

DR[®] POWERWAGON[™]

Safety & Operating Instructions

Model: SUBURBAN[™]



These *Safety & Operating Instructions* as well as the engine manufacturer's owner's manual contain important information concerning safety, operating procedures, maintenance, troubleshooting and assembly tips. Everyone who operates the DR[®] POWERWAGON[™] should read these instructions and be thoroughly familiar with them.

THANK YOU!

And congratulations on your purchase of a new DR[®] POWERWAGON[™]!

We have done our utmost to ensure that your DR[®] POWERWAGON[™] 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[™]! 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!

Bill Lockwood

for all of us at...

COUNTRY HOME PRODUCTS[®]

Safety Information

We want you to enjoy years of productive use from your DR[®] POWERWAGON[™]. We don't want you to get injured, so please take a few moments to read the following guidelines for safely operating your new machine.

Dress Appropriately

- Wear shoes with non-slip treads when using your DR[®] POWERWAGON[™]. If you have safety shoes, we recommend that you wear them. Do not use the machine while barefoot or wearing open sandals.
- Use ear muffs or ear plugs to protect your valuable hearing.
- Wear gloves to protect your hands, as well as to provide additional comfort and support.

Preparation

- Read these *Safety & Operating Instructions* as well as the engine manufacturer's owner's manual before you use the DR[®] POWERWAGON[™]. Become familiar with the controls, engine and service recommendations to ensure the best performance from your machine.
- Inspect the area you'll be working in BEFORE using the DR[®] POWERWAGON[™]. Remove any obstacles and avoid areas with poor footing.

Be sure the machine is in NEUTRAL and the brake is set before attempting to start the engine.

Fill the gasoline tank outdoors. Avoid spilling gasoline and don't fill the tank while the engine is running or if you are smoking.

Remember: The gas fill on the DR[®] POWERWAGON[™] is located beneath the dump body. Keep this in mind as you work to avoid running out of gas with a full load. On average, the DR[®] POWERWAGON[™] will run continuously for about 45 minutes. This running time will vary depending on the speeds used, loads carried and terrain covered.

Operating the Machine Safely

Unless there is very good artificial light, only use the DR[®] POWERWAGON[™] during the daylight hours.

Always operate the DR[®] POWERWAGON[™] from behind the handlebars, never from the side.

Operating the DR[®] POWERWAGON[™] in wet grass could increase the danger of your slipping, falling and being injured. Use extra CAUTION in wet areas.

When operating over uneven terrain and slopes, use EXTREME CAUTION and make sure of solid and firm footing at all times. THINK SAFETY! Loads should be less than 300 pounds on slopes. The steeper the slope, the lighter the load.

Never allow children to operate the DR[®] POWERWAGON[™]. Never carry children, adults or pets in the body of the DR[®] POWERWAGON[™].

Give complete and undivided attention to the job at hand, and be sure you know how to stop the DR[®] POWERWAGON[™] at a moment's notice. Use caution when another person approaches.

Keep hands away from belts and pulleys when the engine is running.

DO NOT OVERLOAD THE DR[®] POWERWAGON[™]! Loads should be less than 400 pounds on the level and 300 pounds on slopes. Be careful of top heavy loads—especially in the back corners of the molded body. The higher the load, the more chance the machine may tip. Also, loads may shift during operation, so even out loads when possible to be safe.

When shifting to reverse, be careful of tipping as the caster wheel changes direction.

Don't rev the engine. Excessive speed or tampering with the governor can be dangerous. Operate the engine at the slowest speed that is satisfactory for the task at hand.

While using the DR[®] POWERWAGON[™], don't hurry or take things for granted. When in doubt about the equipment or surroundings, stop the machine and take time to look things over. Make sure you have 100% control of the machine at all times.

Built-in safety features are effective only when maintained and kept in place. **DO NOT**, under any conditions, remove, cut, bend, weld or change standard parts on the DR[®] POWERWAGON[™]. A change made on your own can make the equipment unsafe and may void your warranty.

- **Some state and local regulations require the use of a spark arrester on gasoline powered engines. Contact your local fire marshal or forest service for specific information pertaining to your area. If you are required to use a spark arrester, please contact one of our Customer Service Representatives TOLL FREE 1(800)DR-OWNER(376-9637) for assistance in obtaining and installing one.**

Warning to All California and Other Users

Under California law, and the laws of some other states, you are not permitted to operate an internal combustion engine using hydrocarbon fuels without an engine spark arrester. All DR[®] POWERWAGONS 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.

We Want You to be Totally Satisfied

The DR[®] POWERWAGON[™] is designed to provide year after year of trouble-free performance. To ensure that you are totally satisfied with this important purchase, we offer the following three-part Assurance of Satisfaction:

1. DR[®] POWERWAGON[™] is GUARANTEED FOR ONE FULL YEAR against defects in materials and workmanship in consumer use. In rental and commercial use the machine is guaranteed for 90 days. If you believe that a part is defective, please write or call us immediately. We will do our best to remedy the problem, including repairing or replacing defective parts as quickly as possible. The engine and transmission are guaranteed separately by the manufacturers for two years in consumer use and 1 year in commercial use.
2. IF WITHIN THE FIRST 30 DAYS of actual hands-on use you have questions or you are less than 100% satisfied with your DR[®] POWERWAGON[™], please write or call us at 1(800)DR-OWNER(376-9637). We'll do everything possible to answer your questions or make things right—even if it means that you return your DR[®] POWERWAGON[™] for a full refund of its purchase price, shipping costs included. (Refund on shipping is for standard method, and applies to the contiguous United States, U.S. Territories and Canada only.)
3. We operate, for our Owners, a 7-Day-a-Week Customer Service Department with well-trained and friendly folks whose sole job it is to ensure that you get any help you need...parts that need to be replaced...or questions answered courteously and as promptly as possible.

For future reference when dealing with your warranty, save the packing list from the outside of the DR[®] POWERWAGON[™] box and keep it in a safe place. Also, please fill out the information below.

Name Purchased Under: _____

Order Number: _____ Serial Number: _____

Date Purchased: ____/____/____

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DAILY CHECK LIST FOR THE DR® POWERWAGON™	BACK COVER

Assembly

The DR® POWERWAGON™ is shipped almost completely assembled. Please read the following instructions before removing the machine from the crate and completing the assembly.

Parts Bag Contents:

- (1) 5/16" x 1-1/2" Bolt for the Handlebar
- (1) 5/16" Lock Nut for the Handlebar
- (1) Cable Tie for the Cable Assembly

WARNING!

The DR® POWERWAGON™ is shipped without gas and oil. **DO NOT** attempt to start your DR® POWERWAGON™ until assembly is complete, and you've added the correct amounts of gas and oil.

Install the Upper Handlebars

Tools Needed:

- (2) 1/2" or adjustable wrenches

1. Position the cable assembly on the right side of the frame (when standing in the operating position). Secure the cable assembly to the frame with the cable tie provided (*Figure 1*).

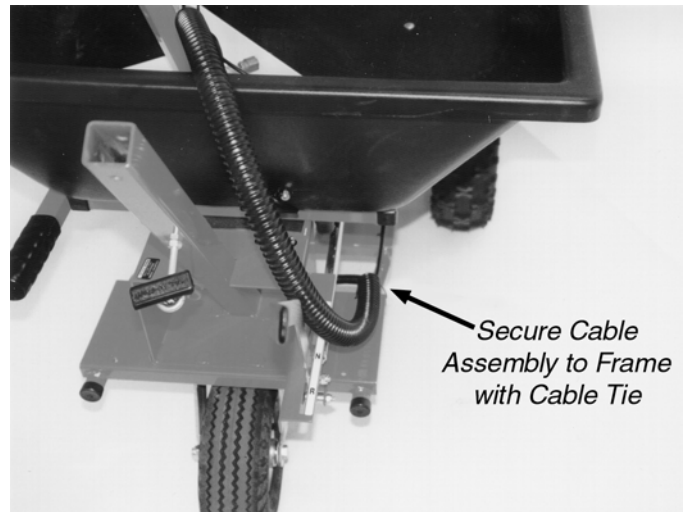


Figure 1

2. Position the upper handlebar inside the lower handlebar, mount the 5/16" x 1-1/2" bolt and secure it with the 5/16" lock nut (*Figure 2*). You may adjust the handlebar height at any time by removing the bolt and repositioning the upper handlebar in a different hole.

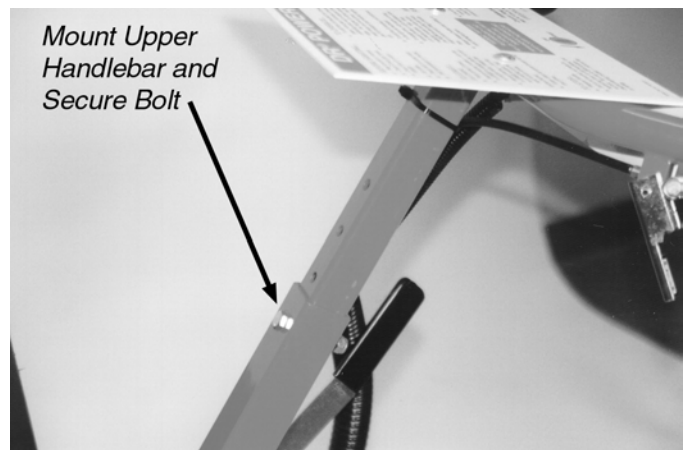


Figure 2

Connect the Battery Wires

Electric-Starting Model: Connect the red wire from the battery to the red wire on the wiring harness (Figure 3).

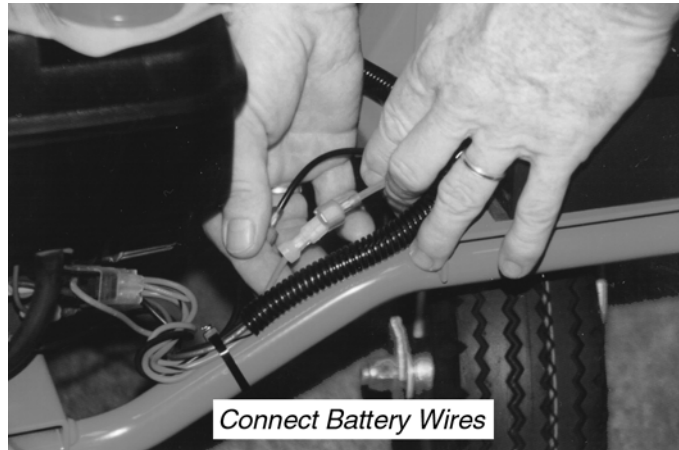


Figure 3

Fill the Machine with Oil and Gas

1. Put the recommended amount of SAE30 detergent oil into the oil reservoir (Figure 4). Fill the oil to the level indicated on the dipstick.

Note: There may be some oil in the reservoir from factory testing. Check the dipstick frequently as you fill to avoid overfilling.

Please refer to your engine manufacturer's owner's manual for more detailed oil information.

2. Fill the gas tank (Figure 4) with fresh unleaded gas to within 1/4" of the top to allow for fuel expansion. Please refer to your engine manufacturer's owner's manual for more specific fuel recommendations.

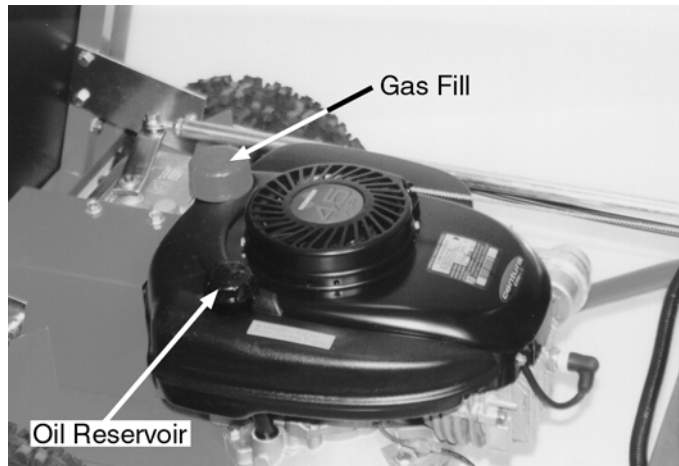


Figure 4

Check the Tire Pressure

Recommended tire pressures are listed below.

Tire Pressure

Standard Tires 14-20 lbs. psi
All-Terrain Tires 14-20 lbs. psi
Caster Wheel 50 lbs. psi

Please Note: The heavier the load the higher the tire pressure should be. However, do not exceed the maximum recommended load or pressure.



Figure 5

Controls & Features

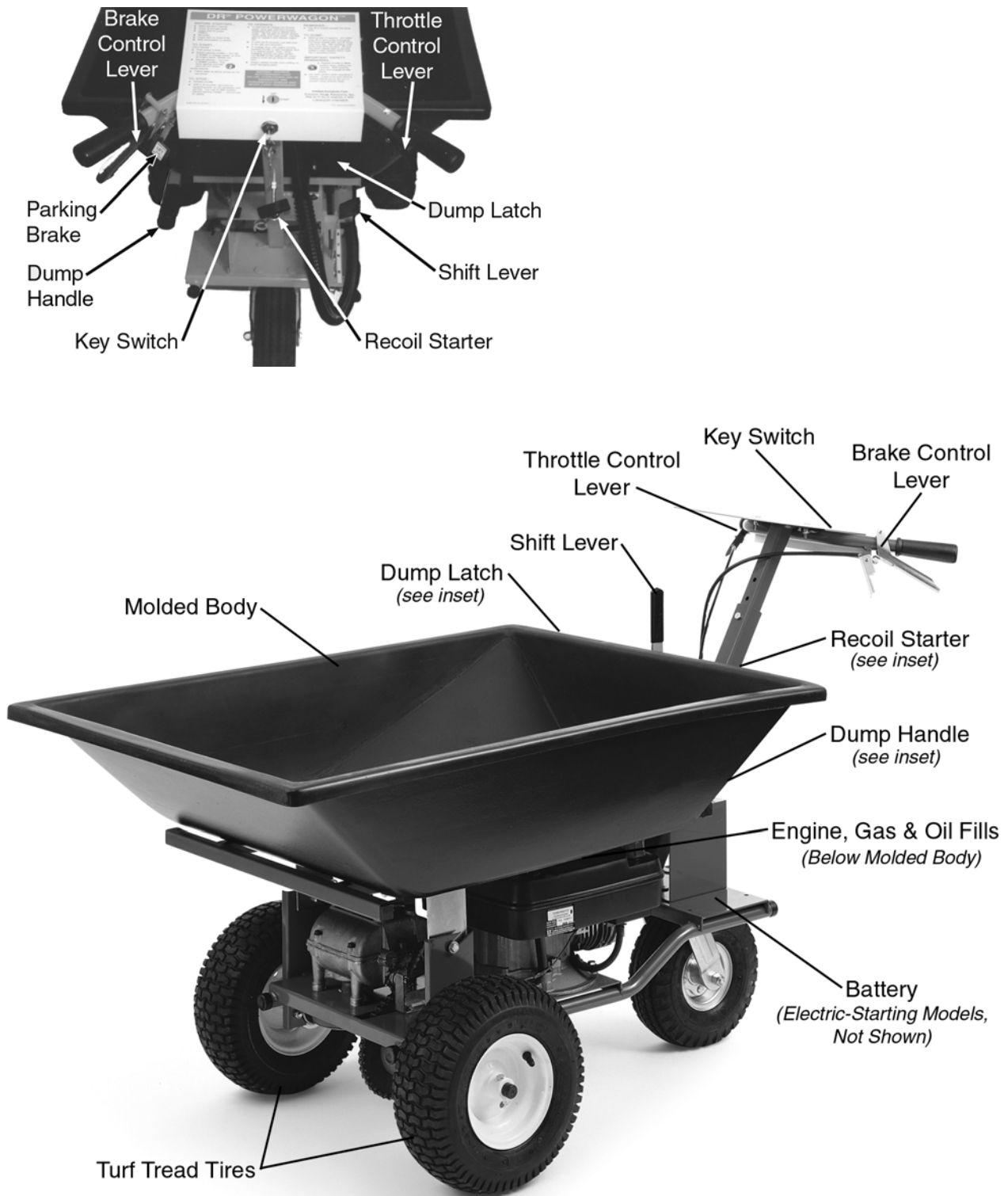


Figure 6

Starting & Operating

Before Starting

Check the oil and gas levels.

Check the tires for proper inflation.

Check the latch on the dump body—it should be secure.

Set the parking brake.

Shift the transmission to neutral.

Electric-Starting

1. When starting a cold engine, push the primer bulb (*Figure 7*) firmly at least three times, allowing the bulb to return completely to its original position between pushes.

Note: Do not use the primer when restarting a warm engine.

2. Turn the key (*Figure 8*) past the "START" position to engage the starter. As soon as the engine starts, release the key. If the engine doesn't start repeat priming and try again.

Note: Holding the throttle control lever at half throttle may help with starting.

If the engine won't start with the key the battery may need to be charged. Please see page 10 for information on battery care and maintenance.

Your engine is also equipped with a manual recoil starter. Please see the instructions below.

Manual Recoil-Starting

Can be used for both Electric- and Manual-Starting models.

1. When starting a cold engine, push the primer bulb (*Figure 7*) firmly at least three times, allowing the bulb to return completely to its original position between pushes.

Note: Do not use the primer when restarting a warm engine.

2. Turn the key (*Figure 8*) to the "START" position.

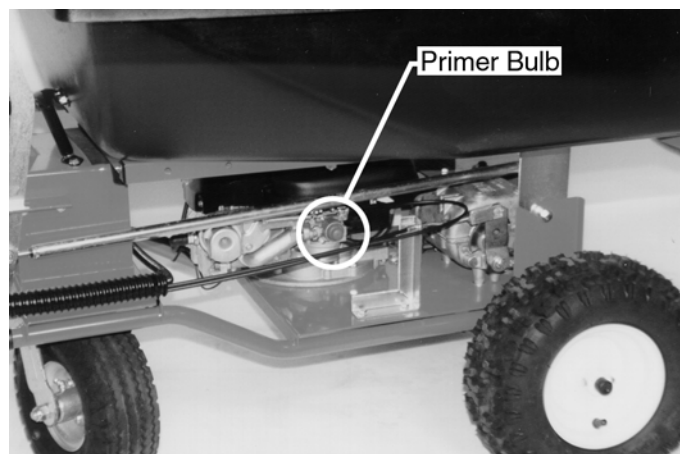


Figure 7

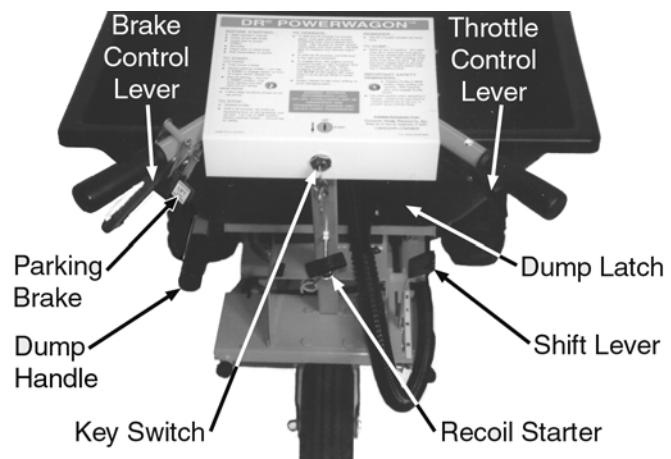


Figure 8

3. Pull the recoil rope (*Figure 8*) slowly, until you feel drag. Let the rope rewind slowly. Then pull the recoil with a rapid full arm stroke to start the engine. Let the recoil rope slowly return to the starter. One pull usually starts the DR[®] POWERWAGON[™], but repeat if necessary.

Note: Holding the throttle control lever at half throttle may help with starting.

Stopping the Engine

1. Shift the transmission to "N" neutral.
2. Set the brake and turn the key to the "OFF" position.

The DR[®] POWERWAGON[™] key switch has a pressure lock insert which prevents the key from vibrating loose during use. To remove the key, turn the key to the left "OFF" position, push in on it and then quickly and firmly pull it out. If the key is difficult to remove, try spraying FLUID FILM[™] or a similar lubricant into the switch.

Engaging the Transmission

Forward Gears

To shift the transmission from neutral into the forward gears, *first release the throttle lever* then move the shift lever forward and position it next to the desired drive range (*Figure 9*).

Use first gear for slower speeds, heavy loads or more power.

Use second gear for transport.

Reverse

To shift the transmission into reverse, *first release the throttle lever* then move the shift lever to the right and all the way backwards.

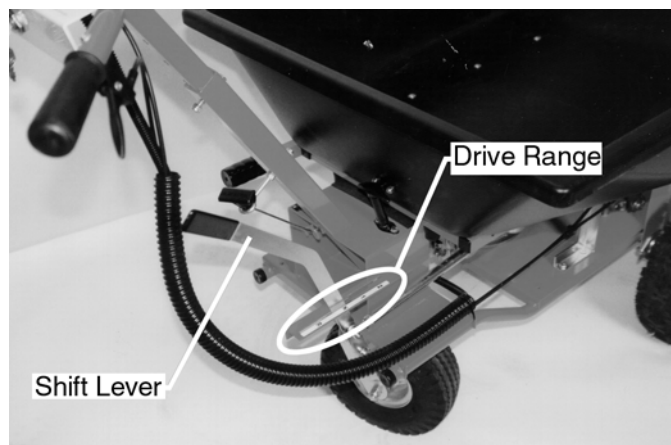


Figure 9

Engaging the Drive

With the engine running, slowly squeeze the throttle lever on the right handlebar until you reach desired speed.

Note: Squeezing the throttle lever quickly will make the DR[®] POWERWAGON[™] jump forward. Squeeze the throttle lever slowly and ease the machine into gear.

When engaging reverse USE EXTRA CAUTION. Check to see that there are no obstacles behind you (*Figure 10*), and use a slow throttle setting with heavy loads to avoid abrupt lifting of the handlebars and tipping.



Figure 10

Operating Tips

When the throttle is not engaged the machine will act like it's in neutral—it will freewheel—even if it's in gear. Always have the throttle engaged or the brake on for control.

You can leave the machine in gear while idling, but always use the parking brake and never leave the machine unattended while running.

If you're making frequent stops to load and unload it is better to leave the DR[®] POWERWAGON[™] running (on idle with the parking brake on) than to start and stop repeatedly. Frequent starting and stopping will reduce the life of the battery. Running the DR[®] POWERWAGON[™] recharges the battery. See page 10 for more battery care information.

Uneven Terrain & Slopes

Exercise caution when using the DR[®] POWERWAGON[™] on uneven terrain or slopes.

A good rule of thumb: the steeper the hill, the lighter and lower your load should be. Limit loads to less than 300 pounds on slopes.

Use a first gear and move slowly if the ground is rough, especially with a full load. Be sure you're in low gear before starting down a slope. Shifting mid-slope can be awkward.

We do not recommend using the DR[®] POWERWAGON[™] for continuous use on a slope greater than 20 degrees. Doing so may deprive the engine of oil and damage the engine components.



Figure 11

For added traction when going uphill, lift up on the handlebars slightly to transfer weight to the front wheels and improve traction. When going downhill, keep a firm grip on the handlebars and push down slightly.

Do not apply the brake abruptly when going down hill with a heavy load or the DR[®] POWERWAGON[™] may pitch forward on its front end.

We recommend going straight up and down slopes, instead of across them, whenever possible. If you do maneuver across a slope use EXTREME CAUTION as this puts additional pressure on the downhill side of the machine. The higher and heavier the load, the greater the chance the DR[®] POWERWAGON[™] may tip over. Limit side hill loads to less than 300 pounds.

Be careful with partial loads. Material can shift within the body and tip the machine.

Loading

▲ WARNING: The recommended load limit for the DR® POWERWAGON™ is 400 lbs on level ground and 300 pounds on slopes. Placing more weight in the body may be dangerous, and can permanently damage the machine.

Please follow these important guidelines when loading your DR® POWERWAGON™:

Always distribute the load evenly so that your DR® POWERWAGON™ will be as stable as possible (*Figure 12*). Do not pile heavy loads, such as rocks or gravel, to a height that will make the DR® POWERWAGON™ top-heavy and susceptible to tipping over.

Keep the load balanced, and don't pile material too high in the front or back corners of the molded body. Instead, take the time to divide your load and make several lighter trips.

On a slope, a heavy load will tend to shift to the downhill side of the body. Again, it is safer to make several smaller, lighter trips.

Reminder: The gas fill is located below the dump body. Plan your work accordingly, so you won't run out of gas with a full load.



Figure 12

Dumping

To dump, stand at the rear of the machine and unlatch the dump body from the bracket (*Figure 13*). Pull up on the dump handle or the back of the body to tip it forward (*Figure 14*). After unloading, push the dump body back down into place by hand. Be sure the latch fits securely into the bracket on the dump body.

Note: You must lift the latch handle and position it in the bracket. Simply pushing the dump body back into place will not make it latch.

For safety reasons, the DR® POWERWAGON™ body is designed to not dump automatically once the dump latch is released. You must lift the dump handle or the back of the body to cause it to tilt forward.

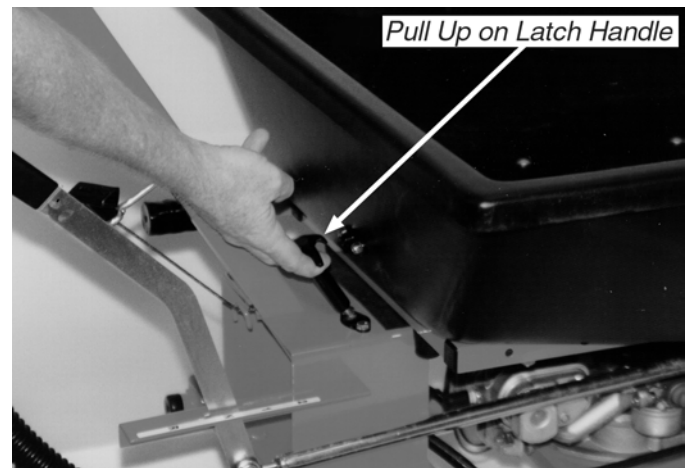


Figure 13

Because of the way the DR[®] POWERWAGON[™] body is balanced, you may find that you won't be able to lift the body to dump it if you are carrying a very heavy load. In this case, you'll need to manually unload part of what you are hauling from the back of the bed, until the load is light enough to allow the bed to tilt forward when you lift up on the dump handle or back of the body.

If you have the wooden stake body you can remove the front panel for easy dumping. See page 9 for more information on using the optional stake body.



Figure 14

Changing Bodies

If you've purchased the optional stake body with your DR[®] POWERWAGON[™] you'll find it's quite simple to change bodies.

To change from the molded body to the stake body, you simply release the dump latch, tilt the molded body forward and lift it off the mainframe. Allow the pivot bushings to slide out of the pivot brackets as you lift the body up (*Figure 15*).

When placing the stake body on the frame, set the pivot bushings into the brackets and slide the body in place. Be sure the dump latch is secure before operating the machine.

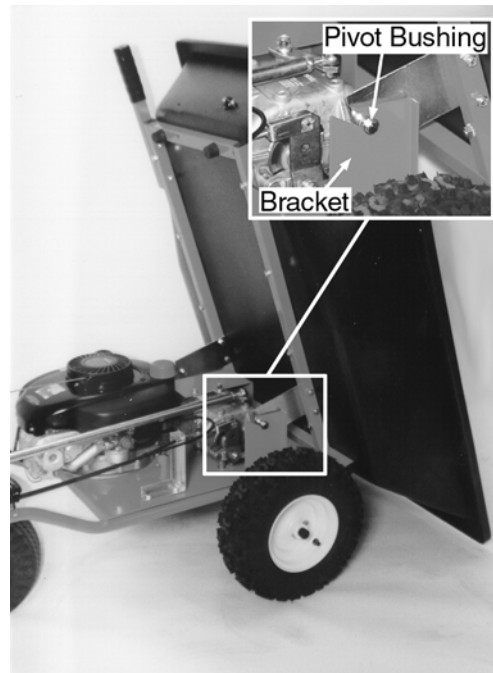


Figure 15

Using the Optional Stake Body

Removing the front panel for easier dumping

When moving loose materials such as gravel, mulch and topsoil, simply lift and remove the front panel of the stake body for easier dumping (*Figure 16*).

Removing the front and side panels for oversized loads

For oversized loads such as fencing, gardening tools, tree limbs, rocks, etc. you can remove the front and two side panels on the stake body (*Figure 17*).

Reversing the front panel for controlled dumping

If you're spreading gravel or mulch over a large area you can reverse the front panel of the stake body for more controlled dumping. Lift and remove the front panel, turn it around and mount it backwards. Then raise or lower it depending on how much material you want to spread as you move (*Figures 18 & 19*).



Figure 16



Figure 17



Figure 18



Figure 19

Maintenance

For Engine Maintenance, Please Refer to the Engine Manufacturer's Owner's Manual.

Regular maintenance is the way to ensure the best performance from your machine. Follow the instructions below, and those in the engine manufacturer's owner's manual to keep your DR[®] POWERWAGON[™] in top condition.

Always Remove the Spark Plug Wire Before Doing Any Adjustments or Maintenance

Before doing any adjustments or maintenance on your DR[®] POWERWAGON[™] you should always disconnect the spark plug wire and mount it on the retaining post (*Figures 20 & 21*).

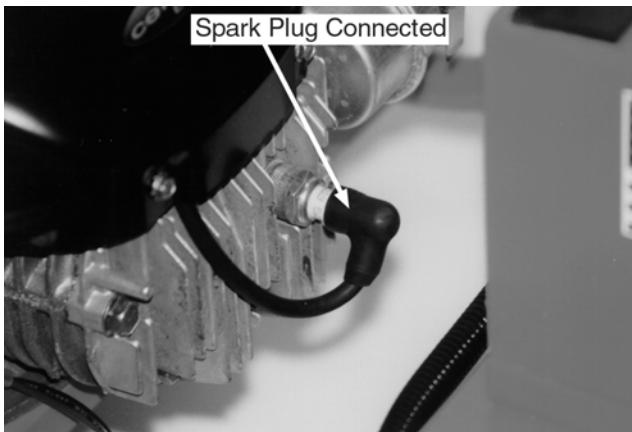


Figure 20

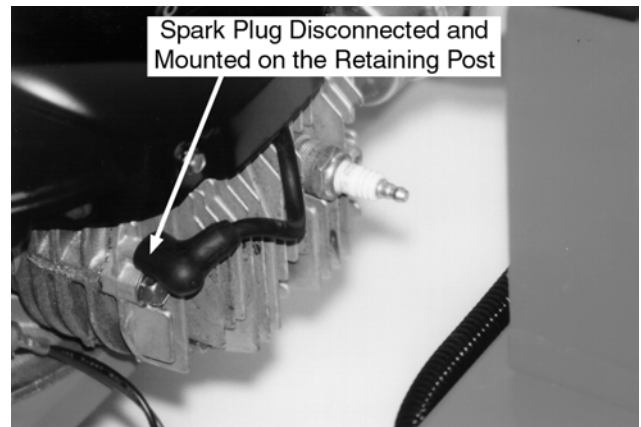


Figure 21

Battery

Electric-Starting Models

Proper care can lengthen 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 at least every four to six weeks.
- Store an unused battery in a dry area that does not freeze.
- Do not charge an already charged battery. In theory, our battery cannot be overcharged with a trickle charger; however, when a battery is fully charged and plugged into a charger, it generates heat that could be harmful to the battery. A fully charged battery will read 12.5V-13.5VDC with a voltmeter.
- Do not continue to crank your engine with a low battery.

Charging the Battery

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 much as 48 hours.
- At 2 amps the battery may need to be charged for as much as 24 hours.

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

Changing the Oil

Please refer to your engine manufacturer's owner's manual.

Cleaning/Replacing the Cartridge Air Cleaner

Please refer to your engine manufacturer's owner's manual.

Cleaning the Static Guard & Cooling System

Please refer to your engine manufacturer's owner's manual.

Cleaning/Replacing the Spark Plug

Please refer to your engine manufacturer's owner's manual.

Lubrication

Tools & Supplies Needed:

- flexible hose grease gun
- lithium grease
- FLUID FILM® or similar lubricant

⚠ WARNING: Always disconnect the spark plug wire before servicing your machine.

1. There is a grease zerk above the caster wheel (*Figure 22*). Grease it occasionally to keep the caster swiveling freely.

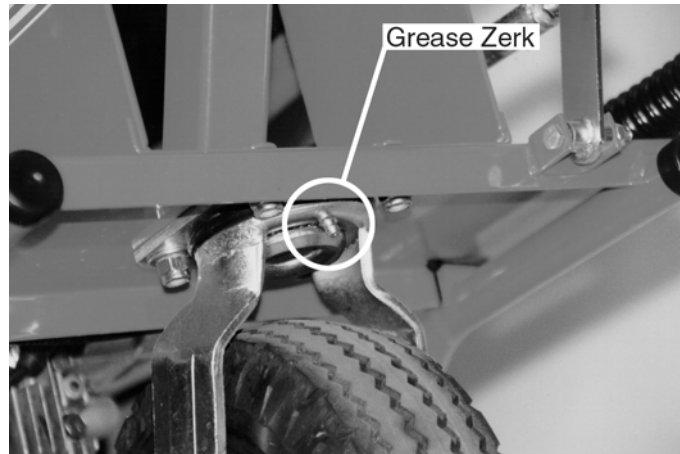


Figure 22

2. There is also a grease zerk on the caster wheel (*Figure 23*). Grease it occasionally to keep the wheel spinning freely.

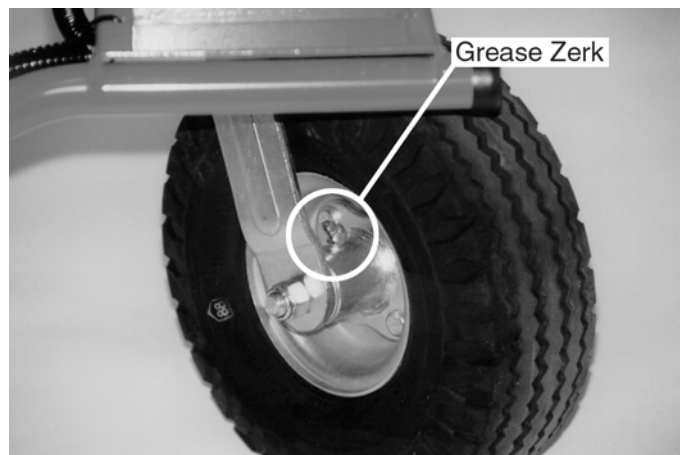


Figure 23

3. Lubricate the upper brake cable with FLUID FILM™ or similar lubricant (Figure 24).

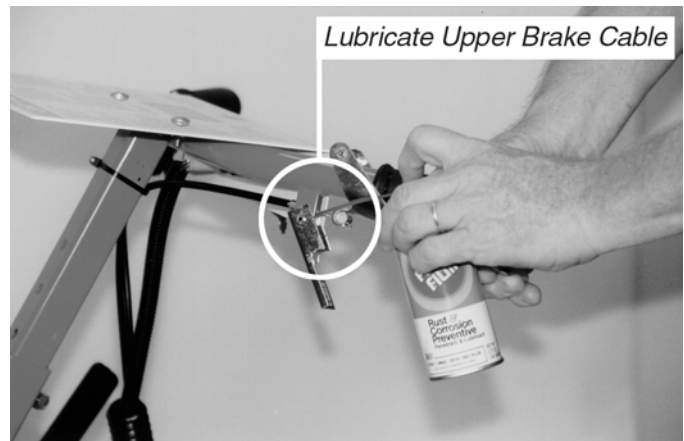


Figure 24

4. Lubricate the lower brake cable with FLUID FILM™ or similar lubricant (Figure 25). The lower brake cable is located on the right side of the machine just behind the front wheel.

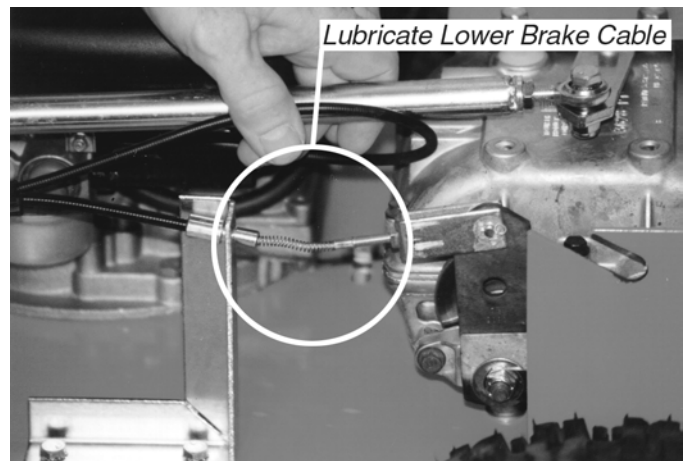


Figure 25

5. Lubricate the throttle cable with FLUID FILM™ or similar lubricant (Figure 26). The throttle cable is located on the right side of the machine, just above the primer bulb.

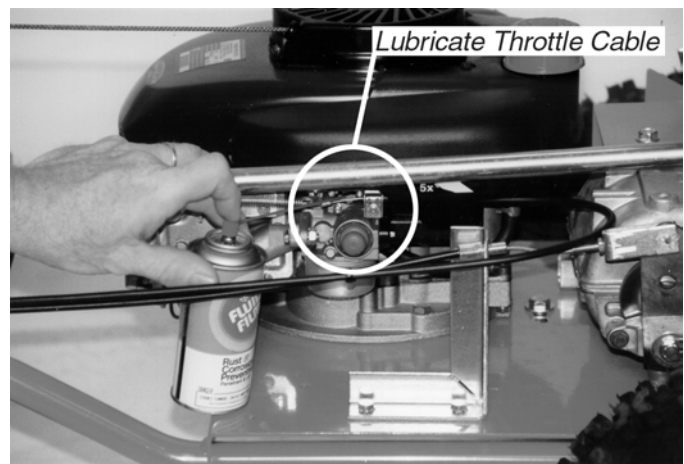


Figure 26

Adjusting the Brake

If the DR® POWERWAGON™ rolls on slopes when the parking brake is set, or you can't get the parking brake to set, the brake needs to be adjusted.

Tool Needed:

- 1/2" wrench

⚠ WARNING: Always disconnect the spark plug wire before servicing your machine.

1. With the machine on a level surface, set the parking brake.
2. Put the transmission in Neutral.
3. Test the brake: Try to roll the machine. It should not move forward or back with the parking brake set.
4. If the machine does move, turn the nut on the transaxle (*Figures 27 & 28*) 1/4 turn clockwise to tighten the brake. Repeat Steps 1-3 and readjust if needed.

Note: Turn the nut only 1/4 turn at a time, then test the brake to see if further adjustment is needed.

If you can't get the parking brake to release, turn the nut on the transaxle (*Figures 27 & 28*) 1/4 turn counterclockwise to loosen the brake. Repeat Steps 1-3 and readjust if needed.

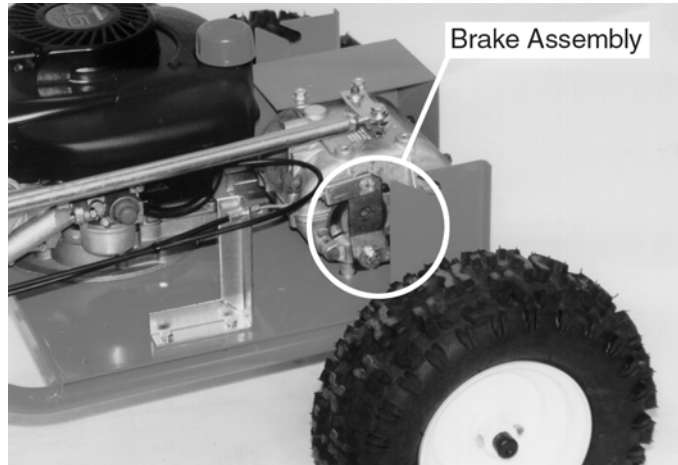


Figure 27

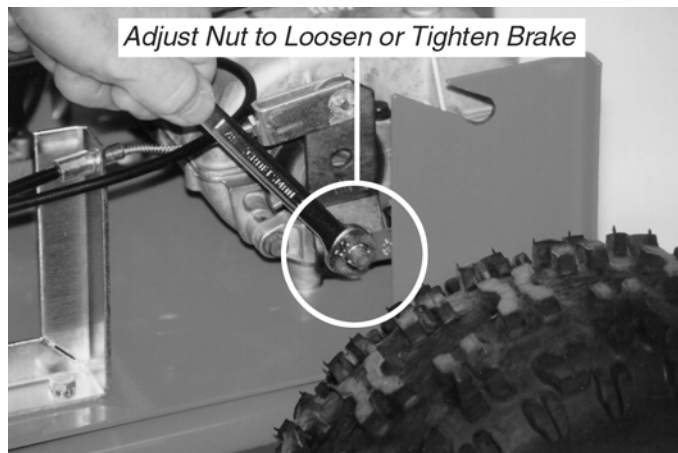


Figure 28

Brake Cable Adjustment

The brake cable is factory-set (*Figure 29*). If you think the brake cable needs to be adjusted, you may actually need to replace the brake pads. Please see page 15 for instructions.

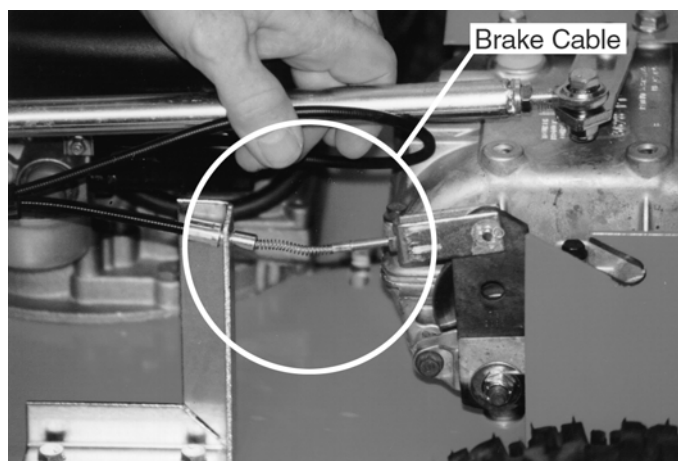


Figure 29

Replacing the Brake Pads

If the DR® POWERWAGON™ rolls on slopes when the brake is set, and you have tried adjusting the brake (*page 14*), the brake pads probably need to be replaced.

Tools needed:

- 1/2" or adjustable wrench
- (2) 3/8" box, open-end or socket wrenches
- Allen wrench set
- brake pads, set of two (part #110801)

⚠ WARNING: Always disconnect the spark plug wire before servicing your machine.

1. Find a level area to work. The parking brake should NOT be engaged. Chock the wheels so the machine can not move.

2. Locate the brake caliper at the right front of the machine (*Figures 27 & 30*). Remove the two mounting bolts on the caliper with a 3/8" wrench (*Figure 30*), then carefully remove the caliper (*Figure 31*).

Note: The caliper contains four small parts: the brake pad, the backing plate and two small actuator pins. As you let the caliper hang from its attaching hardware, keep track of these parts—they could fall out.

Clean away any debris from the caliper and associated parts.

3. Pull the brake disk off the spline shaft and remove the old brake pad from behind the disk (*Figure 31*). Replace it with one of the new pads, then reinstall the brake disk.

4. Put the second new brake pad on the caliper, then reinstall the assembly. Make sure the brake arm is in the upright position and the recessed cut-out on the caliper is facing up with the nameplate to the front. Reinstall the two caliper bolts being careful not to over tighten them.

5. Test the brake: With the machine on a level surface, set the parking brake and put the machine in neutral. If the brake does not engage or hold, tighten the brake adjustment nut 1/4 turn with a 1/2" wrench (*see page 14*).

Note: Check the parking brake periodically and adjust as needed.

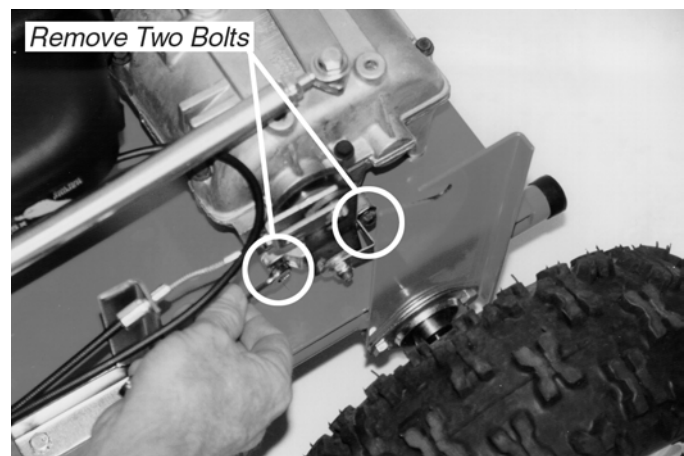


Figure 30

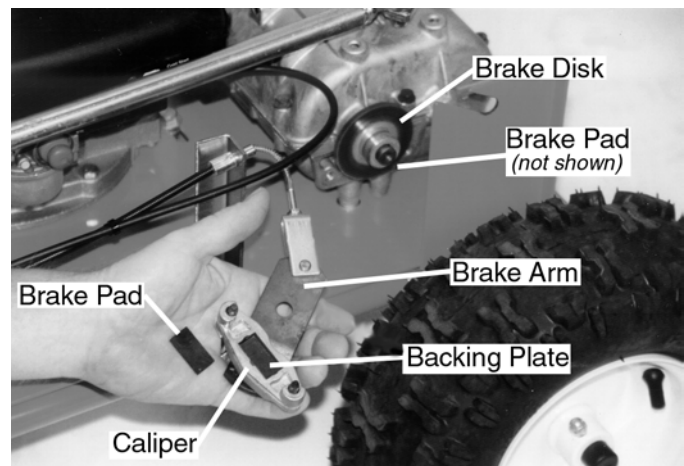


Figure 31

Removing the Front Wheels

Tools & Supplies Needed:

- (2) 7/16" wrenches
- block to raise machine off ground

⚠ WARNING: Always disconnect the spark plug wire before servicing your machine.

1. Block the machine so the wheel is an inch or two off the ground.
2. Using (2) 7/16" wrenches, loosen the bolt (*Figure 32*) and slide the wheel off the axle.



Figure 32

Adjusting the Shift Lever

If you are unable to shift into reverse or 2nd gear, the shift lever and tie rod need to be adjusted.

Tools needed:

- (2) 1/2" open-end, adjustable or socket wrenches

⚠ WARNING: Always disconnect the spark plug wire before servicing your machine.

1. Remove the dump body.
2. Move the shift lever into the reverse position.
3. Loosen and remove the tie rod nut and bolt from the transmission arm (*Figure 33*). Unhook the tie rod from the transmission arm.
4. Fully extend the transmission arm toward the rear of the DR[®] POWERWAGON[™], this will put it in reverse gear.
5. Loosen the lock nut on the eye bolt (*Figure 34*), and turn the eye bolt one turn at a time to take up slack in the tie rod. Place the tie rod back on the transmission arm, insert the nut and bolt and retighten. This should enable you to engage the full range of gears.

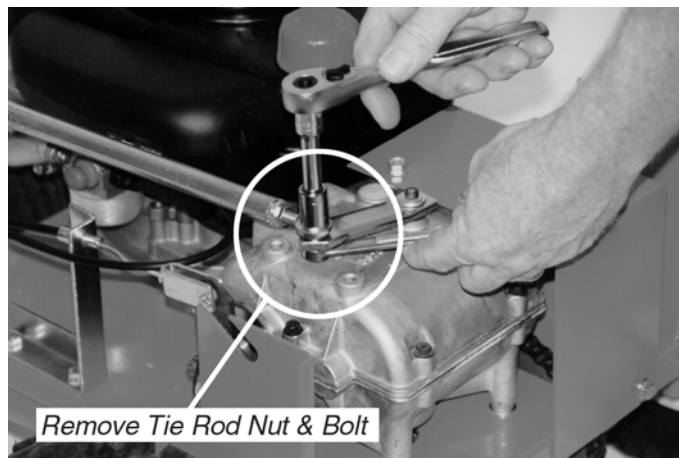


Figure 33

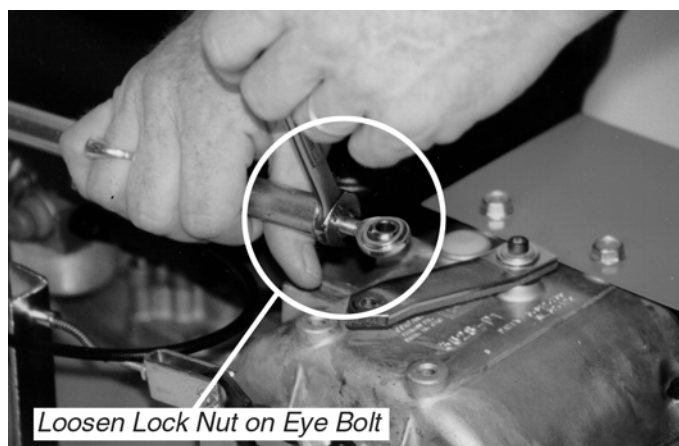


Figure 34

End of Season & Storage

⚠ WARNING: Always disconnect the spark plug wire before servicing your machine.

Please refer to your engine manufacturer's owner's manual for engine-specific procedures.

If your DR[®] POWERWAGON[™] will be idle for more than 30 days, we recommend using a gas stabilizer. This will prevent the carburetor from gumming up. Inspect the gas tank. If there is dirt or moisture in the gas, 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.

Change the oil. Please refer to your engine manufacturer's owner's manual for additional information.

Remove the spark plug and pour about 1 ounce of motor oil into the cylinder hole. Pull the recoil starter rope until you feel strong resistance. This will coat the piston and seat the valves to prevent moisture buildup.

Replace the air filters. Please refer to your engine manufacturer's owner's manual for additional information.

Clean dirt and debris from the cylinder head cooling fins, blower housing, debris screen and muffler area of the engine. Please refer to your engine manufacturer's owner's manual for additional information.

If your machine is electric-starting, store the battery in a dry area that does not freeze. When storing the machine with the battery mounted, we recommend disconnecting the red wire between the battery and the wiring harness for safety and to prevent accidental discharge of the battery. If the machine is not used over a long period, the battery should be charged every four to six weeks. See page 10.

Check to make sure that the operator controls are moving freely. Lubricate them with FLUID FILM[™] or similar lubricant if necessary.

Troubleshooting

⚠ WARNING: Always disconnect the spark plug wire before servicing your machine.

Please refer to your *engine manufacturer's owner's manual* for additional engine troubleshooting information.

Engine	
<i>Engine won't start</i>	<ul style="list-style-type: none"> ⇒ Check for adequate fresh fuel. Also check to see that the fuel line isn't obstructed and that the air cleaner is free of dirt and debris. ⇒ If the Electric-Starting Model won't start with the key, try starting the engine with the recoil starter. If the engine starts, the battery may simply be low on charge, it could be dead, or a connection may be loose. See below for battery maintenance. Also, check the wiring connections to the battery. ⇒ The spark plug may be fouled. In this case, replace it. See your engine manufacturer's owner's manual for more information.
<i>Engine lacks power</i>	<ul style="list-style-type: none"> ⇒ Check to make sure that your engine has proper the amount of oil. ⇒ Check the air intake holes on top of the engine. They should be free and clear of debris. If they get clogged, the engine may be damaged by overheating. ⇒ Check the air cleaner, and carburetor as described in your engine manufacturer's owner's manual. If the carburetor needs adjusting, call us at 1(800)DR-OWNER(376-9637) so we can recommend a DR® Friendly Service Center in your area.
Battery	
<i>Engine won't start with key</i>	<ul style="list-style-type: none"> ⇒ If the Electric-Start model won't start with the key, try starting the engine with the recoil starter. If the engine starts, the battery may need to be charged. ⇒ A connection may be loose. Check the wiring connections to the battery.
<i>Battery is low on charge</i>	<ul style="list-style-type: none"> ⇒ The battery may need to be charged. Please see page 10 for more information. ⇒ If your battery still does not hold a charge, please contact us and we will arrange to have a new one shipped to you. (Batteries covered under the 1-Year Warranty will be replaced free of charge; see Parts Order Form in your Product Package or call for ordering information.)

<i>Alternator isn't recharging the battery</i>	⇒ Have alternator checked by an authorized engine service center. The alternator should be checked with a fully charged battery and should put out 12 to 13.5 volts (1.5 to 2 amps).
Shifting	
<i>Won't shift into reverse or high gears</i>	⇒ Shift lever needs adjusting. Adjust tie rod eye bolt. Please see page 16 for additional information.
Wheels	
<i>Lacks traction</i>	⇒ Try to even out load and add more weight to bed. ⇒ Lift up slightly on the handlebars to transfer weight to the front wheels.
Dump Bed	
<i>Unable to dump load</i>	⇒ You may need to manually unload part of what you are hauling from back of dump bed until load is light enough to allow bed to tilt forward when you lift up on back of it. Please see page 7 for additional information.

Parts List

Please refer to the numbered drawings on pages 22-26.

Note: Not all parts numbers listed appear on the drawings.

Ref#	Part #	Description	Ref#	Part #	Description
1	108921	Ball Bearing, 2-Hole Flanges	37	110961	Roll Pin 3/16" x 1"
2	108931	Ball Bearing, 3/4" Bore	38	114701	Bolt 1/4" x 1/2"
3	131191	Battery (Electric-Starting)	39	111481	Bolt 1/4" x 1-3/4"
4	135101	Battery Clamp (Electric-Starting)	40	111501	Allen HD Bolt 1/4" -28 x 3/4"
5	113051	Battery Pad (Electric-Starting)	41	109121	Carriage Bolt 1/4" x 3/4"
6	109041	Boards 5/4" x 4"	42	134431	Bolt 5/16" x 1-1/2"
7	109071	Boards 5/4" x 6"	43	111581	Bolt 5/16" x 1"
8	110051	5/8" Plywood PT	44	111591	Bolt 5/16" x 2-1/2"
9	112141	Cable Tie	45	111421	Bolt 5/16" x 3/4"
10	109131	Carriage Bolt 5/16" x 1-1/2"	46	111701	Screw for Spring Bracket 10-32 x 1/2"
11	110281	Brake Handle	47	111641	Screw #10 x 1-1/4" Self- tap drill/Plywood
12	109441	Brake Cable w/ spring	48	111651	Screw, Self- tap for Sides #12 x 1-1/2"
13	109591	Clevis	49	112581	Caster Wheel 410/350 x 4
14	110891	Clevis Pin	50	108791	Shift Lever Arm
15	110921	Cotter Pin	51	113071	Pulley-Flat 2-1/4"
16	109371	Bushing for Brake Lever	52	123441	Flat Bed Frame
17	110491	Woodruff Key	53	110951	Flat Bed Pin 8"
18	112411	Flat Washer 5/16" (3/8" ID)	54	110941	Flat Bed Pin 12"
19	112371	Flat Washer 3/16" (1/4" ID)	55	119831	Bolt 1/4" x 20 x 3/4"
20	112381	Flat Washer 1/4" (5/16" ID)	56	110771	T Nut for Latch Hook 1/4" x 20
21	109831	Parking Brake Latch Decal	58	110131	Frame for Molded Body
23	110251	Handle grip 1"	59	110121	Main Frame
24	110211	Dump Handle Grip 4" x 1-1/4"	60	110331	Handlebar
25	109241	Left Corner Bracket	61	110641	Handlebar Mount & Body Support
26	110731	Nylon Lock Nut 1/4"	62	109221	Brake Bracket
27	110681	Nut 10-32	63	110851	Control Panel
28	110231	Handle Grip 1" x 1/4" x 4"	64	109871	Differential
29	110761	Nylon Lock Nut 5/16"	65	109601	V-Belt Pulley & Centrifugal Clutch
30	110781	Nut for Tie Rod Ends 5/16" - 24	66	111191	Pulley 6"-5/8" incl. Set Screw 5/16" x 1/4"
31	110751	Nylon Lock Nut 3/8"	67	108991	V-Belt 38"-4L380
32	110571	Parking Brake Latch	68	131091	Drive Chain #41, w/ Link
33	111081	Plugs for 1" 14 GA. Square Tubing	69	110601	#41 Drive Chain Master Link
34	109251	Right Corner Bracket	70	111951	Drive Chain Sprocket, 40-Tooth
35	111281	Rod Ends 5/16"-24 Male	71	110461	Drive Chain Idler, 10-Tooth
36	110971	Roll Pin for Brake 3/16" x 1-3/4"			

Ref#	Part #	Description	Ref#	Part #	Description
72	112061	Key Switch w/ Hardware & Key for Recoil-Start	107	112431	Lock Washer 5/16" split
73	112051	Key Switch w/ Hardware & Key for Electric-Start	108	110421	Wire Harness for Electric-Starting Model
75	109461	Throttle Cable	109	110291	Dump Handle
76	111611	Screw 3/8" x 2-3/4"	110	112171	A/T Tire/Wheel 13 x 500-6
77	111341	Screw 7/16" Fine x 3/4"	111	112031	Support for Bed Frames
78	110201	Gear Box (Transmission)	112	109381	Bed Support Pivot Bushing
79	124341	4.5 HP Centura E/S Engine	113	109361	Bumper Strip/Flat Bed 1-1/2" x 7-1/2"
80	124331	4.5 HP Centura Manual-Start Engine	114	109481	Cap for 1" Round Tubing
81	112481	Star Lock Washer 1/4"	115	109491	Cap for 3/4" Round Tubing
82	127371	Decal for Control Panel	116	112361	Wheel 13 x 5.00 - 6 Turf-Tire
83	109841	Decal for Shift Gate	117	110441	Latch Hook
84	111311	Shift, Tie Rod	118	109261	Latch Hook Bracket
85	110191	Shift Gate	119	109231	Chain Tension Bracket
86-87	105031	Shift Lever, One Piece	120	110271	Chain Guard
88	111871	Spacer 1/4" x 1"	121	129331	Large Molded Body
91	109281	Throttle Spring Bracket	122	111511	3/8" x 1-1/2" Large Bolt
92	132341	Cap Screw 5/16" x 2"	124	110731	1/4" x 2-1/2" Cap Screw
93	106381	Flat Key 3/16" Sq. x 1-1/2"	130	123401	Air Filter Centura Engine
97	110591	#41 Drive Chain, Half Link	131	111241	Snap Ring 5/8" Short Diameter
98	111901	Spacer for Belt Idler 3/8" x 1"	132	111891	1" x 3/4" ID 1" OD Axle Spacer
99	109641	Flexible Conduit-Black 1/4" ID-30" per	133	111881	1-1/4" x 3/4" ID 1" OD Axle Spacer
100	109651	Split Flexible Conduit 7/16"-40" per	135	111491	1/4" x 1" Cap Screw
101	110391	Wire Harness for Manual-Starting Model	136	110691	5/16" -18 Nut
103	111941	Throttle Return Spring	137	112501	5/16" Star Lock Washer
105	111631	Screw for Throttle Handle 10-32 x 1-1/2"	138	112521	Nylon Shim Washer
106	111731	Thread Rolling Screw 5/16" x 1/2"	139	112391	3/8" Flat Washer
			140	109321	Rubber Bumper
			141	109331	Bumper Mount Screw

Main Frame Assembly

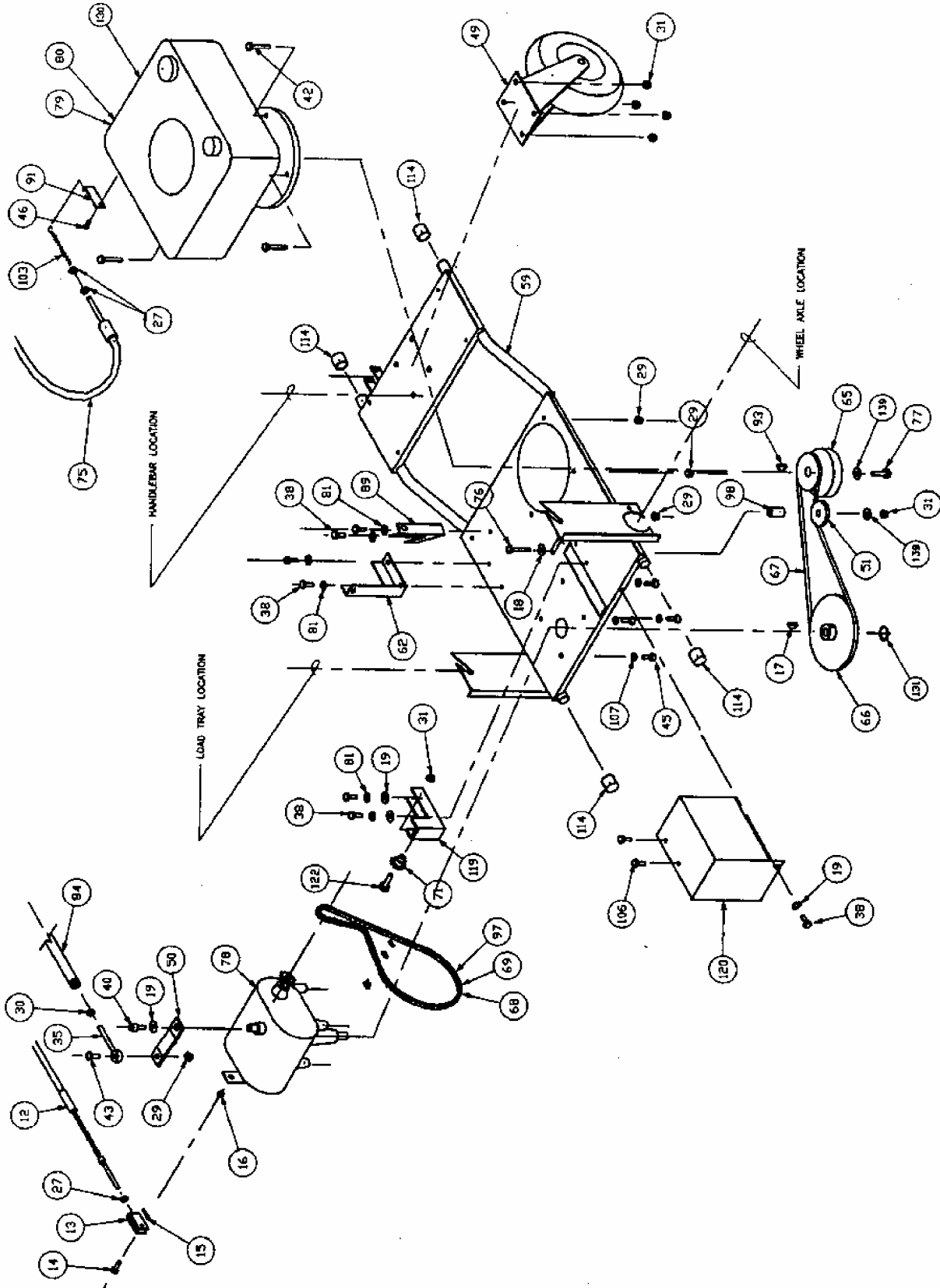


Figure 35
DR® POWERWAGON™ Safety & Operating Instructions

Handlebar/Controls Assembly

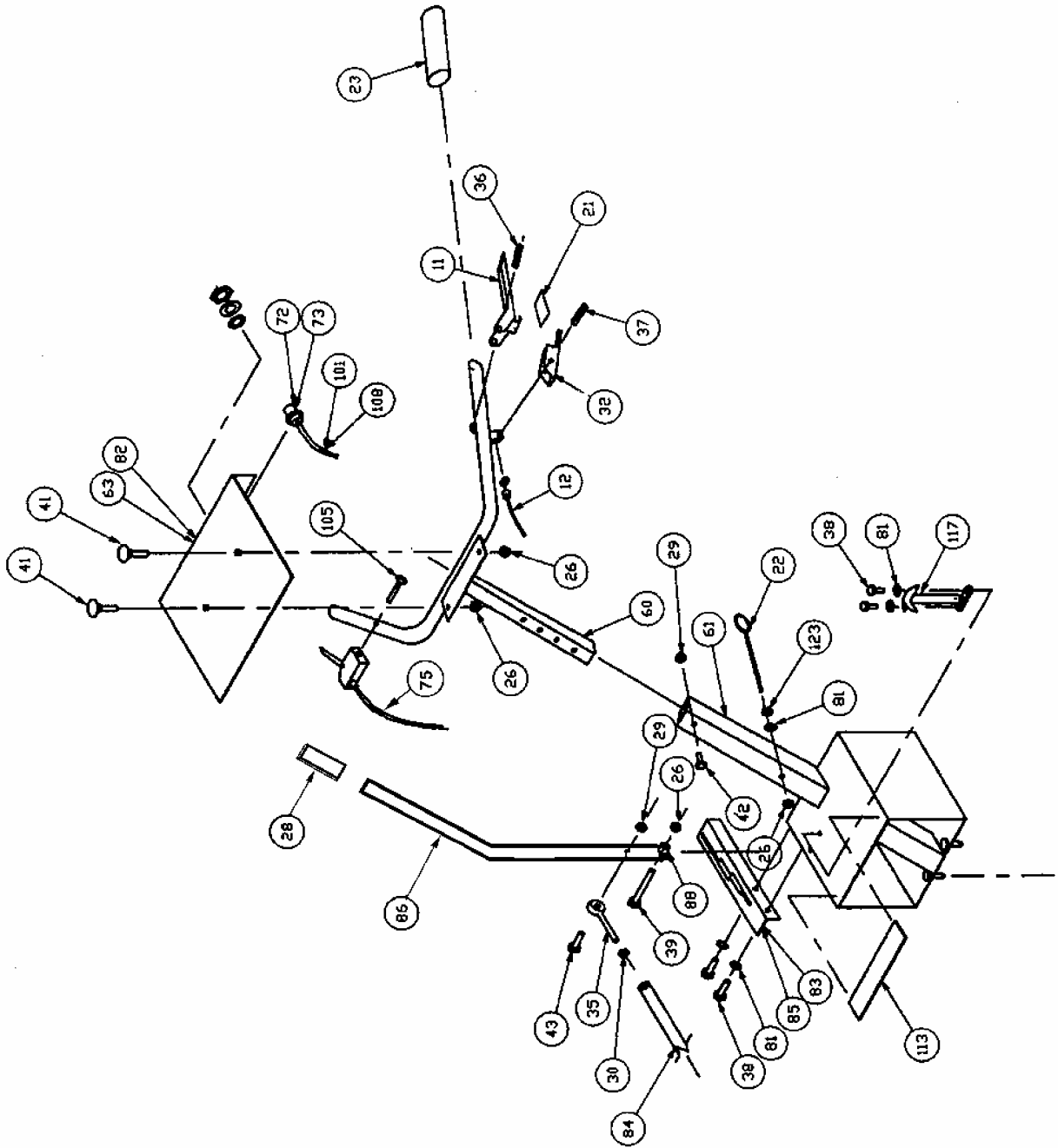


Figure 35

Axle Assembly

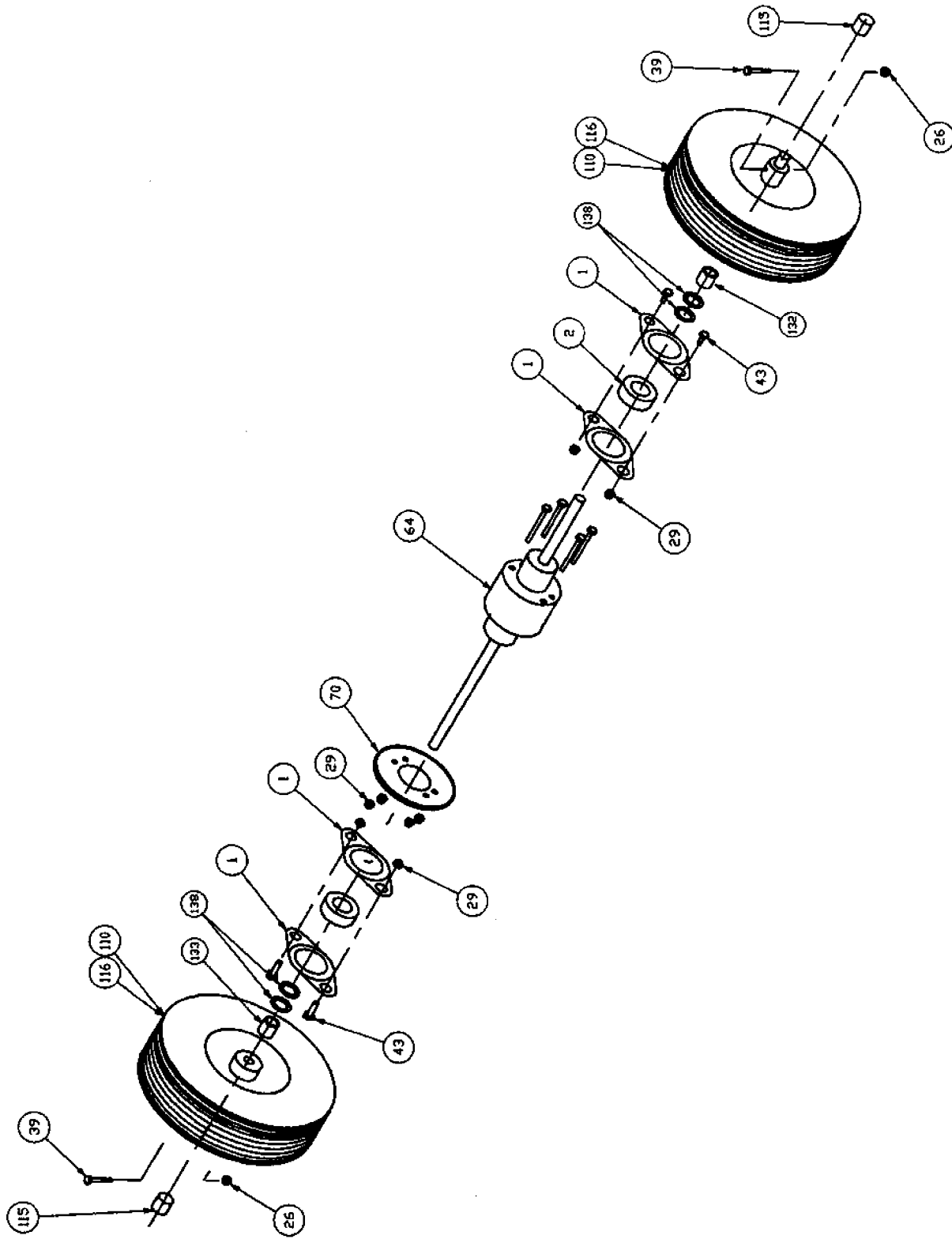


Figure 36

Molded Body Assembly

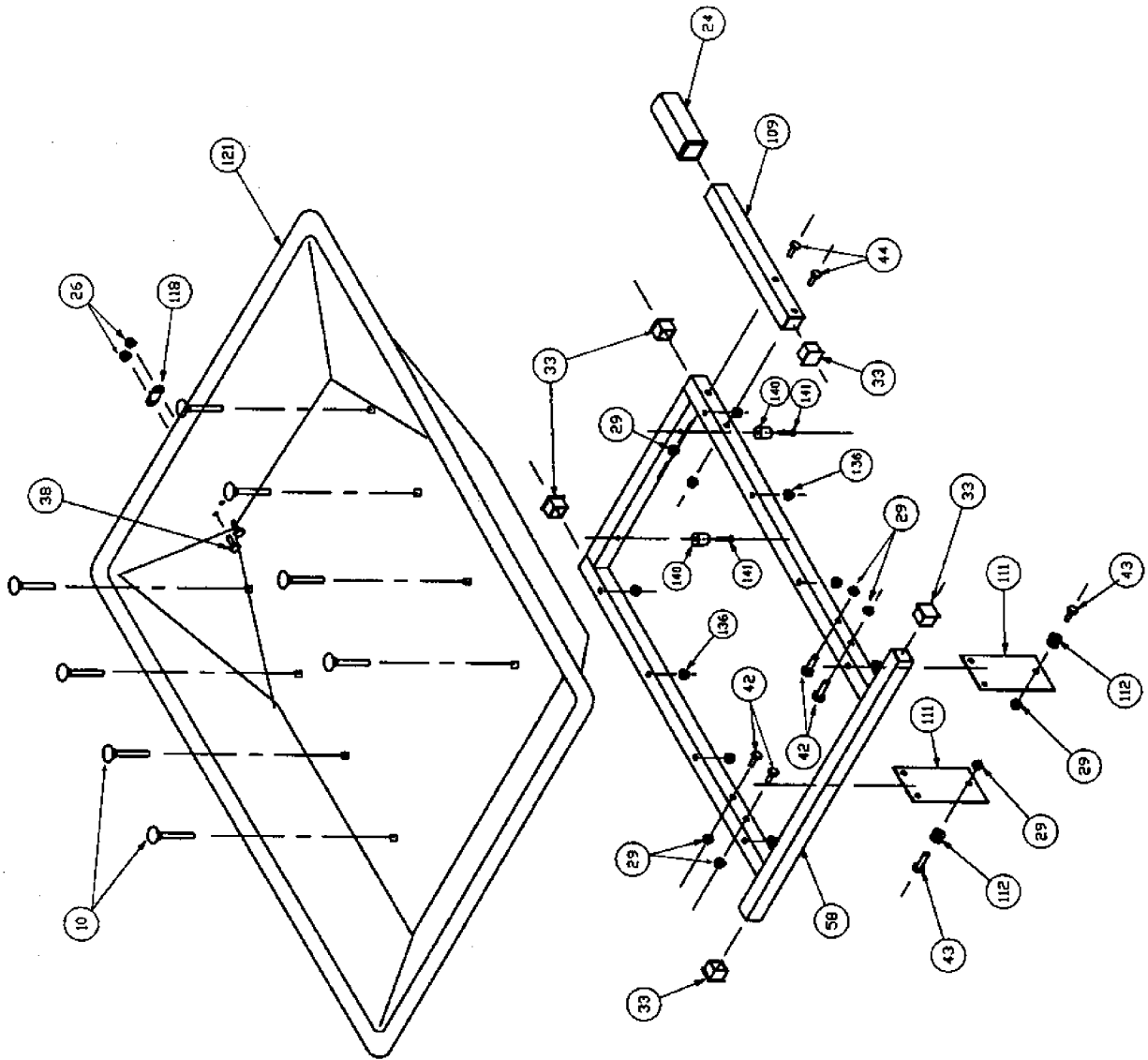


Figure 37

Stake Body Assembly

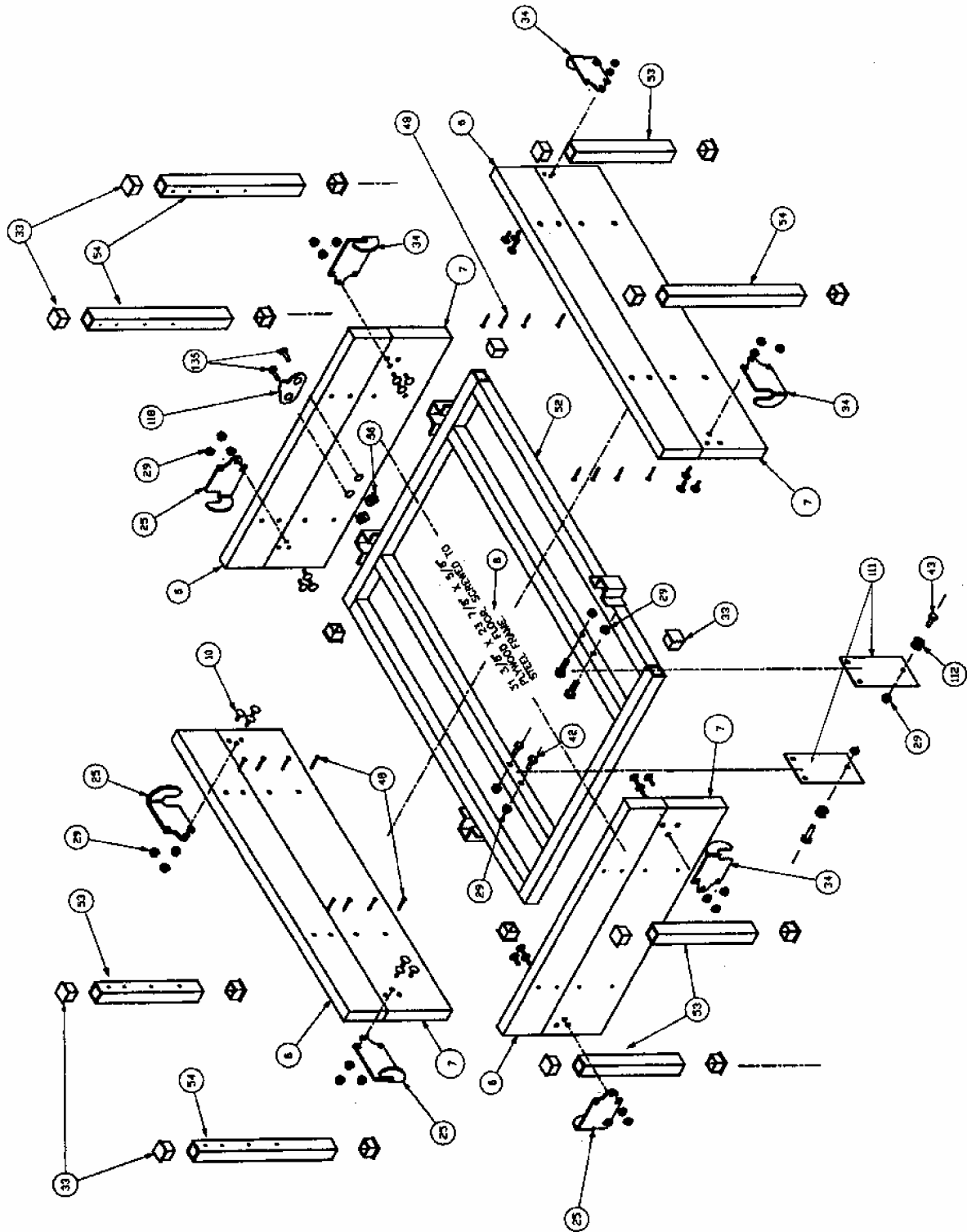


Figure 38

Notes

Notes

Daily Check List for the DR[®] POWERWAGON[™]

▲ WARNING: Always disconnect the spark plug wire before servicing your machine.

- ✓ **OIL:** With the DR[®] POWERWAGON[™] on a level surface, lift the dump body, remove the oil fill cap and check the oil level. Fill the reservoir with SAE30 detergent motor oil. Be sure to check the dipstick as you fill and do not overfill.
- ✓ **GAS:** Fill the gas tank with clean, fresh unleaded gasoline. If the gas in the machine is more than 30 days old, drain and replace it.
- ✓ **TIRES:** Check the tires for wear and proper inflation. See the chart on page 2 for proper air pressure.
- ✓ **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 and/or replacing the air filter.
- ✓ **ENGINE:** It is very important to keep the engine clean. Remove debris and other build-up from the engine cooling fins and brush off any chaff from the recoil start debris guard as you use your DR[®] POWERWAGON[™]. A dirty engine retains heat and can cause damage to the internal engine parts. Please refer to your engine manufacturer's owner's manual for further instructions on cleaning the engine parts.

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