

# KA-900

## ALL TERRAIN CRANE

### SPECIFICATION

(Lattice fly jib version)

#### ■ CRANE SPECIFICATION

##### Performance

Maximum rated lifting capacity:	90 metric tons × 2.8m (over rear) 82 metric tons × 3.0m (360°)
Boom length:	11.8m – 45.0m (5 section)
Fly jib length (OPTION):	10.0m/18.0m (2 section, offset 0°, 25° & 45°)
Maximum lifting height:	Boom 45.8m (45.0m Boom) Jib 64.4m (45.0m Boom + 18.0m fly jib offset 0°)
Boom derricking angle:	-2° – 83°
* Boom derricking time:	70sec. (-2° – 83°)
* Boom extending time:	98sec. (11.8m – 45.0m)
* Hoisting line speed (winch up)	
Main winch:	122m/min. (at 4th layer)
Auxiliary winch:	122m/min. (at 4th layer)
* Hoisting hook speed (winch up)	
Main winch (parts of line; 15):	8.1m/min. (at 4th layer)
Auxiliary winch (parts of line; 1):	122m/min. (at 4th layer)
* Slewing speed:	1.95min <sup>-1</sup>
* Speed:	Subject to no load

##### Hoisting Ropes

Main winch;	
Diameter:	18mm
Length:	225m
Auxiliary winch;	
Diameter:	18mm
Length:	145m

##### Hydraulic System

Oil pump:	Double variable axial plunger pump and 2 gear pumps
Hoisting motor:	Axial plunger type
Slewing motor:	Axial plunger type
Cylinder:	Double acting type
Control valve:	3 position 4 way double acting with integral check and relief valves
Oil reservoir capacity:	850lit.

##### Winch System

Main winch & Auxiliary winch:	Driven by axial plunger type hoisting motor with planetary gear reduction. Controlled independently by respective operating lever. Equipped with automatic brake.
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##### Engine for superstructure

Maker:	VOLVO PENTA
Model:	TD730VE
Type:	Turbo-charged in line 6 cylinder, 4 stroke diesel engine with direct injection
Displacement:	6730cc
Max. power:	150kW at 2250 min <sup>-1</sup>
Max. torque:	800N · m at 1450 min <sup>-1</sup>
	Power ratings acc. to ISO3046 without fan

NOTE: The engine emission is in accordance with 97/68/EC.

Electric system:	24V
Alternator:	24V - 55A
Battery:	(12V - 120AH) × 2
Fuel tank capacity:	250 lit.

##### Safety devices

Safe load indicator:	KATO ACS (Automatic Crane Stopper) Multivision system. Include following display & functions
	Safety margin bar graph display
	Safety percentage digital indication
	Boom operation status display
	Outrigger setting status display
	Slewing direction display
	Boom length bar graph display
	Display of function icons
	Maximum hoist height digital indication
	Actual load digital indication
	Limit load digital indication
	Boom length digital indication
	Boom angle digital indication
	Working radius digital indication
	Number of parts of line indication
	Jib offset angle digital indication
	Error code indication
	Outside audible warning device
	Voice alarm (option)
	Working area restriction mode (Working range limit mode)
	Target mode
	Counter weight position indication
	Mass of counter weight display
	Mechanical slewing lock
	Mechanical slewing brake
	Boom falling prevention device (on Derrick & Tele)
	Hoisting limiter
	Automatic winch brake
	Irregular winding prevention device
	Winch drum lowering limiter
	Joy stick control safety stop system
	Hydraulic safety valves
	Outrigger lock device
	Engine oil pressure warning lamp
	Battery charge warning lamp
	Coolant temperature warning lamp
	Coolant level warning lamp
	Fuel level warning lamp
	Slewing warning lamp
	Winch drum turning indication device
	Hydraulic oil return filter warning lamp
	Hydraulic oil temperature warning lamp

##### Standard equipment

Oil cooler
20ton Hook
6.5ton Hook (for Aux. winch)
Rooster sheave
Aux. winch
Tea table
Fully adjustable operator's seat
Floor carpet
Side mirror
Sun shade, Roll-in type for roof window
Sun visor
Front windscreen wiper & washer (2 speed wiper)
Roof window wiper & washer (2 speed wiper)
Working light (2 lamps)
Powered window (with closing switch from outside)
Lamp for access step
24V-power outlet

##### Option

Amplifier
English voice alarm of ACS.
10m/18m Lattice fly jib
Air-conditioner (with cold/warm box)
FM/AM Radio
90ton & 45ton Hook



# SPECIFICATION

## ■ CARRIER SPECIFICATION (Carrier KATO 4100)

Overall length:	13250mm
Overall width:	2750mm
Overall height:	3930mm (3830mm – with suspension cylinders fully retracted)
Wheel base:	1650mm + 2400mm + 1650mm
Treads; Front & Rear:	2300mm
Center to center of extended outriggers:	7400mm (Fully extended) 5000mm (Intermediately extended) 2510mm (Blocked on vertical cylinders)
Gross vehicle weight:	48000kg
Front	24000kg
Rear	24000kg
Drive system:	8 × 6 × 8
Maximum traveling speed:	75km/h
Gradeability (tan θ):	60% (computed @G.V.W. = 48000kg)
Minimum turning radius:	6.6m (all wheel steer)
(center of extreme outer tyre):	11.2m (Front wheel steer)
Engine:	
Maker:	VOLVO
Model:	D12A 420 (EURO 2)
Type:	Straight 6, turbo-charged diesel with intercooling
No. of cylinder:	6
Piston displacement:	12130cc
Max. power:	309kW at 1800min <sup>-1</sup>
Max. torque:	1850N·m at 1200min <sup>-1</sup>
NOTE:	Conforms to EURO 2 on-highway regulations EEC 91/542
Transmission:	6 forward & 1 reverse speed, Full automatic
Transfer gear box:	Equipped with low range speed
Axle:	All axles steered, Axle 1st, 2nd, and 4th have planetary gear reduction and differential lock, inter-axle differential lock on 2nd axle
Suspension:	Hydro-pneumatic suspension with hydraulic suspension locking system
Steering:	Semi-integral dual-circuit, hydraulic power assisted steering
Brake; Service brake:	Dual circuit, pneumatically operated drum brake, acting on all wheels
Parking brake:	Pneumatically operated spring loaded brake acting on 2nd, 3rd and 4th axles
Auxiliary brake:	VEB=Volvo Engine Brake (Compression brake combined with exhaust brake) Eddy-current (TELMA) retarder (OPTION)
Electric system:	24V
Alternator:	24V – 80A
Battery:	(12V – 150AH) × 2
Fuel tank capacity:	400lit.
Driver's cab:	All steel welded construction, Air suspended driver's seat + Foldable passenger seat
Tyre size; Front & Rear:	445/95 R25 177E ROAD
Safety devices:	Emergency steering device Seat belt (3 Points type) (Driver & passenger) Steering wheel lock Low air warning device Side mirror heater Remote adjustable side mirrors Air Filter warning lamp Engine management & warning system Transmission management & warning system Automatic rear steering lock system Suspension lock & control device Rear fog lamp Vehicle management & warning, KATO "COR" system

### Standard equipment

Central lubrication system  
Air dryer  
AM/FM-radio cassette (anti-theft type)  
Sun visor (in cab)  
Tilt-telescope adjustable steering wheel  
Towing eyes front & rear  
Floor carpet  
Fire extinguisher  
Triangle reflector  
Smoke torch  
Powered side windows  
Tachograph  
12V-power outlet

### Option

Auxiliary brake TELMA-retarder  
Air conditioner  
Sun shade for cab (above front windscreen with position lamps)  
Cruise control system



# RATED LIFTING CAPACITY (Main boom)

Based on \*ISO 4305 \*BS 1757:1986 \*DIN 15019-2

With additional counterweight; 15ton

Outriggers fully extended (7.4m)						
Working radius (m)	11.8m Boom		20.1m Boom	28.4m Boom	36.7m Boom	45.0m Boom
	Over rear	360° full range				
2.8	90.00	82.00	40.00			
3.0	85.00	82.00	40.00	25.00		
3.5	76.00	75.00	40.00	25.00		
4.0	68.00	68.00	40.00	25.00		
4.5	60.00	60.00	40.00	25.00	15.00	
5.0	54.00	54.00	40.00	25.00	15.00	
6.0	43.50	43.50	38.40	25.00	15.00	9.00
7.0	36.50	36.50	34.20	25.00	15.00	9.00
8.0	31.20	31.20	30.90	23.40	15.00	9.00
9.0			26.70	21.00	15.00	9.00
10.0			23.30	19.00	15.00	9.00
11.0			20.20	17.30	15.00	9.00
12.0			17.80	15.80	14.00	9.00
14.0			13.65	13.40	11.90	9.00
16.0			10.80	10.60	10.20	9.00
18.0				8.50	8.90	8.10
20.0				6.75	7.90	7.20
22.0				5.40	6.55	6.40
24.0				4.30	5.45	5.70
26.0					4.50	5.10
28.0					3.75	4.30
30.0					3.05	3.65
32.0					2.50	3.05
34.0					2.00	2.60
36.0						2.15
38.0						1.75
40.0						1.45
42.0						1.15
Standard hook	for 90ton	for 90ton	for 45ton	for 45ton	for 20ton	for 20ton
Hook mass	1000kg	1000kg	430kg	430kg	270kg	270kg
Parts of line	15	15	7	4	3	3
Critical boom angle	—	—	—	—	—	—

(Unit : Metric ton)

Based on \*ISO 4305 \*BS 1757 : 1986 \*DIN 15019-2

With additional counterweight; 10ton

Outriggers fully extended (7.4m)						
Working radius (m)	11.8m Boom		20.1m Boom	28.4m Boom	36.7m Boom	45.0m Boom
	Over rear	360° full range				
2.8	90.00	82.00	40.00			
3.0	85.00	82.00	40.00	25.00		
3.5	74.00	74.00	40.00	25.00		
4.0	64.00	64.00	40.00	25.00		
4.5	56.00	56.00	40.00	25.00	15.00	
5.0	50.00	50.00	40.00	25.00	15.00	
6.0	40.50	40.50	38.40	25.00	15.00	9.00
7.0	34.00	34.00	34.00	25.00	15.00	9.00
8.0	28.80	28.80	28.80	23.40	15.00	9.00
9.0			24.80	21.00	15.00	9.00
10.0			20.95	19.00	15.00	9.00
11.0			17.80	16.55	15.00	9.00
12.0			15.30	14.50	14.00	9.00
14.0			11.60	11.35	11.85	9.00
16.0			9.05	8.85	9.65	9.00
18.0				6.85	7.95	8.10
20.0				5.35	6.50	6.85
22.0				4.15	5.25	5.75
24.0				3.15	4.25	4.85
26.0					3.45	4.05
28.0					2.70	3.35
30.0					2.10	2.75
32.0					1.60	2.25
34.0					1.15	1.75
36.0						1.35
38.0						1.00
Standard hook	for 90ton	for 90ton	for 45ton	for 45ton	for 20ton	for 20ton
Hook mass	1000kg	1000kg	430kg	430kg	270kg	270kg
Parts of line	15	15	7	4	3	3
Critical boom angle	—	—	—	—	—	—

(Unit : Metric ton)

**Note:** The rated lifting capacity of the rooster sheave is the rated lifting capacity of the boom minus the mass of all attached slings etc. to the boom, with an upper limit of 6,500kg.

[The hook for use with the rooster sheave is the 6.5ton hook (mass 150kg) with one part of line.]



## RATED LIFTING CAPACITY (Main boom)

Based on \* ISO 4305 \* BS 1757 : 1986 \* DIN 15019-2

With additional counterweight; 5ton

Outriggers fully extended (7.4m)						
Working radius (m)	11.8m Boom		20.1m Boom	28.4m Boom	36.7m Boom	45.0m Boom
	Over rear	360° full range				
2.8	85.00	82.00	40.00			
3.0	82.00	82.00	40.00	25.00		
3.5	70.00	70.00	40.00	25.00		
4.0	61.00	61.00	40.00	25.00		
4.5	53.00	53.00	40.00	25.00	15.00	
5.0	47.00	47.00	40.00	25.00	15.00	
6.0	38.00	38.00	38.00	25.00	15.00	9.00
7.0	31.50	31.50	30.40	25.00	15.00	9.00
8.0	26.50	26.50	25.00	21.80	15.00	9.00
9.0			21.00	18.40	15.00	9.00
10.0			17.70	15.75	15.00	9.00
11.0			14.90	13.55	13.85	9.00
12.0			12.75	11.75	12.20	9.00
14.0			9.50	8.85	9.50	9.00
16.0			7.10	6.75	7.50	7.80
18.0				5.05	5.95	6.35
20.0				3.70	4.75	5.15
22.0				2.65	3.80	4.20
24.0				1.75	2.90	3.40
26.0					2.20	2.75
28.0					1.60	2.20
30.0					1.05	1.70
32.0						1.25
34.0						0.85
Standard hook	for 90ton	for 90ton	for 45ton	for 45ton	for 20ton	for 20ton
Hook mass	1000kg	1000kg	430kg	430kg	270kg	270kg
Parts of line	15	15	7	4	3	3
Critical boom angle	—	—	—	—	25°	36°

(Unit : Metric ton)

Based on \* ISO 4305 \* BS 1757 : 1986 \* DIN 15019-2

Without additional counterweight

Outriggers fully extended (7.4m)						
Working radius (m)	11.8m Boom		20.1m Boom	28.4m Boom	36.7m Boom	45.0m Boom
	Over rear	360° full range				
2.8	84.00	82.00	40.00			
3.0	78.00	78.00	40.00	25.00		
3.5	66.00	66.00	40.00	25.00		
4.0	57.00	57.00	40.00	25.00		
4.5	50.00	50.00	40.00	25.00	15.00	
5.0	44.00	44.00	40.00	25.00	15.00	
6.0	36.00	36.00	31.65	25.00	15.00	9.00
7.0	28.80	28.80	25.10	21.50	15.00	9.00
8.0	22.30	22.30	20.45	17.65	15.00	9.00
9.0			17.00	14.50	14.70	9.00
10.0			14.10	12.05	12.45	9.00
11.0			11.75	10.10	10.65	9.00
12.0			9.85	8.50	9.20	9.00
14.0			6.95	6.10	6.95	7.25
16.0			4.90	4.35	5.25	5.65
18.0				3.05	3.95	4.40
20.0				2.00	2.95	3.45
22.0				1.15	2.15	2.65
24.0					1.45	2.00
26.0						1.40
Standard hook	for 90ton	for 90ton	for 45ton	for 45ton	for 20ton	for 20ton
Hook mass	1000kg	1000kg	430kg	430kg	270kg	270kg
Parts of line	15	15	7	4	3	3
Critical boom angle	—	—	—	25°	43°	50°

(Unit : Metric ton)

### Note:

The rated lifting capacity of the rooster sheave is the rated lifting capacity of the boom minus the mass of all attached slings etc. to the boom, with an upper limit of 6,500kg.

[The hook for use with the rooster sheave is the 6.5ton hook (mass 150kg) with one part of line.]



# RATED LIFTING CAPACITY (Main boom)

Based on \* ISO 4305 \* BS 1757 : 1986 \* DIN 15019-2

With additional counterweight; 15ton

With additional counterweight; 10ton

Outriggers intermediately extended (5.0m) 360° full range						Outriggers intermediately extended (5.0m) 360° full range					
Working radius (m)	11.8m Boom	20.1m Boom	28.4m Boom	36.7m Boom	45.0m Boom	Working radius (m)	11.8m Boom	20.1m Boom	28.4m Boom	36.7m Boom	45.0m Boom
2.8	72.00	40.00				2.8	71.00	40.00			
3.0	72.00	40.00	25.00			3.0	71.00	40.00	25.00		
3.5	65.00	40.00	25.00			3.5	64.00	40.00	25.00		
4.0	59.00	40.00	25.00			4.0	58.00	40.00	25.00		
4.5	53.00	40.00	25.00	15.00		4.5	52.00	40.00	25.00	15.00	
5.0	49.00	40.00	25.00	15.00		5.0	43.85	34.80	25.00	15.00	
6.0	38.20	32.35	25.00	15.00	9.00	6.0	32.40	26.90	22.75	15.00	9.00
7.0	28.75	26.15	22.55	15.00	9.00	7.0	24.25	21.55	18.40	15.00	9.00
8.0	22.75	21.65	18.80	15.00	9.00	8.0	19.05	17.70	15.20	15.00	9.00
9.0		18.10	15.90	15.00	9.00	9.0		14.75	12.70	13.00	9.00
10.0		15.05	13.60	13.90	9.00	10.0		12.30	10.70	11.20	9.00
11.0		12.70	11.75	12.20	9.00	11.0		10.20	9.10	9.70	9.00
12.0		10.75	10.20	10.75	9.00	12.0		8.55	7.75	8.45	8.55
14.0		7.90	7.70	8.45	8.60	14.0		6.05	5.65	6.45	6.70
16.0		5.90	5.70	6.70	7.00	16.0		4.35	4.05	4.95	5.30
18.0			4.20	5.35	5.70	18.0			2.85	3.80	4.15
20.0			3.05	4.20	4.65	20.0			1.85	2.85	3.30
22.0			2.15	3.25	3.80	22.0			1.05	2.05	2.55
24.0			1.40	2.45	3.05	24.0				1.40	1.90
26.0				1.85	2.40	26.0					1.40
28.0				1.30	1.90	Standard hook	for 90ton	for 45ton	for 45ton	for 20ton	for 20ton
30.0					1.40	Hook mass	1000kg	430kg	430kg	270kg	270kg
32.0					1.05	Parts of line	15	7	4	3	3
Standard hook	for 90ton	for 45ton	for 45ton	for 20ton	for 20ton	Critical boom angle	—	—	25°	43°	50°
Hook mass	1000kg	430kg	430kg	270kg	270kg						
Parts of line	15	7	4	3	3						
Critical boom angle	—	—	—	32°	40°						

(Unit : Metric ton)

(Unit : Metric ton)

Based on \* ISO 4305 \* BS 1757 : 1986 \* DIN 15019-2

With additional counterweight; 5ton

Without additional counterweight

Outriggers intermediately extended (5.0m) 360° full range						Outriggers intermediately extended (5.0m) 360° full range					
Working radius (m)	11.8m Boom	20.1m Boom	28.4m Boom	36.7m Boom	45.0m Boom	Working radius (m)	11.8m Boom	20.1m Boom	28.4m Boom	36.7m Boom	45.0m Boom
2.8	70.00	40.00				2.8	68.00	40.00			
3.0	70.00	40.00	25.00			3.0	68.00	40.00	25.00		
3.5	62.00	40.00	25.00			3.5	51.90	36.60	25.00		
4.0	51.80	38.80	25.00			4.0	40.65	29.90	23.50		
4.5	42.40	32.60	25.00	15.00		4.5	33.10	24.90	19.70	15.00	
5.0	35.95	28.00	23.05	15.00		5.0	27.70	21.25	17.15	15.00	
6.0	26.70	21.40	17.90	15.00	9.00	6.0	20.10	15.85	13.05	13.05	9.00
7.0	19.95	16.95	14.25	14.30	9.00	7.0	14.65	12.25	10.10	10.50	9.00
8.0	15.65	13.70	11.55	11.90	9.00	8.0	11.15	9.70	7.95	8.50	8.35
9.0		11.25	9.50	10.00	9.00	9.0		7.70	6.25	7.00	6.95
10.0		9.30	7.85	8.50	8.45	10.0		6.15	4.95	5.75	5.85
11.0		7.70	6.50	7.20	7.30	11.0		4.90	3.85	4.75	4.90
12.0		6.30	5.35	6.15	6.30	12.0		3.85	2.95	3.90	4.10
14.0		4.20	3.60	4.50	4.75	14.0		2.25		2.50	2.85
16.0		2.75	2.25	3.25	3.60	16.0		1.15			
18.0				2.25	2.65	Standard hook	for 90ton	for 45ton	for 45ton	for 20ton	for 20ton
20.0					1.90	Hook mass	1000kg	430kg	430kg	270kg	270kg
Standard hook	for 90ton	for 45ton	for 45ton	for 20ton	for 20ton	Parts of line	15	7	4	3	3
Hook mass	1000kg	430kg	430kg	270kg	270kg	Critical boom angle	—	15°	59°	63°	68°
Parts of line	15	7	4	3	3						
Critical boom angle	—	—	49°	55°	60°						

(Unit : Metric ton)

(Unit : Metric ton)

Based on \* ISO 4305 \* BS 1757 : 1986 \* DIN 15019-2

With additional counterweight; 5ton

Without additional counterweight

With retracted outriggers (2.51m) (blocked on vertical cylinders)		
Working radius (m)	11.8m Boom	20.1m Boom
	360° full range	
2.8	25.40	18.80
3.0	25.40	18.80
3.5	20.50	15.60
4.0	16.75	13.15
4.5	13.60	11.15
5.0	11.25	9.55
6.0	8.10	7.00
7.0	6.05	5.15
8.0	4.65	3.70
9.0		2.60
10.0		1.70
Standard hook	for 45ton	for 45ton
Hook mass	430kg	430kg
Parts of line	7	7
Critical boom angle	—	53°

(Unit : Metric ton)

With retracted outriggers (2.51m) (blocked on vertical cylinders)		
Working radius (m)	11.8m Boom	20.1m Boom
	360° full range	
2.8	17.70	12.50
3.0	17.70	12.50
3.5	14.00	10.10
4.0	11.40	8.20
4.5	9.35	6.75
5.0	7.75	5.50
6.0	5.35	3.60
7.0	3.65	2.20
8.0	2.45	
Standard hook	for 45ton	for 45ton
Hook mass	430kg	430kg
Parts of line	7	7
Critical boom angle	—	63°

(Unit : Metric ton)



# RATED LIFTING CAPACITY (Jib)

Based on \*ISO4305 \*BS1757:1986 \*DIN15019-2

With additional counterweight;15ton

Outriggers fully extended (7.4m) 360° full range																		
10.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
4.0	81.4	6.50																
5.0	80.1	6.50					82.3	6.50										
6.0	78.8	6.50					81.2	6.50										
7.0	77.3	6.50					80.1	6.50					81.8	4.00				
8.0	75.9	6.50	81.9	5.45			79.0	6.50					80.8	4.00				
9.0	74.4	6.50	80.4	5.20			77.8	6.50					79.9	4.00				
10.0	72.9	6.50	78.8	5.00			76.7	6.50	81.7	5.30			78.9	4.00				
11.0	71.4	6.50	77.3	4.80	81.1	3.75	75.5	6.50	80.5	5.10			78.0	4.00				
12.0	69.9	6.50	75.7	4.65	79.5	3.70	74.4	6.50	79.2	4.95	82.3	3.80	77.0	4.00	81.6	4.00		
14.0	66.8	6.50	72.4	4.35	76.2	3.50	72.0	6.50	76.7	4.65	79.7	3.65	75.1	4.00	79.7	4.00	82.3	3.75
16.0	63.6	6.15	69.1	4.05	72.7	3.35	69.6	6.50	74.1	4.40	77.0	3.50	73.2	4.00	77.7	4.00	80.3	3.60
18.0	60.2	5.55	65.7	3.85	69.1	3.25	67.2	6.50	71.5	4.15	74.2	3.40	71.3	4.00	75.7	4.00	78.2	3.50
20.0	56.6	5.05	62.2	3.65	65.3	3.15	64.6	6.10	68.8	3.95	71.4	3.30	69.4	4.00	73.7	4.00	76.0	3.40
22.0	52.9	4.65	58.4	3.45	61.3	3.05	61.9	5.65	66.1	3.80	68.6	3.20	67.4	4.00	71.6	3.95	73.8	3.30
24.0	49.0	4.30	54.4	3.30	56.9	3.00	59.2	5.20	63.2	3.60	65.6	3.10	65.3	4.00	69.4	3.65	71.4	3.20
26.0	44.8	4.00	50.1	3.15	52.4	2.95	56.2	4.45	60.2	3.45	62.4	3.05	63.2	4.00	67.1	3.40	69.0	3.00
28.0	40.2	3.35	45.4	3.05			52.9	3.70	57.2	3.35	59.1	3.00	60.8	3.65	64.6	3.15	66.5	2.85
30.0	34.8	2.70	40.2	2.95			49.4	3.10	53.9	3.25	55.7	2.95	58.3	3.20	62.1	2.95	63.8	2.65
32.0	28.8	2.15	33.7	2.40			45.7	2.50	50.4	2.90	52.1	2.95	55.6	2.70	59.4	2.75	61.0	2.50
34.0	21.3	1.65					41.8	2.00	46.4	2.35			52.8	2.20	56.7	2.55	58.2	2.40
36.0							37.7	1.60	42.0	1.90			49.8	1.80	53.8	2.20	55.1	2.25
38.0							33.2	1.20	37.0	1.45			46.6	1.45	50.5	1.80	52.0	1.90
40.0							27.7	0.85	31.1	1.05			43.4	1.10	47.1	1.40		
42.0													40.0	0.80	43.4	1.05		
44.0															39.5	0.75		
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	—		27°		47°		20°		27°		47°		35°		35°		47°	

(Unit : Metric ton)

Based on \*ISO4305 \*BS1757:1986 \*DIN15019-2

With additional counterweight;15ton

Outriggers fully extended (7.4m) 360° full range																		
18.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
5.0	82.2	5.50																
6.0	81.1	5.50																
7.0	79.9	5.50						81.8	4.00									
8.0	78.8	5.50						80.9	4.00				82.3	2.60				
9.0	77.7	5.50						80.0	4.00				81.5	2.60				
10.0	76.5	5.50						79.0	4.00				80.8	2.60				
11.0	75.4	5.10						78.1	4.00				80.0	2.60				
12.0	74.1	4.75						77.1	4.00				79.2	2.60				
14.0	71.5	4.20	80.3	2.30				75.2	4.00				77.5	2.60				
16.0	69.0	3.70	77.6	2.15				73.3	4.00	80.4	2.30			76.0	2.60			
18.0	66.4	3.30	74.9	2.00	80.8	1.55	71.3	3.95	78.2	2.15			74.3	2.60	80.8	2.25		
20.0	63.7	2.95	72.2	1.90	77.9	1.50	69.1	3.50	75.9	2.05	80.7	1.55	72.6	2.60	79.0	2.15		
22.0	61.0	2.65	69.3	1.80	74.9	1.45	66.8	3.20	73.7	1.90	78.3	1.50	70.9	2.60	77.0	2.05	80.9	1.50
24.0	58.0	2.40	66.3	1.70	71.6	1.40	64.6	2.95	71.3	1.85	75.8	1.45	69.2	2.60	75.1	1.95	78.9	1.50
26.0	55.0	2.20	63.2	1.60	68.3	1.35	62.3	2.70	68.9	1.75	73.2	1.40	67.5	2.60	73.2	1.85	76.8	1.45
28.0	51.9	2.05	60.0	1.55	64.7	1.35	59.8	2.50	66.4	1.65	70.6	1.35	65.7	2.60	71.2	1.80	74.8	1.40
30.0	48.6	1.90	56.7	1.50	60.8	1.30	57.3	2.30	63.9	1.60	67.8	1.35	63.9	2.60	69.2	1.70	72.6	1.35
32.0	45.0	1.75	53.1	1.45	56.8	1.30	54.7	2.15	61.2	1.55	65.0	1.30	61.9	2.50	67.1	1.65	70.4	1.35
34.0	41.3	1.65	49.0	1.40	52.3	1.25	52.1	2.00	58.3	1.50	62.1	1.30	59.8	2.35	64.9	1.60	68.0	1.30
36.0	37.1	1.55	44.5	1.35			49.3	1.85	55.4	1.45	59.0	1.30	57.6	2.15	62.7	1.55	65.6	1.30
38.0	32.3	1.45	39.5	1.30			46.3	1.75	52.3	1.40	55.5	1.25	55.3	2.00	60.4	1.50	63.2	1.30
40.0	26.7	1.35	33.2	1.25			43.1	1.60	49.0	1.35	51.7	1.25	53.0	1.65	58.0	1.45	60.6	1.25
42.0	19.9	1.15					39.6	1.30	45.6	1.30			50.2	1.35	55.6	1.40	57.8	1.25
44.0							35.7	1.00	41.8	1.30			47.4	1.10	52.9	1.40	54.8	1.25
46.0							31.4	0.75	37.1	1.05			44.5	0.85	50.3	1.25	51.6	1.25
48.0									31.5	0.75					47.1	1.00		
50.0															43.5	0.75		
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	—		27°		47°		25°		27°		47°		40°		40°		47°	

(Unit : Metric ton)



# RATED LIFTING CAPACITY (Jib)

Based on \*ISO4305 \*BS1757:1986 \*DIN15019-2

With additional counterweight;10ton

Outriggers fully extended (7.4m) 360° full range																		
10.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
4.0	81.4	6.50																
5.0	80.1	6.50					82.3	6.50										
6.0	78.8	6.50					81.2	6.50										
7.0	77.3	6.50					80.1	6.50					81.8	4.00				
8.0	75.9	6.50	81.9	5.45			79.0	6.50					80.8	4.00				
9.0	74.4	6.50	80.4	5.20			77.8	6.50					79.9	4.00				
10.0	72.9	6.50	78.8	5.00			76.7	6.50	81.7	5.30			78.9	4.00				
11.0	71.4	6.50	77.3	4.80	81.1	3.75	75.5	6.50	80.5	5.10			78.0	4.00				
12.0	69.9	6.50	75.7	4.65	79.5	3.70	74.4	6.50	79.2	4.95	82.3	3.80	77.0	4.00	81.6	4.00		
14.0	66.8	6.50	72.4	4.35	76.2	3.50	72.0	6.50	76.7	4.65	79.7	3.65	75.1	4.00	79.7	4.00	82.3	3.75
16.0	63.6	6.15	69.1	4.05	72.7	3.35	69.6	6.50	74.1	4.40	77.0	3.50	73.2	4.00	77.7	4.00	80.3	3.60
18.0	60.2	5.55	65.7	3.85	69.1	3.25	67.2	6.50	71.5	4.15	74.2	3.40	71.3	4.00	75.7	4.00	78.2	3.50
20.0	56.6	5.05	62.2	3.65	65.3	3.15	64.6	5.95	68.8	3.95	71.4	3.30	69.4	4.00	73.7	4.00	76.0	3.40
22.0	52.9	4.65	58.4	3.45	61.3	3.05	61.7	4.90	66.1	3.80	68.6	3.20	67.4	4.00	71.6	3.95	73.8	3.30
24.0	49.0	3.85	54.4	3.30	56.9	3.00	58.7	4.00	63.2	3.60	65.6	3.10	65.3	4.00	69.4	3.65	71.4	3.20
26.0	44.5	3.05	50.1	3.15	52.4	2.95	55.6	3.30	60.2	3.45	62.4	3.05	63.0	3.35	67.1	3.40	69.0	3.00
28.0	40.0	2.35	45.3	2.85			52.2	2.65	57.2	3.20	59.1	3.00	60.4	2.75	64.6	3.15	66.5	2.85
30.0	34.5	1.80	40.0	2.15			48.8	2.10	53.6	2.60	55.7	2.85	57.8	2.20	62.0	2.75	63.8	2.65
32.0	28.5	1.30	33.6	1.55			45.2	1.65	49.8	2.05	51.8	2.25	55.1	1.75	59.1	2.20	61.0	2.45
34.0	20.6	0.85					41.4	1.20	45.8	1.55			52.2	1.35	56.2	1.75	58.0	1.95
36.0							37.3	0.80	41.4	1.15			49.2	0.95	53.1	1.35	54.8	1.50
38.0									36.5	0.70					49.9	0.95	51.4	1.10
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	—		27°		47°		27°		27°		47°		43°		43°		47°	

(Unit : Metric ton)

Based on \*ISO4305 \*BS1757:1986 \*DIN15019-2

With additional counterweight;10ton

Outriggers fully extended (7.4m) 360° full range																		
18.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
5.0	82.2	5.50																
6.0	81.1	5.50																
7.0	79.9	5.50					81.8	4.00										
8.0	78.8	5.50					80.9	4.00					82.3	2.60				
9.0	77.7	5.50					80.0	4.00					81.5	2.60				
10.0	76.5	5.50					79.0	4.00					80.8	2.60				
11.0	75.4	5.10					78.1	4.00					80.0	2.60				
12.0	74.1	4.75					77.1	4.00					79.2	2.60				
14.0	71.5	4.20	80.3	2.30			75.2	4.00					77.5	2.60				
16.0	69.0	3.70	77.6	2.15			73.3	4.00	80.4	2.30			76.0	2.60				
18.0	66.4	3.30	74.9	2.00	80.8	1.55	71.3	3.95	78.2	2.15			74.3	2.60	80.8	2.25		
20.0	63.7	2.95	72.2	1.90	77.9	1.50	69.1	3.50	75.9	2.05	80.7	1.55	72.6	2.60	79.0	2.15		
22.0	61.0	2.65	69.3	1.80	74.9	1.45	66.8	3.20	73.7	1.90	78.3	1.50	70.9	2.60	77.0	2.05	80.9	1.50
24.0	58.0	2.40	66.3	1.70	71.6	1.40	64.6	2.95	71.3	1.85	75.8	1.45	69.2	2.60	75.1	1.95	78.9	1.50
26.0	55.0	2.20	63.2	1.60	68.3	1.35	62.3	2.70	68.9	1.75	73.2	1.40	67.5	2.60	73.2	1.85	76.8	1.45
28.0	51.9	2.05	60.0	1.55	64.7	1.35	59.8	2.50	66.4	1.65	70.6	1.35	65.7	2.60	71.2	1.80	74.8	1.40
30.0	48.6	1.90	56.7	1.50	60.8	1.30	57.3	2.30	63.9	1.60	67.8	1.35	63.9	2.60	69.2	1.70	72.6	1.35
32.0	45.0	1.75	53.1	1.45	56.8	1.30	54.7	2.15	61.2	1.55	65.0	1.30	61.8	2.30	67.1	1.65	70.4	1.35
34.0	41.3	1.65	49.0	1.40	52.3	1.25	52.0	1.90	58.3	1.50	62.1	1.30	59.4	1.90	64.9	1.60	68.0	1.30
36.0	37.1	1.40	44.5	1.35			49.1	1.55	55.4	1.45	59.0	1.30	57.0	1.55	62.7	1.55	65.6	1.30
38.0	32.2	1.05	39.5	1.30			46.0	1.20	52.3	1.40	55.5	1.25	54.4	1.20	60.4	1.50	63.2	1.30
40.0	26.4	0.75	33.2	1.05			42.7	0.90	49.0	1.35	51.7	1.25	51.8	0.90	58.0	1.45	60.6	1.25
42.0									45.4	1.05					55.4	1.15	57.8	1.25
44.0									41.2	0.75					52.4	0.85	54.7	1.05
46.0																	51.3	0.75
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	—		27°		47°		35°		35°		47°		45°		45°		47°	

(Unit : Metric ton)



# RATED LIFTING CAPACITY (Jib)

Based on \* ISO4305 \* BS1757:1986 \* DIN15019-2

With additional counterweight;5ton

Outriggers fully extended (7.4m) 360° full range																		
10.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
4.0	81.4	6.50																
5.0	80.1	6.50					82.3	6.50										
6.0	78.8	6.50					81.2	6.50										
7.0	77.3	6.50					80.1	6.50					81.8	4.00				
8.0	75.9	6.50	81.9	5.45			79.0	6.50					80.8	4.00				
9.0	74.4	6.50	80.4	5.20			77.8	6.50					79.9	4.00				
10.0	72.9	6.50	78.8	5.00			76.7	6.50	81.7	5.30			78.9	4.00				
11.0	71.4	6.50	77.3	4.80	81.1	3.75	75.5	6.50	80.5	5.10			78.0	4.00				
12.0	69.9	6.50	75.7	4.65	79.5	3.70	74.4	6.50	79.2	4.95	82.3	3.80	77.0	4.00	81.6	4.00		
14.0	66.8	6.50	72.4	4.35	76.2	3.50	72.0	6.50	76.7	4.65	79.7	3.65	75.1	4.00	79.7	4.00	82.3	3.75
16.0	63.6	6.15	69.1	4.05	72.7	3.35	69.6	6.50	74.1	4.40	77.0	3.50	73.2	4.00	77.7	4.00	80.3	3.60
18.0	60.2	5.45	65.7	3.85	69.1	3.25	67.0	5.50	71.5	4.15	74.2	3.40	71.3	4.00	75.7	4.00	78.2	3.50
20.0	56.5	4.20	62.2	3.65	65.3	3.15	64.2	4.35	68.8	3.95	71.4	3.30	69.4	4.00	73.7	4.00	76.0	3.40
22.0	52.7	3.25	58.4	3.45	61.3	3.05	61.3	3.45	66.1	3.80	68.6	3.20	67.2	3.50	71.6	3.95	73.8	3.30
24.0	48.7	2.45	54.3	3.15	56.9	3.00	58.3	2.65	63.1	3.40	65.6	3.10	64.8	2.75	69.4	3.45	71.4	3.20
26.0	44.4	1.75	49.9	2.35	52.4	2.65	55.2	2.00	59.9	2.65	62.4	3.00	62.4	2.10	66.7	2.75	69.0	3.00
28.0	39.8	1.20	45.0	1.70			51.9	1.45	56.6	2.00	59.0	2.30	59.8	1.55	64.0	2.15	66.4	2.50
30.0			39.4	1.10			48.6	0.95	53.1	1.45	55.3	1.70	57.1	1.10	61.3	1.60	63.4	1.90
32.0									49.3	0.95	51.4	1.15	54.4	0.70	58.4	1.15	60.4	1.40
34.0															55.4	0.75	57.3	0.95
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	30°		30°		47°		43°		43°		47°		52°		52°		52°	

(Unit : Metric ton)

Based on \* ISO4305 \* BS1757:1986 \* DIN15019-2

With additional counterweight;5ton

Outriggers fully extended (7.4m) 360° full range																		
18.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
5.0	82.2	5.50																
6.0	81.1	5.50																
7.0	79.9	5.50					81.8	4.00										
8.0	78.8	5.50					80.9	4.00					82.3	2.60				
9.0	77.7	5.50					80.0	4.00					81.5	2.60				
10.0	76.5	5.50					79.0	4.00					80.8	2.60				
11.0	75.4	5.10					78.1	4.00					80.0	2.60				
12.0	74.1	4.75					77.1	4.00					79.2	2.60				
14.0	71.5	4.20	80.3	2.30			75.2	4.00					77.5	2.60				
16.0	69.0	3.70	77.6	2.15			73.3	4.00	80.4	2.30			76.0	2.60				
18.0	66.4	3.30	74.9	2.00	80.8	1.55	71.3	3.95	78.2	2.15			74.3	2.60	80.8	2.25		
20.0	63.7	2.95	72.2	1.90	77.9	1.50	69.1	3.50	75.9	2.05	80.7	1.55	72.6	2.60	79.0	2.15		
22.0	61.0	2.65	69.3	1.80	74.9	1.45	66.8	3.20	73.7	1.90	78.3	1.50	70.9	2.60	77.0	2.05	80.9	1.50
24.0	58.0	2.40	66.3	1.70	71.6	1.40	64.6	2.95	71.3	1.85	75.8	1.45	69.2	2.60	75.1	1.95	78.9	1.50
26.0	55.0	2.20	63.2	1.60	68.3	1.35	62.3	2.70	68.9	1.75	73.2	1.40	67.5	2.60	73.2	1.85	76.8	1.45
28.0	51.9	2.05	60.0	1.55	64.7	1.35	59.7	2.20	66.4	1.65	70.6	1.35	65.4	2.15	71.2	1.80	74.8	1.40
30.0	48.4	1.85	56.7	1.50	60.8	1.30	57.0	1.70	63.9	1.60	67.8	1.35	63.1	1.70	69.2	1.70	72.6	1.35
32.0	44.7	1.25	53.1	1.45	56.8	1.30	54.2	1.30	61.2	1.55	65.0	1.30	60.8	1.30	67.1	1.65	70.4	1.35
34.0	40.7	0.85	49.0	1.40	52.3	1.25	51.3	0.90	58.3	1.50	62.1	1.30	58.4	0.95	64.9	1.60	68.0	1.30
36.0			44.5	1.05					55.4	1.25	59.0	1.30			62.5	1.30	65.6	1.30
38.0									52.1	0.85	55.5	1.15			59.9	0.95	63.2	1.30
40.0											51.3	0.75					60.3	0.95
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	30°		30°		47°		47°		47°		47°		55°		55°		55°	

(Unit : Metric ton)



# RATED LIFTING CAPACITY (Jib)

Based on \* ISO4305 \* BS1757:1986 \* DIN15019-2

Without additional counterweight

Outriggers fully extended (7.4m) 360° full range																		
10.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)
4.0	81.4	6.50																
5.0	80.1	6.50					82.3	6.50										
6.0	78.8	6.50					81.2	6.50										
7.0	77.3	6.50					80.1	6.50					81.8	4.00				
8.0	75.9	6.50	81.9	5.45			79.0	6.50					80.8	4.00				
9.0	74.4	6.50	80.4	5.20			77.8	6.50					79.9	4.00				
10.0	72.9	6.50	78.8	5.00			76.7	6.50	81.7	5.30			78.9	4.00				
11.0	71.4	6.50	77.3	4.80	81.1	3.75	75.5	6.50	80.5	5.10			78.0	4.00				
12.0	69.9	6.50	75.7	4.65	79.5	3.70	74.4	6.50	79.2	4.95	82.3	3.80	77.0	4.00	81.6	4.00		
14.0	66.7	6.35	72.4	4.35	76.2	3.50	72.0	6.35	76.7	4.65	79.7	3.65	75.1	4.00	79.7	4.00	82.3	3.75
16.0	63.3	4.70	69.1	4.05	72.7	3.35	69.3	4.80	74.1	4.40	77.0	3.50	73.2	4.00	77.7	4.00	80.3	3.60
18.0	59.8	3.45	65.7	3.85	69.1	3.25	66.6	3.60	71.5	4.15	74.2	3.40	71.2	3.65	75.7	4.00	78.2	3.50
20.0	56.1	2.45	62.1	3.40	65.3	3.15	63.8	2.65	68.7	3.60	71.4	3.30	68.9	2.70	73.5	3.65	76.0	3.40
22.0	52.2	1.60	58.2	2.45	61.3	2.95	60.8	1.85	65.7	2.70	68.6	3.20	66.6	1.95	71.0	2.80	73.8	3.30
24.0	48.1	0.95	54.0	1.65	56.8	2.05	57.8	1.20	62.6	1.95	65.4	2.40	64.2	1.35	68.4	2.10	71.1	2.55
26.0			49.6	1.00	51.9	1.25			59.3	1.30	62.1	1.70	61.7	0.80	65.8	1.45	68.3	1.85
28.0									56.0	0.75	58.6	1.05			63.2	0.95	65.4	1.30
30.0																	62.6	0.80
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	45°		45°		47°		53°		53°		53°		59°		60°		60°	

(Unit : Metric ton)

Based on \* ISO4305 \* BS1757:1986 \* DIN15019-2

Without additional counterweight

Outriggers fully extended (7.4m) 360° full range																		
18.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)	Boom angle (°)	Load (ton)
5.0	82.2	5.50																
6.0	81.1	5.50																
7.0	79.9	5.50					81.8	4.00										
8.0	78.8	5.50					80.9	4.00					82.3	2.60				
9.0	77.7	5.50					80.0	4.00					81.5	2.60				
10.0	76.5	5.50					79.0	4.00					80.8	2.60				
11.0	75.4	5.10					78.1	4.00					80.0	2.60				
12.0	74.1	4.75					77.1	4.00					79.2	2.60				
14.0	71.5	4.20	80.3	2.30			75.2	4.00					77.5	2.60				
16.0	69.0	3.70	77.6	2.15			73.3	4.00	80.4	2.30			76.0	2.60				
18.0	66.4	3.30	74.9	2.00	80.8	1.55	71.3	3.95	78.2	2.15			74.3	2.60	80.8	2.25		
20.0	63.7	2.95	72.2	1.90	77.9	1.50	69.0	3.35	75.9	2.05	80.7	1.55	72.6	2.60	79.0	2.15		
22.0	60.8	2.60	69.3	1.80	74.9	1.45	66.7	2.60	73.7	1.90	78.3	1.50	70.9	2.55	77.0	2.05	80.9	1.50
24.0	57.8	1.95	66.3	1.70	71.6	1.40	64.2	1.95	71.3	1.85	75.8	1.45	68.8	1.95	75.1	1.95	78.9	1.50
26.0	54.6	1.40	63.2	1.60	68.3	1.35	61.6	1.45	68.9	1.75	73.2	1.40	66.5	1.40	73.2	1.85	76.8	1.45
28.0	51.3	0.90	60.0	1.55	64.7	1.35	59.0	0.95	66.4	1.65	70.6	1.35	64.2	1.00	71.2	1.80	74.8	1.40
30.0			56.7	1.35	60.8	1.30			63.9	1.45	67.8	1.35			69.1	1.50	72.6	1.35
32.0			52.7	0.90	56.8	1.30			60.9	1.05	65.0	1.30			66.7	1.10	70.4	1.35
34.0					52.1	0.80					61.9	1.05					67.9	1.15
36.0																	65.3	0.80
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	45°		45°		47°		56°		56°		56°		62°		62°		62°	

(Unit : Metric ton)



# RATED LIFTING CAPACITY (Jib)

Based on \* ISO4305 \* BS1757:1986 \* DIN15019-2

With additional counterweight;15ton

Outriggers intermediately extended (5.0m) 360° full range																		
10.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
4.0	81.4	6.50																
5.0	80.1	6.50					82.3	6.50										
6.0	78.8	6.50					81.2	6.50										
7.0	77.3	6.50					80.1	6.50					81.8	4.00				
8.0	75.9	6.50	81.9	5.45			79.0	6.50					80.8	4.00				
9.0	74.4	6.50	80.4	5.20			77.8	6.50					79.9	4.00				
10.0	72.9	6.50	78.8	5.00			76.7	6.50	81.7	5.30			78.9	4.00				
11.0	71.4	6.50	77.3	4.80	81.1	3.75	75.5	6.50	80.5	5.10			78.0	4.00				
12.0	69.9	6.50	75.7	4.65	79.5	3.70	74.4	6.50	79.2	4.95	82.3	3.80	77.0	4.00	81.6	4.00		
14.0	66.8	6.50	72.4	4.35	76.2	3.50	72.0	6.50	76.7	4.65	79.7	3.65	75.1	4.00	79.7	4.00	82.3	3.75
16.0	63.6	5.95	69.1	4.05	72.7	3.35	69.5	6.00	74.1	4.40	77.0	3.50	73.2	4.00	77.7	4.00	80.3	3.60
18.0	60.0	4.65	65.7	3.85	69.1	3.25	66.8	4.75	71.5	4.15	74.2	3.40	71.3	4.00	75.7	4.00	78.2	3.50
20.0	56.4	3.55	62.2	3.65	65.3	3.15	64.0	3.70	68.8	3.95	71.4	3.30	69.4	3.75	73.7	4.00	76.0	3.40
22.0	52.5	2.70	58.4	3.45	61.3	3.05	61.2	2.90	66.1	3.70	68.6	3.20	67.3	2.95	71.6	3.75	73.8	3.30
24.0	48.4	2.00	54.3	2.65	56.9	3.00	58.2	2.20	63.0	2.90	65.6	3.10	64.7	2.30	69.4	3.00	71.4	3.20
26.0	44.0	1.40	49.6	1.95	52.2	2.20	55.1	1.60	59.8	2.20	62.3	2.60	62.2	1.70	66.6	2.35	68.8	2.70
28.0	39.3	0.85	44.8	1.30			51.8	1.10	56.5	1.65	58.8	1.95	59.6	1.20	63.8	1.80	66.0	2.10
30.0			39.4	0.75					53.1	1.15	55.2	1.35	56.9	0.80	61.0	1.30	63.1	1.60
32.0											51.1	0.85			58.2	0.85	60.1	1.10
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	35°		35°		47°		45°		45°		47°		53°		53°		53°	

(Unit : Metric ton)

Based on \* ISO4305 \* BS1757:1986 \* DIN15019-2

With additional counterweight;15ton

Outriggers intermediately extended (5.0m) 360° full range																		
18.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
5.0	82.2	5.50																
6.0	81.1	5.50																
7.0	79.9	5.50					81.8	4.00										
8.0	78.8	5.50					80.9	4.00					82.3	2.60				
9.0	77.7	5.50					80.0	4.00					81.5	2.60				
10.0	76.5	5.50					79.0	4.00					80.8	2.60				
11.0	75.4	5.10					78.1	4.00					80.0	2.60				
12.0	74.1	4.75					77.1	4.00					79.2	2.60				
14.0	71.5	4.20	80.3	2.30			75.2	4.00					77.5	2.60				
16.0	69.0	3.70	77.6	2.15			73.3	4.00	80.4	2.30			76.0	2.60				
18.0	66.4	3.30	74.9	2.00	80.8	1.55	71.3	3.95	78.2	2.15			74.3	2.60	80.8	2.25		
20.0	63.7	2.95	72.2	1.90	77.9	1.50	69.1	3.50	75.9	2.05	80.7	1.55	72.6	2.60	79.0	2.15		
22.0	61.0	2.65	69.3	1.80	74.9	1.45	66.8	3.20	73.7	1.90	78.3	1.50	70.9	2.60	77.0	2.05	80.9	1.50
24.0	58.0	2.40	66.3	1.70	71.6	1.40	64.6	2.90	71.3	1.85	75.8	1.45	69.2	2.60	75.1	1.95	78.9	1.50
26.0	55.0	2.20	63.2	1.60	68.3	1.35	62.2	2.30	68.9	1.75	73.2	1.40	67.3	2.30	73.2	1.85	76.8	1.45
28.0	51.8	1.80	60.0	1.55	64.7	1.35	59.6	1.80	66.4	1.65	70.6	1.35	65.0	1.80	71.2	1.80	74.8	1.40
30.0	48.3	1.35	56.7	1.50	60.8	1.30	56.8	1.40	63.9	1.60	67.8	1.35	62.7	1.35	69.2	1.70	72.6	1.35
32.0	44.7	0.95	53.1	1.45	56.8	1.30	54.0	1.00	61.2	1.55	65.0	1.30	60.4	1.00	67.1	1.65	70.4	1.35
34.0			48.9	1.20	52.3	1.25			58.3	1.35	62.1	1.30			64.8	1.40	68.0	1.30
36.0			44.2	0.80					55.2	0.95	59.0	1.30			62.2	1.05	65.6	1.30
38.0											55.4	0.95					63.2	1.05
40.0																	60.4	0.75
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	40°		40°		47°		48°		48°		48°		56°		56°		56°	

(Unit : Metric ton)



# RATED LIFTING CAPACITY (Jib)

Based on \*ISO4305 \*BS1757:1986 \*DIN15019-2

With additional counterweight;10ton

Outriggers intermediately extended (5.0m) 360° full range																		
10.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
4.0	81.4	6.50																
5.0	80.1	6.50					82.3	6.50										
6.0	78.8	6.50					81.2	6.50										
7.0	77.3	6.50					80.1	6.50					81.8	4.00				
8.0	75.9	6.50	81.9	5.45			79.0	6.50					80.8	4.00				
9.0	74.4	6.50	80.4	5.20			77.8	6.50					79.9	4.00				
10.0	72.9	6.50	78.8	5.00			76.7	6.50	81.7	5.30			78.9	4.00				
11.0	71.4	6.50	77.3	4.80	81.1	3.75	75.5	6.50	80.5	5.10			78.0	4.00				
12.0	69.9	6.50	75.7	4.65	79.5	3.70	74.4	6.50	79.2	4.95	82.3	3.80	77.0	4.00	81.6	4.00		
14.0	66.6	5.70	72.4	4.35	76.2	3.50	72.0	5.70	76.7	4.65	79.7	3.65	75.1	4.00	79.7	4.00	82.3	3.75
16.0	63.3	4.25	69.1	4.05	72.7	3.35	69.3	4.35	74.1	4.40	77.0	3.50	73.2	4.00	77.7	4.00	80.3	3.60
18.0	59.8	3.11	65.7	3.85	69.1	3.25	66.6	3.25	71.5	4.15	74.2	3.40	71.3	3.30	75.7	4.00	78.2	3.50
20.0	56.1	2.20	62.1	3.10	65.3	3.15	63.8	2.40	68.7	3.30	71.4	3.30	69.0	2.45	73.5	3.35	76.0	3.40
22.0	52.2	1.45	58.2	2.20	61.3	2.70	60.9	1.65	65.7	2.45	68.6	2.95	66.6	1.75	70.9	2.55	73.7	3.05
24.0	48.1	0.80	54.0	1.50	56.8	1.85	57.8	1.05	62.6	1.75	65.4	2.20	64.2	1.20	68.4	1.90	70.9	2.30
26.0			49.6	0.85	51.9	1.15			59.3	1.15	62.1	1.50			65.8	1.30	68.1	1.70
28.0											58.6	0.95			63.2	0.80	65.3	1.15
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	45°		45°		47°		54°		54°		54°		60°		60°		60°	

(Unit : Metric ton)

Based on \*ISO4305 \*BS1757:1986 \*DIN15019-2

With additional counterweight;10ton

Outriggers intermediately extended (5.0m) 360° full range																		
18.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
5.0	82.2	5.50																
6.0	81.1	5.50																
7.0	79.9	5.50					81.8	4.00										
8.0	78.8	5.50					80.9	4.00					82.3	2.60				
9.0	77.7	5.50					80.0	4.00					81.5	2.60				
10.0	76.5	5.50					79.0	4.00					80.8	2.60				
11.0	75.4	5.10					78.1	4.00					80.0	2.60				
12.0	74.1	4.75					77.1	4.00					79.2	2.60				
14.0	71.5	4.20	80.3	2.30			75.2	4.00					77.5	2.60				
16.0	69.0	3.70	77.6	2.15			73.3	4.00	80.4	2.30			76.0	2.60				
18.0	66.4	3.30	74.9	2.00	80.8	1.55	71.3	3.90	78.2	2.15			74.3	2.60	80.8	2.25		
20.0	63.7	2.95	72.2	1.90	77.9	1.50	69.0	3.05	75.9	2.05	80.7	1.55	72.6	2.60	79.0	2.15		
22.0	60.8	2.40	69.3	1.80	74.9	1.45	66.5	2.40	73.7	1.90	78.3	1.50	70.9	2.30	77.0	2.05	80.9	1.50
24.0	57.8	1.75	66.3	1.70	71.6	1.40	64.0	1.80	71.3	1.85	75.8	1.45	68.6	1.75	75.1	1.95	78.9	1.50
26.0	54.6	1.25	63.2	1.60	68.3	1.35	61.5	1.30	68.9	1.75	73.2	1.40	66.4	1.30	73.2	1.85	76.8	1.45
28.0	51.3	0.80	60.0	1.55	64.7	1.35	58.9	0.85	66.4	1.65	70.6	1.35	64.0	0.85	71.2	1.80	74.8	1.40
30.0			56.6	1.20	60.8	1.30			63.9	1.35	67.8	1.35			68.9	1.35	72.6	1.35
32.0			52.6	0.80	56.8	1.20			61.0	0.90	65.0	1.30			66.5	0.95	70.4	1.35
34.0											61.8	0.95					67.9	1.05
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	46°		46°		47°		57°		57°		58°		62°		62°		62°	

(Unit : Metric ton)



# RATED LIFTING CAPACITY (Jib)

Based on \*ISO4305 \*BS1757:1986 \*DIN15019-2

With additional counterweight;5ton

Outriggers intermediately extended (5.0m) 360° full range																		
10.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
4.0	81.4	6.50																
5.0	80.1	6.50					82.3	6.50										
6.0	78.8	6.50					81.2	6.50										
7.0	77.3	6.50					80.1	6.50					81.8	4.00				
8.0	75.9	6.50	81.9	5.45			79.0	6.50					80.8	4.00				
9.0	74.4	6.50	80.4	5.20			77.8	6.50					79.9	4.00				
10.0	72.9	6.50	78.8	5.00			76.7	6.50	81.7	5.30			78.9	4.00				
11.0	71.4	6.35	77.3	4.80	81.1	3.75	75.5	6.30	80.5	5.10			78.0	4.00				
12.0	69.8	5.35	75.7	4.65	79.5	3.70	74.2	5.35	79.2	4.95	82.3	3.80	77.0	4.00	81.6	4.00		
14.0	66.4	3.75	72.4	4.35	76.2	3.50	71.5	3.85	76.7	4.65	79.7	3.65	75.1	3.80	79.7	4.00	82.3	3.75
16.0	62.9	2.50	69.1	3.75	72.7	3.35	68.8	2.70	74.1	3.85	77.0	3.50	73.0	2.70	77.7	3.85	80.3	3.60
18.0	59.3	1.55	65.4	2.65	69.1	3.25	66.1	1.75	71.1	2.80	74.2	3.40	70.8	1.85	75.2	2.85	78.2	3.50
20.0	55.6	0.80	61.7	1.70	65.0	2.25	63.3	1.05	68.1	1.95	71.2	2.50	68.4	1.15	72.8	2.05	75.6	2.60
22.0			57.8	0.95	60.9	1.40			65.1	1.25	68.1	1.70			70.3	1.35	73.0	1.85
24.0											64.8	1.05			67.7	0.80	70.3	1.20
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	54°		54°		55°		60°		61°		61°		65°		65°		66°	

(Unit : Metric ton)

Based on \*ISO4305 \*BS1757:1986 \*DIN15019-2

With additional counterweight;5ton

Outriggers intermediately extended (5.0m) 360° full range																		
18.0m Jib																		
Working radius (m)	28.4m Boom						36.7m Boom						45.0m Boom					
	Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°		Offset 0°		Offset 25°		Offset 45°	
	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)	Boom angle(°)	Load (ton)
5.0	82.2	5.50																
6.0	81.1	5.50																
7.0	79.9	5.50					81.8	4.00										
8.0	78.8	5.50					80.9	4.00					82.3	2.60				
9.0	77.7	5.50					80.0	4.00					81.5	2.60				
10.0	76.5	5.50					79.0	4.00					80.8	2.60				
11.0	75.4	5.10					78.1	4.00					80.0	2.60				
12.0	74.1	4.75					77.1	4.00					79.2	2.60				
14.0	71.5	4.20	80.3	2.30			75.2	4.00					77.5	2.60				
16.0	68.9	3.45	77.6	2.15			73.1	3.35	80.4	2.30			76.0	2.60				
18.0	66.2	2.50	74.9	2.00	80.8	1.55	70.8	2.50	78.2	2.15			74.3	2.40	80.8	2.25		
20.0	63.3	1.75	72.2	1.90	77.9	1.50	68.3	1.75	75.9	2.05	80.7	1.55	72.2	1.75	79.0	2.15		
22.0	60.3	1.15	69.3	1.80	74.9	1.45	65.8	1.20	73.7	1.90	78.3	1.50	70.2	1.15	77.0	2.05	80.9	1.50
24.0			66.3	1.70	71.6	1.40			71.3	1.85	75.8	1.45			75.1	1.85	78.9	1.50
26.0			63.1	1.25	68.3	1.35			68.7	1.30	73.2	1.40			72.9	1.35	76.8	1.45
28.0			59.6	0.75	64.7	1.35			65.9	0.85	70.6	1.35			70.6	0.90	74.8	1.40
30.0					60.6	0.80					67.6	1.00					72.5	1.05
Standard hook	for 6.5ton																	
Hook mass	150kg																	
Parts of line	1																	
Critical boom angle	55°		55°		55°		62°		62°		63°		68°		68°		68°	

(Unit : Metric ton)

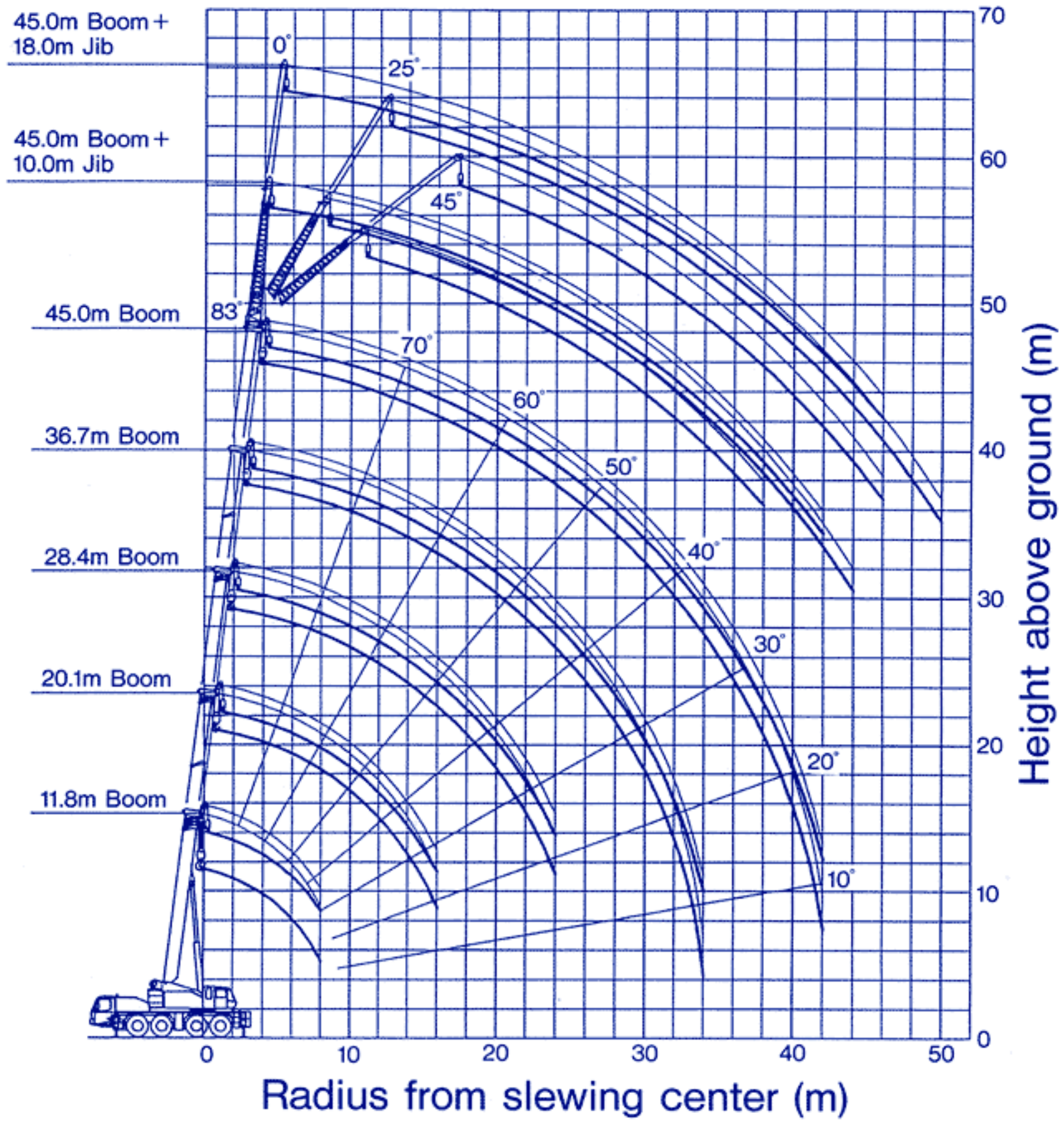


## NOTES : ON OUTRIGGERS

1. The rated lifting capacity chart indicates the maximum load which can be lifted by this crane provided it is level and standing on firm, level ground. It includes the mass of the hook and all other slings etc. The area of the rated lifting capacity chart surrounded by a thick black line is the area in which capacity is determined by the structural strength of the crane. Elsewhere the crane's stability is the deciding factor.
2. The working radius is based on the actual radius including boom deflection.  
Always use the actual working radius as the standard criterion for crane operation.
3. The jib working radius is based on the jib mounted on the end of the 28.4m, 36.7m or 45.0m boom. If the boom is at any other length use the boom angle alone as the standard criterion for crane operation. (The jib is optional.)
4. Never operate the crane with the jib when outriggers are fully retracted or when outriggers are intermediately extended without counterweight. (The jib is optional.)
5. When outriggers are fully retracted, crane operation is allowed only for the configuration of counterweight up to 5ton with boom length up to 20.1m.  
without counterweight : max. 20.1m boom  
5t counterweight : max. 20.1m boom
6. The rated lifting capacity of the rooster sheave is the rated lifting capacity of the boom minus the mass of all attached slings etc. to the boom, with an upper limit of 6,500kg.  
[The hook for use with the rooster sheave is the 6.5 ton hook (mass 150kg) with one part of line.]
7. When planning a lift using the rated lifting capacity chart, always work with the condition that gives the greatest safety factor.
8. If you are working with the boom while the jib is rigged subtract 3,500kg from the rated lifting capacity as well as subtracting the mass of the slings etc.  
Do not use the rooster sheave in this situation. (The jib is optional.)
9. The over rear lifting capacity is applied only to the crane configuration when the superstructure is facing straight rear and the slewing lock is engaged.
10. Use the sub-top sheave and sub-hook sheave when operating the crane loading with more than 60ton.
11. In whatever working conditions the corresponding boom critical angle is shown in the table. Lowering the boom below the critical angle could cause the machine to tip over even if the crane is not carrying any added load.
12. The standard parts of line for each boom length are as shown in the table. If you work with a non-standard number of parts of line take 6,500kg as the maximum load on any part of the wire rope.
13. Crane operation is permissible up to a wind speed of 10m/s.  
Even in relatively light wind conditions, extra care should be taken when handling loads presenting large wind catching areas.
14. Kato bears no liability whatsoever for damage, crane tipping or other accident caused by crane operations which differ from the directions contained in the instruction manual and the warning labels.

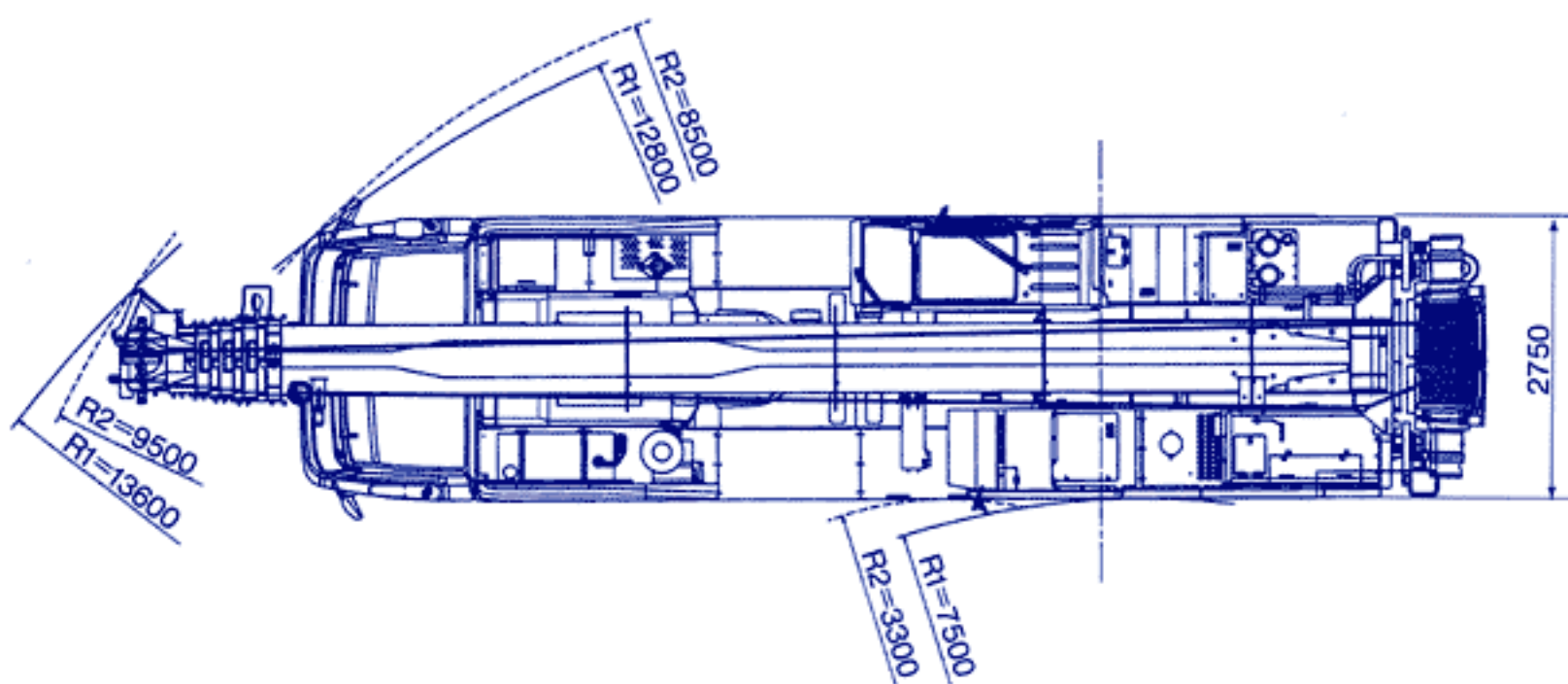
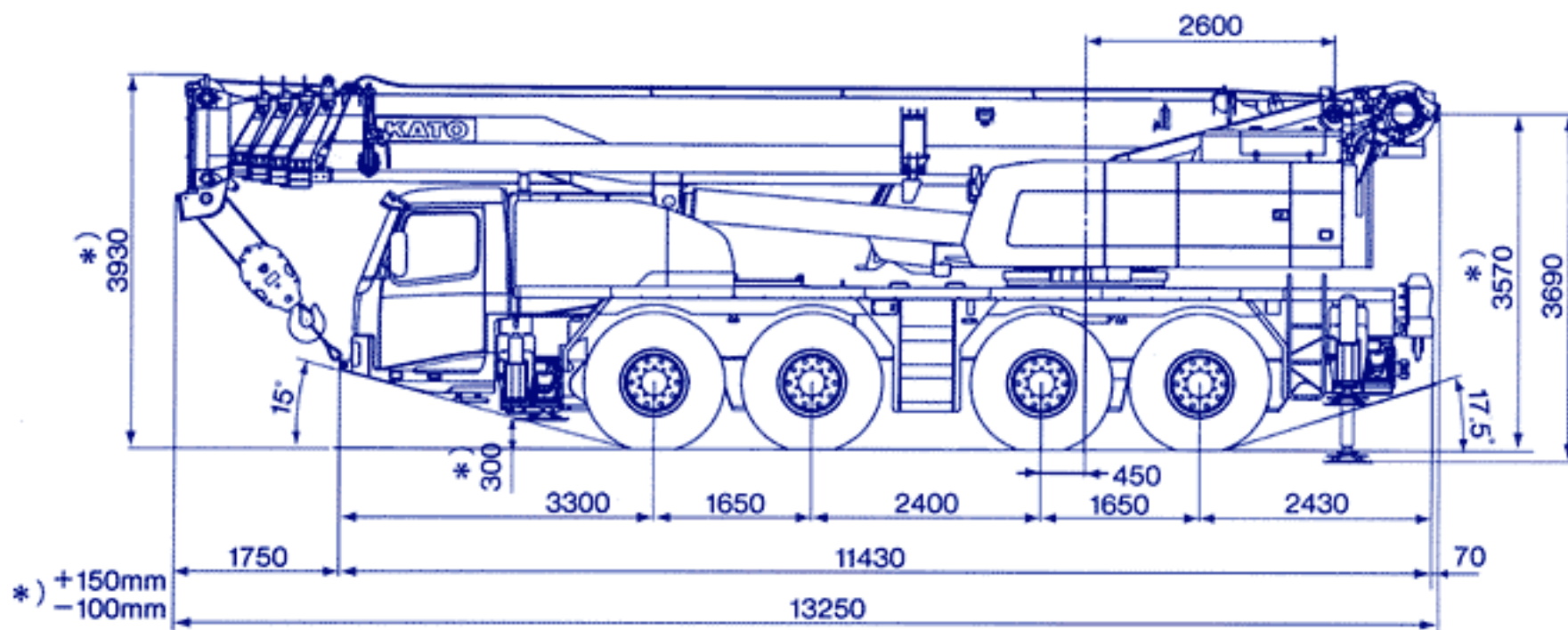
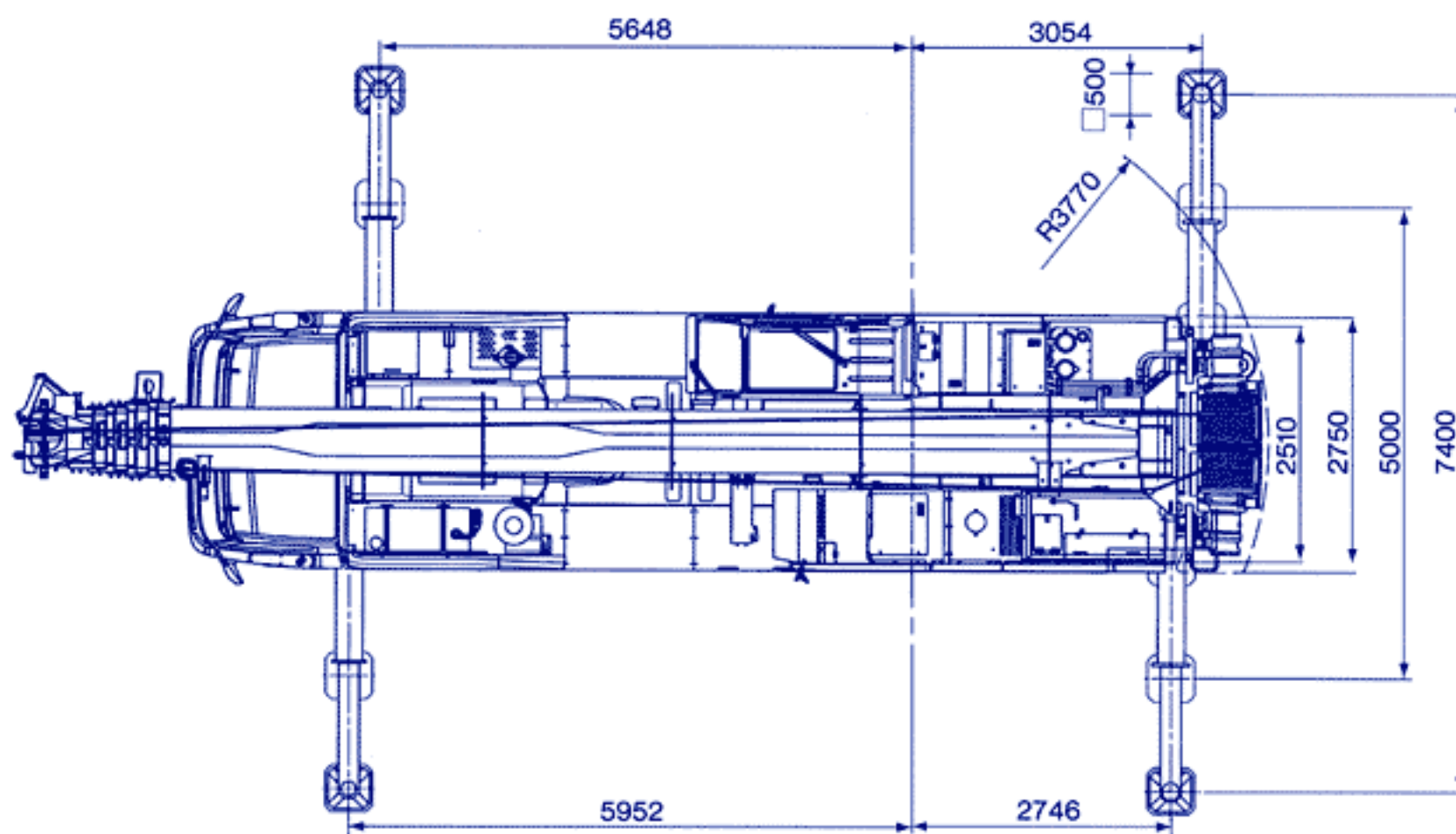


# WORKING RANGE



Note: 1. This diagram does not include deflection of Boom and Jib.  
 2. The outriggers are fully extended with a 15t counterweight in this diagram.





R1 : front wheel steering  
R2 : all wheel steering



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

# KATO

**QUALITY & EXPERIENCE  
SINCE 1895**

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