



Table 2-1a QY100K- I Main Technical Data in Travel Configuration

Category	Item		Unit	Parameter	
Outline	Overall length		mm	15600	
	Overall width		mm	3000	
	Overall height		mm	3850	
	Wheel base		mm	1420+2420+1800+1420+1505	
	Track	Axles 1, 2, 3, 6		mm	2610
		Axles 4, 5		mm	2315
	Front overhang		mm	2550	
	Rear overhang		mm	2225	
Weight	Total mass in travel state		t	54.9	
	Axle load	Axle 1	t	7.5	
		Axle 2	t	7.5	
		Axle 3	t	8.3	
		Axle 4	t	12	
		Axle 5	t	12	
		Axle 6	t	7.6	
Power	Engine model			OM460LA.E3A/1	
	Engine rated power		kW/ (r/min)	360/1800	
	Engine rated torque		N.m (r/min)	2200/1100	
	Engine rated speed		r/min	1800	
Travel	Travel speed	Max. travel speed	km/h	80	
		Min. travel speed	km/h	0.5	
	Turning diameter	Min. turning diameter	m	24	
		Min. turning diameter at boom tip	m	26.6	
	Min. ground clearance		mm	310	
	Approach angle		°	20	
	Departure angle		°	14	
	Braking distance (at 30 km/h)		m	≤10	
	Max. grade-ability		%	40	
	Fuel consumption of per 100 km		L	70	
	Exterior noise level during acceleration traveling		dB (A)	≤88	



Table 2-2a QY100K- I Main Technical Data for Lifting Operation

Category	Item		Unit	Parameter		
Lifting	Max. total rated lifting capacity		t	100		
	Min. rated working radius		m	3		
	Swing radius at turntable tail	At counterweight	mm	4200		
		At auxiliary winch	mm	4590		
	Max. load moment	Base boom	kN.m	3450		
		Fully-extended boom	kN.m	1950		
		Fully-extended boom + Jib	kN.m	1230		
	Outrigger span (full extension)	Longitudinal	m	7.56		
		Lateral	m	7.6		
	Lifting height	Base boom	m	13.5		
		Fully-extended boom	m	50.9		
		Fully-extended boom + Jib	m	70.4		
	Boom length	Base boom	m	13.5		
		Fully-extended boom	m	51		
		Fully-extended boom + Jib	m	51+18.1+4		
	Jib offset angle			°	0, 15, 30	
	Elevating time	Boom raising		s	75	
Telescoping time	Full extension/retraction			160		
Max. swing speed			r/min	2		
Outrigger extending/retracting time	Outrigger beam	Simultaneous extending	s	25		
		Simultaneous retracting	s	15		
	Outrigger jack	Simultaneous extending	s	45		
		Simultaneous retracting	s	25		
Hoisting speed (single line at 4th layer)	Main winch	m/min	105			
	Auxiliary winch	m/min	104			
Power	Engine model			TAD720VE	TAD750VE	
	Engine rated power		kW/ (r/min)	174/2300	181/2300	
	Engine rated torque		N.m (r/min)	854/1400	1050/1500	
	Engine rated speed		r/min	2300		
	Engine stable idle speed		r/min	800		
Noise	Exterior noise level		dB (A)	≤118		
	Noise at seated position		dB (A)	≤90		



Table 2-3a QY100K- I Total Rated Lifting Load for Boom (Unit: t)

0t counterweight, outriggers extended fully, 360°operation of the boom									
Working radius (m)	Boom length (m)								
	13.5	18.2	22.9	27.6	32.3	36.9	41.6	46.3	51
3	93	80							
4	68	73	62						
5	55	63	61	42	41				
6	45	56	53	42	37.8	32.5			
7	36.5	40.9	40.6	40	35.1	30.4	25.6		
8	28.2	27.8	27.6	29.6	31	28.4	24.1	20.1	
9	20.5	20.2	20	21.8	23.1	24	22.7	19	
10	15.5	15.3	15.1	16.7	17.8	18.7	19.4	17.8	15.4
12		9.1	9	10.4	11.4	12.2	12.7	13.2	13.6
14		5.5	5.4	6.7	7.6	8.3	8.8	9.3	9.6
16			3	4.2	5.1	5.8	6.3	6.7	7
18			1.3	2.5	3.3	4	4.4	4.8	5.1
20				1.2	2	2.6	3.1	3.4	3.7
22					1	1.5	2	2.4	2.6
24							1.2	1.5	1.8
26									1.1
Parts of line	12	10	8	6	5	4	4	3	2
Min. boom angle (°)	29	30	31	39	45	52	54	59	61
Max. boom angle (°)	72	77	78	78	80	81	81	81	81
Weight of hook block	1017 kg for 100t load			505 kg for 50t load					



Continued Table 2-3a QY100K- I Total Rated Lifting Load for Boom (Unit: t)

8.3t counterweight, outriggers extended fully, 360°operation of the boom									
Working radius (m)	Boom length (m)								
	13.5	18.2	22.9	27.6	32.3	36.9	41.6	46.3	51
3	100	80							
4	88	73	62						
5	70	63	61	42	41				
6	57	56	53	42	37.8	32.5			
7	47	50	45.8	40	35.1	30.4	25.6		
8	39.9	39.6	39.4	36.4	32.5	28.4	24.1	20.1	
9	30.2	30	29.8	31.5	30.1	26.5	22.7	19	
10	23.5	23.3	23.2	24.7	25.8	24.5	21.4	17.8	15.4
12		15.2	15.1	16.4	17.4	18.1	18.7	16.3	13.8
14		10.4	10.3	11.5	12.4	13.1	13.6	14	12.7
16			7.1	8.3	9.2	9.8	10.3	10.6	11
18			4.8	6	6.8	7.4	7.9	8.2	8.5
20				4.3	5.1	5.7	6.1	6.5	6.7
22				2.9	3.7	4.3	4.7	5.1	5.3
24					2.6	3.2	3.6	4	4.2
26					1.7	2.3	2.7	3	3.3
28						1.5	2	2.3	2.6
30							1.3	1.7	1.9
32								1.1	1.4
Parts of line	12	10	8	6	5	4	4	3	2
Min. boom angle (°)	29	30	31	32	32	38	43	46	52
Max. boom angle (°)	72	77	78	78	80	81	81	81	81
Weight of hook block	1017kg for 100t load			505kg for 50t load					



Continued Table 2-3a QY100K- I Total Rated Lifting Load for Boom (Unit: t)

16.3t counterweight, outriggers extended fully, 360°operation of the boom									
Working radius (m)	Boom length (m)								
	13.5	18.2	22.9	27.6	32.3	36.9	41.6	46.3	51
3	100	80							
4	82.6	73	62						
5	65.8	63	61	42	41				
6	54.9	55.8	53	42	37.8	32.5			
7	45	50	45.8	40	35.1	30.4	25.6		
8	38.5	41.8	41.2	36.4	32.5	28.4	24.1	20.1	
9	34	36.2	35.8	33.3	30.1	26.5	22.7	19	
10	29	31.5	31	30.8	28	24.5	21.4	17.8	15.4
12		21.3	21.2	22.6	23.5	22	19.2	16.3	13.8
14		15.2	15.1	16.4	17.3	18	17.3	14.8	12.7
16			11.1	12.4	13.2	13.8	14.3	13.5	11.6
18			8.3	9.5	10.3	10.9	11.3	11.7	10.6
20				7.3	8.1	8.7	9.1	9.5	9.7
22				5.6	6.4	7	7.4	7.7	8
24					5	5.6	6	6.4	6.6
26					3.9	4.5	4.9	5.2	5.5
28						3.6	4	4.3	4.6
30						2.8	3.2	3.5	3.8
32							2.5	2.8	3.1
34							1.9	2.2	2.5
36								1.7	2
38								1.3	1.5
40									1.1
Parts of line	12	10	8	6	5	4	4	3	2
Min. boom angle (°)	29	30	31	32	32	32	33	33	34
Max. boom angle (°)	72	77	78	78	80	81	81	81	81
Weight of hook block	1017kg for 100t load			505kg for 50t load					



Continued Table 2-3a QY100K- I Total Rated Lifting Load for Boom (Unit: t)

22.2t counterweight, outriggers extended fully, 360°operation of the boom									
Working radius (m)	Boom length (m)								
	13.5	18.2	22.9	27.6	32.3	36.9	41.6	46.3	51
3	100	80							
4	88	73	62						
5	70	63	61	42	41				
6	57	56	53	42	37.8	32.5			
7	47	50	45.8	40	35.1	30.4	25.6		
8	40.5	41.8	41.2	36.4	32.5	28.4	24.1	20.1	
9	34.5	36.2	35.8	33.3	30.1	26.5	22.7	19	
10	30	31.6	31	30.8	28	24.5	21.4	17.8	15.4
12		24	23.8	25	24.3	22	19.2	16.3	13.8
14		17.8	17.9	19.4	20.3	19.4	17.3	14.8	12.7
16			13.7	14.9	15.8	16.8	15.7	13.5	11.6
18			10.5	11.8	12.7	13.2	13.9	12.2	10.6
20				9.5	10.3	10.8	11.4	11.2	9.7
22				7.6	8.4	9.1	9.6	9.9	8.9
24					6.6	7.5	8	8.3	8.3
26					5.4	6.2	6.7	6.9	7.3
28						5.1	5.6	5.9	6.2
30						4.2	4.6	5	5.2
32						3.4	3.8	4.2	4.4
34							3.2	3.5	3.7
36							2.6	2.9	3.1
38								2.3	2.6
40								1.9	2.1
42									1.7
Parts of line	12	10	8	6	5	4	4	3	2
Min. boom angle (°)	29	30	31	32	32	32	33	33	34
Max. boom angle (°)	72	77	78	78	80	81	81	81	81
Weight of hook block	1017 kg for 100t load			505 kg for 50t load					



Table 2-4a QY100K- I Total Rated Lifting Load for Jib (Unit: t)

8.3t counterweight, outriggers extended fully, over side and rear												
Boom	51m											
Jib	10.6m						18.1m					
Boom angle	0°offset		15°offset		30°offset		0°offset		15°offset		30°offset	
	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)
78°	7	13.5	5	15.9	3.5	18.1	3.6	15.4	2.7	19.6	2.1	23.3
75°	6.5	16.5	4.3	18.9	3.4	20.9	3.3	18.8	2.5	22.9	2	26.5
72°	6	19.5	4	21.8	3.3	23.8	3.1	21.9	2.4	26.1	1.9	29.6
70°	5.2	21.4	3.8	23.7	3.2	25.6	2.9	24.3	2.3	28.3	1.8	31.6
65°	4.4	26.1	3.6	28.3	3.1	30.1	2.7	29.6	2.2	33.4	1.7	36.4
60°	2.8	30.6	2.5	32.7	2.4	34.3	2	34.6	1.7	38.2	1.5	40.9
55°	1.6	34.8	1.5	36.8	1.4	38.2	1.1	39.4	0.9	42.7	0.8	45.1
50°	0.8	38.8	0.8	40.6	0.7	41.8	—	—	—	—	—	—
Weight of hook block	225Kg											

16.3t counterweight, outriggers extended fully, over side and rear												
Boom	51m											
Jib	10.6 m						18.1 m					
Boom angle	0°offset		15°offset		30°offset		0°offset		15°offset		30°offset	
	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)
78°	7	13.5	5	15.9	3.5	18.1	3.6	15.4	2.7	19.6	2.1	23.3
75°	6.5	16.5	4.3	18.9	3.4	20.9	3.3	18.8	2.5	22.9	2	26.5
72°	6	19.5	4	21.8	3.3	23.8	3.1	21.9	2.4	26.1	1.9	29.6
70°	5.2	21.4	3.8	23.7	3.2	25.6	2.9	24.3	2.3	28.3	1.8	31.6
65°	4.5	26.1	3.6	28.3	3.1	30.1	2.7	29.6	2.2	33.4	1.7	36.4
60°	4	30.6	3.4	32.7	3	34.3	2.5	34.6	2	38.2	1.6	40.9
55°	2.7	34.8	2.5	36.8	2.3	38.2	1.9	39.4	1.7	42.7	1.5	45.1
50°	1.7	38.8	1.6	40.6	1.6	41.8	1.2	43.8	1	46.9	1	49
45°	1.1	42.5	1	44.1	1	45.1	—	—	—	—	—	—
Weight of hook block	225Kg											



Continued Table 2-4a QY100K- I Total Rated Lifting Load for Jib (Unit: t)

22.2t counterweight, outriggers extended fully, over side and rear												
Boom	51m											
Jib	10.6m						18.1m					
Boom angle	0°offset		15°offset		30°offset		0°offset		15°offset		30°offset	
	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)
78°	7	13.5	5	15.9	3.5	18.1	3.6	15.4	2.7	19.6	2.1	23.3
75°	6.5	16.5	4.3	18.9	3.4	20.9	3.3	18.8	2.5	22.9	2	26.5
72°	6	19.5	4	21.8	3.3	23.8	3.1	21.9	2.4	26.1	1.9	29.6
70°	5.2	21.4	3.8	23.7	3.2	25.6	2.9	24.3	2.3	28.3	1.8	31.6
65°	4.5	26.1	3.6	28.3	3.1	30.1	2.7	29.6	2.2	33.4	1.7	36.4
60°	4.1	30.6	3.4	32.7	3	34.3	2.5	34.6	2	38.2	1.6	40.9
55°	3.5	34.8	3.2	36.8	2.9	38.2	2.3	39.4	1.9	42.7	1.5	45.1
50°	2.5	38.8	2.3	40.6	2.2	41.8	1.8	43.8	1.6	46.9	1.4	49
45°	1.8	42.5	1.7	44.1	1.6	45.1	1.2	48	1.1	50.7	1	52.4
40°	1.2	45.8	1.1	47.2	1	48.1	—	—	—	—	—	—
Weight of hook block	225Kg											

Continued Table 2-4a QY100K- I Total Rated Lifting Load for Jib Extended (Unit: t)

8.3t counterweight, outriggers extended fully, over side and rear												
Boom angle (°)	51m Boom +14.6m Jib						51m Boom +22.1m Jib					
	0°offset		15°offset		30°offset		0°offset		15°offset		30°offset	
	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)
78												
75	6	18.6	4.2	21.9	3.1	24.7	2.6	22.2	2.2	27.2	1.6	31.4
72	5.5	21.8	4	25	3	27.7	2.4	25.8	2	30.6	1.6	34.7
70	4	23.9	3.8	27.1	2.9	29.7	2	28.1	1.8	32.9	1.4	36.8
65	2	29.1	1.9	32	1.7	34.4	1.7	33.8	1.4	38.3	1.2	41.8
60	1.2	34.0	1	36.8	0.9	38.9	0.9	39.2	0.7	43.4	0.6	46.6
16.3t counterweight, outriggers extended fully, over side and rear												
Boom angle (°)	51m Boom +14.6m Jib						51m Boom +22.1m Jib					
	0°offset		15°offset		30°offset		0°offset		15°offset		30°offset	
	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)	Lifting load (t)	Working Radius (m)
78												
75	6	18.6	4.2	21.9	3.1	24.7	2.8	22.2	2.2	27.2	1.6	31.4
72	5.5	21.8	4	25	3	27.7	2.5	25.8	2	30.6	1.6	34.7
70	4.2	23.9	3.8	27.1	2.9	29.7	2.2	28.1	1.8	32.9	1.6	36.8
65	3.5	29.1	3.3	32	2.7	34.4	1.8	33.8	1.6	38.3	1.4	41.8
60	2.5	34.0	2.2	36.8	2	38.9	1.2	39.2	1.2	43.4	1.2	46.6
55	1.4	38.6	1.3	41.2	1.2	43.1	0.9	44.3	0.9	48.2	0.8	50.9
50	0.6	42.9	0.55	45.3			0.45	49.0	0.35	52.6		
22.2t counterweight, outriggers extended fully, over side and rear												
Boom	51m Boom +14.6m Jib						51m Boom +22.1m Jib					

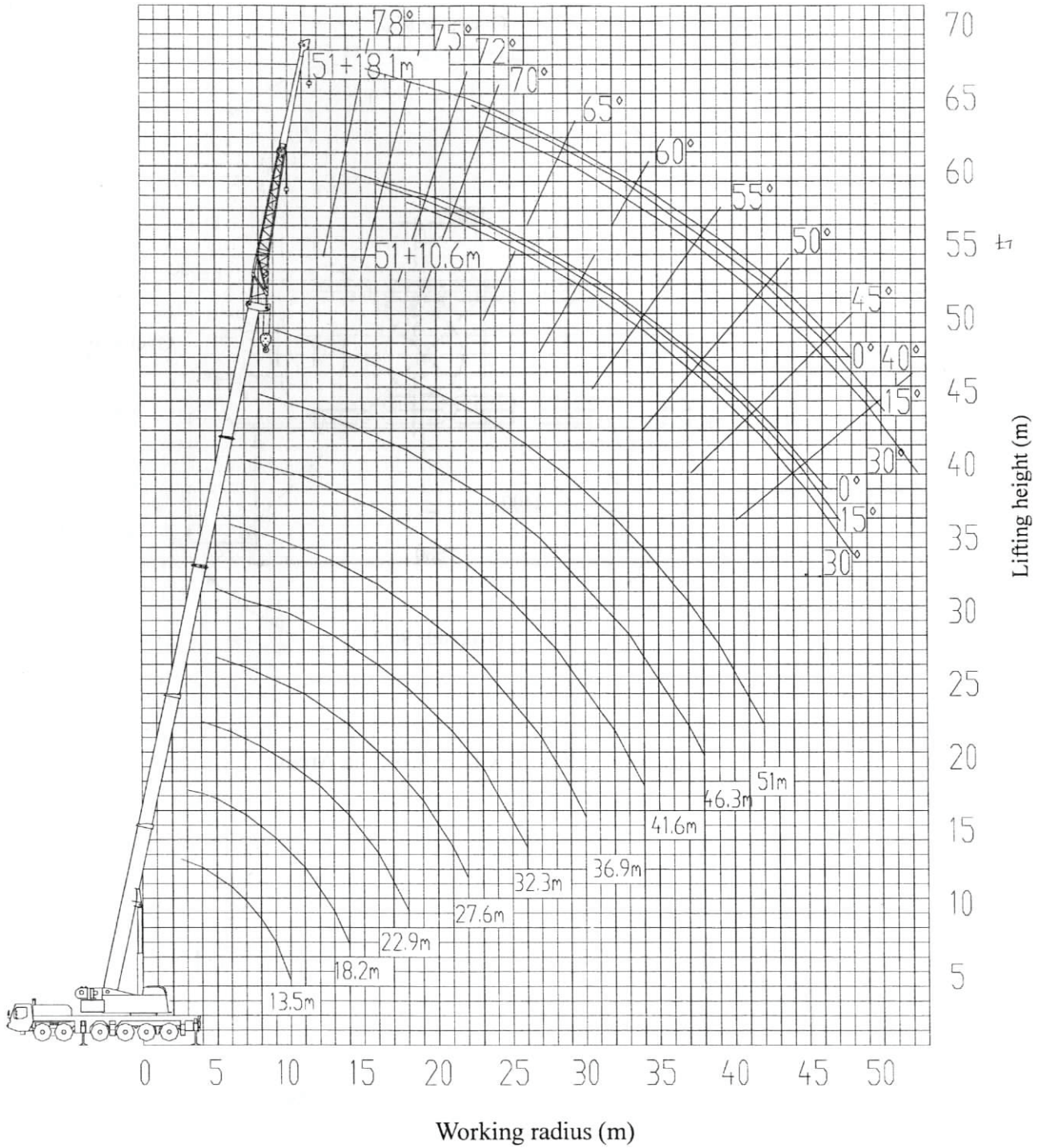


Fig. 2-3a QY100K- I Lifting Height Curves



(6). Crane Working Area

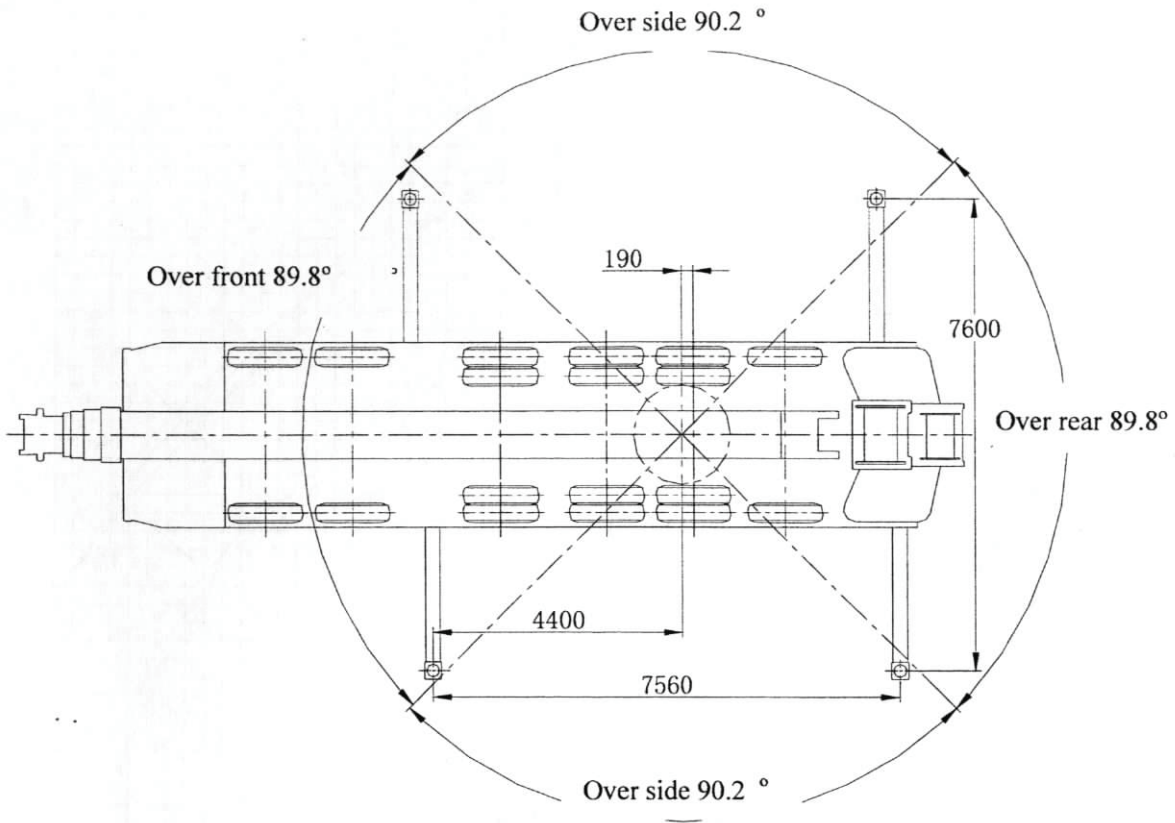


Fig. 2-4 QY100K Crane Working Areas

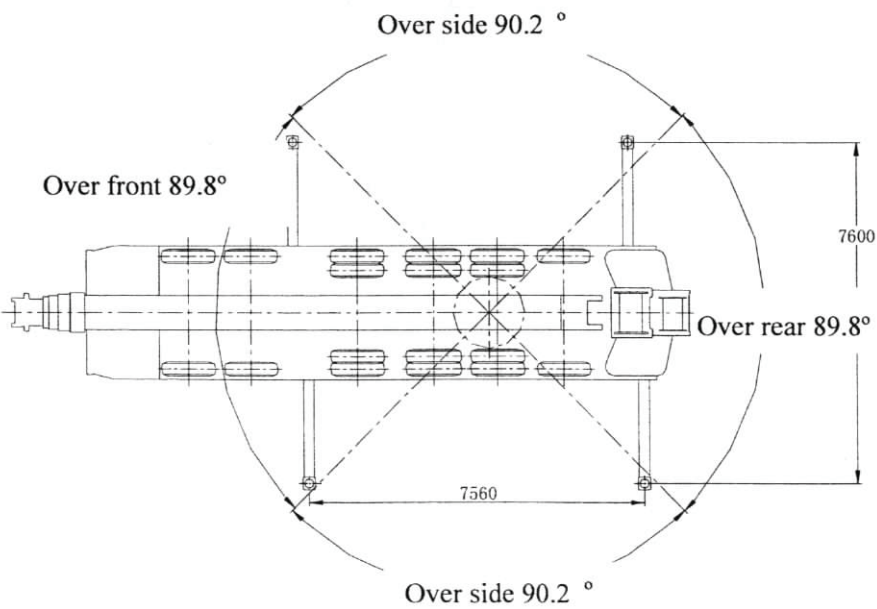


Fig. 2-4a QY100K- I Crane Working Areas

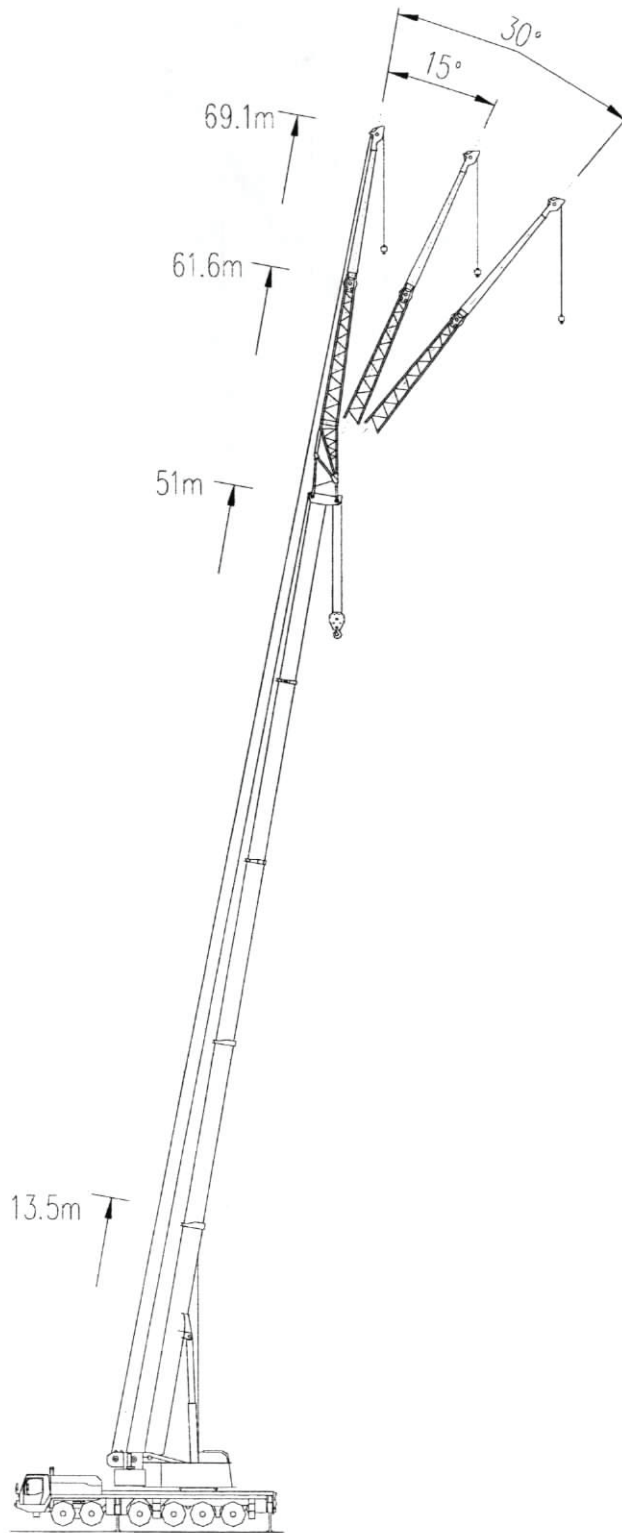


Fig. 2-5a QY100K- I Truck Crane in Lifting Operation State