

# Tips on Buying and Maintaining Your Next Ratchet

6 CONSIDERATIONS AND 6 MAINTENANCE TIPS *By Paul Dean*

**R**atchets are one of the most demanded tools in a fleet maintenance toolbox. In today's market, one will find in a variety of lengths and designs all created to help complete repairs quickly and efficiently. For those wondering what to look for in their next ratchet, read on.

## 6 CONSIDERATIONS

**1 HEAD SHAPE**  
Ratchets are available in different sizes and shapes such as flex head, slim head, and go-through head, just to name a few. The two most common designs are the round head or pear-shaped (or teardrop). Choosing one design over the other is a matter of personal preference, as either will deliver years of reliable service. Ratchets come in an array of drive sizes, the most popular being 1/4 inch, 3/8 inch, and 1/2 inch.

**2 INTENDED APPLICATION**  
Before buying another ratchet, it is important to consider what the likely applications will be. Once determined, decide whether the need requires a stubby ratchet, long reach ratchet, or flex-head ratchet for getting into tight areas such as on the newer, smaller, compact automobiles.

**3 NUMBER OF TEETH**  
The larger the tooth count, the smaller the arc required to turn the ratchet. This is ideal when removing fasteners in confined spaces. Consequently, these types of ratchets generally have lower maximum torque output. Therefore, choose a ratchet with fewer teeth if high torque is the primary need. If fine-tuning and confined space work is the priority, choose a model with 72 or more teeth. Choosing the right model is key to preventing personal injury or damage to the ratchet.

**4 MATERIAL**  
With today's advances in forging, metallurgy, machining, and heat treatment, ratchets are available in a variety of materials. Examples include carbon steel, S2 steel, lightweight composite or titanium, non-sparking metal alloys, and even insulated for working in precision of live electricity.

**5 HANDLE SHAPE AND SIZE**  
Do you prefer comfort grip or all steel? All steel is most durable but can be slippery in some applications. Multi-material grip handles may help reduce slippage but are less durable in the presence of solvents and oils.

**6 RELEASE MECHANISM**  
Do you need a quick release button? A quick release button is the easiest way to remove sockets and attachments, especially when hands are slippery or

greasy. The downside is quick release design ratchets will allow more damaging debris and dirt to enter ratcheting mechanisms compared to a fully closed back model.

## RATCHET MAINTENANCE

Proper serviceability and maintenance are key to getting the most out of your new ratchet. A quality hand tool brand will have spare parts and be willing to service a ratchet years after initial purchase. Additionally, quality brands will back their ratchets with a lifetime warranty.

The ratchet is likely the most neglected tool in any toolbox. It is put to the test daily, but seldom taken apart to be cleaned and lubricated. Below are some tips on maintaining ratchets for years of reliable service:



**1** Take it apart as soon as you sense a problem or do not hear a clean smooth ratcheting sound. On pear-shaped models, you will usually find two screws or a snap ring holding in place a back plate.

**2** Inspect the pawl and gear to see if they are in good condition. About 95% of damaged ratchets have been over torqued, causing the gears to strip but not break. One will notice this as a shearing of the gears; otherwise, pieces of the ratchets will be found in the head.

**3** Take out the gear and clean it thoroughly once the head has been removed. Use a degreasing product to clean. Spray the head with the degreaser and switch the reverse lever back and forth to remove the dirt from between the housing and the pawl.

**4** Replace the gear and lubricate with good oil after the dirt is removed. Do not use WD40 or other degreasing products. These products clean but do not lubricate properly. Simply use a little oil. Do not use grease, as it will

attract dirt that builds up and turns into a grinding compound, wearing the ratchet out prematurely.

**5** Replace the back plate, and the ratchet will be back to new condition.

**6** Perform the above steps annually to maximize the performance and reliability of the ratchets.

## ROUND HEAD RATCHETS

With the round head ratchets, there is a ring on the moveable ratchet mechanism that must be removed. Inspect the gears that are part of the main ratchet head. Clean all debris from the gears with a cleaning brush and solvent. Inspect the moveable gear (pawl). It has a pawl mechanism built into the moveable part. Clean it and inspect the teeth making sure the teeth are not damaged. Follow the same steps as above lubricating the ratchet.

## MAKE AN INVESTMENT

Ratchets are essential to getting a job done quickly and properly. When

using any ratchet choose the right size. Don't try to use a 3/8-inch drive ratchet to do the job of a 1/2-inch model. That means using the largest ratchet whenever possible.

Carefully determine your needs before buying, implement an annual maintenance and inspection routine, and consider long-term serviceability. As the workhorse in a toolbox, consider the next ratchet purchase an investment—one that if chosen properly should last a lifetime. A cheaply priced ratchet may cost less upfront but could prove much more costly if it damages a work piece, fails and cannot be serviced, or even causes personal injury.

Happy ratcheting. ●

### ABOUT THE AUTHOR

Paul Dean is the vice president of operations at Gray Tools. He has over 30 years of manufacturing and operations experience, helping thousands of professionals build and maintain their Gray and Dynamic tool collections for years of reliable use.