

GR-160-N – TADANO RT MOBILE CRANE



TECHNICAL SPECIFICATIONS

Maximum lifting capacity / radius:	16t
Main boom:	6.5 – 27.5m (6 section)
Main boom extension:	21.0m
Maximum system length:	15.86 + 2.66 = 18.4m
Overall length:	8.230m
Carrier length:	6.615m
Turning radius over boom head:	11.4 / 9.7m
Carrier engine:	Model Cummins OSB5.9-2A (with turbo charger and air cooler) Type 4-cycle, 6-cylinder, direct-injection, water-cooled diesel engine. Piston displacement 5.883 litres. Maximum output 160kW(218PS) at 2,300min' (rpm). Max. torque 847N•m (86.4kgf•m) at 1,500min' (rpm)
Maximum travel speed:	85 km/h
Drive Axles:	2-wheel drive (4x2) / 4-wheel drive (4x4) selection. Full floating shaft tube type front and rear
Steering:	Full Hydraulic Power steering with reverse steering correction mechanism.
Tyres:	17.5 R25 or 445/80 R25 Front & Rear
Maximum gradeability:	(tan B) 0.6

TOTAL RATED LOADS

(1) With outriggers BOOM

Unit: Tonne

A	Outriggers fully extended (5.2m)						~360°~
	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m	
2.5 m	16.0	12.0	9.0	7.0			
3.0 m	16.0	12.0	9.0	7.0			
3.5 m	14.0	12.0	9.0	7.0	5.0	3.5	
4.0 m	12.5	12.0	9.0	7.0	5.0	3.5	
4.5 m	11.7	11.1	9.0	7.0	5.0	3.5	
5.0 m	(4.4 m)	10.25	8.9	7.0	5.0	3.5	
5.5 m		9.4	8.2	7.0	5.0	3.5	
6.0 m		8.8	7.6	6.6	5.0	3.5	
7.0 m		6.75	6.4	5.8	4.7	3.5	
8.0 m		5.3	5.0	5.2	4.15	3.4	
9.0 m		4.5	4.0	4.3	3.7	3.1	
10.0 m		(8.6 m)	3.25	3.5	3.3	2.8	
11.0 m			2.65	2.95	3.0	2.55	
12.0 m			2.15	2.45	2.65	2.35	
13.0 m			1.8	2.05	2.25	2.15	
14.0 m			(12.8 m)	1.75	1.95	2.0	
15.0 m				1.45	1.7	1.75	
16.0 m				1.25	1.45	1.5	
17.0 m				1.05	1.25	1.3	
18.0 m					1.05	1.1	
19.0 m					0.9	0.95	
20.0 m					0.75	0.8	
22.0 m					0.6	0.6	
24.0 m					(21.2 m)	0.45	
a (°)	0 ~ 82.5						

A = Boom length B = Working radius

a = Boom angle range (for the unladen condition)

BOOM

Unit: Tonne

Outriggers middle extended (4.8m) ~Over sides~						
A	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	16.0	12.0	9.0	7.0		
3.0 m	16.0	12.0	9.0	7.0		
3.5 m	14.0	12.0	9.0	7.0	5.0	3.5
4.0 m	12.5	12.0	9.0	7.0	5.0	3.5
4.5 m	11.7	11.1	9.0	7.0	5.0	3.5
5.0 m	(4.4 m)	10.25	8.9	7.0	5.0	3.5
5.5 m		9.2	8.2	7.0	5.0	3.5
6.0 m		7.9	7.6	6.6	5.0	3.5
7.0 m		5.85	5.85	5.8	4.7	3.5
8.0 m		4.55	4.5	4.85	4.15	3.4
9.0 m		3.9	3.55	3.9	3.7	3.1
10.0 m		(8.6m)	2.8	3.15	3.3	2.8
11.0 m			2.25	2.6	2.8	2.55
12.0 m			1.8	2.15	2.35	2.35
13.0 m			1.5	1.75	1.95	2.1
14.0 m			(12.8m)	1.45	1.65	1.75
15.0 m				1.2	1.4	1.5
16.0 m				1.0	1.2	1.3
17.0 m				0.85	1.0	1.1
18.0 m					0.85	0.95
19.0 m					0.7	0.8
20.0 m					0.55	0.65
22.0 m						0.45
a(*)	0~82.5					24~82.5

A = Boom length B = Working radius

a = Boom angle range (for the unladen condition)

BOOM

Unit: Tonne

Outriggers middle extended (4.4m) ~Over sides~						
A	6.5	10.7 m	14.9 m	19.1 m	23.3 m	27.5m
2.5 m	16.0	12.0	9.0	7.0		
3.0 m	16.0	12.0	9.0	7.0		
3.5 m	14.0	12.0	9.0	7.0	5.0	3.5
4.0 m	12.5	12.0	9.0	7.0	5.0	3.5
4.5 m	11.7	11.1	9.0	7.0	5.0	3.5
5.0 m	(4.4m)	9.5	8.9	7.0	5.0	3.5
5.5 m		8.0	7.9	7.0	5.0	3.5
6.0 m		6.8	6.7	6.6	5.0	3.5
7.0 m		5.05	5.0	5.35	4.7	3.5
8.0 m		3.85	3.85	4.15	4.15	3.4
9.0 m		3.3	3.0	3.3	3.55	3.1
10.0 m		(8.6m)	2.35	2.65	2.9	2.8
11.0 m			1.85	2.15	2.4	2.5
12.0 m				1.75	2.0	2.1
13.0 m			1.15	1.45	1.65	1.8
14.0 m			(12.8m)	1.15	1.4	1.55
15.0m				0.95	1.15	1.3
16.0 m				0.75	0.95	1.1
17.0 m				0.6	0.8	0.9
18.0 m					0.65	0.75
19.0 m					0.5	0.6
20.0 m						0.5
a (°)	0 ~ 82.5					32~82.5

A = Boom length B = Working radius

a = Boom angle range (for the unladen condition)

BOOM

Unit: tonne

Outriggers middle extended (3.2m) ~Over sides~						
A \ B	6.5 m	10.7 m	14.9 m	19.1 m	23.3 m	27.5 m
2.5 m	16.0	12.0	9.0	7.0		
3.0 m	14.5	12.0	9.0	7.0		
3.5 m	10.5	10.4	9.0	7.0	5.0	3.5
4.0 m	8.0	8.25	7.9	7.0	5.0	3.5
4.5 m	6.8	6.6	6.5	7.0	5.0	3.5
5.0 m	(4.4m)	5.45	5.4	5.8	5.0	3.5
5.5 m		4.6	4.5	4.9	5.0	3.5
6.0 m		3.9	3.9	4.2	4.4	3.5
7.0 m		2.9	2.85	3.15	3.3	3.4
8.0 m		2.15	2.1	2.4	2.6	2.75
9.0 m		1.8	1.55	1.85	2.05	2.2
10.0 m		(8.6m)	1.1	1.45	1.65	1.8
11.0 m			0.75	1.1	1.3	1.45
12.0 m			0.5	0.8	1.0	1.15
13.0 m				0.55	0.8	0.9
14.0 m				0.4	0.6	0.7
15.0 m					0.4	0.55
a (°)	0 ~ 82.5			32~82.5	45~82.5	54~82.5

A = Boom length B = Working radius

a = Boom angle range (for the unladen condition)

Unit: Tonne

Outriggers minimum extended (1.79m) ~Over sides~						
A \ B	6.5m	10.7m	14.9m	19.1 m	23.3m	27.5m
2.5 m	7.0	7.0	7.0	7.0		
3.0 m	5.9	5.6	5.6	5.75		
3.5m	4.5	4.3	4.25	4.6	4.6	3.5
4.0m	3.5	3.4	3.3	3.65	3.8	3.5
4.5m	2.9	2.7	2.65	3.0	3.15	3.2
5.0 m	(4.4m)	2.2	2.1	2.45	2.65	2.75
5.5m		1.8	1.65	2.0	2.2	2.3
6.0 m		1.4	1.3	1.65	1.85	1.95
7.0 m		0.85	0.75	1.1	1.3	1.45
a (°)	0 ~ 82.5	36~82.5	55~82.5	64~82.5	69~82.5	72~82.5

A = Boom length B = Working radius

a = Boom angle range (for the unladen condition)

JIB

Unit: tonne

Outriggers fully extended (5.2 m) ~360°~						
Jib length	27.5 m Boom + 3.8 m Jib					
Offset	5°		25°		45°	
Boom angle	Working radius (m)	Total rated loads (t)	Working radius (m)	Total rated loads (t)	Working radius (m)	Total rated loads (t)
82.5°	3.6	2.0	4.7	1.5	5.7	1.25
75°	8.0	2.0	8.9	1.5	9.6	1.25
70°	10.8	2.0	11.6	1.5	12.1	1.25
65°	13.2	1.6	14.0	1.35	14.5	1.25
60°	15.5	1.35	16.3	1.2	16.7	1.15
55°	17.7	1.1	18.4	1.1	18.8	1.05
50°	19.7	0.95	20.4	0.9	20.7	0.9
45°	21.6	0.75	22.2	0.7	22.4	0.7
40°	23.3	0.6	23.8	0.55		
35°	24.8	0.45	25.2	0.4		
30°	26.1	0.35	26.4	0.3		
25°	27.2	0.25				
a (°)	24~82.5		29~82.5		44~82.5	

a = Boom angle range (for the unladen condition)

Unit: tonne

Outriggers middle extended (4.8 m) ~Over sides~						
Jib length	27.5 m Boom + 3.8 m Jib					
Offset	50°		25°		45°	
Boom angle	Working radius (m)	Total rated loads (t)	Working radius (m)	Total rated loads (t)	Working radius (m)	Total Rated loads (t)
82.5°	3.6	2.0	4.7	1.5	5.7	1.25
75°	8.0	2.0	8.9	1.5	9.6	1.25
70°	10.8	2.0	11.6	1.5	12.1	1.25
65°	13.2	1.6	14.0	1.35	14.5	1.25
60°	15.5	1.35	16.3	1.2	16.7	1.15
55°	17.7	1.05	18.4	1.0	18.8	0.95
50°	19.7	0.8	20.3	0.75	20.6	0.7
45°	21.5	0.55	22.1	0.55	22.3	0.5
40°	23.2	0.4	23.7	0.4		
35°	24.7	0.3	25.1	0.3		
a (°)	34~82.5				44~82.5	

a = Boom angle range (for the unladen condition)

JIB

Unit: tonne

Outriggers middle extended (4.4m) ~Over sides~						
Jib length	27.5 m Boom + 3.8 m Jib					
Offset	5°		25°		45°	
Boom angle	Working radius (m)	Total rated loads (t)	Working radius (m)	Total rated loads (t)	Working radius (m)	Total Rated loads (t)
82.5°	3.6	2.0	4.7	1.5	5.7	1.25
75°	8.0	2.0	8.9	1.5	9.6	1.25
70°	10.8	2.0	11.6	1.5	12.1	1.25
65°	13.2	1.6	14.0	1.35	14.5	1.25
60°	15.4	1.15	16.3	1.1	16.7	1.05
55°	17.6	0.85	18.4	0.85	18.7	0.8
50°	19.6	0.6	20.3	0.6	20.5	0.55
45°	21.5	0.4	22.1	0.4	22.3	0.4
40°	23.1	0.25	23.7	0.25		
a (°)	39~82.5				44~82.5	

a = Boom angle range (for the unladen condition)

Unit: tonne

Outriggers middle extended (3.2 m) ~Over sides~						
Jib length	27.5 m Boom + 3.8 m Jib					
Offset	5°		25°		45°	
Boom angle	Working radius (m)	Total rated loads (t)	Working radius (m)	Total rated loads (t)	Working radius (m)	Total Rated loads (t)
82.5°	3.6	2.0	4.7	1.5	5.7	1.25
75°	8.0	2.0	8.9	1.5	9.6	1.25
72°	9.5	1.65	10.5	1.45	11.1	1.25
70°	10.5	1.4	11.5	1.3	12.1	1.15
65°	12.9	0.9	13.8	0.85	14.3	0.75
60°	15.2	0.55	16.0	0.55	16.4	0.45
55°	17.3	0.3	18.1	0.3	18.4	0.25
a (°)	54~82.5					

a = Boom angle range (for the unladen condition)

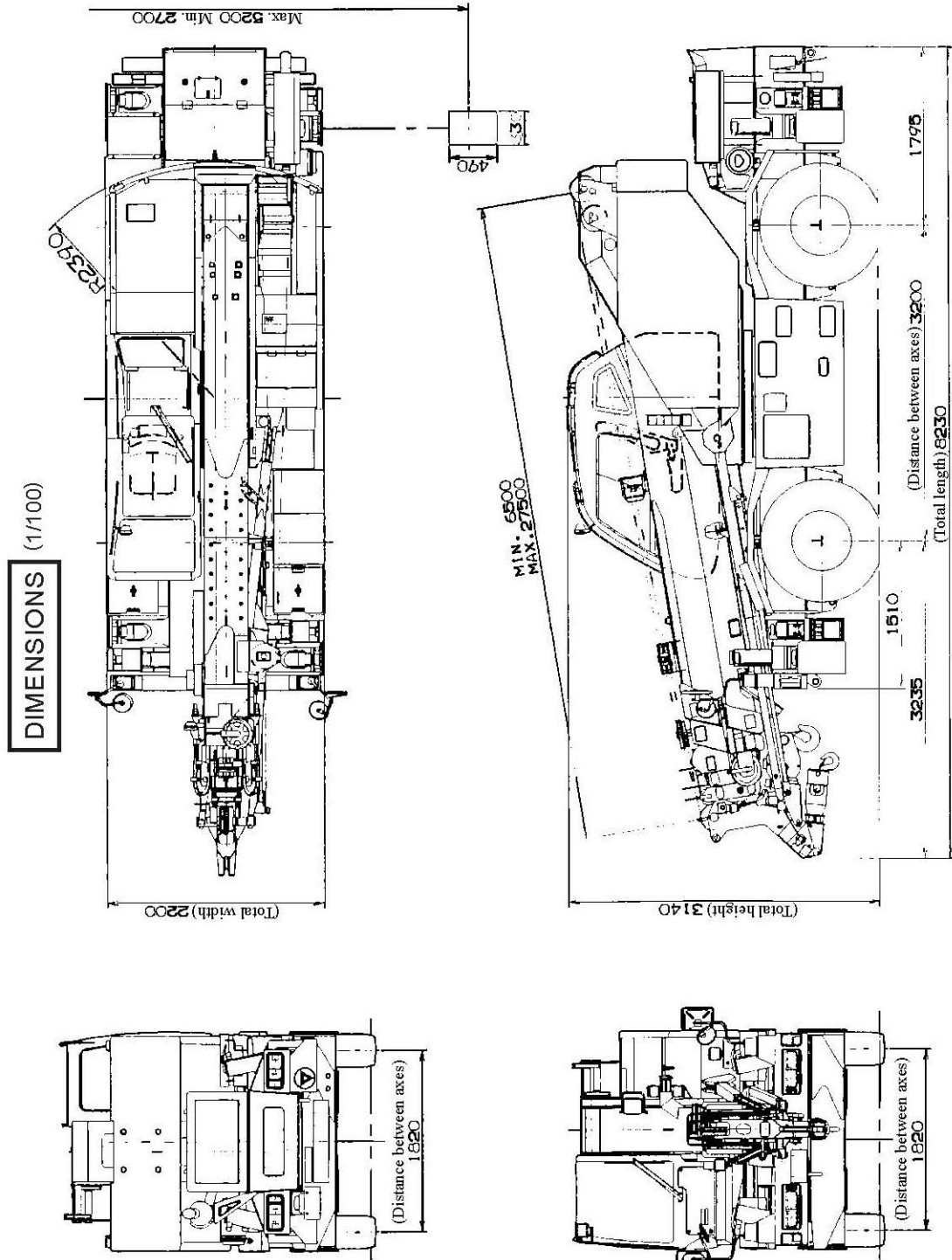
Without Outriggers (Stationary)								Unit : ton
Working Radius	6.5 m boom		10.7 m boom		14.9 m boom		19.1 m boom	
	Front	-360°-	Front	-360°-	Front	-360°-	Front	-360°-
3.0 m	8.0	4.4	7.5	4.5	5.2	4.65	5.0	4.7
3.5 m	7.7	3.5	7.5	3.65	5.2	3.7	5.0	4.0
4.0 m	7.3	2.8	7.5	3.0	5.2	3.0	5.0	3.25
4.5 m	6.6	2.2	6.4	2.4	4.75	2.35	4.55	2.6
5.0 m	(4.0 m)	(4.4 m)	5.45	1.9	4.25	1.8	4.1	2.1
5.5 m			4.6	1.5	3.8	1.4	3.7	1.7
6.0 m			3.9	1.15	3.45	1.05	3.4	1.35
7.0 m			2.95	0.6	2.6	0.5	2.8	0.85
8.0 m			2.25		1.9		2.25	0.45
9.0 m					1.4		1.8	
10.0 m					1.05		1.4	
11.0 m					0.75		1.05	
12.0 m					0.5		0.8	
13.0 m							0.6	
14.0 m							0.4	
A (°)	0 ~ 82.5			25 ~ 82.5	0 ~ 82.5	51 ~ 82.5	35 ~ 82.5	60 ~ 82.5

A = Boom angle range (for the unladen condition)

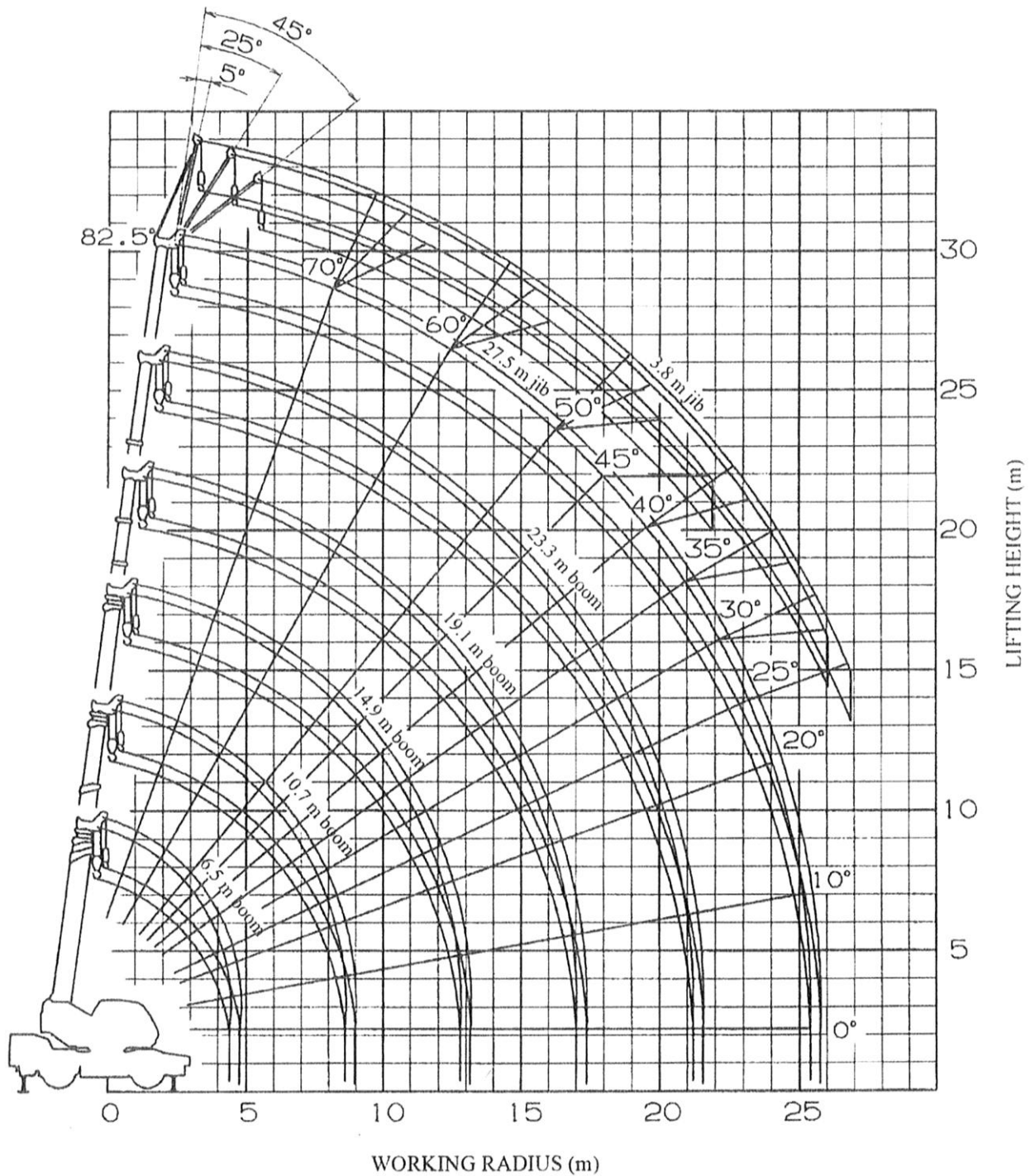
Without Outriggers (Travelling at 1.6km/h or less)								Unit : ton
Working Radius	6.5 m boom		10.7 m boom		14.9 m boom		19.1 m boom	
	Front	-360°-	Front	-360°-	Front	-360°-	Front	-360°-
3.0 m	6.7	3.7	6.3	3.8	4.3	3.8	4.1	3.9
3.5 m	6.5	2.95	6.3	3.0	4.3	3.1	4.1	3.35
4.0 m	6.1	2.35	6.0	2.45	4.3	2.5	4.1	2.7
4.5 m	5.5	1.85	5.4	2.0	3.9	2.0	3.75	2.15
5.0 m	(4.0 m)	(4.4 m)	4.5	1.6	3.5	1.55	3.35	1.7
5.5 m			3.8	1.25	3.2	1.15	3.0	1.35
6.0 m			3.25	0.95	2.95	0.85	2.8	1.1
7.0 m			2.45	0.45	2.15	0.4	2.45	0.7
8.0 m			1.8		1.6		1.9	
9.0 m					1.2		1.45	
10.0 m					0.85		1.1	
11.0 m					0.6		0.85	
12.0 m					0.35		0.6	
13.0 m							0.4	
A (°)	0 ~ 82.5			25 ~ 82.5	0 ~ 82.5	51 ~ 82.5	35 ~ 82.5	60 ~ 82.5

A = Boom angle range (for the unladen condition)

DIMENSIONS



WORKING RADIUS / LIFTING HEIGHT



NOTES:

1. The deflection of the boom and the jib are not incorporated in the figure above.
2. The figure above is for the case where the outriggers are fully extended (360 degrees)