# General Specifications

**Link-Belt® 360-ton (326.52 metric ton)**

Wire rope crawler crane Heavy Lift attachment

## LS-718HL

### General dimensions

<table>
<thead>
<tr>
<th></th>
<th>Feet</th>
<th>Meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Lift mast</td>
<td>130'</td>
<td>39.62</td>
</tr>
<tr>
<td>Overall height — Heavy Lift mast erected at 70'</td>
<td>139'</td>
<td>41.36</td>
</tr>
<tr>
<td>Overall height — top of turntable bearing at:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>— working height</td>
<td>6' 1-1/2&quot;</td>
<td>1.87</td>
</tr>
<tr>
<td>— travel height</td>
<td>5' 6&quot;</td>
<td>1.67</td>
</tr>
<tr>
<td>Minimum ground clearance under roller path at:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>— working height</td>
<td>30&quot;</td>
<td>0.76</td>
</tr>
<tr>
<td>— travel height</td>
<td>22-1/2&quot;</td>
<td>0.57</td>
</tr>
<tr>
<td>Maximum tailswing — across corner of auxiliary revolving upper frame</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tailswing of platform for field installed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>— cast concrete counterweight</td>
<td>30' 0&quot;</td>
<td>9.14</td>
</tr>
<tr>
<td>Height of counterweight</td>
<td>22' 1&quot;</td>
<td>6.73</td>
</tr>
<tr>
<td>Radius of boom foot pin</td>
<td>21' 4-4/8&quot;</td>
<td>6.51</td>
</tr>
<tr>
<td>Height of boom foot</td>
<td>9' 9&quot;</td>
<td>2.97</td>
</tr>
<tr>
<td>Radius of mast foot pin</td>
<td>20' 2-3/8&quot;</td>
<td>6.16</td>
</tr>
<tr>
<td>Height of mast foot pin</td>
<td>10' 9&quot;</td>
<td>3.28</td>
</tr>
<tr>
<td>Height of auxiliary revolving upperstructure:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>— working height</td>
<td>8' 5-1/4&quot;</td>
<td>2.58</td>
</tr>
<tr>
<td>— travel height</td>
<td>7' 9-3/4&quot;</td>
<td>2.39</td>
</tr>
<tr>
<td>Height of roller path:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>— working height</td>
<td>4' 3&quot;</td>
<td>1.30</td>
</tr>
<tr>
<td>— travel height</td>
<td>3' 7-1/2&quot;</td>
<td>1.10</td>
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</tbody>
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### Weight for transportation

<table>
<thead>
<tr>
<th></th>
<th>Pounds</th>
<th>Kilograms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary counterweight</td>
<td>415,000</td>
<td>188,244</td>
</tr>
<tr>
<td>Screw jack with float (24 sets) — weight each set</td>
<td>600</td>
<td>272</td>
</tr>
<tr>
<td>Auxiliary revolving upperstructure frame</td>
<td>75,930</td>
<td>34,442</td>
</tr>
<tr>
<td>Auxiliary frame truss segments — front</td>
<td>1,850</td>
<td>839</td>
</tr>
<tr>
<td>— rear</td>
<td>438</td>
<td>199</td>
</tr>
<tr>
<td>Roller path supports — front</td>
<td>10,400</td>
<td>4,717</td>
</tr>
<tr>
<td>— rear</td>
<td>10,400</td>
<td>4,717</td>
</tr>
<tr>
<td>Heavy Lift mast</td>
<td>32,200</td>
<td>14,606</td>
</tr>
<tr>
<td>Standard LS-718 boom live mast</td>
<td>8,040</td>
<td>3,647</td>
</tr>
<tr>
<td>Heavy List roller path — side segments (4); weight each</td>
<td>5,630</td>
<td>2,544</td>
</tr>
<tr>
<td>— front or rear segment; weight each</td>
<td>10,420</td>
<td>4,727</td>
</tr>
<tr>
<td>Rollrpr path with supports, screw jacks and floats, hydraulic lines and hardware</td>
<td>84,200</td>
<td>38,193</td>
</tr>
<tr>
<td>Machine working weight with 140' (43 m) basic boom</td>
<td>1,055,230</td>
<td>478,652</td>
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</tbody>
</table>
Nomenclature

1. Erection jack
2. Screw jack
3. Float
4. Heavy Lift roller path
5. Auxiliary frame
6. Standard LS-718 counterweight
7. 130' (39.62 m) Heavy Lift mast lower backstay pendant equalizer
8. Retractable gantry
9. Heavy Lift counterweight
10. Mast erection reeving
11. Live mast
12. Live mast bridle
13. Mast backstay pendant guides
14. Live mast support
15. Boom foot
16. Mast foot
17. Boom stops
18. Boom base section
19. fleeting sheave assembly
20. Mast stops
21. Mast base section
22. Main load hoist line
23. Mast erection pendants
24. Mast backstay pendants
25. Main load hoist line deflector sheave
26. Boom hoist rope deflector sheave
27. Whipline
28. Deflector rollers
29. Mast upper backstay pendant equalizer
30. Mast top section
31. Tip extension
32. Mast head shaft
33. Boom hoist bail
34. Boom hoist reeving
35. Boom hoist bridge
36. Basic boom pendants
37. Boom pendant links
38. Boom head machinery
39. Boom head section
40. Boom top section
41. Jib backstay pendants
42. Jib backstay pendant spreader bar
43. Jib mast
44. Jib load hoist wire deflector sheave
45. Jib frontstay pendants
46. Jib
47. Jib head machinery
48. Boom and mast carrier
49. Auxiliary counterweight carrier frame
General Specifications

Mounting — Crawler

In addition to the standard LS-718 crawler mounting, the following equipment is required to adapt the mounting for installation and use of the optional Heavy Lift Attachment.

**Heavy Lift Roller Path**

Supports rollers under auxiliary frame. Roller path 45' (13.72 m) outside diameter, 21" (0.53 m) deep, 14" (0.36 m) wide top surface, made up of six welded box segments bolted and pinned together. Right front and left rear roller path segments inter-changeable as are left front and right rear segments.

**Heavy Lift roller path supports** — Used to mount roller path to carbody of crawler mounting; pinned to standard mounting lugs on carbody and to front and rear roller path segments. Support roller path and Heavy Lift attachment when traveling on job site and support the machine during erection and operation.

**Hydraulic erection jacks** — Used to raise Heavy Lift roller path approximately 7¼" (0.19 m) to permit installation of 24 screw jacks with floats which support path during machine operation (approximately 51" (1.30 m) from ground to top of roller path). Four individual jacks, two mounted in front and two in rear, with 32" (0.81 m) square fabricated steel floats. Each jack mounted at outer ends — 24' (7.32 m) apart centerline to centerline of jack cylinders — of fabricated box section supports which are welded to front and rear roller path segments.

**Screw jacks and floats**

Support Heavy Lift roller path in operating position; 24 jacks with fabricated steel octagonal floats 49½" (1.26 m) wide across flats. Screw jacks 20½" (0.52 m) long. 5½" (0.14 m) outside diameter. Bearing area of floats — 2,029 square inches (13,094 cm²) each.

Revolving upperstructure

In addition to the standard LS-718 revolving upperstructure, the following equipment is required to adapt the upperstructure for installation and use of the optional Heavy Lift attachment.

**Auxiliary frame**

Supports boom, boom mast and auxiliary Heavy Lift counterweight. Pin connected to swing trusses front and rear which are pin-connected to standard mounting lugs on LS-718 revolving upperstructure frame. Auxiliary frame composed of four segments pin connected together to facilitate assembly and disassembly.

**Swing trusses** — Front swing truss and yoke and rear truss transmit LS-718 revolving upperstructure swing capability to the auxiliary frame.

**Support rollers** — Support auxiliary frame on Heavy Lift roller path. Eight rollers, two each in each of two equalizer mounting brackets and four individual rollers in fixed mounting brackets, support the boom and mast carrier segment of the auxiliary frame. Two individual rollers, in fixed mounting brackets, support the auxiliary counterweight carrier frame which is the rear segment of the auxiliary frame.

**Auxiliary Heavy Lift counterweight**

Mounts on lugs on rear segment of auxiliary frame, 415,000 lbs. (188,244 kg), used in conjunction with LS-718 134,500 lb. 61,009 kg "AB" counterweight. Auxiliary counterweight available in 29,640 lb. (13,445) fabricated steel plate modules or in cast iron modules weighing 25,920 lbs. (11,757 kg) each. Note: "AB" counterweight is lowered from standard mounting position to mounting lugs on auxiliary revolving frame forward of the auxiliary counterweight when using Heavy Lift attachment. Auxiliary counterweight must be reduced to 120,000 lbs. (54,432 kg) for traveling machine on job site. (Design details for jobsite-poured concrete auxiliary counterweight, in lieu of either fabricated steel or cast iron — available from Sales Office).

**Fleeting Sheave Assembly** — Pinned in position on top of auxiliary frame front section, to rear of boomfeet and centered between boomfeet. Consists of one 15" (0.38 m) root diameter sheave to support boomhoist wire rope spooling from the third drum to boomhoist bail, and one 25½" (0.72 m) sheave supports jib load hoist wire rope reeving when machine is equipped with 180' (54.86 m) of boom or longer. When handling maximum capacity with 140' (42.67 m) or 160' (48.77 m) boom lengths, main load hoist wire rope spools from front drum, under this sheave, through hook block reeving, and on to the rear drum.

**Load hoist wire rope reeving** — Maximum 16-part 1¼" (0.32 mm) diameter, type "N" wire rope can be reeved in a single or dual load hoist rope arrangement. Maximum hook travel distance is obtained with dual rope reeving. Combination use of front and rear main operating drums in dual reeving arrangements accommodates spooling a total 3,600 feet (1,097 m) of rope. *Required for handling maximum rated lifting capacity with boom 140' (42.67 m) and 160' (48.77 m) long. Not required for handling load with booms 180' (54.86 m) or longer.*

**Gantry**

Same assembly as used on standard LS-718 lifting crane.
Attachment

**Tubular boom**

Six-piece boom 140' (42.67 m) long. Made up of 40' (12.19 m) base section, three 20' (6.1 m) extensions ("N" wall), 35' (10.67 m) open throat top section, and 5' (1.52 m) head section. Maximum boom length = 370' (112.78 m).

Base section — 40' (12.19 m) long, boomfeet 7" (0.18 m) wide on 9" 2" (2.79 m) centers; includes mounting lugs for Heavy Lift boom stops. Main chords 6" (0.15 m) outside diameter round tubular alloy steel ("N" wall). Combination boomhoist wire rope deflector sheave and main load hoist wire rope guide roller mounted at rear of upper end of bds section; both mounted on anti-friction bearings.

Boom extensions — 6" (0.15 m) outside diameter alloy steel tubular main chords; 110" (2.79 m) wide, 89" (2.26 m) deep. "N" wall extensions available in 20', 30', 40', and 50' (6.10, 9.14, 12.19 and 15.24 m) lengths. All extensions furnished with appropriate length pendents. First 3 extensions attached to boom base section must be 20' (6.10 m) "N" wall and must remain there for all boom lengths, and "J" wall boom extensions must be used beyond the 250' (79.25 m) boom length in make-up of total booms up to 370' (112.78) maximum length.

**Boom connections** — in-line pin connections.

Top Section — 35' (1.52 m) long, open throat.

**Boom head section** — 5' (1.52 m) long welded plate construction; pinned to upper end of boom top section.

**Boompoint machinery** — Nine 30½" (0.77 m) root diameter sheaves mounted on anti-friction bearings.

**Boompoint sheave guards** — Three-section round steel rigid guards.

**Deflector rollers** — Deflect jib load hoist wire rope (whipline) off boom to avoid chafing; steel rollers mounted on anti-friction bearings. One 86" (1.18 m) long roller on each 10' (3.05 m), 20' (6.10 m) and 30' (9.13 m) extension, two on each 40' (12.19 m) and 50' (15.24 m) extension. Two 56" (1.42 m) long rollers on 35' (10.67 m) top section.

**Boom stops**

Dual, spring-cushioned, telescoping type; pin-connected to rear main chords of boom base section and to boomfeet mounting lugs. Each stop consists of two boomfoot mounting lugs and four sections — two upper and two lower; bottom half of upper section pin-connected to upper telescoping section of lower section.

**Boomhoist ball** — Mounted with attachment links pinned to head shaft of Heavy Lift mast top section; serves as connection between boomhoist wire rope reeving spooling off third operating drum and eight-part boomhoist rope reeving to boomhoist bridle. Contains four 15" (0.38 m) roll diameter sheaves mounted on anti-friction bearings, and dead end link for boomhoist wire rope.

**Boomhoist bridle** — Serves as connection between eight-part boomhoist wire rope reeving and basic 12' (3.66 m) boom pendents. Contains four 15" (0.37 m) root diameter sheaves mounted on anti-friction bearings. Bridle equipped with two deflector rollers to support slack load hoist wire rope above bridle.

**Boom pendants** — Appropriate length pendents are added as boom extensions are added to boom.

**Jib**

Tubular; two-piece, basic length 50' (15.24 m), maximum length 120' (36.58 m). (Same jib as used on LS-718 heavy duty crane boom with modifications.) Maximum jib 120' (36.58 m).

(Jib mast)

(Same as used with jib on LS-718 heavy duty crane boom).

**Jib stops and staylines** — (Same frontstay pendents as used on LS-718 heavy duty crane boom.) Heavy lift backstop tubes and backstay pendents are required for attachment to Heavy Lift boom.

**Jib backstay pendant spreader bar** — Six piece linkage; used to separate two jib backstay lines to avoid interference between backstay lines and main boom pendents.

**Live mast**

Used to lift Heavy Lift mast into working position. (Same assembly as used for boom live mast on LS-718 lifting crane with exception of Heavy Lift mast backstay pendant guide which is pinned to top end of live mast bridle.)

**Live mast bridle**

Serves as connection between ball at top rear of retractable gantry and live mast. Heavy Lift mast erection reeving is spooled on drum used for boomhoist drum on standard lift crane. (Same bridle as used for boomhoist on standard lift crane.)

**Live mast ball**

Serves as connection between retractable gantry and live mast bridle. (Same ball as used for boomhoist on standard lift crane.)

**Live mast support** — Tubular steel with cushioned bumper at top end. Pinned in vertical position at lower end of retractable gantry mounting pin and at front side to support brace. Live mast rests on this support in operating position.

**Heavy Lift mast**

Mast 130' (39.62 m) long; made up of LS-718 heavy duty boom sections. Consists of 35' (10.77 m) long base section, 40' (12.19 m) extension, 20' (6.10 m) extension and 35' (10.67 m) open throat top section.

**Base section** — Equipped with mounting lugs for pin-connection of Heavy Lift mast stops.
Mast extension — 20' (6.10 m) and 40' (12.19 m) long; same as used in LS-718 heavy duty crane boom.

Mast connection — In-line pin connections.

Mast top section — 35' (10.67 m) long. (Same as used for heavy duty boom for standard lift crane with these exceptions. Section is mounted inverted 180° from conventional mounting position in order to utilize open throat area for clearance in installation of mast backstay pendant top equalizer bracket. Standard boom point machinery is removed to accommodate installation of boomhoist bail link and top equalizer bracket mounting link.)

Mast tip extension — 5' (1.52 m) long fabricated steel; pinned to upper end of mast top section. Contains single 26 1/4" (0.67 m) root diameter sheave, mounted on anti-friction bearings; serves as main load hoist wire rope deflector sheave supporting the rope as it passes over upper end of mast.

Mast stops — 40' (12.19 m) long tubular steel with telescoping segment at lower end. Pinned in position at lower end at top of revolving upper-structure and at rear of mast near upper end of mast base section.

Deflector sheave — 28 3/8" (0.72 m) root diameter sheave mounted on anti-friction bearings in bracket pinned to rear side of mast at upper end of 40' (12.19 m) extension; deflect main load hoist wire rope (spooling off rear main operating drum) away from Heavy Lift mast. Bracket also includes pin connecting lugs for Heavy Lift mast erection pendants.

Backstay pendants — Eight pendants are pin connected to pendant top equalizer brackets which are pin connected at head shaft of Heavy Lift mast. Pendants pass through backstay pendant guides pin connected at upper end of live mast. Pendants are pin connected at lower end to pendant equalizer brackets which are pin connected to rear section of auxiliary revolving upperstructure frame.