

OWNERS MANUAL

Model No.
45-0215

CAUTION:
Read Rules for
Safe Operation
and Instructions
Carefully



BROADCAST SPREADER 70 (TOW)

- **Assembly**
- **Operation**
- **Maintenance**
- **Repair Parts**



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RULES FOR SAFE OPERATIONS

Any power equipment can cause injury if operated improperly or if the user does not understand how to operate the equipment.

Exercise caution at all times, when using equipment.

1. Read the towing vehicle owner's manual, towing vehicle safety rules and know how to operate your equipment, before using the broadcast spreader attachment.
2. Never operate tractor and broadcast spreader attachment without wearing substantial footwear, and do not allow anyone to ride or sit on broadcast spreader attachment frame.
3. Never allow children to operate tractor and broadcast spreader attachment, and do not allow adults to operate without proper instructions.
4. Always begin with the transmission in first (low) gear and gradually increase speed as conditions permit. Maximum towing speed - 10 M.P.H.
5. When towing broadcast spreader do not drive too close to a creek or ditch and be alert for holes and other hazards which could cause you to lose control of the broadcast spreader and tractor.
6. Before operating vehicle on any grade (hill) refer to the safety rules in the vehicle owner's manual concerning safe operation on slopes. Stay off steep slopes.
7. Read instructions and caution notes for handling/spreading of materials purchased for spreading.
8. 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 in figure 1. The hardware package contains parts shown in figure 2 on page 3. Identify all parts and layout as shown in figures 1 and 2.

CARTON CONTENTS

LOOSE PARTS IN CARTON

- | | |
|-------------------------------|----------------------------------|
| 1. Hitch Tube | 6. Flow Control Rod |
| 2. Braces | 7. Hitch Bracket |
| 3. Flow Control Mount Bracket | 8. Wheels (R.H. and L.H.) |
| 4. Flow Control Gage | 9. Hopper Assembly |
| 5. Flow Control Arm | 10. Hardware Package (not shown) |

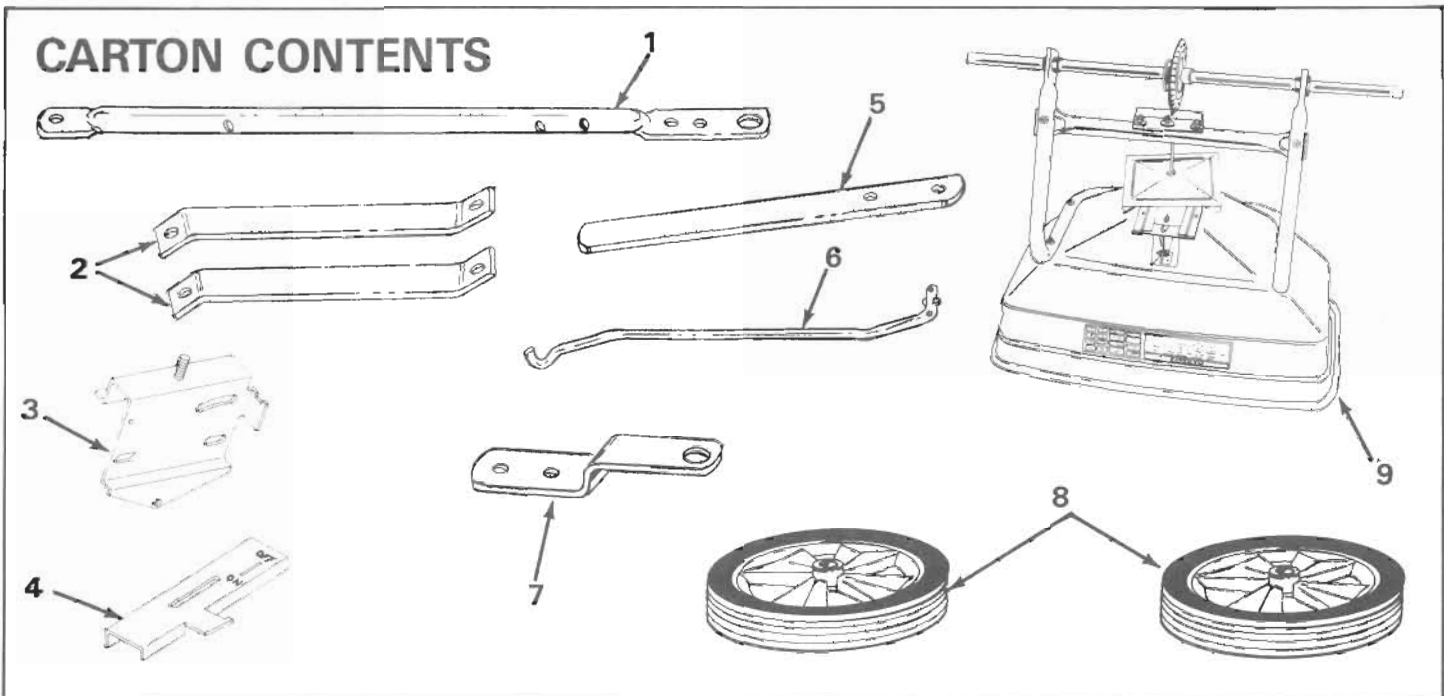


FIGURE 1

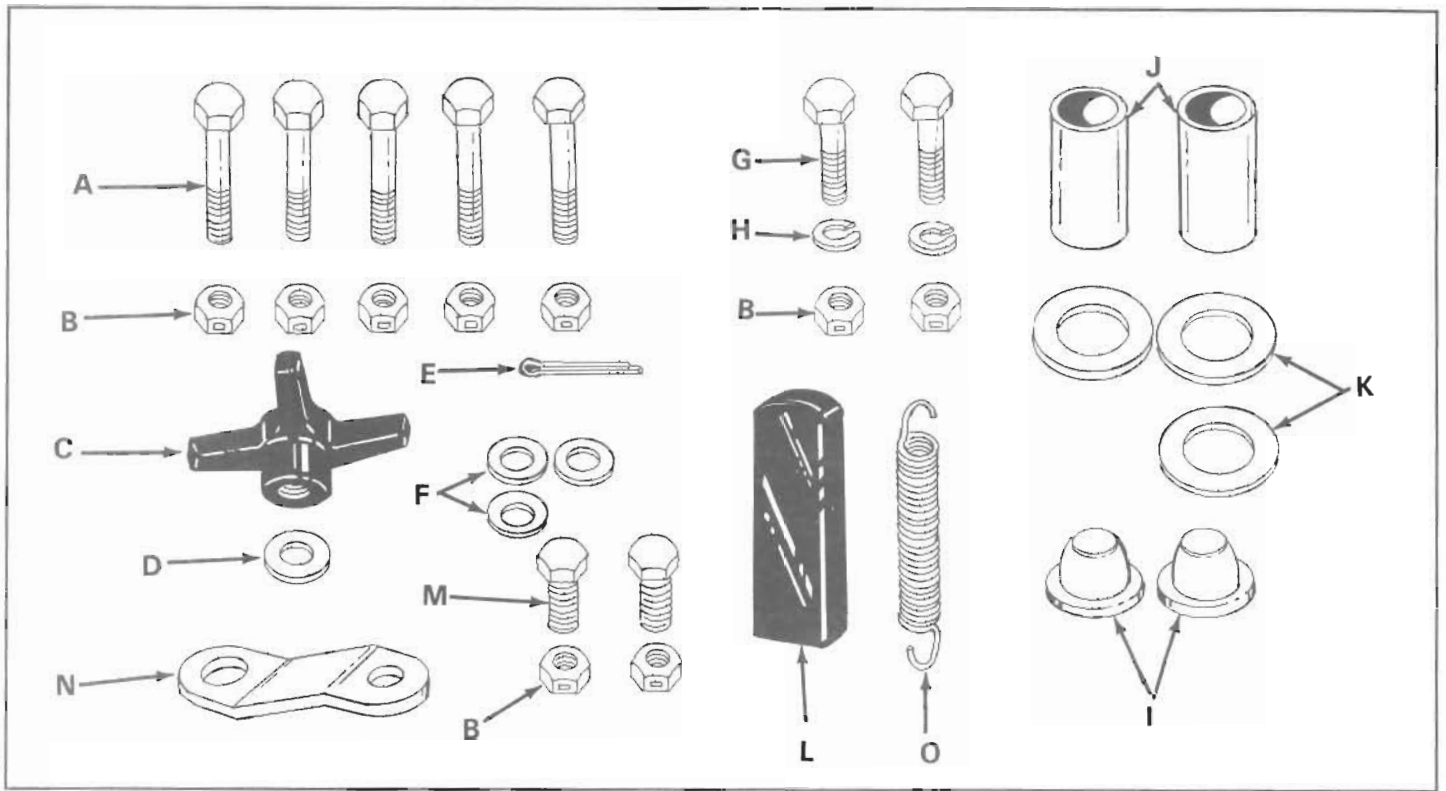
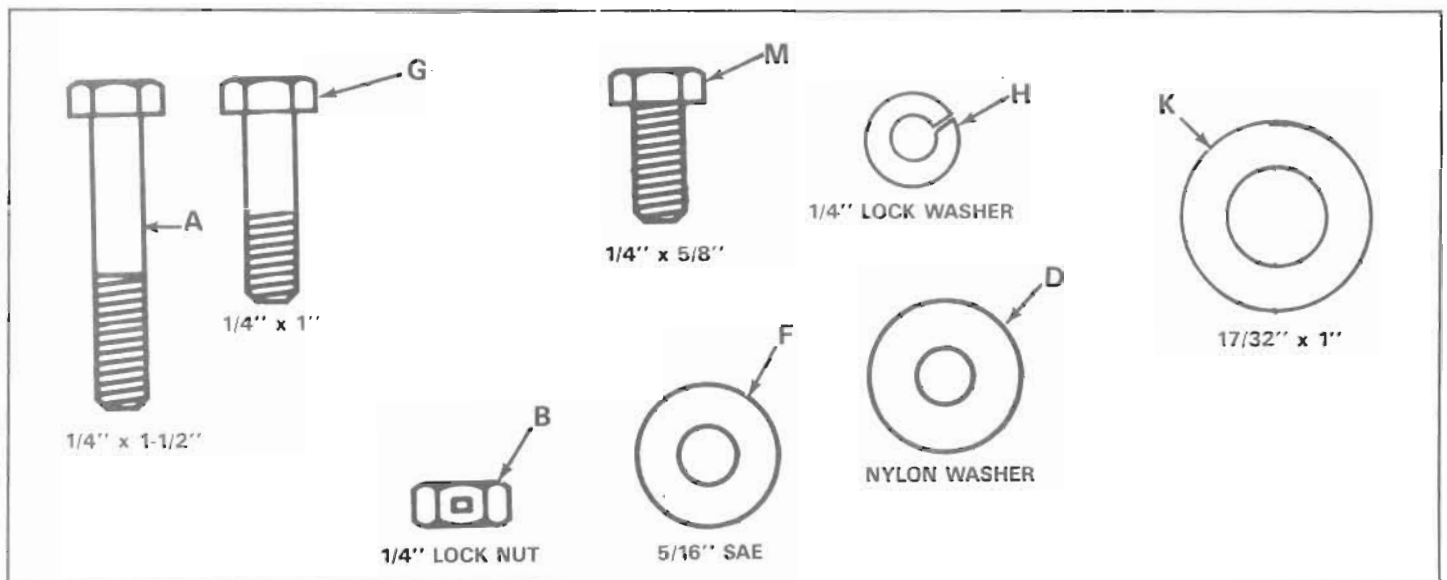


FIGURE 2- HARDWARE PACKAGE

KEY	QTY.	DESCRIPTION	KEY	QTY.	DESCRIPTION
A	5	Hex Bolt 1/4-20 x 1-1/2" Long	I	2	Hub Cap
B	9	Hex Lock Nuts 1/4-20 Thread	J	2	Spacers
C	1	Hand Knob	K	3	Flat Washers 1" O.D.
D	1	Nylon Washer	L	1	Grip
E	1	Cotter Pin 3/32 x 3/4" Long	M	2	Hex Bolt 1/4-20 x 5/8" Long
F	3	Flat Washer 5/16" SAE	N	1	Flow Control Link
G	2	Hex Bolts 1/4-20 x 1"	O	1	Extension Spring
H	2	Lock Washers 1/4" I.D.			



FULL SIZE HARDWARE REFERENCE CHART

ASSEMBLY INSTRUCTIONS

TOOLS REQUIRED FOR ASSEMBLY

- (1) Pliers
- (2) 7/16" Open or End Wrench
- (1) Small Hammer

1. Remove the spreader, loose parts and hardware package from the carton. See figures 1 and 2.
2. Turn the spreader upside down as shown in figure 3, so that it rests on the hopper.
3. Remove the 1/4" hex bolt, flat washer and hex lock nut from the center of the crossover tube and shaft support plate. See figure 3.

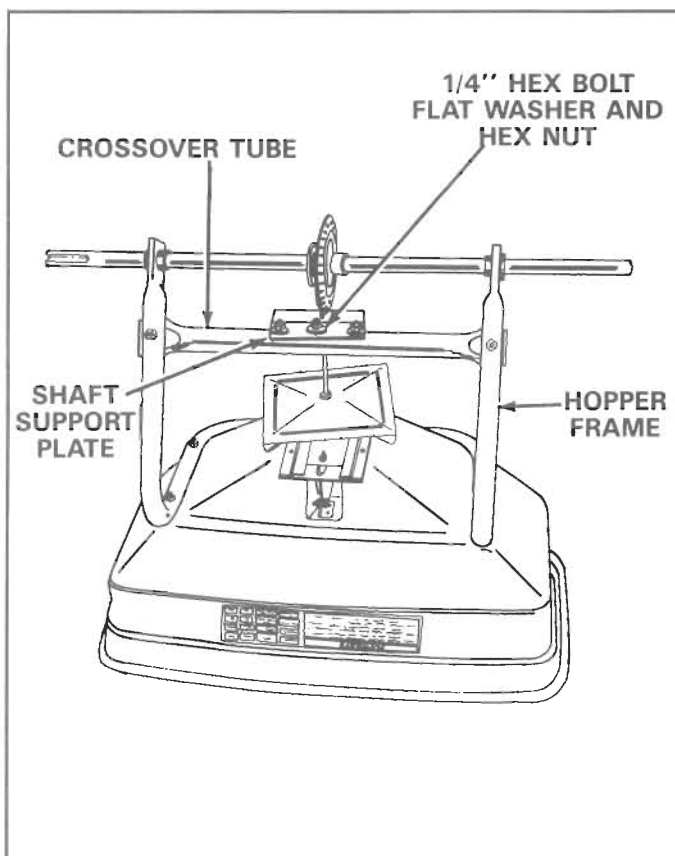


FIGURE 3

4. Assemble two hitch braces to the inside of the hopper frame, one each side, using two 1/4" x 1-1/2" and two 1/4" hex lock nuts. See figure 4. **DO NOT TIGHTEN AT THIS TIME.**
5. Place the hitch tube up against the crossover tube, align the holes in hitch tube, crossover tube and shaft support plate, assemble with 1/4" hex bolt, flat washer and 1/4" hex lock nut, removed in step 3. See figures 3 and 4. **MAKE ONLY FINGER TIGHT AT THIS TIME.**

6. Align the holes in the ends of the two hitch braces with the nearest hole in the hitch tube, secure with 1/4" x 1-1/2" hex bolt and 1/4" hex lock nut. See figure 4.

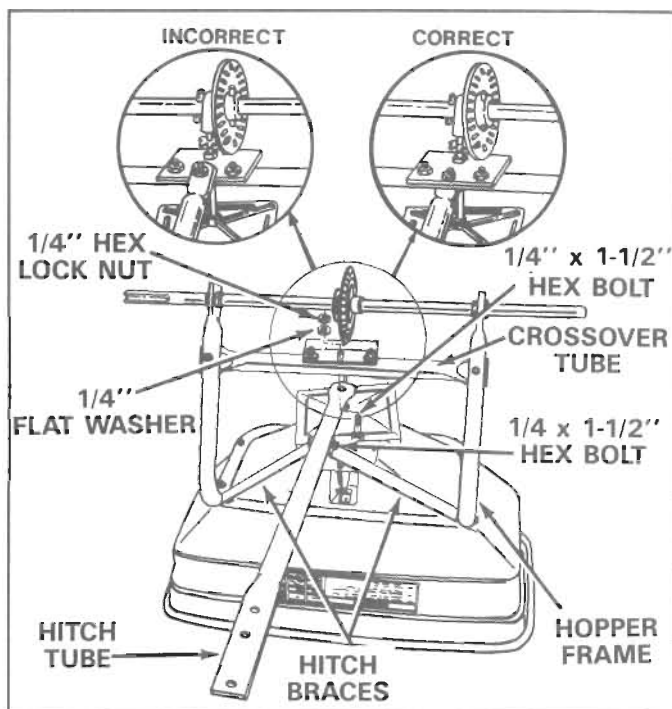


FIGURE 4

7. Tighten all hex nuts and bolts, following same sequence as assembled in steps 4, 5 and 6. **DO NOT COLLAPSE TUBE WHEN TIGHTENING.**
8. Assemble one spacer, and one 1" dia. flat washer to each side of axle. See figure 5.

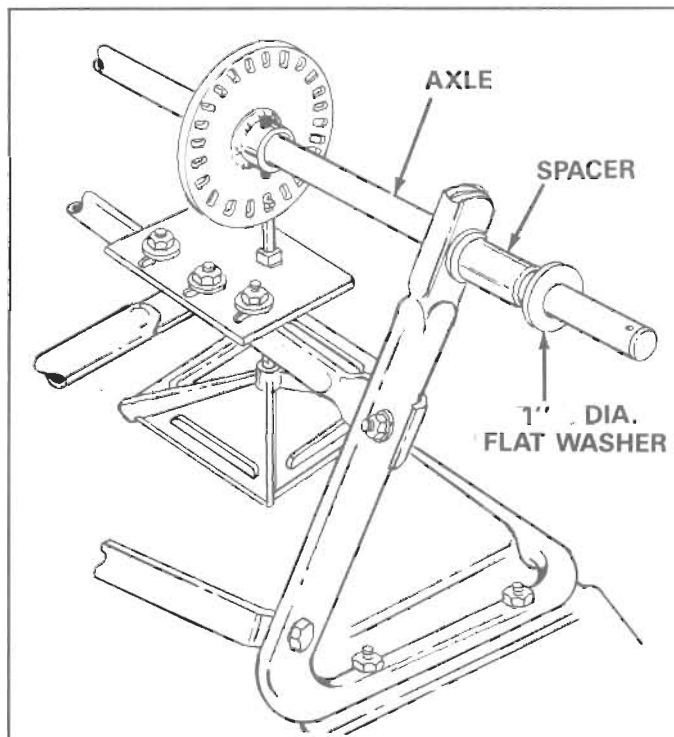


FIGURE 5

9. Place wheel with round center hole onto round end of axle. The side of the wheel with the shortest hub must be toward outside of axle.
10. Place one 1" diameter flat washer and hub cap onto axle outside of wheel. Using a small hammer lightly tap hub cap until snug against wheel.

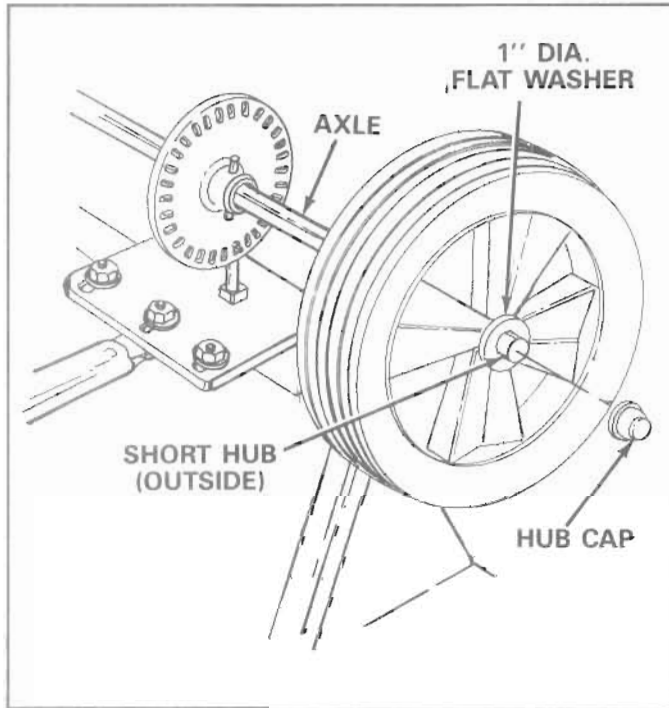


FIGURE 6

11. Place wheel with flat sided center hole onto swaged end of axle. The side of the wheel with the shortest hub must be toward outside of axle.
12. Place hub cap onto axle outside of wheel. Using small hammer tightly tap hub cap until snug against wheel.

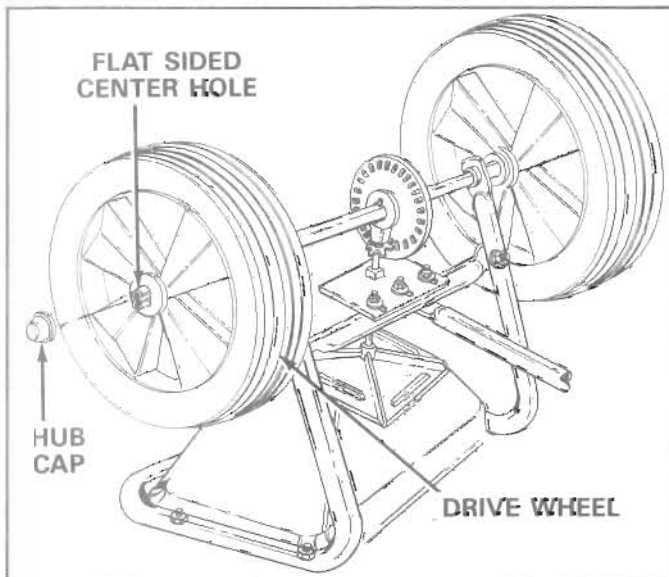


FIGURE 7

13. Turn the broadcast spreader over so it rests on its wheels.
14. Assemble the hitch bracket to the hitch tube. See figure 8. Secure with two 1/4" x 1" hex bolts, 1/4" lock washers and 1/4" hex lock nuts. See figure 8.

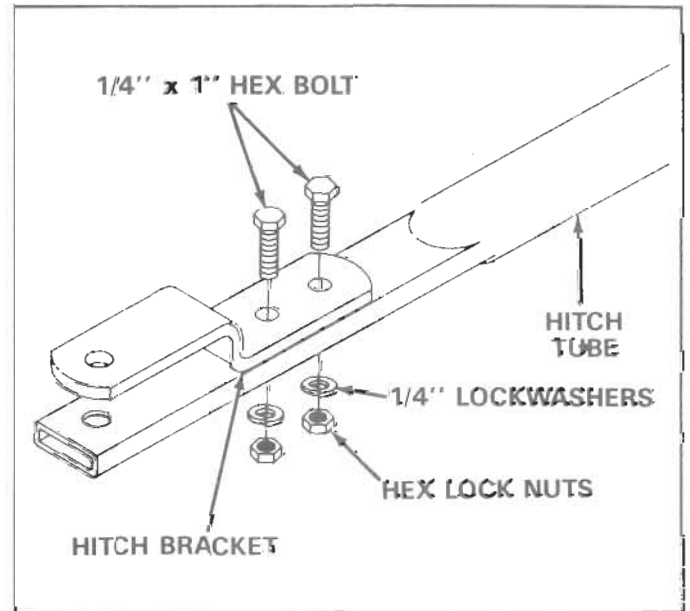


FIGURE 8

15. Assemble the flow control link (the end with smallest hole) to the flow control arm using one 1/4" x 5/8" hex bolt and one 1/4" hex lock nut. See figure 9. **DO NOT OVER TIGHTEN, FLOW CONTROL LINK MUST PIVOT FREELY.**
16. Place vinyl grip on the flow control arm. See figure 9.

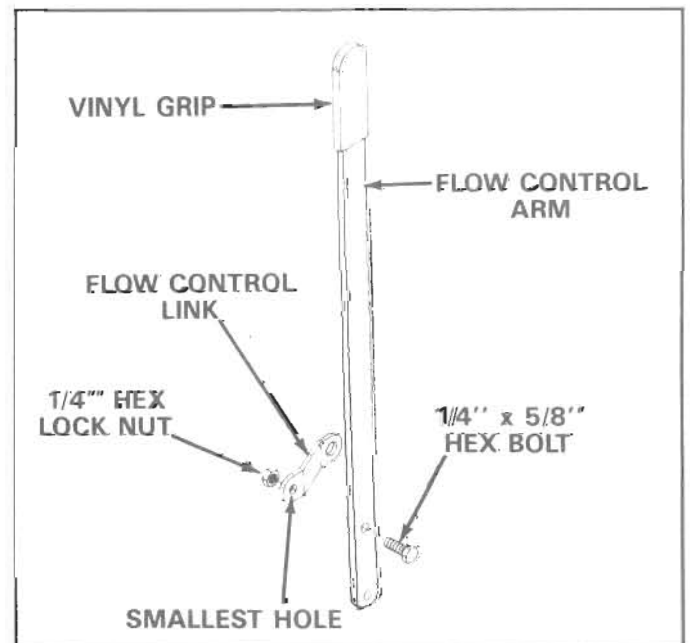


FIGURE 9

17. Assemble the flow control arm to the flow control mounting bracket using one 1/4" x 5/8" hex bolt and one 1/4" hex lock nut. See figure 10. **DO NOT OVER TIGHTEN, FLOW CONTROL ARM MUST PIVOT FREELY.**
18. Hook one end of extension spring through small hole near bend in flow control rod and the other end through hole in flow control mounting bracket. See figure 10.

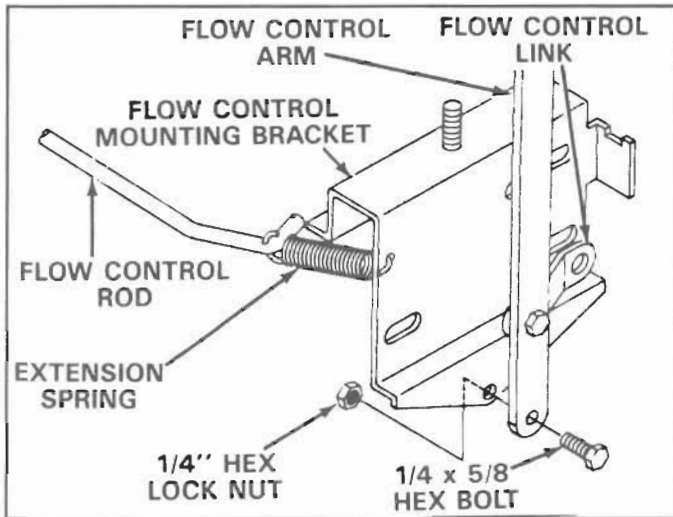


FIGURE 10

19. Place 5/16" SAE washer on end of flow control link, align with slot in flow control mounting bracket and insert end of flow control rod through slot and hole in flow control link. Secure with 3/32" cotter pin. See figure 11.

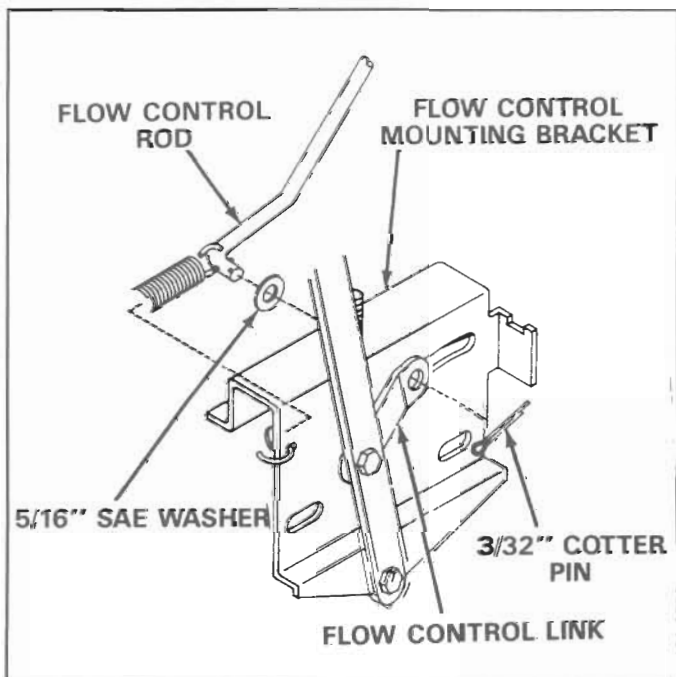


FIGURE 11

20. Hook free end of flow control rod through hole in slide gate bracket located near bottom of hopper. See figure 12.

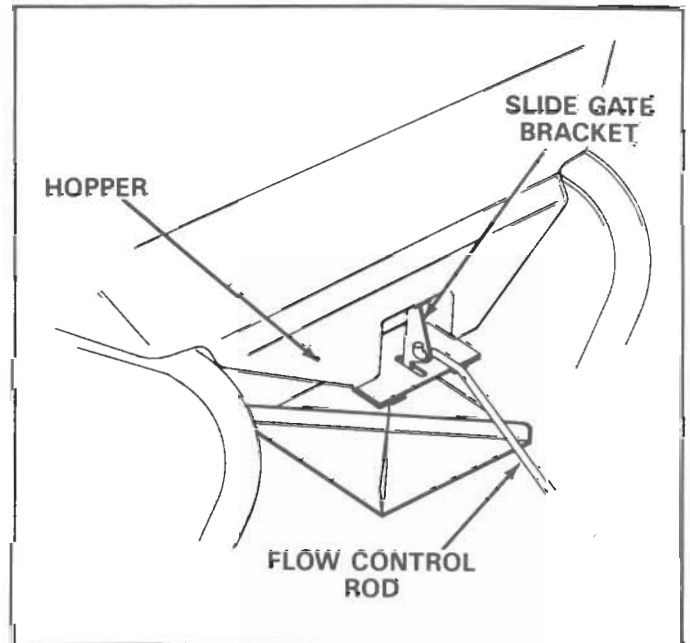


FIGURE 12

21. Assemble flow control mounting bracket to the hitch tube using two 1/4" x 1-1/2" hex bolts, two 5/16" SAE washers and two 1/4" hex lock nuts. See figure 13. **DO NOT TIGHTEN AT THIS TIME.**

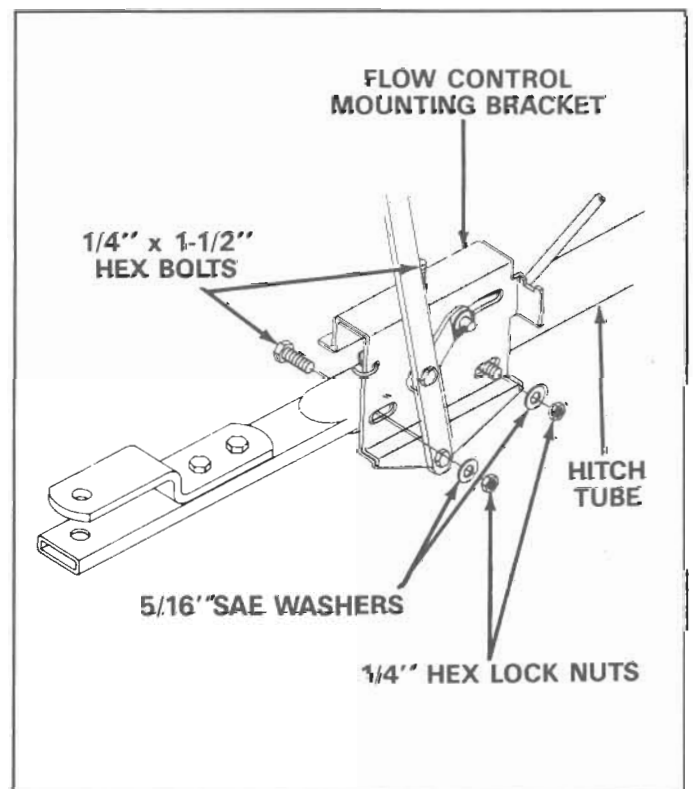


FIGURE 13

22. Assemble the flow control gage onto the the flow control mounting bracket as shown in figure 14. Secure with nylon washer and hand knob.

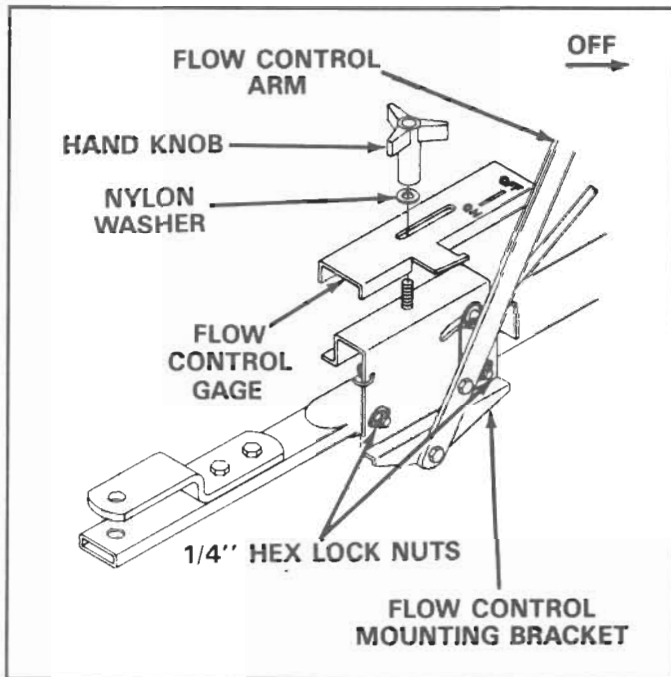


FIGURE 14

23. Move flow control arm to off position and slide flow control mounting bracket toward hopper until closure plate (located in bottom of hopper) is completely closed. Tighten 1/4" hex lock nuts assembled in step 21. See figure 14.
24. Pre-lubricate per lubrication section on page 9 before operating spreader.

OPERATION

The application spread pattern should overlap to insure uniform coverage at the edges. The approximate distance between each pass is shown in the application diagram. See figure 15.

APPLICATION DIAGRAM

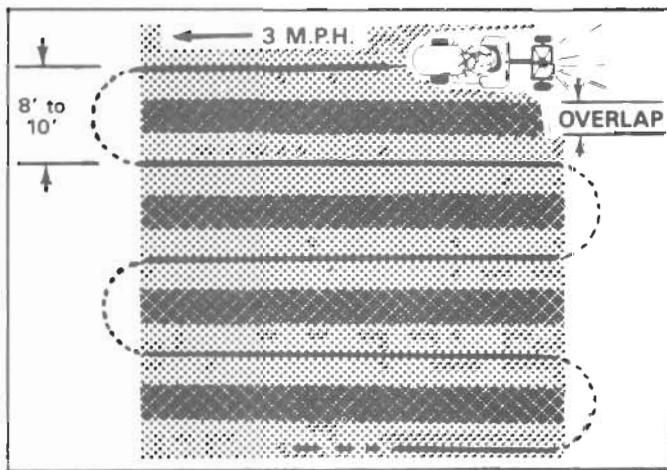


FIGURE 15



3 M.P.H. is equivalent to traveling 100 feet in 23 seconds.

FLOW RATE ADJUSTMENT.

(See figure 16)

1. Push back on the flow control arm to off position and pull forward to on position. The higher the number on flow rate gage the larger the opening in the bottom of hopper.
2. REFER TO FLOW RATE CHART AND INSTRUCTIONS ON FERTILIZER BAG TO SELECT PROPER FLOW RATE SETTING.
3. Loosen the hand knob to set the flow gage to the desired flow setting and tighten the hand knob.
4. Always move flow control arm to off position before stopping or turning spreader.
5. The spreader should be moving before you move the flow control arm to the on position.

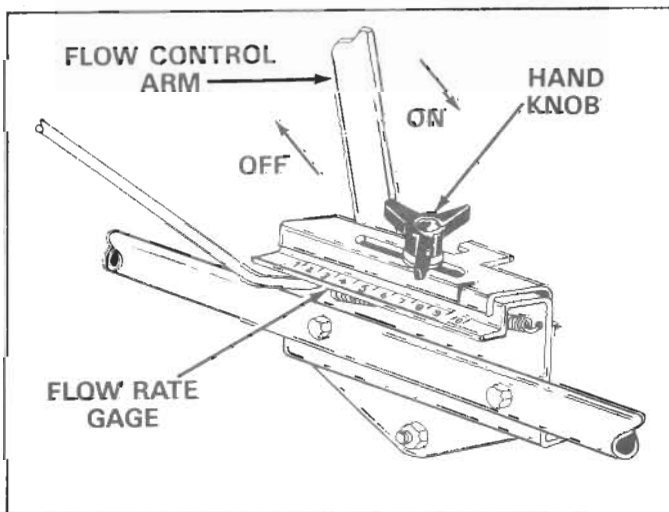


FIGURE 16

FLOW RATE CHART

TYPE MATERIAL	SETTING AT 3 MPH	SPREAD WIDTH IN FEET
FERTILIZER		
Powder	3 - 5	3 - 4
Granual	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



Do not use powdered lime, only granulated materials are approved for use.

1. Determine approximate square footage of area to be covered and estimate amount of fertilizer or seed required.
2. With flow control arm in off position, set flow rate gage at number indicated in flow rate chart—light or heavy application rate. Also, refer to the bag instructions for manufacturers recommended settings.
3. Break up lumpy fertilizer as you fill hopper.
4. To broadcast, always start tractor in motion before opening closure plate. Do not allow tractor to sit stationary with flow control arm in on position. If fertilizer is accidentally deposited too heavily in a small area, soak down thoroughly with garden hose or sprinkler to prevent burning of lawn.

IMPORTANT: Application rates (shown on chart) are affected by humidity and moisture content of material (granular and pellet); therefore, minor setting adjustments may be necessary to compensate for this condition. The rate chart is calculated for light and heavy application. The faster you drive, the wider the broadcast width. A variation in speed will determine the flow rates and width of broadcast.



CAUTION

When broadcasting weed control fertilizers make sure broadcast pattern does not hit evergreen trees, flowers or shrubs.

MAINTENANCE

1. Do not store spreader with any material left in hopper.
2. Clean your spreader after use. Flush thoroughly with water.
3. If for any reason the axle, gear and sprocket assemble is disassembled, be sure to mark position of parts as they are removed. Drive wheel and sprocket position determine relation direction of spreader plate. See figure 7 on page 5. With reassembly of gear and sprocket use shim washers (see page 10 Ref. No 21) as needed for minimum backlash. Add grease to gear and sprocket.
4. If agitator wire becomes damaged or worn it can be replaced. Loosen 3/8" lock nut on the top of sprocket shaft until agitator wire is free. Remove and replace with new agitator wire. Position agitator wire so that sprocket shaft turns freely and tighten 3/8" lock nut on top of sprocket shaft. See figure 17.

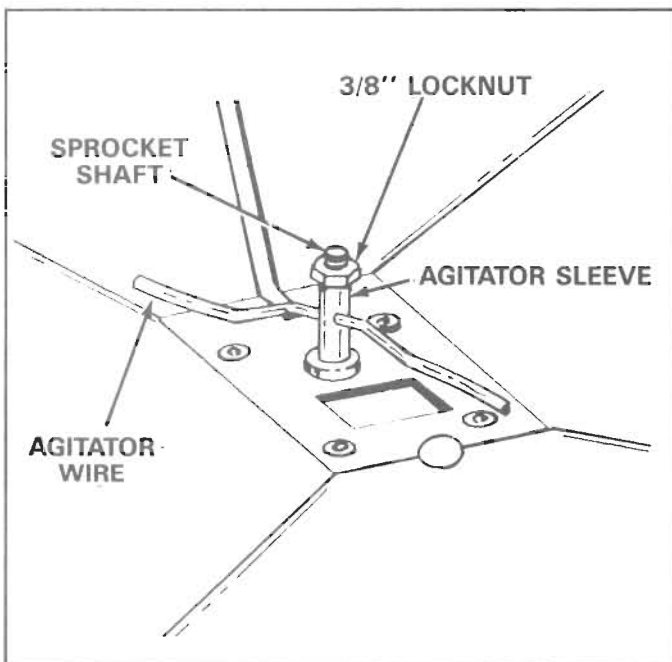


FIGURE 17

5. 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 rain cover. See figure 18.



FIGURE 18

LUBRICATION

(See figure 23)

1. Apply a little automotive grease as needed to the sprocket and gear.
2. Oil nylon bushings on sprocket shaft as shown in figure 19.
3. Oil axle/shaft bushing on axle as shown in figure 19.
4. Oil right hand wheel bearing as needed.

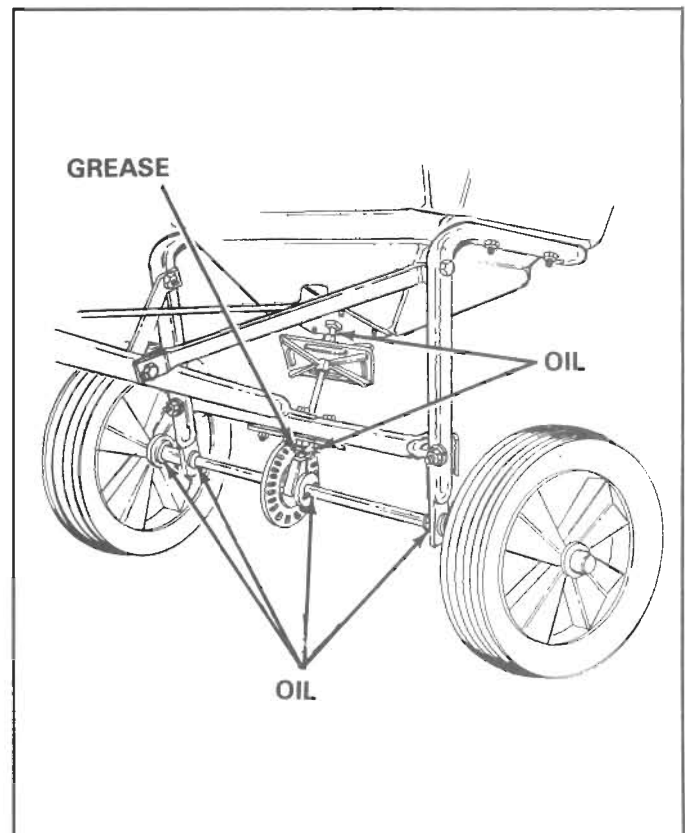
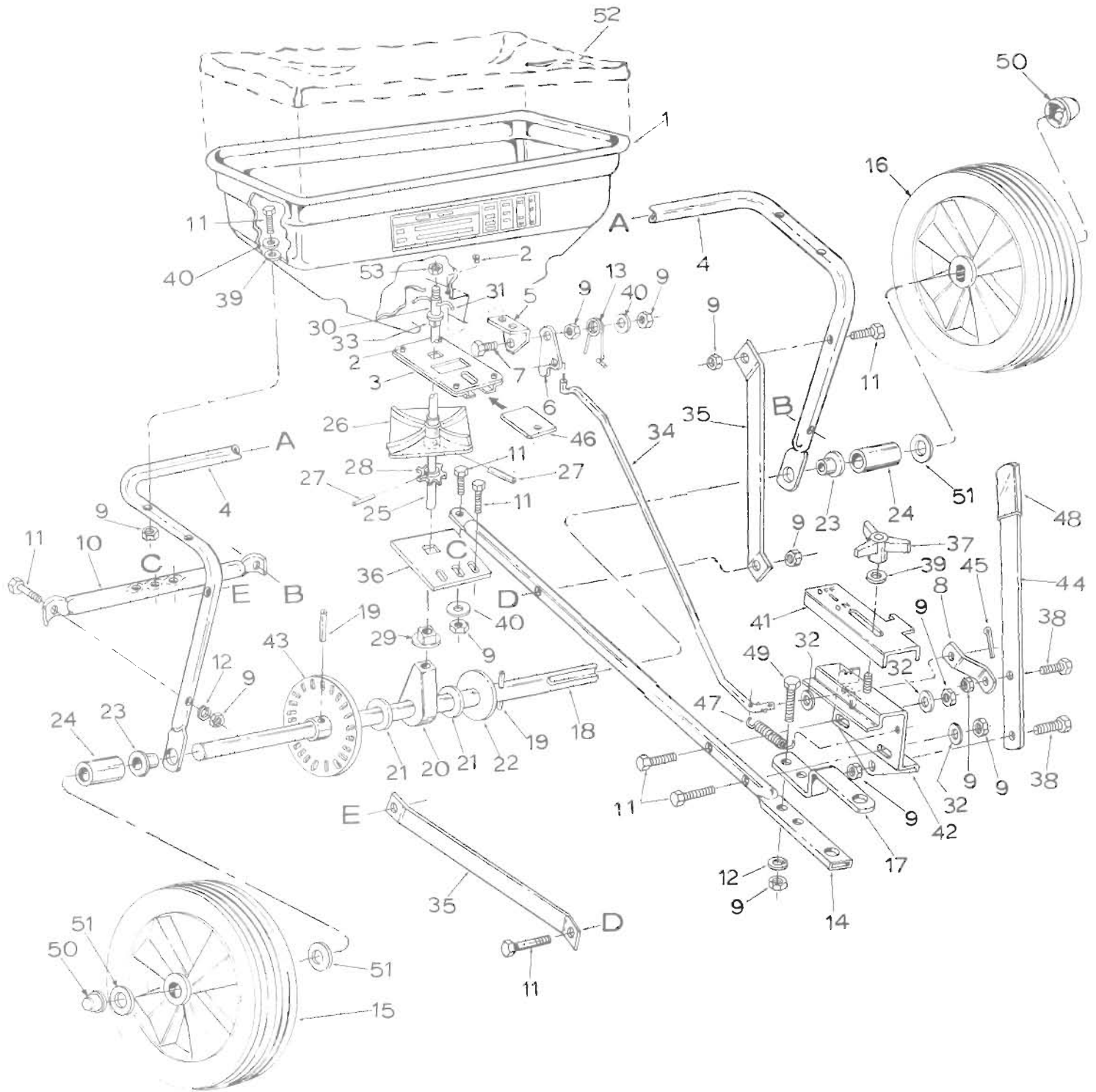


FIGURE 19

REPAIR PARTS FOR BROADCAST SPREADER MODEL 45-0215



REPAIR PARTS LIST FOR BROADCAST SPREADER MODEL 45-0215

REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
1	44624	1	Hopper-Broadcast Spreader	26	04367	1	Spreader Plate
2	43882	6	Rivet - Stainless	27	43850	2	Pin, 1/8" Dia. x 5/8" Lg. Spring
3	62482	1	Ass'y. - Guide Closure				
4	44588	1	Tube Frame	28	44468	1	Sprocket - 6T
5	23753	1	Slide Gate Angle Brkt.	29	43852	1	Bushing, Nylon .375 I.D.
6	23758	1	Slide Gate Brkt.	30	23766	1	Sleeve, Agitator
7	43012	1	Bolt, Hex 1/4-20 x 3/4" Lg.*	31	43878	1	Wire, Agitator
8	23756	1	Flow Control Link	32	R19111116	3	Washer, 5/16" SAE
9	43013	22	Nut, Hex Lock 1/4-20 Thd*	33	44285	1	Bushing Delring .375 I.D.
10	44591	1	Tube, Crossover	34	44469	1	Rod, Flow Control
11	43648	16	Bolt, Hex 1/4-20 x 1-1/2" Lg.*	35	23525	2	Brace, Hitch
12	43177	4	Lock Washer, Spring 1/4" I.D.*	36	23780	1	Support, Shaft
13	44566	1	Spring, Torsion	37	43849	1	Knob, Plastic 1/4-20 Thd.
14	44586	1	Tube, Hitch	38	43866	2	Bolt, Hex 1/4-20 x 5/8" Lg. Gr. 5
15	44631	1	Wheel, Ass'y. 12" x 1.75"	39	1543-069	7	Washer, Nylon
16	44630	1	Wheel, Ass'y. 12" x 1.75" (Drive)	40	43088	10	Washer, Flat 1/4" Std.*
17	23818	1	Bracket, Hitch	41	23755	1	Gage, Flow Control
18	23781	1	Shaft, Axle	42	62732	1	Ass'y. Flow Control Mount
19	44665	2	Pin, Roll 5/32" Dia. x 1.25" Lg.	43	62798	1	Ass'y. Gear
20	44672	1	Bushing, Axle/Shaft	44	23757	1	Flow Control Arm
21	44137	4	Washer, Flat 1/2" I.D.	45	44101	1	Cotter Pin 3/32 x 3/4" Lg.*
22	R19171616	1	Washer, Flat 17/32" I.D.	46	23533	1	Plate, Closure
23	741-0248	2	Bearing Flange	47	43000	1	Spring, Extension
24	44593	2	Spacer .75 O.D. x 1.75" Lg.	48	43848	1	Grip, Flow Control Arm
25	23524	1	Shaft, Sprocket	49	43661	2	Bolt, Hex 1/4-20 x 1" Lg.*
				50	44663	2	Hub Cap
				51	R19171616	3	Washer 17/32" x 1" x 16 Ga.
				52	44619	1	Optional Vinyl Hopper Cover
				53	43082	1	Nut, Hex Lock 3/8-16 Thd.*
					44889	1	Owner's Manual

*Purchase common hardware locally.

REPAIR PARTS
303 West Raymond Street
Sullivan, Illinois 61951
(217) 728-8388