Drive. Be ready to Switch Off Power, if Motor starts running due to failure of Electrical Limit Operation. (This may happen if the phase sequence of supply is wrong).

The Tapchanger is now ready for service.

7. ROUTINE MAINTENANCE:

Period: Once a year or 6000 operations, whichever is earlier.

1. Apply grease as per our instructions on all Gear Teeth, Geneva Locking Faces and other Mechanical Contact and Bearing surfaces.

2. Wipe the Tap Position Indicator dial switch fixed studs clear and smear a little "Electrolube" oil.

3. Test a sample of oil from the Tapchanger Tank. If not to normal standards (IS 1866), you should filter.

4. Before filtering, wipe all Carbon deposits with clean cloth.

5. While filtering take oil out of the bottom of the tank, and let in filtered oil at top.

6. Observe the general condition of the Main Spring, particularly checking elongation, if any, of holes in the end fittings through which the Spring passes.

7. Keep the Drive Mechanism Cabinet reasonably clean and dry at all times.

8. Check the tension of the Drive Motor Belt & if necessary remove one link to reduce slack.

8. MAJOR MAINTENANCE & OVER-HAUL:

IT IS STRONGLY RECOMMENDED THAT THE ASSISTANCE OF OLG IS TAKEN FOR MAJOR MAINTENANCE AND OVER-HAUL.

1. Schedule for major maintenance and over-haul is as follows:

   a) For Step Capacity (i.e. step voltage x through current) less than 50KVA every 20,000 operations or five years whichever is earlier.

   b) For Step Capacity 50-80 KVA every 15,000 operations or four years whichever is earlier.

   c) For Step Capacity over 80KVA every 12,000 operations or three years whichever is earlier.

d) For Step Voltage greater than 850V, irrespective of Step KVA every 12,000 operations or three years whichever is earlier.

2. For major maintenance drain all oil and remove Top Cover.

3. Clean all deposits with non-fibrous, clean cloth.

4. Visually observe all Contacts for Wear. Contacts must be changed if there are signs of heavy Arcing or Pitting. We recommend changing of complete Hinged Roller Contact Assembly or Fixed Contact as necessary.

5. If there are signs of leakage through the Shaft Oil Glands, replace Gland Assembly.

6. If the condition of the Main Springs are seen to be unsatisfactory, replace Spring.

7. In any case we recommend replacement of Main Spring Assembly after every 40,000 operations.

After completing all work, close the Top Hand-hole, and fill with dry, clean, Gas free, tested Transformer Oil.

9. TROUBLE SHOOTING OF ELECTRICAL SCHEME:

PROBLEM NO.1: After fixing the OLTC with the transformer, conduct the Raise/Lower operation through appropriate push button, if the transformer ratio comes in the opposite direction but the OLTC running in right direction.

i) Verify the Winding and Connection Diagram correspond.

PROBLEM NO.2: Motor not running (is dead)

i) Check three Phases & Neutral are available at the terminal blocks.

ii) Check supply ON/OFF Switch (TCSIS) & Local/Remote Switch (CSS-1) are selected properly.

iii) Check the fuses provided for three phases (FS1, FS2 & FS3) / TCSIS-MCB and for 110V supply (FS4 / MCB2 & FS5 / MCB3) are intact.

iv) Check whether O/L relay (a1) has been tripped due to over current or short circuit. If it is so, reset it manually or put it in auto-reset mode and wait for sometime. Operate few times in presence. Observe O/L relay (a1) tripping, if found analyze the reason whether taking over current or stuck.