Specifications
Hydraulic Rough Terrain Crane

HSP-8030 30 Ton (27.22 metric ton)

General dimensions

<table>
<thead>
<tr>
<th>Turning radius (4-wheel steer)</th>
<th>feet</th>
<th>meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tailswing of counterweight:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dimensions affected by tires

<table>
<thead>
<tr>
<th>Tires</th>
<th>20.5 x 25 (24-PR)</th>
<th>23.5 x 25 (20-PR)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>feet</td>
<td>meters</td>
</tr>
<tr>
<td>A</td>
<td>7' 3&quot;</td>
<td>2.21</td>
</tr>
<tr>
<td>B</td>
<td>5' 9&quot;</td>
<td>1.75</td>
</tr>
<tr>
<td>C</td>
<td>22&quot; 5&quot;</td>
<td>.66</td>
</tr>
<tr>
<td>D</td>
<td>11' 6&quot;</td>
<td>3.50</td>
</tr>
<tr>
<td>E</td>
<td>18' 26&quot;</td>
<td>.46</td>
</tr>
<tr>
<td>F</td>
<td>7' 6&quot;</td>
<td>2.29</td>
</tr>
<tr>
<td>G</td>
<td>9' 3&quot;</td>
<td>2.82</td>
</tr>
<tr>
<td>H</td>
<td>11' 26&quot;</td>
<td>.29</td>
</tr>
<tr>
<td>I</td>
<td>7' 20&quot;</td>
<td>.18</td>
</tr>
</tbody>
</table>
Upperstructure

■ Boom
Link-Belt patented design. Boom side plates have diamond shaped impressions for superior strength to weight ratio and 100,000 psi (689.5 MPa) steel angle chord for lateral stiffness. Boom sections are supported by wear shoes both vertically and horizontally. Anti-2 block, electronic boom length/angle indicator and function kickout.

Load Moment Indicator — Optional; Audio-visual warning system with anti-two block and function kickouts. Constant display of boom length and angle, tip height, radius of load, machine configuration, allowed load, actual load and % of allowed load. Presetable alarms for maximum and minimum boom angles, maximum tip height and maximum boom length.

Standard boom — 32° 0’ - 80° 0’
(9.75 m-24.38 m) 3-section full power boom.

Optional boom — 32° 0’ - 101° 0’
(9.75 m-30.78 m) 4-section boom includes base section, two power sections, and manual fourth section. Fourth section is power pinned by manually activating a cylinder locking system.

Boom head — Standard; Three 14-1/2” (0.37 m) root diameter head sheaves with four 14-1/2” (0.37 m) available to handle up to 8 parts of wire rope. Two easily removable wire rope guards; rope dead end lugs provided on each side of boom head. Meets 24:1 ratio European safety code with 5/8” (16 mm) wire rope.

Auxiliary lifting sheave — Optional; Single 14-1/2” (0.37 m) root diameter head sheave with removable wire rope guard, mounted to boom, for use with one or two parts of line off the optional auxiliary winch. Does not affect erection of fly or jib, or use of main head sheave for multiple reeving.

Boom elevation — One hydraulic cylinder with holding valve. Self-aligning bushings. Hand and optional foot controls for controlling the boom elevation from -3° to 80°.

■ Cab and Controls
Environmental cab; isolated from sound and vibration by a neoprene seal. All windows are tinted and tempered safety glass. Sliding rear and right side windows and swing up roof window for maximum visibility and ventilation. Side-by-door opens to 3° 0’ (0.91 m) width. 6-way adjustable operator’s seat. 4-way adjustable tilt/telescoping steering wheel. Control levers for swing, boom telescope, winch and boom hoist with foot control swing brake. Outrigger controls, sight level bubble. Optional foot control for boom hoist.

Cab instrumentation — Dash mounted gauges for hydraulic oil temperature, converter temperature, oil pressure, water temperature, fuel and volt-meter.

■ Swing
Bi-directional hydraulic swing motor mounted to a planetary reducer for 360° continuous smooth swing at 2.05 r.p.m.
Swing brake — Standard; foot operated, spring released disc brake mounted on the speed reducer.
Swing lock — Standard; 360° position pin-type and two position travel lock operated from the operator’s cab.

Counterweight — Pinned to upperstructure frame.

■ Hydraulic System
Main pump — Triple gear-type pump. Combined pump capacity 110 gpm (416.35 lpm). Powered by torque converter through a pump disconnect. Pump disconnect is a jaw-type clutch engaged/disengaged from carrier. Maximum system pressure at 2900 p.s.i. (199.94 Bars).

Steering/outrigger pump — Single gear-type pump, 21 gpm (79.5 lpm) maximum capacity. Powered by torque converter through a straight mechanical drive. Pump operates at 2,500 p.s.i. (172.37 bars).

Reservoir — 110 gallon (416.0 l) capacity. Diffusers for deaeration.

Filtration — One six-micron filter located inside of the hydraulic reservoir. Accessible for easy replacement.

Control valves — Six separate control valves allow simultaneous operation of all crane functions.

■ Load Hoist System
Standard — Model 2M main winch with two-speed motor and automatic brake, power up/power down mode of operation. Bi-directional gear type hydraulic motor.

Optional — Model 2M auxiliary winch with two-speed motor and automatic brake, power up/power down mode of operation. Bi-directional, gear-type hydraulic motor.

Optional — Model 3M winch with power up/power down, two-speed motor and exclusive controlled true gravity free fall. Available on main winch only.

Line pulls and speeds — Maximum line pull 11,700 lbs. (5307 kg) and maximum line speed 413 f.p.m. (125.98 m/min.) on 10 5/8” (0.27 m) root diameter standard smooth drum.

■ Additional Equipment - Standard
Rear view mirrors, seat belt, fire extinguisher, backup alarm, travel lights and sound suppressed cab.

■ Additional Upperstructure Equipment - Optional
Propane heater, diesel heater, air conditioning, drum rotation indicators, 25-ton (22.68 metric ton) or 35-ton (31.75 metric ton) hook block, 8-1/2 ton (7.71 metric ton) hook ball and swivel, rear steer indicator, boom-mounted working light, engine monitoring system, top hatch wiper, windshield washer, hand throttle, lifting lugs, tachometer, amber rotating beacon, cab spotlight and boom hoist foot control.

GENERAL INFORMATION ONLY
Carrier

- **Type**
  Link-Belt 9' 3" (2.75 m) wide, 150" (3.81 m) wheelbase.
  4 x 4 x 4 — (4-wheel steer, 4-wheel drive)
  **Standard**; for rough terrain with limited turning area.
  4 x 4 x 4 — (4-wheel steer, 4-wheel drive)
  **Optional**; no spin differential on front axle; for rough terrain with limited turning area.

- **Frame**
  100,000 p.s.i. (689.5 MPa) steel, double walled construction with integral 100,000 p.s.i. (689.5 MPa) steel outrigger boxes.

- **Axles**
  **Front** — **Standard**; — heavy duty planetary drive/steer type.
  **Rear** — **Standard**; — heavy duty planetary drive/steer type.
  **Front** — **Optional**; — heavy duty no-spin high traction differential, planetary drive/steer type.

- **Suspension**
  **Front axle** — Rigid mounted to frame.
  **Rear axle** — Pin-mounted on bronze bushings. Automatic hydraulic rear axle oscillation lockout cylinders engage when upperstructure rotates past 2-1/2° of centerline.

- **Tires**
  **Front and rear**
  **Standard** — 20.5 x 25 (24-PR)
  Earthmover type
  **Optional** — 23.5 x 25 (20-PR)
  Earthmover type

- **Brakes**
  **Service** — Air over hydraulic; drum-type brakes at each wheel end. Drum diameter 17-1/2" (0.44 m). Shoe width 4" (10 m).
  **Parking/emergency** — Disc caliper type spring applied, air released, fade resistant; cab controlled, mounted on front axle.

- **Steering**
  **Hydraulic two wheel, four wheel and "crab" steering.**

- **Transmission**
  3-speed, 2-range power shift transmission. Six speeds available forward and 2 reverse. Front axle disconnect for two or four-wheel drive.

- **Outriggers**
  Four hydraulic, beam and jack outriggers.
  Vertical jack cylinders equipped with integral holding valve. Beams extend to 20' 0" (6.10 m) centerline-to-centerline and retract to within 9' 3" (2.82 m) overall width with floats stored.
  Equipped with swivelable, lightweight 19" (0.48 m) diameter floats. Controls and sight level bubble located in upperstructure cab.

- **Additional Equipment**
  **Standard**
  Cab steps, 2 front carrier steps, skid resistant finish on carrier deck, storage compartment and fenders.

- **Additional Equipment**
  **Optional**
  Towing shackles, ether injection, no-spin differential on front axle, spare tires and rims, pintle hook, jack cylinder hose covers, propane fired engine block heater, air dryer, lifting lugs and emergency steering system.

### Travel Speeds and Gradeability

<table>
<thead>
<tr>
<th>Engine</th>
<th>Tires</th>
<th>Maximum Speed</th>
<th>Gradeability</th>
<th>Maximum Tractive Effort</th>
<th>Gradeability at 1.0 mph (1.61 km/h)</th>
<th>Maximum Tractive Effort at 1.0 mph (1.61 km/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>mph/km/h</td>
<td>at stall</td>
<td>pounds/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cummins 6BT5.9</td>
<td>20.5 x 25</td>
<td>21.9/35.23</td>
<td>89.0%/78.9%</td>
<td>40,396 / 18,324</td>
<td>50.6%/46.3%</td>
<td>27,807 / 12,613</td>
</tr>
<tr>
<td></td>
<td>23.5 x 25</td>
<td>22.8/35.68</td>
<td></td>
<td>37,712 / 17,106</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detroit Diesel 4-53T</td>
<td>20.5 x 25</td>
<td>21.6/34.79</td>
<td>84.0%/73.4%</td>
<td>41,093 / 18,626</td>
<td>49.0%/45.7%</td>
<td>28,298 / 12,835</td>
</tr>
<tr>
<td></td>
<td>23.5 x 25</td>
<td>22.4/35.04</td>
<td></td>
<td>38,335 / 17,338</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Optional Equipment*

### Engine Specifications

<table>
<thead>
<tr>
<th>Engine</th>
<th>Cummins 6BT5.9</th>
<th>Detroit Diesel 4-53T *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cylinders - cycle</td>
<td>6-4</td>
<td>4-2</td>
</tr>
<tr>
<td>Bore</td>
<td>4.02&quot; (.10 m)</td>
<td>3.875&quot; (.10 m)</td>
</tr>
<tr>
<td>Stroke</td>
<td>4.72&quot; (.12 m)</td>
<td>4.1/2&quot; (.11 m)</td>
</tr>
<tr>
<td>Displacement</td>
<td>359.0 cu. in. (5 884 cm³)</td>
<td>212 cu. in. (3 474 cm³)</td>
</tr>
<tr>
<td>Maximum brake h.p.</td>
<td>152 @ 2500 r.p.m.</td>
<td>165 @ 2500 r.p.m.</td>
</tr>
<tr>
<td>Peak torque</td>
<td>400 ft. lbs. (542 J)</td>
<td>412 ft. lbs. (559 J)</td>
</tr>
<tr>
<td>Electrical system</td>
<td>12 volt negative ground</td>
<td>12 volt negative ground</td>
</tr>
<tr>
<td>Fuel capacity</td>
<td>75 gal. (283 L)</td>
<td>75 gal. (283 L)</td>
</tr>
<tr>
<td>Alternator</td>
<td>80 amps</td>
<td>80 amps</td>
</tr>
<tr>
<td>Crankcase capacity</td>
<td>4.1 gal. (15.52 L)</td>
<td>4.0 gal. (15 L)</td>
</tr>
<tr>
<td>Air compressor</td>
<td>9.5 c.f.m. (.27 m³/min)</td>
<td>12 c.f.m. (.34 m³/min)</td>
</tr>
</tbody>
</table>

*Optional Equipment*
## Axle Loads

<table>
<thead>
<tr>
<th>Base machine with standard 32'-80' (9.75 m-24.38 m) 3-section boom, main winch with 2-speed hoisting and power up/down, 450' (137.16 m) 5/8&quot; (16 mm) wire rope, 4 x 4 carrier with Cummins 6BT5.9 engine, 20.5 x 25 tires, full fuel, counterweight, 3-sheave head machinery.</th>
<th>GVM ©</th>
<th>Upper facing front</th>
<th>Upper facing rear</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lbs.</td>
<td>kg</td>
<td>lbs.</td>
</tr>
<tr>
<td>32' - 101' (9.57 m-30.78 m) 4-section boom</td>
<td>3,120</td>
<td>1,415</td>
<td>2,891</td>
</tr>
<tr>
<td>Free fall main winch with 450' (137.16m) rope</td>
<td>140</td>
<td>63</td>
<td>-26</td>
</tr>
<tr>
<td>Power up/down auxiliary winch with 350' (106.75 m) rope</td>
<td>620</td>
<td>281</td>
<td>108</td>
</tr>
<tr>
<td>29' (8.8 m) lattice fly stowed</td>
<td>1,080</td>
<td>490</td>
<td>1,334</td>
</tr>
<tr>
<td>21' (6.40 m) A-frame jib stowed</td>
<td>970</td>
<td>440</td>
<td>1,093</td>
</tr>
<tr>
<td>Hook block at bumper</td>
<td>650</td>
<td>295</td>
<td>884</td>
</tr>
<tr>
<td>Headache ball at bumper</td>
<td>325</td>
<td>148</td>
<td>441</td>
</tr>
<tr>
<td>Auxiliary lifting sheave</td>
<td>125</td>
<td>57</td>
<td>350</td>
</tr>
<tr>
<td>23.5 x 25 tires</td>
<td>112</td>
<td>51</td>
<td>56</td>
</tr>
</tbody>
</table>

© Adjust gross vehicle weight and axle loading according to components weight.  
**Note:** All weights are ± 3%.  

### Tire  
| Max. Axle Load @ 20 mph (32.7 km/h) |
|---|---|
| 20.50 x 25 (24-PR) | 31,000 lbs. (14 060 kg) |
| 23.50 x 25 (20-PR) | 31,000 lbs. (14 060 kg) |

---

© Link-Belt is a registered trademark.  
We are constantly improving our products and therefore reserve the right to change designs and specifications.  
**Link-Belt Construction Equipment Company** Lexington, Kentucky  
A unit of Sumitomo Construction Machinery Co., Ltd.