

# TACH-IT® TWISTERS™

## TACH-IT MODEL #3570 SEMI-AUTOMATIC ADJUSTABLE CAPACITY TWIST TIE MACHINE

### REPAIR MANUAL



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## SECTION 1—REMOVING AND REPLACING THE TOP COVER:

### To remove the Top Cover:

**Power Cord must be unplugged from electrical outlet prior to removing the Top Cover.**

- 1) Loosen the screws and the bearings from both sides of the Top Cover as shown below in Figure 1.
- 2) This machine is equipped with a Safety Switch. To disengage the Safety Switch lift the Top Cover straight up.

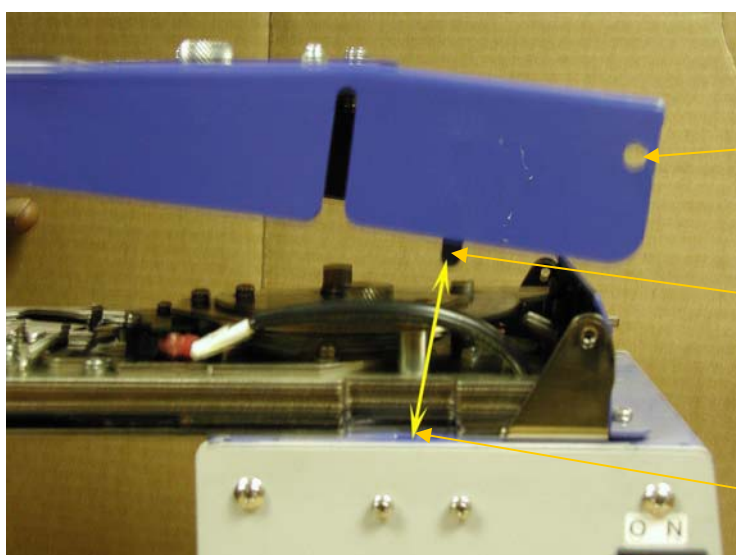
### To replace the Top Cover:

- 1) Locate the Safety Switch Opening next to the Top Plate. See Figure 2.
- 2) Reinstall the bearings with the shoulder of the bearing to the inside of the cover that were originally removed from the Top Cover.
- 3) Matching the tab on the Top Cover with the Safety Switch Opening, push the Top Cover down onto the machine.
- 4) Tighten the screws pictured in Figure 1



Remove the Screw and Bearing from both sides of the Top Cover and lift straight up to remove.

Figure 1



Reinsert bearing and screw here. Bearing must be reinserted with Shoulder on the inside prior to lowering Top Cover onto the machine.

Tab on the Top Cover

Opening for Safety Switch

Figure 2

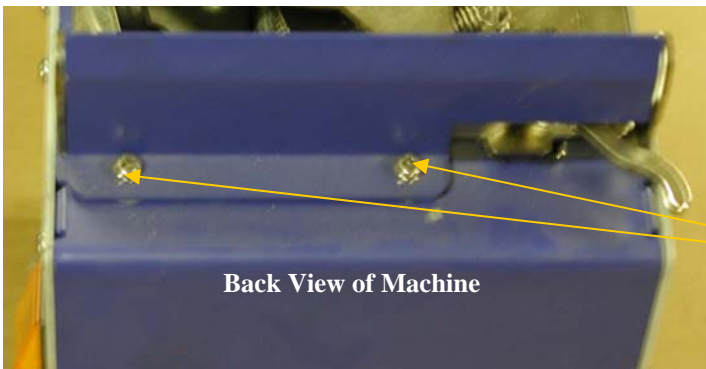
## SECTION 2—REMOVING THE SEGMENT GEAR AND THE FEED ROLLER.

It is recommended that the Segment Gear should be checked if the machine loses its cycle position. When checking the gear make sure that all surfaces are examined as well as all meshing parts. If any excessive wear is seen it is recommended that the part be changed.

Removal of the Segment Gear may be necessary to make other repairs within the body of the machine.

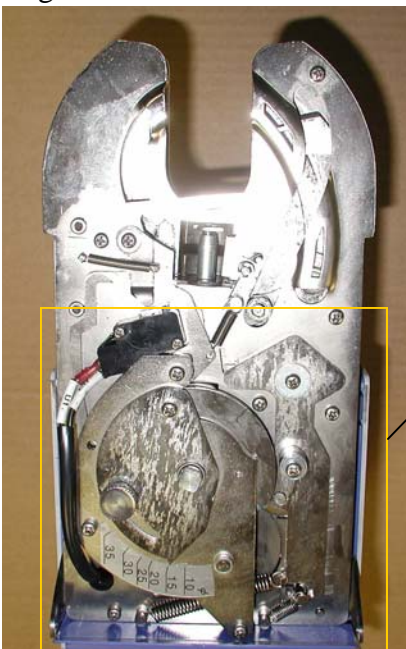
### To Remove the Segment Gear and Feed Roller:

- 1) Make sure the machine is Off and remove the Power Cord from the outlet.
- 2) Remove the Top Cover. To remove the Top Cover see Section 1.
- 3) Remove the Back Cover by unscrewing the 2 screws marked in Figure 3 and lifting the Back Cover up.
- 4) Locate and remove the 3 screws holding the Upper Support Plate Assembly. Lift the Upper Support Plate Assembly straight up along the shaft. See Figure 4 and Figure 4A. Leave the Collars located under the Upper Support Plate Assembly at this point in their position. They can be removed later if necessary.
- 5) Turn the Main Shaft counter-clockwise until the flat of the Feed Roller rides on the flat of the Segment Gear. This will ensure proper timing during the re-assembly process. See Figure 6.
- 6) Remove the Ribbon Holding Arm Spring. See Figure 5
- 7) Remove the Ribbon Feed Adjustable Arm and place it on the side in a way so that during re-assembly it is put back in the same orientation and same place on top of the Segment Gear.
- 8) Lift and remove the Segment Gear and the Feed Roller together. As these 2 parts mesh together they must be removed together. See Figure 7 for view of machine once Segment Gear and Feed Roller are removed.



Remove the 2 screws shown to remove the Back Cover

Figure 3



Magnified View

Upper Support Plate Assembly

Remove these 3 screws and lift Upper Support Plate

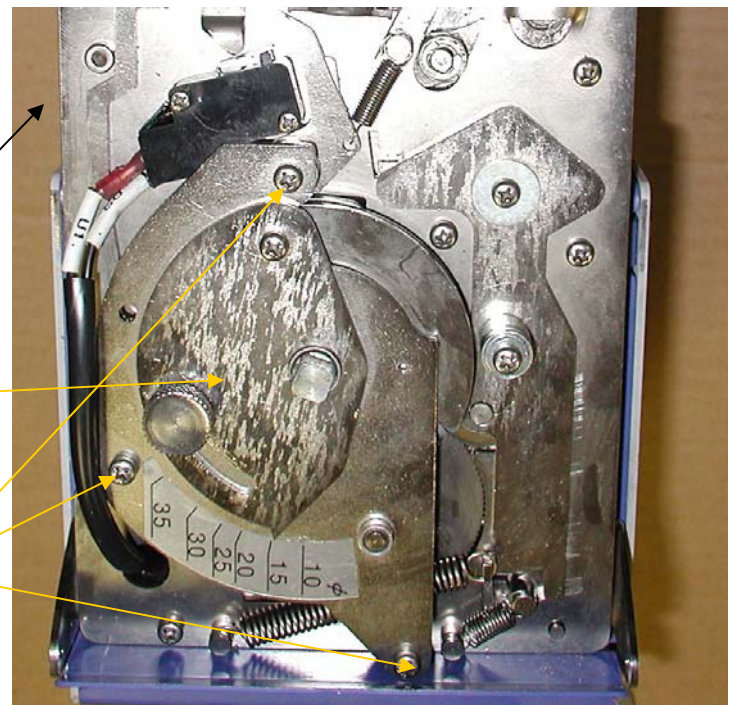


Figure 4A

Figure 4



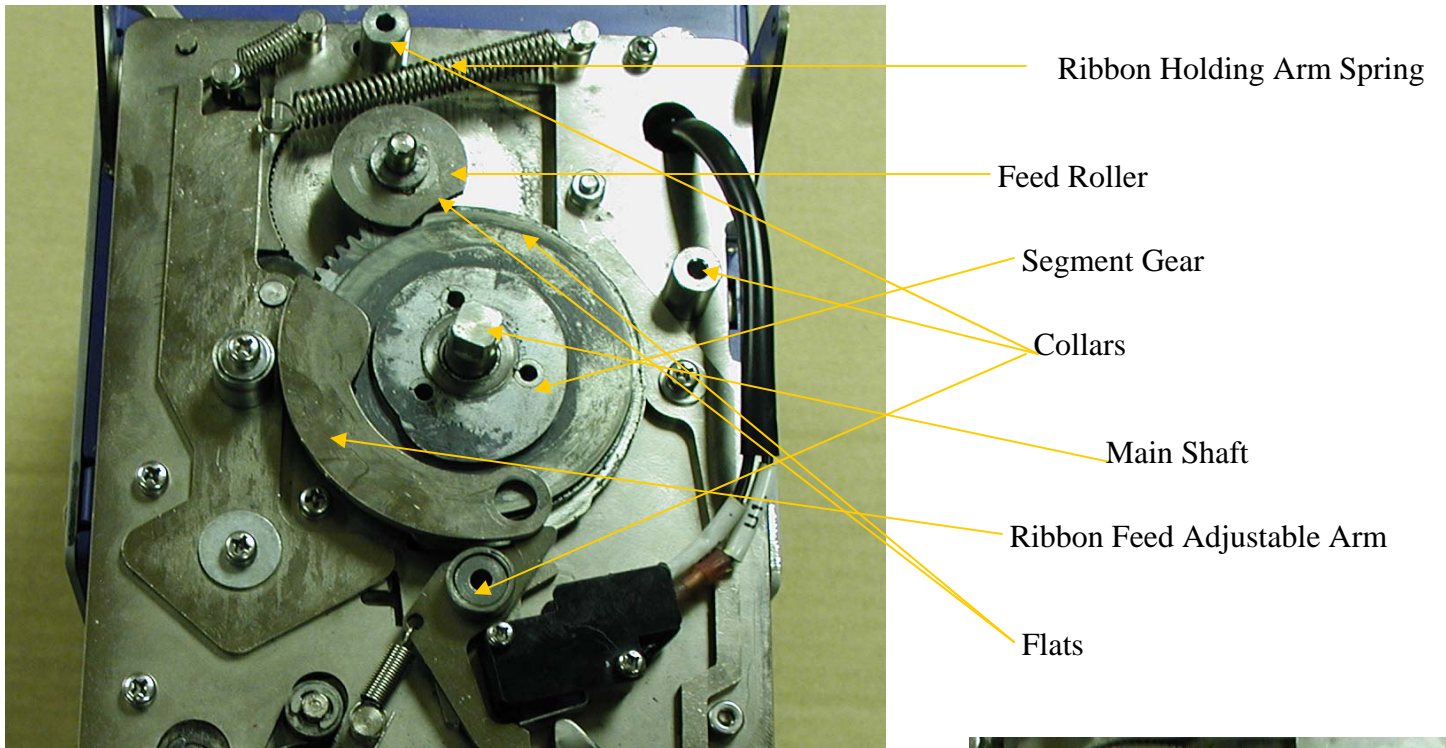


Figure 5—Machine Shown in Home Position

Turn the shaft counter-clockwise until the flat of the Feed Roller meets the flat of the Segment Gear

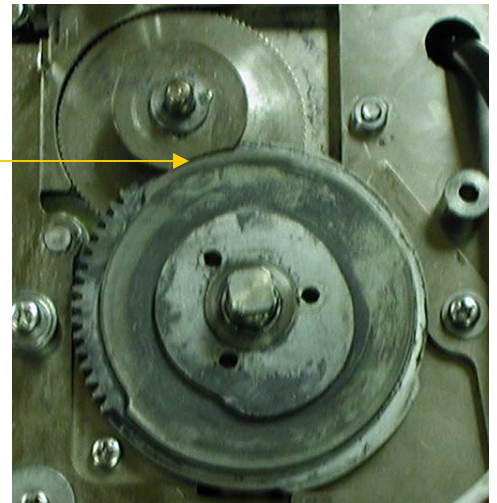


Figure 6—Machine Shown in Position to remove Feed Roller and Segment Gear

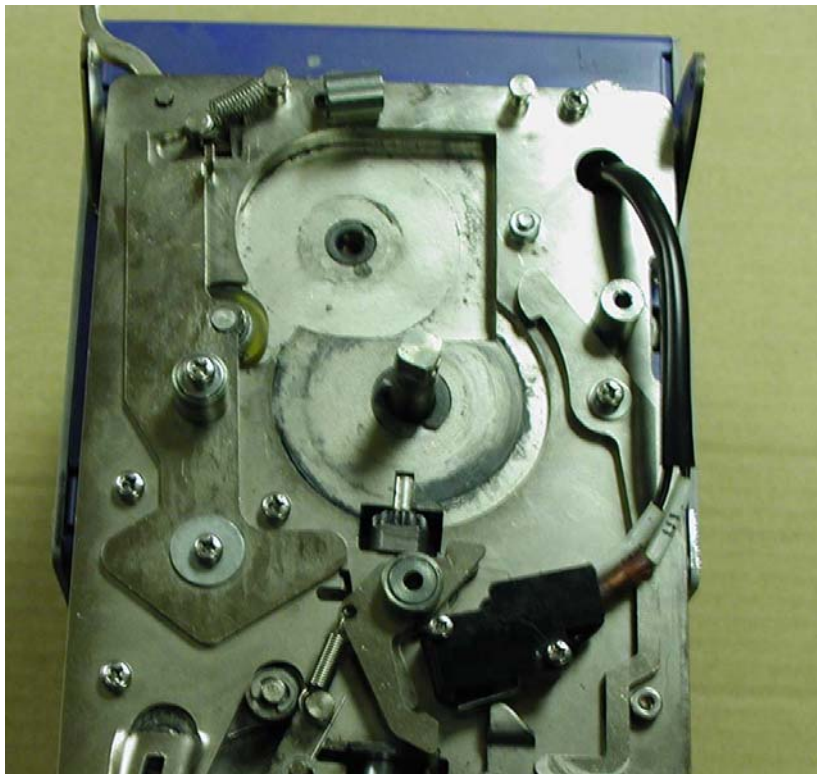


Figure 7

## SECTION 3—REPLACING THE SEGMENT GEAR AND THE FEED ROLLER.

### To Replace the Segment Gear and the Feed Roller:

- 1) It is important that prior to re-assembly, the Rotary Blade is in the proper position. The Rotary Blade must be positioned so that the sharpened or beveled edge is at the 9:00 position and as vertically straight as possible. The position of the Rotary Blade can be adjusted by turning the Twister Gear. See Figure 8 and Figure 9.
- 2) Holding the Feed Roller and the Segment Gear align them so that the Flat of the Feeding Roller is against the Flat of the Segment Gear in a similar position to how they were removed. Make sure that both parts are fully lowered onto the plate and that the keyway in the Segment Gear matched to the key in the Main Shaft.
- 3) Replace the Ribbon Feed Adjustable Arm onto the Segment Gear in a similar position to how it was removed. See Figure 5 which shows the position of the Ribbon Feed Adjustable Arm.
- 4) Replace the Ribbon Holding Arm Spring. See Figure 5.
- 5) Turn the Main Shaft clockwise to reset the Home position of the machine to where it was prior to the parts being removed, See Figure 5. If the gears do not mesh properly when turning the Main Shaft by hand, remove and reset the gears as per previous instructions and try again.
- 6) If the Collars supporting the Upper Support Plate Assembly have been removed, re-position them. See Figure 5.
- 7) Locate the Stepped Shaft on the underside of the Upper Support Plate Assembly. See Figure 10. Lower the Upper Support Plate Assembly onto the Main Shaft. Make sure the Stepped Shaft engages the hole located on the end of the Ribbon Feed Adjustable Arm. Continue lowering the Upper Support Plate Assembly until it rests on the Collars.
- 8) Replace the 3 Screws Securing the Upper Support Plate Assembly. See Figure 4A.
- 9) Replace the Back Cover. See Figure 3.
- 10) Replace the Top Cover per the instructions in Section 1.

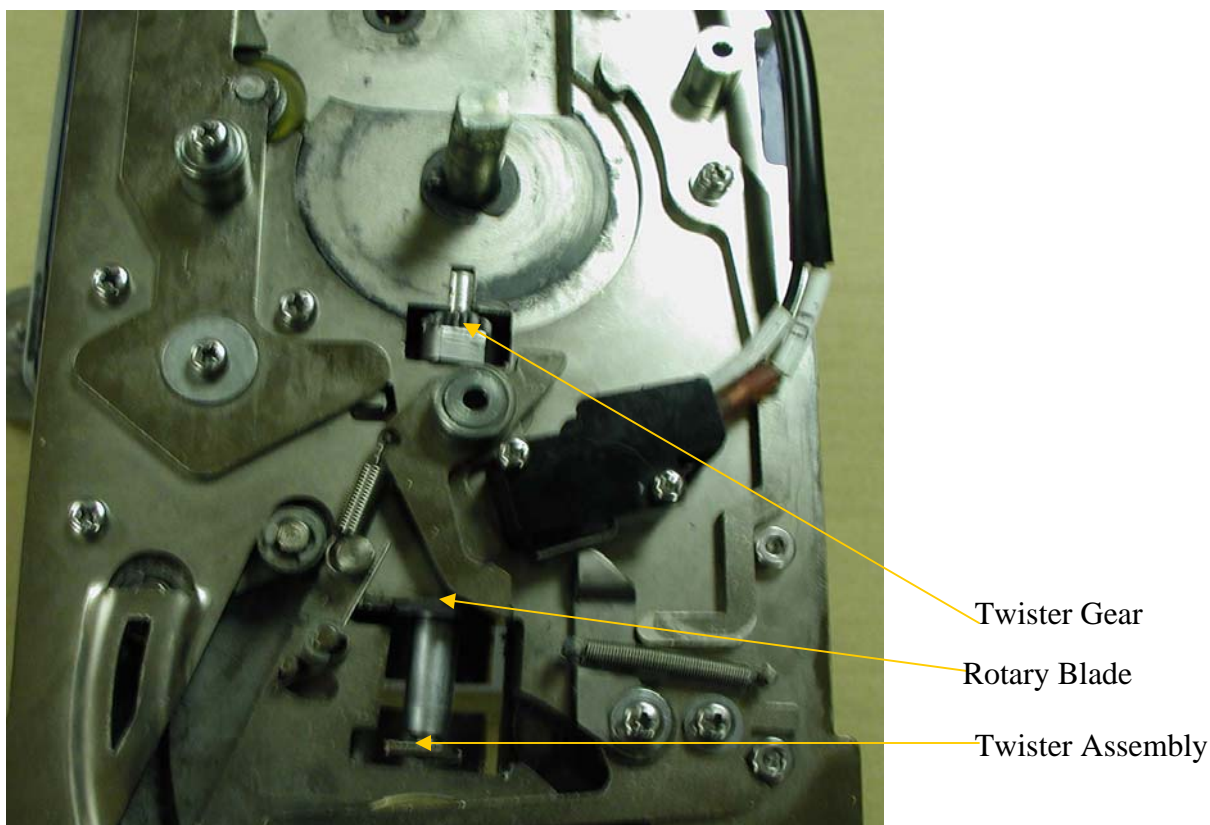
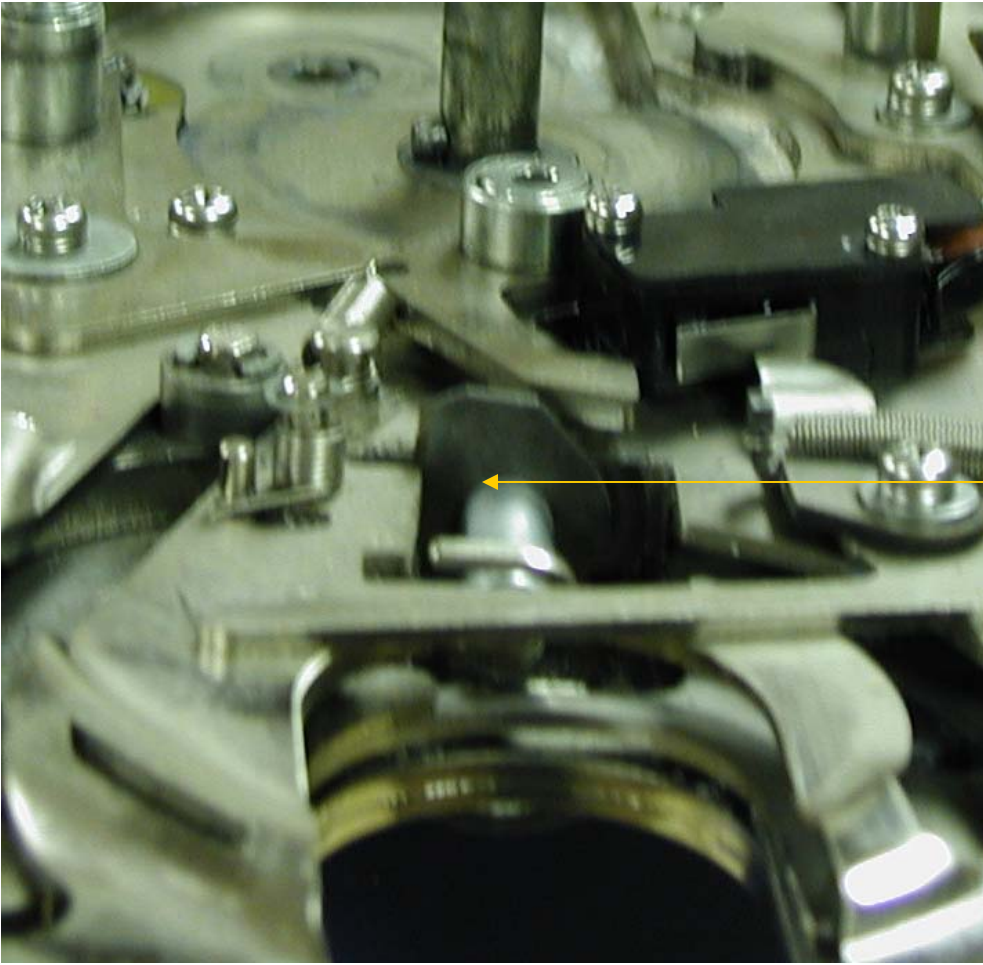


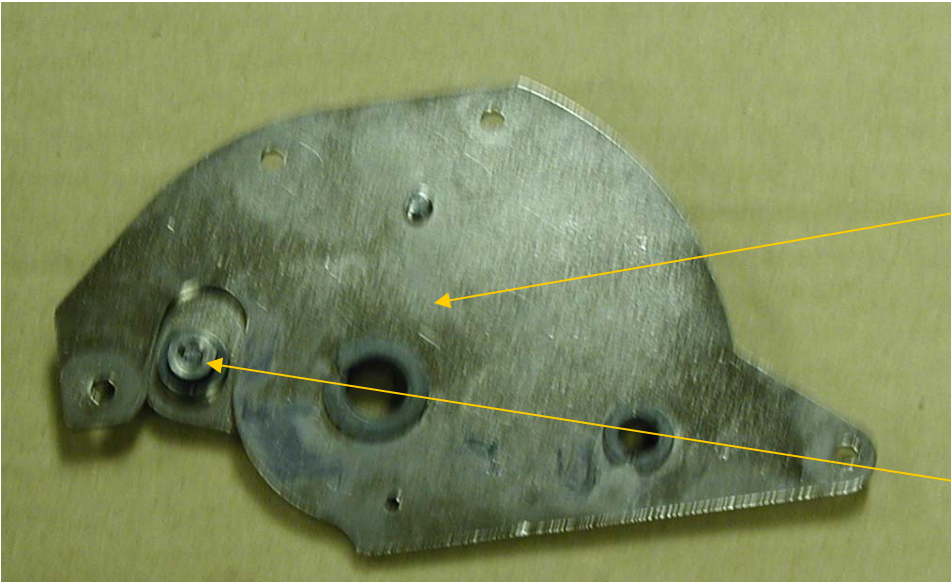
Figure 8





Proper position of Rotary Blade is so that the sharpened or beveled edge is at 9:00 and that it is vertically straight up and down.

Figure 9



Under side view of Upper Support Plate Assembly

Stepped Shaft

Figure 10

## SECTION 4—REMOVING AND REPLACING THE COMPLETE HEAD ASSEMBLY FROM THE BASE OF THE MACHINE.

For some repairs done on this machine, it is easier to remove the Complete Head Assembly from the Base of the Machine. Removal of the head can be done for any repair or maintenance including some previously discussed in this manual. This is simple to do by following the instructions below.

### To remove the Complete Head Assembly from the Base of the Machine:

- 1) Follow the instructions in Section 1 to remove the Top Cover.
- 2) Remove the Back Cover by unscrewing the 2 screws marked in Figure 3 in Section 2 and lift the Back Cover up and away from the machine.
- 3) Remove the wires from the Micro Switch. See Figure 11.
- 4) Remove the screw marked in Figure 11 below and while feeding the wires through the hole in the back of the assembly, lift and remove the Head Assembly from the Base of the Machine.

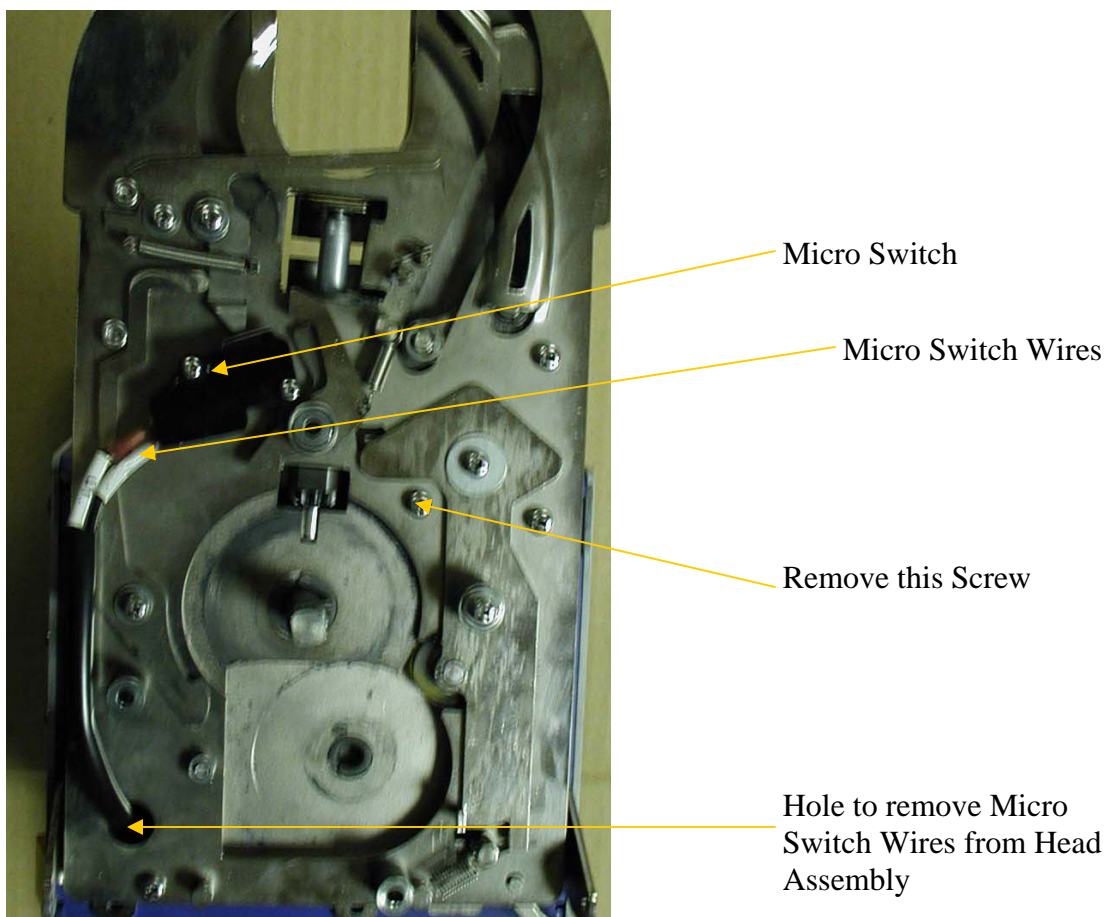


Figure 11

### To replace the Complete Head Assembly onto the Base of the Machine:

- 1) Locate the hole for the Micro Switch wires in the rear of the Head Assembly and feed the wires through the hole.
- 2) Lower the Head Assembly back onto the Base making sure the gears located on the bottom of the Head Assembly on the Motor Shaft line up.
- 3) Replace the Screw that was removed.
- 4) Re-attach the wires that were removed from the Micro Switch
- 5) Replace the Back Cover. See Figure 3 in Section 2.
- 6) Replace the Top Cover per the instructions in Section 1.



## SECTION 5—REPLACING THE TWISTER ASSEMBLY, ROTARY BLADE AND FIXED BLADE

### To replace the Twister Assembly, Rotary Blade and Fixed Blade:

- 1) Follow the steps in Section 1 of this manual to remove the Top Cover.
- 2) Follow the steps in Section 2 of this manual to remove the Segment Gear and Feed Roller.
- 3) If not done during the removal of the Upper Support Plate Assembly remove the Collars that support the Upper Support Plate Assembly and put them on the side.
- 4) Locate the Switch Lock Lever Assembly. Unhook the Switch Locking Spring from the Spring Hanger and lift the assembly from the Upper Base. See Figure 12. **Suggestions:** Keep this assembly together in the same manner as it was removed from the machine. This will ensure the parts are in the proper orientation during re-assembly.
- 5) Locate the Micro Switch. Remove the 2 wires from the Micro Switch and then remove the 2 screws holding the Micro Switch to the machine. Lift the Micro Switch and the Insulating Spacer from the machine.

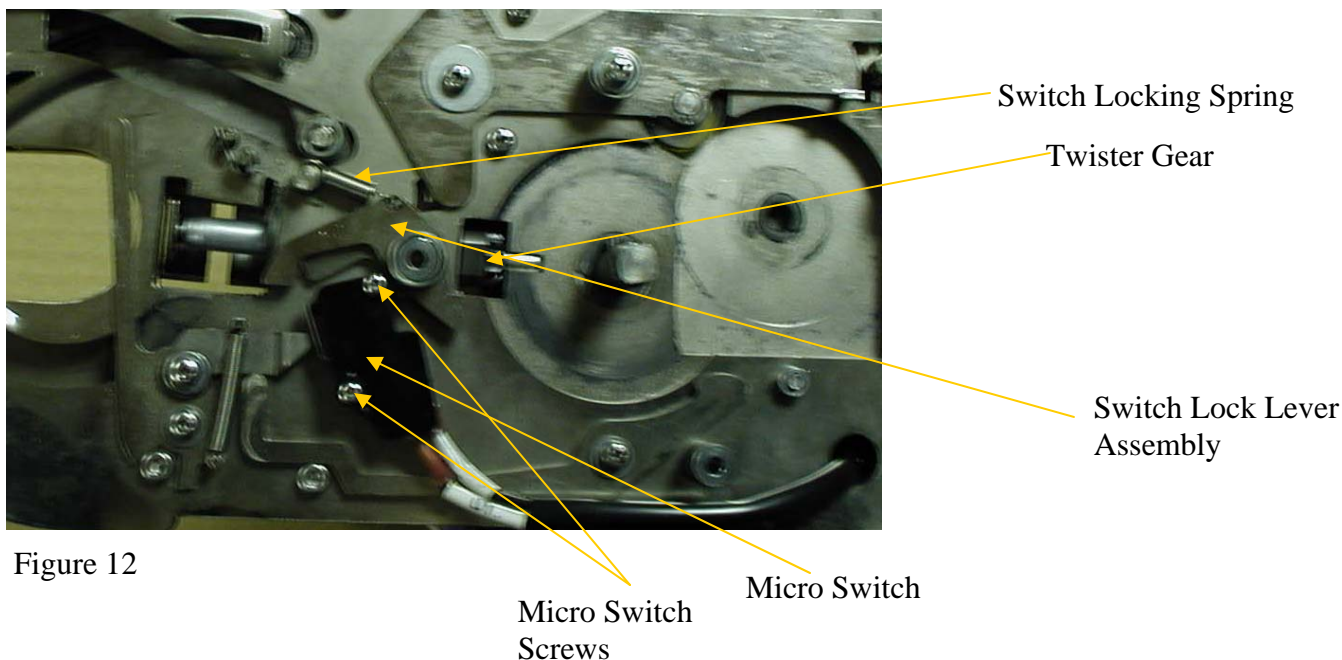


Figure 12

- 6) Locate the No-Back Lever Spring and remove. See Figure 13.
- 7) Locate the Ribbon Holding Arm Assembly and the Ribbon Holding Arm Screw. Loosen the Ribbon Holding Arm Screw. See Figure 13.
- 8) Keeping the Ribbon Holding Arm Screw in the Ribbon Holding Arm Assembly and carefully lift the Ribbon Holding Arm Assembly from the machine. There is a bearing located on the Ribbon Holding Arm Screw. Make sure that this is removed from the machine with the assembly and kept with the screw.
- 9) Locate and remove the Ribbon Pressing Roller from the machine. **Suggestion:** The bearing inside the Ribbon Pressing Roller has a shoulder this shoulder must always be on top. When placing this part down to the side, place it in the same orientation as it is used in the machine so that when it is re-installed, the bearing will be in the right direction.

**Figure 13 and Section 5 continued on the next page.**

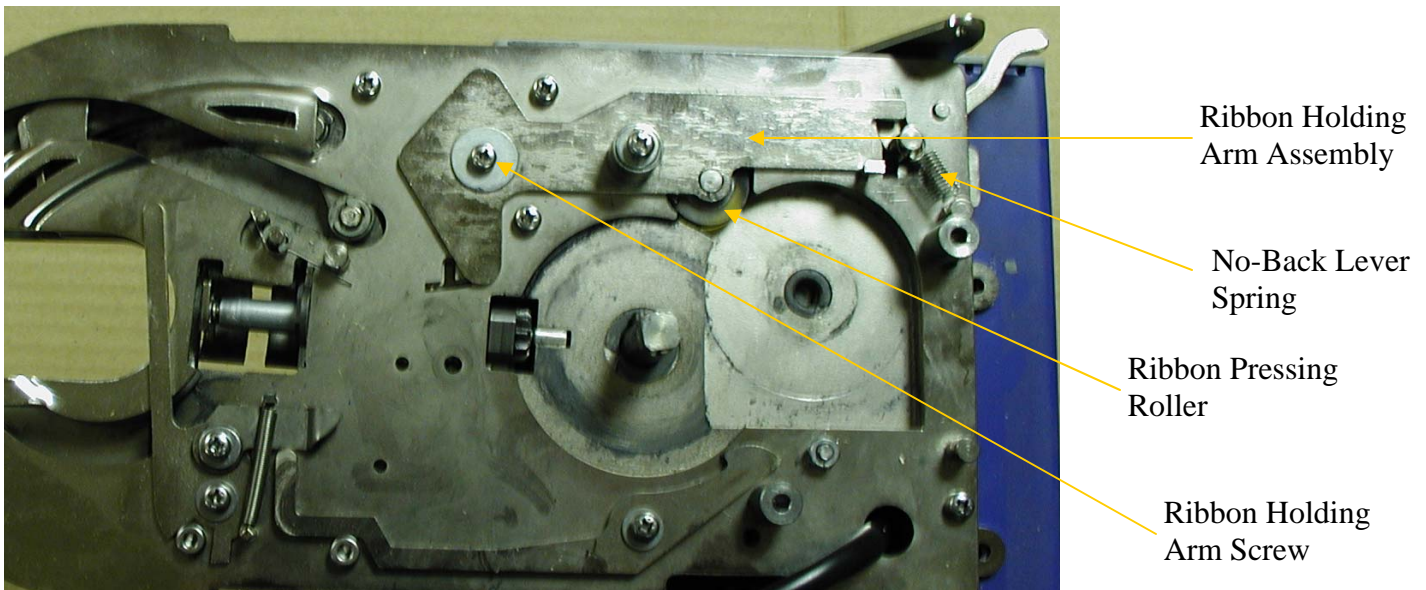


Figure 13

- 10) Locate the Ribbon Pushing Arm Spring. See Figure 14.
- 11) Locate the E-Ring Holding the Ribbon Pushing Arm Spring onto the shaft. See Figure 14.
- 12) Using long nose pliers remove the E-Ring from the shaft and lift the Ribbon Pushing Arm Spring from the Shaft.

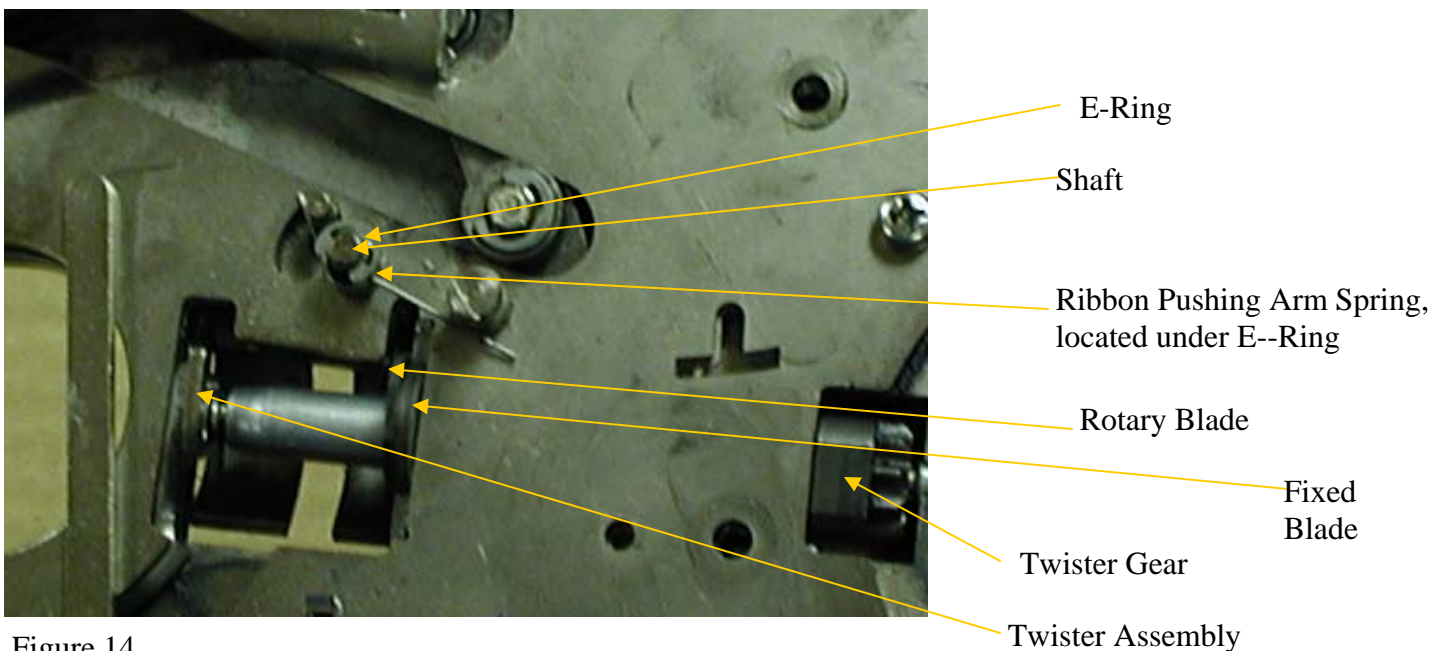
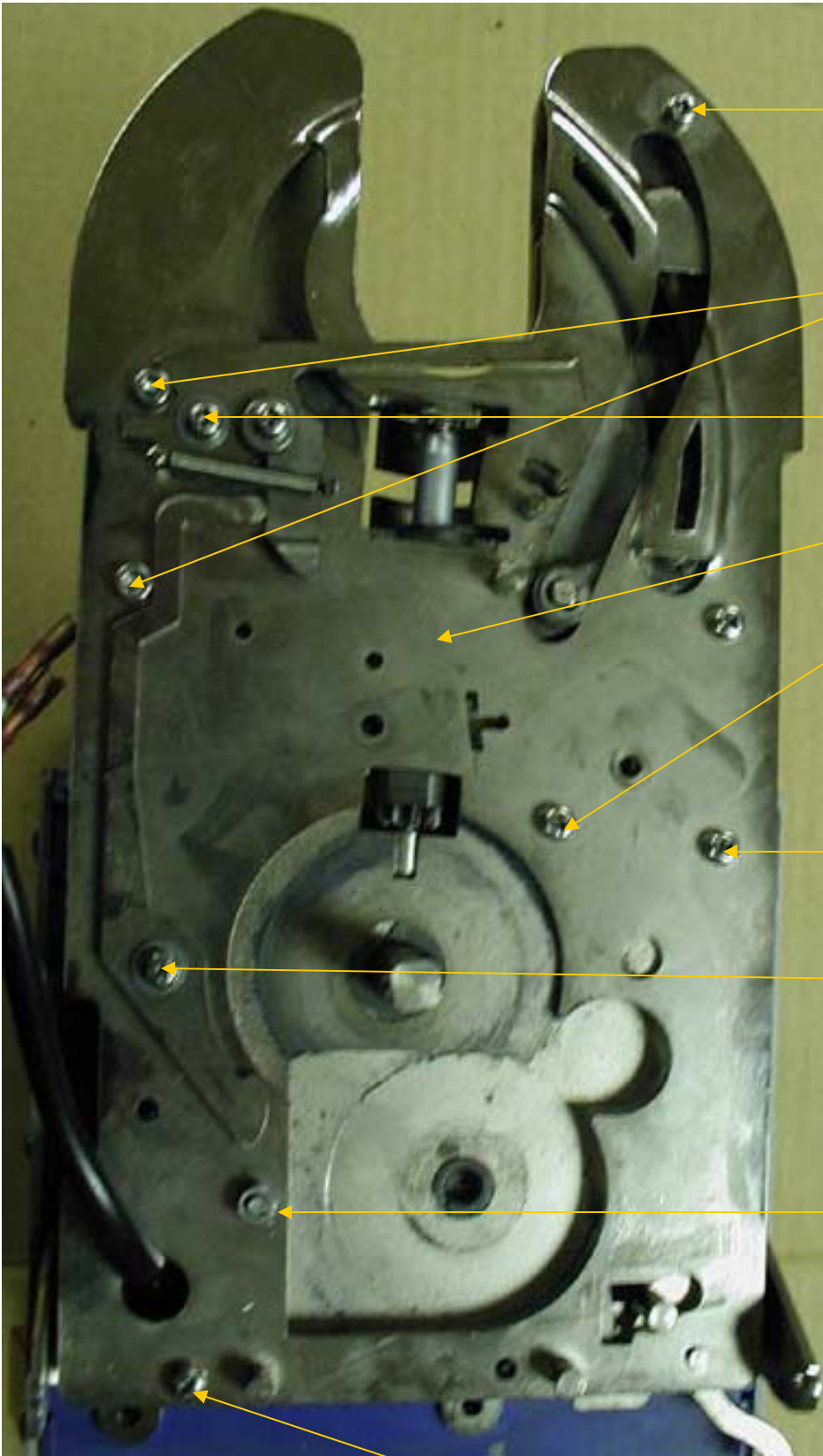


Figure 14

- 13) The Upper Base must be removed. This is done by removing a combination of Philips head screws, allen head screws and a nut. See Figure 15. One of the marked screws when removed will remove the Complete Head Assembly from the Base of the machine as per Section 4 of this manual. Be careful when removing this screw (it is marked on Figure 15) which screw it is) that the Head Assembly does not fall and get damaged. Set the Base of the machine aside and continue with the necessary repairs. **Suggestion:** Except where noted on Figure 15, only loosen the screws, but do not remove them physically from the Upper Base. This will make it much easier for re-assembly knowing that the proper screw is in the proper location.

Figure 15 and Section 5 continued on the next page.



Loosen this Screw. There is a spacer underneath this screw which is necessary for re-assembly

Loosen

Loosen and make sure that you have the spacer from below the screw. Lift full assembly and set aside..

Upper Base

Loosen this screw carefully. This is the only screw holding the Head Assembly to the Base at this time. Support the Head Assembly so that it does not fall and become damaged.

Loosen

Loosen and make sure that you have the spacer from below the screw. Lift full assembly and set aside..

Loosen

Loosen

Figure 15





