

INSTRUCTIONS FOR REPLACING ELROD MOLD HOUSING

(GAS CRUCIBLE)

To replace the mold housing it is necessary to remove the crucible from the casing. After removing the old mold housing, it will be noted that a seal has been made between the housing and crucible by male and female surfaces which were lapped together. Before fitting the new mold housing, be sure to clean the female tapered surface in the crucible. Then lap the male surface of the mold housing into the female surface in the crucible using the thin steel washers between the housing and crucible when lapping. We have supplied three washers, .005", .007" and .013" thick. Use the thickest washer first and lap until the space between the housing and the crucible is filled by the washer. Do the same with the intermediate and the same with the thinnest washer, but do not lap beyond the thinnest one. When these surfaces are properly lapped, the .005" washer should fill the space between the crucible and the housing. You will find a supply of lapping compound with this order with which to lap these parts. A perfect leak-proof metal to metal seal (do not use graphite, red lead, litharge, etc.) must be made between these two castings.

After the housing and crucible have been lapped together, remove the washer and assemble the housing to the crucible with four screws, leaving them loose enough so that the housing may be swiveled to line up with the dowel pin hole in the crucible. For this purpose a pin with a tapered nose is provided. After these holes are lined up, tighten the four screws lightly and tap in the dowel pin. Then tighten the screws securely.

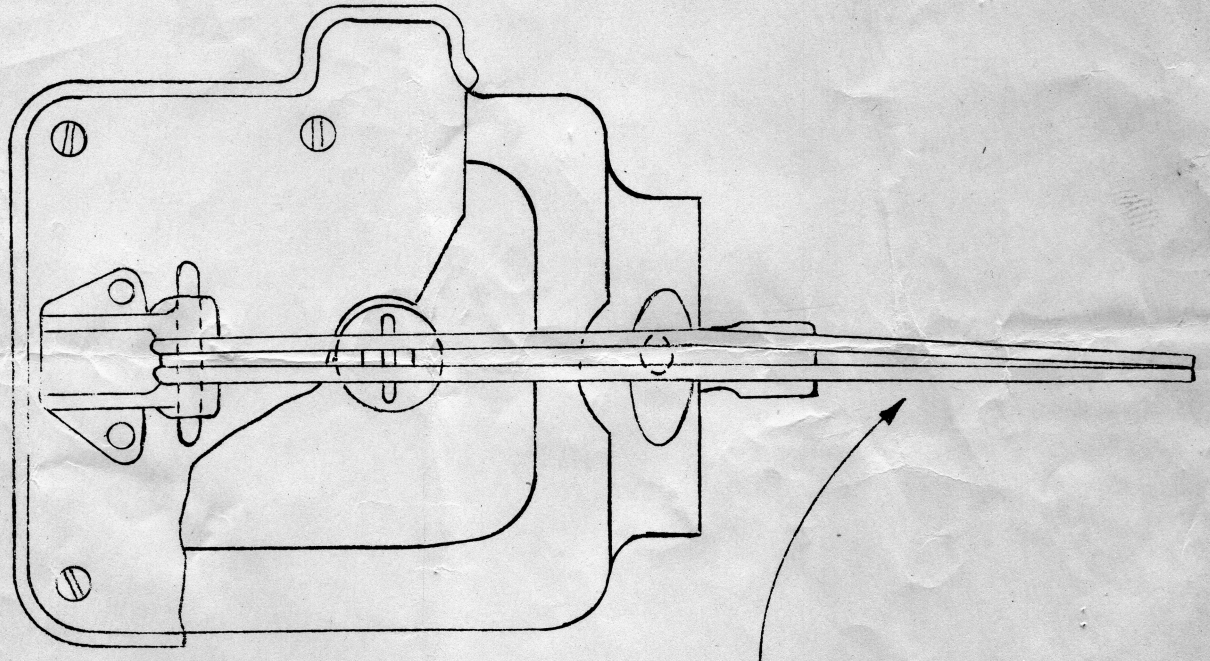
To make sure that a good seal is made before completely reassembling the crucible to the casing, a test can be made as follows if a gas flame or torches are available: Clamp the crucible down solidly to a metal surface such as a steel work bench, or temporarily assemble the crucible with the casing using the casing as a support and mount on table of machine. Shut off the mold opening in the mold housing; and also plug the oil diffusion tube opening. Mount the fixed portion of the cover and plunger lever fulcrum bracket to the crucible and place the plunger with the link into the well. Fit two rods which you will make as per the attached sketch to the bracket and plunger link. Then fill the crucible with molten type metal or place pigs of metal in the crucible and heat with gas flame or torches. Before pressure is applied, it must be certain that the metal is molten in the throat and mold housing. Should a leak show up, it will be necessary to relap the surfaces. (This, of course, would necessitate removing about .010" from the surface of the crucible where the steel washers contacted when lapping and a corresponding amount from the round projection on the housing.)

PARTS REQUIRED

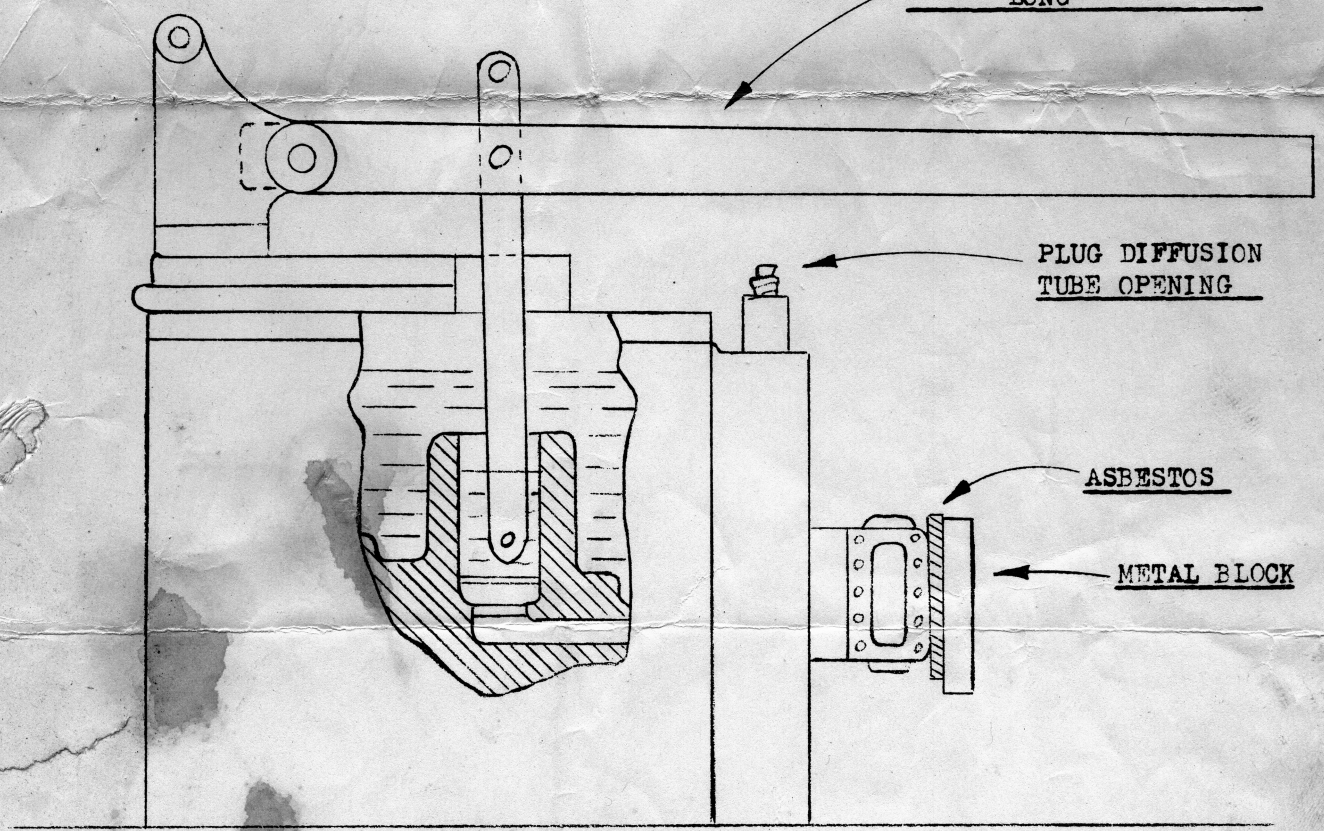
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|--|-----------------------------------|
| 1 - No. EC-1305 $\frac{1}{2}$ ED - Mold Housing (Model F) | 1 - .005" Thick Washer |
| or 1 - No. EC-1305ED - Mold Housing (Model E) | 1 - .007" Thick Washer |
| 2 - No. EC-1882B - Water Jacket Covers | 1 - .013" Thick Washer |
| 12 - No. EC-1380 $\frac{1}{2}$ A - Water Jacket Cover Screws (Short) | 1 - Taper Nosed Pin |
| 8 - No. EC-1391 $\frac{1}{2}$ A - Water Jacket Cover Screws (Long) | Lapping Compound |
| 1 - No. EC-1005 - 1/4" x 3/4" Dowel Pin | 1 - FI-110-G Set of Instructions. |

LUDLOW TYPOGRAPH COMPANY
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CHICAGO 14, ILLINOIS

11/11/46



TWO BARS - 3 to 4 FT.
LONG



PLUG DIFFUSION
TUBE OPENING

ASBESTOS

METAL BLOCK