

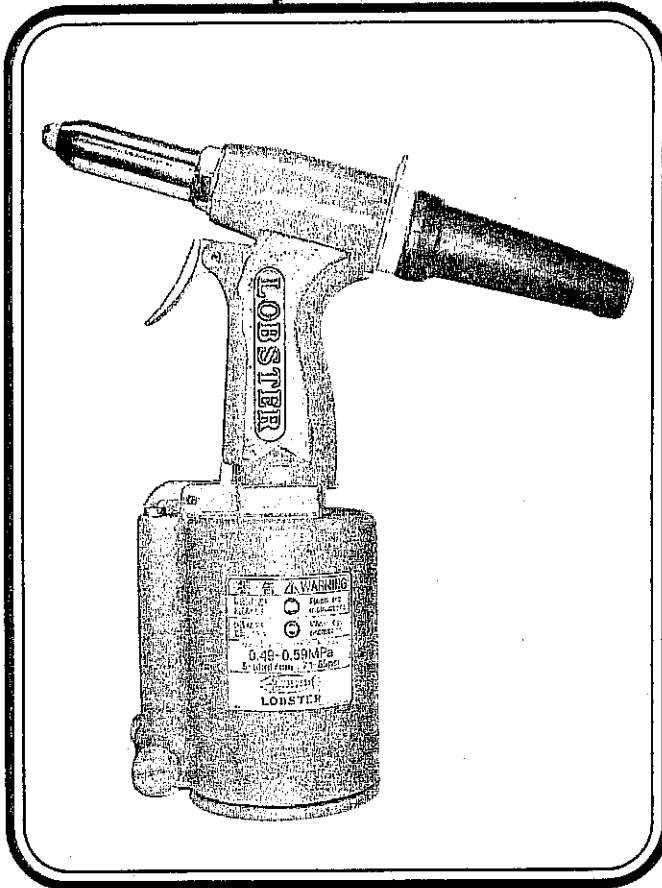


AIR RIVETER CE

INSTRUCTION MANUAL

日本語/ENGLISH

AR-041M



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Professional model of air riveter to install blind rivets.

- Thank you very much for purchasing "LOBSTER" air riveter. To ensure correct operation, please read this instruction manual carefully, and keep it in a safe place for later reference.
- This instruction manual contains information for model AR-041M.
Be sure to refer to information that is applicable to the model you are using.

MANUFACTURER

LOBTEX CO., LTD.

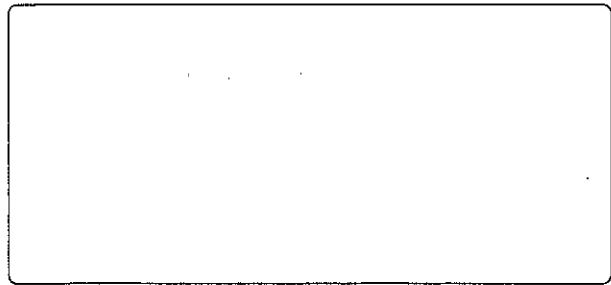
International Marketing Headquarters

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Telephone: +81(72)981-7466 Telefacs: +81(72)981-9420

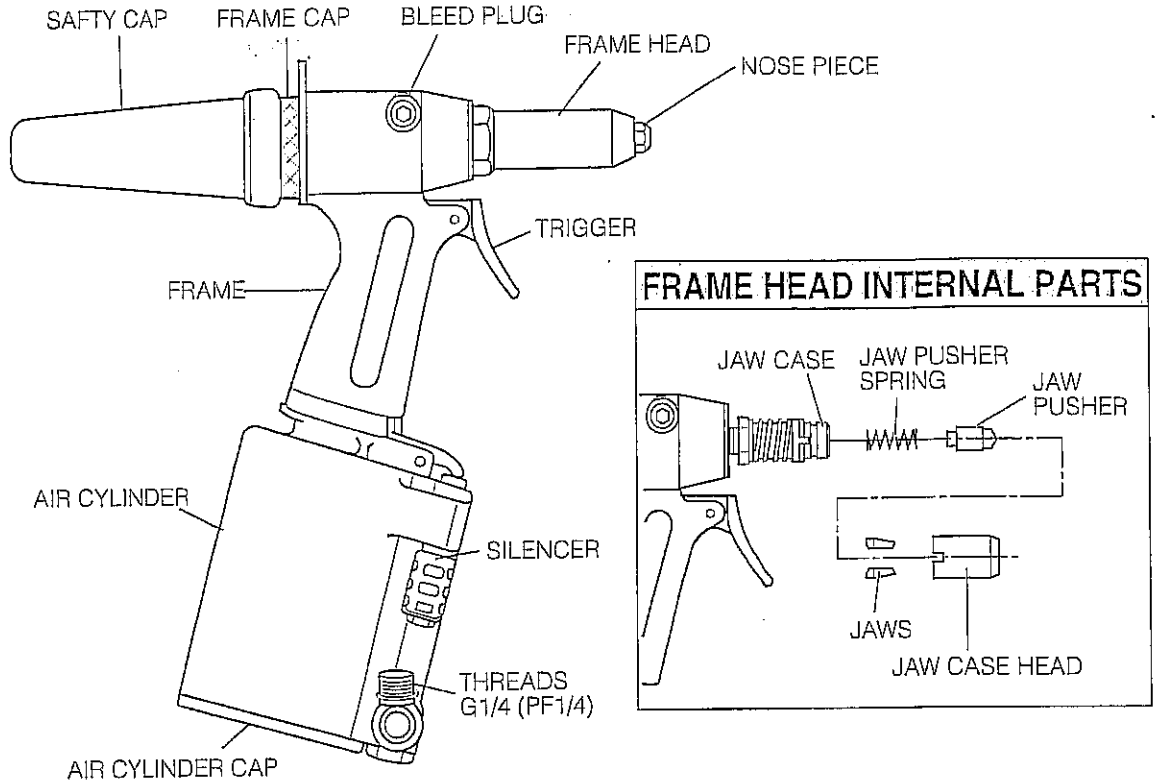
e-mail: lobtex@riveter.com

URL <http://www.riveter.com>



NOMENCLATURE

英語/ENGLISH



TECHNICAL DATA

Model No.	AR-041M	
Weight	kg (lbs)	1.0 (2.2)
Operating air pressure	MPa (kgf/cm ²) [psi]	0.49-0.59 (5-6) [71-85]
Dimensions (Length x Height x Width)	mm	225 x 271 x 80
Air consumption per rivet	liter(c.ft.)	1.5 (0.053)
Tool stroke	mm (inch)	16 (41/64)
Traction power at 0.59 MPa	kN (kgf)	8 (820)
Applicable rivets (rivet diameters)	φ mm φ inch	2.4, 3.2, 4.0, 4.8 3/32, 1/8, 5/32, 3/16

- Product specifications and design are subject to change for improvement without notice.
- Weight and dimensions given are standard values. Actual products may differ slightly from the values given.

■ Air consumption calculation method

Use the following calculation method to obtain the required air consumption, and select the compressor accordingly.

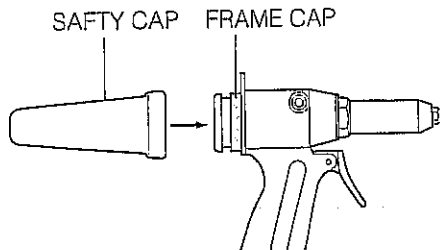
$$\text{Required air consumption} = \text{Air consumption per rivet} \times \text{No. of rivets per minute}$$

Make sure that this corresponds to the compressor discharge capacity (per minute).

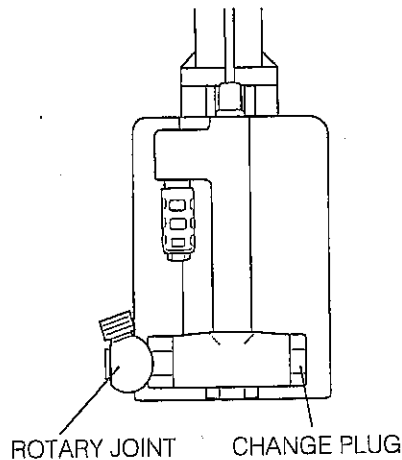
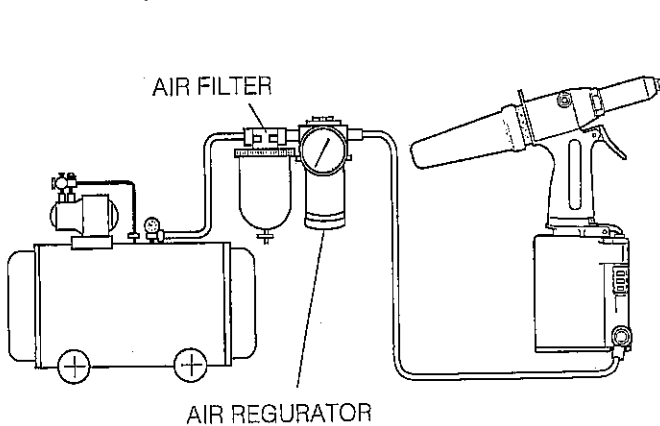
PREPARATION BEFORE USE

1 Install the safety cap to the tool.

⚠ WARNING 2 (P.1)



2 Set up the compressor, and be sure to install an air filter and air regulator between the compressor and the tool.



Either the left or right connector can be used. Be sure to insert the change plug into the connector which is not being used.

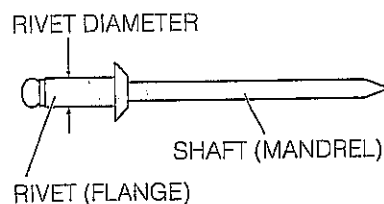
3 Use the air regulator to adjust the operating air pressure to 0.49 ~ 0.59 MPa (5 ~ 6 kgf/cm², 71 ~ 85 psi). **⚠ WARNING 1 (P.1)**

ATTENTION:

If the air pressure is too high, damage to parts may occur. If the pressure is too low, some size of the rivet may not be correctly installed (cut).

4 Replace the nosepiece to conform to the size of the rivet being used. The rivet size indicates the diameter of the rivet.

- Different -sized rivets can be used just by replacing the nosepiece.
- At the time of purchase, the tools are fitted with a 3.2 mm (1/8") nosepiece.
- If you wish to use other sizes, use a spanner to remove and replace the nosepiece.



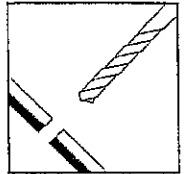
OPERATING THE AIR RIVETER

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1 Select a rivet of a size which is suitable for the workpiece to be riveted.

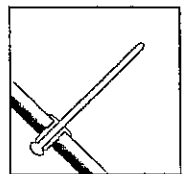
2 Replace the nosepiece with one which matches the size of the rivet to be used.
(Refer to item **4** in "Preparation Before Use" on page 4.)

3 Drill a hole of appropriate size (0.1 to 0.2 mm larger than the diameter of the rivet) into the workpiece.

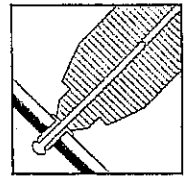


4 Insert the rivet into the hole.

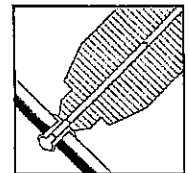
ATTENTION:
Some rivets have shafts (mandrels) with sharp ends.
Be careful not to injure your fingers on these ends.



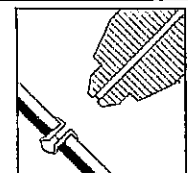
5 Place the nosepiece of the air riveter over the shaft (mandrel) of the rivet.



6 Gently press the nosepiece of the air riveter against the workpiece. After checking that there is no gap between the nosepiece and the workpiece, pull the trigger.



7 The rivet will be installed into the workpiece.



8 Release the trigger, and then tilt the air riveter to remove the cut mandrel from the nosepiece or safety cap.

NOTE: Make sure that the cut mandrel has been completely removed before proceeding to the next riveting.

<Operating temperature>

The ambient temperature for working is within the range of 4°C ~ 35°C (40°F~95°F).

MAINTENANCE

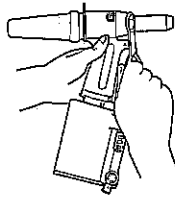
After long periods of use, debris from rivet shafts (mandrel) and other foreign materials tend to build up in various parts of the tool, and the hydraulic oil level also drops, both of which can lead to operating problems. The tool should be cleaned periodically.

英語 / ENGLISH

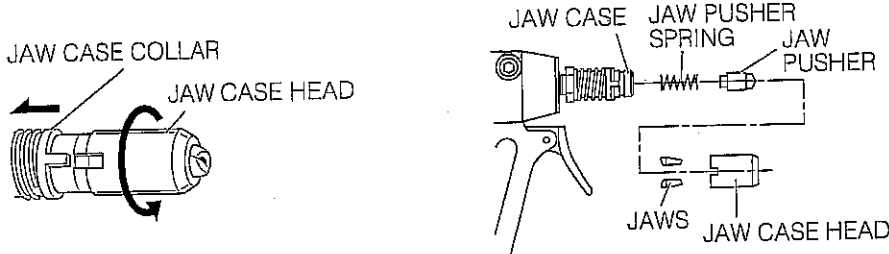
1 Jaw maintenance **Also refer to this section when replacing parts.**

- If debris builds up, the jaws will not move smoothly and normal operation will not be possible.
- The jaws should be cleaned on average once every 3,000 riveting operations.

DISASSEMBLY

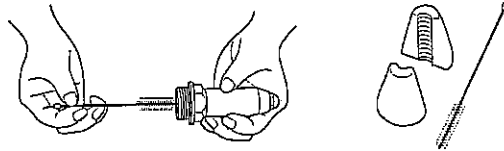


- 1 Turn off the air supply.
⚠ CAUTION 1 (P.2)
- 2 Use a spanner or similar tool to remove the frame head.
⚠ CAUTION 2 (P.2)
- 3 Pull backwards the jaw case collar to loosen and remove the jaw case head, and then remove the jaw pusher spring, jaw pusher and jaws.



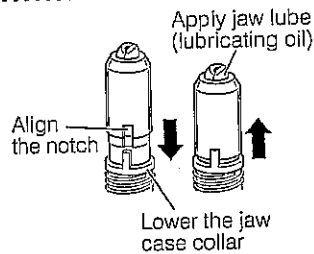
CLEANING

- 4 Use a brush or similar to clean all parts.



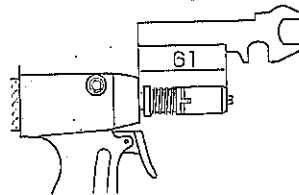
RE-ASSEMBLY

- 5 Reassembly by following the disassembly procedure in reverse. Tighten the jaw case head fully, and then turn it back so that the notch is aligned with the tab on the jaw case collar, and move the collar in place.
☐ Apply "LOBSTER" brand jaw lube (sold separately) to the backs of the jaws.



- 6 In the case of the AR-041M, the jaw case and jaw case lock nut do not need to be removed during maintenance. If they are removed by mistake, replace them so that the distance matches those shown in the illustration at right.

<Jaw case setting position>



- 7 Use a spanner A to install the Frame head securely.

NOTE:

- When re-assembling, be sure to apply a lubricant such as grease to all moving and sliding parts.
- Be careful not to leave out any parts, and tighten all connections securely.
- The jaws are consumable parts, and they should be replaced periodically.

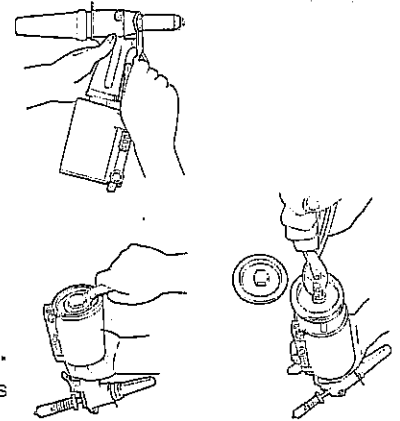
2 Cleaning and filling the air cylinder

⊙ If foreign materials build up in the air cylinder, it will not operate smoothly and service life will be reduced.

英語/ENGLISH

DISASSEMBLY

- 1 Turn off the air supply.
⚠ CAUTION 1 (P.2)
- 2 Use a spanner A to remove the frame head.
⚠ WARNING 3 (P.1)
Be sure to remove the frame head when adding hydraulic oil through the air cylinder.
- 3 Use a spanner A to remove the air cylinder cap and pull-out the air piston straightly using suitable pliers.
☐ Hold the frame vertical, as the hydraulic oil will spill out if it is tipped sideways.

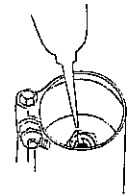


CLEANING

- 4 Use a rag, brush or similar to clean all parts.

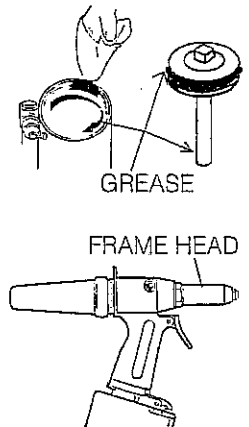
FILLING OIL

- 5 Fill with hydraulic oil until just before the oil starts running out from the filling hole.



RE-ASSEMBLY

- 6 Apply grease to the inside of the air cylinder and to the O-ring and shaft of the piston and then reassemble by following the disassembly procedure in reverse.
- 7 After all parts have been reassembled, install frame head securely using a spanner A.



NOTE:

- Be careful not to allow any debris or other foreign materials get into the hydraulic oil or the air cylinder during disassembly and re-assembly.

STORAGE

- Store in a place which is well-ventilated and free from excessive dust and humidity, and where there is no danger that the tool will fall.
- If not using the tool for an extended period of time, carry out a maintenance inspection before storing it away. (Refer to "Maintenance" on pages 6 ~ 7.)
- To increase the working life of the tool, it is recommended that you give it periodic overhauls. Contact the place of purchase or your nearest "LOBSTER" dealer for any overhauls and repair work required. (A charge will be made for this service.)

TROUBLESHOOTING

If a problem occurs, check the following.

If the problem persists after checking the items in the table below, contact your nearest "LOBSTER" dealer or direct to us.

In making any enquires about this product or requests for repair work, first check the troubleshooting items below, and then make a note of the model number, the usage conditions and the trouble symptoms in as much detail as possible. If you can provide this kind of information, it will contribute to reducing the amount of time required for delivery or repairs to be completed.

英語 / ENGLISH

Symptom	Cause	Countermeasure
The rivet does not go in, or the shaft does not come out after riveting.	1 Incorrect combination of replacement parts being used.	Replace with the correct part which matches the rivet size. (Refer to page 4.)
	2 Nosepiece or frame head is loose.	Use a spanner A to tighten securely.
	3 Jaw case is incorrectly assembled.	Check the jaw case setting position. (Refer to page 6.)
	4 Contact surfaces between the jaws and the jaw case head are not smooth.	Clean the jaws and inside the jaw case head, and apply "LOBSTER" brand jaw lube (or spray-type lubricating oil or the accessory hydraulic oil) to the backs of the jaws. (Refer to page 6.)
	5 The inside of the frame head is dirty so that the jaws cannot open properly.	Clean the inside of the frame head and the jaws. (Refer to page 6.)
	6 The tail end of the nosepiece is damaged so that the jaws cannot open properly.	Replace the nosepiece.
	7 The inside of the air cylinder is dirty so that the air piston cannot return to its proper position.	Clean inside the air cylinder, and apply grease inside the air cylinder and to the O-ring. (Refer to page 7.)
Number of trigger operations increases before riveting is completed.	1 The rivet length is not correct for the workpiece thickness.	Use rivets which match the workpiece thickness.
	2 Operating air pressure is incorrect.	Check the air pressure. (Refer to page 4.)
	3 Jaw case is incorrectly assembled.	Check the jaw case setting position. (Refer to page 6.)
	4 Jaws are worn.	Replace the jaws. (Refer to page 6.)
	5 Insufficient hydraulic oil, causing a shorter stroke.	Add hydraulic oil. (Refer to page 7.)
Piston does not operate, or returns very slowly, or operation is not smooth.	1 Air outlet hole muffler is blocked.	Replace the muffler.
	2 The inside of the air cylinder is dirty so that the air piston cannot return to its proper position.	Clean inside the air cylinder, and apply grease inside the air cylinder and to the O-ring. (Refer to page 7.)

HYDRAULIC OIL REQUIREMENTS

Use only clean hydraulic oil, as the viscosity of the oil used will affect tool performance.

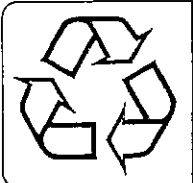
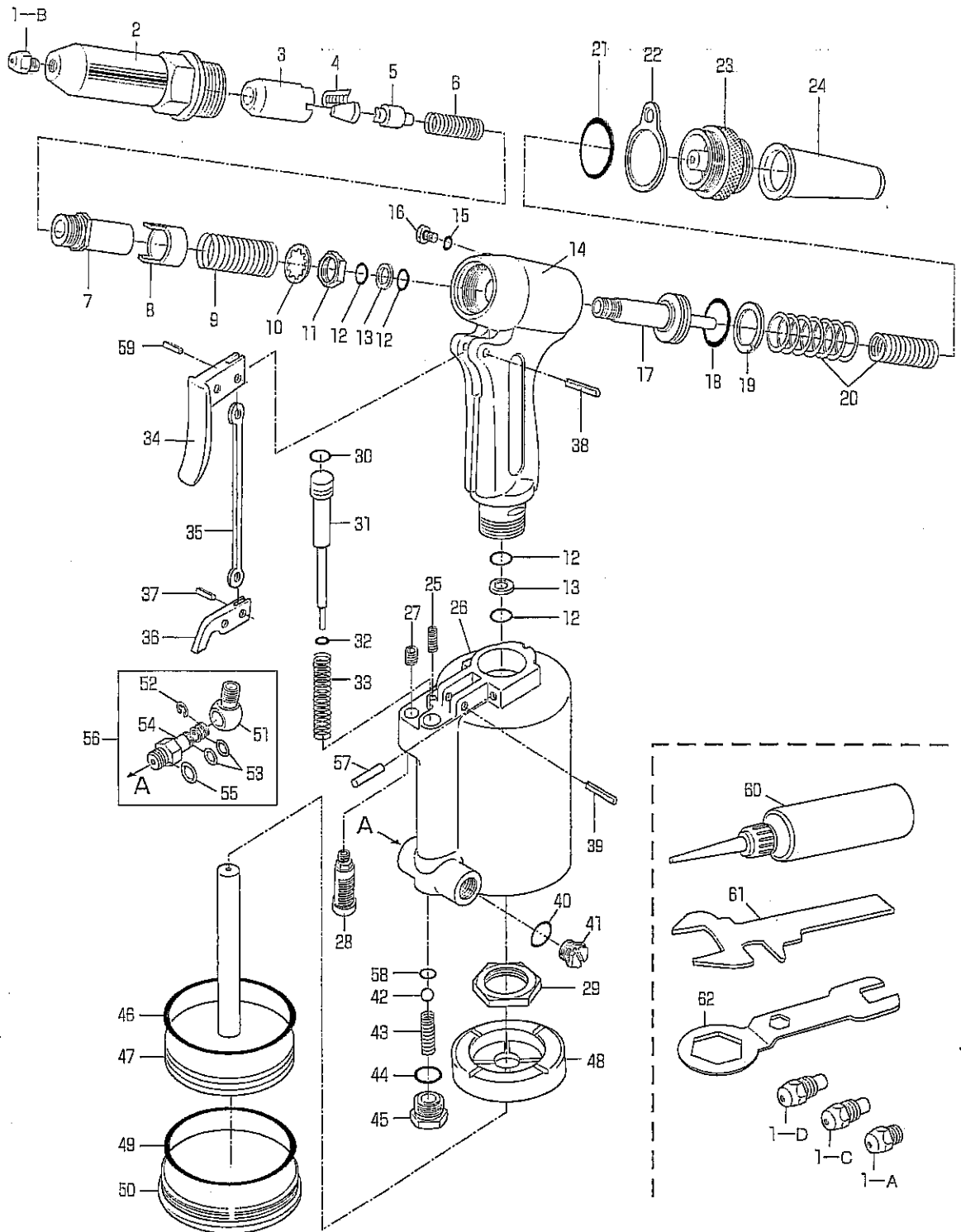
"LOBSTER" brand Hydraulic Oil is supplied in a plastic filler bottle with the tool, and can also be obtained from your "Lobster" dealer or agent in your town. If this is not possible, a good quality mineral oil with the following properties should also be used.

Viscosity ISO : VG46
 Viscosity Index : 113
 Viscosity at 40°C : 46 c.s.t.
 Viscosity at 100°C : 7.06 c.s.t.
 Flash Point : 228

RECOMMENDED OILS are:
 Shell Tellus No. 46
 Esso Teresso No. 46
 Mobil D.T.E. 25 Oil (Medium)

AR-041M PARTS TABLE

英語 / ENGLISH

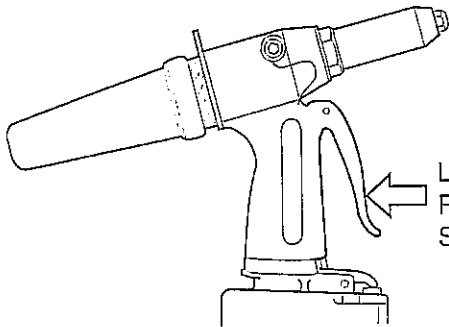


Index No. 14 Frame, 26 Air Cylinder, 47 Air Piston and 50 Air Cylinder Cap of this air riveter are made of magnesium alloy. Magnesium alloy is excellent at recycling efficiency and can be used as the post-consumer material. We appreciate your cooperation on recycling of limited resources.

Index No.	Part name	Code No.	Index No.	Part name	Code No.
1-A	Nosepiece 'S' 2.4 (3/32)	10027	31	Valve pusher	12121
1-B	Nosepiece 'S' 3.2 (1/8)	10028	32	O-ring P-4	10454
1-C	Nosepiece 'S' 4.0 (5/32)	10029	33	Valve pusher spring	12132
1-D	Nosepiece 'S' 4.8 (3/16)	10030	34	Trigger	10135
2	Frame head	29332	35	Trigger connector rod	10120
③	Jaw case head	10280	36	Trigger lever	10119
④	Ultra Jaws (pair) 'M'	10281	37	Spring pin 3 x 7.2	23595
⑤	Jaw pusher	10132	38	Spring pin 3 x 22	10144
⑥	Jaw pusher spring	10133	39	Spring pin 3 x 18	10145
⑦	Jaw case	10279	40	O-ring S-10	10151
8	Jaw case collar	10286	41	Change plug (with O-ring)	46305
9	Collar spring	10287	42	Valve (Steel ball 8.0)	10247
10	Lock washer	10148	43	Valve spring	10444
11	Jaw case lock nut	10113	44	O-ring S-14	10152
12	O-ring P-12	10128	45	End plug	14073
13	B-ring P-12	10129	46	O-ring P-60	10134
14	Frame unit (includes 12 & 13)	45687	47	Air piston	46319
15	Pack seal 6 mm	10355	48	Bumper (Rubber cushion)	29736
16	Bleed plug	29337	49	O-ring G-70	10080
17	Oil piston	10109	50	Air cylinder cap	45692
18	O-ring P-22A	10130	51	Rotary joint	42501
19	B-ring P-22A	10131	52	Retaining ring E-7	10285
20	Return spring	14200	53	O-ring P-7	10149
21	O-ring S-26	10153	54	Nipple	42479
22	Hanger clip	10106	55	O-ring S-10	10151
23	Frame cap	45688	56	Rotary joint unit	42502
24	Safety cap	42505	57	Slotted pin 4 x 31	14154
25	Seal bolt	45693	58	O-ring P-5	12120
26*	Air cylinder	45689	59	Spring pin 3 x 6	10147
27	Plug	14359	60	Hydraulic oil (In a bottle)	10012
28	Silencer	14355	61	Spanner 'B'	29642
29	Frame lock nut	10112	62	Spanner 'A'	10141
30	O-ring P-7	10149			

*1 Part no.26 includes part no. 27.

○Parts with circled Index No. are consumable parts. They should be replaced periodically.



Long Trigger is available as the optional part. Please indicate "Code No. 8164 Long Trigger Set" when ordering.

ORDERING PARTS

Indicate the tool model, part name, code no. and quantity as shown below when ordering.

Model	Part Name	Code No.	Qty.
AR-041M	Ultra Jaws (pair) 'M'	10281	1
AR-041M	Frame head	29332	1

* When parts are modified for improvement, the older parts are kept in stock for a period of five years.