CCH500T
Heavy-Duty General-Purpose Telescopic Crane

Lifting capacity (JIS) 50 metric tons

Uplifting the productivity to the maximum extent by fully utilizing advantages provided by the telescopic boom and crawler drive design.

Model with low-noise treatment

Ishikawajima Construction Machinery Co., Ltd.
The CCH500T Heavy-Duty Telescopic Crane—Almighty, General-Purpose Lifting Power Making Any Task Easy, from Lifting to Foundation Work and to Clamshell Operation.

Assembly and disassembly of the CCH500T is easy and quick, and does not require large space on the jobsite. Crawler drive design assures a low ground pressure, enabling it to demonstrate the huge lifting power on soft ground. In addition, the CCH500T has a built-in power take-off which can easily drive attachments including hydraulic breaker and hydraulic auger for boosted operating economy. Manoeuvrability is also enhanced by the crawler drive system which does not need outriggers to maintain machine stability during lifting operation.

New 50-ton lifter with 34 m 4-stage telescopic booms

Overreaching lifting power
The sophisticated hydraulic system can convert almost all of the engine power of 215 ps or 200 kw to hydraulic power, making the CCH500T an exceptional crawler crane boasting the greatest lifting capacity in its class.

3.4 meter 4 stage telescopic boom—
the longest in its class
4-stage telescopic booms have a box-section design and are made of high-strength steel. The resultant stiffness allows them to extend/flex in a range from the shortest 11.2m to the longest 34.6m, enabling the CCH500T to tackle with a versatile range of lifting requirements.

Third drum (option)
The third drum with manual clutch and foot brake controlled by hydraulic system can be mounted on as the optional equipment. Since the hoisting/lowering non-speed varies according to the load, the optimum line speed matching the particular operation is obtainable.

Comfortable, wide operators cab
The 458mm-wide cab conforms to the international standards. It has wide front, rear and side windows, plus the porthole. The rear and side sliding windows improve ventilation and the tinted front windscreen can be stored in the railing.

Dual drums system assures smooth winding
The main and auxiliary hoist drums are arranged on 4x4m. Individual shaft driven by hydraulic motor. Motor speed is adjustable and winding operation is also possible. Automatic fall-safe brake or free fall operation with manual foot brake pedal is selectable.

Service brake, swing parking brake
and swing lock
The service brake is provided for securing static lifting, and the swing parking brake and the swing lock are provided for securing safety while the machine is not in operation or when it travels for relocation.

Throttle pedal
In addition to the throttle control lever, the throttle pedal is also available for engine controlling.

Automatically applied travelling brake
Travel brakes are automatically engaged when the travel control levers are set in neutral.

Efficient half clutch engagement
Sophisticated integration of two drums on a single shaft enables to accomplish efficient lifting operation. Thanks to the unique brake drum cooling system, bucket operation that needs frequent half braking operation can be efficiently performed.

Flat crawler shoes
These wider shoes provides an immense ground contact area, making it possible to stably ride on the jobsite while the ladder is being lifted up.

Off monitor
The OK monitor is installed on the instrument panel box in the operator cab, allowing the operator to instantly check all operating conditions of the crane unit.

"Total Power Control" hydraulic system
This sophisticated hydraulic system enables to fully utilize engine output in accordance with the load imposed on each hydraulic pump.

Quiet operation
For considering the operating conditions on a busy street or in the night time, the engine and hydraulic equipment are insulated to reduce the noise level as low as 60 DBA (at 3m distance from the surface of the machine).
### Specifications

**Performance**
- Max. lifting load x working radius: 50 tons x 3.7 m
- Max. lifting height: 33 m
- Boom length: 11.2 ~ 34 m (4 stages)
- Hoisting/hoisting rope speed of main and auxiliary drums: 10 m/min.
- Hoisting/hoisting rope speed of third drum (option): 15 m/min.
- Boom hoist speed: 9 rpm
- Boom extension speed: 10 m/min
- Swing speed: 9 rpm
- Travel speed: 1.5 km/h
- Gradeability: 30% (22°)

**Control unit**

- Control method: Hydraulically
- Drive method: Hydraulically
- Hydraulic pumps: Axial piston pump x 2
- Gear pump x 3
- Engine:
  - Model: Hino EP100T
  - Rated output: 215 ps/2000 rpm
- Type: Direct-injection, turbocharged diesel
- Hydraulic drive system:
  - Hydraulic power available at power take-off: 350 mm/2 × 260 l/min

*The values change depending on the load.*

### Rated Lifting Loads

**Unit: Metric ton**

<table>
<thead>
<tr>
<th>Load (ton)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working</td>
<td>11.2</td>
<td>16.8</td>
<td>20.4</td>
<td>24.0</td>
<td>27.6</td>
<td>31.2</td>
<td>34.8</td>
<td>38.4</td>
<td>42.0</td>
<td>45.6</td>
<td>49.2</td>
<td>52.8</td>
<td>56.4</td>
<td>60.0</td>
<td>63.6</td>
<td>67.2</td>
<td>70.8</td>
<td>74.4</td>
<td>78.0</td>
<td></td>
</tr>
<tr>
<td>Boom length (m)</td>
<td>24</td>
<td>28</td>
<td>30</td>
<td>32</td>
<td>34</td>
<td>36</td>
<td>38</td>
<td>40</td>
<td>42</td>
<td>44</td>
<td>46</td>
<td>48</td>
<td>50</td>
<td>52</td>
<td>54</td>
<td>56</td>
<td>58</td>
<td>60</td>
<td>62</td>
<td></td>
</tr>
</tbody>
</table>

### Rated Lifting Loads (with jib option)

**Unit: Metric ton**

<table>
<thead>
<tr>
<th>Boom angle</th>
<th>34 m boom + 6.7 m jib</th>
<th>34 m boom + 11.0 m jib</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td>W</td>
</tr>
<tr>
<td>80°</td>
<td>8.3</td>
<td>3.00</td>
</tr>
<tr>
<td>75°</td>
<td>9.7</td>
<td>2.65</td>
</tr>
<tr>
<td>70°</td>
<td>10.4</td>
<td>2.60</td>
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<tr>
<td>65°</td>
<td>11.8</td>
<td>2.70</td>
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<tr>
<td>60°</td>
<td>15.1</td>
<td>2.35</td>
</tr>
<tr>
<td>55°</td>
<td>18.3</td>
<td>2.05</td>
</tr>
<tr>
<td>50°</td>
<td>21.4</td>
<td>1.75</td>
</tr>
</tbody>
</table>

*W shows the working radius.

- The rated lifting loads of the jib are determined by the boom angle. The diagram shows the working range of the 34 m main boom with the 8.7 m-11.0 m jib. The working radius shown is the reference only.
- The standard number of part lines for each boom length is shown as below.

<table>
<thead>
<tr>
<th>Boom length (m)</th>
<th>11.2</th>
<th>16.8</th>
<th>20.4</th>
<th>24.0</th>
<th>34.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of part lines</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

*Courtesy of Crane.Market*