Cranking System Diagnosis And Service
Chapter 53

ACROSS

1. should not begin until after verifying that the starter assembly is functioning correctly.
3. Most starters no longer require as they are just replaced as an assembly.
4. A high voltage drop in the cranking circuit wiring can cause slow engine cranking with less than normal drain as a result of the excessive circuit resistance.
6. is the usual method and involves clamping the starter in a vise to prevent rotation during operation and connecting heavy-gauge jumper wires to both a battery known to be good and the starter.
11. Step 1 of is to disconnect the negative battery cable.
12. Excessive current draw may indicate a shorted starter motor, usually caused by a fault with the or armature.
13. For the proper operation of the starter and absence of abnormal starter noise, there must be a slight between the starter pinion and the engine flywheel ring gear.
14. One item to check when checking the control circuit is the "S" terminal of the starter.

DOWN

1. Excessive starter current draw may indicate binding of the as a result of worn bushings.
2. should be replaced if the brush length is less than half of its original length.
5. An open or high resistance anywhere in the can cause the starter motor to not engage.
7. is the drop in voltage that occurs when current is flowing through a resistance.
8. Many starters use which are thin metal strips between the flywheel and the engine block mounting pad to provide the proper clearance.
9. An equals high resistance.
10. Because the loops of copper wire are interconnected in the armature of a starter, an armature can be accurately tested only by use of a.