

Cleaning and Re-Lubricating an Old Sewing Machine Head

I have had many requests for information on cleaning up sewing machine heads, to get them looking decent and operating again. There are almost as many approaches to this as there are collectors. These range from total restoration, i.e. stripping down to bare metal and repainting and re-decals, to a minimalist approach. I favor the latter.

Below you will find some discussions of how several of us do this job?

Before getting into that, though, here is an example of before and after. Cindy B. in MD found this machine and cleaned it up. The color has washed out of the decals, turning them silver. It would have been nice if that could have been avoided, but sometimes it happens. Still, this is a vivid example of how you can clean a machine up so it looks good. Imagine the satisfaction of sewing on a machine like this, that you know you saved from the junk yard!



Here is my normal procedure when I get a new machine that needs help.

First, I take the machine head out of the cabinet or case and put it on a bench where I can get messy. I generally test, poke and prod to see what moves or works, how easily, and what doesn't move or work. Often there are old bobbins with thread, and or old thread jams to clear. The throat plates must be removed to expose the feed dogs, and any accumulated lint picked out, using tweezers, dental picks and/or canned air.

Some folks like canned air, others don't. There are those who worry that it carries moisture into the works, and/or drives some of the dirt further in. I use it, but try not to do so too much.

The next issue is cleaning solutions. This is a big one. Everyone has their favorites. There are two big issues. First is whether the solution used will damage old decals. Second is whether it will leave residue that will later gum up the works. Let's talk about cleaning the works first.

For cleaning the mechanical parts, the favored products are kerosene, Liquid Wrench™, WD-40™, any good light sewing machine oil, and any good light grease, usually Singer machine lube. Liquid Wrench and WD-40 are both basically kerosene with additives. Many folks think of wd-40 as an oil or lubricant. It most definitely is not. It is a penetrant that frees up moving parts and it is a rust preventative, quite possibly the best ever developed short of the military's approach of totally sealing in Cosmoline™. However, used consistently, it will dry out and leave a film, which is OK for guns as a rust protection, but not OK for sewing machines, which need to run freely. So, if you use WD-40 to free things up, follow by wiping it out and then re-oiling with regular oil. WD-40 should be used on moving parts, not on the surface. It can damage some decals (see below).

Kerosene is a wonderful penetrant and will eventually work its way into almost anything and free it up. More than one collector has simply put a whole machine head into a pail of kerosene and left it for awhile, with good, if messy, results. Problem with kerosene, for me, is that it is awkward to get a hold of in the city. You have to find a gas station that has it, and buy it by the gallon in an approved container. Liquid Wrench is almost pure kerosene, and can be bought in any hardware store, in nice little squeeze cans with spouts? much more convenient. I use Liquid Wrench.

Take off all access plates, the motor and light if present, and the hand wheel and study the machine. Look for old dried up grease coating moving parts. This is usually found inside the upper pillar, behind the rear access plate, and, in geared machines, wherever beveled gears meet. This point is especially critical on the underside of Featherweights and Model 201's. Also, on 201's and Model 15-91, which are gear driven, remove the hand wheel and gear drive unit. You will find old grease there. Use the kerosene or Liquid wrench and a brush to clean all this old grease off.

Next, I squirt Liquid Wrench liberally onto, into and over anything that moves. Look at each part closely for little holes meant for oiling. Almost every part that has a part moving within it will have a little oil hole. Be sure to get the penetrant into these holes. After dousing with penetrant, try moving things, see if the machine starts to move more easily.

When things seem to move reasonably easily, reassemble. Lightly oil all moving parts and oil points with sewing machine oil. Grease the gears with new lubricant. I like to keep a hand crank drive unit handy. I put this on in place of the motor and use it to power the machine for testing. Once the machine is reassembled and you have either a hand crank or the motor back on, run the heck out of it. Often, you will actually be able to hear and feel the machine start to run faster and more easily as the new lubricant works into things. Pay special attention to cleaning and lightly oiling the inside surface of the handwheel core. This will make bobbin winding much easier. Also, there are tiny oil holes on the bobbin winder itself, and these are often missed.

Finish by cleaning off all excess oil.

Now a brief word about frozen machines. Sometimes a machine just won't move at all. This can be the result of general rust, dried grease, or really bad thread tangles that have been dragged into the works behind the bobbin case. Start by removing the bobbin case and checking for any bits of thread you can get out. Follow by soaking with penetrant and oiling. Some folks will immerse it in kerosene for up to a week. Look for "forks"? these are moving pieces that look like a musical tuning fork and have another moving piece between the tines of the fork. This structure is necessary to create certain desired movements of the machinery, but is not the easiest moving arrangement. Often it is a point where "hang ups" are caused. Press on or try to wiggle these points while trying to turn the handwheel. I have had some machines just suddenly break free just by doing that. When nothing else seems to work, you will be reduced to brute force. The machines are actually very strong. It is possible to break them, but not too likely. Have a piece of leather handy. Wrap it around the clutch wheel (the small wheel inside the hand wheel). Apply a medium sized pipe wrench with a good grip. Try turning first one way, then the other. If you can get any movement at all, even a fraction of an inch, you are winning. Apply more penetrant, then repeat the wrench movement. You should find it moving more and more, and eventually it should free up. If the very unlikely occurs and the machine breaks, well, it wasn't going to be very useful permanently frozen, was it?

Now let's talk about appearance. Some folks like to see an old machine shine like new. If the basic decoration, paint and decals, is good enough, that can be done. Most machines we find in sales aren't quite that good, or may actually be very bad. I like to let old machines show their age and usefulness. To clean a machine's surface, I use first a gentle mix of diluted dish soap and water, rubbing small areas at a time with a soft cloth. Often there is old dried oil or shellac on the surface. The earlier cleaning with kerosene may have loosened a lot of that up and it will rub off, too. Often it can be scraped off with a fingernail. Don't use hard scrapers, you'll scratch the enamel. Once I have the plain dirt off, I wipe with sewing machine oil several times over a period of

days, then wipe off all the oil and wax. I use Turtle Wax. Other folks have had good luck with ArmorAll.

There are folks who favor various cleaning compounds, such as Simple Green, 409, Windex, etc. Great care must be exercised here. Many of the chemicals in these compounds, especially ammonia, will destroy the gold in the decals, leaving you with silver decals, or no decals. Since the decal content and manufacturing varied over the years and between manufacturers, the fact that a product did a great job on one machine does not mean it will not damage another. Always start by cleaning a small area in back of the pillar to see what is going to happen.

One cleaning product I have used successfully in one area is 409. The bright metal pieces, end plates, back plates, feet, etc. can be soaked in a solution of water and 409, then scrubbed with a tooth brush and they will come out looking very good. I have not had any problem with damage using this procedure on the plated parts.

I hope this discussion helps you clean, free up, and put your garage sale find back into use.

Remember, if using a treadle, you must service the treadle as well.

Also, if the machine is motorized, remove and clean the brushes and lube the motor per instructions in the standard machine manuals.

Incidentally, if you have a machine with no manual, you can usually get one by asking on the sewing machine collector lists, or sometimes by calling the company. Singer and White still supply manual copies for many machines.

Dick Wightman

I have always believed that having something explained by more than one person is helpful. Here is the cleaning approach used by Angie Helman:

Cleaning antique sewing machine heads:

Equipment: WD-40, soft rags, appropriately sized screwdrivers, toothpick-like appliances for cleaning narrow, small crevices, good quality sewing machine oil.

Procedure: choose one particular area to start (I always begin with the end plate), and complete that area before moving on to another area.

Remove screws and open end plate. Spray WD-40 on rag and wipe & clean all areas visible - gently removing old oil and dirt. Clean screws.

Oil (lightly!) any place where metal rubs against metal. Replace end plate and screws. Move to each subsequent area, using WD-40 sprayed on the rag to clean & remove grunge (areas to concentrate on: end plate, needle & presser foot, tension dial, oil/access plate above tension dial - if present, shuttle & shuttle arm or bobbin and bobbin case, throat plate, slide plate(s), bobbin winder, fly wheel, hand crank, and rear access plate).

Old oil & dirt can be stubborn to remove and may take several applications of WD-40 & elbow grease. I have not had any problems in applying WD-40 directly to stubborn areas - just be sure to wipe all residue off. Finish each area before proceeding to another to avoid confusion on where to replace screws, etc.

Toothpicks or similar appliances are helpful for removing compacted lint & fuzz. Oil lightly all metal parts that rub each other and all oil holes. WD-40 can be used to clean the exterior of the head as well.

When cleaning is completed, turn the hand wheel through several rotations to help distribute the lubrication.

Thread up machine and sew a few lines to check tension - adjust as needed, then treadle or crank on!

Angie
In New Orleans, with killer dust bunnies lurking

And here is yet another, from Susan Steele in Amhearst, VA

I just thoroughly cleaned two heads this weekend..and i think my poor index finger on my right hand will never recover !!! I liken this work to the task of detailing the dashboard of a junky old used car..nasty and tedious!!! These directions pertain to a really nasty head..I seem to enjoy rescuing the really abused filthy bargains...a \$45 treadle that needs a lot of elbow grease!

Step #1...be sure to take a "BEFORE" picture! You won't believe later that you really did all that....

I will share the two products that I have had the most luck with....initially

Cleaning/Lubing Old Sewing Machines – sewingdude.wordpress.com/

I tried using kerosene as recommended by some others on this list...but these were too dirty for that. First, I wipe them down with either a hot detergent mix or the kerosene to eliminate the big stuff and grung. Then I remove all the plates, tension controls, rewinders, throat plates, wheel assembly, etc..taking care to lay them in a line in the order they came off..and keeping the appropriate screw nearby. I then go over the entire head by hand with Turtle Wax's "Bug, Tree Sap and Tar Remover". It is safe for painted surfaces and cuts thru the 70-yr-old grime like nothing else I have found (You still must be careful not to overscrub the decals..be careful is the motto) Prior to using this I tried the kerosene, but couldn't cut thru the really thick layers of grease and hardened grime....the heads never shone. With this product the black enamel will shine beautifully!!! In the really nasty areas under the wheel etc you'll really have to use hand power to get it off.

I then clean all the removed parts (wheel too) with Virginia Metalcrafters Colonial Brass Polish (I suspect any good chrome polish will do...but this one is good) I use the aforementioned tar remover on the black parts of the wheel, but the chrome will really clean up with a chrome polish. You will be amazed at the amount of tarnish that has accumulated on your chrome!

After the stripped bed is clean, I use a good coat of Carnuba wax to protect (thank you Cap Dick for that recommendation). I then put back on the chrome parts as the family comes around and oohs and ahhhhs. Then, the posing for the "AFTER" picture!

My best advice..try to do no more than one per day..my right hand is killing me!!!

Susan Steele
Amherst, Virginia