

Modification of Pro (LDP) series winch Free spool knobs.

This manual is for winches that do not fully engage when winching in. This may include winches that sound like they chatter or have grinding gears, or the user can see the Free spool (clutch) knob turn when the winch is in use. The cause is most likely due to the planetary gears pressing against the Free spool knob from the inside of the winch. Use these instructions to guide you in how to: locate and modify the internals of the knob.

Step 1: Remove the winch from your machine if you haven't already done so. The winch will need to be disassembled, so having a clean workspace is very helpful.

Step 2: Secure the cable so it doesn't unravel, by running a strip of strong tape around the drum.

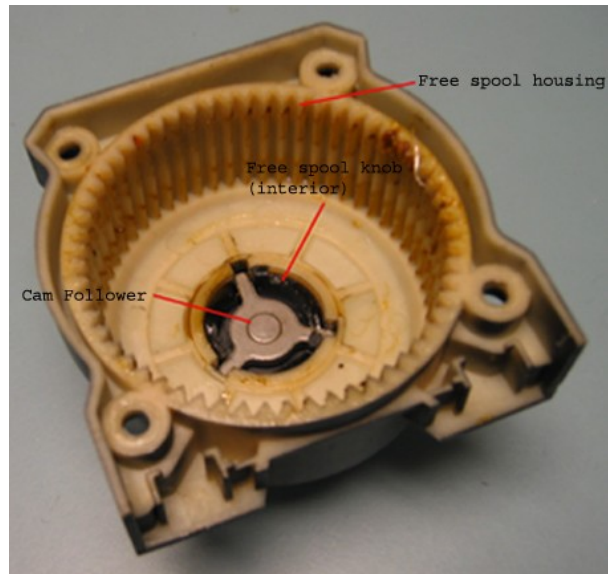
Step 3: Remove the upper two Allen head bolts on the Free spool side (the side with the knob) of the winch. Then pull the winch part so you have the Free spool assembly by itself.



Step 4: Remove the two lower Allen head bolts (note they are shorter than the upper bolts). Then remove the metal drum support from the plastic housing.

*Once you have the pieces separated, keep track of the two square nuts on the bottom of the housing. They are for the mount bolts, without those nuts, you cannot secure the winch to a mounting plate.

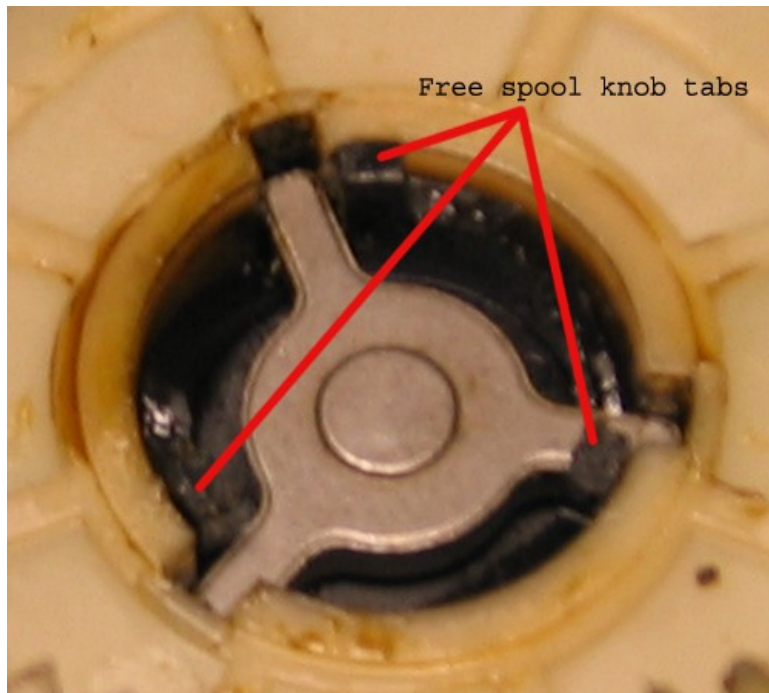
Step 5: Pull the planetary gears out of the housing. Once they are out, reassemble them if they came apart to make things easier when you put the assembly back together. The inside will look something like this...



Step 6: Remove cam follower

* Note how the cam follower has a bump in the center of it. Upon reassembly, be sure that the bump is towards what would be the center of the winch.

Step 7: Check the three black Free spool knob tabs (see pict) for level with the housing. The tabs should be even with or below the housing. If the tabs are higher than the housing, they will need to be ground/sanded down. To take the Free spool knob out of the housing, remove the screw in the middle of the knob pull apart.



Step 8: Remove enough material from the three tabs to allow them to lay just below the level of the gear housing. This can be done with some course sand paper. It should not take much so go slow.

Step 9: Once the tabs are at the desired height you can reverse the steps to reassemble.