

# The LUDLOW Quarterly™

A Newsletter For Ludlow Typograph Operators and Enthusiasts

## Basic Ludlow Maintenance

The Ludlow Typograph is probably the least finicky and most bulletproof typesetting machine ever made. I know of people who spent three years getting a Monotype machine to work just once, others who spent three months before they got a single slug out of their Linotype machine, and amateur hobby printers who spent less than three hours getting great slugs from a Ludlow that had been in storage ten years.

I get called frequently by subscribers whose Ludlow machine is "suddenly" not working right. Occasionally the solution is simple, like a heating element burns out, or a fuse blows. Sometimes diagnosing a problem in a machine 2000 miles away is complicated by the fact that it doesn't have a problem, it has several problems - each contributing friction or mis-adjustment to the failure of the machine to put out a decent slug. Most of the problems are purely mechanical, and are a direct result of improper maintenance. Read this as "almost no maintenance." Even a Mercedes requires a little service!

The following article describes what you have to do, occasionally, if you want to head off service problems and consistently produce beautiful slugs.

## JUST - DO IT!

**Mouthpiece cleaning** - Clean the mouthpiece every day if used heavily, and a minimum of every two days if your machine is constantly hot. If you cast infrequently, clean it about every 200 slugs, and as indicated by visual inspection.

First, raise the top of the machine to vertical or beyond. Just push it up! With the machine hot and motor off, release the mouthpiece wiper holder and pull back out of the way. Apply "Lubriclean" across the mouthpiece and down into the slot. Let it sit there and chemically work on the buildup for perhaps two minutes. Wire brush the surface of the mouthpiece, especially perpendicular to the slot, until it is clean and shiny when rubbed dry with a rag. A new or perfect mouthpiece is supposed to be dark brown or black like a blued rifle barrel so never use any sandpaper or metal scrapers on it. Carefully check to see that the "teeth" of the mouthpiece are cleaned of carbon buildup, for air has to escape from the mold through these teeth. Most slots are only .019" wide, so a few thousandths of an inch scale buildup really hinders injection. Use the slot scraper, that thin blade with wavy edges and a curved tip, to clean the slot with vertical motions. Keep the

Ludlow Quarterly Fall 1996

tip curved and sharp (you can recurve and resharpen it) so the correct cleaning action, that of repeatedly plunging it vertically into the slot, planes any buildup off one side. The curve forces the sharp edge against the wall. Reverse the tool and plane the other side. Do not drag this blade up and out the ends of the slot like a hacksaw or the channel you cut will eventually ruin the mouthpiece. Wipe everything clean and cast 5 or 6 slugs with the blank slug block to purge the slot of excess Lubriclean and save your mats from contamination.

**Mouthpiece wiper** - Check this when examining or cleaning the mouthpiece. If the edges are hard and shiny, scrape them until they are soft and unfrayed, or replace it.

**Oil the machine** - Some parts of your machine need oil every day, some parts every month. The oil cups for the main camshaft bearings should be oiled every day. Get to all oil cups and oil holes at least once a week, and trivial parts less often. Give each oil cup a shot of 30 weight oil, use non-detergent if you can find it. DO NOT use Lubriclean to lubricate. There are 14 easily found oil cups under the table top, a fifteenth can be found in the back of the machine on the crucible swivel plate. There are at least 10 oil holes, four on the table top (even though there are over 20 sliding or rotational areas here), four at the crucible hinge pins, and a couple on the delivery slide. Give each a drop or two, but don't stop there. Every week or month

put a drop or two where ever parts rotate or slide on each other. Occasionally put a drop into the safety clutch and on the plunger cam lever roll. Parts with larger relative motions or stresses require more frequent oiling, but oil every friction point on the machine at least once in a while. NOTE - Any cup that never needs oil has a blocked line. Do what you need to to get it unblocked, including taking parts off and drilling out oil lines. This is especially true for the crucible cam lever roller which stays pretty hot. Generously oil the main slide and the bottom trim slide every day and put a few drops on the cam rollers. Breaking safety keys is a good indication that you have too much friction in the drive train. Remember that oil doesn't just lubricate, it allows dirt to work out of a joint and decreases wear.

**Clean the machine** - Bits of metal on slides and cams can wipe out machine adjustments that would normally be rock solid. Blow, wipe, or brush the dirt out. Wipe down the cams where rollers ride and clean out frozen squirts. A thin layer of oil almost everywhere on the inside of the machine prevents further metal squirts from sticking. Do not use grease on the cams, as grease will keep dirt and metal flakes from falling off.

**Skim off the dross** - This is fun and prevents plunger problems. Keep the metal level high, within a half inch of spilling over.

**Coolant level** - Check this once a

week, keeping it as high as practical. Watch coolant volume coming back to the tank to assure that enough is going through the mold. Feel the thin side of the mold (toward the crucible) once in a while after repeat casts and if it is very hot, clean out the mold or increase coolant volume. There is a screw-in filter submerged in the tank at the outflow that must be kept clean. Drain the tank every few months just to check sediments. The tank bottom should have no significant layer of sediment.

**Plunger and well cleaning** - Clean the well and plunger about twice a week. If the machine is hot, it is forming oxides in the well whether or not it is producing slugs. First, put the safety shield onto the mouthpiece. It draws heat from the mouthpiece and freezes a plug of metal in it, preventing splashes of metal when manipulating the plunger. The table top should, of course, be vertical or beyond. Pull out the plunger pins with a pliers, raise the lever, attach the handle and remove the plunger. Liberally coat the outside and bottom of the plunger with Lubriclean and let it sit on a board for a few minutes so the chemicals can work while you clean the well. Skim the pot clean and PREHEAT the well cleaning tool by laying it sideways in the crucible until metal no longer freezes to it. DO NOT insert it into the well until it is completely hot.

While waiting for the tool to heat, clean the plunger with a wire brush and rags, the bottom end too, until shiny. Make sure the linking bar

moves freely from side to side inside the plunger, using Lubriclean on the joint if necessary. Turn the plunger upside down and tap with the wood block to knock out dross and dirt. Put just under a tablespoon of Lubriclean on the metal above the well and insert the tool through this pool. Rotate the tool slowly side to side, like steering left and right on a bike, down to the bottom and start to clean the well sides by gradually raising the tool as you more rapidly turn it and spin it completely around. Work the tool up the well and out of the metal then skim off the pool of oxide laden Lubriclean. A rag works well for this.

Repeat cleaning until the tool spins easily. Lay the plunger on the metal until hot before you re-insert it. The specification for "clean" is that when re-inserted, the plunger must float up, not stick down in the well at all. If it sticks down even a little bit, go back and clean the well better. Cleaning the well may have forced bits of oxides or Lubriclean into the throat, so cast a number of blank slugs until they cast cleanly.

**Every six months** - Remove the mold, fill with cider vinegar, and let it stand overnight. This dissolves rust and oxidized oil. Drain it out, rinse, and reinstall. Clean the metal bits from under the mold.

**Once a year** - All the above plus remove the mouthpiece (hot), impacting the screws once with a flat ended straight punch and light hammer before turning them out or

they will break off. Clean the bottom of the mouthpiece for better heat transfer. Scrape out the throat with appropriate scrapers. Re-install the mouthpiece with brand new screws. Constant heat greatly weakens older screws and makes them very brittle, causing them to break off at inconvenient times. **NOTE** - mark the mouthpiece so you do not reverse it when re-installing.

**95%** - Do most of the above maintenance chores and 95 % of the repair problems on Ludlows can be avoided. Done regularly they don't even take very long because you get better at it and there is less to do.

**That's All, Good Luck!**



## Deal of the Decade!

The following is a list of duplicate Ludlow fonts that the Editor, striving to preserve Ludlow equipment, has collected over the years. Some are very common, some are quite rare. They are all for sale, at very reasonable prices, or for trade for fonts still needed in particular series. Not listed are many incomplete fonts that can be used as sorts to fill out your short fonts. If you are interested in anything listed, or need a different font, please contact Bill Simon, who is very easy to deal with. Phone (602)581-1748, Fax (602)587-1603, or write to the LUDLOW Quarterly.

Bodoni Bold	12-14-18-24-36
Bodoni Light Italic	36
Bodoni Modern Italic	18-24-36
Bodoni Truface Italic	24
Caslon Bold Condensed	30
Caslon Light	6-36
Caslon Light Italic	18-24-30-36-42-48
Century Expanded	24-30
Cheltenham Bold	12-24-30
Cheltenham Oldstyle	36
Condensed Gothic	6-10-14-18-36-48
Cond. Gothic Outline	36
Coronet	18
Coronet Bold	30-36
Delphian Open Title	18-24-36-48-60
Eden Light	10-48
Eusebius Light	12-14
Eusebius Light Italic	12-14
Eusebius Open	18-24-36
Florentine Cursive	18
Formal Script	18
Franklin Gothic	42-72
Franklin Gothic Ext. Condensed	24-48
Garamond	14-18-24-30-36-42-48
Garamond Bold	24
Garamond Italic	14-18-24-30-36-42-48
Hauser Script	24-36
Helvetica Medium	18-24-30
Karnak Black Condensed	24
L. P. Gothic Heavy	6 (#4)
L. P. Gothic Light	12 (#1-#2-#4)
Mayfair Cursive	14
Medium Cond. Gothic	24-36-42-48-60-72
MICR #'s	10
Number 11 Bold	12-14
Number 11 Light	10
Number 11 Light Italic	36
Old English	14
Old English	36
Parkway Script	18
Radiant Bold Cond.	14
Radiant Bold Ext. Cond.	24-30-36-42-48
Radiant Heavy	36-42-48
Record Gothic	6-8-10-12-14
Record Goth. Bold Ext.	18
Rec. Goth. Bld Med. Ext	30
Record Gothic Cond.	12
Rec. Gothic Ext. Cond.	12-14-18
Stellar	18-4-36
Stellar Bold	14-18-24-30-36
Stellar Bold Italic	18-24
Tempo Alternate Medium	8-10-12-14-18
Tempo Bold	18-24-36-48
Tempo Bold Italic	36-48
Tempo Heavy Condensed	48-60
Tempo Light	30-36-48-72
Tempo Medium	24
Tempo Medium Condensed	60-72
True Cut Caslon	18-24-30-36-48-60-72
True Cut Caslon Italic	18-24-30-36-48
Ultra Modern Bold	18-24-36-48-60-72
Umbr	24-36-48-72
Store Fonts, rule-font mats, leaders, rules, fractions, etc.	
Sets of Spaces, 7/8" - 1 1/4" in regular or high-space	
Many partial fonts for sorts to fill out short fonts	
Also for sale - Self-centering stick	

## **LudlowQrt@aol.com**

This is the e-mail address for the Ludlow Quarterly. Use it to use it to submit articles, suggestions, questions, and tips!

## **WHAT'S NEW!**

Congratulations and Best Wishes to Fritz Klinke of Silverton, Colorado. Mr. Klinke recently purchased the NA Graphics Company and has moved the operation from Ohio to Silverton. Now the largest letterpress supply business in the United States, it will continue to be a great source for Morgan expansion trucks, Vandercook press parts and supplies, ATF type, Photopolymer supplies, furniture, composing sticks and generally anything associated with the letterpress industry. The company is the category killer of letterpress supplies. The new address is NA Graphics, Box 486, Silverton CO. 81433. Phone is (970) 3887-0212, Fax (970)387-0127.

## **Travel News**

The **Pioneer Arizona Living History Museum**, a few miles north of Phoenix, has added many new exhibits in their 1840-1912 era print shop, which houses a working Washington press. Call (602) 993-0212 for information.

## **P•I•P•E Donations**

We would like to thank the following subscriber who have contributed this to the **Postage-Ink-Paper-Equipment** fund this recent quarter: Ms. Katie Mulry of Pelican Stamp and Engraving, El Cajon, CA.,- Ray Ballash, Cerritos, CA., and Dave Seat, Dave Seat Hot metal Services, Mt. Juliet, TN.

## **FREE Matrix ID!**

For those subscribers who do not have the new generation Ludlow mat gauge, which uses the lines on the back of the mats to identify the font and point size, we provide free ID service. Just send one mat of each font you want identified to the LUDLOW Quarterly address, with sufficient postage for return. The sample can be any letter, even a period. Think thin and light and you might even be able to tape them onto a letter!

## **Classified Ads**

Still only 15 cents per word. You must subscribe to advertise. Deadline for the Winter issue is December 15th.

## **Free**

To preserve letterpress equipment, ads offering free items will be run without charge.

## **Wanted**

**Wanted:** Two oak type cabinets wanted, one single-wide, one double-wide, for use in print shop. Must be in restorable condition, priced reasonably, and in the Southwest. I am also interested in foundry type. Don Walker, 4979 C.R. 250, Durango, CO 81301. Phone (970) 247-1713.

**Wanted:** A museum needs any information about, and especially any table parts, for an antique, cast iron pedestal, leather belt driven lead saw. It is a Miller (Pittsburg), model U5711, manufactured about 1909. Please contact the Ludlow Quarterly.

**For Sale:** Largest selection of Ludlow fonts in North America. Over 10,000 total fonts - over 1500 different. For complete list phone, fax or write DON BLACK, 120 Midwest Road, Unit 5, Scarborough, Ont. Canada M1P 3B2. Phone 416-751-5944, Fax 416-751-5413. Also have a large list of special sale fonts \$30.00 each. Have all related supplies for Ludlow, also thousands of Lino fonts and accessories.

**For Sale:** Ludlow mats. 14 pt. Tempo Bold (fine cond.) \$100.00, 8 pt. Times New Roman (excellent cond.) \$150.00, 10 pt. Times New Roman (excellent cond.) \$150.00. Plus reasonable UPS charges. Regis Graden, 416 N. Maclay Ave., San Fernando, CA 91340.

Subscribe to **THE PRINTER**, the only monthly publication for letterpress printers, a must for equipment wants and sales. For information: **THE PRINTER**, 337 Wilson Street, Findlay, Ohio. Phone (419)422-4958, fax(419) 423-2472.

**For Sale:** Ludlow model L, gas or propane, new motor belt and mouthpiece. Stored in temperature controlled building. Clean, ready to run, \$1500.00. Also a model M Gas, a model M electric, and a model L gas machine. An assortment of fonts and handset type, call for prices and styles. Phone (210) 650-5473, ask for Rick. (TX)

## Trade Services

---

---

**LUDLOW REPAIRS** and Machine Rebuilding in your shop. Service tours throughout the country. Expert composing stick and mold repairs. Jim Parrish, author of "The Ludlow Trouble Shooting Guide" Write Jim Parrish, P.O. Box 230, Brinkley, AR 72021-0230, or call (501) 734-4035.

---

---

### DAVE SEAT - HOT METAL SERVICES

The USA's most complete source for Ludlow, Linotype, and Intertype parts and supplies. Service and maintenance in 50 states and Canada. Rebuilt Ludlow machines. Large selection of new and used mats. 206 Whitnel Drive, P.O. Box 1160, Mt. Juliet, TN 37122. Phone (800) 542-2508, or 24 hour FAX is (800) 468-6382. E-Mail: 70254.1575@compuserve.com. WWW page at: <http://machinerynet.com/printersmarketplace/hotmetalservices>.

---

---

**LUDLOW - LINOTYPE - INTERTYPE Repairs and rebuilding.** P.J. Burns, Mercersburg, PA. (717) 328-3092.

---

---

**MARLBORO MATS INC.** has served hot metal typesetters with mats, supplies, and parts for 65 years! 13,000 fonts of Ludlow, Linotype and Intertype mats in stock. Free lists. Phone (208) 443-2715, Fax (208) 443-3060, or write to: Marlboro Mats, P.O. Box 188, Coolin, ID 83821.

---

---

### THE LUDLOW QUARTERLY

Bill Simon, Editor/Publisher at 3115 W. Cavedale Dr, Phoenix, AZ. 85027-7637. Phone (602) 581-1748. E-mail: LudlowQrt@aol.com. \$ 6.00 per 4 issues US, \$8.00 Canada, \$12.00 other countries. 15 cents per word for classified advertising. Deadline for issue #8 is December 1st, 1996, provided that space is still available. Only subscribers may advertise. We welcome letters to the Editor, questions, tips, suggestions, experiences, and articles. Reprints of some past issues of the Ludlow Quarterly are available at \$2.50 each.

Copyright © 1996 by William Simon, all rights reserved.

---

---