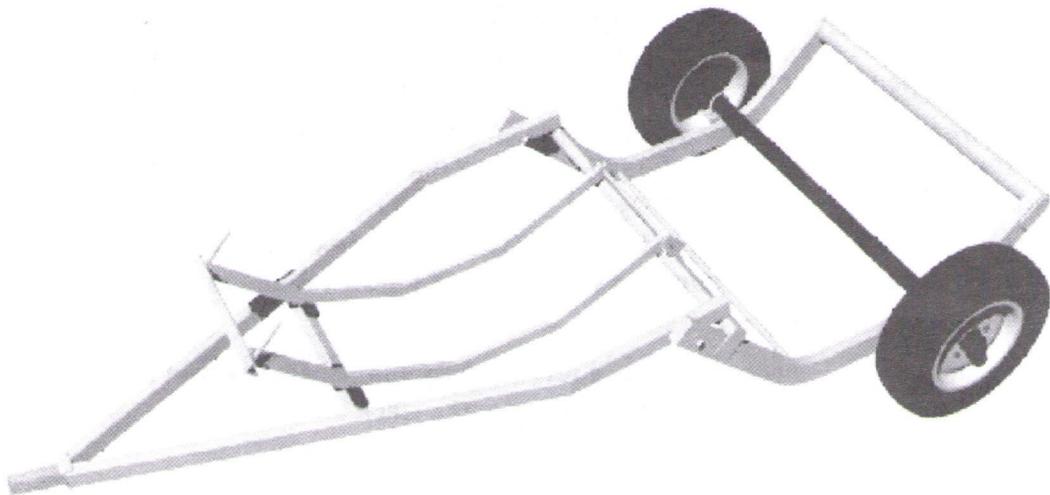


TUMBLEBUG

PARTS MANUAL

& OPERATION MANUAL

Model 1810



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To the Owner/Operator/Dealer

All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all its safety equipment properly attached to minimize the chance of accidents.

BEFORE YOU START!!

**Read the safety messages on the implement as shown in your manual.
Observe the rules of safety and common sense!**



IMPORTANT SAFETY INFORMATION!

Working with unfamiliar equipment can lead to careless injuries. Read this manual, and the manual for your tractor, before assembly or operating, to acquaint yourself with the machines. It is the implement owner's responsibility, if this machine is used by any person other than yourself, is loaned or rented, to make certain that the operator, prior to operating:

1. Reads and understands the operator's manuals.
2. Is instructed in safe and proper use.

The use of this equipment is subject to certain hazards which cannot be protected against by mechanical means or product design. All operators of this equipment must read and understand this entire manual, paying particular attention to safety and operating instructions, prior to using. If there is something in this manual you do not understand, ask your supervisor, or your dealer, to explain it to you. Most accidents occur because of neglect or carelessness. Keep all helpers and bystanders twenty-five feet (25') from an operating implement. Only properly trained people should operate this machine. It is recommended the tractor be equipped with a Rollover Protection System (ROPS) and a seat belt that is used. Always engage parking or place transmission in "Park" and shut off engine before dismounting tractor. Never leave equipment unattended with the tractor running.



THIS SYMBOL MEANS

- ATTENTION!
- BECOME ALERT!
- YOUR SAFETY IS INVOLVED!

THIS SAFETY ALERT SYMBOL IDENTIFIES IMPORTANT SAFETY WARNING MESSAGES. CAREFULLY READ EACH WARNING MESSAGE THAT FOLLOWS. FAILURE TO UNDERSTAND AND OBEY A SAFETY WARNING, OR RECOGNIZE A SAFETY HAZARD, COULD RESULT IN AN INJURY OR DEATH TO YOU OR OTHERS AROUND YOU. THE OPERATOR IS ULTIMATELY RESPONSIBLE FOR THE SAFETY OF HIMSELF, AS WELL AS OTHERS, IN THE OPERATING AREA OF THE TRACTOR AND ATTACHED EQUIPMENT.



EQUIPMENT SAFETY GUIDELINES

Safety of the operator is one of the main concerns in designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or for you, follow them. The term implement refers to the particular implement this operators manual is written for.

In order to provide a better view, certain photographs or illustrations in this manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition.

Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.

To prevent injury or death, use a tractor equipped with a Roll-Over Protective System (ROPS). Do not paint over, remove or deface any safety signs or warning signs on your equipment. Observe all safety signs and practice the instruction on them.

Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - **DON'T TRY IT.**

Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.

In addition to the design and configuration of this implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer also to Safety Messages and Operation instruction in each of the appropriate sections of the Tractor and Implement Manuals.

Pay close attention to the Safety Signs affixed to the Tractor and the Implement. Replace any CAUTION, WARNING, DANGER or instruction safety sign that is not readable or is missing. Location of such safety signs is indicated in this booklet.

Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.

Review the safety instructions with all users annually.

This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm machinery and trained in this equipment's operations.

Do not allow persons to operate, assemble or service this implement until they have read this manual and have developed a thorough understanding of how to operate, assemble and service this implement.



SAFETY SIGNS

Keep safety signs clean and legible at all times.

Replace safety signs that are missing or have become illegible.

Replaced parts that displayed a safety sign should also display the current sign.

Safety signs are available from your Distributor or Dealer Parts Department or the factory.



PERSONAL PROTECTION

Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintaining, repairing, removal, or moving the implement. Do not allow long hair, loose fitting clothing or jewelry to be around moving parts.



PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS! Tractors with or without attachments can often be noisy enough to cause permanent, partial hearing loss. We recommend that you wear hearing protection on a full-time basis if the noise in the Operator's position exceeds 80db. Noise over 85db on a long-term basis can cause severe hearing loss. Noise over 90db adjacent to the Operator over a long-term basis may cause permanent, total hearing loss. **NOTE: Hearing loss from loud noise** (from tractors, chain saws, radios, and other such sources close to the ear) is cumulative over a lifetime without hope of natural recovery.

Ensure implement is properly mounted, adjusted and in good operating condition.

Please remember it is important that you read and heed the safety signs on the rake, and the safety rules set forth. Clean or replace all safety signs if they cannot be clearly read and understood. They are there for your safety as well as the safety of others. The safe use of this machine is strictly up to you, the operator.

All things with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all of its safety equipment properly attached, to minimize the chance of accidents. Study this manual to make sure you have all safety equipment attached.



Safety Instructions

Hydraulic oil under high pressure can penetrate the skin. Make sure that all operating and service personnel know that in the event hydraulic fluid penetrates the skin, it must be surgically removed within a few hours by a doctor familiar with this form of injury, or gangrene may result.

If a safety shield or guard is removed for any reason, it must be replaced before the machine is again operated.

Before servicing the machine, engage the parking brake or place the transmission in "Park", shut off the tractor and remove the key. Relieve all hydraulic pressure in lines.

When the use of hand tools is required to perform any part of assembly, installation, adjustment, maintaining, repairing, removal, or moving the implement, be sure the tools used are designed and recommended by the tool manufacturer for that specific task.

Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintaining, repairing, removal, or moving the rake. Do not allow long hair, loose fitting clothing or jewelry to be around moving parts.

Always use two people or a mechanical lift device to handle heavy, unwieldy components during assembly, installation, removal, or moving the implement or components.

Never place any part of your body where it would be in danger if movement should occur during assembly, installation, operation, maintaining, repairing, removal, or moving the implement.

Never place yourself between the tractor and implement while implement is in operation.

Do not walk or work under a raised implement or a raised part of an implement unless it is securely blocked or held in position. Do not depend on the tractor hydraulic system to hold the implement in place.

Never leave implement or a raised part of an implement in the partially raised position. Always lower implement to the ground when storing.

Always install the transport lock device before transporting or storing implement in the transport position.

A heavy load can cause instability of the tractor. Use extreme care during travel. Slow down on turns and watch out for bumps.

Be especially cautious on hill sides. Always operate tractor at a safe speed for the conditions experienced.

Do not allow riders on the implement or tractor at any time. There is no safe place for any riders.

Before you operate the implement, check over all pins, bolts and connections to be sure all are securely in place.

Replace any damaged or worn parts immediately.

Do not allow anyone who is not familiar with the safety rules and operation instructions to use this rake.

Never allow children to operate or be around this implement.

Use safety chain when towing implement.

Do not operate implement on steep hillsides.

Watch out for low overhead electrical wires and limbs when operating or transporting the implement. Check clearance of doorways when entering a building.

Install transport lock device before transporting or storing the rake.



NEVER INSERT A FINGER IN HOLE TO CHECK ALIGNMENT.

Always use care when operating implement.



ALWAYS OBEY SAFETY WARNINGS!



TRANSPORT SAFETY

Comply with state and local laws governing highway safety and movement of farm machinery on public roads.

The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway lighting and marking requirements.

When driving the tractor and equipment on the road or highway under 20 mph (32 kph) at night or during the day, use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem. Except when prohibited by law.

Watch out for low overhead electrical wires and limbs when operating or transporting the implement. Check clearance of doorways when entering a building.

Always be sure the implement is in the proper raised position for transport.

Reduce speed when transporting mounted implements to avoid bouncing and momentary loss of steering control.

Plan your route to avoid heavy traffic.

Always shut off hydraulic transport lock valves before transporting.

Do not drink and drive!

Watch for traffic when operating near or crossing roadways.

Turn curves or go up or down hills only at a low speed and at a gradual steering angle. Make certain that at least 20% of the tractor's weight is on the front wheels to maintain safe steering. Slow down on rough or uneven surfaces, and loose gravel.

Use extreme care and maintain minimum ground speed when transporting on hillside, over rough ground and when operating close to ditches or fences. Be careful when turning sharp corners.

Never allow riders on either tractor or implement. Falling off can kill. Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.

Do not exceed 20 mph (32 kph). Reduce speed on rough roads and surfaces.

ASSEMBLY INSTRUCTIONS

1. **TONGUE - CRADLE**
 - A. Assemble tongue and cradle sections with two (2) 5/8" x 6 bolts (insert from outside) and two (2) Nylon Locknuts.
 - B. Connect wiring (from cradle to tongue) with Quick Splice connectors.
2. **LOADING ARM**
 - A. Place loading arm between mounting angles with the points facing up when resting on the bumper pads on the tongue brace.
 - B. Insert the 9/16" x 22" pivot pin through the mounting angle bracket, the loading arm sleeve and the opposite side mounting angle bracket.
 - C. Insert the 1/8" hairpins in the pivot pin ends.
3. **BALL COUPLER** (For use with 2" ball only)
 - A. Bolt coupler to the tongue using two (2) 1/2" x 3 bolts and Nylon Locknuts.
 - B. Adjust latch part of the coupler so that it fastens down tightly against 2" ball.
Note: Latch assembly is adjusted by tightening lock nut underneath coupler.

OPERATING INSTRUCTIONS

1. Use 2" Ball ...connect transporter to towing vehicle.
2. Make Brake Connection ... 2-way plugs.
3. Back up to big bale ... flick switch (this energizes the brake magnets) continue backing until the fork falls over and the cradle is against the bale ... then pull forward until the bale is in the cradle and the fork comes out ... flick switch (release brakes) and go.
CAUTION!! Make sure the tongue is completely straightened out before releasing the brakes to make sure the jolt of falling doesn't damage the unit.

To Unload:

Flick switch ...back up slowly a few inches until the bale rolls out of the cradle ...**pull forward until tongue is straightened out** ...flick switch and go.

SERVICE INSTRUCTIONS

NO BRAKES!!!

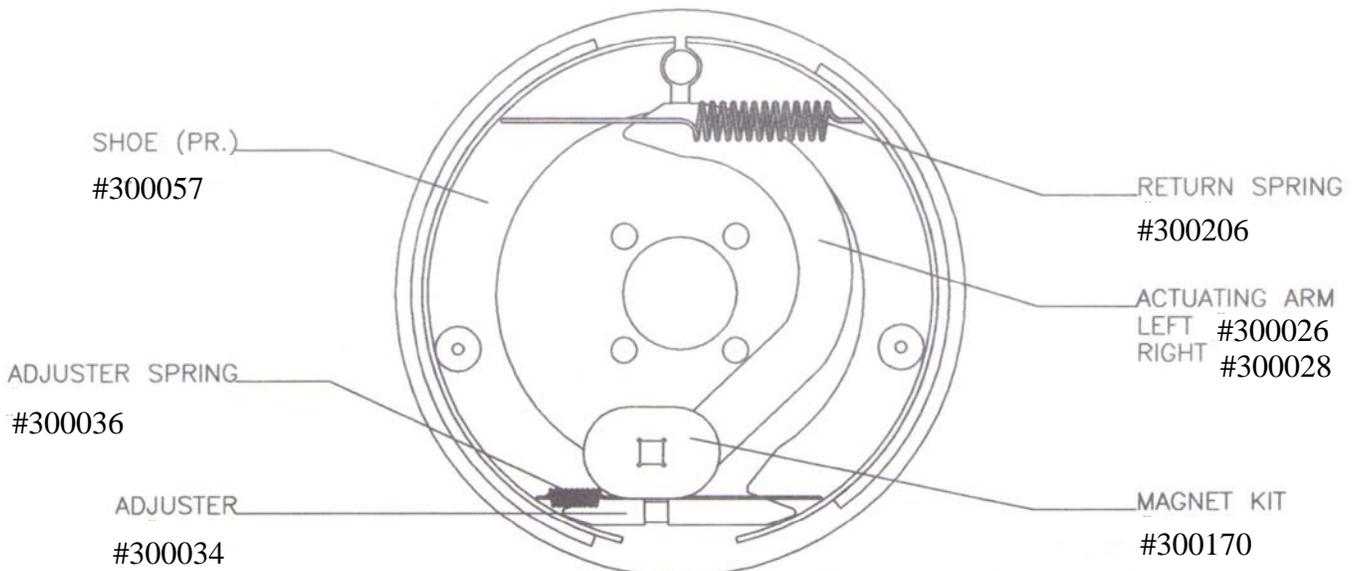
1. Check in-line fuse.
2. Check ground wire on towing vehicle.
3. Check for loose wire or bad connection on TUMBLEBUG.
4. Energize Magnets ... listen for clicking sound if working.
5. Adjust brakes (Same as pickup).
6. Check amperage (at axle connection) with a multi-meter. Should be 4-6 amps.

The new brakes on this unit require a break-in period as any other mechanical brake. When the first bale is loaded flick the switch off and on a few times as you move forward. This will burnish the linings and seat the linings to the drum.

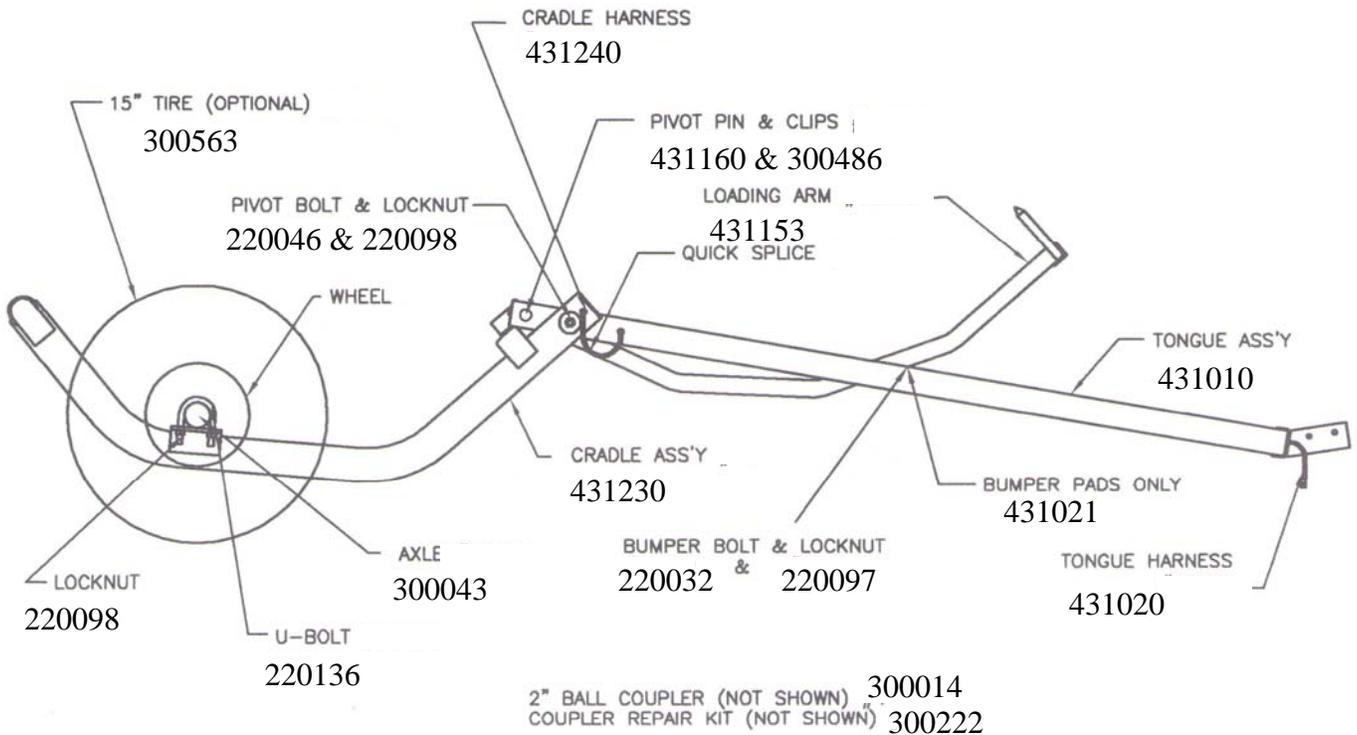
10" HUB GROUP (STANDARD 545)



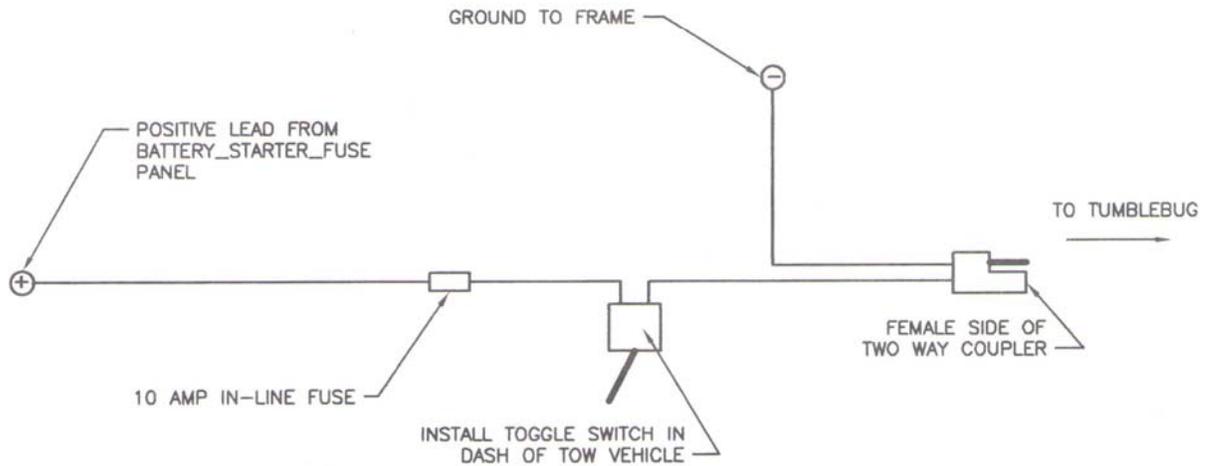
BRAKE ASSEMBLY 10" X 2 1/4" ELECTRIC



COMPLETE BRAKE ASSEMBLY: LEFT SIDE #300051
 RIGHT SIDE #300053



WIRING INSTRUCTIONS FOR TOWING VEHICLE

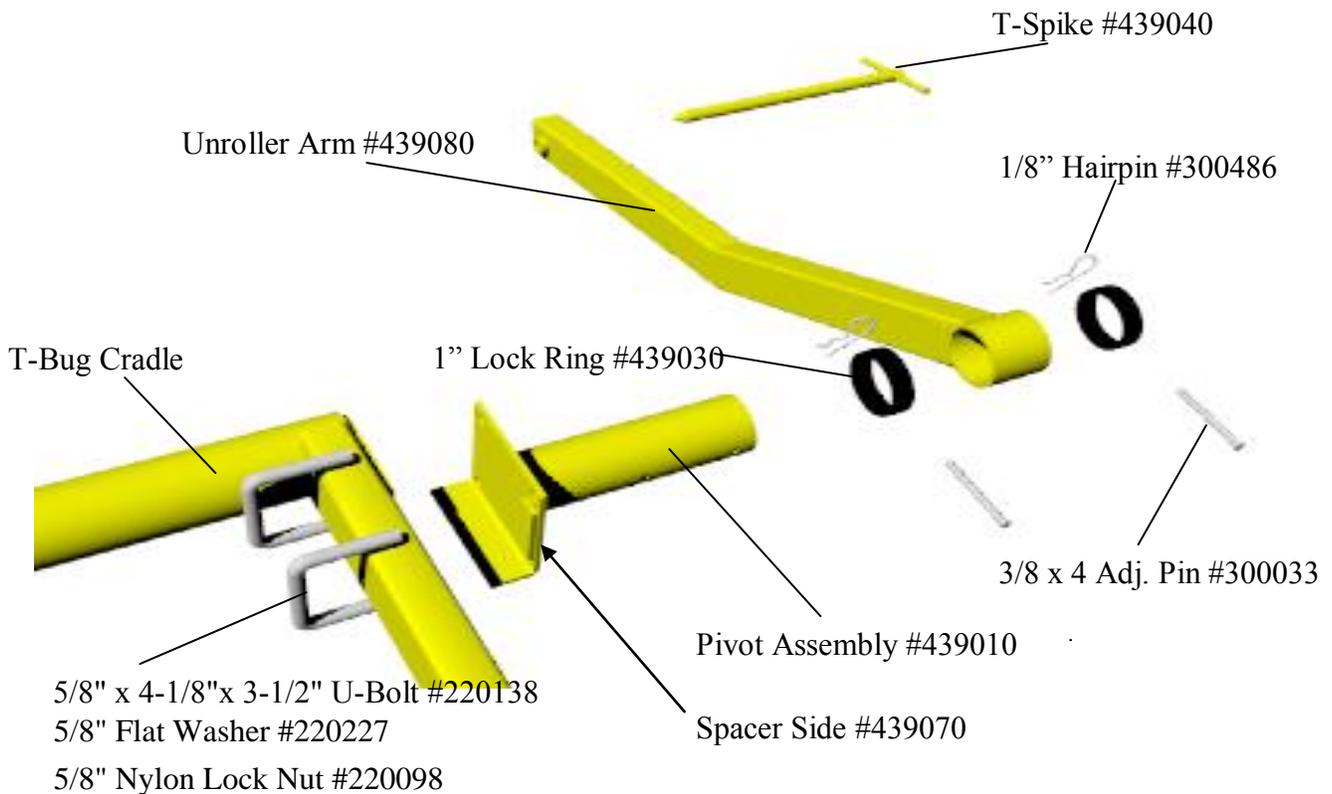


NOTE: WIRING INTO VEHICLE LIGHT SYSTEM CAN CAUSE AMPERAGE DROP AT MAGNETS WHICH WILL CAUSE THE BRAKES TO BE LESS EFFICIENT.

1850 UNROLLER

ASSEMBLY

1. Install Pivot Assembly to side rail of Cradle using two (2) U-Bolts, and Locknuts. (Put the side with the 1/4" spacer on the lower side of the cradle.)
2. Slide one (1) 1" Lock Ring on Pivot Assembly and position using 3/8" x 4" Adjustable Clevis Pin and 1/8" Hairpin.
3. Slide Unroller Arm on Pivot Assembly.
4. Repeat Step 2.
5. Repeat Steps 1 thru 4 on the other side of the Tumblebug.



OPERATION

1. After unloading the hay bale, slip the Unroller Arms onto the Pivot Assemblies.
2. Swing the arms over to the center of the bale.
3. Push the T-Spikes through the arms and into the center of the bale on both sides.
4. Cut the twine and drive forward to unroll.