

# ALL TERRAIN CRANE

## AR-1000M

*JAPANESE SPECIFICATIONS*

CARRIER MODEL	SPEC. NO.
FAUN RTF100-4	AR-1000M-1-90101

**AR**

Control No. JA-02

## AR-1000M

## CRANE SPECIFICATIONS

## CRANE CAPACITY

11.7m	Boom	100,000kg	at 2.8m	(17 part-line)
20.0m	Boom	45,000kg	at 5.5m	( 7 part-line)
28.3m	Boom	30,000kg	at 5.0m	( 5 part-line)
36.7m	Boom	17,000kg	at 9.0m	( 4 part-line)
45.0m	Boom	11,500kg	at 11.0m	( 4 part-line)
9.0m	Jib	6,500kg	at 78°	( 1 part-line)
14.0m	Jib	3,500kg	at 73°	( 1 part-line)
19.0m	Jib	2,500kg	at 79°	( 1 part-line)

## MAX. LIFTING HEIGHT

Boom 45.5m  
Jib 64.0m

## MAX. WORKING RADIUS

Boom 42.0m  
Jib 47.0m

## BOOM LENGTH

11.7m - 45.0m

## BOOM EXTENSION

33.3m

## BOOM EXTENSION SPEED

33.3m / 85s

## JIB LENGTH

9.0-19.0m

## MAIN WINCH SINGLE LINE SPEED

High range: 106m/min (4th layer)  
Low range: 53m/min (4th layer)

## MAIN WINCH HOOK SPEED

High range: 6.2m/min (17part-line)  
Low range: 2.9m/min (17part-line)

## AUXILIARY WINCH SINGLE LINE SPEED

High range: 106m/min (4th layer)  
Low range: 53m/min (4th layer)

## AUXILIARY WINCH HOOK SPEED

High range: 106m/min (1part-line)  
Low range: 53m/min (1part-line)

## BOOM ELEVATION ANGLE

-2° - 82°

## BOOM ELEVATION SPEED

-2° - 82° / 45s

## SWING ANGLE

360° continue

## SWING SPEED

2.0 rpm

## WIRE ROPE

Main Winch  
20mm × 245m (Diameter×Length)  
Spin-resistant wire rope

Auxiliary Winch  
20mm × 140m (Diameter×Length)  
Spin-resistant wire rope

## HOOK

100t hook (17 part-line)  
45t hook (7 part-line)  
6.5t hook (1 part-line)

## BOOM

5-section hydraulically telescoping boom of box  
2-telescoping method changeover type

Telescoping method I  
stages 2, 3: synchronized,  
stages 4, 5: synchronized  
Telescoping method II  
stages 2 - 5: synchronized

## BOOM EXTENSION

3 double-acting hydraulic cylinders  
1 wire rope type telescoping device  
With flow regulator valve with pressure compensation

## JIB

Staged swing-around boom extensions.  
3-section hydraulically synchronously telescoping boom  
Hydraulic non - stage offset (5° - 45°) type

## SINGLE TOP

Single sheave. Mounted to main boom head for single line work.

## HOIST

Hydraulic motor driven planetary gear reducer  
Automatic brake  
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  
Manual switch brake  
Swing free/lock changeover type

## OUTRIGGERS

Fully hydraulic H-type  
Slides and jacks each provided with independent operation device.  
Full extended width 7.2m  
Middle extended width 6.36m, 4.9m, 3.6m  
Slide storing float

## MAX. OUTRIGGER LOAD

80t

## ENGINE FOR CRANE

Model NISSAN DIESEL NE6T  
Type 4-cycle, 6 in-line cylinder, direct-injection, water-cooled diesel engine.  
Piston Displacement 7,412cc  
Max. Output 180PS at 2,200rpm  
Max. Torque 69kg·m at 1,500rpm

## HYDRAULIC PUMPS

2 variable high pressure piston pumps and 2 high pressure gear pumps

## HYDRAULIC OIL TANK CAPACITY

820 liters

## SAFETY DEVICES

Automatic moment limiter (AML)  
Multiple display  
With working range limiting function  
Outrigger extension width automatic detector (individual detection)  
Weight combination automatic detector  
Swing range controller  
Swing automatic stop device  
Boom elevation slow down and stop device  
Over-winding cutout  
Level gauge  
Hook safety latch  
Cable follower  
Winch drum lock  
Hydraulic safety valve  
Telescopic counterbalance valve  
Elevation counterbalance valve  
Jack pilot check valve

## EQUIPMENTS

Counterweight dismount device  
Jib extension device  
Hook movement amount indicator  
Swing frame dismount device  
AML external indication lamp  
Boom angle indicator  
Oil cooler  
Crane cab air conditioner  
FM radio  
Hot and cool boxes  
Lunch table

## OPTIONAL EQUIPMENT

Swing alarm  
Drum monitor

## CARRIER SPECIFICATIONS

### MANUFACTURER

FAUN GmbH

### CARRIER MODEL

RTF 100 -4

### ENGINE

Model OM402LA (Benz)

Type 4-cycle V8-cylinder, direct-injection,  
turbo diesel engine with inter cooler

Piston displacement 12,763cc

Max. output 381PS at 2,100rpm

Max. torque 173kg·m at 1,000 - 1,500rpm

### TRANSMISSION

Power shift type

6-forward and 1-reverse speeds

Sub reducer provided.

### CLUTCH

Torque converter provided.

Automatic lock-up mechanism provided.

### REDUCER

8×4

8×8 ... Off load (with defrock mechanism)

### AXLE (all axles)

Full floating

### SUSPENSION (all axles)

Hydraulic pneumatic suspension

Stroke: +150mm/-120mm

### STEERING

Type: Left-side handle

Fully hydraulic power steering

2 circuits

Emergency power steering

Mode: Normal (4 front wheels)

Clamp (8 wheels)

Crab (8 wheels)

Rear steering (4 rear wheels)

### BRAKE SYSTEM

Service Brake

Air brake on all wheels

2 circuits

Parking Brake

Spring brake, acting on the 2nd, 3rd, 4th axles (6 wheels)

Emergency Brake

Works by applying the parking brake

Auxiliary Brake

Electrical retarder

### ELECTRIC SYSTEM

24V DC 2 batteries of 12V-170Ah

### FUEL TANK CAPACITY

400 liters

### CAB

Two-man type

### TIRES

Front 16.00 R25 (all wheels)

Rear 11.00-25 (all wheels)

### STANDARD EQUIPMENTS

Car air conditioner

FM radio

Mad guard

Centralized lubrication unit

### OPTIONAL EQUIPMENT

Bed for napping

## GENERAL DATA

### DIMENSIONS (CARRIER ONLY)

Overall length 10,635mm

Overall width 2,780mm

Overall height 2,765mm

Wheel base 1,990mm + 2,305mm + 1,700mm = 5,995mm

Tread 2,315mm

### WEIGHTS (CARRIER ONLY)

Gross vehicle weight

Total 28,100kg (Cab two-man type)

Front

16,100kg

Rear

12,000kg

### PERFORMANCE (CARRIER ONLY)

Max. traveling speed 70.0km/h

Gradeability (tan θ) 0.52

Min. turning radius

4-wheel steering 11.3m

8-wheel steering 7.0m

<b>TOTAL RATED LOADS</b>
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**[BOOM]  
Performance A**

Unit:ton

A B (m)	11.7m		20.0m		28.3m		36.7m		45.0m
	2.8	100.0	45.0	17.0					
3.0	93.0	45.0	17.0						
3.5	80.0	45.0	17.0	30.0	17.0				
4.0	70.0	45.0	17.0	30.0	17.0				
4.5	61.6	45.0	17.0	30.0	17.0	17.0	17.0		
5.0	55.2	45.0	17.0	30.0	17.0	17.0	17.0	11.5	
5.5	49.3	45.0	17.0	28.5	17.0	17.0	17.0	11.5	
6.0	45.1	43.8	17.0	26.9	17.0	17.0	17.0	11.5	
6.5	41.0	40.7	17.0	25.5	17.0	17.0	17.0	11.5	
7.0	37.8	38.0	17.0	24.0	17.0	17.0	16.6	11.5	
8.0	32.2	32.5	17.0	21.3	17.0	17.0	15.3	11.5	
9.0	27.8	28.1	17.0	19.1	17.0	17.0	14.2	11.5	
10.0		24.5	17.0	17.2	17.0	15.4	13.2	11.5	
11.0		21.5	17.0	15.5	16.2	14.1	12.2	11.5	
12.0		18.4	17.0	14.2	15.4	13.1	11.4	11.0	
14.0		13.9	15.1	12.0	13.6	11.2	10.0	9.7	
16.0		10.8	11.9	10.2	12.1	9.6	8.9	8.4	
18.0				8.6	10.1	8.2	8.0	7.4	
20.0				6.8	8.3	7.1	7.3	6.5	
22.0				5.2	6.9	6.2	6.5	5.7	
24.0				4.0	5.8	5.4	5.8	5.1	
26.0				3.0	4.8	4.3	5.0	4.6	
28.0						3.4	4.1	4.0	
30.0						2.7	3.4	3.5	
32.0						2.1	2.8	2.9	
34.0						1.6	2.2	2.3	
36.0								1.8	
38.0								1.4	
40.0								1.1	
42.0								0.8	
$\theta$ (°)	0~82	0~82	0~82	0~82	0~82	0~82	0~82	10~82	
<b>Boom stage telescoping condition (%)</b>									
Telescoping method	I, II	I	II	I	II	I	II	I, II	
2nd boom	0	50	25	100	50	100	75	100	
3rd boom	0	50	25	100	50	100	75	100	
4th boom	0	0	25	0	50	50	75	100	
5th boom	0	0	25	0	50	50	75	100	

A = Boom length

B = Working radius

 $\theta$  = Boom angle range (for the unladen condition)

## Performance B

Unit:ton

A B (m)	11.7m			20.0m			28.3m			36.7m			45.0m		
	2.8	90.0	45.0	17.0											
3.0	85.0	45.0	17.0												
3.5	73.2	45.0	17.0	30.0	17.0										
4.0	64.0	45.0	17.0	30.0	17.0										
4.5	56.8	45.0	17.0	30.0	17.0	17.0	17.0								
5.0	50.8	45.0	17.0	30.0	17.0	17.0	17.0	11.5							
5.5	45.5	45.0	17.0	28.5	17.0	17.0	17.0	11.5							
6.0	41.7	42.0	17.0	26.9	17.0	17.0	17.0	11.5							
6.5	38.0	38.2	17.0	25.5	17.0	17.0	17.0	11.5							
7.0	34.9	35.2	17.0	24.0	17.0	17.0	16.6	11.5							
8.0	29.5	29.8	17.0	21.3	17.0	17.0	15.3	11.5							
9.0	24.6	25.0	17.0	19.1	17.0	17.0	14.2	11.5							
10.0		20.5	17.0	17.2	17.0	15.4	13.2	11.5							
11.0		17.2	17.0	15.5	16.2	14.1	12.2	11.5							
12.0		14.6	15.8	14.2	15.4	13.1	11.4	11.0							
14.0		10.8	12.0	10.8	12.5	11.2	10.0	9.7							
16.0		8.1	9.3	8.2	9.8	9.5	8.9	8.4							
18.0				6.2	7.8	7.5	8.0	7.4							
20.0				4.5	6.3	5.9	6.5	6.5							
22.0				3.2	5.1	4.6	5.3	5.4							
24.0				2.1	4.0	3.6	4.3	4.4							
26.0				1.3	3.1	2.7	3.3	3.5							
28.0						1.9	2.5	2.8							
30.0						1.3	1.9	2.1							
32.0						0.8	1.3	1.6							
34.0							0.9	1.2							
36.0								0.8							
$\theta$ (°)	0~82	0~82	0~82	0~82	0~82	18~82	0~82	33~82							
<b>Boom stage telescoping condition (%)</b>															
Telescoping method	I, II	I	II	I	II	I	II	I, II							
2nd boom	0	50	25	100	50	100	75	100							
3rd boom	0	50	25	100	50	100	75	100							
4th boom	0	0	25	0	50	50	75	100							
5th boom	0	0	25	0	50	50	75	100							

A = Boom length

B = Working radius

 $\theta$  = Boom angle range (for the unladen condition)

## Performance C

Unit:ton

A B (m)	11.7m		20.0m		28.3m		36.7m		45.0m
	2.8	73.0	45.0	17.0					
3.0	70.2	45.0	17.0						
3.5	63.7	45.0	17.0	30.0	17.0				
4.0	58.1	45.0	17.0	30.0	17.0				
4.5	53.3	45.0	17.0	30.0	17.0	17.0	17.0		
5.0	49.0	45.0	17.0	30.0	17.0	17.0	17.0	11.5	
5.5	45.3	45.0	17.0	28.5	17.0	17.0	17.0	11.5	
6.0	42.0	42.4	17.0	26.9	17.0	17.0	17.0	11.5	
6.5	39.1	39.4	17.0	25.5	17.0	17.0	17.0	11.5	
7.0	36.5	36.8	17.0	24.0	17.0	17.0	16.6	11.5	
8.0	32.2	32.5	17.0	21.3	17.0	17.0	15.3	11.5	
9.0	27.8	28.1	17.0	19.1	17.0	17.0	14.2	11.5	
10.0		23.3	17.0	17.2	17.0	15.4	13.2	11.5	
11.0		19.5	17.0	15.5	16.2	14.1	12.2	11.5	
12.0		16.5	17.0	14.2	15.4	13.1	11.4	11.0	
14.0		12.3	13.5	12.0	13.6	11.2	10.0	9.7	
16.0		9.3	10.5	9.4	11.0	9.6	8.9	8.4	
18.0				7.3	8.8	8.2	8.0	7.4	
20.0				5.5	7.2	6.8	7.3	6.5	
22.0				4.0	5.9	5.5	6.1	5.7	
24.0				2.9	4.8	4.3	5.0	5.1	
26.0				2.0	3.7	3.3	4.1	4.2	
28.0						2.5	3.2	3.3	
30.0						1.8	2.5	2.6	
32.0						1.3	1.9	2.0	
34.0						0.8	1.5	1.5	
36.0								1.1	
38.0								0.7	
$\theta$ (°)	0~82	0~82	0~82	0~82	0~82	0~82	0~82	26~82	
Boom stage telescoping condition (%)									
Telescoping method	I, II	I	II	I	II	I	II	I, II	
2nd boom	0	50	25	100	50	100	75	100	
3rd boom	0	50	25	100	50	100	75	100	
4th boom	0	0	25	0	50	50	75	100	
5th boom	0	0	25	0	50	50	75	100	

A = Boom length

B = Working radius

 $\theta$  = Boom angle range (for the unladen condition)

## Performance D

Unit:ton

A B (m)	11.7m			20.0m			28.3m			36.7m			45.0m				
	2.8	72.0	45.0	17.0													
3.0	69.3	45.0	17.0														
3.5	62.7	45.0	17.0	30.0	17.0												
4.0	57.1	45.0	17.0	30.0	17.0												
4.5	52.3	45.0	17.0	30.0	17.0	17.0	17.0										
5.0	48.0	45.0	17.0	30.0	17.0	17.0	17.0	17.0									11.5
5.5	44.3	44.6	17.0	28.5	17.0	17.0	17.0	17.0	17.0								11.5
6.0	41.0	41.4	17.0	26.9	17.0	17.0	17.0	17.0	17.0								11.5
6.5	38.0	38.4	17.0	25.5	17.0	17.0	17.0	17.0	17.0								11.5
7.0	34.9	35.2	17.0	24.0	17.0	17.0	17.0	16.6	16.6								11.5
8.0	27.5	28.0	17.0	21.3	17.0	17.0	17.0	15.3	15.3								11.5
9.0	21.6	22.1	17.0	19.1	17.0	17.0	17.0	14.2	14.2								11.5
10.0		17.9	17.0	17.2	17.0	15.4	13.2	11.5	11.5								11.5
11.0		14.7	16.1	14.8	16.2	14.1	12.2	11.5	11.5								11.5
12.0		12.3	13.6	12.3	14.2	13.1	11.4	11.0	11.0								11.0
14.0		8.8	10.1	8.8	10.5	10.2	10.0	9.7	9.7								9.7
16.0		6.4	7.6	6.4	8.1	7.7	8.3	8.4	8.4								8.4
18.0				4.5	6.3	5.9	6.5	6.6	6.6								6.6
20.0				3.0	4.9	4.5	5.1	5.2	5.2								5.2
22.0				1.8	3.7	3.3	4.0	4.1	4.1								4.1
24.0				0.9	2.8	2.3	3.0	3.1	3.1								3.1
26.0					2.0	1.5	2.2	2.3	2.3								2.3
28.0						0.9	1.5	1.6	1.6								1.6
30.0							1.0	1.1	1.1								1.1
$\theta$ (°)	0~82	0~82	0~82	18~82	0~82	33~82	27~82	45~82	45~82								45~82
Boom stage telescoping condition (%)																	
Telescoping method	I, II	I	II	I	II	I	II	I, II	I, II								I, II
2nd boom	0	50	25	100	50	100	75	100	100								100
3rd boom	0	50	25	100	50	100	75	100	100								100
4th boom	0	0	25	0	50	50	75	100	100								100
5th boom	0	0	25	0	50	50	75	100	100								100

A = Boom length

B = Working radius

 $\theta$  = Boom angle range (for the unladen condition)

## Performance E

Unit:ton

A B (m)	11.7m		20.0m		28.3m		36.7m		45.0m
	2.8	62.0	45.0	17.0					
3.0	60.5	45.0	17.0						
3.5	54.8	45.0	17.0	30.0	17.0				
4.0	50.0	45.0	17.0	30.0	17.0				
4.5	45.8	45.0	17.0	30.0	17.0	17.0	17.0		
5.0	42.1	42.4	17.0	30.0	17.0	17.0	17.0	11.5	
5.5	38.9	39.2	17.0	28.5	17.0	17.0	17.0	11.5	
6.0	36.0	36.3	17.0	26.9	17.0	17.0	17.0	11.5	
6.5	33.5	33.8	17.0	25.5	17.0	17.0	17.0	11.5	
7.0	30.4	30.9	17.0	24.0	17.0	17.0	16.6	11.5	
8.0	23.7	24.2	17.0	21.3	17.0	17.0	15.3	11.5	
9.0	19.1	19.5	17.0	19.1	17.0	17.0	14.2	11.5	
10.0		16.0	17.0	16.1	17.0	15.4	13.2	11.5	
11.0		13.4	14.6	13.5	15.2	14.1	12.2	11.5	
12.0		11.3	12.5	11.4	13.0	12.7	11.4	11.0	
14.0		8.2	9.3	8.3	9.9	9.5	10.0	9.7	
16.0		5.9	7.0	6.0	7.6	7.3	7.9	8.0	
18.0				4.2	6.0	5.6	6.2	6.3	
20.0				2.8	4.7	4.2	4.9	5.0	
22.0				1.7	3.5	3.1	3.8	3.9	
24.0				0.8	2.6	2.2	2.9	3.0	
26.0					1.9	1.4	2.1	2.2	
28.0						0.8	1.4	1.6	
30.0							0.9	1.0	
$\theta$ (°)	0~82	0~82	0~82	18~82	0~82	33~82	27~82	44~82	
<b>Boom stage telescoping condition (%)</b>									
Telescoping method	I, II	I	II	I	II	I	II	I, II	
2nd boom	0	50	25	100	50	100	75	100	
3rd boom	0	50	25	100	50	100	75	100	
4th boom	0	0	25	0	50	50	75	100	
5th boom	0	0	25	0	50	50	75	100	

A = Boom length

B = Working radius

 $\theta$  = Boom angle range (for the unladen condition)



## Performance F

Unit:ton

A B (m)	11.7m		20.0m		28.3m		36.7m		45.0m
	2.8	53.0	45.0	17.0					
3.0	51.7	45.0	17.0						
3.5	46.8	45.0	17.0	30.0	17.0				
4.0	42.6	42.9	17.0	30.0	17.0				
4.5	39.0	39.3	17.0	30.0	17.0	17.0	17.0		
5.0	35.9	36.2	17.0	30.0	17.0	17.0	17.0	11.5	
5.5	31.0	31.5	17.0	28.5	17.0	17.0	17.0	11.5	
6.0	26.4	26.9	17.0	26.9	17.0	17.0	17.0	11.5	
6.5	22.9	23.3	17.0	23.4	17.0	17.0	17.0	11.5	
7.0	20.0	20.5	17.0	20.6	17.0	17.0	16.6	11.5	
8.0	15.7	16.1	17.0	16.2	17.0	17.0	15.3	11.5	
9.0	12.6	12.9	14.2	13.0	14.7	14.3	14.2	11.5	
10.0		10.5	11.7	10.6	12.2	11.9	12.5	11.5	
11.0		8.6	9.8	8.7	10.3	10.0	10.6	10.7	
12.0		7.1	8.3	7.2	8.8	8.5	9.1	9.2	
14.0		4.7	6.0	4.8	6.5	6.1	6.7	6.8	
16.0		2.9	4.2	3.0	4.8	4.4	5.0	5.1	
18.0				1.6	3.4	3.0	3.7	3.8	
20.0					2.3	2.0	2.6	2.8	
22.0					1.4		1.7	1.9	
$\theta$ (°)	0~82	0~82	0~82	43~82	29~82	50~82	48~82	58~82	
<b>Boom stage telescoping condition (%)</b>									
Telescoping method	I, II	I	II	I	II	I	II	I, II	
2nd boom	0	50	25	100	50	100	75	100	
3rd boom	0	50	25	100	50	100	75	100	
4th boom	0	0	25	0	50	50	75	100	
5th boom	0	0	25	0	50	50	75	100	

A = Boom length

B = Working radius

 $\theta$  = Boom angle range (for the unladen condition)

## Performance G

Unit:ton

A B (m)	11.7m	20.0m		28.3m		36.7m		45.0m
	2.8	53.0	45.0	17.0				
3.0	51.0	45.0	17.0					
3.5	46.1	45.0	17.0	30.0	17.0			
4.0	41.9	42.2	17.0	30.0	17.0			
4.5	34.4	35.0	17.0	30.0	17.0	17.0	17.0	
5.0	28.0	28.5	17.0	28.6	17.0	17.0	17.0	11.5
5.5	23.2	23.7	17.0	23.8	17.0	17.0	17.0	11.5
6.0	19.6	20.1	17.0	20.2	17.0	17.0	17.0	11.5
6.5	16.8	17.3	17.0	17.4	17.0	17.0	17.0	11.5
7.0	14.5	15.0	16.3	15.1	16.9	16.6	16.6	11.5
8.0	11.1	11.5	12.7	11.6	13.3	13.0	13.7	11.5
9.0	8.6	8.9	10.2	9.0	10.7	10.4	11.1	11.2
10.0		7.0	8.2	7.1	8.8	8.4	9.1	9.2
11.0		5.5	6.7	5.6	7.2	6.9	7.5	7.6
12.0		4.1	5.5	4.2	6.0	5.7	6.3	6.4
14.0		2.1	3.5	2.2	4.1	3.7	4.4	4.5
16.0			2.0		2.6	2.2	2.9	3.0
$\theta$ (°)	0~82	35~82	23~82	55~82	50~82	61~82	61~82	67~82
<b>Boom stage telescoping condition (%)</b>								
Telescoping method	I, II	I	II	I	II	I	II	I, II
2nd boom	0	50	25	100	50	100	75	100
3rd boom	0	50	25	100	50	100	75	100
4th boom	0	0	25	0	50	50	75	100
5th boom	0	0	25	0	50	50	75	100

A = Boom length

B = Working radius

 $\theta$  = Boom angle range (for the unladen condition)

## [JIB]

## Performance A

Unit:ton

C D	9.0 m						14.0 m						19.0 m												
	5°		25°		45°		5°		25°		45°		5°		25°		45°								
	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M							
E (°)	82	7.6	6.5	10.1	4.2	11.9	3.0	8.7	3.5	13.0	2.4	16.0	1.5	10.1	2.5	15.7	1.1	20.1	0.7						
	80	9.8	6.5	12.1	4.2	13.8	3.0	11.0	3.5	15.1	2.4	18.0	1.5	12.7	2.5	18.0	1.1	22.1	0.7						
	79	10.8	6.5	13.1	4.2	14.8	3.0	12.2	3.5	16.2	2.4	19.0	1.5	13.9	2.5	19.1	1.1	23.2	0.7						
	78	11.9	6.5	14.1	4.2	15.7	3.0	13.3	3.5	17.2	2.4	19.9	1.5	15.1	2.45	20.3	1.1	24.2	0.7						
	75	14.8	5.7	17.0	4.0	18.5	2.95	16.6	3.5	20.3	2.25	22.8	1.5	18.5	2.1	23.5	1.0	27.1	0.68						
	73	16.7	5.2	18.8	3.85	20.3	2.9	18.8	3.5	22.3	2.15	24.7	1.5	20.7	1.9	25.6	0.97	29.1	0.67						
	70	19.4	4.35	21.5	3.55	22.9	2.8	22.0	3.3	25.2	2.0	27.4	1.5	24.1	1.7	28.7	0.91	31.9	0.66						
	68	21.2	3.85	23.2	3.2	24.5	2.75	23.9	3.0	27.0	1.9	29.1	1.47	26.2	1.55	30.7	0.88	33.7	0.65						
	65	23.8	3.3	25.7	2.75	26.9	2.5	26.7	2.5	29.8	1.8	31.6	1.42	29.3	1.4	33.6	0.84	36.3	0.64						
	63	25.4	2.95	27.3	2.5	28.5	2.3	28.5	2.25	31.5	1.75	33.3	1.4	31.3	1.3	35.5	0.81	37.9	0.63						
	60	27.9	2.55	29.7	2.2	30.7	2.05	31.2	1.95	34.1	1.6	35.6	1.35	34.3	1.2	38.2	0.78	40.3	0.62						
	58	29.4	2.3	31.2	2.0	32.1	1.85	32.9	1.75	35.6	1.45	37.1	1.34	36.2	1.15	39.9	0.76	41.8	0.62						
	55	31.7	1.85	33.3	1.7	34.2	1.65	35.3	1.5	37.9	1.25	39.1	1.2	39.0	1.05	42.4	0.73	44.0	0.62						
	53	33.1	1.6	34.7	1.5	35.4	1.45	36.9	1.35	39.4	1.15	40.5	1.1	40.7	1.0	44.0	0.72	45.2	0.62						
	50	35.2	1.2	36.6	1.1	37.2	1.05	39.2	1.05	41.5	0.95	42.3	0.85	43.2	0.9	45.9	0.7	47.0	0.62						
	48	36.5	0.9	37.8	0.8	38.4	0.75	40.5	0.75	42.7	0.65			44.7	0.7	46.8	0.55								
	45	38.3	0.5																						
$\theta$ (°)		4	4~8	2	4	7~8	2	4	7~8	2	4	7~8	2	4	7~8	2	4	7~8	2	4	9~8	2	4	9~8	2

B = Working radius C = Jib length D = Jib offset E = Boom angle M = Total rated loads

 $\theta$  = Boom angle range (for the unladen condition)

Performance B

C	9.0 m						14.0 m						19.0 m						Unit:ton
	5°		25°		45°		5°		25°		45°		5°		25°		45°		
	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	
D																			
E (°)																			
82	7.6	6.5	10.1	4.2	11.9	3.0	8.7	3.5	13.0	2.4	16.0	1.5	10.1	2.5	15.7	1.1	20.1	0.7	
80	9.8	6.5	12.1	4.2	13.8	3.0	11.0	3.5	15.1	2.4	18.0	1.5	12.7	2.5	18.0	1.1	22.1	0.7	
79	10.8	6.5	13.1	4.2	14.8	3.0	12.2	3.5	16.2	2.4	19.0	1.5	13.9	2.5	19.1	1.1	23.2	0.7	
78	11.9	6.5	14.1	4.2	15.7	3.0	13.3	3.5	17.2	2.4	19.9	1.5	15.1	2.45	20.3	1.1	24.2	0.7	
75	14.8	5.7	17.0	4.0	18.5	2.95	16.6	3.5	20.3	2.25	22.8	1.5	18.5	2.1	23.5	1.0	27.1	0.68	
73	16.7	5.2	18.8	3.85	20.3	2.9	18.8	3.5	22.3	2.15	24.7	1.5	20.7	1.9	25.6	0.97	29.1	0.67	
70	19.4	4.35	21.5	3.55	22.9	2.8	22.0	3.3	25.2	2.0	27.4	1.5	24.1	1.7	28.7	0.91	31.9	0.66	
68	21.2	3.85	23.2	3.2	24.5	2.75	23.9	3.0	27.0	1.9	29.1	1.47	26.2	1.55	30.7	0.88	33.7	0.65	
65	23.8	3.3	25.7	2.75	26.9	2.5	26.7	2.5	29.8	1.8	31.6	1.42	29.3	1.4	33.6	0.84	36.3	0.64	
63	25.4	2.95	27.3	2.5	28.5	2.3	28.5	2.25	31.5	1.75	33.3	1.4	31.3	1.3	35.5	0.81	37.9	0.63	
60	27.7	2.15	29.6	1.95	30.6	1.8	31.2	1.95	34.1	1.6	35.6	1.35	34.3	1.2	38.2	0.78	40.1	0.62	
58	29.2	1.6	31.0	1.45	31.9	1.35	32.7	1.4	35.5	1.2	37.0	1.1	36.2	1.15	39.9	0.76	41.3	0.62	
θ (°)	57~82		57~82		57~82		57~82		57~82		57~82		57~82		57~82		57~82		

B = Working radius C = Jib length D = Jib offset E = Boom angle M = Total rated loads

θ = Boom angle range (for the unladen condition)

## Performance C

Unit:ton

C	9.0 m						14.0 m						19.0 m							
	5°		25°		45°		5°		25°		45°		5°		25°		45°			
	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M		
E (°)																				
82	7.6	6.5	10.1	4.2	11.9	3.0	8.7	3.5	13.0	2.4	16.0	1.5	10.1	2.5	15.7	1.1	20.1	0.7		
80	9.8	6.5	12.1	4.2	13.8	3.0	11.0	3.5	15.1	2.4	18.0	1.5	12.7	2.5	18.0	1.1	22.1	0.7		
79	10.8	6.5	13.1	4.2	14.8	3.0	12.2	3.5	16.2	2.4	19.0	1.5	13.9	2.5	19.1	1.1	23.2	0.7		
78	11.9	6.5	14.1	4.2	15.7	3.0	13.3	3.5	17.2	2.4	19.9	1.5	15.1	2.45	20.3	1.1	24.2	0.7		
75	14.8	5.7	17.0	4.0	18.5	2.95	16.6	3.5	20.3	2.25	22.8	1.5	18.5	2.1	23.5	1.0	27.1	0.68		
73	16.7	5.2	18.8	3.85	20.3	2.9	18.8	3.5	22.3	2.15	24.7	1.5	20.7	1.9	25.6	0.97	29.1	0.67		
70	19.4	4.35	21.5	3.55	22.9	2.8	22.0	3.3	25.2	2.0	27.4	1.5	24.1	1.7	28.7	0.91	31.9	0.66		
68	21.2	3.85	23.2	3.2	24.5	2.75	23.9	3.0	27.0	1.9	29.1	1.47	26.2	1.55	30.7	0.88	33.7	0.65		
65	23.8	3.3	25.7	2.75	26.9	2.5	26.7	2.5	29.8	1.8	31.6	1.42	29.3	1.4	33.6	0.84	36.3	0.64		
63	25.4	2.95	27.3	2.5	28.5	2.3	28.5	2.25	31.5	1.75	33.3	1.4	31.3	1.3	35.5	0.81	37.9	0.63		
60	27.9	2.55	29.7	2.2	30.7	2.05	31.2	1.95	34.1	1.6	35.6	1.35	34.3	1.2	38.2	0.78	40.3	0.62		
58	29.4	2.2	31.2	2.0	32.1	1.85	32.9	1.75	35.6	1.45	37.1	1.34	36.2	1.15	39.9	0.76	41.8	0.62		
55	31.5	1.45	33.2	1.3	34.0	1.25	35.2	1.3	37.9	1.2	39.1	1.1	39.0	1.05	42.4	0.73	44.0	0.62		
53	32.9	1.05	34.5	0.9	35.2	0.85	36.7	0.9	39.2	0.75	40.3	0.7	40.6	0.8	44.0	0.68	45.4	0.6		
50	34.9	0.5																		
θ (°)	4	9~8	2	5	2~8	2	5	2~8	2	5	2~8	2	5	2~8	2	5	2~8	2	5	2~8

B = Working radius C = Jib length D = Jib offset E = Boom angle M = Total rated loads

θ = Boom angle range (for the unladen condition)

Performance D

C	9.0 m						14.0 m						19.0 m						Unit:ton
	5°		25°		45°		5°		25°		45°		5°		25°		45°		
	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	
D																			
E (°)																			
82	7.6	6.5	10.1	4.2	11.9	3.0	8.7	3.5	13.0	2.4	16.0	1.5	10.1	2.5	15.7	1.1	20.1	0.7	
80	9.8	6.5	12.1	4.2	13.8	3.0	11.0	3.5	15.1	2.4	18.0	1.5	12.7	2.5	18.0	1.1	22.1	0.7	
79	10.8	6.5	13.1	4.2	14.8	3.0	12.2	3.5	16.2	2.4	19.0	1.5	13.9	2.5	19.1	1.1	23.2	0.7	
78	11.9	6.5	14.1	4.2	15.7	3.0	13.3	3.5	17.2	2.4	19.9	1.5	15.1	2.45	20.3	1.1	24.2	0.7	
75	14.8	5.7	17.0	4.0	18.5	2.95	16.6	3.5	20.3	2.25	22.8	1.5	18.5	2.1	23.5	1.0	27.1	0.68	
73	16.7	5.2	18.8	3.85	20.3	2.9	18.8	3.5	22.3	2.15	24.7	1.5	20.7	1.9	25.6	0.97	29.1	0.67	
70	19.4	4.35	21.5	3.55	22.9	2.8	22.0	3.3	25.2	2.0	27.4	1.5	24.1	1.7	28.7	0.91	31.9	0.66	
68	21.2	3.85	23.2	3.2	24.5	2.75	23.9	3.0	27.0	1.9	29.1	1.47	26.2	1.55	30.7	0.88	33.7	0.65	
65	23.6	2.8	25.6	2.45	26.9	2.25	26.7	2.5	29.8	1.8	31.6	1.42	29.3	1.4	33.6	0.84	36.3	0.64	
63	25.1	2.05	27.1	1.8	28.2	1.65	28.3	1.85	31.4	1.5	33.2	1.34	31.3	1.3	35.5	0.81	37.9	0.63	
θ (°)	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2

B = Working radius C = Jib length D = Jib offset E = Boom angle M = Total rated loads

θ = Boom angle range (for the unladen condition)

## Performance E

C	9.0 m						14.0 m						19.0 m						Unit:ton
	5°		25°		45°		5°		25°		45°		5°		25°		45°		
	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	
D	7.6	6.5	10.1	4.2	11.9	3.0	8.7	3.5	13.0	2.4	16.0	1.5	10.1	2.5	15.7	1.1	20.1	0.7	
E (°)	82	80	79	78	75	73	70	68	65	63	θ (°)	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	

## Performance F

C	9.0 m						14.0 m						19.0 m						Unit:ton
	5°		25°		45°		5°		25°		45°		5°		25°		45°		
	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	
D	7.6	6.5	10.1	4.2	11.9	3.0	8.7	3.5	13.0	2.4	16.0	1.5	10.1	2.5	15.7	1.1	20.1	0.7	
E (°)	82	80	79	78	75	73	70	68	65	63	θ (°)	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	6.2~8.2	

B = Working radius C = Jib length D = Jib offset E = Boom angle M = Total rated loads

θ = Boom angle range (for the unladen condition)

**NOTES:**

1. The total rated loads shown are for the case when the outriggers are set horizontally on firm ground. The values are based on the crane strength.
2. The weights of the slings and hooks (950kg for a 100-ton capacity hook, 530kg for a 45-ton capacity hook, 170kg for a 6.5-ton capacity) are included in the total rated loads shown.
3. The total rated load is based on the actual working radius including the deflection of the boom.
4. The table below shows the classification of Performances A to G of the total rated load chart.

Outrigger extended width	Counterweight	
	14.0 t	6.8 t
7.2 m	A	B
6.36 m	C	D
4.9 m	E	F
3.6 m	F*	G*

\* Shows the performance of the boom.

5. The chart below shows the standard number of part lines for each boom length. The load for each rope should not exceed 6.5 tons for both the main winch and auxiliary winch.

A	11.7m	20.0m	28.3m	36.7m	45.0m	J
H	(17)13	7	5	4	4	1

The value in the brackets is for the case where an attachment is used.

A = Boom length    H = No. of part-line    J = Jib / Single top

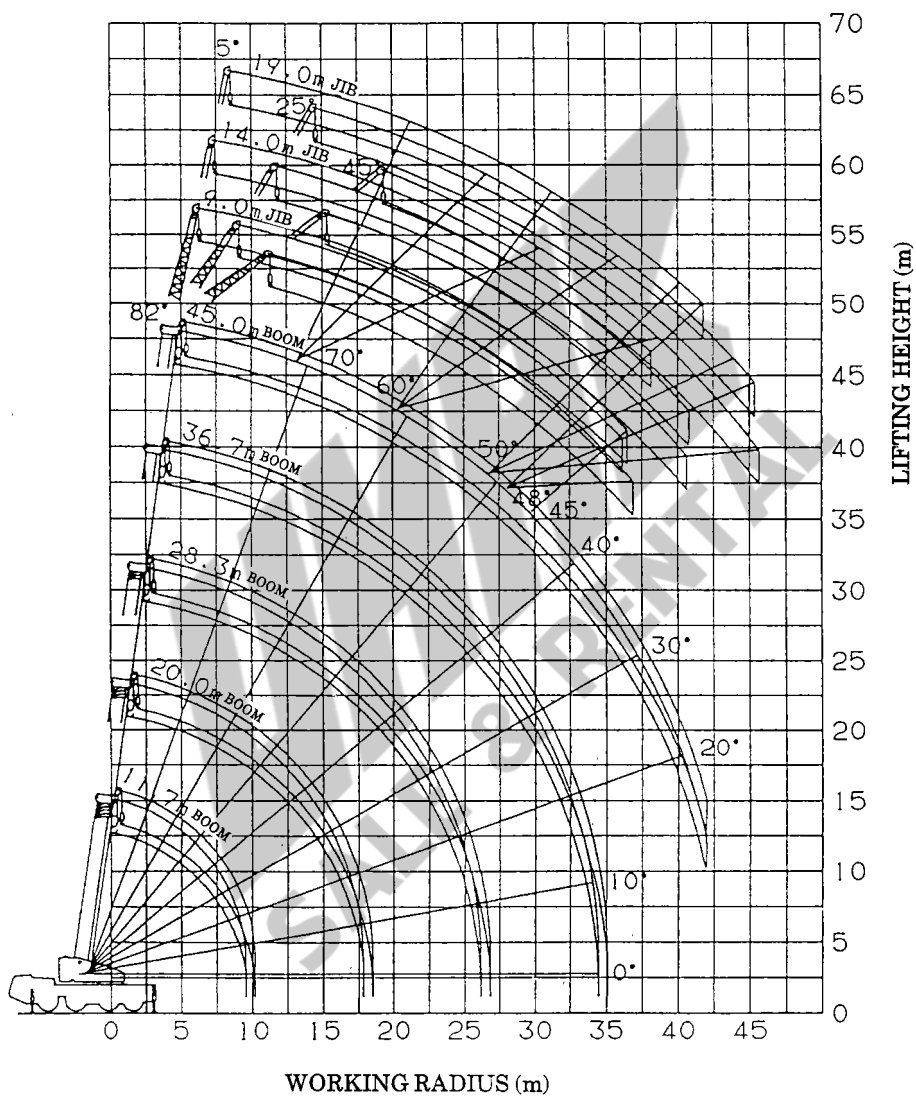
6. The total rated loads for the single top is the same as that of the boom and must not exceed 6.5 tons. However, when hooks, slings, etc are mounted on the boom, one should work with the total rated load obtained by subtracting the weights of the hooks, slings, etc. mounted on the boom from the total rated load of the boom.
7. Jib operation should be performed on the basis of the boom angle. The working radii in the above chart are reference values for the case where a jib is mounted on a 45.0m boom.
8. The jib should be operated with the boom "telescoping method I".



# WORKING RADIUS - LIFTING HEIGHT

## Performance A

With 14.0t counterweight  
Outriggers fully extended

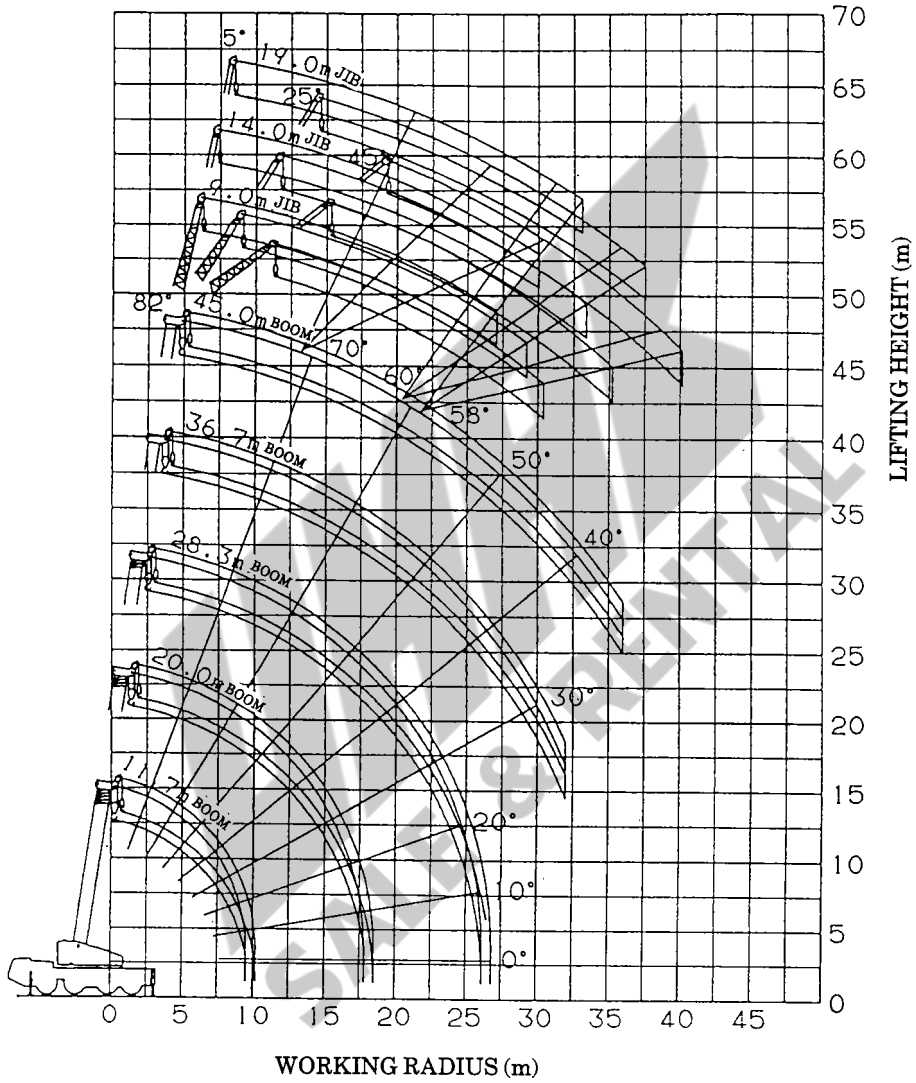


### NOTES:

1. The deflection of the boom is not incorporated in the figure above.
2. The above figure is for the boom "telescoping method 1"

Performance B

With 6.8t counterweight  
Outriggers fully extended

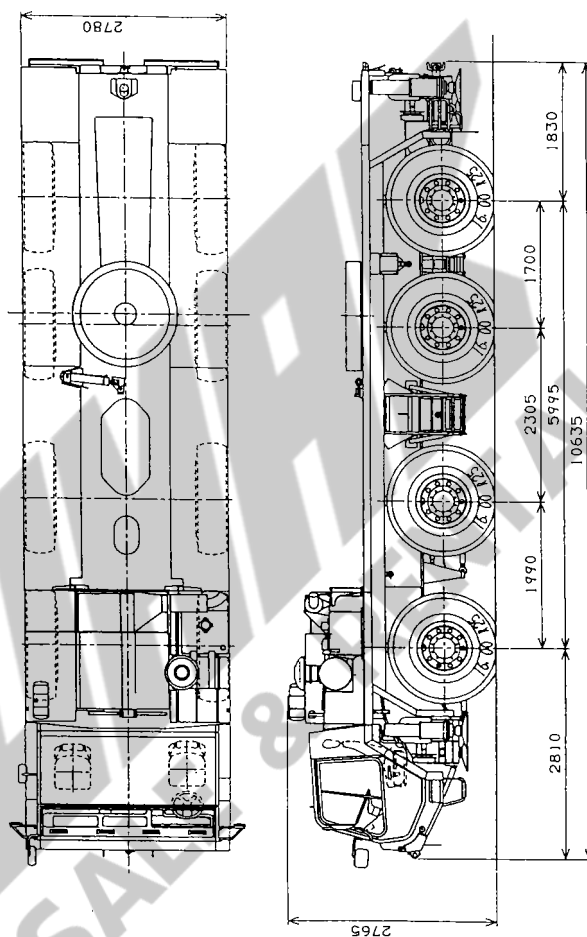


NOTES:

1. The deflection of the boom is not incorporated in the figure above.
2. The above figure is for the boom "telescoping method I".

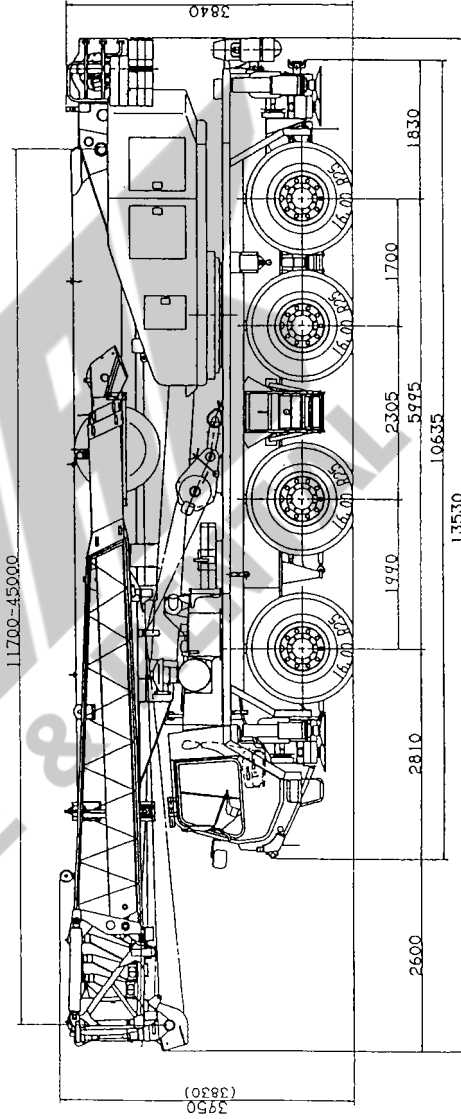
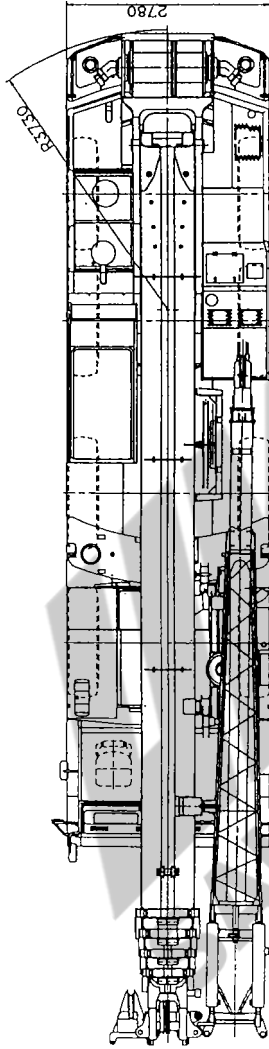
**DIMENSIONS** (1/100)

[On public thoroughfare traveling condition]



**DIMENSIONS** (1/100)

[On-site traveling condition]



(NOTE) The total height figures are for the standard traveling condition and those in brackets are for when the vehicle height has been lowered.