

BUSH HOG®

GRASS CATCHER Model GC-250



ASSEMBLY ● OPERATION ● MAINTENANCE

CONGRATULATIONS!

You have invested in the best implement of its type on the market today.

The care you give your Bush Hog implement will greatly determine your satisfaction with its performance and its service life. We urge a careful study of this manual to provide you with a thorough understanding of your new implement before operating, as well as suggestions for operation and maintenance.

If your manual should become lost or destroyed, Bush Hog will be glad to provide you with a new copy. Order from Bush Hog, P. O. Box 1039, Selma, Alabama 36702-1039. Most of our manuals can also be downloaded from our website at www.bushhog.com.

As an authorized Bush Hog dealer, we stock genuine Bush Hog parts which are manufactured with the same precision and skill as our original equipment. Our trained service personnel are well informed on methods required to service Bush Hog equipment, and are ready and able to help you.

Should you require additional information or assistance, please contact us.

YOUR AUTHORIZED
BUSH HOG DEALER

BECAUSE BUSH HOG MAINTAINS AN ONGOING PROGRAM OF PRODUCT IMPROVEMENT, WE RESERVE THE RIGHT TO MAKE IMPROVEMENTS IN DESIGN OR CHANGES IN SPECIFICATIONS WITHOUT INCURRING ANY OBLIGATION TO INSTALL THEM ON UNITS PREVIOUSLY SOLD.

BECAUSE OF THE POSSIBILITY THAT SOME PHOTOGRAPHS IN THIS MANUAL WERE TAKEN OF PROTOTYPE MODELS, PRODUCTION MODELS MAY VARY IN SOME DETAIL. IN ADDITION, SOME PHOTOGRAPHS MAY SHOW SHIELDS REMOVED FOR PURPOSES OF CLARITY. **NEVER OPERATE** THIS IMPLEMENT WITHOUT ALL SHIELDS IN PLACE.

GRASS CATCHER Model GC-250

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RETAIL CUSTOMER'S RESPONSIBILITY UNDER THE BUSH HOG WARRANTY

It is the Retail Customer and/or Operator's responsibility to read the Operator's Manual, to operate, lubricate, maintain and store the product in accordance with all instructions and safety procedures. Failure of the operator to read the Operator's Manual is a misuse of this equipment.

It is the Retail Customer and/or Operator's responsibility to inspect the product and to have any part(s) repaired or replaced when continued operation would cause damage or excessive wear to other parts or cause a safety hazard.

It is the Retail Customer's responsibility to deliver the product to the authorized Bush Hog Dealer, from whom he purchased it, for service or replacement of defective parts which are covered by warranty. Repairs to be submitted for warranty consideration must be made within forty-five (45) days of failure.

It is the Retail Customer's responsibility for any cost incurred by the Dealer for traveling to or hauling of the product for the purpose of performing a warranty obligation or inspection.



BUSH HOG®
Performance You Can Count OnSM

LIMITED WARRANTY



Bush Hog warrants to the original purchaser of any new Bush Hog equipment, purchased from an authorized Bush Hog dealer, that the equipment be free from defects in material and workmanship for a period of one (1) year from date of retail sale. The obligation of Bush Hog to the purchaser under this warranty is limited to the repair or replacement of defective parts.

Replacement or repair parts installed in the equipment covered by this limited warranty are warranted for ninety (90) days from the date of purchase of such part or to the expiration of the applicable new equipment warranty period, whichever occurs later. Warranted parts shall be provided at no cost to the user at an authorized Bush Hog dealer during regular working hours. Bush Hog reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

DISCLAIMER OF IMPLIED WARRANTIES & CONSEQUENTIAL DAMAGES

Bush Hog's obligation under this limited warranty, to the extent allowed by law, is in lieu of all warranties, implied or expressed, **INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE** and any liability for incidental and consequential damages with respect to the sale or use of the items warranted. Such incidental and consequential damages shall include but not be limited to: transportation charges other than normal freight charges; cost of installation other than cost approved by Bush Hog; duty; taxes; charges for normal service or adjustment; loss of crops or any other loss of income; rental of substitute equipment, expenses due to loss, damage, detention or delay in the delivery of equipment or parts resulting from acts beyond the control of Bush Hog.

THIS LIMITED WARRANTY SHALL NOT APPLY:

1. To vendor items which carry their own warranties, such as engines, tires, and tubes.
2. If the unit has been subjected to misapplication, abuse, misuse, negligence, fire or other accident.
3. If parts not made or supplied by Bush Hog have been used in connection with the unit, if, in the sole judgement of Bush Hog such use affects its performance, stability or reliability.
4. If the unit has been altered or repaired outside of an authorized Bush Hog dealership in a manner which, in the sole judgement of Bush Hog, affects its performance, stability or reliability.
5. To normal maintenance service and normal replacement items such as gearbox lubricant, hydraulic fluid, worn blades, or to normal deterioration of such things as belts and exterior finish due to use or exposure.
6. To expendable or wear items such as teeth, chains, sprockets, belts, springs and any other items that in the company's sole judgement is a wear item.

NO EMPLOYEE OR REPRESENTATIVE OF BUSH HOG IS AUTHORIZED TO CHANGE THIS LIMITED WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY UNLESS SUCH CHANGE IS MADE IN WRITING AND SIGNED BY BUSH HOG'S SERVICE MANAGER, POST OFFICE BOX 1039, SELMA, ALABAMA 36702-1039.



Record the model number, serial number and date purchased. This information will be helpful to your dealer if parts or service are required.

MODEL NUMBER _____

DATE OF RETAIL SALE _____

MAKE CERTAIN THE WARRANTY REGISTRATION CARD HAS BEEN FILED WITH BUSH/SELMA, ALABAMA

IMPORTANT FEDERAL LAWS AND REGULATIONS* CONCERNING EMPLOYERS, EMPLOYEES AND OPERATIONS.

*(This section is intended to explain in broad terms the concept and effect of the following federal laws and regulations. It is not intended as a legal interpretation of the laws and should not be considered as such).

U.S. Public Law 91-596 (The Williams-Steiger Occupational and Health Act of 1970) OSHA

This Act Seeks:

“...to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources...”

DUTIES

Sec. 5 (a) Each employer—

- (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
- (2) shall comply with occupational safety and health standards promulgated under this Act.
 - (b) Each employee shall comply with occupational safety and health standards and all rules, regulations and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA Regulations

Current OSHA regulations state in part: “At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all equipment with which the employee is, or will be involved.” These will include (but are not limited to) instructions to:

Keep all guards in place when the machine is in operation;

Permit no riders on equipment;

Stop engine, disconnect the power source, and wait for all machine movement to stop before servicing, adjusting, cleaning or unclogging the equipment, except where the machine must be running to be properly serviced or maintained, in which case the employer shall instruct employees as to all steps and procedures which are necessary to safely service or maintain the equipment.

Make sure everyone is clear of machinery before starting the engine, engaging power, or operating the machine.

EMPLOYEE TRACTOR OPERATING INSTRUCTIONS:

1. Securely fasten your seat belt if the tractor has a ROPS.
2. Where possible, avoid operating the tractor near ditches, embankments, and holes.
3. Reduce speed when turning, crossing slopes, and on rough, slick, or muddy surfaces.
4. Stay off slopes too steep for safe operation.
5. Watch where you are going, especially at row ends, on roads, and around trees.
6. Do not permit others to ride.
7. Operate the tractor smoothly - no jerky turns, starts, or stops.
8. Hitch only to the drawbar and hitch points recommended by tractor manufacturers.
9. When tractor is stopped, set brakes securely and use park lock if available.

Child Labor Under 16 Years Old

Some regulations specify that no one under the age of 16 may operate power machinery. It is your responsibility to know what these regulations are in your own area or situation. (Refer to U.S. Dept. of Labor, Employment Standard Administration, Wage & Home Division, Child Labor Bulletin #102.)

IMPORTANT SAFETY PRECAUTIONS

Carefully read all of the safety instructions and decals in the safety section. This information could help you, your family, pets or bystanders avoid injury.

Training

- Regard the Bush Hog GC-250 Grass Catcher as a piece of power equipment and teach this regard to all who operate this unit.
- Before operating your Grass Catcher, carefully read and understand this manual and the operator's manual for your mower in their entirety. Familiarize yourself with the controls and the proper use of the equipment. If the operator(s) or mechanic(s) can not read English, it is the owner's responsibility to explain this material to them.
- Do not allow operation of this machine by untrained personnel. Never allow children, teenagers, or people unfamiliar with these instructions to use the mower. Local regulations may restrict the age of the operator.
- Avoid mowing while people, especially children, or pets, are nearby. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

Preparation

- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job.
- The use of personal protective equipment, such as (but not limited to) protection for the eyes, ears, feet, and head is recommended.
- While mowing, always wear substantial footwear and long trousers. Do not operate equipment when barefoot or when wearing open sandals.
- Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wires, bones, and other foreign objects which may damage the equipment or cause personal injury to the operator or bystanders.

Operation

Although hazard control and accident prevention are partially dependent upon the design and configuration of the equipment, these factors are also dependent upon the awareness, concern, prudence, and proper training of the personnel involved in the operation, transport, maintenance, and storage of the equipment. It is essential that all Operator Safety Mechanisms be connected and in operating condition prior to use for mowing. Refer to the Operator's Manual for the mower for additional hazard control and accident prevention information.

To avoid personal injury, follow these procedures:

- Become familiar with all operating and safety instruction in the Operator's manual for the mower before using this attachment.
- Never remove the discharge tube, bags, bagger top or discharge deflector while the engine is running.
- Always shut the engine off, engage parking brake, wait for all moving parts to stop and remove key before clearing an obstruction from the bagging system.
- Never do maintenance or repairs while the engine is running.
- Never operate the lawn mower unless you install a mulch plate, discharge deflector, or entire grass collection system.

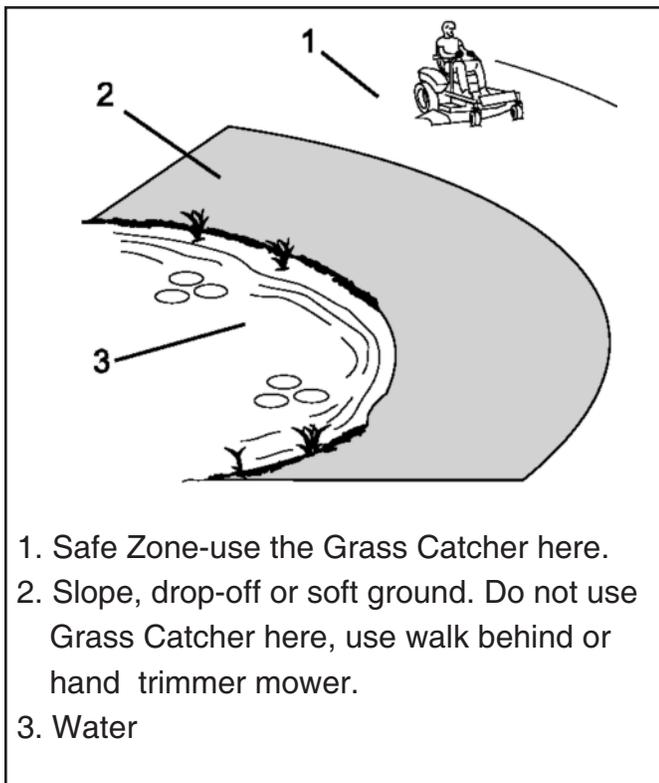
Slopes

- Use **EXTREME** caution when mowing and/or turning on slopes as loss of traction and/or tip-over could occur. The operator is responsible for safe operation on slopes.

CAUTION

Mowing on wet grass or steep slopes can cause sliding and loss of control. Wheels dropping over edges can cause rollovers, which may result in serious injury, death or drowning. To avoid loss of control and possibility of rollover:

- Do not mow slopes when grass is wet.
- Do not mow near drop-offs or near water.
- Do not mow slopes greater than 15 degrees.
- Reduce speed and use extreme caution on slopes.
- Avoid sudden turns or rapid speed changes.

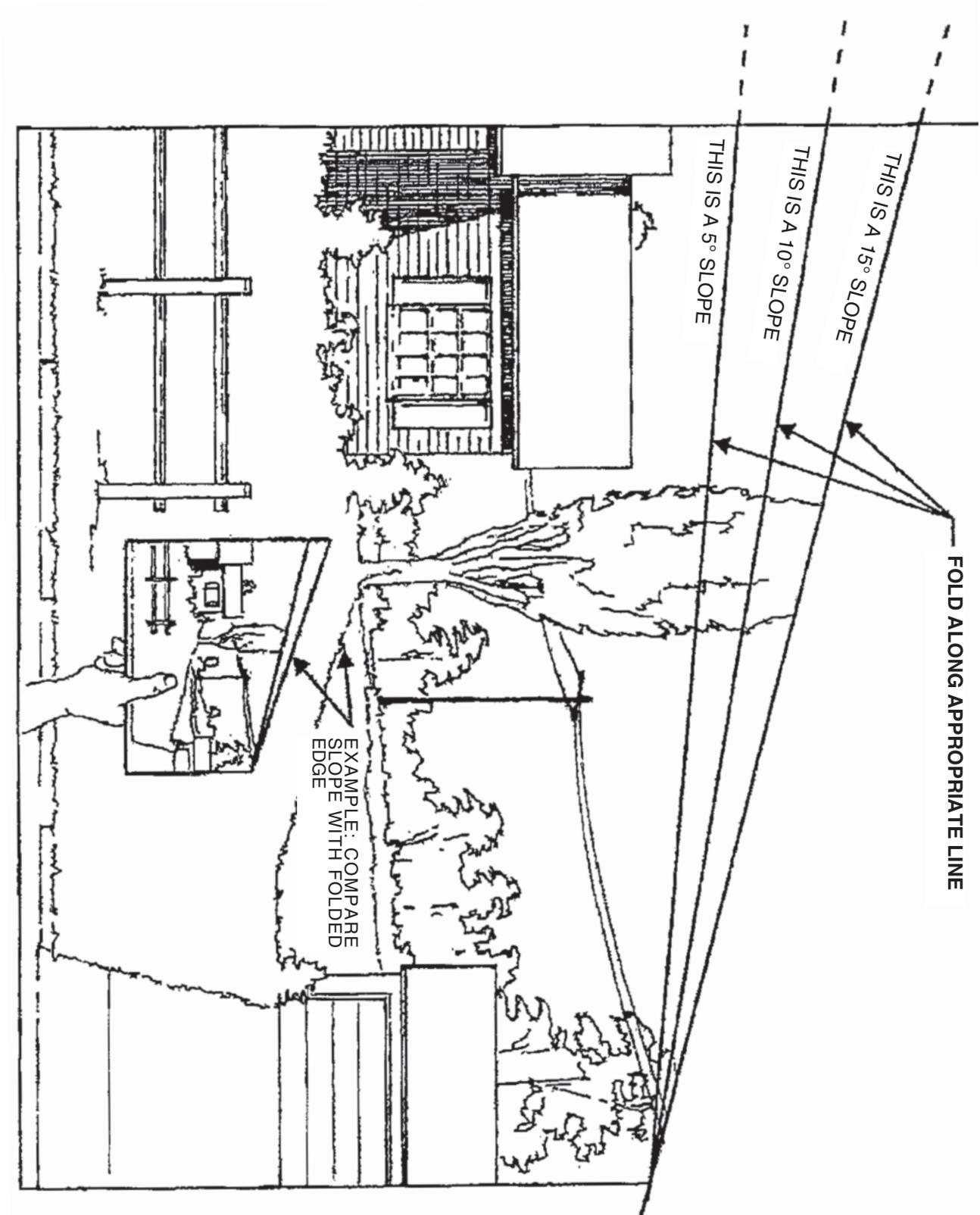


Refer to the Slope Chart on page 6 to determine the approximate slope angle to be mowed.

- Greater care must be taken as the slope increases.
- Always avoid sudden starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly down the slope.
- Avoid sudden starts when mowing uphill. Mower may tip backwards.
- Be aware that loss of traction may occur going downhill. Weight transfer to the front wheels may cause drive wheels to slip and cause loss of braking and steering.
- Watch for ditches, holes, rocks, dips, and rises that change the operating angle, as rough terrain could overturn the machine.
- Remove or mark obstacles such as rocks, tree limbs, etc. from the mowing area. Tall grass can hide obstacles.
- The operating characteristics of the machine will change with the Grass Catcher installed. The stability and traction of the machine will change as the Bagger fills with grass clippings. Use progressively greater care on slopes as the Bagger fills.
- Always install and remove the Bagger, including counterweights, as instructed. Failure to do so will cause a reduction in stability or traction. Do not operate the mower with only a portion of the Bagger installed.

SLOPE ANGLE GUIDE

ALIGN THIS EDGE WITH A VERTICAL SURFACE
(TREE, BUILDING, FENCE POST, POLE, ETC.)



Safety Alert Symbol



This Safety Alert Symbol means: “**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**”

This symbol is used to call attention to safety precautions that should be followed by the operator to avoid accidents. When you see this symbol, carefully read the message that follows and heed its advice. Failure to comply with safety precautions could result in death or serious bodily injury.

Safety Signs *Signal Words*

The signal words **DANGER, WARNING, AND CAUTION** are used on the equipment safety signs. These words are intended to alert the viewer to the existence and the degree of hazard seriousness.



White letters on **RED**

This signal word indicates a potentially hazardous situation which, if not avoided, will result in death or serious injury.



Black letters on **ORANGE**

This signal word indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury

It may also be used to alert against unsafe practices.



Black letters on **YELLOW**

This signal word indicates a potentially hazardous situation exist which, if not avoided, may result in minor or moderate injury.

It may also be used to alert against unsafe practices.

SAFETY DECALS

To promote safe operation, Bush Hog supplies safety decals on all products manufactured. Because damage can occur to safety decals either through shipment, use or reconditioning, Bush Hog will, upon request, provide safety decals for any of our products in the field at no charge. Contact your authorized Bush Hog dealer for more information.



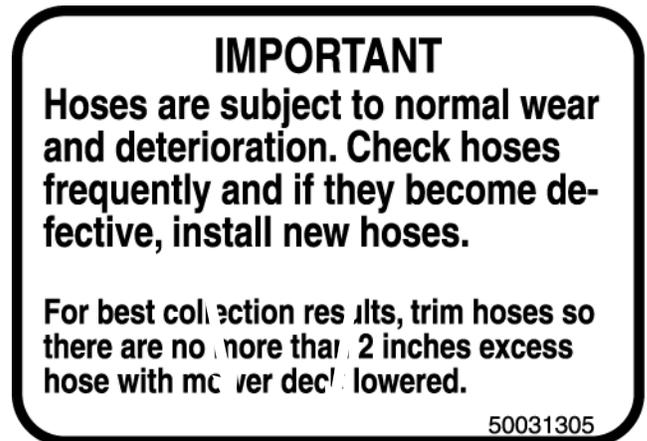
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SECTION I INTRODUCTION AND DESCRIPTION

Figure 1



1-1 Introduction

We are pleased to have you as a return Bush Hog customer. Your GC-250 has been designed to give you a low maintenance, simple, and effective way to collect the grass clippings or perform spring/fall clean-up with your Bush Hog Home Series ZT mower. This manual is provided to give you the necessary instructions to properly mount and operate the GC-250 on your ZT mower. Please read this manual thoroughly. Understand what each control is for and how to use it. Observe all safety decal precautions on the machine and noted throughout the manual.

Note: all references made to right, left, front, rear, top or bottom are as viewed from the normal operator's position on the ZT mower.

Note: All work must be performed with the engine off and the parking brake locked.

1-2 Description

The GC-250 Grass Catcher, Figure 1, is designed for turf maintenance where there is a need to collect the grass clippings as the ZT mower cuts the turf. It is also good for picking up leaves and twigs in pre-season and post-season clean-up.

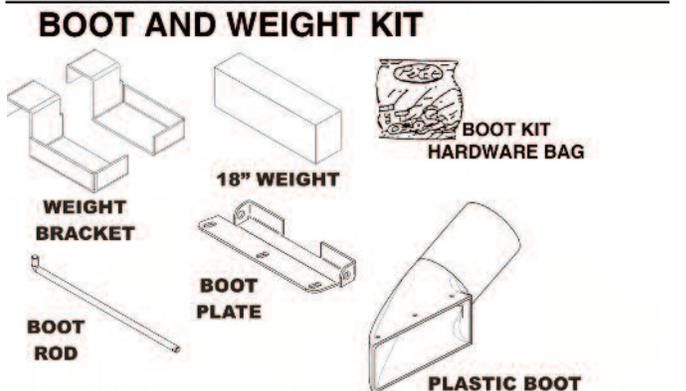
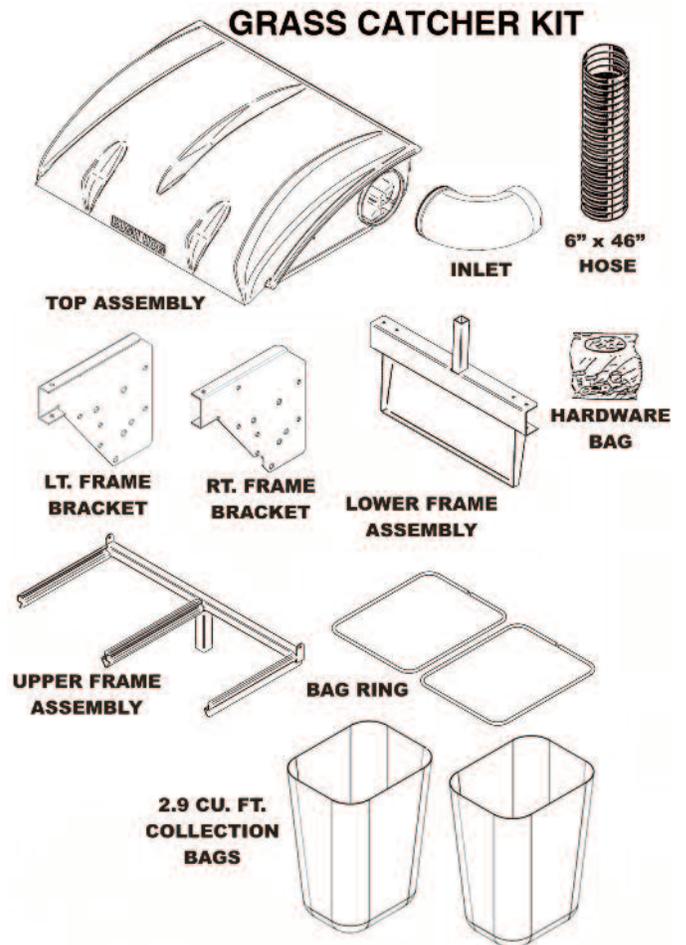
Grass clippings are drawn from the discharge area of the cutter deck up to the collection bags mounted over the rear portion of the ZT frame. Once the bags are full of clippings, the top of the unit can be pivoted up and each of the two bags can be removed individually for emptying.

SECTION II PREPARATION FOR INSTALLATION

2-1 Unpacking the Grass Catcher

Carefully remove wrapping from around shipping crate and open boxes. Remove and sort all parts for easy identification.

GC-250 GRASS CATCHER KIT CONTENTS



SECTION III INSTALLATION AND SETUP

3-1 Installing the Weight Kit

⚠ WARNING!

The front weight kit is designed to provide stability of operation when the Grass Catcher is attached to the machine.

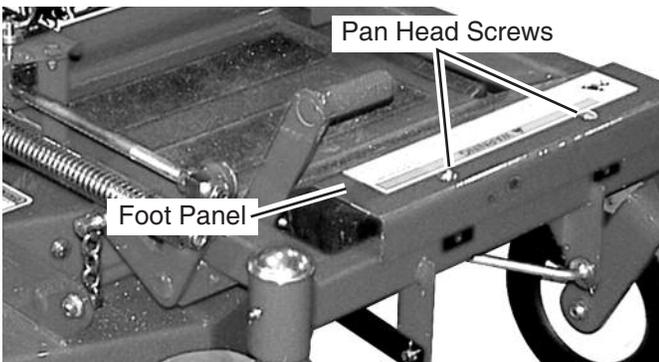
The front weight and holder brackets must be removed when the ZT is in use without the grass catcher attached.

Operation of the ZT with the weight kit in place without the grass catcher could cause loss of traction and steering control resulting in injury or death.

NOTE: The removeable weight is heavy and care should be taken when lifting the weight. Be sure you have a firm grip on the weight. Position your hands when placing the weight in the brackets so it will not set down on your hands or fingers.

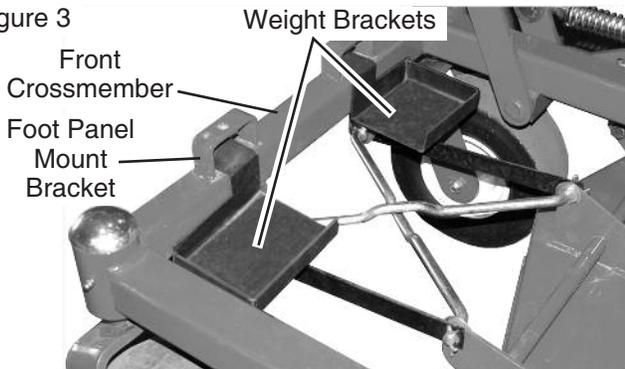
A. Begin by removing the two pan head screws that secure the foot panel to the frame front crossmember (Figure 2). Retain the fasteners for reinstallation. Lift the floor panel off the frame and lay aside for reinstallation.

Figure 2



Install the weight brackets to the front crossmember with the weight bracket hangers passing through foot panel mount brackets as shown in (Figure 3).

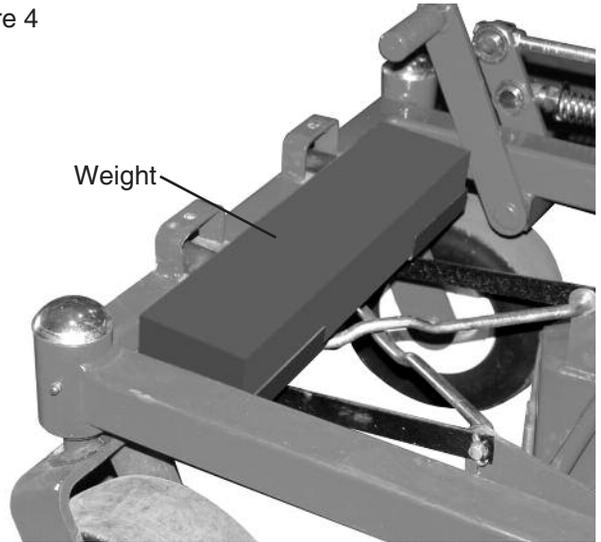
Figure 3



B. The front weight is 3" x 4" x 18" long and weighs approximately 60 pounds. If you are not capable of lifting 60 pounds with ease, get help to perform this step.

Place the weight into the weight brackets with the 4" side down. Make sure the weight is completely into the brackets and not sitting on the edge of the brackets. See (Figure 4). When the weight is securely in place reinstall the foot panel.

Figure 4

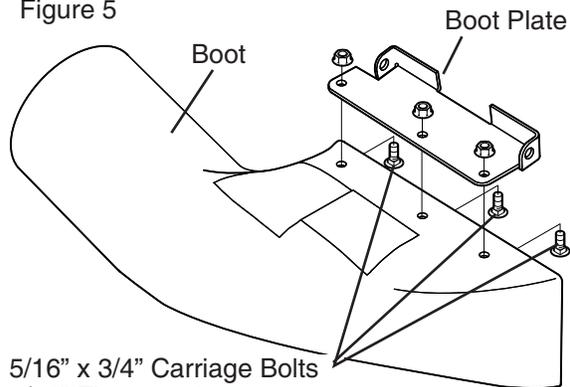


3-2 Installing the Boot Assembly

A. Assemble the Boot Plate to the Boot. Use the three 5/16" x 3/4" carriage bolts and 5/16" flange nuts supplied in bag of fasteners.

Place the Boot Plate atop the Boot and align holes. Place the carriage bolts through from the inside of the boot with the heads down. Apply the flange nuts and leave slightly loose. Refer to (Figure 5).

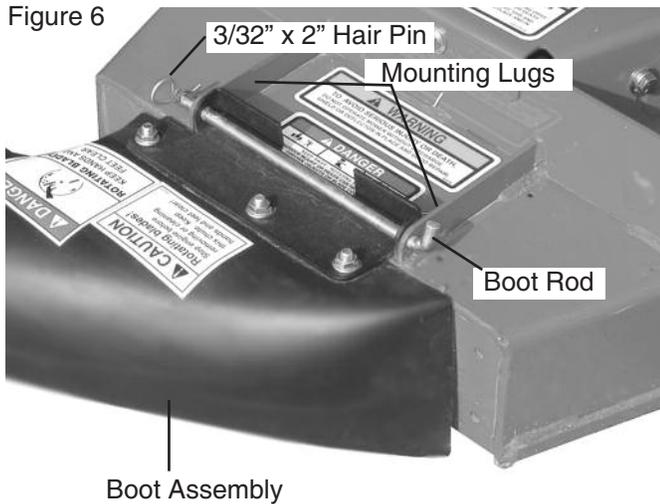
Figure 5



B. After the Boot is assembled it is ready to attach to the mower deck. Place the Boot Plate between the mounting lugs on the mower deck. Align the holes and place the Boot Rod supplied in kit through the holes and pin in place with the 3/32" x 2" hair pin supplied in kit.

With the Boot assembly in place make sure the 5/16" flange nuts are loose enough to allow the bolts to slide in the slotted hole. Place down pressure to the Boot squaring it to the discharge chute of the mower. Hold the Boot in place and tighten the flange nuts. Refer to (Figure 6).

Figure 6

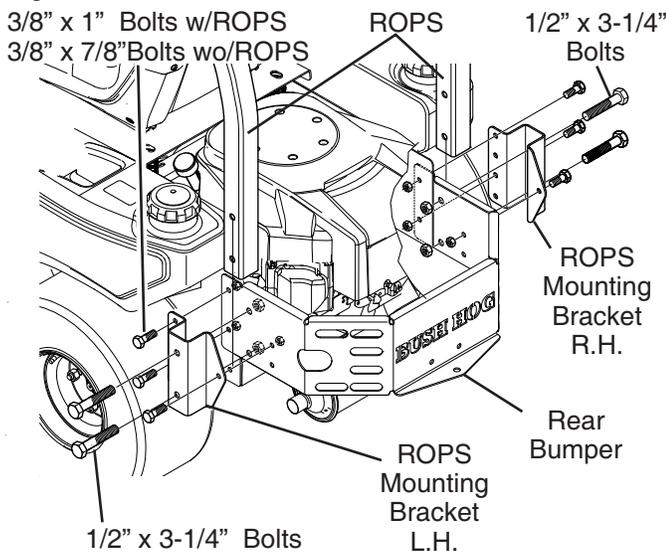


3-3 Installing the Frame

In order to mount the grass catcher frame to the ZT it will be necessary to remove the rear bumper from the machine. Refer to (Figure 7). **NOTE: These instructions are written assuming the machine is equipped with the Optional ROPS attached.**

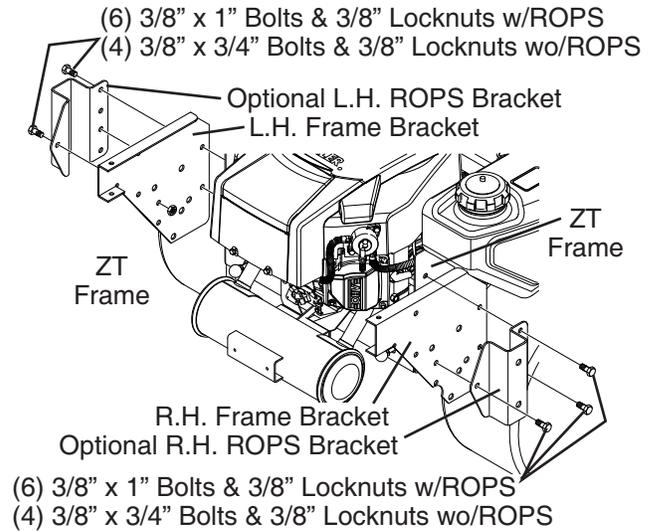
A. Begin by removing the four 1/2" x 3-1/4" bolts and 1/2" lock nuts that hold the ROPS in the mounting brackets. Retain these fasteners for re-installation. Slide the ROPS out of the brackets and lay aside. Remove the six 3/8" x 1" bolts (four 3/8" x 7/8" bolts if ROPS is not attached) and 3/8" lock nuts attaching the rear bumper to the frame. Retain these fasteners for re-installation. Remove the bumper.

Figure 7



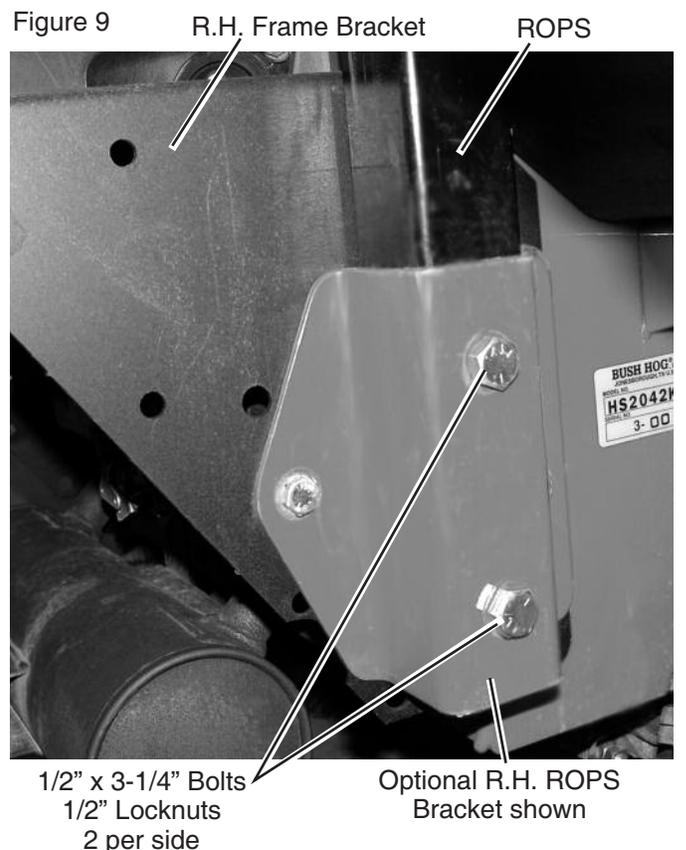
B. Attach the right hand and left hand frame brackets and the optional ROPS mounting brackets to the outside of the ZT frame as shown in (Figure 8). Use four 3/8" x 3/4" bolts or (six 3/8" x 1" bolts if ROPS is attached) and 3/8" locknuts. Tighten all fasteners, If ROPS is attached leave all fasteners slightly loose and proceed to next step.

Figure 8



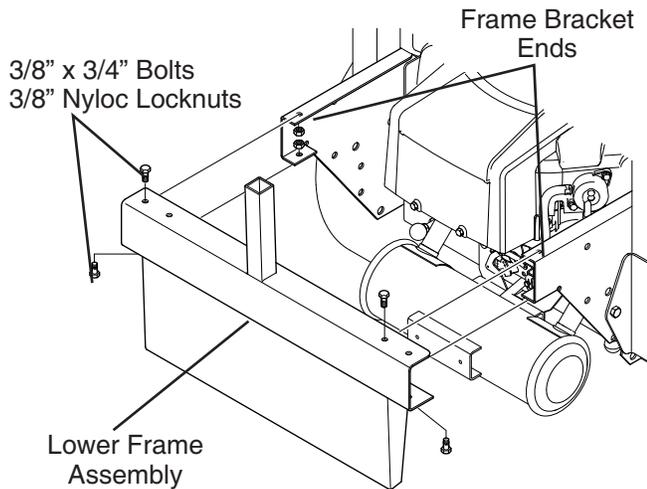
C. Re-install the ROPS into the ROPS mounting brackets and bolt to the frame using the four 1/2" x 3-1/4" bolts and 1/2" locknuts originally used to mount to the rear bumper. Tighten all mounting fasteners. See (Figure 9).

Figure 9



D. Place the lower frame assembly to the ends of the frame brackets as shown in (Figure 10). Use Four 3/8" x 3/4" bolts and 3/8" Nyloc locknuts from the hardware package.

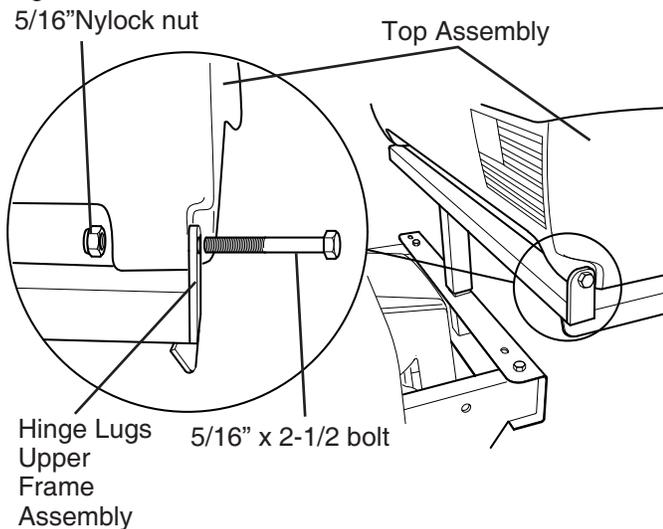
Figure 10



3-4 Installing the Top and Inlet Tube

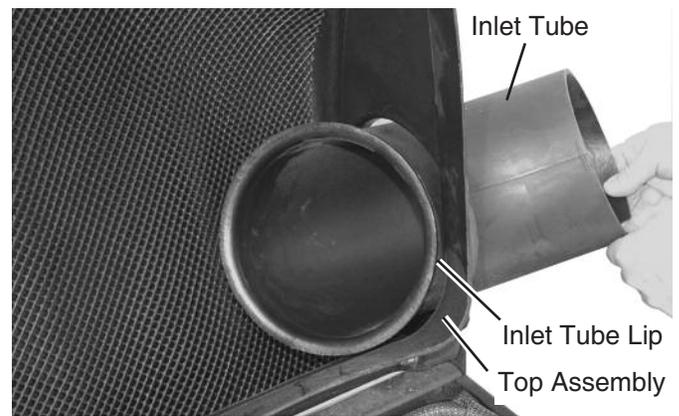
A. Place the top assembly on the upper frame assembly so the hinge areas are located between the hinge lugs on the upper frame assembly. Align the holes and insert a 5/16" x 2-1/2" bolts and two 5/16" nyloc nuts. **Do not overtighten the nut**, the top assembly should raise and lower freely. Refer to (Figure 12).

Figure 12



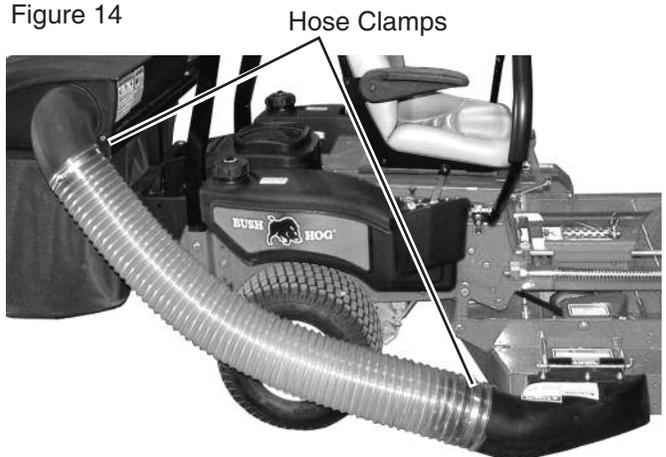
B. Locate the inlet tube and install to the top assembly. To install raise the lid and place the smooth end of the tube through the hole. Push the tube through the hole and firmly apply pressure until the lip has seated against the inside of the top. Refer to (Figure 13)

Figure 13



C. After the inlet tube is in place attach the 6" hose to the inlet tube and the boot assembly. Use the two large hose clamps supplied in the bag of hardware. For best collection results, trim hose so there is no more than 2 inches excess hose with mower deck in the lowest position. Refer to (Figure 14).

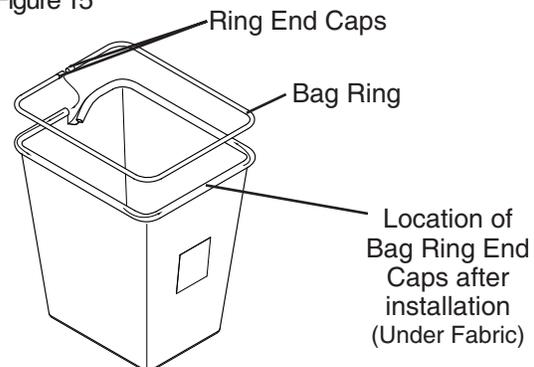
Figure 14



3-5 Installation / Removal of Collection Bags

A. To install the bag onto the ring, first install the ring end caps onto both ends of the ring. Place the seam openings of the bag onto the bag ring openings and slide the bag around the ring until the bag is completely on the ring. Continue to slide the bag around the ring until the seam opening in the bag is opposite the gap in the bag ring. Refer to (Figure 15)

Figure 15



B. Install the completed assemblies into the support frame and close the plastic top. Refer to (Figure 16)

Figure 16



Bags Installed into Support Frame

3-6 Blade Installation

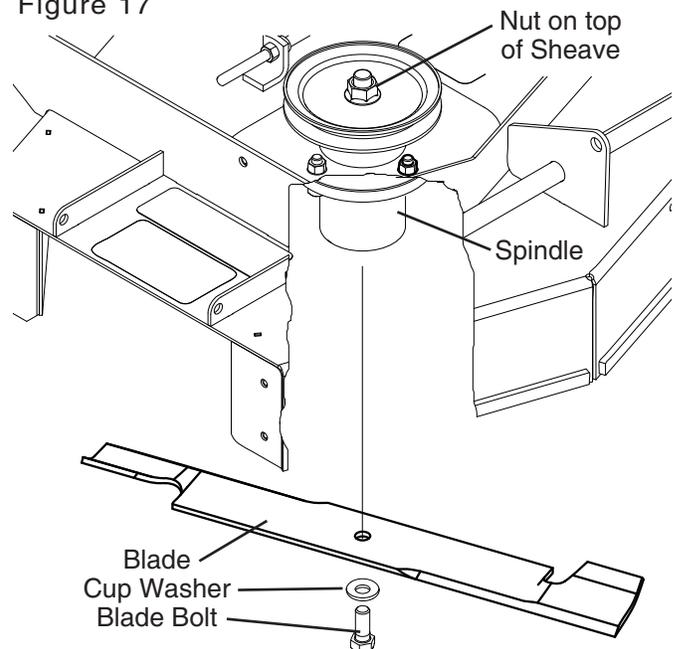
Note: Blade kits will either have two 18.1" long blades for the 36" mower deck or two 21.1" long blades for the 42" mower deck.

WARNING!

WHEN IT IS NECESSARY TO RAISE THE DECK OR MOWER FOR SERVICE OR MAINTENANCE, TO AVOID SERIOUS INJURY OR DEATH, STOP ENGINE, SET PARKING BRAKE, REMOVE IGNITION KEY AND SPARK PLUG WIRES AND SECURELY SUPPORT THE DECK OR MOWER BEFORE WORKING UNDERNEATH.

- A. Lift Deck and secure in raised position.
- B. Begin by removing the standard blades.
- C. Remove bolt, cup washer and blade from shaft.
- D. Install the new parallel uplift blades to the spindle with the curved part of the blade pointing up.
- E. Install blades with the concave side of the cup washer against the blade. Be sure the blades are installed with the uplifts and cutting edges in the proper directions.
Tighten the blade bolt to 76 ft-lbs torque.
Refer to (Figure 17).

Figure 17



Always use original Bush Hog Parts and refer to the mowers operators manual for blade maintenance.

SECTION IV OPERATING INSTRUCTIONS

4-1 General Safety

Only qualified people familiar with this operator's manual and the mower's operator's manual should operate this machine.

4-2 Operation and Tips on Mowing

- A. Perform BEFORE EACH USE maintenance list in paragraph 5-1.
- B. Start mower.
- C. With the mower engine at high speed, engage the mower deck.

NOTE: If the collection system does not appear to be collecting the grass clippings, disengage the deck, then engage the parking brake and turn the engine off. proceed to Section 4-3.

To obtain the maximum effectiveness from your collection system the tips listed below should be followed:

...Larger Machine With Grass Catcher

Remember that the mower is longer and wider with this attachment installed. By turning too sharply in confined places you may damage the grass catcher or mower.

...Trimming

Always trim with the left side of the mower. Do not trim with the right side of the mower because you could damage the boot assembly and collection tube.

...Cutting Height

Do not set the mower cutting height too low because long grass surrounding the mower can prevent air from getting under the mower, the bagging system will plug.

...Cutting Frequency

Cut the grass often, especially when it grows rapidly. You will have to cut your grass twice if it get excessively long.

...Bagging Long Grass

Excessively long grass is heavy and may not be propelled completely into the grass bags. If this happens, the discharge tube and chute may plug. To avoid plugging the bagging system, mow the grass at a high height of cut, the lower the mower to your normal mowing height and repeat the bagging process.

...Bagging Wet Grass

Always try to cut grass when it is dry because your lawn will have a neat appearance. If you must cut wet grass, use the conventional discharge feature of the mower. Several hours later, when the clippings are dry, install the grass catcher and vacuum up the grass clippings.

...Signs of Plugging

As you are bagging, a small amount of grass clippings normally blow out the front of the mower. an excessive amount of clippings blowing out indicates that the bags are full or plugged.

4-3 Emptying the Collection Bags

WARNING!

To determine when the collection bags are full, follow the following steps:

- A. Stop the forward movement of the mower.
- B. Disengage the mower deck.
- C. Turn the Ignition off and remove key.
- D. Engage the parking brake.
- E. Once the parking brake has been engaged, and only then, walk behind the mower and check the collection bags by lifting the plastic top. The load in the bags should not exceed the height of the installed bags.
- F. Slide the bag out and turn the bag over to deposit the clippings.
- G. To empty the bag, remove the bag by sliding rearward. Grasp the strap on the bottom of the bag, turn it upside down and empty the collected debris. Repeat for the other bag. Reinstall both bags and line with plastic bags if desired, close the top.

NOTE: Do not allow collection bags to become over filled as potential damage may occur to your equipment. Also, be sure to clean the hood and screen as needed.

4-4 Clearing Obstructions from Grass Catcher

WARNING!

Never perform this procedure with the engine running! To do so could result in severe injury or death.

- A. Stop the forward movement of the mower.
- B. Disengage the mower deck.
- C. Turn the Ignition off and remove key.
- D. Engage the parking brake.
- E. Check the collection bags and empty if they are full. Refer to step 4-3.
- F. Remove the boot assembly from the deck by removing the boot rod and hair pin (refer to Figure 6). Use a stick or similar object to remove the obstruction from the mower, boot assembly or collection tube.
- G. After the obstruction is removed re-attach the boot assembly to the deck.
- H. Resume mowing.

4-5 Removing the Grass Catcher

WARNING!

This machine should NEVER be in operation with the mower discharge opening uncovered. Thrown objects from an uncovered discharge opening could impact the operator or bystanders resulting in injury or death. Also contact with blade could result in injury or death.

Never operate this machine unless the discharge opening is covered by the original grass deflector or the complete grass catcher is installed.

SECTION V MAINTENANCE

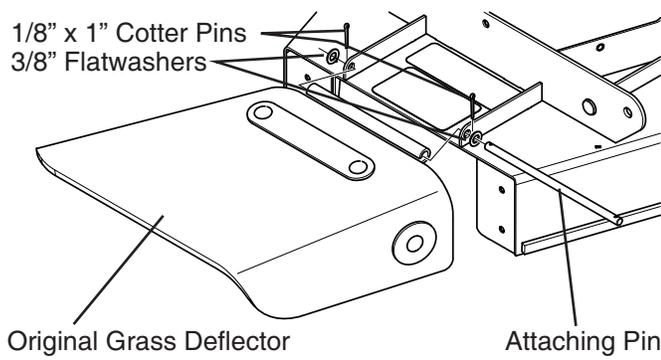
A. Remove the collection hose and boot assembly from the deck and the inlet tube by loosening the hose clamp and sliding the hose off the inlet tube..

B. Raise the top and remove bags, if bags contain debris empty them. Lay bags aside and close top. With the aid of another worker lift the grass catcher frame and top assembly from the hitch.

NOTE: The grass catcher hitch does not need to be removed from the mower.

C. Re-attach the original grass deflector. Refer to (Figure 18). If the original grass deflector has been misplaced, lost or damaged please see your nearest Bush Hog Dealer and order a replacement grass deflector kit before operating this machine.

Figure 18



4-6 Removal of the Weight Kit

⚠ WARNING!

The front weight and holder brackets must be removed when the ZT is in use without the grass catcher attached.

Operation of the ZT with the weight kit in place without the grass catcher could cause loss of traction and steering control resulting in injury or death.

A. Begin by removing the two pan head screws that secure the foot panel to the frame front crossmember (Figure 2). Retain the fasteners for reinstallation. Lift the floor panel off the frame and lay aside for reinstallation.

B. Remove the weight from the weight brackets See (Figure 4).

NOTE: The front weight is 3" x 4" x 18" long and weighs approximately 60 pounds. If you are not capable of lifting 60 pounds with ease, get help to perform this step.

C. Remove the weight mounting brackets.

D. Re-install the foot panel.

5-1 Maintenance Checklist

Before each use:

1. Check blades and spindles to be sure that no foreign objects, such as wire or steel strapping bands, are wrapped around them.

2. Inspect blades for wear. Replace if necessary. If it is necessary to sharpen blades, remove the blades from the spindles before sharpening. **DO NOT** sharpen blades while still attached to the mower.

3. Make sure all shields are in place and in good condition. Repair or replace any missing or damaged shields.

4. Listen for abnormal sounds, which might indicate loose parts, damaged bearings, or other damage. Correct any deficiency before continuing operation.

5. Check for wear or deterioration of the hose. If there are any portions of the hose that have been torn or worn through, replace with genuine BUSH HOG parts.

After Each Use:

1. Clean all debris from machine especially from the collection bags, and off of safety decals. Replace any missing or illegible decals.

2. Inspect the unit for worn or damaged components. Repair or replace before next use. Any replacement component installed during repair shall include the component's current safety decal specified by the manufacturers to be affixed to the component.

Parts And Service Information

Bush Hog Grass Catcher owners should record the name and telephone number of their dealer. Your dealer will be happy to supply replacement parts, accessories and do any service or repairs to your Grass Catcher. If for any reason your dealer is unable to service your Grass Catcher or supply replacement parts, contact Bush Hog and include the following information from the serial number plate:

Model Number _____

5-2 Recommended Maintenance Schedule

Maintenance Service Intervals	Maintenance Procedure
After first 10 hours of operation	<ul style="list-style-type: none"> Inspect the Grass Catcher
Before each use	<ul style="list-style-type: none"> Clean the Grass Catcher
Before storage	<ul style="list-style-type: none"> Inspect the Grass Catcher Clean the Grass Catcher

Inspecting the Grass Catcher

Inspect the bagger attachment after the first 10 hours of operation, and monthly thereafter.

1. Check the chute, discharge tube, and the bagger top. Replace these parts if they are cracked or broken.
2. Tighten all nuts, bolts, and screws.
3. Under normal use the bags will deteriorate and wear. Inspect the grass bags for deterioration.



CAUTION!

You or bystanders could be severely injured by flying debris or thrown objects that may pass through torn, worn or deteriorated grass bags.

- Frequently check the grass bags for holes, rips, wear, and other deterioration.
- Do not wash the grass bags.
- If the bag has deteriorated, install new grass bags supplied by the manufacturer of this bagger attachment.

Inspecting the Mower Blades

Refer to your mower Operator's Manual for complete blade maintenance.

Caring for the Grass Bags

Washing the grass bags is not recommended.

Under normal use the bags will deteriorate and wear. To prevent rapid deterioration of the bag material, store the bags where they will dry completely after each use.

Cleaning the Grass Catcher

1. After each use, remove and wash the inside and out side of the Grass Catcher top, discharge tube, chute, and the underside of the mower, using water sprayed from a garden hose. Use a mild automotive detergent to remove stubborn dirt.
2. Make sure you remove matted grass from all parts.
3. After washing, let all of the parts dry thoroughly. Do not wash the grass bags.

Storage

Storing the Grass Catcher

1. Clean the Grass Catcher; refer to Cleaning the Grass Catcher.
2. Inspect the Grass Catcher for damage; refer to Inspecting the Grass Catcher.
3. Make sure the grass bags are empty and thoroughly dry.
4. Store the Grass Catcher in a clean, dry place, out of direct sunlight. This protects the plastic parts and extends the life of the bagger. If you must store the bagger outside, cover it with a weatherproof cover.

SECTION VI TIPS AND TROUBLESHOOTING

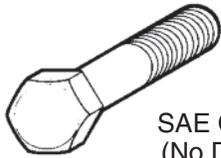
1. When the bags get full, there will be slight blowout from the front right corner of the Grass Catcher. Emptying the bags at this point will minimize the potential for the tube to plug.
2. If there is excessive blowout from the deck, check to make sure that the rear screen in the hood is clear of grass build up. It is recommended that the screen and mesh portions of the bags be cleaned regularly to maintain proper air flow. This is especially important in wet conditions.
3. During dry conditions check engine air cleaners and clean cooling fins more frequently. The Grass Catcher has been designed to minimize the impact of dust and debris on the mower, but bagging can be a dirty environment.
4. Maintaining a ground speed that does not pull down the engine RPM will allow for the highest productivity and best quality of cut. Boggging the engine RPM down by going too fast will cause plugging and quality of cut issues.
5. When storing the bagger, it is recommended that any grass build up in the tubes be cleaned out.

TORQUE SPECIFICATIONS

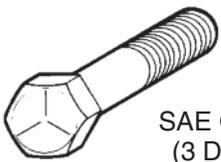
Proper torque for American fasteners used on Bush Hog equipment.
Recommended Torque in Foot Pounds (Newton Meters).*

AMERICAN

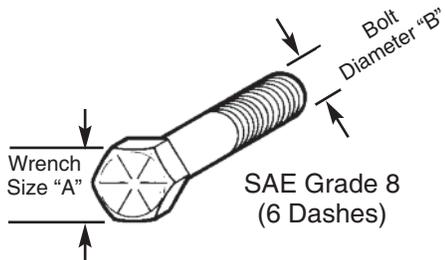
Bolt Head Markings



SAE Grade 2
(No Dashes)



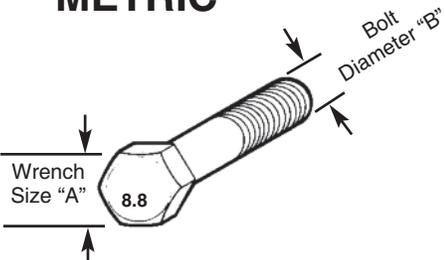
SAE Grade 5
(3 Dashes)



SAE Grade 8
(6 Dashes)

WRENCH SIZE (IN.) "A"	BOLT DIAMETER (IN.) "B" AND THREAD SIZE	SAE GRADE 2	SAE GRADE 5	SAE GRADE 8
7/16	1/4 - 20 UNC	6 (7)	8 (11)	12 (16)
7/16	1/4 - 28 UNF	6 (8)	10 (13)	14 (18)
1/2	5/16 - 18 UNC	11 (15)	17 (23)	25 (33)
1/2	5/16 - 24 UNF	13 (17)	19 (26)	27 (37)
9/16	3/8 - 16 UNC	20 (27)	31 (42)	44 (60)
9/16	3/8 - 24 UNF	23 (31)	35 (47)	49 (66)
5/8	7/16 - 14 UNC	32 (43)	49 (66)	70 (95)
5/8	7/16 - 20 UNF	36 (49)	55 (75)	78 (106)
3/4	1/2 - 13 UNC	49 (66)	76 (103)	106 (144)
3/4	1/2 - 20 UNF	55 (75)	85 (115)	120 (163)
7/8	9/16 - 12 UNC	70 (95)	109 (148)	153 (207)
7/8	9/16 - 18 UNF	79 (107)	122 (165)	172 (233)
15/16	5/8 - 11 UNC	97 (131)	150 (203)	212 (287)
15/16	5/8 - 18 UNF	110 (149)	170 (230)	240 (325)
1-1/8	3/4 - 10 UNC	144 (195)	266 (360)	376 (509)
1-1/8	3/4 - 16 UNF	192 (260)	297 (402)	420 (569)
1-5/16	7/8 - 9 UNC	166 (225)	430 (583)	606 (821)
1-5/16	7/8 - 14 UNF	184 (249)	474 (642)	668 (905)
1-1/2	1 - 8 UNC	250 (339)	644 (873)	909 (1232)
1-1/2	1 - 12 UNF	274 (371)	705 (955)	995 (1348)
1-1/2	1 - 14 UNF	280 (379)	721 (977)	1019 (1381)
1-11/16	1-1/8 - 7 UNC	354 (480)	795 (1077)	1288(1745)
1-11/16	1-1/8 - 12 UNF	397 (538)	890 (1206)	1444 (1957)
1-7/8	1-1/4 - 7 UNC	500 (678)	1120 (1518)	1817 (2462)
1-7/8	1-1/4 - 12 UNF	553 (749)	1241 (1682)	2013 (2728)
2-1/16	1-3/8 - 6 UNC	655 (887)	1470 (1992)	2382 (3228)
2-1/16	1-3/8 - 12 UNF	746 (1011)	1672 (2266)	2712 (3675)
2-1/4	1-1/2 - 6 UNC	870 (1179)	1950 (2642)	3161 (4283)
2-1/4	1-1/2 - 12 UNF	979 (1327)	2194 (2973)	3557 (4820)

METRIC



Numbers appearing on bolt heads indicate ASTM class.

Proper torque for metric fasteners used on Bush Hog equipment.
Recommended torque in foot pounds (Newton Meters).*

WRENCH SIZE (mm) "A"	BOLT DIA. (mm) "B"	ASTM 4.6	ASTM 8.8	ASTM 9.8	ASTM 10.9
8	5	1.8 (2.4)		5.1 (6.9)	6.5 (8.8)
10	6	3 (4)		8.7 (12)	11.1 (15)
13	8	7.3 (10)		21.1 (29)	27 (37)
16	10	14.5 (20)		42 (57)	53 (72)
18	12	25 (34)	74 (100)	73 (99)	93 (126)
21	14	40 (54)	118 (160)	116 (157)	148 (201)
24	16	62 (84)	167 (226)	181 (245)	230 (312)
30	20	122 (165)	325 (440)		449 (608)
33	22		443 (600)		611 (828)
36	24	211 (286)	563 (763)		778 (1054)
41	27		821 (1112)		1138 (1542)
46	30	418 (566)	1119 (1516)		1547 (2096)

*Use 75% of the specified torque value for plated fasteners. Use 85% of the specified torque values for lubricated fasteners.

NOTES



BUSH HOG[®]

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