

# DR<sup>®</sup> ALL-TERRAIN<sup>™</sup> FIELD and BRUSH MOWER

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## Safety & Operating Instructions



Please read instructions before operating machine

# THANK YOU!

And congratulations on your purchase of a new DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER!

We have done our utmost to ensure that your DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER will be one of the most trouble-free and satisfying pieces of equipment you have ever owned. Please let us know of any questions or problems you may have. We want to answer or correct them as quickly as possible. (When you do call, please have your serial number and/or order number handy—it will speed things up!) We also hope to hear from you on how much you like your new helper.

And, please tell your friends about your new DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER! Having DR<sup>®</sup> Owners spread the word about our products and our way of doing business is the best advertising we can have, and the best way to help us provide even better service in the years to come.

Thanks once again!



for all of us at  
Country Home Products, Inc.<sup>®</sup>

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#### DOCUMENTATION

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# Table of Contents

<b>Chapter 1: Introducing the DR® ALL-TERRAIN™ FIELD and BRUSH MOWER... 1</b>	
About This Manual .....	1
<b>Chapter 2: Safety Considerations..... 3</b>	
Preparing to Use the DR® ALL-TERRAIN™ FIELD and BRUSH MOWER.....	3
Safety Information Labels.....	3
Protecting Yourself .....	5
Operating the Machine Safely .....	5
Safety with Gasoline-Powered Machines .....	6
A Note to All Users .....	7
<b>Chapter 3: Setting Up Your DR® ALL-TERRAIN™ FIELD and BRUSH MOWER .. 9</b>	
DR® ALL-TERRAIN™ FIELD and BRUSH MOWER Controls and Features.....	10
Unpacking the Mower.....	11
To Install the Brush Deck .....	12
Connecting the Battery Wire (Electric-Starting Models Only) .....	13
Adding Oil and Gasoline.....	14
Check the Tire Pressure.....	14
<b>Chapter 4: Operating Your DR® ALL-TERRAIN™ FIELD and BRUSH MOWER . 15</b>	
The Pre-Start Safety Check.....	15
Before Starting the Engine .....	16
Electric-Starting .....	16
Manual-Starting .....	16
Engaging the Wheel Drive.....	17
Engaging the Blade .....	17
Stopping the Blade .....	17
Stopping the Engine .....	18
Obstacle Tips .....	18
Slopes .....	19
If the machine gets hung up .....	19
Cutting Brush & Saplings.....	20
Reverse .....	20
Cutting in Wet & Heavy Growth.....	20
<b>Chapter 5: Maintaining the DR® ALL-TERRAIN™ FIELD and BRUSH MOWER . 21</b>	
Regular Maintenance Check List.....	21
Battery Care (For Electric-Starting Models Only) .....	22
Charging the Battery .....	22
Lubrication .....	23
Grease Fittings .....	24
Removing and Replacing the Belts .....	25
Removing and Replacing the Blade .....	28
Adjusting the Wheel Clutch .....	29
Removing and Replacing the Drive Chain.....	30
Adjusting the Blade Engagement Cable .....	31
Removing the Wheels .....	32
Adjusting the Parking Brake .....	32
Transmission .....	33
Removing or Changing the Deck.....	33
End of Season & Storage.....	34
<b>Chapter 6: Troubleshooting and Warranty ..... 35</b>	
Troubleshooting Table.....	35



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## **Chapter 1: Introducing the DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER**

Thank you for the purchase of your new DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER.

This manual will help you set up and safely operate your new DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER. Careful adherence to the safety and operating instructions in this manual will ensure many years of productive use.

Please let us know if you have any questions or problems by contacting us via our toll-free phone number. Our contact information is listed inside the front cover of this manual. When you call, please have your serial number or order number available so we can help you quickly.

### **About This Manual**

This manual is broken down into six main chapters:

Chapter 1: Introducing the DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER

- Explains the organization of this manual.
- Provides contact information for Country Home Products, Inc.

Chapter 2: Safety Considerations

- Explains guidelines for safe operation of your machine.

Chapter 3: Setting Up Your DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER

- Provides instructions for setting up and using your machine after shipment.

Chapter 4: Operating Your DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER

- Provides instructions for starting and stopping the machine's engine.
- Provides tips for dealing with obstacles.

Chapter 5: Maintaining the DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER

- Provides machine maintenance tips.

Chapter 6: Troubleshooting and Warranty

- Lists common problems and their solutions.
- Explains how to contact Country Home Products, Inc. should you need further assistance.
- Provides warranty information.

In addition to these chapters, there is a section at the end of this manual for your notes as well as a checklist of daily maintenance procedures on the back cover, which will keep your mower performing well for years to come.

## Conventions used in this manual



**WARNING!** The exclamation point within an equilateral triangle alerts you to essential operating, safety, and maintenance (servicing) instructions.

**Important!** This information is important in the proper use of your machine. Failure to follow this instruction could result in injury to you or damage to your mower.

**Tip:** This is a helpful hint to guide you in getting the most out of your mower.

**Tools Needed:** This indicates you will need a special tool to perform a maintenance function on your machine.

**Note:** This information may be helpful to you.

If you are ever unsure about an action you are about to take, contact Country Home Product's toll-free support at 1-800-DR-OWNER (376-9637).

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## Chapter 2: Safety Considerations

Taking the time to read and observe all safety instructions will ensure many years of productive use from your DR<sup>®</sup> ALL-TERRAIN<sup>™</sup> FIELD and BRUSH MOWER and help you avoid injury. Please take a few moments to read the following guidelines for safely operating your new machine.

### Preparing to Use the DR<sup>®</sup> ALL-TERRAIN<sup>™</sup> FIELD and BRUSH MOWER

- Read these *Safety and Operating Instructions* and the engine manufacturer's owner's manual before you use the DR<sup>®</sup> ALL-TERRAIN<sup>™</sup> FIELD and BRUSH MOWER. Become familiar with the controls, engine and service recommendations to ensure the best performance from your machine.
- Inspect the area in which you will be working. Look for rocks, logs, sticks, rope, wire, garden tools, etc., and remove these objects before mowing. Mowing over these objects could damage the machine and cause injury.

### Safety Information Labels

Take some time to become familiar with the following standard safety cautions applicable to your mower. Replace damaged or missing safety labels immediately. (#148231)



Read the Safety and Operating Instructions.



Always wear safety glasses or goggles while operating the machine.



Do not operate the machine near people or animals.



Keep body parts away from the mower blade.



Remove all objects that could be thrown by the mower blade.



Use caution operating the machine on slopes.

**WARNING: Add Oil Before Starting Engine**

Make sure you add oil before starting the engine; the unit is shipped without oil. Fill the oil reservoir slowly to make sure you don't overfill it. (#127811)

**CAUTION: HOT SURFACE**



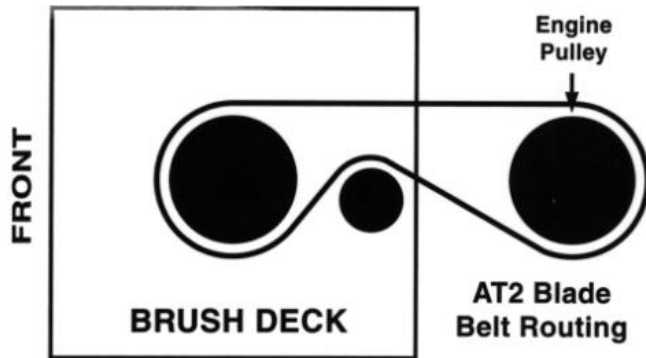
Keep combustible substances away from the engine when it is hot. (#136841)



To avoid injury, keep your hands and feet away from the spinning blade. (#136491)



Move the throttle to the CHOKE position to start the engine (to the RUN or IDLE position if the engine is already warm). (#164541)



This label shows the proper routing of the drive belt. (#164371)



This label reminds you about the importance of reading and understanding the Safety & Operating Instructions manual and of paying attention to the safety warnings. (#164521)



## Protecting Yourself

- Always wear the protective goggles while mowing to protect your eyes from possible thrown objects.
- Wear shoes with non-slip treads when using your DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER. If you have safety shoes, we recommend wearing them. Do not use the machine while barefoot or wearing open sandals.
- Wear long pants while mowing.
- Avoid wearing loose clothing or jewelry, which might be caught on the mower's moving parts.
- Use earmuffs or earplugs to protect your hearing.
- We recommend wearing gloves while mowing.

## Operating the Machine Safely



**WARNING!** The items listed in this section will help you keep your DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER running smoothly and, most importantly, prevent injury to yourself or others. Please review them carefully before starting your machine.

- Keep bystanders at least 100 feet away from your work area at all times. Objects can be thrown far from the mower and at great speeds. To be safe, do not operate the machine near small children or pets, and never allow children to operate the mower. Disengage the blade and stop the engine when another person approaches.
- Be sure all blade and wheel controls are DISENGAGED before attempting to start the engine. Engage and disengage the blade a few times to get used to it before mowing.
- NEVER remove the shields from the mower, or alter the deck in any way.
- Keep your hands and feet away from the blade, belts, chains, blade pulleys, and concealed areas while the engine is running. NEVER reach under the deck or grab hold of any part of the deck when the engine is running.
- ALWAYS shut off the engine and remove the spark plug wire(s) before adjusting the machine. If you have to stop to remove grass or debris from the underside of the deck, ALWAYS disconnect the spark plug wire(s) first.
- The exhaust area on the engine becomes very hot with use. Allow the engine to cool before doing maintenance or making adjustments.
- Keep combustible substances away from the engine when it is hot.
- When operating over uneven terrain and slopes, use EXTREME CAUTION to ensure solid and firm footing.
- Use the machine only in daylight or good artificial light.
- Use extra caution when mowing in wet or slippery conditions.

- ALWAYS OPERATE THE MOWER FROM BEHIND. Never pass or stand on the discharge (right) side or in front of machine when the engine is running.
- Do not, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER. This includes all shields and guards. Modifications to your machine could cause personal injuries and property damage and may void your warranty.
- While using the DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER, don't hurry or take things for granted. When in doubt about the equipment or your surroundings, stop the machine and take the time to look things over. Make sure that you have 100% control of the mower at all times.
- Never allow children or people who are unfamiliar with these instructions to use the DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER.
- Do not operate the machine when under the influence of alcohol or medication.
- Watch for traffic when mowing near roadways.

## Safety with Gasoline-Powered Machines



**WARNING!** The items listed in this section will help you keep your DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER running smoothly and most importantly, prevent injury to yourself or others. Please review them carefully before starting your machine.

- Do not run the engine in an enclosed area or without proper ventilation.
- Store all fuel in containers specifically designed for this purpose.
- Fill the gasoline tank outdoors with the engine off. Don't handle gasoline if you or anyone nearby is smoking, or if you're near anything that could cause it to ignite or explode.
- If you spill gasoline, do not attempt to start the engine. Move the machine away from the area of the spill and avoid creating any source of ignition until the gas vapors have dissipated. Wipe up any spilled fuel to prevent a fire hazard and properly dispose of the waste.
- Allow the engine to cool completely before storing in any enclosure. Never store the machine near an open flame or spark with gas in the tank.
- Do not change the engine governor settings or modify the engine speed.

## **A Note to All Users**

Under California law, and the laws of some other states, you are not permitted to operate an internal combustion engine using hydrocarbon fuels without an engine spark arrester. All DR® *ALL-TERRAIN*™ FIELD and BRUSH MOWERS shipped to California and Washington State are provided with spark arresters. Failure of the owner/operator to maintain this equipment in compliance with state regulations is a misdemeanor under California law and may be in violation of other state and/or federal regulations. Contact your local fire marshal or forest service for specific information in your area.

## **The Fine Print**

Country Home Products, Inc. reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.



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## **Chapter 3: Setting Up Your DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER**

This chapter outlines a few simple steps you will need to follow to set up your new machine before you use it. It may be helpful to familiarize yourself with the controls and features on your mower by reviewing the picture in the next section before beginning the steps outlined in this chapter.

# DR® ALL-TERRAIN™ FIELD and BRUSH MOWER Controls and Features

**Note:** The model shown in *Figure 1* may look slightly different from your machine.




*Figure 1*

## Unpacking the Mower

**NOTE:** Unpacking the DR® *ALL-TERRAIN*™ FIELD and BRUSH MOWER is a two-person job. We recommend you have an extra set of hands available before you begin.

### Tools & Supplies Needed:


- screwdriver
- hammer
- knife
- gloves

 **WARNING!** The banding may have a lot of tension on it and may snap, cutting you when cut. Always stand to one side when cutting the band.

1. Stand to one side and cut the banding.
2. Remove the top of the carton. Cut the cardboard top to bottom on one of the narrow sides of the box and peel it off the pallet. Be careful of the staples.
3. Pry off the fasteners and cut any ties holding the machine to the pallet.
4. Remove the brush deck by lifting it up and over the supporting lumber, and then remove the lumber. You may need to remove one of the cross slats. At this point the lawn deck (if ordered) is free standing and can be lifted off the pallet.

**Caution:** Wear gloves and be very careful when handling the deck(s). The blades are very sharp, and may spin as you maneuver the deck(s).

5. Roll the power unit off the pallet.
6. Attach the deck to the power unit following the directions on the next page. The belt is stored below the black pulley cover.

 **WARNING!** Before attaching the deck, be sure the spark plug wire(s) is disconnected.

7. If assembling the Lawn Deck, mount the front caster wheels before attaching the deck to the power unit.

**Note:** The *Safety and Operating Instructions* and the caster wheels for the Lawn Deck (if ordered) are tucked in one of the cardboard corner supports.

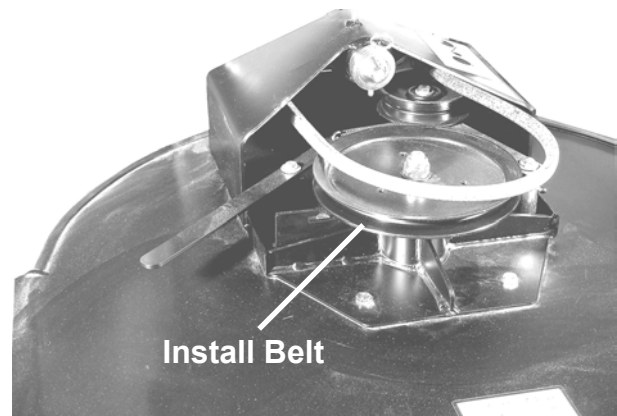
## To Install the Brush Deck

**⚠ WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

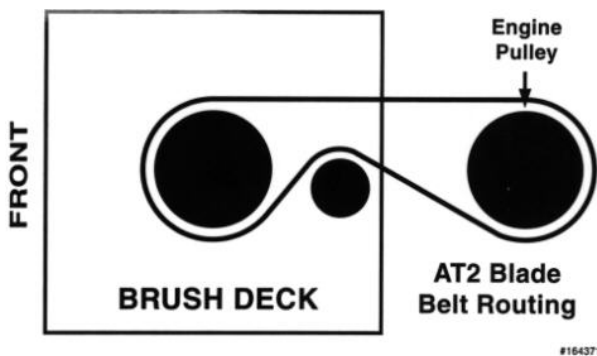
1. Remove the black belt guard by unscrewing the black knob, lifting the cover and pulling up and back to remove it. The belt is shipped wrapped around the pulley.
2. Slide the power unit shaft into the brush deck and install collar and pin (*Figure 2*).
3. Install the belt on the pulley and clutch (*Figure 3*) and route the belt per the label on the spindle housing (*Figure 4*). The tension lever may have to be released and secured into slot. (*Figure 5*).
4. Release the belt tensioner (*Figure 5*) onto the belt.
5. Replace the belt guard and secure in place with the black knob.



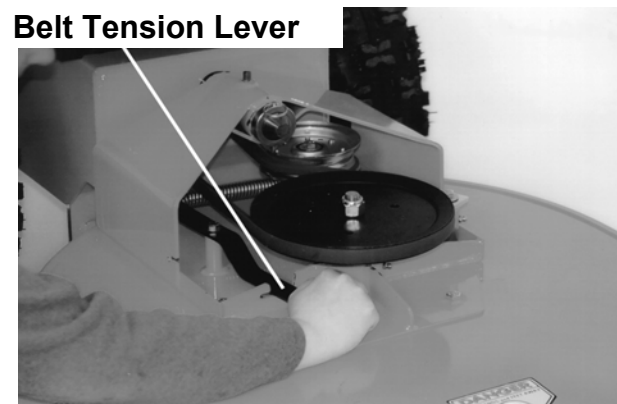
*Figure 2*



*Figure 3*



*Figure 4*



*Figure 5*



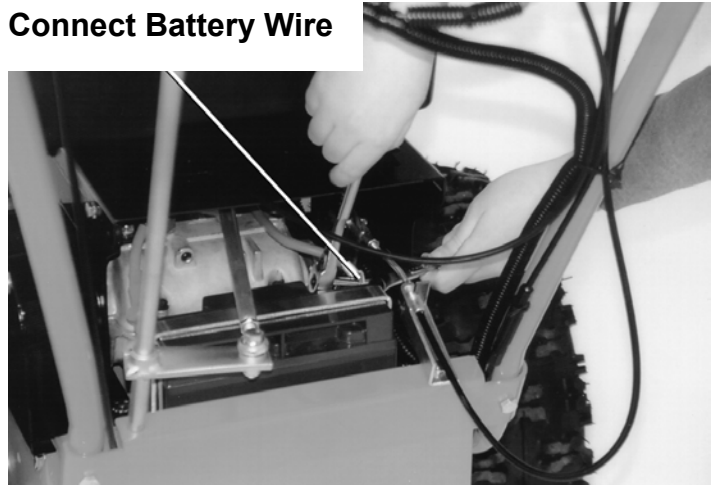
## Connecting the Battery Wire (Electric-Starting Models Only)

We ship all electric-starting mowers with the negative terminal battery wire disconnected. This prevents the battery from discharging during shipment. Before using your mower, you must connect the battery wire.

**Tools Needed:** (2) 5/16 wrenches or sockets

1. Connect the negative wire to the negative terminal on the battery (*Figure 6*).

### Connect Battery Wire



*Figure 6*

## Adding Oil and Gasoline



**WARNING!** You must add oil before starting the engine. This machine is shipped without oil. Traces of oil may be in the reservoir from factory testing, but you must add oil before starting the engine. Fill the reservoir slowly checking the dipstick frequently to avoid overfilling.

**Important!** To get an accurate reading when checking the oil level:

- ⇒ The machine should be on a level surface.
- ⇒ The dipstick should be screwed down on Briggs & Stratton engines.
- ⇒ The dipstick should NOT be screwed down on Kawasaki engines.

**Tip:** To avoid confusion, we recommend leaving the caps on the fuel and oil fills until you are ready to pour either gasoline or oil into the correct fill.

Use only SAE 30 high detergent oil. Other types of oil could cause problems operating your machine. Please refer to your engine manufacturer's owner's manual for detailed oil information.

1. Place the machine on a level surface and initially add ½ of the SAE 30 high detergent oil recommended by the engine manufacturer and wait one minute for the oil to settle. (*Figure 1*)
2. Check the dipstick and continue adding a few ounces of oil at a time, rechecking the dipstick until the oil reaches the fill mark. Be careful not to overfill.

Approximate Engine Oil Required w/ Oil Filter	
Briggs & Stratton – 11 Hp	48 oz. (1.42 L)
Briggs & Stratton – 13 Hp	48 oz. (1.42 L)
Kawasaki – 15 Hp	57.6 oz. (1.7 L)
Kawasaki – 17 Hp	57.6 oz. (1.7 L)

3. Fill the gas tank to within ¼ inch of the top with fresh, unleaded gas. See your engine manufacturer's owner's manual for more information.
4. Open the fuel shut-off valve (on the bottom of the gas tank) if your model is equipped with one.

## Check the Tire Pressure

There should be 14 psi in each tire.

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## Chapter 4: Operating Your DR® ALL-TERRAIN™ FIELD and BRUSH MOWER

This chapter covers the procedures for starting and stopping your new DR® ALL-TERRAIN™ FIELD and BRUSH MOWER and discusses basic operation features. You may find it helpful to review the DR® ALL-TERRAIN™ FIELD and BRUSH MOWER Controls and Features picture (*Figure 1*) on page 10 before reading this chapter.

### The Pre-Start Safety Check

Your DR® ALL-TERRAIN™ FIELD and BRUSH MOWER is fitted with an Operator Presence System to prevent it from functioning without an operator in the proper position at the controls. Also, normal wear and tear can bring about the need for adjustment to some running parts to insure that they function properly in terms of safe operation.

For your protection, it is imperative that these simple test procedures be performed before each use of the machine to verify that the safety equipment is in good order and that no part adjustments are needed for safe operation.

#### Test your Operator Presence Control System:

1. Stand in the operating position behind the handlebars, start your machine and engage the blade.
2. Remain behind the handlebars and release both hands from the controls.
3. THE ENGINE SHOULD SHUT OFF IMMEDIATELY. If your engine does not stop, your Operator Presence Control System may be damaged or disabled.



**WARNING! TURN OFF YOUR MACHINE BY USING THE IGNITION KEY AND STOP USING YOUR MACHINE IMMEDIATELY!**

#### Inspect the system for the following:

- Intentional disabling of the system through part modification or temporary measures used to override the system.
- Loose electrical connections.
- Broken parts.

After inspection, repeat this test. If your system still does not operate properly, REMOVE THE KEY FROM THE IGNITION SWITCH TO PREVENT OTHERS FROM OPERATING THE EQUIPMENT.

Call our Technical Support Representatives at **1(800) DR-OWNER (376-9637)**.

### Checking and adjusting clutch engagement:

1. Start your machine in the normal manner.
2. With the operator presence lever depressed, shift into low gear.
3. Increase the engine rpm but do not squeeze the clutch lever. The machine should not move when the clutch lever is not squeezed



**WARNING! IF YOUR MACHINE “CREEPS” DURING THIS TEST, YOUR CLUTCH NEEDS ADJUSTMENT. CONSULT CHAPTER 5, PAGE 29 OF YOUR OWNERS MANUAL AND MAKE ALL NECESSARY CORRECTIONS BEFORE USING.**

## Before Starting the Engine

1. Check the oil level every time you use the machine.
2. Check the gas level.
3. Open the fuel shut-off valve (on the bottom of the gas tank), if your model is equipped with one.

## Electric-Starting

1. Move the shift lever to N (Neutral). See mower picture, *Figure 1*, on page 10. **Note:** Shift lever **MUST** be in neutral or the engine will not start.
2. Move the throttle (see mower picture, *Figure 1*, on page 10) to the CHOKE position (to the RUN position if the engine is already warm).
3. Turn the key (see mower picture, *Figure 1*, on page 10) to the START position until the engine starts, then release. The key will snap back to the RUN position and the engine will continue to run.
4. Move the throttle to the RUN position.

## Manual-Starting

1. Move the throttle (see mower picture, *Figure 1*, on page 10) to the CHOKE position (to the RUN position if the engine is already warm).
2. Turn the key (see mower picture, *Figure 1*, on page 10) to START.
3. Grasp the recoil starter handle and slowly pull until you feel resistance. Let the cord retract a little bit, then pull the cord rapidly to start the engine. One or two pulls usually starts the DR<sup>®</sup> ALL-TERRAIN<sup>™</sup> FIELD and BRUSH MOWER.
4. Move the throttle to the RUN position.

## Engaging the Wheel Drive

The DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER has a four-speed forward transmission and single-speed reverse. Forward speeds range from 1.1 mph in first gear to 4.5 mph in fourth gear. Use the lower gears for mowing in thick, woody vegetation and the higher gears for wide-open areas and lighter vegetation, or as "travel gears." Reverse is ideal for maneuvering in tight spots.

**Note:** Always release the wheel clutch lever (see mower picture, *Figure 1*, on page 10) when shifting gears.

1. Move the shift lever to the desired gear.
2. Disengage the parking brake.
3. Gently squeeze the wheel clutch lever to engage a gear.
4. Release the clutch if you need to slow down or stop.

## Engaging the Blade

1. Hold down the operator presence lever (see mower picture, *Figure 1*, on page 10).
2. Engage the blade control lever.

**Note:** If you engage the blade control lever before holding down the operator presence lever the engine will shut off.



**WARNING!** Always disengage the blade of the DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER before shifting into reverse.

## Stopping the Blade

Pull the blade control lever (see mower picture, *Figure 1*, on page 10) back to the DISENGAGED position.

**Note:** Releasing the operator presence lever while the blade is engaged will cause the engine to shut off.

## Stopping the Engine

1. Disengage the blade by pulling the blade control lever (see mower picture, *Figure 1*, on page 10) back to the DISENGAGED position.
2. Move the shift lever to the N (Neutral) position.
3. Move the throttle control to the IDLE position.
4. Turn the key to the OFF position and remove it for safety.
5. Set the parking brake.

**Note:** If your machine is equipped with a fuel shut-off valve, close it when transporting or storing the mower.

## Obstacle Tips

Dealing with obstacles in the terrain is easy with your new DR<sup>®</sup> ALL-TERRAIN<sup>™</sup> FIELD and BRUSH MOWER. The following section explains how to approach most common obstacles.



**WARNING!** The mower engine's power can easily throw stones, sticks and other debris at great velocity, which could cause personal injury or property damage. **DO NOT** run the machine over gravel driveways or over loose stones or mulch with the mower blade spinning.

- Always check your work area before mowing and remove any debris that might tangle or damage the machine.
- If you do run into debris and the mower becomes tangled, turn off the engine and disconnect the spark plug wire(s) before attempting to untangle the machine.

## Slopes

1. We do not recommend using the DR<sup>®</sup> ALL-TERRAIN<sup>™</sup> FIELD and BRUSH MOWER continuously on slopes greater than 25 degrees. Doing so could deprive the engine of oil and cause it to overheat.

2. To avoid freewheeling, shift into a lower gear before going down a slope. Do not shift while on a slope.

3. Note that the mowing deck pivots from side to side (15 degrees in either direction), which helps avoid scalping, and keeps the weight balanced over the drive wheels when operating on uneven terrain (*Figure 7*).



*Figure 7*

## If the machine gets hung up

1. Disengage the blade. Do not try to free the machine from stumps or debris while the blade is engaged.

2. Try putting the machine in reverse and backing away from the obstacle.

3. Try pushing down on the handlebars to lift the mowing deck over the obstacle (*Figure 8*).



**Push Down on Handlebars to Clear Debris**

*Figure 8*



**WARNING!** If you need to leave the operating position to clear debris from the deck, first put the machine in "N" (Neutral), turn the engine off, set the brake and disconnect the spark plug wire(s).



**WARNING! DO NOT** touch the exhaust areas when reaching for the spark plug(s)—they are very hot.

## Cutting Brush & Saplings

1. When cutting woody material, small saplings, etc., allow the machine to ride up and over material slowly. Adjust your forward speed to varying conditions (*Figure 9*).
2. After cutting brush, etc., you may want to mow over it again to remove any remaining branches. It works best to mow from the trunk end toward the top as brush lies on the ground.



*Figure 9*

## Reverse

1. Be very careful of your footing when operating the machine in reverse. Know what's behind you and take your time.
2. Disengage the blade before shifting into reverse. Mow in the forward gears only, using reverse for maneuvering.
3. If you find it difficult to shift into reverse, lightly "feather" the clutch lever as you put the shift lever into reverse, then quickly release the clutch lever.


## Cutting in Wet & Heavy Growth

1. Be very careful of your footing when mowing in wet conditions. Avoid steep slopes and other slippery areas.
2. Use a lower, slower speed when mowing in wet conditions.



## Chapter 5: Maintaining the DR<sup>®</sup> ALL-TERRAIN<sup>™</sup> FIELD and BRUSH MOWER

Regular maintenance is the way to ensure the best performance and long life of your machine. Please refer to this manual and the engine manufacturer's owner's manual for maintenance procedures. Service intervals listed in the checklist below supercede those listed in the engine manufacturer's owner's manual.

 **WARNING!** Some of the following procedures require access to the underside of the machine. If you need to tip the machine back or on its side (with the discharge chute facing up), you must first disconnect the spark plug wire(s), drain the oil and gas, and remove the air filters.

### Regular Maintenance Check List

**Note:** Service intervals shown are considered maximum under normal operating conditions. Increase frequencies under extremely dirty or dusty conditions.

Procedure	Before Each Use	Every 25 Hours	Every 100 Hours
Check Operator Presence Switch	▲		
Check Engine Oil Level	▲		
Check General Equipment Condition	▲		
Check Blade for Sharpness	▲		
Lubricate Grease Fittings		▲	
Check Tire Pressure		▲	
Clean Air Filter & Precleaner*		▲	
Change Engine Oil & Filter*	1 <sup>st</sup> time 5 hours	▲	
Check Parking Brake Adjustment		▲	
Clean Engine Exterior & Cooling Fins		▲	
Check All Belt Tensions & Condition		▲	
Lubricate Chain		▲	
Replace Spark Plug(s)			▲
Replace Air Filter & Precleaner			▲
Check cable connections		▲	

\* The engine on your DR<sup>®</sup> may not have a precleaner or oil filter.

## Battery Care (For Electric-Starting Models Only)

Proper care can extend the life of a battery. Follow these recommendations to ensure your battery's best performance and long life:

- Do not allow the battery charge to get too low. If the machine is not used, the battery should be charged every 4 – 6 weeks.
- Store an unused battery in a dry area that does not freeze.
- Do not charge an already charged battery. In theory, our battery cannot be overcharged with a trickle charger; however, when a battery is fully charged and the charger is still on, it generates heat that could be harmful to the battery. A fully charged battery will read 12V-13.2V with a voltmeter.
- Do not continue to crank your engine when the battery charge is low.

## Charging the Battery

If the battery loses its charge, you'll need to use a trickle charger (like the DR<sup>®</sup> Battery Charger) to recharge it. The charger should have an output of 12 volts at no more than 6-8 amps.

- At 1 amp the battery may need to be charged for as long as 48 hours.
- At 2 amps, the battery may need to be charged for as long as 24 hours.
- At 6-8 amps the battery will be charged in 2 to 3 hours.



**WARNING!** At 6-8 amps a battery can overcharge, overheat and potentially leak acid. Do not leave the battery unattended while charging.

**Note:** Using the recoil starter and then running the engine will not recharge a dead or significantly discharged battery.

## Lubrication

Your DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER is greased at the Factory.

### Tools & Supplies Needed:

- Flexible hose grease gun
- Lithium grease
- 1/2" wrench or socket (chain cover)
- FLUID FILM<sup>®</sup> or comparable lubricant



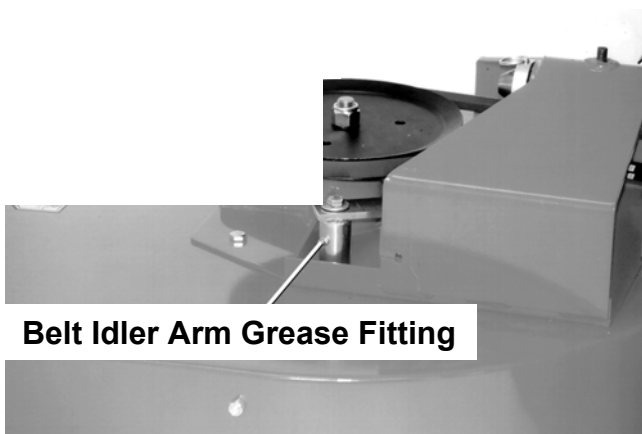
**WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

## Grease Fittings

1. There is one grease fitting below the black belt guard that needs maintenance (*Figure 10*):
  - The belt idler arm should have 1-2 pumps of grease every 25 operating hours.

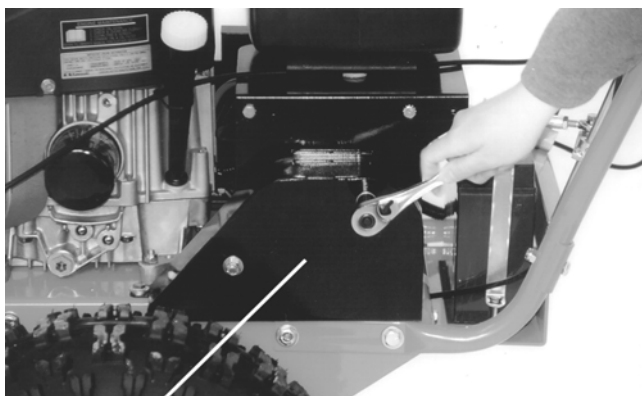
**Note:** Over greasing will cause grease to leak out of the seals onto the mower drive belt. Unless instructed otherwise, pump only until you feel slight resistance (1-2 pumps).

2. The drive chain should be lubricated with FLUID FILM<sup>®</sup> lubricant or SAE 30 oil every 25 operating hours—more often if the machine is operated in extremely dusty or wet conditions. Remove the chain cover, lubricate the chain and replace the cover (*Figures 11 and 12*).



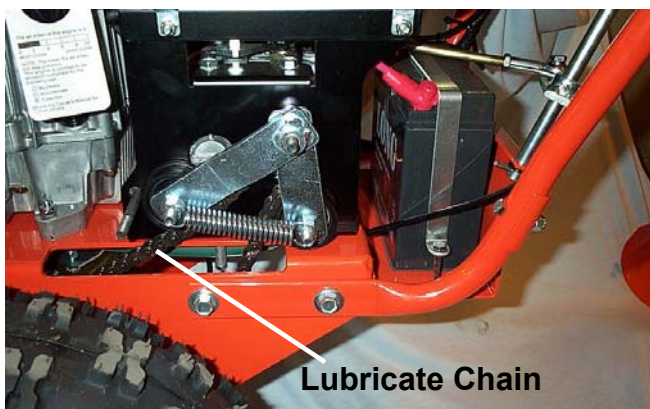
**Belt Idler Arm Grease Fitting**

*Figure 10*



**Remove Chain Cover**

*Figure 11*



**Lubricate Chain**

*Figure 12*

## Removing and Replacing the Belts



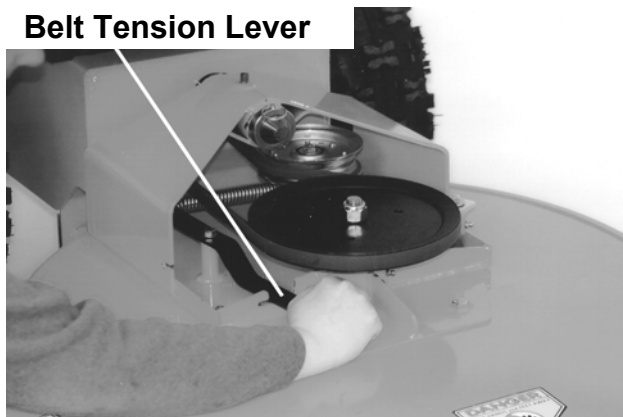
**WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

**Important!** Use only DR<sup>®</sup> belts on your machine. They have been thoroughly tested and proven for many hours of use.

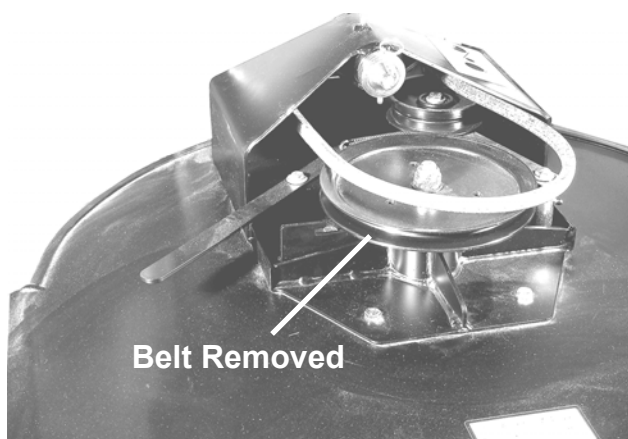
### To Replace the Blade Belt

1. Remove the black belt guard by unscrewing the black knob, lifting the cover, and pulling up and back to remove it.
2. Release the belt tension lever (*Figure 13*).
3. Remove the belt from the pulley (*Figure 14*), and then drop it from the engine pulley below the machine.
4. To mount the belt, follow the above procedure in reverse.

**Belt Tension Lever**




*Figure 13*



*Figure 14*

## To Replace the Drive Belt

 **WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

### Tools Needed:

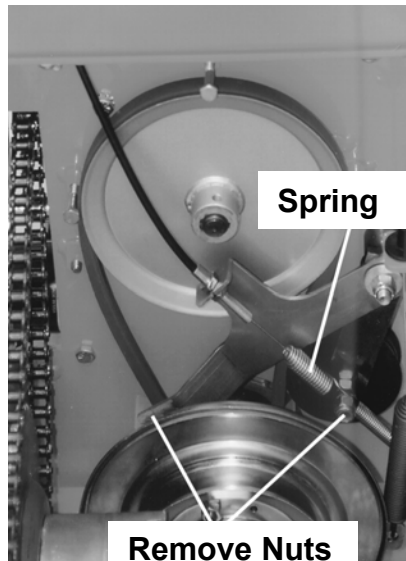
- 7/16" socket
- 1/2" wrench
- 9/16" wrench
- Gloves

1. Drain the gas and oil.
2. Remove the blade belt following the instructions as outlined in the previous page.
3. Remove the pin and collar (*Figure 15*), and then pull the power unit away from the deck.
4. Tilt the power unit forward onto the attachment pin.

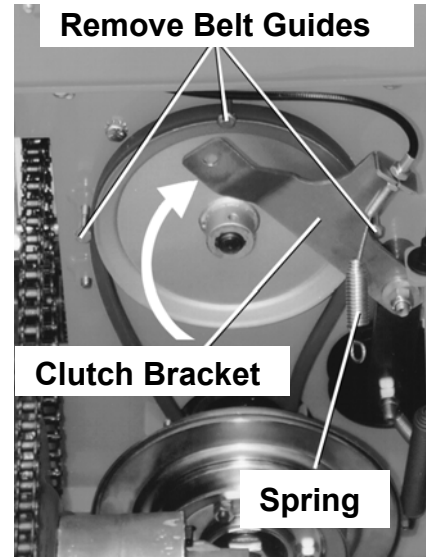


*Figure 15*

5. Remove the nuts on the clutch bracket and the clutch drive spring (*Figure 16*).
6. Remove the spring (*Figure 17*).

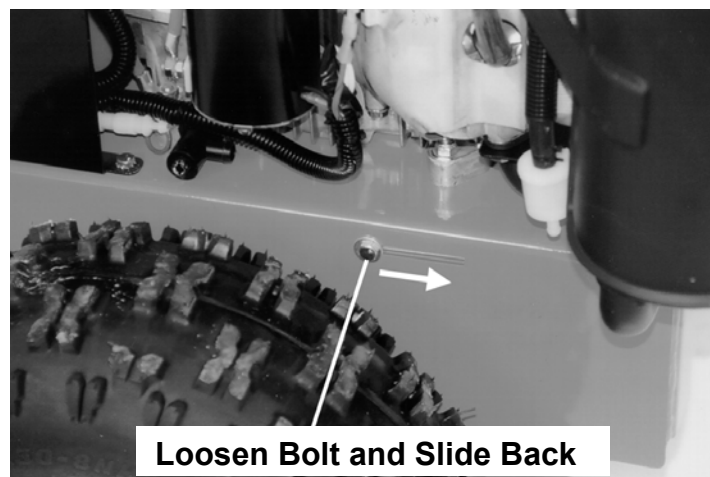


*Figure 16*




*Figure 17*

7. Lift and swing the clutch bracket out of the way (*Figure 17*).
8. Remove the three belt guides (*Figure 17*).
9. Loosen the belt retainer bolts on the outside of the frame (one on each side) and slide the retainer back (*Figure 18*).
10. Remove the belt.
11. To mount the new belt, reverse the above procedure.



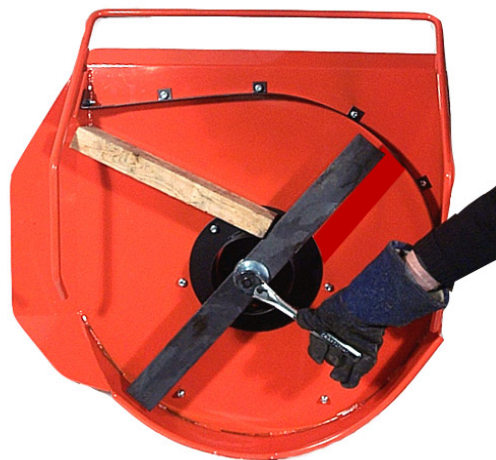
*Figure 18*

## Removing and Replacing the Blade


 **WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

### Tools Needed:

- 15/16" wrench or socket
  - Air wrench if available
  - Wear gloves
  - 2 x 4 to brace the blade
1. Block the blade with a piece of wood between the blade and the skid on the chute side of the deck (*Figure 19*).
  2. Remove the blade lock nut (right-hand, regular thread) and washer.



*Figure 19*

 **WARNING!** Use caution when pushing or pulling the wrench next to the blade. Wear gloves, if the wrench slips off the nut, you may be seriously injured.

3. Remove the blade.
4. Mount the new blade, washer and lock nut.

**Note:** Be sure the blade is seated completely over the small ridge in the spindle hub before tightening the lock nut.



## Adjusting the Wheel Clutch

**! WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

**Note:** When properly adjusted, tension on the wheel clutch lever should increase when the lever is about parallel to (almost touching) the handlebar grip.

### Tools Needed:


- (2) 1/2" wrenches
1. Find the wheel clutch adjustment on the clutch bracket on the underside of the machine (*Figure 20*).
  2. Loosen the nut on the front (threaded) side of the bracket by 1/8" to 1/4", and then tighten the nut on the back against the bracket. Check the tension on the clutch lever and repeat the adjustment as needed.

**! WARNING!** If clutch is over tightened, machine may lurch forward when shifting into gear. Use caution when shifting into gear.



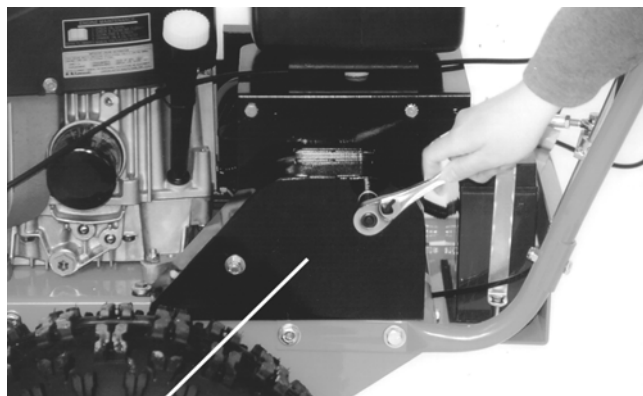
*Figure 20*

## Removing and Replacing the Drive Chain

 **WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

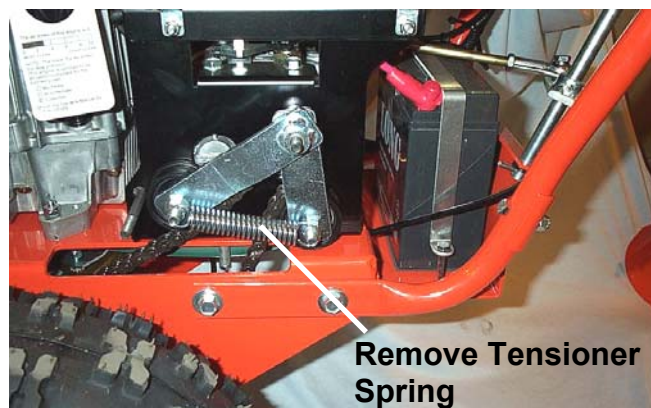
### Tools Needed:

- 1/2" wrench or socket (chain cover)
  - Flat-head screwdriver
  - Pliers
1. Remove the chain cover (*Figure 21*).
  2. Remove the tensioner spring (*Figure 22*).
  3. Remove the master chain link (*Figure 23*). First remove the lock clip (A) with a flat-head screwdriver and pliers. You'll need to lift one side and rotate the clip to get it off the master link. Next, remove the side plate (B). Then remove the master chain link.
  4. Slowly feed the chain out.
  5. Mount the new chain as shown in *Figure 22*.
  6. Add the master chain link.
  7. Replace the chain cover and tighten the lock nuts.



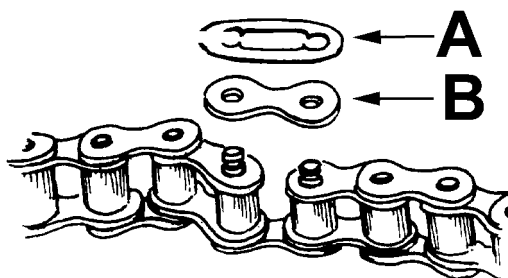
**Remove the Chain Cover**

*Figure 21*




**Remove Tensioner Spring**

*Figure 22*



*Figure 23*

## Adjusting the Blade Engagement Cable

 **WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

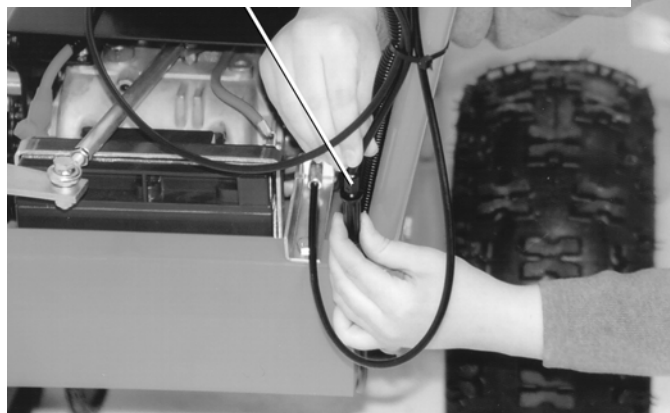
**Note:** If the blade won't cut, or seems to slip in heavy material, check the blade engagement cable.

### Tool Needed:

- 1/2" open-end wrench


On the right handlebar there is a black bracket for adjusting the blade engagement cable (*Figure 24*). To tighten the cable, turn the center portion of the adjuster counter clockwise. To loosen the cable, turn the adjuster clockwise.

### Blade Engagement Cable Adjustment



*Figure 24*

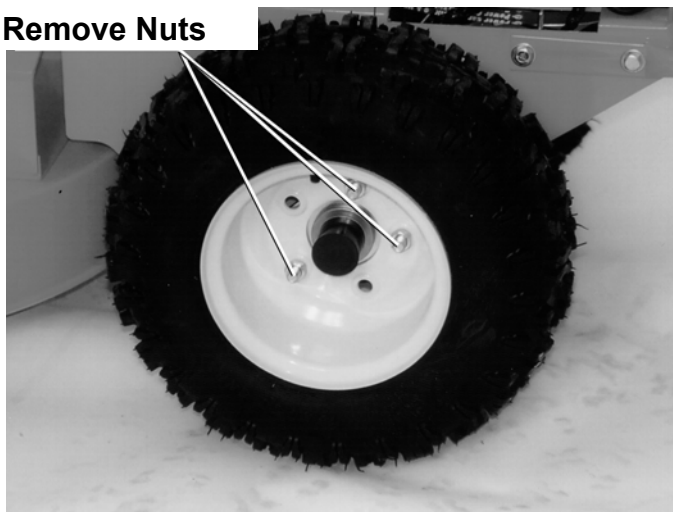
## Removing the Wheels

 **WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

### Tool Needed:


- 3/4" socket with extension
1. Block the machine so the wheel to be removed is off the ground.
  2. Remove the three nuts and slide the wheel off. (*Figure 25*)

### Remove Nuts



*Figure 25*

## Adjusting the Parking Brake

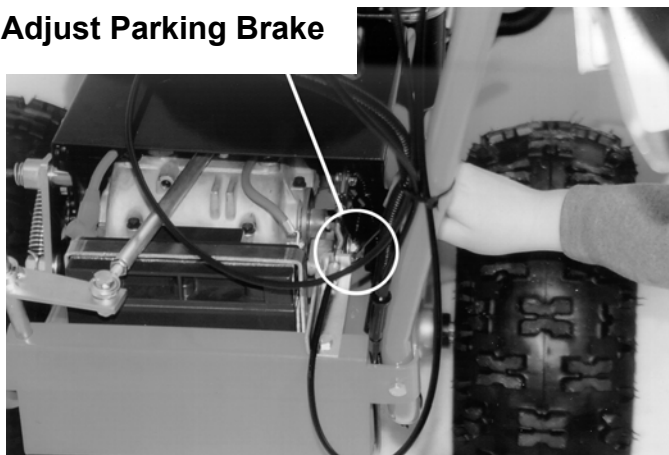
 **WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

### Tool Needed:

- 1/2" open-end wrench

To adjust the parking brake, tighten or loosen the nut shown in *Figure 26*. Tightening the nut will increase pressure and loosening the nut will decrease the pressure on the brake pad.

### Adjust Parking Brake



*Figure 26*

## Transmission

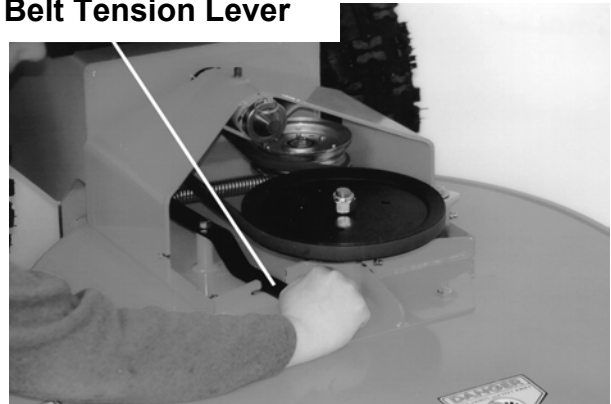
The transmission is maintenance-free and does not need additional lubrication.

## Removing or Changing the Deck

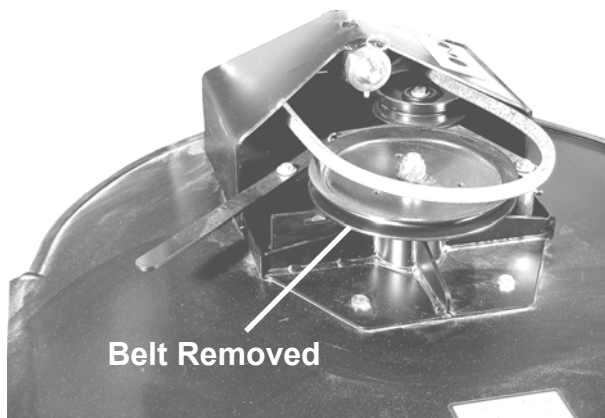
**⚠ WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

1. Remove the black belt guard by unscrewing the black knob, lifting the cover and pulling up and back to remove it.
2. Release the belt tension lever (*Figure 27*).
3. Remove the belt from the pulley (*Figure 28*).
4. Remove the pin and collar (*Figure 29*), and then pull the power unit away from the deck.

### Belt Tension Lever



*Figure 27*



*Figure 28*



*Figure 29*

## End of Season & Storage



**WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

**Note:** Please refer to the engine manufacturer's owner's manual for engine-specific procedures.

- Change the oil (and oil filter, if applicable). For winter use, use SAE 5W – 30W.
- Remove the spark plug(s) and pour about 1 ounce of motor oil into the cylinder hole. Replace the plug(s) and pull the recoil starter rope until you feel strong resistance. This will coat the piston and seat the valves to prevent moisture buildup.
- Clean/replace the air filters.
- Clean dirt and debris from the cylinder head cooling fins, blower housing, debris screen and muffler area of the engine.
- If your engine has a fuel filter, replace it.
- If your DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER will be idle for more than 30 days, we recommend using a gas stabilizer. This will prevent sediment from gumming up the carburetor. If there is dirt or moisture in the gas or tank, remove it by draining the tank. Completely fill the tank with fresh, unleaded gas and add the appropriate amount of stabilizer or gasoline additive. Run the engine for a short time to allow the additive to circulate. Close the fuel shut-off valve, if your machine is equipped with one, to prevent carburetor overflow and leakage.
- Store the battery in a dry area that will not freeze. If the machine is not used over a long period, the battery should be charged every four to six weeks. See page 22.
- Remove any wrapped weeds from the blade bearing housing. Clean grass and debris from the top and underneath the mower deck with a stiff brush.
- Check the blade for nicks and wear. Remove the blade and sharpen, or have it professionally sharpened if needed.

**Note:** For winter use, please refer to the attachment instructions.

## Chapter 6: Troubleshooting and Warranty

Most problems are easy to fix. Consult the troubleshooting table for common problems and their solutions. If you continue to experience problems call Country Home Products, Inc. for support.

### Troubleshooting Table



**WARNING!** Before performing any maintenance procedure, stop the engine and disconnect the spark plug wire(s).

SYMPTOM	POSSIBLE CAUSE
<i>Recoil will not pull out or is difficult to pull.</i>	<ul style="list-style-type: none"> <li>⇒ Check that the blade lever is in the disengaged position.</li> <li>⇒ The recoil may be broken or jammed. Try to turn the engine pulley by hand, with the spark plug wire(s) off. If it turns, the recoil is broken or jammed. Call <b>1(800) DR-OWNER (376-9637)</b> for assistance.</li> </ul>
<p><i>The engine won't start manually.</i></p> <p><i>(Please refer to the engine manufacture's owner's manual for engine-specific procedures.)</i></p>	<ul style="list-style-type: none"> <li>⇒ Are you using fresh, clean gas? If the gas is old, change it. Use a fuel stabilizer if you keep gas longer than two months.</li> <li>⇒ Check that the fuel shut-off valve is turned on, if your machine is equipped with one.</li> <li>⇒ Check the fuel filter to see if it is clear. Remove the line from the engine side of the filter. If gas flows freely, it's OK.</li> <li>⇒ Check the throttle adjustment and travel.</li> <li>⇒ Is the blade engagement lever down (disengaged)? It should be.</li> <li>⇒ Is the spark plug(s) clean? If the spark plug(s) is dirty or cracked, change it. If it's oily, leave it out, hold a rag over the plug(s) hole and pull the recoil cord several times to blow out any oil in the cylinder, then wipe off the plug(s) and reinsert it.</li> <li>⇒ If your engine still won't start, call <b>1(800) DR-OWNER (376-9637)</b> for assistance.</li> </ul>

SYMPTOM	POSSIBLE CAUSE
<p><i>The engine won't start using electric-start.</i></p> <p><i>(Please refer to the engine manufacturer's owner's manual for engine-specific procedures.)</i></p>	<ul style="list-style-type: none"> <li>⇒ Have you checked all the items under the section called Electric Starting on page 15? If not, do so now.</li> <li>⇒ There is a fuse in the wiring harness. Check the fuse and replace if needed.</li> <li>⇒ Check the wire connections—especially the ground connection, the large green wire coming from the battery, where it connects to the engine.</li> <li>⇒ Check the wire connections to the solenoid. Disconnect the green battery ground wire first to avoid sparks. Check to be sure that all of the connections are clean and tight. Reconnect the battery ground wire.</li> <li>⇒ Check the ground connection on the solenoid where it's bolted to the frame. Using a wrench or socket, spin the bolts and tighten them to ensure a good connection to the frame.</li> <li>⇒ Is your battery charged? Check it yourself or at a gas station. If it's low, charge it with a 12-volt, 1 to 2 amp trickle charger. If you don't use your mower for at least 45 minutes at a time, the battery may need to be periodically charged. See the Battery Care section on page 22.</li> <li>⇒ If your battery is charged and your DR<sup>®</sup> still won't start, call <b>1(800) DR-OWNER (376-9637)</b> for assistance.</li> </ul>



SYMPTOM	POSSIBLE CAUSE
<p><i>The engine lacks power or is not running smoothly.</i></p> <p><i>(Please refer to the engine manufacturer's owner's manual for engine-specific procedures.)</i></p>	<ul style="list-style-type: none"> <li>⇒ Check the throttle travel and adjustment.</li> <li>⇒ Is the air filter clean? If it's dirty, change it following the procedure in the engine manufacturer's owner's manual.</li> <li>⇒ Is the spark plug(s) clean? If it's fouled or cracked, change it. If it's oily, leave it out, hold a rag over the plug(s) hole and pull your recoil cord several times to blow out any oil in the cylinder, then wipe off the plug(s) and reinsert it.</li> <li>⇒ Are you using fresh, clean unleaded gas? If it's old, change it. Use a fuel stabilizer if you keep gas longer than two weeks or so.</li> <li>⇒ Does your engine have the right amount of clean oil? If it's dirty, change it following the procedure in the engine manufacturer's owner's manual.</li> <li>⇒ Check the oil level and adjust as needed.</li> <li>⇒ If your engine still lacks power, call <b>1(800) DR-OWNER (376-9637)</b> for assistance.</li> </ul>
<p><i>Engine smokes.</i></p>	<ul style="list-style-type: none"> <li>⇒ Check the oil level and adjust as needed.</li> <li>⇒ You may be operating the machine on too great an incline.</li> <li>⇒ Check the air filter and clean or replace if needed.</li> <li>⇒ You may be using the wrong oil—too light for the temperature. Refer to your Engine Manufacturer's Owner's Manual for detailed information.</li> <li>⇒ Clean the cooling fins if they're dirty.</li> <li>⇒ If the engine still smokes, call <b>1(800) DR-OWNER (376-9637)</b> for assistance.</li> </ul>
<p><i>Machine is hard to get into reverse.</i></p>	<ul style="list-style-type: none"> <li>⇒ If you find it difficult to shift into reverse, lightly pull the clutch lever as you pull the shift lever into reverse then quickly release the clutch lever.</li> <li>⇒ If the difficulty persists, call <b>1(800) DR-OWNER (376-9637)</b> for assistance.</li> </ul>
<p><i>The belt frays or rolls over the pulley.</i></p>	<ul style="list-style-type: none"> <li>⇒ A pulley groove may be nicked. Check the belt for wear and hard spots. File off any nicks on the pulley.</li> <li>⇒ The belt may be stretched. Replace it.</li> </ul>

SYMPTOM	POSSIBLE CAUSE
<i>The cut material is not being properly discharged out of the right side of the machine.</i>	⇒ The discharge may be blocked. Disengage the blade, turn off the engine, set the brake and disconnect the spark plug wire(s), then check for debris.
<i>Heavier growth gets hung up under the machine and does not discharge.</i>	⇒ Try removing the baffle under the front of the mowing deck.
<i>Blade vibrates when engaged.</i>	⇒ The blade may not be seated properly on the hub. Loosen the blade nut, reset the blade and tighten the nut. ⇒ The spindle bearings may be bad. ⇒ Call <b>1(800) DR-OWNER (376-9637)</b> for assistance.
<i>The blade is not cutting or is loose.</i>	⇒ The blade may not be seated properly on the hub. Loosen the blade nut, reset the blade and tighten the nut.
<i>Wheels pulling left or right.</i>	⇒ Check the tire pressure. There should be 14 psi in each tire.

## Notes

## Notes

# 1-Year Limited Warranty

## Terms and Conditions

The DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER is warranted for one (1) year against defects in materials or workmanship when put to ordinary and normal consumer use; ninety (90) days for any other use. The engine is warranted separately by the engine manufacturer.

For the purposes of all the above warranties, “ordinary and normal consumer use” refers to non-commercial residential use and does not include misuse, accidents or damage due to inadequate maintenance.

Country Home Products, Inc. certifies that the DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER is fit for ordinary purposes for which a product of this type is used. Country Home Products, Inc. however, limits the implied warranties of merchantability and fitness in duration to a period of one (1) year in consumer use, ninety (90) days for any other use.

The 1-Year Limited Warranty on the DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER starts on the date the machine ships from our factory. The 1-Year Limited Warranty is applicable only to the original owner.

The warranty holder is responsible for the performance of the required maintenance as defined by the manufacturer's owner's manuals. The warranty holder is responsible for replacement of normally wearing parts such as the belts, bearings, debris shield, and battery. Attachments and accessories to the machine are not covered by this warranty.

During the warranty period, the warranty holder is responsible for the machine transportation charges, if required. During the warranty period, warranty parts will be shipped by standard method at no charge to the warranty holder. Expedited shipping of warranty parts is the responsibility of the warranty holder.

SOME STATES DO NOT ALLOW LIMITATIONS ON THE LENGTH OF IMPLIED WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

Country Home Products, Inc. shall not be liable under any circumstances for any **incidental or consequential damages or expenses** of any kind, including, but not limited to, cost of equipment rentals, loss of profit, or cost of hiring services to perform tasks normally performed by the DR<sup>®</sup> *ALL-TERRAIN*<sup>™</sup> FIELD and BRUSH MOWER.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

## Customer Service Hotline

Country Home Products, Inc.'s objective is to have 100% satisfied customers. For that reason, we operate a 6-day-a-week Technical Service Department for our Owners. You can access a Representative by dialing our TOLL-FREE Hotline at 1-800-DR-OWNER (376-9637). The sole job of our well-trained and friendly folks is to ensure that you get any help you need in a timely fashion. They are there to answer all your questions including: (1) inquiries on any of the above warranties, (2) inquiries about replacement parts, or (3) your questions regarding service, maintenance and operation.

Our Customer Service Representatives will also be happy to answer any of your questions regarding the separate warranties on all engines. However, to obtain service, repair or replacement of any engine within the time period covered by the manufacturer's limited warranty, follow the instructions and warranty information specifically pertaining to those items provided by their separate manufacturers.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU ALSO HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

## **Daily Checklist for the DR® FIELD and BRUSH MOWER**

To help maintain your DR® for optimum performance, we recommend you follow this checklist each time you use your machine.

- [ ] **OIL:** With the machine on a level surface, remove the oil fill cap and check the oil level. Fill the reservoir according to the dipstick with SAE30 HD motor oil.
- [ ] **GAS:** Fill the gas tank with fresh, unleaded gasoline, making sure the gas valve on the bottom of the tank is open. Always close the gas valve when storing your machine.
- [ ] **ENGINE:** It is very important to keep the engine clean. Remove grass and other debris from the engine cooling fins and debris guard. A dirty engine retains heat and can cause damage to internal engine components.
- [ ] **BELTS:** Check the belts for wear, proper alignment and tension.
- [ ] **BLADE:** Check the blade for tightness, nicks and wear. Remove any wrapped weeds and grass from the blade bearing housing to prevent buildup.



COUNTRY HOME PRODUCTS, Inc.

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**MEIGS ROAD, P.O. BOX 25, VERGENNES, VERMONT 05491**

1-800-DR-OWNER (376-9637) • [www.dr-owner.com](http://www.dr-owner.com)

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