prestolite SERVICE MANUAL

STARTING MOTOR SECTION

(Issued 3-16-78)

VOLTS 12 ROTATION See Tabulation BRUSHES 2 POLES 2

LUBRICATION

At overhaul, all bronze bearings should be well lubricated with medium engine oil.

Cover armature shaft at drive end with a film of light oil before assembling drive.

STARTING SWITCH

Mounted Separately

BRUSH SPRING TENSION

27 to 43 ounces with new brushes. This tension is measured with the scale hooked under the brush spring at the bend and the reading is taken just as the spring leaves the brush. The pull of the spring scale is to be at right angles to the line of force exerted by the brush spring.

TRANSMISSION

Bendix Drive

END PLAY

See Tabulation. Refer to Parts & Equipment List for thrust washer package.

TEST SPECIFICATIONS

No Load Draw	10.0 volts, 26 maximum amperes, 8500 minimum RPM.
Stall Torque	4.0 volts, 160 maximum amperes, 2.1 minimum Ft. Lbs.

Unit	Rotation	End Play	Pinion Position*	Special Instructions
MDW-4001M	CWDE	.010"-.035"	1 1/8"-1 3/16"	Notes 1, 2
MDW-4002M	CCWDE	.005" Min.	1 47/64"-1 27/32"	Notes 1, 3A, 4
MDW-4002T	CCWDE	.005" Min.	1 47/64"-1 27/32"	Notes 3A, 5, 6
MDW-4003M	CCWDE	.005" Min.	1 47/64"-1 27/32"	Notes 1, 3A, 4
MDW-4004M	CWDE	.015"-.040"	47/64"- 29/32"	Notes 1, 2
MDW-4005M	CCWDE	.010"-.030"	1 47/64"-1 27/32"	Notes 1, 3A, 6
MDW-4006M	CWDE	.010"-.030"	27/32"- 29/32"	Notes 1, 2
MDW-4007	CWDE	.005" Min.	1 43/64"-1 49/64"	Note 3B
MDW-4101M	CWDE	.010"-.035"	1 1/8" -1 3/16"	Notes 1, 2
MDW-4102M	CCWDE	.005" Min.	1 47/64"-1 27/32"	Notes 1, 3A, 6
MDW-4102T	CCWDE	.005" Min.	1 47/64"-1 27/32"	Notes 3A, 5, 6
MDW-4103M	CWDE	.010"-.035"	1 1/8" -1 3/16"	Notes 1, 2
MDW-4104M	CCWDE	.005" Min.	1 47/64"-1 27/32"	Notes 1, 3A, 6
MDW-4202M	CCWDE	.005" Min.	1 47/64"-1 27/32"	Notes 1, 3A, 6
MDW-4204M	CCWDE	.005" Min.	1 47/64"-1 27/32"	Notes 1, 3A, 6
MDW-4302M	CCWDE	.005" Min.	1 47/64"-1 27/32"	Notes 1, 3A, 6
MDW-4304M	CCWDE	.005" Min.	1 47/64"-1 27/32"	Notes 1, 3A, 6

*This dimension is measured from the mounting face of the drive end head to the outer edge of the pinion or gear when it is in the "at rest" position. Check with armature thrust to the commutator end and again with the armature thrust to the drive end. Adjust by using as many thrustwashers as necessary. Refer to Parts & Equipment List for thrust washer package.

NOTE 1 - After installation of new field coils, paint the inside of the frame and soak the field coils with air-drying varnish. Keep varnish off of brush leads, pilot seats, and threads. After draining off excess varnish, drying can be hastened by baking in an oven at 200° F. When reusing the old armature, its core and windings should be given the same treatment being careful to keep the commutator and bearing seats clean.

NOTE 2 - A jack shaft and Bendix drive assembly is used with, but is not a part of, this motor. The dimension listed under pinion position is measured from the mounting face of the drive end head to the outside edge of the gear on the armature shaft.

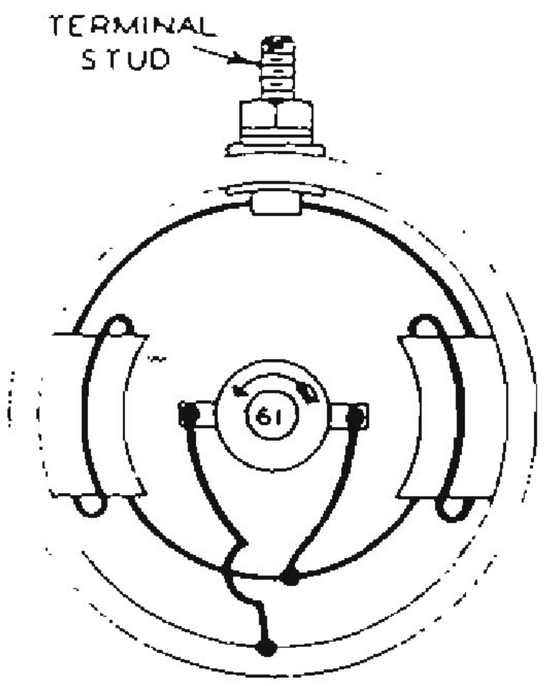
NOTE 3 - With drive extended, the pinion should be as indicated below when measured from the mounting face of the drive end head to the outer edge of the pinion. Adjust in the same manner as in the "at rest" position keeping both positions within limits.

A - 2.19/64"-2 13/32"
B - 2.11/64"-2 17/64"

NOTE 4 - Bendix drive retaining nut must be tightened securely. Do not back off to install cotter pin.

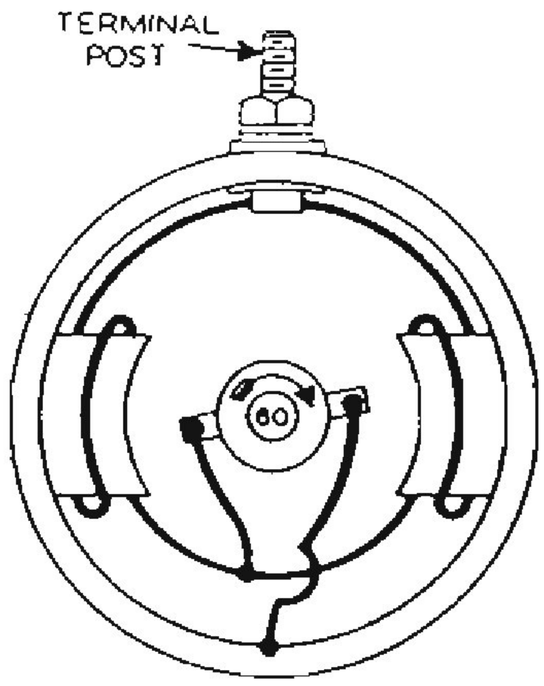
NOTE 5 - After inspection of the various parts, paint terminal studs and brush holder insulation with red glyptol. Cover glyptol and all metal surfaces except pilots, head seats, threads, commutator and bearing surfaces with air-drying, fungus-resistant insulating varnish. Allow varnish to soak into field coils and armature windings. Drain and dry thoroughly before assembling motor.

NOTE 6 - Bendix drive retaining nut must be torqued to 25 to 30 Ft. Lbs.



VIEWED FROM COMMUTATOR END

Internal Wiring of
CWDE Motors



VIEWED FROM COMMUTATOR END

Internal Wiring of
CCWDE Motors

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