# **DR**® FIELD and BRUSH MOWER

# **SAFETY & OPERATING INSTRUCTIONS**





Serial No.
Order No.

**Original Language** 

**DR** Power Equipment

Toll-free phone: 1-800-DR-OWNER (376-9637)

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### Conventions used in this manual



This indicates a hazardous situation, which, if not avoided, *could* result in death or serious injury.

# A CAUTION

This indicates a hazardous situation, which, if not avoided, *could* result in minor or moderate injury.

## **NOTICE**

This information is important in the proper use of your machine. Failure to follow this instruction could result in damage to your machine or property.

### Serial Number and Order Number

A Serial Number is used to identify your machine and is located on the Serial Number Label on your machine (*Figure 1*). An Order Number is used to check and maintain your order history and is located on your packing slip. For your convenience and ready reference, enter the Serial Number and Order Number in the space provided on the front cover of this manual.

## **Additional Information and Potential Changes**

DR Power Equipment 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.

#### Serial Number Label



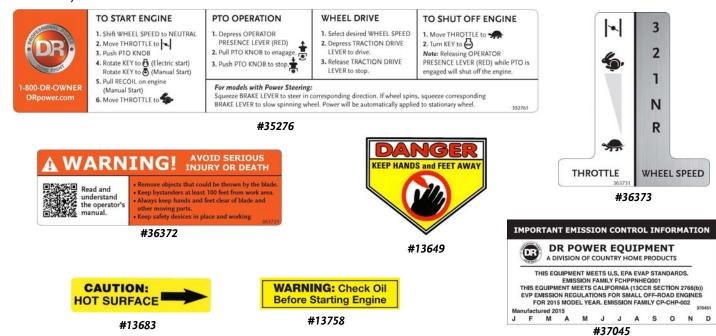
Figure 1

# **A** WARNING

Read this safety & operating instructions manual before you use the DR FIELD and BRUSH MOWER. Become familiar with the operation and service recommendations to ensure the best performance from your machine. If you have any questions or need assistance, please contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) and one of our Technical Support Representatives will be happy to help you.

#### Labels

The DR FIELD and BRUSH MOWER carries prominent labels as reminders for its proper and safe use. Shown below are copies of all the Safety and Information labels that appear on the equipment. Take a moment to study them and make a note of their location on your mower as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.



### Warnings, Cautions, and Notices

General Safety



Safe operation of the DR FIELD and BRUSH MOWER is necessary to prevent death or serious injury. Always take the following precautions when operating this machine:

- The DR FIELD and BRUSH MOWER is designed to mow grass and brush. Do not use it for any other purpose.
- If the machine makes an unusual noise or vibration or if there are obstructions underneath the machine, shut off the DR FIELD and BRUSH MOWER engine. Wait five minutes for the engine to cool. Disconnect the spark plug wire(s) and then inspect the machine for clogs or loose parts. Clear any obstructions and repair and/or replace damaged parts.
- The mower blades are sharp. Wrap the blades or wear gloves and use extra caution when servicing.
- Always keep the machine in good, safe operating condition. Always make certain nuts and bolts are tight. Do not use substitute hardware.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by DR Power Equipment.

## General Safety (Continued)

# **A** WARNING

- Use the DR FIELD and BRUSH MOWER only in daylight or very well lit work areas.
- 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.
- Always give undivided attention to the machine and your surroundings. Watch for traffic when mowing near roadways.
- Disengage the mower blades and exercise extreme caution when on or crossing drives, walks, or roads.
- In an emergency, to quickly stop the cutting blade and shut off the engine, remove your hand from the operator presence lever on the left handlebar.
- Always shut off the engine whenever you leave the machine.
- When operating over uneven and/or slippery terrain, use extreme caution to ensure solid and firm footing. Keep a firm hold on the handlebars and walk, never run.
- Do not operate the machine when under the influence of drugs, alcohol, or medication.

## Protecting Yourself and Those around You

# **A** WARNING

This is a high-powered machine with moving parts operating at high speeds. Always take the following precautions when operating this machine:

- Always wear protective goggles or safety glasses with side shields.
- Wear sturdy shoes with non-slip treads.
- Wear long pants while operating the mower.
- Avoid wearing loose clothing or jewelry which can catch on moving parts
- Use ear protectors or ear plugs.
- We recommend wearing gloves while mowing. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
- Allow only responsible adults who are familiar with these safety rules and operating instructions to use your DR FIELD and BRUSH MOWER.
- Keep your hands and feet away from the blades, belt, pulley, and concealed areas while the engine is running.
- Keep people and pets away from your machine and out of the work area at all times. Disengage the blade and stop the engine if a person or pet is within 100 feet of the machine.
- Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.
- Never allow people to ride on the mower.
- Before mowing, clear the area of objects such as rocks, toys, wire, bones, sticks, etc.
- Never remove or alter standard parts or add anything to the DR FIELD and BRUSH MOWER especially all shields and guards.
- Before and while moving backwards, look behind, and down, for small children.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure your vision.
- Use caution when mowing close to fences, buildings, and trees so as not to hit the handle bar. You could injure your hand or lose control of the machine.

## Slope Operation

# **A** WARNING

Slopes are a major factor related to slip and fall accidents. All slopes require caution. If you feel uneasy on a slope, do not mow it. Always take the following precautions when using this machine on slopes:

- Always mow across the face of slopes. Exercise extreme caution when changing direction on slopes.
- Never operate near drop-offs, ditches, or embankments, or on slopes greater than 20 degrees
- Never operate on wet or slippery slopes.

### Safety with Gasoline - Powered Machines

# **A** WARNING

Gasoline is a highly flammable liquid that gives off flammable vapor that can be ignited and cause a fire or explosion. Always follow these precautions:

- Never run the engine in an enclosed area or without proper ventilation as the exhaust contains carbon monoxide, an odorless, tasteless, and poisonous gas.
- Store all fuel and oil in containers specifically designed and approved for this purpose. Keep away from heat and open flame and out of the reach of children.
- Replace rubber fuel lines and grommets when worn or damaged or after 5 years of use, whichever comes first.
- Fill the gasoline tank outdoors with the engine off and after the engine has cooled completely. Do not handle gasoline if you or anyone nearby is smoking.
- If you spill gasoline do not start the engine. Move the machine away from the area until the gas vapors have dissipated.
- Before performing engine maintenance or repairs; shut down the engine, disconnect the spark plug wire(s), and wait 5 minutes for the engine to cool.
- Never change the engine governor settings or modify the engine speed.
- Never check for an ignition spark with the spark plug or spark plug wire(s) removed. Always use an approved spark tester.
- Never tamper with safety devices. Regularly check their proper operation.
- Allow the engine to cool completely before storing in any enclosed area.
- Keep combustible substances away from the engine when it is hot. Never cover the machine while the muffler is still hot.
- To reduce fire hazard, keep the engine and muffler free of debris build-up.
- Do not operate the engine with the air cleaner or the carburetor air intake cover removed.
- Do not use flammable solutions to clean the air filter.
- Never operate the engine without the muffler and deflector, if so equipped. Inspect the muffler and deflector periodically and replace if necessary.
- The muffler and engine become very hot and can cause a severe burn. Do not touch.

## California Proposition 65

# **A** WARNING

California Proposition 65:

- Engine exhaust and some of its constituents are known to the state of California to cause cancer, birth defects, and other reproductive harm.
- This product contains or emits chemicals known to the state of California to cause cancer, birth defects, and other reproductive harm.

### 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. This also applies to operation on US Forest Lands. All DR® FIELD and BRUSH MOWERS shipped to California, New Mexico and Washington State are provided with spark arresters. Failure of the owner or 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 appropriate local or state organization for specific information in your area.

No list of warnings and cautions can be all-inclusive. If situations occur that are not covered by this manual, the operator must apply common sense and operate this DR FIELD and BRUSH MOWER in a safe manner. Contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

### Chapter 2: Setting Up the DR FIELD and BRUSH MOWER

It may be helpful to familiarize yourself with the controls and features of your DR FIELD and BRUSH MOWER as shown in *Figure* **2** before beginning these procedures. If you have any questions at all, please feel free to contact us at www.DRpower.com.

### DR FIELD and BRUSH MOWER Controls and Features



## **Specifications**

|                       | 10.5 HP PRO-26                                      | 14.5 HP PRO-26  | 16.5 HP PRO XL 30   | 20.0 HP PRO XL30                                   | 20.0 HP PRO MAX 34                                  |
|-----------------------|---|---|---|--|---|
| Engine                | See Engine Owner's<br>Manual                        | See Engine Owner's<br>Manual                            | See Engine Owner's<br>Manual  | See Engine Owner's<br>Manual                       | See Engine Owner's<br>Manual                        |
| Fuel Capacity         | 3 Quarts  | 2 Gal. (7.57 L)   | 2 Gal. (7.57 L)   | 2 Gal. (7.57 L) 2 Gal. (7.57 L)                    |   |
| Cutting Capacity      | 4' Tall Grass<br>8' Tall Brush<br>2" Thick Saplings | 4' Tall Grass<br>8' Tall Brush<br>2-1/2" Thick Saplings | 6' Tall Grass<br>8' Tall Brush<br>2-1/2" Thick Saplings 6' Tall Grass<br>8' Tall Brush<br>3" Thick Saplings |  | 6' Tall Grass<br>8' Tall Brush<br>3" Thick Saplings |
| Cutting Width         | 26"   | 26"   | 30"   | 30"  | 34"   |
| Cutting Height        | 4"  | 4"  | 4" 4"   |  | 4"  |
| Speeds                | 3 Forward<br>1 Reverse                              | 3 Forward<br>1 Reverse                                  | 3 Forward 3 Forward 1 Reverse 1 Reverse   |  | 3 Forward<br>1 Reverse                              |
| Power Steering        | No  | No  | Yes   | Yes  | Yes   |
| Tires                 | 18" x 6-1/2" x 8"<br>All Terrain<br>Sealant Filled  | 18" x 6-1/2" x 8"<br>All Terrain<br>Sealant Filled      | 18" x 6-1/2" x 8"<br>All Terrain<br>Sealant Filled  | 18" x 6-1/2" x 8"<br>All Terrain<br>Sealant Filled | 18" x 6-1/2" x 8"<br>All Terrain<br>Sealant Filled  |
| Machine<br>Dimensions | 1 80.5"1 1 80.5"1                                   |   | 83" L<br>33" W<br>48.2" H   | 83" L<br>33" W<br>48.2" H                          | 84.5" L<br>38" W<br>48.2" H                         |
| Machine Weight        | 268 lbs.  | 290 lbs.  | 303 lbs.  | 325 lbs.   | 339 lbs.  |

## **SETUP for DR FIELD and BRUSH MOWER ATTACHMENTS:**

The DR FIELD and BRUSH MOWER is shipped with a Brush Deck. It will also accept other attachments including the DR SNOWTHROWER, DR CHIPPER ATTACHMENT, DR LAWNDECK and DR SNOW/GRAVEL BLADE. Setup of these attachments is quick and easy. Instructions to install and remove the individual attachments can be found in their user manuals.

# Installing the Brush Deck

### **Tools and Supplies Needed:**

- Gloves
- Wire Cutters
- 1. Cut Cable Tie and remove Detent Pin and Collar from Power Unit (Figure 3).
- 2. Slide the Power Unit Pin into the Deck Bracket and install the Collar and Detent Pin (*Figure 4*).
- 3. Remove the Belt from the Product Package.

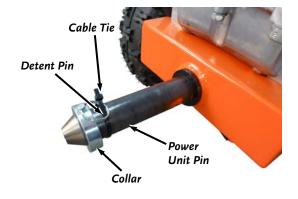


Figure 3

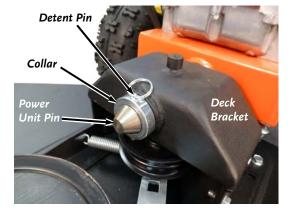


Figure 4

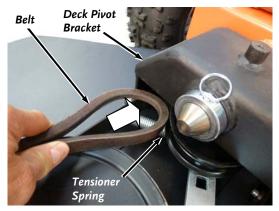


Figure 5

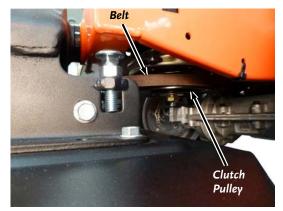


Figure 6

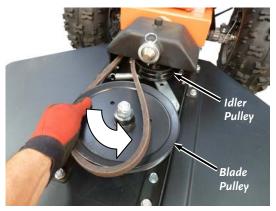


Figure 7

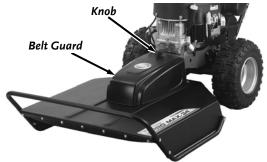


Figure 8

- 4. Insert the belt over the Tensioner Spring and through the inside of the Deck Pivot Bracket (*Figure 5*).
- 5. Wrap the Belt around the Clutch Pulley under the Power Unit (Figure 6).

# **A** CAUTION

Your hands could get pinched when installing the Belt onto the Deck Pulley. Wear Gloves to prevent injury.

- 6. Start the Belt into the groove of the Deck Pulley and turn the Pulley as you guide the Belt around and into the Pulley groove (*Figure 7*).
- 7. Install the Belt Guard that was shipped with the machine and secure with the Knob from the product package (*Figure 8*).

## Removing the Brush Deck

It is recommended that the deck only be removed when installing other attachments or performing maintenance.

### **NOTICE**

The Power Unit should always have an Attachment installed for stability.

#### **Tools and Supplies Needed:**

- Gloves
- Flat Head Screwdriver
- 1. Unscrew the Knob that secures the Belt Guard to the Deck and remove the Guard (*Figure 8*).
- 2. Place a screw driver between Blade Pulley and Belt.
- 3. While rotating the Blade Pulley, roll the belt off of the Blade pulley.
- 4. Push the belt in toward the Power Unit and the belt will fall off the Clutch Pulley *(Figure 6)*.
- 5. Pull the belt toward the deck to remove the Belt entirely.
- 6. Remove the Collar and Detent pin (Figure 4).
- 7. Shift the Wheel Speed Lever into Neutral.
- 8. Pull the Power unit back to release the Power Unit Pin out of the Deck Pivot Bracket.

### **Connecting the Battery Wire**

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.

1. Connect the negative (black) wire to the negative terminal on the Battery by sliding the Connector onto the Terminal (*Figure 9*).

## Adding Oil and Gasoline

# **A** WARNING

Before filling the Fuel Tank; turn the Engine OFF, and let it cool at least five minutes before removing the Gas Fill Cap

**Note:** Please refer to your Engine Owner's Manual for detailed oil information regarding Oil weight based on ambient temperature

## **NOTICE**

- 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 level frequently to avoid overfilling.
- To get an accurate reading when checking the oil level:
  - The machine should be on a level surface.
  - The dipstick <u>SHOULD</u> be screwed down on Briggs & Stratton Engines to ensure an accurate oil level reading.
- Place the machine on a level surface and initially add 1/2 of oil recommended by the Engine manufacturer into the Oil Fill (Figure 10, Electric Start Machines) or (Figure 11, Manual Start Machines).
- 2. Wait one minute for the oil to settle and check the Dipstick. Continue adding a few ounces of oil at a time, rechecking the Dipstick until the oil reaches the full mark. Be careful not to overfill.
- 3. Fill the Fuel Tank to not more than 1/4" from the bottom of the Fill Neck with fresh, unleaded gas. See your Engine Owner's Manual for more information.

### Check the Tire Pressure

# **A** WARNING

Do not over inflate the tires. Inflate to the manufacturers recommended pressure found on the tires.

#### **Tools Needed:**

- Tire Pressure Gauge
- Air Compressor
- 1. Remove the Valve Stem Protective Cap (Figure 12) and check the tire pressure with a Tire Pressure Gauge.
- 2. Compare the tire pressure reading from step 1 with the manufacturer's recommended tire pressure stamped on the side of the tire.
- 3. If the pressure is too low, add air through the Valve Stem with an air hose.
- 4. Replace the Valve Stem Protective Cap when finished.

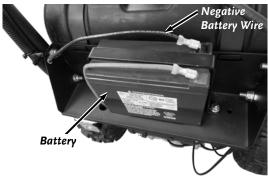


Figure 9



Figure 10: Electric Start Machines



Figure 11: Manual Start Machines

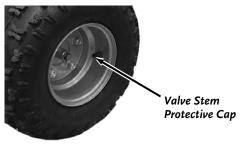


Figure 12

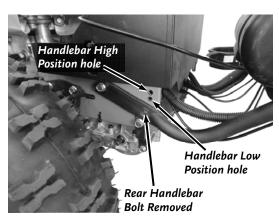


Figure 13

### Handlebar Height Adjustment

We ship all DR Field and Brush Mowers with the handlebars in the highest position setting. If you would like to lower the handlebars to the Low position please follow these steps:

#### Tools Needed:

- 9/16" Wrench
- 1. Remove Rear Handlebar Bolt with a 9/16" Wrench from both handlebars (Figure 13).
- 2. Loosen Front Handlebar Bolt on both handlebars but do not remove.
- 3. Align Handlebar Rear hole to Handlebar Low Position hole in the Frame.
- 4. Reinstall Rear Bolts on both handlebars.
- 5. Tighten Front and Rear Bolts on both handlebars.

### Steering Brake Break-in

The Steering Brakes are standard equipment for the 16.5 HP and 20 HP Models. If your DR Field and Brush Mower is equipped with Steering Brakes, the Brake Pads and Rotors need to be broken in (burnished) during the first use to ensure the best performance. Please complete the following steps before using your machine and after you have read through Chapter 3:

# **A** CAUTION

Avoid contact with the Brake Calipers and Rotors during and after this procedure because the Brake rotors will become very hot and may burn you.

- 1. Refer to Chapter 3 to start the machine and shift into second gear.
- 2. Engage the Traction Drive Lever to drive the machine forward.
- 3. Apply both brakes equally with moderate force and hold the brakes on for 100 feet.
- 4. Release the brakes for 25 feet.
- 5. Re-Apply both brakes equally with moderate force and hold the brakes on for another 100 feet.

### Chapter 3: Operating the DR FIELD and BRUSH MOWER

You may find it helpful to review the DR FIELD and BRUSH MOWER Controls and Features in *Figure 2* on page 8 before reading this chapter.

### **Before Starting the Engine**

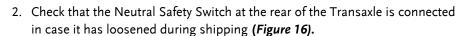
- 1. Check the Engine Oil level <u>every time</u> before you use the machine (*Figure* **10/11** on page 11).
- 2. Check the gas level (Figure 10/11 on page 11).
- 3. Ensure that the Fuel Shut-Off Valve located under the Fuel Tank is open (*Figure 14*).

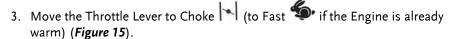
## Starting

### **ELECTRIC STARTING**

1. Move the Wheel Speed Lever to Neutral  ${f N}$  (Figure 15).

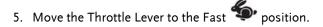
**Note:** The Wheel Speed Lever must be in Neutral and the Blade Control Knob pushed down (OFF), or the Engine will not start.





4. Rotate Key to the Start position until the Engine starts, then release.

The Key will return to the Run position and the Engine will continue to run.





1. Move the Shift Lever to Neutral **N** (*Figure 15*).

**Note:** The Wheel Speed Lever must be in Neutral and the Blade Control Switch pushed down (OFF), or the Engine will not start.

2. Move the Throttle to Choke (to Fast fithe Engine is already warm).

3. Rotate Key to the Run **O** position.

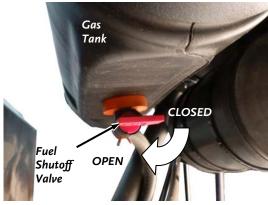


Figure 14

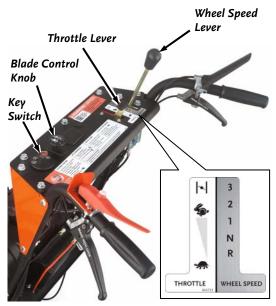


Figure 15



Figure 16



Figure 17

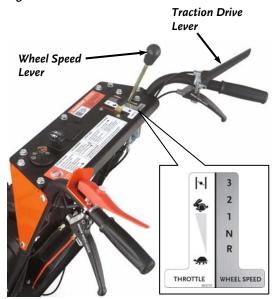


Figure 18



Figure 19

- 4. Grasp the Recoil Starter Handle and slowly pull until you feel resistance (*Figure 17*). Let the Cord retract a little bit, and then pull the Cord rapidly to start the Engine.
- 5. When the Engine starts, move the Throttle to the Fast position (*Figure* 15).

### **Engaging the Wheel Drive**

The DR FIELD and BRUSH MOWER has a three-speed Forward, single-speed Reverse Transmission. Speeds are generally used as follows:

1<sup>st</sup> Gear: Thick, woody vegetation.

2<sup>nd</sup> Gear: Stalky material or Field Mowing.

3<sup>rd</sup> Gear: Lighter Mowing or Transport mode.

Reverse Gear is ideal for maneuvering in tight spots.

- While transporting the machine in 3rd Gear the Throttle can be used to adjust speed.
- When mowing the throttle should always be in the Fast Position.
- Mowing Speed may impact cutting performance. Mowing in a slower gear will improve cut quality.
- For best operator control of the DR Field and Brush Mower, always select a
  drive speed that matches the conditions. For example, use a slower speed
  when operating in wet, heavy growth, slippery, and/or steeply sloped areas.

## **NOTICE**

Always release the Traction Drive Lever before shifting gears to prevent damage to the Transmission.

- 1. Move the Wheel Speed Lever to the desired gear (Figure 18).
- 2. Gently push down the Traction Drive Lever to engage the Wheels.
- 3. Release the Traction Drive Lever if you need to slow down or stop.

# **A** CAUTION

The steering brakes WILL NOT STOP the machine if the machine is in gear and Traction Drive Lever is engaged.

**Note:** If you have trouble shifting while on a hill or against an obstacle; lifting one tire off the ground will release the stress in the drivetrain and ease shifting.

## Engaging the Blade

- 1. Push down the Operator Presence Lever against the Handlebar Grip (*Figure* 19).
- 2. Engage the Blade by pulling up 🕏 on the Blade Control Knob.

**Note:** If you pull up on the Blade Control Knob before holding down the Operator Presence Lever, the Engine will shut off.

# **A** CAUTION

Always disengage the blade of the DR FIELD and BRUSH MOWER before shifting into reverse.

### Stopping the Blade

1. Stop the Blade by pushing down on the Blade Control Knob (*Figure 20*).

**Note:** Releasing the Operator Presence Lever to disengage the Blade will cause the Engine to shut off.

### Stopping the Engine

- 1. Disengage the Blade by pushing DOWN on the Blade Control Knob Knob (Figure 20).
- 2. Move the Throttle Control to the IDLE position.
- 3. Turn the Key to the Stop position and remove it for safety.

**Note:** If your machine is equipped with a Fuel Shut-Off Valve, close it when transporting or storing the Mower.



Figure 20

### **Obstacle Tips**

Dealing with obstacles in the terrain is easy with your new DR FIELD and BRUSH MOWER. The following section explains how to approach most common obstacles.

# **A** WARNING

The mower's blade 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, allow the engine to cool for 5 minutes and disconnect the Spark Plug wire(s) before attempting to untangle the machine.

## **Operating the Steering Brakes:**

Steering brakes can assist the operator in:

- Shifting the drive power from one wheel to the other to improve traction.
- Keeping the mower driving straight on side slopes.
- Turning the machine left or right.

The brakes apply a stopping force to the wheel on the same side as the brake lever. For example, when the left lever is squeezed the brake slows or stops the left wheel and transfers transaxle power over to the right wheel.

## Steering with Brake Assist:

- Select a Gear most applicable to the situation (see "Engaging Wheel Drive" on previous page).
- 2. Press down on the Traction Drive Lever to drive the machine (Figure 21).
- 3. Turn the machine to the left by squeezing the Left Brake Lever.
- 4. Turn the machine to the right by squeezing the Right Brake Lever.

**Note:** the machine must be driving for the brakes to assist with steering.

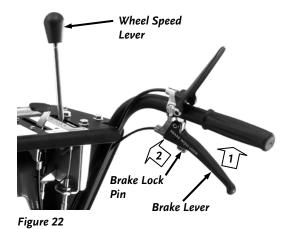


Figure 21

#### Traction Control with Brakes:

Occasionally, the machine may lose traction on one or both wheels. To gain traction, perform the following steps:

- 1. Stop the Blade by pushing down on the PTO Knob (Figure 20)
- 2. Apply the brake to the spinning wheel and the power will be directed to the wheel that has more traction.
- 3. If both wheels are spinning try alternating the brakes left and right to maneuver the machine through the obstacle.



### **Setting the Parking Brakes:**

For machines equipped with Steering Brakes. Machines without Brakes should be put in 1st gear and parked on a level surface.

- 1. Shift the Wheel Speed Lever to Neutral **N** (Figure 22)
- 2. Squeeze one of the Brake levers and push the Brake Lock Pin forward to set the brake. The Brake Lever will stay up when locked properly.
- 3. Repeat step 2 for the other Brake.

Mowing on Slopes

# **A** WARNING

Slopes are a major factor related to slip and fall accidents. All slopes require caution. If you feel uneasy on a slope, do not mow it. Always take the following precautions when using this machine on slopes:

- Always mow across the face of slopes. Exercise extreme caution when changing direction on slopes.
- Never operate near drop-offs, ditches, or embankments, or on slopes greater than 20 degrees
- Never operate on wet or slippery slopes.
- When operating the DR FIELD and BRUSH MOWER over uneven terrain or slopes, use extreme caution not to tip the machine over.
- Do not use the DR FIELD and BRUSH MOWER on slopes greater than 20 degrees. Doing so could result in serious injury or damage to your machine.
- Do not shift while on a slope, doing so could result in a "free-wheel" condition.
- Be very careful of your footing when operating the machine in reverse. Know what's behind you and take your time.
- Disengage the Blade before shifting into reverse. Mow in the Forward gears only, using Reverse for maneuvering.
- 1. While mowing on sloped terrain, mow across the face of the slope. Do not mow up and down.
- 2. To avoid excessive speed, shift into a lower gear before going down a slope.

**Tip:** For machines equipped with steering brakes: When mowing on sidehills, feather the uphill brake to get the machine to steer up the hill slightly. This should keep the machine moving in a straighter line without additional operator effort.

### If the machine gets hung up

- 1. Disengage the Blade. Do not try to free the machine from stumps or debris with the Blade engaged.
- 2. Push down on the Handlebars to lift the Mowing Deck over the obstacle.
- 3. Shift the machine in reverse and try backing away from the obstacle.

### **Cutting Brush and Saplings**



If you need to leave the operating position to clear debris from the deck, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire(s), keeping it away from the spark plug(s).

- 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.
- 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.

### **Cold Weather Operation**

At temperatures below 30°F and a high dew point, the DR FIELD and BRUSH MOWER Engine may experience icing of the carburetor and/or the crankcase breather system. DR Power Equipment offers an optional Engine cover to prevent icing in these weather conditions. You can purchase the cover through DR Power Equipment by visiting our website at www.DRpower.com. Please have your DR FIELD and BRUSH MOWER Model# and Serial# at hand when the call is placed.

### Chapter 4: Maintaining the DR FIELD and BRUSH MOWER

Regular maintenance will 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 supersede those listed in the engine manufacturer's owner's manual.

# **A** WARNING

- Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Remove the Key and disconnect the spark plug wire(s), keeping it away from the spark plug(s)
- Always wear gloves when performing maintenance on the machine.

### Regular Maintenance Checklist

| PROCEDURE                              | BEFORE EACH USE              | EVERY 25 HOURS | EVERY 100 HOURS |
|--|------------------------------|----------------|-----------------|
| Check Operator Presence Switch         | <b>A</b>                     |                |                 |
| Check Engine Oil Level                 | <b>A</b>                     |                |                 |
| Check General Equipment Condition      | <b>A</b>                     |                |                 |
| Check Blade for Sharpness              | <b>A</b>                     |                |                 |
| Clean Engine Exterior and Cooling Fins | <b>A</b>                     |                |                 |
| Check All Belt Tensions and Condition  | <b>A</b>                     |                |                 |
| Brake Maintenance                      |                              | <b>A</b>       |                 |
| Lubricate Grease Fittings              |                              | <b>A</b>       |                 |
| Lubricate Cables                       |                              | <b>A</b>       |                 |
| Check Tire Pressures                   |                              | <b>A</b>       |                 |
| Change Engine Oil and Filter**         | 1 <sup>st</sup> time 5 hours | <b>A</b>       |                 |
| Check the Battery charge               |                              | <b>A</b>       |                 |
| Check cable connections                |                              | <b>A</b>       |                 |
| Replace Air Filter and Precleaner**    |                              | <b>A</b>       |                 |
| Replace belts                          |                              | <b>A</b>       |                 |
| Replace Spark Plug(s)                  |                              |                | <b>A</b> .      |
| Replace Fuel Filter                    |                              |                | <b>A</b>        |

<sup>\*\*</sup> The Engine on your machine may not have a Precleaner or Oil Filter.

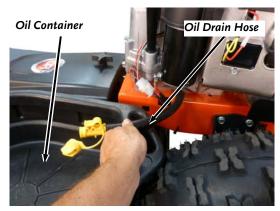


Figure 23

### LUBRICATION

## Replacing Engine Oil and Filter

**Note:** Drain the oil when the Engine is warm. Warm oil drains quickly and completely.

#### Tools & Supplies Needed:

- Oil Filter Wrench (obtainable from a local auto parts or hardware store)
- Oil (Refer To Engine Operator Manual for Oil info and Capacity)
- Rags and an approved oil container
- 1. Position an approved oil container near the Oil Drain Hose.
- 2. Turn the Oil Drain Cap a quarter turn counterclockwise and open the end of the Drain Hose Assembly (*Figure 23*).
- 3. Remove the Oil Drain Hose Assembly from its stowed position and lower the drain end over the Oil Container to drain.

- 4. If the engine has an oil filter, remove the old Oil Filter with an Oil Filter Wrench and replace with a new Oil Filter as described in the Engine Operator Manual.
- 5. Replace the Oil Drain Hose Assembly onto the Storage Hook and close the Oil Drain Cap. Replace the Oil as described in the Engine Operator Manual.

#### Cable lubrication

### Supplies Needed:

• Multi-purpose Teflon Aerosol Lubricant

Lubricate the Traction Drive Cable, Shift Cables, Throttle Cable and Brake Cables where the Cable goes into the Sheathing with a Multi-purpose Teflon Aerosol Lubricant

1. Spray the lubricant into the Cable Housing while working the Cable back and forth a few times. Perform this lubrication more often in dry and dusty environments.

### **Idler Arm Lubrication**

#### **Tools & Supplies Needed:**

• Grease Gun w/General Purpose Grease

There is one Grease Fitting below the black Belt Guard to lubricate (Figure 24)

With the Blade Belt removed (Refer to "Removing the Brush Deck" on page 10), move the idler arm to make sure it rotates freely. If resistance is felt when pivoting the arm please lubricate as follows:

- 1. Remove the knob and belt guard from the deck.
- 2. Locate the Grease Fitting on the idler arm.
- 3. Using the grease gun add a small amount of grease (1-2 pumps or until slight resistance).

**Note:** Over greasing may cause grease to leak onto the Mower Drive Belt.

4. Reinstall the Belt (if removed) and Belt Guard.

## Adjusting the Traction Drive Cable

**Note:** When properly adjusted, tension on the Traction Drive Lever should increase when the Lever is about parallel to (almost touching) the Handlebar Grip.

- 1. Locate the Traction Drive Cable along the right Handlebar *(Figure 25)*. There is an In-Line Adjuster to change the length of the Cable.
- 2. Rotate the center portion clockwise while holding the ends stationary to expand the In-Line Adjuster and remove slack from the cable.

## Adjusting the Shift Cables

If there is a lot of "play" in the Wheel Speed Lever or if the lever is no longer aligned with the Wheel Speed Label, you may need to adjust the Shift Cables.

#### Tools needed:

- Two 13mm Wrenches
- 1. Locate the Shift Cable Adjustment Nuts on the Shift Lever end of the cable (Figure 26).
- 2. Loosen one of the Cable Jam Nuts on the cable using two 13mm Wrenches.
- 3. Pull down slightly on the cable just enough to pull out the slack and then tighten the Cable Adjustment Nut to hold the cable housing in tension. You may need to tension one cable while loosening the other to realign the Lever.

**Note:** Do not over tighten the cable. It will create a spongy feel in the shift lever.

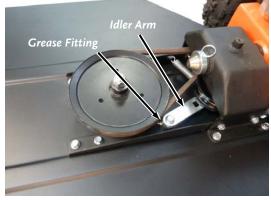


Figure 24

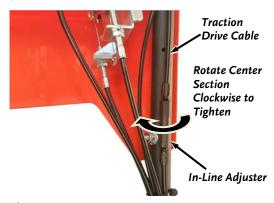


Figure 25

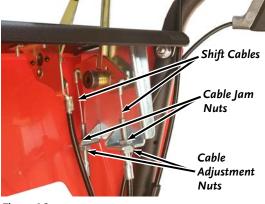


Figure 26

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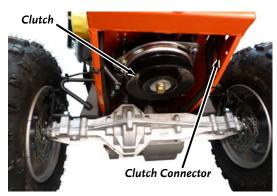


Figure 27



Figure 28

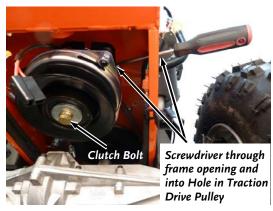


Figure 29

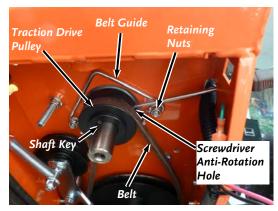


Figure 30

### To Replace the Drive Belt

### **Tools and Supplies Needed:**

- Ratchet
- 1/2" Socket
- 5/8" Socket
- #2 Phillips Screwdriver
- Gloves
- Remove the Brush Deck (See section "Removing the Brush Deck" on page 10) and tip the machine back on its handlebars to access the Clutch Connector under the machine (*Figure 27*).
- 2. Disconnect the Clutch Connector by lifting the locking tab and separating the two halves (*Figure 28*).
- Locate the hole in Traction Drive Pulley (Figure 29 and 30) on the engine and insert the Phillips head screwdriver through the opening in the Frame and into the hole in the Pulley (Figure 29).
- 4. If the hole is not aligned with the Screwdriver, turn the Clutch Bolt with the 5/8" Socket until the screwdriver goes into the hole.
- 5. Rotate the Clutch Bolt (direction to loosen) until the screwdriver rests against the frame (this is to keep the engine shaft from rotating in the next step).
- 6. Remove the Clutch Bolt using a 5/8" Socket. The Clutch Bolt has standard, right hand threads (Use impact wrench if possible).
- 7. Remove Clutch from engine shaft.
- 8. Remove the nuts retaining the belt guide with a 1/2" socket (Figure 30).
- 9. Remove the Key from the Traction Drive Pulley and shift the transmission to Neutral  ${\bf N}$ .
- 10. Rotate the Pulley as you pull the belt out of the pulley groove.
- 11. Remove the belt from the Transmission by rotating it 90° and sliding it between the Transmission Pulley and the Frame.
- 12. Reinstall the new belt by reversing the above procedures.

During reassembly make sure that:

- The Shaft key is installed in the engine shaft.
- The belt is on the inside of the belt guides (Figure 30).
- The clutch is located properly on the Anti-Rotation Bolt (Figure 31).
- You torque The Clutch Bolt to 50lb-fts (68N-m).

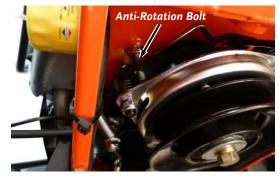


Figure 31

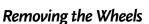
### Removing and Replacing the Blade

Replace the Blade when worn or damaged, but do not use it for over five years.

#### Tools and Supplies needed:

- 15/16" Wrench or Socket
- Torque Wrench (optional)
- 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 side of the Deck (*Figure 32*).
- 2. Remove the Blade Lock Nut (standard, right-hand thread) and Washer.
- 3. Remove the Blade.
- 4. Mount the new Blade, Washer, and Lock Nut and tighten securely (Torque to 100 ft-lbs.). If the Locknut is removed and installed more than once, it should be replaced with a new one.

**NOTE:** Be sure to seat the Blade completely over the small ridge in the Spindle Hub before tightening the Lock Nut.



### Tools and Supplies needed:

- 3/4" Socket with extension
- 1. Loosen the Wheel Nuts a couple of turns with the Wheel on the ground.
- 2. Block the machine so the Wheel you are removing is off the ground.
- 3. Remove the Five Nuts and slide the Wheel off.
- 4. Replace the Wheel and finger-tighten the Wheel Nuts before unblocking the machine.
- 5. Tighten the Wheel Nuts with the Wheel resting on the ground.

## Replacing the Blade Pulley

The Bladed Pulley is designed to protect the drive system of the machine. If the machine is overloaded the hub and pulley may fail. Please follow these instructions to replace

#### **Tools and Supplies Needed:**

- 15/16" Wrench
- 1. Unscrew the Hand Knob and remove the Belt Guard (Figure 33).
- 2. Remove the Belt from the Pulley (Refer to "Removing the Brush Deck" on page 10).
- 3. Block the blade with a piece of wood (*Figure 32*) as you remove the Locknut using a 15/16" Wrench (*Figure 34*).
- 4. Remove the damaged Pulley and replace with a new Pulley.
- 5. Secure the Pulley with the Locknut and torque to 50lb-fts (68N-m).
- 6. Install the Belt (Refer to "Installing the Brush Deck" on page 9).
- 7. Replace the Belt Guard and Hand Knob.

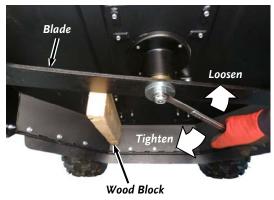


Figure 32

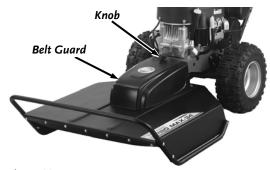


Figure 33

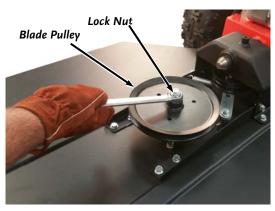


Figure 34

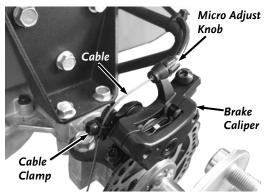


Figure 35

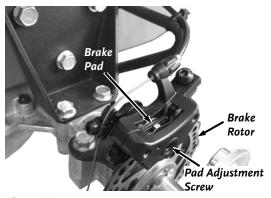


Figure 36

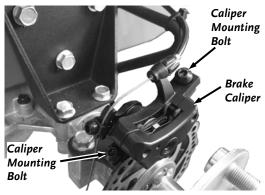


Figure 37

### **Adjusting the Brake Cables**

### Tools needed:

• 5.5mm Allen Wrench

On each brake caliper there is a tool free Micro Adjust Knob (*Figure 35*). For most maintenance this knob can be unscrewed and will tension the cable.

Once the Micro Adjust Knob is close to the end of its thread travel, it is recommended to do a full adjustment.

**Note:** Although not mandatory, it is recommended that the wheel be removed before completing a full adjustment.

- 1. Screw the Micro Adjust Knob all the way back into the caliper.
- 2. Using the 5.5mm Allen Wrench, loosen the Cable Clamp.
- 3. Pull the cable through the clamp removing and slack in the cable.
- 4. While holding tension on the cable, retighten the Cable Clamp with the 5.5mm Allen wrench.

## Adjusting the Brake Pads

#### Tools needed:

• 5.5mm Allen Wrench

**Note:** Brake Pads may need adjustment after the pads wear significantly

- 1. Remove the wheel from the side that needs adjusting.
- 2. Locate the Pad Adjustment Screw on the outboard side of the caliper *(Figure 36)*.
- 3. Tighten the adjustment screw using the 5.5mm Allen wrench until just before the Brake Pad just touches the Brake Rotor.

## Adjusting the Caliper Alignment

#### Tools needed:

• 5.5mm Allen Wrench

**Note:** Caliper Alignment should only be done after the Brake Pads have been adjusted

- 1. Remove the wheel from the side that needs adjusting.
- 2. Using the 5.5mm Allen Wrench, loosen the Caliper Mounting Bolts 1 turn (Figure 37).
- 3. While manually Squeezing the caliper closed on the Brake Rotor, Retighten the Caliper mounting Bolts.

### Battery Care (electric start machines 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, charge the Battery every 4 6 weeks. Operate the Engine for at least 45 minutes to maintain proper Battery charge.
- Store an unused Battery in a dry area that does not freeze.
- Do not charge an already charged Battery. In theory, you cannot overcharge our Battery 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 the Engine when the Battery charge is low.

## Charging the Battery

Operate the Mower Engine for at least 45 minutes to maintain proper Battery charge. If the Battery loses its charge, you'll need to use a trickle Charger (like the DR Battery Charger) to recharge it. The Charger should have an output of 12 volts at no more than 2 amps.

**Note:** The charging system of a running engine is designed to maintain a battery's present charge. Starting a machine that has a significantly discharged or dead Battery using the Recoil Starter or Jumper Cables will not recharge the Battery.

To connect a Battery Charger to your DR FIELD and BRUSH MOWER, follow the steps listed below.

- 1. Detach the two Battery wires going to the Battery on your DR FIELD and BRUSH MOWER.
- 2. Attach the black (-) Battery Charger wire to the Battery negative (-) terminal, and attach the red (+) Battery Charger wire to the Battery positive (+) terminal.
- 3. Plug the Battery Charger into an outlet.
- 4. Charge until Battery Charger indicates that it is charged or Battery measures to 12-14V.
- At 1 amp, you may have to charge the Battery for as long as 24 hours.
- At 2 amps, you may have to charge the Battery for as long as 12 hours.
- 5. Once Charged, disconnect Charger from outlet.
- 6. Disconnect Battery from the Charger.

### Disposing of the Battery Responsibly

The Battery is a sealed lead-acid Battery. Recycle or dispose of it in an environmentally sound way.

- Do not dispose of a lead-acid Battery in a fire; the Battery may explode or leak.
- Do not dispose of a lead-acid Battery in your regular, household trash. Laws in most areas prohibit incinerating, disposing in a
  landfill, or mixing a sealed lead-acid Battery with household trash.

### NOTICE

Please dispose of used batteries responsibly, according to your local hazardous materials regulations. Never throw away used batteries in your household trash.

## Recycling a Used Battery

Please dispose of your used Batteries responsibly by recycling them. Call your local Solid Waste Management District or your local waste handler to locate the collection site nearest you. Some collection sites recycle Batteries year-round; others collect them periodically. You can also visit the Web site of Earth 911 for more information [www.earth911.org]. Once there, click the Municipal HHW link under Hazardous Household Waste, and enter your zip code. The site lists recycling centers located near you.

For a fee, you can recycle your Batteries with the International Metals Reclamation Company. Visit them at www.inmetco.com and click Services; or contact them at: INMETCO, PO Box 720, 245 Portersville Road, Ellwood City, PA 16117, (724) 758-2825; fax (724) 758-2845. To learn more about hazardous waste recycling, visit the Web site for Battery Council International [www.batterycouncil.org] or for the Environmental Protection Agency [www.epa.gov].

### **Chapter 5: Troubleshooting**

Most problems are easy to fix. Consult the Troubleshooting Table below for common problems and their solutions. If you continue to experience problems, contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) for support.



Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire(s), keeping it away from the spark plug(s).

## **Troubleshooting Table**

| <b>S</b> YMPTOM  | POSSIBLE CAUSE  |
|--|---|
| Engine Starter Won't<br>Crank                                | ⇒ Check all of the items under the section called "Starting" on page 13. Especially,- that the Transmission is in (N) and the PTO switch is in the depressed position   |
|  | ⇒ Check that the Plug for the Neutral Safety Switch is connected  |
|  | ⇒ Check the fuse located under the battery  |
|  | ⇒ Check the battery is more than 12V- Refer to Battery Care Section   |
|  | ⇒ Check all wire connections—especially the ground connections located on the handlebar and<br>all of the connections on the solenoid. Disconnect the green Battery ground wire first to avoid<br>sparks. Check to be sure that all of the connections are clean and tight. Reconnect the<br>Battery ground wire. |
| Engine Starter Cranks  | $\Rightarrow$ Check that the gas tank is atleast half full and that the fuel shut off is in the ON position   |
| but Engine wont start  | ⇒ Check that the fuel solenoid switch on the carburetor bowl is connected   |
|  | $\Rightarrow$ Try starting with the throttle in the CHOKE position; if this doesn't work try the RUN position.  |
| The Engine lacks power or is not running                     | ⇒ Check the Throttle Lever travel and adjustment. Make sure the Throttle Lever is in the Run position.  |
| smoothly.<br>(Please refer to the                            | ⇒ Check that the Air Filter is clean. If it is dirty, change it following the procedure in the Engine Owner's Manual.   |
| Engine Owner's Manual<br>for engine-specific<br>procedures.) | ⇒ The Spark Plug(s) may be dirty or cracked, change it. If it's oily, leave it out, hold a rag over the Plug Hole(s) and crank the Engine several times to blow out any oil in the Cylinder(s), then wipe off the Plug(s) and reinsert it.  |
|  | ⇒ The gas may be old, change it. Use a fuel stabilizer if you keep gas longer than one month.   |
|  | ⇒ Check the Fuel Filter, it may be clogged. Replace if necessary.   |
|  | ⇒ Check to make sure that your Engine has the right amount of clean oil. If it is dirty, change it following the procedure in the Engine Owner's Manual.  |
| Engine smokes.   | ⇒ Check the oil level and adjust as needed.   |
|  | ⇒ You may be operating the machine on too great an incline. See "Mowing on Slopes" on page<br>16.   |
|  | ⇒ Check the Air Filter and clean or replace if needed.  |
|  | ⇒ You may be using the wrong oil—too light for the temperature. Refer to your Engine Owner's Manual for detailed information.   |
|  | $\Rightarrow$ Clean the Cooling Fins if they are dirty.   |
|  | ⇒ If the Engine still smokes, visit our web site at www.DRpower.com for assistance.   |
| Traction Drive does not                                      | ⇒ The Drive Belt is broken or out of adjustment. See page 20.   |
| Engage   | ⇒ Traction Drive Cable may need adjusting   |

# Troubleshooting Table (Cont.)

| SYMPTOM  | Pos           | SSIBLE CAUSE   |
|--|---------------|--|
| Machine is difficult to shift                                | $\Rightarrow$ | There may be added resistance from the driveline when trying to shift on a slope or while pressing against an obstacle. Lifting one tire will relieve any residual load in the driveline and shifting should become much easier.   |
|  | $\Rightarrow$ | If there is resistance between all gears, the shift cables may be overly tight. Loosen 1 cable slightly and shifting feel should improve.  |
| A Belt frays or rolls over the Pulley.                       | $\Rightarrow$ | A Pulley groove may be rusty or have a nick in it. Clean the pulley with steel wool or file off any nicks.   |
|  | $\Rightarrow$ | Check the Belt for wear and hard spots.  |
|  | $\Rightarrow$ | The Belt may be stretched, replace it.   |
| Excessive vibration when engaging the Blade.                 | $\Rightarrow$ | Check the Blade for nicks and wear. Replace or sharpen and balance the Blade if they become dull, or have them professionally sharpened if needed. Never try to straighten a bent Blade. Be sure to replace the Blade in the proper orientation. See page 21.  |
|  | $\Rightarrow$ | May have debris wrapped around Blade (wire, etc.), Remove debris from Blade.   |
|  | $\Rightarrow$ | The Blade may not be seated properly on the Hub. Loosen the Blade Nut, reseat the Blade, and tighten the Nut. Be sure to turn OFF the Engine and remove the Spark Plug wire(s) before performing this operation.   |
|  | $\Rightarrow$ | Check and retighten all of the fasteners as required.  |
| The Blade is not cutting or is loose.                        | $\Rightarrow$ | The Blade may not be seated properly on the Hub. Loosen the Blade Nut, reseat the Blade, and tighten the Nut. Be sure to turn OFF the Engine and remove the Spark Plug wire(s) before performing this operation.   |
|  | $\Rightarrow$ | Sharpen the Blade; it may be dull or nicked. Be sure to replace the Blade in the proper orientation. See page 21.  |
| The Blade will not   | $\Rightarrow$ | Be sure you are holding down on the Operator Presence Lever.   |
| Engage and/or<br>Disengage.                                  | $\Rightarrow$ | Be sure that all electrical plugs are connected (Both plugs at the control panel and plug to electric clutch   |
| Wheels pulling left or right.                                | $\Rightarrow$ | Check the Wheel Tire pressures against the manufacturer's recommendation listed on the side of the Tires.  |
| Bad Brake Performance  | $\Rightarrow$ | Be sure that all cables are adjusted properly and that cables are not kinked   |
|  | $\Rightarrow$ | Caliper may not be adjusted properly, Refer to pg 22 for caliper adjustments.  |
|  | $\Rightarrow$ | Pads and Rotors may not be aligned properly.   |
|  | $\Rightarrow$ | Pads and Rotors may not be burnished properly, Refer to pg12 for burnishing procedure  |
|  | $\Rightarrow$ | Pads/Rotors may have oil contamination. Clean rotor with Brake Cleaner, and re-burnish the Brake Pads/Rotors. If problem persists replace Brake Pads.  |
| Levers are hard to<br>moved during cold<br>weather operation | $\Rightarrow$ | Moisture is getting into the Cable housing(s) and freezing. Using a lubricating syringe, inject "dry gas" into the Cable-Housing opening to absorb the moisture. Tip the machine forward slightly so the "dry gas" will flow down the inside of the Housing. After the ice blockage has thawed, lubricate the cable(s) with SAE 30 oil. See page 18. |

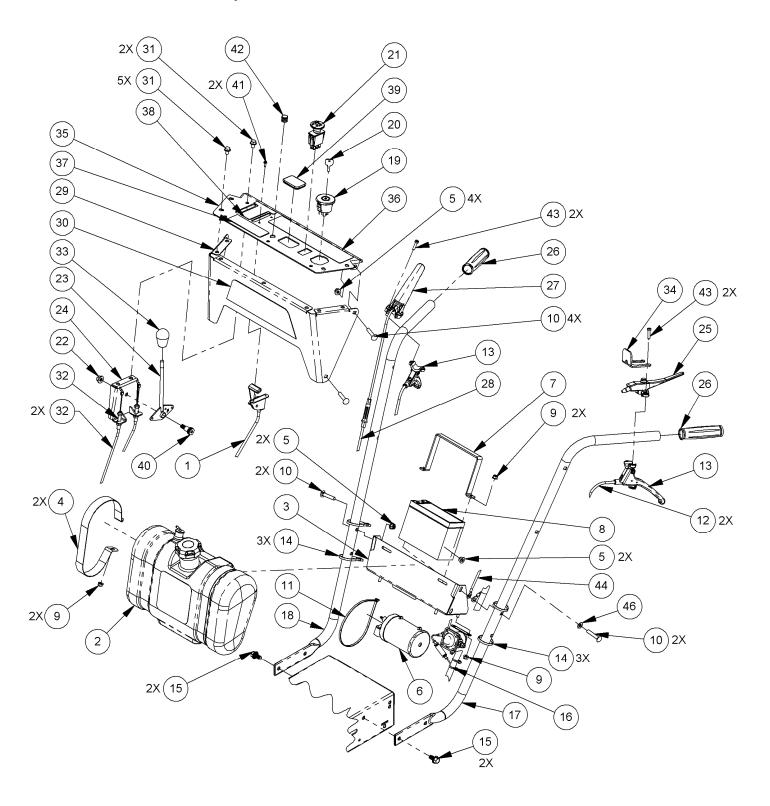
## Chapter 6: Parts Lists, Schematic Diagrams and Warranty

# Parts List - Handlebar Assembly

**NOTE:** Part numbers listed are available through DR Power Equipment.

| Ref# | Part# | Description                           | Ref# | Part# | Description                           |
|------|-------|---------------------------------------|------|-------|---------------------------------------|
| 1    | 13905 | Cable, Throttle, 50"                  | 24   | 35107 | Mount, Lever, Shift                   |
| 2    | 35283 | Tank, Gas, Assembly, EPA/CARB         | 25   | 18069 | Lever, Op Presence W/ Harness         |
| 3    | 34432 | Bracket, Battery                      | 26   | 16496 | Grip, 1.00"                           |
| 4    | 34443 | Strap, Tank                           | 27   | 37052 | Lever, Cable, Black, Traction Drive   |
| 5    | 33332 | Nut, Nylon Lock, Flanged, 5/16-18     | 28   | 35118 | Cable, Traction Drive                 |
| 6    | 26575 | Carbon Canister, 300cc, 3/16" Ports   | 29   | 35275 | Console, With Label                   |
| 7    | 24230 | Strap, Battery                        | 30   | 35274 | Label, Control Panel, Front           |
| 8    | 13447 | Battery, 12v, 9Ah                     | 31   | 11173 | Bolt, HCS, Serrated Flange, 5/16-18 X |
| 9    | 33331 | Nut, Nylon Lock, Flanged, 1/4-20      |      |       | .50"                                  |
| 10   | 35033 | Bolt, Carr, 5/16-18 X 1.75", GR5, ZP  | 32   | 35131 | Cable, Shift                          |
| 11   | 12797 | Cable Tie, 17", # 50                  | 33   | 15036 | Knob, PTO Clutch Cable                |
| 12   | 35115 | Cable, Brake                          | 34   | 16497 | Guard, Switch, Magura                 |
| 13   | 30297 | Lever, Brake, W/O Hardware            | 35   | 35277 | Panel, Control, With Label            |
| 14   | 11214 | Cable Tie, 7-1/2" Long                | 36   | 35276 | Label, Control Panel, Top             |
| 15   | 35281 | Bolt, Hex, Flange, Tri Lobe, 3/8-16 X | 37   | 36372 | Label, Warning                        |
|      |       | 3/4", GR5, ZP                         | 38   | 36373 | Label, Wheel Speed and Throttle       |
| 16   | 35983 | Harness, Wire, ES, B&S                | 39   | 15131 | Plug, Hour Meter Hole, 2" X 1-1/4"    |
|      | 35982 | Harness, Wire, Briggs, M/S            | 40   | 35290 | Bolt Shoulder, 1/2" X 5/8"l, 3/8-16   |
| 17   | 34428 | Handlebar, Left                       | 41   | 15049 | Screw 8-32 x 1/2"                     |
| 18   | 34429 | Handlebar, Right                      | 42   | 19003 | Plug, Plastic, 1/2" Hole              |
| 19   | 16519 | Switch, Snap-In, E/S                  | 43   | 17923 | Screw, SHCS, M6 X 25mm                |
| 20   | 15720 | Key, Ignition Switch                  | 44   | 36353 | Harness, Ground                       |
| 21   | 19123 | Switch, Push/Pull                     | 45   | 35051 | Spacer, Idler                         |
| 22   | 33333 | Nut, Nylon Lock, Flanged, 3/8-16      | 46   | 37090 | Washer, Star, Internal, 7/16", ZP     |
| 23   | 35106 | Lever, Shift                          |      |       |                                       |

## Schematic – Handlebar Assembly

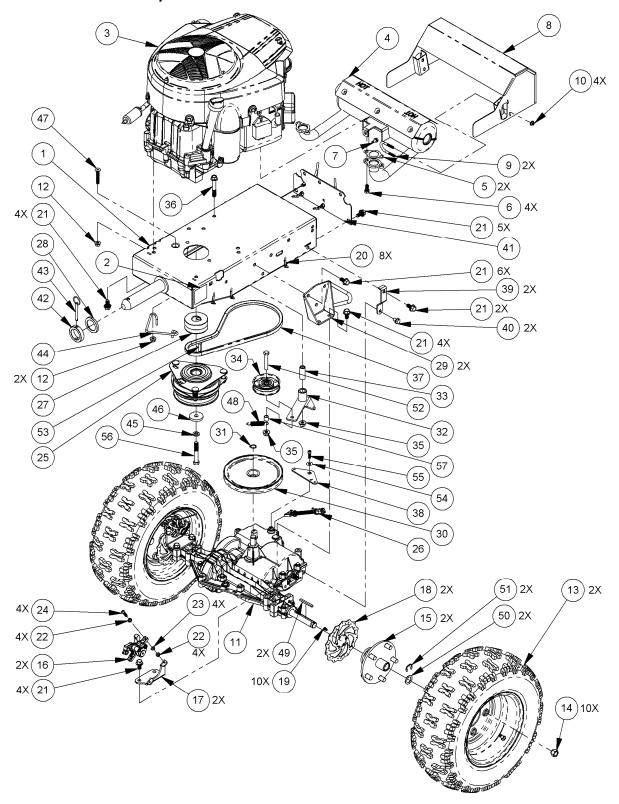


# Parts List – Power Assembly

**NOTE:** Part numbers listed are available through DR Power Equipment.

| Ref# | Part#        | Description                                       | Ref# | Part# | Description  |
|------|--------------|---|------|-------|--|
| 1    | 35279        | Frame w/Labels                                    | 26   | 36438 | Harness, Safety, Neutral                                 |
| 2    | 35278        | Label, SN and Address                             | 27   | 34423 | Pulley, Keyed, A V-Belt, 2.5" OD, 1" Shaft               |
| 3    | 34448        | Engine, B&S, 20hp VTwin, ES, w/ Labels            | 28   | 15138 | Pivot Washer, 1.375"ID, 2.0"OD                           |
|      |              | and Horizontal Exhaust                            | 29   | 34430 | Bracket, Axle Mount                                      |
|      | 37146        | Engine, B&S, 16.5hp Pro Series, ES,               | 30   | 34436 | Pulley, Transaxle  |
|      |              | 6pin, W/ Labels                                   | 31   | 11124 | Snap Ring, External, 5/8"                                |
|      | 37067        | Engine, B&S, 14.5hp Intek, ES, 6Pin, w/<br>Labels | 32   | 24739 | Idler Arm, Drive, FBP                                    |
|      | 37068        | Engine, B&S, 10.5hp Powerbilt, MS,                | 33   | 15111 | Bushing, 0.390" ID X 0.620" OD X 1.585" L                |
|      | 37000        | 6Pin, w/ Labels                                   | 34   | 10850 | Pulley, Flat Idler, 3"                                   |
| 4    | 35280        | Exhaust, B&S, 20hp, Horizontal                    | 35   | 33333 | Nut, Nylon Lock, Flanged, 3/8-16                         |
| 5    | 34130        | Gasket, Exhaust, Briggs, 20hp VTwin               | 36   | 33348 | Bolt, Hex, Flange, 3/8-16 X 2.5"                         |
| 6    | 35056        | Bolt, Muffler, B&S, 20hp                          | 37   | 35110 | Belt, AK32, 1/2" X 34"                                   |
| 7    | 17912        | Screw, 1/4-20 X .500", Tri-Lobe                   | 38   | 35145 | Bracket, Shift, Transmission                             |
| 8    | 34444        | Guard, Exhaust, B&S V-Twin                        | 39   | 35111 | Bracket, Rear, Transaxle                                 |
| 9    | 36361        | Ubolt, 1-1/8" ID, 1/4-20 x 1"                     | 40   | 11173 | Bolt, HCS, Serrated Flange, 5/16-18 X .50"               |
| 10   | 31283        | Nut, Lock, 1/4-20, Serrated Flange                | 41   | 35137 | Support, Frame, Rear, Peerless                           |
| 11   | 36356        | Tansaxle, 3spd, W/ Switch, Peerless               | 42   | 15115 | Washer, 1.38"ID 2.0"OD .5"L                              |
| 12   | 33332        | Nut, Nylon Lock, Flanged, 5/16-18                 | 43   | 15046 | Pin, Detent, 1/4" X 2"                                   |
| 13   | 19289        | Wheel, 18 X 6.5-8, Terrain, 5 Lug                 | 44   | 35303 | Guide, Belt, Traction Drive                              |
| 14   | 16522        | Nut, Lug, 1/2-20                                  | 45   | 22252 | Washer, Lock, 7/16", Split, ZP                           |
| 15   | 34433        | Hub, Wheel  | 46   | 19130 | Washer, Flat, .469" X 1.62" X .25"                       |
| 16   | 34446        | Caliper, Mechanical Disc with Pads                | 47   | 35318 | Bolt, SH Countersink, 5/16-18 X 2", GR5, ZP, Full Thread |
| 17   | 34437        | Mount, Brake                                      | 48   | 35261 | Spring, Extension  |
| 18   | 34447        | Rotor, 140mm                                      | 49   | 10119 | Key, Square, 3/16" X 2"                                  |
| 19   | 35272        | Bolt, Torx BHCS, M5-0.8 X 10mm, Cl8.8, ZP         | 50   | 12969 | Shim, .75"ID, 1.125"OD, .06"L, ZP                        |
| 20   | 11214        | Cable Tie, 7-1/2" Long                            | 51   | 11126 | Ring, Retaining, 3/4" E-Clip                             |
| 21   | 35281        | Bolt, Hex, Flange, Tri Lobe, 3/8-16 X             | 52   | 15712 | Bolt, HCS, 3/8-16 X 2-1/4", GR5, ZP                      |
| 21   | 33201        | 3/4", GR5 ZP                                      | 53   | 37070 | Key, Square, 1/4" X .75"                                 |
| 22   | 36359        | Washer, Alignment, Female, M6                     | 54   | 11238 | Washer, Flat, 1/4"                                       |
| 23   | 36358        | Washer, Alignment, Male, M6                       | 55   | 11150 | Bolt, SHCS, 1/4-18 X 3/4", Black Oxide                   |
| 24   | 36360        | Bolt, Alignment, M6-1 X 25, W/ Locking            | 56   | 22324 | Bolt, HCS, 7/16-20 x 2.75", GR8, ZP                      |
| -    | <del>-</del> | Patch   | 57   | 35051 | Spacer, Idler  |
| 25   | 33386        | Clutch, Electric, 75 Ft-Lbs                       |      |       |  |

## Schematic – Drivetrain Assembly

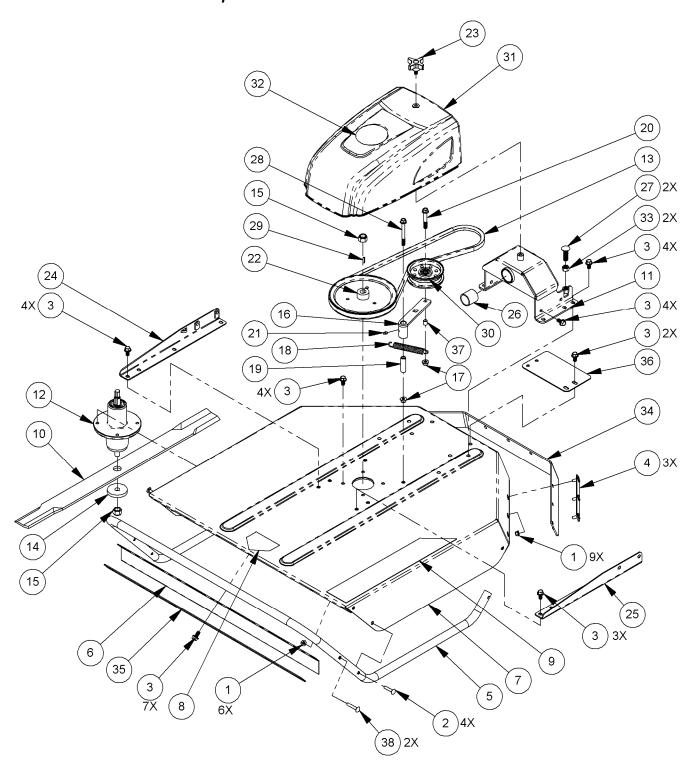


# Parts List – Brush Deck Assembly

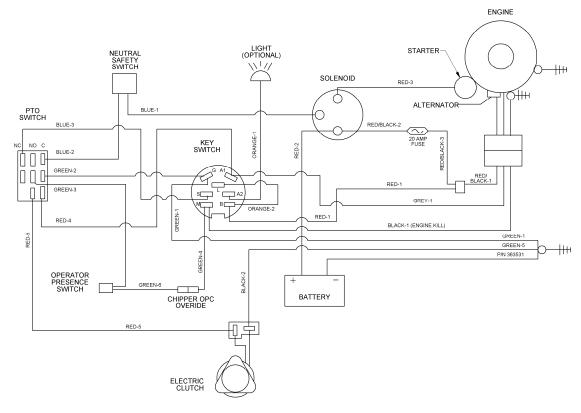
**NOTE:** Part numbers listed are available through DR Power Equipment.

| Ref# | Part# | Description                           | Ref# | Part# | Description                             |
|------|-------|---------------------------------------|------|-------|---|
| 1    | 33332 | Nut, Nylon Lock, Flanged, 5/16-18     | 18   | 15094 | Spring E .750" OD X .112" Wire          |
| 2    | 10913 | Bolt, Carr, 5/16-18 X 1.5", ZP        | 19   | 35143 | Bushing, Idler, Brush Deck              |
| 3    | 35281 | Bolt, Hex, Flange, Tri Lobe, 3/8-16 X | 20   | 33348 | Bolt, Hex, Flange, 3/8-16 X 2.5"        |
|      |       | 3/4", GR5 ZP                          | 21   | 10189 | Grease Fitting, 1/4-28, Straight        |
| 4    | 35134 | Plate, Stud, Guard                    | 22   | 16445 | Pulley, V, 8.5" OD 5l or B Belt         |
| 5    | 35295 | Brush Bar, 34"                        | 23   | 35288 | Knob, 2.5", Stud, 3/8-16 X 3/4"         |
|      | 35140 | Brush Bar, 30"                        | 24   | 35291 | Bracket, Deck, Stiffener, Right         |
|      | 34425 | Brush Bar, 26"                        | 25   | 35292 | Bracket, Deck, Stiffener, Left          |
| 6    | 36420 | Skirt, Front, 34"                     | 26   | 15072 | Bushing 1.385" ID X 1.629" OD X 1.50" L |
|      | 36419 | Skirt, Front, 30"                     | 27   | 35301 | Bolt, Carriage, 1/2-13 X 2", GR5, ZP    |
|      | 36418 | Skirt, Front, 26"                     | 28   | 35141 | Bolt, Hex, Flange, 3/8-16 X 3.5"        |
| 7    | 36342 | Deck, 34" AT4 W/ Labels               | 29   | 11914 | Key, Square, 3/16 X .75"                |
|      | 36341 | Deck, 30" AT4 W/ Labels               | 30   | 15127 | Pulley, Flat Idler, 4"                  |
|      | 36340 | Deck, 26" AT4 W/ Labels               | 31   | 36339 | Guard, Belt, AT4 W/ Labels              |
| 8    | 13649 | Label, Danger, Blade                  | 32   | 34140 | Label, DR Logo, 4.0" Silver, 4 Color    |
| 9    | 36625 | Label, Deck, 34"                      | 33   | 22910 | Nut, Finish, 1/2-13, GR5, ZP            |
|      | 36624 | Label, Deck, 30"                      | 34   | 35315 | Guard, Deck, 34", Rubber                |
|      | 36623 | Label, Deck, 26"                      |      | 35133 | Guard, Deck, 30", Rubber                |
| 10   | 35296 | Blade, 34", Air Tip                   |      | 35316 | Guard, Deck, 26", Rubber                |
| 11   | 34426 | Pivot, Deck, Bracket                  | 35   | 36614 | Strap, Skirt, Mounting, 34"             |
| 12   | 34438 | Spindle, Assembly                     |      | 36615 | Strap, Skirt, Mounting, 30"             |
| 13   | 35285 | Belt, Brush Deck, Bk56, 5/8" X 58.8"  |      | 36616 | Strap, Skirt, Mounting, 26"             |
| 14   | 10177 | Washer, Blade                         | 36   | 36417 | Guard, Debris, Deck                     |
| 15   | 16007 | Nut, Nylon Lock, 5/8-18, GR2, ZP      | 37   | 35051 | Spacer, Idler                           |
| 16   | 34442 | Idler Arm, Brush Deck                 | 38   | 35033 | Bolt, Carr, 5/16-18 X 1.75", GR5, ZP    |
| 17   | 33333 | Nut, Nylon Lock, Flanged, 3/8-16      |      |       | . ,                                     |

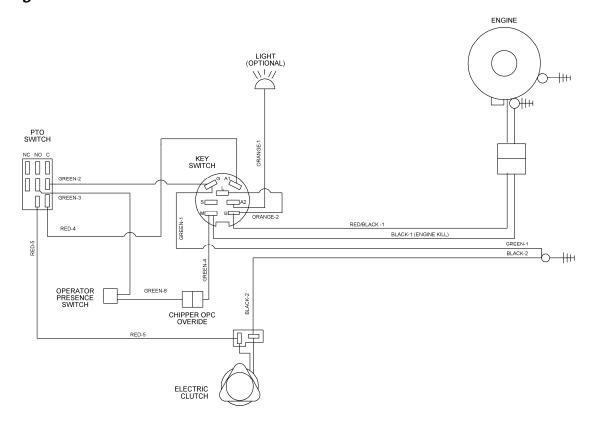
## Schematic – Brush Deck Assembly



## Wiring Diagram –Electric Start



## Wiring Diagram – Manual Start



# **DR**® FIELD and BRUSH MOWER



# 2-Year Limited Warranty

## Terms and Conditions

The **DR**<sup>®</sup> FIELD and BRUSH MOWER is warranted for two (2) years against defects in materials or workmanship when put to ordinary and normal consumer use; ninety (90) days for any other use.

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.

DR Power Equipment certifies that the **DR**<sup>®</sup> FIELD and BRUSH MOWER is fit for ordinary purposes for which a product of this type is used. DR Power Equipment however, limits the implied warranties of merchantability and fitness in duration to a period of two (2) years in consumer use, ninety (90) days for any other use.

The 2-Year Limited Warranty on the **DR**® FIELD and BRUSH MOWER starts on the date the machine ships from our factory. The 2-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 Drive Belts, Blade, Filters, Spark Plug(s), Brake Components and Battery. 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.

DR Power Equipment 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> 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.

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

### Warranty

#### CALIFORNIA EVAPORATIVE EMISSION CONTROL WARRANTY STATEMENT

### YOUR WARRANTY RIGHTS AND OBLIGATIONS

The California Air Resources Board and Country Home Products, Inc. are pleased to explain the evaporative emission control system warranty on your 2015 DR® Field and Brush Mower. In California, new equipment that use small off-road engines must be designed, built and equipped to meet the State's stringent anti-smog standards. Country Home Products, Inc. must warrant the evaporative emission control system on your DR® Field and Brush Mower for the period of time listed below provided there has been no abuse, neglect or improper maintenance of your equipment.

Your evaporative emission control system may include parts such as the carburetor, fuel-injection system, the ignition system, catalytic converter, fuel tanks, fuel lines, fuel caps, valves, canisters, filters, vapor hoses, clamps, connectors, and other associated emission-related components.

#### MANUFACTURER'S WARRANTY COVERAGE:

This evaporative emission control system is warranted for two years. If any evaporative emission-related part on your equipment is defective, the part will be repaired or replaced by Country Home Products, Inc.

#### **OWNER'S WARRANTY RESPONSIBILITIES:**

As the DR® Field and Brush Mower owner, you are responsible for performance of the required maintenance listed in your owner's manual. Country Home Products, Inc. recommends that you retain all receipts covering maintenance on your DR® Field and Brush Mower, but Country Home Products, Inc. cannot deny warranty solely for the lack of receipts.

As the DR® Field and Brush Mower owner, you should however be aware that Country Home Products, Inc. may deny you warranty coverage if your DR® Field and Brush Mower or a part has failed due to abuse, neglect, or improper maintenance or unapproved modifications.

You are responsible for presenting your DR® Field and Brush Mower to Country Home Products, Inc.'s distribution center or service center as soon as the problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have a question regarding your warranty coverage, you should contact the Country Home Products, Inc. Technical Service Department by dialing our TOLL-FREE Hotline at 1-800-DR-OWNER (376-9637).

### **GENERAL EMISSIONS WARRANTY COVERAGE:**

Country Home Products, Inc. warrants to the ultimate purchaser and each subsequent purchaser that the DR® Field and Brush Mower is:

- (1) Designed, built and equipped so as to conform with all applicable regulations; and
- (2) Free from defects in materials and workmanship that cause the failure of a warranted part to be identical in all material respects to that part as described in Country Home Products, Inc.'s application for certification.

The warranty period begins on the date the DR® Field and Brush Mower is delivered to an ultimate purchaser. The warranty period is two years.

Subject to certain conditions and exclusions as stated below, the warranty on emission-related parts is as follows:

(1) Any warranted part that is not scheduled for replacement as required maintenance in the written instructions supplied, is warranted for the warranty period stated above. If the part fails during the period of warranty coverage, the part will be repaired or replaced by Country Home Products, Inc. according to subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the period.

- (2) Any warranted part that is scheduled only for regular inspection in the written instructions supplied is warranted for the warranty period stated above. Any such part repaired or replaced under warranty will be warranted for the remaining warranty period.
- (3) Any warranted part that is scheduled for replacement as required maintenance in the written instructions supplied is warranted for the period of time before the first scheduled replacement date for that part. If the part fails before the first scheduled replacement, the part will be repaired or replaced by Country Home Products, Inc. according to subsection (4) below. Any such part repaired or replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement point for the part.
- (4) Repair or replacement of any warranted part under the warranty provisions herein must be performed at a warranty station at no charge to the owner.
- (5) Notwithstanding the provisions herein, warranty services or repairs will be provided at all of our distribution centers that are franchised to service the subject engines or equipment.
- (6) The DR® Field and Brush Mower owner will not be charged for diagnostic labor that is directly associated with diagnosis of a defective, emission-related warranted part, provided that such diagnostic work is performed at a warranty station.
- (7) Country Home Products, Inc. is liable for damages to other engine or equipment components proximately caused by a failure under warranty of any warranted part.
- (8) Throughout the DR® Field and Brush Mower warranty period stated above, Country Home Products, Inc. will maintain a supply of warranted parts sufficient to meet the expected demand for such parts.
- (9) Any replacement part may be used in the performance of any warranty maintenance or repairs and must be provided without charge to the owner. Such use will not reduce the warranty obligations of Country Home Products, Inc.
- (10) Add-on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non-exempted add-on or modified parts by the ultimate purchaser will be grounds for disallowing a warranty claims. Country Home Products, Inc. will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.

#### **WARRANTED PARTS:**

The repair or replacement of any warranted part otherwise eligible for warranty coverage may be excluded from such warranty coverage if COUNTRY HOME PRODUCTS, Inc. demonstrates that the DR® Field and Brush Mower has been abused, neglected, or improperly maintained, and that such abuse, neglect, or improper maintenance was the direct cause of the need for repair or replacement of the part. That notwithstanding, any adjustment of a component that has a factory installed, and properly operating, adjustment limiting device is still eligible for warranty coverage. The following emission warranty parts list are covered (use portions of this list applicable to your DR® Field and Brush Mower:

- (1) Fuel Tank
- (2) Fuel Cap
- (3) Fuel Line
- (4) Fuel Line Fittings
- (5) Fuel Line Clamps
- (7) Control Valve
- (14) Vapor Hoses
- (15) Liquid/Vapor Separator
- (16) Carbon Canister
- (17) Canister Mounting Brackets
- (18) Carburetor Purge Port Connector

If you have any questions, please contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637)

## Daily Checklist for the DR FIELD and BRUSH MOWER

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

# **M** WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five (5) minutes to allow all parts to cool. Disconnect the spark plug wire(s), keeping it away from the spark plug(s).

| [ ] | Che | ck the | e engine | e oil | level. |
|-----|-----|--------|----------|-------|--------|
|     |     |        |          |       |        |

[ ] Check the gas Level

[ ] Check the general condition of the Mower, e.g.; nuts, bolts, welds, etc.

[ ] Check Tire Pressure

[ ] Check belts for wear, proper alignment and tension.

[ ] Check the blade for tightness, nicks and wear. Remove any wrapped weeds and grass from the Blade Bearing Housing to prevent buildup.

[ ] Check that the engine air cooling system is clean of debris.

# **A** WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five (5) minutes to allow all parts to coo and disconnect spark plug

## End of Season and Storage

Note: Please refer to the Engine Owner's Manual for engine-specific procedures.

- Change the oil (and oil filter, if applicable). For winter use, use SAE 5W 30 HD.
- Remove the Spark Plug(s) and pour about 1 ounce of motor oil into the Cylinder hole. Replace the Plug(s) and crank the Engine a couple of times. This will coat the piston(s) 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 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 you will not use the machine over a long period, charge the Battery 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.
- Perform the lubrication as outlined starting on page 17.

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

