III UNIVERSAL III CRANES

CRANE SPECIFICATION

KATO MR-130R

COMPREHENSIVE LIFTING SOLUTIONS

We look forward to providing a full heavy lift engineering and crane solution for your next project. Our heavy lift engineers and on site personnel are experienced in managing and organising highly de-manding lift requirements.

Contact us to discuss your lifting requirements and a free quote.

BRISBANE (HQ)

07 3907 5800 37 Paringa Rd, Murarrie, QLD, 4172

BALLINA 02 6686 7748 5 Convair Ave, Ballina, NSW, 2478

GLADSTONE

07 4829 5219 7 Morgan St, Gladstone, QLD, 4680

ROMA 07 4622 5522 8 Wormwell Drive, Roma QLD 4455

TOWNSVILLE 07 4779 4088 16 Mackley St, Garbutt QLD 4814

RICHLANDS

07 3907 5800 462 Boundary Rd, Richlands QLD 4077

ROCKHAMPTON

07 4939 1095 39-42 Johnson St, Park Hurst, QLD, 4702

BILOELA

07 4939 1095 67 Dawson Hwy, Biloela QLD 4715

SUNSHINE COAST

0409 595 618 562 Maroochydore Rd, Kunda Park, QLD, 4556

MACKAY 07 4952 6998 135 Diesel Drive, Paget QLD 4740

PART OF III SMITHBRIDGE GROUP

KATO KRM-13H

13 TONNE HYDRAULIC SLEW CRANE

Specification

Height	2.845 m
Length	7.375 m
Width	1.995 m
Regd Weight TARE	13140 kgs











Cityrange? **SUPERBOOM**





[SPECIFICATION]

CRANE			
Description		Rough terrain cran	e with maximum lifting capacity 13 ton
Crane spectrum	cification	1	
		5.3 m Boom	13,000kg × 1.7 m (Parts of line : 8)
		9.04 m Boom	6,000kg × 4.0 m (Parts of line : 4)
		16.52 m Boom	5,000kg × 4.5 m (Parts of line : 4)
Maximum rated	lifting	20.26 m Boom	4,700kg × 4.0 m (Parts of line : 4)
Capacity		24.0 m Boom	3,200kg × 5.5 m (Parts of line : 4)
		3.6 m Jib	1,600kg × 75° (Parts of line : 1)
		5.5 m Jib	$1,000 \text{kg} \times 70^{\circ} (\text{Parts of line : 1})$
Boom length		5.3m — 24.0m	1,600kg (Parts of line : 1)
Fly jib length		3.6m — 5.5m	
Maximum rated	lifting	24.8m (Boom)	
height	-	30.3m (jib)	
Hoisting	Main winch	118m / min. (at 5th	layer)
Hoisting book speed	Main winch	(Parts of line: 8)	14 75m / min (at 5th laver)
(winch up)	Auxiliary winch	(Parts of line; 1) : 1	03m / min. (at 3rd layer)
High-speed lowering	Main winch	180m / min (at 5th	layer)
Rope speed	Auxiliary winch	155m / min (at 3rd	layer)
Boom derricking	g angle	-7.5° — 82°	
Boom derricking	g time	$308 / -7.5^{\circ} - 82^{\circ}$	
Slewing speed	y speed	2 4min ⁻¹	
Tail slewing rad	ius	1,600mm	
Equipment	t and stru	ucture	
Boom type		Box-shaped, 6-sec (the 2nd and 3rd jil	tion hydraulically telescopic type o sections at the same time, the 4th, 5th and 6th same time)
Jib type		2 sections (2nd se Hydraulic stepless	ction of draw-out type) tilting type (offset angles $5^{\circ} - 60^{\circ}$)
Boom extension retraction equip	n/ ment	Two hydraulic cylin	ders and wire ropes used together
Boom derricking equipment	g/lowering	One hydraulic cylir compensated flow	der of direct acting type with pressure- control valve
Winch system	/ winches	Two units of Single negative brake) with	winch, Differential gear reduction type (built-in the Automatic brake, High/Low speed switching
Slewing equipm	hent	system and Hydra Equipped with Hyd	ulic compensated flow control valve. raulic motor drive and a planetary gear speed
Slowing booring		reducer (built-in ne	gative brake)
Siewing beaning	Type	Hydraulic H-beam	type (with float and vertical cylinder in single unit)
	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4,750mm (Fully ex	tended)
Outriggers	Extonsion	4,300mm (Interme	diately extended)
Callggord	width	3,700mm (Interme	diately extended)
		2,700mm (Interme	diately extended)
Wire rope for	Main winch	Diameter: 11.2mm	×Length: 132m
hoisting	Auxiliary winch	Diameter: 11.2mm	×Length: 65m
Hydraulic	equipme	nt	Ť
Oil pump		Double variable plu	inger type, gear and plunger type
	Hoisting	Axial plunger type	
Hydraulic	motor		
	motor	Axial plunger type	intermed where the state of the forest sectors
Control valve		(With Hydraulic co	mpensated flow control valve)
Cylinder	n a aitu	Double acting type	
	viooc	IOUL	
Safety dev	lices	100 (Automotio Ore	Protoco with union of any)
		Slewing automatic Cra	top system with voice alarm), top system. Working area restriction unit.
		Outrigger status det	ector,
		Natural lowering pre	vention unit for boom derricking/lowering,
		Natural lowering pre	vention unit for jib derricking/lowering,
		Overhoist prevention	device, Drum lock device, Automatic winch brake,
		Slewing warning lan	np, Hydraulic oil temperature warning device.
		Sling rope holding d	evice
Standard	equipmer	nt	
		Air conditioner, Wir (on boom, table an	nch drum turning indication device, Working light d cab)
Operator's	cab		· · · · · · · · · · · · · · · · · · ·
		Tilt/telescopic stee	ring wheel,
		Full-adjustable sus	pension seat (with Headrest and Armrest),
		Hot & cool box. Int	ermittent front & roof wipers (with Washer).
		Lunch table, AM/FI	M radio with Clock, Cigarette lighter,
	quipmon	l Step lamp, fire exti t	nguisner, Floor mat
· · ·	quipmen	ACS external displ	av Loudspeaker Door visor Tanding prevention

	-	
	R	
Carrier sp	ecificatio	n
Maximum trave	ling speed	49km/h
Grade ability		0.56 (tan θ)
Minimum turnin	g radius	6.5m (2 wheel steer)
(center of extrem	e outer tire)	3.92m (4 wheel steer)
Engine		
Model		Mitsubishi 4M50-TLE3A
Туре		4 cycle, 4 cylinders, water cooled, direct injection turbo-charged diesel engine with intercooling
Piston displace	ment	4.899L
Max. power		129kW at 2,700min ⁻¹
Max. torque		530N·m at 1,600min ⁻¹
Equipmen	t and stru	ucture
Drive system		Switches between 2 wheel drive (4×2) and 4 wheel drive (4×4)
Torque converte	er	Engine mounted 3 elements 1 stage (with lock up clutch)
Transmission		Remote mounted full automatic
Number of spee	eds	4 forward & 1 reverse speed
Axles	Front	Full floating type, with a two-stage reduction gear
	Rear	Full floating type, with a two-stage reduction gear
Suspension	Front	Taper - leaf spring (hydraulic locking device with shock absorber)
	Rear	Taper - leaf spring (hydraulic locking device with shock absorber)
	Service	Air-over hydraulic disk brake on 4 wheels (front and rear independent circuit)
Brake system	Parking	Spring applied, electrically air released parking brake mounted on front axle, internal expanding type
	Auxiliary	Exhaust pipe open/close valve type exhaust brake, Auxiliary braking unit for working
	Model	All hydraulic power steering
Steering	Mode	Front 2 wheel steering, rear 2 wheel steering, independent front and rear wheel steering (with automatic rear steering lock system)
Tiro sizo	Front	275 / 80 R22.5 151 / 148J
The size	Rear	275 / 80 R22.5 151 / 148J
Fuel tank capad	city	250 L
Batteries		(12V-100AH) ×2
Safety dev	vices	
		Emergency steering device, Rear wheel steering lock system (automatic), Brake fluid leak warning device, Auxiliary braking unit for working, Suspension lock, Engine overspeed alarm,
Ctondord		
 Stanuard 	equipriiei	IL Aluminum outrigger ploto. Electrically staved side mirrors
Ontional	auinmaa	Auminum outrigger plate, Electrically stowed side MIRTORS
	quipmen	Rearview camera, Left side view camera, Wheel chock
GENER	AL Din	nensions
Overall length		7,440mm
Overall width		1,995mm
Overall height		2,845mm
Wheel base		2,750mm
Treads	Front	1,680mm
	Rear	1,680mm
Passenger cap	acity	Une person
	weight	approx. 13,765kg
Gross vehicle mass	Front weight	approx. 6,790kg
	Rear weight	approx. 6,975kg
 Stow the horizontal 	oks in place	e 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

5.3m — 24.0m Boom

				1						1											/			
			(4.7	5m)					(4.3	3m)					(3.	7m)					(2.7	7m)		
		Outrig	gers f	ully ex	tende	d		Outrig	gers i	nterme	ediatel	у		Outrig	gers i	nterme	ediatel	у		Outrig	gers i	nterme	ediatel	y
Working		(;	360° fu	III rang	je)			ext	ended	(over	side)			ext	ended	(over	side)	r		exte	ended	(over	side)	
radius (m)	5.3m	9.04m	12.78m	16.52m	20.26m	24.0m	5.3m	9.04m	12.78m	16.52m	20.26m	24.0m	5.3m	9.04m	12.78m	16.52m	20.26m	24.0m	5.3m	9.04m	12.78m	16.52m	20.26m	24.0m
15	13.00	6.00	6.00	DUUIII	DUUIII	DUUIII	13.00	6.00	6.00	DUUIII	DUUIII	DUUIII	12 00	6.00	6.00	BUUIII	DUUIII	DUUIII	12 00	6.00	6.00	DUUIII	DUUIII	DUUIII
17	13.00	6.00	6.00				13.00	6.00	6.00				12.00	6.00	6.00				12.00	6.00	6.00			
2.0	12.00	6.00	6.00	5.00			12.00	6.00	6.00	5.00	1		12.00	6.00	6.00	5.00			12.00	6.00	6.00	5.00		
2.0	10.00	6.00	6.00	5.00			10.00	6.00	6.00	5.00			10.00	6.00	6.00	5.00			9.50	6.00	6.00	5.00		
2.5	0.00	0.00	0.00	5.00	4.70		10.00	0.00	0.00	5.00	4.70		0.00	0.00	0.00	5.00	4.70		0.00	0.00	0.00	5.00	4.70	
3.0	8.20	6.00	6.00	5.00	4.70	3 20	8.20	6.00	6.00	5.00	4.70	3 20	8.20	6.00	6.00	5.00	4.70	3 20	6.00	4 70	4.60	5.00 4.50	4.70	3 20
4.0	6.10	6.00	6.00	5.00	4.70	3.20	6.10	6.00	6.00	5.00	4.70	3.20	6.10	6.00	6.00	5.00	4.70	3.20	3.70	3.70	3.70	3.70	3.70	3.20
4.5		5.50	5.40	5.00	4.50	3.20		5.50	5.40	5.00	4.50	3.20		5.10	5.10	5.00	4.50	3.20		3.00	3.00	3.10	3.10	3.00
5.0		5.00	4.90	4.60	4.05	3.20		5.00	4.90	4.60	4.05	3.20		4.40	4.40	4.50	4.05	3.20		2.40	2.40	2.60	2.70	2.70
5.5		4.50	4.40	4.20	3.70	3.20		4.50	4.40	4.20	3.70	3.20		3.80	3.70	3.90	3.70	3.20		2.00	2.00	2.20	2.30	2.30
6.0		4.10	4.00	3.80	3.40	3.00		4.10	4.00	3.80	3.40	3.00		3.20	3.20	3.40	3.40	3.00		1.70	1.70	1.85	2.00	2.05
6.5		3.70	3.65	3.50	3.15	2.80		3.65	3.60	3.50	3.15	2.80		2.80	2.75	2.95	3.05	2.75		1.40	1.40	1.60	1.70	1.75
7.0		3.35	3.30	3.20	2.90	2.60		3.20	3.15	3.20	2.90	2.60		2.40	2.35	2.55	2.70	2.50		1.20	1.20	1.40	1.50	1.55
8.0		2.70 (7.7m)	2.90	2.70	2.50	2.25		2.65 (7.7m)	2.45	2.60	2.50	2.25		1.95 (7.7m)	1.80	2.00	2.10	2.15		0.90 (7.7m)	0.85	1.05	1.15	1.20
9.0			2.25	2.30	2.20	1.95			1.90	2.10	2.20	1.95			1.40	1.60	1.70	1.75			0.60	0.80	0.90	0.95
10.0			1.80	2.05	1.95	1.75			1.50	1.70	1.85	1.75			1.05	1.25	1.35	1.45			0.35	0.55	0.65	0.75
11.0			1.45	1.70	1.75	1.55			1.20	1.40	1.55	1.55			0.80	1.00	1.10	1.20				0.40	0.50	0.60
12.0			1.35 (11.4m)	1.40	1.50	1.40			1.10 (11.4m)	1.15	1.30	1.35			0.70 (11.4m)	0.80	0.90	1.00				0.25	0.35	0.45
13.0				1.15	1.30	1.25				0.95	1.10	1.15				0.65	0.75	0.85					0.20	0.30
14.0				0.95	1.10	1.15				0.80	0.90	1.00				0.50	0.60	0.70						0.20
15.0				0.80	0.90	1.00				0.65	0.75	0.85				0.40	0.50	0.55						
16.0					0.79	0.85					0.65	0.70					0.40	0.45						
17.0					0.68	0.74					0.55	0.60					0.30	0.35						
18.0					0.58	0.64					0.45	0.50						0.30						
19.0					0.51(18.8m)	0.55					0.35 (18.8m)	0.40												
20.0						0.47						0.35												
21.0						0.41						0.30												
22.0						0.35						0.25												
22.5						0.32																		
Critical boom angle	—	_	—	—	—	_	_	_	_	_	-	_	-	_	_	-	23°	36°	_	—	19°	32°	44°	50°
Standard hook			for 1	3 ton					for 1	3 ton					for 1	3 ton					for 1	3 ton		
Hook mass			90	kg					90	kg					90)kg					90)kg		
Parts of line	8	4	4	4	4	4	8	4	4	4	4	4	8	4	4	4	4	4	8	4	4	4	4	4
																						(Unit :	Metri	c ton)

5.3m — 24.0m Boom

			(1.6	ال ا 4m)		
Working	Ou	itrigge	rs com (ove	pletely r side)	y retra	cted
radius (m)	5.3m	9.04m	12.78m	16.52m	20.26m	24.0m
	Boom	Boom	Boom	Boom	Boom	Boom
1.5	8.00	6.00	6.00			
1.7	7.00	6.00	6.00			
2.0	5.60	5.40	5.00	4.70		
2.5	3.80	3.80	3.60	3.50		
3.0	2.80	2.80	2.70	2.70	2.60	
3.5	2.10	2.10	2.00	2.10	2.10	2.10
4.0	1.60	1.60	1.55	1.70	1.70	1.75
4.5		1.25	1.20	1.40	1.40	1.45
5.0		0.95	0.95	1.10	1.20	1.25
5.5		0.75	0.75	0.90	1.00	1.05
6.0		0.60	0.55	0.75	0.80	0.90
6.5		0.40	0.35	0.60	0.65	0.75
7.0		0.25		0.45	0.55	0.60
Critical		200	E 4º	C1º	66°	70°
boom angle		20	54	01	00	70
Standard			for 1	3 ton		
hook			101 1	0.011		
Hook mass			90	kg		
Parts of line	8	4	4	4	4	4

(Unit : Metric ton)

When the outriggers are not used

		Sta	tionary	on rub	ber		Р	ick & c	arry (le	ss thar	n 2 km/	'n)		
Working	5.3m	Boom	9.04m	Boom	12.78n	n Boom	5.3m	Boom	9.04m	Boom	12.78n	n Boom	Working	
radius (m)	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	radius (m)	
1.5	3.60	2.80	3.60	2.80	3.60	2.80	3.20	2.00	3.20	2.00	3.20	2.00	1.5	
2.0	3.40	2.80	3.40	2.80	3.40	2.80	3.00	2.00	3.00	2.00	3.00	2.00	2.0	
2.5	3.10	2.15	3.10	2.10	3.10	2.05	2.80	1.55	2.75	1.50	2.65	1.45	2.5	
3.0	2.65	1.60	2.60	1.55	2.55	1.50	2.40	1.10	2.30	1.05	2.20	1.00	3.0	
3.5	2.30	1.25	2.20	1.20	2.10	1.10	2.00	0.85	1.90	0.75	1.80	0.65	3.5	
4.0	2.00	0.90	1.90	0.80	1.70	0.70	1.70	0.60	1.65	0.50	1.50	0.40	4.0	
4.5			1.60	0.50	1.40	0.40			1.40	0.30	1.25		4.5	
5.0			1.30		1.10				1.15		1.00		5.0	
5.5			1.10		0.95				0.95		0.85		5.5	
6.0			0.90		0.80				0.80		0.70		6.0	
7.0	0.50 0.50								0.45		0.45		7.0	
Critical boom angle	_	_	26°	54°	52°	66*	_	_	26°	54°	52°	68°	Critical boom angle	
Standard hook			for 1	3 ton					Standard hook					
Hook mass			90	lkg					Hook mass					
Parts of line		4						4						

(Unit : Metric ton)

581-75101001 581-75103001

																		Ba	sed or	n ISO Not	4305 excee	ed 75%	% of st	atic ti	oping	loads
									24.0)m	Bo	oor	n⊣	-3	.6n	n J	lib									
			1 1 1	i (4	.75m)					/]	1 (4.	.3m)						-		(3.7	m)			
C	utrigg	ers full	y exte	nded ((360° fi	ull rang	ge)		Outi	riggers	interr	nediate	ely ext	ended	(over	side)		Outi	iggers	intern	nediate	ely ext	ended	(over	side)	
Boom	Offs	et 5°	Offse	et 25°	Offse	et 45°	Offse	et 60°	Boom	Offs	et 5°	Offse	et 25°	Offse	et 45°	Offs	et 60°	Boom	Offs	et 5°	Offse	et 25°	Offse	et 45°	Offse	et 60°
angle (°)	Working radius (m)	Load (ton)	angle (°)	Working radius (m)	Load (ton)	angle (°)	Working radius (m)	Load (ton)																		
82	4.4	1.60	5.8	1.50	6.5	1.00	6.8	0.65	82	4.4	1.60	5.8	1.50	6.5	1.00	6.8	0.65	82	4.4	1.60	5.8	1.50	6.5	1.00	6.8	0.65
80	5.2	1.60	6.4	1.50	7.2	1.00	7.4	0.65	80	5.2	1.60	6.4	1.50	7.2	1.00	7.4	0.65	80	5.2	1.60	6.4	1.50	7.2	1.00	7.4	0.65
75	7.8	1.60	8.7	1.17	9.5	0.93	9.6	0.65	75	7.8	1.60	8.7	1.17	9.5	0.93	9.6	0.65	75	7.8	1.60	8.7	1.17	9.5	0.93	9.6	0.65
70	10.1	1.25	11.1	0.98	11.6	0.85	11.8	0.65	70	10.1	1.25	11.1	0.98	11.6	0.85	11.8	0.65	70	10.1	1.25	11.1	0.98	11.6	0.85	11.8	0.65
65	12.3	1.05	13.1	0.88	13.6	0.77	13.8	0.65	65	12.3	1.05	13.1	0.88	13.6	0.77	13.8	0.65	65	12.2	0.90	13.1	0.77	13.6	0.77	13.8	0.65
60	14.3	0.90	15.1	0.76	15.6	0.70	15.6	0.65	60	14.3	0.87	15.1	0.76	15.6	0.70	15.6	0.65	60	14.2	0.59	15.0	0.54	15.5	0.54	15.5	0.54
55	16.3	0.72	17.0	0.64	17.4	0.64			55	16.2	0.60	16.9	0.55	17.3	0.53			55	16.0	0.37	16.8	0.33	17.2	0.33		
50	18.1	0.57	18.7	0.51	18.9	0.53			50	18.0	0.43	18.6	0.41	18.8	0.40			50	17.8	0.20	18.5	0.18	18.7	0.18		
45	19.7	0.42	20.4	0.40	20.3	0.40			45	19.6	0.30	20.2	0.27	20.3	0.27			Critical boom angle	49	9°	4	9°	4	9°	5.	9°
40	21.1	0.30	21.6	0.29					40	21.0	0.19	21.5	0.18					Standard hook				for 1.	8 ton			
35	22.3	0.22	22.7	0.20					Critical boom angle	3	9°	3.	9°	4	4°	5	'9°	Hook mass				25	ikg			
Critical boom angle	3.	4°	34	4°	4	4°	5.	9°	Standard hook				for 1	.8 ton				Parts of line					1			
Standard hook				for 1.	.8 ton				Hook mass				25	ikg												
Hook mass				25	ikg				Parts of line					1												
Parts of line					1				J																	

24.0)m	Bo	oor	n-	⊦3	.6r	n J	lib					24	4.0	m	Bc	or	n+5	.5r	n J	lib					
			∃ 1 1	(2.7n	n)								1 (4	.75m))					/]	1 (4.	.3m)			
Out	riggers	interr	nediat	ely ex	tendec	d (over	side)		0	utrigge	ers full	y exte	nded (360° fu	ıll rang	ge)		Outi	riggers	intern	nediate	ely ext	ended	(over	side)	
Boom	Offse	et 5°	Offse	et 25°	Offse	et 45°	Offse	et 60°	Boom	Offs	et 5°	Offse	et 25°	Offse	et 45°	Offse	et 60°	Boom	Offs	et 5°	Offse	et 25°	Offse	et 45°	Offse	et 60°
angle	Working	Load	Working	Load	Working	Load	Working	Load	angle	Working	Load	Working	Load	Working	Load	Working	Load	angle	Working	Load	Working	Load	Working	Load	Working	Load
(°)	radius (m)	(ton)	radius (m)	(ton)	radius (m)	(ton)	radius (m)	(ton)	(°)	radius (m)	(ton)	radius (m)	(ton)	radius (m)	(ton)	radius (m)	(ton)	(°)	radius (m)	(ton)	radius (m)	(ton)	radius (m)	(ton)	radius (m)	(ton)
82	4.4	1.60	5.8	1.50	6.5	1.00	6.8	0.65	82	4.8	1.00	6.9	1.00	8.2	0.65	8.6	0.40	82	4.8	1.00	6.9	1.00	8.2	0.65	8.6	0.40
80	5.2	1.60	6.4	1.50	7.2	1.00	7.4	0.65	80	5.6	1.00	7.6	1.00	8.9	0.65	9.2	0.40	80	5.6	1.00	7.6	1.00	8.9	0.65	9.2	0.40
75	7.8	1.20	8.7	1.05	9.5	0.93	9.6	0.65	75	8.4	1.00	10.1	0.85	11.2	0.63	11.5	0.40	75	8.4	1.00	10.1	0.85	11.2	0.63	11.5	0.40
70	10.0	0.72	10.9	0.65	11.5	0.62	11.7	0.56	70	11.1	1.00	12.4	0.72	13.4	0.58	13.6	0.40	70	11.1	1.00	12.4	0.72	13.4	0.58	13.6	0.40
65	11.9	0.41	12.9	0.35	13.4	0.34	13.6	0.33	65	13.4	0.81	14.7	0.61	15.6	0.52	15.6	0.40	65	13.4	0.81	14.7	0.61	15.6	0.52	15.6	0.40
Critical boom angle	64	1°	64	4°	64	4°	6	4°	60	15.6	0.69	16.8	0.55	17.5	0.48	17.4	0.40	60	15.5	0.69	16.8	0.55	17.5	0.48	17.4	0.40
Standard hook				for 1.	8 ton				55	17.7	0.58	18.8	0.49	19.3	0.45			55	17.6	0.54	18.7	0.49	19.2	0.45		
Hook mass				25	ikg				50	19.6	0.49	20.5	0.44	20.8	0.41			50	19.5	0.38	20.4	0.36	20.7	0.35		
Parts of line				:	1				45	21.2	0.38	22.0	0.36	22.3	0.36			45	21.0	0.27	21.8	0.25	22.1	0.25		
									40	22.9	0.26	23.4	0.26					Critical boom angle	4	4°	4	4°	4	4°	59	9°
									Critical boom angle	3	9°	3.	9°	44	4°	5	9°	Standard hook				for 1	.8 ton			
									Standard hook				for 1.	8 ton				Hook mass				25	ikg			
									Hook mass				25	kg				Parts of line					1			
									Parts of line	Parts of line 1																

24.0m Boom+5.5m Jil

		-		(3.7	m)								(2.7m	ו)			
Outr	iggers	intern	nediate	ely ext	ended	(over	side)		Outr	riggers	intern	nediate	ely ext	ended	(over	side)	
Boom	Offs	et 5°	Offse	et 25°	Offse	et 45°	Offse	et 60°	Boom	Offs	et 5°	Offse	et 25°	Offse	et 45°	Offse	et 60°
angle	Working	Load	Working	Load	Working	Load	Working	Load	angle	Working	Load	Working	Load	Working	Load	Working	Load
(°)	radius (m)	(ton)	radius (m)	(ton)	radius (m)	(ton)	radius (m)	(ton)	(°)	radius (m)	(ton)	radius (m)	(ton)	radius (m)	(ton)	radius (m)	(ton)
82	4.8	1.00	6.9	1.00	8.2	0.65	8.6	0.40	82	4.8	1.00	6.9	1.00	8.2	0.65	8.6	0.40
80	5.6	1.00	7.6	1.00	8.9	0.65	9.2	0.40	80	5.6	1.00	7.6	1.00	8.9	0.65	9.2	0.40
75	8.4	1.00	10.1	0.85	11.2	0.63	11.5	0.40	75	8.4	1.00	10.1	0.85	11.2	0.63	11.5	0.40
70	11.1	1.00	12.4	0.72	13.4	0.58	13.6	0.40	70	10.8	0.66	12.3	0.55	13.3	0.48	13.6	0.40
65	13.4	0.75	14.7	0.61	15.6	0.52	15.6	0.40	65	12.9	0.36	14.4	0.30	15.3	0.26		
60	15.4	0.52	16.7	0.45	17.5	0.42	17.4	0.40	Critical boom angle	64	1°	64	0	64	t°	69)°
55	17.4	0.31	18.6	0.28	19.1	0.28			Standard hook				for 1.	8 ton			
52	18.5	0.22	19.5	0.21	20.0	0.20			Hook mass				25	ikg			
Critical boom angle	5	1°	51	°	51	0	59)°	Parts of line					1			
Standard hook	for 1.8 ton																
Hook mass				25	ikg												
Parts of line		1															

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.

[13 ton hook (mass: 90 kg), 1.8 ton hook (mass: 25 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 24.0 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 lifting capacity chart of outriggers full extended for both front and rear areas lifting capacities.



Outrigger	Intermediate	Intermediate	Intermediate	Full retraction
extension status	extension (4.3m)	extension (3.7m)	extension (2.7m)	
Area <i>a</i> °	25	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 1,800 kg.

[The hook for use with the rooster sheave is the 1.8 ton hook (mass: 25 kg) with one part of line.]

- 7. If the boom length, boom angle, working radius and/or jib angle 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 600 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 5 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 completely retracted.
- 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. 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 15.7 kN (1.6 tf) per wire rope respectively.
- High-speed lowering operation should only be performed to allow descent of the hook alone. Avoid sudden lever operation.
- 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. Kato bears no liability whatsoever for crane tipping or damage caused by crane operations with a load in excess of the lifting capacity or incorrect procedure.

When the outriggers are not used

 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: 875 kPa (8.75 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 \circ	1	1

- 4. Do not work with the jib or with a boom length of more than 12.78 m.
- 5. For stationary crane-on-rubber operation, the parking brake and service brake lock device must be engaged.
- 6. For pick and carry operation, the shift lever set to speed 1.
- 7. 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.

- 8. Never operate the crane during pick and carry operation. The slewing brake must be applied.
- 9. 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 1,800 kg.

[The hook for use with the rooster sheave is the 1.8 ton hook (mass: 25 kg) with one part of line.]

- 10. If the boom length, boom angle, working radius and/or jib angle 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 15.7 kN (1.6 tf) per wire rope respectively.
- High-speed lowering operation should only be performed to allow descent of the hook alone. Avoid sudden lever operation.
- 14. 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.
- 15. Kato bears no liability whatsoever for crane tipping or damage caused by crane operations with a load in excess of the lifting capacity or incorrect procedure.

WORKING RANGE



Minimum path width





Overall view



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

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