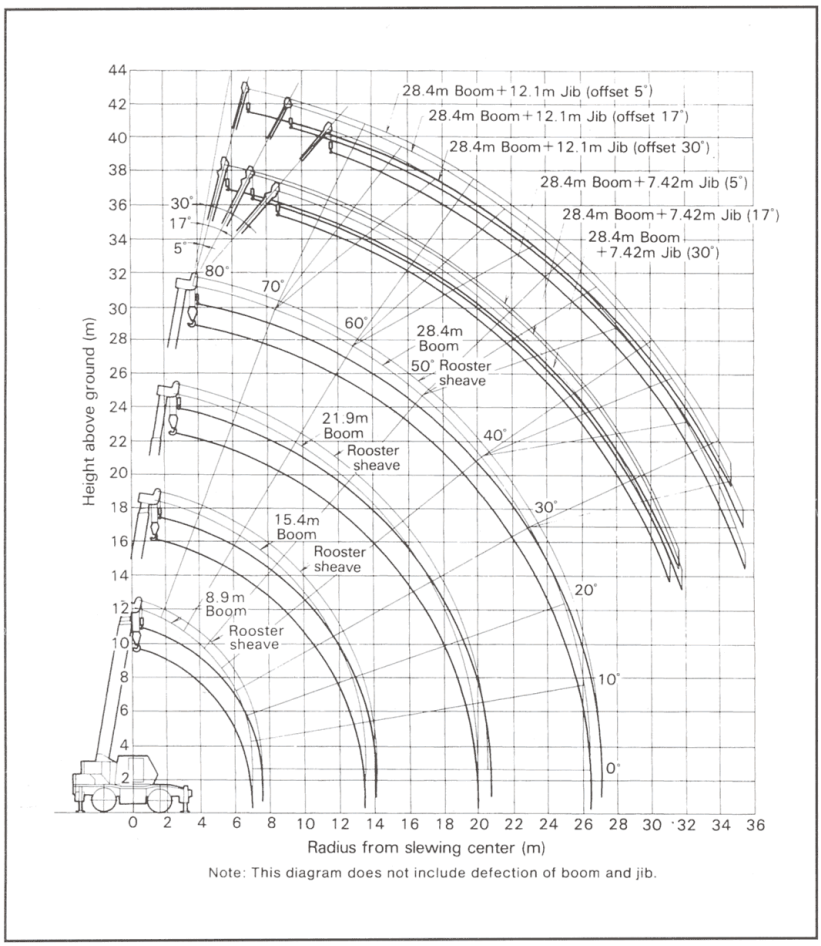
KATO KR-300

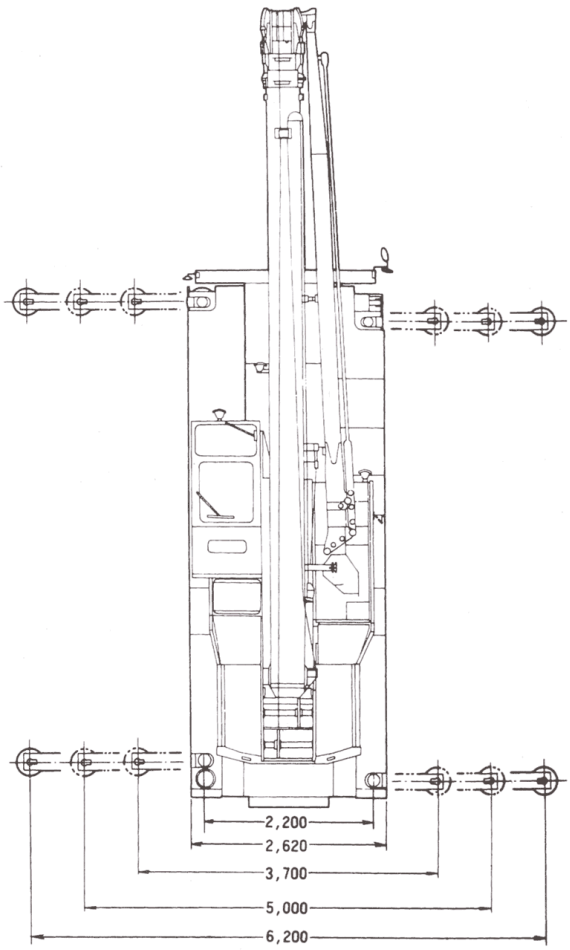
30 Tonne Rough Terrain Crane

GENERAL DIMENSIONS



WORK RANGES





Moving with the times, lifting quality customer service

KATO KR-300

30 Tonne Rough Terrain Crane

TELARC REGISTERED SUPPLIER

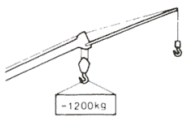
NOTE:

– WITH OUTRIGGERS –

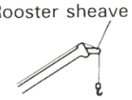
1. The rated lifting capacities are the maximum load guaranteed on a firm level ground and include the weight of hook block and other lifting equipment. The capacities enclosed with bold lines are based on the structural strength of machine and the others are based on the stability of machine.

Hook	for 30 ton	for 3 ton
Weight (kg)	300	60

2. The working radii as given in the table are the actual values including the deflection of the boom. Therefore, operate the machine based on the working radius. However, the working radii shown for jib operations are based on the values obtained when the boom is fully extended (28.4 m). Jib operations should be performed on the basis of boom angle only, regardless of boom length when the boom is not fully extended.
3. Critical boom angles for each boom length are shown on bottom-most line of lifting capacity table.
   If the boom angle is lowered to less than the critical boom angle, the machine will tip over without load. Therefore, never lower the boom below these angles.
4. If the boom length exceeds the specified value, the rated lifting capacities for the boom length above and below the present boom length should be referred to, and the crane should be operated within the smaller lifting capacity.
5. When using the main boom with the jib installed, 1200 kg plus the weight of hook block and other lifting equipment, etc., should be subtracted from the rated lifting capacities. When performing the above operation, do not use the rooster sheave.



Rooster sheave



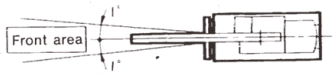
6. The standard number of parts of line is shown in the table below. When the standard number of parts of line is not used, the minimum number of parts of line is determined so that weight per part will not exceed 3000 kg.

Boom length	8.9 m	15.4 m	21.9 m ~ 28.4 m	Jib. rooster sheave
Parts of line	10	8	4	1

7. The rated lifting capacities for the rooster sheave are equivalent to the rated lifting capacities for the main boom to a maximum of 3000 kg. At all times the weight of all lifting equipment in use (including main hook block suspended from boom head) forms part of load and must be subtracted from the rated lifting capacity.
8. Outrigger extended width is 6.2 m at maximum stroke and 3.7 m and 5.0 m at intermittent stroke.
9. Lifting capacities over side vary with outriggers extended width. Operation must be carried out according to the lifting capacity table based on the corresponding outriggers width.
   Lifting capacities over front/rear are equal to those with outriggers fully extended.
10. Free fall is adopted in principle to lower the hook only. If it is necessary to lower a load by free fall, its weight should be less than 20 % of the rated lifting capacity and abrupt braking should not be allowed.
11. The machine will tip over or be damaged if operated with a load exceeding that specified in the rated lifting capacity table or not conforming to correct handling.

– ON RUBBER –

1. The rated lifting capacities are the load guaranteed when the ground surface is good, specified tire pressure is maintained and spring lock cylinders are fully retracted.
   Specified tire pressure: 7.75 kg/cm^2 (16.00 - 25 - 28 PR)
2. Rated lifting capacities in front area (2°arc) are different from those for full working area (360° arc).
   Great care should be taken when transferring from over front to over side since there is a danger of overloading.



3. For on rubber lifting, jib operation and free fall operation are not permitted.
4. Apply the parking brake while crane is operating stationary on rubber.
5. Push the Hi–Lo switch before pick & carry operation to insure low range speed.
6. In pick & carry operation, move less than 2 km/h and keep the lifting load colse to the ground.
   Especially avoid abrupt steering, accelerating and braking so as to swing the lifting load.
7. Do not operate crane functions while carrying the load.
8. Critical boom angles for each boom length are shown on bottom-most line of lifting capacity table.
   If the boom angle is lowered to less than the critical boom angle, the machine will tip over without load. Therefore, never lower the boom below these angles.
9. The rated lifting capacities for rooster sheave are equivalent to the rated lifting capacities for the main boom to a maximum of 3000 kg.
   At all times the weight of all lifting equipment in use (including main hook block suspended from boom head) forms part of load and must be subtracted from the rated lifting capacity.
10. Besides these cautions as shown above, conform to items 1, 2, 4 and 6 of cautions for "WITH OUTRIGGERS".

MAIN SPECIFICATIONS

Name	KATO 30 ton ROUGHTERR (ROUGH TERRAIN CRANE)
Type and model	KATO KR-300
● Performance	
Lifting capacity (360° arc. with outriggers)	30.0 tons× 3.0 m (8.5 m boom) 19.2 tons× 4.0 m (15.4 m boom) 12.35 tons× 5.0 m (21.9 m boom) 8.0 tons× 6.5 m (28.4 m boom) 3.0 tons×15.0 m (8.9 m boom, rooster, sheave) 3.0 tons×12.6 m (28.4 m boom + 7.42 m jib at 5° offset) 2.0 tons×11.7 m (28.4 m boom + 12.1 m jib at 5° offset)
Boom length	8.9 m ~ 28.4 m (4 sections)
Fly jib length	7.42 m ~ 12.1 m (2 sections)
Max. lifting height	28.9 m (28.4 m boom) 41.5 m (28.4 m boom + 12.1 m jib)
Main hoisting line speed	High 120 m/min. (at 4th layer) Low 60 m/min. (at 4th layer)
Auxiliary hoisting line speed	High 102 m/min. (at 2nd layer) Low 52 m/min. (at 2nd layer)
Main hook hoisting speed (8-parts of line)	High 12.0 m/min. (at 4th layer) Low 6.0 m/min. (at 4th layer)
Auxiliary hook hoisting speed (1-part of line)	High 102 m/min. (at 2nd layer) Low 52 m/min. (at 2nd layer)
Boom derricking angle	0° ~ 80°/50 sec.
Slewing speed	3.5 r.p.m
Traveling speed	57 km/h
Min. turning radius	5.3 m (4 wheel steer) 9.0 m (2 wheel steer)
Gradeability (tan θ)	60 % (computed @G.V.W. = 25660 kg)
● Dimensions	
Overall length	approx. 10,930 mm
Overall width	approx. 2,620 mm
Overall height	approx. 3,520 mm
Wheel base	3,300 mm
Front tread	2,140 mm
Rear tread	2,140 mm
Outrigger extended width	6,200 mm (Fully extended)
Gross vehicle weight Front Rear	approx. 25,660 kg approx. 12,850 kg approx. 12,810 kg
Operator's seat	1
● Engine	
Manufacturer	Mitsubishi
Name	6D16T (Turbo-charger)
Type	4 cycle, water cooled, diesel
Number of cylinder	6
Piston displacement	7,545 cc
Max. horsepower	215 PS/2800 r.p.m 158 kW/2800 r.p.m. (Based on JIS) 215 PS/2800 r.p.m 158 kW/2800 r.p.m. (Based on DIN) 221 HP/2800 r.p.m 165 kW/2800 r.p.m. (Based on SAE)
Max. torque	64 kg·m/1,600 r.p.m. 627 N·m/1600 r.p.m. (Based on JIS) 64 kg·m/1,600 r.p.m. 627 N·m/1600 r.p.m. (Based on DIN) 468 ft·lbf/1,600 r.p.m. 635 N·m/1600 r.p.m. (Based on SAE)
Fuel tank capacity	300 lit.

NOTE: The output is in accordance with JIS D1004, 1956. Rated power output guaranteed within 5% at standard ambient condition.

KATO KR-300

30 Tonne Rough Terrain Crane

TITAN CRANES LTD

TELARC REGISTERED SUPPLIER

BOOM RATED LIFTING CAPACITY (1)

(*BS 1757:1981 Based on *DIN 15019-2 *75% of tipping loads)

Working radius (m)	Outriggers fully extended (6.2 m) 360° full range				Outriggers intermittently extended (5.0m) Over side			
	8.9 m Boom	15.4 m Boom	21.9 m Boom	28.4 m Boom	8.9 m Boom	15.4 m Boom	21.9 m Boom	28.4 m Boom
2.5	30.00	19.20			30.00	19.20		
3.0	30.00	19.20			30.00	19.20		
3.5	25.00	19.20	12.35		25.00	19.20	12.35	
4.0	23.00	19.20	12.35		23.00	19.20	12.35	
4.5	21.20	17.70	12.35		21.20	17.70	12.35	
5.0	19.40	16.40	12.35	8.00	18.10	16.40	12.35	8.00
5.5	17.75	15.10	11.45	8.00	15.35	14.20	11.45	8.00
6.0	16.30	13.95	10.60	8.00	12.90	12.30	10.60	8.00
6.5	15.05	13.00	9.90	8.00	11.00	10.55	9.90	8.00
7.0		12.10	9.25	7.60		9.15	9.25	7.60
8.0		9.95	8.20	6.75		7.05	7.55	6.75
9.0		8.10	7.40	6.05		5.65	6.20	6.05
10.0		6.60	6.65	5.50		4.60	5.15	5.50
11.0		5.50	6.00	5.00		3.80	4.30	4.60
12.0		4.65	5.15	4.55		3.15	3.65	3.90
13.0		3.95	4.45	4.20		2.60	3.10	3.35
14.0			3.85	3.85			2.65	2.95
15.0			3.35	3.60			2.30	2.55
16.0			2.95	3.20			1.95	2.20
17.0			2.60	2.85			1.65	1.90
18.0			2.30	2.55			1.40	1.65
19.0			2.00	2.25			1.20	1.45
20.0				2.00				1.25
22.0				1.60				0.90
24.0				1.25				0.65
26.0				1.00				

(Unit: metric ton)

BOOM RATED LIFTING CAPACITY (2)

Working radius (m)	Outriggers intermittently extended (3.7 m) Over side				Outriggers retracted (blocked on vertical cyls.) Over side			
	8.9 m Boom	15.4 m Boom	21.9 m Boom	28.4 m Boom	8.9 m Boom	15.4 m Boom	21.9 m Boom	28.4 m Boom
2.5	30.00	19.20			12.20	12.00		
3.0	25.00	19.20			12.20	12.00		
3.5	19.60	19.20	12.35		9.50	9.25	10.00	
4.0	15.55	15.60	12.35		7.70	7.25	7.90	
4.5	12.65	12.60	12.35		6.30	5.90	6.50	
5.0	10.60	10.30	10.50	8.00	5.25	4.85	5.45	5.60
5.5	9.05	8.70	9.00	8.00	4.45	4.05	4.60	4.80
6.0	7.70	7.50	7.80	8.00	3.80	3.45	3.95	4.20
6.5	6.50	6.50	6.85	7.20	3.30	2.90	3.40	3.65
7.0		5.60	6.10	6.40		2.50	2.95	3.20
8.0		4.35	4.90	5.15		1.80	2.25	2.50
9.0		3.40	3.95	4.20		1.20	1.75	2.00
10.0		2.70	3.25	3.50		0.75	1.35	1.55
11.0		2.10	2.65	2.90			0.95	1.20
12.0		1.65	2.20	2.45				0.90
13.0		1.30	1.80	2.05				
14.0			1.45	1.70				
15.0			1.20	1.45				
16.0			0.95	1.20				
17.0			0.75	1.00				
18.0			0.55	0.80				
19.0				0.65				
20.0				0.50				
22.0								
24.0								
26.0								
Critical boom angle	–	–	–	35°	–	35°	52°	60°

(Unit: metric ton)

JIB RATED LIFTING CAPACITY (3)

28.4m Boom + 7.42m Jib

Boom angle (°)	Outriggers fully extended 360° full range offset 5°		offset 17°		offset 30°	
	Working radius (m)	Load	Working radius (m)	Load	Working radius (m)	Load
80.0	6.5	3.00	7.9	2.40	9.3	2.00
70.5	12.6	3.00	14.0	2.40	14.9	2.00
65.0	15.9	2.35	17.0	1.95	17.9	1.75
60.0	18.6	2.00	19.6	1.75	20.5	1.55
55.0	21.0	1.75	22.1	1.55	22.7	1.35
50.0	23.1	1.35	24.1	1.25	24.8	1.25
45.0	25.3	1.00	26.2	0.95	26.7	0.95
40.0	27.4	0.75	27.8	0.75	28.3	0.75
35.0	28.8	0.60	29.4	0.55	29.7	0.55
30.0	30.3	0.45	30.7	0.45	30.9	0.40

(Unit: metric ton)

JIB RATED LIFTING CAPACITY (4)

28.4m Boom + 7.42m Jib

Boom angle (°)	Outriggers intermittently extended (5.0 m) Over side offset 5°		offset 17°		offset 30°	
	Working radius (m)	Load	Working radius (m)	Load	Working radius (m)	Load
80.0	6.5	3.00	7.9	2.40	9.3	2.00
70.5	12.6	3.00	14.0	2.40	14.9	2.00
66.0	15.3	2.50	16.5	2.00	17.4	1.80
64.0	16.3	2.15	17.5	1.90	18.4	1.70
62.0	17.4	1.82	18.5	1.70	19.5	1.60
60.0	18.3	1.60	19.5	1.45	20.4	1.40
55.0	20.2	1.20	21.8	1.05	22.6	1.00
50.0	23.0	0.75	24.0	0.70	24.6	0.70
45.0	25.1	0.50	25.8	0.45	26.5	0.45
Critical boom angle	35°		35°		35°	

(Unit: metric ton)

JIB RATED LIFTING CAPACITY (5)

28.4m Boom + 7.42m Jib

Boom angle (°)	Outriggers intermittently extended (3.7 m) Over side offset 5°		offset 17°		offset 30°	
	Working radius (m)	Load	Working radius (m)	Load	Working radius (m)	Load
80.0	6.5	3.00	7.9	2.40	9.3	2.00
74.0	10.6	3.00	11.9	2.40	13.0	2.00
72.5	11.5	2.65	12.8	2.40	13.9	2.00
70.0	12.8	2.20	14.1	1.90	15.2	1.65
65.0	15.5	1.35	16.6	1.20	17.7	1.10
60.0	17.9	0.80	19.1	0.75	20.0	0.70
56.0	19.9	0.45	20.9	0.45	21.9	0.40
Critical boom angle	52°		52°		52°	

(Unit: metric ton)

KATO KR-300

30 Tonne Rough Terrain Crane

TITAN CRANES LTD

TELARC REGISTERED SUPPLIER

JIB RATED LIFTING CAPACITY (6)

28.4m Boom + 12.1m Jib						
Boom angle (°)	Outriggers fully extended (6.2 m)					
	360° full range					
	offset 5°		offset 17°		offset 30°	
	Working radius (m)	Load	Working radius (m)	Load	Working radius (m)	Load
80.0	7.9	2.00	10.2	1.40	12.7	1.10
75.0	11.7	2.00	13.8	1.40	15.7	1.10
70.0	15.1	1.65	17.1	1.15	19.0	0.95
65.0	18.3	1.30	20.2	0.95	22.0	0.85
60.0	21.3	1.10	23.1	0.85	24.6	0.80
55.0	24.1	1.00	25.7	0.80	27.1	0.75
50.0	26.7	0.90	28.4	0.75	29.4	0.70
45.0	29.3	0.80	30.3	0.70	31.3	0.65
40.0	31.3	0.60	32.2	0.55	33.0	0.55
35.0	33.1	0.45	33.9	0.45	34.4	0.45
Critical boom angle	25°		25°		25°	

(Unit: metric ton)

JIB RATED LIFTING CAPACITY (7)

28.4m Boom + 12.1m Jib						
Boom angle (°)	Outriggers intermittently extended (5.0 m)					
	Over side					
	offset 5°		offset 17°		offset 30°	
	Working radius (m)	Load	Working radius (m)	Load	Working radius (m)	Load
80.0	7.9	2.00	10.2	1.40	12.7	1.10
75.0	11.7	2.00	13.8	1.40	15.7	1.10
70.0	15.1	1.65	17.1	1.15	19.0	0.95
65.0	18.3	1.30	20.2	0.95	22.0	0.85
60.0	21.3	1.10	23.1	0.85	24.6	0.80
55.0	24.0	0.90	25.7	0.80	27.0	0.75
50.0	26.6	0.55	27.9	0.55	29.1	0.50
48.0	27.5	0.45	28.8	0.45	30.0	0.40
Critical boom angle	43°		43°		43°	

(Unit: metric ton)

JIB RATED LIFTING CAPACITY (8)

28.4m Boom + 12.1m Jib						
Boom angle (°)	Outriggers intermittently extended (3.7 m)					
	Over side					
	offset 5°		offset 17°		offset 30°	
	Working radius (m)	Load	Working radius (m)	Load	Working radius (m)	Load
80.0	7.9	2.00	10.2	1.40	12.7	1.10
75.0	11.7	2.00	13.8	1.40	15.7	1.10
70.0	15.1	1.65	17.1	1.15	19.0	0.95
65.0	18.1	1.05	20.0	0.95	21.9	0.80
60.0	20.9	0.60	22.7	0.50	24.3	0.45
Critical boom angle	55°		55°		55°	

(Unit: metric ton)

■STATIONARY ON RUBBER
BOOM RATED LIFTING CAPACITY (9)

Working radius (m)	8.9m Boom		15.4m Boom		21.9m Boom		28.4m Boom	
	Over front	360° full range	Over front	360° full range	Over front	360° full range	Over front	360° full range
3.0	14.00	9.00	9.00	7.30				
3.5	14.00	7.60	9.00	7.30	6.50	4.50		
4.0	12.50	6.30	9.00	5.85	6.50	4.50		
4.5	10.90	5.20	9.00	4.75	6.50	4.50		
5.0	9.20	4.30	8.15	4.00	6.50	4.30	4.00	2.70
5.5	7.85	3.55	7.30	3.30	6.05	3.70	4.00	2.70
6.0	6.75	3.00	6.45	2.80	5.65	3.20	4.00	2.70
6.5	5.90	2.50	5.70	2.35	5.25	2.75	4.00	2.70
7.0			5.00	1.95	4.85	2.40	4.00	2.70
8.0			3.90	1.40	4.10	1.80	3.55	2.05
9.0			3.10	0.95	3.45	1.40	3.15	1.60
10.0			2.45	0.60	2.90	1.05	2.80	1.25
11.0			2.00		2.40	0.75	2.45	0.95
12.0			1.60		2.00		2.15	0.70
13.0			1.25		1.65		1.85	
14.0					1.35		1.55	
15.0					1.10		1.30	
16.0					0.90		1.10	
17.0					0.70		0.90	
18.0					0.55		0.75	
19.0							0.60	
Critical boom angle	–	–	–	36°	–	52°	38°	60°

(Unit: metric ton)

■PICK & CARRY (Traveling speed max. 2km/h)
BOOM RATED LIFTING CAPACITY (10)

Working radius (m)	8.9m Boom		15.4m Boom		21.9m Boom		28.4m Boom	
	Over front	360° full range	Over front	360° full range	Over front	360° full range	Over front	360° full range
3.0	10.50	7.00	7.50	5.10				
3.5	10.50	6.20	7.50	5.10	5.50	3.20		
4.0	9.50	5.30	7.50	4.90	5.50	3.20		
4.5	8.70	4.40	7.50	3.95	5.50	3.20		
5.0	7.60	3.60	7.00	3.25	5.50	3.20	3.00	1.90
5.5	6.50	3.00	6.10	2.70	5.15	3.10	3.00	1.90
6.0	5.50	2.50	5.35	2.30	4.80	2.70	3.00	1.90
6.5	4.80	2.10	4.70	1.90	4.45	2.30	3.00	1.90
7.0			4.10	1.60	4.15	2.00	3.00	1.90
8.0			3.20	1.10	3.50	1.50	2.80	1.60
9.0			2.50	0.70	2.85	1.10	2.55	1.25
10.0			2.00		2.35	0.75	2.35	0.95
11.0			1.60		1.95	0.55	1.95	0.70
12.0			1.30		1.60		1.60	
13.0			1.00		1.35		1.35	
14.0					1.10		1.15	
15.0					0.90		1.00	
16.0					0.75		0.85	
17.0					0.60		0.70	
Critical boom angle	–	–	–	44°	25°	53°	47°	62°

(Unit: metric ton)