

# TECHNICAL INFORMATION



PRODUCT

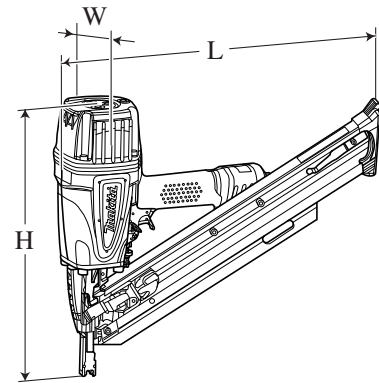
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**Models No.** ▶ AN923/ AN943

**Description** ▶ Pneumatic Framing Nailer

## CONCEPT AND MAIN APPLICATIONS

AN923/ AN943 has been developed as the cost-competitive successor models of AN922/ AN942, yet with the same high performance and high durability as the predecessor models.



Dimensions: mm (")		
Model No.	AN923	AN943
Length (L)	559 (22)	455 (17-7/8)
Width (W)	109 (4-1/4)	
Height (H)	347 (13-11/16)	365 (14-3/8)

### ► Specification

Model No.		AN923	AN943
Nail	Nail type	Full round-head	Clipped-head
	Nail gauge: mm (")	2.9 - 4.1 (0.113 - 0.162)	2.9 - 3.3 (0.113 - 0.131)
	Nail range: mm (")	50 - 90 (2 - 3-1/2)	
Magazine capacity		64 - 74 nails	60 - 84 nails
Operating air pressure: Mpa (kgf/cm <sup>2</sup> ) [psi]		0.44 - 0.83 (4.5 - 8.5) [65 - 120]	
Net weight: kg (lbs)		3.9 (8.7)	

### ► Standard equipment

Oil supply (Turbine oil No.90: 30ml) ..... 1 pc  
 Safety goggle ..... 1 pc

**Note:** The standard equipment for the tool shown above may differ by country.

► **Repair**

**CAUTION: Disconnect the air hose from the machine and remove remaining nails for safety before repair/ maintenance !**

**[1] NECESSARY REPAIRING TOOLS**

Item No.	Description	Purpose
1R267	Spring Pin Extractor M2.5	Disassembling Idler
1R268	Spring Pin Extractor M3	Disassembling Holder, Trigger valve case and Lever 8
1R234	Round Bar for Arbor 5-100	Disassembling Head Valve and Trigger Valve Guide, Holding Pusher lever

**[2] LUBRICATION**

Apply the given amount (0.1 up to 0.2g per each) of Isoflex NB52 to O rings and their contact area.

Apply 0.4cc of Turbine oil #90 or Makita Oil Supply (181434-7) to magazine.

See **Fig. 1** for the details.

When once removing Hex socket head bolts, apply the given amount (0.03 up to 0.05g per each) of Loctite 271 to the threads of their Hex socket head bolts before reassembling.

**Note: Do not use the different grease, oil and adhesive.**

**Fig. 1**

Item No.	Description	Use with	Amount	
①	Around a groove for O ring 87 on Cylinder separator	Isoflex NB52	0.1 up to 0.2g per each	
②	O Ring 87			
③	O Ring 60			
④	Inside of Cylinder /Around groove for O ring on Cylinder			
⑤	O Ring 60			
⑨	O Ring 40			
⑩	O Ring 56			
⑮	O Ring 49			0.2 up to 0.3g
⑳	O Ring 14			
㉔	O Ring 18			
㉖	O Ring 6			
㉘	O Ring 8			
㉚	O Ring 12			
㉜	O Ring 3 (2 pcs.)			
㉞	O Ring 60	Turbine oil #90 or Makita Oil Supply (181434-7)	0.4cc	
59	▲ part (in two grooves) of Magazine			
Not illustrated	Threads of Hex. socket head bolts	Loctite 271	0.03 up to 0.05g per each	

## ► Repair

### [3] DISASSEMBLING/ ASSEMBLING OF HEAD VALVE

#### [3] -1. Disassembling

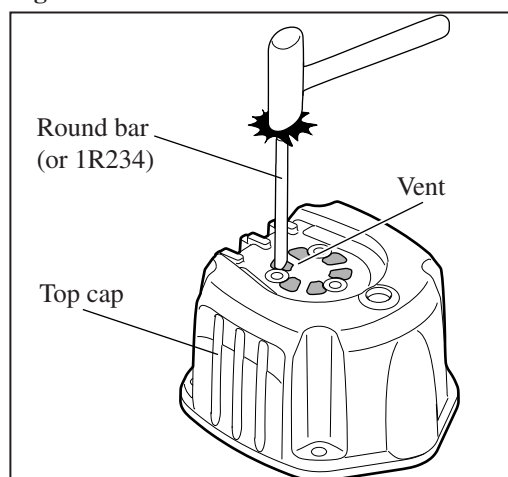
- (1) Remove Exhaust air cover and Top cap.
- (2) Insert a Round bar (or 1R234) from a vent of Top cap as illustrated in **Fig. 2** until the one end reaches Cushion R. Remove Cushion R and Head Valve by striking the Round bar (or 1R234) using plastic hammer.

**Note: Both ends of the round bar should be flat.**

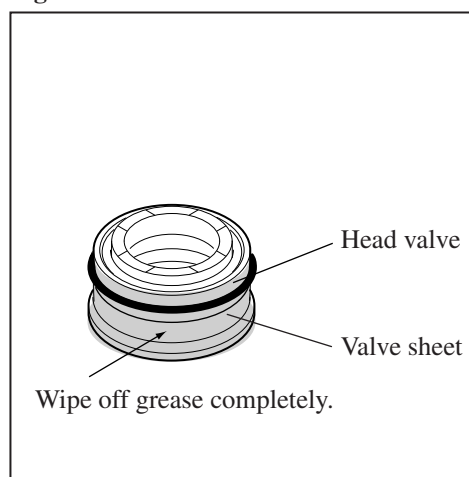
- (3) As illustrated in **Fig. 3**, Valve sheet is being fit into Head valve.

When removing Valve sheet from Head valve, wipe off grease on their surface in advance and then twist the Valve sheet out of the Head valve by hands.

**Fig. 2**



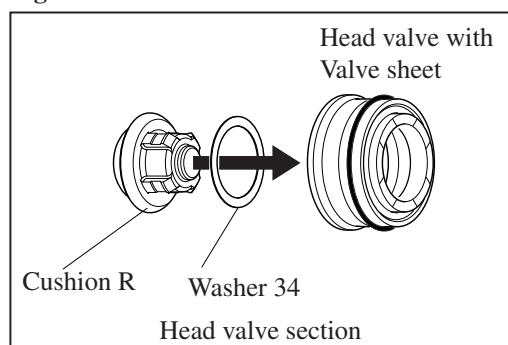
**Fig. 3**



#### [3] -2. Assembling

- (1) Assemble Head valve to Valve sheet.
- (2) Set Washer 34 to Cushion R and assemble them to Head valve with Valve sheet as illustrated in **Fig. 4**.

**Fig. 4**

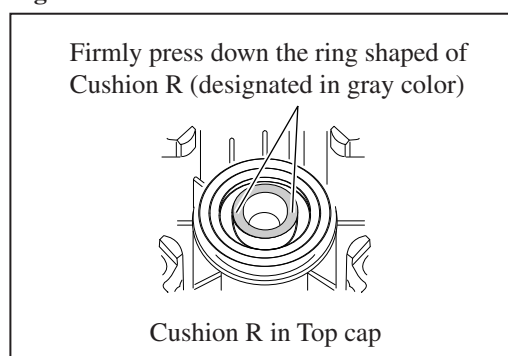


- (3) Set Compression spring 50 to Top cap and assemble them to the above Head valve section.
- (4) As illustrated in **Fig. 5**, firmly press down the ring shaped of Cushion R by hands and install the Cushion R into the hook of Top cap.

**Note: 1) Be sure to install Cushion R into Top cap completely by hands. If it is incompletely, it will fall down when turning them over from the condition of Fig. 5.**

**2) Be sure to apply Isoflex NB52 thoroughly around the movable contacts of Head valve section and O rings.**

**Fig. 5**



## ► Repair

### [4] DISASSEMBLING/ ASSEMBLING OF DRIVER COMPLETE

#### [4] -1. Disassembling

- (1) Remove Cylinder, Cylinder separator and Driver complete by striking the edge of Housing complete using plastic hammer.
- (2) Remove Cushion F and Cushion guide in the same manner.

#### [4] -2. Assembling

- (1) Set Cushion F and Cushion guide to Housing complete.
- (2) Set Separator and Driver complete to Cylinder complete and assemble them to Housing complete as illustrated in **Fig. 6**.

**Note: Be sure to apply Isoflex NB52 thoroughly to inside of Cylinder and surfaces of O rings.**

- (3) Install Driver complete into the Cylinder section so that the Driver end can pass through Driver guide as illustrated in **Fig. 6**.

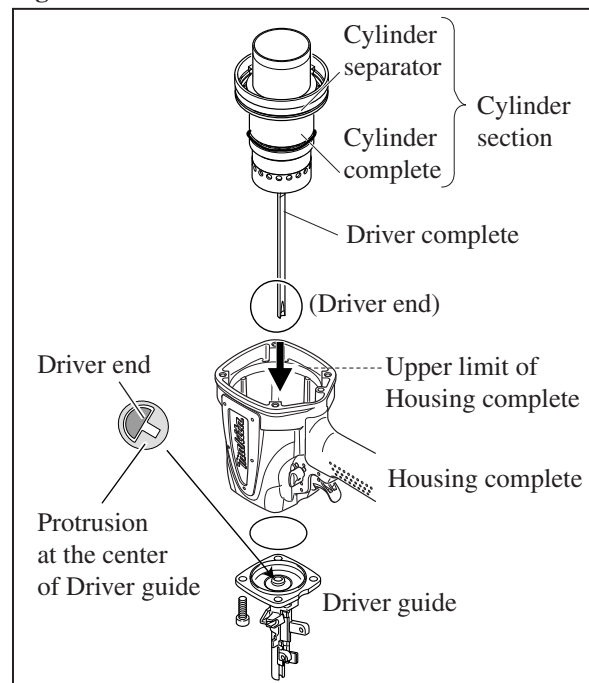
**Note: Be sure to check that the Driver complete can slide smoothly inside by pushing it with thin long bar.**

- (4) Install Cylinder separator deeper than the upper limit of Housing complete.

**Note: The fitting of Cylinder separator and Housing complete is tight.**

**Use laser gloves for the hands protection against tight fitting of Cylinder separator and Housing complete.**

**Fig. 6**



### [5] DISASSEMBLING/ ASSEMBLING OF MAGAZINE COMPLETE

#### [5] -1. Disassembling

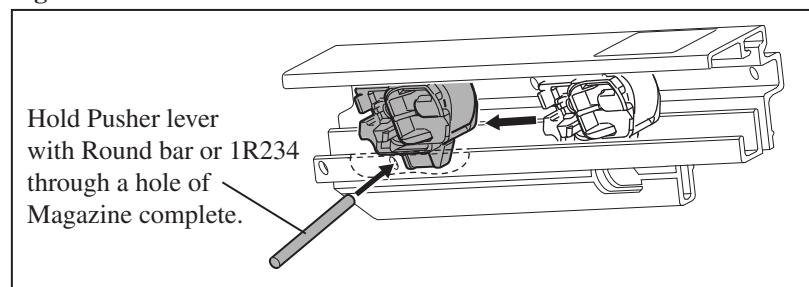
- (1) While holding M6 Hex nut (two pieces.) for securing Magazine complete to Joint, remove M6x12 Hex. socket head bolt (two pieces.) on Magazine complete with M10 Wrench .
- (2) Remove Cover.
- (3) Remove M6x12 Hex socket head bolt for Holder.
- (4) Remove Magazine complete from Driver guide.

**Note: Be sure to hold Arm carefully by hand because Contact arm jumps out when removing Magazine complete.**

#### [5] -2. Assembling

- (1) Set Contact arm to Driver guide and assemble them to Magazine complete.
- (2) Put M6x12 Hex head bolt and Holder on Magazine complete and pretighten them.
- (3) Pull Pusher lever and insert Round bar or 1R234 as illustrated in **Fig. 7** so that the Pusher lever can be held. This allows easy assembling work of Magazine section.
- (4) Mount Holder and Shoulder washer 6 (which is reversible when assembled) in place. Assemble Cover with Hex. socket head bolts in the appropriate torque. Refer to page 6.

**Fig. 7**



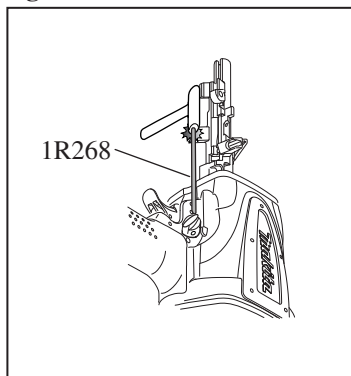
► **Repair**

**[6] DISASSEMBLING/ ASSEMBLING OF TRIGGER SECTION**

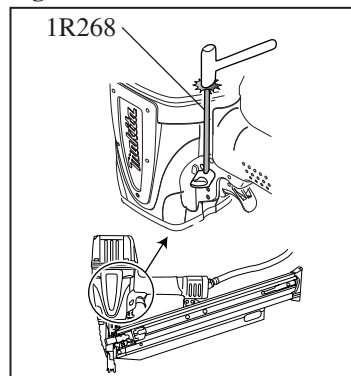
[6] -1. Disassembling

- (1) Remove Spring pin 3-10 fitted in Lever 8 by setting the end of the Spring pin to 1R268 and striking it using plastic hammer. See Fig. 8.  
**Note: Spring pin 3-10 can be removed in the direction shown in Fig. 9 when Magazine complete are assembled to Housing complete.**
- (2) Lever 8 and Lock pin 8 can be removed. Also, Trigger can be removed.  
**Note: There is a Steel ball 4 between Lever 8 and Housing complete.**  
**When disassembling Lock pin 8, be careful not to drop out the Steel ball 4.**
- (3) Remove Spring pin 3-28 (four pieces) in Housing complete by setting the end of the Spring pin to 1R268 and striking it using plastic hammer.  
 Stopper, Trigger valve case and Pilot valve etc. can be removed.
- (4) Trigger valve guide is removed by pushing it with 1R234 or Round bar from Top cap side. See Fig. 10.

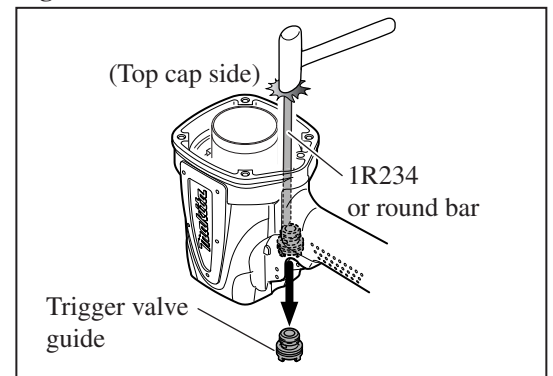
**Fig. 8**



**Fig. 9**



**Fig. 10**



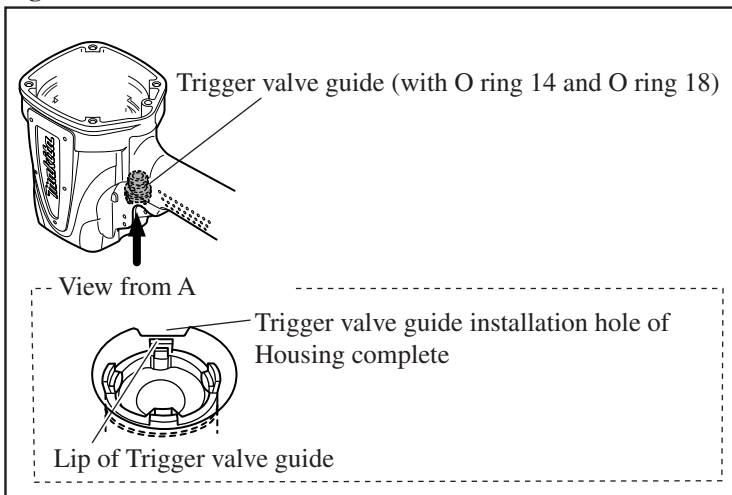
[6] -2. Assembling

**Note: Apply the given amount of Isoflex NB52 to O rings and put the O rings on Trigger valve, Pilot valve and Trigger valve stem in advance.**

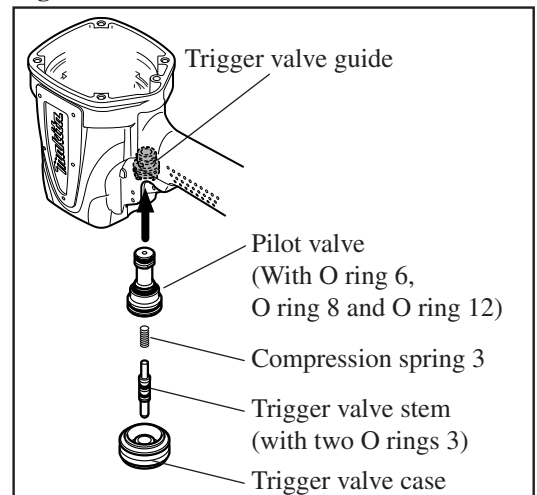
- (1) Push Trigger valve guide into Housing complete as illustrated in Fig. 11 until the lip of Trigger valve guide is aligned with the lip of Trigger valve guide installation hole of Housing complete.
- (2) As illustrated in Fig.12, install Pilot valve, Compression spring 3, Trigger valve stem and Trigger valve case into Trigger valve guide. Secure the Trigger valve case by striking Spring pin 3-28 (two pieces) into Housing complete.
- (3) Assemble Stopper with Holder and assemble them to Housing complete. Assemble Trigger and Lever 8 to Housing complete.

**Note: When assembling Lever 8 to Housing complete with Spring pin 3-10, the Spring pin can be easily inserted with plier.**

**Fig. 11**



**Fig. 12**

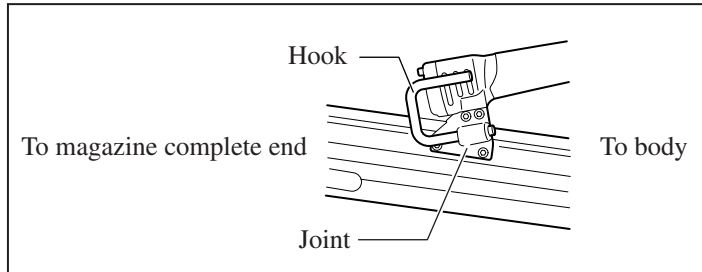


## ► Repair

### [7] ASSEMBLING OF HOOK AND JOINT

Joint with Hook can be assembled to Magazine complete and Housing complete as illustrated in **Fig. 13** as long as the Hook assembles beyond the reach of operator's hand and the Joint assembles within the reach of the Magazine complete.

**Fig. 13**



### [8] RECOMMENDED FASTEN TORQUE FOR HEX SOCKET HEAD BOLT

Description	Fastening item	Q'ty	Fastening torque (N•m)
Hex socket head bolt M8x25	Driver guide	4	16.6 up to 29.4
Hex socket head bolt M6x25	Top cap	4	8.8 up to 12.7
Hex socket head bolt M6x20	Cover + Driver guide	1	8.8 up to 12.7
Hex socket head bolt M6x12	Cover + Driver guide	1	4.9 up to 7.4
	Joint + Magazine complete	2	8.8 up to 12.7
	Holder + Driver guide	1	8.8 up to 12.7
Hex socket head bolt M5x30	Inlet cap	3	4.9 up to 7.4
Hex socket head bolt M5x20	Joint + Housing complete	2	4.9 up to 7.4
Hex socket head bolt M5x14	Nail stopper	1	2.9 up to 3.9
Hex socket head bolt M5x10	Exhaust cover	3	1.8 up to 3.5