# SIGPPTM Rivet Tools from Sunex Industrial

# **▲**WARNING



Always read instruction manual carefully before use.



 Always wear safety goggles (User and bystanders).



 Always wear hearing protection (User and bystanders).



Avoid prolonged exposure to vibration

- Always disconnect air supply before proceeding with any assembly or disassembly procedures.
- Do not exceed 100 psi max. air pressure.
- Inspect hydraulic section prior to use.
   Do not use if cracked.
- Always follow proper maintenance procedures.
- Keep exhaust port pointed away from face.

# **AWARNING**

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.



# **SX0918T**

3/16" HEAVY DUTY RIVET GUN

### **SPECIFICATIONS**



# **AWARNING**

# FAILURE TO OBSERVE THESE WARNINGS COULD RESULT IN INJURY.



This Instruction Manual Contains Important Safety Information.

READ THIS INSTRUCTION MANUAL CAREFULLY AND UNDERSTAND ALL INFORMATION BEFORE OPERATING THIS TOOL.



- Always operate, inspect and maintain this tool in accordance with American National Standards Institute Safety Code of Portable Air Tools (ANSI B186.1) and any other applicable safety codes and regulations.
- For safety, top performance and maximum durability of parts, operate this tool at 90 psi/6.2 bar max air pressure with 3/8" diameter air supply hose.



 Always wear impact-resistant eye and face protection when operating or performing maintenance on this tool. Always wear hearing protection when using this tool.



- High sound levels can cause permanent hearing loss. Use hearing protection as recommended by your employer or OSHA regulation.
- Keep the tool in efficient operating condition.
- Operators and maintenance personnel must be physically able to handle the bulk, weight and power of this tool.



Air under pressure can cause severe injury.
Never direct air at yourself or others.
Always turn off the air supply, drain hose
of air pressure and detach tool from air
supply before installing, removing or
adjusting any accessory on this tool, or
before performing any maintenance on this
tool. Failure to do so could result in injury.
Whip hoses can cause serious injury.
Always check for damaged, frayed or loose
hoses and fittings, and replace immediately.
Do not use quick detach couplings at tool.
See instructions for correct set-up.



- Air powered tools can vibrate in use. Vibration, repetitive motions or uncomfortable positions over extended periods of time may be harmful to your hands and arms. Discontinue use of tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.
- Place the tool on the work before starting the tool. Do not point or indulge in any horseplay with this tool.



- Slipping, tripping and/or falling while operating air tools can be a major cause of serious injury or death. Be aware of excess hose left on the walking or work surface.
- Keep body working stance balanced and firm. Do not overreach when operating the tool.



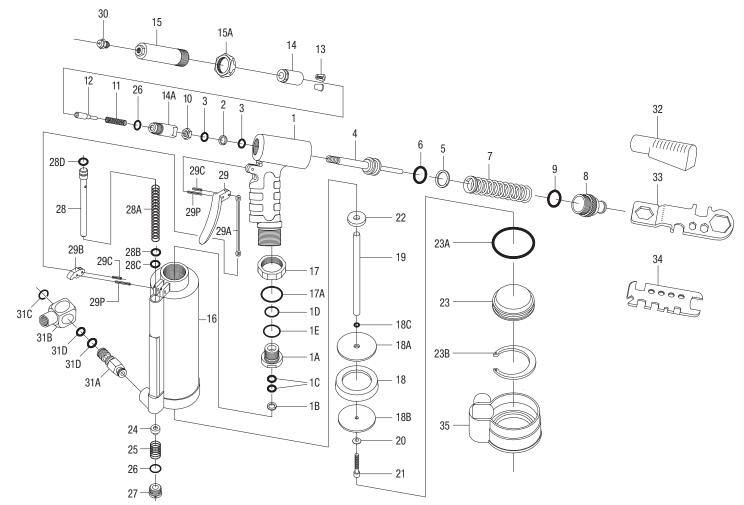
- Anticipate and be alert for sudden changes in motion during start up and operation of any power tool.
- Do not carry tool by the hose. Protect the hose from sharp objects and heat.
- Tool shaft may continue to rotate briefly after throttle is released. Avoid direct contact with accessories during and after use. Gloves will reduce the risk of cuts or burns.



- Keep away from rotating end of tool.
  Do not wear jewelry or loose
  clothing. Secure long hair. Scalping can
  occur if hair is not kept away from tool
  and accessories. Choking can occur if
  neckwear is not kept away from tool
  and accessories.
- Do not exceed 100 psi max air pressure.
- Always disconnect air supply before proceeding with any assembly or disassembly procedures.
- · Keep exhaust port pointed away from face.
- Inspect the hydraulic section prior to use.
   Do not use if cracked. Contact the distributor for repair or replacement.
- Do not pound on the nosepiece or the end of the head or force the rivet into the hole of the nosepiece as this will damage the tool.
- Make sure all parts are correctly and securely fastened.
- Always follow proper maintenance procedures.
- Do not lubricate tools with flammable or volatile liquids such as kerosene, diesel or jet fuel.
- Do not force tool beyond its rated capacity.
- Do not remove any labels. Replace any damaged labels.
- Use accessories recommended by Sunex Tools®.

# **SX0918T**

# 3/16" HEAVY DUTY RIVET GUN

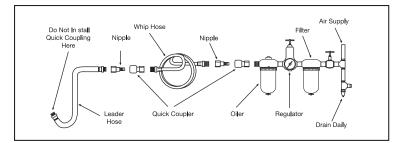


REF.	PART		
NO.	NO.	DESCRIPTION	QTY.
1	RS618101	Hydraulic Section	1
1A	RS918108	Plunger Rod Guide	1
1B	RSBR0913	Back-up Ring	1
1C	RS0R0913	0-Ring	2
1D	RS0R1823	0-Ring	1
1E	RS0R2227	0-Ring	1
2	RSBR1014	Back-up Ring	1
3	RS0R1014	0-Ring	2
4	RS918301	Hydraulic Plunger	1
5	RSBR2025	Back-up Ring	1
6	RS0R2025	0-Ring	1
7	RS916309	Return Spring	1
8	RS918102	Rear Gland	1
9	RS0R2225	0-Ring	1
10	RS612306	Nut	1
11	RS612308	Spring	1
12	RS612302	Jaw Pusher	1
13	RS612303	Jaw "M"	2
14	RS612304	Jaw Housing	1
14A	RS612305	Jaw Housing Coupler	1
15	RS612105	Head	1
15A	RS612106	Lock Nut	1

REF. NO.	PART NO.	DESCRIPTION	QTY.
16	RS918401	Air Cylinder Body	1
17	RS918109	Lock Nut	1
17A	RS0R2832	0-Ring	1
18	RS918502	Packing Ring	1
18A	RS918503	Front Head Disc	1
18B	RS918504	Rear Head Disc	1
18C	RS0R0509	0-Ring	1
19	RS918501	Plunger Rod	1
20	RSPW0512	Washer	1
21	RS508020	Lock Screw	1
22	RS918505	Bumper Ring	1
22A	RS918500	Piston Assy (incl. #18 - #22	) 1
23	RS918402	Air Cylinder Cap	1
23A	RS0R5461	0-Ring	1
23B	RSCH6063	Retaining Ring	1
24	RS918207	Throttle Valve	1
25	RS656204	Throttle Valve Spring	1
26	RS0R1417	0-Ring	2
27	RS612206	Valve Plug	1
28	RS918200	Valve Tube Assy	1
28A	RS918204	Valve Tube Spring	1
28B	RS618605	Brass Collar	1

REF. NO.	PART NO.	DESCRIPTION	QTY.
28C	RS0R0914	0-Ring	1
28D	RS0R0812	0-Ring	1
29	RS612611	Trigger	1
29A	RS918602	Linkage	1
29B	RS612603	Rocker Arm	1
29C	RSSP3006	Spring Pin	2
29P	RSSP3018	Spring Pin	2
30	RS612703	Nose Piece 3/32" (2.4mm)	1
	RS612704	Nose Piece 1/8" (3.2mm)	1
	RS612705	Nose Piece 5/32" (4.0mm)	1
	RS612706	Nose Piece 3/16" (4.8mm)	1
31	RS922100	Swivel Joint Assy	1
		(incl. #31A - #31D)	
31A	RS92201S	Male Inlet Body	1
31B	RS922A01	Female Inlet Body	1
31C	RSCS1316	Snap Ring	1
31D	RS0R1015	0-Ring	2
32	RS612901	Deflector	1
33	RS612904	Multi-Wrench (A)	1
34	RS918905	Multi-Wrench (B)	1
35	RS918403	Rubber Boot	1

#### Operating Instructions • Warning Information • Parts Breakdown



## Air Supply...

Tools of this class operate on a wide range of air pressures. It is recommended that air pressure of these tools measures 90 psi at the tool while running free. Higher pressure (over 90 psi; 6.2 bar) raises performance beyond the rated capacity of the tool which will shorten tool life because of faster wear and could cause injury.

Always use clean, dry air. Dust, corrosive fumes and/or water in the air line will cause damage to the tool. Drain the air tank daily. Clean the air inlet filter screen on at least a weekly schedule. The recommended hookup procedure can be viewed in above figure.

The air inlet used for connecting air supply has standard 1/4" NPT. Line pressure should be increased to compensate for unusually long air hoses (over 25 feet). Minimum hose diameter should be 3/8" I.D. and fittings should have the same inside dimensions and be tightly secured.

#### Lubrication...

Lubricate the air tool with quality air tool oil. If no air line oiler is used, run 1/2 ounce of air tool oil through the tool by squirting oil into the tool's air inlet or into the nearest connection to the air inlet, reconnecting air supply, and then running tool. Do not use more than 1/2 ounce of oil, as overfilling will reduce the performance of the tool.

## Operation...

When the Lever/Trigger is depressed, the throttle valve is moved down off its seat by the valve tube. Air enters the bottom of the air cylinder, forcing the piston assembly up. As the piston assembly rises, the plunger rod forces hydraulic fluid in to the upper part of the hydraulic section, retracting the hydraulic plunger. Meanwhile, the jaws grip the mandrel of the rivet, pulling until the rivet is set and breaking the mandrel in the process.

When the lever is released, the throttle valve resets and shuts off the air supply. The valve tube spring then lifts the valve tube and exhausts the air throughout the hollow of the valve tube. The return spring returns the hydraulic plunger to its original position. This opens the jaws, releases the mandrel, and retracts the piston assembly back to its original static site.

# **Servicing Procedures...**

#### 1. Changing Nosepieces:

Hook up the tool to the air line and depress the lever. While continuing to hold the lever down, use the maintenance tool to remove the unwanted nosepiece and tighten the new nosepiece in place again. When the lever is released and the tool is at rest, a circular opening should be visible when looking through the hydraulic section from the rear gland to the nosepiece.

#### 2. Cleaning and Changing of the Jaws:

Disconnect the tool from the air line and then remove the head with the maintenance tool. Hold the jaw housing coupler firmly and remove the jaw housing. Clean the jaws with either a steel brush or solvent. If excessive wear is apparent, replace them with new jaws. Before reassembling, apply a thin coat of oil to the sliding surface of the jaws. Reassemble the tool in the reverse order while making sure that the chamfered end of the jaw pusher is in contact with the jaws properly.

#### 3. Jaw Opening Adjustment:

To obtain the maximum stroke of the tool, proper distance setting between the jaw housing and the head is very important. First loosen the lock nut. A rivet is then inserted into the nosepiece which should be selected to match the rivet size to be set. While screwing or unscrewing the head to achieve the minimum opening of the jaws, check if the rivet mandrel can be removed and inserted freely. Fasten the lock nut after the adjustment.

#### Maintenance...

- Check the tightness of the connections between the jaw housing coupler, nut, jaw housing, and the hydraulic plunger, the nosepiece, the head and the lock nut.
- If the jaws show excessive wear and/or are dirty, follow the steps provided in the servicing procedures section.

#### Troubleshooting...

 Rivet mandrel is gripped by the jaws but the rivet can not be set and mandrel can not be broken:

CAUSE: Low air pressure or loss of hydraulic fluid.

**REMEDY:** Increase air pressure to 7 bar (100 psi) maximum at tool. Make sure all fittings including rear gland and head are tight. If malfunction persists, call authorized Sunex Tools® warranty center.

2. Mandrel does not fit completely into nosepiece or fails to eject:

**CAUSE:** Jaw Housing distance incorrect.

**REMEDY:** Loosen the head and check the rated stroke length. If shorter, search for worn or damaged 0-rings and replace it.

CAUSE: Jaws are dirty or damaged.

REMEDY: Clean or replace the jaws.

CAUSE: Fatigued jaw pusher spring.

REMEDY: Replace the jaw pusher spring.

CAUSE: Fatigued Return Spring.

REMEDY: Replace the return spring.

CAUSE: Air leakage in vacuum system.

**REMEDY:** Search for worn or damaged seals in the vacuum system and replace it.

Tool takes more than two strokes under ideal conditions to set rivet and break mandrel:

CAUSE: Low air pressure.

REMEDY: Increase air pressure but do NOT exceed 7 bar (100 psi)

at tool.

CAUSE: Loose Nosepiece or improper size of nosepiece.

**REMEDY:** Tighten nosepiece or use right size.

 $\textbf{CAUSE:} \ \ \textbf{Rivet body too long for the thickness of the joint.}$ 

**REMEDY:** The rivet body should be 3-6mm longer than the thickness of

joint only.

If malfunction persists, call an authorized Sunex Tools® warranty center.