INSTRUCTION BOOK SUPPLEMENT

I.B. 32-253A

ROTATING DISCONNECTING TRANSFORMERS AND FUSES

1.0 INTRODUCTION

Rotating disconnecting potential transformers, control power transformers (up to 15 KVA) and fuses are trunnion mounted. The rotating assembly in each case is mechanically connected to the front door of the compartment. Opening the door rotates the assembly, thereby breaking the primary and secondary contacts. Closing the door rotates the assembly into the connected position.

1.1 DESIGN FEATURES

(a) Primary and Secondary Contacts: The use of sliding contacts provides positive, consistent contact over a range of contact wipe (thus allowing for some over or under travel).

(b) Isolation of High Voltage Contacts: A shutter is provided which swings down to block access to the high voltage contacts in the disconnected position. Access down the sides and bottom to the rear of the compartment is also restricted.

(c) Porcelain and polyester insulation is used in the 15 KV control power transformer and fuse assemblies.

(d) The rotating assemblies of potential and control power transformers are are continuously grounded.

(e) All high voltage fuses are grounded in the disconnected position.

2.0 PREPARATION FOR PUTTING INTO SERVICE

2.1 Potential and Control Power Transformers

After assembly, testing, and final adjustments have been made at the factory, the operating link is detached at the door and the rotating assembly is bolted to its support on each side to prevent movement and possible damage during shipment. The switchgear must not therefore

be placed in service until the following procedures have been completed.

(1) Remove shipping bolts on each side of rotating assembly.

(2) Connect operating link to bracket on door.

(3) Check primary and secondary contact engagement by "ringing" or "lighting-out" as door is closed. Contacts should make when door is a minimum of 1/2 inch from being fully closed.

(4) Check that fuse ground contacts make in fully disconnected position ("door-open"/latch engaged).

(5) Check fuses for continuity and that proper contact is made in fuse clips.

(6) Check mechanical or key interlocking of control power transformers to ensure correct operation, i.e. it should not be possible to open the compartment door without first opening the breaker in the secondary circuit of the transformer.

2.2 Disconnecting Fuses

These are ready for operation as received. However, the following should be checked before placing in service:

(1) Contact engagement - by ringing-out or lighting-out (as in 2.1 (3) above)

(2) Operation of mechanical or key interlock - See 2.1 (6) above.

(3) Continuity of fuses and proper contact in fuse clips.

3.0 SAFETY AND OPERATING INSTRUCTIONS

3.1 Connecting

(1) Before connecting any of the rotating assemblies with stationary primary contacts energized for the first time, the procedures in 2.0 must have been carried out.

(2) Close and properly latch door.

3.2 Disconnecting

Open door to fully open position making sure that "door-open" latch (or detent) is properly engaged.

3.3 Removal of the Rotating Assemblies or shutters must not be attempted unless the high voltage circuit to the compartment is deenergized and the usual precautions taken to prevent reenergizing until the compartment has been restored to it's original condition (see I.B. Page 47: Inspection & Maintenance - Safety Precautions, paras. 1 to 4.)

4.0 INSPECTION AND MAINTENANCE

Inspection and maintenance for DHP metalclad switchgear is covered in I.B. 32-253A, Page 4). Cleaning of insulation in the PT, CPT and fuse compartments should be done periodically in the same way as for busses and connections as described in para. 1 on page 48. Disconnecting contact maintenance is described in para. 3 on Page 49.

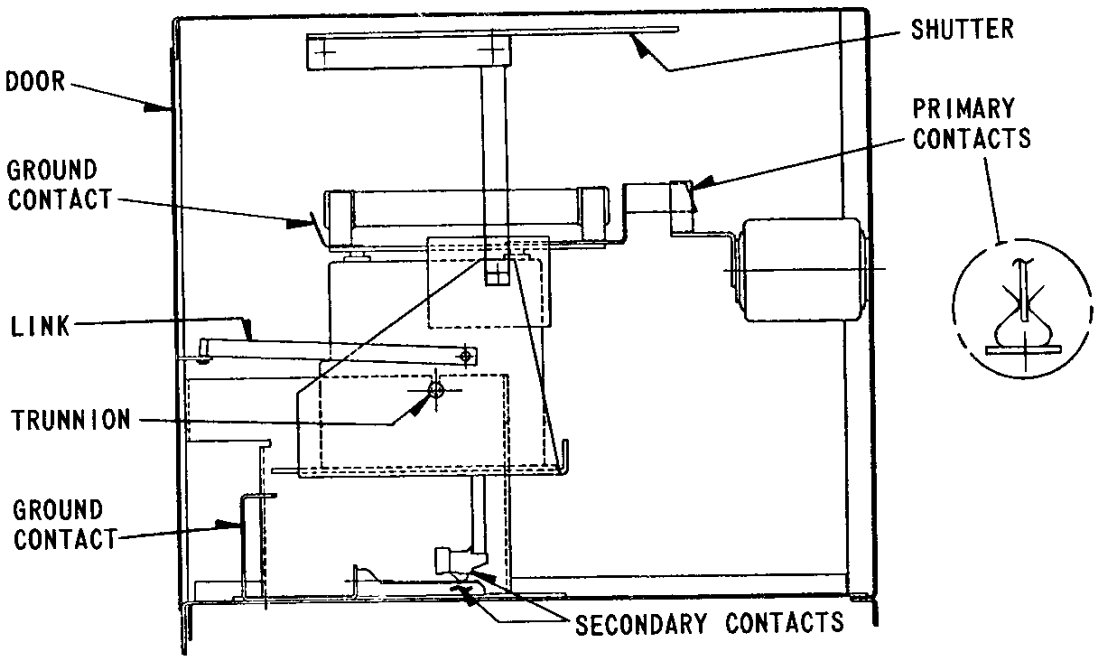

FIG.1 - TRUNNION MOUNTED POTENTIAL TRANSFORMERS. CONNECTED POSITION (DOOR CLOSED)

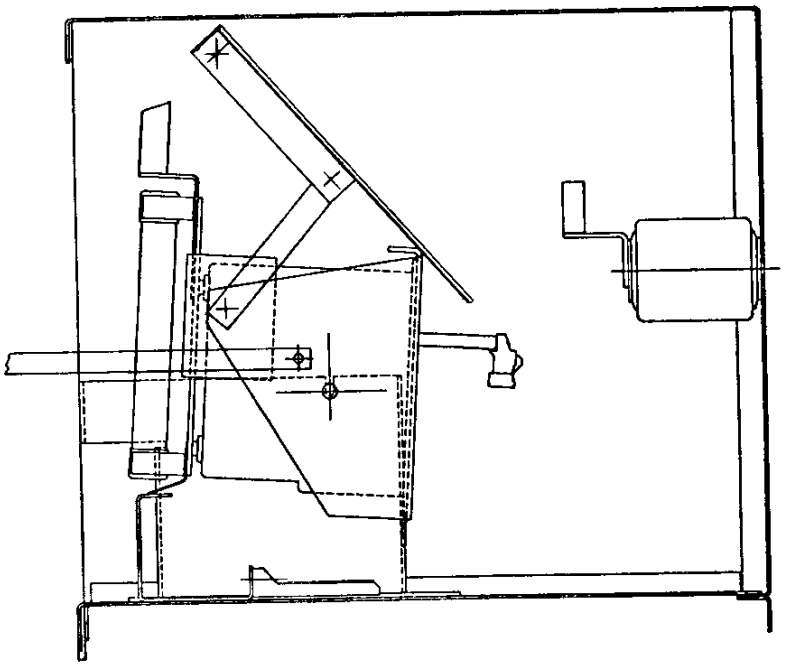

FIG.2 - TRUNNION MOUNTED POTENTIAL TRANSFORMERS. DISCONNECTED POSITION (DOOR OPEN)

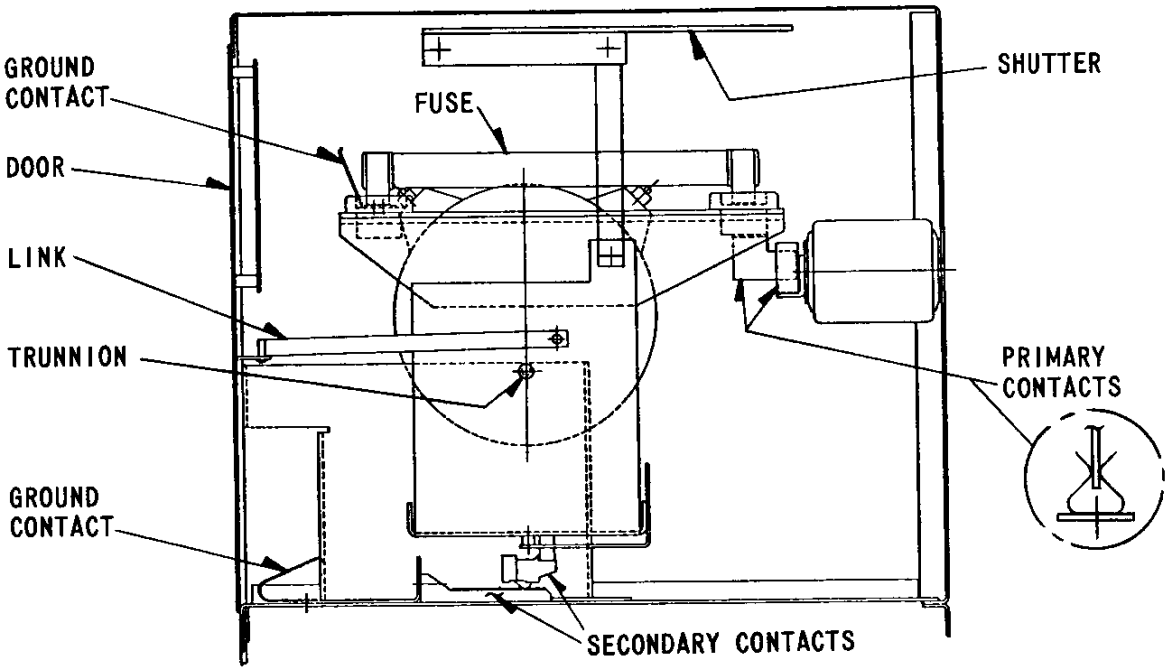

FIG.3 - TRUNNION MOUNTED CONTROL POWER TRANSFORMER CONNECTED POSITION (DOOR CLOSED)

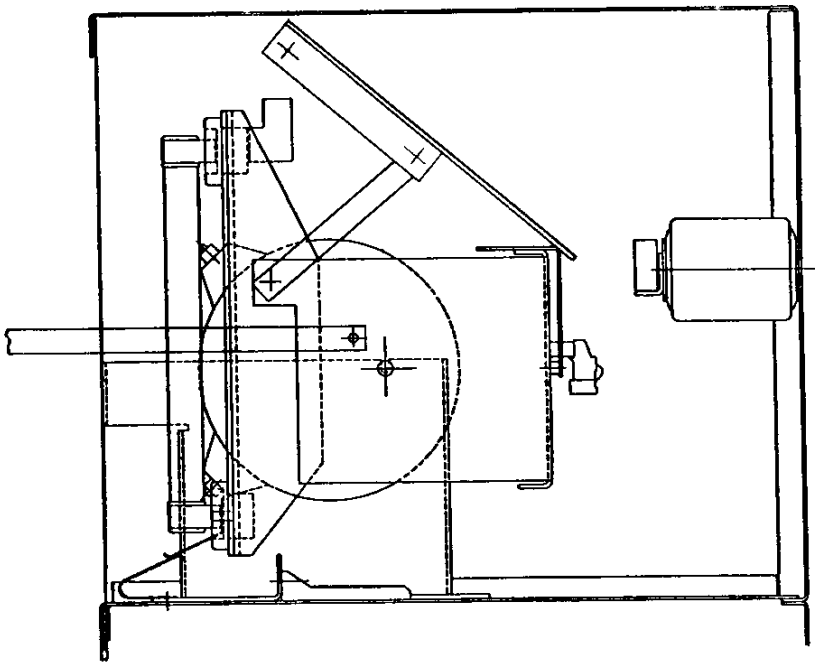

FIG.4 - TRUNNION MOUNTED CONTROL POWER TRANSFORMER DISCONNECTED POSITION (DOOR OPEN)

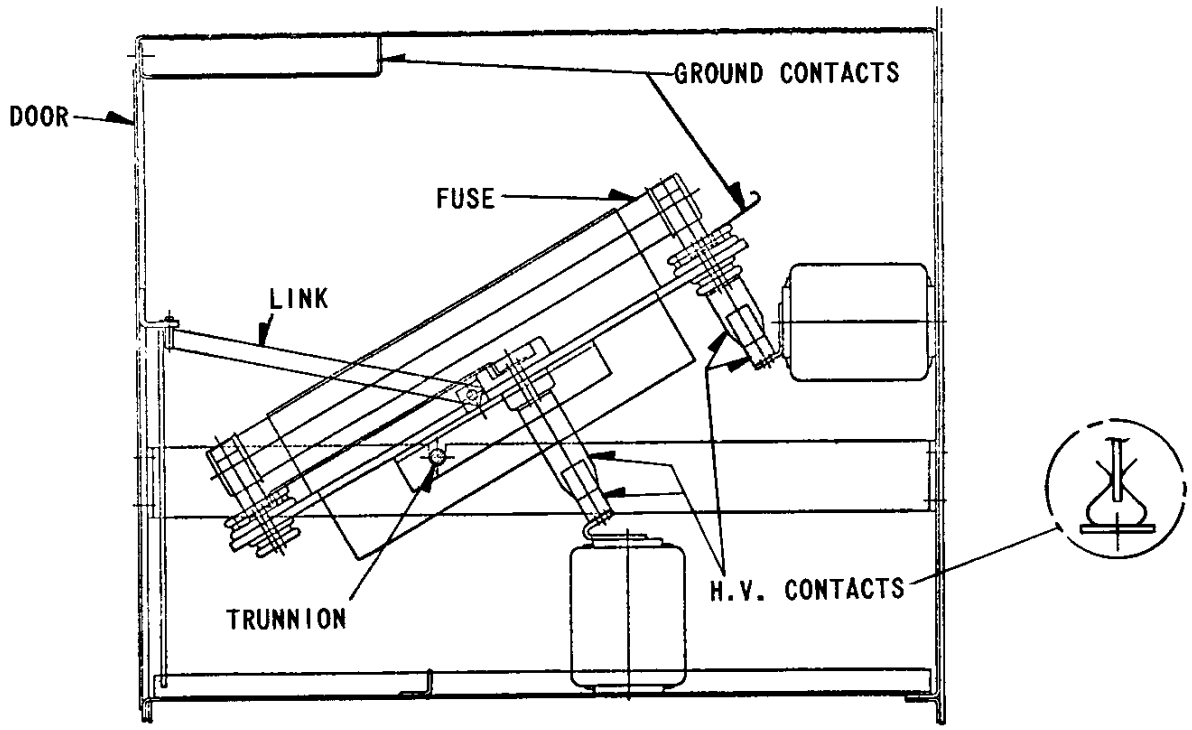

FIG.5 - TRUNNION MOUNTED FUSES - CONNECTED POSITION (DOOR CLOSED)

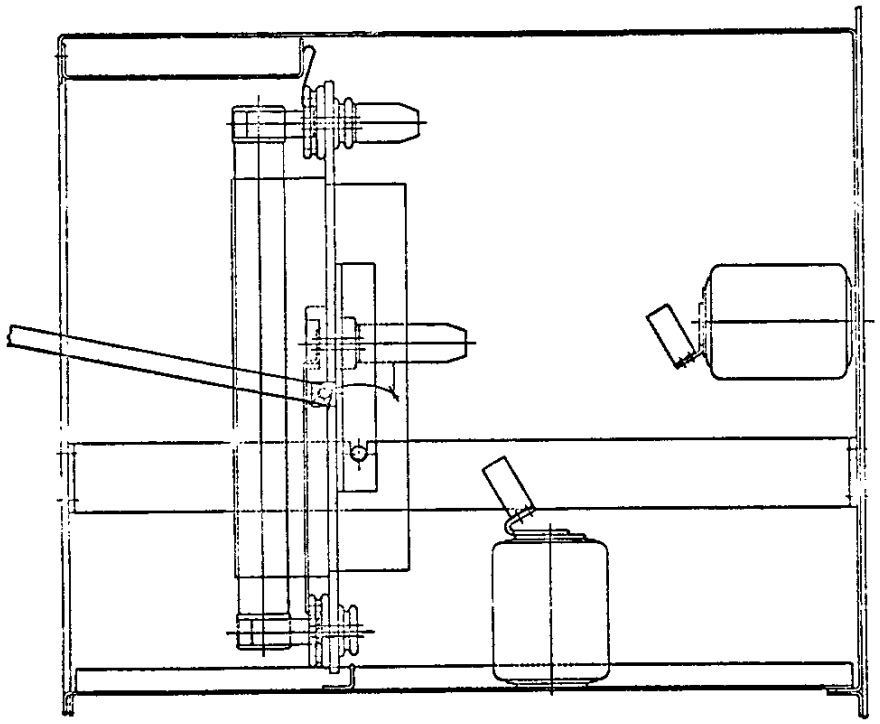

FIG.6 - TRUNNION MOUNTED FUSES - DISCONNECTED POSITION (DOOR OPEN)