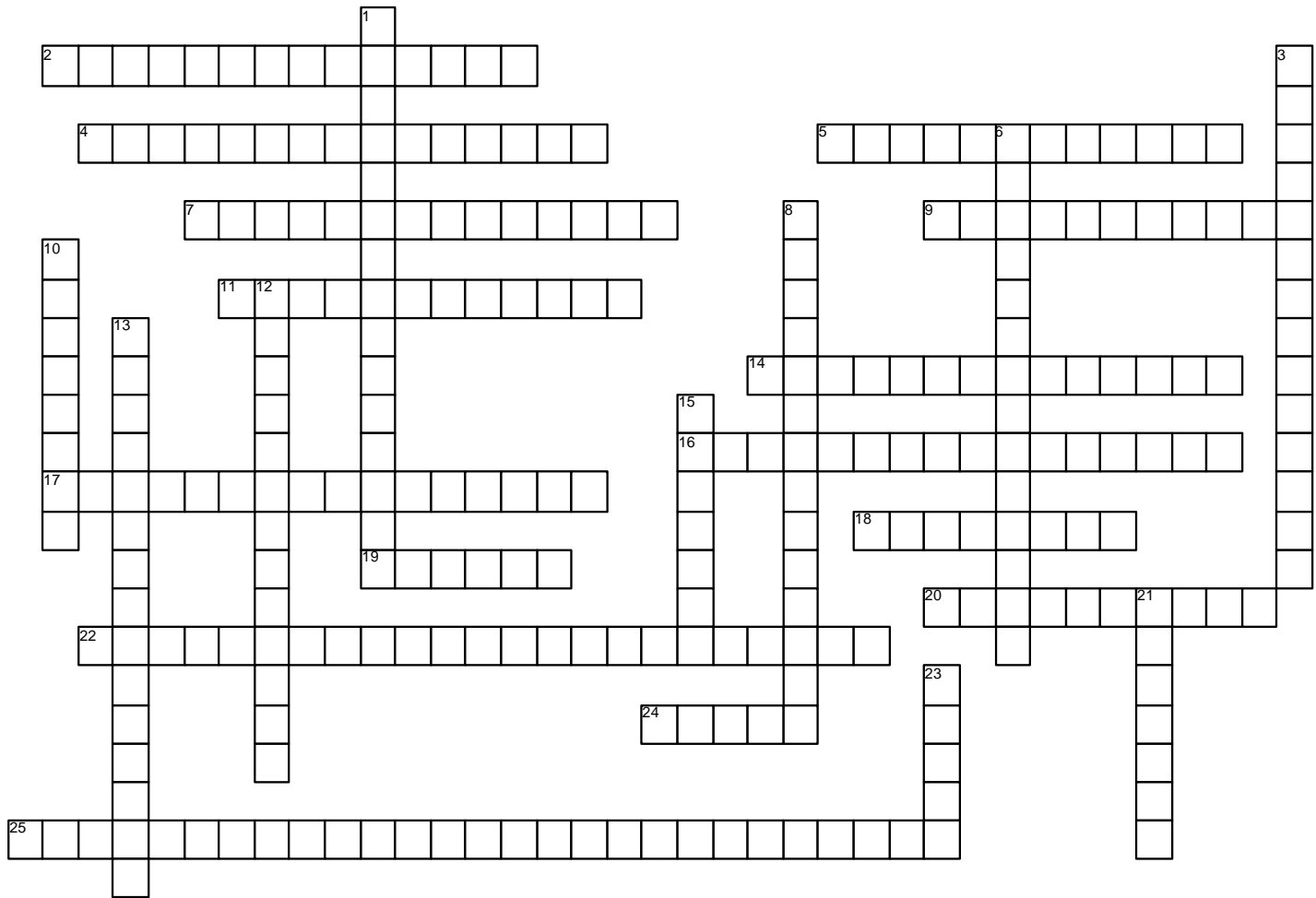


Hand Tools

Chapter 9



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ACROSS

- 2 _____ are designed for cutting only.
- 4 Another name for multigroove adjustable pliers is _____.
- 5 A _____ uses a replaceable blade and is used to cut a variety of materials such as carpet, plastic, wood, and paper products, such as cardboard.
- 7 A _____ is a socket that is an open-end or line wrench to allow access to fasteners that cannot be reached using a conventional wrench.
- 9 Many smaller fasteners are removed and installed by using a _____.
- 11 A _____ is placed over the top of the fastener and grips the points of the

fastener.

- 14 A shot-filled plastic hammer is called a _____.
- 16 An _____ is often used where the exact size wrench is not available or when a large nut, such as a wheel spindle nut, needs to be rotated but not tightened.
- 17 _____ are designed to grip small objects or objects in tight locations.
- 18 _____ are the most used hand tool by service technicians.
- 19 A _____ fits over the fastener and grips the points and/or flats of the bolt or nut.
- 20 Avoid using a _____ to remove difficult fasteners. They may break or shatter sockets and ratchets as well as cause personal injury.
- 22 A _____ is first set to the

specified torque and then it "clicks" when the set torque value has been reached.

- 24 A _____ is used to drive a pin out that is used to retain two components.
- 25 For gripping larger objects, a set of _____ is a commonly used tool of choice by many service technicians.

DOWN

- 1 The common household type of pliers is called the _____.
- 3 _____ are used to remove and install snap rings.
- 6 _____ are socket turning handles that are designed to apply a known amount of force to the fastener.

8 Another name for a line wrench is a _____.

- 10 Another name for a box-end wrench is a _____ wrench.
- 12 An _____ is often used to loosen or tighten bolts or nuts that do not require a lot of torque.
- 13 Socket extensions and _____ are also used with sockets to allow access to fasteners in restricted locations.
- 15 A _____ is used to cut metals, such as steel, aluminum, brass, or copper.
- 21 The socket is rotated using either a long bar or a _____.
- 23 _____ are used to smooth metal and are constructed of hardened steel with diagonal rows of teeth.