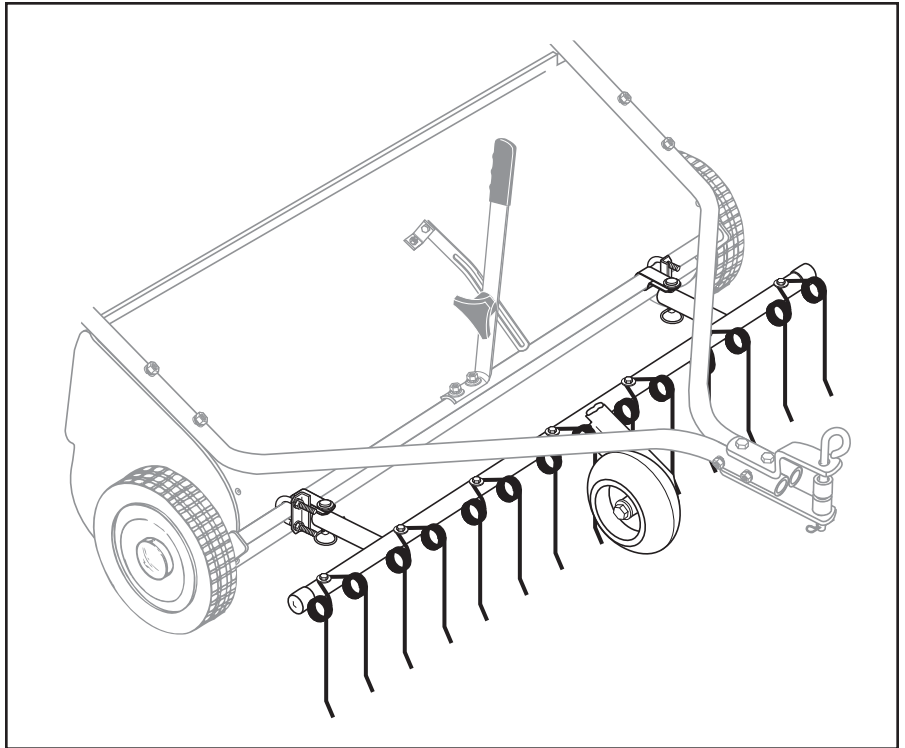




## OWNERS MANUAL

Model No.  
45-03431

**CAUTION:**  
Read Rules for  
Safe Operation  
and Instructions  
Carefully



## DETHATCHER FOR SWEEPERS


- Safety
- Assembly
- Operation
- Maintenance
- Parts

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# SAFETY RULES

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 power equipment.

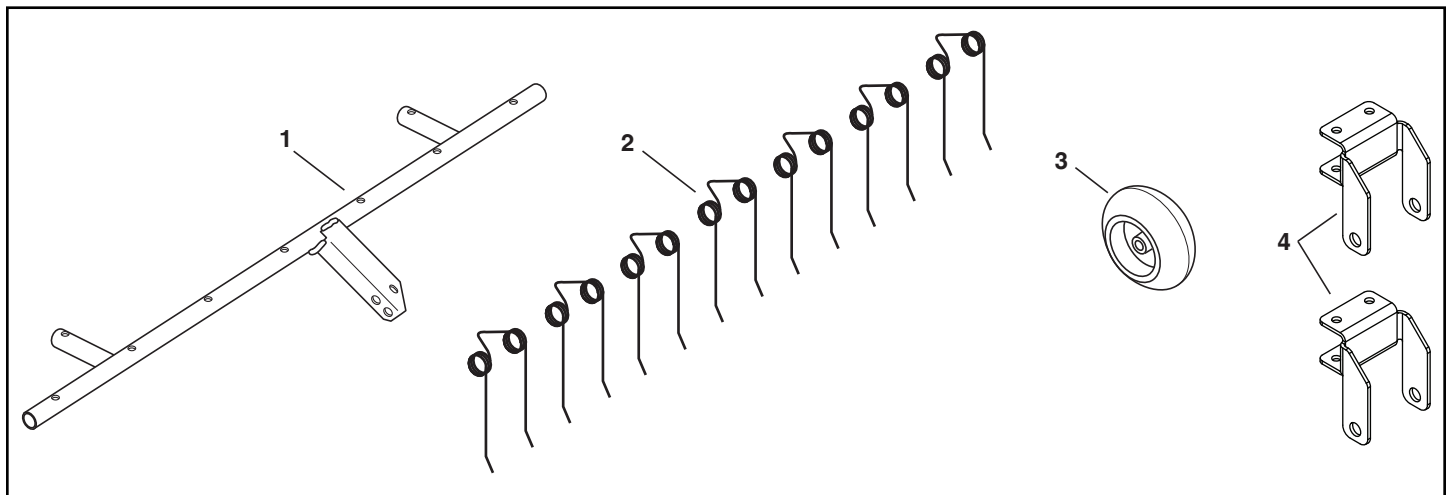
- Read this owners manual carefully for operating and service instructions before attempting to assemble or operate the dethatcher. Be thoroughly familiar with the proper use of the dethatcher.
- Read the vehicle owners manual and vehicle safety rules, and know how to operate the vehicle before using the dethatcher.
- Read the lawnsweeper owners manual and safety rules, and know how to operate the lawnsweeper before using the dethatcher.
- Never allow children to operate the tractor or dethatcher attachment, and do not allow adults to operate without proper instructions.
- This dethatcher attachment has sharp tine points. Always handle with care and wear substantial foot wear when operating this dethatcher.
- Do not allow anyone to ride or sit on the dethatcher, lawnsweeper or towing vehicle.
- Keep the area of operation clear of all persons, particularly small children, and also pets.
- Always begin with the transmission in first (low) gear and engine at low speed, and gradually increase speed as conditions permit.
- Vehicle braking and stability may be affected with the attachment of this equipment. Be aware of changing conditions on slopes. Refer to safety rules in the vehicle owner's manual concerning safe operation on slopes. **STAY OFF OF STEEP SLOPES.**
- Always operate up and down a slope, never across the face of a slope
- This equipment should be operated at reduced speed on rough terrain, along creeks and ditches and on hillsides, to prevent tipping and loss of control. Do not drive too close to a creek or a ditch.
- Follow the maintenance instructions as outlined in this owners manual.



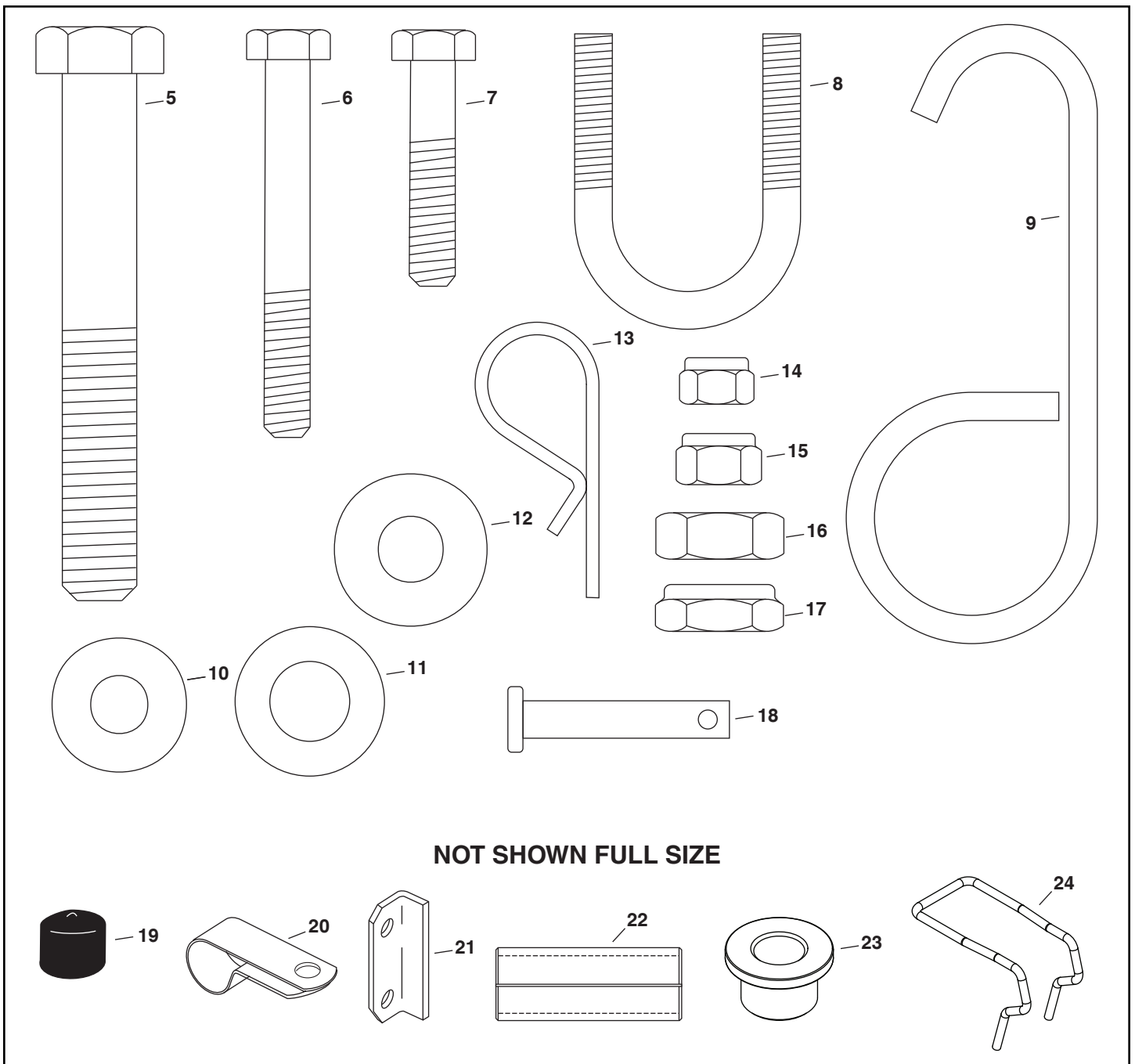
LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS — ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED.

## CARTON CONTENTS

REF.	PART NO.	QTY.	DESCRIPTION	REF.	PART NO.	QTY.	DESCRIPTION
1	64650	1	Spring Mount Frame Assem.	3	48098	1	Gauge Wheel
2	46761	7	Spring Tine	4	26624	2	Mount Bracket



# HARDWARE PACKAGE - FULL SIZE



REF.	PART NO.	QTY.	DESCRIPTION	REF.	PART NO.	QTY.	DESCRIPTION
5	46526	3	Hex Bolt, 1/2-13 x 3-1/2"	15	47810	9	Nylock Nut, 5/16-18
6	44292	2	Hex Bolt, 5/16-18 x 2-1/2"	16	43019	1	Jam Nut, Plain 1/2-13
7	43085	7	Hex Bolt, 5/16-18 x 1-1/2"	17	48115	3	Jam Nut, Nylock 1/2-13
8	48813	2	U-Bolt, 1/4-20	18	48812	2	Clevis Pin, 5/16" x 1-3/8"
9	48811	1	Hook, Transport	19	44481	2	Vinyl Cap
10	43081	2	Washer, 5/16"	20	48917	2	Clamp
11	R19171616	2	Washer, 1/2"	21	25054	2	Bracket, U-Bolt Clamp
12	43070	14	Washer, 3/8"	22	46499	2	Spacer, .8 x 1 x 2.55"
13	43055	2	Hair Cotter Pin, 3/32"	23	741-0248	4	Flange Bearing
14	47189	4	Nylock Nut, 1/4-20	24	42212	1	SMARTSweep Hook

## ASSEMBLY (ALL MODELS)

1. Assemble seven spring tines to the top of the frame tube. Use a 5/16" x 1-1/2" hex bolt, two 3/8" flat washers and a 5/16" nylock nut for each spring tine. Place one 3/8" flat washer on top of the frame tube and the second 3/8" flat washer on top of the spring tine. See figure 1.

**NOTE:** On sweepers smaller than 42", use only five spring tines.

2. Assemble a vinyl cap onto each end of the frame tube. See figure 1.

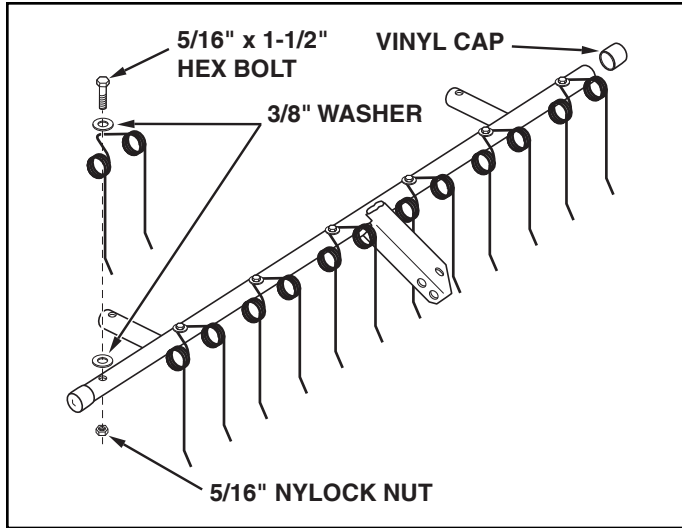


FIGURE 1

3. Assemble a 1/2" washer, the wheel, another 1/2" washer and a 1/2" plain jam nut onto the 1/2" x 3-1/2" hex bolt. See figure 2.
4. Insert the bolt through the welded bracket and assemble a 1/2" nylock jam nut onto the bolt. Adjust nuts so that there is no end play in the wheel and then tighten securely against the welded bracket. Make sure the wheel still turns freely. See figure 2.

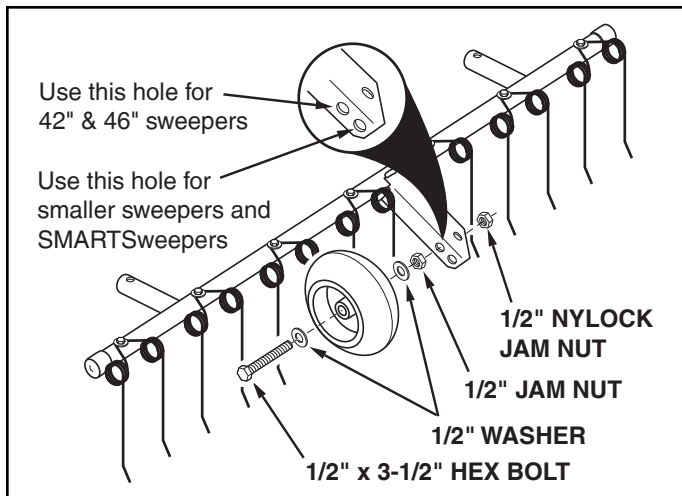


FIGURE 2

## ASSEMBLY (NON-SMARTSWEEP MODELS)

1. Assemble a conduit clamp onto each end of the sweeper height adjustment tube so that the straight part of the clamp is on top of the tube. See figure 3.
2. Remove the hitch brackets and the bolts, if present, from the ends of the sweeper's hitch tubes. Slide the transport hook onto the L.H. hitch tube as shown in figure 3.
3. Reassemble the hitch brackets and bolts to the hitch tubes. Refer to your sweeper owner's manual.

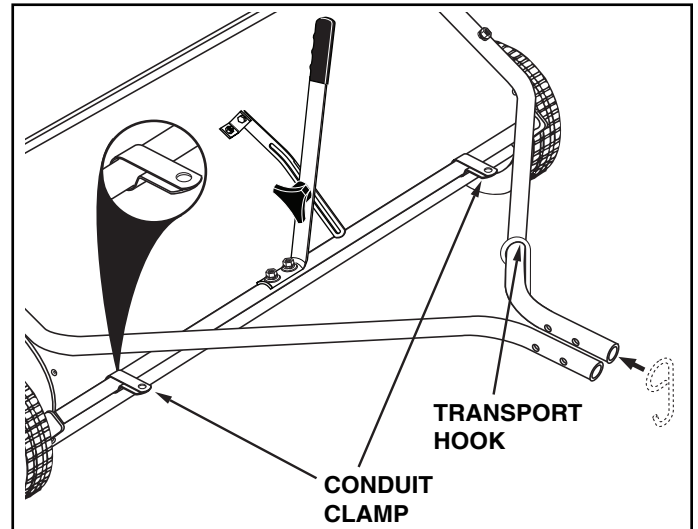


FIGURE 3

4. Connect the sweeper to the tractor. Set the sweeper height adjustment handle to about the middle of its adjustment range.
5. Place the dethatcher in front of the sweeper housing, underneath the hitch tubes.
6. Connect the dethatcher to the conduit clamp using two 5/16" x 1-3/8" clevis pins, 5/16" washers and 3/32" hair cotter pins. See figure 4.

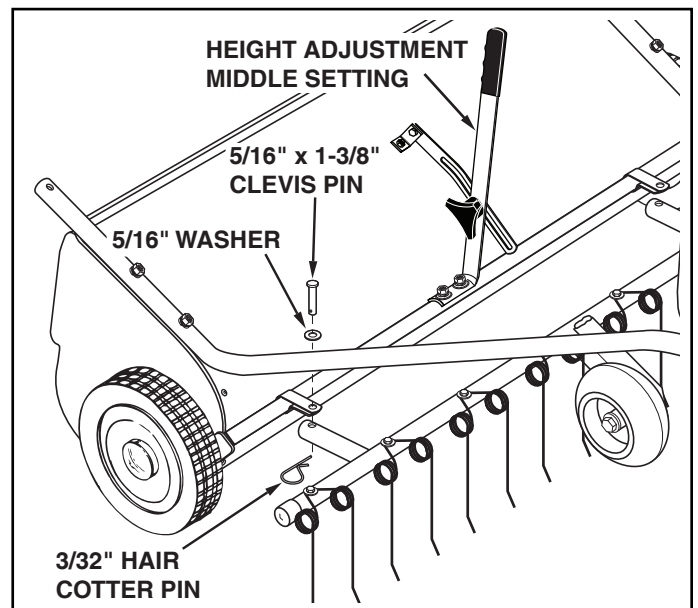


FIGURE 4

If you have a 30" sweeper, skip steps 7 through 9.

7. Make sure the sweeper height adjustment handle is still set to about the middle of its adjustment range.
8. Center the dethatcher with the sweeper.
9. Assemble the keeper brackets (bend to the inside) to the sweeper's hitch tube, outside of the conduit clamps. Use a u-bolt and two 1/4" nylock nuts per bracket. Position the keeper brackets against the sides of the conduit clamps, approximately perpendicular to the ground. Tighten the nylock nuts without bending the keeper brackets. See figure 5.

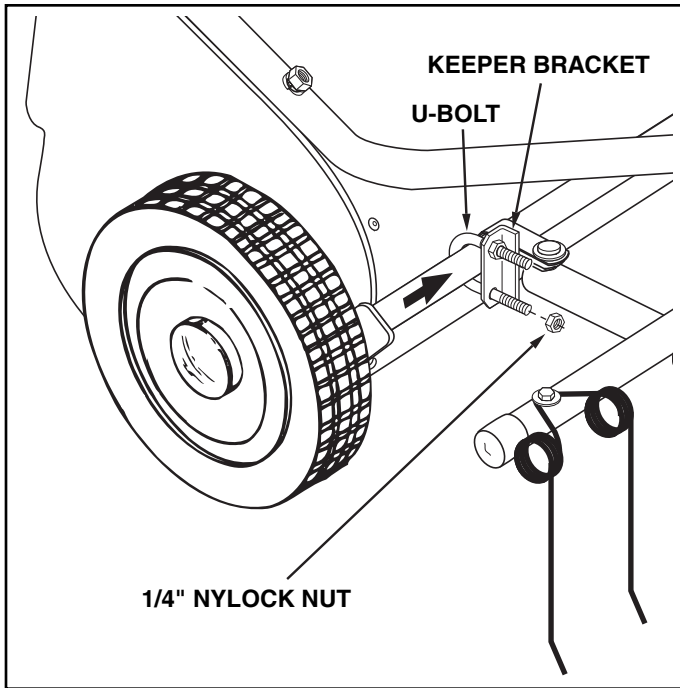


FIGURE 5

10. Lift the front of the dethatcher and secure it in transport position using the transport hook. See figure 6.

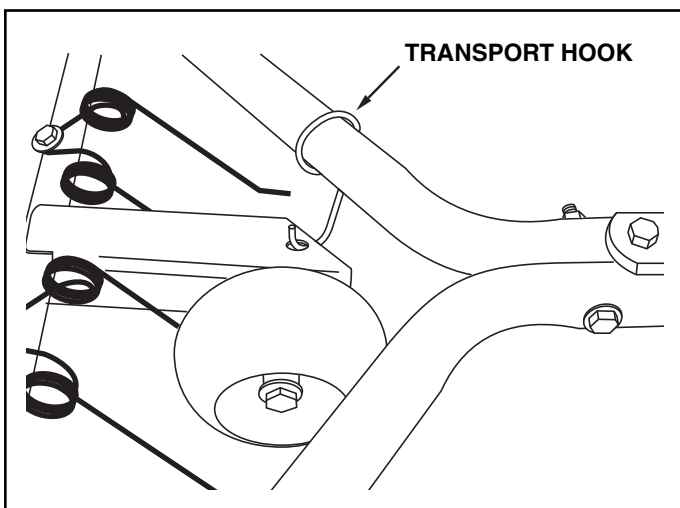


FIGURE 6

## ASSEMBLY (SMARTSWEEP MODELS)

**NOTE:** The dethatcher attaches to the SMARTSweep offset tube. This prevents you from offsetting the sweeper.

1. Assemble the four bearings to the two .8 x 1 x 2.55" spacers and then slide each through a clamp. See figure 7.

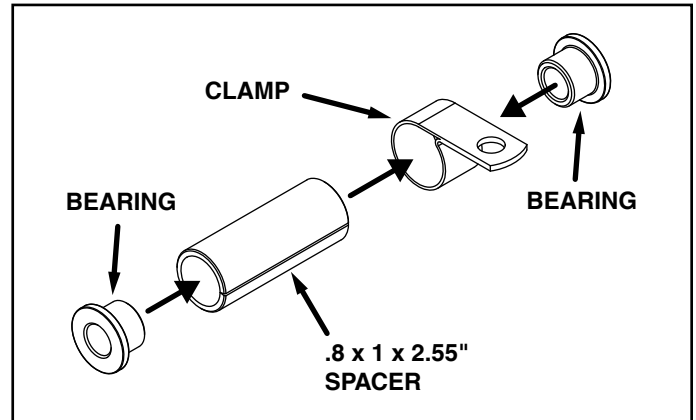


FIGURE 7

2. Attach each of the bearing, spacer, and clamp assemblies to a mount bracket using a 1/2 x 3-1/2" hex bolt and 1/2" nylock jam nut. See figure 8.

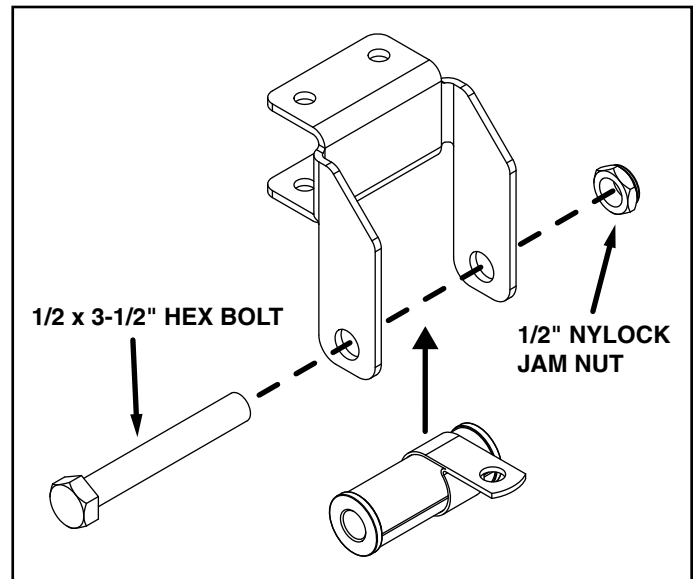


FIGURE 8

3. Fasten each clamp to the spring mount frame assembly using one 5/16 x 1-3/8" clevis pin, 5/16" washer, and 3/32" hair cotter pin.

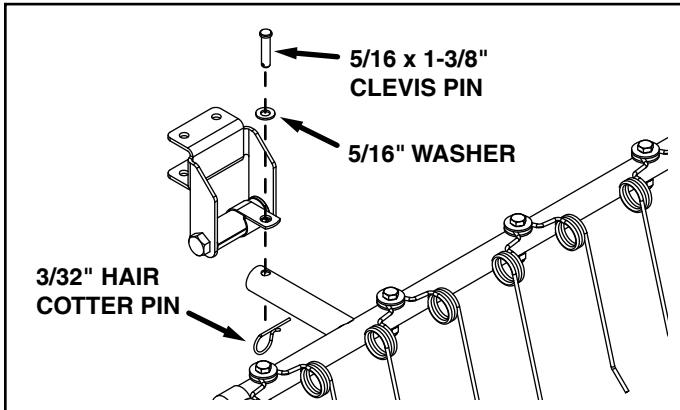


FIGURE 9

4. Secure the two mount brackets to the inner holes of the drawbar offset tube of the sweeper using two 5/16 x 2-1/2" hex bolts and 5/16" nylock nuts. See figure 10.

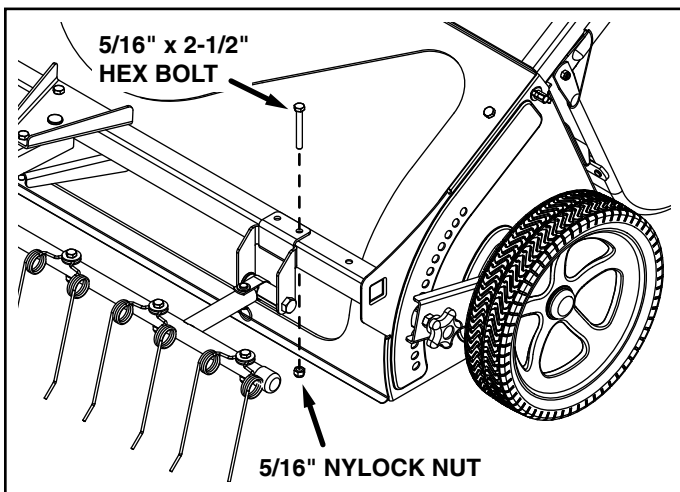


FIGURE 10

5. Slide the SMARTSweep hook onto the sweeper hitch. Lift up the front of the dethatcher and slide it into the two bottom hooks to secure it in the transport position.

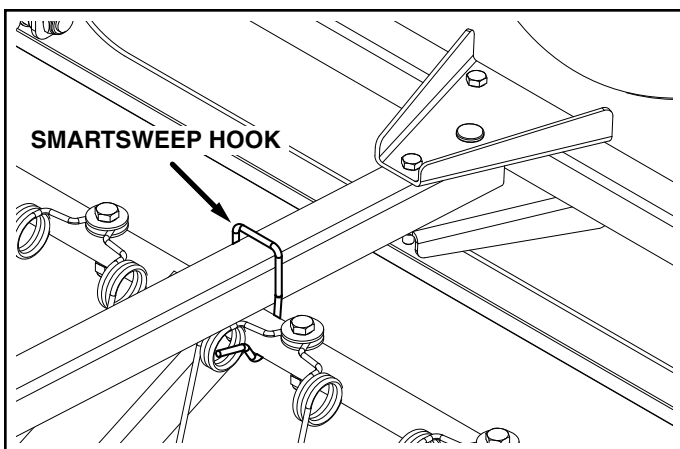


FIGURE 10

## OPERATION

### RAISING/LOWERING THE DETHATCHER

1. To raise the dethatcher for transport, lift up on the front of the dethatcher and secure it with the transport or SMARTSweep hook. Lower the dethatcher by releasing the hook.

### SETTING THE OPERATING POSITION

1. The operating height of the dethatcher is controlled by the gauge wheel at the front of the dethatcher and is not adjustable. The correct wheel position was determined in figure 2 when you assembled the wheel.
2. Set the sweeper to the desired operating height. (The best height is usually with the brushes set about 1/2" down into the grass.) Refer to your sweeper owner's manual for sweeper.

### USING THE DETHATCHER

Regular removal of thatch is critical to the maintenance of a healthy lawn. Thatch is layer of stems, clippings, runners, roots and leaves that have not decayed. Excessive thatch prevents air, water and fertilizer from reaching the roots. The dethatcher will effectively dislodge excessive thatch from your lawn.

1. Start with the tractor in low gear. Vary the forward speed to determine the best speed for maximum dethatcher performance.
2. Use a crisscross pattern to achieve the most even removal of thatch.
3. On slopes, always operate in an up and down direction only.
4. Avoid extremely sharp turns.
5. Avoid towing the dethatcher across sudden steep dips in the ground while dethatching. Loss of ground contact with the gauge wheel could cause the dethatcher to be pulled back underneath the sweeper.

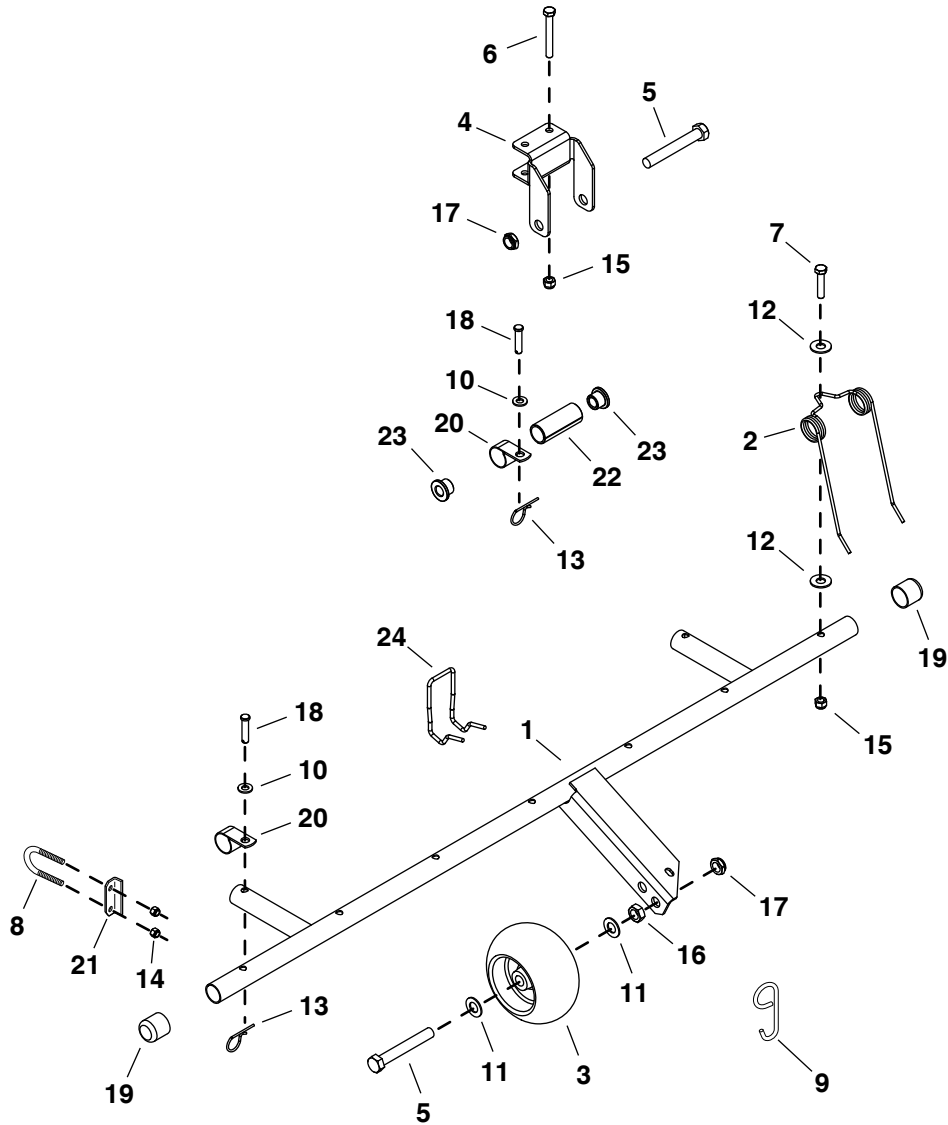
## MAINTENANCE

1. Before each use, check all nuts and bolts for tightness.
2. Clean after each use to help prevent rust.
3. If rust appears on the spring tines, sand lightly and coat with enamel paint.

## STORAGE

1. Always store in a dry area, and coat exposed metal with light oil when not in use.

# REPAIR PARTS FOR MODEL 45-03431 DETHATCHER FOR SWEEPERS



REF.	PART NO.	QTY.	DESCRIPTION	REF.	PART NO.	QTY.	DESCRIPTION
1	64650	1	Spring Mount Frame Assem.	14	47189	4	Nylock Nut, 1/4-20
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12	43070	14	Washer, 3/8"		42025	1	Owner's Manual
13	43055	2	Hair Cotter Pin, 3/32"				

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**REPAIR PARTS**

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