HOW TO USE THE MT-326B ARMATURE TESTER

The MT-326B Armature Tester can be used to check starter armatures and also other armatures such as those from heater motors, windshield wiper motors, compressor motors and small electric motors. It contains a test light and leads for continuity testing.

Controls and Test Leads

The test light is used in conjunction with the red test prods to check the insulation and continuity of electric circuits.

The meter, two black prods and the HIGH-LOW switch are in a separate circuit designed to indicate armature defects. The meter operates only when the points of the black prods are pressed against adjacent commutator segments.

The HIGH-LOW switch increases the sensitivity of the meter when in the low position. The LOW position should be used for low output armatures.

The purpose of the meter and prods is to make comparative tests of windings for possible open circuits, as well as shorted turns by measuring t he relative output of each winding.

TEST PROCEDURE

To Test For A Grounded Winding:

1. Place the armature in the jaws.
2. Insert the power cord into an AC outlet and set the ON-OFF switch to the ON position.
3. Hold one of the red test prods on the armature shaft and slide the other red test prod around the commutator. If the light does NOT light, the windings are good.
4. If a winding is grounded to either the laminations or shaft, the light will glow brightly. A grounded winding can be located with the meter circuit as follows:
   a. Place the HIGH-LOW switch on the HIGH position.
   b. Press one point of the black meter prod against the armature shaft and position the other point so that it touches each commutator segment that passes under it while the armature is rotated slowly thru one revolution. The grounded winding will cause a meter reading which will rise on either side of its commutator segments. When the winding is grounded at the commutator, there will be a low or zero reading for that segment.

To Test For A Shorted Winding:

1. Place the armature in the jaws.
2. Press the ON-OFF switch to ON.
3. Hold a hacksaw blade or similar strip of steel, lengthwise against armature laminations and slowly rotate the armature under the blade. A shorted winding will create a magnetic field and the hacksaw blade will be attracted to slots in which the shorted winding is located. The blade will vibrate, producing a growling noise.

   Some armatures will attract hacksaw blades at every slot even when no short exists. To test such an armature for a shorted winding, use the meter circuit. The black test prods should be placed across adjacent commutator segments or across every other segment, depending upon the design of the armature. The armature should be rotated until t he maximum meter reading is obtained. The test prods should then be held in this position while the armature is rotated for testing. The meter reading will be the same for all good windings. A shorted winding will read low and a winding shorted at the commutator will read zero. An open winding will also read .zero.

CAUTION: Always turn the switch off before placing an armature into the jaws or removing one from the jaws. The armature tester may burn out if left on without an armature in the jaws.

Form SB-505

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