

Recommended **LINOTYPE** **ROUTINE CHECKUPS** *and* **CLEANING**



TRADE **LINOTYPE** MARK

CLEANLINESS AND PRODUCTION

There are those who may question the need for emphasis being placed upon Cleanliness in the maintenance of the Linotype. To such it should be said that a cleanly kept Linotype is a better operating machine for it. Dirt never helps any machine. In a machine which is designed and built to deliver a product whose measurements must be as uniformly accurate as Linotype slugs, all dust and dirt should be removed regularly.

Cleanliness is a necessity if uninterrupted production is expected. A clean, well-maintained Linotype and a clean proof are the measures of craftsmanship.

Recommended LINOTYPE ROUTINE CHECKUPS and CLEANING

For more than half a century LINOTYPE has maintained a policy of sharing the technical experience of engineers, plant machinists, and operators with Linotype users everywhere. This booklet has been compiled in the interest of maximum production with minimum waste and delay through continuous, uninterrupted operation.

The productive life of mechanical equipment is dependent upon the treatment it is accorded more than upon all other factors combined.

Invariably, serious mechanical troubles are the result of minor items, most of which could have been corrected before they became major difficulties. Linotype servicemen know that most of the causes of mechanical breakdowns could have been averted if the user had maintained a regular schedule of checkups, reasonable cleanliness and proper lubrication.

A routine program adaptable for small and medium plants is here suggested which should assure satisfactory operating conditions and well-kept equipment.

We cannot overemphasize the value of a careful program of maintenance. Routine checkups should be as much a part of Linotype operation as seeing that metal is in the metal pot and copy on the copy holder.

Recommended LINOTYPE ROUTINE CHECKUPS and CLEANING

Schedule for Small or Medium-Size Plants

DAILY SCHEDULE

1. Brush metal chips from machine.
2. Clean plunger, well and well holes.
3. Wipe off pot mouthpiece.
4. Wipe off molds and vise jaws.
5. Clean spacebands.
6. Cast slug and check type high and body.

WEEKLY SCHEDULE

1. Clean and polish molds and liners.
2. Clean mouthpiece holes—vents.
3. Clean drippings under pot throat.
4. Check lockup.
5. Oil mold disk slide and grease support screw.
6. Check position of mold wipers; apply graphite on felts if needed.
7. Clean and oil vise assembly; check knife wiper.
8. Brush dirt from keyboard.
9. Graphite assembler and delivery slides.
10. Clean driving pulley and clutch leathers.
11. Clean dust from motor.
12. Wipe off cams and tighten screws.
13. Clean and oil distributor box.

14. Clean distributor screws and oil bearings.

MONTHLY SCHEDULE

1. Clean the lugs of one or two fonts of matrices (determined by number and use of fonts).
2. Clean these magazines.
3. Brush escapements thoroughly.
4. Examine assembler star.
5. Examine assembling elevator buffers.
6. Examine assembler slide brakes.
7. Examine keyboard rubber rolls.
8. Examine galley and slug adjuster buffers.
9. Examine ejector blades.
10. Examine distributor box rails, bar point and matrix lift.
11. Clean and oil keyboard.
12. Check vise automatic.
13. Check matrix transfer for proper adjustment.
14. Oil mold turning cam shoe and vise jaw wedge felts.
15. Oil all rollers.
16. Oil all shafts.
17. Fill all grease cups.
18. Clean gas burners.

NOTE: For location of lubricating points and recommended lubricants, consult the instructions and illustrations in the booklet "LINOTYPE LUBRICATION," free for the asking. For machine adjustments and mechanical descriptions of functions, see the official Linotype manual, "LINOTYPE MACHINE PRINCIPLES." This is a 487-page completely indexed book which can be procured at any Linotype agency. Price \$4.05 postpaid to any part of the United States (X-1752).

MERGENTHALER LINOTYPE COMPANY

Schedule for Large Battery of Linotypes

Large batteries of Linotypes, in plants where several machinists are employed, usually receive systematic checkups in addition to normal operating supervision. Quite naturally, there are various methods employed to accomplish these ends and it would be impossible to say that any one system would be best for all plants.

Nevertheless, one of the most effective schedules noted was developed by Alexander Gordon, late Linotype head-machinist of the *Evening Star*, Washington, D. C. This schedule of work which has been published and widely distributed, has been adapted by many large plants to their individual requirements and is printed here for that purpose. It will be noted that the night machinists are responsible for routine repair and maintenance. In addition to this regular schedule any special work which is required to be done on specific machines is indicated in writing, in spaces provided on the blank that is left for the machinists each night. Any comments they may make are written on the reverse of the blank, which thus becomes a report to keep the head machinist informed.

Machinists' Work Schedule

NOTE: An afternoon paper; between 40 and 50 Linotypes, with full day crew and varying night force

EVERY DAY

Before 8 A. M.

Brush metal from machines.
Clean and oil vises and adjust knife wiper flags.
Examine gas burners, electric pot rheostats and wipe off pot mouths.
Put spacebands in machines.
Clean driving pulleys and distributor shifter buffers.

Between 8 A. M. and 3 P. M.

Examine verge springs and rods, keyboard cam rods and channel entrances of magazines.
Clean all spacebands.
Clean plungers, wells and well holes.

Skim cross off metal.

Measure line from each machine for type-high.
Check and oil Mohr Lino-Saws
Set temperature of metal.

After 3 P. M.

Turn off motors.
Brush metal from machines.
Clean and oil vises and adjust knife wiper flags.
Clean out and oil mold disk locking stud blocks.
Collect and wrap up spacebands.
Turn off fume pipe exhaust motors.
Tighten mold cap clamping screws.

The above are *EVERY DAY* "MUSTS"

Recommended LINOTYPE ROUTINE CHECKUPS and CLEANING

MONDAY

- Clean plungers, wells and well holes.
- Clean spacebands.
- Oil driving pulleys.
- Oil all parts of machines except rollers, distributors, keyboards, assemblers.
- Oil proof presses.
- Oil all other floor motors.
- Dust off and polish magazines.
- Clean assembler entrance covers and glasses.
- Pick up mats from under machines.
- Clean and oil lower bearing Lino-Saw shafts—gasoline ejector plate rod and outer waste rod (half plant).

TUESDAY

- Clean plungers, wells and well holes.
- Clean spacebands.
- Wipe off drive wheels and clutches.
- Clean distributor screws, frictions and bearings.
- Graphite line delivery, transfer and distributor slide grooves.
- Wipe off all machines.
- Wipe off cams.
- Blow dust from motors.
- Scrape metal off underside of electric pot throat.
- Clean and oil first and second elevators, parts adjacent and knife wipers.
- Sharpen saw blades.

WEDNESDAY

- Clean plungers, wells and well holes.
- Clean spacebands.
- Tighten screw in mold-turning bevel pinions.
- Tighten screws in intermediate shaft bevel gears and pulleys and vise jaw wedge brackets.
- Tighten ejector cam screw.

- Tighten screws on assembler and intermediate clutches.
- Oil distributors, keyboard rollers, assembler boxes and pulleys (half plant). Oil assembler slide rollers.
- Examine machines for adjustments, loose screws, bolts, nuts.
- Oil assembler bearings; clean off matrix delivery belt supporting plates.

THURSDAY

- Clean plungers, wells and well holes.
- Clean spacebands.
- Oil driving shafts and motors.
- Oil mold disk and slide.
- Clean bases (half plant).
- Clean assembler entrance covers and glasses.
- Clean and oil saw stands.
- Clean assembler pulleys and front parts of machine.
- Pick up mats from under machines.
- Clean and oil fume pipe motors.
- Measure line from each machine for type-high.

FRIDAY

- Clean plungers, wells and well holes.
- Clean spacebands.
- Wipe off cams.
- Oil turnbuckle, second elevator starting spring rod, ejector lever connecting link.
- Graphite assembler slides.
- Clean bases (half plant).
- Oil gas thermostat bearings and arms.
- Oil proof presses and lathe.
- Oil metal feeders (half plant).
- Repair pot mouth wipers.
- Clean and oil spaceband cams.
- Sharpen saw blades.

SATURDAY

- Clean plungers, wells and well holes.
- Clean spacebands.

MERGENTHALER LINOTYPE COMPANY

Clean soot from around mouth and pot gas burners.

Dust off machines.

Clean and oil all bright parts.

Clean all commutators.

Clean out inside of metal pots.

Clean and oil mold disk locking stud blocks.

Blow dust from all motors.

Clean delivery slide rods.

Gasoline auxiliary line safety attachment.

Afternoon Shift

Clean and oil vises, clean spacebands, clean plungers.

New tympan on proof press.

SATURDAY NIGHT

Oil assembler elev. gate roller and pin.

Oil assembler elevator lever shaft (keyboard).

Repair and refurbish wipers and scrapers.

Oil bearings, short line parts, first elevator lever link, wedge bracket and pot lever roller (half plant).

SUNDAY

Clean plungers, wells and well holes.

Clean spacebands.

Clean and repair thermostat contact points and magnet switches in panel boxes of electric pots.

Put on new star wheels where needed, set measures (half plant).

Put on assembling elevator buffers where needed.

FIRST WEEK OF EACH MONTH

Clean and oil vise-locking screws and studs.

Oil universal knife block sections.

Oil spaceband lever pawl hinge pin.

Oil elevator transfer slide link, hinge pins and screw.

Oil delivery slide releasing pawl.

Grease intermediate shaft bevel gears and keyboard roller gears.

Oil delivery slide lever link bearings.

Clean upper keyboard rod guides.

Oil magazine lifting shafts and slides.

Clean bail box and keyboard rods with gasoline.

Grease Lino-Saw transmissions.

Oil belt clamps.

Oil inside del. air cushion cylinders.

Oil all rollers.

Set temperature on recasting pots.

One Machine Each Day

Clean and repair pot and mouth gas burner.

Face off mouthpiece with carborundum stone.

Ream holes in mouthpiece.

Clean out vents on mouthpiece.

Scrape crucible under mouthpiece.

Clean and oil keyboard cams.

Clean out motor, clean and dress commutator and repair brushes.

Sharpen and set back knife.

Repair knife wiper.

Clean assembler entrance plate and guides.

Clean, oil and repair distributor box.

Repair one set spacebands.

Clean one set mats and magazine.

Examine lower case mats in one machine, take out worn and bad mats and put in good ones.

Clean and polish molds and liners.

Clean driving clutch and leathers.

Recommended LINOTYPE ROUTINE CHECKUPS and CLEANING

Schedule of Night Work

MONDAY

Clean plungers, wells and well holes.
Skim dross off metal.
Clean all spacebands.
Repair two sets of spacebands.
Clean and oil lower Lino-Saw ball bearings, clean saw shaft; gasoline ejector, plate rod and outer waste rod (half plant).

TUESDAY

Clean plungers, wells and well holes.
Skim dross off metal.
Clean all spacebands.
Clean and oil first and second elevators, and knife wipers.
Repair two sets of spacebands.

WEDNESDAY

Clean plungers, wells and well holes.
Skim dross off metal.
Clean all spacebands.
Repair two sets of spacebands.
Clean and oil Lino-Saw wipers.

THURSDAY

Clean plungers, wells and well holes.
Skim dross off metal.

Clean all spacebands.
Repair two sets of spacebands.

FRIDAY

Clean plungers, wells and well holes.
Skim dross off metal.
Clean all spacebands.
Repair two sets of spacebands.

SATURDAY

Clean plungers, wells and well holes.
Skim dross off metal.
Clean all spacebands.
Repair two sets of spacebands.

SUNDAY

Clean plungers, wells and well holes.
Skim dross off metal.
Clean all spacebands.
Clean thermostat contact points and magnet switches in panel boxes of electric pots.
New star wheels and buffers (for half of the plant).



MERGENTHALER LINOTYPE COMPANY

29 Ryerson Street, Brooklyn 5, N. Y.

New York City

Boston

Chicago

New Orleans

San Francisco

Los Angeles

Canadian Linotype, Limited, Toronto

Representatives in Principal Cities of the World