

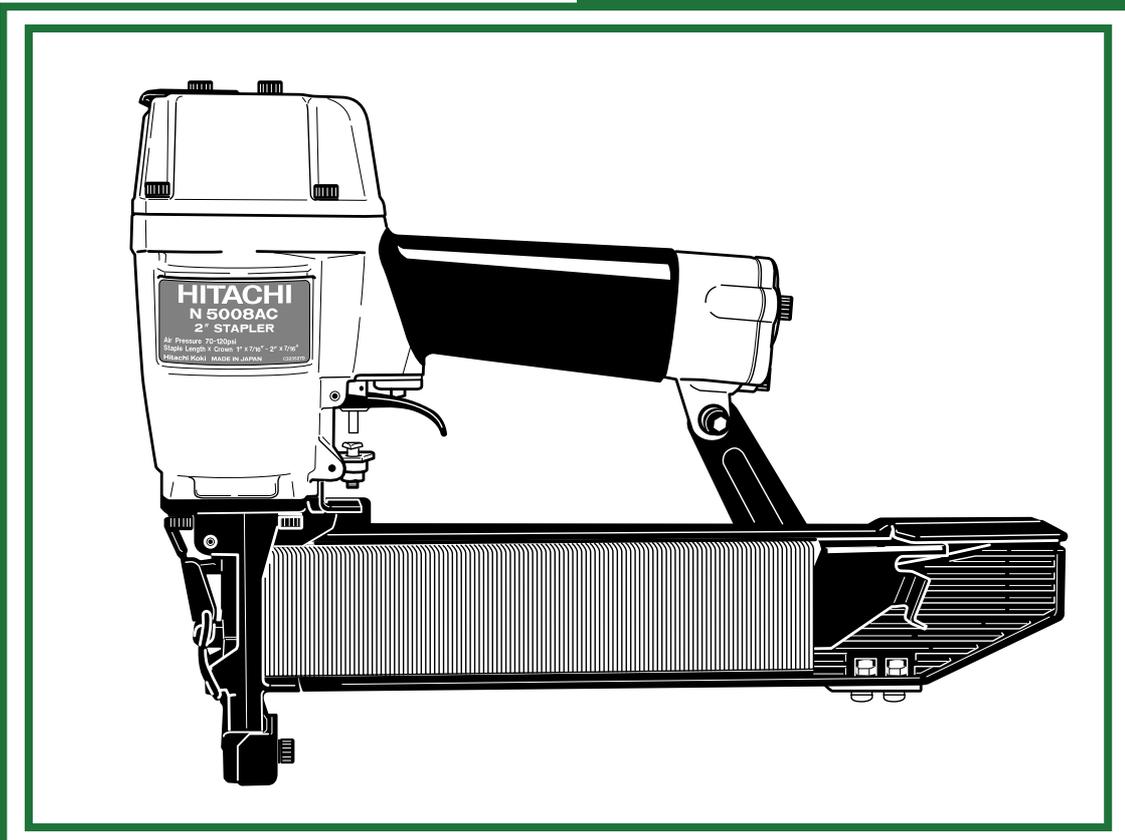
MODEL

N 5008AC

HITACHI
POWER TOOLS

STAPLER
N 5008AC

TECHNICAL DATA
AND
SERVICE MANUAL



N

LIST No. E003

Oct. 2001

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

REMARK:

Throughout this TECHNICAL DATA AND SERVICE MANUAL, a symbol(s) is(are) used in the place of company name(s) and model name(s) of our competitor(s). The symbol(s) utilized here is(are) as follows:

Symbols Utilized	Competitors	
	Company Name	Model Name
R	SENCO	SNS40
Y	PASLODE	3200-S16P
P	BOSTITCH	T50S4
U	PORTER CABLE	MS200

CONTENTS

	Page
1. PRODUCT NAME	1
2. MARKETING OBJECTIVE	1
3. APPLICATIONS	1
4. SELLING POINTS	1
5. SPECIFICATIONS	2
5-1. Specifications	2
5-2. Staple Selection	3
5-3. Staple Driving Force	4
5-4. Optional Accessories	4
6. COMPARISONS WITH SIMILAR PRODUCTS	5
7. PRECAUTIONS IN SALES PROMOTION	6
7-1. Instruction Manual	6
7-2. Warning Label	6
7-3. Related Laws and Regulations	7
8. MECHANISM AND OPERATION PRINCIPLE	8
8-1. Mechanism	8
8-2. Operation Principle	9
9. TROUBLESHOOTING GUIDE	13
9-1. Troubleshooting and Correction	13
9-2. Possible Causes and Corrections of Air Leakage	15
10. DISASSEMBLY AND REASSEMBLY	17
10-1. General Precautions in Disassembly and Reassembly	17
10-2. Disassembly and Reassembly of the Output Section	18
10-3. Disassembly and Reassembly of the Control Valve Section	21
10-4. Disassembly and Reassembly of the Driving Section and the Magazine Section	22
11. INSPECTION AND CONFIRMATION AFTER REASSEMBLY	23
12. STANDARD REPAIR TIME (UNIT) SCHEDULES	24
Assembly Diagram for N 5008AC	

1. PRODUCT NAME

Hitachi Stapler, Model N 5008AC [50 mm (2")]

2. MARKETING OBJECTIVE

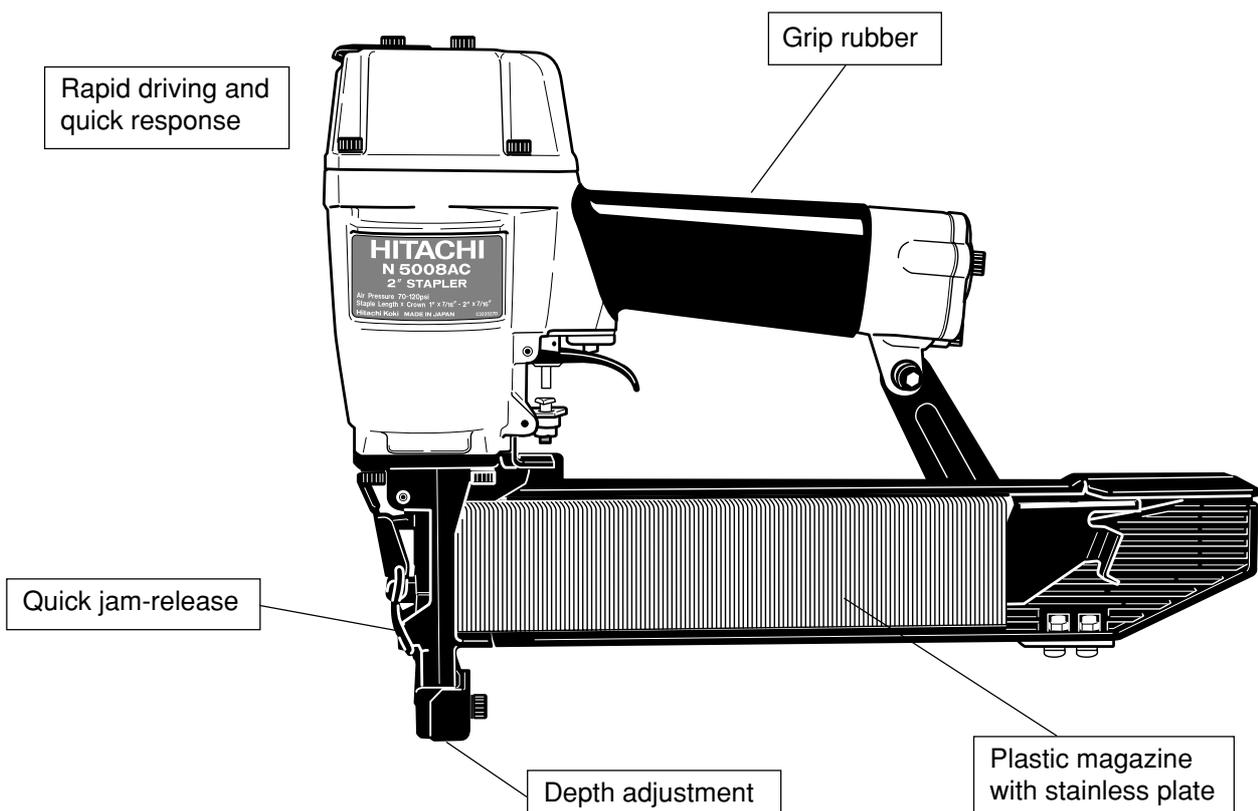
The Model N 5008AC, medium crown stapler is an upgraded version of the current Model N 5008AB (OEM), equipped with the same output sections as the Model NT 65A2, NV 50AP2 and NV 45AB that are well reputed with its rapid driving and quick response, and the newly designed driving and magazine sections. Primary differences from the Model N 5008AB are described below.

- (1) The weight of the Model N 5008AC is 2.0 kg (4.4 lbs.) and it is lighter than the current Model N 5008AB about 500 g (1.2 lbs.) thanks to the adoption of the plastic magazine. The staple shoulder sliding portion of the magazine is wear-resistant.
- (2) The driving speed is faster than the Model N 5008AB thanks to the adoption of the 2-valve/cylinder drive system that is well reputed in the current Models NT 65A2, NV 50AP2 and NV 45AB for easier operation (detailed data is described on later pages).
- (3) The handle is equipped with a cylindrical grip rubber for comfortable fitting and durability.
- (4) The driving depth is easily adjustable by the accessory wrench.

3. APPLICATIONS

- Construction work such as well sheathing, roof decking and subflooring
- Mobile and modular home construction
- Making wooden boxes, and expendable pallets

4. SELLING POINTS



5. SPECIFICATIONS

5-1. Specifications

Model	N 5008AC
Driving system	Reciprocating piston type
Operating pressure	5 – 8.5 kgf/cm ² (70 – 120 psi, 4.9 – 8.3 bar) (Gauge pressure)
Driving speed	Min. 3 pcs./sec.
Weight	2.0 kg (4.4 lbs.)
Dimensions (Length x Height x Width)	365 mm x 254 mm x 76 mm (14-3/8" x 10" x 3")
Staple feed system	Spiral spring
Staple capacity	150 staples
Air consumption	1.14 ltr/cycle at 7 kgf/cm ² (0.040 ft ³ /cycle at 100 psi) (1.14 ltr/cycle at 6.9 bar)
Air inlet	3/8 NPT thread
Packaging	Corrugated cardboard box
Packaging dimensions (Length x Height x Width)	436 mm x 96 mm x 309 mm (17-5/32" x 3-25/32" x 12-5/32")
Standard accessories	<ul style="list-style-type: none">• Hex. bar wrench for M5 screw (Code No. 944459)• Eye protector (Code No. 875769)
Optional accessories	<ul style="list-style-type: none">• Sequential trip mechanism kit (Single-shot) (Code No. 876762)• Pneumatic tool lubricant (1 oz oil feeder) (Code No. 877153)• Pneumatic tool lubricant (4 oz oil feeder) (Code No. 874042)• Pneumatic tool lubricant (1 oz oil feeder) (Code No. 876212)

5-2. Staple Selection

The Model N 5008AC utilizes medium crown staples, gauge #16, 7/16" width crown collated by adhesive. Applicable staple dimensions are shown below.

CAUTION: Ensure that staples are as specified in Fig. 1. Other gauge staples and other crown width staples will cause clogging of staples and subsequent damage to the stapler.

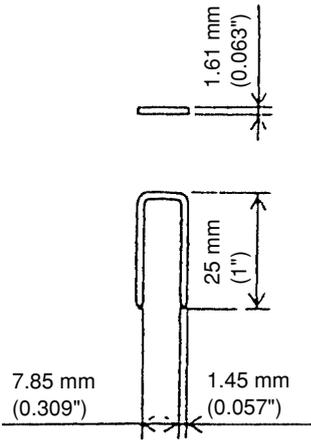
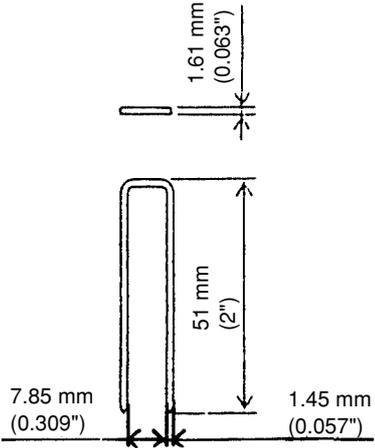
Staple gauge #16, 7/16" crown	
Minimum	Maximum
 <p>1.61 mm (0.063")</p> <p>25 mm (1")</p> <p>7.85 mm (0.309")</p> <p>1.45 mm (0.057")</p>	 <p>1.61 mm (0.063")</p> <p>51 mm (2")</p> <p>7.85 mm (0.309")</p> <p>1.45 mm (0.057")</p>

Fig. 1 Dimensions of staple

5-3. Staple Driving Force

Fig. 2 shows by type of wood and staples, the stapler output energy provided by the supply pressure and the stapling energy required for driving the staple flush. Air pressure which exceeds the intersecting point between the stapler output energy and the stapling energy required for driving the staple allows the staple to be fully driven.

For example, when driving a staple of 50 mm length (2") into five sheets of 12 mm plywood (60 mm thick) with the Model N 5008AC, a pressure of about 6.2 bar (6.3 kgf/cm², 90 psi) allows the stapler to drive the staple flush with the wood surface. A pressure beyond this value causes the staple head to be driven below the wood surface. Fig. 2 should be used as reference data because those values vary depending on the type, moisture content, and grain of wood.

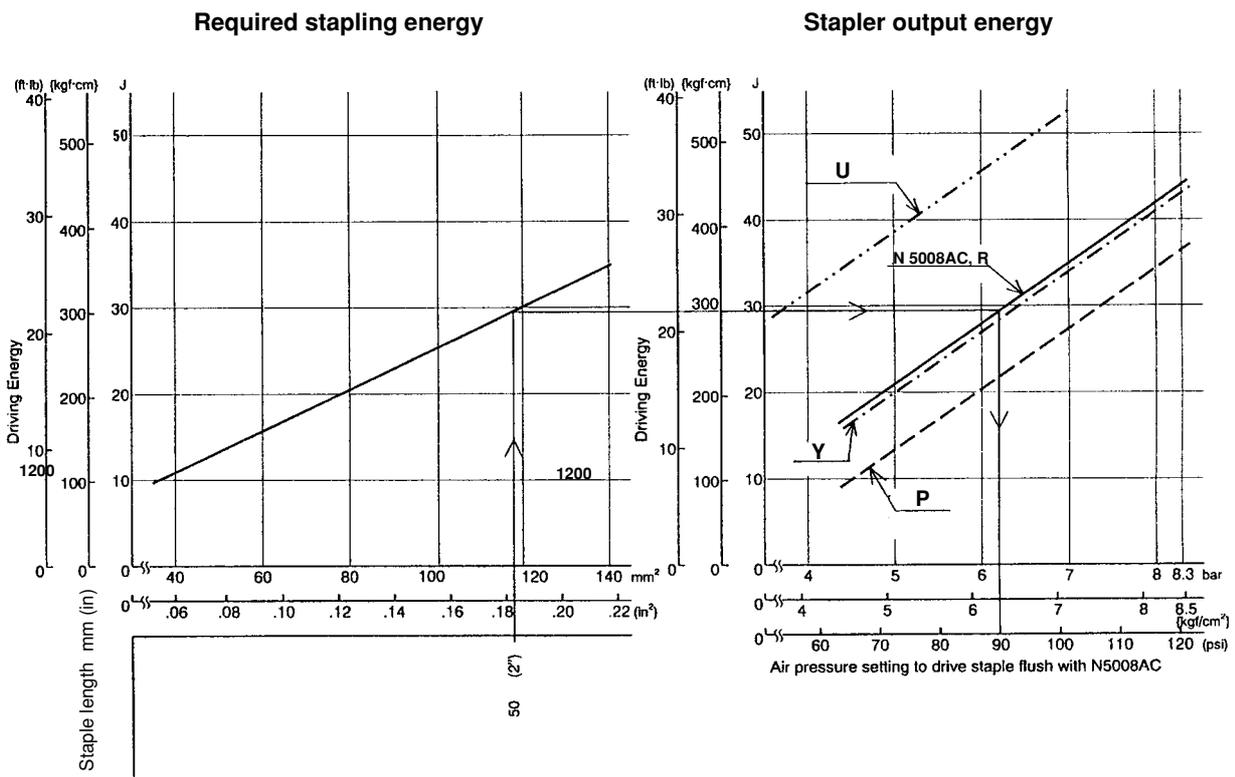


Fig. 2 Required stapling energy and stapler output energy

5-4. Optional Accessories

Sequential trip mechanism kit (Single shot) (Code No. 876762)

A sequential trip mechanism kit is provided as an optional accessory for the Model N 5008AC. By using this optional accessory, a staple is driven by pressing the pushing lever first against a workpiece and then pulling the trigger (single-shot operation), and no staple is driven when pulling the trigger first and then pressing the pushing lever against a workpiece. Please recommend the sequential trip mechanism kit to the customers who want to use it. Salespersons must instruct the customers to read the Handling Instructions attached to the sequential trip mechanism kit and also the Handling Instructions of the Model N 5008AC thoroughly for correct use.

6. COMPARISONS WITH SIMILAR PRODUCTS

Maker	HITACHI		R	Y	P	U
	N 5008AC	N 5008AB				
Model name	N 5008AC	N 5008AB				
Operating pressure	5 – 8.5 kgf/cm ² (70 – 120 psi)	5 – 8.5 kgf/cm ² (70 – 120 psi)	5.6 – 8.4 kgf/cm ² (80 – 120 psi)	4.6 – 8.4 kgf/cm ² (65 – 120 psi)	5 – 7.1 kgf/cm ² (70 – 100 psi)	5 – 8.5 kgf/cm ² (70 – 120 psi)
Weight	2.0 kgf (4.4 lbs.)	2.5 kgf (5.5 lbs.)	1.9 kgf (4.1 lbs.)	2.2 kgf (4.9 lbs.)	2.4 kgf (5.3 lbs.)	2.4 kgf (5.3 lbs.)
Dimensions (L x H x W)	365 mm x 254 mm x 76 mm (14-3/8" x 10" x 3")	367 mm x 245 mm x 70 mm (14-3/8" x 9-5/8" x 2-3/4")	356 mm x 248 mm x 76 mm (14" x 9-3/4" x 3")	360 mm x 245 mm x 70 mm (14-3/16" x 9-5/8" x 2-3/4")	365 mm x 285 mm x 76 mm (14" x 11-1/8" x 3")	370 mm x 285 mm x 90 mm (14-1/8" x 11-1/8" x 3-1/2")
Air consumption at 7 kgf/cm ² (100 psi)	1.14 ltr./cycle (.040 ft ³ /cycle)	1.24 ltr./cycle (.044 ft ³ /cycle)	1.06 ltr./cycle (.037 ft ³ /cycle)	1.17 ltr./cycle (.041 ft ³ /cycle)	0.98 ltr./cycle (.035 ft ³ /cycle)	1.63 ltr./cycle (.058 ft ³ /cycle)
Staple capacity (Max.)	160	163	150	150	160	160
Jam-release	Single-touch operation by hand	Single-touch operation by hand	Single-touch operation by hand	Single-touch operation by hand	With tool	Single-touch operation by hand
Driving depth adjustment mechanism	With wrench	None	With wrench	With wrench	Single-touch operation by hand	Single-touch operation by hand
Applicable staples #16 gauge wire	Inside width	7.85 mm (.309")	7.95 mm (.313")	9.8 mm (.386")	9.5 mm (.374")	7.95 mm (.313")
	Outside width	7/16"	7/16"	1/2"	1/2"	7/16"
	Length	25 mm – 50 mm (1" – 2")	25 mm – 50 mm (1" – 2")	25 mm – 50 mm (1" – 2")	19 mm – 50 mm (3/4" – 2")	25 mm – 55 mm (1" – 2-1/8")
*Driving speed (staples/sec.) (Max.)	12.7	10.0	11.4	11.2	9.7	—

* The driving speeds shown above are the result of measurement using special experimental instruments. Note that the actual driving speed varies depending on the specifications of the compressor and the air hose and the conditions of the workpiece. Exercise extra care for safety when performing quick driving using the stapler.

7. PRECAUTIONS IN SALES PROMOTION

In the interest of promoting the safest and most efficient use of the Model N 5008AC Stapler by all of our customers, it is very important that at the time of sale the salesperson carefully ensures that the buyer seriously recognizes the importance of the contents of the Instruction Manual, and fully understands the meaning of the precautions listed on the Warning Label attached to each tool.

The Model N 5008AC Stapler is designed for continuous staple driving. At time of sale, the salesperson must inform the customer that the sequential trip mechanism kit which can change the Model N 5008AC to a single-shot stapler is optionally available, and recommend it to the customers who want to use it. Refer to the leaflet attached together with the Instruction Manual for details.

7-1. Instruction Manual

Although every effort is made in each step of design, manufacture, and inspection to provide protection against safety hazards, the dangers inherent in the use of any pneumatic tool cannot be completely eliminated. Accordingly, general precautions and suggestions for use of pneumatic tools, and specific precautions and suggestions for the use of the pneumatic stapler are listed in the Instruction Manual to enhance the safe, efficient use of the tool by the customer.

Salespersons must be thoroughly familiar with the contents of the Instruction Manual to be able to offer appropriate guidance to the customers during sales promotion.

7-2. Warning Label

Each Model N 5008AC unit is provided with a Warning Label (illustrated below) which lists basic safety precautions in its use. Carefully ensure that customers fully understand and follow these precautions before using the tool.



7-3. Related Laws and Regulations

As nailers and staplers are designed to instantaneously drive nails and staples, there is an ever-present danger of misfiring and subsequent possible serious injury. Accordingly, close attention in handling is absolutely necessary at all times. Carefully ensure that the customer is fully aware of the precautions listed in the Instruction Manual provided with each unit.

While there are no specific safety regulations, there are related items in various general safety regulations with which the salespersons should be familiar in order to properly advise the customer. Please check your national and/or local regulations for applicable items. Some applicable items are outlined below.

The U.S.A:

OSHA	1926.102 Eye and face protection
	1926.302 Power-operated hand tools
ANSI SNT-101-1993	Portable, Compressed-Air-Actuated, Fastener Driving Tools-Safety Requirements for

8. MECHANISM AND OPERATION PRINCIPLE

8-1. Mechanism

As illustrated in Fig. 3, the Model N 5008AC can be generally divided into four sections:

output section, control valve section, driving section and magazine section.

The driving section (nose and piston) and the magazine section have been newly designed though its basic construction is the same as that of the Model NT 65A2 (valve section is common to the Model NT 65A2).

Primary differences from the Model NT 65A2 are described below.

- Output section The piston (driver blade) has been newly designed according to the shape of the staple firing gate. Owing to the enlargement of the driver blade, the piston bumper has been newly designed.
- Driving section All the parts have been newly designed for driving staples.
A pushing lever piece is provided to adjust the driving depth of staples with a wrench.
If clogged staples are caused in this section, they can be easily released simply by pulling the lock lever by hand.
- Magazine section All the parts have been newly designed for driving staples.
The magazine cover is opened by pulling the staple feeder backward for easy loading or replacement of staples.

The **<Bold>** numbers in the figure below correspond to the numbers in "8-2. Operation Principle".

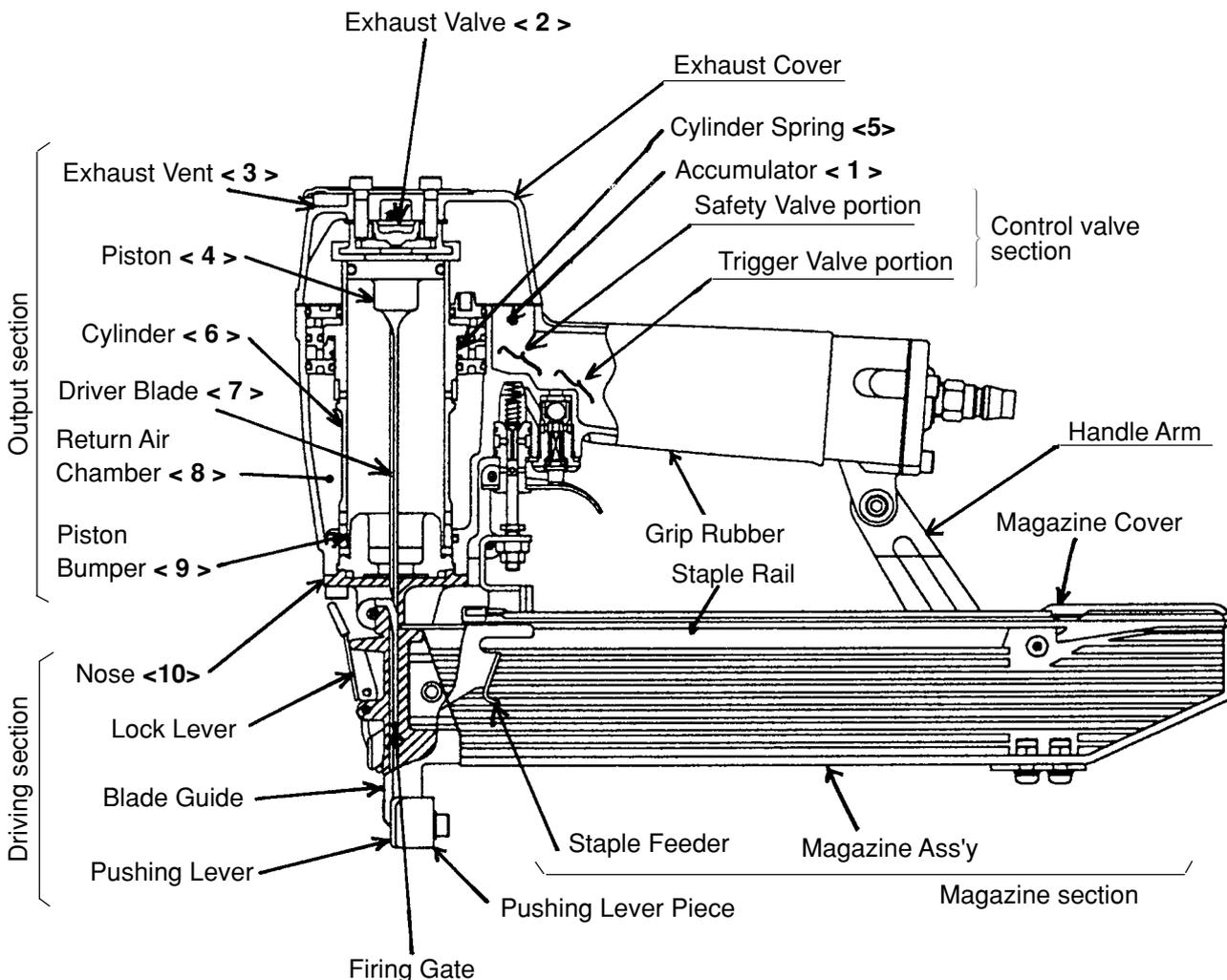


Fig. 3 Construction

8-2. Operation Principle

The operation of the Model N 5008AC is illustrated and described in Fig. 4 through 7. The circled numbers in the descriptions correspond to the item numbers shown in the mechanism illustrated in Fig. 3. In Fig. 5 and Fig. 7, read the descriptions in alphabetical order.

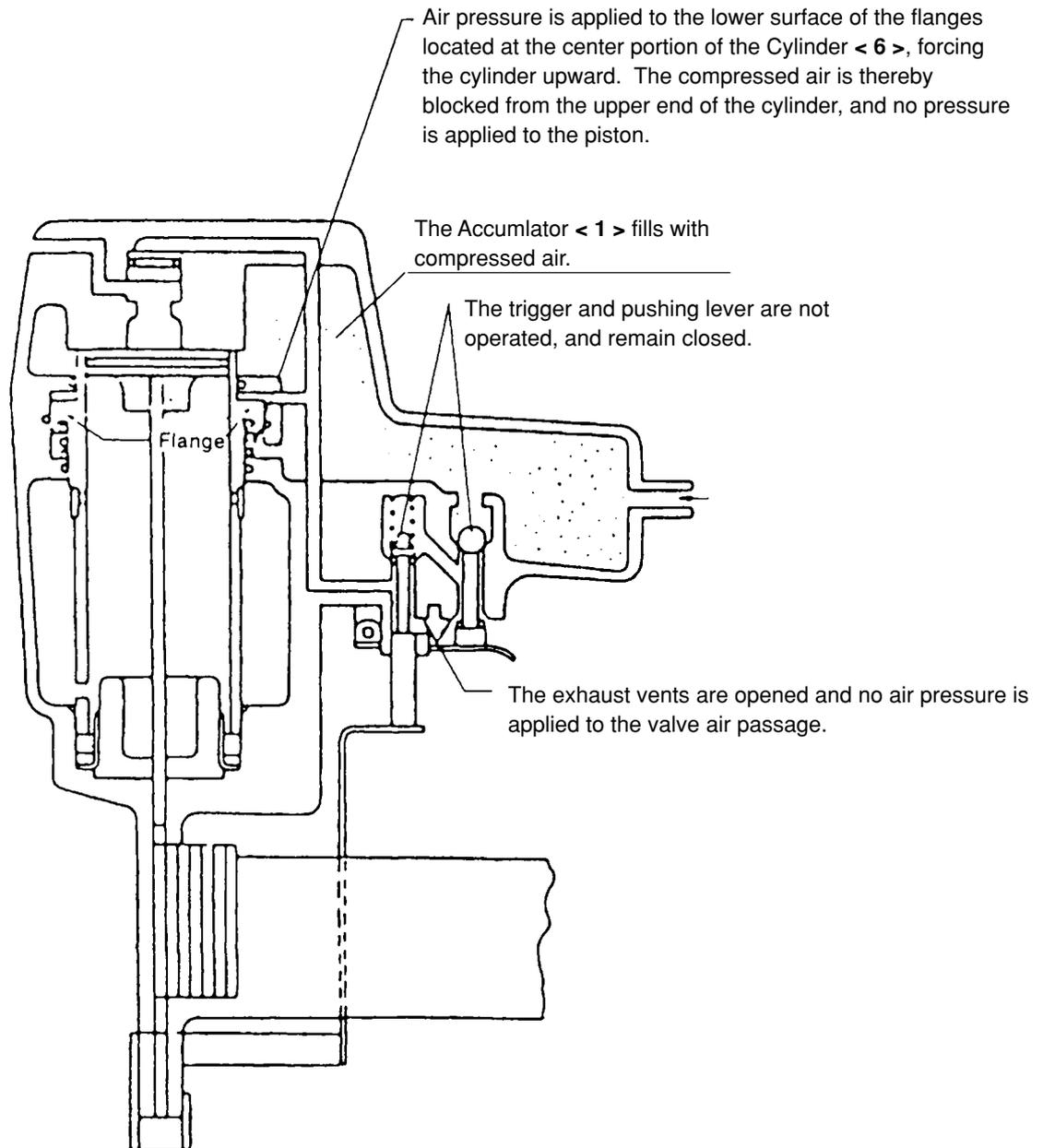


Fig. 4 When the compressed air source (air hose) is connected to the nailer

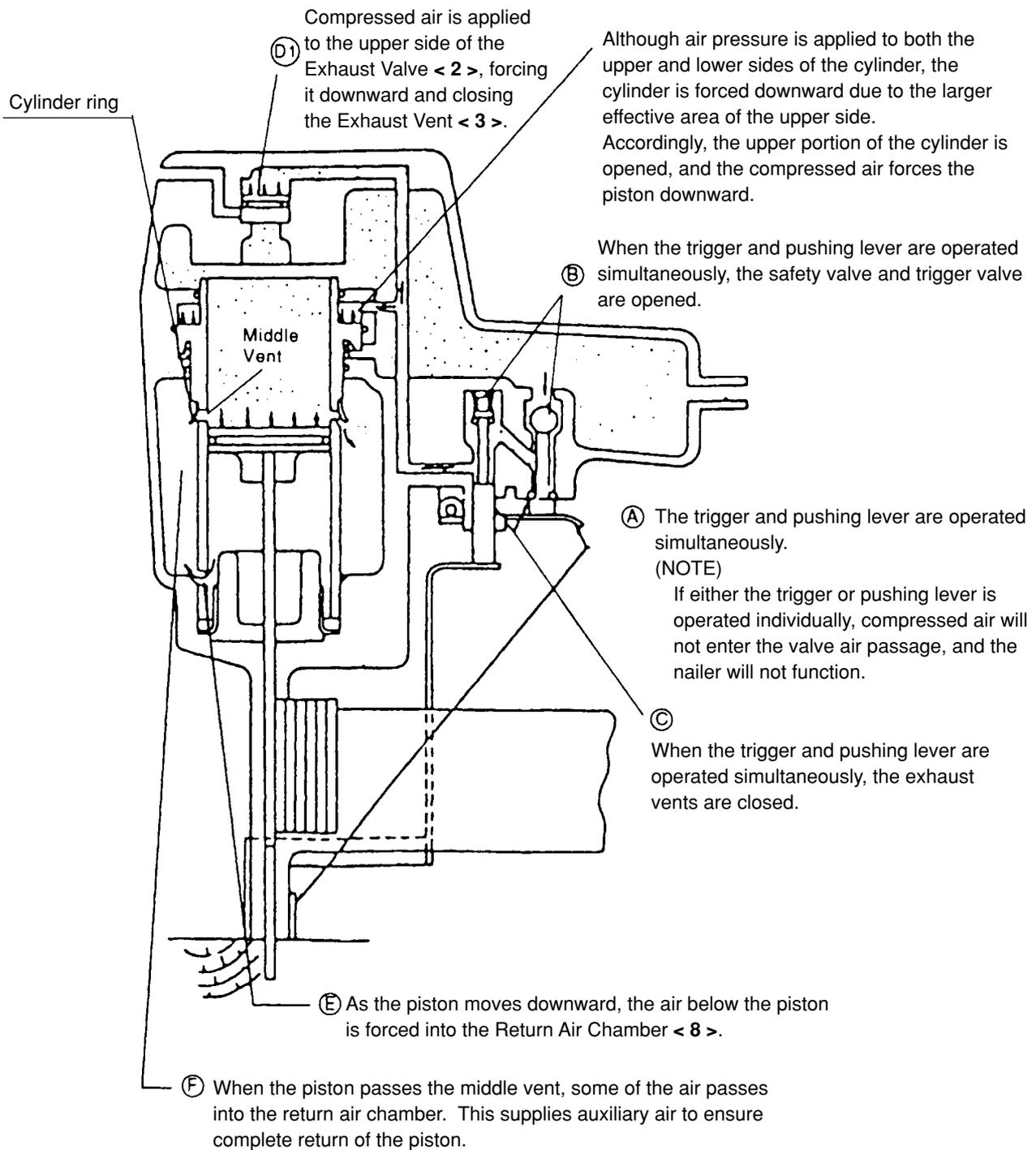


Fig. 5 When the trigger and pushing lever are operated

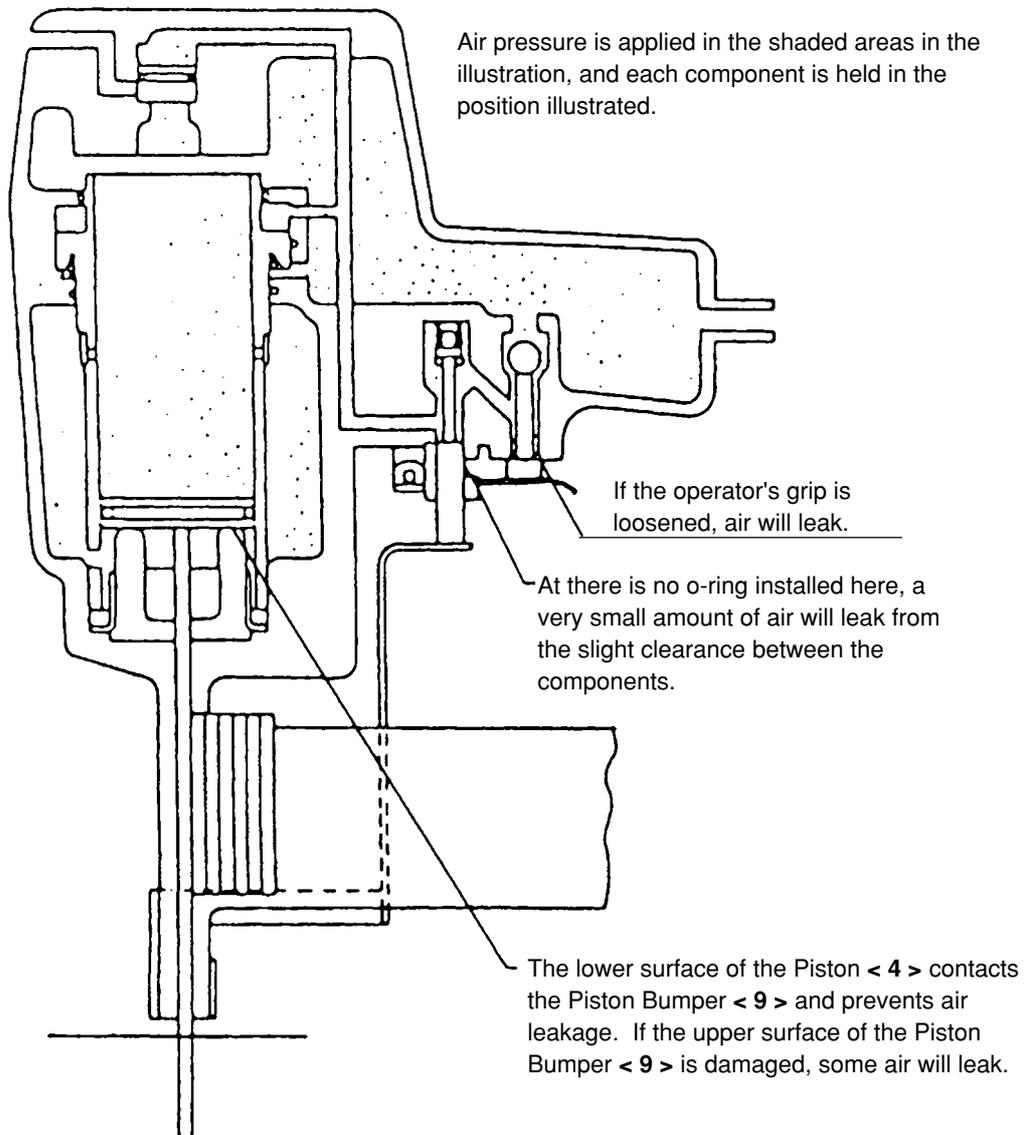


Fig. 6 If the trigger and the pushing lever are kept pressed

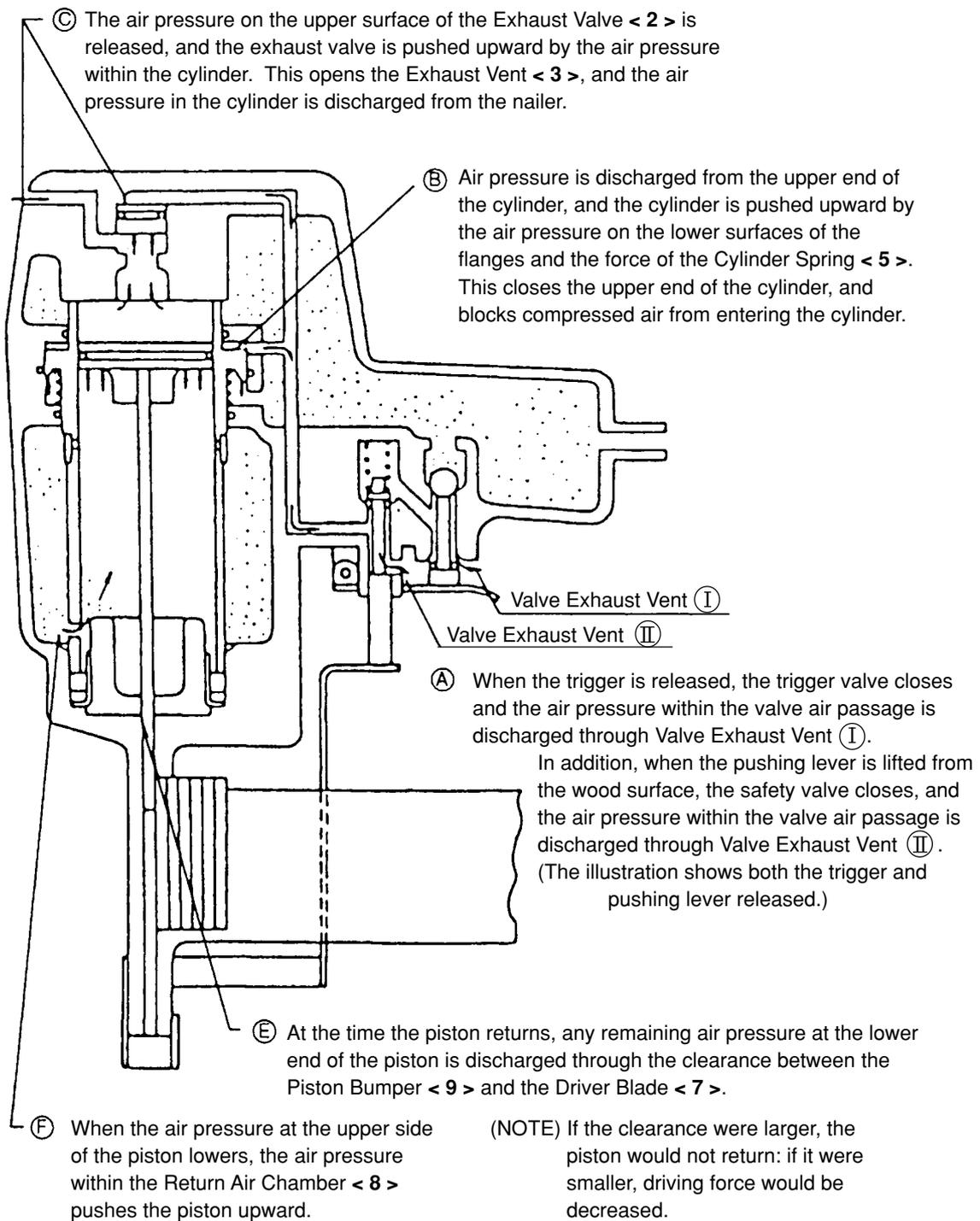


Fig. 7 When the trigger and/or the pushing lever are released

9. TROUBLESHOOTING GUIDE

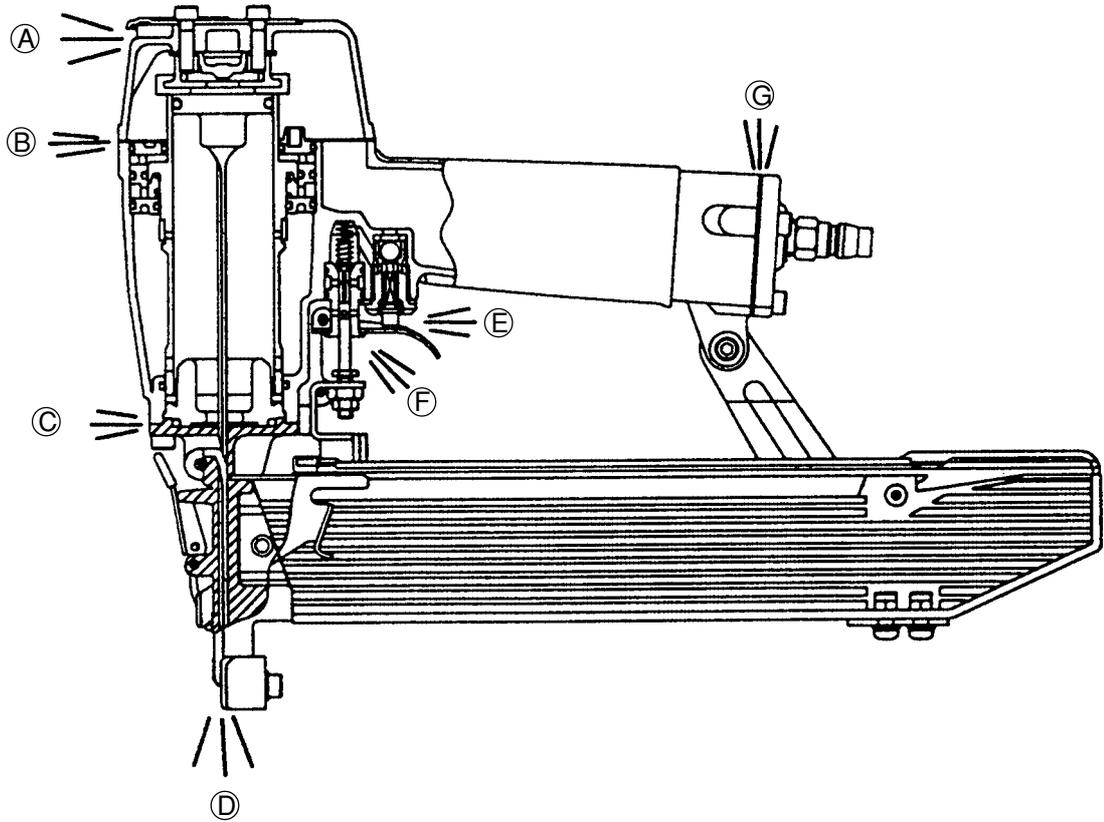
9-1. Troubleshooting and Correction

Problem	Possible cause (* : most-common cause)	Inspection method	Remedy
1) Staples cannot be driven.	<Staples> <ul style="list-style-type: none"> The magazine is not loaded with specified genuine staples. 	<ul style="list-style-type: none"> Check if the magazine is normally loaded with specified staples. 	<ul style="list-style-type: none"> Use specified staples.
	<ul style="list-style-type: none"> The magazine is loaded with abnormal staples (bent staples, abnormal collation, other). 		<ul style="list-style-type: none"> Remove the abnormal staples and load the magazine with normal staples.
	<Magazine> <ul style="list-style-type: none"> Staple feeder abnormal (burrs, deformed, damaged). 	<ul style="list-style-type: none"> Check the staple feeding section for abnormal conditions (burrs, fatigued, deformed, damaged). 	<ul style="list-style-type: none"> Correct the burred or deformed portion. Replace the defective part.
	<ul style="list-style-type: none"> Ribbon spring abnormal (fatigued, damaged). 		<ul style="list-style-type: none"> Replace the defective part.
	<ul style="list-style-type: none"> Staple rail width too wide. 	<ul style="list-style-type: none"> Check if they move smoothly after putting staples and check if the staple feeder operates smoothly. 	<ul style="list-style-type: none"> Replace the defective part.
	<ul style="list-style-type: none"> Magazine cover abnormal (deformed, damaged). 		<ul style="list-style-type: none"> Replace the defective part.
	* <ul style="list-style-type: none"> Adhesive fragments and wood chips are on the magazine, staple feeder or staple rail. 		<ul style="list-style-type: none"> After removing the adhesive fragments and wood chips, apply oil to the staple feeder.
	<Output section: Piston, driver blade, etc.> <ul style="list-style-type: none"> Air pressure too low. 	<ul style="list-style-type: none"> Keep the staple feeder ass'y pulling backward and perform idle driving. Then check that the driver blade returns to its original position. 	<ul style="list-style-type: none"> Adjust for 5 to 8.5 kgf/cm² (4.9 – 8.3 bar, 7 – 120 psi).
	* <ul style="list-style-type: none"> Piston O-ring worn. 		<ul style="list-style-type: none"> Replace the piston O-ring.
	* <ul style="list-style-type: none"> Piston bumper abnormal. 		<ul style="list-style-type: none"> Replace the piston bumper.
	<ul style="list-style-type: none"> Cylinder ring abnormal. (dislocated, deformed, damaged). 		<ul style="list-style-type: none"> Reassemble or replace.
	<ul style="list-style-type: none"> Driver blade abnormal (deformed, burrs, damaged). 		<ul style="list-style-type: none"> Touch up or replace.
	<ul style="list-style-type: none"> Cylinder's internal surface abnormal (deposits of dirt, worn). 	<ul style="list-style-type: none"> Check if staples can be driven at 5 kgf/cm² (4.9 bar, 70 psi). 	<ul style="list-style-type: none"> After removing the dirt, apply oil or replace.
	<Pushing lever> <ul style="list-style-type: none"> Pushing lever incorrectly adjusted. 	<ul style="list-style-type: none"> Check adjustment. 	<ul style="list-style-type: none"> Adjust the protruded amount within 4.5 ± 0.5 mm (0.177" ± 0.02").

Problem	Possible cause (* : most-common cause)	Inspection method	Remedy
2) Staples bent while being driven.	• Staples are not fully fed into the injection port.	• See item 1).	• See item 1).
	• Unspecified staples used.	• See item 1).	• See item 1).
	*• Driver blade worn.	• Check if the driver blade tip is abnormally worn.	• Replace the part.
	• The material being driven into is very hard.	• Check if a staple is bent even when driven into soft wood.	• Unusable because the tool is not designed for such usage.
3) The staple is driven into the material but the head is raised above the surface.	• Air pressure too low.		Adjust for 5 to 8.5 kgf/cm ² (4.9 – 8.3 bar, 70 – 120 psi).
	• The material being driven into is very hard.	• Drive the staple into soft wood and check if the head is raised or not.	• Unusable because the tool is not designed for such usage.
	*• Driver blade worn.	• Check if the driver blade tip is worn.	• Replace the part.
	*• Piston O-ring abnormal (worn, damaged).	• Disassemble the output section and check the piston O-ring and the internal surface of the cylinder for abnormal condition.	• Replace the defective part.
	• Cylinder's internal surface abnormal (worn, rough).		• Replace the defective part.
4) Staples clog the mechanism.	• Unspecified staples used.	• Check if the staples are specified ones.	• Use specified staples.
	< Improper staple feed > • See <Magazine> in item 1).	• Check if they move smoothly after putting staples, and check if the staple feeder operates smoothly.	• See <Magazine> in item 1).
	• Driver blade worn.	• Check if the driver blade tip is worn.	• Replace the part.
	< The driver blade has not returned completely. > • See <Output section: Piston, driver blade, etc.> in item 1).	• Perform idle driving or actually drive with staples, and check if the driver blade has returned completely.	• See <Output section: Piston, driver blade, etc.> in item 1).

9-2. Possible Causes and Corrections of Air Leakage

Air leakage repair location



Inspection priorities:

In the table below, possible causes of air leakage and their repair procedures are marked in accordance with the likelihood of possible failure.

(1) First priority items are marked with an asterisk (*).

(2) Second priority items (seal portions) are marked with a double circle (⊙).

(3) Remaining items are marked with a single circle (○). (See Parts List and exploded assembly diagram for part name and location.)

Air leak part	Cause		
	When trigger valve/safety valve are OFF	When trigger valve/safety valve are ON	When trigger valve ON/safety valve OFF
Ⓐ Exhaust vent	<ul style="list-style-type: none"> * Cylinder [13] does not return. ○ Swollen Cylinder O-ring (D) [11] (Use of unsuitable oil causes swelling. Advise the customer to use Shell Tonna Oil T32.) ○ Deformed Cylinder [13] or Cylinder Guide [17]. ○ Yielded or broken Cylinder Spring [15]. ⊙ Defective Head Cap [7] (worn rubber portion or broken) ⊙ Broken Gaskets (C) [5] ○ Loose Hex. Socket Hd. Bolt M5 x 20 [1] ○ Broken Exhaust Cover [3] 	Defective Exhaust Valve [6] (worn, deformed, or broken)	/
Ⓑ Exhaust cover	<ul style="list-style-type: none"> ○ Loose Hex. Socket Hd. Bolt M5 x 20 [1] ⊙ Broken Gasket (B) [4] ○ Damaged seal surfaces of Body [20] and Exhaust Cover [3] 	/	/
Ⓒ Nose	/	<ul style="list-style-type: none"> ○ Deformed Nose [25] ○ Loose Nylock Hex. Socket Hd. Bolt M5 x 16 [26] 	/
Ⓓ Nose	<ul style="list-style-type: none"> ○ Damaged Cylinder O-ring (B) [18] or O-ring of Cylinder Guide [17] (worn, deformed or broken) ○ Defective Body [20] (worn, corroded or deformed) 	<ul style="list-style-type: none"> * Broken or cracked Piston Bumper [22] ○ Deformed Piston [9] ○ Deformed Nose [25] 	/
Ⓔ Trigger valve	<ul style="list-style-type: none"> ○ Defective Urethane Ball (C) D7.14 [47] (damaged or deformed) ○ Defective ball sheet surface of Trigger Valve Bushing [49] (damaged, deformed or worn) ○ Defective Valve Packing [46] (damaged, deformed or broken) ○ Soiled or damaged valve packing sheet surface of Body [20] ⊙ Incursion of foreign materials 	/	<ul style="list-style-type: none"> ○ Defective Plunger O-ring [42] (worn, deformed or broken) ○ Defective outside O-ring (S-12) [43] of Trigger Valve Bushing [49]
Ⓕ Safety valve	<ul style="list-style-type: none"> * Defective Gaskets (B) (C) [4] [5] (damaged or yielded) * Discarded air vent of Gasket (B) [4] ○ Defective O-ring (S-65) [10] or Cylinder O-ring (D) [11] of the Cylinder Plate [12] (worn, deformed or broken) ○ Defective Cylinder O-ring (D) [11] (worn, deformed or broken) 	○ Air will leak slightly from the lower portion due to construction.	<ul style="list-style-type: none"> ○ Defective outside O-ring (S-12) [43] of the Valve Bushing [44] (worn, deformed or broken) ○ Defective Plunger O-ring [42] (worn, deformed or broken) ○ Defective Plunger Spring [40] (deformed or broken) ○ Defective safety Valve Bushing [44] (deflected, deformed or broken)
Ⓖ Cap	<ul style="list-style-type: none"> ○ Loose Hex. Socket Hd. Bolt M5 x 16 [35] ⊙ Broken Gasket (D) [33] ○ Defective seal surface of the Body [20] or Cap [34] 	/	/

10. DISASSEMBLY AND REASSEMBLY

The items particularly necessary for disassembly and reassembly are described below. The **[Bold]** numbers in the descriptions below correspond to the item numbers in the Parts List and exploded assembly diagram.

[CAUTION]

- **Before disassembly or reassembly, be sure to remove all staples and disconnect the air hose from the stapler (with your finger released from the trigger) to exhaust all the compressed air.**

10-1. General Precautions in Disassembly and Reassembly

- Apply grease (Nippeco SEP-3A, Code No. 930035) to the O-rings and O-rings' sliding portions.
When installing the O-rings, be careful not to damage the O-rings and prevent dirt entry.
- Oil required: Hitachi pneumatic tool lubricant
 - 1 oz (30 cc) oil feeder (Code No. 877153)
 - 4 oz (120 cc) oil feeder (Code No. 874042)
 - 1 quart (1 ltr) can (Code No. 876212)
- If Gasket (B) **[4]** is damaged, replace it and check that no air is leaking.
- Be especially careful to prevent the entry of foreign particles into the control valve section.
- Use the conventional grip tape for repair of the grip rubber because the grip rubber cannot be mounted without the specifically designed jig.
- Tightening torque for each part

Bolt and screw	Tightening torque N·m (kgf·cm, ft·lb.)
Hex. Socket Hd. Bolt M5 x 20 [1]	8.3 ± 0.5 (85 ± 5, 6.1 ± 0.4)
Nylock Bolt (W/Flange) M5 x 8 [54]	
Nylock Hex. Socket Hd. Bolt M5 x 16 [26]	
Hex. Socket Hd. Bolt (W/Flange) M5 x 16 [39]	
Hex. Socket Hd. Bolt M5 x 16 [35]	
Machine Screw (W/Washers) M5 x 14 [69]	1.9 ± 0.5 (20 ± 5, 1.4 ± 0.4)

10-2. Disassembly and Reassembly of the Output Section

(1) Piston [9], Cylinder [13] and related parts

Tool required:

- Hexagon bar wrench (4 mm)

(a) Disassembly (See Figs. 8, 9 and 10.)

- Remove the four Hex. Socket Hd. Bolts M5 x 20 [1], and take off the Exhaust Cover [3]. The Piston [9] can then be taken out.
- Next, as illustrated in Fig. 9, screw two of the previously removed Hex. Socket Hd. Bolts M5 x 20 [1] into the provided holes on the Cylinder Plate [12].
- Gripping these two bolts, simultaneously turn and pull upward to remove the Cylinder Plate [12]. When this has been accomplished, the Cylinder [13] and other parts which make up the output section can be removed, as illustrated in Fig. 10.
- If it is difficult to remove the Cylinder [13], remove the Nose [25] by referring para. 10-2-(3) procedures, and push out the Cylinder [13] from the lower part of the main body.

(b) Reassembly

Reassembly can be accomplished by following the disassembly procedures in reverse. However, special attention should be given to the following items.

- Ensure that the convex surface side of the Piston [9] (illustrated in Fig. 11) is facing toward the Blade Guide [27] side.
- Reassembly of the Piston [9] can be most easily accomplished by inserting the Piston [9] into the Cylinder [13] as illustrated in Fig. 11, and inserting the Piston [9] into the grooves on the Blade Guide [27] while pulling the piston out in a downward direction.
- When assembling Gasket (B) [4], ensure that its air vents are properly aligned with the air vents on Body [20].
- Tighten the four Hex. Socket Hd. Bolts M5 x 20 [1] to specified torque ($85 \pm 5 \text{ kg}\cdot\text{cm}$, $6.1 \pm 0.4 \text{ ft}\cdot\text{lb}$).

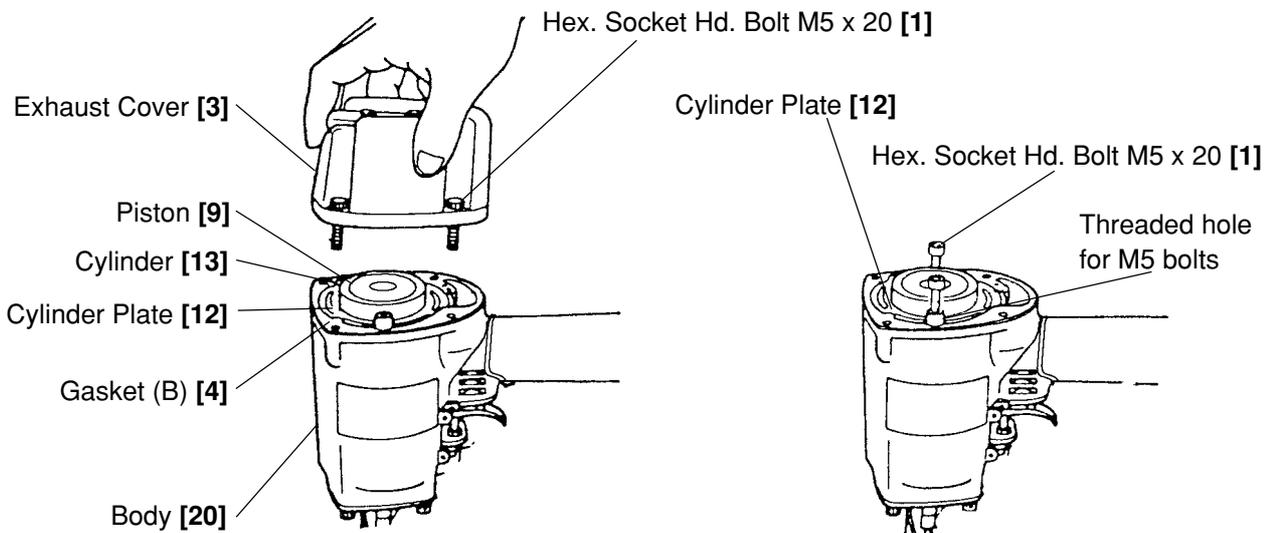


Fig. 8

Fig. 9

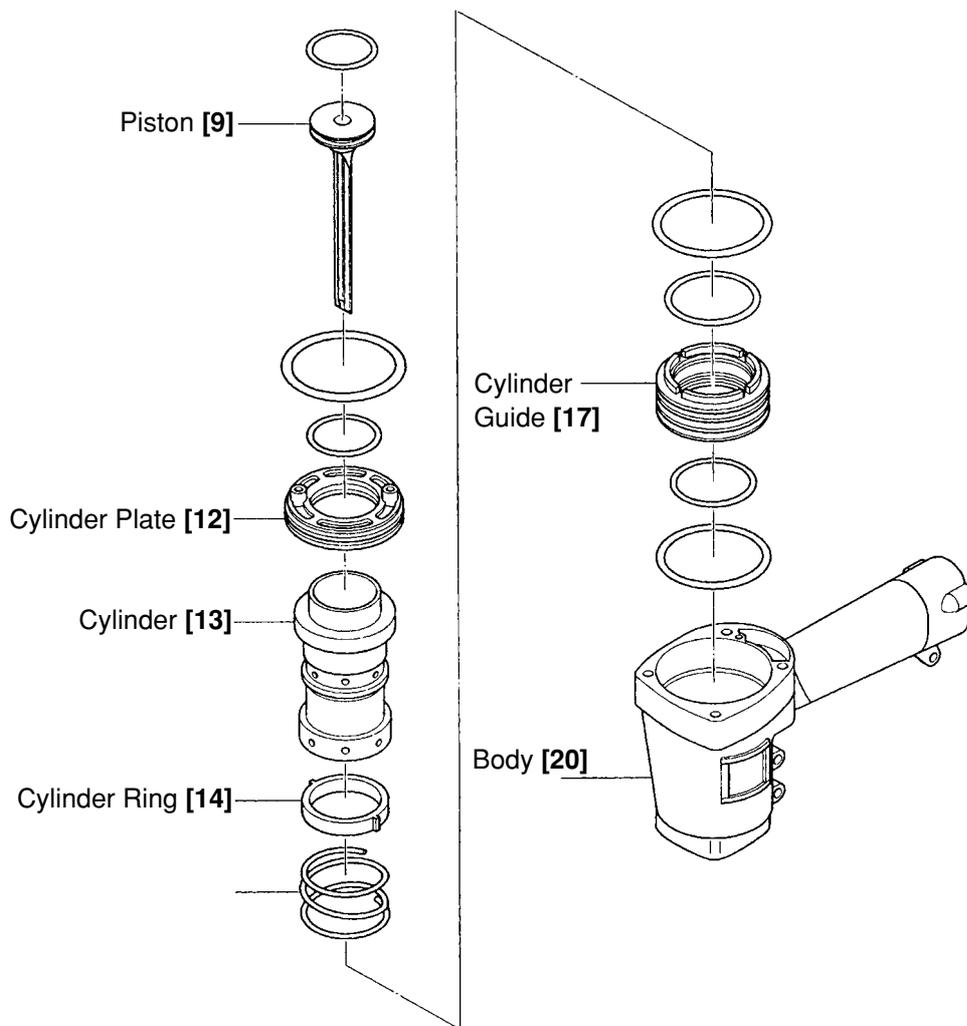


Fig. 10

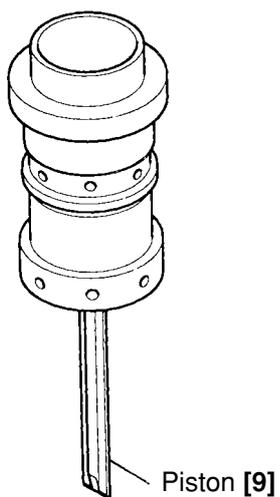


Fig. 11

(2) Head Cap [7], Exhaust Valve [6] and related parts (See Fig. 12.)

Tool required:

- Hexagonal bar wrench (4 mm)

(a) Disassembly

- As described in paragraph 10-2-(1), remove the Exhaust Cover [3].
- Remove the two Hex. Socket Hd. Bolts M5 x 20 [1] and, such as illustrated in Fig. 12, disassemble the Head Cap [7], the Exhaust Valve [6] and Gasket (C) [5] in that order.

(b) Reassembly

Reassembly can be accomplished by following the disassembly procedures in reverse. Ensure that the Hex. Socket Hd. Bolts M5 x 20 [1] are properly tightened to specified torque (85 ± 5 kgf·cm, 6.1 ± 0.4 ft-lb.).

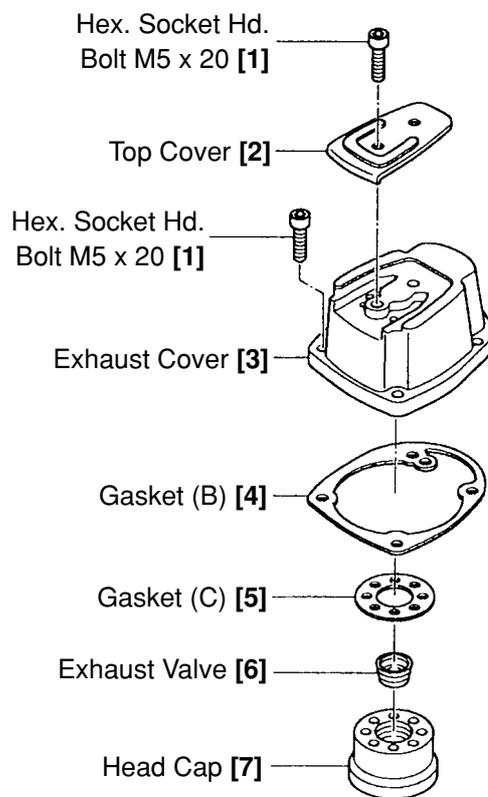


Fig. 12

(3) Piston Bumper [22] and the related parts (See Fig. 13.)

Tools required

- Hexagon bar wrench (4 mm)
- Roll pin puller (3 mm (0.118" dia.)
- 8 mm (0.315") spanner

(a) Disassembly

- Pull out the Roll Pin D3 x 30 [37] and remove the Nylock Bolt (W/Flange) M5 x 8 [54] to remove the Guard [55].
- Remove the Hex. Socket Hd. Bolt M5 x 16 [35] and pull out the entire magazine section from Body [20].
- Remove the four Nylock Hex. Socket Hd. Bolt M5 x 16 [26]. Then Piston Bumper [22] can be removed together with the Nose [25].

(b) Reassembly

Disassembly procedures should be followed in the reverse order. Note the following points.

- Plunger (B) [45] is apt to come off during disassembly. Be sure to check that Plunger (B) [45] is securely mounted during reassembly.
- Mount the Roll Pin D3 x 30 [37] without fail.

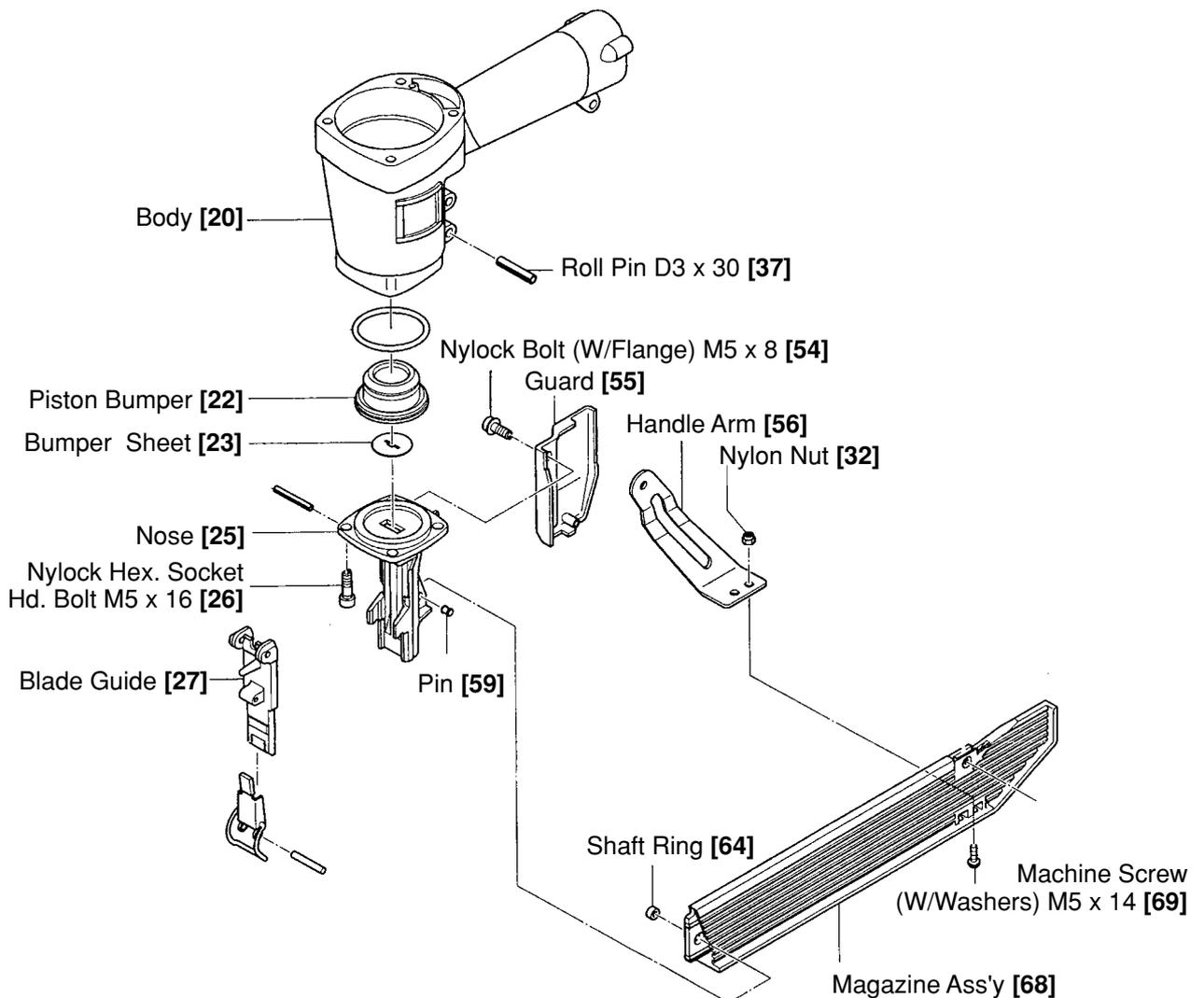


Fig. 13

10-3. Disassembly and Reassembly of the Control Valve Section

Tools required:

- Roll pin puller (3 mm (0.118") dia.)
- Flat-blade screwdriver

(a) Disassembly (See Fig. 14.)

- Remove the driving section and the magazine section as described in section 10-2-(3).
- With the roll pin puller (3 mm (0.118") dia.), take out the Roll Pin D3 x 30 [53], and remove the Trigger [52], Trigger Plunger [51] and Plunger (B) [45].
- Insert the flat-blade screwdriver into the groove of the Trigger Valve Bushing [49], and loosen it by turning it to the left, being careful not to damage the groove.
- After removing the Trigger Valve Bushing [49], pull down strongly on the Valve Bushing [44] to remove the Valve Bushing [44], Plunger (A) [41] and the Plunger Spring [40].

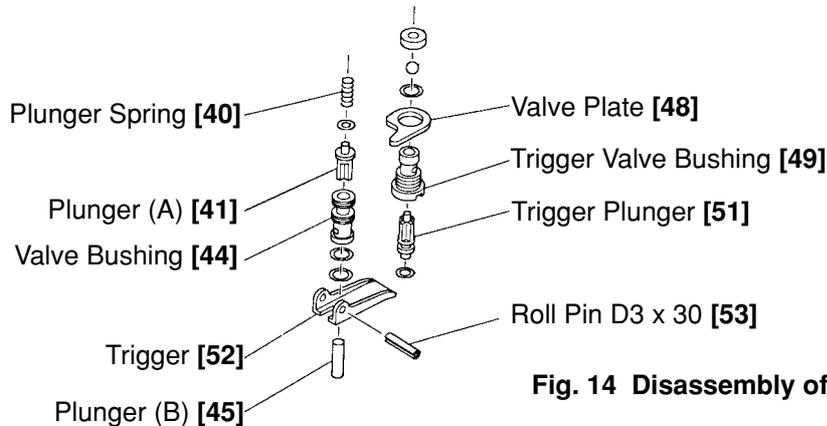


Fig. 14 Disassembly of valve

(b) Reassembly

Reassembly can be accomplished by following the disassembly procedures in reverse. However, special attention should be given to the following items.

- Be very careful in handling the Plunger Spring [40], as it can become twisted very easily.
- To prevent the two O-rings on the outside of the Valve Bushing [44] from being damaged when inserted into the body, carefully apply grease to the body hole and the outer circumference of the O-rings prior to assembly.

(c) Adjustment of the Pushing Lever [31] (See Fig. 15.)

- The Pushing Lever [31] can be adjusted by loosening the Nut M5 [61] and turning the Safety Bolt [60].
- Perform adjustment to a point where the resistance of Plunger (B) [45] pushing up Plunger (A) [41] is felt when the pushing lever is raised. At this point, the lower end of the Nose [25] should be separated from the lower end of the pushing lever by $4.5 \text{ mm} \pm 0.5 \text{ mm}$ ($.177" \pm .020"$).

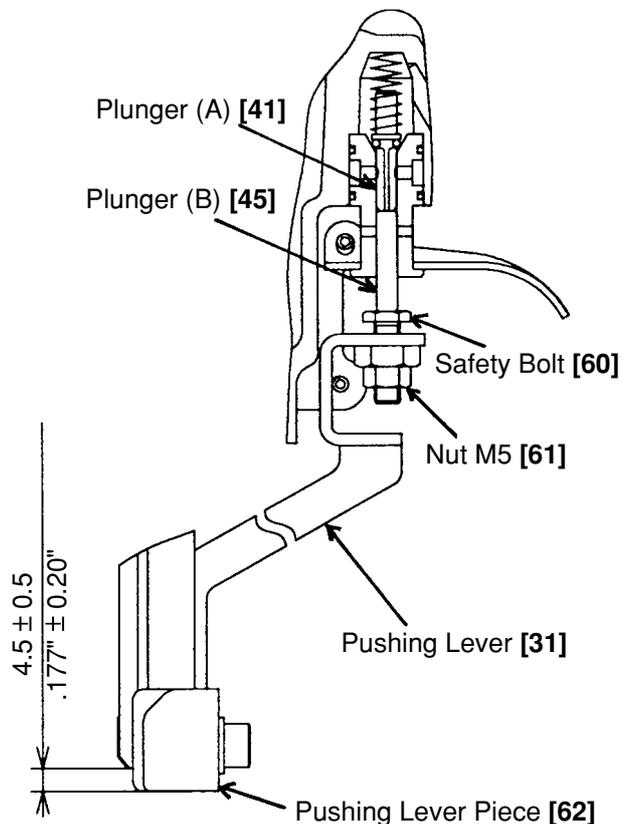


Fig. 15 Pushing lever adjustment

10-4. Disassembly and Reassembly of the Driving Section and the Magazine Section

(1) Nose [25], Pushing Lever [31] and the magazine section (See Fig. 16.)

Tool required

- Hexagon bar wrench (4 mm)
- Roll pin puller (3 mm (.118) dia., 5 mm (.197") dia.)
- Flat-blade screwdriver

(a) Disassembly

- Perform disassembly according to 10-2-(3) to remove the Nose [25], Pushing Lever [31], and the magazine section.
- Pull the Staple Feeder [63] of the magazine backward so that staples can be loaded.
- Pull out the Pin [59] using the roll pin puller (5 mm (.197 ") dia.). Pull the magazine section from the tail cover and gently put the staple feeder back as it was being careful not to lose the Shaft Ring [64].
- Push out the Hinge Pin [67] with a flat-blade screwdriver as shown in Fig. 17. Holding the top of the Cover Spring [58] with fingers, pull out the Hinge Pin [67]. Then the Magazine Ass'y [68] and the Magazine Cover [57] can be removed.
- Pull out the Roll Pin D3 x 6 [70] using the roll pin puller (3 mm (.118 ") dia.). Then the Magazine Piece [66] can be removed.

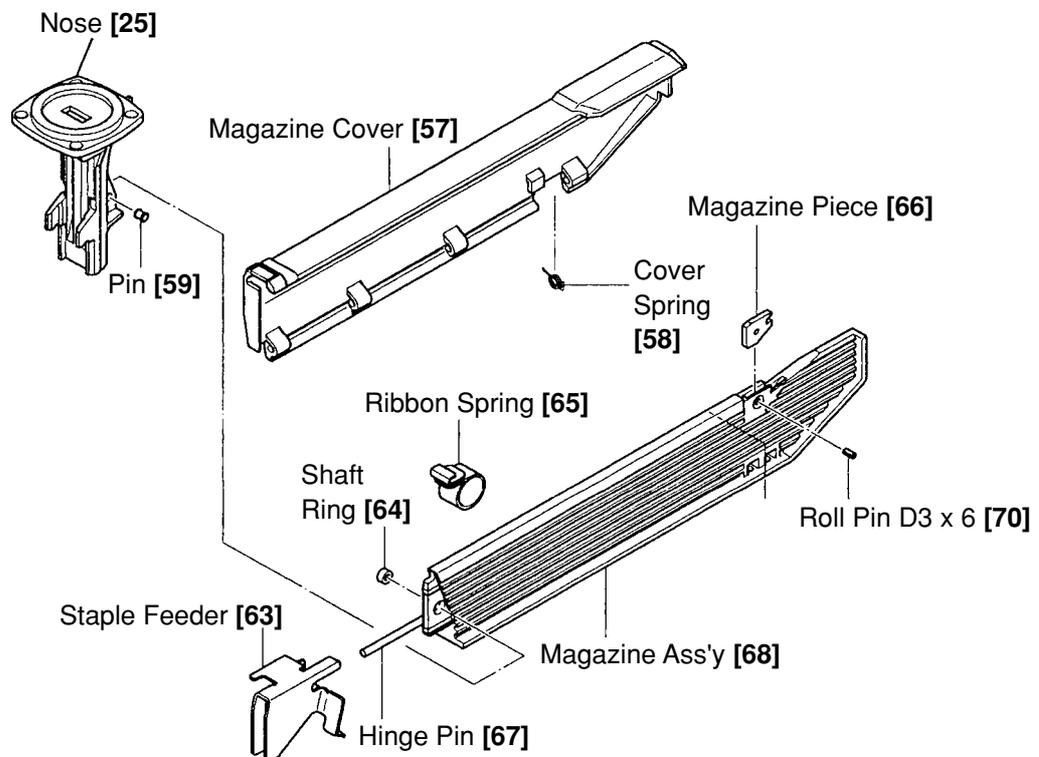
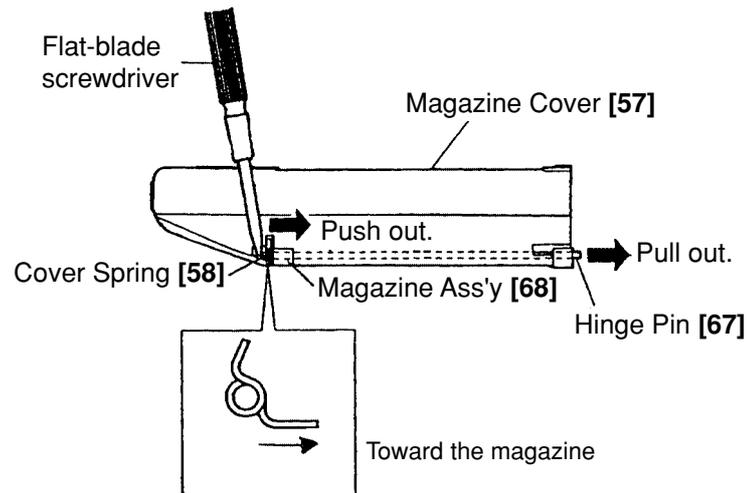


Fig. 16

(b) Reassembly

Disassembly procedures should be followed in the reverse order. Note the following points.

- Insert the pointed end of the Hinge Pin [67].
- Mount the Cover Spring [58] facing the longer arm side toward the Magazine Ass'y [68] as shown in Fig. 17.
- Apply grease to the Shaft Ring [64] and mount it in the 8 mm (.315 ") dia. hole of the Magazine Ass'y [68] for easy reassembly.
- Be careful not to drive the Pin [59] excessively. The Pin [59] is properly driven if it is at the position 0.5 mm (.02 ") lower than the tail cover.



Mount the Cover Spring [58] facing the longer arm side toward the magazine.

Fig. 17

11. INSPECTION AND CONFIRMATION AFTER REASSEMBLY

- Check that Plunger (B) [45] and Trigger Plunger [51] move smoothly.
- Check that there is no air leakage from each part.
- While driving staples with an air pressure of 4.5 kgf/cm² (63 psi), check that there is no idle driving and bending of staples.
- Recheck the tightening torque of each screw.
- Check that Pushing Lever [31] slides smoothly.
- Check that the machine will not operate only by actuating Trigger [52]. Also check that the machine will not operate only by depressing Pushing Lever [31].

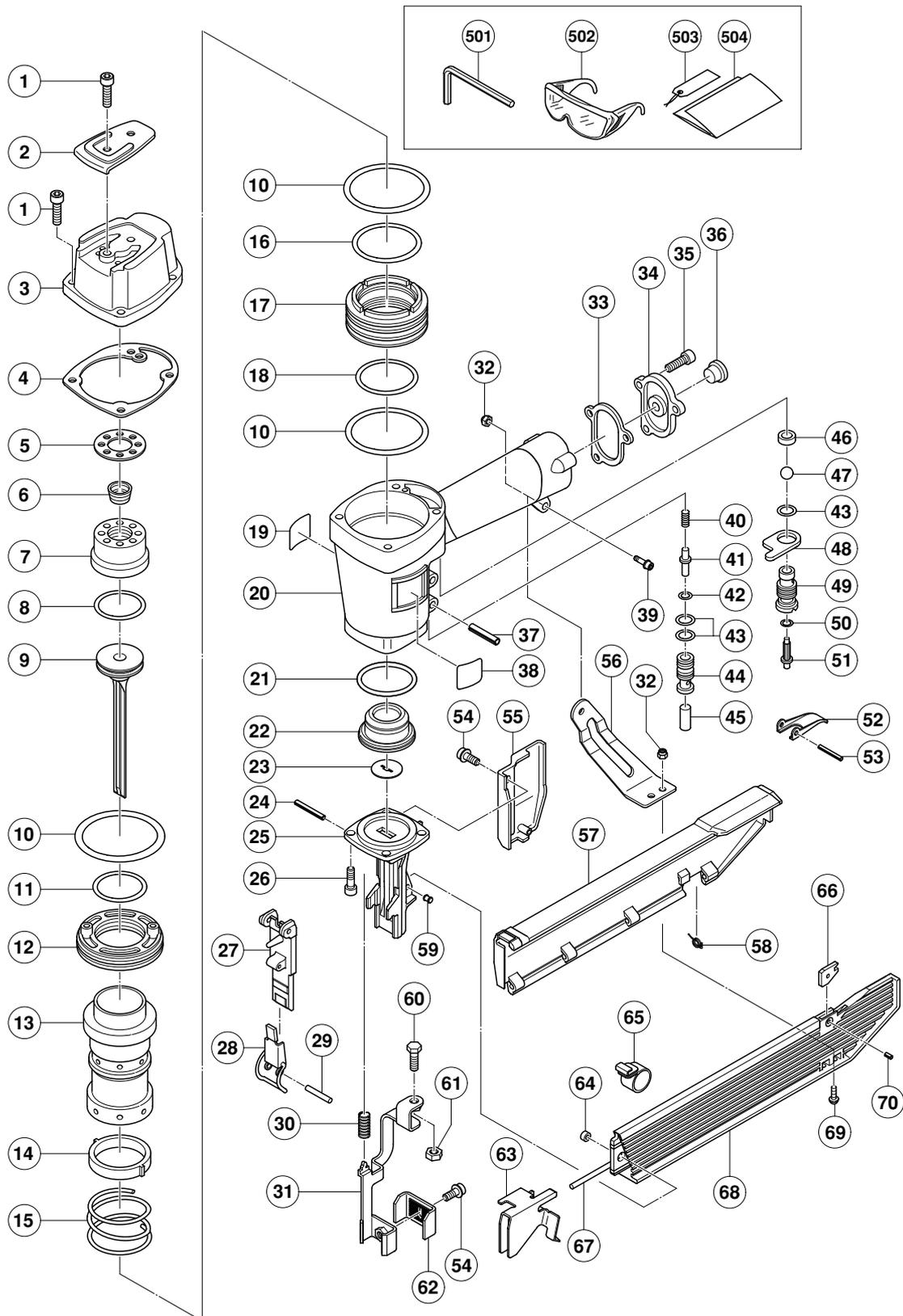
12. STANDARD REPAIR TIME (UNIT) SCHEDULES

MODEL	Variable		10	20	30	40	50	60 min.
	Fixed							
N 5008AC		Work Flow						
				Top Cover Exhaust Cover Packing x 2 Exhaust Valve Head Cap	Tail Cover Blade Guide Magazine Ass'y Magazine Cover Ribbon Spring Staple Feeder			
	General Assembly		Pushing Lever Spring (B) Lock Lever Piston Bumper Bumper Sheet Piston Piston O-ring Plunger Spring Plunger (A) Plunger O-ring O-ring x 3 Valve Bushing Plunger (B) Valve Packing Urethane Ball Trigger Valve Bushing Trigger Plunger	Cylinder Cylinder O-ring x 4 O-ring x 3 Cylinder Spring				Body
				Adjustment (Cylinder, Body, Valve)				

PNEUMATIC TOOL PARTS LIST

STAPLER

2001 · 10 · 30

Model N 5008AC**(E1)**

PARTS

N 5008AC

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS
1	949-757	HEX. SOCKET HD. BOLT M5X20 (10 PCS.)	6	
2	876-179	TOP COVER	1	
3	877-917	EXHAUST COVER	1	
4	876-176	GASKET (B)	1	
5	876-178	GASKET (C)	1	
6	878-539	EXHAUST VALVE	1	
7	878-026	HEAD CAP	1	
8	876-174	PISTON O-RING	1	
9	883-716	PISTON	1	
10	876-161	O-RING (S-65)	3	
11	877-126	CYLINDER O-RING (D)	1	
12	876-168	CYLINDER PLATE	1	
13	882-407	CYLINDER	1	
14	876-167	CYLINDER RING	1	
15	876-172	CYLINDER SPRING	1	
16	877-123	CYLINDER O-RING (A)	1	
17	877-122	CYLINDER GUIDE	1	
18	877-124	CYLINDER O-RING (B)	1	
19	878-184	WARNING LABEL	1	
20	883-710	BODY	1	
21	877-125	CYLINDER O-RING (C)	1	
22	883-711	PISTON BUMPER	1	
23	883-712	BUMPER SHEET	1	
24	949-547	ROLL PIN D4X36 (10 PCS.)	1	
25	883-713	NOSE	1	
26	878-181	NYLOCK HEX. SOCKET HD. BOLT M5X16	4	
27	883-721	BLADE GUIDE	1	
28	883-722	LOCK LEVER	1	
29	949-685	ROLL PIN D3X20 (10 PCS.)	1	
30	877-873	SPRING (B)	1	
31	883-714	PUSHING LEVER	1	
32	877-371	NYLON NUT M5	3	
33	877-131	GASKET (D)	1	
34	880-036	CAP	1	
35	949-821	HEX. SOCKET HD. BOLT M5X16 (10 PCS.)	3	
36	872-035	DUST CAP	1	
37	949-866	ROLL PIN D3X30 (10 PCS.)	1	
38		NAME PLATE	1	
39	880-219	HEX. SOCKET HD. BOLT (W/FLANGE) M5X16	1	
40	875-643	PLUNGER SPRING	1	
41	878-542	PLUNGER (A)	1	
42	877-705	PLUNGER O-RING	1	
43	875-638	O-RING (S-12)	3	
44	877-880	VALVE BUSHING	1	
45	877-882	PLUNGER (B)	1	
46	878-734	VALVE PACKING	1	
47	875-645	URETHANE BALL (C) D7.14	1	
48	875-644	VALVE PLATE	1	
49	877-335	TRIGGER VALVE BUSHING	1	
50	874-820	PLUNGER O-RING	1	
51	878-121	TRIGGER PLUNGER	1	

