TECHNICAL SPECIFICATIONS

QY125V633.1/27Y

ZOOMLION HEAVY INDUSTRY SCIENCE AND TECHNOLOGY CO., LTD.

ZOOMLION ZLJ5550JQZ110V TRUCK CRANE

TECHNICAL SPECIFICATIONS

QY125V633.1/27Y

1 Product characteristics

ZOOMLION QY125V633.1/27Y truck crane, which makes good use of our several decades' experience in designing and manufacturing mobile cranes combined with internationally advanced technologies, is a high-performance and high-reliability product designed and developed 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 micro-positioning performance, great lifting capacity and super lifting height, that it is active in various fields. This product can be widely used in chemical industry, mining establishments, oil fields, harbors and building sites, etc., except strong electromagnetic wave areas, to do lifting and erection work.

This product is a truck crane of full range slewing function, telescopic boom sections and electro-hydraulic proportional controlled systems. The 5-axle (3 axles driven and 3 axles steered) special purpose chassis is manufactured by Zoomlion, providing wide vision, spacious cab and luxurious equipment.

The latest electro-hydraulic proportional directional control valve with load sensing function, multiple variable pumps and open / closed variable system ensure that each executive mechanism makes full use of its work capability.

Two joysticks can provide the crane with smooth simultaneous movements among "Spool up / reel off main winch / auxiliary winch", "Derrick", "Slew" and "Telescope", which greatly improves the work efficiency. The joysticks are of such advantages as easy-controlled, flexible, reliable and stepless speed regulated etc.

The safety devices, such as relief valve, balancing valve, hydraulic lock and brake valve, etc. in the hydraulic system, are against rupture of pipes and hoses.

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

2 Specifications, complete vehicle

2.1 Product model

Model in engineering industry:	QY125V
Code:	QY125V633.1

2.2 Technical data

Item		Value	Remarks
Work performance	Max. rated lifting capacity kg	125000	
	Max. load moment of basic boom kN.m	4400	At 5.5 m radius
	Max. load moment of main boom (completely extended) kN.m	1880	
	Max. lifting height of main boom m	58.5	The parameters do not include deflection of main boom and jib. The value in the brackets is for the extension installed.
	Max. lifting height of jib m	77 / (85)	
Work speeds	Max. hoist rope speed (Main winch) m/min	115	At the 5th layer
	Max. hoist rope speed (Auxiliary winch) m/min	70	At the 3rd layer
	Boom extending time s	≥ 600	It is the theoretical value with the Max. engine RPM.
	Boom derricking up time s	≥ 80	
	Slewing speed r/min	≤ 1.5	
Driving	Max. driving speed km/h	78	
	Max. gradeability %	40	
	Min. turning diameter m	23	
	Min. ground clearance mm	280	
	Limits for exhaust pollutants and smoke	Conform to related standards	GB3847-2005 GB17691-2005 (National stage III)
	Oil consumption per hundred kilometers L	75	
Mass	Deadweight in driving condition kg	54900	
	Complete vehicle kerb mass kg	54705	
	Front axle load kg	19900	
	Rear axle load kg	35000	
Dimensions	Overall dimensions (L × W × H) mm	14690 × 3000 × 3940	
	Outrigger spread (L) m	7.67	
	Outrigger spread (W) m	7.8 m (Completely extended), 5.3 m (Intermediately extended)	
	Main boom length m	12.8 – 57.5	
	Boom angle °	-1.5 – 82	
	Jib length m	11, 18.6	
	Jib + extension length m	26.6	
	Offset °	0, 30	

2.3 Lifting capacity tables

Table 1 **Unit: Metric kg**

Radius (m)		Main boom (m)											
		Outriggers completely extended with 0 t counterweight assembled, over side and over rear											
		12.8	16.9	21.0	25.1	29.2	33.3	37.4	41.5	45.6	49.7	53.8	57.5
3.0		90000	80000	70000									
3.5		85000	80000	70000	60000								
4.0		80000	80000	70000	60000	50000							
4.5		75000	75000	70000	60000	50000	42000						
5.0		70000	70000	65000	60000	50000	42000						
5.5		59000	59000	59000	55000	48000	42000	34000					
6.0		51000	51000	51000	48000	45000	40000	34000					
7.0		36000	36000	36000	36500	36500	36000	33000	26000				
8.0		28000	28000	28000	28000	28500	28500	27000	23000	22000			
9.0		22000	22000	22000	22500	23000	23500	22000	21500	21000	18000		
10.0			18000	18000	18500	19000	19500	18000	18000	18000	17000		
11.0			16000	14900	15400	15900	16500	15500	15500	15500	15000	14000	
12.0			13300	12400	12900	13400	14000	13000	13000	13000	13000	12000	11000
14.0				8500	9200	9800	10500	9700	9700	9800	10000	10000	10000
16.0				5800	6600	7300	8000	7300	7300	7500	7800	8000	8000
18.0					4700	5500	6200	5600	5600	5900	6200	6500	6500
20.0					3200	4000	4700	4100	4100	4400	4700	5000	5000
22.0						2800	3600	3000	3000	3300	3600	4000	4000
24.0						1900	2700	2200	2200	2500	2800	3200	3200
26.0							1900	1400	1400	1700	2000	2400	2400
28.0										1000	1300	1800	1800
30.0												1200	1200
32.0													
34.0													
36.0													
38.0													
40.0													
42.0													
44.0													
46.0													
48.0													
50.0													
Reeving		14	12	10	8	8	6	6	4	3	3	2	2
Hook		90 t				55 t					20 t		
Telescoping mode	**I**	1	1	2	2	2	2	3	3	3	3	3	4
	II	1	2	2	2	2	2	2	3	3	3	3	4
	III	1	1	1	2	2	2	2	2	3	3	3	4
	IV	1	1	1	1	2	2	2	2	2	3	3	4
	V	1	1	1	1	1	2	2	2	2	2	3	4

Table 2 **Unit: Metric kg**

Radius (m)	Main boom (m)											
	Outriggers completely extended with 10 t counterweight assembled, over side and over rear											
	12.8	16.9	21.0	25.1	29.2	33.3	37.4	41.5	45.6	49.7	53.8	57.5
3.0	100000	90000	75000									
3.5	95000	90000	75000	60000								
4.0	88000	85000	75000	60000	50000							
4.5	80000	80000	75000	60000	50000	42000						
5.0	73000	73000	70000	60000	50000	42000						
5.5	67000	67000	66000	60000	50000	42000	34000					
6.0	60000	60000	60000	57000	50000	42000	34000					
7.0	49000	49000	49000	48000	46000	40000	33000	26000				
8.0	38000	38000	38000	38000	37500	37500	30000	25000	22000			
9.0	30000	30000	30000	30000	30800	30900	28500	24000	21000	18000		
10.0		25000	25000	25500	25700	25900	24000	23000	20000	18000		
11.0		22000	21700	21700	21900	22200	20800	20000	19000	17000	14000	
12.0		19400	18500	18600	18900	19200	17900	17500	17000	16000	13000	12000
14.0			13800	14000	14500	14900	13900	13500	13500	13500	12000	11000
16.0			10400	10900	11400	11900	10900	10600	10600	10800	11000	10000
18.0				8600	9100	9600	8800	8500	8500	8800	9000	9000
20.0				6700	7300	7900	7100	6900	6900	7200	7500	7400
22.0					5900	6500	5800	5600	5600	5900	6200	6100
24.0					4700	5400	4700	4600	4600	4900	5200	5100
26.0						4500	3800	3700	3700	4000	4300	4200
28.0						3600	3000	2900	3000	3300	3600	3500
30.0							2300	2200	2300	2600	2900	2900
32.0							1800	1700	1800	2100	2400	2400
34.0								1200	1300	1600	1900	1900
36.0										1200	1500	1500
38.0											1100	1100
40.0												
42.0												
44.0												
46.0												
48.0												
50.0												
Reeving	14	12	10	8	8	6	6	4	3	3	2	2
Hook	90 t				55 t					20 t		
Telescoping mode **I**	1	1	2	2	2	2	3	3	3	3	3	4
Telescoping mode **II**	1	2	2	2	2	2	2	3	3	3	3	4
Telescoping mode **III**	1	1	1	2	2	2	2	2	3	3	3	4
Telescoping mode **IV**	1	1	1	1	2	2	2	2	2	3	3	4
Telescoping mode **V**	1	1	1	1	1	2	2	2	2	2	3	4

Table 3 **Unit: Metric kg**

Radius (m)		Main boom (m)											
		Outriggers completely extended with 24 t counterweight assembled, over side and over rear											
		12.8	16.9	21.0	25.1	29.2	33.3	37.4	41.5	45.6	49.7	53.8	57.5
3.0		100000	90000	75000									
3.5		95000	90000	75000	60000								
4.0		90000	90000	75000	60000	50000							
4.5		82000	82000	75000	60000	50000	42000						
5.0		75000	75000	70000	60000	50000	42000						
5.5		70000	70000	66000	60000	50000	42000	34000					
6.0		63000	63000	63000	57000	50000	42000	34000					
7.0		53000	53000	53000	52000	46000	40000	33000	26000				
8.0		45000	45000	45000	45000	42000	38000	32000	26000	22000			
9.0		39000	39000	39000	39000	38000	35500	29500	25000	21000	18000		
10.0			34000	34000	34000	35000	33000	27000	23500	20000	18000		
11.0			30000	30000	30000	32000	31000	25000	22000	19000	17000	14000	
12.0			26000	26000	26000	28300	28000	23000	20500	18000	16000	14000	12000
14.0				20700	21800	22200	22600	20000	18000	16000	14000	13000	11500
16.0				16100	17100	17800	18400	17400	16000	14200	12500	12000	11000
18.0					13800	14500	15300	14400	13700	12500	11400	11000	10300
20.0					11200	11900	12700	12100	11800	11200	10400	9800	9400
22.0						9900	10700	10200	10000	9900	9300	8800	8500
24.0						8300	9100	8600	8500	8600	8400	8000	7700
26.0							7800	7300	7300	7400	7500	7300	7000
28.0							6700	6200	6200	6400	6500	6600	6400
30.0								5200	5200	5500	5700	6000	5800
32.0								4400	4400	4700	5000	5300	5200
34.0									3700	4000	4300	4700	4600
36.0									3100	3400	3700	4100	4000
38.0										2800	3100	3500	3500
40.0										2300	2600	3000	3000
42.0											2200	2600	2600
44.0											1800	2200	2200
46.0												1800	1900
48.0												1500	1600
50.0													1300
Reeving		14	12	10	8	8	6	6	4	3	3	2	2
Hook		90 t				55 t					20 t		
Telescoping mode	**I**	1	1	2	2	2	2	3	3	3	3	3	4
	II	1	2	2	2	2	2	2	3	3	3	3	4
	III	1	1	1	2	2	2	2	2	3	3	3	4
	IV	1	1	1	1	2	2	2	2	2	3	3	4
	V	1	1	1	1	1	2	2	2	2	2	3	4

Table 4 **Unit: Metric kg**

Radius (m)	Main boom (m)											
	Outriggers completely extended with 30 t counterweight assembled, over side and over rear											
	12.8	16.9	21.0	25.1	29.2	33.3	37.4	41.5	45.6	49.7	53.8	57.5
3.0	125000	90000	75000									
3.5	100000	90000	75000	60000								
4.0	90000	90000	75000	60000	50000							
4.5	82000	82000	75000	60000	50000	42000						
5.0	75000	75000	70000	60000	50000	42000						
5.5	70000	70000	66000	60000	50000	42000	34000					
6.0	65000	65000	63000	57000	50000	42000	34000					
7.0	55000	55000	55000	52000	46000	40000	33000	26000				
8.0	47000	47000	47000	47000	42000	38000	32000	26000	22000			
9.0	41000	41000	41000	41000	38000	35500	29500	25000	21000	18000		
10.0		36000	36000	36000	35000	33000	27000	23500	20000	18000		
11.0		32000	32000	32000	32000	31000	25000	22000	19000	17000	14000	
12.0		29000	29000	29000	29000	29000	23000	20500	18000	16000	14000	12000
14.0			23900	23900	23900	24500	20000	18000	16000	14000	13000	11500
16.0			18900	19700	19700	21000	18000	16000	14200	12500	12000	11000
18.0				16000	16000	17500	16200	14300	12800	11400	11000	10300
20.0				13200	13200	14800	14300	12700	11500	10400	9800	9400
22.0					11800	12600	12100	11400	10400	9400	8800	8500
24.0					10000	10800	10300	10300	9400	8500	8000	7700
26.0						9300	8800	8900	8500	7700	7300	7000
28.0						8000	7500	7600	7600	7000	6700	6400
30.0							6500	6600	6900	6400	6200	5900
32.0							5600	5700	6000	5900	5700	5500
34.0								4900	5200	5400	5200	5100
36.0								4200	4500	4800	4800	4700
38.0									3900	4200	4400	4300
40.0									3300	3600	3900	3900
42.0										3100	3500	3500
44.0										2700	3100	3100
46.0											2700	2700
48.0											2300	2300
50.0												2000
Reeving	14	12	10	8	8	6	6	4	3	3	2	2
Hook	90 t				55 t					20 t		
Telescoping mode **I**	1	1	2	2	2	2	3	3	3	3	3	4
Telescoping mode **II**	1	2	2	2	2	2	2	3	3	3	3	4
Telescoping mode **III**	1	1	1	2	2	2	2	2	3	3	3	4
Telescoping mode **IV**	1	1	1	1	2	2	2	2	2	3	3	4
Telescoping mode **V**	1	1	1	1	1	2	2	2	2	2	3	4

NOTE

The values in grey are suitable for 125 t hook, and 16 reevings are recommended.

Table 5 **Unit: Metric kg**

Radius (m)	Main boom (m)											
	Outriggers completely extended with 34 t counterweight assembled, over side and over rear											
	12.8	16.9	21.0	25.1	29.2	33.3	37.4	41.5	45.6	49.7	53.8	57.5
3.0	125000	90000	75000									
3.5	105000	90000	75000	60000								
4.0	100000	90000	75000	60000	50000							
4.5	90000	82000	75000	60000	50000	42000						
5.0	85000	75000	70000	60000	50000	42000						
5.5	80000	70000	66000	60000	50000	42000	34000					
6.0	72000	67000	63000	60000	50000	42000	34000					
7.0	59000	59000	56000	55000	48000	40000	33000	26000				
8.0	51000	51000	51000	50000	43000	38000	32000	26000	22000			
9.0	44000	44000	46000	46000	39500	35500	29500	25000	21000	18000		
10.0		39000	40500	42000	36500	33000	27000	23500	20000	18000		
11.0		35000	36000	38000	34000	31000	25000	22000	19000	17000	14000	
12.0		31500	32000	34500	32500	29000	23000	20500	18000	16000	14000	12000
14.0			25500	26500	27000	25500	20000	18000	16000	14000	13000	11500
16.0			20500	21300	22000	22000	18000	16000	14200	12500	12000	11000
18.0				17500	18200	19000	16200	14300	12800	11400	11000	10300
20.0				14500	15200	16000	14600	12800	11500	10400	9800	9400
22.0					12900	13800	13200	11500	10400	9400	8800	8500
24.0					11000	11900	11400	10400	9500	8600	8000	7700
26.0						10300	9800	9500	8600	7800	7300	7000
28.0						9000	8500	8600	7800	7100	6700	6400
30.0							7400	7500	7100	6500	6200	5900
32.0							6400	6500	6500	6000	5700	5500
34.0								5700	5900	5500	5300	5100
36.0								4900	5100	5100	4900	4700
38.0									4500	4700	4500	4300
40.0									3900	4200	4200	4000
42.0										3700	3900	3700
44.0										3200	3600	3400
46.0											3200	3100
48.0											2800	2800
50.0												2500
Reeving	14	12	10	8	8	6	6	4	3	3	2	2
Hook	90 t				55 t					20 t		
Telescoping mode I	1	1	2	2	2	2	3	3	3	3	3	4
Telescoping mode II	1	2	2	2	2	2	2	3	3	3	3	4
Telescoping mode III	1	1	1	2	2	2	2	2	3	3	3	4
Telescoping mode IV	1	1	1	1	2	2	2	2	2	3	3	4
Telescoping mode V	1	1	1	1	1	2	2	2	2	2	3	4

NOTE

The values in grey are suitable for 125 t hook, and 16 reevings are recommended.

Table 6 **Unit: Metric kg**

Radius (m)		Main boom (m)											
		Outriggers intermediately extended with 34 t counterweight assembled, over side and over rear											
		12.8	16.9	21.0	25.1	29.2	33.3	37.4	41.5	45.6	49.7	53.8	57.5
3.0		90000	90000	75000									
3.5		85000	85000	75000	60000								
4.0		80000	80000	75000	60000	50000							
4.5		75000	75000	75000	60000	50000	42000						
5.0		70000	70000	70000	60000	50000	42000						
5.5		65000	65000	65000	60000	50000	42000	34000					
6.0		60000	60000	60000	57000	50000	42000	34000					
7.0		50000	50000	49500	48500	46000	40000	33000	26000				
8.0		42500	42500	40800	40000	39500	38000	32000	26000	22000			
9.0		36500	36500	34200	33800	33600	33600	29500	25000	21000	18000		
10.0			31200	29200	29100	29000	29200	27000	23500	20000	18000		
11.0			27100	25300	25300	25400	25600	24300	22000	19000	17000	14000	
12.0			23500	22100	22200	22400	22700	21500	20500	18000	16000	14000	12000
14.0				17400	17500	17900	18300	17300	16800	16000	14000	13000	11500
16.0				13700	14200	14600	15000	14100	13800	13700	12500	12000	11000
18.0					11600	12100	12600	11800	11500	11400	11400	11000	10300
20.0					9400	10100	10700	9900	9700	9600	9800	9700	9400
22.0						8400	9100	8300	8200	8200	8400	8600	8400
24.0						7000	7800	7000	6900	7000	7200	7400	7300
26.0							6600	6000	5900	6000	6200	6400	6300
28.0							5600	5100	5000	5100	5300	5600	5500
30.0								4300	4200	4300	4500	4800	4700
32.0								3500	3500	3700	3900	4200	4100
34.0									2900	3100	3300	3600	3500
36.0									2400	2600	2800	3100	3000
38.0										2100	2300	2600	2600
40.0										1600	1900	2200	2200
42.0											1500	1800	1800
44.0											1200	1500	1500
46.0												1200	1200
48.0													
50.0													
Reeving		14	12	10	8	8	6	6	4	3	3	2	2
Hook		90 t				55 t					20 t		
Telescoping mode	**I**	1	1	2	2	2	2	3	3	3	3	3	4
	II	1	2	2	2	2	2	2	3	3	3	3	4
	III	1	1	1	2	2	2	2	2	3	3	3	4
	IV	1	1	1	1	2	2	2	2	2	3	3	4
	V	1	1	1	1	1	2	2	2	2	2	3	4

Table 7 **Unit: Metric kg**

Radius (m)		Main boom (m)											
		Outriggers intermediately extended with 30 t counterweight assembled, over side and over rear											
		12.8	16.9	21.0	25.1	29.2	33.3	37.4	41.5	45.6	49.7	53.8	57.5
3.0		90000	90000	75000									
3.5		85000	85000	75000	60000								
4.0		78000	78000	75000	60000	50000							
4.5		72000	72000	70000	60000	50000	42000						
5.0		67000	67000	65000	60000	50000	42000						
5.5		63000	63000	60000	60000	50000	42000	34000					
6.0		55000	55000	55000	55000	50000	42000	34000					
7.0		46000	46000	45600	44600	44000	40000	33000	26000				
8.0		39000	39000	37400	36700	36400	36000	32000	26000	22000			
9.0		33500	33500	31300	30900	30800	31000	29000	25000	21000	18000		
10.0			28600	26600	26500	26500	26800	25200	23500	20000	18000		
11.0			24800	23000	23000	23100	23500	22200	21500	19000	17000	14000	
12.0			21500	20000	20200	20400	20800	19600	19000	18000	16000	14000	12000
14.0				15600	15800	16200	16600	15600	15300	15000	14000	13000	11500
16.0				12200	12700	13100	13600	12700	12500	12400	12500	12000	11000
18.0					10300	10800	11300	10500	10300	10300	10500	10600	10200
20.0					8300	9000	9500	8700	8500	8600	8800	9100	9000
22.0						7400	8100	7300	7100	7200	7400	7700	7600
24.0						6100	6900	6100	6000	6100	6300	6600	6500
26.0							5800	5100	5000	5100	5300	5600	5600
28.0							4800	4300	4200	4300	4500	4800	4800
30.0								3600	3500	3600	3800	4100	4100
32.0								2900	2900	3000	3200	3500	3500
34.0									2300	2400	2700	3000	3000
36.0									1800	1900	2200	2500	2500
38.0										1500	1800	2100	2100
40.0										1100	1400	1700	1700
42.0												1300	1300
44.0													
46.0													
48.0													
50.0													
Reeving		14	12	10	8	8	6	6	4	3	3	2	2
Hook		90 t				55 t					20 t		
Telescoping mode	**I**	1	1	2	2	2	2	3	3	3	3	3	4
	II	1	2	2	2	2	2	2	3	3	3	3	4
	III	1	1	1	2	2	2	2	2	3	3	3	4
	IV	1	1	1	1	2	2	2	2	2	3	3	4
	V	1	1	1	1	1	2	2	2	2	2	3	4

Table 8 **Unit: Metric kg**

Radius (m)		Main boom (m)											
		Outriggers intermediately extended with 24 t counterweight assembled, over side and over rear											
		12.8	16.9	21.0	25.1	29.2	33.3	37.4	41.5	45.6	49.7	53.8	57.5
3.0		80000	80000	75000									
3.5		80000	80000	75000	60000								
4.0		75000	75000	75000	60000	50000							
4.5		70000	70000	70000	60000	50000	42000						
5.0		65000	65000	65000	60000	50000	42000						
5.5		60000	60000	57000	55000	50000	42000	34000					
6.0		52000	52000	50000	48500	45000	40000	34000					
7.0		43000	42500	39500	38500	38000	37500	33000	26000				
8.0		35000	34500	32200	31800	31500	31500	29500	26000	22000			
9.0		29000	28500	26800	26800	26700	26800	25200	24000	21000	18000		
10.0			24500	22700	22800	22900	23100	21700	21000	20000	18000		
11.0			21200	19500	19600	19900	20200	18900	18500	18000	17000	14000	
12.0			18300	16900	17100	17400	17800	16600	16200	15800	15300	14000	12000
14.0				13000	13300	13700	14100	13100	12800	12800	12800	12500	11500
16.0				10000	10500	11000	11400	10500	10300	10300	10500	10600	10500
18.0					8400	8900	9400	8600	8400	8400	8600	8900	8800
20.0					6600	7300	7800	7000	6800	6900	7100	7400	7300
22.0						6000	6500	5800	5600	5700	5900	6200	6200
24.0						4800	5400	4700	4600	4700	4900	5200	5200
26.0							4500	3800	3700	3800	4000	4300	4300
28.0							3700	3100	3000	3100	3300	3600	3600
30.0								2500	2400	2500	2700	3000	3000
32.0								1900	1800	2000	2200	2500	2500
34.0									1300	1500	1700	2000	2000
36.0											1300	1600	1600
38.0												1200	1200
40.0													
42.0													
44.0													
46.0													
48.0													
50.0													
Reeving		14	12	10	8	8	6	6	4	3	3	2	2
Hook		90 t				55 t					20 t		
Telescoping mode	**I**	1	1	2	2	2	2	3	3	3	3	3	4
	II	1	2	2	2	2	2	2	3	3	3	3	4
	III	1	1	1	2	2	2	2	2	3	3	3	4
	IV	1	1	1	1	2	2	2	2	2	3	3	4
	V	1	1	1	1	1	2	2	2	2	2	3	4

Table 9 **Unit: Metric kg**

Radius (m)		Main boom (m)											
		Outriggers intermediately extended with 10 t counterweight assembled, over side and over rear											
		12.8	16.9	21.0	25.1	29.2	33.3	37.4	41.5	45.6	49.7	53.8	57.5
3.0		80000	80000	75000									
3.5		75000	75000	75000	60000								
4.0		70000	70000	68000	60000	50000							
4.5		65000	64000	59000	56000	50000	42000						
5.0		55000	53000	49000	47000	46000	42000						
5.5		46500	45000	41500	40500	40000	39000	34000					
6.0		40000	38800	36000	35500	35500	35000	32500					
7.0		30500	29800	27800	27900	28000	28000	26200	25000				
8.0		24000	23700	22100	22400	22700	23000	21800	21000	20000			
9.0		19000	19300	18000	18400	18800	19200	18300	17800	17500	16000		
10.0			16000	14900	15300	15800	16200	15500	15200	15200	15000		
11.0			13300	12400	12900	13500	13900	13200	13000	13100	13000	13000	
12.0			11100	10400	10900	11500	12000	11400	11300	11400	11300	11500	11000
14.0				7200	8000	8600	9200	8600	8500	8700	8700	9000	9000
16.0				4900	5700	6500	7100	6500	6500	6700	6900	7300	7300
18.0					4000	4800	5500	4900	4900	5100	5400	5800	5800
20.0					2700	3500	4200	3700	3700	3900	4200	4600	4600
22.0						2400	3100	2600	2700	2900	3200	3600	3600
24.0						1600	2300	1800	1900	2100	2400	2800	2800
26.0							1600	1100	1200	1400	1700	2100	2100
28.0											1100	1500	1500
30.0													
32.0													
34.0													
36.0													
38.0													
40.0													
42.0													
44.0													
46.0													
48.0													
50.0													
Reeving		14	12	10	8	8	6	6	4	3	3	2	2
Hook		90 t				55 t					20 t		
Telescoping mode	**I**	1	1	2	2	2	2	3	3	3	3	3	4
	II	1	2	2	2	2	2	2	3	3	3	3	4
	III	1	1	1	2	2	2	2	2	3	3	3	4
	IV	1	1	1	1	2	2	2	2	2	3	3	4
	V	1	1	1	1	1	2	2	2	2	2	3	4

Table 10 **Unit: Metric kg**

Outriggers completely extended with 34 t counterweight assembled, over side and over rear							
Boom angle (ϑ	Boom length (m) + Jib length (m)						Boom angle (ϑ
	57.5 + 11.0		57.5 + 18.6		57.5 + 26.6		
	Offset (ϑ						
	0	30	0	30	0	30	
82	6000	4500	4000	2200	2700	1300	82
80	6000	4500	4000	2200	2700	1300	80
78	6000	4500	4000	2100	2500	1250	78
76	6000	4300	3700	2000	2300	1200	76
74	5600	4100	3300	1900	2100	1150	74
72	5200	3900	3050	1800	1900	1100	72
70	4800	3750	2850	1700	1700	1050	70
68	4400	3600	2650	1650	1550	1000	68
66	4100	3450	2450	1600	1450	950	66
64	3800	3300	2300	1550	1350	900	64
62	3500	3100	2150	1500	1250	850	62
60	3200	2900	2000	1450	1150	800	60
58	3000	2700	1900	1400	1050		58
56	2800	2500	1800	1350	950		56
54	2600	2350	1700	1300	900		54
52	2400	2200	1600	1250	850		52
50	2200	2050	1450	1200			50
45	1800	1700	1200	1050			45
40	1500	1400	950	850			40
35	1300	1200					35
30	1100	1000					30
Reeving	1						Reeving
Hook	7 t						Hook

Table 11 **Unit: Metric kg**

Outriggers completely extended with 30 t counterweight assembled, over side and over rear							
Boom angle (ϑ	Boom length (m) + Jib length (m)						Boom angle (ϑ
	57.5 + 11.0		57.5 + 18.6		57.5 + 26.6		
	Offset (ϑ						
	0	30	0	30	0	30	
82	6000	4500	4000	2200	2700	1300	82
80	6000	4500	4000	2200	2700	1300	80
78	6000	4500	4000	2100	2500	1250	78
76	6000	4300	3700	2000	2300	1200	76
74	5600	4100	3300	1900	2100	1150	74
72	5200	3900	3050	1800	1900	1100	72
70	4800	3750	2850	1700	1700	1050	70
68	4400	3600	2650	1650	1550	1000	68
66	4100	3450	2450	1600	1450	950	66
64	3800	3300	2300	1550	1350	900	64
62	3500	3100	2150	1500	1250	850	62
60	3200	2900	2000	1450	1150	800	60
58	3000	2700	1900	1400	1050		58
56	2800	2500	1800	1350	950		56
54	2600	2350	1700	1300	900		54
52	2400	2200	1600	1250	850		52
50	2200	2050	1450	1200			50
45	1800	1700	1200	1050			45
40	1400	1400	950	850			40
35	1200	1100					35
30	1000	900					30
Reeving	1						Reeving
Hook	7 t						Hook

Table 12 **Unit: Metric kg**

Outriggers completely extended with 24 t counterweight assembled, over side and over rear							
Boom angle (ϑ	Boom length (m) + Jib length (m)						Boom angle (ϑ
	57.5 + 11.0		57.5 + 18.6		57.5 + 26.6		
	Offset (ϑ						
	0	30	0	30	0	30	
82	6000	4500	4000	2200	2700	1300	82
80	6000	4500	4000	2200	2700	1300	80
78	6000	4500	4000	2100	2500	1250	78
76	6000	4300	3700	2000	2300	1200	76
74	5600	4100	3300	1900	2100	1150	74
72	5200	3900	3050	1800	1900	1100	72
70	4800	3750	2850	1700	1700	1050	70
68	4400	3600	2650	1650	1550	1000	68
66	4100	3450	2450	1600	1450	950	66
64	3800	3300	2300	1550	1350	900	64
62	3500	3100	2150	1500	1250	850	62
60	3200	2900	2000	1450	1150	800	60
58	3000	2700	1900	1400	1050		58
56	2800	2500	1800	1350	950		56
54	2600	2350	1700	1300	900		54
52	2400	2200	1600	1250	850		52
50	2200	2050	1300	1100			50
45	1500	1400	900	800			45
40	1000	900					40
Reeving	1						Reeving
Hook	7 t						Hook

Table 13 **Unit: Metric kg**

Outriggers completely extended with 10 t counterweight assembled, over side and over rear							
Boom angle (°)	Boom length (m) + Jib length (m)						Boom angle (°)
	57.5 + 11.0		57.5 + 18.6		57.5 + 26.6		
	Offset (°)						
	0	30	0	30	0	30	
82	6000	4500	4000	2200	2700	1300	82
80	6000	4500	4000	2200	2700	1300	80
78	6000	4500	4000	2100	2500	1200	78
76	6000	4300	3700	2000	2300	1100	76
74	5600	4100	3300	1900	2100	1050	74
72	5200	3900	3000	1800	1900	1000	72
70	4600	3700	2800	1700	1700	950	70
68	4100	3400	2600	1650	1500	900	68
66	3400	3000	2400	1600	1400	850	66
64	2900	2600	2100	1500	1300	800	64
62	2400	2200	1700	1300	1100		62
60	2000	1800	1300	1100	800		60
58	1600	1500	1000	800			58
56	1300	1200					56
54	1000	900					54
Reeving	1						Reeving
Hook	7 t						Hook

Table 14 **Unit: Metric kg**

Outriggers intermediately extended with 34 t counterweight assembled, over side and over rear							
Boom angle (ϑ	Boom length (m) + Jib length (m)						Boom angle (ϑ
	57.5 + 11.0		57.5 + 18.6		57.5 + 26.6		
	Offset (ϑ						
	0	30	0	30	0	30	
82	6000	4500	4000	2200	2700	1300	82
80	6000	4500	4000	2200	2700	1300	80
78	6000	4500	4000	2100	2500	1200	78
76	6000	4300	3700	2000	2300	1100	76
74	5600	4100	3300	1900	2100	1050	74
72	5200	3900	3050	1800	1900	1000	72
70	4800	3750	2850	1700	1700	950	70
68	4400	3600	2650	1650	1500	900	68
66	4100	3450	2450	1600	1400	850	66
64	3800	3300	2300	1550	1300	800	64
62	3500	3100	2150	1500	1200		62
60	3100	2900	2000	1450	1100		60
58	2800	2600	1900	1400	1000		58
56	2500	2300	1700	1300	900		56
54	2100	2000	1500	1200	800		54
52	1800	1700	1200	1100			52
50	1600	1500	1000	900			50
45	1000	900					45
Reeving	1						Reeving
Hook	7 t						Hook

Table 15 **Unit: Metric kg**

Outriggers intermediately extended with 30 t counterweight assembled, over side and over rear							
Boom angle (°)	Boom length (m) + Jib length (m)						Boom angle (°)
	57.5 + 11.0		57.5 + 18.6		57.5 + 26.6		
	Offset (°)						
	0	30	0	30	0	30	
82	6000	4500	4000	2200	2700	1300	82
80	6000	4500	4000	2200	2700	1300	80
78	6000	4500	4000	2100	2500	1200	78
76	6000	4300	3700	2000	2300	1100	76
74	5600	4100	3300	1900	2100	1050	74
72	5200	3900	3050	1800	1900	1000	72
70	4800	3750	2850	1700	1700	950	70
68	4400	3600	2650	1650	1500	900	68
66	4100	3400	2450	1600	1400	850	66
64	3700	3200	2300	1550	1300	800	64
62	3200	2900	2100	1500	1200		62
60	2800	2500	1900	1400	1100		60
58	2400	2200	1700	1300	1000		58
56	2000	1900	1400	1200	900		56
54	1700	1600	1100	1000			54
52	1400	1300	900				52
50	1200	1100					50
Reeving	1						Reeving
Hook	7 t						Hook

Table 16 **Unit: Metric kg**

Outriggers intermediately extended with 24 t counterweight assembled, over side and over rear							
Boom angle (ϕ	Boom length (m) + Jib length (m)						Boom angle (ϕ
	57.5 + 11.0		57.5 + 18.6		57.5 + 26.6		
	Offset (ϕ						
	0	30	0	30	0	30	
82	6000	4500	4000	2200	2700	1300	82
80	6000	4500	4000	2200	2700	1300	80
78	6000	4500	4000	2100	2500	1200	78
76	6000	4300	3700	2000	2300	1100	76
74	5600	4100	3300	1900	2100	1000	74
72	5200	3900	3000	1800	1900	950	72
70	4700	3700	2800	1700	1700	900	70
68	4100	3400	2600	1650	1500	850	68
66	3500	3100	2400	1600	1300	800	66
64	3000	2600	2100	1500	1200		64
62	2500	2300	1800	1400	1100		62
60	2100	1900	1400	1200	900		60
58	1700	1500	1100	900			58
56	1400	1300	800				56
54	1100	1000					54
52	800						52
Reeving	1						Reeving
Hook	7 t						Hoo

3 Specifications, superstructure

3.1 Main boom and telescoping system

One basic boom and 5 telescopic sections welded from high-tensile steel (δs = 960 MPa)

Optimal oviform boom profile for the super lifting capacities

Max. number of reeving: 14

In the automatic rapid-cycle telescoping system, all telescopic sections are 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 (optional). The jib section 1 is reducing and lattice structured, and jib extension is constant and lattice structured.

The jib can be assembled below an angle of 0° or 30° to the telescopic boom via operating the pull bracket.

The jib cannot be attached with the vehicle during driving.

Jib variants: 11 m, 18.6 m, 26.6 m

3.3 Slewing table

Torsionally rigid steel construction welded from high-tensile steel, providing superior load 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 work efficiency when the loads are light.

3.5 Derricking gear

One hydraulic cylinder with balancing valve, providing the boom with smooth derricking movements from -1.5°to 82°

3.6 Slewing gear

Two slewing gears, consisting of hydraulic motor and planetary reducer

Double-roller slewing bearing provides big output torque and smooth slewing.

3.7 Hoist gear

- Main and auxiliary winches

  Main and auxiliary winches have the same parts, which include:

  - Hydraulic motor
  - Planetary reducer.

  The models of main and auxiliary winches are different. The main winch is driven by a variable motor and auxiliary winch is driven by a constant motor.

  The auxiliary winch cannot be attached with the vehicle during driving.

- Wire ropes

  Diameter of hoist rope: φ 19 mm

3.8 Main and auxiliary hooks

Ser. No.	Load (t)	Remarks
1	110	Ramshorn hook, optional
2	90	Ramshorn hook
3	55	Straight shank hooks with one point
4	20	Straight shank hooks with one point
5	7 (1 reeving)	Straight shank hooks with one point

3.9 Operator's cab

The new V-series operator's cab in all-steel thin-wall steel construction, tiltable backwards for 20° to broaden the operator's field of vision, providing spacious operating space and luxurious equipment

It is equipped with air conditioning and cab heater.

3.10 Outriggers

H-type outriggers, hydraulically extendable into horizontal and vertical directions

Two-stage sliding beams extendable (fully or intermediately) simultaneously via one telescoping cylinder and extension / retraction rope.

Sliding beams in box-shaped sections are welded from high-tensile steel (δs = 960 MPa).

A support control unit is attached to both sides of the vehicle for controlling the 4 outriggers to extend and retract simultaneously or independently.

With sliding beam illumination, support control unit illumination and electronic inclinometer (on the support control units)

The 5^{th} outrigger is fitted.

3.11 Hydraulic system

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

Open / closed variable system offers little hydraulic pressure loss, high work efficiency, accurate movements, stable & reliable work and stepless speed regulation.

In addition, this crane is also of such functions as counterweight self-handling, operator's cab tilting angle regulation, providing stable brake performance and high system reliability.

3.12 Electrical system

The data bus technology effectively decreases the uses of cables and connections for improving the system reliability and the convenience of maintenance.

This system is of such functions as engine load limit control and RPM limit control.

The computer system is used to monitor the crane movements and display the relevant parameters in real time for analysis and treatment. It is also of self-diagnosis function.

Electron accelerator, easy for operation

3.13 Safety devices

This crane is equipped with an automatic load moment limiter whose display and warning devices are all fitted in the 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 approaches 100% of the rated one, the warning light lights up, buzzer sends out fast acoustic warning and all dangerous crane movements are switched off.

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

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

a) Boom angle indicator

b) Hoisting limit switch c)

Hook latch

d) Lowering limit switch

e) Bidirectional hydraulic lock

f) Balancing valve

g) Relief valve

3.14 Engine

Model: WP6.240

Manufacturer: Weichai Deutz Diesel Engine Co., Ltd.

Type: 6-cylinder in-line diesel, turbo-charged, intercooled (air – air)

Rated power / RPM: 176 kW at 2300 r/min

Max. output torque / RPM: 900 N.m at 1400 – 1600 r/min

Limits for exhaust pollutants and smoke: conforming to EU Stage III

3.15 Air conditioning and cab heater

Both the driver's cab and operator's cab are equipped with special air conditioning and cab heater for vehicle.

3.16 Counterweight

Underslung self-handled multivariable counterweight system in a total weight of 34 t

Counterweight variants of 0 t, 10 t, 24 t, 30 t and 34 t, thus for a considerable application spectrum

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

3.17 Central lubricating system

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

4 Specifications, chassis

Chassis	Model		ZLJ5553	Code: ZLJ5553V3.1
	Type		II	
	Engine	Model	WP12.430N	
		Rated power kW/r/min	316	1900
		Max. output torque N.m/r/min	2060	1000-1400
	Manufacturer		Zoomlion Heavy Industry Science and Technology Co., Ltd.	

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

Appendix

Table of main purchased parts

Ser. No.	Description	Manufacturer	Remarks
1	Operator's cab assy.	Hubei Qixing Vehicle-Body Limited Company	
2	Engine, superstructure	Weichai Deutz Diesel Engine Co., Ltd. (176 kw)	
3	Main pump	Linde Hydraulics Co., Ltd. (Germany)	
4	Slewing bearing	Rex (Xuzhou) Slewing Bearing Co., Ltd. Xuzhou Rothe Erde Slewing Bearing Co., Ltd.	
5	Slewing reducer	Xuzhou Keyuan Hydraulic Co., Ltd. Tai'an Taishan Fushen Gearbox Co., Ltd.	
6	Slewing motor	Shanghai Electric Hydraulics and Pneumatics Co., Ltd.	
7	Variable motor	Beijing Hylet-Linde Hydraulic Engineering Technology Co., Ltd.	For main winch
8	Main winch reducer	Xuzhou Keyuan Hydraulic Co., Ltd. Tai'an Taishan Fushen Gearbox Co., Ltd.	
9	Constant motor	Avic Liyuan Hydraulic Co., Ltd.	For auxiliary winch
10	Auxiliary winch reducer	Xuzhou Keyuan Hydraulic Co., Ltd. Tai'an Taishan Fushen Gearbox Co., Ltd.	
11	Telescoping cylinder	Hunan Teli Hydraulic Co., Ltd.	
12	Derricking cylinder	Hunan Teli Hydraulic Co., Ltd.	
13	Horizontal cylinder	Hunan Teli Hydraulic Co., Ltd.	
14	Vertical cylinder	Hunan Teli Hydraulic Co., Ltd.	
15	Main valve	Bucher Hydraulics Remscheid GMBH (Germany)	
16	Hoist balancing valve	Bucher Hydraulics Remscheid GMBH (Germany)	
17	Derricking balancing valve	Bucher Hydraulics Remscheid GMBH (Germany)	
18	Solenoid valve	Bucher Hydraulics Remscheid GMBH (Germany)	
19	Chassis control solenoid valve block	HAWE Oil-Hydraulic Technology Co., Ltd. (Germany)	
20	Wire rope	LTI Steel Wire Rope (Shanghai) Co., Ltd.	
21	Load moment limiter	Hirschmann Electronics (Shanghai) Co., Ltd.	

NOTE

The equipment fitted in the crane is subject to changes due to design improvements or other reasons. Therefore, the above table is for reference only.