

## **DC MILL MOTOR REMANUFACTURING SPECIFICATIONS**

- 1. All motors are matchmarked and disassembled.
- 2. All mechanical parts are sandblasted to remove paint and other contaminates.
- 3. All field coils and interpoles will be removed from field frame.
- 4. All electrical parts are steam cleaned and baked dry in gas-fired ovens.
- 5. Insulation and meggar tests are taken and recorded.
- 6. AC potential drops are taken on the DC fields to detect shortened turns.
- 7. Armature slot wedges are checked for condition and tightness and replaced or repaired as needed.
- 8. The headers on the main poles and interpoles are checked and replaced or repaired as required.
- 9. New field frame wiring is installed using flexible type wire.
- 10. The brush holders and springs are glass bead blasted, inspected, and repaired or replaced.
- 11. A bar-to-bar test is made on the commutator to detect shorts, high resistance connections, and faulty equalizers.
- 12. The armature is placed in a lathe, and the commutator is turned and undercut. Measurements are then taken and recorded to insure that the diameters meet manufacturer's allowable tolerances.
- 13. The armature is glass banded.
- 14. The bearings are replaced with new U.S. manufactured bearings.
- 15. All electrical parts are heated and then dipped in Class H varnish. The parts are baked dry at approximately 250 degrees.
- 16. The motor frame is cleaned, primered, and painted on the outside with Rustoleum navy-gray paint. The inside is painted with epoxy-type insulating compound. A preservative is also added to the shaft extension.
- 17. The armature, field coils, and interpoles are painted with a varnish-type oil- resistant, air-dry insulating compound.
- 18. The machine is assembled on the test floor.
- 19. New brushes are installed.
- 20. The air gap around the periphery of the armature is checked for uniformity.

- 21. Each machine is operated throughout its speed range. Each is dynamically balanced, and the data is recorded. These tests are implemented with electronic balancing equipment.
- 22. Test data including final meggar readings, field resistance, field current, dynamic balance readings, etc., are recorded and stored for future reference.

