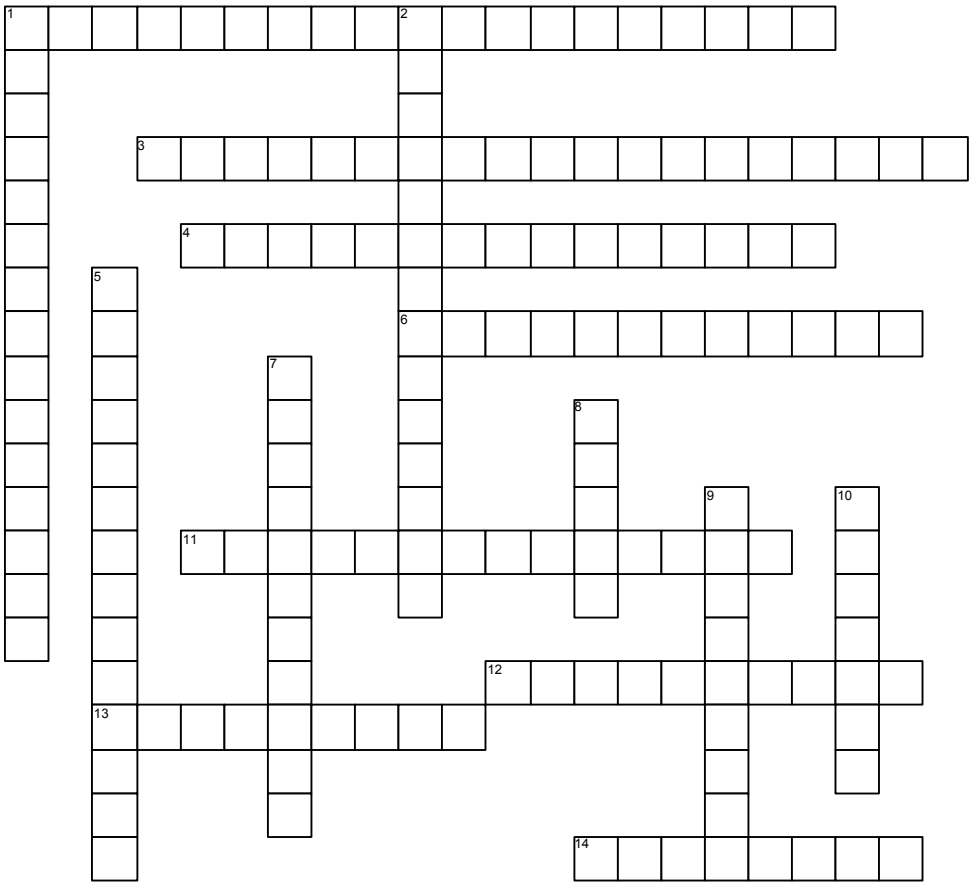
Cranking System Diagnosis And Service

Chapter 20



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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 batter 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 A ____ _____ 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 _____.