



U.S. GENERAL

18 GAUGE, 5/8"-2" AIR BRAD NAILER

Model 54461

ASSEMBLY and OPERATING INSTRUCTIONS



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Specifications

Air Inlet	1/4" - 18 NPT
Recommended Air Pressure	60-115 PSI
Maximum Air Pressure	130 PSI
Nail Type	5/8" to 2" 18 Gauge Brads
Safety Feature	Sequential Trip Safety Trigger
Magazine Capacity	110 - Side Loading Magazine
Air Consumption	4 CFM @ 90 PSI
Overall Dimensions	10" x 9-3/8" x 2-1/4"

Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

Safety Warnings and Precautions

WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

Read all instructions before using this tool!

1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lighted. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, extension cords, or air hoses.
4. **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
6. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
7. **Use eye and ear protection.** Always wear ANSI approved impact safety goggles.
8. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines or air hoses.



9. **Maintain tools with care.** Keep tools clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords and air hoses periodically and, if damaged, have them repaired by an authorized technician. The handles must be kept clean, dry, and free from oil and grease at all times.
10. **Disconnect air supply.** Disconnect air hose when not in use.
11. **Remove adjusting keys and wrenches.** Check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
12. **Avoid unintentional starting.** Be sure your finger is off the trigger when not in use and before plugging in. Do not carry any tool with your finger on the trigger, whether it is plugged in or not.
13. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
14. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if the trigger does function properly.
15. **Guard against electric shock.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.
16. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty.
17. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels if taking prescription medicine to determine if your judgement or reflexes are impaired while taking drugs. If there is any doubt, do not operate the Nailer.
18. **Use proper size and type extension cord.** If an extension cord is required, it must be of the proper size and type to supply the correct current to the tool without heating up. Otherwise, the extension cord could melt and catch fire, or cause electrical damage to the tool. Check your air compressor's manual for the appropriate size cord.
19. **Maintenance.** For your safety, maintenance should be performed regularly by a qualified technician.
20. **Compressed air only.** Never use combustible gases as a power source.

Note: Performance of the air compressor (if powered by line voltage) may vary depending on variations in local line voltage. Extension cord usage may also affect tool performance.

Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contain chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. some examples of these chemicals are:

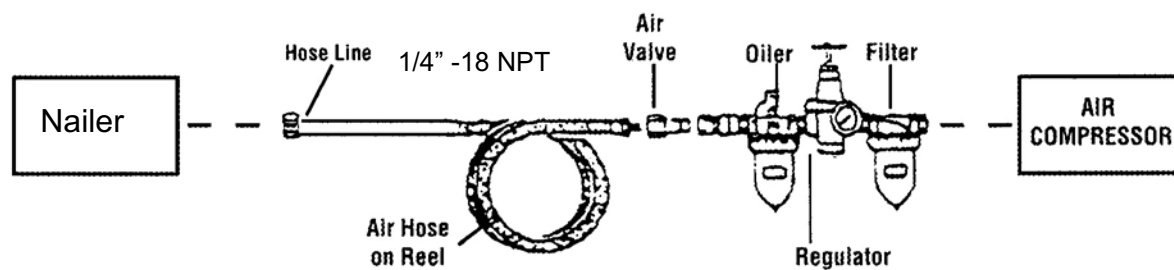
- Lead from lead-based paints
- Crystalline silica from bricks and cement or other masonry products
- Arsenic and chromium from chemically treated lumber

(California Health & Safety Code 25249.5, et seq.)

Unpacking

When unpacking, check to make sure the parts listed on page 8 are included. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible

Operation



Recommended Air Line Components

For best service you should incorporate an oiler, regulator, and inline filter, as shown in the diagram above. Hoses, couplers, oilers, regulators, and filters are all available at Harbor Freight Tools.

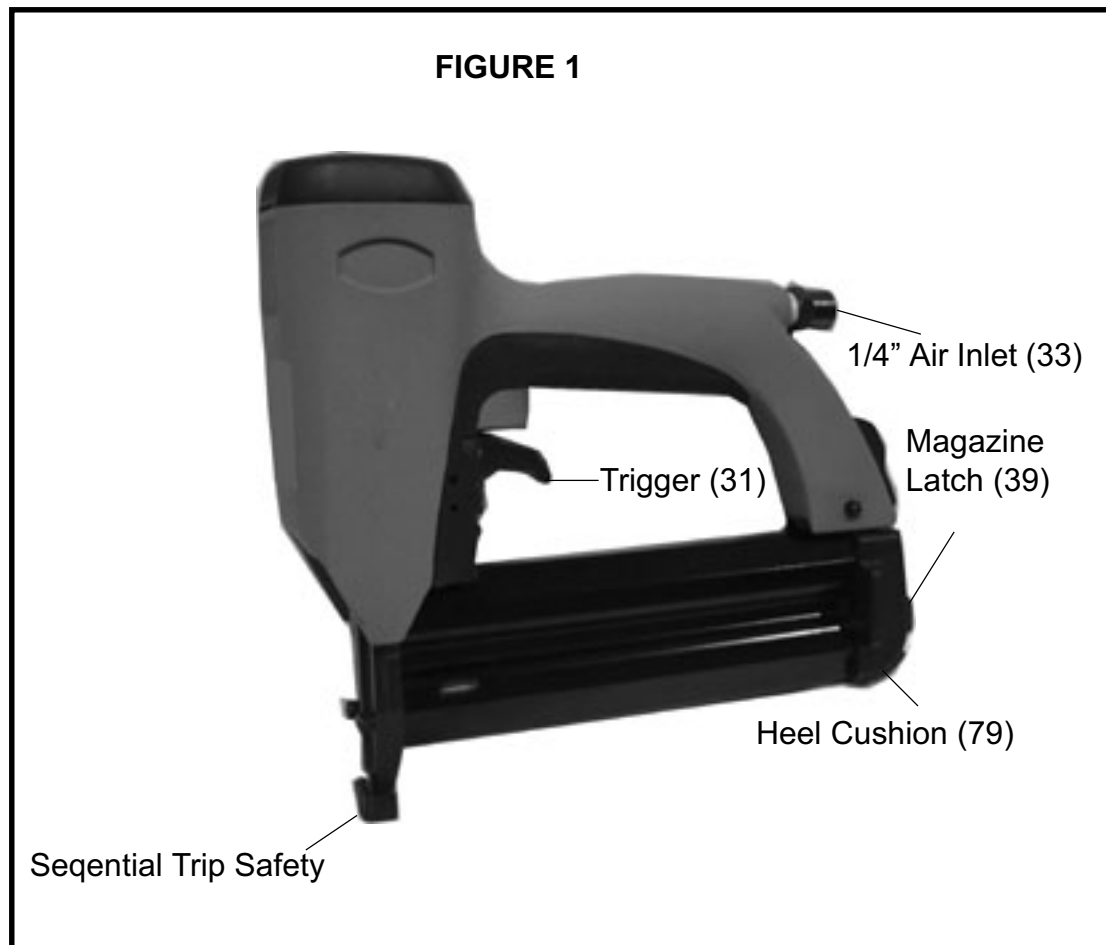
1. You will need to prepare a 1/4" air connector (sold separately) to connect to the Air Inlet (33) (See **FIGURE 1**) on the Nailer. First, wrap the 1/4" air connector (not included) with pipe thread seal tape before connecting to the Air Inlet (33). Connect the Air Source Hose to the Air Connector (not included).

Note: If you are not using an automatic oiler system on your air compressor, before operation, add a few drops of Pneumatic Tool Oil to the airline connection. Add a few drops more after each hour of continual use.

2. Set the air pressure on your compressor to between 60 and 115 PSI. Do not exceed the maximum air pressure of 130 PSI.

3. Check the air connection for leaks.

Warning! Disconnect the Nailer from the air compressor whenever loading or servicing. After disconnecting the Nailer from the air compressor, there could still be enough air pressure to fire the Nailer. Always fire the trigger repeatedly to make sure all of the air is expended.



Warning! This Nailer has a Sequential Trip safety mechanism. With the trigger pulled, the unit will fire each time the nose of the Nailer contacts a surface. This Nailer is not suited for single shot work. Vibration and bouncing and delayed finger pressure will commonly result in the unit double firing.

Testing the Sequential Trip Safety Mechanism (Always test while using scrap material.)

1. The Nailer should not fire if the nose is not depressed against the workpiece.
2. Make sure the tool is disconnected from the power supply.
3. Empty the magazine of nails.
4. Check that the Trigger (31) and the nose of the tool, moves freely, without sticking.
5. Connect the air supply to the tool at the Air Inlet (33) and set at the recommended 60-115 PSI, and not over the maximum 130 PSI.
6. Test the tool by depressing the nose of the tool against the workpiece without pulling the Trigger (31). **The tool must not cycle (fire).** If it cycles (fires), stop immediately and take the tool to an qualified service technician for repair.
7. Hold the tool away or off of the workpiece. The nose of the tool should return to its original position. Squeeze the Trigger (31). **The tool should not cycle (fire).** If it cycles (fires), stop immediately and take the tool to an authorized service technician.
8. Depress the nose of the tool against the workpiece and squeeze the Trigger (31). **The tool must cycle (fire).** If it fails to cycle (fire), take it to an authorized service technician.



Loading Nails

Always disconnect the Brad Nailer from the air source before loading nails.

1. While pushing on the Magazine Latch (39) with your right thumb, push on the Heel Cushion (79) with your left thumb, and pull back to open the magazine. See **FIGURE 1**.
2. Insert the brads.
3. Snap the Heel Cushion (79) back into position.

Operating the Nailer

1. Attach the Nailer to the air supply at the Air Connector (not included) which is already connected to the Air Inlet (33). See **FIGURE 1**. Start your compressor and make sure it is set to between the recommended 60-115 PSI and not over the maximum 130 PSI.
2. To fire, place the nose of the Nailer on the workpiece. The Nailer should not fire if the nose is not depressed. Once depressed, gently squeeze the Trigger (31) once. Do not fire repeatedly; nails could bounce off of one another causing injury.
3. To adjust the driven depth of the brads, use the pressure regulator on the compressor.
4. When finished with nailing, disconnect the tool from the air hose.

Clearing Jams

1. Disconnect tool from air hose. Always fire the trigger repeatedly to make sure all of the air is expended from the Nailer.
2. If a nail is jammed in the discharge area, simply remove it with pliers.
3. If a nail is jammed in the magazine, while pushing on the Magazine Latch (39) with your right thumb, push on the Heel Cushion (79) with your left thumb, and pull back to open the magazine. Remove all of the Brads. Snap the Heel Cushion (79) back into place. See **FIGURE 1**.

Warning! After disconnecting the Nailer from the compressor, there could still be enough air pressure to fire the Nailer. Always fire the trigger repeatedly to make sure all the air is expended.

Maintenance

Warning! Always disconnect the tool from the air compressor and then empty the magazine of nails before attempting to inspect or perform maintenance to the Nailer.

1. Inspect all of the nuts and screws and make sure they are securely fastened.
2. Periodically lubricate the driving mechanism and magazine with a light oil. Wipe down with a clean cloth. Never use gasoline or flammable solvents to clean the tool.
3. Inspect your air compressor according to manufacturer's instructions.

Warning! If you detect any air leaks, power loss, the Nailer skips driving, drives too deep, or not deep enough, take the Nailer to a qualified service technician.



Troubleshooting

Warning! If you detect any air leaks, power loss, the Nailer skips driving, drives too deep, or not deep enough, take the Nailer to a qualified service technician for repair.

Note: Have the following problems repaired by a qualified service technician.

1. Problem: Air leaking at trigger valve area.

Probable Cause: Damaged O-rings in trigger valve housing.

Solution: Replace O-rings. Then re-check contact safety trip mechanism.

2. Problem: Air leaking between housing and nose.

Probable Cause: Loose screws in housing, damaged O-rings or bumper.

Solution: Tighten screws or replace O-rings or bumper.

3. Problem: Air leaking between housing and cap.

Probable Cause: Loose screws or damaged gasket.

Solution: Tighten Screws or replace gasket.

4. Problem: Runs slowly or has power loss.

Probable Cause: Nailer insufficiently oiled, broken spring in cylinder cap, exhaust part in cap is blocked.

Solution: Lubricate moving parts (Magazine, Nose, and Trigger assemblies), install new spring, Replace damaged internal parts.

5. Problem: Nailer skips driving nails.

Probable Cause: Worn or dirty bumper, damaged pusher spring, inadequate air flow, worn or dry O-ring on piston, damaged O-ring on trigger valve, cap gasket leaking.

Solution: Replace bumper or pusher spring, clean bumper and drive channel, check fittings, replace or lubricate O-rings, replace gasket.

6. Problem: Nails are jammed in Nailer nose.

Probable Cause: Guide on driver is worn. Wrong size or damaged Brads, loose magazine or nose screws, damaged driver.

Solution: Replace guide, use recommended, undamaged Brads, tighten screws, replace driver.

7. Problem: Nail will not drive down tight.

Probable Cause: Insufficient air pressure, rounded driver blade causing slippage, power loss, slow cycling and power loss.

Solution: Adjust air pressure, replace blade, check spring under cap for broken coils or reduce length, check if cap in exhaust port is restricted.

8. Problem: Driving Brad too deeply.

Probable Cause: Worn bumper or piston spacer.

Solution: Replace either or both parts.

Warning! Disconnect the Nailer from the air compressor whenever loading or servicing. After disconnecting the Nailer from the air compressor, there could still be enough air pressure to fire the Nailer. Always fire the trigger repeatedly to make sure all of the air is expended.

Parts List

Part No.	Description	Part No.	Description	Part No.	Description
1	Cylinder Cap Cover	37	Exhaust Cover	71*	Spring Holder
2*	Screw	38	Muffler	72*	Screw
3*	Exhaust Deflector	39	Magazine Latch	73*	Magazine Support
4*	Air Seal	40	Latch Spring	74*	Nylok Screw
5*	Spring	41	Latch Pin	75*	Magazine Stop
6*	Cylinder Cap	42	Pin Retaner	76*	Fixed Rail
7*	O-ring	43	Safety Pin	77*	Wear Strip
8*	O-ring	44*	Safety Guide Plate	78*	Feeder Spring
9*	O-ring	45*	Safety Pin	79	Mag. Heel Cushion
10*	Firing Valve Piston	46*	Safety Spring	80*	Screw
11*	O-ring	47*	E-ring	81*	Latch Plate
12	Sleeve Retainer	48*	Safety Adjs. Wheel	82*	Moving Rail
13*	Cylinder Sleeve	49*	Upper Safety Element	83*	Spacer
14	Piston Stop	50*	O-ring	84*	Stopper
15	O-ring	51*	Safety Contact Pin	85	Grip
16	Trigger Pin	52*	O-ring	86	Warning Decal
17	Main Body	53*	Main Piston	87*	Screw
18	Driver Bushing	54*	Piston Drv. Coupling	88*	Logo Plate
19	Handle	55*	Inner Spring Pin	89*	Cylinder Cap Assy.
20	O-ring	56*	Outer Spring Pin	90*	Head Vlv. Piston Set
21*	O-ring	57*	Driver Blade	91*	Cylinder Set
22*	Rubber Remote Hsng.	58*	Screw	92*	Trigger Valve Set
23*	Conical Spring	59*	Washer	93*	Trigger Set
24*	O-ring	60*	Safety Cover	94*	Release Catch Assy.
25*	Remote Core	61*	Lower Safety Element	95*	Piston Set
26*	Remote Housing	62*	Front Plate	96*	Screw
27*	O-ring	63*	Spring Pin	97*	Set Screw
28*	Extension Spring Set	64*	Screw	98*	Screw
29*	Trigger Guide	65*	Fixed Backplate	99*	Screw
30*	Pin Bushing	66*	Screw	100*	Cylinder Cap Assy.
31*	Trigger	67*	Screw	101	Duster
32*	Pin	68*	Washer	B0300-070	Cylinder Set
33	Air Inlet 1/4"	69*	Moving Backplate	B11001221	Magazine Set
34	Pin Retainer	70*	Feeder Shoe		
35	Screw				
36	Serial Label				

* The parts with asterisks cannot be purchased separately. They may be purchased as part of a set as denoted below:

Set # B0300-070 includes 2,3,4,5,87,89,6,100,7,8,9,10,90,11/ Set #91 includes 9,11,13/ Set #92 includes 21,22,23,24,25,26,27 / Set #93 includes 28,29,30,31,32 / Set #94 includes 44,45,46,47,48,49,50,51 / Set #95 includes 52,53,54,55,56,57/ Set #96 includes 58,59/ Set #97 includes 66,68/ Set #98 includes 67,68/ Set#99 includes 72,59/

Set B11001-221 includes 73,65,64,63,62,61,60,97,66,68,98,63,64,69,84,70,71,74,75,76,77,78,80,81,82

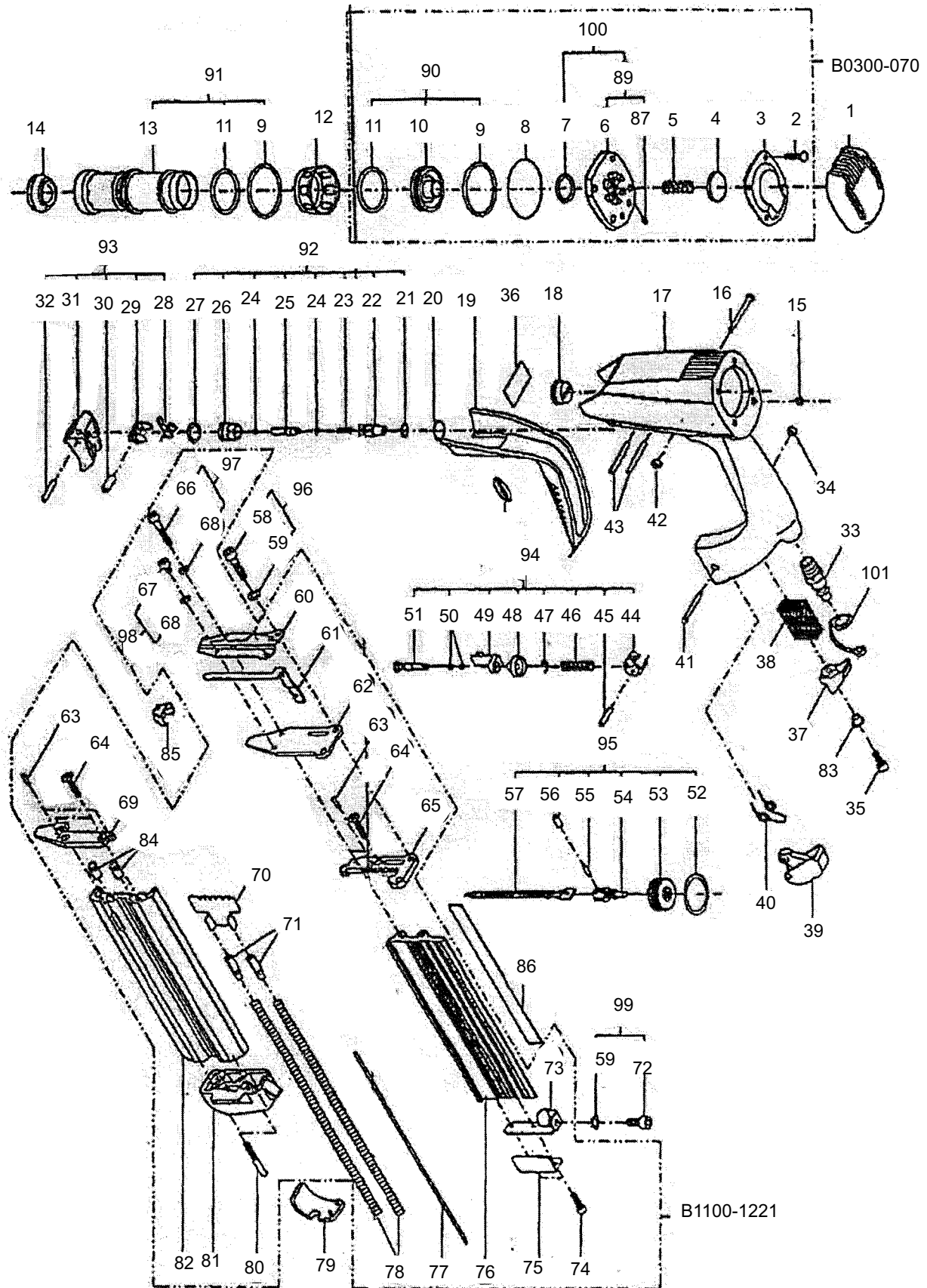
PLEASE READ THE FOLLOWING CAREFULLY

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NOTE: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.



Assembly Drawing



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