VOLTAGE 12 ROTATION See Tabulation POLES 4 BRUSHES 4

DIAMETER 4-1/2"

LUBRICATION

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

Cover armature shaft at Drive End with a film of lubricant before assembling drive.

BRUSH REPLACEMENT

Replace brushes when they have worn to a length of 1/4" or less.

BRUSH SPRING TENSION

32-40 ounces with new brushes. Measure with scale hooked under the brush spring near the brush. Pull on a line parallel to the face of the brush and take reading just as the spring leaves the brush.

TRANSMISSION

See tabulation.

MAGNETIC SHIFT CLUTCHES

In operating the solenoid plunger by hand it will be noted that first the switch contact is made and then about 3/16 inch further travel bottoms the plunger and brings its outer end about flush with the solenoid housing. With the plunger in this position, there should be a clearance of 3/32"+1/32" -1/64" between the pinion and the pinion stop. Adjust by turning link screw in or out as needed. After having adjusted for this full mesh position, release the plunger and check the "at rest" position.

COMMUTATOR END HEAD

Be sure felt oiling pad is in the outer end of the commutator end bearing before assembling the commutator end head on the motor.

POLE SHOE ASSEMBLY

Install pole shoes so that the long tip is the trailing edge.

END PLAY

Adjust to .005" to .030" on the motors with clutch drive. Adjust to .005" minimum on motors with Bendix drive.

SHUNT FIELD DRAW (70°F)

8.2 to 9.6 amperes at 10.0 volts.

TEST SPECIFICATIONS

No Load Test	10.0 volts	80 max. amperes	5000 min. RPM
Stall Torque Test	4.0 volts	615 max. amperes	12.3 min. lbs. ft.

prestolite
SERVICE
INFORMATION

UNIT	ROTATION	TRANSMISSION	PINION POSITION*	SPECIAL INSTRUCTION
MEO-4001	CWDE	Bendix R.H.Inboard	1-5/16"-1-27/64"	See Note 4D
MEO-4002	CWDE	Bendix R.H.Inboard	1-5/16"-1-27/64"	See Note 4D
MEO-6001	CWDE	Mag. Clutch	1-9/32"-1-15/32"	See Note 1
MEO-6003	CCWDE	Mag. Clutch	1-9/32"-1-15/32"	See Note 1
MEO-6003T	CCWDE	Mag. Clutch	1-9/32"-1-17/64"	See Note 1,2
MEO-6004	CWDE	Mag. Clutch	1-9/32"-1-15/32"	See Note 1
MEO-6005	CWDE	Mag. Clutch	3/4"-29/32"	See Note 1
MEO-6008	CWDE	Bendix	1-29/64"-1-9/16"	See Notes 1,3,4A
MEO-6009	CCWDE	Mag. Clutch	1-9/32"-1-15/32"	See Note 1
MEO-7003	CWDE	Bendix	15/32"-37/64"	See Notes 1,2,4B,5
MEO-7004	CCWDE	Bendix	13/64"-23/64"	See Notes 1,3,4C
MEO-7005	CWDE	Bendix	13/64"-23/64"	See Notes 1,3,4C
MEO-7006	CCWDE	Inertia	1-31/64"-1-39/64"	See Notes 1,6
MEO-7007	CCWDE	Inertia	1-31/64"-1-39/64"	See Notes 1,6

*This dimension is measured from the motor mounting face to the outer edge of the pinion in the "at rest" position. Check the armature thrust to the commutator end and again with the armature thrust to the drive end. Adjust by installing MU-54 of MU-54B thrust washers just inside the commutator end as required.

Note 1 - The pinion housing bearing must be flush with the bearing bore on the inside of the housing.

Note 2 - After inspection of various parts, paint terminal stud 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 and dry thoroughly before assembling motor.

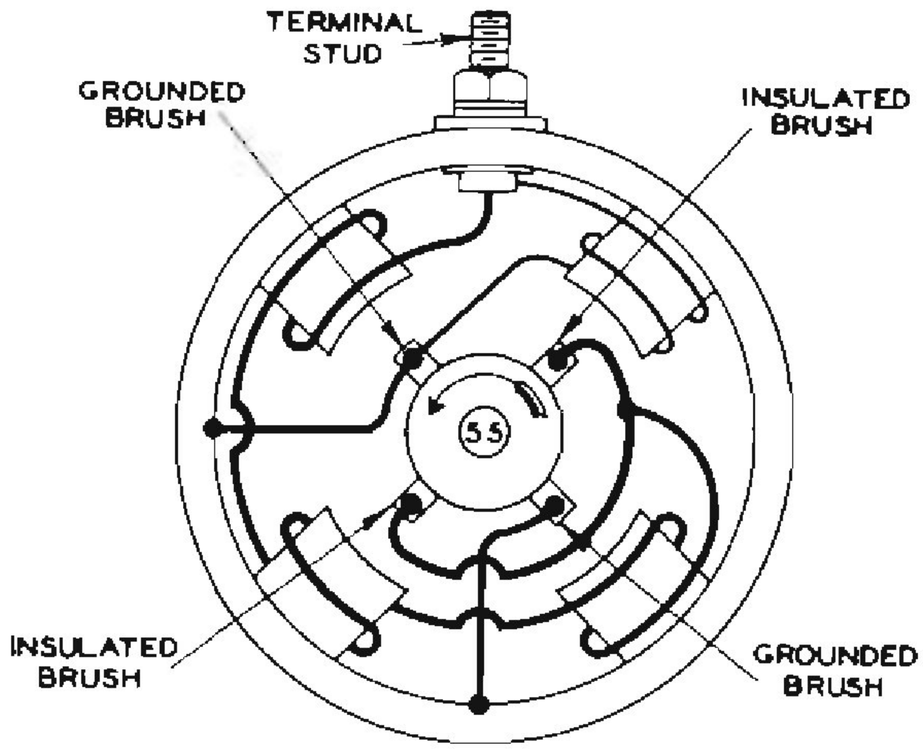
Note 3 - The intermediate bearing must be flush with the bearing bore nearest the armature.

Note 4 - With drive extended, the pinion should be as indicated below when measured from the motor mounting face to the edge of the pinion. Adjust in the same manner as in the "retracted" or "at rest" position, keeping both positions within the following limits.

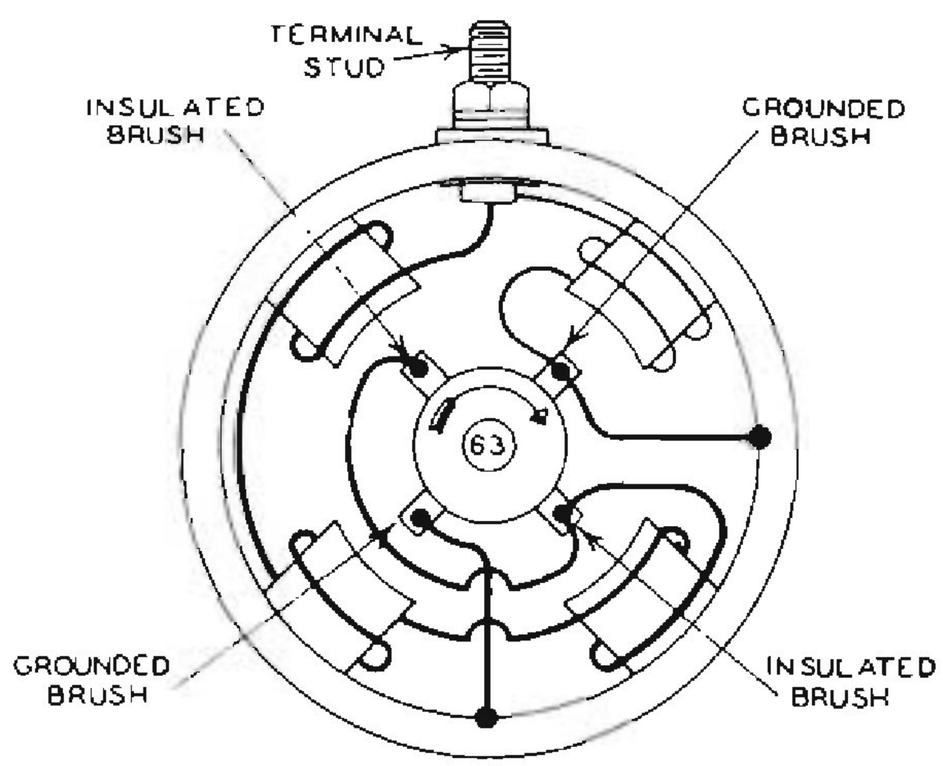
A - 2-3/32" - 2-13/64"
B - 1-7/64" - 1-15/64"
C - 27/32" - 63/64"
D - 21/32" - 25/32"

Note 5 - Drive retaining pin must not project beyond outside diameter of pinion sleeve.

Note 6 - The Inertia Drive Assembly will be against the pinion stop when cranking.



Internal Wiring of
CWDE Motors



Internal Wiring of
CCWDE Motors

VOLTAGE 12 — ROTATION CWDE — BRUSHES 4 — POLES 4

VENTILATED No — FRAME DIAMETER 4 1/2"

BEARINGS — Absorbent bronze bearing used at commutator end. These motors supplied without drive end head and bearing.

LUBRICATION — Soak absorbent bronze bearing and felt oiling pad with SAE 20 oil. Allow excess oil to drain out before assembling end head on motor.

BRUSH REPLACEMENT — Replace brushes when they have worn to a length of 5/16" or less.

SPRING TENSION — 32 to 40 ounces with new brushes. Measure with a spring scale hooked under the brush spring at the brush. Pull the scale on a line opposite the line of force exerted by the brush spring and take the reading just as the spring leaves the brush.

POLE SHOE INSTALLATION — When replacing field coils, install the pole shoes so that the longer tip is pointing in the same direction as armature rotation.

END PLAY — Adjust to .005" minimum with thrust washers on the commutator end of the armature shaft. Refer to Parts & Equipment List for thrust washer package.

SHUNT FIELD DRAW — 9.8 to 11.5 amperes at 12.0 volts.

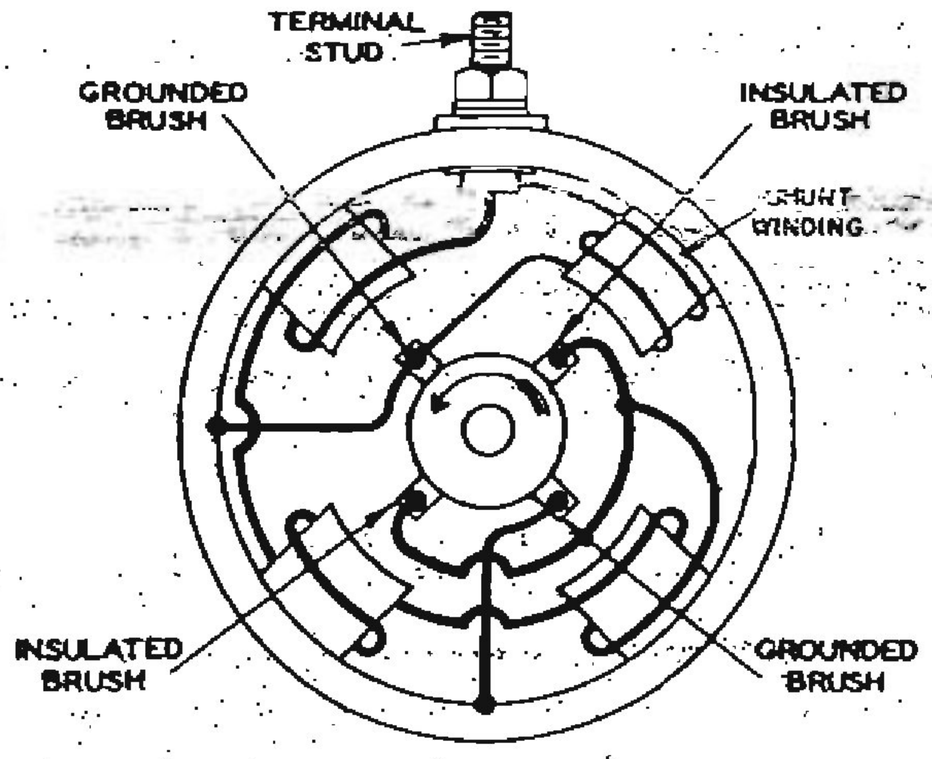
TEST SPECIFICATIONS ($77^{o}F$)

	Terminal Voltage	Maximum Amperes	RPM	Torque Ft. Lbs.
No Load Test	10	85	6150 Min.	------
Stall Torque Test	4	615	0	12.3

prestolite.
SERVICE
INFORMATION

Unit

MEO-7001
MEO-7002,A



INTERNAL WIRING DIAGRAM