HINTS FOR A HAPPY TYPEWRITER

by Bryan Kravitz

illustrated by Nancy Gorrell
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HELP!
Now is the time for all good men to come to the aid of their TYPEWRITERS!

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I. INTRODUCTION

This book is designed to give you some basic information about typewriters, without getting too technical. I’ve given you a large vocabulary section. Many of the words are commonly used mechanical terms; some are special usage for typewriters. The main purpose for the terms is to give you some equal footing when approaching a typewriter repair person. They will be favorably impressed and will go beyond the call of duty, if you can speak their language. You will also have a clearer picture when you can name the parts and not have to refer to them as “things” or “gadgets.”
A TYPEBAR MACHINE

AN ANATOMY LESSON

A SINGLE ELEMENT MACHINE
II. STANDARD TERMS IN
TYPEWRITER REPAIR AND
OPERATOR VOCABULARY

Banking. Left and Right Hand side margin stopping.

Bands. Strong nylon or cotton ribbon usually used for carriage return and mainspring.

Baskets. Entire printing mechanism of a typebar machine.

Buttons. Keytops.

Carbon Ribbon Drive. A mechanism that advances the ribbon enough so that each character has a fresh striking surface.

Card Holder/Line Indicator. Clear plastic guide to show exact location of typing.

Carriage. What holds the platen and moves from Left to Right and back.

Carrier. The mechanism that carries the ball on a single element machine.

COA. Clean, oil and adjust.

Cogs on Belt. Raised surfaces on rubber belts to allow better gripping surface.

Cord. Nylon or cotton twine.

Dual Pitch. 10 and 12 pitch machines (pica and elite).

Escapement. The mechanism which allows the machine to move one space at a time.

Feed Rollers. The small rubber rollers under the platen.

Fluid. Alcohol (plain rubbing alcohol) or trichloroethane.

Fluted Shaft. A long shaft with splines which acts as a gripping surface to provide power to one style of typebar machine.
Flushing. A cleaning procedure which involves having fluid flow through parts to clean out dirt and grit.

Fulcrum Points. Hinged places.

Keytops. Buttons with character demarcation.

Levers. Operator controlled switches.

Mainspring. Keeps the carriage or carrier moving in the correct direction.

Paper Bale. The small rod over the platen.

Paper Pan. The metal pan under the platen.

Power Roll. The black rubber cylinder that provides power to one style of typebar machine.

Platen. The black rubber cylinder that holds the paper in place.

Ribbon Lift. The mechanism which brings the ribbon up in front of the paper.

Ribbon. A long narrow band of inked cotton, nylon, silk or film which is situated between the paper and the character.

Self-Correcting. A mechanism which allows the operator to back space, delete unwanted character and replace with wanted character.

Segment. The “comb-like” part of a typebar machine that keeps the typebars in place.

Single Element Machine. Ball type typewriters (example: IBM Selectric).

Slug. Top of typebar which has a character molded onto it.

Spring Hook. A long, thin rod with a hooked end.

Tech III. Style of IBM ribbon (gray cartridge).
Tapes. (1) Paper: adding, machine/calculator paper roll; (2) Metal: a band to rotate and tilt element on single element machines.

Testing Sequence. A standard pattern of tests to evaluate machine performance. To be used when dealing with any machine, whether purchasing, or diagnosing problems (see Section VI).

Trucks. Ride on the tracks between the carriage and base of typebar machine.

Typebar Machine. Machines that have bars that come up to the paper (conventional typewriters).

Typeface. Style of type.

Upper/Lower Case. CAPITAL LETTERS / regular letters.

III. FOUR METHODS OF CLEANING

1. Light Cleaning
   Gets the dust and surface dirt off the machine and makes it look clean. Good in situations where machine is well cared for between more extensive cleanings (see following).

2. Air Cleaning
   Compressed air is blown through all parts. This pulls off all loose dust and dirt—but not the dirt that is stuck to the oily surfaces, which is what the insides of typewriters are, mostly.

3. Chemical Spray Cleaning
   This method employs compressed air and solvent under pressure (approximately 80 lbs). It flushes the dirt, dust and grit off the machine and down the drain. This is usually very effective and cures problems such as sticky or repeating keys, and parts not working due to lack of maintenance.
4. Dipping
The entire machine is dipped into a strong liquid that absorbs all greases and oils, leaving the machine free of oil. Motors and some other parts must be removed or they may be destroyed by this method. The strong liquid must then be thoroughly removed or the machine will be coated with the solution, which leaves a sticky film when it dries.

IV. CLEANING PROCEDURES
The Standard COA
(Clean, Oil and Adjust)

Tools:
- old tooth brush
- paint brush
- rags
- alcohol (rubbing) or trichloroethane
- typewriter oil: NOT regular oil. When regular oil dries out, it tends to leave flake-like substance
- spring hook

This method is called a light cleaning. It is done without a compressor or spraying of chemicals. This is only preventive maintenance. Once the machine gets very sticky, e.g., keys not firing properly, or not at all, it needs a major cleaning and the attention of someone who has more equipment, experience and information than the operator.

1. Remove the dust on the small, easily accessible surfaces, with the brushes.

2. Use the end of the spring hook without the hook. Wrap a soft rag around it and clean all of the small areas that your hand can't get to (use Q-Tips).
3. BE CAREFUL NOT TO REMOVE OR KNOCK ANY SPRINGS OUT OF POSITION.

4. Segments, typebars and slugs should be cleaned with fluid (trichloroethane or alcohol). NOTE: On SCMs be sure not to pull on the typebars—use the pulley on the left side of the machine and turn the pulley towards the rear while you push the keytop (electric). On manuals, hit each key to unlock it.

5. Platen: Some can be removed easily, some with various degrees of difficulty, and some are nearly impossible. If it can be removed without too much difficulty it is a good idea to do so. There are feed rollers under the platen that need to be wiped down with fluid (see Vocabulary). The paper pan can also build up stickiness with use of labels, and residue from the paper (especially those very high in rag content). Wipe the rubber parts down with fluid. This will allow the paper to make better contact against the writing surface.

PLATENS CAN BE REMOVED WITH VARIOUS DEGREES OF DIFFICULTY.
V. OILING AND GREASING

Use only supplies made for typewriters.
Grease is the exception, and oil is the rule.
Grease the track on which the trucks run.
Grease large cammed surfaces.
Grease internal clutches that specifically call for it.
Oil the motor bearings.
Oil the escapement and all fulcrum points.

Dampen all metal surfaces with spray oil, being careful not to spray on surfaces that operate with friction or on surfaces that come in contact with the paper.

When finished, go through the testing sequence and check that you have oiled all the fulcrum points.
VI. TESTING SEQUENCE

The standard pattern of tests to evaluate machine performance. To be used when dealing with any machine, whether purchasing, or diagnosing problems.

Check all characters.
Check:
tab
backspace
index
carriage return
space bar	

tab set
tab clear	

tab gang clear (if machine is equipped with tab clear to take all tabs out with one movement)
carriage release lever
line variable (button inside of left hand platen knob)
index pawl lever
impression setting lever
paper release lever
line spacing selector
ribbon color/stencil selector
margin release/set lever
bell
½ space lever
TO CHANGE OR
NOT TO CHANGE—
THAT'S A GOOD
QUESTION.

Two factors to consider: Time and Usage. Platens are made of rubber and rubber tends to harden with time. An example is a car fan belt which breaks down for no apparent reason. There is a reason—the rubber became brittle and cracked. The platen is a different shape than a fan belt; the cause of the failure is the same but the effect is different. Typing with a hard platen is like hitting a piece of steel against a brick. The machine was designed so the steel slug would hit against the soft (relatively) rubber.

These are the problems associated with a hard platen:

1. Poor print quality (too light, too dark, uneven).
2. Paper slippage.
3. Potential of smashing typefaces or breaking off the slugs.
4. Weakening the printer of a single element machine.

NOTE: If a slug breaks off, just repairing by resoldering the slug won’t solve the problem (the “Band-Aid” philosophy). Most often the problem occurred because of a hard platen. Usually, once the slug breaks off it’s time for your machine to get a major cleaning and platen change.
• Ribbon incorrectly placed on machine (most common operator created problem). If machine worked okay before ribbon change, assume incorrect ribbon placement.

• Runs slow—motor may need to be flushed and re-oiled.

• Impression levers are in incorrect position.

• If motor works but nothing else does, usually a broken belt is at fault (replace ALL belts if one breaks). Just take the old belts to the shop and get replacements.

• Certain machines tend to lock up when given a good jolt. To correct the problem, separately take each typebar and bring it up to the platen. This may solve the problem. (Olympia is notorious for this.)
IX. WHEN TO GO TO THE SHOP

Once you've done everything that this handbook suggests and you still don't get satisfactory results:

For instance—the impression is light at the highest settings—the machine may need complete overhaul including platen and power roll. Call several shops and compare prices of air cleaning, spray cleaning, dipping.

If the machine hasn't had a major COA in approximately 2-3 years, platen may also need to be replaced.
X. GOOD TYPEWRITER CARE

The best preventive maintenance is to keep the machine in a dry place, covered or in the case when not in use.

XI. ACCIDENTS

If the machine is dropped or damaged, go slowly through the testing sequence. If the motor won’t come on, there may be something lodged up against it—be very logical and systematic. Keep your wits about you, and don’t touch it until you are sure of the move you are making—but it never hurts to LOOK carefully. But don’t TOUCH until you are sure. Most likely a good technician should be contacted.
XII. BUYING, SELLING, TRADING

Before selling your machine, think about personal value rather than "blue book" value.

- *Flea market machines:* Do characters type clear and straight in both upper and lower case?
- Is the poor impression caused by a bad ribbon or is it something else?
- Do all features work? (Even a little bit is okay.)
- If all parts work but it is sluggish, a COA may be all that is needed.
- Check the platen—a new platen costs approximately $20.

If this is not a lifetime investment (if you plan to keep the machine for a year or two), check current classified advertising prices for machines in good condition. This will give you an indication of resale value and an indication of its relative market value.

WARNING: If the price is obviously too low (for example, a Selectric for $100), ask Police Department for clearance check on the machine. IBM also keeps track of machines (by serial number).
1. Make the technician demonstrate to you what the problem appears to be.

2. Get everything in writing.

3. Be sure to know the condition of the machine before accepting the repair estimate; if you are told the machine is not worth fixing, go to several shops.

4. Don’t trade in your machine. You can get more for it by selling it yourself.

5. Usually you can get a certain percentage discount with or without a trade-in.

6. Test out a machine for at least 20-30 minutes before buying it. It may take a little time for you to dislike something about it or some defective part to begin to act up.

7. Be sure the serial number of your machine is written on work order receipt.
A FINAL NOTE

A clean case looks nice and adds value to the machine when selling. Use a spray bottle of household cleaner and a soft, clean rag on the case and keytops.

and they lived happily ever after.

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