Instructions for the installation of the

1:1 PANTOGRAPH

No. 38 - 609 - 00
DO NOT ATTEMPT TO UNDERSTAND THE DIRECTIONS BY READING THE INSTRUCTIONS WITHOUT REFERRING TO THE MACHINE. READ THE INSTRUCTION WITH THE MACHINE DIRECTLY IN FRONT OF YOU AND ACTUALLY CARRY OUT THE STEPS ONE BY ONE. YOU WILL THEN HAVE NO PROBLEM MOUNTING AND LEVELING THE PANTOGRAPH.

1. MOUNTING INSTRUCTIONS FOR THE DUPLICATING PANTOGRAPH WITH 1:1 RATIO
   a. Remove the two socket cap screws (B) at the left side of the swing bracket shown in illustration No. 1.
   b. Position support bracket (A) of 1:1 pantograph shown in illustration 2 on the left side of swing bracket so that the two mounting holes (B) coincide with the two holes in the swing bracket.
   c. Using the two longer mounting screws supplied with the 1:1 pantograph, fasten the 1:1 pantograph to the machine.

2. TO LEVEL IT IS OF THE UTMOST IMPORTANCE THAT THE 1:1 PANTOGRAPH IS LEVEL FOR UNIFORM ENGRAVING.
   a. Loosen two mounting screws (B) as shown in illustration 2. Place a square on the base against the two round projections (X) and (Y) see illustration 2.
   b. To bring bottom round projection (Y) closer to the square, turn screw (F). To bring top round projection (X) closer to the square, turn screws (G) and (H). The adjustment is completed when both round projections are square with the base. The square should also be placed on surface (D) (spindle mounting surface). If adjustment is required, use screws (F) and (G). When these two surfaces are square to the base, tighten screws (B).

3. INSTALLATION OF SPINDLE AND BELT DRIVE
   The spindle and belt drive on the adjustable pantograph are also used on the 1:1 pantograph.
   a. Mount spindle on the 1:1 pantograph with existing lever screw, (do not use the clamping washer, only use the small washer).
   b. Install spindle lever taped to the 1:1 pantograph in place of the present spindle lever as shown in illustration 4. (This is not necessary if the 1:1 pantograph is received with the machine. Proper spindle lever has already been mounted). This lever, after mounting, stays permanently on spindle for both pantographs, the 1:1 and the Multi-ratio pantograph.

4. CHANGING SPINDLE LEVER
   Remove screws (J) and (K) as shown in illustration 4. Replace original spindle lever and link with lever and link supplied. Retighten screws (J) & (K).

5. WHEN 1:1 PANTOGRAPH IS NOT IN USE
   a. Reinstall spindle on to multi-ratio pantograph.
   b. Remove knurled screw (N) as shown in illustration 2 & 5 and place into hole (R) as shown in illustration 2.
   c. WHEN REMOVING KNURLED SCREW, HOLD BACK ON HEXAGON HEAD (WITH WRENCH SUPPLIED), LOCATED UNDER ARM (Z). THIS WILL MOVE THE 1:1 PANTOGRAPH OUT OF THE ENGRAVING AREA.
   d. To prevent the swinging of the 1:1 pantograph, place "L" shaped pins (Q) into holes (O) as shown in illustration 5.

YOU CAN NOW USE THE MULTI-RATIO PANTOGRAPH WITHOUT ANY INTERFERENCE. TO RESTORE USE OF 1:1 PANTOGRAPH, REVERSE THE PROCEDURE.
INSTRUCTIONS FOR 1:1 PANTOGRAPH 15-250-00 or 15-251-00

ON A TX OR ITF MACHINE

All instructions in the attached folder apply to the installation of the 1:1 Pantograph on a TX or ITF machine, with the exception that the motor and motor bracket assembly must be removed from the TX multi-ratio pantograph and installed on the angle bracket provided on the 1:1 spindle-stylus ARM.

In the event that a user does not wish to disturb the setting on the multi-ratio TX Pantograph, an additional motor and motor bracket assembly can be purchased and mounted permanently on the 1:1 Pantograph.