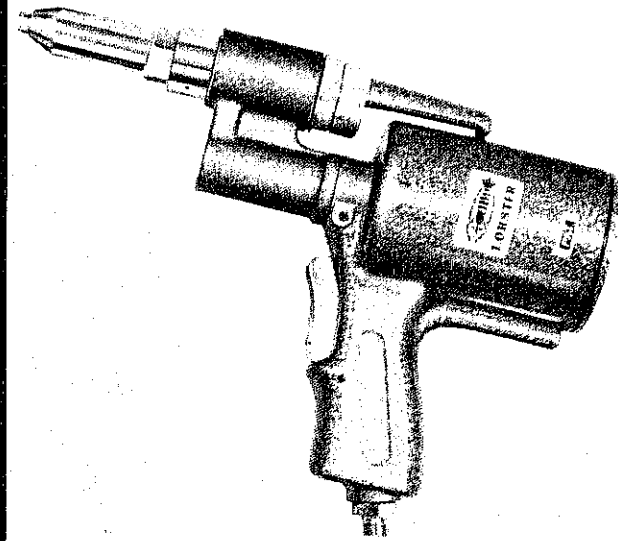




INSTRUCTION MANUAL



AR-011P

Lobster® Tools

INTRODUCTION

This manual describes the detailed specifications and maintenance instructions on model AR-011P

AR-011P of power riveting tool offer the proven design for the most demanding riveting requirements on production lines.

Before using, 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 or write us directly.

SAFETY INSTRUCTIONS

The AR-011P power riveter shall only be used to install standard blind rivets 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 your 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 your tool that is directed towards any person.
2. Keep the air line pressure within the limits. (See specifications).
3. The tool shall not be operated without un-damaged Safety Cap (#21).
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, or Dismantle tool components.
6. Do not operate the tool without Frame Head (#2).
7. Care shall be taken to ensure that spent mandrels are not allowed to create a hazard.
8. 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 modification.
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 the Dealer or write us directly.
10. Always wear eye-protection when using these tools.

DESCRIPTION

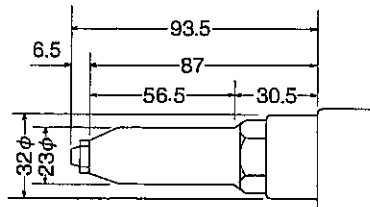
AR-011P hydro-pneumatic power tool has been designed to install standard pull stem break mandrel blind rivets in sizes:

3/32", 1/8", 5/32" & 3/16"
(2.4mm) (3.2mm) (4.0mm) (4.8mm)

In aluminum, copper, steel, monel & stainless, by a simple change over of nosepiece, without any adjustments.

SPECIFICATIONS

TRACTION POWER	:	800kg-f (1760Lb-f)
STROKE	:	13mm (0.512")
WORKING AIR PRESSURE	:	71-85 P.S.I. (5-6 kg/cm ²)
AIR CONSUMPTION PER CYCLE	:	1.5 litre/rivet (0.053ft ³)
WEIGHT	:	1.5 kg (3.32 Lbs)



Frame head dimensions (mm)

PRINCIPAL OF OPERATION

When the tool is connected to a proper air supply and the rivet mandrel is inserted through the nosepiece, and the trigger is depressed. The air pressure acts on the air piston and moves it upward. The piston rod serve as a hydraulic piston and acts on a volume of hydraulic oil in the handle. Pressurized hydraulic oil is forced into the head to move the oil piston in conjunction with the nose assembly to start blind rivet installation.

When the blind rivet installation is completed, the trigger is released.

The return springs behind the oil piston return it to its starting position. Hydraulic oil is forced out of the head and returns the hydraulic oil and air piston back to their starting positions. The air in the air cylinder is also forced out through the outlet.

The spent mandrel should be cleared by tilting the tool forward or backward, allowing the mandrel to slide out. The tool is then ready to set another rivet.

<p>CAUTION Do not insert rivet until the previous mandrel is cleared off, Forcibly insertion of new rivet at this stage, may break the Jaw.</p>
--

PREPARING FOR OPERATION

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

Always bleed air line to clear it all accumulated dirt or water before connecting air supply to tool.

Must comply the air line pressure, mentioned in the specification column, for the safe working air pressure.

Ensure that the tool is equipped with the correct nosepiece to fit the rivet being installed.

MAINTENANCE

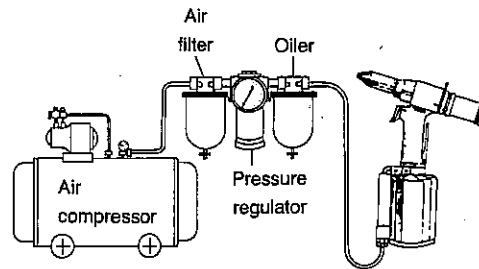
Air Supply System

AR-011 series tools are designed to operate with a compressed air supply. Must comply the safe working air pressure requirements mentioned in the specification column.

CAUTION Do not operate the tool at pressures exceeding the maximum safe working air pressure limits mentioned in the specification column.

Pressure regulators should be used to limit the air pressure, where the air supply exceeds the maximum recommended air pressure. Oiling and filtering systems are used and fitted within 10'(3 meters) of the tool.

This ensures maximum tool life and minimizes tool malfunctions.



HYDRAULIC OIL REQUIREMENTS

The tool leaves the factory filled with hydraulic oil. Whenever priming is necessary, the hydraulic oil should be obtained from "Lobster" agent or distributor 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 : 46 c.s.t. (centistokes units)
Viscosity at 100 : 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)

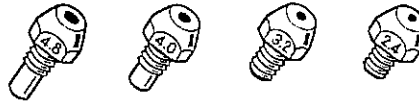
Good Services Practices

Regular inspection and immediate repair of minor faults will keep the tool and nose assembly 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, disconnect the air hose from the tool and drop in a few drops of clean light oil into the air in-let of the tool.
2. Blow out airline to remove dirt and water before connecting air hose to tool.
3. Clean nose assemblies 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

AR-011P power tool leaves the factory fitted with 1/8" (3.2mm) nosepiece. Before placing rivets, ensure that the correct nosepiece is fitted for the size of rivet being installed.



Index No.	Marking	Description	Code No.
1-A	2.4	Nosepiece for 3/32" (2.4mm)	10027
1-B	3.2	Nosepiece for 1/8" (3.2mm)	10028
1-C	4.0	Nosepiece for 5/32" (4.0mm)	10029
1-D	4.8	Nosepiece for 3/16" (4.8mm)	10030

PROCEDURE FOR CHANGING NOSE-PIECE

1. Disconnect air supply to tool.
2. Select the correct nosepiece from the above chart.
3. Simply screw on the corrected nosepiece.
4. Reconnect air supply to tool.
5. Tool should now be ready for use.

SERVICING PROCEDURES

Regular servicing should be carried out. A comprehensive inspection should also be performed annually or every 500,000 cycles.

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

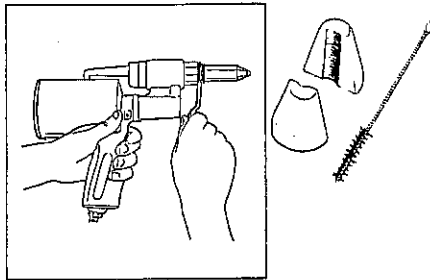
To dismantle, proceed as follows:
Assembly is reverse where otherwise stated.

JAW

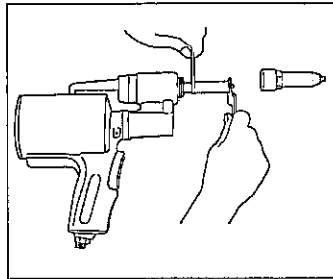
When the tool is in continuous use, it is beneficial to clean the Jaw after every two to three days, depending on the number of rivets being set, say: after approx. every 3,000 rivets.

To dismantle Jaw, proceed as follows:

1. Disconnect Air supply.
2. Unscrew the Frame Head (#2) using Spanner A' (#46).
Clean the inside of Frame Head.

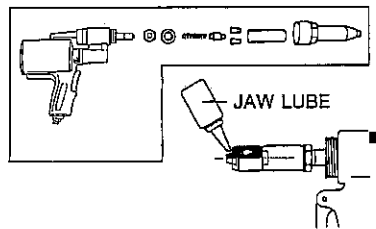


3. Holding the Jaw Case Locknut (#10), unscrew the Jaw Case (#7) and remove the Locknut Washer (#9) from the Oil Piston (#14), using Spanner 'A' and 'B'.



4. Unscrew the Jaw Case Head (#3) from the Jaw Case (#7) and take out Jaw Pusher Spring (#8), Jaw Pusher (#5A) and a pair of Jaw (#4).

5. Jaw, Jaw Pusher, Jaw Pusher Spring & Jaw Case Head are now accessible for cleaning and all debris should be removed using Brush. 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.

'Lobster' JAW LUBE is available in 50 c.c applicator bottle, please contact your dealer or distributor in your town.

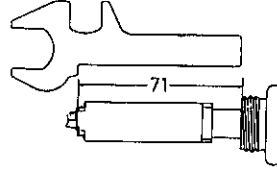
To Re-assemble, Reverse the dis-mantling process followed by the Jaw Case Adjustment.

CAUTION Must not forget to re-adjust the Jaw Case setting position, whenever tend to dismantle the Jaw Case.

JAW CASE ADJUSTMENT

It is very important to adjust the Jaw Case setting whenever the tool is dis-mantled for cleaning or changing Jaw, to obtain the absolute maximum possible stroke of the tool. For this purpose, a Spanner 'B' (#47) is supplied as shown.

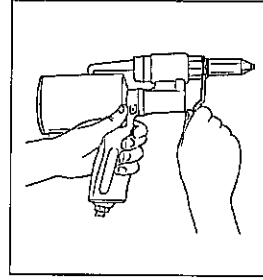
Improper setting of Jaw Case position cause faulty defects in the tool i.e., difficulty in the rivet insertion into the Nosepiece due to inadequate Jaw opening and also the spent mandrel will not come out smoothly, these may jaming the tool.



COMPLETE DISASSEMBLY

1. FRAME HEAD

- * Disconnect air supply from the mains.
- * Unscrew Frame Head (#2) using Spanner 'A' (#46).

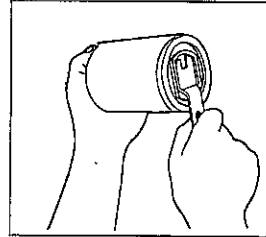


2. AIR CYLINDER

- * Invert the tool and unscrew the Cylinder Cap (#45) and pull-out the Air Piston (#43) straightly using suitable pliers.

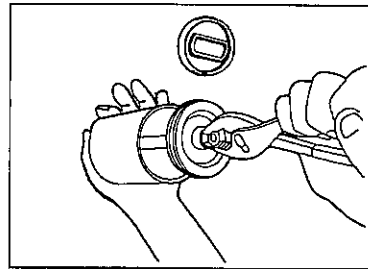
CAUTION Care should be taken not to scratch the Air Piston Rod. (#43)

- * Drain off the hydraulic oil, by inverting the tool.



3. FRAME & AIR CYLINDER

- * Drive out the Slotted Pin (#31).
- * Unscrew the Frame Lock Nut (#32) using 32mm socket wrench and separate the Frame (#13) from Air Cylinder (#27).



4. OIL CYLINDER

- * Proceed with the Jaw Disassembly.
- * Remove the Safety Cap (#21) by unscrewing the Safety Cap Nut (#22).

- * Unscrew the Frame Cap (#20) and take out the two Return Springs (#17) and Hanger Clip (#19) and push out the Oil Piston (#14).

5. TRIGGER & VALVES

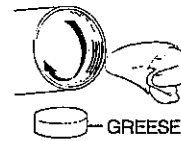
- * Drive out Spring Pin (#29), and remove the Trigger (#23).
- * Drop out Valve Pusher (#34) with Valve Pusher Spring (#35) by inverting the tool.
- * Unscrew the nipple (#41) and drop out the Valve Spring (#39), Disc Valve (#38).

ASSEMBLY

Before assembling, inspect all parts and replace if necessary. Clean all parts thoroughly with mineral spirit and lubricate with light grease. Must not forget to grease the inner walls of the air cylinder and oil cylinder.

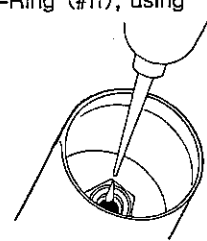
A good practice to follow is to replace all O-Rings and Back-up Rings, Light springs and Valves, whenever the tool is disassembled for any reason.

CAUTION During assembly, care should be taken not to damage the O-Rings, Frame, Air and Oil cylinder housing. The Tool should not be gripped in a Vice by the head or body casing, as the internal bores may become distorted, interfering with the operation of the tool.



FILLING THE TOOL

- * Disassemble the Frame Head (#2).
- * Without the Air Piston Assembly (#42 & #43), fill the Frame (#13) cavity with clean 'Lobster' Hydraulic Oil or equivalent, until fluid levels with the top 'O-Ring' (#11), using filler bottle (#51).
- * Insert the Air Piston (#43 with #42) and push it down all the way 3 to 4 times.
- * Carefully, push on the Air Piston (#43) until solid back pressure is noted.
- * Assemble the Air Cylinder Cap (#45 with #44) and tighten with wrench or Spanner 'A' (#46)



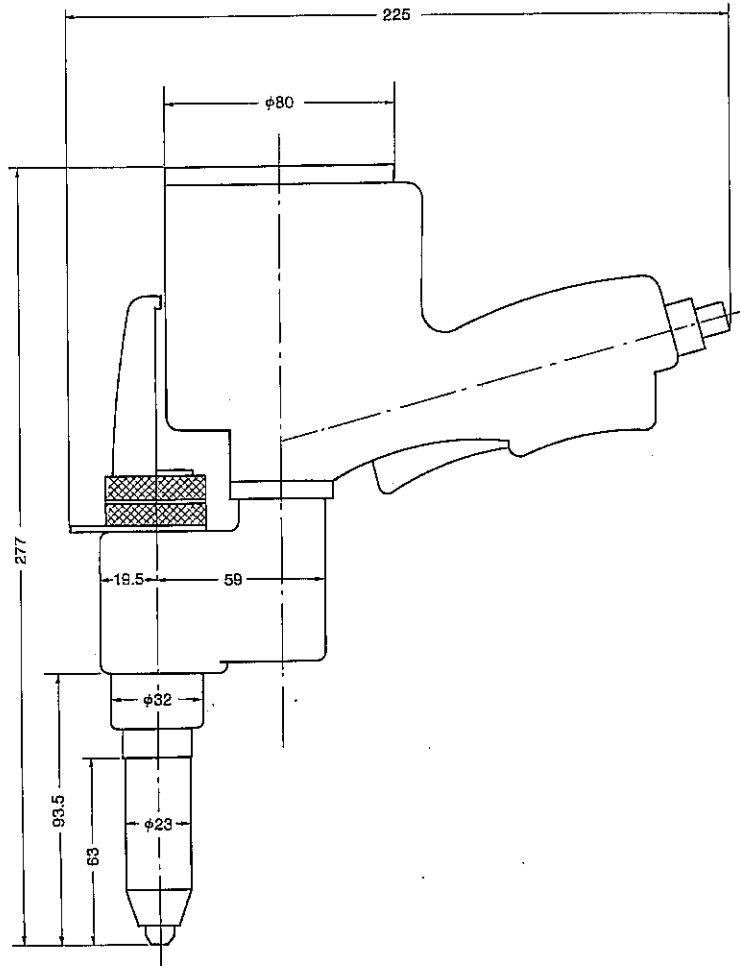
CAUTION The tool must not be overfilled with oil. and the oil must be free from air bubbles. If with the Frame Head on. it makes the tool "overfilled" and may cause the breakage of Oil Cylinder (frame #13) or Frame Cap (#20). If with air bubbles in oil. they will kill some part of the stroke and traction power of the tool.

TROUBLE SHOOTING

TOOL MALFUCTION	CAUSE	CORRECTIVE ACTION
1. Loss of stroke	1. Due to Jaw Slip. Jaw slip is indicated by the lack of teeth impressions on broken rivet mandrels. 2. Due to loss of Hydraulic oil.	The Jaws may be worn or merely clogged, replace or clean as necessary. Proceed as follow to service Jaws. To restore to full stroke proceed as to Filling the tool.
2. Continued loss of stroke	Due to worn Hydraulic seals	Replace all the seals in the parts kit #105
3. Tool fails to operate when trigger is depressed	Incomplete or defective valve assembly	Check and replace defective parts (# 35 thru 45)
4. Tool will not break rivet mandrel	1. Improper nosepiece assembly. 2. Low air pressure.	Check with proper nosepiece Set to 71 – 85 P.S.I. (5-6 kg/cm ²)
5. Oil leaking from the front or the back of the oil piston.	This is caused by the worn seals.	Replace all seals (# 15 & 16) and (# 11 & 12)
6. Air leaking from riveter trigger valve	Due to worn seal (#37) and that the valve (#38) is sitting incorrectly.	Replace worn seal and reassemble valve.

OUTLINE DIMENSIONS

AR-011P (B)



DIMENSIONS : mm

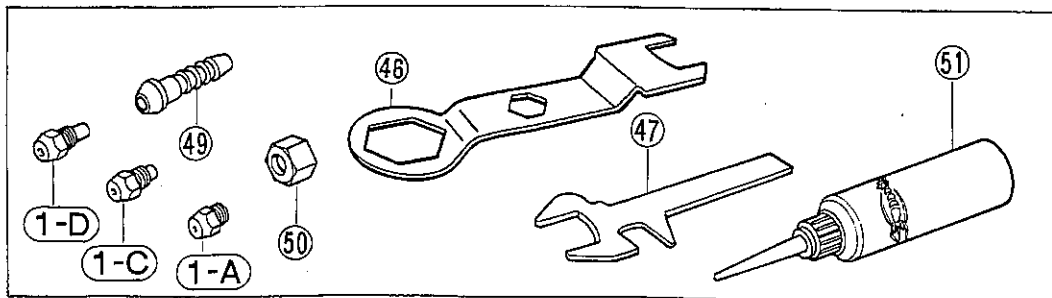
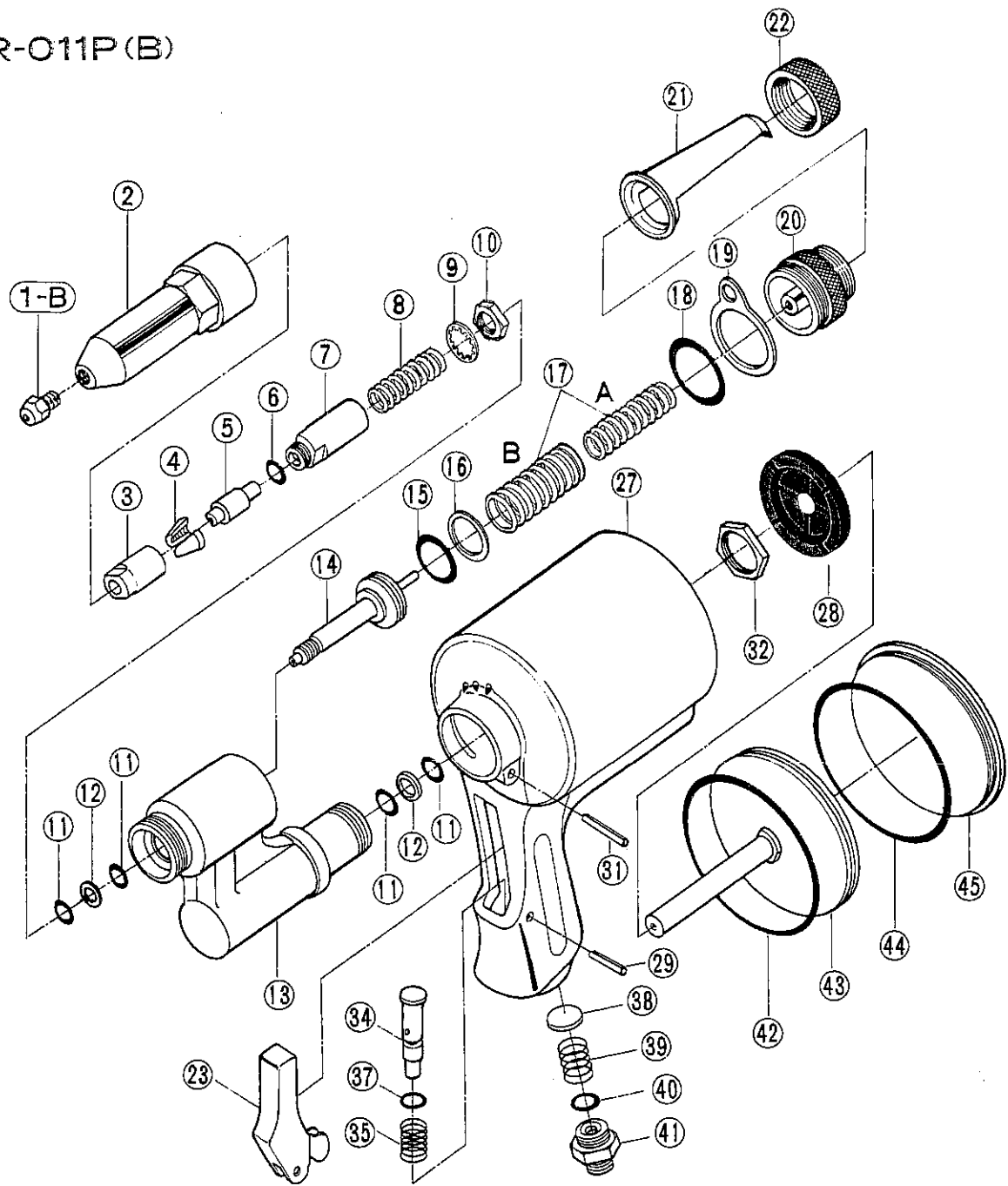
AR-011P(B) PARTS LIST

INDEX NO	CODE	PART-NAME
01	14450	Set of 4 Nose Pieces
01A	10027	Nose Piece (S) 2.4(3/32)
01B	10028	Nose Piece (S) 3.2(1/8)
01C	10029	Nose Piece (S) 4.0(5/32)
01D	10030	Nose Piece (S) 4.8(3/16)
02	10105	Frame Head
03	10116	Jaw Case Haed
04	10117	Jaw (set) 'M'
05	10132	Jaw Pusher
06	10151	O-Ring S-10
07	10115	Jaw Case
08	10133	Jaw Pusher Spring
09	10148	Lock Washer A-7/16
10	10113	Jaw Case Lock Nut
11	10128	O-Ring P-12
12	10129	B-Ring P-12
13U	10079	Frame Unit (includes 11 & 12)
14	10109	Oil Piston
15	10130	O-Ring P-22A
16	10131	B-Ring P-22A
17	14200	Return Spring A+B (set)
17A	10110	Return Spring A (inner)
17B	10111	Return Spring B (outer)
18	10153	O-Ring S-26
19	10106	Hanger Clip
20	10104	Frame Cap
21	10082	Safety Cap (Standard)
22	10108	Safety Cap Nut
23	10230	Trigger
27	10229	Air Cylinder
28	29736	Bumper (Rubber Cushion)
29	10233	Spring Pin 3 × 30
31	14154	Slotted Pin 4 × 31
32	10112	Frame Lock Nut
34	10231	Valve Pusher
35	10232	Valve Pusher Spring
37	10220	O-Ring S-6

AR-011P(B) PARTS LIST

INDEX MO.	CODE	PART-NAME
38	10125	Valve (Disc)
39	10126	Valve Spring
40	10152	O-Ring S-14
41	10127	Nipple (3/8-1/4)
42	10134	O-Ring P-60
43	14168	Air Piston Unit
44	10080	O-Ring G-70
45	10011	Air Cylinder Cap
46	10141	Spanner 'A'
47	10142	Spanner 'B'
49	10140	Air Hose Joint 1/4
50	10139	Air Hose Joint Nut 1/4
51	10012	Hydraulic Oil

AR-O11P(B)



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