

**KEE HING CHEUNG KEE CO., LTD.**  
**DLFTZ CHANG HING KEE**  
**INT'L INDUSTRY & TRADE CO., LTD.**



**240T Truck Crane**

# Contents

Contents.....	01
Product introduction.....	02-04
The main components.....	04-05
KQAY240 Main technical data in travel state.....	06-07
Main arrangement.....	08
KQAY240 Main Boom Lifting Performance Table.....	09-45
KQAY240 Total Rated Lifting Load for Jib.....	46-55

## KQAY240 CRANE



## Product Introduction

KQAY240 All-terrain crane in KQAY130, KQAY160, KQAY200 All-terrain crane successfully developed on the basis of extensive market research and technical feasibility studies, the combination of current market conditions, the independent development of our plant design and an all-terrain products. The product inherited the ground before the entire product development in the successful experiences of the adoption of new materials and new technology, today's most advanced computer-controlled steel structure design and technology. Key components and hydraulic bearing material using the coordinated international, effective improved product performance and reliability. The entire oil and gas hoisted ground chassis, power ratio control system, limit load control variable hydraulic system, "U" - shaped crane, and so the use of technology has greatly enhanced the overall performance and product grades. Modeling new unit, the general layout compact reasonable, moving and lifting of superior performance.

### Product main features:

1. Unit compact structure, the former Bridge after the Second Bridge Bridge to a total of five (12 X10), the small turning radius, turning the narrow space three or four bridge can be raised by May 6 with the Second Bridge to Bridge the same direction, realize crab-shaped traffic on mobile and flexible to ensure that cars can quickly

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enter the work site. Outrigger span, good stability operations, the lifting of superior performance.

- 2.** Six-axle all-terrain off-road chassis, the use of environment-friendly Euro III engine, automatic control machinery 16 +2 gearbox. Vehicles using oil and gas hoisted, the damping effect, and tilt the ground or in the fall on the ground are moving body can automatically leveling. Before and after the vehicle equipped with monitors, so comfortable driving safety. 12 X6 drive, a drive axle differential can be muddy or uneven pavement or on the road-related.
- 3.** Integrated modular design of hydraulic valve block, with the sub-limit load control variable power conditioning system pumps. Both systems meet the normal operating condition, can ensure that the load in excess of engine power in the circumstances, the timely conduct of the pump engines adjust to the requirements of good protection for the engine. With the distribution of flow control multi-channel electro-hydraulic valve and can meet the vice lifting, stretching, luffing action requirements at the same time among all the distribution according to a certain proportion flow, even in the absence of sufficient flow, but also can guarantee that all action , in particular compound action is the realization on the train for the first conductive manner manipulation of manipulation, using PLC integrated intelligent control technology, through the CAN-BUS off in a control network, and combined with the conventional electrical, flexibility in the realization of the Light various movements.
- 4.** Seven box telescopic boom, boom length 13.2 ~ 67 m; elliptical cross section, high-strength steel plate imports (KWELODOX960, KWELODOX1100), lifting ability. Using the most advanced telescopic main fuel tanks alone telescopic arm technology, can achieve a variety of arm length, and has a long arm with a variety of combinations, arm length transform save time. Computer Control telescopic system, its internal interlocked so that the crane stretching simple, fast and reliable.
- 5.** Proprietors, independent deputy from manipulation or winch, the main variables for a motor or motors, high efficiency; vice winch connected through quick connector, removable convenience. Dual Rotary agencies, Rotary more stable, the meshing rotary bearing, convenient maintenance. Buffer system that is equipped with a rotary valve, and can be achieved to smooth fretting.
- 6.** Application of fieldbus technology, PLC control technology, to improve the products of intelligent and advanced level. The system uses an advanced PLC control technology as the core control system, based on the formation of a CAN-BUS control network, formed a distributed control system. With world-class technology onboard automatic fault diagnosis torque limiter function with fault diagnosis and overloading automatically record function. Vol rope had been caving with a high degree spacing, wire anemometer, implant devices and outrigger-level, as well as the status of the operation instructions, so that safe and reliable operations.
- 7.** FRP can be overturned manipulation of the whole room, the biggest flip angle of 21 ° . Using integrated arc-shaped former glass; install hand-fan, heater, air-conditioning, anti - ultraviolet radiation-proof glass and curtains, and so on. Internal control room chairs, manipulating handle, guard rails, displays, such as the accelerator pedal layout should be consistent with the principle of ergonomics.

**8.** Equipped with imported progressive centralized lubrication system, the relative movement of the main points automatic lubrication, extending the overall life so that the vehicle maintenance much easier and convenient.

**9.** This is a good range of user annex option, and it provides the Deputy boom, vice hoisting mechanism, single-arm pulley, tires, etc..

-- Purposes:

Lifting operations and installation works.

-- Scope of use:

Widely used in urban transformation, transport, ports, bridges, oil fields, industrial and mining enterprises, and other places. Lifting the installation.

--Conditions of use:

Temperature: -35 ~ 40 ° C

Work wind: 7 below (wind pressure of not more than 125 N.m)

## The main components

### **1. Boom**

"U" - shaped, seven telescopic boom, telescopic single cylinder bolt body. Arm length 13.2 m ~ 67m.

### **2. Jib**

For a rectangular cross section, truss - type structure, two for the box structure, arm length 12 to 20 m, with 0 °, 15 ° and 30 ° angle to install three variable.

### **3. Luffing agencies**

Before a single cylinder of luffing bodies, gravity drop, smooth work, and low consumption.

### **4. Hydraulic System**

Integrated modular design of hydraulic valve block, with the sub-limit load control variable power conditioning system pumps. Both systems meet the normal operating condition, can ensure that the load in excess of engine power in the circumstances, the timely conduct of the pump engines adjust to the requirements of good protection for the engine. With the distribution of flow control multi-channel electro-hydraulic valve and can meet the vice lifting, stretching, luffing action requirements at the same time among all the distribution according to a certain proportion flow, even in the absence of sufficient flow, but also can guarantee that all action , in particular compound action can be achieved.

### **5. Control Systems**

Manipulation on the train for the first conductive manner ratio manipulation, using PLC integrated intelligent control technology, through the CAN-BUS off in a control network, and combined with the conventional electrical, light flexibility in achieving various movements. Outrigger alight way for the manipulation of electronic control.

### **6. Control Room**

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The whole field of vision can elevated 21 ° manipulation room spacious, bright, adjustable seats around from top to bottom and equipped with air-conditioning, tuner, fan, operating comfort.

## **7. Lifting bodies**

Independent deputy from the main operation or organizations for two planetary gear reducer, wet brakes,

## **8. Rotary agencies**

External dual rotary agencies, Rotary reducer for the two planets slowdown, three rows of pillar rotary bearing.

## **9. Frame**

Torsional big-box frame structure, Outrigger Double H-form.

## **10. Engine**

Get off: power 420 kW / 1800rpm and maximum torque of 2400 N • m / 1080 rpm, Satisfy Euro III emissions.

Car: power 200 kW / 2300rpm and maximum torque 854 N • m / 1400rpm, Satisfy Euro II emissions.

## **11. Gearbox**

Automatic control 16 +2 gearbox.

## **12. Bridge**

The bridge carrying the 12000 kg, 2, 5, 6 Bridge Driver, 1,2,3,5,6 bridge shifted.

## **13. Hoisted**

Oil and gas are used hoisted.

## **14. Steering system**

To form 12 X10, steering wheel position can be high or low, before and after the adjustment, with the contingency to drive pump.

## **15. Braking System**

Lane brake by brake system (foot brake), in the car braking (apply the brake manually) and the auxiliary brake (engine exhaust brake). The road system that is equipped with a gas dryer.

## KQAY240 Main technical data in travel state

Category	Item	Unit	Parameters
Outline Dimensions	Overall length	mm	15918
	Overall height	mm	3080
	Overall width	mm	4000
	axle space	1 <sup>st</sup> , 2 <sup>nd</sup> axle	mm 2750
		2 <sup>nd</sup> , 3 <sup>rd</sup> axle	mm 1650
		3 <sup>rd</sup> 、4 <sup>th</sup> axle	mm 2000
		4 <sup>th</sup> 、5 <sup>th</sup> axle	mm 1650
		5 <sup>th</sup> 、6 <sup>th</sup> axle	mm 1650
	Wheel space	mm	2690
	Front rear	mm	2325
	Rear axle	mm	2005
Weight	Dead weight in travel state	kg	72000
	Total weight	kg	71870
	Axe load	1 <sup>st</sup>	kg 12000
		2 <sup>nd</sup>	kg 12000
		3 <sup>rd</sup>	kg 12000
		4 <sup>th</sup>	kg 12000
		5 <sup>th</sup>	kg 12000
		6 <sup>th</sup>	kg 12000
Travel Performance	Travel speed	Max. travel speed	km/h 71
		Min.. travel speed	km/h 2.1
	Min. turning diameter	m	24
	Min. ground clearance	mm	278
	Approach angle		25°
	Departure angle		17.9°
	Braking distance (at 30km/h )	m	10
	Max. grade ability	%	48
	Yawp	dB (A)	84
	Fuel consumption of 100 km	L	80
chassis	Engine Model		OM502LA
	Engine max. power	kW/(r/min)	420/(1800)
	Drive type		12×6
	Tyre specification		14.00
	No.of tyre (not include spare tyre)		12

Category	Item		Unit	Parameters	
Lifting performance	Max. total rated lifting capacity		t	240	
	Min. rated working radius		m	3	
	Turning radius at swing table tail		mm	4800	
	Max. load	Base boom	kN·m	7797(132.6t*6m)	
		Full-extend boom	kN·m	2940(10t*30m)	
	Outrigger span (Full-extend)	Longitudinal distance	m	9.625	
		Lateral distance	m	8.7	
	Lifting height	Base boom	m	12.6	
		Base boom	m	65.6	
		Full-extend boom+jib (12 m)	m	78.1	
		Full-extend boom+jib (20 m)	m	85.7	
	Boom length	Base boom	m	13.2	
		Full-extend boom	m	67	
		Full-extend boom+jib (12 m)	m	79	
		Full-extend boom+jib (20 m)	m	87	
	Jib offset		°	0°、15°、30°	
Working speed	Boom raising time		s	65	
	Boom telescoping time		s	650	
	Max. swing speed		r/min	1.6	
	Outrigger extending and retracting time	Outrigger beam	extending	s	50
			retracting	s	40
		Outrigger jack	extending	s	50
			retracting	s	45
	Hoist speed (single line at 4 <sup>th</sup> layer)	Main. winch		m/min	115
		Aux. winch		m/min	118
Working yawp	outside radiate		dB(A)	118	
	Driver Place		dB(A)	90	

### Main arrangement

Item	Type	Remark
Engine	Chassis OM502LA	Benz
	Upper TAD722VE	VOLVO
Transmission	16AS2602	Import
Tyre	MICHILIN	Import
Axle		Import
Main、Aux Winch	GFT80W3B77、GFT80W3B61	Rothrex
Main winch motor	A6VM200	boschrexroth
Aux Winch motor	A2FM180	boschrexroth
Slewing speed reducer	RE 1022 TS	Italy Danapac
Slewing motor	HIC55SLM2RMNBR	Italy Sam
Main valve		
Oil Pump	A8VO140LA1H2/	boschrexroth
Main balance valve	CINDY20、CINDY 25	
	WELDOX960、WELDOX1100	Import
pipe joint		Import
slewing ring	131.30.2200	Xuzhou Rothe Erde
Hoist	FUROLIFT φ24-2160 320m, 220m	CASAR
Main pump	A8VO140	boschrexroth
	RC2-2	boschrexroth
telescopic cylinder control	IFLEX2	PAT
Torquer	IFLEX5/001	PAT

## KQAY240 Main Boom Lifting Performance Table

1、75tcounterweight,on full-extended outriggers, 360°slewing and operation

### (1) The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	240.0													
3.5	205.0	140.0	136.0											
4.0	185.0	140.0	132.0	120.0										
4.5	170.0	140.0	128.0	113.0	100.0									
5.0	158.0	132.0	121.0	106.0	92.0									
6.0	132.6	125.0	110.0	96.0	83.0	74.0								
7.0	111.0	110.0	100.0	86.0	75.0	67.0	60.0							
8.0	93.0	91.8	88.0	78.0	68.0	61.0	55.0	51.0						
9.0	81.0	80.0	78.0	72.0	63.0	56.0	50.0	47.0	42.0					
10.0	71.0	70.0	70.0	67.0	58.0	52.0	46.0	43.0	39.0	36.0				
11.0		61.5	62.0	62.0	53.0	48.0	43.0	40.0	36.0	33.0	31.0			
12.0		55.0	55.5	56.0	49.0	44.0	40.0	37.0	34.0	31.0	29.0	26.0		
14.0		45.0	45.0	46.0	43.0	39.0	36.0	33.0	30.0	27.5	26.0	24.0	21.0	17.0
16.0			38.0	38.7	38.0	34.0	32.0	29.0	26.5	24.5	23.0	21.5	19.0	16.0
18.0			32.0	33.0	33.0	31.0	29.0	26.5	24.0	22.0	21.0	19.5	17.0	15.0
20.0				28.5	28.7	28.0	26.0	24.0	21.5	20.0	19.0	17.5	15.5	14.0
22.0				25.0	25.0	25.0	23.0	22.0	20.0	18.0	17.0	16.0	14.5	13.0
24.0					21.9	22.6	21.5	20.0	18.0	16.5	16.0	14.5	13.5	12.0
26.0						19.1	19.8	19.5	18.5	16.5	15.0	14.5	13.5	12.5
28.0							17.5	18.0	17.0	15.0	14.0	13.5	12.5	11.5
30.0							15.5	16.1	16.0	14.0	13.0	12.0	11.5	10.5
32.0								14.4	15.0	13.0	12.0	11.0	10.5	9.5
34.0								12.9	13.7	12.0	11.0	10.0	10.0	9.0
36.0									12.4	11.0	10.5	9.5	9.0	8.5
38.0										11.2	10.5	9.5	9.0	8.0
40.0											10.0	9.0	8.5	8.0
42.0											9.1	8.5	8.0	7.5
44.0												8.0	7.5	7.0
46.0												7.5	7.0	6.5
48.0													6.5	6.0
50.0													6.0	5.5
52.0														5.0
54.0														4.5
56.0														4.1
58.0														3.9
60.0														3.2
62.0														2.9
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0
Min.boom angle														0

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
combined mode	000000	010000	110000	111000	211000	211100	211111	211111	221111	222111	222211	222221	222222	333333
Parts of line	18	12		10		8		5	4		3		2	
Weight of hock	2319			1827						827			447	

## (2) The second combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	240.0													
3.5	205.0	100.0	80.0											
4.0	185.0	97.0	74.0	96.0										
4.5	170.0	92.0	70.0	91.0	73.0									
5.0	158.0	88.0	66.0	86.0	69.0									
6.0	132.6	80.0	60.0	77.0	62.0	69.0								
7.0	111.0	75.0	55.0	69.0	57.0	63.0	52.0							
8.0	93.0	70.0	50.0	62.0	52.0	58.0	48.0	46.0						
9.0	81.0	65.0	46.0	57.0	48.0	54.0	45.0	42.0	38.0					
10.0	71.0	61.0	43.0	53.0	45.0	50.0	42.0	39.0	35.0	32.0				
11.0		58.0	40.0	49.0	42.0	46.0	39.0	37.0	32.5	29.0	27.0			
12.0		55.0	38.0	45.0	39.0	43.0	36.0	34.0	30.5	27.5	25.5	23.0		
14.0		47.0	34.0	40.0	35.0	39.0	32.0	30.0	27.0	24.5	22.5	21.0	21.0	17.0
16.0			31.0	35.0	31.0	34.5	29.0	27.0	24.0	21.5	20.5	19.0	19.0	16.0
18.0			27.0	32.0	28.0	31.0	27.0	24.0	21.5	19.5	18.5	17.0	17.0	15.0
20.0				29.0	25.0	29.0	24.0	22.0	19.5	18.0	17.0	15.5	15.5	14.0
22.0				26.0	23.0	26.0	22.0	20.0	18.0	16.0	15.0	14.0	14.5	13.0
24.0					21.0	23.8	20.5	18.5	16.5	15.0	14.0	13.0	13.5	12.0
26.0					19.0	21.0	19.0	17.0	15.0	14.0	13.0	12.0	12.5	11.2
28.0						18.7	18.0	16.0	14.0	12.5	12.0	11.0	11.5	10.5
30.0						16.7	17.0	15.0	13.0	11.5	11.0	10.0	10.5	10.0
32.0							15.7	14.0	12.0	11.0	10.0	9.5	9.5	9.2
34.0							14.2	13.0	11.0	10.0	9.5	9.0	9.0	8.5
36.0								12.0	10.5	9.5	9.0	8.5	8.5	8.0
38.0								11.5	10.0	9.0	8.5	8.0	8.0	7.5
40.0									9.5	8.5	8.0	7.5	7.2	7.0
42.0									9.0	8.0	7.5	7.0	6.7	6.5
44.0										7.5	7.0	6.5	6.2	6.0
46.0										7.0	6.5	6.0	5.8	5.5
48.0											6.0	5.5	5.4	5.0
50.0											5.5	5.0	5.1	4.6
52.0												4.5	4.7	4.2
54.0												4.2	4.4	4.0
56.0													4.1	3.8
58.0													3.9	3.5
60.0														3.2
62.0														2.9
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0
Min.boom								0						

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
angle														
combined	00000	00010	00011	021000	01111	11111	11111	12111	12211	12221	122	122222	22222	333333
Parts of line	18			8		5		4		3		2		
Weight of hock	2319			1827				827				447		

### (3) The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	240.0													
3.5	205.0	70.0	52.0											
4.0	185.0	65.0	46.0	63.0										
4.5	170.0	61.0	43.0	59.0	62.0									
5.0	158.0	58.0	40.0	55.0	58.0									
6.0	132.6	53.0	36.0	50.0	53.0	55.0								
7.0	111.0	48.0	32.0	45.0	47.0	51.0	44.0							
8.0	93.0	44.0	29.0	41.0	43.0	46.0	40.0	34.0						
9.0	81.0	41.0	27.0	38.0	39.0	43.0	37.0	31.0	32.0					
10.0	71.0	38.0	25.0	35.0	36.0	39.0	34.0	29.0	30.0	27.5				
11.0		36.0	23.0	33.0	33.0	36.0	32.0	27.0	28.0	26.0	24.0			
12.0		34.0	21.0	30.0	31.0	34.0	30.0	25.0	26.5	24.5	22.0	23.0		
14.0		30.0	19.0	27.0	27.0	30.0	26.0	23.0	24.0	21.5	20.0	21.0	21.0	17.0
16.0			17.0	24.0	24.0	27.0	23.5	21.0	21.5	19.5	18.0	19.0	19.0	16.0
18.0			15.0	22.0	21.0	25.0	21.0	19.0	19.5	17.5	16.0	17.0	17.0	15.0
20.0				20.0	19.0	22.0	19.5	17.0	18.0	16.0	14.5	15.5	15.5	14.0
22.0					18.0	18.0	20.0	18.0	15.5	16.5	15.0	13.5	14.0	14.5
24.0						16.0	18.0	16.5	14.5	15.5	14.0	12.5	13.0	13.5
26.0						15.0	17.0	15.0	13.5	14.5	12.5	11.5	12.0	12.5
28.0							16.0	14.0	12.5	13.5	12.0	10.5	11.0	11.5
30.0							15.0	13.0	11.5	12.5	11.0	10.0	10.0	10.5
32.0								12.0	10.5	12.0	10.5	9.5	9.5	9.2
34.0								11.0	10.0	11.0	9.5	9.0	9.0	8.5
36.0									9.5	10.5	9.0	8.5	8.5	8.0
38.0									9.0	10.0	8.5	8.0	8.0	7.5
40.0										9.5	8.0	7.5	7.5	7.2
42.0										9.0	7.5	7.0	7.0	6.7
44.0											7.0	6.5	6.5	6.0
46.0											6.5	6.0	6.0	5.5
48.0												5.5	5.5	5.4
50.0												5.0	5.0	5.1
52.0													4.5	4.7
54.0													4.2	4.4
56.0														4.1
58.0														3.9
60.0														3.2
62.0														2.9

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
boom angle	73	76	79	80	81	80	80	80	80	80	80	81	80	81
boom angle	29	26	25	23	23	22	22	21	21	21	21	21	21	22
Min.boom								0						
combined	00000	00000	00000	00011	00111	01111	11111	01112	11112	11122	11222	12222	22222	333333
Parts of line	18	6		5			4		3			2		
Weight of	2319	1827			827							447		

2、62tcounterweight, on full-extended outriggers, 360° slewing and operation

### (1) The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	240.0													
3.5	205.0	140.0	136.0											
4.0	185.0	140.0	132.0	120.0										
4.5	168.5	140.0	128.0	113.0	100.0									
5.0	152.2	131.0	121.0	106.0	92.0									
6.0	124.0	120.0	110.0	96.0	83.0	74.0								
7.0	102.0	100.0	99.0	86.0	75.0	67.0	60.0							
8.0	87.0	86.0	85.0	78.0	68.0	61.0	55.0	51.0						
9.0	75.0	74.0	74.0	72.0	63.0	56.0	50.0	47.0	42.0					
10.0	62.0	64.0	64.0	64.5	58.0	52.0	46.0	43.0	39.0	36.0				
11.0		56.0	57.0	57.3	53.0	48.0	43.0	40.0	36.0	33.0	31.0			
12.0		50.0	51.0	51.0	49.0	44.0	40.0	37.0	34.0	31.0	29.0	26.0		
14.0		41.0	41.7	41.8	41.5	39.0	36.0	33.0	30.0	27.5	26.0	24.0	21.0	17.0
16.0			34.2	35.0	35.5	34.0	32.0	29.0	26.5	24.5	23.0	21.5	19.0	16.0
18.0				28.1	30.0	30.2	30.9	29.0	26.5	24.0	22.0	21.0	19.5	17.0
20.0					25.8	25.4	26.1	26.0	24.0	21.5	20.0	19.0	17.5	15.5
22.0						22.0	21.6	22.3	23.0	22.0	20.0	18.0	17.0	16.0
24.0							18.6	19.3	19.9	20.0	18.0	16.5	16.0	14.5
26.0								16.1	16.8	17.4	18.2	16.5	15.0	14.5
28.0									14.7	15.3	16.1	15.0	14.0	13.5
30.0										12.9	13.5	14.3	14.0	13.0
32.0											12.0	12.8	12.6	12.0
34.0												10.7	11.4	11.3
36.0													10.3	10.1
38.0														9.2
40.0														
42.0														
44.0														
46.0														
48.0														
50.0														
52.0														
54.0														
56.0														

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
58.0													3.9	3.5
60.0														3.2
62.0														2.9
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0
Min.boom angle								0						
combined mode	000000	010000	110000	111000	211000	211100	211110	211111	221111	222111	222211	222221	222222	333333
Parts of line	18	12	10	8			5		4		3		2	
Weight of hock	2319		1827						827				447	

## (2) The second combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	240.0													
3.5	205.0	100.0	80.0											
4.0	185.0	97.0	74.0	96.0										
4.5	168.5	92.0	70.0	91.0	73.0									
5.0	152.2	88.0	66.0	86.0	69.0									
6.0	124.0	80.0	60.0	77.0	62.0	69.0								
7.0	102.0	75.0	55.0	69.0	57.0	63.0	52.0							
8.0	87.0	70.0	50.0	62.0	52.0	58.0	48.0	46.0						
9.0	75.0	65.0	46.0	57.0	48.0	54.0	45.0	42.0	38.0					
10.0	62.0	61.0	43.0	53.0	45.0	50.0	42.0	39.0	35.0	32.0				
11.0		58.0	40.0	49.0	42.0	46.0	39.0	37.0	32.5	29.0	27.0			
12.0		51.5	38.0	45.0	39.0	43.0	36.0	34.0	30.5	27.5	25.5	23.0		
14.0		42.5	34.0	40.0	35.0	39.0	32.0	30.0	27.0	24.5	22.5	21.0	21.0	17.0
16.0			31.0	35.0	31.0	34.5	29.0	27.0	24.0	21.5	20.5	19.0	19.0	16.0
18.0			27.0	31.0	28.0	31.0	27.0	24.0	21.5	19.5	18.5	17.0	17.0	15.0
20.0				26.0	25.0	27.3	24.0	22.0	19.5	18.0	17.0	15.5	15.5	14.0
22.0				22.3	23.0	23.5	22.0	20.0	18.0	16.0	15.0	14.0	14.5	13.0
24.0					20.5	20.5	20.5	18.5	16.5	15.0	14.0	13.0	13.5	12.0
26.0					18.0	18.0	18.8	17.0	15.0	14.0	13.0	12.0	12.5	11.2
28.0						15.9	16.6	16.0	14.0	12.5	12.0	11.0	11.5	10.5
30.0						14.1	14.9	14.7	13.0	11.5	11.0	10.0	10.5	10.0
32.0							13.3	13.1	12.0	11.0	10.0	9.5	9.5	9.2
34.0							12.0	11.8	11.0	10.0	9.5	9.0	9.0	8.5
36.0								10.6	10.5	9.5	9.0	8.5	8.5	8.0
38.0								9.6	9.7	9.0	8.5	8.0	8.0	7.5
40.0									8.7	8.5	8.0	7.5	7.2	7.0
42.0									7.9	8.0	7.5	7.0	6.7	6.5
44.0										7.4	7.0	6.5	6.2	6.0
46.0										6.7	6.5	6.0	5.8	5.5
48.0											6.0	5.5	5.4	5.0
50.0											5.5	5.0	5.1	4.6
52.0												4.5	4.7	4.2
54.0												4.2	4.4	4.0
56.0												4.1	3.8	

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
58.0													3.9	3.5
60.0														3.2
62.0														2.9
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0
Min.boom angle								0						
combined mode	0000000	0001000	0001100	0210000	0111100	1111110	1111111	1211111	1221111	1222111	1222211	1222221	2222222	3333333
Parts of line	18			8			5		4		3		2	
Weight of hock	2319			1827				827				447		

### (3) The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	240.0													
3.5	205.0	70.0	52.0											
4.0	185.0	65.0	46.0	63.0										
4.5	168.5	61.0	43.0	59.0	62.0									
5.0	152.2	58.0	40.0	55.0	58.0									
6.0	124.0	53.0	36.0	50.0	53.0	55.0								
7.0	102.0	48.0	32.0	45.0	47.0	51.0	44.0							
8.0	87.0	44.0	29.0	41.0	43.0	46.0	40.0	34.0						
9.0	75.0	41.0	27.0	38.0	39.0	43.0	37.0	31.0	32.0					
10.0	62.0	38.0	25.0	35.0	36.0	39.0	34.0	29.0	30.0	27.5				
11.0		36.0	23.0	33.0	33.0	36.0	32.0	27.0	28.0	26.0	24.0			
12.0		34.0	21.0	30.0	31.0	34.0	30.0	25.0	26.5	24.5	22.0	23.0		
14.0		30.0	19.0	27.0	27.0	30.0	26.0	23.0	24.0	21.5	20.0	21.0	21.0	17.0
16.0			17.0	24.0	24.0	27.0	23.5	21.0	21.5	19.5	18.0	19.0	19.0	16.0
18.0			15.0	22.0	21.0	25.0	21.0	19.0	19.5	17.5	16.0	17.0	17.0	15.0
20.0				20.0	19.0	22.0	19.5	17.0	18.0	16.0	14.5	15.5	15.5	14.0
22.0					18.0	18.0	20.0	18.0	15.5	16.5	15.0	13.5	14.0	14.5
24.0						16.0	18.0	16.5	14.5	15.5	14.0	12.5	13.0	13.5
26.0						15.0	17.0	15.0	13.5	14.5	12.5	11.5	12.0	12.5
28.0							16.0	14.0	12.5	13.5	12.0	10.5	11.0	11.5
30.0							15.0	13.0	11.5	12.5	11.0	10.0	10.0	10.0
32.0								12.0	10.5	12.0	10.5	9.5	9.5	9.2
34.0								11.0	10.0	11.0	9.5	9.0	9.0	8.5
36.0									9.5	10.5	9.0	8.5	8.5	8.0
38.0									9.0	10.0	8.5	8.0	8.0	7.5
40.0										9.5	8.0	7.5	7.5	7.0
42.0										9.0	7.5	7.0	7.0	6.7
44.0											7.0	6.5	6.5	6.0
46.0											6.5	6.0	6.0	5.5
48.0												5.5	5.5	5.4
50.0												5.0	5.0	5.1
52.0												4.5	4.7	4.2

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
54.0												4.2	4.4	4.0
56.0													4.1	3.8
58.0													3.9	3.5
60.0														3.2
62.0														2.9
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0
Min.boom angle								0						
combined mode	000000	000001	000002	000111	001111	011111	111112	011122	111122	111222	112222	122222	222222	333333
Parts of line	18	6		5			4		3				2	
Weight of hock	2319	1827				827							447	

### 3、42tcounterweight, on full-extended outriggers, 360° slewing and operation

#### (1) The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0	
3.0	230.3														
3.5	200.1	140.0	136.0												
4.0	176.6	140.0	132.0	120.0											
4.5	157.8	140.0	128.0	113.0	100.0										
5.0	139.0	131.5	121.0	106.0	92.0										
6.0	110.5	109.0	108.0	96.0	83.0	74.0									
7.0	90.0	90.0	89.0	86.0	75.0	67.0	60.0								
8.0	75.5	75.5	75.0	75.0	68.0	61.0	55.0	51.0							
9.0	66.0	65.0	64.5	66.0	63.0	56.0	50.0	47.0	42.0						
10.0	57.0	57.0	56.5	57.6	56.5	52.0	46.0	43.0	39.0	36.0					
11.0		50.0	50.0	50.8	50.0	48.0	43.0	40.0	36.0	33.0	31.0				
12.0		44.0	44.0	44.3	44.5	44.0	40.0	37.0	34.0	31.0	29.0	26.0			
14.0		35.6	35.0	35.7	35.3	36.0	36.0	33.0	30.0	27.5	26.0	24.0	21.0	17.0	
16.0			27.8	28.5	28.1	28.8	29.5	29.0	26.5	24.5	23.0	21.5	19.0	16.0	
18.0			22.6	23.3	22.9	23.6	24.3	25.1	24.0	22.0	21.0	19.5	17.0	15.0	
20.0				19.4	19.0	19.7	20.4	21.2	21.0	20.0	19.0	17.5	15.5	14.0	
22.0					16.3	15.9	16.6	17.3	18.1	17.9	18.0	17.0	16.0	14.5	13.0
24.0						13.4	14.1	14.8	15.6	15.4	15.6	15.9	14.5	13.5	12.0
26.0						11.4	12.1	12.7	13.5	13.4	13.6	13.8	13.5	12.5	11.2
28.0							10.4	11.0	11.8	11.7	11.8	12.1	12.4	11.5	10.5
30.0							8.9	9.6	10.3	10.2	10.4	10.6	10.9	10.5	10.0
32.0								8.3	9.1	9.0	9.1	9.4	9.7	9.5	9.2
34.0								7.2	8.0	7.9	8.0	8.3	8.6	9.0	8.5
36.0									7.0	6.9	7.1	7.3	7.6	8.0	8.0
38.0									6.2	6.1	6.2	6.5	6.8	7.2	7.2
40.0										5.3	5.5	5.7	6.0	6.4	6.4
42.0										4.6	4.8	5.1	5.3	5.7	5.8
44.0											4.2	4.5	4.7	5.1	5.1
46.0											3.7	3.9	4.2	4.6	4.6
48.0												3.4	3.7	4.1	4.1

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
50.0											2.9	3.2	3.6	3.6
52.0												2.8	3.2	3.2
54.0												2.4	2.8	2.8
56.0												2.4	2.5	
58.0												2.1	2.1	
60.0													1.8	
62.0														1.5
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0
Min.boom angle								0						
combined mode	000000	010000	110000	111000	211000	211100	211110	211111	221111	222111	222211	222221	222222	333333
Parts of line	18	12	10	8			5		4		3		2	
Weight of hock	2319			1827						827				447

## (2) The second combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	230.3													
3.5	200.1	100.0	80.0											
4.0	176.6	97.0	74.0	96.0										
4.5	157.8	92.0	70.0	91.0	73.0									
5.0	139.0	88.0	66.0	86.0	69.0									
6.0	110.5	80.0	60.0	77.0	62.0	69.0								
7.0	90.0	75.0	55.0	69.0	57.0	63.0	52.0							
8.0	75.5	70.0	50.0	62.0	52.0	58.0	48.0	46.0						
9.0	66.0	65.0	46.0	57.0	48.0	54.0	45.0	42.0	38.0					
10.0	57.0	58.0	43.0	53.0	45.0	50.0	42.0	39.0	35.0	32.0				
11.0		52.0	40.0	49.0	42.0	46.0	39.0	37.0	32.5	29.0	27.0			
12.0		46.7	38.0	45.0	39.0	43.0	36.0	34.0	30.5	27.5	25.5	23.0		
14.0		37.0	34.0	36.1	35.0	37.4	32.0	30.0	27.0	24.5	22.5	21.0	21.0	17.0
16.0			31.0	28.9	29.3	30.2	29.0	27.0	24.0	21.5	20.5	19.0	19.0	16.0
18.0				25.8	23.7	24.1	24.9	25.8	24.0	21.5	19.5	18.5	17.0	17.0
20.0					19.8	20.1	21.0	21.8	21.6	19.5	18.0	17.0	15.5	15.5
22.0					16.6	17.0	17.9	18.7	18.5	18.0	16.0	15.0	14.0	14.5
24.0						14.6	15.4	16.1	16.0	16.0	15.0	14.0	13.0	13.5
26.0						12.5	13.3	14.1	13.9	14.0	14.0	13.0	12.0	12.5
28.0							11.6	12.4	12.2	12.2	12.5	12.0	11.0	11.5
30.0							10.1	10.9	10.7	10.8	11.0	11.0	10.0	10.5
32.0								9.6	9.4	9.5	9.8	10.0	9.5	9.2
34.0								8.5	8.4	8.4	8.7	9.0	9.0	8.5
36.0									7.4	7.5	7.7	8.0	8.4	8.0
38.0									6.5	6.6	6.9	7.2	7.6	7.2
40.0										5.9	6.1	6.4	6.8	6.4
42.0										5.2	5.4	5.8	6.1	5.7

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
44.0										4.8	5.1	5.5	5.1	5.1
46.0										4.3	4.6	5.0	4.6	4.6
48.0										4.1	4.5	4.1	4.1	
50.0										3.6	4.0	3.6	3.6	
52.0											3.6	3.2	3.2	
54.0											3.2	2.8	2.8	
56.0												2.4	2.5	
58.0												2.1	2.1	
60.0													1.8	
62.0													1.5	
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0
Min. boom angle								0						
combined mode	0000000	0001000	0001100	0210000	0111100	1111100	1111111	1211111	1221111	1222111	1222211	1222222	2222222	3333333
Parts of line	18				8			5		4		3		2
Weight of hock	2319				1827					827			447	

### (3) The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	230.3													
3.5	200.1	70.0	52.0											
4.0	176.6	65.0	46.0	63.0										
4.5	157.8	61.0	43.0	59.0	62.0									
5.0	139.0	58.0	40.0	55.0	58.0									
6.0	110.5	53.0	36.0	50.0	53.0	55.0								
7.0	90.0	48.0	32.0	45.0	47.0	51.0	44.0							
8.0	75.5	44.0	29.0	41.0	43.0	46.0	40.0	34.0						
9.0	66.0	41.0	27.0	38.0	39.0	43.0	37.0	31.0	32.0					
10.0	57.0	38.0	25.0	35.0	36.0	39.0	34.0	29.0	30.0	27.5				
11.0		36.0	23.0	33.0	33.0	36.0	32.0	27.0	28.0	26.0	24.0			
12.0		34.0	21.0	30.0	31.0	34.0	30.0	25.0	26.5	24.5	22.0	23.0		
14.0		30.0	19.0	27.0	27.0	30.0	26.0	23.0	24.0	21.5	20.0	21.0	21.0	17.0
16.0			17.0	24.0	24.0	27.0	23.5	21.0	21.5	19.5	18.0	19.0	19.0	16.0
18.0				15.0	22.0	21.0	25.0	21.0	19.0	19.5	17.5	16.0	17.0	15.0
20.0					20.0	19.0	22.0	19.5	17.0	18.0	16.0	14.5	15.5	14.0
22.0						18.0	18.0	19.3	18.0	15.5	16.5	15.0	13.5	14.0
24.0							16.0	16.8	16.5	14.5	15.5	14.0	12.5	13.0
26.0								15.0	14.7	15.0	13.5	14.5	12.5	11.5
28.0									13.0	13.6	12.5	13.3	12.0	10.5
30.0										11.5	12.1	11.5	11.0	10.0
32.0											10.8	10.5	10.6	10.5
34.0											9.7	10.0	9.5	9.5
36.0												9.1	8.5	8.7

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
38.0								8.2	7.7	7.8	7.8	7.6	7.2	7.2
40.0									6.9	7.1	7.0	6.8	6.4	6.4
42.0									6.2	6.4	6.3	6.1	5.7	5.8
44.0										5.8	5.7	5.5	5.1	5.1
46.0										5.2	5.2	5.0	4.6	4.6
48.0										4.7	4.5	4.1	4.1	4.1
50.0										4.2	4.0	3.6	3.6	3.6
52.0											3.6	3.2	3.2	3.2
54.0											3.2	2.8	2.8	2.8
56.0												2.4	2.5	2.5
58.0												2.1	2.1	2.1
60.0													1.8	
62.0													1.5	
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0
Min. boom angle								0						
combined mode	000000	000001	000002	000111	001111	011111	111112	011122	111122	111222	112222	122222	222222	333333
Parts of line	18	6		5			4		3			2		
Weight of hook	2319	1827				827						447		

4、32tcounterweight, on full-extended outriggers, 360° slewing and operation

### (1) The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	222.6													
3.5	192.0	140.0	136.0											
4.0	168.0	140.0	132.0	120.0										
4.5	147.0	140.0	128.0	113.0	100.0									
5.0	129.0	128.0	121.0	106.0	92.0									
6.0	101.0	101.0	101.0	96.0	83.0	74.0								
7.0	83.0	82.5	82.0	83.0	75.0	67.0	60.0							
8.0	70.0	70.0	70.0	70.0	68.0	61.0	55.0	51.0						
9.0	60.0	60.0	60.0	60.0	60.0	56.0	50.0	47.0	42.0					
10.0	52.0	52.7	52.0	52.5	53.0	52.0	46.0	43.0	39.0	36.0				
11.0		46.6	45.5	45.5	46.2	47.1	43.0	40.0	36.0	33.0	31.0			
12.0		40.0	39.4	40.0	39.6	40.4	40.0	37.0	34.0	31.0	29.0	26.0		
14.0			30.5	30.0	30.0	30.2	31.0	31.7	32.6	30.0	27.5	26.0	24.0	21.0
16.0				23.6	24.3	23.9	24.6	25.3	26.2	26.0	24.5	23.0	21.5	19.0
18.0					19.0	19.7	19.3	20.0	20.7	21.5	21.4	21.6	21.0	19.5
20.0						16.2	15.8	16.5	17.2	18.0	17.8	18.0	18.3	17.5
22.0						13.4	13.1	13.8	14.4	15.2	15.1	15.3	15.5	15.8
24.0							10.9	11.6	12.2	13.0	12.9	13.0	13.3	13.6
26.0								9.0	9.8	10.4	11.2	11.0	11.2	11.5
28.0									8.2	8.9	9.6	9.5	9.7	9.9

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
30.0						6.9	7.6	8.3	8.2	8.4	8.6	8.9	9.3	9.4
32.0							6.5	7.2	7.1	7.3	7.5	7.8	8.2	8.3
34.0							5.5	6.3	6.1	6.3	6.6	6.8	7.2	7.3
36.0								5.4	5.3	5.5	5.7	6.0	6.4	6.4
38.0								4.6	4.5	4.7	5.0	5.2	5.6	5.7
40.0									3.9	4.1	4.3	4.6	5.0	5.0
42.0									3.3	3.5	3.7	4.0	4.4	4.4
44.0										2.9	3.2	3.4	3.8	3.9
46.0										2.4	2.7	2.9	3.3	3.4
48.0											2.2	2.5	2.9	2.9
50.0											1.8	2.1	2.5	2.5
52.0												1.7	2.1	2.1
54.0												1.4	1.7	1.8
56.0													1.4	1.5
58.0														
60.0														
62.0														
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	27.0	35.0
Min.boom angle							0							22
combined mode	000000	010000	110000	111000	211000	211100	211110	211111	221111	222111	222211	222221	222222	333333
Parts of line	18	12	10	8			5		4		3		2	
Weight of hock	2319		1827						827				447	

## (2) The second combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	222.6													
3.5	192.0	100.0	80.0											
4.0	168.0	97.0	74.0	96.0										
4.5	147.0	92.0	70.0	91.0	100.0									
5.0	129.0	88.0	66.0	86.0	92.0									
6.0	101.0	80.0	60.0	77.0	83.0	69.0								
7.0	83.0	75.0	55.0	69.0	75.0	63.0	52.0							
8.0	70.0	70.0	50.0	62.0	68.0	58.0	48.0	46.0						
9.0	60.0	62.0	46.0	57.0	61.5	54.0	45.0	42.0	38.0					
10.0	52.0	54.0	43.0	53.0	54.0	50.0	42.0	39.0	35.0	32.0				
11.0		48.1	40.0	47.2	47.6	46.0	39.0	37.0	32.5	29.0	27.0			
12.0		41.5	38.0	40.5	41.0	41.9	36.0	34.0	30.5	27.5	25.5	23.0		
14.0		31.9	33.3	31.1	31.5	32.4	32.0	30.0	27.0	24.5	22.5	21.0	21.0	17.0
16.0			26.8	24.7	25.1	26.0	26.8	26.6	24.0	21.5	20.5	19.0	19.0	16.0
18.0			22.1	20.1	20.5	21.3	22.1	21.9	21.5	19.5	18.5	17.0	17.0	15.0
20.0				16.6	17.0	17.8	18.6	18.4	18.5	18.0	17.0	15.5	15.5	14.0
22.0				13.8	14.2	15.0	15.8	15.6	15.7	15.9	15.0	14.0	14.5	13.0

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
24.0					12.0	12.8	13.6	13.4	13.5	13.7	14.0	13.0	13.5	12.0
26.0					10.2	11.0	11.7	11.6	11.6	11.9	12.2	12.0	12.2	11.2
28.0						9.4	10.2	10.0	10.1	10.3	10.7	11.0	10.6	10.5
30.0						8.1	8.9	8.7	8.8	9.0	9.4	9.8	9.3	9.4
32.0							7.8	7.6	7.7	7.9	8.2	8.6	8.2	8.3
34.0							6.8	6.6	6.7	6.9	7.3	7.7	7.2	7.3
36.0								5.8	5.9	6.1	6.4	6.8	6.4	6.4
38.0								5.0	5.1	5.3	5.7	6.1	5.6	5.7
40.0									4.4	4.7	5.0	5.4	5.0	5.0
42.0									3.8	4.1	4.4	4.8	4.4	4.4
44.0										3.5	3.8	4.2	3.8	3.9
46.0										3.0	3.4	3.7	3.3	3.4
48.0											2.9	3.3	2.9	2.9
50.0											2.5	2.9	2.5	2.5
52.0												2.5	2.1	2.1
54.0												2.2	1.7	1.8
56.0													1.4	1.5
58.0														
60.0														
62.0														
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	27.0	35.0
Min.boom angle								0						22
combined mode	000000	000100	000110	021000	011110	111110	111111	121111	122111	122211	122221	122222	222222	333333
Parts of line	18				8			5	4		3			2
Weight of hock block	2319				1827					827				447

## 5、22tcounterweight, on full-extended outriggers, 360° slewing and operation

### (1) The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	215.0													
3.5	186.7	140.0	136.0											
4.0	159.0	140.0	132.0	120.0										
4.5	137.0	135.0	128.0	113.0	100.0									
5.0	119.0	118.0	116.5	106.0	92.0									
6.0	93.0	92.0	91.0	92.0	83.0	74.0								
7.0	75.5	76.0	75.0	77.0	75.0	67.0	60.0							
8.0	64.0	64.5	63.0	65.0	64.0	61.0	55.0	51.0						
9.0	54.8	55.5	54.2	54.6	55.0	56.0	50.0	47.0	42.0					
10.0	47.4	47.1	46.4	47.2	46.7	47.6	46.0	43.0	39.0	36.0				
11.0		39.5	38.9	39.6	39.1	40.0	40.8	40.0	36.0	33.0	31.0			

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0	
12.0		33.8	33.1	33.9	33.4	34.2	35.0	35.9	34.0	31.0	29.0	26.0			
14.0		25.5	24.9	25.6	25.2	26.0	26.7	27.6	27.5	27.5	26.0	24.0	21.0	17.0	
16.0			19.4	20.1	19.6	20.4	21.1	21.9	21.8	22.0	22.3	21.5	19.0	16.0	
18.0			15.4	16.0	15.6	16.4	17.0	17.9	17.7	17.9	18.2	18.5	17.0	15.0	
20.0				13.0	12.6	13.3	14.0	14.8	14.6	14.8	15.1	15.4	15.5	14.0	
22.0				10.6	10.2	10.9	11.6	12.4	12.2	12.4	12.7	13.0	13.4	13.0	
24.0					8.3	9.0	9.6	10.4	10.3	10.5	10.7	11.0	11.4	11.5	
26.0					6.7	7.4	8.1	8.8	8.7	8.9	9.1	9.4	9.8	9.9	
28.0						6.1	6.7	7.5	7.4	7.5	7.8	8.1	8.5	8.5	
30.0						5.0	5.6	6.4	6.2	6.4	6.7	6.9	7.3	7.4	
32.0							4.6	5.4	5.3	5.4	5.7	6.0	6.4	6.4	
34.0							3.8	4.5	4.4	4.6	4.8	5.1	5.5	5.6	
36.0								3.8	3.7	3.9	4.1	4.4	4.8	4.8	
38.0								3.1	3.0	3.2	3.4	3.7	4.1	4.1	
40.0									2.4	2.6	2.8	3.1	3.5	3.5	
42.0									1.9	2.1	2.3	2.6	3.0	3.0	
44.0										1.6	1.8	2.1	2.5	2.5	
46.0											1.4	1.7	2.1	2.1	
48.0													1.7	1.7	
50.0															
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0	
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	28.0	32.0	39.0	42.0	46.0	
Min. boom angle						0.0						21.0	32.0	31.0	38.0
combined mode	000000	010000	110000	111000	211000	211100	211110	211111	221111	222111	222211	222221	222222	333333	
Parts of line	18	12	10	8			5		4		3		2		
Weight of hock	2319			1827						827				447	

## (2) The second combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	215.0													
3.5	186.7	100.0	80.0											
4.0	159.0	97.0	74.0	96.0										
4.5	137.0	92.0	70.0	91.0	73.0									
5.0	119.0	88.0	66.0	86.0	69.0									
6.0	93.0	80.0	60.0	77.0	62.0	69.0								
7.0	75.5	75.0	55.0	69.0	57.0	63.0	52.0							
8.0	64.0	66.0	50.0	62.0	52.0	58.0	48.0	46.0						
9.0	54.8	57.2	46.0	57.0	48.0	54.0	45.0	42.0	38.0					
10.0	47.4	48.7	43.0	47.7	45.0	49.2	42.0	39.0	35.0	32.0				
11.0		41.1	40.0	40.1	40.6	41.5	39.0	37.0	32.5	29.0	27.0			
12.0		35.2	36.7	34.3	34.7	35.7	36.0	34.0	30.5	27.5	25.5	23.0		

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
14.0		26.9	28.3	26.1	26.5	27.4	28.3	28.1	27.0	24.5	22.5	21.0	21.0	17.0
16.0			22.6	20.5	20.9	21.7	22.6	22.4	22.5	21.5	20.5	19.0	19.0	16.0
18.0			18.5	16.4	16.8	17.7	18.5	18.3	18.4	18.6	18.5	17.0	17.0	15.0
20.0				13.4	13.8	14.6	15.4	15.2	15.3	15.5	15.9	15.5	15.5	14.0
22.0				11.0	11.4	12.2	13.0	12.8	12.8	13.1	13.4	13.9	13.4	13.0
24.0					9.4	10.2	11.0	10.8	10.9	11.1	11.5	11.9	11.4	11.5
26.0					7.8	8.6	9.4	9.2	9.3	9.5	9.9	10.3	9.8	9.9
28.0						7.3	8.1	7.9	7.9	8.2	8.5	8.9	8.5	8.5
30.0						6.1	6.9	6.7	6.8	7.0	7.4	7.8	7.3	7.4
32.0							5.9	5.8	5.8	6.1	6.4	6.8	6.4	6.4
34.0							5.1	4.9	5.0	5.2	5.5	5.9	5.5	5.6
36.0								4.2	4.2	4.5	4.8	5.2	4.8	4.8
38.0								3.5	3.6	3.8	4.1	4.5	4.1	4.1
40.0									3.0	3.2	3.5	3.9	3.5	3.5
42.0									2.4	2.7	3.0	3.4	3.0	3.0
44.0										2.2	2.5	2.9	2.5	2.5
46.0										1.8	2.1	2.5	2.1	2.1
48.0											1.7	2.1	1.7	1.7
50.0												1.7		
52.0												1.4		
54.0														
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	27.0	27.0	27.0	42.0	46.0
Min.boom						0.0							31.0	38.0
combined	000000	000100	000110	021000	011110	111110	111111	121111	122111	122211	122221	122222	222222	333333
Parts of line	18			8				5	4		3		2	
Weight of	2319			1827					827				447	

### (3)The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	215.0													
3.5	186.7	70.0	52.0											
4.0	159.0	65.0	46.0	63.0										
4.5	137.0	61.0	43.0	59.0	62.0									
5.0	119.0	58.0	40.0	55.0	58.0									
6.0	93.0	53.0	36.0	50.0	53.0	55.0								
7.0	75.5	48.0	32.0	45.0	47.0	51.0	44.0							
8.0	64.0	44.0	29.0	41.0	43.0	46.0	40.0	34.0						
9.0	54.8	41.0	27.0	38.0	39.0	43.0	37.0	31.0	32.0					
10.0	47.4	38.0	25.0	35.0	36.0	39.0	34.0	29.0	30.0	27.5				
11.0		36.0	23.0	33.0	33.0	36.0	32.0	27.0	28.0	26.0	24.0			

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
12.0		34.0	21.0	30.0	31.0	34.0	30.0	25.0	26.5	24.5	22.0	23.0		
14.0		27.9	19.0	27.0	27.0	29.0	26.0	23.0	24.0	21.5	20.0	21.0	21.0	17.0
16.0			17.0	23.8	23.7	23.3	23.5	21.0	21.5	19.5	18.0	19.0	19.0	16.0
18.0			15.0	19.6	19.6	19.2	19.8	19.0	19.5	17.5	16.0	17.0	17.0	15.0
20.0				16.5	16.4	16.0	16.7	17.0	16.4	16.0	14.5	15.5	15.5	14.0
22.0				14.0	14.0	13.6	14.2	14.6	14.0	14.1	13.5	13.9	13.4	13.0
24.0					12.0	11.6	12.3	12.6	12.0	12.2	12.1	11.9	11.4	11.5
26.0					10.4	10.0	10.7	11.0	10.4	10.5	10.5	10.3	9.8	9.9
28.0						8.7	9.3	9.6	9.0	9.2	9.1	8.9	8.5	8.5
30.0						7.5	8.1	8.5	7.9	8.0	8.0	7.8	7.3	7.4
32.0							7.2	7.5	6.9	7.0	7.0	6.8	6.4	6.4
34.0							6.3	6.6	6.0	6.2	6.2	5.9	5.5	5.6
36.0								5.9	5.3	5.4	5.4	5.2	4.8	4.8
38.0								5.2	4.6	4.8	4.7	4.5	4.1	4.1
40.0									4.0	4.2	4.1	3.9	3.5	3.5
42.0									3.5	3.6	3.6	3.4	3.0	3.0
44.0										3.2	3.1	2.9	2.5	2.5
46.0										2.7	2.7	2.5	2.1	2.1
48.0											2.3	2.1	1.7	1.7
50.0											1.9	1.7		
52.0												1.4		
54.0														
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	27.0	42.0	46.0
Min.boom angle								0					31	38
combined mode	000000	000001	000002	000111	001111	011111	111112	011122	111122	111222	112222	122222	222222	333333
Parts of line	18	6		5			4		3				2	
Weight of hook	2319	1827					827						447	

## 6、0counterweight, on full-extended outriggers, 360° slewing and operation

### (1) The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	193.0													
3.5	157.0	140.0	136.0											
4.0	132.0	130.0	131.0	120.0										
4.5	112.0	111.9	112.0	113.0	100.0									
5.0	98.0	98.0	96.5	98.0	92.0									
6.0	77.0	78.0	77.0	78.0	77.0	74.0								
7.0	63.1	62.7	61.7	62.7	62.0	63.2	60.0							
8.0	46.8	46.4	45.6	46.5	45.8	46.9	47.9	49.2						
9.0	36.5	36.2	35.4	36.2	35.7	36.6	37.6	38.7	38.5					

10.0	29.3	29.1	28.4	29.2	28.7	29.6	30.4	31.5	31.3	31.6				
11.0		24.0	23.3	24.1	23.5	24.4	25.2	26.2	26.1	26.3	26.6			
12.0		20.0	19.4	20.1	19.7	20.5	21.3	22.2	22.1	22.3	22.6	23.0		
14.0		14.0	13.4	14.2	13.7	14.5	15.3	16.3	16.1	16.3	16.7	17.0	17.5	17.0
16.0			9.5	10.2	9.7	10.5	11.3	12.2	12.1	12.3	12.6	12.9	13.4	13.4
18.0			6.7	7.4	7.0	7.7	8.5	9.3	9.2	9.4	9.7	10.0	10.5	10.5
20.0				5.3	4.9	5.6	6.3	7.2	7.0	7.2	7.5	7.8	8.3	8.3
22.0					3.7	3.3	4.0	4.7	5.5	5.4	5.6	5.9	6.2	6.6
24.0						2.0	2.7	3.4	4.2	4.1	4.3	4.5	4.8	5.3
26.0							1.7	2.3	3.1	3.0	3.2	3.4	3.7	4.2
28.0								1.5	2.2	2.1	2.3	2.5	2.8	3.3
30.0									1.5		1.5	1.8	2.1	2.5
32.0													1.8	1.9
boom angle	73	76	79	80	81	80	80	80	80	80	80	81	80	81
boom angle	29	26	25	23	32	38	41	44	53	55	58	61	62	64
Min.boom angle	0					36	40	46	52	53	53	54	55	58
combined mode	000000	010000	110000	111000	211000	211100	211110	211111	221111	222111	222211	222221	222222	333333
Parts of line	18	12		10	8		5		4	3		2		
Weight of hock	2319			1827			827					447		

## (2) The second combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	193.0													
3.5	157.0	100.0	80.0											
4.0	132.0	97.0	74.0	96.0										
4.5	112.0	92.0	70.0	91.0	73.0									
5.0	98.0	88.0	66.0	86.0	69.0									
6.0	77.0	80.0	60.0	77.0	62.0	69.0								
7.0	63.1	64.8	55.0	63.4	57.0	63.0	52.0							
8.0	46.8	48.3	50.0	47.1	47.6	48.9	48.0	46.0						
9.0	36.5	37.9	39.6	36.8	37.3	38.4	39.5	39.3	38.0					
10.0	29.3	30.7	32.3	29.7	30.2	31.2	32.3	32.0	32.1	32.0				
11.0		25.5	27.0	24.5	25.0	26.0	27.0	26.7	26.8	27.1	27.0			
12.0		21.5	23.0	20.6	21.0	22.0	22.9	22.7	22.8	23.1	23.5	23.0		
14.0		15.5	17.0	14.6	15.1	16.0	17.0	16.8	16.9	17.2	17.6	18.1	17.5	17.0
16.0			12.9	10.6	11.1	12.0	12.9	12.7	12.7	13.0	13.4	13.9	13.4	13.4
18.0				10.0	7.8	8.2	9.1	10.0	9.8	9.8	10.1	10.5	11.0	10.5
20.0					5.7	6.1	7.0	7.8	7.6	7.7	8.0	8.3	8.8	8.3
22.0					4.1	4.5	5.3	6.1	5.9	6.0	6.3	6.6	7.1	6.6
24.0						3.2	4.0	4.8	4.6	4.7	4.9	5.3	5.7	5.3
26.0						2.1	2.9	3.7	3.5	3.6	3.9	4.2	4.6	4.2
28.0							2.0	2.8	2.6	2.7	2.9	3.3	3.7	3.3

30.0							2.1	1.9	1.9	2.2	2.5	2.9	2.5	2.5
32.0										1.5	1.9	2.3	1.8	1.9
34.0												1.7		
boom angle	73	76	79	80	81	80	80	80	80	80	81	80	80	81
boom angle	29	26	25	23	23	31	36	44	50	52	56	56	62	64
Min.boom	0	0	0	0	0	22	35	43	45	50	49	55	58	
combined	000000	000100	000110	021000	011110	111110	111111	121111	122111	122211	122221	122222	222222	333333
Parts of line	18		8				5	4		3	2			
Weight of	2319		1827					827				447		

### (3) The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	193.0													
3.5	157.0	70.0	52.0											
4.0	132.0	65.0	46.0	63.0										
4.5	112.0	61.0	43.0	59.0	62.0									
5.0	98.0	58.0	40.0	55.0	58.0									
6.0	77.0	53.0	36.0	50.0	53.0	55.0								
7.0	63.1	48.0	32.0	45.0	47.0	51.0	44.0							
8.0	46.8	44.0	29.0	41.0	43.0	46.0	40.0	34.0						
9.0	36.5	39.2	27.0	38.0	39.0	40.5	37.0	31.0	32.0					
10.0	29.3	31.9	25.0	33.7	33.6	33.1	34.0	29.0	30.0	27.5				
11.0		26.6	23.0	28.3	28.3	27.8	28.6	27.0	28.0	26.0	24.0			
12.0		22.6	21.0	24.3	24.2	23.7	24.5	24.9	24.2	24.4	22.0	23.0		
14.0		16.6	18.1	18.3	18.2	17.8	18.6	19.0	18.2	18.4	18.4	18.1	17.5	17.0
16.0			13.9	14.1	14.1	13.6	14.4	14.8	14.1	14.2	14.2	13.9	13.4	13.4
18.0			10.9	11.2	11.1	10.7	11.4	11.8	11.1	11.3	11.2	11.0	10.5	10.5
20.0				9.0	8.9	8.5	9.2	9.6	8.9	9.1	9.0	8.8	8.3	8.3
22.0				7.3	7.2	6.8	7.5	7.8	7.2	7.4	7.3	7.1	6.6	6.6
24.0					5.8	5.5	6.1	6.5	5.8	6.0	6.0	5.7	5.3	5.3
26.0					4.7	4.4	5.0	5.4	4.7	4.9	4.9	4.6	4.2	4.2
28.0						3.4	4.1	4.4	3.8	4.0	3.9	3.7	3.3	3.3
30.0						2.7	3.3	3.6	3.0	3.2	3.2	2.9	2.5	2.5
32.0							2.6	3.0	2.4	2.5	2.5	2.3	1.8	1.9
34.0							2.1	2.4	1.8	2.0	1.9	1.7		
36.0								1.9		1.5				
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	29.0	43.0	45.0	53.0	56.0	62.0	64.0
Min.boom angle	0								34	37	44	49	55	58
combined mode	000000	000000	000000	000111	001111	011111	111112	01112	11112	11122	11222	12222	222222	333333
	0	1	2	1	1	1		2	2	2	2	2	2	

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
Parts of line	18	6	5				4	3			2			
Weight of hock block	2319	1827	827				447							

### (3) The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	222.6													
3.5	192.0	70.0	52.0											
4.0	168.0	65.0	46.0	63.0										
4.5	147.0	61.0	43.0	59.0	62.0									
5.0	129.0	58.0	40.0	55.0	58.0									
6.0	101.0	53.0	36.0	50.0	53.0	55.0								
7.0	83.0	48.0	32.0	45.0	47.0	51.0	44.0							
8.0	70.0	44.0	29.0	41.0	43.0	46.0	40.0	34.0						
9.0	60.0	41.0	27.0	38.0	39.0	43.0	37.0	31.0	32.0					
10.0	52.0	38.0	25.0	35.0	36.0	39.0	34.0	29.0	30.0	27.5				
11.0		36.0	23.0	33.0	33.0	36.0	32.0	27.0	28.0	26.0	24.0			
12.0		34.0	21.0	30.0	31.0	34.0	30.0	25.0	26.5	24.5	22.0	23.0		
14.0		30.0	19.0	27.0	27.0	30.0	26.0	23.0	24.0	21.5	20.0	21.0	21.0	17.0
16.0			17.0	24.0	24.0	27.0	23.5	21.0	21.5	19.5	18.0	19.0	19.0	16.0
18.0			15.0	22.0	21.0	22.8	21.0	19.0	19.5	17.5	16.0	17.0	17.0	15.0
20.0				19.7	19.0	19.2	19.5	17.0	18.0	16.0	14.5	15.5	15.5	14.0
22.0				16.9	16.8	16.5	17.1	15.5	16.5	15.0	13.5	14.0	14.5	13.0
24.0					14.6	14.2	14.8	14.5	14.6	14.0	12.5	13.0	13.5	12.0
26.0					12.7	12.4	13.0	13.3	12.7	12.5	11.5	12.0	12.2	11.2
28.0						10.8	11.4	11.8	11.2	11.3	10.5	11.0	10.6	10.5
30.0						9.5	10.1	10.5	9.9	10.0	10.0	9.8	9.3	9.4
32.0							9.0	9.3	8.7	8.9	8.9	8.6	8.2	8.3
34.0							8.0	8.3	7.8	7.9	7.9	7.7	7.2	7.3
36.0								7.5	6.9	7.1	7.0	6.8	6.4	6.4
38.0								6.7	6.2	6.3	6.3	6.1	5.6	5.7
40.0									5.5	5.6	5.6	5.4	5.0	5.0
42.0									4.9	5.0	5.0	4.8	4.4	4.4
44.0										4.5	4.4	4.2	3.8	3.9
46.0										4.0	3.9	3.7	3.3	3.4
48.0											3.5	3.3	2.9	2.9
50.0											3.1	2.9	2.5	2.5
52.0												2.5	2.1	2.1
54.0												2.2	1.7	1.8
56.0													1.4	1.5
58.0														
60.0														
62.0														

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	27.0	35.0
Min.boom angle						0								22
combined mode	000000	000001	000002	000111	001111	011111	111112	011122	111122	111222	112222	122222	222222	333333
Parts of line	18	6		5			4		3				2	
Weight of hock block	2319	1827				827							447	

## 7、75counterweight,360°swing on half-extended outriggers (9625×6500)

### (1) The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38	42.1	46.2	50.3	54.5	58.6	62.7	67
3	240													
3.5	205	140	136											
4	185	140	132	120										
4.5	170	140	128	113	100									
5	158	132	121	106	92									
6	132.6	125	110	96	83	74								
7	111	110	100	86	75	67	60							
8	93	91.8	88	78	68	61	55	51						
9	81	80	78	72	63	56	50	47	42					
10	71	70	70	67	58	52	46	43	39	36				
11		61.5	61.2	61.9	53	48	42.9	40	36	33	31			
12		53.7	53.1	53.8	49	44	40	37	34	31	29	26		
14		42	41.5	42.1	41.7	39	36	33	30	27.5	26	24	21	17
16			33.5	34.1	33.7	34	32	29	26.5	24.5	23	21.5	19	16
18				27.6	28.3	27.9	28.6	29	26.5	24	22	21	19.5	17
20					23.8	23.5	24.2	24.8	24	21.5	20	19	17.5	15.5
22						20.3	20	20.7	21.3	22	20	18	17	16
24							17.1	17.8	18.5	19.2	18	16.5	16	14.5
26								14.8	15.5	16.1	16.9	16.5	15	14.5
28									13.5	14.2	14.9	14.8	14	13.5
30										11.9	12.5	13.2	13.1	13
32											11.1	11.8	11.7	11.9
34												9.8	10.5	10.4
36													9.4	9.3
38														8.5
40														
42														
44														
46														
48														
50														
52														

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38	42.1	46.2	50.3	54.5	58.6	62.7	67
54												4	4.4	4
56													4	3.8
58													3.6	3.5
60														3.2
62														2.9
boom angle	73	76	79	80	81	80	80	80	80	80	80	81	80	81
boom angle	29	26	25	23	23	22	22	21	21	21	21	21	21	22
Min.boom						0								
combined	00000	01000	11000	11100	21100	21110	21111	21111	22111	22211	22221	22222	22222	33333
Parts of line	18	12		10	8		5		4		3		2	
Weight of	2319	1827				827							447	

## (2) The second combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	240.0													
3.5	205.0	100.0	80.0											
4.0	185.0	97.0	74.0	96.0										
4.5	170.0	92.0	70.0	91.0	73.0									
5.0	158.0	88.0	66.0	86.0	69.0									
6.0	132.6	80.0	60.0	77.0	62.0	69.0								
7.0	111.0	75.0	55.0	69.0	57.0	63.0	52.0							
8.0	93.0	70.0	50.0	62.0	52.0	58.0	48.0	46.0						
9.0	81.0	65.0	46.0	57.0	48.0	54.0	45.0	42.0	38.0					
10.0	71.0	61.0	43.0	53.0	45.0	50.0	42.0	39.0	35.0	32.0				
11.0		58.0	40.0	49.0	42.0	46.0	39.0	37.0	32.5	29.0	27.0			
12.0		55.0	38.0	45.0	39.0	43.0	36.0	34.0	30.5	27.5	25.5	23.0		
14.0		43.4	34.0	40.0	35.0	39.0	32.0	30.0	27.0	24.5	22.5	21.0	21.0	17.0
16.0			31.0	34.5	31.0	34.5	29.0	27.0	24.0	21.5	20.5	19.0	19.0	16.0
18.0			27.0	28.7	28.0	29.9	27.0	24.0	21.5	19.5	18.5	17.0	17.0	15.0
20.0				24.2	25.0	25.4	24.0	22.0	19.5	18.0	17.0	15.5	15.5	14.0
22.0				20.7	22.5	21.9	22.0	20.0	18.0	16.0	15.0	14.0	14.5	13.0
24.0					19.6	19.0	19.8	18.5	16.5	15.0	14.0	13.0	13.5	12.0
26.0					17.3	16.7	17.5	17.0	15.0	14.0	13.0	12.0	12.5	11.2
28.0						14.7	15.5	15.3	14.0	12.5	12.0	11.0	11.5	10.5
30.0						13.0	13.8	13.6	13.0	11.5	11.0	10.0	10.5	10.0
32.0							12.4	12.2	12.0	11.0	10.0	9.5	9.5	9.2
34.0							11.1	10.9	11.0	10.0	9.5	9.0	9.0	8.5
36.0								9.8	9.9	9.5	9.0	8.5	8.5	8.0
38.0								8.8	8.9	9.0	8.5	8.0	8.0	7.5
40.0									8.0	8.3	8.0	7.5	7.2	7.0
42.0									7.3	7.5	7.0	6.7	6.5	
44.0										6.8	7.0	6.5	6.2	6.0

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
46.0										6.1	6.5	6.0	5.8	5.5
48.0											5.9	5.5	5.4	5.0
50.0											5.3	5.0	5.1	4.6
52.0												4.5	4.7	4.2
54.0												4.2	4.4	4.0
56.0												4.0	3.8	
58.0												3.6	3.5	
60.0													3.2	
62.0														2.9
boom angle	73	76	79	80	81	80	80	80	80	80	80	81	80	81
boom angle	29	26	25	23	23	22	22	21	21	21	21	21	21	22
Min.boom							0							
combined	00000	00010	00011	02100	01111	11111	11111	12111	12211	12221	12222	12222	22222	33333
Parts of line	18				8			5		4		3		2
Weight of	2319				1827					827			447	

### (3) The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	37.95	42.07	46.2	50.3	54.5	58.6	62.7	67
3	240													
3.5	205	70	52											
4	185	65	46	63										
4.5	170	61	43	59	62									
5	158	58	40	55	58									
6	132.6	53	36	50	53	55								
7	111	48	32	45	47	51	44							
8	93	44	29	41	43	46	40	34						
9	81	41	27	38	39	43	37	31	32					
10	71	38	25	35	36	39	34	29	30	27.5				
11		36	23	33	33	36	32	27	28	26	24			
12		34	21	30	31	34	30	25	26.5	24.5	22	23		
14		30	19	27	27	30	26	23	24	21.5	20	21	21	17
16			17	24	24	27	23.5	21	21.5	19.5	18	19	19	16
18			15	22	21	25	21	19	19.5	17.5	16	17	17	15
20				20	19	22	19.5	17	18	16	14.5	15.5	15.5	14
22					18	18	20	18	15.5	16.5	15	13.5	14	14.5
24						16	18	16.5	14.5	15.5	14	12.5	13	13.5
26						15	17	15	13.5	14.5	12.5	11.5	12	12.5
28							16	14	12.5	13.5	12	10.5	11	11.5
30							14.4	13	11.5	12.5	11	10	10	10.5
32								12	10.5	12	10.5	9.5	9.5	9.2
34								11	10	11	9.5	9	9	8.5
36									9.5	10.5	9	8.5	8.5	8

r/l	13.2	17.3	21.5	25.6	29.7	33.8	37.95	42.07	46.2	50.3	54.5	58.6	62.7	67
38								9	10	8.5	8	8	8	7.5
40									9.1	8	7.5	7.5	7.2	7
42									8.3	7.5	7	7	6.7	6.5
44										7	6.5	6.5	6.2	6
46										6.5	6	6	5.8	5.5
48											5.5	5.5	5.4	5
50											5	5	5.1	4.6
52												4.5	4.7	4.2
54												4.2	4.4	4
56													4	3.8
58													3.6	3.5
60														3.2
62														2.9
boom angle	73	76	79	80	81	80	80	80	80	80	80	81	80	81
boom angle	29	26	25	23	23	22	22	21	21	21	21	21	21	22
Min.boom														
combined	00000	00000	00000	00011	00111	01111	11111	01112	11112	11122	11222	12222	22222	33333
Parts of line	18	6				5							2	
Weight of	2319	1827				827							447	

## 8、62tcounterweight,360°swing on half-extended outriggers (9625×6500)

### (1) The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	240.0													
3.5	205.0	140.0	136.0											
4.0	185.0	140.0	132.0	120.0										
4.5	168.5	140.0	128.0	113.0	100.0									
5.0	152.2	131.0	121.0	106.0	92.0									
6.0	124.0	120.0	110.0	96.0	83.0	74.0								
7.0	102.0	100.0	99.0	86.0	75.0	67.0	60.0							
8.0	87.0	86.0	85.0	78.0	68.0	61.0	55.0	51.0						
9.0	75.0	74.0	74.0	72.0	63.0	56.0	50.0	47.0	42.0					
10.0	62.0	62.7	62.0	62.8	58.0	52.0	46.0	43.0	39.0	36.0				
11.0		53.5	52.8	53.5	53.0	48.0	43.0	40.0	36.0	33.0	31.0			
12.0		46.3	45.7	46.4	45.9	44.0	40.0	37.0	34.0	31.0	29.0	26.0		
14.0		36.0	35.4	36.1	35.7	36.4	36.0	33.0	30.0	27.5	26.0	24.0	21.0	17.0
16.0			28.4	29.0	28.6	29.4	30.1	29.0	26.5	24.5	23.0	21.5	19.0	16.0
18.0				23.2	23.9	23.5	24.2	24.9	25.7	24.0	22.0	21.0	19.5	17.0
20.0					20.0	19.6	20.3	20.9	21.7	21.5	20.0	19.0	17.5	15.5
22.0						16.9	16.5	17.2	17.8	18.6	18.5	18.0	17.0	16.0
24.0							14.0	14.7	15.3	16.1	16.0	16.2	16.0	14.5

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
26.0					11.9	12.6	13.3	14.0	13.9	14.1	14.3	13.5	12.5	11.2
28.0						10.9	11.6	12.3	12.2	12.4	12.6	12.5	11.5	10.5
30.0						9.4	10.1	10.8	10.7	10.9	11.1	11.4	10.5	10.0
32.0							8.8	9.5	9.4	9.6	9.8	10.1	9.5	9.2
34.0								7.7	8.4	8.3	8.5	8.7	9.0	8.5
36.0									7.5	7.3	7.5	7.8	8.0	8.4
38.0									6.6	6.5	6.7	6.9	7.2	7.6
40.0										5.7	5.9	6.1	6.4	6.8
42.0										5.0	5.2	5.4	5.7	6.1
44.0											4.6	4.8	5.1	5.5
46.0											4.0	4.3	4.5	4.9
48.0												3.7	4.0	4.4
50.0												3.3	3.5	3.9
52.0													3.1	3.5
54.0													2.7	3.1
56.0														2.7
58.0														2.4
60.0														2.1
62.0														1.8
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0
Min.boom									0					
combined	00000	01000	11000	11100	21100	21110	21111	21111	22111	22211	22221	22222	22222	33333
Parts of line	18	12	10	8			5		4		3		2	
Weight of	2319		1827						827				447	

## (2) The second combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	240.0													
3.5	205.0	100.0	80.0											
4.0	185.0	97.0	74.0	96.0										
4.5	168.5	92.0	70.0	91.0	73.0									
5.0	152.2	88.0	66.0	86.0	69.0									
6.0	124.0	80.0	60.0	77.0	62.0	69.0								
7.0	102.0	75.0	55.0	69.0	57.0	63.0	52.0							
8.0	87.0	70.0	50.0	62.0	52.0	58.0	48.0	46.0						
9.0	75.0	65.0	46.0	57.0	48.0	54.0	45.0	42.0	38.0					
10.0	62.0	61.0	43.0	53.0	45.0	50.0	42.0	39.0	35.0	32.0				
11.0		54.9	40.0	49.0	42.0	46.0	39.0	37.0	32.5	29.0	27.0			
12.0		47.7	38.0	45.0	39.0	43.0	36.0	34.0	30.5	27.5	25.5	23.0		
14.0		37.3	34.0	36.5	35.0	37.8	32.0	30.0	27.0	24.5	22.5	21.0	21.0	17.0
16.0			31.0	29.4	29.8	30.7	29.0	27.0	24.0	21.5	20.5	19.0	19.0	16.0

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
18.0			26.3	24.3	24.7	25.5	26.3	24.0	21.5	19.5	18.5	17.0	17.0	15.0
20.0				20.3	20.7	21.5	22.3	22.0	19.5	18.0	17.0	15.5	15.5	14.0
22.0				17.2	17.6	18.4	19.2	19.0	18.0	16.0	15.0	14.0	14.5	13.0
24.0					15.1	15.9	16.7	16.5	16.5	15.0	14.0	13.0	13.5	12.0
26.0					13.0	13.8	14.6	14.4	14.5	14.0	13.0	12.0	12.5	11.2
28.0						12.1	12.9	12.7	12.8	12.5	12.0	11.0	11.5	10.5
30.0						10.6	11.4	11.2	11.3	11.5	11.0	10.0	10.5	10.0
32.0							10.1	9.9	10.0	10.2	10.0	9.5	9.5	9.2
34.0							9.0	8.8	8.9	9.1	9.4	9.0	9.0	8.5
36.0								7.8	7.9	8.1	8.5	8.5	8.4	8.0
38.0								7.0	7.0	7.3	7.6	8.0	7.6	7.5
40.0									6.3	6.5	6.8	7.2	6.8	6.8
42.0									5.6	5.8	6.1	6.5	6.1	6.1
44.0										5.2	5.5	5.9	5.5	5.5
46.0										4.6	4.9	5.3	4.9	5.0
48.0											4.4	4.8	4.4	4.4
50.0											4.0	4.3	3.9	4.0
52.0												3.9	3.5	3.5
54.0												3.5	3.1	3.1
56.0													2.7	2.8
58.0													2.4	2.4
60.0														2.1
62.0														1.8
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0
Min.boom	0.0													
combined	00000	00010	00011	02100	01111	11111	11111	12111	12211	12221	12222	12222	22222	33333
Parts of line	18				8			5		4		3		2
Weight of	2319				1827					827				447

### (3) The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	240.0													
3.5	205.0	70.0	52.0											
4.0	185.0	65.0	46.0	63.0										
4.5	168.5	61.0	43.0	59.0	62.0									
5.0	152.2	58.0	40.0	55.0	58.0									
6.0	124.0	53.0	36.0	50.0	53.0	55.0								
7.0	102.0	48.0	32.0	45.0	47.0	51.0	44.0							
8.0	87.0	44.0	29.0	41.0	43.0	46.0	40.0	34.0						
9.0	75.0	41.0	27.0	38.0	39.0	43.0	37.0	31.0	32.0					



r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
10.0	62.0	38.0	25.0	35.0	36.0	39.0	34.0	29.0	30.0	27.5				
11.0		36.0	23.0	33.0	33.0	36.0	32.0	27.0	28.0	26.0	24.0			
12.0		34.0	21.0	30.0	31.0	34.0	30.0	25.0	26.5	24.5	22.0	23.0		
14.0		30.0	19.0	27.0	27.0	30.0	26.0	23.0	24.0	21.5	20.0	21.0	21.0	17.0
16.0			17.0	24.0	24.0	27.0	23.5	21.0	21.5	19.5	18.0	19.0	19.0	16.0
18.0			15.0	22.0	21.0	25.0	21.0	19.0	19.5	17.5	16.0	17.0	17.0	15.0
20.0				20.0	19.0	22.0	19.5	17.0	18.0	16.0	14.5	15.5	15.5	14.0
22.0					18.0	18.0	19.8	18.0	15.5	16.5	15.0	13.5	14.0	14.5
24.0						16.0	17.3	16.5	14.5	15.5	14.0	12.5	13.0	13.5
26.0						15.0	15.2	15.0	13.5	14.5	12.5	11.5	12.0	12.5
28.0							13.5	14.0	12.5	13.5	12.0	10.5	11.0	11.5
30.0							12.0	12.6	11.5	12.3	11.0	10.0	10.0	10.5
32.0								11.3	10.5	11.1	10.5	9.5	9.5	9.2
34.0								10.2	10.0	9.9	9.5	9.0	9.0	8.5
36.0									9.5	9.0	9.0	8.5	8.5	8.0
38.0									8.6	8.1	8.2	8.0	8.0	7.5
40.0										7.3	7.5	7.4	7.2	6.8
42.0										6.6	6.8	6.7	6.5	6.1
44.0											6.1	6.1	5.9	5.5
46.0											5.6	5.5	5.3	4.9
48.0												5.0	4.8	4.4
50.0												4.5	4.3	3.9
52.0													3.9	3.5
54.0													3.5	3.1
56.0														2.7
58.0														2.4
60.0														2.1
62.0														1.8
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0
Min.boom								0						
combined	00000	00000	00000	00011	00111	01111	11111	01112	11112	11122	11222	12222	22222	33333
Parts of line	18	6		5			4		3			2		
Weight of	2319	1827				827						447		

## 9、42t counterweight, 360°swing on half-extended outriggers (9625×6500)

### (1)The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38	42.1	46.2	50.3	54.5	58.6	62.7	67
3	230.3													
3.5	200.1	140	136											
4	176.6	140	132	120										
4.5	157.8	140	128	113	100									
5	139	131.5	121	106	92									
6	110.5	109	108	96	83	74								
7	90	90	89	86	75	67	60							
8	72.2	71.9	71.1	71.9	68	61	55	51						
9	58.1	57.8	57.1	57.9	57.3	56	50	47	42					
10	48.1	47.9	47.2	48	47.5	48.4	46	43	39	36				
11		40.6	39.9	40.7	40.2	41	41.8	40	36	33	31			
12		34.9	34.3	35	34.5	35.3	36.1	37	34	31	29	26		
14		26.7	26.2	26.8	26.4	27.2	27.9	28.7	28.6	27.5	26	24	21	17
16			20.6	21.2	20.8	21.5	22.2	23.1	22.9	23.1	23	21.5	19	16
18			16.5	17.1	16.7	17.5	18.1	18.9	18.8	19	19.3	19.5	17	15
20				14	13.6	14.3	15	15.8	15.7	15.8	16.1	16.4	15.5	14
22					11.5	11.2	11.9	12.5	13.3	13.2	13.4	13.6	13.9	14.3
24						9.2	9.9	10.5	11.3	11.2	11.4	11.6	11.9	12.3
26						7.6	8.3	8.9	9.6	9.5	9.7	10	10.2	10.6
28							6.9	7.5	8.3	8.1	8.3	8.6	8.9	9.3
30							5.7	6.3	7.1	7	7.2	7.4	7.7	8.1
32								5.3	6.1	6	6.1	6.4	6.7	7.1
34								4.5	5.2	5.1	5.3	5.5	5.8	6.2
36									4.4	4.3	4.5	4.7	5	5.4
38									3.7	3.6	3.8	4	4.3	4.7
40										3	3.2	3.4	3.7	4.1
42										2.5	2.6	2.9	3.1	3.5
44											2.1	2.4	2.6	3
46											1.7	1.9	2.2	2.6
48												1.5	1.8	2.2
50												2.9	3.2	1.8
52													2.8	1.5
54													2.4	
boom angle	73	76	79	80	81	80	80	80	80	80	80	81	80	81
boom angle	29	26	25	23	23	22	22	21	21	21	27	32	35	41
Min.boom							0					21	21	31
combined	000000	010000	110000	111000	211000	211100	211110	211111	221111	222111	222211	222221	222222	333333
Parts of line	18	12	10	8			5		4		3		2	
Weight of	2319		1827						827				447	

**(2) The second combined mode**

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38	42.1	46.2	50.3	54.5	58.6	62.7	67
3	230.3													
3.5	200.1	100	80											
4	176.6	97	74	96										
4.5	157.8	92	70	91	73									
5	139	88	66	86	69									
6	110.5	80	60	77	62	69								
7	90	75	55	69	57	63	52							
8	72.2	70	50	62	52	58	48	46						
9	58.1	59.4	46	57	48	54	45	42	38					
10	48.1	49.4	43	48.5	45	49.9	42	39	35	32				
11		42	40	41.1	42	42.5	39	37	32.5	29	27			
12		36.3	37.7	35.4	37.5	36.8	36	34	30.5	27.5	25.5	23		
14		28.1	29.4	27.2	29.2	28.5	29.4	29.2	27	24.5	22.5	21	21	17
16			23.7	21.6	23.5	22.9	23.7	23.5	23.6	21.5	20.5	19	19	16
18			19.5	17.5	19.4	18.7	19.5	19.3	19.4	19.5	18.5	17	17	15
20				14.4	16.2	15.6	16.4	16.2	16.3	16.5	16.9	15.5	15.5	14
22				11.9	13.7	13.1	13.9	13.7	13.8	14	14.4	14	14.3	13
24					11.7	11.1	11.9	11.7	11.8	12	12.3	12.8	12.3	12
26					10	9.4	10.2	10	10.1	10.3	10.7	11.1	10.6	10.7
28						8.1	8.8	8.6	8.7	9	9.3	9.7	9.3	9.3
30						6.9	7.6	7.5	7.5	7.8	8.1	8.5	8.1	8.1
32							6.6	6.4	6.5	6.8	7.1	7.5	7.1	7.1
34							5.7	5.6	5.6	5.9	6.2	6.6	6.2	6.2
36								4.8	4.9	5.1	5.4	5.8	5.4	5.4
38								4.1	4.2	4.4	4.7	5.1	4.7	4.7
40									3.6	3.8	4.1	4.5	4.1	4.1
42									3	3.2	3.6	3.9	3.5	3.6
44										2.7	3.1	3.4	3	3.1
46										2.3	2.6	3	2.6	2.6
48											2.2	2.6	2.2	2.2
50											1.8	2.2	1.8	1.8
52												1.9	1.5	1.5
54												1.5		
boom angle	73	76	79	80	81	80	80	80	80	80	80	81	80	81
boom angle	29	26	25	23	23	22	22	21	21	21	21	21	35	41
Min.boom							0						21	31
combined	000000	000100	000110	021000	011110	111110	111111	121111	122111	122211	122221	122222	222222	333333
Parts of line	18				8		5		4		3		2	
Weight of	2319				1827				827				447	

### (3) The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38	42.1	46.2	50.3	54.5	58.6	62.7	67
3	230.3													
3.5	200.1	70	52											
4	176.6	65	46	63										
4.5	157.8	61	43	59	62									
5	139	58	40	55	58									
6	110.5	53	36	50	53	55								
7	90	48	32	45	47	51	44							
8	72.2	44	29	41	43	46	40	34						
9	58.1	41	27	38	39	43	37	31	32					
10	48.1	38	25	35	36	39	34	29	30	27.5				
11		36	23	33	33	36	32	27	28	26	24			
12		34	21	30	31	34	30	25	26.5	24.5	22	23		
14		29.1	19	27	27	30	26	23	24	21.5	20	21	21	17
16			17	24	24	24.4	23.5	21	21.5	19.5	18	19	19	16
18			15	20.6	20.6	20.2	20.9	19	19.5	17.5	16	17	17	15
20				17.5	17.4	17	17.7	17	17.4	16	14.5	15.5	15.5	14
22				14.9	14.9	14.5	15.2	15.5	14.9	15	13.5	14	14.3	13
24					12.9	12.5	13.1	13.5	12.9	13	12.5	12.8	12.3	12
26					11.2	10.8	11.5	11.8	11.2	11.3	11.3	11.1	10.6	10.7
28						9.4	10	10.4	9.8	9.9	9.9	9.7	9.3	9.3
30						8.2	8.9	9.2	8.6	8.8	8.7	8.5	8.1	8.1
32							7.8	8.2	7.6	7.7	7.7	7.5	7.1	7.1
34							6.9	7.3	6.7	6.8	6.8	6.6	6.2	6.2
36								6.5	5.9	6	6	5.8	5.4	5.4
38									5.8	5.2	5.4	5.3	5.1	4.7
40										4.6	4.7	4.7	4.5	4.1
42										4	4.2	4.1	3.9	3.6
44											3.7	3.6	3.4	3
46											3.2	3.2	3	2.6
48												2.8	2.6	2.2
50												2.4	2.2	1.8
52													1.9	1.5
54														1.5
boom angle	73	76	79	80	81	80	80	80	80	80	80	81	80	81
boom angle	29	26	25	23	23	22	22	21	21	21	21	21	35	41
Min.boom							0						21	31
combined	000000	000001	000002	000111	001111	011111	111112	011122	111122	111222	112222	122222	222222	333333
Parts of line	18	6		5			4		3				2	
Weight of	2319	1827				827							447	

## 10、32tcounterweight,360°swing on half-extended outriggers (9625×6500)

### (1) The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	222.6													
3.5	192.0	140.0	136.0											
4.0	168.0	140.0	132.0	120.0										
4.5	147.0	140.0	128.0	113.0	100.0									
5.0	129.0	128.0	121.0	106.0	92.0									
6.0	101.0	101.0	101.0	96.0	83.0	74.0								
7.0	80.5	80.1	79.2	80.2	75.0	67.0	60.0							
8.0	61.7	61.4	60.6	61.4	60.8	61.0	55.0	51.0						
9.0	49.4	49.1	48.4	49.2	48.7	49.6	50.0	47.0	42.0					
10.0	40.8	40.5	39.9	40.6	40.1	41.0	41.8	42.8	39.0	36.0				
11.0		34.1	33.5	34.2	33.7	34.6	35.4	36.3	36.0	33.0	31.0			
12.0		29.2	28.6	29.3	28.8	29.6	30.4	31.3	31.2	31.0	29.0	26.0		
14.0		22.1	21.5	22.2	21.8	22.5	23.2	24.1	24.0	24.2	24.5	24.0	21.0	17.0
16.0			16.7	17.3	16.9	17.6	18.3	19.1	19.0	19.2	19.5	19.8	19.0	16.0
18.0			13.1	13.8	13.4	14.1	14.7	15.5	15.4	15.6	15.9	16.2	16.6	15.0
20.0				11.0	10.7	11.4	12.0	12.8	12.7	12.9	13.1	13.4	13.8	13.9
22.0					8.9	8.5	9.2	9.9	10.6	10.5	10.7	11.0	11.2	11.7
24.0						6.8	7.5	8.1	8.9	8.8	9.0	9.2	9.5	9.9
26.0						5.4	6.1	6.7	7.5	7.3	7.5	7.8	8.0	8.5
28.0							4.9	5.5	6.2	6.1	6.3	6.6	6.8	7.2
30.0								3.8	4.5	5.2	5.1	5.3	5.5	5.8
32.0									3.6	4.3	4.2	4.4	4.6	4.9
34.0									2.8	3.6	3.5	3.6	3.9	4.1
36.0										2.9	2.8	3.0	3.2	3.5
38.0											2.3	2.2	2.4	2.6
40.0												1.6	1.8	2.1
42.0													1.6	1.9
44.0														1.8
46.0														1.5
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	28.0	37.0	40.0	46.0	47.0	49.0
Min.boom						0					28	32	36	35
combined	000000	010000	110000	111000	211000	211100	211110	211111	221111	222111	222211	222221	222222	333333
Parts of line	18	12	10	8			5		4		3		2	
Weight of	2319		1827						827				447	

## (2) The second combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	222.6													
3.5	192.0	100.0	80.0											
4.0	168.0	97.0	74.0	96.0										
4.5	147.0	92.0	70.0	91.0	73.0									
5.0	129.0	88.0	66.0	86.0	69.0									
6.0	101.0	80.0	60.0	77.0	62.0	69.0								
7.0	80.5	75.0	55.0	69.0	57.0	63.0	52.0							
8.0	61.7	63.1	50.0	62.0	52.0	58.0	48.0	46.0						
9.0	49.4	50.8	46.0	49.7	48.0	51.2	45.0	42.0	38.0					
10.0	40.8	42.1	43.0	41.1	43.3	42.5	42.0	39.0	35.0	32.0				
11.0		35.6	37.1	34.7	36.8	36.1	37.0	36.8	32.5	29.0	27.0			
12.0		30.6	32.0	29.7	31.8	31.1	32.0	31.8	30.5	27.5	25.5	23.0		
14.0		23.4	24.8	22.6	24.6	23.9	24.8	24.5	24.6	24.5	22.5	21.0	21.0	17.0
16.0			19.8	17.7	19.6	18.9	19.8	19.6	19.7	19.9	20.3	19.0	19.0	16.0
18.0			16.1	14.1	16.0	15.3	16.2	16.0	16.0	16.3	16.7	17.0	16.6	15.0
20.0				11.4	13.2	12.6	13.4	13.2	13.3	13.5	13.9	14.3	13.8	13.9
22.0					9.3	11.0	10.4	11.2	11.0	11.1	11.4	11.7	12.1	11.7
24.0						9.3	8.7	9.5	9.3	9.4	9.6	9.9	10.4	9.9
26.0						7.8	7.3	8.0	7.8	7.9	8.2	8.5	8.9	8.5
28.0							6.0	6.8	6.6	6.7	6.9	7.3	7.7	7.2
30.0							5.0	5.8	5.6	5.7	5.9	6.2	6.6	6.2
32.0								4.9	4.7	4.8	5.0	5.4	5.7	5.3
34.0								4.1	3.9	4.0	4.2	4.6	5.0	4.5
36.0									3.3	3.3	3.6	3.9	4.3	3.9
38.0									2.7	2.7	3.0	3.3	3.7	3.3
40.0										2.2	2.4	2.8	3.1	2.7
42.0										1.7	2.0	2.3	2.7	2.2
44.0											1.5	1.8	2.2	1.8
46.0												1.8		1.5
48.0												1.5		
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	28.0	36.0	36.0	47.0	49.0
Min.boom angle								0				21	21	35
combined mode	000000	000100	000110	021000	011110	111110	111111	121111	122111	122211	122221	122222	222222	333333

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
Parts of line	18				8		5		4		3			2
Weight of hock block	2319				1827					827			447	

### (3) The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	222.6													
3.5	192.0	70.0	52.0											
4.0	168.0	65.0	46.0	63.0										
4.5	147.0	61.0	43.0	59.0	62.0									
5.0	129.0	58.0	40.0	55.0	58.0									
6.0	101.0	53.0	36.0	50.0	53.0	55.0								
7.0	80.5	48.0	32.0	45.0	47.0	51.0	44.0							
8.0	61.7	44.0	29.0	41.0	43.0	46.0	40.0	34.0						
9.0	49.4	41.0	27.0	38.0	39.0	43.0	37.0	31.0	32.0					
10.0	40.8	38.0	25.0	35.0	36.0	39.0	34.0	29.0	30.0	27.5				
11.0		36.0	23.0	33.0	33.0	36.0	32.0	27.0	28.0	26.0	24.0			
12.0		31.7	21.0	30.0	31.0	32.8	30.0	25.0	26.5	24.5	22.0	23.0		
14.0		24.4	19.0	25.9	25.9	25.5	26.0	23.0	24.0	21.5	20.0	21.0	21.0	17.0
16.0			17.0	20.9	20.9	20.5	21.1	21.0	20.9	19.5	18.0	19.0	19.0	16.0
18.0			15.0	17.3	17.2	16.8	17.5	17.8	17.2	17.4	16.0	17.0	16.6	15.0
20.0				14.5	14.4	14.0	14.7	15.0	14.4	14.6	14.5	14.3	13.8	13.9
22.0				12.3	12.2	11.9	12.5	12.8	12.2	12.4	12.3	12.1	11.7	11.7
24.0					10.5	10.1	10.7	11.1	10.5	10.6	10.6	10.4	9.9	9.9
26.0					9.0	8.6	9.3	9.6	9.0	9.2	9.1	8.9	8.5	8.5
28.0						7.4	8.0	8.4	7.8	7.9	7.9	7.7	7.2	7.3
30.0						6.4	7.0	7.3	6.7	6.9	6.8	6.6	6.2	6.2
32.0							6.1	6.4	5.8	6.0	6.0	5.7	5.3	5.4
34.0							5.3	5.6	5.1	5.2	5.2	5.0	4.5	4.6
36.0								4.9	4.4	4.5	4.5	4.3	3.9	3.9
38.0								4.3	3.8	3.9	3.9	3.7	3.3	3.3
40.0									3.2	3.4	3.3	3.1	2.7	2.8
42.0									2.8	2.9	2.9	2.7	2.2	2.3
44.0										2.5	2.4	2.2	1.8	1.8
46.0										2.1	2.0	1.8		1.5
48.0											1.7	1.5		
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	21.0	27.0	36.0	47.0	49.0
Min.boom	0											21	35	41
combined	000000	000001	000002	000111	001111	011111	111112	011122	111122	111222	112222	122222	222222	333333

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
Parts of line	18	6	5					4	3			2		
Weight of	2319	1827	827										447	

## 11、22t counterweight,360°swing on half-extended outriggers (9625×6500)

### (1) The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	215.0													
3.5	186.7	140.0	136.0											
4.0	159.0	140.0	132.0	120.0										
4.5	137.0	135.0	128.0	113.0	100.0									
5.0	119.0	118.0	116.5	106.0	92.0									
6.0	93.0	92.0	91.0	92.0	83.0	74.0								
7.0	67.2	66.8	65.9	66.9	66.2	67.0	60.0							
8.0	51.2	50.9	50.1	50.9	50.3	51.3	52.3	51.0						
9.0	40.7	40.5	39.7	40.5	40.0	40.9	41.8	42.8	42.0					
10.0	33.4	33.2	32.5	33.2	32.7	33.6	34.4	35.4	35.2	35.5				
11.0		27.7	27.1	27.8	27.3	28.1	28.9	29.9	29.7	29.9	30.3			
12.0		23.5	22.9	23.6	23.1	23.9	24.7	25.6	25.5	25.7	26.0	26.0		
14.0		17.4	16.9	17.6	17.1	17.9	18.6	19.5	19.3	19.5	19.8	20.1	20.6	17.0
16.0			12.8	13.4	13.0	13.7	14.4	15.2	15.1	15.3	15.6	15.9	16.3	16.0
18.0			9.7	10.4	10.0	10.7	11.4	12.2	12.0	12.2	12.5	12.8	13.2	13.3
20.0				8.1	7.7	8.4	9.0	9.8	9.7	9.9	10.1	10.4	10.9	10.9
22.0				6.2	5.9	6.6	7.2	8.0	7.9	8.0	8.3	8.6	9.0	9.0
24.0					4.4	5.1	5.7	6.5	6.4	6.6	6.8	7.1	7.5	7.5
26.0					3.2	3.9	4.5	5.3	5.1	5.3	5.6	5.9	6.3	6.3
28.0						2.9	3.5	4.2	4.1	4.3	4.5	4.8	5.2	5.3
30.0						2.0	2.6	3.4	3.2	3.4	3.7	3.9	4.3	4.4
32.0							1.9	2.6	2.5	2.7	2.9	3.2	3.6	3.6
34.0								1.9	1.8	2.0	2.3	2.5	2.9	3.0
36.0								1.4		1.4	1.7	1.9	2.3	2.4
38.0												1.4	1.8	1.9
40.0													1.4	1.4
boom angle	73	76	79	80	81	80	80	80	80	80	80	81	80	81
boom angle	29	26	25	23	23	22	30	29	43	45	50	51	52	56
Min.boom	0						21	34	41	44	46	47	51	
combined	000000	010000	110000	111000	211000	211100	211110	211111	221111	222111	222211	222221	222222	333333
Parts of line	18	12	10	8		5		4		3		2		
Weight of	2319		1827					827				447		

## (2) The second combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	215.0													
3.5	186.7	100.0	80.0											
4.0	159.0	97.0	74.0	96.0										
4.5	137.0	92.0	70.0	91.0	73.0									
5.0	119.0	88.0	66.0	86.0	69.0									
6.0	93.0	80.0	60.0	77.0	62.0	69.0								
7.0	67.2	68.7	55.0	67.5	57.0	63.0	52.0							
8.0	51.2	52.6	50.0	51.5	52.0	53.1	48.0	46.0						
9.0	40.7	42.1	43.7	41.0	43.4	42.6	43.7	42.0	38.0					
10.0	33.4	34.7	36.2	33.7	35.9	35.1	36.2	35.9	35.0	32.0				
11.0		29.2	30.6	28.2	30.4	29.6	30.6	30.4	30.4	29.0	27.0			
12.0		24.9	26.3	24.0	26.1	25.4	26.3	26.1	26.2	26.5	25.5	23.0		
14.0		18.8	20.1	18.0	19.9	19.2	20.1	19.9	20.0	20.3	20.7	21.0	20.6	17.0
16.0			15.9	13.8	15.7	15.0	15.9	15.7	15.7	16.0	16.4	16.8	16.3	16.0
18.0			12.8	10.8	12.6	12.0	12.8	12.6	12.7	12.9	13.3	13.7	13.2	13.3
20.0				8.4	10.2	9.6	10.4	10.2	10.3	10.6	10.9	11.3	10.9	10.9
22.0				6.6	8.4	7.8	8.6	8.4	8.5	8.7	9.0	9.5	9.0	9.0
24.0					6.9	6.3	7.1	6.9	7.0	7.2	7.5	8.0	7.5	7.5
26.0					5.6	5.1	5.8	5.7	5.7	6.0	6.3	6.7	6.3	6.3
28.0						4.0	4.8	4.6	4.7	4.9	5.3	5.7	5.2	5.3
30.0						3.2	3.9	3.7	3.8	4.0	4.4	4.8	4.3	4.4
32.0							3.2	3.0	3.1	3.3	3.6	4.0	3.6	3.6
34.0							2.5	2.3	2.4	2.6	3.0	3.3	2.9	3.0
36.0								1.7	1.8	2.0	2.4	2.8	2.3	2.4
38.0										1.5	1.9	2.2	1.8	1.9
40.0											1.4	1.8	1.4	1.4
42.0												1.4		
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	29.0	38.0	44.0	46.0	46.0	52.0	56.0
Min.boom					0				28	33	36	36	47	51
combined	000000	000100	000110	021000	011110	111110	111111	121111	122111	122211	122221	122222	222222	333333
Parts of line	18			8			5	4		3		2		
Weight of	2319			1827					827			447		

### (3) The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	215.0													
3.5	186.7	70.0	52.0											
4.0	159.0	65.0	46.0	63.0										
4.5	137.0	61.0	43.0	59.0	62.0									
5.0	119.0	58.0	40.0	55.0	58.0									
6.0	93.0	53.0	36.0	50.0	53.0	55.0								
7.0	67.2	48.0	32.0	45.0	47.0	51.0	44.0							
8.0	51.2	44.0	29.0	41.0	43.0	46.0	40.0	34.0						
9.0	40.7	41.0	27.0	38.0	39.0	43.0	37.0	31.0	32.0					
10.0	33.4	35.8	25.0	35.0	36.0	37.0	34.0	29.0	30.0	27.5				
11.0		30.3	23.0	31.9	31.8	31.4	32.0	27.0	28.0	26.0	24.0			
12.0		26.0	21.0	27.6	27.5	27.1	27.8	25.0	26.5	24.5	22.0	23.0		
14.0		19.8	19.0	21.3	21.2	20.8	21.5	21.9	21.2	21.4	20.0	21.0	20.6	17.0
16.0			16.8	17.0	17.0	16.6	17.2	17.6	17.0	17.1	17.1	16.8	16.3	16.0
18.0			13.7	13.9	13.8	13.4	14.1	14.5	13.8	14.0	13.9	13.7	13.2	13.3
20.0				11.5	11.4	11.1	11.7	12.1	11.4	11.6	11.6	11.3	10.9	10.9
22.0				9.6	9.6	9.2	9.8	10.2	9.6	9.7	9.7	9.5	9.0	9.0
24.0					8.1	7.7	8.3	8.7	8.1	8.2	8.2	8.0	7.5	7.5
26.0					6.8	6.5	7.1	7.4	6.8	7.0	6.9	6.7	6.3	6.3
28.0						5.4	6.0	6.3	5.8	5.9	5.9	5.7	5.2	5.3
30.0						4.5	5.1	5.5	4.9	5.0	5.0	4.8	4.3	4.4
32.0							4.4	4.7	4.1	4.3	4.2	4.0	3.6	3.6
34.0							3.7	4.0	3.4	3.6	3.6	3.3	2.9	3.0
36.0								3.4	2.9	3.0	3.0	2.8	2.3	2.4
38.0								2.9	2.3	2.5	2.5	2.2	1.8	1.9
40.0									1.9	2.0	2.0	1.8	1.4	1.4
42.0									1.5	1.6	1.6	1.4		
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	22.0	22.0	21.0	21.0	33.0	40.0	46.0	52.0	56.0
Min.boom angle						0				21	27	36	47	51
combined mode	0000000	000001	000002	0001111	0011111	0111111	1111112	011122	111122	111222	112222	122222	222222	333333
Parts of line	18	6		5			4		3			2		
Weight of hock block	2319	1827				827						447		

## 12、0counterweight, 360°swing on half-extended outriggers (9625×6500)

### (1) The first combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	193.0													
3.5	157.0	140.0	136.0											
4.0	132.0	130.0	131.0	120.0										
4.5	112.0	111.9	112.0	113.0	100.0									
5.0	98.0	98.0	96.5	98.0	92.0									
6.0	77.0	78.0	77.0	78.0	77.0	74.0								
7.0	37.9	37.6	36.7	37.6	36.9	38.1	39.1							
8.0	28.1	27.8	27.0	27.8	27.2	28.2	29.2	30.3						
9.0	21.7	21.4	20.7	21.5	20.9	21.8	22.7	23.8	23.6					
10.0	17.1	16.9	16.2	17.0	16.5	17.3	18.2	19.1	19.0	19.2				
11.0		13.6	12.9	13.6	13.2	14.0	14.8	15.7	15.6	15.8	16.1			
12.0		11.0	10.4	11.1	10.6	11.4	12.2	13.1	12.9	13.1	13.4	13.8		
14.0		7.2	6.7	7.4	6.9	7.7	8.4	9.3	9.1	9.3	9.6	9.9	10.4	10.4
16.0			4.1	4.8	4.4	5.1	5.8	6.6	6.5	6.7	7.0	7.3	7.7	7.8
18.0			2.3	2.9	2.5	3.3	3.9	4.7	4.6	4.8	5.1	5.4	5.8	5.8
20.0				1.5		1.8	2.5	3.3	3.1	3.3	3.6	3.9	4.3	4.4
22.0							1.4	2.1	2.0	2.2	2.4	2.7	3.2	3.2
24.0											1.5	1.8	2.2	2.3
26.0													1.4	1.5
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	34.0	51.0	53.0	54.0	59.0	63.0	66.0	66.0	68.0	68.0	70.0
Min.boom angle	0						50.0	52.0	57.0	60.0	61.0	64.0	64.0	66.0
combined mode	000000	010000	110000	111000	211000	211100	211110	211111	221111	222111	222211	222221	222222	333333
Parts of line	18	12	10	8			4	3						2
Weight of hock block	2319			1827			827							447

**(2) The second combined mode**

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	193.0													
3.5	157.0	100.0	80.0											
4.0	132.0	97.0	74.0	96.0										
4.5	112.0	92.0	70.0	91.0	73.0									
5.0	98.0	88.0	66.0	86.0	69.0									
6.0	77.0	80.0	60.0	77.0	62.0	69.0								
7.0	37.9	39.5	41.4	38.2	41.1	40.1	41.4							
8.0	28.1	29.5	31.2	28.4	30.9	30.0	31.2	30.9						
9.0	21.7	23.0	24.6	22.0	24.3	23.5	24.6	24.3	24.4					
10.0	17.1	18.4	19.9	17.4	19.7	18.9	19.9	19.7	19.8	20.1				
11.0		15.0	16.5	14.1	16.2	15.5	16.4	16.2	16.3	16.6	17.0			
12.0		12.4	13.8	11.5	13.6	12.8	13.8	13.5	13.6	13.9	14.3	14.8		
14.0		8.6	9.9	7.8	9.7	9.0	9.9	9.7	9.8	10.1	10.4	10.9	10.4	10.4
16.0			7.3	5.2	7.1	6.4	7.3	7.1	7.1	7.4	7.8	8.2	7.7	7.8
18.0			5.3	3.3	5.2	4.5	5.3	5.1	5.2	5.5	5.8	6.3	5.8	5.8
20.0				1.9	3.7	3.1	3.9	3.7	3.8	4.0	4.4	4.8	4.3	4.4
22.0					2.5	1.9	2.7	2.5	2.6	2.8	3.2	3.6	3.2	3.2
24.0					1.6		1.8	1.6	1.7	1.9	2.3	2.7	2.2	2.3
26.0											1.5	1.9	1.4	1.5
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	34.0	32.0	48.0	50.0	56.0	60.0	63.0	66.0	66.0	68.0	70.0
Min. boom angle							41.0	52.0	53.0	57.0	59.0	59.0	64.0	66.0
combined mode	0000000	0001000	0001100	0210000	0111110	1111110	1111111	1211111	1221111	1222111	1222211	1222221	2222222	3333333
Parts of line	18		8		6		4	3					2	
Weight of hock block	2319			1827			827						447	

### (3) The third combined mode

r/l	13.2	17.3	21.5	25.6	29.7	33.8	38.0	42.1	46.2	50.3	54.5	58.6	62.7	67.0
3.0	193.0													
3.5	157.0	70.0	52.0											
4.0	132.0	65.0	46.0	63.0										
4.5	112.0	61.0	43.0	59.0	62.0									
5.0	98.0	58.0	40.0	55.0	58.0									
6.0	77.0	53.0	36.0	50.0	53.0	55.0								
7.0	37.9	40.9	32.0	43.1	43.0	42.4	43.5							
8.0	28.1	30.8	29.0	32.8	32.7	32.1	33.1	33.6						
9.0	21.7	24.2	25.8	26.0	25.9	25.4	26.3	26.8	25.9					
10.0	17.1	19.6	21.0	21.3	21.2	20.7	21.5	22.0	21.2	21.4				
11.0		16.1	17.5	17.7	17.7	17.2	18.0	18.4	17.7	17.9	17.8			
12.0		13.4	14.8	15.0	15.0	14.5	15.3	15.7	15.0	15.1	15.1	14.8		
14.0		9.6	10.9	11.1	11.0	10.6	11.3	11.7	11.0	11.2	11.2	10.9	10.4	10.4
16.0			8.2	8.4	8.3	8.0	8.6	9.0	8.3	8.5	8.5	8.2	7.7	7.8
18.0			6.2	6.4	6.4	6.0	6.7	7.0	6.4	6.5	6.5	6.3	5.8	5.8
20.0				5.0	4.9	4.5	5.2	5.5	4.9	5.0	5.0	4.8	4.3	4.4
22.0				3.8	3.7	3.4	4.0	4.3	3.7	3.9	3.8	3.6	3.2	3.2
24.0					2.8	2.4	3.0	3.4	2.8	2.9	2.9	2.7	2.2	2.3
26.0					2.0	1.6	2.2	2.6	2.0	2.1	2.1	1.9	1.4	1.5
28.0							1.6	1.9		1.5	1.4			
30.0								1.4						
boom angle	73.0	76.0	79.0	80.0	81.0	80.0	80.0	80.0	80.0	80.0	80.0	81.0	80.0	81.0
boom angle	29.0	26.0	25.0	23.0	23.0	38.0	41.0	44.0	57.0	57.0	61.0	66.0	68.0	70.0
Min.boom angle							30.0	40.0	50.0	52.0	56.0	59.0	64.0	66.0
combined mode	0000000	0000001	0000002	0001110	0011111	0111111	01111112	0111122	1111222	1112222	1122222	1222222	2222222	3333333
Parts of line	18	6		5			4		3			2		
Weight of hock block	2319	1827			827							447		

**Table 3-4 KQAY240 Total Rated Lifting Load for Jib**

1、62t counterweight-full extend outriggers, boom length 12m

boom length	50.3m			54.5m			58.6m			62.7m			67m		
boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82.00	12.00	8.70	6.30	12.00	8.70	6.30	12.00	8.70	6.30	12.00	8.70	6.20	12.00	7.80	5.50
80.00	12.00	8.30	6.10	12.00	8.30	6.10	12.00	8.30	6.00	12.00	8.20	5.90	12.00	7.10	5.20
78.00	11.50	8.00	5.90	11.50	8.00	5.90	11.50	7.90	5.70	11.50	7.60	5.50	10.70	6.60	4.90
76.00	10.80	7.70	5.70	10.80	7.60	5.60	10.80	7.20	5.40	10.80	7.00	5.30	9.60	6.10	4.60
74.00	10.30	7.40	5.50	10.30	7.00	5.30	10.30	6.70	5.10	10.00	6.50	5.00	8.60	5.70	4.40
72.00	9.80	7.10	5.30	9.80	6.50	5.00	9.50	6.30	4.90	9.10	6.10	4.80	7.80	5.30	4.10
70.00	9.40	6.80	5.20	9.10	6.10	4.80	8.70	5.90	4.70	8.30	5.70	4.50	7.10	4.90	3.90
68.00	9.00	6.50	5.10	8.40	5.80	4.60	8.00	5.60	4.50	7.70	5.40	4.30	6.50	4.60	3.70
66.00	8.60	6.20	5.00	7.70	5.40	4.40	7.30	5.20	4.30	7.00	5.10	4.10	5.90	4.30	3.50
64.00	8.20	6.00	4.90	7.10	5.10	4.20	6.70	5.00	4.10	6.50	4.80	4.00	5.50	4.10	3.40
62.00	7.90	5.80	4.80	6.50	4.90	4.10	6.20	4.70	3.90	6.00	4.50	3.80	5.10	3.80	3.20
60.00	7.60	5.60	4.70	6.10	4.60	3.90	5.80	4.50	3.80	5.60	4.30	3.70	4.70	3.60	3.10
58.00	7.10	5.40	4.60	5.70	4.40	3.80	5.40	4.20	3.60	5.20	4.10	3.50	4.40	3.40	2.90
56.00	6.70	5.20	4.50	5.30	4.20	3.60	5.10	4.00	3.50	4.90	3.90	3.40	4.00	3.20	2.80
54.00	6.40	5.10	4.40	5.00	4.00	3.50	4.80	3.90	3.40	4.60	3.70	3.30	3.70	3.00	2.60
52.00	6.00	4.90	4.30	4.70	3.80	3.40	4.50	3.70	3.30	4.40	3.60	3.20	3.50	2.80	2.40
50.00	5.80	4.70	4.30	4.50	3.70	3.30	4.30	3.50	3.20	4.10	3.40	3.10	3.20	2.60	2.30
48.00	5.50	4.60	4.20	4.20	3.50	3.20	4.10	3.40	3.10	3.90	3.20	3.00	2.90	2.30	2.10
46.00	5.30	4.40	4.10	4.00	3.40	3.10	3.80	3.20	3.00	3.60	3.10	2.80	2.70	2.20	2.00
44.00	5.00	4.30	4.00	3.80	3.30	3.00	3.60	3.10	2.90	3.40	2.90	2.70	2.40	2.00	1.90
42.00	4.80	4.20	4.00	3.70	3.20	3.00	3.50	3.00	2.80	3.20	2.80	2.60	2.20	1.90	1.80
40.00	4.70	4.10	3.90	3.50	3.10	2.90	3.30	2.90	2.70	3.00	2.70	2.60	2.10	1.80	1.70
38.00	4.50	4.00	3.80	3.40	3.00	2.90	3.10	2.80	2.70	2.90	2.60	2.40	1.90	1.70	1.60
36.00	4.40	3.90	3.80	3.20	2.90	2.80	3.00	2.70	2.60	2.70	2.30	2.30	1.80	1.60	1.50
34.00	4.20	3.80	3.80	3.10	2.80	2.80	2.90	2.60	2.60	2.60	2.30	2.20	1.70	1.50	1.50
32.00	4.10	3.80		3.00	2.80		2.80	2.40		2.40	2.20		1.50	1.40	
30.00	4.00	3.70		2.90	2.70		2.70	2.40		2.30	2.10		1.40	1.30	
28.00	3.90	3.70		2.80	2.70		2.60	2.30		2.20	2.00		1.40	1.30	
26.00	3.80	3.60		2.80	2.60		2.40	2.30		2.10	2.00		1.30	1.20	
24.00	3.70	3.60		2.70	2.60		2.30	2.20		2.00	1.90		1.20	1.20	
22.00	3.50	3.50		2.60	2.60		2.30	2.20		1.90	1.90		1.10	1.10	
20.00	3.40	3.40		2.60	2.40		2.20	2.20		1.90	1.90		1.10	1.10	
18.00	3.30			2.60			2.20			1.80			1.00		
16.00	3.30			2.40			2.10			1.80			1.00		
Weight of hook	447kg														

## 2、42t counterweight-full extend outriggers, boom length 12m

boom length	50.3m			54.5m			58.6m			62.7m			67m		
boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	12	8.7	6.3	12	8.7	6.3	12	8.7	6.3	12	8.7	6.2	12	7.8	5.5
80	12	8.3	6.1	12	8.3	6.1	12	8.3	6	12	8.2	5.9	12	7.1	5.2
78	11.5	8	5.9	11.5	8	5.9	11.5	7.9	5.7	11.5	7.6	5.5	10.7	6.6	4.9
76	10.8	7.7	5.7	10.8	7.6	5.6	10.8	7.2	5.4	10.8	7	5.3	9.6	6.1	4.6
74	10.3	7.4	5.5	10.3	7	5.3	10.3	6.7	5.1	10	6.5	5	8.6	5.7	4.4
72	9.8	7.1	5.3	9.8	6.5	5	9.5	6.3	4.9	9.1	6.1	4.8	7.8	5.3	4.1
70	9.4	6.8	5.2	9.1	6.1	4.8	8.7	5.9	4.7	8.3	5.7	4.5	7.1	4.9	3.9
68	9	6.5	5.1	8.4	5.8	4.6	8	5.6	4.5	7.7	5.4	4.3	6.5	4.6	3.7
66	8.6	6.2	5	7.7	5.4	4.4	7.3	5.2	4.3	7	5.1	4.1	5.9	4.3	3.5
64	8.2	6	4.9	7.1	5.1	4.2	6.7	5	4.1	6.5	4.8	4	5.5	4.1	3.4
62	7.9	5.8	4.8	6.5	4.9	4.1	6.2	4.7	3.9	6	4.5	3.8	5.1	3.8	3.2
60	7.6	5.6	4.7	6.1	4.6	3.9	5.8	4.5	3.8	5.6	4.3	3.7	4.7	3.6	3.1
58	7.1	5.4	4.6	5.7	4.4	3.8	5.4	4.2	3.6	5.2	4.1	3.5	4.4	3.4	2.9
56	6.7	5.2	4.5	5.3	4.2	3.6	5.1	4	3.5	4.7	3.9	3.4	4	3.2	2.8
54	6.2	5.1	4.4	5	4	3.5	4.7	3.9	3.4	4.2	3.7	3.3	3.5	3	2.6
52	5.7	4.9	4.3	4.7	3.8	3.4	4.2	3.7	3.3	3.8	3.6	3.2	3.1	2.8	2.4
50	5.2	4.7	4.3	4.4	3.7	3.3	3.8	3.5	3.2	3.4	3.2	3.1	2.7	2.6	2.3
48	4.7	4.5	4.2	4	3.5	3.2	3.4	3.3	3.1	3	2.9	2.8	2.4	2.3	2.1
46	4.3	4.1	4	3.6	3.4	3.1	3.1	3	2.9	2.7	2.6	2.5	2.1	2.1	2
44	4	3.8	3.7	3.3	3.2	3	2.8	2.7	2.6	2.4	2.3	2.3	1.9	1.8	1.8
42	3.7	3.5	3.4	3	2.9	2.8	2.5	2.4	2.4	2.2	2.1	2.1	1.7	1.6	1.6
40	3.4	3.2	3.2	2.8	2.7	2.6	2.3	2.2	2.1	2	1.9	1.9	1.4	1.4	1.4
38	3.1	3	2.9	2.5	2.4	2.4	2.1	2	2	1.8	1.7	1.7	1.3	1.2	1.2
36	2.9	2.8	2.7	2.3	2.2	2.2	1.9	1.8	1.8	1.6	1.5	1.5	1.1	1.1	1
34	2.7	2.6	2.5	2.1	2	2	1.7	1.6	1.6	1.4	1.4	1.4	0.9	0.9	0.9
32	2.5	2.4		1.9	1.9		1.5	1.5		1.3	1.2				
30	2.3	2.2		1.8	1.7		1.4	1.3		1.1	1.1				
28	2.2	2.1		1.6	1.6		1.2	1.2		1	1				
26	2	2		1.5	1.5		1.1	1.1		0.9	0.9				
24	1.9	1.9		1.4	1.4		1	1							
22	1.8	1.8		1.3	1.3		0.9	0.9							
20	1.7	1.7		1.2	1.2		0.9								
18	1.6			1.2											
16	1.6			1.1											
Weight of hook	447kg														

### 3、32t counterweight-full extend outriggers, boom length 12m

boom length	50.3m			54.5m			58.6m			62.7m			67m		
boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	12	8.7	6.3	12	8.7	6.3	12	8.7	6.3	12	8.7	6.2	12	7.8	5.5
80	12	8.3	6.1	12	8.3	6.1	12	8.3	6	12	8.2	5.9	12	7.1	5.2
78	11.5	8	5.9	11.5	8	5.9	11.5	7.9	5.7	11.5	7.6	5.5	10.7	6.6	4.9
76	10.8	7.7	5.7	10.8	7.6	5.6	10.8	7.2	5.4	10.8	7	5.3	9.6	6.1	4.6
74	10.3	7.4	5.5	10.3	7	5.3	10.3	6.7	5.1	10	6.5	5	8.6	5.7	4.4
72	9.8	7.1	5.3	9.8	6.5	5	9.5	6.3	4.9	9.1	6.1	4.8	7.8	5.3	4.1
70	9.4	6.8	5.2	9.1	6.1	4.8	8.7	5.9	4.7	8.3	5.7	4.5	7.1	4.9	3.9
68	9	6.5	5.1	8.4	5.8	4.6	8	5.6	4.5	7.7	5.4	4.3	6.5	4.6	3.7
66	8.6	6.2	5	7.7	5.4	4.4	7.3	5.2	4.3	6.9	5.1	4.1	5.9	4.3	3.5
64	8.2	6	4.9	7.1	5.1	4.2	6.7	5	4.1	6	4.8	4	5.1	4.1	3.4
62	7.7	5.8	4.8	6.5	4.9	4.1	5.8	4.7	3.9	5.2	4.5	3.8	4.4	3.8	3.2
60	6.8	5.6	4.7	5.9	4.6	3.9	5.1	4.5	3.8	4.6	4.3	3.7	3.8	3.6	3.1
58	6.1	5.4	4.6	5.2	4.4	3.8	4.5	4.2	3.6	4	3.8	3.5	3.3	3.1	2.9
56	5.4	5.1	4.5	4.6	4.2	3.6	3.9	3.7	3.5	3.5	3.3	3.2	2.8	2.7	2.6
54	4.8	4.5	4.3	4.1	3.8	3.5	3.5	3.3	3.1	3	2.9	2.8	2.4	2.3	2.2
52	4.3	4.1	3.9	3.6	3.4	3.3	3	2.9	2.8	2.7	2.5	2.4	2.1	2	1.9
50	3.9	3.7	3.5	3.2	3	2.9	2.7	2.5	2.4	2.3	2.2	2.1	1.7	1.7	1.6
48	3.5	3.3	3.2	2.8	2.7	2.6	2.3	2.2	2.2	2	1.9	1.9	1.5	1.4	1.4
46	3.1	3	2.9	2.5	2.4	2.3	2	1.9	1.9	1.7	1.6	1.6	1.2	1.2	1.1
44	2.8	2.7	2.6	2.2	2.1	2.1	1.8	1.7	1.6	1.5	1.4	1.4	1		
42	2.5	2.4	2.3	2	1.9	1.8	1.5	1.5	1.4	1.3	1.2	1.2			
40	2.3	2.2	2.1	1.7	1.7	1.6	1.3	1.2	1.2	1	1	1			
38	2	2	1.9	1.5	1.5	1.4	1.1	1.1	1						
36	1.8	1.8	1.7	1.3	1.3	1.2									
34	1.6	1.6	1.6	1.1	1.1	1.1									
32	1.5	1.4		1	1										
30	1.3	1.3													
28	1.2	1.1													
26	1.1	1													
Weight of hook block	447kg														

#### 4、22t counterweight-full extend outriggers, boom length 12m

boom length	50.3m			54.5m			58.6m			62.7m			67m		
boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	12	8.7	6.3	12	8.7	6.3	12	8.7	6.3	12	8.7	6.2	12	7.8	5.5
80	12	8.3	6.1	12	8.3	6.1	12	8.3	6	12	8.2	5.9	12	7.1	5.2
78	11.5	8	5.9	11.5	8	5.9	11.5	7.9	5.7	11.5	7.6	5.5	10.7	6.6	4.9
76	10.8	7.7	5.7	10.8	7.6	5.6	10.8	7.2	5.4	10.8	7	5.3	9.6	6.1	4.6
74	10.3	7.4	5.5	10.3	7	5.3	10.3	6.7	5.1	10	6.5	5	8.6	5.7	4.4
72	9.8	7.1	5.3	9.8	6.5	5	9.5	6.3	4.9	8.6	6.1	4.8	7.5	5.3	4.1
70	9.4	6.8	5.2	9.1	6.1	4.8	8.1	5.9	4.7	7.2	5.7	4.5	6.2	4.9	3.9
68	9	6.5	5.1	7.8	5.8	4.6	6.8	5.6	4.5	6.1	5.4	4.3	5.2	4.6	3.7
66	7.8	6.2	5	6.7	5.4	4.4	5.8	5.2	4.3	5.2	4.8	4.1	4.4	4	3.5
64	6.7	6	4.9	5.8	5.1	4.2	5	4.6	4.1	4.4	4.1	3.8	3.6	3.4	3.2
62	5.8	5.3	4.8	4.9	4.6	4.1	4.2	3.9	3.7	3.7	3.5	3.3	3	2.8	2.7
60	5.1	4.7	4.4	4.3	3.9	3.7	3.6	3.3	3.2	3.2	2.9	2.8	2.5	2.3	2.2
58	4.4	4.1	3.9	3.7	3.4	3.2	3.1	2.9	2.7	2.7	2.5	2.4	2.1	1.9	1.8
56	3.8	3.6	3.4	3.1	2.9	2.8	2.6	2.4	2.3	2.2	2.1	2	1.7	1.6	1.5
54	3.3	3.1	3	2.7	2.5	2.4	2.2	2	2	1.8	1.7	1.7	1.3	1.2	1.2
52	2.9	2.7	2.6	2.3	2.1	2.1	1.8	1.7	1.6	1.5	1.4	1.4	1		
50	2.5	2.4	2.3	1.9	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.1			
48	2.2	2	2	1.6	1.5	1.5	1.2	1.1	1.1						
46	1.8	1.8	1.7	1.3	1.3	1.2									
44	1.6	1.5	1.4	1.1	1	1									
42	1.3	1.3	1.2												
40	1.1	1	1												
Weight of hook block	447kg														

## 5、62t counterweight-full extend outriggers, boom length 20m

boom length	50.3m			54.5m			58.6m			62.7m			67m		
boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6
80	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4
78	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2
76	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1
74	5	2.9	2	5	2.9	2	5	2.9	2	5	2.9	2	5	2.9	2
72	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2
70	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9
68	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9
66	3.6	2.4	1.8	3.6	2.4	1.8	3.6	2.4	1.8	3.6	2.4	1.8	3.6	2.4	1.8
64	3.4	2.3	1.8	3.4	2.3	1.8	3.4	2.3	1.8	3.4	2.3	1.8	3.4	2.3	1.8
62	3.2	2.2	1.7	3.2	2.2	1.7	3.2	2.2	1.7	3.2	2.2	1.7	3.2	2.2	1.7
60	3	2.1	1.7	3	2.1	1.7	3	2.1	1.7	3	2.1	1.7	3	2.1	1.7
58	2.8	2	1.7	2.8	2	1.7	2.8	2	1.7	2.8	2	1.7	2.8	2	1.7
56	2.7	2	1.6	2.7	2	1.6	2.7	2	1.6	2.7	2	1.6	2.7	2	1.6
54	2.6	1.9	1.6	2.6	1.9	1.6	2.6	1.9	1.6	2.6	1.9	1.6	2.6	1.9	1.6
52	2.4	1.9	1.6	2.4	1.9	1.6	2.4	1.9	1.6	2.4	1.9	1.6	2.4	1.9	1.6
50	2.3	1.8	1.5	2.3	1.8	1.5	2.3	1.8	1.5	2.3	1.8	1.5	2.3	1.8	1.5
48	2.2	1.8	1.5	2.2	1.8	1.5	2.2	1.8	1.5	2.2	1.8	1.5	2.2	1.7	1.5
46	2.1	1.7	1.5	2.1	1.7	1.5	2.1	1.7	1.5	2.1	1.7	1.5	2	1.6	1.4
44	2.1	1.7	1.5	2.1	1.7	1.5	2.1	1.7	1.5	2.1	1.7	1.5	1.8	1.5	1.3
42	2	1.6	1.5	2	1.6	1.5	2	1.6	1.5	2	1.6	1.5	1.6	1.4	1.2
40	2	1.6	1.5	2	1.6	1.5	2	1.6	1.5	2	1.6	1.5	1.5	1.2	1.2
38	1.9	1.6	1.5	1.9	1.6	1.5	1.9	1.6	1.5	1.9	1.6	1.5	1.4	1.1	1.1
36	1.9	1.5	1.4	1.9	1.5	1.4	1.9	1.5	1.4	1.9	1.5	1.4	1.2	1.1	1
34	1.8	1.5	1.4	1.8	1.5	1.4	1.8	1.5	1.4	1.8	1.5	1.4	1.1	1	1
32	1.8	1.5		1.8	1.5		1.8	1.5		1.7	1.5		1	0.9	
30	1.7	1.5		1.7	1.5		1.7	1.5		1.6	1.5		1		
28	1.7	1.5		1.7	1.5		1.7	1.5		1.6	1.4		1		
26	1.7	1.5		1.7	1.5		1.7	1.5		1.5	1.4		1		
24	1.6	1.5		1.6	1.5		1.6	1.5		1.4	1.3		1		
22	1.6	1.5		1.6	1.5		1.6	1.5		1.4	1.3		1		
20	1.6	1.5		1.6	1.5		1.6	1.5		1.3	1.3		1		
18	1.5			1.5			1.5			1.3			1		
16	1.5			1.5			1.5			1.2			1		
Weight of	447kg														

## 6、42t counterweight-full extend outriggers, boom length 20m

boom length	50.3m			54.5m			58.6m			62.7m			67m		
boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6
80	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4
78	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2
76	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1
74	5	2.9	2	5	2.9	2	5	2.9	2	5	2.9	2	5	2.9	2
72	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2
70	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9
68	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9
66	3.6	2.4	1.8	3.6	2.4	1.8	3.6	2.4	1.8	3.6	2.4	1.8	3.6	2.4	1.8
64	3.4	2.3	1.8	3.4	2.3	1.8	3.4	2.3	1.8	3.4	2.3	1.8	3.4	2.3	1.8
62	3.2	2.2	1.7	3.2	2.2	1.7	3.2	2.2	1.7	3.2	2.2	1.7	3.2	2.2	1.7
60	3	2.1	1.7	3	2.1	1.7	3	2.1	1.7	3	2.1	1.7	3	2.1	1.7
58	2.8	2	1.7	2.8	2	1.7	2.8	2	1.7	2.8	2	1.7	2.8	2	1.7
56	2.7	2	1.6	2.7	2	1.6	2.7	2	1.6	2.7	2	1.6	2.7	2	1.6
54	2.6	1.9	1.6	2.6	1.9	1.6	2.6	1.9	1.6	2.6	1.9	1.6	2.6	1.9	1.6
52	2.4	1.9	1.6	2.4	1.9	1.6	2.4	1.9	1.6	2.4	1.9	1.6	2.4	1.9	1.6
50	2.3	1.8	1.5	2.3	1.8	1.5	2.3	1.8	1.5	2.3	1.8	1.5	2.1	1.8	1.5
48	2.2	1.8	1.5	2.2	1.8	1.5	2.2	1.8	1.5	2.2	1.8	1.5	1.8	1.7	1.5
46	2.1	1.7	1.5	2.1	1.7	1.5	2.1	1.7	1.5	2.1	1.7	1.5	1.6	1.5	1.4
44	2.1	1.7	1.5	2.1	1.7	1.5	2.1	1.7	1.5	1.8	1.7	1.5	1.3	1.3	1.2
42	2	1.6	1.5	2	1.6	1.5	1.9	1.6	1.5	1.6	1.5	1.5	1.1	1.1	1
40	2	1.6	1.5	2	1.6	1.5	1.7	1.6	1.5	1.4	1.3	1.3			
38	1.9	1.6	1.5	1.9	1.6	1.5	1.5	1.4	1.4	1.2	1.2	1.1			
36	1.9	1.5	1.4	1.7	1.5	1.4	1.3	1.2	1.2	1.1	1	1			
34	1.8	1.5	1.4	1.5	1.4	1.4	1.1	1.1	1.1						
32	1.8	1.5		1.4	1.3		1								
30	1.7	1.5		1.2	1.2										
28	1.5	1.5		1.1	1.1										
26	1.4	1.4		1											
24	1.3	1.3													
22	1.2	1.2													
20	1.1	1.1													
18	1.1														
16	1														
Weight of hook block	447kg														

## 7、32t counterweight-full extend outriggers, boom length 20m

boom length	50.3m			54.5m			58.6m			62.7m			67m		
boom angle	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6
80	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4
78	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2
76	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1
74	5	2.9	2	5	2.9	2	5	2.9	2	5	2.9	2	5	2.9	2
72	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2
70	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9
68	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9
66	3.6	2.4	1.8	3.6	2.4	1.8	3.6	2.4	1.8	3.6	2.4	1.8	3.6	2.4	1.8
64	3.4	2.3	1.8	3.4	2.3	1.8	3.4	2.3	1.8	3.4	2.3	1.8	3.4	2.3	1.8
62	3.2	2.2	1.7	3.2	2.2	1.7	3.2	2.2	1.7	3.2	2.2	1.7	3.2	2.2	1.7
60	3	2.1	1.7	3	2.1	1.7	3	2.1	1.7	3	2.1	1.7	3	2.1	1.7
58	2.8	2	1.7	2.8	2	1.7	2.8	2	1.7	2.8	2	1.7	2.6	2	1.7
56	2.7	2	1.6	2.7	2	1.6	2.7	2	1.6	2.7	2	1.6	2.2	2	1.6
54	2.6	1.9	1.6	2.6	1.9	1.6	2.6	1.9	1.6	2.4	1.9	1.6	1.8	1.7	1.6
52	2.4	1.9	1.6	2.4	1.9	1.6	2.3	1.9	1.6	2	1.9	1.6	1.5	1.4	1.3
50	2.3	1.8	1.5	2.3	1.8	1.5	2	1.8	1.5	1.7	1.6	1.5	1.2	1.1	1.1
48	2.2	1.8	1.5	2.1	1.8	1.5	1.7	1.6	1.5	1.4	1.3	1.3	1		
46	2.1	1.7	1.5	1.9	1.7	1.5	1.4	1.3	1.3	1.2	1.1	1			
44	2.1	1.7	1.5	1.6	1.5	1.4	1.2	1.1	1.1						
42	1.8	1.6	1.5	1.4	1.3	1.2	1								
40	1.6	1.5	1.5	1.2	1.1	1									
38	1.4	1.3	1.3	1											
36	1.2	1.2	1.1												
34	1.1	1	1												
Weight of hock block	447kg														

## 8、22t counterweight-full extend outriggers, boom length 20m

boom	50.3m			54.5m			58.6m			62.7m			67m		
boom	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°
82	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6	7	3.9	2.6
80	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4	6.3	3.6	2.4
78	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2	5.8	3.3	2.2
76	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1	5.4	3.1	2.1
74	5	2.9	2	5	2.9	2	5	2.9	2	5	2.9	2	5	2.9	2
72	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2	4.6	2.7	2
70	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9	4.2	2.6	1.9
68	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9	3.9	2.5	1.9
66	3.6	2.4	1.8	3.6	2.4	1.8	3.6	2.4	1.8	3.6	2.4	1.8	3.5	2.4	1.8
64	3.4	2.3	1.8	3.4	2.3	1.8	3.4	2.3	1.8	3.4	2.3	1.8	2.9	2.3	1.8
62	3.2	2.2	1.7	3.2	2.2	1.7	3.2	2.2	1.7	2.9	2.2	1.7	2.4	2.1	1.7
60	3	2.1	1.7	3	2.1	1.7	2.8	2.1	1.7	2.4	2.1	1.7	1.9	1.7	1.6
58	2.8	2	1.7	2.8	2	1.7	2.3	2	1.7	2	1.8	1.7	1.5	1.3	1.2
56	2.7	2	1.6	2.4	2	1.6	1.9	1.7	1.6	1.6	1.5	1.4	1.1	1	
54	2.5	1.9	1.6	2	1.8	1.6	1.6	1.4	1.3	1.3	1.2	1.1			
52	2.2	1.9	1.6	1.7	1.5	1.4	1.2	1.1	1	1					
50	1.8	1.7	1.5	1.3	1.2	1.1	1								
48	1.5	1.4	1.3	1.1	1										
46	1.3	1.1	1.1												
44	1														
Weight of	447kg														



