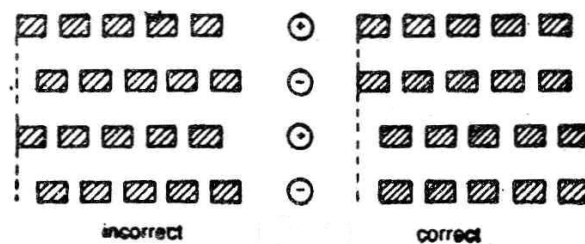


SOME TIPS FOR BETTER BRUSH PERFORMANCE

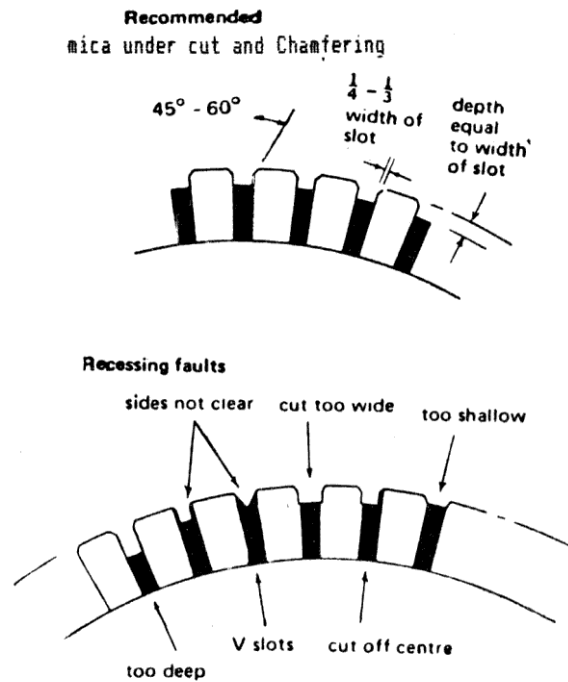
1. On machines equipped with a number of brushes per arm the brushes are arranged in order to form a good skin on the commutators. By this means, the formation of channel corresponding to friction tracks are avoided.
2. Do not mix, two or more grades of brushes or brushes of same grade but of a different manufacturers or batches on the same machine as this will cause serious incompatibility.
3. The brushes should move freely in their holders without excessive play.
4. Brushes particularly with beveled contact face should not be mounted or remounted the wrong way round.
5. Check that the brush holder functions correctly and that the interior of the box is in good condition. The inside walls should be smooth and parallel to each face from top to bottom.
6. Clearance between the brush holder and the commutator/slipping surface must be between 2 and 3mm.
7. Check the eccentricity of commutator slipping.
8. New brushes should be bedded properly. Place the brushes on parallel and equidistant tracks. When staggering of brushes is necessary, this should be done in pairs of arms so that there is always an equal number of positive and negative brushes on the track.



Under no circumstances should any part of the commutator be swept by unequal number of positive and negative brushes.

9. Align the trailing edges of the brush on each of the arms and finish with the edge of a commutator bar.
10. Check that the brushes of successive arms are on equal distance apart.
11. Check the spring of brush holder and verify that pressures are equal on all the brushes.

12. Check the Mica undercut.



13. Check that commutator/ring are quite round and have no surface fault. Scrape or mill the mica of commutator and chamfer the bar edges at 45° to 0.2 to 0.5 mm and clean the commutator surface with pumice stone.
14. Build up of brush dust in the commutator slots in and around brush holders caused by wear must be removed periodically in order to protect the commutator and the brushes.