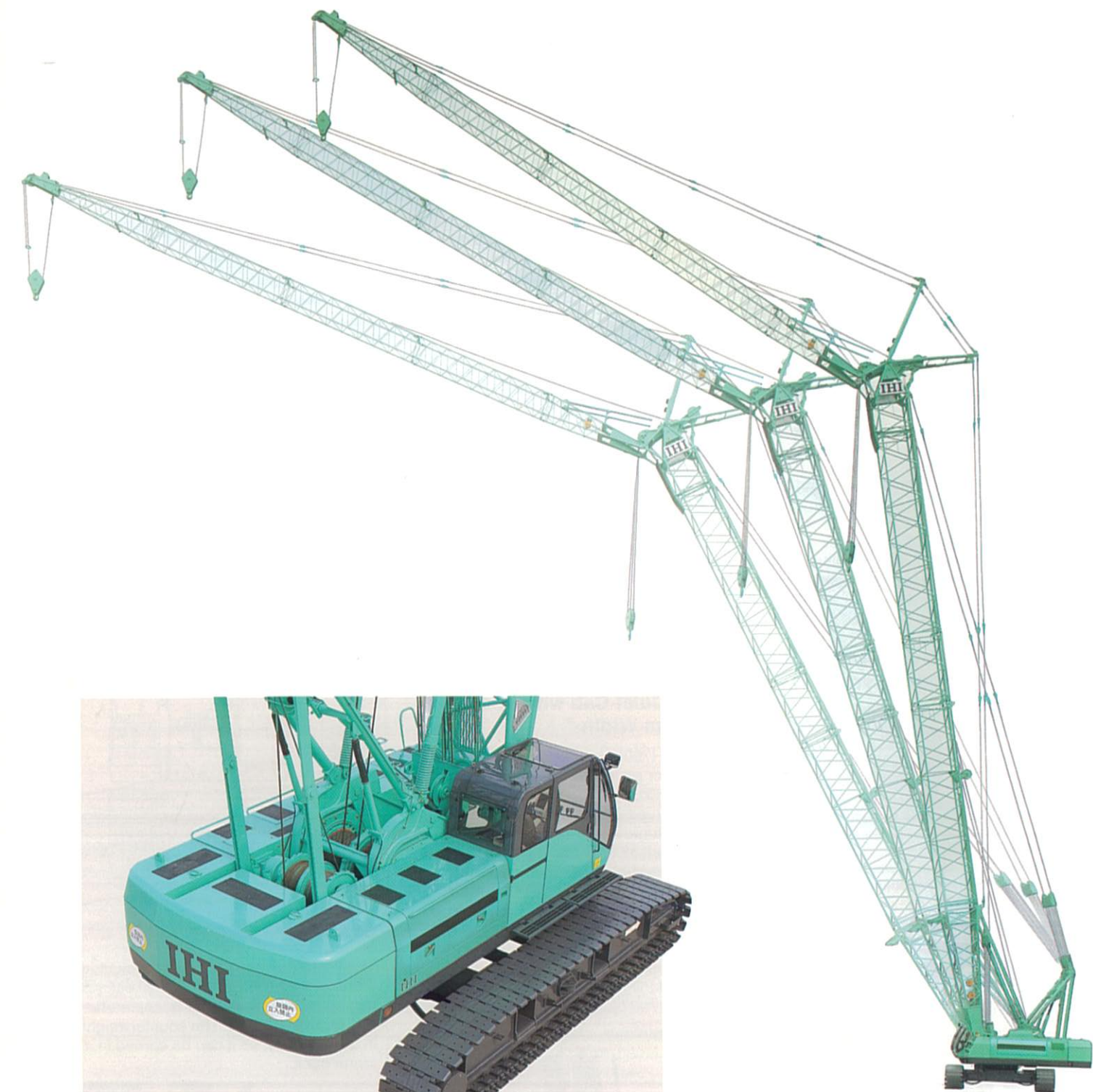


CCH700

Fully Hydraulic Crawler-Spanner Crane

Lifting capacity 70 metric tons



CCH700
(including optional equipment)

IHI IHI Construction Machinery Limited
9-7, Yaesu 2-chome, Chuo-ku, Tokyo 104-8480, Japan
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Specifications are subject to change without notice due to technical improvements or modifications.
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The CCH700 Is Here!

Two Essential Functions in One Dependable Crane.
It's a New Era of Performance and Convenience.

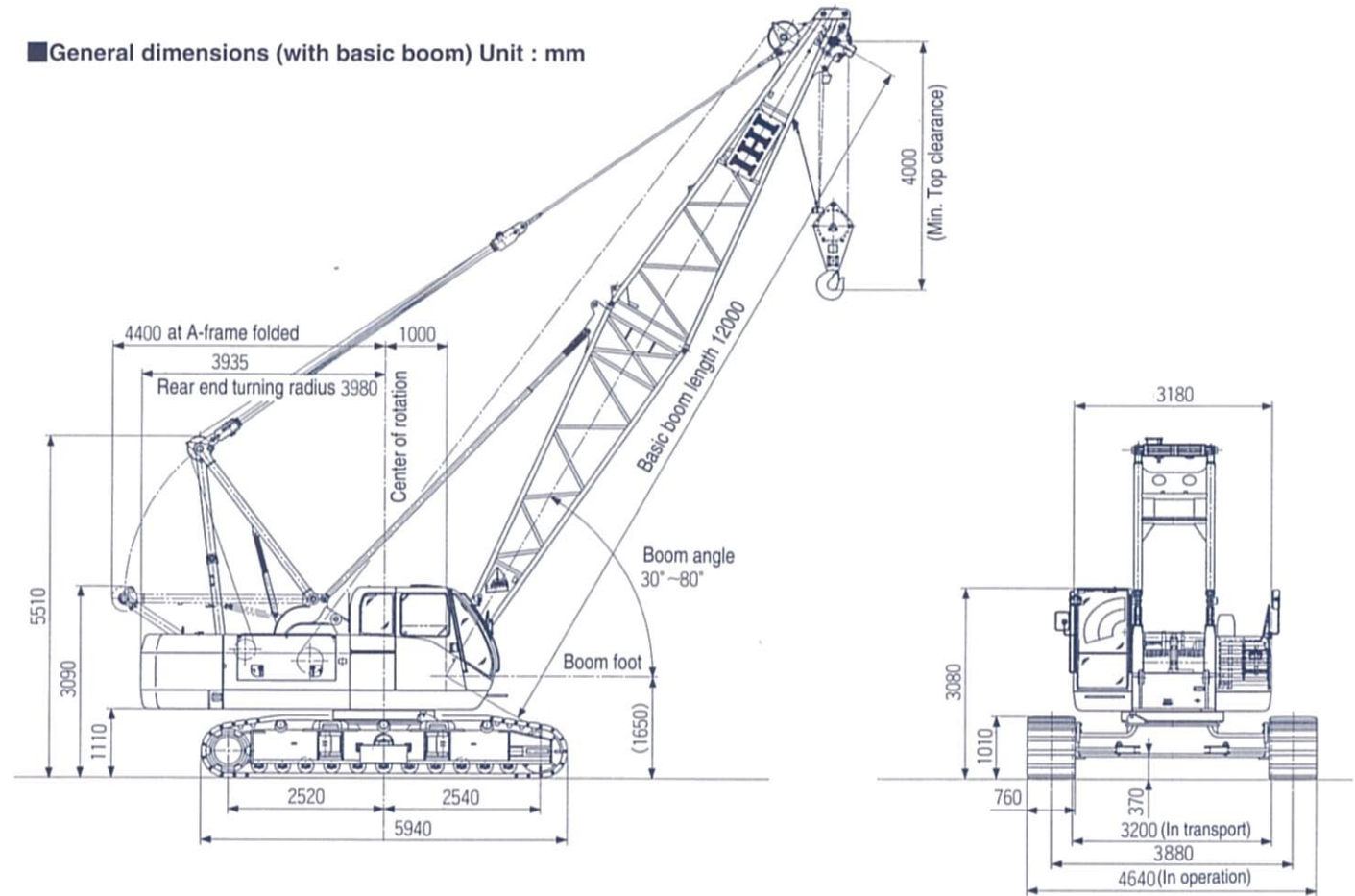
IHI Construction Machinery Limited has created a newly designed crane with revolutionary performance. The CCH700 hydraulic crawler crane offers top-class lifting performance, and its Luffing Jib Attachment can handle both a main and jib hook at the same time. That means that you can choose the best hook for your lifting load and working range. And since one crane does the work of two, there's no need to switch machines for different applications – that's a great advantage, especially at tight job sites. The CCH700 is also easy to assemble, disassemble, and transport, and it's been specially designed for safe operation and excellent harmony with the natural environment. With the CCH700, you'll be entering a new era of crane operations.



Crane

CCH700

■ General dimensions (with basic boom) Unit : mm



Specifications

Performance	
Swing speed	3.3 rpm
Travel speed	*2.0/1.3 km/h (1.24/0.8 mph)
Gradeability	40% (Approx. 22°)
Engine	
Make	HINO MOTOR
Model	HO7CT(with turbo) diesel engine 4-cycle, water cooled, overhead valve
Type	Direct injection diesel engine
Total piston displacement	6.728 ℓ
Rated output	132.4 kW (180 PS) /2100 rpm
Fuel tank capacity	240 ℓ
Battery	12 V×120 AH×2 pcs.
Load hoist system (Main & Aux.)	
Hydraulic motor	Variable displacement axial piston type
Reduction gear	One-stage planetary gear and single stage spur gear
Hoist drum	Dual drums on inline individual shaft, independent hydraulic motor driven, lagging type with lebus grooved drum
Clutch	Internal expanding band type
Brake	External contracting type
Drum lock	Ratchet lock
Hydraulic pump	Variable displacement axial piston type×2 Gear pump×3
Boom hoist system	
Motor	Axial piston type
Reduction gear	Two stage planetary gear
Hoist drum	Lebus grooved drum
Brake	Automatic spring - loaded hydraulically released wet type multi-disk
Drum lock	Ratchet lock

* Travel speed changes depending on the load.

Standard equipment

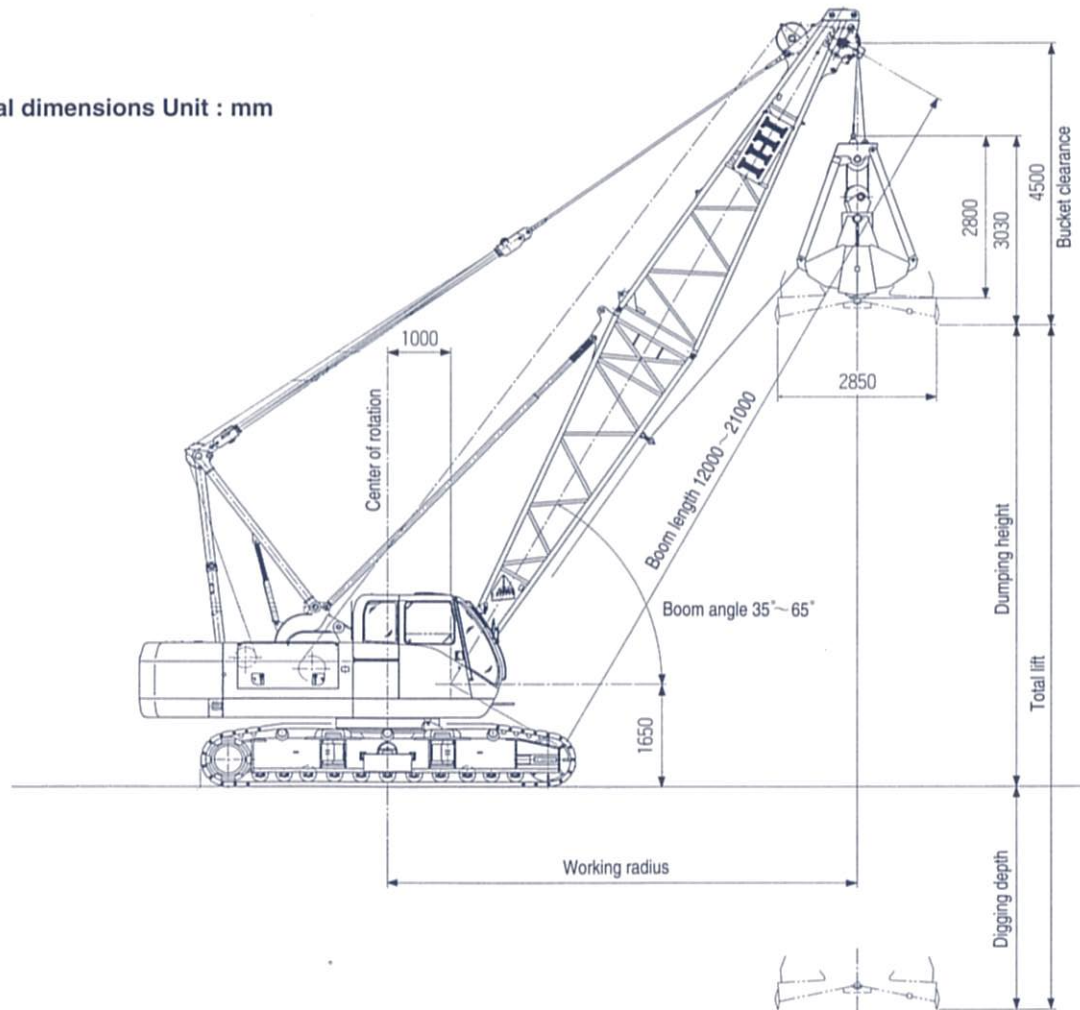
- Instrument for crane
- Engine tachometer (Hour meter), Hydraulic oil pressure gauge (for control circuit), Fuel level gauge
- Engine coolant thermo indicator indicated
- Engine oil pressure indicator bar graph
- Hydraulic oil thermo indicator in OK monitor
- Lighting for crane
- Work light 24 V×80 W×2
- Room light 24 V×10 W×1
- Safety device
- Automatic stop for hook overwinding, Automatic stop for boom overwinding, Telescopic boom limit stop, Swing lock, Main and Aux. drum lock, Boom hoist drum lock, 2nd. boom stop device(82° non-resetable), Clutch engage pin on main and auxiliary winch, Safety valve for hydraulic circuit, Counter balance valve, Control lever locking device
- Other standard accessories
- Windshield wiper, Roof glass wiper, Sunvisor, Reclining operator's seat, Floor mat, Steps for operator's cab (foldable type), Radio, Cigarette lighter, Ash tray, Rearview mirrors (R/L), Horn, Swing warning flasher, Travel warning flasher, Low-noise cab, Wire mesh boom walkway (for inner boom), Fuel filling pump, Automatic brake system, Hydraulic assist brake (Main and Auxiliary), Winch mode selector (Main and Auxiliary), Electrical engine throttle control dial switch, Engine throttle pedal, Automatic engine throttle deceleration system, Ultra low speed control, Travelling lever lock, Toggle switch with safety lock, Storage pouch, Sun shade, Bronze tinted glass, Plug socket (24 V), Foot rest, Rope guide roller on boom back (one pc.)
- *A* frame (High gantry) erecting device

Optional equipment

- Moment limiter (overload prevention)
- Warning at 90% of rated load, Warning at optionally set boom angle, Shockless stop, load hoist and boom hoist or lowering at limited condition
- Moment limiter display on out side of cab
- Yellow rotary light
- Wireless phone
- Bullhorn
- Combustion type heater

- Defroster
- Spark arrester
- Digging depth /Lift indicator (with bucket opening angle indicator)
- Electrical type level indicator
- Level vial
- Fire extinguisher
- Monitor TV (watching rear, left and drum)
- Drum rotation roller (Main and Aux. drum)
- Drum mirror
- Catwalk
- Large size tool box (installed on car body)
- Third drum (with clutch and brake : type A)
- Third drum (automatic brake : type B)
- Auxiliary winch for reeling main rope
- Hydraulic power take off (A Spec.) 300 kg/cm²×225 ℓ /min (B Spec.) 210 kg/cm²×125 ℓ /min
- Anemometer (for tower crane)
- Airplane warning lamp
- Boom point clearance lamp
- Drum light
- Work light on boom
- Work light for rear direction
- Rope guard for boom top surface
- 3 m, 6 m, 9 m, insert boom with pendant rope
- Cab protector
- Drum shell for bucketwork
- Inspection lamp
- Name plate (both sides of outer boom)
- Wire mesh walk way on boom back (outer and insert boom)
- Safety guard on boom back
- Rope guide roller on boom back (additional)
- 9 m basic jib boom. 3 m, 6 m, insert boom with pendant rope
- Fulcrum plate for raising of attachment (Standard accessory for Luffing crane and crane w/long boom)
- Swing service brake
- Constant swing speed control
- Swing brake at neutral position
- 1 m jib
- 45 ton hook block (3 sheaves)
- 35 ton hook block (3 sheaves)
- 25 ton hook block (3 sheaves)
- 15 ton hook block (1 sheave)
- 6.5 ton hook block (for jib)
- Air conditioner

General dimensions Unit : mm



Specifications

Max. lift above ground	16.0m (21m boom + 1.2m ³ bucket)
Rope speed	Bucket closing *110/80 · 55/40 m/min
	Bucket holding *110/80 · 55/40 m/min
	Boom hoist and lowering *60 m/min
Part line	Bucket closing 6 (for all types bucket)
	Bucket holding 1 (for all types bucket)
	Boom hoist 14
Counterweight	25ton
Total operating weight (with 21m boom + 1.2m ³ bucket)	65.4ton (Approx.)
Average ground bearing pressure	0.79kgf/cm ²

* : The rope speed changes depending on the load.

Bucket specifications

Classification	Type	Capacity (m ³)	Weight (t)	Purpose
Optional	GP	0.8	1.6	General purpose (heavy load handling)
Optional	GP	1.0	2.0	
Standard	GP	1.2	2.3	Wide rehandling (medium load rehandling)
Optional	WR	1.2	1.6	
Optional	WR	1.6	2.0	

Wire rope

Place of use	Rope diameter (mm)	Guaranteed strength (t)	Rope type
Bucket closing	φ 22	36.3	IWRC 6×Fi (29)
Bucket holding	φ 22	36.3	IWRC 6×Fi (29)
Boom hoist	φ 16	21.9	IWRC 6×P · WS (29)
Boom suspension	φ 34	86.7	IWRC 6×Fi (29)
Tagline	φ 10	5.5	6×19

Working range and rated loads (with 25ton counterweight)

Boom length (m)	12.0				15.0				18.0				21.0			
	35°	45°	55°	65°	35°	45°	55°	65°	35°	45°	55°	65°	35°	45°	55°	65°
Working radius (m)	11.2	9.9	8.3	6.6	13.7	12.0	10.1	7.8	16.1	14.2	11.8	9.1	18.6	16.3	13.5	10.4
Rated lifting load (ton)	6.0				6.0				6.0				6.0			
Total lift (m)	36.0	36.0	36.0	36.0	30.0	33.0	33.0	33.0	30.0	30.0	30.0	30.0	27.0	27.0	27.0	27.0
Max. dumping height (m)	3.8	5.4	6.8	7.9	5.5	7.5	9.2	10.6	7.2	9.6	11.7	13.3	8.9	11.8	14.1	16.0
Max. digging depth (m)	32.2	30.6	29.2	28.1	27.5	25.5	23.8	22.4	22.8	20.4	18.3	16.7	18.1	15.2	12.9	11.0

Notes

- Rated lifting loads are the upper limit of the "bucket weight + load" during clamshell work.
- Use a bucket suitable for the kind of load required so that rated load figures in the table are not exceeded.
- The maximum dumping height is for a standard 1.2m³ bucket.
- The maximum digging depth is for standard wire rope length as follows.
 - Bucket closing 70m
 - Bucket holding 58m
 - Tag line 50m
- Hydraulic tagline is standard with 50m rope.

Independent In-Line Main & Auxiliary Winch Drums "double wing"

The identical main and auxiliary winch drums have the same width and are arranged in-line. This design makes them very easy to use, because they can be operated simultaneously and independently for any work situation. The ample space in front of the drums allows easy access for cable loading and other maintenance.



Powerful, High-Speed Winding Devices

The CCH 700 has high line pull, and the clutches, brakes, and other structural and hydraulic components are tough, sturdy, and able to withstand continuous operation under even the toughest conditions. The four-speed drum has a maximum setting of 110 m/min., the highest in its class.

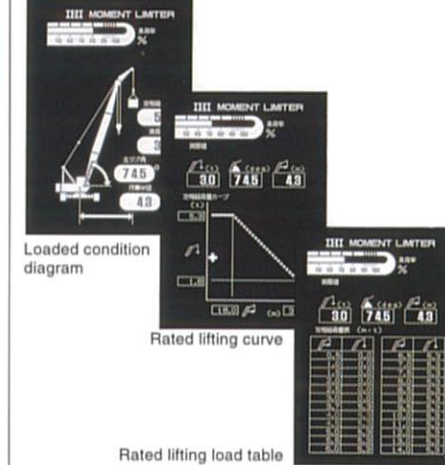
Two-Speed Travelling Mechanism with Shoe-in Type

The travelling mechanism is designed to be set within the width of the shoes, so there's no risk of damage to the travelling motors or reduction gears even when moving across uneven ground. And the two travelling speed settings allow the operator to select the best speed and power level for any ground condition.



Moment Limiter with Graphic Display

The moment limiter has a graphic display with interactive screen. Using a panel switch, the operator can select from three display modes: loaded condition diagram, rated lifting curve, and rated lifting load table. In the case of overload, the analog reading, boom angle, and other information appear in large graphic characters for easy reading. It is also possible to set the maximum and minimum boom angles. When the boom reaches either limit, the display blinks as a warning.

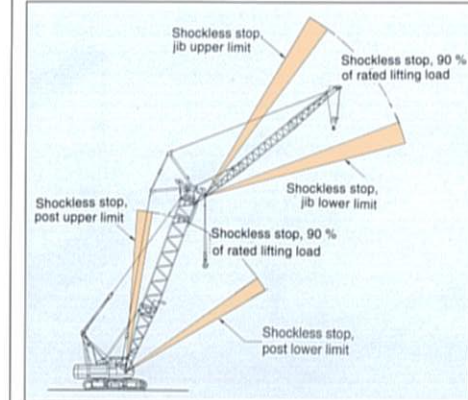


New, Quiet Cab with Spacious 940-mm Width

The CCH700's cab is built in low gravity design for good stability and balance while still providing a full 360° viewing range. Wide curved windows on both the top and bottom improve the view even more. There's also bronzed tinted glass to diffuse sunlight and a side door to shut out external noise. The lever boxes are located in the optimal positions on both sides of the operator's seat. In fact, the entire spacious interior has been designed for quiet, comfortable operation. In addition, the unique design and innovative coloring help the CCH700 blend in with its environment.



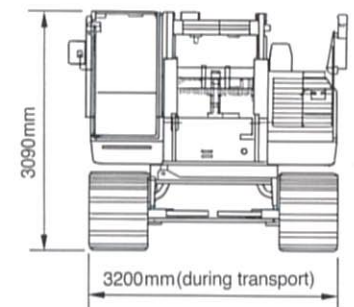
Shockless Stop System to Reduce Shocks



Sudden automatic stop during the operation of a crane not only cause the load to swing but also can be very dangerous. When the CCH700 loaded exceeds the 90% of rated lifting load or approaches the upper or lower limits of the boom and tower jib angle, shockless stop gradually retard the operating speed in order to reduce shocks.

Smallest Transport Dimensions in its Class

The transport width of the CCH700 is 3200 mm, so it fits easily onto regular trailers. And since its transport height is only 3090 mm, the total height is less than 3800 mm when the crane is loaded on a 700 mm low-bed trailer.



Piled up Counterweight

Thanks to the Piled up counterweight, the crane can be assembled and disassembled safely and easily, and the transportation is much more efficient. The counterweight is in three blocks, so it can be carried in a 10-tonne truck.



Smallest Tail Swing Radius in its Class

The entire crane has been made more compact so it can operate even in tight spaces. In fact, that CCH700's 3,980-mm tail swing radius is the smallest of any crane in its class.