

TECHNICAL MANUAL

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

FOR

SPRAY OUTFIT, PRESSURE TANK

MODEL 98-305

NATIONAL STOCK NO.

4940-00-650-7819

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HEADQUARTERS, DEPARTMENT OF THE ARMY

DECEMBER 1979

TECHNICAL MANUAL }
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HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 28 December 1979

**OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT AND GENERAL SUPPORT
MAINTENANCE MANUAL INCLUDING REPAIR PARTS LIST
FOR
SPRAY OUTFIT, PRESSURE TANK
MODEL 98-305
NSN 4940-00-650-7819**

REPORTING OF ERRORS

You can help improve this manual. Mail your DA Form 2028 (Recommended Changes to Publications and Blank Forms I, 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 direct to you.

NOTE

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

Manufactured by: Binks Manufacturing Company
9201 West Belmont Avenue
Franklin Park, IL 60131

Procured under Contract No: DAAA09-76-M-6559

This technical manual is an authentication of the manufacturer's 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.

Introduction

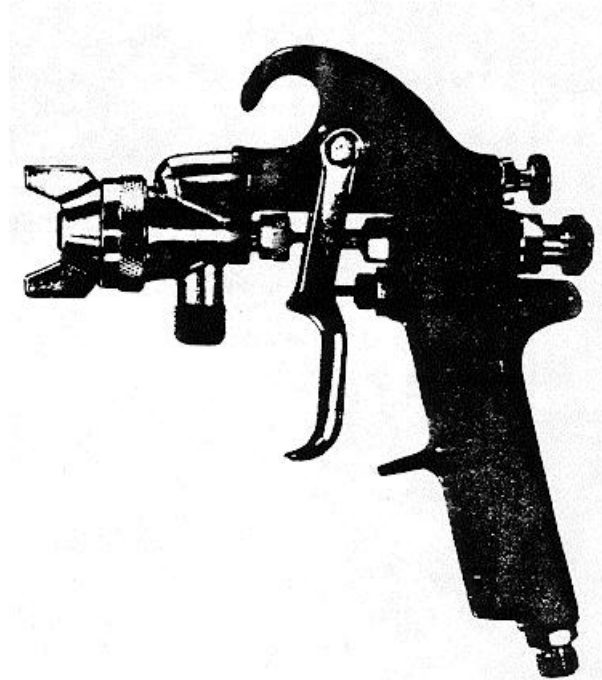
MODEL 98-305 SPRAY OUTFIT CONSISTS OF.

- 1-Model 18 Spray Gun, 63B x 63PB nozzle set-up-
- 1-83-5408 Pressure Tank, with Air Motor Driven Agitator 5 Gal. Capacity
- 1-83-1714 Caster Base for Pressure Tank.
- 1-71-1355 25 Ft. Length 3/8" Air Hose (Tank to gun) Red Color, consisting of 71-132 Hose with 72-1325 Connections, 1/4 NPS(f).
- 1-71-3323 25 Ft. Length 1/2" Fluid Hose (Tank to gun) Black Color, consisting of 71-283 Hose with 72-1333 Connections, 3/8 NPS(f).
- 1-71-1405 25 Ft. Length 1/2" Air Hose Ass'y. (Air supply to tank) Red Color, consisting of 71-133 Hose with 72-1333 Connections, 3/8 NPS(f).
- * 1-83-574 D.M. Nipple 3/8 NPS(m) x 3/8 NPT(m).
- * 1-33-1403 Quick Detachable Air Valve Stem, 3/8 NPT(f).
- * 1-33-1401 Quick Detachable Air Valve Body Ass'y, 3/8 NPT(f).

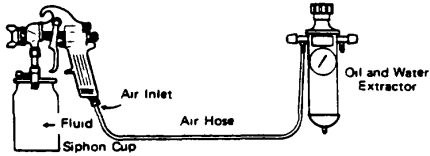
*These pt mounted on one end of 71-1405 Hose Ass'y to connect to air supply

AIR SUPPLY REQUIREMENTS:
Min- 20 SCFM Max: 160 P S.I.

The Spray Gun is exceptionally rugged in construction, and is built to stand up under hard, continuous use. However, like any other fine precision instrument, its most efficient operation depends on a knowledge of its construction, operation, and maintenance.

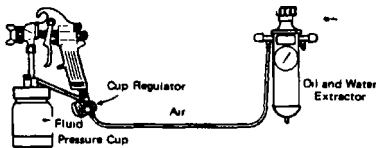


TYPES OF INSTALLATION



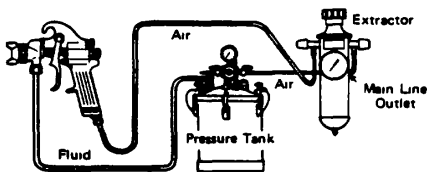
SIPHON FEED CUP HOOKUP

Air pressure for atomization is regulated at extractor. Amount of fluid is adjusted by fluid control screw on gun, viscosity of paint, and air pressure.



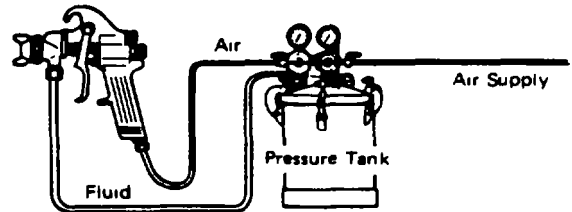
PRESSURE FEED CUP HOOKUP

For fine finishing with limited spraying. Air pressure for atomization is regulated at extractor, fluid pressure at cup regulator. For heavy fluids and internal mix nozzle spraying, fluid adjusted by control screw on gun. Pressure cup also available less regulator



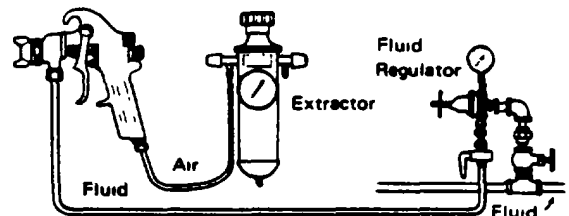
PRESSURE FEED TANK HOOKUP

For medium production spraying. (Single regulator) Air pressure for atomization is regulated at extractor, fluid pressure at tank regulator.



PRESSURE FEED TANK HOOKUP

For portable painting operations. (Double regulator) Air pressure for atomization and fluid supply is regulated by two individual air regulators on tank.



PRESSURE FEED CIRCULATING HOOKUP

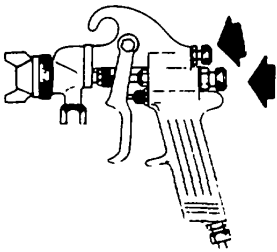
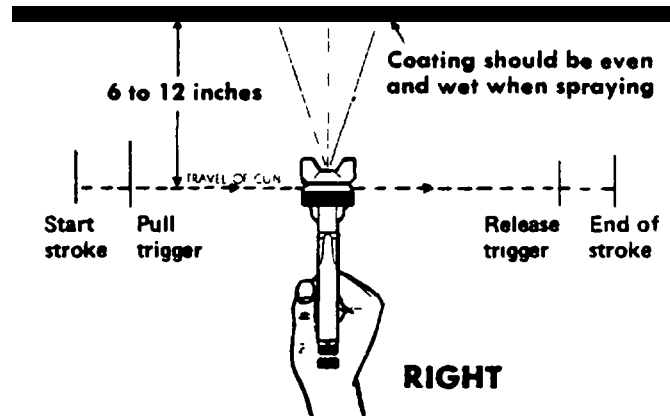
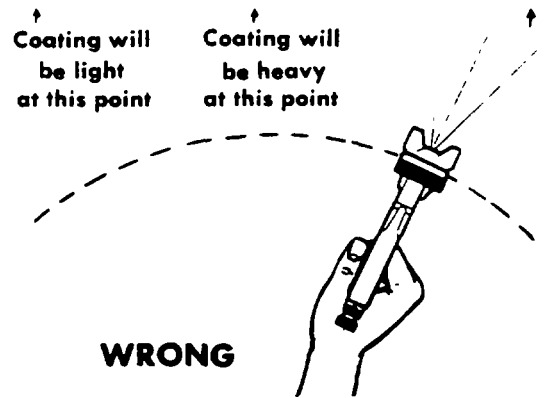
For heavy production spraying. Air pressure atomization regulated at extractor. Fluid pressure regulated at fluid regulator.

GUN HANDLING

The first requirement for a good resultant finish is the proper handling of the gun. The gun should be held perpendicular to the surface being covered, and moved parallel with it. The stroke should be started before the trigger is pulled and the trigger should be released before the stroke is ended. This gives accurate control of the gun and material.

The distance between gun and surface should be 6 to 12 inches depending on material and atomizing pressure. The material deposited should always be even and wet. Lap each stroke over the preceding stroke to obtain a uniform finish.

NOTE: To reduce overspray and obtain maximum efficiency: always spray with the lowest possible atomizing air pressure.

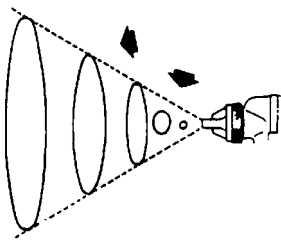


Spray width adjustment. Turn right for round, left for fan.

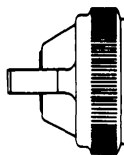
Fluid control screw. Turn to right to decrease flow, left to increase

As width of spray is increased, more material must be allowed to pass through the gun to obtain the same coverage on the increased area.

The spray pattern of the gun is variable from round to flat with all patterns in between.



In normal operation, the wings on the nozzle are horizontal as illustrated here. This provides a vertical fan shaped pattern which gives maximum coverage as the gun is moved back and forth parallel to the surface being finished.



SIPHON SPRAYING

Set atomization pressure at approximately 50 psi for lacquer and 60 psi for enamel. Test spray. If the spray is too fine, reduce the air pressure or open fluid control screw. If the spray is too coarse, close the fluid control screw. Adjust the pattern width and repeat adjustment of spray if necessary.

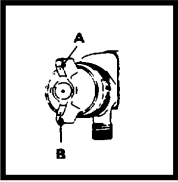

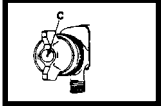

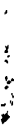

PRESSURE SPRAYING

After selecting correct size fluid orifice, set fluid pressure for desired flow. Open atomization air and test spray. If spray is too fine reduce air pressure. If spray is too coarse, raise air pressure. Adjust pattern width and repeat adjustment of spray.

Keeping fluid control screw in open position will reduce fluid needle wear.

NOTE: To reduce overspray and obtain maximum efficiency, always spray with the lowest possible atomization air pressure

FAULTY PATTERNS and how to correct them

PATTERN	CAUSE	CORRECTION
	<p>Dried material inside-port "A" restricts passage of air Greater flow of air from cleaner side-port "B" forces fan pattern in direction of clogged side</p> 	<p>Dissolve material m side-ports with thinner, then blow gun clean. Do not poke into openings with metal instruments.</p>
	<p>Dried material around the outside of the fluid nozzle tip at position "C" restricts the passage of atomizing air at one point through the center opening of air nozzle and results in pattern shown. This pattern can also be caused by loose air nozzle</p> 	<p>Remove air nozzle and wipe off fluid tip, using rag wet with thinner Tight-en air nozzle</p>
	<p>A split spray or one that is heavy on each end of a fan pattern and weak in the mid-die is usually caused by (1) too high an atomization air pressure, or (2) by attempting to get too wide a spray with thin material.</p>	<p>Reducing air pressure will correct cause (1). To correct cause (2), open material control to full position by turning to left. At the same time, turn spray width adjustment to right. This will reduce width of spray but will cor-rect split spray pattern.</p>
 <p align="center">SPITTING</p>	<p>(1) Dried out packing around material needle valve permits air to get into fluid passage-way. This results in spitting. (2) Dirt between fluid nozzle seat and body or loosely in-stalled fluid nozzle will make gun spit. (3) A loose or defective swivel nut on siphon cup or ma-terial hose can cause spitting.</p>	 <p>To correct cause (1) back up knurled nut (E), place two drops of machine oil on packing, replace nut and tighten with fing-ers only. In aggra-vated cases, replace packing.</p> <p>To correct cause (2), remove fluid nozzle (F), clean back of nozzle and nozzle seat in gun body using rag wet with thinner, replace nozzle and draw up tightly against body</p>

MODEL 18 SPRAY GUN GENERAL MAINTENANCE

SPRAY GUN

1. Immerse only the front end of the gun until solvent just covers the fluid connection.
2. Use a bristle brush and solvent to wash off accumulated paint.
3. Do not submerge the entire spray gun in solvent because
 - a. the lubricant in the leather packings will dissolve and the packings will dry out.
 - b. the lubricant at wear surfaces will dissolve causing harder operation and faster wear.
 - c. residue from dirty solvent may clog the narrow air passages in the gun.
4. wipe down the outside of the gun with solvent dampened rag.
5. Lubricate gun daily. Use a light machine oil on.
 - a. fluid needle packing.
 - b. air valve packing.
 - c. side port control packing.
 - d. trigger pivot point.Coat the fluid control spring with vaseline.
6. **Caution: Never use lubricants containing silicone.** This material may cause finish defects.

PRECAUTIONARY NOTE

All parts on a spray gun should be screwed in hand tight at first; this will avoid the possibility of cross threading the parts. If the parts can not be turned by hand easily, make sure you have the correct parts, unscrew, realign, and try again. NEVER use undue force in mating parts.

AIR NOZZLE, FLUID NOZZLE, NEEDLE ASSEMBLY

1. All nozzles and needles are precision made. They should be handled with care.
2. Except as described in 5., do not make any alterations in the gun. To do so could cause finishing difficulties.
3. To clean nozzles, soak them in solvent to dissolve any dried material, then blow them clean with air.
4. Do not probe any of the holes in the nozzles with metal instruments. If probing is necessary, use only a tool that is softer than brass.
5. Adjust the fluid needle valve so that when gun is triggered, air-flow occurs before fluid-flow.

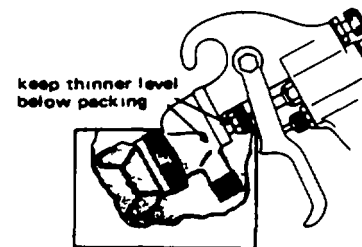
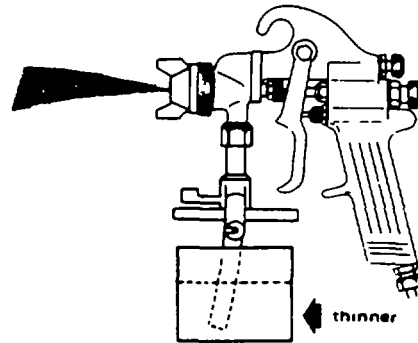
POINTERS ON CLEANING

WHEN USED WITH SIPHON CUP

A compatible thinner or solvent should be siphoned through gun by inserting tube in open container of that liquid. Trigger gun repeatedly to flush passageway thoroughly and to clean tip of needle.

WHEN USED WITH PRESSURE TANK

Shut off air supply to tank and release pressure on tank. Open vent and loosen air nozzle. Hold a piece of cloth over the air nozzle and squeeze trigger. Air will back up through fluid nozzle, and force fluid out of hose into tank. Next, put enough thinner into tank to wash hose and gun thoroughly. Spray thinner through the gun until it is clean. Attach fluid hose to air line and blow it out thoroughly to remove all traces of materials and to dry it.



MODEL 31-116 AIR MOTOR DRIVE UNIT INSTRUCTIONS

This air motor drive unit is designed to be mounted on any type 83-fluid pressure tank of five gallon capacity or more.

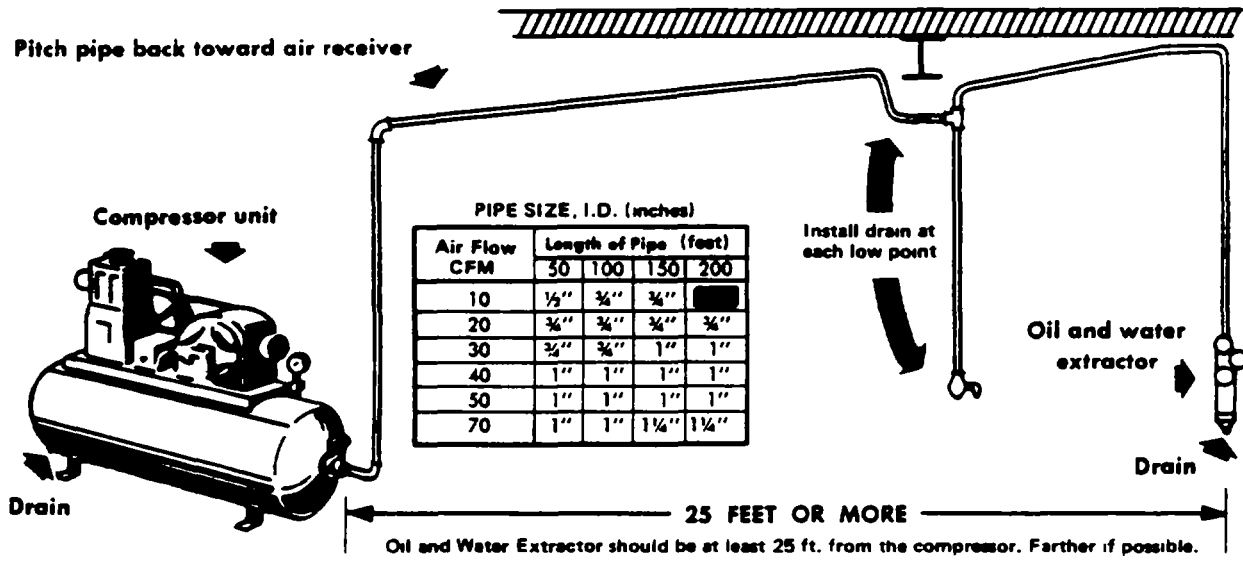
SPEED: The speed of the air motor is regulated by means of the 73-59 Air Adjusting Valve. The ideal output speed of the reduction gear box is 30 to 40 R.P M. It should not run faster.

LUBRICATION: Worm Gear Speed Reducer-The worm gear reducer is to be filled to the 31-63 overflow cap and must be inspected for proper level at least once a month.

Use a high grade gear oil lubricant such as %Moode No 600W or American Oil No. 140.

AIR SUPPLY: The air used to operate this unit should come from a high pressure source; do not use air that has passed through a regulator. For best results, the air should have a pressure of at least 60 PSI and should be cleaned and dried by being passed through an oil and water extractor.

AIR SUPPLY



The oil and water extractor should not be mounted on or near the air compressor.

The temperature of air is greatly increased during compression. As the air cools down to room temperature, in the air line, on its way to the spray gun, the moisture contained in it condenses. Thus, for maximum effectiveness, the oil and water extractor should be mounted at some point in the air supply system where

the temperature of the compressed air in the line is likely to be lowest.

Air lines must be properly drained

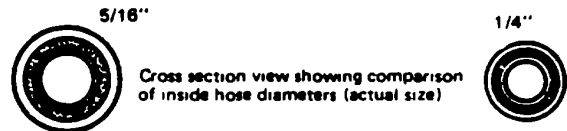
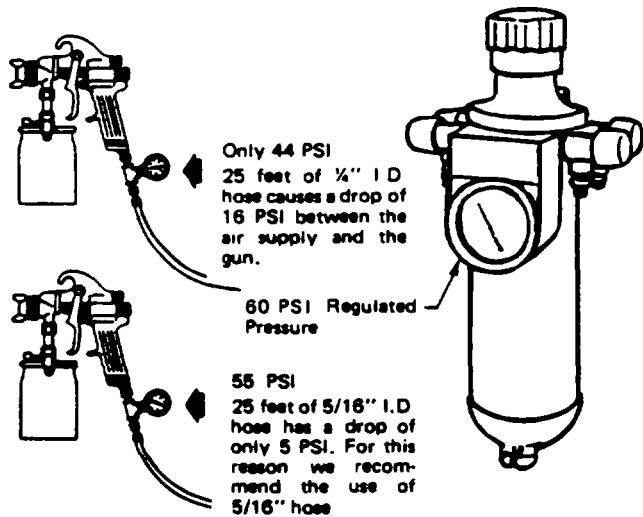
Pitch all air lines back towards the compressor so that condensed moisture will flow back into the air receiver where it can be drained off. Each low point in an air line acts as a water trap. Such points should be fitted with an easily accessible drain. See diagram above.

AIR PRESSURE

oil and water extra is important

Achieving a fine spray finish without the use of a good oil and water extractor is virtually impossible. A Regulator/Extractor serves a double purpose. It eliminates blistering and spotting by keeping air free of oil and water, and it gives precise air pressure control at the gun.

See above regarding installation of extractors.



Atomizing pressure must be set to allow for the drop in air pressure between the regulator and the spray gun

NOZZLE AND NEEDLE SELECTION CHART

TYPE OF FLUID TO BE SPRAYED	FLUID x AIR NOZZLES	NOZZLE TYPE*	CFM AT*			MAX PATTERN AT 8"	FLUID NEEDLE
			30 PSI	50 PSI	70 PSI		
VERY THIN	63 x 63PF	PE	4.5	7.5	10.0	5.0"	63
	63A x 63P	PE	5.1	8.7	12.2	11.0"	63A
14-16 SECS-NO 2 ZAHN WASH PRIMERS	638 x 63PB	PE	9.0	14.3	20.0	14.0"	63A
DYES	66 x 66SD	SE	7.9	12.1		10.5"	65
STAINS	66 x 66SK	SE	11.0	15.2	19.5	13.0"	65
SOLVENTS	63A x 220	PI	2.2	3.0	5.0	RD	63A
WATER	63B x 100 or 200	PI	3.1	5.2	6.4	12.0"	63A
INKS	63C x 104 or 204	PI	3.9	5.5	7.4	9.0"	63A
THIN	63A x 63P	PE	5.1	8.7	12.2	11.0"	63A
	63B x 63PJ	PE	9.5	14.2	19.0	15.0"	63A
	638 x 63PE	PE	9.5	15.0	20.0	13.0"	63A
SEALERS	66 x 66SA	SE	4.4	7.1		10.0"	65
LACQUERS	66 x 66SG	SE	6.8	10.5		8.0"	65
PRIMERS	66 x 66SH	SE	7.8	12.0		12.0"	65
INKS	66 x 66SK	SE	11.0	15.2	19.5	13.0"	65
ZINC CHROMATES	63A x 220	PI	2.2	3.0	5.0	RD	63A
ACRYLICS	638 x 100 or 200	PI	3.1	5.2	6.4	12.0"	63A
LUBRICANTS 63Cx 104 or 204	PI	3.9	5.5	7.4	9.0"	63A	
MEDIUM							
19-30SECS-NO 2ZAHN	638 x 63PB	PE	9.0	14.3	20.0	14.0"	63A
	63C x 63PE	PE	9.5	15.0	20.0	13.0"	63A
LACQUERS	63C x 63PG	PE	4.0	6.2	9.2	12.0"	63A
SYN ENAMELS	63C x 63PR	PE	9.5	15.5	9.5	18.0"	63A
VARNISHES 66 x 63PM	PE	9.5	14.5	19.5	15.0"	65	
SHELLACS	66 x 66SF	SE	8.0	12.0		11.0"	65
FILLERS	66 x 66SH	SE	7.8	12.0		12.0"	65
PRIMERS	66 x 66SD	SE	7.9	12.1		11.0"	65
EPOXIES	66 x 66SK	SE	11.0	15.2	19.5	13.0"	65
URETHANES 63C x 100 or 200	PI	3.1	5.2	6.4	12.0"	63A	
LUBRICANTS 66 x 104 or 204	PI	3.9	5.5	7.4	9.0"	65	
WAX EMULSIONS							
HEAVY (CREAM-LIKE)							
OVER 28 SECS-NO 4 FORD	66 x 104 or 204	PI	3.9	5.5	7.4	9.0"	65
HOUSE PAINT	67 x 106 or 206	PI	6.0	9.5	13.0	15.0"	67
WALL PAINT (OIL, LATEX)	68 x 101 or 201	PI	4.6	6.8	9.1	11.0"	68
BLOCK SEALERS	66 x 63PB	PE	9.0	14.3	20.0	14.0"	65
MILL WHITES 67 x 67PB	PE	9.5	14.9	19.5	12.0"	67	
VINYLS	68 x 68PB	PE	9.5	14.1	19.1	12.0"	68
ACRYLICS							
EPOXIES							
VERY HEAVY	68 x 106	PI	6.2	9.8	13.2	15.0"	68
	68 x 68PB	PE	9.5	14.1	19.1	12.0"	68
	59A x 240	PI	4.1	6.0	8.2	RQ	59
	59A x 241	PI	4.1	6.0	8.2	12"	59
UNAGGREGATED	59A x 242	PI	4.1	6.0	8.2	6"	59
BLOCK FILLERS	59A x 243	PI	6.4	10.0	13.4	RD	59
TEXTURED COATINGS	59A x 244	PI	7.8	11.5	15.2	12"	59
FIRE RETARDANTS	59A x 245	PI	7.8	11.5	15.2	6"	59
ROAD MARKING PAINT	59B x 250	PI	7.3	11.0	14.7	RD	59
BITUMASTICS	598x 251	PI	7.8	11.5	15.2	12"	59
	59B x 252	PI	7.8	11.5	15.2	6"	59
ADHESIVES	63CCS x 63PB	PE	9.0	14.3	20.0	14.0"	63A
WATERBASE 66SS x 63PR	PE	9.5	15.5	19.5	15.0"	65	
WHITE VINYLGLUE	67SSx 67PB	PE	9.5	14.1	19.1	12.0"	67
SOLVENT BASE	63 x 66SD	PE	7.9	12.1	16.2	4.0"	63
NEOPRENES 63A x 66SD	PE	12.1	16.2	7.0"		63A	
(CONTACT CEMENTS)	63B x 66PJ	PE	9.5	14.2	19.0	10.0"	63A
CERAMICS & SIMILAR	63CVT x 66PH	PE	11.5	16.4	22.0	13.0"	63CVT
ABRASIVE MATERIAL	64VT x 64PA	PE	12.1	15.0	21.0	13.0"	64VT
GLAZES, ENGOBES	67VT x 67PD	PE	10.0	15.0	20.0	15.0"	67VT
PORCELAIN ENAMEL	68VT x 68PB	PE	9.5	14.1	19.1	12.0"	68VT

ORIFICE SIZE REFERENCE CHART

NOZZLE NO. 59A 59B 59C 63 63A 63B 63C 63CVT[‡] 64VT[‡] 65 66 67 67VT[‡] 68 68VT[‡] 264D 267D 794
 ORIFICE SIZE .171" .218" .281" .028" .040" .046" .052" .052" .064" .059" .070" .086" .086" .110" .110" .064" .086" .040"

* Be certain your air supply is sufficient to operate nozzles selected Fluid Nozzles available in either carbon steel or stainless steel except as shown.

* PE, Pressure feed, external

SE, Siphon feed, external

PI, Pressure feed, internal

[‡]Stainless steel with tungsten carbide insert

For stainless steel add SS to nozzle number, i e, 63SS.

For additional nozzle information, see Bulletin A46-4.

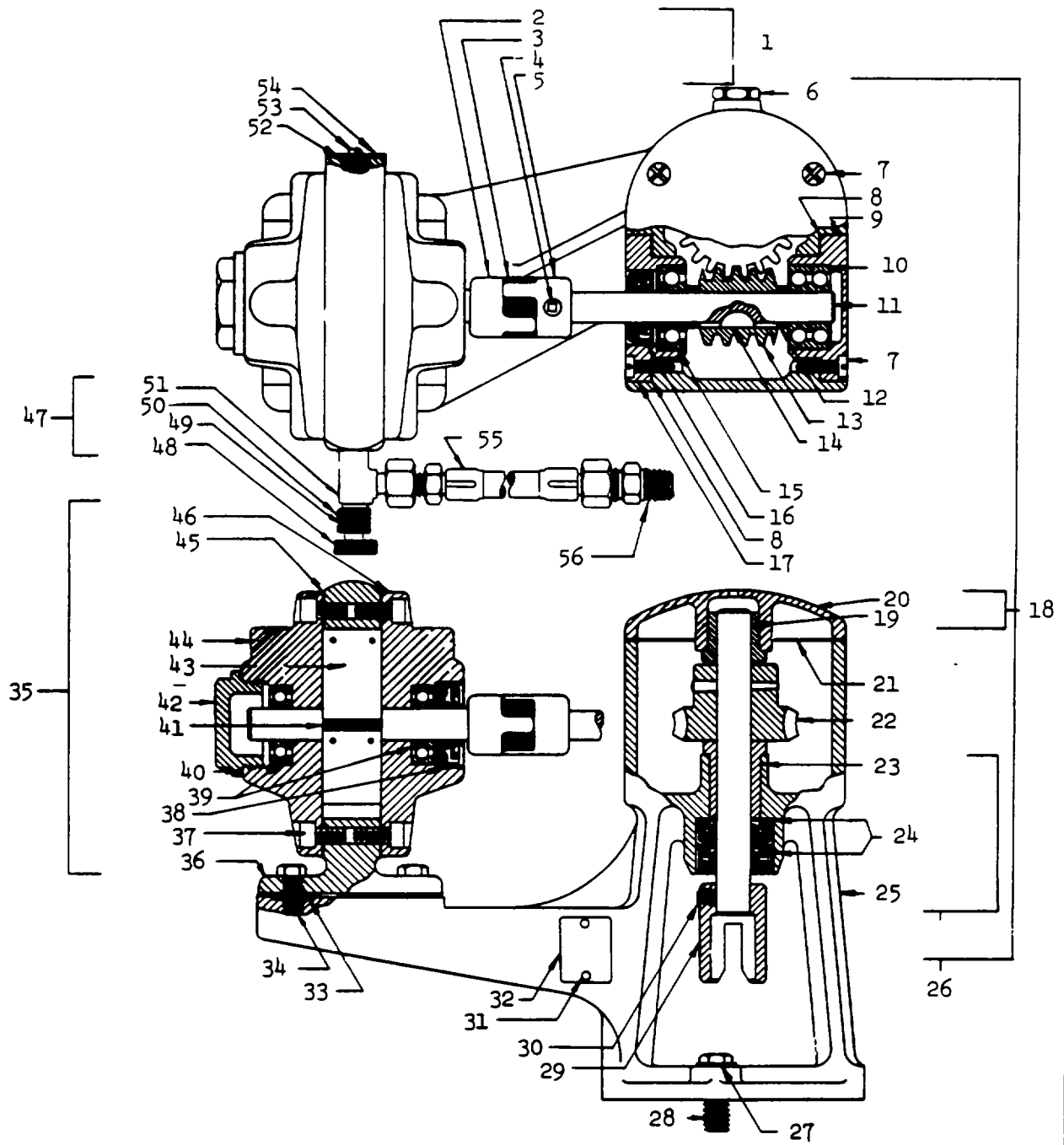


Figure 1. Model 31-116 air motor drive unit.

PARTS LIST FOR MODEL 31-116 AIR MOTOR DRIVE UNIT

PART NO.	DESCRIPTION	QTY.	PART NO.	DESCRIPTION	QTY.
20-354	27 Lockwasher	2	31-59	22 Worm Gear Assembly	1
20-387	28 3/8-16 x 1" Hex Cap Screw	2	31-60	33 Washer	1
20-537	34 1/4-20 x 3/4 Hex Cap Screw.....	4	31-62	18 Cover Assembly	1
20-1067	2 Coupling, 1/2 Bore	1	31-63	6 Overflow Cap.....	1
20-1068	3 Rubber Spider.....	1	31-64	11 Gear Reducer Shaft	1
20-1076	30 5/16-18 x 5/16 Soc. Hd. Set Screw	1	31-115	26 Gear Reducer Assembly	1
20-1237	4 1/4-20 x 1/4 Soc. Hd. Set Screw..	2	37-85*	40 Plug Gasket	1
20-1671	31 Drive Pin, No. "O" x 1/8	2	37-89	43 Rotor & Shaft.....	1
20-1754	10 Bearing	1	37-90*	38 Seal	1
20-1755	15 Bearing	1	37-91	39 Bearing	2
20-1756	24 Oil Seal	2	37-92*	41 Rotor Vane	4
20-1757	16 Oil Seal	1	37-96	42 Bearing Plug.....	1
20-1758	14 Woodruff Key.....	1	37-253	44 Dead End Plate	1
20-1759	1 Flexible Coupling Assembly.....	1	37-254	46 Drive End Plate	1
20-1760	5 Coupling, 12 M. M.....	1	37-255	36 Air Motor Housing.....	1
20-1769	19 Bearing	1	37-256	53 Air Motor Screw.....	2
20-4987	7 No. 10-24 x 1/2 Phillips Hd.M Screw	10	37-257	54 Air Motor Cover	1
31-46	25 Gear Reducer Housing.....	1	37-258*	52 Air Motor Felt.....	1
31-47	20 Gear Reducer Cover	1	37-259	37 End Plate Screw.....	12
31-48	9 Dead End Carrier.....	1	37-260	35 Air Motor Assembly	1
31-49	17 Driven End Carrier	1	37-337*	45 End Plate Gasket.....	2
31-51	13 Worm Gear	1	57-13	56 D.M. Nipple.....	1
31-54	23 Bearing	1	73-8	48 Needle Valve	1
31-55	21 Cover Gasket	1	73-9	49 Packing.....	1
31-56	8 Carrier Gasket	2	73-10	50 Packing Nut	1
31-57	29 Agitator Coupling	1	73-13	51 Valve Body	1
31-58	12 Spacer	1	73-59	47 Air Adjusting Valve	1
			83-1270	55 Air Hose Assembly	1
			83-2450	32 Name Plate.....	1

* Also available in Repair Kit G-183. Please order separately.

MODEL 18 SPRAY GUN

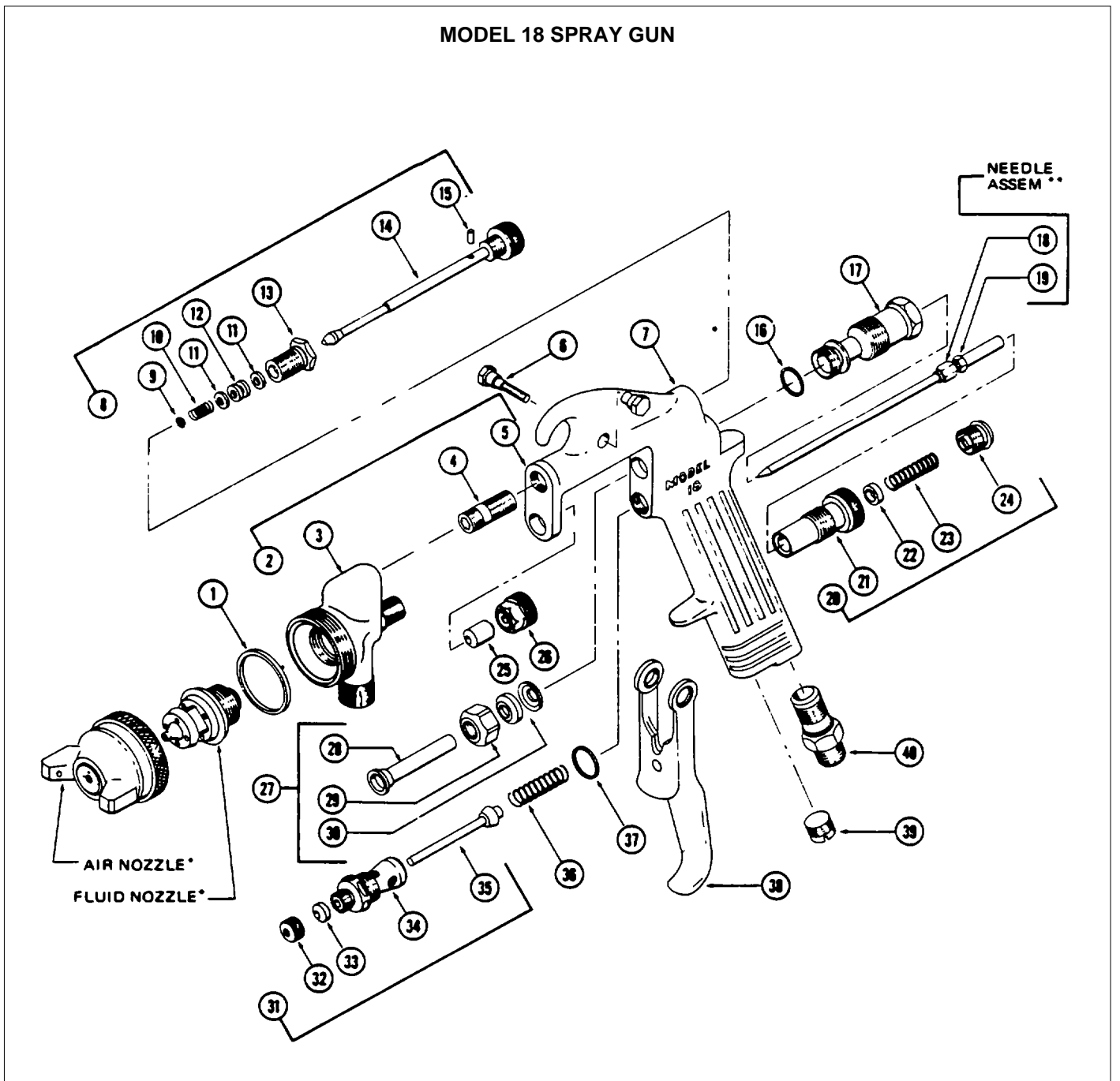
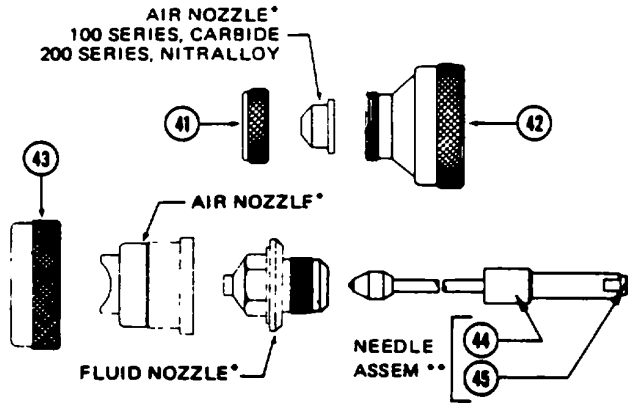
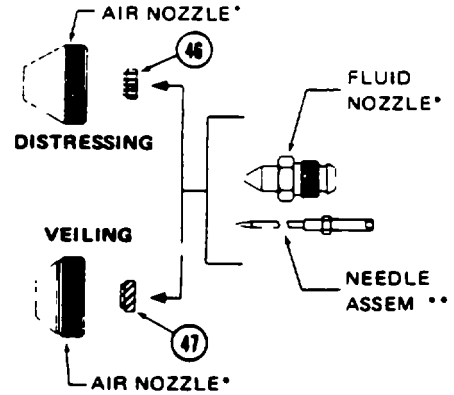


Figure 2. Model 18 spray gun.

**INTERNAL MIX HEAVY MATERIAL NOZZLES
(OPTIONAL)**



**SPECIAL EFFECTS NOZZLES
(OPTIONAL)**



PARTS LIST FOR MODEL 18 SPRAY GUN
(When ordering, please specify PART NO.)

ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	QTY.
	*	AIR NOZZLE	1	24	54-1076	FLUID CONTROL SCREW	1
	*	FLUID NOZZLE	1	25	54-764 [†]	FLUID PACKING	1
	**	NEEDLE ASSEMBLY	1	26	54-765	NEEDLE PACKING NUT	1
1	54-918 [†]	GASKET	1	27	54-1378	SLEEVE ASSEMBLY	1
2	54-1067	GUN BODY ASSEMBLY	1	28	54-1059	SLEEVE	1
3	541068	GUN HEAD	1	29	54-721	WIPER CUP RETAINER	1
4	54-710	SCREW	1	30	54-722 [†]	WIPER CUP	2
5	54-1404	BODY ASSEMBLY	1	31	54-1341	AIR VALVE ASSEMBLY	1
6	54-759 [†]	TRIGGER SCREW	1	32	54-1340	AIR VALVE PACKING NUT	1
7	54-760 [†]	TRIGGER STUD	1	34	54-747 [†]	AIR VALVE PACKING	1
8	54-1064	SIDE PORT CONTROL	1	35	54-751	AIR VALVE BODY	1
		ASSEMBLY		36	54-744 [†]	AIR VALVE STEM	1
9	54-1015	SIDE PORT CONTROL	1	37	54-750 [†]	AIR VALVE SPRING	1
		WASHER		38	54-749 [†]	AIR VALVE GASKET	1
10	54-304 [†]	SIDE PORT CONTROL SPRING	1	39	54-753	TRIGGER	1
11	54-1016	PACKING WASHER	2	40	54-714	PLUG (INCLUDED IN ITEM 5)	1
12	54-738 ^{†‡}	SIDE PORT CONTROL	2	41	54-768	AIR CONNECTION	1
		BACKING		42	54-1584	RETAINER RING	1
13	54-1063	SIDE PORT CONTROL BODY	1	43	54-1583	NOZZLE TIP BASE ASSEMBLY ..	1
14	54-1062	SIDE PORT CONTROL SCREW	1	44	54-2065	RING	1
15	54-1014 [†]	SIDE PORT CONTROL PIN	1	45	54-882	LOCKNUT	1
16	54-723 [†]	FLUID CONTROL GASKET	1	46	544883	LOCKNUT	1
17	54-1065	FLUID CONTROL HOUSING	1	47	790	STRAIGHT CORE	1
18	54-1070	LOCKNUT	1	48	792	SPIRAL CORE	1
19	54-1069	LOCKNUT	1		5-32	GUN WRENCH (NOT SHOWN) ..	1
20	54-1077	FLUID CONTROL ASSEMBLY ...	1		82-221	CLEANING BRUSH (NOT SHOWN)	1
21	541075	FLUID CONTROL	1				
22	54-727	FLUID CONTROL RING	1				
23	54-728 [†]	FLUID CONTROL SPRING	1				

* When ordering please specify number stamped on nozzle.
See Nozzle Selection Chart: page 6.

** When ordering, please specify gun model and number stamped on needle stem.

[†] Parts included in Repair Kit 6-189.

[‡] Recommended spare parts. Packing Kit 6-159.

5 GALLON TOP OUTLET PRESSURE FLUID TANK
With Agitator

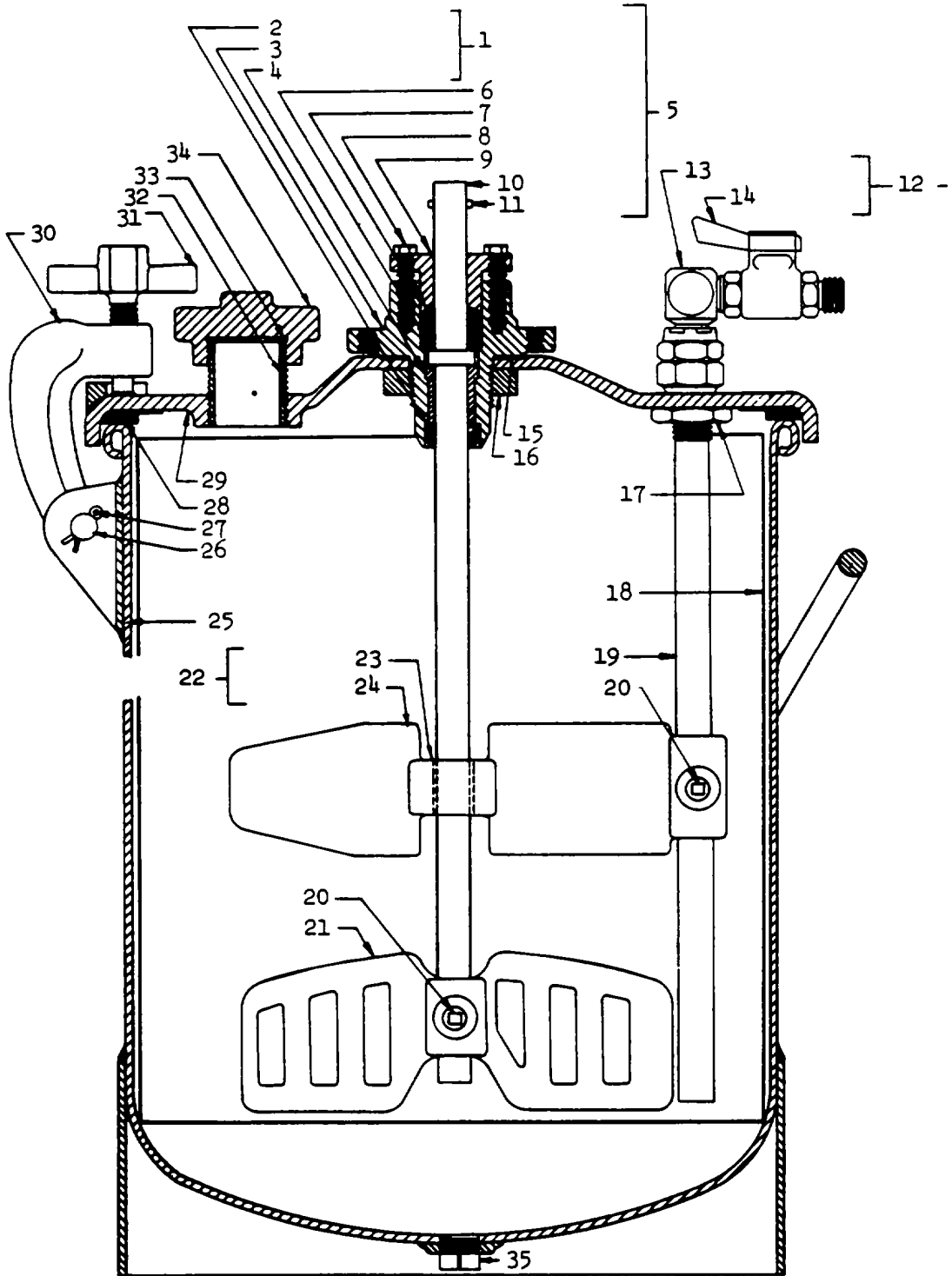


Figure 3. 5 gallon top outlet pressure fluid tank.

Parts List for 5 Gallon Top Outlet Pressure Fluid Tank
With Agitator

PART NO.	DESCRIPTION	QTY.
35 20-722	Pipe Plug, 1" N.P.T.....	1
8 20-824	5/16-18 x 1-1/4 Hex Cap Screw	2
2 20-1194	Oil Seal.....	1
27 20-1195	Cotter Pin, 1/8 Dia. x 3/4	6
30 20-1740	7/16-14 x 7/8 Sq. Hd. Set Screw.....	2
13 72-989	Swivel Connection.....	1
7 83-380	Shaft Packing	4
34 83-524	Filler Cap	1
23 83-1166	Paddle Bearing.....	1
33 83-1207	Filler Cap Gasket	1
11 83-1211	Drive Pin	1
28 83-1420	Head Gasket	1
30 83-1429	"C" Clamp.....	6
31 83-1430	Clamp Screw	6
26 83-1432	Clamp Pin.....	6
25 83-1438	Tank Shell	1
29 83-1446	Tank Head.....	1
17 83-1463	Fluid Tube Lock Nut.....	1
6 83-1467	Retaining Ring	1
9 83-1468	Packing Gland.....	1
3 83-1469	Stuffing Box	1
15 83-1472	Stuffing Box Gasket.	1
16 83-1474	Stuffing Box Lock Nut.....	1
21 83-1475	Paddle.	1
24 83-1476	Stationary Paddle.....	1
32 83-1481	Filler Nipple	1
19 83-1541	Fluid Tube ..	1
10 83-1544	Agitator Shaft.....	1
18 83-1546	Inner Liner ..	1
5 83-1743	Stuffing Box Assembly ..	1
1 83-1881	Bearing Assembly	1
22 83-1886	Stationary Paddle Assembly	1
14 83-2438	Shaft Bearing.....	1
14 83-2614	Fluid Valve, 3/8 N.P S	1
12 83-2643	Fluid Outlet Assembly	1
83-1187	Hand Crank (Not Shown).....	1

MODEL 85-204 AIR CONTROL UNIT

2/0

(Used to regulate both the fluid pressure on tank and atomization pressure to spray gun)

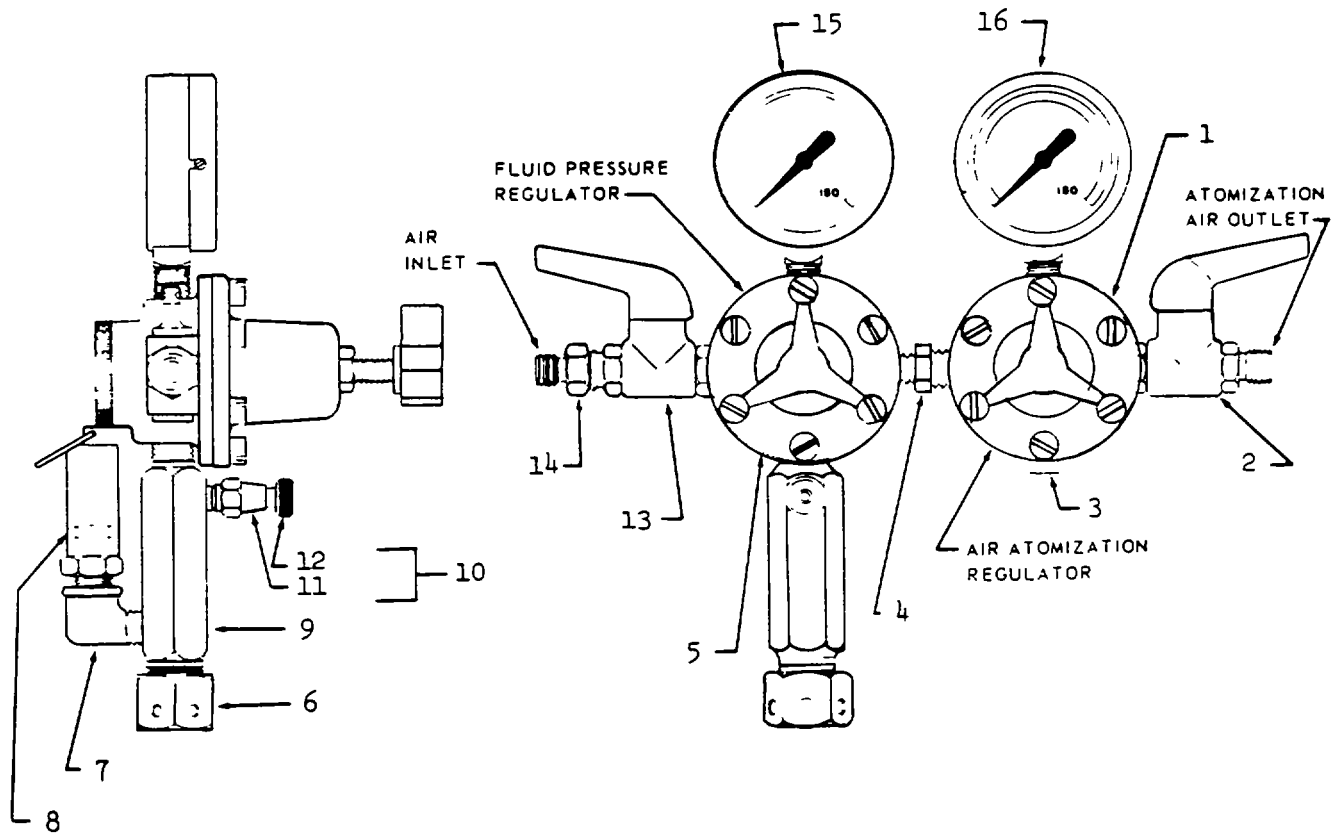


Figure 4. Model 85-204 air control unit.

PART NO.	DESCRIPTION	QTY.	PART NO.	DESCRIPTION	QTY.
72-55	14 ADAPTER.....	1	83-2675	9 BODY.....	1
72-1268	4 NIPPLE.....	1	85-200	1 AIR REGULATOR.....	1
72-81611	2 AIR VALVE.....	1	85-201	5 AIR REGULATOR.....	1
72-81712	13 AIR VALVE.....	1	86-8	10 VALVE.....	1
83-1290	15 GAUGE.....	2	86-9	11 BODY.....	1
83-1512	6 NUT.....	1	86-10	12 STEM.....	1
83-1879	8 VALVE.....	1	86-558	3 PLUG.....	1
83-2052	16 GAUGE LENS (Glass).....	2	86-563	7 ELBOW.....	1

OPERATION: To increase pressure on the fluid, turn 85-201 Regulator Knob CLOCKWISE. To decrease pressure on the fluid, turn regulator knob COUNTER-CLOCKWISE.

NOTE: To rapidly vent the tank, open 86-10 Stem. Spray gun atomization air is regulated by the 85-200 Regulator.

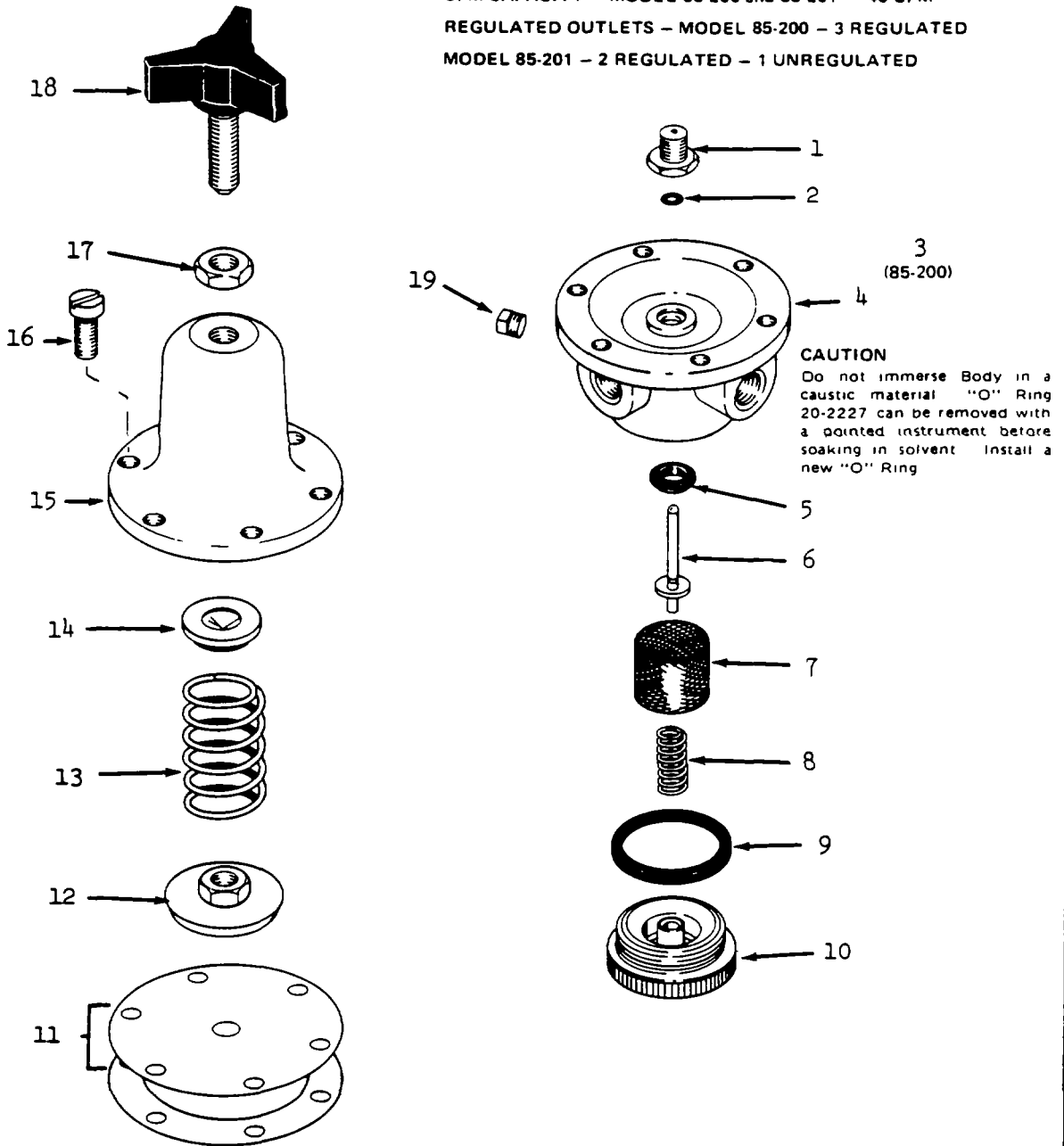
MAINTENANCE: Occasionally remove the 85-335 Cap (see reverse side of this sheet) to clean out the 85-164 Screen. Do not tamper with the 83-1879 Valve. If valve fails to operate satisfactorily, it must be replaced.

MODEL 85-200 and 85-201 AIR PRESSURE REGULATORS

CFM CAPACITY – MODEL 85-200 and 85-201 – 40 CFM

REGULATED OUTLETS – MODEL 85-200 – 3 REGULATED

MODEL 85-201 – 2 REGULATED – 1 UNREGULATED



PART NO.	DESCRIPTION	QTY.	MAT'L.
20-202 16	SCREW, ¼-20 X ½ Fill Hd ... 6	1	1
20-619 20	Nut, 3/8-16 Jam	1	1
20-2227 2	"O" RING 1/8 I D x ¼ O D.....	1	58
20-4157 9	SEAL, 1-1/4 I D x 1-7/16 O.D.....	1	58
85-149 1	BONNET.....	1	11 f
85-151 3	BODY (85-200).....	1	--
85-153 4	BODY (85-201).....	1	--
--			
85-15414	BUTTON.....	1	1, c
85-155 18	KNOB.....	1	--
85-156 13	SPRING.....	1	1, c

PART NO.	DESCRIPTION	QTY.	MAT'L.
85-158 11	DIAPHRAGM WITH GASKET	1	52 & 60
85-159 1	VALVE.....	1	5
85-162 6	VALVE.....	1	--
85-164 7	SCREEN	1	6
85-165 8	SPRING.....	1	1, c
85-178 12	DISC.....	1	52
85-335 10	CAP.....	1	5, f
86-558 19	PLUG, ¼ NPT (85-201).....	1	1, c
86-916 5	SEAT.....	1	60

* Includes 20-2227 "O" Ring
 ** Repair Kit, order 85-198.

Figure 5. Model 85-200 and 85-201 air pressure regulators.

By Order of the Secretary of the Army:

Official:

J.C. PENNINGTON
Major General, United States Army
The Adjutant General

E.C. MEYER
General, United States Army
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