



MODEL NO. 41120-90001 & UP
MODEL NO. 41020-90001 & UP
MODEL NO. 41021-90001 & UP
MODEL NO. 41128-90001 & UP
MODEL NO. 41119-90001 & 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.

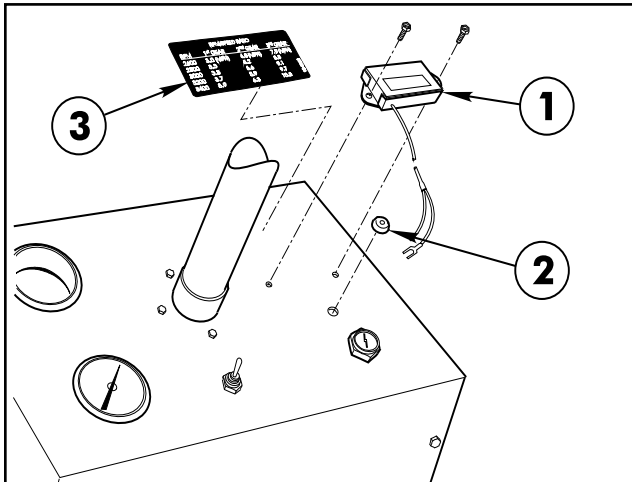


FIG. 1

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.

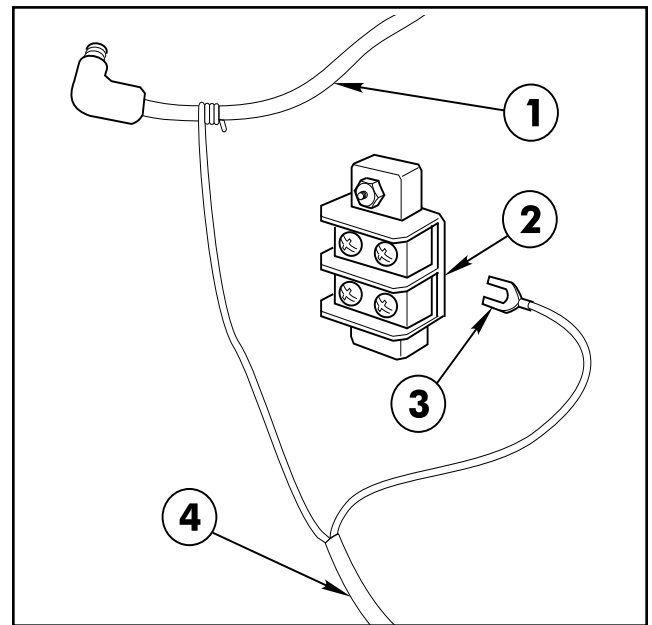


FIG. 2

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.

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.

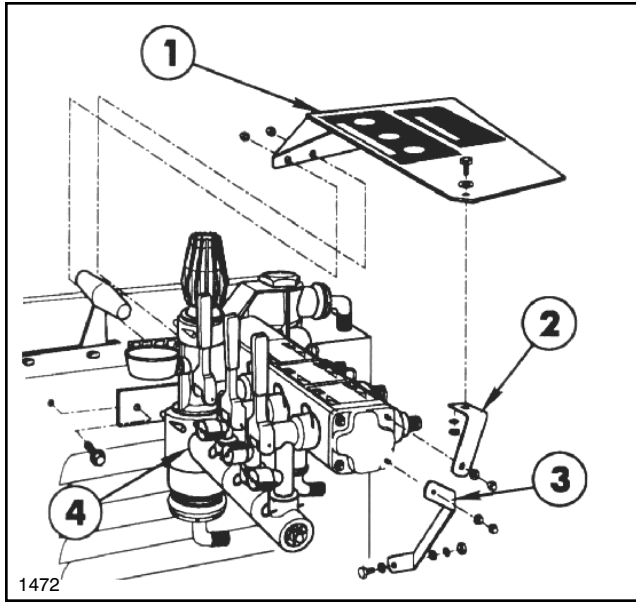


FIG. 3

- | | |
|------------------|--|
| 1. Splash Shield | 3. Valve Brace |
| 2. Shield 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.

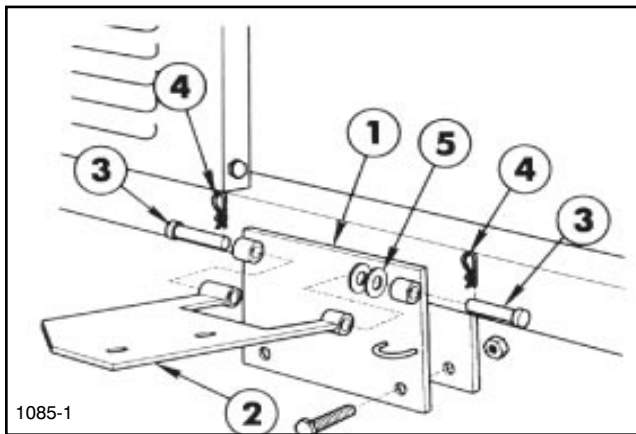


FIG. 4

- | | |
|-------------------------|--------------------|
| 1. Pivot Mounting Plate | 3. Clevis Pin |
| 2. Pump Pivot Plate | 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.

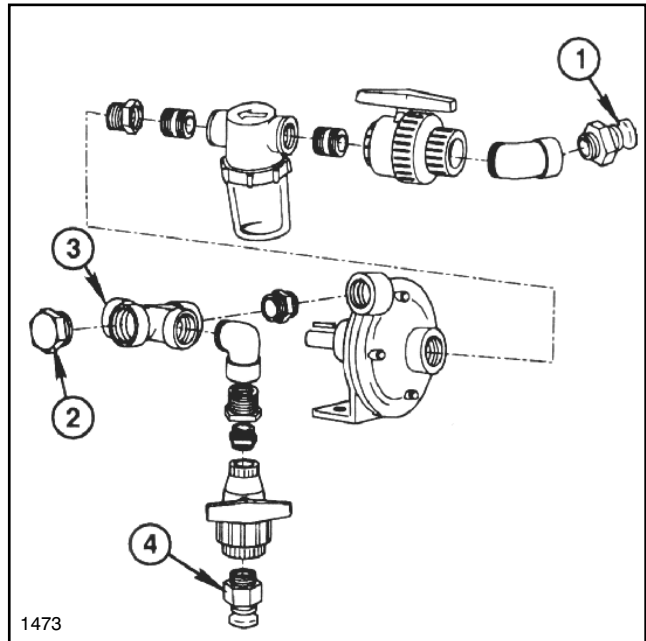


FIG. 5

- | | |
|--------------|-------------|
| 1. Suction | 3. Supply |
| 2. Accessory | 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.

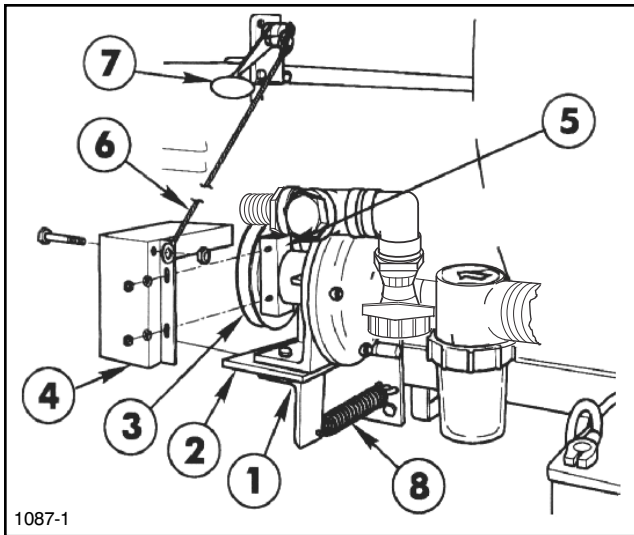


FIG. 6

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

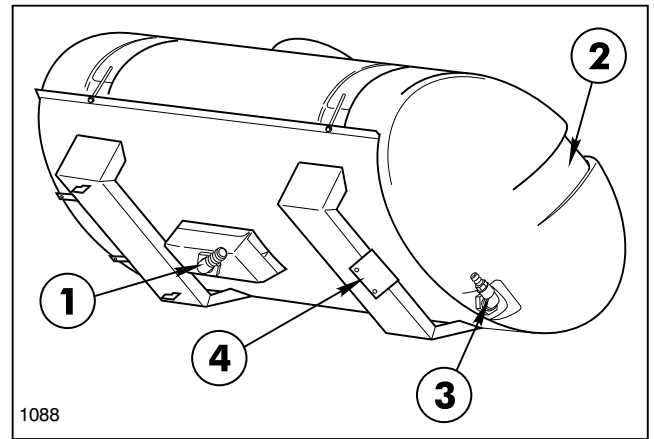


FIG. 7

- | | |
|---------------------------|---------------------------------|
| 1. Barbed Elbow (Suction) | 3. Elbow & Hose Barb (Overflow) |
| 2. Spillway | 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.

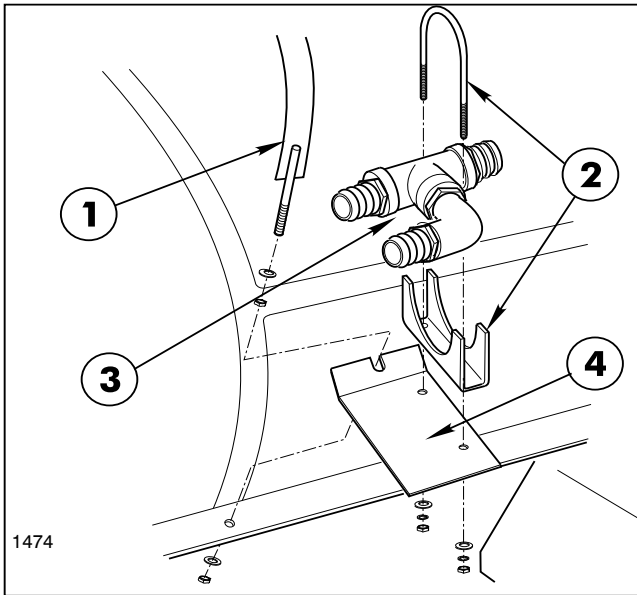


FIG. 8

- | | |
|--------------|-------------------------|
| 1. Tank Band | 3. Tee |
| 2. Clamp | 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.

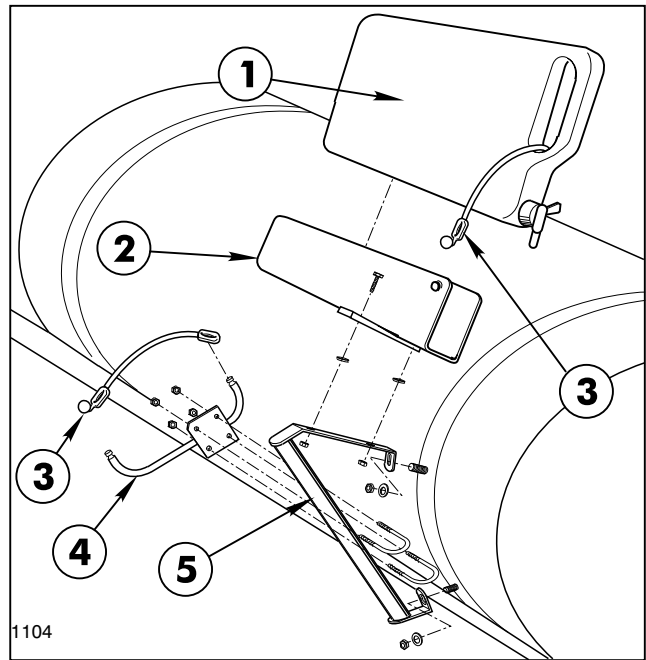


FIG. 9

- | | |
|--------------------------|------------------------|
| 1. Clean Water Wash Tank | 3. Rubber Hold-Down |
| 2. Wash Tank Bracket | 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.

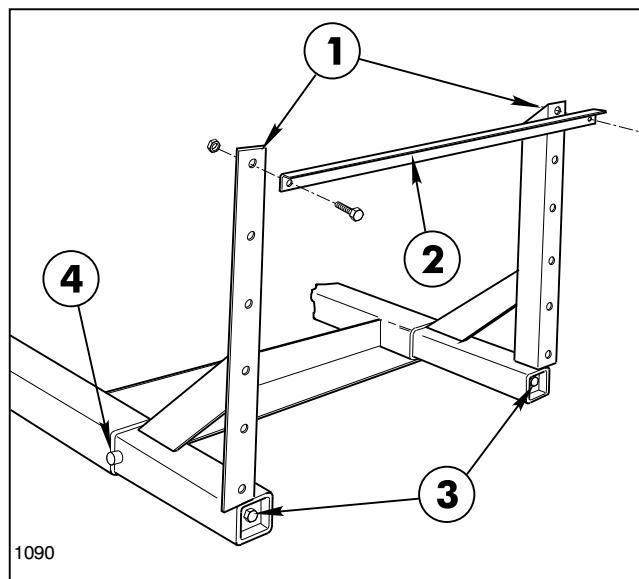


FIG. 10

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

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.

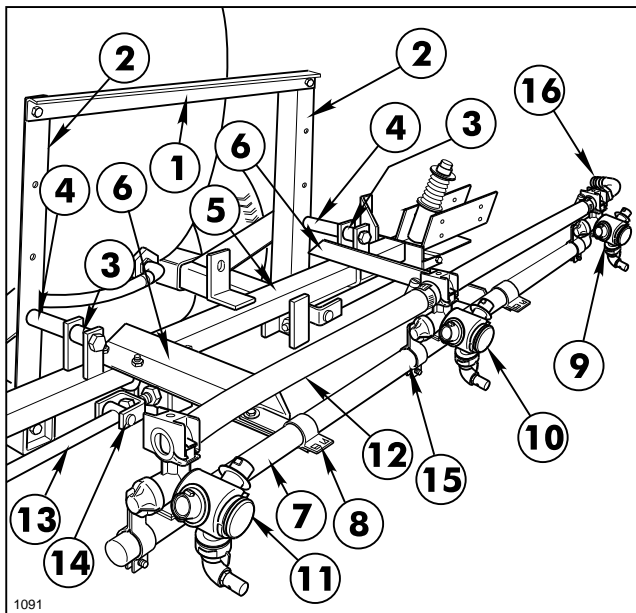


FIG. 11

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

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.

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. 11.

8. Loosely attach a Single Barb Turret Body with the Turret Body Clamps to LH end of the Center Boom Pipe. Loosely attach the Threaded Turret Body with the Turret Body Clamp to RH end of the Center Boom Pipe.

9. Place two Hose Clamp 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. 11.

10. Attach the two Strut Assemblies to the two Adjustable Clevises 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. 11.

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 12. Repeat on the opposite side to assemble the other Extension Boom.

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

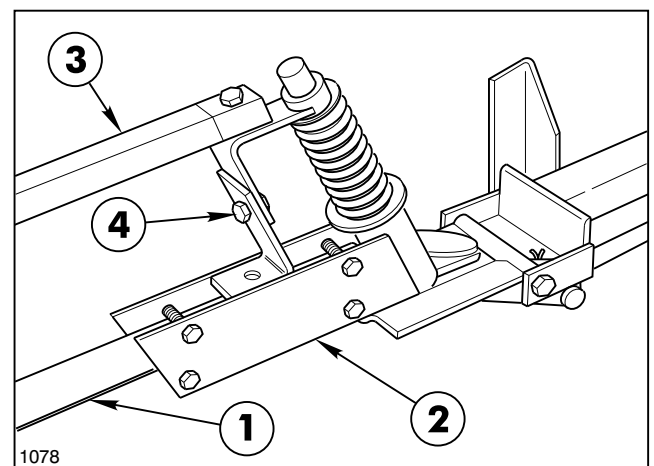


FIG. 12

- | | |
|------------------------|--------------------------|
| 1. Extension Boom Pipe | 3. Boom Support Assembly |
| 2. Pivot 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. 12.

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. 13.

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 Clevises (See FIG. 11) 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 Turret Body Clamps on each Extension Boom Pipe as shown in FIG. 13.

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. 13.

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 hose bars in the Control Valve. The two 3/4" x 117" Hoses are to be attached to the left and center bars. 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.

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

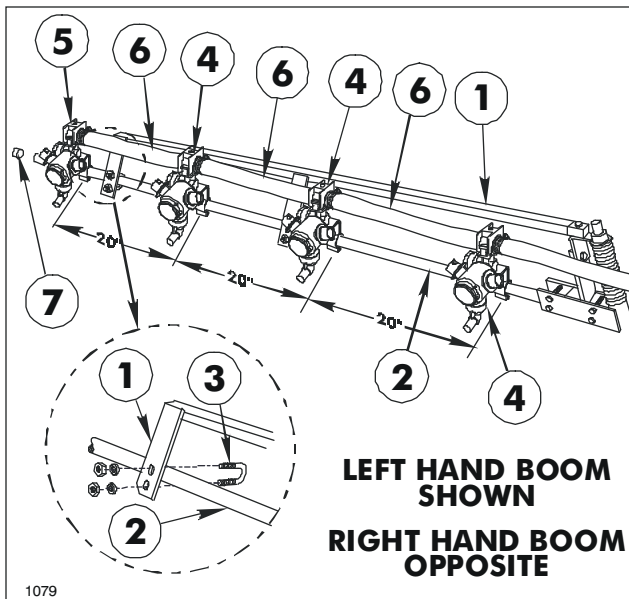
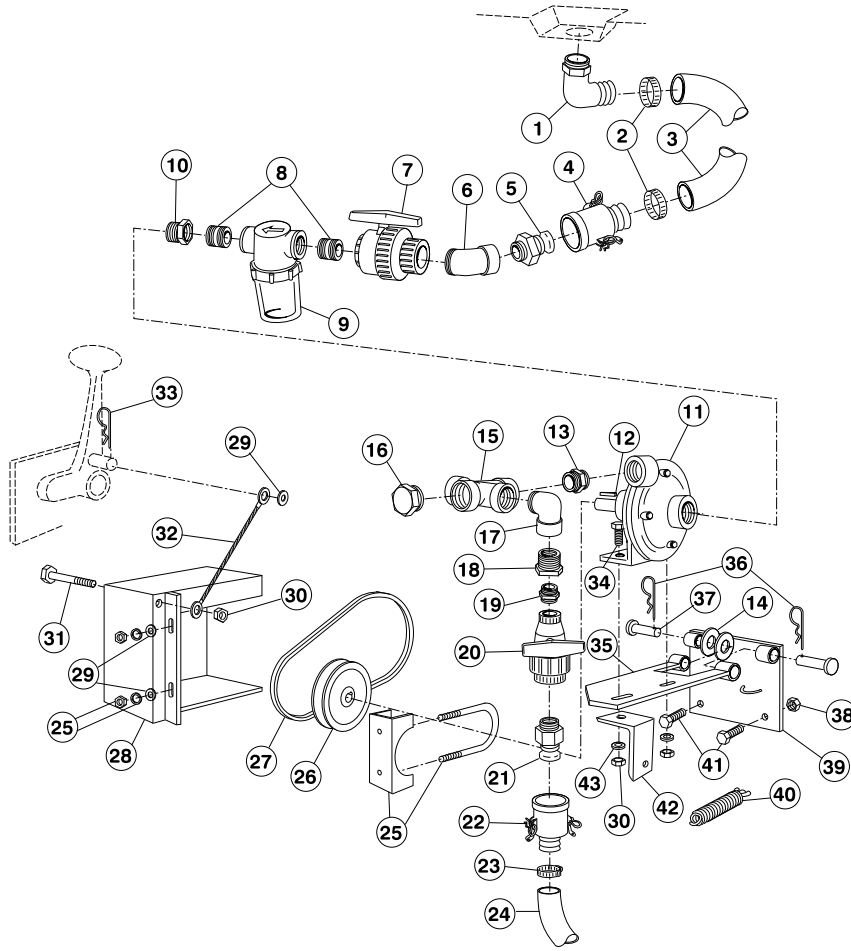


FIG. 13

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



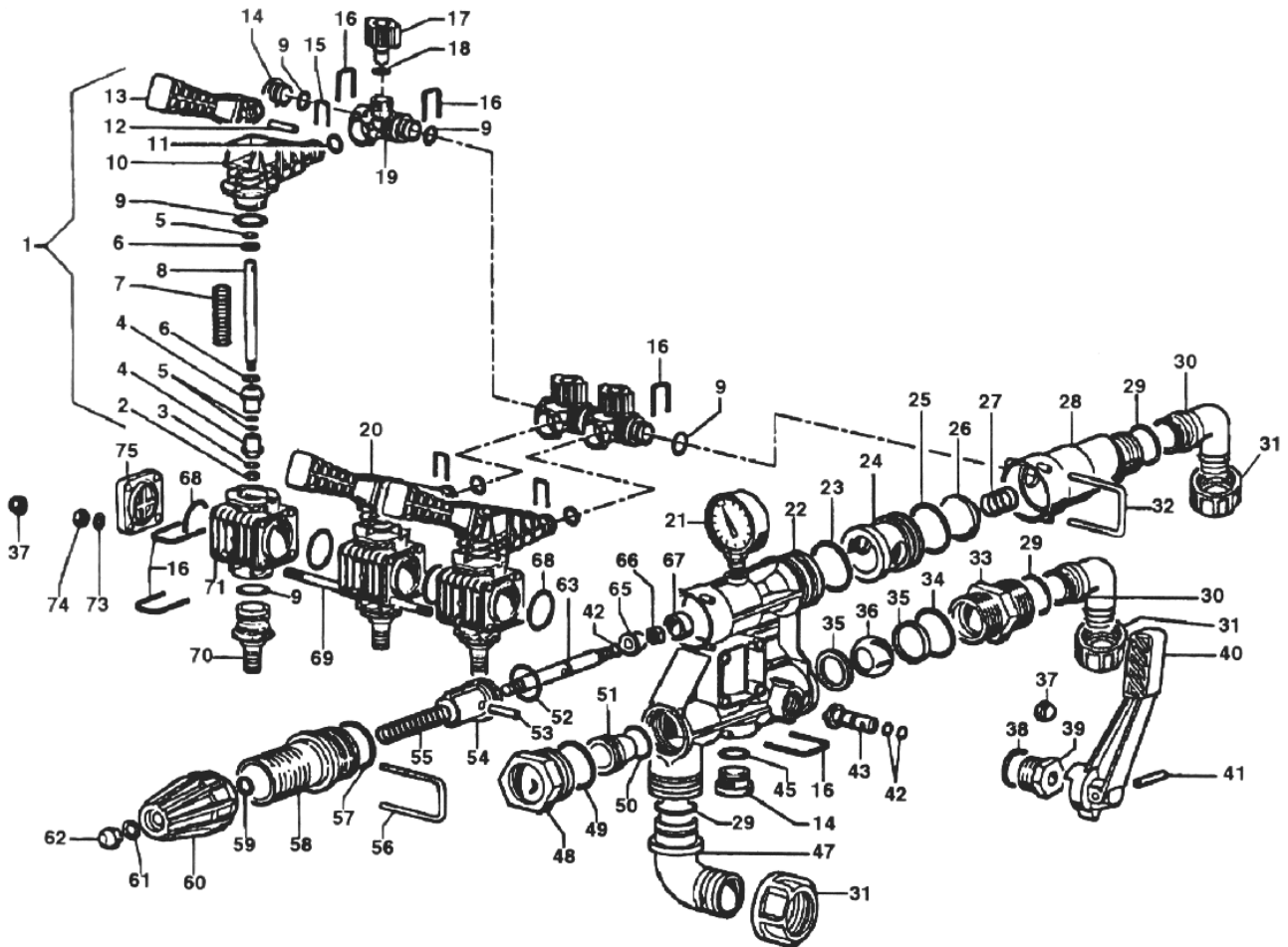
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SPRAY SYSTEM PUMP COMPONENTS

| # | 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 |

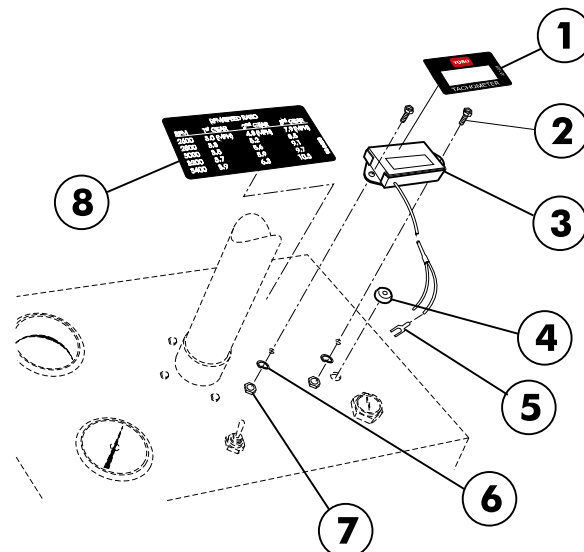
| # | Part No. | Description | Qty |
|----|----------|---------------------------|-----|
| 20 | 40192 | 1/2 NPT Ball Valve | 1 |
| 21 | 40486 | Quick Barb x 1/2 Male NPT | 1 |
| | 41317 | Quick Coupler Dust Cap | 1 |
| 22 | 40487 | Quick Coupler x 1/2 HB | 1 |
| 23 | 96609 | Hose Clamp | 2 |
| 24 | 42946 | 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



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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 |

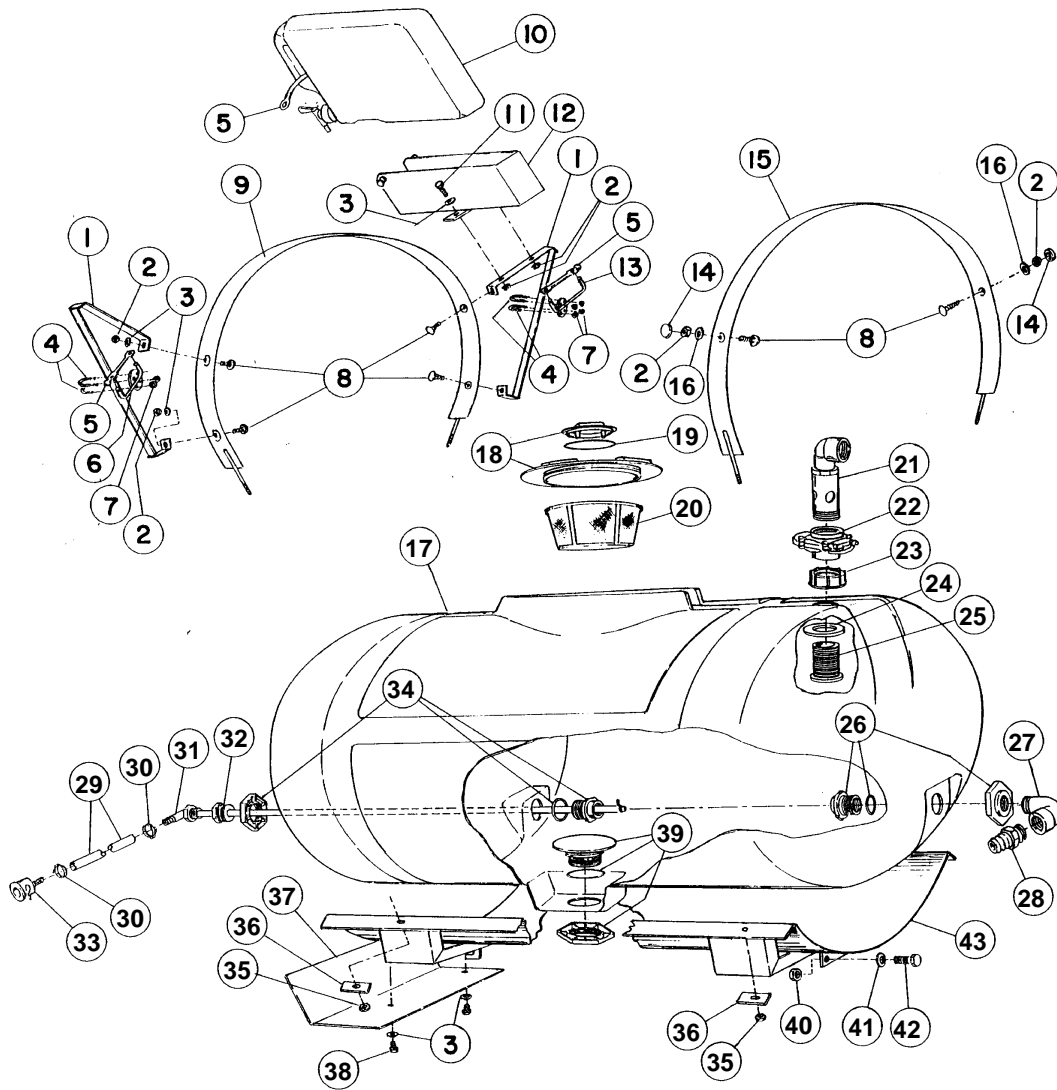
| # | Part No. | Description | Qty |
|----|----------|-----------------------------|-----|
| 36 | 93-1009 | Chromium Plated Brass Ball | 1 |
| 37 | 93-0990 | Cap Nut M8x1, 25 | 8 |
| 38 | 939-1005 | O-Ring Dia. 2, 62x18, 72 | 1 |
| 39 | 93-1006 | Connector For Lever Pin | 1 |
| 40 | 95-2102 | Control 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 |

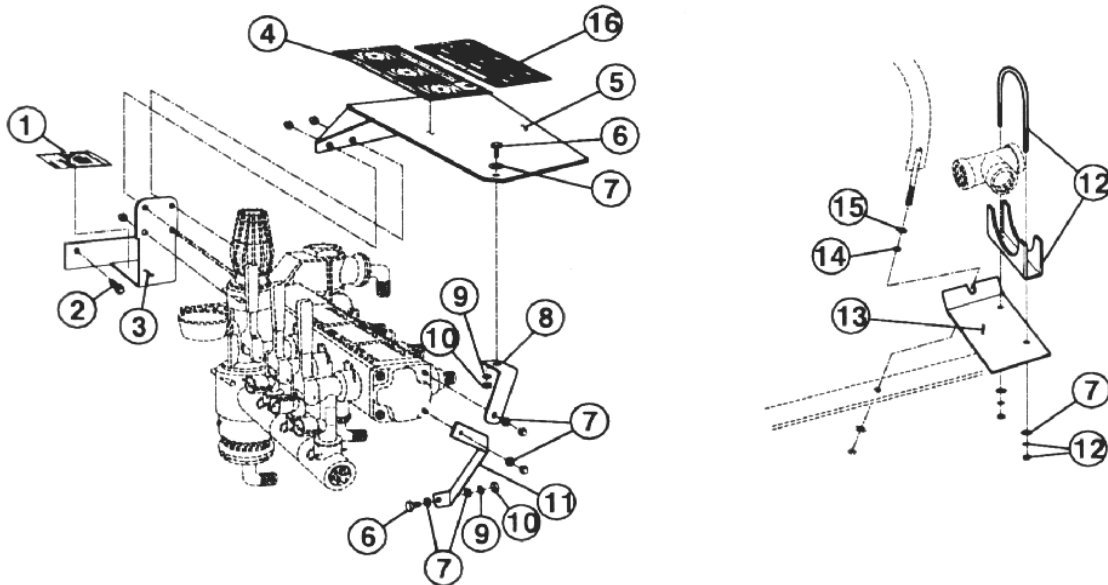
| Ref | Part No. | Description | Qty |
|-----|----------|--------------------|-----|
| 5 | 93-1091 | Spade Terminal | 1 |
| 6 | 3253-17 | Lock washer #8 | 2 |
| 7 | 3217-25 | Hex nut #8-32UNC | 2 |
| 8 | 93-0920 | RPM to Speed Decal | 1 |

MANUAL SPRAY SYSTEM TANK



1105

MANUAL VALVE MOUNTING ASS'Y



1479

MANUAL SPRAY SYSTEM TANK

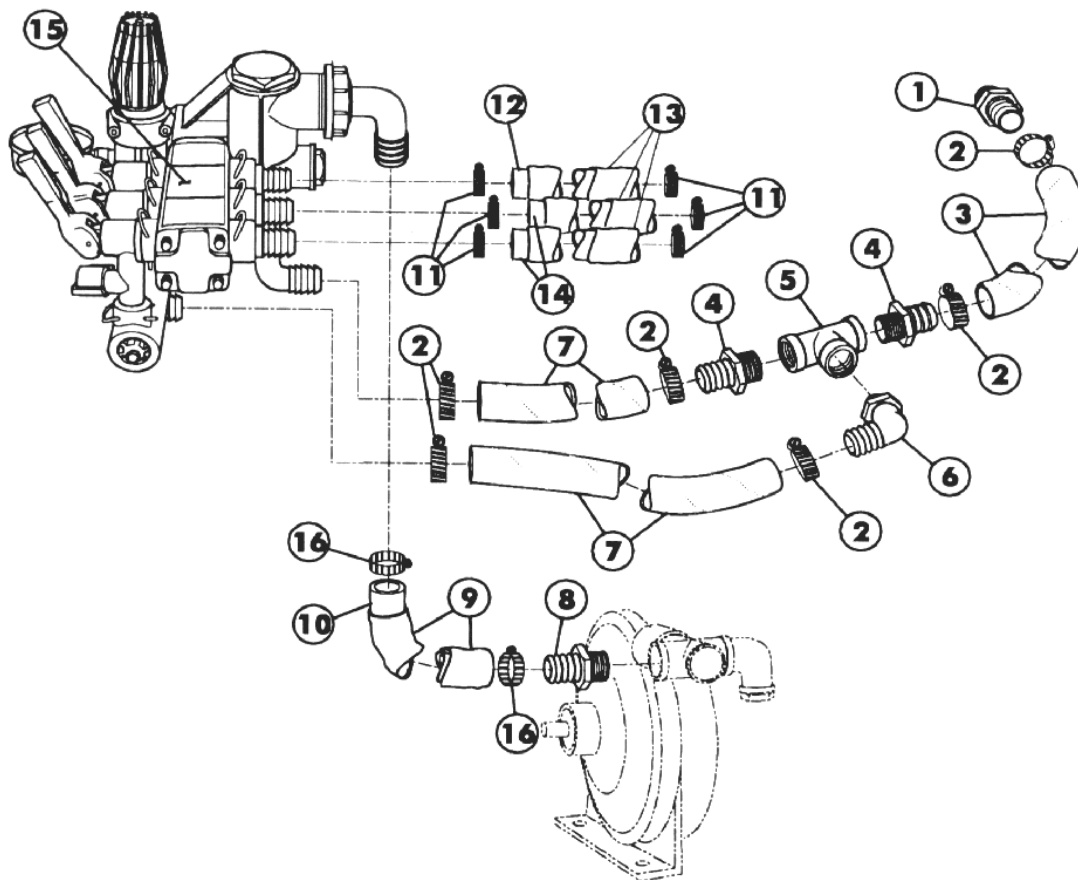
| Ref | Part No. | Description | Qty |
|-----|----------|----------------------------------|-----|
| 1 | 42983 | Hold-In Brace Assembly | 2 |
| 2 | 3217-6 | Hex Nut, 5/16 NC | 6 |
| 3 | 3256-23 | Flat Washer, 5/16 | 4 |
| 4 | 92-0010 | U-Bolt, 1/4 NC | 4 |
| 5 | 42198 | Rubber Hold-Down | 3 |
| 6 | 42259 | 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" | 1 |
| 16 | 95-2066 | Decal - Boom Shut-offs | 1 |

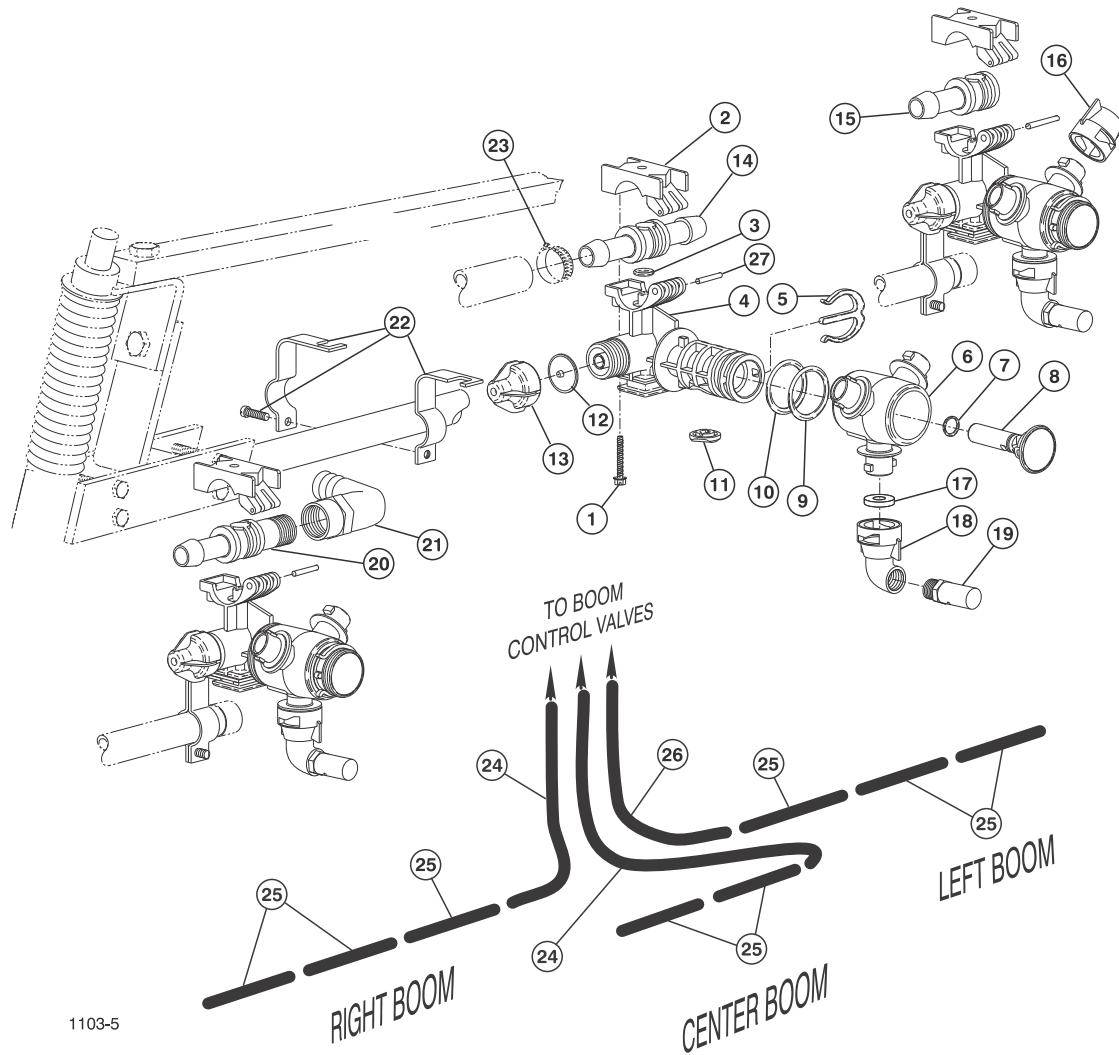


1482

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 |



1103-5

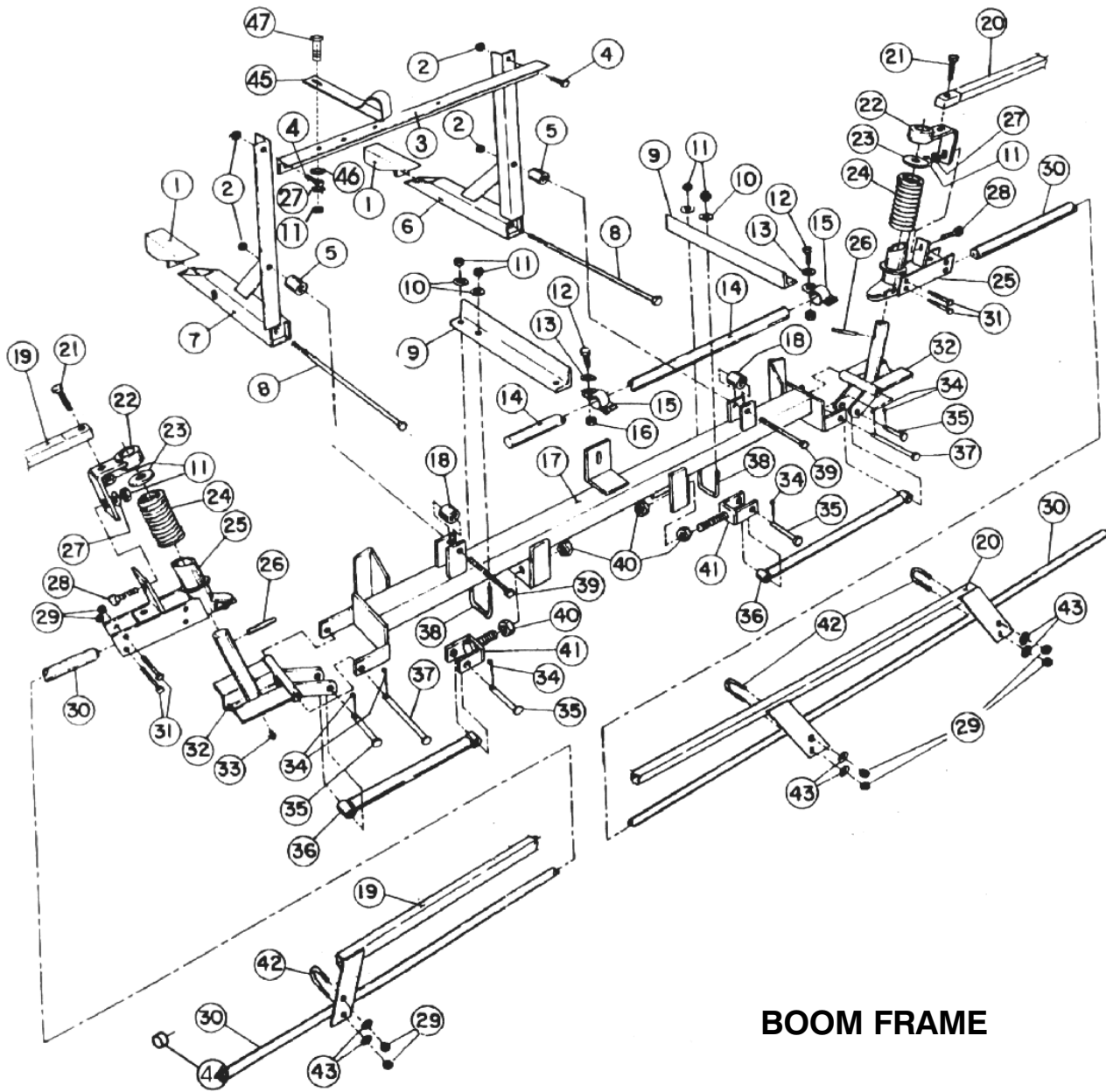
NOZZLE BODIES & BOOM HOSES

| 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 | 99-0811 | Screw | 1 |
| 2 | 99-0812 | 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 | 99-0815 | O-Ring Dust Seal | 1 |
| †11 | 99-0813 | Seal | 1 |
| †12 | 41003 | Diaphragm | 1 |
| 13 | 95-9193 | End Cap Assembly | 1 |
| 14 | 95-9202 | Double Hose Barb | 1 |

| 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" | 8 |
| 26 | 97791 | Boom Hose, 3/4" x 130" | 1 |
| 27 | 99-0814 | Pivot Pin, 303 S.S. | 1 |

* Not Illustrated

† Item included in seal kit part No. 99-0816



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.

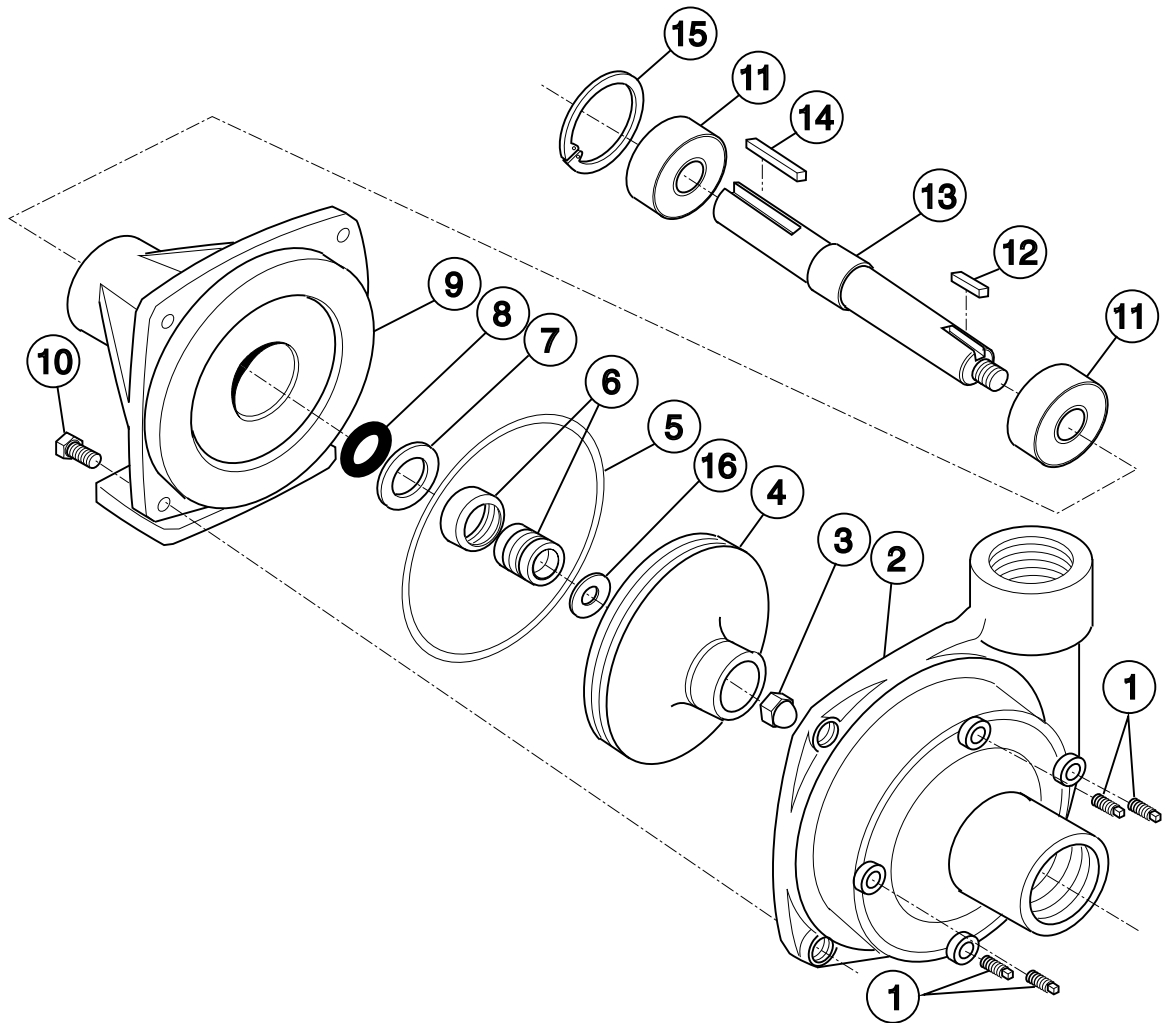
BOOM FRAME

| 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 |

* Denotes parts that are available in an assembled unit.

Order #42840 Breakaway Assembly

| Ref | Part No. | Description | Qty |
|-----|-----------|------------------------------|-----|
| 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 |



1481

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