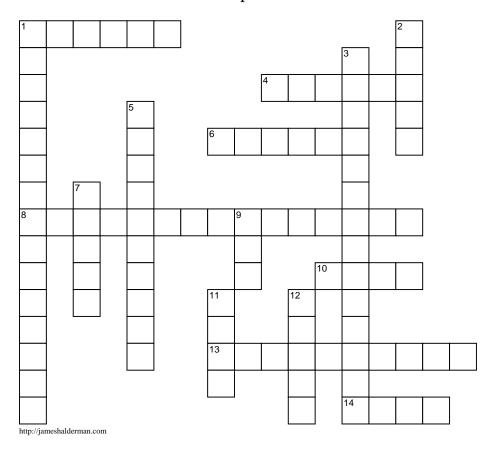


## Service Information, Tools, and Safety

### Chapter 1



#### **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