

AMPEX

CORPORATION

934 CHARTER ST. • EMERSON B-1471
T W X REDWOOD CITY CAL 41
CABLE ADDRESS: AMPEX, REDWOOD CITY
REDWOOD CITY, CALIFORNIA

MAGNETIC RECORDERS

SERVICE BULLETIN

DATE: 20 March 1953
MODEL: 300
BULLETIN NO: 14
PAGE NO: 1

REPLACEMENT INSTRUCTIONS FOR REPLACING CYCLOHM DRIVE MOTOR OR ELECTRIC INDICATOR MOTOR WITH BODINE DRIVE MOTOR, SERIAL NOS. 113 TO 699

The Bodine Drive Motor which has been developed for the Model 300 runs at double the speed of the Cyclohm or Electric Indicator Drive Motor used on machines of Serial #113 to 699 and consequently uses a different size pulley. To install the Bodine Drive Motor therefore requires that a new hinge bracket be installed which will support the new motor in the proper position to engage the capstan flywheel. Also, since the windings on the Bodine Motor are different than on either the Cyclohm or Electric Indicator Motors, it must be connected in a different manner.

The procedure for making this replacement is as follows:

1. Remove retaining rings "A" on Capstan Idler link "B".
2. Remove Capstan Idler link "B".
3. Remove Capstan Idler arm from Top Plate.
4. Remove Capstan cap by loosening set screw "C".
5. Disconnect wiring harness from Drive Assembly terminal strip "D".
6. Remove Drive Assembly from machine by removing 4 elastic stop nuts "E" (only one shown).
7. Remove 4 screws "F" and drop solenoid mounting plate. Note that two screws are on the solenoid side and remainder on the opposite side of the plate.
8. Carefully remove drive lok pins "G". Be careful not to damage ears of casting.
9. Remove two bracket hinge pins "H".
10. Remove bearings from old brackets and install in new bracket.
CAUTION: In removing bearings be careful not to injure bearing dust shield. Injury to this shield could lead to freezing of the bearing.
11. Install new bracket and motor by reversing foregoing procedure.
12. Re-assemble remainder of Drive Assembly and re-install on Top Plate.
13. Adjust solenoid adjusting nut "J" for proper speed. Since there is sometimes more than one point at which the proper speed is obtained, for stable operation, be sure nut is tightened to the point where further tightening reduces the Capstan speed.

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BULLETIN NO: 11
PAGE NO: 2

14. The bumper should not determine the rest position of the motor. The bumper merely serves as an override bumper to damp out any motor oscillation that would cause it to bounce against tire after solenoid is de-energized. The rest position is determined by the motor spring versus the pressure of the drive solenoid spring adjustment. When properly adjusted the bumper should not quite touch motor while at rest except during shipment.
15. For modified wiring for Bodine Motor see attached wiring Diagram EA-1752.

PARTS REQUIRED FOR CONVERSION OF AMPEX RECORDERS,
MODELS 300, 301 AND 302 TO BODINE DRIVE MOTORS.

MODEL 300 - Serial No. 113 to 500

<u>Quantity</u>	<u>Description</u>	<u>Part No.</u>
1	Bodine Drive Motor Assembly	B-1030
1	Bracket, Hinge	B-1511
1	Capacitor *	CG-80
1	Shield, Bodine Drive Motor	B-1905
<u>Serial No. 501 to 600</u>		
1	Bodine Drive Motor Assembly	B-1030
1	Bracket, Hinge	B-1072
1	Shield, Bodine Drive Motor	B-1905

MODEL 301 AND 302 - Serial No. 113 to 500

1	Bodine Drive Motor Assembly	B-1075
1	Bracket, Hinge	B-1681
1	Capacitor	CG-80
1	Capstan Assembly	C-356
1	Shield, Bodine Drive Motor	B-1905

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MODEL: 300
BULLETIN NO: 14
PAGE NO: 3

<u>Quantity</u>	<u>Description</u>	<u>Part No.</u>
	<u>Serial No. 501 to 699</u>	
1	Bodine Drive Motor Assembly	B-1075
1	Bracket, Hinge	B-518-3
1	Capacitor	30-80
1	Capstan Assembly	C-366
1	Shield, Bodine Drive Motor	B-1905

Prices on Request

* Only required where original motor was manufactured by Electric Indicator. Cyclohm and Bodine Drive Motors use same capacitor.

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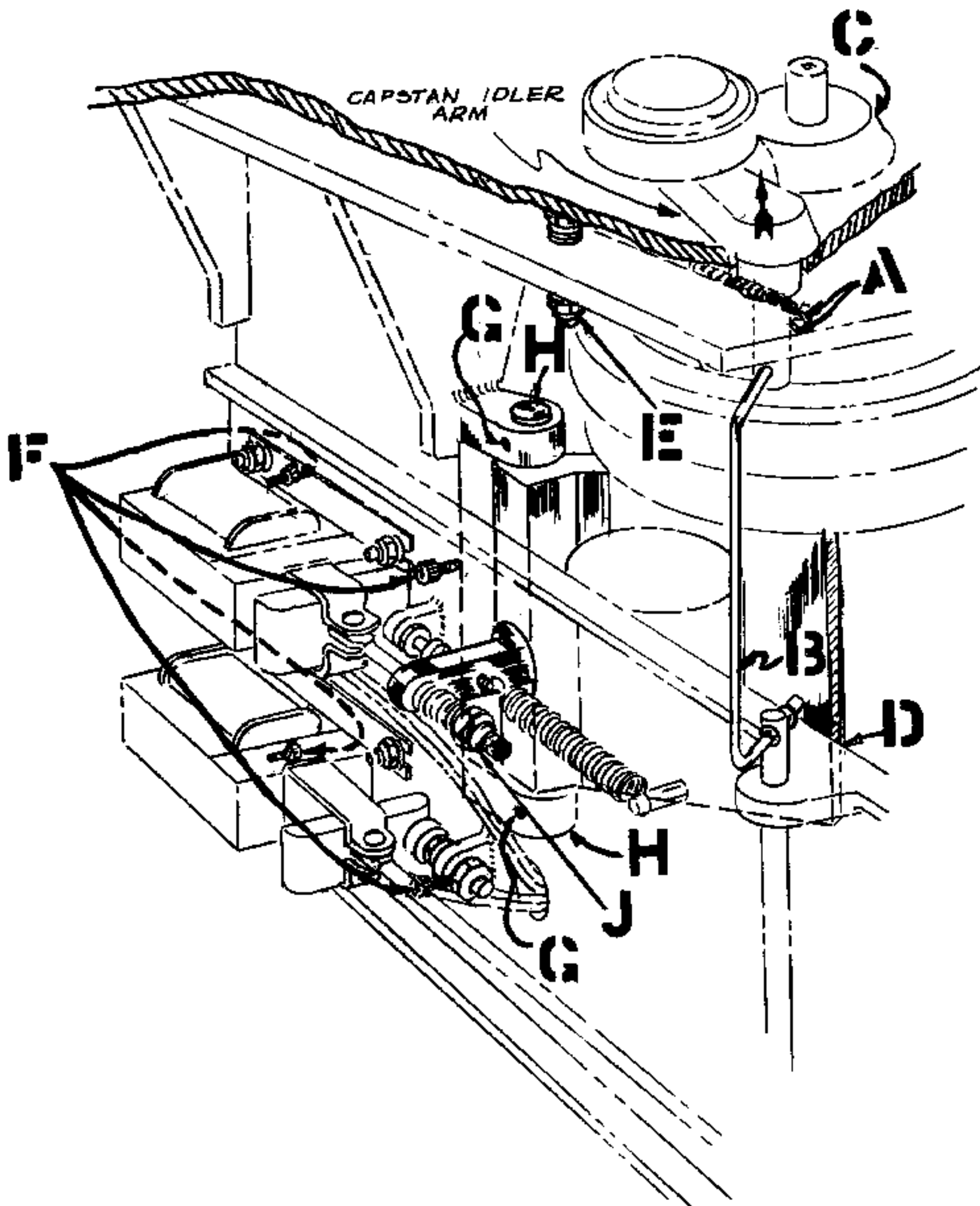
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MODEL: 300
BULLETIN NO: 14
PAGE NO: 4



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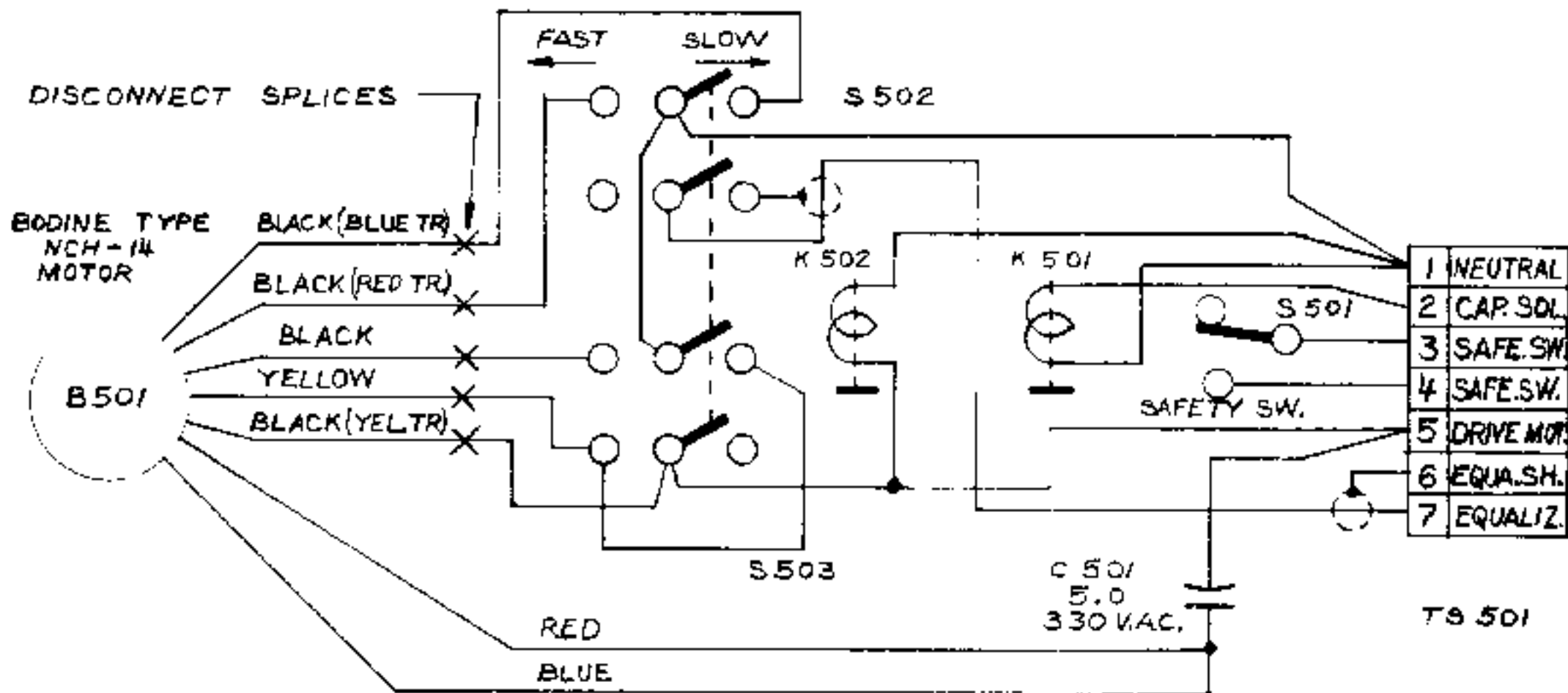
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PAGE NO: 5



ALLOW 8" LEAD LENGTH
FROM MOTOR TO DIS-
CONNECT SPLICES

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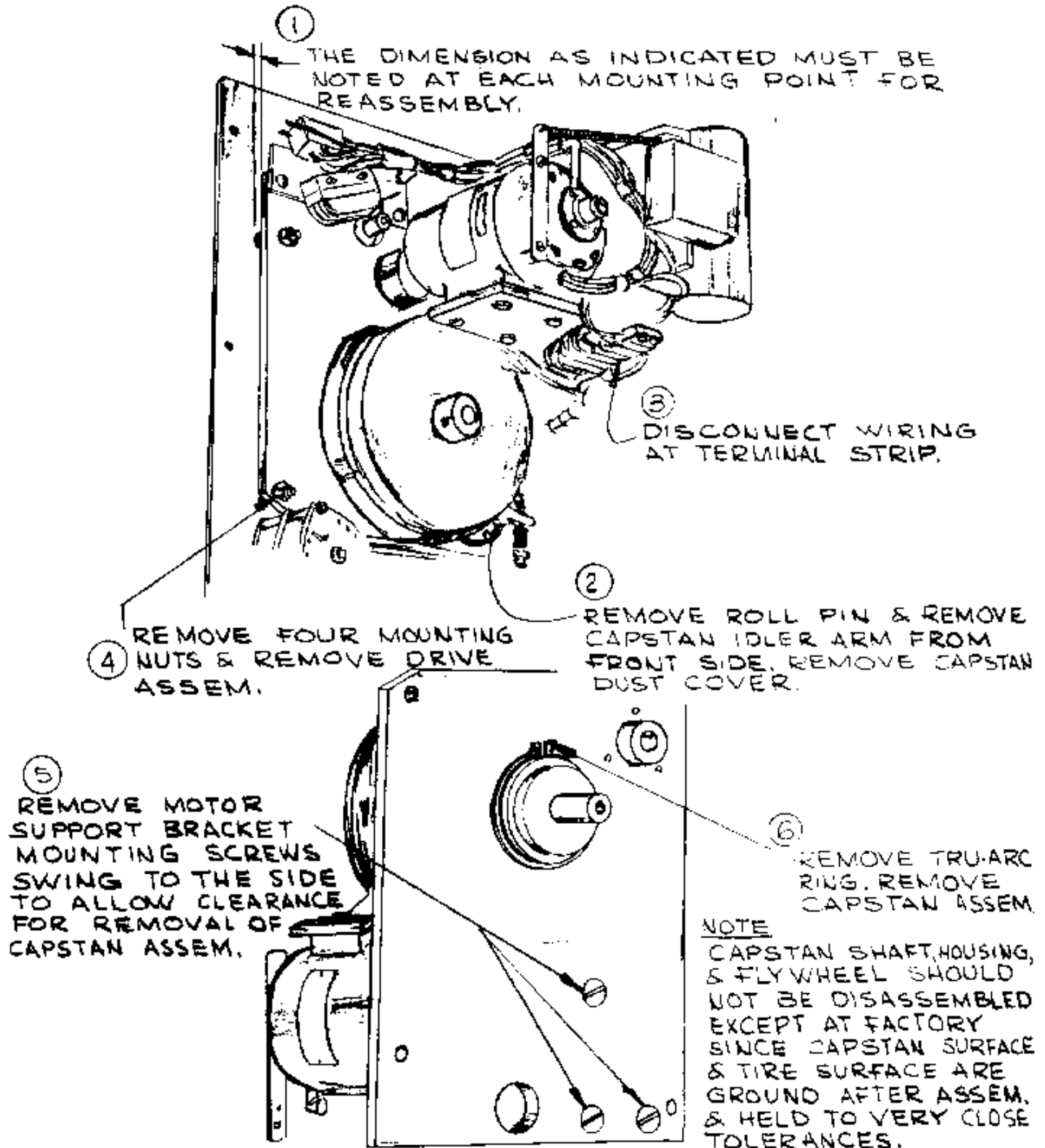
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PAGE NO: 6



NOTE. NUMBERED BALOONS INDICATE SEQUENCE OF DISASSEMBLY. REVERSE SEQUENCE FOR REASSEMBLY.

REMOVAL OF CAPSTAN ASSEM.