

# Press Lubrication Basics

The basic supplies needed for lubrication are simple and few.

1. Quality lithium based grease.
2. Quality oil, 5W30 or 10W40 motor oil is fine.
3. The knowledge to know where to oil and grease.
4. The manufactures manual or recommendations.

The rule of thumb to follow in simple---any part that rubs, slides, or rolls needs to be lubricated. If something is squeaking, it probably needs some lubrication. Typical parts that need to be lubricated.

1. Roll bearings
2. Bedplate support bearings.
3. Bed Guide slides or bearings.
4. Most moving mechanisms like Litho pressure heads, Litho cam mechanisms etc.
5. Pressure screws.
6. Gearboxes and chain drives

I will touch on each of the numbered items above.

1. Roll bearings and, for that matter, all bearings come in many different types with different requirements. A sealed ball bearing typically does not need to be lubricated. If it does, it will have a zerk fitting for a grease gun to squirt grease in it. Check with the manufacturer for their recommendation, but I will usually put grease in a sealed bearing unit that has a zerk fitting once every few years. A few pumps of the gun should be fine. Open bearings like the ones on a French Tool Press can be oiled once a year.
2. Bedplate support bearings are typically sealed ball bearings or bronze bushings. The sealed bearing requires no further lubrication. The bronze bearings need a few drops of oil put on the shaft they roll on once or twice a year.
3. Bed Guides can be sealed bearings or a Gib type rub guide. Sealed bearings are left alone. Gib style slides need a little oil or grease rubbed on the slide once or twice a year.
4. Moving mechanisms will vary quite a bit. I recommend you contact the manufacture for their requirements. Keep in mind, the "Rule of thumb" if it slides, rolls, or rubs, it needs to be lubricated. One example might be the cam mechanism on a Conrad Combination Press model C-25. This particular mechanism should be oiled daily with two drops of oil in the oil cup on the bottom roll. This oil will work its way around the roll journal and onto the cam that raises the lower roll.
5. Pressure screws are the most neglected and most used item on an Etching Press. Once or twice a year you should unscrew the two screws and put fresh grease or oil on the threads that do the moving of the roller up and down. This hold true for Litho presses as well. The screw that adjust the scraper bar up and down needs to be lubed. Also, the joint that attaches the pressure screw to the scraper bar housing needs to be lubed once every year or so.
6. Gear boxes generally run in grease or oil and are filled at the factory and only need oil if they have a leak. Check with the manufacture for their

recommendation. There usually is a viewing hole on the side of the unit where you fill the oil up to. Chains need a few drops of oil on them every year just to keep them moist with oil so they don't dry out and get rusty.

#### Routine Maintenance

I will list several items that need to be checked on a routine schedule to avoid problems down the road.

1. Check bedplate for warping problems and adjust teeter if needed. Flip bedplate if applicable if bedplate starts to warp (check with manufacture.)
2. Make sure press is level.
3. Adjust chain tension if needed on chain drive units.
4. Make sure all manufactures' safety devices are installed properly and are in good working order. Never operate a machine that has safety devices that have been removed or tampered with.
5. Find out from the manufacture if there are items that need to be replaced on a routine basis. An example would be the "warp plate" on a Charles Brand Press. This plate warps and needs to be replaced on a routine basis for the machine to operate properly.

I hope this answers more questions than it raises. A book could be written on this subject.

Tom

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