

# UCX300

HYDRAULIC WHEEL CRANE

## Specifications

•We are constantly improving our products and therefore reserve the right to change designs and specifications without notice.  
•Units in this catalog are shown under International System of Unit; the figures in parenthesis are under Gravitational System of Units as old one.  
•Illustrations may include optional equipment and accessories, and may not include all standard equipment.

Address inquires to:

**Hitachi Sumitomo Heavy Industries  
Construction Crane Co., Ltd.**

12-14, Ueno 7-chome, Taito-ku, Tokyo 110-0005, Japan  
Phone: 81-3-3845-1387 Facsimile: 81-3-3845-1394

[www.hands-crane.com](http://www.hands-crane.com)

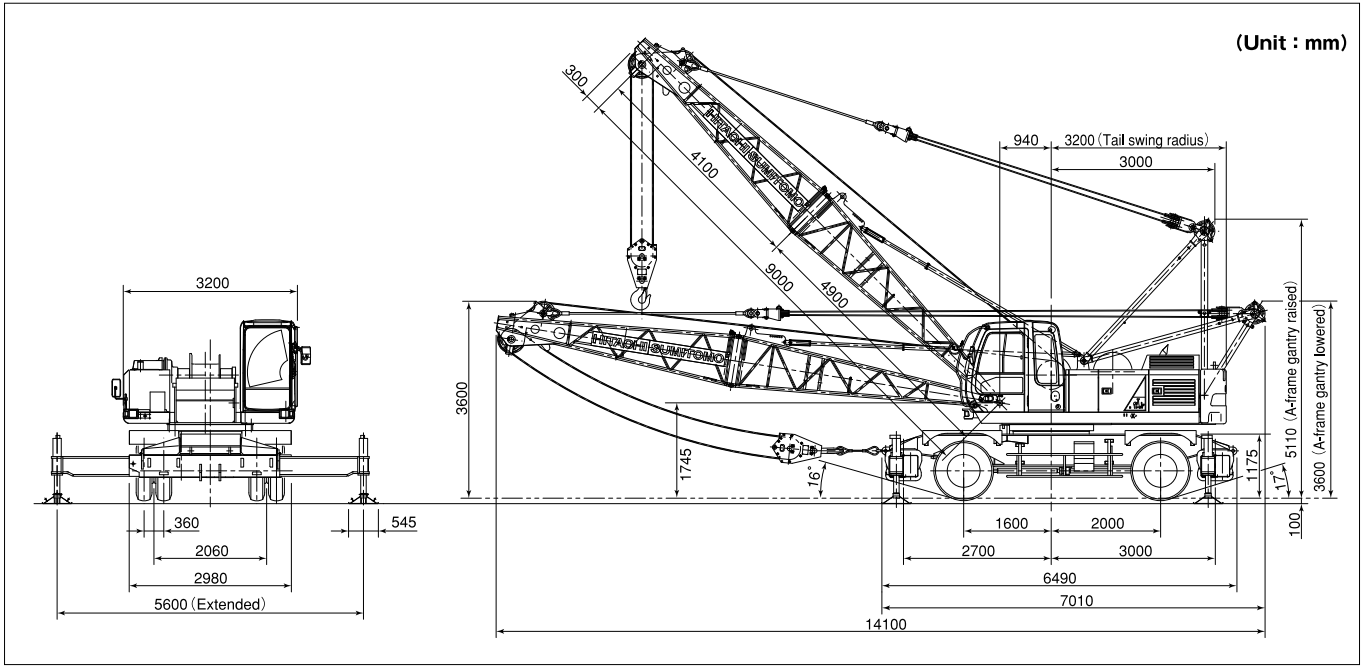


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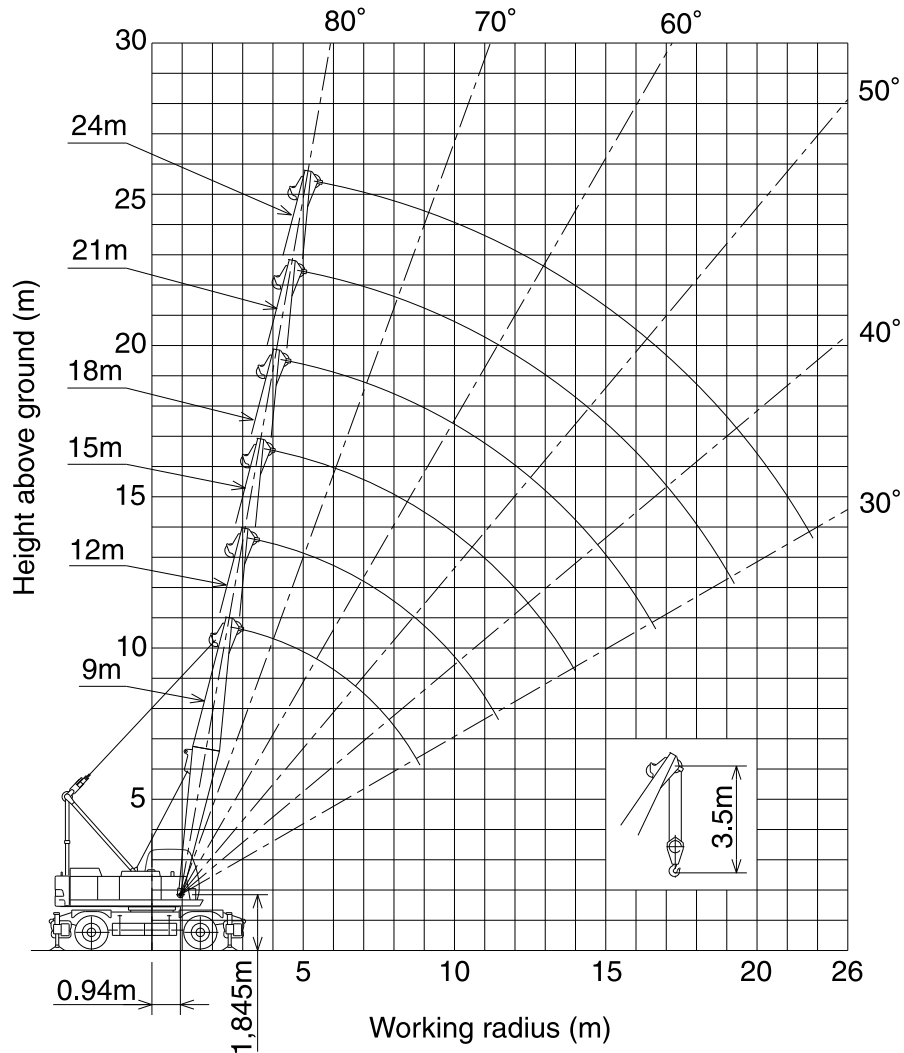
Max. lifting capacity		• 30ton x 3.0m
Attachment	Boom construction	• High tensile steel, lattice construction with in-line pin connections
	Basic boom length	• 9.0m (top 4.1m + bottom 4.9m)
	Boom extensions	• 3.0m, 6.0m (optional)
	Longest boom length	• 24.0m (9.0m basic boom + 3.0m ext. x 1pc. + 6.0m ext. x 2pcs.)
	Hook block	• 30ton with 3 sheaves
Crane working speeds	Winch line speed	• 105m/min under no load. At 5t rated line pull, line speed is approx. 72m/min.
	Line pull of winch drum	• Max.:107.0kN<10.9t> / Rated:49.0kN <5.0t>
	Boom hoist line speed	• 57m/min (with no load)
	Line pull of B/H drum	• Max.:87.0kN<8.9t>
	Boom hoisting time	• Approx. 13sec. (from 40° to 60° boom angle under no load)
Superstructure	Swing speed	• 4.0min <4.0rpm>
	Hydraulic system	• Two each of variable displacement axial piston pumps and fix displacement gear pumps. A 250-liter hydraulic reservoir is provided.
	Control system	• All hydraulic control system with two of pilot-operated universal joystic control levers for all crane motions.
	Winch drum	• Front winch with 504mm root dia. grooved drum lagging; driven by hydraulic motor through a reduction gear unit with internal, integral multiple wet-disc type automatic brake unit, and a drum pawl lock is provided as std.
	Boom hoist mechanism	• Boom hoist drum with 450mm root dia. grooved drum lagging; driven by hydraulic motor through a reduction gear unit with internal, integral multiple wet-disc type automatic brake unit. A drum pawl lock is available as std.
	Swing mechanism	• Driven by hydraulic motor through a reduction gear unit with spring-applied, power hydraulically released multiple wet-disc type brake for parking. A swing lock device is provided as std.
	Turntable bearing	• Single shear ball type; inner race with integral, internal swing (ring) gear bolted to chassis frame and outer race bolted to upper revolving frame. Swing pinion meshes with internal teeth of swing (ring) gear of turntable bearing in grease bath.
	Operator's cab	• An 1,000mm wide; acoustically treated, corner-rounded, all new stamped, automotive type, full-vision, fluid-filled elastic material mounted, well-ventilated, full compartment roomy operator's cab with large curved slide-up front window; provided with an arrangement of control station with two universal joystick levers, tiltable steering wheel and full reclining seat w/suspension mechanism and arm rests, a light green-tinted safety glasses on all 4 side window panels, a fully automotive air-conditioner with LCD monitor panel, Load Moment Limiter display panel, instrument panel with dial type engine accelerator, sunvisor, sunshade, two rear-view mirrors, intermittent type window shield wipers on front window w/washer, and engine acceleration foot pedal.
	Gantry	• Retractable A-frame gantry.
	Counterweight	• 4,000kg mounted on upper revolving frame rear end.
Engine	Make & model	• Isuzu AA-6BG1T, water-cooled, 4-cycle, in-line, 6-cylinder, direct injection diesel with preheater. A turbo-charger and inter-cooler are provided. Note:The engine meets current emission regulations of stage/tier 2 of Europe, America and Japan.
	Bore x stroke	• 105mm x 125mm
	Displacement	• 6,494cc
	Fuel consumption	• 237g/kW-h
	Rated output	• 110kW/2,100min <sup>-1</sup> <150ps/2,100rpm>
	Maximum torque	• 549N • m/1,600min <sup>-1</sup> <56kg-m/1,600rpm>
	Fuel tank capacity	• 360 liters
	Electric system	• DC24V

Undercarriage	Drive system	• Two axle with 4 x 4 x 2 drive and steer system; all 4 wheels are driven always when driving by a variable displacement axil piston hyd. motor.
	Transmission	• 2-stage; hydraulic remote control with power shift. A hydraulically controlled spring brake is provided for parking.
	Suspension	• An Oscillating type front axle is designed with center-pivot mechanism. On rear axle, a conventional type is designed without suspension mechanism.
	Tires	• 11.00-20-16 PR x 8 tires; dual on front and rear wheels.
	Brake system	• Hydraulically controlled multiple wet-disc brake on all 4 wheels is designed, and all brakes is actuated by fool pedal with dual brake lines; one is front wheel brake line and the other is for rear wheel brake line.
	Steering system	• ORBITROL, full hydraulic power steering with automatic steering direction compensator.
	Outrigger	• "H" type hydraulic outriggers with four of 545mm square pontoons; distance between front/rear outrigger is 5,700mm, and fully extended width is 5,600mm. Four beam and jack cylinders are simultaneously or individually controlled from a valve bank provided at center of left-hand side of undercarriage.
	Travel performance	• Travel speed; high-18km/h, low-4.6km/h
	Tread	• Front : 2.06m / rear : 2.06m
	Axle loading	• Front : approx. 12.2t / rear : approx. 16.3t (with 9.0m basic boom, 30t hook block and 4t counterweight)
	Wheel base	• 3,600mm
	Turning radius	• 9.9m (at center of outer steering wheel)
	Gradeability	• 16.7degrees
Cables	Front winch drum	• 6 x Fi(29) IWRC; 20mm dia. x 120m; breaking load 304kN <31.0t>
	Boom hoist drum	• 6 x WS(31) IWRC; 16mm dia. x 103m; breaking load 187kN <19.0t>
	Pendant	• 6 x Fi(29) IWRC; 30mm dia.; breaking load 596kN <60.8t>
Safety devices		• Load Moment Limiter; this is a computerized automatic over-load preventing device;
		• Boom over-hoist limiting device with alarm;
		• Boom back stops;
		• Boom hoist drum pawl lock;
		• Boom angle indicator;
		• Hook over-hoist limiting device with alarm;
		• Front winch drum pawl lock;
		• Swing lock;
		• Fool proof shuft-off system;
		• Level gauge;
Operating weight		• Hook latch;
		• Engine stop "T" knob;
		• Approx. 28.5t w/9.0m basic boom, 30t hook block and 4t counterweight.

Dimensions



Working ranges



Crane capacities

Working radius (m)	Boom length (m)					
	9.0	12.0	15.0	18.0	21.0	24.0
3.0	30.0	22.3/3.3				
3.5	26.0	22.3	22.0/3.8			
4.0	23.6	22.3	22.0	17.5/4.4	14.4/4.9	
5.0	20.0	19.0	18.3	17.5	14.4	14.3/5.4
6.0	17.0	16.0	15.6	15.2	14.4	14.3
7.0	13.7	13.5	13.4	13.2	13.0	12.9
8.0	11.0	11.0	11.0	11.0	11.0	11.0
9.0	9.5/8.8m	9.1	9.1	9.1	9.1	9.1
10.0		7.8	7.8	7.8	7.7	7.7
12.0		6.4/11.4m	5.9	5.9	5.9	5.8
14.0			4.8	4.7	4.7	4.6
16.0				3.9	3.8	3.8
18.0				3.7/16.6m	3.2	3.2
20.0					2.9/19.2m	2.7
21.8						2.4

- Notes:
- 1.Capacities include in this chart are the maximum allowable, and are based on machine standing level on firm supporting surface under ideal job conditions.
  - 2.Capacities are in metric tons, and are not more than 78% of minimum tipping loads except the figures surrounded by bold lines which are based on other factor of machine structural strength limitation.
  - 3.Capacities are based on freely suspended loads and make no allowance for such factors as the effect of wind, sudden stopping of loads, supporting surface conditions, and operating speed. Operator must reduce load ratings to take such conditions into account. Deduction from rated capacities must be made for mass of hook block, sling spreader bar, or other suspended gear.  
Hook block mass is as follows: 30t.....0.3t
  - 4.All capacities are rated for 360° swing.
  - 5.A 4t counterweight is required for all capacities on this chart.
  - 6.Outriggers must be fully extended for all operating conditions.
  - 7.Main boom length must not exceed 24.0m.

Standard and optional equipment

	STANDARD EQUIPMENT	OPTIONAL EQUIPMENT
Undercarriage	<ul style="list-style-type: none"><li>• 4 x 4 x 2 drive/steer carrier with dual tire of 11.00-20-16PR on all wheels; provided with an oscillating type front axle with center-pivot mechanism;</li><li>• Multiple wet-disc brake on all wheels with dual brake lines;</li><li>• "H" type hydraulic outriggers;</li><li>• Power steering with ORBITROL control unit;</li></ul>	<ul style="list-style-type: none"><li>• Spare tire;</li></ul>
Superstructure	<ul style="list-style-type: none"><li>• Front winch drum with automatic brake;</li><li>• Boom hoist mechanism with winch drum w/automatic brake, and A-frame gantry w/bail &amp; bridle assemblies;</li><li>• Swing mechanism with turntable bearing; provided with parking brake;</li><li>• Isuzu AA-6BG1T engine with a 360-liter fuel tank;</li><li>• Hydraulic system with two VPs, and two GPs, and a 250-liter hydraulic oil reservoir;</li><li>• An 1,000mm wide, all new stamped, automotive type, operator's cab; provided with two universal joystick levers, tilttable steering wheel, air-conditioner w/LCD monitor panel, L/M display panel, intermittent type window shield wipers on front window with washer, two rear view mirrors and reclining seat w/suspension mechanism, seat belt and arm rests;</li><li>• Foot operated &amp; dial type engine accelerators;</li><li>• Floor-mat &amp; under-cover;</li><li>• Sunvisor &amp; sunshade;</li><li>• AM-FM radio with digital clock , cigar lighter &amp; ashtray;</li><li>• Foot rest;</li><li>• Cup holder;</li></ul>	<ul style="list-style-type: none"><li>• Fire extinguisher;</li></ul>
Gauges/meters & interior lamps /lights	<ul style="list-style-type: none"><li>• Engine hourmeter;</li><li>• Speedometer;</li><li>• Hyd. brake pressure gauge;</li><li>• Auto-idle &amp; -acceleration lamp;</li><li>• Engine preheat lamp;</li><li>• Fuel gauge;</li><li>• Eng. oil filter clogging warning light;</li><li>• Eng. oil press. drop warning lamp with buzzer;</li><li>• Eng. over-heat warning lamp with buzzer;</li><li>• Brake press. drop warning lamp with buzzer;</li><li>• Alternator charge warning lamp;</li><li>• Travel motor warning lamp;</li><li>• Air filter clogging warning lamp;</li><li>• Fuel level warning lamp;</li><li>• Eng. coolant water temp gauge;</li><li>• Turn signals;</li><li>• Parking brake lamps;</li><li>• Lever shift lamps;</li></ul>	
Exterior lamps	<ul style="list-style-type: none"><li>• Two turn signal lamps (front/rear);</li><li>• Two brake lamps;</li><li>• Two head lamps;</li><li>• Two tail lamps;</li><li>• Two back lamps;</li><li>• Two side marker lamps;</li><li>• Cab interior lamp;</li><li>• Working light;</li></ul>	

	STANDARD EQUIPMENT	OPTIONAL EQUIPMENT
Safety devices	<ul style="list-style-type: none"><li>• Load Moment Limiter;</li><li>• Hook over-hoist limiting device with alarm;</li><li>• Boom over-hoist limiting device with alarm;</li><li>• Front winch drum pawl lock;</li><li>• Boom hoist drum pawl lock;</li><li>• Fool proof shut-off system;</li><li>• Hook latch;</li><li>• Swing lock;</li><li>• Boom angle indicator;</li><li>• Level gauge;</li><li>• Boom back stops;</li><li>• Engine stop "T" knob;</li></ul>	
Front-end attachment	<ul style="list-style-type: none"><li>• 9.0m basic boom;</li><li>• 30t hook block with 3-sheave;</li><li>• Main hoist cable, 20mm dia. x 120m;</li><li>• Boom hoist cable, 16mm dia. x 103m;</li></ul>	<ul style="list-style-type: none"><li>• 3.0m boom extention;</li><li>• 6.0m boom extention;</li><li>• Boom buffer;</li></ul>
Miscellaneous	<ul style="list-style-type: none"><li>• Std. Spare parts and tools;</li><li>• Std. Painting;</li></ul>	<ul style="list-style-type: none"><li>• Refuel pump;</li></ul>