# EXABYTE 8MM HEAD WHEEL DISASSEMBLY

The following procedure describes the removal of and the reinstallation of the upper head wheel assembly for the 8200 series 8MM drive. This procedure also applies for the 8500 series, with the differences between the two wheel assemblies and procedures noted in parentheses as appropriate.

The picture set out below shows only the Exabyte 8200 upper wheel, after the hold down gasket has been removed.

The head wheel assembly shall only be handled by a technician while wearing either gloves or finger cots so as to not put any oil or other foreign matter onto the unit from the person's fingers.

When not being worked on, or when not installed in a drive, the assembly shall be wrapped in tissue and stored in a head box.

The full assembly consists of four separate major elements, namely, from top to bottom: the upper gasket; the upper drum assembly; the lower drum assembly; and the motor.

The head elements themselves are located in the upper drum assembly. The 8200 series consists of three heads (the 8500 series consists of five heads, positioned in three windows, with two pairs of head elements stacked next to each other in the two side positions). These head elements are connected to the lower drum assembly via four pin pairs (on the 8500 there are three pairs and one set of four pins). These pins are located on the lower drum assembly and go up through the upper drum assembly and the PCB located on the top of that assembly through holes located near the three head element positions, with the fourth pair being the ground pair. The PCB located on the upper drum assembly has solder pads for soldering theses pins.

## REMOVAL

Using the appropriate size Allen driver, remove the two screws holding the upper gasket to the drum assembly. Remove the upper gasket. Desolder all pin connections. Examine the through holes carefully under a microscope to insure that all solder has been removed. If there is any solder left, you are likely to pull the pin loose from the rotary transformer in the bottom

 

drum, rendering the drum unusable. Attach the drum removal fixture and screw down the two side screws into the screw holes which were used in attaching the upper gasket to the drum. MAKE SURE TO ONLY USE THE SCREWS PROVIDED WITH THE PULLER. USE OF SCREWS THAT ARE TOO LONG WILL DAMAGE THE SHAFT ON THE LOWER DRUM, CAUSING TILT PROBLEMS WHEN MOUNTING THE NEW UPPER HEAD WHEEL. Insure that the center screw tap is positioned against the central shaft and tighten the tap while holding firmly to the motor assembly. This will pull the upper drum assembly off from the lower drum assembly.

REINSTALL

When the upper drum assembly is ready to be installed, inspect the inside of the shaft opening on the bottom of the upper drum assembly to insure that there is no oil or dirt in this area and clean as necessary. Also inspect the shaft on the lower drum assembly to insure that there are no dents, oil or dirt on the shaft sides or top. Clean as necessary. If there are dents, especially on the top of the shaft, use a different lower drum assembly.

Place the reference alignment pin in the lower drum assembly, and using the alignment pin as a guide through the upper drum assembly alignment hole, insure that the lower pins slip through the pin holes (Note: this pin is not for head wheel alignment, put rather merely to align the pins to the holes). Once through, remove the alignment pin, press down on the upper drum assembly until it clicks (not all units click) indicating good contact. Then, using the adjustable torque screwdriver handle and the appropriate Phillips or Torx driver bit, and without attaching the upper gasket, tighten first one screw and then the other to 2"/lb torque. Repeat the process, now tightening them to 4"/lb. Repeat the process, now tightening them to the final 6"/lb. NOTE CAREFULLY, UNEVEN PRESSURE ON THE SCREWS WILL RESULT IN MISALIGNMENT OF THE DRUM ASSEMBLY.

After tightening the screws to the appropriate pressure, then solder the pins to the copper solder plates on the upper drum assembly, being careful to keep the solder separate so as to avoid shorting the heads. Once the pins have been soldered, remove the screws, place the upper gasket onto the upper drum assembly, reinsert the same screws, using the same procedure set out above. Then insert the other two screws which attach the upper gasket to the upper drum assembly. Also torque these down to 6 in./lb. pressure.

 