

Tool Tutorial

(Link to PDF Tool Tutorial)

Requirements

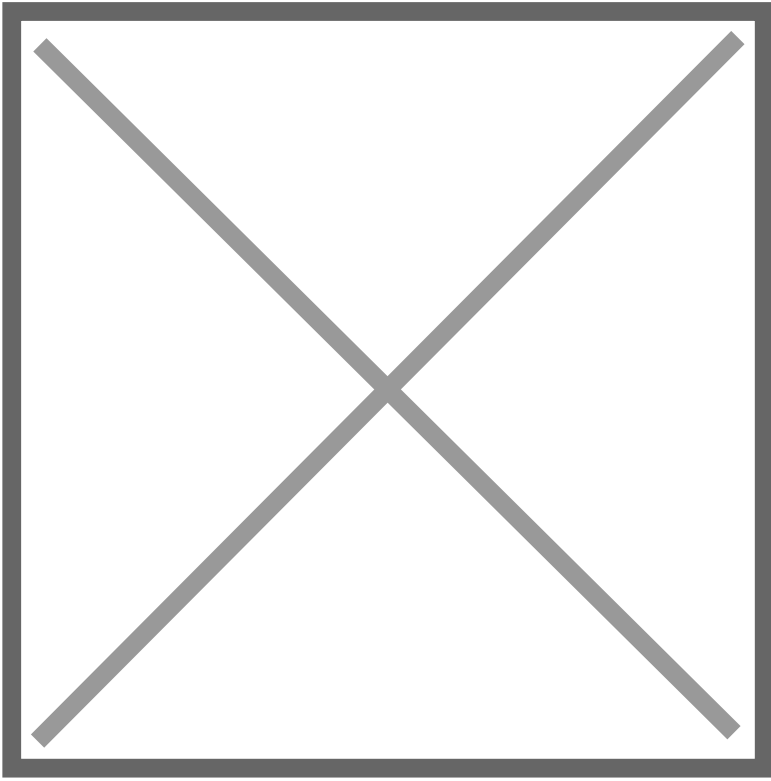
Brad Nailer can be used without a clearance.

Warnings

- ⚠ Never connect to an air source that is capable of exceeding 200 PSI.
- ⚠ Do not fire fastener on top of another fastener, into surfaces too hard to penetrate, or too close to the edge of the workpiece.
- ⚠ Do not hold tool near body while firing. Tool recoil can cause injury.
- ⚠ Wear appropriate PPE.
- ⚠ Remove finger from the trigger when not driving fasteners.
- ⚠ Disconnect the tool from the air supply when a. Unattended, b. Performing any maintenance or repair, c. Clearing a jam, d. Moving the tool to a new location.

See the [Safety Section](#) for more information.

Tool Anatomy



- * **Air Deflector**
- * **Air Inlet Plug** - This is attached to the hose connected to the compressor.
- * **Latch** - This is pressed to load or unload brads in the magazine (horizontal black bar).
- * **Trigger** - This is pressed to fire a brad when the safety nosepiece is pressed against an object.
- * **Safety Nosepiece** - Also called the workpiece contact, the Safety Nosepiece helps prevent the tool from firing unless it is pressed against an object.

For more visit the [manufacturers website](#) and [user manual](#).

Tool Safety

Personal Protective Equipment

⚠ Safety glasses, hearing protection, heavy duty gloves, and closed-toed shoes are required.

⚠ All hair, clothing and accessories should be secured close to the body.

Common Hazards

Unintentional Firing

- Be sure the trigger is released before connecting to the air supply.
- Keep fingers away from trigger when not firing.
- Always assume the tool contains fasteners.

Balance and Tool Control

- Do not overreach. Keep proper footing and balance at all times.
- Do not attach the hose or tool to your body.
- Use clamps or another practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against the body is unstable and can lead to loss of control.

Tool Care

Care

If an automatic oiler system is not used, add a few drops of Pneumatic Tool Oil into the airline connection before operation. Add a few more drops after each hour of continual use.

BEFORE EACH USE, inspect the general condition of the tool. Check for:

- proper safety trip mechanism operation,
- free safety nosepiece and trigger movement,
- loose hardware or housing,
- misalignment or binding of moving parts,
- cracked or broken parts, and
- any other condition that may affect its safe operation.

Daily - Air Supply Maintenance:

Every day, perform maintenance on the air supply according to the component manufacturers' instructions. Maintain the lubricator's oil level. Drain the moisture filter regularly. Performing routine maintenance on the air supply will allow the tool to operate more safely and will also reduce wear on the tool.

Operation

Set Up

- Route the air hose along a safe route to reach the work area without creating a tripping hazard or exposing the air hose to possible damage. The air hose must be long enough to reach the work area with enough extra length to allow free movement while working.
- Secure loose workpieces using a vise or clamps (not included) to prevent movement while working.

Inspection

Before you start using the nailer you are expected to do an initial inspection and assess its readiness for use. Consult the checklist above as well as the detailed processes here.

Single Sequential Safety Trip Mechanism Test

The single sequential safety trip mechanism is designed to prevent inadvertent firing. The tool should only fire if the Safety Nosepiece is pressed against the workpiece prior to pulling the Trigger. It should only fire again if the trigger is released and squeezed again. The Tool should not fire if the Safety Nosepiece is not pressed against an object.

1. Disconnect the tool from the air supply.
2. Empty the magazine of fasteners.
3. Check that the Trigger and the Safety Nosepiece move freely, without sticking.
4. Connect the air supply to the tool and set within the Operating Air Pressure indicated on the Specification chart.
5. Test the tool by pressing the Safety Nosepiece against the workpiece without pulling the Trigger. **The tool must not cycle (fire).** If it cycles (fires), stop immediately and have it repaired by a qualified service technician.
6. Hold the tool away, or off of the workpiece. The Safety Nosepiece should return to its original position. Squeeze the Trigger. **The tool must not cycle (fire).** If it cycles (fires), stop immediately and take the tool to a qualified service technician.
7. Press the Safety Nosepiece against the workpiece and squeeze the Trigger. **The tool must cycle (fire) only once.**
8. Release the trigger, slide the nailer to a fresh piece of wood, and squeeze it again. **The tool must cycle (fire) again only once.** With the Trigger depressed, carefully lift the tool and press it against the workpiece again. **The tool must not cycle (fire).** If it fails to act in the manner explained in bold, have it repaired by a qualified service technician.

Loading

- △Release the trigger.
- △Detach the air supply.
- △Attempt to fire the Tool into a piece of scrap wood to ensure that it is disconnected and is incapable of firing any fasteners.

1. Depress the Latch (64) and pull back on the Moveable Magazine (55), pulling it out of Fixed Magazine (52).
2. Insert the fasteners into the Moveable Magazine. If loading staples, fit the crown of the staples so they fit over and ride on the rail of the Magazine.
3. After the nails or staples are loaded, slide the Moveable Magazine back into Fixed Magazine until the Latch snaps back into place, locking the Moveable Magazine.

Note: The small window gauge on the left side of the Moveable Magazine indicates how many fasteners remain inside Nailer-Stapler.

General Operating Instructions

1. Before each use, test the tool as directed in the prior section.
2. If an automatic oiler is not used, add a few drops of Pneumatic Tool Oil to the airline connection before use. Add a few drops more after each hour of continual use.
3. Position tool at desired fastener location and depress the Safety Nosepiece fully against the workpiece. Squeeze the trigger to fire a fastener.
4. If the tool requires more force to accomplish the task, verify that the tool receives sufficient, unobstructed airflow (CFM) and increase the pressure (PSI) output of the regulator up to the maximum air pressure rating of this tool.
5. After use, to prevent accidents:
 1. Release the trigger.
 2. Detach the air supply.
 3. Attempt to fire the Tool into a piece of scrap wood to ensure that it is disconnected and is incapable of firing any fasteners.
 4. Release the trigger again.
 5. Clean external surfaces with clean, dry cloth.
 6. Store indoors out of children's reach.

⚠ Keep second hand away from tool discharge area, especially if holding workpiece. Tool applies extreme force to fastener, and fasteners may deflect or fire in an unexpected direction.

⚠ Do not hold tool near body while firing. Tool recoil can cause injury.

⚠ Do not exceed the tool's maximum air pressure rating. If the tool still does not have sufficient force at maximum pressure and sufficient airflow, then a larger tool may be required.

Consumables

Brads are consumables. Plastic brads may be purchased at the Protohaven shop or you can bring your own. This tool can accept:

- 18 Gauge 5/8" - 2" Brad
- 18 Gauge 5/8" - 1-1/2" Narrow Crown Staples

Maintenance Requests

If you encounter any of the issues listed in the Inspection area or have any other issues with the tool not working properly:

- Update the physical Maintenance Tag at the machine
 - ☐ Green can be used without issue
 - ☐ Yellow can be used with caution
 - ☐ Red cannot be used without hazard to either the user or the equipment
- Record issues at <https://protohaven.org/maintenance>. This notifies our staff and volunteer maintenance crew of any issues.

Troubleshooting

Clearing Jams

1. If a fastener is jammed in the discharge area, remove it with pliers.
2. If a fastener is jammed in the Magazine, depress the Latch [Manual p 19](#)(64) and pull back on the Moveable Magazine (55), and remove the Position Seat (54). Then pull out of Fixed Magazine (52).
3. Pull out the jammed fastener and the remainder of the fastener strip that is still in the magazine. Dispose of the remaining fastener strip; it may be bent or damaged in some other way.
4. If a fastener is jammed in the Drive Guide (40), pull out the Quick Release Lever (44) and disengage the Quick Release Spring (45).
5. Remove the jammed fastener; pliers may be necessary to remove a stuck fastener.
6. Inspect the Drive Guide for any bends or breakage. If it is damaged, do not use the tool until it is repaired by a qualified technician.
7. Lightly oil the Drive Guide, engage the Quick Release Spring, and snap the Quick Release Lever back into place.
8. Make sure that the Safety Tip moves smoothly without binding.
9. Reload the Nailer/Stapler and then reconnect it to the air supply.
10. Press the Safety of the Nailer/Stapler against an appropriate piece of scrap wood.
11. Test fire the Nailer/Stapler several times, checking for proper operation.
12. Disconnect the Nailer/Stapler, remove the fasteners, and store in a location out of children's reach.
13. If the jam cannot be cleared using the method above, have the tool serviced by a qualified technician.

Problem	Possible Causes	Likely Solutions
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Insufficient fastener depth.	1. Not enough air pressure; Incorrect lubrication or not enough lubrication. 2. Blocked air inlet screen (if equipped). 3. Mechanism contaminated.	1. Check for loose connections and make sure that air supply is providing enough air pressure (PSI) to the tool's air inlet. Do not exceed maximum air pressure. 2. Lubricate using air tool oil and grease according to directions. 3. Clean air inlet screen of buildup. 4. Have qualified technician clean and lubricate mechanism. Install in-line filter in air supply as stated in Initial Set Up: Air Supply.
Fasteners drive too deeply.	1. Incorrect tool depth setting. 2. Too much air pressure.	1. Adjust depth setting, if available. 2. Reduce air supply pressure (PSI).
Tool cycles without firing fastener.	1. Jammed fastener. 2. Tool empty. 3. Incorrect fasteners used. 4. Magazine dirty or not lubricated properly. 5. Insufficient air flow.	1. Clear jammed fastener according to Clearing Jams instructions. 2. Reload with correct fasteners. 3. Empty, then reload with correct fasteners. 4. Clean and lubricate magazine and pusher. 5. Check for loose connections and make sure that air supply is providing enough air flow (CFM) and pressure (PSI) to the tool's air inlet. Do not exceed maximum air pressure.
Frequent jamming.	Incorrect nail / staple type.	Confirm nail / staple collation type, diameter, angle, gauge, crown, type, and length. Correct as needed.
Severe air leakage. (Slight air leakage is normal, especially on older tools.)	1. Cross-threaded housing components. 2. Loose housing. 3. Damaged valve or housing. 4. Dirty, worn or damaged valve.	1. Check for incorrect alignment and uneven gaps. If cross-threaded, disassemble and replace damaged parts before use. 2. Tighten housing assembly. If housing cannot tighten properly, internal parts may be misaligned. 3. Replace damaged components. 4. Clean or replace valve assembly.

Additional Resources

- [YouTube Beginner Video??](#)
- [Ryobi How to use a brad nailer??](#)

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