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› TONE Swivel Ratchet Handle RH3VHW 3/8-inch Drive User Manual

TONE RH3VHW

TONE Swivel Ratchet Handle RH3VHW 3/8-inch Drive User Manual

Model: RH3VHW

1. INTRODUCTION

Thank you for choosing the TONE Swivel Ratchet Handle RH3VHW. This manual provides essential information for the safe and effective use, maintenance, and troubleshooting of your new tool. Please read this manual thoroughly before operation and retain it for future reference.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the tool.

- Wear appropriate personal protective equipment, such as safety glasses, when using the tool.
- Ensure the correct size socket is used for the fastener to prevent stripping or damage.
- Do not use the ratchet handle if it is damaged or appears to be malfunctioning.
- Avoid applying excessive force beyond the tool's design limits.
- Keep hands and fingers clear of moving parts during operation.
- Store the tool in a dry, clean place away from children.

3. PRODUCT OVERVIEW

The TONE Swivel Ratchet Handle RH3VHW is a versatile 3/8-inch drive tool designed for efficient fastening and loosening tasks. Its key features include a 180-degree swivel head with a locking mechanism, a lightweight hollow grip, and a fine 2.5-degree feed angle for precise operation in confined spaces.



Figure 3.1: An angled view of the TONE Swivel Ratchet Handle RH3VHW, showcasing its overall design and the swivel head mechanism.



Figure 3.2: A direct side view of the TONE Swivel Ratchet Handle RH3VHW, highlighting its slender profile and ergonomic handle.



Figure 3.3: A detailed image of the ratchet's handle, emphasizing its hollow construction which contributes to the tool's lightweight design (271g).

4. SETUP

4.1 Attaching a Socket

1. Select the appropriate 3/8-inch drive socket for your fastener.
2. Align the square drive of the socket with the square drive on the ratchet head.
3. Press the socket firmly onto the ratchet drive. The socket hold mechanism will secure it in place.



Figure 4.1: A visual guide demonstrating how to attach and detach sockets using the socket hold mechanism, ensuring secure connection.

4.2 Detaching a Socket

1. To remove the socket, firmly grasp the socket and pull it off the ratchet drive. The socket hold mechanism will release.

5. OPERATING INSTRUCTIONS

5.1 Ratchet Direction

The ratchet direction can be changed by rotating the lever on the ratchet head. Move the lever to the left for loosening (counter-clockwise) and to the right for tightening (clockwise).

5.2 Swivel Head Operation

The ratchet head can swivel 180 degrees to access fasteners in various angles. It features a locking mechanism to secure the head in desired positions.



Figure 5.1: A sequence of images demonstrating the 180-degree swivel capability of the ratchet head and its locking mechanism for secure positioning. Slide the lever to 'FREE' to adjust the angle, then to 'LOCK' to secure it.



Figure 5.2: Top view of the ratchet head, indicating the 'FREE' position for the swivel mechanism, allowing 180-degree rotation.



Figure 5.3: Bottom view of the ratchet head, indicating the 'LOCK' position for the swivel mechanism, securing the head in place.

5.3 Using the Bolster for Additional Leverage

The ratchet handle is designed with a bolster on the shaft, allowing for the application of a wrench to gain additional leverage when needed for stubborn fasteners.

ボルスター付きで、スパナ
を使っての作業が可能



Figure 5.4: A close-up view of the ratchet's shaft, highlighting the bolster design that allows for additional leverage using a wrench.

6. MAINTENANCE

6.1 Cleaning

After each use, wipe the ratchet handle clean with a dry cloth to remove dirt, grease, and debris. For stubborn grime, a mild solvent or degreaser can be used, followed by thorough drying.

6.2 Lubrication

Periodically, apply a small amount of light machine oil to the ratchet mechanism to ensure smooth operation and prevent corrosion. Avoid over-lubrication, which can attract dirt.

6.3 Storage

Store the ratchet handle in a clean, dry environment. Protect it from extreme temperatures and humidity to prolong its lifespan.

7. TROUBLESHOOTING

7.1 Ratchet Mechanism Sticking

- **Cause:** Dirt or lack of lubrication.
- **Solution:** Clean the ratchet head thoroughly and apply a small amount of light machine oil.

7.2 Swivel Head Not Locking Securely

- **Cause:** Debris in the locking mechanism or wear.

- **Solution:** Inspect the locking mechanism for obstructions. Clean if necessary. If wear is evident, contact customer support.

7.3 Socket Not Attaching/Detaching Easily

- **Cause:** Dirt in the drive square or socket, or a damaged socket.
- **Solution:** Ensure both the ratchet drive and socket are clean. Try a different socket to rule out socket damage.

8. SPECIFICATIONS



Figure 8.1: The ratchet handle shown with its total length (24.5 cm) and head height (3 cm) clearly marked for reference.

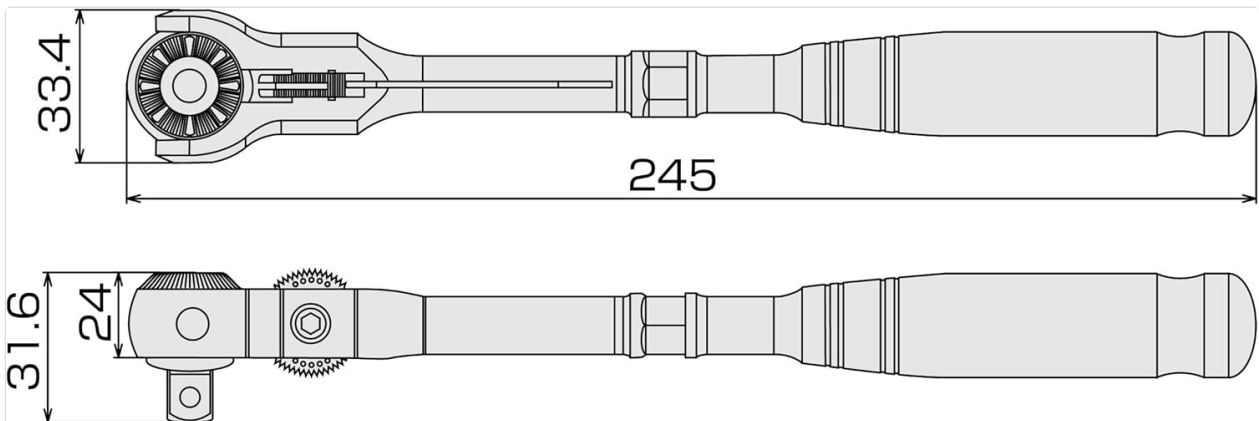


Figure 8.2: A technical diagram illustrating the key dimensions of the TONE Swivel Ratchet Handle RH3VHW, including total length and head width.

ラチェット送り角度 2.5° 細かな送り操作が可能

72枚のギアに対して
2つのセグメントカムにより
歯数144枚相当を実現



Figure 8.3: An infographic highlighting the ratchet's fine 2.5-degree feed angle, achieved by 144 equivalent teeth, and its thin, lightweight, and compact design.

Feature	Specification
Drive Size	3/8 inch (9.5 mm)
Model Number	RH3VHW
Total Length	9.6 inches (245 mm)
Head Width	1.3 inches (33.4 mm)
Head Thickness	1.2 inches (31.6 mm)
Weight	9.7 oz (271 g)
Number of Teeth	72 x 2 (equivalent to 144)
Ratchet Feed Angle	2.5°
Head Style	Fixed Square (Swivel with Lock)
Material	Metal
Finish Type	Powder Coated
Color	Silver
Operation Mode	Mechanical
Measurement System	Inch, Metric
Batteries Required	No

9. WARRANTY AND SUPPORT

TONE products are manufactured to high-quality standards. For warranty information, repair services, or technical support, please refer to the official TONE website or contact your authorized TONE dealer. Keep your purchase receipt as proof of purchase.
