

# DR<sup>®</sup> LEAF & LAWN VACUUM



## SAFETY & OPERATING INSTRUCTIONS

### Models:

- Premier
- Pro
- Pro-XL



**Pro-XL Model Shown**

Serial No. \_\_\_\_\_

Order No. \_\_\_\_\_

**Original Language**

DR Power Equipment  
Toll-free phone: 1-800-DR-OWNER (376-9637)  
Fax: 1-802-877-1213  
Website: [www.DRpower.com](http://www.DRpower.com)

### **WARNING**

Read and understand this manual and all instructions before operating the DR LEAF and LAWN VACUUM.

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### *Conventions used in this manual*

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#### **WARNING**

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

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#### **CAUTION**

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

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#### **NOTICE**

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

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### *Serial Number and Order Number*

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

### *Additional Information and Potential Changes*

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

## Chapter 1: General Safety Rules

### **WARNING**

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

### Labels

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



#188871

WARNING: Check Oil  
Before Starting Engine

#137581



#188861

DR® LEAF AND LAWN VACUUM



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 **WARNING**

AVOID SERIOUS INJURY OR DEATH

- READ AND UNDERSTAND THE OPERATOR'S MANUAL.
- ALWAYS SHUT OFF ENGINE AND REMOVE SPARK PLUG WIRE BEFORE CLEARING ANY OBSTRUCTION.
- NEVER OPEN COLLECTOR BOX WHEN VACUUM ENGINE OR LAWN DECK ENGINE IS OPERATING.
- KEEP BYSTANDERS AT LEAST 100 FEET FROM WORK AREA.
- NEVER CARRY PASSENGERS.
- CAUTION: HOT SURFACES.



ALWAYS OPERATE/TOW  
UP AND DOWN SLOPES



ALWAYS SLOW DOWN IN  
ROUGH TERRAIN & ON  
SLOPES



NEVER OPERATE/TOW  
ACROSS SLOPES



NEVER OPERATE/TOW  
WITHIN 8 FT. OF A  
DROP-OFF OR BANK








BEFORE STARTING

- Read Operating Instructions.
- Check engine gas and oil levels.
- Move choke lever to CHOKE position.  
Move throttle lever to FAST position.

TO START ENGINE

*Electric Starting*

- Turn key to START and hold until engine starts.
- Release key.
- Move choke lever to RUN position.

*Manual Starting*

- Pull the recoil handle with a long, slow stroke.
- Move choke lever to RUN position.

OPERATING

- When using the optional hand vacuum nozzle, hold it slightly above material to be vacuumed. Avoid stones, glass and hard objects.
- For models with built-in chipper: Do not chip branches larger than 2 inches in diameter.
- Be alert to changes in terrain and check behind you before backing up.

TO STOP ENGINE

- Move throttle lever to STOP position.
- Turn key to OFF and remove key.

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280641

#280641

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## Protecting Yourself and Those Around You

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### **WARNING**

This is a high-powered machine, with moving parts operating with high energy at high speeds. You must use proper clothing and safety gear when operating this machine to prevent or minimize the risk of severe injury. This machine can cut, and sever parts of your body if they become in contact with the moving chipper blades. Always take the following precautions when operating this machine:

- Always wear protective goggles or safety glasses with side shields while operating either your tractor lawn deck, vacuum system, chipper or performing an adjustment on your DR Leaf and Lawn Vacuum to protect your eyes from possible foreign objects thrown from the machine.
  - Avoid wearing loose clothing or jewelry, which can catch on the machine's moving parts.
  - We recommend wearing gloves while using the DR Leaf and Lawn Vacuum. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
  - Wear shoes with non-slip treads when using your DR Leaf and Lawn Vacuum. If you have safety shoes, we recommend wearing them. Do not use the machine while barefoot or wearing open sandals.
  - Wear long pants while operating the DR Leaf and Lawn Vacuum.
  - Use ear protectors or earplugs rated for at least 20 dba to protect your hearing.
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## Safety for Children and Pets

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### **WARNING**

Tragic accidents can occur if the operator is not alert to the presence of children and pets. Children and pets are often attracted to the machine and the vacuuming/chipping activity. *Never* assume that children or pets will remain where you last saw them.

Always follow these precautions:

- Keep children and pets at least 50 feet from the working area and ensure they are under the watchful care of a responsible adult.
  - Be alert and always turn off the lawn tractor engine and the DR Leaf and Lawn Vacuum engine if children or pets enter the work area.
  - Before and while moving backwards, look behind, and *down* for small children and pets. You cannot see directly behind the collector box.
  - Never allow children to operate the Lawn Tractor or Vacuum/Chipper.
  - Never allow children or pets to play in the collector. If they become trapped in the enclosure they may be exposed to temperatures similar to leaving a child or pet in a car with the windows closed on a sunny day.
  - Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure your vision.
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## Safety with Gasoline - Powered Machines

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### **WARNING**

Gasoline is a highly flammable liquid. Gasoline also gives off flammable vapor that can be easily ignited and cause a fire or explosion. Never overlook the hazards of gasoline. Always follow these precautions:

- Never run the engine in an enclosed area or without proper ventilation as the exhaust from the engine contains carbon monoxide, which is an odorless, tasteless, and deadly poisonous gas.
  - Store all fuel and oil in containers specifically designed and approved for this purpose and keep away from heat and open flame, and out of the reach of children.
  - Replace rubber fuel lines and grommets when worn or damaged and after 5 years of use.
  - Fill the gasoline tank outdoors with the engine off and allow the engine to cool completely. 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. Reinstall the fuel tank Cap and fuel container cap securely.
-

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## **WARNING**

- 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 and empty the collector box before storing the DR Leaf and Lawn Vacuum in any enclosure. Remember, decomposing material can generate heat and start a fire. Never store the machine with gas in the tank or a fuel container, near an open flame or spark such as a water heater, space heater, clothes dryer or furnace.
  - Never make adjustments or repairs with the engine running. Shut down the engine, disconnect the spark plug wire, keeping it away from the spark plug to prevent accidental starting, wait 5 minutes before making adjustments or repairs.
  - Never tamper with the engine's governor setting. The governor controls the maximum safe operation speed and protects the engine. Over-speeding the engine is dangerous and will cause damage to the engine and to the other moving parts of the machine. If required, see your authorized dealer for engine governor adjustments.
  - Keep your hands and combustible substances away from the engine when it is hot and clean the engine area after each use.
  - To reduce fire hazard, keep the engine cooling fins and muffler area free of debris build-up such as leaves, grass, oil, grease or any other combustible material.
  - Never cover the machine while the muffler is still hot.
  - Do not operate the engine with the air cleaner or the carburetor air intake cover removed, except for adjustment. Removal of such parts could create a fire hazard.
  - Do not use flammable solutions to clean the air filter.
  - The muffler and engine become very hot and can cause a severe burn; do not touch.
  - The exhaust area on the engine becomes very hot with use. Allow the engine to cool before doing maintenance or making adjustments.
- 

### *Slope Operation*

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## **WARNING**

Slopes are a major factor related to tip over accidents, which can result in severe injury. All slopes require caution. If you feel uneasy on a slope, do not vacuum it. Always take the following precautions when using this machine on slopes:

#### ALWAYS:

- Vacuum up and down the face of slopes, never across. Exercise extreme caution when changing direction on slopes.
- Remove objects such as stones, glass and metal objects such as cans.
- Watch out for holes, ruts, or bumps. tall grass can hide obstacles.

#### NEVER:

- Never vacuum near drop-offs, ditches, or embankments. Your tractor and the vacuum may tip over.
  - Never vacuum on slopes greater than 15 degrees or any excessively steep slopes.
  - Never vacuum on wet slopes. Reduced traction could result in slipping and a possible roll over.
- 

### *General Safety*

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## **WARNING**

This is a high-powered machine, with moving parts operating with high energy at high speeds. You must operate the machine safely. Unsafe operation can create a number of hazards for you, as well as anyone else in the nearby area. Always take the following precautions when using this machine:

- Never allow people who are unfamiliar with these instructions to use the DR Leaf and Lawn Vacuum.
  - To be safe, do not operate the machine near small children or pets, and never allow children to operate the vacuum. Stop the vacuum engine and tractor engine when another person or pet approaches.
  - Never allow people or pets to ride in the collector box or on the frame.
-

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## **WARNING**

- Check behind your DR Leaf and Lawn Vacuum before backing up. You cannot see directly behind the collector box.
  - Never attempt to dump a load while the lawn tractor deck is engaged or the DR Leaf and Lawn Vacuum engine is running.
  - Do not operate in sandy areas where you will vacuum large quantities of sand. Sand will erode the vacuum housing. Check for pin holes after each use and replace the housing when pin holes develop.
  - Do not attempt to open the collector box when your DR Leaf and Lawn Vacuum engine or your lawn deck engine is operating. Debris may exit at high velocity as you begin to remove the collector back panel.
  - Never operate the machine on slopes greater than 15 degrees.
  - Never tow the DR Leaf and Lawn Vacuum faster than 8 mph.
  - Keep your hands out of the chipper hopper and vacuum inlets while the lawn tractor and the DR Leaf and Lawn Vacuum engines are running. If it becomes necessary to push material into the hopper, use a small diameter stick.
  - Always shut off the lawn tractor engine and the DR Leaf and Lawn Vacuum engine, allow the engine to cool five (5) minutes and disconnect the spark plug wire before attempting to clear any obstructions in the hoses or chipper hopper.
  - Use the DR Leaf and Lawn Vacuum only in daylight.
  - Never straddle or reach over the engine area at any time.
  - Use only your hands to operate the DR Leaf and Lawn Vacuum engine controls.
  - Do not, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the DR Leaf and Lawn Vacuum. Modifications to your machine could cause personal injuries and will void your warranty.
  - Do not alter or tamper with safety devices or shields. Make sure they are in their proper position.
  - While using the DR Leaf and Lawn Vacuum, do not hurry or take things for granted.
  - Never leave the DR Leaf and Lawn Vacuum unattended with its engine running.
  - Do not operate the machine when under the influence of alcohol, drugs, or medication.
- 

## **CAUTION**

The DR Leaf and Lawn Vacuum must be operated safely to prevent or minimize the risk of minor or moderate injury. Unsafe operation can create a number of hazards for you. Always take the following precautions when operating this machine:

- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.
  - Remove side branches before chipping to prevent jamming the material in the chipper hopper.
  - Do not attempt to chip wood larger than specified in this manual.
  - Never use the DR Leaf and Lawn Vacuum to vacuum anything but yard waste, such as leaves, grass, small twigs and pine cones.
  - If the machine starts to make an unusual noise or vibration, immediately shut off the engine, disconnect the spark plug wire, and allow all moving parts to come to a complete stop and cool. Inspect for clogging or damage. Clean and repair and/or replace damaged parts.
  - See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by DR Power Equipment.
  - Always keep the equipment in a good safe operating condition. Always make certain nuts and bolts are tight and always use the supplied self-locking hardware; do not substitute.
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## ***A Note to All Users***

Under California law, and the laws of some other states, you are not permitted to operate an internal combustion engine using hydrocarbon fuels without an engine spark arrester. This also applies to operation on US Forest Lands. All DR® LEAF and LAWN VACUUMS shipped to California, New Mexico and Washington State are provided with spark arresters. Failure of the owner or operator to maintain this equipment in compliance with state regulations is a misdemeanor under California law and may be in violation of other state and/or federal regulations. Contact your State Park Association or the appropriate state organization for specific information in your area.

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

## Chapter 2: Setting Up The DR LEAF and LAWN VACUUM

It may be helpful to familiarize yourself with the controls and features of your DR LEAF and LAWN VACUUM as shown in **Figure 1** before beginning these procedures. If you have any questions at all, please feel free to contact us at [www.DRpower.com](http://www.DRpower.com).

### DR LEAF and LAWN VACUUM Controls and Features

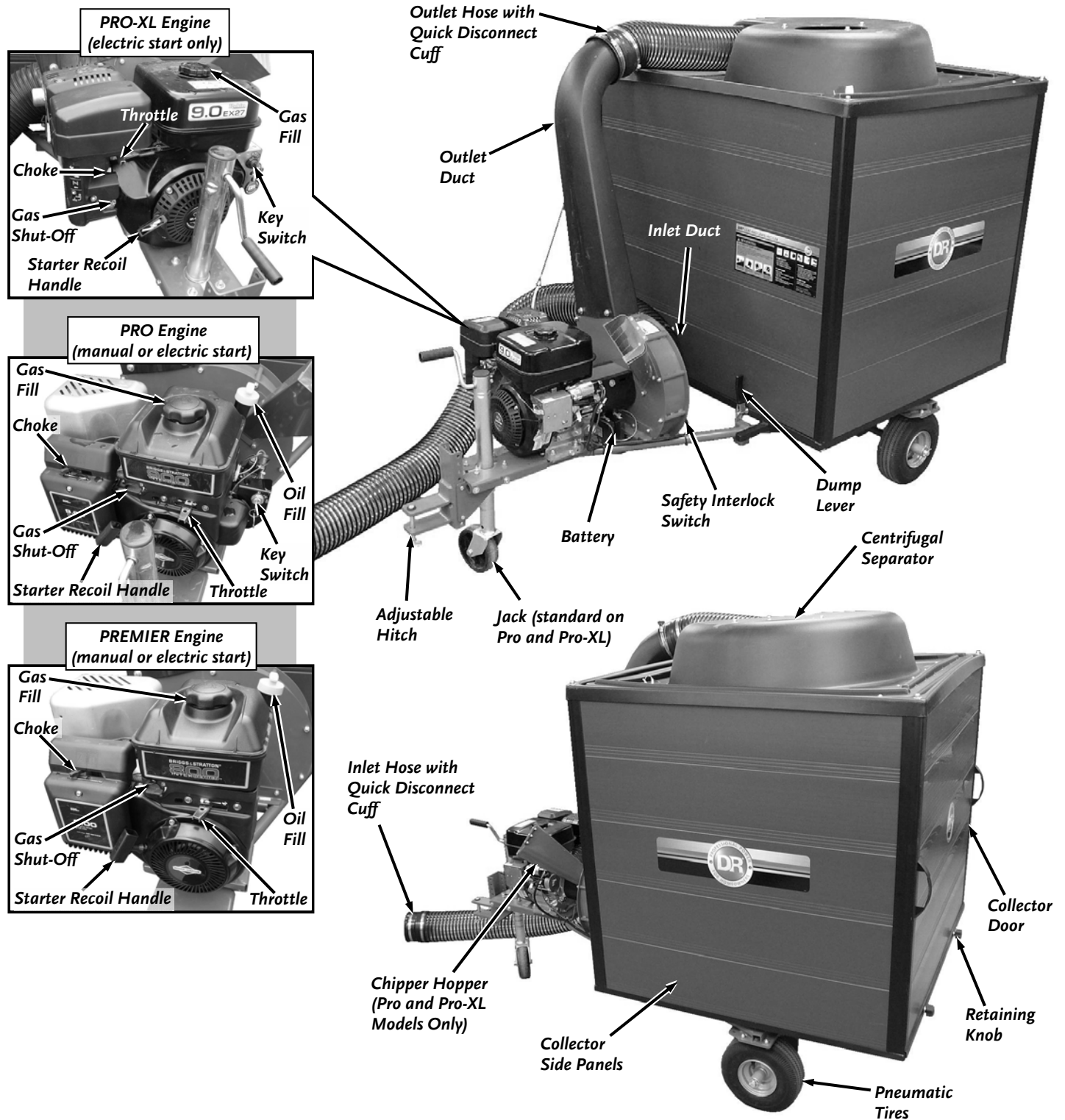


Figure 1



## Specifications

	PREMIER	PRO	PRO-XL
<b>Engine</b>	Refer to the Engine Operator Manual for Engine Specifications		
<b>Impeller</b>	Welded Steel	Welded Steel	Welded Steel
<b>RPM</b>	3400	3400	3400
<b>Chipper Knife</b>	None	D2 Tool Steel, Hardened 52-56 RC	D2 Tool Steel, Hardened 52-56 RC
<b>Chipper Knife Size</b>	None	4.12" x 1.25" x .25"	4.12" x 1.25" x .25"
<b>Weight</b>	16.2 LBS	16.8 LBS	16.8 LBS
<b>Chipping Capacity</b>	None	2" Diameter Branches	2" Diameter Branches
<b>Vacuum</b>	1562 CFM	1562 CFM	1562 CFM
<b>Suction</b>	90 MPH	90 MPH	90 MPH
<b>Impeller Drive</b>	Direct Thru Sure-Flex Coupling	Direct Thru Sure-Flex Coupling	Direct Thru Sure-Flex Coupling
<b>Collector</b>	Hardshell on Steel Base Frame	Hardshell on Steel Base Frame	Hardshell on Steel Base Frame
<b>Volume</b>	245 Gallons	306 Gallons	306 Gallons
<b>Capacity</b>	300 LBS	500 LBS	500 LBS
<b>Base Frame</b>	Welded Steel Tubing (1" Sa x .06")	Welded Steel Tubing (1" Sa x .06")	Welded Steel Tubing (1" Sa x .06")
<b>Dump Tilt</b>	50°	50°	50°
<b>Frame</b>	Welded Steel	Welded Steel	Welded Steel
<b>Tubular Structure</b>	1.25" Round & SO Tubing x .12"	1.25" Round & SO Tubing x .12"	1.25" Round & SO Tubing x .12"
<b>Impeller Housing</b>	3 Piece Design	3 Piece Design Plus Hopper	3 Piece Design Plus Hopper
<b>Wheels</b>	Tubeless Pneumatic 4.10/3.50-5	Tubeless Pneumatic 4.10/3.50-5	Tubeless Pneumatic 4.10/3.50-5
<b>Hitch</b>	Single Point	Single Point	Single Point
<b>Jack</b>	Optional (Customer Install)	Unique frame mount. (Installed)	Unique frame mount. (Installed)
<b>Lawn Mower Discharge</b>	Right or Left	Right or Left	Right or Left
<b>Dimensions</b>	90" L x 47.62" W x 57.5" H	90" L x 47.62" W x 65.75" H	90" L x 47.62" W x 65.75" H
<b>Weight</b>	310 Lbs	325 Lbs	332 Lbs
<b>Shipping Dimensions</b>	77.5" L x 49" W x 41" H	77.5" L x 49" W x 41" H	77.5" L x 49" W x 41" H
<b>Shipping Weight</b>	398 Lbs	413 Lbs	420 Lbs

## Unpacking and Assembling the Machine

**NOTE:** Unpacking the DR Leaf and Lawn Vacuum is a two-person job. We recommend you have an extra set of hands available before you begin because the DR Leaf and Lawn Vacuums weigh 310 lbs. (Premier), 325 lbs. (Pro) and 332 lbs. (Pro-XL).

## Unpacking the Shipping Box

### Tools and Supplies Needed:

- Gloves
- Eye Protection
- Wire Cutters

### **WARNING**

- Stabilize the shipping box on flat terrain before attempting to unpack and assemble the machine.
- Wear eye protection when cutting the Wire Ties and bands. The banding may have a lot of tension on it and may snap and cut you. Always stand to one side when cutting the bands.

1. Stand to one side and cut the banding.
2. Remove the top of the Box.
3. Lift the Top Cover from the Shipping Container and set aside (**Figure 2**).
4. Pull open the Box Seams on both sides of the stapled carton and pull the bottom away from the Pallet as you fold the ends down (**Figure 3**). The staples are sharp so be careful.

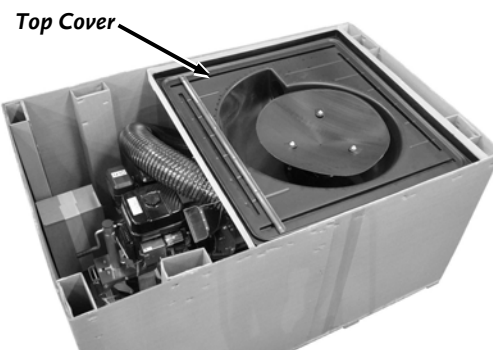


Figure 2

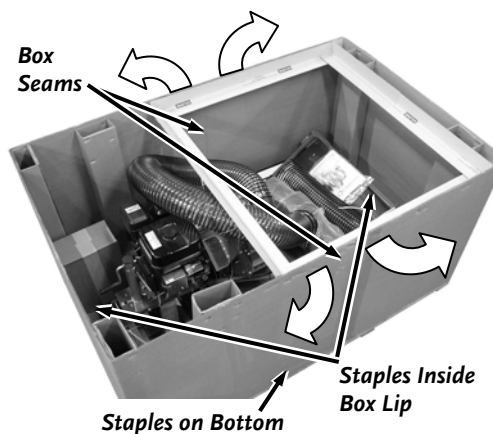


Figure 3

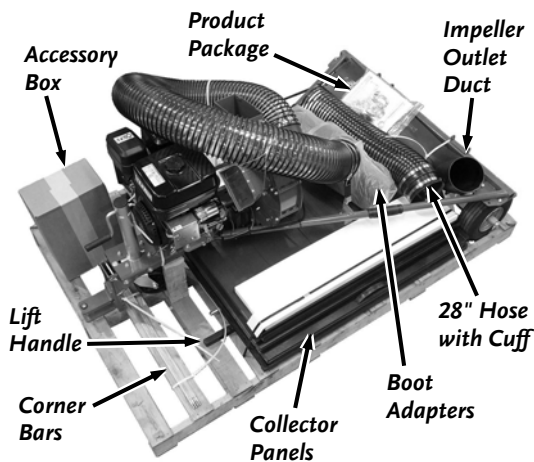


Figure 4

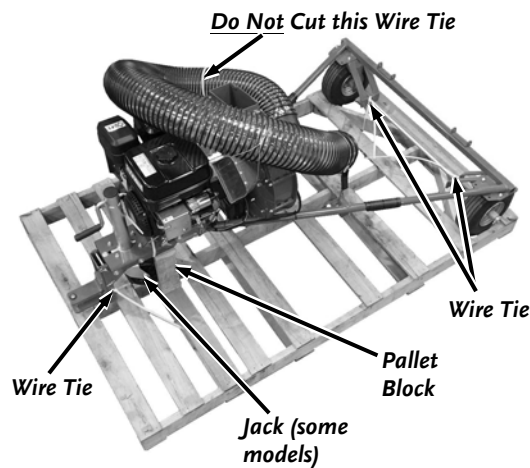


Figure 5

5. Pull the Box Lips from the Pallet and set the Box Halves aside.
  6. Cut the Wire Ties from the Corner Bars and the Impeller Outlet Duct and cut the Banding from the Collector Panels with the Wire Cutters (Figure 4).
  7. Remove the Product Package, Impeller Outlet Duct, 28" Hose with Cuff, Boot Adapters, Corner Bars, and Accessory Box (if ordered) from the Pallet.
  8. Remove the Styrofoam pieces on top of the Panel Assemblies and slide the Panel Assemblies off the Pallet from the Lift Handle side.
- NOTE:** If you have the model with a Jack, crank the Jack just until the Frame is lifted from the Pallet Blocking. If you have a model without the Jack, get the Trailer Stand ready to support the Machine when removed from the Pallet.
9. Cut the Wire ties holding the Machine to the Pallet and roll the Machine from the Pallet (Figure 5).

Compare the contents of the shipping carton and the Part Box with the Parts Supplied list on this page. If there are any questions contact us at [www.DRpower.com](http://www.DRpower.com) or call 1-800-DR-OWNER (376-9637). Do not discard the shipping materials until you are fully satisfied with your new DR® Leaf and Lawn Vacuum.

**Parts supplied:**

- Left Side Collector Panel
- Right Side Collector Panel
- Front Collector Panel
- Rear Collector Door Panel
- Top Collector Cover
- Impeller Outlet Duct
- Frame Assembly
- Collector Base
- 7" and 8" Hose Adapter
- Tow Beam Stand (Premier models)

- Product Bag containing (Figure 6):
  - Operating and Instructions Manual
  - Engine Manual
  - Two Clevis Pins
  - Two Hitch Clips
  - Small Bag containing:
    - Two Hand Knobs
    - Two 5/16" Flat Washers
    - Two 5/16" Lock Washers
    - Two 5/16" Push Nuts
  - Small Bag containing:
    - Eight 5/16-18 Locknuts
    - Eight 5/16" Flat Washers
  - Small Bag containing:
    - Four 5/16-18 x 3/4" Bolts
    - Four 5/16" Flat Washers
    - Four 5/16" Lock Washers
  - Small Bag containing:
    - Two 5/16-18 x 3/4" Bolts
    - Two 5/16" Flat Washers
    - Two 5/16" Locknuts

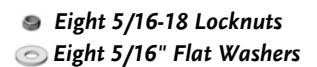
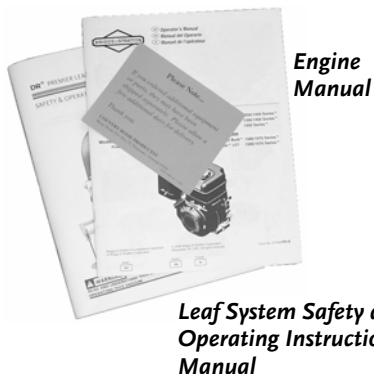


Figure 6

## Assembling the Collector, Impeller Outlet Duct and 28" Hose with Cuff

### Tools Needed:

- Two 1/2" Wrenches
- 3/8" Wrench

1. Position the Collector Base at the rear of the Frame and line up the Collector Base Pivot Tubes with the Frame Pivot Brackets. Secure the Collector Base to the Frame with two Clevis Pins (heads facing in) and Hitch Clips (**Figure 7**).
2. Lower the Collector Base down onto the Frame to lock the Lift Handle fully into the Dump Latch.

**NOTE:** The Side Panel Assemblies must be installed with the correct edges facing front and rear (**Figure 8**).

3. Position a Side Panel (with DR logo right side up and facing out) bottom groove onto the Lip at the side of the Collector Base.
4. Support the Panel as you slide a Corner Bar into the rectangular opening at the rear and down into the Collector Base hole at the bottom. You may need to lift the ends of the Side Panel a bit to get the threaded Bar end into the Collector Base hole.
5. Slide another Corner Bar into the rectangular opening at the front of the Panel and down into the Collector Base hole at the bottom.

**NOTE:** You may need to tap lightly on the top of the Panels to get the slot to lock together properly with the Base Lip.

6. Follow steps 3 thru 5 for the other Side Panel.
7. Slide the Front Panel (with Labels right side up and facing out) into the Grooves at the front of both Side Panels and push it down until the groove at the bottom of the Front Panel slides over the Lip in the Collector Base (**Figure 9**).
8. Place the Top Cover over the Front and Side Panels (Inlet hole in separator facing forward) and position so the Corner Bar threads protrude through the holes at the corners of the Top Cover.
9. Install a Washer and Low Profile Locknut to the top and bottom of each Bar only hand tight for now.

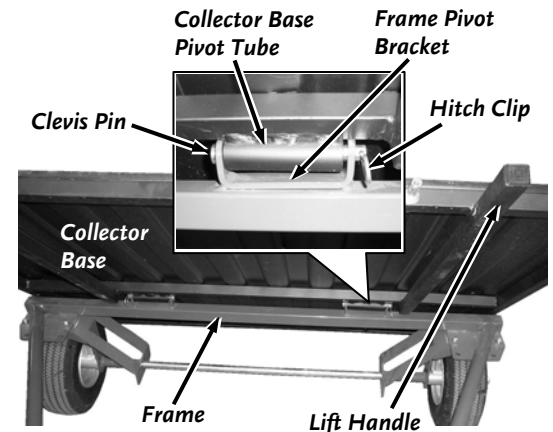


Figure 7

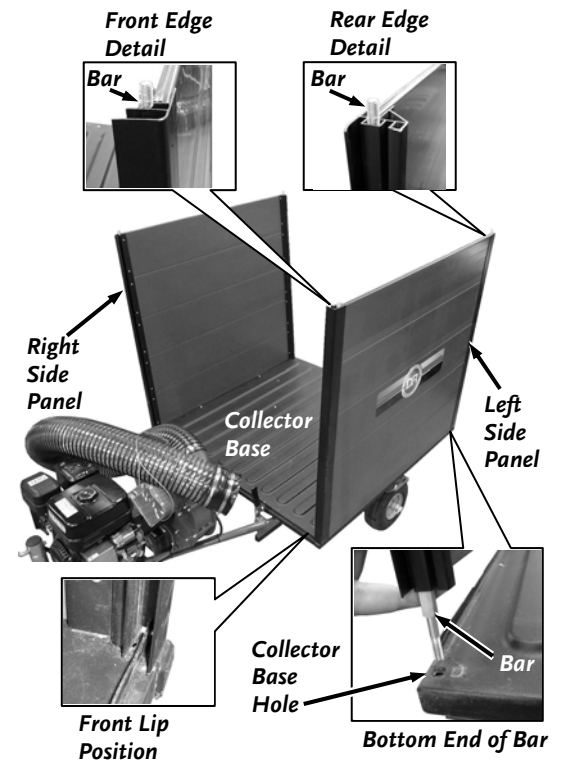


Figure 8

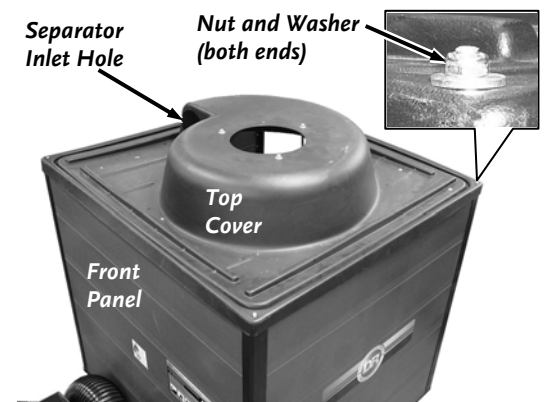


Figure 9

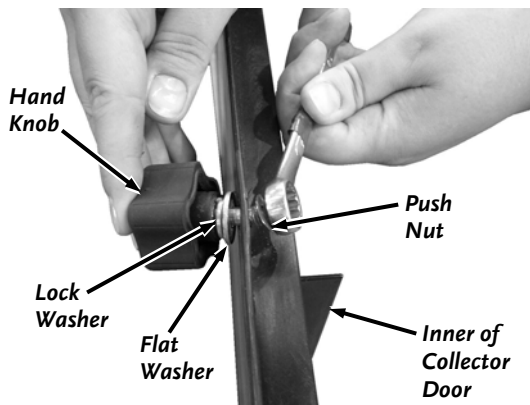


Figure 10

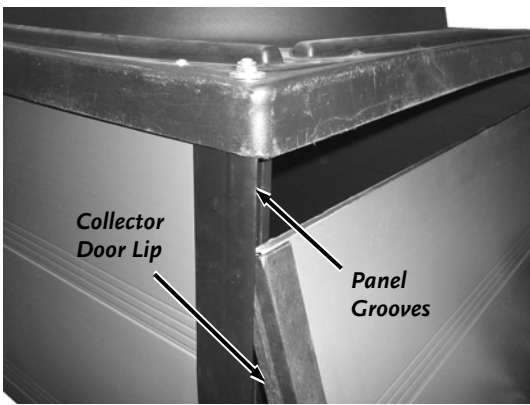


Figure 11

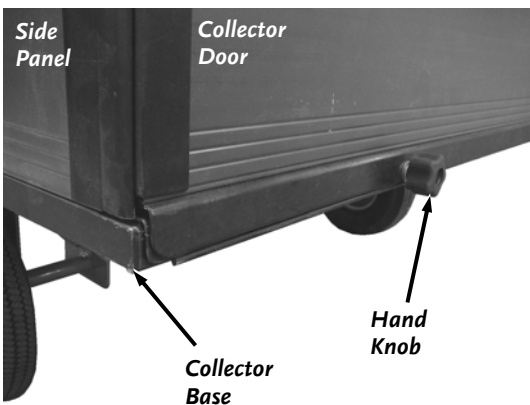


Figure 12

10. Slide a Lock Washer onto a Hand knob stud first (**Figure 10**) and then a Flat Washer. Insert the stud of the Hand Knob through one of the holes in the bottom of the Collector Door (Hand Knob on outside of Door).
11. Install a Push Nut onto the stud and push it up to the Door Lip with the boxed end of a 3/8" Wrench.
12. Install the other Hand Knob, Lock Washer, Flat Washer and Push Nut into the other hole in the bottom of the Collector Door.
13. Position the top of the Collector Door (inside Lips) into the grooves at the back of the Side Panels and Slide the Collector Door top up under the end of the Container Cover (**Figure 11**). Push the Door in at the bottom until it rests on the end of the Collector Base.
14. Secure the Door by screwing in the two Hand Knobs at the bottom to the end of the Collector Base (**Figure 12**).
15. Tighten the Low Profile Locknuts at the bottom of all four Bars first with two 1/2" Wrenches and then tighten the top Low Profile Locknuts only to the point that the Washer will still turn with some resistance.

### Adjusting the Inlet Duct for Left Side Discharge Mowers

The Machine is shipped ready to connect to a right side discharge Mower. If your Mower is equipped with a left side discharge you must perform the following adjustment to the Inlet Duct.

#### Tools Needed:

- Small Philips Head Screwdriver
- 5/16" Wrench

1. Remove the Hand Knob and slide the Inlet Duct out of the Impeller Flange (**Figure 13**).
2. Remove the two sets of Screws and Locknuts from the Inlet Duct with a Small Philips Head Screwdriver and a 5/16" Wrench and install them into the other holes as indicated for left side mounting.
3. Reinstall the Inlet Duct into the Impeller Flange and secure the Hand Knob.

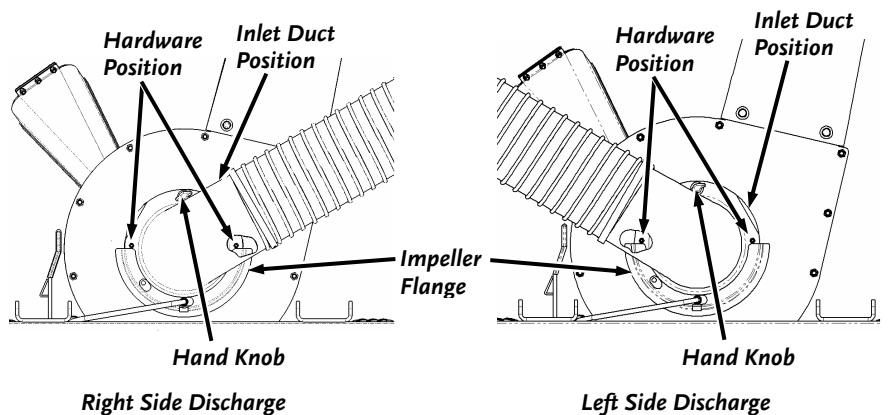


Figure 13

## Installing the Impeller Outlet Duct and 28" Hose with Cuff

### Tools Needed:

- 1/2" Wrench
4. Place the Impeller Outlet Duct over the Impeller Housing (**Figure 14**). The Duct goes on tightly and may be easier to install by starting at one corner
  5. Install four Bolts, Lock Washers and Flat Washers hand tight to secure the Impeller Outlet Duct to the Impeller Housing.
  6. Screw the Hose end of the 28" Hose with Cuff counter clockwise into the Top Cover Hole until the Hose connects easily to the Outlet Duct, but does not rest on the corner of the Collector.
  7. Loop the Lanyard over the Hose Cuff, slide the Cuff end of the Hose over the Impeller Outlet Duct and secure by tightening the Thumb Screw of the Hose Cuff Clamp.
  8. Tighten the Hardware that attached the Outlet Duct to the Impeller Housing with two 1/2" Wrenches.

## Setting up your Tractor (right side discharge shown)

### Hitch Plate Kit Installation (optional)

The DR Leaf and Lawn Vacuum requires a Pin Hitch hole on your Lawn Tractor. DR Power Equipment offers several different Hitch Plate Kits if the existing Hitch on your Tractor is not sufficient (**Figure 15**). Contact us at [www.DRpower.com](http://www.DRpower.com) or call one of our representatives at 1-800-DR-OWNER (376-9637) and they will be happy to assist you.

### Lawn Deck Adapter Installation

#### Tools Needed:

- Two 1/2" Wrenches
- Drill with 3/8" Bit
- Saw

**NOTE:** *Optional Accessories: Due the variety of Lawn Tractors, the Hoses supplied may not fit all tractors. Our Technical Service Dept. can help you adapt your machine.*

⇒ *A Universal Deck Adapter is available for you to fit to your machine if the tractor manufacturer's Lawn Deck Adapter is not available.*

⇒ *A Hose Support Kit is available to attach to the DR Power Equipment Hitch Kit. This will enable you to support a longer Hose if needed.*

Contact us at [www.DRpower.com](http://www.DRpower.com) or call one of our representatives at 1-800-DR-OWNER (376-9637) to order a Universal Deck Adapter Kit or Hose Support Kit.

1. Install your Lawn Deck Adapter (**Figure 16**) onto your Lawn Tractor (Lawn Deck Adapter available from the manufacturer of your lawn tractor or from DR Power Equipment).
2. We have supplied both a 7" to 6" and 8" to 6" diameter Hose Adapter. Determine which best fits your Lawn Deck Adapter. Slip the Hose Adapter over the end of your Lawn Deck Adapter, until they make contact.

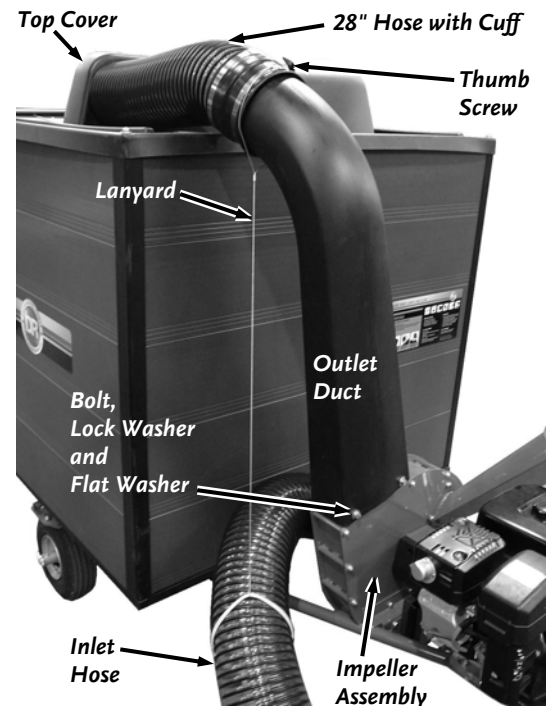


Figure 14

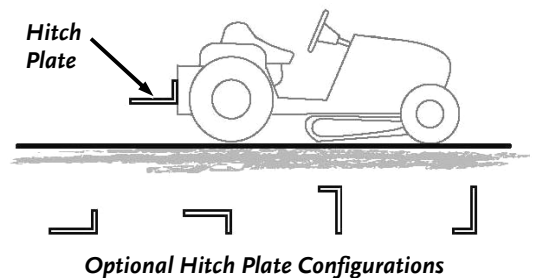


Figure 15

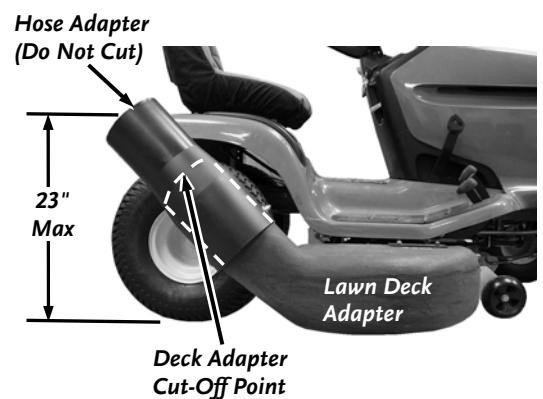


Figure 16

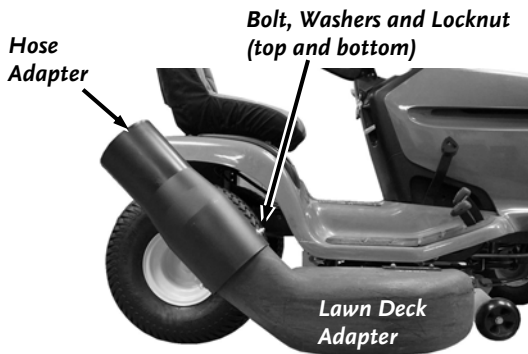


Figure 17

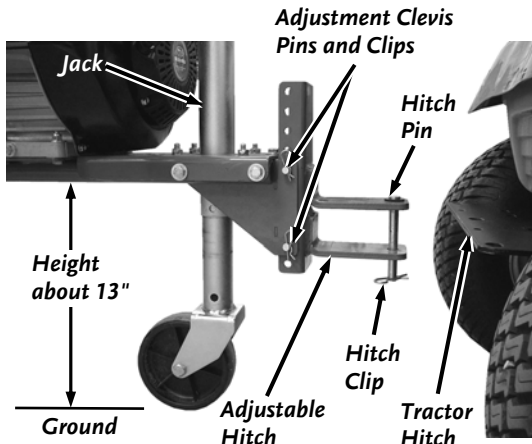


Figure 18

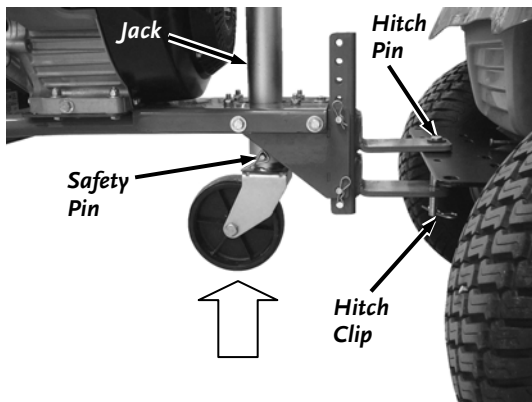


Figure 19

3. Check the distance of from the ground to the top center of your Hose Adapter (**Figure 16**). If your Adapter is less than 23" from the ground, go to step 6.
4. If the end of the Hose Adapter is taller than 23", mark the spot on the center of the Hose Adapter that is at 23" from the ground. Measure from this mark to the end of the Hose Adapter and note the distance.
5. Remove the Lawn Deck Adapter from your Mower and cut the amount you measured off the end of the Lawn Deck Adapter parallel with the end using a Saw.
6. Reinstall the Lawn Deck Adapter to your Mower.
7. Slide the Hose Adapter onto the Lawn Deck Adapter and turn the Hose Adapter so the predrilled Guide Holes are at the bottom and top positions (**Figure 17**).
8. Drill a 3/8" hole through the Lawn Deck Adapter at the two predrilled holes in the Hose Adapter.
9. Secure the Adapter in place with two 5/16" Bolts, Washers and Nuts by inserting the Bolt through the drilled holes from inside the Adapter.
10. Attach the Washers and Nuts on the outside of the Adapter tube (this will prevent debris from collecting on the retaining hardware).
11. Tighten the Nuts with two 1/2" Wrenches. Be careful not to over tighten and damage the Hose Adapter.
12. Re-install the Lawn Deck Adapter to the Mower.

### Connecting the DR Leaf and Lawn Vacuum to your Mower

#### NOTICE

Always raise the Jack prior to towing this equipment. An extended Jack can damage or deform the Jack or Frame if the Jack hits the ground or an object.

1. Position the back Hitch Plate of your Mower next to the adjustable Hitch of the Leaf and Lawn Vacuum on level ground and remove the Hitch Clip and Hitch Pin (**Figure 18**).
2. Operate the Jack to move the Frame up or down until the Leaf System is level. The Frame near the Jack should be about 13" from the ground.
3. Remove the Clips and Clevis pins from the Adjustable Hitch, move the Hitch up or down to align it with the Tow Bracket on your Mower, and reinstall the Clevis Pins and Clips.
4. Move the Leaf System into position on the Lawn Mower Hitch and install the Hitch Pin and Hitch Clip to secure the Tongue to the Mower (**Figure 19**).
5. Raise the Jack up off the ground in the fully up position so the Leaf and Lawn Vacuum is fully supported by the Lawn Tractor Hitch Plate.
6. Install the Jack Safety Pin to keep the Jack in the raised position.

## Connecting the Inlet Hose to the Hose Adapter

**Tools Needed: (Only if Hose needs to be shortened)**

- Wire Cutters or Hack Saw
- Knife
- 5/16" Wrench

1. Connect the Inlet Hose to the Hose Adapter by sliding the Hose Cuff over the Hose Adapter (**Figure 20**).

**Tip:** Position the Thumb Screw Clamp toward the Mower so it will not make contact with objects when mowing.

2. Tighten the Thumb Clamp tightly to secure the Hose to the Hose Adapter.
3. Turn the Tractor all the way to the left, while watching the Hose (**Figure 21**). The Hose should not become too taut to twist or damage your Lawn Deck Adapter.
4. To ensure that the Hose will not drag on the ground, turn the Tractor to the right while watching the Hose. Adjust the White Plastic Cable Tie of the Lanyard on the Hose to keep the Hose off the Ground. If the Lanyard can not be positioned sufficiently on the Hose to prevent it from kinking or dragging on the ground, reduce the length of the Hose by turning the Tractor all the way to the left as in step 3 and shorten the Hose as follows.

### To Shorten the Hose (if needed)

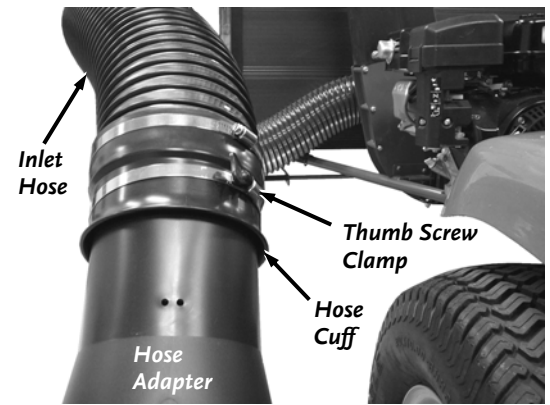


Figure 20

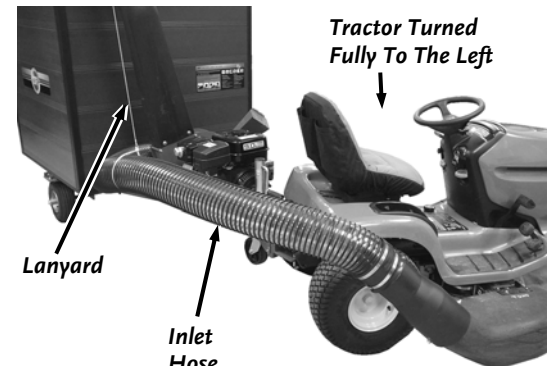


Figure 21

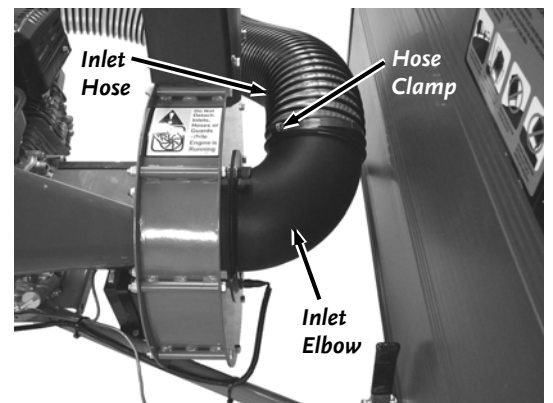


Figure 22

**NOTE:** The Tractor must be turned fully to the left (**Figure 21**).

- a. Loosen the Hose Clamp that secures the inlet Hose to the Inlet Elbow with a 5/16" Wrench and pull the Hose from the Elbow (**Figure 22**).
- b. Position the Hose beyond the Elbow to where the slack is taken up but still has a small amount of sag (**Figure 23**).
- c. Cut the Hose to the length required using Wire Cutters to cut the black plastic spiral and then cut the clear Hose with the razor knife.

**NOTE:** Make sure you trace the area to cut around the Hose first to ensure you will cut in the proper direction to end up on either side of the cut spiral.

- d. Reinstall the Hose as far as you can onto the Elbow with the cut end of the spiral on the bottom and tighten the Hose Clamp. If the Tractor can be turned fully to the left, without the Hose becoming too tight (with a slight amount of sag), the Hose is the shortest length possible for your Tractor.

**NOTE:** DR Power offers a Hose Support bracket as an option to better support the Hose if needed.

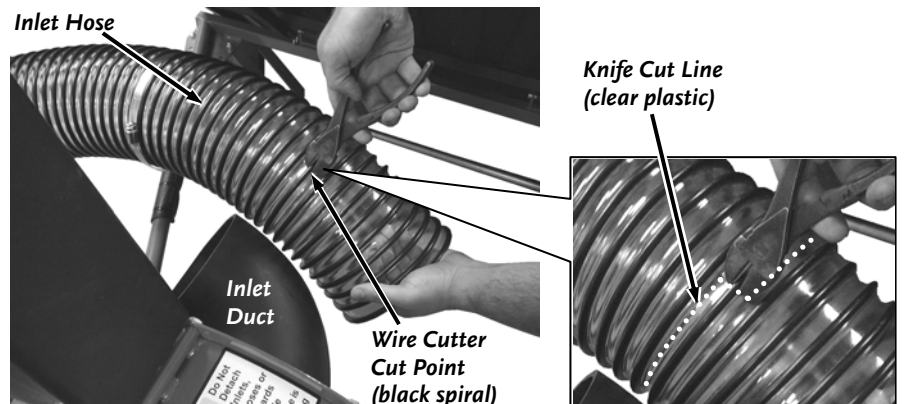


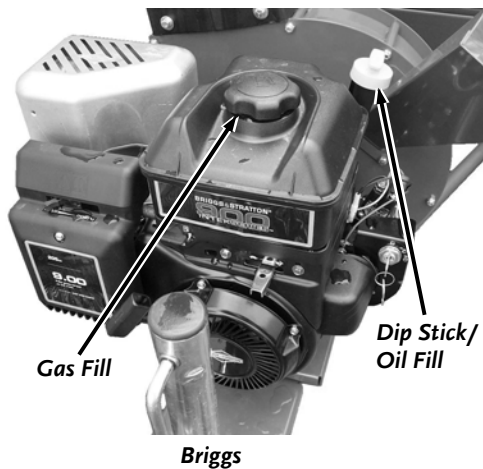
Figure 23

## Adding the Engine Oil and Gasoline

### NOTICE

- You must add oil before starting the engine. This machine is shipped without oil. Traces of oil may be in the reservoir from factory testing, but you must add oil before starting the engine. Fill the reservoir slowly checking the dipstick frequently to avoid overfilling.
- To get an accurate reading when checking the oil level:
  - ⇒ The machine should be on a level surface.
  - ⇒ The dipstick should be screwed down on Briggs & Stratton engines.
  - ⇒ The dipstick should not be screwed down on Subaru engines.

**NOTE:** Use only the recommended high detergent oil. Other types of oil could cause problems operating your machine. Please refer to your Engine Owner's Manual for detailed oil information.



**Tip:** To avoid confusion, we recommend leaving the caps on the Fuel and Engine oil Fills and only removing one cap each time when you are ready to pour gasoline or oil into the correct Fill (**Figure 24**).

1. Place the machine on a level surface and add the initial quantity of the oil recommended by the Engine Manufacturer (*refer to your Engine Owner's Manual for recommended quantities*), and wait one minute for the oil to settle.
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.
3. Fill the gas tank to within 1-1/2 inches below top of fill neck (to allow for fuel expansion) with fresh, unleaded gas. See your Engine Owner's Manual for more information.



Figure 24



## Tire Pressure Check

### Tools Needed:

- Tire Pressure Gauge
- Air Compressor

### **WARNING**

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

1. Remove the Valve Stem Protective Cap (**Figure 25**) and check the tire pressure with a Tire Pressure Gauge.
2. Check what the manufacturers recommended pressure is that is stamped on the side of the Tire.
3. If the pressure is too low, add air through the Valve Stem with an air hose.
4. Replace the Valve Stem Protective Cap when finished.

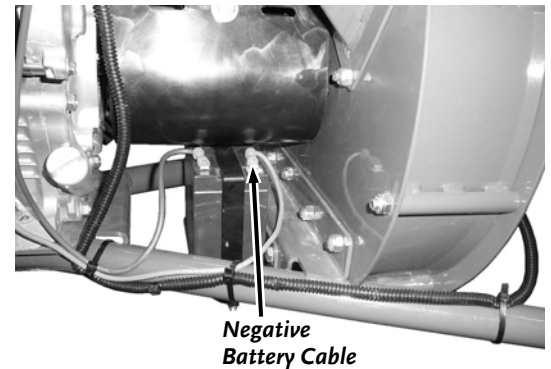
### **Connecting the Battery Wire (Electric-Starting Models Only)**

We ship all Electric-Starting systems with the Negative Battery Terminal Wire disconnected. This prevents the Battery from discharging during shipment. Before using your DR LEAF and LAWN VACUUM, you must connect the Battery Wire.

1. Connect the Negative Wire to the Negative Post on the Battery by sliding the Terminal onto the Battery Post (**Figure 26**).



**Figure 25**



**Figure 26**

## Chapter 3: Operating The DR LEAF AND LAWN VACUUM

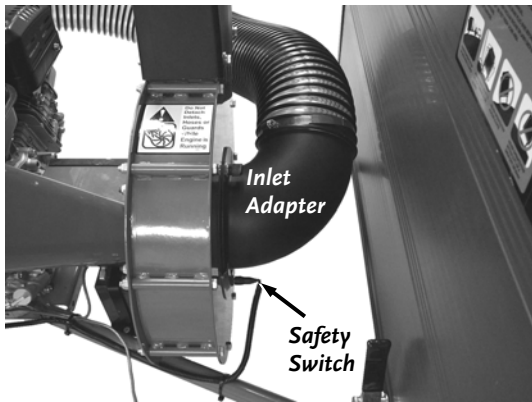


Figure 27

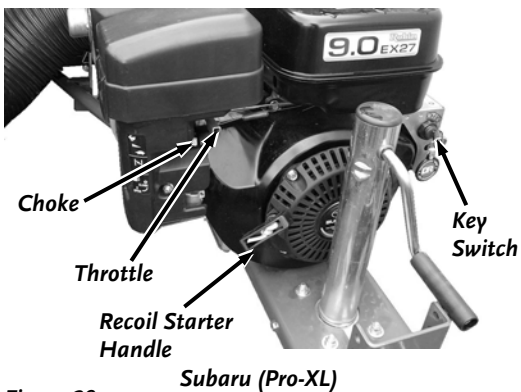
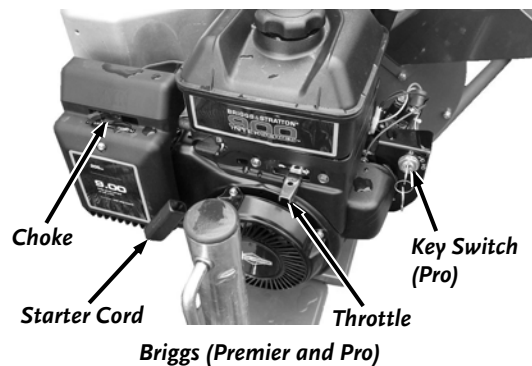


Figure 28

It may be helpful to better familiarize yourself with the features of your DR LEAF and LAWN VACUUM by reviewing **Figure 1** in Chapter 2 before beginning the steps outlined in this chapter.

### Before Starting the Engine

#### **! WARNING**

Inspect the area where you will be working. The site must be free of potentially hazardous obstacles such as stones, metal, or glass. Pile sticks that you intend to chip separately and away from the vacuum site. Also, make sure there won't be people or animals in the area around the DR Leaf and Lawn Vacuum.

**NOTE:** For Electric Start models, the Ignition Switch Keys are temporarily located on the Switch Housing by means of a plastic Tie. Cut the Tie to remove the Keys for use.

1. Connect the DR LEAF and LAWN VACUUM to your Lawn Tractor (see page 14), remove the Safety Hitch Pin from the Jack, raise the Jack up and out of the way and replace the Safety Hitch Pin.
2. Check the Engine oil level every time you use the machine (refer to your Engine Operator's Manual).

#### **! WARNING**

- Always refer to the Engine "Operator's Manual" that came with your machine for more detailed Engine operation procedures.
- The engine will not start without the Inlet Adapter in place to depress the Safety Switch (**Figure 27**).

3. Check the Fuel level and make sure the Gas Shut-Off Valve is in the OPEN position (refer to your Engine Operator's Manual).

### Starting and Stopping the Engine

1. When starting a cold Engine; push the Choke Control lever to the right (CHOKE) for B&S (left for Subaru) and the Throttle Control lever to the far right for B&S and left for Subaru (**Figure 28**). If re-starting a warm Engine, leave the Choke in the (OPEN) position.

2. **Manual Start** - Grasp the Recoil Starter Handle and slowly pull until you feel resistance, then pull the cord with a smooth accelerating motion to start the engine. One or two pulls usually starts the DR LEAF and LAWN VACUUM.

**Electric Start** - Turn the Key to START until the Engine starts and then release. The Key will snap back when released and the Engine will continue to run.

3. After the Engine starts, slowly push the Choke Control lever back to the (RUN) position. Wait until the Engine runs smoothly before each Choke adjustment. For best Engine performance, you should operate the Engine with the Throttle in the Fast (Rabbit) position.

4. **- To stop the Manual Start Engine**, move the Throttle to the Slow (Turtle) position allowing the Engine to idle, and then move the lever to STOP (Stop Sign) position.

**- To stop the Electric Start Engine**, move the Throttle to the Slow (Turtle) position, and then turn OFF the Key.

## Operating Safety

### **!** WARNING

- Never put your hands inside the vacuum hose or the chipper hopper to clear debris while the engine is running. Always stop the engine and disconnect the spark plug wire before clearing the vacuum hose or chipper hopper.
- For best results, use a small stick to clear a clogged chipper hopper.
- The maximum size material that you can feed into the chipper hopper is 2 inches in diameter.
- Always keep your face and body back from the chipper hopper opening to prevent any material that may bounce back from striking you.
- Do not refuel the engine while it is hot or running.

### NOTICE

Use common sense when using the machine. Learn to recognize the change in sounds when overloaded. Stop the engine immediately if the machine becomes jammed to prevent damage to the machine.

The DR LEAF and LAWN VACUUM has an Impeller that spins at 3400 rpm and a chipper feature that will chip wood up to 2 inches in diameter.

### Towing the DR LEAF and LAWN VACUUM

1. Make sure you firmly attach the DR LEAF and LAWN VACUUM Hitch to your Lawn Tractor using the Clevis Pin and Hitch Clip (**Figure 27**).
2. Remove the Jack Hitch Pin, fully raise the Jack Caster Wheel and re-install the Jack Hitch Pin.
3. Make sure the Collector Base is secured onto the Frame with the Dump Lever locked to the Latch on the Collector (**Figure 28**), the Outlet Hose Cuff is clamped tightly (**Figure 29**), and the Inlet Hose Cuff is securely attached to the Hose Adapter on your Tractor (**Figure 30**).

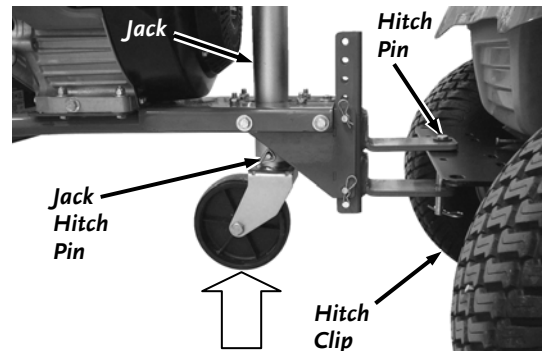


Figure 27

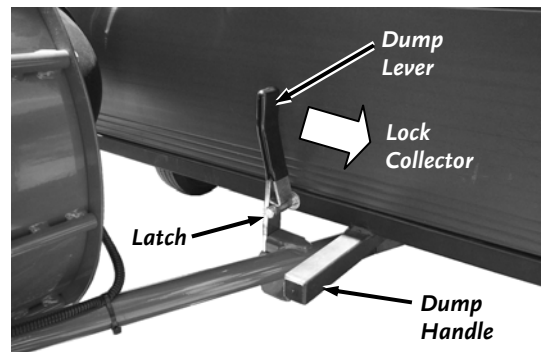


Figure 28

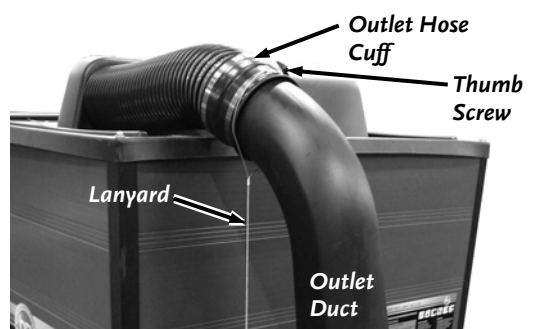


Figure 29

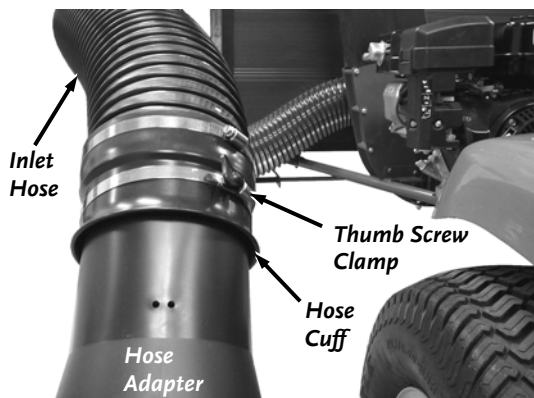


Figure 30

### NOTICE

- Raise the Jack caster wheel as far as it will go prior to towing this equipment. An extended Jack caster wheel can be damaged or deformed if it hits the ground or an object.
- The DR Leaf and Lawn Vacuum is not equipped for highway use.

## Towing Safety

### **⚠ WARNING**

- Watch out for low branches, overhangs, and guy wires that may catch on top of the collector box.
- Never allow anyone to ride in or on the DR Leaf and Lawn Vacuum.
- Obey local, state, and federal regulations when you tow the DR leaf and lawn vacuum across public roads and highways.
- Use caution when backing up your lawn tractor or trying to make tight turns going forward with the DR Leaf and Lawn Vacuum attached. Trying to turn too sharply can cause damage to the hitch and/or the lawn tractor if you hit an obstacle. Go slowly in areas where tight turns are necessary. Straighten out the system before attempting to back up.



Figure 31

### Slopes and Uneven Terrain

#### **⚠ WARNING**

- Never operate your machine on slopes greater than 15 degrees (**Figure 31**). When operating the DR Leaf and Lawn Vacuum over uneven terrain and slopes, use extreme caution to not tip over the machine. Move slowly, especially with a full load, if the ground has ruts, bumps, and other depressions.
- Do not use the DR Leaf and Lawn Vacuum on slopes greater than 15 degrees. Doing so could result in serious injury or damage to your machine.
- On a slope, a heavy load will tend to shift. When using your DR Leaf and Lawn Vacuum, keep in mind that loads tend to shift to the downhill side of the collector box. The higher and heavier the load, the greater the chance you may tip over the machine.
- Travel up and down slopes and avoid going across slopes. This is the same recommendation for mowing with your lawn tractor alone.

### Operating the Chipper (not available on Premier Machines)

In addition to towing the DR LEAF and LAWN VACUUM with your Lawn Tractor, and using it as a vacuum, the system also allows you to chip sticks and limbs up to 2" in diameter.

#### **⚠ WARNING**

- To prevent damage to your chipper, feed only wood up to 2" in diameter into the chipper hopper.
- Never use your hand to push the remaining wood stub down into the chipper hopper or try to remove a lodged piece of wood with the engine running.

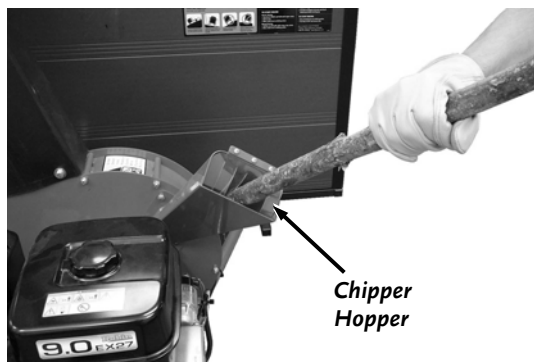


Figure 32

1. Start the Engine in accordance with “Starting and Stopping” on page 18.
2. To process branches; feed them into the Chipper Hopper opening (**Figure 32**).
3. As the chipped branch shortens, finish chipping it by pushing the stub down the Hopper with the next branch to be chipped.

**Tips:**

- It is best to trim off any side twigs from the main branch being chipped (**Figure 33**).
- Green branches process quicker and easier than dry branches and soft wood is easier than hardwood.
- Use caution with small diameter green saplings and branches. Chip these grouped or bundled together to provide support for each other.
- Make sure the Chipper finishes chipping material in the Hopper before shutting the engine off.

**Dumping**

**! WARNING**

- Always shut off the tractor engine and the vacuum engine and use caution when dumping the collector box load.
- The load may have shifted against the rear panel. Push down on the dump handle when releasing the dump lever to prevent the Collector Base from suddenly tipping.
- Never back up with the trailer in the dump position.

1. Move the Lanyard off the Outlet Hose Cuff and down onto the Outlet Duct (**Figure 34**).
2. Disconnect the Outlet Hose from the Outlet Duct by loosening the Thumbscrew Clamp and pulling the Hose away.
3. Remove the Back Panel of the Collector by unscrewing the two Knobs until loose (the Knobs remain attached to the Back Panel) (**Figure 35**). Pull back on the two Back Panel Handles to separate the bottom of the Back Panel and pull down to remove the Back Panel from the Collector.
1. While holding down on the Dump Handle, pull the Dump Lever (**Figure 36**) to unlock the Collector Base and then raise the Collector Base using the Dump Handle to dump the Collector.



Figure 33

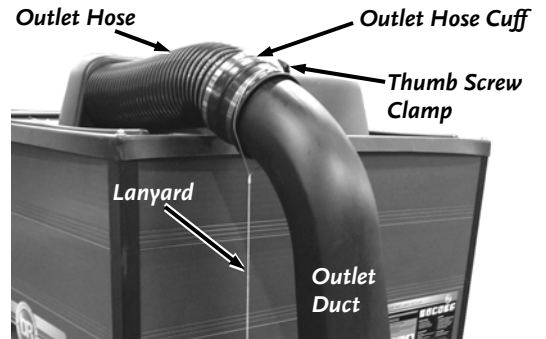


Figure 34

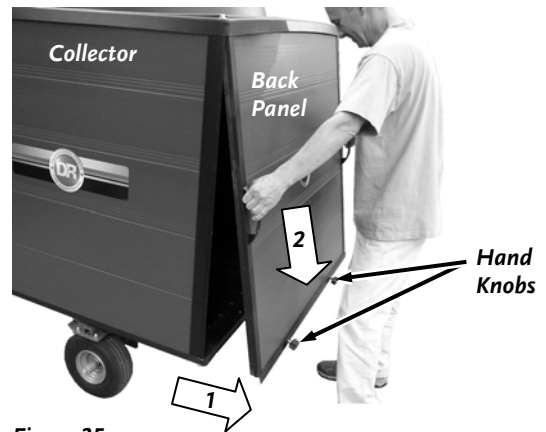


Figure 35

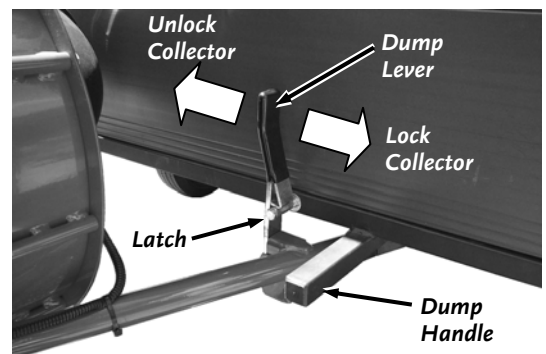


Figure 36

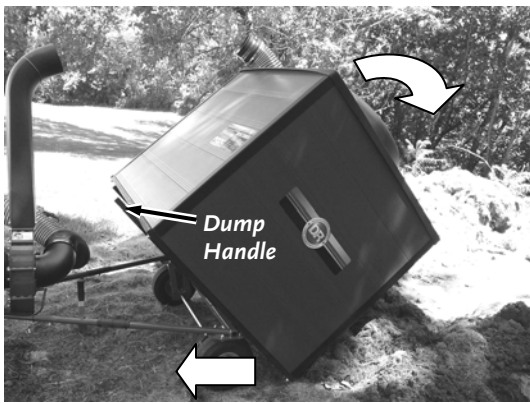


Figure 37

**Tip:** Give the Dump Handle a little shake after emptying the Collector to loosen up the remaining material. You can drive forward with the Collector in the dump position to allow more area for the Debris to dump (this should also jar more debris from the Collector) (**Figure 37**). Clean or wipe away the remaining material and you are ready to reinstall the Rear Panel.

2. After dumping the load, lower the Collector until the Dump Lever locks into place onto the Latch (**Figure 36**), and replace the Back Panel (**Figure 35**).
3. Re-connect the Collector Hose to the Outlet Duct (**Figure 34**). Tighten the Thumbscrew Clamp and slide the Lanyard back into position onto the Cuff of the Outlet Hose.

## LEAF and LAWN VACUUM Tips

### **WARNING**

Pick up stones, metal objects, glass, and sticks before vacuuming.

1. Gather and pile sticks for chipping.
2. Chip the sticks and branches.
3. Dump the load at the desired location.
4. Mow and vacuum leaves.

#### Tips:

- Be careful in corners. Practice in first gear to understand the effects of the machine on your ability to turn sharply. Drive your DR LEAF and LAWN VACUUM into the corner of your property and back out straight to mow as close to the corner as possible. Do not go through ditches.
- The Lawn Deck of your mower may tend to scatter some leaves in front and to the right of the Lawn Deck. Keeping the discharge side toward the remaining leaves will simplify cleanup by avoiding blowing leaves back onto the areas that you already finished. When you need to vacuum with the discharge side toward the completed area of the lawn, overlap the discharge side of the Lawn Deck at least a foot over the already completed section of the lawn.
- To prevent clogging the Lawn Deck Adapter, mow grass that is dry and not more 2" at a time. To keep your grass healthy, we recommend cutting less than 1/3 the grass height.
- Run your Lawn Deck with your Tractor at full throttle all the time to maximize the lift from your Lawn Deck and assist your DR LEAF and LAWN VACUUM system.
- Avoid dragging the Hose over curbs, stonewalls, or piles of cut branches. The Hose is tough, but can puncture on sharp objects. This could also crack the Mower Deck Adapter.

## Chapter 4: Maintaining The DR LEAF and LAWN VACUUM

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

### **! WARNING**

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

### Regular Maintenance Checklist

PROCEDURE	BEFORE EACH USE	EVERY 25 HOURS	EVERY 100 HOURS
Check Engine Oil Level	▲		
Check General Equipment Condition, e.g. tight nuts, bolts, welds, etc.	▲		
Check Tire Pressure	▲		
Check Hoses for wear, holes, or abraded areas.	▲		
Clean Engine Exterior & Cooling Fins	▲		
Check Battery Charge		▲	
Clean Engine Air Filters		▲	
Change Engine Oil	1 <sup>st</sup> time 5 hours	▲	
Lubricate Impeller Bearing			▲
Lubricate Wheel Bearings			▲
Replace Spark Plug			▲
Replace Engine Air Filters			▲
Replace the Flex-Shaft Coupling Sleeve			▲

### Lubrication

Your DR LEAF and LAWN VACUUM was lubricated at the Factory. The operator needs to provide Engine lubrication, lubricate the Wheels periodically, and lubricate the Impeller Bearing.

### **! WARNING**

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

#### Tools and Supplies Needed:

- Grease gun with Multipurpose Automotive Grease
- 1/2" Wrench

#### **LUBRICATE WHEEL BEARINGS:**

1. Lubricate each Wheel (**Figure 38**) with Multipurpose Automotive Grease using a grease gun on the fitting.



Figure 38

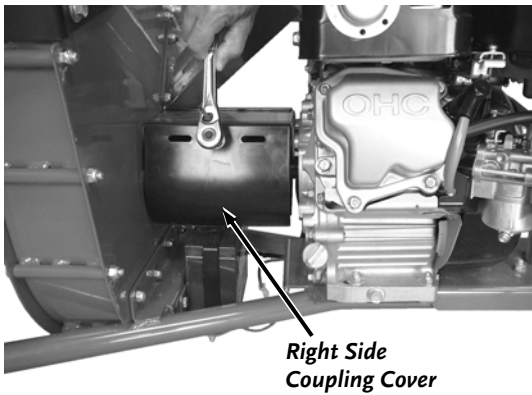


Figure 39

### LUBRICATE IMPELLER BEARING

1. Remove the right Coupling Cover by using a 1/2" Socket to remove the Bolts and Washers that retain the Cover (**Figure 39**).
2. Lubricate the Bearing (**Figure 40**) with Multipurpose Automotive Grease using a grease gun on the fitting.
3. Reinstall the Coupling Cover.

### REMOVING AND REPLACING THE ENGINE OIL

Refer to the Engine Operator Manual for Engine Procedures for removing and replacing the oil.

**NOTE:** Be sure to use environmentally safe disposal procedures in the disposing of the used oil.

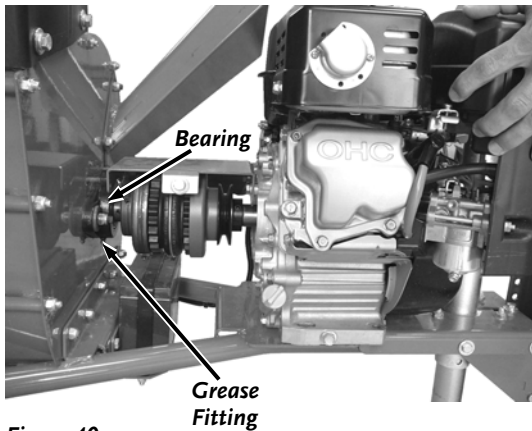


Figure 40

### **Removing and Replacing the Hoses**

#### OUTLET HOSE:

#### **! WARNING**

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

1. Slide the Lanyard off the Hose Cuff and onto the Outlet Duct (**Figure 41**).
2. Disconnect the Outlet Hose from the Outlet Duct by loosening the Thumbscrew Clamp and pulling the Hose from the Outlet Duct.
3. Remove the Hose from the Top Cover by grasping the Hose and unscrewing it clockwise.
4. Install the new Hose by screwing the Hose counterclockwise into the opening of the Top Cover. Turn the Hose in until about 4 or 5 of the hose ribs have entered the opening. That will leave it loose enough so it is easy to attach it to the Outlet Duct without resting on the corner of the Collector.
5. Clamps are provided on the new Hose. Slide the new Hose Cuff onto the Outlet Duct and turn the Thumb Screw Clamp until tight.
6. Slide the Lanyard up onto the Cuff to hold it in place.

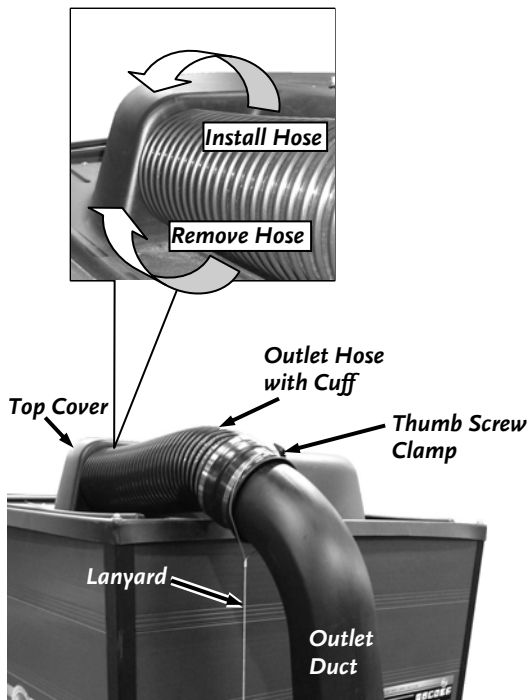


Figure 41



## INLET HOSE:

### Tools Needed:

- Wire Cutters
- Flat Head Screwdriver or 5/16" Nut Driver

1. Separate the Inlet Hose from the Deck Adapter by unscrewing the Thumb Screw Clamp and pulling the Cuff from the Deck Adapter (**Figure 42**).
2. Remove the Lanyard by cutting the white Cable Tie and discarding the Tie.
3. Remove the Inlet Duct and Hose from the machine by removing the Hand Knob and Washers and sliding the Inlet Duct up and out of the metal Housing Flange (**Figure 43**).
4. Set the Knob and Washers aside.
5. Remove the Hose from the Inlet Duct by unscrewing the Hose Clamp with a Flat Head Screwdriver or a 5/16" Nut Driver.
6. Attach the new Hose onto the Inlet Duct with the cut end of the spiral positioned at the bottom of the Inlet Duct. Pull on the spiral to get the Hose as far as you can onto the Duct and tighten the Hose Clamp tightly to secure the Hose.

**NOTE:** The cut end of the Hose must be positioned at the bottom of the Inlet Duct to allow the most space to install the Clamp.

7. Install the Inlet Duct and Hose onto the machine by sliding the Inlet Duct flange down into the metal Housing Flange and install the Hand Knob and Washers to secure it.
8. Reattach the Inlet Hose Cuff to the mower.
9. Attach the Lanyard loosely to the Hose with the Cable Tie and secure the large loop of the Lanyard to the top of the Outlet Duct and Collector Hose Cuff (you will need to loosen and pull the Cuff from the Outlet Duct to attach the Lanyard)
10. Adjust the position of the Lanyard and Cable Tie on the Hose as needed. See "Connecting the Inlet Hose to the Hose Adapter" in Chapter 2 for proper Hose adjustment procedures.

## **Removing and Replacing the Outlet Duct**

### Tools Needed:

- 1/2" Wrench

1. Disconnect the Outlet Hose from the Outlet Duct by loosening the Thumbscrew Clamp on the Cuff (**Figure 44**) and pulling the Hose (with Lanyard) from the Outlet Duct.
2. Remove the Bolts and Washers that attach the Outlet Duct to the Housing with a 1/2" Wrench.
3. Lift the Outlet Duct from the top of the Impeller Housing and install a new Outlet Duct in the reverse order.
4. Install the Lanyard over the new Outlet Duct before attaching Outlet Hose. The Lanyard will be looped over the Hose Cuff to secure it.

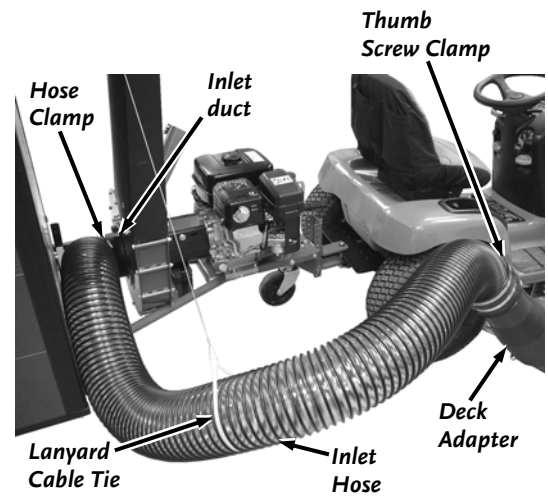


Figure 42

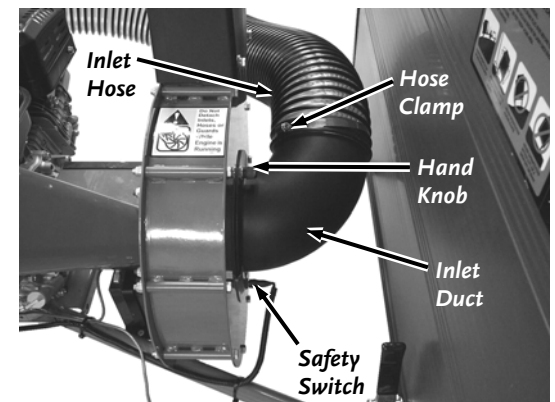


Figure 43

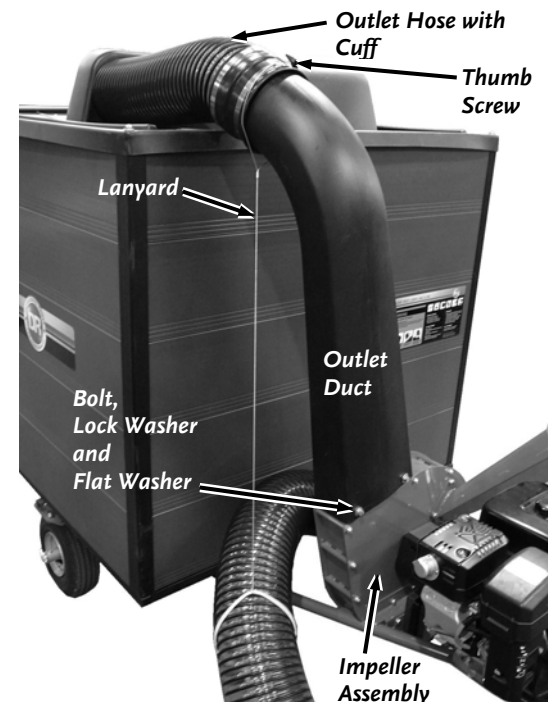


Figure 44

## Removing and Replacing the Chipper Blade

### WARNING

- Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool and disconnect the spark plug wire of the leaf and lawn vacuum.
- Do not attempt to re-sharpen the chipper blade. This will unbalance the impeller and may damage the engine and Impeller. Always replace a dull or damaged chipper blade with a new blade.
- Inspect the elbow for wear if the impeller is worn.

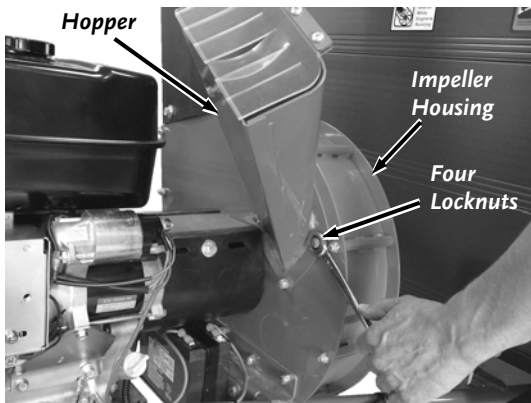


Figure 45

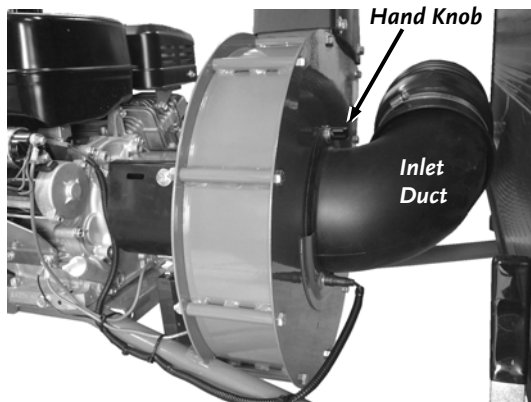


Figure 46

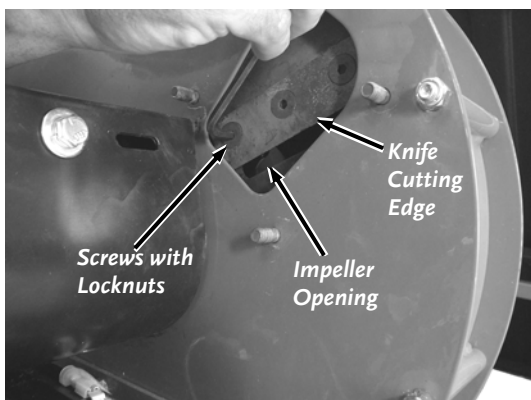


Figure 47

#### Tools Needed:

- 1/2" Wrench
- 3/16" Allen Wrench
- Awl or pointed tool

**NOTE:** Be careful not to drop any parts or hardware down into the Impeller Housing as you perform the following steps.

1. Remove the four Locknuts from the Hopper with a 1/2" Wrench and remove the Hopper (**Figure 45**).
2. Remove the Inlet Duct from the Impeller Housing by unscrewing the Hand Knob and sliding the Duct from the Housing Lip (**Figure 46**).
3. If the Collector is empty you can tip it back to allow better access to the rear of the Impeller Housing.
4. Carefully rotate the flywheel with a stick until the Knife is at the Hopper opening (**Figure 47**).

**NOTE:** You may need to clean out the hexes of the Knife Screws with an Awl to enable you to get the Allen Wrench fully into the Screw hexes. Carefully observe the orientation of the Chipper Blade edge and mounting holes when removing the Blade.

5. Insert the 1/2" Wrench into the Impeller Inlet Hole to access the Locknuts on the back side of the Knife.
6. Insert the 3/16" Allen Wrench into the a Knife Screw and hold the Screw as you turn the Wrench on the back side.
7. Clean the Knife mounting area of the Flywheel so the new Knife will mount flush to the Flywheel.
8. Position the new Knife with the cutting edge facing out and towards the opening in the Flywheel. Secure with the new hardware that came with your Knife Kit using the 1/2" Wrench and 3/16" Allen Wrench. Tighten the center Screw and Locknut, then tighten the outer Screw and Locknut, and finally tighten the inner Screw and Locknut. Double-check that all three Locknuts on the Allen Screws are tight.
9. Replace the Hopper and Inlet Duct.

## Replacing the Coupling

### WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

#### Tools Needed:

- Two 1/2" Wrenches
- Wire Cutters
- Large Flat Head Screwdriver

1. Disconnect the Battery Positive and Negative Cables by pulling them from the Terminals (**Figure 48**).
2. Cut the Cable Ties that secure the Engine Harness to the Frame with Wire Cutters.
3. Remove the two Bolts, Lock Washers and Flat Washers that secure the Coupling Guards on both sides of the Engine Brace with a 1/2" Wrench.
4. Remove the two Locknuts that secure the front side of the Engine Brace to the Impeller Housing with a 1/2" Wrench (**Figure 49**).
5. Remove four Engine Bolts, Flat Washers and Locknuts with two 1/2" Wrenches (**Figure 50**).
6. Carefully slide the Engine away from the Coupling until the Rubber Coupling can be removed from the machine (**Figure 51**).

**NOTE:** If you have the Pro-XL model, you may need to lift and twist on the Engine to get the required separation to remove the Rubber Coupling.

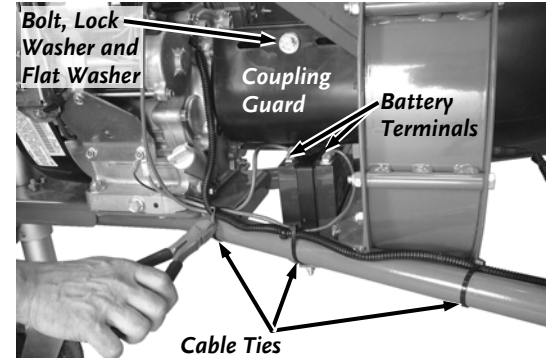


Figure 48

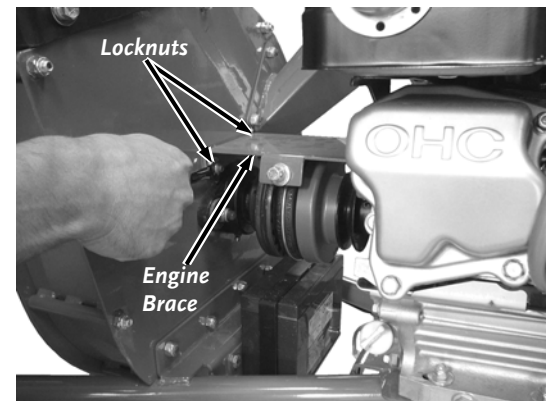


Figure 49

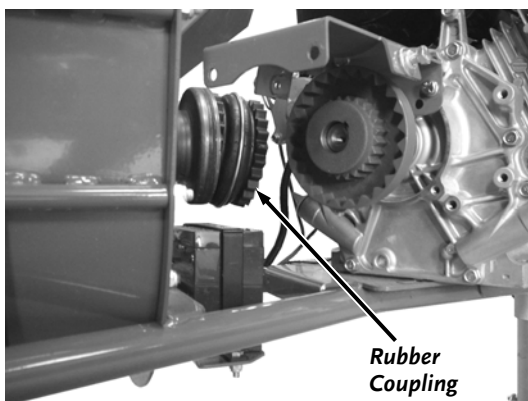


Figure 51

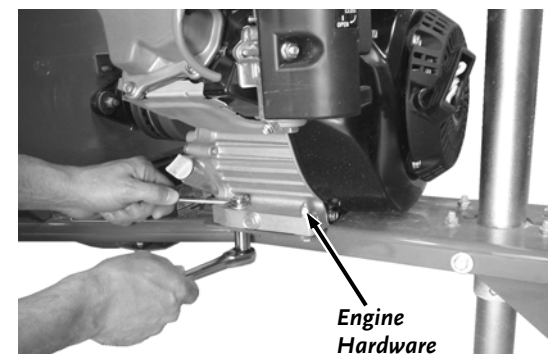


Figure 50

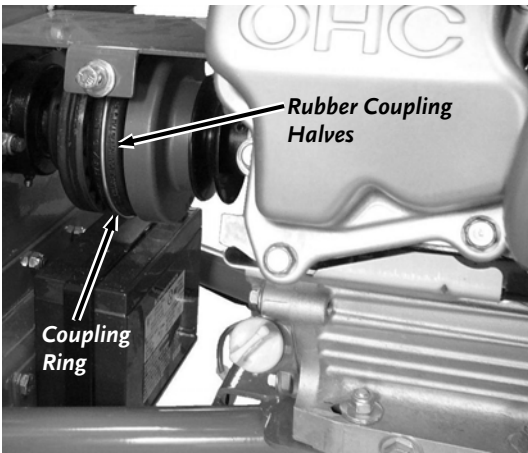


Figure 52

**NOTE:** The new Coupling comes in three pieces; Two rubber halves and one locking ring. Even though the Ring can be centered over the two rubber halves before the Coupling is installed onto the machine, it may be easier to install the ring after the Engine has been bolted to the Frame. This allows you to take advantage of the prying surface of the Coupling Flanges as described in the following steps.

7. Position the new Coupling, with the Ring positioned loosely over one end of the Rubber, into the Coupling Flange that is mounted to the Impeller Housing.
8. Slide the Engine and Engine Support until the holes in the end of the Engine Support slide over the Studs in the Impeller Housing.
9. Secure the Engine Support to the Impeller Housing with the two Locknuts using a 1/2" Wrench.
10. Secure the Engine to the frame with the Bolts, Flat Washers and Locknuts (Bolts on bottom, Washers and Locknuts on top) using two 1/2" Wrenches.
11. Pry the Ring into position onto the Rubber Coupling halves with a large Flat Head Screwdriver (**Figure 52**).

## NOTICE

It is very important that the ring is in the groove of the coupling sleeve all the way around to properly hold the coupling together and prevent failure.

12. Replace the two Coupling Guards.
13. Reattach the Harness to the Frame with Cable Ties.
14. Reattach the Battery Terminals.

## Replacing the Wheels

### ! WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

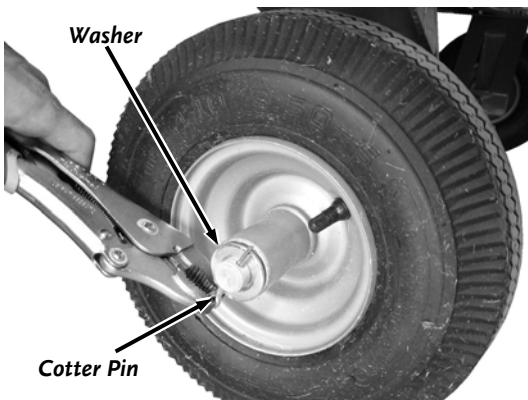


Figure 53

#### Tools Needed:

- Locking Pliers or Needle Nose Pliers.
- Jack and Stand

1. Jack up the Frame and support it with Blocks or a Jack Stand so the Wheel is off the ground.
2. Remove the Cotter Pin with Locking Pliers or Needle Nose Pliers (**Figure 53**).
3. Remove the Large Washer and Wheel.
4. Install the new Wheel.
5. Install the Large Washer and secure with the Cotter Pin (bend the ends of the Cotter Pin to lock it onto the Axle).

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

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

- Do not allow the Battery charge to get too low. If the machine is not used, charge the Battery every 4 – 6 weeks. Operate the engine for at least 45 minutes to maintain proper Battery charge.
- Store an unused Battery in a dry area that does not freeze.
- Do not charge an already charged Battery. In theory, you cannot overcharge our Battery with a trickle charger; however, when a Battery is fully charged and the charger is still on, it generates heat that could be harmful to the Battery. A fully charged Battery will read 12V-13.2V with a voltmeter.
- Do not continue to crank your Engine when the Battery charge is low.

## **Charging the Battery**

### **⚠ WARNING**

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

### **NOTICE**

When you are finished charging the battery, disconnect the charger from the outlet first, then disconnect the battery charger wires from the battery. If you leave the battery charger wires connected to the battery, the battery will discharge itself back into the charger.

Operate the vacuum Engine for at least 45 minutes to maintain proper Battery charge. If the Battery loses its charge, you will 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.*

To connect a Battery Charger to your DR LEAF and LAWN VACUUM, follow the steps listed below.

1. Attach the Black (-) alligator clipped wire from the Charger Adapter to the Negative (-) terminal of the Battery, then attach the Red (+) alligator clipped wire to the Positive (+) Battery terminal.
2. Plug the Charger into a standard wall outlet.
  - Typically, the Battery takes between 6 and 8 hours to fully charge. The Battery does not have a “memory”; so don't worry about overcharging the Battery or charging it too often.
  - You can charge the Battery many times. The Battery lasts longer if you charge it before it is fully drained. Keep it fully charged and at room temperature when not using your DR LEAF and LAWN VACUUM.
  - If the Battery does not hold its charge for very long under normal conditions or it simply won't hold a charge, then replace it. You can purchase replacement Batteries directly from us. To install your new Battery, follow the directions below.

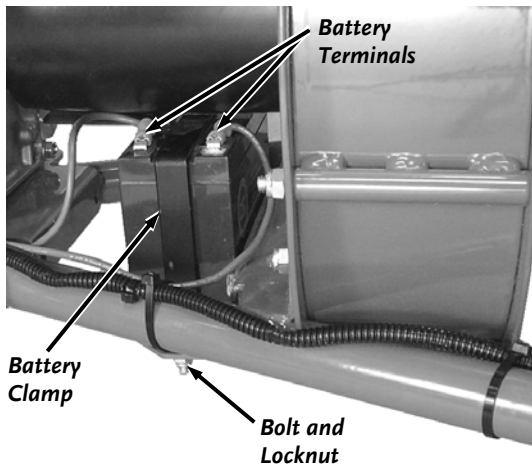


Figure 54

**Tools Needed:**

- Two 7/16" Wrenches

1. Disconnect the Battery Terminals (**Figure 54**).
2. Remove the Bolts and Locknuts that secure the Battery Clamp using two 7/16" Wrenches.
3. Remove the Clamp and the dead Battery.

**Tip:** Rotating the Battery will aid in removal.

4. Install the new Battery.
5. Install the Battery Clamp and secure with the Bolts and Locknuts using two 7/16" Wrenches.
6. Attach the Battery Terminals. Green Wire to negative black Terminal and Red Wire to positive red Terminal.

**Disposing of the Battery Responsibly (Electric-Start Models)**

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

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

**Recycling a Used Battery**

Please dispose of your used Batteries responsibly by recycling them. Call your local Solid Waste Management District or your local waste handler to locate the collection site nearest you. Some collection sites recycle Batteries year-round; others collect them periodically.

You can also visit the Web site of Earth 911 for more information [[www.earth911.org](http://www.earth911.org)]. Once there, click the Municipal HHW link under Hazardous Household Waste, and enter your zip code. The site lists recycling centers located near you.

For a fee, you can recycle your Batteries with the International Metals Reclamation Company. Visit them at [www.inmetco.com](http://www.inmetco.com) and click Services; or contact them at:

INMETCO  
 PO Box 720  
 245 Portersville Road  
 Ellwood City, PA 16117  
 (724) 758-2825; fax (724) 758-2845

To learn more about hazardous waste recycling, visit the Web site for Battery Council International [[www.batterycouncil.org](http://www.batterycouncil.org)] or for the Environmental Protection Agency [[www.epa.gov](http://www.epa.gov)].

## Chapter 5: Troubleshooting

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

### **WARNING**

Before performing any maintenance, repairs or inspection, you must first shut off the Mower and Leaf and Lawn Vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the Spark Plug Wire of the Leaf and Lawn Vacuum.

### Troubleshooting Table

SYMPTOM	POSSIBLE CAUSE
<i>Engine recoil will not pull out or is difficult to pull.</i>	<ul style="list-style-type: none"> <li>⇒ Check for debris in the Chipper Hopper.</li> <li>⇒ Check the Engine oil level, the Engine may be seized. See your engine owners manual.</li> <li>⇒ 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 reinstall it.</li> <li>⇒ The Recoil may be broken or jammed. visit us at <a href="http://www.DRpower.com">www.DRpower.com</a> or call 1-800-DR-OWNER (376-9637) for assistance.</li> </ul>
<i>The Engine won't start manually.</i> <i>(Please refer to the Engine Owner's Manual for engine-specific procedures.)</i>	<ul style="list-style-type: none"> <li>⇒ Check that the Spark Plug Wire is attached.</li> <li>⇒ Check the oil and gas level. See your engine owners manual.</li> <li>⇒ You should be using fresh, clean gas. If the gas is old, change it. Use a fuel stabilizer if you keep gas longer than one month.</li> <li>⇒ Check the Throttle adjustment and travel. See your engine owners manual.</li> <li>⇒ The Spark Plug should be 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 reinstall it.</li> <li>⇒ Check that the Safety Interlock Switch at the bottom of the Inlet Duct is intact.</li> <li>⇒ If the Engine still won't start, visit us at <a href="http://www.DRpower.com">www.DRpower.com</a> or call 1-800-DR-OWNER (376-9637) for assistance.</li> </ul>
<i>The Engine won't start using Electric-Start.</i> <i>(Please refer to the Engine Owner's Manual for engine-specific procedures.)</i>	<ul style="list-style-type: none"> <li>⇒ Check the previous section (Manual Starting) for possible causes.</li> <li>⇒ Check the wire connections—especially the ground connection, the green wire coming from the Battery, where it connects to the Engine.</li> <li>⇒ The Battery should be charged. Check the voltage 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 in Chapter 4.</li> <li>⇒ If your Battery is charged and your DR still won't start, visit us at <a href="http://www.DRpower.com">www.DRpower.com</a> or call 1-800-DR-OWNER (376-9637) for assistance.</li> </ul>

## Troubleshooting Table (Continued)

### **WARNING**

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

SYMPTOM	POSSIBLE CAUSE
<p><i>The Engine lacks power or is not running smoothly.</i></p> <p><i>(Please refer to the Engine Owner's Manual for engine-specific procedures.)</i></p>	<ul style="list-style-type: none"> <li>⇒ Check the Throttle travel. See your engine owners manual.</li> <li>⇒ The Choke should be pushed all the way to the left (RUN. See your engine owners manual.</li> <li>⇒ Check to see if the Air Filter is clean. If it's dirty, change it following the procedure in the Engine Owner's Manual.</li> <li>⇒ The Spark Plug should be 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.</li> <li>⇒ You should be using fresh, clean gas. If the gas is old, change it. Use a fuel stabilizer if you keep gas longer than one month.</li> <li>⇒ Check and make sure the Engine has the right amount of clean oil. If it's dirty, change it following the procedure in your engine owners manual.</li> <li>⇒ If your Engine still lacks power, visit us at <a href="http://www.DRpower.com">www.DRpower.com</a> or call 1-800-DR-OWNER (376-9637) for assistance.</li> </ul>
<p><i>Engine smokes.</i></p>	<ul style="list-style-type: none"> <li>⇒ Check the oil level and adjust as needed.</li> <li>⇒ You may be operating the machine on too great an incline. See Slopes on page 19.</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 Owner's Manual for detailed information.</li> <li>⇒ Clean the Engine cooling fins and the carburetor housing if they are dirty.</li> <li>⇒ If the Engine still smokes, visit us at <a href="http://www.DRpower.com">www.DRpower.com</a> or call 1-800-DR-OWNER (376-9637) for assistance.</li> </ul>
<p><i>Wheels tracking left or right while being towed.</i></p>	<ul style="list-style-type: none"> <li>⇒ Check the tire pressure. Refer to the Tire manufacturers recommended pressure on the side of the Tire and adjust pressure as needed.</li> </ul>
<p><i>Vibrations higher than normal.</i></p>	<ul style="list-style-type: none"> <li>⇒ Check for Chipper Blade damage. See page 25.</li> </ul> <p>NOTE: You <u>must not</u> sharpen the Chipper Blade; you must replace it if damaged.</p>
<p><i>Lawn Deck is not vacuuming well.</i></p>	<ul style="list-style-type: none"> <li>⇒ Be sure the Lawn Deck Blades are engaged and running at full throttle.</li> <li>⇒ Be sure the Deck is set at the proper mowing height.</li> <li>⇒ Be sure the Leaf and Lawn Vacuum Engine is running at full throttle.</li> <li>⇒ Use 1st or 2nd gear on your Lawn Tractor for best results.</li> <li>⇒ Turn off the Lawn Tractor Engine and Vacuum Engine, and check the Hose Adapter for clogs.</li> <li>⇒ Look for clogs along the Hose. Shake the Hose to loosen and free any clog.</li> <li>⇒ Turn off the Lawn Tractor Engine and Leaf and Lawn Vacuum Engine, and disconnect the Leaf and Lawn Vacuum Engine Spark Plug Wire. Check for clogs in the Impeller Outlet Duct and Inlet Hose.</li> <li>⇒ If your Lawn Deck still is not vacuuming properly, visit us at <a href="http://www.DRpower.com">www.DRpower.com</a> or call 1-800-DR-OWNER (376-9637) for assistance.</li> </ul>



## Troubleshooting Table (Continued)

### **WARNING**

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

<b>SYMPTOM</b>	<b>POSSIBLE CAUSE</b>
<i>Leaves or grass come out of the top of the Centrifugal Separator and the Collector is not full.</i>	⇒ Check for clogs along the edges of the Centrifugal Separator cone. ⇒ Check the Collector Hose to be sure it is about 4 to 6 inches inside the Centrifugal Separator Inlet and approximately level.
<i>Leaves or grass come out of the top of the Collector Panels.</i>	⇒ Be sure the Nuts on the top and bottom of the Collector Corner Bars are appropriately tightened.
<i>The Engine is running properly, but the Impeller is not turning.</i>	⇒ The Coupling Sleeve is damaged; Replace the Coupling

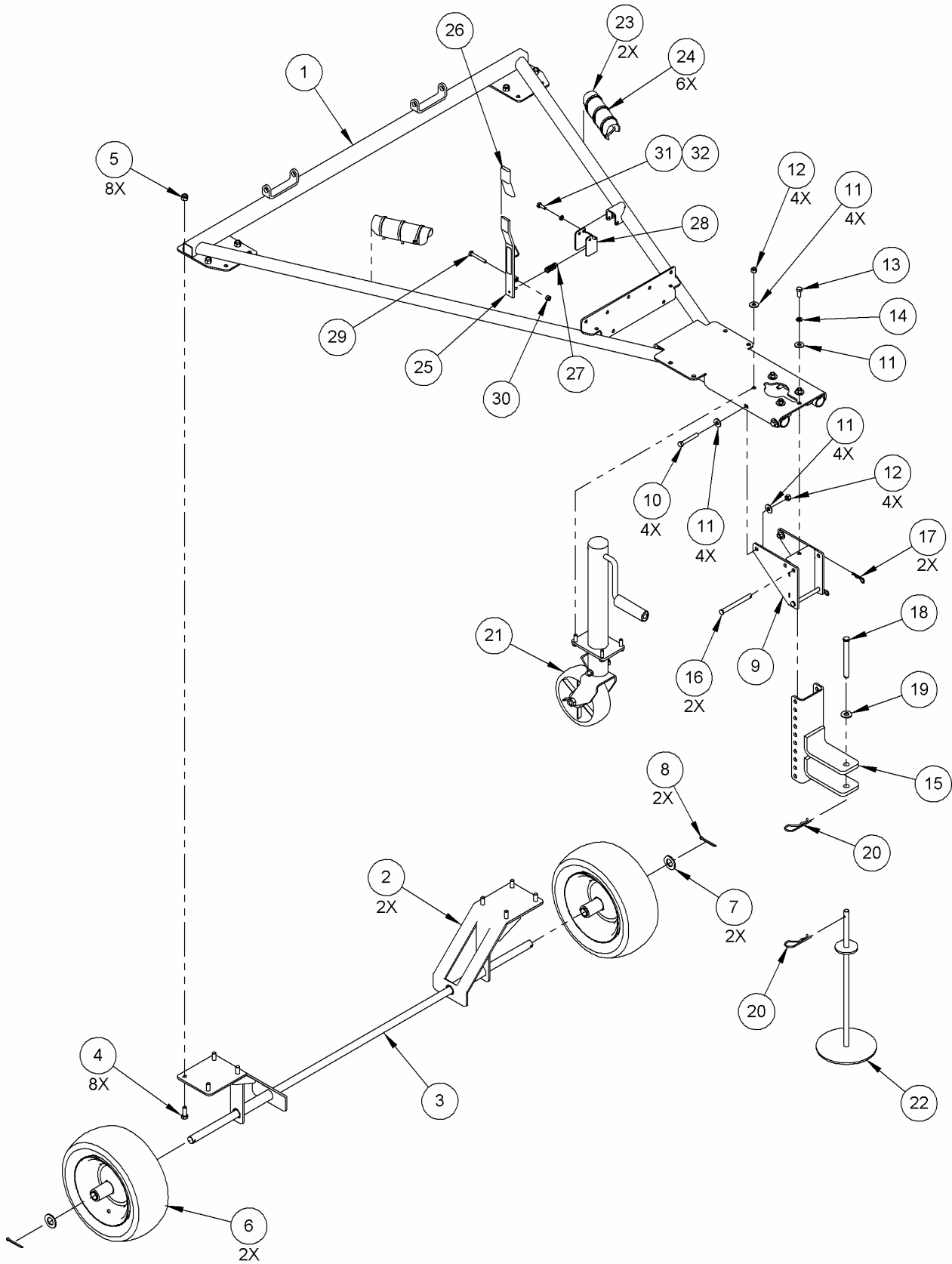
## Chapter 6: Parts Lists, Schematic Diagrams And Warranty

### Parts List – FRAME AND AXLE ASSEMBLY

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

<u>Ref#</u>	<u>Part#</u>	<u>Description</u>	<u>Ref#</u>	<u>Part#</u>	<u>Description</u>
01	258051	Frame, Leaf System	18	187371	Pin, Clevis, 1/2" X 4.5", ZP
02	258301	Bracket, Axle	19	189671	Washer, Flat, 1/2", Rubber
03	258311	Axle, .75" Dia	20	160031	Pin, Hitch Clip 1/2"
04	111521	Bolt, HCS 3/8-16 X 1", Gr 5, ZP	21	284091	Jack W/ Hardware
05	110751	Nut, Lock, 3/8-16, Nylon, ZP	22	188341	Stand, Tow Beam (Premier)
06	258321	Wheel, 11.6" Dia	23	264161	Guard, Tubing
07	180641	Washer, .75" X 1.5", X .11", ZP	24	112141	Cable Tie, 7.5", Black
08	126851	Pin, Cotter, 3/16" X 1.5"	25	284971	Handle, Latch, W/ Label
09	258851	Hitch Plate Assy	26	110241	Grip, Latch Handle
10	101471	Bolt, HCS, 5/16-18 X 2.25", Gr 5, ZP	27	111931	Spring, C, .545" ID X .055" Wire X 2.2" Long
11	112411	Washer, Flat, 5/16", USS, ZP	28	258501	Bracket, Latch Spring
12	110761	Nut, Lock, 5/16-18, Nylon, ZP	29	114561	Bolt, HCS, 1/4-20 X 2.0", Gr 2, ZP
13	123211	Bolt, HCS 5/16-18 X .75", Gr 5, ZP	30	110731	Nut, Lock, 1/4-20, Nylon, ZP
14	112431	Washer, Lock, 5/16", Split, ZP	31	119831	Bolt, HCS, 1/4-20 X .75", Gr 2, ZP
15	258861	Hitch, Adjustable	32	101811	Washer, Lock, 1/4", Stand, Split, ZP
16	279021	Pin, Clevis, 3/8" X 4.0", ZP			
17	151921	Pin, Hitch Clip, 5/16"-3/8"			
			<b><u>Not Illustrated</u></b>		
			288521		Knife Kit

**Schematic – FRAME AND AXLE ASSEMBLY**



## Parts List – IMPELLER AND DRIVE ASSEMBLY

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

Ref#	Part#	Description	Ref#	Part#	Description
01	285011	Engine W/ Label, 8.0 GTQ, B&S M/S, EMI	18	279041	Key, 1/4" Sq X 1.75" Long
	285021	Engine W/ Label, 8.0 GTQ, B&S M/S, Ca EMI	19	258751	Brace, Engine
	285031	Engine W/ Label, 8.0 GTQ, B&S E/S, EMI	20	258071	Spacer, .328" Id X .75" Od X .19", ZP (Pro-XL)
	285041	Engine W/ Label, 8.0 GTQ, B&S E/S, Ca EMI	21	178821	Bolt, HCS 5/16-24 X 1.0", Gr 2, ZP
	285051	Engine W/ Label, 9.0 GTQ, B&S M/S, EMI	22	264081	Cover, Coupling
	285061	Engine W/ Label, 9.0 GTQ, B&S M/S, Ca EMI	23	258121	Impeller, Balanced, W/ Knife
	285071	Engine W/ Label, 9.0 GTQ, B&S E/S, EMI		258651	Impeller, Balanced, No Chipper (Premier)
	285081	Engine W/ Label, 9.0 GTQ, B&S E/S, Ca EMI	24	258081	Housing, Impeller, Chipper
	285091	Engine W/ Label, 13.74 GTQ, Subaru E/S, 50 St		258641	Housing, Impeller, No Chipper (Premier)
02	134431	Bolt, HCS 5/16-18 X 1.5", Gr 5, ZP	25	258091	Housing, Impeller, Inlet
03	112411	Washer, Flat 5/16" Uss, ZP	26	285101	Housing W/ Label, Impeller, Scroll
04	110761	Nut, Lock, 5/16-18, Nylon, ZP	27	189801	Bolt, HCS 5/16-18 X 4.5", Gr 2, ZP
05	150451	Bolt, HCS 5/16-18 X 1.75", Gr 5, ZP	28	258671	Bearing, Flange
06	112501	Washer, Lock, 5/16", Ext Tooth, ZP	29	279011	Washer, Flat, .385" X 1.25" X .25", ZP
07	110691	Nut, Hex 5/16-18	30	110751	Nut, Lock, 3/8-16, Nylon, ZP
08	278951	Wire Harness, Safety	31	258111	Hopper, Chipper, Leaf System (Pro & Pro-XL)
09	278961	Wire Extension, Safety, (Pro-XL)	32	258881	Shield, Blowback, (Pro & Pro-XL)
10	112141	Cable Tie, 7.5" Black	33	258891	Retainer, Shield (Pro & Pro-XL)
11	258061	Mount, Engine Block (Premier & Pro)	34	114781	Screw, Mach, 10-24 X .62", Gr 2, Ph Pan, ZP
12	123211	Bolt, HCS 5/16-18 X .75", Gr 5, ZP	35	118731	Nut, Lock, 10-24, Nylon, ZP
13	112431	Washer, Lock, 5/16", Split, ZP	36	258621	Bracket, Battery (Electric Start Models)
14	258141	Pulley, Drive, 3.25" OD, A, 1.0" Bore	37	134471	Battery, 12V, 9aH (Electric Start Models)
15	106361	Key, 1/4" Sq X 2.25" Long	38	242301	Strap, Battery, 9aH (Electric Start Models)
16	258681	Coupling Flange, 1" Bore	39	119831	Bolt, HCS 1/4-20 X .75", Gr 2, ZP
17	258691	Coupling Sleeve, 3 Piece	40	110731	Nut, Lock, 1/4-20, Nylon, ZP
			41	258601	Wire, Green, E/S (Electric Start Models)
			42	258611	Wire, Red, E/S (Electric Start Models)



## Parts List – COLLECTOR ASSEMBLY

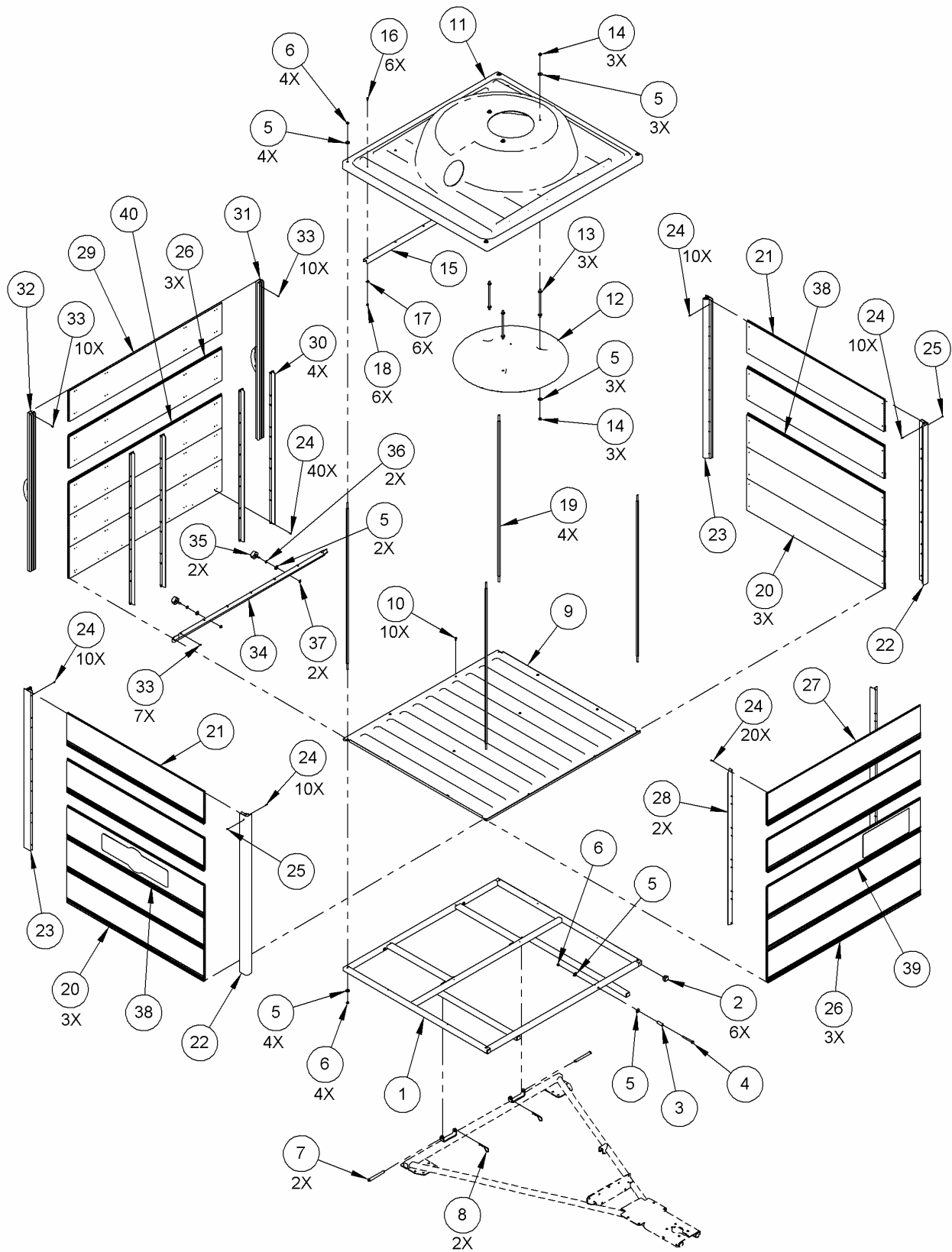
NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description	Ref#	Part#	Description
01	258331	Frame, Collector Base	25	284081	Screw, #6 X .31, Type A, Phil Pan, ZP
02	111081	Plug, 1" X 1" X 16ga Tube	26	258361	Panel, Front/Back, 46.50"
03	112311	Spacer, .327" ID X .50" OD X 1.5"	27	258491	Panel, Front, 46.50", Trimmed
04	111411	Bolt, HCS 5/16-18 X 3.0"	28	264171	Retainer, Front Panel, 32.02" (Premier)
05	112411	Washer, Flat 5/16" USS, ZP		264181	Retainer, Front Panel, 40.36"
06	187551	Nut, Lock, 5/16-18, Nylon, LP, ZP	29	264271	Panel, Back, 46.50", Trimmed
07	187371	Pin, Clevis, 1/2" X 4.5", ZP	30	264191	Stiffener, T, 31.52" (Premier)
08	160031	Pin, Hitch Clip 1/2"		264201	Stiffener, T, 39.86"
09	258341	Base, Collector	31	258461	Trim, Back Panel, Side 33.19" LH (Premier)
10	111701	Screw, 10-32 X 1/2", Type F, Phil Hex, ZP		264121	Trim, Back Panel, Side 41.53"
11	258371	Cover, Collector	32	258471	Trim, Back Panel, Side 33.19" RH (Premier)
12	258441	Cone, Separator		264121	Trim, Back Panel, Side 41.53"
13	258451	Rod, Cone Mount	33	278991	Screw, #6 X 1/2", Type A, Flat 100°, ZP
14	110761	Nut, Lock, 5/16-18, Nylon, ZP	34	258481	Trim, Back Panel, Bottom
15	282571	Channel, Cover	35	284171	Knob W/ Hardware, 5/16-18, Gr 8, Stud
16	114781	Screw, Mach, 10-24 X .62", Gr 2, Ph Pan, ZP	36	112431	Washer, Lock, 5/16", Split, ZP
17	112371	Washer, Flat, #10 USS, ZP	37	279051	Push Nut, 5/16"
18	118731	Nut, Lock, 10-24, Nylon, ZP	38	284981	Panel W/ DR Stripe Label, Side, 41.58
19	258421	Bar, 8mm X 10mm X 35.55"	39	284991	Panel W/ Operating Label, Front, 46.50
	258431	Bar, 8mm X 10mm X 43.89"	40	285001	Panel W/ DR Round Label, Back, 46.50
20	258351	Panel, Side, 41.58"			
21	258511	Panel, Side, 41.58", Trimmed			
22	258381	Support, Corner, Front 33.48" (Premier)			
	258391	Support, Corner, Front 41.82"			
23	258401	Support, Corner, Back 33.48" (Premier)			
	258411	Support, Corner, Back 41.82"			
24	279001	Screw, #6 X 1/2", Type A, Phil Pan, ZP			

### Labels

280641	Label, Operating
280651	Label, Dr Logo & Stripe
192391	Label, Dr Logo, 5.75", Silver

**Schematic – COLLECTOR ASSEMBLY**



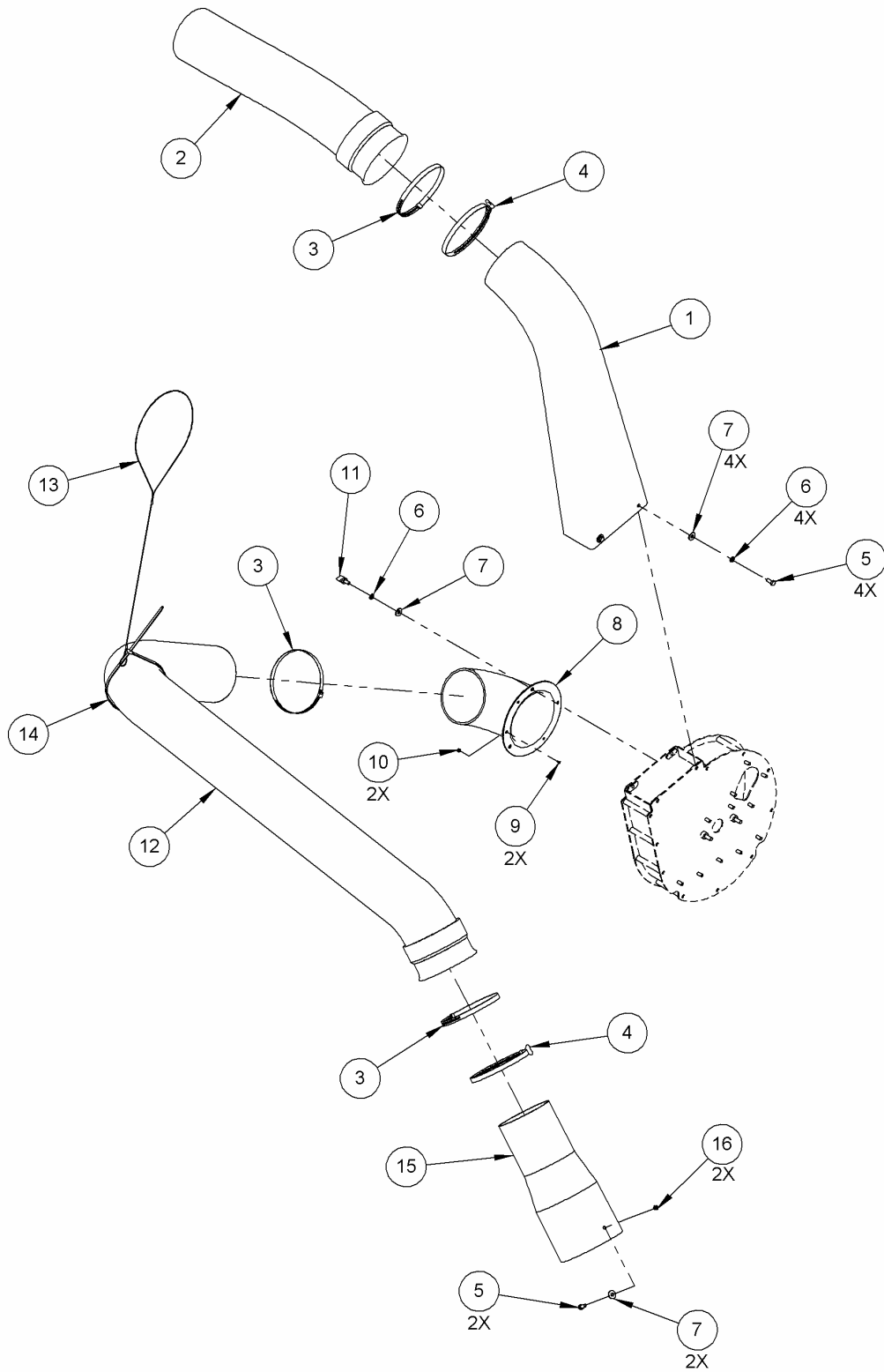
## Parts List – HOSE AND DUCT ASSEMBLY

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

<u>Ref#</u>	<u>Part#</u>	<u>Description</u>	<u>Ref#</u>	<u>Part#</u>	<u>Description</u>
01	258541	Duct, Impeller Outlet, 27.46" High	09	282561	Screw, Mach, 6-32 X .31", 100°FH, ZP
	258551	Duct, Impeller Outlet, 36.46" High	10	278221	Nut, Lock, 6-32, Nylon, ZP
02	284121	Hose and Clamps, 6.00" ID X 28" Long W/ Cuff	11	258591	Knob, 1.25" OD, 5/16-18 X .62" Stud
03	186961	Clamp, Hose, 6"	12	284131	Hose and Clamps, 6.00" Id X 90" Long W/ Cuff
04	258901	Clamp, Hose, 6" Dia, Thumbscrew	13	188711	Lanyard
05	123211	Bolt, HCS 5/16-18 X .75", Gr 5, ZP	14	157031	Cable Tie, 36", White
06	112431	Washer, Lock, 5/16", Split, ZP	15	280661	Adapter, Hose, 7"
07	112411	Washer, Flat 5/16" USS, ZP		280671	Adapter, Hose, 8"
08	258531	Duct, Impeller Inlet	16	187551	Nut, Lock, 5/16-18, Nylon, LP, ZP



**Schematic – HOSE AND DUCT ASSEMBLY**



*Notes:*

# DR<sup>®</sup> LEAF and LAWN VACUUM



## 2-Year Limited Warranty

### Terms and Conditions

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

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

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

The 2-Year Limited Warranty on the DR<sup>®</sup> LEAF and LAWN VACUUM starts on the date the machine ships from our factory. The 2-Year Limited Warranty is applicable only to the original owner.

The warranty holder is responsible for the performance of the required maintenance as defined by the manufacturer's owner's manuals. The warranty holder is responsible for replacement of normally wearing parts such as the Chipper Knife, Spark Plug, Air Filters, Coupling Sleeve, and Battery. Accessories to the machine are not covered by this warranty.

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

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

DR Power Equipment shall not be liable under any circumstances for any **incidental or consequential damages or expenses** of any kind, including, but not limited to, cost of equipment rentals, loss of profit, or cost of hiring services to perform tasks normally performed by the DR<sup>®</sup> LEAF and LAWN VACUUM.

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

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

## Daily Checklist for the DR LEAF and LAWN VACUUM

To help maintain your DR LEAF and LAWN VACUUM for optimum performance, we recommend you follow this checklist each time you use your Vacuum.

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### WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

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- [ ] 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 the recommended motor oil.
- [ ] GAS: Fill the gas tank with fresh, unleaded gasoline.
- [ ] ENGINE: It is very important to keep the Engine clean. Remove dirt and other debris from the Engine cooling fins and debris guard. A dirty Engine retains heat and can cause damage to internal Engine components.
- [ ] HARDWARE: Check all nuts and bolts to be sure that the components are secure.
- [ ] FRAME: Check all welds to be sure that the frame is in tact and secure.
- [ ] HOSES: Inspect the Hoses for holes, frayed, worn, kinked, or abraded areas. Replace any damaged or worn Hoses.

## End of Season and Storage

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### WARNING

Before performing any maintenance, repairs or inspection, you must first shut off the mower and leaf and lawn vacuum engines, wait five minutes for all parts to stop and cool, and disconnect the spark plug wire of the leaf and lawn vacuum.

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

- Change the oil. Refer to your Engine Owner's Manual for detailed information.
- If your DR LEAF and LAWN VACUUM 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 or replace the air filter. Refer to your Engine Owner's Manual for detailed information.
- Clean dirt and debris from the cylinder head cooling fins, Impeller housing, debris screen, and muffler area of the engine.
- Clean out residual debris from the Hoses and Collector.
- Store the Battery in a dry area that will not freeze. If you will not use the machine over a long period, charge the Battery every four to six weeks. See page 28.
- If possible, store the DR Leaf and Lawn Vacuum in a dry, protected area. If it is necessary to store the machine outside, cover it with a protective material (especially the Engine). Contact us at [www.DRpower.com](http://www.DRpower.com) or call 1-800-DR-OWNER (376-9637) to purchase a cover for your DR LEAF and LAWN VACUUM.



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