TADANO

SPEC. SHEET No. GR-250N-2-00124/K-12
DATE May, 2015

TADANO ROUGH TERRAIN CRANE

MODEL : GR-250N

(Right-hand steering)

GENERAL DATA

CRANE CAPACITY	25,000 kg at 3.5 m	
BOOM	4-section,	9.35 m - 30.5 m
DIMENSIONS		
Overall length	approx.	11,410 mm
Overall width	approx.	2,620 mm
Overall height	approx.	3,470 mm
MASS		
Gross vehicle mass	approx.	25,595 kg
1st axle	approx.	12,800 kg
2nd axle	approx.	12,795 kg

The weight that includes 1 passenger (55 kg), coolant, oil, fuel, and all other equipment.

PERFORMANCE		
Max. travelling speed	computed	49 km/h
Gradeability (tan θ)	computed	57 %

Specifications are subject to change without notice.

CRANE SPECIFICATIONS

MODEL	GR-250N
CAPACITY	25,000 kg at 3.5 m
BOOM	Four-section full power synchronized telescoping boom of round box construction with 4 sheaves at boom head. The synchronization system consists of a double acting telescope cylinder, two extension cables and retraction cables. Hydraulic cylinders fitted with holding valves. Fully retracted length.....9.35 m Fully extended length..... 13.0 m Extension speed.....21.15 m in 80 s
JIB	2 Stage boom swing around type, offset angle (5°-60°) by tilt cylinder. Single sheave at jib head. Box type top section telescopes from box type base section which stows alongside base boom section. Length.....8.0 m and 13.0 m
SINGLE TOP (AUXILIARY BOOM SHEAVE)	Single sheave. Mounted to main boom head for single line work.
ELEVATION	By a double-acting hydraulic cylinder, fitted with holding valve. Elevation speed.....0° to 84° in 45 s
HOIST -Main winch	Grooved drum driven by hydraulic axial piston motor through winch speed reducer. Power load lowering and hoisting. Equipped with automatic brake (neutral brake) and counterbalance valve. Controlled independently of auxiliary winch. Single line pull.....35.3 kN {3,600 kgf} Single line speed (normal)..... 120 m/min (at the 4th layer) (high).....160 m/min (at the 4th layer) Wire rope.....Spin-resistant type Diameter x length..... 16 mm x 170 m
HOOK BLOCK-25 t capacity	4 sheaves, swivel type hook with safety latch.

HOIST - Auxiliary winch

Grooved drum driven by hydraulic axial piston motor through winch speed reducer. Power load lowering and hoisting.
Equipped with automatic brake (neutral brake) and counterbalance valve.
Controlled independently of main winch.

Single line pull.....39.2 kN {4,000 kgf}
Single line speed (normal).....120 m/min (at the 4th layer)
(high).....160 m/min (at the 4th layer)
Wire rope.....Spin-resistant type
Diameter x length.....16 mm x 98 m

HOOK BLOCK- 4.0 t capacity

Swivel hook with safety latch for single line use.

SLEWING

A hydraulic piston motor driven through planetary slewing speed reducer. Continuous 360° full circle slewing on ball bearing slew ring.
Equipped with manually locked/released slewing brake.

Slewing speed.....2.6 min^{-1}{rpm}

HYDRAULIC SYSTEM

Pumps.....Two variable piston pumps for telescoping, elevating and winches. Three consecutive gear pump for slewing and steering, and air conditioner.
Control valves...Multiple valves actuated by pilot pressure with integral pressure relief valves.
Circuit.....Equipped with air cooled type oil cooler. Oil pressure appears on AML display for main circuit.
Hydraulic oil tank capacity....
approx. 380 liters
Filters.....Return line filter

CAB

Both crane and drive operations can be performed from cab mounted on rotating superstructure. One sided one-man type, steel construction cab with safety glass, sliding door access and windows opening at side and rear. 3-way adjustable, shoulder- supportable, cloth-covered operator's seat with armrest.

TADANO Automatic Moment Limiter (Model:AML-C)

Main unit in crane cab gives audible and visual warning of approach to overload. Automatically cuts out crane motions (including slew motion) before overload. With working range (load radius and/or boom angle and/or tip height and/or slewing range) limit function.
Following functions are displayed.

- Moment as percentage
- Number of parts of line of rope
- Boom angle
- Boom length
- Load radius
- Outriggers position or on-tire indicator
- Actual hook load
- Permissible load
- Boom position indicator
- Potential hook height
- Slewing angle
- Main hydraulic oil pressure
- Jib offset angle (only when jib operation)

OUTRIGGERS

Hydraulically operated H-type outriggers. Each outrigger controlled simultaneously or independently from the cab.
Equipped with sight level gauge. Floats mounted integrally with the jacks retract to within vehicle width.
All jack cylinders fitted with pilot check valves.
Equipped with extension width detector for each outrigger.
Extended width

- Fully.....6,500 mm
- Middle.....6,100 mm, 5,000 mm, 3,600 mm
- Minimum.....2,300 mm

Float size (Diameter)....400 mm

NOTE : Each crane motion speed is based on unladen conditions.

CARRIER SPECIFICATIONS

TYPE	Rear engine, right-hand steering, driving axle 2-way selected type (by manual switch). 4 x 2 front drive 4 x 4 front and rear drive
FRAME	High-tensile steel, all welded box construction.
ENGINE	Model.....MITSUBISHI 6M60-TLE3A Type.....4 cycle, turbo charged and after cooled, 6 cylinder in line, direct injection, water cooled diesel engine. Piston displacement.....7,545 cm^3 Bore x stroke.....118 mm x 115 mm Max. output .....200 kW {272 PS} at 2,600 min^{-1}{rpm} Max. torque .....785 N-m {80.0 kgf-m} at 1,400 min^{-1} {rpm}
TRANSMISSION	Full automatic transmission. Torque converter (with automatic lock up device at forward 2nd, 3rd and 4th of High range) driving full powershift. High range.....4 forward and 1 reverse speeds. Low range.....4 forward and 1 reverse speeds.
AXLES	Front.....Full floating type, steering, and driving axle with planetary reduction. Rear.....Full floating type, steering, and driving axle with planetary reduction.
STEERING	Hydraulic power steering controlled by steering wheel. 4 steering modes available: 2-wheel front 2-wheel rear 4-wheel coordinated 4-wheel crab
SUSPENSION	Front.....Hydraulic / pneumatic suspension with hydraulic lock system and leveling adjustment. Rear.....Hydraulic / pneumatic suspension with hydraulic lock system and leveling adjustment.
BRAKE SYSTEM	Service.....Air over hydraulic disc brakes on all 4 wheels. Parking.....Spring applied air released brake acting on input shaft of front axle. Auxiliary...Erectro-pneummatic operated exhaust brake. ...Permanent magnet retarder
ELECTRIC SYSTEM	24 V DC. 2 batteries of 12 V
FUEL TANK CAPACITY	300 liters
TIRES	Front..... 385/95 R25 170E ROAD Rear..... 385/95 R25 170E ROAD
TURN RADIUS	Min. turning radius (at center of extreme outer tire) 4-wheel steering.....5.1 m 2-wheel steering.....8.5 m

EQUIPMENT

STANDARD EQUIPMENT

Automatic moment limiter (AML-C)
Pendant type over-winding cutout
Winch drum rotation indicator (Audible and visual type)
Hook safety latch
Pilot check valves
Holding valves
Counterbalance valves
Hydraulic pressure relief valves
Slewing brake
Working area control device
Slewing signal lamp
Boom elevation slowing-down and stop function
Boom telescoping foot pedal
Auxiliary winch foot pedal (ISO)
Elevation foot pedal (TDN)
Outrigger extension width detector
Sight level gauge
Hydraulic oil cooler
Electric windshield wiper and washer
Roof window wiper and washer
Tachometer/Speedometer
Seat belt (Driver's seat)
Air conditioner (Hot water heater type with dehumidification function)
Power window (Right-hand door of the cab)
Cab floor mat
Sun visor (Roof and side)
Neutral position adjustable crane control levers
Automatic drive system
Transmission neutral position engine start
Overshift prevention
Parking braked travel warning
Rear steering lock
Tilt-telescope steering wheel
Back-up alarm
Air cleaner dust indicator
Air dryer
Engine over-run alarm
Hydraulic lockout suspension
Towing eyes - front and rear
Left and right front view monitor
Emergency steering
Fuel consumption monitor
Eco mode system
Power stowing mirror
Electric greaser
Outrigger pad
Outrigger pad (aluminum)

OPTIONAL EQUIPMENT

External lamp (AML-C)
Tire inflation kit
Cable follower (for main winch)
Cable follower (for auxiliary winch)
Guard for AML external warning lamps
Loud speaker
Tachograph
Road verge lamp

RATED LIFTING CAPACITIES

ON OUTRIGGERS

Unit : x1,000kg

Outriggers fully extended (6.5 m) - 360° rotation -				
A / B	9.35 m	16.4 m	23.45 m	30.5 m
2.5 m	25.0	15.0	12.0	
3.0 m	25.0	15.0	12.0	
3.5 m	25.0	15.0	12.0	8.0
4.0 m	23.5	15.0	12.0	8.0
4.5 m	21.5	15.0	12.0	8.0
5.0 m	19.6	15.0	12.0	8.0
5.5 m	17.8	15.0	12.0	8.0
6.0 m	16.3	15.0	12.0	8.0
6.5 m	15.1	15.0	11.5	8.0
7.0 m		14.0	10.8	8.0
8.0 m		11.3	9.6	8.0
9.0 m		9.2	8.6	7.6
10.0 m		7.5	7.6	6.9
11.0 m		6.3	6.5	6.3
12.0 m		5.35	5.5	5.6
13.0 m		4.6	4.75	4.9
13.5 m		4.25	4.45	4.55
14.0 m			4.15	4.25
15.0 m			3.65	3.8
16.0 m			3.2	3.4
17.0 m			2.85	3.0
18.0 m			2.5	2.65
19.0 m			2.2	2.4
20.0 m			2.0	2.15
20.5 m			1.9	2.0
21.0 m				1.9
22.0 m				1.7
24.0 m				1.35
26.0 m				1.1
27.9 m				0.9
D (°)	0~84			

Unit : x1,000kg

Outriggers extended to middle (6.1 m) - Over side -				
A / B	9.35 m	16.4 m	23.45 m	30.5 m
2.5 m	25.0	15.0	12.0	
3.0 m	25.0	15.0	12.0	
3.5 m	25.0	15.0	12.0	8.0
4.0 m	23.5	15.0	12.0	8.0
4.5 m	21.5	15.0	12.0	8.0
5.0 m	19.6	15.0	12.0	8.0
5.5 m	17.8	15.0	12.0	8.0
6.0 m	16.3	15.0	12.0	8.0
6.5 m	15.0	15.0	11.5	8.0
7.0 m		13.3	10.8	8.0
8.0 m		10.3	9.6	8.0
9.0 m		8.3	8.5	7.6
10.0 m		6.8	7.0	6.9
11.0 m		5.7	5.9	6.0
12.0 m		4.9	5.0	5.1
13.0 m		4.2	4.35	4.4
13.5 m		3.9	4.0	4.1
14.0 m			3.8	3.85
15.0 m			3.3	3.4
16.0 m			2.9	3.0
17.0 m			2.6	2.65
18.0 m			2.3	2.35
19.0 m			2.05	2.1
20.0 m			1.85	1.85
20.5 m			1.75	1.75
21.0 m				1.65
22.0 m				1.5
24.0 m				1.2
26.0 m				0.95
27.8 m				0.75
D (°)	0~84			

A : Boom length
B : Load radius
D : Minimum boom angle (°) for indicated length (no load)

RATED LIFTING CAPACITIES

ON OUTRIGGERS

Unit : x1,000kg

Outriggers extended to middle (5.0 m) - Over side -				
A / B	9.35 m	16.4 m	23.45 m	30.5 m
2.5 m	25.0	15.0	12.0	
3.0 m	25.0	15.0	12.0	
3.5 m	25.0	15.0	12.0	8.0
4.0 m	23.5	15.0	12.0	8.0
4.5 m	21.2	15.0	12.0	8.0
5.0 m	17.2	15.0	12.0	8.0
5.5 m	14.2	15.0	12.0	8.0
6.0 m	12.0	12.7	12.0	8.0
6.5 m	10.3	10.9	10.8	8.0
7.0 m		9.5	9.7	8.0
8.0 m		7.4	7.6	7.5
9.0 m		6.0	6.2	6.2
10.0 m		4.9	5.1	5.2
11.0 m		4.1	4.3	4.35
12.0 m		3.5	3.65	3.7
13.0 m		3.0	3.15	3.2
13.5 m		2.8	2.9	2.95
14.0 m			2.7	2.75
15.0 m			2.35	2.4
16.0 m			2.05	2.1
17.0 m			1.75	1.8
18.0 m			1.55	1.6
19.0 m			1.35	1.4
20.0 m			1.2	1.2
20.5 m			1.1	1.1
21.0 m				1.05
22.0 m				0.9
24.0 m				0.65
D (°)	0～84			32～84

Unit : x1,000kg

Outriggers extended to middle (3.6 m) - Over side -				
A / B	9.35 m	16.4 m	23.45 m	30.5 m
2.5 m	25.0	15.0	12.0	
3.0 m	25.0	15.0	12.0	
3.5 m	19.5	15.0	12.0	8.0
4.0 m	14.8	15.0	12.0	8.0
4.5 m	11.8	12.7	12.0	8.0
5.0 m	9.8	10.5	10.6	8.0
5.5 m	8.1	8.8	9.0	8.0
6.0 m	6.9	7.6	7.7	7.5
6.5 m	5.9	6.5	6.7	6.8
7.0 m		5.7	5.9	6.0
8.0 m		4.5	4.6	4.7
9.0 m		3.6	3.75	3.8
10.0 m		2.9	3.05	3.1
11.0 m		2.4	2.5	2.6
12.0 m		1.95	2.1	2.15
13.0 m		1.60	1.75	1.8
13.5 m		1.45	1.6	1.65
14.0 m			1.45	1.5
15.0 m			1.2	1.25
16.0 m			1.0	1.05
17.0 m			0.8	0.85
18.0 m			0.65	0.7
19.0 m			0.5	0.55
D (°)	0～84		25～84	47～84

A : Boom length
B : Load radius
D : Minimum boom angle (°) for indicated length (no load)

RATED LIFTING CAPACITIES

ON OUTRIGGERS

Unit : x1,000kg

Outriggers extended to minimum (2.3 m) - Over side -				
A / B	9.35 m	16.4 m	23.45 m	30.5 m
2.5 m	12.2	12.0	10.0	
3.0 m	12.2	12.0	10.0	
3.5 m	9.8	10.0	10.0	6.0
4.0 m	7.6	8.0	8.5	6.0
4.5 m	6.1	6.7	7.0	6.0
5.0 m	5.0	5.5	5.8	5.8
5.5 m	4.1	4.6	4.9	5.0
6.0 m	3.4	4.0	4.25	4.4
6.5 m	2.8	3.4	3.65	3.8
7.0 m		2.95	3.15	3.3
8.0 m		2.2	2.4	2.6
9.0 m		1.65	1.85	2.0
10.0 m		1.2	1.4	1.6
11.0 m		0.9	1.1	1.25
12.0 m		0.65	0.8	0.95
D (°)	0～84	30～84	54～84	64～84

A : Boom length
B : Load radius
D : Minimum boom angle (°) for indicated length (no load)

RATED LIFTING CAPACITIES

ON OUTRIGGERS

Outriggers fully extended (6.5 m) - 360° rotation -																
C	30.5 m Boom + 8.0 m Jib								30.5 m Boom + 13.0 m Jib							
	Offset								Offset							
	5°		25°		45°		60°		5°		25°		45°		60°	
	R	W	R	W	R	W	R	W	R	W	R	W	R	W	R	W
84	4.2	3.3	6.8	2.3	8.8	1.7	9.7	1.05	5.2	2.0	9.6	1.25	12.8	0.85	14.4	0.55
80	7.4	3.3	9.8	2.3	11.6	1.7	12.2	1.05	9.0	2.0	13.0	1.25	15.8	0.85	16.9	0.55
78	8.9	3.3	11.2	2.3	12.8	1.7	13.3	1.05	10.6	2.0	14.5	1.2	17.2	0.85	18.2	0.55
76	10.4	3.3	12.5	2.3	14.1	1.7	14.5	1.05	12.3	1.9	15.9	1.15	18.4	0.85	19.4	0.55
74	11.8	3.3	13.9	2.3	15.2	1.65	15.6	1.05	13.9	1.8	17.3	1.1	19.7	0.85	20.5	0.55
72	13.2	3.3	15.1	2.3	16.4	1.65	16.7	1.05	15.3	1.65	18.7	1.1	20.9	0.85	21.6	0.55
70	14.6	3.25	16.4	2.3	17.5	1.6	17.7	1.05	16.8	1.6	20.0	1.05	22.1	0.85	22.7	0.55
68	15.8	3.0	17.6	2.25	18.6	1.55	18.7	1.0	18.2	1.5	21.2	1.0	23.3	0.85	23.7	0.55
65	17.4	2.55	19.2	2.05	20.1	1.55	20.2	1.0	20.3	1.4	23.1	1.0	24.9	0.84	25.1	0.55
60	20.2	1.85	21.9	1.65	22.7	1.5	22.7	1.0	23.6	1.25	26.2	0.95	27.6	0.81	27.5	0.54
55	22.7	1.35	24.2	1.2	24.9	1.2			26.7	1.1	28.9	0.91	29.9	0.79		
53	23.7	1.2	25.1	1.1	25.7	1.05			27.8	0.98	29.9	0.87	30.8	0.79		
50	25.1	1.0	26.5	0.92	26.9	0.92			29.3	0.81	31.3	0.72	32.0	0.7		
47	26.4	0.81	27.7	0.75	28.0	0.75			30.8	0.65	32.6	0.58	33.0	0.57		
45	27.3	0.7	28.4	0.65	28.6	0.65			31.7	0.56	33.4	0.5	33.7	0.49		
40	29.3	0.47	30.2	0.43					33.9	0.36						

Outriggers extended to middle (6.1 m) - Over ride -																
C	30.5 m Boom + 8.0 m Jib								30. 5 m boom + 13.0 m Jib							
	Offset								Offset							
	5°		25°		45°		60°		5°		25°		45°		60°	
	R	W	R	W	R	W	R	W	R	W	R	W	R	W	R	W
84	4.2	3.3	6.8	2.3	8.8	1.7	9.7	1.05	5.2	2.0	9.6	1.25	12.8	0.85	14.4	0.55
80	7.4	3.3	9.8	2.3	11.6	1.7	12.2	1.05	9.0	2.0	13.0	1.25	15.8	0.85	16.9	0.55
78	8.9	3.3	11.2	2.3	12.8	1.7	13.3	1.05	10.6	2.0	14.5	1.2	17.2	0.85	18.2	0.55
76	10.4	3.3	12.5	2.3	14.1	1.7	14.5	1.05	12.3	1.9	15.9	1.15	18.4	0.85	19.4	0.55
74	11.8	3.3	13.9	2.3	15.2	1.65	15.6	1.05	13.9	1.8	17.3	1.1	19.7	0.85	20.5	0.55
72	13.2	3.3	15.1	2.3	16.4	1.65	16.7	1.05	15.3	1.65	18.7	1.1	20.9	0.85	21.6	0.55
70	14.6	3.25	16.4	2.3	17.5	1.6	17.7	1.05	16.8	1.6	20.0	1.05	22.1	0.85	22.7	0.55
68	15.8	3.0	17.6	2.25	18.6	1.55	18.7	1.0	18.2	1.5	21.2	1.0	23.3	0.85	23.7	0.55
65	17.3	2.4	19.2	2.05	20.1	1.55	20.2	1.0	20.3	1.4	23.1	1.0	24.9	0.84	25.1	0.55
60	20.0	1.7	21.8	1.5	22.7	1.45	22.7	1.0	23.6	1.25	26.2	0.95	27.6	0.81	27.5	0.54
55	22.6	1.2	24.2	1.1	24.9	1.1			26.6	1.0	28.9	0.88	29.9	0.79		
53	23.6	1.05	25.1	0.99	25.7	0.98			27.7	0.88	29.9	0.78	30.8	0.75		
50	25.0	0.88	26.4	0.8	26.9	0.81			29.3	0.71	31.2	0.62	31.9	0.61		
47	26.4	0.69	27.6	0.63	27.9	0.64			30.7	0.55	32.5	0.48	32.9	0.48		
45	27.2	0.58	28.4	0.53	28.6	0.54			31.6	0.46	33.3	0.4	33.6	0.4		
40	29.2	0.36														

C : Boom angle (°)
R : Load radius (m)
W : Rated lifting capacity (x 1,000 kg)

RATED LIFTING CAPACITIES

ON OUTRIGGERS

Outriggers fully extended (6.5 m) - 360° rotation -																
C	23.45 m Boom + 8.0 m Jib								23.45 m Boom + 13.0 m Jib							
	Offset								Offset							
	5°		25°		45°		60°		5°		25°		45°		60°	
	R	W	R	W	R	W	R	W	R	W	R	W	R	W	R	W
84	3.0	3.3	5.6	2.3	7.6	1.7	8.6	1.05	4.2	2.0	8.5	1.25	11.6	0.85	13.2	0.55
80	5.4	3.3	7.8	2.3	9.7	1.7	10.5	1.05	7.0	2.0	11.1	1.25	13.9	0.85	15.3	0.55
78	6.5	3.3	8.9	2.3	10.7	1.7	11.4	1.05	8.3	2.0	12.2	1.2	15.0	0.85	16.2	0.55
76	7.6	3.3	9.9	2.3	11.6	1.7	12.3	1.05	9.6	1.9	13.4	1.15	16.0	0.85	17.1	0.55
74	8.7	3.3	11.0	2.3	12.5	1.65	13.2	1.05	10.9	1.8	14.5	1.1	17.0	0.85	18.1	0.55
72	9.8	3.3	12.0	2.3	13.4	1.65	14.0	1.05	12.1	1.65	15.6	1.1	18.0	0.85	18.9	0.55
70	10.9	3.3	13.0	2.3	14.3	1.6	14.8	1.05	13.3	1.6	16.7	1.05	19.0	0.85	19.8	0.55
68	11.9	3.3	13.9	2.3	15.2	1.55	15.6	1.0	14.4	1.5	17.8	1.0	19.9	0.85	20.5	0.55
65	13.4	3.3	15.4	2.3	16.4	1.55	16.7	1.0	16.1	1.4	19.3	1.0	21.2	0.84	21.7	0.55
60	15.9	2.9	17.6	2.3	18.4	1.5	18.5	1.0	18.9	1.25	21.8	0.95	23.3	0.81	23.5	0.54
55	18.1	2.6	19.7	2.15	20.2	1.45			21.5	1.15	24.0	0.91	25.2	0.79		
53	18.9	2.35	20.4	2.1	20.9	1.45			22.5	1.1	24.9	0.9	25.9	0.79		
50	20.2	2.05	21.5	1.85	21.9	1.45			23.9	1.05	26.1	0.88	26.8	0.78		
47	21.3	1.8	22.5	1.65	22.7	1.45			25.2	1.0	27.2	0.87	27.7	0.78		
45	22.0	1.65	23.1	1.55	23.2	1.45			26.0	1.0	27.9	0.87	28.2	0.78		
40	23.6	1.35	24.5	1.3					28.0	0.95	29.4	0.86				
35	25.1	1.15	25.7	1.1					29.6	0.91	30.6	0.85				
30	26.3	1.0	26.8	0.97					31.0	0.81	31.7	0.76				
25	27.3	0.88	27.6	0.86					32.2	0.71	32.4	0.67				
20	28.1	0.79							33.0	0.63						
15	28.7	0.73							33.6	0.59						
10	29.0	0.7							33.9	0.56						
5	29.0	0.7							33.9	0.56						

Outriggers extended to middle (6.1 m) - Over ride -																
C	23.45 m Boom + 8.0 m Jib								23.45 m Boom + 13.0 m Jib							
	Offset								Offset							
	5°		25°		45°		60°		5°		25°		45°		60°	
	R	W	R	W	R	W	R	W	R	W	R	W	R	W	R	W
84	3.0	3.3	5.6	2.3	7.6	1.7	8.6	1.05	4.2	2.0	8.5	1.25	11.6	0.85	13.2	0.55
80	5.4	3.3	7.8	2.3	9.7	1.7	10.5	1.05	7.0	2.0	11.1	1.25	13.9	0.85	15.3	0.55
78	6.5	3.3	8.9	2.3	10.7	1.7	11.4	1.05	8.3	2.0	12.2	1.2	15.0	0.85	16.2	0.55
76	7.6	3.3	9.9	2.3	11.6	1.7	12.3	1.05	9.6	1.9	13.4	1.15	16.0	0.85	17.1	0.55
74	8.7	3.3	11.0	2.3	12.5	1.65	13.2	1.05	10.9	1.8	14.5	1.1	17.0	0.85	18.1	0.55
72	9.8	3.3	12.0	2.3	13.4	1.65	14.0	1.05	12.1	1.65	15.6	1.1	18.0	0.85	18.9	0.55
70	10.9	3.3	13.0	2.3	14.3	1.6	14.8	1.05	13.3	1.6	16.7	1.05	19.0	0.85	19.8	0.55
68	11.9	3.3	13.9	2.3	15.2	1.55	15.6	1.0	14.4	1.5	17.8	1.0	19.9	0.85	20.5	0.55
65	13.4	3.3	15.4	2.3	16.4	1.55	16.7	1.0	16.1	1.4	19.3	1.0	21.2	0.84	21.7	0.55
60	15.9	2.9	17.6	2.3	18.4	1.5	18.5	1.0	18.9	1.25	21.8	0.95	23.3	0.81	23.5	0.54
55	18.1	2.4	19.6	2.1	20.2	1.45			21.5	1.15	24.0	0.91	25.2	0.79		
53	18.9	2.15	20.4	1.9	20.9	1.45			22.5	1.1	24.9	0.9	25.9	0.79		
50	20.0	1.85	21.4	1.7	21.9	1.45			23.9	1.05	26.1	0.88	26.8	0.78		
47	21.2	1.65	22.4	1.5	22.7	1.45			25.2	1.0	27.2	0.87	27.7	0.78		
45	22.0	1.5	23.0	1.35	23.3	1.37			26.0	1.0	27.9	0.87	28.2	0.78		
40	23.6	1.2	24.5	1.15					28.0	0.95	29.4	0.86				
35	25.0	1.0	25.7	0.97					29.6	0.82	30.7	0.76				
30	26.3	0.87	26.8	0.83					31.0	0.69	31.7	0.65				
25	27.3	0.75	27.6	0.72					32.2	0.59	32.4	0.57				
20	28.1	0.66							33.0	0.52						
15	28.6	0.59							33.6	0.46						
10	28.9	0.55							33.9	0.43						
5	29.0	0.55							33.9	0.43						

C : Boom angle (°)
R : Load radius (m)
W : Rated lifting capacity (x 1,000 kg)

RATED LIFTING CAPACITIES

ON OUTRIGGERS

Outriggers extended to middle (5.0 m) - Over ride -																
C	30.5 m Boom + 8.0 m Jib								30.5 m Boom + 13.0 m Jib							
	Offset								Offset							
	5°		25°		45°		60°		5°		25°		45°		60°	
	R	W	R	W	R	W	R	W	R	W	R	W	R	W	R	W
84	4.2	3.3	6.8	2.3	8.8	1.7	9.7	1.05	5.2	2.0	9.6	1.25	12.8	0.85	14.4	0.55
80	7.4	3.3	9.8	2.3	11.6	1.7	12.2	1.05	9.0	2.0	13.0	1.25	15.8	0.85	16.9	0.55
78	8.9	3.3	11.2	2.3	12.8	1.7	13.3	1.05	10.6	2.0	14.5	1.2	17.2	0.85	18.2	0.55
76	10.4	3.3	12.5	2.3	14.1	1.7	14.5	1.05	12.3	1.9	15.9	1.15	18.4	0.85	19.4	0.55
74	11.8	3.3	13.9	2.3	15.2	1.65	15.6	1.05	13.9	1.8	17.3	1.1	19.7	0.85	20.5	0.55
72	13.1	3.15	15.1	2.3	16.4	1.65	16.7	1.05	15.3	1.65	18.7	1.1	20.9	0.85	21.6	0.55
70	14.3	2.6	16.3	2.15	17.5	1.6	17.7	1.05	16.8	1.6	20.0	1.05	22.1	0.85	22.7	0.55
68	15.4	2.2	17.4	1.85	18.6	1.55	18.7	1.0	18.2	1.5	21.2	1.0	23.3	0.85	23.7	0.55
65	17.0	1.7	18.9	1.45	20.0	1.35	20.2	1.0	20.2	1.35	23.1	1.0	24.9	0.84	25.1	0.55
60	19.7	1.1	21.5	0.98	22.5	0.94	22.6	0.93	23.3	0.9	26.0	0.74	27.5	0.7	27.5	0.54
55	22.4	0.71	24.0	0.62	24.7	0.61			26.2	0.55	28.6	0.45	29.8	0.43		
53	23.3	0.56	24.9	0.49	25.5	0.48			27.3	0.43						
50	24.8	0.37														

Outriggers extended to middle (3.6 m) - Over ride -																
C	30.5 m Boom + 8.0 m Jib								30.5 m Boom + 13.0 m Jib							
	Offset								Offset							
	5°		25°		45°		60°		5°		25°		45°		60°	
	R	W	R	W	R	W	R	W	R	W	R	W	R	W	R	W
84	4.2	3.3	6.8	2.3	8.8	1.7	9.7	1.05	5.2	2.0	9.6	1.25	12.8	0.85	14.4	0.55
80	7.4	3.3	9.8	2.3	11.6	1.7	12.2	1.05	9.0	2.0	13.0	1.25	15.8	0.85	16.9	0.55
78	8.9	3.3	11.2	2.3	12.8	1.7	13.3	1.05	10.6	2.0	14.5	1.2	17.2	0.85	18.2	0.55
76	10.3	2.9	12.4	2.25	14.1	1.7	14.5	1.05	12.3	1.9	15.9	1.15	18.4	0.85	19.4	0.55
74	11.4	2.35	13.6	1.85	15.3	1.6	15.6	1.05	13.9	1.8	17.3	1.1	19.7	0.85	20.5	0.55
72	12.5	1.85	14.7	1.5	16.2	1.3	16.7	1.05	15.2	1.45	18.7	1.1	20.9	0.85	21.6	0.55
70	13.6	1.45	15.8	1.2	17.3	1.1	17.7	1.05	16.5	1.15	19.9	0.92	22.1	0.82	22.7	0.55
68	14.8	1.15	16.9	0.98	18.3	0.89	18.8	0.87	17.7	0.93	21.0	0.74	23.1	0.67	23.7	0.55
65	16.5	0.81	18.5	0.69	19.7	0.63	20.2	0.62	19.7	0.64	22.7	0.51	24.6	0.47	25.1	0.46
60	19.3	0.35														

C : Boom angle (°)
R : Load radius (m)
W : Rated lifting capacity (x 1,000 kg)

RATED LIFTING CAPACITIES

ON OUTRIGGERS

Outriggers extended to middle (5.0 m) - Over ride -																
C	23.45 m Boom + 8.0 m Jib								23.45 m Boom + 13.0 m Jib							
	Offset								Offset							
	5°		25°		45°		60°		5°		25°		45°		60°	
	R	W	R	W	R	W	R	W	R	W	R	W	R	W	R	W
84	3.0	3.3	5.6	2.3	7.6	1.7	8.6	1.05	4.2	2.0	8.5	1.25	11.6	0.85	13.2	0.55
80	5.4	3.3	7.8	2.3	9.7	1.7	10.5	1.05	7.0	2.0	11.1	1.25	13.9	0.85	15.3	0.55
78	6.5	3.3	8.9	2.3	10.7	1.7	11.4	1.05	8.3	2.0	12.2	1.2	15.0	0.85	16.2	0.55
76	7.6	3.3	9.9	2.3	11.6	1.7	12.3	1.05	9.6	1.9	13.4	1.15	16.0	0.85	17.1	0.55
74	8.7	3.3	11.0	2.3	12.5	1.65	13.2	1.05	10.9	1.8	14.5	1.1	17.0	0.85	18.1	0.55
72	9.8	3.3	12.0	2.3	13.4	1.65	14.0	1.05	12.1	1.65	15.6	1.1	18.0	0.85	18.9	0.55
70	10.9	3.3	13.0	2.3	14.3	1.6	14.8	1.05	13.3	1.6	16.7	1.05	19.0	0.85	19.8	0.55
68	11.9	3.3	13.9	2.3	15.2	1.55	15.6	1.0	14.4	1.5	17.8	1.0	19.9	0.85	20.5	0.55
65	13.4	3.1	15.4	2.3	16.4	1.55	16.7	1.0	16.1	1.4	19.3	1.0	21.2	0.84	21.7	0.55
60	15.7	2.2	17.5	1.9	18.4	1.5	18.5	1.0	18.9	1.25	21.8	0.95	23.3	0.81	23.5	0.54
55	17.8	1.65	19.5	1.45	20.2	1.35			21.5	1.15	24.0	0.91	25.2	0.79		
53	18.6	1.45	20.2	1.3	20.9	1.2			22.5	1.1	24.9	0.9	25.9	0.79		
50	19.8	1.2	21.3	1.1	21.8	1.05			23.9	0.98	26.0	0.84	26.8	0.78		
47	21.0	1.0	22.3	0.94	22.7	0.92			25.1	0.83	27.1	0.71	27.7	0.69		
45	21.8	0.93	22.9	0.85	23.2	0.83			25.9	0.74	27.8	0.64	28.2	0.63		
40	23.4	0.71	24.4	0.65					27.8	0.55	29.3	0.49				
35	24.8	0.53	25.7	0.5					29.5	0.41	30.6	0.36				
30	26.1	0.39	26.7	0.36												

Outriggers extended to middle (3.6 m) - Over ride -																
C	23.45 m Boom + 8.0 m Jib								23.45 m Boom + 13.0 m Jib							
	Offset								Offset							
	5°		25°		45°		60°		5°		25°		45°		60°	
	R	W	R	W	R	W	R	W	R	W	R	W	R	W	R	W
84	3.0	3.3	5.6	2.3	7.6	1.7	8.6	1.05	4.2	2.0	8.5	1.25	11.6	0.85	13.2	0.55
80	5.4	3.3	7.8	2.3	9.7	1.7	10.5	1.05	7.0	2.0	11.1	1.25	13.9	0.85	15.3	0.55
78	6.5	3.3	8.9	2.3	10.7	1.7	11.4	1.05	8.3	2.0	12.2	1.2	15.0	0.85	16.2	0.55
76	7.6	3.3	9.9	2.3	11.6	1.7	12.3	1.05	9.6	1.9	13.4	1.15	16.0	0.85	17.1	0.55
74	8.7	3.3	11.0	2.3	12.5	1.65	13.2	1.05	10.9	1.8	14.5	1.1	17.0	0.85	18.1	0.55
72	9.8	3.3	12.0	2.3	13.4	1.65	14.0	1.05	12.1	1.65	15.6	1.1	18.0	0.85	18.9	0.55
70	10.8	2.8	12.9	2.2	14.3	1.6	14.8	1.05	13.3	1.6	16.7	1.05	19.0	0.85	19.8	0.55
68	11.7	2.3	13.8	1.85	15.2	1.55	15.6	1.0	14.4	1.5	17.8	1.0	19.9	0.85	20.5	0.55
65	13.1	1.8	15.2	1.45	16.4	1.3	16.7	1.0	16.1	1.35	19.3	1.0	21.2	0.84	21.7	0.55
60	15.4	1.15	17.3	0.99	18.3	0.91	18.5	0.9	18.8	0.9	21.7	0.74	23.3	0.67	23.5	0.54
55	17.6	0.75	19.3	0.65	20.1	0.61			21.2	0.57	23.9	0.48	25.1	0.44		
53	18.4	0.62	20.1	0.54	20.8	0.5			22.2	0.46	24.7	0.39	25.8	0.37		
50	19.6	0.45	21.2	0.39	21.7	0.37										

C : Boom angle (°)
R : Load radius (m)
W : Rated lifting capacity (x 1,000 kg)

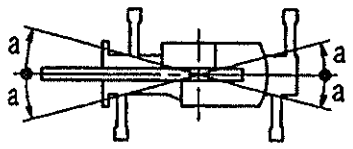
NOTES FOR "ON OUTRIGGERS" TABLES

1. Rated lifting capacities shown in the table are based on the condition that crane is set on a firm level surface. Those above bold lines are based on crane strength and those below, on its stability.
2. The mass of the hook (220 kg for 25,000 kg capacity, 60 kg for 4,000 kg capacity), slings and all similarly used load handling devices must be considered as part of the load and must be deducted from the lifting capacities.
3. Jib operation should be based on boom angle irrespective of boom length.
   The working radius shown above is reference value with jib mounted to 30.5 m boom and 23.45 m boom.
4. For rated lifting capacity of single top, reduce the 160 kg from the relevant boom rated lifting capacity.
   Rated lifting capacity of single top should not exceed 4,000 kg.
5. High-speed down hoisting should be performed without any load on the hook.
   Be sure to operate the levers slowly.
6. Standard number of parts of line for each boom length is as shown below.
   Load per line should not surpass 3,600 kg for main winch and 4,000 kg for auxiliary winch.

Boom length (m)	9.35	16.4	23.45	30.5	JIB/Single top
No. of parts of line	8	6	4	4	1

   The lifting capacity data stored in the AUTOMATIC LIMITER(AML-C) is based on the standard number of parts of line listed in the chart.
   Maximum lifting capacity is restricted by the number of pats of line of AUTOMATIC MOMENT LIMITER(AML-C).
7. The lifting capacity for over-side area differs depending on the outrigger extension width. Work with the capacity corresponding to the extension width. The lifting capacities for over-front and over-rear areas are for "outriggers fully extended". However, the areas (angle **a**) differ depending on the outrigger extension width.

Outriggers extended width	Extended to middle (6.1 m)	Extended to middle (5.0 m)	Extended to middle (3.6 m)	Extended to minimum (2.3 m)
Angle a°	45	25	10	5

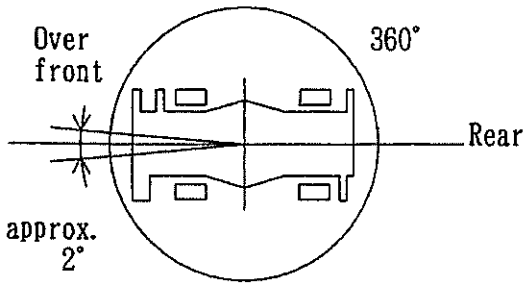


RATED LIFTING CAPACITIES

Unit : x1,000kg

Load radius	ON-RUBBER STATIONARY						ON-RUBBER CREEP					
	9.35 m Boom		16.4 m Boom		23.45 m Boom		9.35 m Boom		16.4 m Boom		23.45 m Boom	
	Over front	360°	Over front	360°	Over front	360°	Over front	360°	Over front	360°	Over front	360°
3.0 m	14.0	8.3	9.0	7.3			10.0	6.5	7.5	5.1		
3.5 m	14.0	6.8	9.0	7.3	6.5	4.5	10.0	5.2	7.5	5.1	5.5	3.2
4.0 m	12.5	5.3	9.0	5.85	6.5	4.5	9.0	4.2	7.5	4.4	5.5	3.2
4.5 m	10.9	4.3	9.0	4.75	6.5	4.5	8.2	3.4	7.5	3.7	5.5	3.2
5.0 m	9.55	3.5	8.2	4.0	6.5	4.0	7.4	2.8	7.0	3.1	5.5	3.2
5.5 m	8.3	2.8	7.4	3.3	6.1	3.4	6.7	2.4	6.2	2.7	5.15	2.8
6.0 m	7.2	2.3	6.6	2.8	5.65	2.9	5.9	1.9	5.5	2.3	4.8	2.4
6.5 m	6.25	1.8	5.9	2.35	5.25	2.5	5.1	1.5	4.9	1.9	4.45	2.05
7.0 m			5.25	1.95	4.85	2.15			4.35	1.6	4.15	1.8
8.0 m			4.1	1.4	4.1	1.6			3.4	1.1	3.5	1.4
9.0 m			3.25	0.95	3.5	1.2			2.7	0.7	2.95	1.0
10.0 m			2.6	0.6	3.0	0.85			2.15		2.45	0.65
11.0 m			2.1		2.55	0.55			1.7		2.05	
12.0 m			1.7		2.2				1.35		1.7	
13.0 m			1.35		1.85				1.1		1.45	
13.5 m			1.15		1.7				1.0		1.3	
14.0 m					1.55						1.2	
15.0 m					1.3						1.0	
16.0 m					1.05						0.85	
17.0 m					0.85						0.7	
18.0 m					0.65						0.55	
19.0 m					0.5							

WORKING AREA



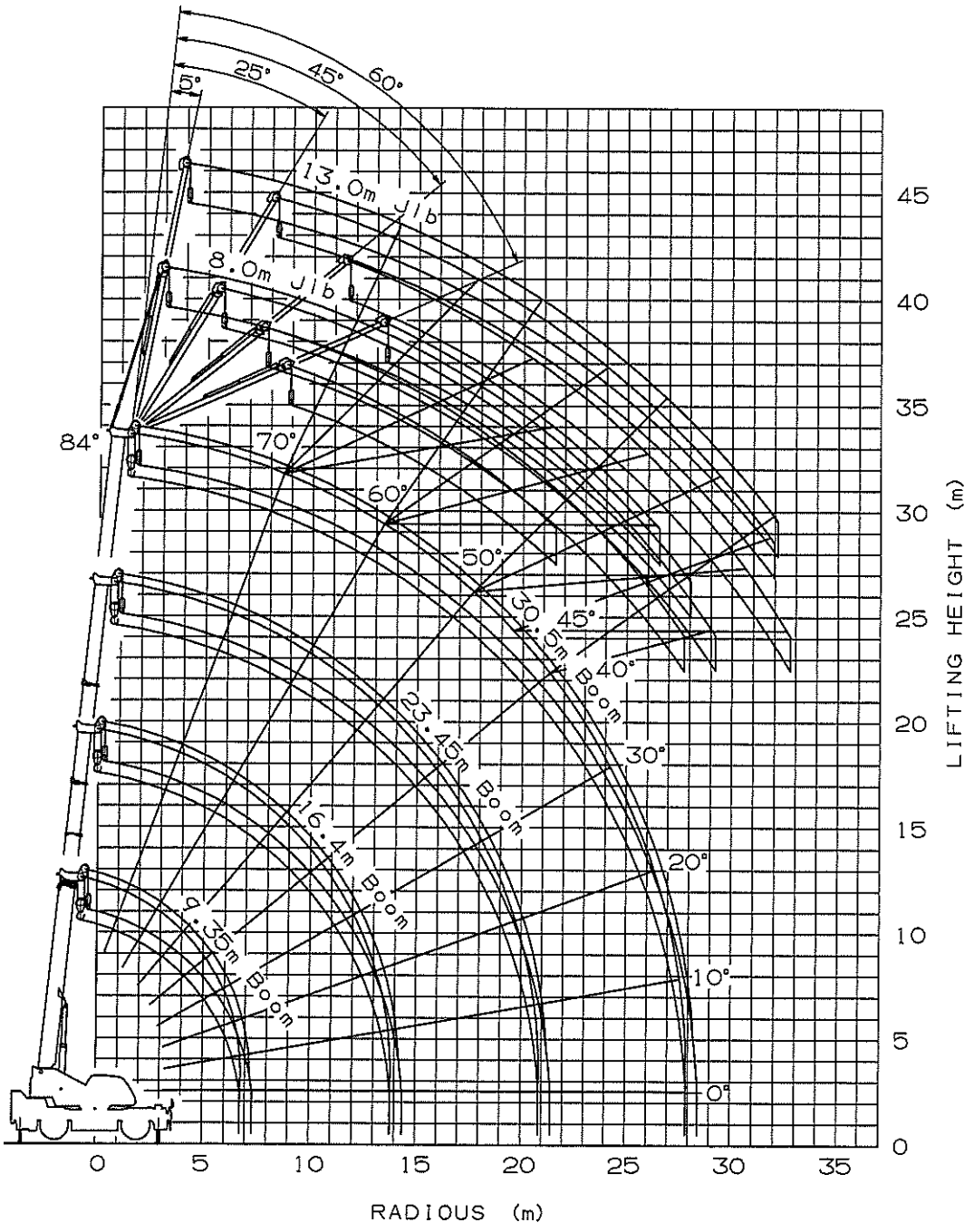
Without outriggers "Over front" operation should be performed within 2 degrees in front of chassis.

NOTES FOR "ON-RUBBER" TABLES

1. Rated lifting capacities shown in the table are based on the condition that crane is set on a firm level surface, with suspension cylinder minimum length. Those above bold lines are based on tire capacity and those below, on crane stability. They are based on actual load radius increased by tire deformation and boom deflection.
2. The mass of the hook (220 kg for 25,000 kg capacity), slings and all similarly used load handling devices must be considered as part of the load and must be deducted from the lifting capacities.
3. For rated lifting capacity of single top, reduce the 160 kg from the relevant boom rated lifting capacity.
   Rated lifting capacity of single top should not exceed 4,000 kg.
4. High-speed down hoisting and on-rubber lifting with "jib" is not permitted.
   Maximum permissible boom length is 23.45 m.
5. CREEP is motion for crane not to travel more than 60 m in any 30 min. period and to travel at the speed of less than 1.6 km/h.
6. During "CREEP" duties travel slowly and keep the lifting load as close to the ground as possible, and especially avoid any abrupt steering, accelerating or braking.
7. Do not operate the crane while carrying the load.
8. Tires should be inflated to their correct air pressure of 900 kPa {9.0 kgf/cm^2}.
9. For CREEP operation, set Drive select switch to "4-WHEEL(Lo)" and set gear shift lever to "1".
10. Standard number of parts of line for each boom length is as shown below.
    Load per line should not surpass 3,600 kg for main winch and 4,000 kg for auxiliary winch.

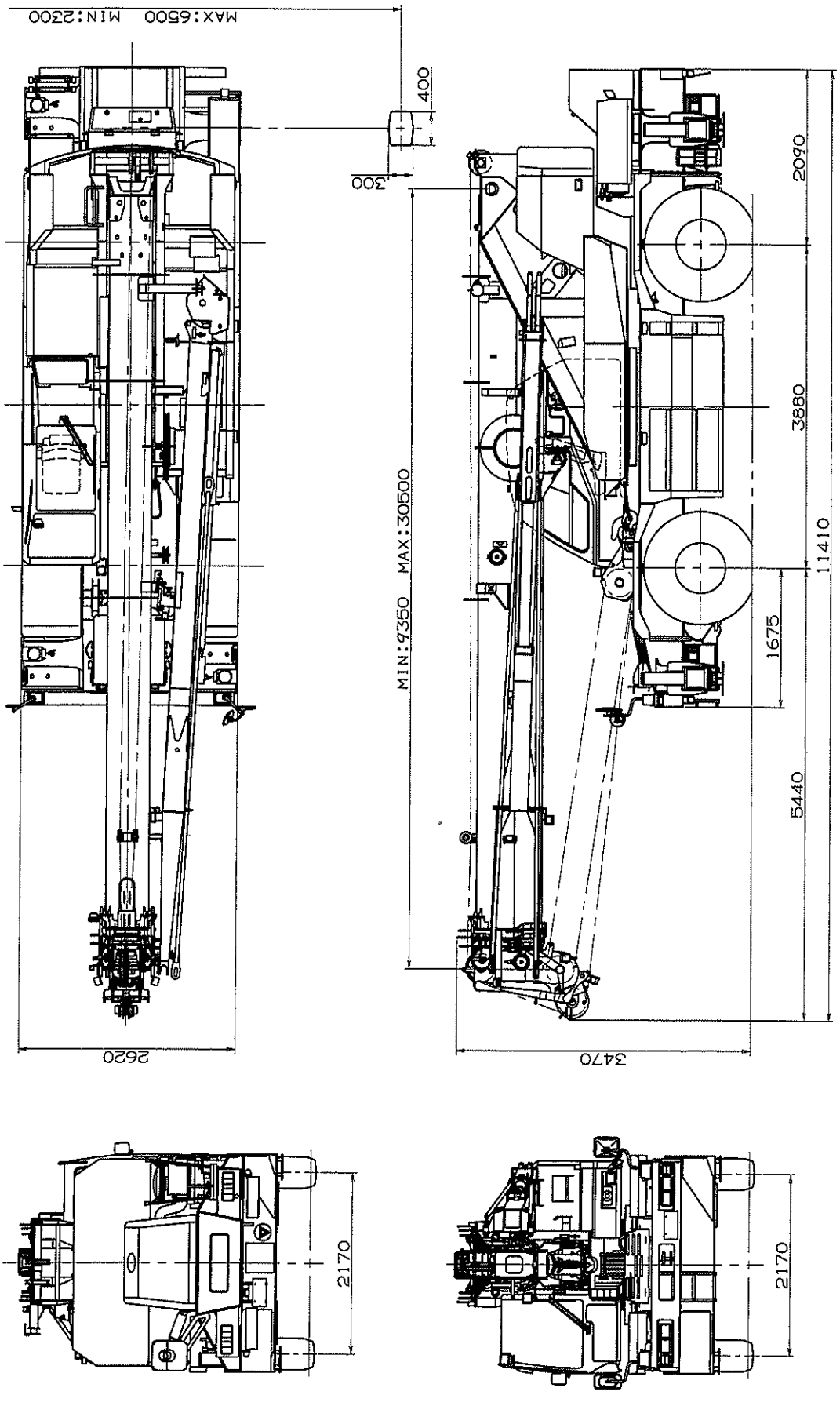
Boom length (m)	9.35	16.4	23.45	Single top
No. of parts of line	4	4	4	1

WORKING RANGE CHART



NOTE:
1. The above lifting heights and boom angles are based on a straight (unladen) boom, and allowance should be made for boom deflection obtained under laden conditions.
2. The above working range is shown on condition with outriggers fully extended.
3. The dashed line range is shown on over front special capacities.

DIMENSIONS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400
300
2090
3880
11410
1675
5440
MIN:9350 MAX:30500
2620
3470
2170
2170