

REPLACEMENT OF ELECTRICAL CONTROL BOARD

1. Remove electrical cover.
2. Disconnect sensor lead from Electrical Board.
3. Disconnect two clutch leads on Electrical Board from leads on clutch.
4. Using a 1/16" allen, loosen set screw in Pressure Control Knob and remove knob.
5. Using a 1/2" nutdriver or 1/2" deep socket, remove nut from pressure control shaft. This will allow removal of electrical control board from frame.
6. Replace Electrical Board Assembly in reverse order. Adjust pressure as per procedure below, "Pressure Calibration on the Electrical Control Board".

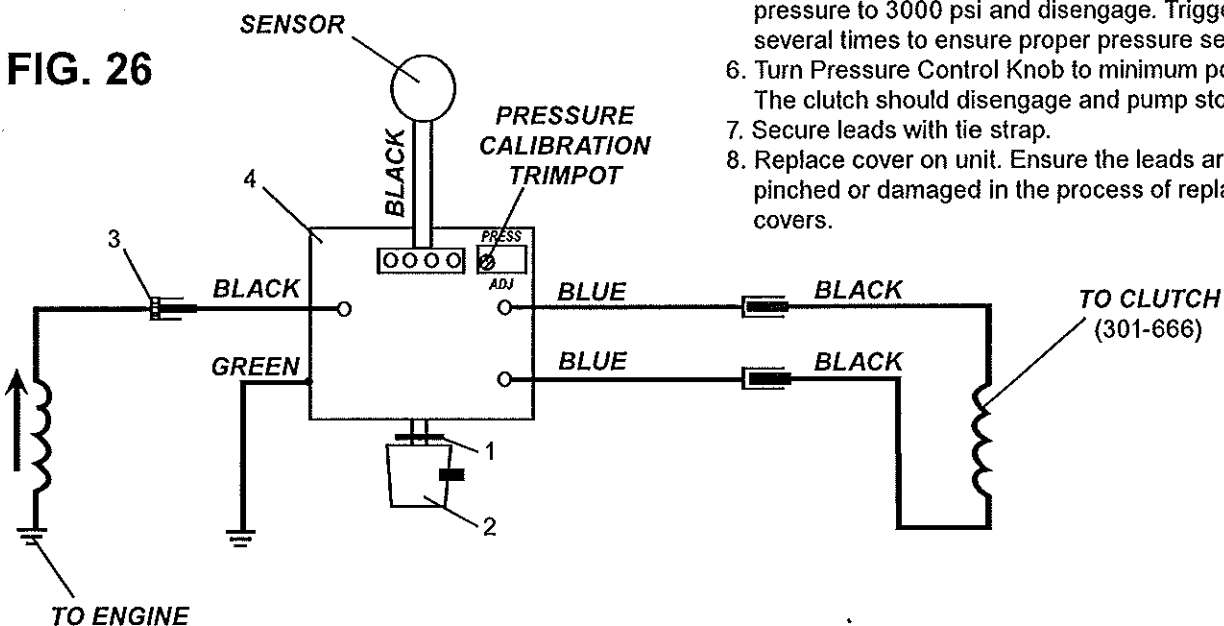
PRESSURE CALIBRATION OF THE ELECTRICAL CONTROL BOARD

1. Turn "Pressure Calibration" Trimpot adjustment on electrical control board in the counter clockwise direction at least 15 revolutions.
2. Connect 5000 psi glycerine pressure guage on outlet of pump between fluid pump & airless hose to monitor Fluid Pump Pressure.
3. Start engine and run at maximum RPM. Turn Prime Valve to the open (Prime) position. Turn Pressure Control Knob to maximum position (fully clockwise).

4. Using an insulated screwdriver, adjust "Pressure Calibration" Trimpot by turning clockwise until the clutch engages. When the clutch engages the pump will commence Priming. When pump is primed, turn the Prime Valve to the Closed (Pressure) Position.

THE PUMP WILL BEGIN TO PRESSURIZE AND THE CLUTCH WILL DISENGAGE AT A LOW PRESSURE. CONTINUE TURNING THE TRIMPOT CLOCKWISE TO INCREASE PRESSURE TO 3000 PSI.

5. Trigger gun. The pressure should drop approximately 350-400 psi, the clutch will engage and build pressure to 3000 psi and disengage. Trigger gun several times to ensure proper pressure setting.
6. Turn Pressure Control Knob to minimum position. The clutch should disengage and pump stop moving.
7. Secure leads with tie strap.
8. Replace cover on unit. Ensure the leads are not pinched or damaged in the process of replacing covers.

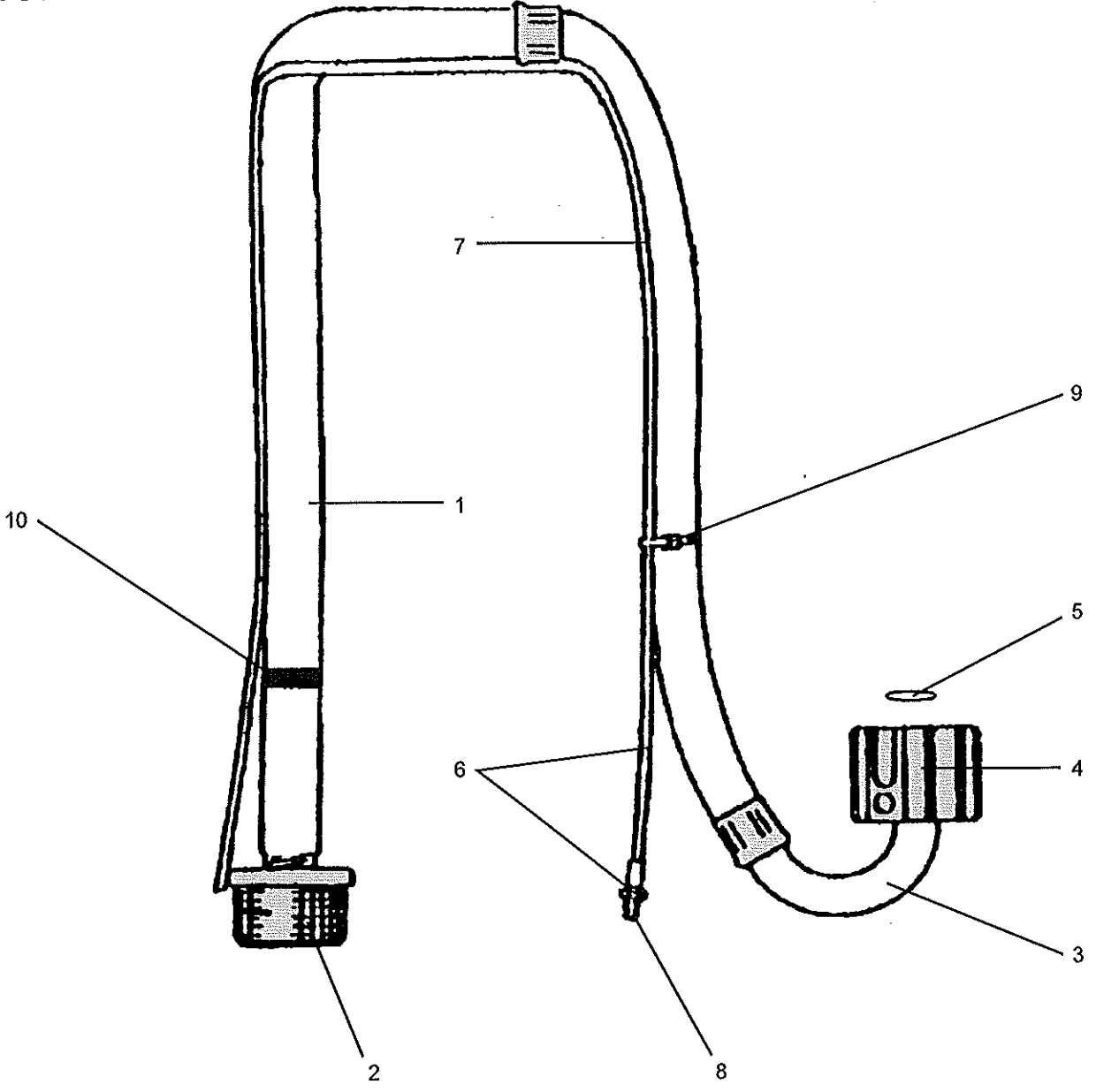


PARTS LIST FIGURE 26

Item No.	Part No.	Description
1	106-019	O-Ring
2	301-523A	Knob
3	117-045	Grommet
4	301-282-99	Control Board

SUCTION ASSEMBLY (331-238)

FIG. 24

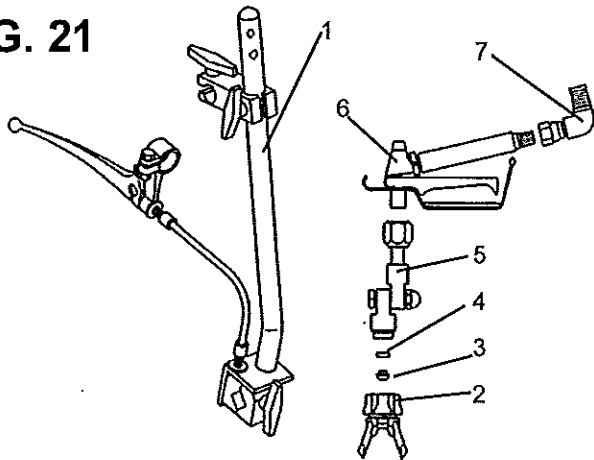


PARTS LIST FIGURE 24		
Item No.	Part No.	Description
1	331-290	Suction Hose Assy
2	331-217	Inlet Strainer
3	331-035	Suction Elbow
4	331-034	Suction Nut
5	106-020	Teflon O-Ring

PARTS LIST FIGURE 24 CONT		
Item No.	Part No.	Description
6	331-231	Bypass Hose Assy
7	331-425	Bypass Hose
8	331-090R	Fitting
9	111-016	Nylon Tie
10	331-135	Spring Clip

GUN ASSEMBLY (305-167)

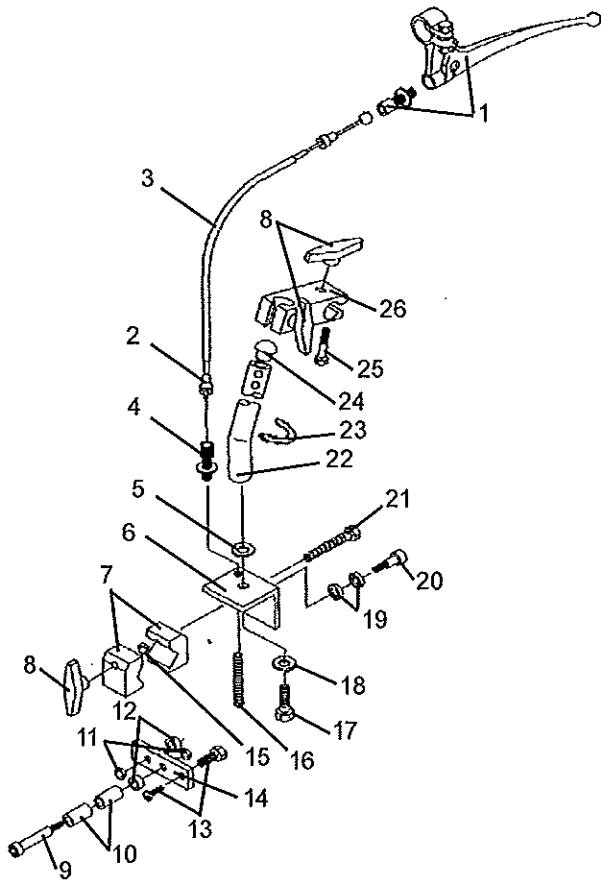
FIG. 21



PARTS LIST FIGURE 21		
Item No.	Part No.	Description
1	305-150	Gun Holder
2	561-002	RevGuard (G Thread)
3*	561-025	Seal-Metal
4*	561-026	Seal-Plastic
5	032-028	Swivel Assembly
6	120-554	008 Airless Gun
7	100-177	Elbow
*	561-029	Seal Kit

GUN HOLDER ASSEMBLY (305 - 150)

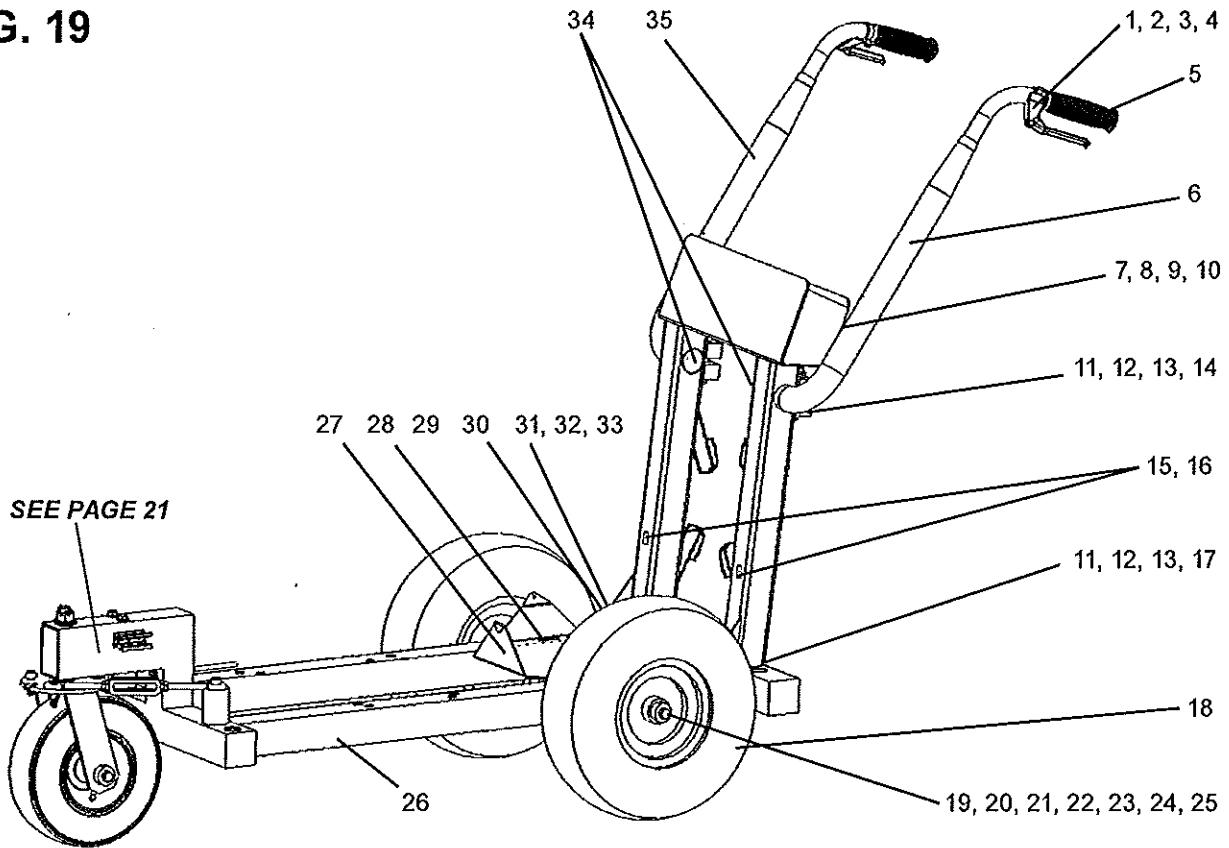
FIG. 22



PARTS LIST FIGURE 22		
Item No.	Part No.	Description
1	305-142	Lever Assy.
2	305-089	Cable Insert (2)
3	100-685	Gun Cable Assy.
4	305-141	Cable Adjuster
5	111-052	Tube Connector
6	305-154	Bracket
7	305-152	Clamp (2)
8	305-157	Knob (3)
9	100-342	Screw
10	305-159	Sleeve Bearing (2)
11	140-045	Jam Nut (2)
12	305-161	Spacer (2)
13	305-079	Wire Swivel Assy.
14	305-155	Lever
15	140-051	Nut
16	116-100	Spring
17	169-050	Screw
18	113-027	Lock Washer
19	305-156	Thrust Washer (2)
20	305-158	Shoulder Screw
21	100-673	Screw
22	305-297	GS Holder
23	116-105	Spring Clip
24	143-027	Ball Guide
25	171-008	Screw (2)
26	136-019P	Swivel Clam Assy.

FRAME ASSEMBLY (305-411)

FIG. 19

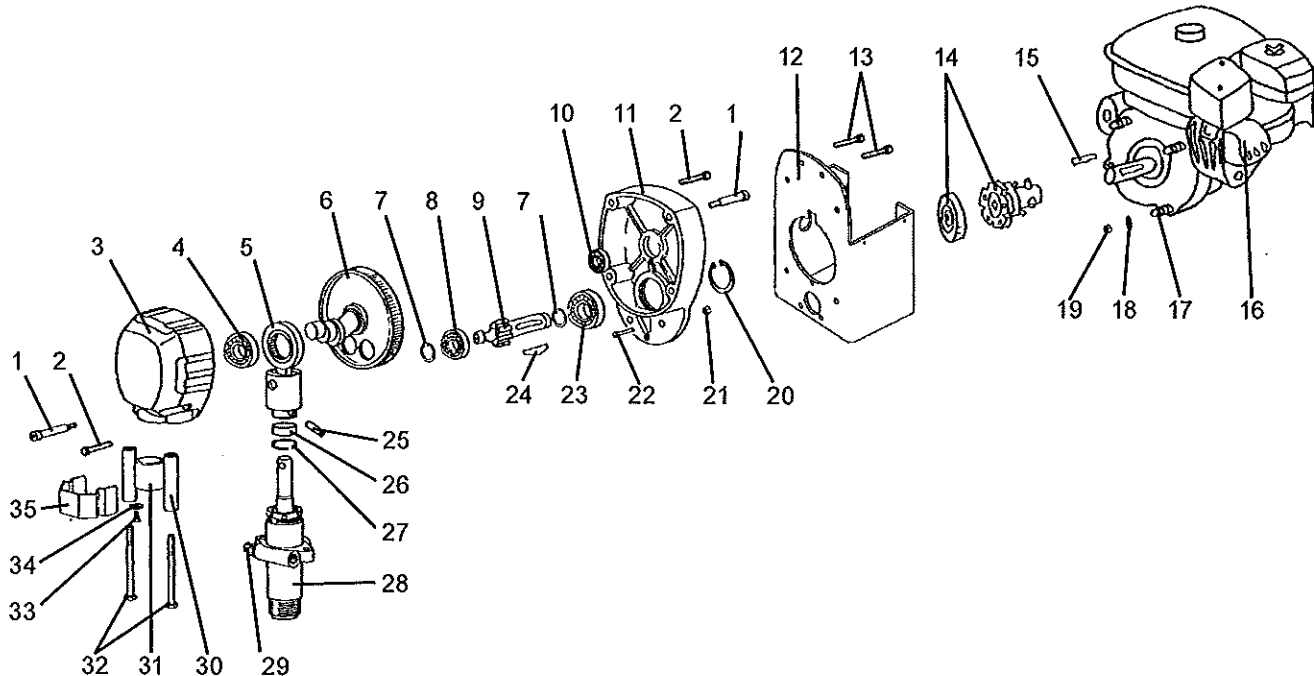


PARTS LIST FIGURE 19		
Item No.	Part No.	Description
1	136-023	Cable End Lug
2	301-335	Shrink Tubing (2)
3	305-089	Cable Insert
4	305-105	Lever
5	305-058	Rubber Grip (2)
6	305-314	Handle Weldment (Left)
7	113-022	Nut (2)
8	100-686	Paint Hose Hook (4)
9	100-344	Washer (4)
10	100-360	Screw (4)
11	100-696	Nut (2)
12	140-034	Washer (2)
13	140-035	Washer (2)
14	100-695	Screw (2)
15	100-687	Two Channel Strap (3)
16	100-688	Screw (3)
17	139-327	Rivnut (2)
18	301-166	13" Wheel

PARTS LIST FIGURE 19 CONT		
Item No.	Part No.	Description
19	188-367	Axle
20	100-369	Wave Washer (2)
21	113-030	Spacer (2)
22	136-131	Chain Sash
23	136-133	Key Ring
24	143-029	Set Collar (2)
25	143-028	Washer (2)
26	305-395	Frame
27	305-396	Bucket Base
28	119-026	Screw (3)
29	305-428	Stop
30	100-621	Cap
31	188-042	Lock Nut (4)
32	305-185	Brake Clamp
33	100-390	Screw (4)
34	100-601	Plug (2)
35	305-315	Handle Weldment (Right)

GEARBOX (305-341)

FIG. 17



PARTS LIST FIGURE 17		
Item No.	Part No.	Description
1	100-380	Shoulder Screw (2)
2	100-381	Screw (2)
3	331-537	Cover
4	331-046	Ball Bearing
5	331-038	Crosshead Assy
6	331-408	Crank Assy
7	113-093	Retaining Ring (3)
8	112-068	Ball Bearing
9	305-340	Pinion Shaft
10	305-047	Ball Bearing
11	305-287	End Bell
12	305-342	Mounting Box Bracket
13	100-374	Screw (4)
14	301-666	Clutch Assy
15	112-029	Key
16	301-160 175-032	Motor Honda GX160 (SS400/FS +) Motor Duro 5.5HP (SS3650/FS D)
17	331-496	Set Screw (4)
18	113-023	Washer

PARTS LIST FIGURE 17 CONT		
Item No.	Part No.	Description
19	331-497	Nut (4)
20	100-398	Retaining Ring
21	136-217	Nut (2)
22	188-041	Screw(2)
23	117-008	Bearing
24	113-094	Key
25	119-028	Pin
26	331-117	Sleeve
27	331-062	Retaining Spring
28	331-209	Fluid Pump,
29	115-019	Hose Connector
30	331-074	Spacer (2)
31	331-061	Sleeve Bearing
32	100-318	Scrc (2)
33	331-197	Screw (2)
34	331-103	Washer (2)
35	331-111	Cover Guard
*	331-132	Grease (116)

PACKING REPLACEMENT PROCEDURES










DISASSEMBLY OF THE FLUID PUMP

REFER TO FIGURE 15 & 16

1. Disconnect the Fluid Pump as instructed on page 14.
2. Unscrew & remove the packing nut.
3. Push the piston rod down through the packings & out of the pump.
4. Now push the packing removal tool up through the pump & remove from the top bringing packings, spacer & springs along with it, leaving fluid body empty.
*Make sure all old packings & glands have been removed from fluid pump.
5. Clean inside of fluid body.
6. Disassemble all parts & clean for reassembly. Discard any old packings.
7. Lubricate leather packing in lightweight oil for 10 minutes prior to reassembly.

REASSEMBLY

REFER TO FIGURE 15

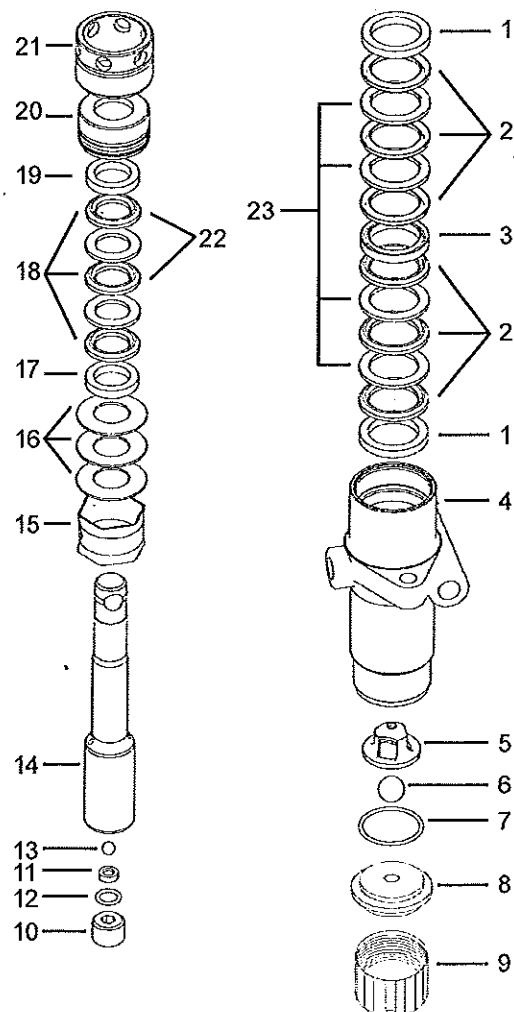
1. Take lower male gland & place it down on the flat side. 
2. Take three of the lower polyethylene packings & two of the leather packings & place onto the male gland in the following order with the inverted side down  **POLYETHYLENE, LEATHER, POLYETHYLENE, LEATHER, POLYETHYLENE.**
3. Take the female adaptor, which is inverted on both sides , & place it on top of your assembled lower packings.
4. Follow step 2 with your packings inverted side up. 
5. Take the second lower male gland and place it on top of your assembled packings with the rounded side down. 
6. Take assembled glands & packings (13 pieces) & slide onto the lower half of the piston.
7. Take the spacer & slide over the top of the piston (it doesn't matter which direction it sits, falling onto lower packings).
8. Take three Belleville Springs & slide over the top of the piston in the following order:
 - First spring, curve facing down 
 - Second spring, curve facing up 
 - Third spring, curve facing down 
9. Take the upper male gland & place it rounded side up. 
10. Take three upper polyethylene packings & two leather packings & assemble with inverted side down,  on to the male gland in the following order: polyethylene, leather, polyethylene, leather, polyethylene.
11. Take upper female gland & place on top of assembled upper packings with the inverted side down. 
12. Take assembled upper glands & packings (7 pieces) & slide on over the top of the piston, making sure inverted sides are down.

13. Take the packing holder & replace the white O-ring & the black O-ring with new ones from the packing kit.
14. Slide the packing holder over the top of the upper packings so they fit inside.
15. Lubricate inside of the fluid pump body & the outside of the packings with a light weight oil.
16. Slide assembly into fluid pump body.

TO KEEP PACKINGS SECURED IN CORRECT POSITION, HOLD THE PUMP BODY UPSIDE DOWN & PUSH THE COMPLETED ASSEMBLY UPWARDS INTO THE PUMP BODY. ONCE PLACED INSIDE, TILT PUMP BODY BACK UP TO KEEP ALL PIECES IN.

17. Tighten packing nut onto the top of the fluid pump body & tighten until you feel slight resistance against the Belleville Springs. Using the Packing Adjustment Tool, tighten another 3/4 of a turn.
18. Reinstall Fluid Pump as instructed on page 14.

FIG. 15 PARTS LIST ON FOLLOWING PAGE



SERVICING THE FLUID PUMP

FLUID PUMP DISCONNECT

REFER TO FIGURE 12

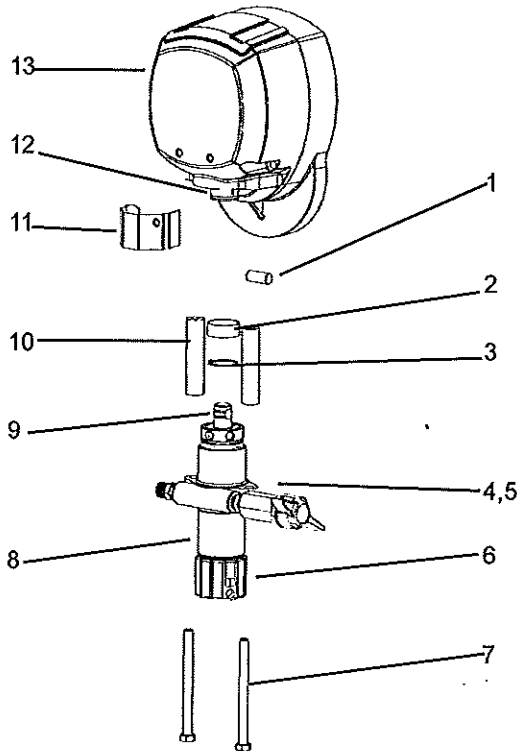
1. Follow the Pressure Relief Procedure on page 8.
2. Flush the material you are spraying out of the machine.
3. Remove the connecting rod shield.
4. Move the piston rod to its lowest position by cycling pump slowly.
5. Turn off the motor.
6. Disconnect sensor by holding it in place with a 7/8" wrench and unscrewing the swivel with a 11/16" wrench.
7. Remove the retaining ring from the connecting rod and slide the sleeve down revealing the connecting rod pin.
8. Remove the suction tube assembly from the fluid pump by unscrewing the suction nut with the packing adjustment tool (189-211).
9. Using a 1/2" wrench unscrew the two bolts from the cover assembly. The fluid pump will be hanging loosely at this point.
10. Remove the connecting rod pin out of the connecting rod, allowing the removal of the fluid pump from the machine.

FLUID PUMP REINSTALL

REFER TO FIGURES 12 & 14

1. Loosen the packing nut and ensure that the piston rod is in its upper position in the fluid pump body. Slip the sleeve & the retaining ring over the piston rod.
2. Push the piston rod up into the connecting rod & align the holes. Insert the connecting rod pin through the connecting rod & piston. Slip the sleeve up over the connecting rod pin and insert the retaining ring into the groove on the connecting rod.
3. Push the two bolts through the tube spacers & screw them into the cover assembly. Using a 1/2" wrench, tighten the two bolts evenly (alternating between them) until you reach 20 ft-lbs.
4. Reassemble lower suction valve assembly by placing the suction seat, O-ring, suction ball & suction ball guide in the suction nut & screw onto fluid pump body.
5. Reconnect sensor to the fluid pump body. Hold sensor with a 7/8" wrench while tightening the swivel with a 11/16" wrench.
6. Start the machine and operate slowly to check the piston rod for binding. Adjust the two bolts, holding the fluid pump body to the cover assembly, if necessary. This will eliminate any binding.
7. Tighten packing nut clockwise until resistance is felt against the Belleville Springs, go 3/4 of a turn more. Put five drops of Airlessco Throat Seal Oil in the packing nut.
8. Run the machine at full pressure for several minutes. Release the pressure by following the Pressure Relief Procedure & readjust the packing nut per step 7 above.
9. Install the connecting rod shield so that the small hole is in the upper right hand corner.

FIG. 12



PARTS LIST FIGURE 12

Item No.	Part No.	Description
1	119-028	Connecting Rod Pin
2	331-117	Sleeve
3	331-062	Retaining Ring
4	115-019	Hose Connector
5	100-603	Swivel
6	331-034	Suction Nut
7	100-318	Bolts
8	331-209	Fluid Pump
9	331-093	Piston Rod
10	331-074	Tube Spacers
11	331-111	Connection Rod Shield
12	331-038	Connecting Rod
13	331-537	Cover Assembly

LINE STRIPING TIP CHART

NOTE: STRIPING TIPS SHOULD NOT BE USED FOR REGULAR SPRAYING.

REV-TIP™ for Striping, Part Number 562-xxxST

TIP IDENTIFICATION

- 1st 3-digits identifies it as a **REV-TIP™** for airless line striping (Part Number 562-xxxST).
- 4th digit is the fan width - the number is half the fan width, e.g., 2 means a 4" line width.
- 5th and 6th digits are for the orifice size and is measured in thousandths of an inch, e.g., 17 = 0.017 inch.

The higher the number, the larger the tip.

REVERSIBLE STRIPING TIP SIZE CHART

REV-TIP™ FOR STRIPING 562-XXXST

FAN WIDTH (6" FROM SURFACE)		ORIFICE SIZE (INCHES)				
INCHES	MILLIMETERS	.013	.015	.017	.019	.021
1-2	25-51	113ST	115ST	117ST		
2-4	51-102		215ST	217ST	219ST	221ST
4-6	102-152		315ST	317ST	319ST	321ST
6-8	152-203		415ST	417ST	419ST	421ST
Striping paint		Oil Base	Oil Base	Latex	Latex	Latex

REV-TIP™ protected By U.S. Patent No. 6,264,115. Other U.S. & foreign patents applied for.

TIP REPLACEMENT

During use, high pressure will cause the orifice to grow larger. This destroys the pattern or will leave tailing or two heavy lines on the outside of the pattern. **REPLACE SPRAY TIP FREQUENTLY!**

FIELD TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Unit doesn't prime	Airleak due to: • Loose suction nut • Worn o-rings • Hole in suction hose Stuck or fouled balls	• tighten suction nut • replace o-ring (106-011) on suction seat & o-ring (106-020) below suction seat • replace suction hose (331-290) • service outlet valve suction assembly
Unit primes but has poor or no pressure	Pressure set too low Filter(s) are clogged Outlet valve fouled/worn Prime/pressure relief valve bypassing Packings and/or piston worn	• turn up pressure • clean or replace gun filter, inlet filter, and/or manifold filter • service outlet valve • clean or replace prime valve • tighten packing nut • repack unit
Unit does not maintain good spraying pressure	Blown spray tip Packings and/or pistons worn Upper seat worn	• replace spray tip • repack unit • replace upper seat

SERVICING THE OUTLET VALVE

DISASSEMBLY OF THE OUTLET VALVE

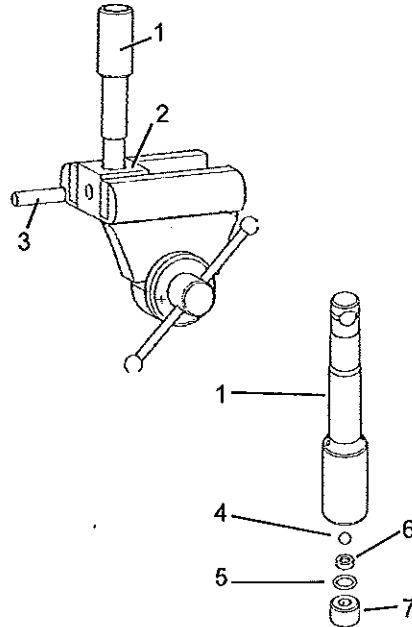
1. Disconnect the Fluid Pump following instructions on page 14.
2. Place piston holder in a vise. Slide piston into the holder & lock in place with a 3/8" dowel.
3. Use a 1/4" allen wrench to unscrew the outlet seat retainer from the piston.
4. Remove the outlet seat, O-ring and outlet ball.
5. Inspect outlet ball & seat for wear. Replace as necessary. Ensure seat is right side up.
6. While piston is still locked in the holder, install parts back into the piston in the following order:

BALL, OUTLET SEAT AND O-RING

Before reinstalling the outlet seat support, apply two drops of Loctite No. 242 (blue) on the threads & torque to 20 ft-lbs.

NOTE: Airlessco LP pump tool kit 188-197 is required for this task. Kit includes: Tightening Bar (189-211), Packing Removal Tool (331-465), Piston Holder (331-195), 3/8" dowel (331-196).

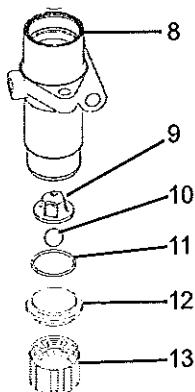
FIG. 13



SERVICING THE INLET ASSEMBLY

1. Un-thread and remove suction nut from the fluid pump body.
2. Remove suction seat, O-ring, suction ball and suction retainer.
3. Clean all parts and inspect them for wear or damage, replacing parts as needed.
4. Clean inside of the fluid pump body.
5. Reassemble lower suction valve assembly by placing the suction seat, O-ring, suction ball & suction ball guide in the suction nut & screw onto fluid pump body.

FIG. 14

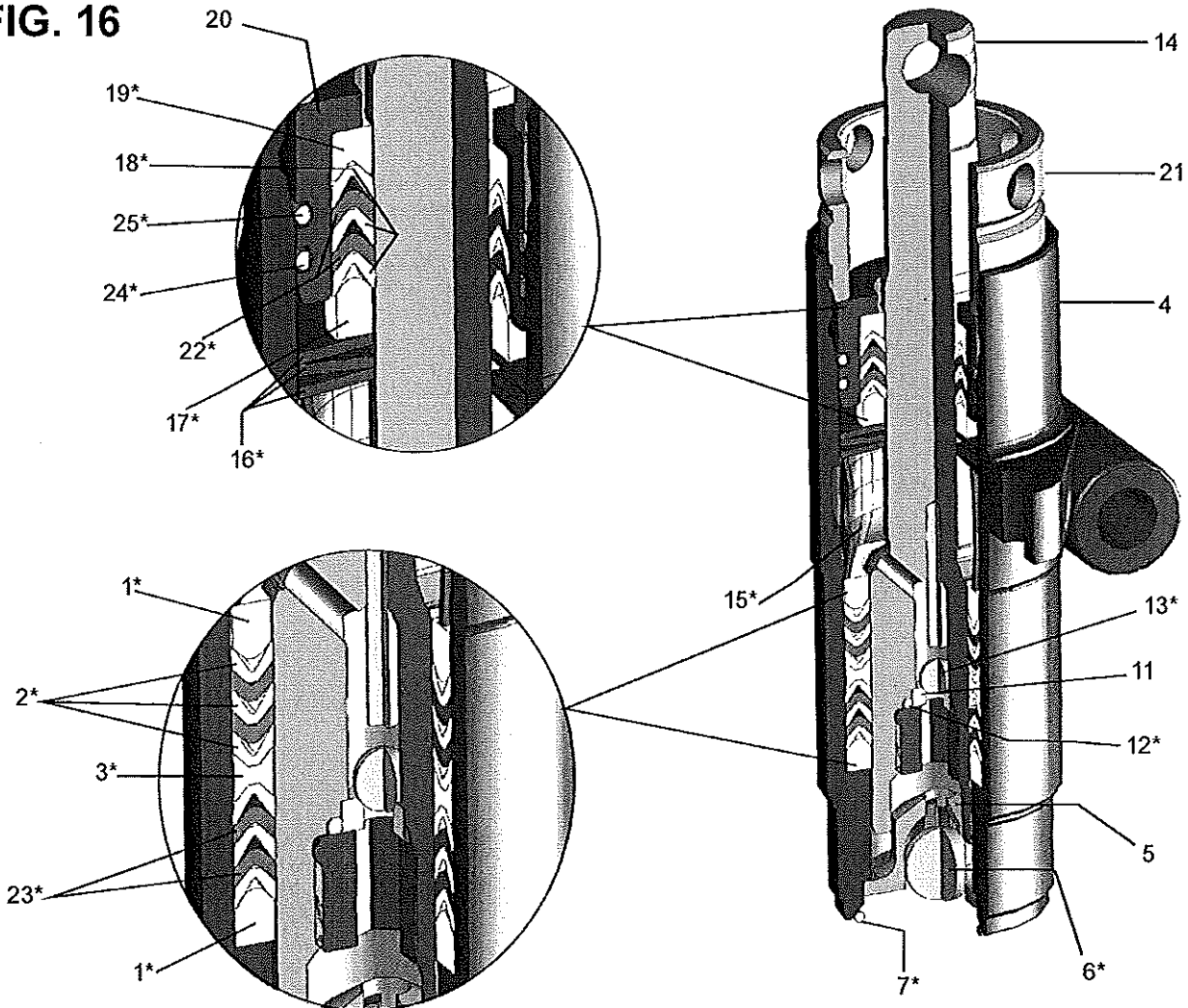


PARTS LIST FIGURE 13 & 14

Item No.	Part No.	Description
1	331-708	Piston
2	331-195	Piston Holder
3	331-196	Dowel Pin
4	331-027	Outlet Ball
5	331-100	O-Ring
6	331-026	Outlet Seat
7	331-314	Outlet Seat Retainer
8	331-011	Fluid Pump Body
9	331-029	Suction Ball Guide
10	331-030	Suction Ball
11	106-011	O-Ring
12	331-409	Suction Seat
13	331-034	Suction Nut

PACKING REPLACEMENT PROCEDURES

FIG. 16



PARTS LIST FIGURE 15 & 16

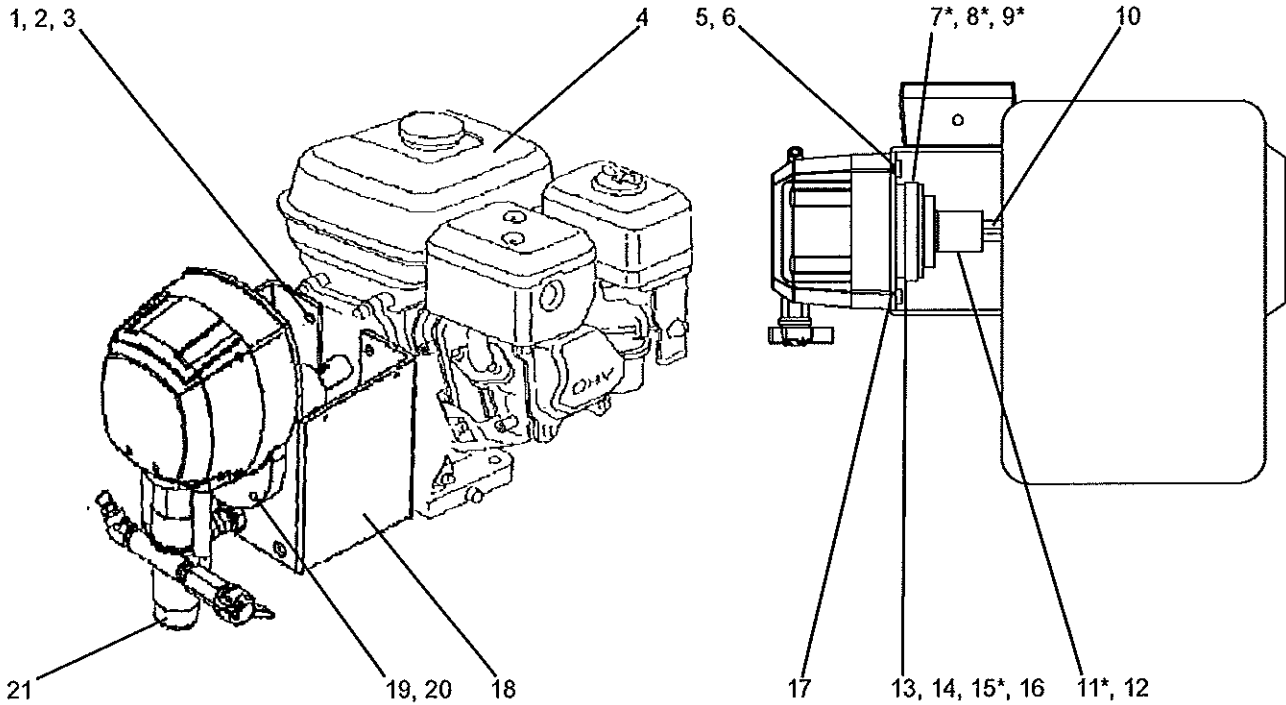
Item No.	Part No.	Description
1	331-014*	Male Gland
2	331-016*	Packing Polyethylene
3	331-308*	Female Adaptor
4	331-011	Fluid Pump Body
5	331-029	Suction Ball Guide
6	331-030*	Suction Ball
7	106-011*	O-Ring
8	331-409	Suction Seat
9	331-034	Suction Nut
10	331-314	Outlet Seat Retainer
11	331-026	Outlet Seat
12	331-100*	O-Ring
13	331-027*	Outlet Ball

PARTS LIST FIGURE 15 & 16 CONT

Item No.	Part No.	Description
14	331-708	Piston
15	331-018*	Spacer
16	331-025*	Belleville Springs
17	331-022*	Male Gland
18	331-023*	Packing Polyethylene
19	331-021*	Female Gland
20	331-019	Packing Holder
21	331-037	Packing Nut
22	331-307*	Packing Leather
23	331-306*	Packnig Leather
24	106-009*	White O-Ring
25	106-010*	Black O-Ring
*	331-210	Packing Kit

CLUTCH ASSEMBLY

FIG. 18

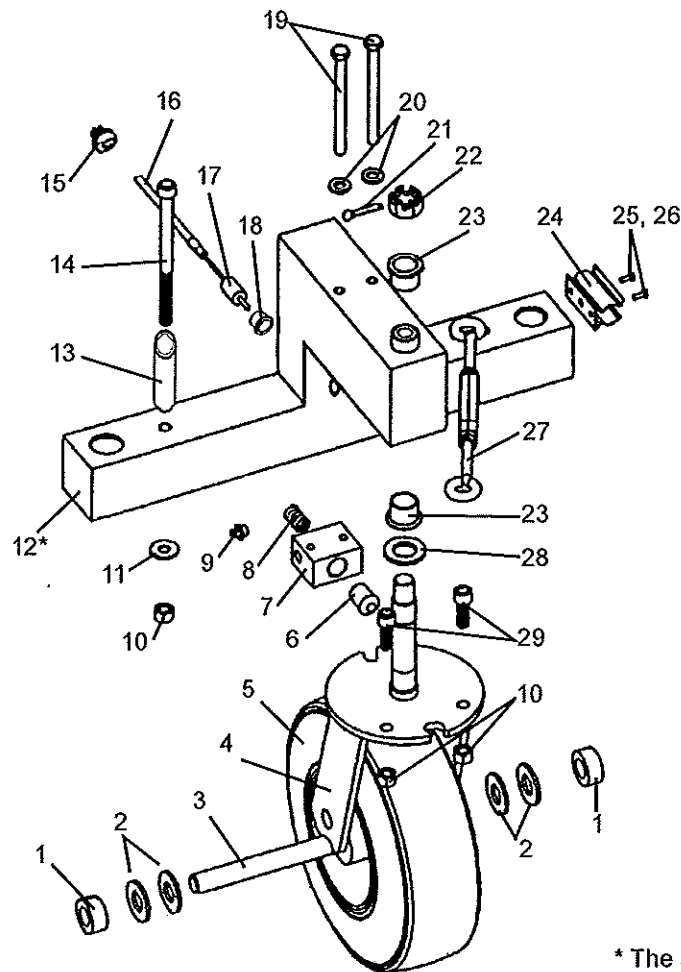


PARTS LIST FIGURE 18		
Item No.	Part No.	Description
1	331-496	Screw
2	331-497	Nut
3	113-023	Lock Washer
4	175-032	Motor Duro 4.0HP
5	111-016	Nylon Tie
6	100-637	Mounting Base
7	100-632*	Locknut
8	100-633*	Screw
9	100-634*	Lock Washer
10	112-029	Key
11	305-279*	Clutch Adapter

PARTS LIST FIGURE 18 CONT		
Item No.	Part No.	Description
12	331-495	Bushing
13	113-093	Retaining Ring
14	113-094	Key
15	305-278*	Clutch
16	331-178	Rubber Extrusion
17	100-374	Screw
18	305-342	Mounting Box Bracket
19	136-217	Nut
20	188-041	Screw
21	305-310	Gearbox and Pump Assy
*	301-666	Clutch Assy

SWIVEL WHEEL ASSEMBLY

FIG. 20



* The swivel wheel weldment is part of the entire stripper frame weldment.

PARTS LIST FIGURE 20

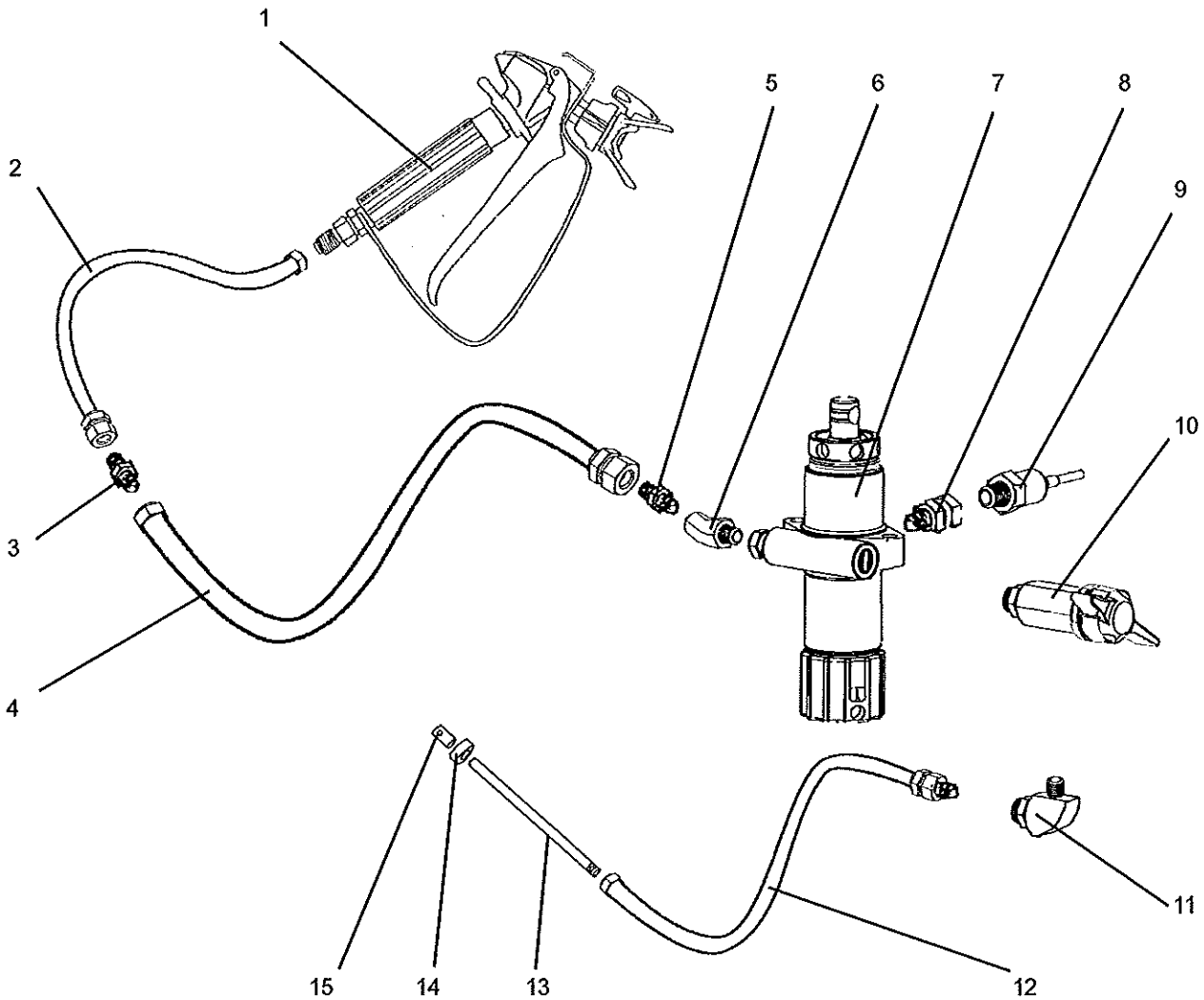
Item No.	Part No.	Description
1	143-029	Set Collar (2)
2	143-028	Washer (4)
3	136-230	Axel
4	305-253	Swivel Clamp
5	139-337A	Wheel
6	305-257	Swivel Lock Pin
7	305-258	Swivel Lock
8	136-223	Spring
9	100-223	Grease Fitting
10	119-035	Nut (4)
11	100-344	Washer (2)
*12	305-395	Frame Weldment
13	179-029	Spacer (2)
14	100-648	Screw (2)
15	305-261	Cabel Holder

PARTS LIST FIGURE 20 CONT

Item No.	Part No.	Description
16	100-652	Cable
17	305-259	Lock End Lug
18	305-141	Cable Adjustor
19	100-318	Screw (2)
20	113-023	Washer (2)
21	113-021	Cotter Pin
22	260-029	Hex Castle Nut
23	112-008	Flanged Bearing (2)
24	111-036	Spring Clamp
25	140-040	Washer (2)
26	117-072	Screw (2)
27	136-231	Turnbuckle
28	140-053	Washer
29	100-649	Screw (2)

PAINT SYSTEM

FIG. 23



PARTS LIST FIGURE 23

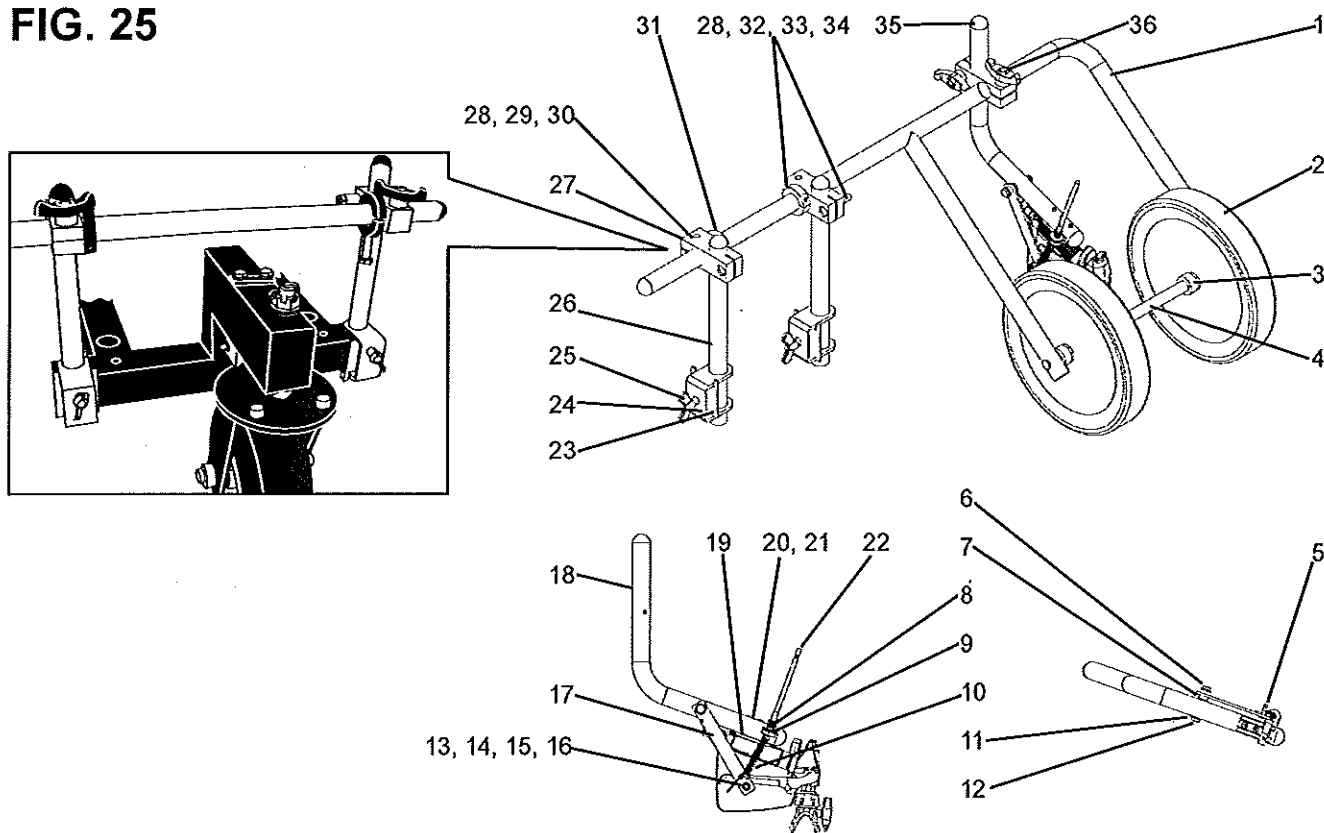
Item No.	Part No.	Description
1	120-554	008 Airless Gun
2	100-011	Hose 50' x 1/4"
3	100-109	Nipple 3/8" x 1/4"
4	100-199	Hose 6' x 3/8"
5	115-019	Connector
6	100-226	Elbow 45°
7	331-209	Fluid Pump
8	100-603	Swivel

PARTS LIST FIGURE 23 CONT

Item No.	Part No.	Description
9	331-294-99	Sensor
10	100-180	Prime Valve
11	100-660	Elbow 1/8" x 1/4"
12	100-012	Hose 4' x 1/4"
13	188-373	Return Pipe
14	305-293	Reflector
15	100-642	Gasket

DUAL WHEEL FLOATING GUN ASS'Y - FS D/+

FIG. 25



PARTS LIST FIGURE 25		
Item No.	Part No.	Description
1	305-352	Mounting Tube
2	305-367	Wheel (2)
3	143-029	Set Collar (4)
4	305-351	Axel
5	305-079	Wire Swivel Assy.
6	119-049R	Screw
7	305-273	Spacer (2)
8	305-089	Cable Sleeve
9	305-141	Cable Adjustor
10	116-100	Compression Spring
11	331-103	Washer (3)
12	136-217	Nylon Lock Nut
13	100-342	Screw, 5/16
14	305-161	Spacer
15	305-159	Sleeve Bearing (2)
16	140-045	Nut
17	305-274	Trigger Lever
18	305-243	Gun Holder Tube
19	119-276	Spring Clip

PARTS LIST FIGURE 25 CONT		
Item No.	Part No.	Description
20	119-052	Lock Nut (2)
21	305-050R	Screw (2)
22	305-077	Cable Assy.
23	305-108	Clamp Plate (2)
24	305-051M	Clamp (2)
25	100-320	Wing Screw (2)
26	305-292	Support Tube (2)
27	136-019P	Swivel Block (3)
28	140-051	Nut (4)
29	140-035	Lock Washer (3)
30	188-125	Screw, 3/8 HX (3)
31	136-039R	Set Collar
32	136-039	Set Collar
33	171-088	Screw 3/8 (4)
34	188-378	Spacer
35	143-027	Ball Guide (5)
36	305-157	Knob - SG Holder Assy.
37	305-142	Hand Lever (Not Shown)