

INSTRUCTIONS For ASSEMBLY And ADJUSTMENTS On The MAIN BEARING CAP GRINDING FIXTURE CRG-710

I. Assembly of Main Bearing Cap Grinding Fixture on CRG-750.

1. Remove **Gage Rod**, two shoulder screws and button head screw holding the spring, as shown. (Figure 1) Keep **Gage Rod** and button head screw for reassembly.

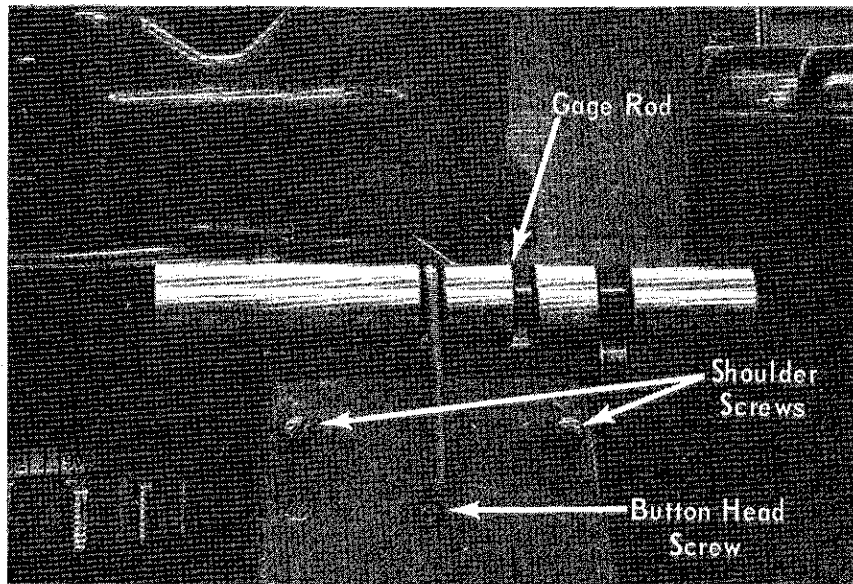


Figure 1

2. Fasten the **Base Plate** (Figure 2) to the grinder, using the two socket head cap screws, as shown. (Figure 3) Fasten spring to **Base Plate**, using button head screw kept from Step 1.

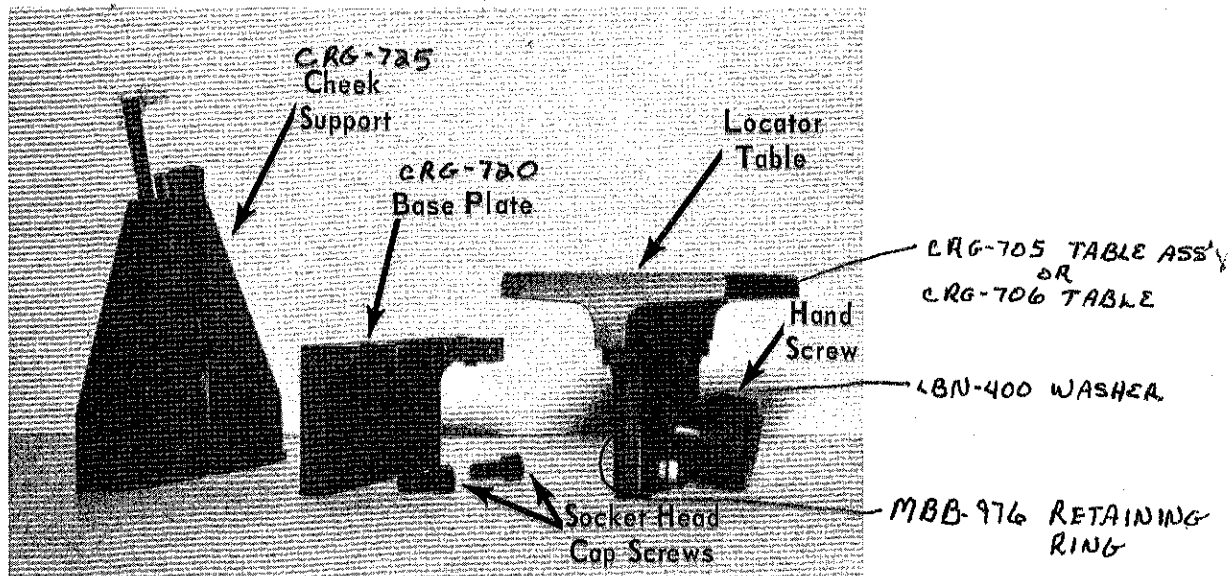
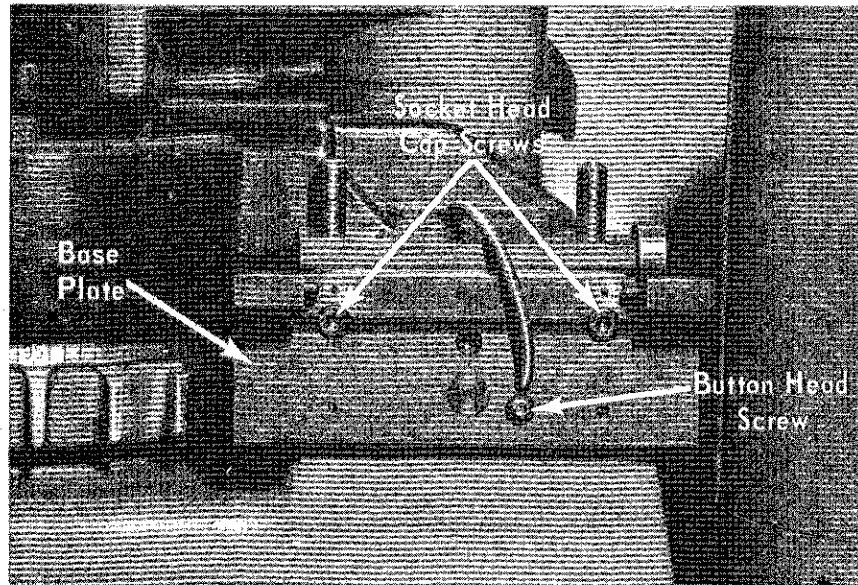


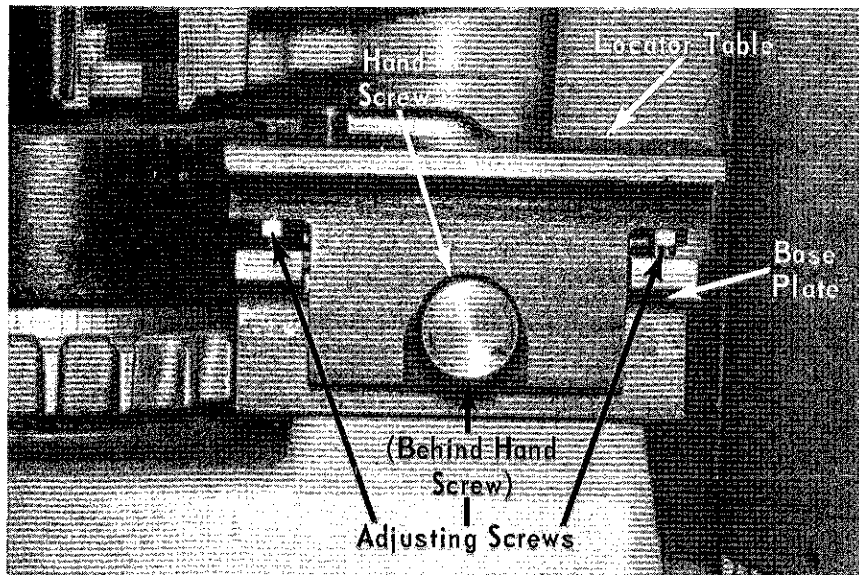
Figure 2

Figure 3



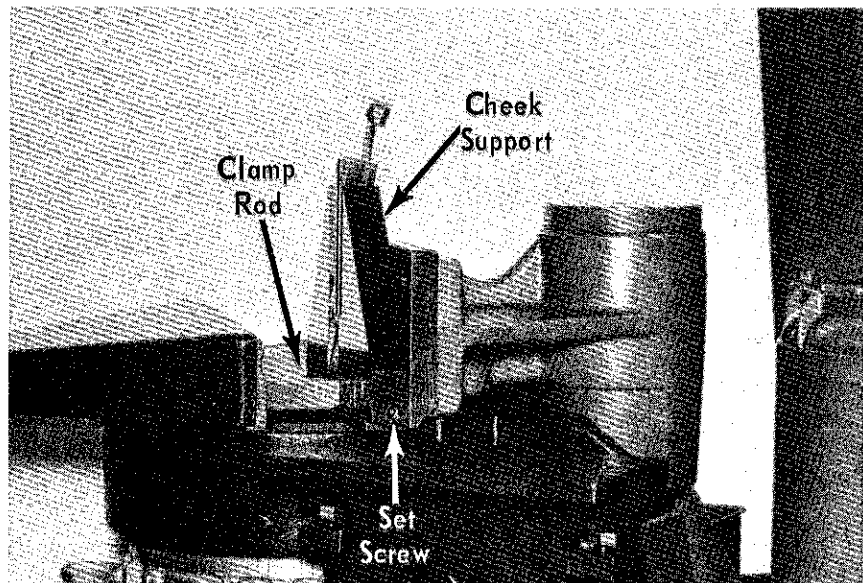
3. Place the **Locator Table** (Figure 2) on the **Base Plate** so the tips of the adjusting screws rest on the pads of the **Base Plate**. Fasten the **Locator Table** to the **Base Plate** with the **Hand Screw**. (Figure 4)

Figure 4



4. Place **Cheek Support** (Figure 2) over the **Clamp Rod**, as shown, and fasten in place with the set screw (Figure 5) located on the right side.

Figure 5



II. How to level **Locator Table**.

A. Method using the **AG-50 Dial Indicator** from a Sunnen AG-300 Gage and the **Indicator Hold Rod**.
(*Figure 6*) (The Indicator Hold Rod is not included in the CRG-710; it may be purchased separately).

1. Place the **Indicator Hold Rod** over the **Clamp Rod**.
2. Place shank of **AG-50 Dial Indicator** into front hole of **Indicator Hold Rod**. Make sure that the **Clamp Table** is swung to the right far enough to allow indicator point to touch the **Locator Table**.
3. Position **Indicator Hold Rod** so that the **Dial Indicator** touches the **Locator Table** near the holes for the adjusting screws and tighten set screw.
4. Adjust height of **Dial Indicator** so a reading is observed on dial and tighten screw.
5. Swing **Clamp Table** across **Locator Table** slowly and notice any difference in indicator reading.
6. Adjust the three screws on the **Locator Table** until indicator reads the same over each screw and tighten locknuts.

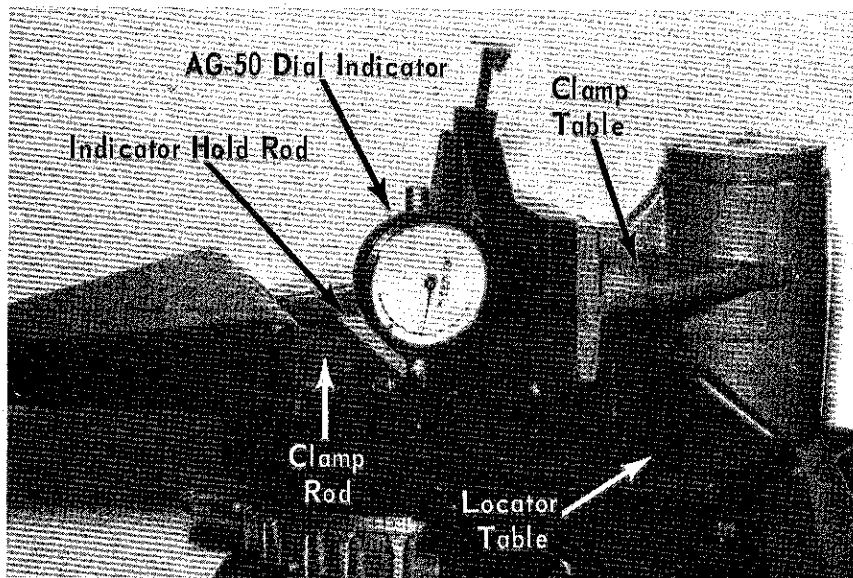


Figure 6

B. Method using **Magnetic Base Indicator** (*Figure 7*).

1. Fasten indicator to the **Clamp Table** face or hub as shown.
2. Adjust indicator so it touches the **Locator Table** near the holes for the adjusting screws and a reading is obtained on the dial.
3. Swing **Clamp Table** across **Locator Table** and notice any difference in the indicator reading.
4. Adjust the three screws on the **Locator Table** until the indicator reads the same in the three positions above the screws.

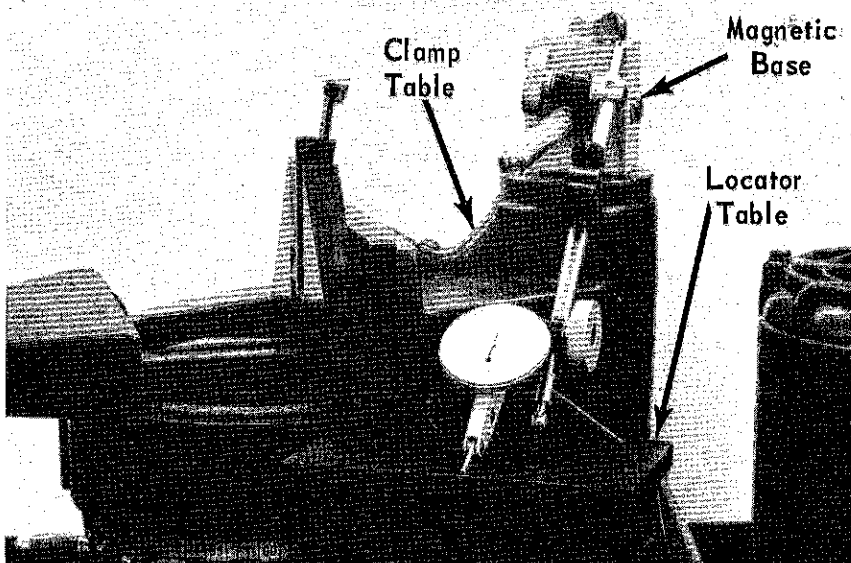


Figure 7

III. Use of Main Bearing Cap Grinding Fixture.

1. Clean dirt and grit from the **Locator Table**.
2. Check cap and remove burrs and dirt from parting face.
3. Place the parting face of the cap on the **Locator Table**, one face on either side of the **Clamp Rod**.
4. Close the clamp slowly, until light contact is made between the cap and the lower edge of the **Cheek Support**. Do not over clamp, just bring cap into positive contact.
5. Press down firmly on Main Bearing Cap with thumb on left hand. Be sure that parting face of Main Bearing Cap is flat against table, then with left forefinger, depress cheek support handle permitting wedge to drop. Do not force wedge. (See Figure 8).

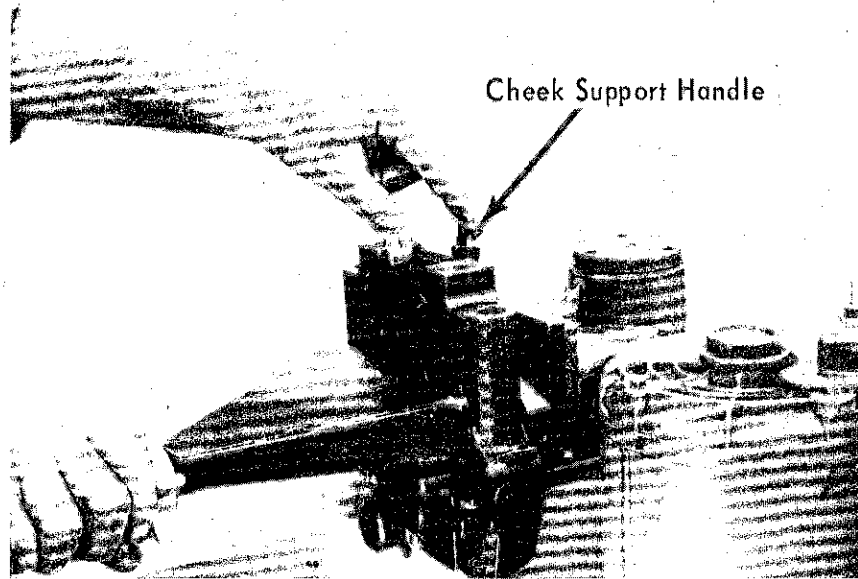


Figure 8

6. Clamp the cap firmly and then release the **Cheek Support Handle**.
7. Swing **Clamp Table** so that the parting face is over first edge of the grinding wheel. (Lower wheel if necessary).
8. With motor running, raise the grinding wheel until moderate sparking is observed.
9. Return **Clamp Table** to the loading position, but do not unclamp.
10. Feed up the grinding wheel according to the amount of stock removal desired. (See Step 11).
11. If an amount greater than $.003''$ is to be removed, or the cap face is quite large, feed the grinding wheel several times without re-clamping to obtain the total stock removal.

NOTE: If the cap face is large or the material hard, the CRG-803 Grinding Wheel is recommended.
(CRG-803 Wheel is included with CRG-750 Unit).

IV. Con-Rod Grinding after installation of Main Bearing Cap Grinding Fixture. Regular connecting rods and caps may be ground with the **Locator Table**. However, using the **Gage Rod** is considerably faster. Changing from the **Locator Table** to the **Gage Rod** can be accomplished rapidly without loss of any adjusted accuracy.

1. Loosen the **Hand Screw** and remove the **Locator Table**. Do not disturb any of the adjusting screws or their locking nuts.
2. Remove the **Cheek Support**.
3. Place the **Gage Rod** (CRG-903) in its usual place under the retaining spring. It may now be used exactly as it was prior to the installation of the Main Bearing Fixture. Tongue and grooved rods may be ground as before by moving the **Gage Rod** after clamping the part, but it will now rest on the **Base Plate** instead of the lower support pins.
4. The **Locator Table** can be reinstalled at any time with no change in its previously established accuracy.

