# DR<sup>®</sup> POWERWAGON<sup>™</sup> 5.0

# **Safety & Operating Instructions**



Please read instructions before operating the DR POWERWAGON 5.0



And congratulations on your purchase of a new DR POWERWAGON 5.0!

We have done our utmost to ensure that your DR POWERWAGON 5.0 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 or write, 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 POWERWAGON 5.0! Having DR 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>

SALES MANAGER

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### Chapter 1: Introducing the DR POWERWAGON 5.0

This manual will help you set up and safely operate your new DR POWERWAGON 5.0. 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 e-mail or our toll-free phone number. Our contact information is listed inside the front cover of this manual. When you call or write, please have your serial number or order number available so we can help you quickly.

### Conventions used in this manual

**WARNING!** The exclamation point within a 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 DR POWERWAGON 5.0.

**Tip**: This is a helpful hint to guide you in getting the most out of your DR POWERWAGON 5.0.

**Tools Needed**: This indicates you will need a special tool to perform a maintenance function on your DR POWERWAGON 5.0.

Note: This information may be helpful to you.

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

### **Chapter 2: Safety Considerations**

Taking the time to read and observe all safety instructions will ensure many years of productive use from your DR POWERWAGON 5.0 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 POWERWAGON 5.0

- Read these *Safety & Operating Instructions* and the engine owner's manual before you use the DR POWERWAGON 5.0. Become familiar with the controls, engine and service recommendations to ensure the best performance from your DR POWERWAGON 5.0.
- Check out the area you will be operating in BEFORE using your DR POWERWAGON 5.0. Know what kind of terrain you will be moving over, and avoid areas with poor footing.

### **Safety Information Labels**

Take some time to become familiar with the following standard safety cautions applicable to your DR POWERWAGON 5.0. Replace damaged or missing safety labels immediately.

WARNING: Check Oil Before Starting Engine

#137581

WARNING: Add Oil Before Starting Engine

#127811



#153421

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.

## DO NOT OPERATE POWERWAGON ON SLOPES GREATER THAN 20 DEGREES

#153441



#153431



#180531

### **Protecting Yourself**

- Wear shoes with non-slip treads when using your DR POWERWAGON 5.0. If you
  have safety shoes, we recommend wearing them. Do not use the machine while
  barefoot or wearing open sandals.
- Avoid wearing loose clothing or jewelry, which might be caught on the machine's moving parts.

### **Operating the Machine Safely**

**WARNING!** The items listed in this section will help you keep your DR POWERWAGON 5.0 running smoothly and, most importantly, prevent injury to yourself or others. Please review them carefully before starting your machine.

- Built-in safety features, such as the Operator Presence System, are effective only when maintained and kept in place.
- Do not, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the DR POWERWAGON 5.0. Modifications to your machine could cause personal injuries and will void your warranty.
- Use only approved DR parts.
- Do not use the DR in a manner not in accordance with these instructions.
- Be particularly careful of small children and pets. Never allow children to operate the DR POWERWAGON 5.0. Never carry children, adults or pets in the DR POWERWAGON 5.0. Use caution when another person approaches.
- Keep your hands away from the belt and pulleys while the engine is running.
- ALWAYS shut off the engine and remove the spark plug wire before adjusting the machine.
- Do not use the DR to drag or tow items.
- 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 1<sup>st</sup> gear with loads over 300 lbs. and on slopes.
- Never use your machine on slopes greater than 20°.
- Use the DR POWERWAGON 5.0 only in daylight or good artificial light.
- Use extra caution when operating in wet or slippery conditions.
- Always operate the DR POWERWAGON 5.0 from behind the handlebars, never from the side.

- While using the DR POWERWAGON 5.0, 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 machine at all times.
- Use caution when moving downhill and braking. Apply the parking brake slowly to avoid tipping forward.
- Do not overload the DR POWERWAGON 5.0. Be careful of top-heavy loads. The higher the load, the more chance the machine may tip over. Also, loads may shift during operation; so to be safe, secure your loads and even them out when possible. The maximum load is 500 lbs. on level terrain.
- When shifting to reverse, be careful to avoid tipping as the swivel wheel changes direction.
- Do not rev the engine. Excessive speed or tampering with the governor can be dangerous. Operate the machine in the lowest gear that is satisfactory to do the job.
- Give complete and undivided attention to the job at hand. Before you use your new machine, be sure you know how to engage the parking brake and stop the DR POWERWAGON 5.0 at a moment's notice.
- Never allow people who have not read these instructions to use the DR POWERWAGON 5.0.
- Do not operate the machine when under the influence of alcohol or medication.
- Watch for traffic when operating near roadways.

### Safety with Gasoline-Powered Machines

**WARNING!** The items listed in this section will help you keep your DR POWERWAGON 5.0 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. Any DR POWERWAGON 5.0 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.

### **Additional Information and Potential Changes**

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.

### Chapter 3: Setting Up Your DR POWERWAGON 5.0

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 DR POWERWAGON 5.0 by reviewing the picture on this page before beginning the steps outlined in this chapter.

### **DR POWERWAGON 5.0 Controls and Features**



Figure 1

### **Unpacking the DR POWERWAGON 5.0**

#### Tools & Supplies Needed:

- Screwdriver
- Hammer
- Knife
- Gloves
- Eye protection
- Metal shears

**WARNING!** Always wear eye protection when cutting the banding. The banding may have a lot of tension on it and may snap, striking 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. Roll the DR POWERWAGON 5.0 off the pallet. Do not discard your pallet and packaging material until you are fully satisfied with your machine.

**WARNING!** Be sure to fill your engine with oil and gas before use in accordance with the *Safety & Operating Instructions.* 

### **Check the Tire Pressure**

The recommended tire pressures are listed below.

- All-Terrain Tires 10-14 lbs.
- Turf Tread Tires 14-28 lbs. (optional accessory, sold separately)
- Swivel Tire 30-50 lbs.

**Note:** The heavier the load, the higher the tire pressure should be. Do not go above the maximum recommended load or pressure.

### 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 <u>YOU MUST ADD OIL BEFORE STARTING THE</u> <u>ENGINE</u>. Fill the reservoir slowly, checking the dipstick frequently to avoid overfilling.

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

- $\Rightarrow$  The machine should be on a level surface.
- $\Rightarrow$  The dipstick <u>should be screwed down</u> on Briggs & Stratton engines.

Engine Oil Capacity	
Briggs & Stratton Quantum 5.0	16-22 oz. (0.45-0.63L)

**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.

Note: You must remove the tool tray to access the oil and fuel reservoirs.

- Place the machine on a level surface and initially add 16 oz. (<sup>1</sup>/<sub>2</sub> quart) of SAE 30 high detergent oil recommended by the engine manufacturer and wait one minute for the oil to settle. (*Figure 2*)
- 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. (*Figure 2*)
- 3. Fill the gas tank to within <sup>1</sup>/<sub>4</sub> inch of the top with fresh, unleaded gas. See your engine manufacturer's owner's manual for more information.



Figure 2

### **Connect the Battery Wires**

Connect the red wires to each other (Figure 3). The black wires are connected at the factory.



Figure 3

### **Chapter 4: Operating Your DR POWERWAGON 5.0**

This chapter covers the procedures for starting and stopping your new DR POWERWAGON 5.0 and discusses basic operation features. **Operator Presence Lever** 

### **Before Starting the Engine**

- 1. Check the oil level <u>every time</u> you use the machine. (See *Figure 2* on page 9)
- 2. Check the gas level. (Figure 2)
- 3. Check the tires for proper inflation.
- 4. Make sure the dump latch is secured.
- 5. Set the parking brake by squeezing the brake lever (*Figure 5*) on the right handle bar and lift up on the parking brake lock (*Figure 5*), locking the lever in place. To release the parking brake, just squeeze the parking brake lever again.

**Note:** The DR POWERWAGON 5.0 is equipped with an Operator Presence Control for added safety. *The Operator Presence Lever must be depressed whenever the Shift Lever is in gear, or the engine will stop.* You may run the engine without depressing the Operator Presence Lever (*Figure 4*) only if the Shift Lever is in the "N" (Neutral) position. (*Figure 6*)

### **Electric Starting**

- 1. Move the shift lever to the "N" (Neutral) position. (*Figure 6*)
- 2. Move the throttle to the RUN position.
- 3. If the engine is cold, press the Primer Bulb three times. (*Figure 7*) In cold weather, you may need to press additional times, being sure that the bulb inflates between pumps.
- 4. Turn the key to the START position. (*Figure* 6) As soon as the engine starts, release the key, and it will return to the RUN position.
- 5. Move the throttle to the desired speed.

Wheel Clutch Lever Figure 4 Parking **Brake Lever** Parking Brake Lock Figure 5 Shift Lever Throttle

Figure 6

See your engine owner's manual for information on cold weather starting.

### **Manual Recoil Starting**

- 1. Move the shift lever to the "N" (Neutral) position. (*Figure 6*)
- 2. Move the throttle lever to the RUN position.
- 3. If the engine is cold, press the Primer Bulb three times. (*Figure 7*) In cold weather, you may need to press additional times, being sure that the bulb inflates between pumps.
- 4. Turn the key to the RUN position. (*Figure 6*)
- 5. Pull the recoil pull handle slowly, until you feel resistance; then pull the handle with a rapid, full arm stroke to overcome compression and start the engine. Repeat if necessary.





6. After the engine starts, move the throttle lever (Figure 6) to the desired speed.

See your engine owner's manual for information on cold weather starting.

### Operating

**WARNING!** Always release the clutch lever on the left handle bar when shifting to avoid damaging the gears.

The DR POWERWAGON 5.0 has a four-speed forward transmission and single-speed reverse. Use the lower gears for slower speeds, heavy loads, or more power and the higher gears for transport over smooth terrain. Use 1<sup>st</sup> gear with loads over 300 lbs. and on slopes. Never use your machine on slopes greater than 20°.

**Important!** When engaging <u>reverse</u> USE EXTRA CAUTION. Check your path and footing before engaging the clutch.

- 1. With the Operator Presence Lever depressed (*Figure* 5), move the shift lever to the desired gear.
- 2. Squeeze the clutch lever on the left handlebar slowly.

**WARNING!** Squeezing the clutch lever rapidly will make the DR POWERWAGON 5.0 "jump" into motion. Squeeze the clutch lever slowly and <u>ease</u> the machine into gear.

### Stopping

**WARNING!** Be careful when transporting heavy loads with your DR POWERWAGON 5.0. If the parking brake is applied suddenly, the load may shift and the wagon may start to tip forward. Brake slowly and try to avoid overloading the wagon.

- Release the clutch lever (*Figure 4*) and move the throttle to the Idle/Stop position. (*Figure 6*)
- 2. Set the parking brake by squeezing the parking brake lever on the right handlebar and lifting the parking brake lock. (*Figure* 5)
- 3. Shift to "N" (Neutral). (Figure 6)
- 4. Turn the key to the OFF position and remove it for safety.

**Important!** In an emergency situation, releasing the Operator Presence Lever will stop the machine. After the machine stops, follow steps 2 through 4 above.

### **Operating Tips**

- Avoid abrupt start-ups. Always squeeze the clutch lever slowly to avoid bucking, or tipping the DR POWERWAGON 5.0.
- When using reverse, check to see that there are no obstacles behind you. Practice backing up in an open area with no load in the DR POWERWAGON 5.0.

### Loading

**WARNING!** The recommended maximum load limit for the DR POWERWAGON 5.0 is 500 lbs. on level going and 400 lbs. on slopes. Do operate on slopes greater than 20°. Placing more weight in the bed may be dangerous to the operator, and can permanently damage the unit.

- When loading your DR POWERWAGON 5.0 keep in mind the bulk and weight of what you will be hauling, and the terrain you will be crossing.
- Keep the load balanced and secured. Always distribute the load evenly so your DR POWERWAGON 5.0 will be as stable as possible.
- Don't pile material too high. Divide your load and make several lighter trips. Do not pile heavy loads, such as rocks or gravel, to a height that will make the DR POWERWAGON 5.0 top-heavy and susceptible to tipping over.
- Be careful going downhill and applying the parking brake. Squeeze the parking brake lever very slowly to avoid dumping the load.

### **Slopes & Uneven Terrain**

**WARNING!** When operating over uneven terrain and slopes, use EXTREME CAUTION to ensure solid and firm footing. Move slowly if the ground is rough, especially with a full load. Use 1<sup>st</sup> gear with loads over 300 lbs. and on slopes. Limit maximum loads of 400 lbs. on slopes. Do not operate on slopes greater than 20°.

- We do not recommend using the DR POWERWAGON 5.0 on slopes greater than 20 degrees. (*Figure 8*) This is for safety and proper engine operation. Doing so could deprive the engine of oil and cause it to overheat resulting in component damage.
- Use caution: The DR POWERWAGON 5.0 may become unstable when moving over ruts, bumps and other depressions.





- On a slope, a heavy load will tend to shift. When using your DR POWERWAGON 5.0, keep in mind that loads tend to shift to the downhill side of the dump bed. Secure your load in the bed to limit the shifting of the load on slopes. The higher and heavier the load, the greater the possibility of tipping over. Travel up and down slopes (*Figure 8*) and avoid going across slopes.
- Again, be especially careful with full loads. A good rule of thumb: the steeper the hill, the lighter and lower your load should be.
- When going downhill, keep a firm grip on the handlebars and push down slightly. Do not apply the parking brake abruptly when going downhill.

### Dumping

**Note:** For safety reasons, the DR POWERWAGON 5.0 bed is designed NOT to dump automatically once the dump lever is released. <u>You must pull the dump lever back then lift</u> the back of the bed to cause it to tip forward.

- 1. Pull the handle on the dump lever straight out (*Figure 9*), then pull up on the bed handle to dump the load (*Figure 10*).
- 2. After unloading, push the bed back down into place by hand.



Figure 9

**Important!** Be sure the dump lever latches securely.

Note: The bed of the DR POWERWAGON 5.0 is balanced so you can dump the load with minimal effort. If you are carrying a very heavy load, you may not be able to lift the bed to dump it when you release the latch lever. In this case, you will need to manually remove part of the load from the back of the bed, until the load is light enough to allow the bed to tip forward when you lift the bed handle.



Figure 10

### **Chapter 5: Maintaining the DR POWERWAGON 5.0**

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!** Before performing any maintenance procedure, stop the engine, set the parking brake and disconnect the spark plug wire.

### **Regular Maintenance Checklist**

Procedure	Before Each Use	Every 25 Hours	Every 100 Hours
Check Operator Presence Lever			
Check Engine Oil Level			
Check General Equipment Condition			
Lubricate Grease Fittings			
Check Tire Pressure			
Clean Air Filter & Precleaner			
Change Engine Oil	1 <sup>st</sup> time 5 hours		
Check Parking Brake Adjustment			
Check Belt Tension & Condition			
Check Cable Connections		<b>A</b>	
Clean Engine Exterior & Cooling Fins			
Replace Spark Plug			
Replace Air Filter & Precleaner			

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

### **Battery Care**

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. Engine must be operated 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, 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.

#### Symptoms of a battery needing a charge:

- The machine won't start with the key, but will start with the recoil starter.
- A whirring noise coming from the starter.
- A grinding noise and a whirring noise coming from the starter.
- No noise at all.

### **Charging the Battery**

Engine must be operated 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.

- 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.

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

- 1. On the wiring harness, disconnect the red and black wires from the battery.
- 2. Attach the red (+) battery charger wire to the red (+) battery tab, and the black (-) battery charger wire to the black (-) battery tab.
- 3. Plug the battery charger into an outlet.

**Important!** When you are finished charging the battery, disconnect the battery charger wires from the battery <u>first</u>, then disconnect the charger from the outlet. If the battery charger wires are left connected to the battery, the battery will discharge itself back into the charger.

**Note:** We have modified the battery wire clips and extension tabs to accommodate different wiring connections. If you need to adapt your charger to your equipment, please call one of our Technical Support Representatives for more information.

### Lubrication

Your DR POWERWAGON 5.0 was lubricated at the Factory. The transmission is lubricated for life with 16 ounces of 90-weight gear oil and sealed at the factory. The operator needs only to provide engine lubrication, wheel and cable lubrication.

#### **Supplies Needed:**

- FLUID FILM<sup>®</sup> or comparable lubricant
- #2 Lithium Grease

**WARNING!** Before performing any maintenance procedure, stop the engine, set the parking brake and disconnect the spark plug wire.

- 1. There are two grease fittings on the swivel wheel: one at the top front of the wheel bracket, and one toward the center of the wheel (*Figure 11*). Grease these two fittings with #2 lithium grease to keep the wheel spinning freely at least every 25 hours of operation per the Maintenance Checklist on page 16.
- Lubricate the parking brake lever cable at the operator's end. Clutch lever cable should be lubricated at both ends (*Figures 12 & 13*), and the key switch, with FLUID FILM<sup>®</sup> or similar lubricant. Operate the levers to work lubricant into the cables.







**Grease Fittings** 



### **Changing the Engine Oil**

**WARNING!** Before performing any maintenance procedure, stop the engine, set the parking brake and disconnect the spark plug wire.

#### **Tools & Supplies Recommended:**

- 3/8" Ratchet and extension
- SAE 30 High Detergent (HD) Oil (for winter use, use SAE 5W 30W)
- Suitable container for the old oil
- Rag or cloth
- Liquid Vac Oil Drainer, item # 16145 (optional accessory, sold separately)
- 1. Remove the oil drain plug from the bottom of the engine (Figure 14) and drain the oil.
- 2. Replace the plug and refill the oil to the level indicated on the dipstick. Do not overfill. Refer to the Adding Oil and Gasoline section on page 9.

Alternate Method

- 1. Remove the Oil Fill Cap and vacuum the oil from the engine through the oil fill tube using the recommended oil drainer.
- **Note:** If the oil is not to be reused, be sure to use environmentally safe disposal procedures in the disposing of the used oil.



Figure 14

### **Removing and Replacing the Belt**

**WARNING!** Before performing any maintenance procedure, stop the engine, set the parking brake and disconnect the spark plug wire.

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

#### **Tools Needed:**

- 7/16" socket and extension
- 9/16" socket
- 1. Position the machine on a level surface and set the parking brake.
- Tip the bed forward. (*Figures 9* & 10)
- 3. Remove the belt guard by removing the two bolts at the front and the single bolt at the rear using a 7/16" socket. (*Figure 15*)
- 4. Loosen the belt guide bolts using a 9/16" socket.
- 5. Pull on the idler arm and spring to lessen the tension on the belt and slide the belt from the idler arm and clutch pulley. (*Figure 16*)
- 6. Remove the belt from the transmission pulley at the front of the machine. (*Figure* 17).
- 7. Remove the belt from the drive pulley under the engine. *(Figure 14)*
- 8. Install the new belt on the drive pulley first, then the transmission pulley and then the idler and clutch pulleys.



Figure 15





Make sure the new belt is INSIDE the belt guide. (Figure 14)



Figure 17

9. Squeeze the clutch lever to engage the clutch. The belt guides should be perpendicular to and not touching the belt. (*Figure 18*) With the clutch engaged, adjust the guides as necessary and tighten the guide bolts (*Figure 16*) with the 9/16" socket.

**Note:** When the clutch lever is released (disengaged), the belt guides will just touch the belt (*Figure 19*) to prevent the DR POWERWAGON 5.0 from "creeping".



Figure 18



Figure 19

### **Removing and Replacing the Front Wheels**

**WARNING!** Before performing any maintenance procedure, stop the engine, set the parking brake and disconnect the spark plug wire.

#### **Tools Needed:**

- Screwdriver
- Eye protection
- Pliers
- 1. Block the machine up off the ground.
- 2. Rotate the tire so the key slot is upward, then pop off the wheel lock ring with the screwdriver (*Figure 20*) and save it. Remove the washer and slide the wheel off.
- 3. To replace the wheel, leave the key in place (if possible) and slide the wheel back on. If the key comes out when you take the wheel off, put the wheel back on and rotate it until the key slots line up. Slide the key back in place and reinstall the washer and wheel lock ring.

**Note:** When replacing the wheel lock ring, make sure the center of the wheel lock ring is opposite the key.



Figure 20

### **Adjusting the Parking Brake**

**Note:** If your DR POWERWAGON 5.0 rolls on slopes when the parking brake is set, or if you can't get the parking brake to set, it needs to be adjusted. (*Figure 21*)

**WARNING!** Before performing any maintenance procedure, stop the engine, set the parking brake and disconnect the spark plug wire.

#### **Tool Needed:**

- 1/2" wrench or socket
- 1. With the machine on a level surface, set the parking brake.
- 2. Put the transmission in "N" (Neutral).
- 3. Test the parking brake: try to roll the machine. It should not move in either direction with the parking brake set.
- 4. If it does move, turn the adjustment nut on the transaxle (*Figure 21*) 1/4 turn clockwise with the 1/2" wrench to tighten the parking brake. Test the parking brake as described in Steps 1-3. Repeat the adjustment if necessary.
- 5. If you can't get the parking brake to release, turn the adjustment nut on the transaxle (*Figure 21*) 1/4 turn counterclockwise with the 1/2" wrench to loosen the parking brake. Test the parking brake, as described in Steps 1-3. Repeat the adjustment if necessary.





**Note:** Turn the nut only 1/4 turn at a time, and then test the parking brake to see if the adjustment worked. If needed, adjust the nut another 1/4 turn and test again.

### Parking Brake Cable Adjustment

**Note:** The parking brake cable is factory set (*Figure 22*). If you think the parking brake cable needs to be adjusted, you may actually need to replace the parking brake pads. See below.

### **Changing the Parking brake Pads**

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

**Note:** If your DR POWERWAGON 5.0 rolls on slopes when the parking brake is set, and you have tried adjusting the parking brake, the parking brake pads may need to be replaced.

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

- 1/2" wrench or socket
- Mat or container for loose parts

**Note:** You may want to remove the wheel to provide easier access to the parking brake area. (See page 21)

- 1. Find a level area to work. The parking brake should NOT be engaged. Chock the wheels so the machine cannot move.
- 2. Locate the parking brake caliper at the right front of the machine (*Figure 23*). Remove the two caliper bolts holding the parking brake caliper with a 1/2" wrench, then carefully remove the caliper.



Figure 22





**Note:** The caliper contains four small parts: the brake pad, the backing plate, and two small actuator pins (*Figures 24 & 25*). As you let the caliper hang from its attaching hardware, keep track of these parts as they could fall out. Clean away any debris from these parts and the inside of the caliper.

- Pull the brake disc off the keyed shaft (*Figure* 24) being careful not to lose the shaft key.
- 4. Remove the old brake pad from behind the disc and replace it with a new brake pad, then reinstall the brake disc.
- 5. Replace the caliper housing and its parts: two actuator pins, the backing plate, and the second brake pad. (Figure 25). Make sure the brake arm assembly is in the upright position. Be sure that the parking brake lever is pointing up. (Figure 23) Reinstall the two caliper bolts and be careful not to over tighten them.
- 6. Test the parking brake: With the machine on a level surface, set the parking brake and put the machine in "N" (Neutral). If the parking brake does not engage or hold, tighten the parking brake adjustment nut 1/4 1/2" turn with а wrench. See "Adjusting the Parking Brake" on page 23.



Figure 24



Figure 25

**Note:** Check the parking brake periodically and adjust accordingly.

### **Replacing the Throttle Cable**

**WARNING!** Before performing any maintenance procedure, stop the engine, set the parking brake and disconnect the spark plug wire.

**Note:** The Throttle Cable is set at the factory and generally no service is required. The cable is supplied as a complete assembly with the handle already attached. (*Figure 27*) However, when replacing the throttle cable it is important to follow these steps:

#### **Tools Needed:**

- 1/4" socket
- Screwdriver
- 1. Loosen the screw on the throttle cable clamp with the screwdriver so the throttle cable can slide below it. It is not necessary to remove the clamp. (*Figure 26*)





- 2. Remove the "Z"-bend end of the cable from the throttle plate. (*Figure 26*)
- 3. Remove the two screws holding the throttle assembly to the control panel with the 1/4" socket or screwdriver. (*Figure 28*)
- Tilt and slide the throttle assembly down through the slot in the control panel. (*Figure 28*)



Figure 27





- 5. Tilt and place the handle of the new throttle assembly up through the slot in the control panel and fasten with two screws. Position the throttle handle to IDLE/STOP.
- 6. Route the throttle cable the same as the old cable, being careful not to bend or kink the cable.
- 7. Place the "Z" bend end of the throttle cable into the small hole in the throttle plate on the engine. The throttle plate is a black tab that protrudes from the engine below the plastic air filter. It has two holes, and the cable goes into the smaller hole. Place the throttle cable sheath under the cable clamp. (*Figure 26*)
- 8. Make sure that the throttle plate is all the way back to the stop position. It will normally retract to this position.
- 9. Tighten the throttle cable clamp screw making sure that the throttle handle is still in the IDLE/STOP position. The throttle cable should have very little or no tension between the cable clamp and the throttle plate.

# **Important!** If the cable is clamped with too much tension between these points the engine will not return to idle properly.

10. Start the engine and check the operation of the machine. The DR POWERWAGON 5.0 should idle smoothly, but should not move while in idle, and should not jump after being put into gear.

### **Adjusting the Shift Lever**

If you are unable to shift into reverse or 4th gear, the shift lever and tie rod need to be adjusted.

**WARNING!** Before performing any maintenance procedure, stop the engine, set the parking brake and disconnect the spark plug wire.

#### **Tools Needed:**

- 1/2" box wrench or socket
- 1/2" box or open-end wrench
- 9/16" box or open-end wrench
- 1. Move the shift lever into the reverse position. (*Figure 29*)
- 2. Loosen and remove the tie rod nut and bolt from the transaxle arm with the 1/2" wrenches (*Figure 30*). Remove the tie rod from the transayle arm

the tie rod from the transaxle arm.

- 3. Fully extend the transaxle arm toward the front of the machine; this will put the transmission into reverse gear. (*Figure 31*)
- 4. Loosen the lock nut on the shift tie rod end with the 9/16" open-end wrench (*Figure 31*) and turn the tie rod end, clockwise to shorten the tie rod, and counterclockwise to lengthen it.
- 5. Adjust the tie rod length until the shift indicator points to reverse when the tie rod end is reinstalled onto the transaxle arm.
- 6. When the adjustment is complete, retighten the lock nut against the ball end.
- 7. Place the tie rod back on the transaxle arm, insert the bolt, and re-tighten the nut.

This should now enable you to use the full range of gears.











### **Adjusting the Wheel Clutch**

**WARNING!** Before performing any maintenance procedure, stop the engine, set the parking brake and disconnect the spark plug wire.

**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. Raise the dump bed to expose the wheel clutch adjustment bracket. (Figure 32)
- 2. If the wheel clutch lever contacts the handlebar without engaging the wheel, tighten the clutch by loosening the nut on the underside (threaded) of the bracket by 1/8" to 1/4", and tightening the nut on the outside against the bracket. Check the tension on the clutch lever and repeat the adjustment as needed.
- 3. If the wheels engage before the lever is activated or the lever does not contact the handlebar when activated, reverse the adjustment in step 2.

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



Figure 32

### End of Season & Storage

**WARNING!** Before performing any maintenance procedure, stop the engine, set the parking brake and disconnect the spark plug wire.

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

- Change the oil, this will help to eliminate sludge and acids in the engine.
- If your DR POWERWAGON 5.0 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.
- Remove the spark plug and pour about 1 ounce of motor oil into the cylinder hole. Replace the plug 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, carburetor linkage, blower housing, rotating screen and muffler area of the engine.
- Check to make sure the operator controls are moving freely. Lubricate the throttle lever, parking brake lever, and key switch with FLUID FILM<sup>®</sup> or similar lubricant if necessary. See page 18.
- The battery should be removed and kept in a cool, dry place when the DR POWERWAGON 5.0 is in storage. We suggest charging the battery once a month while the DR is stored and again before you are ready to start the new season. This will help the battery maintain its charge all season. See page 17.

### **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 difficulties, call a Technical Support Representative at Country Home Products.

### **Troubleshooting Table**

**WARNING!** Before performing any maintenance procedure, stop the engine, set the parking brake and disconnect the spark plug wire.

Symptom	POSSIBLE CAUSE
Recoil will not pull out or is difficult to pull.	$\Rightarrow$ Check the engine oil level, the engine may be seized.
	⇒ There may be an oil compression lock in the cylinder. Take out the spark plug, hold a rag over the spark plug hole and pull the recoil cord several times to blow out any oil in the cylinder. Wipe off the spark plug and reinsert it.
	⇒ The recoil may be broken or jammed. Try to turn the engine pulley by hand, with the spark plug wire off. If it turns, the recoil is broken or jammed. Call 1(800) DR-OWNER (376-9637) for assistance.
The engine	$\Rightarrow$ Is the key in the RUN position?
won't start manually.	⇒ Are you using fresh, clean gas? If the gas is old, change it. Use a fuel stabilizer if you keep gas longer than one month.
(Please refer to	$\Rightarrow$ Check the throttle adjustment and cable travel.
the engine manufacturer's owner's manual for engine- specific procedures.)	⇒ Is the spark plug clean? If the spark plug is dirty or cracked, change it. If it's oily, leave it out, hold a rag over the plug hole and pull the recoil cord several times to blow out any oil in the cylinder, then wipe off the plug and reinsert it.
	$\Rightarrow$ Is the air filter clean? If not, clean or replace it.
	$\Rightarrow$ Check the Operator Presence switch connection beneath the panel at the key switch.
	$\Rightarrow$ Check the Operator Presence switch connection at the engine.
	$\Rightarrow$ If your engine still won't start, call <b>1(800)</b> DR-OWNER (376-9637) for assistance.

Symptom	Possible Cause
The engine won't start using electric-start.	$\Rightarrow$ Have you checked all the items under the section called Electric Starting on page 11? If not, do so now.
	⇒ Have you checked the items under "The engine won't start manually" listed above? If not, do so now.
(Please refer to the engine manufacturer's owner's manual for engine- specific procedures.)	⇒ Check the wire connections—especially the ground connection, the large green wire coming from the battery, where it connects to the engine.
	⇒ Check the ground connection 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.
	⇒ 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 machine for at least 45 minutes at a time, the battery may need to be periodically charged. See the Battery Care section on page 17.
	⇒ If your battery is charged and your DR still won't start, call <b>1(800)</b> DR-OWNER (376-9637) for assistance.
The engine	$\Rightarrow$ Check the throttle travel and adjustment.
lacks power or is not running smoothly.	⇒ Is the air filter clean? If it's dirty, change it following the procedure in the engine manufacturer's owner's manual.
(Please refer to the engine manufacturer's owner's manual for engine- specific procedures.)	⇒ Is the spark plug clean? If it's fouled or cracked, change it. If it's oily, leave it out, hold a rag over the plug hole and pull your recoil cord several times to blow out any oil in the cylinder, then wipe off the plug and reinsert it.
	⇒ Are you using fresh, clean unleaded gas? If it's old, change it. Use a fuel stabilizer if you keep gas longer than one month.
	⇒ 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.
	$\Rightarrow$ Check the oil level and adjust as needed.
	⇒ If your engine still lacks power, call 1(800) DR- OWNER (376-9637) for assistance.

Symptom	Possible Cause
Engine smokes.	<ul> <li>⇒ Check the oil level and adjust as needed.</li> <li>⇒ You may be operating the machine on too great an incline. (See SLOPES section on page 14)</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 1(800) DR-OWNER (376-9637) for assistance.</li> </ul>
The belt frays or rolls over the pulley.	<ul> <li>⇒ A pulley groove may be nicked. Check the belt for wear and hard spots. File off any nicks on the pulley.</li> <li>⇒ Check the belt guide alignment. See page 21.</li> <li>⇒ The belt may be stretched. Replace it.</li> </ul>
Machine is hard to get into reverse.	$\Rightarrow$ Shift lever may need adjusting. See page 28.
Wheels pulling left or right.	$\Rightarrow$ Check the tire(s) pressure. See page 8.
Machine lacks traction	<ul> <li>⇒ Is the load even in the bed? The more weight over the wheels the better the traction.</li> <li>⇒ Try a lower gear.</li> <li>⇒ If you're working on rough terrain with Turf Tires, you may want to consider the All-Terrain Tires. Call 1-800-DR-OWNER (376-9637) for information.</li> </ul>
Wheels won't turn.	<ul> <li>⇒ Is the machine in gear?</li> <li>⇒ Is the parking brake on?</li> <li>⇒ Is the belt loose or off a pulley? See page 21.</li> <li>⇒ Check that belt is on correct side of idler pulley. See page 21.</li> </ul>

Notes:

Notes:

#### **1-Year Limited Warranty**

#### **Terms and Conditions**

The DR POWERWAGON 5.0 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 POWERWAGON 5.0 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 warranty will be void if non-DR approved accessories are used or your DR POWERWAGON 5.0 is modified in any way.

The 1-Year Limited Warranty on the DR POWERWAGON 5.0 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, batteries, parking brakes and cables. 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 POWERWAGON 5.0.

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 warranty on the engine. However, to obtain service, repair or replacement of the 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 the separate manufacturer.

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

### Daily Checklist for the DR POWERWAGON 5.0

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 High Detergent (HD) motor oil.
- [] GAS: Fill the gas tank with fresh, unleaded gasoline.
- [] 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.
- [] BELT: Check the belt for wear, proper alignment and tension.
- [] AIR FILTER: A clean air filter will mean a much easier starting and cooler running engine. Please refer to your engine manufacturer's owner's manual for instructions on cleaning the air filter.
- [] TIRES: Check the tires for wear and proper inflation.



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