



KATO

SUPERBOOM

SL-700R
ROUGH TERRAIN CRANE

PREMIUM
Roughter

[SPECIFICATION]

CRANE

Description		Rough terrain crane with maximum lifting capacity 70 ton	
●Crane specification			
Maximum lifting capacity		70 ton × 2.5 m	
Maximum rated lifting capacity	10.0 m Boom		70,000kg × 2.5 m (Parts of line : 16)
	16.9 m Boom		32,000kg × 6.0 m (Parts of line : 7)
	23.8 m Boom		25,000kg × 5.5 m (Parts of line : 5)
	30.7 m Boom		12,500kg × 10.0 m (Parts of line : 4)
	37.6 m Boom		12,000kg × 10.0 m (Parts of line : 4)
	41.5 m Boom		10,000kg × 11.0 m (Parts of line : 4)
	44.5 m Boom		8,000kg × 13.0 m (Parts of line : 4)
	8.3 m Jib		4,000kg (Parts of line : 1)
	12.9 m Jib		2,500kg (Parts of line : 1)
	17.5 m Jib		1,500kg (Parts of line : 1)
Rooster		5,000kg (Parts of line : 1)	
Boom length		10.0m — 44.5m (6 section)	
Fly jib length		8.3m — 17.5m (3 section, offset 7° — 60°)	
Maximum rated lifting height		45.5m (Boom) 62.7m (jib)	
Hoisting line speed (winch up)	Main winch	160m / min. (at 5th layer)	
	Auxiliary winch	150m / min. (at 4th layer)	
Hoisting hook speed (winch up)	Main winch	(Parts of line: 16) : 10m / min. (at 5th layer)	
	Auxiliary winch	(Parts of line: 1) : 150m / min. (at 4th layer)	
Boom derricking angle		0° — 84°	
Boom derricking time		66s / 0° — 84°	
Boom extending speed		10.0m — 44.5m / 135s	
Slewing speed		1.8min ⁻¹	
Tail slewing radius		3,550mm	
●Equipment and structure			
Boom type		Round shaped, 6-section hydraulically telescopic type (Boom section 2 / 3, 4 / 5 / 6 simultaneously operated)	
Jib type		3 sections (hydraulically telescopic type 2 / 3 section of simultaneously operated) Hydraulic stepless tilting type (offset angles 7° — 60°)	
Boom extension/retraction equipment		Three hydraulic cylinders and wire ropes used together	
Jib extension/retraction equipment		Hydraulic cylinder and wire ropes used together	
Boom derricking/lowering equipment		Two hydraulic cylinders of direct acting type with pressure compensated flow control valve	
Winch system		Driven by axial plunger type hoisting motor through planetary gear reduction. Controlled independently by respective operating lever.	
Main & Auxiliary winches		Equipped with automatic brake.	
Slewing equipment		Equipped with Hydraulic motor drive and a planetary gear speed reducer (built-in negative brake) Free/Lock change-over model, High/Low speed switching system.	
Slewing bearing		Ball bearing type	
Outriggers	Type	Hydraulic H-beam type (with float and vertical cylinder in single unit)	
	Extension width	7,600mm (Fully extended)	
		7,200mm (Intermediately extended)	
		6,500mm (Intermediately extended)	
		5,400mm (Intermediately extended)	
		4,300mm (Intermediately extended)	
2,690mm (Fully retracted)			
Wire rope for hoisting	Main winch	Diameter: 18mm × Length: 240m	
	Auxiliary winch	Diameter: 18mm × Length: 131m	
●Hydraulic equipment			
Oil pump		4 pumps, plunger type	
Hydraulic motor	Hoisting motor	Axial plunger type	
	Slewing motor	Axial plunger type	
Control valve		Double acting with integral check and relief valves	
Cylinder		Double acting type	
Oil reservoir capacity		740L	
●Safety devices			
		ACS (Automatic Crane System with Voice alarm), Slewing automatic stop system, Boom raise / lower dampening function, Boom extension / retraction dampening function, Working range limit mode, Outrigger status detector, Boom derricking / telescoping holding valve, Overhoist prevention device, Drum lock device (on auxiliary winch), Winch holding valve, Automatic winch brake, Winch drum roller, Hydraulic safety valves, Outrigger lock pins, Slewing lock, Slewing warning lamp, Hydraulic oil temperature warning device, Hydraulic oil return filter warning device	
●Standard equipment			
		Air conditioner(with cold/warm box), Hydraulic oil cooler, Working light (on boom, table and cab), Winch drum turning indication device, Hook for 70 / 48 ton, Hook for 34 ton, Hook for 5 ton, Winch view camera and color monitor	
●Operator's cab			
		Hydraulic cab suspension, Adjustable steering wheel, Adjustable suspension seat, Power Window(external closing switch), Front windscreen wiper & washer (2 speed wiper), Roof window wiper & washer, Tea table, Cigarette lighter, Access step light, Fire extinguisher, Floor mat, AM/FM Radio	
●Optional equipment			
		ACS outside indicator, PA system, Door visor, Searchlight, Anemometer	

CARRIER

●Carrier specification		
Maximum traveling speed		49km/h
Grade ability (tanθ)		54 % (computed at G.V.W. = 41145 kg)
Minimum turning radius (center of extreme outer tire)		11.6 m (4 wheel steer) 6.84 m (8 wheel steer)
●Engine		
Model		Mitsubishi 6M70-TLE3A
Type		4 cycle, 6 cylinders, water cooled, direct injection turbo-charged diesel engine with intercooling
Piston displacement		12.882L
Max. power		272kW at 2,000min ⁻¹
Max. torque		1,510N·m at 1,600min ⁻¹
Diesel Fuel recommended by KATO must be used		
●Equipment and structure		
Drive system		8×4, 8×6
Torque converter		Engine mounted 3 elements 1 stage (with lock up clutch)
Transmission		Remote mounted full automatic
Number of speeds		6 forward & 2 reverse speed
Axles	Front - Front 1	Planetary, drive/steer type, Reverse "ELLIOT" type
	Front - Rear 2	Planetary, drive/steer type, Reverse "ELLIOT" type
	Rear - Front 3	Steer type, Reverse "ELLIOT" type
	Rear - Rear 4	Planetary, drive/steer type, Reverse "ELLIOT" type
Suspension	Front & Rear	Hydro-pneumatic suspension Hydraulic locking device with suspension cylinder
Brake system	Service brake	2 circuit brake 8 wheels internal expanding type
	Parking brake	Spring applied, electrically air released parking brake (2&3 Axles)
	Auxiliary brake	Engine brake (Decompression brake) Hydraulic retarder
Steering		Full hydraulic power steering Completely independent front and rear steering (with automatic rear wheel steering lock system)
Tire size	Front	385 / 95 R25 170E ROAD
	Rear	385 / 95 R25 170E ROAD
Fuel tank capacity		370 L
Batteries		(12V—150AH) × 2
●Safety devices		
		Emergency steering device, Rear wheel steering lock system (automatic), Brake fluid leak warning device, Service brake lock, Suspension lock, Engine overspeed alarm, Radiator coolant level warning device, Air filter service warning device, Automatic open/close side mirror
●Standard equipment		
		Centralized lubricating system, Bypass oil filter, Aluminum sheet for outrigger, Rear view camera, Left side view camera
●Optional equipments		
		Wheel stopper, Right side view camera
■GENERAL Dimensions		
Overall length		12,900mm
Overall width		2,990mm
Overall height		3,740mm
Wheel base		1,500+3,800+1,500=6,800mm
Treads	Front	2,540mm
	Rear	2,540mm
Passenger capacity		One person
Gross vehicle mass	Gross weight	approx. 41,145kg
	Front - Front 1st axle	approx. 10,260kg
	Front - Rear 2nd axle	approx. 10,400kg
	Rear - Front 3rd axle	approx. 7,965kg
	Rear - Rear 4th axle	approx. 12,520kg
● Stow the hooks in place before traveling.		
● Before you use this machine, read the precautions in the instruction manual thoroughly to operate it correctly.		
● KATO products and specifications are subject to improvements and changes without notice.		

■ RATED LIFTING CAPACITY

Based on ISO 4305
Not exceed 75% of static tipping loads

10.0m — 44.5m Boom

Working radius (m)	 (7.6m)						
	Outriggers fully extended (over side and over rear)						
	10.0m Boom	16.9m Boom	23.8m Boom	30.7m Boom	37.6m Boom	41.5m Boom	44.5m Boom
2.5	70.00*	32.00	25.00	12.50			
3.0	61.00*	32.00	25.00	12.50			
3.5	55.00*	32.00	25.00	12.50	12.00		
4.0	49.20*	32.00	25.00	12.50	12.00	10.00	
4.5	44.10	32.00	25.00	12.50	12.00	10.00	8.00
5.0	39.50	32.00	25.00	12.50	12.00	10.00	8.00
5.5	35.70	32.00	25.00	12.50	12.00	10.00	8.00
6.0	32.50	32.00	23.40	12.50	12.00	10.00	8.00
6.5	29.50	29.00	22.00	12.50	12.00	10.00	8.00
7.0	26.80	26.40	20.70	12.50	12.00	10.00	8.00
7.5		24.00	19.50	12.50	12.00	10.00	8.00
8.0		22.00	18.50	12.50	12.00	10.00	8.00
9.0		17.45	16.60	12.50	12.00	10.00	8.00
10.0		14.00	13.85	12.50	12.00	10.00	8.00
11.0		11.45	11.30	12.00	11.10	10.00	8.00
12.0		9.55	9.40	10.45	10.20	9.40	8.00
13.0		8.05	7.90	8.90	9.40	8.70	8.00
14.0			6.65	7.65	8.20	8.00	7.50
15.0			5.60	6.65	7.20	7.40	7.00
16.0			4.75	5.75	6.30	6.55	6.60
17.0			4.00	5.00	5.55	5.80	5.95
18.0			3.35	4.30	4.90	5.15	5.30
19.0			2.80	3.75	4.30	4.55	4.75
20.0			2.30	3.25	3.80	4.00	4.20
21.0				2.80	3.35	3.55	3.75
22.0				2.40	2.95	3.15	3.35
24.0				1.75	2.25	2.50	2.65
26.0				1.20	1.70	1.90	2.05
28.0					1.25	1.45	1.60
30.0					0.85	1.05	1.20
32.0						0.70	0.85
33.0						0.55	0.70
34.0							0.55
Critical boom angle	—	—	—	—	28°	30°	34°
Standard hook	for 70*/48 ton			for 34 ton			
Hook mass	530*/470kg			330kg			
Parts of line	16°/10	7	5	4	4	4	4

(Unit : Metric ton)

Working radius (m)	 (7.2m)							 (6.5m)						
	Outriggers intermediately extended (over side)							Outriggers intermediately extended (over side)						
	10.0m Boom	16.9m Boom	23.8m Boom	30.7m Boom	37.6m Boom	41.5m Boom	44.5m Boom	10.0m Boom	16.9m Boom	23.8m Boom	30.7m Boom	37.6m Boom	41.5m Boom	44.5m Boom
2.5	55.00*	32.00	25.00	12.50				50.00*	32.00	25.00	12.50			
3.0	55.00*	32.00	25.00	12.50				50.00*	32.00	25.00	12.50			
3.5	50.00*	32.00	25.00	12.50	12.00			46.00	32.00	25.00	12.50	12.00		
4.0	46.00	32.00	25.00	12.50	12.00	10.00		42.00	32.00	25.00	12.50	12.00	10.00	
4.5	42.00	32.00	25.00	12.50	12.00	10.00	8.00	38.00	32.00	25.00	12.50	12.00	10.00	8.00
5.0	38.50	32.00	25.00	12.50	12.00	10.00	8.00	34.50	32.00	25.00	12.50	12.00	10.00	8.00
5.5	35.00	32.00	25.00	12.50	12.00	10.00	8.00	31.50	32.00	25.00	12.50	12.00	10.00	8.00
6.0	32.00	32.00	23.40	12.50	12.00	10.00	8.00	29.00	31.65	23.40	12.50	12.00	10.00	8.00
6.5	29.50	29.00	22.00	12.50	12.00	10.00	8.00	25.50	26.20	22.00	12.50	12.00	10.00	8.00
7.0	26.80	26.40	20.70	12.50	12.00	10.00	8.00	22.00	22.15	20.70	12.50	12.00	10.00	8.00
7.5		23.35	19.50	12.50	12.00	10.00	8.00		19.10	19.00	12.50	12.00	10.00	8.00
8.0		20.25	18.50	12.50	12.00	10.00	8.00		16.65	16.55	12.50	12.00	10.00	8.00
9.0		15.75	15.60	12.50	12.00	10.00	8.00		13.00	12.90	12.50	12.00	10.00	8.00
10.0		12.65	12.50	12.50	12.00	10.00	8.00		10.45	10.35	11.45	12.00	10.00	8.00
11.0		10.35	10.20	11.30	11.10	10.00	8.00		8.60	8.45	9.50	10.10	10.00	8.00
12.0		8.60	8.50	9.50	10.10	9.40	8.00		7.10	6.95	7.95	8.55	8.80	8.00
13.0		7.25	7.10	8.10	8.65	8.70	8.00		5.90	5.75	6.75	7.30	7.55	7.70
14.0			5.95	6.95	7.50	7.75	7.50			4.70	5.75	6.30	6.55	6.70
15.0			4.95	6.00	6.55	6.80	6.95			3.90	4.90	5.45	5.70	5.90
16.0			4.15	5.15	5.75	5.95	6.15			3.15	4.15	4.75	5.00	5.15
17.0			3.45	4.45	5.00	5.25	5.45			2.55	3.55	4.10	4.35	4.50
18.0			2.85	3.85	4.40	4.65	4.80			2.05	3.00	3.55	3.80	3.95
19.0			2.35	3.30	3.85	4.10	4.25			1.55	2.50	3.05	3.30	3.45
20.0			1.85	2.80	3.35	3.60	3.75			1.15	2.10	2.65	2.85	3.05
21.0				2.40	2.95	3.20	3.35				1.75	2.25	2.50	2.65
22.0				2.05	2.55	2.80	2.95				1.40	1.95	2.15	2.30
24.0				1.40	1.90	2.15	2.30				0.85	1.35	1.60	1.75
26.0				0.90	1.40	1.60	1.75					0.90	1.10	1.25
28.0					0.95	1.15	1.30						0.70	0.85
30.0					0.60	0.80	0.95							
32.0							0.60							
Critical boom angle	—	—	—	—	30°	36°	39°	—	—	—	25°	40°	43°	47°
Standard hook	for 70°/48 ton	for 34 ton						for 70°/48 ton	for 34 ton					
Hook mass	530°/470kg	330kg						530°/470kg	330kg					
Parts of line	16°/10	7	5	4	4	4	4	16°/10	7	5	4	4	4	4

(Unit : Metric ton)

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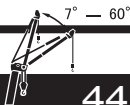
Working radius (m)	 (5.4m)								 (4.3m)								 (2.69m)					
	Outriggers intermediately extended (over side)								Outriggers intermediately extended (over side)								Outriggers completely retracted (over side)					
	10.0m Boom	16.9m Boom	23.8m Boom	30.7m Boom	37.6m Boom	41.5m Boom	44.5m Boom		10.0m Boom	16.9m Boom	23.8m Boom	30.7m Boom	37.6m Boom	41.5m Boom	44.5m Boom		10.0m Boom	16.9m Boom	23.8m Boom			
2.5	50.0*	32.00	25.00	12.50					40.00	32.00	25.00	12.50					20.00	15.00	12.00			
3.0	50.0*	32.00	25.00	12.50					40.00	32.00	25.00	12.50					20.00	15.00	12.00			
3.5	46.00	32.00	25.00	12.50	12.00				40.00	32.00	25.00	12.50	12.00				18.70	15.00	12.00			
4.0	42.00	32.00	25.00	12.50	12.00	10.00			32.00	31.00	25.00	12.50	12.00	10.00			14.60	13.40	12.00			
4.5	38.00	32.00	25.00	12.50	12.00	10.00	8.00		25.70	25.30	21.90	12.50	12.00	10.00	8.00		11.70	11.40	10.50			
5.0	33.00	31.50	25.00	12.50	12.00	10.00	8.00		20.60	20.30	18.50	12.50	12.00	10.00	8.00		9.60	9.30	8.90			
5.5	26.60	26.20	23.50	12.50	12.00	10.00	8.00		17.00	16.70	15.90	12.50	12.00	10.00	8.00		8.00	7.70	7.50			
6.0	22.05	21.60	20.30	12.50	12.00	10.00	8.00		14.40	14.00	13.70	12.50	12.00	10.00	8.00		6.80	6.50	6.30			
6.5	18.70	18.25	17.70	12.50	12.00	10.00	8.00		12.30	11.90	11.90	12.00	12.00	10.00	8.00		5.80	5.50	5.40			
7.0	16.10	15.65	15.60	12.50	12.00	10.00	8.00		10.70	10.30	10.20	10.90	10.80	10.00	8.00		5.00	4.60	4.60			
7.5		13.60	13.50	12.50	12.00	10.00	8.00			8.90	8.90	9.70	9.70	10.00	8.00			3.90	3.90			
8.0		11.90	11.80	12.50	12.00	10.00	8.00			7.80	7.70	8.70	8.80	8.80	8.00			3.30	3.20			
9.0		9.35	9.25	10.35	10.40	10.00	8.00			6.10	6.00	6.90	7.30	7.30	7.40			2.30				
10.0		7.50	7.40	8.40	8.80	8.80	8.00			4.80	4.70	5.60	6.10	6.10	6.20			1.30				
11.0		6.00	5.90	6.95	7.50	7.50	7.50			3.70	3.55	4.55	5.05	5.20	5.30							
12.0		4.85	4.70	5.75	6.30	6.50	6.60			2.80	2.70	3.65	4.20	4.40	4.50							
13.0		3.90	3.75	4.75	5.35	5.60	5.75			2.10	1.95	2.90	3.50	3.70	3.80							
14.0			2.95	3.95	4.50	4.75	4.95				1.35	2.30	2.85	3.10	3.25							
15.0			2.30	3.25	3.80	4.05	4.25					1.75	2.30	2.55	2.75							
16.0			1.75	2.70	3.20	3.45	3.65					1.30	1.85	2.10	2.25							
17.0			1.25	2.20	2.70	2.95	3.15						1.45	1.70	1.85							
18.0			0.80	1.75	2.25	2.50	2.70															
19.0				1.35	1.90	2.10	2.30															
20.0				1.05	1.55	1.75	1.95															
21.0				0.75	1.25	1.45	1.65															
22.0					0.95	1.20	1.35															
Critical boom angle	—	—	30°	40°	50°	54°	57°	—	—	46°	53°	60°	63°	65°	—	—	41°	64°	—			
Standard hook	for 70°/48 ton	for 34 ton						for 48 ton	for 34 ton						for 48 ton	for 34 ton						
Hook mass	530°/470kg	330kg						470kg	330kg						470kg	330kg						
Parts of line	16°/10	7	5	4	4	4	4	10	7	5	4	4	4	4	10	7	5	4	—			
(Unit : Metric ton)																						

(Unit : Metric ton)

Working radius (m)	Outriggers extended (over front)						
	10.0m Boom	16.9m Boom	23.8m Boom	30.7m Boom	37.6m Boom	41.5m Boom	44.5m Boom
2.5	70.00*	32.00	25.00	12.50			
3.0	61.00*	32.00	25.00	12.50			
3.5	55.00*	32.00	25.00	12.50	12.00		
4.0	49.20*	32.00	25.00	12.50	12.00	10.00	
4.5	44.10	32.00	25.00	12.50	12.00	10.00	8.00
5.0	39.50	32.00	25.00	12.50	12.00	10.00	8.00
5.5	35.70	32.00	25.00	12.50	12.00	10.00	8.00
6.0	32.50	32.00	23.40	12.50	12.00	10.00	8.00
6.5	29.50	29.00	22.00	12.50	12.00	10.00	8.00
7.0	26.80	26.40	20.70	12.50	12.00	10.00	8.00
7.5		24.00	19.50	12.50	12.00	10.00	8.00
8.0		22.00	18.50	12.50	12.00	10.00	8.00
9.0		19.00	16.60	12.50	12.00	10.00	8.00
10.0		16.30	14.90	12.50	12.00	10.00	8.00
11.0		13.70	13.60	12.00	11.10	10.00	8.00
12.0		11.50	12.40	10.90	10.20	9.40	8.00
13.0		10.00	11.40	10.00	9.40	8.70	8.00
14.0			10.50	9.20	8.60	8.00	7.50
15.0			9.45	8.50	8.00	7.50	7.00
16.0			8.25	7.80	7.40	7.00	6.60
17.0			7.20	7.30	6.90	6.50	6.20
18.0			6.25	6.80	6.40	6.10	5.80
19.0			5.50	6.30	6.00	5.80	5.40
20.0			4.80	5.80	5.60	5.40	5.10
21.0				5.15	5.30	5.10	4.80
22.0				4.60	5.00	4.80	4.50
24.0				3.70	4.20	4.20	4.00
26.0				2.90	3.45	3.60	3.50
28.0					2.80	3.00	3.10
30.0					2.20	2.50	2.60
32.0					1.70	2.00	2.10
34.0					1.30	1.60	1.70
36.0						1.20	1.30
38.0						0.90	1.00
40.0							0.70
Critical boom angle	—	—	—	—	—	—	—
Standard hook	for 70"/48 ton	for 34 ton					
Hook mass	530"/470kg	330kg					
Parts of line	16"/10	7	5	4	4	4	4

(Unit : Metric ton)

(Unit : Metric ton)



Based on ISO 4305
Not exceed 75% of static tipping loads

44.5m Boom + 8.3m SLJib

								
Outriggers fully extended (over side and over rear)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	5.8	4.00	8.7	3.50	10.5	2.20	11.5	1.40
80	10.1	4.00	12.8	3.50	14.2	2.20	15.0	1.40
77	13.3	4.00	15.6	3.20	16.9	2.15	17.5	1.40
75	15.4	4.00	17.5	2.90	18.7	2.10	19.2	1.40
73	17.3	3.65	19.2	2.65	20.4	2.05	20.8	1.40
70	19.9	3.20	21.7	2.45	23.0	2.00	23.2	1.40
68	21.5	2.85	23.2	2.25	24.6	1.90	24.7	1.40
65	24.0	2.30	25.6	2.05	26.9	1.80	26.9	1.40
63	25.5	1.80	27.1	1.70	28.3	1.55	28.3	1.40
60	27.5	1.30	29.1	1.20	30.1	1.10		
57	29.5	0.75						
Critical boom angle	56°		59°		59°		62°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

								
Outriggers intermediately extended (over side)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	5.8	4.00	8.7	3.50	10.5	2.20	11.5	1.40
80	10.1	4.00	12.8	3.50	14.2	2.20	15.0	1.40
77	13.3	4.00	15.6	3.20	16.9	2.15	17.5	1.40
75	15.4	4.00	17.5	2.90	18.7	2.10	19.2	1.40
73	17.3	3.65	19.2	2.65	20.4	2.05	20.8	1.40
70	19.9	3.20	21.7	2.45	23.0	2.00	23.2	1.40
68	21.5	2.80	23.2	2.25	24.6	1.90	24.7	1.40
65	23.8	2.00	25.6	1.75	26.8	1.70	26.9	1.40
63	25.2	1.60	27.0	1.40	28.1	1.35	28.3	1.35
60	27.4	0.95	29.0	0.90	30.0	0.80		
Critical boom angle	59°		59°		59°		62°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

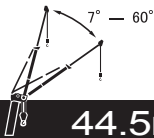
 (6.5m)								
Outriggers intermediately extended (over side)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	5.8	4.00	8.7	3.50	10.5	2.20	11.5	1.40
80	10.1	4.00	12.8	3.50	14.2	2.20	15.0	1.40
77	13.3	4.00	15.6	3.20	16.9	2.15	17.5	1.40
75	15.4	4.00	17.5	2.90	18.7	2.10	19.2	1.40
73	17.3	3.65	19.2	2.65	20.4	2.05	20.8	1.40
70	19.9	2.80	21.6	2.45	23.0	2.00	23.2	1.40
68	21.4	2.20	23.0	2.05	24.6	1.80	24.7	1.40
65	23.5	1.50	25.2	1.40	26.2	1.35		
Critical boom angle	64°		64°		64°		67°	
for 5 ton (Hook mass : 120kg)								
Standard hook								
Parts of line								
1								

 (5.4m)								
Outriggers intermediately extended (over side)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	5.8	4.00	8.7	3.50	10.5	2.20	11.4	1.40
80	10.1	4.00	12.8	3.50	14.2	2.20	15.0	1.40
77	13.3	4.00	15.6	3.20	16.9	2.15	17.5	1.40
75	15.4	3.60	17.5	2.90	18.7	2.10	19.2	1.40
73	17.0	2.90	19.0	2.50	20.4	2.05	20.8	1.40
70	19.2	1.95	21.2	1.65	22.7	1.50	23.2	1.40
Critical boom angle	69°		69°		69°		69°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

 (4.3m)								
Outriggers intermediately extended (over side)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	5.8	4.00	8.7	3.50	10.5	2.20	11.5	1.40
80	10.1	4.00	12.8	3.50	14.2	2.20	15.0	1.40
77	13.2	3.45	15.6	2.70	16.9	2.15	17.5	1.40
75	14.8	2.60						
Critical boom angle	74°		76°		76°		76°	
Standard hook for 5 ton (Hook mass : 120kg)								
Parts of line 1								

Boom angle (°)	Outriggers extended (over front)							
	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	5.8	4.00	8.7	3.50	10.5	2.20	11.5	1.40
80	10.1	4.00	12.8	3.50	14.2	2.20	15.0	1.40
77	13.3	4.00	15.6	3.20	16.9	2.15	17.5	1.40
75	15.4	4.00	17.5	2.90	18.7	2.10	19.2	1.40
73	17.3	3.65	19.2	2.65	20.4	2.05	20.8	1.40
70	19.9	3.20	21.7	2.45	23.0	2.00	23.2	1.40
68	21.5	2.85	23.2	2.25	24.6	1.90	24.7	1.40
65	24.0	2.50	25.6	2.05	26.9	1.80	26.9	1.40
63	25.5	2.20	27.1	1.80	28.3	1.65	28.3	1.40
60	27.9	1.95	29.4	1.65	30.4	1.50		
57	30.1	1.65	31.6	1.45	32.3	1.35		
54	32.3	1.45	33.7	1.30	34.2	1.20		
51	34.3	1.25	35.7	1.20	36.0	1.15		
49	35.6	0.90	36.7	0.85	37.1	0.85		
46	37.3	0.50	38.2	0.50	38.6	0.50		
Critical boom angle	45°		45°		45°		62°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

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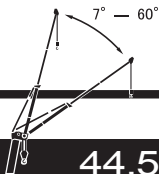


44.5m Boom + 12.9m SLJib

 (7.6m)								
Outriggers fully extended (over side and over rear)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	6.9	2.50	11.3	2.40	14.1	1.30	15.7	0.70
80	11.6	2.50	15.5	2.25	18.1	1.30	19.1	0.70
77	15.1	2.50	18.6	2.10	20.9	1.30	21.8	0.70
75	17.3	2.50	20.5	2.00	22.7	1.25	23.5	0.70
73	19.4	2.50	22.3	1.85	24.5	1.25	25.2	0.70
70	22.4	2.35	25.0	1.70	27.0	1.20	27.6	0.70
68	24.3	2.10	26.8	1.55	28.7	1.20	29.1	0.70
65	26.9	1.90	29.4	1.40	31.1	1.15	31.3	0.70
63	28.4	1.50	31.1	1.30	32.6	1.10	32.7	0.70
60	30.7	0.95	33.2	0.90	34.6	0.80		
Critical boom angle	59°		59°		59°		62°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

								
Outriggers intermediately extended (over side)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	6.9	2.50	11.3	2.40	14.1	1.30	15.5	0.70
80	11.6	2.50	15.5	2.20	18.1	1.30	19.1	0.70
77	15.1	2.50	18.6	2.10	20.9	1.30	21.8	0.70
75	17.3	2.50	20.5	2.00	22.7	1.25	23.5	0.70
73	19.4	2.50	22.3	1.85	24.5	1.25	25.2	0.70
70	22.4	2.35	25.0	1.70	27.0	1.20	27.6	0.70
68	24.3	2.10	26.8	1.55	28.7	1.20	29.1	0.70
65	26.8	1.60	29.4	1.40	31.1	1.15	31.3	0.70
63	28.3	1.25	30.8	1.10	32.5	1.05	32.7	0.70
60	30.5	0.70						
Critical boom angle	59°		62°		62°		62°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

								
Outriggers intermediately extended (over side)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	6.9	2.50	11.3	2.40	14.1	1.30	15.5	0.70
80	11.6	2.50	15.5	2.25	18.1	1.30	19.1	0.70
77	15.1	2.50	18.6	2.10	20.9	1.30	21.8	0.70
75	17.3	2.50	20.5	2.00	22.7	1.25	23.5	0.70
73	19.4	2.50	22.3	1.85	24.5	1.25	25.2	0.70
70	22.4	2.30	25.0	1.70	27.0	1.20		
68	24.0	1.80	26.8	1.55	28.7	1.20		
65	26.3	1.20	29.0	1.00	30.9	0.90		
Critical boom angle	64°		64°		64°		72°	
Standard hook Parts of line	for 5 ton (Hook mass : 120kg)							
1								



Based on ISO 4305
Not exceed 75% of static tipping loads

44.5m Boom + 17.5m SLJib

 (7.6m)								
Outriggers fully extended (over side and over rear)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	8.0	1.50	13.7	1.00	18.1	0.70	19.9	0.35
80	12.9	1.40	18.2	0.90	22.1	0.65	23.6	0.35
77	16.5	1.25	21.3	0.85	25.0	0.60	26.3	0.35
75	18.7	1.20	23.4	0.85	26.9	0.60	28.0	0.35
73	20.9	1.15	25.5	0.80	28.7	0.60	29.7	0.35
70	24.1	1.05	28.6	0.80	31.3	0.55	32.0	0.35
68	26.2	1.00	30.5	0.75	33.1	0.55	33.5	0.35
65	29.3	0.95	33.2	0.70	35.5	0.55	35.8	0.35
63	31.3	0.90	35.0	0.70	37.1	0.55	37.2	0.35
60	34.1	0.70	37.5	0.55	39.3	0.50		
Critical boom angle	59°		59°		59°		62°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

 (7.2m)								
Outriggers intermediately extended (over side)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	8.0	1.50	13.7	1.00	18.1	0.70	19.9	0.35
80	12.9	1.40	18.2	0.90	22.1	0.65	23.6	0.35
77	16.5	1.25	21.3	0.85	25.0	0.60	26.3	0.35
75	18.7	1.20	23.4	0.85	26.9	0.60	28.0	0.35
73	20.9	1.15	25.5	0.80	28.7	0.60	29.7	0.35
70	24.1	1.05	28.6	0.80	31.3	0.55	32.0	0.35
68	26.2	1.00	30.5	0.75	33.1	0.55	33.5	0.35
65	29.3	0.95	33.2	0.70	35.5	0.55	35.8	0.35
63	31.3	0.90	35.0	0.70	37.1	0.55	37.2	0.35
Critical boom angle	62°		62°		62°		62°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

 (6.5m)								
Outriggers intermediately extended (over side)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	8.0	1.50	13.7	1.00	18.1	0.70	19.9	0.35
80	12.9	1.40	18.2	0.90	22.1	0.65	23.6	0.35
77	16.5	1.25	21.3	0.85	25.0	0.60	26.3	0.35
75	18.7	1.20	23.4	0.85	26.9	0.60	28.0	0.35
73	20.9	1.15	25.5	0.80	28.7	0.60	29.7	0.35
70	24.1	1.05	28.6	0.80	31.3	0.55	32.0	0.35
68	26.2	1.00	30.5	0.75	33.1	0.55	33.5	0.35
65	29.3	0.95	33.2	0.70	35.5	0.55	35.8	0.35
Critical boom angle	64°		64°		64°		64°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

 (5.4m)								
Outriggers intermediately extended (over side)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	8.0	1.50	13.7	1.00	18.1	0.70	19.9	0.35
80	12.9	1.40	18.2	0.90	22.1	0.65	23.6	0.35
77	16.5	1.25	21.3	0.85	25.0	0.60	26.3	0.35
75	18.7	1.20	23.4	0.85	26.9	0.60	28.0	0.35
73	20.9	1.15	25.5	0.80	28.7	0.60	29.7	0.35
Critical boom angle	72°		72°		72°		72°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

 (4.3m)								
Outriggers intermediately extended (over side)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	8.0	1.50	13.7	1.00	18.1	0.70	19.9	0.35
80	12.9	1.40	18.2	0.90	22.1	0.65	23.6	0.35
77	16.5	1.25	21.3	0.85	25.0	0.60	26.3	0.35
Critical boom angle	76°		76°		76°		76°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

Outriggers extended (over front)								
Boom angle (°)	Offset 7°		Offset 25°		Offset 45°		Offset 60°	
	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)	Working radius (m)	Load (ton)
84	8.0	1.50	13.7	1.00	18.1	0.70	19.9	0.35
80	12.9	1.40	18.2	0.90	22.1	0.65	23.6	0.35
77	16.5	1.25	21.3	0.85	25.0	0.60	26.3	0.35
75	18.7	1.20	23.4	0.85	26.9	0.60	28.0	0.35
73	20.9	1.15	25.5	0.80	28.7	0.60	29.7	0.35
70	24.1	1.05	28.6	0.80	31.3	0.55	32.0	0.35
68	26.2	1.00	30.5	0.75	33.1	0.55	33.5	0.35
65	29.3	0.95	33.2	0.70	35.5	0.55	35.8	0.35
63	31.3	0.90	35.0	0.70	37.1	0.55	37.2	0.35
60	34.2	0.85	37.5	0.65	39.3	0.50		
57	36.9	0.85	39.9	0.65	41.4	0.50		
54	39.4	0.80	42.2	0.60	43.4	0.50		
51	41.9	0.75	44.4	0.60	45.1	0.50		
49	43.2	0.55	45.7	0.55				
Critical boom angle	48°		48°		50°		62°	
Standard hook	for 5 ton (Hook mass : 120kg)							
Parts of line	1							

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■When the outriggers are not used

													
Working radius (m)	Stationary on rubber						Pick & carry (less than 2 km/h)						Working radius (m)
	10.0m Boom		16.9m Boom		23.8m Boom		10.0m Boom		16.9m Boom		23.8m Boom		
	Over front	360° full range	Over front	360° full range	Over front	360° full range	Over front	360° full range	Over front	360° full range	Over front	360° full range	
3.5	16.00	9.00	13.00	6.50	8.00	4.00	12.00	7.00	8.50	5.50	7.00	2.70	3.5
4.0	16.00	7.00	13.00	6.50	8.00	4.00	11.00	5.70	8.50	4.80	7.00	2.70	4.0
4.5	14.60	5.70	13.00	5.60	8.00	4.00	10.00	4.60	8.50	4.20	7.00	2.70	4.5
5.0	13.40	4.60	13.00	4.60	8.00	4.00	9.00	3.80	8.50	3.60	7.00	2.70	5.0
5.5	12.20	3.80	12.00	3.80	8.00	3.50	8.10	3.20	7.80	3.00	7.00	2.70	5.5
6.0	11.20	3.20	11.00	3.10	8.00	3.00	7.30	2.60	7.10	2.50	7.00	2.30	6.0
6.5	10.20	2.70	10.00	2.60	7.60	2.60	6.60	2.10	6.40	2.00	6.30	1.90	6.5
7.0	9.30	2.20	9.20	2.20	7.30	2.20	5.90	1.70	5.80	1.60	5.70	1.50	7.0
7.5			8.40	1.80	7.00				5.20	1.15	5.10		7.5
8.0			7.80	1.40	6.70				4.70	0.75	4.65		8.0
8.5			7.00	1.10	6.50				4.20		4.15		8.5
9.0			6.30		6.00				3.75		3.70		9.0
10.0			5.10		5.00				3.00		2.95		10.0
11.0			4.20		4.10				2.35		2.30		11.0
12.0			3.50		3.40				1.75		1.70		12.0
13.0			2.90		2.80				1.25		1.20		13.0
14.0					2.30						0.80		14.0
15.0					1.85								15.0
16.0					1.45								16.0
17.0					1.10								17.0
18.0					0.80								18.0
Critical boom angle	—	—	—	49°	30°	68°	—	—	—	52°	45°	68°	Critical boom angle
Standard hook	for 34 ton						for 34 ton						Standard hook
Hook mass	330kg						330kg						Hook mass
Parts of line	4						4						Parts of line

(Unit : Metric ton)

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■ Notes for the lifting capacity chart

■ When the outriggers are used

1. The lifting capacity chart indicates the maximum load which can be lifted by this crane provided it is level and standing on firm level ground. The values in the chart include the mass of the main hook and slings for boom operation, and auxiliary hook and slings for jib operation.
[70 ton hook (mass: 530 kg), 48 ton hook (mass: 470 kg), 34 ton hook (mass: 330 kg), 5 ton hook (mass: 120 kg)]
Within the chart the figures in the area bordered with a thick line are based on structural limitations while other figures are determined by stability limitations.
2. The working radii are the actual values allowing for boom and jib deflection. Therefore you must always operate the crane on the basis of the working radius.
3. The jib working radius is based on the jib mounted on the end of the 44.5 m boom. When operating at other boom lengths, use the boom angle alone as the criterion.
4. Do not operate the jib when the outriggers are completely retracted.
5. The lifting capacities for the over sides vary with the outriggers extension width. Therefore for each outriggers extension condition you should work according the lifting capacity chart. Use the front area lifting capacity chart for the front area lifting work, and use the lifting capacity chart of outriggers full extension for the rear area lifting work.

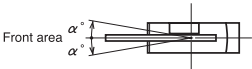


Outrigger extension status	Full extension (7.6m)	Intermediate extension (7.2m)	Intermediate extension (6.5 — 5.4m)	Intermediate extension (4.3m)	Full retraction
Area α°	Only front area 35	30	25	15	3

6. The lifting capacity of the rooster sheave is the lifting capacity of the boom minus the mass of all attached hook, slings etc. to the boom, with an upper limit of 5,000 kg.
[The hook for use with the rooster sheave is the 5 ton hook (mass: 120 kg) with one part of line.]
7. If the boom length, boom angle, jib length, jib angle and/or working radius exceeds the rated value, use the lifting capacity for the rated value or for the next one, whichever gives the smaller lifting capacity.
8. If you are working with the boom while the jib is rigged, subtract 4,300 kg plus the mass of all attached hook, slings, etc. to the boom from the each lifting capacity of the boom, with an upper limit of 18 ton.
Do not use the rooster sheave in this situation. And do not operate the boom while the jib is rigged, when the outriggers are retracted.
[The main hook for use with the jib rigged is 34 ton hook (mass: 330 kg).]
9. In whatever working conditions the corresponding boom critical angel is shown in the chart. The crane can tip over if the boom is lowered below the critical angle even if unloaded.
Therefore, never lower the boom below these angles.
10. If you work with 16 parts of line on the hook (with * marked in the lifting capacity chart), use the rooster sheave and sheave bracket.
[The main hook for use with the sheave bracket is the 70 ton hook (mass: 530 kg)]
11. The standard parts of line for each boom length are as indicated in the chart. If you work with a non-standard number of parts of line, do not exceed 45.1 kN (4.6 tf) per wire rope respectively.
12. Crane operation is permissible up to a wind speed of 10 m/s. Even in relatively light wind conditions, extra care should be taken when handling loads presenting large wind catching areas.
13. If you work with a load in excess of the lifting capacity or use incorrect working procedures, you are risking damaging the crane or tipping it over. In such cases, the crane will not be guaranteed.

■ When the outriggers are not used

1. The lifting capacity chart indicates the maximum load the crane can lift when its body is level on firm level ground with all tires inflated to the rated pressure and the suspension cylinder completely retracted. The values in the chart include the mass of the main hook and slings.
Within the chart the figures in the area bordered with a thick line are based on structural limitations while other figures are determined by stability limitations.
[Rated tire pressure: 900 kPa (9.0 kgf/cm²)]
2. The working radii are the actual values allowing for boom deflection. Therefore you must always operate the crane on the basis of the working radius.
3. The lifting capacity differs between the front area capacity and the full range capacity. When slewing from the front to the side, take care that the crane could not be over loaded.

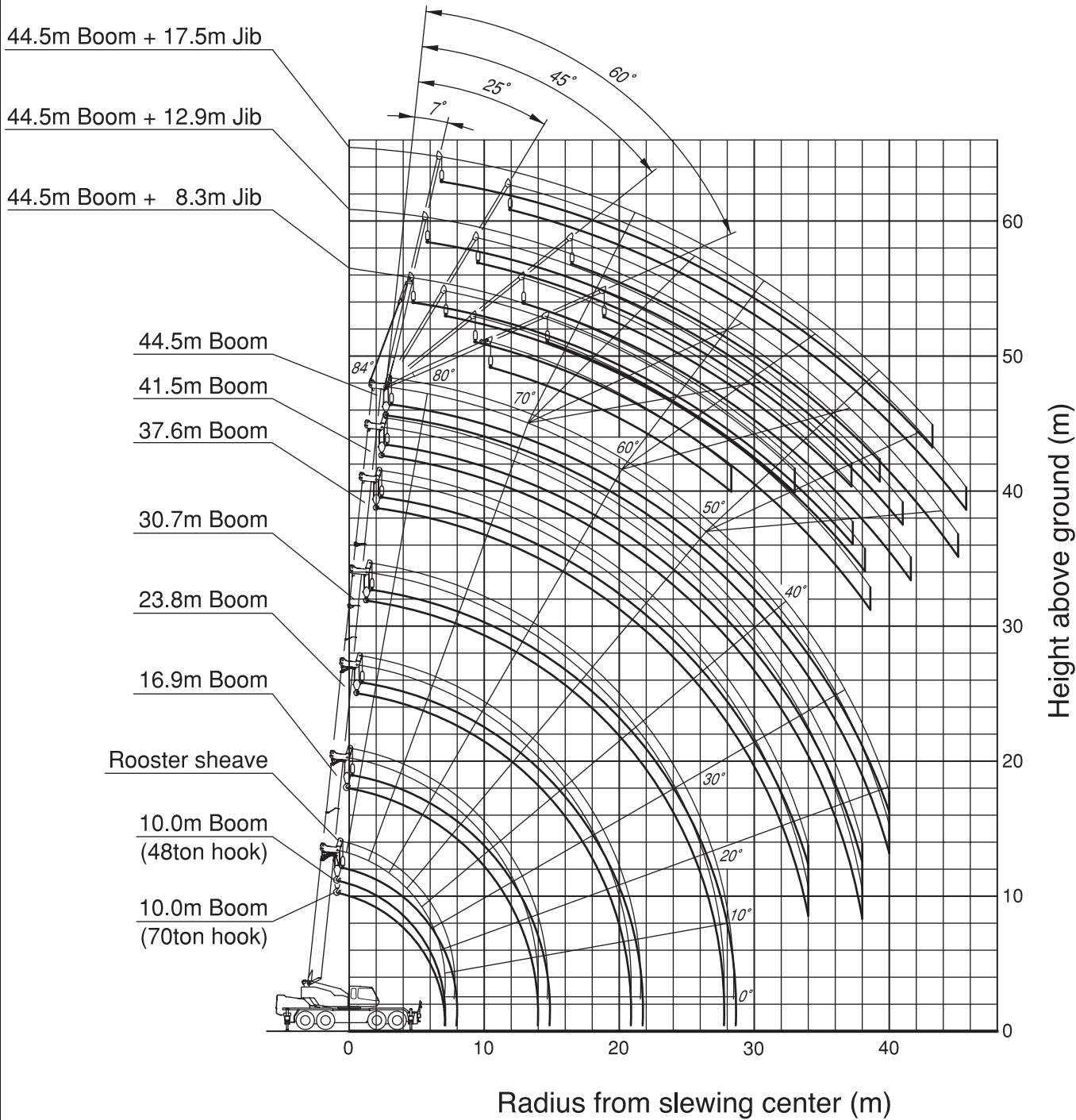


Crane operation	Stationary crane-on-rubber operation	Pick and carry operation
Area α°	1	1

4. The lifting capacity of the rooster sheave is the lifting capacity of the boom minus the mass of 34 ton hook (mass: 330 kg), with an upper limit of 5,000 kg.
[The hook for use with the rooster sheave is the 5 ton hook (mass: 120 kg) with one part of line.]
5. Do not work with the jib or with a boom length of more than 23.8 m.
6. For stationary crane-on-rubber operation, the parking brake and brake lock device must be engaged.
7. For pick and carry operation, the ultra-slow switch must be switched to "ON" and the shift lever set to speed 1.
8. For pick and carry operation, lower the load to just above the ground and keep your speed strictly below 2 km/h to avoid swinging the load.
Take particular care to avoid sharp turns, sudden starts and stops.
9. Never operate the crane during pick and carry operation. The slewing brake must be applied.
10. If the boom length, boom angle, jib length, jib angle and/or working radius exceeds the rated value, use the lifting capacity for the rated value or for the next one, whichever gives the smaller lifting capacity.
11. In whatever working conditions the corresponding boom critical angel is shown in the chart. The crane can tip over if the boom is lowered below the critical angle even if unloaded.
Therefore, never lower the boom below these angles.
12. The standard parts of line for each boom length are as indicated in the chart. If you work with a non-standard number of parts of line, do not exceed 45.1 kN (4.6 tf) per wire rope respectively.
13. Crane operation is permissible up to a wind speed of 10 m/s. Even in relatively light wind conditions, extra care should be taken when handling loads presenting large wind catching areas.
14. If you work with a load in excess of the rated lifting capacity or use incorrect working procedures, you are risking damaging the crane or tipping it over. In such cases, the crane will not be guaranteed.



WORKING RANGE



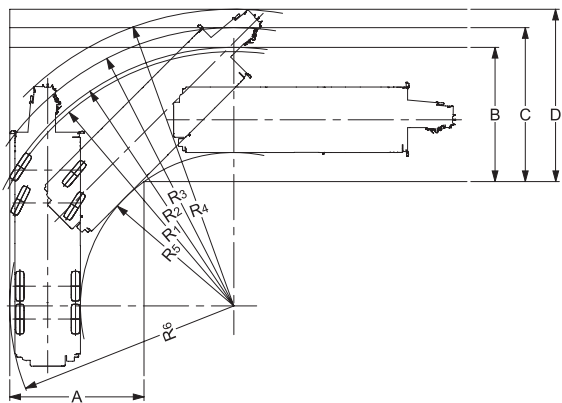
Note:

- 1. This diagram does not include deflection of Boom and Fly jib.
- 2. The outriggers are extended (over front).



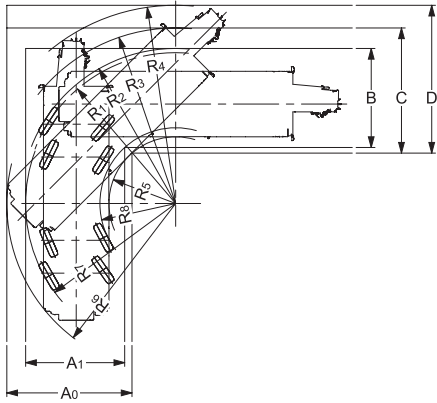
Minimum path width

●Right turn in 4-wheel steering mode



- $R_1=11.60\text{m}$
(Minimum turning radius)
- $R_2=11.80\text{m}$
(Turning radius of extremely outer tyre)
- $R_3=12.70\text{m}$
(Chassis turning radius)
- $R_4=13.54\text{m}$
(Boom end turning radius)
- $R_5=7.00\text{m}$
(Turning radius extremely chassis inner)
- $R_6=10.23\text{m}$
(Turning radius at the rear end of the chassis)
- $A=6.13\text{m}$ (Width of entrance)
- $B=6.13\text{m}$ (Width of wheel exit)
- $C=7.03\text{m}$ (Width of chassis exit)
- $D=7.87\text{m}$ (Width of exit at end of boom)

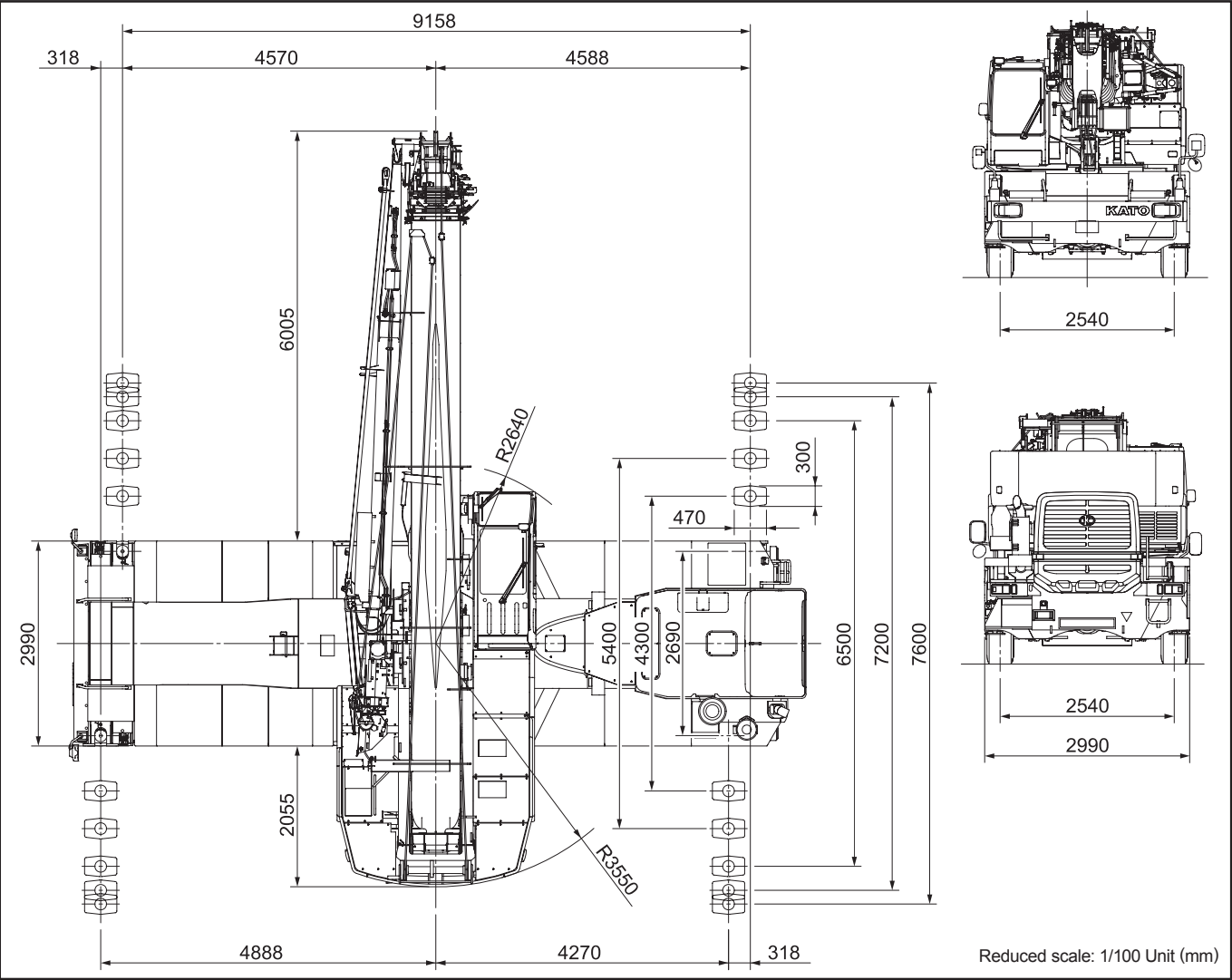
●Right turn in 8-wheel steering mode



- $R_1=6.84\text{m}$
(Minimum turning radius)
- $R_2=7.04\text{m}$
(Turning radius of extremely outer tyre)
- $R_3=8.01\text{m}$
(Chassis turning radius)
- $R_4=9.05\text{m}$
(Boom end turning radius)
- $R_5=3.04\text{m}$
(Turning radius extremely chassis inner)
- $R_6=7.71\text{m}$
(Turning radius at the rear end of the chassis)
- $R_7=6.85\text{m}$
(Turning radius at the rear end of the outermost wheel)
- $R_8=3.46\text{m}$
(Turning radius of the innermost wheel)
- $A_0=5.71\text{m}$ (Width of chassis entrance)
- $A_1=4.52\text{m}$ (Width of wheel entrance)
- $B=4.52\text{m}$ (Width of wheel exit)
- $C=5.71\text{m}$ (Width of chassis exit)
- $D=6.75\text{m}$ (Width of exit at end of boom)

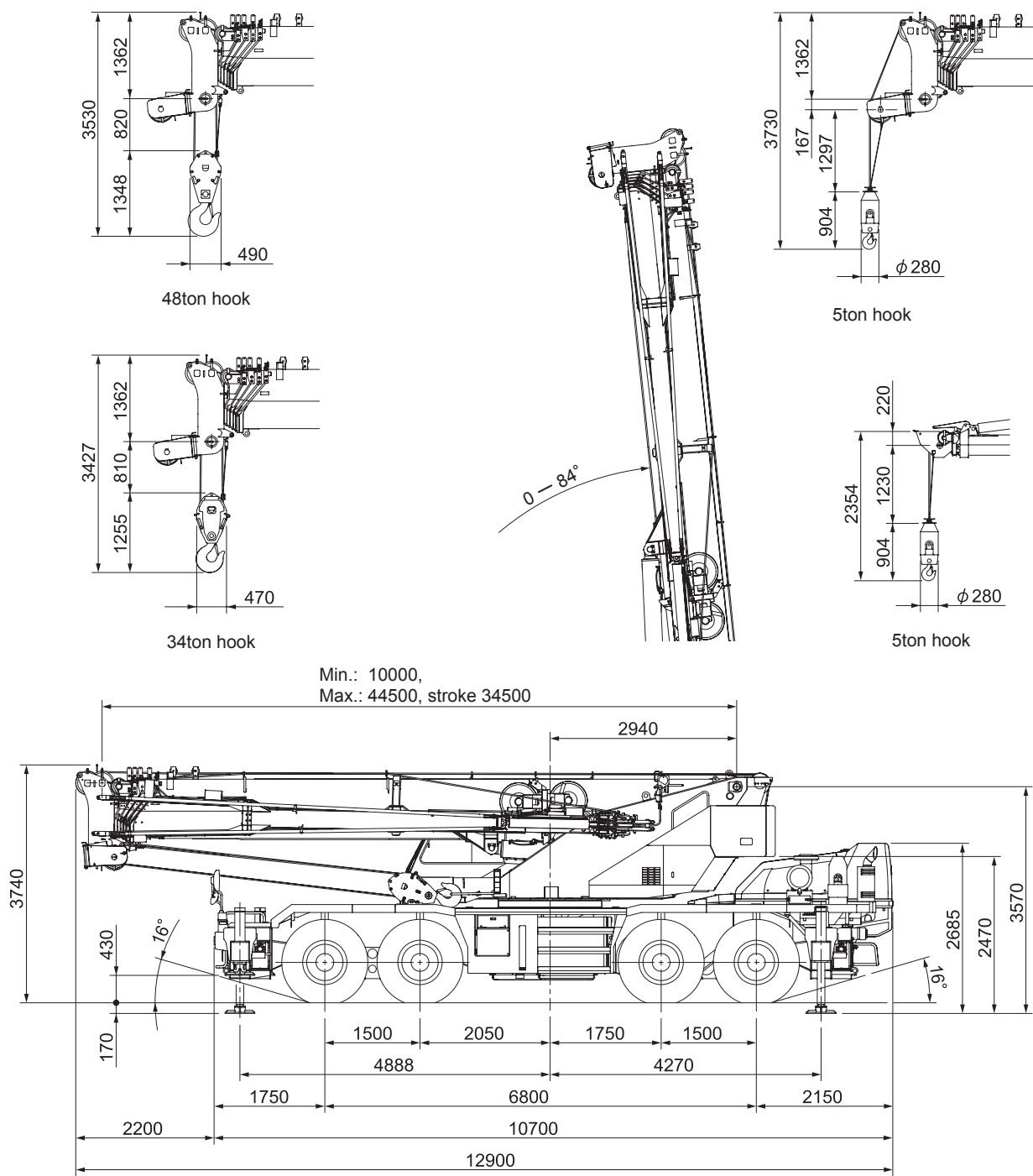
Note: The above values are based on calculations.

Overall view





Overall view



Ramp break over angle: 24°
When the suspension is locked, the height shall be the overall height: - 85 mm.
(Suspension cylinder fully retracted)

Reduced scale: 1/100 Unit (mm)

* KATO products and specifications are subject to improvements and changes without notice.

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We acquired the "ISO 9001" certification which is an international standard for quality assurance.