Turret Alignment 33 Station chain driven turrets OPC Alpha controller

Warning hazardous voltages and mechanical dangers are present during this procedure. If at any time you are unsure of this procedure call a qualified technician. Serious bodily harm, and equipment damage can result.

First we must determine if the misalignment is mechanical.

1. Reference turret while observing the turrets, when SHOT PINS engage check for "top to bottom turret misalignment. If the SHOT PINS engage evenly skip to the next section
2. If it appears the turrets are misaligned it will be necessary to separate them, and realign
3. Press ESTOP
4. Go to turret drive side(back) of machine and remove cover from turret motor
5. Locate taper lock coupler (see drawing) on shaft coming from turret gearbox to turret shaft
6. Loosen 4 Bolts ON TOP of the coupler.
7. You will notice tapped holes next to the cap screws that are empty. Thread the screws removed in step 6 into holes. (I always recommend new hardware (screws) be used) Tighten EVENLY until the top section of the coupler is forced from the bottom.
8. Disengage SHOT PINS by actuating the proper solenoid ensuring the turret is NOT at an auto index station! If you have followed step 1 before getting to this point you are fine.
9. You will now notice the top and bottom turret can be moved independently of each other.
10. Align as close as possible ensuring the station numbers match top to bottom.
11. Re engage SHOT PINS by actuating solenoid, you will see the shot pins forcing the turret into alignment. Move the pins in and out a few times to ensure proper alignment
12. Replace the screws into their original holes and tighten evenly.
13. Test by referencing the turret again.
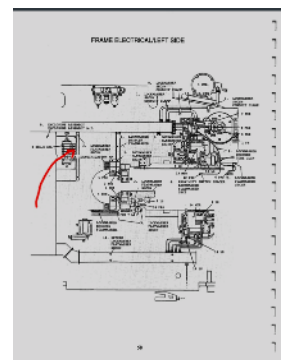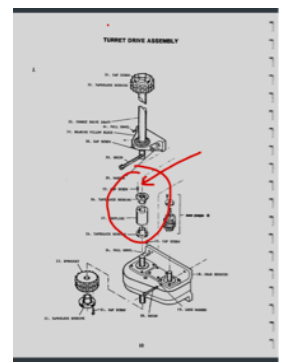
Now that mechanical alignment is correct check electrical alignment

1. Press,DGN button on keyboard
2. Type N802 INPUT
3. You will see a number that represents the error in electrical turret alignment
4. If the number is less than 30 you are good. No further adjustment is needed.
5. If the number is more than 30 record the number, then adjust the grid shift parameter
6. Press MDI
7. Press SET
8. Press PGDN
9. You should see PARAMETER ENABLE =0
10. Type P1 then press INPUT
11. You will get a PARAMETER ENABLE alarm
12. Clear alarm by pressing and holding CANCEL then hit RESET on keyboard

13. Press PARAM button on keyboard
14. Using a phone take a picture of the parameter screen in case something goes wrong
15. Type N 84, then press INPUT
16. Adjust parameter by adding the value recorded in step 5. If the number was positive add to the count, if negative subtract. Press P then enter the value computed.
17. You will get an alarm instructing you to power OFF machine
18. Cycle power then reference turret and recheck the Diagnostic in step 2
19. If it is below 30 your done, otherwise start back at step 2

Remember to turn off PARAMETER WRITE that was enabled in step 9......Press PARAM change P1 back to P0 by typing PO INPUT