



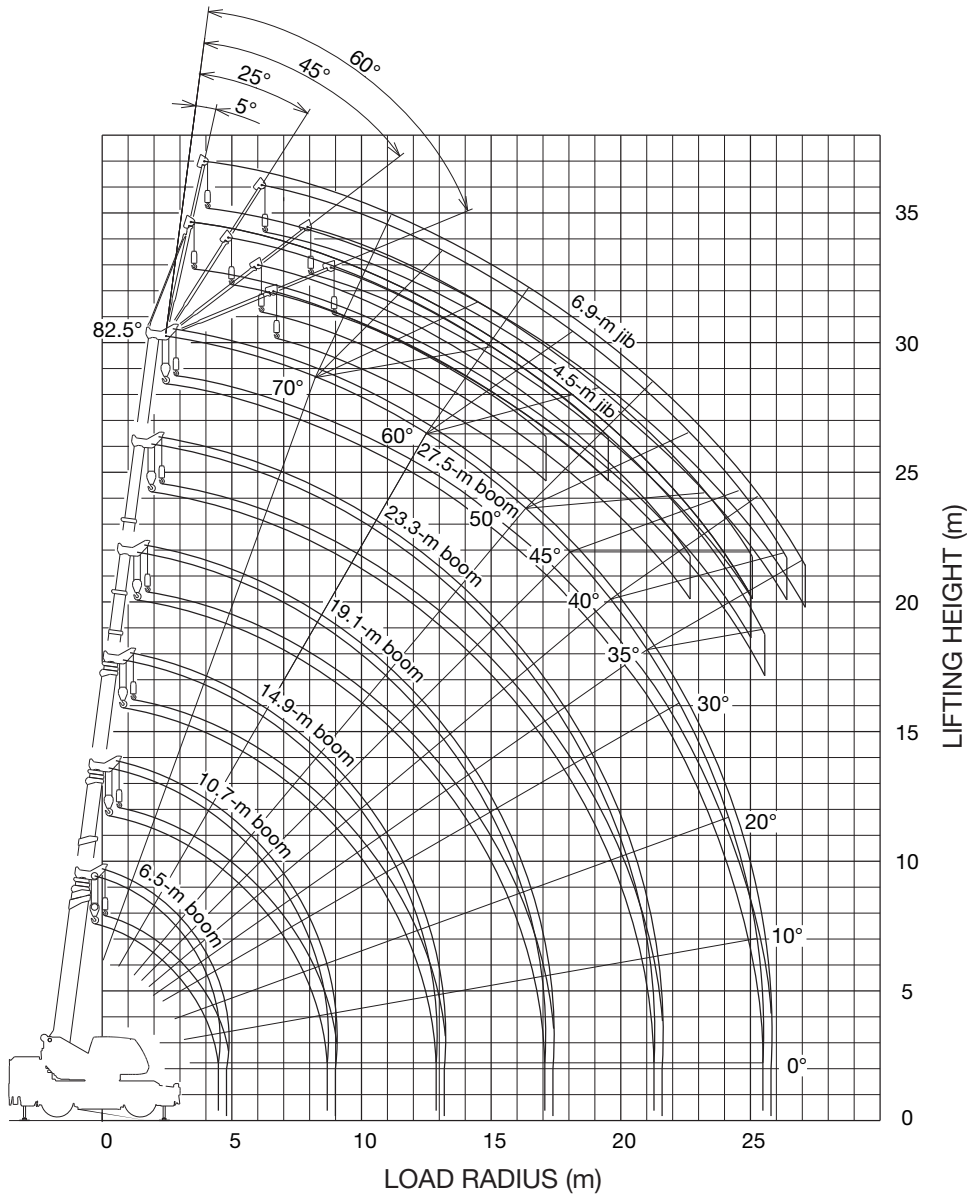
MAXIMUM CAPACITY
20t



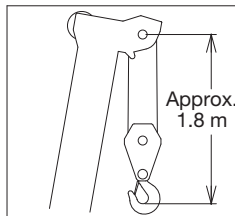
MAXIMUM BOOM LENGTH
28.0m

TADANO 20T

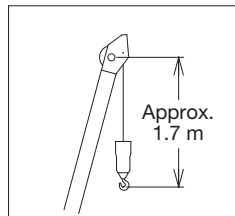
GR-200EX WORKING RANGE CHART



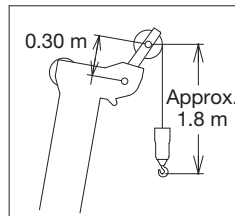
BOOM



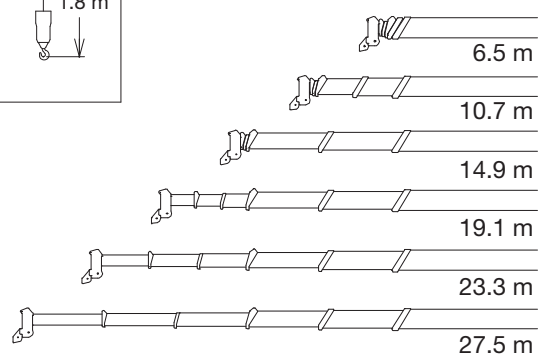
JIB



SINGLE TOP



Boom Length



The above lifting height and boom angle are based on a straight (unloaded) boom and machine standing level on firm supporting surface. Allowance should be made for boom deflection obtained under loaded conditions. The above working range is shown on condition with outriggers fully (5.2 m) extended.

GR-200EX RATED LIFTING CAPACITIES

ON OUTRIGGERS FULLY EXTENDED 5.2 m SPREAD 360° ROTATION (Unit: x 1,000 kg)						
B \ A	6.5	10.7	14.9	19.1	23.3	27.5
2.5	20.0	12.0	9.0	7.0		
3.0	16.0	12.0	9.0	7.0		
3.5	14.0	12.0	9.0	7.0	5.0	3.5
4.0	12.5	12.0	9.0	7.0	5.0	3.5
4.5	11.7	11.1	9.0	6.6	4.95	3.5
5.0	(4.4m)	10.25	8.9	6.35	4.7	3.5
5.5		9.4	8.2	6.3	4.4	3.35
6.0		8.8	7.6	6.2	4.2	3.2
7.0		6.75	6.5	5.8	4.0	2.95
8.0		5.05	4.95	5.15	3.9	2.8
9.0		4.35	3.9	4.3	3.7	2.75
10.0		(8.6m)	3.1	3.45	3.3	2.65
11.0			2.5	2.85	3.05	2.4
12.0			2.0	2.35	2.65	2.2
13.0			1.7	1.95	2.2	2.05
14.0			(12.8m)	1.6	1.85	1.9
15.0				1.35	1.55	1.7
16.0				1.15	1.3	1.45
17.0				0.95	1.1	1.25
18.0					0.95	1.1
19.0					0.75	0.95
20.0					0.65	0.8
22.0					0.5	0.5
24.0					(21.2m)	0.35

ON OUTRIGGERS MIDDLE EXTENDED 4.8 m SPREAD 360° ROTATION (Unit: x 1,000 kg)						
B \ A	6.5	10.7	14.9	19.1	23.3	27.5
2.5	20.0	12.0	9.0	7.0		
3.0	16.0	12.0	9.0	7.0		
3.5	14.0	12.0	9.0	7.0	5.0	3.5
4.0	12.5	12.0	9.0	7.0	5.0	3.5
4.5	11.7	11.1	9.0	6.6	4.95	3.5
5.0	(4.4m)	10.2	8.9	6.35	4.7	3.5
5.5		9.05	8.2	6.3	4.4	3.35
6.0		7.65	7.2	6.2	4.2	3.2
7.0		5.6	5.6	5.65	4.0	2.95
8.0		4.3	4.25	4.6	3.9	2.8
9.0		3.7	3.35	3.75	3.7	2.75
10.0		(8.6m)	2.65	3.05	3.25	2.65
11.0			2.1	2.5	2.7	2.4
12.0			1.65	2.05	2.25	2.2
13.0			1.35	1.65	1.85	2.05
14.0			(12.8m)	1.3	1.55	1.75
15.0				1.05	1.3	1.45
16.0				0.85	1.1	1.25
17.0				0.7	0.9	1.05
18.0					0.75	0.9
19.0					0.6	0.75
20.0					0.5	0.6
22.0						0.4

A: Boom length (m)
B: Load radius (m)

GR-200EX RATED LIFTING CAPACITIES

ON OUTRIGGERS MIDDLE EXTENDED 4.4 m SPREAD 360° ROTATION (Unit: x 1,000 kg)						
B \ A	6.5	10.7	14.9	19.1	23.3	27.5
2.5	20.0	12.0	9.0	7.0		
3.0	16.0	12.0	9.0	7.0		
3.5	14.0	12.0	9.0	7.0	5.0	3.5
4.0	12.5	12.0	9.0	7.0	5.0	3.5
4.5	11.55	11.1	9.0	6.6	4.95	3.5
5.0	(4.4m)	9.0	8.25	6.35	4.7	3.5
5.5		7.6	7.05	6.3	4.4	3.35
6.0		6.45	6.15	6.15	4.2	3.2
7.0		4.75	4.75	4.85	4.0	2.95
8.0		3.6	3.65	3.9	3.9	2.8
9.0		3.05	2.8	3.15	3.3	2.75
10.0		(8.6m)	2.2	2.5	2.75	2.65
11.0			1.7	2.0	2.3	2.4
12.0			1.3	1.65	1.9	2.0
13.0			1.05	1.3	1.55	1.7
14.0			(12.8m)	1.05	1.3	1.45
15.0				0.85	1.05	1.2
16.0				0.65	0.85	1.0
17.0				0.5	0.7	0.8
18.0					0.55	0.7
19.0					0.45	0.55
20.0						0.45

ON OUTRIGGERS MIDDLE EXTENDED 3.2 m SPREAD 360° ROTATION (Unit: x 1,000 kg)						
B \ A	6.5	10.7	14.9	19.1	23.3	27.5
2.5	16.0	12.0	9.0	7.0		
3.0	14.15	11.6	9.0	7.0		
3.5	10.2	9.2	7.9	7.0	5.0	3.5
4.0	7.75	7.5	6.5	6.35	5.0	3.5
4.5	6.55	6.25	5.45	5.4	4.95	3.5
5.0	(4.4m)	5.15	4.6	4.65	4.55	3.5
5.5		4.35	3.95	4.05	4.0	3.35
6.0		3.65	3.4	3.55	3.55	3.2
7.0		2.7	2.55	2.75	2.8	2.8
8.0		1.95	1.9	2.15	2.25	2.25
9.0		1.65	1.35	1.65	1.8	1.85
10.0		(8.6m)	0.95	1.3	1.45	1.5
11.0			0.65	0.95	1.15	1.25
12.0			0.35	0.7	0.9	1.0
13.0				0.45	0.65	0.8
14.0				0.3	0.5	0.65
15.0					0.35	0.45

A: Boom length (m)

B: Load radius (m)

GR-200EX RATED LIFTING CAPACITIES

ON OUTRIGGERS MINIMUM EXTENDED 1.79 m SPREAD 360° ROTATION (Unit: x 1,000 kg)						
A \ B	6.5	10.7	14.9	19.1	23.3	27.5
2.5	6.55	5.65	4.7	4.55		
3.0	5.45	4.35	3.65	3.65		
3.5	4.15	3.4	2.85	2.95	2.9	2.8
4.0	3.15	2.7	2.25	2.4	2.4	2.35
4.5	2.6 (4.4m)	2.15	1.8	2.0	2.05	2.0
5.0		1.75	1.4	1.65	1.7	1.7
5.5		1.4	1.1	1.35	1.45	1.45
6.0		1.1	0.8	1.1	1.2	1.25
7.0		0.6	0.4	0.65	0.8	0.9

A: Boom length (m)

B: Load radius (m)

Note:

Standard number of parts of line for each boom length is as shown below.

Load per line should not surpass 28.4 kN (2,900 kgf) for main winch and 31.4 kN (3,200 kgf) for auxiliary winch.

Boom length	6.5 m	10.7 m	14.9 m to 27.5 m	Single top/jib
Number of parts of line	7	6	4	1

The lifting capacity data stowed in the Automatic Moment Limiter (AML-E) is based on the standard number of parts of line listed in the chart.

GR-200EX RATED LIFTING CAPACITIES

ON OUTRIGGERS FULLY EXTENDED 5.2 m SPREAD 360° ROTATION (Unit: x 1,000 kg)																	
C	27.5-m Boom + 4.5-m Jib								C	27.5-m Boom + 6.9-m Jib							
	5° Offset		25° Offset		45° Offset		60° Offset			5° Offset		25° Offset		45° Offset		60° Offset	
	R	W	R	W	R	W	R	W		R	W	R	W	R	W		
82.5	3.9	2.0	5.6	2.0	6.7	1.55	7.2	1.2	82.5	4.5	1.5	7.0	1.3	8.6	0.82	9.7	0.69
75	8.4	2.0	9.9	1.7	10.8	1.4	11.2	1.15	75	9.2	1.5	11.5	1.05	12.9	0.75	13.8	0.66
70	11.2	1.95	12.5	1.5	13.4	1.25	13.6	1.1	70	12.3	1.5	14.3	0.96	15.6	0.72	16.4	0.65
65	13.8	1.65	15.1	1.3	15.8	1.15	16.0	1.1	65	15.1	1.3	17.0	0.88	18.1	0.69	18.9	0.64
60	16.2	1.35	17.4	1.2	18.1	1.1	18.2	1.1	60	17.7	1.1	19.6	0.82	20.5	0.67	21.1	0.64
55	18.4	1.0	19.6	0.95	20.1	0.95			55	20.1	0.89	21.9	0.77	22.7	0.66		
50	20.5	0.73	21.5	0.69	21.9	0.69			50	22.4	0.64	24.0	0.6	24.6	0.59		
45	22.4	0.5	23.3	0.48	23.5	0.48			45	24.4	0.44	25.8	0.41	26.1	0.4		
40	24.1	0.32	24.9	0.31					40	26.2	0.27	27.4	0.27				
35	25.6	0.19	26.2	0.19					35	27.8	0.16						

ON OUTRIGGERS MIDDLE EXTENDED 4.8 m SPREAD 360° ROTATION (Unit: x 1,000 kg)																	
C	27.5-m Boom + 4.5-m Jib								C	27.5-m Boom + 6.9-m Jib							
	5° Offset		25° Offset		45° Offset		60° Offset			5° Offset		25° Offset		45° Offset		60° Offset	
	R	W	R	W	R	W	R	W		R	W	R	W	R	W		
82.5	3.9	2.0	5.6	2.0	6.7	1.55	7.2	1.2	82.5	4.5	1.5	7.0	1.3	8.6	0.82	9.7	0.69
75	8.4	2.0	9.9	1.7	10.8	1.4	11.2	1.15	75	9.2	1.5	11.5	1.05	12.9	0.75	13.8	0.66
70	11.2	1.95	12.5	1.5	13.4	1.25	13.6	1.1	70	12.3	1.5	14.3	0.96	15.6	0.72	16.4	0.65
65	13.8	1.65	15.1	1.3	15.8	1.15	16.0	1.1	65	15.1	1.3	17.0	0.88	18.1	0.69	18.9	0.64
60	16.1	1.15	17.4	1.05	18.1	1.05	18.1	1.0	60	17.7	1.05	19.6	0.82	20.5	0.67	21.1	0.64
55	18.3	0.84	19.5	0.78	20.0	0.76			55	20.1	0.76	21.9	0.69	22.7	0.66		
50	20.4	0.56	21.4	0.52	21.8	0.51			50	22.3	0.49	23.9	0.46	24.5	0.45		
45	22.3	0.35	23.2	0.33	23.5	0.32			45	24.3	0.3	25.7	0.28	26.1	0.28		
40	24.0	0.19	24.8	0.18					40	26.1	0.16	27.3	0.15				

ON OUTRIGGERS MIDDLE EXTENDED 4.4 m SPREAD 360° ROTATION (Unit: x 1,000 kg)																	
C	27.5-m Boom + 4.5-m Jib								C	27.5-m Boom + 6.9-m Jib							
	5° Offset		25° Offset		45° Offset		60° Offset			5° Offset		25° Offset		45° Offset		60° Offset	
	R	W	R	W	R	W	R	W		R	W	R	W	R	W		
82.5	3.9	2.0	5.6	2.0	6.7	1.55	7.2	1.2	82.5	4.5	1.5	7.0	1.3	8.6	0.82	9.7	0.69
75	8.4	2.0	9.9	1.7	10.8	1.4	11.2	1.15	75	9.2	1.5	11.5	1.05	12.9	0.75	13.8	0.66
70	11.2	1.95	12.5	1.5	13.4	1.25	13.6	1.1	70	12.3	1.5	14.3	0.96	15.6	0.72	16.4	0.65
65	13.6	1.3	15.0	1.15	15.8	1.1	16.0	1.05	65	15.1	1.3	17.0	0.88	18.1	0.69	18.9	0.64
60	16.0	0.9	17.2	0.82	17.9	0.82	18.0	0.77	60	17.6	0.87	19.5	0.79	20.5	0.67	21.1	0.64
55	18.2	0.62	19.4	0.58	19.9	0.58			55	20.0	0.57	21.7	0.51	22.5	0.51		
50	20.3	0.39	21.3	0.36	21.7	0.35			50	22.2	0.35	23.7	0.3	24.3	0.3		
45	22.2	0.19	23.1	0.18	23.4	0.18			45	24.2	0.18	25.6	0.13	26.0	0.13		

ON OUTRIGGERS MIDDLE EXTENDED 3.2 m SPREAD 360° ROTATION (Unit: x 1,000 kg)																	
C	27.5-m Boom + 4.5-m Jib								C	27.5-m Boom + 6.9-m Jib							
	5° Offset		25° Offset		45° Offset		60° Offset			5° Offset		25° Offset		45° Offset		60° Offset	
	R	W	R	W	R	W	R	W		R	W	R	W	R	W		
82.5	3.9	2.0	5.6	2.0	6.7	1.55	7.2	1.2	82.5	4.5	1.5	7.0	1.3	8.6	0.82	9.7	0.69
75	8.4	1.85	9.9	1.55	10.8	1.4	11.2	1.15	75	9.2	1.5	11.5	1.05	12.9	0.75	13.8	0.66
70	10.9	1.05	12.3	0.91	13.3	0.85	13.6	0.84	70	12.4	0.93	14.3	0.78	15.6	0.71	16.4	0.65
65	13.4	0.54	14.7	0.47	15.5	0.44	15.7	0.44	65	15.0	0.47	16.8	0.4	18.0	0.37	18.7	0.36
60	15.8	0.19	17.0	0.16	17.6	0.15	17.7	0.15	60	17.5	0.16	19.1	0.12	20.1	0.11	20.7	0.11

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

GR-200EX RATED LIFTING CAPACITIES

ON OUTRIGGERS FULLY EXTENDED 5.2 m SPREAD 360° ROTATION (Unit: x 1,000 kg)																	
C	23.3-m Boom + 4.5-m Jib								C	23.3-m Boom + 6.9-m Jib							
	5° Offset		25° Offset		45° Offset		60° Offset			5° Offset		25° Offset		45° Offset		60° Offset	
	R	W	R	W	R	W	R	W		R	W	R	W	R	W	R	W
82.5	3.2	2.0	4.8	2.0	5.9	1.55	6.4	1.2	82.5	3.7	1.5	6.1	1.3	7.8	0.82	8.8	0.69
75	6.9	2.0	8.4	1.9	9.3	1.45	9.7	1.15	75	7.8	1.5	9.9	1.05	11.4	0.75	12.2	0.66
70	9.3	2.0	10.7	1.75	11.5	1.4	11.8	1.1	70	10.4	1.5	12.4	0.96	13.7	0.72	14.4	0.65
65	11.5	2.0	12.8	1.65	13.6	1.4	13.7	1.1	65	12.8	1.4	14.7	0.88	15.8	0.69	16.4	0.64
60	13.7	1.85	14.9	1.55	15.5	1.35	15.6	1.1	60	15.1	1.2	16.9	0.82	17.8	0.67	18.3	0.64
55	15.6	1.4	16.7	1.3	17.3	1.3			55	17.3	1.05	18.9	0.77	19.7	0.66		
50	17.4	1.05	18.4	1.0	18.8	1.0			50	19.3	0.96	20.7	0.74	21.3	0.66		
45	19.1	0.82	20.0	0.79	20.2	0.79			45	21.0	0.71	22.4	0.67	22.8	0.64		
40	20.6	0.61	21.3	0.59					40	22.7	0.52	23.8	0.5				
35	21.9	0.45	22.5	0.44					35	24.1	0.38	25.0	0.37				
30	23.1	0.33	23.5	0.32					30	25.3	0.27	26.1	0.27				
25	24.0	0.24	24.4	0.24					25	26.4	0.19	26.9	0.19				
20	24.8	0.17							20								

ON OUTRIGGERS MIDDLE EXTENDED 4.8 m SPREAD 360° ROTATION (Unit: x 1,000 kg)																	
C	23.3-m Boom + 4.5-m Jib								C	23.3-m Boom + 6.9-m Jib							
	5° Offset		25° Offset		45° Offset		60° Offset			5° Offset		25° Offset		45° Offset		60° Offset	
	R	W	R	W	R	W	R	W		R	W	R	W	R	W	R	W
82.5	3.2	2.0	4.8	2.0	5.9	1.55	6.4	1.2	82.5	3.7	1.5	6.1	1.3	7.8	0.82	8.8	0.69
75	6.9	2.0	8.4	1.9	9.3	1.45	9.7	1.15	75	7.8	1.5	9.9	1.05	11.4	0.75	12.2	0.66
70	9.3	2.0	10.7	1.75	11.5	1.4	11.8	1.1	70	10.4	1.5	12.4	0.96	13.7	0.72	14.4	0.65
65	11.5	2.0	12.8	1.65	13.6	1.4	13.7	1.1	65	12.8	1.4	14.7	0.88	15.8	0.69	16.4	0.64
60	13.6	1.65	14.9	1.5	15.5	1.35	15.6	1.1	60	15.1	1.2	16.9	0.82	17.8	0.67	18.3	0.64
55	15.6	1.2	16.7	1.15	17.2	1.1			55	17.3	1.05	18.9	0.77	19.7	0.66		
50	17.4	0.91	18.4	0.85	18.8	0.84			50	19.2	0.77	20.7	0.71	21.3	0.66		
45	19.0	0.64	19.9	0.61	20.2	0.61			45	21.0	0.54	22.3	0.5	22.7	0.48		
40	20.5	0.45	21.3	0.43					40	22.6	0.37	23.8	0.35				
35	21.9	0.3	22.5	0.29					35	24.1	0.24	25.0	0.23				
30	23.0	0.19	23.5	0.18					30	25.3	0.14						

ON OUTRIGGERS MIDDLE EXTENDED 4.4 m SPREAD 360° ROTATION (Unit: x 1,000 kg)																	
C	23.3-m Boom + 4.5-m Jib								C	23.3-m Boom + 6.9-m Jib							
	5° Offset		25° Offset		45° Offset		60° Offset			5° Offset		25° Offset		45° Offset		60° Offset	
	R	W	R	W	R	W	R	W		R	W	R	W	R	W	R	W
82.5	3.2	2.0	4.8	2.0	5.9	1.55	6.4	1.2	82.5	3.7	1.5	6.1	1.3	7.8	0.82	8.8	0.69
75	6.9	2.0	8.4	1.9	9.3	1.45	9.7	1.15	75	7.8	1.5	9.9	1.05	11.4	0.75	12.2	0.66
70	9.3	2.0	10.7	1.75	11.5	1.4	11.8	1.1	70	10.4	1.5	12.4	0.96	13.7	0.72	14.4	0.65
65	11.5	1.75	12.8	1.5	13.6	1.4	13.7	1.1	65	12.8	1.4	14.7	0.88	15.8	0.69	16.4	0.64
60	13.6	1.26	14.8	1.1	15.4	1.05	15.5	1.0	60	15.1	1.2	16.9	0.82	17.8	0.67	18.3	0.64
55	15.6	0.91	16.6	0.84	17.1	0.8			55	17.2	0.85	18.9	0.77	19.7	0.66		
50	17.4	0.66	18.3	0.63	18.7	0.61			50	19.2	0.63	20.7	0.54	21.3	0.52		
45	19.0	0.48	19.8	0.42	20.1	0.42			45	21.0	0.42	22.3	0.35	22.7	0.35		
40	20.5	0.31	21.2	0.25					40	22.6	0.26	23.7	0.21				
35	21.9	0.17							35								

ON OUTRIGGERS MIDDLE EXTENDED 3.2 m SPREAD 360° ROTATION (Unit: x 1,000 kg)																	
C	23.3-m Boom + 4.5-m Jib								C	23.3-m Boom + 6.9-m Jib							
	5° Offset		25° Offset		45° Offset		60° Offset			5° Offset		25° Offset		45° Offset		60° Offset	
	R	W	R	W	R	W	R	W		R	W	R	W	R	W	R	W
82.5	3.2	2.0	4.8	2.0	5.9	1.55	6.4	1.2	82.5	3.7	1.5	6.1	1.3	7.8	0.82	8.8	0.69
75	6.9	2.0	8.3	1.7	9.3	1.4	9.7	1.15	75	7.8	1.5	9.9	1.05	11.4	0.75	12.2	0.66
70	9.3	1.6	10.6	1.35	11.5	1.25	11.8	1.1	70	10.4	1.35	12.4	0.96	13.7	0.72	14.4	0.65
65	11.5	0.95	12.7	0.84	13.4	0.79	13.7	0.77	65	12.8	0.83	14.7	0.7	15.8	0.64	16.4	0.63
60	13.6	0.52	14.6	0.46	15.3	0.44	15.4	0.43	60	15.0	0.45	16.7	0.38	17.7	0.35	18.1	0.35
55	15.6	0.22	16.5	0.19	17.0	0.18			55	17.1	0.18	18.7	0.14	19.5	0.13		

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

GR-200EX RATED LIFTING CAPACITIES

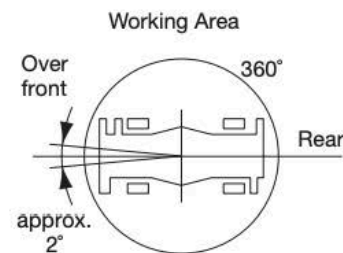
ON RUBBER STATIONARY								
B \ A	Over Front				360° Rotation			
	6.5	10.7	14.9	19.1	6.5	10.7	14.9	19.1
3.0	3.7	3.6	3.55	3.7	2.3	2.3	2.3	2.3
3.5	3.2	3.1	3.1	3.25	1.9	1.8	1.8	2.0
4.0	2.8	2.7	2.7	2.85	1.6	1.4	1.4	1.6
4.5	2.55	2.4	2.35	2.5	1.3	1.1	1.05	1.3
5.0	(4.4m)	2.1	2.05	2.2	(4.4m)	0.8	0.75	1.1
5.5		1.85	1.8	2.0		0.5	0.45	0.85
6.0		1.6	1.6	1.75				0.6
7.0		1.25	1.25	1.4				
8.0		1.0	0.9	1.1				
9.0			0.65	0.8				
10.0			0.4	0.6				
11.0			0.25	0.4				
12.0				0.25				
13.0				0.15				

ON RUBBER CREEP								
B \ A	Over Front				360° Rotation			
	6.5	10.7	14.9	19.1	6.5	10.7	14.9	19.1
3.0	2.6	2.6	2.6	2.6	1.6	1.6	1.6	1.6
3.5	2.3	2.2	2.2	2.3	1.3	1.2	1.2	1.3
4.0	1.9	1.9	1.9	2.0	1.0	0.9	0.9	1.1
4.5	1.7	1.6	1.6	1.8	0.9	0.7	0.7	0.9
5.0	(4.4m)	1.4	1.4	1.6	(4.4m)	0.6	0.5	0.7
5.5		1.2	1.2	1.4		0.35	0.3	0.6
6.0		1.1	1.1	1.2				0.45
7.0		0.8	0.8	1.0				
8.0		0.6	0.6	0.8				
9.0			0.45	0.6				
10.0			0.3	0.45				
11.0				0.35				

A: Boom length (m)
B: Load radius (m)

Note:
The lifting capacity data stored in the Automatic Moment Limiter (AML-E) is based on the standard number of parts of line listed in the chart. Standard number of parts of line for on rubber operation should be according to the following table.

Boom length	6.5 m to 19.1 m	Single top
Number of parts of line	4	1

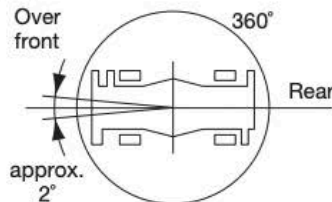


WARNING AND OPERATING INSTRUCTIONS FOR ON RUBBER LIFTING CAPACITIES

1. Rated lifting capacities based on crane stability are according to ISO4305.
2. Rated lifting capacities shown in the chart are based on the condition that crane is set on firm level surfaces with suspension lock applied. They are based on actual load radius increased by tire deformation and boom deflection.
3. If the suspension lock cylinders contain air, the axle will not be locked completely and rated lifting capacities may not be obtainable. Bleed the cylinders according to the operation safety and maintenance manual.
4. Rated lifting capacities are based on proper tire inflation, capacity and condition. Damaged tires are hazardous to safe operation of crane.
5. Tires shall be inflated to correct air pressure.

Tires	Air Pressure
445/80R25	700 kPa

6. Over front operation shall be performed within 2 degrees in front of chassis.



7. On rubber lifting with "jib" is not permitted. Maximum permissible boom length is 19.1 m.

8. When making lift on rubber stationary, set parking brake.
9. For creep operation, travel slowly and keep the lifted load as close to the ground as possible, and especially avoid any abrupt steering, accelerating or braking.
10. Do not operate the crane while carrying the load.
11. Creep is motion for crane not to travel more than 60 m in any 30 minutes period and to travel at the speed of less than 1.6 km/h.
12. For creep operation, choose the drive mode and proper gear according to the road or working condition.
13. The mass of the hook (175 kg for 20 t capacity, 50 kg for 3.2 t 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.
14. For rated lifting capacity of single top, reduce 125 kg from the rated lifting capacities of relevant boom according to a weight reduction for auxiliary load handling equipment. Capacities of single top shall not exceed 3,200 kg including main hook.
15. The lifting capacity data stowed in the Automatic Moment Limiter (AML-E) is based on the standard number of parts of line listed in the chart. Standard number of parts of line for on rubber operation should be according to the following table.

Boom length in meters	6.5 m	10.7 m	14.9 m	19.1 m	Single top
Number of parts of line	4	4	4	4	1

WARNING AND OPERATING INSTRUCTIONS FOR LIFTING CAPACITIES

GENERAL

1. RATED LIFTING CAPACITIES apply only to the machine as originally manufactured and normally equipped by TADANO LTD. Modifications to the machine or use of optional equipment other than that specified can result in a reduction of capacity.
2. Hydraulic cranes can be hazardous if improperly operated or maintained. Operation and maintenance of this machine must be in compliance with information in the **Operation and Maintenance Manual** supplied with the crane. If this manual is missing, order a replacement through the distributor.

SET UP

1. Rated lifting capacities on the chart are the maximum allowable crane capacities and are based on the machine standing level on firm supporting surface under ideal job conditions. Depending on the nature of the supporting surface, it may be necessary to have structural supports under the outrigger floats or tires to spread the loads to a larger bearing surface.
2. For outrigger operation, outriggers shall be properly extended with tires free of supporting surface before operating crane.

OPERATION

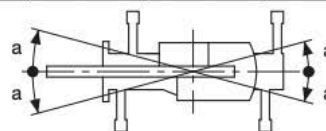
1. Rated lifting capacities on outriggers fully extended as determined by ISO4305.
2. They are based on actual load radius increased by boom deflection.
3. The weight of handling device such as hook blocks (175 kg for 20 t capacity, 50 kg for 3.2 t capacity), slings, etc., must be considered as part of the load and must be deducted from the lifting capacities.
4. Rated lifting capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions, inflation of tires, operating speeds, side loads, etc. Side pull on the boom or jib is extremely dangerous. Such action can damage the boom, jib or slewing mechanism, and lead to overturning of the crane.
5. Rated lifting capacities do not account for wind on lifted load or boom. We recommend against working under the conditions that the load is out of control due to a strong wind. During boom lift, consider that the rated lifting capacity is reduced by 50% when the wind speed is 9 m/s to 12 m/s, reduced by 70 % when the wind speed is 12 m/s to 14 m/s. If the wind speed is 14 m/s or over, stop operation. During jib lift, stop operation if the wind speed is 9 m/s or over.
6. Rated lifting capacities at load radius shall not be exceeded. Do not tip the crane to determine allowable loads.
7. Do not operate at boom lengths, radii, or boom angles, where no capacities are shown. Crane may overturn without any load on the hook.
8. When boom length is between values listed, refer to the rated lifting capacities of the next longer and next shorter booms for the same radius. The lesser of the two rated lifting capacities shall be used.
9. When making lifts at a load radius not shown, use the next longer radius to determine allowable capacity.
10. Load per line should not surpass 28.4 kN (2,900 kgf) for main winch and 31.4 kN (3,200 kgf) for auxiliary winch.
11. Check the actual number of parts of line with Automatic Moment Limiter (AML-E) before operation. Maximum lifting capacity is restricted by the number of parts of line of Automatic Moment Limiter (AML-E). Limited capacity is as determined from the formula, Single line pull for main winch 28.4 kN (2,900 kgf) x number of parts of line.
12. The boom angle before loading should be greater to account for deflection. For rated lifting capacities, the loaded boom angle and the load radius is for reference only.

13. The 6.5-m Boom length capacities are based on boom fully retracted.
14. Extension or retraction of the boom with loads may be attempted within the limits of the RATED LIFTING CAPACITIES. The ability to telescope loads is limited by hydraulic pressure, boom angle, boom length, crane maintenance, etc.
15. For lifting capacity of single top, deduct the weight of the load handling equipment from the rated lifting capacity of the boom. For the lifting capacity of single top, the net capacity shall not exceed 3,200 kg including the main boom hook mass attached to the boom.
16. Be careful that the hoist does not stop even when overwind condition occurs while "ANTI-TWO-BLOCK DEVICE" disable switch is pushed.
17. In the case of shorter boom length than 23.3m, rated lifting capacities are determined by loaded boom angle only in the column headed "23.3-m Boom + 4.5-m Jib" or "23.3-m Boom + 6.9-m Jib" according to the jib length.
18. For angles not shown, use the next lower loaded boom angle to determine allowable capacity.
19. The lifting capacity data stowed in the Automatic Moment Limiter (AML-E) is based on the standard number of parts of line listed in the chart. Standard number of parts of line for on outrigger operation should be according to the following table.

Boom length	6.5 m	10.7 m	14.9 m to 27.5 m	Single top/ jib
Number of parts of line	7	6	4	1

20. The lifting capacity for over side area differs depending on outrigger extension width. Work with 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	4.8m (middle)	4.4 m (middle)	3.2 m (middle)	1.79 m (minimum)
Angle a°	45	40	20	5



DEFINITIONS

1. Load Radius: Horizontal distance from a projection of the axis of rotation to supporting surface before loading to the center of the vertical hoist line or tackle with load applied.
2. Loaded Boom Angle: The angle between the boom base section and the horizontal, after lifting the rated lifting capacity at the load radius.
3. Working Area: Area measured in a circular arc about the centerline of rotation.
4. Freely Suspended Load: Load hanging free with no direct external force applied except by the hoist line.
5. Side Load: Horizontal side force applied to the lifted load either on the ground or in the air.

WARNING AND OPERATING INSTRUCTIONS FOR USING THE AUTOMATIC MOMENT LIMITER (AML-E)

1. Set AML select keys in accordance with the actually operating crane conditions and don't fail to make sure, before crane operation, that the displays on front panel are correct.
2. When operating crane on outriggers:
 - Set P.T.O. switch to "ON".
 - Press the outrigger state select key to register for the outrigger operation. If the display agrees with the actual state, press the set key to register. After the completion of the registration, the pop-up window closes.
 - Press the lift state select key to register the lift state to be used (single top / jib / boom).
 - Each time the lift state select key is pressed, the display changes. If the display agrees with the actual state, press the set key to register. After the completion of the registration, the pop-up window closes.
 - When erecting and stowing jib, select the status of jib set (Jib lift indicative symbol flickers).
3. When operating crane on rubber:
 - Set P.T.O. switch to "ON".
 - Press the outrigger state select key to register for the on rubber operation. Each time the outrigger state select key is pressed, the display changes. Select the creep operation, the on rubber state indicative symbol flickers.
 - Press the lift state select key to register the lift state.

However, pay attention to the following.
For stationary and creep operation.

 - The front capacities are attainable only when the over front position symbol comes on. When the boom is more than 2 degrees from centered over front of chassis, 360° capacities are in effect.
 - When a load is lifted in the front position and then slewed to the side area, make sure the value of the Automatic Moment Limiter (AML-E) is below the 360° lifting capacity.
4. This machine is equipped with an automatic slewing stop device.
(For the details, see Operation and Maintenance Manual.)
But, operate very carefully because the automatic slewing stop does not work in the following cases.
 - During on rubber operation.
5. During crane operation, make sure that the displays on front panel are in accordance with actual operating conditions.
6. The displayed values of Automatic Moment Limiter (AML-E) are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions, inflation of tire, operating speed, side loads, etc.
For safe operation, it is recommended when extending and lowering boom or slewing, lifting loads shall be appropriately reduced.
7. Automatic Moment Limiter (AML-E) is intended as an aid to the operator. Under no condition should it be relied upon to replace use of capacity charts and operating instruction. Sole reliance upon Automatic Moment Limiter (AML-E) aids in place of good operating practice can cause an accident. The operator must exercise caution to assure safety.

GR-200EX Axle weight distribution chart

	Kilograms		
	GW	Front	Rear
Basic machine	19,960	9,980	9,980
Permissible axle load	20,400	10,200	10,200