THE STUNT BOX

This is possibly the section that a great many of you have been waiting for. There is so much to cover, however, that we shall have to do it in bits and pieces.

If you have wondered why this unit is called the “stunt box,” you will better understand after we have shown you how to remove it. Since this mechanical marvel enables the operator to accomplish a great variety of features (or “stunts”) it became known as the “stunt box.”

An excellent booklet going into elementary detail of the stunt box was available for free from the Teletype Corporation until recently, but unfortunately they no longer print the booklet. We shall therefore, have to try to describe the action of the various parts through a few simple photographs.

The 216B manual on “Description and Principles of Operation” has some modest information about the stunt box in Section 573-115-100 on pages 33-37.

It would probably be easier to discuss the stunt box and components in it if we were to first have a look at it.

REMOVING THE STUNT BOX

The stunt box is located at the rear of the typing unit, directly below where the roll of paper sits. Fig. 7 shows the unit removed, just as it would be pulled out of the machine, with the rear part facing you, as well as the rear of the typing unit. Fig. 8 is approximately the same thing, but with the stunt box swung around to show the “business end” that plugs into the typing unit. Fig. 9 probably is a poor photograph, but shows the stunt box in my particular 28ASR, which is “loaded” and has all 42 slots being used for various purposes. This is getting ahead of the story, but figs. 8 and 9 show the two extremes between a “minimum loading” and a “full house” loading.

Now to get on with taking it out of the machine as shown in Figs. 7 and 8. First, remove the typing unit from the keyboard base. We have discussed this before, if you need a review, see Article 3 where we were talking about the keylevers — under that section we discussed removing the typing unit.

Set the typing unit on a piece of newspaper, then turn it around so the rear faces you. Remove the paper roll if you have not already done so. About the bottom of where the paper had been, you will see (on most of the machines, probably all of them) a six-sided rod about the size of a wooden pencil that runs between the left and right frame members (that supported the paper roll.) There is a bolt on each end holding this rod to those frame members. Get a small bowl or box to hold these parts in, otherwise you’ll surely knock them on the floor sooner or later and perhaps lose them. Remove the bolt at either end of that rod, then pull the rod out and lay aside.

Now looking slightly ahead of where this rod was, we see another one, only this one is round and smaller in diameter — about an inch ahead of the one we just removed. This rod is part of the stunt box (operates the “stripper blade” that “pops out”) but has been removed, but there are some things attached to it which have to be disconnected. At the left end of this rod, about one and three-quarters inches from the left frame, there is a connection to this rod that goes to the main shaft below and operates the rod as the motor turns the gears. There is a bolt and retaining ring (“C” ring) that holds this piece to the shift. Remove the ring and the bolt. Now the rod is free from the coupling, which may be pushed to one side to disengage it from the arm that goes to the main shaft — this arm then will drop down out of the way (depending upon whether the main shaft below has been rotated far enough).

Directly ahead of this rod we have been working on is the “stripper blade.” It looks a little like a household “ruler” that you use to measure lengths up to one foot width. About one-half inch from the right side you see a piece that has been added to the stripper blade. This is a tripoff, the paper and line feed slot. Look at the bottom of this added piece and you will see a hook that engages a small lever that projects through the hook. Keep this in mind, as this hook can get caught when trying to remove the stunt box (or replace it) unless

you first lift up with res. on the stripper blade, also when replacing the stunt box it is imperative that it re-engages the lever again.

Now just below the stripper blade at each end you will see two bolts. At each end, one of the two will be lower and farther away from the center of the machine than the other. This “lower” bolt at each end holds the stunt box in the machine. Remove this “lower” bolt from each side, and now the stunt box is ready to be pulled out. Before you do so, note that the electrical wiring along the top of the stunt box is held from getting in the road of the paper by a small metal arm along the left frame member. Loosen that arm, swing it down a bit, free the electrical wires, and then put the arm back where it was. Now pull the stunt box out. When you have removed the two “lower” bolts, usually the stunt box “pops out” about a quarter-inch from the spring tension on the function bars. If it has not already “popped free,” tug a little at either end of the rod ahead of the stripper blade, or rotate the main shaft below a revolution.

You can now slide the stunt box out, noting that it has grooves at either end to assist in its right end, make sure that little “added piece” on the stripper blade is high enough to clear the bracket where you removed that “lower” bolt, otherwise you will be unable to pull it out any further. You will also perhaps need to rotate the main shaft somewhat to get the arm that hooked to the rod clears the bottom of the stunt box.

Although this has been quitelines described in an unscientific manner, you will appreciate these hints for the first attempt. After that of course, it immediately becomes a very simple job. Those reading this information who have already removed the stunt box a few times will find this section to be elementary to be of any interest. But when working with a machine whose new cost was around $1,200, a person finds even the most simple detail of great interest.

The end of the stunt box that has the electrical wires connected is the “beginning end,” and the slots are numbered starting at this end.

TYPICAL SLOTS

The “repaired” mouse machines should all have a common stunt box arrangement. I think the non-repaired will all be identical except for a “2” instead of an “H” on the motor-stop set-up as discussed in article 3.

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above slot 23 and this will activate the
"Motor-stop" relay. Slots 28 and 29 are
called "sequential" since 29 cannot work
unless 28 has been selected immediately
prior.
Slot 30 is the "bell" and works from
an "upper-case S". The bar is also coded
for "printonly" which has to do with selec­
tive call-up (Selcal) so the bell won't ring
if you are in "non-print".

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WHY NON-OVERLINE WORKS

We have now placed a "line feed" function bar in slot 5. This also suppresses spacing for line feed characters. We have now put the original "carriage return" function bar in the "other slot". Thus all you didn't need for it you are coming back at all, like it once did on the line via slot 1 and 2. We have not installed "auto CR-LF" parts as yet, so we will get into that a little later in the series as right now we are trying to give you the "feel" of the box and don't want to rush things too fast.

Make sure none of the function pawls are tied up or held up via the little metal brackets we talked about. Peer under the stunt box and make certain all the springs are hooked properly to the function bars. Now note that on either side of the stunt box is a little guide to go in the "rails" to help put it back in the typing unit. There are only three things to particularly watch as you slide it back in:

1) The "shift fork" at the top left of the stunt box (we are at the rear of the unit, and "left" corresponds with slot 1, etc.) must engage the shaft in the typing unit properly. You may take a screwdriver and tap the "U" slot in the shift fork so it will properly engage, if necessary.
2) When you get within a quarter-inch or so of all the way in, you will meet sudden resistance. This is normal, as the function bars are spring-loaded and resist this final short distance. If everything else appears normal, just give a quick push at each end of the stunt box and it should snap into place. It may be necessary to hold it there while you install the two "lower" bolts to hold it in place.
3) Then hook up the main shaft "arm" to the coupler on the rod at the rear of the stunt box and install the locking bolt and "CR" retaining ring again. Put the electrical wires under the little metal arm to keep them out of the way of the paper roll. Reinstall the support bracket (the six-sided rod), put the printer unit back on the keyboard base, turn the motor by hand (CCW) 1 to 2 revolutions, replace the four bolts holding it to the base, reconnect the cable to the rear of the right ribbon spool and you should be back to normal.

The "over-lining", and now the machine acts like a normal typewriter insofar as to help put it back in the typing unit. There always has been. Even at 100 speed, the unit should "get back in time" if properly "added piece" of the stripper blade and "LF" in their proper sequence. Some of these systems are fascinating terms where you merely exchange two items short distance: If everything else appears normal, just give a quick push at each end of the stunt box and it should snap into place. It may be necessary to hold it there while you install the two "lower" bolts to hold it in place.

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