



**T.S.K. CRANE SERVICE CO.,LTD.**

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# Load Chart

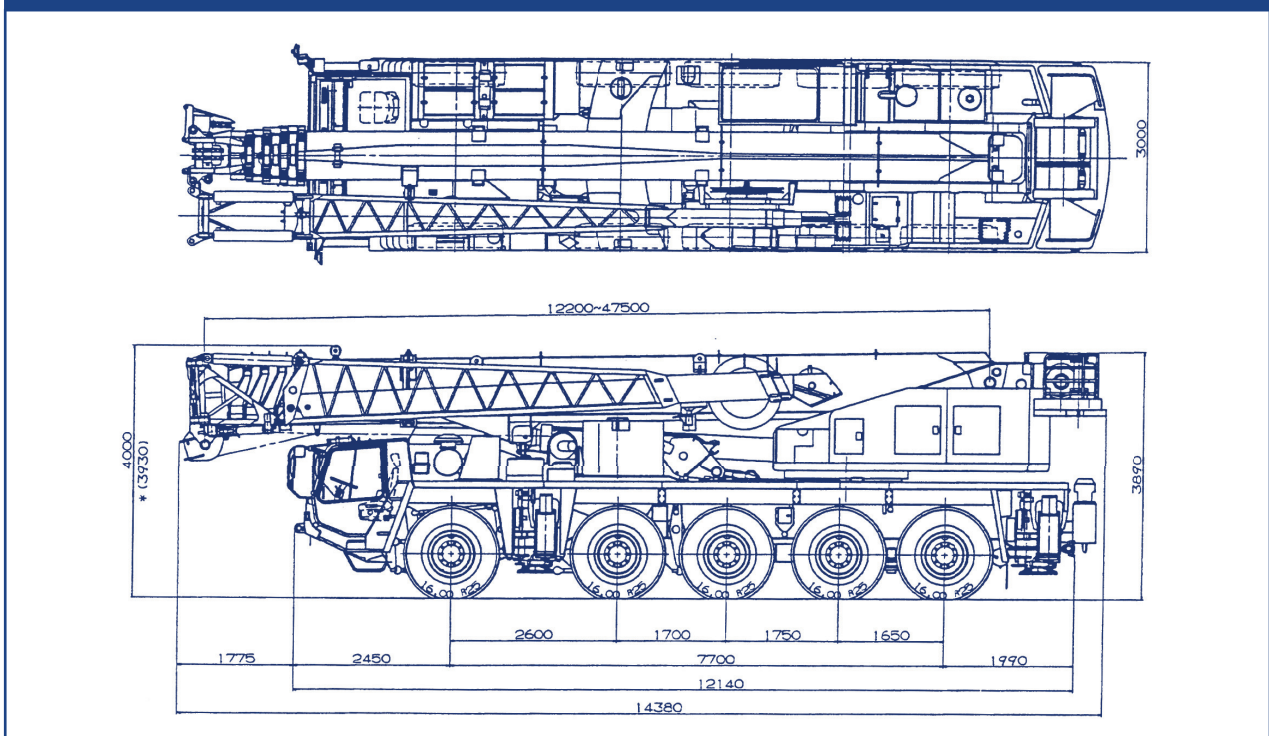


**FOR ROUGH TERRAIN CRANE 120 TONS  
MODEL : TADANO AR - 1200M - 1**

### CRANE SPECIFICATIONS

Max. Lifting Height	120 ton (120,000 kg.)	Working Radius 2.7 m.
Boom	Boom Section	5 Sections
	Length	12.2 / 21 / 29.8 / 38.7 / 47.5 m.
Jib	Length jib	9.8 / 15.4 / 21 m.
	Luffing jib	11 / 19 / 27 / 35 m.
Dimensions (carrier only)	Length	12.14 m.
	Width	3.00 m.
	Height	2.775 m.
Wire Rope	Main Winch	22 mm. X 255 m. (Diameter x Length) Anti - rotate wire rope
	Auxiliary Winch	22 mm. X 185 m. (Diameter x Length) Anti - rotate wire rope
Outriggers	Fully Hydraulic H-Type	Full extended width 8.0 m.
		Middle extended width 7.0 m., 5.3 m., 4.6 m.
Tires	Front	16.00 R25 (all wheels)
	Rear	16.00 R25 (all wheels)
Weights (carrier only)	Gross Vehicle Weight	Total 34,180 kg. (Two - man type )
		Front : 1 st + 2nd axle 17,280 kg.
		Rear : 3 rd axle 1,400 kg.
		4 th + 5th axle 15,500 kg.

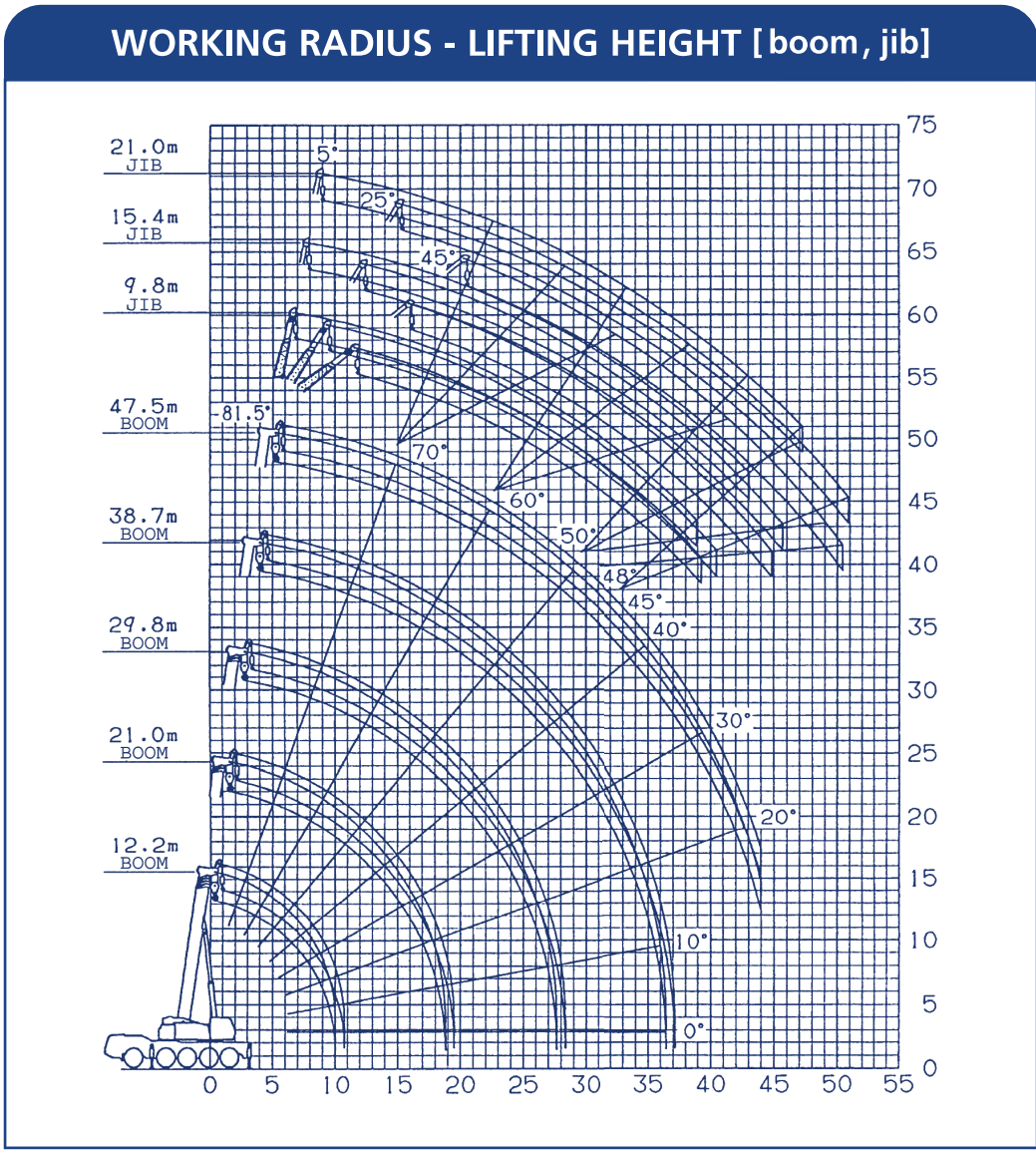
### DIMENSIONS (1/100)



Performance A									Unit : ton
A \ B (m)	12.2 m	21.0 m		29.8 m		38.7 m		47.5 m	
2.7 m	120.0	50.0	21.0						
3.0 m	110.0	50.0	21.0						
3.5 m	98.0	50.0	21.0	34.0	21.0				
4.0 m	91.0	50.0	21.0	34.0	21.0				
4.5 m	84.0	50.0	21.0	34.0	21.0				
5.0 m	77.0	50.0	21.0	34.0	21.0	24.0	21.0		
5.5 m	69.0	50.0	21.0	34.0	21.0	24.0	21.0		
6.0 m	63.0	50.0	21.0	34.0	21.0	24.0	21.0	13.0	
6.5 m	58.0	50.0	21.0	34.0	21.0	24.0	21.0	13.0	
7.0 m	53.0	50.0	21.0	34.0	21.0	24.0	21.0	13.0	
8.0 m	45.5	46.0	21.0	34.0	21.0	24.0	21.0	13.0	
9.0 m	39.5	40.0	21.0	31.2	21.0	24.0	21.0	13.0	
10.0 m		35.2	21.0	28.4	21.0	24.0	21.0	13.0	
11.0 m		31.2	21.0	25.9	21.0	22.6	20.7	13.0	
12.0 m		28.0	21.0	23.8	21.0	20.8	19.2	13.0	
14.0 m		21.7	21.0	20.3	21.0	18.0	16.7	13.0	
16.0 m		17.2	18.6	17.2	19.0	15.6	14.8	13.0	
18.0 m		13.9	15.2	13.9	15.7	13.7	13.2	12.0	
20.0 m				11.3	13.1	12.1	11.8	10.8	
22.0 m				9.3	11.1	10.6	10.7	9.7	
24.0 m				7.6	9.5	9.0	9.7	8.8	
26.0 m				6.1	8.1	7.6	8.4	8.0	
28.0 m						6.4	7.2	7.2	
30.0 m						5.3	6.2	6.4	
32.0 m						4.4	5.3	5.5	
34.0 m						3.6	4.5	4.7	
36.0 m						2.9	3.8	4.0	
38.0 m								3.4	
40.0 m								2.8	
42.0 m								2.3	
44.0 m								1.9	
$\theta (^{\circ})$	0 ~ 81.5							10 ~ 8.15	
Boom stage telescoping condition (%)									
Telescoping method	I, II	I	II	I	II	I	II	I, II	
2nd Boom	0	50	25	100	50	100	75	100	
3rd Boom	0	50	25	100	50	100	75	100	
4th Boom	0	0	25	0	50	50	75	100	
5th Boom	0	0	25	0	50	50	75	100	

A = Boom length (ความยาวของบูม)  
 B = Working radius (ระยะห่างจากจุดยก)  
 F = Standard hook (รอกมาตรฐาน)  
 $\theta$  = Boom angle range (for the unladen condition) (มุมองศา)





WORKING RADIUS (m)

LIFTING HEIGHT (m)



Performance LA [1.6 m + 1.1 m luffing jib]															Unit : ton
Boom	16.6 m					21.0 m					29.8 m				
B (m)	offset					offset					offset				
	10°	20°	30°	45°	60°	10°	20°	30°	45°	60°	10°	20°	30°	45°	60°
6.0	30.0														
7.0	30.0					30.0									
8.0	28.0	24.8				30.0									
9.0	27.5	24.4				29.3	25.7				19.2				
10.0	27.0	24.1	21.4			28.7	25.5	22.6			19.2				
11.0	26.6	23.8	21.2	17.7		26.9	25.3	22.4			19.2	19.2			
12.0	25.7	23.5	21.0	17.6		25.4	24.6	22.3	18.5		19.2	19.2	17.0		
14.0	23.5	22.3	20.8	17.5	14.3	22.8	22.2	21.7	18.5	15.0	19.2	19.2	17.0	13.9	
16.0	19.7	20.3	19.9	17.5	13.9	19.0	19.8	19.9	18.5	14.6	17.5	17.9	17.0	13.9	11.5
18.0	16.6	17.1	17.5	17.2		15.9	16.5	17.1	17.7	14.3	15.0	15.6	16.0	13.9	11.5
20.0	14.1	14.5	14.8	15.1		13.4	13.9	14.4	14.8		12.5	13.1	13.7	13.9	11.5
22.0	12.0	12.3	12.5			11.3	11.8	12.1	12.5		10.4	11.0	11.5	12.1	11.5
24.0	10.2	10.4	10.5			9.6	9.9	10.2			8.7	9.2	9.6	10.1	
26.0	7.9					8.1	8.4	8.6			7.2	7.7	8.0	8.4	
28.0						6.9	7.0				6.0	6.3	6.6	6.9	
30.0						5.6					4.8	5.1	5.4		
32.0											3.8	4.0	4.2		
34.0											2.8	3.0	3.2		
36.0											2.0	2.2			
38.0											1.3				
θ (°)	16~81.5	32~81.5	34~81.5	53~81.5	68~81.5	18~81.5	31~81.5	40~81.5	55~81.5	67~81.5	20~81.5	30~81.5	37~81.5	53~81.5	66~81.5
F	50 t hook ( 600 kg )					50 t hook ( 600 kg )					50 t hook ( 600 kg )				
H	4 part - line					4 part - line					3 part - line				

- B = Working radius (ระยะห่างจากจุดยก)
- F = Standard hook (รอกมาตรฐาน)
- H = No. of part - line (จำนวนรอกสลิง)
- θ = Boom angle range (for the unladen condition) (มุมองศา)

**Performance LA [1.6 m + 1.9 m luffing jib]**

Unit : ton

Boom	16.6 m					21.0 m					29.8 m				
	offset					offset					offset				
	10°	20°	30°	45°	60°	10°	20°	30°	45°	60°	10°	20°	30°	45°	60°
9.0	22.4														
10.0	21.8					18.5									
11.0	21.2					18.5									
12.0	20.7	18.4				18.5					12.4				
14.0	19.0	17.6				17.6	17.2				12.4				
16.0	17.4	16.8	15.2			15.9	15.5	15.2			12.4	12.4			
18.0	16.0	15.6	14.5	11.3		14.4	14.2	14.0			12.4	12.4	12.2		
20.0	14.8	14.6	13.5	10.7	8.2	13.2	13.0	12.9	11.2		11.9	11.7	11.6		
22.0	13.5	13.8	12.6	10.1	7.9	12.2	12.1	12.0	10.7	8.3	10.9	10.8	10.7	9.9	
24.0	11.8	12.3	11.8	9.7	7.7	11.1	11.2	11.2	10.3	8.1	10.0	10.0	10.0	9.9	7.9
26.0	10.3	10.7	11.1	9.3		9.6	10.2	10.5	9.9	7.9	8.5	9.3	9.3	9.4	7.9
28.0	9.0	9.3	9.6	9.1		8.3	8.8	9.2	9.6		7.3	7.9	8.6	8.9	7.9
30.0	7.8	8.1	8.3			7.2	7.6	7.9	8.3		6.1	6.8	7.3	7.9	7.9
32.0	6.8	7.0	7.2			6.2	6.5	6.8			5.2	5.7	6.2	6.8	
34.0	5.3					5.3	5.6	5.8			4.2	4.8	5.2	5.7	
36.0						4.5	4.7				3.4	3.8	4.2	4.6	
38.0						3.7					2.6	3.0	3.4		
40.0											2.0	2.3	2.5		
42.0											1.4	1.6	1.8		
44.0												1.0			
θ (°)	16~81.5	32~81.5	34~81.5	53~81.5	68~81.5	18~81.5	31~81.5	40~81.5	55~81.5	67~81.5	32~81.5	29~81.5	37~81.5	53~81.5	66~81.5
F	50 t hook ( 600 kg )					50 t hook ( 600 kg )					50 t hook ( 600 kg )				
H	3 part - line					3 part - line					2 part - line				

Boom	38.7 m					Boom	43.0 m					
	offset						B (m)	offset				
	10°	20°	30°	45°	60°			10°	20°	30°	45°	60°
18.0	7.1	7.1				22.0	5.6	5.6	5.6			
20.0	7.1	7.1	6.3			24.0	5.6	5.6	5.6	5.6		
22.0	7.1	7.0	6.2			26.0	5.6	5.6	5.6	5.6	4.6	
24.0	7.1	6.8	6.1	5.2		28.0	5.6	5.6	5.6	5.6	4.6	
26.0	7.1	6.7	6.1	5.1	4.3	30.0	5.5	5.6	5.6	5.6	4.6	
28.0	6.9	6.6	6.0	5.1	4.3	32.0	4.9	5.1	5.3	5.4	4.6	
30.0	6.2	6.5	6.0	5.1	4.3	34.0	4.5	4.6	4.8	5.0	4.6	
32.0	5.4	5.8	5.9	5.1	4.3	36.0	3.7	4.2	4.4	4.6	4.6	
34.0	4.5	5.1	5.5	5.1	4.3	38.0	3.0	3.5	3.9	4.1		
36.0	3.7	4.2	4.7	5.1		40.0	2.3	2.8	3.2	3.6		
38.0	3.0	3.4	3.8	4.3		42.0	1.7	2.1	2.5	2.8		
40.0	2.3	2.7	3.1	3.4		44.0	1.2	1.6	1.9	2.1		
42.0	1.7	2.1	2.4	2.7		46.0			1.3	1.5		
44.0	1.1	1.5	1.7									
46.0			1.1									
θ (°)	43~81.5	45~81.5	44~81.5	52~81.5	66~81.5	θ (°)	47~81.5	49~81.5	48~81.5	50~81.5	65~81.5	
F	8 t hook ( 250 kg )					F	8 t hook ( 250 kg )					
H	1 part - line					H	1 part - line					

B = Working radius (ระยะห่างจากจุดดุมยก)  
 F = Standard hook (รอกมาตรฐาน)  
 H = No. of part - line (จำนวนรอกสลิง)  
 θ = Boom angle range (for the unladen condition) (มุมองศา)

Performance LA [1.6 m + 27 m luffing jib]																Unit : ton
Boom	16.6 m					21.0 m					29.8 m					
B (m)	offset					offset					offset					
	10°	20°	30°	45°	60°	10°	20°	30°	45°	60°	10°	20°	30°	45°	60°	
12.0	16.0					11.7										
14.0	15.3					11.7										
16.0	14.0	13.9				11.7					8.0					
18.0	12.9	12.8				11.5	11.3				8.0					
20.0	11.9	11.8	10.6			10.4	10.3				8.0	8.0				
22.0	11.1	11.0	10.0			9.6	9.5	9.5			8.0	8.0				
24.0	10.3	10.3	9.4			8.8	8.8	8.8			7.7	7.7	7.7			
26.0	9.7	9.6	8.9	7.2		8.2	8.1	8.2	7.6		7.1	7.1	7.2			
28.0	9.1	9.1	8.4	6.8	5.2	7.6	7.6	7.7	7.2		6.6	6.6	6.7	6.9		
30.0	8.5	8.6	8.0	6.5	5.1	7.1	7.1	7.2	6.9	5.3	6.1	6.2	6.4	6.5		
32.0	7.7	8.1	7.6	6.3	4.9	6.6	6.7	6.8	6.6	5.2	5.7	5.8	6.0	6.1	6.0	
34.0	6.8	7.2	7.2	6.0		6.2	6.3	6.4	6.4	5.1	5.2	5.4	5.5	5.8	5.9	
36.0	6.0	6.3	6.6	5.9		5.4	5.9	6.1	6.2		4.4	5.1	5.2	5.5	5.7	
38.0	5.4	5.6	5.8			4.7	5.1	5.5	5.8		3.7	4.3	4.9	5.2	5.5	
40.0	4.7	4.9	5.0			4.0	4.4	4.7			3.0	3.6	4.1	4.7		
42.0	3.6					3.4	3.7	3.9			2.4	2.9	3.3	3.9		
44.0						2.8	3.0				1.8	2.3	2.7	3.1		
46.0						2.3					1.3	1.7	2.0			
48.0												1.1	1.4			
$\theta$ (°)	16~81.5	31~81.5	34~81.5	52~81.5	67~81.5	18~81.5	30~81.5	40~81.5	54~81.5	67~81.5	40~81.5	39~81.5	42~81.5	53~81.5	66~81.5	
F	50 t hook ( 600 kg )					50 t hook ( 600 kg )					8 t hook ( 600 kg )					
H	2 part - line					2 part - line					1 part - line					

Boom	38.7 m					Boom	43.0 m					
B (m)	offset					B (m)	offset					
	10°	20°	30°	45°	60°		10°	20°	30°	45°	60°	
18.0	4.8					18.0	3.8					
20.0	4.8					20.0	3.8					
22.0	4.8	4.8				22.0	3.8	3.8				
24.0	4.8	4.8				24.0	3.8	3.8				
26.0	4.8	4.8	4.7			26.0	3.8	3.8	3.8			
28.0	4.8	4.8	4.6			28.0	3.8	3.8	3.8			
30.0	4.8	4.8	4.6	3.9		30.0	3.8	3.8	3.8	3.8		
32.0	4.7	4.7	4.5	3.8		32.0	3.8	3.8	3.8	3.8		
34.0	4.4	4.4	4.5	3.8	3.2	34.0	3.8	3.8	3.8	3.8	3.4	
36.0	4.1	4.2	4.3	3.8	3.2	36.0	3.8	3.8	3.8	3.8	3.4	
38.0	3.6	3.9	4.1	3.8	3.2	38.0	3.5	3.7	3.8	3.8	3.4	
40.0	2.9	3.6	3.9	3.8	3.2	40.0	2.9	3.4	3.6	3.6	3.4	
42.0	2.3	2.9	3.4	3.8	3.2	42.0	2.3	2.9	3.2	3.4	3.4	
44.0	1.8	2.3	2.8	3.4		44.0	1.7	2.3	2.8	3.2	3.2	
46.0	1.3	1.8	2.2	2.7		46.0	1.2	1.7	2.2	2.8		
48.0		1.2	1.6	2.1		48.0		1.2	1.7	2.2		
50.0			1.1	1.5		50.0			1.2	1.6		
						52.0				1.0		
$\theta$ (°)	49~81.5	50~81.5	50~81.5	52~81.5	66~81.5	$\theta$ (°)	52~81.5	53~81.5			65~81.5	
F	8 t hook ( 250 kg )					F	8 t hook ( 250 kg )					
H	1 part - line					H	1 part - line					

B = Working radius (ระยะห่างจากจุดยก)  
 F = Standard hook (รอกมาตรฐาน)  
 H = No. of part - line (จำนวนรอกสลิง)  
 $\theta$  = Boom angle range (for the unladen condition) (มุมองศา)

**Performance LA [1.6 m + 35 m luffing jib]**

Unit : ton

Boom B (m)	16.6 m					21.0 m					29.8 m				
	offset					offset					offset				
	10°	20°	30°	45°	60°	10°	20°	30°	45°	60°	10°	20°	30°	45°	60°
14.0	9.5														
16.0	9.5					7.6									
18.0	9.5					7.6					5.4				
20.0	9.5	9.1				7.6					5.4				
22.0	9.0	8.5				7.6	7.6				5.4				
24.0	8.4	8.0				7.0	7.0				5.4	5.4			
26.0	7.8	7.5	7.0			6.4	6.4	6.5			5.4	5.4			
28.0	7.3	7.1	6.6			5.9	6.0	6.1			5.3	5.3	5.4		
30.0	6.9	6.7	6.2			5.5	5.6	5.7			4.8	4.9	5.0		
32.0	6.5	6.3	5.9	4.8		5.1	5.2	5.3	5.3		4.5	4.6	4.7		
34.0	6.1	5.9	5.5	4.6		4.8	4.9	5.0	5.1		4.2	4.3	4.4	4.6	
36.0	5.8	5.6	5.2	4.4	3.3	4.5	4.6	4.7	4.8	3.8	3.9	4.0	4.1	4.4	
38.0	5.5	5.2	4.9	4.2	3.2	4.2	4.3	4.4	4.6	3.6	3.6	3.7	3.8	4.1	4.0
40.0	5.2	4.9	4.7	4.0	3.1	4.0	4.0	4.2	4.4	3.5	3.4	3.5	3.6	3.9	3.9
42.0	4.6	4.7	4.5	3.9		3.8	3.8	3.9	4.2	3.5	2.9	3.3	3.4	3.7	3.8
44.0	4.1	4.4	4.3	3.8		3.5	3.6	3.7	4.0		2.4	3.0	3.2	3.5	3.7
46.0	3.6	3.8	4.1			3.0	3.4	3.6	3.8		1.8	2.4	3.0	3.3	3.6
48.0	3.1	3.3	3.5			2.5	2.9	3.2	3.5		1.4	1.9	2.4	3.1	
50.0	2.3					2.1	2.4	2.6				1.4	1.9	2.4	
52.0						1.6	1.9					1.0	1.4	1.8	
53.9						1.2									
θ (°)	16~81.5	31~81.5	34~81.5	52~81.5	67~81.5	18~81.5	31~81.5	40~81.5	49~81.5	67~81.5	47~81.5	46~81.5	49~81.5	53~81.5	66~81.5
F	50 t hook ( 600 kg )					8 t hook ( 600 kg )					8 t hook ( 600 kg )				
H	2 part - line					1 part - line					1 part - line				

Boom B (m)	38.7 m					Boom B (m)	43.0 m								
	offset						offset								
	10°	20°	30°	45°	60°		10°	20°	30°	45°	60°				
20.0	3.3					20.0	2.5								
22.0	3.3					22.0	2.5								
24.0	3.3					24.0	2.5								
26.0	3.3	3.3				26.0	2.5	2.5							
28.0	3.3	3.3				28.0	2.5	2.5							
30.0	3.3	3.3	3.3			30.0	2.5	2.5							
32.0	3.3	3.3	3.3			32.0	2.5	2.5	2.5						
34.0	3.1	3.2	3.3			34.0	2.5	2.5	2.5						
36.0	2.9	3.0	3.1	3.0		36.0	2.5	2.5	2.5						
38.0	2.7	2.8	2.9	3.0		38.0	2.5	2.5	2.5	2.5					
40.0	2.5	2.6	2.7	3.0	2.5	40.0	2.5	2.5	2.5	2.5					
42.0	2.4	2.4	2.6	2.9	2.5	42.0	2.3	2.4	2.5	2.5	2.5			2.5	
44.0	2.2	2.3	2.4	2.7	2.5	44.0	2.1	2.2	2.4	2.5	2.5			2.5	
46.0	1.7	2.2	2.3	2.6	2.5	46.0	1.6	2.1	2.2	2.5	2.5			2.5	
48.0	1.2	1.8	2.2	2.5	2.5	48.0		1.8	2.1	2.4	2.4			2.4	
50.0		1.4	1.9	2.3	2.5	50.0		1.3	1.9	2.2	2.2			2.2	
52.0			1.4	2.0		52.0			1.4	2.0	2.1			2.1	
54.0				1.5		54.0				1.5					
θ (°)	53~81.5	55~81.5	54~81.5	58~81.5	66~81.5	θ (°)	58~81.5	57~81.5	61~81.5	65~81.5					
F	8 t hook ( 250 kg )					F	8 t hook ( 250 kg )								
H	1 part - line					H	1 part - line								

B = Working radius (ระยะห่างจากจุดยก)  
 F = Standard hook (รอกมาตรฐาน)  
 H = No. of part - line (จำนวนรอบสลิง)  
 θ = Boom angle range (for the unladen condition) (มุมองศา)



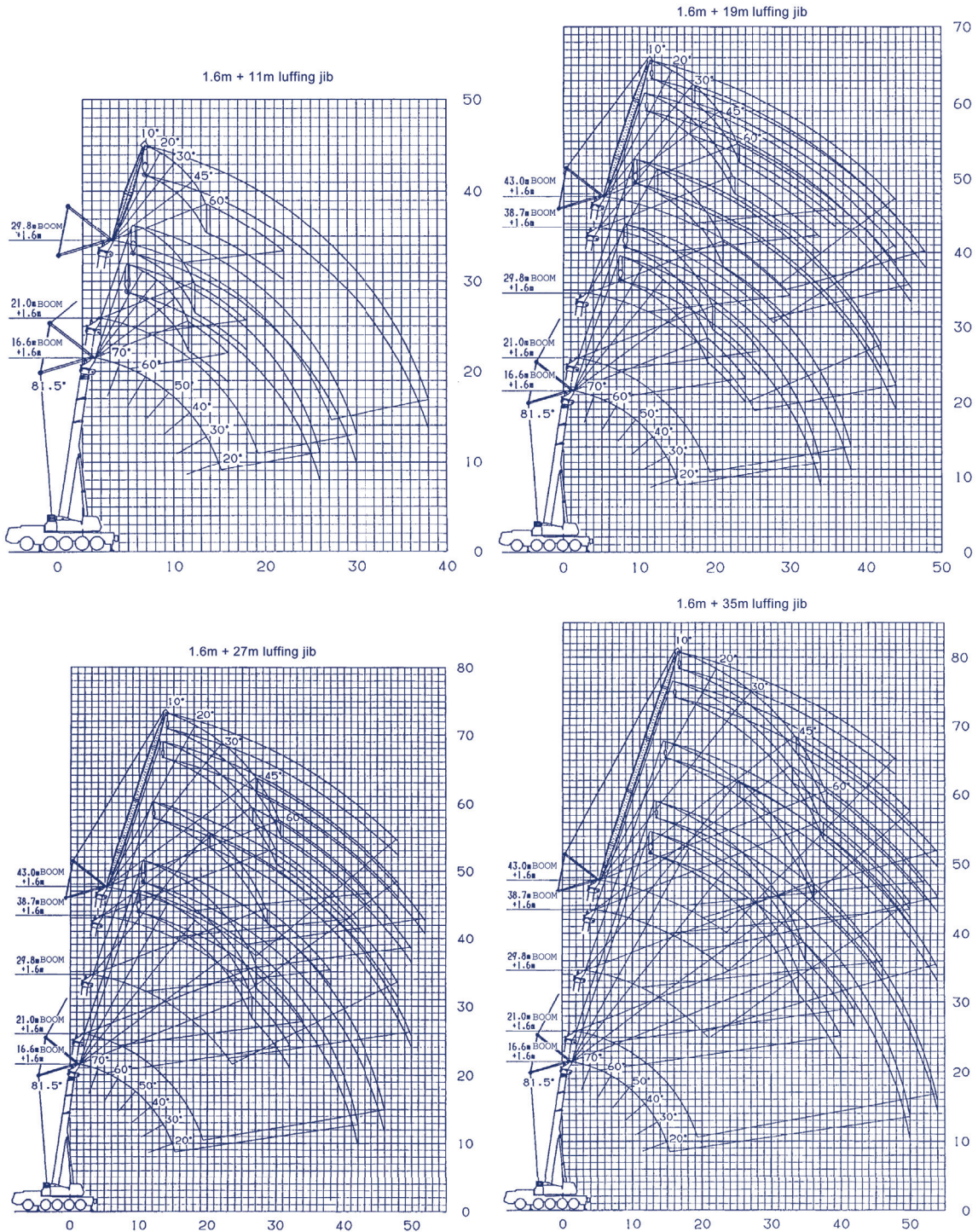
**Performance A JIB [47.5 m boom]**

Unit : ton

C D B (m)	4.75 m + 9.8 m						4.75 m + 15.4 m						4.75 m + 21.0 m					
	5°		25°		45°		5°		25°		45°		5°		25°		45°	
	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M	E	M
81.5	8.2	7.00	11.3	6.50	13.2	3.90	9.3	3.80	14.2	3.10	17.6	1.95	10.6	2.50	17.4	1.85	22.2	1.00
80	10.5	7.00	13.5	6.50	15.2	3.90	11.7	3.80	16.5	3.10	19.8	1.95	13.2	2.50	19.9	1.85	24.4	1.00
78	12.7	7.00	15.7	6.50	17.2	3.90	14.2	3.80	18.8	3.10	19.8	1.95	15.9	2.50	22.4	1.85	26.6	1.00
75	16.1	7.00	18.8	6.20	20.1	3.75	17.8	3.80	22.1	2.90	24.9	1.85	19.8	2.50	25.9	1.75	29.8	1.00
73	18.2	7.00	20.7	5.80	22.0	3.65	20.1	3.80	24.2	2.80	26.9	1.80	22.4	2.50	28.2	1.65	31.9	1.00
70	21.3	6.50	23.6	5.25	24.8	3.50	23.6	3.80	27.4	2.65	29.7	1.74	26.2	2.50	31.5	1.55	34.9	1.00
68	23.2	6.00	25.4	4.90	26.6	3.45	25.8	3.70	29.4	2.55	31.6	1.70	28.6	2.50	33.6	1.50	36.8	0.98
65	26.0	5.20	28.1	4.45	29.2	3.35	28.9	3.40	32.3	2.45	34.3	1.64	32.0	2.25	36.8	1.45	39.6	0.94
63	27.8	4.80	29.9	4.20	30.9	3.30	30.9	3.25	34.3	2.40	36.0	1.61	34.2	2.10	38.8	1.40	41.4	0.92
60	30.3	4.15	32.3	3.70	33.3	3.20	33.9	3.05	37.0	2.35	38.5	1.57	37.4	1.95	41.7	1.35	43.9	0.90
58	32.0	3.80	33.9	3.40	34.8	3.15	35.8	2.95	38.8	2.30	40.1	1.55	39.4	1.85	43.6	1.30	45.5	0.89
55	34.4	3.30	36.2	3.00	37.0	2.85	38.5	2.70	41.3	2.20	42.3	1.53	42.4	1.70	46.2	1.26	47.8	0.87
53	35.9	3.00	37.6	2.70	38.3	2.60	40.2	2.45	42.9	2.15	43.8	1.50	44.2	1.60	47.9	1.23	49.3	0.86
50	38.1	2.35	39.6	2.15	40.2	2.05	42.5	1.95	45.0	1.70	45.8	1.45	47.0	1.50	50.3	1.20	51.3	0.85
48	39.4	1.90	40.9	1.75	41.4	1.65	44.0	1.60	46.3	1.40	47.0	1.25	48.6	1.30	51.8	1.10	52.5	0.84
45	41.4	1.35	42.7	1.25			46.0	1.10	48.2	0.95			50.8	0.85	53.7	0.80		
θ(°)	44 ~ 81.5				47 ~ 81.5		44 ~ 81.5				47 ~ 81.5		44 ~ 81.5				47 ~ 81.5	

B = Working radius (ระยะห่างจากจุดยึด) C = Jib length D = Jib offset  
 E = Boom angle M = Total rated load  
 θ = Boom angle range (for the unladen condition) (มุมองศา)

Performance A (Fully Automatic Luffing jib)



LIFTING HEIGHT (m)

WORKING RADIUS (m)