

CP0069 SINKER DRILL

M&C 736

FIRST EDITION
FEBRUARY, 1985
REVISED NOVEMBER, 1991



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

Instruction and Parts Book for

SINKER DRILL

CP0069 Models 'L' & 'V'

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 sub-standard performance, early failure, possible damage of other parts and, in some instances, unsafe conditions.



**Chicago
Pneumatic**

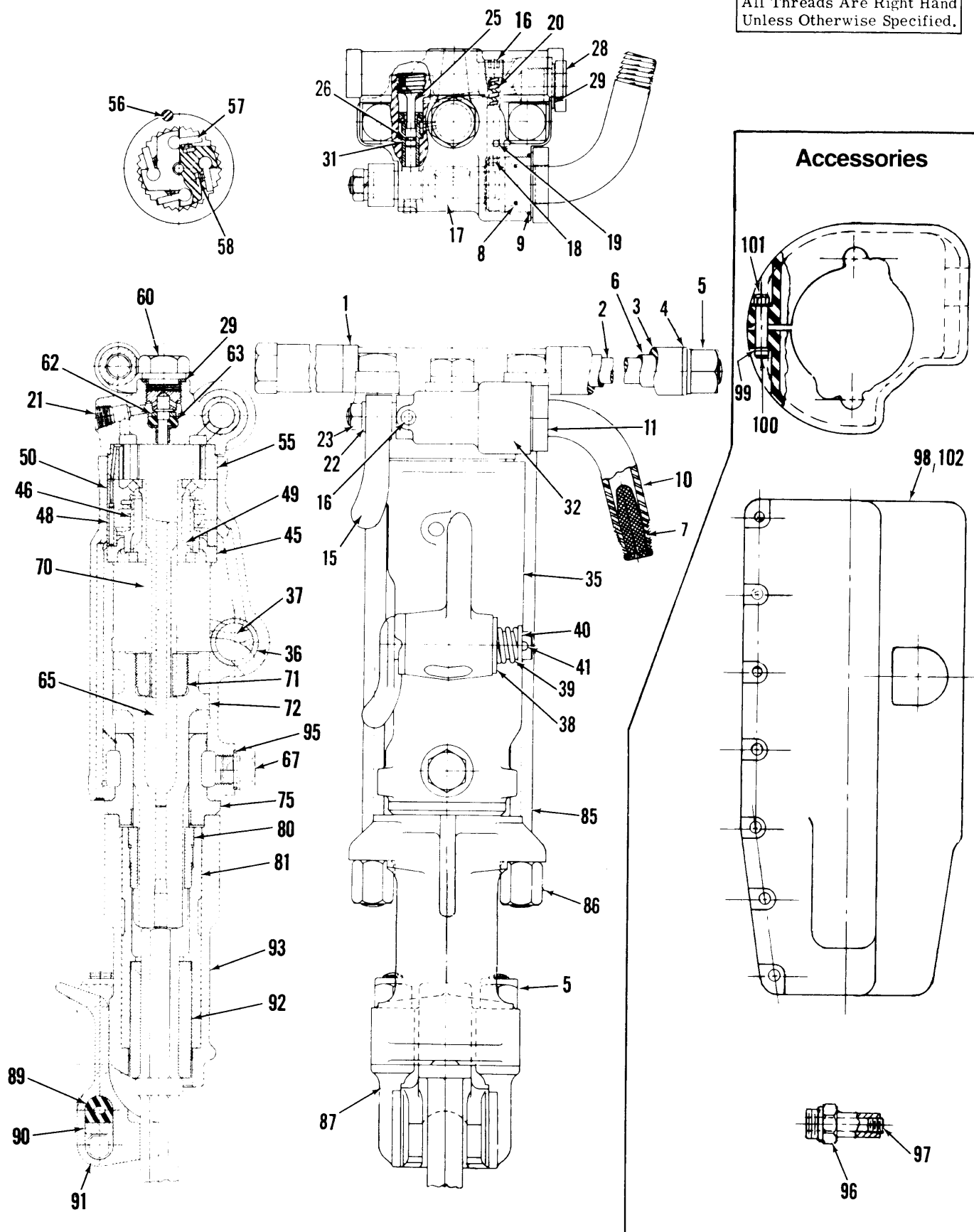
Chicago Pneumatic Tool company + Rock Hill, SC29730

R138843

CP-69 SINKER DRILL Model "L"

BLOWER DRY

All Threads Are Right Hand Unless Otherwise Specified.



BLOWER DRY

To convert from Blower Dry to wet Sinker Drill, see parts list o page 4 and conversion table on page 7

Index No.	CP Part No.	Description	No Reqd	Index No.	CP Part No.	Description	No Reqd
1	R086608	Bracket - Handle	1	46	R098900	Valve	1
2	R076173	Bolt - Handle	1	48	R114133	Pin - Oiler	1
3	R075419	Grip - Handle	2	49	R085608	Spacer - Valve Case	1
4	R000142	Washer - Handle Bolt Key	1	50	R085607	Case - Valve	1
5	R005742	Nut - Elastic Stop	3	55	R137740	Ring - Ratchet	1
6	R076172	Liner - Handle	2	56	R137741	Pin - Dowel	1
7	R005584	Screen - Air Inlet	1	57	R075267	Pawl	4
8	R110317	O - Ring (-120)	1	58	R086654	Spring - Pawl	4
9	P103521	O - Ring (-128)	1	60	R076793	Plug - Air tube	1
10	R075265	Swivel - Gooseneck	1	62	R095169	Washer - Air Tube	1
11	R000530	Nut - Swivel	1	63	R090364	Rubber - Air Tube	1
15	R079124	Handle - Throttle Valve	1	65	R093907	Tube - Air	1
16	C068064	Plug - Pipe (1/8")	2	67	R085611	Plug - Oil (Incl: #95)	1
17	R086628	Valve - Throttle	1	70	R093887	Bar - Rifle (1:30)	1
18	R086627	Plunger - Throttle Valve	1	71	R075826	Nut - Rifle Bar (1 30) Bronze	1
19	R075802	Pin - Valve Plunger	1		R078539	Nut - Rifle Bar (1 30) Steel	1
20	R085671	Spring - Throttle Valve	1	72	R000126	Piston	1
21	C068799	Plug - Pipe (1/4")	1	75	R137743	Bushing - Cylinder	1
22	C036717	Lockwasher	1	80	R086733	Nut - Rotation	1
23	P002149	Nut - Valve Handle	1	81	R137977	Sleeve - Chuck Rotation	1
25	R079130	Plug - Water Port (Incl: #26)	1	85	R085755	Rod - Side	2
26	C079289	O - Ring (-008)	1	86	R085756	Nut - Side Rod	2
28	R076372	Plug - Water Connection	1	87	R093896	Trunnion - Retainer	2
29	R000537	Gasket	2	89	R093897	Buffer - Rubber	1
31	R098054	Bushing - Water Part	1	90	R093898	Retainer - Buffer	1
32	R137744	Backhead (Incl: #31)	1	91	R093895	Retainer-1" Hex	1
35	R137742	Cylinder (Incl: #36)	1		R093913	Retainer-7/8" Hex	1
36	R085624	Bushung - blower Valve	1	92	R093890	Chuck - 1" Hex x 4 1/4"	1
37	R085623	Valve - Blower	1		R093891	Chuck - 7/8" Hex x 4 1/4"	1
38	R075777	Washer - Blower Valve	1	93	R041323	Fronthead	1
39	R075778	Spring - Blower - Valve	1	95	R091176	Gasket - Oil Plug	1
40	R075780	Washer - Valve Spring	1	107	R154915	Vib Handle Kit	1
41	R076266	Pin- Blower Valve	1	108	R157932	(Incl. Index No 108 & 109) } Not Shown	2
45	R093490	Cover - Valve Case	1	109	R157933	Hex Nut Thin	1
						Rod - Threaded	1

*(Spare Parts Only)

ACCESSORIES

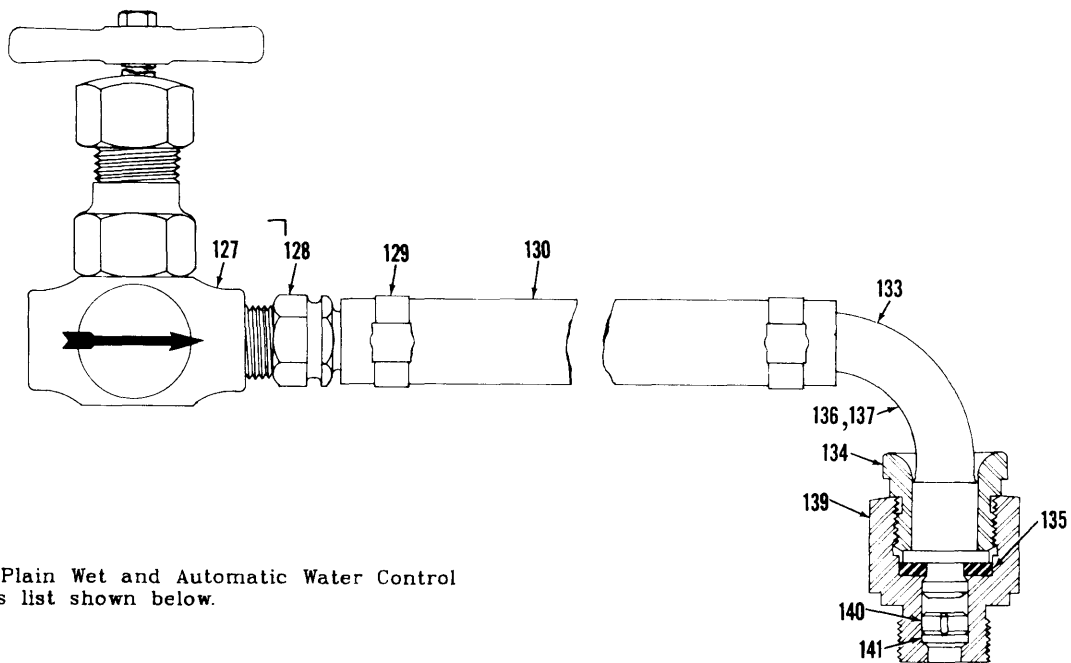
Index No.	CP Part No.	Description	No Reqd
96	R124145	Cap - Filler (Incl #95)	1
97	C068799	Plug - Pipe (1/4")	1
98	R126870	Hood - Muffler	1
99	H074096	Washer - Flat	14
100	R125719	Screw - Cap (1/4-28x1-1/4)	7
101	C037118	Nut - Lock	7
102	R278142	Muffler (Incl Index Nos 96,97,98,99,100 & 101)	

	<p>WARNING - TO REDUCE RISK OF INJURY DISCONNECT TOOL FROM AIR SUPPLY WHEN IT IN USE BEFORE CHANGING ACCESSORIES OR WHEN MAKING REPAIRS</p>
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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

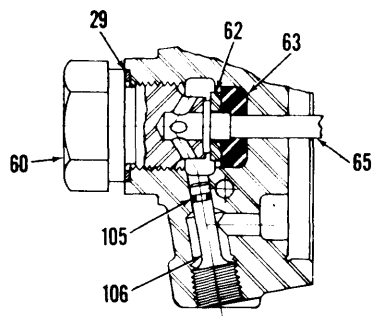
CP-69 SINKER DRILL Model "L"
R-007688 WATER CONNECTION



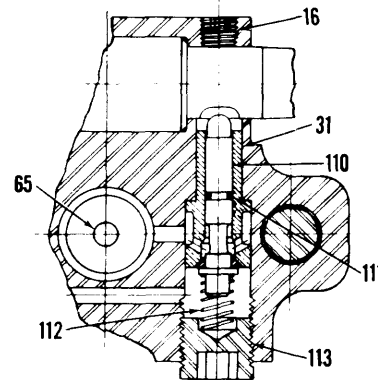
See Plain Wet and Automatic Water Control parts list shown below.

Index No.	CP Part No.	Description	No. Req'd.	Index No.	CP Part No.	Description	No. Req'd.
127	H073425	Valve--Water	1	136	R077708	Hose--Connection Complete (Incl: Ind. No's. 128 Thru 135)	1
128	P002083	Nipple--Hose	1	137	R007688	Water--Connection Complete (Incl: Ind. No's. 127 & 136)	1
129	C090672	Clamp--Punch Lok (1" I.D. x 5/8")	2	139	R000538	Spud--Water Inlet	1
130	R000790	Hose (1/2' x 12" Long)	1	140	R005452	Retainer--Water Strainer	1
133	R005432	Swivel--Water Inlet	1	141	R000576	Strainer--Water	1
134	R000788	Nut--Water Inlet Swivel	1				
135	R005451	Gasket--Swivel	1				

PLAIN WET & WATER CONTROL



AUTOMATIC WATER CONTROL



Remainder of parts shown on pages 2,3 & 4.
Includes R007688 water connection with Index No's. 139,140 & 141 shown above.

All Threads Are Right Hand Unless Otherwise Specified.

Index No.	CP Part No.	Description	No. Req'd.	Index No.	CP Part No.	Description	No. Req'd.
29	R000537	Gasket	1	16	C068064	Plug--Pipe (1/8")	1
60	R076793	Plug--Air Tube	1	31	R098054	Bushing--Water Valve	1
62	R095169	Washer--Air Tube	1	65	R093888	Tube--Water	1
63	R090364	Rubber--Air Tube	1	110	R098053	Valve--Water	1
65	R093888	Tube--Water	1	111	C079489	"O"--Ring (--008)	1
105	C087316	"O"--Ring (--006)	1	112	P006758	Spring--Water Valve	1
106	R085627	Plug--Blower Port	1	113	R085494	Plug--Spring Retainer	1

GENERAL INSTRUCTIONS

The modern Rock Drill is a high speed machine with a number of close-fitting, precision made parts, but is subject to a terrific amount of punishment. Therefore, it is highly important that your drill receive reasonable care, adequate lubrication at all times and regular inspections.

WARNING: "PROLONGED USE OF VIBRATING TOOLS BY CERTAIN USERS MAY BE HARMFUL TO HANDS AND ARMS."

Always wear approved safety footwear and eye protection to avoid personal injury.

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

Lubrication

As it comes from the factory, the inside of the tool is coated with heavy, rust inhibiting oil. After unpacking, pour a small amount of kerosene into air connection and operate tool on partial throttle to clean interior. Follow immediately with a liberal amount of light, rock drill oil. During operation the use of a one pint line oiler R051776 is recommended.

During operation keep oiler filled - a one pint oiler holds an average four hour supply, but if a high rate of feed is required by oil characteristics or the air consumption of the tool, more frequent filling will be necessary. At least twice a shift remove oil plug (67) and fill reservoir with recommended oil.

When properly lubricated, a mist of oil, enough to be visible on the bare hand, will be present in the exhaust air. A slight film of oil should be visible on the drill steel.

Proper lubrication is important. A few minutes operation without oil will wear out the rifle bar, rifle bar nut, chuck rotation nut and the pawls and will severely score the cylinder, cylinder bushing, valve and fronthead.

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.

Manufacturer	Below 40°F	40°F to 80°F	Above 80°F
CP	Airolene Tool Oil		
Esso	Arox EP45	Arox EP65	
Mobiloil	Velocite No. 10	Almo No. 3	Almo No. 5
Texaco	Regal Oil B (R & O)	Regal Oil PE (R & O)	Regal Oil F (R & O)
Delton	Silkolene 773	Silkolene 548/T	Silkolene 881
Shell	Tonne R27	Tonne R41	Tonne R72
Burmah Castrol	Magna SPX	Castrol RD Oil Light	Castrol RD Oil 3
BP Power Petroleum	RD80	RD150	RD220
	HP10-C	HP20-C	HP60-C
Duckham	Zero Flo 5	Garnet 6	Garnet 7
Sternol	Merlin 54	Merlin 71	Merlin 87
Petrolina	Purifoc 32	Purifoc 46	Purifoc 53
Chevron	Vistac Oil 9X	Vistac Oil 19X	Vistac Oil 18X
Caltex	Caltex XL	Caltex XM	Caltex XH

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.

Preparing for Operation

WARNING: "ALWAYS CHECK FOR DAMAGED OR LOOSE HOSES AND FITTINGS BEFORE OPERATION. WHIPPING HOSES CAN CAUSE SERIOUS INJURY."

Daily before placing drill in service blow out the air line to clear it of accumulated dirt and moisture. Check tool and make sure the air and water inlets and the exhaust ports are free from obstruction. Be sure the air strainer is clean and not torn or distorted.

Pour about one ounce of Rock Drill oil directly into the air inlet of the tool before connecting air hose to the tool.

Inspect drill steel shanks and make sure they are the correct size and length for the chuck used. Shanks which are chipped, rounded, out of square or too hard on the striking end will operate inefficiently and cause premature piston failure.

Inspect bits: Dull bits will slow down drilling speed and overstrain the drill mechanism. When changing bits be sure new bit is of the correct gauge to follow the previous bore.

Be sure compressor delivers between 80 and 90 psi air pressure at the tool. High pressure will cause rough operation and excessive breakage. Low pressure results in slow drilling speed.

Always hold the drill down to its work with the machine in line with the drill steel to ease the rotational load.

Frequently blow rock cuttings out of dry holes by lifting the blower valve (37) on the top of the tool.

Never continue to drill with a plugged drill steel.

Maintenance

A drill in constant use should be dismantled, cleaned and inspected at least weekly. Worn parts should be replaced to maintain drilling efficiency and avoid high upkeep costs.

Check the condition of the chuck, worn, bell mouthed chucks hold the steel out of line which spalls or fractures the striking end of the piston.

The splines of the rotation parts, rifle bars, rifle bar nuts and chuck rotation nuts, should be inspected for excessive wear. Too much play in the parts results in lost rotational force. Worn pawls, worn ratchet rings and broken or weak pawl springs should be replaced.

Reface spalled or cupped pistons to avoid uneven force on drill steel and eventual fracture of the piston.

With adequate lubrication the cylinder bushing is a long lived part. If worn, however, it should be replaced to preserve the front cushion and avoid breakage of piston and fronthead parts.

Be sure that valve parts work freely and are clean and free from grit. Be careful in disassembling and assembling valve to avoid burring or scoring faces.

When assembling tool, draw up thru bolts evenly and tightly. Rotate chuck by hand to make sure that chuck does not bind in fronthead.

CONVERSIONS

To Convert From Blower Dry	To Plain Wet	Take Out - R093907, C068799, R076372, R000537 Put In - R085627, C087316, R000538, R005452, R093888 R000576, R007688
	To Automatic Water Control	Take Out - C068799, R093907, R076372, R000537, R079130 Put In - R093888, R085627, C079489, R077708, R000538 R005452, R000576, R098053, R085494, P006758
To Convert From Plain Wet	To Blower Dry	Take Out - R093888, R007688, R000538, R005452, R000576 R085627, C087316 Put In - R093907, R000537, R076372, C068799
	To Automatic Water Control	Take Out - R079130, H073425 Put In - R098053, P006758, R085494
To Convert From Auto. Water Control	To Plain Wet	Take Out - R098053, P006758, R085494 Put In - R079130, H073425
	To Blower Dry	Take Out - R085627, C079489, R093888, R098053, P006758 R085494, R077708, R000538, R005452, R000576 Put In - C068799, R076372, R000537, R093907, R079130

NOTES

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	R086608	Bracket-Handle	1					
2	R076173	Bolt-Handle	1				X	
3	R075419	Grip-Handle	2		X			
4	R000142	Washer-Handle Bolt Key	1				L	
5	R005742	Nut-Elastic Stop	3			R2		
6	R076172	Liner-Handle	2				X	
7	R005584	Screen-Air Inlet	1				D	
8	R110317	"O"-Ring	1		R1			
9	P103521	"O"-Ring	1			X		
10	R075265	Swivel-Gooseneck	1			X		
11	R000530	Nut-Swivel	1			X		
15	R079124	Handle-Throttle Valve	1					X
17	R086628	Valve-Throttle	1			X		
18	R086627	Plunger-Throttle Valve	1		L			
19	R075802	Pin-Valve Plunger	1			L		
20	R085671	Spring-Throttle Valve	1		L			
25	R079130	Plug-Water Port	1			X		
26	C079489	"O"-Ring	1		R1			
28	R076372	Plug-Water Connection	1			X		
29	R000537	Gasket	2		L			
31	R098054	Bushing-Water Port	1			X		
32	R137744	Backhead	1			X		
35	R137742	Cylinder	1			X		
36	R085624	Bushing-Blower Valve	1			X		
37	R085623	Valve-Blower	1				X	
38	R075777	Washer-Blower Valve	1			L		
39	R075778	Spring-Blower Valve	1			L		
40	R075780	Washer-Valve Spring	1			L		
41	R076266	Pin-Blower Valve	1			L		
45	R093490	Cover-Valve Case	1			X		
46	R093900	Valve	1		X			
48	R114133	Pin-Oiler	1			X		
49	R085608	Spacer-Valve Case	1			X		
50	R085607	Case-Valve	1			X		
55	R137740	Ring-Ratchet	1		X			
56	R137741	Pin-Dowel	1			L		
57	R075267	Pawl	4	X				
58	R086654	Spring-Pawl	4	L				
60	R076793	Plug-Air Tube	1				X	
62	R095169	Washer-Air Tube	1				L	
63	R080364	Rubber-Air Tube	1				D	
65	R093907	Tube-Air	1			X		
	R093888	Tube-Water	1			X		
67	R085611	Plug-Oil	1					X
70	R093887	Bar-Rifle	1		X			
71	R075826	Nut-Rifle Bar	1	X				
72	R000126	Piston	1		X			
75	R137743	Bushing-Cylinder	1			D		
80	R086733	Nut-Rotation	1		D			
81	R137977	Sleeve-Chuck Rotation	1		X			
85	R085755	Rod-Side	2		X			
86	R085756	Nut-Side Rod	2		X			
87	R093896	Trunnion-Retainer	2		X			
89	R093897	Buffer-Rubber	1			R2		
90	R093898	Retainer-Buffer	1		X			
91	*	Retainer	1		X			
92	*	Chuck	1		X			
93	R041323	Fronthead	1			X		
95	R091176	Gasket-Oil Plug	1			X		
96	R124145	Cap-Filler	1					X
98	R126870	Hood-Muffler	1					X
99	H074096	Washer-Flat	14				L	
100	R125719	Screw-Cap	7			X		
101	C037118	Nut-Lock	7			R2		
105	C087316	"O"-Ring	1		R2			
106	R085627	Plug-Blower Port	1			X		
110	R088053	Valve-Water	1			D		
111	C079489	"O"-Ring	1		R2			
112	P006758	Spring-Water Valve	1				L	
113	R085494	Plug-Spring Retainer	1				L	

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.

R1—Replace each time tool is disassembled.

R2—Replace each second time tool is disassembled.