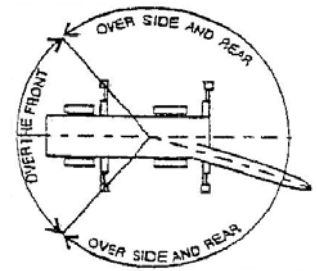


ROUGH TERRAIN CRANE

TR-200M-5-00101

TADANO TR-200M-5-00101
HYDRAULIC ROUGH TERRAIN CRANE
TOTAL RATED LOAD IN KILOGRAMS
THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE A.M.L.
WITH OUTRIGGERS SET - BOOM

OUTRIGGERS FULLY EXTENDED (6.0m): 360°						
A (m) \ B (m)	7.0m	11.7m	16.4m	21.1m	25.8m	30.5m
2.5	20.0	12.0	12.0	9.0		
3.0	20.0	12.0	12.0	9.0		
3.5	20.0	12.0	12.0	9.0	7.0	
4.0	18.5	12.0	12.0	9.0	7.0	
4.5	16.5	12.0	12.0	9.0	7.0	5.0
5.0	14.2	12.0	12.0	9.0	7.0	5.0
5.5		12.0	11.9	9.0	7.0	5.0
6.0		12.0	11.1	9.0	7.0	5.0
6.5		11.3	10.35	8.5	7.0	5.0
7.0		10.0	9.7	8.1	6.65	5.0
8.0		7.85	7.45	7.2	5.95	4.65
9.0		6.3	5.9	6.4	5.3	4.2
10.0			4.75	5.2	4.75	3.8
11.0			3.9	4.35	4.3	3.45
12.0			3.2	3.65	3.85	3.15
13.0			2.7	3.1	3.35	2.9
14.0			2.25	2.65	2.9	2.65
15.0				2.25	2.5	2.45
16.0				1.9	2.15	2.25
17.0				1.6	1.85	2.0
18.0				1.35	1.6	1.75
19.0				1.15	1.4	1.55
20.0					1.2	1.35
22.0					0.9	1.05
24.0					0.75	0.8
26.0					(23.0m)	0.55
28.0						0.4
a (°)	0 ~ 82					



WORKING RADIUS DIAGRAM

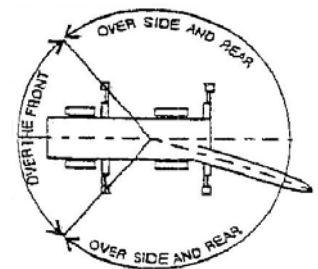
A : BOOM LENGTH (m)
 B : WORKING RADIUS (m)
 a : Boom angle range
 (for unladen condition)

TADANO TR-200M-5-00101
HYDRAULIC ROUGH TERRAIN CRANE
TOTAL RATED LOAD IN KILOGRAMS

THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE A.M.L.

WITH OUTRIGGERS SET – BOOM

OUTRIGGERS MIDDLE EXTENDED (5.6m): Over sides							
A (m) \ B (m)	7.0m	11.7m	16.4m	21.1m	25.8m	30.5m	
2.5	20.0	12.0	12.0	9.0			
3.0	20.0	12.0	12.0	9.0			
3.5	20.0	12.0	12.0	9.0	7.0		
4.0	18.5	12.0	12.0	9.0	7.0		
4.5	16.5	12.0	12.0	9.0	7.0	5.0	
5.0	14.2	12.0	12.0	9.0	7.0	5.0	
5.5		12.0	11.9	9.0	7.0	5.0	
6.0		12.0	11.1	9.0	7.0	5.0	
6.5		10.3	10.1	8.5	7.0	5.0	
7.0		8.9	8.8	8.1	6.65	5.0	
8.0		6.9	6.75	7.2	5.95	4.65	
9.0		5.5	5.35	5.8	5.3	4.2	
10.0			4.3	4.75	4.75	3.8	
11.0			3.5	3.95	4.15	3.45	
12.0			2.9	3.3	3.6	3.15	
13.0			2.35	2.75	3.05	2.9	
14.0			1.95	2.3	2.6	2.65	
15.0				1.95	2.25	2.35	
16.0				1.65	1.9	2.1	
17.0				1.4	1.65	1.8	
18.0				1.15	1.4	1.55	
19.0				1.0	1.2	1.35	
20.0					1.0	1.15	
22.0					0.7	0.85	
24.0					0.6	0.6	
26.0					(23.0m)	0.4	
a (°)	0~82						26~82



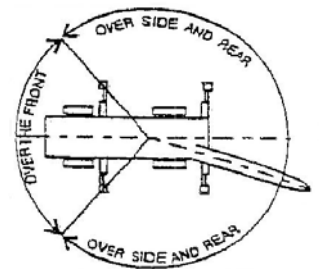
WORKING RADIUS DIAGRAM

A : BOOM LENGTH (m)
 B : WORKING RADIUS (m)
 a : Boom angle range
 (for unladen condition)

TADANO TR-200M-5-00101
HYDRAULIC ROUGH TERRAIN CRANE
TOTAL RATED LOAD IN KILOGRAMS
THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE A.M.L.

WITH OUTRIGGERS SET – BOOM

OUTRIGGERS MIDDLE EXTENDED (4.7m): Over sides						
A (m) B (m)	7.0m	11.7m	16.4m	21.1m	25.8m	30.5m
2.5	20.0	12.0	12.0	9.0		
3.0	20.0	12.0	12.0	9.0		
3.5	20.0	12.0	12.0	9.0	7.0	
4.0	18.5	12.0	12.0	9.0	7.0	
4.5	16.5	12.0	12.0	9.0	7.0	5.0
5.0	13.0	12.0	12.0	9.0	7.0	5.0
5.5		10.4	10.2	9.0	7.0	5.0
6.0		8.8	8.7	9.0	7.0	5.0
6.5		7.5	7.35	7.9	7.0	5.0
7.0		6.5	6.4	6.9	6.65	5.0
8.0		5.05	4.85	5.4	5.55	4.65
9.0		3.95	3.8	4.3	4.55	4.2
10.0			3.0	3.45	3.75	3.8
11.0			2.4	2.8	3.15	3.25
12.0			1.9	2.3	2.6	2.75
13.0			1.5	1.9	2.2	2.35
14.0			1.15	1.55	1.8	1.95
15.0				1.25	1.5	1.65
16.0				1.0	1.25	1.4
17.0				0.8	1.05	1.2
18.0				0.6	0.85	1.0
19.0				0.45	0.65	0.8
20.0					0.5	0.65
22.0						0.4
a (°)	0-82			34-82		40-82



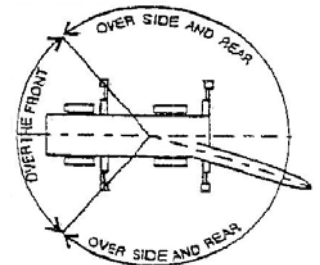
WORKING RADIUS DIAGRAM

A : BOOM LENGTH (m)
 B : WORKING RADIUS (m)
 a : Boom angle range
 (for unladen condition)

TADANO TR-200M-5-00101
HYDRAULIC ROUGH TERRAIN CRANE
TOTAL RATED LOAD IN KILOGRAMS
THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE A.M.L.

WITH OUTRIGGERS SET – BOOM

OUTRIGGERS MINIMUM EXTENDED (3.6m): Over sides						
A (m) \ B (m)	7.0m	11.7m	16.4m	21.1m	25.8m	30.5m
2.5	20.0	12.0	12.0	9.0		
3.0	20.0	12.0	12.0	9.0		
3.5	16.0	12.0	12.0	9.0	7.0	
4.0	12.3	12.0	11.7	9.0	7.0	
4.5	9.8	9.6	9.4	9.0	7.0	5.0
5.0	7.7	7.8	7.65	8.0	7.0	5.0
5.5		6.5	6.3	6.8	7.0	5.0
6.0		5.5	5.35	5.85	6.2	5.0
6.5		4.7	4.6	5.05	5.35	5.0
7.0		4.1	3.95	4.4	4.7	4.7
8.0		3.1	3.0	3.4	3.7	3.85
9.0		2.35	2.25	2.65	2.95	3.1
10.0			1.7	2.05	2.35	2.5
11.0			1.2	1.6	1.85	2.0
12.0			0.8	1.25	1.45	1.65
13.0			0.5	0.95	1.15	1.35
14.0				0.65	0.9	1.05
15.0				0.45	0.7	0.85
16.0					0.5	0.65
17.0						0.5
a (°)	0~82		26~82	39~82	48~82	54~82



WORKING RADIUS DIAGRAM

A : BOOM LENGTH (m)
 B : WORKING RADIUS (m)
 a : Boom angle range
 (for unladen condition)

TADANO TR-200M-5-00101
HYDRAULIC ROUGH TERRAIN CRANE
CHART 5: TOTAL RATED LOAD IN KILOGRAMS
THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE A.M.L.

JIB

OUTRIGGERS FULLY EXTENDED (6.0m): 360°						
C D E (°)	30.5m Boom + 3.8m Jib					
	5°		25°		45°	
	B (m)	M (t)	B (m)	M (t)	B (m)	M (t)
82	4.4	3.0	6.0	2.0	6.9	1.4
80	5.6	3.0	7.2	2.0	8.1	1.4
75	8.6	3.0	10.3	2.0	11.1	1.4
73	9.8	2.6	11.4	2.0	12.2	1.4
70	11.4	2.3	13.2	1.9	13.8	1.37
65	14.1	1.85	15.8	1.65	16.4	1.33
60	16.7	1.5	18.3	1.4	18.9	1.3
55	19.1	1.25	20.6	1.2	21.1	1.15
50	21.5	1.05	22.8	1.0	23.1	1.0
45	23.5	0.75	24.7	0.75	25.0	0.75
40	25.4	0.55	26.4	0.55		
35	27.1	0.4	27.9	0.4		
A (°)	34-82			44-82		

B = Working radius

C = Jib length

D = Jib offset

E = Boom angle

M = Total rated loads

A = Boom angle range (for the unladen condition)

TADANO TR-200M-5-00101
HYDRAULIC ROUGH TERRAIN CRANE
CHART 5: TOTAL RATED LOAD IN KILOGRAMS
THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE A.M.L.

JIB

OUTRIGGERS MIDDLE EXTENDED (5.6m): Over sides						
C D	30.5m Boom + 3.8m Jib					
	5°		25°		45°	
E (°)	B (m)	M (t)	B (m)	M (t)	B (m)	M (t)
82	4.4	3.0	6.0	2.0	6.9	1.4
80	5.6	3.0	7.2	2.0	8.1	1.4
75	8.6	3.0	10.3	2.0	11.1	1.4
73	9.8	2.6	11.4	2.0	12.2	1.4
70	11.4	2.3	13.2	1.9	13.8	1.37
65	14.1	1.85	15.8	1.65	16.4	1.33
60	16.7	1.5	18.3	1.4	18.9	1.3
55	19.1	1.2	20.6	1.15	21.1	1.15
50	21.4	0.85	22.7	0.85	23.1	0.85
45	23.5	0.6	24.7	0.6	24.9	0.6
40	25.4	0.4	26.4	0.4		
A (°)	39-82				44-82	

- B = Working radius
- C = Jib length
- D = Jib offset
- E = Boom angle
- M = Total rated loads
- A = Boom angle range (for the unladen condition)

TADANO TR-200M-5-00101
HYDRAULIC ROUGH TERRAIN CRANE
CHART 5: TOTAL RATED LOAD IN KILOGRAMS
THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE A.M.L.

JIB

OUTRIGGERS MIDDLE EXTENDED (4.7m): Over sides						
C D	30.5m Boom + 3.8m Jib					
	5°		25°		45°	
E (°)	B (m)	M (t)	B (m)	M (t)	B (m)	M (t)
82	4.4	3.0	6.0	2.0	6.9	1.4
80	5.6	3.0	7.2	2.0	8.1	1.4
75	8.6	3.0	10.3	2.0	11.1	1.4
73	9.8	2.6	11.4	2.0	12.2	1.4
70	11.4	2.3	13.2	1.9	13.8	1.37
65	14.1	1.75	15.8	1.65	16.4	1.33
60	16.7	1.15	18.2	1.15	18.8	1.05
55	19.1	0.75	20.5	0.75	21.0	0.7
50	21.4	0.45	22.6	0.45	23.0	0.45
A (°)	49 ~ 82					

- B = Working radius
- C = Jib length
- D = Jib offset
- E = Boom angle
- M = Total rated loads
- A = Boom angle range (for the unladen condition)

TADANO TR-200M-5-00101
HYDRAULIC ROUGH TERRAIN CRANE
CHART 5: TOTAL RATED LOAD IN KILOGRAMS
THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE A.M.L.

JIB

OUTRIGGERS MINIMUM EXTENDED (3.6m): Over sides						
C D	30.5m Boom + 3.8m Jib					
	5°		25°		45°	
E (°)	B (m)	M (t)	B (m)	M (t)	B (m)	M (t)
82	4.4	3.0	6.0	2.0	6.9	1.4
80	5.6	3.0	7.2	2.0	8.1	1.4
78	6.9	3.0	8.5	2.0	9.4	1.4
75	8.6	2.7	10.3	2.0	11.1	1.4
70	11.4	1.7	13.1	1.55	13.8	1.37
65	14.1	1.0	15.6	0.95	16.3	0.9
60	16.6	0.55	18.0	0.5	18.6	0.5
A (°)	59 ~ 82					

- B = Working radius
- C = Jib length
- D = Jib offset
- E = Boom angle
- M = Total rated loads
- A = Boom angle range (for the unladen condition)

PRECAUTIONS TO BE TAKEN WHEN THE OUTRIGGERS ARE EXTENDED

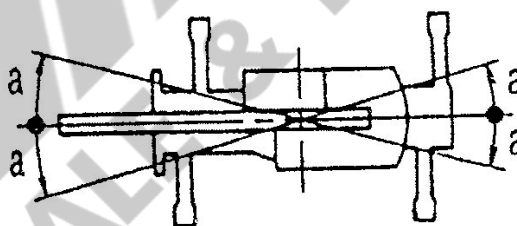
- The total rated loads shown are for the case where the crane is set horizontally on firm level ground. They include the weights of the slings and hooks (main hook: 220kg, auxiliary hook: 60kg). The values above the bold lines are based on the crane strength while those below are based on the crane stability.
- Total rated loads below bold lines do not exceed 75% of tipping load. Ratings meet the minimum requirement of AS1418.5-2002
- Since the working radii are based on the actual values including the deflection of the boom, operations should be performed in accordance with the working radii.
- Jib operations should be performed in accordance with the boom angle, irrespective of the boom length. The working radii are reference values for the case where the jib is mounted on a 30.5m boom.
- The total rated load for the single top shall be the value obtained by subtracting the weight of the hook mounted on the boom from the total rated load of the boom and must not exceed 3.5t.
- As a rule, free-fall operation should be performed only when lowering the hook alone. If a hoisted load must be lowered by free-fall operation, the load must be kept below 1/5th of the total rated load and sudden braking operations must be avoided.
- The chart below shows the standard number of part lines for each boom length. The load per line should not exceed 32.7kN (3.33tf) for the main winch and 34.3kN (3.5tf) for the auxiliary winch.

A	7.0m	11.7m	16.4m	21.1m	25.8m	30.5m	Single top
H	6	4	4	4	4	4	1

A = Boom length H = No. of part lines

- The hoisting performance for the "Over sides" range will differ according to the extended width of the outriggers. Operations should be performed in accordance with the performance corresponding to the extended width. Also, although the hoisting performances for the "Over front" and "Over rear" ranges are equivalent to those of the "outriggers fully extended" condition, the front and rear ranges (angle a) will differ according to the width to which the outriggers are extended in the left and right directions.

Extended width	Middle extended (5.6 m)	Middle extended (4.7 m)	Minimum extended (3.6 m)
Angle a°	35	25	15



- Special weather caution: Refer to the operation and maintenance manual.
- Refer to the crane manual.
- WIRE ROPE**
Main Winch: 16mm x 170m (Diameter x Length) Spin-resistant wire rope
Auxiliary Winch: 16mm x 80m (Diameter x Length) Spin-resistant wire rope

TADANO TR-200M-5-00101
HYDRAULIC ROUGH TERRAIN CRANE
TOTAL RATED LOAD IN KILOGRAMS

THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE A.M.L.

WITHOUT OUTRIGGERS

B (m)	Stationary							
	7.0m Boom		11.7m Boom		16.4m Boom		21.1m Boom	
	K	G	K	G	K	G	K	G
3.0	12.2	7.0	8.7	6.5	8.0	5.5	6.2	5.3
3.5	10.7	5.6	8.7	5.2	8.0	4.6	6.2	5.3
4.0	9.6	4.5	8.7	4.1	7.5	3.7	6.2	4.4
4.5	8.5	3.7	7.5	3.3	6.6	3.1	6.0	3.6
5.0	7.5	3.0	6.4	2.7	5.8	2.5	5.6	3.0
5.5			5.5	2.2	5.0	2.0	5.1	2.5
6.0			4.7	1.7	4.4	1.6	4.6	2.0
6.5			4.0	1.3	3.7	1.2	4.1	1.6
7.0			3.4	1.0	3.2	0.9	3.7	1.3
8.0			2.5	0.5	2.4	0.4	2.9	0.8
9.0			1.9		1.8		2.2	
10.0					1.3		1.7	
11.0					0.9		1.25	
12.0							0.9	
13.0							0.6	
A (°)	0~82		35~82		40~82	55~82	47~82	64~82

B (m)	Creep (travelling at 1.6km/h or less)							
	7.0m Boom		11.7m Boom		16.4m Boom		21.1m Boom	
	K	G	K	G	K	G	K	G
3.0	8.5	5.9	6.7	5.5	6.2	4.6	5.2	4.4
3.5	8.0	4.7	6.7	4.4	6.2	3.8	5.2	4.4
4.0	7.5	3.8	6.7	3.4	6.2	3.1	5.2	3.7
4.5	6.8	3.1	6.3	2.8	5.5	2.6	5.0	3.0
5.0	6.1	2.5	5.4	2.25	4.9	2.1	4.7	2.5
5.5			4.6	1.8	4.2	1.65	4.3	2.05
6.0			3.9	1.4	3.7	1.3	3.85	1.65
6.5			3.3	1.1	3.2	1.0	3.45	1.3
7.0			2.8	0.8	2.7	0.8	3.1	1.05
8.0			2.1	0.4	2.0		2.4	0.65
9.0			1.6		1.5		1.8	
10.0					1.1		1.4	
11.0					0.75		1.0	
12.0							0.7	
13.0							0.5	
A (°)	0~82		35~82		40~82	55~82	47~82	64~82

B = Working radius K = Front G = 360°
a = Boom angle range (for the unladen condition)

PRECAUTIONS TO BE TAKEN WHEN THE OUTRIGGERS ARE NOT MOUNTED

1. The total rated loads shown are for the case where the tyre size 525/80R25 and air pressure on firm level ground is as specified 900kPa (9.00kgf/cm²) and the suspension-lock cylinder is retracted as much as possible. They include the weights of the slings and hooks (main hook: 220kg, auxiliary hook: 60kg).

The values above the bold lines are based on the crane strength while those below are based on the crane stability. The foundation, working conditions, etc. should be taken into consideration for actual work.

2. Since the working radii are based on the actual values including the deflection of the boom, operations should be performed in accordance with the working radii.
3. The chart below shows the standard number of part lines for each boom length. The load per line should not exceed 32.7kN (3.33tf) for the main winch and 34.3kN (3.5tf) for the auxiliary winch.

A	7.0m	11.7m	16.4m	21.1m	Single top
H	4	4	4	4	1

A = Boom Length H = No. of part lines

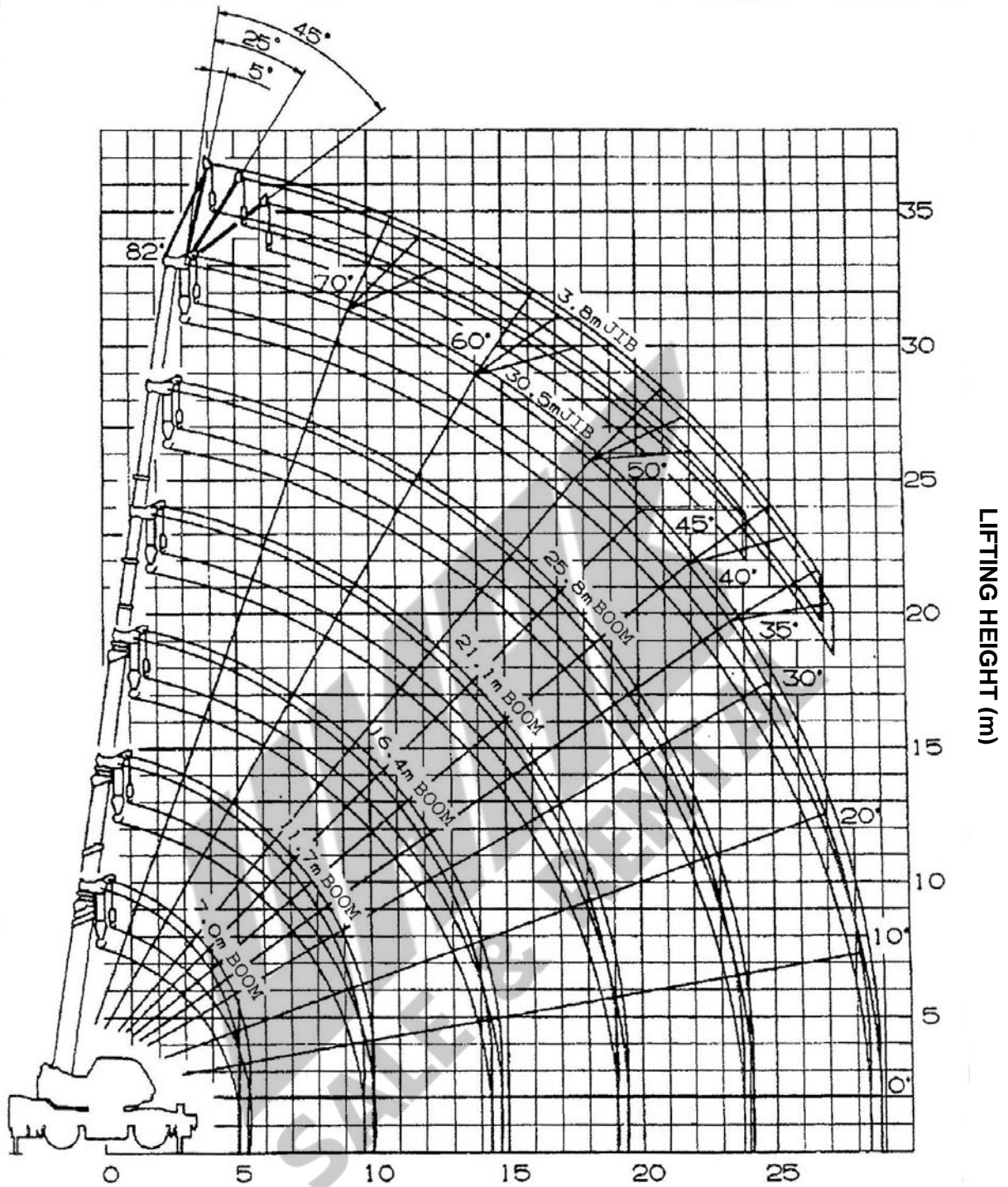
4. "Over front" crane operations should be performed only when the AML "Over-front area indicator lamp" is lit. The boom must be kept inside a 2° area over front of the carrier when performing "Over front" crane operations without the outriggers.
5. The total rated load for the single top shall be the value obtained by subtracting the weight of the hook mounted on the boom from the total rated load of the boom and must not exceed 3.5t.

Approx. 2°



6. Free-fall operations should not be performed without outriggers. Booms over 21.1m in length and jibs should not be used without outriggers.
7. The "Drive Mode Selection" switch should be set to "4-wheel / Lo" for creeping while hoisting a load and the shift lever should be set to first.
8. When creeping while hoisting a load, the swing brake should be applied, the load should be kept as close to the ground as possible but not touching the ground and the speed should be kept at 1.6km/h or less. In particular, any abrupt steering, starting or braking must be avoided.
9. Crane operations should not be performed when creeping while hoisting a load.
10. Special weather caution: Refer to the operation and maintenance manual.
11. Refer to the crane manual.
12. **WIRE ROPE**
Main Winch: 16mm x 170m (Diameter x Length) Spin-resistant wire rope
Auxiliary Winch: 16mm x 80m (Diameter x Length) Spin-resistant wire rope

WORKING RADIUS – LIFTING HEIGHT



NOTES:

1. The deflection of the boom is not incorporated in the figure above.
2. The figure above is for the case where the outriggers are fully extended (360°)

TR-200M

CRANE SPECIFICATIONS

CRANE CAPACITY

7.0m Boom	20,000kg	at 3.5m	(6part-line)
11.7m Boom	12,000kg	at 6.0m	(4part-line)
16.4m Boom	12,000kg	at 5.0m	(4part-line)
21.1m Boom	9,000kg	at 6.0m	(4part-line)
25.8m Boom	7,000kg	at 6.5m	(4part-line)
30.5m Boom	5,000kg	at 7.0m	(4part-line)
3.8m Jib	3,000kg	at 75°	(1part-line)
Single top	3,500kg		(1part-line)

MAX.LIFTING HEIGHT

Boom	30.9m
Jib	35.1m

MAX.WORKING RADIUS

Boom	28.0m
Jib	27.9m

BOOM LENGTH

7.0m – 30.5m

BOOM EXTENSION

23.5m

BOOM EXTENSION SPEED

23.5m/86s

JIB LENGTH

3.8m

MAIN WINCH SINGLE LINE WINDING SPEED

110m/min (5th layer)

MAIN WINCH HOOK SPEED

27.5m/min (4 part-line)

AUXILIARY WINCH SINGLE LINE WINDING SPEED

90m/min (2nd layer)

AUXILIARY WINCH HOOK SPEED

90m/min (1 part-line)

BOOM ELEVATION ANGLE

-3° – 82°

BOOM ELEVATION SPEED

-3° – 82°/41s

SWING ANGLE

360° continue

SWING SPEED

2.6min⁻¹ (rpm)

WIRE ROPE

Main Winch

16mm x 170m (Diameter x Length)

Spin-resistant wire rope

Auxiliary Winch

16mm x 80m (Diameter x Length)

Spin-resistant wire rope

BOOM

6-section hydraulically telescoping boom of box construction

(stages 2,3: synchronized; stages 4,5,6: synchronized)

BOOM EXTENSION

2 double-acting hydraulic cylinders

2 wire rope type telescoping devices

With flow regulator valve with pressure compensation

JIB

Single stage which swings from and stores under the boom

Triple offset (5°, 25°, 45°) type

SINGLE TOP

Mounted and fixed on the top boom section.

HOIST

Driven by hydraulic motor and via spur gear reducer.

With free-fall device.

Automatic brake (with foot brake for free-fall device)

2 single winches

With flow regulator valve with pressure compensation

BOOM ELEVATION

1 double-acting hydraulic cylinders

With flow regulator valve with pressure compensation

SWING

Hydraulic motor driven planetary gear reducer

Swing bearing

Swing free/lock changeover type

Negative brake

OUTRIGGERS

Fully hydraulic X-type (floats mounted integrally)

Slides and jacks each provided with independent operation device.

Fully extended width 6.0m

Middle extended width 5.6m, 4.7m

Minimum extended width 3.6m

OPERATION METHOD

Hydraulic pilot valve operation

MAX. VERTICAL LOAD CAPACITY OF OUTRIGGER

23.6t

POWER TAKE-OFF

PTO wet multi-plate clutch

HYDRAULIC PUMPS

2 variable piston pumps

2 gear pumps

HYDRAULIC OIL TANK CAPACITY

375 liters

SAFETY DEVICES

Automatic moment limiter (AML)

Swing automatic stop device

Over-winding cutout device

Working area control device

Free-fall interlock device

Outrigger extension width detector

Level gauge

Hook safety latch

Hydraulic safety valve

Telescopic counterbalance valve

Elevation counterbalance valve

Jack pilot check valve

EQUIPMENT

Air-conditioner with dehumidifier

Hydraulic oil temperature indication lamp

Radio

Oil cooler

Visual-type winch drum rotation indicator

Operation pedals

ISO arrangement: for telescoping/auxiliary hoisting

TADANO arrangement: for elevating/telescoping

CARRIER SPECIFICATIONS

ENGINE

Model HINO H07C-TF
 Type 4-cycle, 6-cylinder, direct-injection, water-cooled diesel engine (with turbo charger)
 Piston displacement 6,728cc
 Max. output 162kW (220PS) at 2,800rpm
 Max. torque 657N·m (67.0kgf·m) at 1,600rpm

TORQUE CONVERTER

3-element, 1-stage unit (with automatic lock-up mechanism)

TRANSMISSION

Power shift type (wet multi-plate clutch)
 4 forward and 1 reverse speeds (with Hi/Low settings)

REDUCER

Axle dual-ratio reduction

DRIVE

2-wheel drive (4X2) / 4-wheel drive (4X4) selection

FRONT AXLE

Full floating type

REAR AXLE

Full floating type

SUSPENSION

Front Hydro-pneumatic suspension (with hydraulic lock cylinder)

Rear Hydro-pneumatic suspension (with hydraulic lock cylinder)

STEERING

Fully hydraulic power steering
 With reverse steering correction mechanism

BRAKE SYSTEM

Service Brake

Hydro-pneumatic disk brake

Parking Brake

Mechanically operated, internal expanding duo-servo shoe type acting on drum at transmission case rear.

Auxiliary Brake

Electro-pneumatic operated exhaust brake

Eddy current retarder

Auxiliary braking device for operations

FRAME

Welded box-shaped structure

ELECTRIC SYSTEM

12 V DC. 2 batteries of 24V (120Ah)

FUEL TANK CAPACITY

300 liters

TIRES

Front 385/95R25 170E ROAD

Rear 385/95R25 170E ROAD

CAB

One-man type

With interior equipment

Liquid filled rubber mounted type

Fully adjustable foldable seat

(with headrest and seat belt)

Adjustable handle (tilt, telescoping)

Intermittent type windshield/roof wiper (with washer)

Power window

Side visor

SAFETY DEVICES

Emergency steering device

Suspension lock device

Rear wheel steering lock device

Engine over-run alarm

Overshift prevention device

Parking brake alarm

EQUIPMENT

Centralized oiling device

Electric mirror

GENERAL DATA

DIMENSIONS

Overall length	8,990mm
Overall width	2,490mm
Overall height	3,410mm
Wheel base	3,300mm
Tread Front	2,065mm
Rear	2,065mm

WEIGHTS

Gross vehicle weight	
Total	23,495kg
Front	12,020kg
Rear	11,475kg

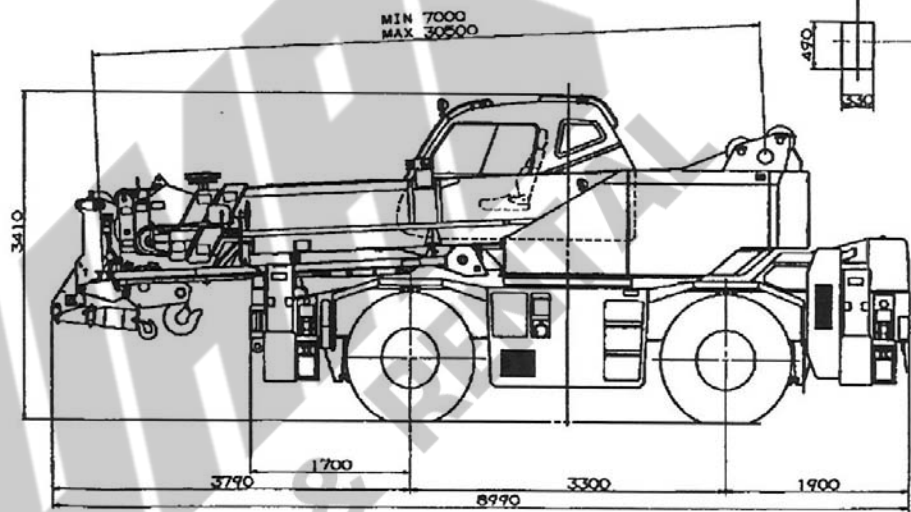
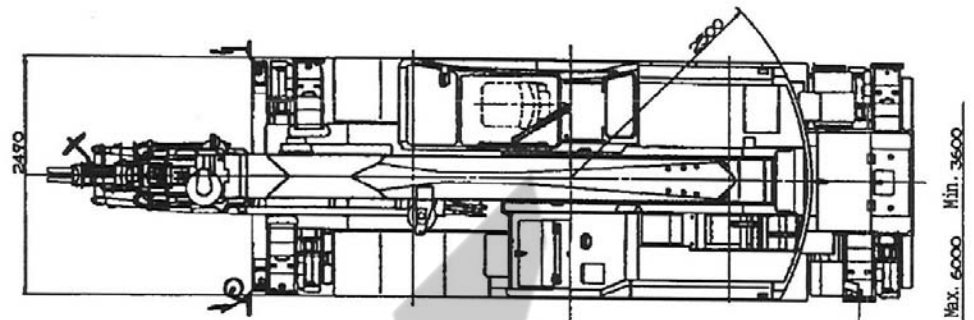
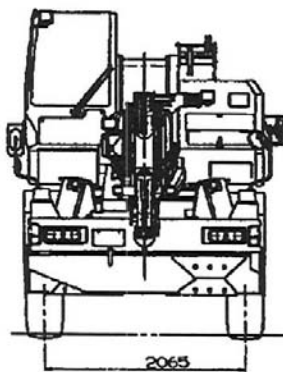
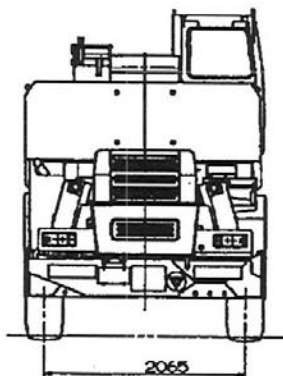
PERFORMANCE

Max. traveling speed	49km/h
Gradeability (tan θ)	0.6
Min. turning radius	4.8m (4-wheel steering) 8.1m (2-wheel steering)

Note:

This crane is covered by Class B Conditions under the Basic Running Conditions of the Road Traffic Act.

DIMENSIONS (1/100)





CREVO 200EXC

MODEL TR-200EXC

GENERAL DATA

CRANE CAPACITY	20,000 kg at 2.5 m	
BOOM	6-section, 6.5 m 27.5 m	
DIMENSIONS		
Overall length	approx.	8,680 mm
Overall width	approx.	2,200 mm
Overall height	approx.	3,170 mm
MASS		
Gross vehicle mass	approx.	19,895 kg
- front axle	approx.	9,950 kg
- rear axle	approx.	9,945 kg
PERFORMANCE		
Max. travelling speed	computed	55 km/h
Gradeability (tan θ)	computed	60% (at stall)

CRANE SPECIFICATIONS

CAPACITY

20,000 kg at 2.5 m

BOOM

6-section full length power telescoping boom of box construction with 3 sheaves at boom head. 4th, 5th and top boom section, as well as 2nd and 3rd boom section, telescope synchronously by means of a double-acting cylinder, extension cables and retraction cables.

Hydraulic cylinders fitted with holding valves.

Fully retracted length6.5 m

Fully extended length27.5 m

Extension speed21 m in 87 s

JIB

Single stage. Triple offset (5°/25°/45°) type. Single sheave at jib head.

Stored under base boom section.

Length3.5 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 -2° to 82° in 35 s

TADANO LTD.

HOIST – Main winch

Grooved drum driven by hydraulic axial piston motor through winch speed reducer. Power load lowering and hoisting.

Equipped with automatic fail-safe brake and counterbalance valve.

Controlled independently of auxiliary winch.

Single line pull	28.0 kN (2,860 kgf)
Single line speed	123 m/min. (at the 5th layer)
Wire rope	No-spin type
Diameter x length	14 mm x 155 m

HOOK BLOCK – 20 ton capacity

3 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 fail-safe brake and counterbalance valve.

Controlled independently of main winch.

Single line pull	29.4 kN (3,000 kgf)
Single line speed	107 m/min. (at the 3rd layer)
Wire rope	No-spin type
Diameter x length	14 mm x 72 m

HOOK BLOCK – 3 ton capacity

Swivel hook with safety latch for single line use.

SWING

Hydraulic piston motor driven through planetary swing speed reducer. Continuous 360° full circle swing on ball bearing slew ring.

Equipped with spring loaded swing brake.

Swing speed	2.9 min ⁻¹ (rpm)
-------------	-----------------------------

HYDRAULIC SYSTEM

Pumps Two variable piston pump for telescoping, elevating and winches.

Tandem gear pump for swing, steering and accumulator.

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 and accumulator.

Hydraulic oil tank capacity approx. 293 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.

TADANO Automatic Moment Limiter (Model: AML-L)

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

Eight functions are constantly displayed.

Digital liquid crystal display:

- Boom angle
- Either boom length or potential hook height*
- Either actual load radius or swing angle*
- Actual hook load
- Permissible load
- Either jib offset angle or number of parts of line of rope*
- Boom position indicator
- Either outriggers position or on-tire indicator

Bar graphical display:

Either moment as percentage or main hydraulic pressure and accumulator pressure.*

* : Display changes by alternation key.

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

Fully5,200 mm
Middle	.. .4,800 mm/4,400 mm/3,200 mm
Minimum	..1,790 mm

Float size (Diameter)400 mm

NOTE :

Each crane motion speed is based on unladen conditions.

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 6D16TUA
Type.....4 cycle, turbo charged, 6 cylinder in line, direct injection, water cooled diesel engine.
Piston displacement...7,546 cm³
Bore x Stroke.....118 mm x 115 mm
Max. output
.....158 kW · 215 PS; at 2,800 min⁻¹ {rpm}
Max. torque
.....706 N·m · 72 kgf·m; at 1,250 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.....Semi-elliptic leaf springs with hydraulic lockout device.
Rear.....Semi-elliptic leaf springs with hydraulic lockout device.

BRAKE SYSTEM

Service.....Air over hydraulic disc brakes on all 4 wheels.
Parking.....Spring operated air released brake acting on input shaft of front axle.
Auxiliary.....Exhaust brake and eddy current retarder.

ELECTRIC SYSTEM

24 V DC. 2 batteries of 12 V-120 Ah capacity.

FUEL TANK CAPACITY

250 liters

TIRES

Front.....325/95 R24 161E ROAD, Single × 2
Rear.....325/95 R24 161E ROAD, Single × 2

TURN RADIUS

Min. turning radius (at center of extreme outer tire)
2-wheel steering.....8.7 m
4-wheel steering.....5.1 m

EQUIPMENT

STANDARD EQUIPMENT

Automatic moment limiter (AML-L)
External lamp (AML)
Pendant type over-winding cutout
Winch automatic fail-safe brake
Over-unwinding prevention
Hook stowing device (Mechanically stowed beneath boom top portion)
Hook safety latch
Pilot check valves
Holding valves
Counterbalance valves
Hydraulic pressure relief valves
Swing brake
Working area control device
Swing signal lamp
Boom elevation slowing-down and stop function
Load follower control switch
Boom angle indicator
Boom telescoping foot pedal
Boom elevating foot pedal
Winch drum rotation indicator (Visual)
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 mats
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
Reversing steering compensator
Emergency steering
Central lubricating system
Power stowing mirror
Rear fog lamps

OPTIONAL EQUIPMENT

Tire inflation kit
Outrigger control box (Both sides of carrier)

ON OUTRIGGERS

Unit : kg

Outriggers fully extended (5.2m) — 360° rotation —						
B \ A	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	20,000	12,000	9,000	7,000		
3.0 m	16,000	12,000	9,000	7,000		
3.5 m	14,000	12,000	9,000	7,000	5,000	3,500
4.0 m	12,500	12,000	9,000	7,000	5,000	3,500
4.5 m	11,500	11,100	9,000	7,000	5,000	3,500
5.0 m		10,250	8,900	7,000	5,000	3,500
5.5 m		9,400	8,200	6,700	5,000	3,500
6.0 m		8,450	7,600	6,300	5,000	3,500
7.0 m		6,450	6,400	5,600	4,700	3,500
8.0 m		5,050	4,800	5,000	4,150	3,350
9.0 m		4,100	3,800	4,250	3,700	3,000
10.0 m		(8.7m)	3,100	3,350	3,300	2,750
11.0 m			2,500	2,800	3,000	2,500
12.0 m			2,050	2,350	2,700	2,300
13.0 m			1,700	1,950	2,200	2,100
14.0 m			(12.9m)	1,650	1,900	1,900
15.0 m				1,350	1,600	1,600
16.0 m				1,200	1,350	1,400
17.0 m				1,000	1,200	1,250
18.0 m					1,000	1,050
19.0 m					850	900
20.0 m					700	750
22.0 m						550

Unit : kg

Outriggers extended to middle (4.8m) — Over side —						
B \ A	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	20,000	12,000	9,000	7,000		
3.0 m	16,000	12,000	9,000	7,000		
3.5 m	14,000	12,000	9,000	7,000	5,000	3,500
4.0 m	12,500	12,000	9,000	7,000	5,000	3,500
4.5 m	11,500	11,100	9,000	7,000	5,000	3,500
5.0 m		10,250	8,900	7,000	5,000	3,500
5.5 m		8,800	8,200	6,700	5,000	3,500
6.0 m		7,550	7,200	6,300	5,000	3,500
7.0 m		5,600	5,600	5,600	4,700	3,500
8.0 m		4,350	4,300	4,600	4,150	3,350
9.0 m		3,650	3,400	3,750	3,700	3,000
10.0 m		(8.7m)	2,700	3,000	3,300	2,750
11.0 m			2,200	2,500	2,650	2,500
12.0 m			1,750	2,050	2,250	2,300
13.0 m			1,400	1,650	1,850	2,000
14.0 m			(12.9m)	1,350	1,550	1,650
15.0 m				1,150	1,300	1,400
16.0 m				950	1,150	1,200
17.0 m				800	950	1,000
18.0 m					800	850
19.0 m					650	700

Outriggers fully extended (5.2m) — 360° rotation —						
C \ D	3.5m					
	5°		25°		45°	
E	B (m)	W (kg)	B (m)	W (kg)	B (m)	W (kg)
82°	4.2	1,750	5.1	1,500	6.1	1,250
75°	8.1	1,750	8.8	1,500	9.8	1,250
70°	10.8	1,750	11.4	1,500	12.3	1,250
65°	13.2	1,500	13.8	1,350	14.6	1,250
60°	15.5	1,300	16.1	1,150	16.8	1,150
55°	17.7	1,050	18.2	1,000	18.8	1,000
50°	19.7	850	20.1	800	20.7	800
45°	21.6	650	21.9	600	22.3	600
40°	23.2	500	23.5	450		
35°	24.7	350	24.9	350		

- A : Boom length
- B : Load radius
- C : Jib length
- D : Jib offset
- E : Boom angle
- W : Rated lifting capacity

Outriggers extended to middle (4.8m) — Over side —						
C \ D	3.5m					
	5°		25°		45°	
E	B (m)	W (kg)	B (m)	W (kg)	B (m)	W (kg)
82°	4.2	1,750	5.1	1,500	6.1	1,250
75°	8.1	1,750	8.8	1,500	9.8	1,250
70°	10.8	1,750	11.4	1,500	12.3	1,250
65°	13.2	1,500	13.8	1,350	14.6	1,250
60°	15.5	1,250	16.1	1,150	16.8	1,150
55°	17.7	900	18.2	850	18.8	850
50°	19.7	650	20.1	650	20.6	600

ON OUTRIGGERS

Unit : kg

Outriggers extended to middle (4.4m) — Over side —						
B \ A	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	20,000	12,000	9,000	7,000		
3.0 m	16,000	12,000	9,000	7,000		
3.5 m	14,000	12,000	9,000	7,000	5,000	3,500
4.0 m	12,500	12,000	9,000	7,000	5,000	3,500
4.5 m	11,050	11,100	9,000	7,000	5,000	3,500
5.0 m		9,100	8,500	7,000	5,000	3,500
5.5 m		7,700	7,300	6,700	5,000	3,500
6.0 m		6,550	6,350	6,300	5,000	3,500
7.0 m		4,850	4,800	5,000	4,700	3,500
8.0 m		3,700	3,700	3,950	4,000	3,350
9.0 m		3,050	2,850	3,150	3,350	3,000
10.0 m		(8.7m)	2,250	2,500	2,750	2,750
11.0 m			1,750	2,050	2,250	2,400
12.0 m			1,350	1,650	1,850	2,000
13.0 m			1,050	1,300	1,500	1,650
14.0 m			(12.9m)	1,100	1,250	1,400
15.0 m				900	1,050	1,200
16.0 m				700	850	1,000
17.0 m					700	800
18.0 m						650

Unit : kg

Outriggers extended to middle (3.2m) — Over side —						
B \ A	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	16,000	12,000	9,000	7,000		
3.0 m	13,900	12,000	9,000	7,000		
3.5 m	10,050	9,600	8,200	7,000	5,000	3,500
4.0 m	7,650	7,800	6,750	6,550	5,000	3,500
4.5 m	6,250	6,300	5,650	5,550	5,000	3,500
5.0 m		5,200	4,800	4,800	4,650	3,500
5.5 m		4,400	4,100	4,150	4,100	3,500
6.0 m		3,750	3,500	3,650	3,600	3,200
7.0 m		2,750	2,600	2,800	2,850	2,850
8.0 m		2,100	1,950	2,200	2,300	2,300
9.0 m		1,600	1,400	1,700	1,850	1,900
10.0 m		(8.7m)	950	1,300	1,500	1,550
11.0 m			650	950	1,200	1,250
12.0 m				700	900	1,000
13.0 m					700	800
14.0 m						600

Unit : kg

Outriggers extended to minimum (1.79m) — Over side —						
B \ A	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	6,700	6,000	4,900	4,700		
3.0 m	5,350	4,650	3,850	3,800		
3.5 m	4,000	3,700	3,050	3,100	3,000	2,500
4.0 m	3,150	2,950	2,400	2,550	2,500	2,450
4.5 m	2,650	2,350	1,950	2,100	2,100	2,100
5.0 m		1,900	1,550	1,700	1,800	1,750
5.5 m		1,550	1,200	1,400	1,500	1,500
6.0 m		1,250	900	1,150	1,250	1,300
7.0 m		750		750	900	900

Outriggers extended to middle (4.4m) — Over side —						
C \ D	3.5m					
	5 °		25 °		45 °	
E	B (m)	W (kg)	B (m)	W (kg)	B (m)	W (kg)
82 °	4.2	1,750	5.1	1,500	6.1	1,250
75 °	8.1	1,750	8.8	1,500	9.8	1,250
70 °	10.8	1,750	11.4	1,500	12.3	1,250
65 °	13.1	1,450	13.8	1,350	14.6	1,250
60 °	15.4	1,000	16.0	1,000	16.8	900

A : Boom length

B : Load radius

C : Jib length

D : Jib offset

E : Boom angle

W : Rated lifting capacity

Outriggers extended to middle (3.2m) - Over side -						
C \ D	3.5m					
	5 °		25 °		45 °	
E	B (m)	W (kg)	B (m)	W (kg)	B (m)	W (kg)
82 °	4.2	1,750	5.1	1,500	6.1	1,250
75 °	8.1	1,750	8.8	1,500	9.8	1,250
72 °	9.6	1,400	10.3	1,250	11.3	1,200
70 °	10.6	1,150	11.3	1,050	12.2	1,000

NOTES FOR "ON OUTRIGGERS" TABLES

- Rated lifting capacities based on crane stability are according to ISO4305.
- Rated lifting capacities shown in the table are based on condition that crane is set on firm level surface. Those above bold lines are based on crane strength and those below, on its stability.
- The mass of the hook (220 kg for 20,000 kg capacity, 60 kg for 3,000 kg capacity), slings and all similarly used load handling devices must be added to the weight of the load.
- For rated lifting capacity of single top, reduce the 220 kg from the relevant boom rated lifting capacity.
Rated lifting capacity of single top should not exceed 3,000 kg.
- Standard number of part lines for each boom length is as shown below. Load per line should not surpass 28.0 kN {2,860 kgf} for main winch and 29.4 kN {3,000 kgf} for auxiliary winch.

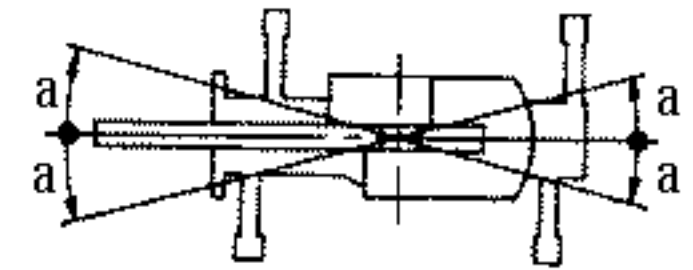
Boom length (m)	6.5	10.7	14.9	19.1	23.3	27.5	JIB/Single top
No. of part of line	7	6	4	4	4	4	1

The lifting capacity data stored in the AUTOMATIC MOMENT LIMITER (AML-L) is based on the standard number of parts of line listed in the chart.

Maximum lifting capacity is restricted by the number of parts of line of AUTOMATIC MOMENT LIMITER (AML-L).

- The over-side rated lifting capacity depends on outrigger extension. Rated lifting capacity of over-front and over-rear assume fully extended outrigger position. Working area for each outrigger position are given separately and must be followed accordingly during operation.

Outriggers position	Extended to middle (4.8m)	Extended to middle (4.4m)	Extended to middle (3.2m)	Extended to minimum (1.79m)
Angle a°	30	25	15	5



ON TIRES

Unit : kg

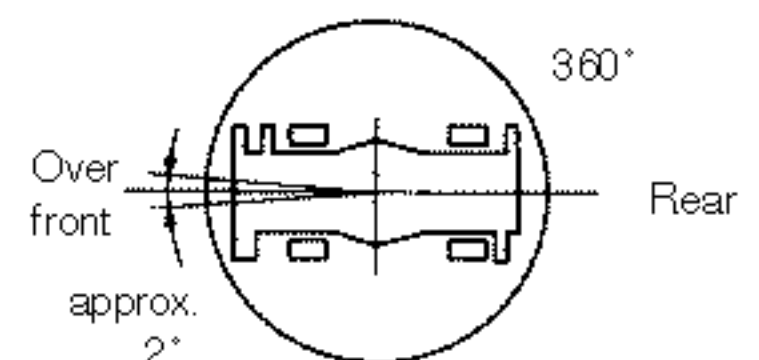
Load radius	Stationary								Creep							
	6.5m Boom		10.7m Boom		14.9m Boom		19.1m Boom		6.5m Boom		10.7m Boom		14.9m Boom		19.1m Boom	
	Over front	360°	Over front	360°	Over front	360°	Over front	360°	Over front	360°	Over front	360°	Over front	360°	Over front	360°
3.0m	8,000	4,200	7,500	4,300	7,000	4,450	5,500	4,800	6,700	3,700	6,300	3,800	5,900	3,800	4,600	4,200
3.5m	7,400	3,350	7,200	3,500	6,700	3,550	5,500	3,800	6,500	2,950	6,300	3,000	5,900	3,100	4,600	3,350
4.0m	7,000	2,650	7,000	2,750	6,500	2,850	5,500	3,000	6,100	2,350	6,000	2,450	5,750	2,500	4,600	2,650
4.5m	6,300	2,100	6,150	2,300	5,500	2,300	5,100	2,400	5,500	1,850	5,400	2,000	4,850	2,000	4,500	2,100
5.0m			5,200	1,800	4,650	1,750	4,800	1,900			4,600	1,600	4,100	1,550	4,200	1,650
5.5m			4,400	1,400	3,950	1,300	4,250	1,550			3,850	1,250	3,500	1,150	3,700	1,350
6.0m			3,750	1,100	3,550	1,000	3,750	1,250			3,000	950	3,100		3,400	1,100
7.0m			2,850		2,850		2,850				2,500		2,500		2,500	
8.0m			2,200		2,200		2,350				1,900		1,900		2,050	
9.0m					1,600		1,800						1,400		1,600	
10.0m					1,200		1,350						1,050		1,200	
11.0m							1,100									

NOTES FOR "ON TIRES" TABLES

- Rated lifting capacities based on crane stability are according to ISO4305.
- Rated lifting capacities shown in the table are based on condition that crane is set on firm level surface, with suspension lock applied. Those above bold lines are based on tire capacity and those below, on crane stability. They are based on actual working radii increased by tire deformation and boom deflection.
- The mass of the hook (220 kg for 20,000 kg capacity, 60 kg for 3,000 kg capacity), slings and all similarly used load handling devices must be added to the weight of the load.
- For rated lifting capacity of single top, reduce the 220 kg from the relevant boom rated lifting capacity.
Rated lifting capacity of single top should not exceed 3,000 kg.
- On tires lifting with "jib" is not permitted. Maximum permissible boom length is 19.1m.
- 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.
- 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.
- Do not operate the crane while carrying the load.
- Tires should be inflated to their correct air pressure of 900 kPa {9.00 kgf/cm²}.
- For CREEP operation, set Drive select switch to "4-WHEEL(Lo)" and set gear shift lever to "1"
- Standard number of parts of line for each boom length is as shown below.
Load per line should not surpass 28.0 kN {2,860 kgf} for main winch and 29.4kN {3,000 kgf} for auxiliary winch.

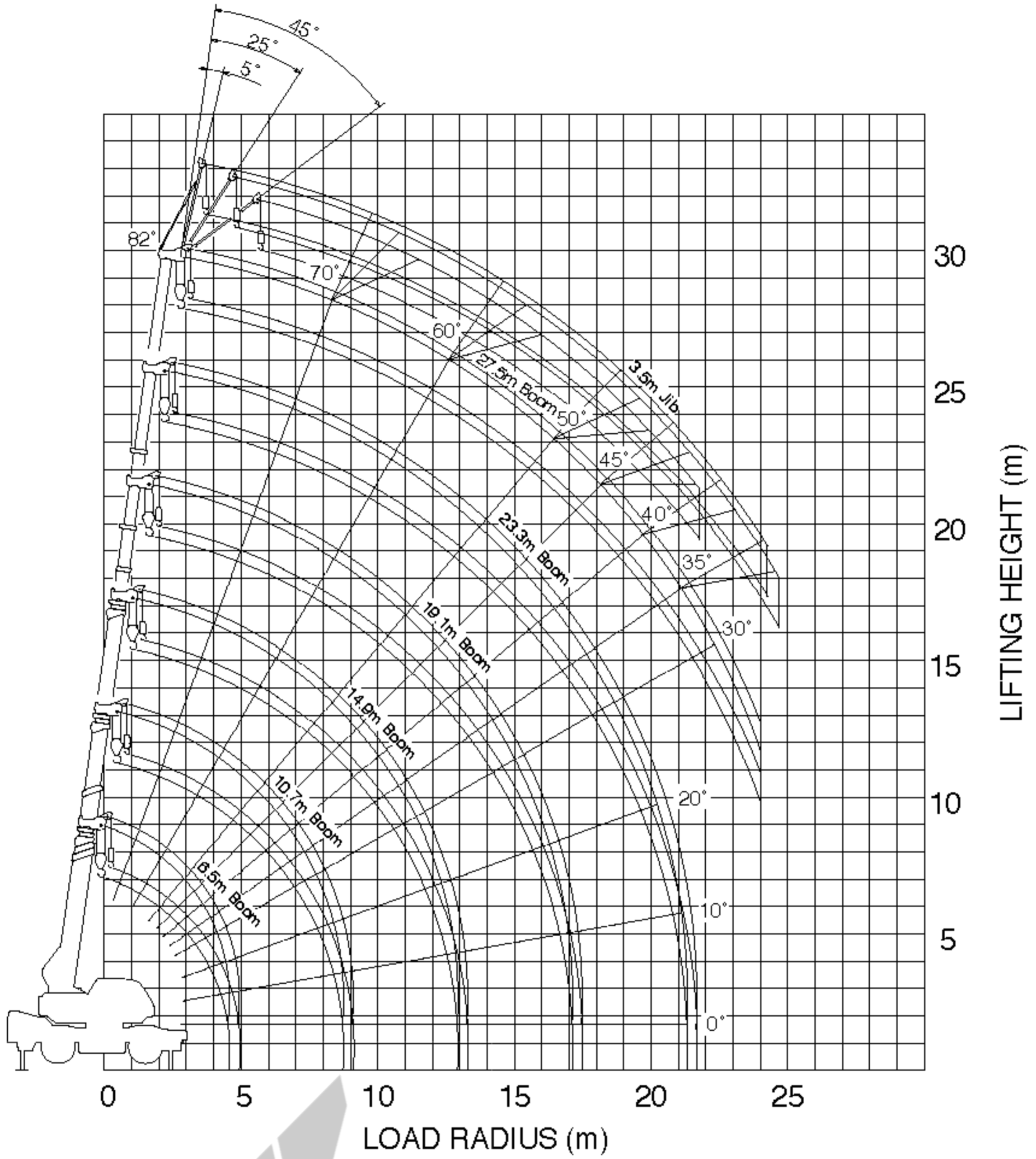
Boom length (m)	6.5	10.7	14.9	19.1	Single top
No. of part line	4	4	4	4	1

WORKING AREA



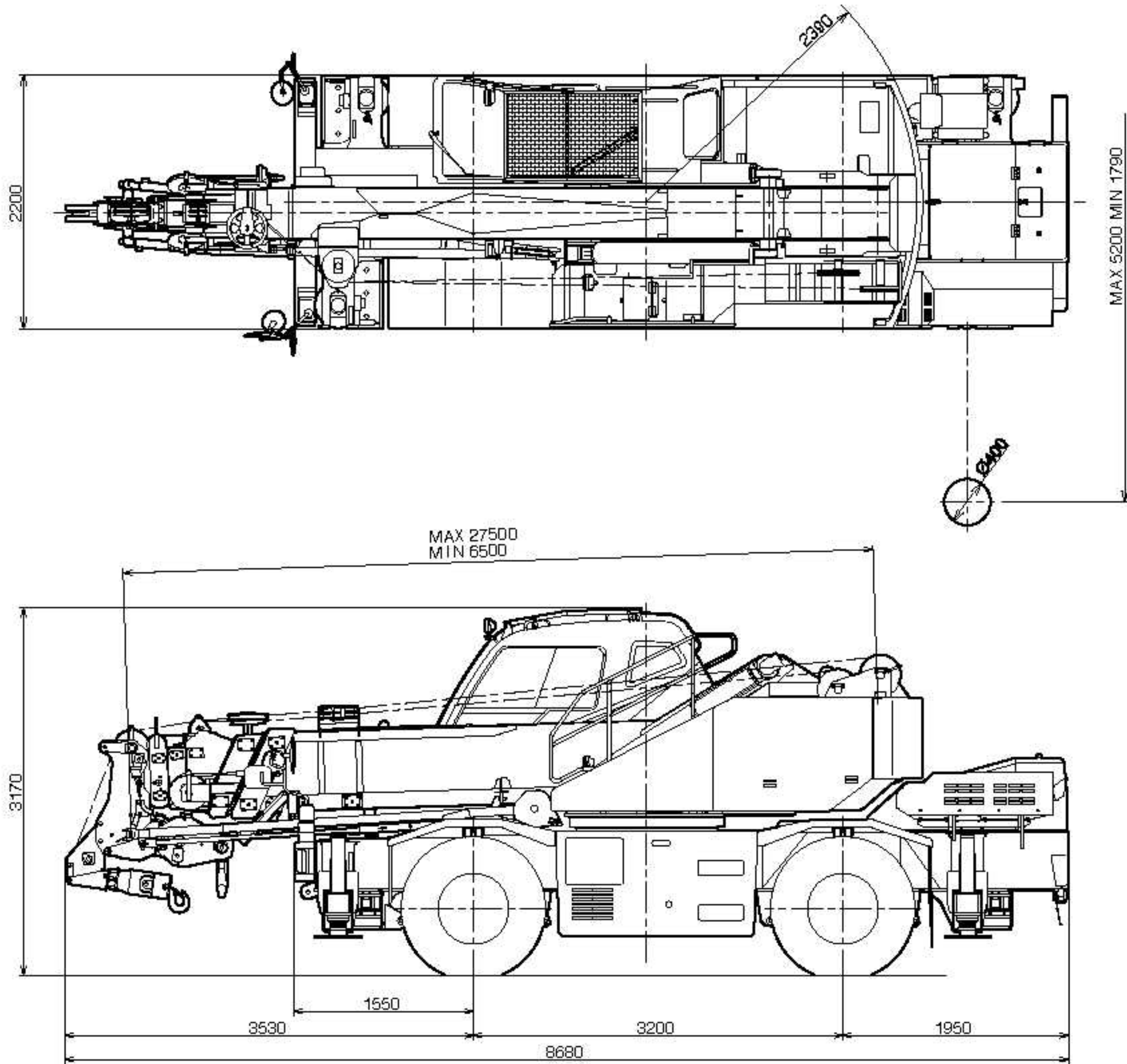
Without outriggers "Over front" operation should be performed within 2 degrees in front of chassis.

- The lifting capacity data stored in the AUTOMATIC MOMENT LIMITER (AML-L) is based on the standard number of parts of line listed in the chart.
Maximum lifting capacity is restricted by the number of parts of line of AUTOMATIC MOMENT LIMITER (AML-L).



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 (360°).



Tread (track) Front 1,820 mm
 Rear 1,820 mm

NOTE :

The drawing is with boom angle at -2°

Specifications are subject to change without notice.



TADANO

TADANO LTD.

4-12, Kamezawa 2-chome,
 Sumida-ku, Tokyo 130-0014, Japan

Tel : 81-(0)3-3621-7750

Fax : 81-(0)3-3621-7785

URL <http://www.tadano.co.jp/indexe.htm>

E-mail tdnihq@tadano.co.jp

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