Based on an original publication by ASG - Electric Screwdriver Maintenance Manual

Hi Maintenance, Goodbye Electric Screwdriver Problems

As we all know, taking good care of your tools pays off in the end and it's one time when high maintenance is a good thing. There's not a whole lot that has to be done with an electric screwdriver, however by just giving a bit of attention to your hardworking tool on a regular basis you can really extend the life.

In general, maintenance should begin after about 1000 hours of using your new screwdriver. It's a good idea to adhere to a schedule so you'll get in the habit. If you figure 21 working days per month, you'll do a couple of things every six months. You can account for double and triple shifts as well. Once you begin the cycle you'll be able to better determine how much maintenance will be necessary and beef it up or pare it down from there.

Designate an area

This may seem silly, however here's the suggestion anyway. How many times have you put down a screw or small piece, told yourself it's safe and then not been able to find it when you go back to where you put it. Be sure to put them in a safe place when removing them for screwdriver maintenance—a designated area kept for just this purpose.

Prevention

Just like with your teeth, e.g., cleanings—prevention goes a long way in extending the age of your screwdriver. One of the most common incidents to cause damage—dropping the screwdriver. Sometimes you'll see the damage, for example a cracked casing or bit run out – radial or axial. Dropping can also cause the magnet to fracture and the broken pieces could jam the armature or cause the tool to overheat.

A way to prevent dropping is by using a tool balancer or making sure the tool is tethered or put into a tool holster. The tether should be attached to a tool cord that prevents the tool from hitting the floor should it fall.

Keep the cord in good shape

The cord can be just as important as the screwdriver. Kinks, nicks and stretching should be avoided. When connecting, make sure the locking ring fits snuggly to ensure proper grounding and avoid disconnecting the screwdriver. Inspect the cord for cuts and abrasions on the outside. Repair minor cuts or scrapes with electrical tape. Deep cuts to the cord can damage interior wires and the cord should be replaced. To save money, replace the plug if the cut is near the plug.

Check before you power up

- Use the correct voltage carefully check the voltage shown on the power supply and manual to determine the correct voltage. Only plug the unit into a power source of the correct voltage.
- Determine the appropriate torque range choose the correct screwdriver for the torque you require. To lengthen product life, avoid long-term high torque use.
- Look for damage If the power cord is scraped or damaged, immediately unplug and replace it to avoid electric shocks or a short circuit that could cause a fire.
- Use in an appropriate work environment to ensure safety, do not use in high temperature, high humidity environments or near flammable materials. Keep the power cord away from tools or equipment that might scrape or melt it.
- When plugging in or unplugging the power cord, hold the plug firmly. Never yank on the cord.

Ready to roll?

- Brace fastened objects securely before operation, refer to "torque settings" to determine the appropriate torque. Make sure that the fastened objects are securely braced to avoid hazardous rapid rotation of the fastened objects caused by excessive torque or insufficient bracing.
- Set the forward/reverse switch properly before operation. Do not change the switch while the motor is running. Set the forward or reverse switch before operating.
- Use the regulating handle to set the torque. Determine torque output by testing with a torque meter or hand-held spanner torque meter. Keep the torque level from being adjusted by using a cover as needed.
- Follow the directions for your electric screwdriver for inserting a bit. Never hammer or forcibly pull out a bit to remove it.
- Hang the screwdriver up securely (balancer) to prevent damage, e.g., external cracking, internal damage, or a snapped power cord.
- When the selected torque is reached, the clutch assembly automatically disengages and a "click" sound will be heard. Even if the trigger lever or depress force is not released, the power to the motor will be automatically cut off.
- When driving a screw, be sure to grasp the screwdriver firmly to prevent upwards recoil generated by the clutch release to prevent damage.
- Sometimes when you need to remove a screw, the screw won't come out with the same torque. Raise the torque setting and once removed return to the previous setting. When removing a screw, if the required torque is higher than the screwdriver's output torque, the clutch may not disengage, causing the user's hand and arm to be twisted. In this case immediately set the forward/reverse switch to "OFF" to cut the motor power and prevent injury.

Overall inspection

Periodically remove the tool from the line and run in a quiet environment to detect anything that sounds like a problem. By listening to the sound of the tool, you can determine if there's excessive wear or other problems.

Test the tool to make sure it shuts off sharply; similar to the way the tool shuts off when the clutch activates. If there's coasting after the switch is released, the tool may be worn or damaged.

Other maintenance

Depending on the type of screwdriver you have, you should also maintain or inspect brushes, torque repeatability, chuck or joint shaft, lubrication and power supplies. Keeping your electric screwdriver in good working order through a maintenance program will prolong the life substantially.