

# **BUSH HOG®**

## **MODEL GT 42**

### **Gasoline Powered Rotary Cutter**



## **Operator's Manual**

**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, 2501 Griffin Ave., Selma, Alabama, 36703. Most of our manuals can also be downloaded from our website at [www.bushhog.com](http://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.

# Model GT42 Operator's Manual

## TABLE OF CONTENTS

SECTION/PARA	PAGE	SECTION/PARA	PAGE
Warranty .....	2	III Maintenance .....	10
Dealer Preparation Check List .....	3	3-1 Maintenance Check List .....	10
Safety Precautions .....	4	3-2 Belt Adjustment .....	10
I Introduction and Description .....	6	3-3 Replacing Belt .....	10
1-1 Introduction .....	6	3-4 Hub Bearing Replacement .....	11
1-2 Description .....	6	3-5 Blade Replacement .....	11
II Operation .....	7	3-6 Troubleshooting .....	11
2-1 General Safety .....	7	IV Dealer Assembly .....	12
2-2 Attaching To Towing Vehicle .....	7	4-1 Base Unit Assembly .....	13
2-3 Cutting Height Adjustment .....	7	4-2 Electric Start Connection To Honda Engine .....	14
2-4 Optional Electric Start Control Box Mounting .....	8	4-3 Optional Electric Start Connection To Briggs & Stratton Engine .....	14
2-5 Engine Starting .....	8	4-4 Optional Front Roller Installation .....	15
2-6 Cutting .....	9	4-5 Optional Rear Roller Installation .....	15
		Safety Decals .....	16
		Torque Specifications .....	17

## 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 drainage 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.



## 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 for non-commercial, state, and municipalities' use and ninety (90) days for commercial use 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, 2501 GRIFFIN AVE., SELMA, ALABAMA 36703.



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 \_\_\_\_\_

MAKE CERTAIN THE WARRANTY INFORMATION  
HAS BEEN FILED WITH BUSH HOG / SELMA, ALABAMA

SERIAL NUMBER \_\_\_\_\_

DATE OF RETAIL SALE \_\_\_\_\_

# DEALER PREPARATION CHECK LIST

## GT 42 Rotary Cutter

BEFORE DELIVERING MACHINE — The following check list should be completed.  
Use the Operator's Manual as a guide.

### ASSEMBLY

- ☐ 1. Axle assembly
- ☐ 2. Tongue assembly
- ☐ 3. Throttle assembly

### ENGINE SERVICE (Refer to Engine Owner's Manual)

- ☐ 1. Oil reservoir filled
- ☐ 2. Gas tank filled

### GENERAL

- ☐ 1. All shields in place
- ☐ 2. All safety decals legible (If damaged, Bush Hog will furnish free upon request)
- ☐ 3. All bolts tight (Including blade bolts)
- ☐ 4. Machine operates properly
- ☐ 5. Overall condition good
- ☐ 6. Operator's Manual and Engine Manual was delivered to owner, and he has been instructed on the safe and proper use of cutter.
- ☐ 7. Kill switch cord included
- ☐ 8. Warranty information has been filed with Bush Hog Selma, Alabama.

Dealer's  
Signature \_\_\_\_\_

Purchaser's  
Signature \_\_\_\_\_

THIS CHECKLIST TO REMAIN IN OWNER'S MANUAL  
It is the responsibility of the dealer to complete the procedures listed  
above before delivery of this implement to the customer.



## IMPORTANT SAFETY PRECAUTIONS

**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 serious bodily injury.**



In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel in the operation, transport, maintenance and storage of equipment. Lack of attention to safety can result in accident, personal injury, reduction of efficiency and worst of all - loss of life. Watch for safety hazards and correct deficiencies promptly. Use the following safety precautions as a general guide to safe operations when using this machine. Additional safety precautions are used throughout this manual for specific operating and maintenance procedures. Read this manual and review the safety precautions often until you know the limitations.

1. Read the Operator's Manual.
2. Become familiar with all the machine's controls and all the caution, warning, and danger decals affixed to the machine before attempting to start or operate machine.
3. Before starting or operating the machine, make a walk around inspection and check for obvious defects such as loose mounting bolts and damaged components. Correct any deficiency before starting.
4. Do not allow children to operate the cutter. Do not allow adults to operate it without proper instruction.
5. Do not carry passengers.
6. Keep the area of operation clear of all persons particularly small children and pets. The operator should cease mowing whenever anyone comes within the operating area.
7. Clear the work area of objects which might be picked up and thrown.
8. Stop the cutter engine (motor), towing vehicle engine (motor), and set towing vehicle parking brake before leaving operator's position.
9. Stop the cutter engine (motor), towing vehicle (motor), disconnect spark plug wire, set towing vehicle parking brake, and listen to make certain cutter blade has stopped rotating before making any repairs or adjustments.
10. Stop cutter engine when transporting or not in use.
11. Take all possible precautions when leaving the vehicle unattended, such as shifting into neutral, setting the parking brake, stopping both engines, and removing the key.
12. Do not stop or start suddenly when going uphill or downhill. Mow up and down the face of slopes; never across the face.
13. Reduce speed and exercise extreme caution on slopes and in sharp turns to prevent tipping or loss of control. Be especially cautious when changing direction on slopes.
14. Stay alert for holes, rocks and roots in the terrain and other hidden hazards.
15. Use only approved drawbar hitch points.
16. Do not turn sharply. Use care when backing.
17. Use counterweight(s) or wheel weights when suggested in the towing vehicle owner's manual.
18. Handle gasoline with care - it is highly flammable.
  - A. Use approved gasoline container.
  - B. Never remove the fuel cap of, or add gasoline to, a running or hot engine, or fill the fuel tank indoors. Wipe up spilled gasoline.
  - C. Open doors if the engine is running in the garage—exhaust fumes are dangerous. Do not run the engine indoors.



19. Keep the towing vehicle and cutter in good operating condition and keep safety devices in place.
20. Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
21. Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
22. To reduce fire hazard, keep the engine free of grass, leaves or excessive grease.
23. Do not change the engine governor settings or overspeed the engine.
24. Mow only in daylight or in good artificial light.
25. Never adjust cutting height or leveling linkage while the engine (motor) is running.
26. Check the blade mounting bolts for proper tightness at frequent intervals.
27. Stop cutter engine before backing up. Do not cut in reverse unless absolutely necessary and then only after careful observation of the entire area behind the mower.
28. Do not operate the equipment when barefoot or wearing open sandals. Always wear substantial footwear.
29. Stop the cutter engine and watch out for traffic when crossing gravel drives, walks or roads.
30. After striking a foreign object, stop the cutter engine (motor), remove the wire from the spark plug, thoroughly inspect the cutter for any damage and repair the damage before restarting and operating.
31. If the cutter should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
32. Never operate the cutter without proper guards, plates or other safety protective devices in place.
33. Wear personal protective equipment such as, but not limited to, protection for eyes, ears, feet, hands and head when operating or repairing the equipment. Do not wear loose clothing or jewelry that may catch on equipment moving parts.



# SECTION I INTRODUCTION AND DESCRIPTION

## 1-1 INTRODUCTION

We are pleased to have you as a Bush Hog customer. Your Model GT42 Rotary Cutter has been carefully designed to give maximum service with minimum down time. This manual is provided to give you the necessary operating and maintenance instructions for keeping your rotary cutter in top operating condition. Please read this manual thoroughly. Understand what each control is for and how to use it. Observe all safety precautions decaled on the machine and noted throughout the manual for safe operation of implement. If any assistance or additional information is needed, contact your authorized Bush Hog dealer.

### NOTE

All references made to right, left, front, rear, top or bottom is as viewed facing the direction of forward travel with implement properly attached to towing vehicle.

## 1-2 DESCRIPTION

There are two different models of the GT42 Rotary Cutter. The GT42-07 has an 8 horsepower engine and the GT42-08 has an 11 horsepower engine.

The GT42 Rotary Cutter (Figure 1-1) is designed primarily for use with 4 wheeled, all terrain vehicles

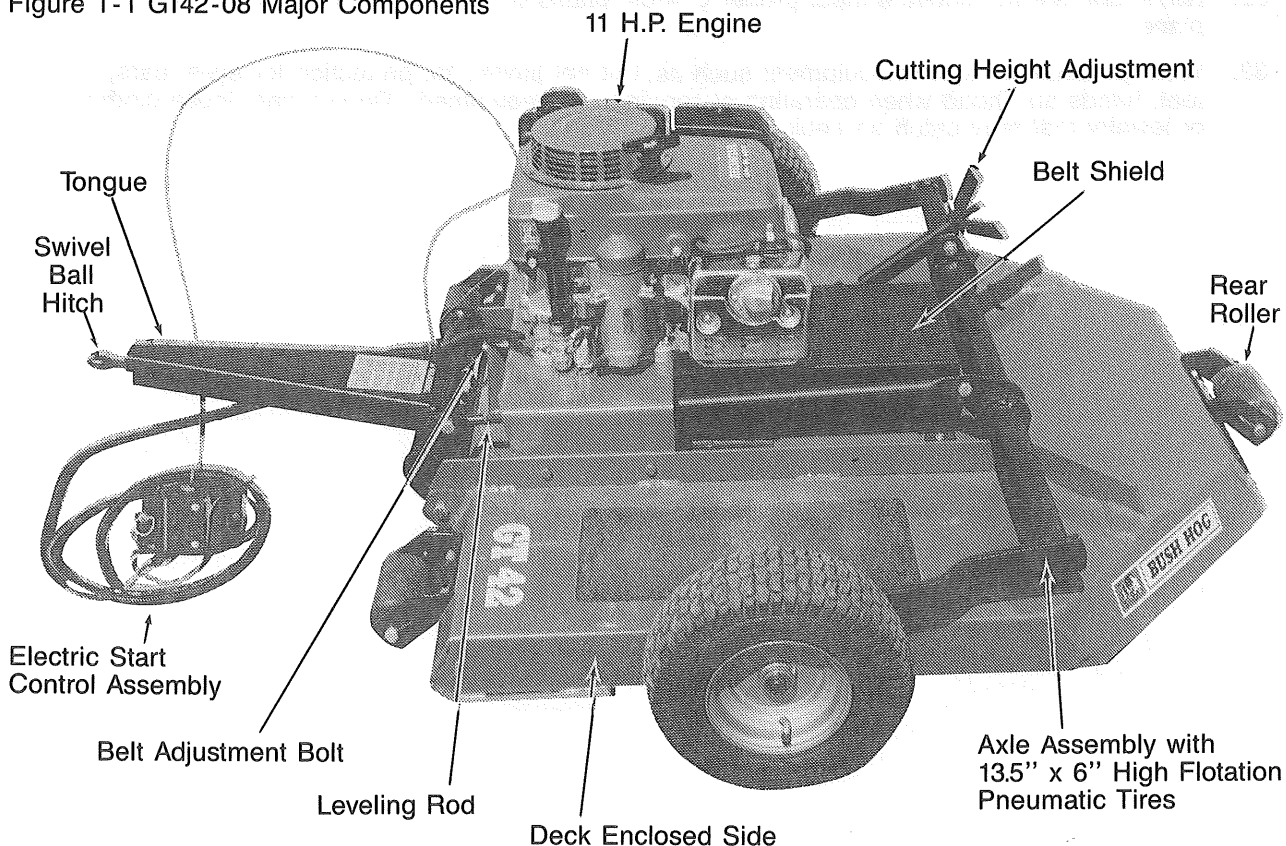
(ATVs) and garden tractors. It attaches to the towing vehicle drawbar using a ball hitch and pin. The 42-inch, parallel uplift blade will cut pasture grass and weeds to 1/2-inch diameter. This model of rotary cutter is not meant for precision yard mowing or heavy brush cutting.

The cutter is powered by a vertical shaft, gasoline engine. Belt drive transfers power from the engine through a centrifugal clutch to the blade. Optional front and/or rear rollers may be installed to help prevent scalping on uneven terrain.

**Table 1-1 Technical Specifications**

Length .....	69 in.
Width .....	54 in.
Height .....	23 in.
Weight .....	270 lbs./8 hp
	295 lbs./11 hp
Max. Cutting Height .....	5 in.
Cutting Width .....	42 in.
Cutting Capacity .....	Grass to 1/2 in.
Hitch .....	Ball & Pin
Blade Tip Speed .....	16,300 ft./min.

**Figure 1-1 GT42-08 Major Components**





## SECTION II OPERATION

### 2-1 GENERAL SAFETY

Only qualified people familiar with this operator's manual should operate this machine. Operator should wear hard hat, safety glasses and safety shoes. Before beginning operation, clear work area of any objects that may be picked up and thrown. Check for ditches, stumps, holes or other obstacles that could upset tractor or damage cutter. Always stop cutter engine before crossing driveways, walkways, roads or gravel areas. Before leaving operator's seat turn off cutter engine and towing vehicle, set parking brake and wait for blade to come to a complete stop.



**WARNING**

**TO AVOID SERIOUS INJURY OR DEATH  
ALWAYS STOP CUTTER ENGINE  
BEFORE ATTACHING, DETACHING, OR  
MAKING ANY ADJUSTMENTS.**

### 2-2 ATTACHING TO TOWING VEHICLE

A. Turn off engine and set parking brake of towing vehicle.

B. Attach hitch pin to towing vehicle drawbar as shown in Figure 2-1.

C. Slide rubber washer and mower swivel ball hitch onto hitch pin and secure with lynch pin.

### 2-3 CUTTING HEIGHT ADJUSTMENT

The cutter should be operated at the highest position which will give desired cutting results. This will help prevent blade from striking the ground, reducing blade wear and undue strain on the machine. For best results under heavier cutting conditions, always tilt the cutter so front is approximately 2 inches lower than rear. This tilt decreases horsepower requirements and increases potential ground speed. When fine shredding is desired, adjust cutter deck level. This will keep the foliage under cutter until thoroughly shredded. More power is required for shredding.



**CAUTION**

**TILTING CUTTER WILL INCREASE THE  
POSSIBILITY OF A THROWN OBJECT.**

The cutting height is adjustable from 1 to 5 inches. Adjustment is made by turning handle shown in Figure 2-2.

The forward to rear tilt (slope) of the deck is adjusted with the leveling rod. Remove bolt securing leveling rod to tongue (Figure 2-3). Position cutter deck as desired. Adjust end of rod in or out as necessary to reconnect to tongue. Fasten with bolt and nut until nut is snug not tight.

Figure 2-1

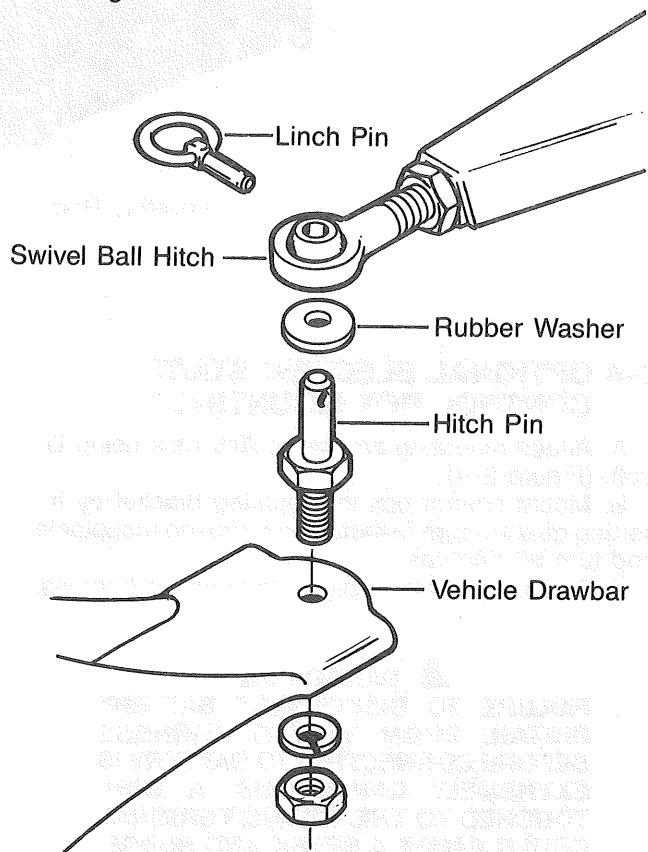


Figure 2-2

Cutting Height  
Adjustment Handle

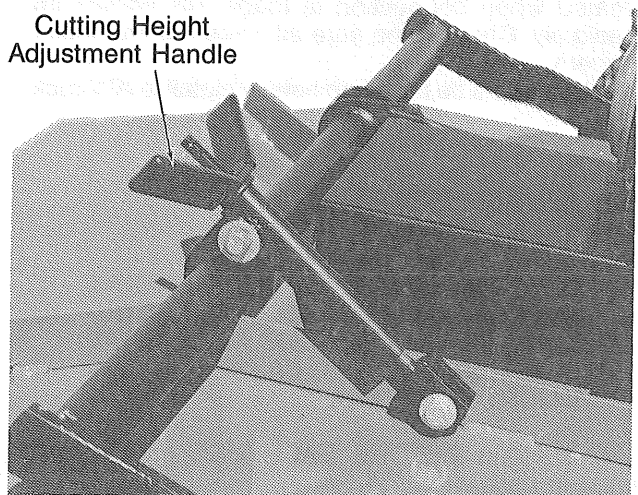
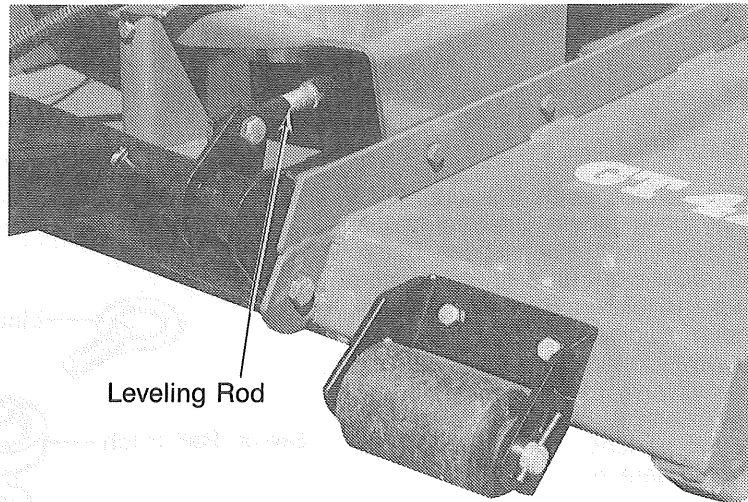


Figure 2-3  
Leveling Adjustment



Leveling Rod

## 2-4 OPTIONAL ELECTRIC START CONTROL BOX MOUNTING

- Attach mounting bracket to ATV rack using U-bolt. (Figure 2-4)
- Mount control box to mounting bracket by inserting quarter-turn fasteners into clip-on receptacle and turn 90 degrees.
- Disconnect battery pigtail from wiring harness.

**⚠ DANGER ⚠**  
**FAILURE TO DISCONNECT BATTERY PIGTAIL FROM WIRING HARNESS BEFORE CONNECTING TO BATTERY IS EXTREMELY DANGEROUS. A WIRE TOUCHED TO THE WRONG TERMINAL COULD CAUSE A SPARK AND SUBSEQUENT BATTERY EXPLOSION.**

D. Connect white wire from battery pigtail to negative terminal on battery. (Figure 4-3) Connect red wire to positive terminal.

E. Plug pigtail into wiring harness. If a spark is created when connection is made, disconnect immediately. Check to be sure all wires are connected properly.

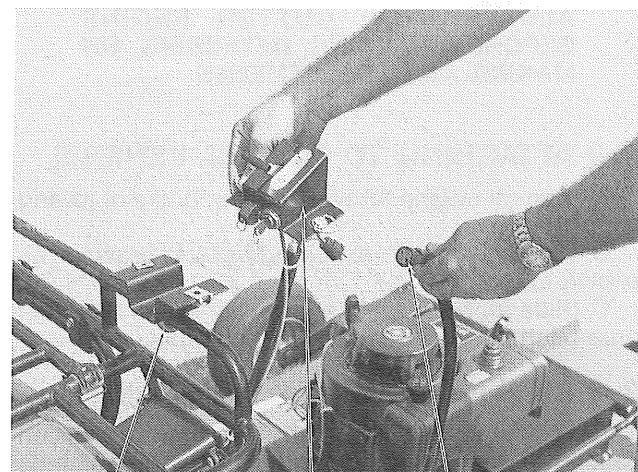
F. Use a wire tie to secure battery pigtail to ATV rack.

## 2-5 ENGINE STARTING

**⚠ DANGER ⚠**  
**DO NOT START CUTTER ENGINE UNLESS CUTTER IS SECURELY HITCHED TO TOWING VEHICLE. ACCIDENTAL UNHITCHING COULD CAUSE SERIOUS INJURY OR DEATH.**

- Perform BEFORE EACH USE maintenance listed in paragraph 3-1.
- Install kill switch plug. (Figure 2-5)
- Open fuel valve.
- Push throttle past detent to CHOKE position. If engine is warm, place throttle in SLOW position.

Figure 2-4 Control Mounting



Mounting Bracket  
U-Bolt

Control  
Box

Battery  
Pigtail

**⚠ DANGER ⚠**  
**KEEP HANDS AND FEET AWAY FROM UNDERNEATH CUTTER TO AVOID SERIOUS INJURY. FOR MANUAL CRANKING PLACE ONE FOOT ON CUTTER DECK AND ONE FOOT FIRMLY ANCHORED ON GROUND SAFELY AWAY FROM UNDERNEATH.**

E. (Manual Start) Flip toggle switch to "ON" position. Place one foot on cutter deck and one foot firmly anchored on ground. Make sure foot on ground does not get underneath cutter. Pull starter cord briskly returning slowly until engine starts.

F. (Electric Start) Turn key to START position to activate starter. When engine starts, release key. The best starter life is provided by using short starting cycles of several seconds. Prolonged cranking of more than 15 seconds per minute can damage starter motor.

G. When engine is warm, adjust throttle to desired speed.

## 2-6 CUTTING

**⚠ WARNING ⚠**  
**ROTARY CUTTERS CAN DISCHARGE OBJECTS AT HIGH SPEEDS. TO AVOID SERIOUS INJURIES OR DEATH:**

**\*OPERATE ONLY WITH SIDE BANDS IN GOOD REPAIR.**

**\*KEEP CHILDREN, PETS, AND BY-STANDERS AWAY FROM THE WORK AREA.**

**\*DO NOT OPERATE CUTTER IN VICINITY OF OTHER PERSONS.**

A. Connect kill switch tether cord from switch through operator's belt loop (or equivalent) to towing vehicle forward of operator's seat. (Figure 2-5)

**⚠ DANGER ⚠**  
**NEVER OPERATE THIS MACHINE WITHOUT KILL SWITCH PROPERLY ATTACHED. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.**

B. Release parking brake.

C. Select lowest gear and begin cutting at a slow speed. Adjust speed to match terrain and grass thickness. When cutting thick grass, it may be necessary to adjust cutter lower in front to help prevent stalling. Care should be taken when turning sharply or backing that rear wheels of towing vehicle do not hit cutter. Cut up or down the face of slopes, not across the face.

### NOTE

Optional front and rear rollers are available to help prevent scalping on uneven terrain.

## 2-7 ENGINE SHUTDOWN

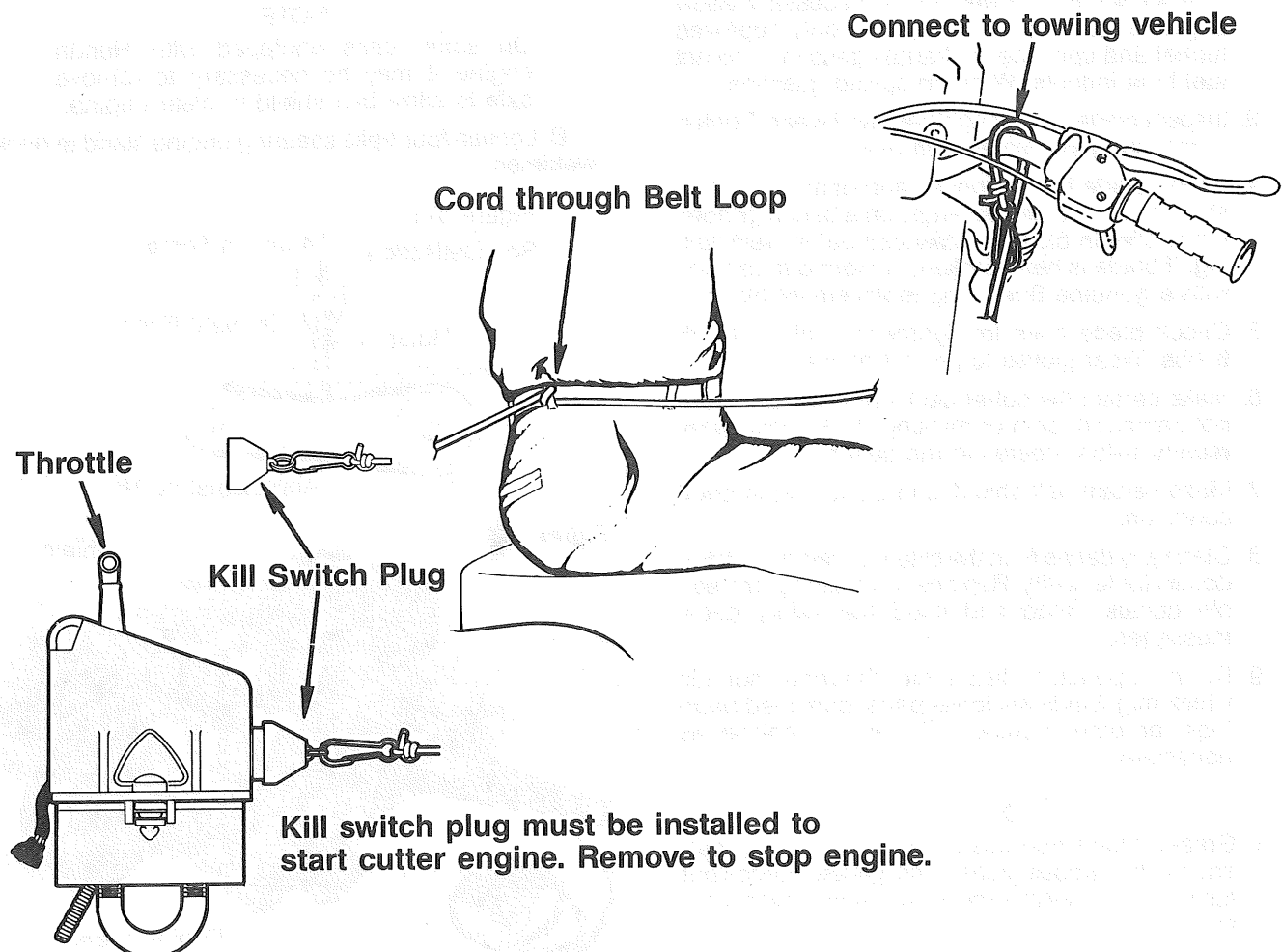
A. Apply parking brake.

B. Pull out kill switch plug.

C. Close fuel valve.

Figure 2-5 Kill Switch

### Proper Use Of Safety Switch And Cord



## SECTION III MAINTENANCE



**BEFORE PERFORMING MAINTENANCE INSPECTIONS OR WORK ON CUTTER, SHUT CUTTER ENGINE OFF AND DISCONNECT SPARK PLUG WIRE. FAILURE TO DO SO COULD RESULT IN ACCIDENTAL STARTING OF ENGINE CAUSING POSSIBLE INJURY OR DEATH.**

### 3-1 MAINTENANCE CHECK LIST

Perform scheduled maintenance as outlined below. Shut down engine, disconnect spark plug wire, and on electric start engines, disconnect battery pigtail harness before doing maintenance inspections and work. For engine maintenance see Engine Owner's Manual. All bolts should be torqued as recommended in Torque Chart on page 17 unless otherwise specified.

#### BEFORE EACH USE

1. Check engine oil level. Add oil as necessary per engine owner's manual.
2. Check engine fuel level, add as necessary. Allow engine to cool before filling. Use only approved funnel and container to handle gasoline. Do not fuel tank indoors. Wipe up spilled gasoline.
3. Inspect blade belt for tightness and wear. Tighten if necessary per paragraph 3-2.
4. Check blade for sharpness and damage. If dull, sharpen at a 45 degree angle on a bench grinder. Make certain blade is balanced before reinstalling. If blade is bent, broken, or worn out, replace with a genuine Bush Hog replacement blade.
5. Check blade bolts for tightness. Tighten to 85 ft./lbs. Wear gloves to protect hands.
6. Make certain the cutter deck enclosed sides are not damaged, bent or missing. Make necessary repairs before operating the cutter.
7. Make certain belt shield is in place and in good condition.
8. Clean any debris from the safety decals and check decals for legibility. Replace any missing or illegible decals. Read and heed the safety decal messages.
9. During operation, listen for abnormal sounds which might indicate loose parts, damaged bearings, or other damage. Repair or replace as necessary.

#### 40 HOURS

1. Grease blade hub assembly using grease gun and multi-purpose grease until grease purges out top seal. Wipe away excess grease to prevent contact with belt.

### 3-2 BELT ADJUSTMENT

- A. Remove belt shield.

#### NOTE

On some units equipped with Honda engine it may be necessary to remove axle to allow belt to clear engine.

- B. Check belt tension as shown in Figure 3-1. If belt needs adjusting, proceed to step "C." If not, reinstall belt shield.

- C. Loosen four bolts securing engine stand to deck weldment. (Figure 3-2)

- D. Turn adjusting bolt located at front of engine stand clockwise to tighten belt, counterclockwise to loosen belt. Place enough tension on belt to allow not more than 1/2" and not less than 1/4" deflection. (Figure 3-1) If a belt tension gauge is available, set to 120 lbs. of tension.

- E. Tighten four engine stand bolts.

- F. Reinstall shield.

### 3-3 REPLACING BELT

- A. Remove belt shield (Figure 3-2)

#### NOTE

On some units equipped with Honda engine it may be necessary to remove axle to allow belt shield to clear engine.

- B. Loosen four bolts securing engine stand to deck weldment.

Figure 3-1

Belt Deflection

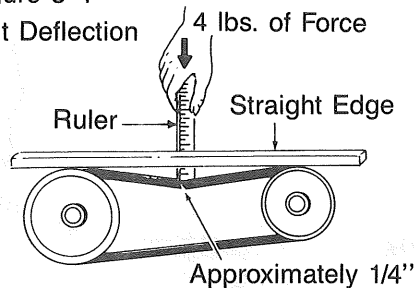
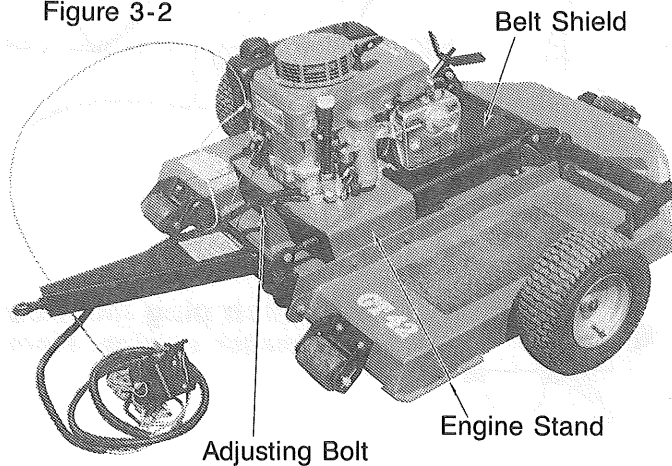


Figure 3-2



- C. Turn adjusting nut counterclockwise and slide engine rearward. Remove old belt.
- D. Install new belt onto pulleys. Do not pry belt on-to pulley.
- E. Turn adjusting nut clockwise to tighten belt. Place enough tension on belt to allow not more than 1/2" and not less than 1/4" deflection.
- F. Tighten four engine stand bolts.
- G. Reinstall belt shield.

### 3-4 HUB BEARING REPLACEMENT

- A. Remove belt shield. (Figure 3-2)

#### NOTE

On some units equipped with Honda engine it may be necessary to remove axle to allow belt shield to clear engine.

- B. Loosen engine mount and remove belt.
- C. Measure distance from bottom of blade pulley to top of cutter frame and record to facilitate reinstallation. Loosen set screw and remove pulley from spindle. Do not lose key.
- D. Remove the five nuts securing hub assembly to frame.
- E. Bend washer down to free spindle retaining nut. Remove nut and washer. (Figure 3-3)
- F. Lift out bushing.
- G. Tap spindle out of hub.
- H. Remove grease seals and bearings.
- I. Check bearing cups inside hub for damage. If damaged, tap out cup(s), perform step "J" below, then insert new cup(s).
- J. Clean inside of hub with suitable solvent.

#### NOTE

Check to see if blade needs sharpening or replacing.

- K. Insert lower bearing and seal into hub.
- L. Install spindle into hub taking care not to damage grease seal.
- M. Insert upper bearing, seal and bushing into hub.
- N. Place nut and washer onto spindle. Tighten nut until it takes 7-12 in. lbs. (.79 - 1.35 Nm) to turn blade. To measure, place torque wrench on nut and turn blade while reading gauge. If nut is too tight, loosen nut two full turns; tap lightly on top of spindle, then retighten. After nut is tightened, bend two sides of washer against flat sides of nut as shown in Figure 3-4.

#### NOTE

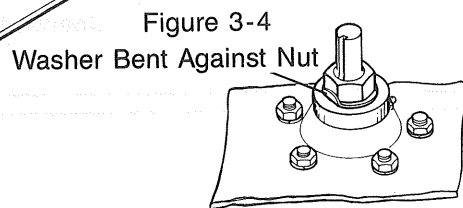
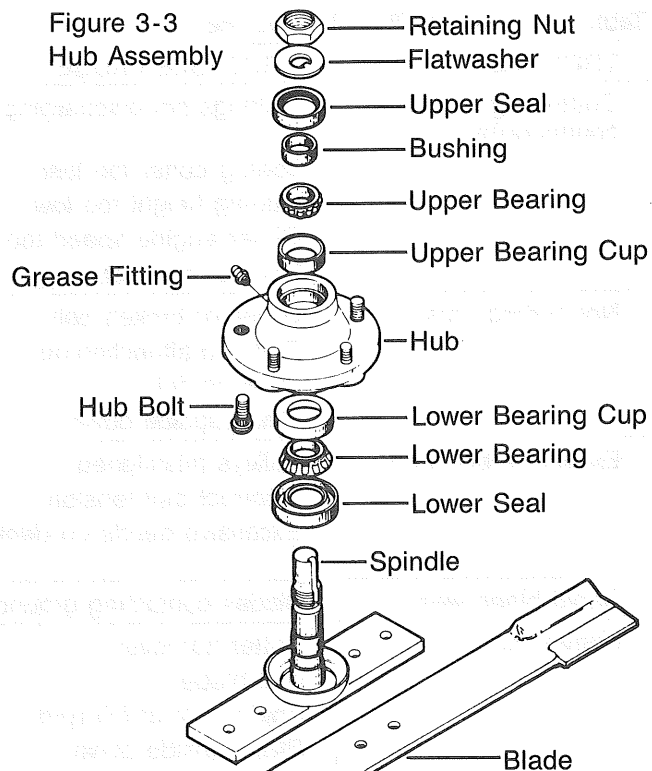
If a torque wrench is not available, tighten nut until there is no verticle movement in spindle. Make certain blade will spin freely.

- O. Using a grease gun, fill inside of hub with multi-purpose grease. Pump in through grease fitting until grease expels out upper seal.
- P. Install hub assembly to frame and pulley to spindle.
- Q. Install belt and adjust per paragraph 3-2.
- R. Install belt shield.

### 3-5 BLADE REPLACEMENT

Remove old blade. Install new blade with uplift posi-

Figure 3-3  
Hub Assembly



tioned as shown in Figure 3-3. Torque bolts to 85 ft./lbs. Wear heavy gloves to protect hands.

### 3-6 TROUBLESHOOTING

Troubleshooting procedures are listed in table 3-1 below. If the problem cannot be solved or replacement parts are necessary, contact your authorized Bush Hog dealer. Please have ready your machine name, model number, serial number, purchase date and exact cause or description of problem.

#### ⚠ WARNING ⚠

**BEFORE PERFORMING MAINTENANCE INSPECTIONS OR WORK ON CUTTER, SHUT CUTTER ENGINE OFF AND DISCONNECT SPARK PLUG WIRE. FAILURE TO DO SO COULD RESULT IN ACCIDENTAL STARTING OF ENGINE CAUSING POSSIBLE INJURY OR DEATH.**

#### NOTE

Engine warranty, service and parts must be obtained through an authorized service center for Briggs and Stratton or Honda whichever applicable.



**Table 3-1 General Troubleshooting**

TROUBLE	PROBABLE CAUSE	REMEDY
Cutter engine stalls continuously	Cuttings not discharging Towing cutter too fast Cutting height too low Cutter engine speed too slow Engine malfunctioning	Tilt cutter forward Increase cutter height Decrease speed Increase cutting height Increase speed Refer to engine owner's manual
Not cutting grass	Loose or broken belt Clutch malfunctioning Blade is dull Blade upside down	Tighten/Replace Contact your Bush Hog dealer Sharpen blade Reverse blade
Excessive belt wear	Pulleys misaligned Incorrect belt tension Excessive debris on deck	Align pulleys Adjust tension Keep clippings cleaned from top of deck
Rapid blade wear	Blades contacting ground	Increase cutter height
Uneven cut	Cutter not level Dull blade Engine not at full rpm Blade upside down Belt slippage	Level cutter Sharpen blade Increase rpm Reverse blade Tighten/Replace belt
Scalping	Cutter set too low Uneven terrain	Increase cut height Install roller option

## SECTION IV DEALER ASSEMBLY



**THE FOLLOWING SAFETY PRECAUTIONS SHOULD BE THOROUGHLY UNDERSTOOD BEFORE ATTEMPTING MACHINE ASSEMBLY.**

1. Do not lift heavy parts or assemblies. Use crane, jack, tackle, fork trucks or other mechanical devices.
2. Select an area for assembly that is clean and free of any debris which might cause persons working on the assembly to trip.
3. Arrange parts to be assembled neatly in the work area and have tools or other mechanical assisting devices in easy reach.
4. Inspect all parts and assemblies thoroughly and remove any sharp edges, grease, oil or dirt which might cause pieces to slip when handling.
5. Preview the assembly instructions in your operator's manual before proceeding further.
6. If the assembly instructions call for parts or assemblies to be blocked up, use only blocking material that is in good condition and is capable of handling the weight of the assembly to be blocked. Also insure that the blocking material is on a clean, dry surface.
7. Never put hands or any other part of body under blocked up assemblies if at all possible.
8. Always wear goggles or safety glasses when hammering, grinding or drilling metal parts.
9. If the assembly calls for welding or cutting, be sure that there are no flammable materials close at hand and that bystanders have taken necessary precautions.

**AFTER COMPLETING ANY ASSEMBLY STEP, THOROUGHLY READ THE NEXT STEP IN THE ASSEMBLY INSTRUCTIONS BEFORE PROCEEDING WITH THAT STEP.**

10. After completing assembly, thoroughly inspect the machine to be sure that all nuts, bolts, hydraulic fittings or any other fastened assemblies have been thoroughly tightened.
11. After completing assembly, be sure that all safety locking devices or guards are in place.
12. Before operating the machine, thoroughly read the operation section of this manual.
13. Before operating, read the maintenance section of this manual to be sure that any parts requiring lubrication such as gearboxes are full to avoid any possible damage.

**BEFORE OPERATING THE EQUIPMENT, IF YOU HAVE ANY QUESTIONS REGARDING THE PROPER OPERATION, CONTACT YOUR AUTHORIZED BUSH HOG DEALER OR REPRESENTATIVE.**

#### 4-1 BASE UNIT ASSEMBLY

A. Mount axle assembly to frame using two 1/2" x 1 1/4" bolts and locknuts (Figure 4-1). Nuts should be snug, not tight, to allow axle to pivot.

B. Assemble wheels onto axles in the following order: Two 3/4" flatwashers; wheel; one 3/4" flatwasher; cotter pin.

C. Insert thread end of clevis rod into end of cuff weldment opposite bushing. Place two 1/2" flatwashers on clevis rod. Thread handle onto rod.

D. Fasten handle assembly to axle and deck using two 1/2 x 2 1/2" bolts, bushings, flatwashers, lockwashers and nuts.

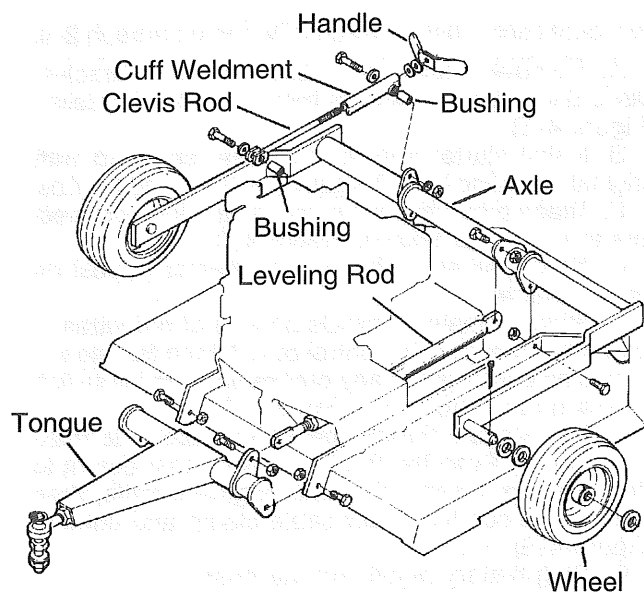
E. Mount tongue to front of deck using two 1/2 x 1 1/4" bolts and locknuts. Nuts should be snug, not tight, to allow tongue to pivot.

F. Attach leveling rod to tongue and axle using two 1/2 x 1 1/4" bolts and locknuts. Nuts should be snug, not tight, to allow axle and tongue to pivot. If vehicle to be used for towing cutter is present, adjust the leveling bar during installation per paragraph 2-2.

#### NOTE

Perform step "G" below only if cutter is equipped with a Briggs and Stratton engine and electric start option is NOT used.

Figure 4-1 Base Unit



G. Attach throttle control to engine using existing fastener as shown, Figure 4-2. To set throttle, push engine throttle toward carburetor to maximum travel. Push the manual throttle control past detent to stop position. Insert cable into engine throttle, then place cable conduit under cable clamp and tighten. Connect kill switch wires as shown.

H. Service engine (i.e. oil, gas) as recommended in engine owner's manual.

Figure 4-2A Throttle Control Installation  
Engine Throttle

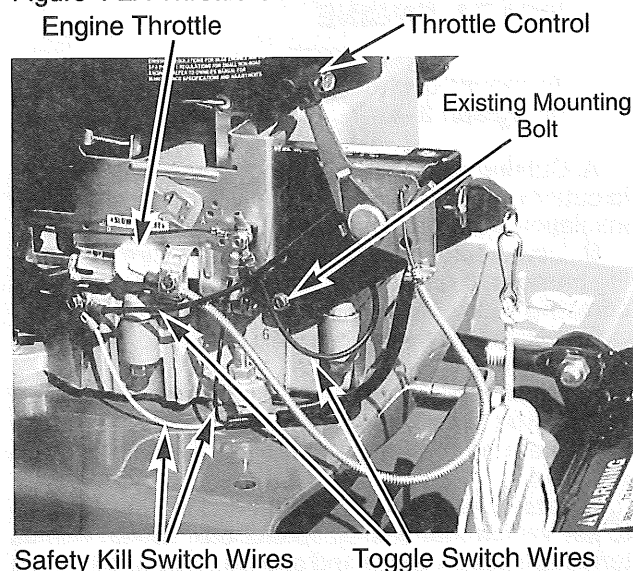
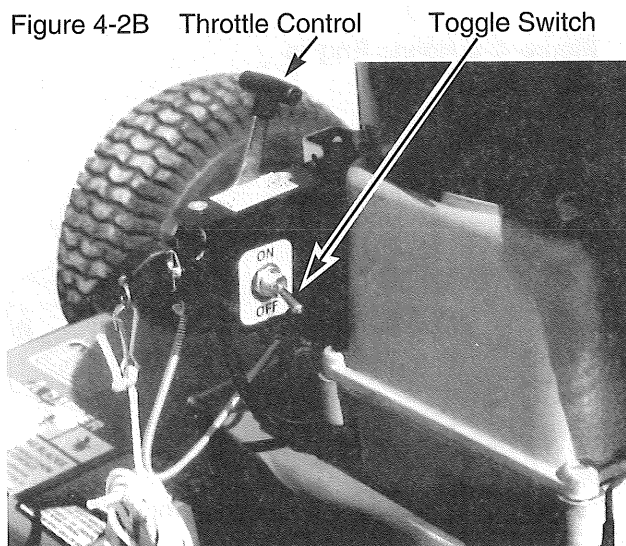


Figure 4-2B Throttle Control Toggle Switch



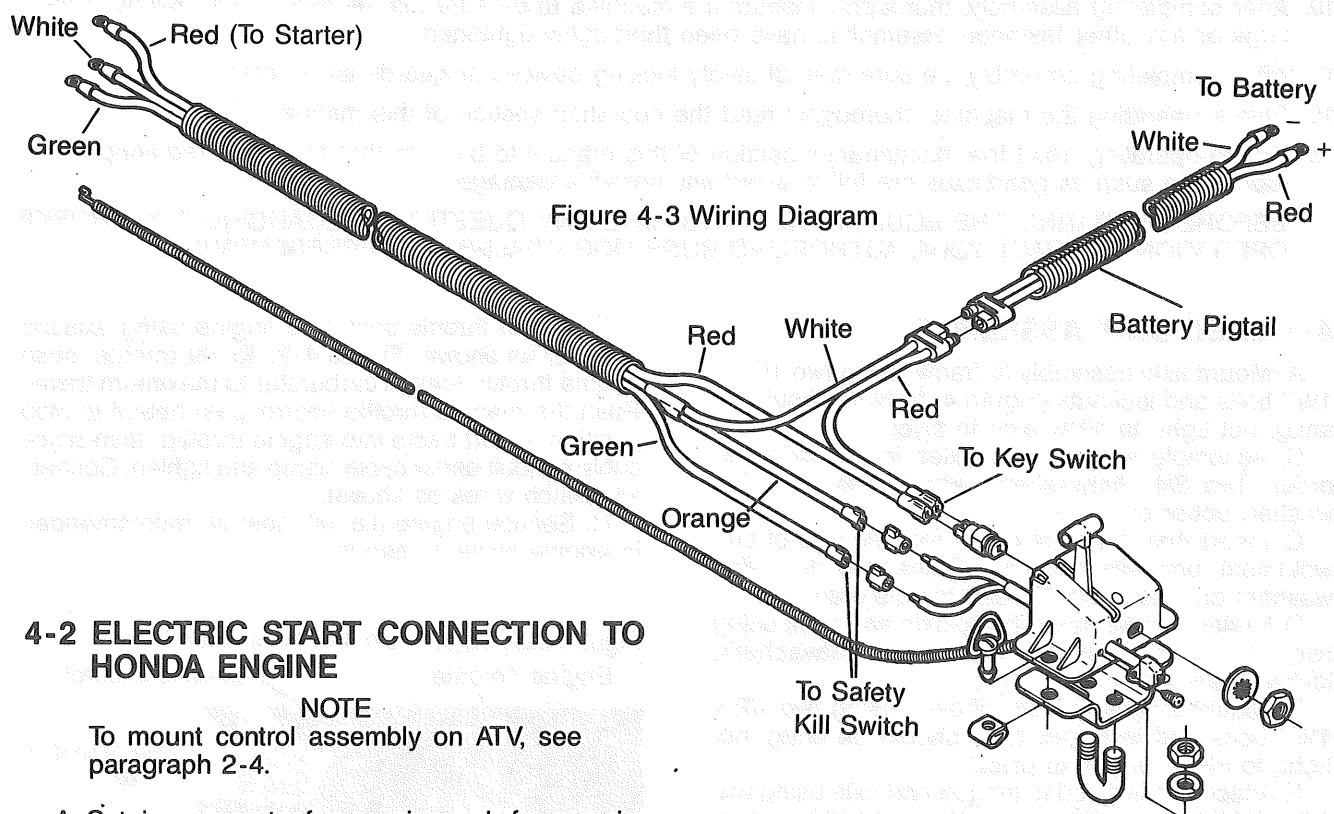


Figure 4-3 Wiring Diagram

## 4-2 ELECTRIC START CONNECTION TO HONDA ENGINE

### NOTE

To mount control assembly on ATV, see paragraph 2-4.

A. Cut ring connector from engine end of green wire in cutter wiring harness. (Figure 4-3) Strip 1/4 inch of insulation from end of green wire.

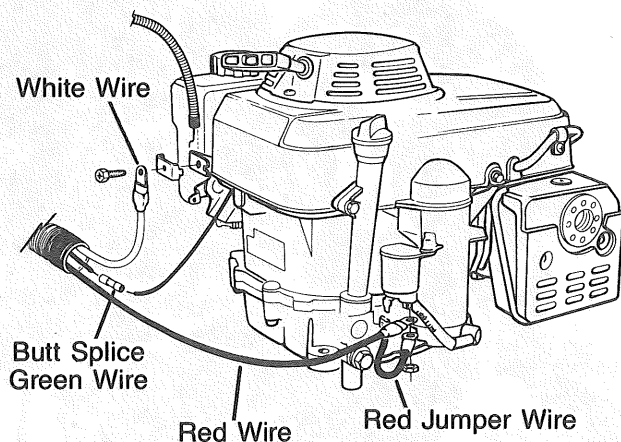
B. Using butt splice, connect green wire from wiring harness to green wire lead next to engine throttle crimping with pliers. (Figure 4-4)

C. Attach white wire with loop connector as shown in Figure 4-4.

D. Attach red wire with loop connector and short red jumper wire to post on engine starter solenoid. Attach opposite end of jumper wire to male prong on solenoid.

E. Attach female terminals on end of jumper wires to key switch mounted in control box. Attach female terminal ends on green and orange wires to kill switch mounted in control box. (Figure 4-3)

Figure 4-4 Honda Engine



F. Push engine throttle down to limit of travel. Push remote throttle control past detent to stop position. Insert cable into throttle. Place cable housing under cable clamp and tighten. (Figure 4-4)

G. Plug battery pigtail into harness.

H. Using wire ties, strap throttle control cable and wiring harness together.

## 4-3 OPTIONAL ELECTRIC START CONNECTION TO BRIGGS & STRATTON ENGINE

### NOTE

To mount control assembly on ATV, see paragraph 2-4.

A. Remove engine left hand fuel tank bracket. Discard four spacer washers behind fuel tank bracket. (Figure 4-5)

B. Install starter and tank bracket securing with original mounting bolts. Torque bolts to 125-150 ft./lbs.

C. Attach green and white wires with loop connectors to engine as shown, Figure 4-6.

D. Attach red wire with loop connector to post on engine starter.

E. Attach female terminals on end of red wires to key switch mounted in control box. Attach female terminals on end of green and orange wires to kill switch mounted in control box. (Figure 4-3)

F. Push engine throttle toward carburetor to maximum travel. Push the throttle control past detent to stop position. Insert cable into engine throttle, then place cable conduit under cable clamp and tighten. (Figure 4-6)

G. Plug battery pigtail into harness.

H. Using wire ties, strap throttle control cable and wiring harness together.

Figure 4-5 Briggs and Stratton Engine

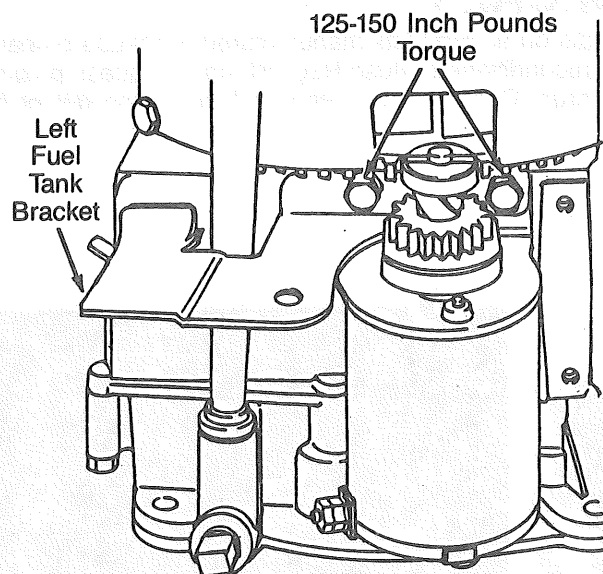
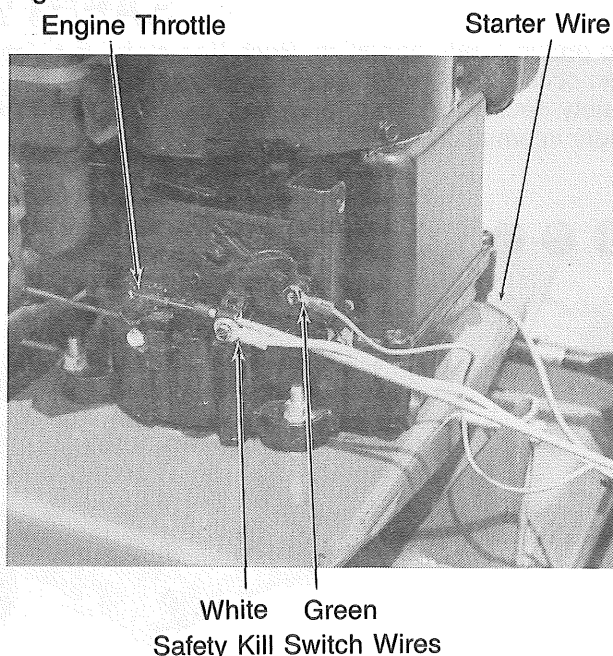


Figure 4-6 Electric Start Throttle Control



#### 4-4 OPTIONAL FRONT ROLLER INSTALLATION (Figure 4-7)

A. Using the back as a template, position plate on deck front lip 1-7/16" from top of deck and centered between outside edge of deck and deck brace. Mark holes for drilling. Repeat for other side.

B. Drill 7/16" holes at each place marked.

C. Bolt rollers to deck front lip placing back plate on opposite side of deck lip. Bolts should be installed with head to underside of cutter.

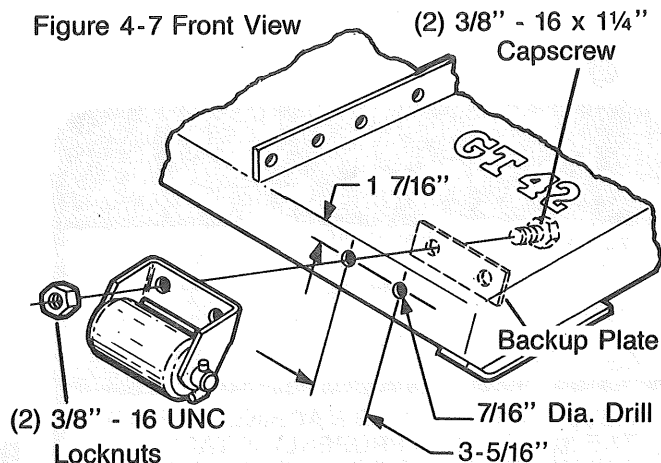
#### 4-5 OPTIONAL REAR ROLLER INSTALLATION (Figure 4-8)

A. Using the back plate as a template, center plate on rear deck band 1-7/16" from top of deck. Mark holes for drilling.

B. Drill 7/16" holes at each place marked.

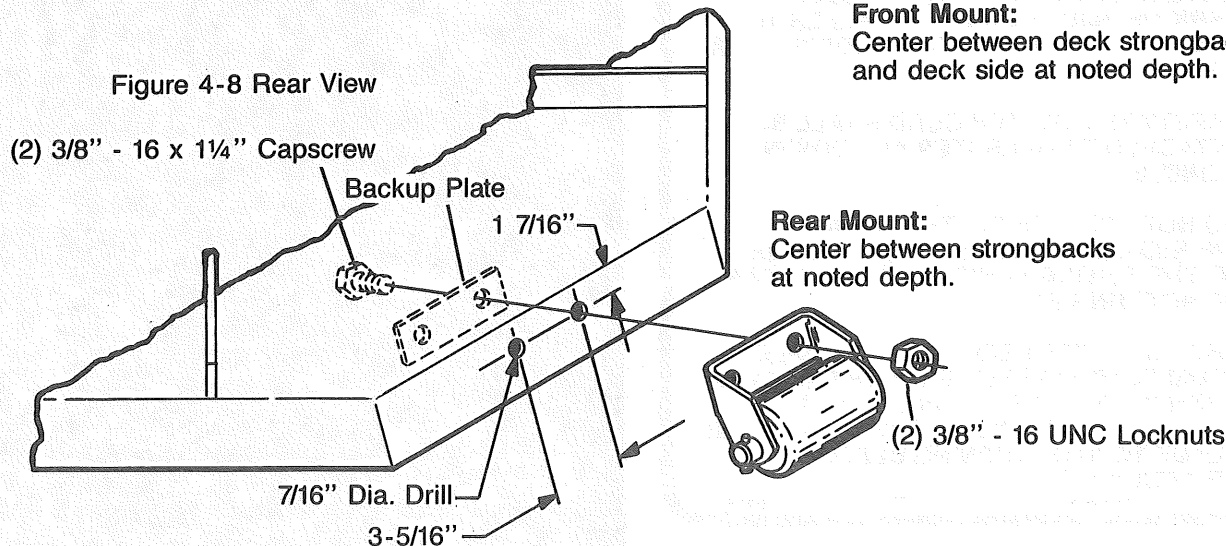
C. Bolt roller to rear deck band placing back plate to underside of deck. Bolts should be installed with head to underside of cutter.

Figure 4-7 Front View



**Front Mount:**  
Center between deck strongbacks and deck side at noted depth.

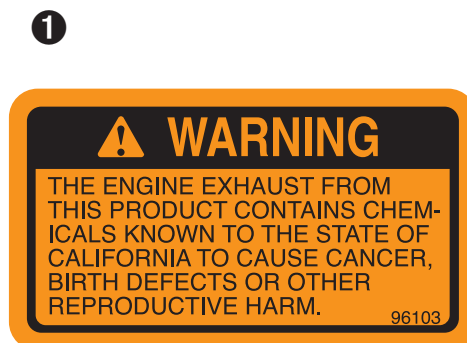
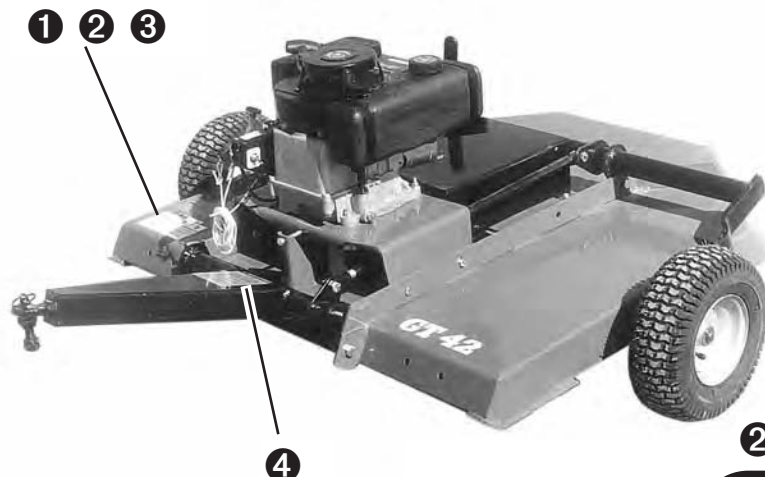
Figure 4-8 Rear View



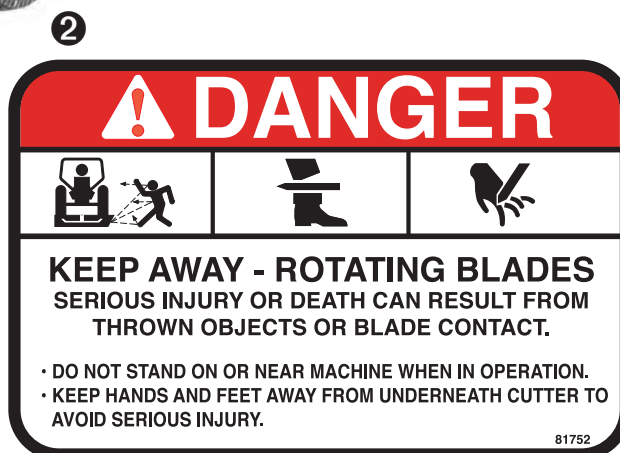
**Rear Mount:**  
Center between strongbacks at noted depth.

## SAFETY DECALS

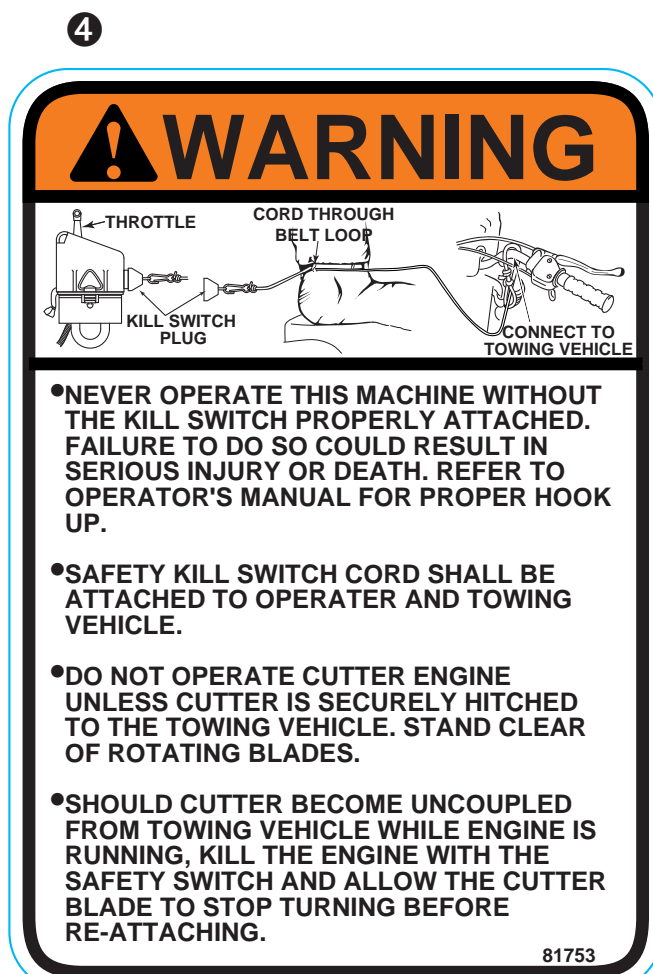
To promote safe operation, Bush Hog supplies safety decals on all products manufactured. Because damage can occur to safety decals either through shipment, use or reconditioning, Bush Hog will, upon request, provide safety decals for any of our products in the field at no charge. Contact your authorized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



Part No. 96103



Part No. 81752



Part No. 81753



Part No. 81754

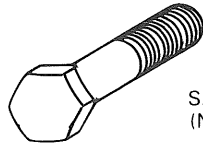


# TORQUE SPECIFICATIONS

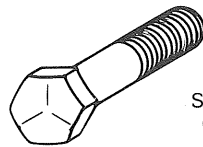
Proper torque for American fasteners used on Bush Hog equipment.  
Recommended Torque in Foot Pounds (Newton Meters). \*

## AMERICAN

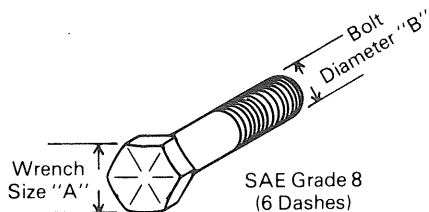
Bolt Head Markings



SAE Grade 2  
(No Dashes)



SAE Grade 5  
(3 Dashes)



SAE Grade 8  
(6 Dashes)

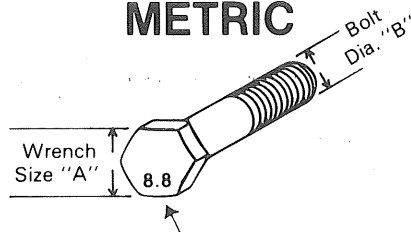
### NOTE

Two of the 5/16" x 1 3/4" engine mounting bolts on the Model GT42-06 are installed into the aluminum engine block. They should be torqued to 11 ft. lbs. (15 Nm).

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)

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

## METRIC



Numbers appearing on bolt heads indicate ASTM class.

WRENCH SIZE (mm) "A"	BOLT DIA. (mm) "B"	ASTM CLASS 4.8	ASTM CLASS 8.8	ASTM CLASS 9.8	ASTM CLASS 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)	19 (26)	21.1 (29)	27 (37)
16	10	14.5 (20)	38 (52)	42 (57)	53 (72)
18	12	25 (34)	67 (91)	73 (99)	93 (126)
21	14	40 (54)	107 (145)	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.



THE ENGINE EXHAUST FROM THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.



**BUSH HOG<sup>®</sup>**  
Performance You Can Count On<sup>SM</sup>

2501 Griffin Ave. • Selma, AL 36703  
Telephone (334) 874-2700 • [www.bushhog.com](http://www.bushhog.com)