

TECHNICAL MANUAL

**OPERATOR, ORGANIZATIONAL, DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE
MANUAL INCLUDING REPAIR PARTS LIST**

FOR

**SPRAY OUTFIT, PAINT
(NSN 4940-00-294-9521)
MODEL 50-6525**

Technical Manual
No. 9-4940415-14&P }
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HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 7 October 1981

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MANUAL INCLUDING REPAIR PARTS LIST
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REPORTING OF ERRORS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2, located in the back of this manual direct to: Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-MAS, Rock Island, IL 61299. A reply will be furnished directly to you.

NOTE

This manual is published for the purpose of identifying an authorized commercial manual for the use of the personnel to whom this equipment is issued.

Manufactured by: Eclipse Systems, Inc.
Cork Hill Road
P. O. Box E
Franklin, NJ 07416

Procured under Contract No. DAAA09-76-C-6890

This technical manual is an authentication of the manufacturers' commercial literature and does not conform with the format and content specified in AR 310-3, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of the equipment.

**INSTRUCTIONS FOR REQUISITIONING PARTS
NOT IDENTIFIED BY NSN**

When requisitioning parts not identified by National Stock Number, it is mandatory that the following information be furnished the supply officer.

- 1 -- Manufacturer's Federal Supply Code Number - 19272
- 2 -- Manufacturer's Part Number exactly as listed herein.
- 3 -- Nomenclature exactly as listed herein, including dimensions, if necessary.
- 4 -- Manufacturer's Model Number - 50-6525
- 5 -- Manufacturer's Serial Number (End Item)
- 6 -- Any other information such as Type, Frame Number, and Electrical Characteristics, if applicable.
- 7 -- If DD Form 1348 is used, fill in all blocks except 4, 5, 6, and Remarks field in accordance with AR 725-50.

Complete Form as Follows:

(a) blocks 4, 5, 6, list manufacturer's Federal Supply Code Number - 19272 followed by a colon and manufacturer's Part Number for the repair part.

(b) Complete Remarks field as follows:

Noun: (nomenclature of repair part)

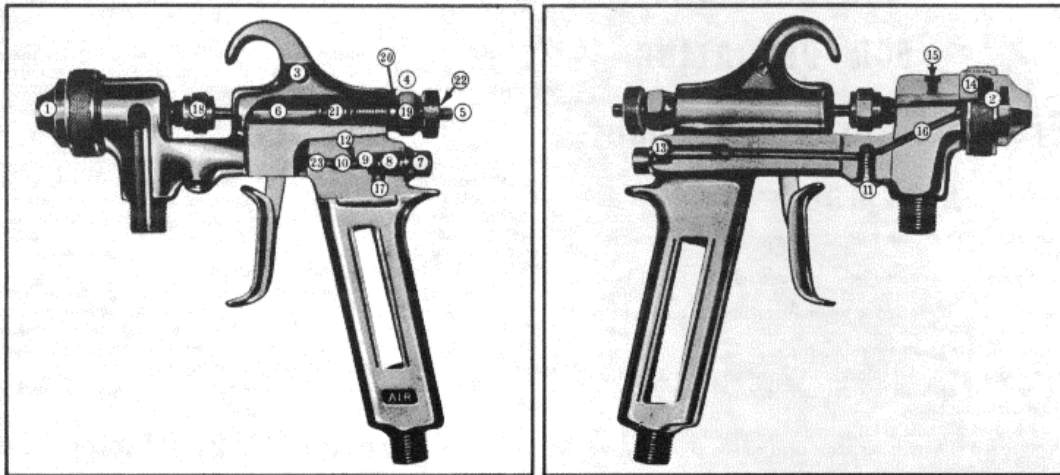
For: NSN: 4940-00-294-9521

Manufacturer: Eclipse Systems, Inc., Cork Hill Road, P. O. Box E, Franklin, NJ 07416

Model: 50-6525

Serial: (of end item)

Any other pertinent information such as Frame Number, Type, Dimensions, etc.



- | | | | |
|-----------------------------|------------------------------|-------------------------------|----------------------------------|
| 1. nozzle | 7. air valve spring retainer | 13. fan adjustment | 19. small fluid spring |
| 2. fluid tip | 8. air valve spring | 14. nozzle adapter | 20. fluid spring washer |
| 3. trigger screw | 9. air valve | 15. nozzle adapter lock screw | 21. fluid spring |
| 4. fluid tension adjustment | 10. air valve pin | 16. air line passages | 22. fluid adjustment knurled nut |
| 5. plunger adjusting rod | 11. clean out plug(s) | 17. air inlet passage | 23. air valve pin bushing |
| 6. plunger | 12. air line screws | 18. packing gland | |

DISASSEMBLY (MOST GUNS)

A small box to hold the parts is recommended.

1. Submerge gun in good strong solvent (not lye or corrosive acid) until all exterior paint and dirt can be easily removed.
2. Take off nozzle and fluid tip, and place in solvent.
3. Unscrew the trigger screw which goes through the hook and pull out the trigger.
4. Unscrew the fluid tension adjustment completely.
5. Take the plunger adjusting rod out of the tension adjustment assembly. Reinsert it into the plunger and twist until it engages the plunger.
6. Pull out the plunger with the adjusting rod.
7. Unscrew air valve spring retainer and remove air valve spring, air valve and air valve pin.

8. Remove clean-out plugs, air line screws, and fan adjustment if there is one.

Neither the nozzle adapter nor the lock screw at the top of the head should be touched except at the factory.

CLEANING

1. Clean out all air passages in the gun with a twist drill held in the hand (1/8" on GAT and 5/32" on G-6). The main air inlet may also be cleaned with a 1/4" drill. If no

drills are available, a piece of tempered wire will help. (Soft wire will break and clog hole.) Don't miss the two air lines leading into the nozzle adapter. They are more likely to clog than the rest.

2. A good soaking in thinner will loosen most of the paint residue in the fluid passage. This is easily done by supporting the gun upside down and filling the fluid hose connection with solvent. The hole behind the fluid hose connection ought to look moderately clean inside.

3. The parts should be free from paint, rust and dirt. A wire wheel is the easiest for cleaning them, but steel wool or very fine emery cloth will do in the field.

PARTS REPLACEMENT

1. Nozzle-if slot has begun to wear into a round hole in the center. Fan pattern will soon begin to distort if you don't.
2. Fluid tip-with deep chamfer at the back or a distorted front neck. It's a good idea always to replace tips when overhauling.
3. Plunger-with deep groove around conical point.
4. Always repack the packing gland with preformed packing.
5. Trigger- if badly pitted on the back of the shank where it engages the air valve pin.
6. Plunger adjustment screw if bent or threads are worn.
7. Bent air valve pin.

8. Pitted or distorted air valve.
9. All worn or tired springs - they'll break when you need them if you don't.

RE-ASSEMBLY

Follow the some general order as in disassembly, but in reverse.

1. Grease all springs well with heavy cup grease.

2. When installing plunger be sure slot is in line with trigger so that the trigger may slide through. Adjustment screw may be left in plunger after insertion.

3. Be sure fluid spring tension assembly goes back together right. From back to front:
fluid tension adjustment assembly, small spring, brass washer, large spring.

4. If the fluid adjustment knurled nut doesn't turn the adjustment screw, it is often possible to re-engage the nut by placing a large pointed center punch on the bushing at the back and hitting it with a hammer.

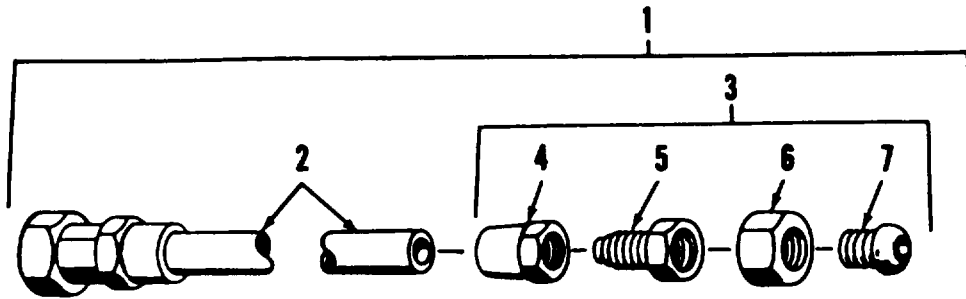
5. Oil plunger at packing gland and where it passes into casting.

6. New packing should be used and the packing nut tightened until the plunger will no longer return to its foremost seated position when the trigger is pulled. Then back off the nut a turn or two until the plunger slides freely.

7. Oil air valve pin through trigger slot.

AIR HOSE

PART NO. 7-116-125



1	Hose Assembly	7-116-125
2	Hose	7-102-1
3	Connector Assembly	50-4360-1
4	Sleeve	20-4590
5	Stem	20-4586
6	Nut	20-4325
7	Seat	20-4585

CAUTION

Do not immerse hoses in solvent.

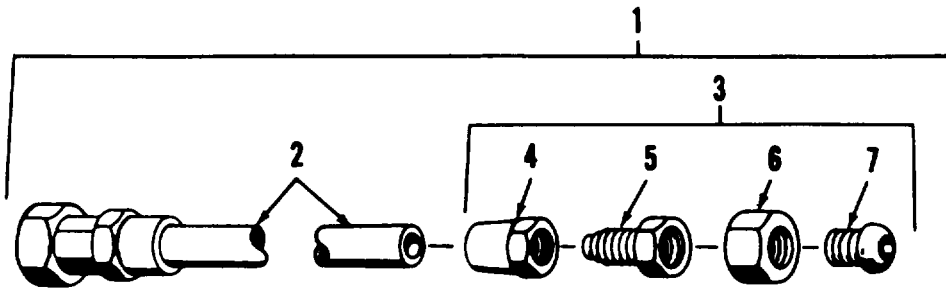
INSPECTION: Flex hose sideways while checking for cracks. Check hoses for leaks under air pressure of 125 p.s.i.

REPAIR: Any hose which is split at the end can be cut back as far as necessary with a sharp knife and the hose connector attached to the new end.

REASSEMBLY:

1. Slide sleeves (4) on ends of hoses (2).
2. Screw stem (5) into sleeve (4).
3. Insert setscrew (7) through nut (6) and screw seat (7) into sleeves (4).

**FLUID HOSE
PART NO. 7-118-225**



1	Hose Assembly	7-116-125
2	Hose	7-103-2
3	Connector Assembly	50-4360-7
4	Sleeve	20-4590
5	Stem	20-4586
6	Nut	20-4325
7	Seat	20-4585

CAUTION

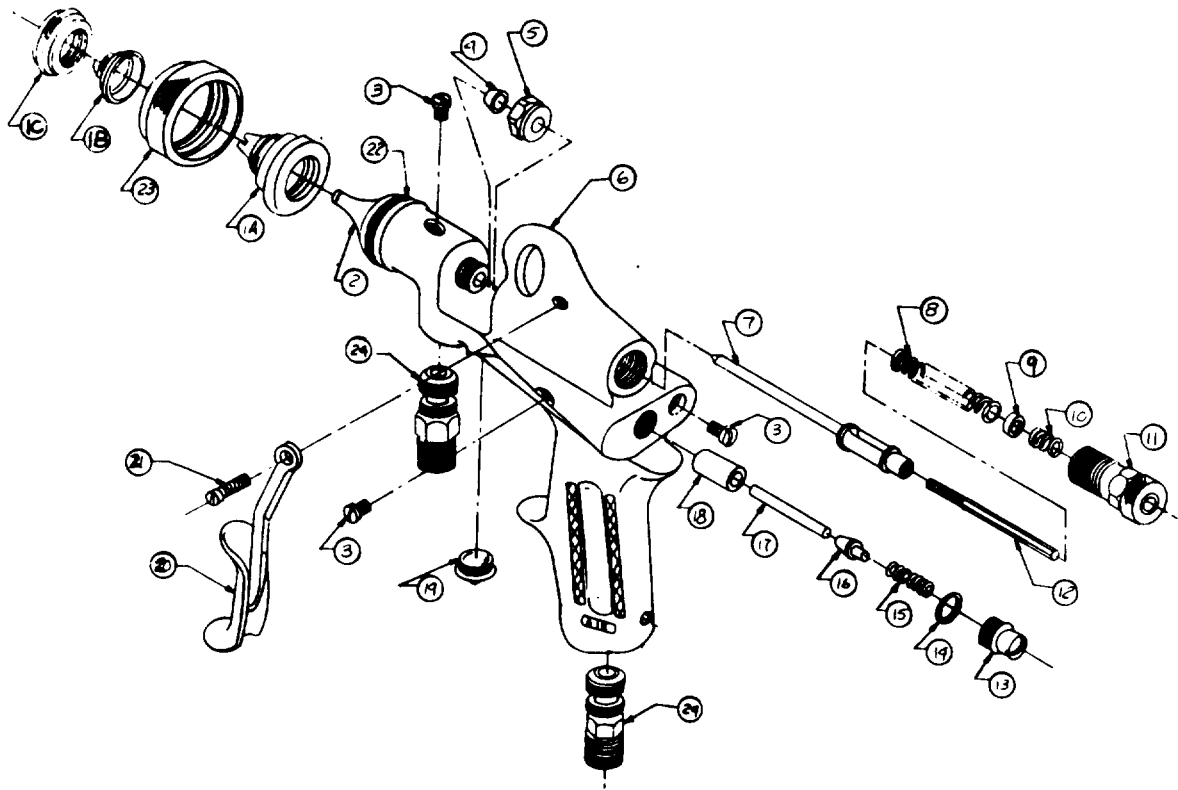
Do not immerse hoses in solvent.

INSPECTION: Flex hose sideways while checking for cracks. Check hoses for leaks under air pressure of 125 p.s.i.

REPAIR: Any hose which is split at the end can be cut back as far as necessary with a sharp knife and the hose connector attached to the new end.

REASSEMBLY:

1. Slide sleeves (4) on ends of hoses (2).
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3. Insert setscrew (7) through nut (6) and screw seat (7) into sleeves (4).



**G-6 GUN
504600**

Item No.	Part No.	Description	Quantity
1#	41-1-5-3	Cone fan nozzle, complete (Items 1a, 1b, c.....	1
1a	40-1-4-3	Cone fan nozzle body ONLY.....	
1b	41-1-16-3	Cone fan nozzle adjusting cap ONLY.....	
1c	20-5545	Cone fan nozzle adjusting cap locknut.....	
2*	43-1-44-2	Fluid tip, brass.....	1
3	20-4361	Air line screw.....	3
4	4-4309-4	Nylon plunger packing.....	1
5	20-4347	Fluid packing nut.....	1
6	50-4605	Headpiece assembly consists of body, items 3, 18, 19, 22.....	1
7	20-4676-1	Stainless steel fluid plunger.....	1
8	3-4315	Fluid spring.....	1
9	1-20-22-2	Fluid spring washer.....	1
10	3-4316	Fluid tension spring.....	1
11	50-4611	Combination tension & fluid adjustment.....	1
12	20-4673	Plunger adjusting rod.....	1
13	20-4664	Air valve spring retainer.....	1
14	4-4318	Fiber washer for air valve.....	1
15	3-4314	Air valve spring.....	1
16	20-4663	Air valve.....	1

Supplied as standard. See reverse side for other nozzles.

* Supplied as standard. See reverse side for other sizes.

Item No.	Part No.	Description	Quantity
17	20-4662	Air valve pin, stainless steel.....	1
18	20-4661	Air valve bearing	1
19	20-4543	Cleanout plug.....	1
20	50-4609	Trigger assembly 2 finger:	1
	50-4609-1	Trigger assembly 4 finger	
21	20-4667	Trigger screw	1
22	20-4660	Nozzle adapter (Return gun to factory for replacement).....	1
23	20-4674	Nozzle locknut.....	1
	8-4300-1	Double end wrench.....	1
	8-00-08	Hex Key Wrench.....	1
24	20-5570	Fitting w/Locking Groove 1/4 NPS x 3/8 NPS.....	1
	20-5571	Fitting w/Locking Groove 1/4 NPS x 5/8-18.....	1
	20-5572	Fitting w/Locking Groove 1/4 NPS x 1/4 NPS.....	1

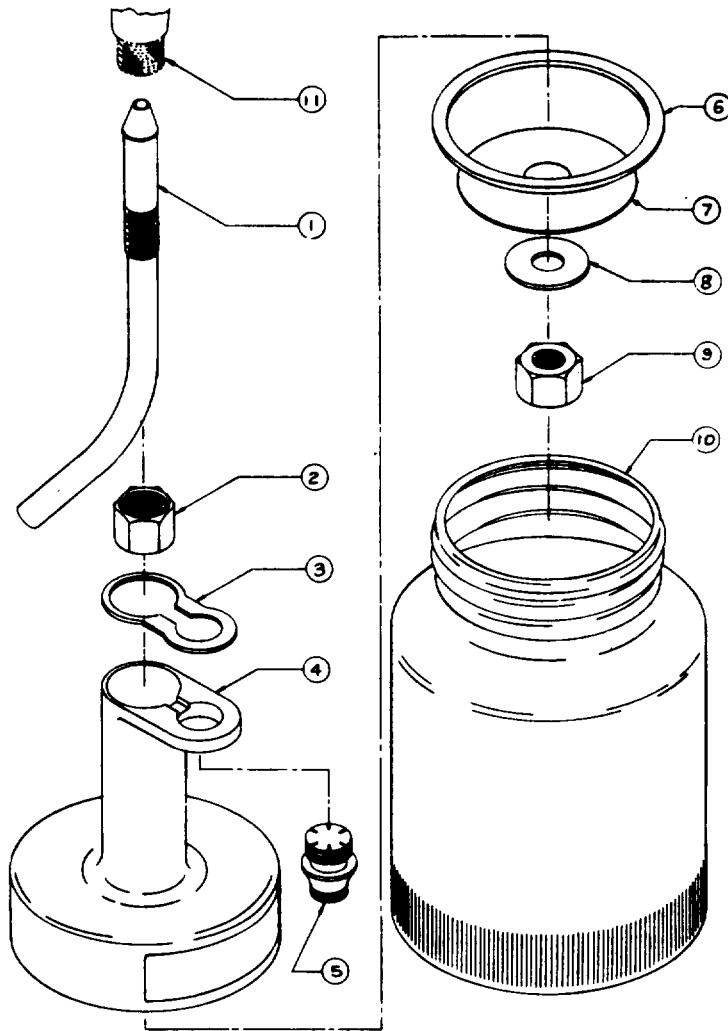
G-6 NOZZLES

Nozzle No.	Fan Size	Remarks	Part No. Material				
			Brass	C.R.S.	C.T.	S.S.	Carbide
Cone fan	14"	Adjustable spot to 14' Avg. Mtl.	--	41-1-5-3	41-1-5-4	--	--
# 1	6"	Narrow fan, light mtl.	--	41-1-1-3	41-1-1-4	--	--
# 2	7"	Medium body mtl.	--	41-1-2-3	41-1-2-4	41-1-2-5	--
# 3	9"	Medium body mtl.	--	41-1-3-3	41-1-3-4	41-1-3-5	41-1-3-7
# 6	10"	Heavy material	--	41-1-6-3	41-1-6-4	--	--
# 7	7"	45° Angle fan	--	41-1-13-3	--	--	--
# 4	7"	External atomization for quick drying mtl.	41-1-4-2	--	--	--	--
Cone		Circular spot	--	--	41-1-14-4	--	--
Cone		External	41-1-15-2	--	--	--	--

G6 FLUID TIPS

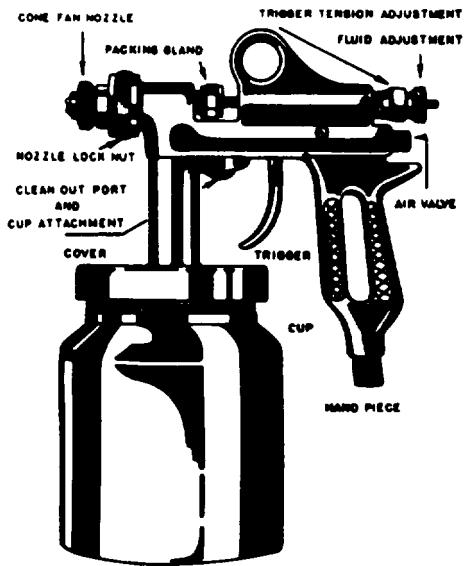
**PART NO.
MATERIAL**

SIZE	BRASS	STAINLESS STEEL
1/8"	43-1-18-2	43-1-18-5
40	43-1-40-2	43-1-40-5
44	43-1-A442	43-1-44-5
48	43-1-48-2	43-1-48-5
52	43-1-52-2	43-1-52-5
60	43-1-60-2	43-1-60-5



PRESSURE CUP ASSEMBLY FOR G-6 GUN

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
	50-4140-3	COMPLETE CUP ASSEMBLY
1	50-4223	Fluid post
2	20-4588-1	Compression nut
3	4-4146	Gasket, fiber
4	20-4233	Cover
5	20-4543-2	Cleanout plug, slotted
6	4-4147	Gasket, cup (Thiokol)
7	4-4148	Diaphragm
8	1-20-29.2	Washer
9	1-10-25-2	Jam nut
10	20-4223	Cup, one quart
11	20-5570	Fitting



**PRESSURE CUP ASSEMBLY
FOR G-6 GUN**

ASSEMBLY

Attach fluid post (1) to fluid intake (11) with lack nut (2). Unscrew clean-out port, slip cover attachment into place with fibre gasket (3) between cover and gun. Fasten with clean-out plug screw (5). Place diaphragm (7) and washer (8) under cover and tighten with lock nut (9). After cup is filled, screw cup (10) into cover using large rubber gasket (6). Be sure that all parts are screwed tightly. Attach air hose to air intake in hand piece.

An air regulating set should be used with pressure feed cup guns. Adjust the regulating valve to the lowest workable pressure, increasing only for higher speed or for the application of heavy, viscous materials. Once adjusted, the air regulator can remain set.

OPERATION

Mix and strain material thoroughly, so that it is free from lumps, skins, and foreign matter before pouring it into the cup. Paint, enamel, varnish, etc., should be at hand-brushing consistency. Nitro-cellulose and synthetic lacquers can be heavier, due to the Low Pressure Principle.

Final adjustments are made on the gun. Set nozzle for the spray desired. Volume of material is regulated by the fluid control nut at the back of the gun. Trigger tension is controlled by the hex-nut as shown.

For best results, hold gun six to eight inches from the object to be sprayed, at right angles to its surface. Point directly at the work and carry along at a steady speed. A slight pull of the trigger emits air only, which may be used for dusting. Pull trigger all the way back for painting.

A little experimenting will determine correct pressure for the job.

Select the proper nozzle and fluid tip for each job to insure best results. For general use, a cone-fan adjustable nozzle is recommended. When spraying quick drying materials and low boiling lacquers, the No. 4 nozzle and tip for external atomization will be most suitable. There is a nozzle and tip combination for every need.

CLEANING

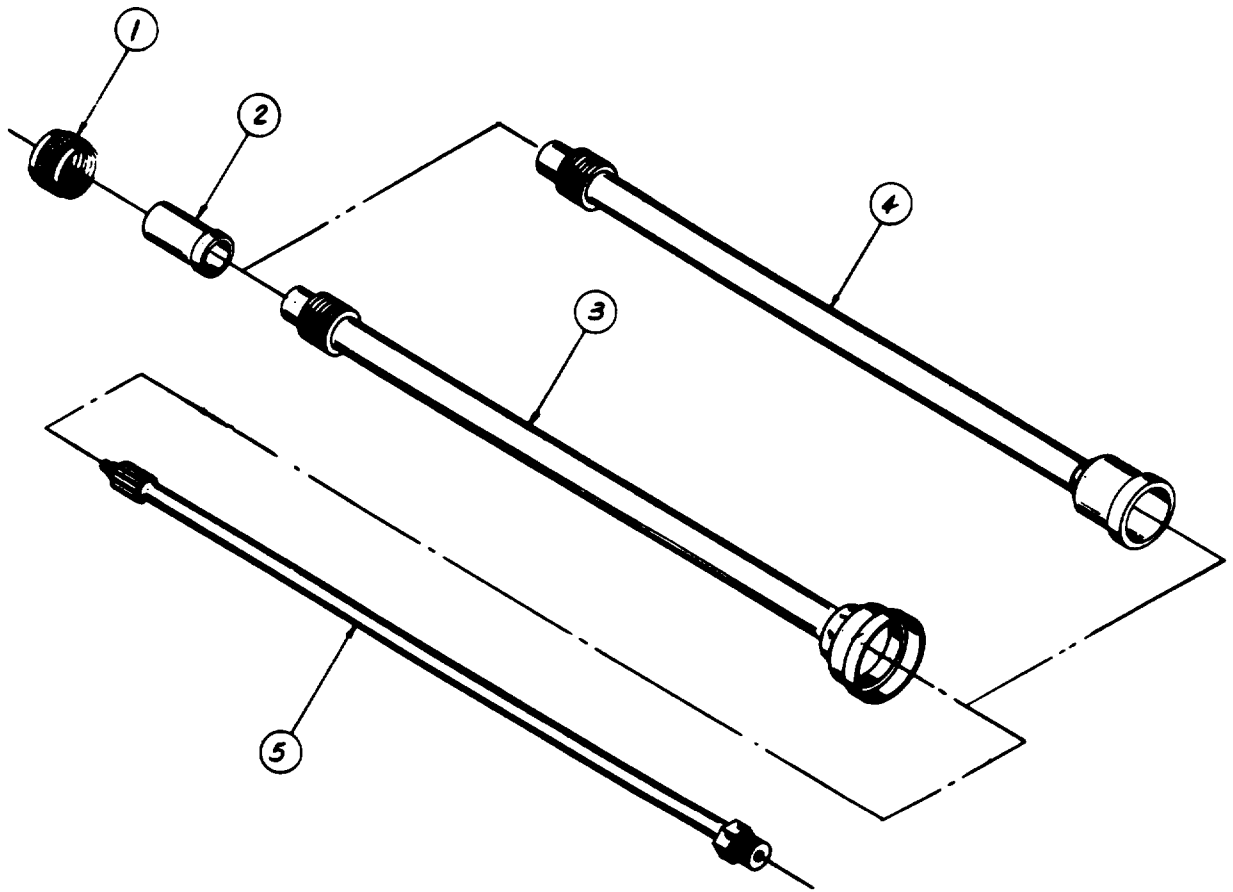
DO NOT TAKE GUN APART.

Use thinner for cleanings.

Remove nozzle, place thinner in cup, and spray through fluid tip until all passages are clean. The nozzle should be taken apart and washed clean with thinner. Material so used can be utilized for reducing.

Never soak the gun. This destroys the oil in the trigger action and allows dirty solvent to get into air passages. Difficulties may arise due to improper cleaning.

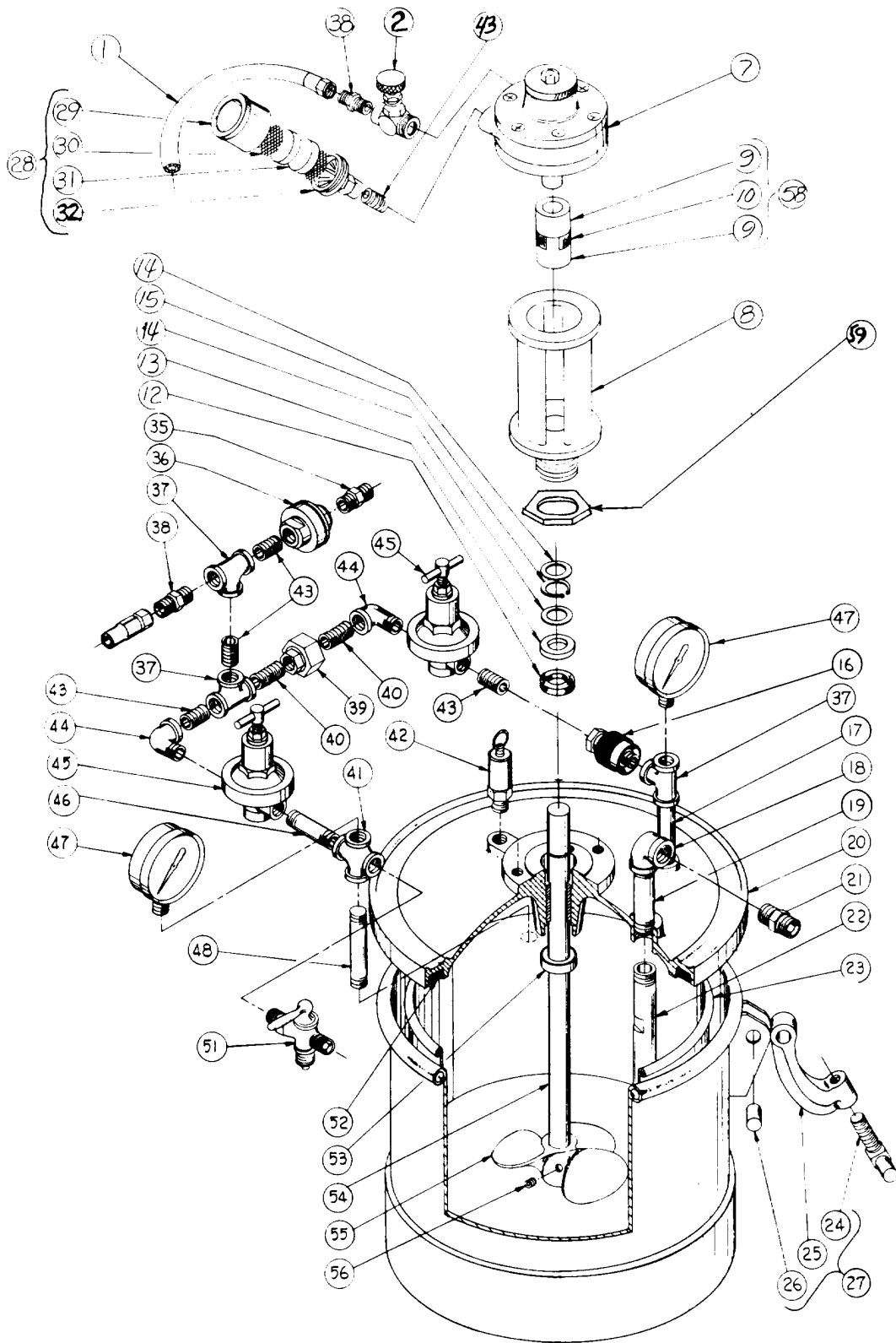
A drop of oil should be applied occasionally to the trigger action.



STRAIGHT EXTENSION

Item No.	Part No.	Description	Quantity
	50-4340	Extension Complete GAT (Items 1, 2, 3, & 5)	1
	50-4341	Extension Complete G-6 (Items 1, 2, 4, & 5)	1
1	20-4616	Lock Nut	1
2	41-7-4-3	Nozzle - Straight Slot	1
3	50-4382	Air Tube Assembly GAT (Length as required)	1
4	50-4384	Air Tube Assembly G-6 (Length as required)	1
5*	50-4342	Fluid Tube Assembly - GAT or G-6 (length as required for GAT or G-6)	1

* When ordering fluid tube assembly only be sure to specify for GAT or G-6.



5-GALLON DUAL-REG. DIRECT DRIVE TANK # 50-6523:

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	50-5053	AIR TUBE ASSY.	1
2	6-4300	NEEDLE VALVE	1
7	9-4300-1	AIR MOTOR	1
8	20-5994	MOTOR SUPPORT	1
9	11-5544	COUPLING HUB	2
10	11-5545	RUBBER INSERT	1
12	4-4301-1	PACKING	1
13	20-5991	PACKING WASHER	1
14	11-4422	WASHER	2
15	1-5100-50	RETAINING RING	1
16	50-4581	SLIDE VALVE ASSY.	1
17	5-002-228-8	NIPPLE	1
18	5-01-33-8	ELBOW	1
19	5-00-324-8	NIPPLE	1
20	50-6424	COVER & BUSHING ASSY.	1
21	20-40019	FITTING	1
22	50-5005	FLUID POST	1
23	11-4351-1	INSERT PAIL, GALV.	1
24	11-5489	CLAMP SCREW	6
25	11-5490	"C" CLAMP	6
26	11-5491	PIN	6
27	50-5004	TANK ONLY	1
28	50-4491	MUFFLER ASSY.	1
29	20-4439-1	CAP	1
30	20-4438-1	SCREEN	2
31	20-4435-1	FELT	2
32	20-4440	BASE	1
35	20-4400-1	FITTING 1/4 NPT x 5/8-18	1
36	11-5529	AIR MUFFLER ASSY.	1
37	5-03-222-8	TEE 1/4 NPT	3
38	20-4400-4	FITTING 1/4 NPT x 1/4 NPS	2
39	5-05-22-8	UNION 1/4 NPT	1
40	5-00-212-8	NIPPLE 1/4 NPT x 1 1/2	2
41	5-06-2222-8	CROSS 1/4 NPT	1
42	6-4315-100	SAFETY VALVE	1
43	5-00-207-8	NIPPLE 1/4 NPT x 7/8	5
44	5-02-22-8	STREET ELL 1/4 NPT	2
45	6-4420	PRESSURE REGULATOR	2
46	5-00-220-8	NIPPLE 1/4 NPT x 2 1/2	1
47	6-4327-160	PRESSURE GAGE	2
48	5-001-228-8	NIPPLE 1/4 NPT x 3 1/2	1
51	5-10-4	SHUT-OFF COCK 1/4NPT x 1/4 NPS	1
52	4-4330	GASKET	1
53	4-4303-1	BUSHING	1
54	20-5993	PROPELLER SHAFT	1
55	20-5082	PROPELLER	1
56	1-05-1004-5	SETSCREW	1
58	50-4475	FLEXIBLE COUPLING	1
59	1-1028-3	NUT 1 1/4"- 12 (Model 50-6525 only)	1

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By Order of the Secretary of the Army:

Official:

ROBERT M. JOYCE
Brigadier General, United States Army
The Adjutant General

E. C. MEYER
General, United States Army
Chief of Staff

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