

# WARNING

PLEASE READ the following before installing a new power feed board or a power feed upgrade kit. Many power feed board failures are caused by problems not associated with the board and failure to identify and repair these items may result in damage to the new board or kit. If you are unsure of the wiring or wish an electrical schematic you may order an M105 maintenance manual part number BP 11040001 from the Hardinge parts department. Please check the following!

## #1 MOTOR

- A) Remove motor brushes and examine them for wear. Short or rough brushes should be replaced.
- B) With the brushes removed, physically examine the motor armature. It should be shiny with no signs of burning or arcing.
- C) Reinstall the brushes and check the armature resistance in several places. Normal reading is 1 ohm.
- D) Check the resistance of the motor field. It should read approximately 615 ohms.
- E) There should be infinite resistance readings from the armature and field to ground.
- F) Make sure no oil has leaked into the motor. If oil is present disassemble motor and thoroughly clean with an alcohol based solvent. Reassemble after everything is completely dry. Recheck readings in steps C, D and E. When reinstalling motor to the power feed casting, use silicone sealer to seal the flange and the two motor assembly screws.

## #2 LIMIT SWITCHES

- A) Check resistance from the common to the normally open contact on each limit switch. With plunger relaxed resistance should be infinity and with plunger depressed resistance should be zero. No other reading is acceptable.
- B) Check resistance from the common to the normally closed contact on each limit switch. With plunger relaxed resistance should be zero and with plunger depressed resistance should be infinity. No other reading is acceptable.
- C) Perform same checks with both limit switches installed in power feed unit and adjust for proper operation moving handle left and right to activate each switch individually. If both switches are made at the same point in time you will blow the power feed board.
- D) Be aware that a defective or improperly adjusted switch can create a direct short across the field circuit and will damage the board.

## #3 POWER

- A) Insure that the incoming power is 115VAC, is properly grounded and that the hot leg is on the black wire.
- B) Check fuse for proper size, 10 amp. A smaller fuse (4 amp) can be used for initial testing to reduce the chance of damage to the board.

## #4 OIL

- A) Fill the gearbox reservoir to middle of sight glass with Mobilube #46 S.A.E 140.