cissell

Genie Form Finisher

MODEL FG2

OWNER'S MANUAL

Cissell Manufacturing Company

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Part No. D0104

WARRANTY

The Cissell Manufacturing Company (Cissell) warrants all new equipment (and the original parts thereof) to be free from defects in material or workmanship for a period of one (1) year from the date of sale thereof to an original purchaser for use, except as hereinafter provided. With respect to non-durable parts normally requiring replacement in less than one (1) year due to normal wear and tear, including, but not limited to, cloth goods, valve discs, hoses and iron cords, and with respect to all new repair or replacement parts for Cissell equipment for which the one (1) year warranty period has expired or for all new repair or replacement parts for equipment other than Cissell equipment, the warranty period is limited to ninety (90) days from date of sale. The warranty period on each new replacement part furnished by Cissell in fulfillment of the warranty on new equipment or parts shall be for the unexpired portion of the original warranty period on the part replaced.

With respect to electric motors, coin meters and other accessories furnished with the new equipment, but not manufactured by Cissell, the warranty is limited to that provided by the respective manufacturer.

Cissell's total liability arising out of the manufacture and sale of new equipment and parts, whether under the warranty or caused by Cissell's negligence or otherwise, shall be limited to Cissell repairing or replacing, at its option, any defective equipment or part returned f.o.b. Cissell's factory, transportation prepaid, within the applicable warranty period and found by Cissell to have been defective, and in no event shall Cissell be liable for damages of any kind, whether for any injury to persons or property or for any special or consequential damages. The liability of Cissell does not include furnishing (or paying for) any labor such as that required to service, remove or install; to diagnose troubles; to adjust, remove or replace defective equipment or a part; nor does it include any responsibility for transportation expense which is involved therein.

The warranty of Cissell is contingent upon installation and use of its equipment under normal operating conditions. The warranty is void on equipment or parts; that have been subjected to misuse, accident, or negligent damage; operated under loads, pressures, speeds, electrical connections, plumbing, or conditions other than those specified by Cissell; operated or repaired with other than genuine Cissell replacement parts; damaged by fire, flood, vandalism, or such other causes beyond the control of Cissell; altered or repaired in any way that effects the reliability or detracts from its performance, or; which have had the identification plate, or serial number, altered, effaced, or removed.

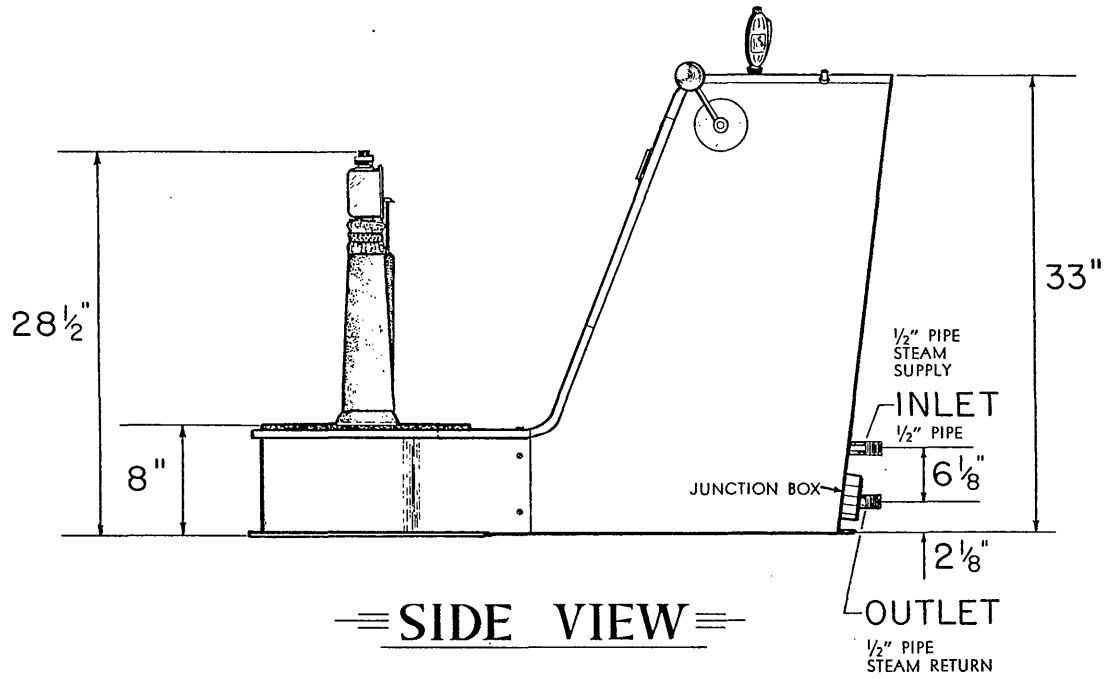
No defective equipment or part may be returned to Cissell for repair or replacement without prior written authorization from Cissell. Charges for unauthorized repairs will not be accepted or paid by Cissell.

CISSELL MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY, STATUTORY OR OTHERWISE, CONCERNING THE EQUIPMENT OR PARTS INCLUDING, WITHOUT LIMITATION, A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, OR A WARRANTY OF MERCHANTABILITY. THE WARRANTIES GIVEN ABOVE ARE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. CISSELL NEITHER ASSUMES, NOR AUTHORIZES ANY PERSON TO ASSUME FOR IT, ANY OTHER WARRANTY OR LIABILITY IN CONNECTION WITH THE MANUFACTURE, USE OR SALE OF ITS EQUIPMENT OR PARTS.

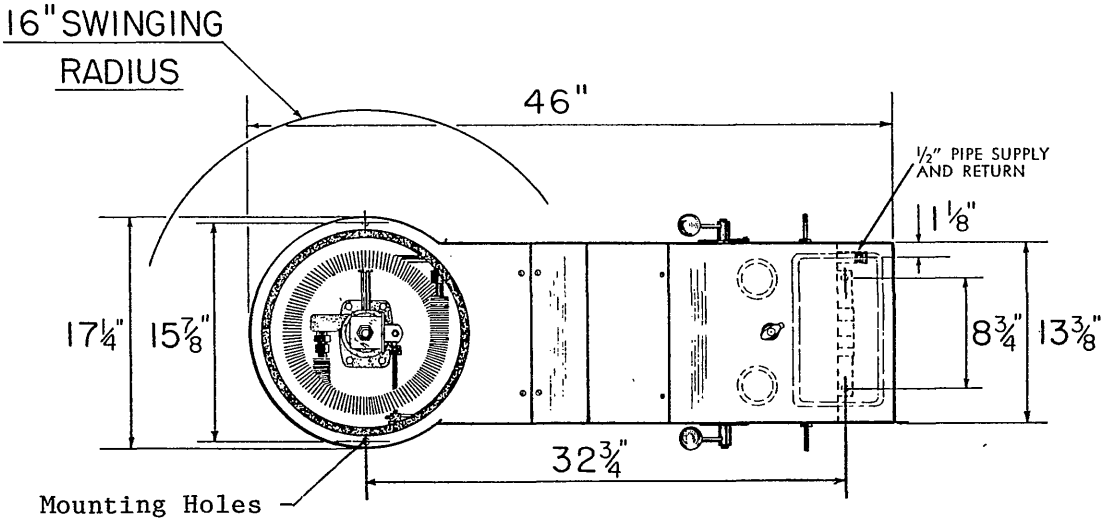
For warranty service, contact the Distributor from whom the Cissell equipment or part was purchased. If the Distributor cannot be reached, contact Cissell.

SPECIFICATIONS

Operating Steam Pressure	60-100 P.S.I.G.
Boiler Horsepower	Approx. 2
Overall Height With Form	64-1/2"
Net Weight Without Accessories	210 Lbs.
Domestic Shipping Weight (Carton)	255 Lbs.
Export Shipping Weight (Crate)	515 Lbs.
Export Shipping Dimension	61" x 25" x 29"
Export Crate	61 Cubic Feet



SIDE VIEW



TOP VIEW

INSTALLATION

Refer to illustration sheet

(1) UNCRATE MACHINE. Check the nameplate voltage and current, making sure it is the same as the supply voltage and current.

(2) SET MACHINE IN POSITION.

(3) REMOVE THE REVOLVING FORM by holding the turning knob and the opposite weight "bucket" and lifting approximately 22".

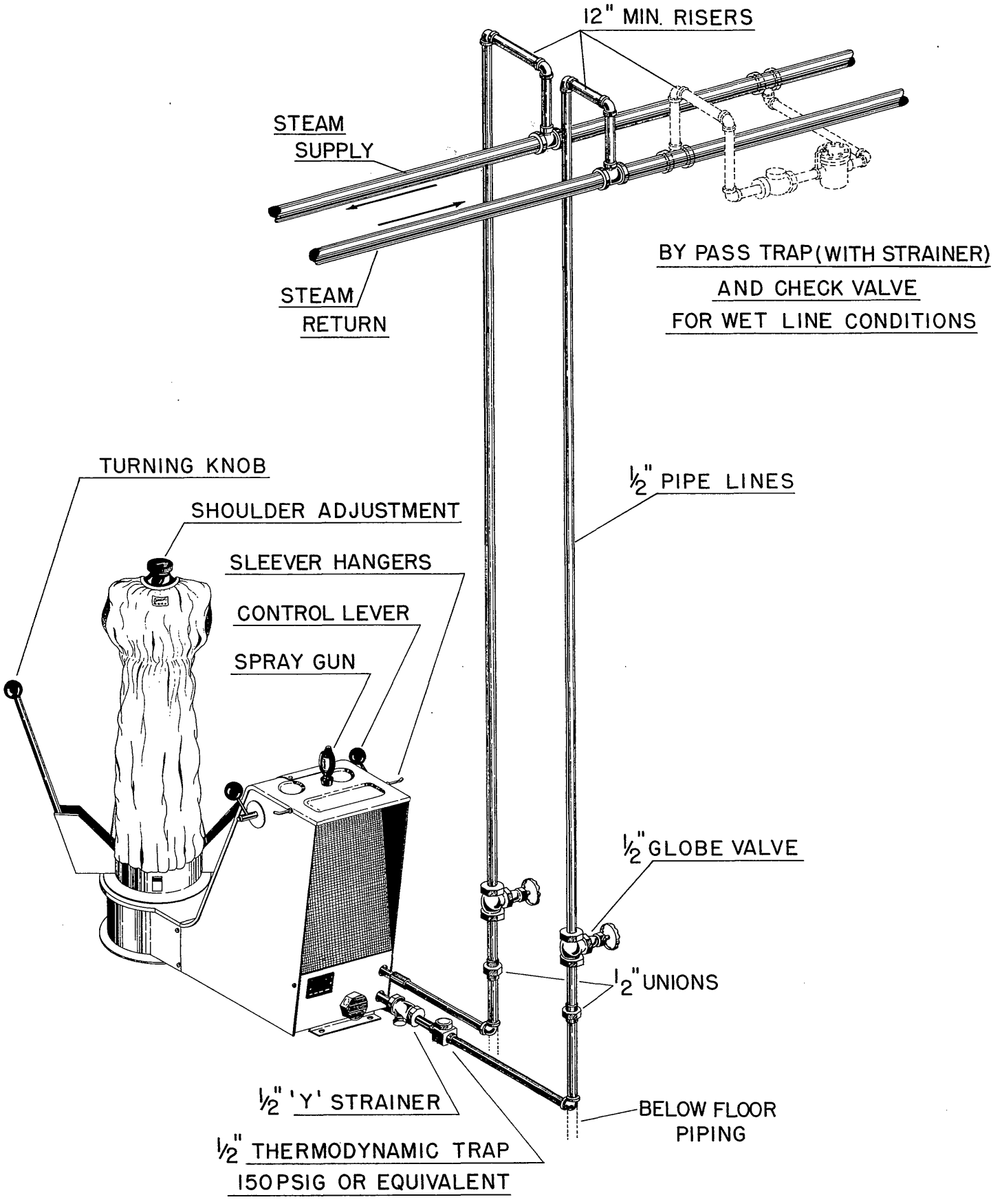
(4) CONNECT STEAM SUPPLY LINE as shown on next page.

(5) CONNECT RETURN LINE as shown on next page.

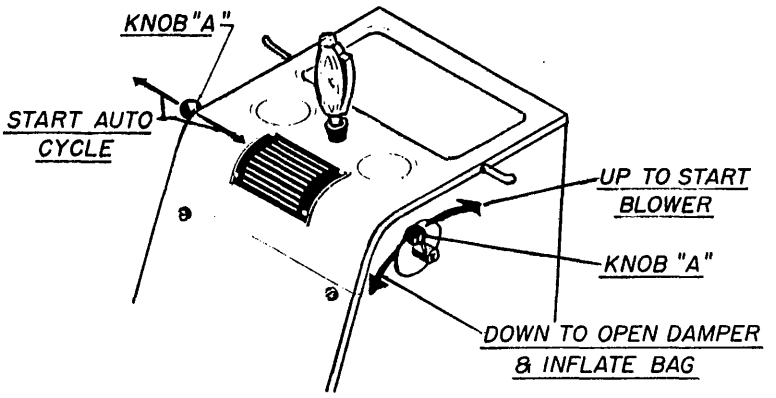
NOTE: Before final return line connection is made, open the steam supply valve and blow all foreign matter out of the steam lines and chamber. Failure to do so will cause trap to leak.

(6) MAKE ELECTRICAL CONNECTIONS in 3" junction box on rear of the machine, according to applicable electric codes. Connections should include a fused disconnect switch or circuit breaker with "slo-blow" characteristics and be capable of carrying 15 amps 115 volts or 8 amps 230 volts.

(7) TURN ON ELECTRICAL POWER AND TEST THE MACHINE. Replace the revolving assembly, remove the plastic protective bag, and open the return and steam lines.


12" MIN. RISERS
STEAM SUPPLY
STEAM RETURN
BY PASS TRAP (WITH STRAINER) AND CHECK VALVE FOR WET LINE CONDITIONS
TURNING KNOB
SHOULDER ADJUSTMENT
SLEEVER HANGERS
CONTROL LEVER
SPRAY GUN
½" PIPE LINES
½" GLOBE VALVE
½" UNIONS
½" 'Y' STRAINER
½" THERMODYNAMIC TRAP 150PSIG OR EQUIVALENT
BELOW FLOOR PIPING

OPERATING INSTRUCTIONS



Remove front panel of unit, set timers for required cycle.

NOTE: A toggle switch on the control panel may be set to give mixed steam and air followed by air, or steam only followed by air. Most fabrics will finish better with steam only followed by air.

Where possible, perform all touch-up of sleeves, collars, trim, etc., prior to finishing on the Genie. In this way, differences in sheen will be eliminated from the garment.

OPERATION INSTRUCTIONS FOR "GENIE" FORM FINISHER (Machine can be operated from either side).

Read the operation name plate on top of machine.

1. Position garment on form and adjust shoulders. A knob on top of the form is used to adjust the form shoulder width. Turn knob clockwise to increase shoulder width.

2. Move Knob "A" up to start Blower. (Blower will not start unless Step #2 is followed on each garment.

3. Move Knob "A" down gradually to open air damper and inflate bag to within approximately 1/4" of hemline - STOP.

4. Push Knob "A" in/or pull Knob "A" out to start automatic cycle.

GENERAL SUGGESTIONS

When finishing knits or soft unlined woolens, place net overbag on form before positioning garment. After garment is positioned on form, repeat Step #2 in Operating Instructions. Push Knob "A" all the way down to obtain full air pressure and repeat Step #4 to start cycle.

To finish coats and other open front garments, use front paddle clamp to hold front of garment in place. Use the hand vent clamps to hold rear vent or pleat.

When additional moisture is needed for hard set wrinkles, use the water spray gun, spraying into the steam from a distance of approximately 15". Rotate the garment to the spray gun, using the turning knob on the revolving assembly.

Keep the nylon bag clean and in good repair. A vacuum cleanable air filter is provided to help keep the bag clean. Vacuum clean the filter weekly. Remove nylon bag (see detailed instructions) and wet clean as required. Repair holes or worn spots. To obtain proper characteristics of cloth porosity, bag size, and control strings, use only genuine Cissell replacement bags.

NET OVERBAG FOR CISSELL STEAM-AIR FINISHER
(Either Genie or Garment Manufacturer's Form having an "A" type frame)

This overbag is for use ONLY when finishing sweaters or other soft garments that do not require bag contact for proper finishing.

DO NOT use overbag with hard fabrics or heavy garments. Hard set wrinkles will not be removed when using the overbag.

The Cissell overbag holds the form to a narrow size, thereby spreading steam and gentle diffused air throughout the garment to eliminate distortion.

THE NET OVERBAG IS EASY TO USE

1. Place the net bag over the form so that it fully covers the standard nylon bag.

2. Place the garment on the form and operate the machine per standard instructions, using "large size" setting for faster drying.

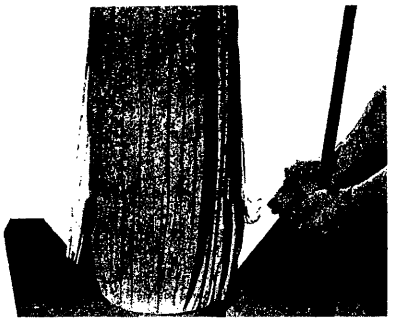
In general, garments including bonded knits and wool dresses can be finished without the overbag.

When ordering additional net overbags, specify F816.

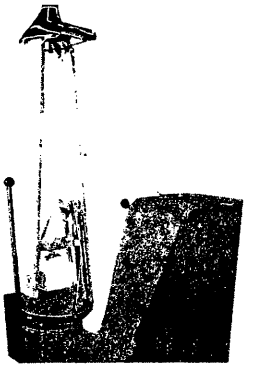
INSTRUCTIONS FOR REMOVING & REPLACING BAG

TO REMOVE BAG

(1) Remove yellow weights, 1 each side.

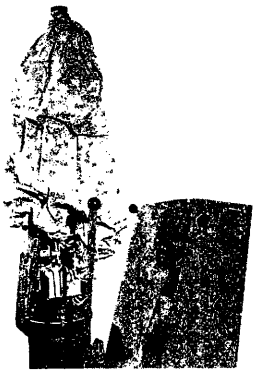


(2) Raise the lower control ring (inside bag).



(3) Open zipper and untie bottom string.

(4) Lift bag off over revolving assembly shoulder form.



TO REPLACE BAG

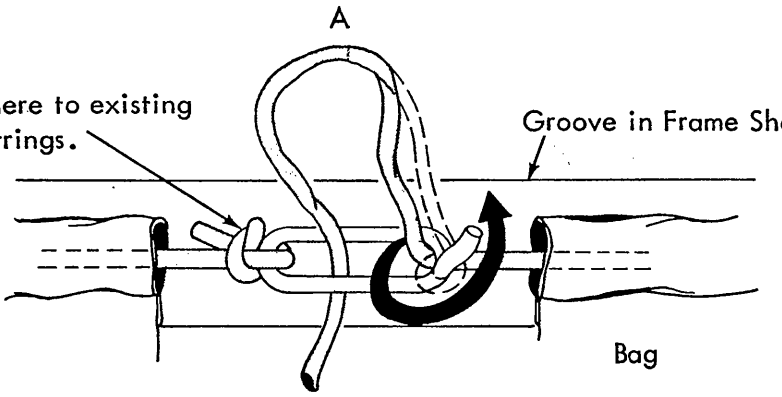
(4) Replace yellow weights, one each side, on end of control strings.

(3) Lower the control ring inside bag.

(2) Tie bottom string in groove and close zipper. Refer to instructions on next page for proper knot when tying string. Straighten bag until control strings are at the sides.

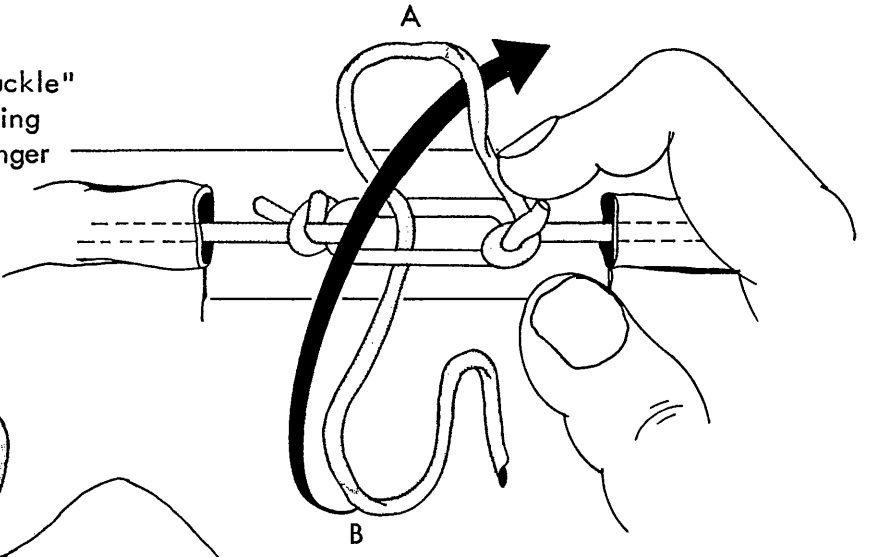
(1) Place bag over revolving assembly shoulder form, with front of bag toward front of form.

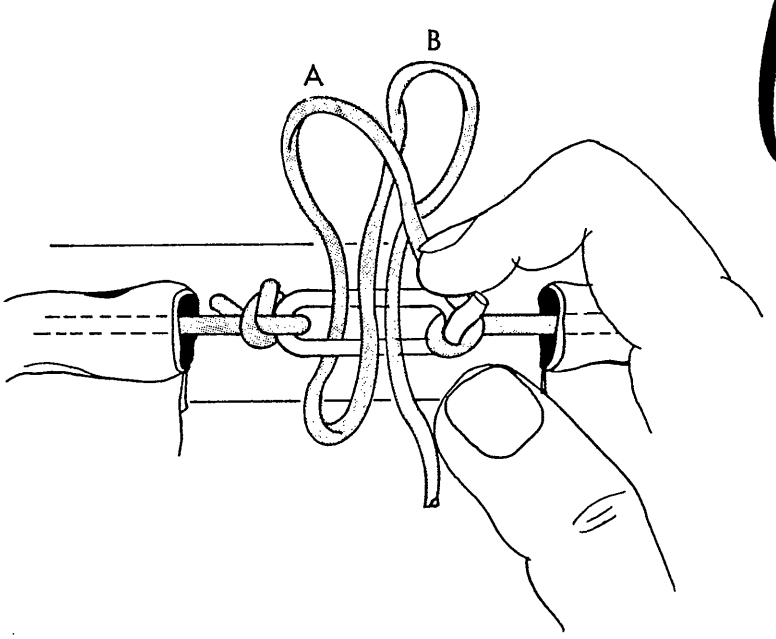
INSTRUCTIONS FOR TYING LOWER TIE STRING



STEP 1 Work tie string into the groove, loop through the "buckle" as shown and pull string tight into groove.

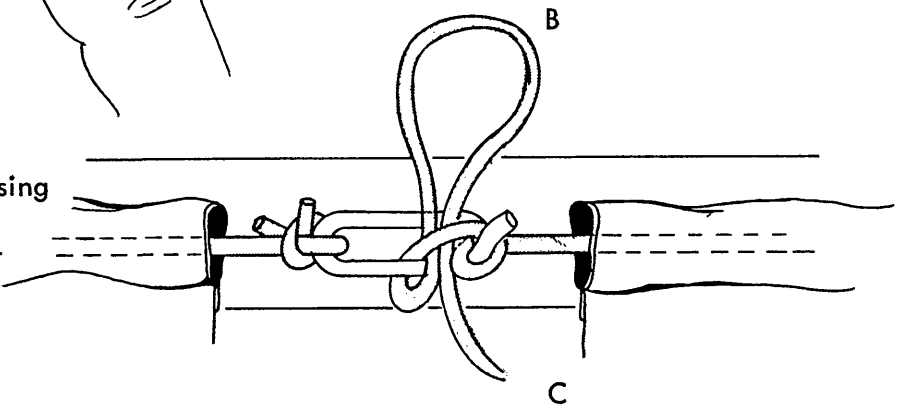
STEP 2 Loop tie string around "buckle" horn and grip horn and string between thumb and forefinger as shown above. This will prevent slipping and steady the buckle for the next operation.

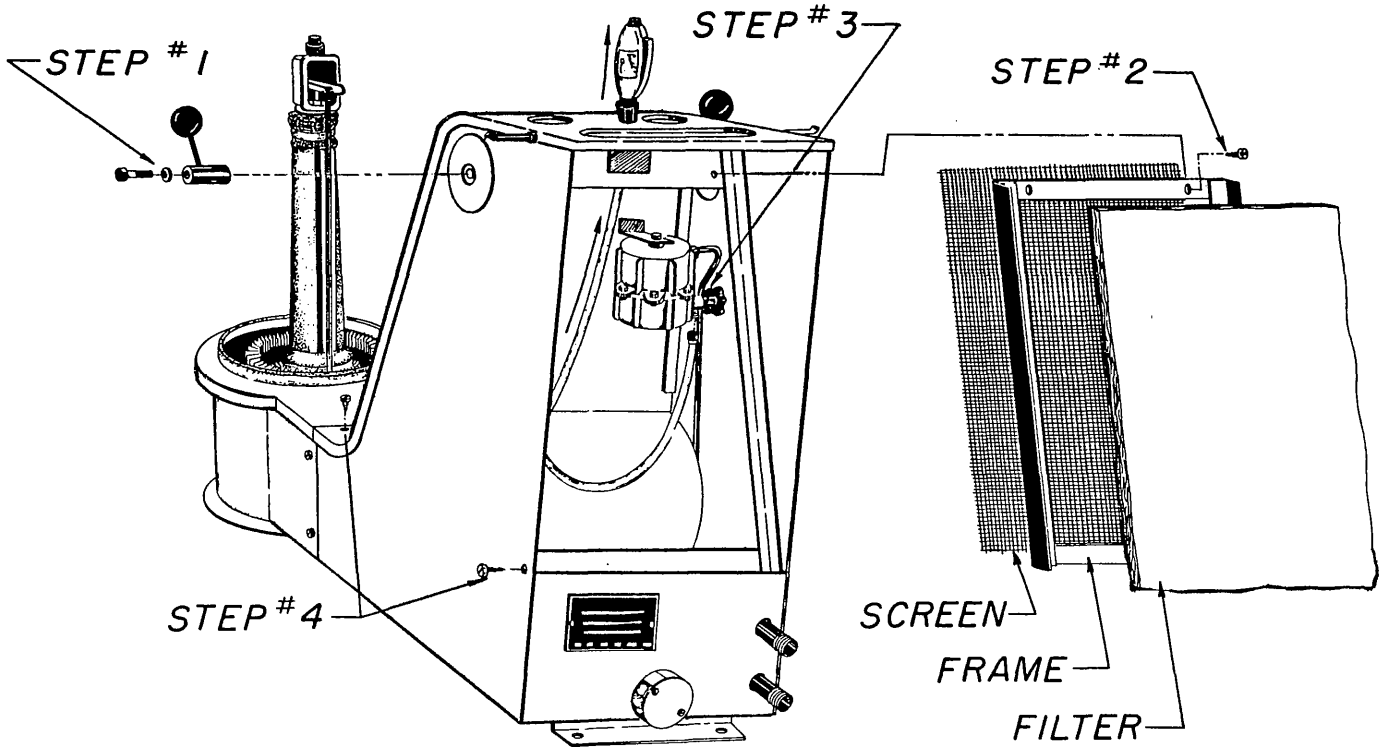




STEP 3 Loop additional tie string B through existing loop A, still holding the buckle.

STEP 4 Pull on loop B and tighten the knot on the buckle. Using look B and string C tie an overhand knot to keep knot from slipping.





INSTRUCTIONS FOR REMOVAL OF JACKET FROM "GENIE" STEAM-AIR FINISHER

STEP #1. Remove bolt and lockwasher from each control lever and pull control levers straight out from control shaft.

STEP #2. Remove rear filter. Remove the two (2) screws securing frame and screen and remove frame and screen.

STEP #3. Close valve on condenser, disconnect water hose from condenser and pull spray gun and hose through top of jacket.

STEP #4. Remove four (4) screws. Two each side of jacket as shown.

STEP #5. Pull jacket up and above inner base and set off to one side.

CISSELL STEAM-AIR FINISHER
INSTRUCTIONS FOR ADJUSTING HEIGHT OF REVOLVING FORM
(Model FM** and Model FG2)

Should the revolving form "drag" on the base rather than turn freely, the form must be raised.

Conversely, if the revolving form rides too high above the base, permitting steam to escape from the space between the form and base, the form must be lowered.

WHEN AN ADJUSTMENT MUST BE MADE, REMOVE REVOLVING FORM BY SIMPLY LIFTING IT STRAIGHT UP OFF THE BASE.

PROBLEM: Revolving Form "drags" on base.

TO CORRECT: Loosen F286 Bearing Lock Nut. Turn F287 Bearing Adjustment Screw COUNTER-CLOCKWISE.

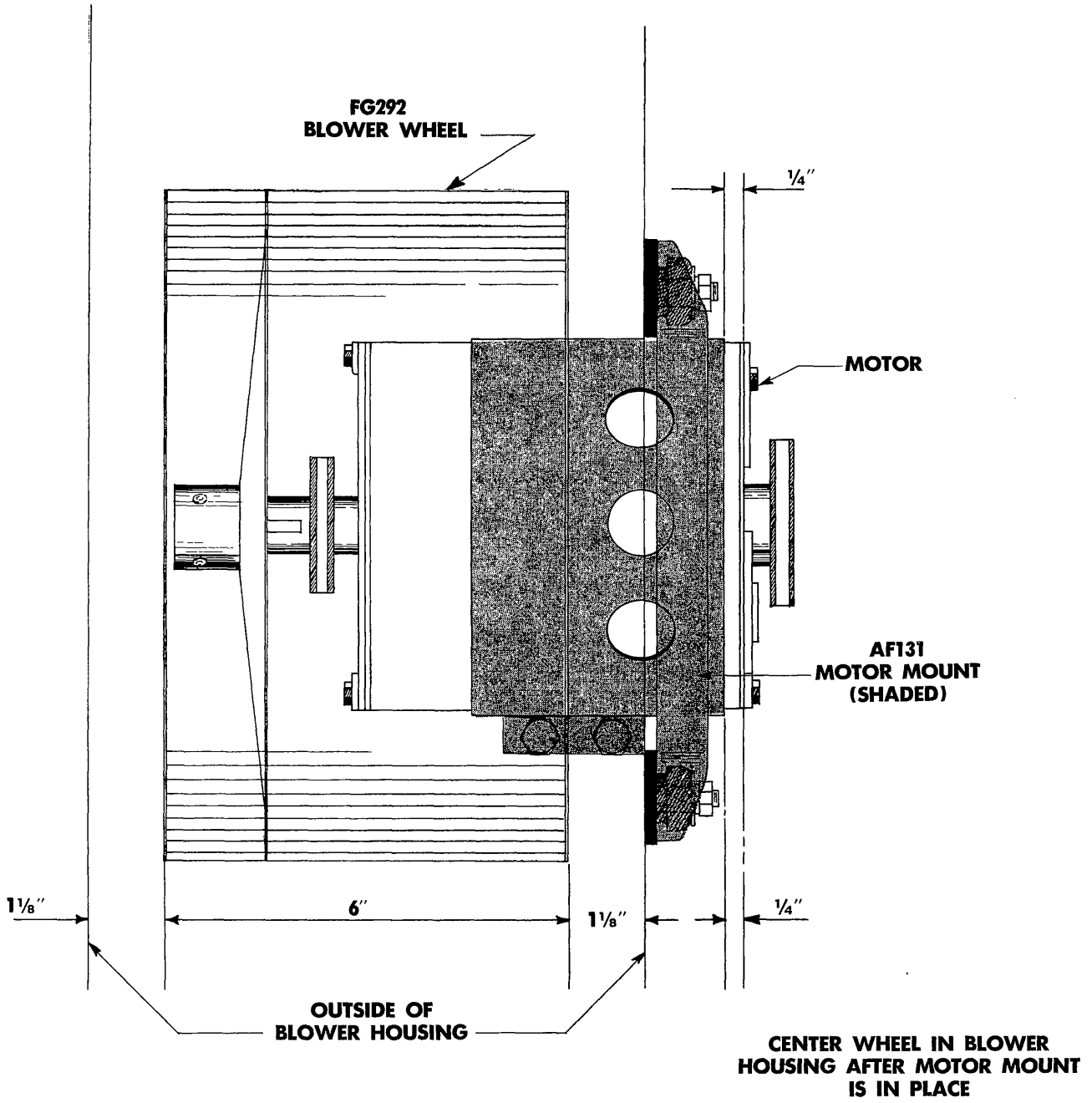
CHECK ADJUSTMENT: Replace revolving form on base. Rotate form. If perfectly adjusted, form will rotate freely and snugly on felt seal around top of base. If form is still too low ... or too high ... repeat adjustment until it is correct.

PROBLEM: Revolving Form rides too high above base.

TO CORRECT: Loosen F286 Bearing Lock Nut. Turn F287 Bearing Adjustment Screw CLOCKWISE.

CHECK ADJUSTMENT: Replace revolving form on base. Rotate form. If perfectly adjusted, form will rotate freely and snugly on felt seal around top of base. If form is still too high ... or two low ... repeat adjustment until it is correct.

MOTOR MOUNTING DIMENSIONS



REPLACEMENT OF SOLENOID SPRINGS

1. Use a piece of 1/8" dia. steel or equivalent, push down and pry spring loose on one side, then the other as shown Fig. 1.

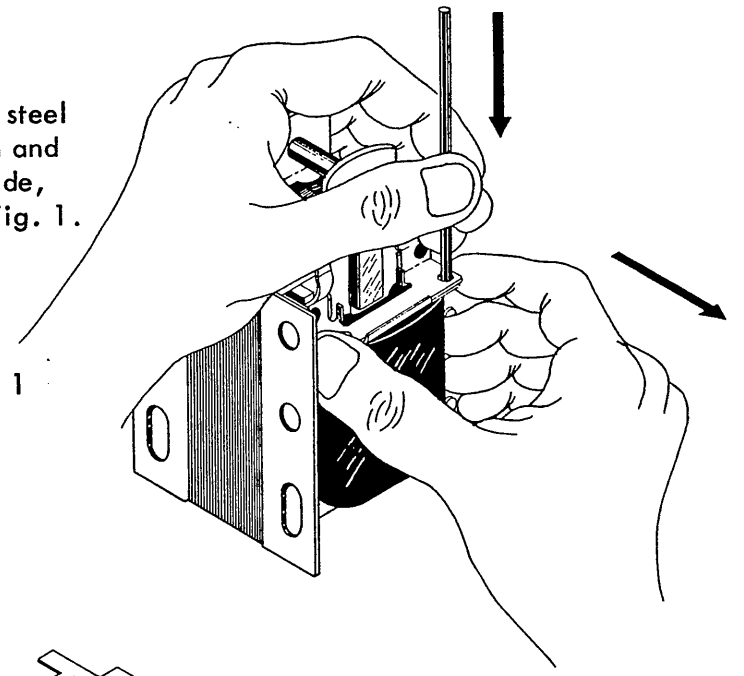
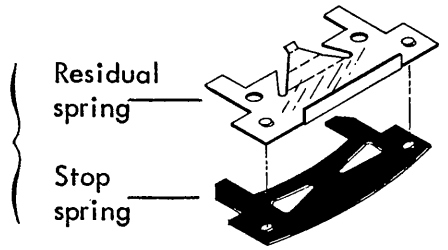


FIG. 1



2. Install F856 new Spring Assembly with Residual Spring on top and Stop Spring on bottom as shown Fig. 2.

FIG. 2

3. Align two springs: push in and snap into position as shown Fig. 3.

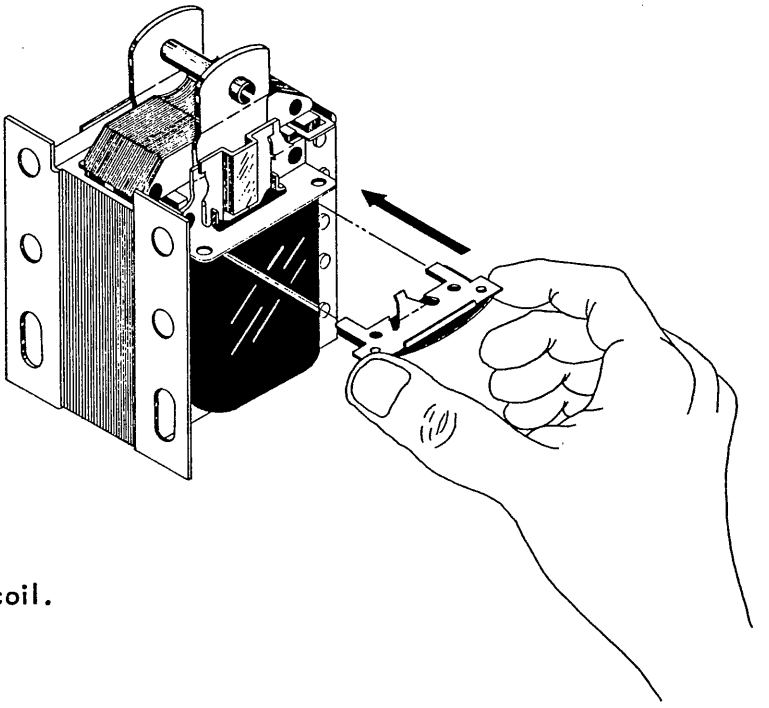
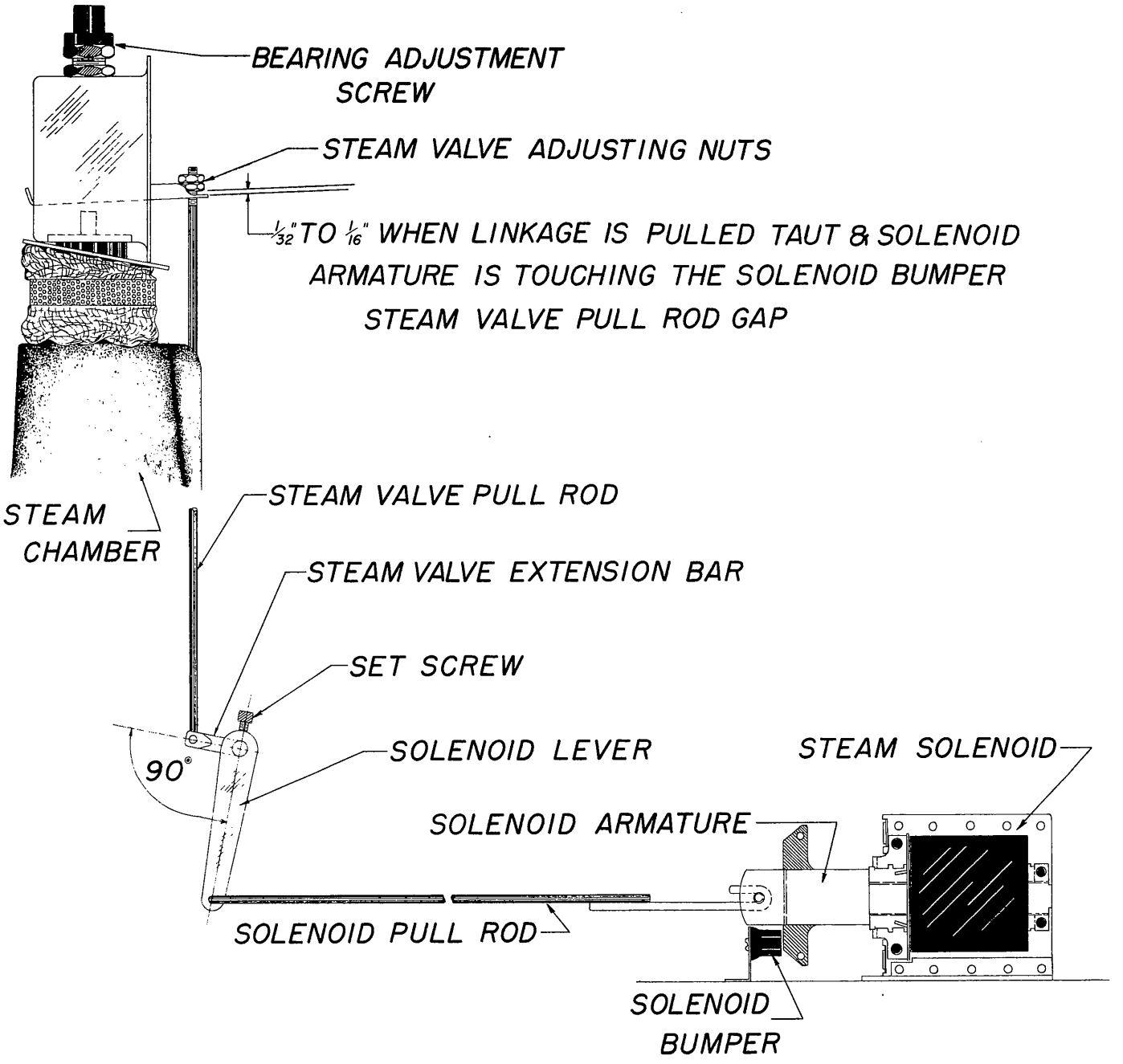


FIG. 3

4. Duplicate above procedure for replacing springs on other side of coil.

SOLENOID LINKAGE ADJUSTMENT



TO ADJUST STEAM VALVE AND SOLENOID LINKAGE:

1. Set steam valve extension bar and solenoid lever at 90° as shown and tighten set screw.

   Adjust steam valve adjusting nuts until 1/32" to 1/16" gap is obtained as shown above and lock adjusting nuts tightly together.

TROUBLE SHOOTING CHART

PROBLEM	CAUSE	REMEDY
(1) No Steam	1A Steam Supply Valve Off	Open valve in steam supply line
	1B Electric power "Off"	Inspect electric service for blown fuses, loose connections Turn main disconnect "on".
(2) Blower motor will start, steam won't start	2A Start switch not released by cam when control knob is pushed	Align switch with centerline of cam. Adjust switch away from cam with adjusting nuts. Replace panel, test and repeat if necessary.
	2B Loose wires	Inspect and replace any loose wires
	2C Incorrect voltage of electrical parts	Inspect nameplate voltage and voltage on electrical parts, especially the solenoid. Replace if necessary.
	2D Defective start switch	Check switch to see that it operates and will carry current. Replace switch if necessary.
	2E Defective solenoid	Inspect solenoid. Replace if necessary.
	2F Defective solenoid linkage	Check linkage between solenoid and steam valve for broken or loose parts. Repair or replace as required. (See adjustment instructions.)
(3) Leaking steam valve	3A Solenoid linkage adjusted incorrectly	Inspect linkage and adjust according to instructions. Tighten all lock nuts and set screws.
	3B Loose valve seat	Inspect and tighten seat if required.
	3C Worn valve	Inspect valve parts. Replace worn parts as required.
(4) Wet steam	4A Trap not operating	Check size and operation of trap. Repair or replace if required.
	4B Trap installed incorrectly	Check to see that direction of flow in trap is correct and that trap is in or below machine return line.
	4C Check valve installed wrong or sticking	Check to see that direction of flow is correct and valve not sticking

TROUBLE SHOOTING CHART

PROBLEM	CAUSE	REMEDY
(4) Wet Steam CONT.	4D Strainer clogged	Inspect strainer and clean if necessary.
	4E Return line turned off	Open valve in condensate return line.
	4F Steam Cycle too long	Reduce amount of time set on steam timer.
	4G Improperly installed steam lines	Check steam line installation to see that "risers" are installed, as shown on installation instructions.
	4H Heavy condensate in supply line	Install a by-pass trap from supply header to by-pass condensate to return line.
	4I Machine not individually trapped	Install a separate trap for each machine.
	4J Back pressure in return line	Inspect all traps to see if one is stuck open, or improperly installed. Perform steps necessary to make return line drain by gravity to condensate return tank. See that return tank is adequately vented.
(5) Water accumulates in base	5A Steam too wet	See wet steam above
	5B Leak in finned tube or pipe fitting	Inspect machine and repair or replace any leaking parts.
	5C Leaking steam valve	See leaking steam valve above.
(6) Excessive noise or vibration	6A Foreign object in blower wheel	Inspect wheel and remove any foreign objects & lint
	6B Blower wheel out of balance	Inspect wheel for loose balance weights, out of round or damage, replace if necessary.
	6C Motor bearings bad	Inspect motor to see if bearings are tight and motor free turning. Replace motor if necessary.
	6D Motor mount bent	Inspect motor mount to see if machine has been dropped in transit, bending the mount, letting the blower wheel hit the housing. If so, inspect blower wheel for damage. Replace either or both if necessary.
	6E Blower wheel loose on motor shaft	Check to see that wheel is mounted in center of housing, key is in keyway if used, and both set screws tight.
(7) Blower motor won't start, machine won't steam	7A No electrical power	Check electrical service and be sure main switch is "ON" all wires are tight and fuses are good.

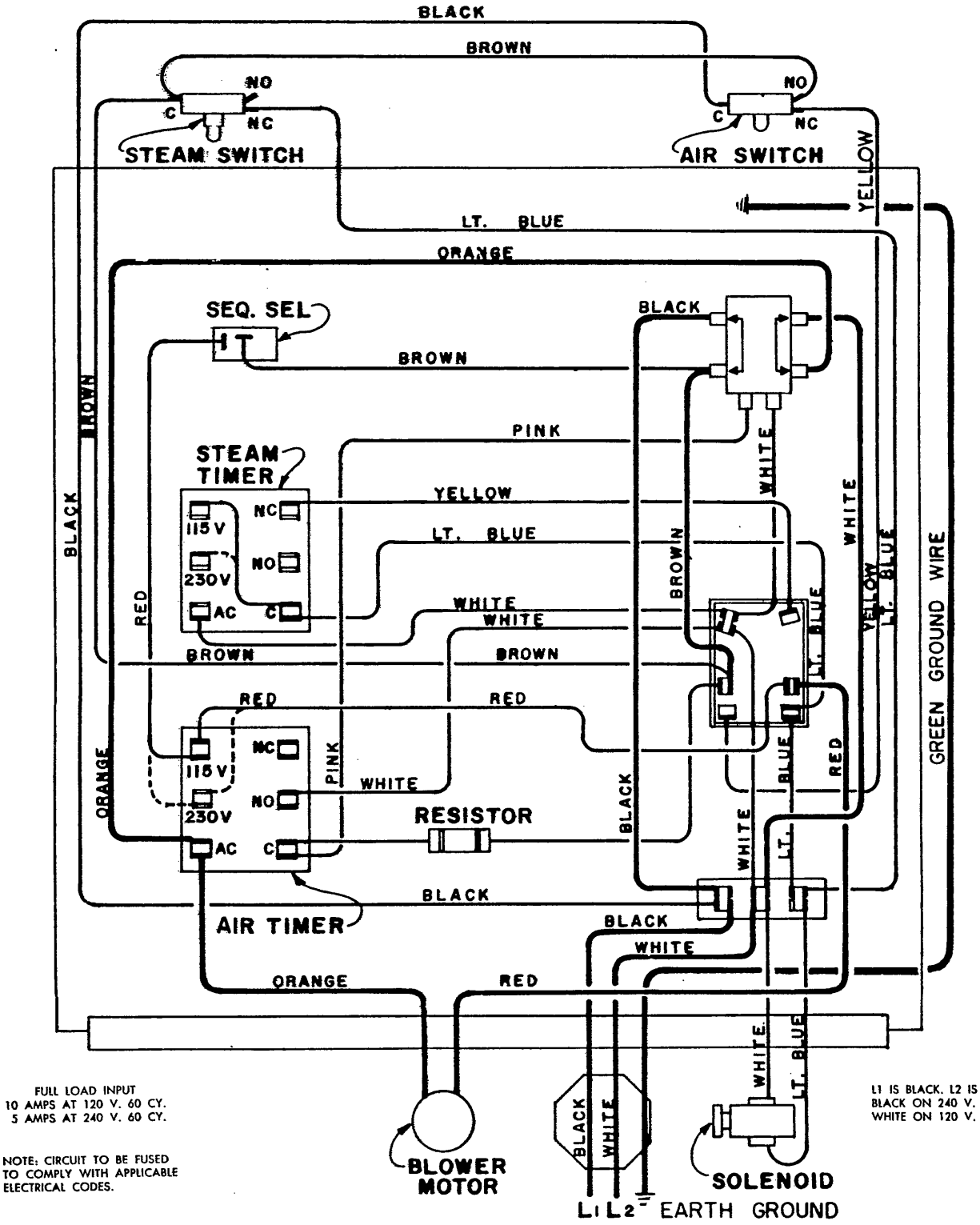
TROUBLE SHOOTING CHART

PROBLEM	CAUSE	REMEDY
(7) Blower motor won't start, machine won't steam CONT.	7B Incorrect supply voltage	Check power source. Voltage phase and frequency must be the same as specified on machine nameplate.
	7C Air switch not being operated by cam lever	Check lever and cam plate. Replace either if required.
	7D Defective air switch	Check switch to see if it operates and will carry current. Replace switch if necessary.
	7E Defective ratchet relay	Operating air switch should cause ratchet relay to operate. Each operation should cause relay contacts to reverse and remain switched. If defective, replace the relay.
	7F Air timer set at 0 time	Timer knob may slip on the shaft and leave the timer set at 0 time. Tighten knob set screw and set timer and knob to suit, approx. 20 seconds.
	7G Defective blower relay	Check to see if the blower relay will operate. If not, replace relay.
	7H Defective blower motor	Check motor to see if it will operate on normal nameplate electrical power. If not, replace the motor.
	7I Loose wires	Check to see that all wires and connections are tight. If not, replace the wires and tighten connections.
(8) Blower motor won't start, machine steams continuously after air switch is operated.	8A Start switch not properly set on cam	Add approximately 1/32 thick shim under switch bracket. Test and repeat if necessary.
	8B Defective start switch	Check switch to see that it operates and will carry current. Replace switch if necessary.
(9) Blower motor will start, machine steams only while control knob is pushed	9A Steam timer set at 0 time	Timer knob may slip on the shaft and leave the timer set at 0 time. Tighten knob set screw and set timer and knob to suit, approx. 8 seconds.
	9B Defective steam timer	Check timer operation. See if timer switch operates properly. If not, replace timer.
	9C Defective steam relay	Check to see if relay will operate on rated current and if contacts will carry current. If not, replace relay.

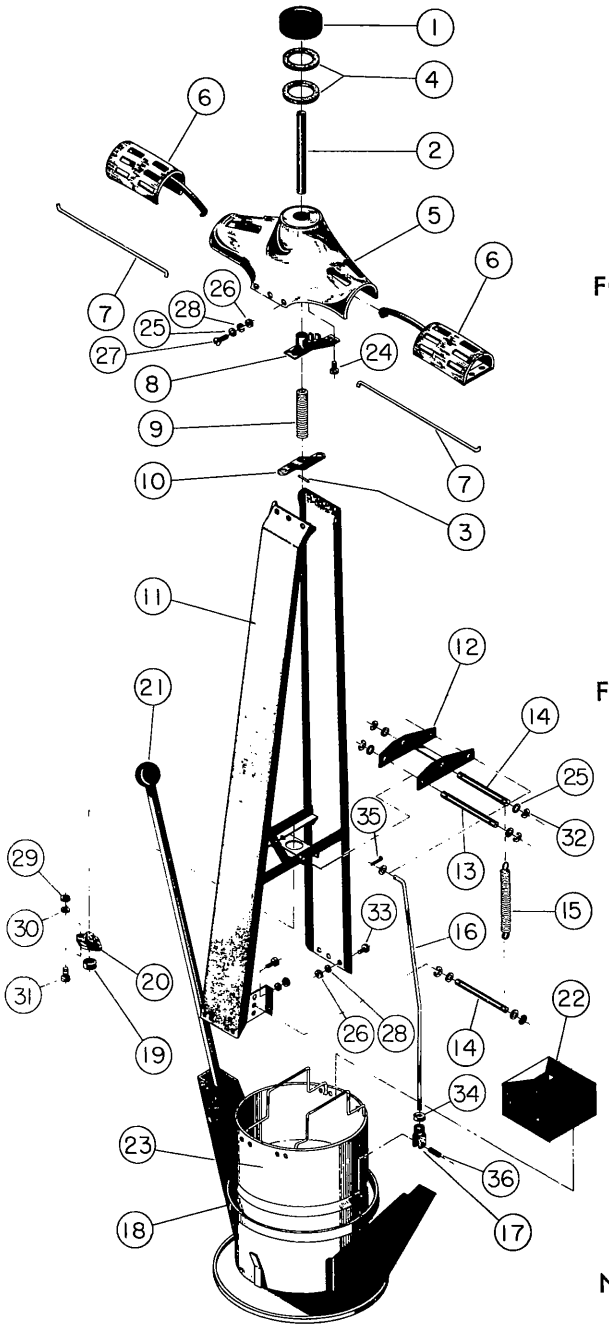
TROUBLE SHOOTING CHART

PROBLEM	CAUSE	REMEDY
(10) Inadequate steam flow	10A Steam valve linkage not properly adjusted	Adjust linkage according to adjustment instructions. Tighten all set screws and lock nuts.
	10B Steam time set too short	Set steam timer for longer time. Tighten knob set screw if necessary.
(11) Blower motor will start, steam starts but won't stop	11A Defective steam timer	Check timer operation. See if timer switch operates properly. If operation is not correct, replace the timer.
	11B Start switch not properly set on cam	Add approximately 1/32 thick shim under switch bracket.
12 Blower Motor won't stop	12A Defective Air timer	Check timer operation. See if timer switch operates properly. If operation is not correct, replace the timer.
	12B Defective blower relay	Check to see if relay operates properly on rated current. If contacts are stuck or welded shut, or relay does not operate properly, replace it.
	12C Defective ratchet relay	Check relay operation to see that contacts alternate from closed to open with every second movement of the relay armature. Also, be sure that relay will operate on rated current. If not, replace relay.
13 Blower motor starts but form will not change size	13A Damper control rod disconnected or broken	Check to see that the damper opens and closes when the control knob is lowered and raised. If not, repair or replace damper control rod.

CISSELL®
"GENIE" STEAM-AIR FINISHER
MODEL FG-2
WIRING DIAGRAM FW-121
1 PHASE 50/60 CY. 240 V. OR LESS

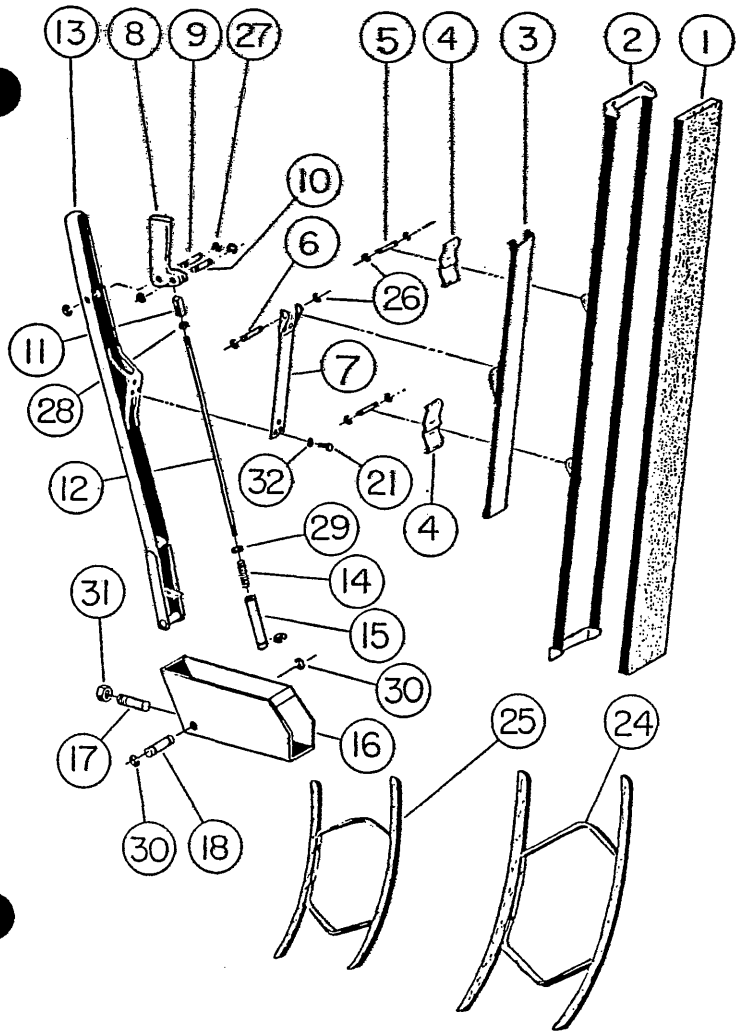


REVOLVING FORM - FG236

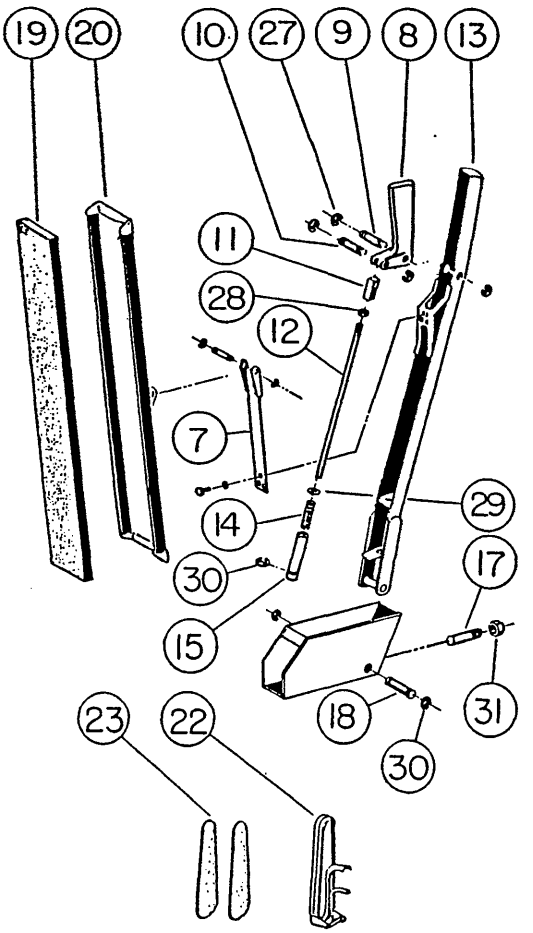


Ref. No.	Part No.	Description
F517 ADJUSTABLE SHOULDER ASSEMBLY		
F381 Ass'y. 1.	D18	Adjusting Knob w/Roll Pin
F381 Ass'y. 2.	F47	C. R. S. Rod
3.	F49	Shoulder Lever Pin
4.	F192	Pyroid Gasket
5.	F492	Shoulder
6.	F493	Sliding Shoulder
7.	F336	Shoulder Connecting Link
8.	F494	Bearing Plate
9.	F197	Shoulder Tension Spring
10.	F317	Shoulder Lever
FG290 REVOLVING FORM FRAME ASSEMBLY		
11.	FG219	Frame Ass'y.
12.	FG220	Pivot Plate Ass'y.
13.	FG222	3 5/8" x 1/4" Pin
14.	FG223	4 1/2" x 1/4" Pin
15.	TU2089	Spring
16.	FG201	Support Rod
17.	FG444	Yoke
18.	FG202	Weight Ring
19.	F279	Thrust Bearing
20.	F431	Bearing Cup
FG291 REVOLVING FORM SHELL ASS'Y.		
21.	FG156	Turning Arm Knob
22.	AF207	Cloth Steam Spreader
23.	FG264	Shell Ass'y.
24.	TU3478	#8-32 x 1/2" Pan Hd. Scw.
25.	P104	1/4 Brass Cut Washer
26.	FB185	#10-24 Hex. Nut
27.	TU3477	#10-24 x 1/2" Fl. Hd. Scw.
28.	AT368	3/16" Split Lockwasher
29.	PT355	1/4"-20 S.S. Hex. Hd. Nut
30.	F860	1/4" S. S. Split Lockwasher
31.	F859	1/4"-20 x 1/2" S. S. Scw.
32.	F359	Retaining Rings
33.	TU3480	#10-24 Rd. Hd. Scw.
34.	F122	1/4"-28 Brass Nut
35.	FB201	Cotter Pin
36.	FG284	1/4" x 5/8" Roll Pin
NOT ILLUSTRATED		
	F833	"Genie" Nylon Bag
	F816	"Genie" Net Overbag
	FG310	Bag Weights 50 cy. 2" x 1 1/8"
	FG311	Bag Weights 60 cy. 2" x 1 1/2"

FG137 Front Paddle Assy. 36"

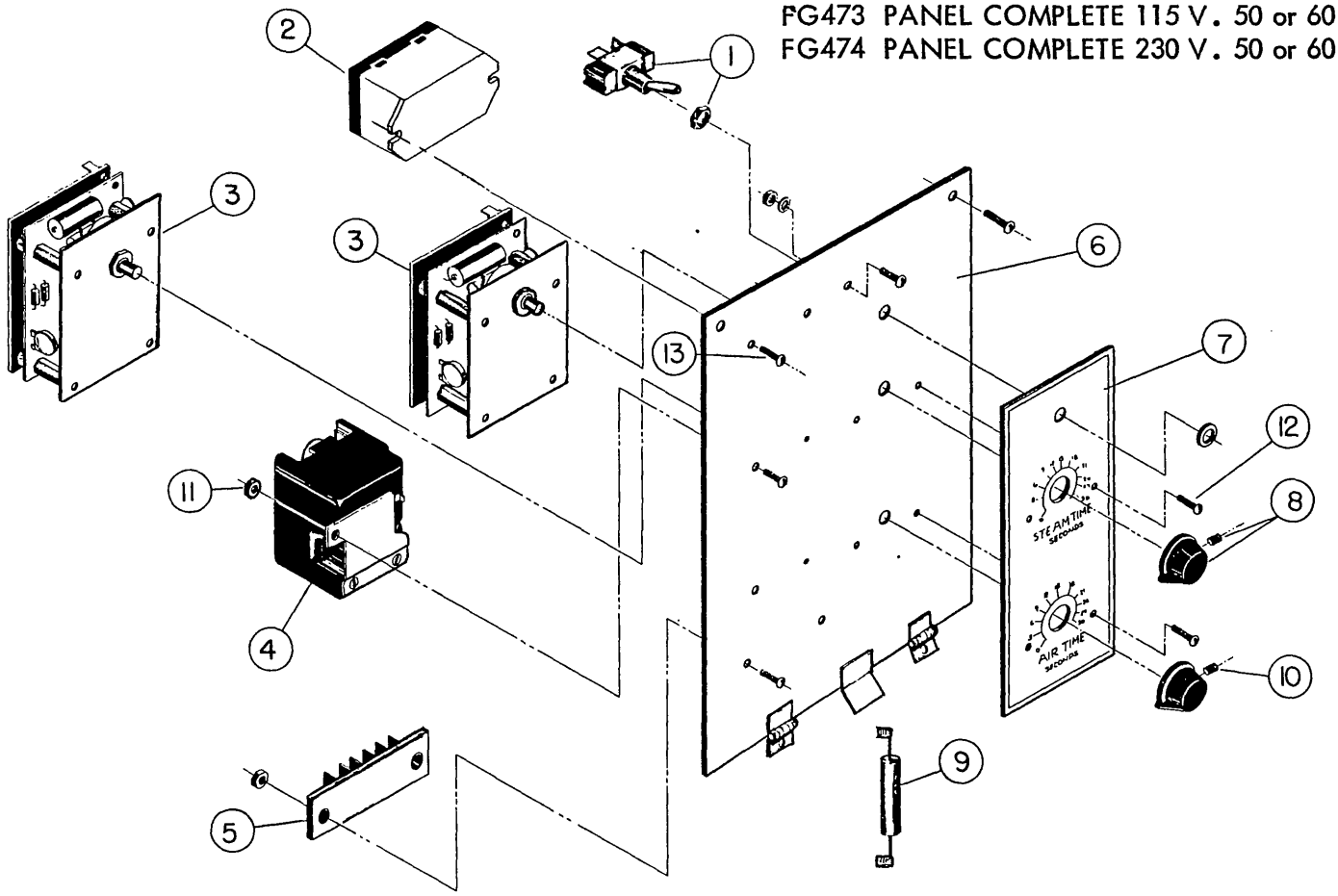


FG164 Rear Paddle Assy. 24"



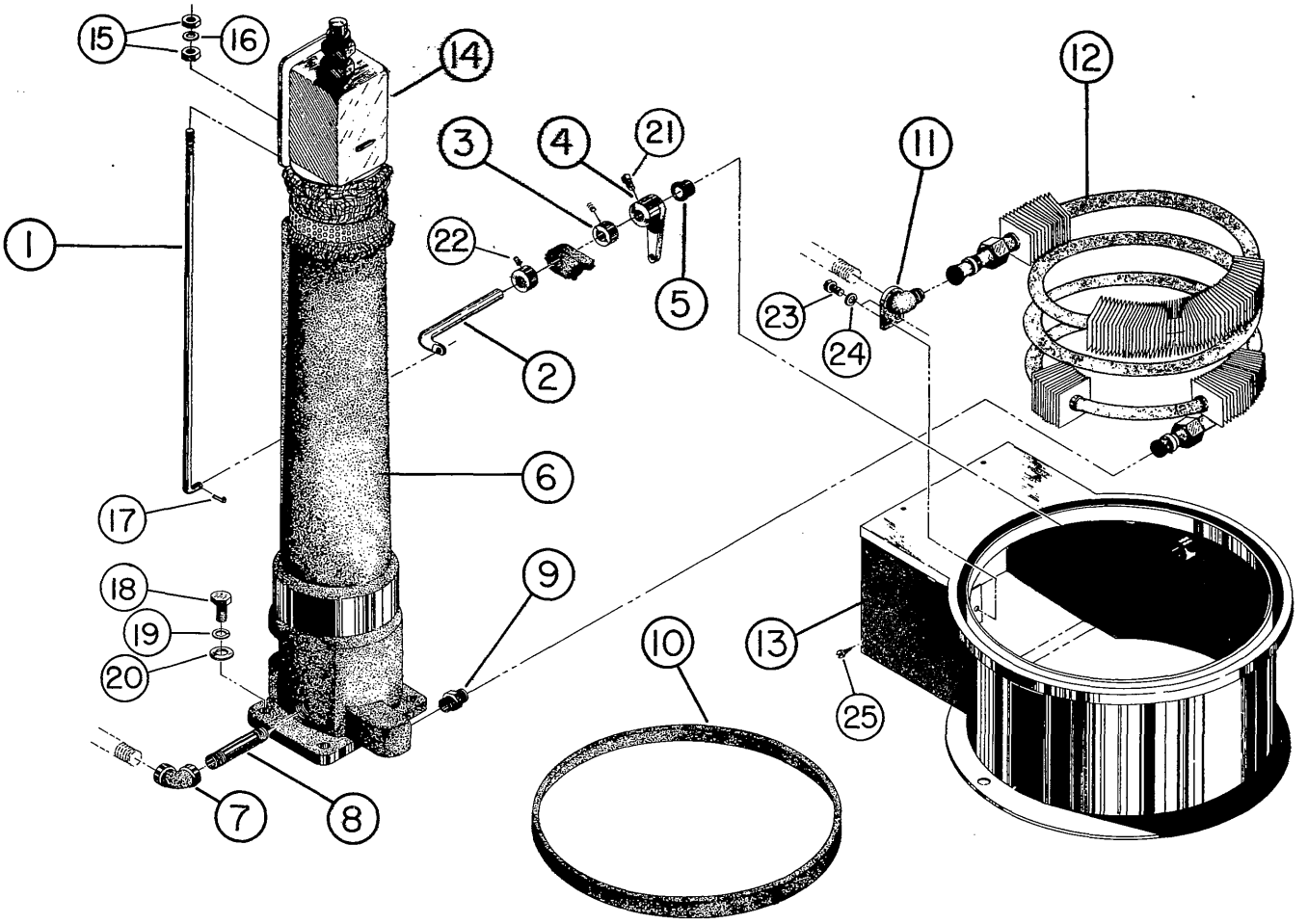
Ref. No.	Part No.	Description
	FG137	Front Paddle Assy. 36"
	FG164	Rear Paddle Assy. 24"
1.	F 433	Sponge (36")
2.	F 432	Paddle Channel (36")
3.	F237	Clamp Slide
4.	F243	Slide, Spring (2 Req'd.)
5.	F515	Slide Pin (2 Req'd) (1/8")
6.	F267	Pivot Pin (1/8")
7.	F218	Clamp Leaf Spring
8.	F104	Handle Trigger
9.	F949	Handle Pin (3/16")
10.	F1121	Rod Hinge Pin (3/16")
11.	F136	Rod Hinge
12.	FG443	Latch Rod
13.	FG135	Handle Welded Assy.
14.	F197	Spring
15.	FG450	Latch Pin
16.	FG287	Clamp Base
17.	FG277	Stud
18.	FG288	Pin (3/8")
19.	F435	Sponge (24")
20.	F434	Paddle Channel (24)
21.	F901	#10-24x3/8" Hex. Hd. Scr.
22.	F842	Vent Clamp
23.	F858	Sandpaper & Sponge For F842
24.	F24	#24 Sleever
25.	F11	#11 Sleever
26.	ET183	"E" Ring For 1/8" Pin
27.	F888	"E" Ring For 3/16" Pin
28.	F122	1/4" - 28 Brass Nut
29.	F950	3/8" Cut Washer
30.	F489	"E" Ring For 3/8" Rod
31.	TU4787	3/8" - 16 Hex Nut
32.	FB187	#10 Split Lockwasher

FG473 PANEL COMPLETE 115 V. 50 or 60 cy.
FG474 PANEL COMPLETE 230 V. 50 or 60 cy.



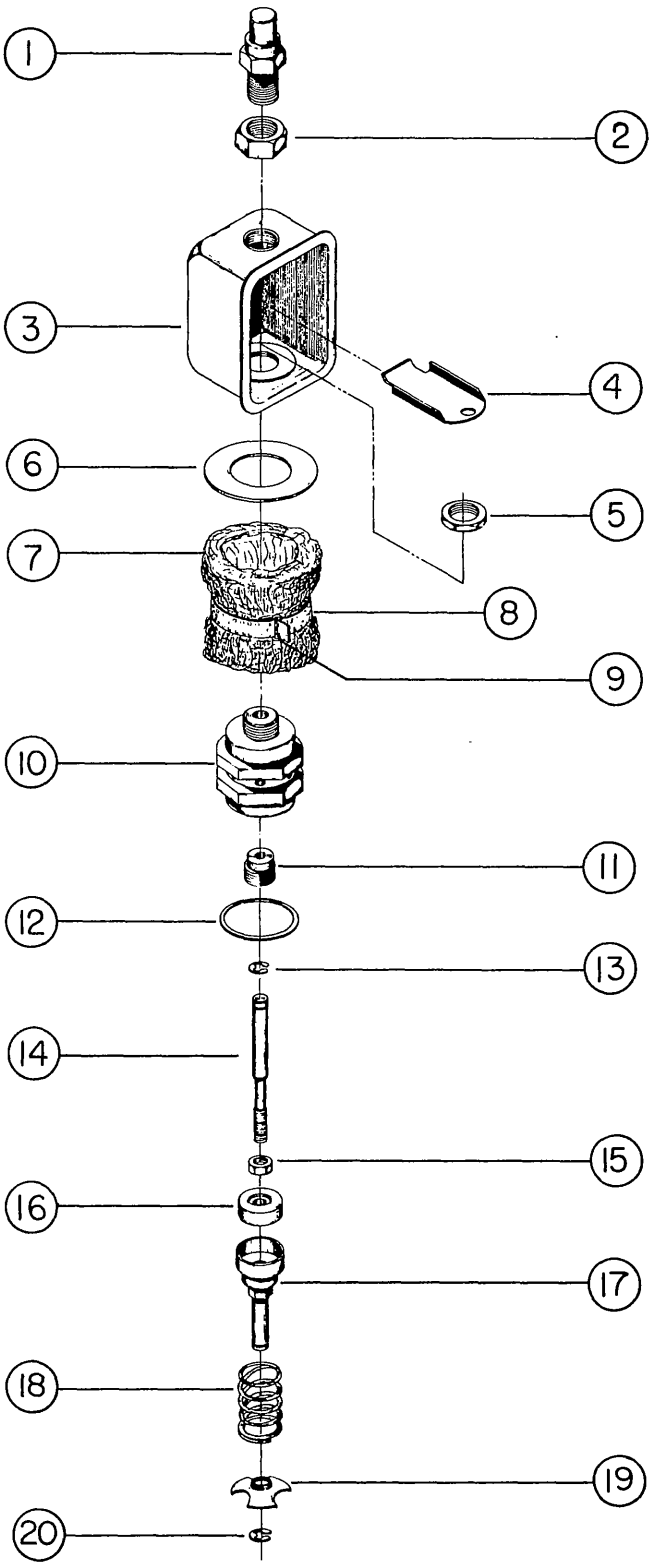
ELECTRICAL CONTROL PANEL ASSEMBLY

Ref. No.	Part No.	Description
1.	FG147	Toggle Switch w/Locking Ring
2.	TU13224	Relay 115, 50 or 60 cy.
	TU13225	Relay 230, 50 or 60 cy.
3.	FG453	Steam or Air Timer 115/230, 50 or 60 cy.
4.	FG144	Relay 115, 50 or 60 cy.
	FG233	Relay 230, 50 or 60 cy.
5.	FG325	Terminal Block Ass'y.
6.	FG471	Electrical Panel Ass'y. (Welded)
7.	F841	Steam-Air Nameplate
8.	PT118	Timer Knob (2 Req'd.)
	FG429	Wire Harness (Not Illustrated)
9.	AF194	Resistor 110 V. 200 OHM
	AF195	Resistor 220 V. 500 OHM
10.	C196	Set Screw #8-32
11.	TU3266	#8-32 Hex. Hd. Nut
12.	M262	#8-32 x 3/8" Truss Hd.
13.	LB291	#6-32 x 3/8" Round Hd.



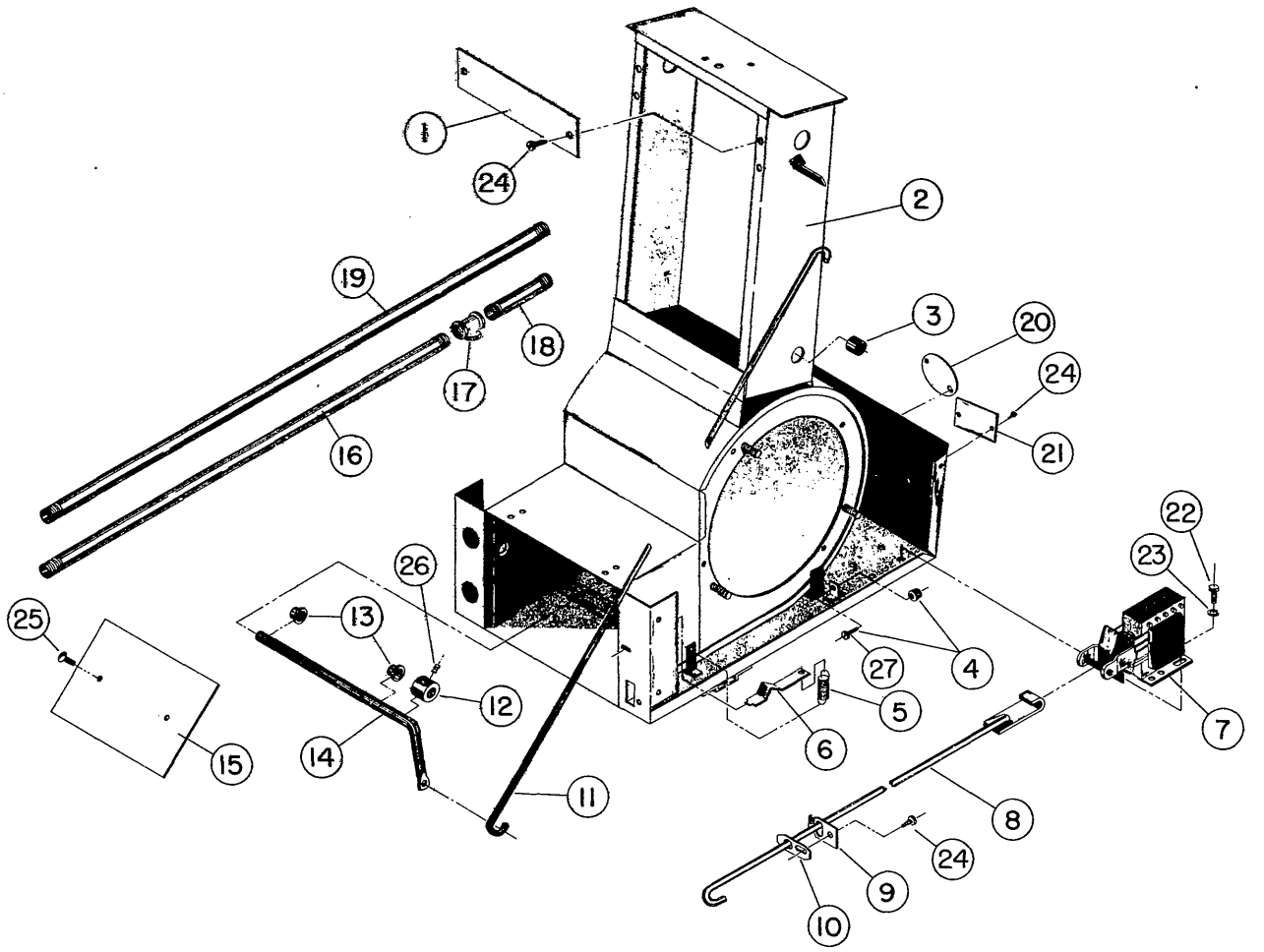
SHALLOW BASE ASSEMBLY - FG318

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1.	F149	Steam Valve Pull Rod	14.	---	See next page
2.	FG320	Extension Bar	15.	F122	1/4"-28 Brass Nut
3.	F215	Set Collar, 2 req'd	16.	RC349	1/4" Lockwasher
4.	FG275	Steam Valve Lever Ass'y	17.	V2	1/16" x 1/2" Cotter Pin
5.	TU49	Delrin Bearing	18.	IB139	3/8" x 1 1/4" Hex. Hd. Scw.
6.	F539	Stm. Chamber	19.	VSB134	3/8" Split Lockwasher
7.	TU4593	1/2" x 90° Pipe Elbow	20.	IB140	3/8" Flat Washer
8.	LB20	1/2" Pipe Nipple 3" Long	21.	F819	5/16"-18-5/8" Sq. Hd. Set Scw
9.	FG319	Stm. Coil Adapter	22.	P126	1/4"-20 x 1/4" Set Scw.
10.	F357	Felt Air Seal	23.	TU3210	5/16"-18 x 5/8" Hex. Scw.
11.	FG321	Steam Manifold	24.	TU2814	5/16" Split Lockwasher
12.	FG322	Steam Coil	25.	TU2793	#8 x 5/8" S.M.S.
13.	FG323	Shallow Base Welded Ass'y			



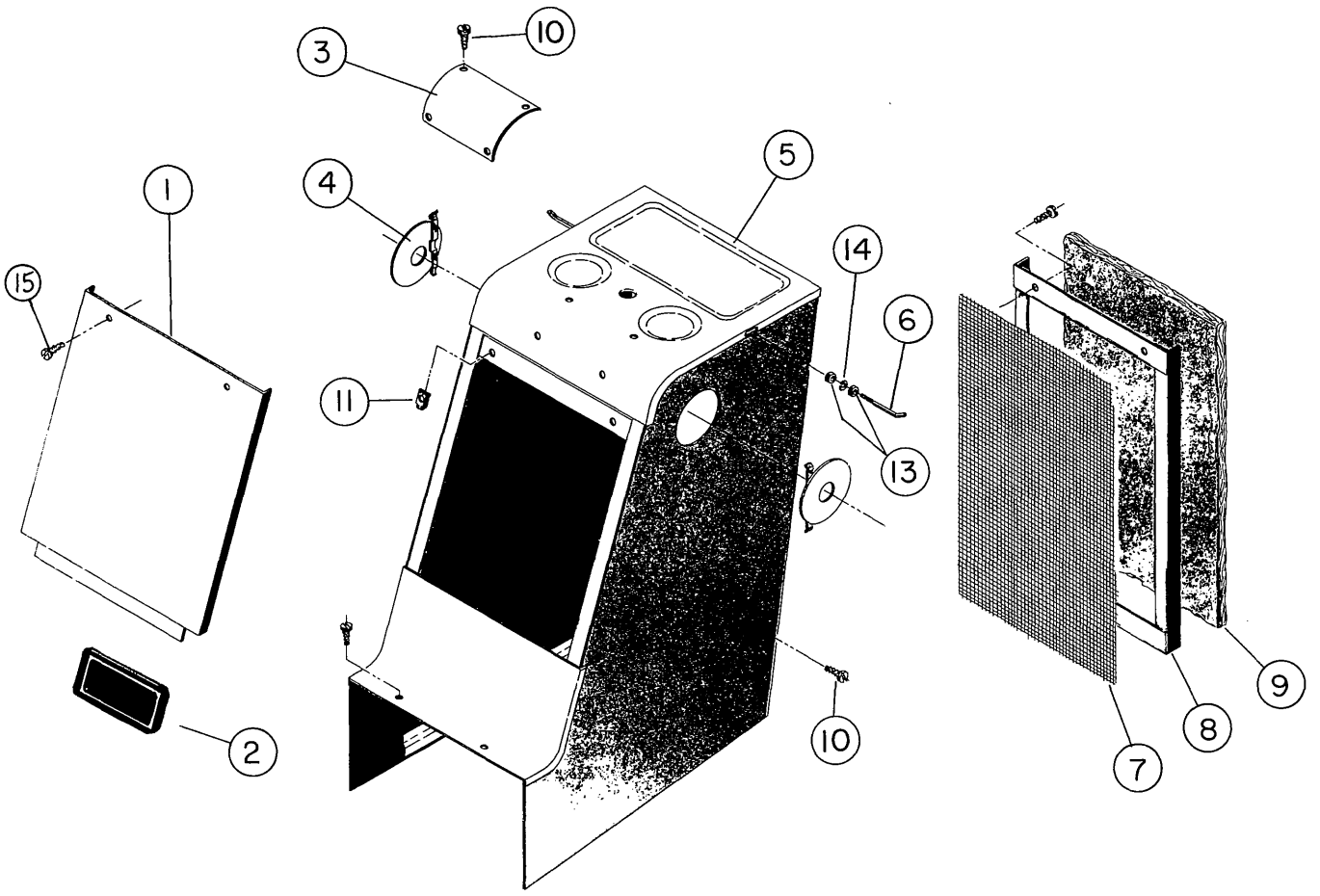
VALVE PARTS

Ref. No.	Part No.	Description	
1.	F287	Bearing Adjustment Scr.	
2.	F286	Bearing Locknut	
3.	F285	Bearing Support Box	
4.	FV101	Valve Lever	
5.	OP547	Locknut	
6.	FV106	Collar Retainer	
7.	F895	Steam Spreader	F18
8.	F894	Drawband	F18
9.	F896	Drawband Eye	F18
	FV110	Valve Ass'y CONSISTS OF REF. NO. 10-20	
10.	FV100	Valve Body	
11.	V36	Valve Seat	
12.	P103	Gasket	
13.	F359	"E" Ring	
14.	FV103	Valve Stem	
15.	V15	Small Locknut	
16.	V16	Teflon Disc	
17.	FV104	Valve Disc Holder	
18.	V330	30 LB. Spring	
19.	FV105	Spring Retainer	
20.	F358	"E" Ring	



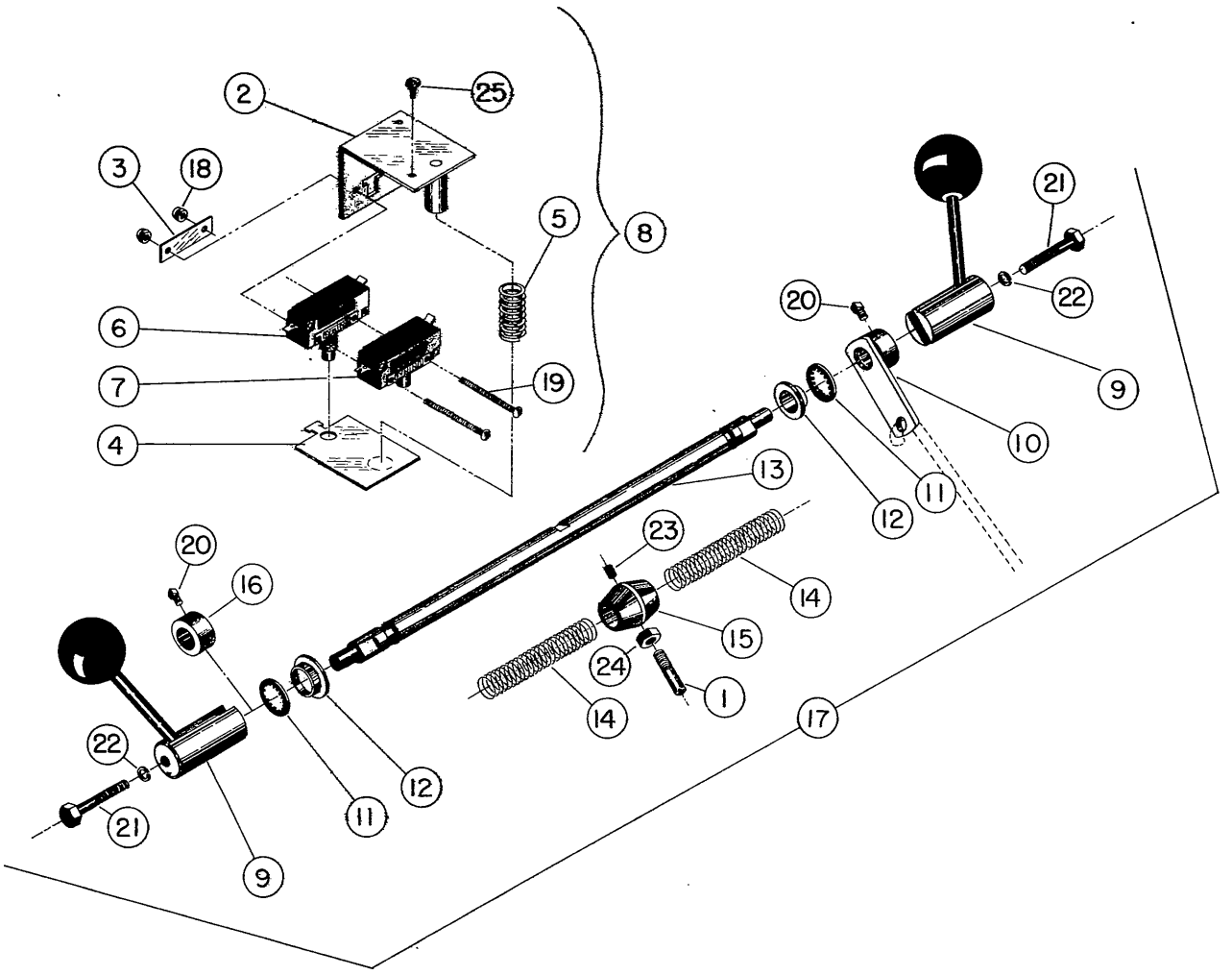
REAR BASE ASSEMBLY

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1.	FG329	Cover Plate	14.	FG314	Damper Rod
2.	FG341	Rear Base Ass'y (Welded)	15.	FG333	Damper
3.	F715	Strain Relief	16.	FG273	1/2" Std. Black Iron Pipe 28 1/2" lg.
4.	TU3549	Rubber Bumper	17.	FG143	Reducing Tee 1/2" x 1/2" x 1/4"
5.	D31	Spring	18.	OP296	1/2" Pipe Nipple
6.	FG330	Friction Bar	19.	FG274	1/2" Std. Black Iron Pipe 30" lg.
7.	F739	Solenoid 115 V.	20.	SB170	Junction Box Cover
	F738	Solenoid 230 V.	21.	F779	Rating Plate
8.	FG175	Solenoid Rod Extension	22.	SV80	1/4"-20 x 3/8" Slotted Hex. Hd. Scr.
9.	F520	Seal Spring	23.	TU2846	1/4" Split Lockwasher
10.	F519	Nylon Seal	24.	M263	#8 x 3/8" S.M.S.
11.	FG331	Damper Pull Rod	25.	CB36	1/4"-20 x 1/2 Hex. Hd. Scr.
12.	FG332	Nylon Friction Hub	26.	P126	1/4"-20 x 1/4" Set Scr.
13.	TU49	Delrin Bearing	27.	FG342	#6-32 x 3/4" Rd. Hd. Scr.



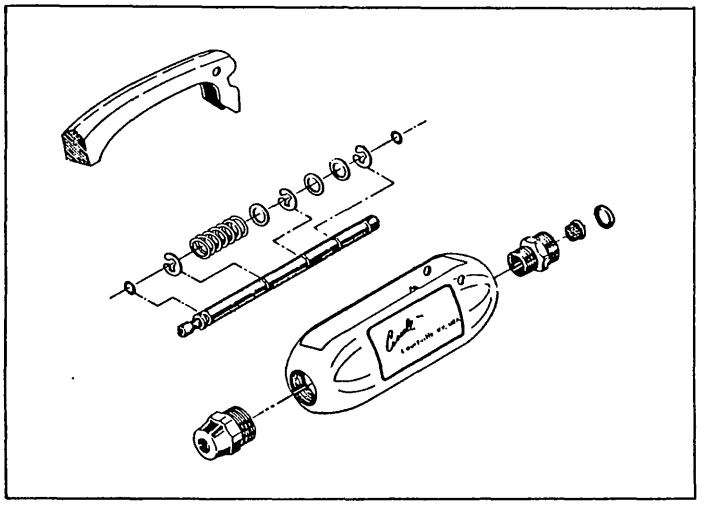
JACKET & FILTER ASSEMBLY - FG347

Ref. No.	Part No.	Description
1.	FG334	Jacket Door
2.	TU8013	Cissell Script Nameplate
3.	FG251	Operation Nameplate
4.	FG265	Floating Control Knob Disc.
5.	FG335	Jacket
6.	FG167	Sleever Hangers
7.	FG336	Filter Screen
8.	FG337	Filter Bracket
9.	FG149	Removable Air Filter
10.	M263	#8 x 3/8" S.M.S.
11.	FG344	Speed Nut
12.	TU3137	Speed Nut
13.	TU4935	1/4" - 20 Hex. Hd. Nut
14.	TU2846	1/4" Split Lockwasher
15.	FG343	Screw



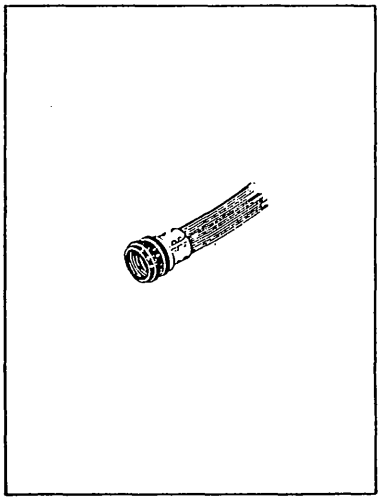
CONTROL SHAFT & SWITCH ASSEMBLY

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1.	FG360	Stud	13.	FG171	Control Shaft
2.	FG351	Switch Mounting Bracket W/Mounting Hardware	14.	FG154	Control Shaft Spring
			15.	FG357	Cam
3.	FG352	Retaining Plate	16.	FG364	Hub
4.	FG353	Switch Actuator Plate	17.	FG348	Control Shaft Ass'y
5.	FG315	Spring	18.	FG359	#6 - 32 Self-Locking Nut
6.	FG140	Steam Switch	19.	FG354	#6 - 32 x 1 5/8" Machine Scr.
7.	FG355	Air Switch	20.	F819	5/16" - 18 x 5/8" Sq. Hd. Set. Scr.
8.	FG356	Air & Steam Switch Ass'y	21.	FB 190	1/4" - 28 x 2" Hex. Hd. Cap. Scr.
9.	FG293	Control Knob Ass'y Bolt & Lockwasher	22.	TU2846	1/4" Split Lockwasher
			23.	TU3282	5/16" - 18 x 3/8" Set. Scw.
10.	FG358	Damper Control Lever	24.	C249	5/16" - 18 Hex. Nut
11.	FG249	Push-On Retaining Ring	25.	M263	#8 x 3/8" S.M.S.
12.	IB76	Delrin Bearing			



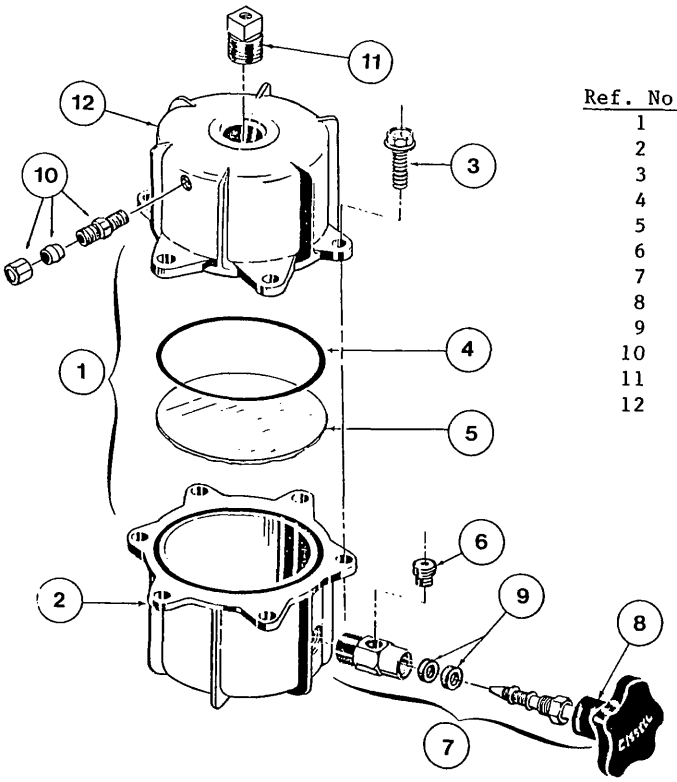
Water Spray Gun
Complete Assembly - SG043
Repair Kit - SK043 Consists of:
(Parts to repair one spray gun)

Plunger Tube Asm. 1 ea.
Strainer 1 ea.
Nozzle 1 ea.
Gaskets 2 ea.



Water Hose Assembly
Includes fittings, gaskets, and ferrules at each end of hose

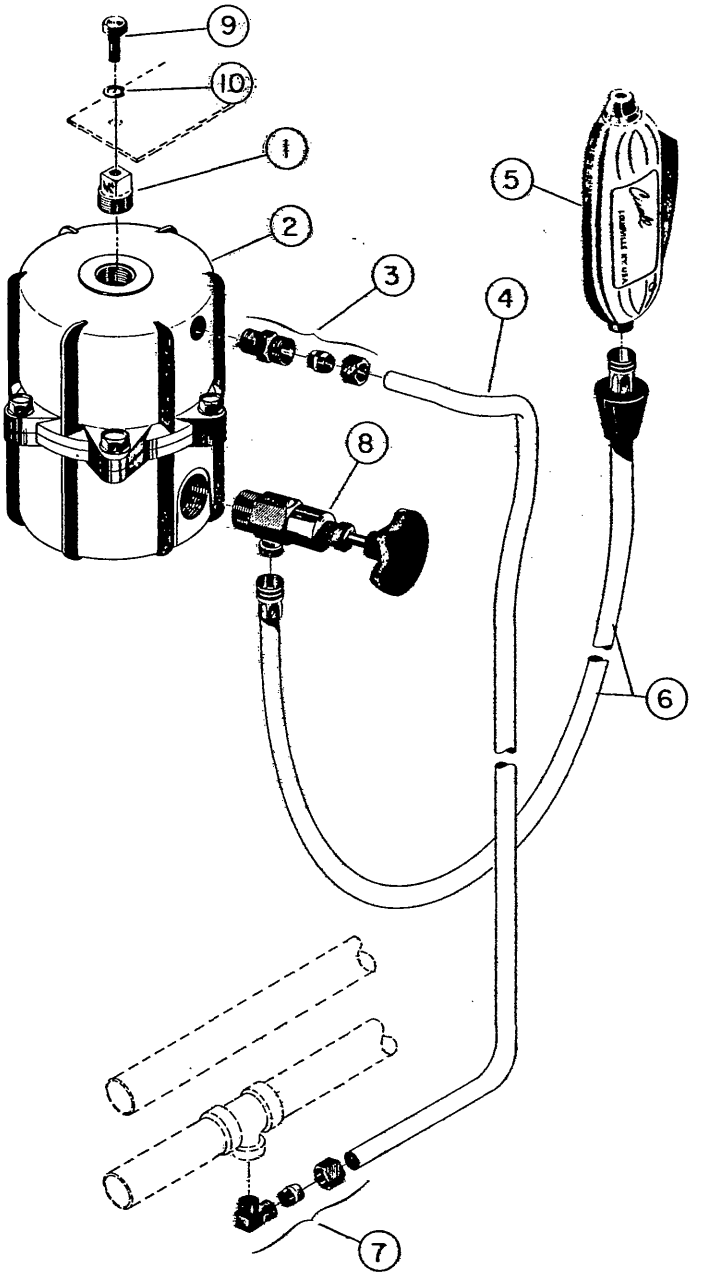
Part No.	Description
SG114	4'4" Long
SG37	5' Long
SG68	7' Long
SG115	9'9" Long
SG87	11' Long
SG155	20' Long



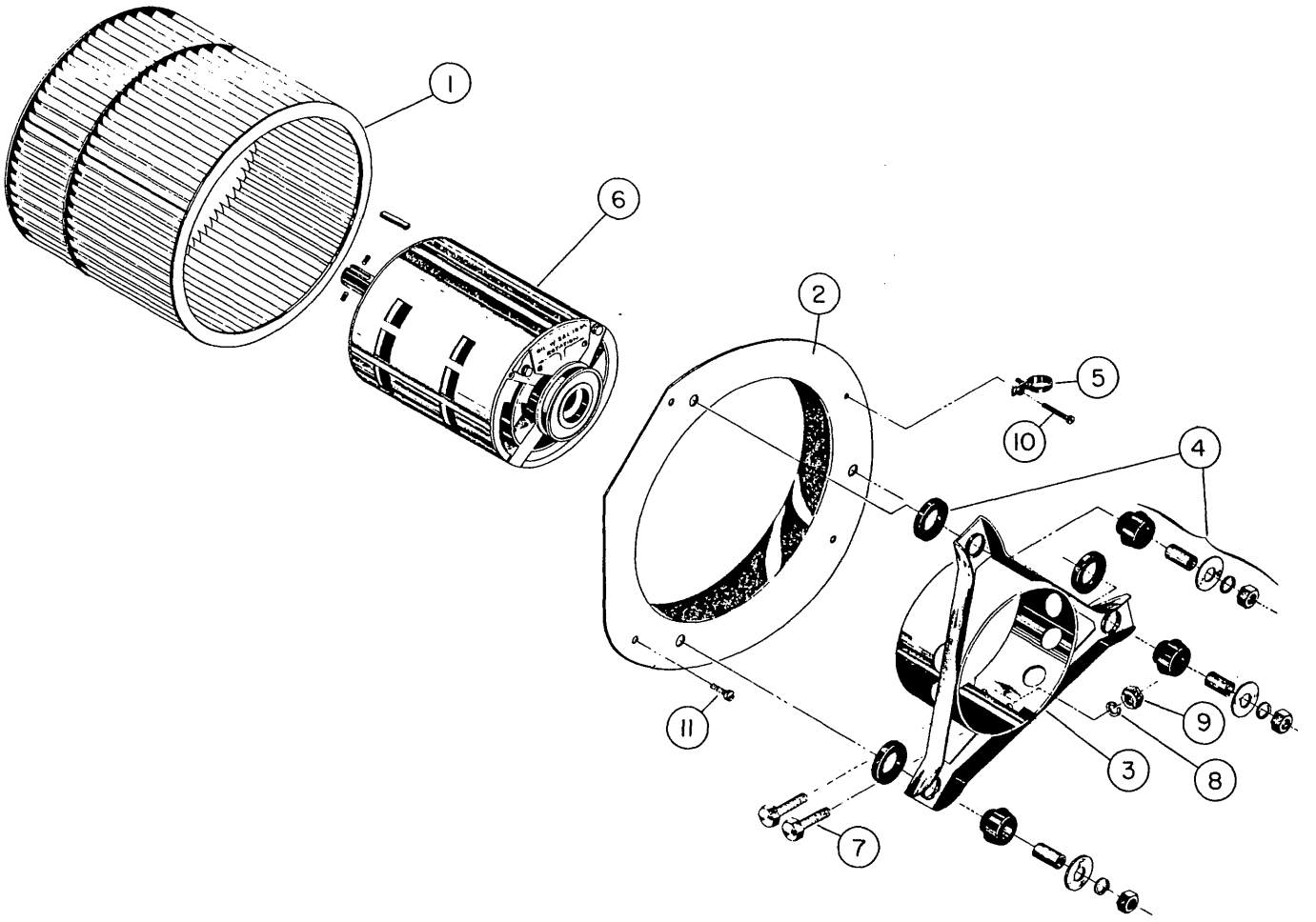
CONDENSER & VALVE ASSEMBLY - FG361

Ref. No.	Part No.	Description
1	SGC4	Condenser (Less Valve)
2	SGC8	Lower Section of Condenser
3	SG116	5/16"-3/4" Bolts
4	SG77	"O" Rings
5	SG79	Strainer
6	SGV35	Adapter
7	SGV1	Valve Assembly
8	V69	Knob, Stem, Pack Nut Assembly
9	V30	Pack Rings
10	OP225	1/8" P x 5/16" T Straight Connector
11	F578	Plug
12	SGC6	Top Section of Condenser

CONDENSER & SPRAY GUN - FG362



Ref. No.	Part No.	Description
1.	F578	Plug (For Mounting Condenser)
2.	SGC4	Form Finisher Condenser
3.	OP225	1/8" Pipe x 5/16" Tube Straight Connector
4.	FG340	5/16" O.D. Copper Tubing
5.	SGO43	Water Spray Gun (See Separate Parts Sheet)
6.	SG114	4'-4" Hose and Bumper Ass'y
7.	FG159	90° Compression Elbow W/Nut & Bead
8.	SGV1	Valve (Complete)
9.	RC344	1/4" - 20 x 3/4" Hex. Hd. Scr.
10.	TU2846	1/4" Split Lockwasher



MOTOR & BLOWER ASSEMBLY

Ref. No.	Part No.	Description
1.	FG292	Blower Wheel
2.	FG226	Inlet Cone
3.	AT305	Motor Bracket
4.	AF130	Motor Bracket Mtg. Hardware
5.	FG148	Nylon Wire Clamp
6.	Motor	(Give Electrical Specs)
7.	FB124	5/16" x 18 x 1 1/4" Cap Scr.
8.	TU2814	5/16" Split Lockwasher
9.	C249	5/16" - 18 Hex. Nut
10.	TU2793	#8 x 5/8" S.M.S.
11.	M263	#8 x 3/8" S.M.S.