



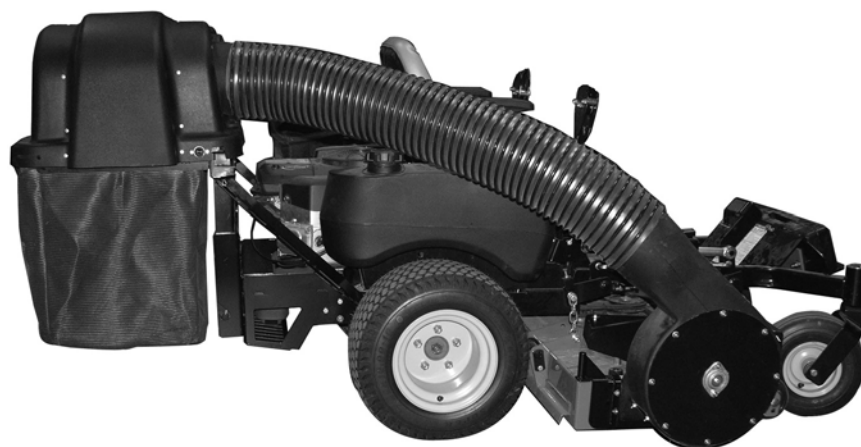
# HD Series Bagger

## Owner/Operator & Parts Manual

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### Model

891003 – HD Series Three-Bag Bagger



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# INTRODUCTION

## The Manual

Before operation of unit, carefully and completely read this Manual and the unit's Owner/Operator Manual. The contents will provide you with an understanding of safety instructions and controls during normal operation and maintenance.

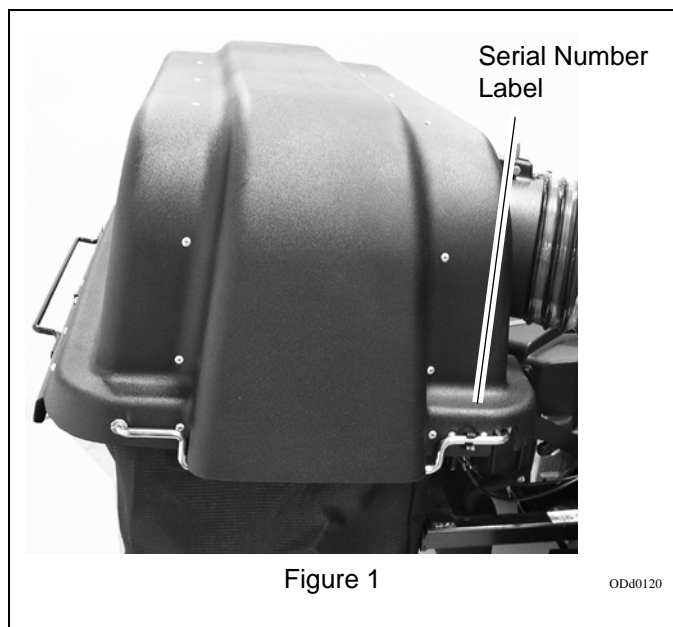
All reference to left, right, front, or rear are given from operator sitting in operation position and facing the direction of forward travel.

## Model and Serial Numbers

Transfer model & serial number label from product registration here.

When ordering replacement parts or making service inquiries, know the Model and Serial Numbers of your unit.

Numbers are located on the product registration form in the unit literature package. They are printed on a serial number label, located on the frame of your unit.



- Record Unit Model and Serial numbers here.

## Product Registration

The Ariens or Gravely dealer must register the product at the time of purchase. Registering the product will help the company process warranty claims or contact you with the latest service information. All claims meeting requirements during the limited warranty period will be honored, whether or not the product registration card is returned. Keep a proof of purchase if you do not register your unit.

**Customer Note:** If the dealer does not register your product, please fill out, sign, and return the product registration card to Ariens or register the product at our web site, [www.ariens.com](http://www.ariens.com).

## Unauthorized Replacement Parts

Use only Ariens or Gravely replacement parts. The replacement of any part on this unit with anything other than an Ariens or a Gravely authorized replacement part may adversely affect the performance, durability, and safety of this unit and may void the warranty. Ariens disclaims liability for any claims or damages, whether warranty, property damage, personal injury or death arising out of the use of unauthorized replacement parts.

## Delivery

**Customer Note:** If you have purchased this product without complete assembly and instruction by your retailer, it is your responsibility to:

- Read and understand all assembly instructions in this manual. If you do not understand or have difficulty following the instructions, contact your nearest Dealer for assistance.

**NOTE:** To locate your nearest Ariens or Gravely Dealer, go to [www.ariens.com](http://www.ariens.com) or [www.gravely.com](http://www.gravely.com) on the internet.



**WARNING:** Improper assembly or adjustments can cause serious injury.

## Before attempting to operate your unit:

1. Make sure all assembly has been properly completed.
2. Understand all Safety Precautions provided in the manuals.

3. Review control functions and operation of the unit.  
Do not operate the unit unless all controls function as described in this manual.
4. Review recommended lubrication, maintenance and adjustments.
5. Review Limited Warranty Policy.
6. Fill out a product registration card and return the card to the Ariens Company or go to [www.ariens.com](http://www.ariens.com) or [www.gravely.com](http://www.gravely.com).

## Disclaimer

Ariens reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser.

The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your unit.

# SAFETY

## Safety Alerts



Look for these symbols to point out important safety precautions. They mean:

**Attention!**



**Personal Safety Is Involved!**

**Become Alert!**

**Obey The Message!**

The safety alert symbols above and signal words below are used on decals and in this manual.

Read and understand all safety messages.



**DANGER: IMMINENTLY HAZARDOUS SITUATION!** If not avoided, WILL RESULT in death or serious injury.



**WARNING: POTENTIALLY HAZARDOUS SITUATION!** If not avoided, COULD RESULT in death or serious injury.



**CAUTION: POTENTIALLY HAZARDOUS SITUATION!** If not avoided, MAY RESULT in minor or moderate injury. It may also be used to alert against unsafe practices.

## Notations

**NOTE:** General reference information for proper operation and maintenance practices.

**IMPORTANT:** Specific procedures or information required to prevent damage to unit or attachment.

## Practices and Laws

Practice usual and customary safe working precautions, for the benefit of yourself and others. Understand and follow all safety messages. Be alert to unsafe conditions and the possibility of minor, moderate, or serious injury or death. Learn applicable rules and laws in your area. Always follow the practices set forth in this manual.

## Required Operator Training

Original purchaser of this unit was instructed by the seller on safe and proper operation. If unit is to be used by someone other than original purchaser; loaned, rented or sold, ALWAYS provide this manual and any needed safety training before operation.

## Safety Decals and Locations

ALWAYS replace missing or damaged Safety Decals. Refer to figure below for Safety Decal locations.

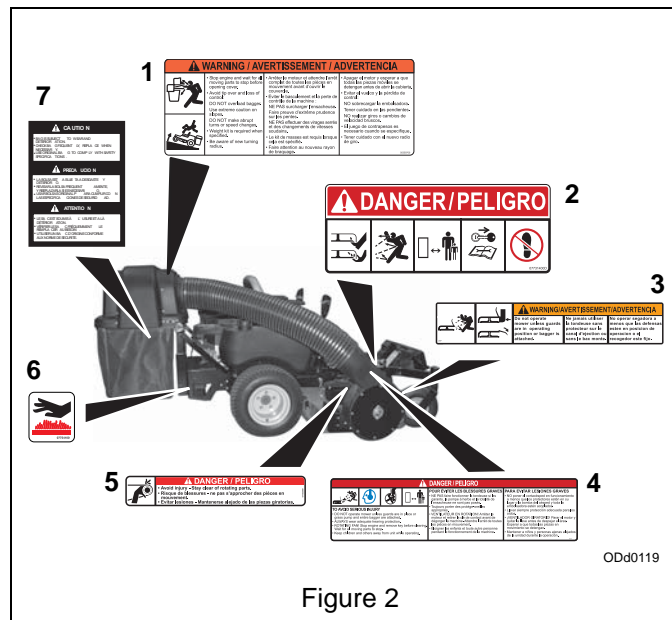


Figure 2

### 1. WARNING!



Stop engine and wait for all moving parts to stop before opening cover.



Avoid tip over and loss of control:

DO NOT overload bagger.

Use extreme caution on slopes.

DO NOT make abrupt turns or speed changes.

Weight kit is required when using bagger.

Be aware of new turning radius.

## 2. DANGER ROTATING PARTS



OL3030

Always keep feet and hands away from rotating parts.



OL0910

Never direct discharge towards persons or property that may be injured or damaged by thrown objects.



OL4140

Keep people away from unit while operating.



OL4010

Shut off engine, remove key, read manual before you adjust or repair unit.



OL4420

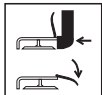
**NO STEP!** Always keep feet away from rotating parts.

## 3. KEEP GUARDS IN PLACE



OL4430

Do not operate mower unless guards are in operating position or bagger is attached.



OL3320

## 4. DANGER!

To Avoid Serious Injury



OL4840

**DO NOT** operate mower unless guards are in place or grass pump and entire bagger are attached.



OL4690

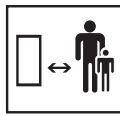
**ALWAYS** wear adequate hearing protection.



OL0900

**ROTATING FAN!** Stop engine and remove key before clearing.

Wait for all moving parts to stop.



OL4140

Keep children and others away from unit while operating.

## 5. DANGER ROTATING PARTS



Avoid Injury – Stay clear of rotating parts.

## 6. DANGER! HOT SURFACES



**DO NOT TOUCH** parts which are hot from operation. Always allow parts to cool.

## 7. CAUTION!

- Bag is subject to wear and deterioration.
- Check bag frequently, replace when necessary.
- Use original bag to comply with safety specifications.

Do not operate on slopes over 10°.

**Installing the blower assembly on your mower requires the removal of the discharge chute and belt guard. Retain discharge chute hardware, belt guard, and belt guard hardware in a safe location and reinstall whenever operating unit without the blower assembly. DO NOT operate mower unless guards are in place or blower assembly and entire bagger are attached.**

**NEVER** operate bagger if the unit's safety interlock system is not working properly.

Always be aware of maximum sweep of bagger when turning. Always allow adequate clearance between bagger, personnel and other objects when turning.

As grass catcher fills, be alert to changing unit stability and control.

**Always install counterweights before operating unit with bagger attached. Always remove counterweights when bagger is removed from the unit.**

Read, understand, and follow all safety practices in Owner/Operator Manual before beginning assembly. Failure to follow instructions could result in personal injury and/or damage to unit.

**ALWAYS** remove key and/or wire from spark plug before assembly. Unintentional engine start up can cause death or serious injury.

Complete a walk around inspection of unit and work area to understand:

- Work area
- Your unit
- All safety decals

Determine which attachments are needed and can be used safely.

Inspect unit before each use for: missing or damaged decals and shields, correctly operating safety interlock system, and deterioration of grass bagger. Replace or repair as needed.

ALWAYS check overhead and side clearances carefully before operation. ALWAYS be aware of traffic when operating along streets or curbs.

Keep children and people away.

Keep children out of work area and under watchful care of a responsible adult.

Keep area of operation clear of all toys, pets, and debris. Thrown objects can cause injury.

Check for weak spots on docks, ramps or floors. Avoid uneven work areas and rough terrain. Stay alert for hidden hazards or traffic.

DO NOT operate near drop-offs, ditches, or embankments. Unit can suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.

Data indicates that operators, age 60 and above, are involved in a larger percentage of riding mower related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.

Read the entire Owner/Operator manual and other training material. If the operator or the mechanic cannot read the manual, it is the owner's responsibility to explain it to them. Only the user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.

Only trained adults may operate or service unit. Training includes actual operation.

Local regulations may restrict the age of the operator.

NEVER allow children to operate or play on or near unit. Be alert and shut off unit if children enter area.

NEVER operate unit after or during the use of medication, drugs or alcohol. Safe operation requires your complete and unimpaired attention at all times.

DO NOT wear loose clothing or jewelry and tie back hair that may get caught in rotating parts.

Wear adequate outer garments.

NEVER wear open sandals or canvas shoes during operation. Wear adequate safety gear, protective gloves and footwear.

Wear proper footwear to improve footing on slippery surfaces.

Always wear safety goggles or safety glasses with side shields when operating mower.

Moving parts can cut or amputate fingers or a hand. Wrap blade(s) or wear gloves to service. On multiblade mowers, rotation of one blade will cause all blades to rotate.

NEVER place your hands or any part of your body or clothing inside or near any moving part while unit is running.

ALWAYS keep hands and feet away from all rotating parts during operation. Rotating parts can cut off body parts.

ALWAYS keep body and hands away from pin holes or nozzles which eject hydraulic fluid under pressure.

DO NOT touch parts which are hot. Allow parts to cool.

ALWAYS keep hands and feet away from all pinch points.

Fumes from the engine exhaust can cause death or serious injury. DO NOT run engine in an enclosed area. Always provide good ventilation.

Read, understand, and follow all instructions in the manual and on the machine before starting.

Understand:

- How to operate all controls
- The functions of all controls
- How to STOP in an emergency
- Braking and steering characteristics
- Turning radius and clearances

Keep safety devices or guards in place and functioning properly. NEVER modify or remove safety devices.

**Do not operate without either entire bagger or the discharge chute in place.**

Stop engine before removing grass catcher or unclogging chute.

Ensure Safety Interlock System is functioning properly. DO NOT operate unit if safety interlock is damaged or disabled.

Start and operate unit only when seated in operator's position. Steering control levers must be in neutral, PTO disengaged and parking brake set when starting engine.

Use care when approaching blind corners, shrubs, trees or other objects that may obscure vision.

Dust, smoke, fog, etc. can reduce vision and cause an accident. Mow only in daylight or good artificial light.

Avoid slippery surfaces. Always be sure of your footing.

DO NOT mow on wet grass. Reduced traction could cause sliding and effect the machine's stability.

Watch for traffic when operating near or crossing roadways.

Never carry passengers.

DO NOT try to stabilize the machine by putting your foot on the ground.

Never direct discharge towards persons or property that may be injured or damaged by thrown objects. Use extreme caution on gravel surfaces.

Always stand clear of the discharge area.

ALWAYS disengage PTO, stop unit and engine, remove key, engage parking brake and allow moving parts to stop before leaving operator's position.

Never engage PTO while raising attachment or when attachment is in raised position.

DO NOT operate at too fast a rate. DO NOT change engine governor settings or over-speed engine. Slow down before turning.

DO NOT operate in reverse unless absolutely necessary. ALWAYS look down and behind before and while backing.

Stop and inspect equipment if you strike an object or if there is an unusual vibration. Repair, if necessary, before restarting. Never make adjustments or repairs with the engine running.

Mower blades are sharp and can cut you. Wrap the blade(s) or wear gloves, and use extra caution when servicing them. NEVER weld or straighten mower blades. Rotation of one blade may cause rotation of the other blades.

Take all possible precautions when leaving unit unattended. Shut off engine. Remove wire from spark plug and secure it away from spark plug.

ALWAYS remove key to prevent unauthorized use.

Know the weight of loads. Limit loads to those you can safely control and the unit can safely handle.

Disengage PTO when attachment is not in use. ALWAYS turn off power to attachment when travelling, crossing driveways, etc.

Mow up and down slopes, not across them.

Keep all movements on the slope *slow* and *gradual*. Do not make sudden changes in speed or direction.

Avoid starting or stopping on the slope. If tires lose traction, disengage the blades and proceed slowly *straight* down the slope.

If you cannot back up a slope or you feel uneasy on it, do not mow it.

DO NOT park on slopes unless necessary. When parking on slope always chock or block wheels. Always set parking brake.

Use a slow speed. Tires may lose traction on slopes even though the brakes are functioning properly.

Do not bypass transmission when on a slope.

Tow only with a machine that has a hitch designed for towing. Do not attach towed equipment except at the hitch point.

Follow the manufacturer's recommendations for weight limits for towed equipment and towing on slopes.

NEVER allow children or others in or on towed equipment.

On slopes, the weight of the towed equipment may cause loss of control.

Travel slowly and allow extra distance to stop.

Use extra care when loading or unloading unit onto trailer or truck.

Secure unit chassis to transport vehicle. NEVER secure from rods or linkages that could be damaged.

DO NOT transport machine while engine is running.

ALWAYS turn off power to attachment and shut off fuel when transporting unit.

Keep unit free of debris. Clean up oil or fuel spills.

This product is equipped with an internal combustion type engine. DO NOT use unit on or near any unimproved, forest-covered or brush covered land unless exhaust system is equipped with a spark arrester meeting applicable local, state or federal laws. A spark arrester, if it is used, must be maintained in effective working order by operator.

Fuel is highly flammable and its vapors are explosive. Handle with care. Use an approved fuel container.

NO smoking, NO sparks, NO flames. ALWAYS allow engine to cool before servicing.

NEVER fill fuel tank when engine is running or hot from operation.

NEVER fill or drain fuel tank indoors.

Replace fuel cap securely and clean up spilled fuel.

Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground away from your vehicle before filling.

When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.

Keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.

Do not use a nozzle lock-open device.

If fuel is spilled on clothing, change clothing immediately.

Avoid Electric Shock. Objects contacting both battery terminals at the same time may result in injury and unit damage. DO NOT reverse battery connections.

Reverse connections may result in sparks which can cause serious injury. Always connect positive (+) lead of charger to positive (+) terminal, and negative (-) lead to negative (-) terminal.

ALWAYS disconnect negative (-) cable FIRST and positive (+) cable SECOND. ALWAYS connect positive (+) cable FIRST, and negative (-) cable SECOND.

Explosive Gases from battery can cause death or serious injury. Poisonous battery fluid contains sulfuric acid and its contact with skin, eyes or clothing can cause severe chemical burns.

No flames, No sparks, No smoking near battery.

ALWAYS wear safety glasses and protective gear near battery. Use insulated tools.

DO NOT TIP battery beyond a 45° angle in any direction.

ALWAYS keep batteries out of reach of children.

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm.

Wash hands after handling.

ALWAYS block wheels and know all jack stands are strong and secure and will hold weight of unit during maintenance.

Release pressure slowly from components with stored energy.

NEVER attempt to make any adjustments to unit while engine is running (except where specifically recommended). Stop engine, remove key or spark plug wire and wait for all moving parts to stop before servicing or cleaning.

Check parking brake operation frequently. Adjust and service as required.

ALWAYS maintain unit in safe operating condition. Damaged or worn out muffler can cause fire or explosion. Maintain or replace safety and instruction labels, as necessary.

NEVER store unit with fuel in fuel tank, inside a building where any ignition sources are present.

Shut off fuel and allow engine to cool completely before storing in closed area or covering unit.

Clean grass and debris from unit, especially from around muffler and engine, to help prevent fires.

For extended storage, shut off fuel and clean unit thoroughly. See engine manual for proper storage.

Lower cutting deck unless a positive mechanical lock is used.

Use only attachments or accessories designed for your unit.

Check all hardware at regular intervals, especially blade attachment bolts. Keep all hardware properly tightened.

Check attachment components frequently. If worn or damaged, replace with manufacturer's recommended parts.

## ASSEMBLY



**WARNING:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

**NOTE:** The complete blower assembly installs with a combination of parts provided in a separate blower mount kit and in this bagger kit and with parts originally installed on the unit. Make sure you have all hardware available when installing the bagger kit and blower assembly.

### Tools Required

- Wrenches: Lug wrench, 3/8", 9/16" Box or Socket
- Drill
- 13/32" Drill bit
- Utility Knife

### Unpacking Unit

**IMPORTANT:** Remove contents from carton carefully. Place cover assembly on a flat piece of cardboard to prevent scratching it.

### Package Contents:

Check the contents of your kit for the parts listed in Figure 3:

Item	Description	Qty	Part Number
1	Cast Iron Weight	3	00172000
2	1/2-13 x 7 Round Head Square Neck Bolt	2	06200113
3	1/2-13 Nyloc Flange Nut	2	06500010
4	Bagger Mount Weldment	1	03735551
5	3/8-16 x 1 Hex Bolt	6	05948700
6	3/8-16 Nyloc Flange Nut	4	06545500
7	3/8-16 x 1/2 Tapping Screw	2	07412900
8	Heat Deflection Shield	1	03735851
9	Bagger Cover Assembly	1	NA
10	Left Bagger Support Weldment	1	03735651
11	Right Bagger Support Weldment	1	03735751
12	3/8-16 Center Lock Nut	2	06529600
13	9/16 x 1-3/8 Flat Steel Washer	2	06442000
14	5/16-18 Clamping Knob	2	07534800
15	Mesh XL Bagger Bag	3	03370700
16	Zoom Bag Frame	3	00663200
17	Vinyl Hose	3	00677000
18	7 x 63 Hose	1	00486100
19	Blower Assembly	1	51514700
20	CZ-HD Counterweight Bracket	1	03400051
21	3/8-16 x 3/4 Tapping Screw	2	07415400
22	3/8-16 x 1-1/4 Round Head Square Neck Bolt	2	06224100
23	3/8-16 Top-Lock Flange Nut	2	06542000
24	Hair Pin, #25	2	06714800



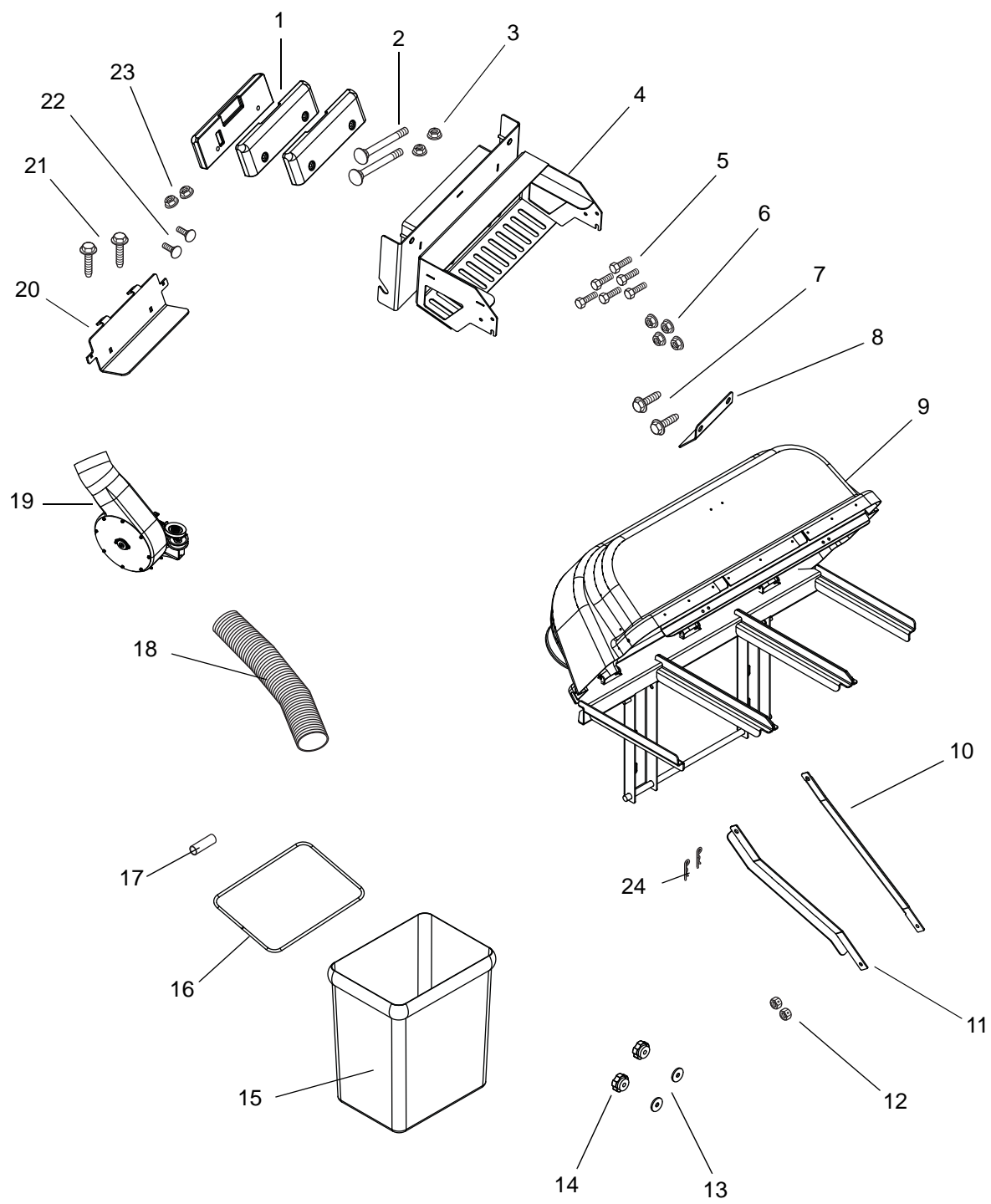


Figure 3

ODD0182

## INSTALL COUNTERWEIGHTS



**CAUTION:** Always install counterweights on the front axle before operating unit with bagger attached. Always remove counterweights from front axle when bagger is removed from the unit.

1. Insert two 1/2-13 x 7 round head square neck bolts (item 2) in the cz-hd counterweight bracket (item 20) and then install the cz-hd counterweight bracket (item 20) on the unit frame with two 3/8-16 x 3/4 tapping screws (item 21) and with two 3/8-16 x 1-1/4 round head square neck bolts (item 22) and two 3/8-16 top-lock flange nuts (item 23).
2. Install three cast iron weights (item 1) on the two 1/2-13 x 7 round head square neck bolts (item 2) with two 1/2-13 nyloc flange nuts (item 3).

**NOTE:** The weights will rest on the counterweight bracket.

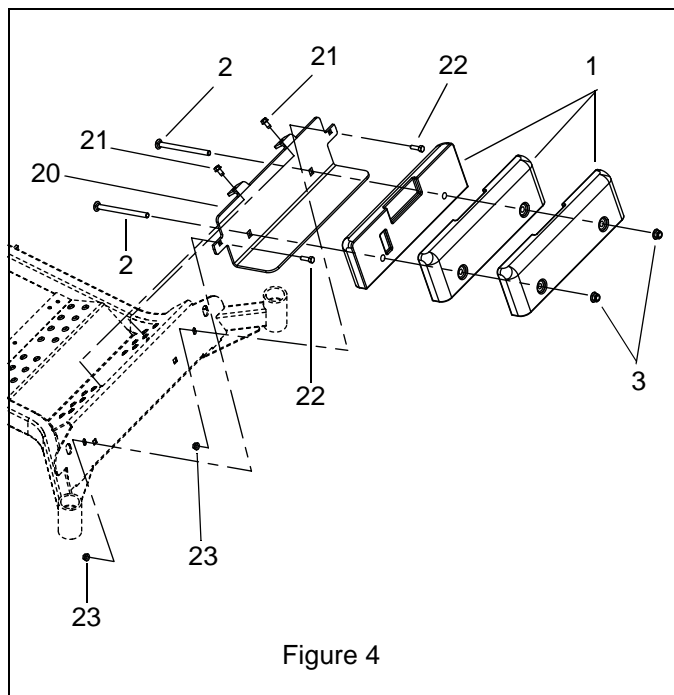


Figure 4

## INSTALL BAGGER MOUNT



**CAUTION:** Support rear bumper and bagger mount when removing and installing components.



**CAUTION:** ALWAYS block wheels and know all jack stands are strong and secure and will hold weight of unit during maintenance.

1. Raise the rear of the unit and support it securely on jack stands.

2. Remove the hardware connecting the lower heat shield to the rear bumper and remove the lock nuts connecting the heat shield to the main frame. See Figure 5.

**NOTE:** Do not remove the heat shield or the hex bolts from the frame. Leave the heat shield loosely assembled to make connecting the heat shield to the bagger mount easier.

3. Remove original rear bumper by removing four and loosening two of the tapping screws holding it to the frame as shown in Figure 5.
4. Remove the rear wheels.
5. Bore the existing holes in the frame rail to 13/32 in. to accept 3/8 in. bolts. See Figure 5.

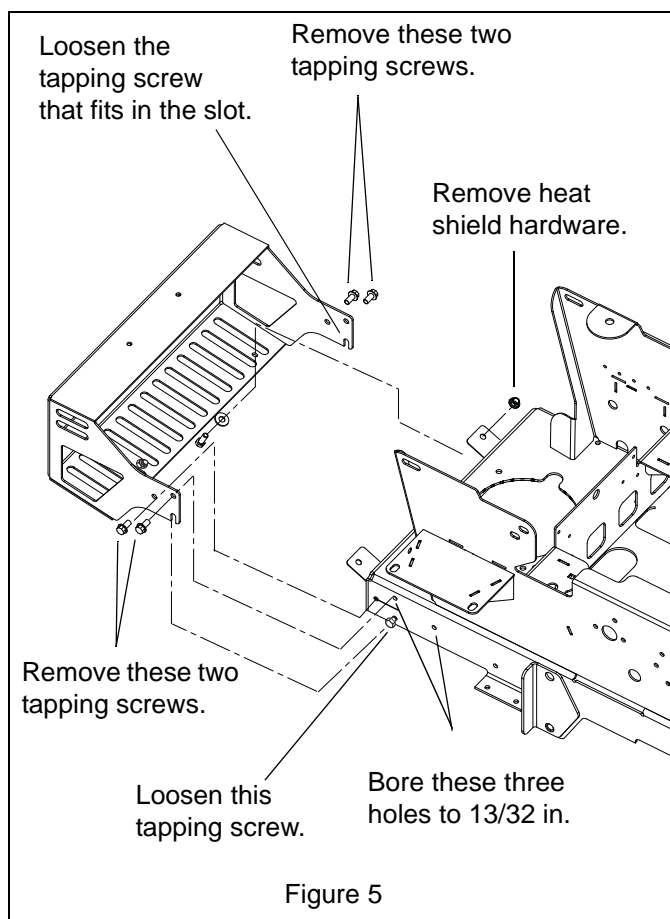
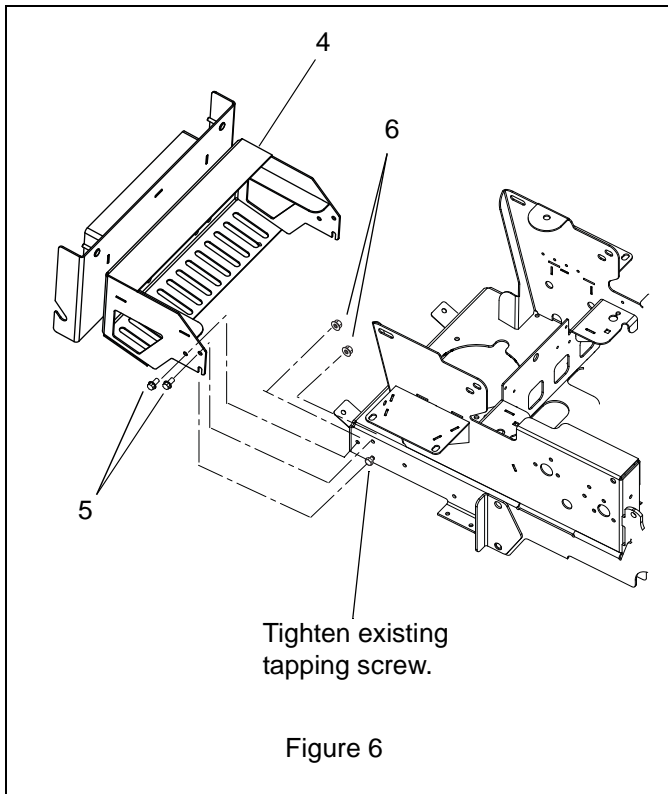


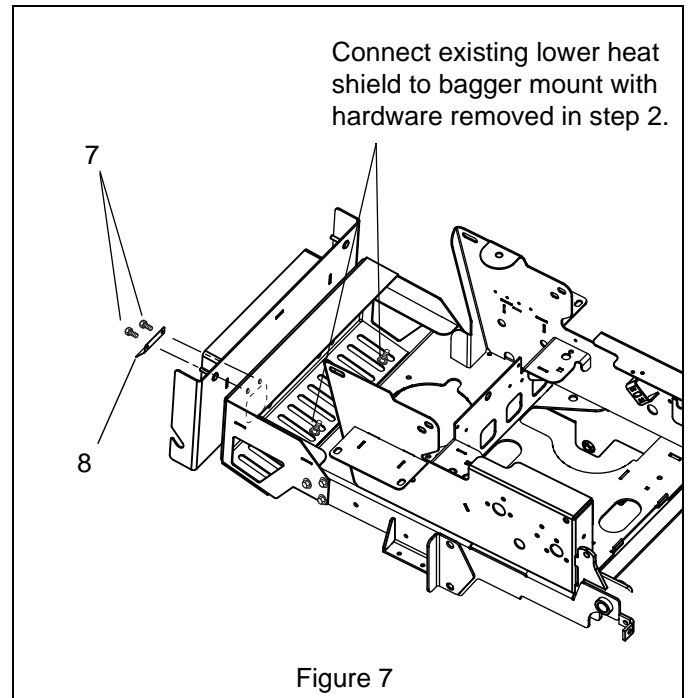
Figure 5

6. Install the bagger mount weldment (item 4) on the main frame with four 3/8-16 x 1 hex bolts (item 5) and four 3/8-16 nyloc flange nuts (item 6). Retighten the two tapping screws loosened in step 3. See Figure 6.



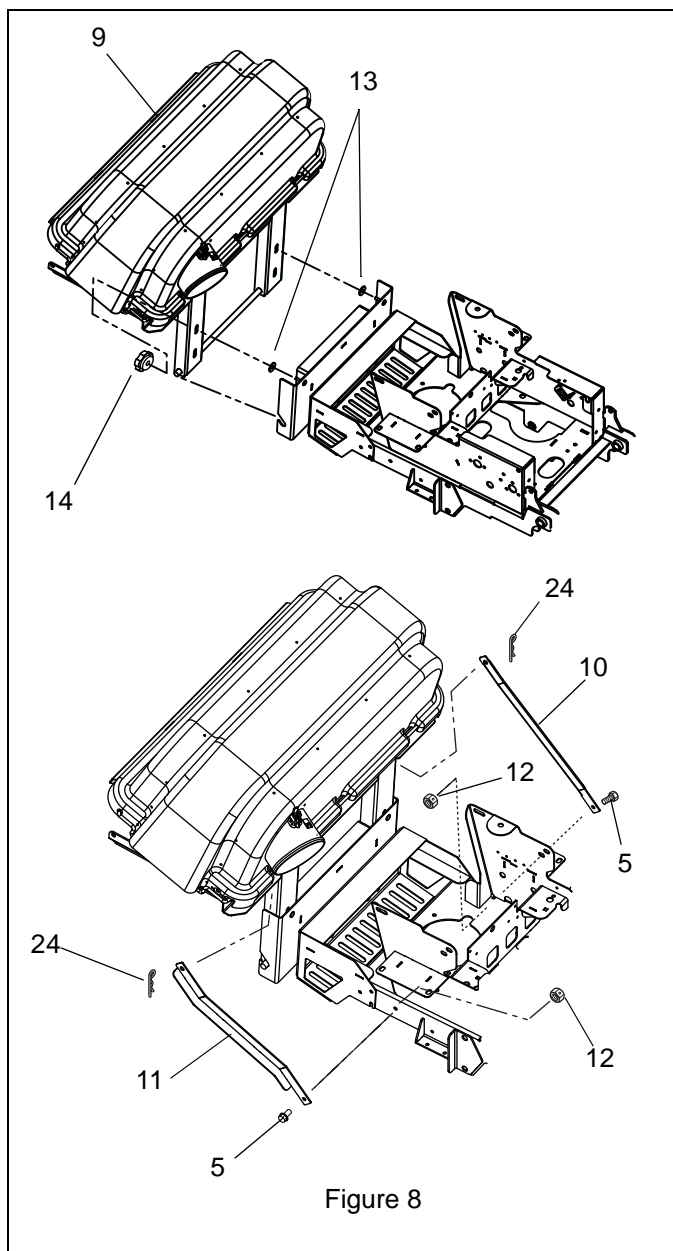
**CAUTION:** Exhaust gases can melt mesh bags and cause a fire hazard. Make sure the exhaust gases vent away from the mesh bags.

7. Connect the lower heat deflector to the bagger mount weldment (item 4) with the hardware removed in step 2. See Figure 7.
8. Install the heat deflection shield (item 8) on the bagger mount weldment (item 4) with two 3/8-16 x 1/2 tapping screws (item 7). See Figure 7.



9. Install the bagger cover assembly (item 9) on the bagger mount weldment (item 4) with two 9/16 x 1-3/8 flat steel washers (item 13) and two 5/16-18 clamping knobs (item 14). Keep them loose until the bagger supports are installed. See Figure 8.
10. Install the right bagger support weldment (item 11) and the left bagger support weldment (item 10) on the right and left side cover assembly. Secure the supports to the cover assembly with a hair pin, #25 (item 24) and to the unit frame with a 3/8-16 x 1 hex bolt (item 5) and 3/8-16 center lock nut (item 12). Keep hardware loose until both straps are installed, and then tighten all hardware.

**NOTE:** The left and right supports are different. Make sure they are oriented properly before installation. Install the right support first.



### INSTALL BAG ON FRAME (FIGURE 9)

1. Thread the zoom bag frames (item 16) through the sleeve on the open end of the mesh xl bagger bags (item 15).
2. Install the vinyl hoses (item 17) on the ends of the zoom bag frames (item 16) and push the ends together.

**NOTE:** The rope handle on the bottom of the bag will point to the outside when the bag is assembled correctly.

Thread zoom bag frame (item 16) through sleeve in mesh xl bagger bag (item 15).



Install vinyl hose (item 17) on each end of frame and push the ends together.

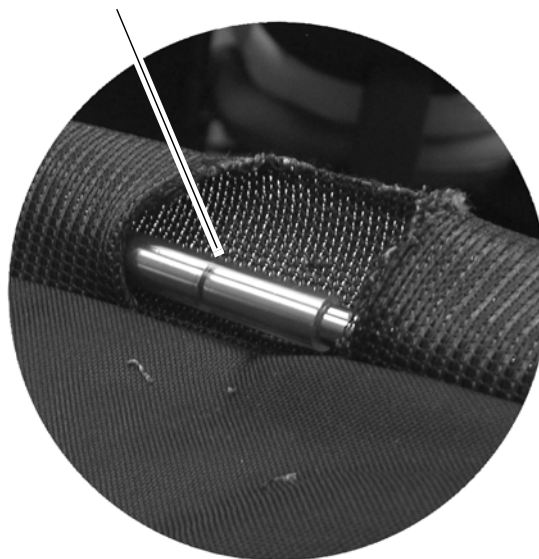


Figure 9

## INSTALL BAGS

### Install Bags on Catcher Frame



**CAUTION:** Make sure the heat resistant side (smooth side) of the mesh bags faces the unit.

1. Install the mesh xl bagger bags (item 15) on bagger cover assembly (item 9) with the heat resistant side (smooth side) of the bags facing the unit.

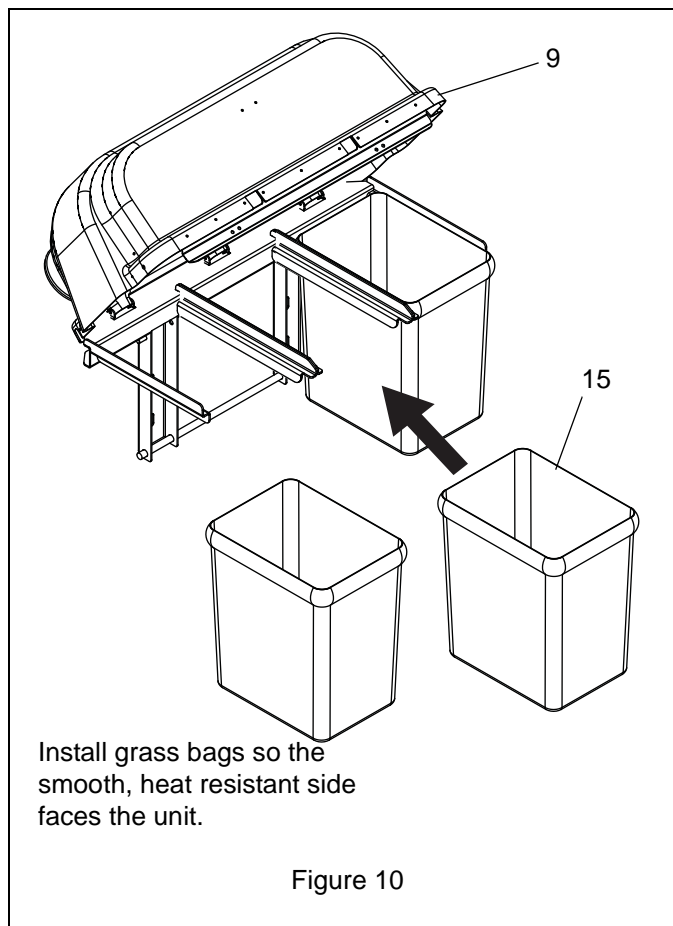


Figure 10

### INSTALL BLOWER ASSEMBLY

**NOTE:** The complete blower assembly installs with a combination of parts provided in the blower mount kit and in this bagger kit and with parts originally installed on the unit. Make sure you have all hardware available when installing the bagger kit and blower assembly.

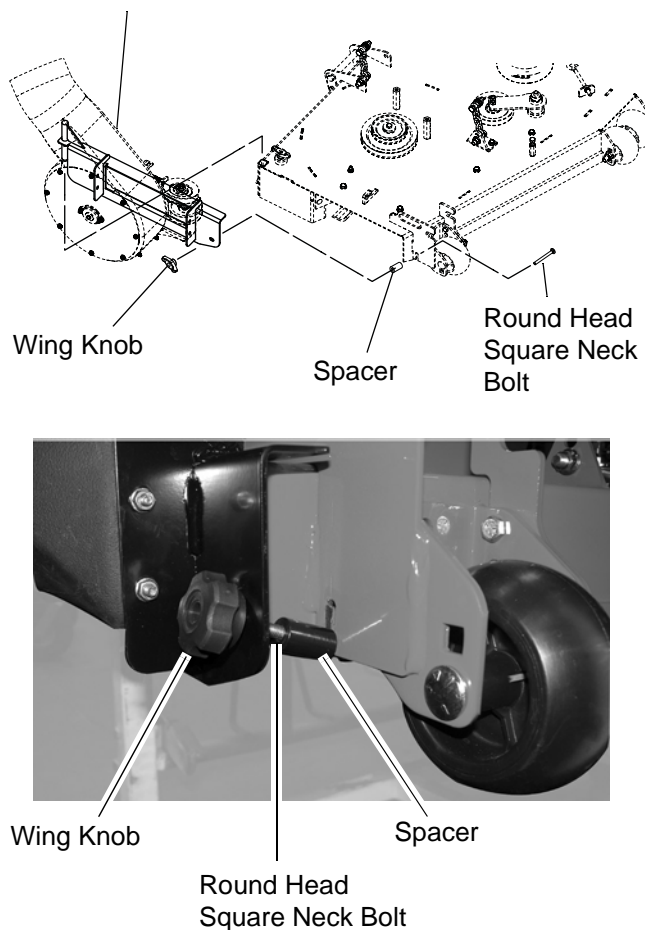
#### Install Bagger Adapter Kit

**IMPORTANT:** Follow the detailed instructions provided in the bagger adapter kits. General instructions are given here in case the instruction sheet gets lost.

1. Inspect the anti-scalp roller bracket and cut a mounting slot if necessary.
2. Install the pump mounting bracket on the blower assembly (item 19).

3. Install the blower assembly (item 19) on the deck and secure it with the knob supplied in the blower mount kit.

Blower assembly and mounting bracket.



4. Install the blower belt supplied in the bagger mount kit on the top pulley of the deck spindle and on the blower pulley as shown in Figure 11.

**NOTE:** Notice where the belt twists.



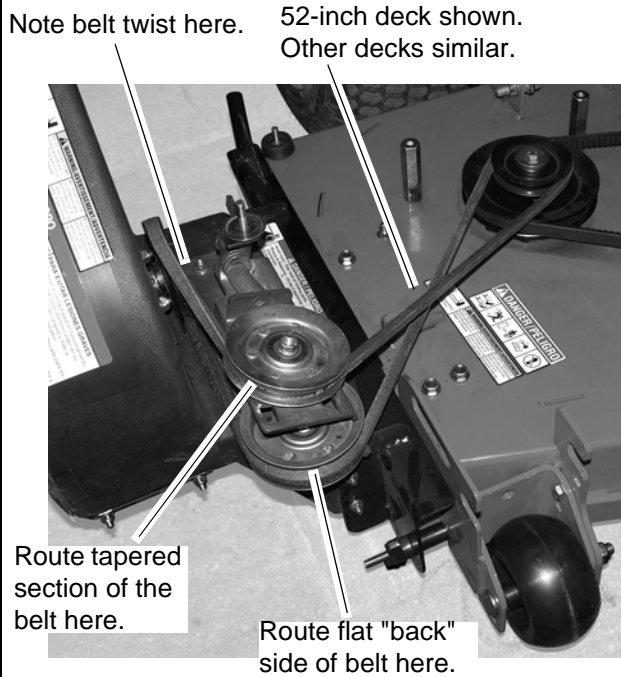


Figure 12

5. Install the two coupling nuts to deck with two 0.31-18 x .75 round head square neck bolts with Loctite patch as shown in Figure 13.
6. Install the belt guard supplied in the blower mount kit with the clamping knob and flat washer and two 0.31-18 x 0.62 SEMS bolts.

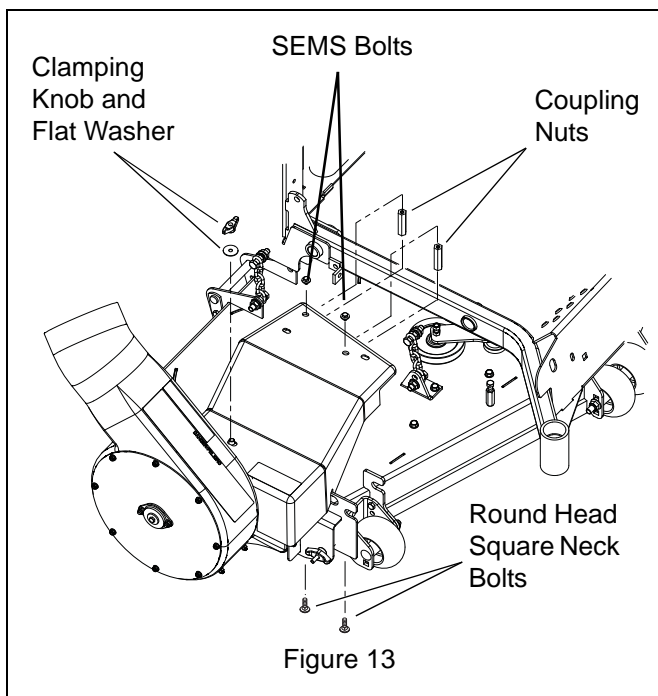


Figure 13

## INSTALL HOSE

1. Install 7 x 63 hose (item 18) on blower assembly (item 19) and on the inlet adapter. Make sure the thumb latch on the inlet adapter captures one rib on the hose.

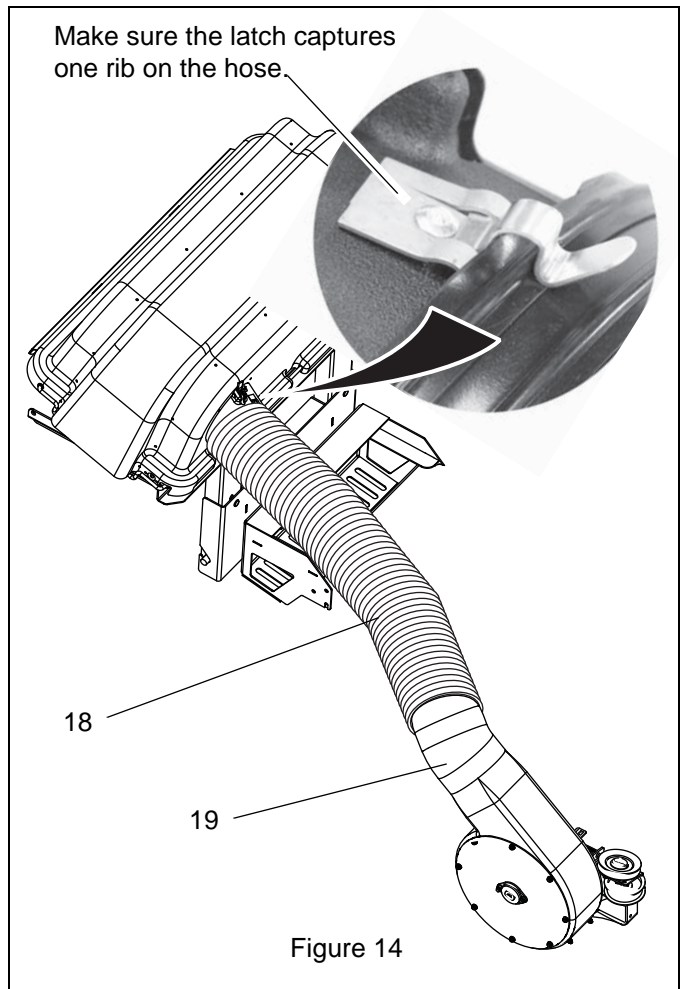


Figure 14

**NOTE:** Trim hose length as needed. The hose must fit in thumb latch on the bagger cover assembly (item 9) and over the hose adapter on the blower assembly (item 19).



**CAUTION:** Deflected material may cause injury. ALWAYS operate mower with bagger cover closed and secured, blower assembly fastened securely, or with chute deflector in operating position.

## REMOVAL

### Removing Bagger Kit

1. Lift thumb latch and remove hose from blower assembly and bagger assembly (see figure 14 on page 14).
2. Remove belt guard.
3. Remove V-belt from double pulley (see figure 12 on page 14).
4. Remove blower assembly (see figure 11 on page 13).
5. Re-install the original belt cover.
6. Install discharge chute.



**CAUTION:** Deflected material may cause injury. ALWAYS operate mower with bagger cover closed and secured, blower assembly fastened securely, or with chute deflector in operating position.



**CAUTION:** Always install counterweights on front axle before operating unit with bagger attached. Always remove counterweights from front axle when bagger is removed from the unit.

7. Remove cast iron weights (see figure 4 on page 10).
8. Remove catcher assembly (see figure 8 on page 12).

**NOTE:** When removing the grass bagger, do not disassemble the entire kit. Remove the bagger cover assembly from the lower mount bracket. You can remove the lower mount or keep it installed. If you remove the lower mount, replace the original bumper on the unit.

## OPERATION



**WARNING:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

### Before Each Use

1. Check bagger parts for wear, deterioration or damage. Replace **ONLY** with original manufacturer service parts before operating.
2. Make sure counterweights are installed.
3. Make sure all hardware is tight.

**IMPORTANT:** Check tool-less hardware often. Tighten as needed.

4. Remove any grass buildup from bagger parts.
5. Make sure hose is fastened securely on upper boot and blower assembly.
6. Make sure mesh bags are installed, and the bagger cover is closed and securely latched.

### Bagging



**WARNING:** Do not operate on slopes over 10° DO NOT operate mower unless guards are in place or blower assembly and entire bagger are attached.

### Starting

1. Start engine and engage PTO according to unit owner's manual.
2. Set throttle to full.
3. Choose a slow ground speed.

### Shut Off

1. Disengage PTO.
2. Shut off unit according to unit Owner/Operator's manual.



**WARNING:** Lower attachment, stop engine, and remove key to prevent unauthorized use. DO NOT park on slopes.

### Emptying mesh Bags

If bagger stops picking up grass clippings, mesh bags may be full.

To empty bags:

1. Disengage PTO, stop engine and remove ignition key. Wait for all moving parts to stop before leaving operator's position.
2. Empty the grass from each bag.
3. Clean out hose.
4. Close and latch cover.

### Unclogging Bagger



**WARNING:** MOVING PARTS can cut or amputate body parts.

NEVER attempt to clear blower assembly while engine is running.

ALWAYS stop engine, remove key, and wait for moving parts to stop.

Sharp edges can cut. Movement of parts can cut off fingers or a hand. Wrap blade(s), wear sturdy gloves and use extreme caution when working near blades or impeller.



**WARNING:** PINCH POINT! Use extreme caution when unclogging blower assembly. Impeller can cut or pinch your hand, even when not in operation. Wear sturdy gloves when working near impeller.

If hose or blower assembly gets clogged, stop forward motion and allow unit to clear itself. If unit will not clear itself, unclog the hose and/or blower assembly manually as instructed below.

1. Stop engine and remove ignition key. Wait for all moving parts to stop.
2. Lift thumb latch on bagger assembly and remove hose (figure 14).
3. Remove hose from blower assembly.

**NOTE:** Perform steps 4 and 5 if clog is in the hose:

4. Remove clogged grass.
5. Reinstall hose.

**NOTE:** Perform steps 6 and 7 if clog is in blower assembly.



**WARNING:** Blades rotate when impeller rotates. Impeller rotates when blades rotate. Block blades to prevent rotation before proceeding.

6. Clear grass from blower assembly.
7. Reinstall hose and close the thumb latch.

### Operating Tips

- Cut grass when it is dry.
- Cut grass in two passes when cutting thick, long, or wet grass. Make the first cut higher than desired. Make the second cut at desired height.
- Always use full throttle when bagging.



## MAINTENANCE

Ariens and Gravely Dealers will provide any service or adjustments that may be required to keep your unit operating at peak efficiency.



**WARNING:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

### Maintenance Schedule

The chart below shows the recommended maintenance schedule that should be performed on a regular basis.

#### MAINTENANCE SCHEDULE

Service Performed	Each Use	Every 10 hrs.
Check Fasteners	•	
Inspect Bagger Parts	•	
Clean Unit	•	
Check V-belt		•*
* Check V-belt tension after initial first two hours of use.		

#### Check Fasteners

**IMPORTANT:** Be certain that all hardware is tight before each use. Pay special attention to the guards and safety shields. Check tool-less hardware often. Tighten as needed.

#### Inspect Bagger Parts

Before each use, inspect bagger parts for any holes, abrasions, or structural damage. Replace any worn or damaged parts.

#### Clean Unit

Clear away grass build-up in bagger before and after each use.

#### Check Blower Belt

Check blower belt for wear every 10 hours; replace blower belt if worn or deteriorated. See Figure 15.

### Replacing Bagger Belt (Figure 15)

1. Remove belt guard.
2. Remove old or damaged belt.
3. Install new belt on blower assembly pulley and the double pulley.

Note belt twist here.

52-inch deck shown.  
Other decks similar.

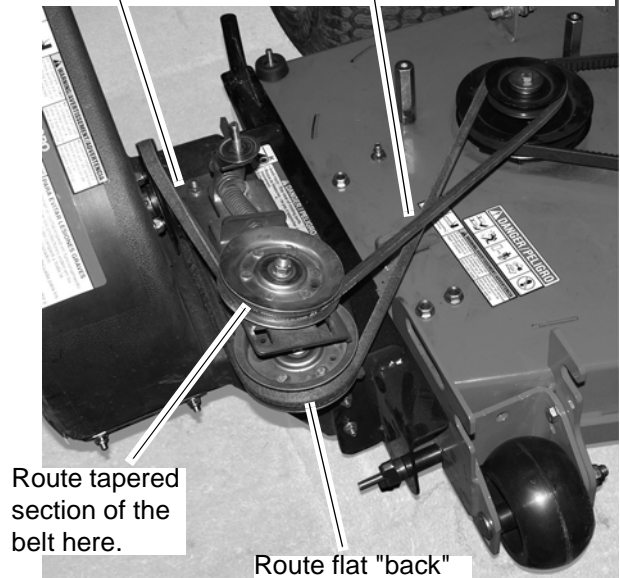


Figure 15

## STORAGE



**WARNING:** AVOID INJURY. Read and understand the entire *Safety* section before proceeding.

**IMPORTANT:** NEVER spray unit with high-pressure water. DO NOT store unit outdoors.

**NOTE:** If needed, the cloth bags can be washed with low pressure water.

Clean plastic surfaces with sponge and mild detergent. Dry with a soft cloth.

Remove all debris from mesh bags before storing.

Remove all dirt, grease, leaves, etc. from unit.

Store in a clean, dry area.

Ensure all fasteners are properly tightened. Inspect moving parts for damage and wear.

Touch up all rusted or chipped painted surfaces.

## TROUBLESHOOTING

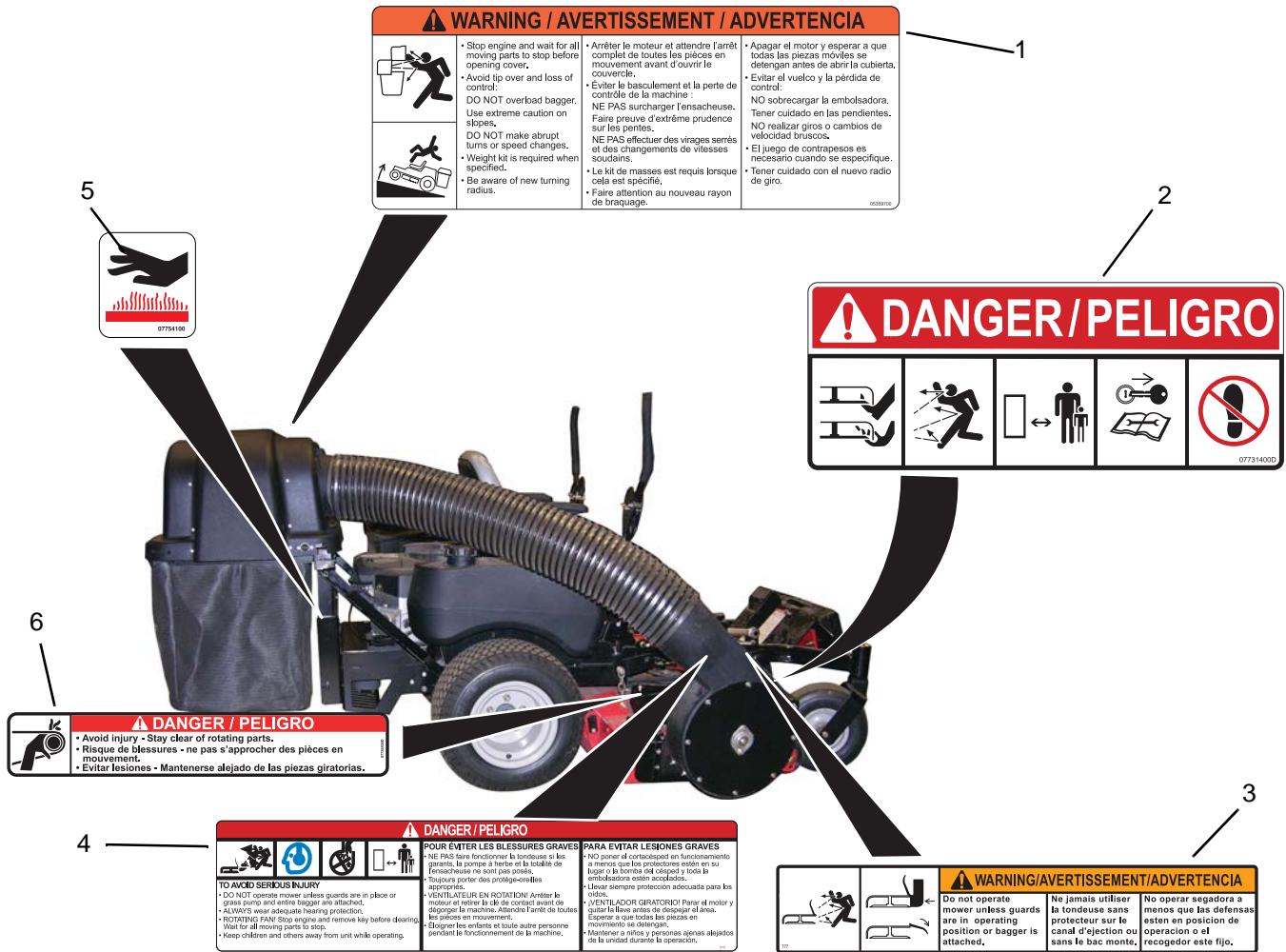
PROBLEM	PROBABLE CAUSE	CORRECTION
Bagger fails to pick up grass or leaves.	<ol style="list-style-type: none"> <li>1. The mesh bags are full.</li> <li>2. Bagger is clogged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Shut off engine, remove key, and empty mesh bags.</li> <li>2. See <i>Unclogging Bagger</i> on page 16.</li> </ol>
Blower Assembly stops or slows.	<ol style="list-style-type: none"> <li>1. Worn or damaged V-belt.</li> </ol>	<ol style="list-style-type: none"> <li>1. See <i>Replacing Bagger Belt (Figure 15)</i> on page 17.</li> </ol>

## SPECIFICATIONS

Model Number	891003
Description	HD Series Bagger
Added Length to Unit	27 inches
Bagger Capacity	8 Bushels
Added Width to Mower Deck	12 inches

# PARTS LIST

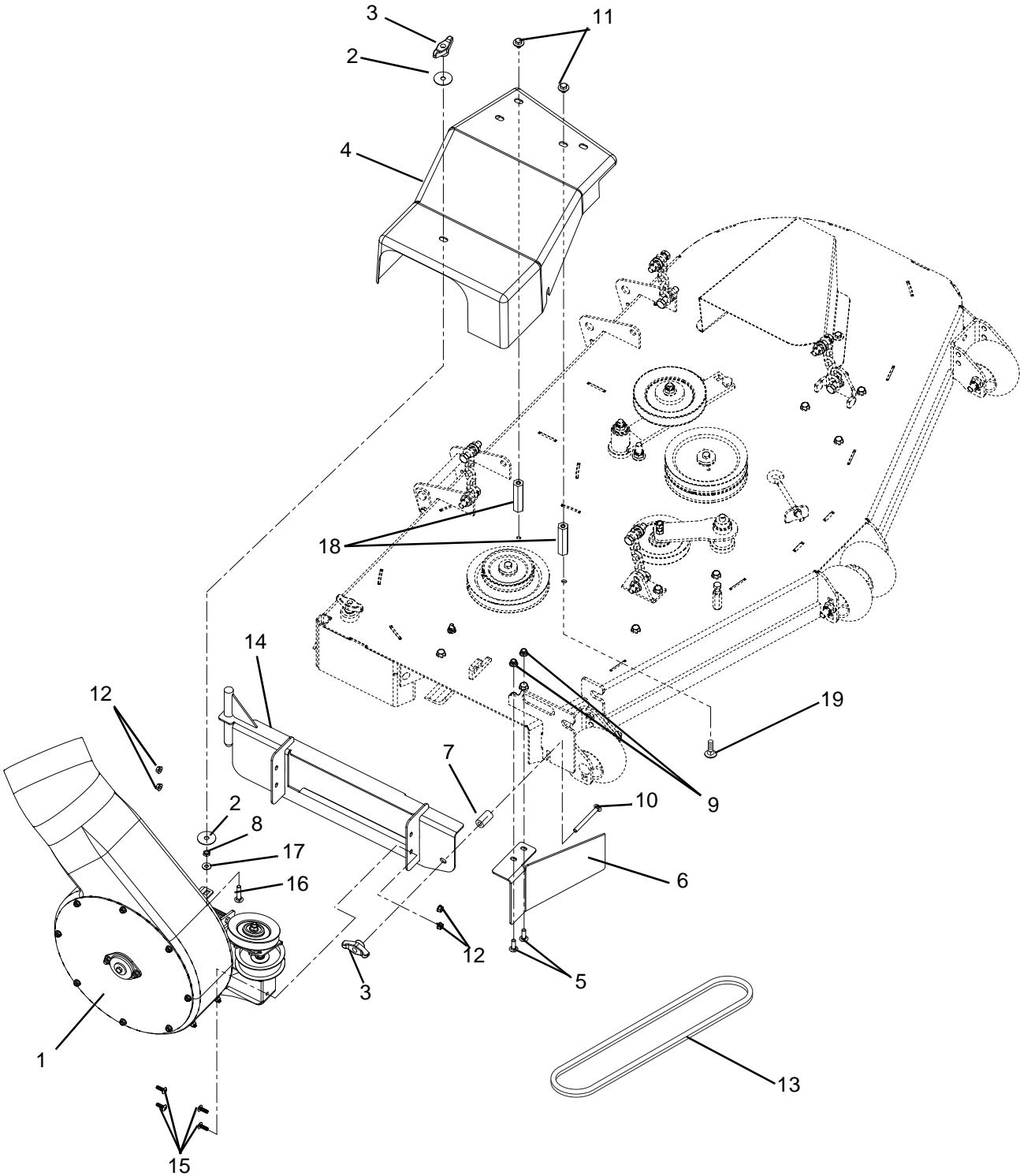
## SAFETY DECALS



OEe002

Item	Part No.	Qty.	Description
1	05359700	1	Bagger Cover Decal
2	07731400	1	Mower Pan Danger Decal
3	07742300	1	Warning Decal
4	08088200	1	Grass Pump Caution Decal
5	07754100	2	Decal, Hot Surface
6	07735200	1	Decal, Belt Pinch Point

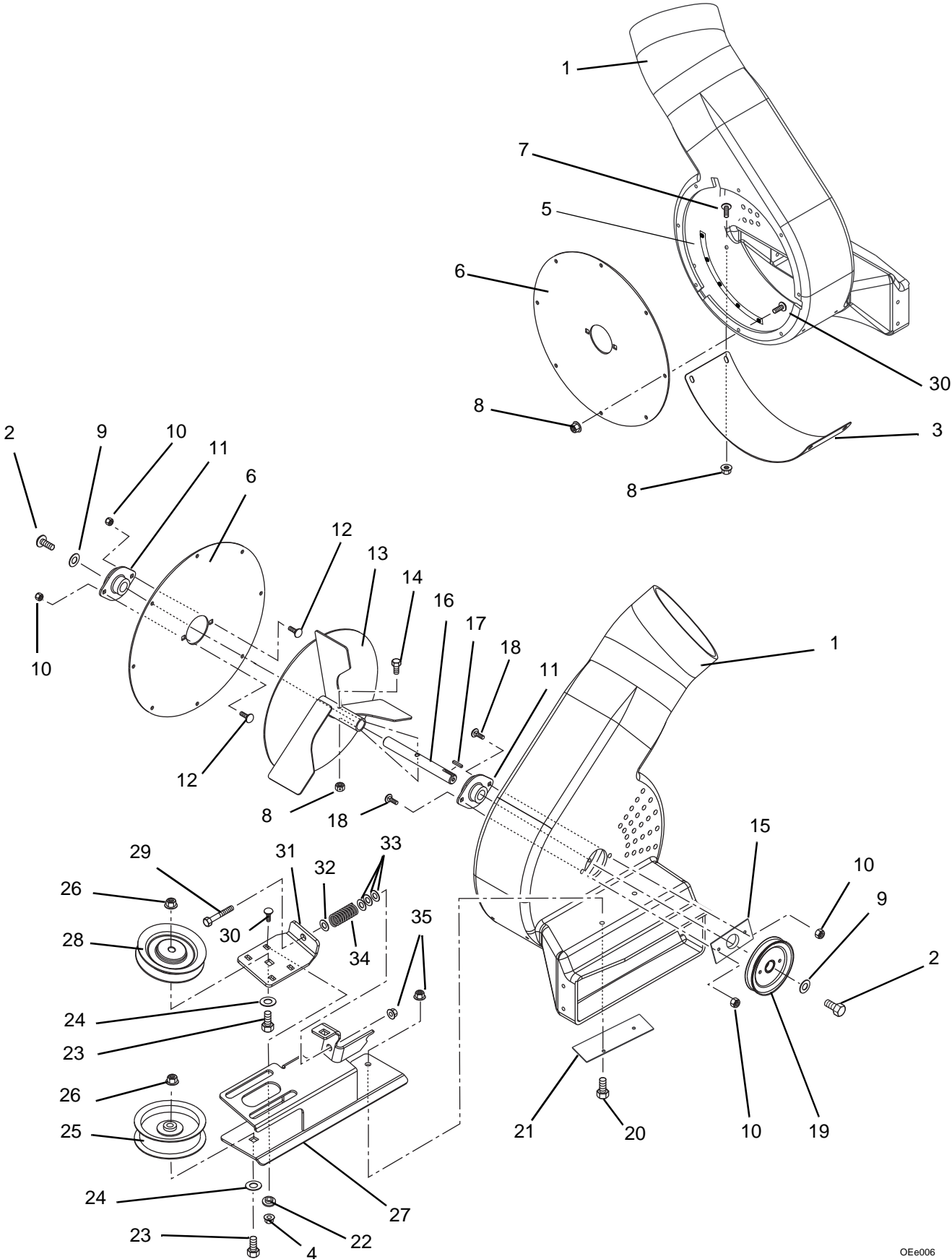
**BLOWER ASSEMBLY TO MOWER DECK**



## BLOWER ASSEMBLY TO MOWER DECK (CONT.)

Item	Part No.	Qty.	Description
1	00166000	1	Housing, Blower
2	06439300	2	Washer, Flat Steel .38 x 1.50 x .062
3	07534800	2	Knob, Clamping .312-18
4	03395000	1	Belt Cover (with 52" and 60" Adapter Kits)
	03398000	1	Belt Cover (with 44" and 48" Adapter Kits)
5	06200007	2	Bolt, Round Head Square Neck .31-18 x 1 Grade 5 (with 60" Adapter Kit 79102500)
6	03394651	1	Baffle, 60" HD Bagger (with 60" Adapter Kit 79102500)
7	03394700	1	Spacer, CZ-Head Bagger
8	06536100	1	Nut, Jam .312-18
9	06545400	2	Nut, .31-18 Nyloc Flange (with 60" Adapter Kit 79102500)
10	06223600	1	Bolt, Round Head Square Neck .38-16 x 1.00
11	07000018	2	Bolt, SEMS 5/16-18 x .62
12	06543500	4	Nut, Locking Top Flange .25-20
13	07211600	1	Belt, 4L 70.81 Raw (for 60" Decks)
	07211500	1	Belt, 4L 67.47 Wrapped (for 52" Decks)
	07242600	1	Belt, HA 65.50 Wrapped (for 44" and 48" Decks)
14	03394151	1	60" HD Bag Pump Mounting Bracket Weldment (with 60" Adapter Kit 79102500)
	03394351	1	52" HD Bag Pump Mounting Bracket Weldment (with 52" Adapter Kit 79102600)
	03394451	1	48" CZ Bag Pump Mounting Bracket Weldment (with 48" Adapter Kit 79102700)
	03394551	1	44" CZ Bag Pump Mounting Bracket Weldment (with 44" Adapter Kit 79102800)
15	06114400	4	Screw, Machine .25-20 x .75
16	06212100	1	Bolt, Round Head Square Neck .31-18 x 1.50
17	06435800	1	Washer, Flat Steel .312 x .734 x .065
18	07000027	2	Nut, Coupling .31-18 x 3.00
19	06200002	2	Bolt, Round Head Square Neck, Loctite With Epoxy Patch .31-18 x .75

**BLOWER ASSEMBLY**

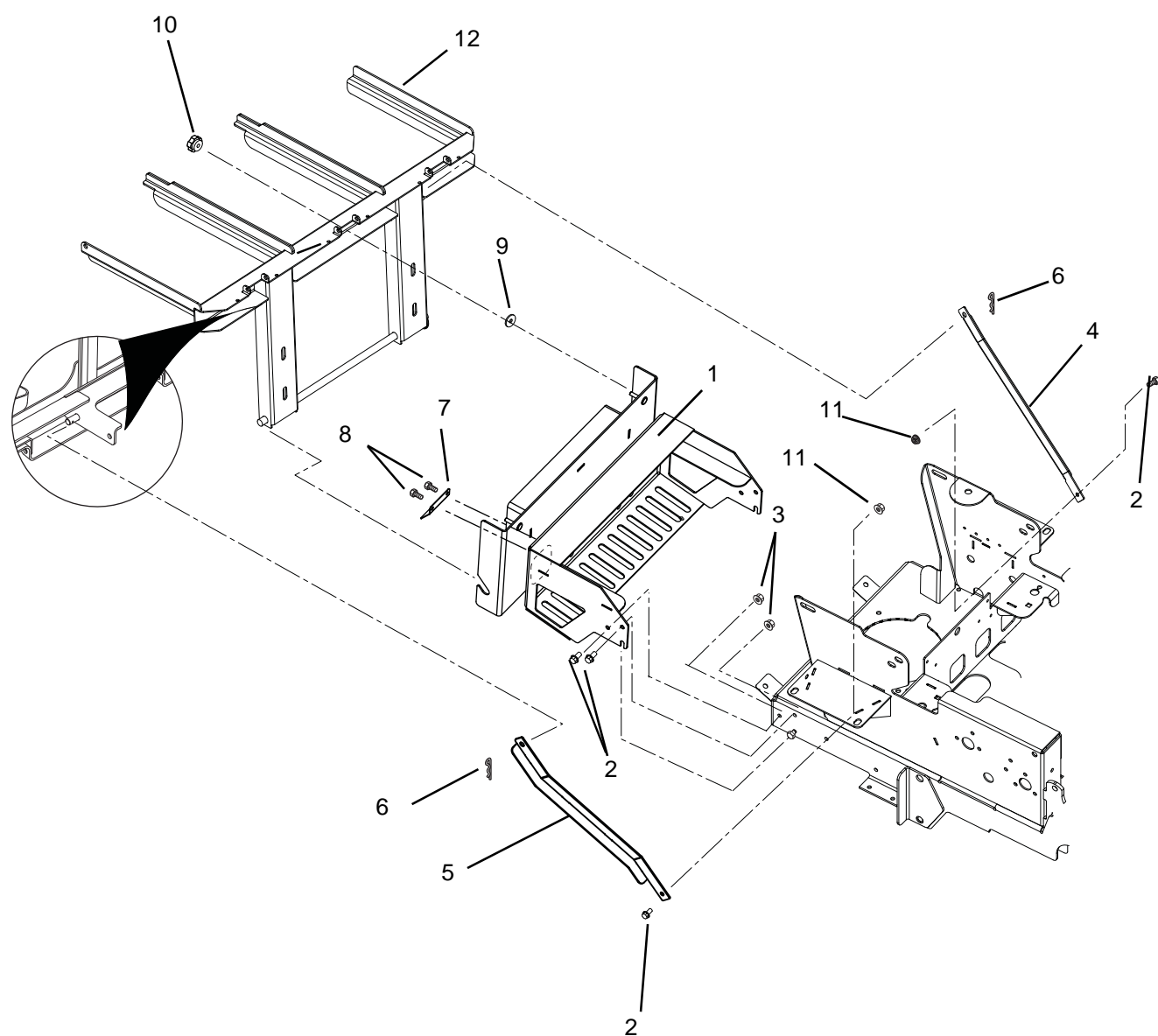


OEe006

**BLOWER ASSEMBLY (CONT.)**

Item	Part No.	Qty.	Description
1	00166000	1	Housing, Blower
2	05900008	2	Bolt, Hex .25-20 x .50
3	00169951	1	Plate, Skid
4	06543500	4	Nut, Locking Top Flange .25-20
5	03720951	3	Plate, Mounting Bolt Reinforcing
6	00168051	1	Plate, Bearing Mount
7	06114400	4	Screw, Machine .25-20 x .75
8	06500012	13	Nut, .25-20 Nyloc Flange
9	06446300	2	Washer, Flat-Steel .344 x 1.125 x .135
10	06545400	4	Nut, Nyloc Flange .312-18
11	03685300	2	Bearing, 2 Bolt Flange - .75 ID
12	06215700	2	Bolt, Round Head Square Neck .31-18 x .75
13	00170000	1	Weldment, Impeller, 3 Blade
14	05971400	1	Bolt, Hex .25-20 x 1.50 Grade 8
15	03721051	1	Plate, Washer Bearing
16	00168700	1	Shaft, Impeller
17	06606000	1	Key, Square .187 x .50 x .187 Hardened
18	06216100	2	Bolt, Round Head Square Neck .31-18 x 1.00 Grade 5
19	00169400	1	Sheave, Blower- 4.25 Diameter
20	05947800	2	Bolt, Hex .31-18 x .875 Grade 5
21	00174451	1	Plate, Back
22	05513400	4	Bushing-Flange .265 x .437 x .250 x .750
23	05958500	2	Bolt, Hex .38-16 x 1.75 Grade 5
24	06436200	2	Washer, Flat-Steel .406 x .812 x .065
25	07300028	1	Idler Flanged 3.50
26	06542000	2	Nut, Locking Top Flange .38-16
27	00168200	1	Weldment, Idler Mount
28	07327600	1	V-Idler, 4.00 x .38
29	05963200	1	Bolt, Hex .31-18 x 4.00 Grade 5
30	06219900	12	Bolt, Round Head Square Neck .25-20 x .75 Grade 5
31	00168100	1	Bracket, Adjustable Idler
32	06514900	1	Nut, Push .312
33	06444000	3	Washer, Flat-Steel .406 x 1.00 x .188
34	08312100	1	Spring, Compression .092 x .77 x 3.13
35	06543100	3	Nut, Locking Top Flange .31-18
36	51514700	AR	Blower, Service Assembly (includes items 1-35)

**MOUNTING ASSEMBLY**

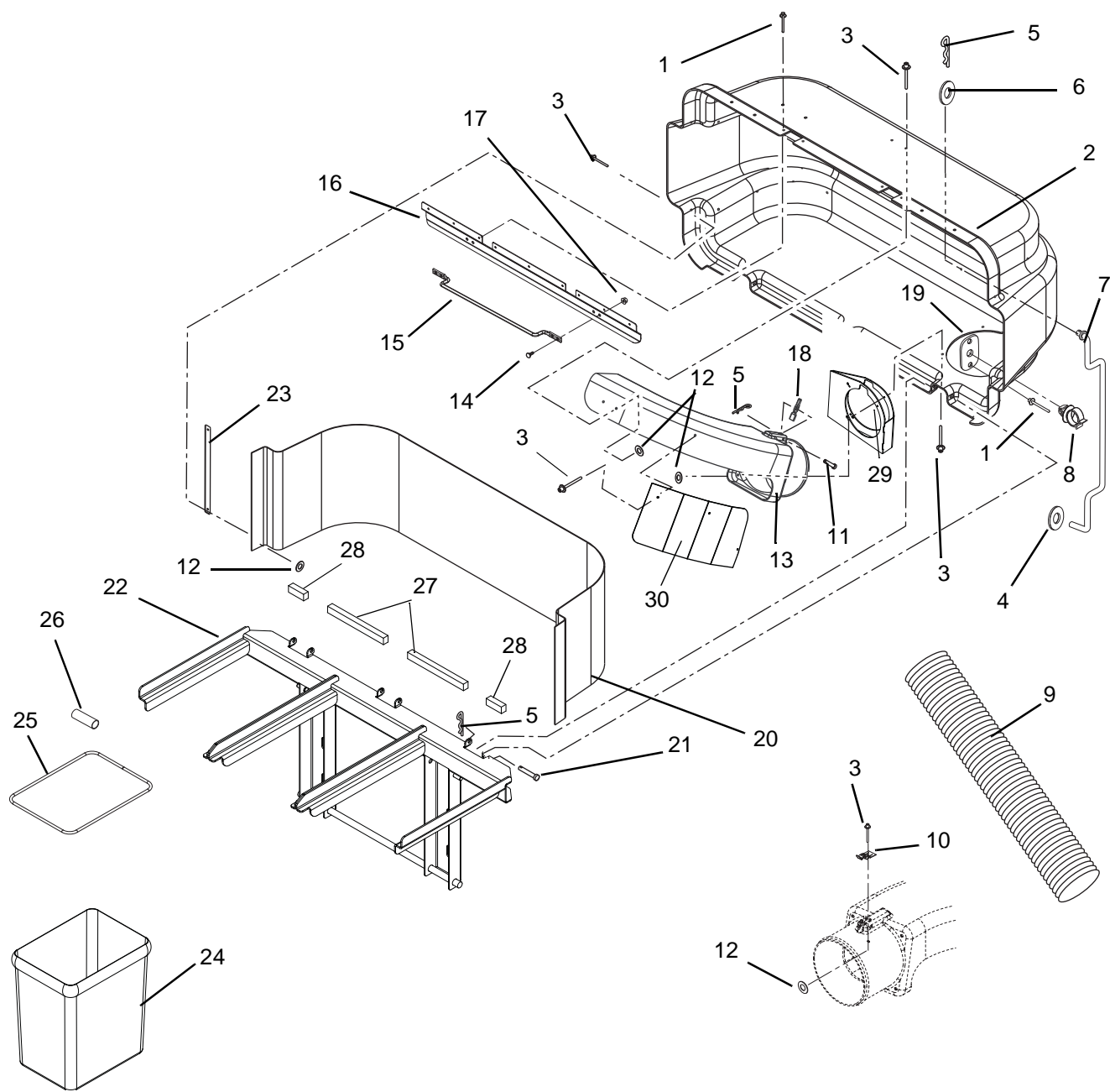




## **MOUNTING ASSEMBLY (CONT.)**

<b>Item</b>	<b>Part No.</b>	<b>Qty.</b>	<b>Description</b>
1	03735551	1	Weldment, Bagger Head Mount
2	05948700	6	Bolt, Hex .38-16 x 1.00 Grade 5
3	06545500	4	Nut, .38-16 Nyloc Flange
4	03735651	1	Weldment, Left Bagger Support
5	03735751	1	Weldment, Right Bagger Support
6	06714800	2	Pin, Hair #25
7	03735851	1	Shield, Heat Deflection
8	07412900	2	Screw, Tapping .38-16 x 0.50
9	06442000	2	Washer, Flat Steel .563 x 1.38 x .105
10	07534800	2	Knob, Clamping .312-18 Nyloc
11	06529600	2	Nut, Center Lock .38-16
12	03372951	1	Weldment, XL Bagger Frame

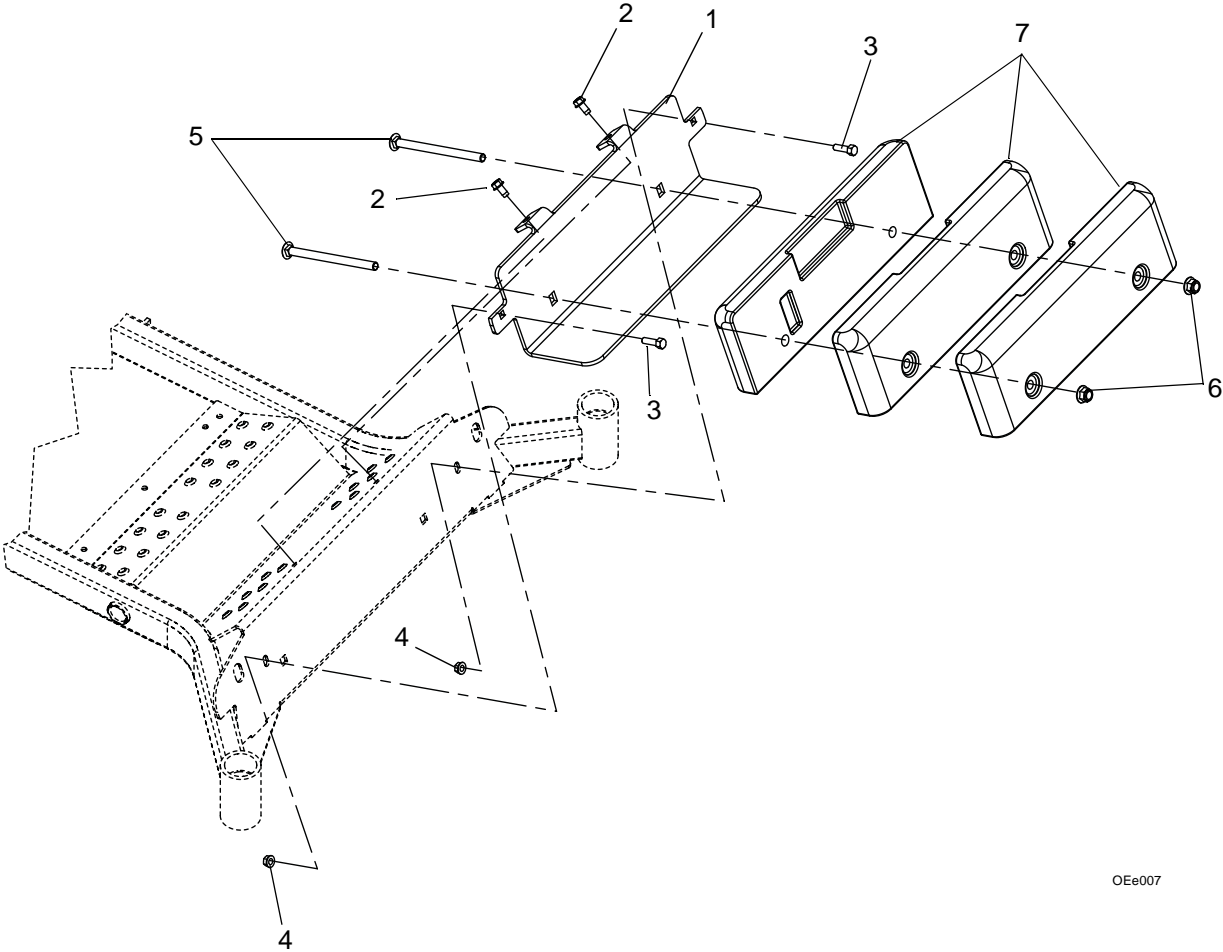
BAGGER COVER ASSEMBLY



**BAGGER COVER ASSEMBLY (CONT.)**

<b>Item</b>	<b>Part No.</b>	<b>Qty.</b>	<b>Description</b>
1	06802500	11	Rivet, Pop .187 x .402
2	00165800	1	Cover, Bagger with Decal
3	03803800	40	Rivet, Pop .187 x .527
4	00548400	1	Retainer, .38 Push-On
5	06714800	7	Pin, Hair
6	06436200	1	Washer, Flat-Steel .046 x .812 x .065
7	00292600	1	Prop Rod, Bagger
8	07534100	1	Clip, 38
9	00486100	1	Hose, 7 x 63 Kanaflex 165 Clear
10	07000026	1	Thumb Latch
11	06815300	1	Pin, Clevis .31 x 2.62 Grade 5
12	06442700	26	Washer, Flat Steel .219 x .50 x .049
13	00165900	1	Boot, Upper
14	06219900	4	Bolt, Round Head Square Neck .25-20 x .75 Grade 5
15	00453000	1	Bagger Handle
16	00450851	1	Latch, Cover
17	06543500	4	Nut, Locking Top Flange .25-20
18	00168300	1	Indicator, Flow
19	00294400	1	Plate, Rod Clip
20	00166900	1	Screen, Bagger
21	02747500	3	Pin, Clevis .368/.373 x 3.25
22	03372951	1	Weldment, Bagger Frame
23	00174851	2	Strap, Cover
24	03370700	3	Bag, Mesh
25	00663200	3	Frame, Bag
26	00677000	3	Hose, .38 x .50 x 3.00 Vinyl
27	03752800	2	Grass Block, 10.5-In. Foam
28	03752900	2	Grass Block, 4-In. Foam
29	03765451	1	Hose Support Insert
30	03765851	1	HD Bagger Deflector

COUNTERWEIGHT ASSEMBLY



OEe007

Item	Part No.	Qty.	Description
1	03400051	1	Counterweight Bracket
2	07415400	2	Screw, .38-16 x .75 Self-Tapping
3	06224100	2	Bolt, Round Head Square Neck .38-16 x 1.25, Grade 5
4	06542000	2	Nut, Locking Top Flange .38-16
5	06200113	2	Bolt, Round Head Square Neck .50-13 x 7.00
6	06500010	2	Nut, Locking Top Flange .50-13
7	00172000	3	Counterweight



# Two-Year Limited Lawn and Garden Commercial Warranty

Ariens Company (Ariens) warrants to the **original purchaser** that Ariens and Gravely brand products manufactured by Ariens and designated or labeled commercial products by Ariens will be free from defects in material and workmanship for a period of two years after the date of purchase or 1000 hours of use, whichever comes first. An authorized Ariens dealer (Ariens brand products) or Gravely dealer (Gravely brand products) will repair any defect in material or workmanship, and repair or replace any defective part, subject to the conditions, limitations and exclusions set forth herein. Such repair or replacement will be free of charge to the original purchaser (labor and parts), except as noted below.

## **Limited Lifetime Warranty on Mower Deck Shell**

The deck shell is warranted to the **original purchaser** against any defect in material or workmanship for as long as the original purchaser owns the product. Any defect in material or workmanship of the deck shell will be repaired free of charge (parts and labor) to the original purchaser for two years or 1000 hours of use, whichever comes first. After two years or 1000 hours of use, the parts required to repair a defect in material or workmanship of the deck shell, not the labor, will be provided free of charge for as long as the original purchaser owns the product.

## **Limited Lifetime Warranty on Main Frame**

The main frame is warranted to the **original purchaser** against any defect in material or workmanship for as long as the original purchaser owns the product. Any defect in material or workmanship of the main frame will be repaired free of charge (parts and labor) to the original purchaser for two years or 1000 hours of use, whichever comes first. After two years or 1000 hours of use, the parts required to repair a defect in material or workmanship of the main frame, not the labor, will be provided free of charge for as long as the original purchaser owns the product.

## **Three-Year Limited Warranty on Cast Iron Deck Spindles**

Cast iron mower deck spindles are warranted to the **original purchaser** for three years from the date of purchase. Any defect in material or workmanship of the cast iron mower deck spindles will be repaired free of charge (parts and labor) to the original purchaser for two years after the date of purchase. After two years, the parts required to repair a defect in material or workmanship of the cast iron deck spindles, not the labor, will be provided free of charge.

## **Two-Year Limited Warranty on Aluminum Deck Spindles**

Aluminum mower deck spindles are warranted to the **original purchaser** for two years from the date of purchase. Any defect in material or workmanship of the aluminum mower deck spindles will be repaired free of charge (parts and labor) to the original purchaser for two years after the date of purchase.

## **One-Year Limited Warranty on 21-inch Walk-Behind Lawn Mowers**

21-inch walk-behind lawn mowers labeled or designated by Ariens as a Professional/Commercial product put to any business use, agricultural, commercial, or industrial, are warranted to the **original purchaser** to be free from defects in material and workmanship for a period of one year after the date of purchase.

## **90-Day Limited Warranty on Service Parts and Accessories**

Genuine Ariens or Gravely brand service parts and accessories are warranted to be free from defects in material and workmanship for a period of 90 days after the date of purchase. An authorized Ariens or Gravely dealer will repair or replace any such part or accessory free of charge, except for labor, during that period.

If any product is rented or leased, then the duration of these warranties shall be 90 days after the date of purchase.

## **Exceptions, Limitations, Exclusions**

### **Customer Responsibilities**

**Register the product immediately at the time of sale.** If the dealer does not register the product, the customer must complete the product registration card in the literature package and return it to the Ariens Company, or register the unit online at [www.ariens.com](http://www.ariens.com) or [www.gravely.com](http://www.gravely.com).

To obtain warranty service, the **original purchaser** must:

- Perform the maintenance and minor adjustments explained in the owner's manual.
- Promptly notify Ariens or an authorized Ariens or Gravely service representative of the need for warranty service.
- Transport the product to and from the place of warranty service.
- Have the warranty service performed by an authorized Ariens or Gravely service representative.

To find an Ariens or Gravely authorized service representative, contact Ariens at:

655 W. Ryan Street  
Brillion, WI 54110  
(920) 756 - 2141  
www.ariens.com  
www.gravely.com

## Limitations

- Batteries are warranted only for a period of 12 months after date of purchase, on a prorated basis. For the first 90 days of the warranty period, a defective battery will be replaced free of charge. If the applicable warranty period is more than 90 days, Ariens will cover the prorated cost of any defective battery, for up to 12 months after the date of purchase.

## Exclusions – Items Not Covered by This Warranty

- Engines and engine accessories are covered only by the engine manufacturer's warranty and are not covered by this warranty.
- Parts that are not genuine Ariens or Gravely service parts are not covered by this warranty.
- The following maintenance, service and replacement items are not covered by this warranty unless they are noted in the Limitations section above: lubricants, spark plugs, oil, oil filters, air filters, fuel filters, brake linings, brake arms, brake shoes, runners, scraper blades, shear bolts, mower blades, mower vanes, headlights, light bulbs, knives, cutters.
- Mufflers, belts and tires on Ariens and Gravely commercial lawn and garden products are not covered by this warranty.
- Any misuse, alteration, improper assembly, improper adjustment, neglect, or accident which requires repair is not covered by this warranty.
- This warranty applies only to products purchased in the United States (including Puerto Rico) and Canada. In all other countries, contact place of purchase for warranty information.

## Disclaimer

Ariens may from time to time change the design of its products. Nothing contained in this warranty shall be construed as obligating Ariens to incorporate such design changes into previously manufactured products, nor shall such changes be construed as an admission that previous designs were defective.

## LIMITATION OF REMEDY AND DAMAGES

Ariens Company's liability under this warranty, and under any implied warranty that may exist, is limited to repair of any defect in workmanship, and repair or replacement of any defective part. Ariens shall not be liable for incidental, special, or consequential damages (including lost profits). Some states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

## DISCLAIMER OF FURTHER WARRANTY

**Ariens Company makes no warranty, express or implied, other than what is expressly made in this warranty. If the law of your state provides that an implied warranty of merchantability, or an implied warranty of fitness for particular purpose, or any other implied warranty, applies to Ariens Company, then any such implied warranty is limited to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.**

*This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.*





**Ariens Company**  
**GRAVELY**

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