CP – 9361 AIR SCRIBE

UTICA PNEUMATIC 256

FOURTH EDITION

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Instruction and Parts Book for

PNEUMATIC AIR SCRIBE

CP – 9361 MODEL "A"

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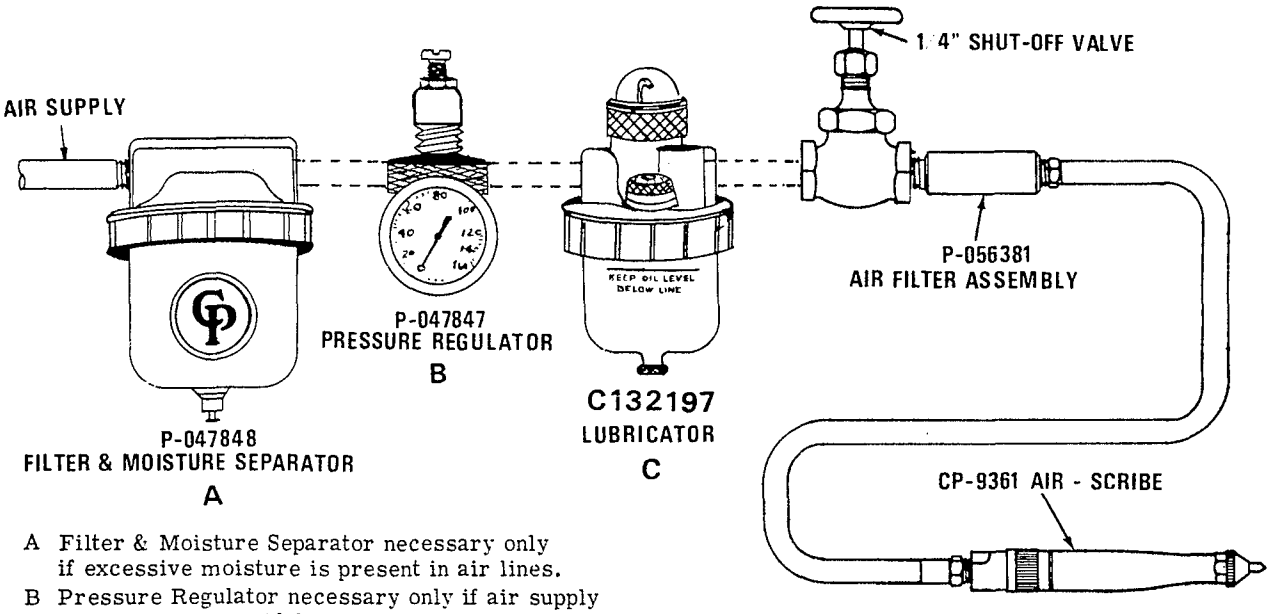
P-122410

RECOMMENDED HOOK-UP OF AIR LINE ACCESSORIES



A Filter & Moisture Separator necessary only if excessive moisture is present in air lines.

B Pressure Regulator necessary only if air supply pressure varies widely.

C Lubricator necessary only if Air-Scribe is used continuously in production work.

GENERAL INSTRUCTIONS

Air Supply

For satisfactory performance, 90 psig (6.2 bar) of clean, dry air is required. The use of a P-047848 CHICAGO PNEUMATIC Air Line Separator and Filter mounted as closely as possible to the tool is recommended when air supply is dirty or wet. This will prevent premature clogging of P-056381 Air Filter included with the Air-Scribe.

If air supply pressure varies widely, we suggest use of P-047847 Pressure Regulator to maintain steady pressure at the Air-Scribe to give it even, consistent performance.

Lubrication

Daily before putting tool into service, put about six drops of recommended oil into air inlet. If Air-Scribe is used in continuous production work, the use of a C-132197 CHICAGO PNEUMATIC Air Line Lubricator installed at the end of air pipe leading to Air-Scribe is recommended to assure a constant and adequate supply of lubricant.

Recommended Lubricants

The use of synthetic oils is NOT RECOMMENDED due to possible damage to seals, "O" rings, hoses, blades and polycarbonate oiler/filter bowls.

CHICAGO PNEUMATIC Airoilene Oil which contains moisture absorbent, rust inhibiting additives and will not separate while the tool is idle is recommended for use in these tools and may be purchased under the following symbols:

1 pt can	P-137646
1 qt can	P-137145
1 gal. can	P-089507
5 gal. can	P-089508

If recommended oil is not available, use a turbine or spindle grade oil with a viscosity of 100-150 SUS at 100°F which contains a rust inhibitor.

Loss of Power/Erratic Action

Tool failure, loss of power or erratic action may be caused by factors outside the tool. Make the following checks.

1. Check air pressure. For rated performance, 90 psig (6.2 bar) air pressure is required AT THE TOOL with tool operating. A drop in air pressure may be caused by lowered compressor output, excessive drain on the air line or by use of hose or connections of improper size or in poor condition.
2. Check for wet or dirty air. Wet air tends to wash lubricant away from cylinder and to rust and corrode the tool. Dirt and foreign matter in the air supply will impede action of the piston and cause damage to the tool.

If above are in order:

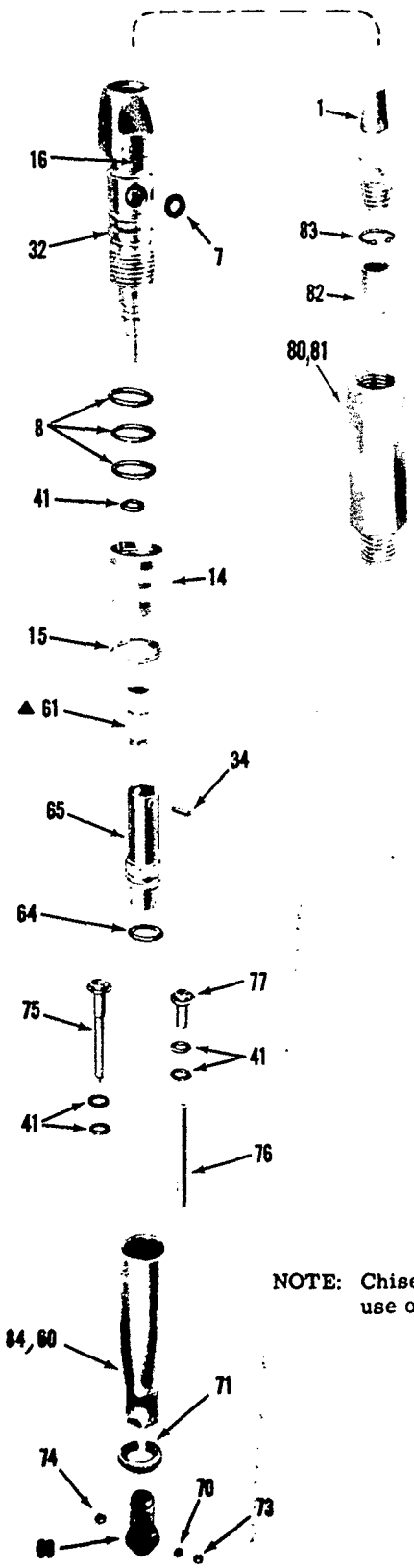
1. Check condition of air filter assembly (80). To clean filter, soak in solvent to loosen gum or sludge deposits and blow compressed air through filter, REVERSING normal air flow direction. Allow to dry before reassembly.
2. Check lubrication. Disconnect tool and pour a liberal quantity of recommended oil into tool air inlet. Operate tool to flush out gum and foreign matter.

> CAUTION: When operating tool to flush out gum and foreign matter, direct the exhaust away from operator and co-workers.

3. Check mechanical parts of tool. Disassemble tool, thoroughly clean and inspect all parts. Check "O" rings for excessive wear, check piston for close, free movement in cylinder and be sure air porting in inlet, cylinder and piston is clean and open. Replace defective parts, relubricate and reassemble tool.

When ordering spare parts, give Name, Speed or Size, Model and Serial Number of the tool and Part Number and Description of each part desired.

CP-9361 AIR SCRIBE Model "A"



REPAIR KIT

P-059264 Repair Kit (Incl: 7, 8, 34, 41, 64, 70, 82

CHISEL ASSEMBLY

P-058425 Set (Incl: 75, 76, 77, 2 of 41 and G-095293 Container)

REPAIR TOOLS

P-059265 Pressing Set (Incl: P-059992 Drift & P-059993 Holder)

Index No.	CP Part No.	Description	No. Req'd.
1	P-043886	Line-Air (8 Ft.)	1
7	P-059919	"O" Ring (-006)	1
8	A-082777	"O" Ring (-012)	3
14	P-054175	Valve-Sleeve	1
15	P-054187	Ring-Truarc Retaining Interlocking (#5107-46)	2 Halves
16	G-071685	Pin-Roll (1/16" x 3/16")	1
32	P-054173	Inlet	1
34	CA-092079	Pin-Roll (3/32" x 3/8")	1
41	P-083076	"O" Ring (-007)	3
60	P-054180	Sleeve-Cylinder	1
61	P-122208	Piston	1
64	P-083071	"O" Ring (-011)	1
65	P-054174	Cylinder	1
69	P-054181	Bushing-Accessory	1
70	CA-055009	"O" Ring (-002)	1
71	P-054186	Ring-Ball Lock	1
73	S-000821	Ball (1/8" Dia.)	1
74	S-008613	Ball (5/32" Dia.)	1
75	P-054177	Holder (Incl: Stylus)	1
76	P-054182	Chisel-Round Nose	1
	P-054183	Chisel-Flat (1/4")	1
	P-054184	Chisel-Blank (See Pg. 4)	1
77	P-054207	Anvil (Used With P-054182, P-054183 & P-054184 Only)	1
80	P-056381	Air Filter Ass'y. (Incl: Index No's. 81, 82 & 83)	1
81	P-056379	Body-Air Filter	1
82	P-056380	Cartridge-Filter	1
83	P-056432	Ring-Retaining (5000-43) (Internal)	1
	C-083539	Pliers-Truarc (1)	1
84	P-057919	Retainer Assembly (Incl: #60, 69, 70, 71, 73 & 74)	1

NOTE: Chisel (76) requires use of Anvil (77)

All Threads Are Right Hand Unless Otherwise Specified.

When ordering spare parts, give Name, Speed or Size, Model and Serial Number of the tool and Part Number and Description of each part desired.

Disassembly/Assembly Cautions

When disassembling tool, use a 3/32" pin punch to remove roll pin (34). Support tool firmly on a suitable surface and drive pin out carefully to avoid damage to cylinder (65) or inlet (32). Take precautions to avoid losing roll pin. When removing sleeve valve (14) align mark on sleeve with "OFF" on inlet (32) to avoid cutting "O" ring (7). To remove accessory bushing (69) support lock ring (71) on bore of P-059993 Holder and press bushing out of cylinder sleeve (60) from interior of sleeve with P-059992 Drift. See illustration (Fig. 14)

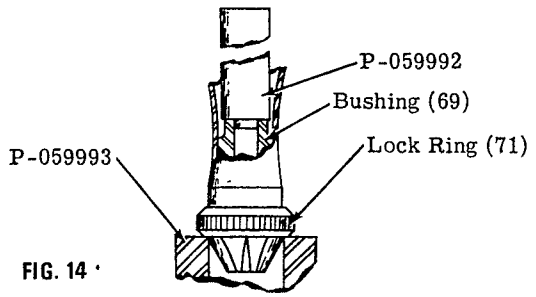


FIG. 14

When assembling inlet (32) with sleeve valve (14), first lubricate "O" ring (7) LIGHTLY with a good rubber lubricant and place in counterbored air port in inlet. Lubricate two "O" rings (8) and assemble in grooves on either side of air port. To avoid cutting "O" ring in air port align indicator mark on valve with "OFF" on inlet and slide valve carefully on inlet. Place retaining ring (15) in groove in inlet, lubricate third "O" ring (8) and assemble in groove next to shoulder between retaining ring groove and threads on inlet. Be sure this "O" ring is assembled between the slight ridge and the shoulder (shown in enlarged view on tool drawing, pg. 7) to prevent "O" ring from being forced into inlet threads.

When installing a new piston (61) in cylinder (65), it may be necessary to lap the piston to secure a close yet free fit in cylinder. No. 12-24 UNC internal threads in piston allow handling during this operation. Use a good grade FINE lapping compound, thoroughly clean parts and lubricate with recommended air tool oil before assembly.

After assembling piston and cylinder, lubricate and install "O" ring (41) on inlet and carefully slip cylinder on inlet. Do not injure "O" ring. Align transverse holes in cylinder and inlet and carefully install roll pin (34) through parts. Support parts firmly and avoid injury or distortion of parts while driving roll pin.

Assemble "O" ring (70) and 1/8" steel ball (73) in accessory bushing (69) with lubricant to hold in place. Lubricate and assemble 5/32" steel ball (74) in larger opening. Referring to Fig. 15 align nubbin at smooth spot on lock ring (71) with dot on accessory bushing (69). Nubbin should be on side of lock ring toward bushing. Slip ring on bushing. Orient dot on bushing with any corner of hex. on cylinder sleeve (60) and press bushing into sleeve up to bushing shoulder.

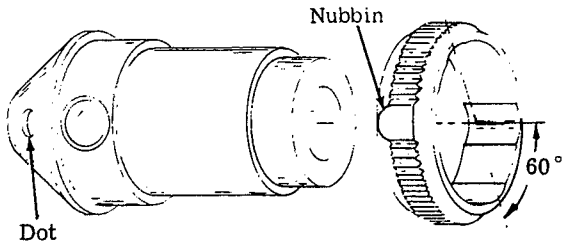


FIG. 15

Malfunctions and Repairs

Because of the close clearance between piston (61) and cylinder (65), foreign matter in the air supply may cause piston to stick. To correct, remove cylinder sleeve (60), drive roll pin (34) out of cylinder and inlet (32) and remove piston from cylinder. Thoroughly clean parts, blow dry and lubricate with recommended air tool oil. Check clearance and free movement of piston and reassemble tool.

If sleeve valve must be removed, remove "O" ring (8) between retaining ring (15) and threads on inlet, remove retaining ring, set sleeve valve at "OFF" and pull valve off inlet. Inspect "O" rings, replace if worn, relubricate and reassemble. Do not overlubricate "O" ring (7) in counterbored air port and risk impeding air flow.

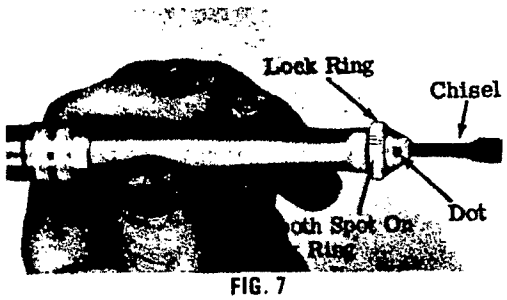


FIG. 7

Push the chisel into the tool, it should enter easily. Lock the chisel in place by turning the lock ring until smooth spot on lock ring is aligned with dot on accessory bushing. The chisel should move freely in the bushing with a small amount of end play.

To Replace Stylus

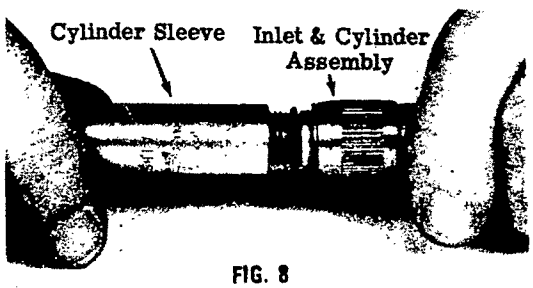


FIG. 8

Unscrew the cylinder sleeve from inlet and cylinder assembly. (Right Hand Thread.)

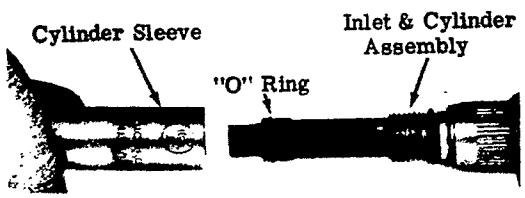


FIG. 9

Withdraw inlet and cylinder assembly from cylinder sleeve. Avoid damage to "O" ring.

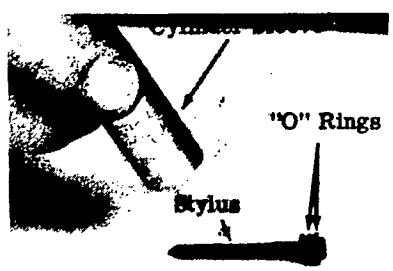


FIG. 10

Jar the stylus out of the cylinder sleeve. Be sure two "O" rings are assembled next to shoulder of replacement stylus. Drop stylus point first into sleeve.

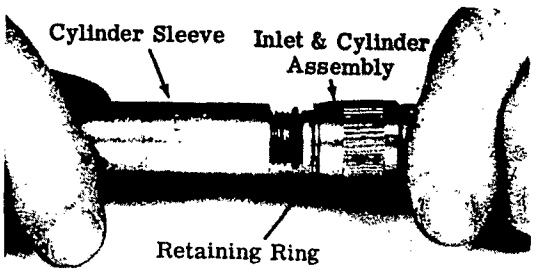


FIG. 11

Carefully screw inlet and cylinder assembly into sleeve until it bears against retaining ring.

Sharpening the Sylus

Best results are obtained with a diamond wheel mounted on a tool post grinder in a lathe. This is followed by polishing first with a Norton stone No. 37C4006V or equivalent then with carborundum paper No. A935K500 or equivalent to a 10-15 micro finish. If such facilities are not available, the stylus can be sharpened with No. 19A 60L8V Norton wheel on a bench grinder.

Sharpen to an included angle of 90° with a point diameter of .005" to .015" flat, see Fig. 12.

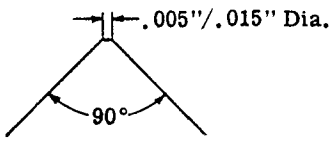


FIG. 12

The stylus may be sharpened until the turned down portion at the end of the stylus holder is ground off.

This gives a usable length of stylus of approximately 1/4 inch as shown on drawing below (Fig. 13).

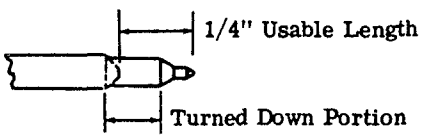


FIG. 13

Hardening Chisel Blanks

A blank chisel is provided for special jobs. It can be heated and formed to any desired shape.

To harden chisel after forming, heat to cherry red and quench in oil. Polish a surface with emery cloth and reheat to a light straw color.

If heat treating facilities are available, harden by heating to 1550°F for five minutes, quenching in oil and drawing at 425° for one hour. Hardness should be 55-60 Rc.

Operating Instructions

To start tool, turn sleeve valve indicator approximately to the mid-point of the operating range. If necessary, jar stylus lightly against bench to start piston. After starting, adjust sleeve valve to the operating speed, causing the stylus to make a mark to the depth desired.

The CP-9361 Air-Scribe is capable of marking material as hard as Rc-64. When marking material of this hardness, the operator is cautioned to regulate the impact of the stylus with the throttle valve so that the stylus makes a legible mark and no more than this. If the stylus is driven harder, excessive wear and breakage of the stylus point may result on very hard materials.

When scribing, do not bear down on the work and cause stylus to dig in. Guide the tool and let the stylus do the work. Tool should be held approximately 15° off perpendicular to the work surface in order to scribe smoothly and to minimize excessive force on the side of the stylus point.

When using a chisel, it is necessary to bear against the work as with a chipping hammer. The tool may be used at full throttle on softer materials and, by varying the throttle setting, speed may be adjusted to suit the particular job and to give the operator full control of the tool. The amount of force the operator exerts on the Air-Scribe directly affects the chisel blow. Applying lighter force when starting or stopping a cut results in good control of the tool.

To Change from Stylus to Chisel

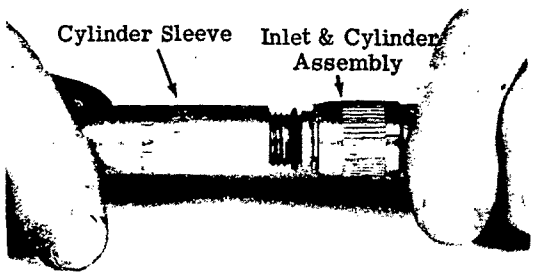


FIG. 1

Unscrew the cylinder sleeve from inlet and cylinder assembly. (Right Hand Thread).

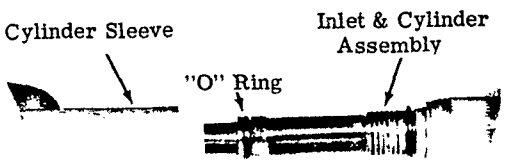


FIG. 2

Withdraw inlet and cylinder assembly from sleeve. Avoid damage to "O" ring.

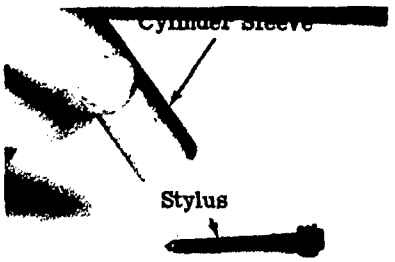


FIG. 3

Jar the stylus out of cylinder sleeve.

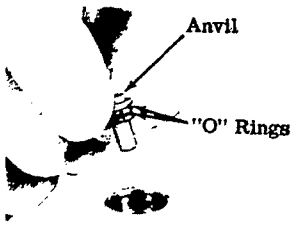


FIG. 4

Be sure two "O" rings are assembled under shoulder of anvil. Drop anvil into cylinder sleeve, small end down. Shake sleeve until small end of anvil enters hole in bottom of sleeve.

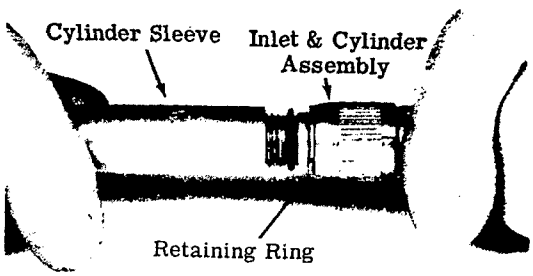


FIG. 5

Carefully screw inlet and cylinder assembly into cylinder sleeve until it bears against retaining ring.

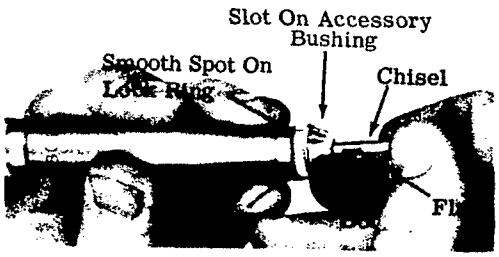
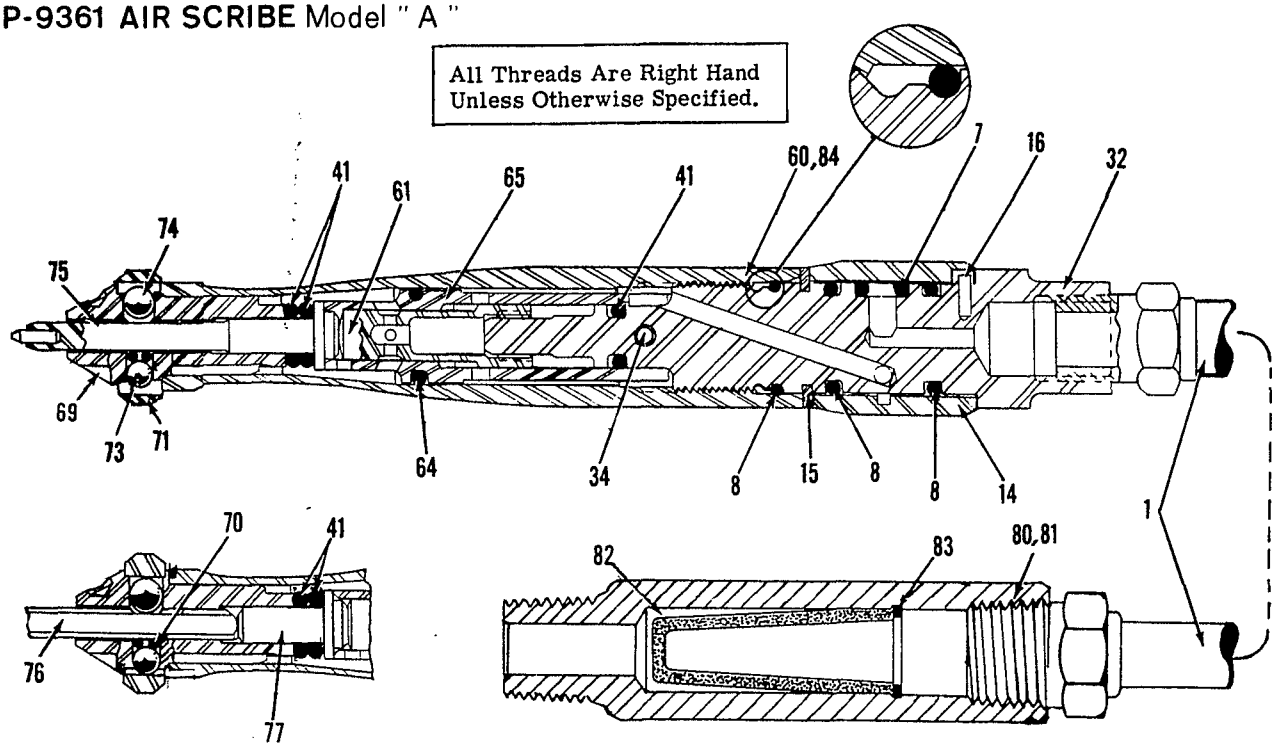


FIG. 6

Rotate lock ring until smooth spot on lock ring is aligned with slot on accessory bushing. Line up flat on chisel with dot on accessory bushing.

CP-9361 AIR SCRIBE Model " A "



THIS SERVICE CHART IS PUBLISHED AS A GUIDE TO EXPECTANT LIFE OF COMPONENT PARTS. THE REPLACEMENT LEVELS ARE BASED ON AVERAGE TOOL USAGE OVER A ONE YEAR PERIOD

EXAMPLE: For 10 tools in use: 10 high wear items will be required per year, 7 medium wear items, etc.
NOTE: Quantities must be increased where tool is subjected to more severe and/or continuous usage.

LEGEND

X—Type of wear, if no other comments apply.

L—Easily lost. Carefully reserve during disassembly.

D—Easily damaged during disassembly and assembly.

SPARE PARTS SERVICE CHART

Index No.	CP Part No.	Description	No. Req'd.	High Wear 100%	Medium Wear 70%	Low Wear 30%	Non Wear 10%	Subject To External Damage
1	P-043886	Line-Air	1			X		
7	P-059919	"O" Ring	1	L				
8	A-082777	"O" Ring	3		L			
14	P-054175	Valve-Sleeve	1			X		
15	P-054187	Ring-Truarc Retaining	2 h'lvs				L	
16	G-071685	Pin-Roll	1			L		
32	P-054173	Inlet	1				X	
34	CA-092079	Pin-Roll	1			L		
41	P-083076	"O" Ring	3			D		
60	P-054180	Sleeve-Cylinder	1					X
61	P-122208	Piston	1	D				
64	P-083071	"O" Ring	1			X		
65	P-054174	Cylinder	1		X			
69	P-054181	Bushing-Accessory	1	X				
70	CA-055009	"O" Ring	1		L			
71	P-054186	Ring-Ball Lock	1		L			
73	S-000821	Ball (1/8" Dia.)	1				L	
74	S-008613	Ball (5/32" Dia.)	1				L	
75	P-054177	Holder	1	D				
76	P-054182	Chisel-Round Nose	1	L				
	P-054183	Chisel-Flat	1	L				
	P-054184	Chisel-Blank	1				L	
77	P-054207	Anvil	1	L				
81	P-056379	Body-Air Filter	1				X	
82	P-056380	Cartridge-Filter	1				X	
83	P-056432	Ring-Retaining	1				L	