



**TRUCK CRANE
LIFTING CAPACITY CHARTS**

TG-500M-5



NOTES:

- 1. The total rated loads shown are for the case where the outriggers are set horizontally on firm ground. The values above the bold lines are based on the crane strength while those below the line are based on the crane stability.
- 2. The weights of the slings and hooks (50t hook: 460kg, 20t hook: 280kg, 4t hook: 100kg) are included in the total loads shown.
- 3. 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.
- 4. 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 40.0m boom.
- 5. Mark Θ in the chart of total rated loads shows the boom elevation angle with no load.
- 6. 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	10.65M	18.0M	25.3M	32.7M	40.0M	J
H	12	7	5	4	4	1

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

- 7. As a rule, free-fall operations should be performed only for lowering the hook alone. IF a hoisted load must be lowered by free-fall operation, the load must be kept below 1/5 of the total rated load (the load per line must be 0.85t or less for the main winch and 0.8t for less for the auxiliary winch) and sudden braking operations must be avoided. Free-fall operations should not be performed when the outriggers are not used.
- 8. The total rated load for the single top shall be the value obtained by subtracting the weight of the hook mounted to the total rated load of the boom and must not exceed 4.0t.
- 9. Total rated loads below bold lines do not exceed 75% of tipping load.
- 10. Special weather caution: Refer to the operation and maintenance manual.
- 11. Refer manufacturers manuals.



TOTAL RATED LOADS

[BOOM]
Performance A

Unit: ton

Over the sides : Outriggers fully extended (7.4m) Over the rear : Outriggers fully extended (7.4m) Outriggers middle extended (6.62m, 5.3m)					
A B	10.65m	18.0m	25.3m	32.7m	40.0m
3.0m	50.00	28.00			
3.5m	43.00	28.00			
4.0m	38.00	28.00	20.00		
4.5m	34.00	28.00	20.00		
5.0m	30.20	28.00	20.00		
5.5m	27.50	25.60	20.00	14.00	
6.0m	25.00	23.50	20.00	14.00	
6.5m	22.70	21.80	18.60	14.00	8.00
7.0m	20.70	20.00	17.30	13.50	8.00
7.5m	18.90	18.50	16.20	13.00	8.00
8.0m	17.40	17.00	15.30	12.50	8.00
8.5m	16.05	15.70	14.40	11.90	8.00
9.0m	14.90	14.70	13.60	11.30	8.00
10.0m		12.20	12.05	10.30	7.50
11.0m		10.20	10.05	9.40	6.95
12.0m		8.60	8.45	8.60	6.45
13.0m		7.30	7.20	7.90	6.00
14.0m		6.25	6.05	6.75	5.60
16.0m		4.50	4.35	5.15	4.85
18.0m			3.25	3.95	4.25
20.0m			2.30	3.05	3.60
22.0m			1.60	2.30	2.85
24.0m				1.70	2.25
26.0m				1.30	1.80
28.0m				0.85	1.35
30.0m					1.00
32.0m					0.70
34.0m					0.40
$\theta (^{\circ})$	0~80	0~80	0~80	0~80	28~80

A= Boom length B= Working radius
 θ = Boom angle range (for the unladen condition)



[BOOM]
Performance B

Unit: ton

Over the front : Outriggers fully extended (7.4m) + Front jack : Outriggers middle extended (6.62m, 5.3m) + Front jack					
A \ B	10.65m	18.0m	25.3m	32.7m	40.0m
3.0m	50.00	28.00			
3.5m	43.00	28.00			
4.0m	38.00	28.00	20.00		
4.5m	34.00	28.00	20.00		
5.0m	30.20	28.00	20.00		
5.5m	27.50	25.60	20.00	14.00	
6.0m	25.00	23.50	20.00	14.00	
6.5m	22.70	21.80	18.60	14.00	8.00
7.0m	20.70	20.00	17.30	13.50	8.00
7.5m	18.90	18.50	16.20	13.00	8.00
8.0m	17.30	17.00	15.30	12.50	8.00
8.5m	15.50	15.30	14.40	11.90	8.00
9.0m	13.90	13.75	13.60	11.30	8.00
10.0m		11.30	11.20	10.30	7.50
11.0m		9.45	9.35	9.40	6.95
12.0m		7.95	7.85	8.60	6.45
13.0m		6.75	6.65	7.50	6.00
14.0m		5.80	5.70	6.50	5.60
16.0m		4.30	4.20	5.00	4.85
18.0m			3.10	3.85	4.25
20.0m			2.25	3.00	3.40
22.0m			1.60	2.30	2.75
24.0m				1.70	2.15
26.0m				1.30	1.70
28.0m				0.85	1.30
30.0m					1.00
32.0m					0.70
34.0m					0.40
$\theta (^{\circ})$	0~80	0~80	0~80	0~80	28~80

A= Boom length B= Working radius
 θ = Boom angle range (for the unladen condition)



[BOOM]
Performance C

Unit:ton

Over the sides : Outriggers middle extended (6.62m)					
A \ B	10.65m	18.0m	25.3m	32.7m	40.0m
3.0m	42.00	28.00			
3.5m	38.00	28.00			
4.0m	34.50	28.00	20.00		
4.5m	31.50	28.00	20.00		
5.0m	28.40	28.00	20.00		
5.5m	26.20	25.60	20.00	14.00	
6.0m	24.00	23.50	20.00	14.00	
6.5m	21.90	21.80	18.60	14.00	8.00
7.0m	20.00	20.00	17.30	13.50	8.00
7.5m	18.40	18.30	16.20	13.00	8.00
8.0m	16.00	15.80	15.30	12.50	8.00
8.5m	14.00	13.90	13.80	11.90	8.00
9.0m	12.30	12.30	12.15	11.30	8.00
10.0m		9.75	9.65	10.30	7.50
11.0m		7.90	7.80	8.75	6.95
12.0m		6.50	6.40	7.30	6.45
13.0m		5.40	5.30	6.15	6.00
14.0m		4.50	4.40	5.25	5.60
16.0m		3.10	2.95	3.85	4.30
18.0m			1.85	2.80	3.25
20.0m			1.00	1.90	2.45
22.0m				1.25	1.75
24.0m				0.70	1.20
26.0m					0.75
$\theta (^{\circ})$	0~80	0~80	0~80	27~80	41~80

A= Boom length B= Working radius
 θ = Boom angle range (for the unladen condition)



[BOOM]
Performance D

Unit: ton

Over the sides : Outriggers middle extended (5.3m)					
A B	10.65m	18.0m	25.3m	32.7m	40.0m
3.0m	40.00	28.00			
3.5m	36.00	28.00			
4.0m	32.00	28.00	20.00		
4.5m	29.50	28.00	20.00		
5.0m	27.20	26.50	20.00		
5.5m	23.40	23.20	20.00	14.00	
6.0m	19.20	19.00	18.30	14.00	
6.5m	16.10	15.90	15.80	14.00	8.00
7.0m	13.70	13.60	13.45	13.50	8.00
7.5m	11.80	11.70	11.60	13.00	8.00
8.0m	10.30	10.20	10.10	11.10	8.00
8.5m	9.00	8.90	8.80	9.80	8.00
9.0m	7.90	7.85	7.75	8.75	8.00
10.0m		6.20	6.10	7.00	7.50
11.0m		4.95	4.85	5.70	6.20
12.0m		3.95	3.85	4.70	5.20
13.0m		3.15	3.05	3.90	4.35
14.0m		2.40	2.30	3.20	3.65
16.0m		1.30	1.15	2.10	2.60
18.0m				1.25	1.75
20.0m					1.10
$\theta (^{\circ})$	0~80	0~80	42~80	50~80	56~80

A= Boom length B= Working radius
 θ = Boom angle range (for the unladen condition)



Unit: ton

360° : Outriggers minimum extended (4.0m)
 Over the front : Outriggers fully extended (7.4m) + without front jack
 : Outriggers middle extended (6.62m, 5.3m) + without front jack

A= Boom length B= Working radius
 θ = Boom angle range (for the unladen condition)



[BOOM]
Performance F

Unit: ton

Over the rear : Without outriggers	
B \ A	10.65m
3.0m	8.00
3.5m	6.40
4.0m	5.10
4.5m	4.20
5.0m	3.40
5.5m	2.80
6.0m	2.30
6.5m	1.90
7.0m	1.60
7.5m	1.25
8.0m	1.00

A= Boom length
B= Working radius

Unit:ton

C D E (°)	40.0m Boom + 9.0m Jib						40.0m Boom + 14.6m Jib					
	5°		25°		45°		5°		25°		45°	
	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M
80	9.3	3.50	12.1	2.40	14.0	1.60	11.0	2.50	15.4	1.25	18.7	0.80
79	10.2	3.50	12.9	2.40	14.8	1.60	12.1	2.50	16.4	1.25	19.5	0.80
78	11.1	3.50	13.8	2.40	15.6	1.60	13.1	2.50	17.3	1.25	20.4	0.80
77	12.0	3.50	14.6	2.40	16.4	1.60	14.0	2.40	18.2	1.25	21.2	0.80
76	12.8	3.50	15.4	2.40	17.2	1.58	15.0	2.30	19.1	1.22	22.0	0.80
75	13.7	3.50	16.3	2.30	17.9	1.55	15.9	2.15	20.0	1.20	22.8	0.80
73	15.3	3.15	17.9	2.15	19.5	1.52	17.8	2.00	21.8	1.15	24.5	0.77
70	17.8	2.75	20.2	1.95	21.7	1.50	20.5	1.80	24.4	1.10	26.8	0.75
68	19.4	2.50	21.7	1.80	23.1	1.45	22.3	1.65	26.0	1.05	28.3	0.72
65	21.7	2.20	24.0	1.65	25.2	1.40	24.9	1.45	28.5	1.00	30.5	0.70
63	23.3	1.95	25.4	1.55	26.6	1.33	26.5	1.35	30.0	0.95	31.9	0.69
60	25.5	1.70	27.5	1.40	28.6	1.25	29.0	1.20	32.3	0.87	34.0	0.67
58	26.9	1.40	28.9	1.25	29.8	1.15	30.6	1.10	33.8	0.82	35.3	0.65
55	28.9	0.95	30.8	0.85	31.6	0.80	32.9	0.80	35.9	0.70	37.1	0.60
53	30.2	0.70	31.9	0.65	32.7	0.60	34.3	0.60	37.1	0.50	38.3	0.45
50	32.0	0.40	33.6	0.35	34.3	0.30	36.3	0.30				
θ (°)	49 ~ 80		49 ~ 80		49 ~ 80		49 ~ 80		52 ~ 80		52 ~ 80	

 θ = Boom angle range (for the unladen condition)



[JIB]
Performance H

Unit:ton

Over the sides : Outriggers middle extended (6.62m)												
C D	40.0m Boom + 9.0m Jib						40.0m Boom + 14.6m Jib					
	5°		25°		45°		5°		25°		45°	
E (°)	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M
80	9.3	3.50	12.1	2.40	14.0	1.60	11.0	2.50	15.4	1.25	18.7	0.80
79	10.2	3.50	12.9	2.40	14.8	1.60	12.1	2.50	16.4	1.25	19.5	0.80
78	11.1	3.50	13.8	2.40	15.6	1.60	13.1	2.50	17.3	1.25	20.4	0.80
77	12.0	3.50	14.6	2.40	16.4	1.60	14.0	2.40	18.2	1.25	21.2	0.80
76	12.8	3.50	15.4	2.40	17.2	1.58	15.0	2.30	19.1	1.22	22.0	0.80
75	13.7	3.50	16.3	2.30	17.9	1.55	15.9	2.15	20.0	1.20	22.8	0.80
73	15.3	3.15	17.9	2.15	19.5	1.52	17.8	2.00	21.8	1.15	24.5	0.77
70	17.8	2.75	20.2	1.95	21.7	1.50	20.5	1.80	24.4	1.10	26.8	0.75
68	19.4	2.50	21.7	1.80	23.1	1.45	22.3	1.65	26.0	1.05	28.3	0.72
65	21.7	2.20	24.0	1.65	25.2	1.40	24.9	1.45	28.5	1.00	30.5	0.70
63	23.3	1.65	25.4	1.50	26.6	1.33	26.5	1.35	30.0	0.95	31.9	0.69
60	25.5	1.10	27.5	1.00	28.6	0.95	29.0	0.90	32.3	0.76	34.0	0.67
58	26.9	0.80	28.9	0.70	29.8	0.70	30.6	0.60	33.8	0.55	35.3	0.53
θ (°)	56 ~ 80		56 ~ 80		56 ~ 80		56 ~ 80		57 ~ 80		57 ~ 80	

Performance I

Unit:ton

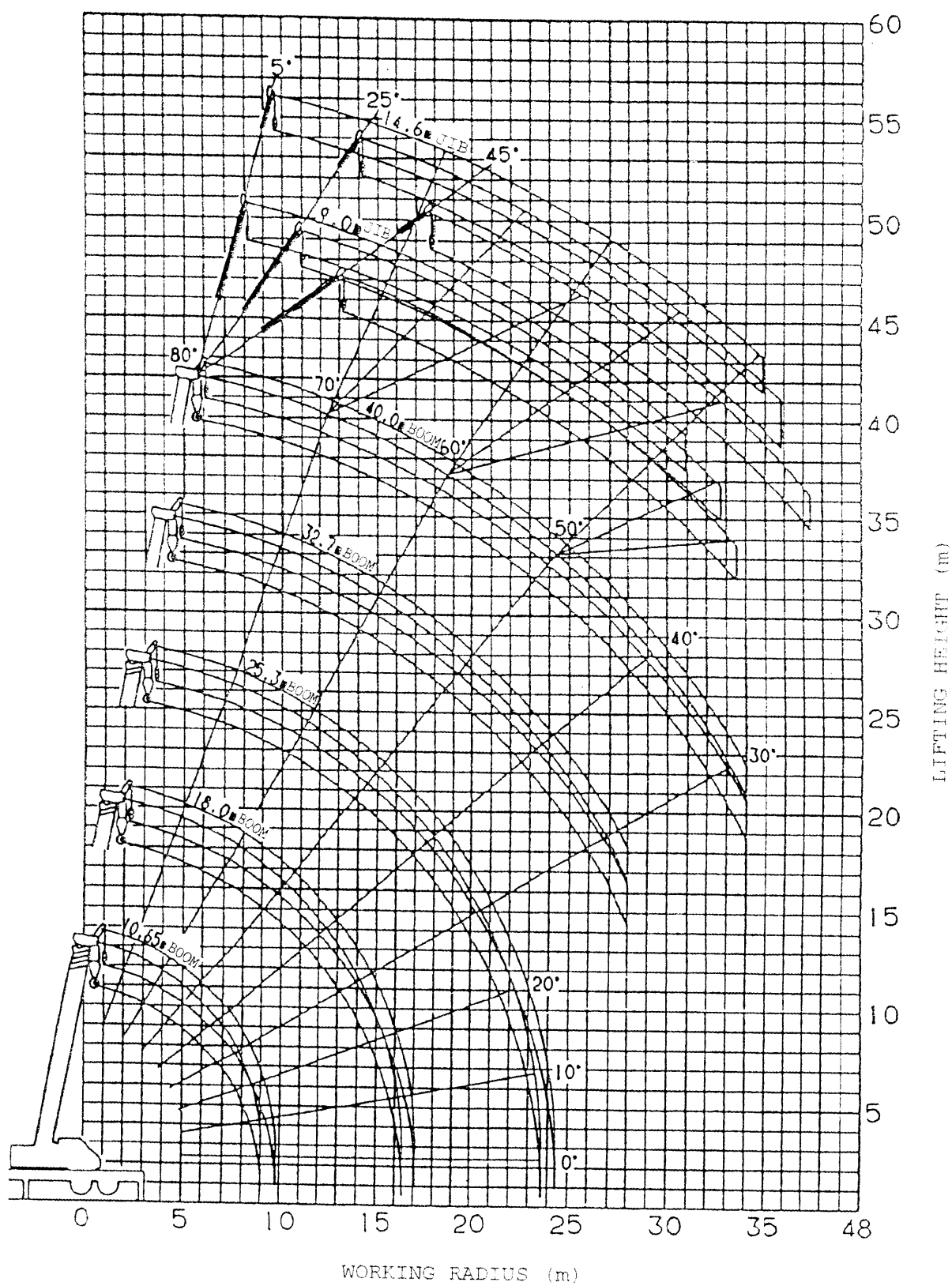
Over the sides : Outriggers middle extended (5.3m)												
C D	40.0m Boom + 9.0m Jib						40.0m Boom + 14.6m Jib					
	5°		25°		45°		5°		25°		45°	
E (°)	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M	B (m)	M
80	9.3	3.50	12.1	2.40	14.0	1.60	11.0	2.50	15.4	1.25	18.7	0.80
79	10.2	3.50	12.9	2.40	14.8	1.60	12.1	2.50	16.4	1.25	19.5	0.80
78	11.1	3.50	13.8	2.40	15.6	1.60	13.1	2.50	17.3	1.25	20.4	0.80
77	12.0	3.50	14.6	2.40	16.4	1.60	14.0	2.40	18.2	1.25	21.2	0.80
76	12.8	3.50	15.4	2.40	17.2	1.58	15.0	2.30	19.1	1.22	22.0	0.80
75	13.7	3.50	16.3	2.30	17.9	1.55	15.9	2.15	20.0	1.20	22.8	0.80
73	15.3	3.15	17.9	2.15	19.5	1.52	17.8	2.00	21.8	1.15	24.5	0.77
70	17.8	2.30	20.2	1.90	21.7	1.50	20.5	1.80	24.4	1.10	26.8	0.75
68	19.4	1.65	21.7	1.45	23.1	1.35	22.3	1.35	26.0	1.05	28.3	0.72
θ (°)	65 ~ 80		65 ~ 80		65 ~ 80		65 ~ 80		66 ~ 80		66 ~ 80	

B= Working radius C= Jib length D= Jib offset

E= Boom angle M= Total rated loads

θ = Boom angle range (for the unladen condition)

WORKING RADIUS - LIFTING HEIGHT



NOTES:

1. The deflection of the boom is not incorporated in the figure above
2. The above chart is for Performance A.