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# XCA300U

Tier4 Final Engine

## All-Terrain Crane



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### Engine

Superstructure	Chassis
Model : OM936LA.E4/3	OM473LA.E4/1
Rated power : 281.6/2200hp/rpm (210 /2200kW/rpm)	576.6/1700hp/rpm (430/1700kW/rpm)

### Lifting Capacity

Max. rated lifting capacity :	331UST (300t)
Max. fully-extended boom length :	262.5ft(80m)
Max. fully-extended boom length + jib :	370.1ft(112.8m)

### Vehicle Performance

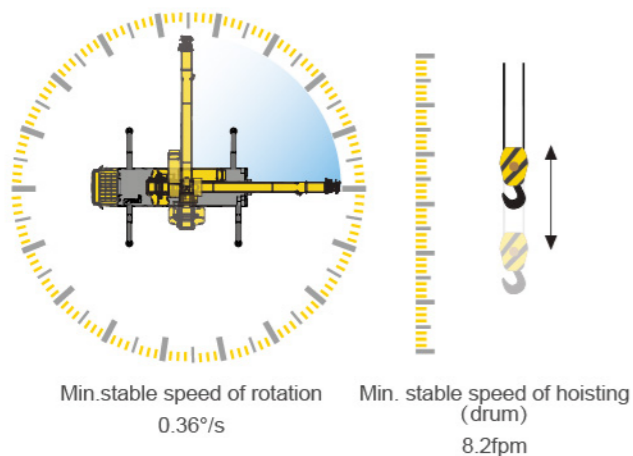
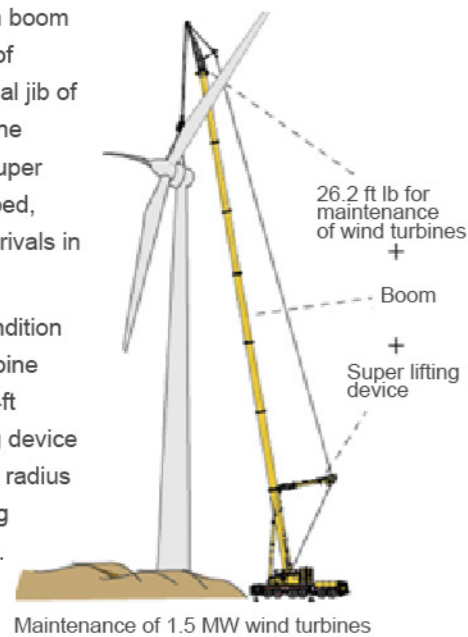
Max.vehicle speed :	55.9mile/h(90km/h)
Min.turning radius :	37.7ft(11.5m)
Max.gradeability :	52%

## ADVANTAGES

- ▶ As a typical product for North American market, XCA300U has six axles and seven boom sections, max. lifting capacity of 331Ust. It has superior lifting performance with Y-type super lifting device and jib equipped, 26.2ft special jib for 1.5MW wind turbine maintenance. It has the easier assembly /disassembly process with efficient counterweight self-assembly technology applied. Its superstructure meets OSHA certificate requirements and the chassis has DOT accepted configuration, which make XCA300U greatly fit in North American market. The subsidiary transportation design of Dolly makes the axle load within the upper limit of different North America areas. The engines for XCA300U comply with EPA Tier 4F emission standard.

### Super lifting performance

- ▶ With 7-section main boom of 262.5ft, fixed jib of 19.7ft-118.1ft, special jib of 26.2ft for wind turbine maintenance and super lifting device equipped, XCA300U leads its rivals in lifting performance.
- ▶ Special working condition for 1.5MW wind turbine maintenance: 245.4ft boom + super lifting device + 26.2ft jib, working radius of 59.1ft, rated lifting capacity of 29101lb.



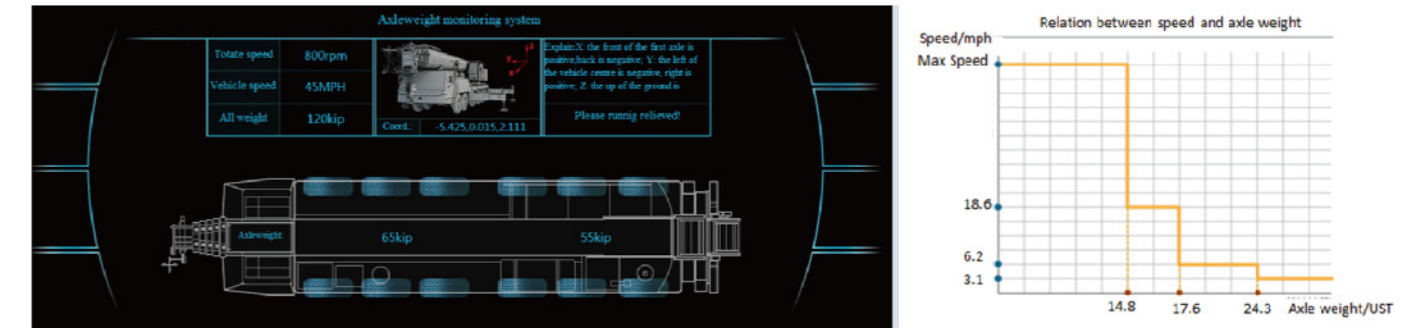
### Precise and safe lifting operation

- ▶ Closed hydraulic system and a large-displacement pump are used for lifting and slewing system, its lifting speed with heavy load is 20% over the same kind of cranes.
- ▶ Mature double-variable mechanism with fine control tactic contributes to the smooth start and stop of lifting, slewing, elevating and telescoping operation.
- ▶ Min. stable lifting speed (at drum) is 8.2fpm and min. stable slewing speed is 0.36°/s, lifting operation is precise.

### Intelligent travel and efficient & safe site transfer

#### ▶ Axle load monitoring technology

Axle load and vehicle gravity are calculated dynamically, proper gear (the highest gear engaged) and axle driving mode are matched automatically in real time, which provides double protection for crane safety in traveling.



#### ▶ Comprehensive braking control technology

It dynamically chooses different braking modes, which contributes to precise control on power performance and avoids invalid braking control or insufficient braking force. It also can shorten emergency braking distance, effectively avoid traffic accident, reduce the abrasion of braking system and increase the service life.

Service brake system    Engine retarder Exhaust brake

Transmission retarder

ABS    Speed    Force

Emergency braking distance

10%

On highway: Emergency braking distance is shortened, which can avoid the risk of traffic accident effectively

30%

On long downhill: The abrasion of braking system is reduced and service life is prolonged

## Heavy load transfer

- ▶ Configuration of 191803lb for short-distance transfer in a jobsite: with outriggers, boom, super lifting device, spare tire and outrigger floats on board.
- ▶ Configuration of 238100lb for short-distance transfer in a jobsite: with outriggers, boom, super lifting device, spare tire, outrigger floats and counterweight base on board.



## Better satisfy North American market

### Laws and standards followed

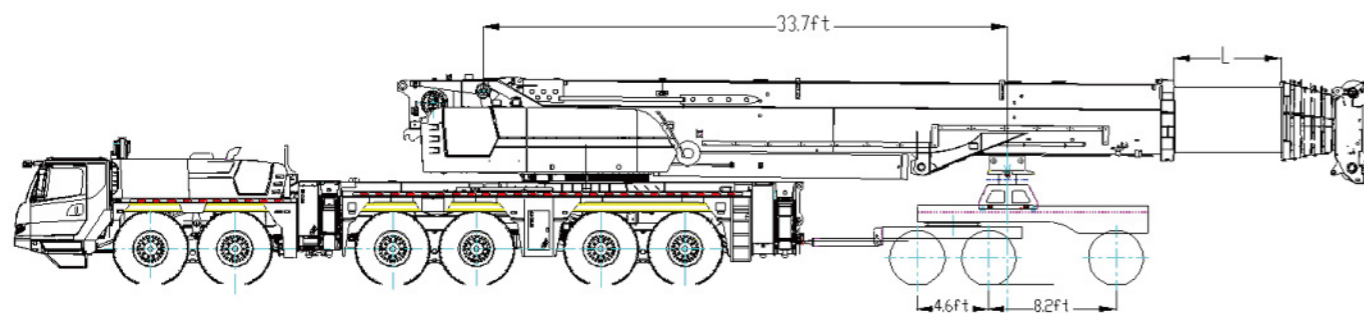
XCA300U primarily follows the ASME30.5-2014 and SAE standard. The functions, safety devices and access meet the requirements of OSHA certificate.

### Improvements to meet with North American road regulation

Detachable parts and boom dolly are used to meet various load axle regulations in different regions in North America.



OSHA Certificate



Basic configuration	1st, 2nd axle/lb	3rd~6th axle/lb	DOLLY/lb	Vehicle state
State 1 20000lb axle load	31394	78238	57915	16.00R25 tire, rear outrigger beams are detached, 2nd~7th boom section are extended to 45.9 in. 3-axle dolly weighs 12125 lb.
State 2 22000lb axle load	25120	87057	60298	16.00R25 tire, 2nd~7th boom section are extended to 75in. 3-axle dolly weighs 12125 lb.
State 3 24000lb axle load	26024	92348	54102	16.00R25 tire, 3-axle dolly weighs 12125 lb.
<b>With super lifting device equipped</b>				
	30653	78238	58379	16.00R25 tire, rear outrigger beams are detached, 2nd~7th boom section are extended to 74.8in. 3-axle dolly weighs 12125 lb.
State 2 22000lb axle load	24657	87057	63251	16.00R25 tire, 2nd~7th boom section are extended to 87 in. 3-axle dolly weighs 12125 lb.
State 3 24000lb axle load	25979	92789	55116	16.00R25 tire, 3-axle dolly weighs 12125 lb.
<b>With super lifting device equipped</b>				
14.00R25	-476	-952	0	
20.5R25	776	1376	0	

Note: the above are theoretical values, axle load may vary with the actual configuration of boom dolly.

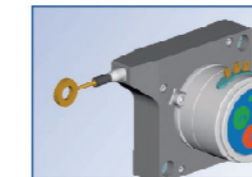
### Improved designs for North American driving habits

**Comfort:** Improved designs, such as imperial man-machine interactive interface, US principle braking system, electronic rearview mirror and reserved ports for attaching boom dolly, significantly satisfy the operating habits of North Americans.

**Safety:** FSG outrigger length detection system, outrigger pressure detection system, and several warning functions, such as braking disk abrasion warning, superstructure low slewing pressure warning (with DOLLY attached) are available, well ensuring the traveling safety.



- Imperial interactive screen, which is arranged based on American reading habits

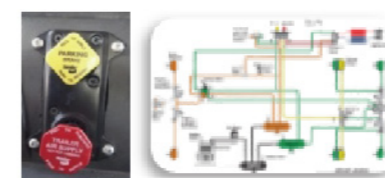


- FSG outrigger length detection system ensures lifting operation is safe and reliable



- JOST retractor;
- Ports is reserved for connecting electric circuits and gas circuits

- Conform to US braking principle, operating habits and safety messages



- Rearview plane mirror with electric heating function
- Driver's seat and co-driver's seat are air suspended with electric heating function
- Safety belt has safety warning function



- Braking disk has abrasion detection warning function
- 3-axle drive and 4-axle drive are interchangeable, robust power with low oil consumption

**Reliability:** Engines, transmission, axles, hydraulic pump and controllers are all supplied by well-known manufacturers. Parts and components, like glasses, safety belt, connectors, pipes and lamps, are authorized by DOT certificate.

- DOT certificated toughened glass
- DOT certificated safety belt
- Crane interiors go through the FMVSS 302 test
- Door locks and hinges go through the FMVSS 206 test
- Imperial connectors and pipes with DOT certificate
- Various tire configurations, rim is certified by DOT
  - 445/95R25 Michelin tire (aluminum alloy rim)
  - 385/95R25, 525/80R25 tire is optional
- GROTE lamps with DOT certificate

### Considerate human-oriented design

#### ▶ Human-computer interaction system from XCMG

It adopts integrated CAN bus control panel with 10.4 inch color touch screen equipped, interface is user friendly and operation is comfortable.

- Control panel for driving operation and lifting operation
- 12.3 inch color display with large mirror surface makes indication clearer
- First originated knob button control makes operation easier
- Ergonomically designed working space makes operation safer and more comfortable
- 10.4 inch color touch screen displays
- Newly designed chassis virtual instrument screen gives support to monitor chassis running state
- User friendly man-machine interaction due to 13 intelligent and informative interactive techniques
- Three control areas for safety protection, hoisting operation and operating environment brings convenient control

#### ▶ Intelligent boom system

With intelligent working condition planning technology applied, user only need to enter the critical hoisting information, the system will automatically recommend the optimal work condition, which can meet lifting demands. Information inquiry is quick and accurate.

Now	Before
<p><b>Automatic planning of working conditions</b></p> <p><b>YES</b></p> <p>Setting of working conditions</p>	<p><b>User's experience</b></p> <p><b>NO</b></p> <p>Unreliable experience</p>
<p><b>Input relate working information</b></p> <p><b>Recommended 10 optimum working conditions</b></p>	<p><b>Comparison of lifting load tables</b></p> <p><b>NO</b></p> <p>Time-consuming, laborious</p>
<p><b>Reliable, convenient and efficient</b></p> <p>When the related screen of rated load charts is displayed, users may select according to demands.</p>	<p>Depending on the lifting software in PC</p> <p><b>NO</b></p> <p>Inconvenient to carry a PC</p>

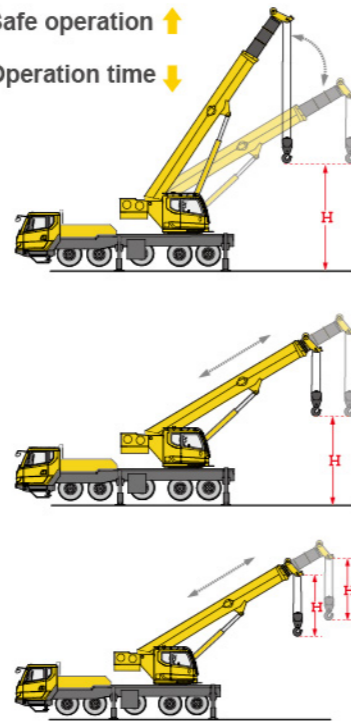
The query time is or less 10s; 10 optimal working conditions are recommended.

With the planning software used, user's operating practices will become standard, the operation safety will be improved, the most effective hoisting plans will be provided and the working efficiency will be increased.

With winch servo control technology applied, winch is automatically managed by control system during telescoping and elevating operation, which saves operation time over 40% and makes the operation more efficient and reliable through reducing operation difficulty and misoperation risk.

### Winch servo control technology

Safe operation ↑  
Operation time ↓

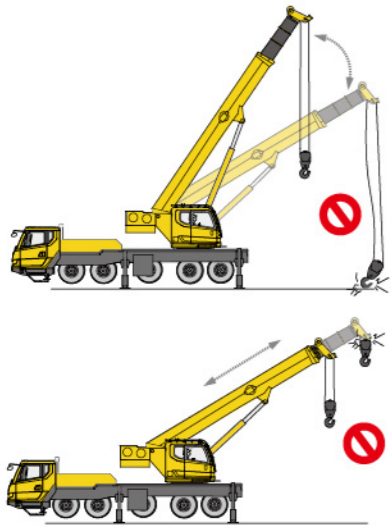


Hook height above the ground is not changed while elevating the boom

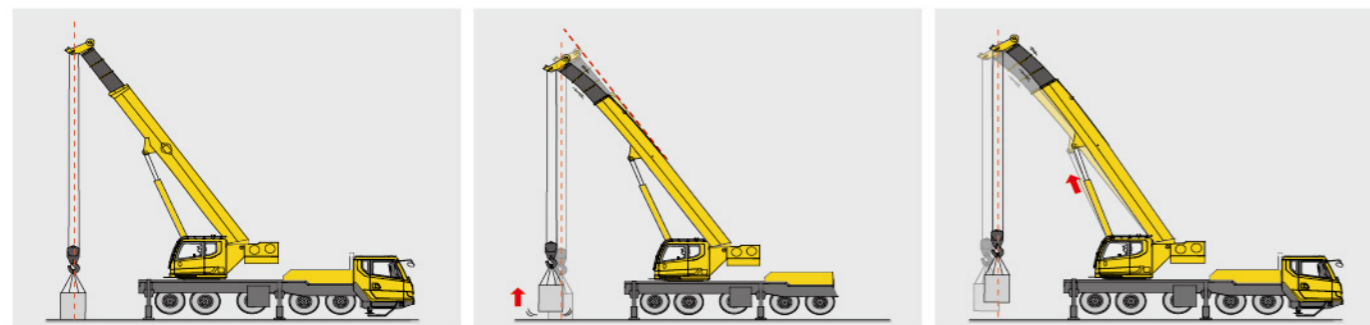
Hook height above the ground is not changed while telescoping the boom

Clearance between the hook and boom head is not changed while telescoping the boom

### Without winch servo control technology



With elevation compensation technology applied, elevation compensation caused by boom deformation can be achieved during hook block raising and lowering process through regulating the elevation angle of the crane. The technology can avoid increased buckling phenomenon of boom during vertical lifting operation and lower operational difficulty for operator. It makes the lifting operation easier and safer.



Preparation of lifting operation → Boom deformation while the load is off the ground → Vertical load lifting due to automatic elevating compensation

Parts and components are made of aluminium alloy: light weight, rust-proof; new water-proof chassis control panel and fully enclosed wire harness greatly increase the reliability.

### Efficient and easy self-assembly technology

- ▶ Self-assembly system is developed from the concept of efficient site transfer for large tonnage cranes, it allows counterweight assembly and disassembly without the support of auxiliary vehicle.
- ▶ 220461 lb counterweight consists of the base of 44093 lb and the slabs of 176368 lb, any several slabs can be used to work together without a combined sequence. Specialized sling is designed to greatly increase hoisting efficiency.



40 min

**Self-assembly of counterweight**  
New counterweight self-assembly system only takes 40min to finish the installation.

### New appearance and sophisticated quality

- ▶ G1 appearance design adheres to ergonomic principle and international design standard, for example, modern appearances of driver's cab and operator's cab, bionic design of head lamp inspired from "eagle's eyes" and engine hood design integrated with an unique element of "honeycomb". G1 appearance design perfectly integrates the power with visual gradation.
- ▶ Comprehensive ergonomic analysis, people-oriented and detailed design are embodied in the revolvable and flexible ladder, anti-skidding and anti-falling device for boom, foldable handrail and lattice jib device, etc. The natural design is considered from operator's eyes, easy to drive, operate and maintain.

### Brand new outline -- perfect performance is sourced from unique visual experience



### New appearance and outline

- Powerful structure
- Streamlined outline
- Superior parts and components

- Developed according to ergonomics principle
- Designed conforming to international standards
- Manufactured by excellent and exquisite



### Humanization Design

Comfortable and Safe

**TECHNICAL SPECIFICATIONS**

Main technical data table in travel configuration (Subject to technical improvement)

Category	Item	Unit	Parameter	
Dimension	Overall dimension (L×W×H)	ft	Boom head forward: 58×9.8×13.3	
	Wheel base	ft	5.4/10.2/5.4/8/5.4	
	Track (front/rear)	ft	8.5/8.3	
	Front overhang/ rear overhang	ft	8.8/7.7	
Weight	Total weight in travel configuration	lb	161820	
	Curb weight	lb	161467	
	Axle load (Boom head forward)	lb	1st/2nd/3rd/4th/5th/6th axle 27595/27595/26639/ 26639/26639/26639	
Power	Model	—	OM936LA.E4/3	
	Superstructure engine	Rated power/rotation speed	bhp/(r/min)	281.6/2200
		Max. torque/rotation speed	1bf.ft/(r/min)	848.2/1200 ~ 1600
	Chassis engine	Model	—	OM473LA.E4/1
		Rated power/rotation speed	bhp/(r/min)	576.6/1700
		Max. torque/rotation speed	1bf.ft/(r/min)	2028/1300
Travel speed	Total displacement	gal	4.1	
	Emission standard	—	EPA Tier 4 final/ CARB Tier 4 final/EU Stage IV	
Travel	Max. travel speed	mph	445/95R25, 525/80R25 tire: ≥55.9; 385/95R25 tire: ≥51.5	
	Min. stable speed	mph	≤1.24	
	Min. turning diameter	ft	≤75.5	
	Min. ground clearance	in	445/95R25, 525/80R25 tire: ≤15.2; 385/95R25 tire: ≤13.2	
	Approach angle	°	445/95R25, 525/80R25 tire: ≤15.2; 385/95R25 tire: ≤13.2	
	Departure angle	°	445/95R25, 525/80R25 tire: 16 385/95R25 tire: 15	
	Max. grade ability	%	445/95R25, 525/80R25 tire: ≥52 385/95R25 tire: ≥60	

Due to manufacturing errors exist, all parameters about GVW, curb weight and axle load in the sample has the permissible tolerance of 3% .

Main technical data table for lifting operation (Subject to technical improvement)

Category	Item	Unit	Parameter		
Main performance	Max. total rated lifting capacity	USt	331		
	Min. rated working radius	ft	9.8		
	Turning radius at turntable tail (counterweight)	ft	19		
	Max. load moment	Base boom	1bf.ft	6837181	
		Fully-extended boom	1bf.ft	4150988	
	Outrigger span	Longitudinal	ft	29.3	
		Lateral	ft	28	
	Hoist height	Base boom	ft	53.5	
		Fully-extended boom	ft	259.5	
		Fully-extended boom + Jib	ft	367.5	
Boom length	Base boom	ft	49.2		
	Fully-extended boom	ft	262.5		
	Fully-extended boom + Jib	ft	370.1		
Jib offset angle	°	0, 20, 40			
The time for boom raising	s	≤85			
The time for boom fully extending	s	≤900			
Working speed	Max. slewing speed	r/min	≥1.2		
	Outrigger beam	Retract	s	≤40	
		Extend	s	≤70	
	Outrigger extending and retracting time	Outrigger jack	Retract	s	≤40
		Extend	s	≤70	
	Hoisting speed (single line, 5th layer)	Main winch	No load	fpm	≥416.7
Auxiliary winch		No load	fpm	≥416.7	
Noise	Inside the operator's cab	dB(A)	≤85		

**LIFTING LOAD TABLES**

**XCA300U Rated lifting load table for boom**

Lifting load table without counterweight, (Lifting load in lb\*1000, boom length and radius in ft)

Boom working condition with fully-extended outriggers, 360° slewing operation and counterweight of 0 lb																	
R/L	49.2	65.6	65.6	65.6	82.0	82.0	82.0	98.1	98.1	98.1	114.5	114.5	114.5	130.9	130.9	130.9	147.3
9.8																	
11.5	303.1																
13.1	286.6	275.6	261.2	297.6													
14.8	253.5	255.7	235.9	264.6													
16.4	220.5	220.5	222.7	218.3	220.5	222.7	220.5										
19.7	191.8	191.8	196.2	194.0	189.6	191.8	196.2	191.8	187.4	191.8							
23.0	141.8	144.4	154.3	150.8	137.8	146.2	153.2	144.2	135.8	146.6	171.5	140.0	159.8				
26.2	94.1	98.8	104.9	104.3	88.8	95.9	102.1	94.6	87.7	96.8	99.2	91.3	107.8	97.9	106.3	114.9	
29.5	63.9	68.3	76.3	73.6	63.9	70.1	75.6	67.0	60.8	66.8	71.0	63.9	78.7	67.9	75.4	83.1	75.2
32.8	44.5	50.9	56.0	55.1	44.8	50.5	55.6	47.6	41.9	49.4	51.4	44.8	58.4	50.7	57.5	64.6	56.9
36.1	28.7	33.1	40.1	37.5	30.9	36.8	41.9	32.8	26.9	34.4	37.5	28.7	44.1	34.6	41.7	48.7	44.1
39.4	23.4	27.8	32.8	30.6	25.8	31.7	36.8	26.7	20.7	28.2	30.4	23.8	37.5	27.3	34.4	41.4	35.9
42.7		19.8	23.8	21.6	15.4	22.0	24.3	17.6	13.2	19.8	22.0	15.4	26.5	19.8	24.3	31.1	26.5
45.9		16.5	21.4	19.2	13.0	18.5	22.9	15.9	10.6	17.4	19.2	13.2	25.8	16.5	22.9	29.3	24.3
52.5		9.0	13.4	11.5	4.4	6.6	11.0	7.3		8.8	9.5	4.9	13.4	7.7	11.7	17.6	17.6
59.1							6.2				4.4		8.8		6.6	11.0	11.0
65.6												4.4			6.6	5.1	
72.2																	
Combination	000000	001000	000010	000100	110000	011000	001100	111000	210000	021000	111100	211000	011110	211100	111110	011111	111111

Boom working condition with fully-extended outriggers, 360° slewing operation and counterweight of 0 lb																	
R/L	147.3	147.3	163.7	163.7	163.7	180.1	180.1	180.1	196.2	196.2	196.2	212.6	212.6	212.6	229.0	229.0	245.4
9	67.7	63.1															
10	50.0	46.3	56.0	51.8	58.2												
11	37.5	33.1	41.2	37.0	44.1												
12	29.1	25.1	35.1	30.9	37.3	32.2	29.5	35.3									
13	21.4	17.6	26.0	22.0	26.5	24.3	21.8	26.5									
14	17.9	14.3	21.4	17.4	23.1	20.9	18.3	23.6	21.2	19.8	24.9						
16	11.0	6.6	14.6	11.0	16.1	13.0	10.8	15.7	14.1	12.1	16.8	14.6	18.1	20.9			
18	4.9		7.7	4.4	9.5	7.1	5.1	9.3	7.5	6.4	10.8	8.8	12.1	15.0	9.9	13.2	
20					4.4			4.6			4.9	4.4	6.6	9.5	4.4	6.6	7.7
22											4.4	5.1			4.4	4.4	
Combination	211110	221100	211111	221110	121111	221111	222110	122111	222111	222210	122211	222211	122221	112222	222221	122222	222222

Lifting load table with full counterweight

Boom working condition with fully-extended outriggers, 360° slewing operation and counterweight of 220461 lb																	
Radius	Boom length ft																
	49.2	65.6	65.6	65.6	82.0	82.0	82.0	98.1	98.1	98.1	114.5	114.5	114.5	130.9	130.9	130.9	147.3
9.8	303.1																
11.5	303.1	303.1	297.6	303.1													
13.1	303.1	303.1	286.6	297.6													
14.8	303.1	303.1	269.0	297.6	284.4	284.4	284.4										
16.4	303.1	299.8	242.5	297.6	275.6	284.4	275.6	245.8	245.8	245.8	205.0	205.0	205.0				
19.7	299.8	299.8	216.1	275.6	253.5	264.6	264.6	242.5	238.1	233.3	205.0	205.0	200.6	184.1	184.1	156.5	
23.0	275.6	266.8	187.4	264.6	253.5	260.1	242.5	220.5	218.3	213.4	205.0	200.6	194.0	176.4	184.1	149.9	
26.2	253.5	242.5	176.4	229.5	229.1	231.7	220.7	212.7	211.4	199.3	198.4	197.3	187.4	165.3	176.4	143.3	122.1
29.5	227.1	220.5	156.5	211.2	207.2	210.3	202.2	203.7	201.1	184.5	187.4	185.2	169.8	159.5	165.3	132.3	116.6
32.8	198.4	187.4	143.3	194.4	181.9	187.4	185.2	184.1	181.7	165.6	172.0	169.3	159.8	151.5	158.7	124.6	110.2
36.1	176.4	169.8	132.3	176.4	169.8	172.0	177.5	170.6	167.1	153.0	165.3	162.0	148.8	136.7	147.7	117.9	107.6
39.4	162.0	154.3	121.3	159.8	149.9	155.4	157.9	156.3	151.7	141.3	149.9	147.9	138.2	128.6	138.9	109.6	101.0
42.7		142.2	110.2	143.7	140.7	142.0	143.7	132.7	130.1	128.3	138.9	134.5	128.1	119.1	127.9	103.6	94.8
45.9		127.0	102.5	131.4	125.7	127.9	133.6	123.7	122.6	121.3	127.9	125.7	122.6	114.1	119.1	94.8	93.6
52.5		105.8	90.4	110.2	106.3	110.7	115.7	108.5	105.6	107.8	108.0	105.8	110.2	97.7	101.4	86.0	87.2
59.1					90.4	95.7	97.0	92.4	89.9	93.0	92.6	90.4	95.0	81.3	84.9	75.0	78.0
65.6					75.4	82.5	86.0	81.4	75.0	80.9	79.4	76.7	83.3	73.5	77.2	73.9	78.0
72.2								69.7	65.9	70.5	68.3	67.2	73.9	64.6	68.3	65.9	69.0
78.7								56.4	57.3	60.4	60.6	56.2	66.4	55.9	59.5	63.9	61.7
85.3								51.8	48.5	53.4	53.8	51.1	57.5	49.4	52.9	58.0	53.4
91.9											46.3	44.5	50.7	43.7	47.4	53.6	50.0
98.4											41.4	37.5	43.7	38.1	41.9	49.2	45.4
105.0											37.3	33.1	39.0	33.7	37.5	42.5	43.9
111.5													29.5	33.1	38.1	38.8	
118.1														26.5	28.7	33.5	35.9
124.7																	32.6
131.2																	29.8
Combination	000000	001000	000010	000100	110000	011000	001100	111000	210000	021000	111100	211000	011110	211100	111110	011111	111111

Lifting load table with full counterweight

Boom working condition with fully-extended outriggers, 360° slewing operation and counterweight of 220461 lb																		
Radius	Boom length ft																	
	147.3	147.3	163.7	163.7	163.7	180.1	180.1	180.1	196.2	196.2	196.2	212.6	212.6	212.6	229.0	229.0	245.4	262.5
26.2	134.5	125.7																
29.5	130.1	121.3	116.8	114.6	110.2													
32.8	125.7	116.8	114.6	112.4	110.2													
36.1	121.3	112.4	112.4	110.2	106.9	92.6	88.2	68.3										
39.4	116.8	108.0	105.8	108.0	102.7	92.6	88.2	68.3	71.6	68.3	66.4							
42.7	111.3	104.7	97.0	101.4	92.2	88.2	86.0	68.3	71.6	68.3	64.4							
45.9	105.8	99.2	96.1	99.2	90.6	86.0	83.8	66.1	71.6	68.3	62.6	55.6	48.7	43.2				
52.5	97.0	90.4	87.1	88.2	81.3	79.4	75.0	61.7	68.3	66.1	58.6	55.6	46.5	41.0	42.1	38.1		
59.1	88.2	79.4	79.4	77.2	70.5	72.8	68.3	60.0	63.7	61.9	55.1	52.7	44.1	39.0	42.1	36.8	33.1	26.9
65.6	81.6	74.1	71.2	66.1	66.1	62.8	61.7	55.6	60.6	58.6	51.1	48.9	42.1	36.6	40.1	35.1	33.1	26.9
72.2	70.5	64.8	65.0	61.7	60.4	58.4	55.1	52.7	57.3	54.0	47.2	47.0	39.7	34.6	38.8	33.3	32.4	26.7
78.7	63.9	56.9	57.1	54.7	51.4	54.0	50.7	50.5	52.7	48.9	44.3	44.3	37.5	32.4	36.6	32.0	31.1	26.7
85.3		49.4	54.0	49.8	48.5	48.9	46.3	46.3	46.5	44.3	41.2	42.3	35.3	30.9	35.3	30.0	30.2	24.7
91.9		46.3	48.3	44.1	44.5	46.3	43.2	40.1	44.1	40.3	39.0	39.7	33.3	28.2	34.2	28.7	28.4	24.5
98.4		41.9	43.7	41.9	43.2	42.8	40.1	36.4	39.7	37.5	35.9	36.8	31.3	26.2	33.7	26.2	28.4	24.0
105.0		37.7	38.8	35.3	40.3	39.0	36.6	34.2	37.5	34.8	33.7	34.6	29.3	24.7	31.7	24.5	27.3	23.4
111.5		33.3	37.3	33.1	39.7	35.3	32.6	32.4	34.2	30.9	31.5	32.4	28.0	23.6	30.2	23.1	25.1	22.7
118.1		30.9	32.2	28.7	35.7	33.7	30.4	29.3	32.0	28.7	30.0	30.4	26.0	22.3	28.7	22.3	24.0	21.8
124.7		27.6	29.1	28.2	33.1	30.0	26.7	26.9	29.8	26.5	28.2	27.8	24.0	21.4	27.1	20.9	22.9	20.9
131.2		23.1	26.5	25.6	28.9	26.5	24.9	26.5	26.9	24.3	26.5	25.4	22.3	19.8	25.6	19.8	22.0	20.1
137.8			24.3	22.0	26.9	24.3	22.0	25.6	25.6	23.1	24.7	23.1	20.9	19.2	23.8	18.7	21.2	19.4
144.4			22.0	19.8	26.5	23.1	21.4	23.4	24.3	21.8	22.3	21.4	19.8	18.1	22.0	17.6	19.6	18.3
150.9			19.8	17.6	24.5	18.7	17.6	22.3	22.0	20.1	21.2	20.5	18.5	17.6	21.2	16.5	18.1	17.0
157.5						17.0	15.9	20.5	20.1	17.6	20.1	19.6	17.4	16.5	19.6	15.4	16.8	16.1
164.0										17.6	16.5	19.2	18.7	16.1	16.1	18.3	14.3	15.2
170.6										15.9	15.4	18.1	15.7	15.4	18.1	17.2	13.9	14.1
177.2											13.2	12.3	16.3	14.6	14.3	16.8	13.0	13.2
183.7													13.7	13.7	14.1	15.2	12.6	12.6
190.3															13.2	14.3	11.7	11.7
196.9																13.2	11.0	11.0
203.4																	12.3	9.9
210.0																		9.3
216.5																		8.4
223.1																		7.1
229.7																		6.6
Combination	211110	221100	211111	221110	121111	221111	222110	122111	222111	222111	222210	222211	122221	112222	222221	122222	222222	333333

Rated lifting load table for boom+ fixed jib of XCA300U all-terrain crane

Lifting load table with full counterweight(Lifting load in lb\*1000, boom length and radius in ft)

Boom +118.1 ft jib, fully-extended outriggers, 360° slewing operation and counterweight of 220461 lb																		
Boom length	147.3+7			163.7+7			180.1+7			196.2+7			212.6+7			229.0+7		
	118.1ft			+118.1ft			+118.1ft			+118.1ft			+118.1ft			+118.1ft		
Radius/Angle	0	20	40	0	20	40	0	20	40	0	20	40	0	20	40	0	20	40
59.1	28.7																	
65.6	26.2																	
72.2	23.9			18.8														
78.7	23.0			18.7			17.9											
85.3	23.0			15.9			15.7			15.9			13.4					
91.9	20.7			15.9			15.7			14.8			13.4			7.9		
98.4	17.5	12.6		15.4			14.5			14.4			13.2			7.5		
105.0	17.4	11.7		13.8	10.4		14.0			13.0			12.4			7.5		
111.5	16.5	11.7		13.3	9.6		13.6	9.9		13.0			11.2			7.5		
118.1	15.4	10.9		12.8	9.7		13.1	9.3		11.2	9.5		8.7			6.6		
124.7	15.4	11.1		12.3	8.8		12.5	9.3		10.6	8.8		8.6	8.2		6.4	4.4	
131.2	14.0	10.3		11.7	8.5		10.4	8.6		10.5	8.6		7.3	8.2		6.4	4.4	
137.8	13.5	10.0		10.5	8.3		10.4	8.3		10.4	8.3		7.3	8.2		5.1	4.4	
144.4	11.9	9.9		10.1	8.4		9.6	8.1		8.3	8.1		5.7	7.7		5.0		
150.9	11.9	9.3		9.7	7.6		9.7	7.8		8.4	7.0		4.6	6.6				
157.5	11.9	9.0		8.7	7.3		9.0	7.5		6.9	6.6			6.2				
164.0	10.5	8.7		8.6	7.0		8.6	7.3		6.3	6.6							
170.6	10.3	8.5		8.0	6.7		8.0	6.6		5.8	5.7							
177.2	10.4	8.2		7.7	5.5		7.4	6.2		4.4	4.4							
183.7	9.4	7.2		7.3	5.5		6.9	6.2										
190.3	9.1	7.3		6.6	5.1		6.2	4.4										
196.9	8.8	6.6		6.7	5.1		5.6	4.4										
203.4	7.4	6.6		6.2														
210.0	6.6			5.6														
Combination	211110			211111			221111			222111			222211			222221		



**Rated lifting load table for boom+ super lifting device**

Lifting load table with full counterweight(Lifting load in lb\*1000, boom length and radius in ft)

Boom + super lifting device, fully-extended outriggers, 360° slewing operation and counterweight of 220461 lb

		Boom length ft											
Radius	98.1	98.1	98.1	114.5	114.5	114.5	130.9	130.9	130.9	147.3	147.3		
23.0	231.5	220.5	227.1	167.1	205.5	204.6	187.4	176.4	174.2				
26.2	218.3	207.2	216.1	160.9	194.2	192.9	169.8	176.4	167.6	132.3	154.3		
29.5	207.0	183.0	205.0	154.3	187.4	187.6	165.3	165.3	163.1	121.3	149.9		
32.8	187.4	176.4	185.2	149.9	180.3	181.9	165.3	154.3	153.4	110.2	145.5		
39.4	164.2	155.2	158.7	149.9	163.1	165.3	151.2	142.2	149.5	105.8	137.8		
45.9	146.6	134.5	133.4	148.8	139.3	141.5	141.1	137.1	140.2	101.4	131.4		
52.5	121.3	110.2	112.7	134.0	116.8	120.2	132.3	115.3	123.5	97.0	119.7		
59.1	105.8	92.6	92.8	112.4	99.6	102.5	110.5	101.4	108.0	92.6	101.2		
65.6	92.6	79.8	84.2	99.2	86.6	88.4	101.0	88.4	91.9	88.2	87.3		
72.2	79.4	63.7	67.9	85.8	71.2	75.8	86.4	73.6	79.8	86.0	75.8		
78.7	68.3	53.4	56.7	77.2	60.4	62.0	76.3	62.2	67.9	77.4	67.9		
85.3	57.3	42.8	46.3	67.2	49.6	56.0	67.9	53.4	58.2	68.3	55.3		
91.9				58.9	40.1	46.3	59.7	44.8	49.6	59.7	49.2		
98.4				51.8	34.6	37.9	52.7	40.8	44.3	56.2	43.2		
105.0							46.5	34.4	39.2	49.8	36.8		
111.5							41.0	29.5	33.5	44.5	31.7		
118.1							36.4	24.3	29.8	40.1	27.1		
124.7										35.7	23.1		
131.2										32.0	19.8		
137.8										25.4	15.9		
Combination	000210	210000	111000	221110	000022	211000	111100	002210	211100	222111	111110	000222	211110

Boom + super lifting device, fully-extended outriggers, 360° slewing operation and counterweight of 220461 lb

		Boom length ft													
Radius	163.7	163.7	180.1	180.1	180.1	196.2	196.2	196.2	212.6	212.6	229.0	229.0	245.4	262.5	
29.5	124.1	132.3													
32.8	119.3	128.5	91.5	110.2	117.9										
39.4	116.4	123.0	88.2	106.9	110.2	84.9	90.4	99.2	67.2	78.9					
45.9	111.1	117.7	84.9	102.3	105.8	83.8	89.5	96.1	65.0	76.7	55.6	66.1			
52.5	106.3	110.2	81.6	95.9	100.3	82.7	87.3	92.2	62.8	74.5	53.4	63.9	56.2	47.8	
59.1	99.6	103.4	78.3	90.4	95.9	81.6	83.8	86.2	60.6	72.3	51.1	61.7	56.2	46.3	
65.6	92.6	96.1	75.0	85.3	89.7	80.5	78.3	81.8	58.6	69.9	48.9	59.5	55.1	43.2	
72.2	79.8	84.7	73.9	78.5	81.6	79.4	76.3	78.5	56.4	67.7	47.2	57.5	54.0	42.1	
78.7	68.8	73.9	73.9	69.4	72.3	78.3	70.5	71.0	54.2	65.3	45.0	55.3	52.9	40.8	
85.3	58.6	62.2	64.6	60.4	62.8	69.0	62.4	64.6	52.2	62.8	43.9	53.1	51.8	39.5	
91.9	50.0	55.3	59.3	51.8	53.6	62.6	53.8	56.7	50.0	56.4	43.0	50.3	50.7	38.1	
98.4	47.4	48.7	54.0	46.3	47.0	55.3	48.5	49.8	47.6	51.8	41.7	47.8	49.6	37.0	
105.0	41.0	43.2	48.3	40.6	40.8	51.1	41.9	43.4	46.1	45.2	40.1	44.8	46.3	35.7	
111.5	35.7	37.9	45.0	35.5	36.4	45.6	37.3	39.0	43.0	39.7	38.8	41.9	42.3	34.4	
118.1	31.3	33.5	41.0	31.3	33.3	41.0	32.0	33.3	39.7	35.7	37.7	37.5	38.6	33.1	
124.7	26.7	29.5	36.6	26.9	29.8	36.6	29.1	30.9	35.7	31.7	35.3	34.2	35.7	31.7	
131.2	22.9	26.2	33.5	23.4	26.2	32.8	25.8	27.1	32.0	27.1	32.2	30.6	31.3	30.6	
137.8	19.4	22.7	30.2	21.2	22.5	29.5	22.9	24.3	28.4	24.5	29.8	27.1	28.7	29.5	
144.4	16.3	19.8	27.3	18.1	20.3	26.5	19.4	21.2	25.8	22.5	26.5	23.8	25.4	26.5	
150.9	13.4	17.0	24.7	15.4	17.6	24.3	16.1	18.3	23.8	19.8	24.0	21.2	22.9	23.4	
157.5			22.3	12.8	15.0	22.0	14.1	15.9	20.5	17.6	21.6	19.0	21.4	21.2	
164.0			19.4	10.4	12.1	20.3	12.1	13.9	18.3	15.4	19.6	17.0	19.0	19.4	
170.6						18.1	9.7	11.2	17.2	13.2	17.6	15.0	17.9	17.6	
177.2						16.8	8.8	9.9	15.7	11.7	15.9	13.0	16.5	15.9	
183.7						15.4	6.6	8.6	13.9	9.5	13.9	11.2	15.2	15.0	
190.3									12.8	7.9	12.1	9.5	13.7	13.9	
196.9									11.0	6.6	10.8	8.2	11.9	12.6	
203.4											9.3	6.8	10.6	11.2	
210.0											7.7	5.3	9.3	9.9	
216.5													7.1	8.6	
223.1													5.7	7.3	
229.7														6.2	
Combination	221110	211111	002222	221110	221111	012222	222210	222111	112222	222211	122222	222221	222222	333333	

**Rated lifting load table for boom+ super lifting device + jib**

Lifting load table with full counterweight (Lifting load in lb\*1000, boom length and radius in ft)

Boom + super lifting device + 118.1 ft jib, fully-extended outriggers, 360° slewing operation and counterweight of 220461 lb																					
Boom length	147.3+7			163.7+7			180.1+7			196.2+7			212.6+7			229.0+7			245.4+7		
Jib length	+118.1ft			+118.1ft			+118.1ft			+118.1ft			+118.1ft			+118.1ft			+118.1ft		
Radius/Angle	0	20	40	0	20	40	0	20	40	0	20	40	0	20	40	0	20	40	0	20	40
59.1	30.9																				
65.6	27.3			25.6																	
72.2	26.0			23.4			22.7			22.0											
78.7	24.3			23.4			21.6			21.2			18.7			12.1					
85.3	20.9			20.9			20.7			18.7			17.6			11.5					8.6
91.9	19.8	12.6		19.8			18.3			17.6			15.4			11.0					8.4
98.4	18.7	11.7		17.9	10.8		17.6			15.7			14.8			10.6					6.6
105.0	17.6	11.0		17.0	10.8		16.8	10.8		15.7			14.1			9.9					6.0
111.5	15.9	9.9		16.1	9.3		14.8	10.6		14.3	10.1		13.7			7.5					6.0
118.1	15.0	9.9		14.6	9.0		14.8	10.6		13.9	9.9		13.2	9.5		7.5	5.1				4.6
124.7	13.7	9.7		14.6	9.0		13.4	9.9		13.2	9.9		12.6	9.0		6.6	5.1				4.4
131.2	13.7	8.6	4.9	13.0	8.2	4.9	12.8	9.5		12.6	9.3		10.4	8.8		6.6	4.9				4.5
137.8	12.3	8.2	4.4	12.6	7.9	4.6	12.3	9.3	4.9	12.1	9.3	4.6	10.1	8.4		6.0	4.6				
144.4	11.7	8.2	4.4	11.9	7.5	4.6	10.8	9.0	4.9	11.7	8.8	4.6	9.5	7.5	4.4	5.7	4.6				
150.9	11.0	7.3	4.4	11.5	7.3	4.4	10.8	8.6	4.6	9.9	8.4	4.4	9.5	7.3	4.4	5.3	4.4				
157.5	10.6	7.1	4.4	9.9	7.1	4.4	10.6	8.2	4.4	9.7	7.9	4.4	8.6	6.6	4.4	5.3					
164.0	10.1	6.8	4.4	9.9	6.8	4.4	9.5	7.9	4.4	9.0	7.7	4.4	8.2	6.6	4.4	5.1					
170.6	9.5	6.4	4.4	9.9	6.4	4.4	9.3	7.1	4.4	9.0	7.1	4.4	7.7	5.5	4.4	4.9					
177.2	8.6	6.2	4.4	8.6	6.4	4.4	8.6	7.1	4.4	8.4	6.6	4.4	7.5	5.5	4.4	4.4					
183.7	8.4	6.0	4.4	8.4	5.3	4.4	8.4	6.8	4.4	7.9	6.6	4.4	7.3	5.3		4.4					
190.3	7.5	5.3	4.4	8.4	5.3	4.4	7.9	6.2	4.4	7.5	5.7	4.4	7.1	5.1		4.4					
196.9	5.7	5.3	4.4	7.3	5.3	4.4	6.6	5.7	4.4	6.6	5.3	4.4	6.6	4.4		4.4					
203.4		5.1	4.4	5.5	4.9	4.4		5.3	4.4	5.3	5.3	4.4	5.7	4.4							
210.0		5.1	4.4		4.9	4.4		4.9	4.4		4.9		4.4	4.4							
216.5		4.9			4.9			4.4			4.4										
223.1		4.4			4.6			4.4			4.4										
229.7					4.6			4.4			4.4										
Combination		211110			211111			221111			222111			222211			222221				222222

**Note**

- ▶ Total rated load shown in the tables is the maximum lifting capacity when the crane is set up on firm and level ground, including the weight of hook block and slings.
- ▶ The working radius shown in the tables is the radius when load is lifted off the ground, and is the actual value including loaded boom deflection. So boom deflection should be taken into consideration before lifting operation.
- ▶ Lifting operation is permissible only when wind force is below grade 5 (The instantaneous wind speed for 3 seconds is 46ft/s).
  - Work condition for boom or independent boom head:
    - when boom length L≤66ft, instantaneous wind speed V≤46ft/s;
    - when boom length L≤98ft, instantaneous wind speed v≤42ft/s;
    - when boom length L≤197t, instantaneous wind speed v≤36ft/s;
    - when boom length L> 197t, instantaneous wind speed v≤30ft/s.
  - Work condition for jib: instantaneous wind speed v≤30ft/s.
- ▶ Before lifting operation, operator should know the weight of load to be lifted and its working range, and then select proper working condition. Never operate the crane beyond the limit shown in tables. Use the next lower value when boom length or working radius is between the figures in the tables.
- ▶ Observe the boom angle limit. Never operate the crane with the boom angle beyond limit even if without a load applied. Otherwise, tipping of the crane will occur.
- ▶ Lifting performance of single top is the same to the boom, but max. lifting capacity should be no more than 24691.9lb.

**SCHEMATIC DIAGRAM OF THE VEHICLE**

