ACROSS

1 A ______ has a straight, sharp cutting end that is used for cutting off rivets or to separate two pieces of an assembly.

4 A ______ or campaign is issued by a vehicle manufacturer and a notice is sent to all owners in the event of a safety-related fault or concern.

6 A ______ fits over the fastener and grips the points and/or flats of the bolt or nut.

8 ______ _______ is the maximum stress used under tension without causing the failure of a fastener.

10 ______ are the female part of a threaded fastener.

13 Whenever a fastener is difficult to remove, some technicians will insert the handle of a ratchet or a breaker bar into a length of steel pipe sometimes called a ________.

14 Often, a ____ will have coarse threads on one end and fine threads on the other end.

DOWN

1 Whenever diagnosing an engine operating fault, it is often necessary to use the ___________ _____ to be sure that the vehicle is the subject of a technical service bulletin or other service procedure.

2 ______ are used to smooth metal and are constructed of hardened steel with diagonal rows of teeth.

3 ______ _______ can be used to identify the part and check dimensions such as the cubic inch displacement and other information, such as the year of manufacture.

5 The size of a ______ _____ is specified by the letter M followed by the diameter in millimeters (mm) across the outside of the threads.

7 Service technicians are often asked to fabricate sheet metal brackets or heat shields and need to use one or more types of cutters available called ______.

9 ______ are issued by the vehicle manufacturer to notify service technicians of a problem and include the necessary corrective action.

11 The _____ label under the hood of the vehicle shows information settings and emission hose routing information.

12 The strength or classification of a bolt is called the ______.