

ZOOMLION

ZMC700V532

TRUCK CRANE



4.0
PROINETS



ZMC700V5

55t
55000kg

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 ZMC700V532

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ZMC700V532

TRUCK CRANE

Max. load moment of
basic boom

2205 kN.m

Max. load moment of
max. length boom

1411 kN.m










Max. lifting height of jib

64.6 m

Axle

Axle	1	2	3	4	Total weight
T	10	10	11.25	11.25	42.5

Working Speed

	 km/h	 %	
385/95R25	85km/h max	45%	Forward speeds: 12.74 / 9.43 / 6.67 / 4.83 / 3.53 / 2.65 / 1.95 / 1.38 / 1.00 / 0.73 Reverse speeds: 13.73 / 2.84
Drive	Operation Speed	Rope diameter/length	Max. single line pull
	140m/min	φ 17.0 mm/240 m	5500kg
	140m/min	φ 17.0 mm/140 m	5500kg
	0-2.0 r/min		
	50s/100s		
	130s/130s		

Hook Detailed Description

Specification(t)	Weight(kg)	Number of pulleys	Fall	Single/double	● Standard ○ Optional
55	460	6	12	Single	●
5	100	-	1	Single	●

SPECIFICATIONS

Crane Superstructure

Boom and telescoping system

The box-shaped boom consists of 5 U-type boom sections made of low-alloy high-strength steel plate.

The new plate-type boom head structure and a series of optimized design have the deadweight of the boom greatly decreased and the stress on the boom evenly distributed to avoid partial distortion.

The telescopic boom sections are telescoped in / out via two telescoping cylinders and two sets of boom extension / retraction rope.

Jib

Two jib lengths: 9.5m and 16m, offset: 0° , 15° or 30°.

Rooster sheave

It is secured at the outside of the boom head when it is not used. It can be rotated around the shaft and pinned onto the boom head when it is used.

This option is set up for rapid hoists over the boom head to improve the working efficiency when the loads are light.

Slewing platform

Plate structured and optimized slewing platform makes the layout of articulated points of boom and derricking mechanism more reasonable. It also has a distinctive structure and beautiful appearance. The hood adopts ergonomic design.

Derricking mechanism

1 front-mounted hydraulic cylinder with balance valve provides the boom with smooth derricking movements from -1° to 80°

Slewing mechanism

The slewing mechanism is equipped with double slewing gears

Via the planetary gear reducer, the axial plunger hydraulic motor drives the pinion gear on the output shaft to rotate the toothed ring of slewing bearing fixed on chassis frame, providing superstructure with 360° unlimited slewing.

Hoist mechanism

The main winch mechanism and auxiliary winch mechanism

can be controlled independently and also can carry out simultaneous movements.

Adopt high-tensile torsion resistant hoist rope

Operator's cab

Operator's cab is of steel-structure with front-mounted instrument console and adjustable seat with headrest. It is equipped with windshield wiper, washing system, air conditioning and cab heater

Outriggers

H-type outriggers, which are in box-shaped structure and welded of low-alloy and high-strength steel plate. The 5th outrigger is installed beneath the driver's cab. The crane can realize full range slewing operation with the 5th outrigger set up.

Hydraulic system

The open-type hydraulic system adopts advanced pilot-operated proportional joysticks and hydraulic proportional control system. It separately controls the movements of slewing, telescoping, derricking and hoisting. Anti-pollution bite-type fitting ensures the high reliability of the system.

The main power element is a variable pump and two gear pumps.

Electrical system

Two-wired system, 24 Volt DC

Safety devices

Automatic load moment limiter, warning light, limit switch, relief valve, hoisting limit switch etc

Counterweight






Under-slung combined counterweight system, whose total weight is 11t (standard configuration). Different counterweight variants can be combined for different operating modes. The movable counterweight plates are operated by the counterweight handler at the end of the slewing platform.

Crane chassis

Engine:

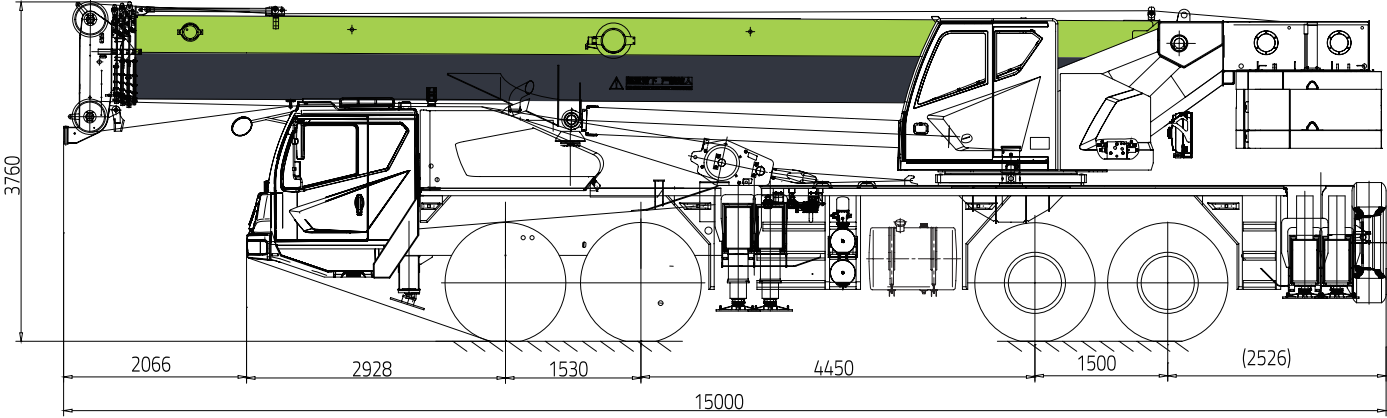
Yuchai YCK10360-30 engine, rated power: 265/1900kW/ r/min, Max. output torque: 1600/1100-1450N.m/r/min, Conforming to Brazilian Mar-1 emission standard.

TECHNICAL DATA

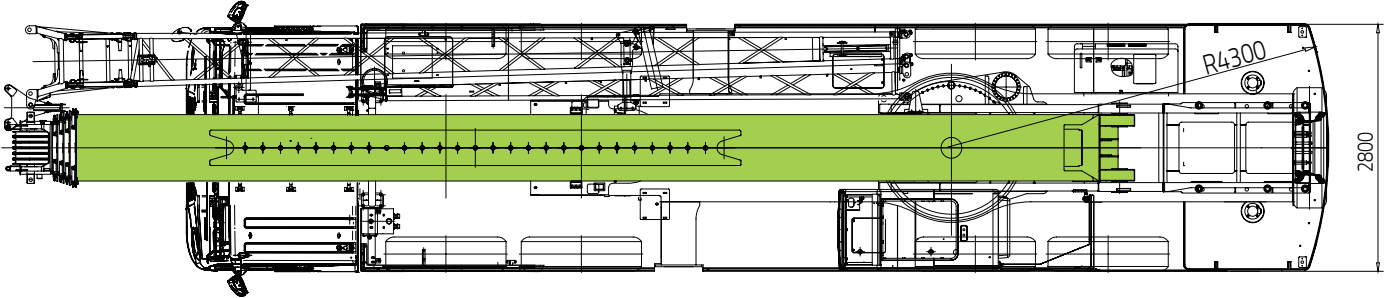
	Item	Unit	Value	Remarks
 <p>Working performance</p>	Max. rated lifting capacity	kg	70000	
	Max. load moment of basic boom	kN.m	2205	
	Max. load moment of Max. length boom	kN.m	1411	
	Max. lifting height of basic boom	m	13.6	
	Max. lifting height of boom	m	48.8	These parameters do not include deflection of boom and jib.
	Max. lifting height of jib	m	64.6	
 <p>Working speeds</p>	Max. hoist rope speed (Main winch)	m/min	≥145	Unloaded, At 4th layer
	Max. hoist rope speed (Auxiliary winch)	m/min	≥125	Unloaded, At 2nd layer
	Boom derricking up time	s	≤50	
	Boom telescoping out time	s	≤130	
	Slewing speed	r/min	0~2.0	
 <p>Driving</p>	Max. driving speed	km/h	85	
	Max. gradeability	%	45	
	Min. turning diameter	m	≤20	
	Min. ground clearance	mm	370	
	Oil consumption per hundred kilometer	L	40	
 <p>Mass</p>	Deadweight in driving condition	kg	42500	
	Complete vehicle kerb mass	kg	42370	
	Front axle load	kg	20000	
	Rear axle load	kg	22500	
 <p>Dimensions</p>	Overall dimensions (L×W×H)	mm	15000×2800×3760	
	Outrigger spread (W)	m	6.40	
	Outrigger spread (L)	m	Fully extended:8.0 Intermediately extended: 5.26	
	Tail slewing radius	mm	4300	
	Boom length	m	12.3~48	
	Boom angle	°	-2~80	
	Jib length	m	9.5/16	
	Jib angle	°	0/15/30	

DIMENSIONS

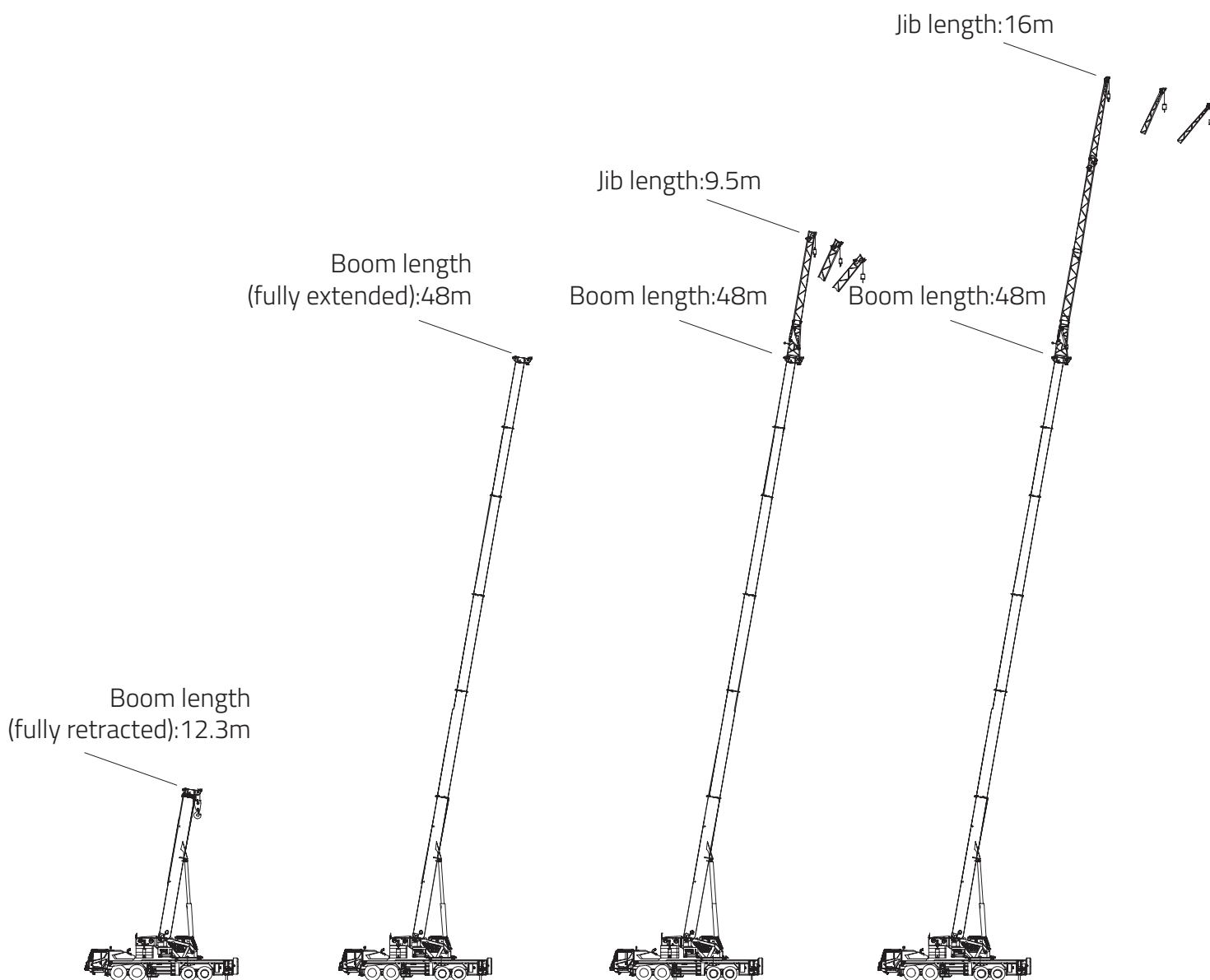
Unit: mm



Unit: mm

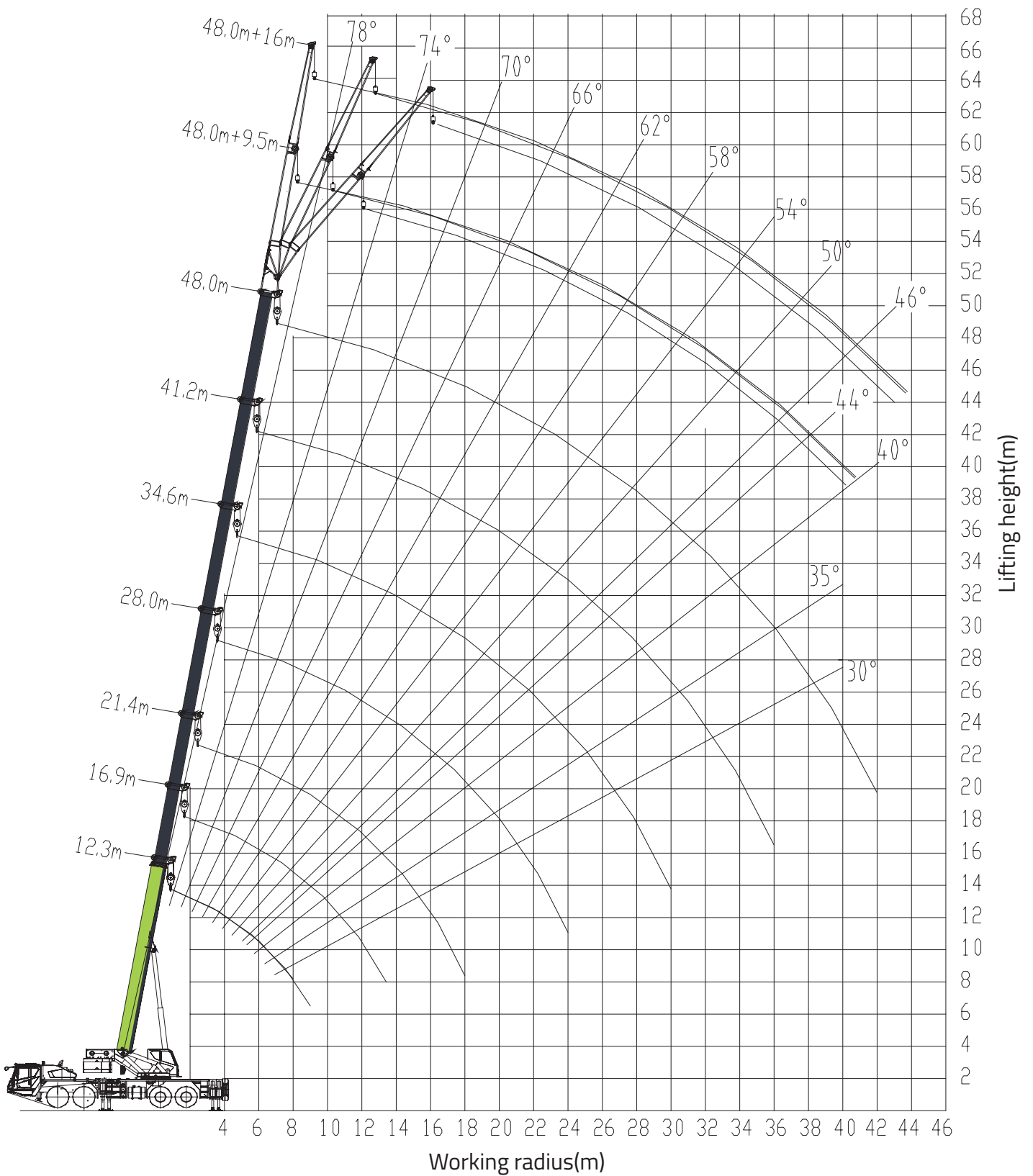


BOOM/JIB COMBINATION



Working Condition	Boom/Jib Length
Main boom	12.3-48m
Main boom + Jib	48m Main boom + 9.5m Jib
Main boom + Jib	48m Main boom + 16m Jib

LIFTING HEIGHT CHART



RATED CAPACITY CHART

with boom only

- Telescopic cylinder I fully extended
- Outriggers fully extended
- 11t counterweight
- Over side and rear working area

Working radius(m)	Boom length (m)						
	12.3	16.9	21.4	28.0	34.6	41.2	48.0
3	70.0	50.0	40.0				
3.5	60.0	50.0	40.0				
4	55.0	50.0	40.0				
4.5	50.0	45.0	40.0	31.0			
5	45.0	43.5	40.0	31.0			
5.5	40.0	39.5	38.0	31.0			
6	36.5	36.0	34.0	31.0	25.0		
7	30.5	30.0	30.0	29.0	24.0		
8	26.0	26.0	25.5	26.5	22.0	17.2	
9	23.0	22.5	22.0	23.0	20.5	16.0	
10		19.5	19.5	20.5	18.8	14.9	11.5
11		17.5	17.0	18.0	17.2	14.0	11.2
12		15.5	15.0	16.0	16.0	13.1	10.8
13		13.0	13.0	14.1	14.6	12.3	10.3
14			10.8	12.2	13.0	11.6	9.7
15			9.3	10.6	11.4	11.0	9.2
16			8.1	9.3	10.1	10.1	8.7
18			6.0	7.2	7.9	8.5	7.9
20				5.7	6.3	6.9	7.0
22				4.5	5.1	5.6	6.0
24				3.5	4.1	4.6	5.0
26					3.3	3.8	4.2
28					2.6	3.1	3.5
30					2.1	2.5	2.9
32						2.0	2.4
34						1.6	2.0
36						1.2	1.6
38							1.3
40							1.0
42							0.7
I(m)	0	4.6	9.1	9.1	9.1	9.1	9.1
II(m)	0	0	0	6.6	13.2	19.8	26.6
Reeving	12	10	8	6	5	4	3
Hook				55t			

This crane is provided with various rated capacity charts. The operator should select proper rated lifting load referring to resp. lifting capacity tables according to actual working conditions.

The values in column "I" refer to the extendable length of telescopic cylinder I.

The values in column "II" refer to 3 times extendable length of telescopic cylinder II, namely, the total extendable length of boom section 3, 4 and 5.

- a) A 55t hook is a standard configuration. For rated capacities exceeding 55t, other hooks satisfying such rated capacities should be used.
- b) The reeving factor for rated capacities exceeding 66t should be increased, and an additional device should be used.

The lifting capacity values for crane to work over front working area are ones when the 5th outrigger is not extended. When the 5th outrigger is extended, the lifting capacity values for crane to work over sides and rear working area are also applicable to the front working area, i.e. they are applicable to 360 degree working area.

RATED CAPACITY CHART

boom +jib

11t counterweight

Boom angle(°)	Boom+Jib					
	Boom(48m)+Jib(9.5m)			Boom(48m)+Jib(16m)		
	0°	15°	30°	0°	15°	30°
80	5.0	3.3	2.5	3.0	2.0	1.5
78	5.0	3.3	2.5	3.0	2.0	1.5
76	4.8	3.2	2.5	2.9	1.9	1.4
74	4.8	3.2	2.5	2.7	1.8	1.4
72	4.3	3.0	2.5	2.5	1.8	1.3
70	4.1	2.9	2.4	2.3	1.7	1.3
68	3.7	2.8	2.3	2.1	1.6	1.25
66	3.5	2.7	2.2	2.0	1.55	1.2
64	3.3	2.6	2.1	1.9	1.5	1.2
62	3.1	2.5	2.05	1.8	1.45	1.15
60	2.7	2.4	2.0	1.7	1.4	1.15
58	2.4	2.3	1.95	1.6	1.4	1.1
56	2.1	2.0	1.9	1.55	1.3	1.1
54	1.7	1.65	1.6	1.5	1.25	1.05
52	1.5	1.45	1.4	1.3	1.2	1.05
50	1.3	1.25	1.2	1.0	0.95	0.9
48	1.1	1.05	1.0	0.9	0.85	0.8
46	1.0	0.95	0.9	0.8	0.75	0.7
44	0.8	0.75	0.7	0.7	0.65	0.6
42	0.7	0.65	0.6			
40						
Reeving	1					
Hook	5t					

ZOOMLION

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