

# **ESTATE MIGHTY SPREADER**

**Model 600A**

**Owner Manual**



**Manufactured by:**

**COUNTRY MANUFACTURING, INC.**

**P.O. Box 104**

**Fredericktown, Ohio 43019**

**Phone: 1-800-335-1880**

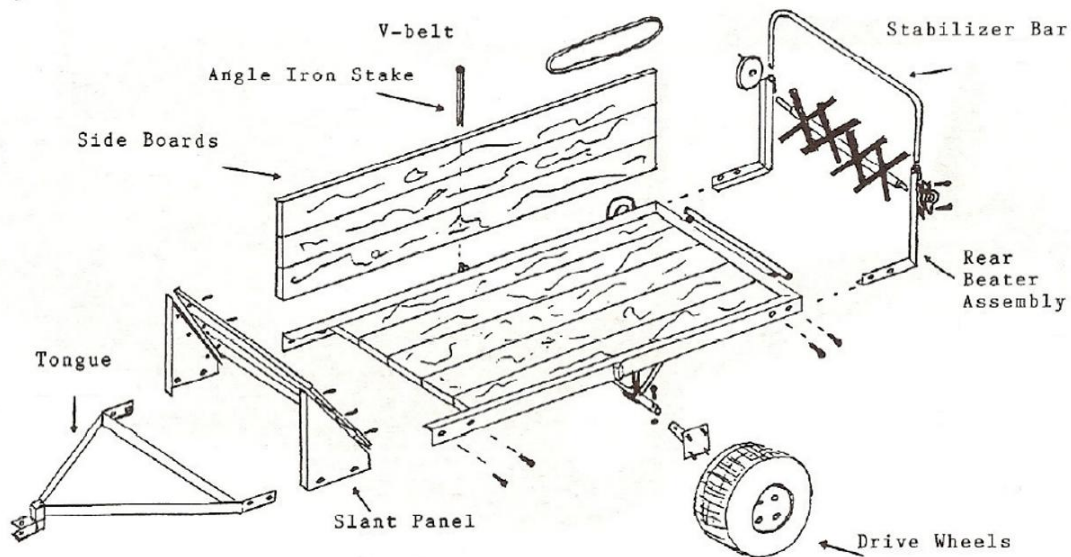
# OWNER MANUAL AND INSTRUCTIONS

## I. Introduction

The Model 600A Estate Mighty Spreader is designed primarily for the horseman, small farmer, or homesteader with a need for spreading manure with a small horsepower tractor. It can be pulled directly into small places, yet has a capacity large enough to minimize the number of loads. Straw, hay or manure of most consistencies can be spread with ease. Strict adherence to the maintenance is necessary to insure long life and continued operation.

**CAUTION: THE SPREADER SHOULD ONLY BE OPERATED WHEN ALL SURROUNDINGS ARE CLEAR OF PEOPLE AND BREAKABLE OBJECTS, TO PREVENT POSSIBLE INJURY OR DAMAGE.**

## II. ASSEMBLY INSTRUCTIONS



### Tools Required:

- a. 1/2 inch wrench (opened or box end)
- b. 7/16 inch wrench (opened or box end)
- c. 3/4 inch wrench (opened end)
- d. hammer
- e. pliers
- f. 3/16" allen wrench
- g. 3/32" allen wrench
- h. grease gun
- i. wood bloc

## Assembly Instructions (cont'd)

1. Install hubs onto axles and insert 1/4 x 1-3/4" bolt and lock nut through hub and axle hole provided.



2. Slide the wheels onto the lug bolts with the valve stem facing outward. Install lug nuts and tighten securely.



3. Attach the front slant panels to the spreader frame using 4 – 5/16" x 1" bolt/nut/washer assemblies. **Hand tighten only.**



4. Assemble the front slant panel boards by bolting the 3 predrilled short boards to the left and right slant panels, using 6 – 1/4" x 1-1/2" carriage bolts and nuts.



5. Mount both the left and right beater supports on the rear of the spreader using 4 – 5/16" x 1" bolt/nut/washer assemblies.



6. Insert beater stabilizer bar into the square tube on each beater support. Make sure tube is flush with the bottom of the square tubes. Slight hammer tapping might be necessary using a wood block between hammer and bar. Insure that the bar is not cocked to preclude binding of beater during operation.



7. Mount 1 Beater support bearing using 2 – 5/16" x 2-1/4" bolt/nut/washer assemblies to the left side beater support.  
**NOTE:** bolt must be inserted into the channel on the beater support., so the threads extend toward the rear of the spreader.



8. Slide short stub of beater into installed beater support bearing. Slide other beater support bearing onto long shaft side of beater and install on the right side, using the same process as the left side. Tighten all bolts securely.



9. Install the 3/16" x 5/8" keyway into the beater shaft as shown. Tap keyway until full seated in slot.



10. Install the beater shaft pulley on to the beater shaft with the set collar facing out. Make sure that the beater shaft pulley is in line with the lower drive pulley. Tighten allen screw.



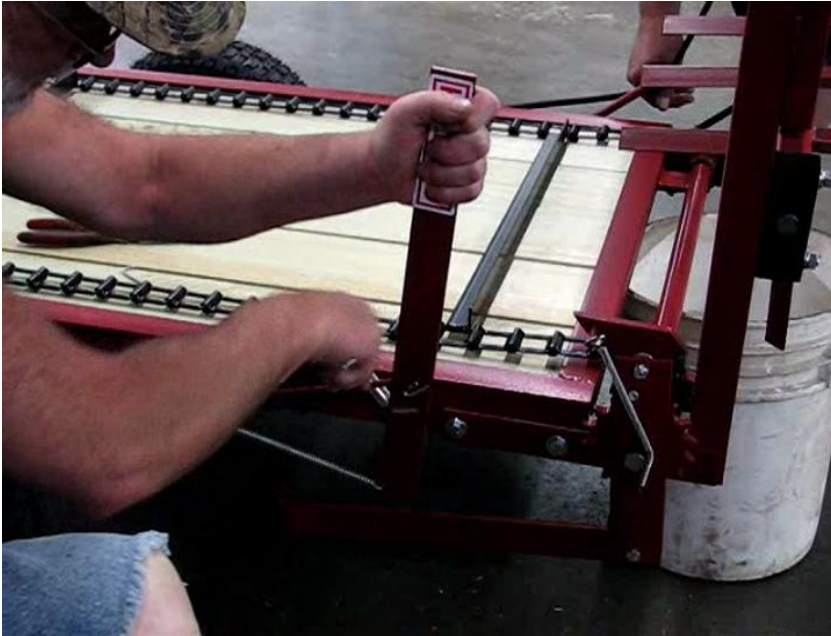
11. Install the v-belt as shown. Make sure the belt is under the belt tightener rod.



12. Connect the spring located at the bottom of the clutch handle, as shown.



13. Loosen bolt on the backside of the clutch handle.



14. Have another person push the belt tightener rod against the v-belt. Pull the clutch handle forward to apply spring tension. Once the clutch handle is vertical, tighten the bolt on the back side of the clutch handle to set your tension.



15. Loosen and slide forward the set collar on the clutch hold rod. Move collar 1/2" away from keyhole slot on the frame. Once set, disengage clutch to check belt tension. (belt tightener rod should release from v-belt)



16. Install all side rail lumber and side support stakes.



17. Use a punch or nail set to dimple the square tubes on the beater supports. This will set the stabilized bar in place and keep it from moving.



18. Adjust the drag chain tension at the front of the spreader, using the two idler sprocket adjusters.



19. Ensure that the drag chain has 2 to 3 inches of sag under the load bed. Periodically check the chain tension, as the chain stretches over time.



20. Remove the rear bolts in the front slat panel assembly to mount the tongue. Place the tongue's rear holes over the slant panels holes, and hand tighten the bolts. **NOTE:** The tongue can be mounted at two different heights. Please determine what works best for your application.



21. Remove the front bolts of the slant panel, and swing the tongue into place. Put the bolts in place and tighten everything with a wrench.



22. Grease the two wheel bearings at the fittings located on the two axle supports. Grease the beater drive pulley bearing located behind the lower 8 inch pulley on the side of the unit.



**WARNING: The axles must be greased on a weekly basis, under regular use. This will prolong the life of the axles and bearings.**

### III. Operating Instructions

The basic operations of the Estate Mighty Spreader is identical to full farm sized spreader. The entire manure load is gradually fed towards the rear beater at a rate compatible with the beaters ability to disperse manure. The rear beater final drive is a v-belt to allow slippage should excessive chunks be encountered; thus preventing the severe damage to more expensive components.

Movement of the drag chain is accomplished in small increments using the right wheel as a driving force to cause a reciprocating motion of the ratchet mechanism. Two drag chain speeds are available. **Please see Section IV for details.**

The left axle wheel force through a combination link chain, spur gear, and pulley arrangement drives the rear beater rotation. The drag chain and rear beater have separate clutch levers, both of which are located at the rear of the spreader.

Detailed Operating Procedures are as follows:

1. Insure that the drag chain tension is such that a small sag (2-3 inches) is apparent underneath the spreader frame. Adjustment is described above in the assembly instructions.
2. Disengage the drag chain clutch by rotating the spring loaded lever (ratchet flipper) on the ratchet gear located at the right rear of the load bed.
3. Disengage the rear beater clutch by pulling the spring loaded handle forward until the 1/4" set collar is through the latch hole located just in front of the clutch handle. The set collar will hold the lever forward until manually released.
4. Load desired material to be spread. **CAUTION:** Avoid loading rocks, metal or other items that could become dangerous flying objects during unloading. Also, string and wire should be avoided to prevent winding on the beater while unloading.

Small loads are recommended until you are familiar with the limitations and capabilities of the spreader. **NOTE:** If sawdust bedding is being used, it may be desirable to place a burlap sack or other suitable material at the rear of the spreader in such a manner as to keep the manure from pouring out the rear of the unit. The bag is easily removed before spreading. Or, a rear door can be installed simply by forming a groove at the rear of the load bed with narrow boards attached vertically. A piece of plywood will slide in and out easily before loading.

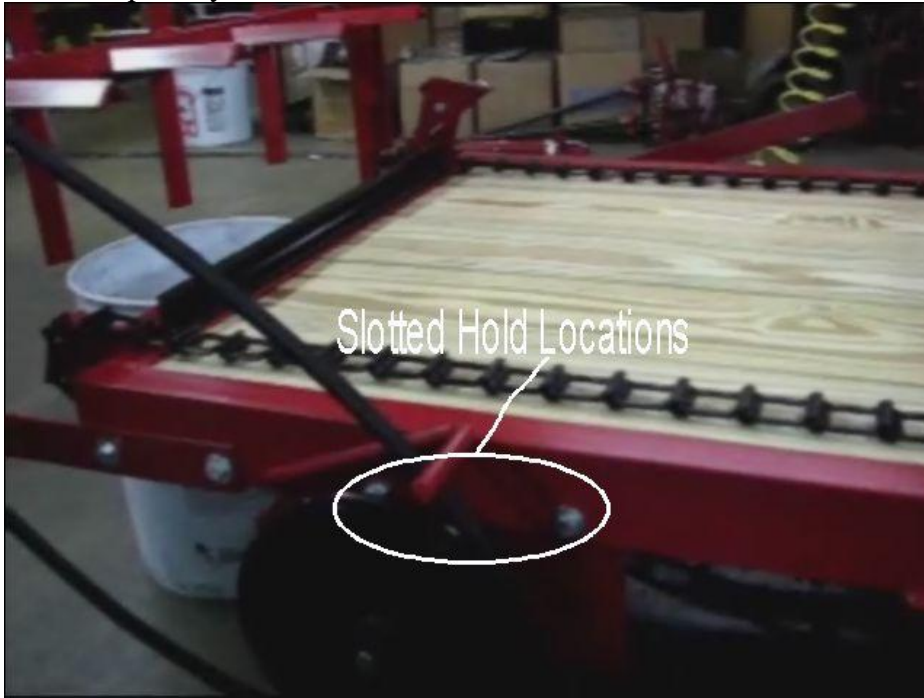
5. Upon reaching the desired location of spreading, engage the two clutches in a reverse manner of Step 3 above.
  
6. The spreader works most efficiently when being pulled at speeds of 3-5 miles per hour (fast walk). If the beater stops rotation during dumping operations, the driver should stop immediately and manually rotate the beater until free. This will prevent the manure from becoming further jammed into the beater. Also when turning corners while spreading, it is better to make left hand turns so the beater speeds and spreading action are maintained.

#### IV. Adjustment points

1. Drag chain adjustments are provided on the front idler sprockets by using a 3/4" wrench. **DO NOT OVERTIGHTEN THE DRAG CHAIN.** Allow 2-3 inches of sag on the chain. See pictures below:



2. Beater Drive Chain – The beater is driven via the left wheel with power being transmitted through a chain, transmission gears, and a v-belt. The chain will eventually stretch. Slotted holes within the transmission provide the tightening capability. See Picture below:



3. The spreader is set to its slowest speed from the factory. To speed the emptying of the spreader, you must move the connector rod up to the next set of holes located below. Only do this if the spreader is not emptying the load fast enough for your application.

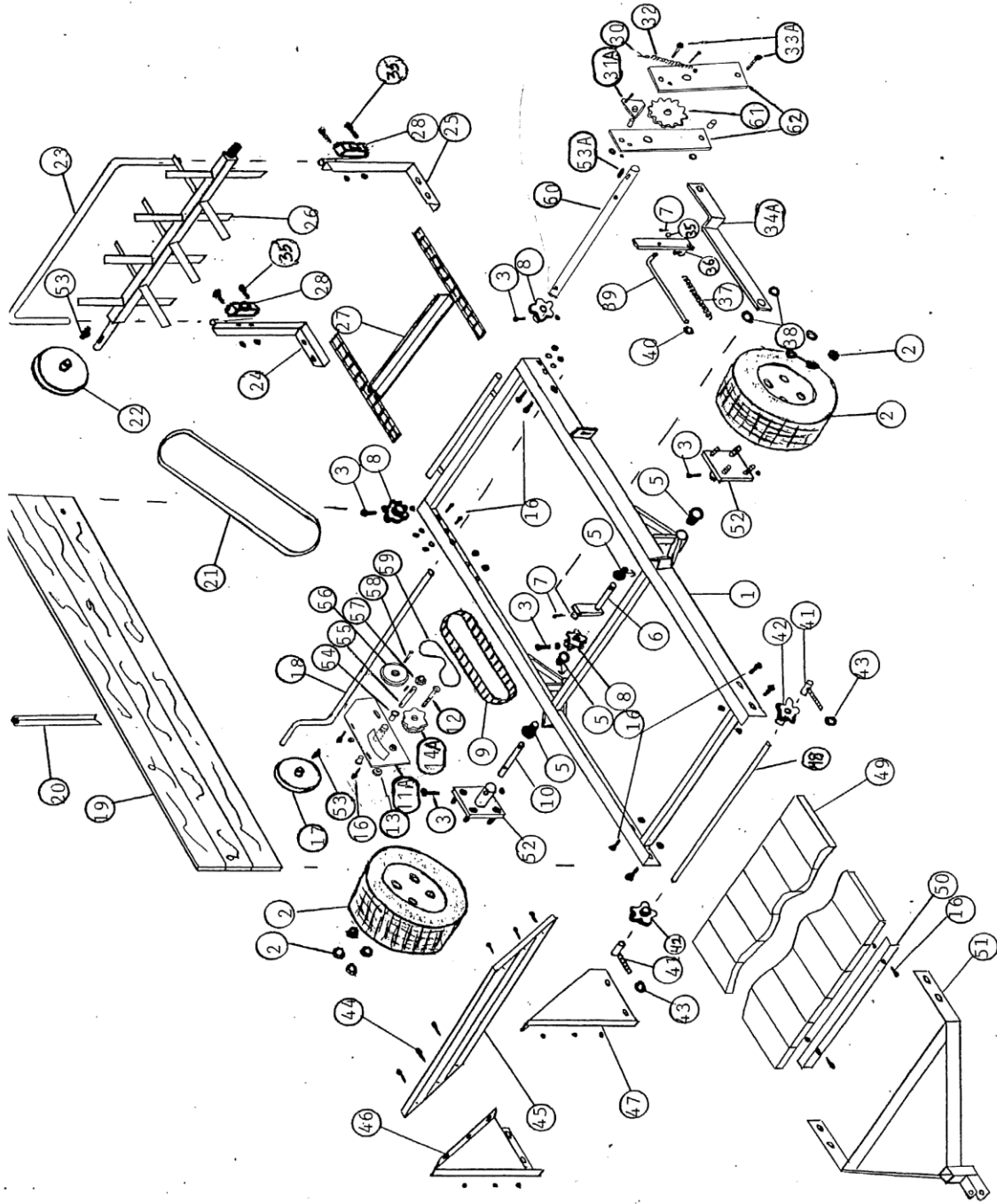


## **V. Maintenance**

1. Before heavy usage, grease thoroughly at the 8” pulley bearing and two wheel-bearing joints. Additionally grease or heavy oil should be regularly applied at all other moving joints.
2. After each usage, clean excessive build up of material in cracks and corners of the unit. This effort will prolong the life of the spreader, helping to prevent corrosion.
3. Periodically tighten all nuts and bolts to eliminate elongation of the holes and potential failure of components.
4. Maintain an obvious sag (2-3 inches) in the drag chain. Too much tension will cause excessive loads on all components.
5. Maintain proper tire inflation pressure according to the marking on the tires.
6. Periodically check v-belt for excessive slack.
7. See Section IV for various adjustment points.

<b>PARTS LIST - MODEL 600A SPREADER</b>			
<b>Item No.</b>	<b>Description</b>	<b>Part No.</b>	<b>Qty / Unit</b>
1	Main Support Frame	6001	1
2	16.00 x 6.50 - 8 Wheel / Tire Assembly	6002	2
3	1/4" x 1-3/4" Grade 5 Bolt / Nut	--	5
5	3/4" I.D. Sleeve bearing	6003	4
6	Cam Shaft	6004	1
7	1/8" Cotter Pin	--	2
8	Drive Sprocket	6005	3
9	Drive Chain (#55 Link Chain)	6006	1
10	3/4" Beater Drive Axle	6007	1
11A	Transmission Housing	6008A	1
12	5/8" x 3-1/2" Grade 5 Bolt	--	1
13	5/8" Nut	--	1
14A	Combination Sprocket Assembly	6009A	1
16	5/16" x 1" Grade 5 Bolt / Nut / Washer Assembly	--	12
17	Drive Pulley (8" x 5/8" Bore)	6011	1
18	Belt Tightener Rod	6012	1
19	1" X 6" Pressure Treated Side Board	6013	6
20	4L690 V-Belt (69")	6014	1
22	Beater Shaft Pulley (8" x 3/4")	6016	1
23	Beater Stabilizer Bar	6017	1
24	Left Beater Support	6018	1
25	Right Beater Support	6019	1
26	Beater Assembly	6020	1
27	Drag Chain Assembly (#55 Link Chain)	6021	1
28	Beater Support Bearing	6022	2
30	3/32" Cotter Pin	--	2
31A	Ratchet Flipper	6024A	1
32	Ratchet Spring	6025	1
33A	Connector Rod Bolt / Nut Assembly	6026A	2
34A	Connector Rod	6027A	1
35	5/16" x 2-1/4" Bolt / Nut / Washer Assembly	--	4
36	Beater Clutch Handle	6028	1
37	Beater Clutch Spring	6029	1
38	5/8" Washer	--	2
39	Beater Clutch Hold Rod	6030	1
40	1/4" Set Collar	6031	1
41	Idler Sprocket Adjuster	6032	2
42	Idler Sprocket	6033	2
43	1/2" Hex Nut	--	2
44	1/4" x 1-1/2" Carriage Bolt / Nut / Washer Assembly	--	6
45	Front Slant Panel Boards (1" x 6")	6034	3
46	Left Slant Panel Support	6035	1
47	Right Slant Panel Support	6036	1
48	Idler Shaft	6037	1
49	1" x 6" Pressure Treated Floor Board	6038	5
50	Floor Board Hold Bracket	6039	1
51	Tongue Assembly	6040	1
52	Wheel Hub Assembly (Includes Lug Bolts / Nuts)	6041	2
53	3/16" x 5/8" Keyway Insert	6042	3
53A	3/16" x 1/2" Keyway Insert	6042A	1
54	5/8" I.D. Bronze Bushing	6043	2
55	Pulley Drive Shaft	6044	1
56	3" Idler Pulley	6045	1
57	12 Tooth Sprocket	6046	1
58	3/8" 1-1/2" Carriage Bolt / Nut	6047	1
59	#35 Transmission Chain	6048	1
60	Drag Chain Drive Shaft	6049	1
61	Ratchet Sprocket	6050	1
62	Ratchet Drive Plates	6051	2

EXPLODED VIEW MODEL #600A



## **WARRANTY POLICY**

Country Manufacturing, Inc., will, at its option, replace or repair, without charge to the original purchaser any part or parts manufactured by it and found upon examination, to be DEFECTIVE IN MATERIAL AND/OR WORKMANSHIP if received for such examination within 90 days from date of original purchase.

Damage resulting from accident, abuse or neglect are conditions under which warranty cannot be claimed. Nor will warranty apply to damage resulting from failure to follow the Manufacturer's instruction for operation and maintenance nor from the improper selection of a particular application.

All transportation charges on, and damages and loss incurred in connection with the transportation of, parts submitted for replacement or repair under this WARRANTY shall be borne by the purchaser.

No other warranties, guarantees, or liabilities, either implied or expressed, will be the responsibility of Country Manufacturing, Inc.