

BRINLY

OWNER'S MANUAL



**BST-150 BH
BROADCAST SPREADER
MODEL - BST-1500 BH**

"IMPORTANT: THIS MANUAL CONTAINS INFORMATION FOR THE SAFETY OF PERSONS AND PROPERTY. READ IT CAREFULLY BEFORE ASSEMBLY AND OPERATION OF THE EQUIPMENT!"

LIMITED WARRANTY

Brinly-Hardy Company warrants only to the original retail purchaser that this product will remain free of defects in workmanship and materials under normal use and service for a period of two (2) years (NOTE: ninety (90) days for commercial or rental use) commencing with the date of purchase.

Any parts found to be defective within the warranty period will be replaced, with proof of date of purchase, at Brinly-Hardy Company's expense. Our obligation under this warranty is expressly limited to replacement or repair at our option of parts which are defective in material or workmanship within thirty (30) days of receipt of the parts. This warranty does not apply to damage caused by unreasonable use, including failure to provide necessary maintenance, nor does it apply to any transportation or labor charges.

WE MAKE NO OTHER EXPRESS WARRANTY NOR IS ANYONE AUTHORIZED TO MAKE ANY ON OUR BEHALF. ANY IMPLIED OR STATUTORY WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY. WE SHALL NOT BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND.

MADE IN U.S.A.

BRINLY-HARDY COMPANY (502) 585-3351

INTRODUCTION

Thank you for buying this quality product! Your Broadcast Spreader is equipped with a bevel gear drive system. It is recommended for use with all granular material (maximum granular size 3/16"), such as fertilizer, seed, sand, salt, ice melters, etc. This Spreader is NOT recommended for spreading powdered materials such as Hydrated Lime.

Please read and retain this manual. The instructions will enable you to assemble and maintain your implement properly. Always observe the "SAFETY RULES".

Should the need ever exist for repair parts, order through most any Lawn and Garden Dealer, using part number and description.



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

RULES FOR SAFE OPERATION

- Know controls and how to stop quickly, READ THE OWNER'S MANUAL.
- Do not allow children to operate the vehicle. Do not allow adults to operate without proper instruction and without having read the owner's manual.
- Do not carry passengers. Keep children and pets a safe distance away.
- Always wear substantial footwear. Do not wear loose fitting clothing that can get caught in moving parts.
- Keep your eyes and mind on your tractor/attachment and area being covered. Don't let other interests distract you.
- Stay alert for holes in the terrain and other hidden hazards.
- Keep the vehicle and attachment in good operating condition and keep safety devices in place.
- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- The vehicle and attachment should be stopped and inspected for damage after striking a foreign object. The damage should be repaired before restarting and operating the equipment.
- See tractor equipment owner's manual for safe operation of the equipment.
- Do not drive close to creeks, ditches and public highways.
- Watch out for traffic when crossing or near roadways
- When using any attachment, don't allow anyone near the vehicle while in operation.

WARNING

- Shutter plate may have sharp edges. Handle with caution. Work gloves are recommended to avoid injury.
- Lock nuts must be used where specified. They have a slightly oblong hole and are domed on one end.
- Do not load the hopper with more than the maximum weight capacity of 75 pounds.
- Only tow your spreader behind vehicles for which it was designed - riders, lawn/garden tractors, and ATVs.
- Always operate your spreader within the speed limit for which it was designed - 3 to 4 MPH.

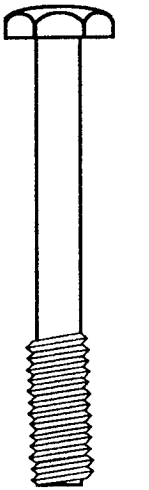
CUSTOMER RESPONSIBILITIES

- Read and observe the "SAFETY RULES"
- Follow a regular schedule in maintaining, caring for, and using your Attachment.

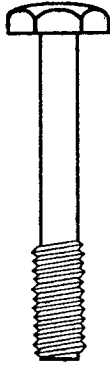
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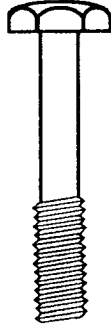
HARDWARE



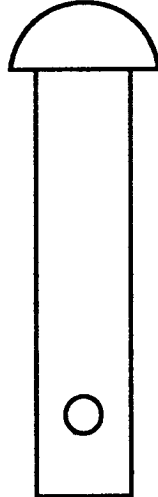
No. 29
1M0840P
1/4" x 2 1/2"
Hex Bolt



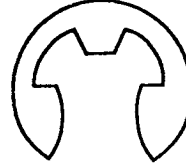
No. 25
1M0828P
1/4" x 1 3/4"
Hex Bolt



No. 24
1M0824P
1/4" x 1 1/2"
Hex Bolt



No. 31
B-3861
Drawbar Pin



No. 12
F-577
"E" Type
Snap Ring



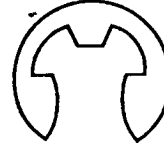
No. 7
45M0909P
1/4" Flat
Washer



No. 20
45M1717P
1/2" Flat Washer



No. 35
B-3372 5/16" x 3/4" Vinyl Grip



No. 23
F-621 1/2" "E"
Type Snap Ring



No. 28
B-4785
1/4" Nylon
Insert Nut



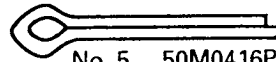
No. 3
B-1673
1/4" He
Lock N



No. 2
F-575 1/4"
Thrust Washer



No. 16
F-591 Fan Driver



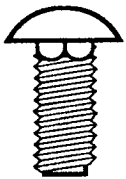
No. 5 50M0416P
1/8" x 1" Cotter Pin



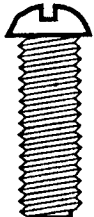
No. 1
F-313 1/4"
Gate "O" Ring



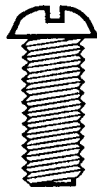
No. 8
F-365 3/
I.D. "O" R



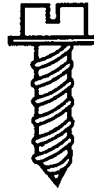
No. 37
10M1012P
5/16" x 3/4"
Carriage Bolt



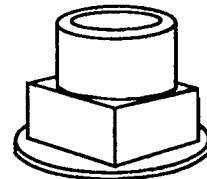
No. 33
20M0816P
1/4" x 1" Round
Head Screw



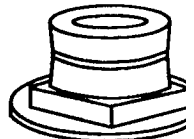
No. 13
20M0812P
1/4" x 3/4"
Round Head
Screw



No. 6
F-395
1/4" x 3/4"
Hex Head
Screw



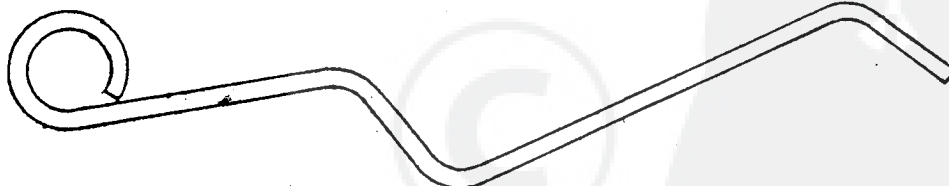
No. 19
F-383 1/2" I.D.
Axle Bearing



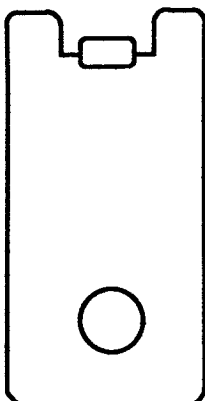
No. 9
F-384 Fan Shaft
Bearing w/Groov



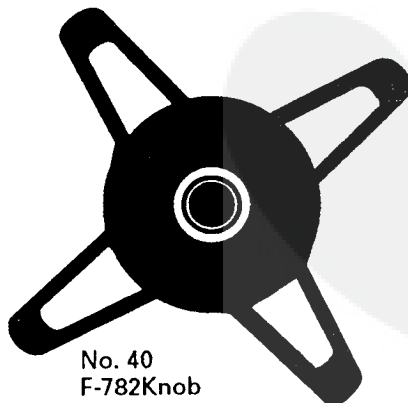
No. 17
F-595
Lock Clip



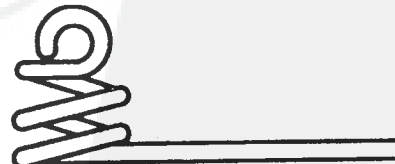
No. 38 F-847
Flow Control Spring



No. 39
F-785 Gage Stop



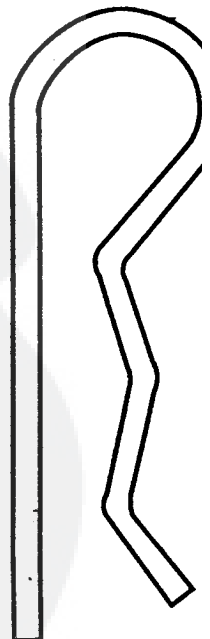
No. 40
F-782 Knob



No. 4
F-436 Torsion Spring Agitator



No. 32
D-146P 1/8" Hairpin Cotter



No. 21
F-620 Hairpin Cot

ASSEMBLY

TOOLS REQUIRED FOR ASSEMBLY:

- 1 - Pair of Pliers (Slip-joint recommended).
- 1 - Screwdriver (Flat).
- 2 - 7/16" Wrenches.
- 1 - Pair of Work Gloves.

Refer to FIG. 1.

- Turn the hopper upside down and insert the grooved fan shaft bearing through the square hole in the bottom of hopper from INSIDE the hopper.
- Place the shutter plate on the hopper base (with the triangular openings aligned) and the bearing (grooved end) protruding through the matching round hole in the shutter plate.
- Secure the assembly by sliding the "E" ring into the groove with a pair of pliers.

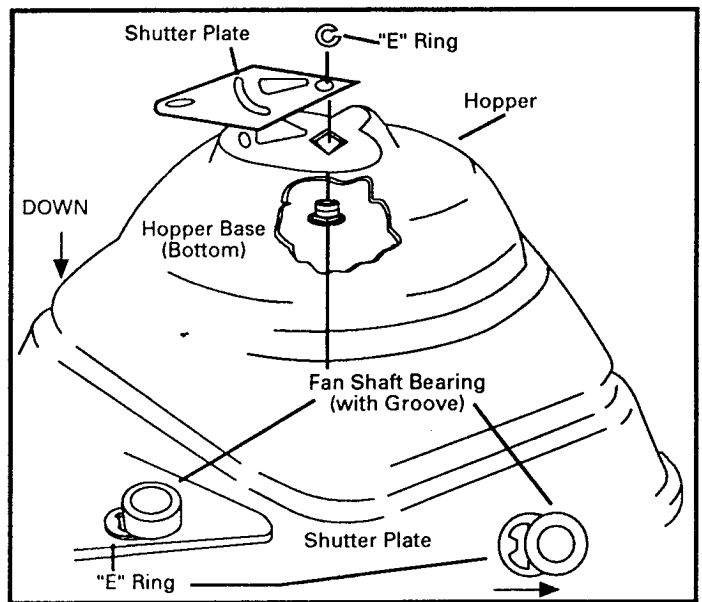


FIG. 1.

Refer to FIG. 2.

- With the hopper still upside down, insert one 1/4" x 3/4" round head screw through one 1/4" nylon thrust washer and then the curved slot in shutter plate and corresponding round hole in hopper base.
- Complete this assembly by slipping the 1/4" gate "O" ring and remaining 1/4" nylon thrust washer onto the round head screw.
- Secure with one 1/4" hex lock nut. Must have domed head. NOTE: Do not tighten the shutter to the point of binding; there should be a "right" amount of friction between the shutter and the hopper body.

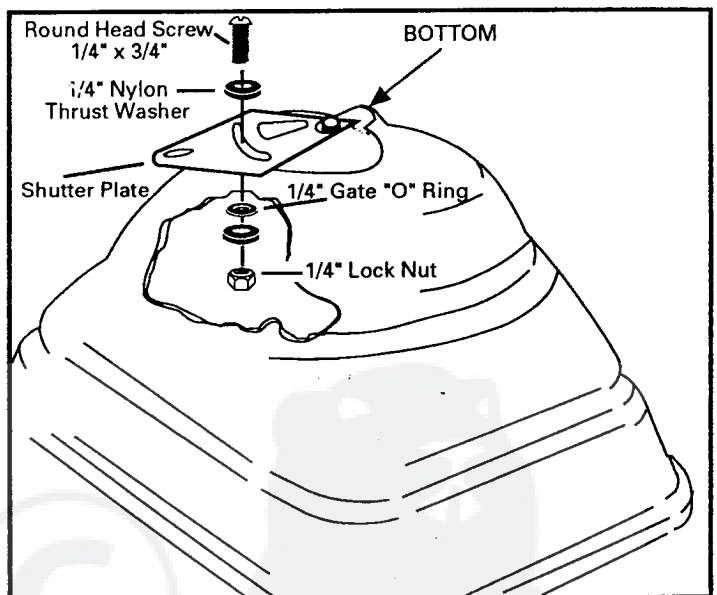


FIG. 2.

Refer to FIG. 3.

- Inspect the gearbox assembly and note the following: The fan shaft extends from the center of the gear housings at the gearbox cap and is smaller in diameter than the axle which extends from the end of each gearbox housing half.
- Slide the lock clip down the fan shaft with a pair of pliers, then slide the fan driver (WITH THE LARGE DIAMETER FLANGE FACING UP) down the shaft and follow with fan.

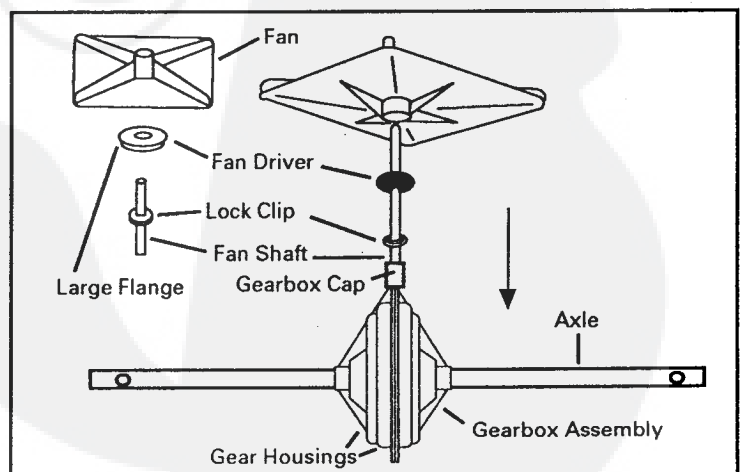


FIG. 3.

Refer to FIG. 4.

NOTE: The Shutter Plate protrudes from the FRONT of the hopper.

- While looking at the REAR of the hopper (while it is still upside down), insert the fan shaft of the gearbox assembly into the fan shaft bearing in hopper.
- Slip one end of the hopper support (each end has a square hole) onto one end of axle, then slip the other end of the hopper support onto the other axle end and sit the hopper support on the REAR of hopper. (Positioned at the five mounting holes in hopper).
- The rotation of the fan must now be determined. Grasp the axle and rotate it toward you and observe the direction that the fan is rotating - it MUST turn CLOCKWISE.

NOTE: Should the fan be found to rotate COUNTER-CLOCKWISE, remove the hopper support, rotate the gearbox assembly to your right - CLOCKWISE, 1/2 a complete rotation and relocate the hopper support and again check the fan rotation to be sure it is now rotating Clockwise.

- Secure the hopper support to the hopper with five hex head screws and five 1/4" flat washers - installed from inside the hopper. Tighten these screws securely.
- Place the axle bearings (WITH FLANGES FACING OUTWARD) on the ends of the axle and insert the bearings into the square holes in the ends of the hopper support.
- Adjust the fan assembly by slipping the components down toward the fan shaft bearing until the fan almost touches the bearing. Be sure the fan driver is pushed down between the ribs on the bottom of the fan and that the lock clip is against the driver.

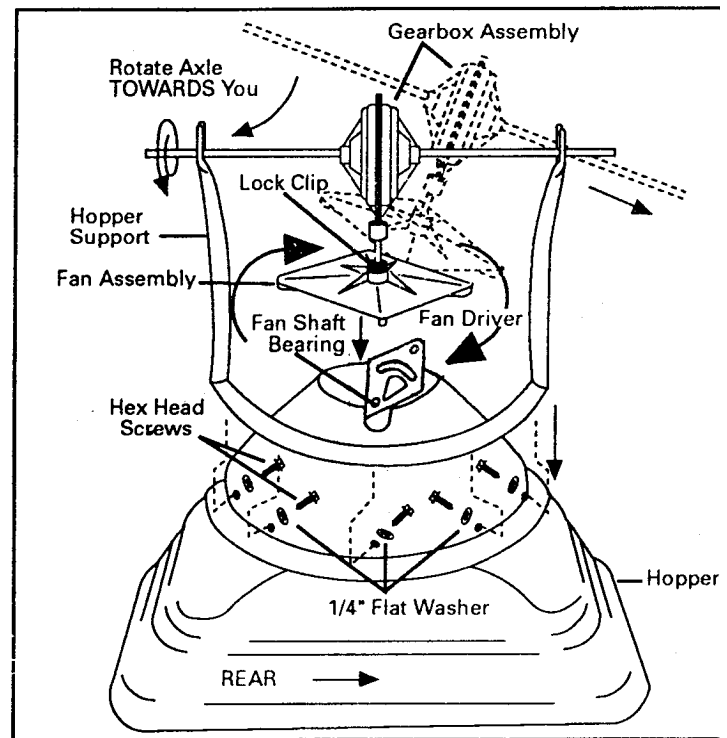


FIG. 4.

Refer to FIG. 5.

- Slide a 1/2" flat washer on each end of the axle followed by a wheel and then another 1/2" flat washer.
- Secure each axle end by installing a 1/2" "E" ring into the groove located at each end of the axle.
- Rotate either wheel until the hole in the hub lines up with the matching hole in the axle and then insert one hairpin cotter as shown.

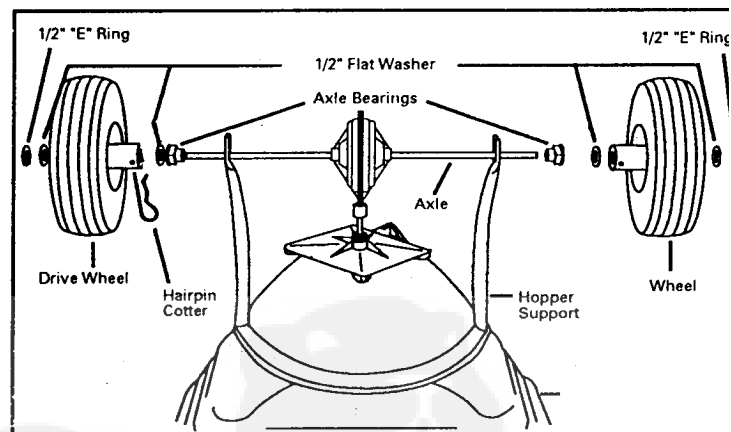


FIG 5.

Refer to FIG. 6.

- Turn the spreader right side up (on its wheels) and slip the 3/8" "O" ring onto the fan shaft.
- Install the spring agitator with the long leg on the bottom and the small loop at the top - on the fan shaft.
- Align the hole in the shaft with the spring's loop and then insert one 1/8" x 1" cotter pin (from the loop side) through the assembly and bend the legs over with pliers.

NOTE: Again check the direction of rotation. While viewing the inside of hopper from above, the agitator MUST rotate COUNTER-CLOCKWISE, when pulling the unit forward. If the agitator rotates clockwise, repeat the steps described in FIGURE 4.

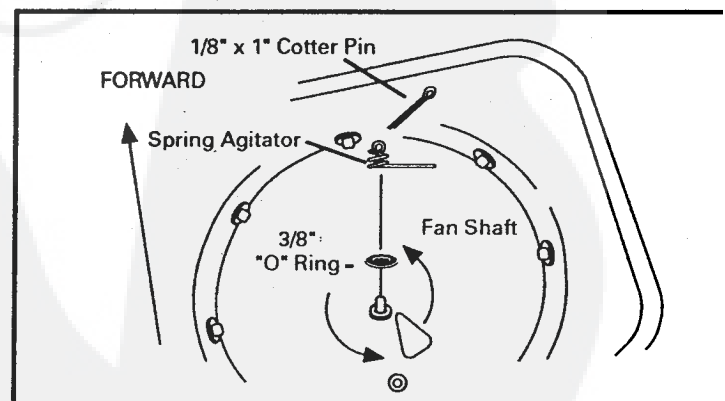


FIG 6.

Refer to FIG. 7.

- Attach gage plate to three holes in top lip at front of hopper using three 1/4" x 3/4" round head screws, flat washers (next to slots in gage plate) and nylon insert nuts (inside hopper). Do NOT tighten at this time.

- Slide formed end of shutter handle through long slot in gage plate; position opposite end of shutter handle into hole in previously assembled shutter plate at bottom of hopper.

- Match the hole in center of shutter handle with hole in hopper. Attach using 1/4" x 1" round head screw (with 1/4" flat washer next to head) from inside of hopper, 1/4" flat washer at both sides of shutter handle and securing with a 1/4" hex lock nut (has domed head). Tighten snugly to allow pivoting without binding.

- Place the 5/16" vinyl grip over the shutter handle.

GAGE PLATE CALIBRATION

- Close the shutter completely by moving the handle all the way to the right.

- Position gage plate so shutter handle aligns with screws on calibration plate. Tighten three retaining screws securely.

- Install the gage stop onto gage plate - formed tab towards handle and inside the slot.

- Secure with 5/16"x 3/4" carriage bolt, flow control spring (under carriage bolt head) as shown in Fig. 7-Illustration "A". Insert from under gage plate, up through gage stop, securing with plastic knob. Slide to the left and tighten.

NOTE: Flow control spring holds shutter handle in place.

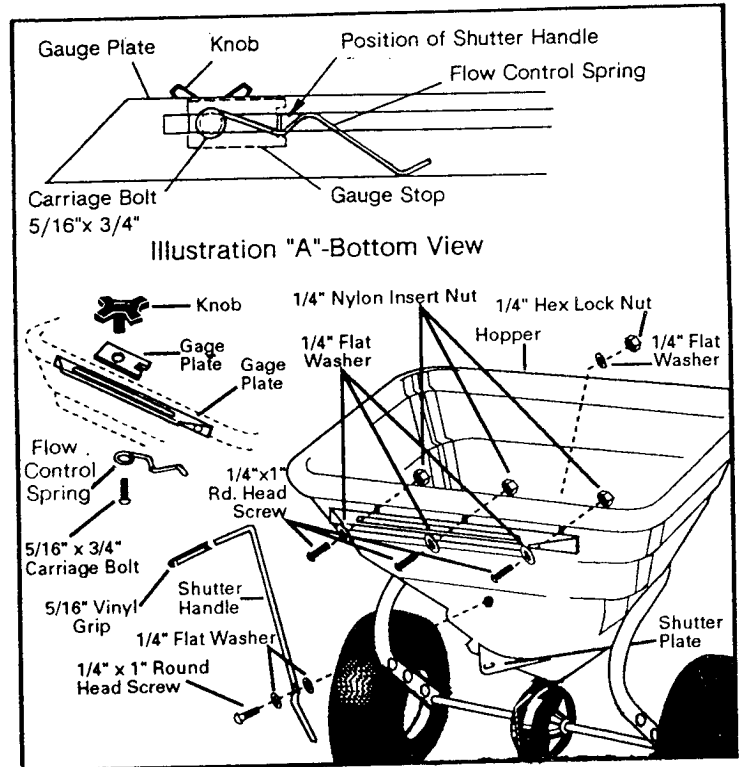


FIG. 7.

Refer to FIG. 8

- Assemble cross bar and two tow tubes to upper holes at inside of hopper support - (short ends of tow tubes assemble to hopper support) using two 1/4" x 1 3/4" hex bolts (from outside of frame) and 1/4" nylon insert nuts. Do NOT tighten at this time.

- Join tow tubes on top of one another at front (join tubes to form clevis - see insert). Secure with two 1/4" x 2-1/2" hex bolts (through smaller holes in tubes) and 1/4" nylon insert nuts. Do NOT tighten at this time.

- Attach the braces (with offsets INWARD) to forward holes at each side tow tube and to middle holes in legs of hopper support using four 1/4" x 1-1/2" hex bolts and 1/4" nylon insert nuts.

IMPORTANT: Refer to Figures 5 & 8

- Rotate the "drive wheel", checking the amount of resistance in the gear and fan system. If there is any excessive side movement, realign the gearbox by adding additional 1/2" flat washers behind the wheels.

- Insert drawbar pin through front holes in tow tubes and secure with hairpin cotter.

- Tighten all tow tubes mounting bolts securely, careful not to overtighten and collapse tubes.

- If Logo Decal is not applied to rear of Hopper, see parts page for location, and apply.

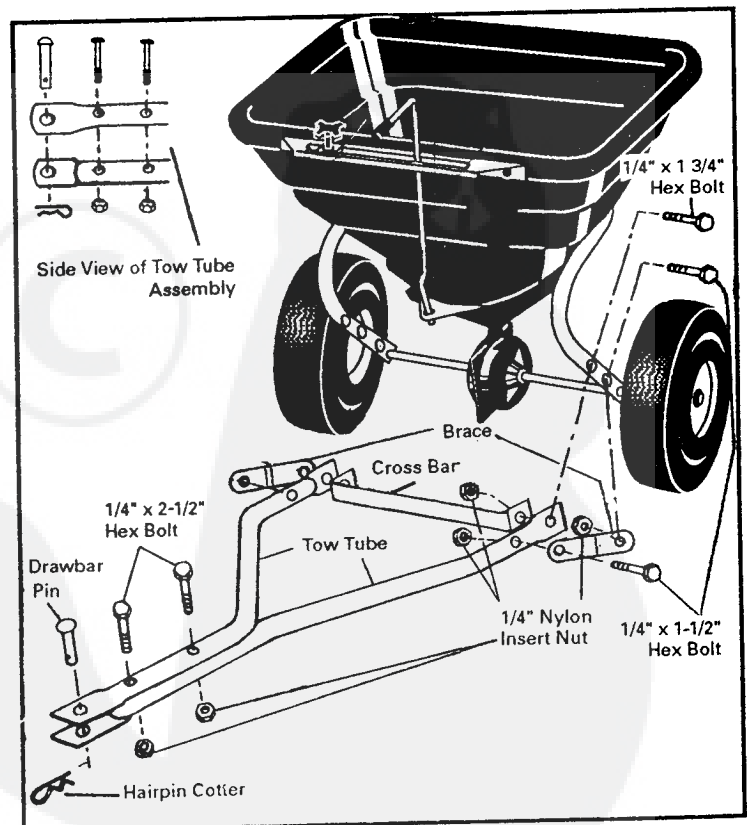


FIG. 8.

OPERATION

- The fan speed and the spread width are controlled by the speed at which you operate the spreader. The recommended operating speed is slightly faster than that of a brisk walk, 3 to 4 MPH.
- The control lever operates the flow control shutter. The flow control decal (Fig. 7) is marked OFF to 10. The position selected determines the amount of material to be broadcast. The higher the number, the heavier the application of material.

NOTE: Close shutter before filling hopper. Keep the plastic knob (Fig. 7) and gage stop tight at all times.



CAUTION

- Do not load the hopper with more than the maximum weight capacity of 75 pounds.

- Determine the flow control number setting required for your job using the Application Rate Chart. After determining the correct setting number for your material, set shutter handle (adjust shutter) to that position. This is done by loosening the plastic knob and moving the gage stop, then re-tightening nut.

OPERATING TIPS

- When spreading ice melters, use 2 hairpin cotters - 1 in each wheel hub, for better traction.
- When spreading seed, fertilizer, etc., insert only 1 hairpin cotter in either the right or left wheel hub.
- Do not fill hopper and transport over long distances. This may result in packing, causing poor or erratic discharge. Fill only at operation site.
- Break up any lumps as you fill the hopper.
- Do not use on windy days, especially when spreading fine grass seed or herbicides.
- For best results, select a LOWER (smaller number) shutter setting and spread material using TWO light applications - use a "criss-cross" or overlap pattern on the second application.

MAINTENANCE

- To ensure years of trouble-free service, clean the spreader thoroughly with water after each use.
- For rust on frame parts, sand lightly and paint with enamel.
- Periodically lubricate all bearing surfaces.

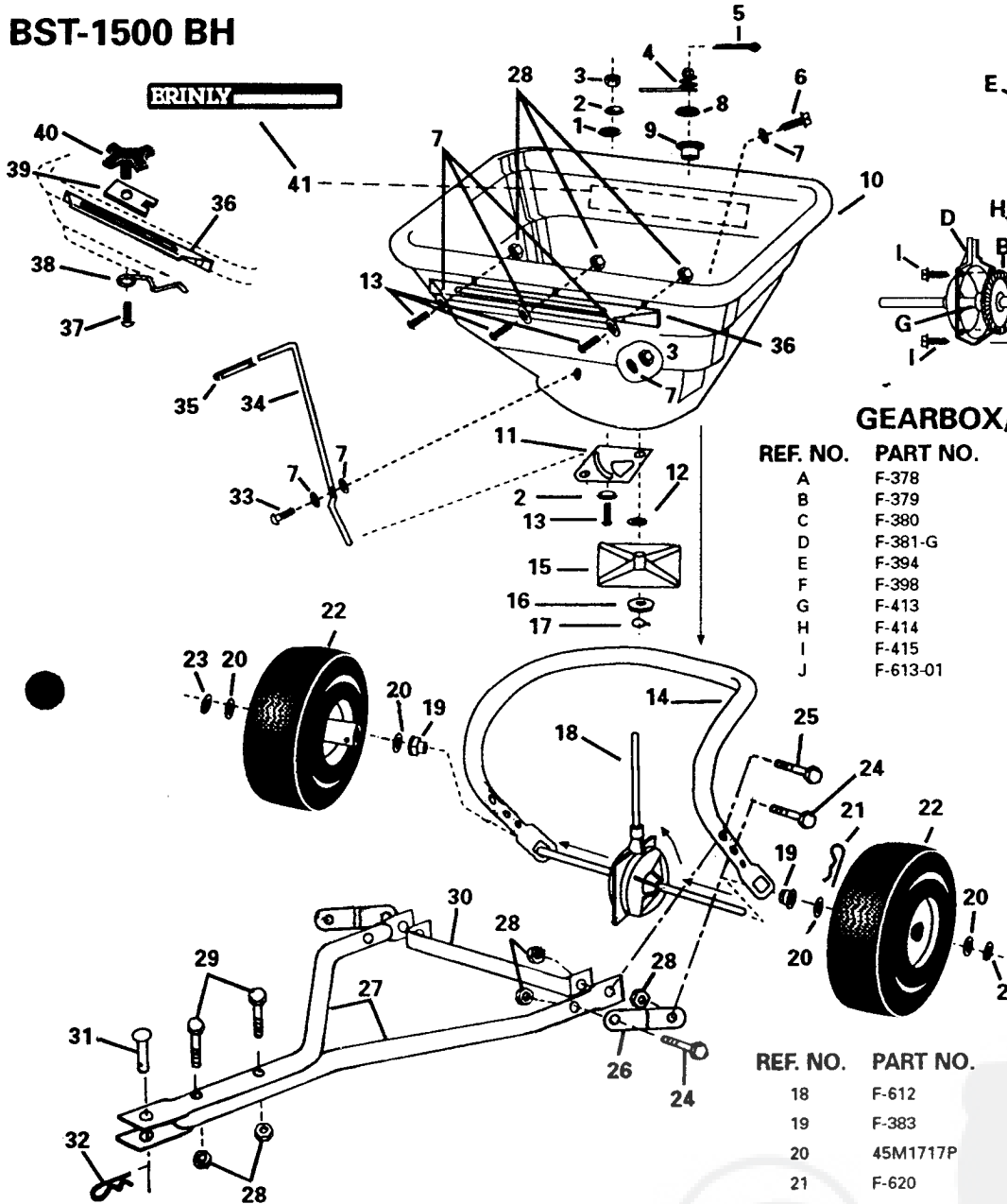
APPLICATION RATE CHART

Fertilizer application rates (as shown on the chart) are affected by humidity and the moisture content of the material (granular and pellet). Therefore, minor setting adjustments may be necessary to compensate for these conditions.

Material Type	Average Recommended Usage	Push Speed	Shutter Setting	Spread Width
SEED				
KY BLUEGRASS	2 lb./1,000 sq. ft.	3 MPH	7 1/2	5 ft.
RYE	4 lb./1,000 sq. ft.	3 MPH	10	8 1/2 ft.
TALL LAWN FESCUE	6 lb./1,000 ft.	3 MPH	10	10 ft.
FERTILIZER				
10-10-10	50 lb./5,000 sq. ft.	3 MPH	9 1/2	16 ft.
10-20-10 WONDER GRO	40 lb./10,000 sq. ft.	3 MPH	9 1/2	16 ft.
10-18-10 GREEN VIEW WINTER GREEN 2 WAY	20 lb./5,000 sq. ft.	3 MPH	5	9 ft.
18-24-6 SCOTT'S STARTER FERTILIZER	20 lb./3,000 sq. ft. 20 lb./5,000 sq. ft.	3 MPH 3 MPH	7 5 1/2	6 ft. 6 ft.
SCOTT'S TURF BUILDER	13 1/4 lb./5,000 sq. ft.	3 MPH	4 1/2	6 ft.
LAWN WEED AND INSECT CONTROL				
WONDER-GRO LAWN WEED KILLER	8 lb./5,000 sq. ft.	3 MPH	6	4 ft.
SCOTT'S LAWN INSECT CONTROL	12 1/2 lb./5,000 sq. ft.	3 MPH	4 1/2	6 ft.

BST-1500 BH

TO ORDER PARTS:
 Brinly-Hardy Co.
 P.O. Box 1116
 Louisville, KY 40201
 (502) 585-3351



GEARBOX/AXLE ASSEMBLY

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
A	F-378	Pinion	1
B	F-379	Gear	1
C	F-380	Pinion Carrier	1
D	F-381-G	Housing Half (Gearbox)	2
E	F-394	Fan Shaft	1
F	F-398	Gearbox Cap	1
G	F-413	Spiral Pin, 5/32" x 1"	1
H	F-414	Spiral Pin, 1/8" x 3/4"	1
I	F-415	Hex Washer Head Screw	4
J	F-613-01	Axle	1

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
18	F-612	Gearbox & Axle Assembly	1
19	F-383	Axle Bearing, 1/2"	2
20	45M1717P	Flat Washer, 1/2"	7
21	F-620	Hairpin Cotter (large)	2
22	F-615	Wheel	2
23	F-621	"E" Ring - Axle 1/2" (small)	2
24	1M0824P	Hex Bolt, 1/4" x 1 1/2"	4
25	1M0828P	Hex Bolt, 1/4" x 1 3/4"	2
26	F-777-10	Brace	2
27	F-776-10	Tow Tube	2
28	B-4785	Nylon Insert Nut, 1/4"	11
29	1M0840P	Hex Bolt, 1/4" x 2 1/2"	2
30	F-786-10	Cross Bar	1
31	B-3861	Hitch Pin	1
32	D-146P	Hair Pin Cotter	1
33	20M0816P	Round Head Screw, 1/4" X 1"	1
34	F-774	Shutter Handle	1
35	B-3372	Vinyl Grip	1
36	F-771	Gage Plate	1
37	10M1012P	Carriage Bolt, 5/16" x 3/4"	1
38	F-847	Flow Control Spring	1
39	F-785	Gage Stop	1
40	F-782	Knob	1
41	F-792	Logo Decal	1
42	L-1547-1 BH	Instructions	1

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
1	F313	Gate "O" Ring	1
2	F575	Nylon Thrust Washer	2
3	B1673P	Hex Lock Nut (Domed) - 1/4"	2
4	F-436	Torsion Spring Agitator	1
5	50M0416P	Cotter Pin, 1/8" D. x 1	1
6	F-395	Hex Head Screw, 1/4" x 3/4"	5
7	45M0909P	Flat Washer, 1/4"	11
8	F-365	"O" Ring, 3/8" (Fan Shaft)	1
9	F-384	Fan Shaft Bearing, 3/8"	1
10	F-691A-1	Hopper	1
11	F-689	Shutter Plate	1
12	F-577	"E" Ring-Fan Bearing 5/8" (large)	1
13	20M0812P	Round Head Screw, 1/4" x 3/4"	4
14	F-775-10	Hopper Support	1
15	F-573	Fan	1
16	F-591	Fan Driver	1
17	F-595	Lock Clip	1