

Product Category: MV Switchgear SVS/08
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Subject: Operation and maintenance of SVS/08

In reference to the above stated switchgear it has been identified that in certain cases, the switchgear may have been installed under ambient conditions not complying with the applicable IEC 60694 Standard - Common specifications for high-voltage switchgear and controlgear standards (Edition 2.2 2002-01 Edition 2:1996 consolidated with amendments 1:2000 and 2:2001). Alternatively, circumstances may have changed at installation sites whereby the prevailing conditions have drifted beyond the limits in the referenced standard.

Under these non-complying area conditions, the applied and necessary lubricants may solidify (harden) and may affect the proper function of the switching mechanism as such. It is very well possible that in a case like this, one out of the three phase switching mechanism present, may not function properly when switched to the ON position (switch closed). In case of switching to ground (earth) and operating or switching the above stated event may happen.

The “breaking” operation (switch open) will still function properly, so the personal safety of the operator and safety of the equipment is not at stake.

It should be stressed that the above stated event may happen very sporadically, and only in situations when there are present high ambient temperatures and low air humidity.

To check and confirm whether a phase or line of a switchboard is energized, the installed phase sequence indicator may be utilized, in conjunction with an adjacent panel of a SVS switchboard. In case when the present low voltage network is “meshed” and consequently a “feed- back” supply may be present at the MV side, than it is very desirable to execute a throughout check.

Recommendation:

If MV switchboards of the type SVS / 08 are installed in areas with a high ambient temperature and low air humidity, action should be taken.

“Caution” when switching to the ON position!

We advise that an inspection to check, whether the switching mechanism is functioning properly be carried out (see the applicable Service Instructions below).

These instructions should be viewed as a supplement to the normal manuals for SVS/08 switchgear.

Service Instructions

Inspection of an SVS/08 switch, circuit breaker, switch-fuse combination, and sectionalizer

During maintenance and/or inspection of the mechanism, it might be possible that an excess amount of grease is present at the pawl rotation-point of the three operating levers. If that's the case, remove the excess grease by using the CRC® Industrial degreaser, so that it moves smoothly.

Procedure to follow: Always comply with safety instructions while working on electrical equipment, especially with a potential of 1 kV and higher!

1. Switch off panel. Check and confirm whether there is no potential left present at the three cable connection terminals. In case a sectionalizer panel has been installed, then the main busbars must also be de-energized. Place the disconnect-switch in earthing position.
2. Remove top plate cover.
3. Access instrument box (if mounted) by opening door, and remove drawer of mounting-board.
4. Check if all three pawls move freely. (see figure 1)
If that's not the case, proceed to 5.

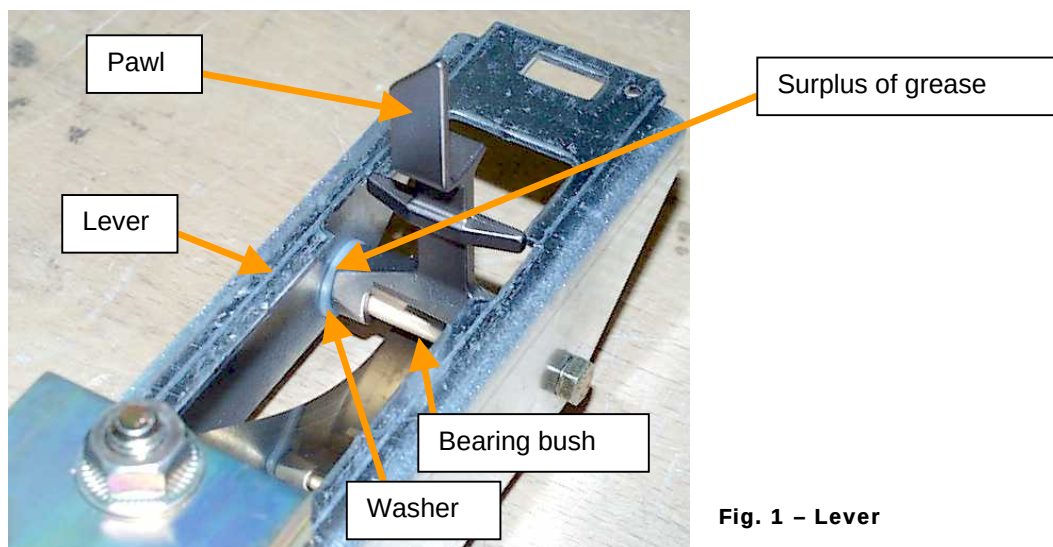


Fig. 1 – Lever

Note: The following restrictions do apply:

- don't apply an excessive amount of degreaser (see 6.)
- prevent that the degreaser gets in contact with the surface of the activation operating pin of the vacuum interrupter (protect surface of pin by wrapping with cloth or plastic sheet)
- prevent also that the degreaser doesn't get in contact with other present plastic parts, in particular polycarbonates e.g. shielding plates, fuse holders and shutter plate.

5. Apply the degreaser through the hole in the lever to the top of the bearing of the pawl near the washers and the pin, by using a small hose on the aerosol degreaser.

Spray only on the pin and on the washers on the left and right side. If necessary, use a mirror to locate these 3 items and use a flashlight, if needed.

See figures 1 and 2.

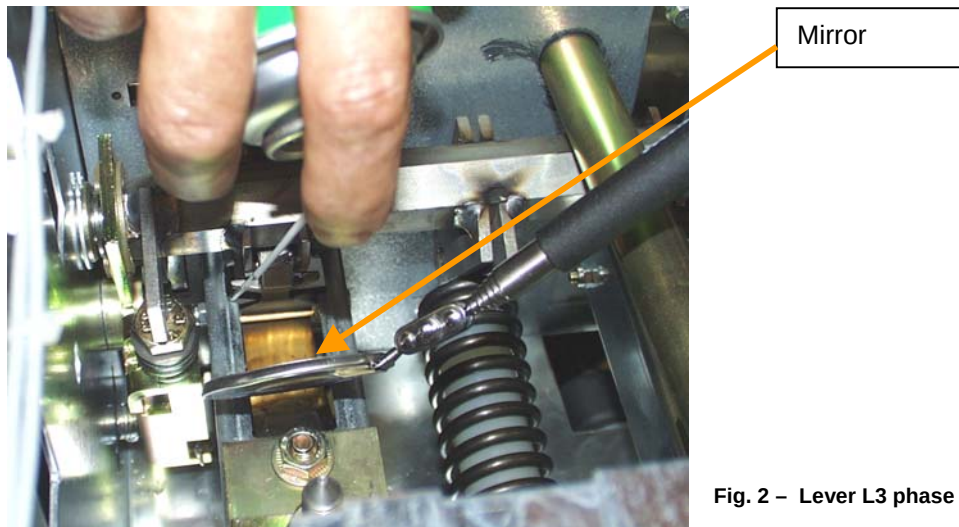


Fig. 2 – Lever L3 phase in mechanism box

6. Spray as little as possible, but sufficient, on each part. Push down momentarily the aerosol knob, and release immediately. Wait 30 seconds to let the degreaser dissolve the grease, before removing the excess.
7. Rotate the pawl backwards and release (about 5 times). Check whether the pawl repositions itself freely without friction and with sufficient speed. The pawl must return with a clear audible “click”. If pawl returns slowly (not to your satisfaction), then repeat 5-, 6- and 7-.
8. Switch panel ON and OFF three times. Check and confirm whether that all three phase contacts are closed in ON position. In this ON position all three pawls must be positioned under the main shaft. (see figure 3)

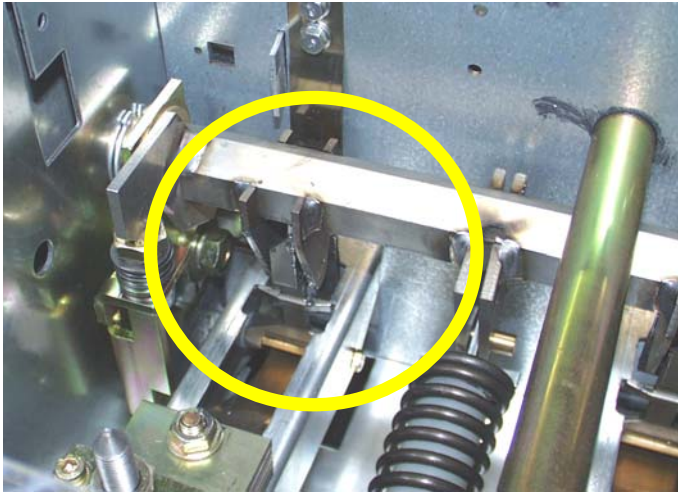


Fig. 3 -
Switch-ON position: pawl is under main shaft

9. Re-install drawer mounting-board of instrument box (if mounted).
Re-install top plate cover.
The unit is now ready for operation again.