

Table 2-3 Rated Lifting Weight of Main Cargo Boom of QY50C Crane (Unit: kg)

Working Amplitude (m)	Rear and Side Working with Fully-extended Outriggers				
	11.5 m	19.25 m	27.0 m	34.75 m	42.5 m
3.0	55000				
3.5	50000				
4.0	42800	29500			
5.0	36500	28000	19500		
6.0	26000	24000	18500	13800	
7.0	20000	19800	17300	13800	
8.0	16000	15300	16100	12700	8500
9.0		12200	13100	11700	8500
10.0		9800	10800	10700	7800
11.0		8200	8900	9300	7300
12.0		7100	7900	8400	6800
14.0		5100	6000	6400	6000
16.0			4600	5000	5100
18.0			3500	4000	4100
20.0			2500	3200	3300
22.0				2400	2700
24.0				1800	2200
26.0					1700
28.0					1200
Scale factor of wire rope	12	7	5	4	3
Min. elevation angle of main cargo boom (°)	-2°	-2°	-2°	28°	40°

Table 2-4 Rated Lifting Weight of Jib of QY50C Crane (Unit: kg)

Working Amplitude (m)	Rear and Side Working with Fully-extended Outriggers					
	42.5+9.2 m			42.5+15 m		
	a=5°	a=15°	a=30°	a=5°	a=15°	a=30°
10	3500					
11	3200					
12	3000	2400		2400		
14	2700	2200	2000	2300	1500	
16	2500	2000	1800	2000	1400	
18	2200	1800	1700	1800	1300	1000
20	2000	1700	1600	1600	1200	1000
22	1800	1500	1400	1400	1100	900
24	1500	1400	1250	1200	1000	850
26	1200	1200	1100	1100	950	820
28	850	1000	900	1000	880	780
30	550	650	700	800	800	740
32			450	600	700	700
34					450	650
Min. elevation angle of main cargo boom (°)	51°			53°		



- ① the values in the tables refer to the rated hoisting weights of the crane that is set horizontally on the solid ground, and the working amplitudes refer to the actual values of hoisting cargo boom. What should be paid attention to is that the working amplitudes of jib refer to the actual values of jib in hoisting after the main cargo boom is fully extended (42.5m).
- ② after the 5<sup>th</sup> outrigger is set properly, the values in the tables apply to the omnibearing (360°) working. However, it is forbidden to lift the weights above the cab so as to protect the cab from damage due to any accident.
- ③ the values above the thick lines in tables depend on the strength of crane, while that below the

thick lines depend on the stability of crane. When the cargo boom is 11.5m long, all sections of boom shall be fully retracted.

④ the hoisting values given in tables include the weights of hook and hoisting implement (main hook: 620kg; auxiliary hook: 89kg). When the pulley at the tip of boom is used, the rated hoisting weight is limited not greater than 4000kg. If the jib is being spread, the rated hoisting weight of main cargo boom shall be reduced by 900kg.

⑤ if the boom is so long that its length exceeds the specific value in a certain column, the values in the column for the longer boom shall be taken for the comparison with this column, and the hoisting shall be conducted according to the lesser rated hoisting weight. For example, if the boom is longer than 11.5m but not greater than 19.25m, the data shall be determined as per the column for 19.25m.

⑥ it is forbidden to set the amplitude of cargo boom below the minimum elevation angle of the main cargo boom corresponding to the various length of boom.

⑦ when the jib is hoisting, if the main hook remains at the head of main boom, the rated hoisting weight of jib must be reduced by the weight of main hook, 620kg.

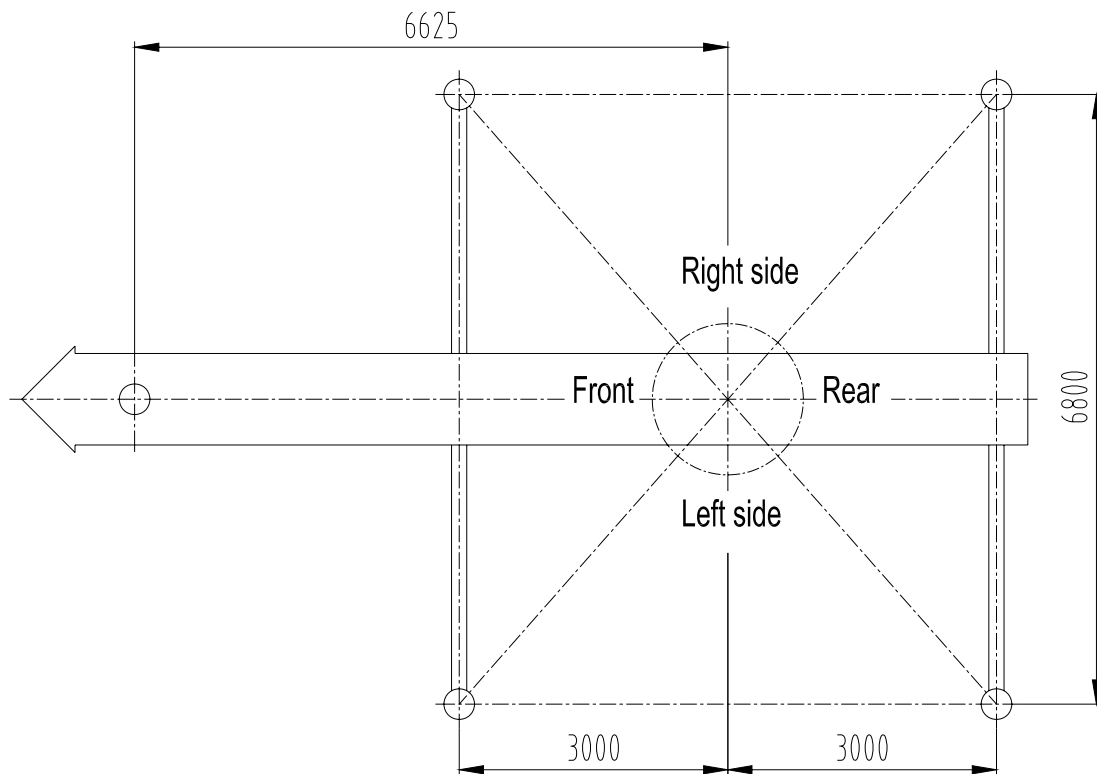


Fig. 2-2 Schematic Diagram of Working Orientation of Crane



No working at the front area when the fifth outrigger of crane is not spread.



When the cargo boom is working at rear area, left/right side, the rated hoisting weights specified in Table 2-3 and 2-4 shall be used as the limitation.

The relations among cargo boom length, amplitude and height are shown in the following figure.

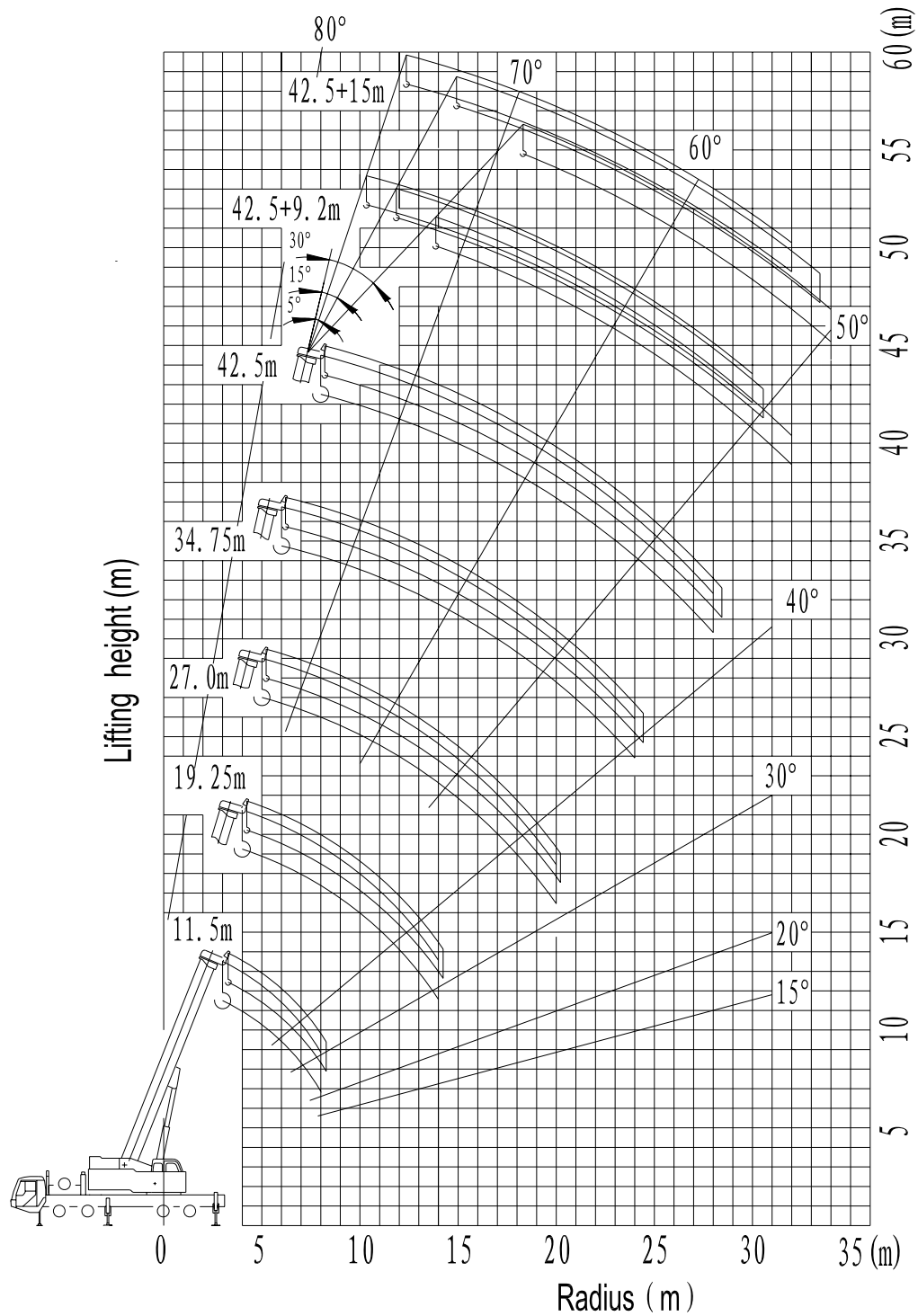


Fig. 2-3 Curve of Lifting Height