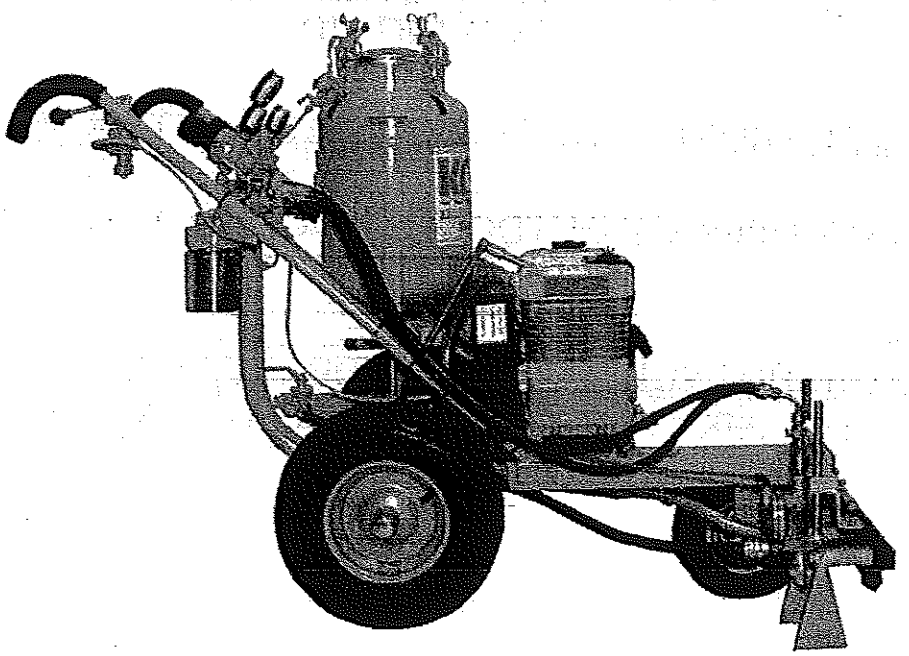
OPERATING INSTRUCTIONS

HEAVY DUTY MODEL C
SERIES PORTABLE STRIPERS

INCLUDING:
HEAVY DUTY MODEL C, HEAVY DUTY MODEL C WITH TRACTION AND INDUSTRIAL C



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IMPORTANT !!

SAFETY WARNING !!

READ INSTRUCTION MANUAL BEFORE OPERATING EQUIPMENT

MAKE SURE PROTECTIVE BELT GUARDS ARE IN PLACE

KEEP HANDS AND LOOSE CLOTHING AWAY FROM MOVING BELTS AND PULLEYS

ALWAYS WEAR EYE AND EAR PROTECTION

ALWAYS RELIEVE PAINT TANK PRESSURE BEFORE REMOVING LID

DO NOT SMOKE NEAR FLAMMABLE PAINT OR SOLVENTS

ONLY OPERATE OUTDOORS IN A WELL VENTILATED AREA

AVOID HOT SURFACES INCLUDING COMPRESSOR, ENGINE, AIR CURTAINS AND PAINT GUN MANIFOLD

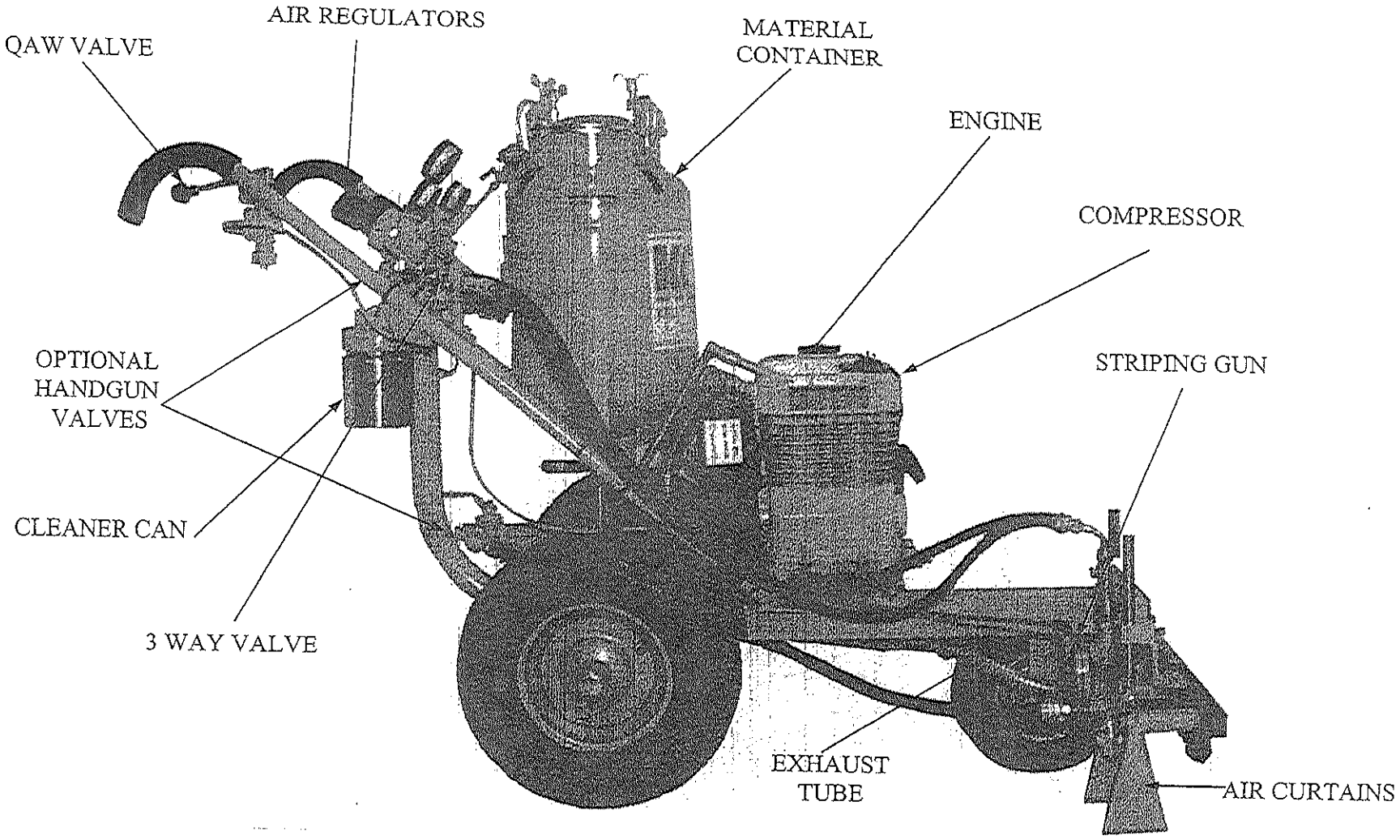
QAW VALVE
AIR REGULATORS
MATERIAL CONTAINER
ENGINE
COMPRESSOR
STRIPING GUN
OPTIONAL HANDGUN VALVES
CLEANER CAN
3 WAY VALVE
EXHAUST TUBE
AIR CURTAINS

TABLE OF CONTENTS

I. BEFORE STARTING THE MACHINE

1.0 GENERAL

1.1 Move Machine to a level, well ventilated area.

2.0 ENGINE

2.1 Refer to Engine Manual for Engine Operating Insructions.

3.0 PAINT, ATOMIZATION AND CONTROL LINES:

3.1 Tighten copper tubing connections

3.2 Tighten paint, control and atomization air hose fittings.

3.3 Tighten the Y-strainer plug.

3.4 Move safety POP-OFF VALVE To vertical position if your machine is so equipped. If you do not have a safety POP-OFF VALVE with a hold open you must use the manifold drain to relieve pressure before starting the machine.

(note) Starting in 2004, the safety POP-OFF VALVE was changed from a "hold open design" to a "non hold open design." We did this to ensure that our customers were forced open the manifold drain. It is important to drain the manifold because water will accumulate there and could cause problems with the air distribution system.

SEE FIGURE 1 – 4 FOLLOWING PAGE.

NON HOLD OPEN STYLE
SAFETY POP OFF VALVE

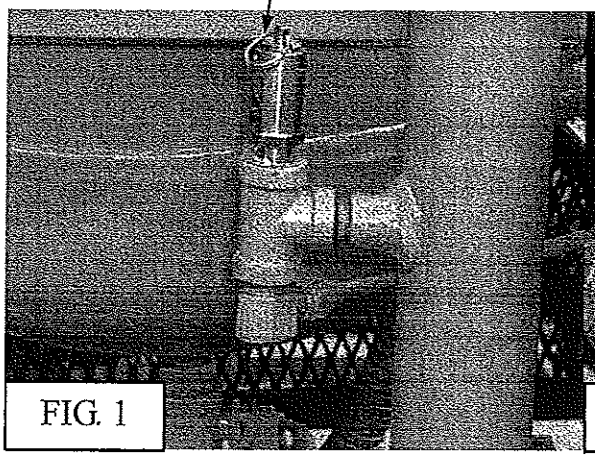

FIG. 1

HOLD OPEN STYLE
SAFETY POP OFF VALVE
SHOWN IN OPEN POS.

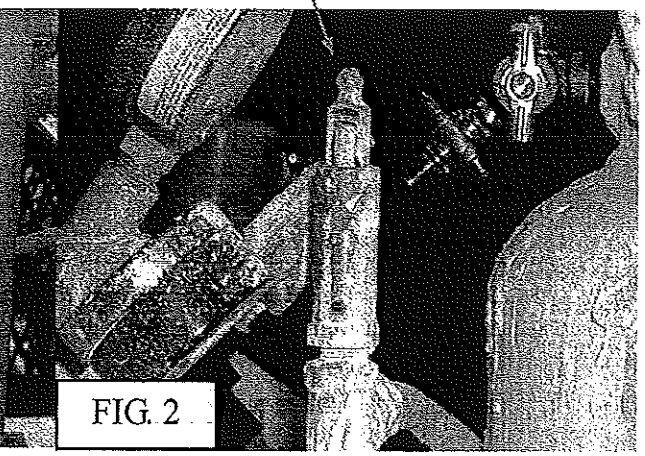

FIG. 2

MANIFOLD DRAIN
FOR HEAVY DUTY "C"
MACHINE

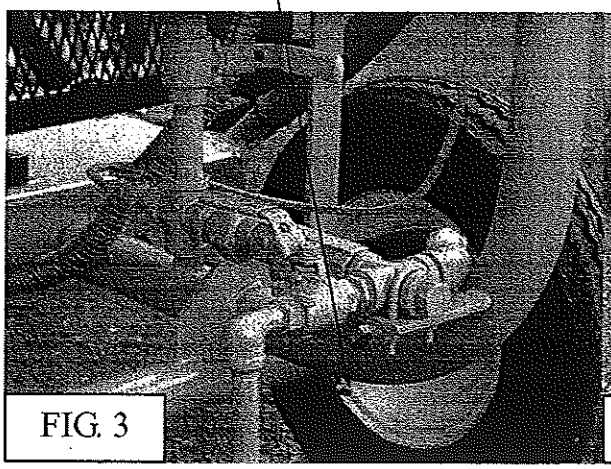

FIG. 3

MANIFOLD DRAIN FOR
HEAVY DUTY "C" WITH
TRACTION MACHINE.

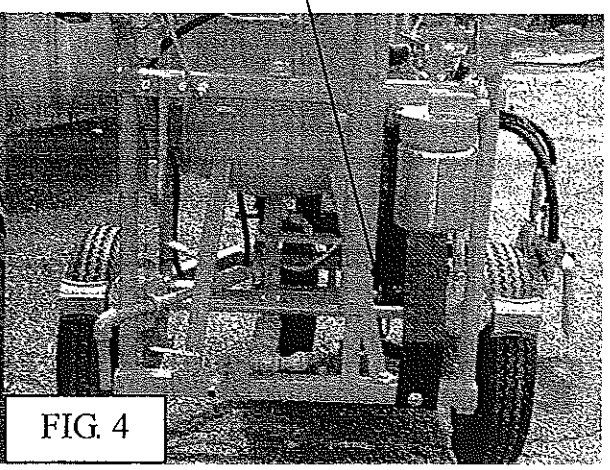

FIG. 4

I. OPERATING INSTRUCTIONS

1.0 ADJUST AIR CURTAINS:

1.1 Adjust air curtains and gun height for proper line width (see SETTING LINE WIDTH).

1.2 Keep air curtains clean. Remove paint build-up, especially at air opening at the bottom of the plates.

2.0 SET POP-OFF VALVE:

2.1 Move safety POP-OFF VALVE to vertical position if your machine is so equipped. If you do not have a safety POP-OFF VALVE with a hold open you must use the manifold drain to relieve pressure before starting the machine.

(note) Starting in 2004, the safety POP-OFF VALVE was changed from a "hold open design" to a "non hold open design." We did this to ensure that our customers were forced open the manifold drain. It is important to drain the manifold because water will accumulate there and could cause problems with the air distribution system.

SEE FIGURE 1 – 4 PREVIOUS PAGE.

3.0 START ENGINE (SEE SEPARATE ENGINE LITERATURE FOR SUPPORT ON STARTING YOUR ENGINE.

CAUTION !!

VENTILATION: Never run engine indoors or in enclosed or poorly ventilated areas. Engine exhaust contains carbon monoxide, and odorless and deadly gas.

MOVING PARTS: Keep hands, feet, hair and loose clothing away from any moving parts on engine and equipment. Do not operate engine with belt guard removed.

HOT SURFACES: Temperature of muffler, main line, copper tubing, air curtains, air curtain manifold and nearby areas may exceed 150 F (65 C). Avoid these areas.

4.0 SET POP-OFF AND TANK VALVES:

4.1 Move safety POP-OFF VALVE to horizontal position if your machine is so equipped. If you do not have a safety POP-OFF VALVE with a hold open you must use the manifold drain to allow pressure to build in they sys tem.

(note) Starting in 2004, the safety POP-OFF VALVE was changed from a "hold open design" to a "non hold open design." We did this to ensure that our customers were forced open the manifold drain. It is important to drain the manifold because water will accumulate there and could cause problems with the air distribution system.

4.2 Close the paint tank DRAIN COCK (turn counter-clockwise).

4.3 Close the paint TANK PRESSURE VALVE.

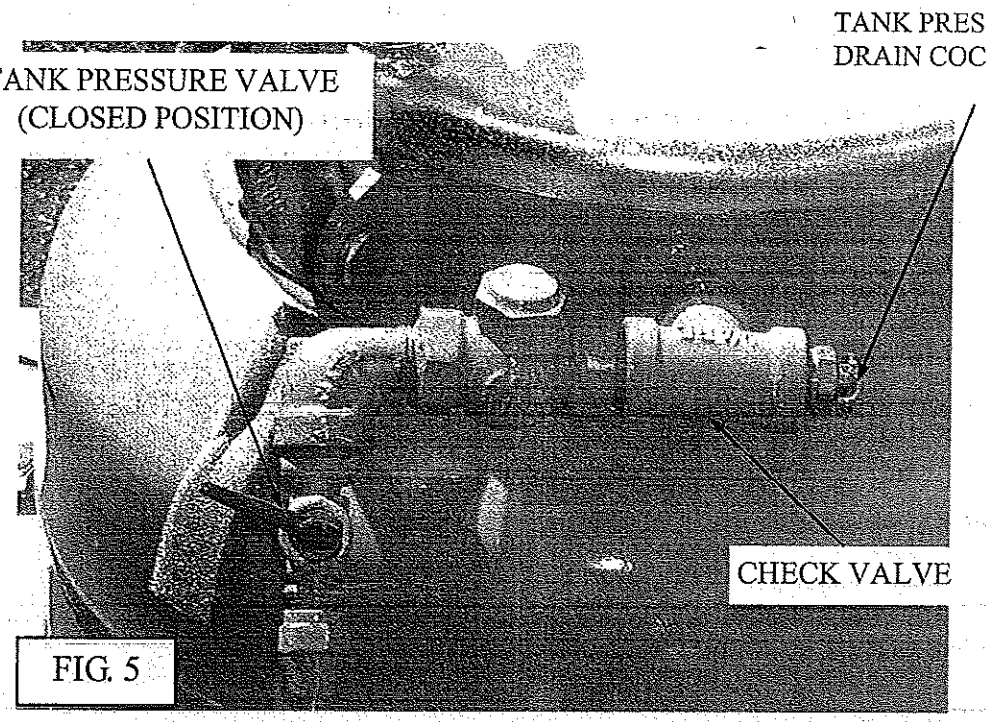

FIG. 5

5.0 SET TANK AND ATOMIZATION PRESSURES:

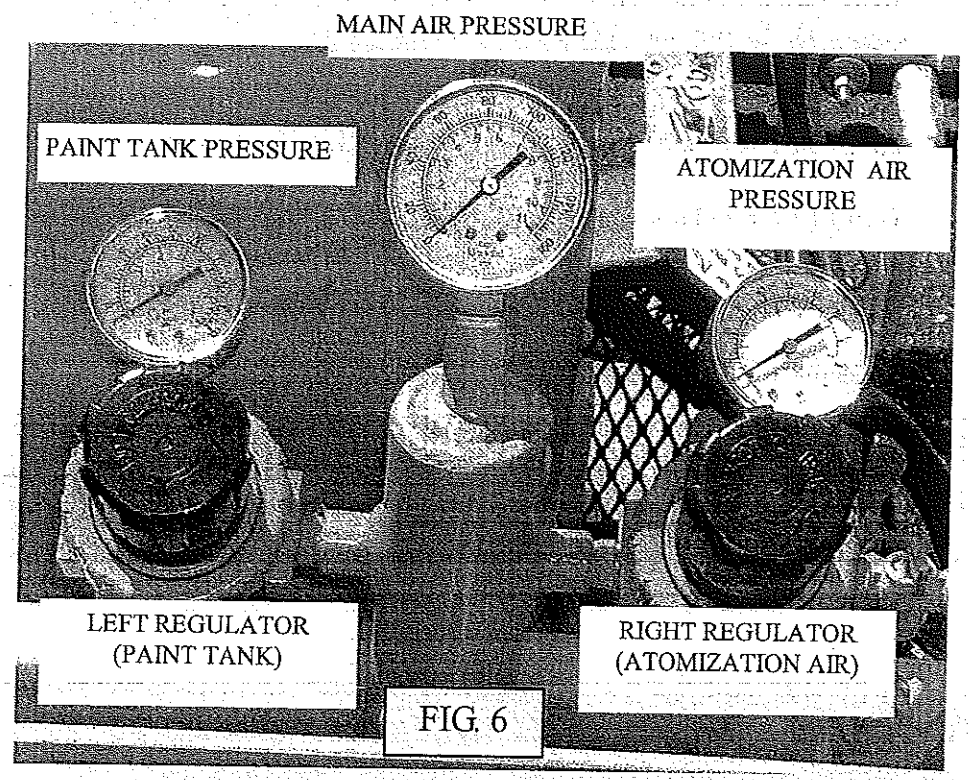

FIG. 6

5.1 Tank pressure and atomization pressures must be adjusted in order to achieve the desired paint film thickness and evenly atomized paint.

5.2 The tank pressure setting (LEFT regulator) controls the paint tank pressure and the amount of paint sprayed by the striping gun.

5.3 The atomization air pressure (RIGHT regulator) controls the volume and pres sure of air that "fluidizes" the paint from a liquid to an atomized spray pat tern.

5.4 Paint tank pressure (flow) and atomization air must be adjusted to accommo date varying temperatures, paint viscosity and desired paint film thickness re quirements. (SEE Text blocks in section 6 and 7 for more detail).

6.0 TANK PRESSURE ADJUSTMEN

6.1 Make sure the paint TANK PRESSURE VALVE is CLOSED (see Figure 4). Setting the tank pressure while the paint TANK PRESSURE VALVE is open will cause inaccurate tank pressure readings.

6.2 Turn LEFT regulator CLOCKWISE to INCREASE pressure.

6.3 Turn LEFT regulator COUNTER-CLOCKWISE to DECREASE pressure.

6.4 Set the tank pressure to the desired setting (generally between 5 and 25 psi).

6.5 Open the TANK PRESSURE VALVE.

NOTE: When reducing the tank air pressure, close TANK PRESSURE VALVE, bleed off excess air in tank, then reset tank pressure. Failure to do so will result in inaccurate tank pressure settings.

TANK PRESSURE:	
Thick paint (high viscosity)	MORE tank pressure
Thin paint (low viscosity)	LESS tank pressure
Low outdoor or ambient temperature:	MORE tank pressure
High outdoor or ambient temperature:	LESS tank pressure
Increased paint film thickness desired (new asphalt)	MORE tank pressure
Decreased paint film thickness desired (restripe)	LESS tank pressure

7.0 ATOMIZATION PRESSURE ADJUSTMENT:

7.1 Turn RIGHT regulator CLOCKWISE TO DECREASE pressure.

7.2 Turn LEFT regulator COUNTER-CLOCKWISE to decrease pressure.

7.3 Set atomization pressure to the desired setting (generally between 25 and 60 psi).

ATOMIZATION AIR PRESSURE:

Thick paint:	MORE atomization pressure
Thin paint:	LESS atomization pressure
Low outdoor or ambient temperature:	MORE atomization pressure
High outdoor or ambient temperature:	Less atomization pressure

Atomization pressure does not affect paint film thickness.

IMPORTANT !! Atomization pressure must be set GREATER than tank pressure.

FAILURE TO DO SO WILL CLOG THE AIR SYSTEM.

8.0 SET VALVES FOR PAINTING:

8.1 Open the PAINT SUPPLY VALVE under the tank to allow paint to flow to the spray gun.

8.2 The CHAIN VALVE under the tank should be CLOSED at all times when the tank is pressurized and while painting. This ensures that the paint will not be forced back into the clean-out line, cleaning can, or compressor. FAILURE TO CLOSE THIS VALVE WILL CAUSE SERIOUS DAMAGE.

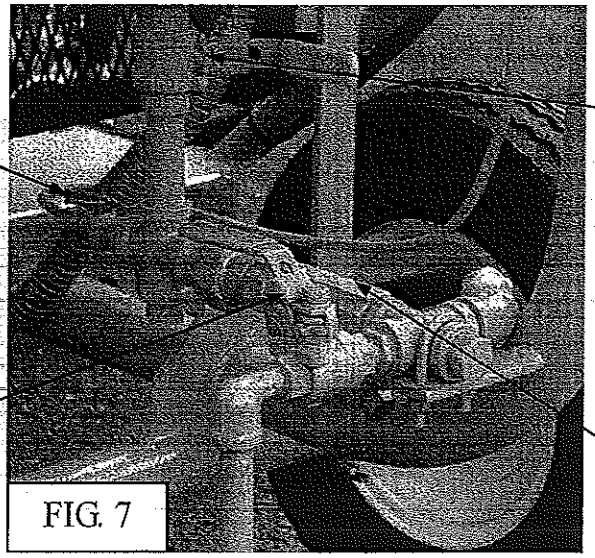

FIG. 7

8.3 Make sure THREE WAY VALVE lever is in the UP position to paint.

8.4 Open paint TANK PRESSURE VALVE. Make sure TANK DRAIN COCK is closed. See FIG 5

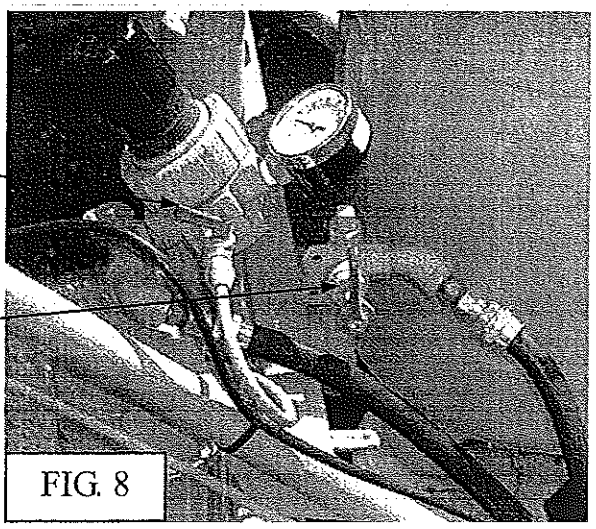

FIG. 8

9.0 MAKE A TEST LINE

9.1 Begin walking at a brisk pace.

9.2 Pull the QUICK-AS-A-WINK (Q-A-W) control lever UP to begin painting.

9.3 Push the Q-A-W) control lever DOWN to stop painting.

9.4 Use the results of the test line to adjust tank and atomization pressure until de sired line is achieved.

10.0 CLEANING SYSTEM

10.1 Kelly-Creswell portable stripers employ a pressure type cleaning system. The cleaning system has two functions. First, it is designed to allow the operator to clean the spray head of the gun without dismantling it by thoroughly flushing the gun head with atomized cleaning solution. Second, the cleaning system facilitates simple, end-of-the-day clean out of the paint lines and spray gun head assembly.

Note: automatic spray gun cleaning is only possible when using bleeder type spray guns or with specially equipped non-bleeder guns with flush system.

10.2 The cleaning can is located below the right-hand regulator, to the right of the main air line. The cleaner can should be filled with an appropriate solvent that is compatible with the type of paint to be used.

WARNING!! Never fill the cleaner can with gasoline, white gas or other highly flammable liquids. Only use solvents approved for use with your paint.

NOTE: Around year 1997, Kelly-Creswell changed the cleaner can assembly because of a broken casting piece used in the production of the cleaner can assembly. The change affected both the cleaner can head and the cleaner can. In 2004, Kelly-Creswell changed the cleaner can head to a solid piece of billet aluminum machined to accept the newest cleaner can.

11.0 CLEANING THE SPRAY GUN HEAD:

11.1 Over the course of the day, if the quality of the painted line deteriorates, use the cleaning system to flush out debris and to dissolve paint build up on the spray gun head by following these steps:

11.2 Make sure the Q-A-W VALVE is in the off position.

11.3 Adjust the pressure of the atomization air so that it is less than 50 psi. pressure over 50 psi in the cleaner can will cause damage.

11.4 Open the CLEANER PRESSURE VALVE to the cleaner can to pressurize the cleaner can.

11.5 Push the THREE-WAY VALVE all the way down toward the front of the ma chine.

11.6 Cleaner will gradually pass through the atomization hose (or flush hose) and out the tip of the gun cleaning the gun head assembly.

11.7 When the cleaner runs clear through the end of the gun, pull the THREE-WAY VALVE towards the rear of the machine and close the CLEANER PRESSURE VALVE.

11.8 Readjust atomization air pressure if necessary.

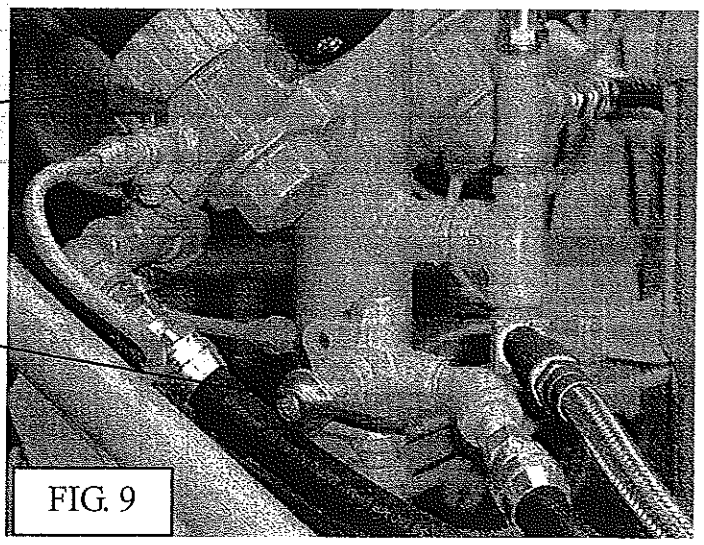

FIG. 9

NOTE: Your system may not be equipped with a cleaning system or your system may only be equipped with a cleaning system that allows only the lower plumbing to be cleaned.

12.0 CLEANING THE FLUID LINES (END OF DAY CLEANUP):

12.1 It is possible to flush out all of the bottom plumbing without draining the paint from the tank. This is useful when the machine is going to be idle for a few hours with paint left in the tank.

12.2 Close the PAINT SUPPLY VALVE at the bottom of the tank to shot off paint supply from the bottom of the paint tank.

12.3 Open the CLEANER PRESSURE VALVE leading to pressurize the cleaner can. (DO NOT EXCEED 50 PSI).

12.4 Open the CHAIN VALVE to allow the cleaning fluid to flow from the cleaner can through the lower plumbing.

12.5 Place a slop bucket or pan under the paint gun in preparation of capturing the contents of the lower plumbing.

12.6 Place the THREE-WAY VALVE to the clean position. Be sure the atomiza tion air is running through the gun (bleeder gun only).

12.7 Pull up the Q-A-W lever to actuate the paint gun. Fluid from the cleaning can will now be pushed through the lower plumbing and out of the gun. When the material coming out of the gun run clear, the plumbing is clean.

12.8 Dispose of material properly.

12.9 Close the CHAIN VALVE.

12.10 Close the Q-A-W VALVE.

12.11 Close the THREE-WAY VALVE.

12.12 Close the CLEANER PRESSURE VALVE.

NOTE: The only time that the CHAIN VALVE should be open is when cleaning your lower plumbing per the instructions above. Leaving the CHAIN VALVE open at any other time will cause serious damage to the machine!!!

13.0 DRAINING THE PAINT TANK:

13.1 Close the CHAIN VALVE.

13.2 When using paint from a large drum, attach a hose to the drain pipe and place a bucket under the drain pipe. If not, find a properly sized bucket or pan to place under the drain outlet.

13.3 Start the engine.

13.4 Pressurize the paint tank to 10 psi.

13.5 Open the PAINT SUPPLY VALVE under the paint tank.

13.6 SLOWLY open the PAINT DRAIN VALVE to allow the paint to drain. SEE FIG 7.

13.7 When the paint is drained, stop the engine and remove the hose from the pipe.

13.8 Close the PAINT SUPPLY VALVE and PAINT DRAIN VALVE.

13.9 Release pressure in paint tank by opening tank DRAIN COCK.

14.0 CLEANING THE PAINT TANK AND HOSES:

14.1 Depressurize the paint tank by rotating the drain cock clockwise. This provides an opening for air to escape and it is necessary to remove the lid safely.

14.2 Remove tank lid CAREFULLY by alternately loosening each screw on turn at a time. When the lid is sufficiently loose, remove it and place it aside.

14.3 Pour 1/2 gallon of paint solvent into the paint tank.

14.4 Wipe down the inside of the tank with solvent and a rag. If you are using wa ter based paint, you can use more water and use a brush to clean the sides of the tank.

14.5 When tank is sufficiently clean, replace the lid and pressurize the tank.

14.6 Place a slop bucket under the gun, open the PAINT SUPPLY VALVE and ac tuate the gun. Dispose of used solvent properly.

14.7 If you are using latex paint, we recommend that you follow the above steps with another rinse using clean water with 3 oz of household ammonia to 5 gallons of water solution.

14.8 Make sure that when you are cleaning the machine that you clean all valves that come in contact with paint. For example, when you are running solution through the paint gun, actuate the PAINT DRAIN VALVE open and close to make sure that it is clean.

14.9 If you have hand gun plumbing only or a hand gun system mounted on the machine, make sure that you clean it each and every time you clean the ma chiine. This is important because paint will accumulate at the valves and in the hoses even if the hand gun is not used. To clean the hand gun and/or hand gun plumbing: while you are cleaning as in step 14.6, turn off the Q-A-W valve, open the hand gun valve and actuate the hand gun and shoot it into the slop bucket until it is running clear. If you only have the valve installed, just open the hand gun paint supply valve while you are cleaning the machine.

15.0 ADJUSTING REAR WHEEL TENSION (HDC AND IC ONLY)

15.1 The bearings for the rear axle are located in the machine frame. The left rear wheel (when standing in the operator's position" is "keyed" to the axle.

15.2 The tension on the rear wheels can be adjusted by simply tightening or loosening the nut that holds the right rear wheel on the axle. This nut applies force to the axle through a compression spring and washer. Since only one adjustment is necessary, uniform tension on both wheels is achieved easily.

15.3 To adjust tension, remove right rear wheel hub cap and tighten or loosen nut.

15.4 Replace wooden bushings inside wheel if rear wheels "wobble."

16.0 ADJUSTING AIR-ACTUATED TRACTION DRIVE (HDC WITH TRACTION ONLY).

16.1 The Heavy Duty Model C with Traction is equipped with an air-operated traction drive. The traction drive uses air pressure to force turning drive rolls against the two rear wheels of the machine. The traction drive is designed to apply equal force against both wheels thus locking them together to provide uniform forward motion.

16.2 A Q-A-W valve located near the left handle bar actuates the traction drive.

16.3 Traction speed may be adjusted between 1/2 and 3 mph. To change traction speed, turn engine off and adjust the variable pitch pulley on the compressor flywheel. To increase speed, open pulley. To decrease speed, close pulley. Make sure to adjust the drive belt to maintain proper tension.

16.4 To adjust drive belt tension, turn engine off, loosen screw on the idler pulley arm and move nut assembly until proper tension is achieved. Note that belt tension should be adjusted with the idler arm in the traction engaged position.

16.5 It is not always practical to adjust the tension of the traction drive belt in the engaged position. If you need to adjust the traction drive belt with the idler arm in the non-engaged position, the belt should be tensioned so that the belt will sit into the groove of the idler pulley and it will just slip off of the idler pulley by hand. If you cannot remove the belt from the idler pulley with your hands, it is too tight and will not allow the traction to fully engage.

16.6 If the machine jerks to the left or the right when the traction mechanism is engaged, 1) check tire inflation, 2) adjust belt tension, 3) adjust drive roll adjustment studs, or 4) check front wheel axle shaft.

16.7 Drive roll adjustment stud (cap screws) may be adjusted to ensure equal pres sure on the drive rolls on the rear wheels.

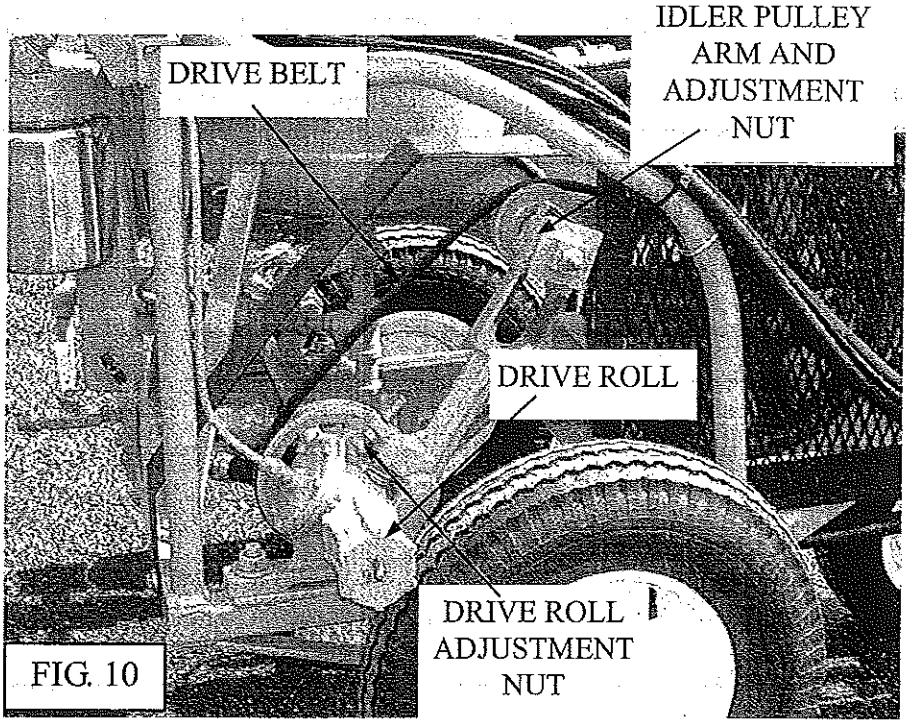

FIG. 10

NOTE: It is very important to keep you tire pressure at the correct level for proper traction mechanism operation. Almost all problems we troubleshoot on the traction drive are related to improper tire pressure.

III. SETTING THE LINE WIDTH

1.0 GENERAL

1.1 Three important factors determine the width of the line sprayed by the striper: the distance of the paint head is away from the pavement, the air curtain adjustment, and the air cap selected.

2.0 GUN HEIGHT:

2.1 Move the left and right air curtain on an angle away from the spray head of the striping gun by tapping it gently with a rubber mallet. Move the air curtains far enough so that no paint directly hits the air curtains.

2.2 Paint a test line and move the gun hanger up or down until the desired line width is achieved.

3.0 ADJUST THE AIR CURTAINS:

3.1 The air curtains, in proper adjustment, will produse a sharper edged line by creating a wall of air around the paint spray.

3.2 Move the air curtains toward the spray gun by tapping them gently with a rubber mallet.

3.4 Moving the air curtains too close to the paint spray will cause paint build-up and produce dripping.

3.5 Clean the air curtains after every use.

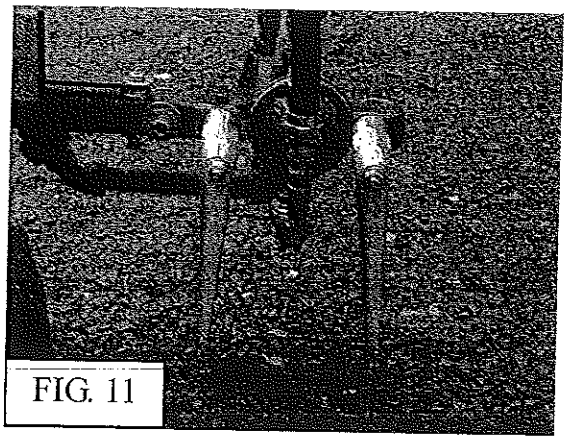

FIG. 11

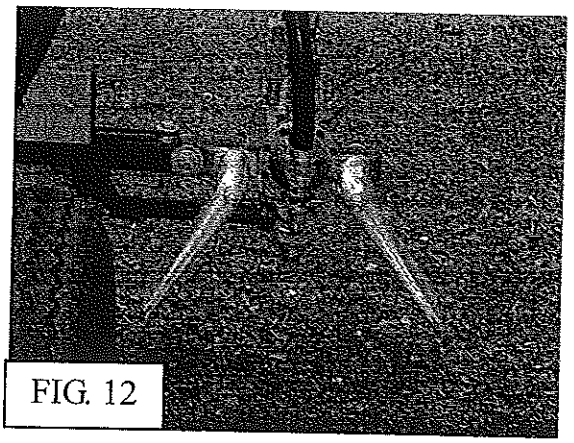

FIG. 12

4.0 AIR CAP

4.1 The air cap controls the spray pattern or shape of the paint as it exits the striping gun. A number of different air caps are available for specialty applications. For most street and parking lot work when using the Kelly-Creswell 593 striping gun, the S-26 air cap is the most appropriate.

CAUTION!!
Air curtains may be hot. To avoid burns, NEVER handle air curtains or air manifold after the machine has been running.

NOTE: Your machine may not be equipped with air curtains or with Kelly-Creswell brand paint guns. Therefore, the instructions may not apply to you.

IV. TROUBLE SHOOTING

ENGINE

1.0 ENGINE WILL NOT START OR OTHER ENGINE PROBLEMS

1.1 All engine problems refer to your owner's manual for your particular engine.

2.0 ENGINE WILL NOT "RUN PROPERLY"

2.1 Refer to the owner's manual for your particular engine.

3.0 ENGINE OVER HEATING:

3.1 Refer to the owner's manual for your particular engine.

AIR AND PAINT DISTRIBUTION

4.0 AIR LEAKS:

4.1 FITTINGS: To isolate an air leak, start the engine and compressor and check the copper tube fitting with soapy water. Air leaks will be apparent by "bubbles" around the fittings. Even the most insignificant air leaks can affect the machine performance.

4.2 Q-A-W VALVE:

4.3 MAIN AIR LINE: With engine and compressor running, close all air valves. Stop engine. Observe main pressure gauge. If there is a significant drop in pressure over a short period of time, the main air line has a leak. If you have a bleeder gun, make sure that you turn down the atomization regulator before you perform this test.

4.4 KC-593 STRIPING GUN With the engine and compressor running, observe the main pressure gage. Turn on the striping gun. If the main pressure gauge shows a significant pressure drop and will not catch up, check the tension of your compressor belt and tighten if necessary. Also, check the KC-116 Diaphragm in the gun to make sure it is not ruptured.

5.0 REGULATOR WILL NOT HOLD A SETTING:

5.1 Check seat assembly and diaphragm of regulator. Rebuild if necessary.

6.0 IMPROPERLY ATOMIZED PAINT:

6.1 Check atomization pressure. Increase or decrease atomization pressure until properly atomized.

6.2 Remove the gun head assembly and clean thoroughly removing dried or built up paint (see SPRAY GUN). USE CAUTION WHEN CLEANING. AVOID SHARP METAL OBJECTS THAT COULD DAMAGE AIR CAP, ADAPTER, OR FLUID TIP.

6.3 Remove and clean the compressor air inlet filter and check main air pressure as in 8.0 below.

6.4 Replace air cap assembly.

7.0 PAINT LEAKAGE FROM KC-593 SPRAY GUN:

7.1 Tighten packing nut (KC-109) one-half turn if paint is leaking through the packings. Replace packings if necessary.

7.2 Check needle and fluid tip for excessive wear if paint is leaking out of the tip of the KC-593 gun. Note: if you remove the fluid tip from the gun, make sure that either: 1) needle has been taken out of the gun through the top of the gun, or 2) the gun is actuated so that the needle is in the up position and keep the gun actuated util you put the fluid tip back. Failure to do this might cause damage to the needle or the fluid tip upon re-assembly.

8.0 LOW MAIN AIR PRESSURE:

8.1 Check for main air leak.
8.2 Check for gauge malfunction.
8.3 Check functioning of POP-OFF-VALVE.
8.4 Check for other leaks.
8.5 Clean air intake filter.
8.6 Tighten or replace the compressor/engine v-belt.
8.7 Check compressor RPM. If it is not running at 900 RPM, turn up the throttle of the engine until it is running at 900 RPM.
8.8 Overhaul compressor.

9.0 LOW ATOMIZATION PRESSURE:

9.1 Check spray gun assembly.
9.2 Check the seat assembly and diaphragm of the right-hand regulator.
9.3 Check for an air leak in the atomization line.
9.4 See 8.0 LOW MAIN AIR PRESSURE

10.0 INSUFFICIENT TANK PRESSURE:

10.1 Check tank lid gasket for leaks.
10.2 Check tubing and valves to tank for leaks.
10.3 Disassemble and check the left-hand regulator
10.4 Check for blockages from the left-hand regulator through the supply line to the tank.

11.0 PRESSURE DROP IN MAIN AIR LINE WHEN SPRAY GUN ACTIVATED

11.1 When using Kelly-Creswell spray guns, check the sprayhead of the gun to be sure that the adapter (WV-172-4M) and the air cap (S-26) are properly seated (see SPRAY GUN).
11.2 Check for air leaks in the spray gun diaphragm (see SPRAY GUN).
11.3 Check that the diaphragm plate has not fallen out of position. (SEE SPRAY GUN)
11.4 Check that there are no problems with LOW MAIN AIR PRESSURE 8.0

12.0 PAINT GUN WILL NOT SPRAY:

12.1 Make sure paint tank is pressurized
12.2 Make sure the PAINT SUPPLY VALVE is in the open position.
12.3 Check for blockage in the "Y" strainer.
12.4 Check for blockage at the paint tank outlet inside and at the bottom of the paint tank.
12.5 Check to make sure the Q-A-W Valve is operating correctly.
12.6 Check the on/off needle action of the striping gun.
12.7 Check the linkage between the diaphragm plate, trigger and needle.
12.8 Check for a hole in the striping gun diaphragm.
12.9 Be sure the packing in the striping gun is not too tight preventing the needle from moving correctly.
12.10 Check for clogging at the spray head.

13.0 SPRAY GUN WILL NOT TURN OFF:

13.1 Make sure the needle spring (KC-103) is in place.
13.2 Be sure the packing in the striping gun is not too tight preventing the needle from moving correctly.
13.3 Inspect needle and fluid tip of striping gun for sign of improper seating (rust, uneven wear).

PAINTED LINE QUALITY

14.0 INCORRECT LINE WIDTH:

- 14.1 Raise the spray gun for a wider line.
- 14.2 Lower the spray gun for a narrower line.
- 14.3 Adjust air curtains
- 14.4 See SET LINE WIDTH

15.0 UNEVEN PAINTED LINE:

- 15.1 Flush the gun using the cleaning system to remove debris or paint build-up in the spray head assembly (see CLEANING SYSTEM).
- 15.2 Loosen the knurled nut (AV-11) at the gun head, rotate the air cap 180 degrees, gently tap the air cap to insure it is seated properly.
- 15.3 Check the air cap and adapter for wear. If both do not have excessive wear, tighten the knurled nut.
- 15.4 The fluid tip or air cap may be damaged. Remove, inspect and replace as necessary.

16.0 PAINT SPATTERING:

- 16.1 Be sure the THREE-WAY VALVE position is in the paint position (up) before turning the Q-A-W VALVE on. If it is not in this position, to atomization air will not flow properly.
- 16.2 Increase the atomization air pressure.
- 16.3 flush the air cap with cleaner.
- 16.4 Decrease pressure in the paint tank.
- 16.5 Adjust the air curtains.

17.0 UNEVEN PAINT – THICK ON EDGES, THIN IN THE MIDDLE

- 17.1 Reduce the atomization air pressure until the line is uniform.

18.0 UNEVEN PAINT – THIN ON EDGES, THICK IN MIDDLE:

- 18.1 Increase the atomization air pressure until the line is uniform.

19.0 LINE EDGES FUZZY – TOO MUCH "OVER SPRAY":

- 19.1 Reduce atomization air.
- 19.2 Adjust air curtains.

20.0 IMPROPER MACHINE TRACKING – PULLING LEFT OR RIGHT:

20.1 Adjust front wheel shaft. Make sure locking nuts are tight.
20.2 Check rear tire air pressure.
20.3 Check spring tension on rear tires.

21.0 EXCESSIVE TIP PLUGGING WITH WATERBASED PAINT:

21.1 Install KC-140 and KC-141 non-bleeder gun attachment and flush system.

V. MAINTENANCE

1.0 EVERY 25 HOURS:

- 1.1 Change Engine Oil.
- 1.2 Change Compressor Oil.

2.0 EVERY TWO WEEKS:

- 2.1 Grease the main axle roller bearings.
- 2.2. Grease the front wheel bearing.
- 2.3 Grease the traction mechanism.

3.0 EVERY YEAR:

- 3.1 Replace the V-belt.
- 3.2 Replace, clean and repack the wheel bearings.
- 3.3 Break down and thoroughly clean spray gun (see SPRAY GUN).

NOTE: You must also keep up with all recommended maintenance on your compressor and engine. See separate manuals for full maintenance instructions for your engine and compressor.

V. LONG TERM STORAGE

1.0 CLEAN OUT TANK AND PAINT LINES:

1.1 Thoroughly clean out the tank, fluid lines, "Y" strainer and any other part of the machine that comes into contact with paint.

1.2 Remove and clean spray gun. Coat with a light coating of oil to protect from rust.

1.3 Prevent Freezing. Make sure fluid lines are free of water or other solvents that will freeze to prevent damage if storing in an area where temperatures may drop below freezing.

2.0 PREPARE ENGINE:

2.1 See Engine manual for directions on Engine storage.

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PO Box 309 Xenia, Ohio 45385
Tel: (937) 372-9221
Fax: (937) 372-8109

PART NO.	DESCRIPTION
1.)	FRAME
06R-1/4	REGULATOR, 1/4"
10F-4L	ELBOW, BRASS 90 1/4 P X 1/4T
10F-8N	ELBOW, 90 DEG 3/8PM X 1/2TM
116-6	STEL, BRASS 3/8 NPT
13003	SCREW, HXHD CAP 1/4-20 x 3/4
135-C4L	VALVE, 1/4 NPT X 1/4 TUBE
15055	SCREW, HXHD CAP 5/16-18 x 1
15062	SCREW, HXHD CAP 5/16-18 x2-1/4
15F-4L	UNION, 1/4T X 1/4P
184	DRAIN COCK 1/8"
185	DRAIN COCK 1/4"
192-CL	VALVE, 3-WAY 1/4" NPT
209	GAUGE 100#
212	HANDLE BAR GRIP
245-1	VALVE, RELIEF 100#
33618	LOCKWASHER, 1/4" ZINC
33620	LOCKWASHER, 5/16" ZINC
33715	LOCKWASHER, 1/2" INTERNAL
36104	NUT, HEX 5/16-18, ZINC
42004	U-BOLT, 1/2" PIPE
42016	U-BOLT, 1" PIPE
6000	FRAME, HDC

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PART NO.	DESCRIPTION
6001-1	ADJUSTING SCREW, FRONT WHEEL
6001-2	RETAINER, FRONT WHEEL
6001-3	NUT, HEX 1/4-20, ZINC
6015-6BP	PLUMBING, LOWER HDC BK
6015-6NC	TANK, PAINT 7 GAL NC
6016-3	HALF NUT, 3/4"-16
6016-5	AXLE, REAR W/COLLAR
6016-6	SPRING, AXLE TENSION
6023	SHAFT, FRONT WHEEL
6024	SPACER, FRONT WHEEL
6032	GUN HANGER
6033-2	GUN POST, PAINT, 9"
6060	ZERK FITTING, 1/8" NPT
6062-2	PULLEY, ENGINE
6065-4	BELT, ENGINE HDC (HONDA)
6067	GAUGE, 160#
6068-3	QAW VALVE 1/4"
6072-1	VALVE, CHECK 1/4"
6081-2	HUB CAP
6083	WASHER, 3/4 X 1 19/32
6094-5SB	AIR LINE, MAIN, HDC SS BRAIDED
6095-10	HOSE, FLUID 1/2 X 42" STST
6096-5	HOSE, ATOMIZE 5/16 X 48" ST90

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PART NO.	DESCRIPTION
6098-5A	EXHAUST TUBE, HDC HONDA 48"
6100	ALLEN SET SCREW
6108	LID ASSY, 10" W/PCS & GASKET
6110	KEY, PULLEY 3/16 X 1-3/8"
6111	AIR LINE, PRESSURE TO CLEANER
6112	AIR LINE, PRESSURE TO TANK
6113	AIR LINE, PRESSURE TO QAW GUN
6114	AIR LINE, CLEANER TO TANK OUT
6115	AIR LINE, ATOMIZATION TO 3-WAY
6180	COMPRESSOR, 10.6 CFM
6180-B	BLOCKS TO RAISE COMPRESSOR
6181-2	PRESSURE CLNR ASSY, COMPL 1 QT
6196	WHEEL, 4 X 8 REAMED SMOOTH HDC
6196-1	ROLLER BEARING, REAR 3/4 X 2 H
6197	WHEEL, FRONT 3.00 X 5 W/B
6197-2L	BEARING, WOOD 5/8X1-3/8X4-1/4I
6197-2S	BEARING, WOOD 5/8X1-3/8X3 IC
6438-2-A	SHIPPING CARTON AND CAP
6438-3-A	SHIPPING PALLET
97063	WASHER, THRUST 18 gauge
F-02500660-BK	NIPPLE, 1/4 NPT X CLOSE
F-02501020-BK	STEL, 45 DEG, 1/4 NPT
F-02501040-BK	STEL, 90 DEG, 1/4 NPT

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PART NO.	DESCRIPTION
F-02501120-BK	TEE, 1/4 NPT
F-03750320-BK	COUPLING FULL, 3/8" NPT
F-03750645-BK	NIPPLE, 3/8 NPT X 5"
F-05000340-BK	COUPLING, HALF, 1/2 NPT
F-05001040-BK	STEL, 90 DEG, 1/2 NPT
GX-160	ENGINE, HONDA 5.5 HP
H-2008	NIPPLE, BRASS HEX 1/4X1/4 NPT
KC-593-SS	STRIPING GUN, SS
KC-BG-2	BELTGUARD, HDC
KQH07-35S	PUSHLOCK, 1/4 NPT X 1/4T ST
PT10004	TUBING, 1/4 POLYETHYLENE BLACK
R-66-12	BEARING, RETAINER 3/4 HDC
SUB-ASS B	MANIFOLD ASSEMBLY, 1-4" W/AC

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Fax: (937) 372-8109

PART NO.	DESCRIPTION
2.)	PLUMBING, CARBON STEEL
6015-6BP	
135-C4L	VALVE, 1/4 NPT X 1/4 TUBE
220-2	VALVE, BALL 1/2" BRONZE
220-3	VALVE, BALL 3/8" BRONZE
221-1	STRAINER, 1/2" "Y" TYPE
F-02500820-BK	PLUG, SQ. HD, 1/4 NPT
F-03750621-BK	NIPPLE, 3/8 X 1-1/2, TOE
F-03750655-BK	NIPPLE, 3/8 NPT X CLOSE
F-03750694-PL	NIPPLE, HEX 3/8", PLATED STEEL
F-03751030-BK	STEL, 90 DEG, 3/8 NPT
F-05000120-BK	BUSHING, 1/2 X 1/4 NPT
F-05000160-BK	BUSHING, 1/2 X 3/8 NPT
F-05000420-BK	CROSS, 1/2 NPT
F-05000645-BK	NIPPLE, 1/2 NPT X 3"
F-05000685-BK	NIPPLE, 1/2 NPT X CLOSE
F-05000820-BK	PLUG, SQ HEAD, 1/2 NPT
F-05001020-BK	STEL, 45 DEG, 1/2 NPT
F-05001220-BK	UNION, 1/2 NPT

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PART NO.	DESCRIPTION
3.)	PLUMBING, STAINLESS STEEL
6015-6BP-SS	
135-C4L	VALVE, 1/4 NPT X 1/4 TUBE
220-2-SS	VALVE, BALL 1/2" SS
220-3-SS	VALVE, BALL 3/8" SS
221-1-SS	STRAINER, 1/2" "Y" TYPE, SS
F-02500690-SS	PLUG, SQ. HEAD, 1/4" NPT, SS
F-03750655-SS	NIPPLE, 3/8 NPT X CLOSE,SS
F-03750658-SS	NIPPLE, 3/8 NPT X 1-1/2" TOE,
F-03750694-SS	NIPPLE, HEX, 3/8, SS
F-03751030-SS	STEL, 90 DEG, 3/8 NPT,SS
F-05000120-SS	BUSHING, 1/2 X 1/4,SS
F-05000160-SS	BUSHING, 1/2 X 3/8,SS
F-05000420-SS	CROSS, 1/2 NPT,SS
F-05000645-SS	NIPPLE, 1/2 NPT X 3",SS
F-05000685-SS	NIPPLE, 1/2 NPT X CLOSE,SS
F-05000820-SS	PLUG, SQ. HEAD, 1/2" NPT SS
F-05001220-SS	UNION, 1/2 NPT,SS

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PART NO.	DESCRIPTION
4.)	ENGINES
GX-160	ENGINE, HONDA 5.5 HP
GX-160-E	ENGINE, HONDA 5.5 HP ELECTRIC
GX-240	ENGINE, HONDA 8.0 HP
GX-240-E	ENGINE, HONDA 8.0 HP ELECTRIC
5.)	COMPRESSORS
6180	COMPRESSOR, 10.6 CFM
6180-1	COMPRESSOR, SMITH 143 W/UNLOAD
K-22	COMPRESSOR, DOUBLE GUN
K-24	COMPRESSOR, DOUBLE GUN
6.)	STRIPING GUNS
KC-593-NBSS	STRIPING GUN, NON-BLEED SS
KC-593-NBSS-F	STRIPING GUN, NB SS FLUSH
KC-593-SS	STRIPING GUN, SS

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7.) EXHAUST MANIFOLD ASSEMBLY

SUB-ASS B

PART NO.	DESCRIPTION
13105	SCREW, HXHD CAP 3/8-16 x 1
17110	SCREW, HXHD CAP 3/8-24 x 1-3/4
17112	SCREW, HXHD CAP 3/8-24 x 2-1/4
33008	WASHER, 3/8 USS FLAT, ZINC
33622	LOCKWASHER, 3/8" ZINC
36106	NUT, HEX 3/8-16, ZINC
36156	NUT, HEX 3/8-24, ZINC
6028-4P	AIR CURTAIN MAN. STAMPING
6029-L	AIR CURTAIN, LEFT
6029-R	AIR CURTAIN, RIGHT
6032-3	GUN, HANGER PLATE
6042-1	STUD, AIR CURTAIN
6047-5	POINTER/HDC-T
F-05000340-BK	COUPLING, HALF, 1/2 NPT
F-05000670-BK	NIPPLE, 1/2 NPT X 6"
F-05001040-BK	STEL, 90 DEG, 1/2 NPT
F-05001220-BK	UNION, 1/2 NPT
S-TSQ1250-02	TUBE SQUARE, 1-1/4" x 14 GA WA

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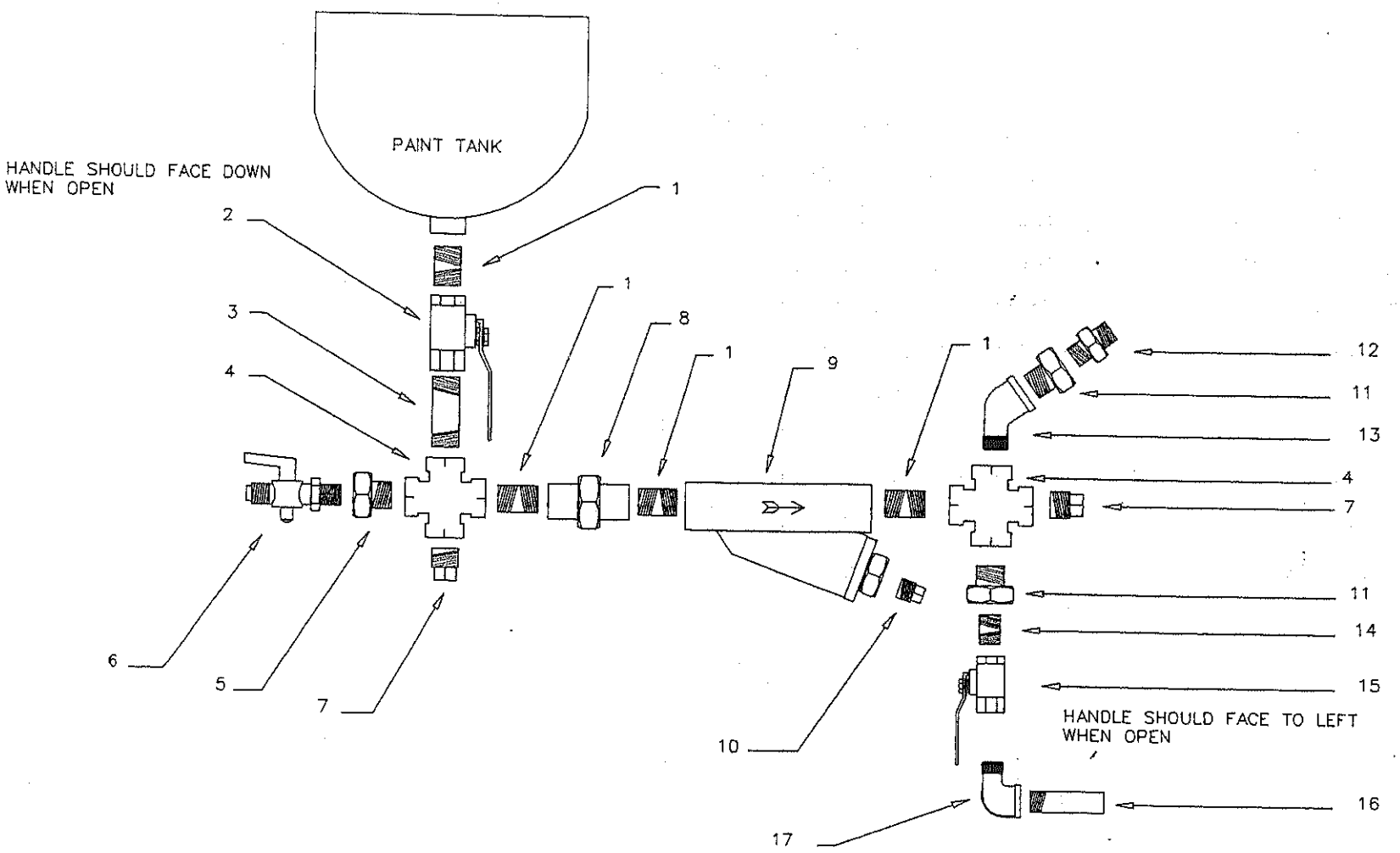
PART NO.	DESCRIPTION
8.)	PRESSURE CLEANER ASSEMBLY
6181-2	
10F-4L	ELBOW, BRASS 90 1/4 P X 1/4T
6149	CLEANER CAN CONNECTION
6149-1	HALF NUT, 5/8-18
6182-2-A	HEAD, NEW CLEANER CAN
6182-3	AIR INLET RESTICTOR, CLEANER
CMD-411-A	CLEANER CAN, NEW 1 QUART
GC-25-A	GASKET, NEW CLEANER CAN
QZ-44-1-A	TUBE, FLUID 1 QT, 4-1/4"
9.)	TANKS
6015-6CSS	TANK, PAINT 7 GAL ASME SS
6015-6NC	TANK, PAINT 7 GAL NC
6015-6NCSS	TANK, PAINT 7 GAL NCSS
6143-2CSS	TANK, PAINT 12 GAL ASME SS
6143-2NC	TANK, PAINT 12 GAL NC
6143-2NCSS	TANK, PAINT 12 GAL NCSS
10.)	10" LID ASSEMBLY
6108	
KC-126-1	GASKET, 10" LID
QM-195-1	LUG, SMALL
QM-4211	LID ONLY, 10"
QMG-435	LID CLAMP, PIN & SCREW



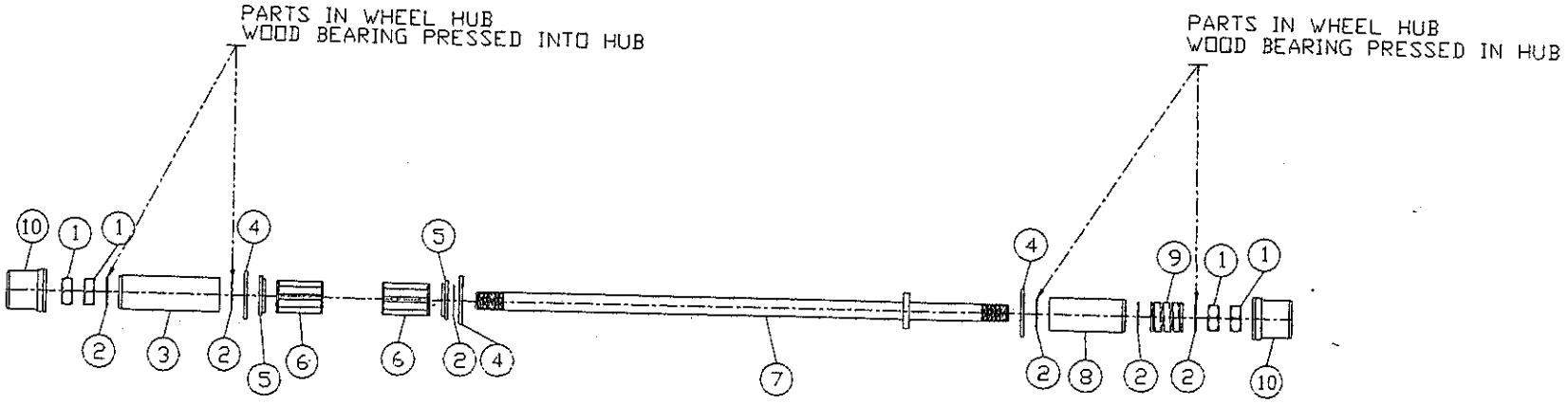
TOLERANCES: DECIMAL XX +/-.01 XXX +/-.005; ANGULAR +/-.1 deg	Kelly–Creswell Company Inc. Xenia, Ohio			
	MAT'L AND FINISH	SCALE	DRAWN BY CAT	
			APPROVED BY	
	TITLE: HEAVY DUTY MODEL C LOWER PLUMBING CARBON STEEL			
	DATE 05/02	SIZE A	DRAWING NUMBER HDCCSPLU	REV.

6015-6BP-SS

HEAVY DUTY MODEL "C"
LOWER PLUMBING, SS

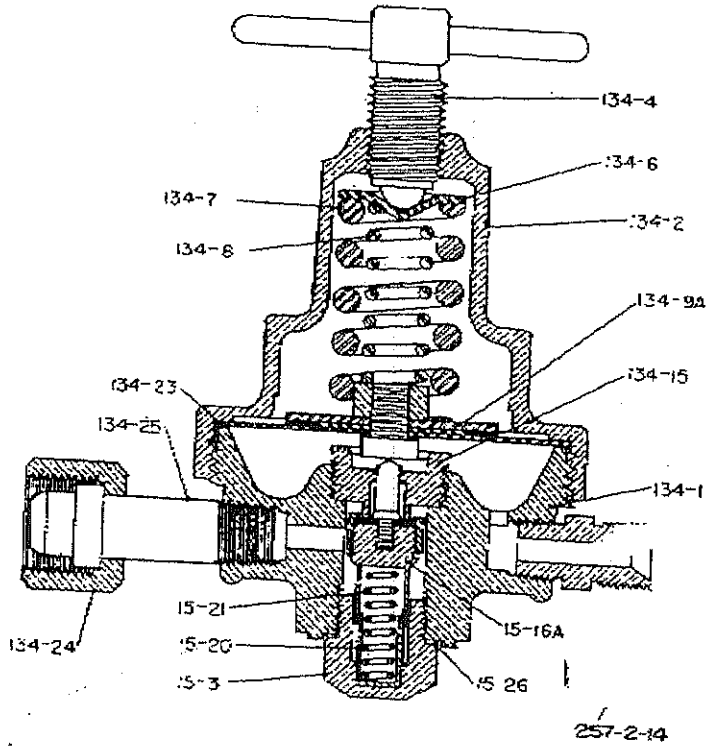
1	F-05000685-SS	NIPPLE, 1/2 NPT X CLOSE, SS
2	220-2-SS	VALVE, BALL 1/2", SS
3	F-05000643-SS	NIPPLE, 1/2 NPT X 3", SS
4	F-05000420-SS	CROSS, 1/2 NPT, SS
5	F-05000120-SS	BUSHING, 1/2 X 1/4, SS
6	135-C4L	VALVE, 1/4 NPT X 1/4 TUBE
7	F-05000820-SS	PLUG, SQ. HEAD, 1/2" NPT, SS
8	F-05001220-SS	UNION, 1/2 NPT, SS
9	221-1-SS	STRAINER, 1/2" "Y" TYPE, SS
10	F-02500690-SS	PLUG, SQ. HEAD, 1/4" NPT, SS
11	F-05000160-SS	BUSHING, 1/2 X 3/8, SS
12	F-03750694-SS	NIPPLE, HEX, 3/8, SS
14	F-03750655-SS	NIPPLE, 3/8 NPT X CLOSE ,SS
15	220-3-SS	VALVE, BALL 3/8", SS
16	F-03750658-SS	NIPPLE, 3/8 NPT X 1-1/2" TOE, SS
17	F-03751030-SS	STEL, 90 DEG, 3/8 NPT, SS

REF. #	PART #	QTY	DESCRIPTION
1	6016-3	4	HALF NUT, 3/4" -16
2	97063	5	WASHER, 3/4" THRUST 18 GAUGE
3	6197-3L	1	BEARING, WOOD 3/4X1-3/8X4-1/4
4	6083	3	WASHER, 3/4x1 19/32
5	R-66-12	2	BEARING, RETAINER 3/4 HDC
6	6196-1	2	ROLLER BEARING, REAR 3/4 x2 HDC
7	6016-5	1	AXLE, REAR W/COLLAR HDC
8	6197-3S	1	BEARING, WOOD 3/4x1-3/8x3 HDC
9	6016-6	1	SPRING AXLE TENSION
10	6081-2	2	HUB CAP



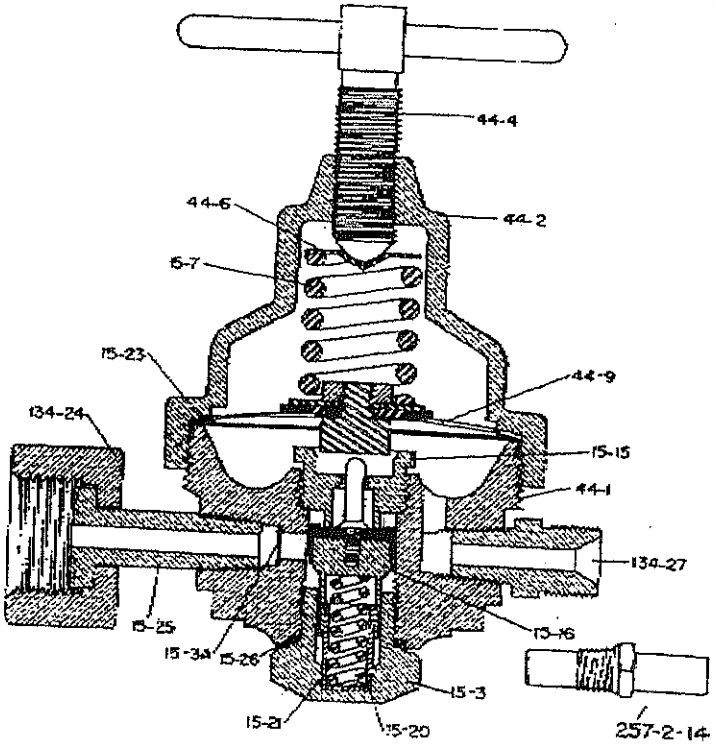
XXXXXXXXX	1			/ /	
E.C.N.	REV	DESCRIPTION		DATE	DR. AUTH
TOLERANCES	Kelly-Creswell Company Inc. Xenia, Ohio				
DECIMAL .XX .XXX	MAT'L AND FINISH	SCALE NONE	DRAWN BY CAT	APPROVED BY	
	TITLE HEAVY DUTY C REAR AXLE				
ANGULAR +/- 1 deg	DATE 08/18/03	DRAWING NUMBER HDCRAXLE		SIZE D	

NO. 134 REGULATOR PARTS



134-1	BODY	134-15	NOZZLE
134-2	BONNET	15-16A	SEAT ASSEMBLY
15-3	BACK CAP	15-20	SEAT PILOT
134-4	ADJUSTING SCREW	15-21	SEAT SPRING
134-6	SPRING BUTTON	134-23	DIAPHRAGM WASHER
134-7	OUTSIDE SPRING	134-24	INLET NUT
134-8	INSIDE SPRING	134-25	INLET
134-9A	DIAPHRAGM ASSEMBLY	15-26	BACK CAP WASHER
257-2-14	RELIEF VALVE	134-27	OUTLET BUSHING

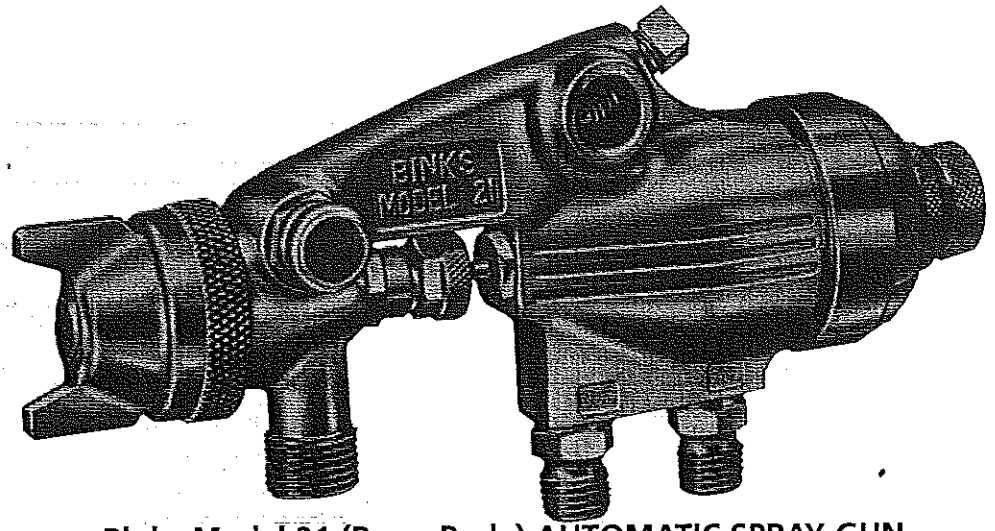
NO. 44 REGULATOR PARTS



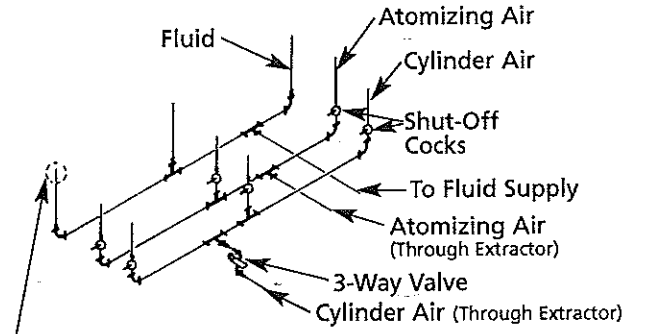
44-1	BODY	15-15	NOZZLE
44-2	BONNET	15-16A	SEAT ASSEMBLY
15-3	BACK CAP	15-20	SEAT PILOT
44-4	ADJUSTING SCREW	15-21	SEAT SPRING
44-6	SPRING BUTTON	15-23	DIAPHRAGM WASHER
15-7	SPRING	*134-24	INLET NUT*
15-3A	BODY SCREEN	*15-25	INLET
44-9A	DIAPHRAGM ASSEMBLY	15-26	BACK CAP WASHER
257-2-14	RELIEF VALVE	*134-27	OUTLET BUSHING

*AS SPECIFIED

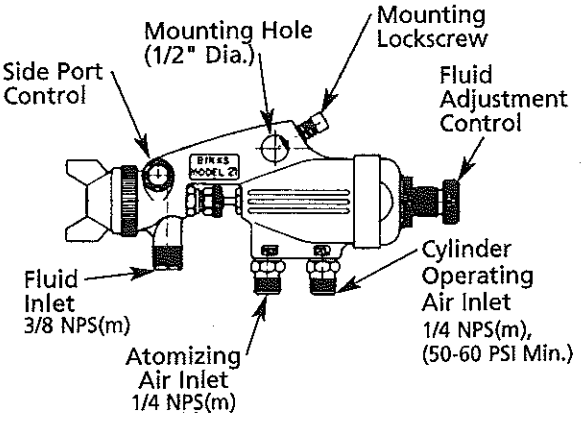
Binks Model 21
AUTOMATIC SPRAY GUN
(Brass Body)

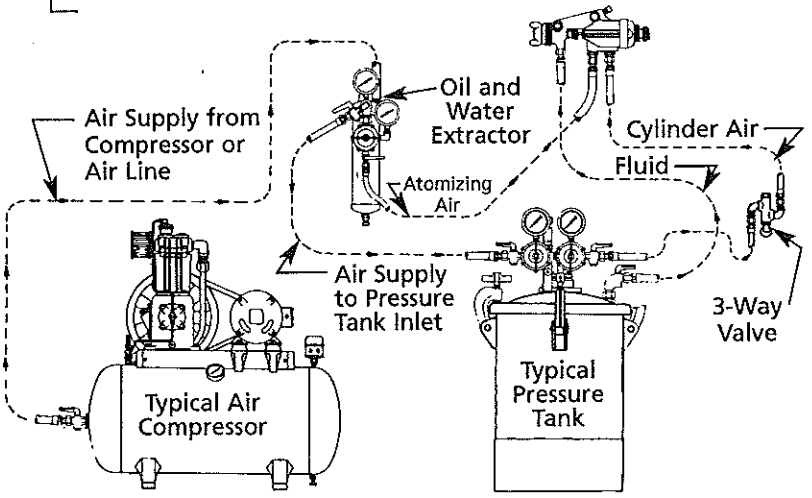


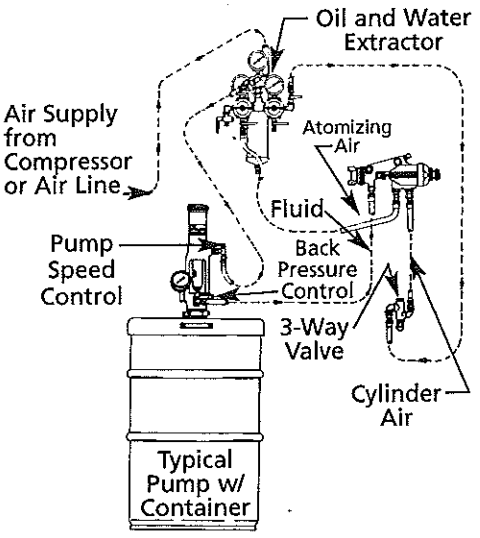
Binks Model 21 (Brass Body) AUTOMATIC SPRAY GUN
General Arrangement Diagram and Hook-Up



For multiple gun installation, a fluid manifold may be used. Fluid adjustments are made using the fluid control screw on each gun. However, when precise fluid control is necessary, a fluid regulator for each gun must be used.







1. Provide 50-60 PSI (minimum) air pressure for gun cylinder operation.
2. Air line from gun to 3-way valve should be as short as possible for maximum speed of operation.
3. Recommended hose sizes are 3/8" for fluid and 1/4" for air.

Replaces Part Sheet 1143R-15 | Part Sheet 77-1143R-16

Binks Model 21 (BRASS BODY) AUTOMATIC SPRAY GUN

HOOK-UP

1. Air pressure of 50-60 PSI minimum required for cylinder operation.
2. For rapid operation, the air line between three-way valve and the cylinder operating air connection should be as short as possible.
3. All air supplied to the gun should be dirt and moisture-free. An oil and water extractor mounted in the air supply line is recommended.
4. If the gun is to stand idle for any length of time, shut off. This will prevent small leaks throughout the system from turning on the gun.

FAN SPRAY ADJUSTMENTS

The fan spray is easily controlled by means of the side port control stem, (22). Turning this control to the right, or clockwise, will give a round spray pattern. Turning it to the left, or counter-clockwise, will widen the spray into a fan shape of any desired width. Orientation of the fan spray either horizontally or vertically (or to any position in between) is obtained by loosening the retainer ring, rotating the air nozzle to the desired position, and then tightening the retainer ring.

FLUID FLOW ADJUSTMENTS

For best results, the fluid control screw (18) should be set at the open position and the flow of the fluid controlled by regulating the fluid pressure in the pressure tank. If the conditions under which the gun is being used require the fluid to be controlled at the gun, it may be accomplished by loosening locknut (19) and turning screw (18) to the right (clockwise) to decrease the flow of fluid or the left (counter-clockwise) to increase the flow of fluid.

NEEDLE VALVE ADJUSTMENTS

To adjust the needle valve, first remove bonnet (17). The needle is adjusted by loosening locknut (16) and turning locknut (15) until it is about 1/16" from the air valve assembly when the air valve (31) is all the way forward and seated in the gun body, and the needle is seated in the fluid nozzle.

LUBRICATION

The points that require lubrication on this gun are the plunger (7), the air valve packing (11), and the fluid packing (36). These parts should be kept soft and pliable at all times. A light machine oil is recommended for this lubrication.

⚠ CAUTION

Never submerge the gun in solvent. Solvent will wash the oil off the lubricated parts and cause subsequent malfunctioning of the gun.

CLEANING

Shut off the air supply to the tank and release its pressure. Hold a piece of wadded cloth over the gun nozzle and turn on the air to the cylinder. The air will back up through the fluid nozzle and force fluid out of the hose and into the tank.

Replace the paint in the pressure tank with clean solvent and spray the solvent through the gun until it is clean. Dry out the residual solvent in the fluid hose by blowing air through it.

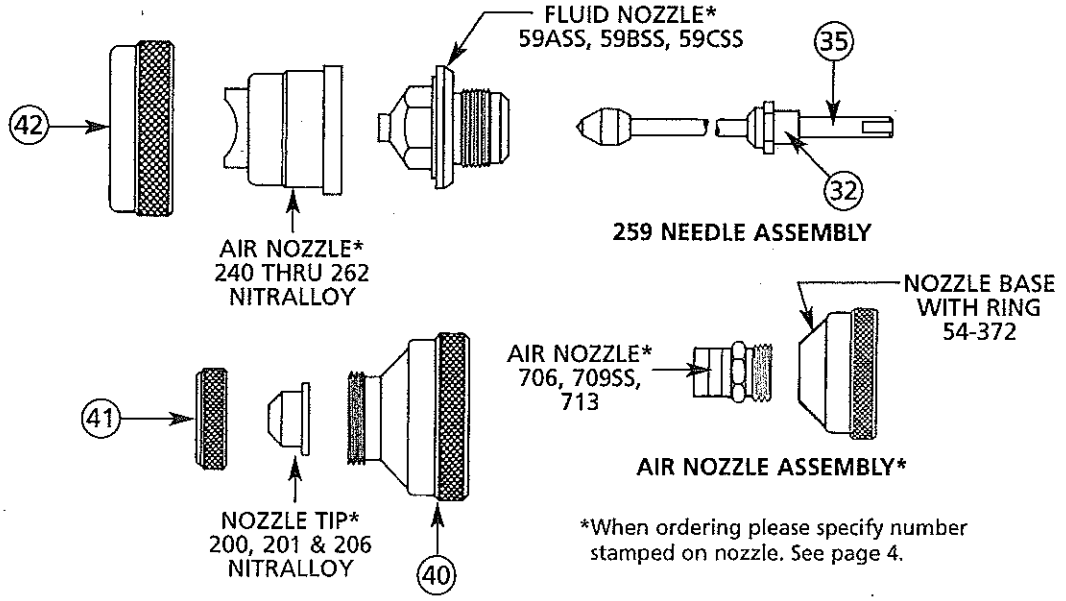
FAULTY SPRAY

Faulty spray is caused by dry coating material residue around the fluid nozzle tip or inside the air nozzle. Soak these parts in a solvent that will soften the dried residue until it can be removed with a brush or a cloth.

⚠ CAUTION

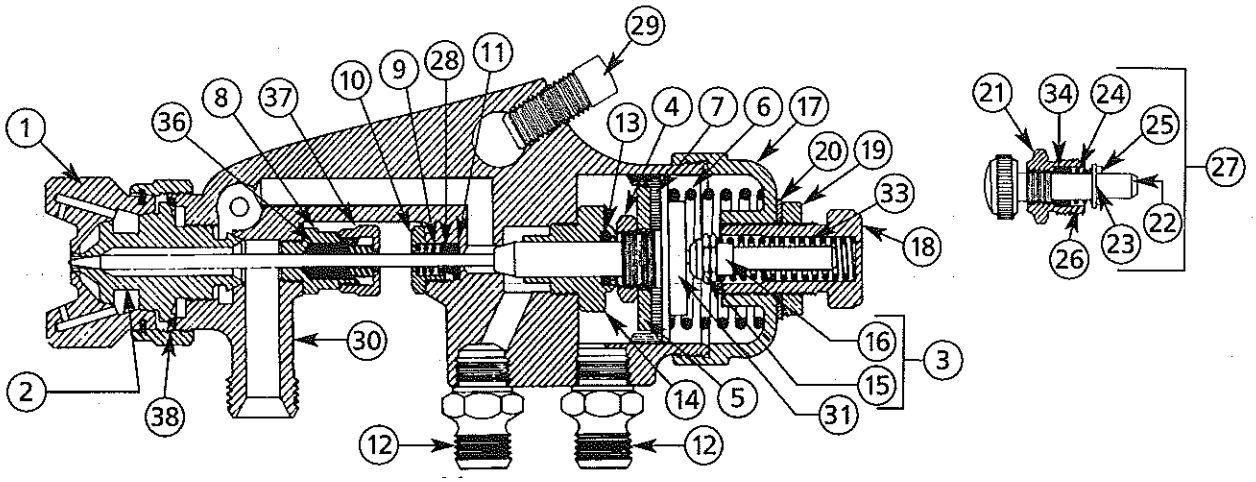
Never use metal probes to clean the air or fluid nozzles because scratches and burns on their precision machined surfaces can cause faulty spray. If either the air or fluid nozzle is damaged so as to give faulty spray, it must be replaced.

INTERNAL MIX HEAVY MATERIAL NOZZLES (OPTIONAL)



*When ordering please specify number stamped on nozzle. See page 4.

Binks Model 21 (BRASS BODY) AUTOMATIC SPRAY GUN *(Continued)*



PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	*	NOZZLE Air	1	23	54-329•	WASHER Side Port Control	1
2	*	NOZZLE Fluid	1	24	54-330•	SPRING Side Port Control	1
3	**	NEEDLE STEM ASSEMBLY	1	25	54-331•	PIN Side Port Control	1
4	54-232	LOCKNUT Plunger	1	26	54-332•	FOLLOWER Side Port Control	1
5	54-233	WASHER Plunger	1	27	54-333	SIDE PORT CONTROL Complete	1
6	54-236	SPRING Plunger	1	28	54-334	FOLLOWER Packing	1
7	54-261•	PLUNGER Leather	1	29	54-335	SCREW Set	1
8	54-302	GLAND Packing	1	30	54-336	BODY Brass	1
9	54-304•	SPRING Packing Follower	1	31	54-337	VALVE Air	1
10	54-306	NUT Air Packing	1	32	54-542	LOCKNUT Front	1
11	54-307•	PACKING Air	1	33	54-728	SPRING Needle Valve	1
12	54-308	CONNECTION Air	2	34	54-738•	PACKING Side Port Control	1
13	54-310•	PACKING Air Valve	1	35	54-763	LOCKNUT Rear	1
14	54-312	GUIDE Air Valve	1	36	54-764•	PACKING Needle Valve	1
15	54-317	LOCKNUT Front	1	37	54-765	NUT Packing	1
16	54-319	LOCKNUT Rear	1	38	54-918•	GASKET Fluid Nozzle	1
17	54-321	BONNET	1	39	54-1224	RING	1
18	54-322	SCREW Fluid Control	1	40	54-1583	BASE	1
19	54-323	LOCKNUT FLUID CONTROL	1	41	54-1584	RING	1
20	54-324	WASHER Fluid Control Locknut	1	42	54-2065	RING	1
21	54-326	BODY Side Port Control	1	43	82-221	BRUSH Cleaning (Not Shown)	1
22	54-327	STEM Side Port Control	1				

*When ordering, please specify number stamped on nozzle. See pages 2 and 4.
**When ordering, please specify gun model and number stamped on needle. See pages 2 and 4.
•Parts also available in Repair Kit 6-191.
Gun wrench, 5-476 is recommended for removing fluid nozzle. Please order separately.

NOZZLE AND NEEDLE SELECTION CHARTS

TYPE OF FLUID TO BE SPRAYED	FLUID X AIR NOZZLES	NOZZLE TYPE	CFM AT 30 PSI	CFM AT 50 PSI	CFM AT 70 PSI	MAX. PATTERN AT 8"	FLUID NEEDLE NOS. FOR SPRAY GUN MODEL 21
VERY THIN	63ss x 63P	PE	4.5	7.5	10.0	5	263
14-16 secs. Zahn 2 Cup	63Bss x 63PB	PE	9.0	14.3	20.0	14	263A
Wash primers, dyes,	66ss x 66SD	SE	7.9	12.1	—	10.5	265
stains, solvents,	66ss x 66SK	SE	11.0	15.2	19.5	13	265
water, inks	63Bss x 200	PI	3.1	5.2	6.4	12	263A
THIN	63Ass x 63P	PE	5.1	8.37	12.2	11	263A
16-20 secs. Zahn 2 Cup	66ss x 66SK	SE	11.0	15.2	19.5	13	265
Sealer, lacquers, primers, inks, lubricants, zinc chromates, acrylics	63Bss x 200	PI	3.1	5.2	6.4	12	263A
MEDIUM							
19-30 secs. Zahn 2 Cup	63Bss x 63PB	PE	9.0	14.3	20.0	14	263A
Synthetic enamels, varnishes,	66ss x 66SD	SE	7.9	12.1	—	11	265
shellacs, fillers, primers, epoxies,	66ss x 66SK	SE	11.0	15.2	19.5	13	265
urethanes, lubricants,	63Css x 200	PI	3.1	5.2	6.4	12	263A
wax emulsions, enamels							
HEAVY (Cream-like)	67ss x 67PB	PE	9.5	14.9	19.5	12	267
Over 28 secs.	68ss x 68PB	PE	9.5	14.1	19.1	12	268
No. 4 Ford Cup	67ss x 206	PI	6.0	9.5	13.0	15	267
VERY HEAVY	68ss x 68PB	PE	9.5	14.1	19.1	12	268
Texture coatings,	68ss x 206	PI	6.2	9.8	13.2	15	268
Road marking paint	59Ass x 244	PI	7.8	11.5	15.2	12	259
	59Bss x 252	PI	7.8	11.5	15.2	6	259
	59Css x 262	PI	7.3	11.0	14.7	6	259
	68ss x 206	PI	6.2	9.8	13.2	15	268
ADHESIVES							
Waterbase white vinyl glues	63Bss x 66SD-3	PE	7.9	12.1	16.2	4	263
Solvent base, neoprenes	67ss x 67PB	PE	9.5	14.1	19.1	12	267
(contact cement)	66ss x 66SD-3	PE	7.9	12.1	16.2	10	265
CERAMICS							
Similar abrasive materials, glazes,	67VT x 67PD	PE	10.0	15.0	20.0	15	267VT
engobes, porcelain enamel	68VT x 68PB	PE	9.5	14.1	19.1	12	268VT
BUFFING COMPOUNDS	64VT x 64PA	PE	12.1	15.0	21.0	13	264VT
	67VT x 67PD	PE	10.0	15.0	20.0	15	267VT
CONCRETE CURING	66ss x 200	PI	3.1	5.2	6.4	15	265
COMPOUNDS	67ss x 206	PI	6.0	9.5	13.0	18	267
	68ss x 206	PI	6.2	9.8	13.2	20	268
MULTICOLOR PAINTS	66ss x 200	PI	3.1	5.2	—	12	265
	67ss x 206	PI	6.0	9.5	—	15	267
TEFLONS	63Ass x 63PB	PE	9.0	14.3	20.1	10	263A
	66ss x 66SD	PE	7.9	12.1	—	7	265
HAMMERS	63ss X 63PB	PE	9.0	14.3	—	14	263A
	66ss X 63PB	PE	9.0	14.3	—	14	265
	66ss X 66SD	PE	7.9	12.1	—	7	265
WRINKLE ENAMELS	63Css x 63PB	PE	9.0	14.3	20.0	10	263A
	66ss x 63PB	PE	9.0	14.3	20.0	10	265
ZINC RICH COATINGS	66ss x 67PD	PE	12.0	18.0	24.0	15	265
	67VT x 67PB	PE	9.5	14.1	19.1	12	267VT

Note: PE - Pressure External SP - Siphon External PI - Pressure Internal

Binks Worldwide Sales and Service Listing: www.binks.com

ITW Industrial Finishing

Binks has authorized distributors throughout the world. For technical assistance or the distributor nearest you, see listing below.

U.S./Canada Technical Service Office:

195 Internationale Blvd., Glendale Heights, IL 60139
Toll-Free Telephone: 1-888-992-4657 (U.S.A. and Canada only)
Toll-Free Fax: 1-888-246-5732

WARRANTY

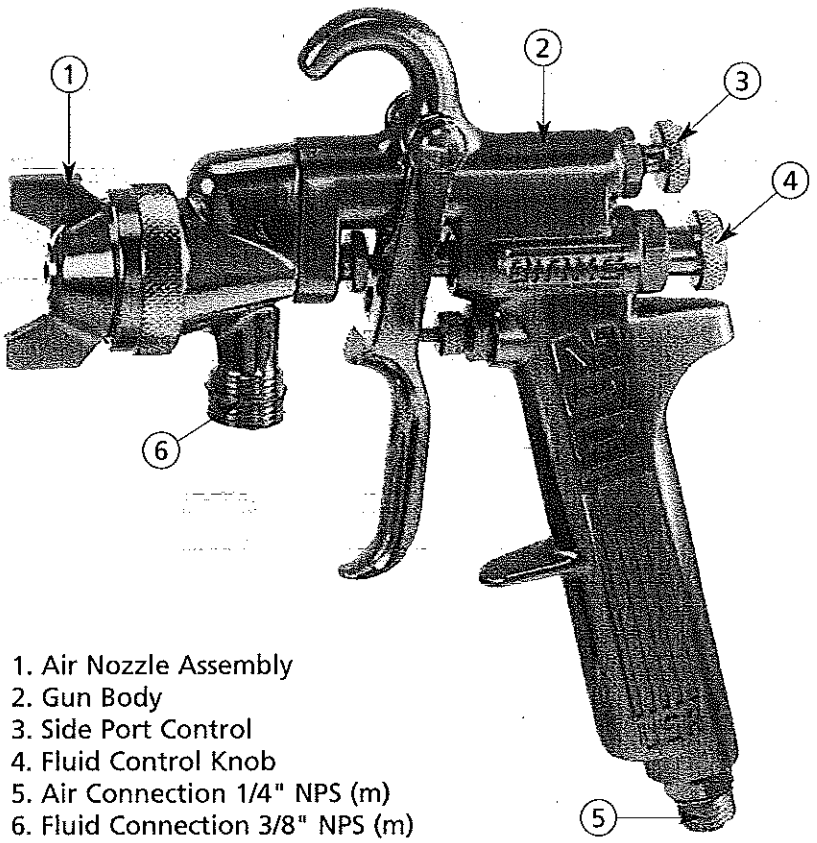
This product is covered by Binks' 1 Year Limited Warranty.

77-1143R-16 Revisions: Updated graphic standards, reset all type, updated all "Cautions", "Warnings" and "Notes" to new style; (P1) new product photograph, (P4) updated contact information.

BINKS
An Illinois Tool Works Company

Binks Model 2001 AND 2001V SPRAY GUNS

Your new Binks 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. Properly handled and cared for, it will produce beautiful, uniform finishing results long after other spray guns have worn out.



1. Air Nozzle Assembly
2. Gun Body
3. Side Port Control
4. Fluid Control Knob
5. Air Connection 1/4" NPS (m)
6. Fluid Connection 3/8" NPS (m)

TYPES OF INSTALLATION

SIPHON FEED CUP HOOKUP

Air pressure for atomization is regulated at extractor. The amount of fluid is adjusted by fluid control screw on gun, viscosity of paint, and air pressure (see figure 1).

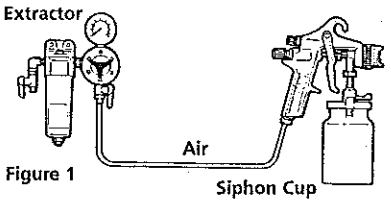


Figure 1

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 (see figure 2).

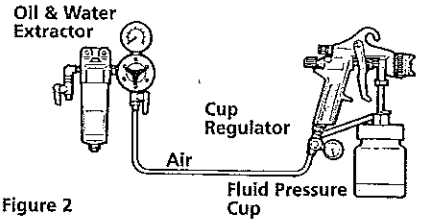


Figure 2

PRESSURE FEED TANK HOOKUP

For medium production spraying (single regulator).

Air pressure for atomization is regulated at extractor, fluid pressure at tank regulator (see figure 3).

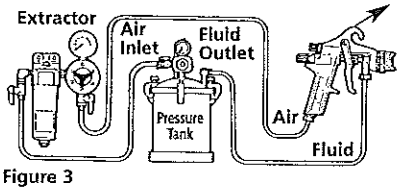


Figure 3

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 (see figure 4).

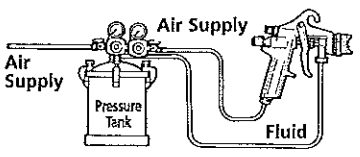


Figure 4

PRESSURE FEED CIRCULATING HOOKUP

For heavy production spraying.

Air pressure atomization regulated at extractor. Fluid pressure regulated at fluid regulator (see figure 5).

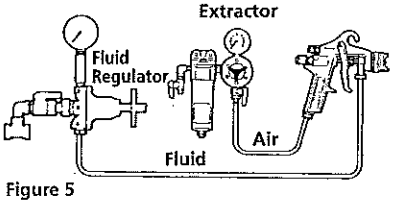
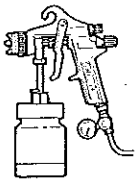


Figure 5

Replaces Part Sheet 77-2316R-8 | Part Sheet 77-2316R-9

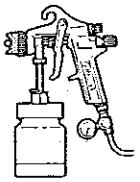
AIR PRESSURE

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



Only 44 PSI

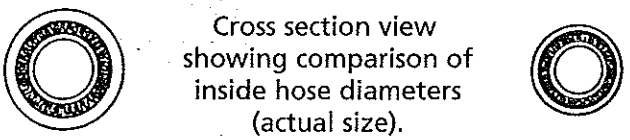
25 feet of 1/4" I.D. hose causes a drop of 16 PSI between the air supply and the gun.



Only 55 PSI

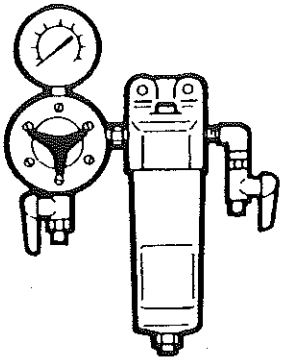
25 feet of 5/16" I.D. hose has a drop of only 5 PSI. For this reason we recommend the use of 5/16" hose.

5/16" 1/4"



Cross section view showing comparison of inside hose diameters (actual size).
60 lbs. regulated pressure

Binks oil and water extractor is important.



A Binks Extractor serves a double purpose. It eliminates blistering and spotting by keeping air free from oil and water . . . and its precision air regulator makes possible perfect air pressure control at the gun.

The best spray gun in the world will not operate efficiently without a good compressor and a good oil and water extractor.

If you are attempting to get a fine finish without the use of an oil and water extractor you will not succeed.

See page 1 for instructions regarding installation of extractors.

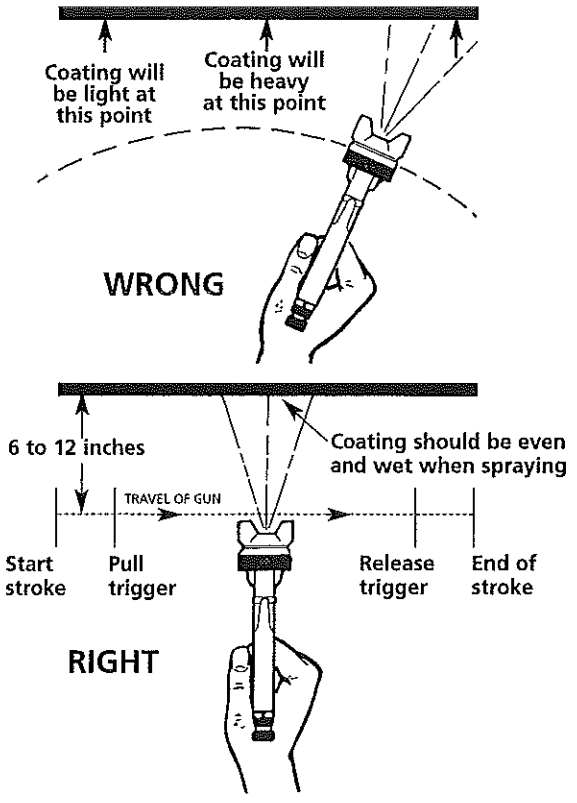
GUN HANDLING

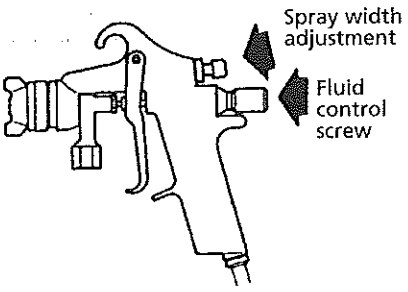
The first requirement for a good resultant finish is the proper handling of the gun. The gun should be held perpendicular to the surface being covered and moved parallel with it. The stroke should be started before the trigger is pulled and the trigger should be released before the stroke is ended. This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

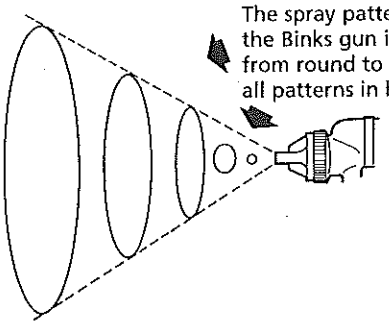




Spray width adjustment: Turn clockwise for round, counterclockwise for fan.

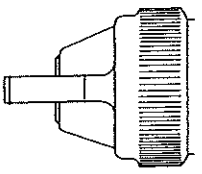
Fluid control screw: Turn clockwise to decrease flow, counterclockwise to increase flow.

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 Binks 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.



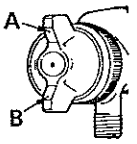
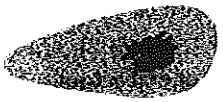
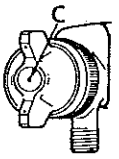
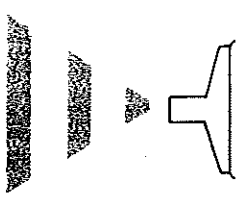
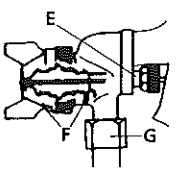
SIPHON SPRAYING

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

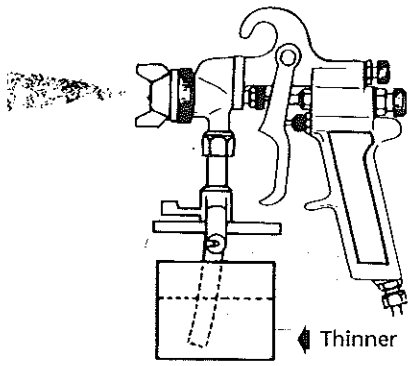
After selecting correct size fluid orifice, set fluid pressure for desired flow. Open atomization air and test spray. If spray is too fine, reduce air pressure. If spray is too coarse, raise air pressure. Adjust pattern width and repeat adjustment of spray. Keeping fluid control screw in open position will reduce fluid needle wear.

FAULTY PATTERNS AND HOW TO CORRECT THEM

PATTERN	CAUSE	CORRECTION
	Dried material in side-port "A" restricts passage of air. Greater flow of air from cleaner side-port "B" forces fan pattern in direction of clogged side. 	Dissolve material in side-ports with thinner, then blow gun clean. Do not poke into openings with metal instruments.
	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 a loose air nozzle. 	Remove air nozzle and wipe off fluid tip using rag wet with thinner. Tighten air nozzle.
	A split spray or one that is heavy on each end of a fan pattern and weak in the middle is usually caused by: (1) Too high an atomization air pressure (2) Attempting to get too wide a spray pattern with thin material.	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 correct split spray pattern.
	(1) Dried out packing around material needle valve permits air to get into fluid passageway. This results in spitting. (2) Dirt between fluid nozzle seat and body or loosely installed fluid nozzle will make gun spit. (3) A loose or defective swivel nut on siphon cup or material hose can cause spitting.	 To correct cause (1) back up knurled nut (E), place two drops of machine oil on packing, replace nut and tighten with fingers only. In aggravated cases, replace packing. 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. To correct cause (3), tighten or replace swivel nut.

Binks MODELS 2001 AND 2001V SPRAY GUNS – POINTERS ON CLEANING

When used with a cup, thinner or suitable solvent should be siphoned through gun by inserting tube in open container of that liquid. Move trigger constantly to thoroughly flush passageway and to clean tip of needle.

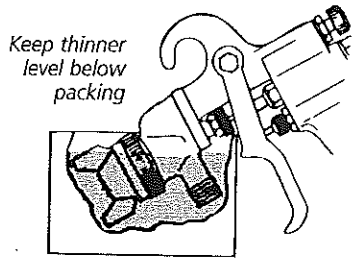


CLEANING GUN USED WITH PRESSURE TANK

Shut off the air supply to the tank and release the pressure on the tank. Open vent and loosen air nozzle. Hold a piece of cloth, wadded in the hand over the air nozzle and pull the trigger, the air will back up through the fluid nozzle, and force the fluid out of the hose into the tank. Next put enough thinner into the tank to wash the hose and gun thoroughly and spray this through the gun until it is clean. Then blow out the fluid hose to dry it and remove all traces of materials by attaching it to the air line.

THINNER

Keep thinner level below packing.
It is extremely poor practice to place an entire gun in thinner. When this is done, the solvent dissolves the oil in the leather packing and causes the gun to spit. It is good practice to place the nozzle and fluid connection in thinner. Vessel used should be shallow enough to prevent thinner from reaching packing.



LUBRICATION

Daily oil fluid needle packing, air valve packing, and trigger bearing screw. Occasionally coat needle valve spring with petroleum jelly. OIL ALL WORKING PARTS EVERY DAY.

CONTROLLING THE FAN SPRAY: The fan spray for an external mix nozzle set-up is easily controlled by means of the side port control (28). Turning this control to the right, or clockwise, until it is closed will give a round spray; turning it to the left, or counter-clockwise, will widen the spray into a fan shape of any width desired. The direction of the fan spray, either horizontal or vertical, is obtained by turning the air nozzle to the desired position, then tightening the retainer ring.

CONTROLLING THE FLUID

If a fluid pressure tank is used, the amount of fluid can be controlled by regulating the pressure on the tank. The amount of fluid can also be controlled by means of the fluid control screw (42). Turning this screw to the right, or clockwise, reduces the amount of fluid; to the left, or counter-clockwise, increases the amount of fluid.

FAULTY SPRAY

A faulty spray is caused by improper cleaning or dried material around the fluid nozzle tip or in the air nozzle. Soak these parts in a solvent that will soften the dried material and remove with a brush or cloth.

⚠CAUTION

Never use metal instruments to clean the air or fluid nozzles. These parts are carefully machined and any damage to them will cause a faulty spray.

If either the air nozzle or fluid nozzle is damaged, the part must be replaced before a perfect spray can be obtained.

TO REPLACE THE FLUID PACKING:

Remove the fluid control screw (42), spring (39) and needle. Then remove the fluid packing nut (12) and take out the old packings with a small stiff wire. Replace with new packings (11) oiled lightly and assemble in reverse order. To set packing, insert needle, tighten nut until the needle begins to be too stiff for the spring to move the needle. Then loosen nut 1/2 to 3/4 turn.

CORRECTING AIR LEAK THROUGH GUN

Air leaking through the gun is caused by the valve stem assembly (6), not seating properly against the valve body (8). Remove the valve body (8) and valve stem assembly (6). Thoroughly clean parts and inspect for damage. Replace worn or damaged parts and assemble in reverse order.

CORRECTING AIR LEAK AROUND AIR VALVE STEM

Air leaking around the air valve stem (6) may be caused by worn packings (9) or damaged air valve stem (6). Remove trigger (3), packing nut (10) and packings (9). Clean extended portion of air valve stem (6) and inspect for damage; if stem is damaged, replace same as above, insert new packings and assemble in reverse order.

TO ADJUST FLUID NEEDLE WHEN WORN

To adjust the fluid needle remove control screw (42), spring (39) and needle. With two 1/4" wrenches loosen the lock nuts (38) and (37) back off lock nut (38) one full turn and bring up lock nut (37) and tighten snugly. Reassemble in reverse order.

Binks MODELS 2001 AND 2001V SPRAY GUNS – 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.

⚠CAUTION

Never use lubricants contaning silicone. This material may cause finish defects.

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.

NOZZLE SELECTION

(See chart on page 6)

A. Material to Be Sprayed

Select the type of fluid you want to spray or a fluid which has the same characteristics as one of those listed.

B. Method of Feeding Material to the Gun

Fluid Nozzle—Consider the speed of application and the viscosity of the fluid to be sprayed. Referring to the *Fluid Nozzle Orifice Size Chart*, those fluid nozzles which can be changed within an air nozzle are indicated.

Air Nozzle—Choice is determined by the type of fluid to be sprayed and the volume of air available for the gun.

—External Mix Nozzles, which are generally used, accomplish atomization outside the nozzle. Spray patterns are adjustable from round to fan with all intermediate patterns. (Designated by the letter "E").

Siphon Type External Mix Nozzles, designated by the letter "S", will siphon the material from a cup. Used generally for refinishing and touch-up work which does not require large quantities of paint.

Pressure Type External Mix Nozzles, designated by the letter "P", require pressure to feed the material to the nozzle. A pressure cup, pressure tank or pump is necessary. Used for production work and where large quantities of fluid are handled. This type of nozzle has a greater range of fluid flow and does not limit the size of the paint container.

—Internal Mix Nozzles mix the air and fluid within the air nozzle. The spray pattern is determined by the shape of the nozzle and cannot be changed. Internal mix nozzles require less air and produce slightly less fog. Pressure equipment must be used with this type of nozzle. Recommended for maintenance spraying of heavy materials where a fine finish is not required. (Designated by the letter "I").

C. Volume of Air (CFM required)

The cubic feet per minute (CFM) listed at 30, 50 and 70 PSI is the actual air used by the air nozzle. Increase of pressure subsequently increases volume of air required by air nozzle, or vice versa. Assume that a compressor will produce 3-5 CFM per horsepower.

NOTE

The greater the air consumption, the faster the fluid may be applied or the finer a given amount of fluid can be atomized.

NOZZLE SELECTION CHART

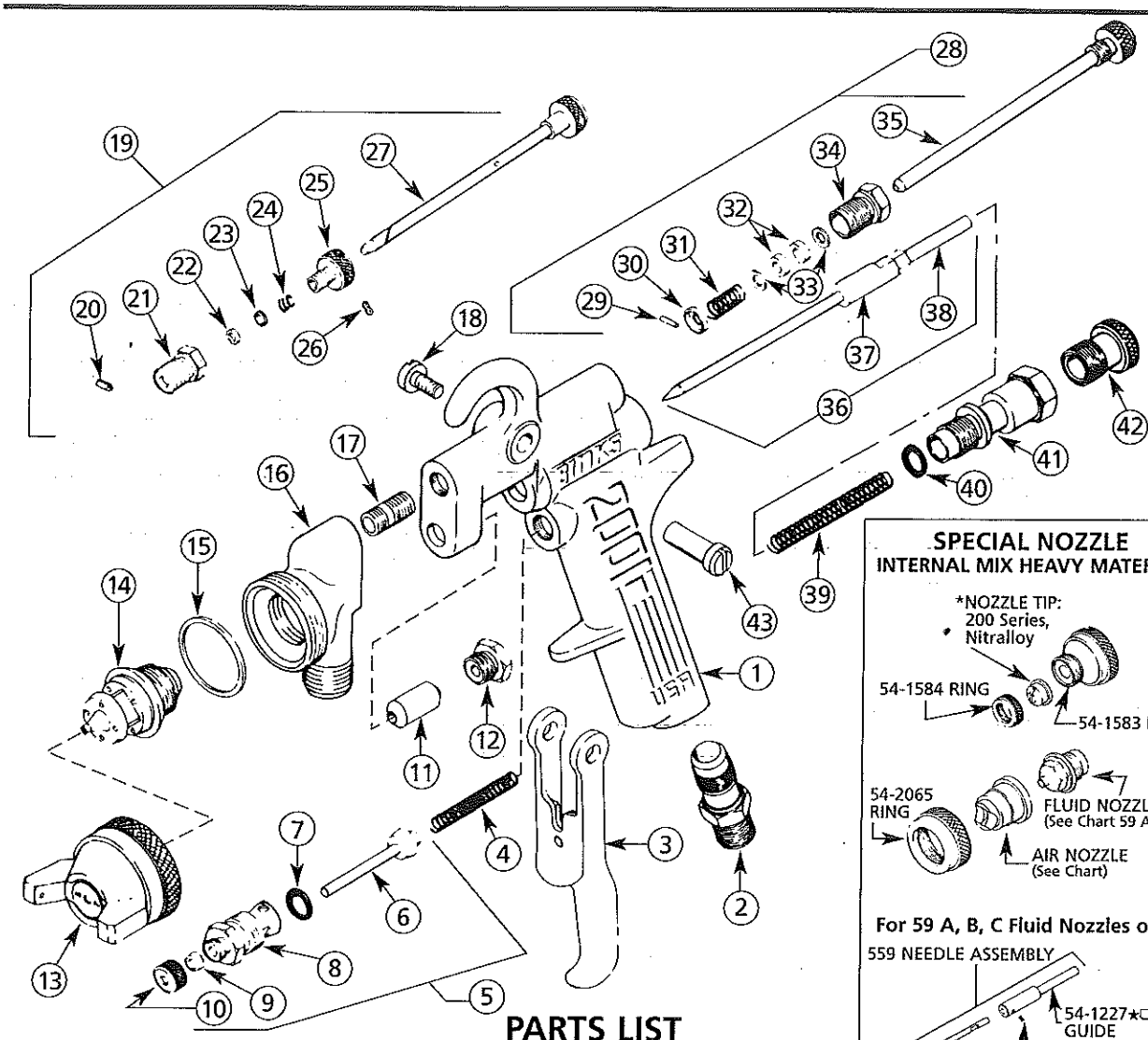
TYPE OF FLUID TO BE SPRAYED	FLUID NOZZLE	AIR NOZZLE	TYPE *	CFM AT 30 PSI	CFM AT 50 PSI	CFM AT 70 PSI	MAX. PAT. (inches) AT 8 in.	FLUID Needle No.★
VERY THIN	63SS	63P	PE	4.5	7.5	10.0	5.0	563
14–16 Sec.— No. 2 Zahn	63ASS	63P	PE	5.1	8.7	12.2	11.0	563A
Wash Primers, Dyes, Stains,	63BSS	63PB	PE	9.0	14.3	20.0	14.0	563A
Solvents, Water, Inks	66SS	66S	SE	3.4	5.0		9.0	565
	66SS	66SD	SE	7.9	12.1		10.5	565
	66SS	66SK	SE	11.0	15.2	19.5	13.0	565
	63BSS	200	PI	3.1	5.2	6.4	12.0	563A
THIN	63ASS	63P	PE	5.1	8.7	12.2	11.0	563A
16–20 Secs.—No. 2 Zahn	66SS	66SK	SE	11.0	15.2	19.5	13.0	565
Sealers, Primers,	63BSS	200	PI	3.1	5.2	6.4	12.0	563A
Lacquers, Inks, Lubricants	63CSS		PI	3.9	5.5	7.4	9.0	563A
Zinc Chromates, Acrylics								
MEDIUM	63BSS	63PB	PE	9.0	14.3	20.0	14.0	563A
19–30 Secs.—No. 2 Zahn	63CSS	63PR	PE	9.5	15.5	19.5	18.0	563A
Lacquers, Syn. Enamels	66SS	66SD	SE	7.9	12.0		11.0	565
Varnishes, Shellacs, Fillers,	66SS	66SK	SE	11.0	15.2	19.5	13.0	565
Primers, Epoxies, Urethanes	63CSS	200	PI	3.1	5.2	6.4	12.0	563A
Lubricants, Wax Emulsions	66SS		PI	3.9	5.5	7.4	9.0	565
HIGH SOLIDS								
Enamels	65SS	63PR	PE	9.5	15.5	19.5	18.0	565
HEAVY (CREAM-LIKE)								
Over 28 Secs.—No. 4 Ford	67SS	67PB	PE	9.5	14.9	19.5	12.0	567
House Paint, Wall Paint (Oil, Latex),	68SS	68PB	PE	9.5	14.1	19.1	12.0	568
Block Sealers, Mill Whites,	67SS	206	PI	6.0	9.5	13.0	15.0	567
Vinyls, Acrylics, Epoxies	68SS	201	PI	4.6	6.8	9.1	11.0	568
VERY HEAVY	68SS	68PB	PE	9.5	14.1	19.1	12.0	568
Unaggregated, Block Fillers,	68SS	206	PI	6.2	9.8	13.2	15.0	568
Textured Coatings, Fire Retardants,	59ASS	242	PI	4.1	6.0	8.2	6.0	559
Road Marking Paint, Bitumastics,	59ASS	244	PI	7.8	11.5	15.2	12.0	559
Cellular Plastisols, Underbody,	59BSS	250	PI	7.3	11.0	14.7	RD	559
Roof Coatings	59BSS	252	PI	7.8	11.5	15.2	6.0	559
	59CSS	262	PI	7.3	11.0	14.7	6.0	559
ADHESIVES	63CSS	63PB	PE	9.0	14.3	20.0	14.0	563A
Waterbase	66SS	63PR	PE	9.5	15.5	19.5	15.0	565
White Vinyl Glue	67SS	67PB	PE	9.5	14.1	19.1	12.0	567
Solvent Base	63SS	66SD	PE	7.9	12.1	16.2	4.0	563
Neoprenes	63ASS	66SD	PE	7.9	12.1	16.2	7.0	563A
(Contact Cements)	66SS	66SD-3	PE	9.5	14.2	19.0	10.0	565
CERAMICS & SIMILAR ABRASIVE MATERIALS	63CVT	66PH	PE	11.5	16.4	22.0	13.0	563CVT
	64VT	64PA	PE	12.1	15.0	21.0	13.0	564VT
Glazes, Engobes	67VT	67PD	PE	10.0	15.0	20.0	15.0	567VT
Porcelain Enamel	68VT	68PB	PE	9.5	14.1	19.1	12.0	568VT
CONCRETE CURING COMPOUNDS	66SS	200	PI	3.1	5.2	6.4	15.0	565
	67SS	206	PI	6.0	9.5	13.0	18.0	567
	68SS	206	PI	6.2	9.8	13.2	20.0	568
MULTICOLOR PAINTS	66SS	200	PI	3.1	5.2		12.0	565
	67SS	206	PI	6.0	9.5		15.0	567
TEFLONS	63ASS	63PB	PE	9.0	14.3	20.0	10.0	563A
	63BSS	63PR	PE	9.5	15.5	19.5	15.0	563A
	66SS	66SD	SE	7.9	12.1		7.0	565
HAMMERS	63CSS	63PB	PE	9.0	14.3		14.0	563A
	66SS	63PB	PE	9.0	14.3		14.0	565
	66SS	66SD	SE	7.9	12.1		7.0	565
WRINKLE ENAMELS	63CSS	63PB	PE	9.0	14.3	20.0	10.0	563A
	66SS	63PB	PE	9.0	14.3	20.0	10.0	565
ZINC RICH COATINGS	67VT	67PB	PE	9.5	14.1	19.1	12.0	567VT

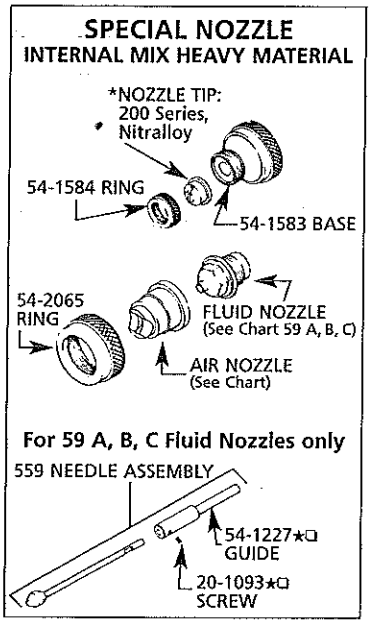
FLUID NOZZLE ORIFICE SIZES

59ASS	59BSS	59CSS	+ 63SS	+ 63ASS	+ 63BSS	+ 63CSS	63CVT	64VT	+ 66SS	67SS	67VT	68SS	68VT	794
.171	.218	.281	.028	.040	.046	.052	.052	.064	.070	.086	.086	.110	.110	.040

All air nozzles shown in combination with these (+) fluid nozzles can also be used in combination with any other fluid nozzle marked (+)

*See text Section B, page 5, for type code. ★All standard needles listed are hardened stainless steel.





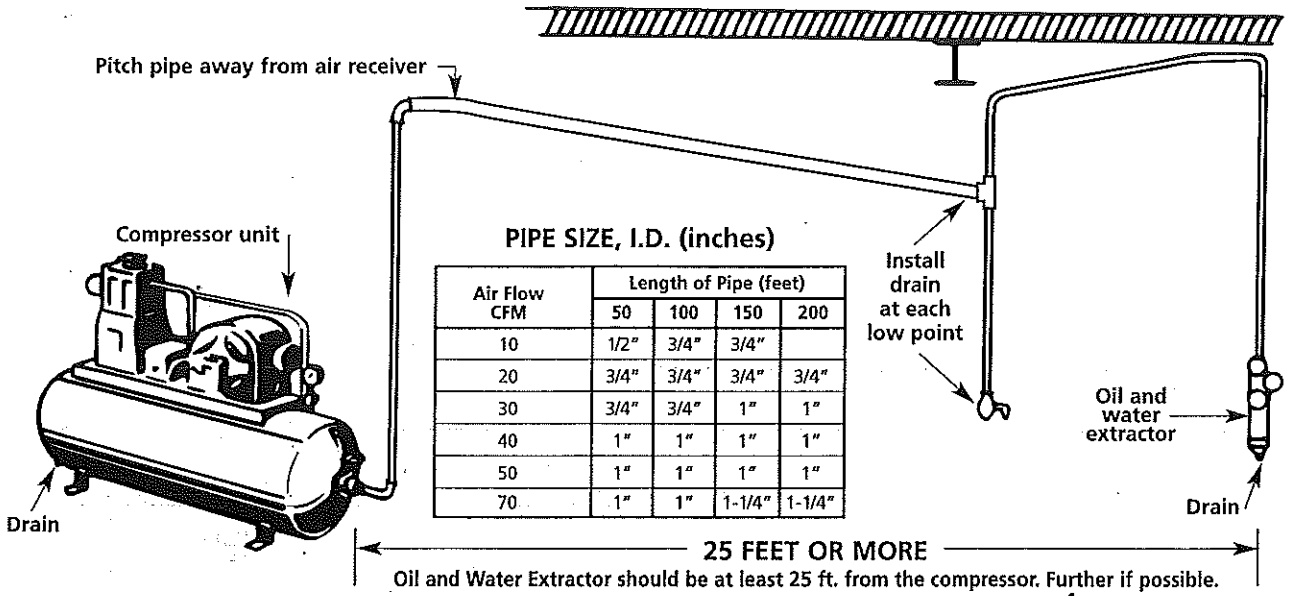
PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1		BODY	
2	54-768	CONNECTION	1
3	54-1050★	TRIGGER	1
4	54-750-5•○	SPRING	1
5	54-1236	AIR VALVE ASSEMBLY	1
6	54-1025*•	VALVE STEM ASSEMBLY*	1
7	20-3757•★	O-RING	1
8	54-1010★	VALVE BODY	1
9	82-158-5•★○	PACKING	1
10	82-135-5★○	NUT	1
11a	54-764-5•○	FLUID PACKING (Standard)	1
11b	2-28-10•‡	TEFLON PACKING (Optional)	1
12	56-164	NUT	1
13		AIR NOZZLE*	1
14		FLUID NOZZLE*	1
15	54-918-5•★○	GASKET	1
16	54-3348	HEAD	1
17	54-710	SCREW	1
18	82-126-5•★○	SCREW	1
19	54-1780♦	QUICK CHANGE SIDE PORT CONTROL	1
20	84-95♦★	PIN	1
21	54-1794♦❑	BODY (Optional)	1
22	55-541-5♦★○	PACKING (Optional)	1
23	55-634♦★	RING (Optional)	1
24	54-1804♦★	SPRING (Optional)	1
25	54-1790♦❑	SCREW (Optional)	1
26	20-3593♦★	SCREW (Optional)	1
27	54-1789♦	STEM (Order 54-1780)	1
28	54-3347	SIDE PORT CONTROL	1
	56-126■	PLUG	
29	54-1014-5•○	PIN	1
30	54-1015-5★○	WASHER	1
31	54-304-5•○	SPRING	1
32	54-738-5•○	PACKING	2
33	54-1016-5○	WASHER	2
34	54-1063	BODY	1
35	54-1023	SCREW	1
36	*	NEEDLE ASSEMBLY*	1
37	54-2549★	LOCKNUT	1
38	54-2550	LOCKNUT	1
39	54-1347-5•✓○	SPRING	1
40	20-5285-5•○	O-RING	1
41	54-1013	BODY	1
42	54-1007	CONTROL SCREW	1
43	54-1020•	STUD	1
	5-476	FLUID NOZZLE WRENCH (Optional)**	

* When ordering, please specify Gun Model No. and number stamped on Nozzle, on Needle Valve Stem Assembly, or listed in Nozzle Selection Chart, page 6.
• Also available in Repair Kit 6-229.
♦ Not furnished. Please order Assembly 54-1780.
★ Available from Industrial Finishing distributors only.
○ Available only as 5-Pack.
❑ Not furnished. Can be ordered separately.
■ Replaces 54-3347 Side Port Control when using internal mix nozzles.
✓ Also available: Heavy Duty Spring 54-1372, not furnished. Please order separately.
**Conventional open end or other standard wrenches are not suitable for removing or reinserting the fluid nozzle. Optional Wrench 5-476, available from Binks is recommended.

AIR SUPPLY



PIPE SIZE, I.D. (inches)

Air Flow CFM	Length of Pipe (feet)			
	50	100	150	200
10	1/2"	3/4"	3/4"	
20	3/4"	3/4"	3/4"	3/4"
30	3/4"	3/4"	1"	1"
40	1"	1"	1"	1"
50	1"	1"	1"	1"
70	1"	1"	1-1/4"	1-1/4"

It is extremely poor practice to mount the oil and water extractor on or even near the compressor unit. The temperature of the air is greatly increased as it passes through the compressor and this compressed air must be cooled before the moisture in it will condense. If the air from the compressor is still warm when it passes through the oil and water extractor, moisture will not be effectively removed, but will remain in suspension. Then, when the air cools in the hose beyond the extractor, the moisture will condense into drops of water and cause trouble.

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 removed by opening a drain. Every low point on an air line acts as a water trap. Such points should be fitted with an easily accessible drain. See diagram above.

WARRANTY

This product is covered by Binks' 1 Year Limited Warranty.

77-2316R-9 Revisions: (P1) Re-arranged illustrations for clarity; (P2) Re-arranged illustrations for clarity; (P3) Removed note regarding overspray; (P4) Re-arranged illustrations for clarity; (P6) Removed 204 Air Nozzle from selection chart; updated Fluid Nozzle Orifice Sizes chart.

Binks Worldwide Sales and Service Listing: www.binks.com

ITW Industrial Finishing

Binks has authorized distributors throughout the world. For technical assistance or the distributor nearest you, see listing below.

U.S./Canada Technical Service Office:

195 Internationale Blvd., Glendale Heights, IL 60139
Toll-Free Telephone: 1-888-992-4657 (U.S.A. and Canada only)
Toll-Free Fax: 1-888-246-5732

ITW Automotive Refinishing

Binks has authorized distributors throughout the world. For equipment, parts and service, check the Yellow Pages under "Automotive Body Shop Equipment and Supplies." For technical assistance, see listing below.

U.S./Canada Customer Service Office:

1724 Indian Wood Circle, Suite J-K, Maumee, OH 43537
Toll-Free Telephone: 1-800-445-3988 (U.S.A. and Canada only)
Toll-Free Fax: 1-800-445-6643

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