

ORIGINAL INSTRUCTIONS

GH752A

MANUAL



CHERRY[®]
AEROSPACE

G752A

Hand Riveter

The Cherry G752A hand hydraulic riveting tool provides the versatility of a pneumatic-hydraulic riveter but with the lightweight, high pull strength ratio desirability not found in other hand riveters. The Cherry G752A has a unique two-stage hydraulic power cylinder that provides the user with the ease of pulling the handle without the strain normally endured to install a high strength fastener. This patented two-stage power feature allows the user to squeeze the handle throughout the increased power requirement, without feeling the need to squeeze harder to install the fastener. The Cherry G752A hand riveter can install a variety of blind fastener styles, diameters, head configurations, and material combinations without changing the pulling head or adjusting the tool.

The G752A comes equipped with a three-piece jaw pulling head, H752A-073, which includes nosepiece 743A7-8Z, to set:

1/4" standard rivets

Specifications:

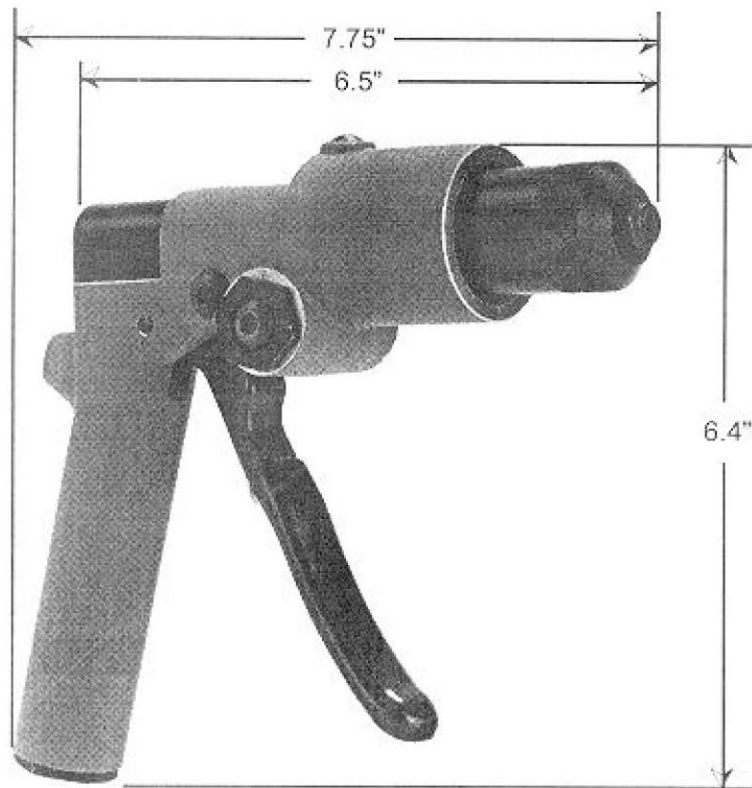
Weight:	1.9 lbs.
Stroke:	.750"
Pulling Capacity:	3800/4400 lbs.

How the G752A Operates:

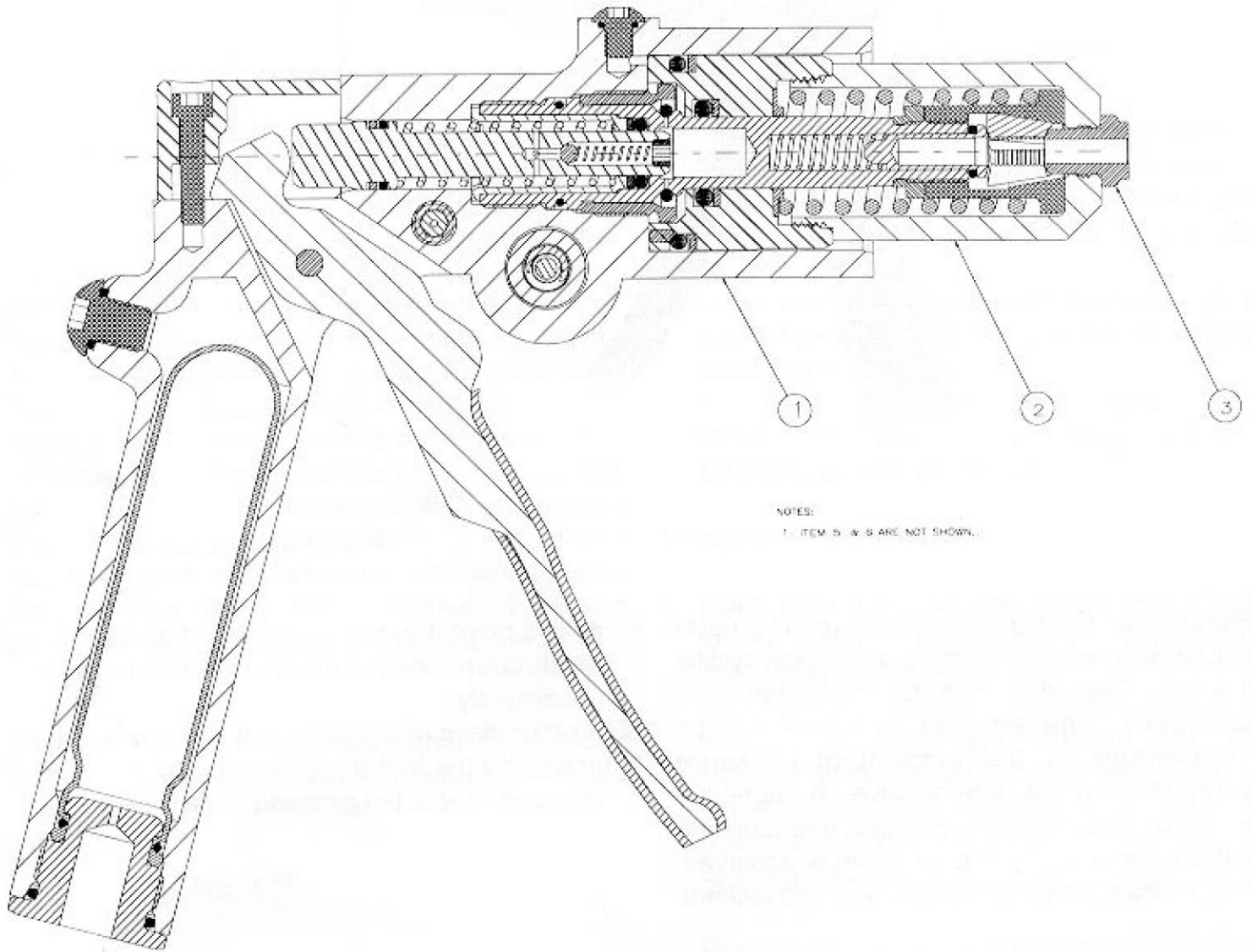
- The piston should be fully retracted: depress the return valve on the left side of the tool.
- Insert the rivet into the nosepiece of the pulling head, then insert the rivet in to the prepared hole.
- Cycle the tool. Using short strokes until the rivet stem breaks will make the installation easier on the larger diameter rivets.
- Depress the return valve, allowing the piston to return all the way back, permitting the stem to fall from the front of the tool.

Threaded Insert Use: (See Page 10)

- Make sure you have the proper size adapter for the insert's installation. The difference is the pull-up stud and the anvil.
- To adjust the pressure regulator, loosen the locknut on the right side of the tool, counterclockwise, all the way out. This will leave the pressure regulator wide open. No pulling action will take place.
- Screw the threaded insert onto the pull-up stud.
- Place the threaded insert in to the prepared hole in a test plate of the proper thickness.



- E. Rotate the knob of the pressure regulator clockwise in small increments and begin cycling the tool. You will notice the insert starting to collapse. The amount of upset will be determined by the amount of pressure established by the control valve. If the height is not to specification, you can fine-tune the adjustment until the proper upset is achieved. At this point, lock in the setting with the locknut.
- F. At this point, the tool is ready to be used in a production environment and will perform consistently.
- G. If other sizes of the threaded insert are to be used, change to the proper mandrel and anvil size and repeat the procedures from A to F.



NOTES:
 1. ITEM 5, 6 & 8 ARE NOT SHOWN.

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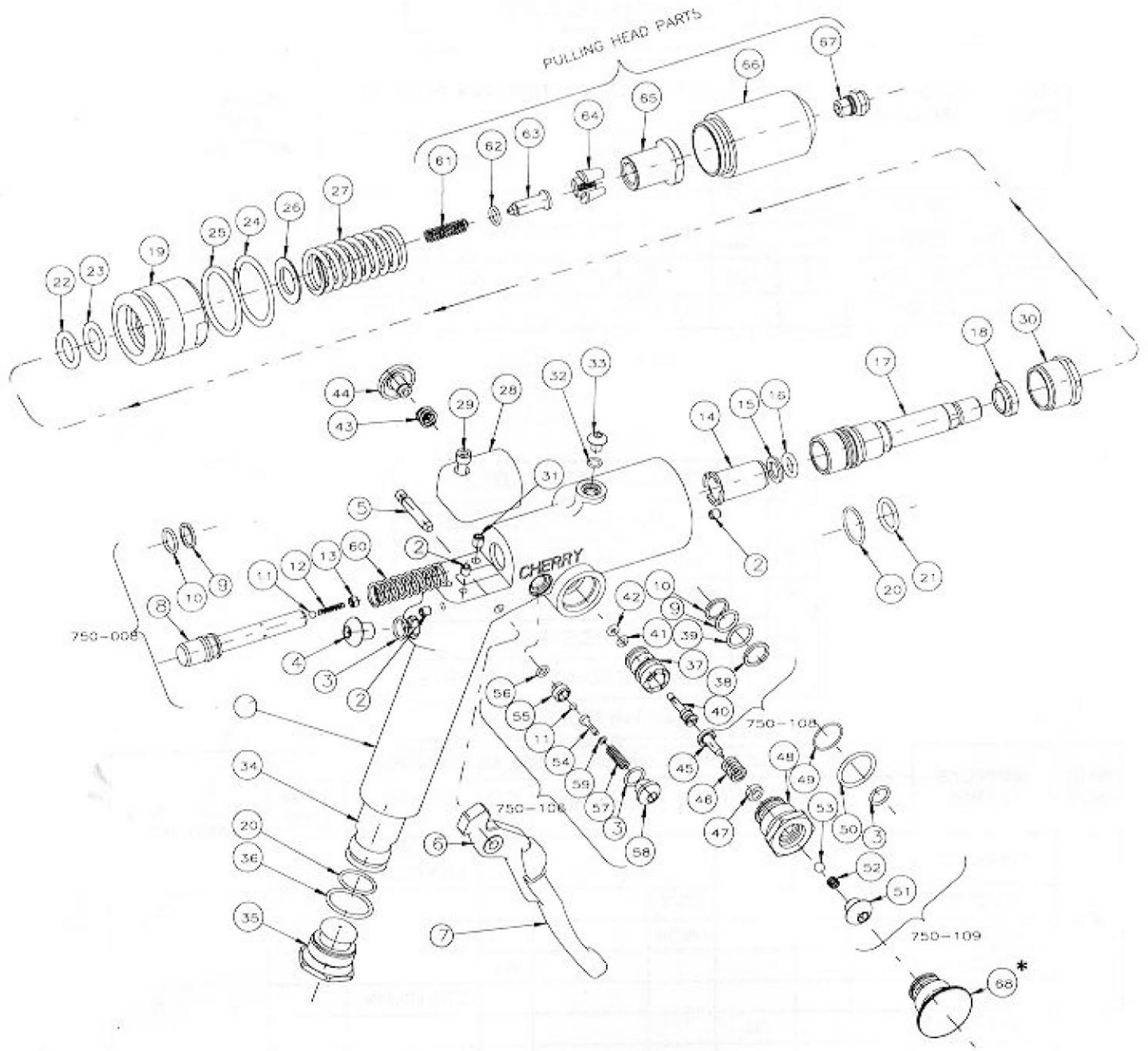
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GH752A-2 (2 JAWS SYSTEM)		
6	1	PULLING HEAD TOOL SHEET
5	1	TMAN-G752A MANUAL, G752A
4	1	750-094 NAMEPLATE
3	1	728A9-4 NOSEPIECE
2	1	750-078 H752A-078 (2 JAW SYS.)
1	1	750-060 HANDLE SUB-ASSY.

RIVET DIAM.	NOSEPIECE NUMBER	STYLE OF AVDEL CHERRY COMMERCIAL FASTENER				PULLING HEAD ASSY. NO.
		N	Q	CHERRY MATE	KLAMPTITE	
3/32	728A9-3Z	ALL				H752A-078 (2 JAWS SYSTEM)
1/8	728-A9-4	ALL	ALL			
5/32	728A9-104	ALL	ALL		ALL	
3/16	728A9-4			ALL		

GH752A-3 (3 JAWS SYSTEM)		
6	1	PULLING HEAD TOOL SHEET
5	1	TMAN-G752A MANUAL, G752A
4	1	750-094 NAMEPLATE
3	1	743A7-8Z NOSEPIECE
2	1	750-073 H752A-073 (3 JAW SYS.)
1	1	750-060 HANDLE SUB-ASSY.

RIVET DIAM.	NOSEPIECE NUMBER	STYLE OF AVDEL CHERRY COMMERCIAL FASTENER								PULLING HEAD ASSY. NO.
		N	Q	CHERRY MATE	T	MONOBOLT	VARI GRIP	KLAMP TITE	INTER LOCK	
3/16	743A7-5C6Z	ALL	ALL					NON STRUCTURAL	ALL	H752A-073 (3 JAWS SYSTEM)
	703A25-6T				BSPT					
	703A25-6TA				BAPTS					
	743B35					ALL	ALL			
	743C53							STRUCTURAL		
1/4	743A7-5C6Z			ALL						
	743A7-8Z	ALL	ALL					NON STRUCTURAL	ALL	
	743A25-8T				BSPT					
	743A25-8TA				BAPTS					
	743B32					ALL	ALL			
3/8	743C51							STRUCTURAL		
	743A7-8C			ALL						

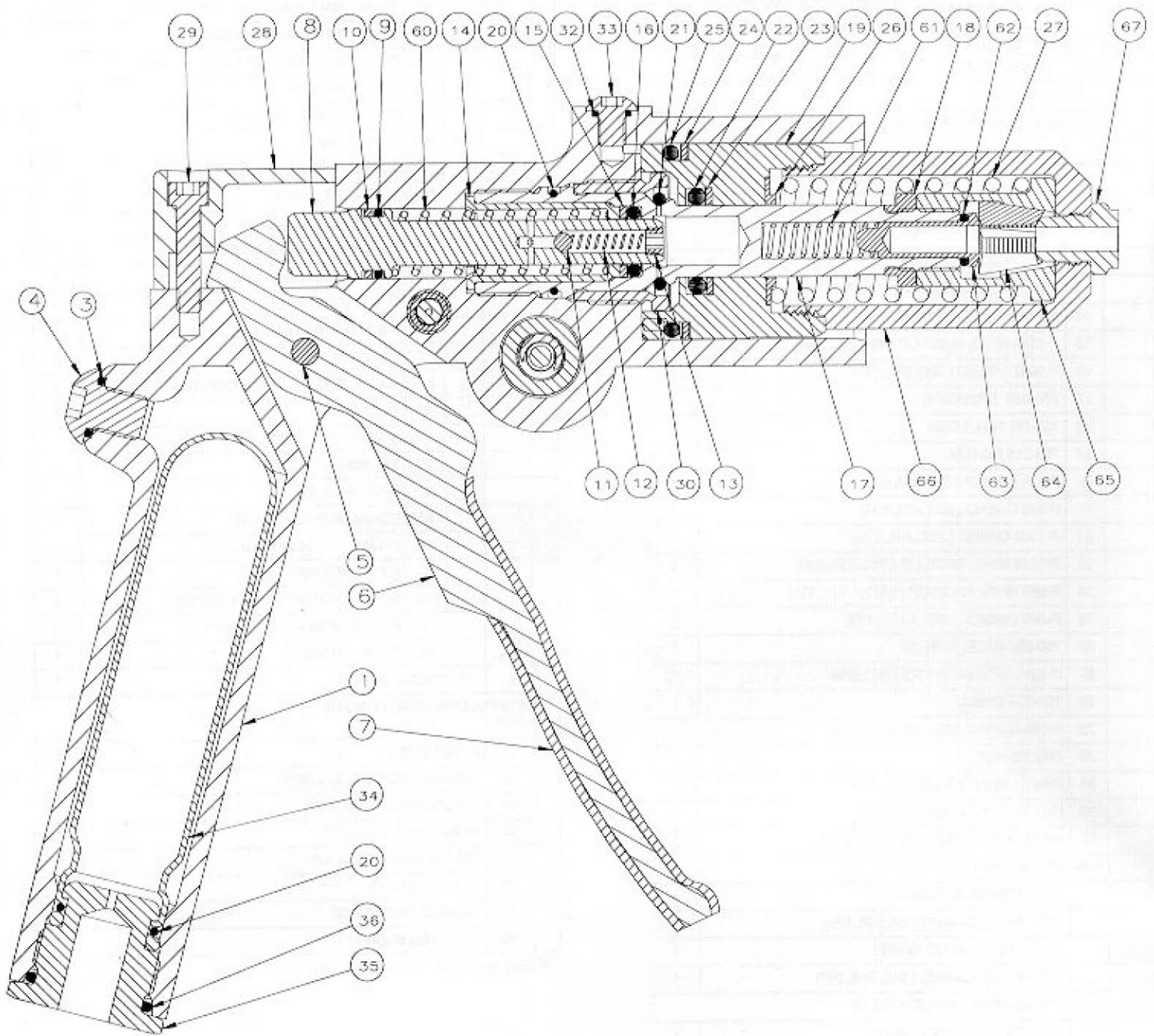


*Used only with the G752A 08R tool.

ITEM NO.	DESCRIPTION	QTY.
750-093 (GH752A HAND RIVETER)		
750-060 SUB-ASSY., HANDLE		
1	750-061 HOUSING, MACHINED	1
2	P-510 SCREW, HEX SOC SET, 8-32 X 3/16	3
3	P-383 O-RING (.441,.301,.070)	3
4	P-1322 SCREW, BUTTON CAP	1
5	750-0031 PIN	1
6	750-012 LEVER	1
7	P-1342 GRIP, VYNIL	1
750-008 SUB-ASSY., PLUNGER		
8	750-029 PLUNGER	1
9	P-112 O-RING (.504,.364,.070)	2
10	P-650 RING, BACK-UP (.496,.390,.049)	1
11	P-164 BALL 1/8	1
12	P-1332 SPRING	1
13	P-1333 SCREW, HOLLOW LOCK, 10-32 X 1/8	1
14	750-013 INSERT, DRAWBAR	1
15	P-1346 RING, BACK-UP (.499,.327,.045)	1
16	P-1007 O-RING (.505,.299,.103)	1
17	750-049 DRAWBAR	1
18	750-111 NUT, LOCK	1
19	750-015 PISTON	1
20	P-621 O-RING (.754,.614,.070)	1
21	P-945 O-RING (.630,.424,.103)	1
22	P-1344 O-RING (.742,.484,.139)	1
23	P-1345 RING, BACK-UP (.754,.518,.040)	1
24	P-869 RING, BACK-UP (1.379,1.141,.119)	1
25	P-299 O-RING (1.387,1.109,.139)	1
26	750-020 BASE, SPRING	1
27	P-1315 SPRING, PISTON RETURN	1
28	750-028 SHELL	1
29	P-153 SCREW, SOC HD, 8-32 X 3/4	1
30	750-030 NUT	1
31	P-99 SCREW, SOCKET, 10-32 X 1/4	1
32	P-1294 O-RING (.256,.176,.050)	1
33	P-573 SCREW, BUT HD, 10-32 X 1/4	1
750-107 SUB-ASSY., BLADDER		
34	750-033 BLADDER	1
20	P-621 O-RING (.754,.614,.070)	1
35	750-091 PLUG, VENT	1
36	P-1331 O-RING (.949,.755,.097)	1
750-108 SUB-ASSY., RETURN VALVE		
37	750-022 SPOOL, SHIFT	1
38	P-919 RING, BACK-UP (.528,.422,.052)	1
39	P-231 O-RING (.566,.426,.070)	1
40	750-023 POPPET	1

41	P-313 O-RING (.254,.114,.070)	1
42	P-1347 RING, BACK-UP (.246,.140,.045)	1
9	P-112 O-RING (.504,.364,.070)	1
10	P-650 RING, BACK-UP (.496,.390,.049)	1
43	P-1328 SPRING	1
44	750-024 KNOB, RELEASE	1
45	750-025 PIN, SHIFT	1
46	P-1320 SPRING, SHIFT PRESSURE	1
47	750-036 SPACER, SHIFT	1
750-109 SUB-ASSY., VALVE CHECK		
48	750-026 COVER, CARTRIDGE	1
49	P-1324 O-RING (.649,.547,.051)	1
50	P-1334 O-RING (.818,.644,.087)	1
3	P-383 O-RING (.441,.301,.070)	1
51	750-027 SCREW	1
52	P-1321 SPRING, VALVE CHECK	1
53	P-117 BALL	1
750-106 SUB ASSY., PRESSURE RELIEF VALVE		
54	750-065 GUIDE, BALL	1
11	P-164 BALL 1/8	1
55	750-059 INSERT, CHECK	1
56	P-925 O-RING (.254,.154,.050)	1
57	P-1383 SPRING	1
58	750-064 SCREW, SAFETY CHECK	1
3	P-383 O-RING (.441,.301,.070)	1
59	P-1384 WASHER	1
60	P-1313 SPRING	1
750-073 PULLING HEAD (3 JAWS) H752A-073		
61	P-1381 SPRING	1
62	P-832 O-RING (.379,.239,.070)	1
63	750-056 FOLLOWER, JAW	1
64	743B54 JAW, SET OF 3	1
65	750-055 COLLET, 3 JAWS	1
66	750-062 SLEEVE	1
67	743A7-8Z NOSEPIECE	1
*68	Adjustable Knob	1

*Used only with the G752A 08R tool.



Maintenance Disassembly:

To facilitate assembly, it is recommended that you have on hand an Avdel Cherry G752KT Tool Kit. The G752KS Service Kit contains replacement O-rings, jaws, jaw follower, bumper, bladder, seals and springs to replace worn or damaged parts.

For complete disassembly of the G752A tool, please follow the instructions indicated.

Unscrew sleeve (66) and remove. If the piston rotates while loosening the sleeve, pump the tool to the end of the stroke and continue to remove. (Retract piston as necessary.) Carefully remove the screws (4) and (33); vent plug (35) and bladder (34). **CAUTION: Cover screws are under pressure and will spray.** Drain the remaining fluid by depressing the release knob (44).

Use the collet cap (750-045) to remove the collet (65) and remove the spring base (26), piston return spring (27), jaw follower spring (61), bumper ring (62), jaw follower (63), and jaws (64). Screw the sleeve (66) into the piston (19) and pull the piston out of the housing. **NOTE: The drawbar (17) has a left hand thread (turn clockwise to unscrew).** Using a 7/8" hex deep socket wrench, unscrew nut (30), then unscrew the drawbar (17) and remove.

When removing the drawbar from the housing, usually the nut (30) and the insert (14) will stay with it. These items can be separated once removed from the housing. Remove the spring (60). Depress the lever (6) to push the plunger (8) through the housing, then remove the plunger. Remove screw (29) and remove shell (28). Remove screw (31), pin (5), and lever (6).

If necessary, remove screw (58), ball (11), ball guide (54), spring (57) and O-ring (3). Remove the cartridge cover (48) using a 7/8" wrench. Remove spacer (47), spring (46), and shift pin (45).

Using a small, flat screw driver to hold the poppet (40) to prevent rotation, unscrew the knob (44) and remove the spring (43). **NOTE: The knob (44) is Lock-Tite sealed at the factory and may require extra effort to unscrew.** Using a 3/8" diameter rod, push gently on shift spool (37) and remove with poppet (40) seals (10,9,38,39,41 & 42). Poppet can be separated from the shift spool once it is removed from the housing by applying thumb pressure on the threaded end. **NOTE: seals (41,42) must be removed from the small diameter end of the spool. If necessary, unscrew spring retainer screw (51) and remove spring (52) and ball (53).**

CAUTION: Do not open or remove set screws (2). These are permanently factory sealed plugs.

All parts should be cleaned and inspected for damage or wear. O-rings, seals and springs should be replaced as needed.

Assembly:

Handle Sub Assembly:

When replacing O-rings and seals, use assembly tools from the G752KT Tool Kit to avoid damage to the seals. Lubricate all seals and O-rings before installation.

Replace O-ring (36) on vent plug (35). Pull bladder (34) over the end of the vent plug (35), then place the O-ring (20) over bladder (34) and carefully insert into housing cavity. Thread vent plug into housing.

Place O-ring (3) on screw (4) and screw into housing.

Place O-ring (56) on insert (55) and screw the insert into the cavity located under the logo. Place the ball (11) and ball guide (54) and washer (59) on the ball guide stem (54). Place the spring (57) on top of the washer, into the cavity on top of the insert (55). Place O-ring (3) on the screw (58) and place in the cavity to contain the above components. **NOTE: If the tool does not develop maximum power, additional washers (59) are required.**

NOTE: If your tool is the G752A 08R, the adjustable knob (68) will replace the screw (58) and the O-ring (3). This adjustable control valve is intended to prevent the stripping of the insert threads by restricting the pulling force.

Place O-rings (39, 9) and backup rings (38, 10) on the shift spool (37). Make sure the O-rings are toward the center of the spool and the backup rings are toward the ends. Use the assembly tool (750-043) to insert the subassembly shift spool into the housing. Make sure that the spool is generously lubed and fully inserted to the end of the cavity.

Place the poppet (40) into the shift spool (37) and support with a small screw driver while placing the O-ring (41) and backup ring (42) on poppet (40) from the left hand side of the tool. Carefully screw the release knob (44) without the spring (43) to push and seat the seal onto the poppet (40). Place the spring (43), adding a small drop of #242 Lock-Tite or equivalent on the threaded end of the poppet (40). Screw the release knob (44) onto the poppet (40).

Allow the Lock-Tite to cure for 2 hours before use. There is no need to rotate the knob after assembly. To return or retract the piston to original position, push in the knob.

Drop the ball (53) and spring (52) in the cartridge cover, and secure with screw (51) with O-ring on it. Place the spring (46) on shift pin.

With needle nose pliers, place the shift pin (45) in recess of the spool (37). Place spring (46) on the shift pin. Apply lube to spacer (47) and place it in the cartridge cover (48). Screw the cartridge cover assembly (48) into the housing.

Place seals (21) and (20) on the drawbar (17) and insert the O-ring (16) with the backup ring (15) into the drawbar (17). The plunger (8) with the drawbar insert (14) can be used to facilitate this. Place the insert (14) in the drawbar (17). Torque (approximately 25 ft/lb.) this assembly into the housing. Tighten with a 3/8" wrench.

NOTE: This is a left hand thread (turn counterclockwise to install).

Using a 7/8" deep socket wrench and spacer (750-052), torque the nut (30) (approximately 10 ft/lb). Care should be taken not to crossthead and not to damage seals.

Place seals (25,24) on the piston (19) and insert the seals (22, 23) into the piston (19). O-rings should be placed away from the wrench flats end of the piston. From the Tool Kit, select the tool assembly (750-046) and place on the end of the drawbar. Slide the piston over the protected area until it bottoms out. Place Spring Base (26) over Drawbar (17), place Nut (18) & tighten.

Install #10-32 by 1.50" long screw (not provided) into the hole of the screw (31). Place the plunger insertion sleeve (750-44) into the rear of the housing. Slide the lubricated plunger assembly (8) with the plunger spring (60), screw (13), check valve spring (12), ball (11), and seals (9, 10) installed, through the sleeve and push the plunger down with 3/8" diameter rod. While holding the plunger down in place, lift the plunger insertion sleeve to allow inserting of flat stock .060 x .250 x 2.0" long beyond the #10-32 screw to hold the plunger in place. At this time, remove the plunger insertion sleeve (750-044).

Insert the lever (6), align and insert pin (5). Squeeze the lever (6) and remove the flat stock. Release the lever and remove the #10-32 screw. Install the screw (31) to retain pin (5). Install shell (28) with screw (29).

Pulling Head Assembly Instructions:

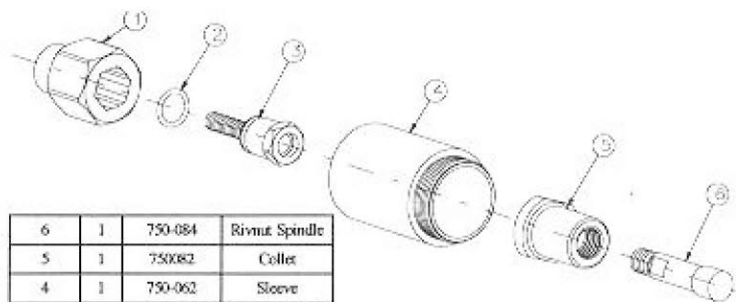
Place the jaw follower spring (61) into the front end to the drawbar. Place the O-ring (62) over the jaw follower (63). Insert the jaw follower subassembly into the front end of the drawbar.

Lube the jaws (64) and place in the collet (65). Place the spring (27) over the collet (65). Assemble the collet on the drawbar. Use assembly tool (750-045) from the Tool Kit to facilitate installation.

NOTE: Collet must always be fully threaded on the drawbar. Screw the nosepiece (67) on the outer sleeve (66) and thread into the piston (19).

Adapter Assembly Instructions:

Place the spindle (6) inside the collet (5) and screw as a sub



6	1	750-084	Rivnut Spindle
5	1	750082	Collet
4	1	750-062	Sleeve
3	1	SEE TABLE	Pull-Up Stud
2	1	P-112	O-Ring
1	1	SEE TABLE	Anvil Nut
Item No.	Req	Part No.	Description

Model NO.	Thread Size	Anvil Nut	Pull-Up Stud
H750A-080-06	#6-32 UNC-38	750-086-06	750-087-06
H750A-080-08	#8-32 UNC 38	750-086-08	750-087-08
H750A-080-10	#10-32 UNF-38	750-086-10	750-087-10
H750A-080-25	1/4-20 UNC-38	750-086-25	750-087-25
H750A-080-31	5/16-18 UNC 38	750-086-31	750-087-31
H750A-080-37	3/8-16 UNC-38	750-086-37	750-087-37
H750A-080-M6	M6X 1.0 6H	750-086-M6	750-087M6

assembly on the drawbar (17). Screw the sleeve (4) on the piston (19). Screw the pull-up stud (3) on the spindle (6) and tighten by holding the spindle (5). Use wrenches to tighten.

Install O-ring (2) on the pull-up stud (3) and install the anvil nut on the pull-up stud (3). Changing from one size to another will only necessitate the changing of the anvil nut (1) and the pull-up stud (3).

Filling/Bleeding Instructions:

Remove screw (4) and attach Air Bleeder 745A45 with adapter #750-040 through the same hole.

Remove the screw (33) and force fluid into the tool while actuating the lever (6) and tilting the tool in different directions allowing the air to escape through the hole of the screw (33). When bubbles no longer exit, replace screw (33) and O-ring (32) and continue pumping until the piston is fully extended.

Place thumb over hole in vent plug (35) to create a seal and detach air bleeder and replaced screw (4) and O-ring (3).

Push release knob (44) to force fluid from main cylinder to the reservoir. Normally the piston will not retract all the way because the tool is filled with excess fluid.

Carefully loosen screw (33) to release excess fluid

CAUTION: Cover up screw (33) as fluid is under pressure and will spray.

When the piston is fully retracted, tighten the screw (33) and check tool performance. The tool should take from 10 to 12 pumps to travel the full stroke. If necessary, repeat the bleeding procedure.

NOTE: Set screws (2) (3 screws) are factory set and should not be removed.

NOTES

WARRANTY

Seller warrants the goods conform to applicable specifications and drawings and will be manufactured and inspected according to generally accepted practices of companies manufacturing industrial or aerospace fasteners. In the event of any breach of the foregoing warranty, Buyer's sole remedy shall be to return defective goods (after receiving authorization from Seller) for replacement or refund of the purchase price, at the Seller's option. Seller agrees to any freight costs in connection with the return of any defective goods, but any costs relating to removal of the defective or nonconforming goods or installation of replacement goods shall be Buyer's responsibility. SELLER'S WARRANTY DOES NOT APPLY WHEN ANY PHYSICAL OR CHEMICAL CHANGE IN THE FORM OF THE PRODUCT IS MADE BY BUYER.

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