

TR

# **ROUGH TERRAIN CRANE**

TR-500M

# JAPANESE SPECIFICATIONS

OUTLINE	SPEC. NO.
6-section Boom, 2-staged Power Tilt Jib X-type Outrigger	TR-500M-3-00101

Control No. JA-03



# TR-500M

# CRANE SPECIFICATIONS

### **CRANE CAPACITY**

9.7m	Boom	50,000kg	at 3.0m	(12part-line)
16.0m	Boom	30,000kg	at 4.5m	(8part-line)
22.3m	Boom	20,000kg	at 5.0m	(5part-line)
28.6m	Boom	12,000kg	at 8.0m	( 4part-line)
34.9m	Boom	11,000kg	at 7.0m	(4part-line)
38.05m	Boom	8,500kg	at 9.0m	(4part-line)
41.2m	Boom	7,000kg	at 10.0m	( 4part-line)
7.8m	Jib	3,500kg	at 76 °	(1part-line)
12.5m	Jib	2,500kg	at 76 °	(1part-line)
Single to	g	4,000kg		( 1part-line)

### MAX.LIFTING HEIGHT

41.6m Boom 54.6m

### **MAX.WORKING RADIUS**

Boom 34.0m Jib 39.6m

### **BOOM LENGTH**

9.7m - 41.2m

# **BOOM EXTENSION**

# **BOOM EXTENSION SPEED**

31.5m/122s

### JIB LENGTH

7.8m, 12.5m

## MAIN WINCH SINGLE LINE SPEED

124m/min (5th laver)

## MAIN WINCH HOOK SPEED

10.3m/min (12 part-line)

# **AUXILIARY WINCH SINGLE LINE SPEED**

124m/min (5th layer)

# **AUXILIARY WINCH HOOK SPEED**

124m/min (1 part-line)

## **BOOM ELEVATION ANGLE**

0 °- 83 °

# **BOOM ELEVATION SPEED**

0 °- 83 %65s

# **SWING ANGLE**

360 °continue

# **SWING SPEED**

2.1rpm

# WIRE ROPE

Main Winch

18mm x 224m (Diameter x Length)

Spin-resistant wire rope

Auxiliary Winch

18mm x 120m (Diameter x Length)

Spin-resistant wire rope

## BOOM

6-section hydraulically telescoping boom of hexagonal box construction

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

# **BOOM EXTENSION**

3 double-acting hydraulic cylinders

2 wire rope type telescoping devices

Quick-turn type (2-staged type which stores alongside below the base boom section and extendible from under the boom (with 2nd stage being a pull-out type)) Hydraulic non-stage offset (5 °- 45 °) type

# SINGLE TOP

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

Driven by hydraulic motor and via bevel 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**

2 double-acting hydraulic cylinders

With flow regulator valve with pressure compensation

Hydraulic motor driven planetary gear reducer

Swing bearing

High/Low speed selection

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 7.3m Middle extended width 6.7m, 5.5m Minimum extended width 4.0m

### OPERATION METHOD

Hydraulic pilot valve operation

# MAX. VERTICAL LOAD CAPACITY OF OUTRIGGER

# **HYDRAULIC PUMPS**

2 variable piston pumps 2 gear pumps

# HYDRAULIC OIL TANK CAPACITY

570 liters

# **SAFETY DEVICES**

Automatic moment limiter(AML)

Multi-display indication

Swing automatic stop device Over-winding cutout device

Working area control device

Free-fall interlock device

Outrigger extension width detector

Winch drum lock

Level gauge

Hook safety latch

Hydraulic safety valve Telescopic counterbalance valve

Elevation counterbalance valve

Power tilt counterbalance valve

Jack pilot check valve

Swing lock

# **EQUIPMENT**

Air-conditioner with dehumidifier

Hydraulic oil temperature indication lamp

Radio

Oil cooler

Visual-type winch drum rotation indicator

ISO arrangement: for telescoping/auxiliary hoisting TADANO arrangement: for elevating/telescoping

Television (option)



# CARRIER SPECIFICATIONS

### **ENGINE**

NISSAN DIESEL MOTOR CO., LTD. PF6T Model

(with turbo charger)

4-cycle, 6-cylinder, direct-injection, water-cooled

diesel engine

Piston displacement 12,503cc Max. output

350PS at 2,100rpm Max. torque 136kg m at 1,400rpm

### **TORQUE CONVERTER**

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

mechanism)

# **TRANSMISSION**

Automatic and manual transmission

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

# **REDUCER**

Axle dual-ratio reduction

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)

Hydro-pneumatic suspension (with hydraulic lock cylinder)

Fully hydraulic power steering

With reverse steering correction mechanism

# **BRAKE SYSTEM**

Service Brake

Hydro-pneumatic brake

Disk brake

Parking Brake

Mechanically operated, internal expanding duo-servo

shoe type acting on drum at transmission case rear.

Auxiliary Brake

Hydrodynamic retarder

Electro-pneumatic operated exhaust brake

Auxiliary braking device for operations

# **FRAME**

Welded box-shaped structure

# **ELECTRIC SYSTEM**

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

# **FUEL TANK CAPACITY**

300 liters

## **TIRES**

Front 505/95R25 183E ROAD 505/95R25 183E ROAD Rear

# 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

Powered mirror for right side of boom

Monitor TV for left side of boom

# **EQUIPMENT**

Centralized oiling device

# **GENERAL DATA**

### **DIMENSIONS**

Overall length 11.850mm Overall width 2.960mm Overall height 3,710mm Wheel base 4,850mm 2.380mm Tread Front 2.380mm Rear

### WEIGHTS

Gross vehicle weight

37,795kg Total Front 18,895kg

Rear **PERFORMANCE** 

49km/h Max. traveling speed Gradeability (tan ) 0.57

Min. turning radius 6.3m (4-wheel steering)

18,900kg

10.8m (2-wheel steering)



# TOTAL RATED LOADS

# (1) With outriggers set [BOOM]

							Unit:ton
		Outr	riggers fully e	extended (7.	3m)		−360 °−
A B	9.7m	16.0m	22.3m	28.6m	34.9m	38.05m	41.2m
2.5m	50.0	30.0	20.0	12.0			
3.0m	50.0	30.0	20.0	12.0			
3.5m	45.0	30.0	20.0	12.0	11.0		
4.0m	39.5	30.0	20.0	12.0	11.0	8.5	
4.5m	35.5	30.0	20.0	12.0	11.0	8.5	
5.0m	32.0	29.0	20.0	12.0	11.0	8.5	7.0
5.5m	29.0	27.0	19.8	12.0	11.0	8.5	7.0
6.0m	26.5	24.6	18.7	12.0	11.0	8.5	7.0
6.5m	24.0	22.7	17.6	12.0	11.0	8.5	7.0
7.0m	22.0	20.9	16.7	12.0	11.0	8.5	7.0
8.0m		17.8	15.0	12.0	10.1	8.5	7.0
9.0m		14.6	13.4	11.5	9.4	8.5	7.0
10.0m		12.0	11.3	10.5	8.7	7.9	7.0
11.0m		10.0	9.4	9.5	8.1	7.35	6.5
12.0m		8.3	8.0	8.6	7.5	6.85	6.0
13.0m		7.1	6.8	7.4	7.0	6.4	5.6
14.0m			5.9	6.6	6.5	6.0	5.3
16.0m			4.2	5.0	5.4	5.3	4.7
18.0m			3.0	3.8	4.3	4.5	4.15
20.0m				2.95	3.4	3.55	3.6
22.0m				2.3	2.7	2.85	3.0
24.0m				1.65	2.1	2.3	2.4
26.0m					1.65	1.85	1.95
28.0m					1.25	1.4	1.55
30.0m					0.9	1.0	1.2
32.0m						0.7	0.9
34.0m							0.6
a(°)			0 ~ 83			16 ~ 83	28 ~ 83

A= Boom length B= Working radius



# [BOOM]

Unit:ton

Unit:ton										
		Outri	ggers middle	extended (	6.7m)	-O	ver sides-			
A B	9.7m	16.0m	22.3m	28.6m	34.9m	38.05m	41.2m			
2.5m	50.0	30.0	20.0	12.0						
3.0m	50.0	30.0	20.0	12.0						
3.5m	43.0	30.0	20.0	12.0	11.0					
4.0m	38.0	30.0	20.0	12.0	11.0	8.5				
4.5m	34.0	30.0	20.0	12.0	11.0	8.5				
5.0m	30.5	29.0	20.0	12.0	11.0	8.5	7.0			
5.5m	27.5	27.0	19.8	12.0	11.0	8.5	7.0			
6.0m	24.2	24.0	18.7	12.0	11.0	8.5	7.0			
6.5m	21.4	21.2	17.6	12.0	11.0	8.5	7.0			
7.0m	19.0	18.9	16.7	12.0	11.0	8.5	7.0			
8.0m		15.7	15.0	12.0	10.1	8.5	7.0			
9.0m		12.8	12.3	11.5	9.4	8.5	7.0			
10.0m		10.4	9.9	10.5	8.7	7.9	7.0			
11.0m		8.5	8.2	9.1	8.1	7.35	6.5			
12.0m		7.1	6.85	7.75	7.5	6.85	6.0			
13.0m		6.1	5.7	6.7	7.0	6.4	5.6			
14.0m			4.8	5.8	6.3	6.0	5.3			
16.0m			3.4	4.3	4.8	5.0	4.7			
18.0m			2.3	3.2	3.75	3.9	4.0			
20.0m				2.35	2.9	3.1	3.25			
22.0m				1.7	2.2	2.4	2.6			
24.0m				1.2	1.65	1.8	2.0			
26.0m					1.2	1.4	1.55			
28.0m					0.8	1.0	1.1			
30.0m					0.5	0.7	0.8			
32.0m							0.5			
a(°)		0 ~		23 ~ 83	27 ~ 83	36 ~ 83				

A= Boom length B= Working radius



# [BOOM]

Unit:ton

							Unit:ton
		Outri	ggers middle	extended (5	5.5m)	-O	ver sides-
A B	9.7m	16.0m	22.3m	28.6m	34.9m	38.05m	41.2m
2.5m	45.0	30.0	20.0	12.0			
3.0m	45.0	30.0	20.0	12.0			
3.5m	41.0	30.0	20.0	12.0	11.0		
4.0m	36.8	30.0	20.0	12.0	11.0	8.5	
4.5m	33.2	30.0	20.0	12.0	11.0	8.5	
5.0m	30.2	27.0	20.0	12.0	11.0	8.5	7.0
5.5m	25.2	24.0	19.8	12.0	11.0	8.5	7.0
6.0m	21.0	20.7	18.7	12.0	11.0	8.5	7.0
6.5m	18.2	18.0	17.0	12.0	11.0	8.5	7.0
7.0m	15.5	15.2	15.1	12.0	11.0	8.5	7.0
8.0m		11.9	11.6	12.0	10.1	8.5	7.0
9.0m		9.5	9.15	10.2	9.4	8.5	7.0
10.0m		7.65	7.35	8.35	8.4	7.9	7.0
11.0m		6.25	6.0	7.0	7.3	7.35	6.5
12.0m		5.15	4.9	5.85	6.3	6.3	6.0
13.0m		4.2	4.0	5.0	5.5	5.5	5.6
14.0m			3.25	4.2	4.75	4.8	5.0
16.0m			2.05	3.0	3.55	3.6	3.8
18.0m			1.05	2.1	2.65	2.7	2.9
20.0m				1.35	1.95	2.05	2.25
22.0m				0.7	1.3	1.5	1.7
24.0m					0.8	1.0	1.2
26.0m						0.6	0.8
a (°)		0 ~ 83		24 ~ 83	38 ~ 83	44 ~ 83	49 ~ 83

A= Boom length B= Working radius



# [BOOM]

Unit:ton

		Ot-i			(4.0)		Unit:ton
		Outrig	gers minimui	m extended	(4.0m)	-0	ver sides-
A B	9.7m	16.0m	22.3m	28.6m	34.9m	38.05m	41.2m
2.5m	40.0	30.0	20.0	12.0			
3.0m	40.0	30.0	20.0	12.0			
3.5m	33.4	30.0	20.0	12.0	11.0		
4.0m	26.5	27.0	20.0	12.0	11.0	8.5	
4.5m	21.0	21.5	20.0	12.0	11.0	8.5	
5.0m	17.4	17.4	17.0	12.0	11.0	8.5	7.0
5.5m	14.6	14.5	14.2	12.0	11.0	8.5	7.0
6.0m	12.5	12.2	12.0	12.0	11.0	8.5	7.0
6.5m	10.5	10.5	10.4	11.3	10.3	8.5	7.0
7.0m	9.0	9.1	9.0	10.0	9.5	8.5	7.0
8.0m		6.9	6.8	7.8	8.0	8.0	7.0
9.0m		5.4	5.25	6.2	6.65	6.7	6.5
10.0m		4.3	4.1	5.0	5.6	5.7	5.9
11.0m		3.4	3.15	4.05	4.65	4.75	5.0
12.0m		2.6	2.45	3.3	3.85	4.0	4.2
13.0m		1.85	1.75	2.7	3.2	3.35	3.55
14.0m			1.15	2.15	2.7	2.85	3.0
16.0m				1.2	1.8	2.0	2.15
18.0m					1.1	1.3	1.5
20.0m						0.75	0.95
a(°)	0~	83	38 ~ 83	47 ~ 83	53 ~ 83	56 ~ 83	60 ~ 83

A= Boom length B= Working radius



# [JIB]

# Unit:ton

	Cilit.ton											
				Outrigg	gers full	y extend	ded (7.	3m)			-3	360 °-
С			7.8	3m					12.	5m		
D	5 ° 25 ° 45 °				5 °		5 °	2	5 °	4:	5 °	
E(°)	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M
83	6.6	3.5	9.0	2.4	10.7	1.6	8.0	2.5	11.5	1.4	14.5	0.8
76	13.6	3.5	15.5	2.4	16.8	1.6	15.9	2.5	18.7	1.4	21.2	0.8
74	15.3	3.25	17.3	2.2	18.4	1.5	17.9	2.25	20.5	1.4	22.9	0.8
72	17.0	2.95	18.8	2.1	20.1	1.48	19.7	2.05	22.4	1.3	24.7	0.8
70	18.7	2.65	20.6	1.95	21.6	1.45	21.6	1.9	24.2	1.25	26.4	0.8
68	20.3	2.4	22.3	1.85	23.2	1.43	23.4	1.75	25.9	1.2	28.0	0.8
65	22.6	2.1	24.5	1.7	25.3	1.4	25.9	1.55	28.3	1.1	30.2	0.77
60	26.5	1.7	28.1	1.45	28.8	1.3	30.1	1.3	32.2	0.95	33.8	0.74
55	29.8	1.2	31.3	1.1	31.8	1.0	33.8	1.0	35.8	0.85	37.1	0.72
50	32.7	0.65	34.1	0.55	34.4	0.5	36.9	0.5	38.7	0.43	39.6	0.4
a(°)		49 ~ 83										

# Unit:ton

	Cinc.ton											
			(	Outrigge	ers midd	le exter	nded (6	5.7m)		-	-Over si	des-
С			7.8	3m					12.	5m		
D	D 5° 25° 45°				5 °		5 °	2	5°	4.	5 °	
E(°)	B (m)	М	B (m)	М	B (m)	M	B (m)	M	B (m)	M	B (m)	M
83	6.6	3.5	9.0	2.4	10.7	1.6	8.0	2.5	11.5	1.4	14.5	0.8
76	13.6	3.5	15.5	2.4	16.8	1.6	15.9	2.5	18.7	1.4	21.2	0.8
74	15.3	3.25	17.3	2.2	18.4	1.5	17.9	2.25	20.5	1.4	22.9	0.8
72	17.0	2.95	18.8	2.1	20.1	1.48	19.7	2.05	22.4	1.3	24.7	0.8
70	18.7	2.65	20.6	1.95	21.6	1.45	21.6	1.9	24.2	1.25	26.4	0.8
68	20.3	2.4	22.3	1.85	23.2	1.43	23.4	1.75	25.9	1.2	28.0	0.8
65	22.6	2.1	24.5	1.7	25.3	1.4	25.9	1.55	28.3	1.1	30.2	0.77
60	26.4	1.6	28.1	1.45	28.8	1.3	30.1	1.3	32.2	0.95	33.8	0.74
55	29.6	0.9	31.2	0.8	31.7	0.75	33.6	0.75	35.6	0.65	37.0	0.55
53	30.8	0.65	32.3	0.6	32.7	0.55	34.9	0.55	36.8	0.5	38.1	0.4
a (°)	52 ~ 83											

 $B{=}\ Working\ radius\quad C{=}\ Jib\ length\quad D{=}\ Jib\ offset$ 

E= Boom angle M= Total rated loads



# [JIB]

# Unit:ton

						1 .	1 1 7				0	
				Jutrigge	ers midd	le exter	ided (5	.5m)			-Over si	ides-
C			7.8	3m					12.	5m		
D	D 5° 25° 45°				5°	2	5°	45 °				
E(°)	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M
83	6.6	3.5	9.0	2.4	10.7	1.6	8.0	2.5	11.5	1.4	14.5	0.8
76	13.6	3.5	15.5	2.4	16.8	1.6	15.9	2.5	18.7	1.4	21.2	0.8
74	15.3	3.25	17.3	2.2	18.4	1.5	17.9	2.25	20.5	1.4	22.9	0.8
72	17.0	2.95	18.8	2.1	20.1	1.48	19.7	2.05	22.4	1.3	24.7	0.8
70	18.7	2.65	20.6	1.95	21.6	1.45	21.6	1.9	24.2	1.25	26.4	0.8
68	20.3	2.3	22.3	1.85	23.2	1.43	23.4	1.75	25.9	1.2	28.0	0.8
65	22.3	1.65	24.4	1.45	25.3	1.25	25.8	1.4	28.3	1.1	30.2	0.77
62	24.6	1.1	26.3	0.95	27.1	0.8	28.0	0.85	30.5	0.7	32.5	0.65
a(°)		61 ~ 83										

# Unit:ton

	Unition											
			Οι	ıtrigger	s minim	um exte	ended (	(4.0m)		-	-Over si	des-
C			7.8	3m			12.5m					
D	D 5° 25° 45°			:	5 ° 25 °			45 °				
E(°)	B (m)	M	B (m)	M	B (m)	M	B (m)	М	B (m)	M	B (m)	M
83	6.6	3.5	9.0	2.4	10.7	1.6	8.0	2.5	11.5	1.4	14.5	0.8
76	13.6	3.5	15.5	2.4	16.8	1.6	15.9	2.5	18.7	1.4	21.2	0.8
74	14.9	2.6	17.3	2.2	18.4	1.5	17.9	2.1	20.5	1.4	22.9	0.8
72	16.6	2.0	18.6	1.7	20.1	1.45	19.3	1.6	22.4	1.3	24.7	0.8
70	18.0	1.5	20.2	1.25	21.3	1.1						
a (°)	69 ~ 83								71 ~	- 83		

 $B{=}\ Working\ radius\quad C{=}\ Jib\ length\quad D{=}\ Jib\ offset$ 

E= Boom angle M= Total rated loads



# PRECAUTIONS TO BE TAKEN WHEN THE OUTRIGGERS ARE EXTENDED:

- 1. 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: 460kg, 25t hook: 290kg, auxiliary hook: 100kg).
- The values above the bold lines are based on the crane strength while those below are based on the crane stability. 2. Since the total rated loads are based on the actual working radii including the deflection of the boom, operations
- should be performed in accordance with the working radii.
- 3. 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 to a 41.2m boom.
- The total rated load for the single top shall be the value obtained by subtracting the weight of the hook mounted to the boom from the total rated load of the boom and must not exceed 4.0t.
- 5. 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 4.17t for the main winch and 4.0t for the auxiliary winch.

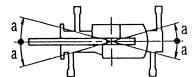
A	9.7m	16.0m	22.3m	28.6m	34.9m	38.05m	41.2m	Jib
Н	12	8	5(6)	4	4	4	4	1

The value in() is for a 25t hook.

A= Boom length H= No. of part-lines

7. 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 (6.7m)	Middle extended (5.5m)	Minimum extended (4.0m)
Angle a °	30	25	15





# (2) Without outriggers

Unit:ton

											Un	it:ton
	Stationary						Creep (travelling at 1.6km/h or less)					
B (m)	9.7m Boom		16.0m Boom		22.3m Boom		9.7m Boom		16.0m Boom		22.3m Boom	
	F	G	F	G	F	G	F	G	F	G	F	G
3.0	20.0	12.5	15.0	10.0			14.5	8.0	10.5	6.5		
3.5	20.0	12.5	15.0	10.0			14.5	8.0	10.5	6.5		
4.0	20.0	11.0	15.0	10.0	11.0	5.5	14.5	8.0	10.5	6.5	8.0	4.5
4.5	18.0	9.0	15.0	8.5	11.0	5.5	12.9	6.8	10.5	6.5	8.0	4.5
5.0	16.0	7.4	15.0	7.0	11.0	5.5	11.5	5.8	10.5	5.3	8.0	4.5
5.5	14.3	6.2	14.0	5.7	11.0	5.3	10.3	4.8	10.5	4.4	8.0	4.1
6.0	12.8	5.2	13.0	4.8	11.0	4.4	9.3	4.0	10.0	3.7	8.0	3.55
6.5	11.7	4.35	12.0	4.05	10.0	3.7	8.6	3.35	9.3	3.15	8.0	3.05
7.0	10.8	3.7	11.0	3.4	9.2	3.0	7.9	2.8	8.5	2.7	7.4	2.55
8.0			9.0	2.3	7.7	2.0			7.0	1.85	6.4	1.65
9.0			7.0	1.3	6.4	1.15			5.9	1.1	5.4	0.95
10.0			5.7	0.6	5.4				4.8	0.5	4.5	
11.0			4.7		4.5				3.9		3.7	
12.0			4.0		3.8				3.3		3.1	
13.0			3.4		3.2				2.8		2.6	
14.0					2.7						2.2	
16.0					1.8						1.5	
18.0					1.05						0.85	
a(°)	0~78			40 ~ 78	25 ~ 78	61 ~ 78	0~78			40 ~ 78	25 ~ 78	61 ~ 78

B= Working radius F= Front G= 360  $^{\circ}$ 



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TR-500M-3-00101

# PRECAUTIONS TO BE TAKEN WHEN THE OUTRIGGERS ARE NOT MOUNTED:

1. The total rated loads shown are for the case where the tire air pressure on firm level ground is as specified (8.00kg/cm²) and the suspension-lock cylinder is retracted as much as possible. They include the weights of the slings and hooks (main hook: 460kg, 25t hook: 290kg, auxiliary hook: 100kg).
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.

- Since the working radii are based on the actual values including the deflection of the boom and the tires, operations should be performed in accordance with the working radii.
- 3. "Over front" crane operations should be performed only when "Over front" is displayed on the standard display. The boom must be kept inside a 2 ° area over front of the carrier when performing "Over front" crane operations without the outriggers.



4. The chart below shows the standard number of part lines for each boom length. The load per line should not exceed 4.17t for the main winch and 4.0t for the auxiliary winch.

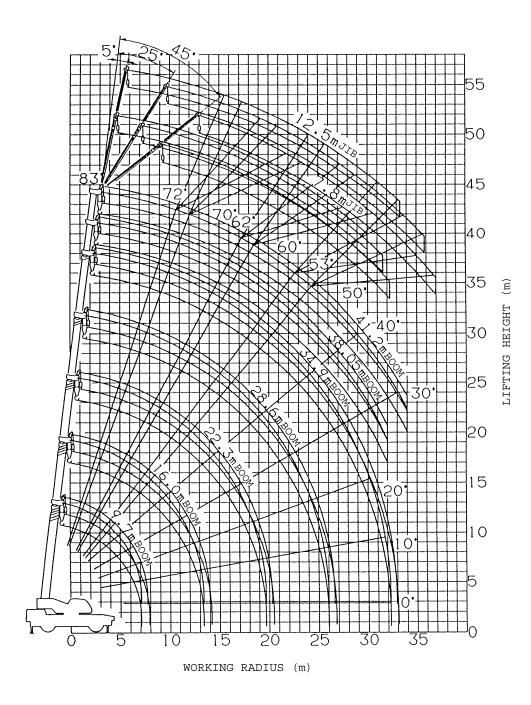
A	9.7m	16.0m	22.3m	Single top
Н	12	8	5(6)	1

The value in() is for a 25t hook.

A= Boom length H= No. of part-lines

- 5. The total rated load for the single top shall be the value obtained by subtracting the weight of the hook mounted to the boom from the total rated load of the boom and must not exceed 4.0t.
- Free-fall operations should not be performed without outriggers.Booms over 22.3m 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.
- 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.

# 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 °).

DIMENSIONS (1/100)

