

#### Foreword

Thank you for your interest in our products.

FUWA Heavy Industry Co. Ltd. is one of the oldest manufacturers in the heavy equipment industry. Our history goes back to 1904. Today Fuwa is a modern contender on both the Chinese domestic market and the advanced International market.

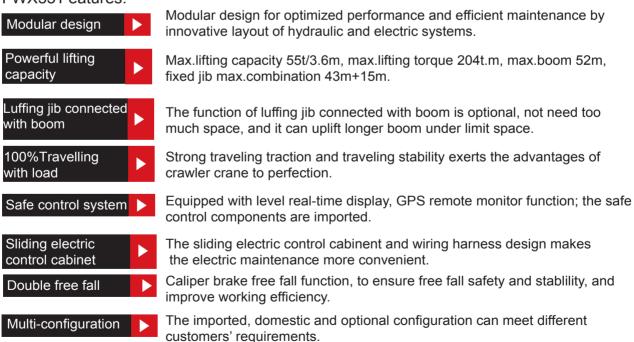
A team of experts and engineers has reset the concept of crawler cranes by searching the optimum in international design and technology combined with the dedicated manufacturing in China.

The use of our long term experience combined with modern computer design, calculation and simulation software, enabled us to reach the best to meet the customers demand.

New standards on safety, quality, performance, reliability, easy transport and maintenance have been implemented. We respect the environment by efficient used of true materials, high quality components and aiming a long life time.

The unique concept of Modular Design offers a large variety of models, but always based on the same key values.

#### FWX55 Features:



The FWX machines carry the new FUWA signature of quality; 'respect the past, aim the future'.



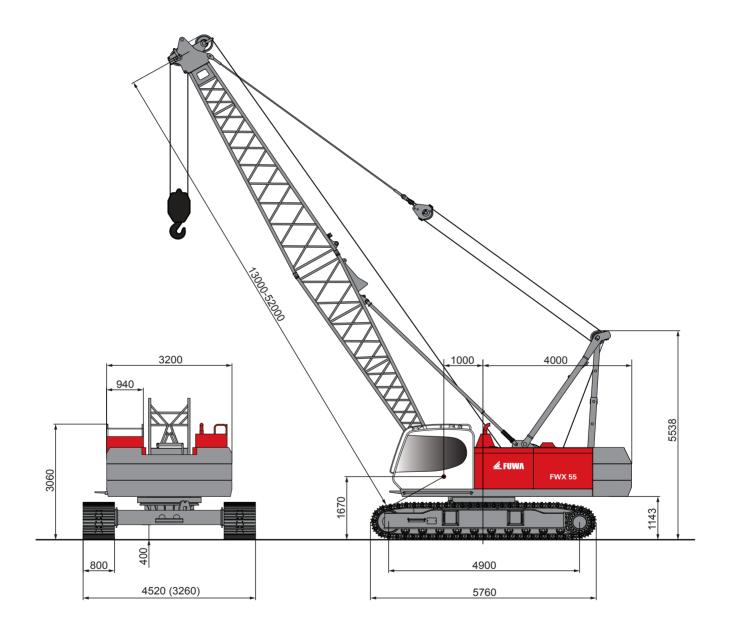


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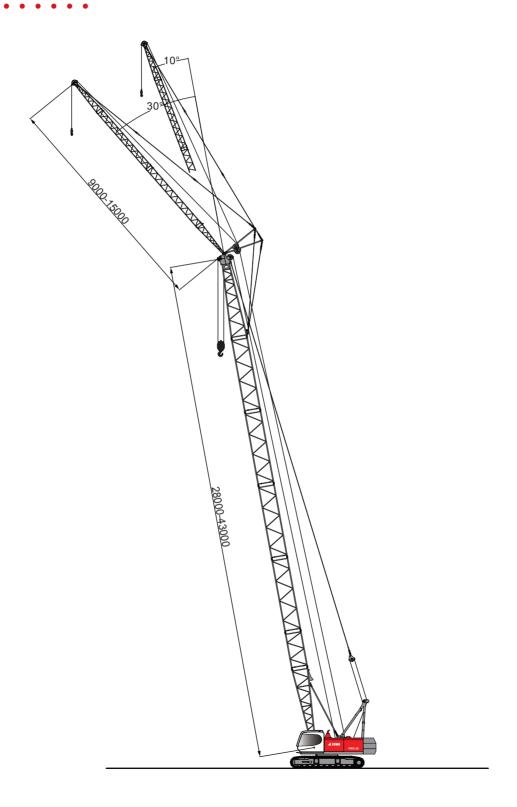


## Overall Dimension





# Overall Dimension







## **Technical Data**

		Items	Unit	Data
		Max.rated lifting capacity	t	55@3.6m
		Boom length	m	13~52
		Fixed jib length	m	9~15
	E	Boom+fixed jib max. length	m	43+15
		Boom derricking angle	0	30~80
		Hook blocks	t	55/25/9
p		Main winch hoist, lower (rope dia.Φ22mm )	m/min	110
Working speed	Rope speed	Aux. winch hoist, lower (rope dia.Φ22mm)	m/min	110
ng s	Ĺ	Boom hoist, lower (rope dia.Ф18mm)	m/min	60
/orki		Slewing speed	r/min	3.1
<b>&gt;</b>		Travel speed	km/h	1.33
		Reevings		8
		Single line pull	t	7
		Gradeability	%	30
		Engine	kW/r/min	142/2000(imported) 132/2000 (domestic)
		Slewing radius		4000
		Transport dimension	mm	12290×3260×3185
	Cran	e mass(with basic boom&55t hook)	t	53
		Ground bearing pressure	MPa	0.062
		Counterweight	t	18.5



### **Specifications**



The modular power unit can be installed with imported or domestic engine, pump set and integrated cooler. Sufficient power, high efficiency and long service life. Mounted on a separate engine bed on high quality vibration absorbers in compartment with controlled cooling airflow for noise reduction.

Cummins engine, direct injection, water cooled. Rated power: 142kW/2000rpm (imported)

Model: QSB6.7

Rated power: 132kW/2000rpm(domestic)

Model: 6BTAA5.9-C180 Fuel tank capacity approx.:370L Equipped with fuel pump.

#### Hydraulic system

Main pump is of variable displacement piston type. Integrated hydraulic oil cooler. Independent gear pump feeds the pilot system. The concept of 'hydraulic highway' assures efficient hydraulic performance and easy maintenance. High grade components guarantee the reliability and long machine life.

Hand-grip controls according to ISO-standard. Hydraulic tank capacity approx.: 540L

#### Slewing system

The slewing function allows fully independent operation for most safe and accurate control under all load conditions. The slewing buffer system makes the start/stop more smoothly, and equipped with auto-sliding function. Slewing brake is of spring applied, hydraulically released multi-disc brakes, manual operation. Slewing speed: 0~3.1rpm

### Superstructure

Extreme durable and lean design, fully computer aided designed and optimized. Made of high grade steel for long life time. All components are well organized mounted in the spacious engine and hydraulic compartments. Engine cover with open large door design for easy maintenance, and with anti-slip tape.

### Electric system

Comprehensive electric system components layout, high grade wiring and imported connectors, sensors and switches with premium quality for safe and reliable operation. Sliding electric control cabinet makes easy maintenance. The whole crane uses wiring harness to reduce the failure of hydraulic system. Imported or domestic moment limiter is as option available.

### Cab

New industrial designed 'Life Cab'. Highest standard in ergonomics, view and comfort to assure a safe operation and reduce fatigue. +20% larger sliding door for easy access. Large flat windows for easy replacement in case of small accident. Large window wiper. Comfortable seat with European standard. Controls and switches are of highest grade. Plenty of foot space.

#### Main winch 1&2



Each winch is driven independently by a hydraulic piston motor. Each motor is equipped with counterbalance valves to provide controlled load lowering and prevent accidental load drop if the hydraulic pressure is suddenly lost.

Normally-closed, spring applied, hydraulically released, multiple-disc type brake.

Double free fall or non-free fall (domestic) is as option; double free fall (imported).

Main winch 1&2 Single line pull

Wire rope diameter 22mm Line speed 0~110m/min Parallel drum groove pattern

#### Derricking winch



Driven independently by a hydraulic piston motor provided with counterbalance valves.

Normally-closed, spring applied, hydraulically released, multiple-disc type brake. Mechanical drum pawl lock.

Derricking winch Single line pull 6t Rope diameter 18mm 60m/min Line speed

#### Undercarriage



Strong extendable crawler undercarriage. Each track is independently driven by a hydraulic piston motor. Spring automatic brake mode, hydraulically releasable, disc-type brake. Casting track shoe and link-type track shoe is as option.

Travel speed is 0~1.33km/h

#### Boom attachment



Strong and durable design to assure sufficient safety and a stable operation. Easy connection of pedant system when preparing for transport. Boom head with 4 sheaves and quick assemble runner. Upright hanging sheaves in pendant system for smoother derricking and longer service life.

Boom length: 13~52m Fixed jib length: 9~15m

### Counterweight



Stable counterweight setup existing of six blocks in welded type. Casting or welding counterweight is optional for customers' requirements.

Counterweight: 18.5t



## Machine Configuration

Boom

Max.lifting capacity: 55t x 3.6m

Max.boom length: 52m

Runner

Max.lifting capacity: 7t x 16m

Max.boom length: 49m

Fixed jib

Max.lifting capacity: 5.5t x 13m

Max.boom length:43m+15m

Min.boom length:28m





#### Notes for Load Chart

- 1.Ratings according to GB3811, ISO4302 and ISO4305.
- 2. The rated loads shown are based on the machine on the firm level ground.
- 3. The rated loads shown are in metric tons and do not exceed 75% of tipping load, and not less than 1.15 times over-front stability.
- 4. The user must deduct or limit the loads to allow for difficult conditions such as soft or uneven ground, out of level conditions, wind, side loads, pendulum action, jerking traveling or sudden stopping of loads. Under above conditions, the operator must reduce the load to operate. Self-weight of hook (shown in the table below) should be deducted from the load chart.
- 5. When mounted with runner or fixed jib, for example, main hook operation, and the actual lifting capacity is the rated load deducting the weights of main and auxiliary hooks+ runner or fixed jib (shown in the table below). The crane cannot work if the capacity deducted is less than 0.8t.
- 6. When mounted with runner, boom length is 13~49m; when mounted with fixed jib, boom length is 28~43m.
- 7. The crane can only be operated when both crawlers are extended.
- 8. The counterweight is 18.5t.
- 9. The radius in chart is actual working radius after lifting.
- 10. Stability is weaker when working overside.
- 11. The lifting capacities below are for reference only. For actual lifting capacities please refer to the load chart in operator's cab or operation manual.

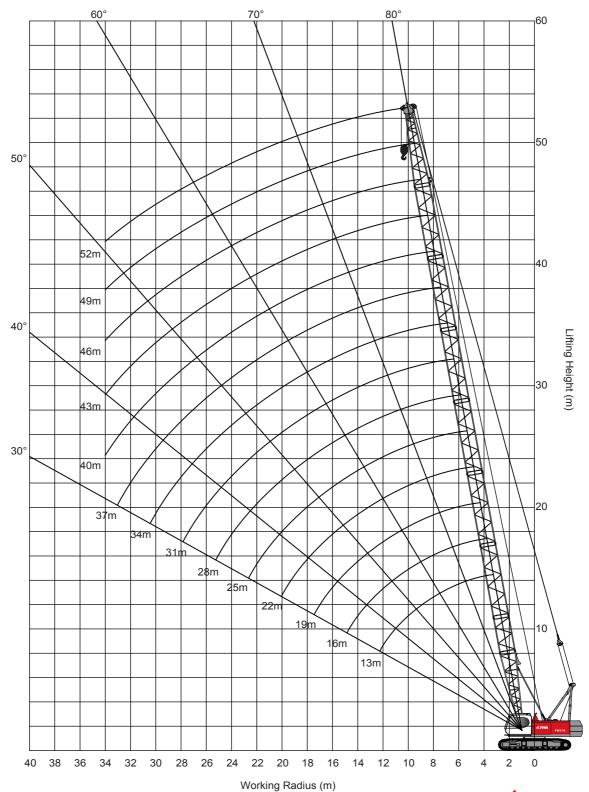
Typo	Weight	Reevings and max.lifting capacity (t)										
Туре	vveignt	8	7	6	5	4	3	2	1			
55t Hook	0.63t	55.0	49.0	42.0	35.0	28.0						
25t Hook	0.44t						21.0	14.0				
9t Hook	0.25t								7.0			

Jib length (m)	9	12	15	Runner
Weight (t)	0.77	0.90	1.05	0.1

Note: Depending on classification of hoist wire rope according to data above.



# Working Range - Boom





## Boom Load Chart





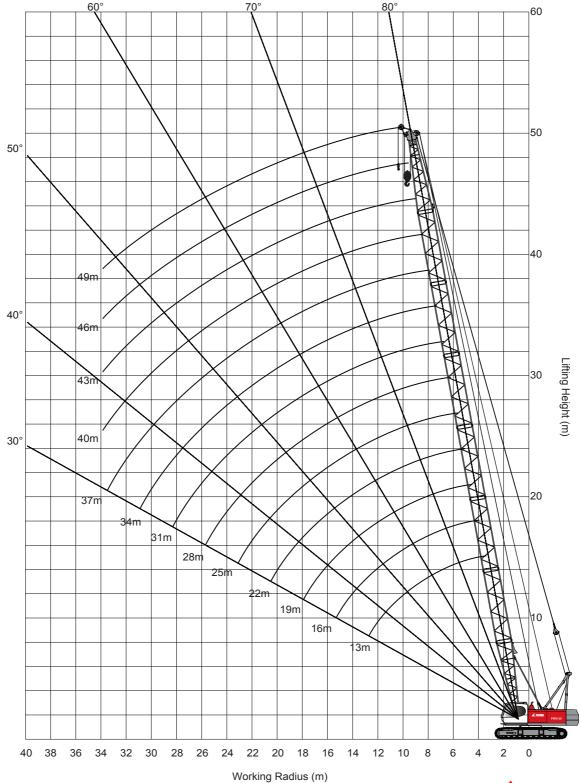


Unit:t

Boom length Working radius	13.0m	16.0m	19.0m	22.0m	25.0m	28.0m	31.0m	34.0m	37.0m	40.0m	43.0m	46.0m	49.0m	52.0m
3.0m	55/3.6													
4.0m	51.0	49/4.1	42.1/4.6											
5.0m	38.6	38.3	37.3	35.3/5.1	30.3/5.6									
6.0m	29.1	29.0	28.9	28.5	27.9	26.4/6.2	23.4/6.7							
7.0m	23.3	23.2	23.1	23.0	22.9	22.5	22.0	20.9/7.2	18.8/7.7					
8.0m	19.3	19.2	19.2	19.1	19.0	18.9	18.7	18.3	18.0	17.0/8.2	15.5/8.8			
9.0m	16.5	16.4	16.3	16.3	16.2	16.1	16.0	15.9	15.6	15.3	15.0	14.1/9.3	13./9.8	
10.0m	14.4	14.3	14.2	14.1	14.0	14.0	13.9	13.8	13.7	13.4	13.2	12.9	12.7	11.9/10.3
11.0m	12.7	12.6	12.5	12.5	12.4	12.3	12.2	12.1	12.0	11.9	11.7	11.5	11.2	11.0
12.0m	11.4	11.3	11.2	11.1	11.0	11.0	10.9	10.8	10.7	10.6	10.5	10.3	10.1	9.9
13.0m	10.9/12.4	10.2	10.1	10.0	9.9	9.9	9.7	9.7	9.6	9.5	9.4	9.3	9.1	8.9
14.0m		9.3	9.2	9.1	9.0	8.9	8.8	8.8	8.7	8.6	8.5	8.4	8.3	8.1
15.0m		8.5	8.4	8.3	8.2	8.2	8.0	8.0	7.9	7.8	7.7	7.6	7.5	7.4
16.0m		8.5/15	7.7	7.7	7.6	7.5	7.4	7.3	7.2	7.1	7.0	6.9	6.8	6.7
18.0m			6.8/17.6	6.6	6.5	6.4	6.3	6.2	6.1	6.0	5.9	5.8	5.7	5.6
20.0m				5.7	5.6	5.5	5.4	5.4	5.3	5.2	5.1	5.0	4.9	4.8
22.0m				5.7/20.2	4.9	4.9	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1
24.0m					4.7/22.8	4.3	4.2	4.1	4.0	3.9	3.8	3.7	3.6	3.5
26.0m						4/25.4	3.7	3.6	3.6	3.5	3.4	3.3	3.2	3.1
28.0m							3.3/28	3.3	3.2	3.1	3.0	2.9	2.8	2.7
30.0m								2.9	2.8	2.7	2.6	2.5	2.4	2.3
32.0m								2.8/30.6	2.5	2.4	2.3	2.2	2.1	2.0
34.0m									2.4/33.2	2.2	2.1	2.0	1.9	1.8



## Working Range - Runner



## Runner Load Chart



8m\_49m



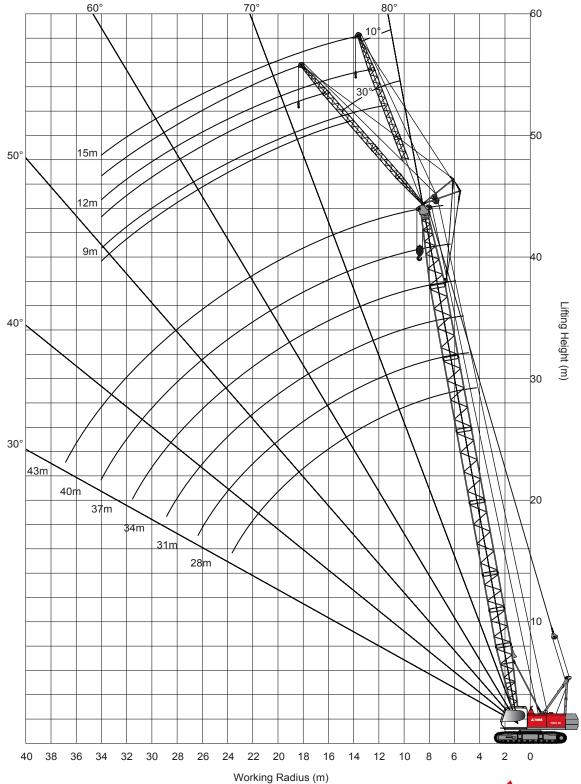


Unit:t

Boom length Working radius	13.0m	16.0m	19.0m	22.0m	25.0m	28.0m	31.0m	34.0m	37.0m	40.0m	43.0m	46.0m	49.0m
4.0m	7/4.3	7/4.8											
5.0m	7.0	7.0	7/5.3	7/5.8									
6.0m	7.0	7.0	7.0	7.0	7/6.4	7/6.9							
7.0m	7.0	7.0	7.0	7.0	7.0	7.0	7/7.4	7/7.9					
8.0m	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7/8.4	7/9.0			
9.0m	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7/9.5	7/10.0	
10.0m	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7/10.5
11.0m	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
12.0m	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
13.0m	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
14.0m	7/13.4	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
15.0m		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
16.0m		7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	6.9
18.0m			6.6	6.6	6.5	6.4	6.3	6.2	6.1	6.0	6.0	5.9	5.8
20.0m			6.4/18.6	5.7	5.6	5.5	5.4	5.4	5.3	5.2	5.1	5.0	4.9
22.0m				5.3/21.2	4.9	4.9	4.8	4.7	4.6	4.5	4.4	4.3	4.2
24.0m					4.4/23.8	4.3	4.2	4.1	4.0	3.9	3.8	3.7	3.6
26.0m						3.8	3.7	3.6	3.6	3.5	3.4	3.3	3.2
28.0m						3.7/26.4	3.3	3.2	3.2	3.1	3.0	2.9	2.8
30.0m							3.1/29	2.9	2.8	2.7	2.6	2.5	2.4
32.0m							•	2.7/31.6	2.5	2.4	2.3	2.2	2.1
34.0m									2.3	2.2	2.1	2.0	1.9



## Working Range - Fixed Jib



## Fixed Jib Load Chart



28m-43m







Unit:t

												Offici
Boom length	28m								31	lm		
Jib length	9.0	0m	12	.0m	15	.0m	9.	0m	12.0m		15.0m	
Jib angle	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°
10.0m	5.5						5.5					
11.0m	5.4		3.8				5.5		3.8			
12.0m	5.4	5.3	3.7		2.5		5.4		3.8		2.5	
13.0m	5.3	5.3	3.7		2.5		5.4	5.3	3.7		2.5	
14.0m	5.2	5.2	3.6	3.6	2.4		5.3	5.2	3.7		2.4	
15.0m	5.2	5.2	3.6	3.6	2.4		5.2	5.2	3.6	3.6	2.4	
16.0m	5.1	5.2	3.5	3.5	2.4	2.3	5.2	5.2	3.6	3.5	2.4	
18.0m	5.0	5.1	3.5	3.5	2.3	2.3	5.1	5.1	3.5	3.5	2.3	2.3
20.0m	4.9	5.1	3.4	3.4	2.2	2.3	5.0	5.1	3.4	3.5	2.3	2.3
22.0m	4.8	5.0	3.3	3.4	2.2	2.2	4.7	4.9	3.4	3.4	2.2	2.2
24.0m	4.3	4.4	3.3	3.4	2.1	2.2	4.2	4.3	3.3	3.4	2.2	2.2
26.0m	3.8	3.9	3.2	3.3	2.1	2.2	3.7	3.8	3.2	3.4	2.1	2.2
28.0m	3.4	3.5	3.2	3.3	2.1	2.2	3.3	3.4	3.2	3.3	2.1	2.2
30.0m	3.1	3.1	3.1	3.2	2.0	2.1	3.0	3.0	3.1	3.1	2.1	2.2
32.0m	2.8	2.8	2.9	2.9	2.0	2.1	2.7	2.7	2.8	2.8	2.0	2.1
34.0m	2.5	2.5	2.6	2.6	2.0	2.1	2.4	2.4	2.5	2.5	2.0	2.1

Unit:t

Boom length			34	lm			37m					
Jib length	9.0	0m	12.	0m	15.	.0m	9.0	0m	12.	0m	15.	0m
Jib angle	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°
10.0m												
11.0m	5.5						5.5					
12.0m	5.5		3.8				5.5		3.8			
13.0m	5.4	5.3	3.7		2.5		5.4		3.8		2.5	
14.0m	5.3	5.3	3.7		2.5		5.4	5.3	3.7		2.5	
15.0m	5.3	5.2	3.7	3.6	2.4		5.3	5.3	3.7		2.5	
16.0m	5.2	5.2	3.6	3.6	2.4		5.3	5.2	3.6	3.6	2.4	
18.0m	5.1	5.2	3.5	3.5	2.4	2.3	5.2	5.2	3.6	3.5	2.4	2.3
20.0m	5.0	5.1	3.5	3.5	2.3	2.3	5.1	5.1	3.5	3.5	2.3	2.3
22.0m	4.6	4.8	3.4	3.4	2.3	2.2	4.5	4.7	3.4	3.5	2.3	2.3
24.0m	4.1	4.2	3.3	3.4	2.2	2.2	4.0	4.1	3.4	3.4	2.2	2.2
26.0m	3.7	3.7	3.3	3.4	2.2	2.2	3.5	3.6	3.3	3.4	2.2	2.2
28.0m	3.2	3.3	3.2	3.4	2.1	2.2	3.1	3.2	3.2	3.3	2.2	2.2
30.0m	2.9	3.0	3.0	3.0	2.1	2.2	2.8	2.9	2.8	2.9	2.1	2.2
32.0m	2.6	2.6	2.7	2.7	2.1	2.2	2.5	2.6	2.6	2.6	2.1	2.2
34.0m	2.3	2.4	2.4	2.5	2.0	2.1	2.2	2.3	2.3	2.4	2.0	2.2



## Fixed Jib Load Chart



28m-43m







Unit: t

Boom length			40	)m		43m						
Jib length	9.0	)m	12.	0m	15.	.0m	9.0	0m	12.	.0m	15.	.0m
Jib angle	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°	10.0°	30.0°
10.0m												
11.0m												
12.0m	5.5						5.5					
13.0m	5.5		3.8				5.5		3.8			
14.0m	5.4		3.7		2.5		5.4		3.8		2.5	
15.0m	5.4	5.3	3.7		2.5		5.4	5.3	3.7		2.5	
16.0m	5.3	5.2	3.7	3.6	2.4		5.4	5.3	3.7		2.5	
18.0m	5.2	5.2	3.6	3.5	2.4	2.3	5.3	5.2	3.6	3.6	2.4	
20.0m	5.0	5.1	3.5	3.5	2.3	2.3	4.9	5.1	3.6	3.5	2.4	2.3
22.0m	4.4	4.6	3.5	3.5	2.3	2.3	4.2	4.5	3.5	3.5	2.3	2.3
24.0m	3.8	4.0	3.4	3.4	2.3	2.2	3.7	3.9	3.4	3.5	2.3	2.3
26.0m	3.4	3.5	3.4	3.4	2.2	2.2	3.3	3.4	3.3	3.4	2.2	2.2
28.0m	3.0	3.1	3.0	3.2	2.2	2.2	2.9	3.0	2.9	3.1	2.2	2.2
30.0m	2.7	2.8	2.7	2.8	2.1	2.2	2.6	2.7	2.6	2.7	2.2	2.2
32.0m	2.4	2.5	2.4	2.5	2.1	2.2	2.3	2.4	2.3	2.4	2.1	2.2
34.0m	2.1	2.2	2.2	2.3	2.1	2.2	2.0	2.1	2.1	2.2	2.1	2.2



## Safety Devices

#### Hook and boom over-hoist prevention device

Hook and boom over-hoist prevention device are used for preventing the crane from the accidents caused by over-hoist.

### Hook over-hoist device

When the hook lifts up to certain height and touches the plumb, the spring loaded limit switch disengage the hoist function. The control relay initiates the buzzer alarm and the indicator will light up. So the rise of the hook will be stopped automatically.

### Boom over-hoist device

The boom upper limit angle is controlled by the moment limiter system and boom upper limit switch. When the boom ≥ upper limit angle 80°, the moment limiter will continuously alarm and output the signal, making the boom stop rising. At the same time, the switch of boom upper limit and boom upper limit switch loop will be cut-off, and boom stops rising.

### Moment limiter

The moment limiter system monitors the safe operation of the crane.

The right parameters if the intended working conditions must be set.

When 0% of rated lifting load  $\leq$  actual load  $\leq$  90% of rated lifting load, the screen shows load by a proportional bar in green color.

When 90% of rated lifting load  $\leq$  actual load  $\leq$  100% of rated lifting load, the screen shows yellow color and an intermittent warning alarm sounds.

When 100% of rated lifting load  $\leq$  actual load  $\leq$  105% of rated lifting load, the screen shows red color and a continuous warning alarm sounds.

When the actual load ≥ 105% of rated load, the screen shows red color and a continuous warning alarm sounds, at the same time, the safe load indicator put out control signal to stop the hoist action of main and auxiliary hooks and boom.

### Brakes and locking devices

This crane is equipped with main, aux. drum brakes, derricking drum brake, swing brake and traveling brake. This crane is equipped with derricking drum pawl locking device and swing lock device.

### Sensor

The force sensor is used to measure the force.

The angle sensor is installed on the boom foot to measure the boom angle.

The angle scale is installed on the boom foot to indicate the current angle of boom.

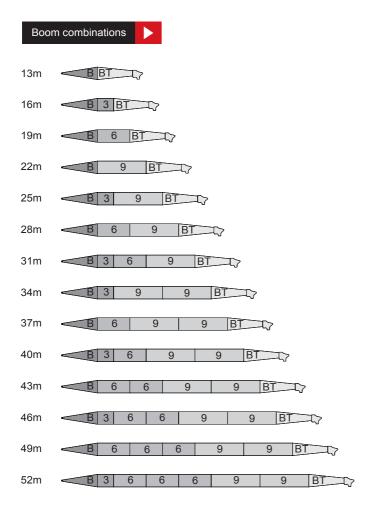
### Slewing alarm

The buzzer will sound continuously when swing.



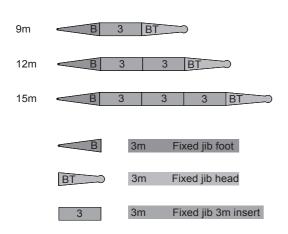
# **FWX 55**

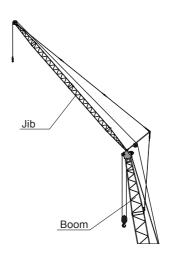
### **Boom Combinations**



$\leq$ B	6.5m	Boom foot
BT	6.5m	Boom head
3	3m	Boom 3m insert
6	6m	Boom 6m insert
9	9m	Boom 9m insert

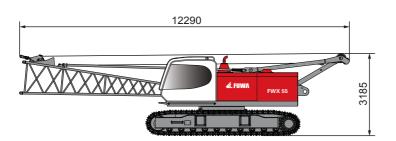
### Fixed jib combinations

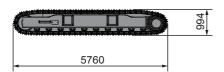




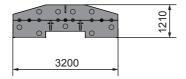


## Transportation Dimensions and Weights













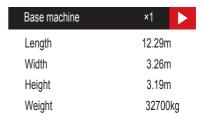








Note: This counterweight is welded.



Track frame	×2
Length	5.76m
Width	0.80m
Height	0.99m
Weight	5945kg

Counterweight tray	×1	<b>&gt;</b>
Length	3.20r	n
Width	1.21r	n
Height	0.83r	n
Weight	5260	kg

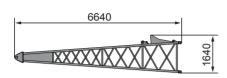
×2	
1.00m	
1.21m	
0.83m	
2667kg	

1.21m	
0.83m	
2667kg	

Counterweight 3	×1	
Length	1.16m	
Width	1.01m	
Height	0.82m	
Weight	2531kg	

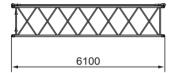


## Transportation Dimensions and Weights

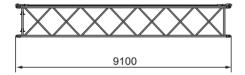




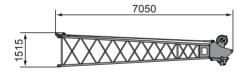


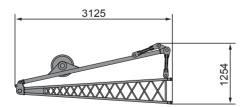












Boom foot	×1	
Length	6.64m	
Width	1.40m	
Height	1.64m	
Weight	904kg	

Boom 3m insert	×1 🕨	
Length	3.10m	
Width	1.40m	
Height	1.48m	
Weight	317kg	

Boom 6m insert	×3	
Length	6.10m	
Width	1.40m	
Height	1.48m	
Weight	515kg	

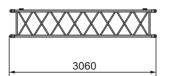
Boom 9m insert	×2	
Length	9.10m	
Width	1.40m	
Height	1.48m	
Weight	718kg	

Boom head	×1 🕨	
Length	7.05m	
Width	1.40m	
Height	1.52m	
Weight	950kg	

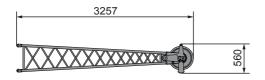
Fixed jib foot	×1 🕨	
Length	3.13m	
Width	1.30m	
Height	1.25m	
Weight	400kg	

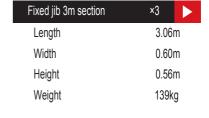


## Transportation Dimensions and Weights

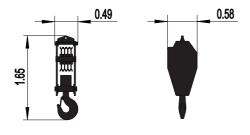


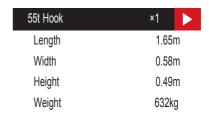


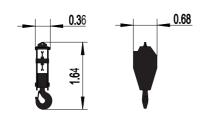




Flxed jib head	×1	
Length	3.26m	
Width	0.60m	
Height	0.56m	
Weight	190kg	







25t Hook	×1 🕨	
Length	1.64m	
Width	0.68m	
Height	0.36m	
Weight	435kg	

	0.36		0.36
9	<b>A</b>		
	0.95		
3		T	

9t Hook	×1 🕨	
Length	0.95m	
Width	0.36m	
Height	0.36m	
Weight	250kg	





Remark		





Remark	







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