

# **ROUGH TERRAIN CRANE**

**TR-250M-5**

# TADANO TR-250M-5 HYDRAULIC ROUGH TERRAIN CRANE

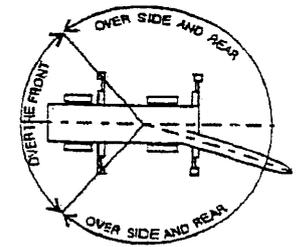
## TOTAL RATED LOAD IN KILOGRAMS

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

1. OUTRIGGERS FULLY EXTENDED (6.3m) - 360°												
A (m) \ B (m)	9.5m	16.5m	23.5m	30.5m	C		8.0m			13.0m		
					D	E	5°	25°	45°	5°	25°	45°
2.5	25.0	19.0	12.5		83°	3.0	2.1	1.6	2.0	1.2	0.8	
3.0	25.0	19.0	12.5	7.0	76°	3.0	2.1	1.6	2.0	1.2	0.8	
3.5	25.0	19.0	12.5	7.0	72°	3.0	2.1	1.6	1.75	1.1	0.8	
4.0	23.0	19.0	12.5	7.0	70°	2.8	2.1	1.6	1.65	1.05	0.8	
4.5	21.2	18.0	12.5	7.0	65°	2.35	1.8	1.5	1.4	0.95	0.78	
5.0	19.4	16.7	12.5	7.0	60°	2.0	1.55	1.35	1.2	0.9	0.75	
5.5	17.8	15.6	11.75	7.0	55°	1.45	1.35	1.2	1.05	0.85	0.74	
6.0	16.3	14.6	11.1	7.0	50°	1.05	1.0	0.95	0.85	0.75	0.7	
6.5	15.1	13.8	10.5	7.0	45°	0.75	0.7	0.7	0.6	0.55	0.55	
7.0	13.7	13.0	10.0	7.0	40°	0.55	0.5		0.4	0.4		
8.0		10.55	9.0	7.0	35°	0.38	0.35					
9.0		8.65	8.2	6.3								
10.0		7.05	7.3	5.8								
11.0		5.85	6.4	5.3								
12.0		4.95	5.5	4.9								
13.0		4.2	4.75	4.5								
14.0		3.6	4.1	4.15								
15.0			3.6	3.8								
16.0			3.15	3.45								
17.0			2.8	3.05								
18.0			2.45	2.7								
19.0			2.15	2.45								
20.0			1.9	2.2								
21.0			1.7	1.95								
22.0				1.75								
24.0				1.4								
26.0				1.15								
28.0				0.95								

A = Boom Length  
 B = Working Radius  
 C = Jib Length  
 D = Jib Offset  
 E = Boom Angle

Extended Width	Middle Extended (5.0m)	Middle Extended (3.6m)	Minimum Extended
Angle a°	25	15	5



### PRECAUTIONS TO BE TAKEN WHEN THE OUTRIGGERS ARE EXTENDED:

1. The total rated loads shown are for the case when the outriggers are set horizontally on firm ground. The values above the bold lines are based on the crane strength while those below are based on the crane stability.
2. Total rated loads below bold lines do not exceed 75% of tipping load.
3. The weights of slings and hooks (main winch hook: 260kg, intermediate hook: 170kg, auxiliary winch: 60kg) are included in the total rated loads shown.
4. The total rated load is based on the actual working radius including the deflection of the boom.
5. The chart below shows the standard number of part lines for each boom length. The load per line should not exceed 3.2t for the main winch and 3.0t for the auxiliary winch.

BOOM LENGTH	9.5m	16.5m	23.5m	30.5m	JIB / SINGLE TOP
NO. OF PART LINES	8	6	4	4	1

6. 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 1/5<sup>th</sup> of the total rated load and sudden braking operations must be avoided.
7. The total rated load for the single top shall be the value obtained by subtracting 200kg from the total rated load of the boom and must not exceed 3.0t.
8. 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.
9. Special weather caution: Refer to Operators Manual.
10. Refer to Crane Manual.

# TADANO TR-250M-5 HYDRAULIC ROUGH TERRAIN CRANE

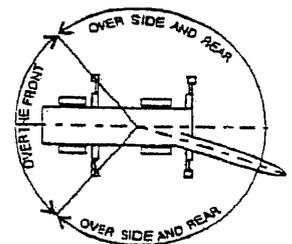
## TOTAL RATED LOAD IN KILOGRAMS

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

2. OUTRIGGERS MIDDLE EXTENDED (5.0m) – Over sides											
A (m) B (m)	9.5m	16.5m	23.5m	30.5m	C D E	8.0m			13.0m		
						5°	25°	45°	5°	25°	45°
2.5	25.0	19.0	12.5		83°	3.0	2.1	1.6	2.0	1.2	0.8
3.0	25.0	19.0	12.5		76°	3.0	2.1	1.6	2.0	1.2	0.8
3.5	25.0	19.0	12.5	7.0	72°	3.0	2.1	1.6	1.75	1.1	0.8
4.0	23.0	19.0	12.5	7.0	70°	2.8	2.1	1.6	1.65	1.05	0.8
4.5	21.2	18.0	12.5	7.0	65°	2.0	1.8	1.5	1.4	0.95	0.78
5.0	18.4	16.7	12.5	7.0	60°	1.3	1.15	1.1	1.0	0.9	0.75
5.5	15.4	15.0	11.75	7.0	55°	0.8	0.75	0.75	0.65	0.6	0.5
6.0	13.0	12.6	11.1	7.0	50°	0.5	0.45	0.45	0.4	0.35	0.3
6.5	11.2	10.8	10.5	7.0							
7.0	9.5	9.4	10.0	7.0							
8.0		7.3	8.0	7.0							
9.0		5.85	6.5	6.3							
10.0		4.75	5.4	5.6							
11.0		3.9	4.55	4.8							
12.0		3.3	3.85	4.15							
13.0		2.75	3.3	3.55							
14.0		2.3	2.85	3.1							
15.0			2.45	2.7							
16.0			2.1	2.35							
17.0			1.8	2.1							
18.0			1.55	1.8							
19.0			1.35	1.6							
20.0			1.15	1.4							
21.0			0.95	1.2							
22.0				1.05							
24.0				0.75							
26.0				0.5							

**A = Boom Length**  
**B = Working Radius**  
**C = Jib Length**  
**D = Jib Offset**  
**E = Boom Angle**

Extended Width	Middle Extended (5.0m)	Middle Extended (3.6m)	Minimum Extended
Angle a°	25	15	5



### PRECAUTIONS TO BE TAKEN WHEN THE OUTRIGGERS ARE EXTENDED:

- The total rated loads shown are for the case when the outriggers are set horizontally on firm ground. 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.
- The weights of slings and hooks (main winch hook: 260kg, intermediate hook: 170kg, auxiliary winch: 60kg) are included in the total rated loads shown.
- The total rated load is based on the actual working radius including the deflection of the boom.
- The chart below shows the standard number of part lines for each boom length. The load per line should not exceed 3.2t for the main winch and 3.0t for the auxiliary winch.

BOOM LENGTH	9.5m	16.5m	23.5m	30.5m	JIB / SINGLE TOP
NO. OF PART LINES	8	6	4	4	1

- 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 1/5<sup>th</sup> of the total rated load and sudden braking operations must be avoided.
- The total rated load for the single top shall be the value obtained by subtracting 200kg from the total rated load of the boom and must not exceed 3.0t.
- 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.
- Special weather caution: Refer to Operators Manual.
- Refer to Crane Manual.

# TADANO TR-250M-5 HYDRAULIC ROUGH TERRAIN CRANE

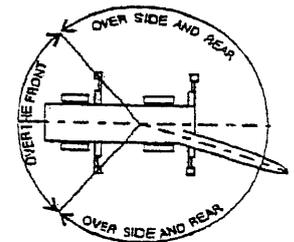
## TOTAL RATED LOAD IN KILOGRAMS

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

3. OUTRIGGERS MIDDLE EXTENDED (3.6m) – Over sides											
A (m) B (m)	9.5m	16.5m	23.5m	30.5m	C D E	8.0m			13.0m		
						5°	25°	45°	5°	25°	45°
2.5	25.0	19.0	12.5		83°	3.0	2.1	1.6	2.0	1.2	0.8
3.0	25.0	19.0	12.5		76°	3.0	2.1	1.6	2.0	1.2	0.8
3.5	<b>20.5</b>	<b>19.0</b>	12.5	7.0	72°	<b>2.2</b>	<b>1.8</b>	1.6	1.75	1.1	0.8
4.0	16.0	<b>15.7</b>	12.5	7.0	70°	1.8	1.5	1.35	1.4	<b>1.05</b>	0.8
4.5	12.8	12.6	12.5	7.0	65°	1.0	0.9	0.8	0.8	0.65	0.55
5.0	10.7	10.5	11.0	7.0	60°	0.5	0.45	0.4	0.4	0.35	0.3
5.5	9.05	8.8	9.4	7.0							
6.0	7.7	7.6	8.2	7.0							
6.5	6.6	6.5	7.25	7.0							
7.0	5.8	5.6	6.4	6.5							
8.0		4.4	5.05	5.3							
9.0		3.4	4.05	4.35							
10.0		2.7	3.3	3.65							
11.0		2.15	2.75	3.05							
12.0		1.7	2.3	2.6							
13.0		1.3	1.9	2.2							
14.0		1.0	1.6	1.85							
15.0			1.35	1.55							
16.0			1.1	1.3							
17.0			0.9	1.05							
18.0			0.7	0.9							
19.0			0.5	0.7							
20.0				0.55							

A = Boom Length  
 B = Working Radius  
 C = Jib Length  
 D = Jib Offset  
 E = Boom Angle

Extended Width	Middle Extended (5.0m)	Middle Extended (3.6m)	Minimum Extended
Angle a°	25	15	5



### PRECAUTIONS TO BE TAKEN WHEN THE OUTRIGGERS ARE EXTENDED:

- The total rated loads shown are for the case when the outriggers are set horizontally on firm ground. 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.
- The weights of slings and hooks (main winch hook: 260kg, intermediate hook: 170kg, auxiliary winch: 60kg) are included in the total rated loads shown.
- The total rated load is based on the actual working radius including the deflection of the boom.
- The chart below shows the standard number of part lines for each boom length. The load per line should not exceed 3.0t for the main winch and 3.0t for the auxiliary winch.

BOOM LENGTH	9.5m	16.5m	23.5m	30.5m	JIB / SINGLE TOP
NO. OF PART LINES	8	6	4	4	1

- 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 1/5<sup>th</sup> of the total rated load and sudden braking operations must be avoided.
- The total rated load for the single top shall be the value obtained by subtracting 200kg from the total rated load of the boom and must not exceed 3.0t.
- 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.
- Special weather caution: Refer to Operators Manual.
- Refer to Crane Manual.

# TADANO TR-250M-5 HYDRAULIC ROUGH TERRAIN CRANE

## TOTAL RATED LOAD IN KILOGRAMS

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

4: WITHOUT OUTRIGGERS												
B (m)	STATIONARY						CREEP (travelling at 1.6 km/h or less)					
	9.5m Boom		16.5m Boom		23.5m Boom		9.5m Boom		16.5m Boom		23.5m Boom	
	Over Front	360°	Over Front	360°	Over Front	360°	Over Front	360°	Over Front	360°	Over Front	360°
3.0	14.0	9.0	9.0	7.3			10.5	7.0	7.5	5.1		
3.5	14.0	7.6	9.0	7.3	6.5	4.5	10.5	6.2	7.5	5.1	5.5	3.2
4.0	12.5	6.3	9.0	5.85	6.5	4.5	9.5	5.3	7.5	4.9	5.5	3.2
4.5	10.9	5.2	9.0	4.75	6.5	4.5	8.7	4.4	7.5	3.95	5.5	3.2
5.0	9.55	4.3	8.2	4.0	6.5	4.3	8.0	3.6	7.0	3.3	5.5	3.2
5.5	8.3	3.6	7.4	3.3	6.1	3.7	6.9	3.0	6.2	2.7	5.15	3.1
6.0	7.2	3.0	6.6	2.8	5.65	3.2	5.9	2.5	5.5	2.3	4.8	2.7
6.5	6.25	2.5	5.9	2.35	5.25	2.75	5.1	2.1	4.9	1.9	4.45	2.3
7.0	5.2	2.0	5.25	1.95	4.85	2.4	4.3	1.7	4.35	1.6	4.15	2.0
8.0			4.1	1.4	4.1	1.8			3.4	1.1	3.5	1.5
9.0			3.25	0.95	3.5	1.4			2.7	0.7	2.95	1.1
10.0			2.6	0.6	3.0	1.05			2.15		2.45	0.8
11.0			2.1		2.55	0.75			1.7		2.05	0.6
12.0			1.7		2.2				1.35		1.7	
13.0			1.35		1.85				1.1		1.45	
14.0			1.0		1.55				0.8		1.2	
15.0					1.3						1.0	
16.0					1.05						0.85	
17.0					0.85						0.7	
18.0					0.65						0.55	
19.0					0.5							

B : WORKING RADIUS (m)

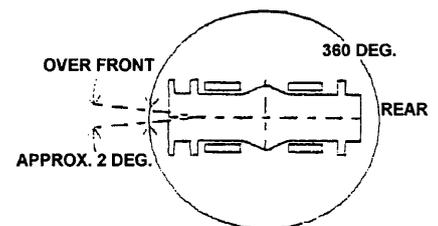
**NOTE:** Stationary load capacities do not exceed 75% of tipping load. Pick and carry 1.6km/h or less load capacities do not exceed 66 2/3% of tipping load.

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

- The total rated loads shown are for the case when the crane is set horizontally on firm ground, with the air pressure of the tyres being at the prescribed pressure and with the spring lock being applied completely. The values above the bold lines are based on the tyre strength while those below are based on the crane stability. The foundation, working conditions, etc, should be taken into consideration adequately when using the crane for actual work. (Tyre air pressure: 8.0kg/cm<sup>2</sup>).
- The weights of the slings and hooks are included in the total rated loads shown.
- The total rated loads are based on the actual working radii into which are included the deflection of the boom and the tyres.
- The chart below shows the standard number of part lines for each boom length. The load per line should not exceed 3.2t for the main winch and 3.0t for the auxiliary winch.

BOOM LENGTH	9.5m	16.5m	23.5m	JIB / SINGLE TOP
NO. OF PART LINES	8	6	4	1

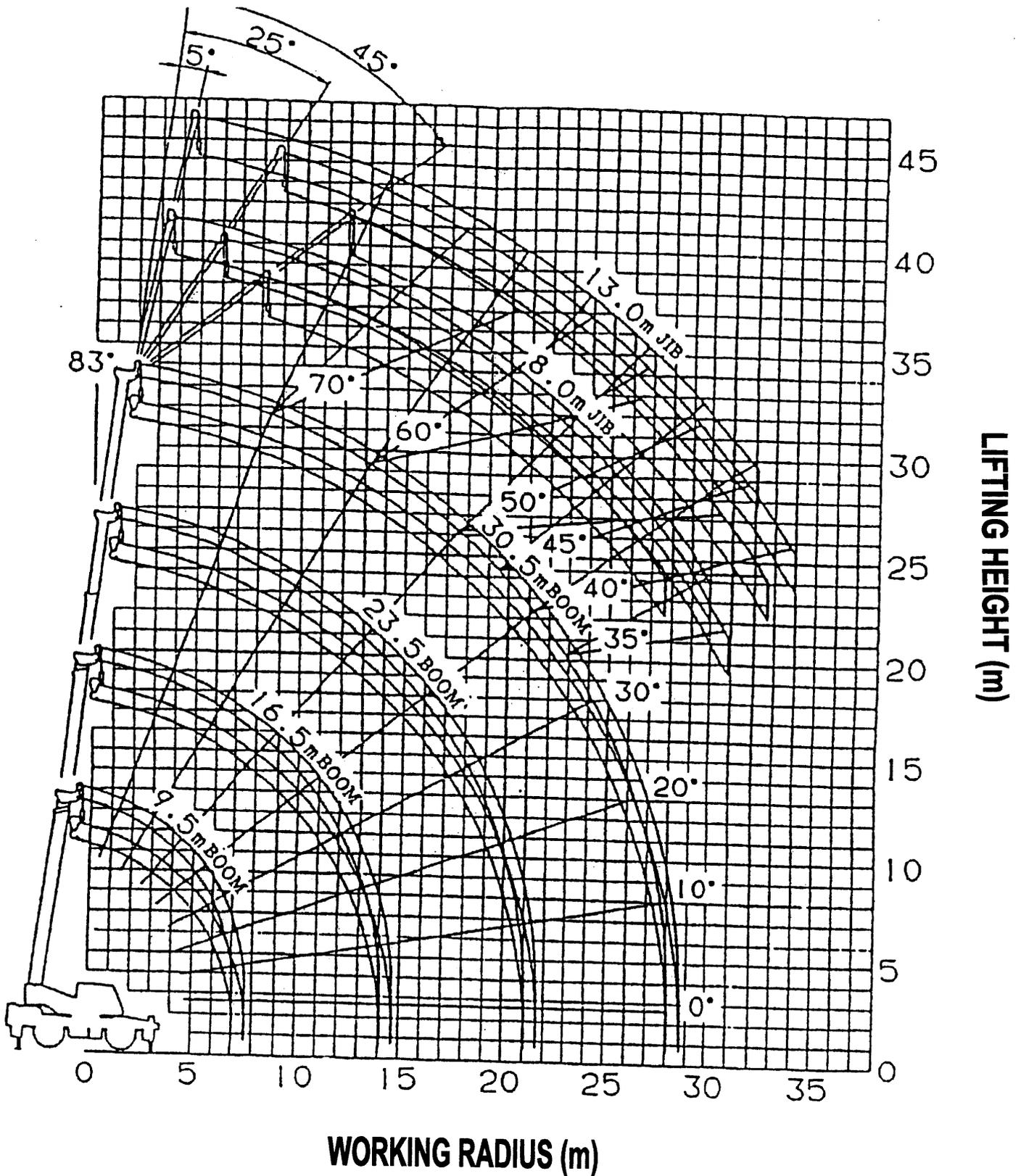
- The total rated load for the single top shall be the value obtained by subtracting 200kg from the total rated load of the boom and must not exceed 3.0t.
- Free-fall operations should not be performed without outriggers.
- Booms over 30.5m in length and jibs should not be used without outriggers.
- "Over front" crane operations should be performed with the boom being inside a 2° area (1° each to the left and right over front of the carrier).
- 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.
- Crane operations should not be performed when creeping while hoisting a load.
- Special weather caution: Refer to Operators Manual.
- Refer to Crane Manual.



**WORKING AREA DIAGRAM WITHOUT OUTRIGGERS 'OVER FRONT' OPERATION SHOULD BE PERFORMED WITHIN 2 DEGREES IN FRONT OF CHASSIS.**

# TADANO TR-250M-5 HYDRAULIC ROUGH TERRAIN CRANE

## 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 when the outriggers are fully extended (360°)