

# **CP- 0222 UTILITY HAMMER**

**M & C 678**

THIRD EDITION

OCTOBER, 1989

SUPERSEDES SECOND EDITION SEPTEMBER, 1983



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

## ***Instruction and Parts Book for***

# **UTILITY HAMMER**

**CP- 0222, UTILITY HAMMER**

**Model "F", "K" & "U"**

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

Rock Hill, SC 29730

R134047

## GENERAL INSTRUCTIONS

### Air Supply

For satisfactory performance, 80-90 PSIG (5.6-6.2 bar) of clean, dry air is required AT THE TOOL with tool operating. Air piping should be a minimum of 1/2" hose size and used with couplings with 7/16" minimum I.D. The installation of an air line separator and filter to purify and dry the air supply, also on air regulator to eliminate any pressure fluctuations is recommended. These control units should be located as near to the tool as operation will allow.

### SAFETY CAUTIONS

Always wear approved eye & ear protection, and safety type shoes to avoid personal injury.

Prolonged exposure to vibration and repetitive motion may be harmful to hands and arms.

Avoid inhaling dust.

Always operate the CP-222 Utility Hammer with a spade or chisel in the tool, and with the tool held down to the work; thus avoiding damage which would be caused by allowing the piston to strike against the face of cylinder bore.

### PREPARING FOR OPERATION

Prior to the initial operation of the Utility Hammer, disconnect the air hose and pour approximately a teaspoonful of recommended oil into the tool air inlet.

Directing compressed air flow discharge away from self and others, blow out the air line to remove any accumulation of the dirt and condensation before connecting to the tool.

Connect the air line and operate the tool to allow the oil to be carried through the moving parts of the tool.

### LUBRICATION

The use of synthetic oils is NOT RECOMMENDED due to possible damage to seals, O - Rings, hose and polycarbonate oiler/filter bowls. Daily, prior to operating the hammer, the 'Preparing Operation' sequence should be carried out. An air line lubricator should be installed in the air line system. This should be one of the adjustable type and regulated to introduce a fine oil spray to the compressed air flow and thus ensure smooth and properly cushioned movement of the piston. This will also reduce stress in the 'striking' and retaining parts of tool, and so allow for a long working life. Daily, before using, and after each four hours of service: fill the reservoir with recommended oil. Indications of proper lubrication are the presence of an oil mist in the exhaust air, and slight traces of oil on the steel shank. If these are not apparent, check the lubrication system, if necessary readjust the line oiler.

### RECOMMENDED LUBRICANTS

The following specifications are rock drill oils suitable for use in this Utility Hammer.

Consistency - The lubricant shall be of such consistency as to adhere readily to metallic surfaces under the conditions which exist in a rock drill.

Flash, Cleveland Open Cup	380 F (Min)	(a)
Carbon Residue	0.30% max	
Recommended Viscosity for Oil Atmospheric Temperature	SAE 10	
Mineral Acidity	None	
Free Fatty Acid (as oleic %)	0.40 % Max	
ASTM Steam Emulsion No.	600 (Max)	(b)
Metallic Soaps	None	
Pour Point F	+10 Max	(c)
Film-Strength PSI		
Almen Test	12000	(d)
Weeks Test	8000	(d)

(a) For extremely low temperature operations, where a lower than normal viscosity is necessary, minimum flash point may be reduced to 350 F

(b) 1200 + desired for applications where moisture is a major factor. In the case, foaming must be recognized by the operator when filling the lubricator.

(c) For below normal atmospheric temperature operation lower pour test product may be required.

(d) Values indicated are desired rather than minimum.

Rock drill oils must give definite indication of load carrying ability appreciably above that obtained for a like viscosity straight mineral oils. Additives used to impart extreme pressure characteristics shall be noncorrosive to any of the working parts of the mechanism.

### LOSS OF POWER / ERRATIC ACTION

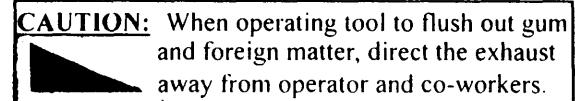
Tool failures loss of power or erratic action may be caused by external factors. The following checks should be made:

1. Check the compressed air pressure. - For rated performance 80-90 psig (5.6-6.2 bar) air pressure is required AT THE TOOL with tool operating. A drop in air pressure may be caused by lower compressor output, excessive drain on the air line, by the use of hose or connections of improper size or poor condition, choked hose pipe, or a blocked up air inlet gauge.

2. Check for wet or dirty air. - Wet air tends to wash lubricant from the cylinder resulting in general and corroding. Dirt and foreign matter in the air supply will impede valve action and cause damage to the tool.

If above are in order.

1. Check tool lubrication. Disconnect tool and pour a liberal quantity of recommended oil cut with an equal amount of kerosene into the air tool inlet. Operate tool to flush out gum and foreign matter.



2. Check mechanical parts of tool. Disassemble tool, thoroughly clean and inspect all parts. Replace worn or broken parts, lubricate and reassemble tool.

### MAINTENANCE

Economic operations can only be achieved if the utility Hammer is in perfect working condition. A regular scheduled inspection and repair program will correct minor faults, avoid extensive repairs, and maintain the tool at its highest efficiency.

1. Keep tool properly lubricated.

2. Provide 80-90 psig (5.6-6.2 bar) of clean, dry air AT THE TOOL.

3. Use hose and connections of proper size and in good condition.

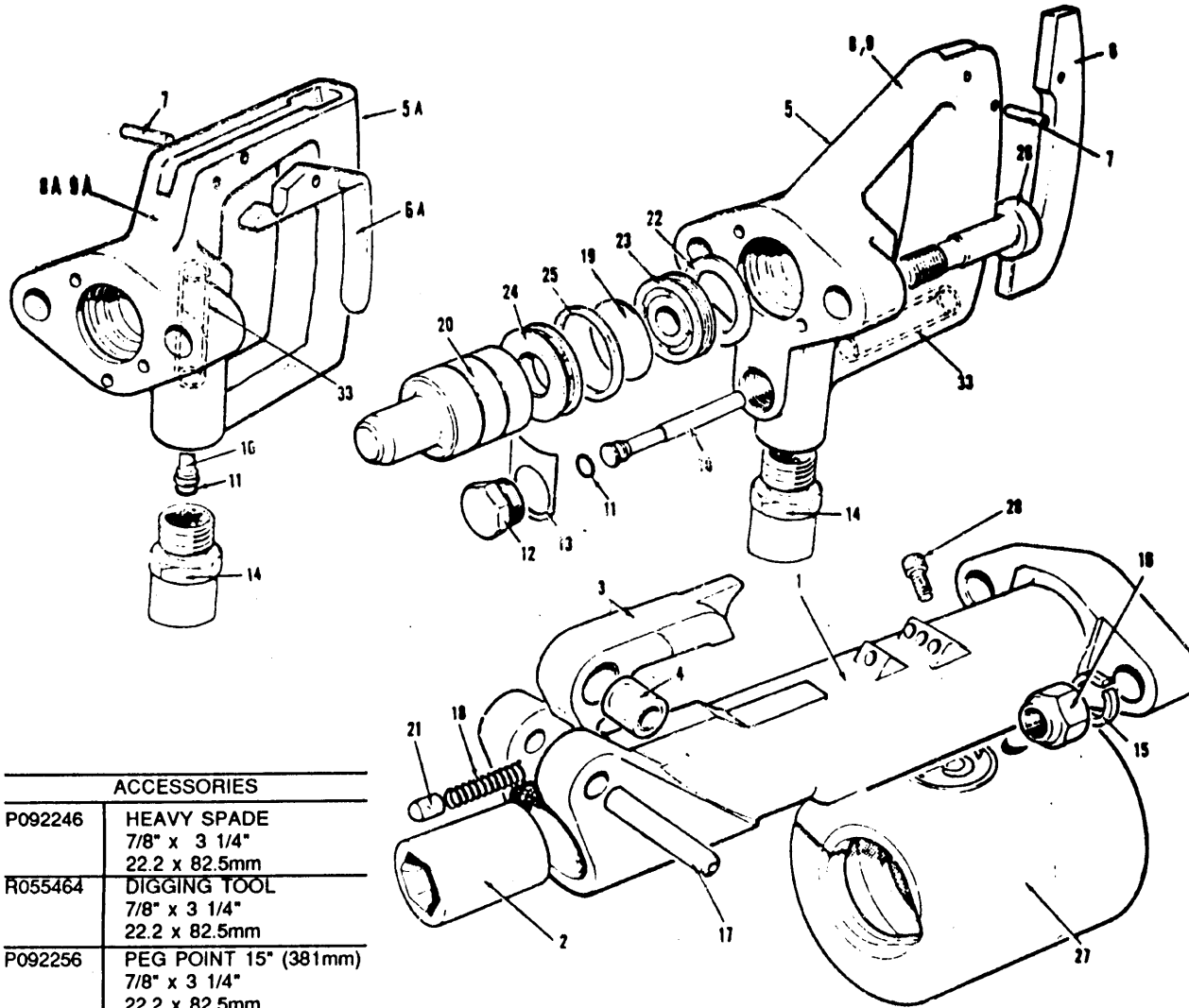
4. Establish and maintain an inspection and repair program scheduled at regularly intervals.

### DISASSEMBLY / ASSEMBLY CAUTIONS

The CP0222 Utility Hammer is constructed with precision built components designed to operate at fine clearances and in perfect alignment. Ensure that no parts are scored, burred or distorted during assembly. The handle (Index No. 8 or 8A) is removed from the cylinder (Index no. 1) by unscrewing the self locking nuts (Index No. 16), and with removing the handle bolts (Index No. 26). Remove the piston (Index No. 20) from the cylinder, examine for wear, and replace if necessary. Parts (Index Nos. 19, 22 thru 25) can easily be withdrawn from the handle with the finger or knocking the handle gently on the work bench. Remove the piston (Index No. 20) from the cylinder, examine for wear, and replace if necessary. Parts (Index Nos. 19, 22 thru 25) can easily be withdrawn from the handle with the finger or knocking the handle gently on the work bench. Remove latch retainer (Index No. 3) by pressing out spring pin (index No. 17), examine retainer parts and replace if necessary. For assembly, reverse the disassembly instructions. On the outside trigger versions, ensure the tab washer (Index No. 13) is bent up against the flat of hex of throttle valve plug (Index No. 12).

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.



ACCESSORIES	
P092246	HEAVY SPADE 7/8" x 3 1/4" 22.2 x 82.5mm
R055464	DIGGING TOOL 7/8" x 3 1/4" 22.2 x 82.5mm
P092256	PEG POINT 15" (381mm) 7/8" x 3 1/4" 22.2 x 82.5mm

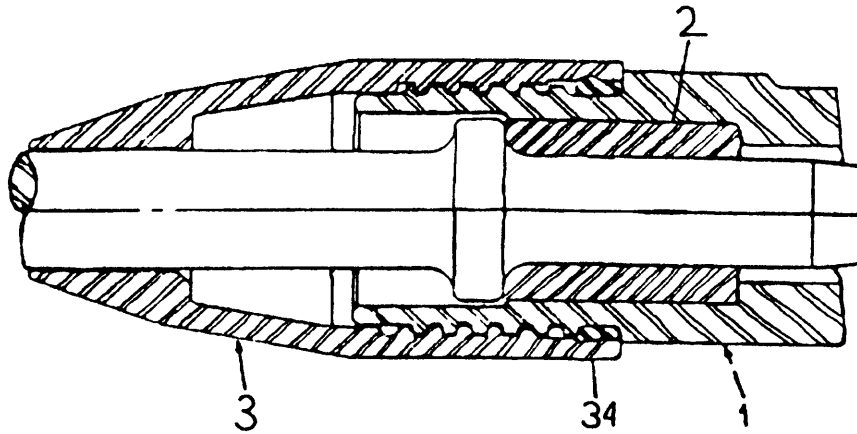
Index No.	CP Part No.	Description	No. Req'd
1	F815268	CYLINDER ASSY (INCL : INDEX NO. 2)	1
2	F813919	SLEEVE - TOOL	1
3	F815269	RETAINER-LATCH (INCL : INDEX NO.4)	1
4	F815174	BUSHING-LATCH	1
5	F815270	HANDLE-OUTSIDE TRIGGER (ASSY) (INCL : INDEX NOS. 6,7, & 8)	1
5A	F815276	HANDLE-INSIDE TRIGGER (ASSY) (INCL : INDEX NOS. 6A,7, & 8A)	1
6	F815161	LEVER-OUTSIDE TRIGGER	1
6A	F815167	LEVER-INSIDE TRIGGER	1
7	R133757	PIN-THROTTLE LEVER	2
8	F815160	HANDLE-OUTSIDE TRIGGER (INCL : INDEX NO. 7 & 33)	1
8A	F815166	HANDLE-INSIDE TRIGGER (INCL : INDEX NO. 7 & 33)	1
9	F815271	OUTSIDE TRIGGER HANDLE COMPLETE (INCL : INDEX NOS 6,7,8,10,12,13, & 14)	1
9A	F815852	INSIDE TRIGGER HANDLE COMPLETE (INCL : INDEX NOS.5A,6A,7,10, & 14)	1
10	F814812	VALVE-THROTTLE (INCL : INDEX No. 11)	1

Index No.	CP Part No.	Description	No. Req'd
11	P083071	O-RING (-011)	1
12	P814440	PLUG-THROTTLE VALVE (OUTSIDE TRIGGER)	1
13	F814582	WASHER-TAB	1
14	F35769	NIPPLE-AIR INLET BSP	1
14	F814130	NIPPLE-AIR INLET NPT	1
15	R000550	LOCKWASHER (5/8")	2
16	P081091	NUT-SELF LOCKING (5/8-18)	2
17	R133758	PIN-LATCH RETAINER (1/2" DIA. x 2 1/2")	1
18	R086982	SPRING-RETAINER LATCH PLUNGER	1
19	F012659	VALVE	1
20	F815015	PISTON	1
21	F813308	PLUNGER-LATCH	1
22	F813908	PAD-VALVE CASE PRELOAD	1
23	F814774	LID-UPPER VALVE CASE	1
24	F814775	LID-LOWER VALVE CASE	1
25	F814776	CASE-VALVE	1
26	F813911	BOLT-HANDLE	2
27	R141765	MUFFLER (INCL : INDEX NO. 28) (OPTIONAL)	1
28	P072446	SCREW-HEX SKT (1/4-28 x 5/8)	4
33	F813910	BUSHING-THROTTLE VALVE (REAM 1800-1815 AFTER ASSEMBLY)	1

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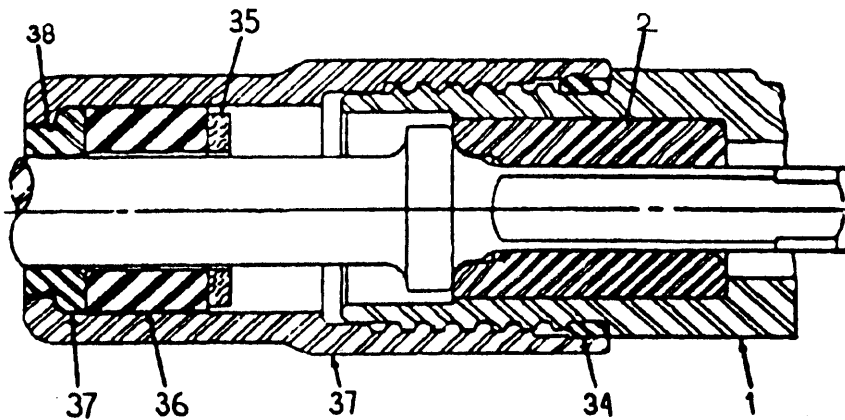
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## CP220 & CP220S Pick



Index No.	Part No.	Description	No.Reqd.
1	R-137066	Cylinder Assembly (Incl.: Item No. 2)	1
2	R-137064	Tool Sleeve (25 mm Round x 75mm)	1
3	R-137065	Tool Retainer	1
34	F-035269	Retainer Locking Ring	1

## CP220 & CP220S Claydigger



Index No.	Part No.	Description	No.Reqd.
1	R-137069	Cylinder Assembly (Incl.: Index No. 2)	1
2	R-137067	Tool Sleeve (3/4" Square x 3 1/4")	1
3	F-035274	Tool Retainer	1
34	F-035269	Retainer Locking Ring	1
35	P-006346	Leather Buffer	1
36	F-814522	Rubber Buffer	1
37	P-007331	Spade Retainer Split Collar (Incl.: Index No. 38)	1
38	P-002008	Retainer Ring	1

All other parts same as on  
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