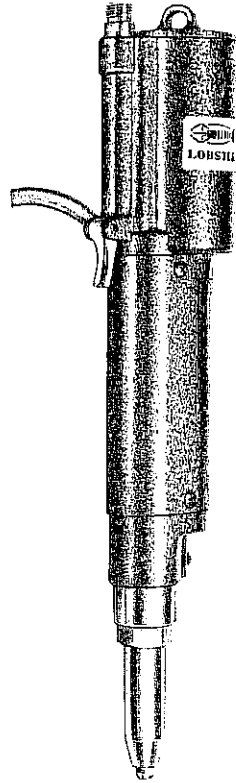




INSTRUCTION MANUAL



ARV-015S & ARV-015M

Lobster® Tools

INTRODUCTION

This manual describes the detailed specifications and maintenance instructions on models ARV-015S & ARV-015M.

ARV-015 series of power tools offer the proven design for the most demanding positive riveting requirements on production lines. In addition, it has built-in vacuum system for automatic mandrel collection.

Before using this riveter, it is recommended that you read this manual carefully to ensure effective and satisfactory operation of your riveting gun.

If you need further assistance, contact your Lobster dealer in your town or write us directly.

SAFETY INSTRUCTIONS

The ARV-015 series of power riveter shall only be used to install standard blind rivet sizes mentioned in the specification column.

It shall at all times be operated in accordance with recognized safe workshop practice. The tool must be maintained in a safe working conditions at all times.

Do not dismantle this tool without prior reference to the dismantling instructions contained in this manual. The precautions to be observed when using this tool must be explained by the customer to all operators. Specific points to be observed are:

1. Do not operate this tool facing towards anyone.
2. Keep the air pressure applied to this tool within 71-85 P.S.I. (5-6 Kg.Cm²).
3. The tool shall not be operated without Shoot-Hose (Part #64).
4. No equipment shall be used with this tool other than recommended and supplied by Lobster.
5. Always disconnect the air supply from the tool before attempting to adjust, change Nose Piece or dismantle tool components.
6. Do not operate the tool without Frame Head (Part #02).
7. Any modification to tools and equipment undertaken by the customer shall be at his entire responsibility. However, Lobster will be pleased to advise upon any proposed modifications.
8. Excessive priming of hydraulic oil in tool should be avoided.
9. The tool shall be examined at regular intervals for damage and function. Any question regarding the correct operation of tools and operator safety should be directed to Lobster.
10. Always wear eye-protection when using this tool.

DESCRIPTION

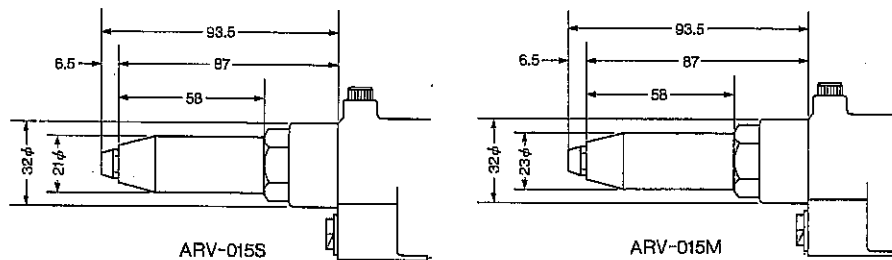
ARV-015 series of Hydro-pneumatic tools are contoured for easy handling for safety and portability. Each tool has been thoroughly tested and proven for your stringent production requirements with the minimum of operator fatigue.

The tool is supplied ready for operation, filled with hydraulic oil and requires only to be connected to the compressed air mains.

SPECIFICATIONS

Model	ARV-015S	ARV-015M
Traction Power (at 85 p.s.i.) 6Kg/Cm ²	350 Kg.f (770 Lb.f)	820 Kg.f (1,800 Lb.f)
Stroke	14.0mm (0.552")	14.0mm (0.552")
Weight	1.4 Kg (3.0 Lbs)	1.7 Kg (3.7 Lbs)
Working Air Pressure	5-6 Kg/Cm ² (71-85 p.s.i.)	5-6 Kg/Cm ² (71-85 p.s.i.)
Riveting Capacity	2.4 - 3.2 mm (3/32 - 1/8")	2.4 - 4.8 mm (3/32 - 3/16")
Air Consumption Per MINUTE (at 71 p.s.i.) 5Kg/Cm ²	45 Liters	85 Liters
Jaw Size	'S'	'M' (Ultra)

FRAME HEAD DIMENSIONS



PRINCIPLE OF OPERATION

When the tool is connected to a proper air supply and the trigger is depressed, air pressure acts upon the air piston.

The piston rod serve as a hydraulic ram and acts on a hydraulic oil in the Oil Tank. Pressurized hydraulic oil is forced into the frame to move the Oil Piston in conjunction with the nose assembly to set a blind rivet.

When the blind rivet installation is completed, the trigger is released. The back pressure of the Return Springs behind the Oil Piston forces it to return to its starting position. The hydraulic oil is also forced back, returning the hydraulic oil and Air Piston back to their starting positions.

At this stage, the vacuum is created inside the Frame Cap and the broken mandrel is sucked out through the Shoot Hose into the specific Mandrel Collection chamber, thus avoiding the danger of accidents caused by broken mandrels.

The air inside the Air Cylinder is also forced out through the outlet. And, the tool is then ready to set another rivet.

CAUTION

Do not insert the new rivet until the previous broken mandrel is cleared off.

PREPARING FOR OPERATION

Daily, before putting the tool into service, follow the instructions under "Good Service Practices".

Always bleed air line to clear it of all accumulated dirt or water before connecting air supply to the tool. An air supply of 5-6 Kg/Cm² (71-85 p.s.i.) must be available.

Ensure the tool is fitted with the correct Nose Piece (Part #01) and Guide Pipe (Part #09) to match the rivet being installed.

Please make sure that the Shoot Hose (Part #64) do not have sharp bends for smooth clearance of the broken mandrels.

MAINTENANCE

AIR SUPPLY SYSTEM

ARV-015 series tools are designed to operate with a compressed air supply between 5.0 Kg/Cm² (71 p.s.i.) and 6.0 Kg/Cm² (85 p.s.i.).

Pressure regulators should be used to limit

the working air pressure. Oiling and filtering systems are used and fitted within 10' (3meters) of the tool.

This ensures maximum tool life and minimizes tool malfunctions.

JAW AND JAW CASE

When a tool is in continuous use, dirt may jam inside the Jaw Case (Part #03) and it is beneficial to clean the Jaws (Part #06) after every two to three days, depending on the

number of rivets being set (Approx. 3,000 rivets).

AIR CYLINDER

In continuous use, the dirt may get on the internal walls of the air cylinder (Part #38) and it is important to clean and lubricate once a month.

OIL CHANGE

With the proper size of oil filled, the tool has a stroke of 14.0mm. The loss of hydraulic oil is exerted when in continuous use and this result in the loss of tool stroke. And, at this stage priming is necessary to regain tool stroke. Lobster brand hydraulic oil (Part #84) can be obtained from your dealer or agent in your town. If this is not possible, a good quality mineral oil with the following properties should 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

Fully approved oils are :

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

GOOD SERVICES PRACTICES

Regular inspection and immediate repair of minor faults will keep the tool, nose assembly and Vacuum system operating efficiently and

prevent down time.

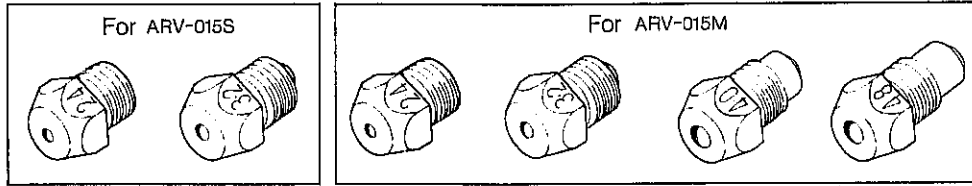
Daily, before putting the tool into service, observe the following practices :

1. If a filter-regulator-lubricator unit is not being used, remove hose fitting from air inlet and drop in a few drops of clean light oil.
2. Blow out airline to remove dirt and water before connecting air to the tool.
3. Clean nose assembly frequently.
4. Do not abuse the tool by dropping it, or using it as a hammer or otherwise causing unnecessary wear or tear.

NOSE PIECE ASSEMBLY

All ARV-015 series of power tools leave the factory fitted with 1/8" (3.2mm) Nose Piece (Part #01-B). Before placing rivets ensure that the correct Nose Piece (Part #01) and

Guide Pipe (Part #09) combination is fitted to match the rivet size being installed.



ARV-015S models

For 3/32" (2.4mm) Riveting

A simple change over of the Nose Piece (marked 2.4) will set the tool to perform the

specific task. Guide Pipe (Part #09) does not require change.

ARV-015M models

For 3/32" (2.4mm) Riveting

A change over of the Nose Piece (marked 2.4) (Part #01-A) and Guide Pipe 'A' (Brass/Yellow color) (Part #09-A) is required.

For 5/32" (4.0mm) and 3/16" (4.8mm) Riveting

Change over of the Nose Piece (Marked 4.0 or 4.8) with Guide Pipe 'B' (Steel/White color) (Part #09-B) is required.

NOTE For 1/8" (3.2mm) riveting, either of the Guide Pipe 'A' (yellow) or 'B' (white) can be used.

NOSE PIECE & GUIDE PIPE COMBINATION

Rivet Size	Nose Piece Marking	Guide Pipe	
		ARV-015S	ARV-015M
3/32"	2.4	A	A
1/8"	3.2	A	A, B
5/32"	4.0		B
3/16"	4.8		B

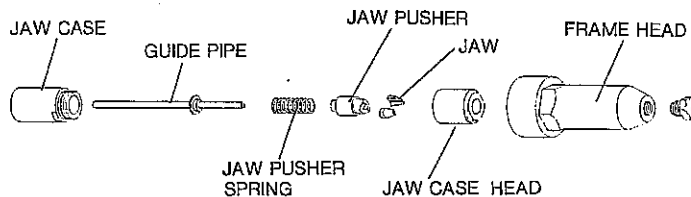
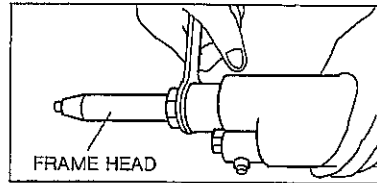
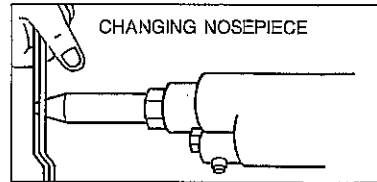
PROCEDURE FOR CHANGING NOSE PIECE

1. Disconnect the air supply to tool.
2. Select correctly marked nose piece (Part #01) to match the rivet size.
3. Simply screw on the corrected Nose Piece, using Spanner A (Part #82).

PROCEDURE FOR CHANGING THE GUIDE PIPE

(FOR ARV-015M ONLY)

1. Disconnect the air supply to tool.
2. Unscrew the Frame Head (Part# 02), using Spanner 'A' (Part #82).
3. Holding the Jaw Case (Part# 05), unscrew the Jaw Case Head (Part# 03).
4. Drop out the Guide Pipe (Part# 09), Jaw Pusher Spring (Part# 08), Jaw Pusher (Part# 07) and a pair of Jaw (Part# 06).
5. Guide Pipe is now accessible for changing.



SERVICING PROCEDURES

Regular servicing should be carried out. A comprehensive inspection should also be performed annually or every 300,000 cycles. To dismantle, proceed as follows. Assembly is reverse where otherwise stated.

CAUTION

The air line must be disconnected before any dismantling is attempted.

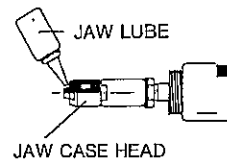
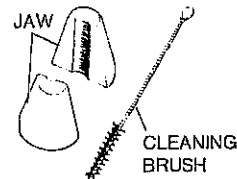
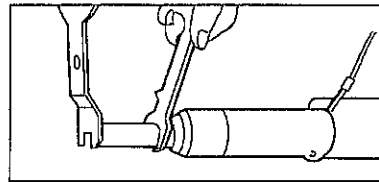
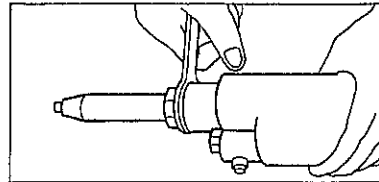
JAW AND JAW CASE

To dismantle Jaw, proceed as follows:

1. Disconnect air supply.
2. Unscrew Frame Head (Part #02) using Spanner 'A' (Part #82).
Blow out dirt from inside of the Frame Head.
3. Holding the Jaw Case Lock Nut (Part #11), unscrew the Jaw Case (Part #05) and remove the Lock Washer (Part #10) from the Oil Piston (Part # 19), using Spanner 'A' (Part #82) and 'B' (Part #82).

In case of ARV-015M, unscrew the Jaw Case Head (Part #03) from the Jaw Case (Part #05).

4. Drop out the Guide Pipe (Part #09), Jaw Pusher Spring (Part #08), Jaw Pusher (Part #07) and a pair of Jaw (Part #06).
5. Jaw, Jaw Pusher, Jaw Pusher Spring, Guide Pipe and Jaw Case Head are now accessible for cleaning and changing. Renew these parts if worn or damaged.
6. Oil the mechanism with a good quality light mineral oil. We strongly recommend you to apply the "Lobster" Jaw Lube on the back faces of the Jaw during assembly.



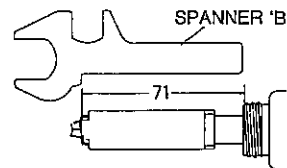
"Lobster" Jaw Lube is available in 50 c.c. applicator bottle, please contact your dealer or agent in your town.

To re-assemble, reverse the dismantling process followed by the Jaw Case adjustment.

JAW CASE ADJUSTMENT

It is very important to adjust the Jaw Case setting whenever the Jaw Case is dismantled. For this purpose, a Spanner 'B' (Part # 83) is supplied, as shown. Improper setting of Jaw Case cause faulty defects in the tool i.e., difficulty in the rivet insertion into the nose piece due to inadequate

Jaw opening and also the spent mandrel may jamming the tool.



REPRIMING HYDRAULIC OIL

This operation is to be carried out on a clean bench, with clean hands, and in a clean area. Hydraulic oil supplied by Lobster should be used. Care should be taken at all times that

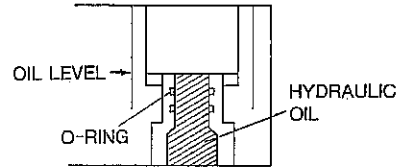
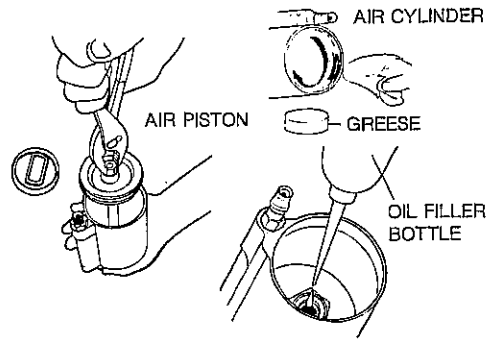
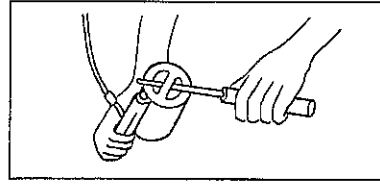
foreign matter does not enter the air cylinder, or serious damage may result. Every care should be taken to keep the oil free from air bubbles when priming.

1. Disconnect air supply to the tool.
2. Unscrew the Frame Head (Part #02), using Spanner 'A' (Part #82).
3. Invert the tool and unscrew the Air Cylinder Cap (Part #56), using a screw driver as shown.
4. Pull out the Air Piston (Part #54) straightly, with the help of Pliers carefully, not to scratch the Air Piston Rod.

If this procedure is carried out to regain tool stroke, Simply fill the cavity with clean Hydraulic Oil using Filler Bottle (Part #84), until fluid is level with top O-Ring as shown.

5. Drain off Hydraulic Oil, by inverting the tool.
6. Hold invertedly the tool in a vise.
Clean and grease the inner walls of the Air Cylinder (Part #38).
7. Fill the cavity with clean Hydraulic oil until the fluid is level with top O-Ring, using Filler Bottle (Part #84), as shown.
8. Assemble the Air Piston (Part #54) and Air Cylinder Cap (Part #56) and tighten with wrench or spanner.

The tools is now ready to use.

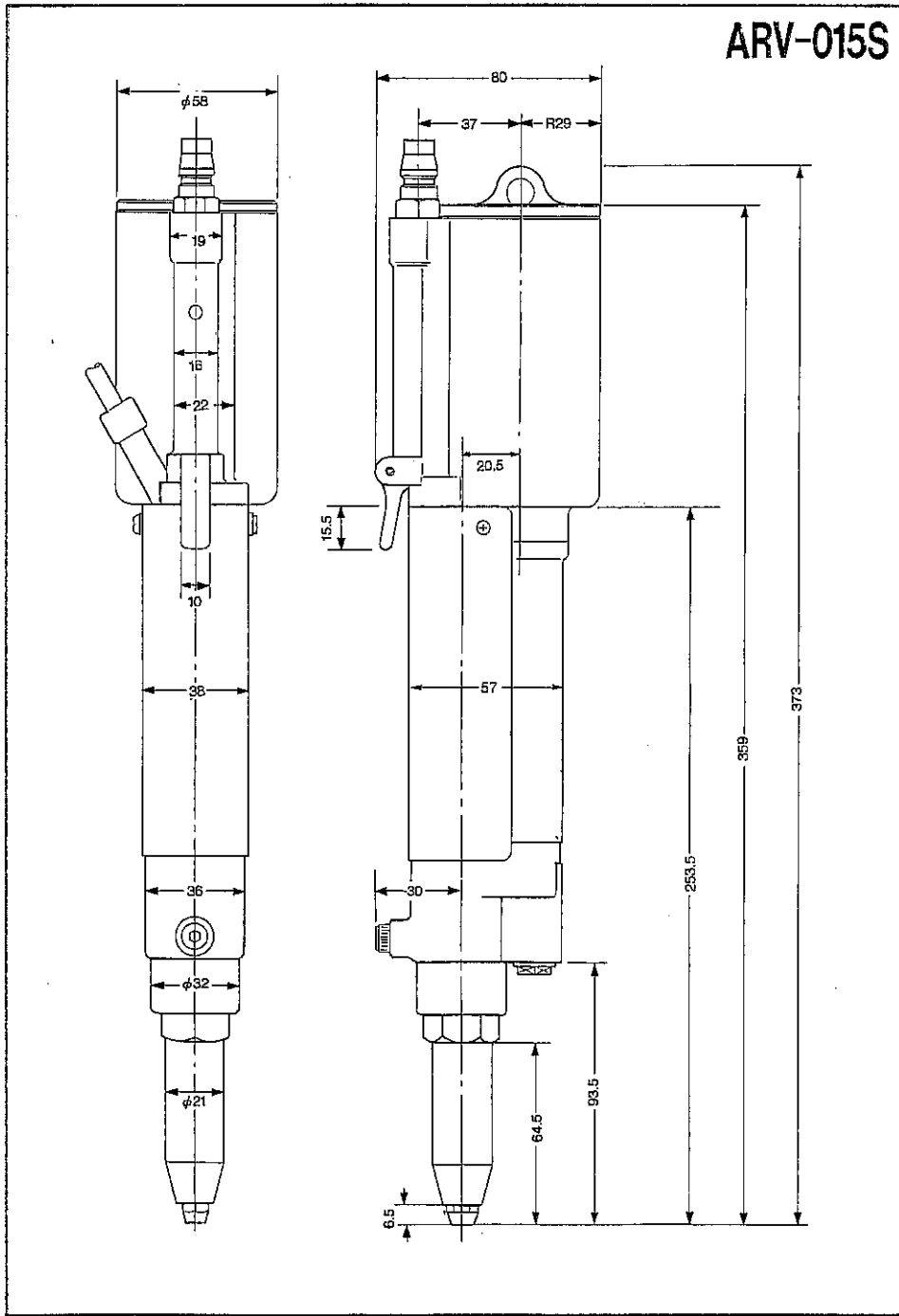


NOTE It is important to check to see the tool is not overfilled and the oil is free from air bubbles. To do this, proceed as follows"
Simply loosen the Air Release Screw (Part #15) to drain off the excess of hydraulic oil and air bubbles, if any during filling the tool.
Tighten the Air Release Screw as soon Air or Oil stop bleeding.

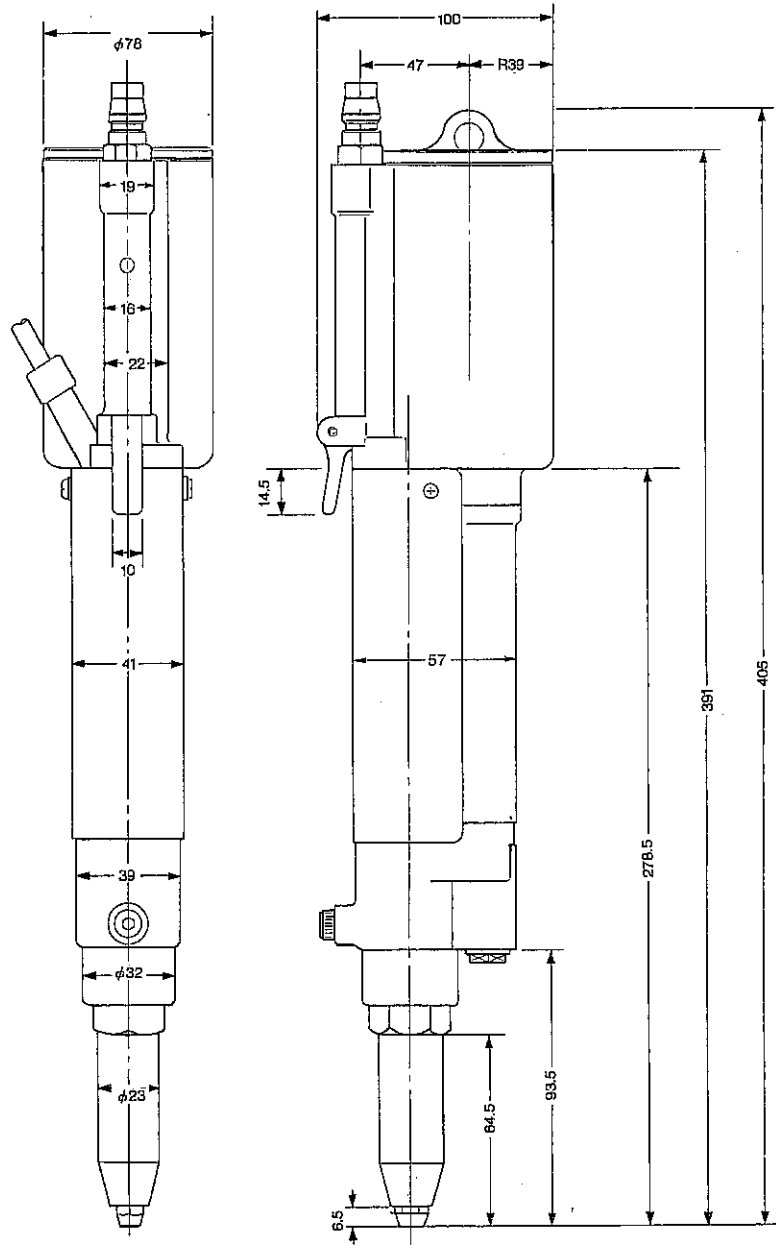
TROUBLE SHOOTING

MALFUNCTION	CAUSE	CORRECTIVE ACTION
1. Loss of Stroke	<ol style="list-style-type: none"> 1. Due to Jaw slip, which is indicated by the lack of teeth impression on the broken mandrels. 2. Due to loss of hydraulic oil. 	<p>The Jaws may be worn or merely clogged. Replace or clean as necessary. Proceed with the servicing Jaws.</p> <p>To restore to full stroke, proceed with Priming Hydraulic Oil in the servicing procedures.</p>
2. Vacuum does not work.	<ol style="list-style-type: none"> 1. Rivet mandrel is clogged inside the pulling head. 2. Improper combination of Nose piece and Guide pipe. 3. Dirt may be clogged inside the Nozzle unit. 4. Worn seals on the Nozzle unit. 	<p>Remove the mandrel by proceeding with the servicing Jaws.</p> <p>Check that correct Nose piece and Guide pipe is installed.</p> <p>For servicing the Nozzle unit, contact the nearest service center or dealer.</p>
3. Tool will not break rivet mandrel.	<ol style="list-style-type: none"> 1. Improper Nose piece. 2. Low Air Pressure. 	<p>Check for the correct nose piece to match the rivet.</p> <p>Set the air pressure to 71-85 p.s.i. (5-6 kg/cm²).</p>

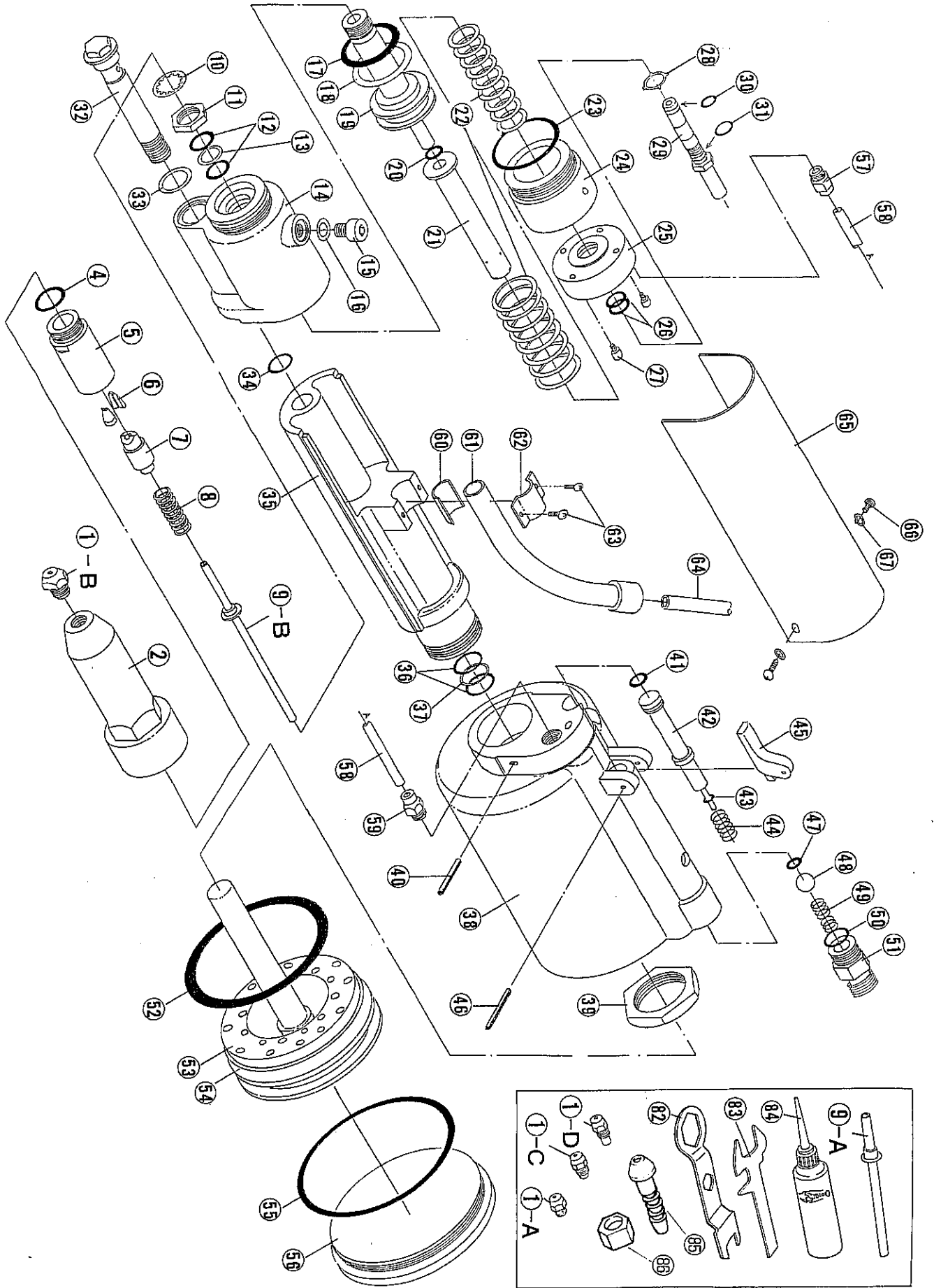
ARV-015S



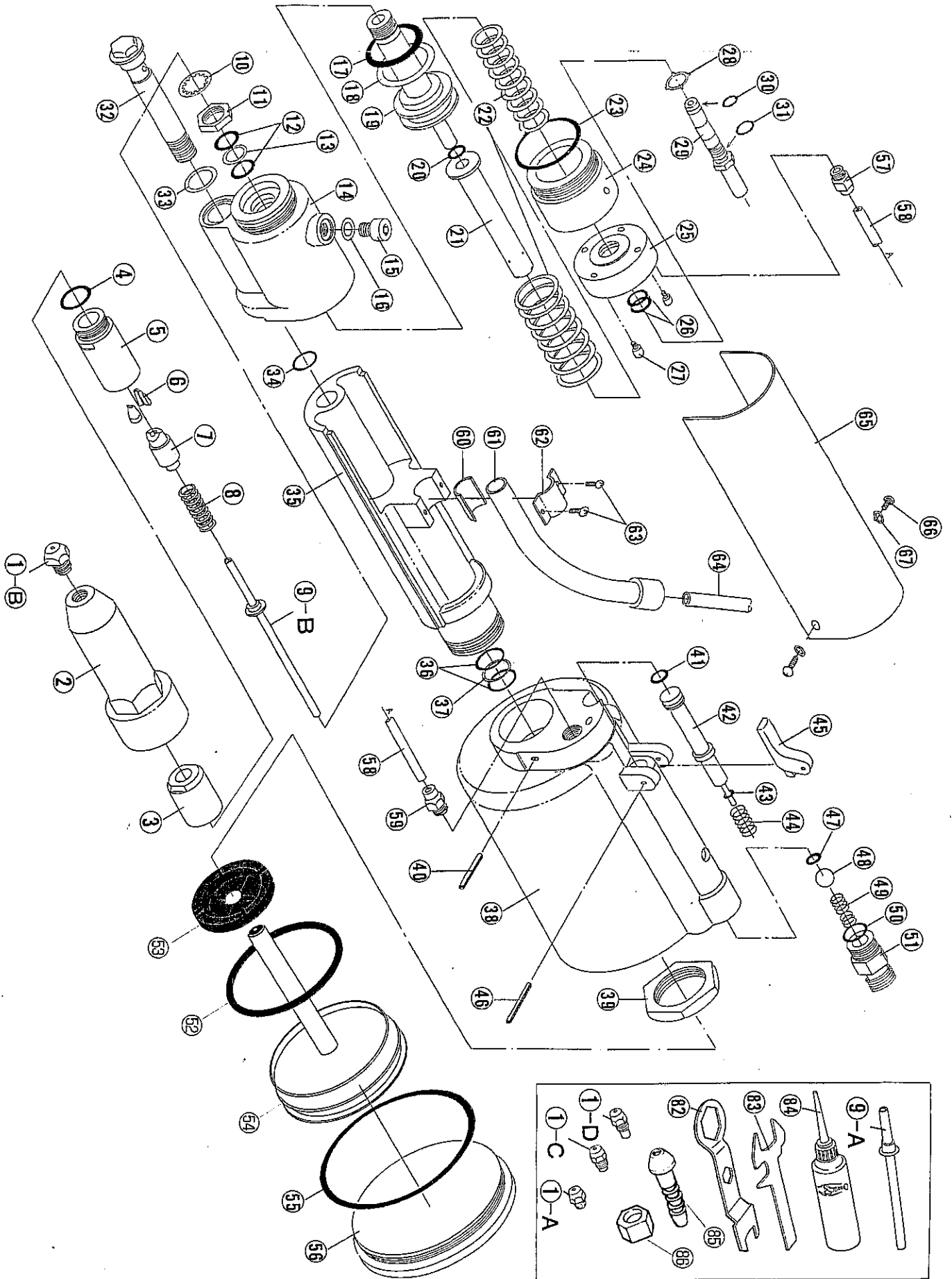
ARV-015M



ARV-015S(B)



ARV-015M(B)



ARV-015M (B)

INDEX NO.	CODE	PART NAME
01-A	10027	NOSE PIECE (S) 2.4(3/32)
01-B	10028	NOSE PIECE (S) 3.2(1/8)
01-C	10029	NOSE PIECE (S) 4.0(5/32)
01-D	10030	NOSE PIECE (S) 4.8(3/16)
02	10105	FRAME HEAD
03	10116	JAW CASE HEAD
04	10151	O-RING S-10
05	10115	JAW CASE
06	10281	ULTRA JAW (PAIR) 'M'
07	10132	JAW PUSHER
08	10133	JAW PUSHER SPRING
09-A	14238	GUIDE PIPE A (BRASS/YELLOW)
09-B	14234	GUIDE PIPE B (STEEL/WHITE)
10	10148	LOCK-WASHER A-7/16
11	10113	JAW CASE LOCK NUT
12	10128	O-RING P-12
13	10129	B-RING P-12
14	14310	FRAME ONLY
15	10368	AIR RELEASE SCREW M6X10
16	10355	PACK SEAL 6MM
17	10130	O-RING P-22A
18	10131	B-RING P-22A
19	10241	OIL PISTON
20	10150	O-RING P-6
21	10377	COVERING ADAPTOR
22	14200	RETURN SPRING SET (A+B)
23	10153	O-RING S-26
24	10378	FRAME CAP A
25	10351	FRAME CAP B
26	10274	O-RING P-10
27	10356	FRAME CAP SCREW M4X20
28	10370	WASHER FOR NOZZLE
29	14324	NOZZLE UNIT (INCLUDES 30 & 31)
30	10276	O-RING S-5
31	10220	O-RING S-6
32	10365	CONNECTING BOLT
33	10364	PACK SEAL 12MM
34	10151	O-RING S-10
35	10375	OIL TANK ONLY
36	10128	O-RING P-12

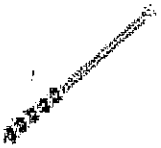
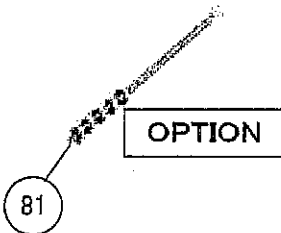

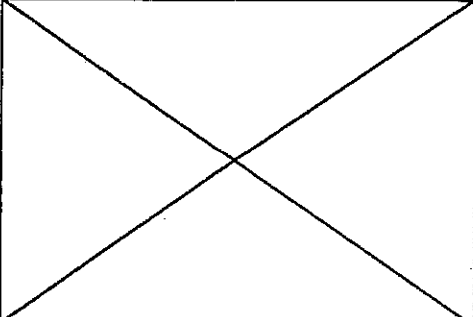
ARV-015M (B)

INDEX NO.	CODE	PART NAME
37	10129	B-RING P-12
38	10373	AIR CYLINDER
39	10112	FRAME LOCK NUT
40	10251	SPRING PIN 3X20
41	10150	O-RING P-6
42	10345	VALVE PUSHER
43	10333	O-RING P-3
44	10246	VALVE PUSHER SPRING
45	10376	TRIGGER
46	10145	SPRING PIN 3X18
47	10150	O-RING P-6
48	10247	VALVE (STEEL BALL 8.0MM)
49	10248	VALVE SPRING
50	10219	O-RING P-9
51	14484	NIPPLE
52	10134	O-RING P-60
53	29736	BUMPER (RUBBER CUSHION)
54	14218	AIR PISTON UNIT
55	10080	O-RING G-70
56	10374	AIR CYLINDER CAP
57	10511	TOUCH JOINT A (FRONT)
58	10354	AIR PIPE TC-105
59	10273	TOUCH JOINT B (REAR)
60	10369	PIPE SEAT
61	14346	EJECT PIPE UNIT
62	10359	PIPE SUPPORTER
63	10357	SCREW (+) M3X5
64	10381	SHOOT HOSE (2 METERS)
65	10380	COVER
66	10508	PAN HEAD SCREW (+) M4X8
67	10100	ROUND FLAT WASHER
80	10265	COUPLER, FEMALE
82	10141	SPANNER 'A'
83	10142	SPANNER 'B'
84	10012	HYDRAULIC OIL
85	10140	AIR HOSE JOINT 1/4
86	10139	AIR HOSE JOINT NUT 1/4

List of Errata

Thank you very much for your purchase of "LOBSTER" brand Air Riveter ARV-015S or ARV-015M.

In this instruction manual, some wrong descriptions are shown. Following is the list of errata.

Page	Line	Wrong Description	Correct Description
(13)		51 10264 COUPLER,MALE	51 14484 NIPPLE
		80 10265 COUPLER,FEMALE	80 10139 AIR HOSE JOINT NUT "1/4
		81 10143 CLEANING BRUSH	81 10143 CLEANING BRUSH 《OPTION》
			85 10140 AIR HOSE JOINT "1/4
(14) (16)			
			
(15)		51 10264 COUPLER,MALE	51 14484 NIPPLE
		53 10114 BUMPER(RUBBER CUSHION)	51 29736 BUMPER(RUBBER CUSHION)
		80 10265 COUPLER,FEMALE	80 10139 AIR HOSE JOINT NUT "1/4
		81 10143 CLEANING BRUSH	81 10143 CLEANING BRUSH 《OPTION》
			85 10140 AIR HOSE JOINT "1/4

MANUFACTURER
LOBTEX CO.,LTD.
 International Marketing Headquarters
 12-8 Shijo-cho,Higashi-Osaka City Osaka 579-8053,Japan
 Telephone +81(729)81-7486 Telefax +81(729)81-9430
 E-MAIL lobtex@wveta.com
 URL <http://www.wveta.com>

WARRANTY & SERVICE

LOBSTER® WARRANTS THAT GOODS COVERED BY THIS MANUAL WILL CONFORM TO APPLICABLE SPECIFICATIONS AND DRAWINGS AND THAT SUCH GOODS WILL BE MANUFACTURED AND INSPECTED ACCORDING TO GENERALLY ACCEPTED PRACTICES OF COMPANIES MANUFACTURING INDUSTRIAL TOOLS. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE FOREGOING.

THE LIABILITY OF LOBSTER® ON PARTS FOUND TO BE DEFECTIVE IS LIMITED TO RE-WORK OR THE REPLACEMENT OF SUCH GOODS AND IN NO CASE TO EXCEED THE INVOICE VALUE OF THE SAID GOODS. UNDER NO CIRCUMSTANCES WILL LOBSTER® BE LIABLE FOR DAMAGES OR COSTS INCURRED BY THE BUYER OR SUBSEQUENT USER IN RE-PAIRING OR REPLACING DEFECTIVE GOODS.

ROUTINE MAINTENANCE AND REPAIR OF LOBSTER® RIVET TOOLS CAN BE PERFORMED BY AN AVERAGE MECHANIC.

HOWEVER, IF YOU HAVE A LOBSTER® RIVET TOOL THAT IS IN NEED OF MAJOR REPAIR WE RECOMMEND THAT IT BE SENT DIRECTLY TO US POSTAGE PAID FOR SERVICE AT A REASONABLE CHARGES.

MANUFACTURER

 **LOBTEX CO.,LTD.**
(Formerly "LOBSTER" TOOL CO.,LTD.)
OSAKA, JAPAN