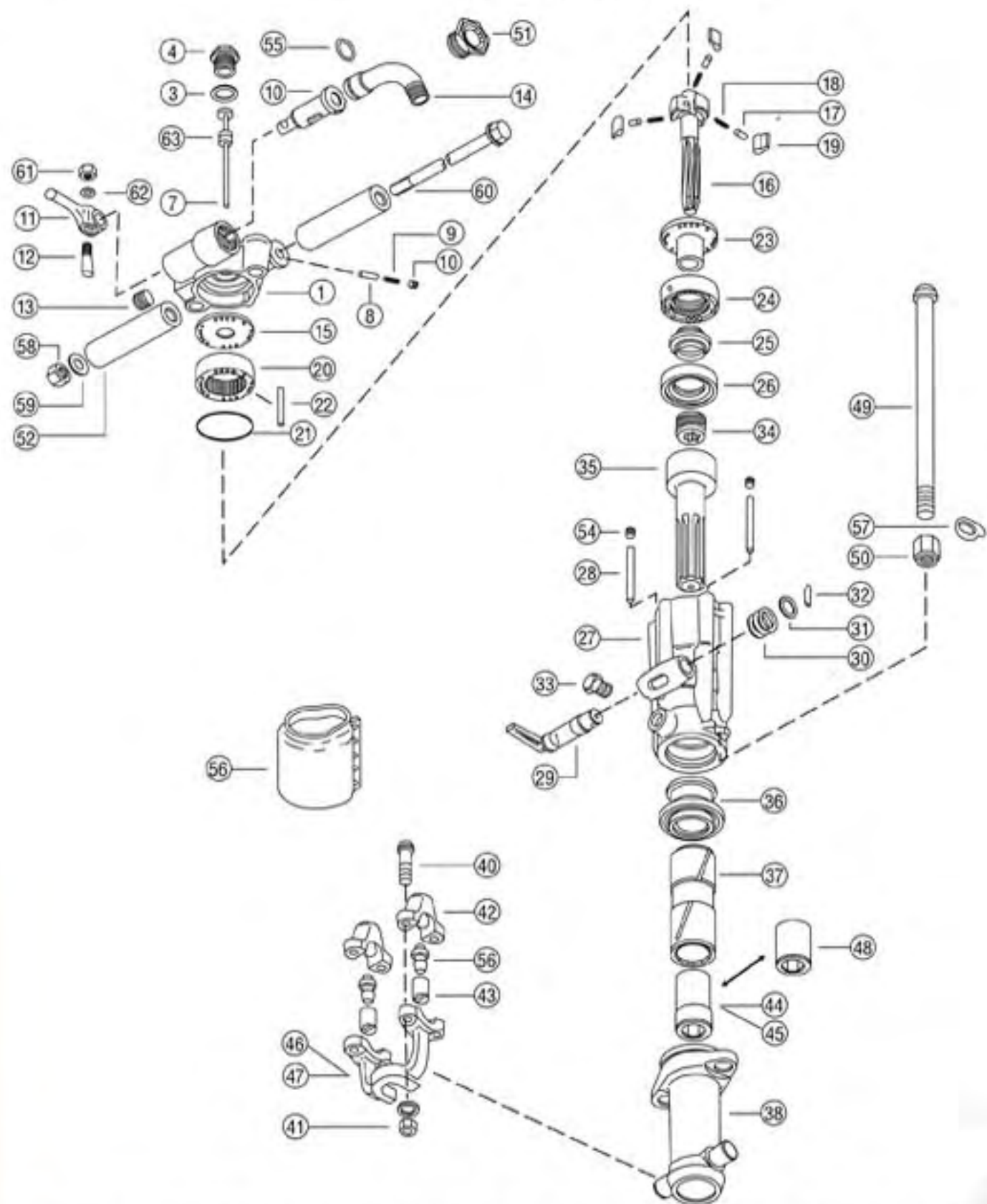


HARPER AIR TOOLS

ROCK (SINKER) DRILL MODEL 4119

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	67601	7701	Back Head (Bare) Dry Type	1
3	67603	7722	Gasket, Gland Nut	1
4	67604	7721	Nut, Gland (Plug)	1
7	67607	7718	Tube, Air Blower (Dry)	1
8	67608	7707	Plunger, Throttle Valve	1
9	67221	7708	Spring, Throttle Valve Plunger	1
10	67610	7702	Valve, Throttle	1
11	67611	7703	Lever, Throttle	1
12	67612	7704	Bolt, Throttle Lever	1
13	66948	7713	Plug, Wet Connection (Dry B/H)	1
14	67614	7709	Swivel, Air Inlet Connection	1
15	67615	7701-B	Bushing Back Head (Plate)	1
16	67616	7727	Bar, Rifle	1
17	67617	7729	Plunger, Pawl	3
18	67618	7730	Spring, Pawl Plunger	3
19	67619	7728	Pawl Rotation	3
20	67620	7731	Ring, Ratchet	1
21	67621	7726-B	O-Ring, Ratchet Ring/Valve Seal	(1)
22	67622	7732	Pin, Dowel, Back Head	1
23	67623	7726	Guide, Automatic Valve (Plug)	1
24	67624	7725	Chest, Automatic Valve (Rear)	1
25	67625	7723	Valve, Automatic	1
26	67626	7724	Chest, Automatic Valve (Front)	1
27	67627	7733	Cylinder Assembly	1
28	67628	7751	Wick, Oil (Felt)	2
29	67629	7735	Valve, Exhaust Control	1
30	67630	7736	Spring, Exhaust Control Valve	1
31	67631	7737	Washer, Exhaust Control Valve	1
32	67632	7738	Pin, Exhaust Control Valve	1
33	67633	7739	Plug, Oil Reservoir	1
34	67634	7741	Nut, Rifle	1
35	67635	7740	Piston (Hammer)	1
36	67636	7734	Bushing, Cylinder (Bearing)	1
37	67637	7743	Driver, Chuck (Rotation Sleeve)	1
38	67638	7742	Front Head (Chuck End)	1
40	67640	7749	Bolt, Steel Retainer	4
41	67641	7750	Nut, Steel Retainer	4
42	67642	7748	Housing, Retainer Plunger & Spring	2
43	67643	7746	Plunger, Steel Retainer	2
44	67644	7755	Bushing, Chuck, 5/8" hx. x 4 1/4"	1
45	67645	7744	Bushing, Chuck, 1" hx. x 4 1/4"	1
46	67646	7745-S	Retainer, Steel, 5/8" hx. x 3 1/4"	1
47	67647	7745	Retainer, Steel, 1" & 5/8" hx. x 4 1/4"	1
48	67648	7744-S	Bushing, Chuck, 5/8" hx. x 3 1/4"	1
49	67649	7752	Rod, Side (Bolt)	2
50	67650	7754	Nut, Side Rod	2
51	67651	7712	Nut, Swivel Connection	1
52	67652	7714	Grip, Handle, Rubber	2
54	67220	7757	Plug, Throttle/Valve Plunger & Oil Felt	3
55	66922	7711	O-Ring, Swivel Air Connection	1
56	66634	7747	Spring, Steel Retainer	2
57	67559	7753	Lock Washer, Side Rod	2
58	67546	7717	Nut, Handle Bolt	1
59	67545	7716	Washer, Handle Bolt	2
60	67660	7715	Bolt, Handle	1

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
61	67542	7706	Nut, Throttle Lever Bolt	1
62	67541	7705	Lockwasher, Throttle Lever Bolt	1
63	67663	7720	Packing (Tube Rubber Seal)	1

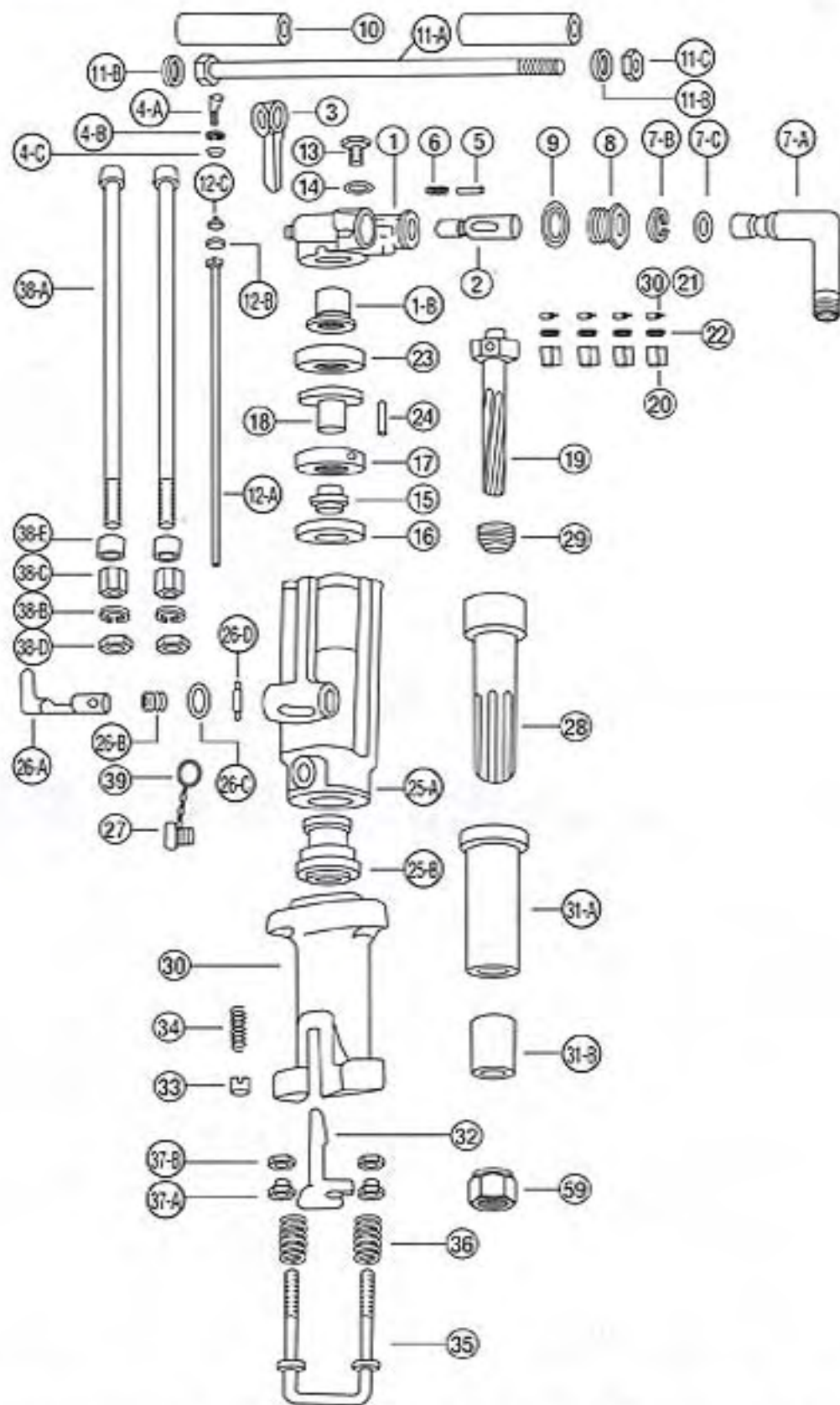


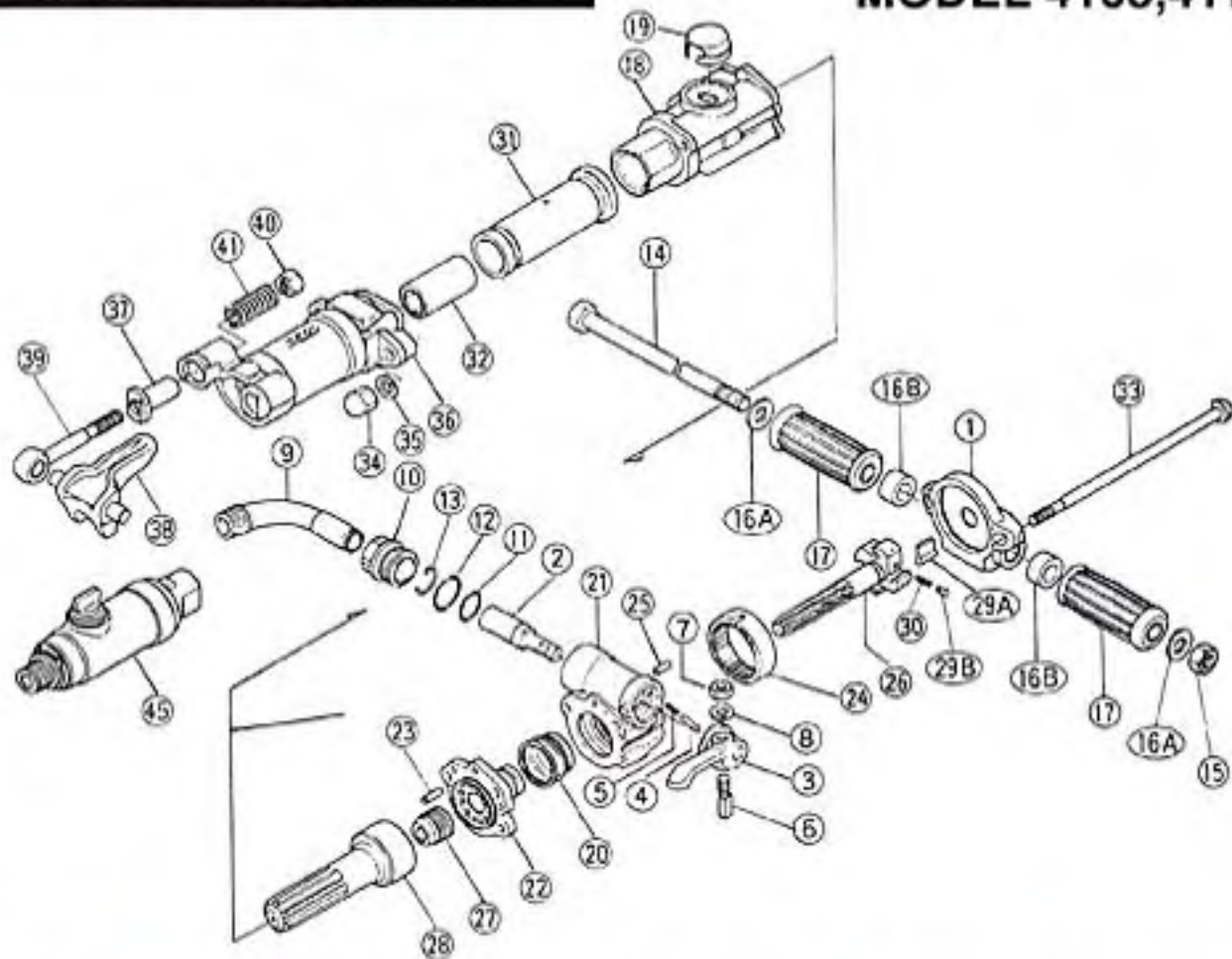
HARPER AIR TOOLS

ROCK (SINKER) DRILL MODEL 4112, 4114, 4115

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	67564		Back Head, Bare (no Bushing)	1
1-A	67501	7501	Back Head with Bushing (Dry-Air Blower Type Only)	1
1-B	67540	7540	Bushing F/Back Head, (Dry-Air Blower Type Only)	1
2	67502	7502	Valve, Throttle	1
3	67503	7503	Lever (Handle), Throttle Valve	1
4-A	67504	7504	Bolt, Throttle Lever	1
4-B	67541	7541	Lock Washer, Throttle Lever Bolt	1
4-C	67542	7542	Nut, Throttle Lever Bolt	1
5	67505	7505	Plunger, Detent, Throttle Valve	1
6	67506	7506	Spring, Detent Plunger	1
7-A	67507	7507	Swivel, Air Inlet, 3/4" NPTM	1
7-B	67543	7543	Retainer, Air Inlet Swivel	1
7-C	67544	7544	O-Ring, Air Inlet Swivel	1
8	67508	7508	Nut, Air Inlet Swivel	1
9	67509	7509	Washer (Copper Gasket), Swivel Nut	1
10	67510	7510	Grip, Handle, Rubber	2
11-A	67511	7511	Bolt, Grip Handle	1
11-B	67545	7545	Washer, Handle Bolt	2
11-C	67546	7546	Nut, Handle Bolt	1
12-A	67512	7512	Tube, Dry Air Blower Type Only	1
12-B	67547	7547	Washer, Metal, Dry & Wet Tube	1
12-C	67548	7548	Seal, Rubber, Dry & Wet Tube	1
13	67513	7513	Gland, Back Head, Dry Tube Only	1
14	67514	7514	Washer (Copper Gasket), Gland	1
15	67515	7515	Valve, Automatic	1
16	67516	7516	Seat, Automatic Valve (Front)	1
17	67517	7517	Chest, Automatic Valve (Rear)	1
18	67518	7518	Plug (Guide), Automatic Valve	1
19	67519	7519	Bar, Rifle	1
20	67520	7520	Pawl, Rotation, Reversible Type	4
21	67521	7521	Plunger, Pawl, Metal	4
22	67522	7522	Spring, Pawl Plunger (Compression Wire Type)	4
23	67523	7523	Ring, Ratchet	1
24	67524	7524	Pin, Dowel, Ratchet Ring	1
25-A	67525	7525	Cylinder, Bare	1
25-B	67549	7549	Bushing, Cylinder (Bearing)	1
26-A	67526	7526	Valve, Exhaust Control	1
26-B	67550	7550	Spring, Exhaust Control Valve	1
26-C	67551	7551	Washer, Exhaust Control Valve	1
26-D	67552	7552	Pin, Exhaust Control Valve	1
27	67527	7527	Plug, Oil Reservoir	1
28	67528	7528	Piston (Hammer) Standard O/D Head Size	1
29	67529	7529	Nut, Rifle Bar/Piston	1
30	67530	7530	Front Head (Chuck End) 3/4" x 3 1/4" (4112)	1
	67553	7553	Front Head (Chuck End) 1" x 4 1/2" (4114&4115)	1
31-A	67531	7531	Driver, Chuck 3/8" x 3 1/4" (4112)	1
	67554	7554	Driver, Chuck 1" x 4 1/2" (4114&4115)	1
31-B	67555	7555	Bushing, Chuck 3/8" x 3 1/4" (4112)	1
	67556	7556	Bushing, Chuck 3/8" x 4 1/4" (4114)	1
	67557	7557	Bushing, Chuck 1" x 4 1/2" (4115)	1
32	67532	7532	Retainer, Steel Puller 3/8" & 1" hex. Drill Rod	1
33	67533	7533	Pivot, Steel Retainer	1
34	67534	7534	Spring, Steel Retainer Pivot	1
35	67535	7535	Yoke, Steel Retainer ("U" Bolt)	1
36	67536	7536	Spring, Yoke	2

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
37-A	67537	7537	Nut, Yoke, Lower	2
37-B	67558	7558	Nut, Yoke, Upper	2
38-A	67538	7538	Rod, Side (Bolt)	2
38-B	67559	7559	Lock Washer, Side Rod	2
38-C	67560	7560	Nut, Side Rod, Long	2
38-D	67561	7561	Nut, Side Rod, Short	2
38-E	67562	7562	Spacer, Side Rod, Short	2
39	67539	7539	Chain, Oil Plug (F/67527)	1
59		7537-A	Yoke Nut (Replace 7537, 7558)	(2)





SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	67001	7301	Back Head Bar	1
2	67002	7302	Valve, Throttle	1
3	67003	7303	Lever (Handle), Throttle Valve	1
4	67004	7304	Plunger, Throttle Lever Valve	1
5	67005	7305	Spring, Throttle Lever Plunger	1
6	67006	7306	Bolt (Pin), Throttle Lever	1
7	67007	7307	Nut, Throttle Lever Bolt	1
8	67008	7308	Lock Washer, Throttle Lever Bolt	1
9	67009	7309	Swivel, Air Inlet, 3/4" NPTM	1
10	67010	7310	Nut, Air Inlet Swivel	1
11	67011	7311	O-Ring, Internal, Swivel Nut	1
12	67054	7312	O-Ring, External, Swivel Nut	1
13	67013	7313	Clamp, Swivel Nut Retainer	1
14	67014	7314	Bolt, Handle Grip	1
15	67015	7315	Nut, Handle Bolt	1
16A	67016	7316-A	Washer, Handle Bolt	2
16B	67050	7316-B	Spacer, Handle Bolt	2
17	67017	7317	Grip, Handle Rubber	2
18	67018	7318	Cylinder, Bare	1
19	67019	7319	Cap, Exhaust Deflector	1
20	67020	7320	Valve, Automatic	1
21	67021	7321	Chest, Automatic Valve	1
22	67022	7322	Guide, Stem, Automatic Valve	1
23	67023	7323	Pin, Dowel, Automatic Valve Assy.	1

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
24	67024	7324	Ring, Ratchet, for Pawl	1
25	67025	7325	Pin (Key), Ratchet Ring	1
26	67026	7326	Bar, Rifle (67052 & 67053 required)	1
27	67027	7327	Nut, Rifle (Left-Hand Thread - CCW)	1
28	67028	7328	Piston (Hammer), Standard O/D Head Size	1
28A	67029	7329-A	Pawl, Rotation	4
30	67052	7330	Spring, Pawl Wire	4
29B	67053	7329-B	Plunger, Pawl	4
31	67031	7331	Driver, Chuck 5-1/2" Long (4108) Rot. Slv.	1
31B	67046	7331-L	Driver, Chuck 6-1/2" Long (4108) Rot. Slv.	1
32	67032	7332	Bushing, Chuck, F/Steel 7/8" Hex. 3-1/4" (4108)	1
32B	67048	7332-L	Bushing, Chuck, F/Steel 7/8" Hex. 4-1/4" (4110)	1
33	67033	7333	Rod, Side (Bolt)	2
34	67034	7334	Nut, Side Rod	2
35	67035	7335	Washer, Side Rod	2
36	67036	7336	Front Head (ck.end) 8-3/4" Long (4108)	1
36B	67049	7336-L	Front Head (ck.end) 9-3/4" Long (4110)	1
37	67037	7337	Bushing (Split), Steel Retainer Bolt	2
38	67038	7338	Retainer, Steel Holder	1
39	67039	7339	Bolt, Steel Retainer (Eye Bolt)	2
40	67040	7340	Nut (Notched), Steel Retainer Bolt	2
41	67041	7341	Spring, Steel Retainer Bolt	2
45	67045	7345	Oiler (Lubricator) See-thru, Complete Only	1

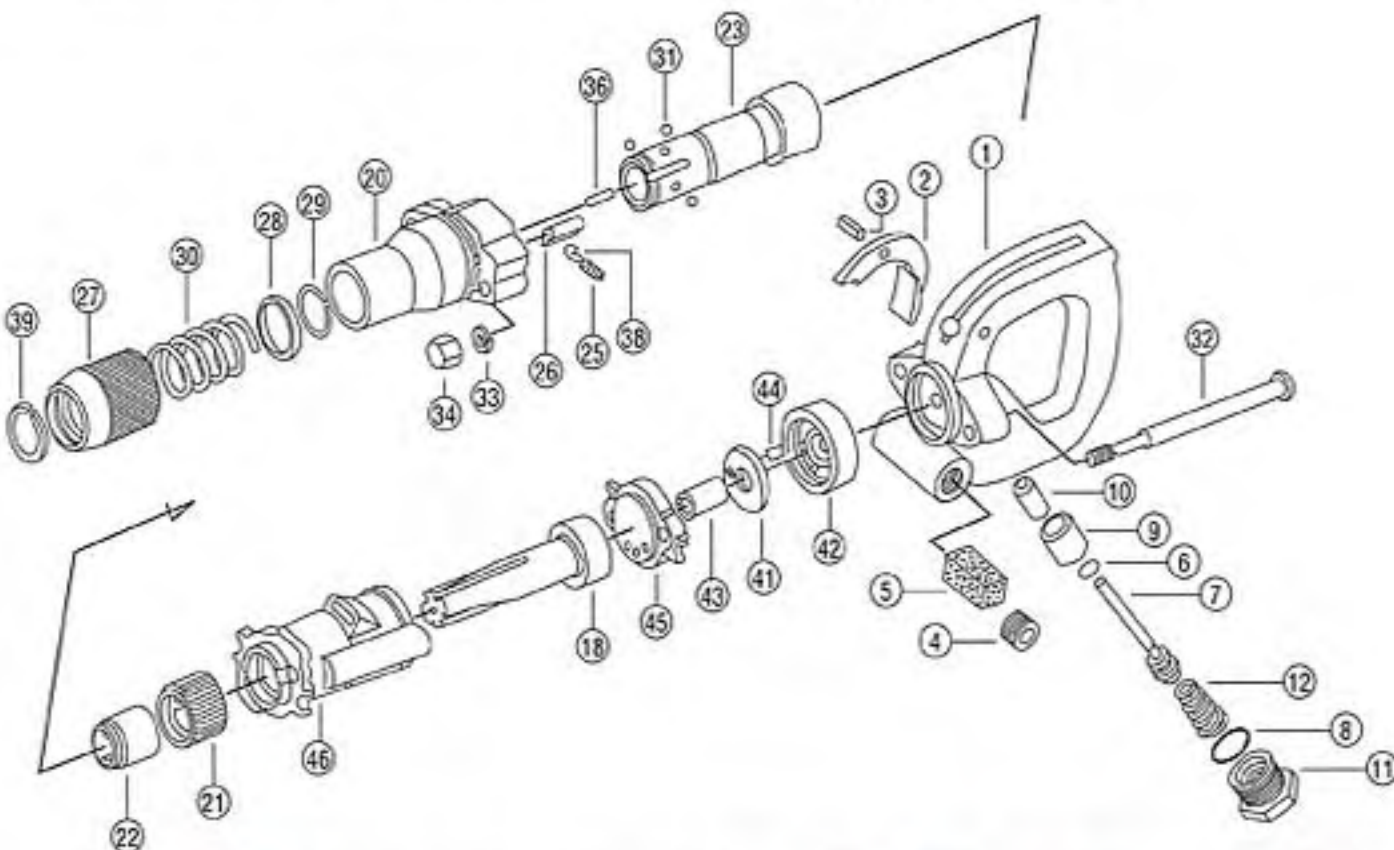
HARPER AIR TOOLS

ROCK (SINKER) DRILL MODEL 4103



SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	67201	7211	Handle (Back Head) with Bushing only	1
2	67202		Handle (Back Head) Complete	1
3	67203	7220	Plug, Oil Wick (Felt)	1
4	67204	7217	Lever, Throttle	1
5	67205	7218	Pin, Throttle Lever	1
6	67206	7215	Bushing, Throttle Lever	1
7	67207	7215-B	O-Ring, Throttle Valve Bushing, External	1
8	60548	7214-B	O-Ring, Throttle Valve Bushing, Internal	1
9	67209	7214	Valve, Throttle	1
10	67210	7216	Spring, Throttle Valve	1
11	67211	7213	Adapter, Swivel Assy. with Air Screen	1
12	67212	7226	Plug, Oil Reservoir	1
13	67213	7227	O-Ring, Oil Reservoir Plug	1
14	67214	7202	Gasket, Automatic Valve Assembly	1
15	67215	7205	Chest, Automatic Valve (Rear)	1
16	67216	7204	Valve, Automatic	1
17	67217	7208	Pin, Dowel, Valve Assy. Long/External	2
18	67218	7208-A	Pin, Dowel, Auto. Valve Short/Internal	2
19	67219	7206	Cover, Automatic Valve (Front)	1
20	67220	7209	Plug, Air Blower Tube	1
21	67221	7210	Spring, Air Blower Tube	1
22	67222	7209-B	Tube, Air Blower	1
23	67223	7207	Guide, Air Tube & Valve Cover	1
24	67224	7201	Cylinder Assembly	1
25	66625	6325	Nut, Latch Retainer Bolt	1
26	67226	7222	Rod, Side (Bolt)	2
27	67227	7223	Nut, Side Rod	2
28	67228	7203	Piston (Hammer)	1
29	66329	6329	Bolt, Latch Retainer	1

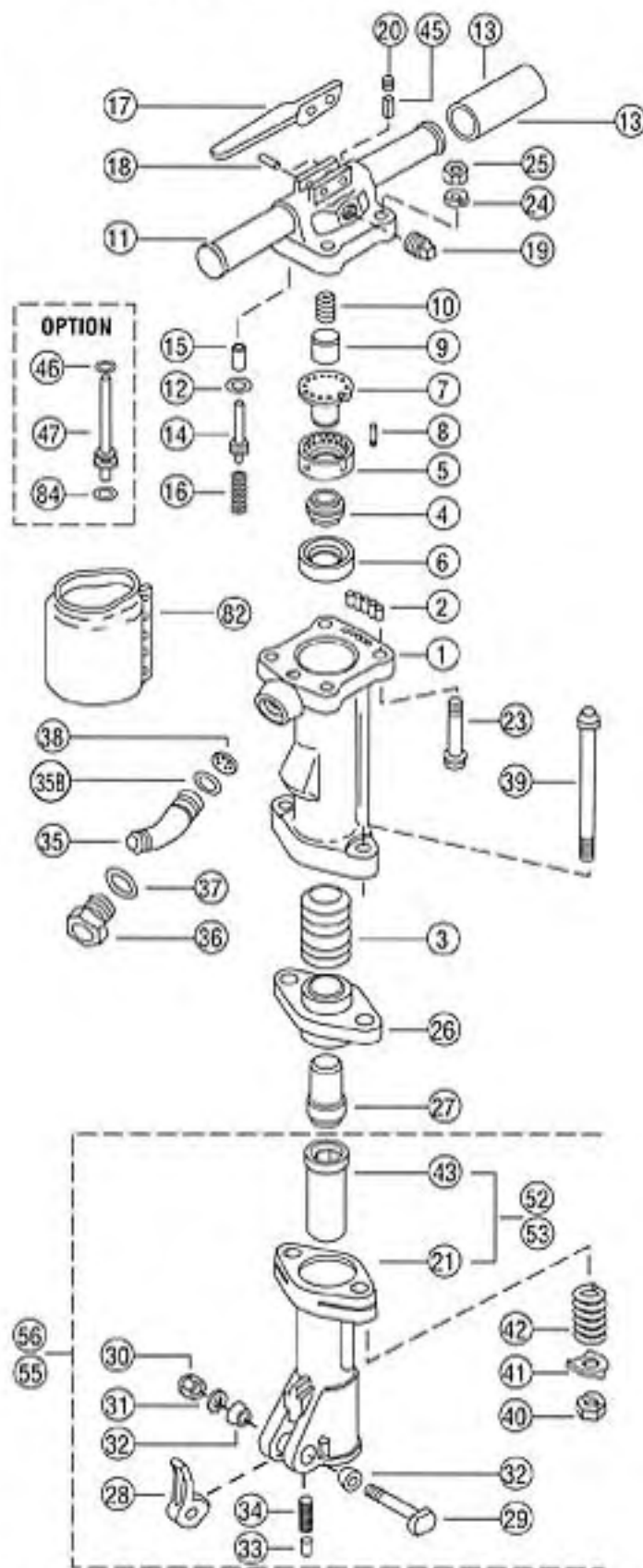
SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
30	67230	7242	Sleeve, Ratchet Ring/Rifle Nut	1
31	66331	6331	Lock Washer, Latch Retainer Bolt	1
32	66332	6332	Bushing, Retainer Bolt (Steel)	1
33	66333	6333	Plunger, Latch Retainer	1
35	66335	6335	Swivel, Air Inlet Connection	1
36	66336	6336	Nut, Swivel	1
38	66338	6338	Screen, Air	1
39	66339	6339	Bolt, Latch Retainer Housing	1
40	66340	6325	Nut, Latch Retainer Housing Bolt	1
41	67241	7249	Bearing (Plug Nut) Lock Lever	1
42	67242	7250	Plunger, Lock Lever	1
43	67243	7240	Spring, Lock Lever & Cylinder Bushing	3
44	67244	7241	Plunger, Cylinder Bushing	2
45	67245	7212	Plug, Air Exhaust	1
46	66346	6350	O-Ring, Air Inlet Swivel	1
47	66347	6347	Spring, Air Inlet Swivel	1
48	67248	7220-A	Wick, Oil (Felt)	1
49	67249	7245-A	Bearing (Cylinder Bushing)	1
50	67250	7221-A	Front Head, Latch Retainer (Standard)	1
51	67251	7221	Housing, Latch Retainer (Standard)	1
52	67252	7228	Retainer, Latch (Standard)	1
53	62233	6234	Spring, Latch Retainer	1
54	67254		Chuck, 3/4" hx. x 3/4" (Optional)	(1)
55	67255	7243	Driver, Chuck	1
56	67256	7244	Chuck, 1/2" hx. x 3/4" (Standard)	1
57	67257	7247	Spring, Pawl	2
58	67258	7246	Pawl, Rotation	2
59	67259	7248	Lever, Rotation	1
63	49735	7213-B	O-Ring, Adapter, Swivel Assembly	1



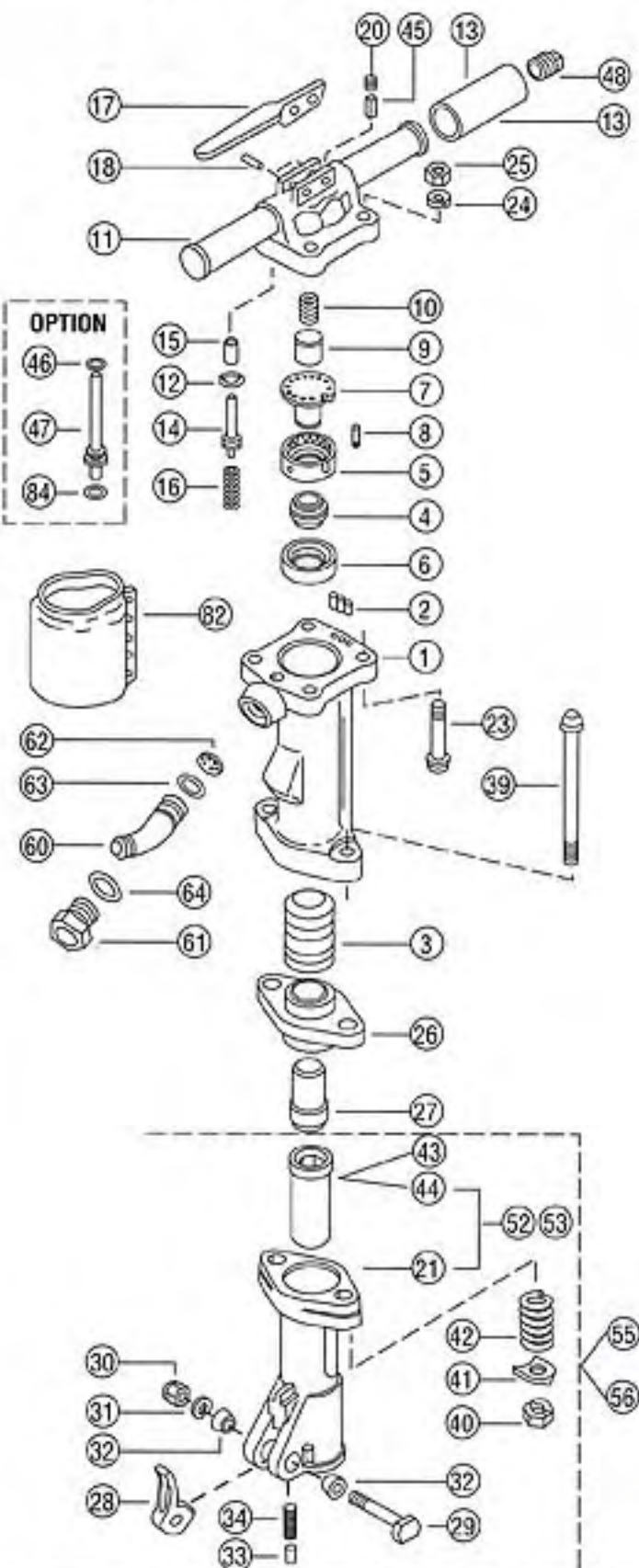
SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	67101	7101	Handle (Back Head) with Bushing only	1
2	67102	7102	Lever, Throttle	1
3	67103	7103	Pin, Throttle Lever	1
4	67104	7104	Plug, Oil Reservoir	1
5	67105	7105	Felt (Wick), Oil Control	1
7	67107	7107	Valve, Throttle w/Plunger Stem	1
8	67108	7106	O-Ring, Throttle	1
9	67109	7109	Bushing, Guide, Throttle Valve Body	1
10	67110	7110	Bushing, Bronze, Throttle Valve Plunger Stem	1
11	67111	7111	Adapter, Air Inlet	1
12	67112	7112	Spring, Throttle Valve	1
18	67118	7118	Piston, (Hammer), Standard O/D Head	1
20	67120	7120	Front Head, (Chuck End), Bare	1
21	67121	7121	Ring, Ratchet	1
22	67122	7122	Nut, Piston Guide	1
23	67123	7123	Chuck, Hex. Driver	1
25	67125	7125	Spring, Pawl (Wire-Use 67138 Plunger)	2
26	67126	7126	Pawl, Straight Type (no Notch)	2
27	67127	7127	Retainer, Chuck Assy.	1
28	67128	7128	Ring, Thrust, Retainer Spring (Cupped)	1

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
29	67129	7129	Ring, Spring(Round Wire), Upper	1
30	67130	7130	Spring, Retainer	1
31	67131	7131	Ball, Steel, Retainer Assy.	4
32	67132	7132	Rod, Side (Bolt)	2
33	67133	7133	Spacer, Side Rod	2
34	67134	7134	Nut, Side Rod	2
36	67135	7136	Key, Locking, Retainer Assy.	1
38	67138	7124	Plunger, Pawl (use 67125 Spring)	2
39	67139	7137	Ring, Spring (Flat Band)	1
40	67140		Handle (Back Head), Complete	(1)
41	67141	7115	Valve, Automatic, Flapper (NEW TYPE)	1
42	67142	7113	Chest, Auto. Valve (Rear), Flapper (NEW TYPE)	1
43	67143	7138	Tube, Air Guide, Auto. Valve Flapper (NEW)	1
44	67144	7114	Pin, Dowel, Auto. Valve Chest, Flapper (NEW)	1
45	67145	7116	Seat (Housing), Auto. Valve Flapper (NEW)	1
46	67146	7117	Cylinder, w/Washer, 3/4" Long, Flapper (NEW)	1

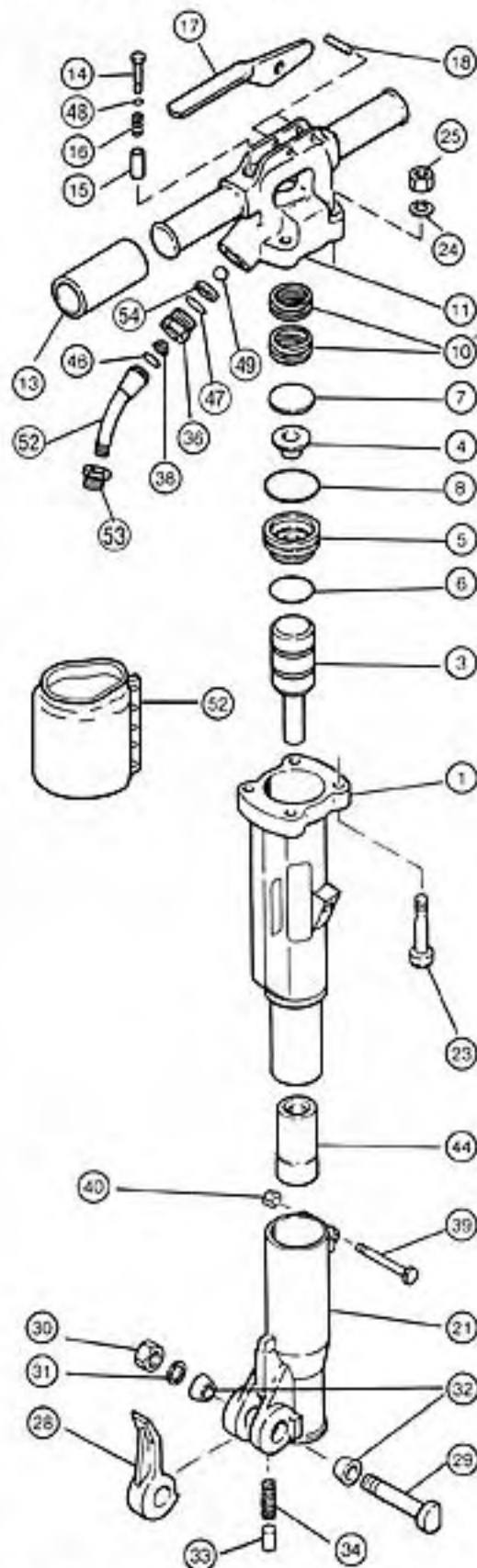
SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	66901	6001	Cylinder, Bare	1
2	66902	6602	Plug, Cylinder	5
3	66903	6003	Piston, (Hammer)	1
4	66904	6604	Valve, Automatic	1
5	66905	6005	Chest, Automatic Valve, Rear	1
6	66906	6006	Seat, Automatic Valve, Front	1
7	66907	6007	Guide (Stem), Automatic Valve	1
8	66908	6608	Pin, Dowel, Automatic Valve Assy.	1
9	66909	6609	Plunger (Cup), Automatic Valve Assy.	1
10	66910	6610	Spring, Plunger, Automatic Valve Assy.	1
11	66911	6011	Back Head, Bare (with Bushing)	1
12	66912	6612	O-Ring (Seal), Backhead	1
13	66913	6613	Grip, Handle, Rubber	2
14	66914	6614	Valve, Throttle (Standard Original)	1
15	66915	6615	Bushing, Throttle Valve	1
16	66916	6616	Spring, Throttle Valve	1
17	63917	6617	Lever, Throttle	1
18	66918	6618	Pin, Throttle Lever	2
19	66919	6019	Plug, Handle Oil Reservoir	1
20	66920	6620	Plug, Oil Control, for Felt Wick	1
21	66921	6021	Front Head, Bare (no Chuck Bushing or Ret)	1
23	66923	6023	Bolt, Back Head	4
24	66924	6624	Lock Washer, Back Head Bolt	4
25	66925	6625	Nut, Back Head Bolt	4
26	66926	6026	Seat, Tappet (Anvil Bushing)	1
27	66927	6027	Tappet (Anvil)	1
28	66928	6628	Retainer, Steel (Latch)	1
29	66929	6629	Bolt, Steel Retainer	1
30	66930	6630	Nut, Steel Retainer Bolt	1
31	66931	6631	Lock Washer, Steel Retainer Bolt	1
32	66932R	6632-A	Bushing, Rubber (EDM), Retainer Bolt	2
	66932P		Bushing, Polyurethane, Retainer Bolt	(2)
	66932S	6632-B	Bushing, Steel (Split), Retainer Bolt	(2)
33	66933	6633	Plunger, Steel Retainer	1
34	66934	6634	Spring, Steel Retainer Plunger	1
35	66934	6035	Swivel, Air Inlet 1/4" NPTM	1
35B	66934	6050	O-Ring for 1/4" NPTM Swivel	1
36	66936	6036	Nut, 1 1/4" O/D Thrd, for 1/4" Swivel	1
37	66937	6037	O-Ring, for 1 1/4" Thrd Swivel Nut	1
38	66938	6038	Screen, Air for 1/4" Swivel Assy.	1
39	66939	6039	Bolt, Front Head	2
40	66940	6640	Nut, Front Head bolt	2
41	66941	6641	Lock Washer, Fronthead Bolt	2
42	66942	6642	Spring, Front Head Bolt	2
43	66943	6644-A	Bushing, hx, Front Head 1 1/2" x 6"	1
44	66944	6644-B	Bushing, hx, Front Head 1 1/4" x 6"	(1)
45	66343	6645	Felt (Wick), Oil Control	1
46		6614-F	Throttle Valve Stem O-Ring	(1)
47	66947	6614-A	Valve, Throttle, Retrofit (use 66946)	(1)
48	66948		Plug, Hex. Skt. Head	2
51	66951	6011-C	Backhead, Complete	
52	66952	6046-A	Front Head w/Bushing only, 1 1/2" hx.	
53	66953	6046-B	Front Head w/Bushing only, 1 1/4" hx.	
55	66955	6049-A	Front Head, Complete 1 1/2" Bushing & Latch	
56	66956	6049-B	Front Head, Complete 1 1/4" Bushing & Latch	
82	4059	6052	Muffler	(1)
84	66946	6614-E	O-Ring, Retrofit Throttle Valve (66947)	(1)



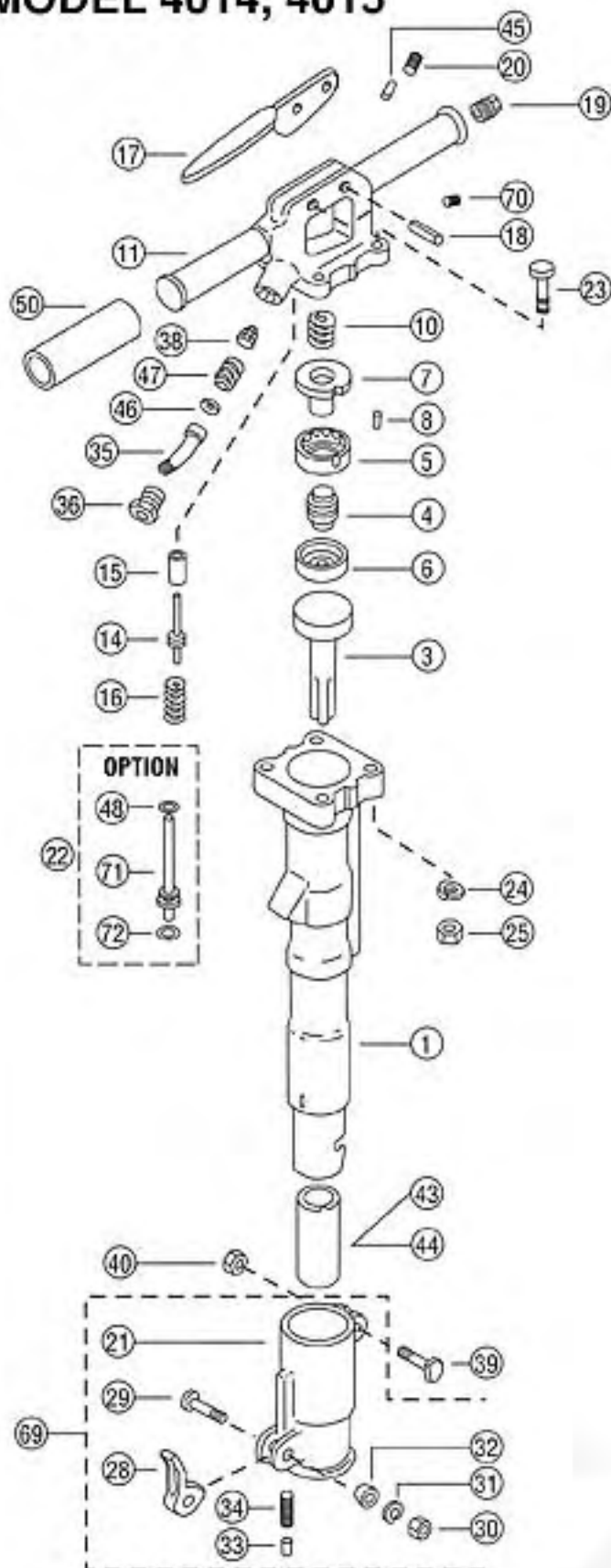
SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	66601	6601	Cylinder, Bare	1
2	66902	6601	Plug, Cylinder	3
3	66603	6603	Piston (Hammer)	1
4	66904	6604	Valve, Automatic	1
5	66505	6605	Chest, Automatic Valve, Rear	1
6	66606	6606	Seat, Automatic Valve, Front	1
7	66607	6607	Guide (Stem), Automatic Valve	1
8	66908	6608	Pin, Dowel, Automatic Valve Assy.	1
9	66909	6609	Plunger (cap), Automatic Valve Assy.	1
10	66910	6610	Spring, Plunger, Automatic Valve Assy.	1
11	66611	6611	Back Head, Bare (with Bushing)	1
12	66912	6612	O-Ring (Seal), Backhead	1
13	66913	6613	Grip, Handle Rubber	2
14	66914	6614	Valve, Throttle (Standard Original)	1
15	66915	6615	Bushing, Throttle Valve	1
16	66916	6616	Spring, Throttle Valve	1
17	66917	6617	Lever, Throttle	1
18	66918	6618	Pin, Throttle Lever	2
20	66920	6620	Plug, Oil Control, for Felt Wick	1
21	66621	6621	Front Head, Bare (no Check Bushing or Ret)	1
23	66623	6623	Bolt, Back Head	4
24	66924	6624	Lock Washer, Back Head Bolt	4
25	66925	6625	Nut, Back Head Bolt	4
26	66626	6626	Seat, Tappet (Anvil Bushing)	1
27	66627	6627	Tappet (Anvil)	1
28	66928	6628	Retainer, Steel (Latch)	1
29	66929	6629	Bolt, Steel Retainer	1
30	66930	6630	Nut, Steel Retainer Bolt	1
31	66931	6631	Lock Washer, Steel Retainer Bolt	1
32	66932A	6632-A	Bushing, Rubber(EDM), Retainer Bolt	2
	66932P		Bushing, Polyurethane, Retainer Bolt	(2)
	66932S		Bushing, Steel (Split), Retainer Bolt	(2)
33	66933	6633	Plunger, Steel Retainer	1
34	66934	6634	Spring, Steel Retainer Plunger	1
39	66639	6639	Bolt, Front Head	2
40	66940	6640	Nut, Front Head Bolt	2
41	66941	6641	Lock Washer, Front Head Bolt Nut	2
42	66942	6642	Spring, Front Head Bolt	2
43	66643	6644-A	Bushing, hx. Front Head 1 1/4" x 6"	1
44	66644	6644-B	Bushing, hx. Front Head 1 1/4" x 6"	(1)
45	66945	6645	Felt (Wick), Oil Control	1
46		6614-F	Throttle Valve Stem O-Ring	(1)
47	66947	6614-A	Valve, Throttle, Retrofit (use 66946)	1
48	66648	6619	Plug, Handle Oil Reservoir	(1)
51	66651	6611-C	Back Head Complete	(1)
52	66652	6646-A	Front Head w/Bushing only, 1 1/4" hx.	(1)
53	66653	6646-B	Front Head w/Bushing only, 1 1/4" hx.	(1)
55	66655	6649-A	Front Head, Complete 1 1/4" Bushing & Latch	(1)
56	66656	6649-B	Front Head, Complete 1 1/4" Bushing & Latch	(1)
60	66935	6035	Swivel, Air Inlet 1/4" NPTM	1
61	66936	6036	Nut, 1 1/2" O/D thrd, for 1/4" Swivel	1
62	66938	6038	Screen, Air for 1/4" Swivel Assy.	1
63	66922	6050	O-Ring, for 1/4" NPTM Swivel	1
64	66937	6037	O-Ring, for 1 1/2" thrd Swivel Nut	1
82	4056	6682	Muffler	(1)
84	66946	6614-E	O-Ring, Retrofit Throttle Valve (66947)	(1)



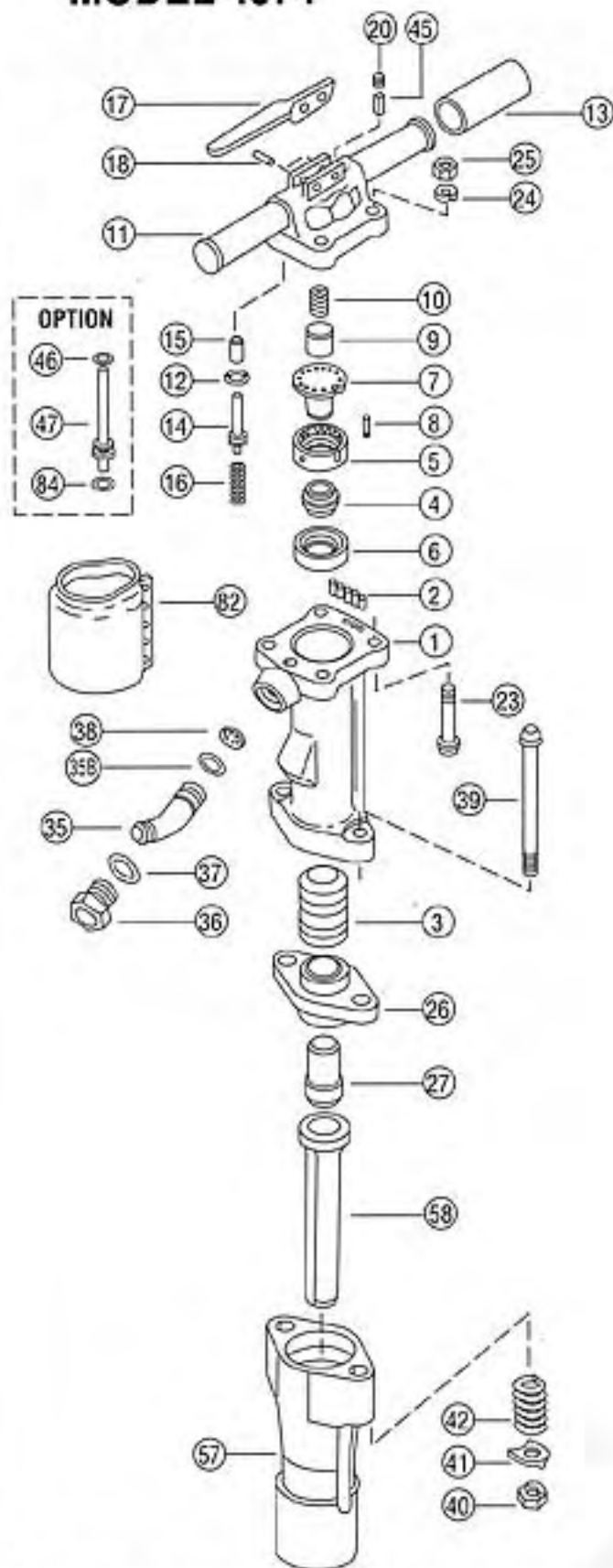
SYM. NO.	PART NO.	HD.	DESCRIPTION	AMT. REQ.
1	66401	6401	Cylinder, Bare	1
3	66403	6403	Piston, (Hammer)	1
4	66404	6405	Chest, Automatic Valve	1
5	66405	6404	Valve, Automatic	1
6	66406	6406	O-Ring, Small C/D, Automatic Valve	1
7	66407	6407	Cover, Automatic Valve	1
8	66408	6408	O-Ring, Large C/D, Automatic Valve	1
10	66410	6410	Washers, Spring Disc, Automatic Valve	2
11	66411	6411	Back Head, Bare (with Bushing)	1
13	66913	6613	Grip, Handle Back Head, Rubber	2
14	66414	6414	Pin, Throttle Valve Push Rod	1
15	66415	6415	Bushing, Throttle Valve Pin	1
16	66313	6416	Spring, Throttle Valve Pin	1
17	66917	6617	Lever, Throttle	1
18	66918	6618	Pin, Throttle Lever	2
21	66421	6421	Front Head, Bare (no Chuck Bushing)	1
23	66323	6323	Bolt, Back Head	4
24	66324	6324	Lock Washer, Back Head Bolt	4
25	66325	6325	Nut, Back Head Bolt	4
28	66928	6628	Retainer, Steel (Latch)	1
29	66929	6629	Bolt, Steel Retainer	1
30	66930	6630	Nut, Steel Retainer Bolt	1
31	66931	6631	Lock Washer, Steel Retainer Bolt	1
32	66932R	6632-A	Bushing, Rubber (EDM), Retainer Bolt	2
	66932P		Bushing, Polyurethane, Retainer Bolt	(2)
	66932S	6632-B	Bushing, Steel (Split), Retainer Bolt	(2)
33	66933	6633	Plunger, Steel Retainer	1
34	66934	6634	Spring, Steel Retainer Plunger	1
36	66436	6436	Nut, Air Inlet Swivel	1
38	66438	6438	Screen, Air (Kit), Swivel Assy.	1
39	66339	6339	Bolt, Front Head (Pinch Bolt)	1
40	66340	6340	Nut, Front Head Bolt	1
44	66444	6444	Bushing, Chuck 1" hx. x 4 1/4"	1
46	66622	6446	O-Ring, Air Inlet Swivel	1
47	66637	6437	O-Ring, Nut Inlet Swivel	1
48	66448	6412	O-Ring, Throttle Valve Pin	1
49	66449	6448	Valve, Throttle (Ball)	1
52	66635	6435	Swivel, Air Inlet 1/2" NPTM	1
53	66453	6449	Adapter, Swivel, 1/2" NPTF x 3/4" NPTM	1
54	66454	6447	Spacer, Retainer, Cupped, Throttle Ball	1
55	67545		Washer, Flat, 66932 Bushing Cover	(1)
65	66465		Back Head, Complete	(1)
69	66469		Front Head, Complete w/Retainer Assy.	(1)



SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	66301	6301	Cylinder, Bare	1
3	66303	6303	Piston (Hammer)	1
4	66304	6304	Valve, Automatic	1
5	66305	6305	Chest, Automatic Valve Rear	1
6	66306	6306	Seat, Automatic Valve Front	1
7	66307	6307	Guide (Stem), Automatic Valve	1
8	66308	6308	Pin, Dowel Automatic Valve Assy.	1
10	66310	6310	Spring, Plunger Automatic Valve Assy.	1
11	66311	6311	Back Head, Bare (with Bushing)	1
14	66914	6614	Valve, Throttle (Standard Original)	1
15	66915	6615	Bushing, Throttle Valve	1
16	66313	6316	Spring, Throttle Valve	1
17	66917	6617	Lever, Throttle	1
18	66918	6618	Pin, Throttle Lever	2
19	66319	6319	Plug, Handle Oil Reservoir	1
20	66920	6620	Plug, Oil Control, for Felt Wick	1
21	66321	6321	Front Head Bare (no Chuck Bushing)	1
22	66947	6614-A	Valve, Throttle Retrofit	1
23	66323	6323	Bolt, Back Head	4
24	66324	6324	Lock Washer, Back Head Bolt	4
25	66325	6325	Nut, Back Head Bolt	4
28	66328	6328	Retainer, Steel (Latch)	1
29	66329	6329	Bolt, Steel Retainer	1
30	66925	6330	Nut, Steel Retainer Bolt	1
31	66926	6331	Lock Washer, Steel Retainer Bolt	1
32	69332	6332	Bushing (Steel) for Steel Retainer Bolt	1
33	66333	6333	Plunger, Steel Retainer	1
34	66334	6334	Spring, Steel Retainer	1
35	66335	6335	Swivel, Air Inlet, 3/8" NPTM	1
36	66336	6336	Nut, Air Inlet Swivel	1
38	66338	6338	Screen, Air Inlet	1
39	66339	6339	Bolt, Front Head (Pinch Bolt)	1
40	66340	6340	Nut, Front Head Bolt	1
43	66343	6344-B	Bushing, Chuck 7/8" hx. x 3/4"	(1)
44	66344	6344-A	Bushing, Chuck 1" hx. x 4/4"	1
45	66945	6645	Felt (Wick), Oil Control	1
46	66346	6350	O-Ring, Air Inlet Swivel	1
47	66347	6347	Spring, Air Inlet Swivel	1
48		6614-F	Throttle Valve Stem O-Ring	(1)
50	66913	6613	Grip, Handle, Rubber	2
65	66365	6391-C	Back Head, Complete (no Throttle Valve)	(1)
69	66369	6349	Front Head, Complete w/Retainer Assy.	(1)
70	49713		Plug, Air Channel to Automatic Valve	(1)
71	66947	6614-A	Throttle Valve	(1)
72	66346	6614-F	Throttle Valve O-Ring	(1)



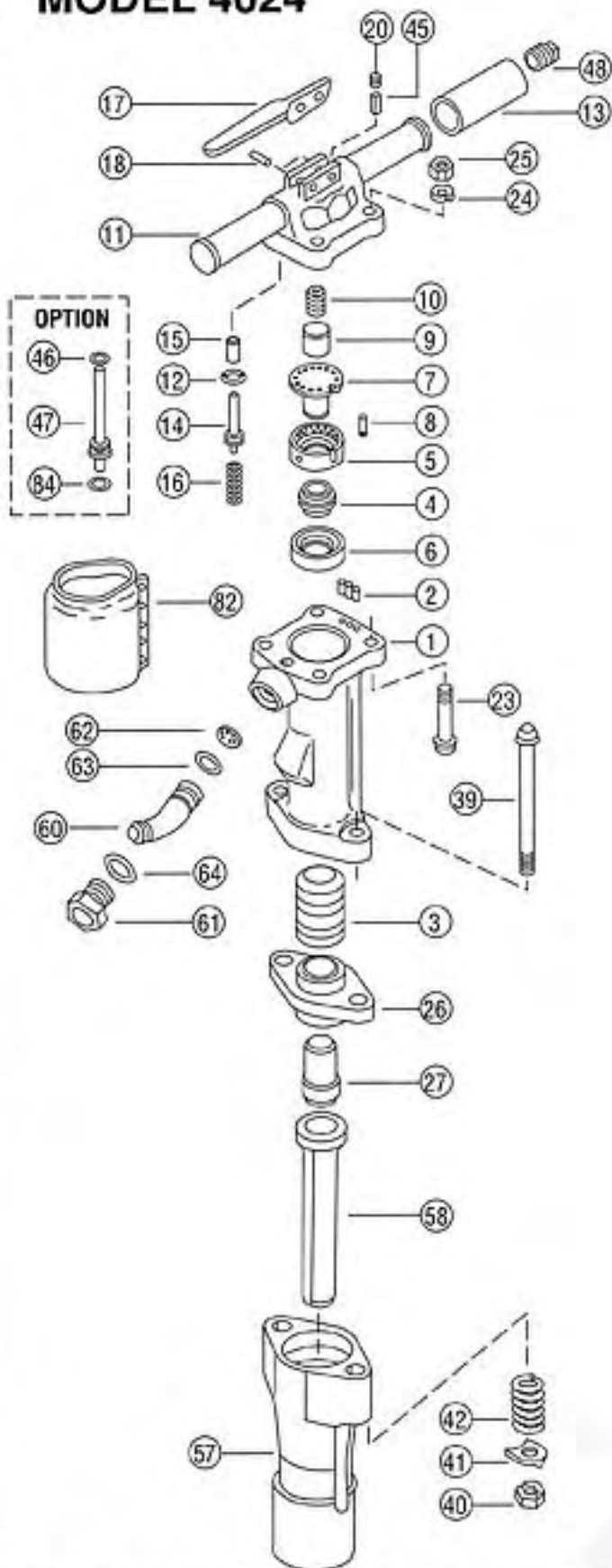
SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	66901	6001	Cylinder	1
2	66902	6002	Cylinder Plug	5
3	66903	6003	Piston (Hammer)	1
4	66904	6004	Automatic Valve	1
5	66905	6005	Valve Chest Rear	1
6	66906	6006	Valve Chest Front	1
7	66907	6007	Valve Guide Stem	1
8	66908	6008	Valve Chest Dowel Pin	1
9	66909	6009	Back Head Plunger	1
10	66910	6010	Plunger Spring	1
11	66911	6011	Back Head (Bare)	1
12	66912	6012	Valve Port Seal (O-Ring)	1
13	66913	6013	Rubber Grip	2
14	66914	6014	Throttle Valve	1
15	66915	6015	Throttle Valve Bushing	1
16	66916	6016	Throttle Valve Spring	1
17	66917	6017	Throttle Lever	1
18	66918	6018	Throttle Valve Pin	2
19	66919	6019	Oil Filter Plug	1
20	66920	6020	Oil Control Plug	1
23	66923	6023	Back Head Bolt	4
24	66924	6024	Back Head Lock Washer	4
25	66925	6025	Back Head Bolt Nut	4
26	66926	6026	Tappet Seat	1
27	66927	6027	Tappet	1
35	66935	6035	Air Inlet Swivel	1
35B	66922	6050	Air Inlet Swivel O-Ring	1
36	66936	6036	Air Inlet Swivel Nut	1
37	66937	6037	Air Inlet O-Ring	1
38	66938	6038	Air Inlet Swivel Screen	1
39	66939	6039	Front Head Bolt	2
40	66940	6040	Front Head Bolt Nut	2
41	66941	6041	Front Head Bolt Lock Washer	2
42	66942	6042	Front Head Bolt Spring	2
45	66945	6045	Oil Control Felt	1
46	66946	6046-F	Throttle Valve O-Ring	(1)
47	66947	6047-A	Throttle Valve	(1)
57	66957	6022	Front Head Spike Driver	1
58	66958	6043	Dolly (Ram) Spike Driver	1
82	4059	6052	Muffler	(1)
84	66946	6046-E	Throttle Valve O-Ring	(1)



HARPER AIR TOOLS

SPIKE DRIVER MODEL 4024

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	66901	6601	Cylinder Bore	1
2	66902	6602	Cylinder Plug	3
3	66903	6603	Piston (Hammer)	1
4	66904	6604	Automatic Valve	1
5	66905	6605	Automatic Valve Rear Chest	1
6	66906	6606	Automatic Valve Front Seat	1
7	66907	6607	Automatic Valve Guide (Stem)	1
8	66908	6608	Automatic Valve Dowel Pin	1
9	66909	6609	Back Head Plunger	1
10	66910	6610	Plunger Spring	1
11	66911	6611	Back Head Bore	1
12	66912	6612	Valve Port Seal (O-Ring)	1
13	66813	6613	Rubber Grip	2
14	66914	6614	Throttle Valve	1
15	66915	6615	Throttle Valve Bushing	1
16	66916	6616	Throttle Valve Spring	1
17	66917	6617	Throttle Lever	1
18	66918	6618	Throttle Valve Pin	2
20	66920	6620	Oil Control Plug	1
23	66623	6623	Back Head Bolt	4
24	66924	6624	Back Head Lock Washer	4
25	66925	6625	Back Head Bolt Nut	4
26	66626	6626	Tappet Seat	1
27	66627	6627	Tappet	1
39	66639	6639	Front Head Bolt	2
40	66640	6640	Front Head Bolt Nut	2
41	66641	6641	Front Head Lock Washer	2
42	66642	6642	Front Head Spring	2
45	66945	6645	Oil Control Felt	1
46	66947	6614-F	Throttle Valve Stem O-Ring	(1)
47	66948	6614-A	Throttle Valve	(1)
48	66648	6619	Oil Reservoir Plug	1
57	66657	6622	Front Head Spike Driver	1
58	66958	6643	Dolly (Ram) Spike Driver	1
60	66935	6035	Air Inlet Swivel	1
61	66936	6036	Air Inlet Swivel Nut	1
62	66938	6038	Air Inlet Swivel Screen	1
63	66922	6050	Air Inlet Swivel O-Ring	1
64	66937	6037	Air Inlet Swivel Nut O-Ring	1
82	4056	6682	Muffler	(1)
84	66946	6614-E	Throttle Valve O-Ring	(1)

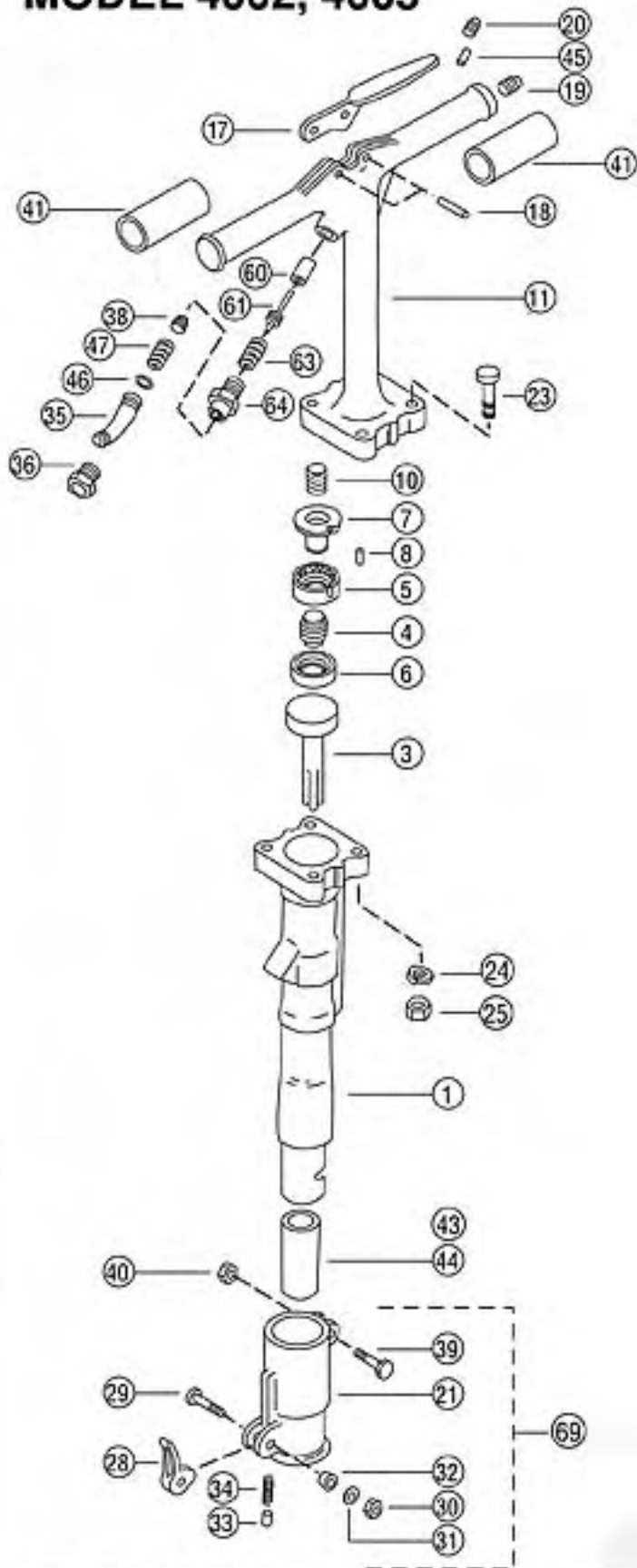


HARPER AIR TOOLS

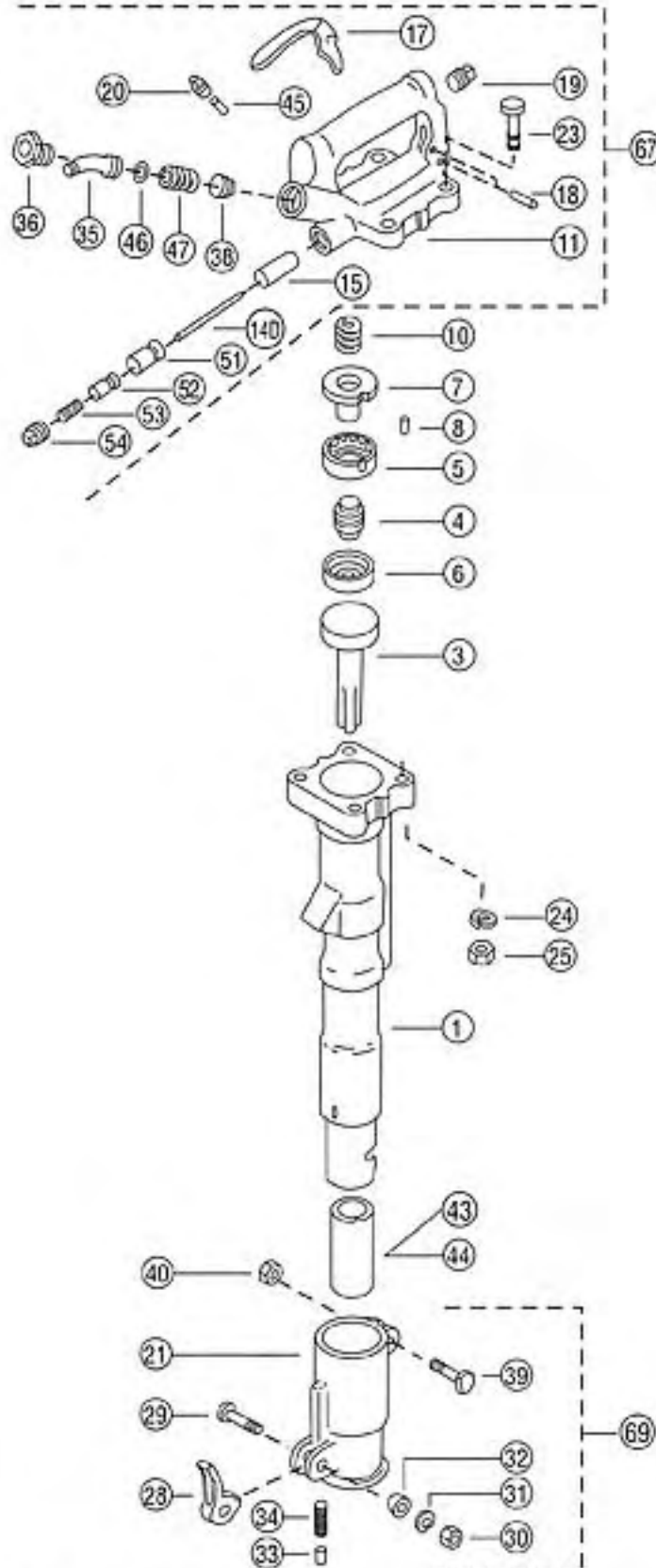
TRENCH DIGGER

MODEL 4002, 4005

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	66301	6301	Cylinder, Bare	1
3	66303	6303	Piston (Hammer)	1
4	66304	6304	Valve, Automatic	1
5	66305	6305	Chest, Automatic Valve, Rear	1
6	66306	6306	Seat, Automatic Valve, Front	1
7	66307	6307	Guide (Stem), Automatic Valve	1
8	66308	6308	Pin, Dowel, Automatic Valve Assy.	1
10	66310	6310	Spring, Plunger, Automatic Valve Assy.	1
11	66309	6311-T	Back Head, Bare (with Bushing)	1
17	66316	6360	Lever, Throttle	1
18	66918	6618	Pin, Throttle Lever	2
19	66319	6319	Plug, Handle, Oil Reservoir	1
20	66920	6620	Plug, Oil Control, for Felt Wick	1
21	66321	6321	Front Head, Bare (no Chuck Bushing)	1
23	66323	6323	Bolt, Back Head	4
24	66324	6324	Lock Washer, Back Head Bolt	4
25	66325	6325	Nut, Back Head Bolt	4
28	66328	6328	Retainer, Steel (Latch)	1
29	66329	6329	Bolt, Steel Retainer	1
30	66925	6330	Nut, Steel Retainer Bolt	1
31	66926	6331	Lock Washer, Steel Retainer Bolt	1
32	66332	6332	Bushing (Steel) for Steel Retainer Bolt	1
33	66333	6333	Plunger, Steel Retainer	1
34	66334	6334	Spring, Steel Retainer Plunger	1
35	66335	6335	Swivel, Air Inlet 3/4" NPTM	1
36	66336	6336	Nut, Air Inlet Swivel	1
38	66338	6338	Screen, Air Inlet	1
39	66339	6339	Bolt, Front Head (Pinch Bolt)	1
40	66340	6340	Nut, Front Head Bolt	1
41	66341	4313	Grip, Back Head Handle (4002/4005 only)	(2)
43	66343	6344-B	Bushing, Chuck 3/4" hx. x 3/4"	1
44	66344	6344-A	Bushing, Chuck 1" hx. x 4/4"	(1)
45	66945	6645	Felt (Wick), Oil Control	1
46	66346	6350	O-Ring, Air Inlet Swivel	1
47	66347	6347	Spring, Air Inlet Swivel	1
60	66360	6360	Bushing, Throttle Valve Stem	1
61	66362	6361	Valve, Throttle	1
63	66363	6363	Spring, Throttle Valve	1
64	66364	6364	Adapter, Air Inlet	1
68	66368	6393-C	Back Head Complete	(1)
69	66369	6349	Front Head, Complete w/Retainer Assy.	(1)



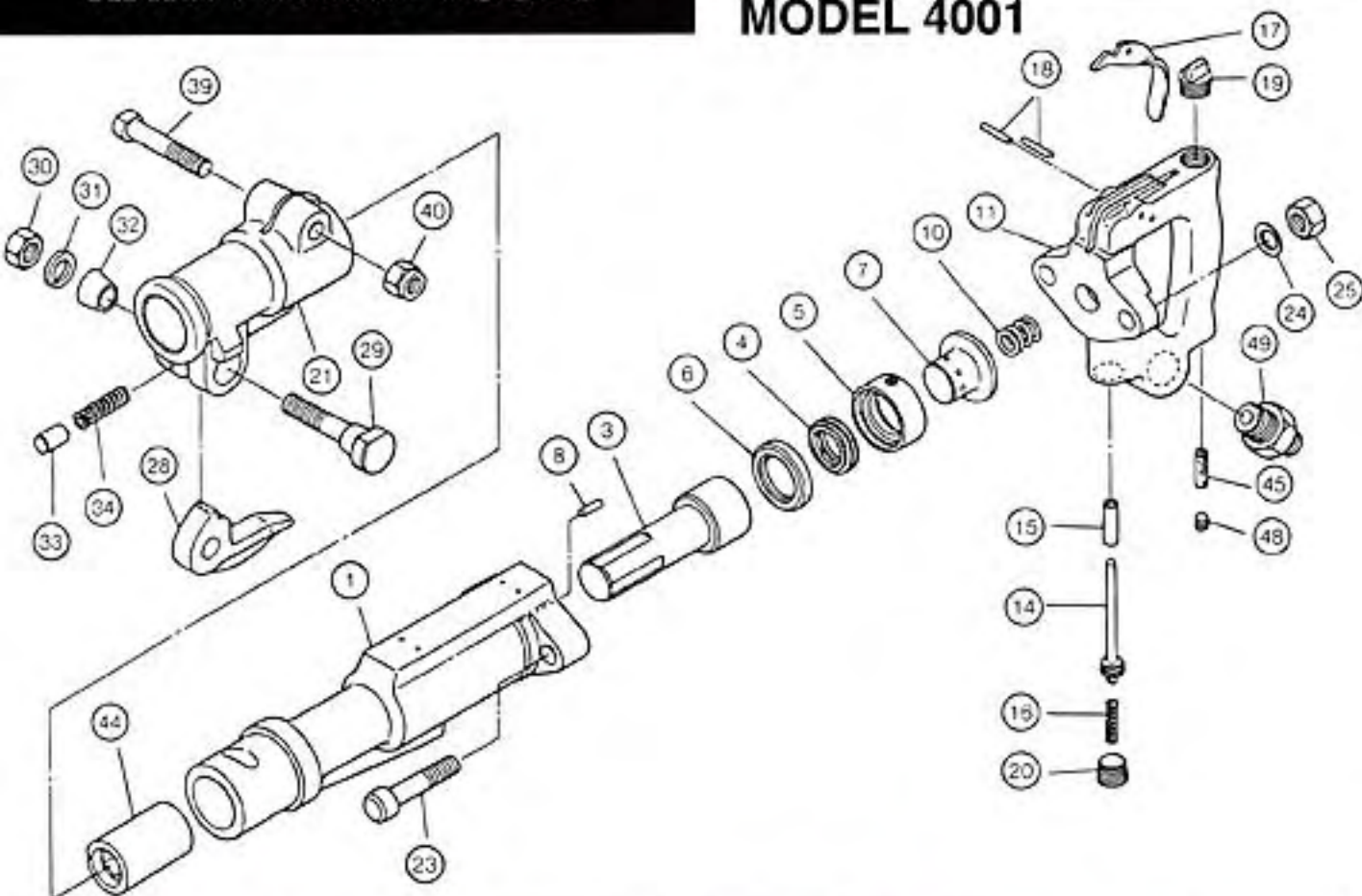
SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	66301	6301	Cylinder, Bare	1
3	66303	6303	Piston (Hammer)	1
4	66304	6304	Valve, Automatic	1
5	66305	6305	Chest, Automatic Valve, Rear	1
6	66306	6306	Seat, Automatic Valve, Front	1
7	66307	6307	Guide (Stem), Automatic Valve	1
8	66308	6308	Pin, Dowel, Automatic Valve Assy.	1
10	66310	6310	Spring, Plunger, Automatic Valve Assy.	1
11	66302	6311-D	Back Head, Bare (with Bushing)	1
140	66312	6357	Pin, Throttle Valve Stem	1
15	66315	6360	Bushing, Throttle Valve Stem	1
17	66317	6355	Lever, Throttle (D Handle)	1
18	66318	6356	Pin, Throttle Lever	2
19	66319	6319	Plug, Handle, Oil Reservoir	1
20	66920	6620	Plug, Oil Control, for Felt Wick	1
21	66321	6321	Fronthead, Bare (no Chuck Bushing)	1
23	66323	6323	Bolt, Back Head	4
24	66324	6324	Lock Washer, Back Head Bolt	4
25	66325	6325	Nut, Back Head Bolt	4
28	66328	6328	Retainer, Steel (Latch)	1
29	66329	6329	Bolt, Steel Retainer	1
30	66925	6330	Nut, Steel Retainer Bolt	1
31	66926	6331	Lock Washer, Steel Retainer Bolt	1
32	66332	6332	Bushing (Steel) for Steel Retainer Bolt	1
33	66333	6333	Plunger, Steel Retainer	1
34	66335	6334	Spring, Steel Retainer Plunger	1
35	66335	6335	Swivel, Air Inlet 1/2" NPTM	1
36	66336	6336	Nut, Air Inlet Swivel	1
38	66338	6338	Screen, Air Inlet	1
39	66339	6339	Bolt, Front Head (Pinch Bolt)	1
40	66340	6340	Nut, Front Head Bolt	1
43	66343	6344-B	Bushing, Chuck 3/4" hx. x 3/4"	(1)
44	66344	6344-A	Bushing, Chuck 1" hx. x 4/4"	1
45	66945	6645	Felt (Wick), Oil Control	1
46	66346	6350	O-Ring, Air Inlet Swivel	1
47	66347	6347	Spring, Air Inlet Swivel	1
51	66351	6351	Bushing, Throttle Valve	1
52	66352	6352	Valve, Throttle (Standard Original)	1
53	66353	6353	Spring, Throttle Valve	1
54	66354	6354	Plug (Cap), Throttle Valve	1
67	66367	6392-C	Back Head Complete	(1)
69	66369	6349	Front Head, Complete w/Retainer Assy.	(1)



HARPER AIR TOOLS

CLAY DIGGER

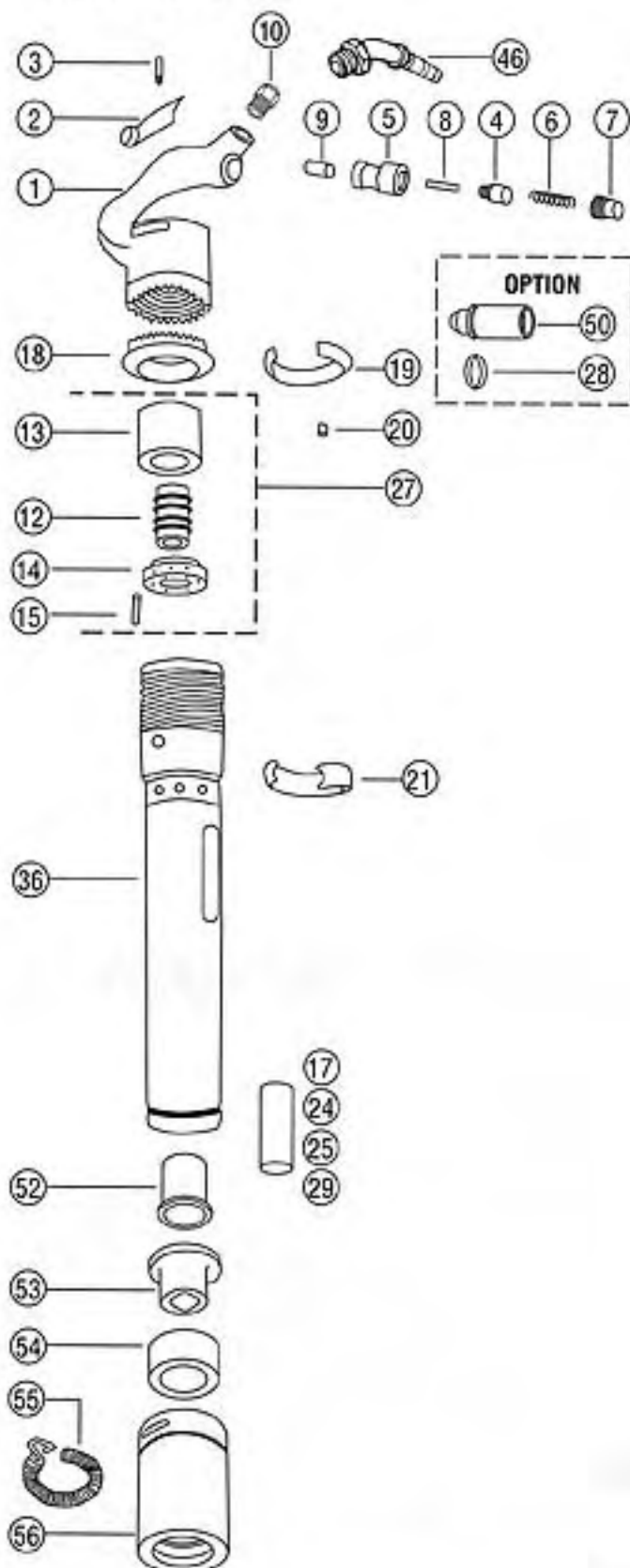
MODEL 4001



SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	62251	6801	Cylinder, Bare	1
3	62253	6803	Piston	1
4	62254	6804	Valve, Automatic	1
5	62255	6805	Chest, Automatic Valve	1
6	62256	6806	Seat, Automatic Valve	1
7	62257	6807	Guide, Automatic Valve	1
8	66308	6308	Pin, Dowel, Automatic Valve Assy.	1
10	66310	6310	Spring, Plunger, Automatic Valve Assy.	1
11	62261	6811	Back Head, Bare (includes System 15)	1
14	62252	6814	Valve, Throttle (with Stem Plunger)	1
15	62258	6815	Guide Bushing, Throttle Valve Stem	1
16	66353	6816	Spring, Throttle Valve	1
17	62262	6817	Lever, Throttle (Trigger)	1
18	62259	6818	Pin, Throttle Lever	2
19	66319	6319	Plug, Oil Reservoir	1
20	66354	6820	Plug (Cap), Throttle Valve	1
21	66321	6321	Front Head, Bare	1
23	62260	6823	Bolt, Back Head (Handle)	2
24	62217	6824	Lock Washer, Back Head Bolt	2
25	62218	6825	Nut, Back Head Bolt	2
28	66328	6328	Retainer, Steel (Latch)	1

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
29	66329	6329	Bolt, Steel Retainer	1
30	66330	6330	Nut, Steel Retainer Bolt	1
31	66331	6331	Lock Washer, Steel Retainer Bolt	1
32	66332	6332	Bushing (Steel) Retainer Bolt	1
33	66333	6333	Plunger, Steel Retainer	1
34	66334	6334	Spring, Steel Retainer Plunger	1
39	66339	6339	Bolt, Front Head Retainer	1
40	66340	6340	Nut, Front Head Retainer Bolt	1
44	62263	6844	Bushing, Front Head 1/2" hc. x 3/4"	1
45	66345	6645	Felt (Wick), Oil Control	1
48	66320	6620	Plug, Oil Control, for Wick	1
49	62250	6849	Adapter w/Air Screen, Air Inlet	1
65	62265	6811-D	Back Head Complete	(1)
69	66369	6349	Front Head, Complete w/Retainer Assy.	(1)

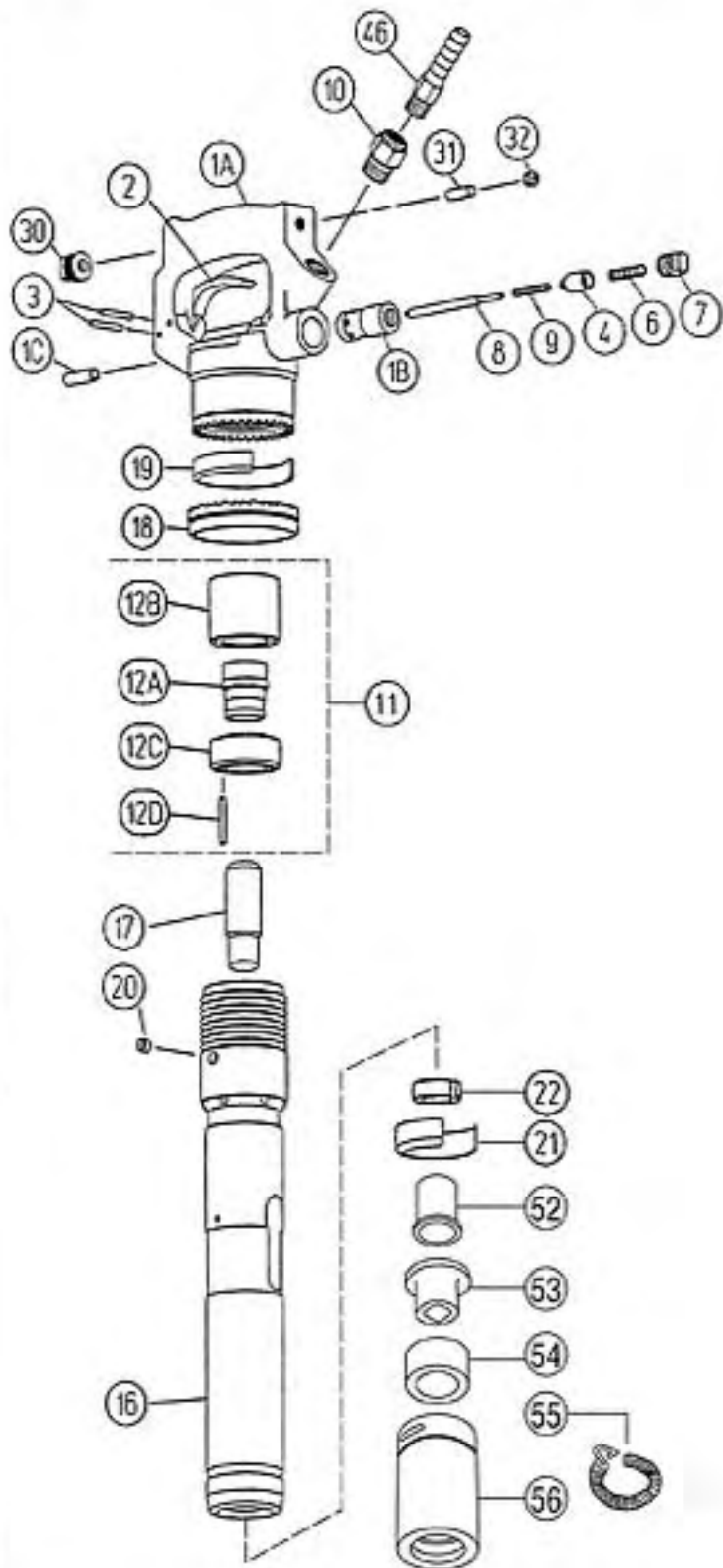
SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	61101	6761	Handle, Bare	1
	61126	6761-C	Handle, Complete (Syms.1 thru 9)	(1)
2	61102	6763	Lever, Throttle	1
3	61103	6764	Pin, Throttle Lever	1
4	61104	6765	Valve, Throttle	1
5	61105	6766	Bushing, Throttle Valve	1
6	61105	6767	Spring, Throttle Valve	1
7	61107	6768	Cap (Plug) Throttle Valve Assy.	1
8	61108	6769	Pin, Throttle Valve	1
9	61109	6770	Bushing, Throttle Valve Pin	1
10	61110	8280	Adapter, Air Inlet	1
11	61111		Screen, Air	(1)
12	61112	6773	Valve, Automatic	1
13	61113	6774	Chest, Valve Automatic	1
14	61114	6775	Seat, Valve Automatic	1
15	61115	6772	Pin, Dowel, Automatic Valve Assy.	1
17	61117	6777	Piston, 3" (Std. for 4197 O/S)	1
18	61118	6778	Ring, Locking (Saw Tooth)	1
19	61119	6779	Band, Lock Ring	1
20	61120	6780	Key, Cylinder Lock	1
21	61121	6781	Deflector, Exhaust	1
24	61124		Piston, 8" Cylinder (4198 OS)	(1)
25	61125		Piston, 6" Cylinder (4194J/S-6)	(1)
27	61127	6771	Valve, Automatic Complete	(1)
28	61128	6784	O-Ring, Throttle Valve	1
29	61129	6677-4	Piston, 4" Long (4197J/S-9)	(1)
36	61130		Cylinder, 6" (4194J/S-6) 1 1/2" Bore	(1)
	611322		Cylinder, 8" (4198J/S-OS) 1 1/2" Bore	(1)
	61131	6776	Cylinder, 9" (4197J/S-9) 1 1/2" Bore	1
50	61150	6783	Valve, Throttle, Retrofit w/D-Ring	(1)
52	9187	9625	Upper Sleeve-Jumbo	1
	9107	9725	Upper Sleeve-Standard	(1)
53	9189	9624-B	Lower Sleeve-Jumbo	1
	9108	9724	Lower Sleeve-Standard	(1)
54	9184	9623-B	Rubber Bumper	1
	9110	9623	Rubber Bumper-Standard	(1)
55	9105	9622	Retainer Spring	1
56	9400	9621-B	Retainer Housing	1
	9106	9621	Retainer Housing	(1)
46	9089	9635	Inlet Swivel	(1)



HARPER AIR TOOLS

DEMOLITION HAMMERS MODEL 4197 (Closed Handle)

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1A	61171	6861	D-Handle Bare	1
1B	61106	6776	Throttle Valve Bushing	1
1C	66315	6350	Throttle Valve Stem Guide	1
2	66317	6355	Trigger	1
3	66318	6356	Trigger Pin	1
4	61162	6865	Throttle Valve	1
6	61106	6767	Throttle Valve Spring	1
7	61107	6768	Throttle Valve Cap	1
8	61169	6868	Throttle Valve Pin	1
9	61170	6867	Valve Pin Spring	1
10	61110	8270	Screw Bushing	1
11	61127	6771	Valve Complete	1
12A	61112	6773	Valve	1
12B	61113	6774	Valve Box	1
12C	61114	6775	Valve Seat	1
12D	61115	6772	Valve Knock Pin	1
16	61131	6776	Cylinder	1
17	61117	6777-N	Piston	1
18	61118	6778	Locking Ring	1
19	61119	6779	Locking Band	1
20	61120	6780	Cylinder Lock Key	1
21	61121	6781	Exhaust Deflector	1
22	61132	6782	Piston Stop Bushing	1
30	66319	6319	Oil Reservoir Plug	1
31	66945	6645	Oil Control Felt	1
32	66920	6620	Oil Control Felt Plug	1
46	9089	9635	Inlet Swivel	(1)
52	9187	9625	Upper Sleeve-Jumbo	1
	9107	9725	Upper Sleeve-Standard	(1)
53	9189	9624-B	Lower Sleeve-Jumbo	1
	9108	9724	Lower Sleeve-Standard	(1)
54	9184	9623-B	Rubber Bumper	1
	9110	9623	Rubber Bumper-Standard	(1)
55	9105	9622	Retainer Spring	1
56	9400	9621-B	Retainer Housing	1
	9106	9621	Retainer Housing	(1)

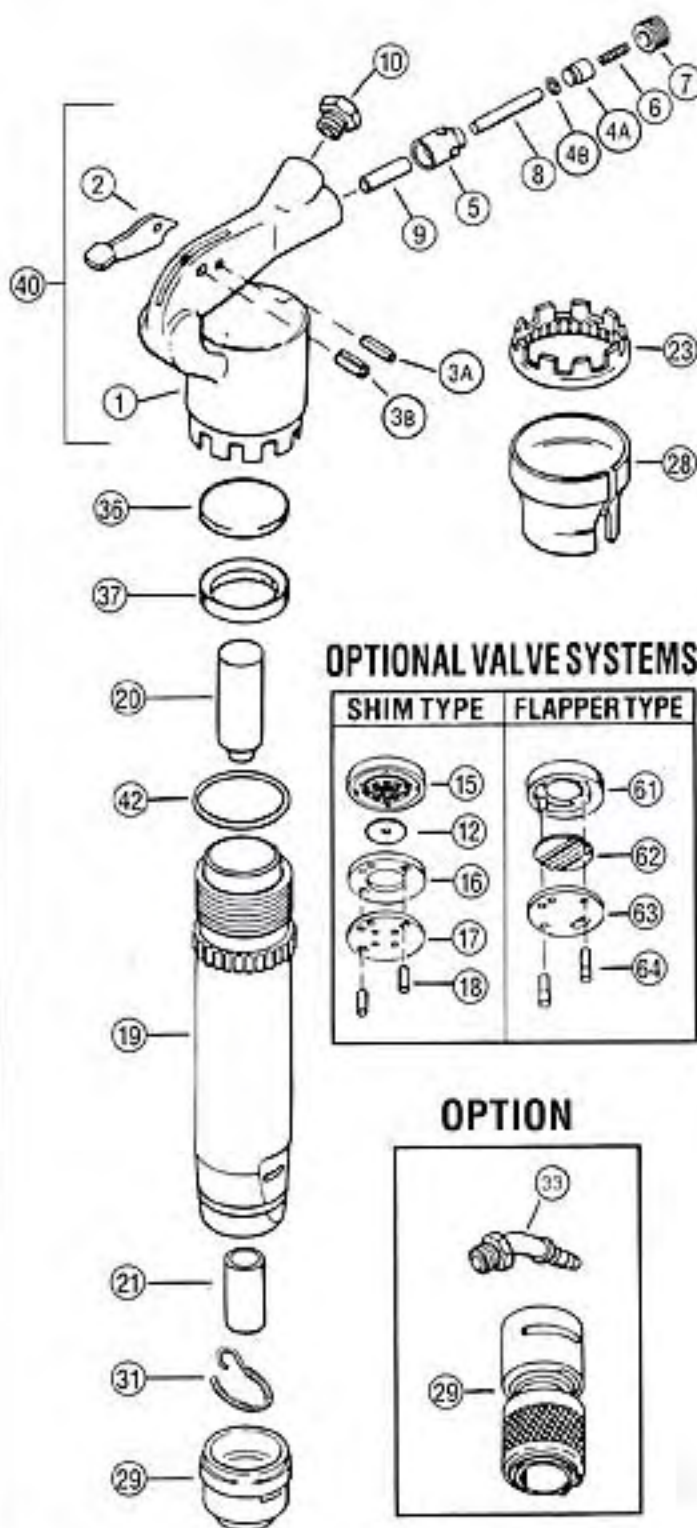


HARPER AIR TOOLS

CHIPPING HAMMER

MODEL 4176F, 4177F, 4178F, 4179F,
4171D, 4172D, 4173D, 4174D,

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	60501	6111	Handle, Bare (Threaded Cylinder/Handle) D/F	1
2	60502	6117	Lever, Throttle	1
3A	60503	6118-A	Pin, Lever (Long)	1
3B	60513	6118-B	Pin, Fulcrum, Throttle Lever (Short)	1
4A	60504	6114	Valve, Throttle (Threaded Cylinder/Handle) D/F	1
4B	60514	6113	O-Ring, Throttle Valve (Thrd C/H) D/F	1
5	60505	6115	Bushing, Throttle Valve (Thrd C/H) D/F	1
6	60506	6116	Spring, Throttle Valve (Thrd C/H) D/F	1
7	60507	6119	Plug (Cap), Th.Vlv.w/Nylock (Thrd C/H) D/F	1
8	60508	6109	Pin, Push, Th.Vlv.(Thrd C/H) D/F	1
9	60509	6110	Bushing, Bronze, F/ Push Pin (Thrd C/H) D/F	1
10	60510	6136	Bushing, Air Inlet, 3/8"-24 Thread	1
11	60511		Screen, Air (Thrd C/H) D/F	(1)
12	60512	6104	Valve, Automatic Disc (Thrd C/H) D/F	1
15	60515	6105	Seat, Disc Auto.Valve, Rear (Thrd C/H) F	1
16	60516	6107	Guide, Disc Auto.Valve, Middle (Thrd C/H) F	1
17	60517	6106	Seat, Disc Auto.Valve, Front (Thrd C/H) F	1
18	60518	6108	Pin, Dowel Disc Auto.Valve (Thrd C/H) F	2
19	60519	6101-1	Cylinder, 1" Tapered (Thrd C/H) D/F	1
	60524	6101-2	Cylinder, 2" Tapered (Thrd C/H) D/F	1
	60526	6101-3	Cylinder, 3" Tapered (Thrd C/H) D/F	1
	60527	6101-4	Cylinder, 4" Tapered (Thrd C/H) D/F	1
20	60520	6103-1	Piston, 1" Stroke Cylinder Standard O/D	1
	60532	6103-2	Piston, 2" Stroke Cylinder Standard O/D	1
	60533	6103-3	Piston, 3" Stroke Cylinder Standard O/D	1
	60534	6103-4	Piston, 4" Stroke Cylinder Standard O/D	1
21	60521	6144-R	Bushing, .680 Round, Standard O/D	1
	60522	6144-H	Bushing, .580 Hexagon, Standard O/D	(1)
23	60523	6123	Ring Plug Locking (Thrd C/H)	1
25	60525		Valve, Disc Auto. Valve, Complete, D/F	(1)
28	60528	6122	Deflector, Exhaust (Thrd C/H)	1
29	9102	9101	Retainer, Oval Collar F/Tapered Cylinder	1
	9111	9105	Retainer, Round Col., Side Load Tapered Cyl.	(1)
	9116	9103	Retainer, Round Col., Narrow Bl., Tapered Cyl.	(1)
	9120	9104	Retainer, Ball Type, Oval/Rd Tapered Cyl.	(1)
31	9101S	9105	Spring, Lockcoil, Steel, Slotted Rets.	1
36	60536	6146	Plate, Automatic Valve, R/V	1
37	60537	6147	Valve, Ring, Automatic Valve, R/V	1
40	60540	6111-C	Handle, Complete, Threaded Cyl/Hdle, D/F	(1)
42	60542	6102	O-Ring, Cylinder Seal (Threaded Cyl/Hdle)	1
61	60561	6161	Chest, Valve, Rear, Flapper Valve	1
62	60562	6162	Valve, Automatic, Flapper Valve	1
63	60563	6163	Cover, Automatic Valve, Front, Flapper Valve	1
64	60564	6164	Pin, Valve Dowel, Flapper Valve	2



OPTIONAL VALVE SYSTEMS

SHIM TYPE	FLAPPER TYPE
15	61
12	62
16	63
17	64
18	

OPTION



HARPER AIR TOOLS

BACKFILL TAMPER MODEL 4130, 4131, 4132, 4133

SYM. NO.	PART NO.	NO.	DESCRIPTION	AMT. REQ.
1	49701	6501	Handle (Back Head) with Bushing only	1
2	49702	6503	Lever, Throttle	1
3	49703	6504	Pin, Throttle Lever	1
4	49704	6505	Ring, Locking, Throttle Lever	1
5	49705	6502	Bushing, Throttle Valve	1
7	49707	6507	O-Ring, Throttle Valve	1
8	49708	6508	Spring, Throttle Valve	1
9	49709	6509	Plug (Cap), Throttle Valve	1
10	49710	6512	Tube, Heavy Wall, Connecting, 18" OAL, Std	1
	49774		Tube, Heavy Wall, Connecting, 26" OAL, Opt	
	49744		Tube, Heavy Wall, Connecting, 30" OAL, Opt	
11	49711	6514	Nut, Locking, F/Connecting Tube	1
12	49712	6516	Cap, Cylinder, inc. Syms. 14 & 15 (Old Type)	1
13	49713	6517	Plug, Oil Reservoir (Old Type)	1
13A	49742		O-Ring, Oil Plug (Old, not used by HATCO)	
14	49714	6511	Bushing, Cylinder Cap, Steel	1
15	49715	6515	Bushing Oil Control, Bronze	1
16	49716	6522	Block, Upper Valve	1
17	49717	6525	Block, Lower Valve, requires O-Ring	1
18	49718	6518	O-Ring, Lower Valve Block	1
19	49719	6523	Plate, Center Valve Guide	1
20	49720	6524	Valve, Automatic, Disc Type	1
21	49721	6526	Pin, Dowel, Automatic Valve Assy., Disc Type	2
22	49722	6527	Cylinder, Bare	1
23	49723	6528-H	Deflector, Exhaust	1
24	49724	6531	Bushing, Upper Guide	1
25	49725	6532	O-Ring, Guide Bushing	2
29	49729	6535	Bushing, Lower Guide	1
30	49730	6537	Nut, Packing	1
31	49731	6536	Ring (Band), Locking F/Packing Nut	1
32	49732	6530	Piston, (Plunger), Standard, head Size	1
33	49733		Butt, 6" Round Aluminum, Hollow F/Foundry	(1)
	49736	9538	Butt, 6" Malleable, F/Construction	1
	49737	9541	Butt, 6" Crescent, Solid	(1)
	49745	9539	Butt, 6" Round Aluminum, Solid	(1)
	49746		Butt, 3" Round Steel, Solid	(1)
34	49734	6540	Screw (bolt), Butt Locking	1
35	49735	6510	O-Ring, Throttle Valve Plug	1
38	49738		Screen, Air	1
39	49739		Spring, Retainer Air Screen	1
40	49740	6500	Handle, Throttle, Complete	(1)
41	49741	6533	Packing, Set only, Teflon (White)	1
	49743	6533-B	Packing, Set only, Fibre (Brown)	(1)
47	49747		Chest, Valve, Rear, Flapper Type	(1)
48	49748		Valve Automatic, Flapper	(1)
49	49749		Cover, Valve, Front, Flapper	(1)
51	49751		Valve, Automatic, Assy. Complete, Flapper	(1)
52	49752		Washer, Spring Tension, F/Sym. 11 Nut	(1)
55	49755		Plug, Oil Reservoir Plug, NEW TYPE, O-Ring red	(1)
55A	67108		O-Ring, Oil Reservoir Plug, NEW TYPE	(1)
64	49764		Cap, Cylinder, inc. Syms. 14 & 15, NEW TYPE	(1)
73	49773		Washer, Spring Tension, F/Automatic Valve	(2)

