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MASTER  
MANUFACTURING

## 15 GALLON NEW DIRECTION ECONOMY TRAILER SPRAYER



Part Number SEO-11-015A-MM | Rev 1 Feb. 2012

## New Direction Economy Trailer Sprayer

Note: Do not return product to the distributor/dealer for warranty work. Call (800) 864-1649 for any warranty work or replacement parts.

### **INTRODUCTION**

Your Master Manufacturing New Direction Economy Lawn Sprayer has been manufactured to provide years of dependable and efficient use. Proper operation and maintenance will ensure long satisfactory service. The purpose of this manual is to assist you in the assembly, operation and maintenance of your sprayer. Please read through this manual completely too fully understand how to operate and maintain your equipment. Keep your manual in a safe, convenient place for future reference. Always mention the model and part number in any correspondence.

### **ASSEMBLY**

The following instructions will guide you through the assembly of your new Lawn Sprayer. Please refer to the figures in this manual for reference to the following assembly instructions.

#### **Trailer Assembly**

- 1.) Locate trailer Main frame section Item 1 (PN 31-101077) and place frame on floor or a sturdy table.
- 2.) Position trailer tongue item 2 (PN 31-101076) onto Main frame section and align holes. Fasten frame parts together with (2) 5/16-18 x 1/2" bolts item 9 and (2) 5/16-18 nuts item 10, (PN 33-100114 and PN 33-100113). Tighten securely.
- 3.) Attach the (2) middle supports item 4 (PN 31-101078) to the tongue item 2 with (4) 1/4-20 x 1/2" bolts item 11 and (4) nuts item 12 (PN 33-103148 and PN 33-103149). Leave bolts only hand tight at this time to ensure proper axel alignment.
- 4.) Slide one end of the axel item 3 (PN 31-101074) through the 5/8" hole on either side of the Main frame item 1, then through the two middle support sections item 4 and finally the other side of the main frame. Center the axel equally. The axel will fit tightly through the holes in the frame due to powder coating. It may take some effort to push the axel through.
- 5.) At this time the 1/4" bolts fastening the middle supports from step 3 can be tightened securely.
- 6.) Slide one Wheel assembly item 7 (PN TWA410-350-4) onto the axel item 3 and secure with cotter pin item 8 (PN 33-100091) by sliding the cotter pin through hole in axel. Bend one side of cotter pin with needle nose pliers to secure it in place. Perform step 5 again with the opposite Wheel assembly. It may be necessary to apply some force to the second Wheel assembly to push it on far enough to expose the hole in the axel for the cotter pin to slide the through.
- 7.) Attach the boom stand item 5 (PN 31-101075) to the back of the tongue item 1 with (4) 5/16-18 x 1/2" bolts item 9 and 5/16" nuts item 10. Tighten bolts securely.
- 8.) Attach the top hitch plate item 6 (PN 31-100121) to the tongue item 1 with two 5/16-18 x 1/2" bolts item 9, and 5/16" nuts item 10.
- 9.) Review the frame assembly and ensure that all bolts and nuts are tightened securely and cotter pins are properly bent.

#### **Sprayer Tank mounting**

- 1.) Position sprayer tank over holes in trailer frame. Using the four bolts item 9 and washers item 15 (PN 33-100114 and PN 33-100115), thread all four bolts by hand into the tank. Position tank squarely on frame and tighten bolts securely. **Do not over tighten. Doing so may strip threaded insert in tank.**

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### **Spray Boom Assembly**

- 1.) Attach the spray boom (PN 34-140052) to the boom stand item 5 (PN 31-101075) with the ¼” U-bolt item 14 (PN 33-103746) and ¼” nuts item 12 (PN33-103149) to your lawn trailer. Thread on the boom hose to the manifold valve and tighten securely.
- 2.) Optimum boom height is approximately 13 inches above area to be sprayed. The boom height may be adjusted up or down by positioning the U-bolt in the notches on the boom stand, then tightening securely.

### **Spray Wand**

- 1.) Attach sprayer wand hose (33-103153-180) to sprayer manifold with hose clamp (SHC-F).

### **Wiring Harness**

- 1.) Operating power is obtained directly from a 12 VDC source. Be sure to connect the red to the positive (+) source and attach the black to the negative (-) source.

**IMPORTANT:** Before spraying chemicals, fill the tank half full of plain water to allow familiarization with the sprayer and to prevent waste of expensive chemicals.

## **Operation**

### **Using the boom nozzles**

- Four things must be considered before spraying with the boom.
  1. How much chemical must be mixed in the tank?
  2. Rate of spray (gallons per acre to be sprayed.)
  3. What pressure (P.S.I) will be used.
  4. Speed traveled (M.P.H.) while spraying.
  5. Boom height and spray pattern
- Refer to the chemical label to determine the chemical mixture.
- See the tip chart to determine the pressure, speed and rate of spray to be used for your application.
- Check the spray pattern with water only. Usually you can see the coverage better on a solid concrete surface, such as a driveway.
- Raise or lower the nozzles so that you will have a good coverage pattern. If you can see dry spots on the concrete surface you will need to raise the nozzles. Too much solution in the pattern areas means you need to lower the nozzles. Generally the proper height will be from 13 inches to 18 inches from the ground.

### **Operation and calibration**

The nozzles on the boom will spray an 80” wide swath. The nozzle height is approximately 15” above the object being sprayed.

Once you know how much you are going to spray then determine (from the tip chart) the spraying pressure (PSI) and the spraying speed (MPH). The pressure can be set by running the sprayer with the boom nozzles “ON” and then by adjusting the bypass valve lever until the gauge reads the desired pressure. Notice that the pressure will go up when the garden hose valve is slowly closed.

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When selecting pressure from the tip chart, it is a good idea to try for the 20 or 30 PSI range as this allows an excellent nozzle pattern. At 10 PSI the pattern begins to break up and at 40 PSI you may notice some drift. Conditions of weather and terrain must be considered when setting the sprayer. Do not spray on windy days. Protective clothing must be worn in some cases. Be sure to read the chemical label carefully. Before spraying chemicals, fill the tank half full of plain water to allow familiarization with the sprayer and to prevent waste of expensive chemicals. After all calibrations have been completed, add water and chemicals to the tank. Always follow chemical manufacturer's instructions for mixing.

### **CLEANING & STORAGE**

Most spray materials are highly corrosive. The most important aspect of long dependable service from the sprayer is a thorough cleaning immediately following each use. In addition, the residue of one type of chemical could cause an undesirable effect when a different chemical is used for a different purpose.

The most effective cleaning method is to pump several rinses of clean water through the tank, pump, hoses, boom, spray gun, etc. A neutralizing agent such as a solution of Nutra-Sol, a detergent or household ammonia as recommended by the chemical manufacturer can assist in removal of a persistent chemical. When the system is thoroughly cleaned, drain the tank, suction line, pump, and hoses.

The following steps should be followed for the maintenance and storage of your sprayer.

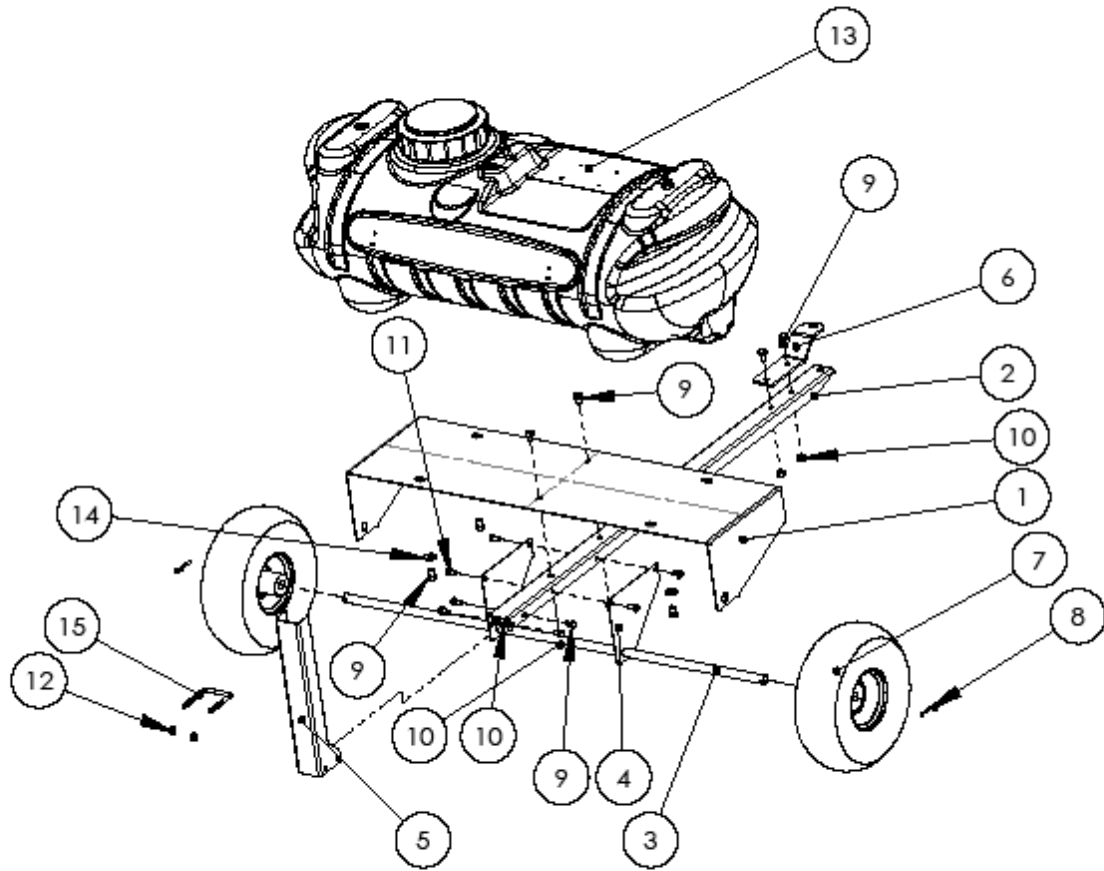
1. Wash and flush out sprayer after completion of each phase of your program. Flush out sprayer when changing chemicals if there is a possibility of the chemicals being incompatible. Use of a detergent is advisable if the chemical manufacturer does not make specific cleaning recommendations. Flush system completely, including nozzles. Never use metal objects to open clogged nozzles.
2. Clean sprayer thoroughly before storing at the end of the spraying season. Permanent type anti-freeze added to the final rinse will leave a rust inhibiting film in parts of the sprayer.

### **WARRANTY PARTS SERVICE**

Products sold shall be warranted from defects in workmanship and material when used within the service and scope for which they were designed for a period of one year from date of purchase. Warranty covers replacement parts ONLY. Contact Master Manufacturing for warranty parts at (800) 864-1649. Do not return product to your distributor/dealer. Please have your original sales receipt or other proof of purchase date when requesting any warranty parts. To ensure the correct parts are acquired always provide the model number of your sprayer/attachment and the part number and description obtained from the illustrated parts breakdown in this manual.



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SPRAYER, LAWN, ECONOMY

SHEET 1 OF 3

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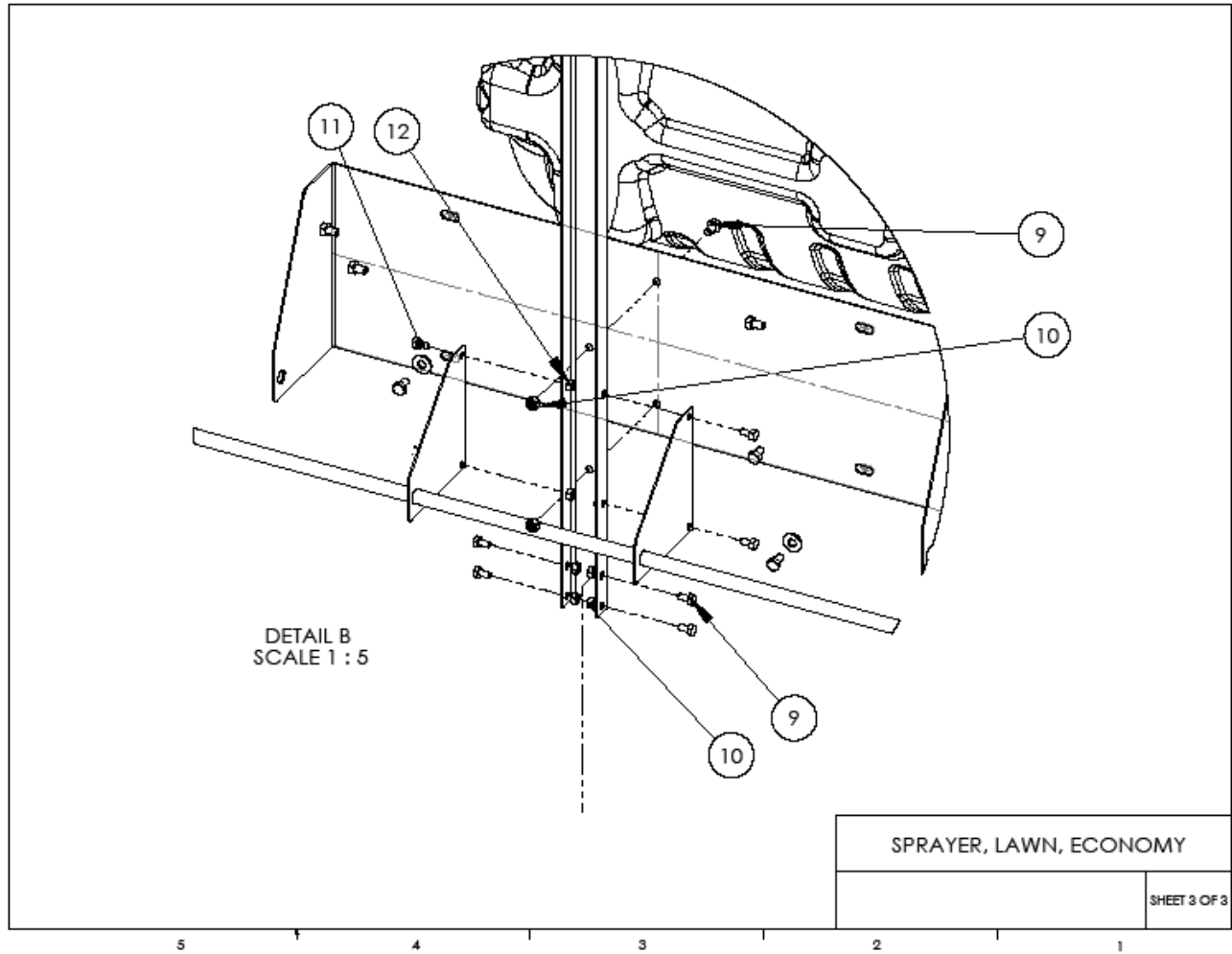
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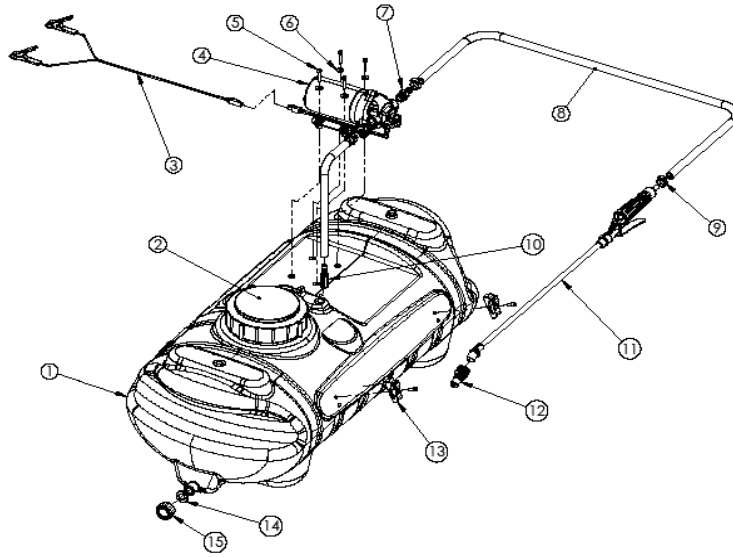
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### Parts List Figure SSFK-1525ND

Item #	Part Number	Qty	Description
1	33-101077	1	Frame, Main, Economy
2	33-101076	1	Hitch, tongue, Economy
3	33-101074	1	Axel
4	31-101078	2	Middle support, Economy
5	31-101075	1	Boom Stand, Economy
6	31-100121	1	Top Hitch Plate
7	TWA410-350-4	2	Tire Wheel assembly
8	33-100091	2	Cotter Pin, 1/8"x 1"
9	33-100114	12	Bolt, 5/16-18 x 1/2"
10	33-100113	8	Nut, 5/16-18 SF
11	33-103148	4	Bolt, 1/4-20 x 1/2"
12	33-103149	6	Nut, 1/4", SF
13	33-103231	1	Tank, 15 Gallon
14	33-103746	1	U-Bolt, 1/4"
15	33-100115	4	Washer, 5/16"

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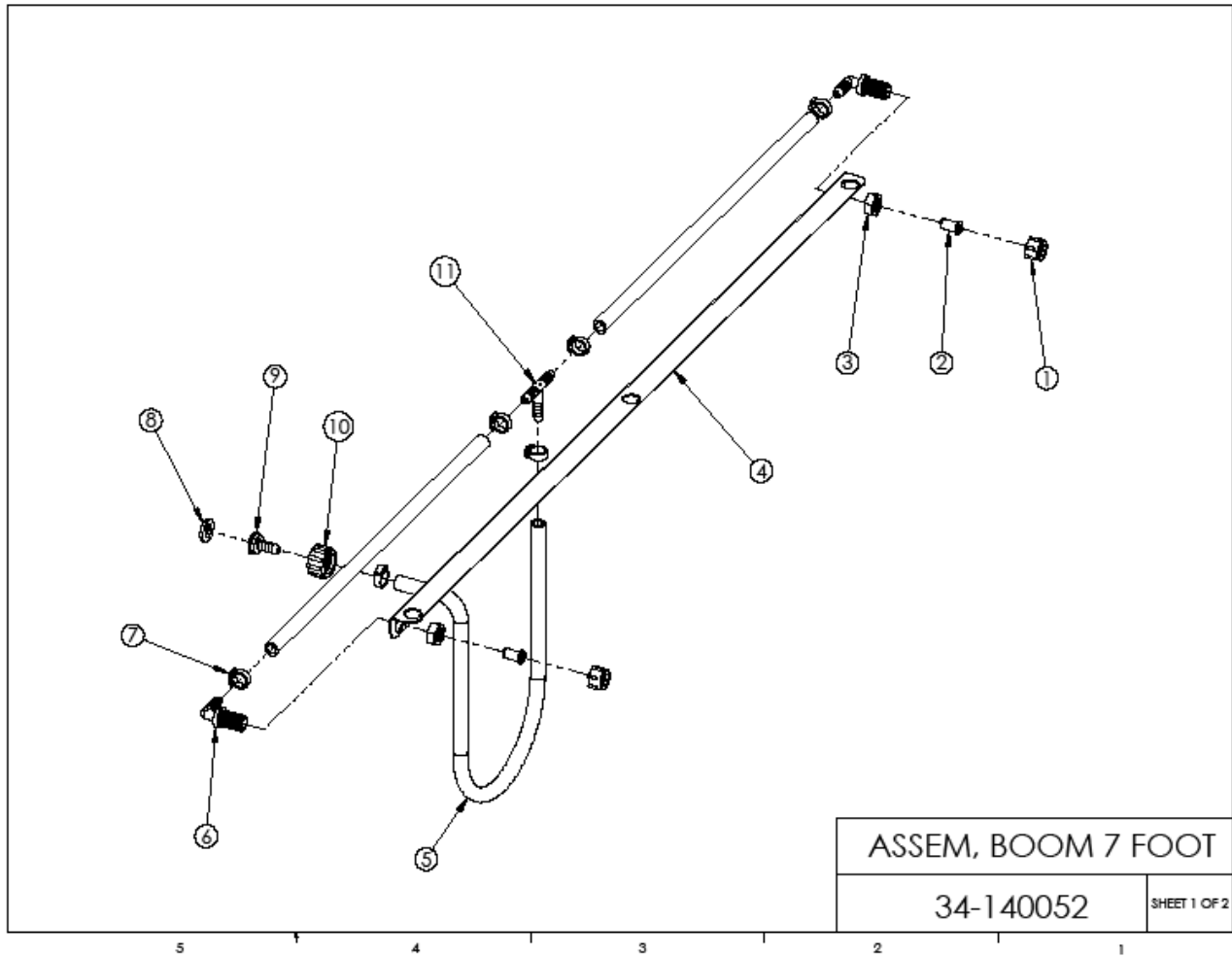


### Master Manufacturing 15/25 Gallon Spot Sprayer Parts List

Ref	Qty	Part No.	Description
1	1	33-103231	Tank, 15 gallon
2	1	33-103221	Lid, Tank
3	1	33-103233	Harness, Wire, switched
4	1	EF2200	Pump, EverFlo, 2.2GPM
5	4	33-103127	Screw, Machine, 10-24 x 1", 1.8 & 2.0 GPM pumps
6	4	33-103131	Washer #10
7	1	3A38	Fitting, 3/8"MNPT x 3/8"HB
8	15 ft	33-103153-180	Hose, rubber, 3/8"
9	3	SHC-F	Clamp, hose
10	1	33-103121	Strainer, Inlet
11	1	SG-4507F	Wand, with filter
12	1	SG-45ASSY-18	Nozzle, Assembly
13	1	GC-100-KIT	Clip, Gun (Pair)
14	1	33-103220	Gasket, super seal
15	1	33-103218	Cap, Garden Hose
	18"	33-103153	Hose, rubber, 3/8" X 18" Inlet to pump(not shown)



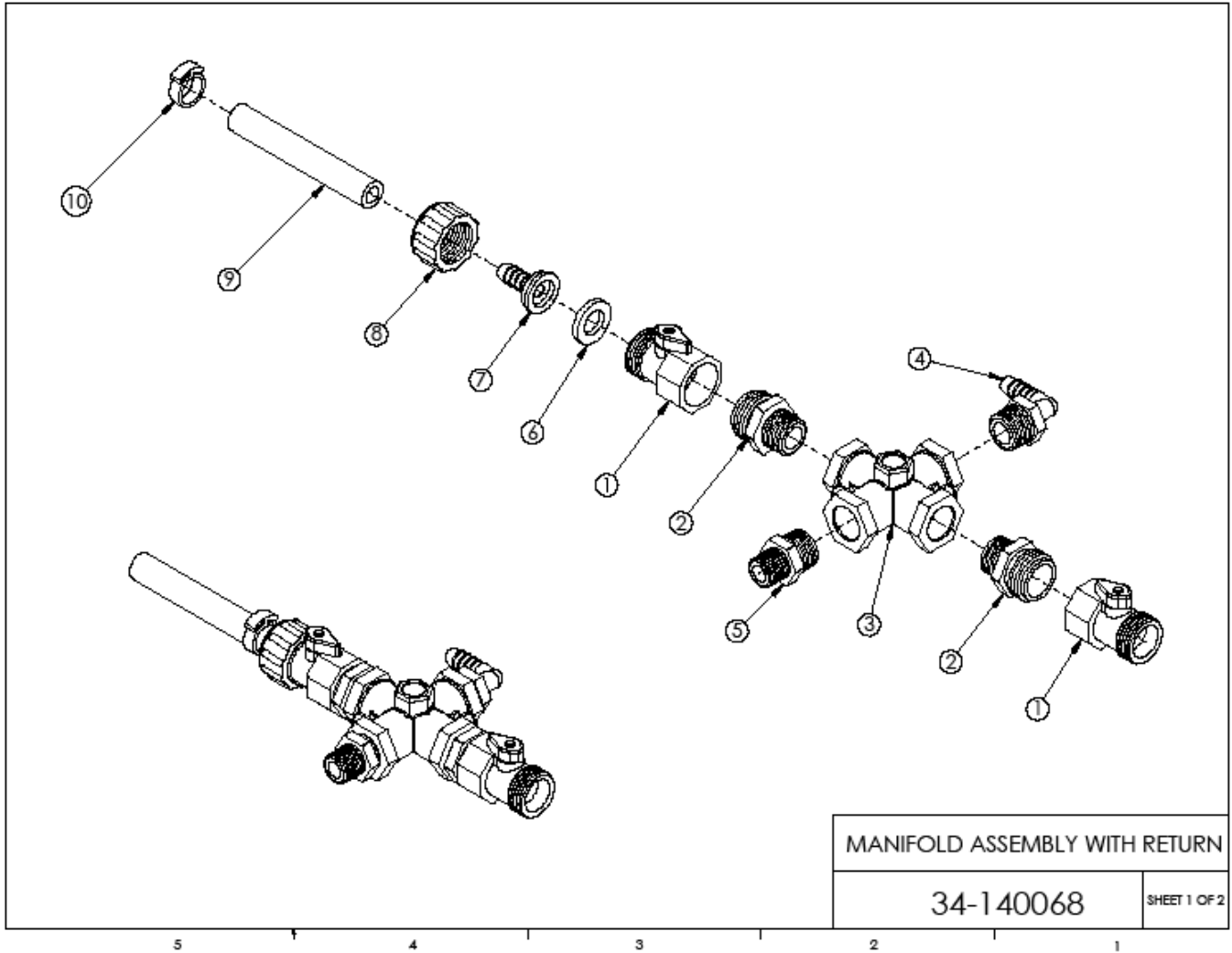
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**Parts List Figure 34-140052**

Item #	Part Number	Qty	Description
1	8027	2	Nozzle Nut
2	NS-50	2	Nozzle strainer, 50 mesh
3	3B12	2	Nozzle body retaining nut
4	31-100120	1	Boom, 7' (2m)
5	33-103153	1	Center hose, rubber, 3/8" x 38" long
	33-103153	2	Nozzle hose, rubber, 3/8" x 19" long
6	3NTL38-C	2	Nozzle body, elbow, 3/8" HB
7	SHC-F	6	Snapper hose clamp "F"
8	W406V	1	Garden hose washer
9	3C38	1	Flat seat 3/8" hose barb
10	3B34	1	Knurled garden hose swivel nut
11	3T38	1	Tee, 3/8" HB
12	DF3.0	2	Nozzle, spray, 3.0, Gray

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Parts List Figure 34-140068

Item #	Part Number	Qty	Description
1	GHV-1-BLK	2	Valve, Garden Hose
2	3E3412	2	Adaptor, 1/2" MNPT x 3/4" garden hose thread
3	GCR1214-BN	1	Cross, 1/2" FMPT, 1/4" FNPT
4	3EL1238	1	Elbow, 1/2" MNPT x 3/8" HB
5	3M1238	1	Adaptor, 1/2" MNPT x 3/8" MNPT
6	W406V	2	Garden Hose Washer
7	3C38	1	Flat seat 3/8" hose barb
8	3B34	1	Swivel Garden Hose Nut
9	33-103153	12"	Gates 3/8" Rubber Hose
10	SHC-F	2	Hose clamp
11	1124DAB100	1	Gauge, Pressure, 100 psi, (not shown)
12	3NTL38-C	1	Nozzle body, Elbow, 3/8" hose barb, (not shown)
13	B12	1	Nozzle nut, (not shown)