

IHI



All-Purpose Telescopic Crane

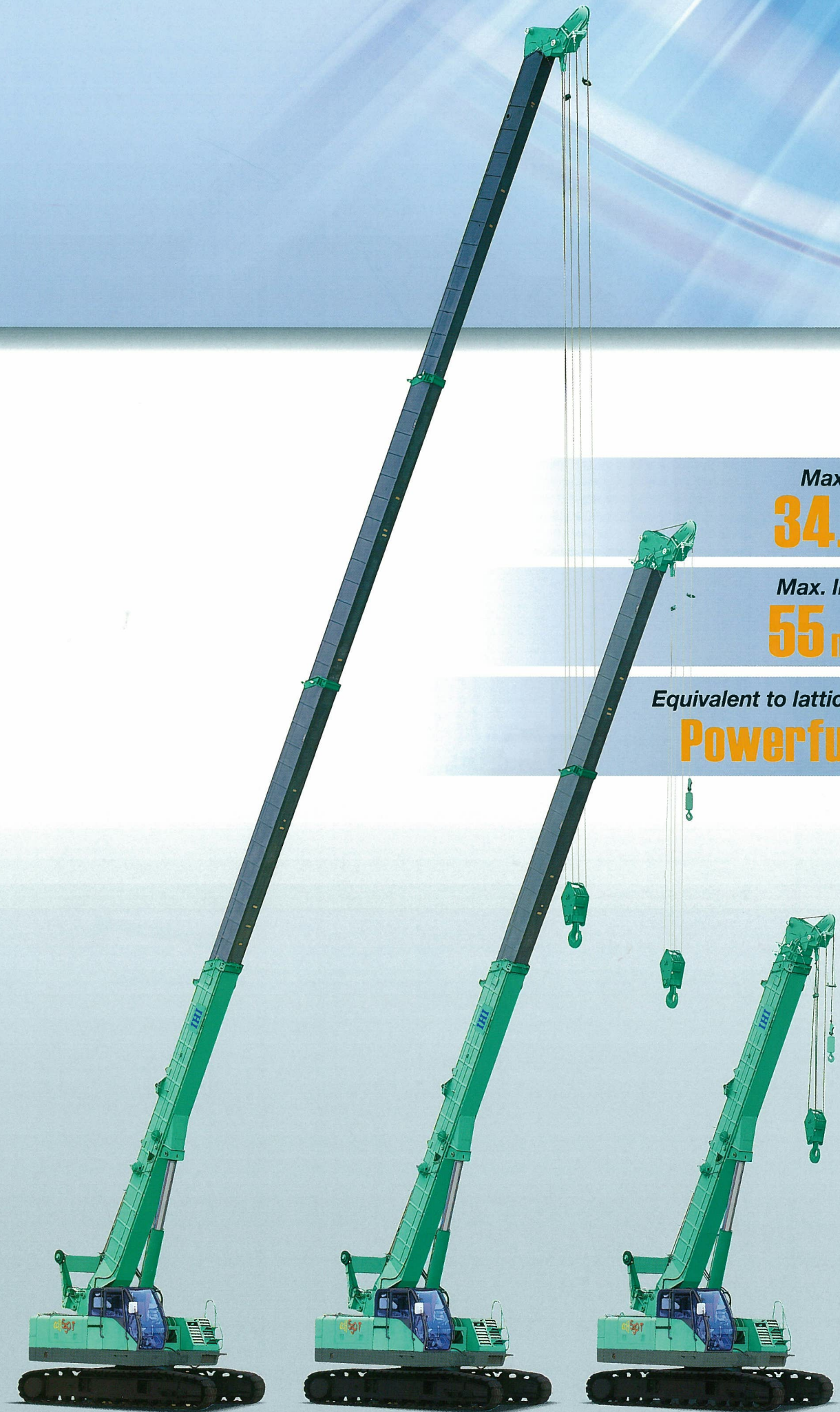
# CCH 550 T

# Concentrated know-how. Packed with power. The IHI CCH550T Telescopic Crane.

Longest telescopic boom. Powerful winch. Multi-direction wide view.  
CCH550T offers a higher level of on-site usability.

## Safe and Sure, CCH550T's 5 Major Features.

- 1** | 34.4m boom length for longest reach in its class. Telescopic boom for broad range of working possibilities.
- 2** | Minimal time and space requirements for on-site boom assembly and disassembly. Automatic attachment/detachment of counterweight also available (option).
- 3** | Speedy traveling and high all-round safety both realized. Sturdy, rugged construction of crawler provides stable travel.
- 4** | Dedicated IHI hydraulics system for independent operation of boom extension/contraction and erection. Assures smooth operation even when complicated mixed movements are required.
- 5** | Use of attachments such as vibro and auger is possible. Internal hydraulics makes it possible to operate a variety of equipment.



Max. boom length

**34.4 meters**

Max. lifting capacity

**55 metric tons**

Equivalent to lattice boom crane

**Powerful winch**

# Usability that Goes Beyond. Agility that Moves Ahead. IHI Technology Conquers Your Foundation Work.

## OPERABILITY



### Complicated Operations Made Smooth and Simple

Boom extension/contraction and erection can be operated independently of other movements. Since extension/contraction and erection can be done simultaneously in a single combined movement, it's easy to precisely set up the positions of front attachments. Boom erection can be done using the control lever or left foot pedal so it's possible to combine with other complicated movements.

### Minimal Fatigue Operating Position

Rotating lever is located close to the operator's seat so even long hours of operating can be done with much less fatigue. The engine throttle can be controlled using either the rotating grip on the lever or the right foot pedal so you can freely choose which according to your current task.

### Operator's Seat with Wide View in Any Direction

The front side of the operator's cab features curved glass windows from top to bottom to ensure great visibility in all directions. Also by keeping the height of the engine room as low as possible, it's able to maintain a clear view to the rear and to the left of the operator's seat as well.

### Comfortable Operator's Cab

The cab has a width of 940 mm, so you can operate in a quiet, spacious environment. External air intake type air conditioner compatible with HCFC alternative refrigerants is equipped as standard.

## USABILITY

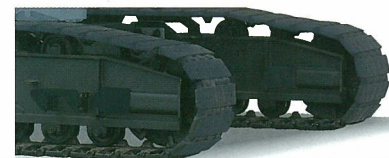
### Class Leading Boom Length of 34.4 m

Taking advantage of the long reach that's tops in its class, as well as the telescopic boom's ability to freely extend/contract, this crane accommodates a wide variety of work situations.



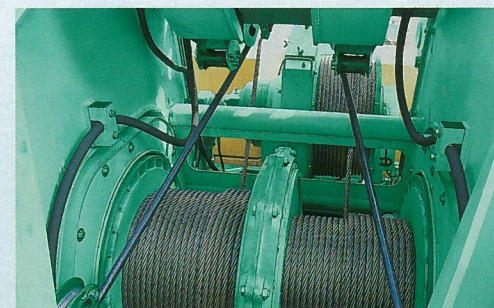
### Stable and Agile Footwork

Thanks to the robust crawler unit, you can count on quick and stable traveling on uneven terrain. Incorporates a spanner mechanism to enable a slim 3200mm width for easier transport. The compact body is among the smallest in its class, with a tail swing radius of 3780mm. It really shows its worth in tight construction spaces.



### Powerful Winch Ready to Perform

Equipped with a powerful winch equivalent to a lattice boom crane. High-power design to handle digging jobs too. And since it's full horse power driven, engine output can be efficiently used.



### Accommodates a Variety of Construction Methods

Standard-equipped with large capacity hydraulic PTO (24.5 – 15.7MPa/240 – 460L/min) capable of driving various different equipment, which can be removed from the end of the first boom. It can be used as the power source for vibro or auger for a wide range of applications. A high-performance third winch drum (option) with free fall can also be installed.



## TRANSPORTABILITY

### Advantages of Telescopic Boom

The freely expanding/contracting telescopic boom requires no boom joint. This not only contributes to reduced assembly/disassembly time on site, but also helps to minimize the number of trucks needed to transport so you can greatly reduce set-up costs. Also there is no need for boom storage space while not in use.

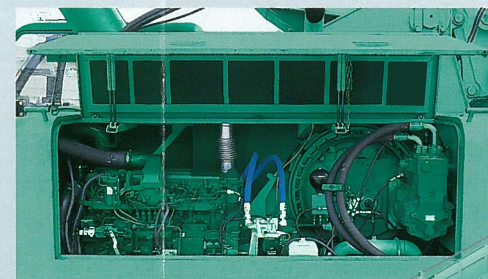
### Counterweight Automatic Loading (option)

Using the mechanism that's on the main body, you can easily and precisely load the counterweight even if there is no crane for it. Operation is controlled using a pendant type electrical remote control, so the operator can safely load with visual confirmation.



### Hatch Type Large Door

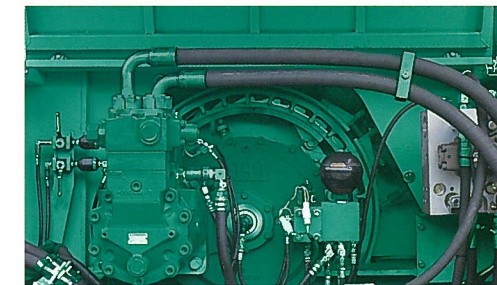
A large hatch type access door has been adopted for the engine room. This simultaneously opens up the top and the side to create a roomy maintenance space. The boom is equipped with a hanger piece for easy assembly and disassembly.



## SAFETY

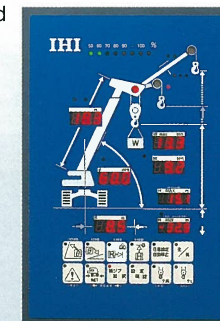
### Switching of Winch Brake

Switching of the Winch Brake mode (auto brake mode / pedal activated mode) is done using the key switch. To disable free fall, remove the key to assure safety. Even when using free fall with the key inserted, an interlock mechanism ensures that the brake circuit is not released unless the operator actually steps on the brake pedal. Safety is doubly assured.



### Moment Limiter to Advise Safe Lifting

- When the weight of hoisted cargo surpasses 90% of maximum load it sounds an alarm, and at 100% it automatically stops the crane.
- Digital display makes it easy to understand the operating status.
- Audible messages alert operational status (switchable to buzzer).
- Auto stop when transporting, disabling of alarm is done using key switch for safety.
- During foundation work, possible to select "Foundation Mode" only for the warning using the key switch.

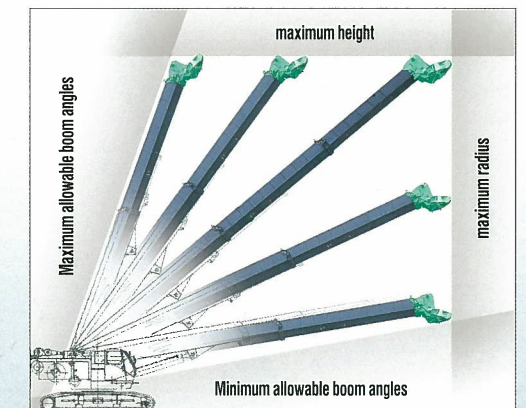


### Alarm to Alert Those in the Vicinity

When the engine is turned on, during travel operations and rotate operations, an alarm is sounded to alert those around you. If unnecessary, it's possible to choose the no-alarm mode. For travel and rotate operations, you can switch to a buzzer sound as well. The rotate flashers also help to visibly alert people during rotate operations.

### Work Area Setting Function (Adopted for Moment Limiter)

It's possible to set beforehand the maximum and minimum allowable boom angles, as well as maximum radius and maximum height. A warning is sounded before these levels are surpassed, and the crane automatically stops. (Warning-only setting is also available.) Especially helpful in cases where there are height limitations or obstacles.



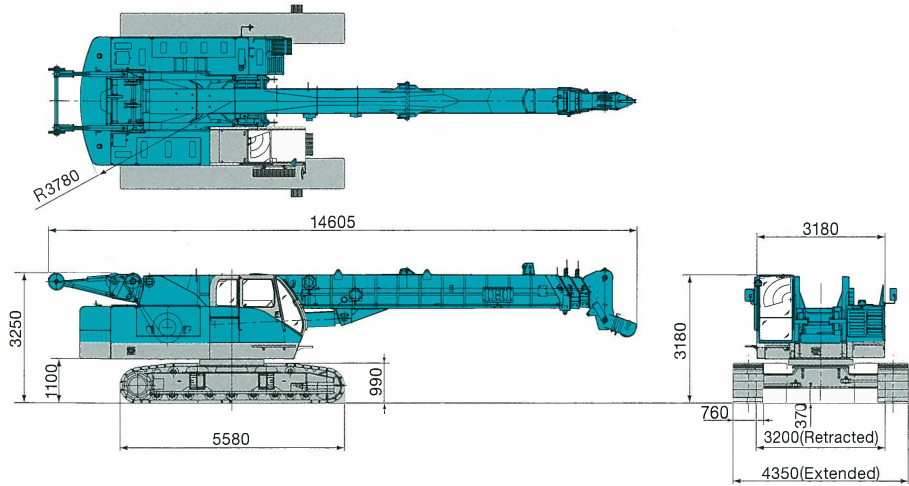
### Seat Lock Mechanism and Auto Operation Drum Lock

The Seat Lock mechanism senses when the operator leaves the seat; when no weight is sensed the limit switch automatically goes OFF and all operations are stopped. The Drum Lock mechanism automatically locks the drum when the engine starter key is turned OFF, helping to eliminate any chance of forgetting to lock the drum.

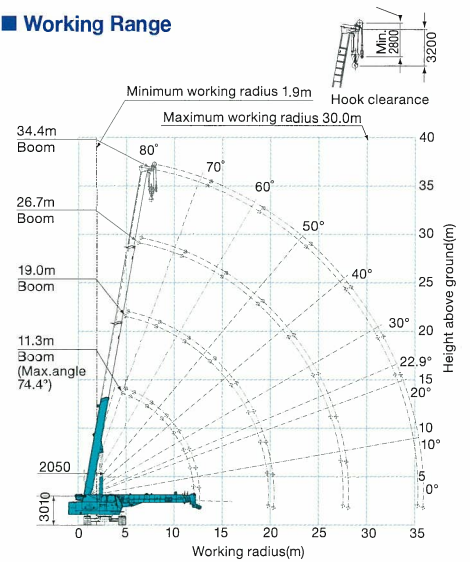
## Eco-friendliness and safety

For environmental consideration, the CCH50T is designed to comply with low noise regulations for construction equipment specified by Japanese Ministry of Land, Infrastructure and Transport.

## ■ Dimensions(Unit : mm)



## ■ Working Range



## ■ Crawlers extended (With 15.7 ton counterweight) Unit : t

Boom length(m)	11.3		19.0		26.7		34.4	
Working radius(m)	Load	Boom angle	Load	Boom angle	Load	Boom angle	Load	Boom angle
1.9	55.00	74.4						
2.2	55.00	72.5	30.00	79.9				
3.0	55.00	68.4	30.00	77.5				
3.5	50.00	65.5	30.00	75.9	3.55m×22.00	79.9		
4.0	46.40	62.6	30.00	74.3	22.00	79.0		
4.5	42.00	59.5	30.00	72.7	22.00	77.9		
5.0	36.35	56.4	30.00	71.1	22.00	76.7	4.9m×12.00	79.9
5.5	30.85	53.1	30.00	69.5	5.9m×22.00	74.7	12.00	78.9
6.0	26.65	49.6	26.60	67.8	21.70	74.5	12.00	78.1
6.5	23.35	45.9	23.35	66.2	20.35	73.4	12.00	77.2
7.0	20.60	41.9	20.65	64.5	18.95	72.2	12.00	76.3
8.0	15.80	32.4	16.60	61.0	16.15	69.9	8.7m×12.00	73.4
9.0	11.40	17.8	13.75	57.4	13.75	67.6	11.65	72.9
10.0	9.25m×10.30	0	11.55	53.6	11.55	65.2	10.45	71.1
12.0			8.50	45.3	8.50	60.3	8.45	67.5
14.0			6.40	35.3	6.40	55.1	6.85	63.8
16.0			4.85	21.3	4.95	49.5	5.55	60.0
18.0			16.95m×4.10	0	3.70	43.4	4.55	56.0
20.0					2.70	36.4	3.55	51.7
22.0					1.85	27.9	2.70	47.3
24.0					1.15	14.9	2.00	42.4
26.0					24.65m×0.95	0	1.45	37.0
28.0							0.95	30.8
30.0							0.55	22.9

## ■ Crawlers extended (No counterweight) [Special specification] Unit : t

Boom length(m)	11.3		19.0	
Working radius(m)	Load	Boom angle	Load	Boom angle
3.0	25.00	68.4	20.00	77.5
3.5	25.00	65.5	20.00	75.9
4.0	21.40	62.6	20.00	74.3
4.5	16.75	59.5	16.65	72.7
5.0	13.60	56.4	13.50	71.1
5.5	11.30	53.1	11.20	69.5
6.0	9.55	49.6	9.45	67.8
6.5	8.20	45.9	8.10	66.2
7.0	7.10	41.9	7.00	64.5
8.0	5.40	32.4	5.35	61.0
9.0	4.20	17.8	4.15	57.4
10.0	9.25m×3.95	0	3.20	53.6
12.0			10.90m×2.45	50.0

### Notes

1. All rated loads are based on the machine being operated on a firm, level, uniformly supporting surface ground, at any point of 360° around the machine within 78% of tipping load and forward stability factor over 1.15.

2. Working radius is the horizontal distance from the center of rotation to the vertical line through the center of gravity of the load.

3. To determine lifting capacities, the weight of all lifting devices such as hooks must be reduced from the rated loads. When both main hook and auxiliary hook are attached, the weight of both hooks must be reduced.

55 ton hook	0.80 ton
30 ton hook	0.34 ton
15 ton hook	0.30 ton
6 ton hook	0.12 ton

4. Depending on the number of part lines, rated loads are limited as follows.

1 part line	6.0 ton	6 part lines	33.0 ton
2 part lines	12.0 ton	7 part lines	38.5 ton
3 part lines	16.5 ton	8 part lines	44.0 ton
4 part lines	22.0 ton	9 part lines	49.5 ton
5 part lines	27.5 ton	10 part lines	55.0 ton

5. The standard number of part lines for each boom length is as follows.

Boom length (m)	11.3	19.0	26.7	34.4	Top sheave
No. of part lines	10	6	4	4	1

## ■ Specifications

Main specification	
Slewing speed	2.4min <sup>-1</sup> (2.4rpm)
Travel speed	2.0/1.4 km/h
Gradeability	40% (22°)
Lifting performance	
Max. lifting capacity x working radius	55t x 3.0m
Max. lifting height	33.0m
Rope speed (Main & Aux. drums)	100/70 m/min
Boom length	11.3 - 34.4m
Boom extension speed	125 sec.
Boom angle	-2° - 80°
Boom hoisting speed	60 sec.

Superstructure	
Drive system	Hydraulic
Hydraulic pump	3 axial piston pumps, 3 gear pumps
Counterweight	15.7t
Total operating weight	55.5t
Average ground bearing pressure	71kPa (0.72kgf/cm <sup>2</sup> )
Engine	
Make	Hino Motors
Model	J08C-UD
Type	6-cylinder, water-cooled, turbocharged, direct fuel injection type diesel engine
Rated power output	175kw/2,100min <sup>-1</sup>
Displacement	7.961 lit.
Hydraulic power system	
Power take off	24.5Mpa (250kgf/cm <sup>2</sup> ) x 240L/min 15.7Mpa (160kgf/cm <sup>2</sup> ) x 460L/min [Optional] Max. 29.4Mpa (300kgf/cm <sup>2</sup> )

Please carefully read the manual before operating machines, and please use it correctly and safely. Photographs appearing in the catalog were taken for publication and may differ in some cases from actual objects. Specifications are subject to change without notice due to technical improvements or modifications.

**IHI** IHI Construction Machinery Limited

3174 Showa-machi, Kanazawa-ku, Yokohama, Kanagawa 236-8611 Japan  
Phone: +81-3-5714-8844 Fax: +81-3-5714-8840, 8843



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