

Lead System Pocket Manual

Assembly

Always ensure the following:

- Workers are competent in lead system assembly, usage and maintenance.
- All rigging and hoisting practices and equipment complies with all applicable laws, regulations and standards.
- All fastening hardware used for assembly is free of defects (stripped threads, etc.) and replaced as necessary. Lead column sections must not be assembled using nylon insert lock nuts.
- Lead column hard stops are properly installed and not damaged.
- All sheave and rollers rotate freely, are greased, and secured with the required keeper plates and cotter pins (especially on higher mounted components which are more difficult to access once the assembly is upright).
- Wire ropes are free of defects such as frays, kinks, stretch, etc.

Operation

Only operate the lead system for its intended use, and within the safe working parameters determined and provided by Berminghammer. Consult with Berminghammer regarding any alternate system uses and/or modifications. Always operate and maintain the crane per the manufacturer's guidelines, and all applicable laws, regulations and standards.

Maintenance

Grease

EP2 grease is the approved grease for lead systems.

All sheaves, gibs, and swiveling plates must be kept well lubricated to ensure proper function and to limit the potential for damage.

Ensure grease fittings and grease gun are kept clean to prevent grease contamination and/or plugging of grease fittings. Replace fittings as required.

Depending on environmental conditions, grease each gib grease fittings weekly. All other components should be greased monthly or sooner if possible.

Equipment

Refer to the Equipment Pocket Manuals (Hammers, Drills, etc.) to ensure the necessary maintenance and inspections are performed.

Operational Inspections

Fastening Hardware

Due to the extreme vibrations caused by driving and drilling, all lead column and component fastening hardware must be inspected at least monthly to ensure nothing has loosened, broken or worn.

Wire Rope

On a daily basis, wire rope and attachments must be visually inspected for any signs of damage (fraying, kinking, stretching, etc.) and replaced immediately.

Ensure there is no wire rope wearing on any equipment that could result in wire rope or equipment damage (pile line).

Sheaves and Sheave Pins

Grease monthly, or sooner if possible.

Safety Hardware

Ensure that lead column hard stops are still in place, secure and not damaged.

Ensure the kicker safety stop is in place and is not seized, damaged, or has been engaged and been re-installed/replaced. Verify its functionality and lubricate with a few drops of oil (do not use grease).

Hydraulics

Visually inspect all hydraulic lines daily to ensure there is no damage and leaks in any lines and fittings. Replace as necessary.

Post Operation (including Storage)

Upon job completion, ensure that all hardware that is loosened during lead system disassembly is either fastened tightly or plastic wrapped in place to ensure nothing can become loose during transport.

Store leads horizontally, equally supported across the length, elevated off the ground, and protect any exposed steel surfaces with rust inhibitor.

Lead System Maintenance

| ITEM | FREQUENCY | ACTION |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------|
| Grease the gibs | Weekly* | Grease with EP2 grease |
| Grease the sheaves, swivel plates, etc. | Monthly or sooner* | Verify operation and grease with EP2 grease |
| Fastening hardware | Monthly or sooner* | Verify no loose, broken or missing hardware |
| Oil kicker safety stop | Monthly or sooner* | Verify operation and apply a few drops of oil |
| Inspect hydraulic lines | Daily | Verify no damage and no leaks |
| Wire rope inspection | Daily | Verify no fraying, kinking, stretching, etc. |
| <p><i>Weekly* - at least weekly, but sooner if easily accessible</i> <i>Monthly or sooner* – at least monthly, but sooner if system is boomed down for any reason.</i></p> <p>FOR GREATER DETAIL – REFER TO THE LEAD MANUAL For additional information not found in this pocket manual or the leads manual, call Berminghammer at 1-800-668-9432.</p> | | |

Torque Specs

Imperial Coarse Thread - Grade 8



| Grade 8 - bolt | With Nord Lock Washer | Standard or Split Lock Washer |
|----------------|------------------------|-------------------------------|
| | Oiled Threads (ft lbs) | Oiled Threads (ft lbs) |
| 1/4" | 12 | 9 |
| 5/16" | 24 | 18 |
| 3/8" | 41 | 33 |
| 7/16" | 64 | 52 |
| 1/2" | 99 | 80 |
| 9/16" | 138 | 115 |
| 5/8" | 197 | 159 |
| 3/4" | 346 | 282 |
| 7/8" | 556 | 455 |
| 1" | 840 | 681 |
| 1 1/8" | 1190 | 966 |
| 1 1/4" | 1660 | 1363 |
| 1 3/8" | 2180 | 1786 |
| 1 1/2" | 2870 | 2371 |
| 1 3/4" | | 3740 |
| 2" | | 5621 |