

PMEA D9 Instrument Summer Maintenance Workshop - Tom Fadden, Hazleton Area SD
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Reference material for this workshop: <http://www.hasdk12.org/Page/17836>

I used to spend most of my summer cleaning instruments, but have changed my way of cleaning some instruments which makes things go much faster! "Use at your own risk!"

1. Toilet bowl cleaner

- Lysol Toilet Bowl Cleaner with 9.5% Hydrochloric Acid does a good job of cleaning brass instrument slides and bodies.
- Wear gloves, otherwise it stings (it's acid!).
- This also works on cymbals but then you must polish with Flitz, Wenol, or my favorite MAAS.
- Making a solution ½ water and ½ cleaner will help prevent from etching the brass too much.
- Do not use on silver instruments! It will leave black marks that are really hard to polish away.
- It's cheap! 3 bottles for less than \$6 at WalMart.
- Rinsing with a baking soda and water solution will neutralize the acid if you feel weary about using it.

2. J. L. Smith Power Brush System

- If you do not want to play with acid, this is a great system. \$90 to start.
- <http://www.jlsmithco.com/New-Products/Power-Brush-System-Starter-Kit>
- Solution smells really nice and is easy on your hands, unlike Soft Scrub (don't use it!)
- If you don't have an air compressor, you just hook it up to a variable speed drill with the adapter. I use a drill I purchased at Harbor Freight for less than \$20 with a coupon.
- This can be messy so don't do it in your band room. Use a custodial room with access to water if possible or outside.
- Engine bore brushes from Harbor Freight work ok but break easily. I've broken several myself inside instruments. Using an old piece of coaxial cable (from your old cable boxes) **sometimes** helps free them up. Otherwise you need to take the instrument apart ☹

3. Ultrasonic cleaner

- Cheap one from Harbor Freight or similar.
- Use Simple Green and some Dawn, but don't the water get too warm. Lacquer will start coming off cheap or expensive instruments if water is too warm. I've seen a warm rainstorm in August take the lacquer of a new Yamaha mellophone as well, so be careful!
- Stainless steel tank will corrode and leak if you leave solution in it after use.
- If you put some buckshot or similar semi-round things (Ferree's O6) in the tuning slides they will agitate and loosen up the dirt a little (or just shake the tubes really hard!).

4. Homemade "Dent Eraser"

- MDRS is good to "rough out" dents in larger sections of brass instruments. This does not work on trumpets, questionable on French horns.
- Extremely dangerous if you are not careful! No metal may be on your body or close to you when using. You could lose a finger.
- Buy the kit for \$450 on eBay or make your own using super strong magnets (amazon or K&J Magnetics model DX8X8) PVC Pipe from Lowe's and chrome steel ball bearings on eBay (½" to 3 ½").
- Magnets will chip if you are not careful (another teacher did it to my magnet, so I had to flip it around)

- You can use the magnet without a “handle” but beware. Magnet will scratch finish. With homemade handles, the old caps from Glade/Walmart Automatic Air Fresheners work well to protect the magnet as well as using furniture polish to protect the lacquer.
- When in doubt send it out! With any of these things, there is an element of “surprise”. Practice on old horns first.

Items in the Chuck Hagler Repair kit is mostly available through Ferree’s Tools, but the general supplies are available at local discount stores. The tackle box is a major expense for one this large. The Plano 9606-02 is the closest that I have seen in size that is reasonable...about \$60. I have a Plano 4 drawer that I like very much as well and is cheaper. If you’re like me, you’re going to need “a bigger boat” for your tools. Go as large as you can handle.

Other things that make my life easier:

- Heat Embossing tool – Michael’s @\$20 – use instead of an open flame to seat sax and clarinet pads. Be careful! This may still melt a plastic clarinet or oboe if held too close!
- MAAS polish – 1.1 lb can @\$28 – contains jeweler’s rouge – similar to Flitz and Wenol polishes but has lavender scent
- Cotton Balls – the big bags are less than \$5 – use for polishing instruments – also saturate them in diluted toilet bowl cleaner and leave inside valve casings or wipe inner slides to get rid of buildup.
- Drain Blaster – connect to faucet and use warm water – hard to find (I bought my snakes from Home Depot on clearance) - comes with Horn Flush kits available on eBay from mouthpieceexpress
- Be a “screwdriver snob” and get a nice set of Wiha screwdrivers
- Be a “pliers snob” and get smooth jaw pliers (mine are Craftsman, but Wiha makes them now)
- Hagerty’s Spray Silver Polish Aerosol – \$15 – use in well ventilated areas since it is poisonous
- String knit gloves from Harbor Freight sprayed with Hagerty’s work similarly to Selmer Silver Polishing Gloves
- Terry cloth staining pads from Harbor Freight work well for cleaning cymbals
- Rope light for sax leak light used to be cheap at Home Depot, now are generally too long for our needs. LED light from Harbor Freight is similar to eBay repair supply offerings. You may find a USB powered flexible light that suits your needs.
- 1 lb. slide hammer works ok for stuck slides, but Valentino Kit is better. Be careful...if too corroded you may bend tubing or braces (heat and oil helps)
- Hot glue pellets are less messy when melting than whole sticks
- Glue Dots are good for putting a pad back in a clarinet or sax pad cup quickly
- Inexpensive junk clarinets may be disassembled and used for spare parts in your toolkit
- French horn cord is actually shark fishing line
- Get stick cork in various diameters to make your own water key corks. This way they aren’t falling out of your kit
- The new Valentino peel and stick cork is better than using cheap tech cork which is rubberized.
- There is no real substitute for real cork. Buy premade tenon corks from sellers on eBay for a quick fix. Just order ones that are listed as being for the brands that you have in your band!
- 6” Buffer from Harbor Freight is decent as well. Mount to heavy table or buy a separate stand. I do not recommend the pole shaped stand.
- Get a portable butane torch that you can control and burns hot (2300 degrees F or higher)
- Wear gloves whenever possible. You need your fingers and arms.
- Buying supplies and tools from Allied, Ferree’s Tools and Votaw Tools is great if you know how to use them and WILL use them!

Notes:

