

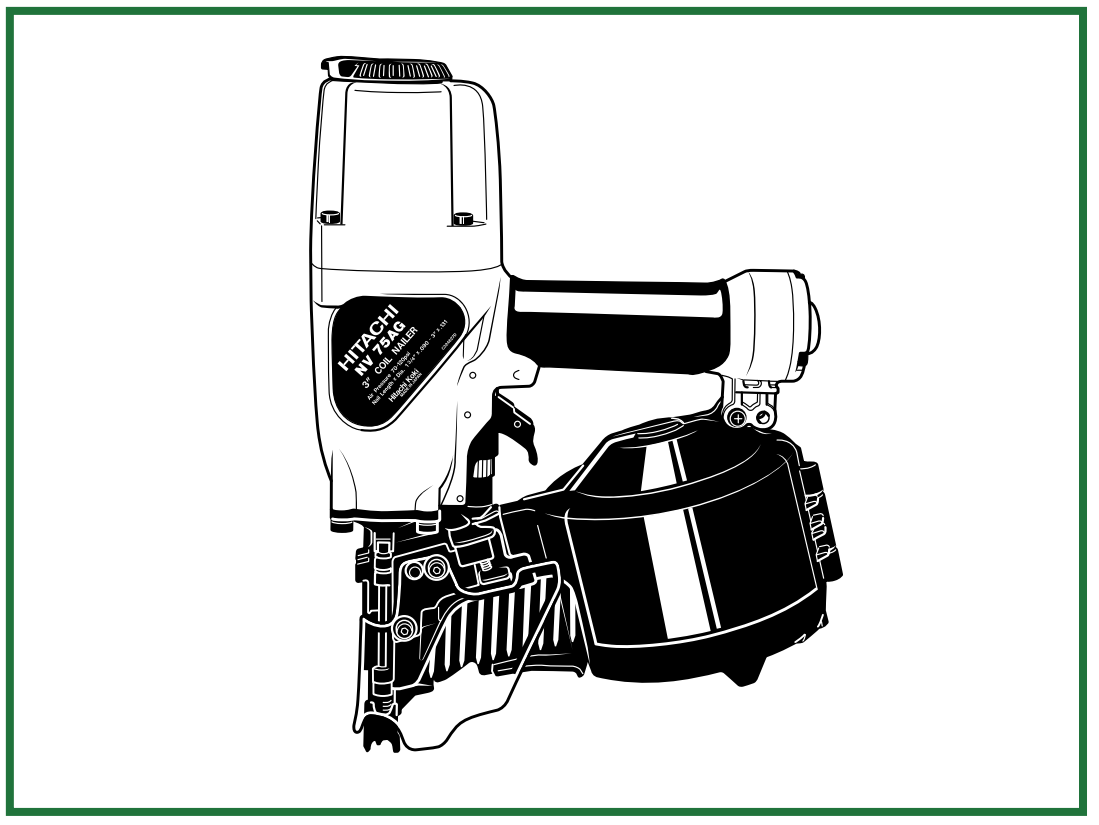
MODEL

NV 75AG

HITACHI POWER TOOLS

**COIL NAILER
NV 75AG**

**TECHNICAL DATA
AND
SERVICE MANUAL**



N

LIST No. E006

Aug. 2002

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	SCN60



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1. PRODUCT NAME

Hitachi 75 mm (3") Coil Nailer, Model NV 75AG

2. MARKETING OBJECTIVE

Nails 75 mm (3") long are most popularly used for framing work in the U.S.A. Although our current coil nailer Model NV 83A is capable of driving nails 83 mm (3-1/4") long maximum, it is heavy in weight (3.5 kg (7.7 lbs.)). C is also heavy in weight (3.6 kg (7.9 lbs.)) even though it is capable of driving nails 70 mm (2-3/4") long maximum. The newly developed 75 mm (3") coil nailer Model NV 75AG is ultra-lightweight (2.5 kg (5.5 lbs.)) and features the following:

- "Pop-out magazine" allows easy nail loading from the top of the magazine because the nail holder can be tilted.
- Driving depth is adjustable without tool. The driving section is simplified because the depth adjuster is located near the trigger. The tip of the nose is easy to see and operate.
- The exhaust air outlet is 360° adjustable without tool.
- Capable of driving either wire-collated or sheet-collated nails.

There is a demand for a high-power nailer capable of driving larger-diameter nails from the users of the Model NV 65AH. The new Model NV 75AG can also satisfy the above demand. Please expand the sales of the new Model NV 75AG.

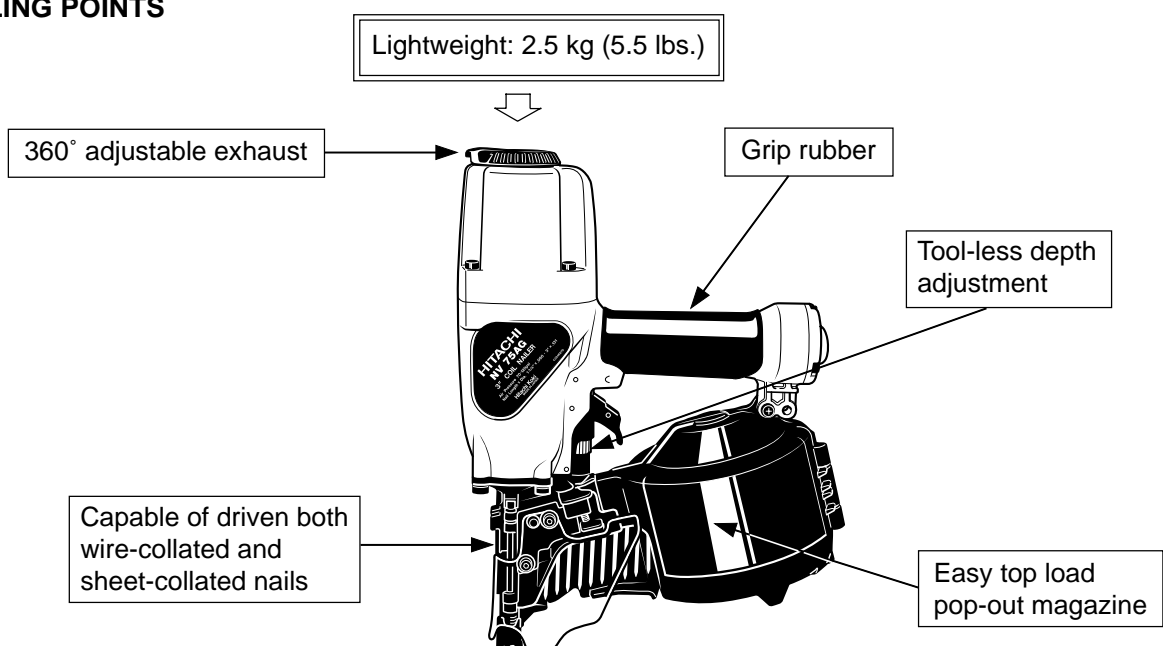
3. APPLICATIONS

- Floor and wall framing
- Siding, fencing, decking
- Wall and roof sheathing
- Mobile home and modular housing construction
- Crate and pallet construction

Note: The nails of 3.3 mm (.131") dia. x 75 mm (3") length may not be driven reliably into some materials.

Salespersons should instruct the customers to perform a driving test before actual use.

4. SELLING POINTS



5. SPECIFICATIONS

5-1. Specifications

Model	NV 75AG
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	3 pcs./sec.
Weight	2.5 kg (5.5 lbs.)
Dimensions (Length x height x width)	271 mm x 338 mm x 132 mm (10-11/16" x 13-5/16" x 5-3/16")
Nail feed system	Spiral spring
Nail capacity	200 – 300 nails (1 coil)
Air consumption	1.8 ltr/cycle at 7 kgf/cm ² (0.064 ft ³ /cycle at 100 psi, 1.8 ltr/cycle at 6.9 bar)
Air inlet	3/8 NPT thread
Packaging	Corrugated cardboard box
Package dimensions (Length x height x width)	315 mm x 150 mm x 386 mm (12-3/8" x 5-7/8" x 15-1/4")
Standard accessories	Eye protector (Code No. 875769) 1 Hex. bar wrench for M6 screw (Code No. 944459) 1 Hex. bar wrench for M5 screw (Code No. 944458) 1 Hex. bar wrench for M4 screw (Code No. 943277) 1 Nose cap (Code No. 883106) 1
Optional accessories	Pneumatic tool lubricant (1 oz oil feeder) (Code No. 877153) Pneumatic tool lubricant (4 oz oil feeder) (Code No. 872042) Pneumatic tool lubricant (1 quart can) (Code No. 876212) Sequential fire parts set (Code No. 881973) Case (Code No. 883323)

5-2. Nail Selection

The Model NV 75AG utilizes common round-head nails collated by wire or sheet into coils from 200 to 300 pieces. Applicable nail dimensions are shown below. However, it is recommended to use genuine HITACHI nails to ensure satisfactory driving quality.

CAUTION: Ensure that nails are as specified in Figs. 1, 2 and 3. Other nails will cause clogging of nails and subsequent damage to the nailer.

NOTE: Aluminum nails may bend when driven into a hard workpiece. Test before use.

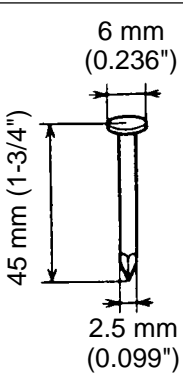
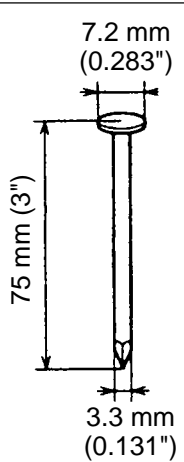
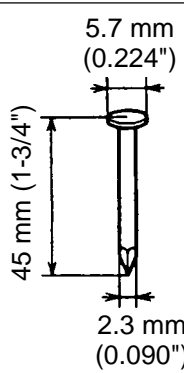
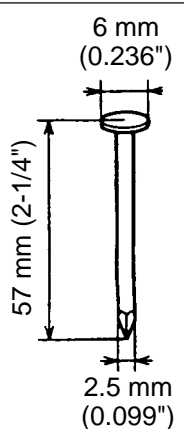
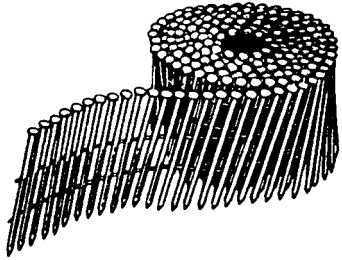
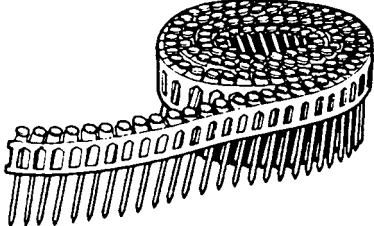
Wire-collated nails		Sheet-collated nails	
Min.	Max.	Min.	Max.
 <p>6 mm (0.236")</p> <p>45 mm (1-3/4")</p> <p>2.5 mm (0.099")</p>	 <p>7.2 mm (0.283")</p> <p>75 mm (3")</p> <p>3.3 mm (0.131")</p>	 <p>5.7 mm (0.224")</p> <p>45 mm (1-3/4")</p> <p>2.3 mm (0.090")</p>	 <p>6 mm (0.236")</p> <p>57 mm (2-1/4")</p> <p>2.5 mm (0.099")</p>
			

Fig. 1 Dimensions of nails

Type	L	d	d1	L1	L2	D1	D2	H
Ⓐ	45 – 65 (1-3/4 – 2-1/2)	2.5 – 2.9 (0.099 – 0.113)	0.7 (0.028)	19 (0.748)	37.5 (1.476)	28 (1.102)	121 (4.764)	72 (2.835)
Ⓑ	65 – 75 (1-1/2 – 3)	3.1 – 3.3 (0.120 – 0.131)						80 (3.150)

Unit: mm (inch)

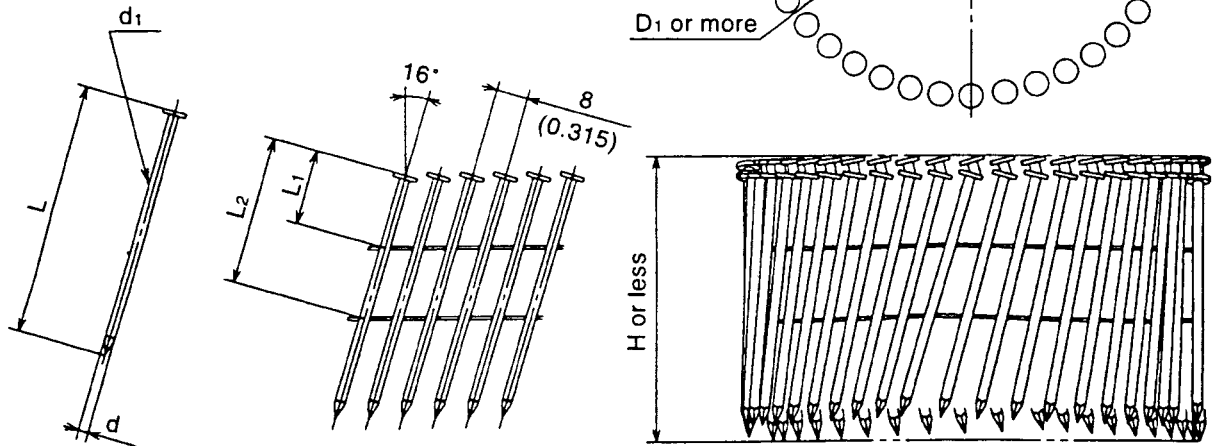


Fig. 2 Dimensions of wire-collated nails

L	d	D1	D2	H
45 – 57 (1-3/4 – 2-1/4)	2.3 – 2.5 (0.090 – 0.099)	20 (0.787)	118 (4.645)	61.5 (2.421)

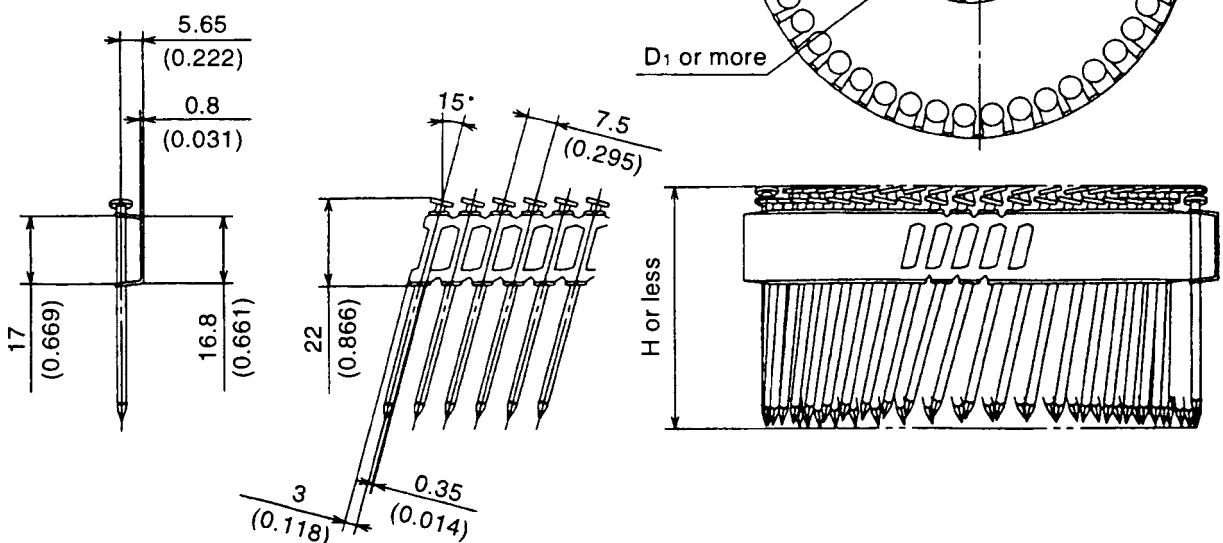


Fig. 3 Dimensions of sheet-collated nails

5-3. Nail Driving Force

Fig. 4 shows by type of wood and nail the nailer output energy provided by the supply pressure and the nailing energy required for driving the nail flush. Air pressure which exceeds the intersecting point between the nailer output energy and the required nailing energy for driving the nail allows the nail to be fully driven. For example, when driving a nail of 3.3 mm dia. x 75 mm length (0.131" x 3") into a workpiece of hemlock with the Model NV 75AG, a pressure of about 8 bar (8.2 kgf/cm², 116 psi) allows the nailer to drive the nail flush with the wood surface. A pressure beyond this value causes the nail head to be driven below the wood surface. Fig. 4 should be used as a reference only because those values vary depending on the type of wood, moisture content, and grain of wood.

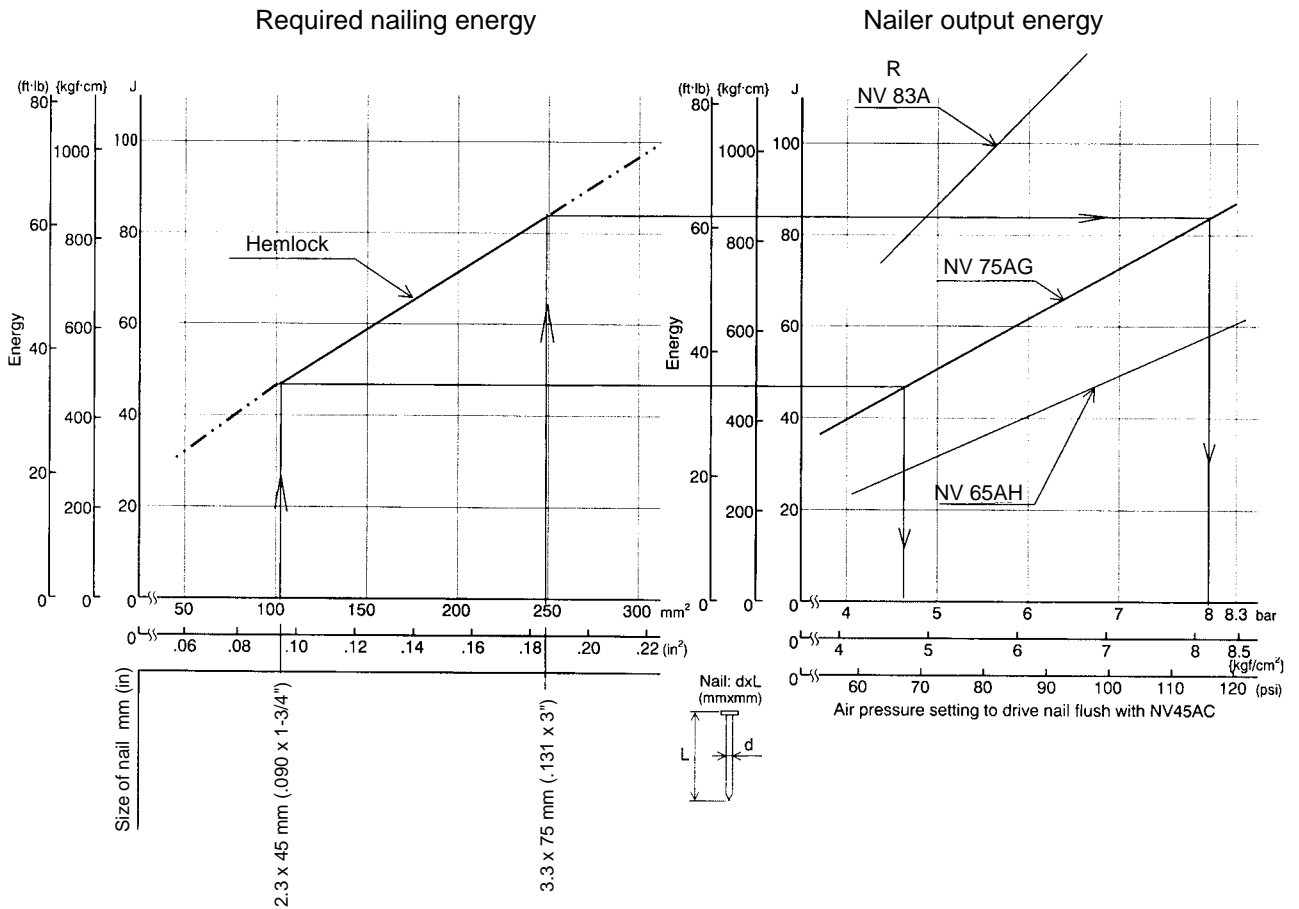


Fig. 4 Required nailing energy and nailer output energy

6. COMPARISONS WITH SIMILAR PRODUCTS

Maker and model	HITACHI NV 75AG	HITACHI NV 65AH	HITACHI NV 83A	R
Operating pressure	5 – 8.5 kgf/cm ² (70 – 120 psi)	5 – 8.5 kgf/cm ² (70 – 120 psi)	5 – 8.5 kgf/cm ² (70 – 120 psi)	5 – 7.0 kgf/cm ² (70 – 100 psi)
Weight	2.5 kg (5.5 lbs.)	2.1 kg (4.6 lbs.)	3.5 kg (7.7 lbs.)	3.6 kg (7.9 lbs.)
Power ratio	130	100	200	200
Dimensions (L x H x W)	271 mm x 338 mm x 132 mm (10-11/13" x 13-5/16" x 5-3/16")	266 mm x 300 mm x 128 mm (10-1/2" x 11-13/16" x 5-1/16")	290 mm x 348 mm x 137 mm (11-13/32" x 13-11/16" x 5-13/32")	324 mm x 318 mm x 141 mm (12-25/32" x 12-17/32" x 5-9/16")
Air consumption at 7 kgf/cm ² (100 psi)	1.8 ltr/cycle (0.064 ft ³ /cycle)	1.4 ltr/cycle (0.049 ft ³ /cycle)	2.5 ltr/cycle (0.088 ft ³ /cycle)	3.1 ltr/cycle (0.109 ft ³ /cycle)
Nail capacity	200 – 300 nails	200 – 300 nails	200 – 300 nails	200 – 350 nails
Magazine type (Material)	Top loading (Black plastic)	Bottom loading (Clear plastic)	Bottom loading (Black plastic)	Top loading (Black plastic)
Driving depth adjustment mechanism	Tool not required	Tool not required	Tool required	Tool not required
Direction change of exhaust air	Tool not required	Tool not required	None	Tool required
Applicable nails	Collation	Wire	Wire	Wire
	Diameter	2.5 mm – 3.3 mm (0.099" – 0.131")	2.3 mm – 2.5 mm (0.090" – 0.099")	2.5 mm – 3.3 mm (0.099" – 0.131")
	Length	45 mm – 75 mm (1-3/4" – 3")	38 mm – 65 mm (1-1/2" – 2-1/2")	50 mm – 83 mm (2" – 3-1/4")

7. PRECAUTIONS IN SALES PROMOTION

In the interest of promoting the safest and most efficient use of the Model NV 75AG Nailer 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.

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 nailer are listed in the Instruction Manual to enhance the safe and 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 NV 75AG unit is provided with a Warning Label (illustrated below) which lists basic safety precautions in its use. Carefully ensure that the 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 advise the customer properly. 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

7-4. Precautions in Operation

- (1) Pay special attention to the pressure, capacity and piping of the air compressor in order to keep the air pressure supplied to the Model NV 75AG within the range from 5 kgf/cm² (70 psi, 4.9 bar) to 8.5 kgf/cm² (120 psi, 8.3 bar). Otherwise, ill effect may be given to the performance, service life and safety of the Model NV 75AG. (Be sure to install a regulator when using a high-pressure air compressor whose set pressure is 10 kgf/cm² (140 psi, 9.8 bar) or more. In this case, adjust the air pressure at 8.5 kgf/cm² (120 psi, 8.3 bar) or less.)
- (2) If dust in the compressed air settles on the sliding portion, the Model NV 75AG will not operate properly. Lubrication is effective to remove dust and also to prolong the service life of the Model NV 75AG keeping good performance. It is recommended to lubricate the Model NV 75AG daily. Supply 5-10 drops of lubricant into the air plug on the Model NV 75AG.
When not in use for an extended period, supply lubricant and perform idle driving two or three times to lubricate the inside, then apply a thin coat of the lubricant to the steel parts to avoid rusting.
 - Usable lubricant is specified in the following table. Please recommend the customers to use Hitachi nailer/tacker oil.

Type of oil	Brand or product name
Hitachi Pneumatic Tool Lubricant	Shell sliding oil, Tonna S32 (Old Tonna T32); Code No. 877153 (1 oz. oil feeder) Code No. 874042 (4 oz. oil feeder) Code No. 876212 (1L (1 quart) can)

- (3) Be sure to drain the tank of the compressor securely to prevent deteriorated performance or malfunction of the Model NV 75AG due to rusting.
- (4) Instruct the customers (especially the heavy users) to perform inspection and maintenance securely.

8. MECHANISM AND OPERATION PRINCIPLE

8-1. Mechanism

As illustrated in Fig. 7, the Model NV 75AG can be generally divided into four sections:

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

The parts of the output section and the control valve section are the same as those of the Model NR 65AK to allow the use of nails 75 mm (3") long, though the basic construction is the same as the Model NV 65AH.

The parts of the driving section and the magazine section have been newly designed.

Primary differences from the Model NV 65AH are described below.

- Output section To make it powerful, the output section is common to the Model NR 65AK except the following:
 - Body: There is no interchangeability with the Model NR 65AK since the Model NV 75AG has an air passage to feed nails. The handle is equipped with the grip rubber (rubber-ring type) instead of the grip tape. (Note that the repair part is the conventional grip tape because the grip rubber cannot be replaced by hand.)
 - Cylinder: Newly designed.
 - Piston: Newly designed.
 - Dust filter: Dust filter is provided between the air inlet cap and the body to prevent dust from entering the inside (common to the Model NR 90AC2).
 - Gasket (B): The shape is changed to install the dust filter (common to the Model NR 90AC2).
- Control valve section The control valve section is common to the Model NR 65AK except the following:
 - Plunger spring: Common to the Model NV 65AH.
 - Trigger: Newly designed.
 - Driving depth adjuster: Located near the trigger to simplify the nose unit.
The tip of the nose is easy to see and operate.
- Driving section and magazine section The parts of the driving section and the magazine section have been newly designed.

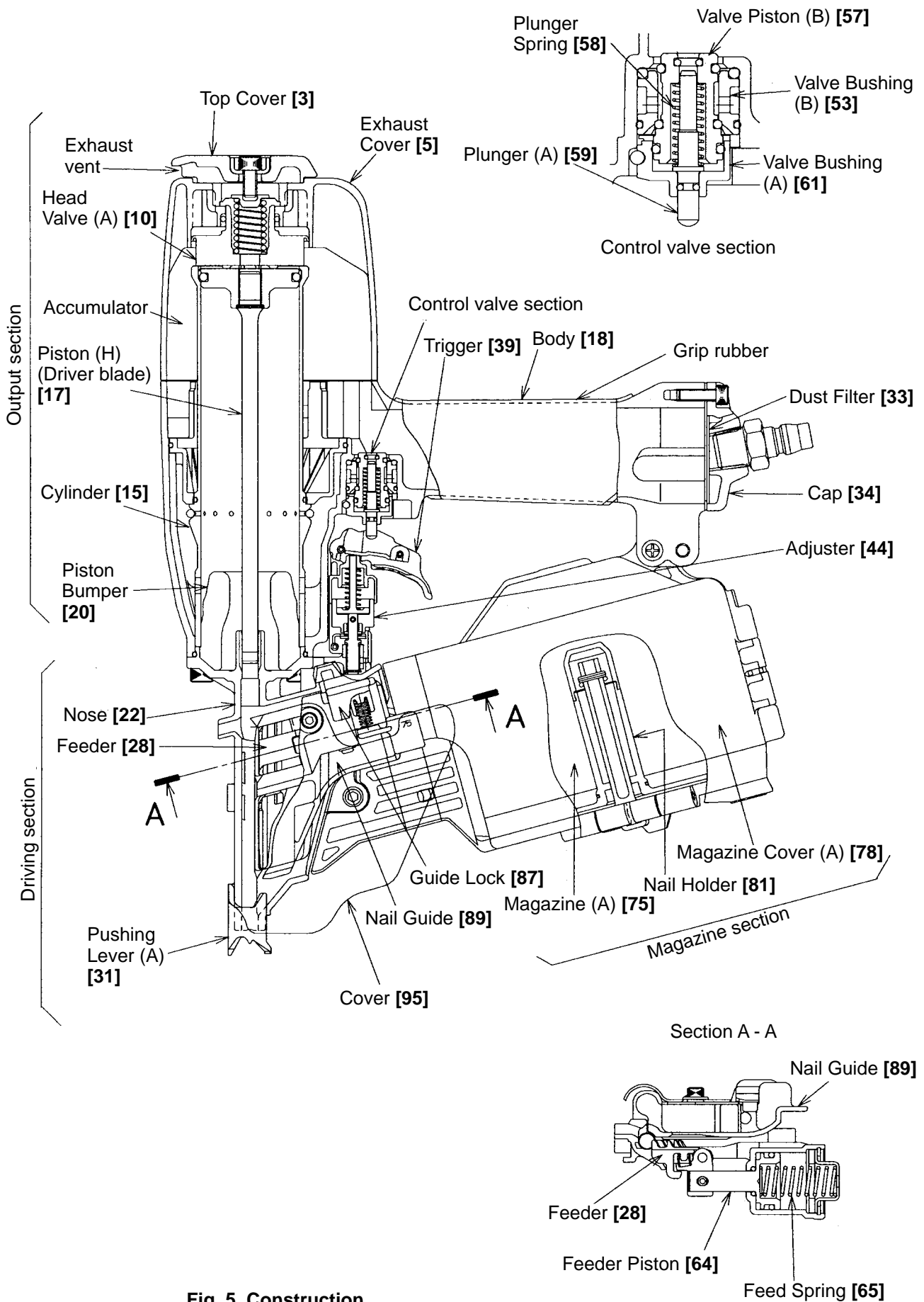
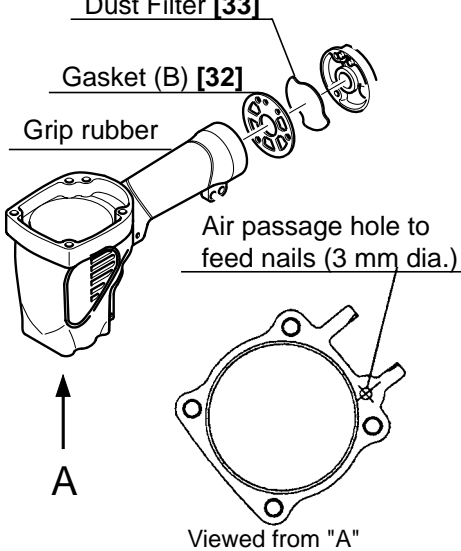
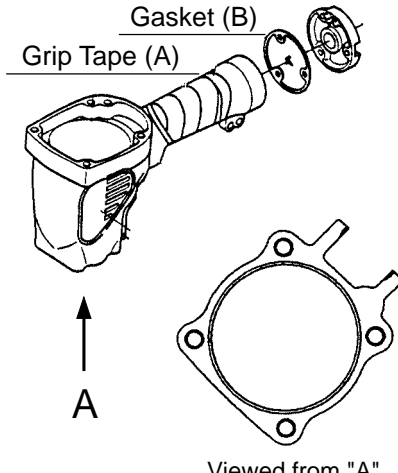
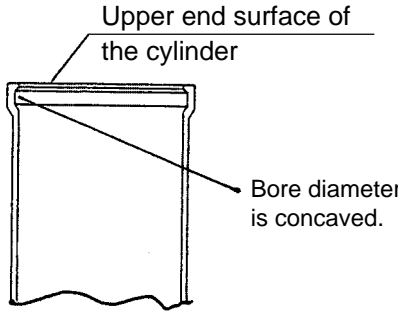
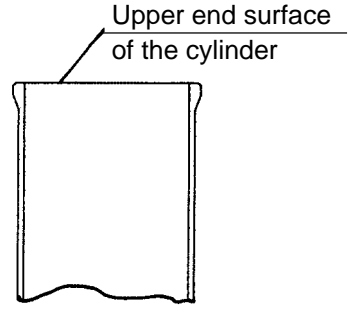
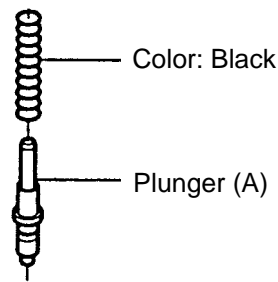
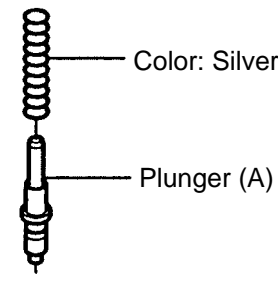
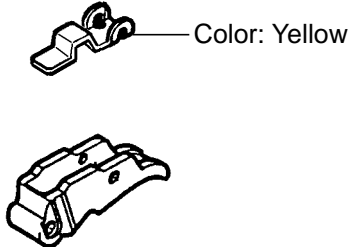
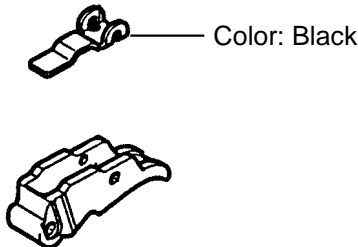


Fig. 5 Construction

8-2. Interchangeability of Parts

The driving section and the magazine section of the Model NV 75AG have been newly designed and there is no interchangeability with those of the Model NR 65AK. Although most parts of the output section and the control valve section of the Model NV 75AG are interchangeable with those of the Model NR 65AK, there is no interchangeability for the parts shown in the table below.

Part	NV 75AG	NR 65AK
Body [18] Dust Filter [33] Gasket (B) [32]	 <p>Dust Filter [33]</p> <p>Gasket (B) [32]</p> <p>Grip rubber</p> <p>Air passage hole to feed nails (3 mm dia.)</p> <p>↑ A</p> <p>Viewed from "A"</p>	 <p>Gasket (B)</p> <p>Grip Tape (A)</p> <p>↑ A</p> <p>Viewed from "A"</p>
Cylinder [15]	 <p>Upper end surface of the cylinder</p> <p>Bore diameter is concaved.</p>	 <p>Upper end surface of the cylinder</p>
Plunger Spring [58]	 <p>Color: Black</p> <p>Plunger (A)</p>	 <p>Color: Silver</p> <p>Plunger (A)</p>
Trigger [39]	 <p>Color: Yellow</p>	 <p>Color: Black</p>

8-3. Operation Principle

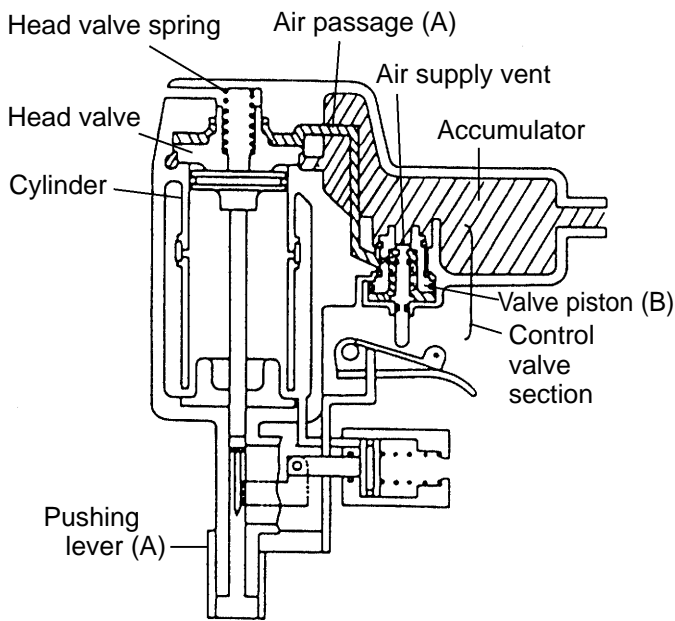


Fig. 6 Prior to nailing

(1) Prior to nailing (see Fig. 6)

1. When compressed air is supplied to the main body, it fills the accumulator (see diagram).
2. At the same time, the compressed air flows into the valve piston lower chamber of the control valve section, and pushes up the valve piston. Also, the compressed air flows from the air supply vent, through air passage (A), and into the head valve upper chamber where it simultaneously pushes down the head valve and the head valve spring to seal the upper surface of the head valve and the cylinder.

(2) During nailing (I) (see Fig. 7)

1. When plunger (A) is pushed up by operating both the pushing lever and trigger (A), the compressed air in the valve piston lower chamber is exhausted from the lower part of plunger (A). Then, the valve piston is pushed down by the compressed air from the accumulator so that it shuts off the air supply vent and releases the exhaust valve.

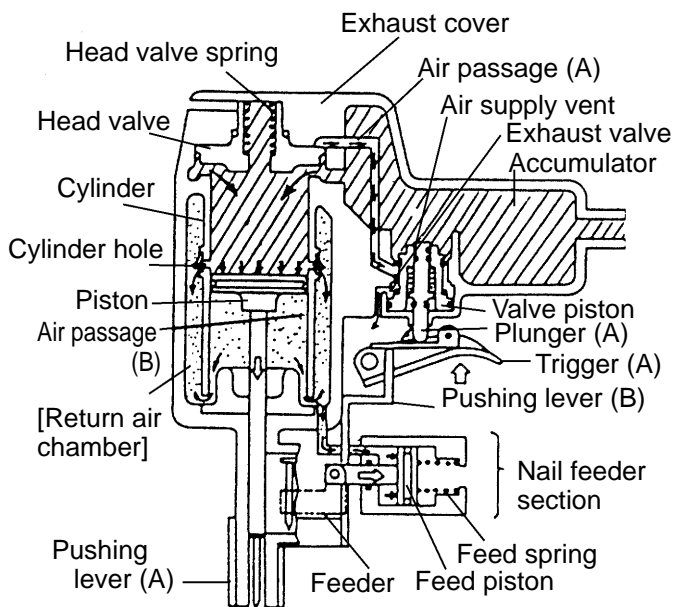


Fig. 7 During nailing (I)

2. When the exhaust valve opens, the compressed air in the head valve upper chamber is exhausted into the atmosphere through air passage (A).
3. The air pressure applied against the lower surface of the head valve soon exceeds the force of the head valve spring, and pushes the head valve up. The head valve is pushed fully upward by the compressed air, and seals the upper surface of the exhaust cover and the head valve.
4. When the head valve is pushed up, the compressed air flows rapidly into the cylinder and pushes down the piston to drive a nail. At this time, the compressed air flows through the cylinder hole, into the return air chamber, through air passage (B), and into the chamber at the left side of the feed piston in the nail feeder section. When the air pressure exceeds the force of the feed spring, the feeder moves to the right.

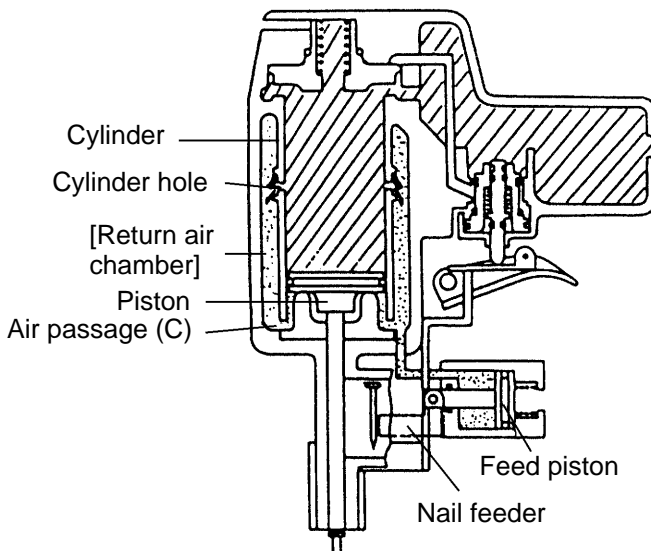


Fig. 8 During nailing (II)

(3) During nailing (II) (see Fig. 8)

1. When the piston moves down inside the cylinder, the air below the piston flows through air passage (C) under the cylinder and is accumulated in the return air chamber together with the compressed air flowing through the cylinder hole.
2. When the compressed air in the left chamber of the feed piston moves the feed piston fully to the right, the nail feeder (feed pawl) engages the next nail.

(4) After nailing (see Fig. 9)

1. When the trigger is released, the plunger goes down, the air supply vent opens, the valve piston goes up, and the compressed air in the accumulator passes through air passage (A) into the head valve upper chamber. The head valve is then pushed down by the head valve spring and the air pressure against the upper surface of the head valve. At the same time, the exhaust valve opens and the upper chamber of the cylinder is opened to the atmosphere.
2. When the head valve seals the upper surface of the cylinder, the compressed air accumulated in the return air chamber passes through air passage (C), presses on the lower surface of the piston, and forces the piston to return upward to its original position. Also, the compressed air above the piston is exhausted through the head valve hole.
3. The compressed air accumulated in the left chamber of the feed piston passes through air passage (B), goes into the return air chamber, and is then exhausted through the nose hole. The feed piston is then moved to the left by the force of the feed spring, and the feed pawl feeds the next nail into the ejection port. This completes one full nailing cycle.

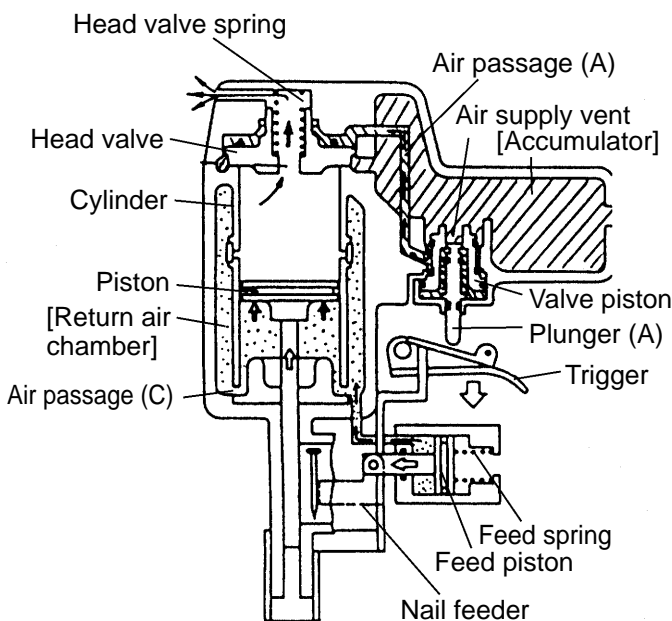


Fig. 9 During return

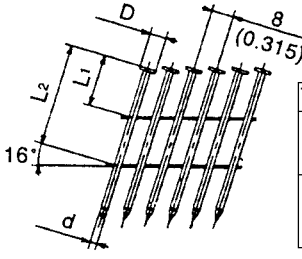
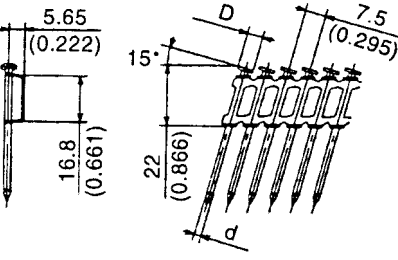
9. TROUBLESHOOTING GUIDE

9-1. Troubleshooting and Correction

Problem	Possible cause (* : Most-common cause)	Inspection method	Remedy
1) Nails cannot be driven.	<p><Nails></p> <ul style="list-style-type: none"> Magazine is not loaded with specified genuine nails. Magazine is loaded with abnormal nails (bent nails, too large or too small nail heads, abnormal collation, others). Nails or link pieces are jammed. Link pieces are deformed or broken. 	<ul style="list-style-type: none"> Check that the magazine is correctly loaded with specified nails. 	<ul style="list-style-type: none"> Use specified nails. Remove the abnormal nails and load the nailer with proper nails.
	<p><Driving section: Nose, feeder, feed piston, etc.></p> <ul style="list-style-type: none"> Sliding resistance of the feed piston is too high. 	<ul style="list-style-type: none"> Remove the feed piston and check the feed piston sliding surface of the nose. 	<ul style="list-style-type: none"> Apply grease to the sliding surface. Polish the scratched portion with sandpaper. Replace the parts.
	<ul style="list-style-type: none"> Nail guide face of the nose is abnormal (deformed, burrs or damaged). Feed spring or feeder spring is abnormal (damaged or fatigued). Feeder is abnormal (damaged or worn). 	<ul style="list-style-type: none"> Check that the driving section is not abnormal (burrs, deformed, damaged or worn). 	<ul style="list-style-type: none"> Deburr the nail guide face. Correct the deformed part. Replace the abnormal parts.
	<ul style="list-style-type: none"> Nails are not correctly loaded in the groove of the nose. 	<ul style="list-style-type: none"> Check that nails are correctly loaded in the groove of the nose. 	<ul style="list-style-type: none"> Load nails in the correct position in the nose.
	<ul style="list-style-type: none"> Dust sticks to the feeder sliding portion of the nose, or lubrication is needed. 	<ul style="list-style-type: none"> Open the nail guide and perform idle driving to check the feeder's operation. 	<ul style="list-style-type: none"> Remove dust and then lubricate the sliding surface.
	<ul style="list-style-type: none"> Air pressure is too low. 		<ul style="list-style-type: none"> Adjust the air pressure to 5 – 8.5 kgf/cm² (4.9 – 8.3 bar, 70 – 120 psi).
	<ul style="list-style-type: none"> * • Air passage is clogged with broken pieces of piston bumper, etc. * • Feed piston chamber contains foreign matter such as broken pieces of piston bumper, etc. 		<ul style="list-style-type: none"> Remove foreign matter. Replace the piston bumper with new one. •Body ... Remove foreign matter in the return air chamber. •Nose ... Remove foreign matter in the air passage and the feed piston chamber.

Problem	Possible cause (* : Most-common cause)	Inspection method	Remedy
1) Nails cannot be driven. (continued)	<ul style="list-style-type: none"> • Air leaks from the gap between the body and the nose. 		<ul style="list-style-type: none"> • Tighten screws and check the O-rings.
	<ul style="list-style-type: none"> • O-rings are worn or deformed. 		<ul style="list-style-type: none"> • Replace the O-rings.
	<ul style="list-style-type: none"> • O-rings need lubrication. 		<ul style="list-style-type: none"> • Apply grease or lubricate.
	<Nail guide section> <ul style="list-style-type: none"> • Nail guide face is abnormal (deformed, burrs or damaged). 	<ul style="list-style-type: none"> • Check that the nail guide is not abnormal (worn, deformed, damaged, etc.). 	<ul style="list-style-type: none"> • Correct or replace the parts.
	<ul style="list-style-type: none"> • Dust sticks to the inside of the nail guide groove, or lubrication is needed. 	<ul style="list-style-type: none"> • Check the operation of nail stopper (A) and nail stopper (B). 	<ul style="list-style-type: none"> • Remove dust and then lubricate.
	<ul style="list-style-type: none"> *• Spring is abnormal (missing, damaged or fatigued). • The claw ridge section of the nail stopper is abnormal (damaged, worn or burrs). 		<ul style="list-style-type: none"> • Replace the abnormal parts.
	<Magazine section> <Push lever> <ul style="list-style-type: none"> • Magazine 	<ul style="list-style-type: none"> • Check that a nail does not catch on another nail in the magazine. • Check that a nail does not catch on some part of the magazine. • Check the height of the nail holder. 	<ul style="list-style-type: none"> • Collate the nails correctly and reload the nailer with them. • Remove burrs or deformed part. Replace the parts. • Adjust the height of the nail holder correctly.
	<ul style="list-style-type: none"> • Push lever 	<ul style="list-style-type: none"> • Check the operation of the push lever. 	<ul style="list-style-type: none"> • Correct or replace the parts.
	<Output section: piston, driver blade, etc.> <ul style="list-style-type: none"> • Air pressure is too low. 	<ul style="list-style-type: none"> • Open the nail guide and perform idle driving to check that the driver blade is returned. 	<ul style="list-style-type: none"> • Adjust the air pressure to 5 – 8.5 kgf/cm² (4.9 – 8.3 bar, 70 – 120 psi).
	<ul style="list-style-type: none"> *• Piston O-ring is abnormal (worn or damaged). 		<ul style="list-style-type: none"> • Replace the piston O-ring.
	<ul style="list-style-type: none"> *• Piston bumper is abnormal. 		<ul style="list-style-type: none"> • Replace the piston bumper.
	<ul style="list-style-type: none"> • O-ring in the cylinder is abnormal (removed, deformed or damaged). 		<ul style="list-style-type: none"> • Reassemble or replace the parts.
	<ul style="list-style-type: none"> • Driver blade is abnormal (deformed, burrs or damaged). 		<ul style="list-style-type: none"> • Correct or replace the part.

Problem	Possible cause (* : Most-common cause)	Inspection method	Remedy
1) Nails cannot be driven. (continued)	<ul style="list-style-type: none"> • Cylinder inside surface is abnormal (packed with dust, or worn). 	<ul style="list-style-type: none"> • Check that nails can be driven at 5 kgf/cm² (4.9 bar, 70 psi). 	<ul style="list-style-type: none"> • Remove dust and then lubricate. • Replace the part.
	<ul style="list-style-type: none"> • Head valve sliding surface is abnormal (seized or damaged, or lubrication is needed). 	<ul style="list-style-type: none"> • Perform idle driving to check the driving operation. 	<ul style="list-style-type: none"> • Replace the part. • Apply grease.
	<ul style="list-style-type: none"> • Head valve spring is abnormal (fatigued or damaged). 	<ul style="list-style-type: none"> • Perform idle driving to check that the driver blade is not held in the down position. 	<ul style="list-style-type: none"> • Replace the part.
	<Control valve section> <ul style="list-style-type: none"> • Plunger (A), valve piston (B), valve bushing (A) or valve bushing (B) is abnormal (seized or damaged). 		<ul style="list-style-type: none"> • Replace the abnormal part.
	<ul style="list-style-type: none"> • O-rings or sliding surface are worn or needs lubrication. 	<ul style="list-style-type: none"> • Disassemble the control valve section and check the O-rings. 	<ul style="list-style-type: none"> • Replace the abnormal part. • Apply grease.
2) Nails are driven but bent.	<ul style="list-style-type: none"> *• Adjuster is raised too high for short nails. 	<ul style="list-style-type: none"> • Check that the adjuster is not raised too high. 	<ul style="list-style-type: none"> • Turn the adjuster lower (lower the pressure).
	<ul style="list-style-type: none"> • Nails are not completely fed into the injection port. *• Unspecified nails are used. 	<ul style="list-style-type: none"> • See item 1). 	<ul style="list-style-type: none"> • See item 1).
	<ul style="list-style-type: none"> *• Driver blade is worn. 	<ul style="list-style-type: none"> • Check that the driver blade tip is not abnormally worn. 	<ul style="list-style-type: none"> • Replace the part.
	<ul style="list-style-type: none"> • Workpiece is too hard. 	<ul style="list-style-type: none"> • Check if a nail is bent even when driven into soft wood. 	<ul style="list-style-type: none"> • Nailer cannot be used because the material is beyond its applicable range.
3) Nails cannot be driven into the workpiece completely: the heads cannot be made flush.	<ul style="list-style-type: none"> • Adjuster is incorrectly set. 	<ul style="list-style-type: none"> • Turn the adjuster to the lowest position and then drive nails. 	<ul style="list-style-type: none"> • Set the adjuster to the optimum position.
	<ul style="list-style-type: none"> • Air pressure is too low. 		<ul style="list-style-type: none"> • Adjust the air pressure to 5 – 8.5 kgf/cm² (4.9 – 8.3 bar, 70 – 120 psi).
	<ul style="list-style-type: none"> • Workpiece is too hard. 	<ul style="list-style-type: none"> • Check if a nail is bent even when driven into soft wood. 	<ul style="list-style-type: none"> • Nailer cannot be used because the material is beyond its applicable range.

Problem	Possible cause (* : Most-common cause)	Inspection method	Remedy																							
3) Nails cannot be driven into the workpiece completely: the heads cannot be made flush. (continued)	*• Driver blade is worn.	• Perform idle driving to check the driver blade is projected from the nose tip.	• Replace the part.																							
	*• Piston O-ring is abnormal (worn or damaged). • Cylinder inside surface is abnormal (worn or rough).	• Disassemble the output section and check the piston ring and the inside of the cylinder for abnormality.	• Replace the abnormal part.																							
	• Head valve sliding surface is abnormal (seized or damaged, or lubrication is needed).	• Check the sliding surface for abnormality and lubrication.	• Replace the abnormal part. • Apply grease.																							
4) Nails jam.	<p><Nails></p> <ul style="list-style-type: none"> *• Unspecified nails are used. *• Abnormal nails are mixed. *• Nail heads are too large or too small. <p>[Wire-collated nails]</p> <ul style="list-style-type: none"> • Collating wires are abnormal (broken, welding failed, deformed or welding position failed). *• Collating wires are deformed (deformed in collation angle or collation pitch). <p>[Sheet-collated nails]</p> <ul style="list-style-type: none"> *• Collating sheets are abnormal (deformed or broken). • Nails are removed from the sheets. 	<ul style="list-style-type: none"> • Check if the specified nails are used. • Check the nails as follows. 	<ul style="list-style-type: none"> • Use specified nails. • Remove the abnormal nails and load the nailer with proper nails. 																							
		<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>[Wire-collated nails]</p>  </div> <div style="text-align: center;"> <p>[Wire-collated nails]</p> <table border="1"> <thead> <tr> <th colspan="5">Unit: mm (inch)</th> </tr> <tr> <th>Type</th> <th>D</th> <th>d</th> <th>L₁</th> <th>L₂</th> </tr> </thead> <tbody> <tr> <td>Ⓐ</td> <td>6 – 7.2 (0.236 – 0.283)</td> <td>2.5 (0.099)</td> <td>19 (0.748)</td> <td>37.5 (1.476)</td> </tr> <tr> <td>Ⓑ</td> <td></td> <td>3.3 (0.131)</td> <td></td> <td></td> </tr> </tbody> </table> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>[Sheet-collated nails]</p>  </div> <div style="text-align: center;"> <p>[Sheet-collated nails]</p> <table border="1"> <thead> <tr> <th colspan="2">Unit: mm (inch)</th> </tr> <tr> <th>D</th> <th>d</th> </tr> </thead> <tbody> <tr> <td>5.7 – 6.0 (0.224 – 0.236)</td> <td>2.3 – 2.5 (0.090 – 0.099)</td> </tr> </tbody> </table> </div> </div>	Unit: mm (inch)					Type	D	d	L ₁	L ₂	Ⓐ	6 – 7.2 (0.236 – 0.283)	2.5 (0.099)	19 (0.748)	37.5 (1.476)	Ⓑ		3.3 (0.131)			Unit: mm (inch)		D	d
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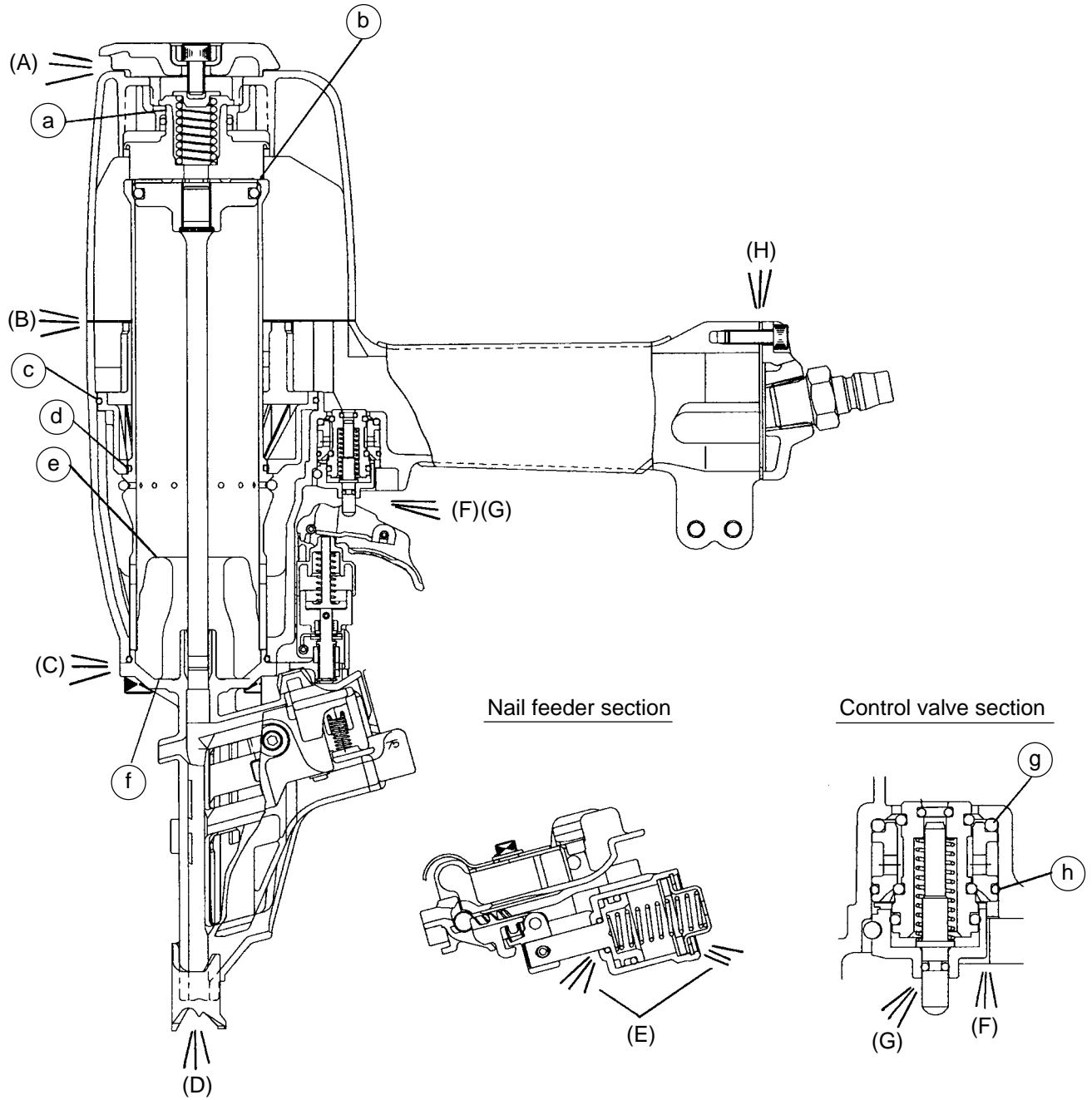
Problem	Possible cause (* : Most-common cause)	Inspection method	Remedy
4) Nails jam. (continued)	<p><Body: Nail feeding is incomplete.></p> <ul style="list-style-type: none"> • Feeder is worn and the sliding section is abnormal. • Nail guide face of the nose or the sliding section of the feeder is abnormal (deformed, burrs or damaged). • Feed spring or feeder spring is abnormal (damaged, fatigued or removed). 	<ul style="list-style-type: none"> • Open the nail guide and check the position of the feeder claw. 	<ul style="list-style-type: none"> • Replace the abnormal part.
	<p><Body: Nail guide section></p> <ul style="list-style-type: none"> • Nail guide section is abnormal. 	<ul style="list-style-type: none"> • See item "1) Nail guide section". 	<ul style="list-style-type: none"> • See item "1) Nail guide section".
	<p><Driver blade is not returned completely.></p> <ul style="list-style-type: none"> • See item "1) Output section: piston, driver blade, etc." 	<ul style="list-style-type: none"> • Perform idle or actual driving to check if the driver blade is returned completely. 	<ul style="list-style-type: none"> • See item "1) Output section: piston, driver blade, etc."
	<ul style="list-style-type: none"> • Air pressure is too high. 	<ul style="list-style-type: none"> • Nails may be jammed if driven at a high pressure and high speed. Check pressure and driving speed. 	<ul style="list-style-type: none"> • Adjust the air pressure to 5 – 8.5 kgf/cm² (4.9 – 8.3 bar, 70 – 120 psi).

9-2. Possible Causes and Corrections of Air Leakage

Air leakage repair location

- Repair procedure

- (1) Check the points of the following parts marked by an asterisk for abnormal condition.
- (2) Next, check the seal parts (marked with a double circle) for wear, flaws or damage.
- (3) And then, check other places.



Air leakage portion	Cause	
	When the Trigger is turned off	When the Trigger is turned on
(A) Exhaust port	<ul style="list-style-type: none"> ○ Abnormality in Head Valve (A) [10] and Cylinder [15] [Wear and deformation of the sealed face of the (b) section] ○ Abnormality in Head Valve O-ring (P-22) [9] or wear, deformation and/or breakage of Head Valve (A) [10] ● Abnormality (damage) in the Exhaust Cover [5] 	<ul style="list-style-type: none"> ○ Abnormality in Head Valve (A) [10] [Wear, deformation and/or breakage of the section (a)] * Abnormality in the inner face [the section (a)] in the Exhaust Cover [5] [Deformation and dust clogging in the section (a)]
(B) Exhaust cover	<ul style="list-style-type: none"> ● Looseness of the Hex. Socket Hd. Bolt M5 x 35 [4] ○ Damage of Gasket (B) [6] ● Abnormality in the sealed face of the Body [18], the Exhaust Cover [5] and the Cylinder [15] 	/
(C) Nose 1 (Feed piston passage)		
(D) Nose 2	<ul style="list-style-type: none"> * Abnormality (breakage and/or scratches) in O-Ring (S-70) [11] of the Cylinder Plate [12] ● Abnormality in the sealing faces [the sections (c) and/or (d)] of the Cylinder Plate [12], Body [18] and/or the Cylinder [15] 	<ul style="list-style-type: none"> ○ Abnormality [deformation, crack and/or damage of the sections (e) and (f)] in the Piston Bumper [20] ● Deformation of Piston (H) [17] (The deformation of driver blade abnormality in sealed faces) ● The deformation of the face (f) of the Body [18] ○ Abnormality (wear, deformation, breakage and/or scratches) in O-Ring (S-46) [13]
(E) Feed piston		<ul style="list-style-type: none"> ○ Abnormality (wear, breakage and/or scratches) in O-ring (P-21) [63] of the Feed Piston [64], or the wear and/or deformation of the Nose [22] on the sliding face ○ Abnormality (wear, breakage and/or scratches) in O-ring (P-9) [62] of the Nose [22], or wear, deformation and/or scratches of the Feed Piston [64] on the sliding face
(F) Control valve 1	<ul style="list-style-type: none"> ○ Abnormality (wear, breakage and/or scratches) in O-ring (S-4) [48] of Valve Piston (B) [57] ○ Abnormality (wear, breakage and/or scratches) in O-ring (I.D 8.8) [55] (lower side) of Valve Piston (B) [57] ○ Abnormality (breakage and/or scratches) in O-ring (S-18) [54] of Valve Bushing (B) [53] * Abnormality in the inner face [the section (h)] of the valve chamber of the Body [18] 	<ul style="list-style-type: none"> ○ Abnormality (wear, breakage and/or scratches) in O-ring (I.D 8.8) [55] (upper side) of Valve Piston (B) [57] ○ Abnormality (breakage and/or scratches) in Head Valve O-ring (I.D 16.8) [52] of Valve Bushing (B) [53] * Abnormality in the upper face [the section (g)] of the valve chamber of the Body [18]

Air leakage portion	Cause	
	When the Trigger is turned off	When the Trigger is turned on
(G) Control valve 2	<ul style="list-style-type: none"> ◦ Abnormality (wear, breakage and/or scratches) in O-ring (I.D 1.8) [60] of Plunger (A) [59] • Abnormality (deformation and/or scratches of the sliding face of Plunger (A) [59] in Valve Bushing (A) [61] 	<ul style="list-style-type: none"> ◦ Abnormality (wear, breakage and/or scratches) in O-ring (I.D 11) [56] in the inside of Valve Piston (B) [57] ◦ Abnormality (deformation and/or scratches of the sliding face of Plunger (A) [59] in Valve Piston (B) [57]
(H) Cap	<ul style="list-style-type: none"> ◦ Loosen Hex. Socket Hd. Bolt M5 x 16 [35]. • Broken Gasket (B) [32] ◦ Defective seal surface of the Body [18] 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 disconnect the air hose from the nailer (with your finger released from the trigger) to exhaust all the compressed air and remove all nails.

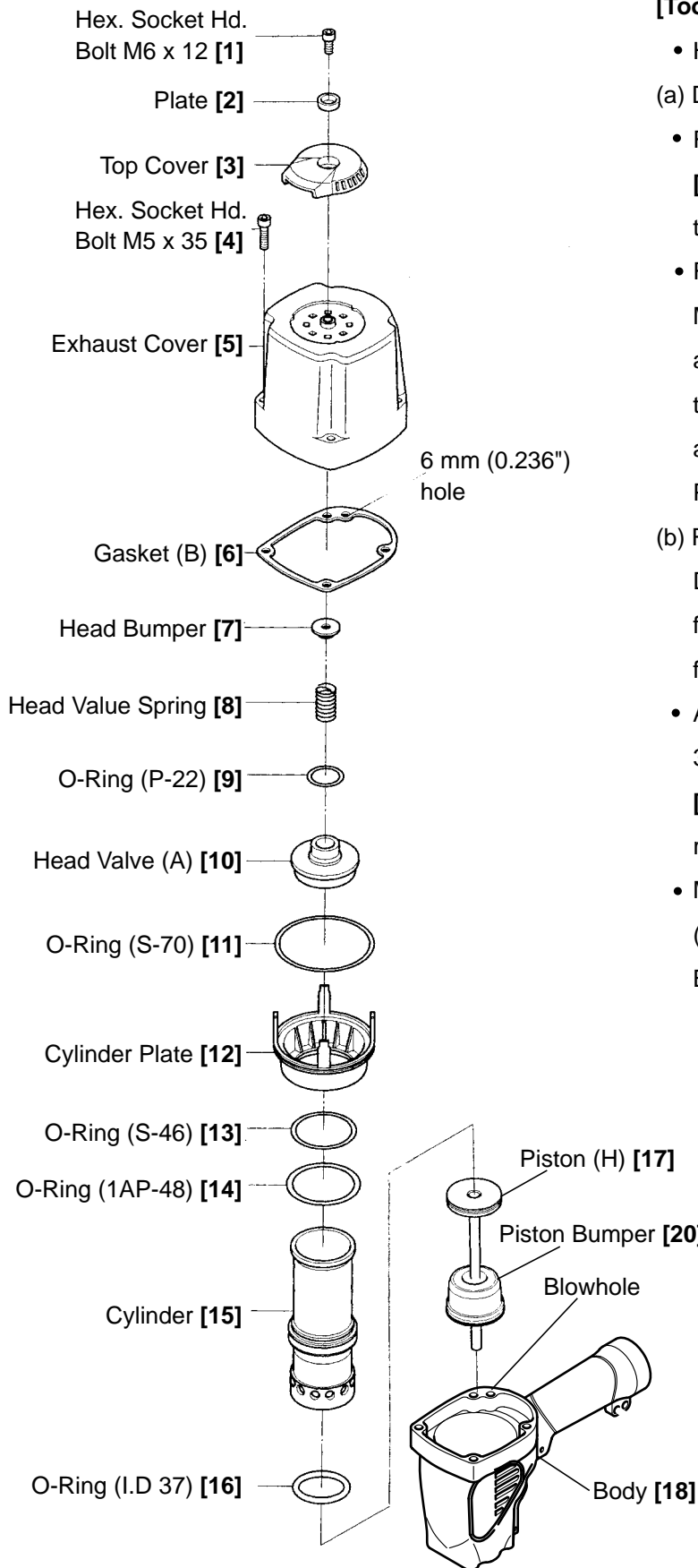
10-1. General Precautions in Disassembly and Reassembly

- 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) **[6]** 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.
- Tightening torque for each part

Bolt, screw and cap	Tightening torque N·m (kgf·cm, ft-lbs)
Nylock High Tension Bolt M6 x 20 [23]	16.2 ± 1.5 (165 ± 15, 11.9 ± 1.1)
Hex. Socket Hd. Bolt M6 x 12 [1]	9.8 ± 0.78 (100 ± 8, 7.2 ± 0.6)
Hex. Socket Hd. Bolt M5 x 16 [35]	6.3 ± 0.5 (65 ± 5, 4.7 ± 0.4)
Hex. Socket Hd. Bolt M5 [4] [86]	8.3 ± 0.5 (85 ± 5, 6.2 ± 0.4)
Machine Screw (W/Washer) M5 x 30 [37]	2.0 ± 0.5 (20 ± 5, 1.5 ± 0.4)
Nylock Hex. Socket Hd. Bolt M4 x 12 [97]	4.4 ± 0.3 (45 ± 3, 3.3 ± 0.2)

- Make sure there is no fragment of the Piston Bumper **[20]** on the passage of the Body **[18]** and Nose **[22]** before replacing the Piston Bumper **[20]**.

10-2. Disassembly and Reassembly of the Output Section (See Fig. 10)



[Tool required]

- Hex. bar wrench (4 mm)

(a) Disassembly

- Remove the Hex. Socket Hd. Bolts M6 x 12 [1] with a hex. bar wrench (5 mm). Then the Top Cover [3] can be removed.
- Remove the four Hex. Socket Hd. Bolts M5 x 35 [4] with a hex. bar wrench (4 mm) and remove the Exhaust Cover [5]. Then the components of the output section such as Piston (H) [17], Cylinder [15] and the Piston Bumper [20] can be removed.

(b) Reassembly

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

- Apply grease to the inside of the O-ring (I.D 37) [16], O-ring (S-70) [11], O-ring (S-46) [13] and the Cylinder [15] before reassembly.
- Mount Gasket (B) [6] aligning the 6 mm (0.236") dia. hole with the blowhole of the Body [18].

Fig. 10 Disassembly and reassembly of the output section

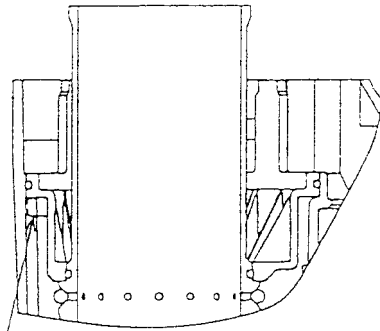


Fig. 11

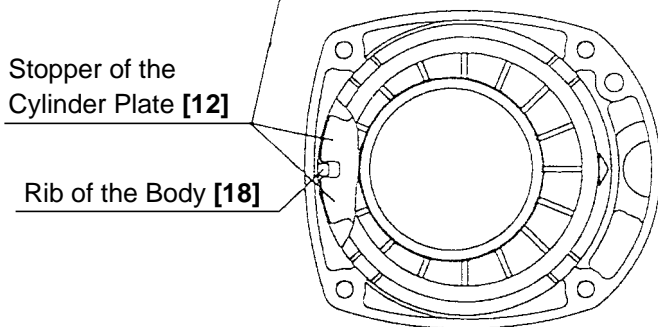


Fig. 12

- Mount the Cylinder Plate [12] to the Cylinder [15] facing the stopper of the Cylinder Plate [12] to the Piston Bumper [20]. When mounting to the Body [18], fit the rib of the Body [18] into the stopper groove of the Cylinder Plate [12] (Figs. 11 and 12).

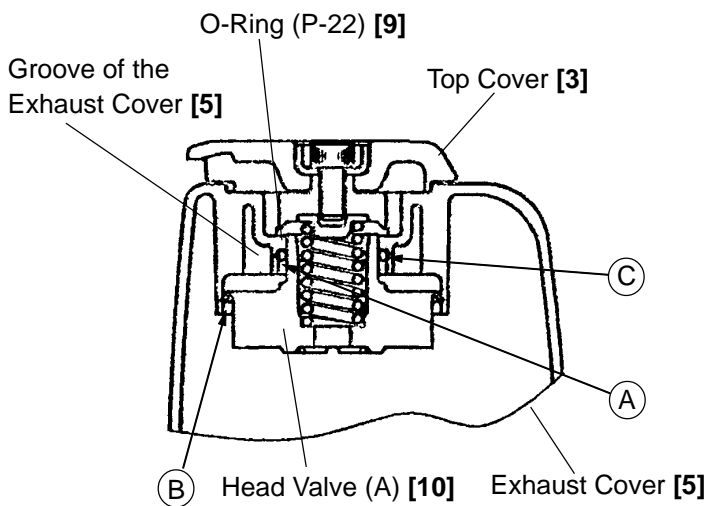
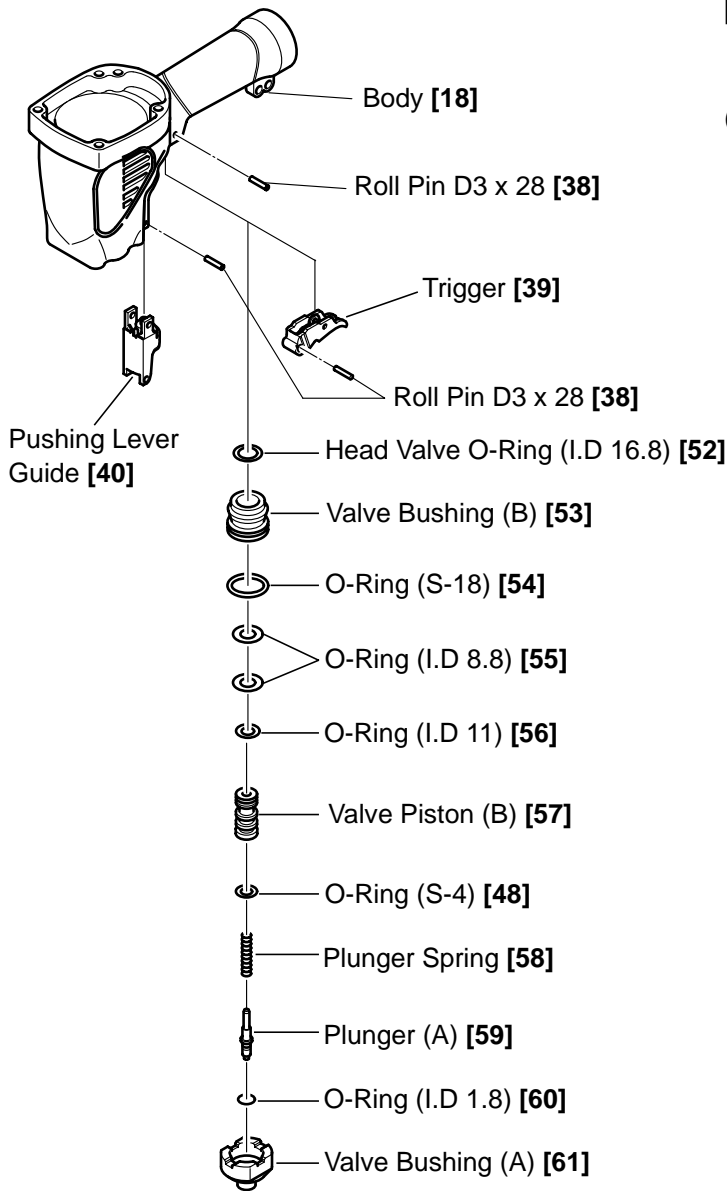


Fig. 13

- Apply grease to the sliding surface (A) of the Exhaust Cover [5] and Head Valve (A) [10] and charge about 0.5 g (0.018 oz) of grease in the groove of the Exhaust Cover [5] (Fig. 13).
- Apply grease to the lip portions (B) and (C) of Head Valve (A) [10] (Fig. 21).
- Apply grease to O-Ring (P-22) [9]. Mount O-Ring (P-22) [9] to Head Valve (A) [10], then mount it to the Exhaust Cover [5].

10-3. Disassembly and Reassembly of the Control Valve Section (See Fig. 14)



[Tools required]

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

(a) Disassembly

- Pull out the Roll Pin D3 x 28 [38] with the roll pin puller (3 mm (0.118") dia.), remove the Pushing Lever Guide [40], and the Trigger [39] can be removed.

Fig. 14

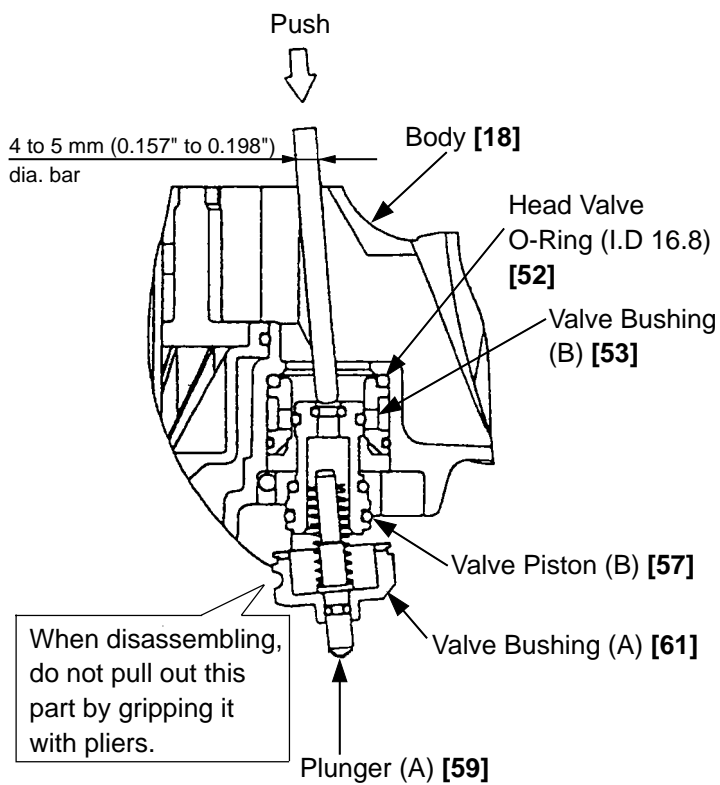


Fig. 15

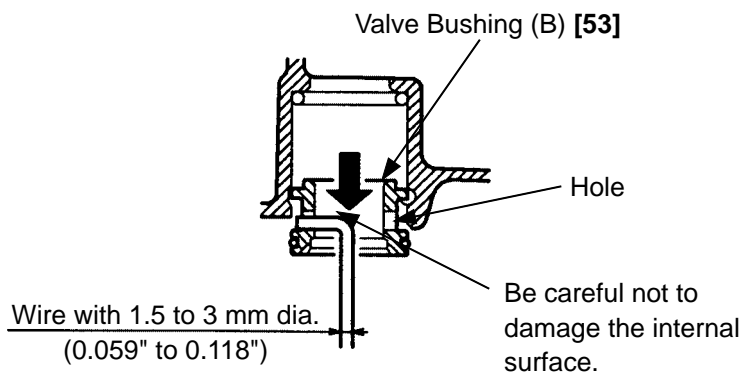


Fig. 16

- Pull out the Roll Pin D3 x 28 [38] with the roll pin puller (3 mm (0.118") dia.), and take out the control valve in the following manner.

- 1) Remove the Exhaust Cover [5] by following the procedure in (1), section 10-2.
- 2) As shown in Fig. 15, put a 4 to 5 mm (0.157 to 0.197") dia. bar in from the upper side of the Body [18] and push the top of Valve Piston (B) [57]. Now, the parts forming the control valve can be taken out except Valve Bushing (A) [61] and Head Valve O-Ring (I.D 16.8) [52].

[CAUTIONS]

- Be careful not to damage Valve Piston (B) [57], Valve Bushings (A) [61] and (B) [53], etc.
- Do not pull out the end of Plunger (A) [59] with pliers.

- 3) To take out Valve Bushing (B) [53], put a 1.5 to 3 mm (0.059" to 0.118") dia. wire with its end hooked into the hole in the bushing and pull it out while being careful not to damage the internal surface of Valve Bushing (B) [53], as shown in Fig. 16.

(b) Reassembly

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

- Be extremely careful to prevent the entry of foreign particles into the control valve section.
- Thoroughly apply grease to the O-Ring (I.D 1.8) [60] on Plunger (A) [59], O-Rings (I.D 11) [56], (S-18) [54] and (S-4) [48] on Valve Piston (B) [57], and the shaft of Plunger (A) [59] as shown in Fig. 17.
- As shown in Fig. 17, install Valve Bushing (A) [61] so that the roll pin groove in Valve Bushing (A) [61] will be aligned with the roll pin hole in the Body [18]. First, insert a roll pin puller (3 mm (0.118") dia.) into the roll pin hole. Then, upon confirming that the puller passes through the hole, drive in the Roll Pin D3 x 28 [38].

If an attempt is made to drive the roll pin with force when the roll pin groove in Valve Bushing (A) [61] is not aligned with the roll pin hole in the Body [18], it will damage the periphery of Valve Bushing (A) [61] and prevent disassembly or reassembly.

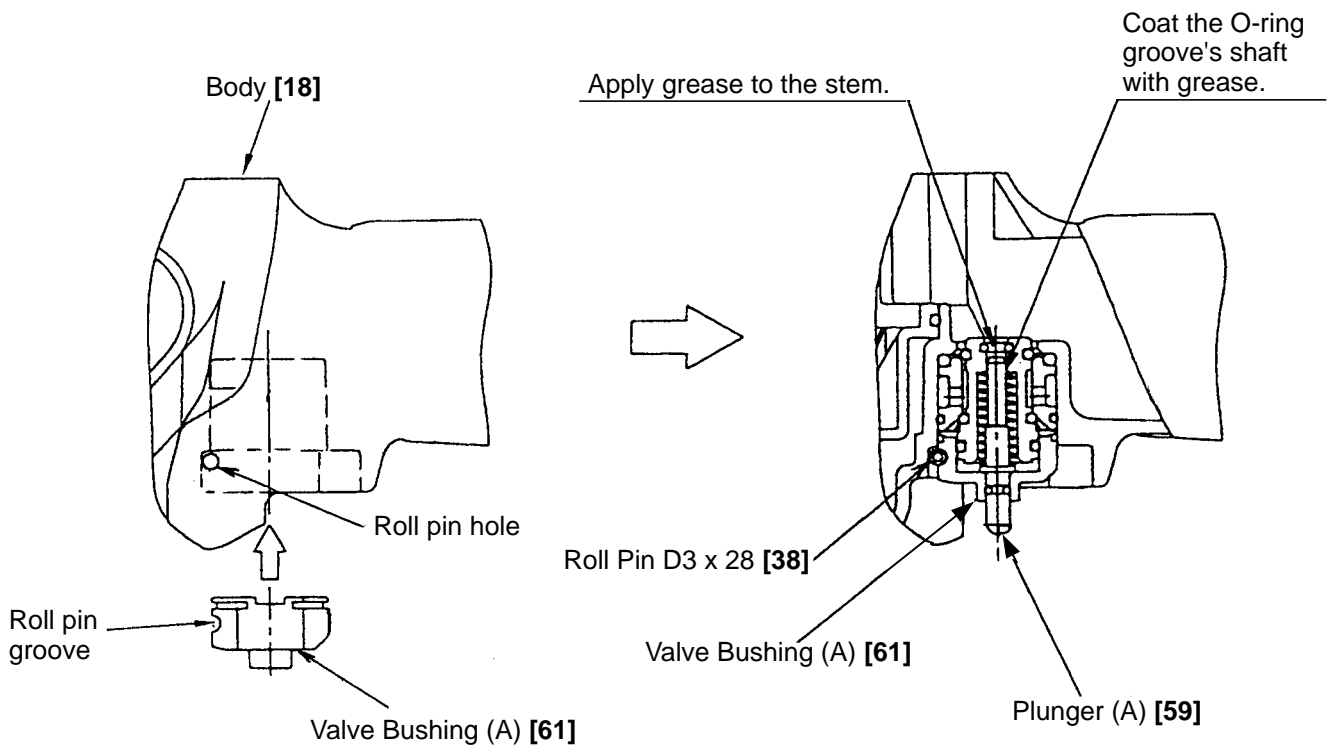


Fig. 17

- After assembling, check that Plunger (A) [59] moves smoothly.

10-4. Disassembly and Reassembly of the Magazine Section

- Tools required
- Phillips screwdriver
 - Roll pin pullers (4 mm dia., 2.5 mm dia.)
 - Hex. bar wrench (4 mm)
 - Wrench M5

(1) Disassembly and reassembly of the magazine section

(a) Disassembly (See Fig. 19.)

- Loosen the Hex. Socket Hd. Bolt M5 x 20 [86] and the Nylon Nut M5 [69] then remove the Sleeve [70].
- Deform Pushing Lever Cover (A) [71] using a flat-blade screwdriver and disengage it from the Nose [22].
- Loosen the Machine Screw (W/Washers) M5 x 30 (Black) [37] of the Body [18]. Then the Magazine Ass'y [98] can be removed.

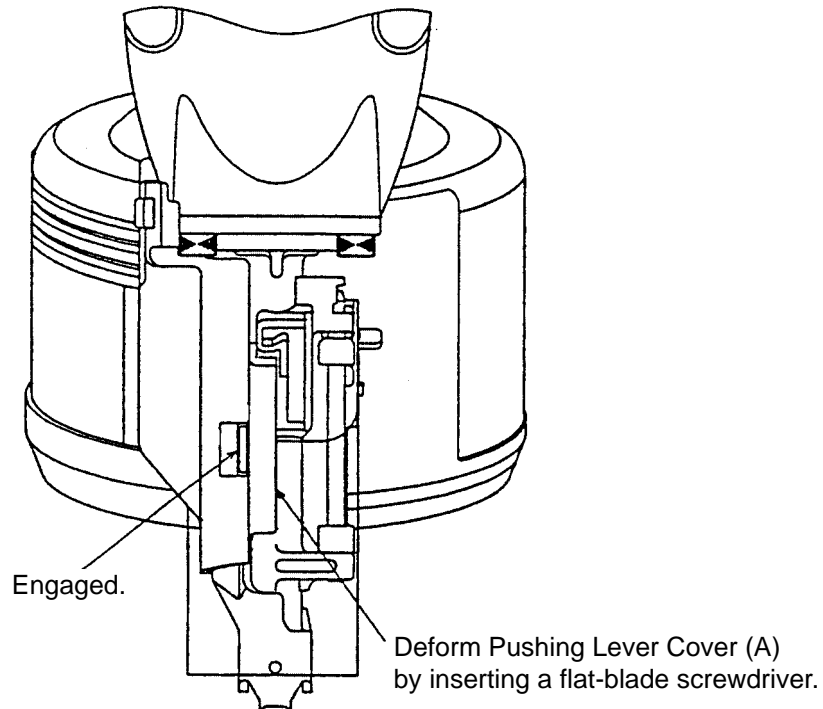


Fig. 18

(b) Reassembly

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

- Bend the tip of the Cover [95] and engage it with the convex portion of Magazine (A) [75]. Hold it with Pushing Lever Cover (A) [71] positioning the Cover [95] outside Pushing Lever Cover (A) [71].

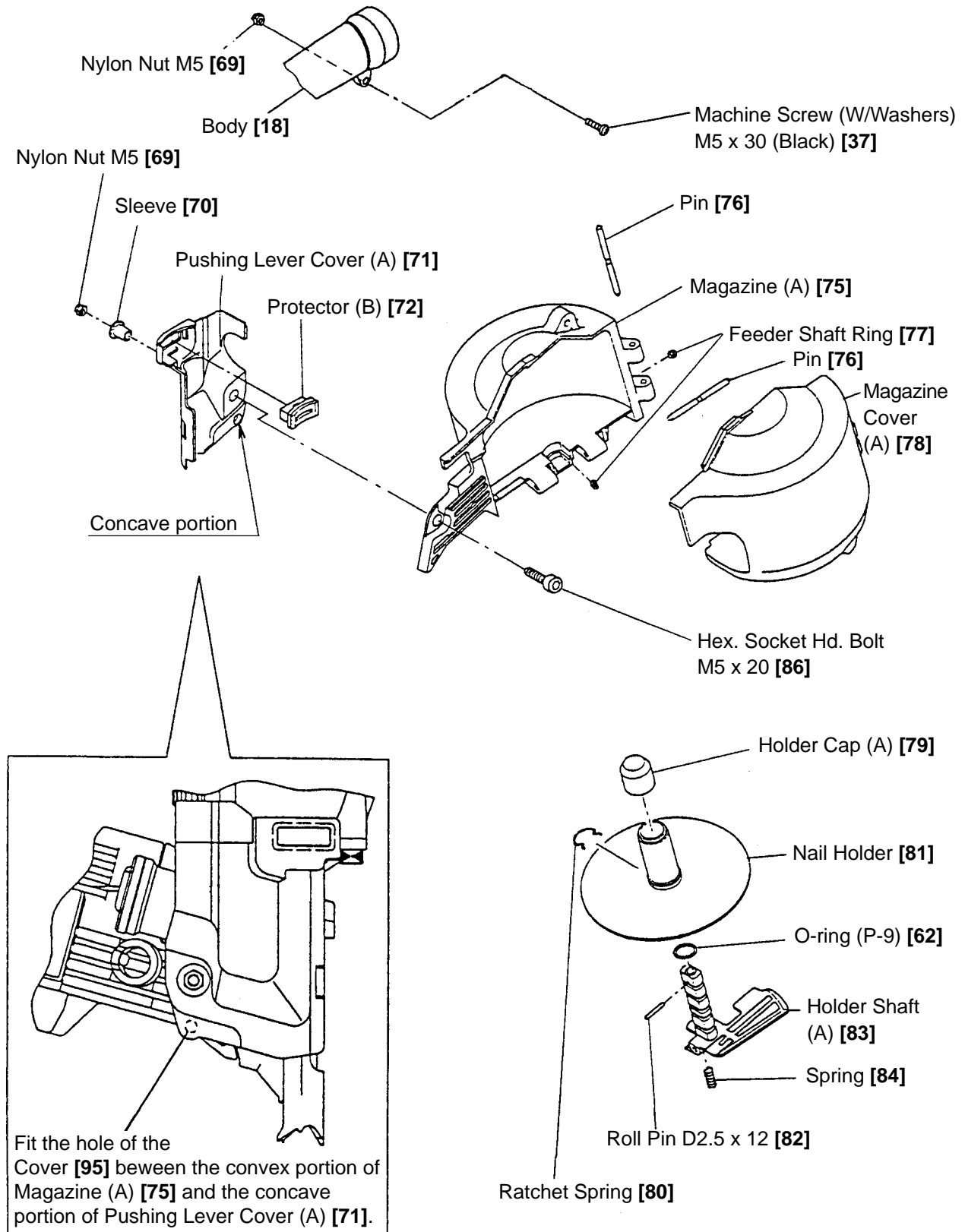


Fig. 19 Disassembly and reassembly of the magazine section

(2) Disassembly and reassembly of nail holder, holder shaft, etc.

(a) Disassembly

Pull out the two Pins [76] with a roll pin puller (4 mm dia.). Then Magazine (A) [75] and Magazine Cover (A) [78] can be removed. Remove Holder Cap (A) [79] and Roll Pin D2.5 x 12 [82] with a roll pin puller (2.5 mm dia.) Then O-ring (P-9) [62], Nail Holder [81], Holder Shaft (A) [83] and Spring [84] can be removed.

(b) Reassembly

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

- Mount O-ring (P-9) [62] to the top groove of Holder Shaft (A) [83].
- When mounting Holder Shaft (A) [83] to Magazine (A) [75], check that the Spring [84] is inserted between the concave portion of Magazine (A) [75] and the convex portion of Holder Shaft (A) [83] and then insert the Pin [76]. (See Fig. 20.)
- Check that the Feeder Shaft Rings [77] (2 pcs.) are securely inserted into the grooves of the Pins [76] (2 pcs.) . Be careful not to lose the Feeder Shaft Ring [77].
- Check the following after reassembly:
 - The Nail Holder [81] tilts when opening Magazine Cover (A) [78].
 - The Nail Holder [81] housed in Magazine (A) [75] smoothly when closing Magazine Cover (A) [78].

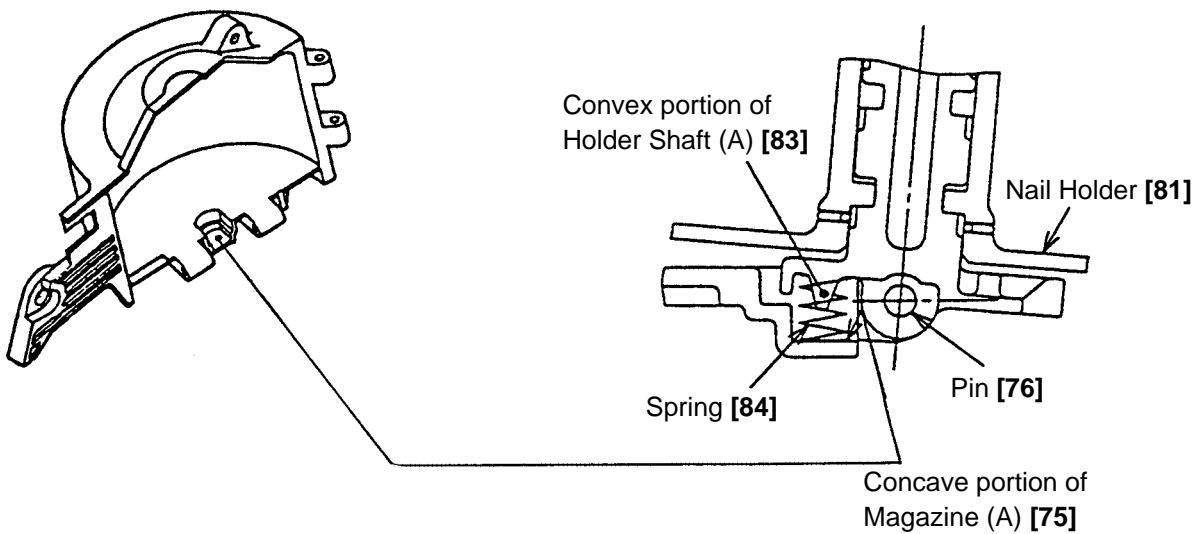


Fig. 20

10-5. Disassembly and Reassembly of the Driving Section

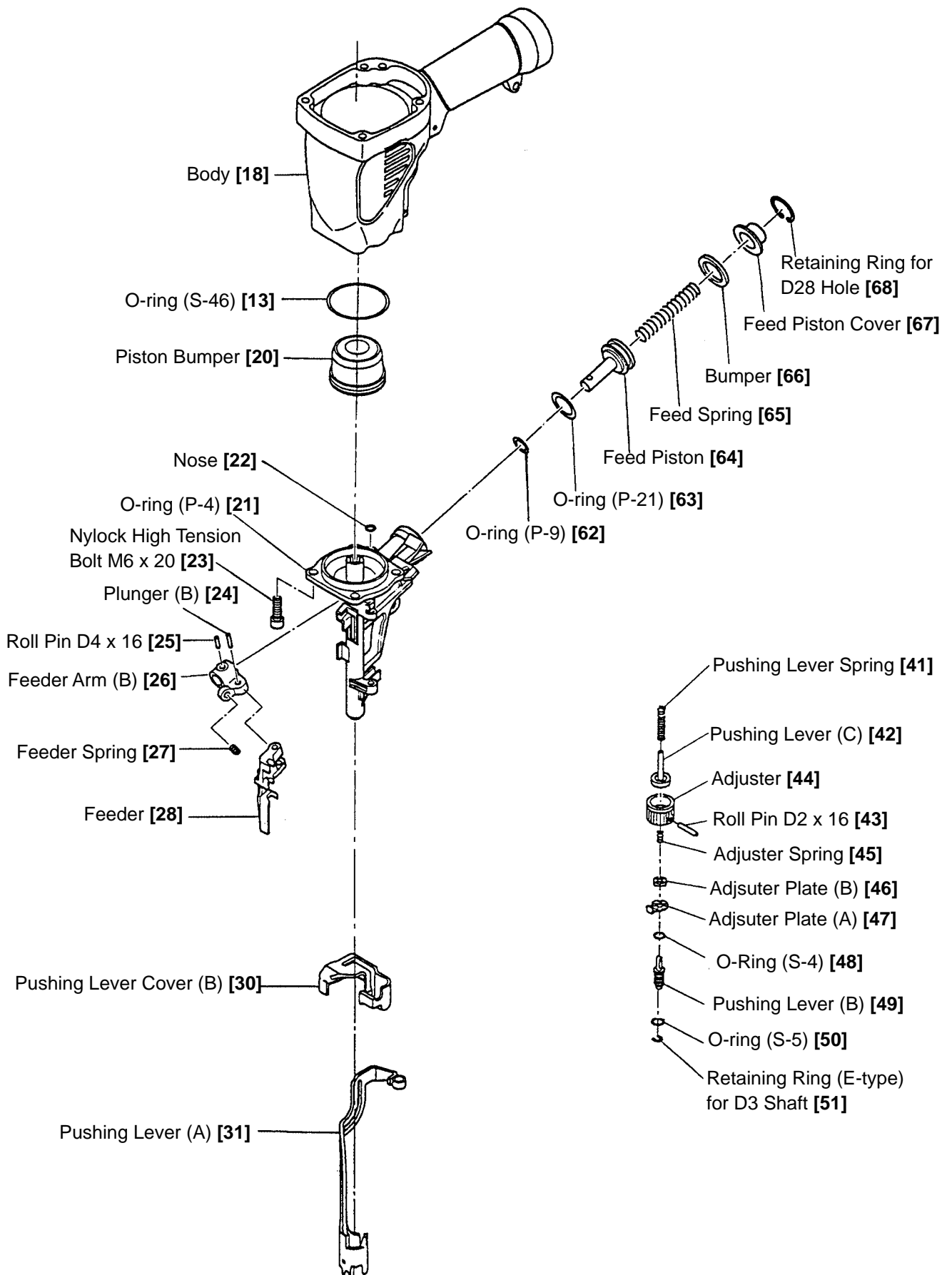


Fig. 21 Disassembly and reassembly of the driving section

(1) Disassembly and reassembly of Nose [22], Pushing Lever (A) [31] and other parts

(a) Disassembly (See Figs. 21 and 22.)

- Remove the four Nylock High Tension Bolts M6 x 20 [23]. Then the Nose [22], Pushing Lever (A) [31] and other parts can be removed.

(b) Reassembly

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

- Apply grease to the O-ring (S-46) [13] and mount it in the groove of the Nose [22].
- Align the bent portion of Adjuster Plate (A) [47] with the concave portion of the Pushing Lever Guide [40].
- After reassembly, check the components of the pushing lever and the Adjuster [44] move smoothly.

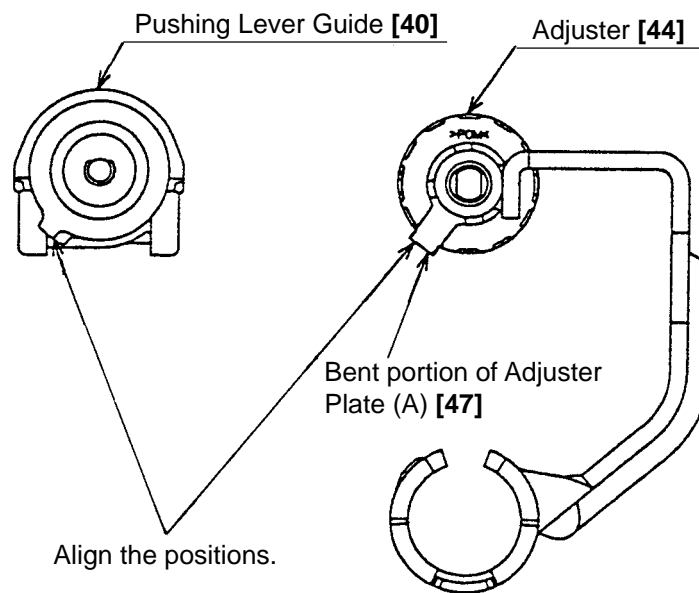


Fig. 22

(2) Disassembly and reassembly of the adjuster unit

(a) Disassembly (See Fig. 23.)

- Remove the Retaining Ring (E-type) for D3 Shaft [51]. Then Pushing Lever (A) [31], Pushing Lever Cover (B) [30] and the adjuster unit can be removed.
- Pull out the Roll Pin D2 x 16 [43]. Then the adjuster unit can be disassembled.

(b) Disassembly

- Disassembly procedures should be followed in the reverse order. Note the following points.
 - Mount Adjuster Plate (A) [47] facing its bent portion toward the Adjuster [44].
 - Mount Adjuster Plate (B) [46] facing its convex portion toward Adjuster Plate (A) [47].

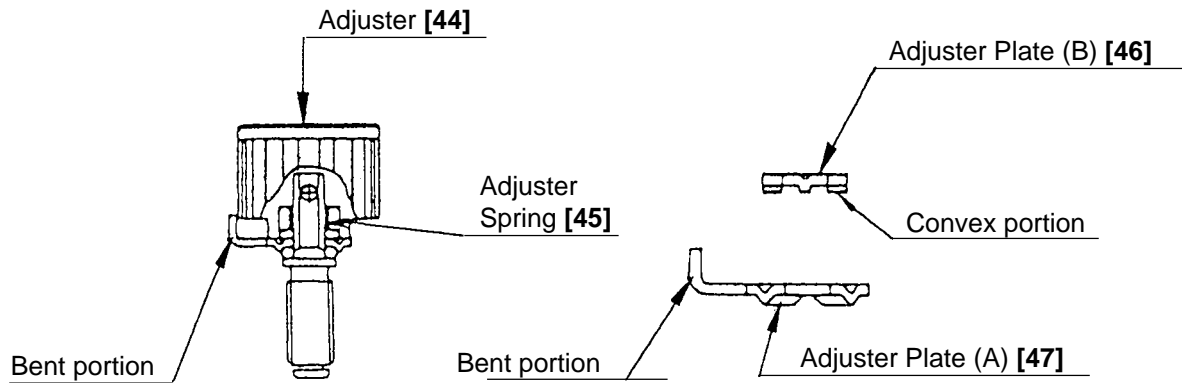


Fig. 23

(3) Disassembly and reassembly of Piston Bumper [20], Feeder [28], Feed Piston [64] and other parts. (See Fig. 24.)

(a) Disassembly

- Remove the Nose [22] and the parts forming the pushing lever from the output section in accordance with the procedure in 10-5 (1). Then the Piston Bumper [20] can be removed.
- Holding the Feed Piston Cover [67] with fingers, remove the Retaining Ring for D28 Hole [68] with a retaining ring puller. Then the Feed Piston Cover [67], Bumper [66] and Feed Spring [65] can be removed.
- Pull out the Roll Pin D4 x 16 [25] with a roll pin puller (4 mm dia.). Then the Feed Piston [64] and Feeder Arm (B) [26] can be removed.
- Push out Plunger (B) [24] with a roll pin puller (4 mm dia.). Then the Feeder Arm (B) [26], Feeder [28] and Feed Spring [65] can be removed.

(b) Reassembly

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

- Before replacing the Piston Bumper [20], clean the passages of the Body [18] and the Nose [22] (Fig. 24) and the inside of the feed piston chamber (Fig. 25). If clogged with fragments of the Piston Bumper [20], the Feed Piston [64] will not work properly.

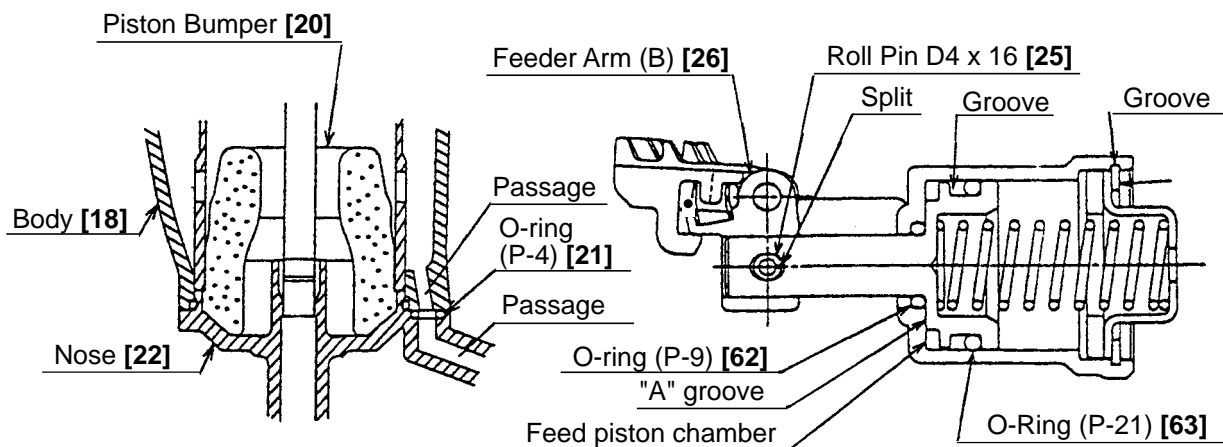


Fig. 24

Fig. 25

- Apply grease to the O-ring (P-9) [62] and O-ring (P-21) [63] and then assemble them.
- Fill the grease with the groove of the Feed Piston [64] as shown in Fig. 25.

- Apply grease to the O-ring sliding surface of the Feed Piston [64] and the Nose [22]. However, be careful not to apply too much grease to the "A" surface shown in Fig. 25. Otherwise, the Feed Piston [64] operates improperly at the low pressure.
- Mount the Roll Pin D4 x 16 [25] facing its split toward the magazine as shown in Fig. 25. The amount of protrusion at both ends must be equal after reassembly (amount of protrusion: 1.5 mm).
- Check that the Retaining Ring for D28 Hole [68] is securely inserted into the groove of the Nose [22].

(4) Disassembly and reassembly of Nail Guide [89], Nail Stopper (A) [90], Nail Stopper (B) [92] and other parts
(See Fig. 26.)

Tools required: Flat-blade screwdriver

Hex. bar wrench 3 mm

(a) Disassembly

- Remove the Shaft Ring [85] from the Nail Guide Shaft [29] with a flat-blade screwdriver and remove the Nail Guide Shaft [29]. Then the Nail Guide [89] and other parts can be removed in an assembly.
- Remove the Nylock Hex. Socket Hd. Bolt M4 x 12 [97] with a hex. bar wrench 3 mm. Then the Nail Guide Cover [94], Stopper Spring (A) [91], Stopper Spring (B) [93] and Cover [95] can be removed.
- Remove the Shaft Ring [85] from the Guide Lock [87] with a flat-blade screwdriver and pull out the Guide Lock [87]. Then Nail Stopper (A) [90] and Nail Stopper (B) [92] can be removed.

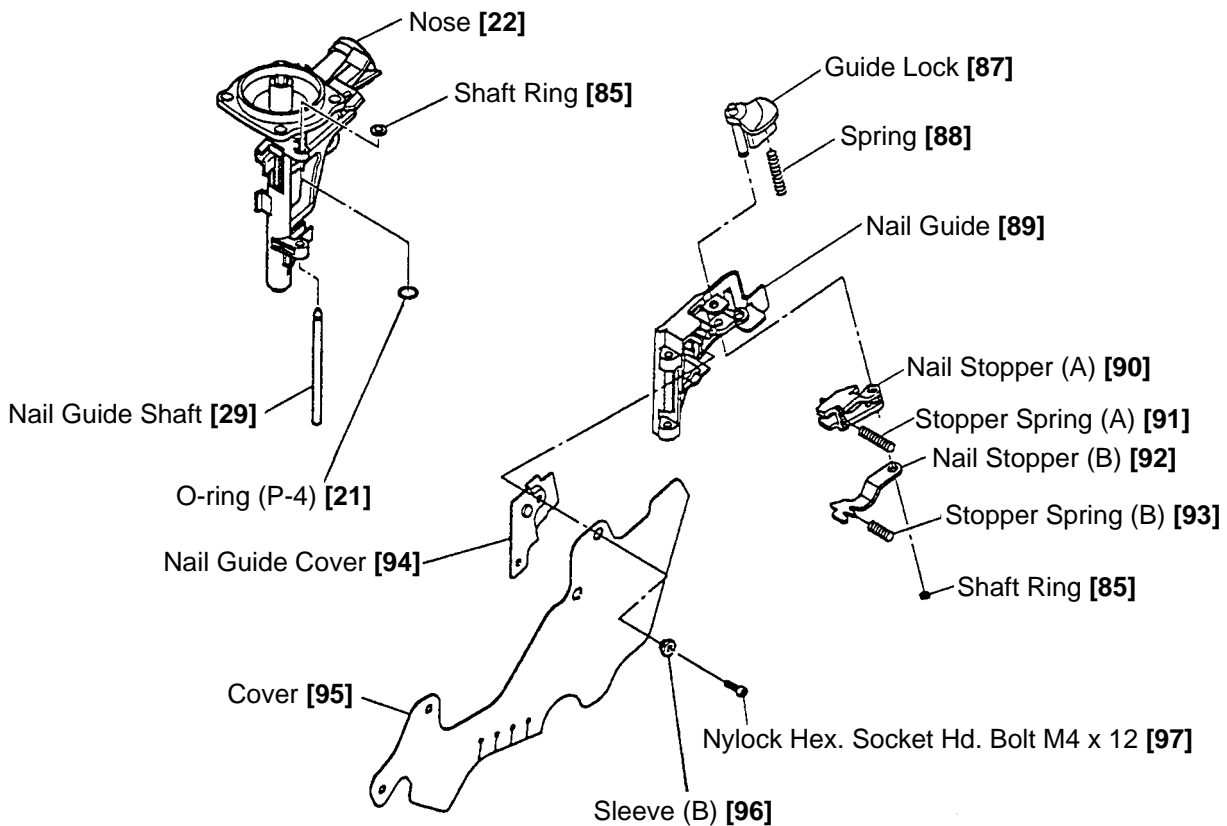


Fig. 26 Disassembly and reassembly of nail guide, nail stopper (A), nail stopper (B) and other parts

(b) Resassembly

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

- Before reassembly, remove dust from the groove of the Nail Guide [89].
- Fit the convex portions of Nail Stopper (A) [90] and Nail Stopper (B) [92] in the Stopper Spring (A) [91] and Stopper Spring (B) [93] securely. Be careful not to mistake Stopper Spring (A) [91] for Stopper Spring (B) [93].
- After reassembly, push Nail Stopper (A) [90] and Nail Stopper (B) [92] with fingers to check that they smoothly return to position.
- Mount the Nail Guide Shaft [29] facing its chamfered side upward.
- Bend the tip of the Cover [95] and engage it with the convex portion of Magazine (A) [75]. (See Fig. 19.)

10-6. Grip Rubber

The Model NV 75AG is equipped with the grip-rubber handle that is common to the Model NR 83AA2. However, the grip rubber is not supplied as a spare part because it is difficult to detach/attach the grip rubber. If replacement of the grip rubber is required, replace the Body [18] or attach the grip tape.

How to attach the grip tape and the fixing tape

- Grip tape (A): Code No. 881768
- Fixing tape: Code No. 880407

Grip tape (A) and the fixing tape are adhesive-backed. Start wrapping grip tape (A) near the roll pin hole of the body and wrap around the body completely. After wrapping, fix grip tape (A) with the fixing tape at both ends of wrapping (Fig. 27). Note that grip tape (A) and fixing tape cannot be removed once they are adhered.

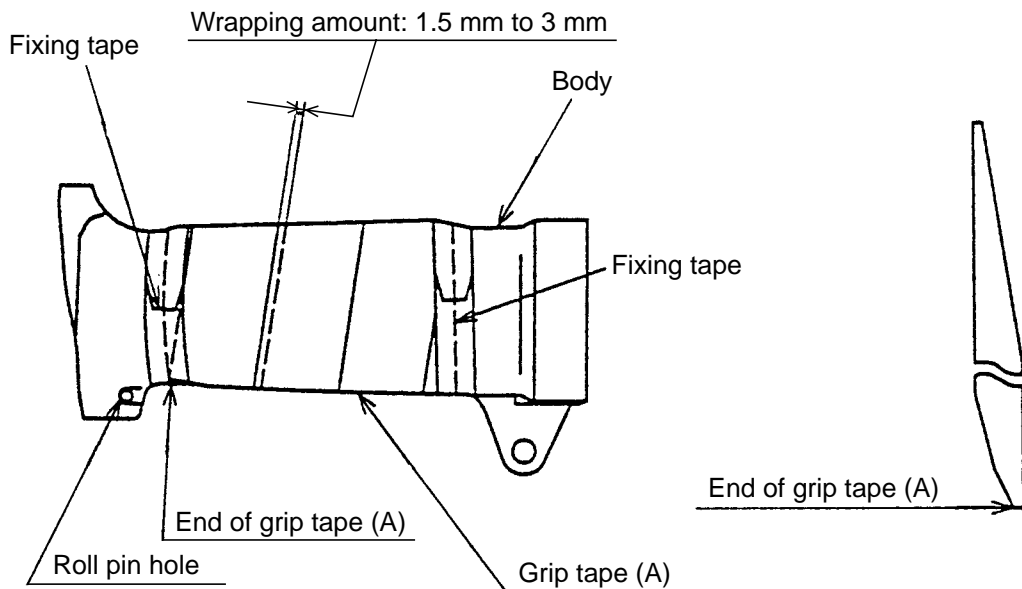


Fig. 27

11. INSPECTION AND CONFIRMATION AFTER REASSEMBLY

- Check that Plunger (A) [59] moves smoothly.
- Check that there is no air leakage from each part.
- While driving nails with an air pressure of 4.5 kgf/cm² (63 psi), check that there is no idle driving and bending of nails.

Note: Before conducting the driving test, turn Adjuster [44] to the deepest position.

- Recheck the tightening torque of each screw.
- Check that Pushing Lever (A) [31] slides smoothly.
- Check that the machine will not operate only by pulling the Trigger [39]. Also check that the machine will not operate only by depressing Pushing Lever (A) [31].
- Push Nail Stopper (A) [90] and Nail Stopper (B) [92] with fingers to check that they smoothly return to position.
- Check that the Feed Piston [64] operates properly at 5 kgf/cm² (70 psi. 4.9 bar) (Open the Nail Guide [89] and perform idle driving.).
- Check that the Trigger [39] moves smoothly.
- Check that the Adjuster [44] turns smoothly.

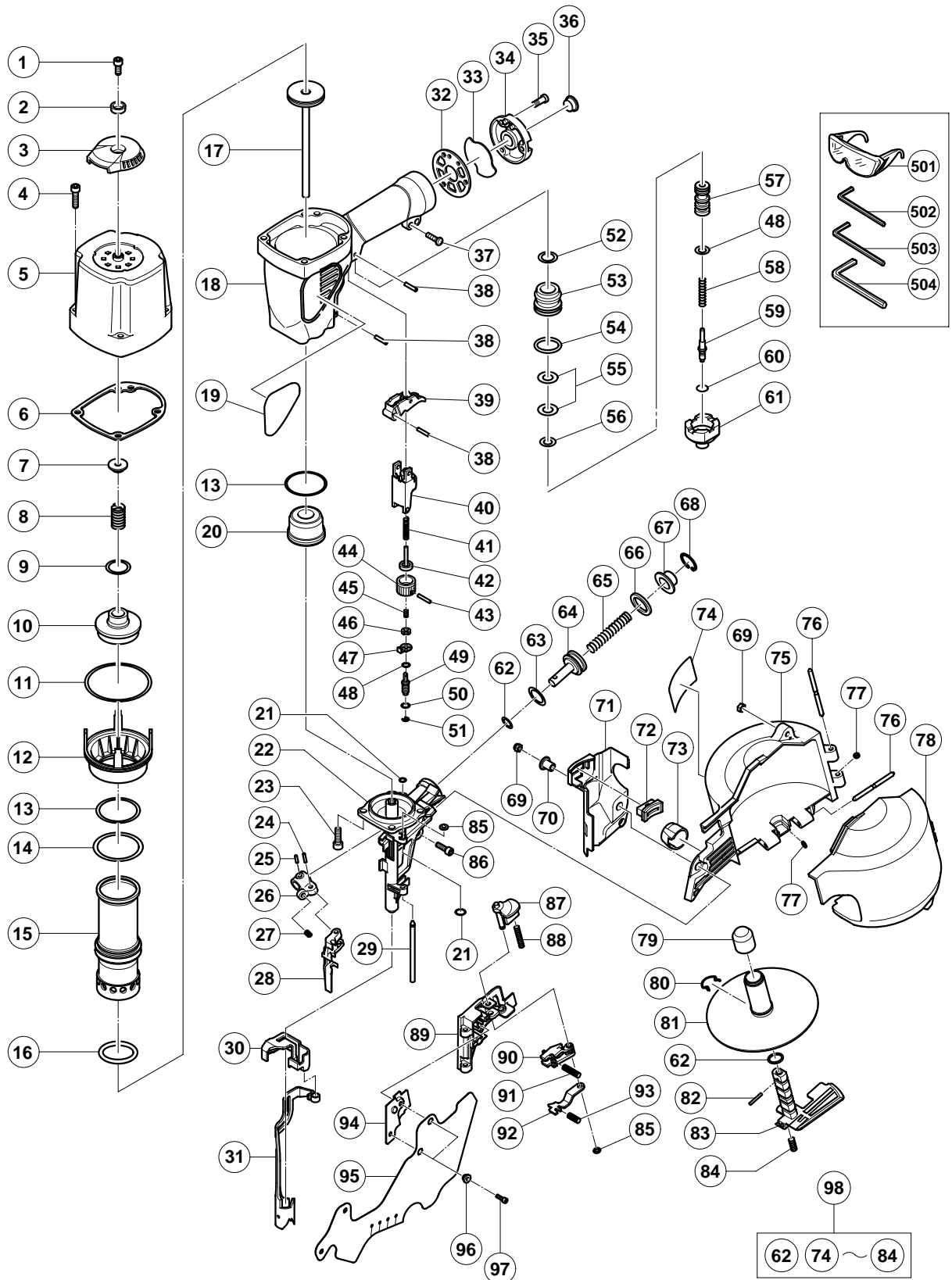
12. STANDARD REPAIR TIME (UNIT) SCHEDULES

MODEL	Variable		10	20	30	40	50	60 min.
	Fixed							
NV 75AG		Work Flow						
				Exhaust Cover Top Cover Packing (B) Head Bumper Head Valve Spring O-ring x 2 Head Valve (A)	Cylinder Plate Cylinder Piston Bumper O-ring x 3			
	General Assembly		Pushing Lever (A) Pushing Lever Cover (B) Adjuster Pushing Lever (B) Pushing Lever Spring Pushing Lever Guide O-ring x 2	Valve Bushing (A) Plunger (A) Plunger Spring Valve Piston (B) Valve Bushing (B) O-ring x 7 Piston (H) O-ring				Body
			Feed Piston O-ring x 2 Feed Spring Damper Feed Piston Cover	Feeder Arm (B) Feeder Feeder Spring	Nose Nail Guide Nail Stopper (A) Nail Stopper (B) Guide Lock Magazine Ass'y			
				Adjustment (Cylinder, Body, Valve)				

PNEUMATIC TOOL PARTS LIST

■ COIL NAILER
Model NV 75AG

2002 • 8 • 30
(E1)



PARTS

NV 75AG

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS
1	949-657	HEX. SOCKET HD. BOLT M6X12 (10 PCS.)	1	
2	880-515	PLATE	1	
3	880-514	TOP COVER	1	
4	949-822	HEX. SOCKET HD. BOLT M5X35 (10 PCS.)	4	
5	883-451	EXHAUST COVER	1	
6	883-452	GASKET (B)	1	
7	882-914	HEAD BUMPER	1	
8	882-913	HEAD VALVE SPRING	1	
9	876-796	O-RING (P-22)	1	
10	882-912	HEAD VALVE (A)	1	
11	878-863	O-RING (S-70)	1	
12	882-910	CYLINDER PLATE	1	
13	882-874	O-RING (S-46)	2	
14	877-368	O-RING (1AP-48)	1	
15	883-989	CYLINDER	1	
16	883-431	O-RING (I.D 37)	1	
17	883-980	PISTON (H)	1	
18	883-988	BODY	1	
19		NAME PLATE	1	
20	883-432	PISTON BUMPER	1	
21	874-436	O-RING (P-4)	2	
22	883-981	NOSE	1	
23	880-675	NYLOCK HIGH TENSION BOLT M6X20	4	
24	883-093	PLUNGER (B)	1	
25	949-497	ROLL PIN D4X16 (10 PCS.)	1	
26	883-144	FEEDER ARM (B)	1	
27	883-143	FEEDER SPRING	1	
28	883-092	FEEDER	1	
29	883-091	NAIL GUIDE SHAFT	1	
30	882-900	PUSHING LEVER COVER (B)	1	
31	883-852	PUSHING LEVER (A)	1	
32	883-678	GASKET (B)	1	
33	883-679	DUST FILTER	1	
34	881-949	CAP	1	
35	949-821	HEX. SOCKET HD. BOLT M5X16 (10 PCS.)	3	
36	872-035	DUST CAP	1	
37	880-881	MACHINE SCREW (W/WASHERS) M5X30 (BLACK)	1	
38	949-865	ROLL PIN D3X28 (10 PCS.)	3	
39	883-990	TRIGGER	1	
40	882-885	PUSHING LEVER GUIDE	1	
41	882-892	PUSHING LEVER SPRING	1	
42	882-891	PUSHING LEVER (C)	1	
43	880-093	ROLL PIN D2X16	1	
44	883-982	ADJUSTER	1	
45	882-890	ADJUSTER SPRING	1	
46	882-887	ADJUSTER PLATE (B)	1	
47	882-886	ADJUSTER PLATE (A)	1	
48	981-317	O-RING (S-4)	2	
49	882-888	PUSHING LEVER (B)	1	
50	872-822	O-RING (S-5)	1	
51	872-971	RETAINING RING (E-TYPE) FOR D3 SHAFT	1	

PARTS

NV 75AG

ITEM NO.	CODE NO.	DESCRIPTION	NO. USED	REMARKS
52	877-699	HEAD VALVE O-RING (I.D 16.8)	1	
53	878-881	VALVE BUSHING (B)	1	
54	878-885	O-RING (S-18)	1	
55	878-925	O-RING (I.D 8.8)	2	
56	878-887	O-RING (I.D 11)	1	
57	880-672	VALVE PISTON (B)	1	
58	878-884	PLUNGER SPRING	1	
59	880-673	PLUNGER (A)	1	
60	878-888	O-RING (I.D 1.8)	1	
61	880-671	VALVE BUSHING (A)	1	
62	872-645	O-RING (P-9)	2	
63	880-330	O-RING (P-21)	1	
64	883-300	FEED PISTON	1	
65	882-883	FEED SPRING	1	
66	877-711	BUMPER	1	
67	880-331	FEED PISTON COVER	1	
68	939-555	RETAINING RING FOR D28 HOLE (10 PCS.)	1	
69	877-371	NYLON NUT M5	2	
70	882-907	SLEEVE	1	
71	883-853	PUSHING LEVER COVER (A)	1	
72	882-901	PROTECTOR (B)	1	
73	883-106	NOSE CAP (A)	1	
74	878-184	WARNING LABEL	1	
75	883-984	MAGAZINE (A)	1	
76	883-111	PIN	2	
77	877-826	FEEDER SHAFT RING	2	
78	883-985	MAGAZINE COVER (A)	1	
79	883-987	HOLDER CAP (A)	1	
80	880-398	RATCHET SPRING	1	
81	880-503	NAIL HOLDER	1	
82	878-791	ROLL PIN D2.5X12	1	
83	883-986	HOLDER SHAFT (A)	1	
84	881-826	SPRING	1	
85	880-319	SHAFT RING	2	
86	949-757	HEX. SOCKET HD. BOLT M5X20 (10 PCS.)	1	
87	880-318	GUIDE LOCK	1	
88	880-446	SPRING	1	
89	883-392	NAIL GUIDE	1	
90	883-085	NAIL STOPPER (A)	1	
91	883-088	STOPPER SPRING (A)	1	
92	883-086	NAIL STOPPER (B)	1	
93	883-087	STOPPER SPRING (B)	1	
94	883-089	NAIL GUIDE COVER	1	
95	883-393	COVER	1	
96	882-881	SLEEVE (B)	2	
97	880-630	NYLOCK HEX. SOCKET HD. BOLT M4X12	2	
98	883-983	MAGAZINE ASS'Y	1	INCLUD.62,74-84

