



**ZOOMLION ZLJ5720JQAY220 ALL
TERRAIN CRANE**

**TECHNICAL SPECIFICATION
QAY220/27Y**

CHANGSHA ZOOMLION HEAVY INDUSTRY SCIENCE & TECHNOLOGY
DEVELOPMENT CO., LTD

QAY220 ALL TERRAIN CRANE

TECHNICAL SPECIFICATION

QAY220/27Y

1. Product characteristics

QAY220 all terrain crane, which integrates our many years' experience in designing and manufacturing mobile cranes with internationally advanced technology, is a fine-performance and high-reliability product produced to meet the market demands. This high-tech product, combining mechanical, electrical and hydraulic systems as a whole, has so many advantages, such as good control performance, excellent jogging performance, large lifting capacity and super lifting height, that it can be applied in many fields of national economic construction. This product can be widely used in chemical industrial and mining establishments, oil fields, harbors, building sites except strong electromagnetic wave area to do lifting and hoisting work.

This product is an all terrain crane of full range slewing function, telescopic boom sections and electro-hydraulic proportional controlled systems. This product adopts 6-axle (4 driving axles and 2 steering axles) special purpose chassis manufactured by Zoomlion, providing wide vision, spacious cab and luxurious equipments.

The latest electro-hydraulic proportional directional control valve with load feedback function, multiple plunger variable pumps, open / closed variable systems ensure that each executive mechanism makes full use of its working capability. The joysticks which are easy-controlled, flexible, reliable and stepless speed regulated can provide the crane with smooth simultaneous movements, which greatly improves the working efficiency. The safety devices, such as relief valve, balance valve, hydraulic lock and brake valve, fitted in hydraulic system prevent the accidents caused by oil line overload and oil pipe breakage.

The safety devices, such as load moment limiter and lighting systems ensure your safety during operation and are convenient for night work.

2. Specifications, complete vehicle

2.1 Product Model

Model in auto industry: ZLJ5720JQAY220

Model in engineering industry: QAY220

2.2 Technical parameters

Item		Value	Remarks	
Working performance	Max. rated lifting capacity	kg	220000	
	Max. load moment of basic boom	kN.m	7650	
	Max. lifting height of main boom	m	62.6	
	Max. lifting height of jib	m	96.2	
Working speeds	Max. hoist rope speed (Main winch)	m/min	124	
	Max. hoist ropes peed (Auxiliary winch)	m/min	70	
	Boom extending time	min	10	
	Boom derricking up time	s	≥90	
	Slewing speed	r/min	≤1.5	
Traveling parameters	Max. traveling speed	km/h	72	
	Max. gradeability	%	50	
	Min. turning diameter	m	24	
	Min. ground clearance	mm	305	
	Limits for exhaust pollutants and smoke		Conform to related standards	
	Oil consumption per hundred kilometers	L	85	
Weights	Self weight in traveling condition	kg	72000	
	Complete vehicle kerb mass	kg	71805	
	Axle load	kg	12000	
Dimensions	Overall dimensions (L×W×H)	mm	16722×3000×3980	
	Longitudinal distance between outriggers	m	8.8	
	Transversal distance between outriggers	m	8.8	
	Main boom length	m	13.8 to 61	
	Boom angle	°	-0.5 to 82	
	Jib length	m	10.7/18/18.7/26/26.7/34	
	Jib + extension	m	0, 15, 30	
Chassis	Model		ZLJ5720QA	
	Type		II	
	Engine	Model		OM502LA
		Rated power	kW/r/min	420
		Max. output torque	N.m/r/min	2700
	Manufacturer		Changsha Zoomlion Heavy Industry Science & Technology Development Co., Ltd.	

2.3 Lifting capacity table

Table 1 Lifting capacity table – Boom (75T counterweight, outriggers fully extended, over full range)

Boom length m Radius m	13.8	18.1	22.4	26.7	31.0	35.4	39.7	44.0	48.3	52.7	57.1	61
3	220											
3.5	160	145										
4	145	135	130	114								
4.5	135	128	121	113	92							
5	125	120	112	110	92	80						
6	116	110	103	103	92	75	60					
7	106	98	92	92	86	70	55	50				
8	95	88	84	85	79	64	51	46	42			
9	85	79	76	77	73	59	47	43	40	36		
10	75	70	68	68	67	54	44	40.2	37.5	34.3	27	
11	65	62	62	61	61	50	40.5	37.6	35	32.6	27	23
12		55	55	54	54	46	36.5	35	32	30.2	27	23
14		49	49	48	48	42	32.7	31.2	29.5	27.8	25	23
16		42	42	42	42	38.5	29.5	27.7	26.2	25	23	22
18			37.5	36.5	36	35	26.5	24.7	23.6	22.6	21	20.1
20				31.9	31	31.5	24.1	22	21.5	20.6	19.5	18.9
22				27	26.8	28	22	20	19.3	18.7	18	17.1
24					24	25	19.8	18.1	17.6	17.2	16.7	15.9
26					21.6	22.5	18.5	16.5	16	15.8	15.4	14.8
28						20	16.5	15.2	14.6	14.5	14.3	13.8
30						17.9	15.2	14.2	13.5	13.5	13.3	12.8
32							14	13.1	12.4	12.3	12.3	11.9
34							12.9	12.1	11.5	11.3	11.5	11
36							12	11.1	10.6	10.4	10.6	10.2
38								10.2	10	9.8	9.9	9.5
40								9.5	9.2	9.1	9.2	8.9
42									8.6	8.5	8.6	8.3
44									7.9	7.9	8	7.8
46										7.3	7.4	7.3
48										6.9	6.9	6.7
50											6.5	6.3
52											6	5.8
54												5.2
56												4.7

Table 2 Lifting capacity table – Boom (60T counterweight, outrigger fully extended, over full range)

Boom length m Radius m	13.8	18.1	22.4	26.7	31.0	35.4	39.7	44.0	48.3	52.7	57.1	61	
3	170												
3.5	150	145											
4	139	135	130	114									
4.5	130	126	121	113	92								
5	121	117	112	110	92	80							
6	112	108	103	103	92	75	60						
7	102	97	92	92	86	70	55	50					
8	91	87	84	85	79	64	51	46	42				
9	80	79	76	77	73	59	47	43	40	36			
10	70	70	68	68	67	54	44	40.2	37.5	34.3	27		
11	59	61	62	61	60	50	40.5	37.6	35	32.6	27	23	
12		53	54	53	52	46	36.5	35	32	30.2	27	23	
14		45	46	44	44	41	32.7	31.2	29.5	27.8	25	23	
16		37	37	35.9	36.3	36.1	29.5	27.7	26.2	25	23	22	
18			30.4	29.4	30.4	31	26.5	24.7	23.6	22.6	21	20.1	
20				24.7	25.5	26.5	24.1	22	21.5	20.6	19.5	18.9	
22				20.9	21.8	22.7	21.7	20	19.3	18.7	18	17.1	
24					18.8	19.7	19.2	18.1	17.6	17.2	16.7	15.9	
26					16.3	17.2	16.7	16.5	16	15.8	15.4	14.8	
28						15.1	14.6	14.6	14.6	14.5	14.3	13.8	
30							13.5	12.9	12.9	13.2	13.5	13.3	12.8
32								11.4	11.4	11.7	12.1	12.3	11.9
34								10.1	10	10.4	10.8	11.3	11
36								9.1	9	9.3	9.7	10.2	10.2
38									8	8.3	8.7	9.2	9.3
40									7.1	7.4	7.8	8.3	8.4
42										6.6	7.1	7.5	7.6
44										5.9	6.3	6.8	6.9
46											5.7	6.2	6.2
48											5.1	5.6	5.7
50												5	5.1
52												4.5	4.6
54													4.2
56													3.7

Table 3 Lifting capacity table – Boom (43T counterweight, outrigger fully extended, over full range)

Boom length m Radius m	13.8	18.1	22.4	26.7	31.0	35.4	39.7	44.0	48.3	52.7	57.1	61
3	170											
3.5	150	145										
4	139	135	130	114								
4.5	130	126	121	113	92							
5	121	117	112	110	92	80						
6	112	108	103	103	92	75	60					
7	100	97	92	92	86	70	55	50				
8	89	87	84	85	79	64	51	46	42			
9	78	79	76	76	73	59	47	43	40	36		
10	67	69	67	64	63	54	44	40.2	37.5	34.3	27	
11	55	59	57	54	54	50	40.5	37.6	35	32.6	27	23
12		50	49	47	46	44	36.5	35	32	30.2	27	23
14		39.2	39	37.3	37.5	38	32.7	31.2	29.5	27.8	25	23
16		31.1	31.1	30.1	30.6	31.1	29.5	27.7	26.2	25	23	22
18			25.4	24.5	25.4	26	25.1	24.2	23.6	22.6	21	20.1
20				20.3	21.2	22.2	21.3	21	21	20.6	19.5	18.9
22				17.1	17.9	18.9	18.3	18	18.1	18.4	18	17.1
24					15.4	16.3	15.7	15.6	15.7	16	16.4	15.9
26					13.2	14.1	13.5	13.5	13.7	14	14.5	14.5
28						12.3	11.7	11.7	12	12.4	12.8	12.8
30						10.9	10.3	10.2	10.5	10.9	11.4	11.4
32							9	8.9	9.2	9.6	10.1	10.2
34							7.9	7.8	8.1	8.5	9	9
36							6.9	6.8	7.1	7.5	8	8.1
38								6	6.2	6.6	7.1	7.2
40								5.2	5.5	5.9	6.3	6.4
42									4.8	5.2	5.7	5.7
44									4.2	4.6	5	5.1
46										4	4.5	4.5
48										3.5	4	4
50											3.5	3.6
52											3.1	3.1
54												2.7
56												2.4

Table 4 Lifting capacity table – Boom (33T counterweight, outrigger fully extended, over full range)

Boom length m Radius m	13.8	18.1	22.4	26.7	31.0	35.4	39.7	44.0	48.3	52.7	57.1	61
3	170											
3.5	150	145										
4	139	135	130	114								
4.5	130	126	121	113	92							
5	121	117	112	110	92	80						
6	112	108	103	103	92	75	60					
7	99	97	92	92	86	70	55	50				
8	88	87	84	81	79	64	51	46	42			
9	74	72	69	65	65	59	47	43	40	36		
10	61	60	58	54	54	54	44	40.2	37.5	34.3	27	
11	50	50	49	46	46	46.9	40.5	37.6	35	32.6	27	23
12		42	42	40	39	40	36.5	35	32	30.2	27	23
14		33.3	33.2	31.5	31.8	32.4	31.1	30.7	29.5	27.8	25	23
16		26.2	26.2	25.2	25.7	26.3	25.3	24.9	24.9	25	23	22
18			21.2	20.3	21.2	21.9	21	20.7	20.7	20.9	21.3	20.1
20				16.7	17.6	18.5	17.7	17.4	17.5	17.8	18.1	18.1
22				13.8	14.7	15.7	15	14.8	14.9	15.2	15.7	15.6
24					12.5	13.4	12.8	12.7	12.8	13.1	13.6	13.6
26					10.6	11.5	10.9	10.8	11.1	11.4	11.9	11.9
28						10	9.3	9.3	9.5	10	10.4	10.4
30						8.6	8	8	8.2	8.7	9.2	9.2
32							6.9	6.9	7.1	7.5	8	8.1
34							6	5.9	6.1	6.5	7	7.1
36							5.1	5	5.3	5.7	6.2	6.2
38								4.3	4.5	4.9	5.4	5.5
40								3.6	3.9	4.3	4.7	4.8
42									3.3	3.7	4.1	4.2
44									2.7	3.1	3.6	3.6
46										2.6	3.1	3.2
48										2.2	2.7	2.7
50											2.2	2.3
52											1.9	1.9
54												1.6
56												1.3

Table 5 Lifting capacity table – Boom (22T counterweight, outrigger fully extended, over full range)

Boom length m Radius m	13.8	18.1	22.4	26.7	31.0	35.4	39.7	44.0	48.3	52.7	57.1	61
3	170											
3.5	150	145										
4	139	135	130	114								
4.5	130	126	121	113	92							
5	121	117	112	110	92	80						
6	106	105	103	103	92	75	60					
7	90	92	88	87	84	70	55	50				
8	76	75	71	67	66	64	51	46	42			
9	61	59	57	54	53	53	47	43	40	36		
10	50	49	47	45	44	45	43	40.2	37.5	34.3	27	
11	41	41	40	38.1	37.3	38.5	36.9	36.1	35	32.6	27	23
12		34.8	34.7	31.9	31.1	32.5	32.3	31.5	30.8	29.8	27	23
14		26.8	26.7	25.1	25.7	26.2	25.1	24.7	24.7	24.6	24.9	23
16		20.9	20.8	19.8	20.5	21.2	20.2	19.8	19.9	20	20.5	20.4
18			16.6	15.8	16.7	17.4	16.5	16.3	16.3	16.6	17	16.9
20				12.7	13.6	14.5	13.7	13.5	13.6	13.9	14.3	14.3
22				10.3	11.2	12.1	11.5	11.3	11.4	11.8	12.2	12.2
24					9.3	10.2	9.6	9.5	9.7	10	10.4	10.4
26					7.7	8.6	8	7.9	8.2	8.5	9	9
28						7.3	6.7	6.6	6.9	7.3	7.7	7.8
30						6.2	5.6	5.5	5.8	6.2	6.7	6.7
32							4.7	4.6	4.8	5.2	5.7	5.8
34							3.8	3.8	4	4.4	4.9	5
36							3.1	3.1	3.3	3.7	4.2	4.2
38								2.4	2.7	3.1	3.5	3.6
40								1.9	2.1	2.5	3	3
42									1.6	2	2.5	2.5
44									1.2	1.5	2	2.1
46										1.1	1.6	1.6
48											1.2	1.3
50												
52												
54												
56												

Table 6 Lifting capacity table – Boom (11T counterweight, outrigger fully extended, over full range)

Boom length m Radius m	13.8	18.1	22.4	26.7	31.0	35.4	39.7	44.0	48.3	52.7	57.1	61
3	170											
3.5	150	145										
4	139	135	130	114								
4.5	130	126	121	113	92							
5	121	117	112	110	92	80						
6	101	105	100	97	92	75	60					
7	82	78	74	69	67	66	55	50				
8	61	59	56	53	52	51	49	46	42			
9	48	47	45	42	42	42	40	39	38.3	36		
10	39	38.5	37.2	34.9	35	35.4	33.7	33	32.4	32.5	27	
11	31	32.3	31.2	29.4	29.7	30.1	28.8	28.1	27.8	28	27	23
12		27.6	26.7	24.1	24.5	26.1	24.2	24.3	23.8	24.4	24.4	23
14		20.3	20.2	18.8	19.4	20.1	19.1	18.7	18.7	18.9	19.3	19.2
16		15.5	15.4	14.5	15.2	15.9	15	14.8	14.8	15.1	15.5	15.4
18			12	11.2	12.1	12.9	12	11.8	11.9	12.3	12.7	12.6
20			9.5	8.7	9.6	10.5	9.7	9.6	9.7	10	10.5	10.5
22				6.8	7.7	8.6	7.9	7.8	7.9	8.3	8.7	8.7
24					6.1	7	6.4	6.3	6.5	6.8	7.3	7.3
26					4.8	5.7	5.1	5	5.3	5.6	6.1	6.1
28						4.7	4	4	4.2	4.6	5.1	5.1
30						3.8	3.2	3.1	3.3	3.7	4.2	4.3
32							2.4	2.3	2.6	3	3.4	3.5
34							1.7	1.7	1.9	2.3	2.8	2.8
36							1.2	1.1	1.3	1.7	2.2	2.2
38										1.2	1.7	1.7
40											1.2	1.2
42												
44												
46												
48												
50												
52												
54												
56												

Table 7 Lifting capacity table – Boom (0t counterweight, outrigger fully extended, over full range)

Boom length m Radius m	13.8	18.1	22.4	26.7	31.0	35.4	39.7	44.0	48.3	52.7	57.1	61
3	170											
3.5	150	145										
4	139	135	130	114								
4.5	130	126	121	113	92							
5	121	117	112	110	92	80						
6	90	85	79	72	70	68	60					
7	61	58	55	51	50	49	46	45				
8	45	44	41	38.8	38	38.9	36.7	35.4	34.7			
9	34.8	34	33	30.6	30.8	31.2	29.5	28.8	28.2	28.3		
10	27.9	27	26.8	25	25.3	25.8	24.5	23.8	23.7	23.7	23.7	
11	22.5	23	22.2	20.6	21.1	21.8	20.6	20.1	19.9	20.2	20.4	20.2
12		19.4	18.7	17.2	17.9	18.6	17.5	17.1	17.1	17.3	17.6	17.5
14		13.8	13.7	12.5	13.2	14	13	12.8	12.8	13.1	13.5	13.4
16		10.1	10	9.1	9.9	10.7	9.9	9.7	9.8	10.1	10.6	10.6
18			7.5	6.6	7.5	8.3	7.6	7.4	7.6	7.9	8.4	8.4
20			5.5	4.7	5.6	6.5	5.8	5.6	5.8	6.2	6.6	6.7
22				3.2	4.1	5	4.4	4.2	4.4	4.8	5.3	5.3
24					2.9	3.8	3.2	3.1	3.3	3.7	4.2	4.2
26					1.9	2.8	2.2	2.1	2.4	2.8	3.2	3.3
28						2	1.4	1.3	1.6	2	2.4	2.5
30						1.3				1.3	1.7	1.8
32											1.1	1.2
34												
36												
38												
40												
42												
44												
46												
48												
50												
52												
54												
56												

Table 8 Lifting capacity table – Jib (10.75m jib, outrigger fully extended, 75T counterweight)

Boom length	44.0m			48.3m			52.7m			57.1m			61m		
Offset Boom length m	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	14.0	9.4	7.2	13.6	9.3	7.1	12.7	9.2	7.2	12.1	8.8	7.0	11.3	8.4	6.8
80	13.1	9.0	7.0	12.6	8.8	6.9	12.1	8.7	7.0	11.2	8.3	6.8	10.5	8.0	6.6
78	12.2	8.6	6.8	11.7	8.4	6.7	11.3	8.3	6.7	10.5	7.9	6.6	9.9	7.6	6.3
76	11.4	8.2	6.6	11.0	8.1	6.5	10.6	7.9	6.5	9.9	7.6	6.4	9.3	7.3	6.1
74	10.7	7.9	6.4	10.3	7.7	6.4	9.9	7.6	6.3	9.4	7.3	6.2	8.8	7.0	6.0
72	10.1	7.6	6.3	9.7	7.5	6.2	9.4	7.3	6.2	8.9	7.1	6.0	8.4	6.8	5.8
70	9.6	7.4	6.1	9.2	7.2	6.1	8.9	7.1	6.0	8.5	6.8	5.9	8.0	6.5	5.7
68	9.1	7.1	6.0	8.8	7.0	5.9	8.5	6.8	5.9	8.1	6.6	5.7	7.7	6.3	5.6
66	8.7	6.9	5.9	8.4	6.7	5.9	8.2	6.6	5.8	7.7	6.4	5.7	7.4	6.2	5.5
64	8.3	6.7	5.8	8.1	6.5	5.7	7.8	6.4	5.7	7.5	6.2	5.5	7.1	6.0	5.4
62	8.0	6.5	5.7	7.7	6.4	5.6	7.6	6.3	5.6	7.2	6.1	5.5	6.9	5.8	5.3
60	7.7	6.3	5.6	7.5	6.2	5.6	7.3	6.1	5.5	7.0	5.9	5.4	6.6	5.7	5.2
58	7.5	6.2	5.6	7.2	6.1	5.5	7.1	6.0	5.4	6.8	5.8	5.3	6.4	5.6	5.2
56	7.2	6.1	5.5	7.0	5.9	5.4	6.8	5.9	5.4	6.6	5.7	5.3	6.3	5.5	5.1
54	7.0	6.0	5.4	6.8	5.9	5.3	6.6	5.7	5.3	6.4	5.6	5.2	6.1	5.4	5.1
52	6.8	5.8	5.4	6.6	5.7	5.3	6.5	5.7	5.3	6.2	5.5	5.2	6.0	5.3	5.0
50	6.6	5.7	5.3	6.4	5.6	5.2	6.3	5.6	5.2	6.1	5.4	5.1	5.8	5.3	5.0
45	6.2	5.5	5.2	6.1	5.5	5.2	6.0	5.4	5.2	5.8	5.3	5.1	5.3	5.1	4.9
40	6.0	5.4	5.2	5.8	5.3	5.1	5.7	5.3	5.1	5.4	5.2	5.1	4.7	4.6	4.6
35	5.7	5.3	5.2	5.6	5.2	5.1	5.5	5.2	5.1	4.9	4.8	4.8	4.2	4.1	4.1

Note: Adaptor + jib section 1

Table 9 Lifting capacity table – Jib (18m jib, outrigger fully extended, 75T counterweight)

Boom length	44.0m			48.3m			52.7m			57.1m			61m		
Offset Boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	8.1	5.0	3.8	7.9	5.0	3.7	7.9	5.0	3.8	7.6	4.9	3.7	7.3	4.8	3.7
80	7.4	4.8	3.7	7.3	4.7	3.6	7.2	4.8	3.6	7.0	4.7	3.6	6.8	4.6	3.6
78	6.9	4.6	3.5	6.7	4.5	3.5	6.7	4.5	3.6	6.4	4.4	3.5	6.3	4.4	3.4
76	6.4	4.4	3.5	6.2	4.3	3.4	6.2	4.3	3.4	6.0	4.2	3.4	5.8	4.2	3.4
74	6.0	4.2	3.4	5.8	4.1	3.3	5.8	4.2	3.4	5.6	4.1	3.3	5.5	4.0	3.3
72	5.6	4.0	3.3	5.5	4.0	3.3	5.5	4.0	3.3	5.3	3.9	3.2	5.1	3.9	3.2
70	5.3	3.9	3.2	5.2	3.8	3.2	5.2	3.8	3.2	5.0	3.8	3.2	4.9	3.7	3.1
68	5.0	3.8	3.1	4.9	3.7	3.1	4.9	3.7	3.1	4.8	3.6	3.1	4.7	3.6	3.1
66	4.8	3.7	3.1	4.7	3.6	3.1	4.7	3.6	3.1	4.5	3.6	3.0	4.4	3.5	3.0
64	4.6	3.5	3.0	4.5	3.5	3.0	4.5	3.5	3.0	4.3	3.4	3.0	4.2	3.4	3.0
62	4.4	3.5	3.0	4.3	3.4	2.9	4.3	3.4	3.0	4.2	3.4	2.9	4.1	3.3	2.9
60	4.2	3.4	2.9	4.1	3.3	2.9	4.1	3.4	2.9	4.0	3.3	2.9	3.9	3.3	2.9
58	4.0	3.3	2.9	4.0	3.3	2.9	4.0	3.3	2.9	3.9	3.2	2.9	3.8	3.2	2.8
56	3.9	3.2	2.8	3.8	3.2	2.8	3.8	3.2	2.8	3.7	3.2	2.8	3.6	3.1	2.8
54	3.8	3.2	2.8	3.7	3.1	2.8	3.7	3.1	2.8	3.6	3.1	2.8	3.6	3.0	2.8
52	3.7	3.1	2.8	3.6	3.1	2.8	3.6	3.1	2.8	3.5	3.0	2.8	3.4	3.0	2.7
50	3.5	3.0	2.7	3.5	3.0	2.7	3.5	3.0	2.8	3.4	3.0	2.7	3.4	2.9	2.7
45	3.3	2.9	2.7	3.3	2.9	2.7	3.3	2.9	2.7	3.2	2.9	2.7	3.2	2.8	2.7
40	3.2	2.8	2.7	3.1	2.8	2.7	3.1	2.9	2.7	3.1	2.8	2.7	3.0	2.8	2.7
35	3.0	2.8	2.7	3.0	2.8	2.7	3.0	2.8	2.7	2.9	2.8	2.7	2.9	2.7	2.7

Note: Adaptor + jib sections 1 and 2

Table 10 Lifting capacity table – Jib (18.75m jib, outrigger fully extended, 75T counterweight)

Boom length	44.0m			48.3m			52.7m			57.1m			61m		
Offset Boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	8.0	4.9	3.6	7.8	4.8	3.6	7.8	4.8	3.6	7.5	4.7	3.5	7.1	4.6	3.4
80	7.3	4.6	3.5	7.1	4.6	3.5	7.1	4.6	3.5	6.8	4.5	3.5	6.5	4.3	3.4
78	6.7	4.4	3.4	6.6	4.4	3.3	6.5	4.4	3.4	6.3	4.3	3.3	6.0	4.1	3.2
76	6.2	4.2	3.3	6.1	4.2	3.3	6.0	4.2	3.3	5.8	4.1	3.2	5.6	3.9	3.2
74	5.8	4.0	3.2	5.7	4.0	3.2	5.6	4.0	3.2	5.4	3.9	3.2	5.2	3.8	3.1
72	5.4	3.9	3.1	5.3	3.8	3.1	5.3	3.8	3.1	5.1	3.8	3.1	4.9	3.6	3.0
70	5.1	3.7	3.1	5.0	3.7	3.0	5.0	3.7	3.0	4.8	3.6	3.0	4.6	3.5	2.9
68	4.9	3.6	3.0	4.8	3.5	3.0	4.7	3.6	3.0	4.6	3.5	2.9	4.4	3.4	2.9
66	4.6	3.5	2.9	4.5	3.5	2.9	4.5	3.5	2.9	4.4	3.4	2.9	4.2	3.3	2.8
64	4.4	3.4	2.9	4.3	3.3	2.8	4.3	3.3	2.9	4.2	3.3	2.8	4.0	3.2	2.8
62	4.2	3.3	2.8	4.1	3.3	2.8	4.1	3.3	2.8	4.0	3.2	2.8	3.8	3.1	2.7
60	4.0	3.2	2.8	4.0	3.2	2.7	3.9	3.2	2.8	3.8	3.1	2.7	3.7	3.1	2.7
58	3.9	3.1	2.7	3.8	3.1	2.7	3.8	3.1	2.7	3.7	3.1	2.7	3.5	3.0	2.6
56	3.7	3.1	2.7	3.7	3.0	2.7	3.7	3.0	2.7	3.6	3.0	2.7	3.4	2.9	2.6
54	3.6	3.0	2.6	3.5	3.0	2.6	3.5	3.0	2.7	3.5	2.9	2.6	3.3	2.8	2.6
52	3.5	2.9	2.6	3.5	2.9	2.6	3.5	2.9	2.6	3.3	2.9	2.6	3.2	2.8	2.5
50	3.4	2.9	2.6	3.3	2.8	2.6	3.3	2.9	2.6	3.3	2.8	2.6	3.2	2.7	2.5
45	3.2	2.7	2.6	3.1	2.7	2.5	3.1	2.8	2.6	3.1	2.7	2.6	3.0	2.7	2.5
40	3.0	2.7	2.5	3.0	2.7	2.5	3.0	2.7	2.6	2.9	2.7	2.5	2.8	2.6	2.5
35	2.8	2.6	2.5	2.8	2.6	2.5	2.8	2.6	2.5	2.8	2.6	2.5	2.7	2.5	2.5

Note: Adaptor + extension 2 + jib sections 1 and 2

Table 11 Lifting capacity table – Jib (18.75m jib, outrigger fully extended, 75T counterweight)

Boom length	44.0m			48.3m			52.7m			57.1m			61m		
Offset Boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	8.4	6.4	5.3	8.0	6.2	5.2	7.3	6.0	5.1	7.2	5.7	4.9	6.7	5.5	4.7
80	7.7	6.0	5.1	7.4	5.8	4.9	7.1	5.6	4.8	6.6	5.4	4.6	6.2	5.1	4.5
78	7.1	5.6	4.8	6.8	5.5	4.7	6.5	5.3	4.6	6.1	5.1	4.4	5.8	4.9	4.3
76	6.6	5.3	4.6	6.3	5.1	4.5	6.1	5.0	4.4	5.7	4.8	4.2	5.4	4.6	4.1
74	6.1	5.0	4.4	5.9	4.9	4.3	5.7	4.8	4.2	5.3	4.5	4.0	5.1	4.4	3.9
72	5.7	4.8	4.2	5.5	4.6	4.1	5.3	4.5	4.0	5.0	4.3	3.9	4.8	4.1	3.7
70	5.4	4.5	4.0	5.2	4.4	3.9	5.0	4.3	3.9	4.8	4.1	3.7	4.5	4.0	3.6
68	5.1	4.3	3.9	4.9	4.2	3.8	4.8	4.1	3.7	4.5	3.9	3.6	4.3	3.8	3.5
66	4.8	4.1	3.7	4.7	4.0	3.7	4.5	3.9	3.6	4.3	3.8	3.5	4.1	3.6	3.4
64	4.6	4.0	3.7	4.5	3.9	3.6	4.3	3.8	3.5	4.1	3.6	3.4	3.9	3.5	3.3
62	4.4	3.8	3.5	4.3	3.7	3.4	4.1	3.6	3.4	3.9	3.5	3.3	3.8	3.4	3.2
60	4.2	3.7	3.4	4.1	3.6	3.4	3.9	3.5	3.3	3.8	3.4	3.2	3.6	3.3	3.1
58	4.0	3.6	3.4	3.9	3.5	3.3	3.8	3.4	3.2	3.6	3.3	3.1	3.5	3.2	3.0
56	3.9	3.5	3.3	3.8	3.4	3.2	3.7	3.3	3.2	3.5	3.2	3.1	3.4	3.1	3.0
54	3.7	3.4	3.2	3.6	3.3	3.1	3.5	3.2	3.1	3.4	3.2	3.0	3.3	3.0	2.9
52	3.6	3.3	3.1	3.5	3.2	3.1	3.5	3.2	3.0	3.3	3.1	2.9	3.2	3.0	2.9
50	3.5	3.2	3.1	3.4	3.2	3.0	3.3	3.1	3.0	3.2	3.0	2.9	3.1	2.9	2.8
45	3.3	3.0	2.9	3.2	3.0	2.9	3.1	2.9	2.8	3.0	2.8	2.8	2.9	2.8	2.7
40	3.1	2.9	2.9	3.0	2.8	2.8	3.0	2.8	2.8	2.9	2.8	2.7	2.8	2.7	2.7
35	2.9	2.8	2.8	2.9	2.8	2.7	2.8	2.7	2.7	2.8	2.7	2.7	2.7	2.6	2.6

Note: Extension 2 + adaptor + jib section 1

Table 12 Lifting capacity table – Jib (26m jib, outrigger fully extended, 75T counterweight)

Boom length	44.0m			48.3m			52.7m			57.1m			61m		
Offset Boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	5.2	3.2	2.3	5.1	3.1	2.3	4.9	3.1	2.3	4.9	3.0	2.2	4.7	3.0	2.2
80	4.8	3.0	2.2	4.7	3.0	2.2	4.7	2.9	2.2	4.5	2.9	2.2	4.3	2.8	2.1
78	4.4	2.8	2.1	4.3	2.8	2.1	4.3	2.8	2.1	4.1	2.7	2.1	4.0	2.7	2.1
76	4.1	2.7	2.1	4.0	2.7	2.1	3.9	2.7	2.1	3.8	2.6	2.0	3.7	2.5	2.0
74	3.8	2.6	2.0	3.7	2.5	2.0	3.7	2.5	2.0	3.6	2.5	2.0	3.5	2.5	1.9
72	3.6	2.5	2.0	3.5	2.5	1.9	3.5	2.5	1.9	3.4	2.4	1.9	3.2	2.3	1.9
70	3.4	2.4	1.9	3.3	2.3	1.9	3.3	2.3	1.9	3.2	2.3	1.9	3.0	2.3	1.8
68	3.2	2.3	1.9	3.1	2.3	1.8	3.1	2.3	1.8	3.0	2.2	1.8	2.9	2.2	1.8
66	3.0	2.2	1.8	2.9	2.2	1.8	2.9	2.2	1.8	2.8	2.2	1.8	2.7	2.1	1.7
64	2.8	2.2	1.8	2.8	2.1	1.8	2.8	2.1	1.8	2.7	2.1	1.7	2.6	2.0	1.7
62	2.7	2.1	1.7	2.7	2.1	1.7	2.6	2.1	1.7	2.6	2.0	1.7	2.5	2.0	1.7
60	2.6	2.0	1.7	2.5	2.0	1.7	2.6	2.0	1.7	2.5	2.0	1.7	2.4	1.9	1.6
58	2.5	2.0	1.7	2.5	1.9	1.7	2.4	1.9	1.7	2.4	1.9	1.6	2.3	1.9	1.6
56	2.4	1.9	1.6	2.3	1.9	1.6	2.3	1.9	1.6	2.3	1.9	1.6	2.2	1.8	1.6
54	2.3	1.9	1.6	2.3	1.8	1.6	2.3	1.8	1.6	2.2	1.8	1.6	2.2	1.8	1.6
52	2.2	1.8	1.6	2.2	1.8	1.6	2.2	1.8	1.6	2.1	1.8	1.6	2.1	1.7	1.6
50	2.2	1.8	1.6	2.1	1.8	1.6	2.1	1.8	1.6	2.1	1.7	1.6	2.0	1.7	1.5
45	2.0	1.7	1.6	2.0	1.7	1.5	2.0	1.7	1.6	1.9	1.7	1.5	1.9	1.6	1.5
40	1.9	1.7	1.5	1.8	1.6	1.5	1.8	1.6	1.5	1.8	1.6	1.5	1.8	1.6	1.5
35	1.8	1.6	1.5	1.8	1.6	1.5	1.8	1.6	1.5	1.7	1.6	1.5	1.7	1.6	1.5

Note: Adaptor + extension 2 + jib sections 1 and 2

Table 13 Lifting capacity table – Jib (26m jib, outrigger fully extended, 75T counterweight)

Boom length		44.0m			48.3m			52.7m			57.1m			61m		
Boom angle	Offset	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
	82		5.9	4.1	3.3	5.7	4.0	3.2	5.5	3.9	3.1	5.1	3.7	3.0	4.8	3.6
80		5.4	3.9	3.1	5.2	3.8	3.0	4.9	3.7	2.9	4.6	3.5	2.8	4.4	3.3	2.8
78		4.9	3.6	2.9	4.7	3.5	2.9	4.5	3.4	2.8	4.3	3.3	2.7	4.0	3.1	2.6
76		4.5	3.4	2.8	4.4	3.3	2.7	4.2	3.2	2.7	3.9	3.1	2.6	3.7	3.0	2.5
74		4.2	3.2	2.7	4.0	3.1	2.6	3.9	3.0	2.6	3.7	2.9	2.5	3.5	2.8	2.4
72		3.9	3.0	2.6	3.8	3.0	2.5	3.6	2.9	2.5	3.4	2.8	2.4	3.3	2.6	2.3
70		3.7	2.9	2.5	3.5	2.8	2.4	3.4	2.7	2.4	3.2	2.6	2.3	3.1	2.5	2.2
68		3.4	2.7	2.4	3.3	2.7	2.3	3.2	2.6	2.3	3.0	2.5	2.2	2.9	2.4	2.2
66		3.2	2.6	2.3	3.1	2.6	2.3	3.0	2.5	2.2	2.9	2.4	2.2	2.7	2.3	2.1
64		3.1	2.5	2.2	3.0	2.5	2.2	2.9	2.4	2.2	2.7	2.3	2.1	2.6	2.2	2.0
62		2.9	2.4	2.2	2.8	2.4	2.1	2.7	2.3	2.1	2.6	2.2	2.0	2.5	2.2	2.0
60		2.8	2.4	2.1	2.7	2.3	2.1	2.6	2.2	2.0	2.5	2.2	2.0	2.4	2.1	1.9
58		2.6	2.3	2.1	2.6	2.2	2.0	2.5	2.2	2.0	2.4	2.1	1.9	2.3	2.0	1.9
56		2.6	2.2	2.0	2.5	2.2	2.0	2.4	2.1	1.9	2.3	2.0	1.9	2.2	2.0	1.8
54		2.4	2.1	1.9	2.4	2.1	1.9	2.3	2.0	1.9	2.2	2.0	1.8	2.1	1.9	1.8
52		2.4	2.1	1.9	2.3	2.0	1.9	2.2	2.0	1.8	2.1	1.9	1.8	2.1	1.8	1.7
50		2.3	2.0	1.9	2.2	2.0	1.8	2.2	1.9	1.8	2.1	1.9	1.8	2.0	1.8	1.7
45		2.1	1.9	1.8	2.0	1.8	1.8	2.0	1.8	1.7	1.9	1.8	1.7	1.9	1.7	1.7
40		2.0	1.8	1.8	1.9	1.8	1.7	1.9	1.8	1.7	1.8	1.7	1.7	1.8	1.7	1.6
35		1.9	1.8	1.7	1.8	1.7	1.7	1.8	1.7	1.7	1.8	1.7	1.6	1.7	1.6	1.6

Note: Extension 1 + adaptor + jib sections 1 and 2

Table 14 Lifting capacity table – Jib (26.75m jib, outrigger fully extended, 75T counterweight)

Boom length	44.0m			48.3m			52.7m			57.1m			61m		
Offset Boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	5.8	4.0	3.1	5.5	3.8	3.0	5.3	3.7	3.0	4.9	3.6	2.8	4.7	3.4	2.8
80	5.2	3.7	2.9	5.0	3.6	2.9	4.8	3.5	2.8	4.5	3.3	2.7	4.2	3.2	2.6
78	4.8	3.5	2.8	4.6	3.4	2.7	4.4	3.3	2.7	4.1	3.1	2.6	3.9	3.0	2.5
76	4.4	3.3	2.6	4.2	3.2	2.6	4.0	3.1	2.5	3.8	2.9	2.4	3.6	2.8	2.4
74	4.0	3.1	2.5	3.9	3.0	2.5	3.7	2.9	2.5	3.5	2.8	2.4	3.4	2.7	2.3
72	3.8	2.9	2.5	3.6	2.8	2.4	3.5	2.7	2.3	3.3	2.6	2.2	3.1	2.5	2.2
70	3.5	2.8	2.3	3.4	2.7	2.3	3.3	2.6	2.3	3.1	2.5	2.2	2.9	2.4	2.1
68	3.3	2.6	2.3	3.2	2.5	2.2	3.1	2.5	2.2	2.9	2.4	2.1	2.8	2.3	2.0
66	3.1	2.5	2.2	3.0	2.5	2.1	2.9	2.4	2.1	2.7	2.3	2.0	2.6	2.2	2.0
64	2.9	2.4	2.1	2.8	2.3	2.1	2.7	2.3	2.0	2.6	2.2	2.0	2.5	2.1	1.9
62	2.8	2.3	2.1	2.7	2.3	2.0	2.6	2.2	2.0	2.5	2.1	1.9	2.4	2.0	1.8
60	2.6	2.2	2.0	2.6	2.2	2.0	2.5	2.1	1.9	2.4	2.0	1.9	2.3	2.0	1.8
58	2.5	2.2	1.9	2.4	2.1	1.9	2.4	2.1	1.9	2.3	2.0	1.8	2.2	1.9	1.7
56	2.4	2.1	1.9	2.4	2.0	1.8	2.3	2.0	1.8	2.2	1.9	1.8	2.1	1.8	1.7
54	2.3	2.0	1.8	2.2	2.0	1.8	2.2	1.9	1.8	2.1	1.9	1.7	2.0	1.8	1.7
52	2.3	2.0	1.8	2.2	1.9	1.8	2.1	1.9	1.7	2.0	1.8	1.7	2.0	1.7	1.6
50	2.2	1.9	1.8	2.1	1.9	1.7	2.1	1.8	1.7	2.0	1.8	1.6	1.9	1.7	1.6
45	2.0	1.8	1.7	1.9	1.7	1.7	1.9	1.7	1.6	1.8	1.7	1.6	1.7	1.6	1.6
40	1.9	1.7	1.6	1.8	1.7	1.6	1.8	1.7	1.6	1.7	1.6	1.6	1.7	1.6	1.5
35	1.8	1.6	1.6	1.7	1.6	1.6	1.7	1.6	1.6	1.7	1.6	1.5	1.6	1.5	1.5

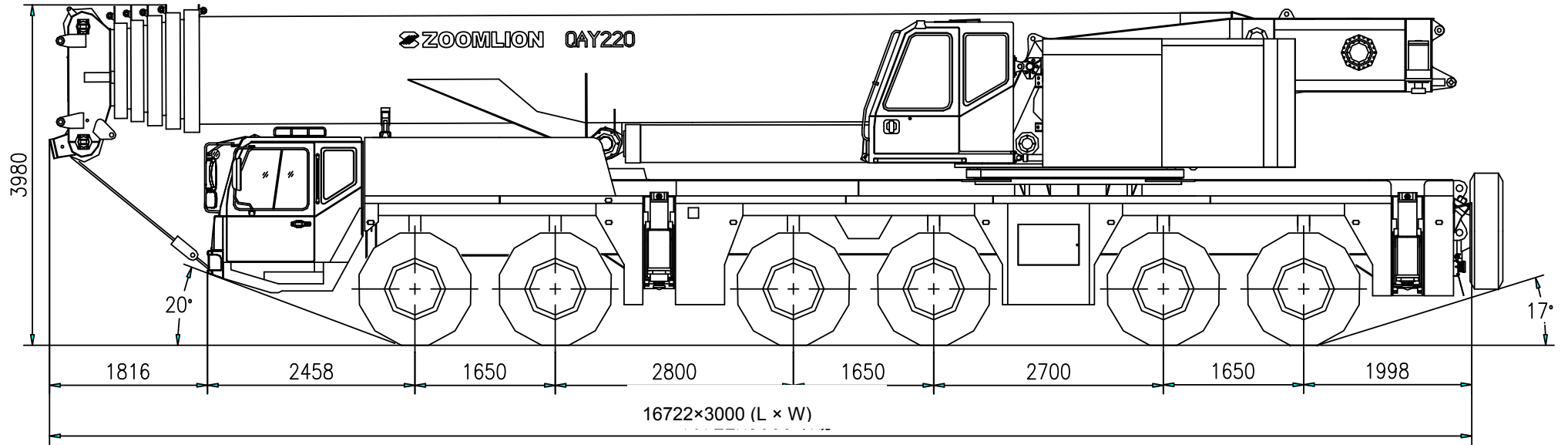
Note: Extension 1 + adaptor + extension 2 + jib section 1

Table 15 Lifting capacity table – Jib (34m jib, outrigger fully extended, 75T counterweight)

Boom length	44.0m			48.3m			52.7m			57.1m			61m		
Offset Boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	3.7	2.4	1.8	3.5	2.3	1.8	3.4	2.2	1.7	3.1	2.1	1.6	2.7	2.1	1.6
80	3.3	2.2	1.7	3.2	2.2	1.7	3.1	2.1	1.6	2.9	2.0	1.6	2.7	1.9	1.5
78	3.0	2.1	1.6	2.9	2.0	1.6	2.8	2.0	1.5	2.6	1.9	1.5	2.5	1.8	1.4
76	2.8	1.9	1.5	2.7	1.9	1.5	2.5	1.8	1.4	2.4	1.7	1.4	2.3	1.7	1.4
74	2.6	1.8	1.5	2.5	1.8	1.4	2.3	1.7	1.4	2.2	1.6	1.3	2.1	1.6	1.3
72	2.4	1.7	1.4	2.3	1.7	1.4	2.2	1.6	1.3	2.0	1.6	1.3	1.9	1.5	1.2
70	2.2	1.6	1.3	2.1	1.6	1.3	2.0	1.5	1.3	1.9	1.5	1.2	1.8	1.4	1.2
68	2.0	1.5	1.3	2.0	1.5	1.3	1.9	1.4	1.2	1.8	1.4	1.2	1.7	1.3	1.1
66	1.9	1.5	1.2	1.8	1.4	1.2	1.8	1.4	1.2	1.7	1.3	1.1	1.6	1.3	1.1
64	1.8	1.4	1.2	1.7	1.4	1.2	1.6	1.3	1.1	1.6	1.3	1.1	1.5	1.2	1.0
62	1.7	1.4	1.1	1.6	1.3	1.1	1.6	1.3	1.1	1.5	1.2	1.0	1.4	1.2	1.0
60	1.6	1.3	1.1	1.6	1.3	1.1	1.5	1.2	1.1	1.4	1.2	1.0	1.3	1.1	1.0
58	1.5	1.2	1.1	1.5	1.2	1.0	1.4	1.2	1.0	1.3	1.1	1.0	1.3	1.1	
56	1.5	1.2	1.0	1.4	1.2	1.0	1.4	1.1	1.0	1.3	1.1	1.0	1.2	1.0	
54	1.4	1.1	1.0	1.3	1.1	1.0	1.3	1.1	1.0	1.2	1.0		1.2	1.0	
52	1.3	1.1	1.0	1.3	1.1	1.0	1.2	1.0		1.2	1.0		1.1	1.0	
50	1.3	1.1	1.0	1.2	1.0		1.2	1.0		1.1	1.0		1.1		
45	1.1	1.0		1.1	1.0		1.1	1.0		1.0			1.0		
40	1.1	1.0		1.0			1.0			1.0					
35	1.0			1.0			1.0								

Note: Extension 1 + adaptor + extension 2 + jib sections 1 and 2

2.4 Overall view (Unit: Metric mm)



3 Specifications, superstructure

3.1 Boom and telescoping mechanism

The main boom consists of 6 oval boom sections made from high-strength structural steel ($\sigma_s=960\text{MPa}$), providing the boom with super lifting capacity.

Main boom length: 13.8m to 61m

Max. number of reeving:18

All telescopic sections are automatically driven by a telescopic cylinder and pinned mechanically, extendable independently of each other.

3.2 Jib

The jib consists of two jib sections and one jib extension. The jib sections are reducing and lattice structured and the jib extension is constant and lattice structured. **The jib can be combined to various lengths according to different requirements.**

The jib cannot be attached with the vehicle during driving.

Jib length: 10.7m, 18m, 18.7m, 26m, 26.7m, 34m

3.3 Slewing table

The slewing table welded by high-strength structural steel ($\sigma_s = 960\text{MPa}$) has high structural strength and super bearing capacity.

3.4 Rooster sheave

It is inserted at the boom head of telescopic boom section 5. This option is set up for rapid hoists over the boom head to improve the working efficiency when the loads are light.

3.5 Derricking mechanism

1 hydraulic cylinder with safety balance valve provides the boom with smooth derricking movements from -0.5° to 82° .

3.6 Slewing mechanism

Multi-units structural form: hydraulic motor + planetary reducer

3 lines of roller type slewing bearing provide big output torque and smooth slewing.

3.7 Hoist mechanism

Hydraulic motor + planetary reducer.

Types of main and auxiliary hoist mechanism are the same. Main hoist mechanism is driven by variable motor and auxiliary hoist mechanism is driven by fixed displacement motor.

Wire rope diameter for main and auxiliary mechanism: $\varnothing 23\text{mm}$

The auxiliary hoist mechanism cannot be attached with the vehicle during driving.

3.8 Main and auxiliary hook

6 hooks: 220T, 160T, 100T, 50T, 16T, 9T (1 reeving).

You can select the proper one according to your needs.

3.9 Operator's cab

Steel construction, can be tilted backwards 20° to broaden the operator's vision. The cab is wide in front section and narrow in rear section, providing spacious operating space, with air conditioning and heater.

3.10 Outriggers

H-type outriggers with box-shaped section welded by high-strength steel ($\delta_s=960\text{MPa}$).
2-section outriggers can be extended simultaneously.

Span (longitudinal distance X horizontal distance): 8800 X 8800mm

3.11 Hydraulic system

Open and closed variable system offers little hydraulic pressure loss, high working efficiency, accurate movements, stable running and stepless speed regulation.

The superstructure is electro-hydraulic proportional controlled with computer system, providing comfortable operation, accurate jogging and simultaneous movements.

In addition, this crane is also of such functions as counterweight plates self-assembled and self-dismantled function, operator's cab tilting angle regulation, emergency off due to overload and engine idle speed regulation, providing stable brake performance and high system reliability.

3.12 Electrical system

Modern data bus technology effectively decreases the use of cables and connections, improving system reliability and convenient for maintenance.

This system is of such functions as manual-mode boom operation in an emergency, engine load limit control and maximum speed limit control.

The computer system is used to control and monitor mobile cranes. In addition to the function of displaying the relevant parameters on the LCD for analysis and treatment, it is also of self-diagnosis function.

Electron accelerator, easy for operation.

Main control elements are imported from Germany.

3.13 Safety device

This crane is equipped with automatic load moment limiter whose display and warning devices are all fitted in operator's cab.

If the actual load reaches 90% of the rated one, the warning light lights up and buzzer sends out slow acoustic warning.

If the actual load reaches 100% of the rated one, the warning light lights up and buzzer sends out fast acoustic warning and all dangerous crane movements are switched off.

The basic parameters, such as torque ratio, boom angle, boom length, working radius, actual lifting capacity, rated lifting capacity and maximum lifting height will be displayed on the LCD.

This crane is also equipped with the following safety devices to ensure the crane safety

- 1) Boom angle indicator
- 2) Hoisting limit switch
- 3) Hook safety device
- 4) Lowering limit switch
- 5) Two-way hydraulic lock
- 6) Balance valve
- 7) Relief valve

3.14 Engine, superstructure

In-line 6-cylinder diesel engine, manufactured by Benz, intercooled, conforms to EURO II.

Maximum rated power: 190kw/2200rpm

Maximum output torque: 1000Nm/1200rpm

3.15 Air conditioning

The driver's cab and operator's cab are all equipped with air conditioning for vehicle.

3.16 Counterweight

Movable combination counterweight plates can be combined according to various working conditions.

Total weight: 75T.

Movable combination counterweight plates can be assembled and disassembled by the counterweight handler on the tail of slewing table.

Combined weights: 11T, 22T, 33T, 43T, 60T, 75T

3.17 Central lubricating system

All the lubricating points are automatically supplied with the correct grease quantity.

4. Specifications, chassis

For detailed information, refer to *Technical Specification, Special Purpose Chassis for Truck Crane*.