

**1420 Dutro Hand Truck  
Retractable belt ratchet  
Belt & Spring Replacement Procedures**

**1.0 Material Referenced,**

- 1.1 Dutro Part #15A, 14” Strap Heavy Duty 3-Ply
- 1.2 Dutro Part #1-330119 Belt Return Spring.

**2.0 Tools Required**

- 2.1 5/8” End Wrench
- 2.2 7/32” Hex Key (Allen) Wrench.

**3.0 Safety Requirements**

- 3.1 Safety Glasses

**4.0 Belt Replacement Procedure**

- 4.1 Remove the belt hook from the end of the belt strap by pushing approximately a 6” loop of slack belting back through the hooks lacing the eyelets allowing unthreading of the belt strap. *Note the pattern of the belt loops for reassembly purposes.*
- 4.2 After clicking the ratchet release levers to their neutral positions using your free hand as a brake, let the pre-tensioned belt spool spring winding unwind. This will be about 4 to 5 revolutions.
- 4.3 Remove the strap belting from the spool by decoiling and winding the strap into a newly formed coil stack without tensioning the return spring. This makes reassembly much easier if the old belt is being reinstalled.
- 4.4 Remove the belt attaching screw and formed washer from the belt spool hub and place the coiled belt stack to the side. A large paper clip installed on the belt edge ends work well to keep the belt stack-up from unraveling.
- 4.5 Reinstall belt and assembly in reverse order to complete the belt replacement. *Note that the tensioning spring end wire is positioned under the belting, washer and bolt and retained in the splined groove next to the threaded bolt hole.* The spool hub and bottom belt guide should be raised 1/16” up from bottoming on the steel tube spring cover. The spools position is locked on the main hex shaft when the belt attaching screw bottoms out on the shaft. This clearance is required so the spool and shaft will rotate freely without binding.

## **5.0 Return Spring Replacement Procedure**

- 5.1 Complete disassembly instructions listed in section 4.0, and then remove the 7/16" Nylock nut from the bottom end of the main ratchet shaft with the 5/8" end wrench. The nut is located below the lower cross member angle.
  
- 5.2 Remove the ratchet main hex shaft upward through the support bracket holes and place to the side. *Note that the spool hub and ratchet handle will become loose when the shaft is removed so caution is required not to drop the parts.*
  
- 5.3 Remove the recoil spring and cover tube together by lifting the parts from the lower positioning socket. The lower spring end will have to be unhooked from the bottom of the angle cross-member socket assembly by pushing the spring hook end approximately 90 degree counter clock wise.
  
- 5.4 Reinstall the spring & belt assembly in reverse order to complete the return spring replacement. Tighten the "Nyloc" nut to leave approximately 1/32" of shaft endplay when pushed upward from the bottom. This will keep the mechanism from binding. *Note that the ratchet lever return spring can easily get a coil caught between the ratchet handle underside and the mounting support plate top. Push the spring coils toward the shaft center with a screw-driver that will allow the shaft to completely set down and position the release handles coil spring correctly.*