

Zoomlion's crane world

New Generation of V-series



 ZOOMLION

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**ZOOMLION**  
**QY70V533**

Full Hydraulic Truck Crane

# 2009's central theme: Shape the future with "Heart"!

Making steady progress and surpassing ourselves all the way

—New-generation of QY70V truck crane comes into the market splendidly

Rome was not built in a day. So, we make constant effort to improve and perfect our products in every detail. Our 100% intention is just to 100% save your worries and earns your 100% trust.

Zoomlion full hydraulic truck crane QY70V which is of super lifting capacity and super-length telescopic boom is designed with the backing of Zoomlion engineers' half century's designing and manufacturing experience. It is a high-tech and high-performance truck crane harmoniously blended of the advanced international technology and advanced designing concepts.



# Being more satisfactory: High efficiency and low energy consumption

Incomparable lifting capacity and super but flexible telescopic boom

Strong hoisting drive and powerful but energy-saving “Heart”

## Super lifting capacity

44m long main boom and 9.5m to 16m jib make the boom reach 60m long. The lifting capacity of middle-and-full length boom is one grade higher than that of domestic similar product;

Maximum lifting capacity of 15.6m long main boom in 6m and 10m radius is resp. 37t and 14.7t;

Maximum lifting capacity of 19.6m long main boom in 7m and 16m radius is resp. 28.7t and 5.3t;

Maximum lifting capacity of 25.7m long main boom in 8m and 14m radius is resp. 37t and 14.7t;

Maximum lifting capacity of 44m long main boom in 9m and 18m radius is resp. 10t and 5.9t.

Powerful telescopic booms: Hexagon boom section made from high-strength, welded structural steel improves the bending-resistant ability of middle-and-full length boom obviously;

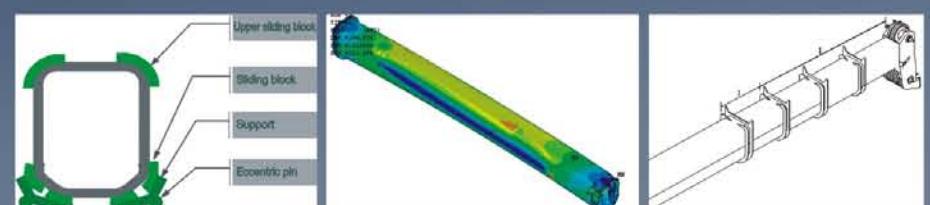
Patent technology improves crane's performance: New telescoping control method maximizes the working capacity of main boom. The stability of completely vehicle is greatly improved;

Newly sliding block obtains a patent technology: New supporting method can upgrade the local stress. Its guiding and positioning device can guide and position the slewing table through the whole slewing process;

Solid chassis and outriggers ensure the stability: Half extendable outriggers enable the crane to better adapt to working environments. The integral-structured 5th outrigger improves the beam rigidity greatly. Improved outrigger pads, widened outriggers and heightened chassis frame generally upgrade the rigidity and stability of complete vehicle.

## Energy-saving and environmental-friendly power system

World-famous-brand intelligent and electric fuel injection engine manufactured by Weichai, conform to EURO III, which is rigorously adjusted according to the crane's actual working conditions, can obtain optimized energy-saving capacity on the prerequisite of strong power.



Being freer from worries:  
Technology leads in value  
Slewing control technology  
generally upgraded!

Smoothen slewing and “Dual control” slewing circuits, high-pressure starting and low-pressure braking

Excellent slewing stability, cushion ability and lock ability at “transfer point of gradient”

#### Generally upgraded slewing control technology

Hydraulic controlled slewing can be real-time monitored: The slewing brake can be real-time controlled via the hydraulic controlled brake valve, ensuring the reliability and stability of brake;

Changed series connection ensures stability: The series-connected sequence of main valve, air conditioning motor and slewing motor is changed. The air conditioning motor is arranged at the front of slewing motor, which forms a series circuit of main pump to air conditioning motor to main valve to slewing motor. The load sensitive proportional slewing valve is changed into bypass throttling valve, which has reduced the influence of pressure fluctuation on slewing system. The bypass relief valve added to air conditioning motor keeps the pressure loss of air conditioning at a constant volume, providing slewing motor with strong driving power. All that makes slewing movements not be influenced by the working of air conditioning.



Being more relieved:  
In the past 50 years, we  
have always been  
endeavoring to improve  
our products' reliability!

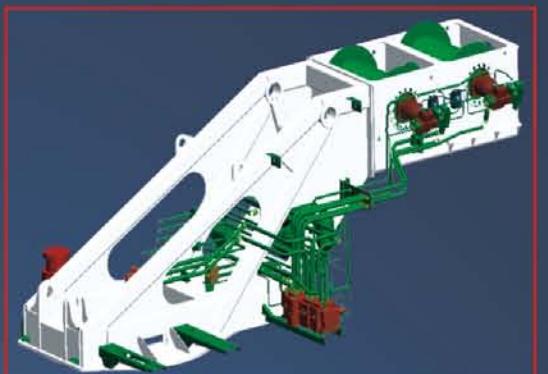
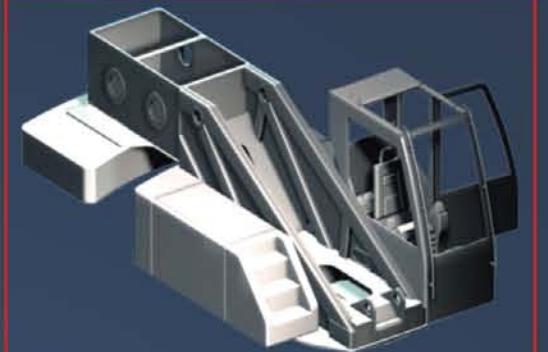
Nearly 50-year crane R & D and designing experience, continuously innovation, application of high-quality components and new technology are just in order to make our cranes blossom out blinding light and prove our cranes' reliability while working high-effectively!

From last century 70s – the first “Wuling” truck crane born in Zoomlion – to today, ZOOLION truck cranes' busy and vigorous figures are still active in the construction sites throughout the country. ZOOLION truck cranes' high-reliability has enjoyed a good reputation inside of the business.

Product design adopts scientific advanced designing software  
Three-dimensional design optimizes the complete vehicle: Three-dimensional designing methods (Pro-E & CAD) applied at the initial designing stage together with software on structure parameterization design to complete vehicle structure have the stiffness and rigidity of complete vehicle distributed more equally, ensuring the cranes with more excellent performance, quality and long service life.

Generally upgraded control system  
Electric controlled joysticks offer you smooth and stable operation: The electric controlled joysticks effectively provide comfortable crane operation, stable and accurate crane movements;  
Upgraded pipelines effectively improve the cleanliness of hydraulic system: The arrangement of pipelines which are standardized is all optimized via the three-dimensional pipeline arrangement software. The pipelines which are connected with clamped-type fittings conform to DIN reduce the use of elbow unions. High-quality steel pipes and rubber hoses effectively ensure the cleanliness of hydraulic system, so its oil leaking points are greatly reduced. The appearance of pipelines is better than before, making your maintenance work more convenient;

New-type circuits offer the crane of stable and smooth movements: New-type balance valve for derrick fitted in the circuits of main valve ensures stable movement of derrick down, which avoids the vibration during derrick down and makes the operation more stable. The side-panel type balance valve is directly installed at the lower part of the derrick cylinder, providing more beautiful appearance, smoother movements and more convenient maintenance.



# Being more contented: Generally upgraded system, carefully chosen components and solid chassis!

## Generally upgraded driving system

Bolts connection provides you reliable and convenient installation: The propeller shaft is connected by flange with end tooth and bolt conforming to international standard. Its power is transferred mainly by the end tooth, which upgrades the force condition of bolt, improves the reliability of connection, prolongs the service life and offers you convenient maintenance;

The clutch booster which is installed at the bottom of the transmission offers you convenient installation and maintenance: The clutch booster, directly mounted at the bottom of the transmission, is of automatic clearance adjusting function. All that makes the 3-5mm clearances between releasing bearing and release plate of the clutch be free-adjustment, providing easy and convenient installation and maintenance;

The clutch is convenient in operation and of clear shifts: The gearshifts are controlled by a selector and H-type controlled. Its main and auxiliary tanks are all equipped with synchronizers, offering you convenient operation and clear shifts.

## Generally upgraded electrical system

Integrated control box and international-brand components: The chassis adopts integral power source control box and safety fuse instead of maxi-fuse. All the plugging elements are water-proof. The world-brand main components improve the water-proof and anti-rust performance of electrical system, ensuring driving security;

Branch connected limit switch guarantees your safety and reliable hoisting: Fitting of branch box at the boom head makes the limit switch do function on both main and auxiliary winches when overwinding, making your crane more reliable and safer.

## Carefully chosen components

Rexroth main and auxiliary winch;

All control main valve and valve block are imported;

Hydraulic lines are all connected via clamped-type fittings;

The derrick cylinder is fitted with Bucher balance valve.

## Solid and flexible chassis

Solid chassis frame, excellent transmission and powerful driving system ensure the crane of good flexibility and possibility, suitable for bad working conditions.



## Human-oriented, enjoy the operation of the crane!

### Advantages for standard maintenance

QY70V533 truck crane has got CE certificate. Its front cover can be tilted upwards 80°, convenient for maintaining and repairing the chassis components. Open-type tail designing is convenient for maintaining and repairing the oil lines and valves.

Artistic guard rail ensures your safety: The hydraulic oil tank is protected by guard rails, so its safety and appearance are all greatly improved; Outside installed oil marks are of human-oriented design: The oil marks are installed at the outside of the oil tank. The upper one is convenient for oil level observation and the lower one can display the oil temperature; Self-diagnosis system: The input and output values of PLC can be displayed on the load moment limiter. The detection and maintenance can be carried out simultaneously without using extra measuring instrument; GPS/GPRS: Optional and modern monitoring system. The machine's working conditions and parameters can be monitored via this system and locked by remote-control device.

### Comfortable working space

Roomy driver's cab and wide vision: All-steel structural and luxury driver's cab of international style design and large space. Sound and heat absorbing internal paneling and computer display screen, elegant and luxury;

Comfortable and cozy cabs: Adjustable spring-cushioned seat with two rails suitable for any operator. Renewed handles for convenient usage, safe and energy-saving;

Adjustable steering wheel: UV-cut curtain, A/C, heater, DVD, wipers with intermittent function and wash device;

Ergonomical arranged joysticks and instrumental panel: Modern designed instrumental panel. Switches and instruments all arranged according to their function, providing you with roomy space and comfortable driving feeling;

Reversing monitoring system: Optional reversing monitoring system and ABS providing you with clear rear view, making reversing simpler and more relax;

Beautiful and practical stairs: Aluminium-alloy platform equipped with stairs, beautiful and practical.



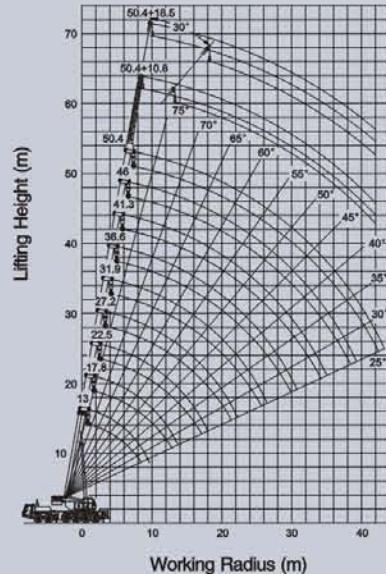
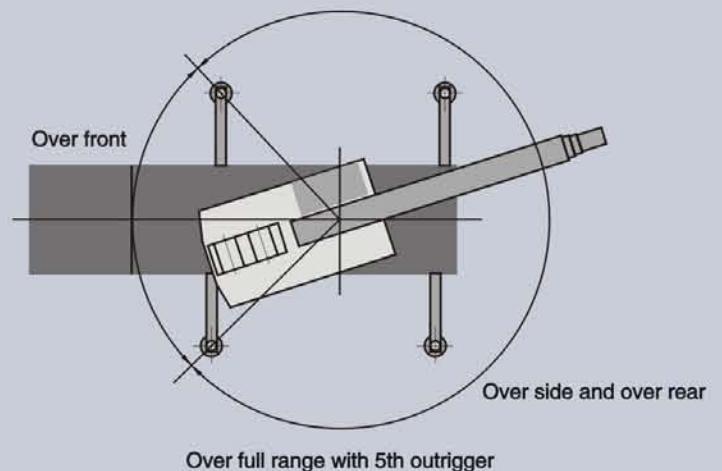
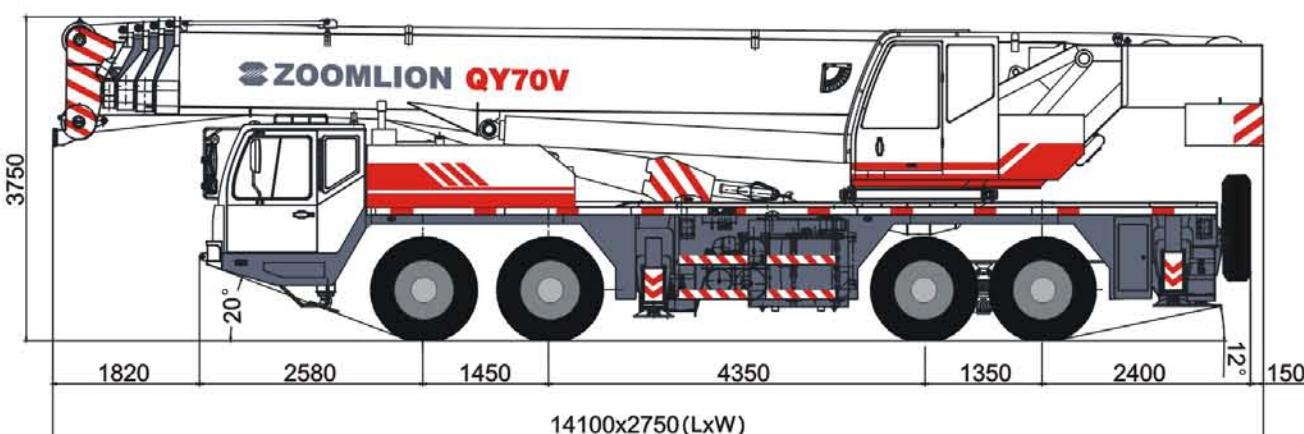


Five-section hexagonal boom, max lifting height of main boom reaches 44.2m, and its max. lifting height with 2-section jib reaches 60.2m;  
Pilot proportional controlled, more accurate and relax operation;  
4-axle special purpose chassis, 8 x 4drive, 2 steering axles and 2 driving axles.

We reserve the right to change the design and specifications without notice

## Technical parameters

Working performance	Max. rated lifting capacity	kg	70000	
	Max. lifting torque of basic boom	kN·m	2352	
	Max. lifting torque of Max. length boom	kN·m	1098	
	Max. lifting height of basic boom	m	12.2	
	Max. lifting height of boom	m	44.2	The specifications do not include deflection of boom and jib
	Max. lifting height of jib	m	60.2	The specifications do not include deflection of boom and jib
Working speeds	Max. hoist rope speed (Main winch)	m/min	120	At 4th layer
	Max. hoist rope speed (Auxiliary winch)	m/min	68	At 2nd layer
	Boom derrick up time	s	57	
	Boom extending time	s	107	
Traveling parameters	Slewing speed	r/min	1.6	
	Max. traveling speed	km/h	75	
	Max. gradeability	%	35	
	Min. turning diameter	m	24	
	Min. ground clearance	mm	280	
Weights	Limits for exhaust pollutants and smoke			Conform to related standards Conform to GB38947-2005&GB17891-2005(National Stage
	Oil consumption per hundred kilometers	L	55	
	Self weight in traveling condition	kg	45000	
	Complete vehicle kerb mass	kg	44870	
	Axle load (Front)	kg	19000	
Dimensions	Axle load (Rear)	kg	26000	
	Overall dimensions(L × W × H)	mm	14100 × 2750 × 3750	
	Longitudinal distance between outriggers	m	6.00	
	Transversal distance between outriggers	m	Outriggers fully extended7.60, Outriggers half extended5.04	
	Boom length	m	11.6~44.0	
	Boom angle	°	-2~80	
	Jib length	m	9.5~16	
Chassis	Offset	°	0~30	
	Model		ZLJ5455V	
	Code		ZLJ5455V3.3	
	Type		II	
	Engine model		WP10.375	Weichai Power Co.,Ltd.
	Rated power	kW/r/min	276/2200	
	Max. torque	kW/r/min	1460/1460~1600	
Technical parameters	Manufacturer		Zoomlion	
	Overall dimensions(L × W × H)	mm	14100 × 2750 × 3750	



## Rated lifting capacity table

Working radius (m)	Boom (m)												
	Outriggers and telescopic cylinder I fully extended, over side and over rear							Outriggers fully extended and telescopic cylinder I half extended, over side and over rear					
	11.6	15.6	19.6	25.7	31.8	37.9	44.0	11.6	15.6	21.7	27.8	33.9	40.0
3.0	70000	50000	40000					70000	50000				
3.5	63000	50000	40000					63000	50000	28000			
4.0	56000	47000	40000	28000				56000	47000	28000			
4.5	52000	44000	40000	28000				52000	44000	28000			
5.0	48000	42000	38000	27000				48000	42000	27000	18000		
5.5	43000	39000	36000	26000	18000			43000	39000	26000	18000		
6.0	39000	37000	34000	25000	18000			39000	37000	25000	18000		
6.5	35000	33000	31500	24000	18000			35000	33000	24000	18000	14000	
7.0	30000	28700	28700	23000	18000	14000		30000	28700	23000	17500	14000	
7.5	26500	25000	25000	22000	18000	14000		26500	25000	22000	17000	14000	
8.0	23500	22500	22500	21000	17500	14000		23500	22500	21000	16500	14000	9500
9.0	18200	18200	18200	18500	16000	14000	10000	18200	18200	19100	16000	14000	9000
10.0		14700	14700	15300	14500	13000	9800		14700	15600	14500	13000	8500
11.0		12200	12200	12700	13000	12000	9500		12200	13000	13800	12000	8000
12.0		10000	10200	11000	11500	11000	9000		10000	11000	11700	11000	7500
14.0			7100	8200	8800	9300	8000			8200	8800	9300	7000
16.0			5300	6000	6700	7200	7000			6100	6700	7200	6500
18.0				4700	5200	5500	5900				5200	5700	6000
20.0				3500	4000	4300	4600				4100	4500	4800
22.0					3100	3300	3800				3200	3600	3900
24.0					2300	2500	3000					2800	3100
26.0					1700	1900	2300					2200	2500
28.0						1400	1800					1700	2000
30.0						900	1300						1500
32.0							1000						1200
I	0	4.0	8.0	8.0	8.0	8.0	8.0	0	4.0	4.0	4.0	4.0	4.0
II	0	0	0	6.1	12.2	18.3	24.4	0	0	6.1	12.2	18.3	24.4
Reaving	12	9	9	5	5	3	3	12	9	5	5	3	3
Hook								70t main hook					

## Rated lifting capacity table

#### Rated lifting capacity table

Working radius	Boom (m)										Boom angle (°)	Boom + jib (m)				
	Outriggers and telescopic cylinder half extended, over side and over rear						Outriggers half extended and telescopic cylinder fully retracted, over side and over rear					Outriggers fully extended, over side and over rear				
	11.6	15.6	21.7	27.8	33.9	40.0	11.6	17.7	23.8	29.9		44.0 + 9.5	44.0 + 16.0			
3.0	60000	50000					60000	28000				0°	30°	0°	30°	
3.5	50000	45000	28000				50000	28000								
4.0	40000	40000	28000				40000	28000	17800							
4.5	35000	35000	28000				35000	28000	17600							
5.0	32800	32000	27000	18000			32800	27000	17400	14000		80	5000	3000	3000	1300
5.5	26500	25700	26000	18000			26500	26000	17200	14000		78	4700	2850	2700	1200
6.0	21900	21200	22900	18000			21900	23800	17000	14000		78	4400	2600	2400	1150
6.5	18500	17800	19400	17500	14000		18500	20200	16800	14000		74	4100	2450	2100	1100
7.0	15800	15200	16700	17000	14000		15800	17500	16500	14000	9000	72	3800	2300	1850	1050
7.5	13700	13100	14600	15400	14000		13700	15300	16000	14000	9000	70	3500	2200	1700	1000
8.0	12000	11400	12800	13600	13500	9500	12000	13500	14200	13000	9000	68	3200	2100	1600	970
9.0	9300	8800	10200	10800	11300	9000	9300	10800	11400	11800	8800	66	2800	2000	1500	940
10.0	6900	8200	8800	9300	8500		8800	9400	9800	8600		64	2400	1900	1400	910
11.0	5400	6700	7300	7700	8100		7200	7800	8200	8300		62	2100	1800	1300	880
12.0	4200	5500	6100	6500	6800		6000	6600	7000	7200		60	1850	1650	1200	850
14.0		3700	4300	4700	5000			4800	5100	5300		58	1600	1350	1100	800
16.0			3000	3400	3700			3500	3800	4000		56	1300	1150	1000	750
18.0				2500	2800				2900	3100		54	1000	900	800	
20.0					1800	2000			2200	2400		52	800			
22.0						1400			1600	1800						
24.0										1300						
26.0																
28.0																
30.0																
32.0																
I	0	4.0	4.0	4.0	4.0	4	0	0	0	0	0					
II	0	0	6.1	12.2	18.3	24.4	0	6.1	12.2	18.3	24.4					
Reeving	12	9	5	5	3	3	12	5	5	3	3	Reeving				
Hook	70t main hook											Hook	5t main hook			



# Our intention is just for your interest!

Zoomlion's unswerving pursuit and constant innovation turn customers'desire to future into today's reality and have led theoretical and technical innovations in China's heavy industry with its foresightness and industrious pains. The life of Zoomlion's products is our theoretical and technical innovations while your demand and satisfaction are powerful motive force of our development. Brand's life lies in its constant innovation. Continuously providing innovated products for the market and enabling our customers to earn more profit are the aims that Zoomlion Mobile Branch Company is endeavoring pursuit! Zoomlion staff is willingly to be hand in hand and shoulder to shoulder with you to create wealth together, make progress together and strive for a beautiful tomorrow together!

