



***HYDRO***

***36" Through 61"***

***Mid Size Walk-Behind Mowers***

**Owner's Manual**

(Beginning Serial Prefix Models "X")

## INTRODUCTION

Congratulations on the purchase of your new Bunton Hydro Drive Mower. This product has been carefully designed and manufactured to give you a maximum amount of mowability, dependability, and years of trouble free operation.

Outlined in this Owner's Manual you will find safety and service information to keep your mower operating at peak performance for years to come. We recommend that you and/or operator(s) read this manual and the enclosed engine manual carefully prior to operating this unit.

For your convenience we have provided space below to record the model and serial numbers of the mower. Please read and keep this manual handy for future reference.

DATE PURCHASED	_____
PURCHASED FROM	_____
MOWER MODEL NO.	_____
MOWER SERIAL NO.	_____
CUTTING DECK MODEL NO.	_____
CUTTING DECK SERIAL NO.	_____
ENGINE MODEL NO.	_____

## LIMITED WARRANTY POLICY FOR BUNTON OR GOODALL ROTARY PRODUCTS

All New "Bunton" or "Goodall" Rotary Products  
Manufactured By Bunton Company Are Sold Subject To The Following Warranty.

THE BUNTON COMPANY, 4601 E. INDIAN TRAIL, LOUISVILLE, KENTUCKY 40213 ["COMPANY"] MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED [INCLUDING THE IMPLIED WARRANTIES OF MERCHANT ABILITY AND FITNESS FOR A PARTICULAR PURPOSE] except Company warrants new "Bunton" or "Goodall" rotary products (except tires, tubes, batteries and engines ) limited to the ORIGINAL PURCHASER ("purchaser") and is not transferable, from date of purchase as follows:

- Wear items including drive belts, blades & hoses are warranted for 90 days.
- Frame and structural components including oil reservoir, fittings and oil cooler are warranted for 1 year.
- Drive system components are warranted for 1 year by the component manufacturer, in conjunction with Bunton Company, Excluding (fittings, hoses, cooling system, oil reservoir, drive belts).
- Any Bunton or Goodall product used for rental purposes is warranted for 90 days.

An Authorized Service Dealer ("dealer") will repair or replace at dealer's business location each part of said product, which is proven to the satisfaction of the Company, to have been defective in material or workmanship.

It is understood that all warranty service for Bunton or Goodall rotary products will be performed by and at dealers, authorized by Company, and purchaser will pay dealer for travel time and expense if purchaser chooses to have dealer repair said product at another location. Purchaser will also reimburse dealer for travel time and expenses if purchaser chooses to have dealer pick-up product and/or return same to the purchaser's location. Bunton Company's responsibility is limited to making the required repairs, and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Bunton Company mower.

This warranty SHALL NOT apply to any part of said new Bunton or Goodall product which, in the judgment of the Authorized

Continued...



Dealer or the Company, has been subjected to misuse, negligence, unauthorized alteration, serial numbers removed from the machine, accident, or which has served its normal wear life. The provisions of this warranty do not apply to damage or failures caused by the use of unauthorized attachments, accessories, parts, or repairs made by unauthorized persons.

**IN NO EVENT SHALL DEALER OR COMPANY BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGE OF ANY KIND OR NATURE; INCLUDING, BUT NOT LIMITED TO, EXPENSE FOR FUEL, EXPENSE FOR DELIVERING THE MOWER OR IMPLEMENT TO AN "AUTHORIZED SERVICE DEALER" AND EXPENSE OF RETURNING IT TO THE OWNER, TECHNICIAN'S TRAVEL TIME, TELEPHONE CHARGES, RENTAL OF A LIKE PRODUCT DURING THE TIME WARRANTY REPAIRS ARE BEING PERFORMED, TRAVEL, LOSS OR DAMAGE TO PERSONAL PROPERTY, LOSS OF REVENUE, LOSS OF USE OF THE MOWER OR IMPLEMENT, LOSS OF TIME OR INCONVENIENCE. DEALER AND COMPANY MAKE NO WARRANTY WHATSOEVER TO TIRES, TUBES, BATTERIES, OR ENGINES NOT MANUFACTURED BY THE COMPANY, ALTHOUGH THESE ITEMS MAY BE WARRANTED BY THEIR RESPECTIVE MANUFACTURERS.**

**THIS WARRANTY DOES NOT APPLY TO USED, DEMO OR "SECOND-HAND" MACHINES.**

**THE BUNTON COMPANY RESERVES THE RIGHT TO CHANGE AND/OR IMPROVE THE DESIGN OF ANY MOWER WITHOUT ASSUMING ANY OBLIGATION TO MODIFY ANY MOWER OR IMPLEMENT, PREVIOUSLY MANUFACTURED.**

This warranty is in lieu of all other warranties and conditions, expressed, implied, or statutory, and all other obligations or liabilities on the part of the company.

No representative of the Company or Dealer has authority to change the terms of this warranty in any manner whatsoever. No assistance to purchaser by the Dealer or Company in the repair or the operation of the said new Bunton product shall constitute a waiver of the conditions of the warranty, nor shall such assistance extend or revive it.

NOTE: Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you (purchaser).

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

The foregoing warranty is not applicable to those new Bunton or Goodall products, parts, or components which are covered by separate and specific warranties.

To obtain performance of any warranty obligation, contact an Authorized Service Dealer. Proof of purchase will be required by the Authorized Service Dealer to substantiate any warranty claim.

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## TABLE OF CONTENTS

Introduction	Page 2 & 3
Safety Instructions	Page 4 & 5
Pre-Delivery Set-Up	Page 6 & 7
Operating Controls	Page 8
Operating Instructions	Page 9 & 10
Service Adjustments	Page 11 Thru 14
Cutting Heights	Page 15
Lubrication	Page 16
General Maintenance	Page 17
Storage & Parts Ordering Information	Page 18



# IMPORTANT SAFETY INSTRUCTIONS

**Read This Manual Carefully Before Operating Mower!**

**"SAFETY IS NO ACCIDENT"**

**Give special attention to all safety suggestions. They are included for your protection.**

## TRAINING

1. Read the instructions carefully. Be familiar with the controls and the proper use of the equipment.
2. Never allow children or people unfamiliar with these instructions to use the mower. Local regulations may restrict the age of the operator.
3. Do not carry passengers. Avoid mowing while people, especially children or pets, are nearby. Protect your loved ones. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

## PREPARATION

1. While mowing, always wear substantial footwear, long trousers and safety glasses or goggles. Do not operate the equipment when barefoot or wearing open sandals.
2. Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wires, bones, and other foreign objects. These objects, when struck by the mower, may become deadly projectiles.
3. DANGER! Gasoline is highly flammable:
  - Store fuel in containers specifically designed for this purpose.
  - Refuel outdoors only. Do not smoke while fueling mower.
  - Add fuel before starting the engine. Never remove the cap of the fuel tank or add gasoline while the engine is running or when the engine is hot.
  - If gasoline is spilled, do not attempt to start the engine, but move the mower away from the spill area to avoid creating any source of ignition until vapors have evaporated.
4. Be sure safety interlock switches are operating properly so that engine cannot be started unless the blades are "Disengaged", ground speed selector lever down in "Neutral", and traction levers locked in the "Neutral" position.
5. Replace faulty muffler.
6. Before using, always inspect the mower to see that the blades, blade bolts, and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
7. Keep all bolts and screws properly secured to be sure the equipment is in safe working condition. Check all cutting assembly blade bolts frequently to assure they are tight. Also, check all hydraulic couplings for tightness.


## OPERATION

1. Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect. Carbon monoxide is odorless, tasteless, and can be fatal.
2. Mow only in daylight or good artificial light.
3. Make sure the blades are "Disengaged", ground speed selector lever down in "Neutral", and traction levers locked in the "Neutral" position before attempting to start engine.
4. Do not stop or start suddenly when going uphill.
5. Exercise extreme caution when changing directions on slopes or making turns.
6. Stay alert for holes in the terrain and other hidden hazards.
7. Be extra careful when mowing on slopes or wet grass. Never mow in reverse — you could possibly slip.
8. Watch for traffic when near or crossing roadways.
9. Always stop the blades from rotating before crossing surfaces other than grass.
10. Never direct discharge of materials toward bystanders nor allow anyone near the mower while in operation.
11. Never operate the mower with defective guards, shields or without the protective safety devices securely mounted in place.
12. Do not change the engine governor settings or overspeed the engine. Operating an engine at excessive speed may increase the hazard of personal injury.



13. Always stop the engine whenever you leave the mower, even for a moment.
  14. Stop the engine, and disconnect the spark plug wire(s) :
    - Before cleaning blockages, or unclogging chute .
    - Before checking, cleaning or working on the mower.
    - After striking object; Stop mower, inspect for possible damage, and make the the necessary repairs before proceeding.
    - If the mower starts to vibrate abnormally, Check Immediately!
  15. Disengage power to the blades when transporting, when leaving mower, or when mower is not in use.
  16. Always stop the engine:
    - Before refueling.
    - Before servicing mower or making height adjustments.
    - When leaving the operator's position.
    - Before attaching or removing the grass catcher or attachments.
  17. On multi-bladed mowers, take care, as rotating one blade can cause the other blades to rotate.
  18. Check the hydraulic hoses/couplings frequently for wear or deterioration. Replace worn or damaged parts for safety.
  19. To reduce the possibility of a fire hazard, keep the engine and muffler free of grass, leaves or excessive grease.
  20. Beware of cutting edges. Always wear gloves for safety during blade maintenance activities.
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## RECOGNIZE SAFETY INFORMATION

This special safety alert symbol  points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate your mower. Failure to comply with these instructions may result in personal injury. When you see the safety alert symbol — Heed Its Warning.

**IMPORTANT:** Your unit was built to be operated in accordance to the rules for safe operation found in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.

The safety decals on your mower provide the operator with important safety information and alerts. When you see the decals on your mower, be alert to the potential for personal injury. Keep safety decals in good condition. Replace missing or damaged safety decals.

# ABOUT THIS MANUAL

Assembly of this mower is the responsibility of the Bunton dealer. The mower should be delivered to the owner completely assembled, lubricated and adjusted for normal cutting conditions.

Please read this manual over thoroughly and follow each step carefully to insure proper set-up and safe operation. **DO NOT** change factory set adjustments. Should adjustment be necessary, refer to the section in the Owner's Manual entitled, "Service Instructions." For reference purposes, "right-hand" and "left-hand" sides are determined by standing behind the operating controls and facing forward.

Illustrations, photographs and reference materials used in this manual were current at the time of publishing, but subsequent technical changes could cause your mower to vary slightly in detail. Bunton reserves the right to change the mower design without prior notification. If a change has been made to your mower which is not reflected in this manual, see your Bunton dealer for current information and parts.

## SET-UP INSTRUCTIONS

### FRONT CUTTING DECK & REAR POWER UNIT ASSEMBLY (Figure 1):

1. Having unpacked the front cutting deck and the rear power unit from their shipping cartons, place both pieces on a flat, level surface.
2. Raise the front cutting deck off the ground and securely support it on several blocks of wood or a concrete block. Holding the spring loaded chute deflector in its present upright position, cut the restraining band off the chute deflector and carefully lower the chute deflector down into the mowing position. **CAUTION: Chute deflector must always be securely mounted into the mowing position for safe operation.**

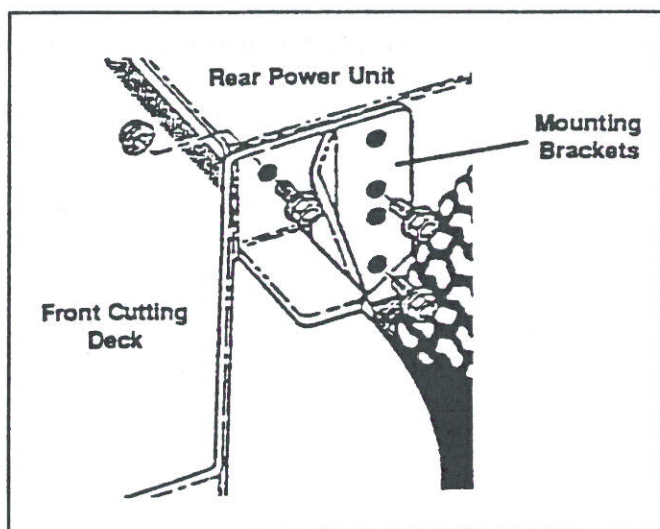


Figure 1

3. Remove the blade belt cover from the cutting deck. Packaged inside the blade belt cavity will be six (6) 1/2" - 13 x 1" bolts and six (6) 1/2" - 13 flange nuts. Remove

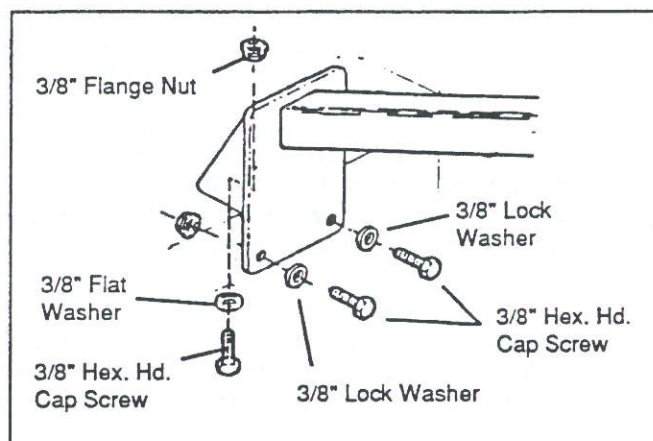


Figure 2

this hardware from the plastic hardware bag and lay aside for the time being.

4. Utilizing a second person, roll the rear power unit (See note below) up to the front cutting deck and position it so that the mounting holes of both units are in alignment with one another. See "Cutting Height Adjustment" (Page 14) for correct hole selection. Insert three (3) 1/2" bolts through each side of the cutting deck mounting brackets and rear power unit (Figure 1) and torque to 95 ft. lbs (129 NM) utilizing the supplied 1/2" flange nuts.

**Note:** To allow the rear power unit to roll freely, check the hydraulic pump by-pass levers (Page 8) to make sure they are turned open one revolution for free wheeling.

### INSTALLING THE FRONT CASTERS (Figure 2):

1. Raise the front end of the cutting deck and securely support it on several blocks of wood. Remove the caster mounting hardware [ six 3/8" - 16 x 1" cap screws, two 3/8" - 16 flange nuts, two 3/8" flat washers and two 3/8"



lockwashers] from the hardware bag. Referring to the hardware mounting illustration in Figure 2, place left caster in place, insert and loosely secure the top 3/8" cap screw, washer, and nut as depicted. Next, complete the installation by installing the remaining 3/8" cap screws and washers and nuts. Perform this same procedure on the right-hand caster.

2. With both caster wheels now in place, starting with the front vertical 3/8" bolt first, tighten all mounting hardware securely. **Note:** When tightening the caster mounting hardware, you should torque (tighten) the heads of the bolts rather than the flange nuts. The flange nuts have serrated edges that lock into the adjoining surface to prevent loosening once the bolt is tightened.

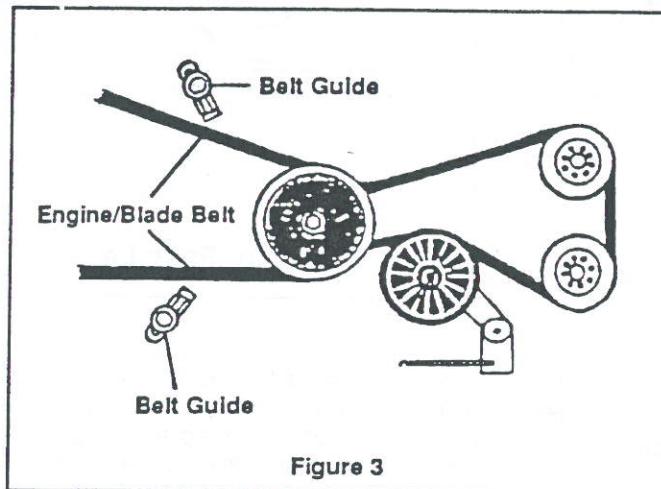


Figure 3

#### CONNECTING ENGINE TO BLADE BELT (Figure 3):

With the blade belt cover removed, locate the engine to blade belt on the front cutting deck. Loosen the two cutting deck belt guides and the two rear deck belt guides (Figure 3). Pull engine to blade belt rearward underneath the rear power unit and over the engine pulley. Reposition the belt guides. Do Not retighten belt guides at this time.

Next, connect blade engagement rod. See Service Section of this manual entitled, "Cutting Deck Adjustment" (Page 13) for specific information on how to connect blade engagement rod and properly adjust the engine to blade belt drive system.

#### ADDING ENGINE OIL

1. The mower is shipped without oil in the engine crankcase; however, a small amount of crankcase oil may be present from factory run in operation. See Engine Manual for oil requirements.

2. To fill engine with oil, place the mower on a level surface and remove the dipstick from the dipstick tube on the engine. Follow engine manufacturer's lubrication requirements as to weight and grade of oil to install in engine.

**CAUTION:** Do not start engine without oil in engine crankcase. Never remove oil dipstick while engine is running.

3. Using a funnel, insert funnel into dipstick tube and slowly pour oil down into the engine crankcase. Fill to FULL mark on the dipstick. **Important:** After starting engine, allow engine to run approximately 30 seconds and then stop the engine. Check oil level and add if necessary. **Note:** Refer to the Engine Manual for additional information regarding break-in time and oil changing intervals.

#### FUELING MOWER

1. Check to see that the engine fuel line hose is securely fastened to the fuel tank shut-off valve. If not preattached, utilizing the clamp on the fuel line, clamp the two sections together securely. Visually check to see that the fuel shut-off valve is turned to the OFF position (Valve handle 90° to fuel line).

2. Carefully add fresh gasoline to fuel tank. **Note:** Refer to Engine Manual for recommended type fuel.

**CAUTION:** Handle fuel carefully! Be alert to the danger of an explosion from smoking or sparks during refueling. Always follow safe fueling procedures by filling fuel tank away from all sources of possible sparks and flames.

#### FILLING HYDRAULIC OIL RESERVOIR

1. Like the engine, the hydraulic oil reservoir has been shipped without oil. However, a small amount of oil will be present in the hydraulic lines from run in and adjustment at the factory.

2. The hydraulic oil reservoir holds approximately 8 quarts of SAE 20W50 oil with API classification SG/CD. Remove the cap from the oil reservoir, fill reservoir with SAE 20W50 oil until oil comes to within 1-1/2" of reservoir top. Reinstall reservoir cap. **IMPORTANT:** Do not start engine without oil in the hydraulic reservoir or extensive pump damage could result.

3. The hydraulic oil reservoir should be checked weekly for proper oil level. Recommended break-in period for reservoir oil is 50 hours. See Lubrication section, Page 15 for additional information regarding oil changing intervals.

#### OPERATING MOWER:

**Important:** Prior to starting and operating mower, please read the Operating Section of the Owner's Manual thoroughly to familiarize yourself with the operating controls and recommended mowing procedures.



# OPERATING CONTROLS

Before attempting to start engine and operating mower, take time to become familiar with all of the controls. Above all, know what controls will stop the mower in an emergency!

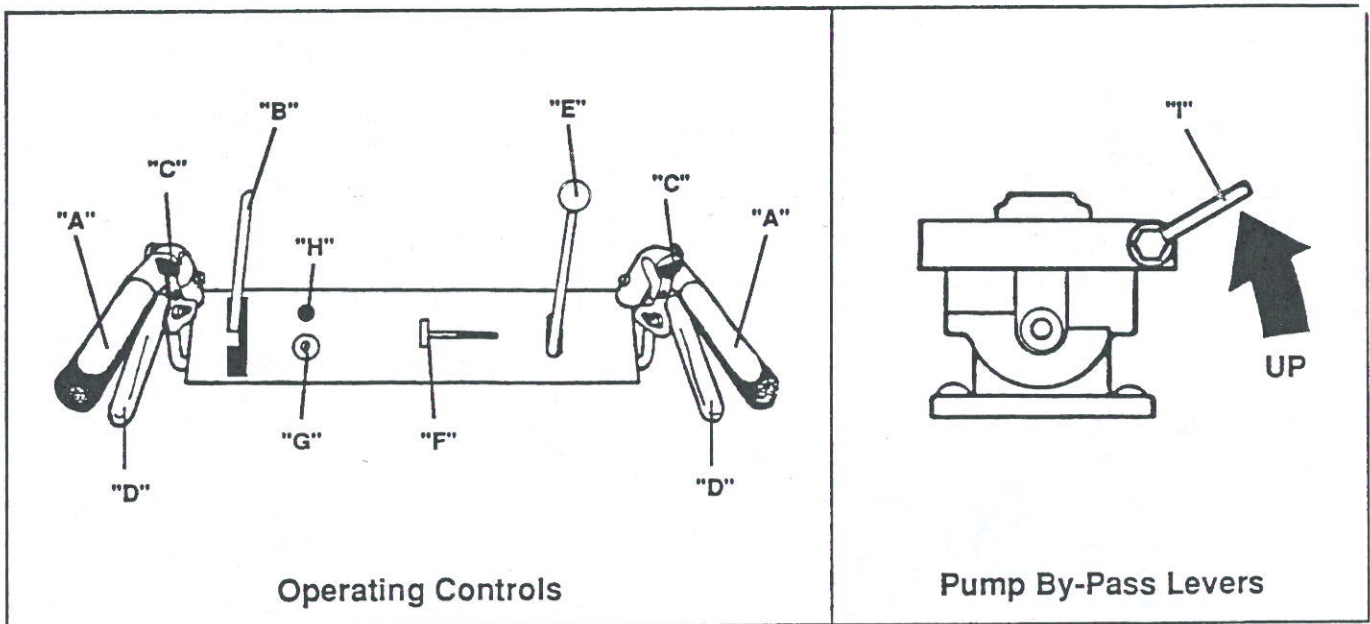


Figure 4

**Operator Presence Control Levers "A" (Figure 4):** The operator presence controls are a set of levers which when held down on the handle grips, energize the safety interlock switch. **Important:** Should the operator for any reason let go of both the operator presence control levers "A" while mowing, the safety interlock system will stop the engine.

**Blade Engagement Lever "B" (Figure 4):** To engage cutter blades, slowly push blade engagement lever "B" forward to the ENGAGED slot position. To disengage blades, pull blade engagement lever back toward operator to the DIS-ENGAGED slot position. **CAUTION:** Before starting engine or servicing mower, make sure the blades are disengaged.

**Traction Lever Locks "C" (Figures 4 & 5):** The traction lever locks "C" allow the operator to lock the traction control levers in neutral position for engine starting and free wheeling. To lock the traction control levers "D" in the neutral position (Figure 5), lift both traction levers "D" with fingers and pull lever locks "C" toward operator with thumbs until the curved end of the traction rod falls into the neutral slot (Figure 5).

**Traction Control Levers "D" (Figures 4 & 5):** Your mower is equipped with finger tip traction control levers "D", that control each wheel motor pump for turning, forward traction, reversing and stopping. **Important:** See Operating Instructions (Page 9) for detailed operating procedures.

**Ground Speed Selector Lever "E" (Figure 4):** The mower ground speeds can be changed without changing

the engine or blade speed. Moving the ground speed selector lever "E" forward increases the ground speed for lighter mowing. For tougher mowing, reduce ground speed by moving the ground speed lever rearward. **Important:** To start the engine, the ground speed control lever has to be positioned fully rearward into the start (NEUTRAL) position.

**Throttle Control "F" (Figure 4):** The mower is equipped with a throttle control that increases and decreases engine speed. Please refer to console decal instructions for correct operation.

**Ignition Switch "G" (Figure 4):** Before attempting to start engine, the ignition key must be turned clockwise to the "RUN" position. To stop engine, turn key fully counter-clockwise, shutting engine off. **Note:** Always turn fuel supply off after stopping engine, storing or transporting.

**Choke Control "H" (Figure 4):** Certain engines may utilize a manual choke control for cold engine starting. Pulling choke control knob "H" outward activates the choke. Upon engine starting push choke control knob back in.

**Free Wheel By-Pass Valve "I" (Figure 4):** A hand operated by-pass valve (Figure 4) is located on each hydraulic pump to allow the mower to be pushed or free wheeled when the engine is not running. To override the hydraulic system, simply turn each by-pass valve counter clockwise (1 turn) and push or free wheel the mower. Prior to starting the engine, be sure to turn the by-pass valve clockwise to the close position. **Note:** Do not turn the valve handle more than 1-1/2 turns when preparing the mower for pushing or free wheeling.



# OPERATING INSTRUCTIONS

## PRIOR TO MOWING BE SURE THAT YOU:

- Fully understand all operating controls and where they are located.
- Have filled the fuel tank with clean fresh fuel and turned the fuel shut-off valve to the ON position.
- Have checked the engine crankcase oil and filled it with the proper amount of engine manufacturers recommended engine oil.
- Have safety equipment secured in place and operational.
- Understand how to stop the mower in an emergency.
- Have checked the hydraulic oil reservoir and filled it with the recommended oil.

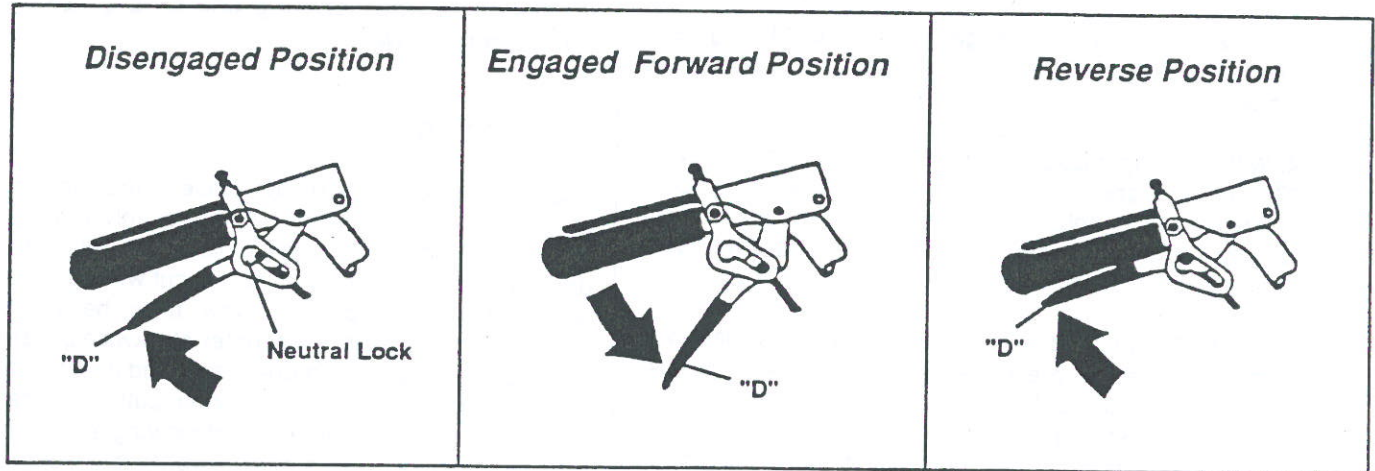


Figure 5

## STEERING, STOPPING AND POWER TURNING (Figure 5):

Your mower is designed for the operator to hydraulically steer, turn, stop, and back up the mower by simply manipulating the traction control levers "D" (Figure 5) "up" or "down." Lowering both traction control levers "D" down into the engaged position (Figure 5) propels the mower forward. To make right turns — raise the "right-hand" traction lever. For left turns — raise the "left-hand" traction lever. **CAUTION: Due to the quick responsiveness of the hydraulic controlled wheel motors, use extreme caution when making turns.** To stop the forward motion of the mower — simultaneously raise both traction control levers "D" upward to the neutral (disengaged) position (Figure 5). To remain stopped, lock the traction controls into the locked, neutral position and move the ground speed control lever to neutral.

## POWER REVERSING (Figure 5):

One of the unique advantages of the hydrostatic mower is the ability to back and steer in reverse. When it becomes necessary to back up (reverse) your mower, slowly pinch both traction control levers "D" (Figure 5) up against the handle grips (Figure 5) and cautiously back up. Steering in reverse is accomplished by manipulating the traction control levers "D" (Figure 5) as necessary to back up your mower in the desired direction. **CAUTION: Always use extreme caution when backing up in reverse. Be alert to what is in behind you as well as your footing.**

## STARTING ENGINE (Figures 4 & 5):

If previous instructions have been followed and the area is clear of debris, you are now ready to start the engine. **Important:** The safety interlock system will not allow the engine to start if all controls are not placed in their designated locked, neutral position (See Operating Controls, Page 8).

1. Place the traction control levers "D" up into the neutral lock position (Figure 5).
2. Check to make sure that the blade engagement lever "B" (Figure 4) is pulled backward to the disengaged position, and the ground speed selector lever "E" (Figure 4) is moved down into the neutral start position on the console.
3. Push the throttle control "F" (Figure 4) "right" to the FAST position. Turn ignition key to the RUN position. Set engine choke as required. Standing on the "left-hand" side of the mower, give the recoil rope starter one quick pull. Upon engine starting, gradually move the throttle control "F" (Figure 4) to the desired engine speed.

## STARTING TO MOW (Figures 4 & 5):

**CAUTION:** Move controls slowly, smoothly and at a safe operating speed until you are totally familiar with the operating characteristics of mower.



## OPERATING INSTRUCTIONS CONT'D

### STARTING TO MOW CONT'D...

1. When ready to mow, hold either the left or right hand operator presence control lever "A" (Figure 4) down on the handle grip and hold in position.

2. Move the ground speed selector lever "E" (Figure 4) to a slow forward speed. **Note:** Always begin mowing with a slow ground speed and increase as necessary to match the mowing conditions.

3. Slowly push the blade engagement lever "B" (Figure 4) forward into the ENGAGED slot position to activate the blades.

4. With your fingertips pinch up on the traction control levers "D" (Figure 5) and push the traction lever locks "C" (Figure 4) forward with thumbs. Slowly let the traction control levers "D" down simultaneously into the engaged position (Figure 5) and begin mowing.

**Important:** Should the operator for any reason let go of both of the operator presence control levers "A" (Figure 4) while mowing, the safety interlock system will stop the engine. To restart the engine, place the traction control levers "D" into the locked, neutral position. Move the ground speed selector lever "E" (Figure 4) into the "Neutral" start position and pull the blade engagement lever "B" (Figure 4) backward into the locked "Disengaged" position. Follow the Start Engine procedures described on page 9.

### HILLSIDE MOWING:

You can mow across a hill or grade by squeezing the traction control lever "D" (Figure 4) on the uphill side. This helps the mower from side slipping. **Note:** When changing directions, always turn uphill to give you better control of the mower and assisting you in keeping your balance.

### ROUGH AREAS or HIGHER HEIGHTS OF MOWING:

Your new mower is designed to achieve maximum performance at any of many cutting heights and varying cutting conditions. See Service Section - Cutting Height Adjustment (Page 14) for specific information pertaining to cutting heights.

### STOPPING MOWER (Figure 5):

1. To stop the mower, place the traction control levers "D" (Figure 5) in the neutral, locked position.

2. Move the ground speed selector lever "E" (Figure 4) down to the neutral position (Figure 4) and disengage the blades by pulling the blade engagement lever "B" (Figure 4) backward into a locked, neutral position.

3. Move the throttle control "F" (Figure 4) to the slow (turtle) position and idle engine for approximately 30 seconds before turning the ignition key "H" (Figure 4) to "OFF".


**Note:** We recommend that you always stop and park the mower on a level surface. **CAUTION:** Always chock the drive wheels when parking unit on a grade or when transporting mower.


### MOWING TIPS:


Your mower is designed to trim close on the "left-hand" side of the mower and discharge clippings evenly on the opposite "right-hand" side. By using a clockwise cutting pattern, in dry, thin, grasses each successive cut will recut the previous discharged clippings. New, thick, heavy, or lush grasses should be cut in a counter-clockwise pattern. This will discharge clippings more evenly and direct them away from the grass yet to be cut. When cutting is heavy, the mower will do a much better job of mowing and discharging the grass clippings with a slow forward ground speed while at the same time maintaining high blade tip speed.

Always begin mowing with a slow ground speed and increase as required for the type of area you are mowing. For optimum performance, engine should be run at full rated RPM.

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 **WARNING:** Before leaving the operator's position for any reason, place the blade engagement lever in the DISENGAGED locked position, lock the traction control levers in neutral, move the ground speed selector lever to neutral, shut the engine off and remove the ignition key.

 **WARNING:** Never fill fuel tank indoors, with engine running or while engine is hot. Handle Fuel Carefully! Be alert to the danger of an explosion from smoking or sparks during refueling. Always follow safe fueling procedures by filling fuel tank away from all sources of possible sparks and flames.

 **WARNING:** Do not operate the mower if for any reason the safety interlock system is malfunctioning. It is a safety device designed for everyone's protection.



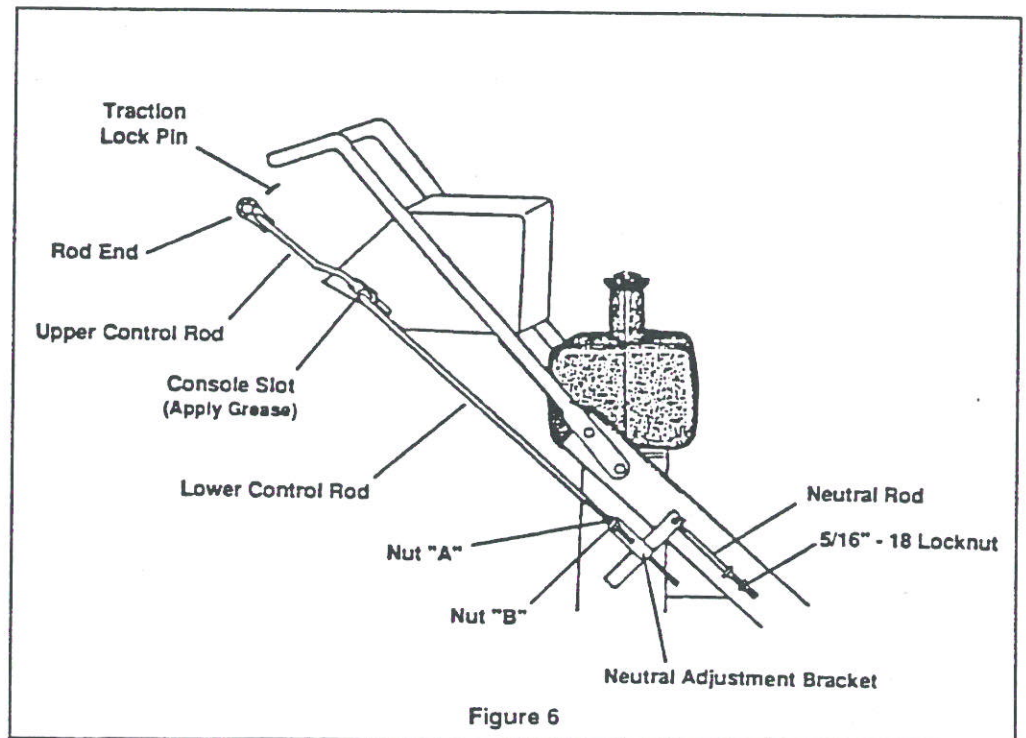
# SERVICE INSTRUCTIONS

**⚠ CAUTION:** Before attempting any service adjustments, it is imperative for your safety that you disengage blades, stop the engine, and disconnect the spark plug wire from the spark plug. Avoid working on mower after prolonged operation — a hot engine can cause severe burns. Also, should you find it necessary to turn the mower over on its side: shut fuel valve off and drain fuel tank. **NOTE:** Always turn mower over on its "right-hand" (chute deflector) side to avoid possible damage to the engine carburetor or air filter.

## REAR TRACTION DECK ADJUSTMENTS

### Operating Controls Adjustment Procedure:

1. Referring to Figure 4 and 5, position traction lever locks "C" in locked neutral position and move ground speed selector "E" to the most rearward neutral start position.
2. Turn the 5/16" - 18 locknut (Figure 6) on right neutral rod until an airgap the thickness of a nickle (approx. .072") exists between the spring coils. Repeat adjustment on the left side.
3. Release the left traction level lock. Leave the right traction lever lock in the locked position. The right upper control rod (Figure 6) should now slide freely making "light" contact with the lower control rod. To adjust, remove the traction lock pin (Figure 6) and turn rod end until the contact is correct. Repeat adjustment on the left side. **Note:** To verify adjustment, lock traction lever locks in neutral, move ground speed selector forward while observing the neutral adjustment brackets (Figure 6). They should not move.
4. Raise rear of mower with floor jack until the drive wheels are two inches off the floor. Secure with jackstands.
5. Start engine and run at full throttle. With traction lever locks in locked neutral position and ground speed selector in the neutral start position, adjust nuts "A" and "B" (Figure 6) on the right side until the wheel barely turns forward. Slowly adjust nut "B" until the wheel just quits turning and neutral is achieved. This position will allow you room in the pump "neutral zone" to refine your tracking speed later and still maintain neutral. Lock nuts "A" and "B", return to operator's position, move the traction control lever from forward, to neutral, and reverse several times. Refine your adjustment on "A" and "B" nuts maintaining the "early" neutral adjustment. Repeat adjustment on the left side of mower.
6. Shut off engine, lower mower safely to the ground. Check the .072" airgap for the spring coils on the neutral rods (Figure 6) and adjust if needed.
7. With mower in an open area and placed on a level surface, start engine and run at full RPM. Move the ground speed selector to the 1/2 ground speed position. Release traction locks and observe if mower tracks straight when both traction control levers are fully released.



8. If the mower is pulling to the left, loosen nut "A" on the right side and turn nut "B" clockwise 1/4 turn (Figure 6). Retighten nut "A". Start mower and check tracking. If mower continues pulling to the left, stop engine, adjust nut "B" another 1/4 turn, lock in place and test again. Continue adjustment until mower tracks straight.

**Note 1:** For tracking adjustment always slow the wheel motor (by adjusting nut "B" clockwise) on the opposite side the mower is pulling. This allows you to maintain a proper neutral while maintaining correct tracking performance. Refer back to Step 5 for clarification.

**Note 2:** The ground speed selector maintains the same maximum travel of the two control rods by two cams (located beneath the console). By following the above procedures you have "indexed" the right and left controls so they are synchronized. As you move the ground speed selector past the 1/2 to 3/4 position in the console slot the cams no longer contact the control rods. High speeds in this range are not "indexed" and the operator must make corrections with the traction control lever for straight tracking.

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## *SERVICE TIP*

Proper maintenance and service of your Bunton mower is the responsibility of the owner/operator. The careful attention you give your mower will contribute greatly to the life of the mower.

We recommend you service your mower regularly to insure that the mower continues to perform properly. When servicing and ordering replacement parts, be sure to use only genuine Bunton replacement parts.



## CUTTING DECK ADJUSTMENTS (36", 48", 52" and 61" Decks)

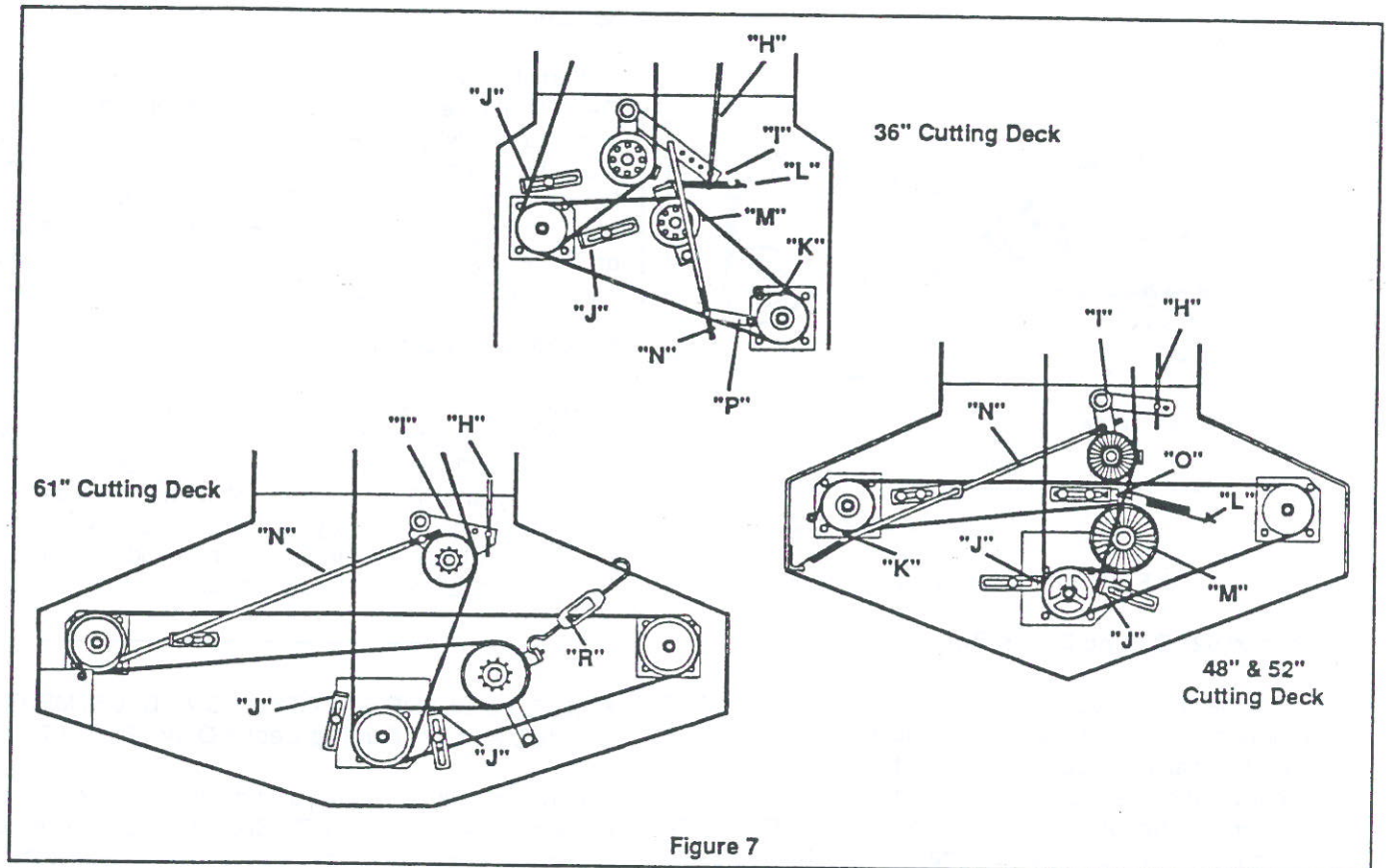


Figure 7

**⚠ CAUTION:** Stop engine and disconnect the spark plug wire from the spark plug before performing adjustments to the blade belt drive system.

### ENGINE TO BLADE BELT ADJUSTMENT (Figure 7):

With the engine stopped and the spark plug wire removed from the spark plug, place the blade engagement lever "B" (See Operating Controls, Page 8) rearward to the DISENGAGED slot. Referring to the illustration in Figure 7 for your particular cutting deck:

1. Loosen and remove the wing nuts on the blade belt hood. Lift the belt hood off and away from the cutter deck exposing the blade belt drive system.
2. Locate the swivel on blade control rod "H" (Figure 7) and remove the hair pin and washer. With the hardware removed, disconnect blade control rod "H" from idler pulley arm "I". Also disconnect brake rod "N" (Figure 7) from the hole in the idler pulley arm "I" (Figure 7).
3. Loosen all four engine to blade belt guides and distance each from belt. Going up to the handle console, push the blade engagement lever forward into the ENGAGED slot. Push the blade idler pulley arm "I" (Figure 7) rearward until the blade to engine pulley belt is tight. Holding the idler

pulley arm in this position, rotate the swivel on the blade control rod "H" until it will slide back into its original hole on idler pulley arm "I". With the swivel now adjusted, reconnect blade control rod "H" to idler pulley arm "I" and secure.

4. Upon completion of this adjustment, follow engine pulley to blade belt guide adjustment procedure.

### ENGINE PULLEY/BLADE BELT GUIDE ADJUSTMENT (Figure 8):

Located around the engine pulley are two L-shaped belt guides (Figure 8), which guide the blade belt out and away from the engine pulley when the blades are disengaged. When servicing the blade belt drive system, it will be necessary to reposition these belt guides. To Adjust:

1. Loosen the belt guide(s) mounting bolts. Move the guides so they are distanced approximately 1-1/2" to 2" from the engine pulley (Figure 8) and positioned so that there is a 1/8" clearance between the belt guide and engine blade belt when the blade belt is tensioned (blades engaged).
2. Tighten belt guide mounting bolts.



## CUTTING DECK ADJUSTMENTS CONT'D

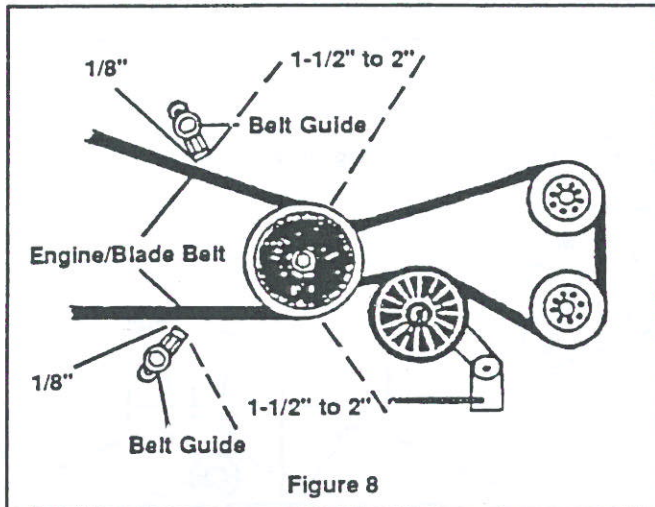


Figure 8

### BLADE BRAKE ADJUSTMENT (Figure 7):

#### 48" and 52" Cutting Decks Only:

Due to the spring-loaded feature of the blade brake system minimal adjustment is required. Spring tension on the blade brake band automatically brakes — stopping the blades — whenever the operator pulls the blade engagement lever rearward to the DISENGAGED slot. Should the spring tension on the blade brake mechanism reach a point that the brake band fails to totally stop the blades rotation when the blade control lever is moved to the disengaged position perform the following adjustments.

1. Move the blade engagement lever forward while observing the action of the blade brake rod "N" and brake band "K" (Figure 7). As the blade engagement lever reaches a point just above the slot of the DISENGAGED position, the blade control rod "H" should begin to pull idler pulley arm "I" rearward while at the same time disengaging the blade brake band "K" (Figure 7) from around the brake hub. Pushing the blade engagement lever completely forward into the ENGAGED slot should pull the blade brake band "K" (Figure 7) completely away from the blade brake hub and apply the proper tension to engage the engine to blade belt.
2. If adjustment is needed, move the blade engagement lever to the DISENGAGED slot. Remove hair pin and washers from swivel on brake rod "N" (Figure 7). Disconnect brake rod "N" from idler pulley arm "I" (Figure 7). With the brake band tight around the belt pulley hub, rotate the swivel on brake rod until it becomes centered in the slot on the idler arm. Reconnect brake rod "N" to idler pulley arm "I".

**Important:** Insure that the brake band releases from around the brake hub when the blades are engaged, otherwise, the brake band will overheat causing premature blade brake failure.

#### 36" Cutting Deck:

1. With the blade engagement lever placed in the DISENGAGED slot, remove hair pin and washers from the swivel on brake rod "N" (Figure 7). Disconnect brake rod "N" from brake band arm "P" (Figure 7). Pull brake band arm "P" forward until brake band "K" is tight around brake pulley hub. Holding brake band arm "P" in position, rotate swivel on brake rod "N" until it will slide into its hole on the brake band arm. Reconnect brake rod "N" to brake band arm "P".

#### 61" Cutting Deck:

1. With the blade engagement lever placed in the , DISENGAGED slot, remove hair pin and washers from swivel on brake rod "N" (Figure 7). Disconnect brake rod "N" from idler pulley arm "I" (Figure 7). With the brake band held tight around the belt pulley hub, rotate the swivel on brake rod until it aligns with the hole on the idler pulley arm. Reconnect brake rod "N" to idler pulley arm "I".

### BLADE TO BLADE BELT TENSION ADJUSTMENT - 36", 48", and 52" Cutting Decks Only (Figure 7):

The blade belt is self-adjusting by means of a spring tensioned idler "M" (Figure 7). Should the spring ever reach a point that it no longer provides sufficient tension to the idler pulley:

1. Using a pair of pliers remove the spring clip "L" from its existing hole in the cutting deck and move it forward into the next available hole.

**CAUTION:** Always be careful of hazard involved in release of springs under tension when servicing the blade belt system.

2. In addition to the spring on 48" and 52" cutting decks, a special vibration dampening bumper "O" (Figure 7) is provided to dampen the movements of the idler pulley when the blades are engaged. After moving the spring, loosen the bumper bracket mounting bolts (2) and move the dampening bumper bracket forward so that it just touches the dampening arm of the idler pulley. Tighten the bolts to secure bracket in place.

#### 61" Cutting Deck Only:

The blade belt is adjusted by means of a turnbuckle "R" (Figure 7). As the blade belt seats and tension slackens loosen jam nut and rotate turnbuckle "R" (Figure 7) until the proper belt tension is achieved. **Important:** Do not over tension belt. Over tensioning will cause severe belt wear and bearing failure.



# CUTTING HEIGHT ADJUSTMENTS FOR HYDRO WALK-BEHIND MOWERS

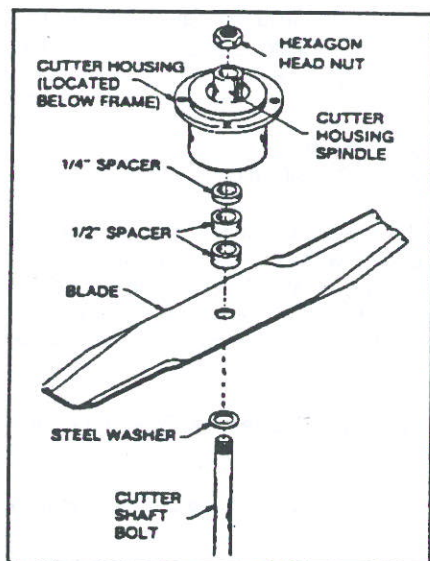
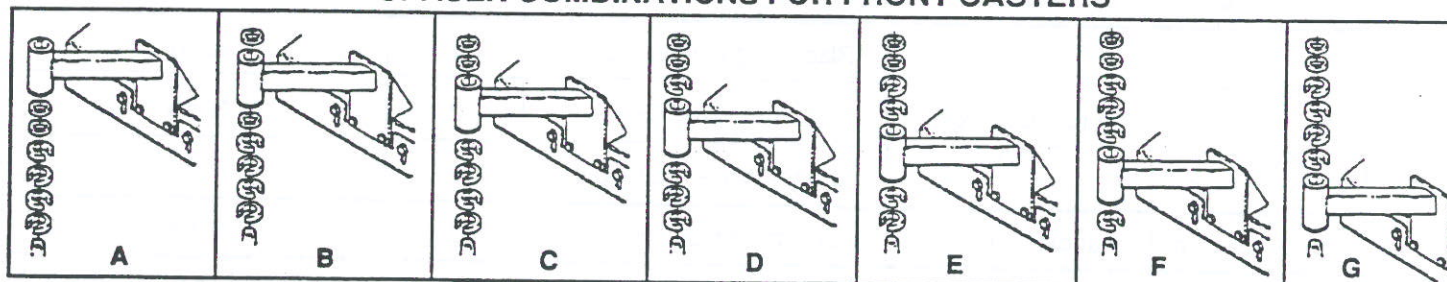
**CAUTION!** Prior to making cutting height adjustments on your mower, be sure that you have disengaged the blades, stopped the engine, and removed the spark plug wire from the spark plug.

To determine the correct configuration required for a specific height of cut, first choose the cutting height range from the chart. Next, choose the frame bolt pattern and front caster spacer combination. Bolt the frame together as the chart indicates. To change the spacers remove the pin and drop the caster post 1/4" until the "U" shaped spacer can be removed over the flats cut in the caster post. Adjust the casters as indicated in the chart. **Important:** When choosing a specific height of cut, please note the correct position of the wheel motors and the frame bolt pattern as shown below. Once the mower is in the correct range the blades can be adjusted on the cutter shaft bolts by altering the spacers shown in the Cutter Housing Blade Assembly drawing. Adjustment is available in 1/4" increments by interchanging the (1) 1/4" spacer and (2) 1/2" spacers from either side of the cutter housing to the opposite. Always adjust the mower so a forward blade tilt or level blade condition exists to avoid double cutting the grass. **CAUTION:** Beware of cutting edges, always wear gloves during blade maintenance activities.

Cutting Height Range	Wheel Motor Position	Frame Bolt Pattern	Front Caster Spacers
1-1/2" - 2-3/4"	1	3	G
2" - 3-1/4"	1	3	F
2" - 3-1/4"	1	2	G
2-1/4" - 3-1/2"	1	2	F
2-1/2" - 3-3/4"	1	2	E
3" - 4-1/4"	1	2	D
2-1/4" - 3-1/2"	2	2	G
2-1/2" - 3-3/4"	2	2	F
3" - 4-1/4"	2	2	E

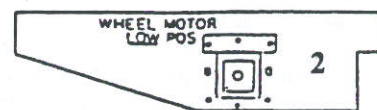
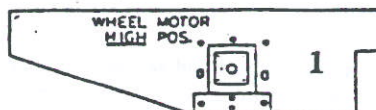
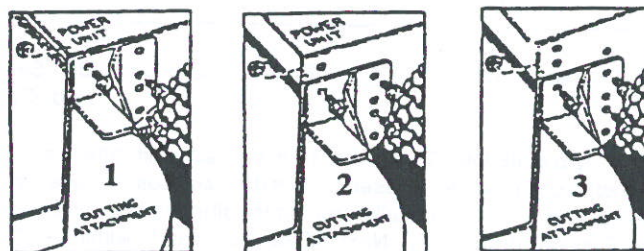
Cutting Height Range	Wheel Motor Position	Frame Bolt Pattern	Front Caster Spacers
3-1/4" - 4-1/2"	2	2	D
3-1/2" - 4-3/4"	2	2	C
3-3/4" - 4-1/4"	2	2	B
4" - 5-1/4"	2	2	A
3-1/2" - 4-3/4"	2	1	D
4" - 5-1/4"	2	1	C
4-1/4" - 5-1/2"	2	1	B
4-1/2" - 5-3/4"	2	1	A

## SPACER COMBINATIONS FOR FRONT CASTERS



CUTTER HOUSING BLADE ASSEMBLY

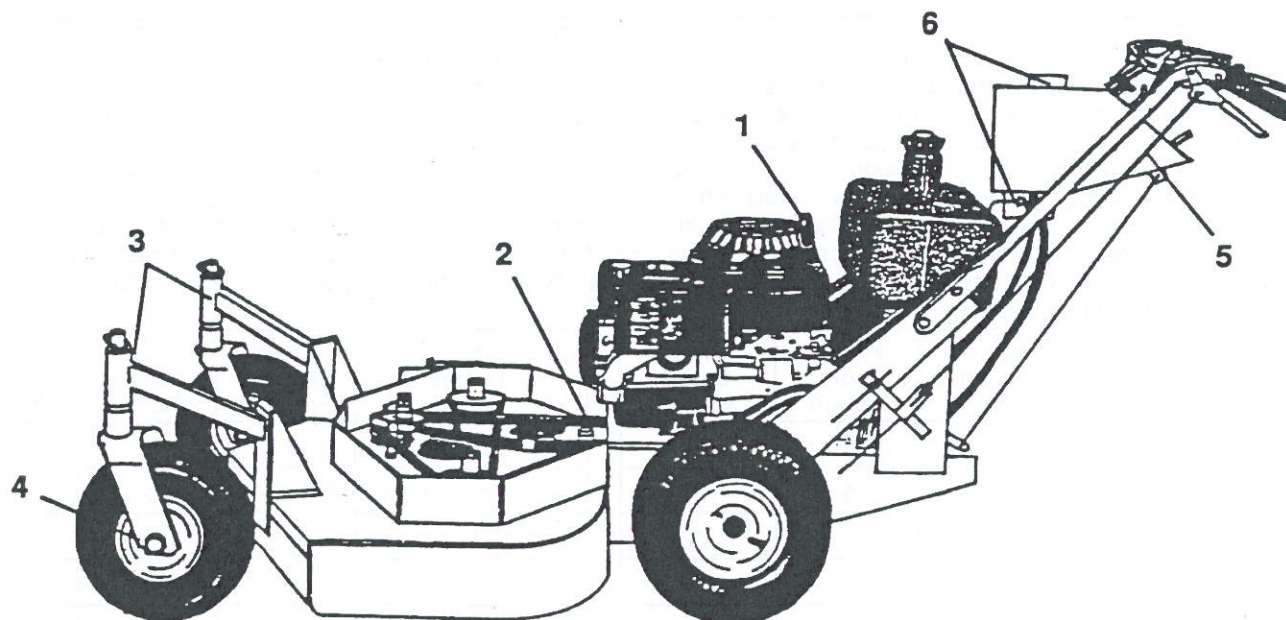
## FRAME BOLT PATTERN & WHEEL MOTOR ALIGNMENT



**IMPORTANT:** Never place spacers below blade. Insert cutter shaft bolt up through the cutter housing spindle from the bottom of the cutting deck only. When adjusting spacers, each blade must have the same number and size of spacers installed to insure uniform cutting height. Torque the cutter shaft bolt between 40 and 50 ft. lb. (54 to 68 N.m.).



# LUBRICATION



LUBRICATION POINTS

Ref. No.	Type of Lube	Location	Description	No. of Fittings	Lubrication Frequency
1	Oil	Engine	Engine Crankcase	1	See Engine Manual
2	Grease	Front Cutting Deck	Blade Engagement Idler	1	40 hrs.
3	Grease		Caster Pivot Tube	2	25 hrs.
4	Grease		Caster Wheel Bearings	2	25 hrs.
5	Grease	Handle Console	Traction Rod Linkage Slot	2	40 hrs.
6	Hyd. Oil	Rear Power Deck	Hydraulic Reservoir 8 Quart Capacity w/ 10 Micron Oil Filter		Check every 40 hours. Change oil and filter after first 50 hours of break-in and every 1000 hours thereafter.

**LEGEND:** Grease - (NLGI #2 Lithium Base E.P. Grease), Oil - See Engine Manufacturer Manual  
Hyd. Oil - (SAE 20W50 with API Classification SG/CD)

**Changing Hydraulic Oil:** To drain oil from the reservoir, attach a drain hose to drain valve nipple, loosen oil drain valve and drain oil into a suitable container. After reservoir has drained, loosen the reservoir oil filter with an oil filter wrench. Holding a pan under the filter, remove filter from reservoir and allow remaining oil to drain from reservoir. After all oil has drained, reinstall a new oil filter and hand tighten in place. Close oil drain valve. Next, fill the reservoir to within 1-1/2" of the fill opening with the recommended SAE 20W50 oil. Start engine and run it at idle for 3 to 5 minutes to circulate the oil and remove any air trapped in the system. Stop engine and recheck the reservoir oil level.

**Hydraulic Pumps:** The hydraulic pumps are lubricated and sealed at the factory and should require no service. See your local Buntor Dealer if your hydraulic drive system requires maintenance beyond oil and filter service.


**IMPORTANT:** The lubrication chart referenced above indicates recommended lubrication intervals. Under more severe or unusual work conditions, time intervals between lubrication may be shorter.



# GENERAL MAINTENANCE TIPS

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**Filling Fuel Tank:** Always use extreme caution when filling fuel tank. Remove fuel tank cap and fill tank with fresh, clean, gasoline. Do not fill fuel tank around an open flame or source of possible ignition. Do not overfill tank, but fill tank to 1/4" to 1/2" below the bottom of the filler neck to allow room for gas to expand. Refer to the Engine Manual for the proper grade and octane rating recommended for your mower's engine. Wipe up any spilled gasoline prior to starting mower.

 **CAUTION!** To help prevent fire or explosion, use safe refueling procedures.

- Be sure engine is shut off and allowed to cool down before filling fuel tank.
- Fill fuel tank outdoors.
- Do not smoke while filling fuel tank.
- Use only an approved and clean gasoline container.

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**Tire Pressure:** Maintain 28 PSI tire pressure on front and rear tires. Incorrect tire pressure will effect mowing performance as well as the life of the tire. Low pressure in one of the rear tires will make the mower pull toward the tire with less pressure and may also cause uneven cutting. **CAUTION:** Be extremely careful when filling tire with air. Do Not exceed recommended tire pressure. Overinflation could cause injury.

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**Changing Air Filter:** Refer to Engine Manual for recommended procedures for servicing engine air filter. **IMPORTANT:** If mower is operated in dusty conditions, it will be necessary for you to service the air filter more often.

## Removing and Sharpening Cutter Blades:

To remove the blades, stop engine and remove spark plug wire(s). Raise the front of the cutting deck and support on jackstand or block of wood. Using two 15/16" box end wrenches, remove the blade/bolt assembly from the bottom of the deck. When sharpening blades with a file or grinder, be sure to sharpen the cutting edges as close to the original bevel as possible. Remove the same amount from each blade to keep in proper balance. **IMPORTANT:** When installing blades, make sure the air lift sails (at the tip of blades) are pointing toward the top of the cutting deck and all spacers are above blade. **CAUTION:** Beware of cutting edges, always wear gloves for safety during blade maintenance activities.


 **CAUTION!** "Universal" blades may adversely affect mower performance and/or safety. See your Bunton dealer for correct replacement blades.

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**Safety Interlock System:** The Safety Interlock System incorporated onto your mower is designed so the operator may start the engine only if the blades are disengaged and the ground speed lever is placed in "Neutral". Once the engine is started and the operator depresses the "right or left hand" presence control lever the system will electrically sense that the operator is safely in the operators position and will allow the blades and ground speed selector lever to be engaged.

**NOTE:** Dual operator presence control levers allows one handed operation for turning, hillside mowing, etc. Should the operator for whatever reason let go of both presence control levers while the blades are engaged and/or ground speed selector lever in a position other than neutral, the safety interlock sys-

tem will stop the engine. To restart the engine, the operator will have to disengage the blades and place the ground speed selector lever in the "Neutral" position.

 **CAUTION!** Do Not by-pass the safety interlock switches. They are included for your protection. Check the safety system and mechanisms daily for proper operation. If a defect is found, repair immediately. Do not operate equipment in defective condition.

**Servicing:** Check switch activating mechanisms and connections on a regular basis to make sure the wiring is not cracked or broken, and that all connectors are tight. Be sure engine components (fuel, ignition system are functioning properly).

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**Changing Engine Oil:** Refer to engine owner's manual for recommended intervals, break-in period, weight and grade of oil to be used. **CAUTION:** Never check or add oil while engine is running. When changing oil, slip flexible drain tube over oil drain valve and turn valve knob counter-clockwise. Always be sure valve is closed before adding new oil.

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**Replacing Parts:** When servicing your mower, do not substitute common hardware for cutter shaft bolts or other special items. Do not substitute blades, belts, pulleys, shields or other critical parts that may not meet strength and design requirements or may not fit correctly on the mower. Modifications and/or repair parts not approved by Bunton can cause a serious safety hazard and possible void your warranty. When servicing or replacing parts, use only genuine Bunton replacement service parts.



# STORAGE INSTRUCTIONS

When you are not operating your mower, it should be parked and stored in a dry and protected place, out of the reach of children. We recommend the following storage procedures.

## STORING BETWEEN MOWING JOBS

1. Allow mower to cool.
2. Clean exterior of mower, removing all accumulations of dirt and grass.
3. Check all parts for wear and deterioration. Replace all worn parts for safety.
4. Check all bolts, nuts and screws for tightness.
5. Following lubrication chart, completely lubricate the mower.
6. Inspect blades and sharpen if necessary. (See Service Instructions)
7. Check and clean air filter. (See Engine Manual).
8. Store in a dry and protected place. **CAUTION:** Do not store mower in an enclosure where fuel fumes may accumulate or reach open flame or spark. **Note:** The use of a good quality fuel stabilizer in the fuel tank is recommended. For safety, turn fuel shut-off valve to the OFF position.
9. Check to make sure that all hydraulic hoses and fluid connections are tight and in good condition.

## EXTENDED STORAGE

1. Wash, clean and completely lubricate the mower. Touch up scratched and unpainted areas with Bunton touchup spray paint.
2. Drain the fuel from the fuel tank. After fuel is drained, start engine and run until fuel in carburetor is exhausted.
3. Drain and change engine oil and filter. (See Engine Manual)
4. Clean tires and check tire pressure. We recommend raising the mower so the load is off the tires. Protect mower tires from sunlight.

## PARTS ORDERING INFORMATION

When ordering spare or replacement parts, please furnish the following information:

1. Print your name and address on your order clearly.
2. Name and address where parts are to be shipped.
3. Model and Serial numbers on mower and/or engine.
4. Part number, description and quantity of part required.
5. When ordering parts, use only genuine Bunton replacement parts.
6. Upon receipt of your parts order, check the shipment thoroughly. If any parts are damaged or missing, file a claim with the carrier before accepting.







