

INSTRUCTIONS-PARTS LIST



307-371

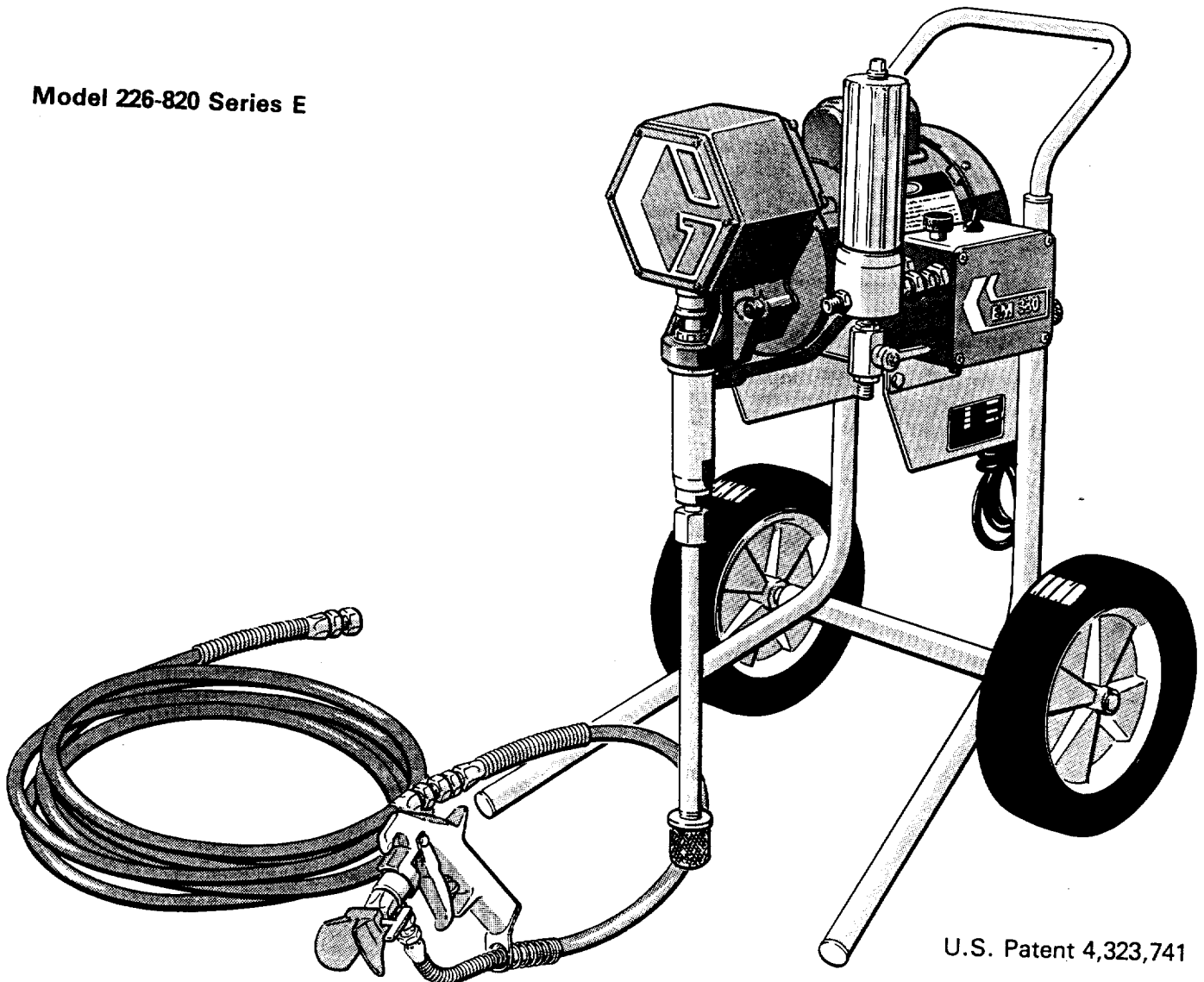
Rev. G
SUPERSEDES E

This manual contains **IMPORTANT WARNINGS** and **INSTRUCTIONS**
READ AND RETAIN FOR REFERENCE

OPERATING INSTRUCTIONS MANUAL 307-369 CONTAINS
IMPORTANT WARNINGS and **INSTRUCTIONS**
READ and UNDERSTAND

SERVICE INSTRUCTIONS FOR **EM 380 PORTABLE ELECTRIC/AIRLESS PAINT SPRAYER**

Model 226-820 Series E



WARNING

Never use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or materials containing such solvents in this equipment. Such use could result in a serious chemical reaction, with the possibility of explosion, which could cause death, serious bodily injury and/or substantial property damage. Consult your material suppliers to ensure that the materials being used are compatible with aluminum and zinc parts.

GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1444
© COPYRIGHT 1980 GRACO INC.

Table of Contents

Page

Troubleshooting Chart.....	3
Removing and Replacing Pump.....	4
Servicing Pump.....	4
Removing and Replacing Connecting Rod & Bearing.....	6
Removing and Replacing Drive Assembly.....	6
Removing and Replacing Capacitor.....	7
Removing and Replacing Electric Motor.....	7
Removing and Replacing Pressure Control.....	8
Service Information.....	9
Parts List.....	10
Parts Drawing.....	10
Technical Data.....	Back Cover

SERVICE

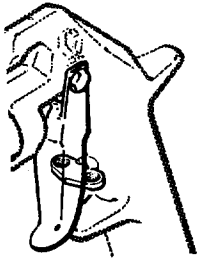
Instruction manual 307-369 contains important warnings and instructions for operating the sprayer. Service instructions are given on the following pages of this instruction manual.

Check all of the possible causes and solutions in the Troubleshooting Chart before disassembling any part of the sprayer. Always follow the pressure-relief procedure described in the following warning before servicing the sprayer.

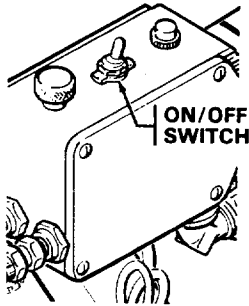
WARNING

Pressure Relief Procedure.

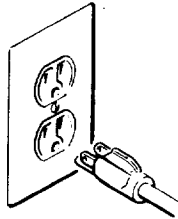
To avoid injection injury and possible bodily injury from moving parts or electric shock when installing, removing, cleaning or repairing any part of the sprayer and whenever shutting off the sprayer: Engage gun safety latch, turn ON/OFF switch to OFF, unplug power supply cord, disengage gun safety and trigger gun into waste container to relieve pressure. Engage the gun safety. Relieve pressure for secondary gun the same way. Open drain valve, having container ready to catch fluid; leave drain valve open.



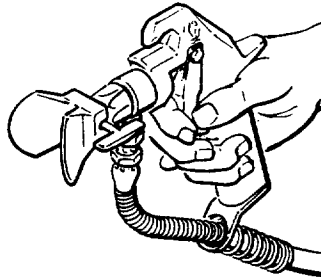
ENGAGE SAFETY



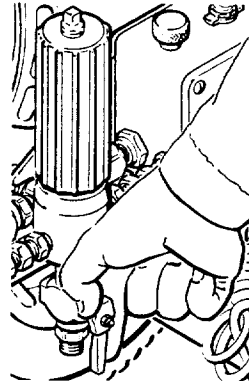
TURN SWITCH TO OFF



UNPLUG CORD



DISENGAGE SAFETY
AND TRIGGER GUN;
ENGAGE SAFETY AGAIN



OPEN DRAIN VALVE

TERMS

WARNING: Alerts user to avoid or correct conditions that could cause bodily injury.

CAUTION: Alerts user to avoid or correct conditions that could cause damage to or destruction of equipment.

NOTE: Identifies essential procedures or extra information.

TROUBLESHOOTING CHART

PROBLEM	CAUSE	SOLUTION
Electric motor won't run	Power or extension cord unplugged, or damaged or building circuit fuse blown Motor overload switch* has opened Pressure setting too low Pressure control frozen or damaged by over pressurization	Check, reset or replace Unplug power cord, relieve pressure, allow to cool, decrease pressure Increase Thaw**, change, remove or clean***, replace, see page 8
Electric motor stops while spraying	Power or extension cord unplugged, or building circuit fuse blown Motor overload switch* has opened Pressure setting too low Spray tip or filter plugged Wrong type extension cord	Check, reset or replace Unplug power cord, relieve pressure, allow to cool, decrease pressure Increase Remove and clean Use maximum 50 ft (15.2 m) 12 gauge, extension cord
Electric motor runs, but low or no paint output and pump not stroking (see problem - Not enough paint pressure - below also.)	Piston ball check not seating Piston packings worn or damaged Intake valve ball check not seating Pump frozen Filter upside down Pressure control frozen or damaged by over pressurization Gear train damaged Worn pump parts Sprayer not primed	Service, see page 4 Replace, see page 4 Service, see page 4 Thaw** Remove and reinstall Thaw**, change, remove or clean***, replace, see page 8 Replace Service, see page 4 Prime sprayer—see manual 307-369
Electric motor labors when starting, blowing fuses	Capacitor failure Circuit board failure	Replace capacitor, see page 7 Replace circuit board
Paint leaks into wet-cup	Throat packings worn or damaged	Replace, see page 4
Excessive surge at spray gun	Spray tip or filter plugged Spray tip too big or worn Paint too viscous Wrong type hose	Remove and clean Change spray tip—see manual 307-321 Thin Use minimum 50 ft (15.2 m) static free nylon hose (wire braid hose unacceptable)
Not enough paint pressure	Pressure setting too low Spray tip too big or worn Pressure control frozen or damaged by over pressurization Worn pump parts	Increase Change spray tip—see manual 307-321 Thaw**, change, remove or clean***, replace, see page 8 Service, see page 4
Tails or fingers in spray pattern	Pressure setting too low Outlet filter dirty or plugged Spray tip too big or worn Paint supply low or pail empty Paint too viscous Wrong type hose	Increase Clean—see manual 307-273 Change spray tip—see manual 307-321 Fill Thin Use minimum 50 ft (15.2 m) static free nylon hose (wire braid hose unacceptable)
Paint runs or sags	Spray tip too big or worn	Change spray tip—see manual 307-321
Spitting from spray gun	Paint supply low or pail empty Sprayer sucking air or gun needle not seating	Fill Tighten fittings, service gun -see manual 307-046
Static sparking from spray gun	Sprayer or work not grounded	Check, ground

*The electric motor has an overheating protector switch which automatically resets on cooling. If it opens, unplug the power cord and let the sprayer cool for 30 to 60 minutes. Also try to correct the cause of overheating. Always use the lowest pressure setting needed.

**Freezing results from failure to replace water-base paint or flushing water with mineral spirits solvent.

***Over pressurization results from (1) using less than 50 ft (15.2 m) of nylon spray hose, (2) using a wire braid spray hose, (3) adding a shut off device between the pump outlet and the spray gun, (4) attaching a spray hose to the filter drain valve, or (5) using a clogged or incorrectly assembled filter.

REMOVING and REPLACING PUMP

WARNING

Pressure Relief Procedure

To avoid injection injury and possible bodily injury from moving parts or electric shock, follow this procedure before checking or repairing sprayer.

Engage gun safety, turn ON/OFF switch to OFF and unplug power supply cord. Disengage gun safety, trigger gun into waste container until pressure is relieved. Engage the gun safety. Relieve pressure for the secondary gun the same way. Open drain valve, having a container ready to catch fluid; leave drain valve *open*.

Flush the sprayer if possible.

Unscrew adapter (38) from pump. See Fig 1. Use a wrench on the pump intake valve (80) to keep it from loosening.

Unscrew the tube fitting nut (8) from male connector (10) and remove tube (52). See Fig 1.

Use a screwdriver to push retaining spring (33) aside and push out pin (34).

Loosen locknut (74) and unscrew pump from drive assembly (55).

When installing a new or repaired pump, first rotate crankshaft so connecting rod (54) is in its lowest position. Push pump piston rod (79) all the way down into pump cylinder (78). Screw pump into drive assembly (55) until you feel piston rod pressing against connecting rod. Unscrew pump until connector (10) lines up with outlet tube (52), then unscrew another complete turn.

Tighten locknut (74) to 70 ft-lb (95 N·m) torque. Locknut must be very tight to avoid loosening from vibration.

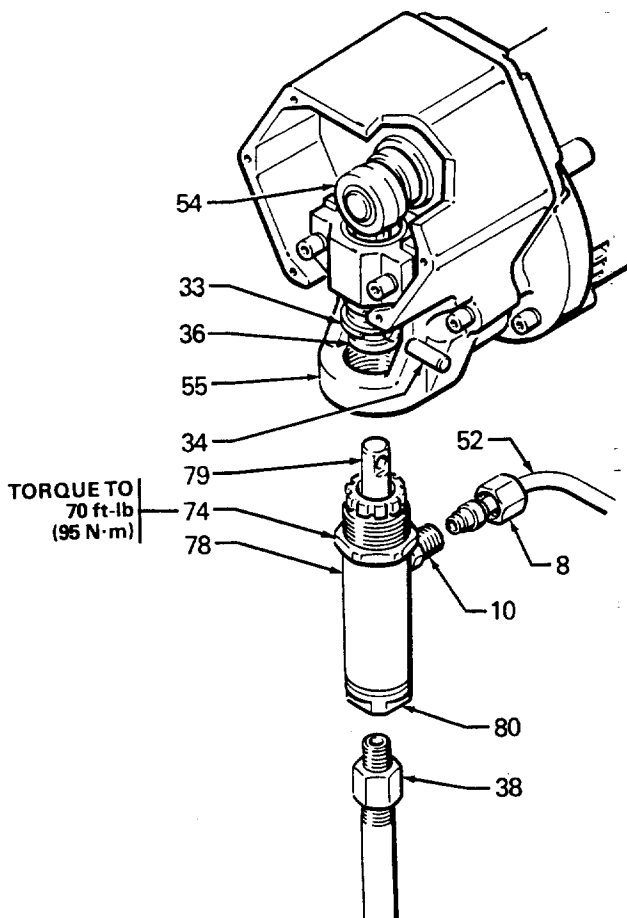


Fig 1

Align holes in piston rod (79) and coupling (36) and install pin (34). Be sure to push spring (33) down in place over pin ends.

Reassemble remaining parts, reverse from disassembly.

SERVICING PUMP

WARNING

Pressure Relief Procedure

To avoid injection injury and possible bodily injury from moving parts or electric shock, follow this procedure before checking or repairing sprayer.

Engage gun safety, turn ON/OFF switch to OFF and unplug power supply cord. Disengage gun safety, trigger gun into waste container until pressure is relieved. Engage the gun safety. Relieve pressure for the secondary gun the same way. Open drain valve, having a container ready to catch fluid; leave drain valve *open*.

Use repair kit number 217-079 to repair pump. Use all of the parts in kit, even if old parts still look good.

Remove pump from sprayer as described above.

Disassembling Pump

Unscrew intake valve (80) from cylinder (78). If valve is seized in housing, squirt penetrating oil around threads and *gently* tap around housing with a light hammer to loosen. See Fig 2 and 4. Remove ball guide (72), stop pin (71) and ball (60). Clean and inspect parts for wear or damage.

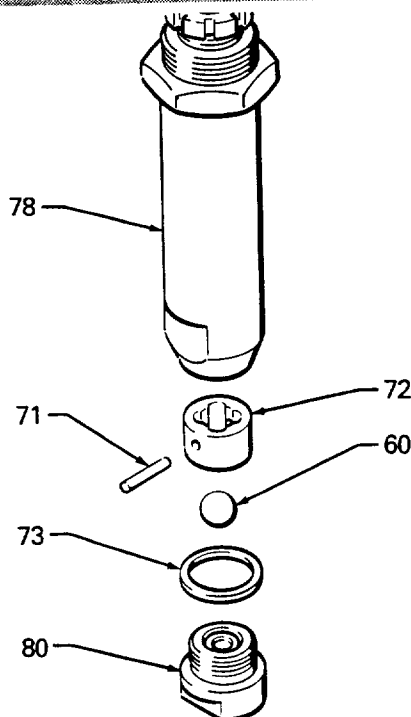


Fig 2

Unscrew and remove packing nut (70). Using a rubber mallet, tap piston rod (79) down and pull out through bottom of cylinder (78). See Fig 3 and 4.

Remove glands (66 & 69) and packings (67 & 68).

Clean and inspect piston rod and inside of cylinder for rust, nicks, scratches or scoring which could cause leaking or premature wear of packings.

Clamp flats of piston rod in a vise. Use a large screwdriver to unscrew adapter (76) from valve (81). Remove seal (61) and washers (77). See Fig 3 and 4.

Use a wrench to loosen nut (65) and unscrew valve (81) from piston rod. Remove ball (59). Remove nut, glands (62 & 64) and packings (63 & 75).

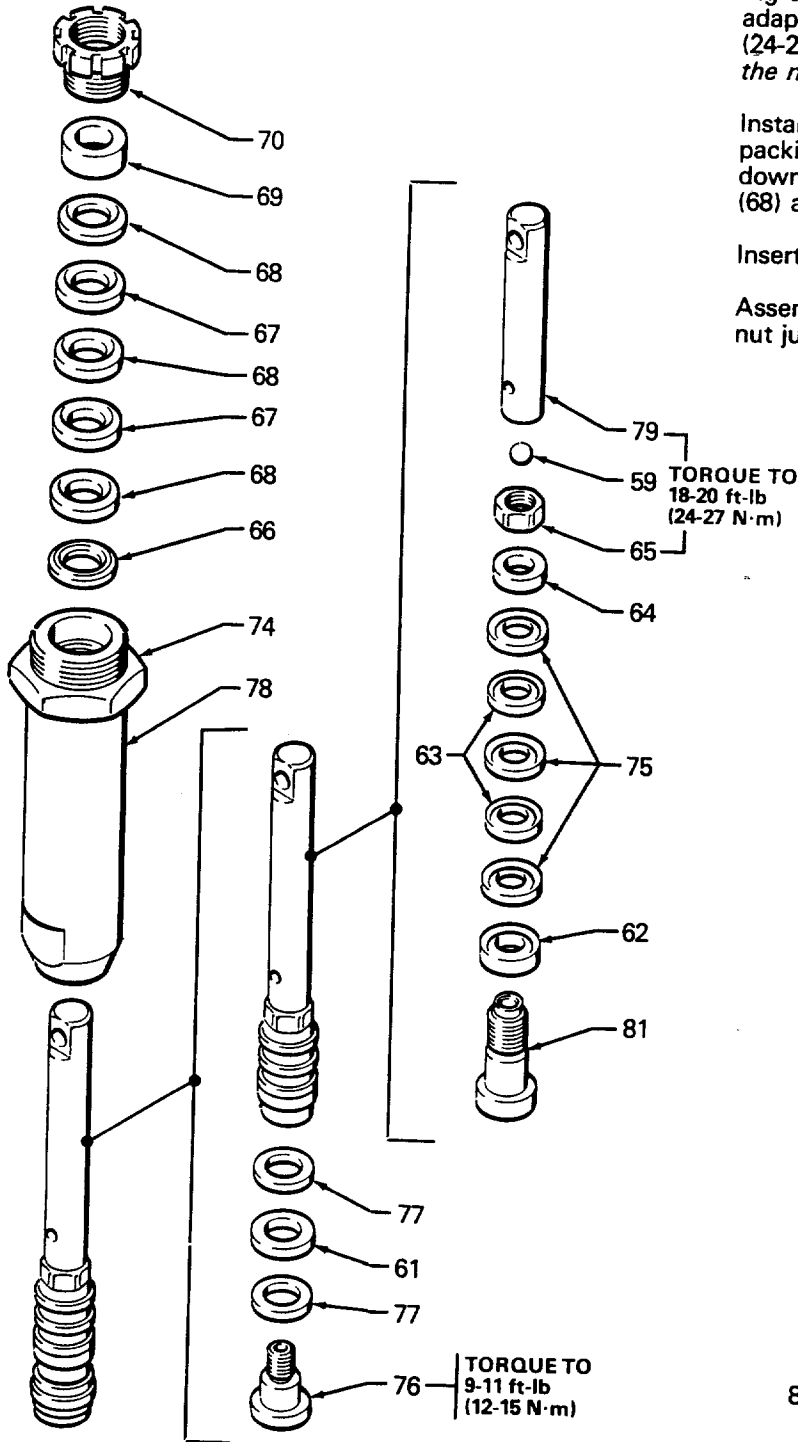


Fig 3

Assembling Pump

When assembling pump, coat packings, piston rod and inside of cylinder with hydraulic oil.

When reassembling piston, install new glands and packings in correct order, alternating leather and plastic packings. See Fig 3. The lips of the V-packings must face up against fluid pressure. See Fig 4. Tighten the nut (65) to 10.5 in-lb (1.2 N·m) to seat the packings, then back off the nut and hand tighten it.

Install new seal and washers on adapter (76), apply locking compound on threads and screw into valve (81) to 9-11 ft-lb (12-15 N·m) torque.

Place new ball in piston rod (79). Apply locking compound to threads of valve (81) and screw it into rod. Using a torque wrench on nut (65) and a screwdriver in adapter (76), tighten nut against piston rod to 18-20 ft-lb (24-27 N·m) torque, without changing the tightness of the nut against packings.

Install throat packings, glands and packing nut, leaving packing nut loose. The lips of the V-packings must face down against fluid pressure. Alternate plastic packings (68) and leather packings (67) in order shown in Fig 3.

Insert piston rod through bottom of pump cylinder.

Assemble and install intake valve and tighten packing nut just enough to stop leakage - no tighter.

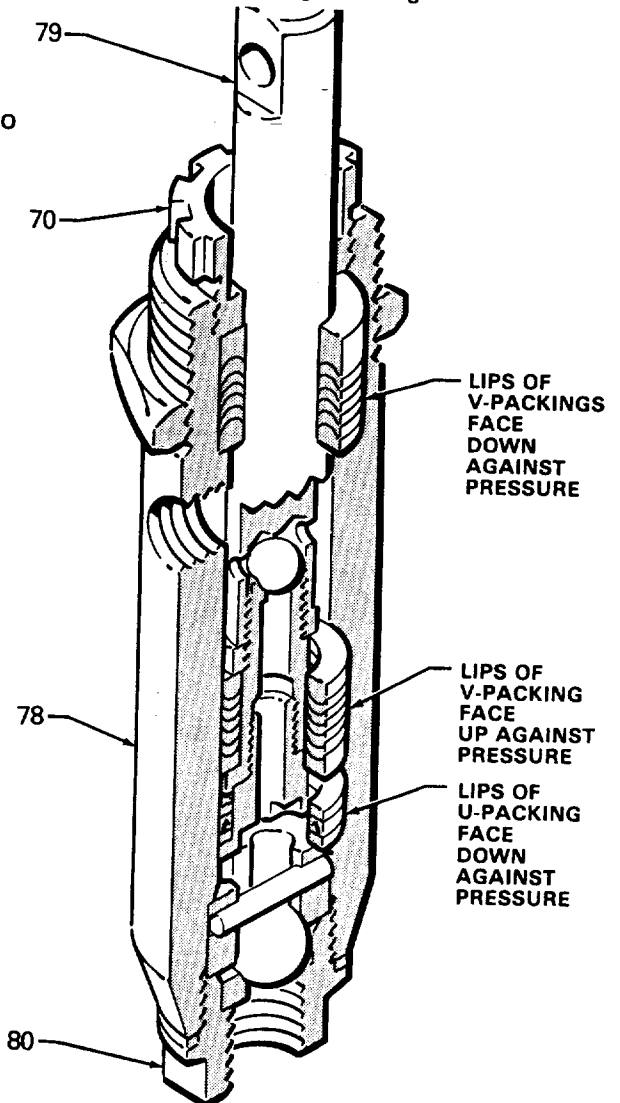


Fig 4

REMOVING and REPLACING CONNECTING ROD and BEARING

WARNING

To avoid injection injury and possible bodily injury from moving parts or electric shock, follow the pressure relief procedure on page 4 before checking or repairing sprayer.

Remove pump as described on page 4. Remove the 6 screws (19) and cover (35). Remove the 2 screws and lockwashers (20 and 18). Remove bearing (53) and connecting rod (54), sliding connecting rod off of crankshaft. See Fig 5.

Use a screwdriver to push retaining spring (33) aside and remove pin (34) from coupling (36). Remove coupling from connecting rod.

Pull connecting rod out of bearing. Wipe clean (don't use solvent) and inspect surfaces of bearing and connecting rod link for wear or damage. If either needs replacing, you should replace both. When installing rod and bearing, coat surfaces with SAE 10 non-detergent motor oil.

Clean and inspect crankshaft. Wipe clean with a rag; do not use solvent. If crankshaft is badly worn, replace drive assembly (55) as described below.

Clean and inspect connecting rod needle bearing. Repack bearing with industrial heavy duty extreme pressure lithium soap grease.

NOTE: After every 100 hours of operation, or whenever servicing the pump (whichever comes first), fill the cavity in connecting rod (54) with SAE 10 non-detergent motor oil.

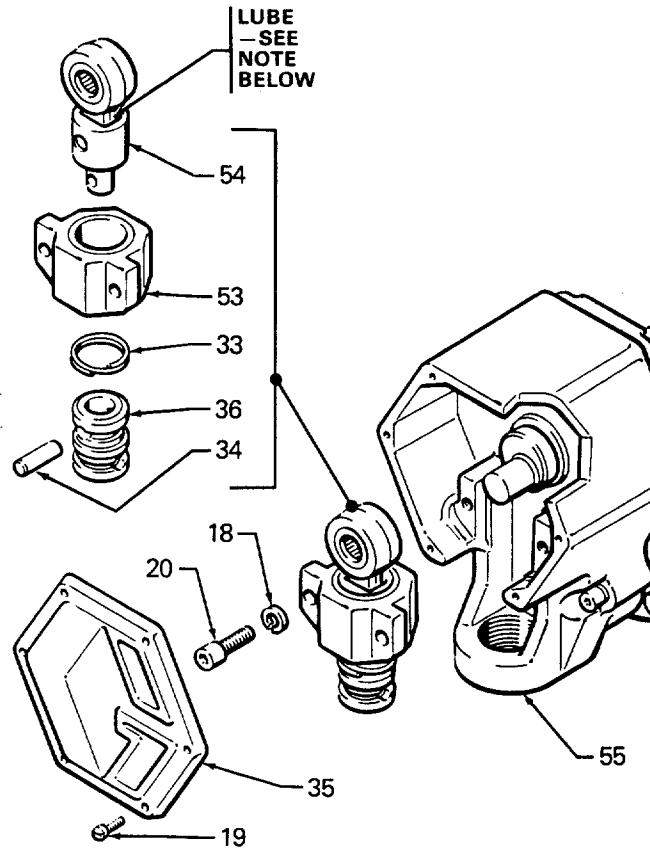


Fig 5

Assemble new rod and bearing, being sure to push spring (33) down in place over pin (34) ends, and install in reverse order of removal.

REMOVING and REPLACING DRIVE ASSEMBLY

WARNING

To avoid injection injury and possible bodily injury from moving parts or electric shock, follow the pressure relief procedure on page 4 before checking or repairing sprayer.

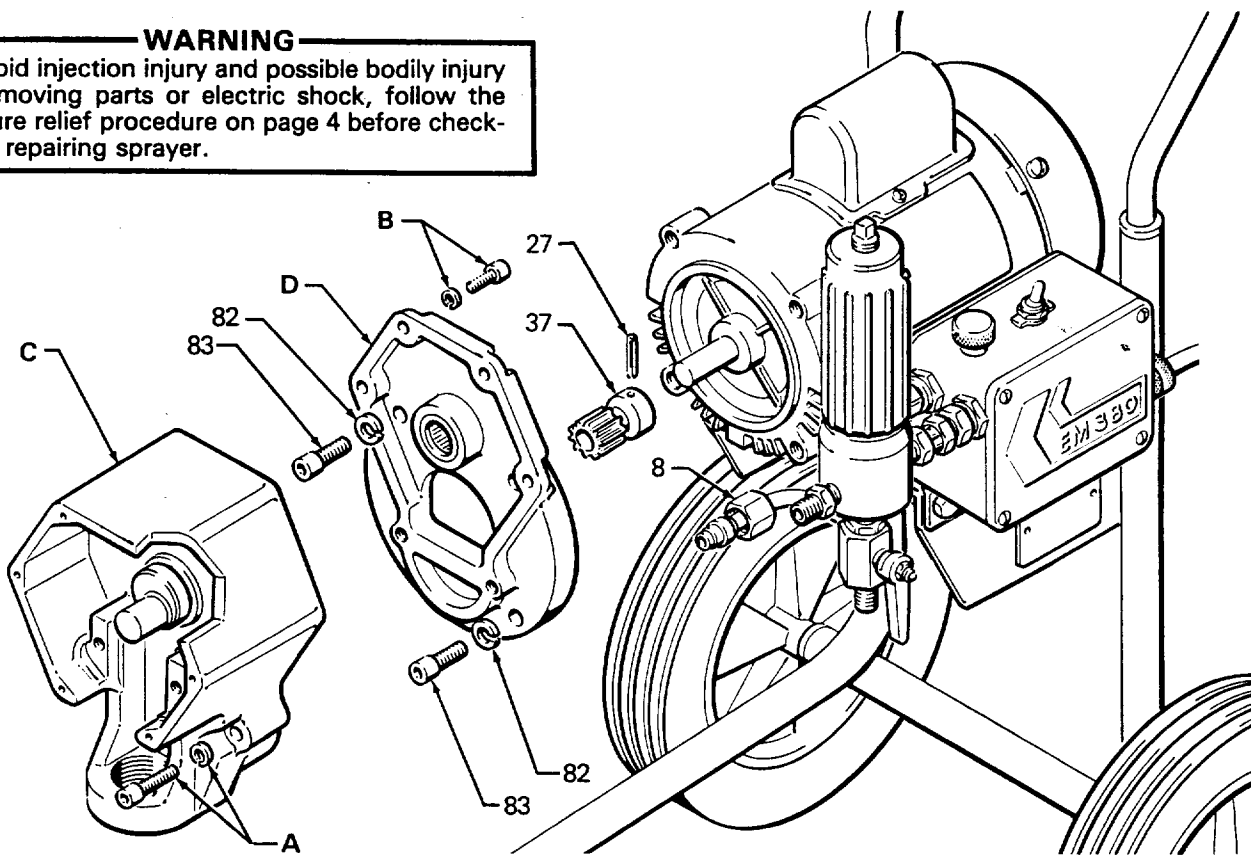


Fig 6

Remove pump, connecting rod and bearing as described on pages 4 and 6.

Remove screws and lockwashers (A&B) and remove drive housing (C). Remove screws and lockwashers (82 & 83) and remove motor housing (D). See Fig 6.

REMOVING and REPLACING CAPACITOR

WARNING

To avoid injection injury and possible bodily injury from moving parts or electric shock, follow the pressure relief procedure on page 4 before checking or repairing sprayer.

Clean and inspect gear (37) for wear or damage. Replace if necessary. To remove, drive out pin (27) and pull off of motor shaft. Apply molybdenum disulfide spray lubricant to gear, allow to dry, then apply industrial heavy duty extreme pressure lithium soap grease.

Install new drive assembly in reverse order of removal.

Remove two screws and the cover of capacitor (91). See Fig 7. Remove flag connectors from old capacitor. Connect flag connectors of new capacitor and replace cover.

NOTE: The replacement capacitor includes new resistor, installed.

REMOVING and REPLACING ELECTRIC MOTOR

WARNING

To avoid injection injury and possible bodily injury from moving parts or electric shock, follow the pressure relief procedure on page 4 before checking or repairing sprayer.

Disconnect tube fitting nut (8) from connector (10). See Fig 1. Remove drive assembly as described on page 6. You can leave pump, connecting rod and bearing assembled to drive assembly. Drive out pin (27) and remove gear (37). See Fig 7. Remove screws (25) and cover (41) from pressure control (50). See Fig 8. Disconnect red, pink and brown motor leads from circuit board (86). Disconnect green and yellow motor lead from grounding screw (2) and black motor lead from toggle switch (89)

Unscrew nuts on both ends of conduit (1) from connectors. Remove screws (7), nuts (3) and lockwashers (4). See Fig 7. Remove motor from frame while carefully guiding wires through connector in control box. Remove conduit (1) from wires.

Loosen locknut and unscrew connector (13) from motor, being careful to avoid twisting wires. Install new motor in reverse order of removal.

NOTE: Terminals (12 and 51) are not included with a new motor (23). Order these separately and crimp to motor leads as shown in Fig 8. Circuit board (86) is included with a new motor.

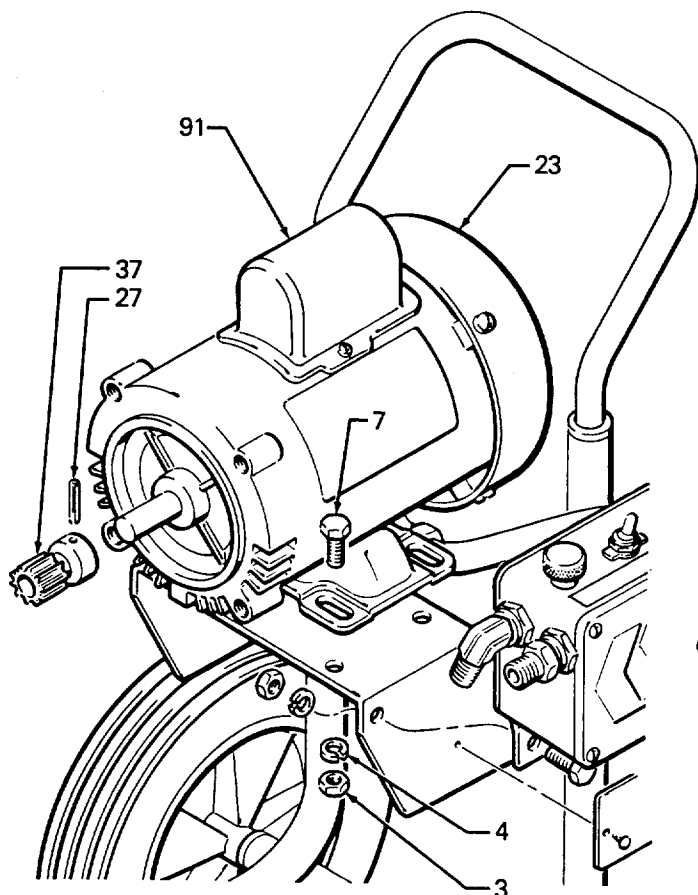


Fig 7

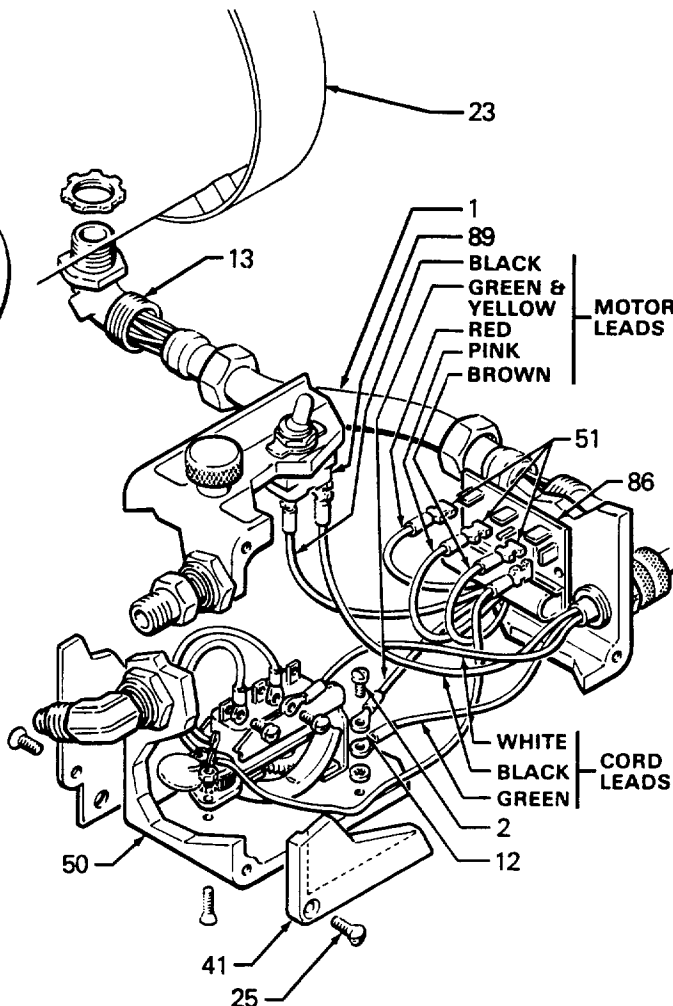


Fig 8

REMOVING and REPLACING PRESSURE CONTROL

WARNING

Do not alter the factory adjusted pressure switch (F). See Fig 11. Changing the setting may cause unsafe high pressure or poor performance.

To relieve system pressure, turn off the power switch and unplug the power cord. Trigger the spray gun, engage the trigger safety and slowly open the drain valve.

Hold the nut at the pressure control with a wrench and disconnect swivel union (84) from nipple (G). Remove filter (47). See Fig 9.

Disconnect tube (52) from elbow (H). See Fig 10.

CAUTION

Never attempt to remove the elbow (H) or nipple (G) from the pressure control. Any twisting or jarring of the pressure control fitting could alter the factory setting of the control or permanently damage the control.

Remove screw (7), lockwashers (4) and nuts (3), remove pressure control (50) from frame.

Remove screws (25) and cover (41) from pressure control (50). See Fig 11.

Disconnect red, pink and brown motor leads from circuit board (86). Disconnect green and yellow motor lead from grounding screw (2), and black motor lead from toggle switch (89). See Fig 11.

NOTE: Circuit board (86) is not included with pressure control (50) replacement assembly. Order separately if new circuit board is needed.

Unscrew nut on end of conduit (1) from connector (13). See Fig 11. Pull pressure control (50) away from conduit while carefully guiding wires through connector (13).

Loosen knurled part of power cord strain relief (J), and unscrew it from pressure control. Slide strain relief up on power cord to provide clearance, and unscrew conduit connector (13). See Fig 11.

Replace in reverse of order of removal.

CAUTION

Failure to observe the following may cause poor performance or excessive pressure and permanent damage to the pressure control:

- (1) Always use nylon spray hose at 50 ft (15.2 m) minimum length.
- (2) Never use a wire braid spray hose.
- (3) Never attach a spray hose to the filter drain valve.
- (4) Never add any type of shut off device between the pump outlet and the spray gun.
- (5) Be sure to check filter for clogging or incorrect assembly if tip clogging frequency increases.
- (6) Never allow flushing water or water base paint to freeze in the system.

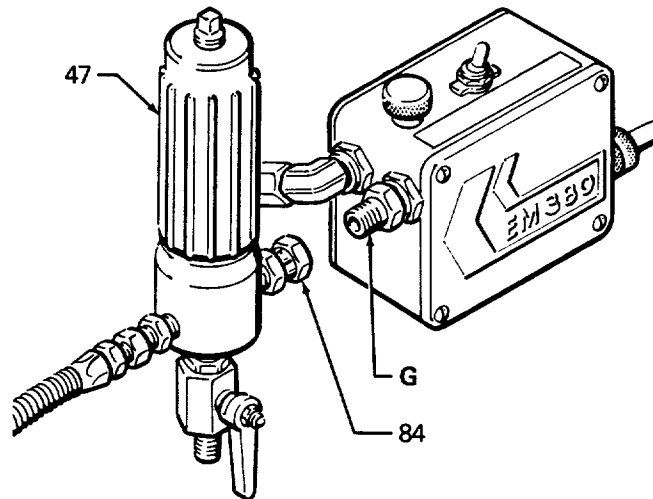


Fig 9

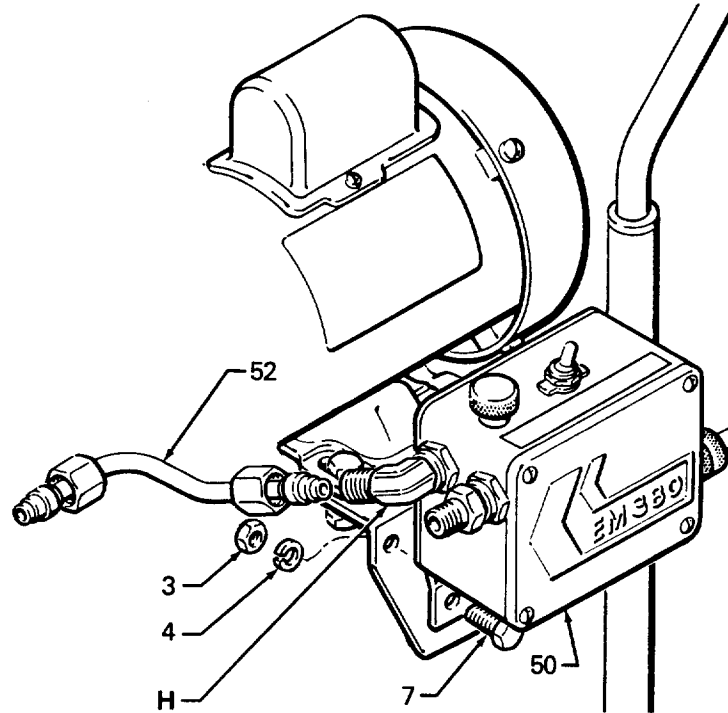


Fig 10

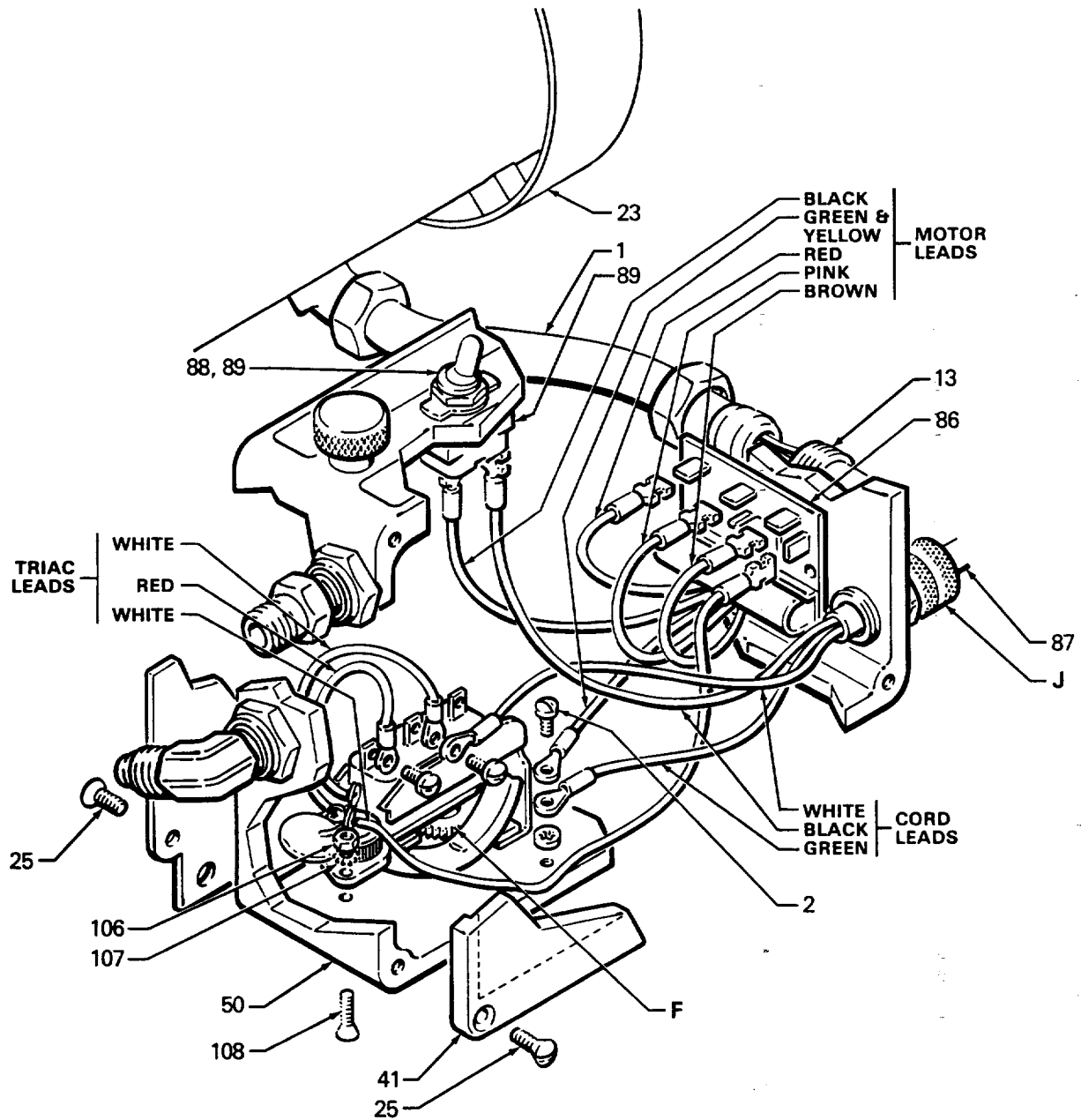


Fig 11

SERVICE INFORMATION

Listed below by the assembly changed are OLD, NEW, DELETED and ADDED parts.

ASSEMBLY CHANGED	PART STATUS	REF NO.	PART NO.	NAME
226-820 Final Assy Series To E	DELETED	6	102-474	Terminal
	OLD		177-790	Plate
	NEW	30	172-412	Plate
	OLD		208-663	Spray Gun
	NEW	44	218-132	Spray Gun
	DELETED	103	178-569	Axle
	NEW	104	217-507	Frame & Axle

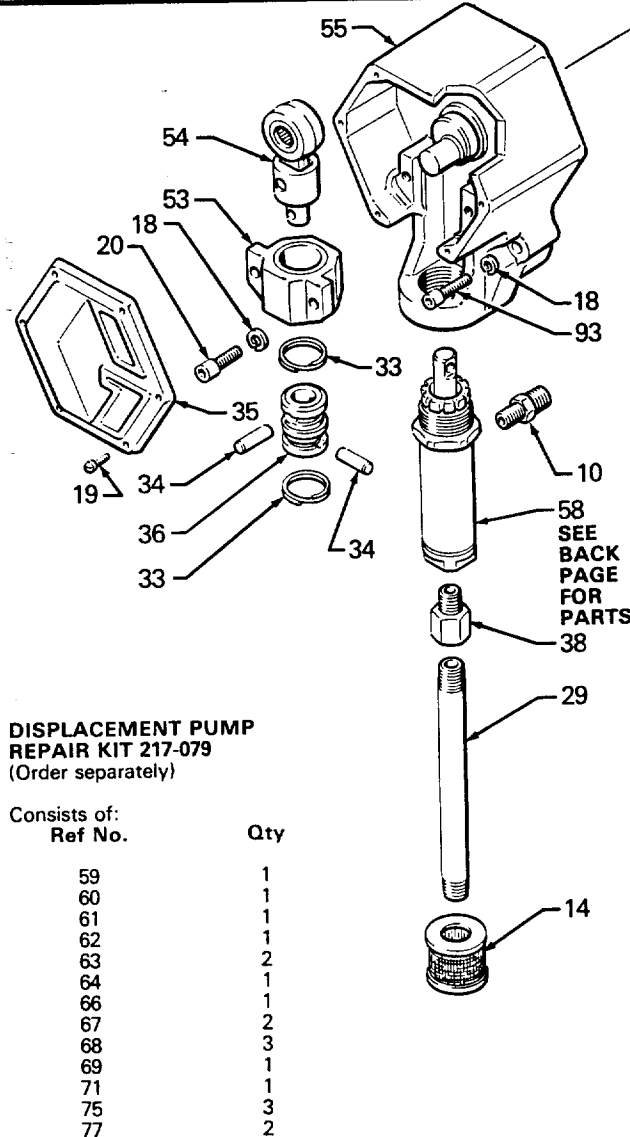
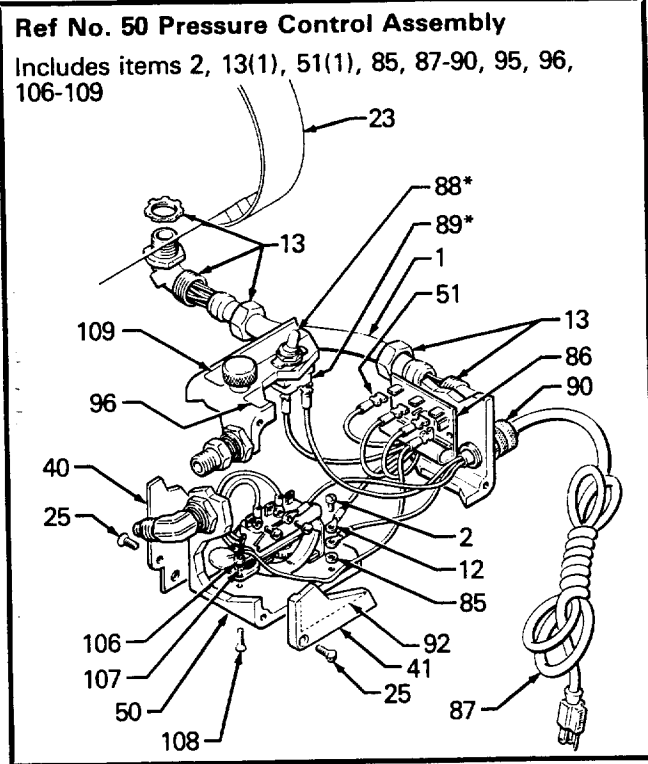
ASSEMBLY CHANGED	PART STATUS	REF NO.	PART NO.	NAME
215-860 Pressure Control	OLD		217-101	Cord
	NEW	87	217-492	Cord
	NEW	106	100-072	Nut
	NEW	107	103-181	Lockwasher
	NEW	108	107-070	Screws
	NEW	109	178-797	Label

INTERCHANGEABILITY NOTE: NEW parts replace OLD parts listed directly above them.

PARTS LIST

REF NO.	PART NO.	DESCRIPTION	QTY
1	065-099	CONDUIT, electrical 4 in. (102 mm)	1
2	100-035	SCREW, mach; pan head; 8-32 x 5/16"	6
3	100-188	NUT, hex, 5/16-18	6
4	100-214	LOCKWASHER, spring, 3/8"	6
7	101-344	CAPSCREW, hex hd, 5/16-18 x 7/8"	6
8	101-907	NUT, fitting, tube, for 3/8" tube	1
9	101-908	FERRULE, fitting, tube, for 3/8" tube	1
10	101-909	CONNECTOR, male, 1/2-18 x 3/8" tube, 1/4 npt(m)	1
11	102-556	RIVET, blind	2
12	102-799	TERMINAL, wire; ring	1
13	102-932	CONNECTOR, conduit, 90°	2
14	102-952	STRAINER	1
18	104-008	LOCKWASHER, spring, 5/16"	4
19	107-156	SCREW, mach, pan head; 6-32 x 5/8	6
20	105-509	CAPSCREW, socket head, 5/16-18 x 7/8"	2
22	105-521	PLUG, tubing	2
23	105-529	MOTOR, electric 0.5 HP, includes replacement items 86 and 91	1
25	106-075	SCREW, mach, oval head, 10-24 x 1/2	8
27	105-680	PIN, spring, straight, 0.167 dia, 0.94" long	1
29	178-597	TUBE, suction	1
30	172-412	PLATE, designation	1
31	176-250	LABEL, warning	1
32	172-981	LABEL, warning	1
33	176-817	SPRING, retaining	2
34	176-818	PIN, str, hdls, 0.3125" dia x 1.023"	2
35	178-128	COVER, gear box; nylon	1
36	176-824	COUPLING, pump	1
37	176-825	GEAR, pinion	1
38	178-460	ADAPTER, increase; 3/8(m) x 1/2 npt(f)	1
40	178-041	BRACKET, mounting	1
41	177-229	COVER	1
44	218-132	GUN, airless, see 307-633 for parts	1
45	*210-541	HOSE, spray; cpld 1/4 npsm(fbe) swivel; 1/4" ID; nylon; 50 ft (15 m); spring guard one end; static free	1
46	210-657	VALVE, ball, see 306-861 for parts	1
47	214-570	FILTER, fluid, see 307-273 for parts	1
48	*214-701	HOSE, whip end, cpld 1/4 npt(m) x 1/4 npsm(f); 3/16" ID, static free; 36" (914 mm) long	1
50	215-860	CONTROL, pressure; includes replacement items 2, 13(1), 51(1), 85, 87-90, 95, 96, 106-109	1
51	596-421	TERMINAL, wire; female snap-on	4
52	178-574	TUBE	1
53	215-903	BEARING assembly	1
54	215-904	CONNECTING ROD assembly	1
55	215-905	DRIVE assembly; includes replacement items 18(2), 82, 83, 93	1
56	216-001	KIT, spray tip, see 307-321 for parts	1
57	*216-xxx	SPRAY TIP, cylinder; Reverse-A-Clean III, standard (customer's choice, see 307-321)	1
58 through 81	See back page for part no. and descriptions		
82	106-115	LOCKWASHER, spring, 3/8"	4
83	100-659	CAPSCREW, socket head, 3/8-16 x 1"	4
84	155-665	UNION, straight adapter, 3/8 npt(m) x 3/8 npsm(f) swivel	1
85	157-021	LOCKWASHER, int. shkprf, No. 8	1
86	105-683	BOARD, circuit	1
87	217-492	CORD, supply, power	1
88	*105-659	BOOT, switch	1
89	*105-679	TOGGLE, switch	1
90	106-170	RELIEF, strain, cord	1
91	*105-771	CAPACITOR, start; includes resistor	1
92	177-762	LABEL, warning	1
93	100-657	CAPSCREW, socket head, 5/16-18 x 2"	2
94	206-994	THROAT SEAL LIQUID, 1 pt	1
95	178-034	TAG, caution	1
96	178-035	LABEL, caution	1
97	101-242	RING, retaining	2
98	103-117	RING, retaining	2
99	106-534	WHEEL, semi-pneumatic	2
100	176-884	WASHER, flat	2
101	178-565	BUTTON-SNAP	2
102	178-566	SLEEVE, axle	2
104	217-507	FRAME & AXLE ASSY.	1
105	178-573	HANDLE, cart	1
106	100-072	NUT, hex, mscr; 6-32	2
107	103-181	LOCKWASHER, No. 6	2
108	107-070	SCREW, mach, flat hd; 6-32 x 5/8" (16 mm)	2
109	178-797	LABEL, warning	1

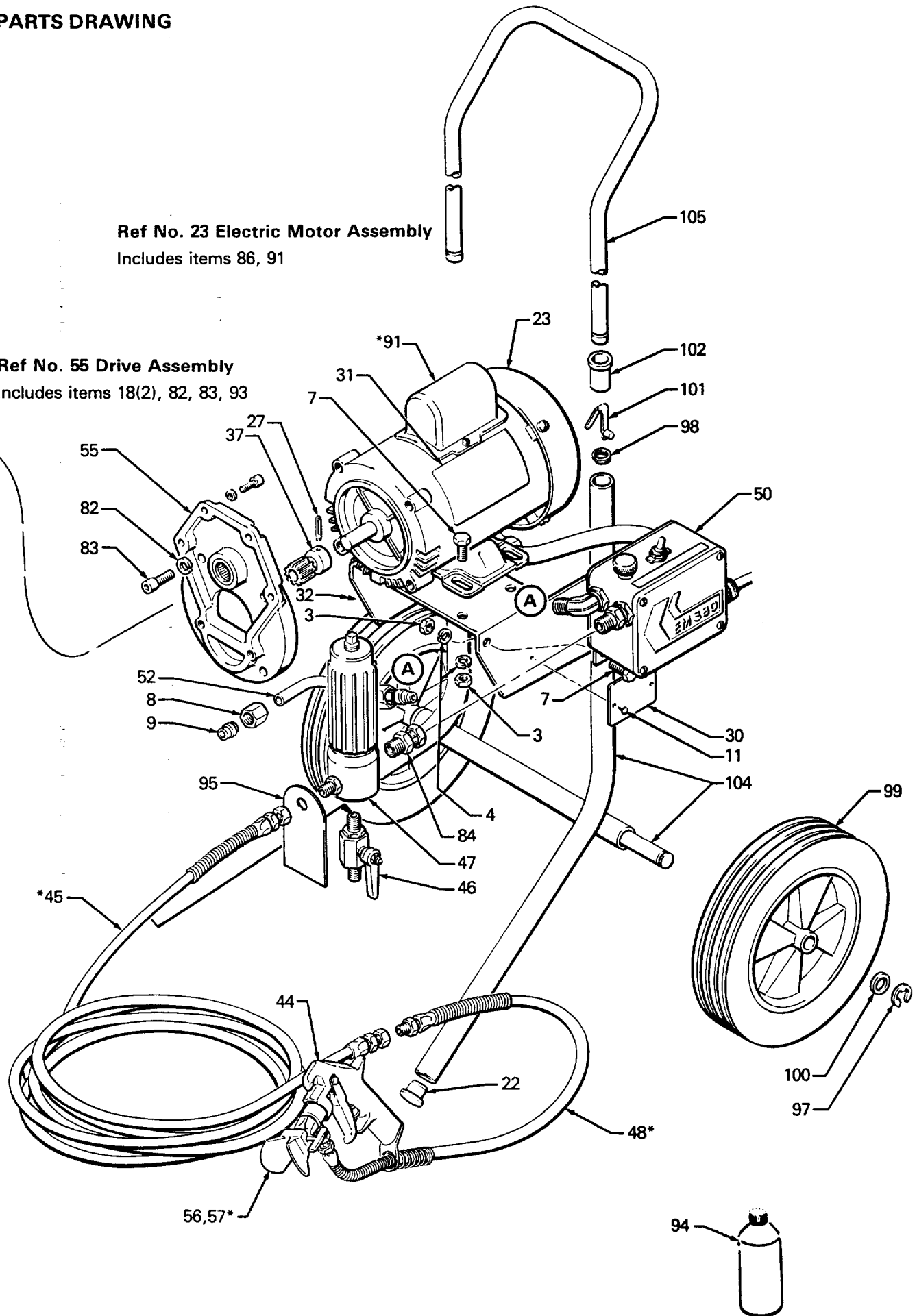
PARTS DRAWING



PARTS DRAWING

Ref No. 23 Electric Motor Assembly
Includes items 86, 91

Ref No. 55 Drive Assembly
Includes items 18(2), 82, 83, 93

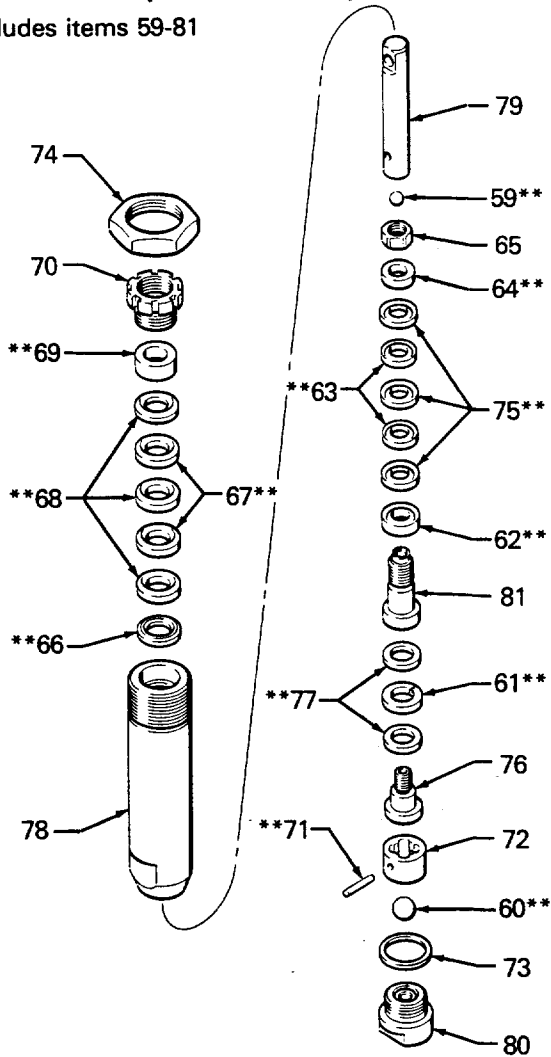


PARTS DRAWING

PARTS LIST

Ref No. 58 Displacement Pump Assembly

Includes items 59-81



REF NO.	PART NO.	DESCRIPTION	QTY
58	215-453	DISPLACEMENT PUMP ASSY	
	Series A	Includes items 59-81	
59	**105-444	. BALL, stainless steel, 0.3125"	1
60	**105-445	. BALL, stainless steel, 0.5"	1
61	**105-522	. SEAL, "U" CUP, polyurethane	1
62	**176-747	. GLAND packing, female	1
63	**176-749	. PACKING, "V" leather	2
64	**176-750	. GLAND, packing, male	1
65	176-751	. NUT, hex 1/2-20	1
66	**176-754	. GLAND, packing, male	1
67	**176-755	. PACKING, "V" leather	2
68	**176-997	. PACKING, "V" polyethylene	3
69	**176-757	. GLAND, packing, female	1
70	176-758	. NUT, packing	1
71	**176-759	. PIN, stop, ball	1
72	176-760	. GUIDE, ball	1
73	176-761	. GASKET, copper	1
74	176-762	. NUT, hex 1-1/2-18	1
75	**176-882	. PACKING, "V" polyethylene	3
76	176-883	. ADAPTER, "U" cup	1
77	**176-884	. WASHER, backup	2
78	176-885	. CYLINDER	1
79	176-887	. ROD, piston	1
80	215-455	. VALVE, intake	1
81	215-582	. VALVE, piston	1

306 & 307 Numbers in description refer to separate instruction manuals.

*Recommended "tool box" spare parts. Keep on hand to reduce down time.

**Supplied in repair kit 217-079.

Order parts by name and number. Always give the model number and series letter of the assembly for which you are ordering.

TECHNICAL DATA

Electric motor : 0.5 hp, 1725 rpm, 115 V, 60 HzAc, single phase with automatic reset thermal overload switch. UL listed.

Electric cord : No. 14 gauge, 3-wire, use 12 ga (min) 3-wire extension cord.

Paint filter : 60 mesh (250 micron) stainless steel screen with 3/8 npt(f) inlet and 1/4 npt(f) outlets; reusable type.

Paint Pump : 2500 psi (172 bar) maximum working pressure; 0.33 gpm output.

Wetted parts : Delrin, Teflon, Leather, Stainless Steel, Polyethylene, Tungsten Carbide, Polyurethane, Nylon, Aluminum, Nitralloy.

Operating weight : 68 lb (30 kg) approximately

Electrical requirements : 120 V, 15 amp circuit

THE GRACO WARRANTY

Graco Inc. warrants all equipment manufactured by it and bearing its name to be free from defects in material and workmanship under normal use and service. This warranty extends to the original purchaser for a period of 12 months from the date of purchase and applies only when the equipment is installed and operated in accordance with written factory recommendations. This warranty does not cover damage or wear which, in the reasonable judgment of Graco, arises from misuse, abrasion, corrosion, negligence, accident, substitution of non-Graco parts, faulty installation or tampering.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective for examination by Graco to verify the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge, any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in workmanship or material, repairs will be made at a reasonable charge and return transportation will be charged.

THIS LIMITED WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES (EXPRESS OR IMPLIED) INCLUDING WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND OF ANY NON-CONTRACTUAL LIABILITIES INCLUDING PRODUCT LIABILITIES BASED ON NEGLIGENCE OR STRICT LIABILITY. EVERY FORM OF LIABILITY FOR DIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OR LOSS IS EXPRESSLY EXCLUDED AND DENIED.

EQUIPMENT NOT COVERED BY GRACO WARRANTY. Accessories or components of equipment sold by Graco that are not manufactured by Graco (such as electric motors, switches, hose, etc.) are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making such claims.

Factory Branches: Atlanta, Dallas, Detroit, Los Angeles, West Caldwell (N.J.)
Subsidiary and Affiliate Companies: Canada; England; Switzerland; France; Germany; Hong Kong; Japan
GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1444