

CP - 4181 RIVET BUSTER

MODEL "V"

FIRST EDITION
APRIL 2002



WARNING - TO REDUCE RISK OF INJURY,
READ AND UNDERSTAND THIS INSTRUCTION
MANUAL BEFORE OPERATING TOOL.

Instruction and Parts Book for

RIVET BUSTER

CP 4181 PULER
CP 4181 PUSER
CP 4181 DULER
CP 4181 DUSER

**PROTECT YOUR INVESTMENT
IN THE WORLD'S FINEST AIR TOOLS
USE GENUINE CP REPLACEMENT PARTS**

The purchase of replacement parts for your CP tools deserves the same good judgment that resulted in the purchase of the tools themselves. Each genuine CP part is made from carefully selected and inspected material, subjected to sophisticated machinery and finishing processes and heat-treated to produce just the

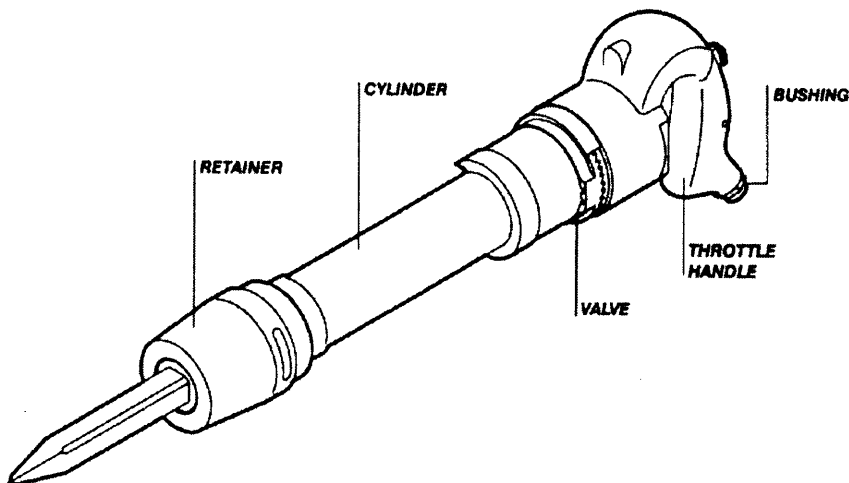
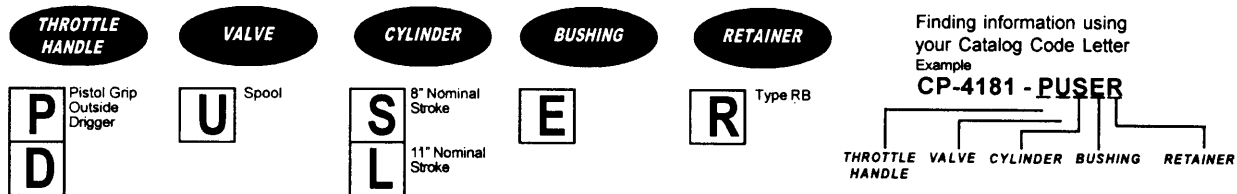
right combination of hardness, ductility and impact resistance for its intended use. Each part is identical to, and made concurrently with, parts used in production tools. The use of parts other than genuine CP replacement parts can lead to substandard performance, early failure, possible damage of other parts and, in some instances, unsafe conditions.



**Chicago
Pneumatic**

Chicago Pneumatic Tool Company ★ 1800 Overview Drive ★ Rock Hill, SC 29730

R-157984



Air Supply

For satisfactory performance, 90 psig (6.2 bar) of clean, dry air is required AT THE TOOL with tool operating. Whip hose 1/2" I.D. may be used at the air inlet, but longer runs should be 3/4" hose size or larger, used with couplings of a minimum 7/16" I.D. The use of a C-132194 Chicago Pneumatic Air Line Filter and a CA048362 Chicago Pneumatic Air Line Pressure Regulator mounted as closely as possible to the tool is recommended.

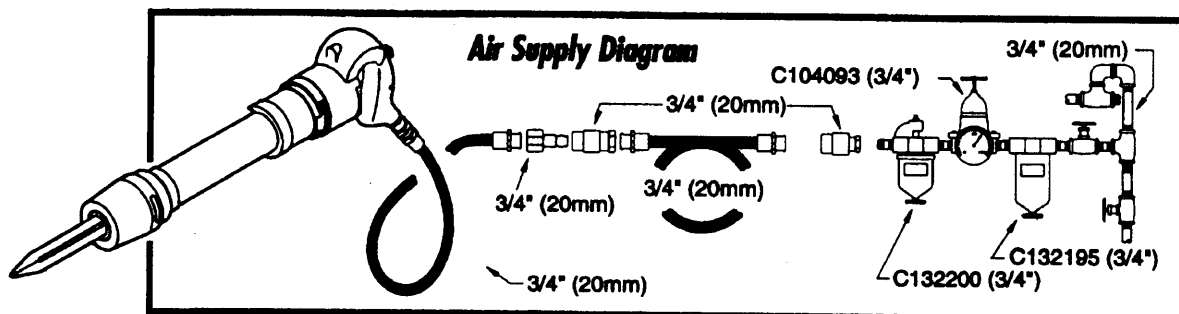
Lubrication

Daily before putting tool into operation, disconnect air hose, and pour about one tablespoonful of recommended oil into tool air inlet. Blow out air line to clean it of accumulated dirt and moisture, connect tool and operate to allow oil to be carried to air motor. The use of synthetic oils is NOT RECOMMENDED due to possible damage to seals, "O" rings, hose, blades, and polycarbonate oiler/filter bowls. Daily before using and after each two hours of service, pour about one tablespoonful of recommended oil into air inlet. In addition, the use of a C-132199 Chicago Pneumatic Air Line Lubricator installed at the end of each air pipe leading to this pneumatic tool is recommended to assure a constant and adequate supply of lubricant to the motor.

Maintenance

Do not penalize the operator by requiring him to use a tool which is not in first class condition. A regularly scheduled inspection and repair program will correct minor faults, avoid later, extensive repairs and maintain the tool at its highest efficiency.

1. Keep tool properly lubricated.
2. Provide 90 psig (6.2 bar) of clean, dry air at the tool.
3. Use hose and connections of proper size and in good condition.
4. Set up and maintain a repair and replacement programscheduled at regular intervals.
5. High wear parts are underlined in parts list.



Recommended Lubricants

Chicago Pneumatic Airoilene oil, which contains moisture absorbent, rust inhibiting additives and will not separate while the tool is idle, is recommended for use with this tool and may be purchased under the following symbols: 1 gallon can-P089507, 5 gallon can-P089508. If recommended oil is not available, use a turbine or spindle grade oil with a viscosity of 100-150 SUS at 100 degrees F. which contains a rust inhibitor.

Loss of Power / Erratic Action

Motor 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 the 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 cause the tool to rust and corrode. Dirt and foreign matter in the air supply will impede action of the piston and damage the tool.

If the previous factors are in order:

Check mechanical parts of tool. Disassemble tool, thoroughly clean and inspect all parts. Replace worn parts, relubricate and reassemble tool.

Malfunctions and Repairs

1. DO NOT ATTEMPT TO REPAIR THIS TOOL WITHOUT FIRST SHUTTING OFF THE AIR SUPPLY AS THE CHISEL, PISTON AND OTHER PARTS CAN BE EJECTED UNDER CERTAIN CIRCUMSTANCES WITH ENOUGH FORCE TO CAUSE SERIOUS INJURY.

The purpose of Piston Retainer Ring (P156987) is to prevent the piston from ejecting from cylinder. If the piston has become lodged in the retainer ring, immediately replace the ring with a new one. If piston retainer ring (P156987) has been removed, do not send the tool back into service without replacing it.

2. Use the following as a guide to remove and replace the piston retainer ring. The retainer ring has a diagonal slot. To remove, pick

out one end with a sharp needle like object, grasp end with needle nose pliers and rollout of the groove. To replace, roll the ring in overlapping the ends, slowly insert into the groove, making sure the ring is completely installed into the groove.

3. Throttle valve leakage is usually traceable to a worn or distorted "O" Ring. If the Throttle Valve Tube (9) is worn damaged, loosen by striking sharply using a drift overing the outside diameter of tube. Tap tube with a standard tap and jack out of handle with a bolt, nut and washer. Press new tube into handle. End of tube should extend 5/32" from counterbored surface of handle. If Push Pin Bushing (10) is worn, drive bushing out of tube from lever end. Press in new bushing, flush with face of counterbore at lever end and ream with a standard .250" reamer. At each inspection period, disassemble Cycling Valve (21) and clean thoroughly as well as making sure that machined faces of cylinder and handle are clean and free from rust or scale. At each inspection period, disassemble Cycling Valve (21) and clean thoroughly as well as making sure that machined faces of cylinder and handle are clean and free from rust or scale. At each inspection period, inspect interior of tool for excessive wear. As the parts of the tool wear, power will slowly decrease. Depending on the requirements of the particular operation, tolerable wear can vary.

Safety Cautions

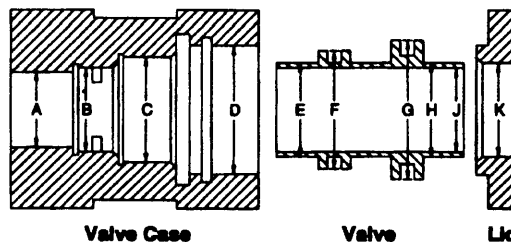
A Each tool comes with Safety Instructions in booklet P144088 and Supplemental Safety Instruction P157428. Before placing this tool in operation, read Safety instructions and understand. All users must read this booklet. Additional manuals can be obtained from CP at no cost by calling 1-800-760-4049. Tools also come with Safety Warning Labels (items 77 & 78 on page 5). If damaged during use, obtain new Safety Warning Labels from CP at no cost. Model 'V' series CP4181 have a step piston design with A Step Cylinder, and an additional piston buffer mechanism in the form of a ring made of a high friction material. Operators should still take precautions of shutting off air supply prior to removing the retainer from the tool, as indicated in the safety instructions. Periodically replace the friction ring, item 76, when it is worn or damaged, to prolong cylinder life.

As a guide to maintain maximum power output, the parts listed in the following tables should not be worn in excess of the given dimensions.

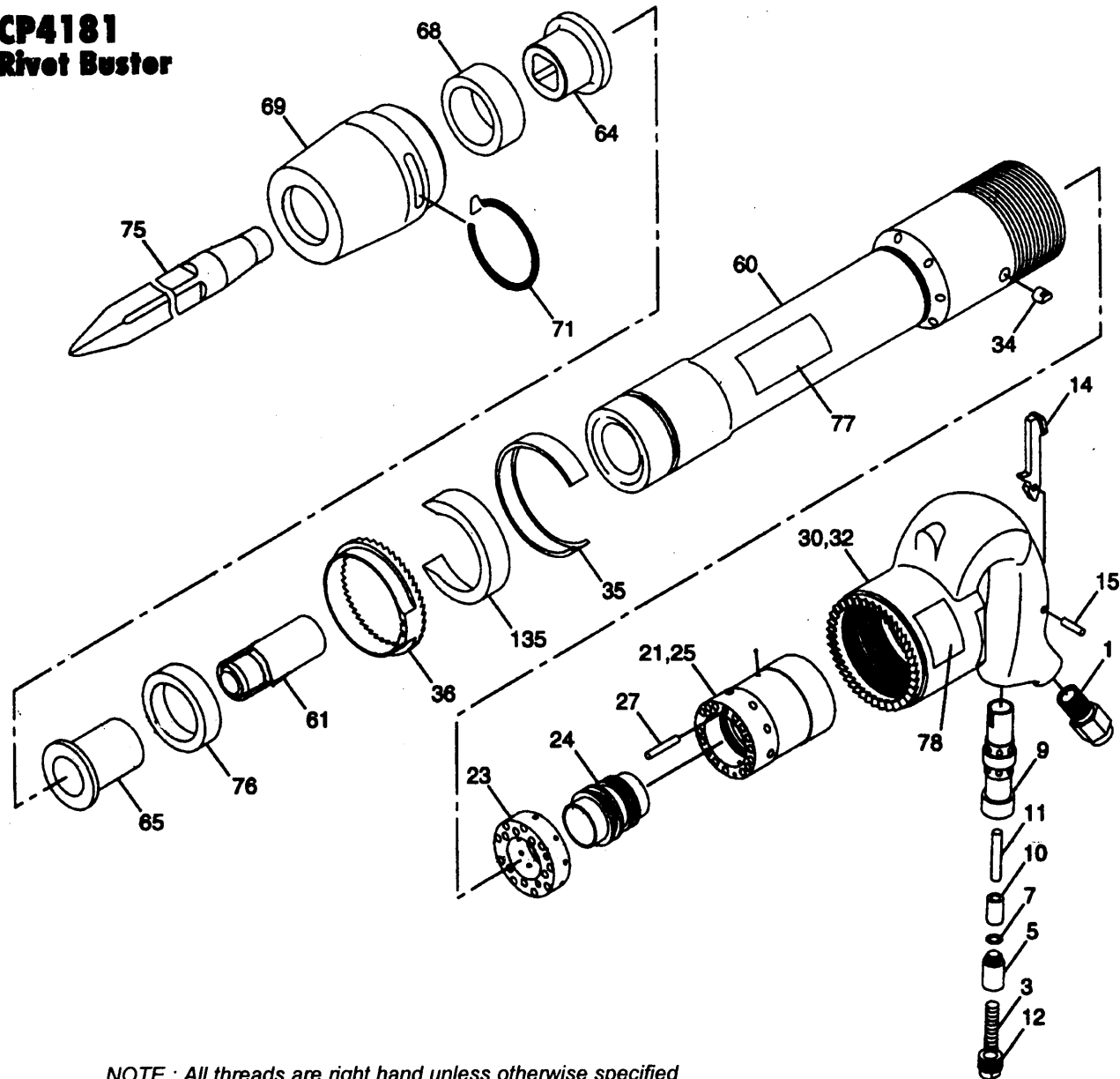
Cycling Value Table
(dimension in inches & mm)

Dimension	Maximum	Minimum
A	1.1881"	-
B	1.2821"	-
C	1.5008"	-
D	1.6257"	-
E	-	1.2811"
F	-	1.4933"
G	-	1.6244"
H	-	1.2811"
J	1.1913"	-
K	1.2819"	-

Piston O.D. Min.	Cylinder I.D. Max.
1.1843"	5" from Set End
	1.1900"



CP4181 Rivet Buster










NOTE : All threads are right hand unless otherwise specified

Index No.	Part No.	Description	Req'd.
1	P-001983	Bushing-Air Inlet (3/8" NPTF) (Incl: Air-Screen)	1
3	P-001853	Spring-Valve	1
5	P-001799	Valve-Throttle (Incl: Index No.7)	1
7	P-083071	O-Ring (-011)	1
9	P-007325	Tube-Throttle (Incl: Index No.1 0)	1
10	P-004839	Bushing	1
11	P-004834	Pin-Push (Valve)	1
12	P-001873	Plug-Valve Tube	1
14	P-001982	Lever-Throttle	1
15	P-001915	Pin-Lever	1
21	P-007385	Valve Complete (Incl: Index Nos. 23, 24, 25 & 27)	1
23	P-006320	Lid-Valve Case	1
24	*P-001538	Valve	1
25	P-006319	Case-Valve	1
27	P-001632	Dowel	1
30	P-007164	Handle Complete (Incl: Index Nos. 1,3,5,11,12,14,15&32)	1

Index No.	Part No.	Description	Req'd.
32	P-007347	Handle (Incl: Index No.9)	1
34	P-001430	Key-Lock Collar	1
35	P-001355	Clip-Spring (Lock Collar)	1
36	P-001399	Collar-Lock	1
60	R-157980	Cylinder (8" Stroke)	1
	R-157979	Cylinder (11" Stroke)	1
61	R-157982	Piston (8" Stroke)	1
	R-157981	Piston (11" Stroke)	1
64	P-072333	Sleeve-Lower	1
65	P-156988	Sleeve-Upper	1
68	P-072334	Bumper-Rubber	1
69	P-071849	Sleeve-Retainer	1
71	P-073942	Spring-Lock	1
75	See Table	Chisel	1
76	P-156987	Retainer-Piston	1
77	P157290	Label-Warning	1
78	CA 144007	Decal-Safety Warning	1
135	P-001389	Deflector-Exhaust	1

* For oversize values, consult your local Chicago Pneumatic representative

CP 4181 Rivet Buster

Body Section	Description	Width		Length		Weight		Part Number
		(mm)	(inch)	(mm)	(inch)	(kg)	(lb)	
	Moll Point			255	10	0.9	2	3083 4140 00
				305	12	1.1	2 1/2	3083 4140 10
				450	18	1.8	4	3083 4140 20
	Narrow Chisel	23	1	255	10	0.9	2	3083 4141 00
		23	1	305	12	1.1	2 1/2	3083 4141 10
		23	1	450	18	1.8	4	3083 4141 20
	Loose rivet buster			255	10	0.9	2	3083 4142 00
				305	12	1.1	2 1/2	3083 4142 10
				450	18	1.8	4	3083 4142 20
	Tight rivet buster			255	10			3083 4145 00
				305	12			3083 4145 10
				450	18			3083 4145 20
	Drift pin driver			190	7 1/2			3083 4143 00
	Ripper			230	9			3083 4144 00
	Backing out punch	12.5	1/2	250	9 3/4			3083 4147 00
		16	5/8	250	9 3/4			3083 4147 10
		20	3/4	240	9 1/2			3083 4147 20
		20	3/4	300	12			3083 4147 30
		22	7/8	240	9 1/2			3083 4147 40
		22	7/8	300	12			3083 4147 50
		25	1	240	9 1/2			3083 4147 60
25	1	300	12			3083 4147 70		

Conversion Kits : R 158435 Model 'V; Conv. Kit, to Convert CP4181 Model 'A' PULER into Model 'V'
R158436 Model 'V' Conv. Kit, to Convert CP 4181 Model 'A' PUSER into Model 'V'

SPARE PARTS SERVICE CHART

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.

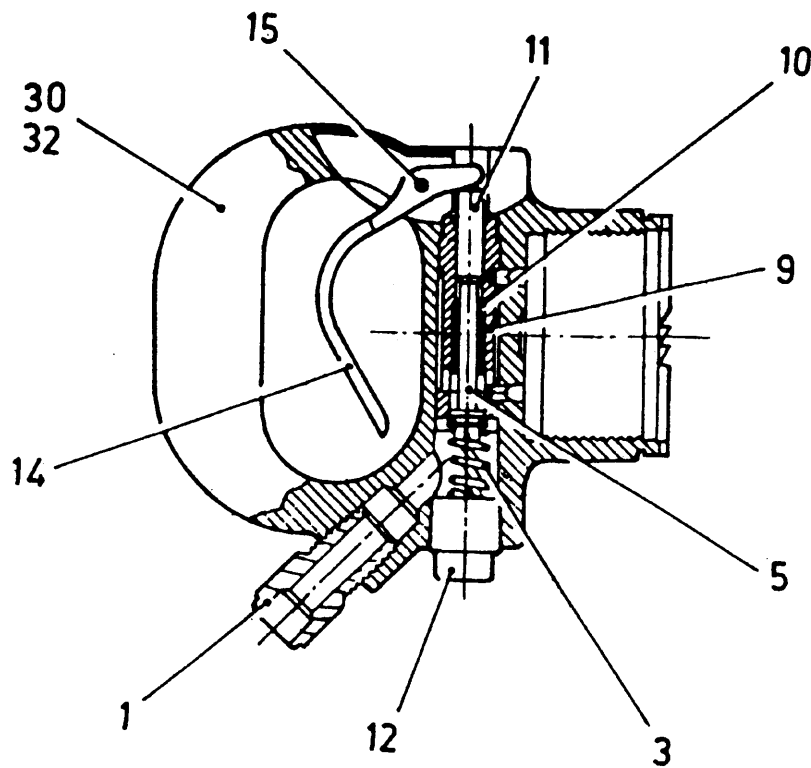
L - easily lost. Carefully reserve during disassembly.

*See Part List

Index No.	Part No.	Description	No. Req'd.	High Wear 100%	Medium Wear 75%	Low Wear 30%	Non-Wear 10%	Subject To External Damage
1	P-001983	Strainer-Air	1				X	
3	P-001853	Spring-Valve	1		L			
5	P-001799	Valve-Throttle	1				X	
7	P-083071	O-Ring	1	X				
9	P-007325	Tube-Throttle	1			X		
10	P-004839	Bushing	1			X		
11	P-004834	Pin-Valve Push	1		X			
12	P-001873	Plug-Valve Tube	1				L	
14	P-001982	Lever-Throttle	1				X	
15	P-001915	Pin-Lever	1			L		
23	P-006320	Lid-Valve Case	1			X		
24	P-001538	Valve	1		X			
25	P-006319	Case-Valve	1			X		
27	P-001632	Dowel	1				X	
32	P-007347	Handle	1				X	
34	P-001430	Key-Lock Collar	1					X
35	P-001355	Clip-Spring (Collar)	1				X	
36	P-001399	Collar-Lock	1				X	
60	*	Cylinder	1			X		
61	*	Piston	1			X		
64	P-156988	Sleeve	1		X			
65	P-072332	Sleeve	1		X			
68	P-072334	Bumper-Rubber	1	X				
69	P-071849	Sleeve-Retainer	1			X		
71	P-073942	Spring-Lock	1			X		
76	P156987	Piston Retaining Ring	1			X		
77	P157290	Label-Warning	1					X
78	CA144007	Decal-Safety	1					X
135	P-001389	Deflector-Exhaust	1					X

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- 4181 RIVET BUSTER Model "V" With "D" Handle



Exclusive Parts For "CP 4181 RIVET BUSTER" (Model "A")

With "D" Handle for DUSER (8" Stroke) & DULER (11" Stroke) Models Only

Index No.	CP Part No.	Description	No. Req'd.
1	P-001983	Bushing-Air Inlet (3/8"NPTF) (Incl: Air Screen)	1
3	P-001864	Spring-Valve	1
5	P-005153	Valve-Throttle	1
9	P-007846	Tube-Throttle (Incl: No.10)	1
10	P-005157	Bushing	1
11	P-006138	Pin-Push (Valve)	1
12	P-001884	Plug-Valve Tube	1
14	P-006137	Lever-Throttle	1
15	P-005171	Pin-Lever	1
30	P-007399	Handle Complete (Incl: No.1,3,5,9,10, 11,12,14,15 & 32)	1
32	P-077488	Handle (Incl: No. 9)	1

Note: Remaining Parts Are Same As Standard "CP4181 With P.G. Handle."