FORM NO.95-2067 REV B

TORO®

MODEL NO. 41120-60001 & UP
MODEL NO. 41020-60001 & UP
MODEL NO. 41021-60001 & UP
MODEL NO. 41128-60001 & UP
MODEL NO. 41119-60001 & UP

SET-UP AND PARTS CATALOG

MANUAL VALVE SPRAY SYSTEM FOR THE MULTI-PRO™ 1100 VEHICLE

Refer to the illustrated Parts List for the details of parts used in assembling the Manual Valve Spray System.

NOTE: "Right", "Left", "Front", and "Rear" are referenced while seated in the operator's position.

TACHOMETER:

1. Remove four (4) 1/4" x 5/8" washer hd cap screws to remove the rear panel from the Steering Console.

2. Install the Tachometer to the right side of the Steering Column using two (2) #8 x 5/8" hex hd machine screws, lock washers, and hex nuts. See FIG.1.

3. Route the Tachometer Cable through the hole in the top of the Steering Console below the Tachometer and install Grommet into hole around Cable. See FIG. 1.

4. Install RPM to Speed Decal above Tachometer.

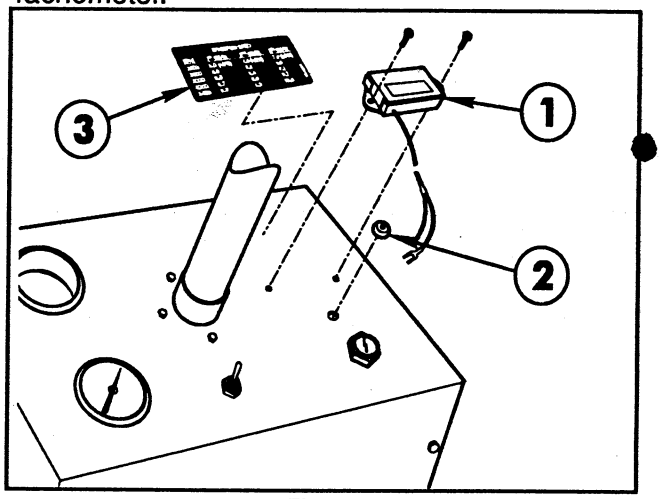


FIG. 1

1. Tachometer
2. Grommet
3. Decal

5. Route the Cable through the "U" shaped bracket under the floorboard, and up into the engine area to the right of the Transmission.

6. Slip red wire over an insulated section of the Spark Plug Wire and wrap 4 turns. See FIG. 2.

IMPORTANT: Keep wire clear of extremely hot engine parts such as the muffler, etc.

7. Ground the spade terminal on the white wire to the Ground Terminal Block mounted inside the Seat Box. After the connections are made, coil up any excess wire and tie strap to a convenient area. See FIG. 2.

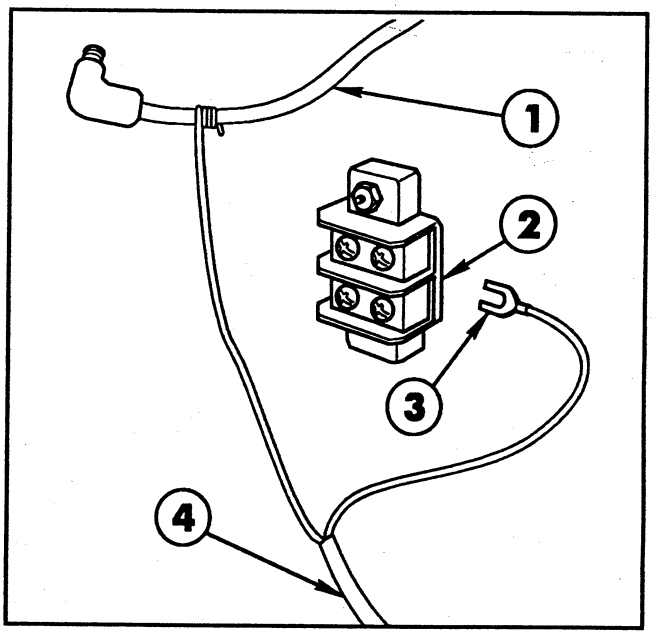


FIG. 2

1. Spark Plug Wire
2. Ground Terminal Block
3. Spade Terminal
4. Tachometer Cable

CONTROL VALVE:

1. Attach Control Valve/Mounting Bracket Assembly to left side of Seat Box using two (2) 1/4" x 5/8" hex washer hd machine screws. See FIG 3.

2. Remove top two (2) acorn nuts from right end of Control Valve. Attach Splash Shield to the end of Control Valve using two (2) previously removed acorn nuts. **DO NOT TORQUE OVER 30 IN LBS (3.4NM).** See FIG. 3.

3. Remove upper rear acorn nut from left end of Control Valve. Attach Shield Brace and secure with flat washer and previously removed acorn nut. Mount Shield Brace to Shield with 5/16" hex hd cap screw, flat washer, lock washer, and hex nut. **DO NOT TORQUE OVER 30 IN LBS (3.4NM).** See FIG 3.

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4. Remove lower rear acorn nut from left end of Control Valve. Attach Valve Brace and secure with flat washer and previously removed acorn nut. Attach other end of Valve Brace to middle slot in rear of Seat Box with 5/16" hex hd cap screw, flat washer, lock washer, and hex nut. **DO NOT TORQUE OVER 30 IN LBS (3.4NM).** See FIG 3.

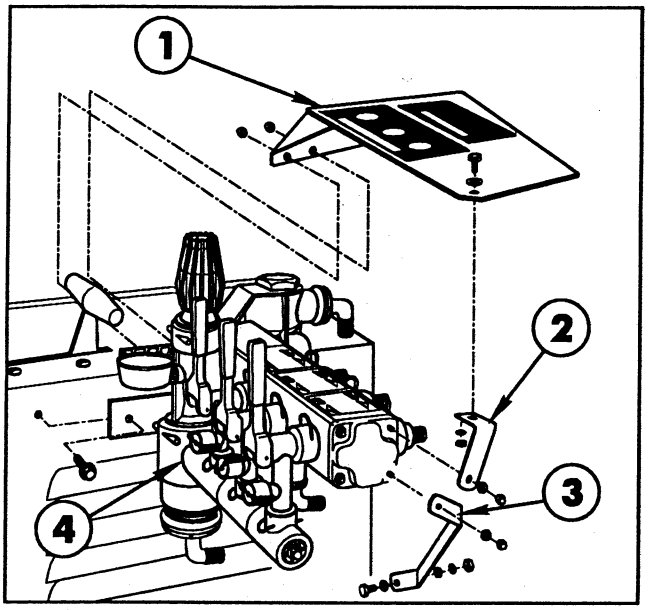


FIG. 3

1. Splash Shield
2. Shield Brace
3. Valve Brace
4. Control Valve/Mounting Bracket Assembly

CENTRIFUGAL PUMP:

IMPORTANT! If the optional Rollover Protection Structure (ROPS) is to be installed on the Vehicle, it must be installed prior to installing the Centrifugal Pump. See the Installation Instructions furnished with the ROPS (model no. 41185); or the ROPS Adaptor Kit (part no. 92-8240).

1. Mount the Pivot Mounting Plate to the angle on the bottom of the Vehicle Frame, using two 1/2" x 1-1/4" cap screws and lock nuts. See FIG. 4.

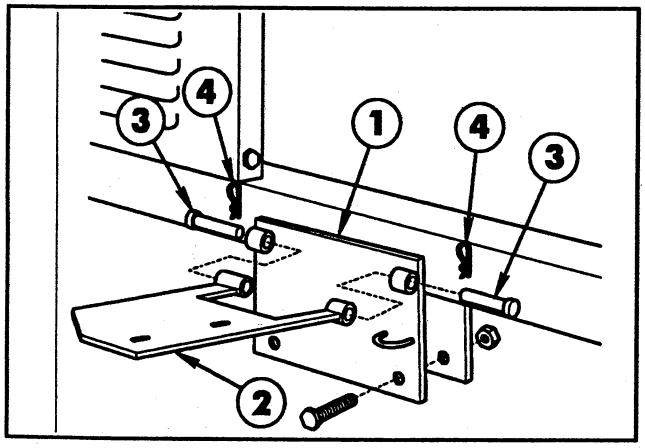


FIG. 4

1. Pivot Mounting Plate
2. Pump Pivot Plate
3. Clevis Pin
4. Hair Pin Cotter
5. Flat Washers

2. Align the pivot tubes on the Pump Pivot Plate with those on the Pivot Mounting Plate. Insert the two (2) clevis pins and secure with two (2) hairpin cotters.

NOTE: In the following instructions, "sealer" refers to Teflon thread tape.

3. Secure the Centrifugal Pump in a vise. Apply thread sealer and install the fittings to connect the Suction, Supply, and Agitator Hoses to the Pump as shown in FIG. 5.

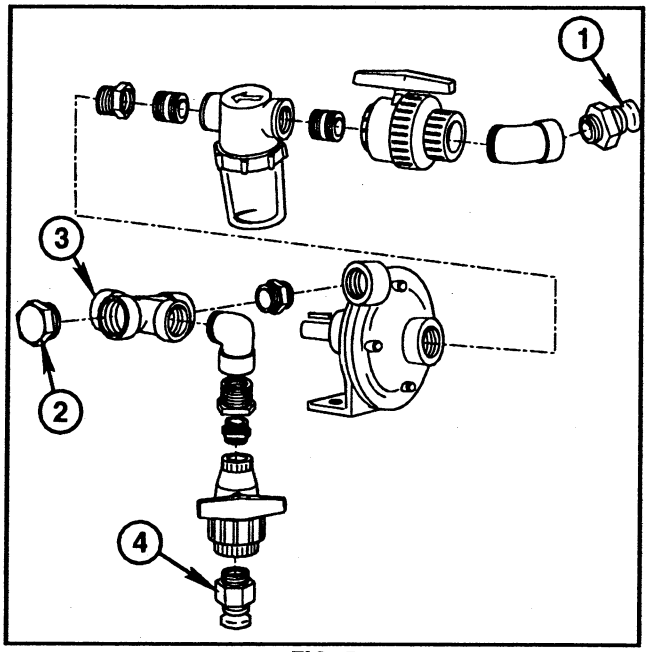


FIG. 5

1. Suction
2. Accessory
3. Supply
4. Agitator

4. Assemble the Pump Drive Pulley onto the Pump shaft with the Pulley's **hub** facing **away** from the Pump.

5. Assemble the Centrifugal Pump and the Spring Mounting Angle to the Pump Pivot Plate, using two (2) 3/8" x 1-1/2" cap screws, flat washers, and lock nuts as shown in FIG 6.

6. Using a straight edge as a guide, position the Pump Pulley so that it is in alignment with the Engine's Drive Pulley. When alignment is correct, tighten the two (2) set screws in the Pump Pulley's hub.

7. Install the Pump Drive Belt around the Pump and Engine drive Pulley.

8. Loosely mount the Pump Belt Cover to the Pump hub with the Pump Cover Clamp and the two (2) 5/16" flat washers, lock washers, and hex nuts. See FIG 6.

9. Insert the 3/8" x 4" cap screw through the Pump Cover and into the hole in the Pump Cable's end fitting. Secure the Cable to the Cover with a 3/8" lock nut.

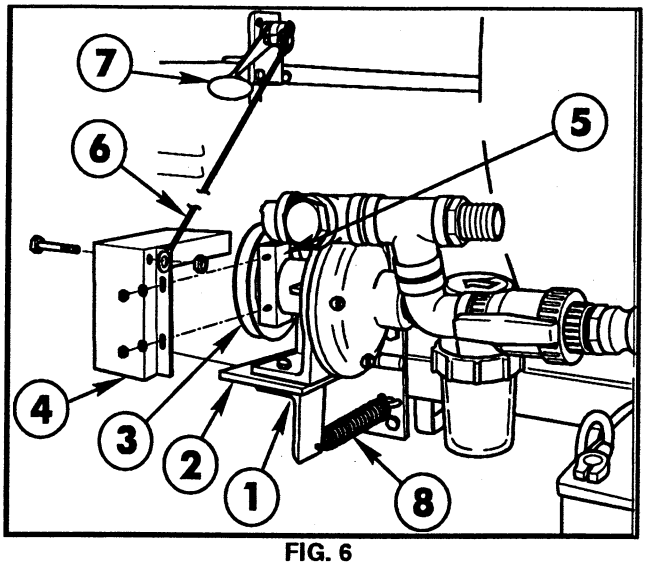


FIG. 6

1. Spring Mounting Angle
2. Pump Pivot Plate
3. Pump Pulley
4. Pump Belt Cover
5. Pump Cover Clamp
6. Pump Cable
7. Accessory Control
8. Pump Spring

10. Remove the hair pin cotter and flat washer from the pin in the Accessory Control Lever. Push the Control Lever down (engaged). Slide the unattached end of the Cable onto the pin and secure with the flat washer and hair pin cotter previously removed.

11. Connect one end of the Pump Spring to the ring on the Pump Pivot Plate and the other end through the hole on the Spring Mounting Angle.

12. Engage the Accessory Control Lever...DO NOT START ENGINE! Adjust the Belt Guide to obtain 1/8" clearance between the inside of the Guide and the Belt.

13. Rotate the Belt Cover around the Pump hub until the tension on the Pump Control Cable requires a small amount of pressure to snap the Control lever "over-center" to disengage the Pump drive. Make sure there is 1/8" clearance between the Belt and the inside of the Belt Cover. Tighten the lock nuts after adjustment is complete.

If step 13 does not achieve the necessary tension on the Control Cable, loosen the Pump mounting bolts and slide the Pump on the Pivot Plate away from the Vehicle Frame, increasing the Cable tension.

TANK ASSEMBLY:

1. Cut the shipping straps and remove the Spray Tank and Saddle Assembly from the shipping skid.

NOTE: In the following instructions, sealer refers to Teflon thread tape when used for pipe fittings.

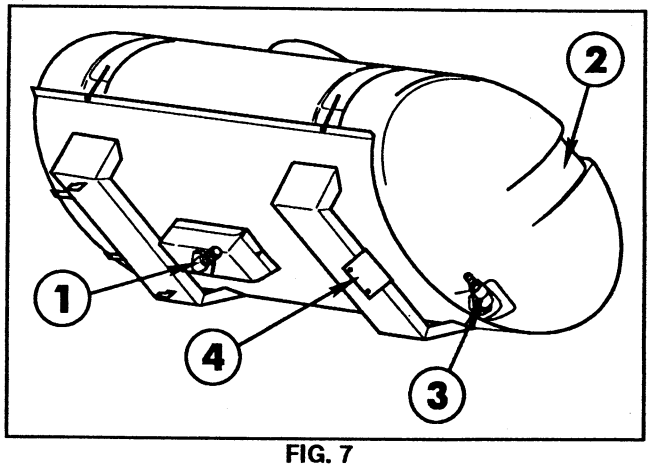


FIG. 7

1. Barbed Elbow (Suction)
2. Spillway
3. Elbow & Hose Barb (Overflow)
4. Mounting Member

2. Apply thread sealer and install the 90° barbed elbow into the bottom of the Spray Tank.

3. Attach 1-1/4" x 25" Suction Hose to the barbed elbow in the bottom of the Tank with a hose clamp. Attach 1-1/4" barbed female quick coupler to the other end of the Suction Hose and secure with a hose clamp.

4. Attach 1/2" x 42" Agitator Hose to the 1/2" barbed elbow in the front of the Tank with a hose clamp. Attach 1/2" barbed female quick coupler to the other end of the Agitator Hose and secure with a hose clamp.

5. Apply thread sealer and install the 90° street elbow and a hose barb into the fitting at the rear ("spillway") of the Tank. Attach 1-1/4" x 67" Overflow Hose to the hose barb with a hose clamp.

6. Place the Tank and Saddle Assembly on the Vehicle Frame.

7. Slide the Tank and Saddle forward, to hook the two lugs on the front of Saddle under the Vehicle's cross member, resting the angle under the rear Saddle over the Vehicle's rear cross member.

8. Secure the Mounting Member to the Vehicle's cross member with two (2) 1/2" x 1-1/2" cap screws, flat washers, lock washers and hex nuts.

9. Remove hex nut and flat washer securing Front Tank Band to left side of saddle. Install 3/8" hex nut and flat washer and reinstall Tank Band to Saddle with previously removed fasteners. Mount the Tee Mounting Bracket to the left side of the saddle at the front Tank Band, using 5/16" flat washer and hex nut, previously installed, as shown in FIG 8.

10. Apply thread sealer and install two Hose

Barbs and 90° Hose Barb to Tee. Attach Tee to Mounting Bracket using clamp, two (2) 5/16" flat washers, lock washers, and hex nuts. Connect 1-1/4" x 67" Overflow Hose from rear of Tank and two 1-1/4" x 27 -1/2" Bypass Hoses to Tee, and secure with hose clamps.

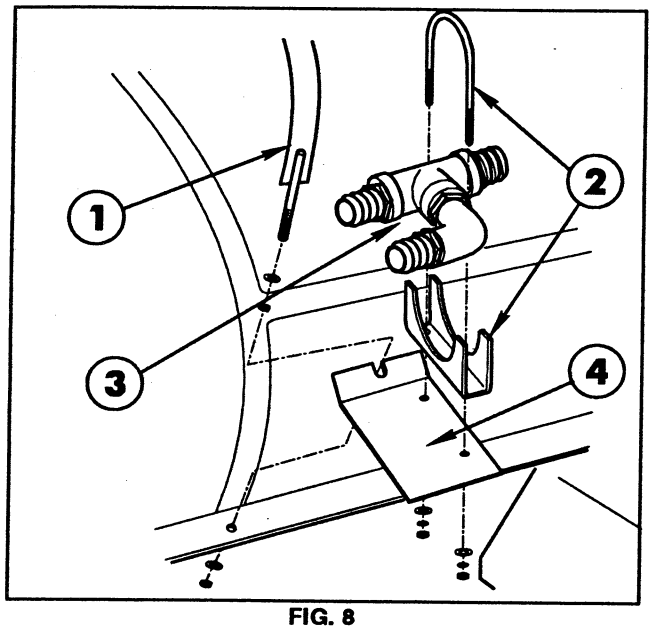


FIG. 8

1. Tank Band
2. Clamp
3. Tee
4. Tee Mounting Bracket

11. Connect two (2) 1-1/4" x 27-1/2" Bypass Hoses to Control Valve. Secure with hose clamps. Route the Suction Hose over the left side of the Vehicle Frame and connect the couplers at the Suction Ball Valve. **REFER TO PAGE 12 FOR CORRECT HOSE CONNECTION.**

12. Route the Agitator Hose over the Vehicle frame and under the Pump to connect the couplers at the Agitator Ball Valve.

13. Slip Hose Cover over 1" x 24" Supply Hose and attach to 90° hose barb on the Control Valve, and connect the other end to the Hose Barb at the discharge of the Pump, using hose clamps.

BOOM HOLD-IN ASSEMBLY:

1. Mount right Hold-In Brace assembly to the two (2) 5/16" carriage bolts in the front Tank Band using two (2) 5/16" flat washers and hex nuts. Tighten securely. See FIG. 9.

2. Attach right Boom Hold-In assembly to Hold-In Brace assembly using two (2) 1/4" U-bolts and four (4) 1/4" lock nuts. Attach Rubber Hold-Down to Hold-In Brace assembly. Repeat steps 1 and 2 for left side.

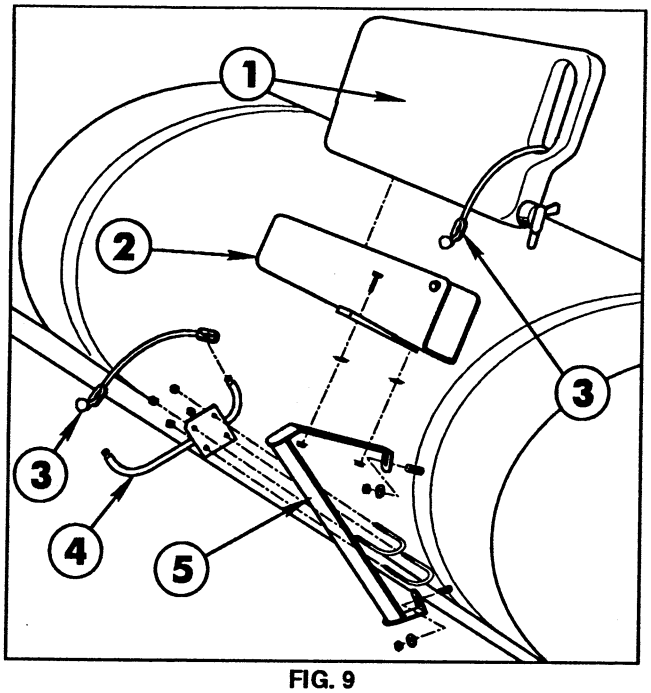


FIG. 9

1. Clean Water Wash Tank
2. Wash Tank Bracket
3. Rubber Hold-Down
4. Boom Hold-In Ass'y
5. Hold-In Brace Ass'y

3. Mount Wash Tank Bracket (open end forward) to right-hand Hold-In Brace assembly using two (2) 5/16" x 1" hex hd. cap screws, flat washers, and hex nuts. Place Clean Water Wash Tank into Wash Tank Bracket and secure with Rubber Hold-Down, as shown in FIG. 9.

BOOM FRAME ASSEMBLY:

NOTE: If installing the "Enclosed Boom" option in place of the standard Boom, disregard this entire Boom Frame assembly section. Refer to the "Enclosed Boom" set-up and parts manual for the installation instructions.

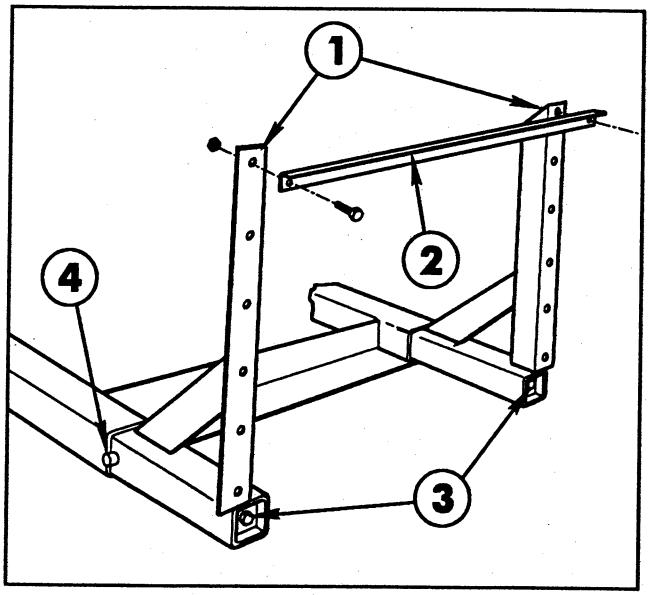


FIG. 10

1. Boom Mount Assembly
2. Cross Support Angle
3. Wedge Screw
4. Stop Pin

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Replaces pages 5 & 6 on Form No. 95-2067

SET-UP AND PARTS

TURRET BODIES & NOZZLES
FOR USE ON ALL SPRAY SYSTEMS

1. Apply a heavy coating of grease to the tubes of the two Boom Mount Assemblies and insert them into the Vehicle frame as shown in FIG 10.

NOTE: Note the position of the angle member of the Boom Mount Assemblies in relation to the tube member. They must be positioned as shown for the mounting of the Cross Support Angle.

Steps 2 and 3 apply to the assembly of the Standard Boom only. If the optional "Boom Pivot Kit" is to be installed, see the instructions furnished with that kit. The Cross Support to be used with that kit is different than the Support used on the Standard Boom.

2. Position the Cross Support Angle and attach it to the Boom Mount Assemblies with two 1/2" x 1-1/4" hex hd cap screws and lock nuts.

3. Position the Spacer Tubes between the Boom Mount uprights and the lugs on the Main Frame Tube. Use two 1/2" x 4" hex hd cap screws and lock nuts to secure the Main Frame Tube to the uprights. See FIG. 11.

4. Using a torque wrench, tighten the 1/2" x 18" screws that join the Wedges to the Boom Mounts. Tighten to 50 ft. lbs.

5. Position the two (2) Center Boom angles on the Main Frame and secure them to the Main Frame tube with two (2) square U- bolts, four (4) flat washers and hex nuts. See FIG 11.

6. Center and attach the Center Boom Pipe to the two Center Boom Angles with two (2) clamps, 3/8" x 1" cap screws, flat washers and lock nuts.

NOTE: References made to Figures 1, 2, and 3 refer to the Figures in this insert.

7. Loosely attach the Double Barb Turret Body with the Turret Body Clamp in the approximate center of the Center Boom Pipe. For the most uniform spray coverage, position all Nozzles level as shown in FIG. 1.

8. Loosely attach a single barb Turret Body with the Turret Body Clamp to LH end of the Center Boom Pipe. Loosely attach a threaded Turret Body with the Turret Body Clamp to RH end of the Center Boom Pipe.

9. Place two Hose Clamps on two 3/4" x 19" Jumper Hoses and connect the two "end" Turret Bodies to the Double Barb Turret Body. Space nozzles 20" apart and tighten fasteners securely. Apply thread sealer and install the 90° 3/4" Hose Barb on the Threaded Turret Body. See FIG. 1.

10. Attach the two Strut Assemblies to the two Adjustable clevis' found on each side of the Main Frame tube with two (2) 1/2" x 2" clevis pins and two (2) 1/8" x 1" cotter pins. See FIG 1.

IMPORTANT! DO NOT over-tighten the nuts in steps 11 and 13. The clamping action could crush the Boom Pipe.

11. Insert the plugged end of an Extension Boom Pipe into the Pivot Assembly and secure with four (4) 1/4" x 1-1/4" cap screws and lock nuts. See FIG 2. Repeat on the opposite side to assemble the other Extension Boom.

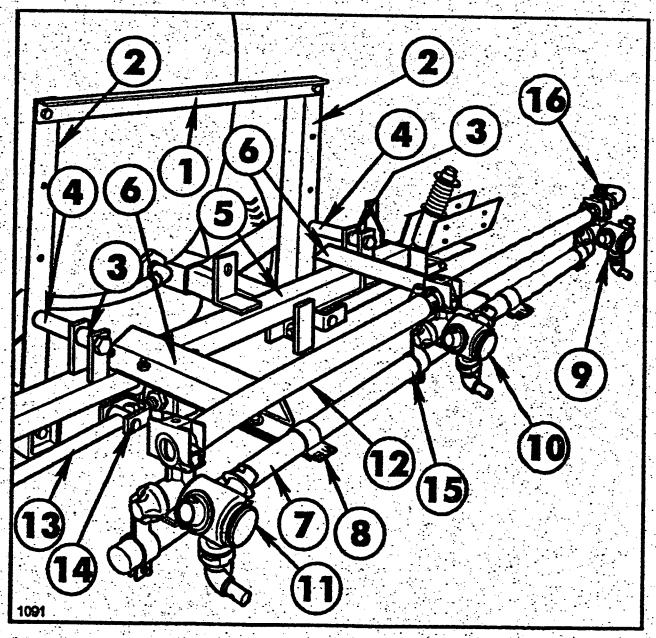


FIG. 1

1. Cross Support Angle
2. Boom Mount Assy.
3. Spacer Tube, 1" lg.
4. Spacer Tube, 1-1/4" lg.
5. Main Frame Tube
6. Center Boom Angle
7. Center Boom Pipe
8. Boom Clamp
9. Threaded Turret Body
10. Double Barb Turret Body
11. Single Barb Turret Body
12. Jumper Hose
13. Strut Assembly
14. Adjustable Clevis
15. Turret Body Clamp
16. 90° 3/4" Hose Barb

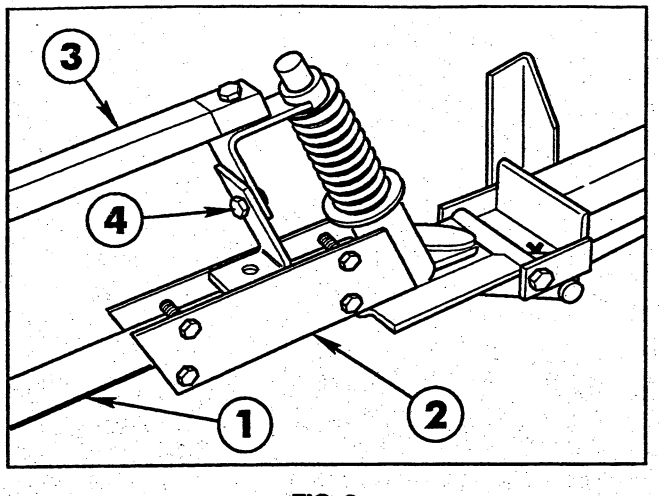


FIG. 2

1. Extension Boom Pipe
2. Pivot Assembly
3. Boom Support Assembly
4. Height Adjustment

12. Attach the Boom Support Assembly to the Pivot Assembly, using a 5/16" x 1-1/2" cap screw and lock nut. See FIG 2.

13. Secure the two plates of the Boom Support Assembly to one of the Extension Boom Pipes, using two (2) 1/4" U-bolts, four (4) lock nuts and flat washers. See FIG 3.

14. Assemble the Boom Support Assembly to the other Extension Boom Pipe.

15. Adjust the Booms to a level position by adjusting the jam nuts on the adjustable clevis assemblies (See FIG. 1) to the desired position, then tighten the end nuts against the Main Frame Plate.

16. Attach three double barb and one single barb Turret Bodies with Clamp Assemblies on each Extension Boom Pipe as shown in Fig. 3.

17. Level Nozzles and space 20" apart. Connect the Turret Body Assemblies with 3/4" x 19" Jumper Hoses . Secure with hose clamps. See FIG. 3.

NOTE: Two Jumper Hoses provided with this kit are 21" long. They should be cut to 19" long for this set-up.

18. Install the plastic Boom Caps over the ends of the Boom Pipes.

19. Slip Hose Cover over three Boom Feeder Hoses, and connect the Boom Feeder Hoses to the 90° barbs in the Control Valve. The two 3/4" x 117" Hoses are to be attached to the left and center barbs. The 3/4" x 130" Hose is to be attached to the right barb. Secure the hoses and Hose Cover to Control Valve with hose clamps.

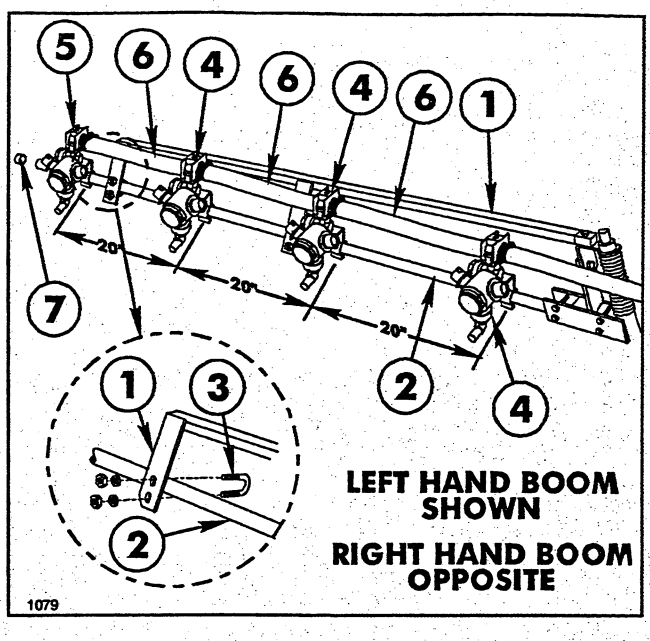


FIG. 3

1. Boom Support Assembly
2. Extension Boom Pipe
3. U-bolt
4. Double Barb Nozzle Body
5. Single Barb Nozzle Body
6. Jumper Hose 3/4 x 19"
7. Boom Cap

20. Place a hose clamp on the Center Boom Feeder Hose and attach it to the 90° Hose Barb at the Right End of the Center Boom Pipe.

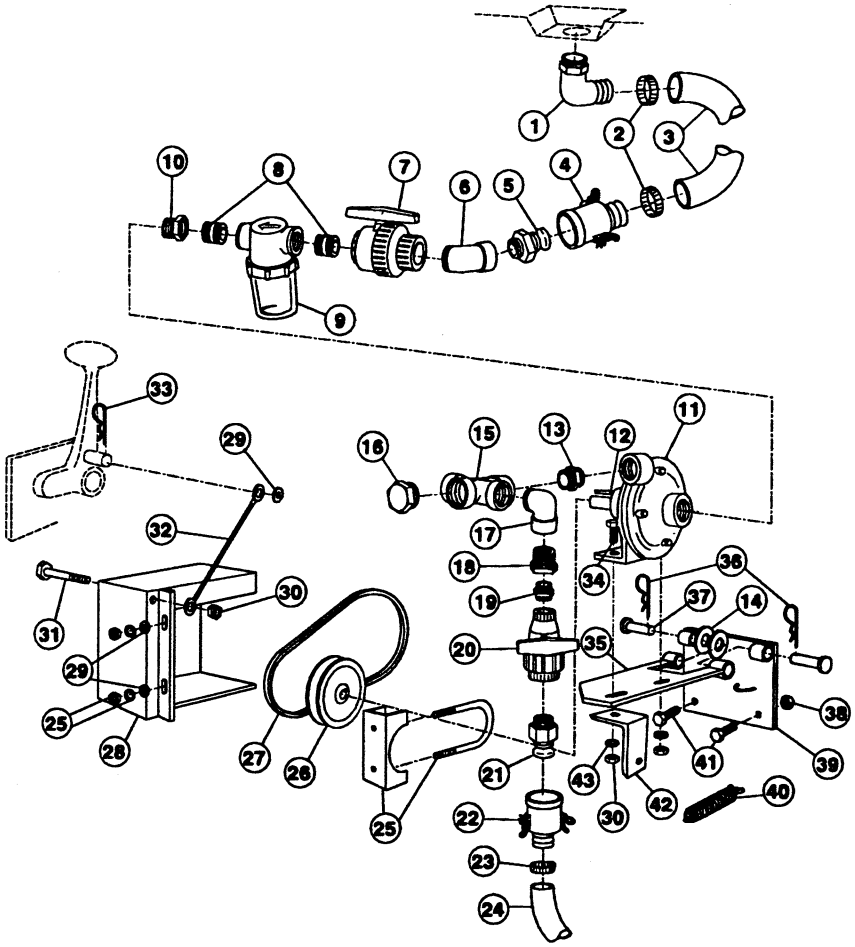
21. Place a hose clamp on the right and left Boom Feeder Hoses and attach them to the double barb Nozzle Bodies on the right and left Extension Boom Pipes.

22. Recheck and tighten all fasteners and hose clamps securely.

Fill the Tank with clean water and check for any leaks.

Refer to the Manual Valve Spray System Operator's Manual for the proper calibration and operation of the Manual Valve Spray System.

NOTE: WHEN ORDERING A REPLACEMENT MANUAL, REQUEST FORM NO. 95-9307.

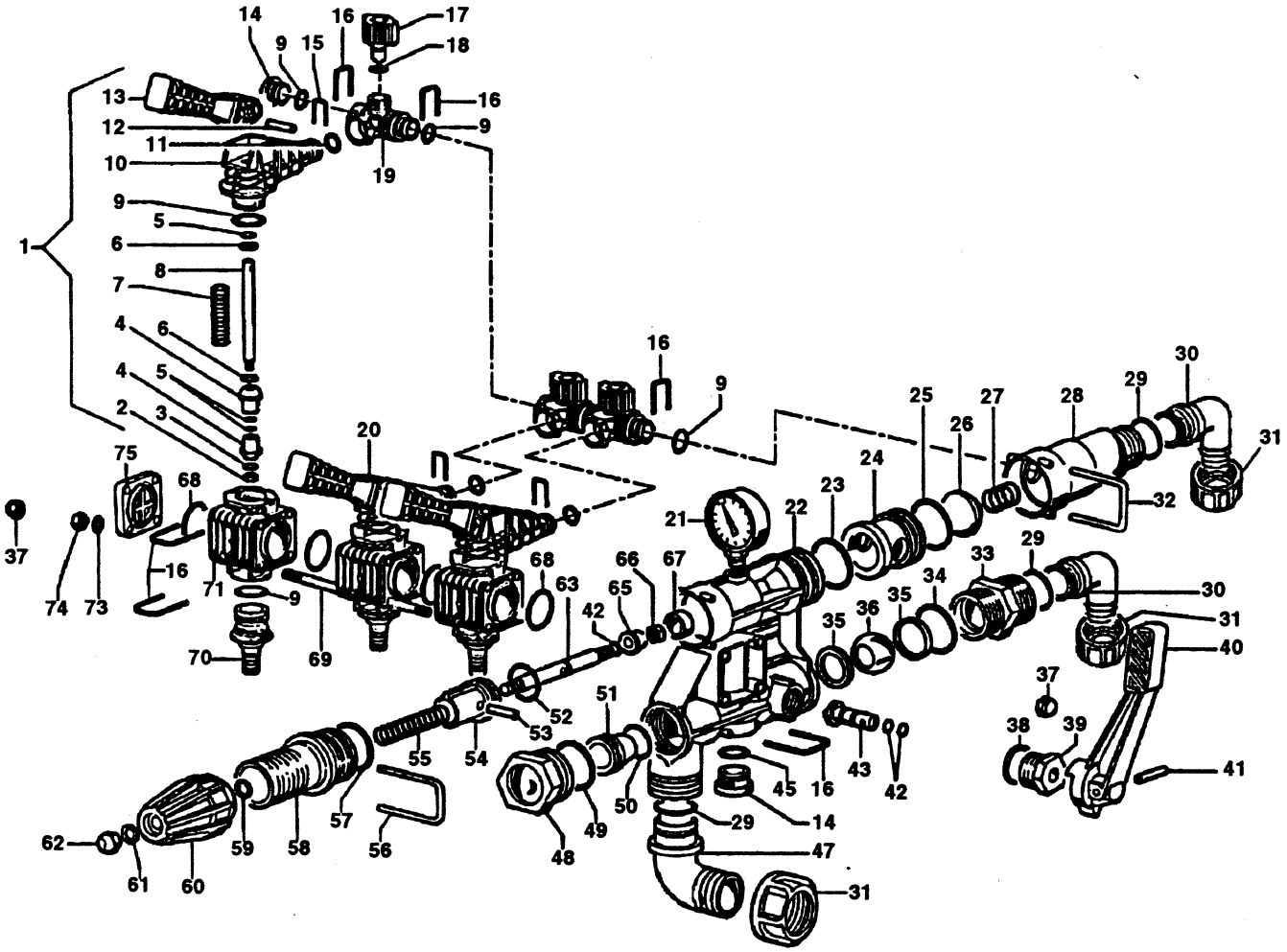


SPRAY SYSTEM PUMP COMPONENTS

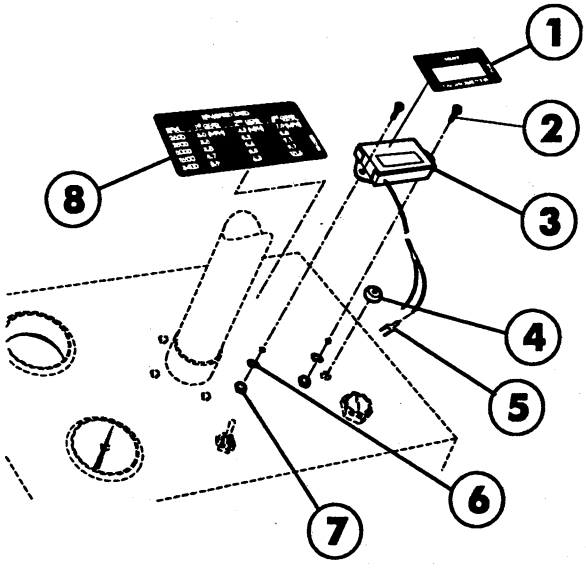
#	Part No.	Description	Qty
1	93-0856	90° Elbow 1-1/4 NPT	1
2	41327	Hose Clamp	2
3	93-0858	Suction Hose 1-1/4 x 25	1
4	93-0854	Quick Coupler x 1-1/4 Hose Barb	1
5	93-0888	Quick Barb x 1-1/4 Male NPT	1
	93-0853	Quick Coupling Dust Cap	1
6	93-0897	St. Elbow 1-1/4 NPT x 45°	1
7	93-0855	Ball Valve x 1-1/4 NPT	1
8	92-0050	Close Nipple, 1-1/4 NPT	2
9	42701	Suction Strainer	1
	42702	St. Screen STD. (f/w 42701)	1
	42703	St. Gasket (f/w 42701)	1
	94-7065	St. Screen 20 mesh OPT'L.	1
	93-0687	Strainer Bowl	1
10	42056	Red. Bushing 1-1/4 x 1-1/2 NPT	1
11	93-0848	Centrifugal Pump (see pg. 16)	1
12	92-0049	Square Key	1
13	42992	Reducing Nipple	1
14	3256-26	Flat Washer, 1/2"	AR
15	92-8416	Cross, 1" FPT	1
16	42315	Hex Plug	1
17	41307	90° St. Elbow	1
18	41306	Reducing Bushing 1 x 1/2 NPT	1
19	41314	Close Nipple	1

#	Part No.	Description	Qty
20	40192	1/2 NPT Ball Valve	1
21	40486	Quick Barb x 1/2 Male NPT	1
	41317	Quick Coupler Dust Cap	1
22	40487	Quick Coupler x 1/2 HB	1
23	96609	Hose Clamp	2
24	42946	Agitator Hose	1
25	20-4840	Muffler Clamp	1
26	40198	Pump Sheave	1
27	42989	Pump Drive Belt	1
28	41142	Pump Belt Cover Ass'y	1
29	3256-24	Flat Washer, 3/8 SAE	3
30	32153-2	Lock Nut, 3/8 UNC	3
31	323-16	HHCS, 3/8 UNC x 4	1
32	42993	Pump Cable	1
33	328963	Hair Pin Cotter	1
34	323-8	HHCS, 3/8 NC x 1-1/2	2
35	92-3771	Pump Pivot Plate Ass'y	1
36	328967	Cotter Hair Pin	2
37	42195	Clevis Pin	2
38	32153-5	Lock Nut, 1/2 NC	2
39	92-3782	Pivot Mount Plate Ass'y	1
40	41721	Pump Spring	1
41	325-5	HHCS, 1/2 NC x 1-1/4	2
42	41720	Spring Mounting Angle	1
43	3256-4	Flat Washer, 3/8 USS	2

MANUAL VALVE SPRAYER CONTROL



TACHOMETER



MANUAL VALVE SPRAYER CONTROL

#	Part No.	Description	Qty
1	95-2086	Section Valve "RD" Kit	3
2	95-2087	Stainless Steel Nut M4	3
3	95-2088	S.S. Washer Dia. 4, 3x12x1	3
4	95-2089	Poppet	6
5	95-2090	Viton O-Ring Dia. 2x7	9
6	95-2091	S.S. Washer Dia. 8, 4x14x1, 6	6
7	93-0947	Spring	3
8	95-2092	Section Valve Rod	3
9	93-0979	O-Ring Dia. 2 62x22, 22	10
10	95-2093	Upper Valve Body	3
11	95-2094	O-Ring 2, 62x12, 37	3
12	95-2095	Pin Dia. 4x25	3
13	95-2096	Lever	3
14	93-1003	Plug	1
15	95-2097	Quick Release Pin Dia. 16	3
16	93-0952	Quick Release Pin Dia. 25	11
17	93-0940	Adjustment Knob	3
18	95-2098	O-Ring 2, 62x7, 59	3
19	95-2099	By-Pass Connector	3
20	95-2100	Section Valve "RD"	3
21	40485	Pressure Gauge	1
22	93-0972	Control Unit Body	1
23	93-0968	O-Ring 3, 53x42, 86	1
24	93-0967	Check Valve Seat	1
25	93-0966	O-Ring 3, 53x39, 69	1
26	93-0965	Check Valve	1
27	93-0964	Spring	1
28	95-2101	By-Pass Connector	1
29	93-0962	O-Ring D. 3x30	3
30	93-0961	90° Elbow Connector Dia 30MM	2
31	93-0960	Wing Nut G1 1/2	3
32	95-2112	Circlips	1
33	93-1011	Nipples	1
34	93-1010	O-Ring Dia. 2 62x44, 12	1
35	93-1008	Teflon Packing 24x33	2

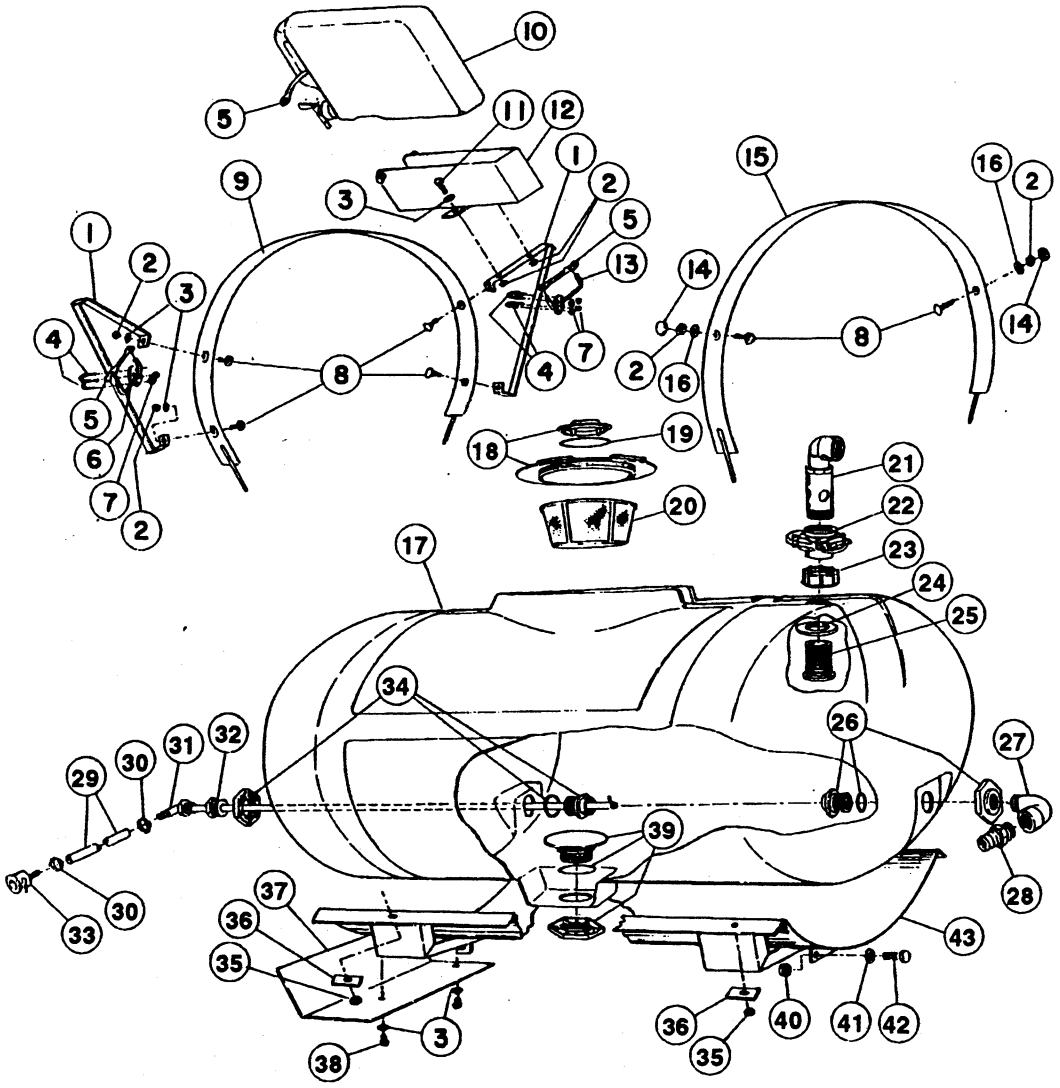
#	Part No.	Description	Qty
36	93-1009	Chromium Plated Brass Ball	1
37	93-0990	Cap Nut M8x1, 25	8
38	939-1005	O-Ring Dia. 2, 62x18, 72	1
39	93-1006	Connector For Lever Pin	1
40	95-2102	Control Lever	1
41	95-2103	Pin Dia. 4x24	1
42	93-0976	Viton O-Ring D. 1, 78x6, 75	3
43	95-2104	Ball Control Pin	1
45	93-0944	O-Ring D. 3x22	1
47	95-2113	90° Connector Dia. 25	1
48	93-0999	Plug 1" 1/4 with Gasket	1
49	93-0996	O-Ring 2, 62x39, 34	1
50	93-1001	O-Ring Dia. 2, 62x29, 82	1
51	93-1000	Nozzle Dia. 12	1
52	93-0982	Viton O-Ring 3, 53x23, 4	1
53	93-0978	Spring Pin Dia. 5x24	1
54	93-0983	Volumetric Valve Guide	1
55	93-0984	Volumetric Valve Spring	1
56	93-0998	Circlips	1
57	93-0985	O-Ring	1
58	93-0986	Volumetric Valve Body	1
59	93-0987	Washer	1
60	93-0988	Adjusting Knob	1
61	93-0954	Washer Dia. 6, 4x18x1, 5	1
62	93-0953	Cap Nut M6x1 UNI 5721	1
63	93-0977	Volumetric Valve Rod	1
65	93-0975	Valve	1
66	95-2114	Stainless Steel Nut M6x1	1
67	93-0973	Volumetric Valve Seat	1
68	95-2105	O-Ring D. 2, 62x36, 14	4
69	95-2106	Stay Rod M8x278	4
70	95-2107	Pipe Fitting Dia. 20MM	3
71	95-2108	Valve Body	3
73	93-0992	Washer Dia. 10	4
74	93-0991	Nut M8	4
75	93-0994	Tap Cover	1

TACHOMETER

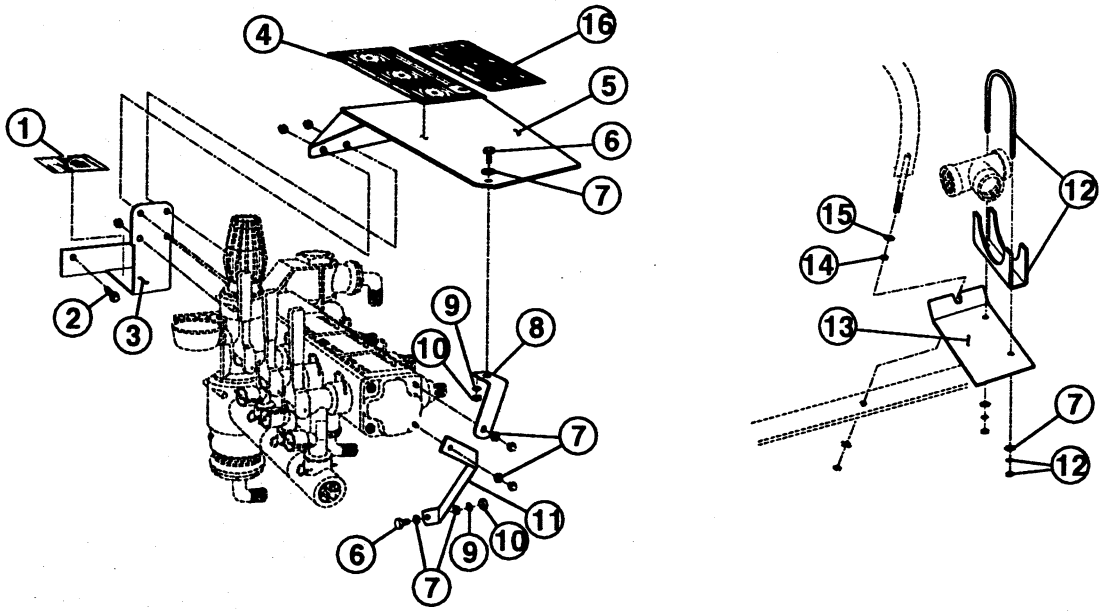
Ref	Part No.	Description	Qty
1	93-1021	Tachometer Decal	1
2	3250-4	HHMS #8-32UNC x 5/8"	2
3	93-1022	Tachometer	1
4	93-1086	Grommet	1

Ref	Part No.	Description	Qty
5	93-1091	Spade Terminal	1
6	3253-17	Lock washer #8	2
7	3217-25	Hex nut #8-32UNC	2
8	93-0920	RPM to Speed Decal	1

MANUAL SPRAY SYSTEM TANK



MANUAL VALVE MOUNTING ASS'Y



MANUAL SPRAY SYSTEM TANK

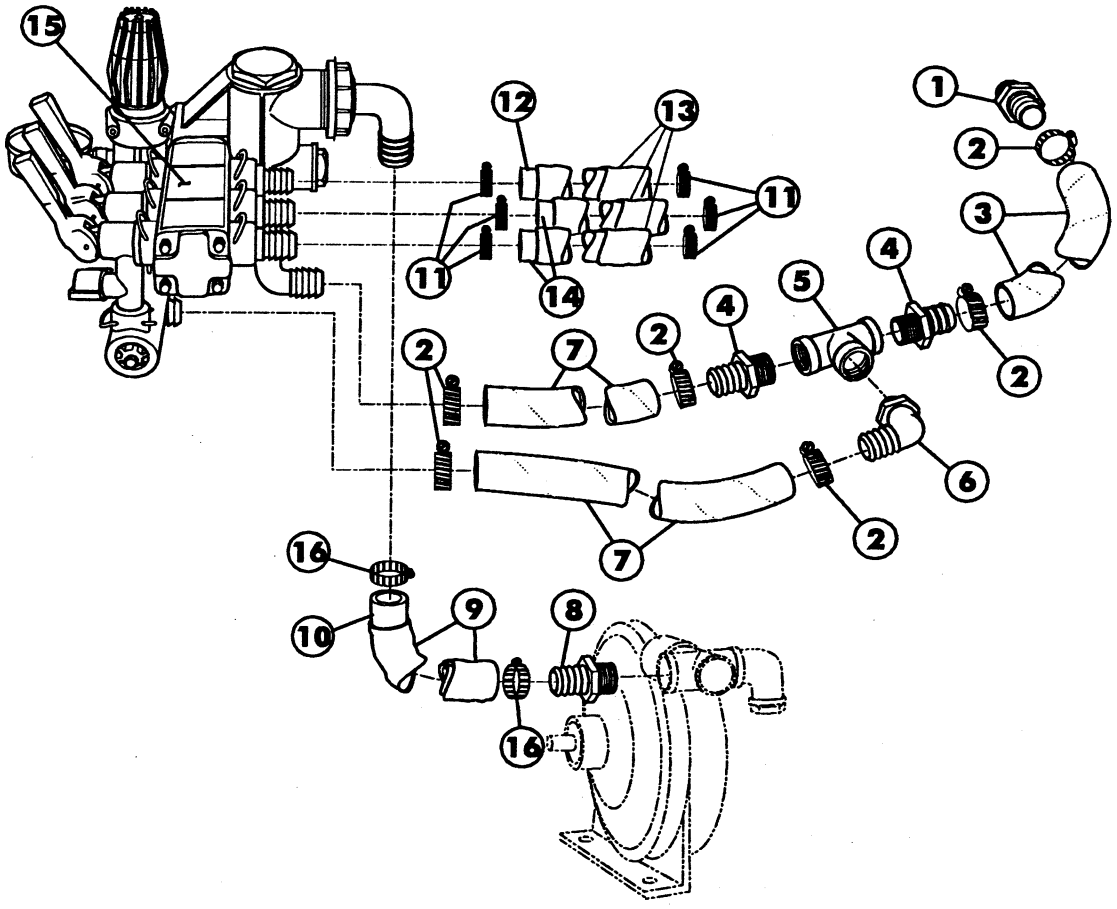
Ref	Part No.	Description	Qty
1	42983	Hold-In Brace Assembly	2
2	3217-6	Hex Nut, 5/16 NC	6
3	3256-23	Flat Washer, 5/16	4
4	92-0010	U-Bolt, 1/4 NC	4
5	42198	Rubber Hold-Down	3
6	42259	Boom Hold-In Assembly (left)	1
7	32153-4	Lock Nut, 1/4 NC	8
8	3230-1	Carriage Bolt, 5/16 NC x 3/4	6
9	42880	Tank Band Assembly (front)	1
10	92-3976	Clean Water Wash Tank	1
	93-0828	Spigot (f/w 92-3976 Tank)	1
11	322-5	HHCS, 5/16 NC x 1"	2
12	92-3969	Wash Tank Bracket	1
13	42316	Boom Hold-In Assembly (right)	1
14	42452	Protective Cap	2
15	43013	Tank Band Assembly (rear)	1
16	3253-4	Lock Washer, 5/16	2
17	42879	Tank Assembly - 160 Gals.	1
18	42322	Tank Lid (f/w Tank Assy.)	1
	92-3765	Vent Cap	1
19	42859	Breather Gasket (f/w Tank Assy.)	1
20	42323	Filler Basket (f/w Tank Assy.)	1
21	43069	Stand Up Assembly	1
22	43064	Knife Valve	1

Ref	Part No.	Description	Qty
23	43068	Fly Nut, 2" NPT	1
24	43067	Sealing Washer	1
25	43066	Bulk Head, 2" NPT	1
26	41800	Tank Fitting, 1" NPT (f/w Tank Assy)	1
27	41307	90° St. Elbow, 1" NPT	1
28	41308	Hose Coupling, 1" MPT x 1-1/4" HB	1
29	42946	Agitator Hose, 1/2" x 42"	1
30	96609	Hose Clamp	2
31	42981	Agitator Tube Assembly	1
	42842	Barbed Elbow	1
32	41969	Reducer Bushing, 3/4" MPT x 1/2" FPT	1
33	40487	Female Quick Coupler, 1/2" HB	1
34	41801	Tank Fitting, 3/4" NPT (f/w Tank Assy)	1
35	3217-9	Hex Nut, 3/8" NC	4
36	43014	Backing Strap	4
37	92-3525	Heat Shield	1
38	322-3	HHCS, 5/16 NC x 3/4	2
39	41798	Anti Vortex Fitting, 1-1/4" NPT	1
40	3217-9	Hex Nut, 1/2" NC	2
41	3253-7	Lock Washer, 1/2"	2
42	323-5	HHCS, 1/2 NC x 1-1/4"	2
43	42878	Tank Saddle Assembly	1

MANUAL VALVE MOUNTING ASSEMBLY

#	Part No.	Description	Qty
1	93-0932	Main Control Decal	1
2	32144-10	HWHMS, 1/4 NC x 5/8"	2
3	93-0933	Valve Mtg. Bkt. Ass'y (w/decal)	1
4	93-1074	Pressure Adjust Decal	1
5	95-2064	Spray Guard Ass'y (w/decal)	1
6	322-3	HHCS, 5/16 NC x 3/4"	2
7	3256-23	Flat Washer, 5/16"	8
8	93-1076	Shield Brace	1

#	Part No.	Description	Qty
9	3253-4	Lock Washer, 5/16"	2
10	3217-6	Hex Nut, 5/16 NC	2
11	95-2062	Valve Brace	1
12	20-4840	Clamp f/w Fasteners	1
13	93-0880	Tee Mtg. Bracket	1
14	3256-24	Flat Washer 3/8"	1
15	3217-7	Hex Nut 3/8"	
16	95-2066	Decal - Boom Shut-offs	1

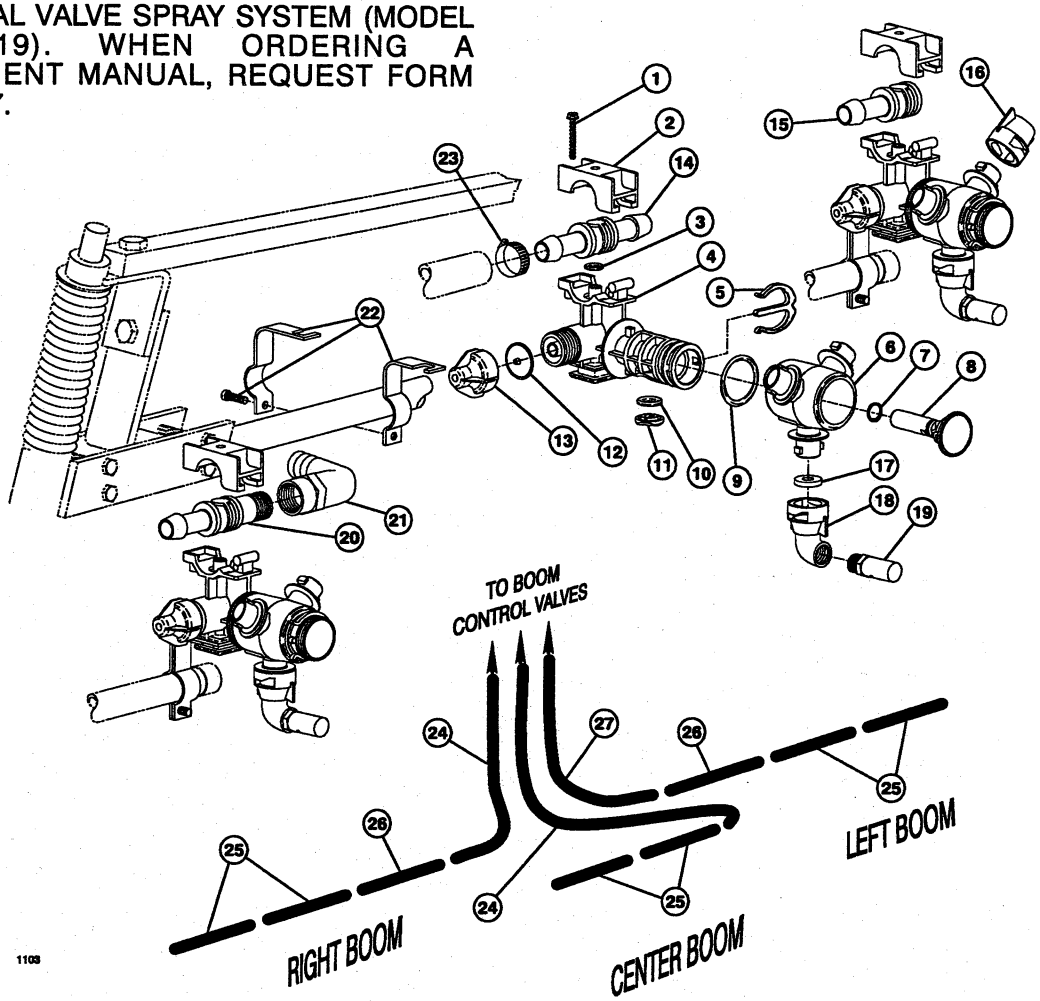


MANUAL SPRAY VALVE SET-UP

#	Part No.	Description	Qty
1	41308	Hose Barb, 1"MPT x 1-1/4"HB	1
2	41327	Hose Clamp	7
3	93-0883	Hose- Bypass to Tank, 1-1/4" x 67"	1
4	93-0851	Hose Barb, 1-1/4"MPT x 1-1/4"HB	2
5	93-0886	Tee, 1-1/4" NPT	1
6	93-0856	90° HB, 1-1/4"MPT x 1-1/4"HB	1
7	93-0882	Hose - Bypass, 1-1/4" x 27-1/2"	2

#	Part No.	Description	Qty
8	92-0012	Hose Barb, 1"MPT x 1"HB	1
9	93-0885	Hose Cover	1
10	93-0881	Hose-supply, 1" x 24"	1
11	92-0045	Hose Clamp	6
12	97791	Boom Feed Hose, RH 132"	1
13	93-0884	Hose Cover, 1.19" ID x 36"	3
14	31188	Boom Feed Hose, 104"	2
15	95-2135	Control Valve	1
16	21146	Hose Clamp	2

NOTE: THIS SHEET REPLACES PAGE 13. FOR THE MANUAL VALVE SPRAY SYSTEM (MODEL NO. 41119). WHEN ORDERING A REPLACEMENT MANUAL, REQUEST FORM NO. 95-9307.

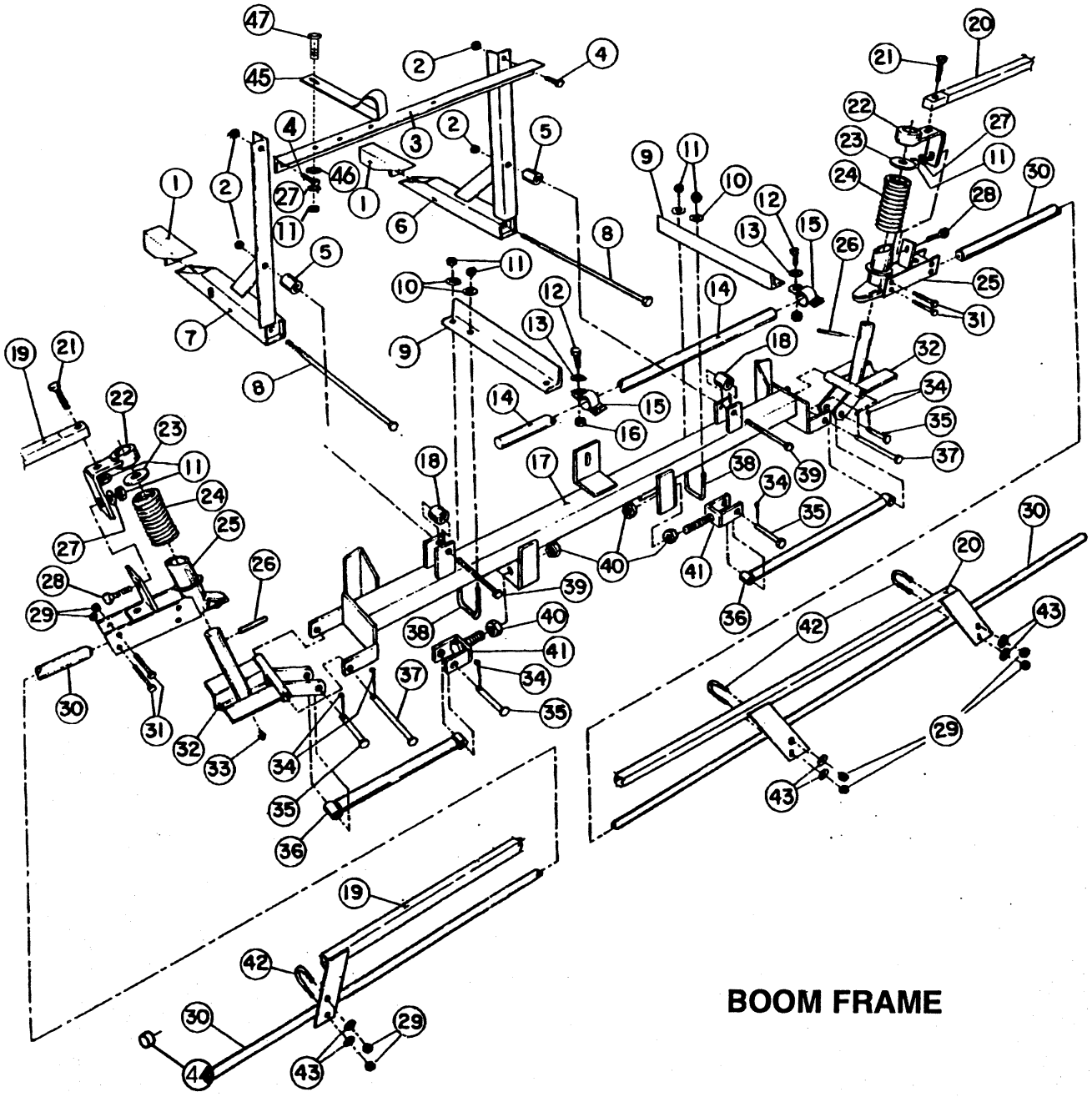


NOZZLE BODIES & BOOM HOSES

Ref.	Part No.	Description	Qty.
*	95-9183	Turret Body - Double Barb (Incl. Ref. #'s 1-14)	7
*	95-9181	Turret Body - Single Barb (Incl. Ref. #'s 1-13 & 15)	3
*	95-9184	Turret Body - Barb x 1/2 NPT (Incl. Ref. #'s 1-13 & 20)	1
1	95-9189	Screw	1
2	95-9190	Upper Clamp	1
†3	95-9191	O-Ring	1
4	95-9192	Split-Eyelet Body	1
5	95-9197	E-Clip	1
6	95-9196	Turret	1
†7	95-9198	O-Ring	1
8	95-9200	Plug	1
†9	95-9199	O-Ring	1
†10	95-9194	O-Ring	1
†11	95-9195	Seal	1
†12	41003	Diaphragm	1
13	95-9193	End Cap Assembly	1
14	95-9202	Double Hose Barb	1

* Not Illustrated

Ref.	Part No.	Description	Qty.
15	95-9201	Single Hose Barb	1
16	95-9187	Nozzle Dust Cap (Incl. Ref. # 17)	22
17	40998	Seat Gasket	33
18	95-9186	Nozzle Cap, 90° (Incl. Ref. # 17)	11
19	95-9188	TTJ10 Turbo TurfJet (Std.)	11
	95-9221	TTJ2 Turbo TurfJet (Optional)	11
	95-9222	TTJ4 Turbo TurfJet (Optional)	11
	95-9223	TTJ5 Turbo TurfJet (Optional)	11
	95-9224	TTJ6 Turbo TurfJet (Optional)	11
	95-9225	TTJ8 Turbo TurfJet (Optional)	11
	95-9226	TTJ15 Turbo TurfJet (Optional)	11
20	95-9203	Hose Barb x 1/2" NPT	1
21	95-9314	90° Elbow, 1/2" FPT x 3/4" H.B.	1
22	95-9185	Turret Body Clamp	11
23	92-0045	Hose Clamp, 3/4" Hose	22
24	31188	Boom Hose, 3/4" x 117"	2
25	40506	Jumper Hose, 3/4 x 19"	6
26	95-2229	Jumper Hose, 3/4 x 21"	2
27	97791	Boom Hose, 3/4" x 130"	1



BOOM FRAME

⚠ CAUTION

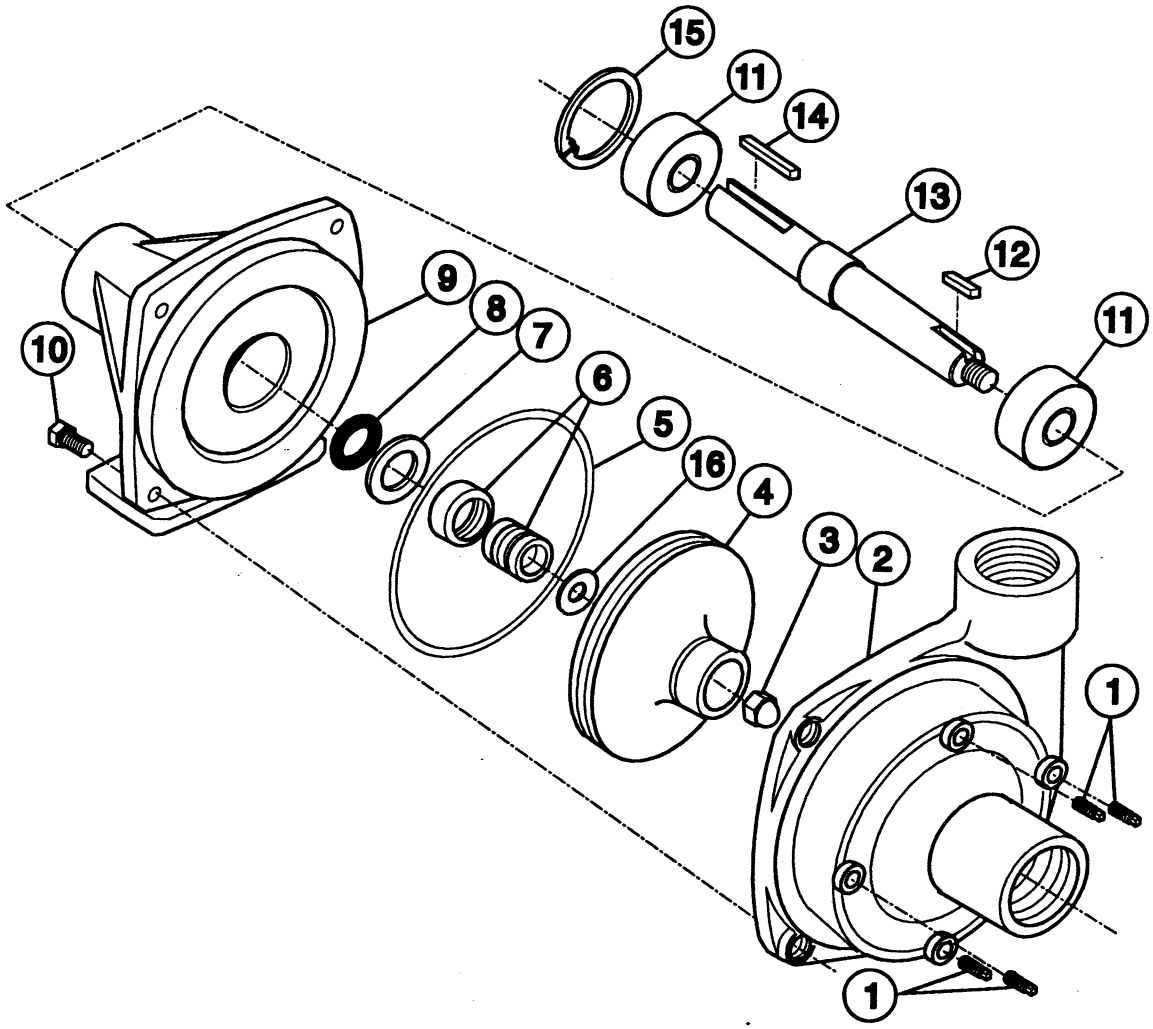
THE TWO SPRINGS (REF # 24) ARE UNDER APPROX. 150 LBS. OF PRESSURE. BE VERY CAUTIOUS WHEN REMOVING THE SPRING PINS (REF # 26) FOR REMOVAL OF THE SPRINGS.

IMPORTANT! THE TWO BOLTS (REF # 8) MUST BE TORQUED TO 50 FT. LBS.

BOOM FRAME

Ref	Part No.	Description	Qty
1	42223	Tube Wedge Assy	2
2	32153-5	Lock Nut, 1/2 NC	4
3	42225	Cross Support Angle	1
4	325-5	HHCS, 1/2 NC x 1-1/4"	2
5	42258	Spacer Tube, 1-1/4" lg.	2
6	42222	Boom Mount Assy	1
7	42217	Boom Mount Assy	1
8	42199	HHCS, 1/2 NC x 18"	2
9	42234	Center Boom Angle	2
10	3256-3	Flat Washer, 5/16	4
11	3217-6	Hex Nut, 5/16 NC	9
12	323-6	HHCS, 3/8 NC x 1"	2
13	3256-4	Flat Washer, 3/8	2
14	40493	Center Boom Pipe	1
15	40494	Clamp Assy	2
16	32153-2	Lock Nut, 3/8 NC	2
17	42227	Main Frame Tube-Welded Assy	1
18	42257	Spacer Tub, 1" Long	2
19	42711	Boom Support Assy - LH	1
20	42710	Boom Support Assy - RH	1
21	322-7	HHCS, 5/16 NC x 1-1/2"	2
22	42707	Support Bracket Assy	2
23*	3256-62	Flat Washer, 1" S.A.E.	2
24*	42196	Compression Spring	2
25*	42706	Breakaway Pivot Assy	2
26*	321121-78	Spring Pin, 1/4 x 2"	2
27	3256-23	Flat Washer, 5/16 S.A.E.	3
28	3230-1	Carriage Bolt, 5/16 NC x 3/4	2
29	32153-4	Lock Nut, 1/4 NC	16
30	42282	Extension Boom Pipe Assy	2
31	321-10	HHCS, 1/4 NC x 1-3/4"	8
32*	42243	Hinge Assy	2
33*	361011	Grease Fitting	2
34	3272-11	Cotter Pin, 1/8 x 1"	6
35	42195	Clevis Pin, 1/2 x 2"	4
36	42240	Strut Assy	2
37	42194	Clevis Pin, 1/2 x 4-1/2"	2
38	301950	U-Bolt, 5/16 NC	2
39	325-17	HHCS, 1/2 NC x 4"	2
40	3217-11	Hex Nut, 5/8 NC	4
41	42237	Adjustable Clevis Assy	2
42	92-0010	U-Bolt, 1/4 NC	4
43	3256-2	Flat Washer, 1/4	8
44	92-8420	Boom Cap	4
45	2412-104	"R" Clamp	1
46	3253-4	5/16 Lockwasher	1
47	322-3	Cap Screw 6/16 x 3/4	1

* Denotes parts that are available in an assembled unit.
Order #42840 Breakaway Assembly



CENTRIFUGAL PUMP (93-0848)

Ref	Part No.	Description	Qty
1	42084	Drain Plug	4
2	93-0922	Pump Casting	1
3	42086	Impeller Nut	1
4	93-0923	Impeller (Polypropylene)	1
5	42089	O-Ring	1
6	42088	Mechanical Seal - Viton	1
7	93-0924	Seal Retainer	1
8	42092	Slinger Ring	1

Ref	Part No.	Description	Qty
9	93-0925	Mounting Flange	1
10	323-6	Bolt	4
11	93-0927	Ball Bearing	2
12	93-0928	Key	1
13	93-0929	Pump Shaft	1
14	93-0930	Key	1
15	42093	Bearing Retainer	1
16	93-0931	Gasket	1
*	94-8520	Seal Kit (Incl. O-ring & and Seal)	AR

* Not Illustrated