Table of Contents

Chapter 1: About the DW Guillotine ................................................................. 1
  Purpose of This Manual ................................................................. 1
  How to Use The Manual ................................................................. 1
  Symbols and Warnings ................................................................. 1
  Manual Updates and Revision Tracking ........................................ 3
  Equipment Description ................................................................. 3

Chapter 2: Safety ................................................................. 9
  Operator Safety ................................................................. 9
    Safety Symbols ................................................................. 10
    Protective Equipment Requirements ........................................ 11
  Safety Labels ................................................................. 11

Chapter 3: Operating Instructions ........................................ 13
  Mounting the Machine ......................................................... 13
  Making the Cut ................................................................. 18
  Cleaning and Removing the Machine ........................................ 24

Chapter 4: Maintenance ......................................................... 29
  Lubrication ................................................................. 29
  Replacing the Cutting Wire ................................................... 29
  Replacing the Wheel Liners ................................................... 32
  Replacing the Mounting Shoes ............................................... 34

Chapter 5: Parts List and Ordering Information ........................................ 37
  Ordering Information ................................................................. 37
    Ordering Replacement Parts ................................................ 37
    Repair Information ................................................................. 37
    Warranty Information ................................................................. 38
    Return Goods Address ................................................................. 38
  Drawings and Parts Lists ................................................................. 38
Chapter 1

About the DW Guillotine

PURPOSE OF THIS MANUAL

This manual explains how to operate and maintain the DW (diamond wire) Guillotine. It includes instructions for set-up, operation, and maintenance. It also contains parts lists, diagrams, and service information to help you order replacement parts and perform user-serviceable repairs.

Before operating the DW Guillotine, you should read through this manual and become familiar with all instructions.

HOW TO USE THE MANUAL

This manual is organized to help you quickly find the information you need. Each chapter describes a specific topic on using or maintaining your equipment.

Each page is designed with two columns. This large column on the inside of the page contains instructions and illustrations. Use these instructions to operate and maintain the equipment.

The narrower column on the outside contains additional information such as warnings, special notes, and definitions. Refer to it for safety notes and other information.

In This Chapter

PURPOSE OF THIS MANUAL
HOW TO USE THE MANUAL
SYMBOLS AND WARNINGS
MANUAL UPDATES AND REVISION TRACKING
EQUIPMENT DESCRIPTION

Throughout this manual, refer to this column for warnings, cautions, and notices with supplementary information.
SYMBOLS AND WARNINGS

The following symbols are used throughout this manual to indicate special notes and warnings. They appear in the outside column of the page, next to the section they refer to. Make sure you understand what each symbol means, and follow all instructions for cautions and warnings.

WARNING

A WARNING alert with the safety alert symbol indicates a potentially hazardous situation that could result in serious injury or death.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

CAUTION

A CAUTION alert with the safety alert symbol indicates a potentially hazardous situation that could result in minor or moderate injury.

This is the equipment damage alert symbol. It is used to alert you to potential equipment damage situations. Obey all messages that follow this symbol to avoid damaging the equipment or workpiece on which it is operating.

IMPORTANT

An IMPORTANT alert with the damage alert symbol indicates a situation that may result in damage to the equipment.

CAUTION

A CAUTION alert with the damage alert symbol indicates a situation that will result in damage to the equipment.
Chapter 1, About the DW Guillotine: Manual Updates and Revision Tracking

NOTE
This symbol indicates a user note. Notes provide additional information to supplement the instructions, or tips for easier operation.

MANUAL UPDATES AND REVISION TRACKING
Occasionally, we will update manuals with improved operation or maintenance procedures, or with corrections if necessary. When a manual is revised, we will update the revision history on the title page.

You may have factory service or upgrades performed on the equipment. If this service changes any technical data or operation and maintenance procedures, we will include a revised manual when we return the equipment to you.

EQUIPMENT DESCRIPTION
The DW Guillotine is designed to perform fast, square cutoffs of pipes 4”-16” (102-406 mm) in diameter. The machine is compact, light-weight, and easy to set up. It uses a diamond-studded wire that cuts through all common pipe materials.

The following figures illustrate the machine’s features and components.

It operates on a standard Type II hydraulic tool circuit (8 gpm [30 l/min] flow at 1500 psi (103 bar)).

Current versions of E.H. Wachs Company manuals are also available in PDF format. You can request an electronic copy of this manual by emailing customer service at sales@ehwachs.com.
Figure 1-1. The photo shows the DW Guillotine mounted and ready to cut.
Figure 1-2. The drive wheel runs on the shaft of the hydraulic motor. The idler wheels spin freely with the motion of the wire.

Figure 1-3. Direction arrows on the wheels and frame show the direction of wire rotation.
Figure 1-4. A clamping strap with a ratcheting clamp holds the machine to the pipe.

Figure 1-5. The photo shows the fittings and controls on the machine.
Figure 1-6. The tensioning gauge monitors the tension on the wire as it cuts.

- The indicator should be below the yellow band when the machine is not in use. Leaving tension on the wire during storage could damage the wheel inserts.
- The indicator should be in the yellow band when the machine is ready for cutting.
- The indicator should be in the green band (as shown in photo) when cutting. Operate the feed handle to keep the indicator in the green band.
- If the indicator is in the red band, the tension is too high. Reduce the feed rate.
Figure 1-7. A storage stand is provided to hold the machine and accessories. The coolant sprayer provides water for cutting lubrication.
Chapter 2
Safety

The E.H. Wachs Company takes great pride in designing and manufacturing safe, high-quality products. We make user safety a top priority in the design of all our products.

Read this chapter carefully before operating the equipment. It contains important safety instructions and recommendations.

OPERATOR SAFETY

Follow these guidelines for safe operation of the equipment.

• **READ THE OPERATING MANUAL.** Make sure you understand all setup and operating instructions before you begin.

• **INSPECT MACHINE AND ACCESSORIES.** Before starting the machine, look for loose bolts or nuts, leaking lubricant, rusted components, and any other physical conditions that may affect operation. Properly maintaining the machine can greatly decrease the chances for injury.

• **ALWAYS READ PLACARDS AND LABELS.** Make sure all placards, labels, and stickers are clearly legible and in good condition. You can purchase replacement labels from E.H. Wachs Company.

• **KEEP CLEAR OF MOVING PARTS.** Keep hands, arms, and fingers clear of all rotating or moving parts.
Always turn machine off before doing any adjustments or service.

- **SECURE LOOSE CLOTHING AND JEWELRY.** Secure or remove loose-fitting clothing and jewelry, and securely bind long hair, to prevent them from getting caught in moving parts of the machine.

- **KEEP WORK AREA CLEAR.** Keep all clutter and nonessential materials out of the work area. Only people directly involved with the work being performed should have access to the area.

### Safety Symbols

![Warning Icon]

This icon is displayed with any safety alert that indicates a personal injury hazard.

#### WARNING

This safety alert indicates a potentially hazardous situation that, if not avoided, **could** result in **death or serious injury**.

#### CAUTION

This safety alert, with the personal injury hazard symbol, indicates a potentially hazardous situation that, if not avoided, **could** result in **minor or moderate injury**.
Protective Equipment Requirements

**WARNING**
Always wear impact resistant eye protection while operating or working near this equipment.


**CAUTION**
Personal hearing protection is recommended when operating or working near this tool.

Hearing protectors are required in high noise areas, 85 dBA or greater. The operation of other tools and equipment in the area, reflective surfaces, process noises, and resonant structures can increase the noise level in the area. For additional information on hearing protection, refer to Federal OSHA regulations, 29 Code of Federal Regulations, Section 1910.95, Occupational Noise Exposure and ANSI S12.6 Hearing Protectors.

**SAFETY LABELS**
The following safety labels are included on the machine. If any labels are lost or damaged, order replacements. See ordering information and parts lists in Chapter 5.
Figure 2-1. Follow all safety guidelines for operating the machine.
Chapter 3

Operating Instructions

MOUNTING THE MACHINE

The DW Guillotine weighs about 65 lb (30 kg). It can be handled safely by two operators using the handles on the sides of the frame. You can also use a lifting device attached to the lift hook on top of the machine.

Use the DW Guillotine only on horizontal pipe. The clamping system is not designed to hold it on a vertical pipe.

1. Remove the locking pin from the end of the fastening rod in the storage frame.

Figure 3-1. Pull the locking pin out of the fastening rod.

In This Chapter

MOUNTING THE MACHINE
MAKING THE CUT
CLEANING AND REMOVING THE MACHINE
**WARNING**

Do not lift the DW Guillotine by yourself. The machine is too heavy and bulky to be lifted safely by one operator; serious injury could result.

---

**NOTE**

The bow is fully retracted (up) when it is stored in the frame. Mount the machine with the bow retracted.

---

2. Lift the machine out of the storage frame. It can be lifted by two operators, using the handles.

![Figure 3-2. Lift the machine out of the storage frame.](image)

3. Set the machine on the pipe at the cutting location, with the saddle on a supported section of pipe. The cutting wire will be toward the fall-off end of the pipe.
Figure 3-3. Set the machine on the pipe, with the wire on the fall-off side of the cut.

4. Position the machine to align the wire at the required cut line.

NOTE

It is recommended that you support or set up a catch device for the fall-off piece of pipe. If you are cutting in-line pipe, make sure the pipe is supported on both sides of the cut.
Figure 3-4. Position the machine so the wire is at the cut line location.

5. Press and hold the release button on the clamping ratchet to pull out the strap.

Figure 3-5. Pull out enough strap to wrap around the pipe

6. Wrap the strap around the pipe. Put the hook through the clamping hole on the opposite side of the frame.
Figure 3-6. Wrap the clamping strap around the pipe and fasten the hook through the hole as shown.

7. Operate the clamping ratchet to tighten the strap. Clamp the strap as tight as you can get it with the ratchet handle.

Figure 3-7. Operate the ratchet to tighten the clamping strap.

CAUTION
Make sure the machine is securely attached to the pipe before operating it.
MAKING THE CUT

Check the diamond wire and make sure it is installed in the right direction.

Figure 3-8. Check that the wire is installed in the correct direction. The thinner end of the cutting bead should lead.

1. With the hydraulic power unit off, connect the hydraulic hoses to the machine.

Figure 3-9. Connect the hydraulic hoses.

NOTE

Inspect the wire closely to see the taper of the bead.
2. Attach a water hose to the coolant fitting on the cover. If a water supply is available, you can attach a garden hose to the fitting. A hand sprayer tank and hose are provided if necessary.

![Figure 3-10. Attach a water hose to the coolant fitting.](image)

3. Set the wire tension by turning the tensioning knob. The tension indicator should be in the middle of the yellow band when not cutting.

![Figure 3-11. With no load on the wire, the tension gauge indicator should be in the yellow.](image)
4. Turn the feed handle to advance the bow down until the wire is close to the pipe surface.

![Figure 3-12. Feed the bow down until the wire almost touches the pipe.](image)

5. Make sure the ON/OFF lever is in the OFF position (horizontal).

![Figure 3-13. Make sure the machine is turned off before starting the HPU.](image)

6. Power on the HPU. Set the flow to 8 gpm (30 l/min) and the pressure to 1500 psi (103 bar).
7. Turn the ON/OFF lever to the ON (vertical) position. The wire will start running.

![Figure 3-14. Turn the ON/OFF lever up to the ON position.](image)

**WARNING**
Keep away from the wire while the machine is operating. The wire runs at very high speed and can cause serious injury.

8. Turn on the cooling water supply.

![Figure 3-15. The coolant spray tank has an on-off valve on the hose.](image)

**NOTE**
Generally, you can feed faster through the center of the pipe, and slower through the crown at the top and bottom.

9. Turn the feed handle to advance the wire into the pipe. Watch the tension gauge as you operate the feed handle. Feed at a rate that keeps the indicator within the green band on the gauge.
Figure 3-16. Turn the feed handle to advance the wire into the pipe.

Figure 3-17. Operate the feed handle to keep the tension gauge indicator in the green band.

10. Make sure there is a continuous supply of water as you cut. If you are using the sprayer tank, you will need to pump it occasionally to pressurize it.

11. Use caution as you approach the end of the cut:
• If you are cutting off the end of the pipe, support the fall-off piece, or be sure to stand clear of it when it falls.

• If you are cutting in-line pipe, there may be stress on the pipe that will cause it to “spring” when cut, or snap off near the end of the cut. Use appropriate safety procedures at your worksite for cutting stressed pipes.

12. Finish the cut by feeding the wire past the bottom of the pipe.

13. Turn off the water to the coolant sprayer.

14. Turn the ON/OFF lever to the OFF position.
Figure 3-19. Turn the ON/OFF lever to the OFF position.

15. Turn off power at the HPU.

CLEANING AND REMOVING THE MACHINE

The DW Guillotine will be easier to clean if you leave it mounted vertically on the pipe. Spray and lubricate the machine, then remove it.

1. Turn the feed handle to fully retract the bow all the way to the top.

2. Disconnect the hydraulic hoses from the machine.

NOTE

If the wire binds against the pipe while retracting the bow, start the machine to run the wire while feeding the bow back to the top.
Figure 3-20. Remove the hydraulic hoses from their fittings.

3. Turn the tensioning knob to take the tension off the wire. Leave the wire mounted on the wheels.

**IMPORTANT**

Store the machine with all tension relieved from the wire. Leaving tension on the wire could damage the wheel liners.

Figure 3-21. Loosen the tension knob to take the tension off the wire. The tension gauge indicator should be all the way to the left (below the yellow band).

4. Release the cover latches and open the covers.
5. Spray all components thoroughly with water to wash off cutting debris.

![Figure 3-22. Spray the inside of the machine thoroughly to clean out cutting debris.](image)

6. Spray the following components with a water-displacing lubricant (such as WD-40):
   - feed screw
   - guide rods
   - wheels
   - tensioning knob
   - clamping ratchet.
Figure 3-23. Spray water-displacing lubricant on moving parts before storage.

7. Hold the , or secure it with a support device, to keep it from falling when you release the clamping strap.

8. Press the release button on the clamping ratchet. Pull out enough strap to disconnect the hook from the frame, and rewind the strap in the ratchet.

![Figure 3-24. Press the button on the clamping ratchet to release the strap.]

**WARNING**

Make sure you are supporting the machine when you release the clamping ratchet. It could shift or fall from the pipe, causing serious injury.
9. Lift the machine from the pipe. Lay it in the storage frame, with the fastening rod through the hole in the saddle frame.

![Figure 3-25. Set the DW Guillotine down in the storage frame.](image)

10. Replace the locking pin in the fastening rod.

![Figure 3-26. Put in the locking pin to secure the machine in the storage frame.](image)
Chapter 4

Maintenance

LUBRICATION

1. Every time you use the , spray the following components with a water-displacing lubricant (such as WD-40):
   • feed screw
   • guide rods
   • wheels
   • tensioning knob
   • clamping ratchet.

REPLACING THE CUTTING WIRE

1. Turn the feed handle to retract the bow all the way to the top.

2. Turn the tension knob to fully release the tension on the wire.

In This Chapter

LUBRICATION
REPLACING THE CUTTING WIRE
REPLACING THE WHEEL LINERS
REPLACING THE MOUNTING SHOES
3. Release the cover latches and open all of the covers.

4. Pull the wire off the drive wheel at the top, then remove the wire.
5. When putting on the new wire, make sure it is installed in the correct direction. The machine will not cut properly with the wire installed wrong.

6. Install the new wire over the drive wheel, then over the idler wheels.

**NOTE**

Inspect the wire closely to see the taper of the bead.

*Figure 4-3. Remove the wire from the drive wheel first.*

*Figure 4-4. Check that the wire is installed in the correct direction. The thinner end of the cutting bead should lead.*
Figure 4-5. *Put the new wire over the wheels.*

7. Close and latch the covers.
8. Turn the tension knob until the tension gauge indicator is just into the yellow band.

**Replacing the Wheel Liners**

The liners on the cutting wire wheels are durable and long-lasting. They may wear out after extensive use, or be damaged if the machine malfunctions. If necessary, replace them using the following procedure.

The drive wheel uses a different liner than the idler wheels.

1. Release the cover latches and open all of the covers.
2. Remove the wire as described in the previous section.

3. Remove the screws holding on the cover of the wheel you are repairing.

Figure 4-7. The idler wheels have 6 screws holding the cover.
Figure 4-8. The drive wheel has 12 screws holding the cover

4. Pull the cover off the wheel. You may have to pry gently with a screwdriver to get it off.

5. Pull off the wheel liner. Press the new liner onto the wheel.

6. Replace the wheel cover and insert the screws. Tighten the screws securely.

**Replacing the Mounting Shoes**

You may have to replace the mounting shoes if they are damaged or worn. Four screws attach each shoe to the frame.

1. Remove the 4 screws holding the shoe in place.
Figure 4-9. Each mounting shoe is held on with 4 screws. Remove the screws to replace the shoe.

2. Remove the shoe.

3. Put the new shoe in place and replace the screws. Tighten the screws securely.
Chapter 5
Parts List and Ordering Information

ORDERING INFORMATION
To place an order, request service, or get more detailed information on any E.H. Wachs Company products, call us at one of the following numbers:

U.S. 800-323-8185
International: 847-537-8800

You can also visit our Web site at:

www.ehwachs.com

Ordering Replacement Parts
When ordering parts, refer to the parts lists in this chapter. Please provide the part description and part number for all parts you are ordering.

Repair Information
Please call us for an authorization number before returning any equipment for repair or factory service. We will advise you of shipping and handling. When you send the equipment, please include the following information:
• Your name/company name
• Your address
• Your phone number
• A description of the problem or the work to be done.

Before we perform any repair, we will estimate the work and inform you of the cost and the time to complete it.

**Warranty Information**

Enclosed with the manual is a warranty card. Please fill out the registration card and return to E.H. Wachs Company. Retain the owner’s registration record and warranty card for your information.

**Return Goods Address**

Return equipment for repair to the following address.

E.H. Wachs  
600 Knightsbridge Parkway  
Lincolnshire, Illinois 60069 USA

**DRAWINGS AND PARTS LISTS**

The drawings on the following pages illustrate the components of the DW Guillotine, and include parts lists for ordering spare or replacement parts.
NOTES:
1) APPLY LOCTITE 243 OR EQUAL TO ALL FASTENER MALE THREADS AT ASSEMBLY
<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29-010-04-01</td>
<td>HUB, DRIVE WHEEL</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>29-010-04-02</td>
<td>HUB, DRIVE WHEEL</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>29-010-04-03</td>
<td>LINER, WHEEL</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>90-120-03</td>
<td>8-32 x 3/8&quot; SHCS SS</td>
<td>12</td>
</tr>
</tbody>
</table>

**SECTION A-A**
APPLY LOCTITE #242 OR EQ TO MALE THREADS BEFORE ASSEMBLY.
NOTES:
1. MATERIAL: See Part Material Info
2. FINISH: See Part Finish Info