

OWNERS MANUAL

**Model No.
45-02102-101**

CAUTION:
Read Rules for
Safe Operation
and Instructions
Carefully



125 LB. PUSH BROADCAST SPREADER

- Assembly
- Operation
- Maintenance
- Repair Parts

RULES FOR SAFE OPERATION

The following safety precautions are suggested. This broadcast spreader is designed, engineered and tested to offer reasonably safe and effective service, provided it is operated in strict accordance with these instructions. Failure to do so may result in personal injury. Always observe the rules of safe operation.

1. Do not allow anyone to operate the broadcast spreader without proper instructions.
2. Do not permit children to operate the broadcast spreader.
3. Wear eye and hand protection when handling and when applying lawn or garden chemicals.
4. Read the chemical label instructions and cautions for handling and applying the chemicals purchased for spreading.
5. Keep all nuts, bolts and screws tight to be sure equipment is in safe working condition.
6. Follow maintenance and lubrication instructions as outlined in this manual.



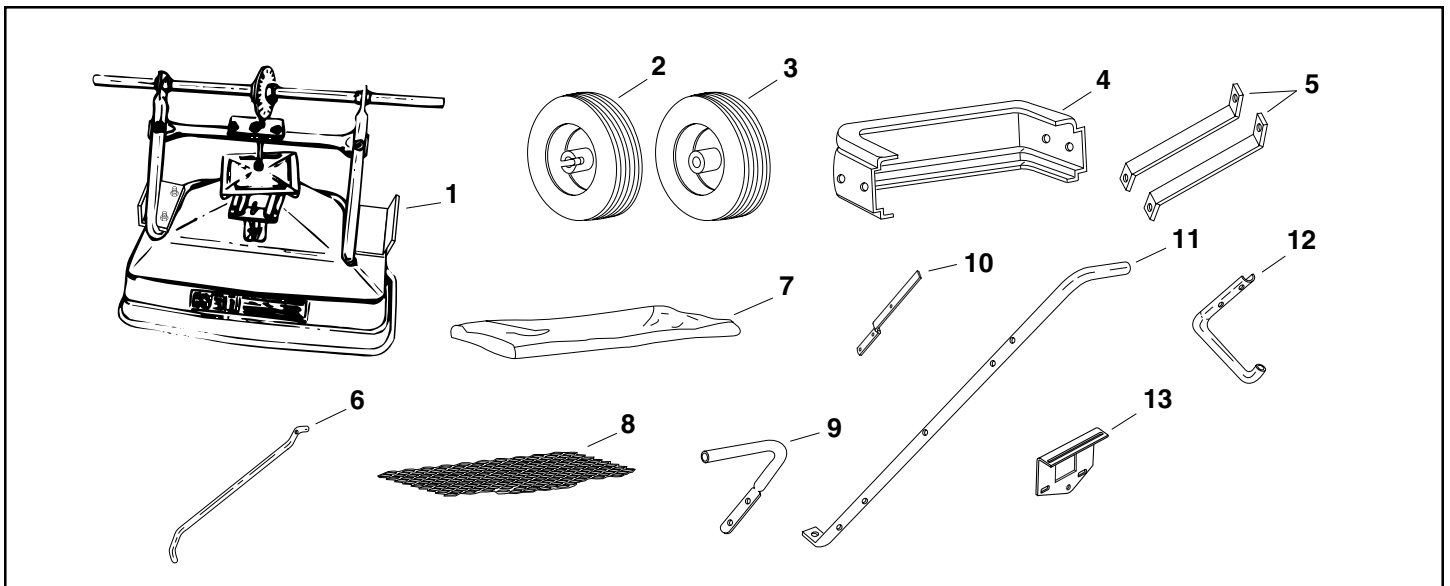
LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS--ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.

Your broadcast spreader carton contains parts as shown on pages 2 and 3. Identify all parts and lay out as shown.

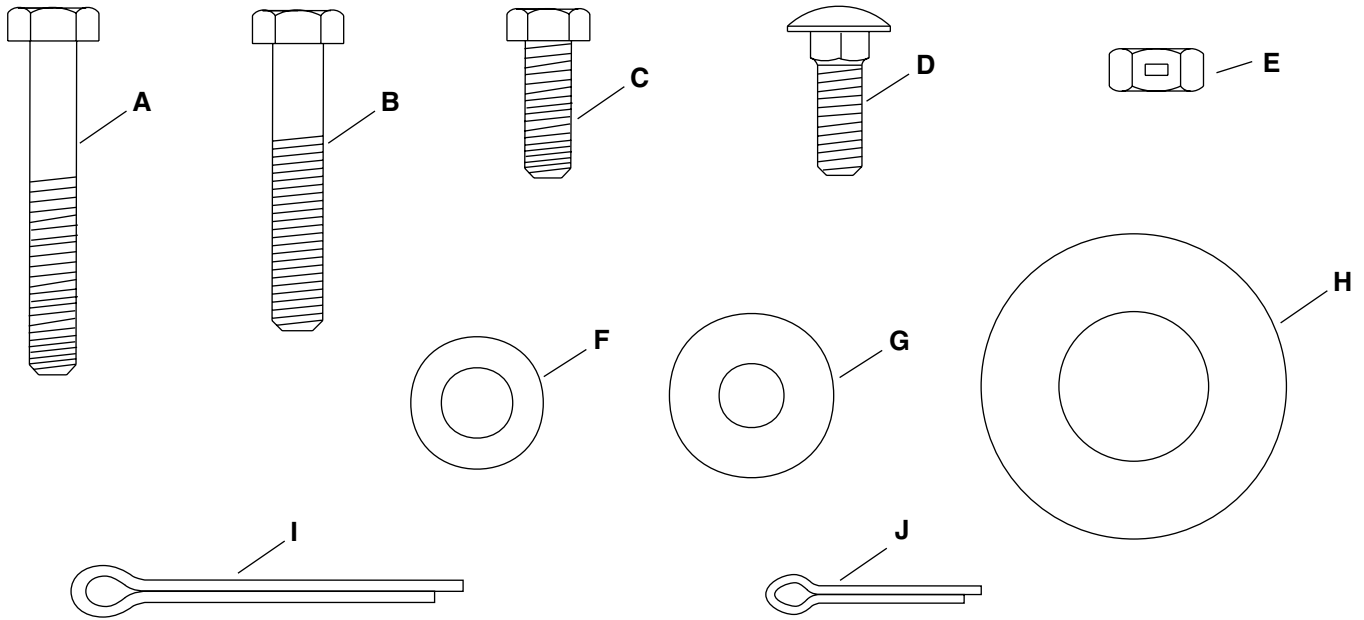
CARTON CONTENTS

LOOSE PARTS IN CARTON

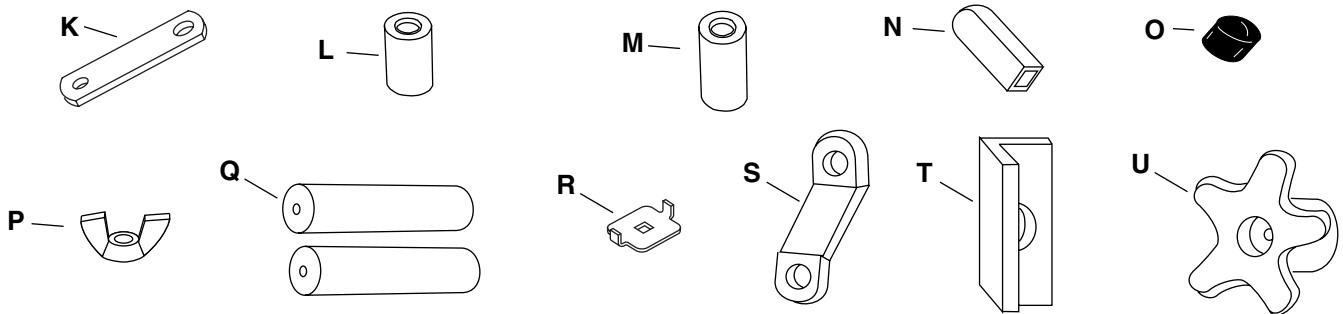
1. Hopper Assembly
 2. Wheel, Drive
 3. Wheel, Idler
 4. Spreader Shield
 5. Braces (2)
 6. Flow Control Rod
 7. Vinyl Hopper Cover
 8. Hopper Screen
 9. Handle Tube (short)
 10. Flow Control Arm
 11. Handle Tube (long)
 12. Leg Stand Tube
 13. Flow Control Mount Bracket
- Hardware Package (not shown)



FULL SIZE



NOT FULL SIZE



HARDWARE PACKAGE

KEY	QTY.	DESCRIPTION	KEY	QTY.	DESCRIPTION
A	6	Hex Bolt, 1/4-20 x 1-3/4" Long	K	1	Flow Control Link
B	2	Hex Bolt, 1/4-20 x 1-1/2" Long	L	1	Spacer Tube, Short
C	8	Hex Bolt, 1/4-20 x 3/4" Long	M	1	Spacer Tube, Long
D	3	Carriage Bolt, 1/4-20 x 3/4" Long	N	1	Grip
E	16	Hex Lock Nut, 1/4-20 Thd.	O	1	Vinyl Cap
F	20	Flat Washer, 5/16" SAE	P	1	Nut, Plastic Wing 1/4"
G	8	Nylon Washer	Q	2	Handle Grip
H	4	Flat Washer, 1-5/8" x 25/32"	R	1	Adjustable Stop
I	1	Cotter Pin, 1/8" x 1-1/2"	S	4	Swivel Bracket
J	1	Cotter Pin, 3/32" x 3/4" Long	T	2	Angle Stop Bracket
			U	2	Plastic Knob

ASSEMBLY INSTRUCTIONS

TOOLS REQUIRED FOR ASSEMBLY

- (1) Pliers
- (2) 7/16" Open or Boxed End Wrenches
- (3) 9/16" Open or Boxed End Wrenches

1. Place the spreader upside down.
2. Assemble the long spacer tube and a 3/4" washer onto the end of the axle that has the small drilled hole (right hand side). See Figure 1.
3. Place the idler wheel (no notch in hub) onto the axle. The air valve should face to the outside. See Figure 1.
4. Assemble one or two more 3/4" washers onto the axle and then assemble the 1/8" x 1-1/2" cotter pin. See Figure 1.

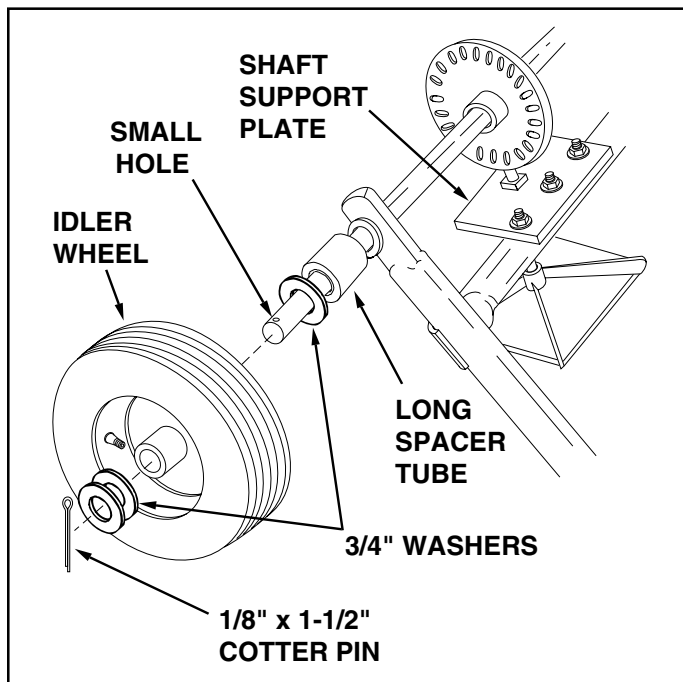


FIGURE 1

5. Place the short spacer tube and a 3/4" washer onto the end of the axle that has the large drilled hole (left hand side). See Figure 2.
6. Place the drive wheel onto the axle. The notched hub and the air valve should face to the outside. See Figure 2.
7. Fasten the wheel to the axle using a 1/4" x 1-3/4" hex bolt and a 1/4" hex lock nut. See Figure 2.

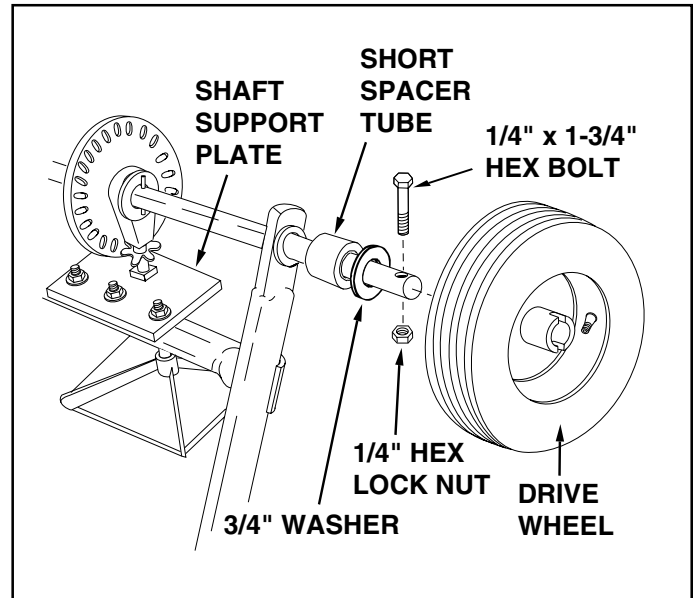


FIGURE 2

8. Remove the middle 3/8" hex bolt, flat washer and hex lock nut from the crossover tube. See figure 3.

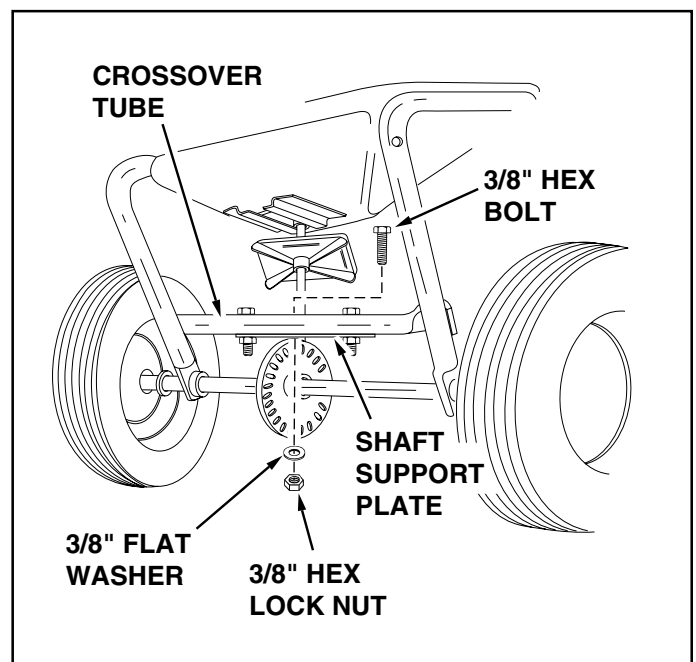


FIGURE 3

IMPORTANT: Do Not assemble long handle tube on same side of crossover tube as shaft support plate. Assemble on opposite side.

9. Place the long handle tube onto the crossover tube on the **opposite** side from the shaft support plate. Fasten with 3/8" hex bolt, flat washer and hex lock nut removed in the previous step. See figures 3 and 4. **Do not tighten at this time.**
10. Assemble two handle braces to the inside of the hopper frame, one on each side, using two 1/4" x 1-3/4" hex bolts and two 1/4" lock nuts. See figure 4. **Do not tighten at this time.**
11. Assemble the other end of the two handle braces to the long handle tube using a 1/4" x 1-3/4" hex bolt and 1/4" lock nut. **Do not tighten at this time. See figure 4.**
12. **Tighten** all hex lock nuts and bolts in the same sequence as assembled in steps 9 through 11. See figure 4.

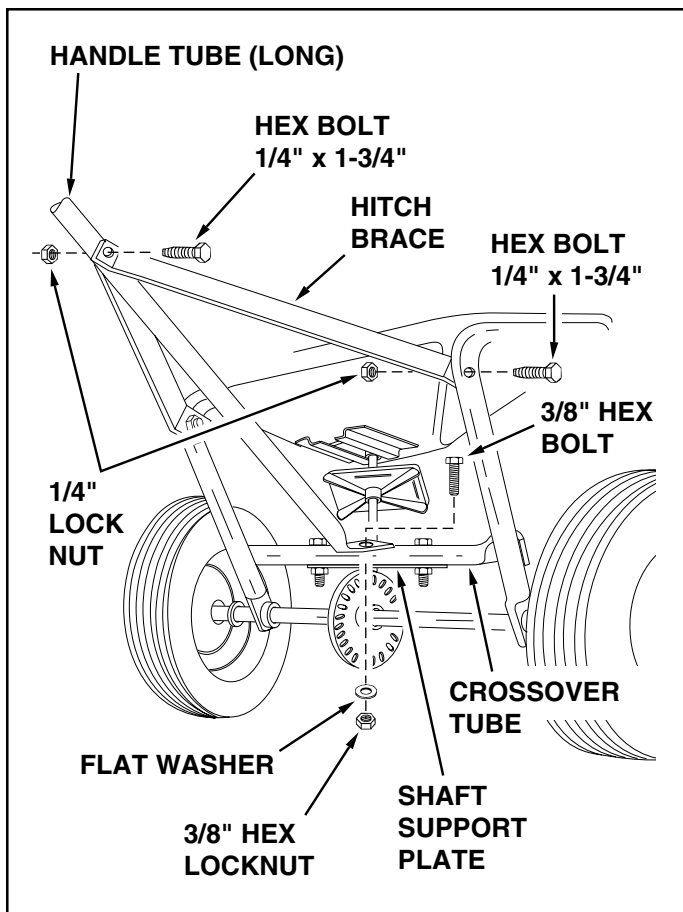


FIGURE 4

13. Assemble the leg stand tube to the long handle tube using two 1/4" x 1-1/2" hex bolts. Secure tightly with two 1/4" hex lock nuts. See figure 5.
14. Place a vinyl cap onto the end of the leg stand tube. See figure 5.

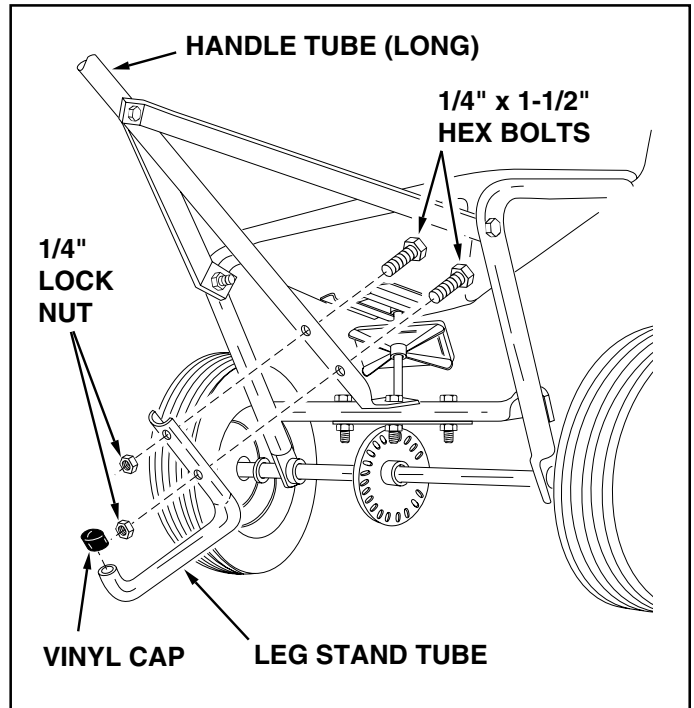


FIGURE 5

15. Assemble the flow control link (end with small hole) to the flow control arm using a 1/4" x 3/4" hex bolt, a nylon washer and a 1/4" hex lock nut as shown in figure 6. **Tighten carefully.** The flow control link should not be loose but should pivot with no more than slight resistance.

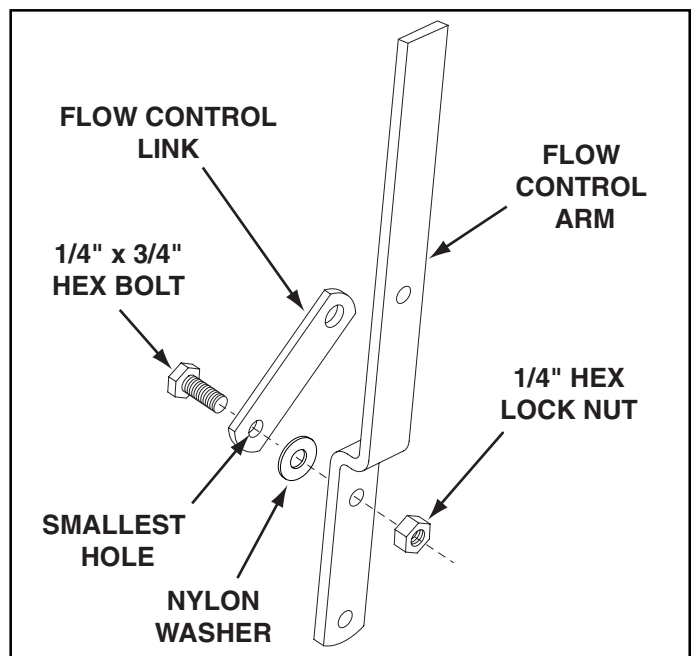


FIGURE 6

16. Assemble the flow control arm to the flow control mounting bracket using a 1/4" x 3/4" hex bolt, two nylon washers and a 1/4" hex lock nut as shown in figure 7. **Tighten carefully.** The flow control arm should be snug, but should pivot with no more than a slight resistance.
17. Assemble the vinyl grip. See figure 7.

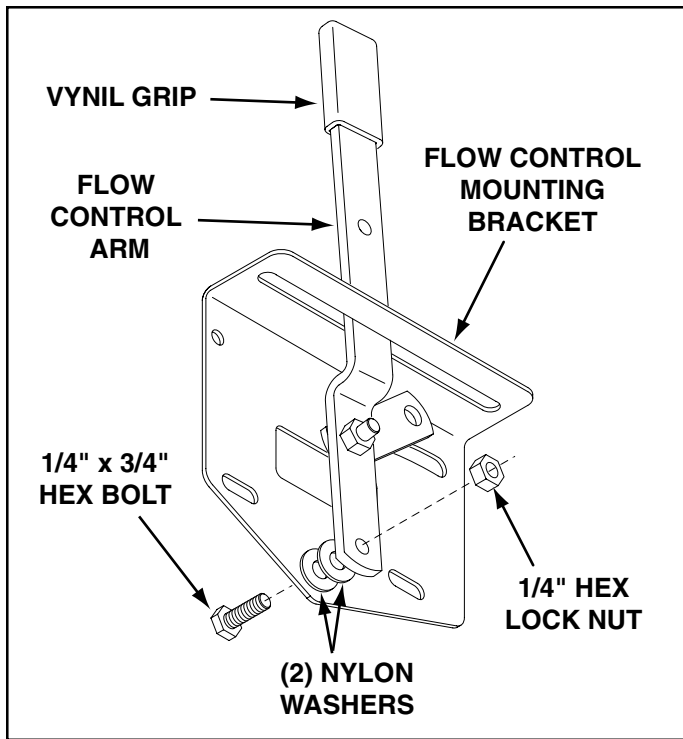


FIGURE 7

18. Place a 5/16" flat washer onto the end of the flow control rod. Insert the end of the rod through the slot in the flow control mounting bracket and through the hole in the flow control link. Secure with a 3/32" x 3/4" cotter pin. See figure 8.

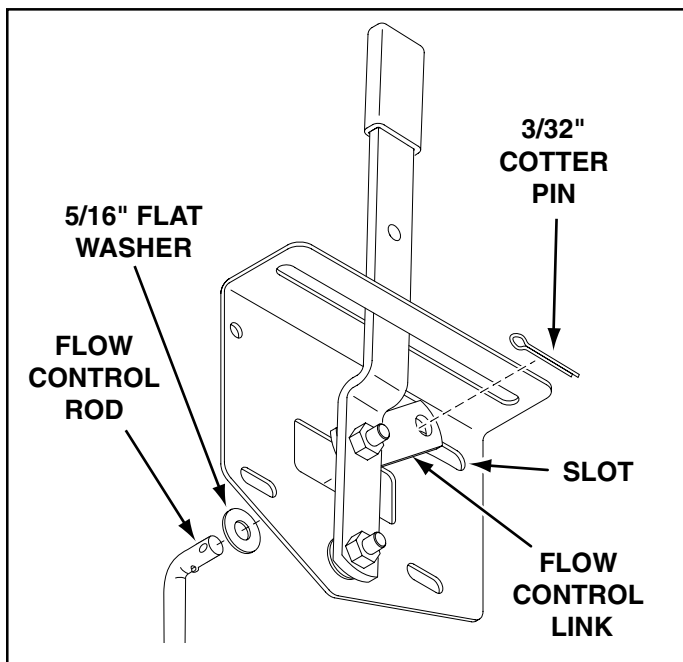


FIGURE 8

19. Hook free end of flow control rod through hole in slide gate bracket located near bottom of hopper. See figure 9.

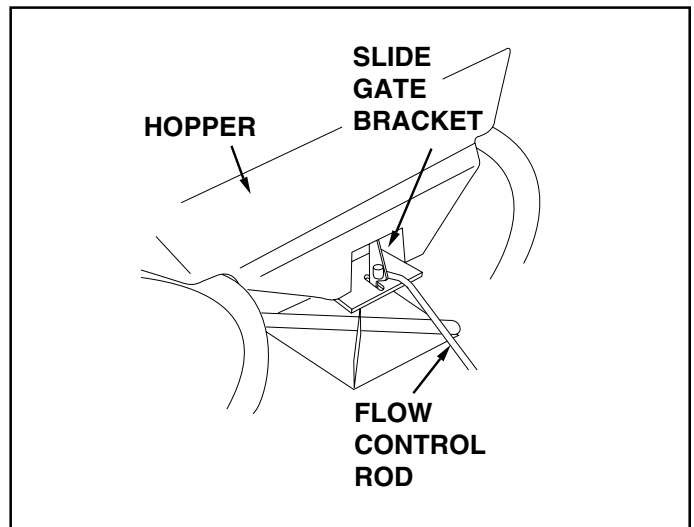


FIGURE 9

20. Assemble both the flow control mounting bracket and the short handle tube to the long handle tube using two 1/4" x 1-3/4" hex bolts, four 5/16" flat washers and two 1/4" hex lock nuts. **Do not tighten at this time.** See figure 10.
21. Place a handle grip on each handle. See figure 10.

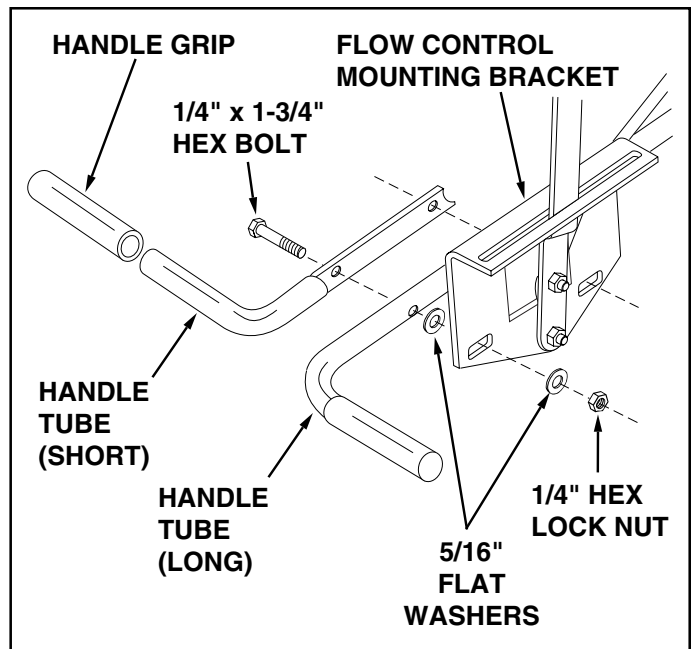


FIGURE 10

22. Place the adjustable stop into the "ON" end of the slot in the top of the flow control mounting bracket. Secure with the 1/4" x 3/4" carriage bolt, a nylon washer, a 5/16" flat washer and the nylon wing nut. See figure 11.

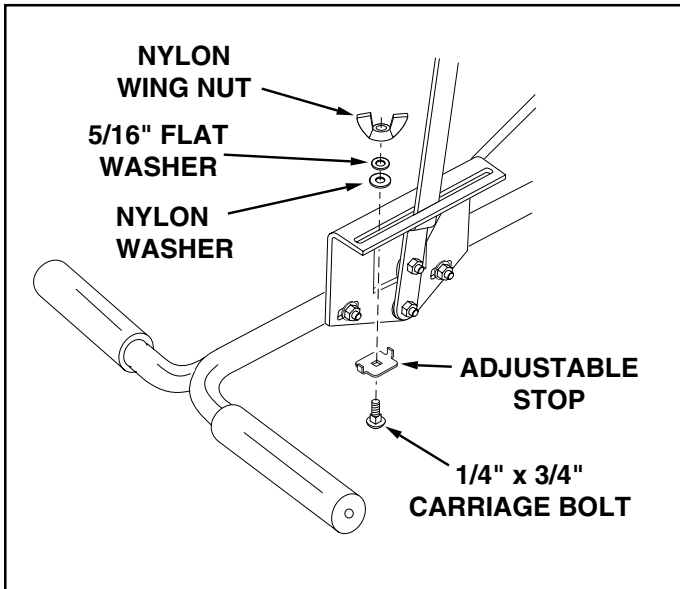


FIGURE 11

23. Position the flow control mounting bracket (Refer to figure 12).
- Push on flow control arm until it locks in "OFF" position.
 - Slide flow control mounting bracket along tube until closure plate in bottom of hopper just closes.
 - Snug the 1/4" lock nuts just enough to hold flow control mounting bracket in place.
 - Set adjustable stop at "5". Pull flow control arm against stop. Verify that closure plate has opened about half way.
 - If closure plate does not open half way, it may be closed too far at "OFF". Adjust position of flow control mounting bracket until closure plate will open about half way at "5" and still close when arm is locked in "OFF". **Tighten 1/4" lock nuts.**

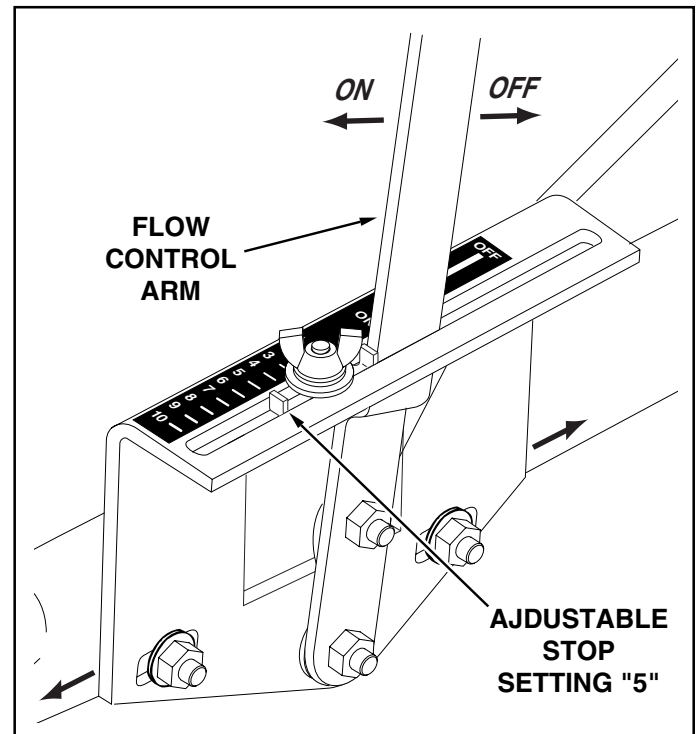


FIGURE 12

24. Attach an angle stop bracket and a swivel bracket to the rear hole in the R.H. shield bracket using a 1/4" x 3/4" hex bolt, two 5/16" washers, a nylon washer and a 1/4" hex lock nut. Place the angle stop bracket on the inside and the swivel bracket on the outside. **Tighten** the locknut so that the swivel bracket can pivot freely. See figure 13. Repeat step on L.H. shield bracket.
25. Attach a swivel bracket to the front hole in the R.H. shield bracket using a 1/4" x 3/4" hex bolt, two 5/16" washers, a nylon washer and a 1/4" hex lock nut. **Tighten** the locknut so that the swivel bracket can pivot freely. See figure 13. Repeat step on L.H. shield bracket.

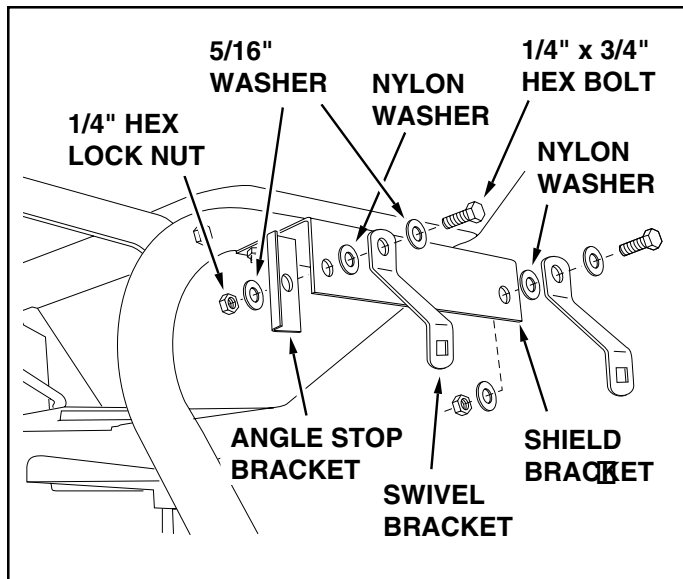


FIGURE 13

26. Assemble the spreader shield to the front swivel brackets using two 1/4" x 3/4" carriage bolts, 5/16" washers and the two 1/4" plastic knobs. See figure 14.
27. Assemble the spreader shield to the rear swivel brackets using two 1/4" x 3/4" hex bolts, four 5/16" washers and two 1/4" hex lock nuts. **Tighten** the locknuts so that the swivel bracket can still pivot freely. See figure 14.

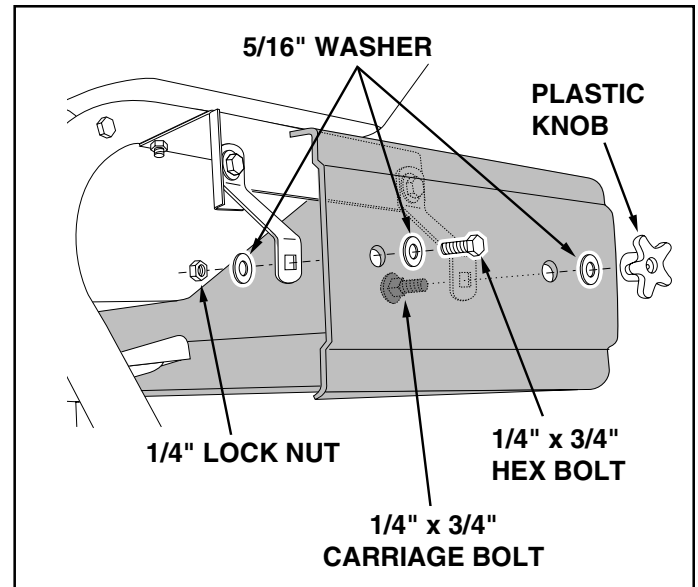


FIGURE 14

28. Place the hopper screen down into the hopper to help break up clumpy material and to prevent large clumps from reaching the bottom of the hopper and clogging the opening. See figure 15.

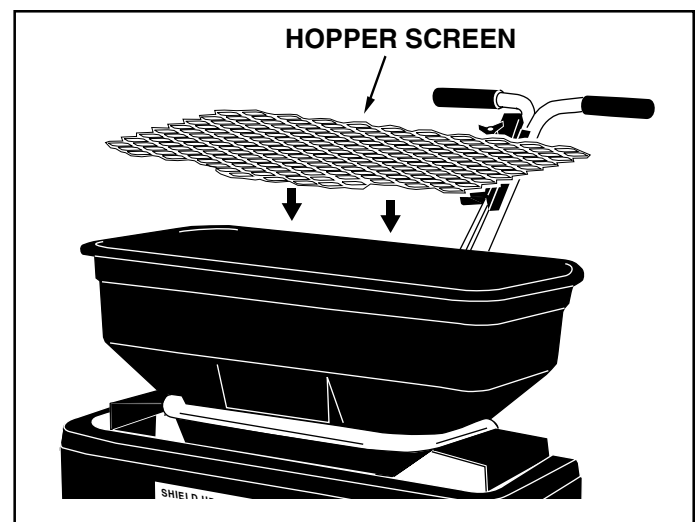


FIGURE 15

OPERATION

HOW TO USE YOUR SPREADER

SETTING THE FLOW CONTROL

(Refer to figure 12 on page 7.)

1. Refer to the application chart on page 8 and to the instructions on the fertilizer bag to select the proper flow rate setting.
2. Loosen the nylon wing nut, set the adjustable stop to the desired flow rate setting and retighten the wing nut. The higher the setting number, the wider the opening in the bottom of the hopper.
3. Pull the flow control arm against the adjustable stop for the on position and toward the hopper for the off position.

SETTING THE SPREADER SHIELD

4. For a normal spread pattern used in open areas, loosen the plastic knob on each side of the shield, raise the shield and retighten the knobs.
5. For a restricted spread pattern when applying material next to sensitive plants or in a confined area, loosen the plastic knob on each side of the shield, lower the shield and retighten the knobs.

USING YOUR SPREADER

We do not recommend the use of any powdered lawn chemicals, due to difficulty in obtaining a satisfactory or consistent broadcast pattern.

1. Determine approximate square footage of area to be covered and estimate amount of material required.
2. Before filling the hopper make sure the flow control arm is in the off position and the closure plate is shut.
3. Set the adjustable stop with the flow control arm still in the off position. Refer to the application chart on this page and to the instructions on the fertilizer bag to select the appropriate flow rate setting.
4. Fill the hopper with up to 125 pounds of material, breaking up any lumps. The hopper screen helps prevent any large lumps from clogging the opening in the bottom of the hopper.
5. The application chart is calculated for light to heavy application at a walking speed of 3 mph, or 100 ft. in 23 seconds. A variation in speed will require an adjustment of the flow rate to maintain the same coverage. The faster you walk, the wider the broadcast width.
6. Always start the spreader in motion before opening the closure plate.

7. Always shut the closure plate before turning or stopping the spreader.
8. If fertilizer is accidentally deposited too heavily in a small area, soak the area thoroughly with a garden hose or sprinkler to prevent burning of the lawn.
9. To insure uniform coverage, make each pass so that the broadcast pattern slightly overlaps the pattern from the previous pass as shown in figure 16. The approximate broadcast widths for different materials are shown in the application chart on this page.
10. When broadcasting weed control fertilizers, make sure the broadcast pattern does not hit evergreen trees, flowers or shrubs. Lower the spreader shield to limit the dispersal pattern. Reduce the flow control setting according to the application chart on page 10.
11. Heavy moisture conditions may require a cover over the hopper to keep contents dry. The vinyl cover acts as a wind and moisture shield, but should not be used as a rain cover.

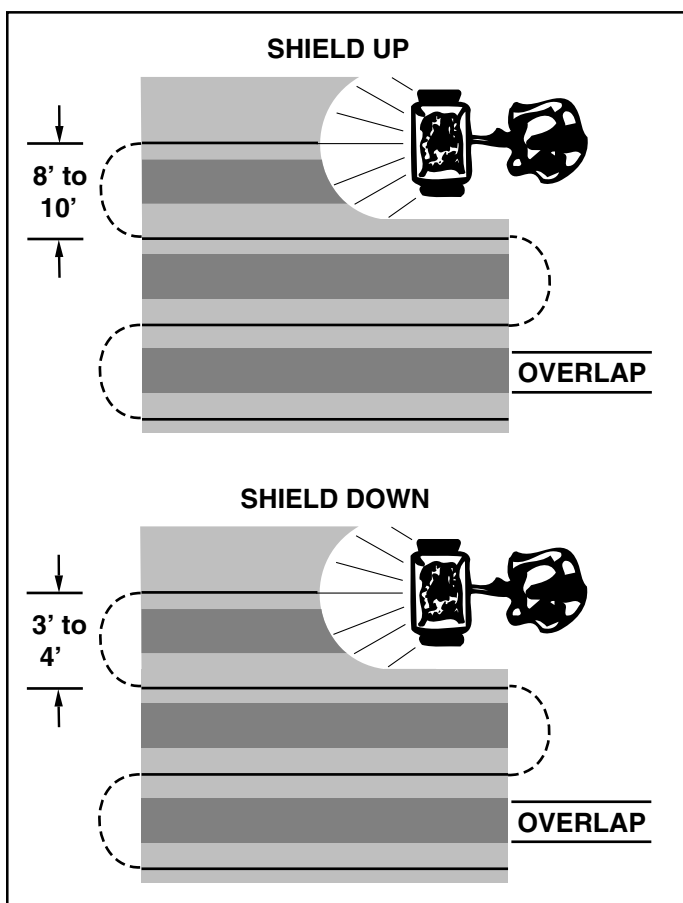


FIGURE 16

IMPORTANT: Application rates shown in the chart are affected by humidity and by the moisture content of the material (granular and pellet). Some minor setting adjustments may be necessary to compensate for this condition.

APPLICATION CHART (SHIELD UP)		
TYPE MATERIAL	FLOW SETTING 3 MPH (100 FT. IN 23 SEC.)	SPREAD WIDTH IN FEET
FERTILIZER		
Powder	3 - 5	3 - 4
Granular	3 - 5	8 - 10
Pelleted	3 - 5	10 - 12
Organic	6 - 8	6 - 8
GRASS SEED		
Fine	3 - 4	6 - 7
Coarse	4 - 5	8 - 9
ICE MELTER	6 - 8	10 - 12

APPLICATION CHART (SHIELD DOWN)		
TYPE MATERIAL	FLOW SETTING 3 MPH (100 FT. IN 17 SEC.)	SPREAD WIDTH IN FEET
FERTILIZER		
Powder	1 - 3	3 - 4
Granular	1 - 3	3 - 4
Pelleted	1 - 3	3 - 4
Organic	3 - 4	3 - 4
GRASS SEED		
Fine	1 - 3	3 - 4
Coarse	2 - 3	3 - 4
ICE MELTER	2 - 4	3 - 4

OPERATING SPEED - 3 MPH. (100 ft. in 23 seconds)

MAINTENANCE

CHECK FOR LOOSE FASTENERS

1. Before each use make a thorough visual check of the spreader for any bolts and nuts which may have loosened. Retighten any loose bolts and nuts.

CHECK FOR WORN OR DAMAGED PARTS

2. Check for worn or damaged parts before each use. Repair or replace parts if necessary.

CHECK TIRE INFLATION

3. Check if tires are adequately inflated before each use. Do not inflate beyond maximum recommended pressure.



CAUTION: DO NOT inflate tires beyond the maximum recommended pressure printed on side of tire.

CLEANING

4. Rinse inside of hopper and exterior of spreader and dry off before storing.

LUBRICATE (See figure 17.)

5. Lightly apply automotive grease as needed to the sprocket and gear.
6. Oil the nylon bushings on the vertical sprocket shaft and on the axle at least once a year, or more often as needed.
7. Oil right hand (idler) wheel bearing at least once a year or more often as needed.

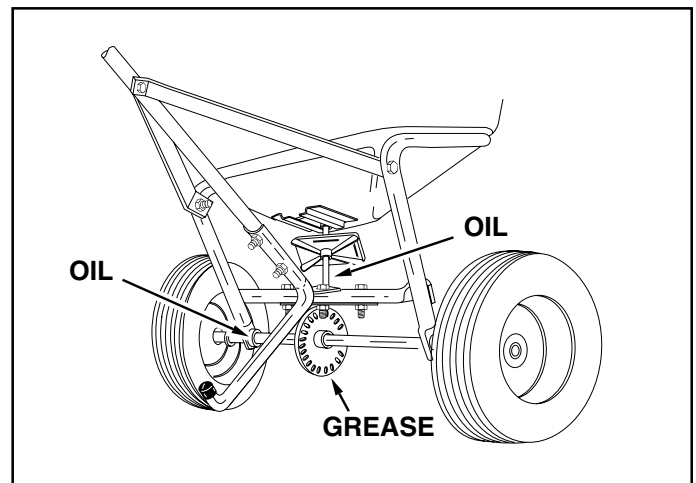


FIGURE 17

STORAGE

1. Rinse inside of hopper and exterior of spreader and dry off before storing.
2. Store in a clean, dry area.

SERVICE AND ADJUSTMENTS

1. If the axle, slotted gear and sprocket assembly is disassembled, mark down the positions of the parts as they are removed. The drive wheel and sprocket positions in relation to the slotted gear determine which direction the spreader plate will spin. Be sure to reassemble them in their original positions. (Refer to figure 2 on page 4.) Use shim washers (Ref. no. 20 on pages 12 and 13) as needed for minimum backlash. Add grease to gear and sprocket.
2. If the agitator wire becomes damaged or worn it can be replaced. Loosen the 3/8" hex nut on top of the sprocket shaft until agitator wire is free. Remove old agitator wire from hole in agitator sleeve and replace with new agitator wire. Position agitator wire so that sprocket shaft turns freely, then tighten 3/8" hex nut on top of sprocket shaft. See figure 18.

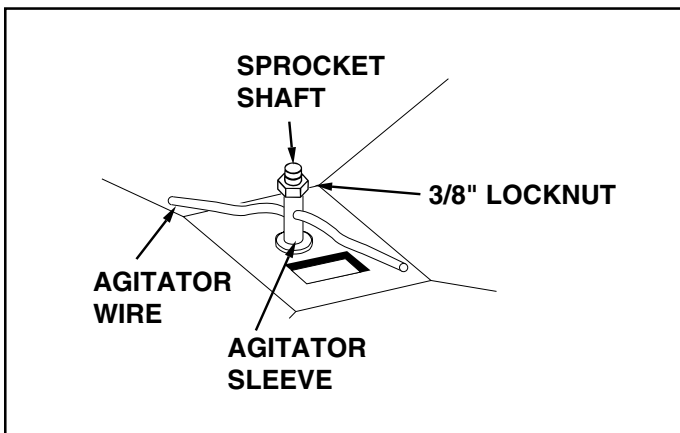
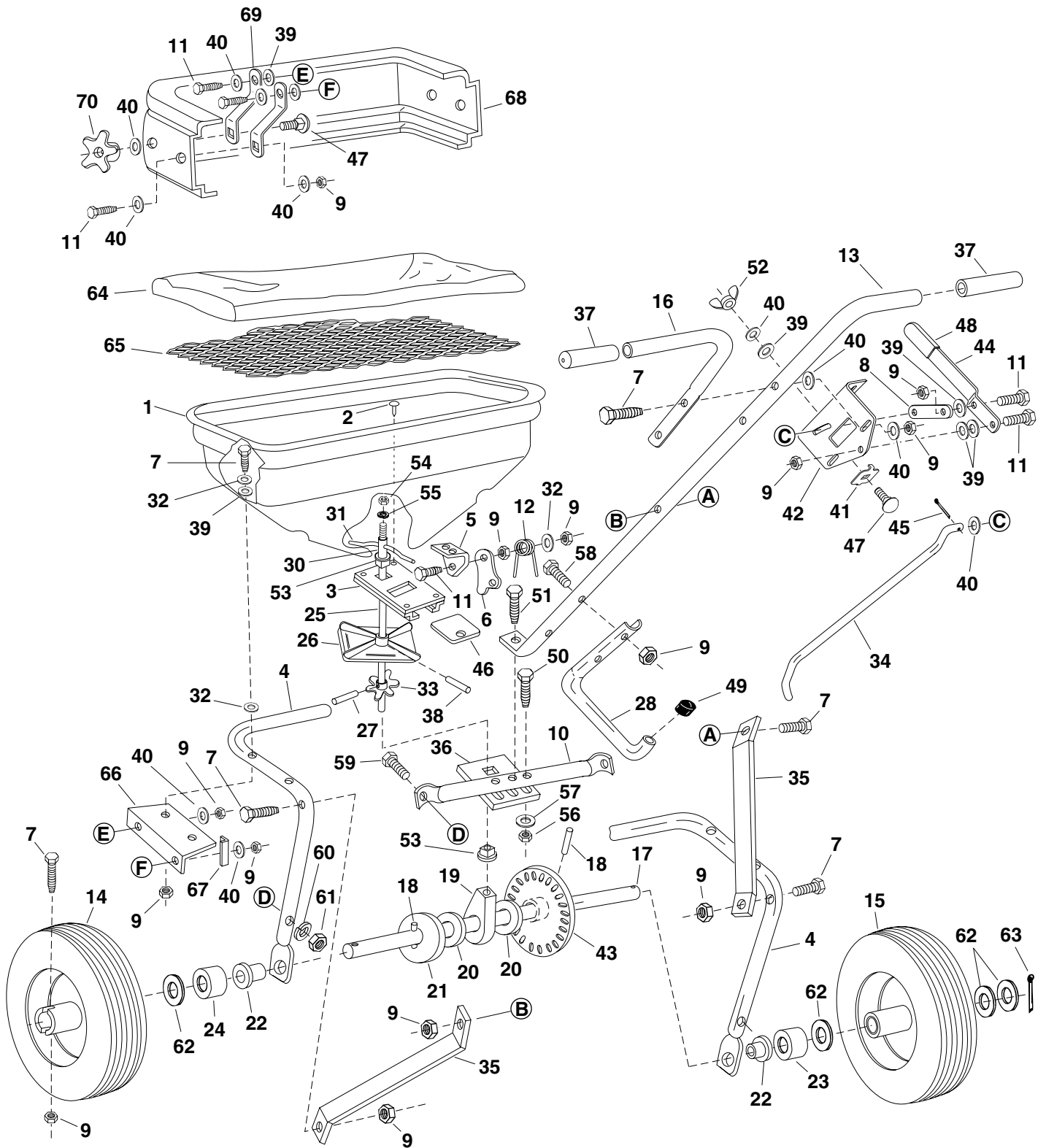


FIGURE 18

REPAIR PARTS FOR BROADCAST SPREADER MODEL 45-02102-101



REPAIR PARTS FOR BROADCAST SPREADER MODEL 45-02102-101

REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
1	44466	1	Hopper	37	44482	2	Grip, Handle
2	43882	4	Rivet, Stainless	38	46055	1	Pin, Spring 1/8" Dia. x 1" Lg.
3	62482	1	Ass'y, Guide Closure	39	1543-069	14	Washer, Nylon
4	44462	1	Tube, Frame	40	R19111116	20	Washer, 5/16 SAE
5	23753	1	Slide Gate Angle Bracket	41	24858	1	Stop, Adjustable
6	23758	1	Slide Gate Bracket	42	24855	1	Bracket, Flow Control Mount
7	1509-69	12	Bolt, Hex 1/4-20 x 1-3/4" Lg.*	43	62474	1	Gear Assembly
8	24857	1	Flow Control Link	44	24856	1	Flow Control Arm
9	43013	22	Nut, Hex Lock 1/4-20 Thd. *	45	44101	1	Cotter Pin 3/32" x 3/4" Lg.*
10	43808	1	Tube, Crossover	46	23533	1	Plate, Closure
11	43012	9	Bolt, Hex 1/4-20 x 3/4" Lg. Gr. 5	47	44950	3	Bolt, Carriage 1/4-20 x 3/4" Lg.
12	44566	1	Spring, Torsion	48	43848	1	Grip, Flow Control Arm
13	44463	1	Tube, Handle (Long)	49	44481	1	Cap, Vinyl
14	44457	1	Wheel (Drive)	50	41576	2	Bolt, Hex 3/8"-16 x 1-3/4" Lg.
15	44456	1	Wheel (Idler)	51	43054	1	Bolt, Hex 3/8"-16 x 2" Lg.
16	44464	1	Tube, Handle (Short)	52	47141	1	Nylon Wing Nut, 1/4-20
17	23752	1	Shaft, Axle	53	44285	2	Bushing, Delrin 3/8" I.D.
18	43851	2	Pin, Spring 5/32" Dia. x 1-1/4" Lg.	54	43015	1	Nut, Hex 3/8-16 Thd.*
19	43871	1	Bushing, Axle Shaft	55	43003	1	Lock Washer 3/8"
20	1540-32	5	Washer, Flat 1.25 x .78 x .01	56	43082	3	Nut, Hex Lock 3/8-16 Thd.
21	1540-162	1	Washer, 2.0 x .81 x 10ga	57	43070	5	Washer, 3/8" Std.
22	47615	2	Bearing, Flange	58	43648	2	Bolt, Hex 1/4"-20 x 1-1/2" Lg.
23	44494	1	Tube, Long Spacer 1.33" Lg.	59	43084	2	Bolt, Hex 5/16"-18 x 1-3/4" Lg.
24	44450	1	Tube, Short Spacer 1.00" Lg.	60	43086	2	Washer, Lock 5/16"
25	47437	1	Shaft, Sprocket	61	43064	2	Nut, Hex Lock 5/16"
26	04367	1	Spreader Plate	62	43009	4	Washer, 1-5/8" x 25/32"
27	43850	1	Pin, Spring 1/8" Dia. x 5/8" Lg.	63	43093	1	Cotter Pin, 1/8" x 1-1/2"
28	44465	1	Tube, Leg Stand	64	43962	1	Vinyl Hopper Cover
29	C-9M5732	2	Pop Rivet (Not Shown)	65	47441	1	Hopper Screen
30	23766	1	Sleeve, Agitator	66	24125	2	Shield Bracket
31	43878	1	Wire, Agitator	67	23999	2	Angle Stop Bracket
32	43088	13	Washer, Flat 1/4" Std.	68	46119	1	Spreader Shield
33	44468	1	Sprocket - 6 Tooth	69	23998	4	Shield Swivel Bracket
34	44514	1	Rod, Flow Control	70	46120	2	Plastic Knob
35	23525	2	Brace, Hitch		48324	1	Owner's Manual
36	23762	1	Support, Shaft				

*Purchase common hardware locally.

NOTES

NOTES

