STALLED CURRENT TEST ON DC MOTORS

CAUTION!

WHEN CONDUCTING STALLED CURRENT TEST ON DC MOTOR:

1. USE POSITIVE BLOCK SUCH AS STEEL PLATE BOLTED TO COUPLING, (See Figures 1 & 2 below for suggested method).

2. DE-ENERGIZE THE MOTOR SHUNT FIELD.

3. REMOVE SERIES FIELD FROM CIRCUIT TO INSURE LOW TORQUE. (With series field in circuit 33 to 50% of full load torque could be exerted. T (pound-feet) = 5250 hp/rpm).

4. THE AREA SHOULD BE CLEARED OF ALL OTHER THAN TEST PERSONNEL.

5. AN ATTENDANT SHOULD BE AT THE MOTOR AT ALL TIMES THAT MOTOR TESTS ARE IN PROGRESS.

6. THE ATTENDANT SHOULD AT ALL TIMES BE IN DIRECT COMMUNICATION WITH THE TEST ENGINEER (radio or sound power phones).

7. A TEMPORARY "E-STOP" PUSHBUTTON SHOULD BE PROVIDED TO THE ATTENDANT AT ALL TIMES THAT A TEST IS IN PROGRESS, TO INTERRUPT THE TEST. (E-STOP should open contactor.)

8. THE ATTENDANT SHOULD BE INFORMED TO INTERRUPT THE TEST IF ANY TURNING IS OBSERVED OR IF DOUBT EXISTS.

9. ON MOTORS WITH TACHOMETERS, A METER OR A BRUSH CHANNEL SHOULD BE CONNECTED TO THE TACH LEADS AT THE DRIVE TEST LOCATION TO MONITOR MOTOR SPEEDS.

10. CAUTION ON STALLED MOTOR TESTS

    AS A GENERAL POLICY NO APPRECIABLE CURRENT SHOULD BE APPLIED TO COMMUTATORS OF D-C MACHINES WHEN THEIR ROTORS ARE AT STANDSTILL. THE MINIMUM DAMAGE THAT CAN RESULT WILL BE RAISED COMMUTATOR BARS UNDER THE BRUSHES WHICH WILL CAUSE POOR COMMUTATION AND BRUSH WEAR.

    WHEN MAKING TESTS WITH THE ROTOR STILL MAKE SURE ALL ARMATURE BRUSHES ARE DOWN AND DO NOT PASS CURRENT THROUGH THE COMMUTATOR LONGER THAN THE TIMES SPECIFIED BELOW FOR BUFFALO MACHINES.

    100% RATED CURRENT - 40 SECONDS
    200% RATED CURRENT - 20 SECONDS
    300% RATED CURRENT - 5 SECONDS

    ALLOW TIME FOR THE ARMATURE TO COOL IF THE TEST MUST BE REPEATED.

    NOTE: AS AN ALTERNATE TO BLOCKING AND WHERE TACHOMETERS ON THE MOTORS ARE PROVIDED, STALLED CURRENT TESTS MAY BE PERFORMED BY SETTING THE OVERSPEED TRIP DEVICE (static or mechanical) TO A VERY LOW TRIP VALUE, AND THEN CAREFULLY PULSING THE TEST REFERENCES AND MONITORING SPEED FEEDBACKS. STEPS 2 THRU 9 WOULD STILL APPLY.

SUPERSEDES I.L. 16-800-286
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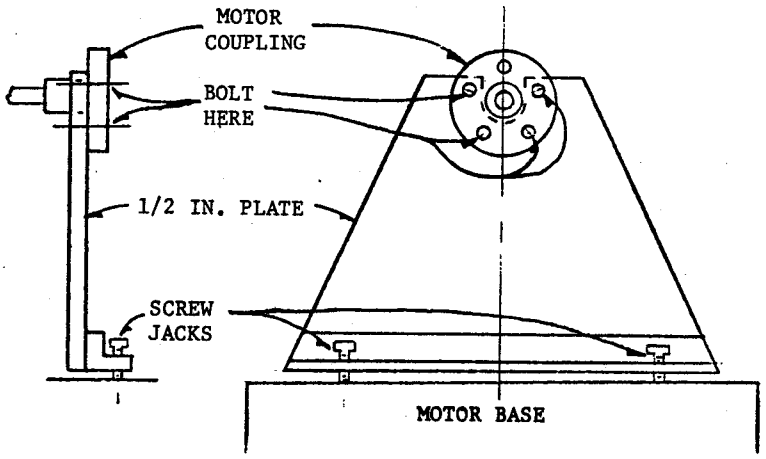
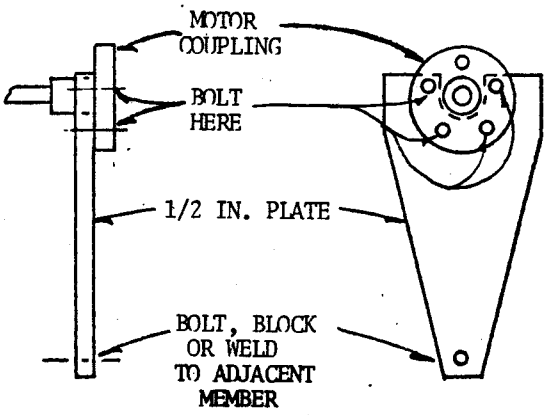
THE FOLLOWING ARE SUGGESTED MEANS OF POSITIVE BLOCKING.



FOR LARGE MOTORS

FIGURE 1



FOR SMALL MOTORS

FIGURE 2