

# **TOTES**1800CRANES

# ALL TERRAIN CRANE XCA250G7-1E





## **COMPANY PROFILE**

XCMG's Hoisting machinery division is the leader in China's lifting industry focusing on the research, development and the production of mobile cranes. At XCMG's core is a commitment to technological innovation while utilizing the latest digital technologies to push the boundaries of product development and production while following our principles of social responsibility, building a sustainable and better future, and to create value for our customers.



# **PRODUCT RANGE**

XCMG's Hoisting machinery division boasts a complete product range. Our cranes are sold and serviced in more than 190 countries and regions worldwide, with export shares consistently leading the market.



## WHEELED CRANE

**⋄** 5 t-220 t Truck crane

 **⋄** 40 t-4000 t All Terrain Crane

 **⋄** 25 t-150 t Rough Terrain Crane

## **CRAWLER CRANE**

**□** 45 t-4000 t Lattice Crawler Crane

 **□** 30 t-220 t Telescopic crawler crane



The five-axle 250 tonnage all terrain crane is widely used for installation of wind turbines, bridge lifting, petrochemical projects, tower crane disassembly, urban construction, building renovation, assisting in assembly/disassembly of crawler cranes, among others.



#### **Economical operation**

Able to carry 22 t counterweight on board during jobsite transfer

Equipped with handy independent jib head Equipped with handy power unit



#### **Efficient lifting**

The seven-section boom with maximum length of 76 m is able to telescope with load

Coordinate dual-hook operation

Variable outrigger support



#### Precise control

Speed classification control: Automatically matching the optimal luffing, slewing, and lifting/lowering speeds. Higher safety is ensured.

Precise control for multi-axle coordinate steering: Higher precision, faster response.



## Exclusive experience of intelligence and luxury

G-star cab: With brand-new human-machine interaction system in two cabs and super-large space, personnel can indulge in comfort.



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## **ECONOMICAL OPERATION**

G-ECO full-life cycle efficiency & economy

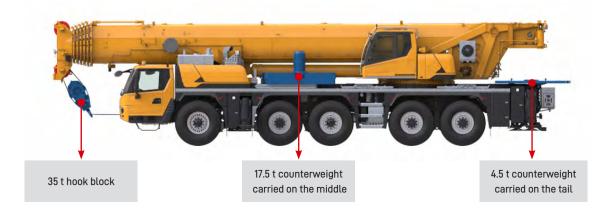


#### **EFFICIENT JOBSITE TRANSFER**

- 22 t counterweight, 35 t hook block, all outriggers and outrigger floats can be carried on board in the 82.5 t heavy-load jobsite transfer configuration, which reduces a trailer and operation costs.
- Handy 4 m independent jib head, lattice welded structure, stowed along with the vehicle without additional trailer, operation costs reduced.

#### **ONE-MAN OPERATION OF THE MACHINE**

With the 12 configurations - wireless remote control, automatic counterweight hook-up, 360° panoramic camera, intelligent boom and jib, jib
assist device, vibration lever, all-scenario monitoring system, all-scenario lighting system, handy independent jib head, automatic outrigger
leveling, independent suspension lifting/lowering, and human-machine interaction system - one person is enough to easily operate the vehicle,
thus operation efficiency is significantly improved.



#### SUPREME FIVE-AXLE CRANE



#### **WIRELESS REMOTE CONTROL FOR ALL MOVEMENTS**

 Able to control main crane movements (telescoping, luffing, winch actions, slewing), auxiliary movements (operation's cab. counterweight cylinder), chassis outrigger operation, suspension operation, engine operation and lighting.



#### **AUTOMATIC COUNTERWEIGHT HOOK-UP**

 Slewing angle and counterweight position are detected automatically to inform the operator of real-time vehicle status. Counterweight hookup can be performed automatically only by pressing buttons in the operator's cab. With the multi-aspect detection and control, operation becomes safer and more efficient.

#### **NEW-GENERATION ELECTRO-HYDRAULIC ENERGY-SAVING CONTROL TECHNIQUE**

• The intelligent coordination of hydraulic system and engine enables the engine to work at the optimal output power for all the time, reducing fuel consumption of superstructure.



Exclusive large-displacement plunger pump, smartly matching the economical operation zone of the engine. Low-speed, high-torque, better fuelsaving.



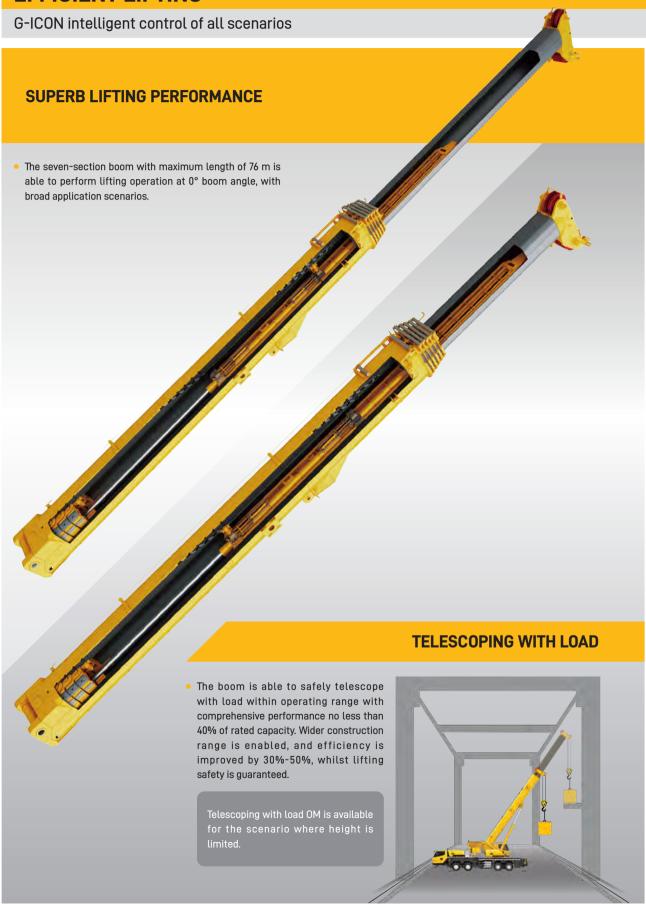


#### **EQUIPPED WITH HANDY POWER UNIT (OPTIONAL)**

 The traditional crane is empowered with electric operation capacities with zero emission, low noise, and less energy consumption, more suitable for construction at urban areas and at night.

HIGHLY INTEGRATED FOR **EASIER ADDITION** PLUG AND USE, SAFE AND **RELIABLE** 

## **EFFICIENT LIFTING**

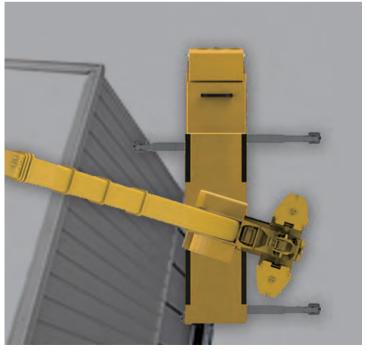


#### SUPREME FIVE-AXLE CRANE



# COORDINATE DUAL-HOOK OPERATION

 For the need of lifting and overturning slender parts, the coordinate dual-hook operation mode is available for it, which can be achieved by a single crane, making the operation easier.



# VARIABLE SUPPORTING TECHNOLOGY

 Different outrigger length (25%, 50%, 75%, or 100%) can be selected for each outrigger in accordance with the construction site, enabling more application scenarios, making the crane more adaptable to working at widthlimited space.

## PRECISE CONTROL

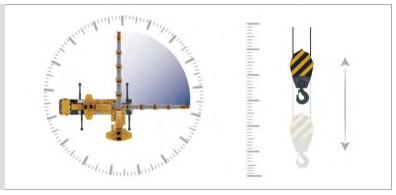
G-Master precise control under all OMs

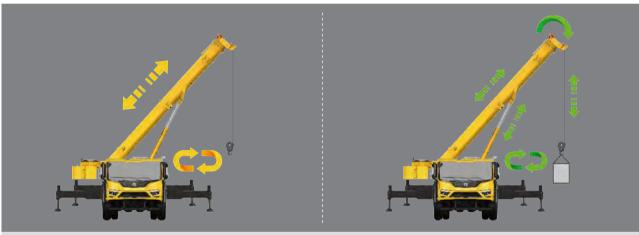
#### PRECISE AND SMOOTH CONTROL UNDER ALL OMS

• With New-generation control system of smart pump-valve combination, high-precision winch integrated with 9-plunger motor, multi-stage pressure slewing buffer, and electro-hydraulic proportional smart telescoping, the overall handling performance is precise and smooth.

#### PRECISE FINE-CONTROL

Fine-control of winch, slewing and luffing reaches millimeter level.





#### **SMOOTH CONTROL**

Fast response; Smooth starting, stopping & acceleration without impact generated.

Smooth slewing & telescoping.

#### **ANY COMBINATIONS OF VARIOUS MOVEMENTS**

Any combinations among slewing, telescoping, luffing and main/  $\mbox{\it auxiliary}$  winch.

#### **OPERATION SPEED CLASSIFICATION CONTROL**

 Smartly identifying light or heavy-load status, then automatically matching the optimal luffing, slewing and lifting/lowering speeds. Higher safety is ensured.



#### PRECISE CONTROL FOR MULTI-AXLE COORDINATE STEERING

- Steering precision control is improved by 65% with higher precision and faster response, whilst tire wear is reduced and its service life extended for one year.
- 6 steering modes: road steering / all-wheel steering / crab steering / independent rear axle steering / rear axle locked / reduced swing-out.



#### **USER-FRIENDLY DESIGN FOR MAINTENANCE AND SERVICE**

 Access locations are optimized according to ergonomic analysis. Platform, fixed ladder, handles, and handrail are set up at the turntable area for access to counterweight, upper surface of boom for maintenance of winch and operation of rope reeving. Several folding ladders are set up at chassis. Each ladder is able to bear stepping by a 150 kg personnel, meeting the requirements for climbing the vehicle under all OMs.





G-star cab: Brand-new styling; Great sealing performance; Super-large internal space; Super-wide filed of view; Super-abundant storage space; Plentiful configuration; Delicate process; High intelligence; Comfortable operation.

#### **DRIVER'S CAB**

1	Large-area windows	Reduced blind spots, improved driving safety.
2	Multi-functional air-suspension seats for both the driver and co-driver	With electric heating, electric ventilation, inflatable air support for waist, and adjustable function, the seats are more comfortable.
3	Brand-new combined instrument panel	With the 12-inch central control touch display, 12.3-inch full LCD display, and new UI interface, it is easier for operation.
4	Multi-function steering wheel	Adjustable in height and horizontal distance, and with cruise and multimedia integrated, the steering wheel is easy and convenient for handling.
(5)	High-power HVAC, integrated air outlet	Able to blow air to face & feet, defrost, and defog, making cab inner temperature more even, with higher efficiency in cooling and heating.
6	Multi-storage space	Meeting the demands for storing a dozen objects such as drinking cup, mobile phone, and receipts, among others.
7	Other user-friendly configurations	Configurations such as electric rearview mirror, mobile phone support, wireless unlocking key, refrigerator and others are equipped, making a more comfortable driving experience.



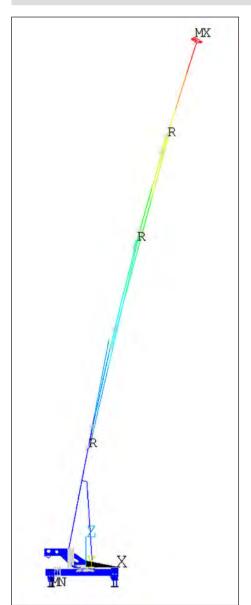
## SAFE AND RELIABLE

G-Safe full-service life quality safety

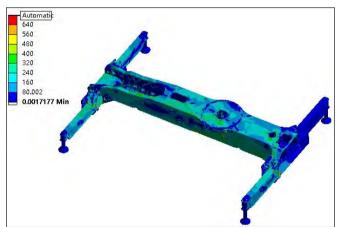
#### **FULL-SERVICE LIFE STRUCTURAL SAFETY DESIGN**

#### **DEFORMATION CONTROL FOR ENTIRE MACHINE**

More appropriate structural arrangement; Deformation decreased by 30%; Safer operation.

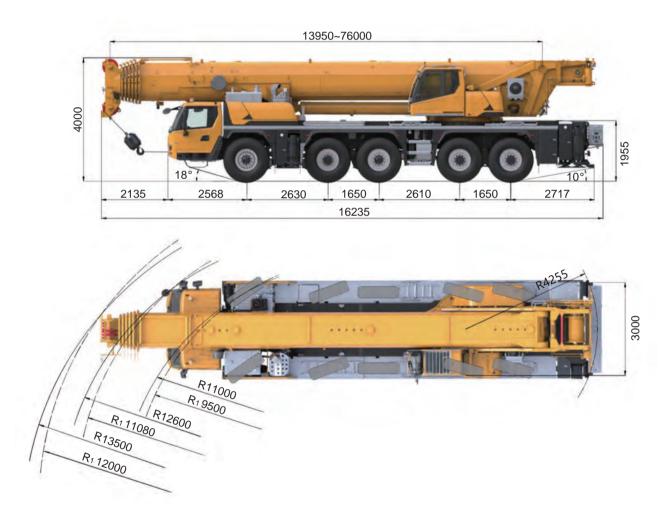




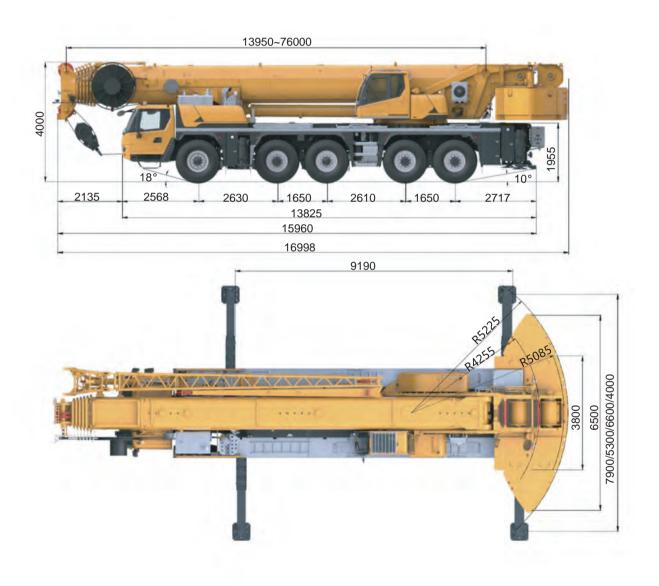


#### STRESS EVENLY-DISTRIBUTED CONTROL TECHNIQUE FOR STRUCTURAL PARTS

Stress of structural parts is evenly distributed, enabling stronger load-bearing capacity, and the service lives are over 1.6 times longer than benchmark.



## **DIMENSIONS**



	CHASSIS
Vehicle frame	Designed and manufactured by XCMG, the frame is made of high strength steel with fully covered walking surface and anti-torsion box-typed structure.
Outrigger	4 outriggers arranged in H-shape are hydraulically controlled. Double-stage outriggers are adopted. The chassis adopts wireless outrigger controller where level gauge and speed-regulating buttons are mounted. There is a check valve fitted in each outrigger cylinder, and a double-way hydraulic lock fitted in each jack cylinder.  Float dimension: 600 mm × 600 mm
Engine	OM471LA.E5-1, in-line, six-cylinder, water cooled, electric-control diesel engine, made by Daimler AG, with maximum net power / rpm of 390 kW / 1600 rpm, and maximum torque / rpm of 2600 Nm / 1300 rpm; Compliant to off-road Euro Stage V emission standard; Fuel tank capacity: 485 L. AdBlue/DEF tank capacity: 40 L. Engine displacement: 12.8 L.
Hydraulic system	The pump set, connected to the PTO port of the engine, controls the outriggers, steering system, suspension and independent hydraulic cooling system.
Transmission	ZF Germany automatic transmission with retarder brake; 12 forward gears and 2 reverse gears available.
Transfer case	Mechanical transfer case, with high/low speeds, is equipped with emergency steering pump.
Safety devices	Reversing camera, 360° camera, ABS, outrigger length measuring, outrigger pressure detector, axle load detector, among others.
Axle	High-strength axles, equipped with disc brake; Axles 2, 4, 5 are drive axles. Drive/steering type: 10×6×10.
Suspension	All axles adopt hydro-pneumatic suspension system which has good shock-absorbing effect. Various functions such as automatic leveling, moving up and down of suspension, and switching of locked and unlocked suspension are available.  The stroke of suspension cylinder: -100 mm~+150 mm.
Tire	10 tires and 1 spare tire, each axle is equipped with single tire, with large bearing capacity. Tire specifications: 445/95R25.
Braking system	Service brake: dual-circuit pneumatic brake brake, acting on all wheels. Parking brake: spring brake, acting on wheels of axles 2-5. Auxiliary brake: engine retarder brake, transmission retarder brake; safe and reliable, with longer service life of brake lining.
Steering	All axles steering, advanced technology of electro-hydraulic proportional steering control is suitable for various demands of operation modes and several steering modes can be realized.
Driver's cab	New full dimension steel structure cab is equipped with safety glass, electrically operated door window lifter, electric heating rearview mirrors, remote control unlocking function, pneumatic adjustable steering column, multi-functional steering wheel, multi-functional air suspension seats for both driver and co-driver, LED headlights, new combined central control panel, 12.3-inch LCD display, 12-inch central control display, fire extinguisher and HVAC.
Electrical system	DC 24 V, with 2 sets of 12 V batteries in series.

## **TECHNICAL SPECIFICATIONS**

4	SUPERSTRUCTURE
Structure	Designed and manufactured by XCMG, made of high strength steel.
Hydraulic system	The chassis engine drives the variable plunger pump via transmission to perform lifting, luffing, telescoping and slewing operations. The Load-sensitive electro-hydraulic directional valve is adopted to perfectly match the variable plunger pump to achieve stable start and stop. It has great performance for simultaneous crane movements. The electric air-cooled hydraulic oil cooler is adopted to effectively reduce oil temperature. Effective capacity of hydraulic oil tank: 750 L.
Control system	Pilot electric proportional control, stepless speed regulation; Main crane movements are controlled by 2 vibration levers at left and right sides and virtual buttons on the display screen.
Main winch system	Hydraulic control is used for speed regulation. The system is driven by a hydraulic motor through a planetary gear reducer, with a normally closed brake, a counterbalance valve and a grooved drum equipped.  The main and auxiliary winches can be operated separately. Wire rope end, directly installed in pouch socket.
Slewing system	A single-row, four-point contact-ball external slewing bearing with a dual slewing mechanism is driven by hydraulic motor, with built-in planetary gear reducer and constant-closed brake equipped, and can continuously slew 360°. Power control and free slewing function as well as proportional brake and stepless speed regulation are available.
Operator's cab	Steel enclosed operator's cab tiltable up to 20°. Spacious interiors, expansive visibility, and abundant storage space. All-round view safety glass with an openable front window. Push-pull sliding door, protective grilles, push-pull sliding side steps. Wipers are fitted for the windshield and roof window. And the washer fluid reservoir capacity is 2.5 L. Stylish interior design; 2 kg fire extinguisher; Sun screens for front, rear and side windows; Double-layer sun screen for the roof window. Mechanical shock absorber seat with leather + breathable mesh is adjustable. Double-LED interior lights, electric fan. Equipped with human-machine interaction control panel, display, armrests, and suspended electronic foot throttle. HVAC is equipped.
Safety devices	Hydraulic counterbalance valve, hydraulic relief valve, hydraulic double-way lock, load moment indicator (LMI), angle sensor, winch monitoring camera, slewing buzzer, lowering limiter to prevent rope over-releasing, anti-two block on the boom head to prevent rope over-winding and anemometer to detect the wind speed.
Electrical system	DC 24 V, with 2 sets of 12 V batteries in series.
Load moment indicator (LMI)	When the actual load moment is approaching the overloading value, audible and visual warning will be sent out, and the dangerous operation will be automatically cut off before overloading occurs. Overload memory function (black box) and fault diagnosis function are available.
Counterweight	Total weight is 80 t. Eight counterweight combinations of 0 t, 10 t, 17.5 t, 22 t, 37 t, 47 t, 57 t and 80 t are available.
Hook block	11 t hook block, 35 t hook block, 80 t hook block. Matching 22 mm wire rope; Interchangeable with hook blocks of 250 t products.
Wireless remote controller	Full-function wireless remote control device can be used to perform main operations (telescoping, luffing, winch, slewing), auxiliary operations (operator's cab, counterweight cylinder, folding and unfolding of swing-away jib), chassis outrigger operation, engine operation and light control, improving the convenience and safety of crane operations.
Luffing system	Single cylinder is used for luffing the boom, with self-compensation counterbalance valve.
Boom	7-section boom with U-shaped cross-section, welded structure. Single-cylinder pinning telescoping system is adopted. One double-acting cylinder with safety valve is used for controlling the telescoping movements of all boom sections with various telescoping pattern available.  Boom length: 14 m ~ 76 m.

## SUPREME FIVE-AXLE CRANE



#### **CONFIGURATION FUNCTION DESCRIPTION**

Standard Seven-section 76 m boom

Note: only standard configuration is available for this model.



## OPTIONAL EQUIPMENT

Hook block	170 t hook block, , 125 t hook block, 12 t hook block.
Auxiliary winch system	Hydraulic control is used for speed regulation. The system is driven by a hydraulic motor through a planetary gear reducer, with a normally closed brake, a counterbalance valve and a grooved drum equipped. Independently operated from the main winch.
Jib of hydraulic adjustment	The two-section swing-away jib, whose first section is of lattice structure while the second of box-type structure, contains jib assist cylinder, and has three offset angles of 0°, 20° and 40°.  Jib length: 10 m or 17 m.
Hydraulic jib extension	8 m, 8 m, 12 m.
Independent jib head	Lattice welded structure, attached to boom head Length of independent jib head: 4 m.
Electric eddy current	Installed at the axle 5.
Configuration of four-axle drive	Axles 2, 3, 4, 5 are drive axles.
Heating system	Independent heating for driver's cab.
Rear towing device	18 t
Tire stopper	4 in total
Spark arrestor	Installed at the exhaust pipe.
Heating system of coolant	Acting on engine coolant circulation system, and used for preheating under low temperature for engine starting.
Hydraulic-type electric power unit	Able to operate with plug-in and all-electric power.

## TRAVEL CONFIGURATION ON ROAD





60 t



80 km/h



11 +

## **CONFIGURATION FOR HEAVY LOAD JOBSITE TRANSFER**





82.5 t



30 km/h



35 t

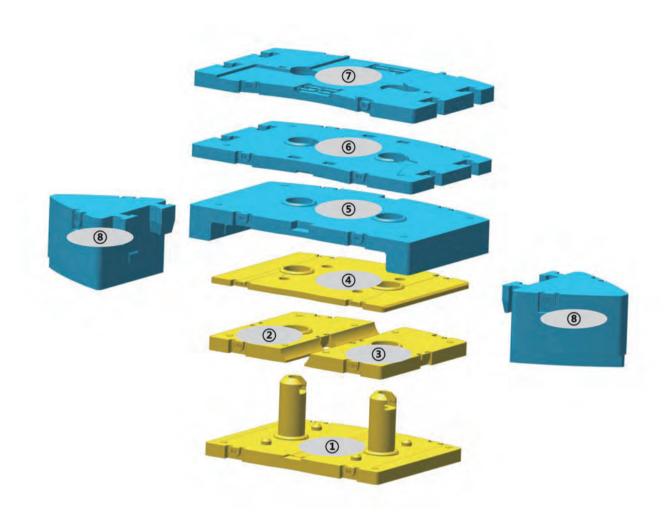
## SUPREME FIVE-AXLE CRANE

			3	0/0			
445/95R2	25 8	30 km/h	6	0%			
	Max	Light F		Z defendence of the second of			
	0-130 m/min, single line, 5th layer	107.8 kN	22 mm	300 m			
2	0-130 m/min, single line, 5th layer	107.8 kN	22 mm	250 m			
$\bigcirc$	0-1.3 r/min						
	Approx. 60 s for boom luffing up from	n 0° to 82.5°					
1	Approx. 650 s for boom extending from	m 14 m to 76 m					

## **WEIGHT**

8	PARTS OF LINE	PARTS OF LINE HOOK BLOCK WEIGHT (KG)		NOTES
170 t	15	1920	2076×606×842	Dual-hook
125 t	11	1500	1886×581×754	Dual-hook
80 t	7	1000	1751×599×436	Dual-hook
35 t	3	600	1366×599×353	Dual-hook
12 t	1	350	910×450×450	Single-hook
11 t	1	227	896×400×400	Single-hook

## **COUNTERWEIGHT**



	1	2	3	4	(5)	6	7	8
Dimensions (L×W×H) (mm)	2980×2395 ×1067	2438×1330 ×227	2438×1330 ×227	2980×2440 ×120	3800×2440 ×515	3800×2440 ×213	3800×2440 ×210	1737×1685 ×1050
Weight (t)	ght (t) 10 3.75		3.75 4.5 15		15	10	10	11.5
Operation mode	80 T	57 T	47 T	37 T	22 T	17.5 T	10 T	0 T
Combination	① + ② + ③ + ④ + ⑤ + ⑥ + ⑦ + ⑧ × 2	① + ② + ③ + ④ + ⑤ + ⑥ + ⑦	① + ② + ③ + ④ + ⑤ + ⑥	① + ② + ③ + ④ + ⑤	① + ② + ③ + ④	1) + 2) + 3)	1	

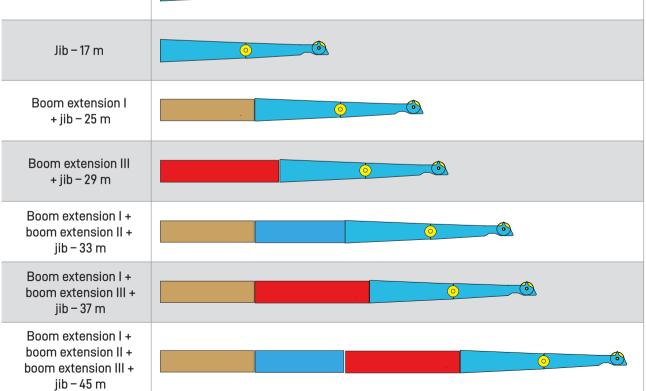
 $Note: the \ yellow \ counterweight \ slabs \ can \ be \ carried \ during \ heavy-load \ jobsite \ transfer, and \ blue \ slabs \ cannot \ be \ carried.$ 

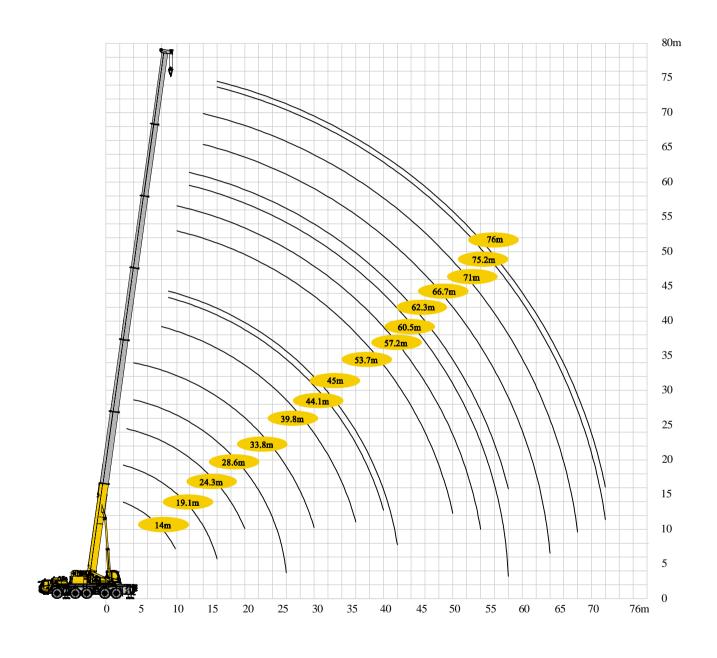


Boom	Boom + jib
T: 14-76 m	T: 14-76 m F: 10m/17m

## **BOOM /JIB COMBINATIONS**

COMPONENTS	STRUCTURE	LENGTH (m)		
1st jib section		10		
2nd jib section	0	7		
Extension I		8		
Extension II		8		
Extension III		12		
Jib – 10 m				
Jib – 17 m	0			
Boom extension I + jib – 25 m	<u> </u>			
Boom extension III + jib - 29 m	0			





## **LOAD CHARTS**

## T 14.0~76M





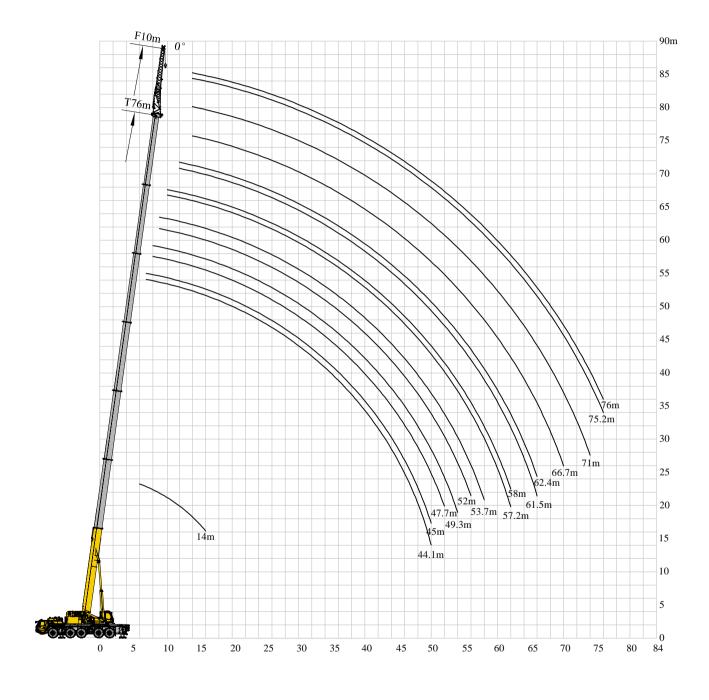






*	14.0*	14.0	19.1	24.3	28.6	33.8	39.8	44.1	45	53.7	57.2	60.5	62.3	66.7	71	75.2	76	( ***)
2.5	250**	134.0	124.0															2.5
3	137.5	134.0	124.0	101.0														3
3.5	136.0	134.0	124.0	101.0														3.5
4	135.0	131.0	124.0	101.0	91.0	53.4												4
4.5	131.8	125.0	122.9	101.0	91.0	51.2												4.5
5	123.7	117.0	114.1	101.0	91.0	49.1												5
6	109.5	102.4	100.4	97.5	86.8	72.0												6
7	97.4	90.7	89.7	87.8	76.9	72.0												7
8	86.3	81.9	80.9	79.0	67.0	62.9	62.5											8
9	76.3	74.1	73.1	71.2	63.2	59.2	62.5	52.5	52.5									9
10	65.2	63.9	67.3	65.3	59.5	55.5	61.4	48.8	51.2	38.3	27.0							10
12			57.5	55.6	52.5	48.1	52.7	40.4	47.3	35.2	27.0	18.6	21.7					12
14			48.5	48.5	45.5	40.7	45.8	36.7	43.7	32.0	27.0	17.6	21.7	17.6	14.7			14
16			34.2	41.8	38.5	33.3	39.0	33.0	39.0	28.9	26.6	16.6	21.7	17.6	14.7	12.1	11.5	16
18				36.1	35.1	30.3	34.2	30.0	34.1	25.7	24.5	15.6	21.7	17.6	14.7	12.1	11.5	18
20				31.1	31.2	27.6	31.6	26.9	31.2	22.6	21.3	14.6	20.9	17.5	14.7	12.0	11.4	20
22					26.9	24.9	29.3	23.8	27.3	20.9	20.4	13.8	18.4	16.7	14.2	12.0	11.4	22
24					23.0	22.3	26.2	22.1	25.4	19.4	18.6	13.0	17.1	15.8	13.7	12.0	11.4	24
26					14.3	21.3	23.3	20.4	22.4	18.1	17.1	12.2	15.8	14.6	13.2	11.7	11.4	26
28						18.8	20.8	18.6	20.0	16.7	15.8	11.2	14.6	13.6	12.6	11.1	11.2	28
30						15.3	18.8	16.9	18.0	15.4	13.2	10.5	13.3	12.5	11.7	10.2	10.2	30
32							17.0	15.2	16.2	14.9	13.6	9.8	12.3	11.6	10.8	9.8	9.7	32
34							15.4	13.6	14.6	13.9	12.6	9.2	11.5	10.8	10.0	9.1	9.0	34
36							12.7	12.3	13.3	13.1	11.8	8.6	10.7	10.0	9.3	8.5	8.4	36
38								11.3	12.1	11.9	11.0	8.1	10.0	9.3	8.7	8.0	7.9	38
40								10.5	11.0	10.8	9.3	7.7	9.5	8.7	8.2	7.5	7.4	40
42									6.5	9.9	8.7	7.3	8.9	8.2	7.7	7.1	7.0	42
44										9.0	8.3	6.9	8.4	7.8	7.3	6.6	6.6	44
46										8.2	7.8	6.5	8.0	7.3	6.9	6.2	6.2	46
48										7.5	7.2	6.1	7.6	6.9	6.5	5.8	5.8	48
50										5.8	7.0	5.9	7.2	6.5	6.1	5.5	5.4	50
52											6.7	5.6	6.9	6.2	5.7	5.1	5.1	52
54											5.6	5.3	6.7	5.9	5.2	5.0	4.8	54
56												5.1	6.4	5.6	4.9	4.6	4.2	56
58												1.2	5.9	5.3	4.6	4.4	4.2	58
60														5.1	4.3	4.1	4.0	60
62														4.8	4	3.9	3.8	62
64														1.2	4.0	3.5	3.1	64
66															3.7	3.5	3.1	66
68															1.4	3.2	3.1	68
70																3.1	3.0	70
72																1.4	2.1	72

<sup>\*</sup>Over rear \*\*Capacity class



## **LOAD CHARTS**

## T 14~76M







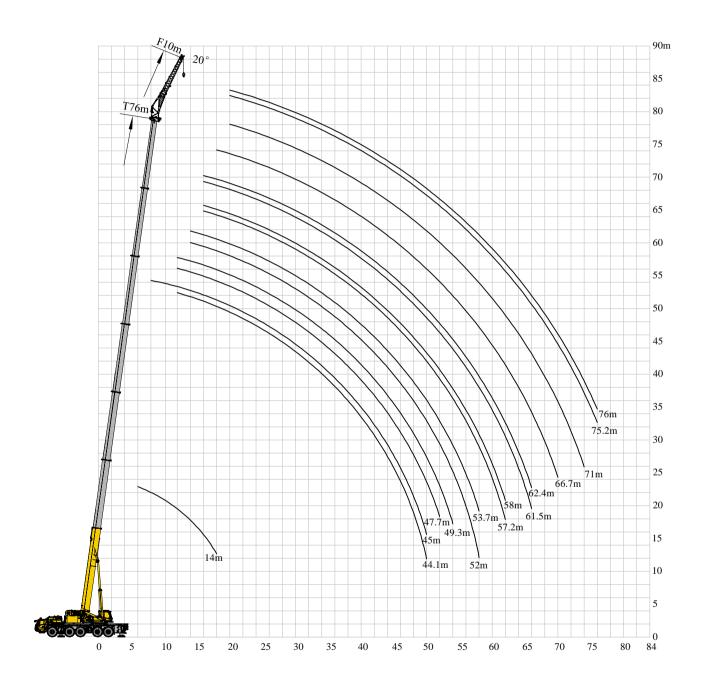








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10 14.2 16.7 16.1 12 14.7 11 13.5 10.3 11.9		10
12 12.2 16.6 15.8 12 14.6 10.9 13.2 10.2 11.7 9.5 10.2		12
14   10.5   16.1   15.5   11.8   14.4   10.8   13   10.1   11.7   9.4   10.2   8.8   7.1   6.2	5.8	14
16     9.5     15.2     14.8     11.8     14.2     10.7     12.8     10     11.6     9.2     10.1     8.8     7.1     6.2	5.8	16
18 14.4 14 11.2 13.8 10.6 12.7 10 11.5 9.2 10 8.8 7.1 6.2	5.8	18
20   13.6   13.3   10.3   13.3   10   12.6   9.9   11.4   9.2   10   8.8   7.1   6.2	5.8	20
22 12.9 12.6 9.4 12.7 9.2 12.5 9.9 11.3 9.1 10 8.7 7.1 6.2	5.8	22
24     12.3     12.1     8.6     12.1     8.4     12.1     9.1     11.1     9.1     9.9     8.7     7.1     6.2	5.8	24
26 11.6 11.4 8 11.6 7.8 11.6 8.5 11 8.4 9.9 8.7 7.1 6.2	5.8	26
28   10.8   10.7   7.4   11.2   7.3   11.2   7.9   11   7.8   9.7   8.7   7.1   6.2	5.8	28
30 10.1 10 6.9 10.6 6.7 10.8 7.3 10.2 7.3 9.1 8.1 7.1 6.2	5.8	30
32 9.7 9.6 6.4 9.9 6.3 10.3 6.8 9.5 6.7 8.4 7.5 6.7 6.2	5.8	32
34         9.2         9.1         6         9.6         5.9         9.9         6.4         9         6.4         7.9         7         6.2         5.8	5.6	34
36 8.7 8.7 5.7 9.1 5.5 9.5 6 8.3 6 7.3 6.5 5.9 5.5	5.1	36
38 8.3 8.2 5.4 8.6 5.1 9.1 5.6 7.8 5.6 6.9 6.2 5.5 5.1	4.8	38
40 7.9 7.8 5 8.3 4.9 8.6 5.3 7.4 5.3 6.4 5.8 5.1 4.7	4.5	40
42 7.5 7.4 4.8 7.8 4.6 8.1 5 7 5 6.1 5.4 4.8 4.4	4.2	42
44     7.2     7.1     4.5     7.5     4.3     7.7     4.8     6.6     4.7     5.7     5.1     4.5     4.2	3.9	44
46 6.8 6.8 4.3 7.2 4.1 7.2 4.6 6.2 4.4 5.4 4.8 4.2 4	3.7	46
48 6.4 6.5 4.1 6.8 4 6.4 4.3 5.8 4.3 5.1 4.5 4 3.7	3.5	48
50 4.7 4.7 4 6.2 3.8 6 4.1 5.6 4 4.7 4.3 3.8 3.5	3.2	50
52 3.7 5.7 3.6 5.5 4 5.3 3.9 4.5 4 3.6 3.3	3.1	52
54 5.2 3.4 5 3.7 4.9 3.7 4.3 3.8 3.4 3.2	2.9	54
56 3.3 4.5 3.6 4.5 3.5 4.1 3.7 3.2 3	2.7	56
58 4.1 3.5 4.1 3.4 3.9 3.5 3 2.9	2.6	58
60 3.4 3.7 3.2 3.6 3.3 2.8 2.6	2.5	60
62 3.2 3.3 3 3.4 3.1 2.7 2.5	2.2	62
64 2.9 3.1 3 2.6 2.4	2.1	64
66 2.8 2.8 2.9 2.4 2.3	2	66
68 2.6 2.3 2.1	1.9	68
70 2.4 2.2 2	1.8	70
72 2.1 1.9	1.6	72
74 1.9 1.8	1.6	74
76	1.4	76



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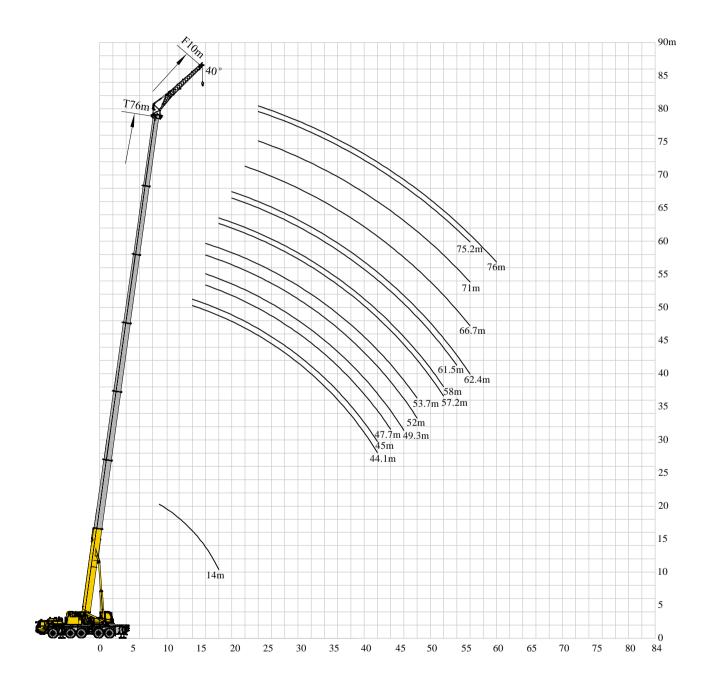








				Ċ												,
	14	44.1	45	47.7	49.3	52	53.7	57.2	58	61.5	62.3	66.7	71	75.2	76	
6	13.3															6
7	12.6															7
8	12.1															8
9	11.6															9
10	11.1															10
12	10.3	11.9	11.7	10.1	11.6											12
14	9.8	11.4	11.2	10	11.1	9.2	10.6									14
16	8.9	10.9	10.8	9.9	10.7	9.1	10.5	8.3	9.7	8.1	8.6					16
18		10.6	10.5	9.8	10.4	9.1	10.3	8.3	9.7	8	8.6	7.6				18
20		10.1	10	9.5	10.1	9.1	10	8.3	9.6	7.9	8.5	7.5	6.6	5.9	5.4	20
22		9.8	9.8	9	9.8	8.8	9.8	8.3	9.5	7.9	8.5	7.5	6.5	5.9	5.4	22
24		9.6	9.5	8.4	9.5	8.1	9.5	8.3	9.4	7.9	8.5	7.5	6.4	5.9	5.4	24
26		9.3	9.2	7.8	9.3	7.5	9.3	8.3	9.2	7.9	8.4	7.5	6.4	5.9	5.4	26
28		9	9	7.2	9.1	7	9	7.6	9	7.7	8.4	7.5	6.4	5.9	5.4	28
30		8.8	8.8	6.8	8.8	6.6	8.9	7.2	8.8	7.1	8.4	7.5	6.4	5.9	5.4	30
32		8.5	8.5	6.4	8.6	6.1	8.7	6.7	8.6	6.7	8.4	7.5	6.4	5.9	5.4	32
34		8.1	8.1	5.9	8.3	5.7	8.4	6.3	8.5	6.3	7.8	6.9	6.2	5.8	5.4	34
36		7.8	7.8	5.6	8	5.4	8.1	5.9	8.2	5.9	7.4	6.5	5.8	5.4	5.4	36
38		7.6	7.4	5.3	7.7	5	7.9	5.6	7.9	5.6	6.9	6.1	5.4	5.1	5	38
40		7.2	7.3	5	7.5	4.9	7.6	5.3	7.5	5.2	6.5	5.7	5.1	4.7	4.7	40
42		7.1	6.9	4.8	7.2	4.5	7.4	5.1	7.1	5	6.2	5.4	4.7	4.4	4.4	42
44		6.7	6.8	4.5	7	4.3	7.2	4.8	6.7	4.7	5.8	5.1	4.5	4.2	4.1	44
46		6.6	6.6	4.4	6.8	4.2	7	4.6	6.3	4.5	5.5	4.8	4.2	3.9	3.8	46
48		6.5	6.5	4.1	6.6	4	6.8	4.3	6	4.3	5.1	4.5	4	3.7	3.6	48
50		4.6	4.6	4	6.4	3.8	6.2	4.2	5.7	4.1	4.9	4.3	3.7	3.5	3.4	50
52				3.8	5.8	3.6	5.6	3.9	5.4	3.9	4.7	4.1	3.5	3.3	3.3	52
54					5.3	3.5	5.1	3.8	4.9	3.7	4.4	3.9	3.3	3.1	3.1	54
56						3.3	4.6	3.7	4.6	3.6	4.2	3.7	3.2	3	2.9	56
58							4.1	3.6	4.1	3.3	4	3.5	3	2.8	2.7	58
60								3.4	3.7	3.2	3.8	3.3	2.9	2.7	2.6	60
62								3.3	3.3	3.1	3.4	3.2	2.7	2.5	2.4	62
64										2.9	3	3	2.6	2.4	2.3	64
66										2.8	2.7	2.9	2.5	2.3	2.2	66
68												2.6	2.3	2.1	2.1	68
70												2.3	2.2	2	1.9	70
72													2	1.9	1.8	72
74													1.8	1.7	1.7	74
76														1.7	1.4	76



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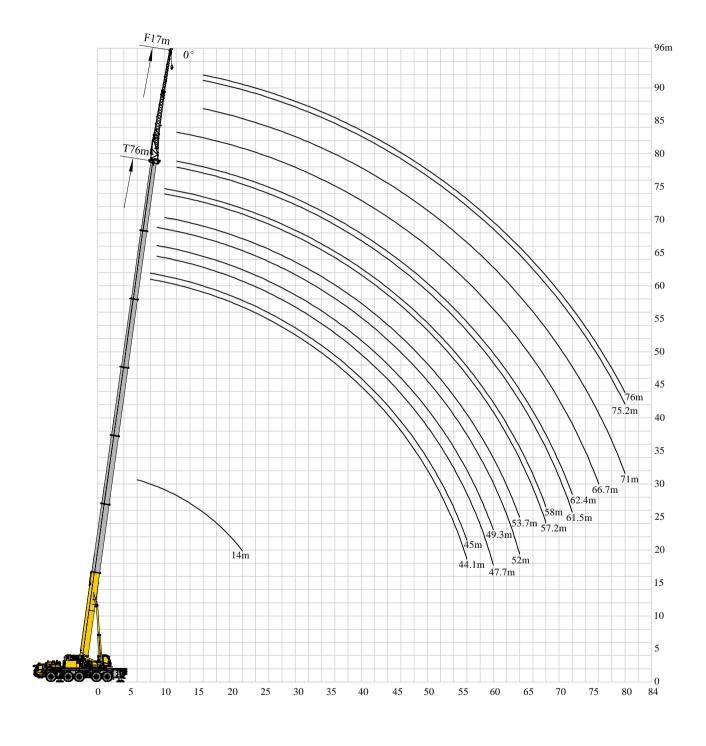








14																	
9 8.3   9   10   8   9   10   10   12   12   14   16   7   7.8   7.8   7.3   7.6   7.2   7.6   7.3   7.1   7.3   7.1   7.3   7.8   7.8   18   6.8   7.4   7.4   7.2   7.3   7.1   7.3   7.		14	44.1	45	47.7	49.3	52	53.7	57.2	58	61.5	62.3	66.7	71	75.2	76	
10 8				40	47.7	47.0	02	00.7	07.2		01.0	02.0	00.7	′'	70.2	70	
12         7.4         1         7.8         7.8         1         14         7.1         7.8         7.8         14         16         7         7.6         7.5         7.3         7.6         7.2         7.6         18         6         8         6         8         6         8         7         6         6         7         6         6         7         6         6         7         6         6         6         6         6         6	9	8.3															9
14         7.1         7.8         7.8         14         14         14         14         16         7         7.6         7.5         7.3         7.6         7.2         7.6         16	10	8															10
16       7       7.6       7.5       7.3       7.6       7.2       7.6       16       18       6.8       7.4       7.4       7.2       7.3       7.1       7.2       7.7       7.1       6.9       7.2       6.8       7       6.7       6.7       6.8       6.7       6.7       6.7       6.7       6.7       6.7       6.7       6.7       6.7       6.7       6.7	12	7.4															12
18       6.8       7.4       7.4       7.2       7.3       7.1       7.3       7.1       7.3       7.1       7.3       7.2       6.8       7       20       22       24       6.8       6.9       6.7       6.9       6.7       6.9       6.7       6.9       6.6       6.7       6.7       5.9       5.4       5.2       24       26       6.7       6.7       6.6       6.8       6.6       6.8       6.5       6.6       6.5       5.9       5.4       5.2       26         28       6.5       6.5       6.5       6.5       6.6       6.5       6.6       6.5       6.5       5.9       5.4       5.2       28         30       6.4       6.4       6.5       6.4       6.5       6.4       6.5       6.4       6.5       6.5       5.9       5.4       5.2       30         32       6.3       6.3       6.3       6.3       6.2       6.2       6.1 <t< td=""><td>14</td><td>7.1</td><td>7.8</td><td>7.8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>14</td></t<>	14	7.1	7.8	7.8													14
20       7.2       7.2       7       7.1       6.9       7.2       6.8       7       6.8       7       6.8       7       6.9       6.8       22         24       6.8       6.9       6.7       6.9       6.7       6.9       6.7       6.9       6.6       6.7       5.9       5.4       5.2       24         26       6.7       6.7       6.6       6.7       6.6       6.8       6.5       6.6       6.5       5.9       5.4       5.2       24         28       6.5       6.5       6.5       6.6       6.5       6.6       6.5       6.6       6.5       5.9       5.4       5.2       28         30       6.4       6.4       6.4       6.5       6.4       6.5       6.4       6.5       6.4       6.5       5.9       5.4       5.2       28         30       6.4       6.4       6.4       6.5       6.4       6.5       6.4       6.3       6.3       6.9       5.9       5.4       5.2       28         30       6.6       6.2       6.1       6.2       6.4       6.3       6.3       6.3       5.9       5.4       5.2       32<	16	7	7.6	7.5	7.3	7.6	7.2	7.6									16
22       7.1       7       6.9       7       6.8       7       6.8       7       6.7       6.9       6.8       6.9       6.7       6.9       6.7       6.9       6.7       6.9       6.7       6.9       6.7       6.9       6.6       6.7       6.7       5.9       5.4       5.2       24         26       6.7       6.7       6.6       6.8       6.6       6.8       6.5       6.6       6.5       5.4       5.2       26         28       6.5       6.5       6.5       6.6       6.5       6.6       6.5       6.5       5.9       5.4       5.2       28         30       6.4       6.4       6.5       6.4       6.5       6.4       6.5       6.5       5.9       5.4       5.2       28         30       6.4       6.4       6.5       6.4       6.5       6.4       6.3       6.3       6.4       6.5       5.5       5.9       5.4       5.2       28         30       6.3       6.3       6.3       6.2       6.1       6.2       6.4       6.3       6.3       6.2       6.3       6.3       5.9       5.4       5.2       32	18	6.8	7.4	7.4	7.2	7.3	7.1	7.3	7.1	7.3							18
24       6.8       6.9       6.7       6.9       6.7       6.9       6.6       6.7       6.7       5.9       5.4       5.2       24         26       6.7       6.6       6.7       6.6       6.8       6.6       6.8       6.5       6.6       6.5       5.9       5.4       5.2       26         28       6.5       6.5       6.5       6.6       6.5       6.6       6.5       6.5       6.4       6.5       6.4       6.5       6.4       6.5       6.4       6.5       6.4       6.5       6.4       6.5       6.4       6.5       6.4       6.5       6.4       6.6       6.9       6.4       6.5       6.4       6.5       6.4       6.5       6.4       6.5       6.4       6.5       6.4       6.6       6.5       6.4       6.6       6.5       6.4       6.4       6.3       6.4       6.4       5.9       5.4       5.2       30         32       6.3       6.3       6.3       6.2       6.1       6.3       6.2       6.1       6.2       6.2       5.9       5.4       5.2       32         34       6.2       6.1       6.1       5.7       6.2	20		7.2	7.2	7	7.2	7	7.1	6.9	7.2	6.8	7					20
26       6.7       6.7       6.6       6.8       6.6       6.8       6.5       6.6       6.6       5.9       5.4       5.2       26         28       6.5       6.5       6.5       6.6       6.5       6.6       6.5       6.5       6.4       6.5       5.9       5.4       5.2       28         30       6.4       6.4       6.4       6.5       6.4       6.5       6.4       6.3       6.4       6.4       5.9       5.4       5.2       30         32       6.3       6.3       6.3       6.4       6.2       6.4       6.3       6.3       6.3       5.9       5.4       5.2       32         34       6.2       6.2       6.1       6.2       6.1       6.3       6.2       6.2       5.9       5.4       5.2       32         36       6.2       6.1       6.2       6.1       5.7       6.2       6.1       6.1       6.1       5.9       5.4       5.2       34         36       6.1       6.1       5.5       6.1       5.9       6.1       5.9       5.4       5.2       3.2       34         36       38       6.1 <t< td=""><td>22</td><td></td><td>7.1</td><td>7</td><td>6.9</td><td>7</td><td>6.8</td><td>7</td><td>6.8</td><td>7</td><td>6.7</td><td>6.9</td><td>6.8</td><td></td><td></td><td></td><td>22</td></t<>	22		7.1	7	6.9	7	6.8	7	6.8	7	6.7	6.9	6.8				22
28       6.5       6.5       6.6       6.5       6.6       6.5       6.6       6.5       6.5       6.4       6.5       6.5       5.9       5.4       5.2       28         30       6.4       6.4       6.4       6.5       6.4       6.4       6.3       6.4       6.4       5.9       5.4       5.2       30         32       6.3       6.3       6.3       6.4       6.2       6.1       6.2       6.1       6.3       6.2       6.2       6.1       5.9       5.4       5.2       32         34       6.2       6.2       6.1       6.2       6.1       6.3       6.2       6.2       6.1       6.2       5.9       5.4       5.2       34         36       6.2       6.1       6.1       5.7       6.2       6.1       6.1       6.5       5.9       5.4       5.2       34         38       6.1       6.1       5.5       6.1       5.5       6.1       5.7       6       5.6       5.9       5.9       5.4       5.2       38         40       6.1       6.1       5.3       6.1       5.3       6.1       5.7       6       5.6 <td< td=""><td>24</td><td></td><td>6.8</td><td>6.9</td><td>6.7</td><td>6.9</td><td>6.7</td><td>6.9</td><td>6.7</td><td>6.9</td><td>6.6</td><td>6.7</td><td>6.7</td><td>5.9</td><td>5.4</td><td>5.2</td><td>24</td></td<>	24		6.8	6.9	6.7	6.9	6.7	6.9	6.7	6.9	6.6	6.7	6.7	5.9	5.4	5.2	24
30       6.4       6.4       6.5       6.4       6.5       6.4       6.4       6.3       6.4       6.9       5.4       5.2       30         32       6.3       6.3       6.3       6.4       6.2       6.4       6.3       6.3       6.3       5.9       5.4       5.2       32         34       6.2       6.2       6.1       6.2       6.1       6.3       6.2       6.2       6.1       6.2       5.9       5.4       5.2       34         36       6.2       6.1       6       6.1       5.7       6.2       6.1       6.1       6.1       5.9       5.4       5.2       34         38       6.1       6.1       5.5       6.1       5.9       6.1       5.9       5.9       5.4       5.2       38         40       6.1       6.1       5.5       6.1       5.3       6.1       5.7       6       5.6       6       5.9       5.9       5.4       5.2       38         40       6.1       6.1       5.3       6.1       5.7       6       5.6       6       5.9       5.6       5       5       40         42       6.1	26		6.7	6.7	6.6	6.7	6.6	6.8	6.6	6.8	6.5	6.6	6.6	5.9	5.4	5.2	26
32       6.3       6.3       6.4       6.2       6.4       6.3       6.3       6.2       6.3       6.3       5.9       5.4       5.2       32         34       6.2       6.2       6.1       6.2       6.1       6.2       6.1       6.3       6.2       6.2       6.1       6.2       5.9       5.4       5.2       34         36       6.2       6.1       6       6.1       5.7       6.2       6.1       6.1       6.1       5.9       5.4       5.2       36         38       6.1       6.1       5.5       6.1       5.9       6.1       5.9       5.9       5.4       5.2       38         40       6.1       6.1       5.5       6.1       5.7       6       5.6       6       5.9       5.6       5       5       40         42       6.1       6.1       5.3       6.1       5       6       5.5       6       5.4       6       5.8       5.4       4.9       4.8       42         44       5.1       6.1       4.8       6       5.2       5.9       5.2       5.9       5.6       5.2       4.5       4.4	28		6.5	6.5	6.5	6.6	6.5	6.6	6.5	6.5	6.4	6.5	6.5	5.9	5.4	5.2	28
34       6.2       6.2       6.1       6.2       6.1       6.3       6.2       6.2       6.1       6.2       5.9       5.4       5.2       34         36       6.2       6.1       6       6.1       5.7       6.2       6.1       6.1       6.1       5.9       5.4       5.2       36         38       6.1       6.1       5.5       6.1       5.5       6.1       5.9       6.1       5.9       5.9       5.4       5.2       38         40       6.1       6.1       5.5       6.1       5.3       6.1       5.7       6       5.6       6       5.9       5.6       5       5       40         42       6.1       6.1       5.3       6.1       5       6       5.5       6       5.4       6       5.8       5.4       4.9       4.8       42         44       5.1       6.1       4.8       6       5.2       5.9       5.2       5.9       5.6       5.2       4.5       44         46       6.1       4.6       6       5.1       5.9       5       5.9       5.3       4.9       4.4       4.4       46         4	30		6.4	6.4	6.4	6.5	6.4	6.5	6.4	6.4	6.3	6.4	6.4	5.9	5.4	5.2	30
36       6.2       6.1       6       6.1       5.7       6.2       6.1       6.1       6       6.1       5.9       5.4       5.2       36         38       6.1       6.1       5.8       6.1       5.5       6.1       5.9       6.1       5.9       6       5.9       5.9       5.4       5.2       38         40       6.1       6.1       5.5       6.1       5.3       6.1       5.7       6       5.6       6       5.9       5.6       5       5       40         42       6.1       6.1       5.3       6.1       5       6       5.5       6       5.4       6       5.8       5.4       4.9       4.8       42         44       5.1       6.1       4.8       6       5.2       5.9       5.2       5.9       5.6       5.2       4.5       4.4       4.5       4.5	32		6.3	6.3	6.3	6.4	6.2	6.4	6.3	6.3	6.2	6.3	6.3	5.9	5.4	5.2	32
38       6.1       6.1       5.8       6.1       5.5       6.1       5.9       6.1       5.9       6.9       5.9       5.4       5.2       38         40       6.1       6.1       5.5       6.1       5.3       6.1       5.7       6       5.6       6       5.9       5.6       5       5       40         42       6.1       6.1       5.3       6.1       5       6       5.5       6       5.4       6       5.8       5.4       4.9       4.8       42         44       5.1       6.1       4.8       6       5.2       5.9       5.2       5.9       5.6       5.2       4.5       4.5       44         46       6.1       4.6       6       5.1       5.9       5       5.9       5.3       4.9       4.4       4.4       46         48       4.5       6       4.9       5.9       4.8       5.8       5.1       4.7       4.2       4       48         50       4.7       5.9       4.6       5.6       4.9       4.5       3.9       3.9       50         52       4.5       4.5       4.5       4.5       4.4<	34		6.2	6.2	6.1	6.2	6.1	6.3	6.2	6.2	6.1	6.2	6.2	5.9	5.4	5.2	34
40       6.1       6.1       5.5       6.1       5.3       6.1       5.7       6       5.6       6       5.9       5.6       5       5       40         42       6.1       6.1       5.3       6.1       5       6       5.5       6       5.4       6       5.8       5.4       4.9       4.8       42         44       5.1       6.1       4.8       6       5.2       5.9       5.6       5.2       4.5       4.4         46       6.1       4.6       6       5.1       5.9       5       5.9       5.3       4.9       4.4       4.4       46         48       4.5       6       4.9       5.9       4.8       5.8       5.1       4.7       4.2       4       48         50       4.7       5.9       4.6       5.6       4.9       4.5       3.9       3.9       50         52       4.5       4.5       5.3       4.4       5.4       4.7       4.3       3.8       3.8       52         54       4.3       5.1       4.5       4.2       3.7       3.5       54         56	36		6.2	6.1	6	6.1	5.7	6.2	6.1	6.1	6	6.1	6.1	5.9	5.4	5.2	36
42       6.1       6.1       5.3       6.1       5       6       5.5       6       5.4       6       5.8       5.4       4.9       4.8       42         44       5.1       6.1       4.8       6       5.2       5.9       5.6       5.2       4.5       4.5       44         46       6.1       4.6       6       5.1       5.9       5       5.9       5.3       4.9       4.4       4.4       46         48       4.5       6       4.9       5.9       4.8       5.8       5.1       4.7       4.2       4       48         50       4.7       5.9       4.6       5.6       4.9       4.5       3.9       3.9       50         52       4.5       4.5       5.3       4.4       5.4       4.7       4.3       3.8       3.8       52         54       4.3       5.1       4.5       4.2       3.7       3.5       54         56       4.4       4.3       4.4       4.3       4       3.5       3.4       56	38		6.1	6.1	5.8	6.1	5.5	6.1	5.9	6.1	5.9	6	5.9	5.9	5.4	5.2	38
44       5.1       6.1       4.8       6       5.2       5.9       5.2       5.9       5.6       5.2       4.5       4.5       44         46       6.1       4.6       6       5.1       5.9       5       5.9       5.3       4.9       4.4       4.4       46         48       4.5       6       4.9       5.9       4.8       5.8       5.1       4.7       4.2       4       48         50       4.7       5.9       4.6       5.6       4.9       4.5       3.9       3.9       50         52       4.5       5.3       4.4       5.4       4.7       4.3       3.8       3.8       52         54       4.3       5.1       4.5       4.2       3.7       3.5       54         56       4.4       4.3       4       4.3       4       3.5       3.4       56	40		6.1	6.1	5.5	6.1	5.3	6.1	5.7	6	5.6	6	5.9	5.6	5	5	40
46       6.1       4.6       6       5.1       5.9       5       5.9       5.3       4.9       4.4       4.4       46         48       4.5       6       4.9       5.9       4.8       5.8       5.1       4.7       4.2       4       48         50       4.7       5.9       4.6       5.6       4.9       4.5       3.9       3.9       50         52       4.5       5.3       4.4       5.4       4.7       4.3       3.8       3.8       52         54       4.3       5.1       4.5       4.2       3.7       3.5       54         56       4.4       4.3       4       3.5       3.4       56	42		6.1	6.1	5.3	6.1	5	6	5.5	6	5.4	6	5.8	5.4	4.9	4.8	42
48       4.5       6       4.9       5.9       4.8       5.8       5.1       4.7       4.2       4       48         50       4.7       5.9       4.6       5.6       4.9       4.5       3.9       3.9       50         52       4.5       5.3       4.4       5.4       4.7       4.3       3.8       3.8       52         54       4.3       5.1       4.5       4.2       3.7       3.5       54         56       4.4       4.3       4       3.5       3.4       56	44				5.1	6.1	4.8	6	5.2	5.9	5.2	5.9	5.6	5.2	4.5	4.5	44
50       4.7       5.9       4.6       5.6       4.9       4.5       3.9       3.9       50         52       4.5       5.3       4.4       5.4       4.7       4.3       3.8       3.8       52         54       4.3       5.1       4.5       4.2       3.7       3.5       54         56       4.4       4.3       4       3.5       3.4       56	46					6.1	4.6	6	5.1	5.9	5	5.9	5.3	4.9	4.4	4.4	46
52     4.5     5.3     4.4     5.4     4.7     4.3     3.8     3.8     52       54     4.3     5.1     4.5     4.2     3.7     3.5     54       56     4.4     4.3     4     3.5     3.4     56	48						4.5	6	4.9	5.9	4.8	5.8	5.1	4.7	4.2	4	48
54     4.3     5.1     4.5     4.2     3.7     3.5     54       56     4.4     4.3     4     3.5     3.4     56	50								4.7	5.9	4.6	5.6	4.9	4.5	3.9	3.9	50
56 4.4 4.3 4 3.5 3.4 56	52								4.5	5.3	4.4	5.4	4.7	4.3	3.8	3.8	52
	54										4.3	5.1	4.5	4.2	3.7	3.5	54
58 3.3 58	56											4.4	4.3	4	3.5	3.4	56
	58															3.3	58
60 3.2 60	60															3.2	60



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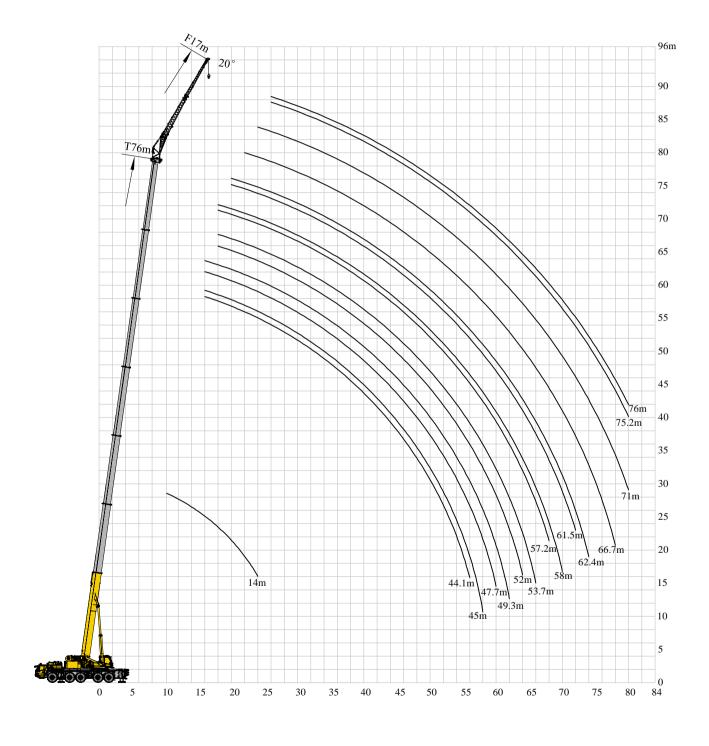








	14	44.1	45	47.7	49.3	52	53.7	57.2	58	61.5	62.3	66.7	71	75.2	76	
6	7.8															6
7	7.2															7
8	6.7	8.3	8													8
9	6.2	8	7.7	7.1	7.5	6.2										9
10	5.8	7.7	7.4	6.8	7.3	6.1	7	6	5.8							10
12	5.2	7.1	6.9	6.3	6.9	6	6.8	5.8	5.8	4.8	5.4	4.9				12
14	4.6	6.5	6.4	6	6.4	5.8	6.4	5.6	5.8	4.8	5.3	4.8				14
16	4.2	6	5.9	5.5	6.1	5.5	6	5.4	5.8	4.8	5.2	4.7	4.3	3.8	3.7	16
18	3.8	5.6	5.6	5.3	5.6	5.2	5.7	5.2	5.6	4.7	5	4.7	4.2	3.8	3.6	18
20	3.5	5.3	5.3	5	5.2	4.9	5.3	4.9	5.3	4.5	4.7	4.6	4.1	3.8	3.6	20
22	3.2	4.9	4.9	4.7	4.9	4.6	5	4.7	5	4.3	4.6	4.5	4.1	3.7	3.6	22
24		4.6	4.6	4.4	4.7	4.5	4.7	4.5	4.7	4.1	4.4	4.2	4.1	3.7	3.6	24
26		4.4	4.3	4.3	4.4	4.3	4.5	4.2	4.6	4	4.2	4.1	4	3.7	3.6	26
28		4.1	4	4	4.2	4.1	4.4	4.1	4.3	3.8	4	3.9	3.7	3.7	3.6	28
30		4	3.9	3.8	4	3.9	4.1	3.9	4.2	3.7	3.8	3.8	3.6	3.6	3.5	30
32		3.7	3.7	3.6	3.8	3.7	4	3.8	4	3.5	3.7	3.7	3.5	3.4	3.4	32
34		3.5	3.6	3.5	3.7	3.6	3.8	3.6	3.9	3.4	3.5	3.6	3.5	3.4	3.4	34
36		3.4	3.4	3.4	3.5	3.4	3.7	3.5	3.7	3.3	3.4	3.4	3.4	3.3	3.3	36
38		3.2	3.3	3.2	3.3	3.3	3.6	3.4	3.6	3.2	3.3	3.3	3.3	3.2	3.2	38
40		3.1	3.2	3.1	3.2	3.2	3.3	3.3	3.4	3	3.2	3.2	3.2	3.1	3.1	40
42		3	3.1	3	3.1	3.1	3.2	3.2	3.3	2.9	3	3.1	3.1	3	3	42
44		2.9	2.9	2.9	3	3	3.1	3.1	3.2	2.8	2.9	3	3	2.9	2.9	44
46		2.8	2.8	2.8	2.9	2.9	3	3	3.1	2.7	2.8	2.9	2.9	2.8	2.8	46
48		2.7	2.7	2.6	2.8	2.8	2.9	2.9	3	2.6	2.7	2.8	2.8	2.7	2.7	48
50		2.6	2.6	2.5	2.6	2.7	2.8	2.8	2.9	2.5	2.6	2.7	2.7	2.6	2.6	50
52		2.4	2.5	2.5	2.5	2.6	2.7	2.7	2.8	2.5	2.5	2.6	2.6	2.6	2.5	52
54		2.4	2.4	2.4	2.5	2.4	2.6	2.6	2.7	2.4	2.4	2.5	2.5	2.5	2.5	54
56		2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.6	2.3	2.4	2.4	2.4	2.4	2.3	56
58				2.4	2.4	2.4	2.4	2.5	2.5	2.3	2.3	2.4	2.4	2.3	2.1	58
60				2.2	2.3	2.3	2.4	2.4	2.5	2.3	2.2	2.3	2.3	2.1	2	60
62						2.3	2.3	2.4	2.3	2.2	2.2	2.3	2.3	2	1.9	62
64						2.2	2.3	2.3	2.3	2.1	2.2	2.2	2.2	1.8	1.8	64
66								2.3	2.3	2.1	2.1	2.2	2.1	1.7	1.7	66
68								2.2	2.3	2	2.1	2.1	2	1.6	1.6	68
70										1.9	2.1	2	1.8	1.5	1.5	70
72										1.8	2	1.9	1.7	1.4	1.3	72
74												1.8	1.6	1.3	1.2	74
76												1.7	1.5	1.2	1.1	76
78													1.4	1.1	1.1	78
80													1.4	1.1	1	80



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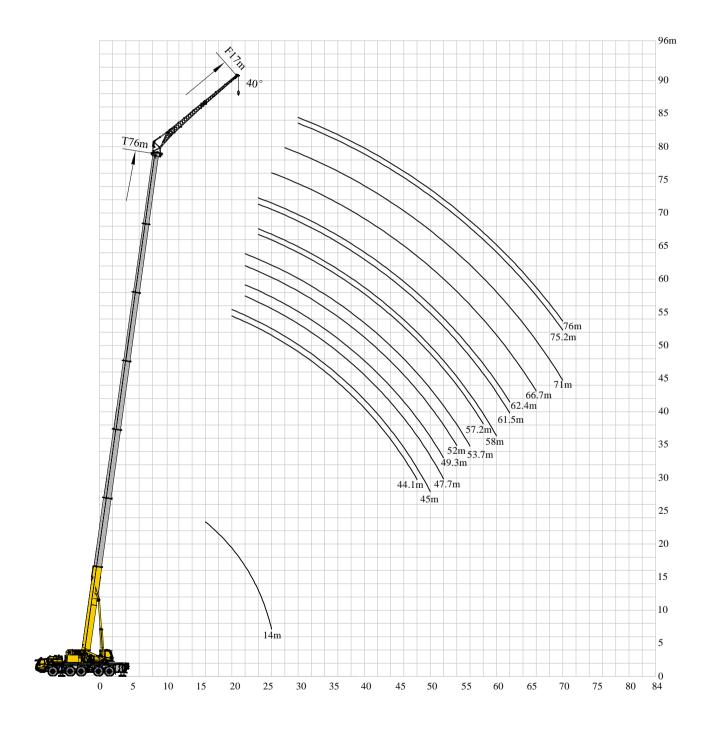








	14	44.1	45	47.7	49.3	52	53.7	57.2	58	61.5	62.3	66.7	71	75.2	76	
10	4.5															10
12	4															12
14	3.7															14
16	3.3	4.1	4.1	3.9	4.1											16
18	3.2	3.8	3.8	3.8	4	3.8	3.9	3.8	3.8							18
20	3	3.7	3.7	3.7	3.7	3.7	3.8	3.6	3.7	3.6	3.6					20
22	2.8	3.6	3.6	3.5	3.6	3.5	3.7	3.5	3.6	3.5	3.5	3.5				22
24	2.7	3.5	3.5	3.3	3.5	3.4	3.5	3.4	3.5	3.4	3.4	3.4	3.3			24
26		3.4	3.4	3.2	3.4	3.3	3.4	3.3	3.4	3.3	3.3	3.3	3.2	3.1	3.1	26
28		3.3	3.3	3.1	3.3	3.2	3.3	3.2	3.3	3.2	3.2	3.2	3.2	3.1	3.1	28
30		3.2	3.2	3	3.2	3.1	3.2	3.1	3.2	3.1	3.1	3.1	3.1	3	3	30
32		3.1	3	2.9	3.1	2.9	3.1	3	3	3	3.1	3	3	2.9	2.9	32
34		3	2.9	2.8	3	2.8	3	2.9	2.9	2.9	3	2.9	2.9	2.8	2.8	34
36		2.8	2.8	2.8	2.9	2.7	2.9	2.8	2.8	2.8	2.9	2.8	2.9	2.8	2.8	36
38		2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	38
40		2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.7	2.8	2.8	2.7	2.8	2.7	40
42		2.6	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.6	2.7	2.7	2.7	2.7	2.7	42
44		2.5	2.6	2.6	2.6	2.5	2.6	2.7	2.6	2.6	2.7	2.6	2.7	2.6	2.6	44
46		2.5	2.5	2.5	2.5	2.5	2.6	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	46
48		2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.5	48
50		2.4	2.4	2.4	2.5	2.4	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	50
52		2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.4	52
54		2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.4	54
56		2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	56
58			2.4	2.4	2.4	2.3	2.4	2.3	2.4	2.3	2.4	2.4	2.4	2.4	2.3	58
60				2.4	2.4	2.3	2.3	2.3	2.4	2.3	2.4	2.4	2.4	2.4	2.3	60
62					2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	62
64						2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	64
66							2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.1	66
68								2.3	2.3	2.3	2.3	2.3	2.3	2.1	1.9	68
70									2.3	2.3	2.3	2.3	2.3	1.9	1.8	70
72										2.3	2.3	2.3	2.2	1.8	1.8	72
74											1.9	2.3	2	1.7	1.7	74
76												2.1	2	1.6	1.5	76
78												1.6	1.9	1.5	1.5	78
80													1.6	1.5	1.2	80



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	14	44.1	45	47.7	49.3	52	53.7	57.2	58	61.5	62.3	66.7	71	75.2	76	
16	2.8															16
18	2.6															18
20	2.5	2.7	2.7													20
22	2.4	2.6	2.6	2.6	2.6	2.5	2.6									22
24	2.4	2.6	2.5	2.5	2.5	2.5	2.6	2.5	2.5	2.6	2.5					24
26	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.4	2.5	2.5				26
28		2.5	2.5	2.4	2.5	2.4	2.5	2.4	2.5	2.3	2.4	2.4	2.4			28
30		2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.3	2.4	2.4	2.4	2.2	2.2	30
32		2.4	2.4	2.4	2.3	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.3	2.2	2.2	32
34		2.4	2.4	2.3	2.3	2.3	2.4	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	34
36		2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.2	36
38		2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.3	2.2	2.3	2.2	2.2	2.2	38
40		2.3	2.3	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	40
42		2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.1	2.2	2.2	42
44		2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.1	44
46		2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.1	46
48		2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.1	48
50			2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.1	50
52				2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.1	52
54						2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.1	2	2	54
56							2.1	2.1	2.2	2.2	2.1	2.2	2.1	2	2	56
58								2.1	2.2	2.2	2.1	2.2	2.1	2	2	58
60									2.2	2.1	2.1	2.2	2.1	2	2	60
62										2.1	2.1	2.2	2.1	2	2	62
64												2.2	2.1	2	2	64
66												2.2	2.1	2	2	66
68													2.1	2	2	68
70													2.1	2	2	70

Туре		Item	Unit	Parameters		
	Dimensions (L×W×H)		mm	16235×3000×4000		
	Axle spacing		mm	2630+1650+2610+1650		
Dimensions	Track (front/rear)		mm	2529		
	Front overhang / rear over	erhang	mm	2568/2992		
	Front extension / rear ex	tension	mm	2135/0		
	Maximum permissible to	tal weight	kg	60000		
		Axle 1	kg	12000		
\M/aight		Axle 2	kg	12000		
Weight	Axle load	Axle 3	kg	12000		
		Axle 4	kg	12000		
		Axle 5	kg	12000		
	Engine model			OM471LA.E5-1		
Power	Maximum net power / RF	РМ	kW/(r/min)	390/1600		
	Maximum output torque	/ RPM	N.m/(r/min)	2600/1300		
	Maximum travel speed		km/h	80		
	Minimum stable travel s	peed	km/h	3		
	Minimum turning diamet	ter	m	19		
	Minimum ground clearar	nce	mm	357		
Travel	Approach angle		o	18		
	Departure angle		o	10		
	Braking distance (initial	speed at 30 km/h)	m	≤10		
	Maximum grade ability		%	60		
	Fuel consumption per 10	0 km	L	70		

## **TABLE OF MAIN TECHNICAL PARAMETERS**

Туре	Ite	Unit	Parameters		
	Maximum rated lifting capacity			t	250
	Minimum rated working radius			m	2.5
	Turning radius at turntable tail	At the counterweig	ght	mm	5225
	Turning radius at turntable tail	At auxiliary winch		mm	5085
		Base boom		kN.m	6769
	Maximum load moment	Fully-extended boo	om	kN.m	2713
Main performance		Fully-extended boo	om + jib	kN.m	
		Longitudinal		m	9.19
	Outrigger span	Lateral (fully exter extended / half ext extended)		m	7.9/6.6/5.3/4
		Base boom		m	14.5
	Lifting height	Fully-extended boo	om	m	75.5
		Fully-extended boo	om + jib	m	114.5
		Base boom		m	14
	Boom length	Fully-extended boo	om	m	76
		Fully-extended boo	om + jib	m	116
	Time for raising boom			s	≤60
	Time for fully extending the boom			s	≤650
	Maximum slewing speed			r/min	1.3
Decemptors of working		Outrigger beams	Retracting	s	≤40
Parameters of working speed	Time for extending and retracting	Outrigger bearins	Extending	s	≤40
	outriggers	Outrigger jacks	Retracting	s	≤60
		Journa Jacks	Extending	s	≤90
	Lifting speed (Single line, 5th layer, no load)	Main winch systen	n	m/min	≥130

4	Superstructure	T	Boom
Max	Rated lifting load		Boom length
	Counterweight		Boom working radius
	Slewing radius of variable-position counterweight		Lifting height with boom
8	Hook block		Boom angle
00000	Parts of line	v	Extension
9/0	Jib length combinations		Independent jib head
	Wind speed		Simple jib head
	Configuration	F	Fixed jib
	Optional equipment		Fixed jib length
Land of the state	Rope length		Fixed jib offset angle
	Wire rope diameter	Z	Luffing jib

## **DESCRIPTION OF SYMBOLS**

A STATE OF THE STA	Breaking load of rope		Max. lifting height
Max	Max. working speed		Max. working radius
	Main winch	<b>₹</b>	Super lift
2	Auxiliary winch	W	Wind power jib
	Chassis		Telescoping
	Outrigger span		Slewing
	Tire	360°	360° operation of the boom
<b> </b>	Axle load	360°	With the 5th jack down, 360° operation of the boom
0/0	Grade ability		Side and rear slewing
	Travel speed	(a)	Boom over front or over rear
	Luffing	13000 EN	Standard

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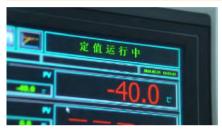
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