

Hoist Pulley Replacement Instructions

1. These instructions are designed to help you replace one or more of your hoist pulleys. Hoist pulleys are those pulleys through which the hoist load bearing cable is routed. Every lift has a hoist pulley at the top of the platform's collar. Many (but not all) lifts also have an additional hoist pulley up high, behind the Rain Shield. These instructions address each of these pulleys separately.
 - 1.1. Your lift also has an SRL pulley for the SRL safety backup mechanism. These instructions do not address replacing that pulley. That pulley is not load bearing and is very easy to access. It rarely, if ever, needs to be replaced.
 - 1.2. Here is a photo of a typical lift with and without the Rain Shield and Safety Guards (and a few other parts). Yellow rectangles in the "without" photo highlight the top and bottom hoist pulleys. Note that the top hoist pulley attaches using a large hook and the bottom hoist pulley is attached using a bolt.



1.3.



2. **Precautions to take while replacing hoist pulleys**

- 2.1. Safety is paramount!
- 2.2. It is best to unplug the hoist power while your hands are actually working around the cable, especially if you have wireless controllers. If hoist power is left connected, then someone can inadvertently activate the hoist and cause you serious injury.
- 2.3. Wear gloves and be careful while handling the cable. Do not let a sharp strand of the cable accidentally puncture your skin.
- 2.4. If you need to use a ladder, do so with care.
- 2.5. Take care to not twist or kink the hoist cable. Kinks in the cable weaken it at that point.
- 2.6. Be sure not to over-unspool the cable. You will need to create some cable slack in order to change a pulley, but do not create more than you need.

3. Tools

- 3.1. To replace either of these pulleys you will need a 9/16" wrench and a 9/16" socket/ratchet.
- 3.2. You may need a ladder or step stool.
- 3.3. You need some gloves to protect your hands from sharp strands of the cable.

4. **Steps to replace the Collar hoist pulley** - This is the easier of the two pulleys to replace. Here is a photo (with the Safety Guard removed) of the Collar hoist pulley. You can see the two optional gold-colored bolts in upper sides of the pulley block that prevent the pulley block from swinging out at its top. :



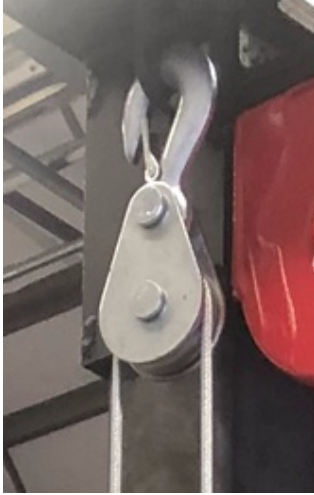
- 4.1. Lower the platform all the way to the ground, allowing the hoist to unspool about 10 inches of slack in the cable.
- 4.2. Unplug the hoist from power.
- 4.3. Use a 9/16" wrench to remove the three bolts holding the Safety Shield in place. Set the shield aside.
- 4.4. Use a 3/4" wrench to loosen the two bolts that clamp the sides of the pulley block (if equipped). These bolts do not need to be completely removed. Do not remove the 5" long lower bolt that passes through the pulley block.
- 4.5. Pivot the top of the pulley block away from the column.

- 4.6. Use two 9/16" wrenches to remove the bolt that anchors the pulley assembly. Remove the assembly.
- 4.7. Place the replacement pulley assembly (the one without the hook) over the cable, and insert its two flanges into the two slots in the pulley block. Insert the bolt supplied from the column side, so that the nut will be located on the operator side. **Be certain that the cable is not twisted or kinked.**
- 4.8. Use two 9/16" wrenches to tighten the bolt that retains the pulley to the pulley block. The pulley assembly may still be free to move once the bolt is tight. That is OK.
- 4.9. Rotate the top of the pulley block back toward the column. **Verify that the bolt was inserted from the back to the front and the nut is now on the operator side.**
- 4.10. Hold the pulley block upright (as if there was tension on the cables) and tighten the clamping bolts (if equipped) on the side. Tighten these clamping bolts only enough to keep the block from tilting forward when there is slack in the cable.
- 4.11. At this point, ensure that the cable is not caught on anything, and is not, or will not, rub against itself or any other item.
- 4.12. Reconnect the power to the hoist.
- 4.13. With hands and fingers safe, carefully inch the slack out of the hoist cable.
- 4.14. Reinstall the safety shield with the three bolts.
- 4.15. Run the platform up and down a few times to make sure everything works.

5. **Steps to replace the Hoist Head pulley:** Most lifts have a hoist pulley in the hoist head area. Here are the steps to follow if you need to replace your upper hoist pulley. Below is a photo looking up at the upper hoist pulley, with the Rain Shield still in place:



Here is a close up (with the Rain Shield removed) of how this upper pulley should look when you are done:



Note that you do not have to remove the Rain Shield's front or back panels in order to change this pulley. But depending on your situation doing so might make the job easier.

- 5.1. Lower the platform all the way to the ground, allowing the hoist to unspool about 10 inches of slack in the cable.
- 5.2. Unplug the power to the hoist.
- 5.3. Safely position a ladder or step stool to give access to the hoist area.
- 5.4. Prepare the replacement pulley for installation.
 - 5.4.1. Remove the cotter pin from the pin that runs thru the hook.
 - 5.4.2. Remove the pin that runs thru the hook.
 - 5.4.3. Locate the cable that is running directly from the lower pulley to the upper pulley (to be replaced).
 - 5.4.4. Route that cable through the pulley between the roller and the hook.
Reinstall the hook, pin, and cotter pin.
 - 5.4.5. Bend both legs of the cotter pin.
- 5.5. If the pulley to be replaced is attached with a bolt, use two 9/16" wrenches to remove the bolt. Once the bolt is removed, the pulley will come away from its mounting anchor and the cable. If the pulley to be replaced is attached with a hook, simply unhook the pulley from its anchor point.
- 5.6. **Use the new hook on the new pulley** to attach it to the anchor point.
- 5.7. Ensure that the direction that the hook is inserted into the anchor is such that the cable is routed straight up and down from the new pulley. The cable **MUST** not rub against itself. If necessary, unhook the hook and reinstall it into the anchor plate from the other direction.
- 5.8. Ensure that the hook's safety catch is outside the anchor plate and the pulley is hanging free and vertical.
- 5.9. Plug the hoist back into power.
- 5.10. Carefully draw the slack out of the hoist cable by running the hoist.
- 5.11. Run the platform up and down a few times to make sure everything works.