

## **Trouble Shooting Staplers and Nailers**

**Vertex Fasteners** is committed to providing our customers with world-class customer service and support. Our dedicated regional sales/service technicians are Vertex employees. They know the product, the business, and their customers, and are there to serve you. Vertex also has a well-trained staff of customer service, production and engineering professionals that are ready and able to assist you.

This and other manuals are available on our website: **WWW.VERTEXFASTENERS.COM**

### **MAINTENANCE**

Most problems with tools are a result of:

1. Normal wear and tear to components due to high usage.
2. Lack of proper lubrication.
3. Dirt or water that may enter the tool via air lines.
4. Defective fasteners.

### **LUBRICATION**

1. Vertex tools are designed for long, trouble free use with **minimal in-line lubrication**. (If an in-line lubricator is used, it should be set at a minimal rate of flow.)
2. When lubricating tool, **Pneumatic Fastening Tool Oil, Vertex part number VC0340** is recommended. When oiling, a couple of drops of oil should be placed through the airline fitting. Excess oil in tool will attract dirt, lint, preventing smooth operation. Cycle tool to expel excess oil.
3. When servicing or repairing tool **high grade lithium grease, Vertex part number VH0214** is recommended.

### **AIR FILTER AND REGULATOR**

1. The airline should always contain a filter and regulator unit to provide tool with a constant flow of clean, dry air. Moisture and contaminants entering tool will decrease the serviceable life of tool.
2. The regulator should be set between **70 and 90 psi (4.8 to 6.2 bar)**. **Never operate tool over 100 psi (7 bar)**.

### **TIPS ON EXTENDING TOOL LIFE**

1. Always use **Vertex brand fasteners** and always use **Vertex genuine parts** when replacing worn or broken parts. **Generic fasteners, and parts** may shorten tool life and **will void your tool warranty**.
2. Use tool at minimum amount of air pressure needed to do the work at hand. **Excess air pressure will reduce the life of tool**.
3. Keep tool clean and dry and always use **clean dry air**.
4. Avoid dropping tool, a primary reason for parts replacement.

### **Helpful hints for field servicing tool jams**

Clearing jams can vary from tool to tool, depending on design. A jam is a fastener that has lodged between the driving pin/blade and the nose.

**SAFETY FIRST** – Always disconnect tool from air supply before attempting to clear a jam or servicing.

Open the magazine and remove the remaining fasteners. Some jammed fasteners may be removed from the magazine side of the tool. Try to remove fastener with a pair of pliers. Depending on the severity of the jam, the driver pin/blade must be pushed back up into the tool to allow the jammed fastener to be removed. Push the driver upwards and past the jammed fastener. As a last resort push driver up by placing a punch at the tip of the driver and tapping a hammer against the punch. **Only strike the driver**, it is the hardest part in the tool. The driver is the only part of the tool that moves in this area. If you strike the jammed fastener, you may cause it to jam worse in tool. Smaller tools, such as flare/foam staplers and upholstery tackers may have to be disassembled at the nose to relieve the jam.

**NOTE:** refer to correct tool schematic for location of parts and correct part numbers.

### **Other causes of jams:**

- Driver channel worn in nose. Replace nose
- Wrong size fasteners. Use only correct fastener for tool.
- Bent fasteners. Replace fasteners
- Loose magazine/nose. Tighten all screws
- Broken/chipped driver. Replace Driver

### **Water inside tools.**

- Water inside tools is a result of natural condensation, settling in tanks and hoses. Drain tanks and hoses daily, if possible use condensate separators in line with tools.
- Tools that have had water in them for an extended time tend to have internal contamination and will perform poorly. Tool should be cleaned and lubricated

### **Tool sparks when driving fasteners.**

- It is normal for some sparking to occur due to metal on metal contact. Sparking usually decreases with continued use, but the possibility is always there.

### **Tool does not fully drive fasteners.**

- Air pressure too low, tools should be operated between 70 to 90 psi. (4.8-6.2 bar) Never over 100 psi (7 bar).
- Driver blade worn at tip. Replace driver blade.
- Piston o-ring worn or damaged. Replace o-ring.
- Air exhaust clogged with dirt or built up old lubricant.
- Worn bumper. Replace bumper.
- Trigger assembly worn/leaks. Replace trigger assembly or components and o-rings.
- Dirt/tar build up on driver. Disassemble and clean nose/driver.
- Head valve dry. Disassemble clean and lubricate.

- Air volume insufficient. Check fittings and hoses for restrictions. Restrictions can be moisture, dirt, or hoses and fittings too small for tool volume requirements.

**Tool leaks air through nose when trigger is depressed. Piston/driver does not return fully.**

- Bumper cracked or damaged. Replace bumper.
- Piston or cylinder damaged. Replace damaged part.
- Piston o-ring worn or damaged. Replace o-ring.
- Air pressure too low or restricted. Check air lines/compressor. Restrictions can be moisture, dirt, or hoses and fittings too small for tool volume requirements.
- Driver blade bent or damaged at driving end. Replace driver blade.
- Dirt/tar build up on driver. Disassemble and clean nose/driver.
- Air exhaust clogged with dirt or built up old lubricant.
- Lack of lubrication. Clean and lubricate tool, replace worn o-rings.
- Check valve seal. This is an o-ring found on the outside diameter of the cylinder sleeve and should be installed over the holes found approximately 2/3 of the way down the sleeve. The o-ring should be in the groove over the holes.

**Tool leaks air from trigger when actuated, tool does not cycle.**

- O-ring on outside diameter of head valve piston worn. Replace o-ring.
- Damaged or worn head valve piston. Replace head valve and o-ring.

**Tool leaks air from exhaust area.**

- O-ring on the inside of the head valve piston worn or damaged. Replace o-ring.
- O-ring on the outside of the head valve piston worn or damaged. Replace o-ring.
- Cylinder seal or cylinder sleeve o-rings worn or damaged. Check o-rings around cylinder and where the cylinder seals to sleeve or body. Replace damaged o-rings.
- Damaged head valve. Replace worn or damaged head valve and o-rings.
- Cylinder cap not sealing. Check for loose cap or cap screws are fully tightened.

**Air leak near top of tool.**

- Check to make sure cap or cap screws are fully tightened.
- O-rings on top of trigger valve shaft damaged. Replace o-rings.
- O-rings on main valve damaged or worn. Replace o-rings.

**Tool misfires.**

- Pusher damaged. Replace damaged pusher.
- Pusher spring(s) weak, damaged or broken. Replace spring(s).
- Magazine obstructed by dirt. Clean magazine, replace if worn.
- Worn lower bumper. Replace bumper.
- Magazine canister misadjusted (coil nailers only). Most Vertex Nailers have four height settings; 1 inch (25mm), 1 ¼ in. (32mm), 1 ½ to 1 ¾ in (38-45mm) and 2 to 2 ¼ in (50-57mm).

- Feed pawl and feed pawl springs or o-rings worn or damaged (coil nailers only). Replace feed pawl if worn. Replace damaged pawl springs. Replace o-rings on feed piston.

### **Sluggish operation.**

- Lack of lubrication. Add a few drops of tool oil, **Vertex part number VC0340** to air inlet of tool.
- Air exhaust clogged with dirt or built up old lubricant.

### **Tool jamming.**

- Pusher damaged. Replace damaged pusher.
- Pusher spring(s) weak, damaged or broken. Replace spring(s).
- Magazine obstructed by dirt. Clean magazine, replace if worn.
- Check fasteners are correct for tool.

### **Tool fails to cycle**

- Air supply restriction. Check air lines/compressor. Restrictions can be moisture, dirt, or hoses and fittings too small for tool volume requirements.
- Tool dry, lack of lubrication. Use VERTEX air tool oil.
- Worn head valve O-rings. Replace o-rings.
- Broken cylinder cap spring. Replace spring.
- Head valve stuck. Disassemble/clean/check/lubricate.

### **Nailer is bending nails**

- Most often this is due to lack of driving power due to worn o-rings and lack of lubrication. Tool interior should be cleaned, install new o-rings where appropriate and use fresh o-ring grease.
- Check driver for obvious wear and or chipping. Replace if necessary.
- Check driver assembly, driver may have loosened in piston. Retighten driver into piston using threadlocker on threads.
- Check for defective fasteners, wrong collating, or wrong fastener for the job.
- Air pressure too low. Check for proper air pressure 70 to 90 psi. (4.8-6.2 bar).