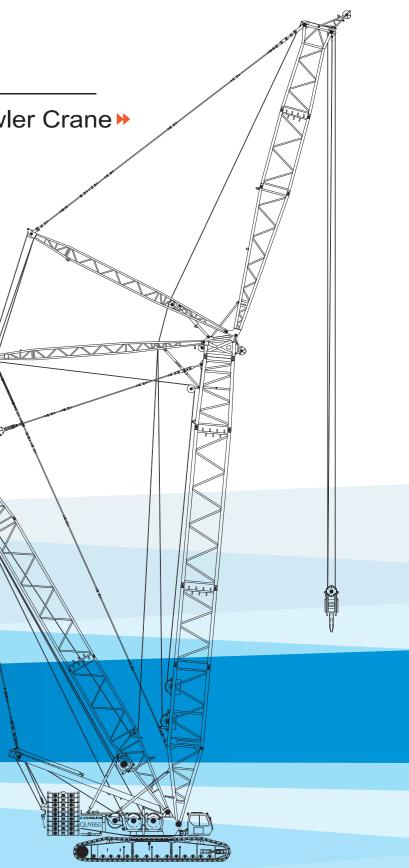


# QUY650

Zoomlion QUY650 Crawler Crane >>



2010.4





# Contents

# **Vision Creates the Future**

Expertise Heavy Industry Sci-Tech

I. Main Characteristic II. External Dimensio 1. External Dimensions 2. External Dimensions 3. Main Performance Pa 4. Main Configurations 5. External Dimensions III. Technical Descrip 1. Mechanisms 2. Systems 3. Safety Devices

- 4. Control Room
- 5. Hook

IV. Description of Bo

V. Lifting Performance

cs of Product	01
ons and Main Parameters	02
of Crane during Superlift Operation with Main Boom	02
of Crane during Superlift Operations with Luffing Jib	03
arameters	04
	05
and Weight of Main Transport Components	05
otions	10
	10
	10
	11
	12
	12
om Assembly	13
ce	46



# I. Main Characteristics of Product

#### This product is equipped with high-end configurations to ensure safety and reliability of the equipment

1. We use an original imported high-power VOLVO electronic injection engine to provide strong power; oil quantity automatically adjusts according to the rotational speed, thus saving energy and ensuring more environmentally friendly operations.

2. The slewing bearing is made of strong, tough high-precision imported parts, thus ensuring stable slewing operations, high reliability, and long service life.

3. The boom utilizes imported high-strength pipes, and the anchoring rod is made with imported Swedish 960 high-strength plates; all main structural components use high-strength steel to guarantee powerful lifting capacity and dependable vehicle safety

4. Electrohydraulic proportional control system: The electrohydraulic proportional control system allows for complete automatic matching between the engine's power and torgue and the hydraulic system's power, torque and speed to deliver highly optimized control.

5. High efficiency and energy saving: The system uses a matching format between the variable-displacement plunger pump and variable-displacement motor to ensure high efficiency and to save energy. When the crane is in an idle non-operating mode, the power consumption of the entire hydraulic system nears zero, reducing the unnecessary waste of power being used by the heating system, etc. When operation begins the system responds to operational commands timely and efficiently.

6. Automatic temperature regulation function: Through the automatic temperature regulation function of the hydraulic system, the system will automatically radiate excess heat when the system's oil temperature exceeds 45°C, thus ensuring normal operation of the system

7. Multi-action integration form: while thorough consideration is given to safety during design, the hydraulic system implements multi-action integration, further improving working efficiency.

8. Closed-type slewing system: Our series of crawler cranes all employ a closed-type slewing control system to provide for precise and stable inching performance, thus better meeting the rigorous requirements of installation operations

9. Leak-free ferrule-type joint: All pipe joints in the hydraulic system are leak-free ferrule-type joints manufactured by world reputed brands, and hence are able to adapt to a broader range of extremely hot and severely cold environments without any leakage

10. Sophisticated emergency operating system: A sophisticated emergency operating system is used that can be started in case of failure of the PLC control system to ensure that all work can be completed

11. The speed of all types of actions can be set freely. A speed setting area is provided on the main page of the digital display system so that you can freely set the system speed as needed; the speed at each shift features stepless speed regulation.

12. Multi-choice engine accelerator/rotating speed control: the system is equipped with a foot-operated accelerator, hand-operated accelerator, and automatic accelerator for the user to choose on the basis of actual working conditions

13. All winching activities include vibration prompts. Each operating handle has a vibrator that reflects the corresponding winch action, i.e. when any one of the winches acts, the vibrator on its corresponding handle will vibrate, and the faster the speed, the higher the vibration frequency.

14. With a real-time center-of-gravity detection system, the real-time detection of the gravity center and the calculation of crawler ground pressure are possible

#### Superior operational characteristics

1. A broad range of operational equipment applications are available with the superlift mast and superlift counterweight to provide an operational radius of superlift counterweight of 13m and 15m, respectively, thus significantly enhancing the crane's lifting capacity.

2 Imported steel wire rope, as well as a LEBUS multi-layer coiling drum are used to ensure that ropes are neatly coiled and do not become entangled; there is also an internalized reducer, ensuring minimal noise, high efficiency, long product life, and convenient oil changing.

3. The vehicle has the ability to travel with a 100% rated load along a straight line

4. Various overturn protection devices are available to effectively prevent the boom from overturning.

#### Reducing use expenses for our customers

1. An electric fuel oil feed pump is available as part of the standard configuration, making operations efficient and convenient

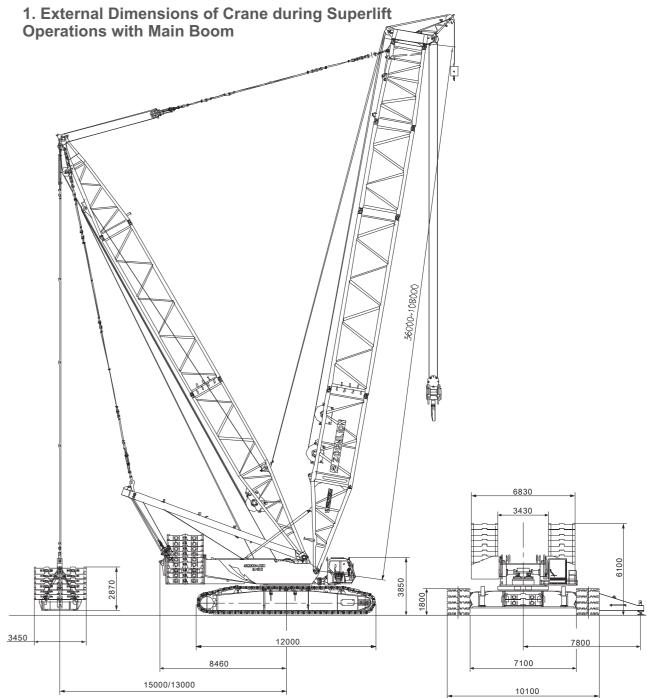
2. A diesel powered mobile pump station is available to mechanize the entire machine's assembling process and to reduce the intensity of manual installation work for workers.

3. The main luffing mast, main luffing pulley block and main luffing winch can be simultaneously dismounted (pins are inserted and removed through the mobile pump station).

4. The main boom and jibs are packaged together in a single kit. reducing the number of transport vehicles and transport costs

# II. External Dimensions and Main Parameters

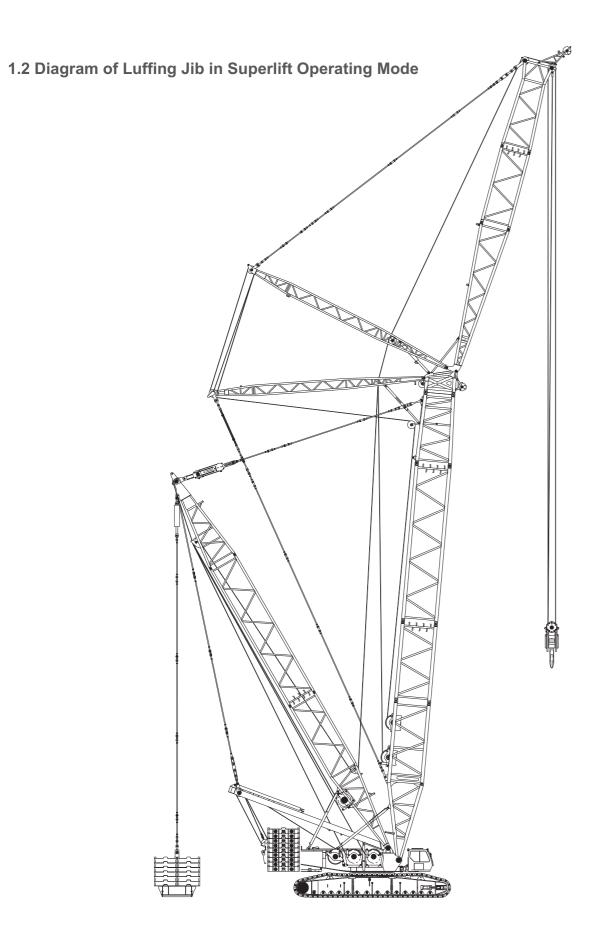
**Operations with Main Boom** 



Vision Creates the Future

External Dimensions of Zoomlion QUY650 Crawler Crane





# 3. Main Performance Parameters:

Items		ا mea
	Standard	
Maximum lifting capacity/radius	Superlift	
Length of main boom		
	Standard	
Light duty boom	Superlift	
Deadweight of crane with basic boom		
Length of fixed jib		
Maximum lifting capacity with fixed jib		
Setting angle of fixed jib		
Main haam I fived jih	Standard	
Main boom + fixed jib	Superlift	
Length of luffing jib		
	Standard	
Maximum lifting capacity with luffing jib	Superlift	
Working angle of main boom in crane operations with luffing jib		
Main haars to buffing ith	Standard	
Main boom + luffing jib	Superlift	
	Primary lifting	
Maximum	Secondary lifting	
single rope	Luffing	
speed of drum	Luffing of tower crane	
	Superlift luffing	
Swiveling speed		
Traveling speed		
Gradeability		
Ground pressure		
Main machine transport external dimension	ons L × W × H	
Power/	rotational speed	k
Engine Torque	rotational speed	Ν
Em	issions standard	

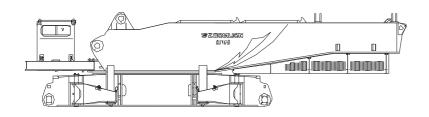
Distance between track centers × crawler contact length × crawler shoe width Vision Creates the Future

Jnit of surement	Values	Remarks
t × m	650 × 6	
t × m	650 × 12	
m	24 ~ 84 (108 is optional)	
m	72~102	
m	90 ~ 138	
t	480	
m	12 ~ 36	
t	110	
0	10, 30	
m	96 + 36	
m	138 + 36	
m	24 ~ 96	
m	220	
m	330	
0	65, 75, 85	
m	66 + 84	
m	84 + 96	
m/min	130	
m/min	130	
m/min	2 × 56	
m/min	110	- <u> </u>
m/min	130	
rpm	0~0.7	
km/h	0.6/0.98	
%	30	
MPa	0.13	
mm	16000 × 3200 × 3550	Including mast
:W/rpm	420/1800	
lm/rpm	2700/1200	
	EU Stage II	
mm	8600 × 10580 × 1500	

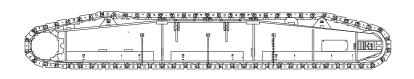
04

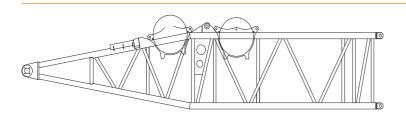


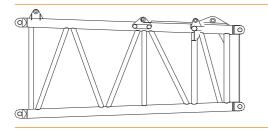
# 4. External Dimensions, Weights and Quantity of Main Transport Components

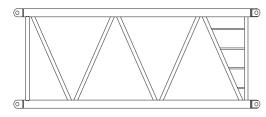


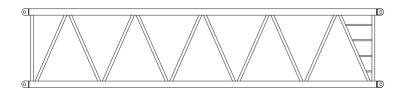
Main machine	×1
Length	13500 mm
Width	3400 mm
Height	3465 mm
Weight	65t











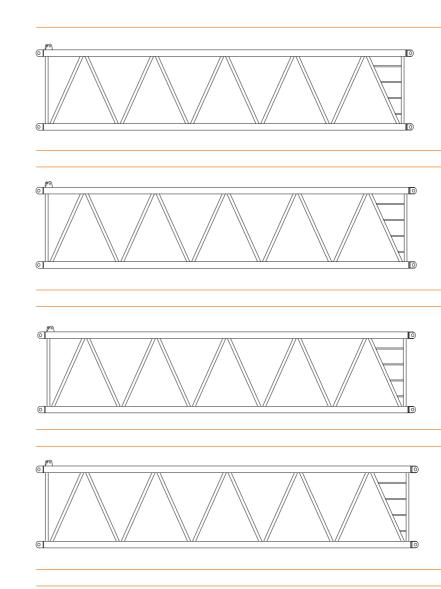
Crawler assembly	×2
Length	12000mm
Width	1680mm
Height	1800mm
Weight	55t

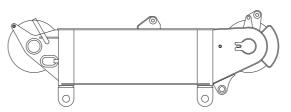
Base section of main boom	×1
Length	12400mm
Width	3100mm
Height	3350mm
Weight	20.7t

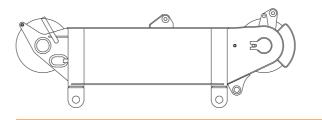
Top section of main boom	×1
Length	6700mm
Width	2945mm
Height	2800mm
Weight	5.4t

6m section of main boom	×1
Length	6250mm
Width	2980mm
Height	3130mm
Weight	4.8t

12m section of main boom A	×1
Length	12250mm
Width	2980mm
Height	3130mm
Weight	10.5t





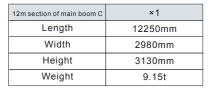


05

Vision Creates the Future

12m section of main boom A.S	×1
Length	12250mm
Width	2980mm
Height	3130mm
Weight	10.5t

×3
12250mm
2980mm
3130mm
9.5t



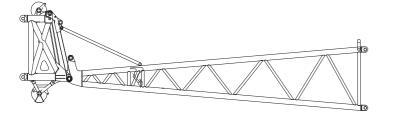
12m section of main boom C.S	×1
Length	12250mm
Width	2980mm
Height	3130mm
Weight	9.15t

650t tower head	×1
Length	2615mm
Width	3620mm
Height	1055mm
Weight	3.9t

300t tower head	×1
Length	2615mm
Width	3620mm
Height	1170mm
Weight	2.8t

**Bigge** 





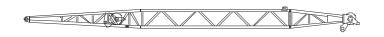
150t tower head + base section of luffing jib	×1
Length	18800mm
Width	2625mm
Height	3630mm
Weight	7.7t

Front bracing pole of luffing jib

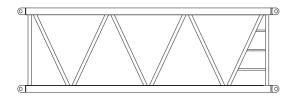
Length

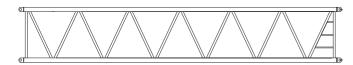
Width

Height



0]	
0	





Weight	4.3t	

×1

17060mm 2505mm

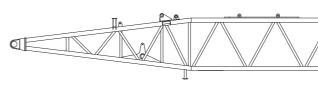
1070mm

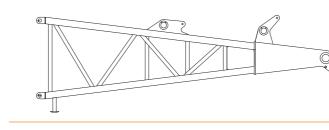
Rear bracing pole of luffing jib	×1
Length	16560mm
Width	2500mm
Height	845mm
Weight	6t

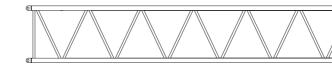
Top section of luffing jib	×1
Length	7090mm
Width	2545mm
Height	2755mm
Weight	3t

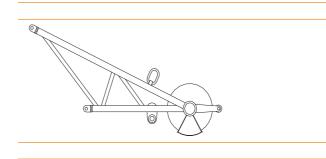
6m section of luffing jib	×1
Length	6200mm
Width	2560mm
Height	2550mm
Weight	3.1t

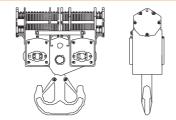
12m section of luffing jib	×5
Length	12200mm
Width	2560mm
Height	2550mm
Weight	6.5t

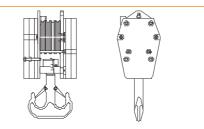












07

Vision Creates the Future

	Base section of superlift mast	×1
	Length	13250mm
	Width	2720mm
	Height	2830mm
	Weight	11.5t

Top section of superlift mast	×1
Length	7650mm
Width	3000mm
Height	2870mm
Weight	4t

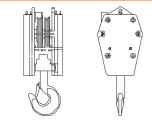
D	Intermediate section of superlift mast	×1
A	Length	12200mm
	Width	2560mm
	Height	2550mm
	Weight	3.6t

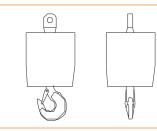
Gooseneck boom	×1
Length	2560mm
Width	1330mm
Height	680mm
Weight	0.2t

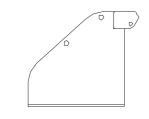
650t hook	×1
Length	2490mm
Width	3040mm
Height	930mm
Weight	11.5t

100t hook	×1
Length	1965mm
Width	970mm
Height	800mm
Weight	4.1t











50t hook	×1
Length	1965mm
Width	700mm
Height	800mm
Weight	2.65t

16t hook	×1
Length	1155mm
Width	530mm
Height	530mm
Weight	0.9t

Counterweight frame	×2
Length	2028mm
Width	2660mm
Height	1965mm
Weight	6.5t

Ballast weight frame of vehicle body	×2
Length	1990mm
Width	2560mm
Height	730mm
Weight	1.1t

×1

8100mm

2800mm

920mm

91



	10t counterweight block	×46
	Length	1700mm
$\sim$ (	Width	2400mm
	Height	400mm
LAA	Weight	10t

	10t counterweight block	×7
	Length	1700mm

	TOLCOUNTERWEIGHT DIOCK	~/
	Length	1700mm
$\sim$ (	Width	2400mm
	Height	310mm
AAA	Weight	5t

Base frame of counterweigh

g superlift opera

Length

Width

Height

Weight

# **III. Technical Descriptions**

#### 1. Mechanisms

#### Primary and secondary lifting mechanisms

The primary and secondary lifting mechanisms are each comprised of an imported variable displacement axial plunger hydraulic motor, balance valve, speed reducer, normally closed brake, and wire ropes. They can be controlled independently of other mechanisms.

When two winches are working on the same hook simultaneously, a synchronizing controller is available to ensure that the hook will always continue lifting or lowering horizontally.

The wire ropes used are special anti-twisting wire ropes imported from Germany

The primary and secondary mechanisms are dual speed, i.e. offering two different lifting speeds to improve operational efficiency; a synchronizing controller is available for when they are working synchronously.

	Wire rope diameter	Wire rope length	Maximum single rope tension	Speed of the outermost layer
Primary lifting	28mm	1100m	16t	130m/min
Secondary lifting	28mm	1100m	16t	130m/min
Winch #3	28mm	650m	16t	130m/min

#### Luffing mechanism

This mechanism is comprised of an imported variable displacement axial plunger hydraulic motor, balance valve, speed reducer, normally closed brake, and wire ropes.

It utilizes a normally closed brake and can act independently of other mechanisms. An automatic locking function is also available, i.e. when the operating lever remains at the neutral position, the braking device will automatically lock the drum of the winch.

It also allows for stepless lifting and lowering as well as inching actions. The superlift operation radius is adjustable between two working radiuses; when a small load is being lifted, a special adjustment device can allow the superlift counterweight to leave the ground surface, making obstacle-less free slewing and traveling possible.

The wire ropes are special anti-twisting wire ropes imported from Germany.

	Wire rope diameter	Wire rope length	Maximum single rope tension	Speed of the outermost layer
Main luffing	28mm	340m	16t	2X56m/min
Luffing of tower crane	28mm	850m	16t	110m/min
Superlift luffing	28mm	1100m	16t	130m/min

#### Slewing mechanism

The slewing mechanism is a closed-type two-driving-two slewing mechanism, and is comprised of an internal variable-displacement axial plunger hydraulic motor, gear speed reducer, brake, pinions and slewing bearings.

The slewing mechanism is equipped with a controllable slip-turn function to reduce shock and allow for higher stability during initiation and braking.

The slewing mechanism uses original German-imported triple-row roller external geared slewing bearings and a slewing speed reducer to provide strong carrying capacity and high precision, thereby ensuring

slewing stability and accuracy. The slewing mechanism offers stepless speed regulation within the range of  $0 \sim 0.7 r/min$ .

Mechanical locking devices are available for assembling/disassembling, transporting, and for normal shutdown.

09

ЛŢ

BİGGE Â

Vision Creates the Future

#### Traveling mechanism

The traveling mechanism is a dual-motor dual-reducer type; the hydraulic motor, traveling speed reducer and balance valve are all imported from Germany. The crawlers are controlled by various operating control handles, allowing for a variety of traveling actions such as straight line traveling, unilateral steering, differential steering, pivotal steering, and driving with load, etc. The driving deviation after traveling for 20m is  $\leq 25cm$ , thus ensuring a high level of maneuverability and flexibility; a dead slow shift is available for the traveling speed, while each shift offers stepless speed regulation to ensure operational stability. Fast traveling speed is also available; both the track shoes and thrust wheels are made of alloy steel to comply with the requirements in Jb5318.

Crawler tension is adjustable, and the adjustment method is fast, easy and reliable.

Traveling speed: 0.6/0.98km/h.

Gradeability: 30%.

Crawler tensioning: the tensioning oil cylinder is controlled by a standalone pump station, making adjustment is fast, easy and reliable.

#### Mast jack-up mechanism

Comprised of the mast, mast jack-up oil cylinder, and auxiliary hydraulic system, etc, this mechanism is used during self-assembling/ disassembling (or relocating) of the whole machine, where the mast can be jacked up beyond 90° perpendicular from its horizontal position to make it easy to connect the anchoring rods, assemble the boom, and mount the crawler assembly and counterweight.

#### Control room swiveling and luffing mechanism

The control room can rotate from the side of the rotating platform to the front of the rotating platform and be fixed there using locating pins, thus reducing the overall width of the whole crane and making it easy to transport.

The control room's luffing is controlled with oil cylinders; when lifting to a especially high height, the control room can luff upwards by  $20^{\circ}$ , thereby dramatically expanding the driver's field of vision.

# Outrigger jack-up and crawler self-mounting and dismounting mechanism

The outrigger jack-up and crawler self-mounting and dismounting mechanism is comprised of the undercarriage outriggers, outrigger oil cylinders, outrigger valves, and crawler power pin, etc. The outrigger jack-up mechanism is the primary load carrying mechanism during the crawler self-mounting and dismounting process. The crawler self-mounting and dismounting mechanism, and uses the power pin to connect the chassis frame and the crawler assembly through the maxing lifting equipment is available, the outrigger jack-up and crawler self-mounting and dismounting mechanism can independently mount and dismount the crawler assembly and also allows for wireless remote control, thereby improving operational efficiency, reducing the manual work intensity, and avoiding the risks involved in manual control.

#### 2. Systems

#### Hydraulic system

The hydraulic system is comprised of a main pump, control valve, hydraulic motor, hydraulic oil tank, and cooler, etc.

The hydraulic system employs one of the world's most advanced pump control systems, and products imported from Germany are used for all major components such as the pump, motor, and main return valve to help save energy and ensure high efficiency, high reliability, and long service life.

Main hydraulic pump: variable plunger pump with tandem gear pump, which is powered by the engine.

Oil source for auxiliary mechanisms: constant pressure pump.



Main control valve: pilot electrohydraulic control valve.

Main circuit control method: control is provided by the pump control system and control handle

Control of auxiliary mechanisms: solenoid change valve block, equipped with unloading overflow valve

Outrigger control: remote-controllable solenoid valve Capacity of hydraulic oil tank: 1000L

Oil filter: oil return line oil filter, precise filter for oil circuit control.

Cooler: aluminum radiator, with hydraulically driven fan.

#### Electrical system

All electrical appliance systems utilize DC 24V batteries and negative grounds; all kinds of low-voltage DC electrical appliances comply with the requirements in GB1497, and the accuracy of all instruments is no less than Grade 1.5

The electrical components of the vehicle primarily include: power supply, engine starter, engine misfiring, indicator lights, alarms, lighting devices, fans, windshield wipers, horn, lifting height limiters, hydraulic oil cooling fans, digital display monitor, PLC controller, load moment limiter system, engine preheater, and safety devices, etc.; these appliances ensure that the crane will operate safely and provide a comfortable working environment for the driver and other workers. The whole vehicle employs CAN bus technology to effectively connect the engine, PLC controller, load moment limiter, and digital monitor together with fault detection and automatic fault diagnosis functions.

#### Power system

The engine is an original imported VOLVO electronic injection diesel engine with a CAN bus interface

Rated output power: 420kw, 1800r/min

Emissions standard: U.S. EPA Tier 2 and EU Stage II

For the fuel oil tank, a large-volume 700L tank is used to ensure a sufficiently long working time of the engine.

#### Centralized display system

The 10.4 in. touch-screen LCD monitor, with multi-language display capabilities, can centrally display the various operating mode signals collected by the PLC controller, including the engine's rotational speed, water temperature, fuel oil pressure, hydraulic pump pressure, main motor pressure, and level of the main machine operation, etc. It can monitor the working conditions in realtime; when the crane is working abnormally, the system will emit a vellow or red alarm

#### **GPS/GPRS** remote monitoring system

The GPS/GPRS remote monitoring system is comprised of multiple parts, including a vehicular computer system, vehicular communication, navigation system, GPS global positioning system, GPRS wireless data transmission system, network server system, and remote monitoring center system; it provides the equipment with such functions as global positioning, equipment working information monitoring, error diagnosis, remote maintenance and alarm, vehicle locking and anti-theft protection, etc.

#### **Centralized lubrication system**

The German-imported Beka centralized lubrication system is used to allow for easy maintenance and to reduce wear and tear on parts and components

#### 3. Safety Devices

This crane adopts multiple types of safety and alarm devices, including mechanical, electronic, and hydraulic, etc, to ensure safe operation of the machine

#### Load moment limiter

The combined error of the load moment limiter is greater than 5%; an acoustooptic warning will be emitted when the crane is carrying 90% of its rated load, and the load moment limiter can accurately and reliably cut off the actions along dangerous directions when the actual load becomes greater than 100% of the rated load. In order to satisfy load testing requirements, however, a Release button is also available in the control room that is used for canceling the cut-off action.

#### Various overflow valves in the hydraulic system

These valves can suppress abnormally high pressures in the circuit, preventing damage to the hydraulic oil pump and motor, and preventing system overload.

#### Height limiter devices

The limit switch, movement weight and other components are mounted on the top section boom, and are used to prevent excessive lifting of the hook. When the hook has raised to a certain height the limit switch signals the electrical system to automatically stop the lifting of the hook, also setting off an acoustooptic warning through the buzzer and display screen in the control room to prevent overwinding of the hook.

#### Angle indicator

The boom angle indicator is located along the lower rear part of the boom's bottom section (right side of control room), allowing the driver convenient, clear visibility of the elevation angle of the boom from the control room

Lifting boom limiting position alarm and protection system

This protection system has a load moment limiter and limit switch for dual-level control, enabling automatic termination of luffing movements of the boom's limited elevation angle position, while also simultaneously triggering an acoustooptic warning.

#### Whole machine level sensor

This electronic level meter can display in realtime the inclination angle of the whole machine and send an alarm on the digital display screen in order to ensure operational safety of the vehicle.

#### Hook safety latch

This device prevents the load from unhooking when lifting heavy loads.

#### Wind speed indicator

The electronic wind speed sensor can indicate realtime wind speed levels on the digital display screen, conveniently alerting workers of a potentially dangerous working environment

#### Wire rope over-release protection device

When the wire rope in the drum has been released until only three single wound coils remain, this protection device signals the electrical system to automatically cut off the releasing of rope and the descending hook, also setting off an acoustooptic warning through the buzzer and display screen in the control room.

#### Boom overturn protection device

The Chinese patented overturn protection oil cylinder makes the

overturn protection cushioning process more stable and reliable, thus ensuring safe and stable operations.

#### Emergency stop button

In case of emergency, press this button to switch off the engine and stop all operations

#### Tri-color warning light

With three different colors, red, yellow and green, the warning light can synchronously indicate current overload status. Green indicates that the load factor is below 90%, vellow informs operators that the load factor is between 90% and 100%, while the red color warns that the load factor has exceeded 100% and that the crane is in danger of overloading

#### Monitoring system

This system includes cameras for monitoring conditions at the rears of the winch mechanism and of the whole machine. Monitor: with the press of a button you can toggle between different monitoring feeds

#### Remote GPS monitoring system (optional)

This system allows for GPS satellite positioning, GPRS data transmission, equipment use status inquiry, statistical information, remote fault diagnosis and other functions.

#### 4. Control Room

The control room can tilt and slew; it utilizes a fully sealed steel frame structure, is designed based on ergonomic principles, is comprehensively visible, wind-proof, rain-proof, sun-proof, and employs transparent reinforced glass; the flooring materials are fire-retarding, non-conductive, and non-slippery rubber sheets the noise level inside the control room is less than 85 dB.

The interior of control room includes control devices, detection instruments, and a closed loop monitoring system. The display screen and other devices are adjustable and are equipped with two different vision modes to enable full visibility both during the day and night; all instruments, display screens, switches, and operating levers, etc. are marked with operating instruction icons, texts and work limitations, etc; the control room provides a broad field of vision, and a spacious and comfortable interior.

The interior of the control room also includes a comfortable adjustable seat, DVD player, air conditioning and heating, CB radio, alarms, and fire extinguishers, etc to ensure safety and comfort

Around the exterior of the control room are windshield wipers. the illuminated load moment limiter display device, and lighting devices for working during the night.

#### 5. Hook

All hooks have a rotating hook and safety latch.

650t main hook: equipped with 24 pulleys, which are used during crane operating modes with the main boon

400t main hook (optional): equipped with 15 pulleys, which are used during crane operating modes with the main boor

300t main book: equipped with 12 pulleys, which are used during crane operating modes with the luffing jib.

200t main hook (optional): equipped with 12 pulleys, which are used during crane operating modes with the luffing jib

100t auxiliary hook: equipped with 4 pulleys, which are used during crane operating modes with the fixed iib

50t auxiliary hook: equipped with 2 pulleys, which are used during crane operating modes with the fixed jib.

16t auxiliary hook: cylindrical hook

Bigge

Vision Creates the Future



# **IV. Description of Boom Assembly**

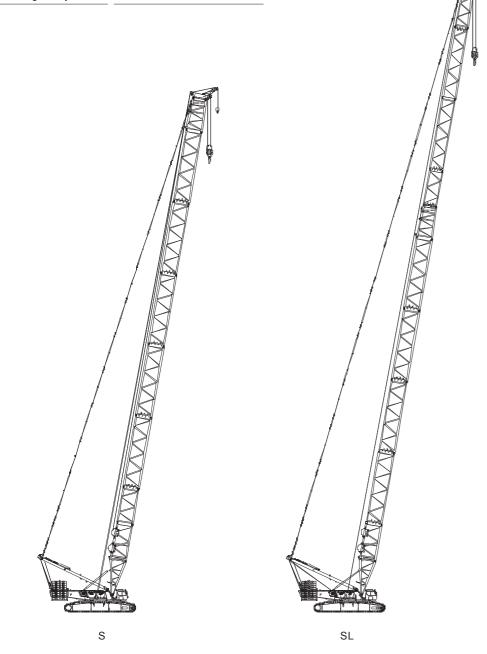
#### • Standard operating mode:

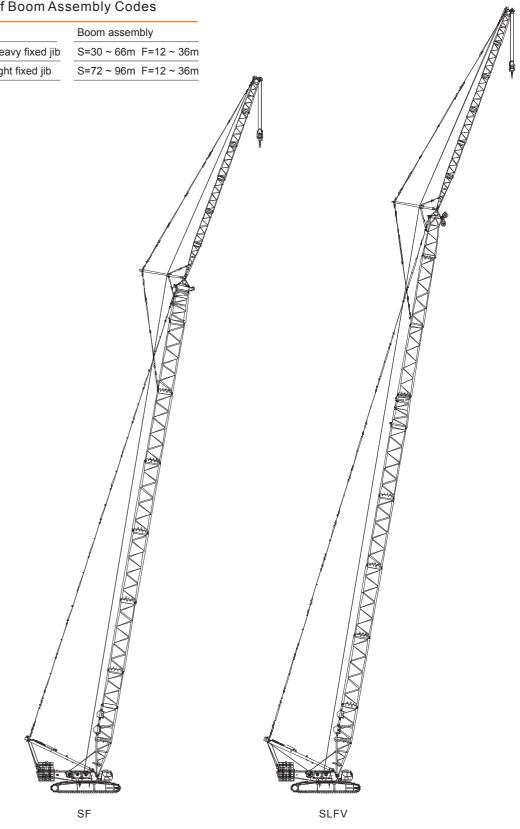
#### Descriptions of Boom Assembly Codes

Code	Name	Boom assembly
S	Standard heavy duty boom	S=24 ~ 84m
SL	Standard light duty boom	S=72 ~ 102m



Code	Name	Boom assembly
SF	Standard heavy fixed jib	S=30 ~ 66m F=12 ~ 36m
SLFV	Standard light fixed jib	S=72 ~ 96m F=12 ~ 36m





BİGGE

This information is for reference use only. Operators manual should be consulted and adhered to. Please contact Bigge Crane and Rigging Co. at 888-337-BIGGE or email info@bigge.com for further information.

Vision Creates the Future

14

**B**İGGE

Descriptions of Boom Assembly Codes

Code	Name	Boom assembly
SHS	Crane operating mode with standard boom head used for wind power setup	S=72 ~ 96m HS=7m
SW	Standard luffing Jib	S=30 ~ 66m W=24 ~ 84m

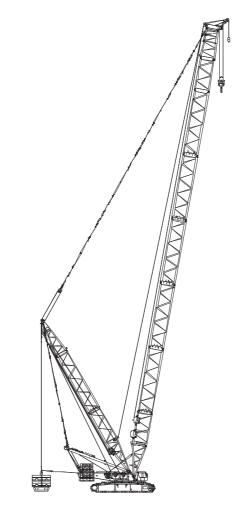
A 

#### SW

• Superlift operating mode:

#### Descriptions of Boom Assembly Codes

Code	Name	Boom assembly
SDB	Heavy duty boom in superlift operations	S=36 ~ 108m
SLDB	Light duty boom in superlift operations	S=90 ~ 138m



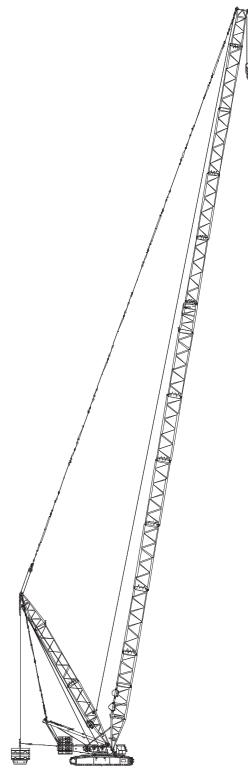


15

BİGGE

SHS

Vision Creates the Future



SLDB

16

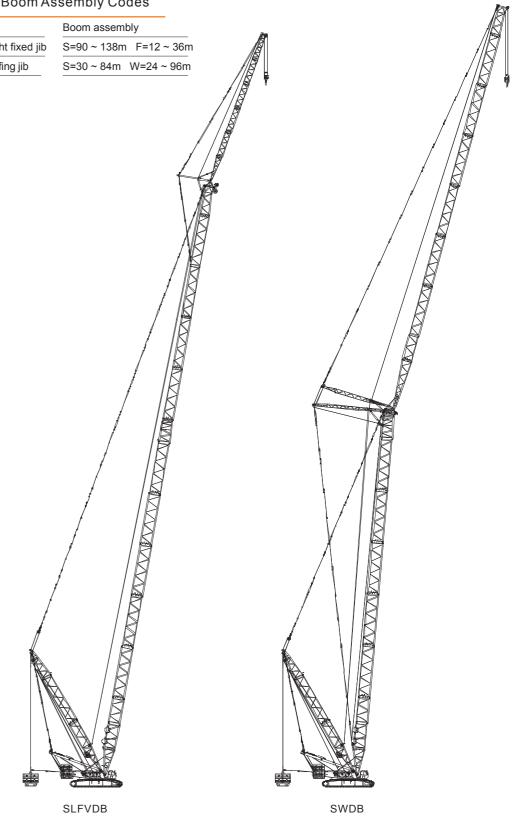
**B**ÍGGE

Code

# Descriptions of Boom Assembly Codes Boom assembly Name S=36~84m F=12~36m Superlift heavy fixed jib SFDB Superlift crane operating SHSDB mode with boom head S=90~138m HS=7m used for wind power setup SFDB SHSDB

#### Descriptions of Boom Assembly Codes

Code	Name	Boom assembly
SLFVDB	Superlift light fixed jib	S=90 ~ 138m F=12 ~ 36m
SWDB	Superlift luffing jib	S=30 ~ 84m W=24 ~ 96m



17

BİGGE 🛕

Vision Creates the Future

18

**B**ÍGGE

# V. Lifting Performance

# Table of Standard Main Boom Lifting Capacity

Table	01 314	nuarc	IWIAIII	Boon		ng ca	pacity		Jnit of n	neasure	ement: t
	Re	arcounte	erweight 1	180t Balla	ast weigh	t of vehic	le body 4	0t 360° fi	ıll slewing	g	
Length of main boom (m)	24	30	36	42	48	54	60	72	78	84	
Radius (m)					Parts	of line					
Raulus (III)	2*24	2*22	2*19	2*16	2*15	2*14	2*13	2*11	2*11	2*9	2*9
6	650.0										
7	590.0	586.8	543.1								
8	522.0	521.0	475.0	460.9	448.2						
9	457.1	441.0	434.0	422.1	411.4	401.0	380.5				
10	388.0	365.0	360.0	352.0	352.0	351.0	343.7 335.4		327.2		
12	294.0	283.0	281.0	271.0	269.0	268.0	268.0 266.0		265.5	264.8	261.8
14	224.0	219.0	215.0	213.0	208.0	207.0	207.0 206.0		204.6	204.3	204.0
16	185.0	181.0	175.0	171.0	168.0	8.0 166.0 165.0 164.0		164.0	163.0	162.0	161.0
18	157.0	151.0	146.0	143.0	139.6	139.0	138.5	137.0	135.3	135.2	135.0
20	135.0	128.0	125.0	123.0	121.5	121.0	120.0	120.0	119.6	119.4	119.1
22	116.0	113.0	111.0	109.0	104.5	103.0	102.0	101.5	101.1	100.9	100.6
24		105.0	101.0	97.0	92.5	92.0	91.5	91.5	91.2	91.0	90.7
26		101.0	98.0	95.0	91.3	90.0	89.5	89.2	88.1	83.0	81.0
28		95.0	93.5	91.5	89.3	88.0	85.2	85.0	82.0	77.0	72.0
30			88.0	85.0	82.5	81.3	76.0	75.6	73.5	69.0	63.0
34				73.5	71.0	70.0	69.2	69.1	66.3	58.3	52.3
38				66.0	62.0	61.5	61.2	61.0	59.6	49.0	41.4
42					55.0	54.6	53.9	53.0	51.6	40.0	32.5
46						46.9	43.1	41.6	40.0	32.0	26.0
50							36.0	35.2	33.0	25.0	17.9
54							28.2	27.0	25.0	21.0	13.2
58								23.0	22.0	17.0	10.4
62									19.0	15.0	
66										11.0	
Wind speed m/s		14	.3			12	.8			11.1	

Table of Standard Light Duty Boom Lifting Capacity

Rear	counterweig	ht 180t Balla	ist weight of v	ehicle body 4	40t 360° full s	lewing
Length of main boom (m)	72	78	84	90	96	102
Desting (m)			Parts of lir	ne		
Radius (m)-	2*10	2*9	2*8	2*6	2*6	2*5
10	309	283.6				
12	265.1	247.4	229.7	182.4	171.0	
14	226.6	215.1	203.5	182.4	161.0	147
16	195	187.0	182	178	149.0	136
18	169	164.3	163	163	137.8	122
20	151	146.8	146.6	144.1	125.0	109.5
22	136	131.8	130.6	127.7	113.0	99.2
24	121	117.1	116.2	111.5	101.0	88
26	108	103.4	102.8	97.2	88.9	80.5
28	96.1	91.6	91	83.6	77.5	71
30	83	78.5	76.5	71.1	66.5	63
34	67	65.1	63.8	58.5	56.0	54
38	53.6	52.0	49.5	47.5	46.4	44.8
42	44.6	43.0	41	38.5	37.5	37.3
46	36.1	34.1	32	31.8	30.9	30.5
50	29.8	28.4	27	26.5	25.5	24.5
54	25.6	24.3	23	21.9	21.0	20.1
58	21.8	20.9	18.5	18	17.2	16.4
62	18.5	16.9	15.3	14.9	14.0	13
66		13.6	13.3	12.2	11.3	10.4
70			10	9.8	8.8	7.8
72			9.1	8.8	7.2	6.7
74			8.2	7.8	5.8	5.7
76				6.9	3.5	
78				6	3.0	
Wind speed m/s			12.8			

19

BİGGE

This information is for reference use only. Operators manual should be consulted and adhered to. Please contact Bigge Crane and Rigging Co. at 888-337-BIGGE or email info@bigge.com for further information.

Vision Creates the Future

Unit of measurement: t

20



# Table of Lifting Capacity in Crane Operating Mode with Standard Boom Head used for Wind Power Setup

Unit of measurement: t

Rear	counterweight 1	80t Ballast wei	ght of vehicle bo	ody 40t 360° ful	Islewing
Length of main boom (m)	72	78	84	90	96
Boom head used for wind power setup (m)			7		
Radius (m)			Parts of line		
Raulus (III)	10	10	10	9	8
16	135	135/17	135/17		
18	135	135	133	131	130/19
20	135	132.1	131.9	129.7	125
22	122.4	118.6	117.5	114.9	101.7
24	108.9	105.4	104.6	100.4	90.9
26	97.2	93.1	92.5	87.5	80.0
28	86.5	82.4	81.9	75.2	69.8
30	74.7	70.7	68.9	64.0	59.9
34	60.3	58.6	57.4	52.7	50.4
38	48.2	46.8	44.6	42.8	41.8
42		38.7	36.9	34.7	33.8
46		30.7	28.8	28.6	27.8
50				23.9	23.0
Wind speed m/s			9		

Table of Standard Luffing Jib Lifting Capacity (I)

				F	Rear cou	nterweigł	nt 180t B	allast we	ight of vel	hicle body	y 40t 360	)° full slev	ving					
Main boom (m)									30									
Luffing jib (m)		24			30		36 42						48 54					
Radius (m)	w	/orking	angle o	of main	boom	(°)	Working angle of main boom (°)						N	/orking	angle	of main	boom	(°)
Radius (III)	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°
14	220.5																	
16	188.5			187.1														
18	158.2			156.6			155.8											
20	138.1			136.5			135.1			133.4								
22	120.5			119.3			118.0			116.9			115.6					
24	107.6	100.0		106.5			105.3			104.3			103.2			101.6		
26	97.1	89.7		96.0	88.6		94.6			93.8			92.8			91.8		
28		81.6		87.2	80.5		86.0			84.7			83.9			83.0		
30		74.6		79.8	73.5		78.5	72.5		77.4			76.2			75.5		
34			58.9		62.2		66.0	61.1		64.8	60.0		64.4	58.9		63.9		
38			51.0		53.8	49.9	57.1	52.7		56.0	51.6		55.4	50.6		54.3	49.2	
42						43.6		46.1	42.3	49.0	44.8		48.3	44.0		47.1	42.5	
46									37.2		39.6	36.0	42.6	38.5	35.0	41.5	37.3	
50									33.2		35.1	31.9	37.9	34.1	30.9	36.8	32.9	29.3
54												28.5		30.5	27.4	32.8	29.2	25.7
58															24.4		26.1	22.7
62																	23.4	20.2
66																		18.0

Vision Creates the Future



# Table of Standard Luffing Jib Lifting Capacity (II)

Unit of measurement: t

#### Rear counterweight 180t Ballast weight of vehicle body 40t 360° full slewing 60 66 \_uffing jib (m) Working angle of main boom (°) Working angle of main boom (°) Radius (n 91.0 82.0 81.1 76.8 72.9 74.4 73.6 61.1 62.8 62.2 60.6 59.9 59.3 53.7 51.8 51.1 50.4 53.0 43.9 41.7 45.8 44.6 43.1 46.5 40.7 36.4 35.5 38.7 34.1 38.0 37.1 40.0 32.6 50 35.9 31.9 35.2 31.1 33.9 29.7 33.5 29.2 54 25.4 31.9 28.2 24.6 31.1 27.3 29.9 25.8 29.3 28.4 24.0 28.6 25.1 21.5 27.9 20.5 26.5 22.5 26.0 22.1 25.1 20.7 24.0 24.5 21.2 18.9 25.0 21.2 17.9 23.4 19.6 16.3 23.0 19.2 21.9 18.0 18.9 16.8 21.3 18.9 15.6 20.9 17.2 14.1 20.4 16.7 13.4 19.1 15.5 14.1 17.2 10.2 15.9 13.8 18.7 15.2 12.1 17.2 14.7 11.0 13.3 12.1 15.8 13.3 10.4 15.2 12.8 9.4 15.2 11.6 8.4 10.2 13.7 7.0 11.2 8.5 10.7 7.9 13.7 9.9 7.3 9.2 6.7 11.0 8.0 5.7 4.3 5.6 6.9 5.7

# Table of Standard Luffing Jib Lifting Capacity (III)

Main boom (m)									36											
uffing jib (m)		24			30			36			42			48		54				
	١	Norking	g angle	of mai	n boorr	ו (°)	Working angle of main boom (°)							Working angle of main boom (°)						
Radius (m)	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65		
16	184.5																			
18	156.8			155.1			154.1													
20	135.5			134.0			132.6			130.6										
22	119.8			118.5			117.3			116.0			114.3							
24	106.9			105.8			104.8			103.5			102.5			101.6				
26	96.5	87.6		95.2			94.3			93.2			92.2			91.1				
28	87.8	79.5		86.5	78.3		85.4			84.4			83.5			82.5				
30		72.5		78.3	71.3		78.0	70.2		76.8			75.9			75.1				
34		61.6	56.3	66.8	60.5		66.4	58.9		65.1	57.9		64.6			62.7				
38			48.4		52.1	47.1	56.7	51.0		54.9	49.8		54.4	48.8		53.8				
42						41.1		44.5	39.7	48.0	43.4		47.5	42.3		46.7	41.0			
46						36.2		39.3	35.0		38.0	33.6	41.8	37.1		40.6	35.7			
50									31.0		33.8	29.6	37.2	32.9	28.4	35.9	31.4			
54												26.1		29.3	25.0	32.0	27.8	23		
58												23.3		26.3	22.1		24.7	20		
62															19.6		22.1	18		
66																		15		
70																		14		

Vision Creates the Future



Table of Standard Luffing Jib Lifting Capacity (IV)

Unit of measurement: t

#### Table of Standard Luffing Jib Lifting Capacity (V)

	Rear counterweight 180t Ballast weight of vehicle body 40t 360° full slewing														
Main boom (m)								30							
Luffing jib (m)		60			66			72			84				
Dadius (m)		Working	g angle c	of main b	oom (°)				Wo	ain boor	n (°)				
Radius (m)	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°
26	89.3														
28	80.5			79.6											
30	74.1			73.1			71.4								
34	62.0			61.0			59.4			59.9			58.7		
38	53.1			52.0			50.6			50.4			49.4		
42	46.0	40.1		44.8			43.6			43.4			42.5		
46	39.8	34.9		39.1	34.0		37.9			37.5			36.6		
50	35.6	30.6		34.3	29.6		33.2	27.9		32.7	27.4		31.7		
54	31.3	26.8		30.5	25.8		29.2	24.2		29.0	23.7		28.0	22.5	
58	28.2	23.6	19.2	27.1	22.6		25.8	21.0		25.4	20.5		24.5	19.2	
62	25.6	20.8	16.8	24.2	19.8	15.6	22.9	18.3		22.5	17.9		21.4	16.5	
66		18.6	14.7	21.8	17.4	13.5	20.4	16.0	11.9	19.8	15.4		18.7	14.1	
70		16.6	12.9		15.5	11.8	18.2	13.9	10.1	17.5	13.3	9.6	16.4	12.1	
74			11.3		13.8	10.2	16.2	12.1	8.4	15.4	11.6	7.9	14.4	10.2	6.5
78						8.8		10.5	7.1	13.9	10.0	6.5	12.6	8.7	5.0
82									5.9		8.6	5.1	11.0	7.4	
86									4.8		7.5		9.6	6.0	
90														4.9	
92														4.5	

				Re	ar count	erweight	180t Ba	llast wei	ght of ve	hicle bod	ly 40t 36	60° full sl	ewing					
Main boom (m)									42									
Luffing jib (m)		24			30			36			42			48			54	
Dedius (m)	W	orking/	angle o	of main	boom (	(°)	w	orking/	angle o	of main	boom	(°)	N	/orking	angle o	of main	boom	(°)
Radius (m) ·	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°
16	182.3																	
18	153.5			151.8														
20	134.4			132.8			131.4											
22	117.7			116.3			116.2			113.8								
24	105.3			104.1			102.8			101.6			100.5			99.5		
26	94.6	84.8		93.8			92.7			91.6			90.5			89.5		
28	86.1	76.8		85.9			84.0			83.0			82.0			81.0		
30		70.2		78.6	69.2		77.4			76.5			75.5			74.4		
34		59.4		66.2	58.4		65.0	56.7		63.7			63.3			62.6		
38			45.6		50.4		56.3	49.1		55.1	47.9		54.5	46.9		53.2		
42			39.8		43.9	38.4		42.7		48.1	41.6		46.9	40.6		46.2	39.2	
46						33.7		37.7	32.2	42.6	36.4		41.4	35.5		40.2	34.1	
50									28.4		32.3	26.8	36.8	31.3		36.0	29.8	
54									25.1		28.9	23.6		27.7	22.3	32.1	26.3	
58												20.9		24.7	19.5		23.1	17.9
62															17.3		20.5	15.5
66															15.3			13.7
70																		12.0

BİGGE

Vision Creates the Future



Table of Standard Luffing Jib Lifting Capacity (VI)

Unit of measurement: t

Table of	Standard	Luffing	Jib	Lifting	Capacit	t
----------	----------	---------	-----	---------	---------	---

			F	Rear count	terweight '	180t Balla	st weight c	of vehicle b	ody 40t 3	60° full sle	ewing				
Main boom (m)							42								
Luffing jib (m)		60			66			72			78			84	
Radius (m)		Working	g angle c	of main b	oom (°)				Wo	rking ang	gle of ma	ain boorr	ו (°)		
Raulus (III)	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°
26	88.3														
28	79.9			79.0											
30	72.7			71.7			70.7								
34	61.6			60.6			59.5			58.7			57.4		
38	52.0			51.3			50.4			49.9			48.9		
42	45.0			44.3			43.6			42.8			41.9		
46	39.5	33.2		38.6	32.0		37.8			37.0			36.1		
50	34.8	28.9		33.9	27.7		33.1	26.0		32.2			31.3		
54	30.9	25.2		30.0	24.0		29.2	22.5		28.5	22.1		27.2	20.6	
58	27.6	22.1		26.7	21.0		25.7	19.4		25.0	18.9		23.8	17.5	
62	24.8	19.4	14.4	23.8	18.4	13.3	22.8	16.7		22.1	16.3		20.8	15.0	
66		17.1	12.4	21.2	16.1	11.3	20.1	14.5	9.6	19.5	14.0		18.3	12.7	
70		15.2	10.7		14.1	9.7	17.9	12.5	7.9	17.2	12.0	7.2	16.0	10.7	
74			9.3		12.5	8.1	15.9	10.8	6.4	15.2	10.2	5.9	14.0	8.9	
78			8.0			6.8		9.3	5.0	13.3	8.7	4.5	12.2	7.5	
82						5.8		8.1			7.5		10.5	6.1	
86											6.2		9.0	4.9	
90											5.7			4.3	

Main																		
boom (m)							1		48									
Luffing jib (m)		24			30			36			42			48			54	
Dedius (m)	W	/orking	angle	of main	boom	(°)	w	/orking	angle	of main	boom	(°)	W	/orking	angle	of main	boom	(°)
Radius (m)	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65
16	180.1																	
18	153.6			151.9														
20	133.1			131.6			130.1											
22	116.8			115.4			114.0			112.8								
24	104.6			103.2			102.1			102.0			99.6					
26	93.5			93.1			92.0			90.8			89.7			88.7		
28	85.5	74.1		83.7			83.6			82.4			81.4			80.2		
30		67.6		77.1			76.2			75.1			74.1			72.2		
34		57.3		65.6	56.3		64.4	54.6		62.5			62.4			61.3		
38		49.6			48.3		55.8	47.1		54.5	45.9		53.2			52.0		
42			36.9		42.2			41.0		47.7	39.7		46.4	38.7		45.3	37.3	
46			32.3			30.8		36.0		41.7	34.9		41.0	33.8		39.7	32.2	
50						27.1		32.0	25.3		30.8	23.8	36.4	29.6		35.2	28.0	
54									22.3		27.3	20.8		26.0	19.4	31.3	24.5	
58												18.3		23.1	17.0	28.0	21.5	15.
62												16.3			14.8		18.9	13.
66															13.0		16.9	11.2
70																		9.8
74																		8.4

Vision Creates the Future

ty (VII)



Table of Standard Luffing Jib Lifting Capacity (VIII)

Unit of measurement: t

## Table of Standard Luffing Jib Lifting Capacity (IX)

			Rea	r counterv	weight 18	0t Ballas	t weight o	of vehicle	body 40t	360° ful	slewing				
Main boom (m)							48								
Luffing jib (m)		60			66			72			78			84	
Radius (m)	۷	Vorking	angle o	of main	boom (°	')			Work	ting ang	le of ma	ain booi	m (°)		
	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°
28	79.2														
30	72.0			71.0											
34	60.4			59.3			57.8			57.4			56.8		
38	52.0			50.4			49.4			48.8			48.3		
42	45.0			43.8			42.5			42.1			41.0		
46	39.0	31.2		38.1			36.9			36.4			35.6		
50	34.3	26.9		33.5	25.8		32.2	24.2		31.7			30.8		
54	30.6	23.3		29.6	22.3		28.4	20.7		27.8	20.2		26.8		
58	27.2	20.5		26.4	19.3		24.8	17.7		24.4	17.2		23.3	15.9	
62	24.4	17.9	11.9	23.5	16.9		21.9	15.1		21.4	14.7		20.3	13.3	
66		15.6	10.1	21.0	14.6	8.8	19.2	13.0		18.9	12.5		17.6	11.1	
70		13.9	8.4		12.8	7.4	17.1	11.1		16.7	10.6		15.4	9.3	
74			7.1		11.1	6.0	15.2	9.5		14.7	8.9		13.4	7.6	
78			6.0		9.8	4.7		8.0		12.9	7.5		11.8	6.2	
82								6.8			6.2		10.1	4.8	
86											5.0		8.7		
90											4.4				

							:180t Ba											
Main boom (m)				1			1		54							1		
Luffing jib (m)		24			30			36			42			48			54	
	W	/orking	angle o	of main	boom (	(°)	W	/orking	angle	of main	boom	(°)	W	/orking	angle o	of main	boom	(°)
Radius (m)	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65
16	179.6																	
18	151.9			151.7														
20	133.2			131.6			128.7											
22	115.7			114.2			114.1			111.6								
24	102.6			101.2			100.5			99.9			98.6					
26	91.7			91.4			91.2			90.0			88.8			87.7		
28	83.5			83.1			82.8			81.8			80.6			79.5		
30		65.4		75.9			75.7			73.7			73.5			71.6		
34		55.1		65.0	54.0		63.7			62.3			61.2			60.2		
38		47.6			46.4		54.5	45.2		53.9	43.8		53.2			51.9		
42			33.5		40.3			39.2		46.6	37.9		45.9			44.2		
46			29.2			27.6		34.3		41.3	33.0		40.4	36.8		38.7	30.0	
50						24.2		30.3	22.3		28.9		35.5	31.8		34.7	26.0	
54						21.3			19.5		25.5	18.0		27.7		30.7	22.6	
58									17.2			15.6		24.4	14.4	27.4	19.7	
62												13.7		21.4	12.3		17.4	10
66												12.0		19.0	10.7		15.3	8.
70															9.2			7.
74																		6.

Vision Creates the Future



Table of Standard Luffing Jib Lifting Capacity (X)

Unit of measurement: t

## Table of Standard Luffing Jib Lifting Capacity (XI)

			Rear	r counterv	weight 18	0t Ballas	t weight o	of vehicle	body 40t	360° full	slewing				
Main boom (m)							54								
Luffing jib (m)		60			66			72			78			84	
Radius (m)		Workin	ig angle	e of maii	n boom	(°)			Wor	king an	gle of m	ain boc	om (°)		
	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°
28	78.4														
30	70.6			69.8											
34	59.1			58.8			57.0			56.6					
38	50.9			50.4			48.7			48.3			47.1		
42	43.9			43.2			41.7			41.2			40.4		
46	38.4	29.0		37.6			36.3			35.9			35.0		
50	33.9	25.0		33.0	23.8		31.8			31.2			30.2		
54	29.7	21.6		29.1	20.5		27.6	18.7		27.2			26.0		
58	26.5	18.7		25.6	17.6		24.3	15.9		23.9	15.4		22.6	14.1	
62	23.7	16.4		22.8	15.2		21.3	13.5		21.0	13.1		19.7	11.7	
66		14.2	7.7	20.4	13.1	8.8	18.8	11.4		18.3	10.9		17.1	9.7	
70		12.4	6.2	18.2	11.2	7.4	16.6	9.7		16.0	9.1		14.9	7.8	
74		10.8	4.9		9.8	6.0	14.7	8.0		14.1	7.6		13.0	6.2	
78					8.4	4.7		6.7		12.4	6.2		11.1	4.7	
82								5.6		10.9	4.8		9.7		
86								4.4					8.2		

Main									60									
boom (m) Luffing jib (m)		24			30			36			42			48			54	
				of main		(°)	10		angle	ef main		(°)	10	/orking		fmain		(0)
Radius (m)				of main				-	-					-	-			65
	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65
18	150.0																	
20	128.8			128.7			127.2											
22	114.6			113.1			111.7			111.5								
24	101.5			101.4			100.1			98.8			97.5					
26	92.0			91.6			89.4			89.1			88.0			86.7		
28	82.8			82.4			81.2			80.0			79.0			77.8		
30	75.9			74.6			74.2			73.1			72.0			70.9		
34		52.8		63.6	51.5		62.9			61.7			60.6			58.9		
38		45.4			44.0		54.5	42.7		52.7			51.9			50.8		
42					38.3		47.4	36.9		46.1	35.5		45.4	34.1		44.1		
46			25.7		33.6			32.1		40.2	30.6		39.5	29.5		38.2	27.7	
50			22.5			20.8		28.2			26.7		35.1	25.6		33.8	23.9	
54						18.2			16.4		23.5			22.3		30.1	20.7	
58									14.3		20.8	12.7		19.5		27.0	18.0	
62									12.4			10.9		17.3	9.6		15.5	
66												9.5			8.0		13.7	6.2
70															6.7		12.0	4.8
74															5.7			

BİGGE

Vision Creates the Future



Table of Standard Luffing Jib Lifting Capacity (XII)

Unit of measurement: t

### Table of Standard Luffing Jib Lifting Capacity (XIII)

			Rear	· counterv	veight 18	0t Ballas	t weight o	of vehicle	body 40t	360° full	slewing				
Main boom (m)							60								
Luffing jib (m)		60			66			72			78			84	
		Workin	ig angle	of maii	n boom	(°)			Workin	ig angle	of mai	n boom	(°)		
Radius (m)	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°
28	77.5														
30	69.7			69.4											
34	58.5			58.1			56.3			54.1					
38	49.8			49.2			48.2			47.7			46.5		
42	43.3			42.2			40.7			40.1			39.4		
46	37.8			37.1			35.8			35.2			34.4		
50	33.0	22.8		32.0			30.9			30.7			29.3		
54	29.3	19.5		28.4	18.4		27.1	16.7		26.8			25.4		
58	26.1	16.9		25.1	15.6		23.5	14.0		22.9	13.5		22.2		
62	23.3	14.5		22.2	13.4		20.6	11.7		20.2	11.2		18.9	9.9	
66		12.5		19.5	11.3		18.1	9.8		17.5	9.2		16.5	7.8	
70		10.8		17.4	9.8		15.9	8.0		15.3	7.5		14.3	6.1	
74		9.3			8.2		14.1	6.5		13.5	6.0		12.3	4.6	
78					6.9			5.1		11.9	4.6		10.6		
82					5.9					10.4			9.1		
86													7.9		

				Re	ar count	erweight	180t Ba	ıllast wei	ght of ve	hicle boo	ly 40t 36	60° full sl	ewing					
Main boom (m)									66									
uffing jib (m)		24			30			36			42			48			54	
Radius (m)	W	orking	angle o	of main	boom	(°)	N	/orking	angle o	of main	boom	(°)	N	/orking	angle o	of main	boom	(°)
	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°
18	146.2																	
20	127.9			127.1														
22	113.6			111.8			110.4											
24	101.0			100.3			98.9			97.7								
26	90.5			89.7			88.4			87.3			86.8					
28	81.8			80.6			79.5			79.2			77.2			76.0		
30	75.4			73.8			72.7			72.3			70.5			70.0		
34		50.3		62.8			61.6			61.2			59.3			58.3		
38		43.2			41.9		53.2	40.1		52.4			51.3			50.3		
42		37.5			36.0		46.7	34.5		45.5	33.0		44.7			42.8		
46					31.4			29.8		39.7	28.5		39.0	27.3		37.7		
50			19.3			17.5		26.1			24.7		34.1	23.5		32.9	21.7	
54			16.9			15.1		23.0	13.3		21.5		30.6	20.5		29.3	18.6	
58						13.2			11.3		18.9	9.9		17.7		26.1	16.0	
62									9.8			8.2		15.5	6.8		13.9	
66												6.8		13.8	5.5		12.0	
70												5.7					10.4	
74																	9.8	

BİGGE

This information is for reference use only. Operators manual should be consulted and adhered to. Please contact Bigge Crane and Rigging Co. at 888-337-BIGGE or email info@bigge.com for further information.

Vision Creates the Future

Table of Standard Luffing Jib Lifting Capacity (XIV)

Unit of measurement: t

## Table of Standard Fixed Jib Lifting Capacity (I)

			Real	- counterv	veight 18	0t Ballas	t weight o	of vehicle	body 40t	360° full	slewing				
Main boom (m)							66								
Luffing jib (m)		60			66			72			78			84	
Radius (m)		Workin	ig angle	of mair	n boom	(°)			Workir	ng angle	of maii	n boom	(°)		
Raulus (III)	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°	85°	75°	65°
28	71.6														
30	68.1			62.7											
34	57.2			56.7			54.9			47.5					
38	49.1			48.1			47.0			46.4			41.8		
42	42.3			41.7			40.2			39.9			38.7		
46	36.9			36.0			34.5			34.2			33.4		
50	32.4	20.7		31.5			30.2			29.7			28.8		
54	28.4	17.5		27.5	16.5		26.3			25.6			24.6		
58	25.3	14.9		24.4	13.9		22.9	12.0		22.4	11.6		21.4		
62	22.7	12.8		21.4	11.7		20.0	9.9		19.4	9.5		18.4	8.0	
66		10.8		18.9	9.8		17.4	8.0		17.1	7.6		16.0	6.1	
70		9.2		16.8	8.1		15.5	6.4		15.0	5.9		13.5	4.4	
74		7.8			6.7		13.7	4.9		13.1	4.4		11.8		
78					5.5					11.6			10.1		
82					4.4					10.1			8.7		
86													7.5		

				Re	ear count	erweight	180t Ba	illast we
Main boom (m)			3	6				
Fixed jib (m)	1	2	2	4	3	6	1	2
		Ji	b set	angle (	(°)			J
Radius (m)	10°	30°	10°	30°	10°	30°	10°	30°
12	110							
14	86.3						98.6	
16	77.3	36	47.5				87.4	
18	70.1	34.3	43.2				80.2	36
20	63.9	32.6	39.4		26.8		74	34.6
22	58.3	30.9	36.2	19.9	25		68.4	33.2
24	54.4	29.8	34.1	18.6	23.8		63.5	31.5
26	50.4	28.1	31.6	17.7	22.5		59.6	30.3
28	47.3	27.3	29.3	17	21.3		55.3	29.2
30	44.3	26.4	27.5	16.5	20.5	12.4	52.5	28.1
34	39.6	24.4	24.4	15.4	18.4	11.2	47	26.4
38	35.7	23.6	21.8	14.1	16.7	10.3	42.6	25.3
42	33		19.7	13	14.7	9.2	39	24.1
46			18	12.4	13.2	8.4	35.9	23.4
50			16.7	11.8	12.4	8	30.9	
54			15.5		11.5	7.5	27.3	
58					10.6	7.3		
62					9.8	7.1		
66					9.3			
70								
74								
78								
82								
86								

BİGGE

This information is for reference use only. Operators manual should be consulted and adhered to. Please contact Bigge Crane and Rigging Co. at 888-337-BIGGE or email info@bigge.com for further information.

Vision Creates the Future

ght of vehicle body 40t 360° full slewing

9.8

9.3

6.9

48						6	0		
2	4	3	6	1	2	2	4	3	6
b set a	angle (	°)			Ji	b set a	angle (	°)	
10°	30°	10°	30°	10°	30°	10°	30°	10°	30°
				96.4					
47.1				87.4	37.7	48.7			
43.3		28.8		81.8	36	45.7			
40.4		26.6		76.2	34.3	42.8		28.7	
37.6	19.9	24.8		70.5	33.2	40.7		27	
34.9	18.6	23.6		67.1	32	38.6	19.2	25	
33.7	18.3	22.8		62.7	30.9	36	18.5	23.7	
31.8	17.1	21.6		59.5	29.8	34.1	17.9	22.6	
28.2	16.2	19.9	11.4	53.6	28.1	31.8	16.8	20.7	11.3
25	14.9	18.5	10.3	44.9	26.8	28.7	15.8	19.5	10.5
23	14.2	17	9.6	38.1	25.5	25.9	14.8	18.2	10.3
20.9	13.6	15.4	9.3	32.6	24.4	23.4	14	16.8	9.4
19.4	12.8	13.8	8.7	28.3	23.8	21.6	13.4	15.5	9.3
17.8	12.3	13	8.3	24.4	23.4	20.3	12.8	14.3	8.5
16.9	11.7	12.2	7.5	21.2		19	12.3	13.2	8.2
15.8		11.2	7.4	18.2		17.8	11.8	12.4	7.7
15		10.5	7.1			16.7	11.4	11.7	7.4
	2 b set a 10° 47.1 43.3 40.4 37.6 34.9 33.7 31.8 28.2 25 23 20.9 19.4 17.8 16.9 15.8	24           10°         30°           10°         30°           47.1         43.3           47.1         1           43.3         1           37.6         19.9           34.9         18.6           33.7         18.3           31.8         17.1           28.2         16.2           25.5         14.9           20.9         13.6           19.4         12.8           17.8         12.3           16.9         11.7           15.8         6	24310°30°10°10°30°10°10°30°10°40.443.328.840.426.628.837.619.924.834.918.623.633.718.322.831.817.121.628.216.219.92514.918.52314.21720.913.615.417.812.31316.911.712.215.8611.2	30°30°10°30°10°30°30°10°30°30°10°30°10°30°10°30°10°30°40.428.828.826.640.410.026.620.037.619.924.820.033.718.623.610.131.817.121.610.331.817.121.610.320.913.615.49.310.412.813.88.717.812.313.88.316.911.712.27.515.810.311.27.4	3 and the set of	30'30'12'10'30'10'30'10°30°10°30°10°30°10°30°10°30°10°30°10°30°10°30°10°30°10°30°10°30°10°30°10°30°10°10°10°30°41.110°28.810°81.836'40.410°26.610°81.836'40.410°26.610°70.533.2'31.613.823.620.8'67.132.2'33.718.322.810°61.130.9'31.817.121.610.359.529.8'31.817.121.610.344.926.8'20.913.615.49.332.6'24.4'10.412.813.88.728.323.8'11.813.413.88.724.323.4'15.811.27.521.2'11.4'	2         33°         10°         30°         30°	121212121210°30°10°30°10°30°10°30°30°10°30°10°30°10°30°10°30°30°10°30°10°30°10°30°10°30°30°10°30°10°30°10°30°10°30°30°10°30°10°30°10°30°10°30°30°40.11010101081.836.145.746.740.31028.810.881.836.145.746.740.41026.610.870.533.240.740.731.610.924.810.870.533.240.740.731.610.924.810.867.132.236.619.231.718.322.810.867.132.936.119.231.817.121.610.862.730.936.119.731.817.121.610.850.529.834.117.932.914.910.810.344.926.826.710.833.914.217.932.624.123.414.831.814.916.832.624.824.913.833.914.217.833.824.824.824.814.8 </th <th>24         33°         12°         24         33°           b set = se</th>	24         33°         12°         24         33°           b set = se

#### Unit of measurement: t

36

11

10.4

9.9

9.5 8.9 7.2

6.9

6.7

15.6

13.5



Table of Standard Fixed Jib Lifting Capacity (II)

Unit of measurement: t

		Re	ear counter	weight 180t	Ballast we	eight of vehi	icle body 40	0t 360° full	slewing			
Main boom (m)			7	2					8	4		
Fixed jib (m)	1	2	2	4	3	6	1	2	2	4	3	6
Dadius (m)			Jib set	angle (°)	)				Jib set a	angle (°)		
Radius (m)	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°	10°	30°
16	99.8											
18	93						98.6					
20	86.3	36.2	47.9				94.2					
22	81.8	34.9	45				87.4	35.6	46.3			
24	76.8	33.8	42.9		27		80.6	34.5	44.3			
26	72.4	32.7	40.9		25.8		73.1	33.6	42.3		26.6	
28	68.9	31.7	38.9	19.3	25		65.9	32.7	40.3		25.8	
30	63.7	30.8	37	18.5	23.8		60.3	31.7	39.1	19	24.6	
34	52.5	29.1	33.5	17.4	21.6		51	30.2	35.8	17.8	23.6	
38	44.3	27.8	31.2	16.4	19.9	11.3	42.5	28.7	32.7	16.9	21.8	11.6
42	37.4	26.6	28.5	15.5	18.9	10.3	35.9	27.5	30.7	16	19.7	11.2
46	31.9	25.4	26	14.6	17.7	10.3	30.4	26.5	28.6	15.1	18.9	10.5
50	27.3	24.5	24.3	14	16.7	9.3	25.4	25.4	26.2	14.5	17.9	10
54	23.4	23.7	22.4	13.4	15.7	9.2	21.2	22.6	23.8	13.8	16.8	9.5
58	19.9	20.8	20.7	12.8	14.7	8.4	17.9	19.1	20.6	13.3	15.9	9
62	16.9	17.7	19.1	12.4	13.6	8.2	15.2	16	17.4	12.8	15	8.5
66	14.5		16.3	11.9	12.8	7.7	12.6	13.3	14.7	12.4	14.3	8.2
70	12.2		14	11.5	12.2	7.4	10.5	11	12.5	11.9	13	7.8
74	10.3		11.9	11.3	11.5	7.2	8.6		10.5	11.6	11.9	7.5
78			10.1		10.9	7	6.8		8.7	9.8	10	7.3
82			8.4		9.5	6.8	5.4		7.1	8	8.3	7
86			6.9		8	6.6	4.1		5.6		6.8	6.8
90					6.6		3.1		4.4		5.4	6.7
94					5.3						4.2	5.4
98					4.1						3	

Table of Lifting Capacity of Main Boom in Superlift Operating Mode (I)

Length of main boom (m)	36	42	48	54	60	66	72
				Parts of line	2		
Radius (m)	2*23	2*23	2*22	2*19	2*18	2*16	2*14
7	650						
8	650	650	622.0				
9	650	650	622.0	550.0	527.4		
10	650	650	622.0	550.0	527.4	462.0	411.0
12	630	620	622.0	550.0	527.4	462.0	411.0
14	585	565	535.0	525.0	527.4	462.0	411.0
16	526.5	525	505.0	500.0	480.0	450.0	411.0
18	460.5	465	457.5	451.6	432.0	426.0	405.0
20	406	415	410.8	405.9	393.0	392.0	382.0
22	355.2	366.45	372.5	368.1	360.0	358.2	359.9
24	316.5	333.9	340.3	336.5	327.0	325.5	326.9
26	285.9	300.3	313.0	309.5	300.0	298.0	299.0
28	259.3	269.85	286.4	282.9	276.0	274.4	275.3
30	231.4	242.5	261.2	257.9	256.0	246.0	246.8
34		202.6	215.2	225.7	223.0	219.0	218.0
38		172.3	186.4	193.8	195.0	193.1	191.0
42			157.0	165.9	172.0	170.1	165.0
46				143.0	152.0	150.3	146.0
50					132.0	133.0	129.
54					115.0	116.1	114.
58						103.1	102.8
62							

#### Vision Creates the Future



# Table of Lifting Capacity of Main Boom in Superlift Operating Mode (II)

Length of main boom (m)	78	84	90	96	102	108
Radius (m)			Parts	of line		
	2*12	2*11	2*10	2*9	2*7	2*7
12	351.0	311.0	291.9	256.5		
14	351.0	311.0	290.9	255.5	220.2	192.9
16	351.0	311.0	289.9	252.5	217.2	190.9
18	346.0	311.0	288.9	250.5	214.1	188.9
20	339.0	311.0	287.9	248.5	212.1	185.8
22	329.0	307.0	276.7	244.4	210.1	183.8
24	318.0	299.0	266.6	238.4	205.0	180.8
26	295.0	291.0	256.5	233.3	200.0	175.7
28	273.0	268.0	239.4	228.3	194.9	171.7
30	245.2	242.0	219.2	215.1	189.9	166.7
34	212.1	211.0	188.2	185.4	175.0	157.2
38	184.4	178.0	161.9	159.9	157.6	146.0
42	163.1	153.0	140.4	138.4	137.4	133.3
46	144.9	138.0	124.8	122.8	121.8	119.2
50	129.0	121.8	111.2	109.2	108.4	106.6
54	113.1	111.4	99.5	97.5	97.0	95.4
58	102.2	101.8	90.4	88.2	87.7	85.9
62	93.0	91.1	81.8	80.1	79.6	77.6
66	85.0	85.0	74.7	72.7	72.2	70.2
70		75.0	67.7	66.3	66.2	64.1
74		65.9	58.8	59.9	60.2	58.6
78			53.5	53.5	54.5	52.5
82				47.1	47.0	46.5
85					44.6	43.7
86					43.1	42.5
90					38.6	37.7
94						33.3
Wind speed m/s			11.1		ę	)
-opeed m/s					1	

Unit of measurement: t

				01111 01 1110	asurement
Length of main boom (m)	90	96	102	108	114
Dedition (m)			Parts of line		
Radius (m)	2*9	2*8	2*8	2*5	2*5
12	258.0	223.7			
13	258.0	222.6			
14	258.0	222.6	223.7	159.2	139.4
16	258.0	221.6	222.6	156.0	137.4
18	258.0	220.6	222.6	152.9	135.3
20	255.9	219.5	221.6	150.9	134.2
22	250.7	217.5	220.6	147.8	132.1
24	244.5	213.3	219.5	144.6	131.1
26	239.3	210.2	217.5	141.5	129.0
28	233.0	207.1	213.3	138.4	127.0
30	220.6	201.8	210.2	135.2	124.8
34	198.7	185.1	207.1	129.0	121.7
38	172.7	173.9	201.8	123.8	117.6
42	151.9	160.1	185.1	118.6	112.3
46	134.2	141.4	173.9	112.3	108.2
50	120.7	126	160.1	107.2	103.0
54	109.3	113.1	141.4	101.9	98.9
58	99.4	102.2	126	96.8	94.6
62	91.0	92.7	113.1	89.0	88.5
66	83.7	84.5	102.2	81.7	81.1
70	77.0	77.2	92.7	74.9	74.3
74	71.3	70.8	84.5	69.2	68.7
78	64.1	65.5	77.2	63.9	63.4
82		59.1	70.8	59.8	59.3
86			65.5	55.1	55.1
90			59.1	49.9	50.8
94				43.7	46.1
98					41.6
Wind speed m/s			9		

BİGGE

This information is for reference use only. Operators manual should be consulted and adhered to. Please contact Bigge Crane and Rigging Co. at 888-337-BIGGE or email info@bigge.com for further information.

Vision Creates the Future

# Table of Lifting Capacity of Light Duty Boom in Crane Superlift Operations (I) Unit of measurement: t

40



Length of main boom (m)	120	126	132	138
Dedius (m)		Parts	of line	
Radius (m)	2*4	2*4	2*4	6
14	127.0			
16	125.8	113.4	100.4	85.8
18	124.8	112.3	99.4	83.6
20	122.7	112.3	98.3	82.6
22	121.7	111.3	97.2	81.5
24	119.7	110.3	96.2	80.5
26	118.6	109.3	95.1	78.5
28	116.6	108.2	94.1	77.3
30	115.4	107.2	93.1	76.3
34	111.3	105.0	90.9	74.2
38	108.2	103.0	89.9	71.1
42	104.0	100.9	88.9	69.0
46	100.9	97.8	86.8	65.9
50	96.8	94.6	85.8	63.7
54	93.6	91.5	83.6	60.6
58	89.5	88.5	81.5	57.6
62	85.3	85.3	78.5	54.4
66	80.6	80.1	76.3	51.3
70	74.3	73.8	72.7	48.1
74	68.7	68.2	67.4	43.9
78	63.4	62.9	62.2	40.8
82	58.8	58.3	57.6	37.7
85	56.7	56.2	55.4	36.5
86	54.6	54.1	53.3	35.4
90	51.1	50.7	49.6	34.4
94	46.9	46.9	45.7	33.4
98	42.6	42.9	42.0	32.3
102	38.6	39.2	38.6	31.2
Wind speed m/s		ç	)	

 Table of Lifting Capacity of Light Duty Boom in

 Crane Superlift Operations (II)
 Unit of measurement: t

# Table of Lifting Capacity in Superlift Crane Operating Mode with Boom Head used for Wind Power Setup

Length of main boom (m)	9	0	96 102			02
Superlift counterweight (t)	0	100	0	100	0	100
Dedius (m)			Parts of line			
Radius (m)	10	2*5	2*5	2*5	2*5	2*5
18	135	135	135/19	135/19	130/19	135/19
20	126	135	126.2	135	122.9	135
22	111.7	132	111.6	131	108.5	130
24	99.6	125	99.4	123.6	96.7	123
26	89.4	121	89.3	121.0	86.8	121
28	80.6	119	80.5	118.3	78.4	119
30	73.3	115	73.3	115.6	71.1	118.3
34	61.0	109	60.9	106	59.0	100.6
38	51.5	98.6	51.4	92.5	49.9	86.8
42	43.3	84.9	43.6	87.5	42.2	75.7
46	36.5	73.9	36.7	86.0	35.3	65.9
50	30.9	64.7	30.7	81.5	29.3	57.6

		mast 32m Superline ht 180t Ballast we		y 40t
Boom length (m)	10	8	11	4
Superlift coun- terweight (t)	100	200	100	200
		Parts	of line	
Radius (m)	2*5	2*5	7	7
20	135.0	135.0	110.6	110.6
22	133.0	133.0	110.3	110.3
24	130.1	130.1	109.9	109.9
26	127.4	127.4	116.1	116.1
28	124.6	124.6	114.3	114.3
30	116.7	121.7	112.3	112.3
34	99.3	116.1	98.0	109.5
38	85.6	111.4	84.3	105.8
42	74.6	106.7	73.4	101.1
46	65.3	95.3	64.4	94.7
50	57.0	84.4	56.4	83.8
Wind speed m/s		ę	9	

41

BİGGE

This information is for reference use only. Operators manual should be consulted and adhered to. Please contact Bigge Crane and Rigging Co. at 888-337-BIGGE or email info@bigge.com for further information.

Vision Creates the Future

		t mast 32m Super ht 180t Ballast we		y 40t
Boom length (m)	120	126	132	138
Superlift coun- terweight (t)	200	200	200	200
		Parts	of line	
Radius (m)	6	6	5	5
22	91.9	85.1	75/23	
24	91.6	84.4	73.6	72.5
26	91.2	83.6	72.7	70.7
28	91.0	82.8	72.0	69.6
30	90.5	82.0	71.2	68.7
34	90.2	80.4	69.6	66.8
38	90.0	78.8	68.8	64.0
42	89.8	77.2	68.0	62.1
46	89.3	74.8	66.4	59.3
50	83.3	72.4	65.6	54.4
Wind speed m/s		(	9	

Table of Lifting Capacity of Luffing Jib in Superlift Operating Mode (I)

Unit of measurement: t

# Table of Lifting Capacity of Luffing Jib in Superlift Operating Mode (II)

	Len	igth of main	boom 36m I	Main boom a Superlift co	angle 85°C	ounterweigh radius 15m	t of rotating Superlift co	platform 180 unterweight	t Ballastwe 0~300t	ight of vehic		n measu	rement:
				Main	boom 36	m, Workir	ng angle 8	35 degree	s				
Luffing jib (m)	24	30	36	42	48	54	60	66	72	78	84	90	96
Radius (m)													
16	330.0												
18	325.0	297.0	283.4										
20	320.0	297.0	283.4	270.0									
22	310.0	292.3	279.0	263.0	225.9								
24	290.0	276.1	263.6	252.0	225.9	190.0							
26	270.0	247.0	245.0	231.0	225.9	185.0	166.5						
28	232.0	219.0	220.0	212.0	211.0	176.0	158.4	144.0					
30		197.0	198.0	191.0	190.0	164.2	151.1	142.0	125.0				
34		159.0	160.0	160.0	169.0	147.9	136.1	127.1	113.7	96.0	78.7		
38			146.0	145.3	145.1	135.0	124.2	117.0	111.3	92.0	76.0	57.2	48.4
42				125.0	123.0	122.0	120.0	109.0	103.0	86.0	73.5	56.1	47.2
46					107.5	107.0	105.0	98.0	95.0	82.0	71.3	55.0	45.8
50					96.0	95.8	95.3	90.5	88.0	77.0	69.5	53.0	44.4
54						83.2	83.5	83.2	83.0	73.0	67.7	51.2	43.1
58							71.6	71.5	71.2	69.0	65.9	49.0	41.9
62							68.0	67.0	66.0	65.0	64.6	45.7	40.0
66								55.6	59.0	60.0	61.0	42.0	38.0
70									55.0	55.0	55.2	38.0	36.0
74									51.5	50.0	49.9	35.0	34.0
78										42.5	43.5	29.5	29.0
82											38.8	26.7	26.5
86											33.5	24.6	23.8
90												22.6	21.8
94													20.0

		Dalla	st weight of t				ng angle 8		ft counterwei				
Luffing jib (m)	24	30	36	42	48	54	60	66	72	78	84	90	96
Radius (m)													
16	327.5												
18	325.0	304.8											
20	322.5	298.2	270.5										
22	317.5	288.6	266.0	252.0									
24	307.5	272.1	254.8	243.0	206.5	196.2							
26	297.5	247.3	243.5	227.8	206.5	177.5	168.6						
28	278.5	221.3	224.5	210.7	197.9	170.6	156.7	148.9					
30		196.5	202.0	192.3	185.7	160.4	150.0	141.8	125.0				
34		164.2	166.2	166.1	170.6	145.2	138.5	127.1	113.4	94.6	76.1		
38			145.5	147.1	149.0	130.1	128.1	118.5	109.7	91.1	74.2	54.3	46.
42				125.1	126.1	116.4	120.5	110.3	102.5	86.3	72.4	53.3	44.
46				111.6	109.1	103.0	108.0	100.8	95.5	82.6	70.8	52.3	43.
50					97.9	93.4	96.8	92.3	89.0	78.5	69.8	50.4	42.
54						81.4	85.1	84.2	83.4	74.7	68.4	48.6	41.
58							73.7	73.8	73.9	70.6	66.9	46.5	39.
62								67.8	67.0	65.8	64.8	43.4	38.
66								60.1	60.3	60.8	61.3	39.9	36.
70									55.5	55.4	55.2	36.1	34.
74									50.4	49.8	49.9	33.3	32.
78											43.3	28.0	27.
82											38.8	25.4	25.
86												23.4	22.
90													20.
94													19.



Table of Lifting Capacity of Luffing Jib in Superlift Operating Mode (III)

Unit of measurement: t

# Table of Lifting Capacity of Luffing Jib in Superlift Operating Mode (IV)

		Ballas	Length of m st weight of v	ain boom 48 vehicle body	3m Main bo 40t Superlit	om angle 85 ft counterwe	° Counterw	eight of rotat 5m Superlif	ing platform t counterwei	180t ght 0~300t	Onite	of measu	ciliciti. I
								85 degree		<u> </u>			
Luffing jib (m)	24	30	36	42	48	54	60	66	72	78	84	90	96
Radius (m)													
16	325.0												
18	320.0	312.6											
20	318.0	299.3	257.6										
22	309.0	285.0	253.0	241.0									
24	290.0	268.0	246.0	234.0	187.1								
26	253.0	247.5	242.0	224.6	187.1	177.8							
28	218.0	223.5	229.0	209.3	184.8	169.9	155.0						
30	202.0	196.0	206.0	193.7	181.4	165.2	149.0	141.6					
34		169.3	172.3	172.2	172.2	156.6	141.0	127.0	113.0	93.3	73.5		
38			145.0	149.0	152.9	142.5	132.0	120.0	108.0	90.2	72.5	51.6	49.0
42				125.1	129.2	125.1	121.0	111.5	102.0	86.7	71.4	50.6	48.1
46				106.3	110.7	110.9	111.0	103.5	96.0	83.1	70.3	49.6	47.2
50					99.9	99.1	98.3	94.2	90.0	80.0	70.0	47.8	45.4
54						90.9	86.6	85.2	83.8	76.4	69.0	46.2	43.9
58						79.6	75.8	76.2	76.5	72.2	68.0	44.2	42.0
62							69.0	68.5	68.0	66.5	65.0	41.2	39.1
66								64.7	61.6	61.5	61.5	37.9	36.0
70									56.0	55.8	55.2	34.3	32.6
74									49.4	49.5	49.9	31.6	30.0
78										42.1	43.1	26.6	25.3
82											38.7	24.1	22.9
86											33.5	22.2	21.1
90												21.1	20.0
94													19.0

		Balla	ast weight of	vehicle bod	54m Main bo y 40t Superl	lift counterwe	eight radius	15m Superl	ift counterwe	ight 0~300t		84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       90         84       45.0         65.4       45.0         65.4       45.0         65.4       45.0         65.7       37.0         59.7       40.2         57.7       37.0         54.0       33.7         49.8       30.8         44.3       26.0         39.7       23.5         21.6       9	
				Main	boom 54	m, Workir	ng angle 8	35 degree	s				
Luffing jib (m)	24	30	36	42	48	54	60	66	72	78	84	90	96
Radius (m)													
16	310.0												
18	304.0	288.8											
20	302.1	285.6	252.6										
22	293.6	269.1	240.6	228.9									
24	275.5	254.7	233.9	215.0	178.6								
26	240.4	234.6	228.8	208.7	178.6	169.7							
28	214.9	216.7	218.5	199.2	177.5	159.3	141.2						
30		198.2	202.8	188.3	173.9	156.0	138.2	131.3					
34		168.4	173.1	169.3	165.5	149.5	133.5	118.2	104.8	90.7			
38			141.3	145.4	149.6	138.4	127.1	113.5	99.8	85.2	70.6	50.3	
42				126.7	127.2	119.6	112.0	103.8	95.6	82.4	69.1	49.4	46
46					110.4	107.7	105.0	98.2	91.4	79.6	67.7	48.4	46
50						97.6	95.7	91.4	87.2	76.9	66.6	46.6	44
54						90.8	87.8	85.4	83.1	74.2	65.4	45.0	42
58							77.5	76.9	76.4	69.5	62.6	43.1	40
62								68.1	67.8	63.7	59.7	40.2	38
66								64.8	61.8	59.7	57.7	37.0	35
70									55.8	55.0	54.0	33.7	31
74										50.5	49.8	30.8	29
78										45.4	44.3	26.0	24
82											39.7	23.5	22
86												21.6	20
90													19
94													18.

BİGGE

This information is for reference use only. Operators manual should be consulted and adhered to. Please contact Bigge Crane and Rigging Co. at 888-337-BIGGE or email info@bigge.com for further information.

Vision Creates the Future

Table of Lifting Capacity of Luffing Jib in Superlift Operating Mode (V)

Unit of measurement: t

# Table of Lifting Capacity of Luffing Jib in Superlift Operating Mode (VI)

		Balla						<i>r</i> eight of rota 15m Superli				measure	
								35 degree					
Luffing jib (m)	24	30	36	42	48	54	60	66	72	78	84	90	96
Radius (m)													
18	288.0												
20	286.2	271.9											
22	278.1	253.1	228.1	216.7									
24	261.0	241.4	221.8	196.0	170.2								
26	227.7	221.6	215.5	192.8	170.2	161.7							
28	211.7	209.8	208.0	189.1	170.2	148.7	127.3						
30	201.0	200.3	199.6	183.0	166.3	146.8	127.3	121.0					
34		175.0	173.9	166.3	158.8	142.4	126.0	109.4	92.8	88.1			
38			137.6	141.9	146.3	134.3	122.3	106.9	91.6	80.2	68.7	49.0	
42			131.5	128.4	125.2	114.1	103.0	96.1	89.2	78.0	66.9	48.1	
46				115.5	110.0	104.5	99.0	92.9	86.8	76.0	65.1	47.2	44.8
50					99.1	96.1	93.0	88.7	84.4	73.8	63.3	45.4	43.2
54					92.2	90.6	89.0	85.7	82.3	72.0	61.7	43.9	41.7
58							79.1	77.7	76.3	66.8	57.2	42.0	39.9
62							68.0	67.8	67.5	61.0	54.4	39.1	37.2
66								65.0	61.9	57.9	53.9	36.0	34.2
70									55.6	54.2	52.7	32.6	31.0
74										51.4	49.6	30.0	28.5
78											45.5	25.3	24.0
82											40.6	22.9	21.7
86											35.4	21.1	20.0
90													19.0
94													18.1

		Balla	Length of n	nain boom 6 vehicle body	6m Main bo 40t Superl	oom angle 89	5° Counterv	veight of rota 15m Superli	ting platform	n 180t eight 0~300t			
			<u> </u>					35 degree		<u></u>			
Luffing jib (m)	24	30	36	42	48	54	60	66	72	78	84	90	96
Radius (m)													
18	266.4												
20	264.7	251.5											
22	257.2	234.1	211.0										
24	241.4	223.3	205.1	187.5									
26	210.6	205.0	199.4	178.4	157.4								
28	195.8	194.1	192.4	174.9	157.4	143.1	123.7						
30	185.9	185.3	184.6	169.2	153.8	135.8	117.8	111.9					
34		165.1	160.9	153.9	146.9	131.7	116.6	101.2					
38			127.3	131.3	135.3	124.2	113.1	98.9	84.7	75.0			
42			121.6	118.7	115.8	105.5	95.3	88.9	82.5	73.0			
46				108.6	101.8	96.7	91.6	85.9	80.3	71.1	61.9	46.0	
50					91.7	88.8	86.0	82.0	78.0	69.1	60.1	44.3	
54					85.3	83.8	82.3	79.2	76.1	67.4	58.6	42.8	41.2
58						79.6	73.2	71.9	70.6	62.5	54.4	40.9	39.5
62							68.0	65.2	62.4	57.1	51.7	38.2	36.8
66								61.3	58.1	54.3	50.5	35.1	33.9
70									52.3	50.7	49.1	31.8	30.6
74										49.0	47.0	29.3	28.2
78										22.3	44.0	24.7	23.8
82										21.5	40.8	22.3	21.5
86											36.9	20.6	19.8
90												19.5	18.8
94												18.6	17.9
98													17.0

BİGGE

Vision Creates the Future



Table of Lifting Capacity of Luffing Jib in Superlift Operating Mode (VII)

Unit of measurement: t

# Table of Lifting Capacity of Luffing Jib in Superlift Operating Mode (VIII)

		Le Ballast v	ength of mai	n boom 72n bicle body 4	n Main boo 10t Superlif	om angle 85	° Counterw	eight of rota	ating platfor	m 180t veight 0~300	)†					
		Buildot				m, Workir	<u> </u>				<u>,                                    </u>	1.8				
Luffing jib (m)	24	30	36	42	48	54	60	66	72	78	84	90	96			
Radius (m)																
18	244.8															
20	243.3	231.1														
22	236.4	215.1	193.9													
24	221.9	205.2	188.5	179.1												
26	193.5	188.4	183.2	163.9	144.6											
28	179.9	178.4	176.8	160.7	144.6	137.4										
30	170.9	170.3	169.7	155.5	141.4	124.8	108.2									
34		155.2	147.8	141.4	134.9	121.0	107.1	93.0	78.9	74.9						
38		122.8	117.0	120.6	124.3	114.1	103.9	90.9	77.9	69.9	61.8					
42			111.8	109.1	106.4	97.0	87.6	81.7	75.8	68.0	60.2	45.7				
46			110.0	101.8	93.5	88.8	84.2	79.0	73.8	66.2	58.6	44.8				
50				88.4	84.2	81.6	79.1	75.4	71.7	64.3	56.9	43.2	42.3			
54					78.4	77.0	75.7	72.8	70.0	62.8	55.6	41.7	40.8			
58						70.6	67.2	66.0	64.9	58.2	51.5	39.9	39.1			
62							68.0	62.7	57.4	53.2	49.0	37.2	36.4			
66							61.0	57.6	54.3	50.6	47.0	34.2	33.5			
70									48.9	47.2	45.5	31.0	30.3			
74										46.5	44.3	28.5	27.9			
78										44.6	42.5	24.0	23.5			
82										43.1	41.0	21.7	21.3			
86											38.3	20.0	19.6			
90												19.0	18.7			
94												18.1	17.7			
98													16.8			

	N11												
			1	Main	boom 78	m, Workir	ng angle 8	35 degree	S		1	1	
Luffing jib (m)	24	30	36	42	48	54	60	66	72	78	84	90	96
Radius (m)													
20	210.7	197.0											
22	200.7	187.6	177.7										
24	189.0	179.1	169.2	162.3									
26	169.1	165.1	161.1	149.4	136.4								
28	156.0	153.9	151.9	141.9	130.8	124.3							
30	145.2	143.8	142.3	133.5	123.7	112.7	101.9						
34		102.3	122.7	118.0	112.4	103.2	94.1						
38			104.6	103.0	101.9	94.5	87.1	84.7	76.9				
42			99.9	93.8	90.9	84.2	77.5	73.4	69.2				
46				93.5	86.5	81.8	77.2	73.9	70.5	63.2	55.9		
50					79.8	76.5	73.3	70.2	67.2	60.6	54.0		
54					76.1	73.2	70.3	67.2	64.0	58.2	52.4	42.1	40
58						69.5	65.8	62.7	59.7	54.4	49.0	40.4	38
62							65.2	59.7	54.3	50.4	46.5	38.4	36
66							60.7	55.9	51.2	47.6	44.1	36.0	34
70								49.9	47.5	45.0	42.6	33.1	31
74									46.0	43.8	41.0	30.5	28
78									44.2	42.1	39.1	26.7	25
82										40.4	37.8	24.4	21
86											35.9	21.4	19
90												19.8	18
94												18.6	17

#### Unit of measurement: t

**Bigge** 

Table of Lifting Capacity of Luffing Jib in Superlift Operating Mode (IX)

		Balla	Length of n st weight of	nain boom 8 vehicle body	4m Main bo 40t Superli	om angle 85 ft counterwe	6° Counterw ight radius 1	eight of rota 5m Superli	ting platform ft counterwe	180t ight 0~300t			
				Main	boom 84	m, Workir	ng angle 8	35 degree	S				
Luffing jib (m)	24	30	36	42	48	54	60	66	72	78	84	90	96
Radius (m)													
22	165.0	160.0											
24	156.1	153.0	150.0	145.5									
26	144.6	141.8	139.0	134.8	128.1								
28	132.1	129.5	127.0	123.2	117.0	111.2							
30	119.6	117.3	115.0	111.6	106.0	100.7	95.6	91.6					
34	101.5	99.6	97.6	94.7	89.9	85.4	81.2	78.6	76.0				
38		94.1	92.2	85.3	79.4	74.8	70.2	68.8	67.3	60.3	53.2		
42			88.0	78.5	75.3	71.4	67.5	65.1	62.6	56.9	51.1		
46				74.1	73.9	69.5	65.0	61.6	58.1	53.7	49.3	42.6	40.2
50					72.6	68.5	64.3	59.5	54.6	50.6	46.5	41.0	38.8
54					71.1	65.7	62.3	56.8	51.2	47.7	44.1	39.6	37.1
58						62.1	60.3	54.2	48.1	44.6	41.1	37.9	34.6
62							57.3	51.2	46.1	42.9	39.6	35.3	31.8
66							53.0	47.8	44.6	41.1	37.6	32.5	28.8
70								44.6	42.5	39.6	35.7	29.4	26.5
74									40.7	37.7	34.6	27.1	22.4
78									39.6	35.6	33.5	22.8	20.2
82										32.5	32.4	20.7	18.7
86											31.4	19.0	17.7
90											30.3	18.1	16.8
94												17.2	16.0
98													15.2

