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BILT HARD TRS-1008

BILT HARD 22" Portable Sawmill TRS-1008 User Manual

Brand: BILT HARD | Model: TRS-1008

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1. PRODUCT OVERVIEW

The BILT HARD 22" Portable Sawmill is designed for efficient milling of logs up to 22 inches in diameter and 129 inches (10.7 feet) in length. It is powered by a reliable 270cc Ducar 4-stroke gas engine, providing robust performance for various woodworking projects. This sawmill is suitable for homeowners, DIY enthusiasts, and small woodworking shops looking to process timber directly from their property or local sources.

Key Features:

- **Reliable 9HP Gas Engine:** Powered by a 270cc Ducar 4-stroke engine with a straightforward recoil start.
- **Substantial Cutting Capacity:** Handles logs up to 22 inches in diameter and 129 inches (10.7 feet) in length, producing boards up to 20 inches wide and 6.3 inches thick.
- **Sturdy & Compact Track Frame:** Features a 26-inch track width and a 157-inch total track length for stability, while remaining compact for transport and storage.
- **Precision Control & Safety:** Includes a precision thickness ruler and a conveniently located Emergency Stop Button for operator safety.

2. SETUP AND ASSEMBLY

This section provides step-by-step instructions for assembling your BILT HARD 22" Portable Sawmill. Refer to the accompanying video for visual guidance during the installation process.

Your browser does not support the video tag.

Video 2.1: BILT HARD 22" Portable Sawmill Installation Guide. This video demonstrates the complete assembly process for the sawmill.

2.1 Unpacking and Component Identification

1. **Open the Wooden Box:** Carefully open the wooden shipping crate.

2. **Remove All Parts:** Take out all components from the box. Ensure all parts listed in the packing list are present.
3. **Lift Main Unit:** Use a lifting hook (as shown in the video) to safely lift the main sawmill unit from the crate.
4. **Retrieve Manual:** Locate and remove the instruction manual from the manual tube attached to the main unit.
5. **Component Layout:** Lay out all track rails and other components in an organized manner for easier assembly.



Figure 2.1: All components of the BILT HARD 22 inch portable sawmill laid out on the floor, including the engine, track sections, and various hardware.

2.2 Track Assembly

6. **Install Track Feet:** Attach the adjustable feet to the bottom of each track section. There are 3 feet per track, totaling 12 feet.
7. **Attach Crossbeams (Front/Rear):** Install the two crossbeams at the front and rear ends of the track. These crossbeams should be installed on the second row of screw holes on the track using Hexagon flange bolts (M10x30) and Nuts (M10).
8. **Install Anti-Drop Hooks:** Secure L-shaped anti-drop hooks at the four corners of the track using Hexagon flange bolts (M10x30) and Nuts (M10).

9. **Install Remaining Crossbeams:** Evenly install the remaining two crossbeams on the track. Ensure the vertical bars and square openings are consistent.
10. **Install Sliding Tube:** Attach the sliding tube to the track using Hexagon flange bolts (M10x30) and Nuts (M10).
11. **Level the Bunk Assembly:** Use a level to ensure the bunk assembly is perfectly level. Adjust the feet as necessary.
12. **Secure Crossbeams:** Pull a rope across the crossbeams to ensure they are all at the same height, then tighten all bolts.
13. **Insert Log Supports:** Insert the log supports into the vertical slots. Tighten the T-shaped screws and hexagonal flange bolts (M8x30) to secure them.
14. **Install Log Clamps:** Attach the log clamps to the track.

2.3 Main Unit Installation

15. **Prepare for Main Unit:** Lift the handle to loosen the internal lock on the main unit.
16. **Insert Tubes:** Insert the square tube on the left side and the round tube on the right side into their respective slots on the main unit.
17. **Position Pulley Bracket:** Place the left pulley bracket under the square tube and release the handle to lower it down.
18. **Connect Tube to Pulley Bracket:** Use the connecting plate to connect the tube to the pulley bracket using Hexagon head bolt (M12x80), Flat washer, and Hexagon self-locking nut (M12).
19. **Lock Handles and Remove Lifting Equipment:** Lock the handles on both sides of the main unit and remove any lifting equipment.
20. **Remove Top Crossbeam Screws:** Remove the screws on the top crossbeam and the side screws.
21. **Install Top Crossbeam:** Insert the right circular ring into the round tube and tighten the screws on the left connecting plate using Flat washer (M16) and Hexagon self-locking nut (M16).
22. **Install Lifting Handle:** Attach the lifting handle.
23. **Install Water Bucket Frame:** Install the water bucket frame.
24. **Install Height Indicator:** Install the height indicator on the irregular-shaped connecting piece on the right side. Remove the hex socket screws and install the ruler.
25. **Install Throttle Handle and Emergency Switch:** Install the throttle handle and emergency switch on the square rod as shown.
26. **Connect Emergency Stop Switch Wire:** Remove the emergency stop switch wire and connect it to the engine.
27. **Connect Ground Wire:** Connect the blue ground wire to the metal parts of the engine casing.
28. **Connect Battery:** Connect the black and red wires to the battery (black is negative, red is positive). **Risk of electric shock.**
29. **Install Water Bucket:** Place the water bucket in its frame and connect it to the blade's water outlet.
30. **Install Throttle Cable:** Install the throttle cable.
31. **Install Steel Wire:** Install the steel wire, ensuring its direction is consistent with the video.
32. **Final Placement:** Lift the main unit onto the track and complete the installation.

3. OPERATING INSTRUCTIONS

Proper operation of your BILT HARD Portable Sawmill ensures safety and optimal cutting performance. Familiarize yourself with the controls and procedures before starting any milling operation.

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Video 3.1: BILT HARD 22" Portable Sawmill in Operation. This video demonstrates the sawmill's features and cutting capabilities.

3.1 Pre-Operation Checklist

- Ensure the sawmill is assembled correctly and all fasteners are tightened.
- Verify the track is level and stable.
- Check engine oil and fuel levels.
- Ensure the water tank is filled for blade lubrication.
- Inspect the saw blade for damage or dullness.
- Confirm log clamps are functioning properly.
- Wear appropriate personal protective equipment (PPE), including eye protection, hearing protection, gloves, and sturdy footwear.

3.2 Loading Logs

1. Position the log onto the track bunks.
2. Use the versatile log clamps to firmly secure the log in place. Adjust the clamps according to the log's size and shape to prevent movement during cutting.
3. Ensure the log is stable and cannot roll or shift.



Figure 3.1: A log being secured on the sawmill track with log clamps, demonstrating how to firmly hold the log in place.

3.3 Adjusting Cutting Thickness

1. Use the board thickness adjustment handle to set the desired cutting thickness.
2. Refer to the precision ruler for accurate measurements. The sawmill can produce boards up to 6.3 inches thick.

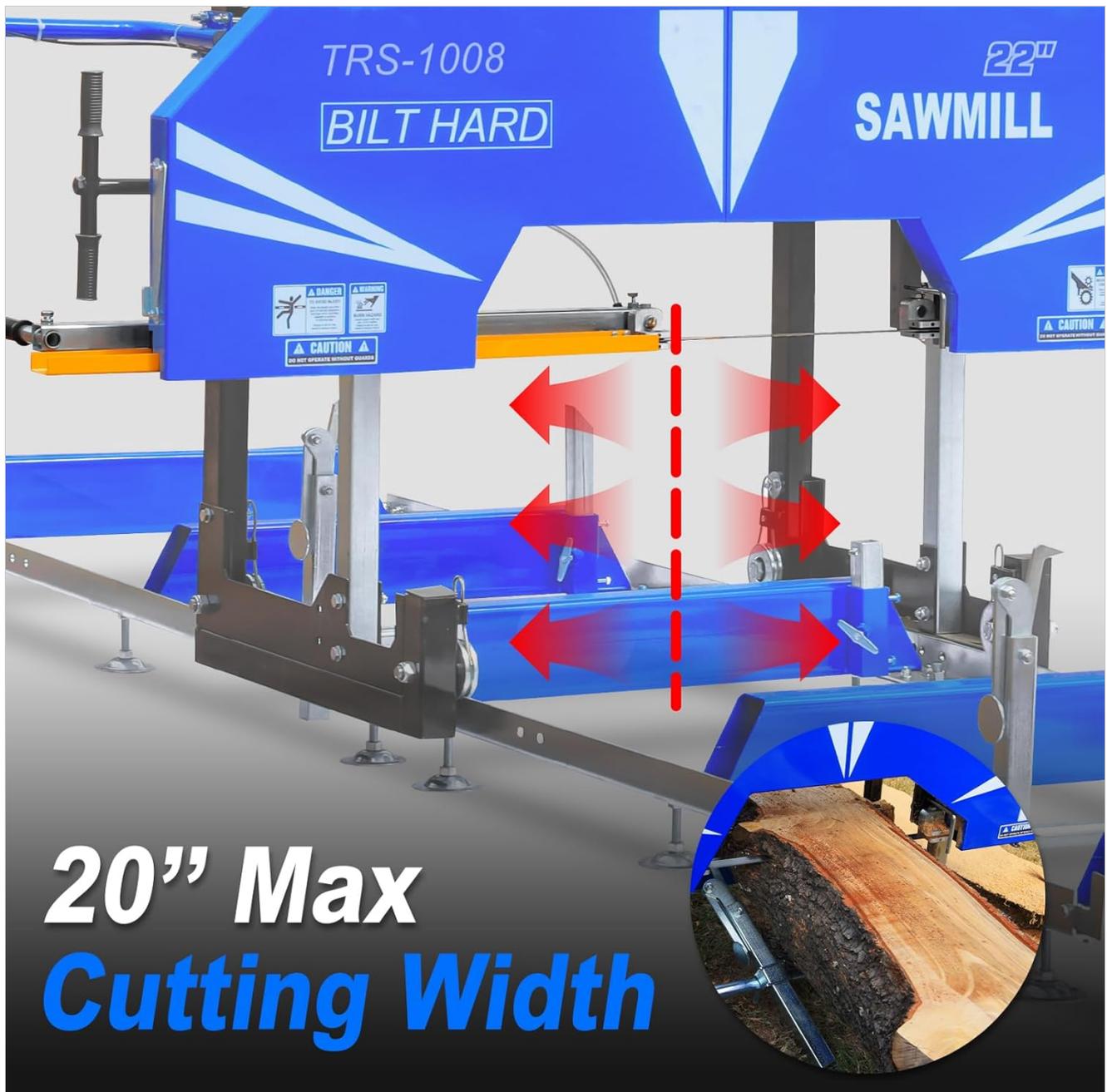
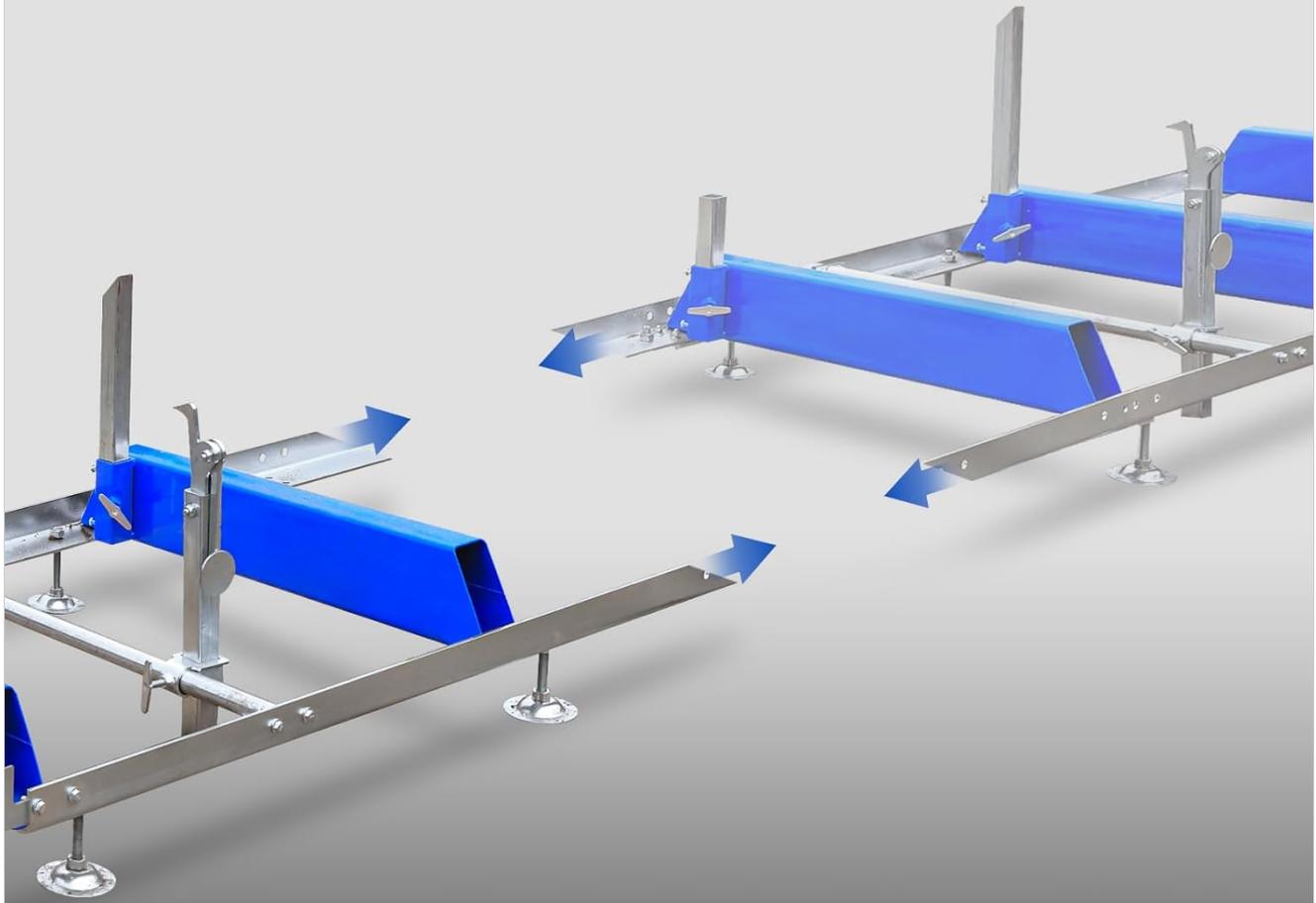


Figure 3.2: Close-up of the sawmill's adjustable cutting width mechanism, showing the maximum 20-inch cutting width.

3.4 Starting and Cutting

1. Start the 270cc 9HP 4-stroke gas engine using the recoil start mechanism.
2. Engage the saw blade.
3. Use the throttle handle to control the cutting speed. A carbon steel blade spins at 65.7 feet per second (591 inches per second) for clean, accurate cuts.
4. Slowly guide the saw head through the log, maintaining a consistent speed.
5. In case of emergency, press the Emergency Stop Button located on the handle to instantly shut down the machine.

157" Standard Track Length



129" Standard Cutting Length

Figure 3.3: A person operating the BILT HARD 22 inch portable sawmill, cutting a large log to produce lumber.

4. MAINTENANCE

Regular maintenance is crucial for the longevity and safe operation of your sawmill. Perform these checks and tasks periodically.

4.1 Daily Checks

- Inspect the saw blade for sharpness and any signs of damage. Replace if necessary.
- Check all fasteners for tightness. Tighten any loose bolts or nuts.
- Ensure the water lubrication system is clean and functioning, providing adequate water to the blade.
- Clean sawdust and debris from the track, saw head, and engine area.

4.2 Weekly/Monthly Checks

- Check engine oil level and change according to the engine manufacturer's recommendations.
- Inspect drive belts for wear and proper tension. Adjust or replace as needed.

- Lubricate all moving parts, including pulleys and bearings, as specified in the engine manual.
- Clean or replace the air filter.

4.3 Storage

- Drain fuel if storing for an extended period.
- Clean the entire sawmill thoroughly before storage.
- Store the sawmill in a dry, protected area to prevent rust and damage.

5. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your sawmill.

Problem	Possible Cause	Solution
Engine fails to start	No fuel, stale fuel, spark plug issue, low oil, emergency stop engaged.	Check fuel level, replace old fuel, inspect/replace spark plug, check oil level, disengage emergency stop button.
Blade dulls quickly or cuts unevenly	Dull blade, improper blade tension, insufficient lubrication, incorrect feed rate.	Replace or sharpen blade, adjust blade tension, ensure water flow, adjust cutting speed.
Sawmill vibrates excessively	Loose fasteners, unbalanced blade, uneven track.	Tighten all bolts, inspect blade for damage, level the track assembly.
Log shifts during cutting	Log clamps not secured, log not properly positioned.	Ensure log clamps are tightened firmly, reposition log for better stability.

6. SPECIFICATIONS

- **Brand:** BILT HARD
- **Model Number:** TRS-1008
- **Engine:** 270cc 9HP 4-Stroke Gas Engine (Ducar)
- **Max Log Diameter:** 22 inches
- **Max Log Length:** 129 inches (10.7 feet)
- **Max Board Width:** 20 inches
- **Max Board Thickness:** 6.3 inches
- **Track Width:** 26 inches
- **Total Track Length:** 157 inches
- **Blade Material:** High Carbon Steel
- **Blade Speed:** 65.7 Feet Per Second
- **Product Dimensions:** 173.23"L x 68.9"W x 63"H
- **Item Weight:** 716.5 Pounds
- **Power Source:** Gas
- **Color:** Blue

7. WARRANTY AND SUPPORT

BILT HARD is committed to providing high-quality products and exceptional customer service. For any questions or support needs regarding your sawmill, please contact us directly.

- **Customer Service:** For assistance, contact BILT HARD directly via Amazon email or through our official website.
- **Returns:** Please note that Amazon does not handle returns of gasoline-related products. Contact BILT HARD customer service for return inquiries.
- **Protection Plans:** Optional protection plans may be available for purchase, such as a 4-Year Protection Plan or Asurion Complete Protect. Refer to your purchase details for more information.