DR® LEAF & LAWN VACUUM
SAFETY & OPERATING INSTRUCTIONS

Models:
Premier
Pro
Pro-XL

Serial No. _____

Order No. _____

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

⚠ WARNING

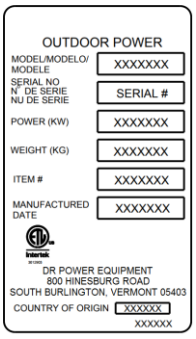
This indicates a hazardous situation, which, if not avoided, ***could*** result in death or serious injury.

⚠ CAUTION

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

NOTICE

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



Serial Number and Order Number

A Serial Number is used to identify your machine and is located on the Serial Number Label on your machine. 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.

California Proposition 65

⚠ WARNING
CANCER AND REPRODUCTIVE HARM - www.P65Warnings.ca.gov.

⚠ 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 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.

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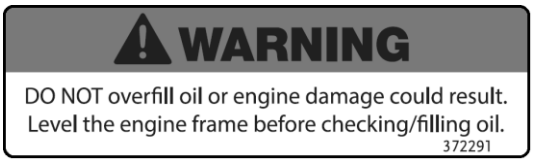

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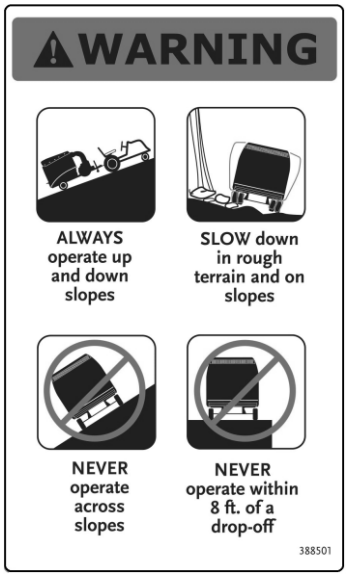

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Protecting Yourself and Those around You

⚠ 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 impeller 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, the vacuum system, or when 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.

Safety for Children and Pets

⚠ 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 activity. *Never* assume that children or pets will remain where you last saw them. Always follow these precautions:

- Keep children and pets at least 100 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.
- 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.

Safety with Gasoline - Powered Machines

⚠ 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.
- 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

⚠ 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

⚠ 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.
- Never run the engine unless the chute, fabric collector sleeve, and hose are all securely in place and the engine frame is securely connected to the cart frame.
- Check behind your DR Leaf and Lawn Vacuum before backing up. You cannot see directly behind the collector box.
- Never attempt to open or empty the collector while the lawn tractor deck is engaged or the DR Leaf and Lawn Vacuum engine is running. Debris may exit at high velocity as you begin to open the collector.
- Do not operate in sandy areas where you will vacuum large quantities of sand. Sand will erode the vacuum housing. Check for holes after each use and replace the housing and liner when holes develop.
- Never operate the machine on slopes greater than 15 degrees.
- Never tow the DR Leaf and Lawn Vacuum faster than 8 mph.
- Always shut off the lawn tractor engine and the DR Leaf and Lawn Vacuum engine and disconnect the spark plug wire before attempting to clear any obstructions from the hose.
- 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.
- 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.
- For best performance we recommended that you operate your Leaf and Lawn Vacuum in temperatures 40°F and above.

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 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.

DR LEAF and LAWN VACUUM Controls and Features

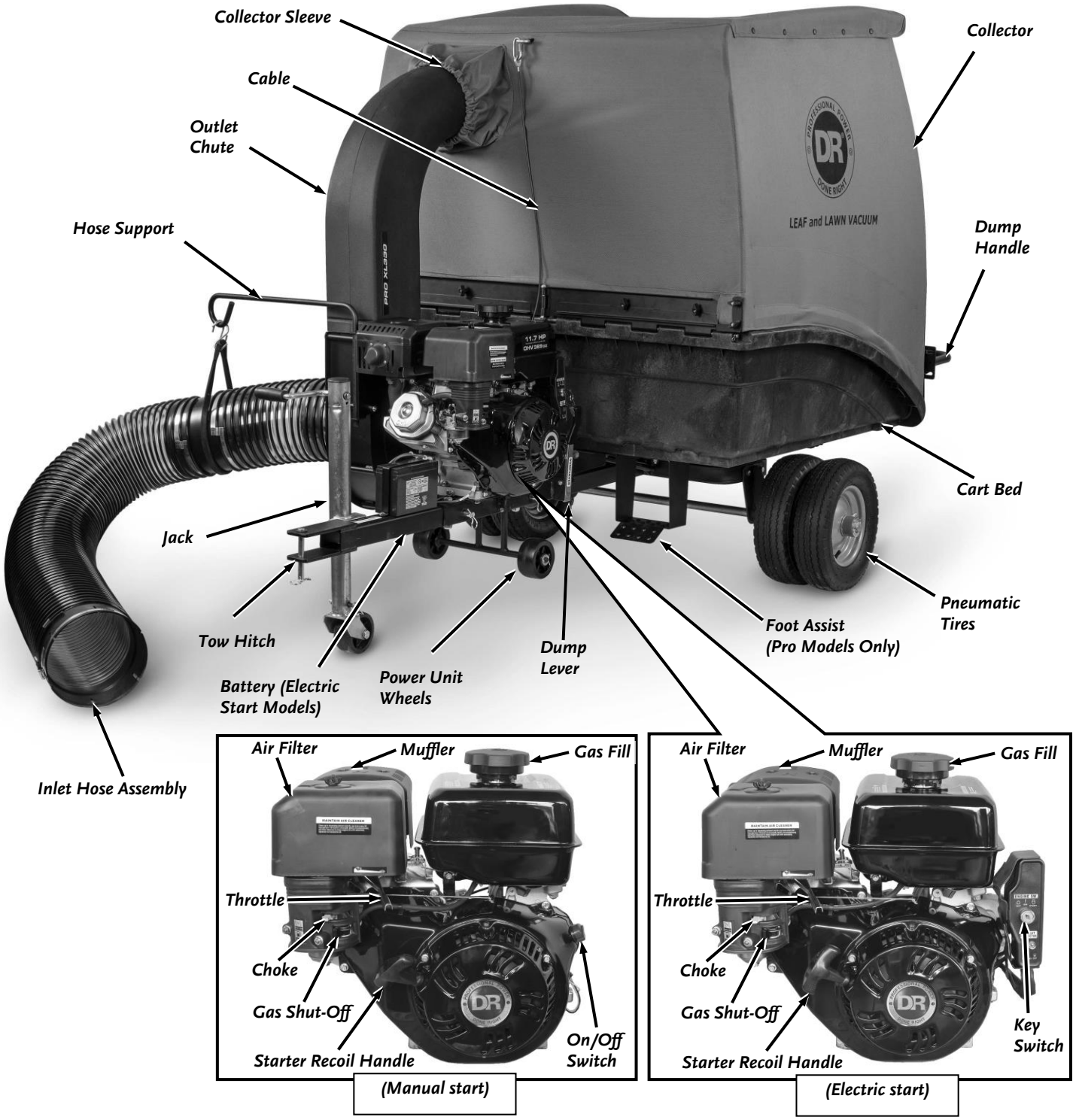


Figure 1

Specifications

	PREMIER	PRO	PRO-XL
Engine	DR Power Equipment R225	DR Power Equipment R300	DR Power Equipment R390
Ft-lbs Torque	9.59	13.28	16.96
Starting	Manual or Electric w/ Recoil Backup	Manual or Electric w/ Recoil Backup	Manual or Electric w/ Recoil Backup
RPM	3800	3800	3800
Impeller	Steel, 5 Blades w/Serrated Teeth	Steel, 5 Blades w/Serrated Teeth	Teel, 5 Blades w/Serrated Teeth
Weight	13.2 Lbs	13.2 Lbs	13.2 Lbs
Mount	Keyless Tapered Direct Engine Mount	Keyless Tapered Direct Engine Mount	Keyless Tapered Direct Engine Mount
Vacuum	2038 CFM	2038 CFM	2038 CFM
Suction	66 MPH	66 MPH	66 MPH
Hose	8" ID	8" ID	8" ID
Collector	Clamshell Design	Clamshell Design	Clamshell Design
Volume	32 Cubic Feet, 240 Gallons	44 Cubic Feet, 330 Gallons	44 Cubic Feet, 330 Gallons
Capacity	500 Lbs	800 Lbs	800 Lbs
Fabric Enclosure	1800 Denier Polyester with Bonded PVC Backing	1800 Denier Polyester with Bonded PVC Backing	1800 Denier Polyester with Bonded PVC Backing
Dump Tilt	60°	60°	60°
Cart	Detachable, High Strength PE Cart Bed	Detachable, High Strength PE Cart Bed	Detachable, High Strength PE Cart Bed
Frame	Welded Steel, 2 Piece Modular Design	Welded Steel, 2 Piece Modular Design	Welded Steel, 2 Piece Modular Design
Impeller Housing	Steel Scroll (.12"), Sideplate (.12")	Steel Scroll (.12"), Sideplate (.12")	Steel Scroll (.12"), Sideplate (.12")
Wheels	Pneumatic 5.30/4.50-8 4 Ply w/ Tube	Pneumatic 5.30/4.50-8 4 Ply w/ Tube	Pneumatic 5.30/4.50-8 4 Ply w/ Tube
Quantity	2 (1 Per Side)	4 (2 Per Side)	4 (2 Per Side)
Tire Size	14" Diameter x 4.5" Wide	14" Diameter x 4.5" Wide	14" Diameter x 4.5" Wide
Jack	Optional Accessory	Heavy Duty w/ 4" Wheel (Ships	Heavy Duty w/ 4" Wheel (Ships
Lawn Mower	12 HP Min Flat Terrain otherwise 14 HP	17 HP Min	17 HP Min
Lawn Mower Hitch	Pin Hitch 8" to 15" from the Ground	Pin Hitch 8" to 15" from the Ground	Pin Hitch 8" to 15" from the Ground
Battery (E/S Models)	9Ah, Spade Terminals	9Ah, Spade Terminals	9Ah, Spade Terminals
Dimensions	87.8" L x 40.1" W x 61" H	87.8" L x 49.5" W x 61" H	87.8" L x 49.5" W x 61" H
Weight	342 Lbs M/S, 355 Lbs E/S	411 Lbs M/S, 423 Lbs E/S	425 Lbs M/S, 437 Lbs E/S

Parts supplied in packaging:

- Power Unit
- Cart Bed with Frame
- Axle
- Tube Frame Handle
- Product Package
  - Safety and Operating Instructions Manual
  - Engine Manual
  - Hardware (see figure 3)
- Large Parts Box (see Figure 4)
- Parts in Cart Bed (Figure 2):
  - 2 Wheels (Premier)
  - 4 Wheels (Pro and Pro XL)
  - Inlet Hose Assembly (with Coupling and Clamps)
  - Outlet Duct
  - Flexible Oil Fill Funnel

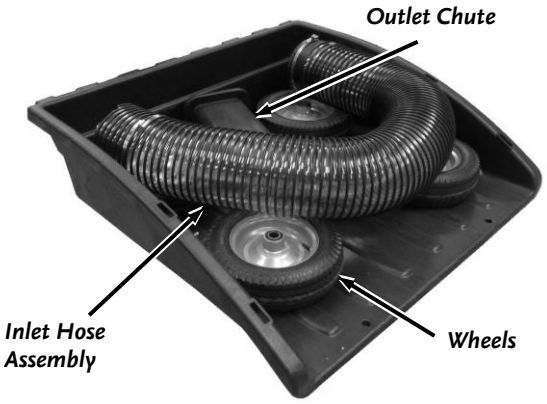


Figure 2

Assembly Parts Identification

Compare the contents of the Parts Boxes and Hardware Packages with the Parts Supplied lists and Figures 3 thru 8 below. If there are any questions contact us at **www.DRpower.com** or call **1-800-DR-OWNER (376-9637).**
There may be hardware left over when assembly is finished. This is sometimes expected in the process of filling hardware bags at the factory.

Product Package Hardware (*Figure 3*):

Item #	Part #	Description	Qty
1	A0000253563	Pin, Clevis, 1/2" X 4.5", ZP	1
2	211541	Pin, Clevis, 1/2" X 3.5", ZP	2
3	350371	Bolt, Hex, 7/16-20, Impeller Tool	1
4	350291	Knob Set, 5/16-18 W/Lock, 17 Pack	1
5	350271	Bolt, C-Head, 5/16-18 X 1.75", ZP	2
6	112411	Washer-Flat 5/16 USS	2
7	110761	Nut-Lock Nylon 5/16-18	2
8	337871	Pin, Cotter, Hair, 1/4-3/8	4
9	160031	Pin, Hitch Clip 1/2"	3
10	189671	Washer, Flat, 1/2", Rubber	1
11	350331	Bolt, C-Head, 5/16-18 X 1.75", ZP	2
12	106681	Nut, Flange 5/16-18	2

11, 12 only included in PRO/ PRO XL models

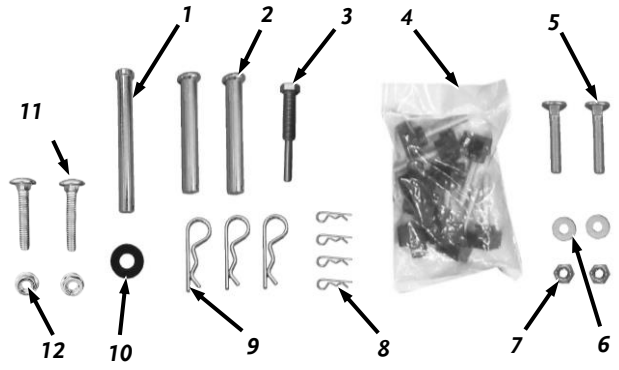


Figure 3

Large Parts Box Contents (*Figure 4*):

Item #	Description	Qty
1	Tube Frame Assembly, LH	1
2	Tube Frame Assembly, RH	1
3	Small Parts Box	1
4	Enclosure, Fabric	1
5	Rod, Support, Hose	1
6	Hinge, Split, Frame Collector, RH	1
7	Hinge, Split, Frame Collector, LH	1
8*	Bracket, Foot Assist	1
9	Gas Spring, 500-300 mm, 150 lb	2
10	Batten, FRP	1
11	Pin, Hinge	1
12	Handle, Tube Frame	1
13	Hinge Tube Assembly	1
14	Outer Link Assembly, Bottom Rear	1
15	Inner Link Assembly, Top Rear	1
16	Retainer, Enclosure LH	1
17	Retainer, Enclosure RH	1

8, only included in PRO/PRO XL models

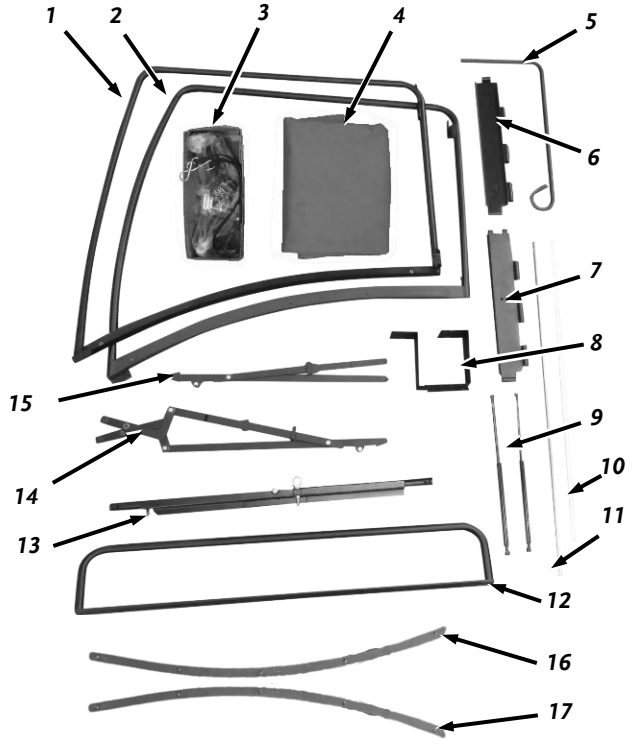


Figure 4

Small Box Parts (***Figure 5***):

Item #	Part #	Description	Qty
1	A0001844373	Bracket, Stop	2
2	354421	Strap and Hook Set	1
3	338021	Bracket, Axle	2
4	350211	Hardware Set, Wheels	1
5	A0002281395	Hardware Set, Enclosure	1
6	388671	Hardware Set, Power Unit	1
7	337911	Retainer, Enclosure, Front	2

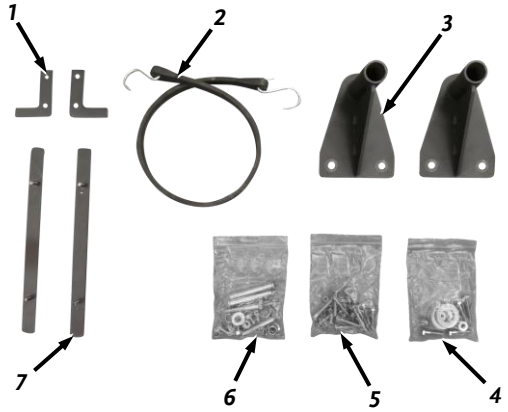


Figure 5

Master Tool List:

Item #	Description	Qty
1	Ratchet	1
2	5/16" Wrench	1
3	7/16" Wrench	1
4	7/16" Socket	1
5	1/2" Wrench	1
6	1/2" Deep Socket	1
7	9/16" Wrench	1
8	9/16" Deep Socket	1
9	3/4" Wrench	1
10	3/4" Socket	1
11	13mm Wrench or Adjustable Wrench	1
12	Scissors or diagonal cutters	1
13	Pliers	1
14	Wire Cutters	1
15	Hammer	1
16	Utility Knife	1
17	Flat head Screwdriver or 7mm Wrench	1
18	Tire Pressure Gauge	1
19	Air pump or compressor	1
20	Safety Glasses	1
21	Floor Jack	1

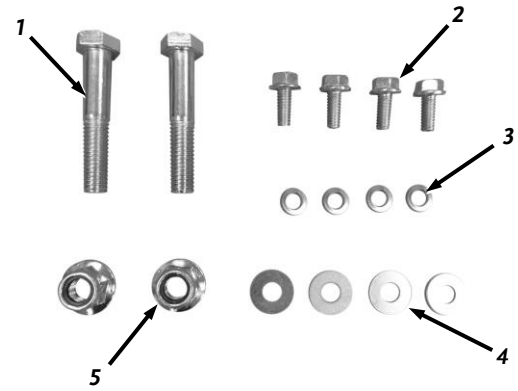


Figure 6

Power Unit Hardware (*Figure 6*):

Item #	Part #	Description	Qty
1	265561	Bolt, HCS, 1/2-13 X 2.75", GR5, ZP	2
2	350231	Bolt, Hex, Flange, 5/16-18 X .75"	4
3	112431	Washer, Lock, 5/16", Split, ZP	4
4	112411	Washer, Flat, 5/16" USS, ZP	4
5	333351	Nut, Nylon Lock, Flange, 1/2-13	2

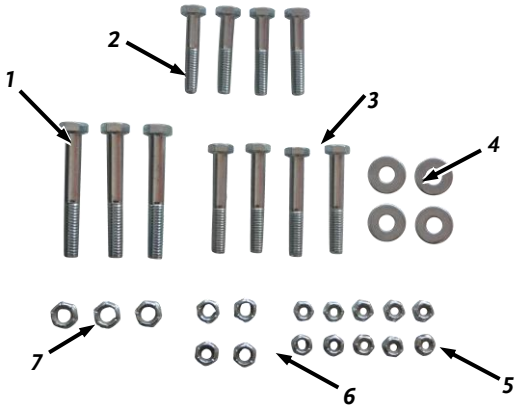


Figure 7

Enclosure Hardware (*Figure 7*):

Item #	Part #	Description	Qty
1	123371	Bolt-Hcs 3/8-16 X 2 3/4 Gr5 Zp	3
2	150451	Bolt-Hcs 5/16-18 X 1-3/4 Gr5 Zp	4
3	101471	Bolt-Hcs 5/16-18x2 1/4 Gr2 Zp	4
4	112411	Washer-Flat 5/16 Uss	4
5	110731	Nut, Nylon Lock, 1/4-20, ZP	10
6	110761	Nut-Lock Nylon 5/16-18	4
7	164131	Nut-Lock Nylon 3/8-16 Lowpro	3

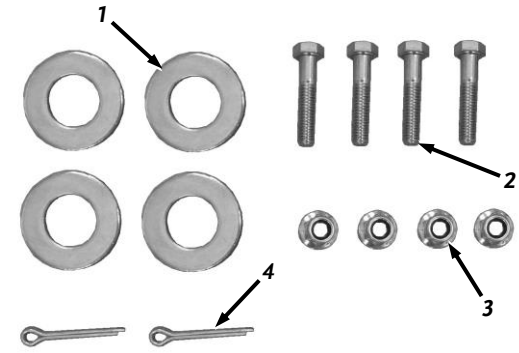


Figure 8

Wheel Hardware (Figure 8):*

Item #	Part #	Description	Qty
1	A0001216052	Washer, 1.00"ID X 1.58"OD X .134" Thick	4**
2	123341	Bolt, HCS, 3/8-16 X 1.75", GR5, ZP	4
3	333331	Nut, Nylon Lock, Flange, 3/8-16	4
4	126851	Pin, Cotter, 3/16" X 1.5"	2

**Only two needed for Premier (single wheel) machines.

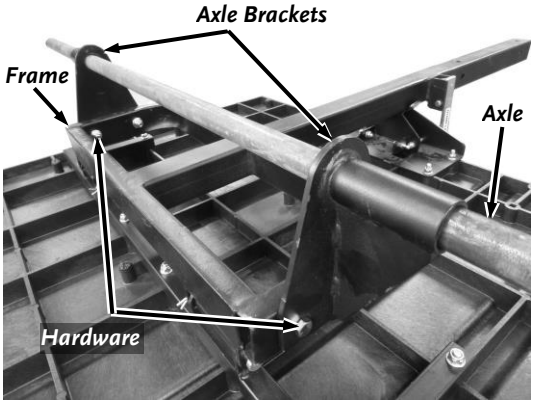


Figure 9

Installing the Wheels

(Use Wheel Hardware Bag Set, see Figure 8)

Tools Needed:

- 9/16" Wrench and 9/16" Ratcheting Socket
- Pliers

1. Tip the Cart over to access the Frame (***Figure 9***).
2. Position the Axle Brackets and loosely secure with four 3/8-16 X 1.75" Bolts and Locknuts using a 9/16" Wrench and Ratcheting Socket.
3. Slide the Axle through the Brackets until the same amount sticks out on the side. Do not tighten the hardware until you are finished step 7 on the following page.

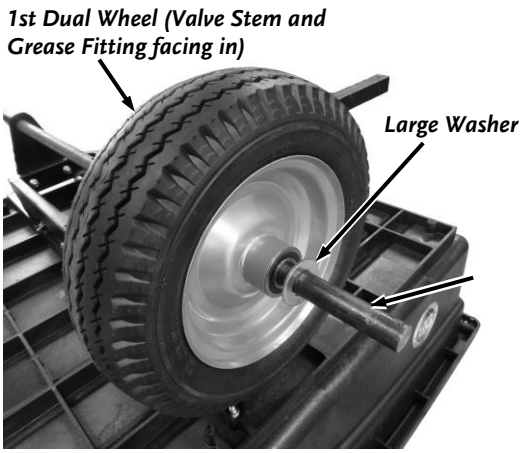


Figure 10

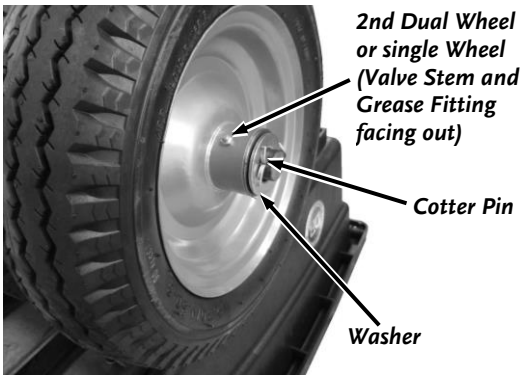


Figure 11

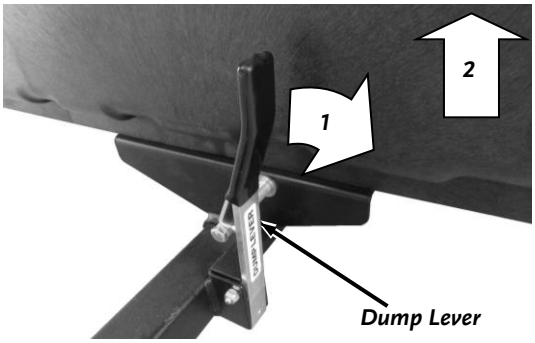


Figure 12

assembled, page 24.

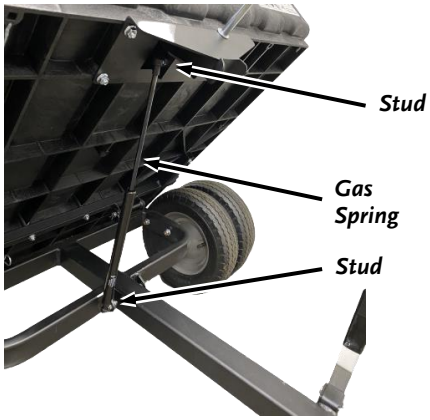


Figure 13

4. **For Machines with Dual Wheels only:** Slide a Wheel onto the Axle with the Valve Stem facing in and install a Washer against the Wheel (***Figure 10***).

Note: *No Washers are needed against the Axle Brackets. Dual Wheel machines use one washer between the Dual Wheels and one on the outside. Single Wheel machines only use one Washer on the outside.*

5. **For all Machines:** Install a Wheel (second wheel for Dual Wheel models) with the Valve Stem facing out and place a Washer against the Wheel (***Figure 11***).
6. Secure the Wheel/s onto the Axle with a Cotter Pin. Use Pliers to bend the ends of the Cotter Pin to secure the Wheels.
7. Repeat for the Wheel/s on the opposite side.
8. Tighten axle bracket hardware.
9. Tip the Cart over onto the Wheels.

Installing the First Gas Spring

1. Tilt the Cart Bed up by pulling the Lift Handle out and lifting up on the front of the Cart (***Figure 12***).

Note: *In the next step, the Gas Spring needs to be installed with the larger end attached to the Frame and the thin Shaft end to the Cart Bed.*

2. Insert the right side Gas Spring onto the Studs by pressing the holes in the ends of the Gas Spring over the Studs. They will snap into place. (***Figure 13***).
3. Before installing the second gas spring, the foot assist will need to be installed (***Figure 4, item 8***) *(PRO MODELS ONLY). Leave the Cart in the up position for the following procedure. (PREMIER models skip to step 7)
4. Remove the two 5/16-18 nuts using a 1/2" wrench while keeping a finger on the head of the carriage bolt inside the bed so it does not rotate.
5. Drop two Carriage bolts, 5/16-18 X 1.75", Item 11 found in the product pack (***Figure 3***) into the open square holes directly to the right of the area where the nuts were just removed.
6. Fit the foot assist up to the carriage bolts as shown in Figure 15 and secure using a 1/2" wrench and the two 5/16-18 flange nuts previously removed, and two additional 5/16-18 flange nuts, item 12 found in the product pack ***(Figure 3).*** Make sure to keep a finger on the head of the carriage bolts inside the bed when tightening.
7. The 2nd gas spring will be installed once the collector is completely

5/16-18 Nuts

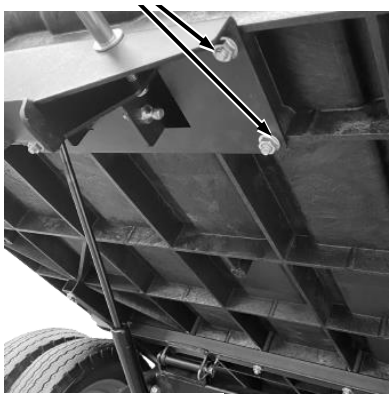


Figure 14

4 Carriage Bolts and Flange Nuts

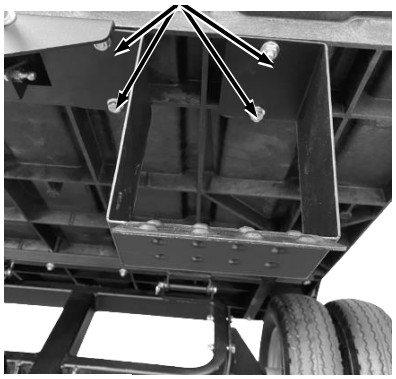


Figure 15

Assembling the Power Unit

(Use Power Unit Hardware Package, see Figure 6)

Tools Needed:

- 1/2" Wrench or 1/2" Ratcheting Socket
- 3/4" Wrench and 3/4" Ratcheting Socket
- Scissors / diagonal cutters
- Optional Floor Jack

1. Cut the cable tie holding the machine keys and place them in a safe location not to be lost.
2. Place the Outlet Chute on top of the Impeller Housing (make sure to orient as shown) and secure with four Bolts, Lock Washers, and Flat Washers using a 1/2" Wrench or socket (***Figure 16***).

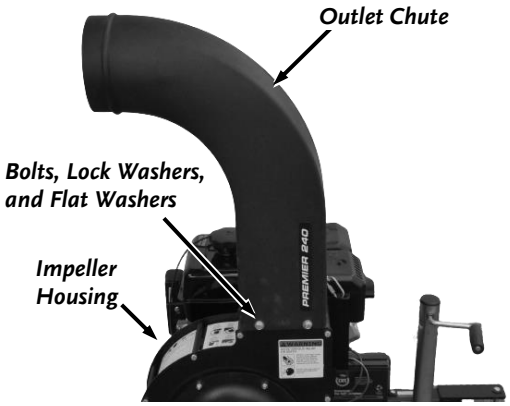


Figure 16

Installing the Power Unit

(Use Power Unit Hardware Package, see Figure 6)

1. Position the Power Unit at the front of the Cart with the Tow Hitch facing forward and the rear holes aligned.

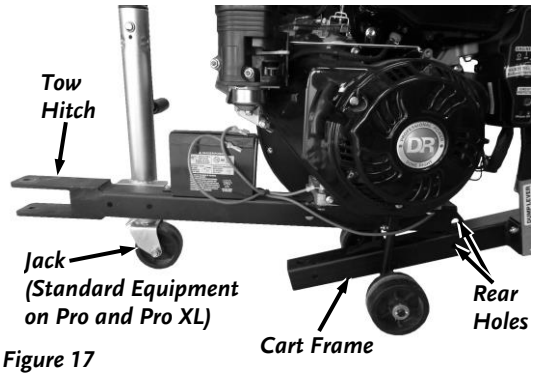


Figure 17

⚠ CAUTION

We recommend having a helper to attach the Frames together. There is a chance for injury if you attempt it alone because the Power Unit is heavy.

2. Lift the Cart Frame to align the rear hole in the Engine Unit with the hole in the Frame and insert a 1/2" X 3.5" Clevis Pin and Hitch Clip (Clevis Pins and Hitch Clips are provided in the Product Package (***Figure 18***).
3. Chock the Wheels of the Cart to keep it from moving and have a helper pull forward on the Outlet Chute so the Power Unit and Cart Frame front holes are aligned (***Figure 19***).

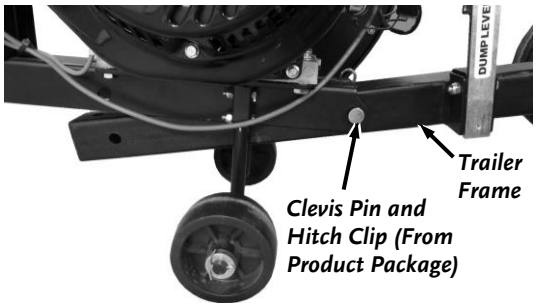


Figure 18

Note: *If you have a Floor Jack or similar you could jack under the Dump Lever to align the Frames without a helper.*

4. Insert the 2nd 1/2" X 3.5" Clevis Pin and Hitch Clip into the front holes of the Engine Unit and Cart Frame (***Figure 20***).
5. Place the two 1/2-13 X 2.75" Bolts from underneath up through the two vertical Holes and secure with 1/2-13 Locknuts using a 3/4" Wrench and 3/4" Ratcheting Socket. Remove the Floor Jack if one was used.

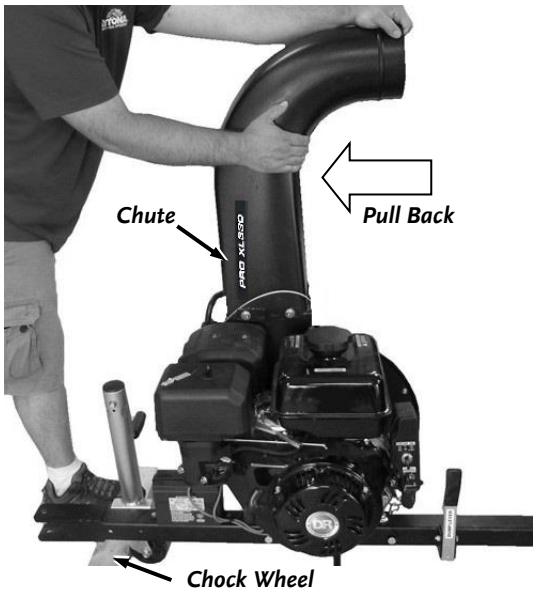


Figure 19

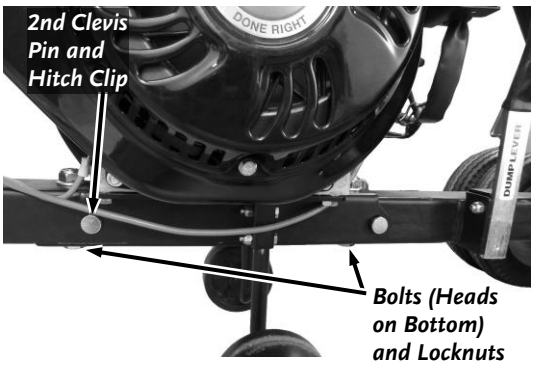


Figure 20

Assembling the Collector

(Use Enclosure Hardware Set, see Figure 7 and Product Package Hardware, see Figure 3)

Note: *The Enclosure Fabric is intentionally a tight fit. Assembly is much easier when you perform the following procedures in order.*

Tools Needed:

- 7/16" Deep Socket with Ratchet
- 7/16" Wrench
- 1/2" Deep Socket with Ratchet
- 1/2" Wrenches
- 9/16" Deep Socket with Ratchet
- 9/16" Wrench
- Hammer

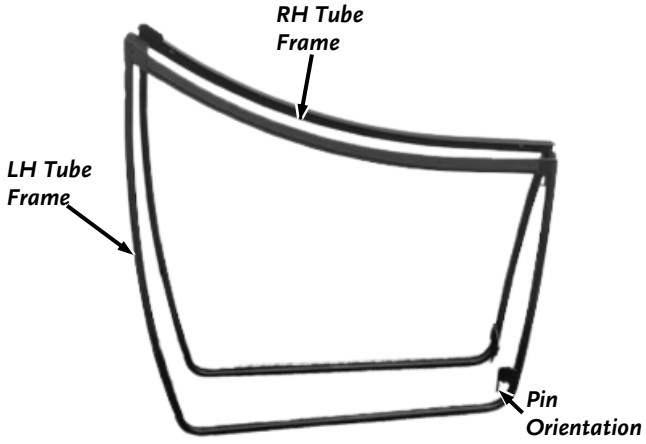


Figure 21

Installing the Inner Link Assembly

1. Remove any bubble wrap packaging from each Tube Frame and stand up both the LH and RH Tube Frames against a wall, making note of the Pin Orientation shown (***Figure 21***).
2. Orient the Inner Link Assembly onto the Tube Frames with the jogged bent link as shown (***Figure 22***).
3. Secure the links with hardware found in the Product Package (Figure 3) by inserting two carriage bolts (Bolt, C-Head, 5/16-18 X 1.75) through the tube, followed by two washers (Washer-Flat 5/16 USS), the scissor links and then two lock nuts (Nut-Lock Nylon 5/16-18) as shown in (***Figure 23***).
4. Tighten the lock nuts using a 1/2" Wrench just enough to engage the nylon end on the nuts. Making sure the carriage bolt is seating correctly in the square tube hole. Do not over tighten, as the scissor links need to be able to rotate freely once secured.

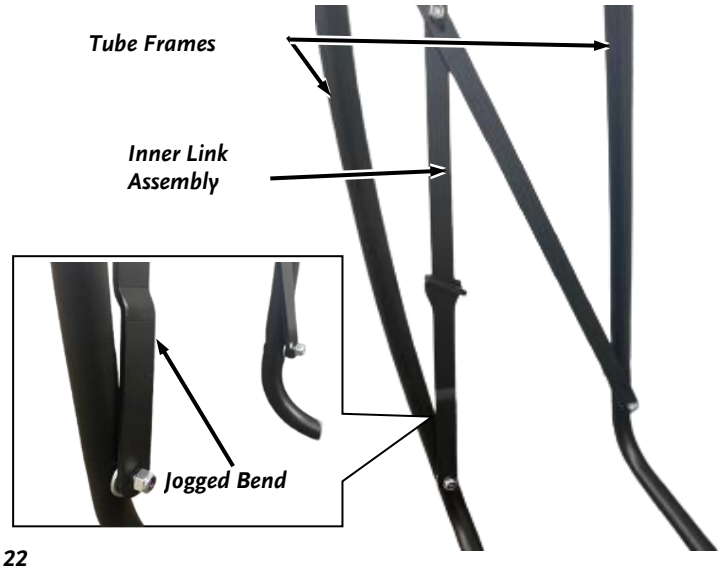


Figure 22

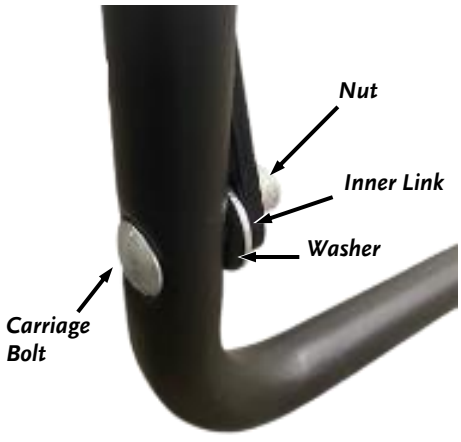


Figure 23

Installing the Side Retainers

1. Lay out the Enclosure onto a clean flat surface so the inside (black) is facing up (***Figure 27***). Take note of the Sleeve location at the front of the Enclosure.
2. Fold the side flaps so you can see the 5 holes in each of the side pockets. Take note of the front pocket. It also has holes, but they are facing down and are not visible (***Figure 27***).
3. Set the Tube Frame Assembly into the Enclosure with the Inner Link positioned toward the Rear Flap (opposite the Front Sleeve) (***Figure 28***).

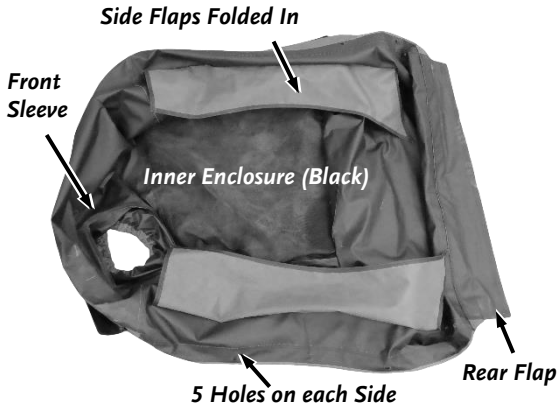


Figure 27

Note: *The Left Hand and Right Hand Side Retainers are very similar and their orientation needs to be checked prior to inserting into the canvas enclosure.*

4. Check that the left hand and right hand side retainers are oriented correctly by holding up one retainer at a time. With the retainer on the outside, feed the studs through the Tube Frame Slots. The parts will be oriented correctly if all 5 studs feed through the Slots without issue. Once you have confirmed both retainers are in the correct orientation, lay them down (keeping its same orientation) next to the Enclosure Pocket with the studs pointing up (***Figure 28***).
5. Insert the front end of the Side Retainer into the rear end of the pocket so when installed the Side Retainer will be in the same orientation shown in the photo. It works best to keep the studs tilted sideways until they all align with the Enclosure holes, then twist the Retainer so the studs go into the holes (***Figure 29***).
6. Repeat steps 4 and 5 for the other Side Retainer.

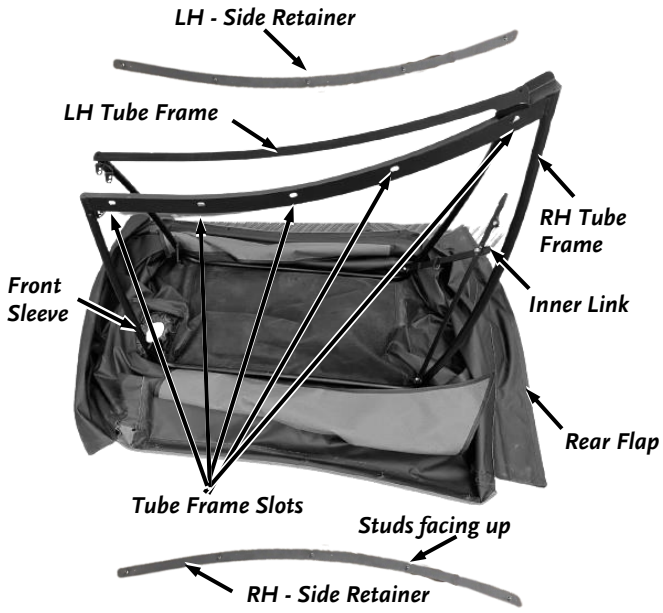


Figure 28

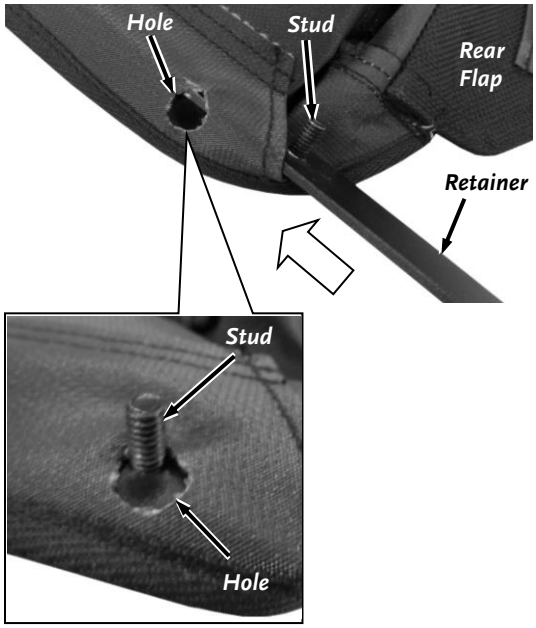


Figure 29

Attaching the Enclosure,

(Use Hardware Enclosure set, see Figure 7)

It is best to do this install up against a wall, to keep the enclosure upright while working.

1. Lift one side of the Enclosure so the studs on the Side Retainer go into the Tube Frame Assembly slots (***Figure 30***). Secure with five 1/4-20 Lock Nuts. Screw the nuts onto studs finger tight.

Note: *It is important that the nuts are only finger tight as it will allow the canvas to be pulled around much easier to align other areas of the frame and canvas.*

2. Repeat step 1, lifting up the other side.
3. At the Rear Flap corner, align the two holes of the Enclosure and Tube Frame Assembly. Insert two 5/16-18 x 2-1/4" bolts into each hole and through to the outside of the canvas (***Figure 31***).
4. Repeat step 3 for the other back corner.
5. Put one 5/16 Flat Washer on each of the 4 exposed bolts.
6. Align the Outer Link Assembly "L" bracket onto the two rear corner bolts and washers, screw on 5/16-18 nuts finger tight. Be sure to orient the Outer Link Assembly with the Link Bend where shown (***Figure 32***).
7. Repeat step 5 for the other corner.
8. Next, we need to align the front corner. Pull the canvas to align the front corner holes with the Tube Frame. Insert two 5/16-18 x 1-3/4" bolts through the Tub Frame and canvas. Leaving the exposed thread outside the canvas ***(Figure 33).***
9. Repeat step 8 for the other corner.
10. Tighten four Thumb Screw Knobs onto the ends of the four exposed bolts to keep them in place while we install the remaining components.

Figure 30

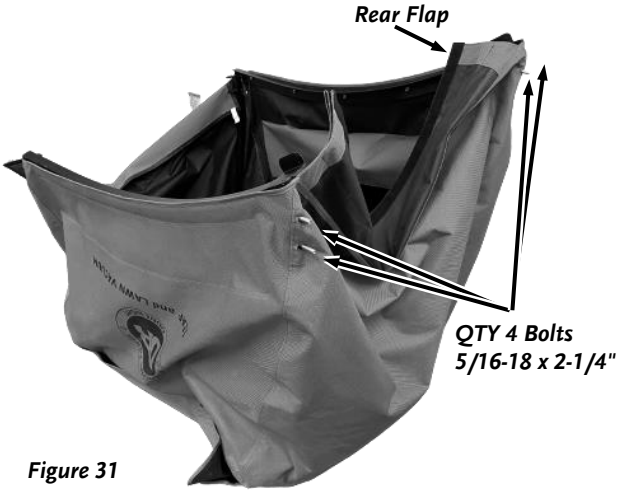


Figure 31

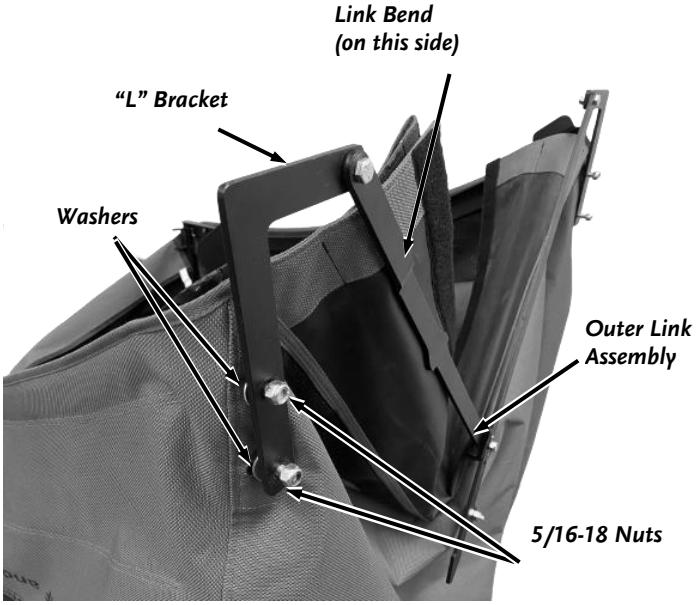


Figure 32

Figure 33

Installing the Front Retainers

1. Insert one of the Front Retainers into the Front Corner canvas pocket. Slide the Front Retainers in at an angle to avoid the studs catching on the canvas as they are inserted (***Figure 34***).
2. Align the studs through the holes in the canvas (***Figure 35***).
3. Repeat steps 1 and 2, inserting the remaining Front Retainer into the canvas from the other front corner.
4. Screw on four Thumb Screw Knobs finger tight onto each of the four exposed studs to keep the retainers from moving while we install the other components.

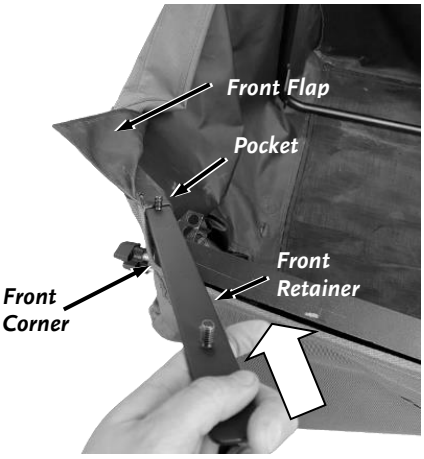


Figure 34

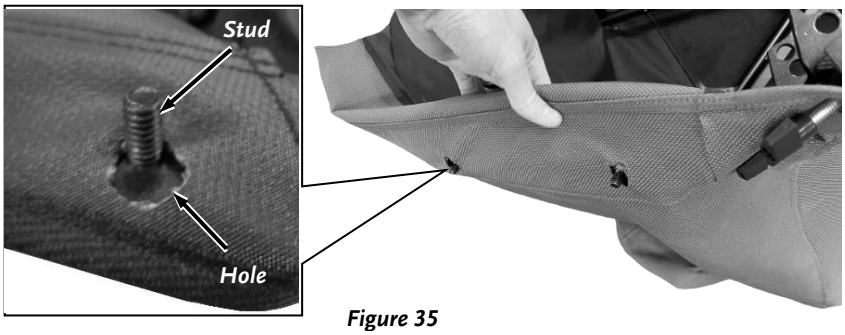


Figure 35

Installing the Hinge Tube Assembly (Figure 36)

1. Lay the Hinge Tube Assembly into the canvas with the eyebolt laying flat on the canvas floor as shown in ***Figure 37***.
2. Align one end of the assembly underneath the Tube Frame Pin. Insert the pin through the inner hole on the Hinge Tube ends.

   Note: *The outer holes on the Hinge Tube Assembly should only be used if the canvas needs to be adjusted tighter, once fully assembled.*
3. Secure the Hinge Tube Assembly onto the pin with a hair pin (Pin, Cotter, Hair, 1/4-3/8) that can be found in the Product Pack (***Figure 38***).
4. Repeat steps 2 and 3 to secure the other end of the Hinge Tube Assembly to the frame.

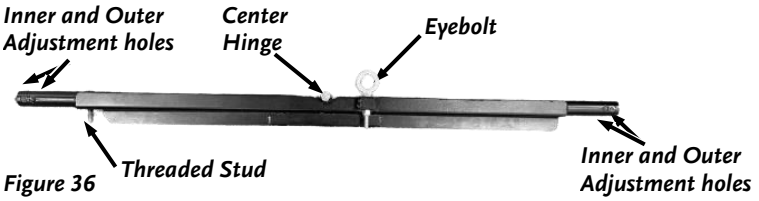


Figure 36

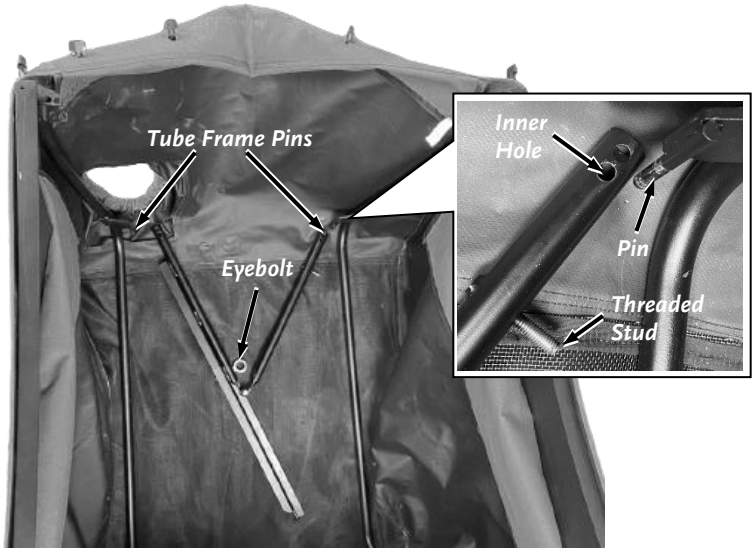


Figure 37

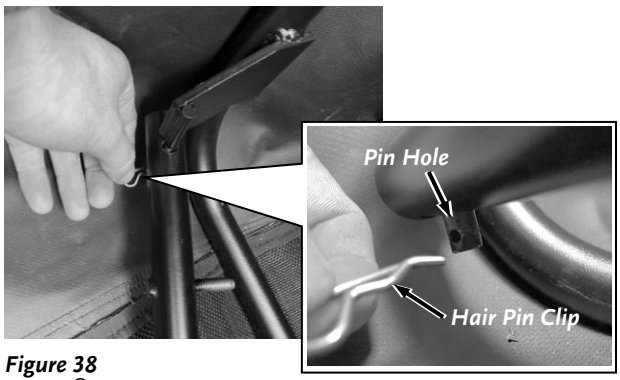


Figure 38

Setting the Initial Canvas Width

1. Step into the open canvas and push the sides out with both feet to aid in setting the canvas width.
2. Set the Inner Scissor Link assembly width by pushing down on the flat link until both parts come to parallel. When parallel, slide the ring link across to prevent the scissors from coming apart (***Figure 39***).

   Note: *The canvas is intended to be tight but if the scissor links start to bow out, an adjustment can be made. You can adjust the center bolt and nut to another hole location to reduce the difficulty of this action* (***Figure 40***).
3. Next set the width of the front of the canvas by pushing in the Tube Hinge Assembly until both tube parts come together and the threaded stud feeds through the open slot. Make sure the Eyebolt is able to feed through the Canvas Hole during the process (***Figure 41***).
4. With both Tube Hinge parts coming together, secure them with a Thumb Screw Knob onto the threaded stud. Screw until tight (***Figure 42***).

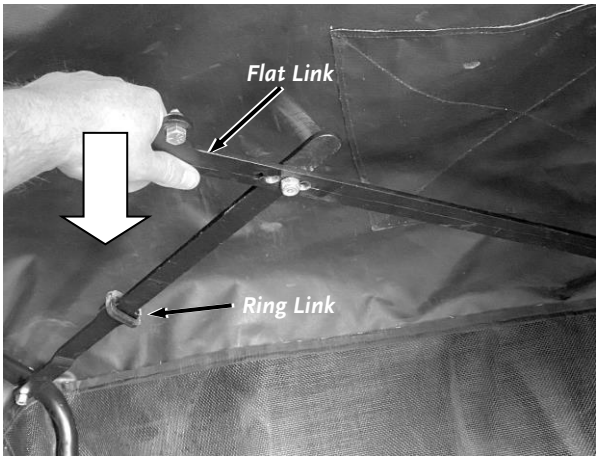


Figure 39

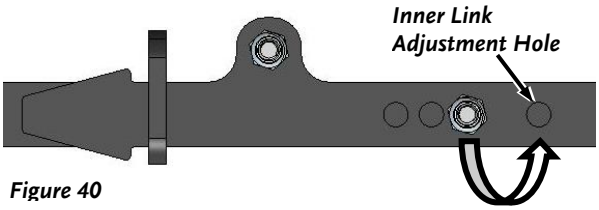


Figure 40

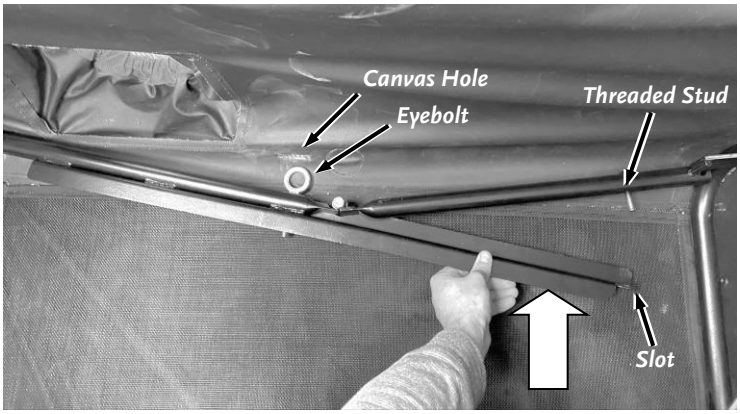


Figure 41

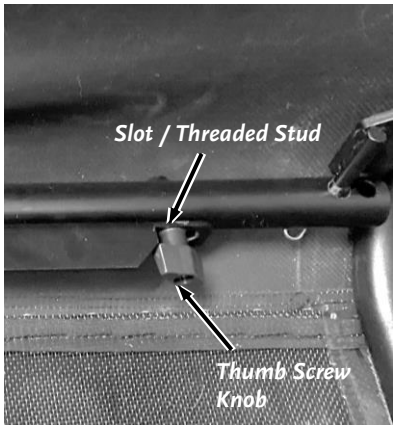


Figure 42

Installing the Front Split Hinge

(Use Hardware Enclosure set, see Figure 7)

1. First assemble the Front Split Hinge by joining the RH and LH Split Hinge parts, oriented as shown in ***Figure 43***. Fasten them together with one 3/8-16 X 2 3/4 Bolt and one 3/8-16 Low profile Nut using two 9/16" Wrenches. Do not overtighten, as these two components will need to rotate about one another.
2. Next, slip the Split Hinge Assembly through the canvas opening in the front corner, making sure the rolled hinges are oriented up and the Retainer Studs pass through the holes in the hinge (***Figure 44***).
3. Secure the hinge onto the Retainer Studs with Thumb Screw Knobs loosely fastened.

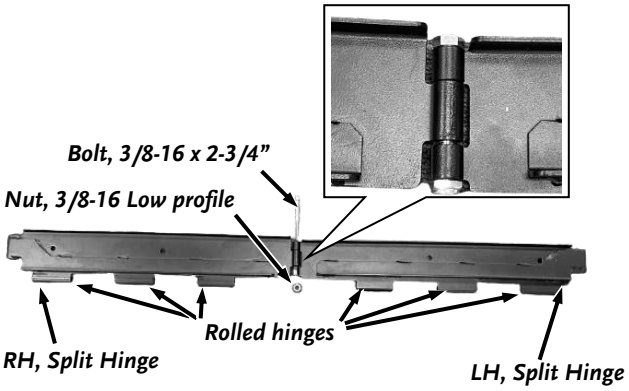


Figure 43

4. Inside the canvas, position the Split Hinge to the Tube Frame by aligning the hinge to the outer most hole on the frame (***Figure 45***).

   Note: *The inner hole on the tube frame is to allow for adjustability if the canvas loosens over time and needs to be tightened.*
5. Secure the Split Hinge to the Tube Frame by dropping in one 3/8-16 X 2 3/4 Bolt and finger tightening one 3/8-16 Low profile Nut.
6. Repeat steps 2 through 5 in the other corner to fully secure the hinge to the canvas and the frame.
7. With the Split Hinge now positioned correctly, fully tighten down all four Thumb Screw Knobs.
8. Tighten down the 3/8-16 Bolts and Nuts to engage the nylon lock using a 9/16" wrench and 9/16" ratcheting socket. Ensure the Split Hinge can still rotate about the Tube Frame after tightening.

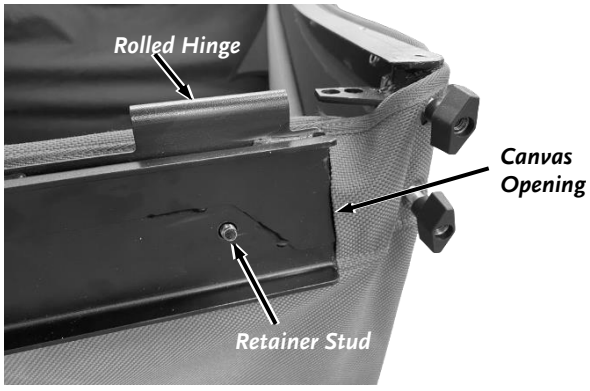


Figure 44

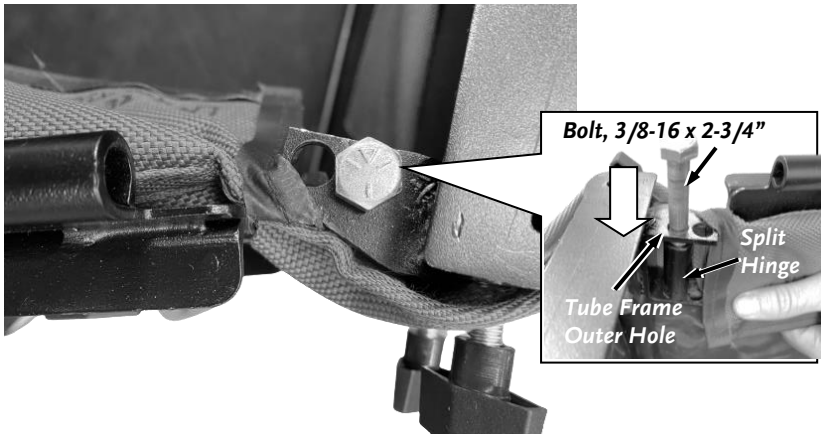


Figure 45

Installing the Stop Brackets

Small parts box (Figure 5).

1. Locate the two Stop Brackets from the small parts box (***Figure 5***).
2. Remove the two Thumb Screw Knobs from the front corner of the canvas.
3. Position the bracket so it looks like an upside down “L” facing in towards the center of the canvas. Feed the two bolts through the holes in the bracket and screw the two Thumb Screws back on (***Figure 46***). Tighten the thumb screws down by using a 1/2” wrench on the backside of the hex bolt to prevent it from spinning.
4. Repeat steps 2 and 3 on the other corner to install the 2nd Stop Bracket

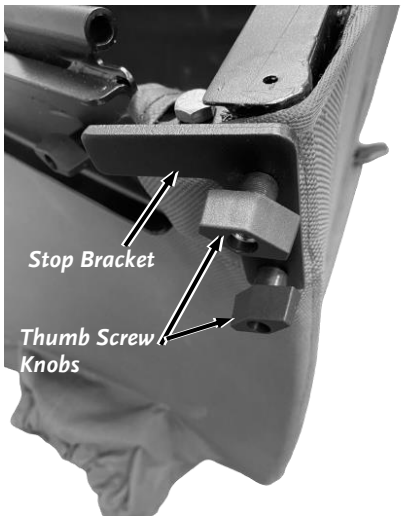


Figure 46

Tighten Hardware

With all the major components installed onto the frame, we can now go back and tighten all the hardware we intentionally left loose.

1. Start by tightening the 10 Retainer Stud Locknuts (5 on each side) using a 7/16" Wrench (***Figure 47***).
2. Tighten the back Outer Link Assembly using a 1/2” Wrench on the hex heads inside the canvas and a 1/2" deep socket on Lock Nuts outside the canvas (***Figure 48***).
3. Fully tighten all Thumb Screw Knobs.

Figure 47

Figure 48

Installing the back Tube Frame Handle

1. Locate the Tube Frame Handle from the Large Parts Box ***(Figure 4)***.

   Before installing the Tube Frame Handle, we must first set the back width.

2. Set the back width of the canvas by pulling up on the links ***(Figure 49)***, until both links are parallel. With both links parallel, slide the ring link over to prevent the two parts from coming apart ***(Figure 50)***.

   Note: *The canvas is intended to be tight but if the scissor links start to bow out, an adjustment can be made. Start by adjusting the Inner Link Assembly* (***Figure 40****) and adjust the canvas as needed to realign the seams in the corners. If after adjusting the inner link assembly, the outer link is still bowing, adjust the outer link as shown in* (***Figure 50***).

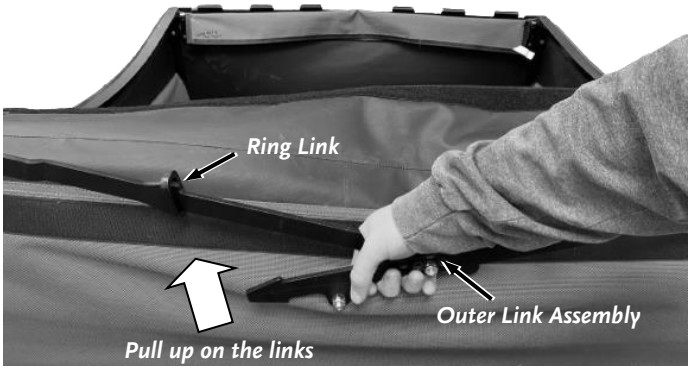


Figure 49

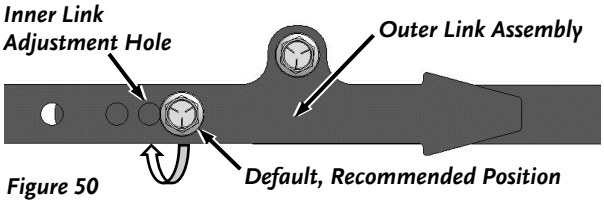


Figure 50

3. Next cover the Outer Link Assembly by wrapping the rear door flap overtop and velcroing it against the back wall (***Figure 51***).
4. Attach the Tube Frame Handle by positioning the slots into the two exposed threads on each corner. Once in place, secure the handle with four Thumb Screw Knobs (***Figure 52***).
5. Install the Batten by slipping it into the rear door flap and velcroing the end shut (***Figure 53***).

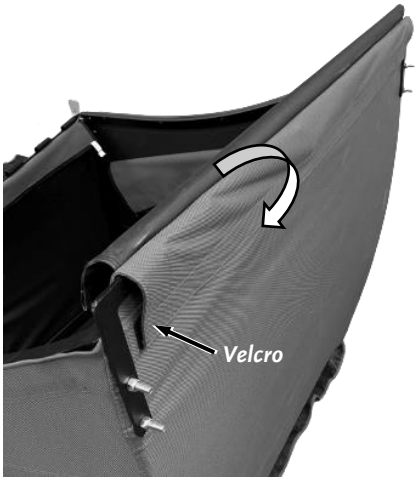


Figure 51

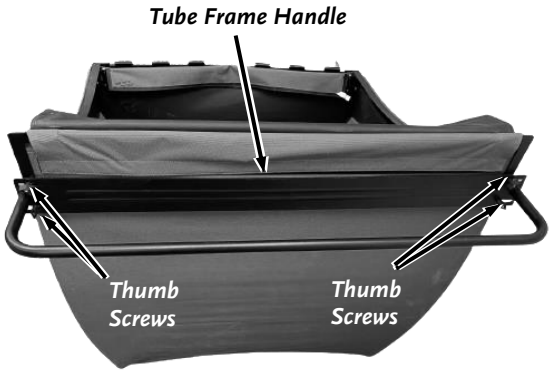


Figure 52

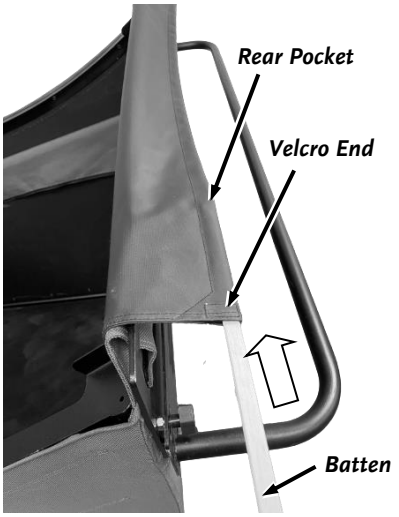


Figure 53

Attaching the Collector to the Cart

1. Turn the Enclosure over so it is right side up, with the open side on the floor.
2. Close the Cart onto the Frame until the Dump Lever holds it down. Confirm the handle is fully engaged and holds closed.
3. With the help of another person, place the Collector onto the Cart and align the Hinge Halves. With the Hinge Halves aligned to the cart, push the Hinge in so they set in place ***(Figure 54)***.
4. Insert the Hinge Pin through the holes in the Hinges. The fit may be tight for this initial setup. Use a rubber hammer to tap the Pin in if necessary.
5. Insert Hitch Clips in the holes at the ends of the Pin to secure it ***(Figure 55).***
6. Pull the Enclosure Sleeve around the Outlet Chute ***(Figure 56)***.
7. Attach the Cable Link by removing it from the impeller housing ***(Figure 57),*** turning the hex portion of the link to open it up, then attaching it to the Enclosure Eyebolt ***(Figure 56)***.

Figure 54

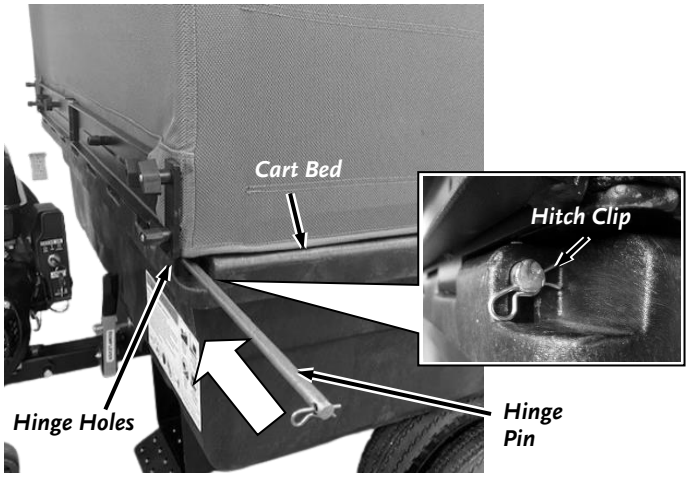


Figure 55

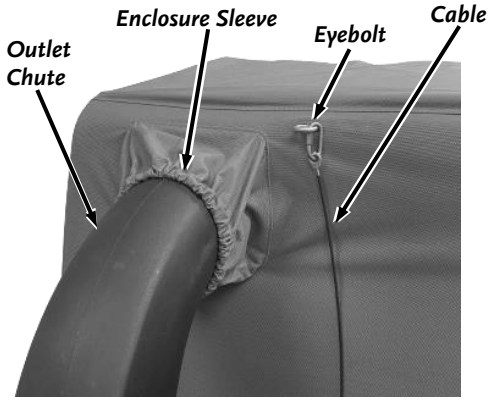


Figure 56

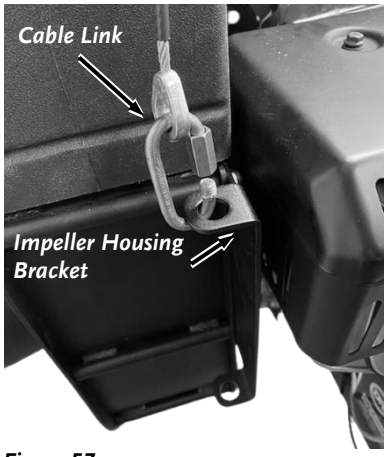


Figure 57

Installing 2nd Gas Spring

Tools and Supplies Needed:

- 1/2 Wrench if necessary
- 13mm Wrench or Adjustable Wrench if necessary

1. At this point you can now install the 2nd gas spring. With the cable connected to the eyebolt, pull the Dump Lever while pushing down on the cart bed. With the lever pulled, guide the Bed/Collector until the cable is taught ***(Refer to "Dumping" pg. 33).***

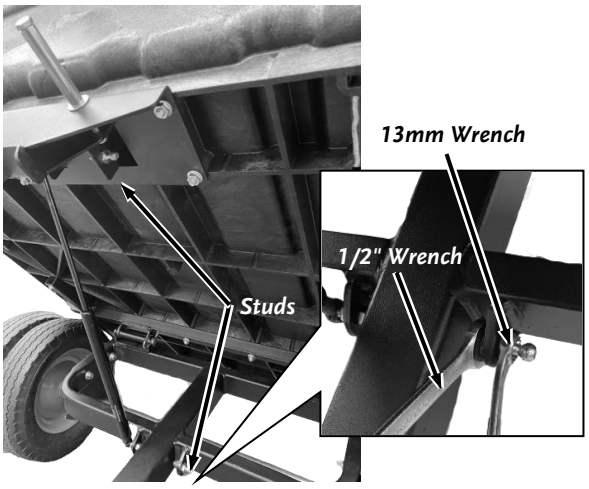


Figure 57

⚠ CAUTION

If the collector is empty the Bed can jump quickly to the dump position.

2. With the cart bed open, install the 2nd gas spring by pressing the Gas Spring onto the Studs with the larger end of the Gas Spring attached to the Frame and the thin Shaft end to the Cart Bed. If the Gas Spring does not line up to the studs, you can loosen the stud using a 1/2" Wrench and a 13mm or Adjustable Wrench (***Figure 57).*** With the stud loose, it will allow for easier installation. Once the Gas Spring is installed, re-tighten the stud using the same wrenches.

Installing the Hose

Tools Needed:

- Wire Cutters
- Black Marker
- Utility Knife
- Flat Head Screwdriver or 7mm Wrench

1. If not already done, unhitch the Cable Link from the Impeller Housing Bracket by turning the hex portion of the link to open it up.
2. Slide the Hose Support into the Impeller Housing Bracket holes (***Figure 58***).
3. Locate the two Bridge Hose Clamps near the Coupling end of the Hose Assembly (***Figure 59***).
4. Cut the black Spiral Rib of the Hose between the two clamps using Wire Cutters (***Figure 60***). Do not cut the clear area of the Hose yet.
5. Mark the path where you will cut the clear Hose using the black Marker to ensure that the cut will meet at the opposite side.
6. Cut the clear area Hose where you marked using the Utility Knife to separate the short Hose/Coupling section from the longer Hose/Cuff section.
7. Flip the Hose/Coupling section around, Loosen the Hose Bridge Clamp at the end of the longer Hose and slide the Coupling into the Hose until the Clamp is just past the Rivet (***Figure 61***).
8. Tighten the Bridge Hose Clamp onto the coupling using a Flat Head Screwdrive or 7mm Wrench.

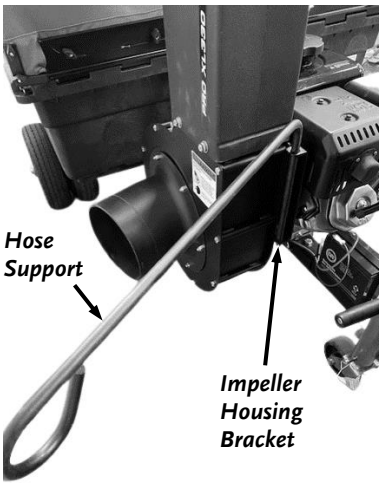


Figure 58

Figure 59

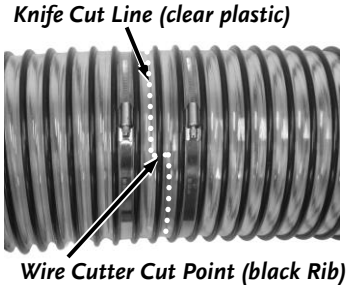


Figure 60

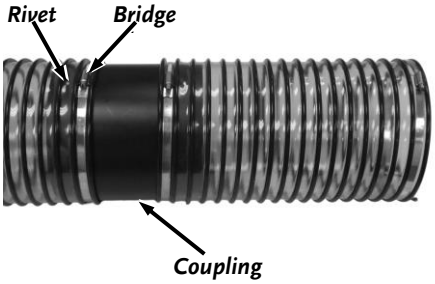


Figure 61

9. Loosen the Hose Bridge Clamp at the end of the short Hose using a Flat Head Screwdrive or 7mm Wrench and slide the Hose onto the Impeller Housing flange until the Bridge Clamp is just past the retaining tab (***Figure 62***).
10. Tighten the Hose Bridge Clamp tightly to secure the Hose to the Impeller Housing.
11. Support the Hose with the Rubber Strap by hooking one end into the Support Loop, going under the Coupling and securing the other end onto the Support Loop (***Figure 63***).

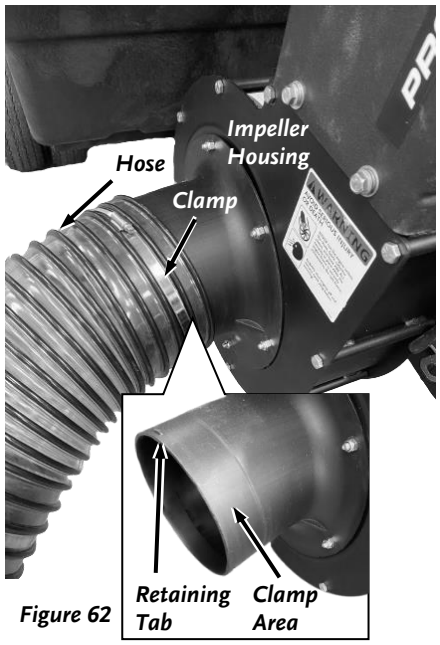


Figure 62

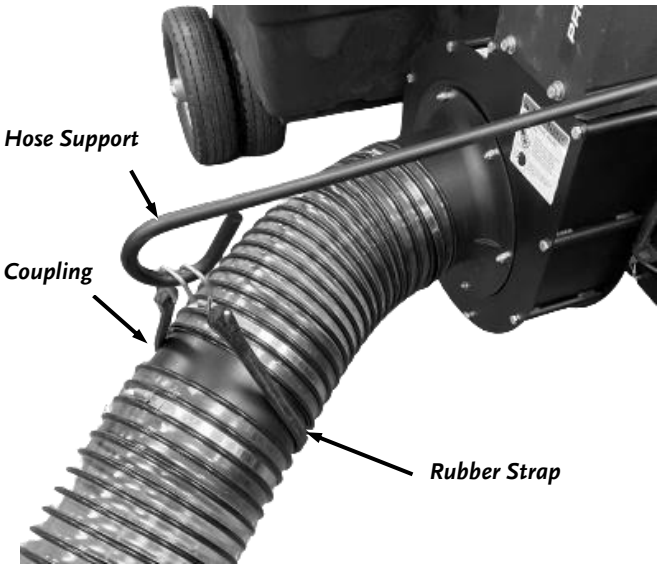
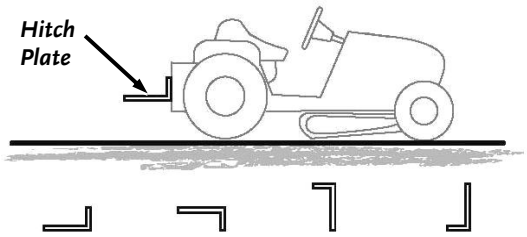


Figure 63

Setting up your Tractor

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 one is not provided on your Tractor (***Figure 64***). Contact us at www.DRpower.com or call one of our representatives at 1-800-DR-OWNER (376-9637) and they will be happy to assist you.



Optional Hitch Plate Configurations

Figure 64

Deck Adapter Installation

The DR Leaf and Lawn Vacuum requires a Deck Adapter on your Lawn Tractor to route material to its 8" diameter hose.

- ⇒ *A DR Power Equipment Universal Deck Adapter Kit (for right hand discharge mowers) is available for you to fit to your machine if the tractor manufacturer's Deck Adapter is not available.*
- ⇒ *A DR Power Equipment Hose Adapter Kit is available to attach to your non DR Power Equipment Deck Adapter to our 8" diameter Hose if needed.*

Contact us at 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 Adapter Kit.

1. Install the Deck Adapter onto your Lawn Tractor (***Figure 65***).
2. If you do not have a DR Deck Adapter and the 8" Hose will not fit your Adapter, order a Kit from us using the contact info above. Install the Hose Adapter Kit onto the end of your Deck Adapter as described in the Kit instructions.

Figure 65

Connecting the DR Leaf and Lawn Vacuum to your Mower

NOTICE

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

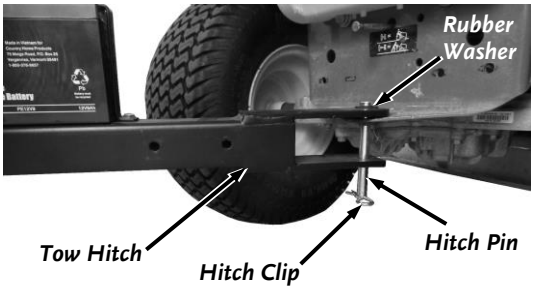


Figure 66

1. Position the back Hitch Plate of your Mower near the Hitch of the Leaf and Lawn Vacuum on level ground (***Figure 66***).
2. Operate the Jack (if equipped) to move the Frame up or down until the Tow Hitch is aligned with the Tractor Hitch Plate.
3. Move the Leaf System into position on the Hitch Plate and install the Hitch Pin with Rubber Washer and Hitch Clip to secure the Tow Hitch to the Mower.
4. For models not equipped with a Jack, lift the Leaf System Hitch onto the Hitch Plate as shown (***Figure 66***). For models equipped with a Jack, operate the jack handle to raise the Hitch then move the Leaf System Hitch over the Lawn Tractor Hitch Plate.
5. Install the Pin, Rubber Washer, and Hitch Clip as shown.
6. For models with a Jack, raise the Jack Wheel and install the Jack Safety Pin.

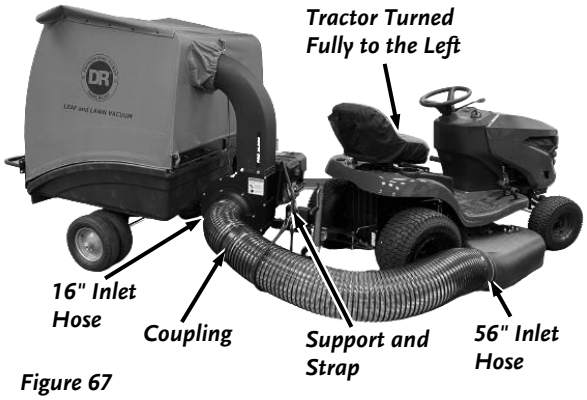


Figure 67

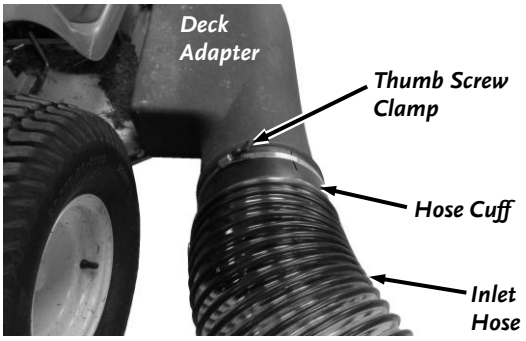


Figure 68

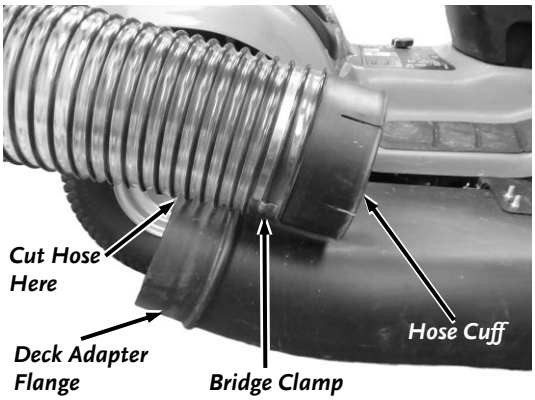


Figure 69

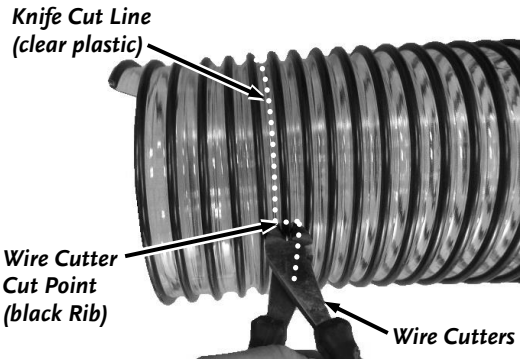


Figure 70

Connecting the Inlet Hose to the Deck Adapter

1. Turn the Tractor as far as it will go to the left ensuring that the Tractor is not touching any portion of the Leaf Vacuum (***Figure 67***).
2. Slide the Hose Cuff over the Deck Adapter (***Figure 68***).

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

3. Tighten the Thumb Clamp tightly to secure the Hose to the Hose Adapter.

- If the Hose does not appear overly stretched and is not touching the ground, continue to "Adding Engine Oil and Gasoline" on the next page.
- If the Hose is overly stretched, you may need a hose extension. Contact us at www.DRpower.com for a hose extension kit.
- If the hose is sagging to the ground, shorten it as follows.

Shorten the Hose:

Make sure you do not shorten the Hose too much while following these procedures. Follow the steps closely to ensure parts are not damaged.

Note: *The Tractor* ***must*** *be turned fully to the left (****Figure 67****).*

a. Remove the Hose Cuff from the Deck Adapter, position it next to the Deck Adapter flange and pull carefully until the Hose is no longer touching the ground *(****Figure 69****)*.

b. Make a mark where the Hose aligns with the end of the flange.

c. Loosen the Bridge Hose Clamp that secures the Hose to the Hose Cuff with a 7mm Wrench and pull the Cuff from the Hose.

d. Trace the area to cut around the Hose first to ensure your path meets at the opposite side (***Figure 70***).

e. Cut the black Rib with Wire Cutters and then cut the clear Hose with the Utility Knife.

f. Reinstall the Cuff onto the Hose and tighten the Hose Clamp. Install the Cuff to the Deck Adapter (***Figure 68***).

Adding Engine Oil and Gasoline

Tools and Supplies Needed:

- Flexible Oil Fill Funnel (provided)
- Gas and Oil as recommended below

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.

Adding Oil

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.*

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.
- The engine needs to be on a level surface or overfilling could occur which could damage the engine during use.
- To check the oil level, insert the dipstick all the way in, but do not screw it down.

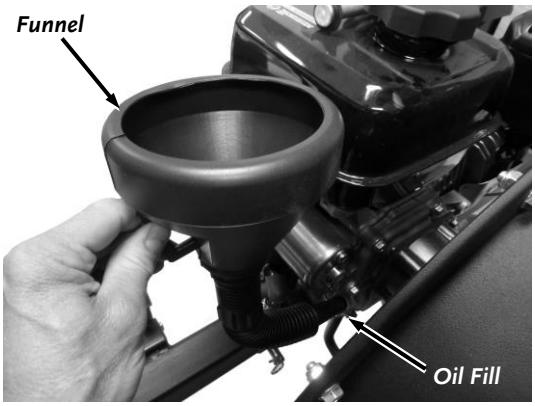


Figure 71

1. Level the Leaf and Lawn Vacuum frame by adjusting the jack height (if equipped) or by propping up the front frame.
2. Release the Dump Lever and open the Collector to gain access to the engine oil dipstick. Being mindful that the collector should be guided into position once the dump lever is pulled, as it can spring up with no load in the bed.

Note: *A flexible oil fill funnel is provided with your Leaf and Lawn Vac.*

3. Remove the dipstick and add an 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 (***Figure 71***).
4. Insert the Dipstick, but do not screw it down to check the oil level. 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.

Adding Gasoline

1. Fill the gas tank (***Figure 72***) 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.

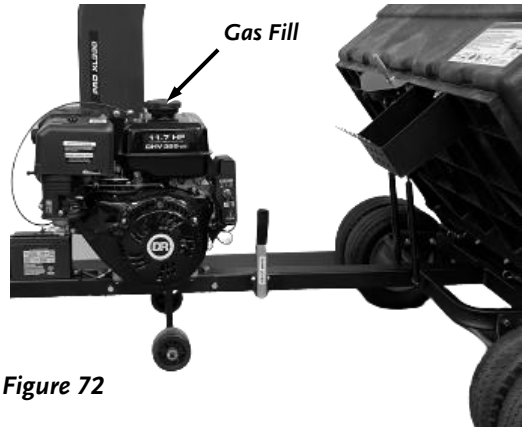


Figure 72

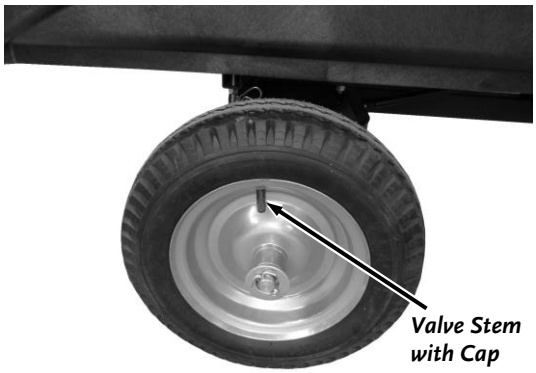


Figure 73

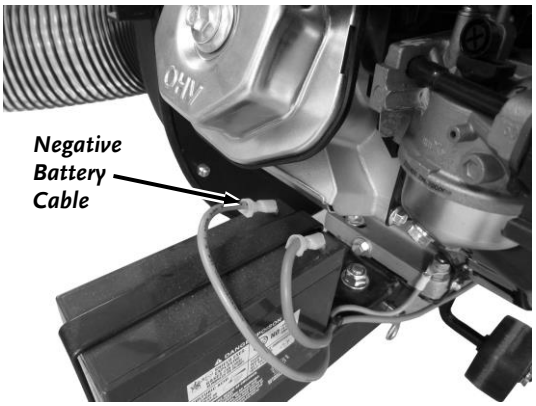


Figure 74

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 73***) 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 74***).

Chapter 3: Operating the DR LEAF AND LAWN VACUUM

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.

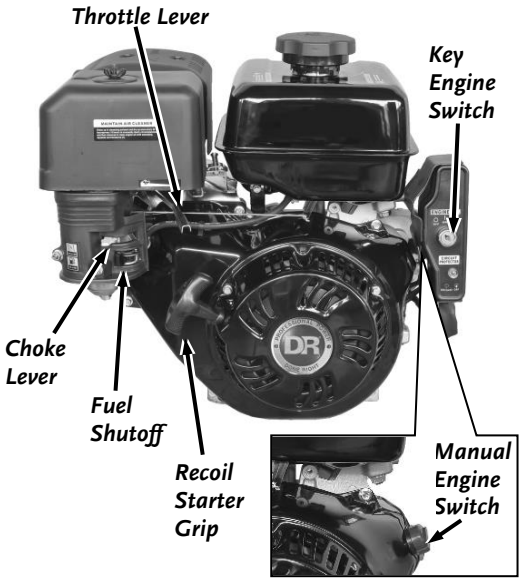


Figure 75

NOTICE

For best performance we recommended that you operate your Leaf and Lawn Vacuum in temperatures 40°F and above.

⚠ WARNING

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

Before Starting the Engine

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 previous chapter), remove the Safety Hitch Pin from the Jack (if equipped), 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).
3. Check the Fuel level and make sure the Fuel Shut-Off Valve is in the OPEN position (refer to your Engine Operator's Manual).

Starting and Stopping the Engine

NOTICE

Always refer to the Engine "Operator's Manual" that came with your machine for more detailed Engine operation procedures.

1. When starting a cold Engine; move the Choke Control lever to the left (CHOKE) and the Throttle Control lever to the far right (rabbit) position (***Figure 75***). If re-starting a warm Engine, leave the Choke in the (RUN) 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 when the Choke is on, the Engine will soon begin to run rough. Adjust the Choke Lever until the engine runs smoother. Continue this process until the engine runs well with the Choke fully in the run position. 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, shut off the gas, and then turn the Engine Switch to "OFF" position.
   - To stop the Electric Start Engine, move the Throttle to the Slow (Turtle) position allowing the Engine to idle, shut off the gas, and then turn the Key to OFF.

⚠ WARNING

- Never put your hands inside the vacuum hose while the engine is running. Always stop the engine and disconnect the spark plug wire before clearing the vacuum hose.
- 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.

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 Hitch Pin and Hitch Clip (***Figure 76***).
2. If equipped with a Jack, make sure the wheel is in the fully raised position and the Jack Safety Pin is installed to lock it in place.
3. Make sure the Collector Cart is on the Frame with the Dump Lever locked over the Latch Pin (***Figure 77***), the Enclosure Sleeve is over the Outlet Chute (***Figure 78***), and the Inlet Hose Cuff is securely attached to the Deck Adapter on your Tractor (***Figure 79***).

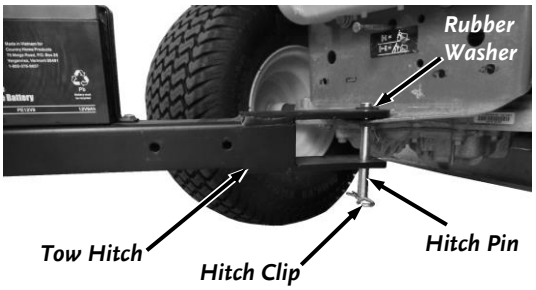


Figure 76

NOTICE

- If equipped, raise the Jack caster wheel as far as it will go and install the locking pin 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.

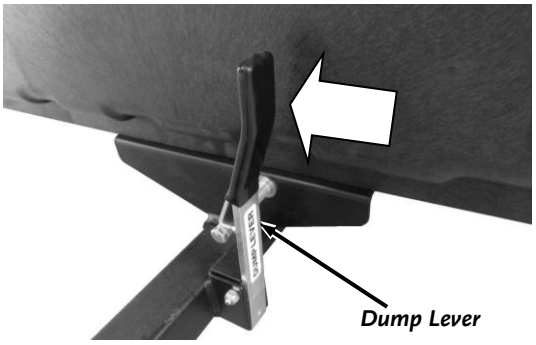


Figure 77

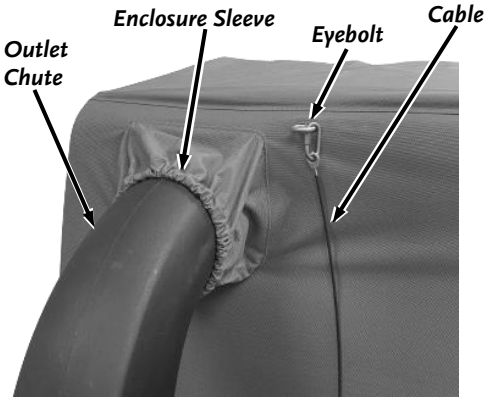


Figure 78

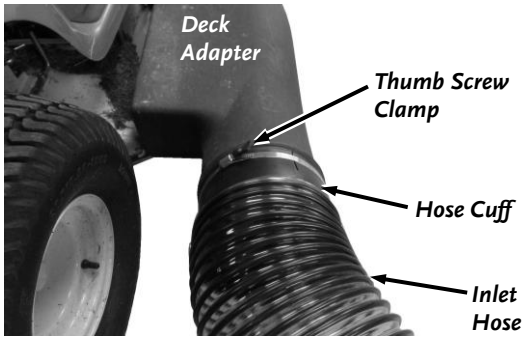


Figure 79

Towing Safety

⚠ WARNING

- Watch out for low branches, overhangs, and guy wires that may catch on top of the collector.
- 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.

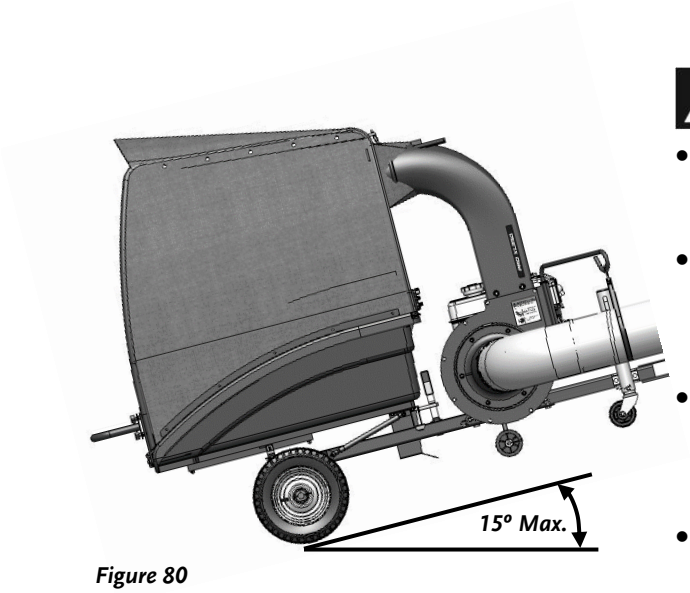


Figure 80

Slopes and Uneven Terrain

⚠ WARNING

- Do not use the DR Leaf and Lawn Vacuum on slopes greater than 15 degrees (***Figure 80***). Doing so could result in serious injury to yourself or damage to your machine.
- 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.
- 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 enclosure. 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.

LEAF and LAWN VACUUM Tips

Note: *Make sure the Engine is at full throttle when mowing and vacuuming leaves.*

⚠ WARNING

Remove stones, metal objects, glass, and sticks before vacuuming.

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 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.
- Cut wet grass can be very heavy. Fill the Collector only 3/4 full if the material is very wet. That will make the Leaf System easier to pull and to dump.

Dumping

⚠ WARNING

- Always shut off the tractor engine and the vacuum engine and use caution when dumping the collector load.
- Never back up with the Cart in the dump position.

1. Shut down the Mower and Vacuum Engines and set the Mower Parking Brake when you are at the Dump area.
2. Pull the Dump Lever while pushing down on the cart bed ***(Figure 81).*** With the lever pulled, guide the Bed/Collector until the cable is taught ***(Figure 82).***

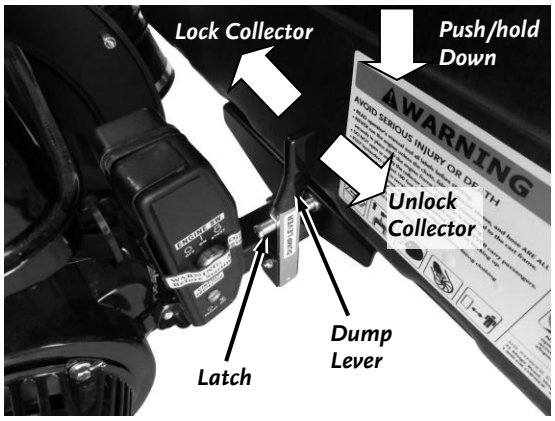


Figure 81

⚠ CAUTION

If the collector is empty the Bed can jump quickly to the dump position.

3. If the collector is empty, it is recommended to hold and guide the bed as it comes up, if not this action can be startling. If the Collector is full and doesn't tip back on its own you can lift up on the front of the Cart.
4. Lift up on the Tube Frame Handle to start emptying the Container and then release (***Figure 82***). The Upper Collector will remain raised (***Figure 83***). You may need to shake the collector to fully loosen the material.
5. Drive the Mower forward with the Collector fully open to move the Leaf System away from the pile of debris and allow all debris to slide from the Cart Bed.

Figure 82

⚠ CAUTION

Never drive in reverse with the Collector in the dump position.

6. Pull down on the Tube Frame Handle to close the Enclosure onto the Cart. Ensure that the Rear Flap is positioned inside the Enclosure.
7. Pull down at the front of the Enclosure, PRO units can also use the foot assist to help aid in this step. Bring the bed down until the Latch is secured by the Dump Lever (***Figure 84***).

- Pull the Enclosure Sleeve around the Outlet Chute (***Figure 85***).

Figure 83

⚠ CAUTION

Empty the Collector after each use. Do not store the Leaf System with debris in the Collector.

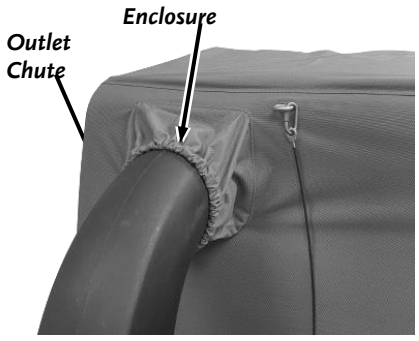


Figure 85

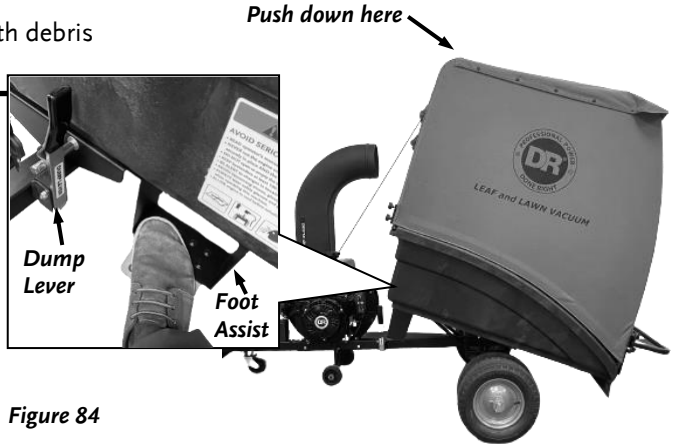


Figure 84

Converting to Cart Trailer Mode

⚠ 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:

- 5/16" Wrench
- Two 3/4" Wrenches
- Flat Head Screwdriver
- Safety Glasses

1. Remove the Rubber Strap from the Hose Support (***Figure 86***).
2. Disconnect the Hose from the Impeller Housing using a 5/16" Wrench (***Figure 87***).
3. Turn the Thumb Screw Clamp to disconnect the Hose from the Deck Adapter (***Figure 88***).
4. Unhitch the Cable Link from the Enclosure eyebolt (***Figure 89***).
5. Pull the Enclosure Sleeve from the Outlet Chute.
6. Remove the Hitch Clip from one end of the Hinge Pin and from the other end pull the Hinge Pin from the Cart/Enclosure Hinge (***Figure 90***).
7. Lift the Enclosure from the Cart and set aside. For larger models this is a good time to have a helper.

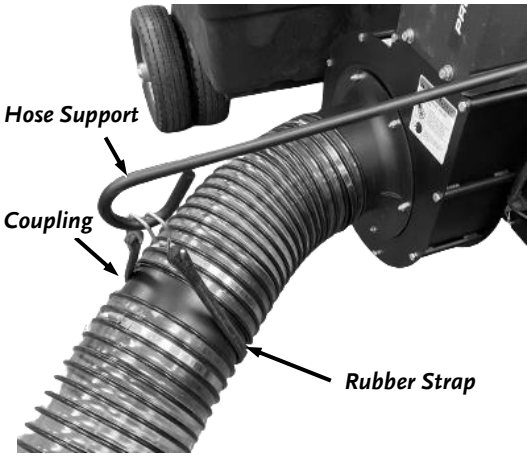


Figure 86

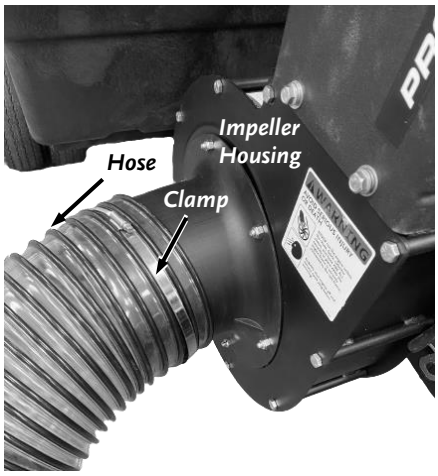


Figure 87

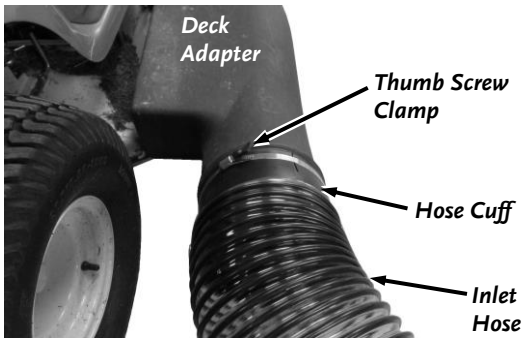


Figure 88

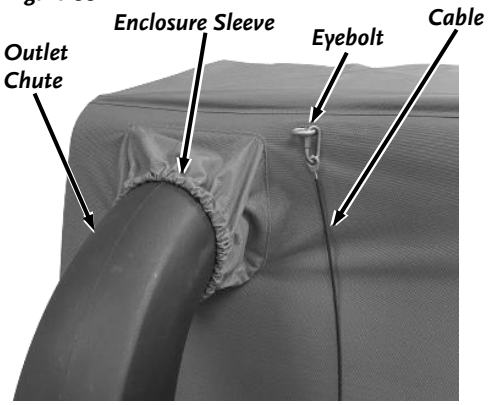


Figure 89

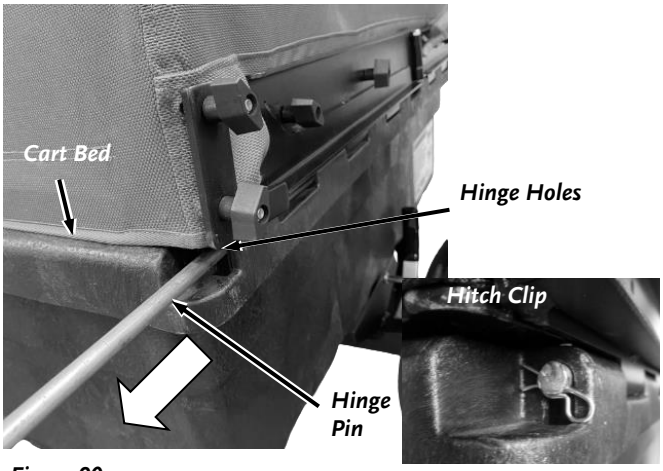


Figure 90

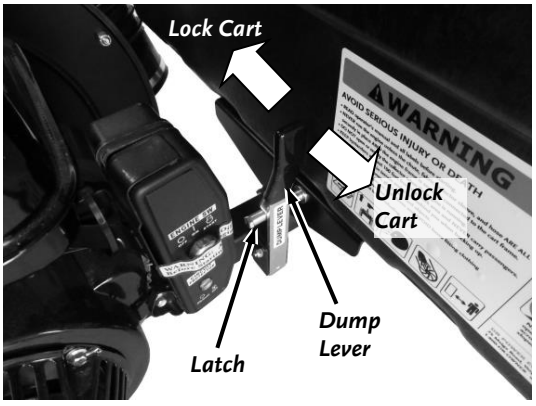


Figure 91

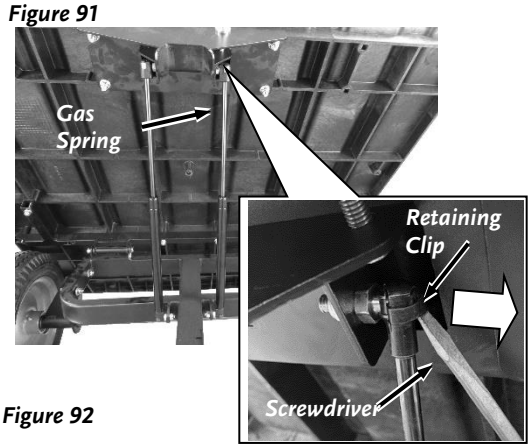
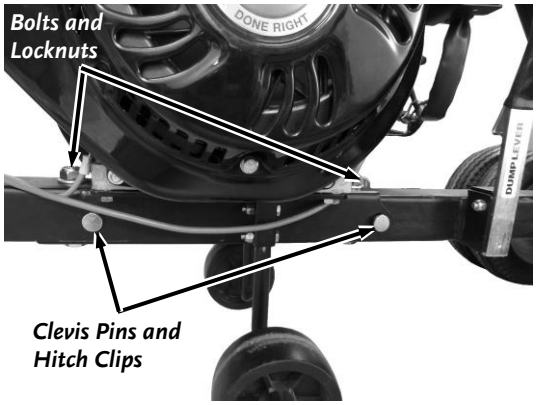


Figure 92



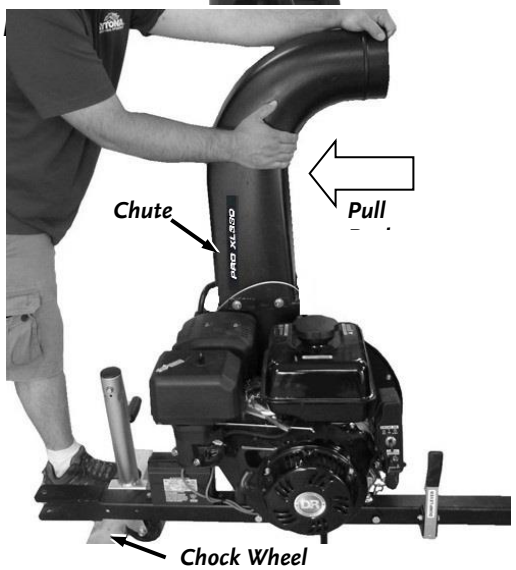


Figure 94

8. Pull the Dump Lever out to raise the Cart Bed (***Figure 91***).

Note: *The Gas Spring makes it easier to dump the loads in the Collector. The machines use two Gas Springs and the left hand Spring should be removed so closing the Cart is easier in Cart mode.*

9. Pull out on one end of the left side Gas Spring. To apply pressure use a Flat Head Screwdriver to pry under the Retaining Clip just enough so the Gas Spring end can be removed (***Figure 92***). Repeat for the other end of the Spring.
10. Leave the Cart tilted up for the next step.
11. Remove the two sets of Bolts and Locknuts from the Frame using two 3/4" Wrenches (***Figure 93***).
12. If your machine has a Jack you should rotate the Handle to bring the Jack Wheel up as high as it will go. This moves the Tow Hitch closer to the ground to make disconnecting the Power Unit easier.
13. Block the Cart Wheels and have a helper pull on the Outlet Duct to take pressure off the Pins when you perform the next step (***Figure 94***).
14. Remove the front (closest to the Hitch) Hitch Clip and Clevis Pin from the Power Unit Frame (***Figure 93***).
15. Remove the rear Hitch Clip and Clevis Pin from the Power Unit Frame
16. Move the Hitch Pin, Rubber Washer, and Hitch Clip from the Power Unit Hitch to the Pin Hole of the Cart frame to hitch the Cart to your Tractor.
17. Lift up on the Hitch to roll the Power Unit out of the way. Store the Power Unit, Enclosure, Hose and Support in a protected dry area.
18. Push down at the front of the Cart until the Latch is secured by the Dump Lever.
19. Hitch the Tow Bar of the cart to your tractor using the hitch pin with rubber washer and secure using the hitch clip (***Figure 95***).

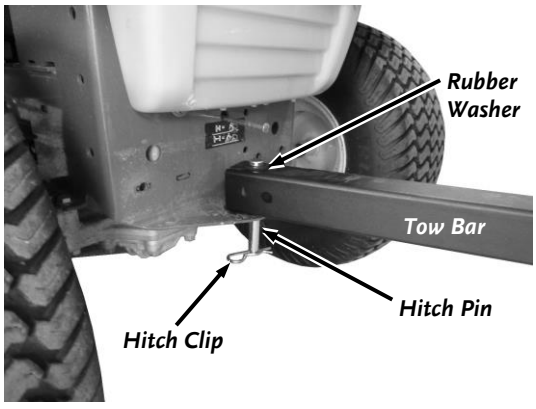


Figure 95

⚠ WARNING

- Never allow anyone to ride in the Cart.
- Do not tow on slopes greater than 15 degrees.
- Travel up and down slopes and avoid going across slopes. This is the same recommendation for using your lawn tractor alone.
- Never backup with the Cart in the dump position.
- As you fill the Cart, distribute the load fairly evenly.
- Do not exceed the weight capacity limit listed in the Specifications section.
- Drive slower when turning corners and on bumpy terrain so the load does not shift or fall out.
- Gravel, stone, and sand are very heavy. Never fill the Cart to the top with these items as they would exceed the weight limits.

Collapsing the Upper Collector for Compact Storage

The Upper Collector can be stored fully assembled, but can also be collapsed for more compact storage.

1. Remove the Collector from the bed by first disconnecting the cable link and then removing the hinge pin. The hinge pin can be removed by pulling out the hair pin clips and sliding the pin out of the bed (***Figure 95***).
2. Flip the Collector onto it's top and place it on the floor.
3. Pull the Velcro apart at the rear Flap and remove the Batten from the Enclosure (***Figure 96***).
4. Remove the handle bar assembly by removing 4 Thumb screw knobs and setting aside in a safe spot (***Figure 97***). You can screw the knobs back onto the threads once the handle bar assembly is removed so they are not lost.
5. Pull apart the Velcro to expose the scissor link assembly and unlink them by sliding the link as shown and pushing the links down so they collapse (***Figure 98***).
6. Next collapse the scissor link inside the canvas, rear, by sliding the link in the same fashion as in step 5. Push the links up this time so they collapse towards the ceiling.

Figure 95

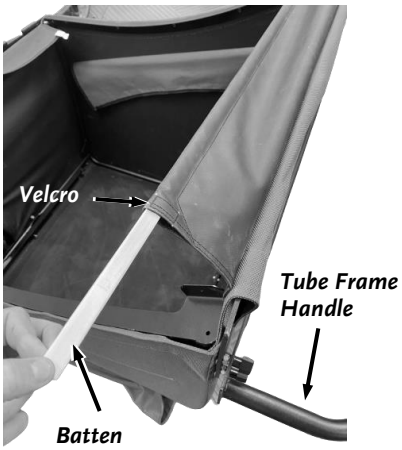


Figure 96

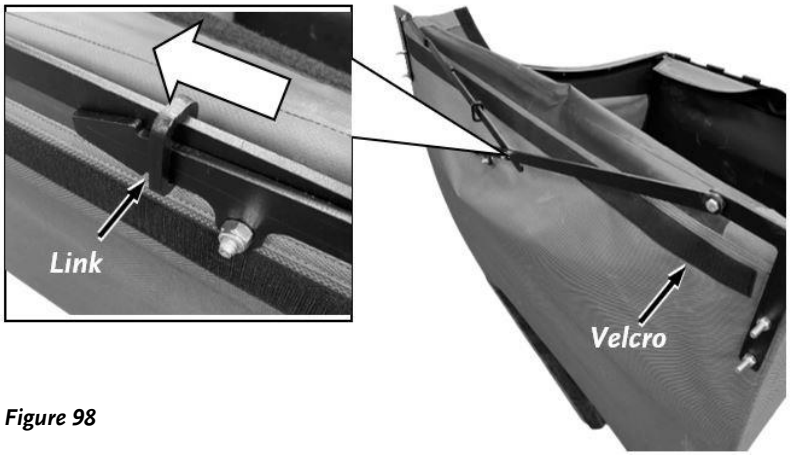


Figure 98

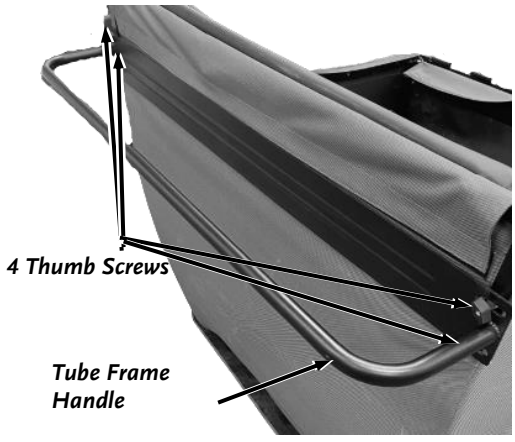


Figure 97

7. Next we will need to collapse the Eyebolt Hinge inside the canvas by removing the Thumb Screw knob as shown in ***Figure 99***.
8. With all hinges and scissor links collapsed squeeze the canvas together. Squeeze the canvas together from the back where the scissor links are, make sure the link is held up while you push the side frames together.

Note: *If the link is not held up it can bind and prevent the canvas from coming together better.*

9. Rest collapsed canvas against a wall or in a preferred storage location ***Figure 100.***

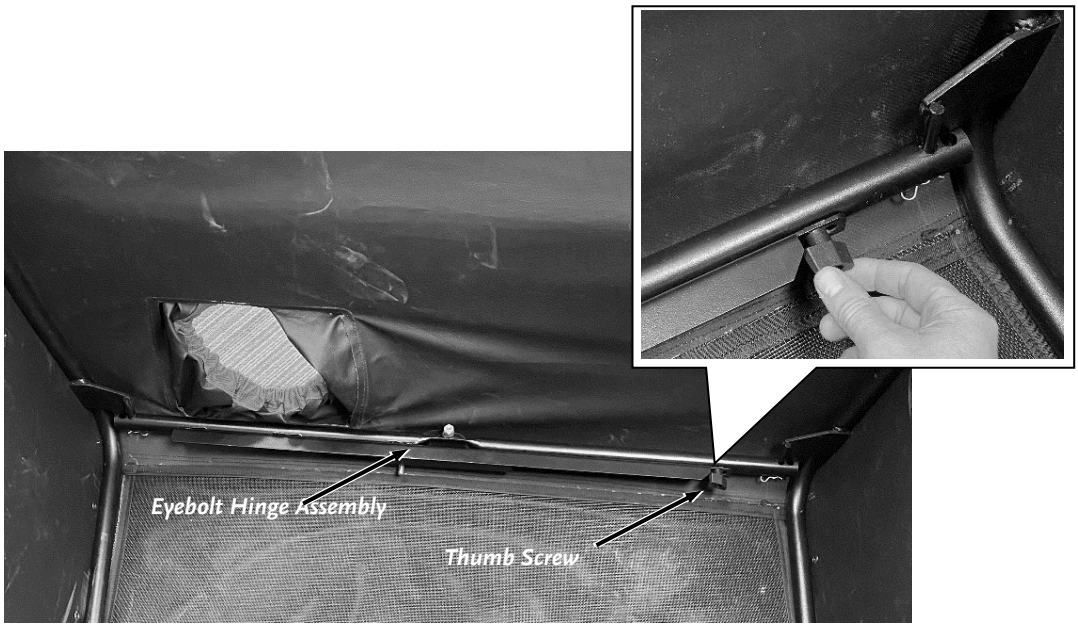


Figure 99

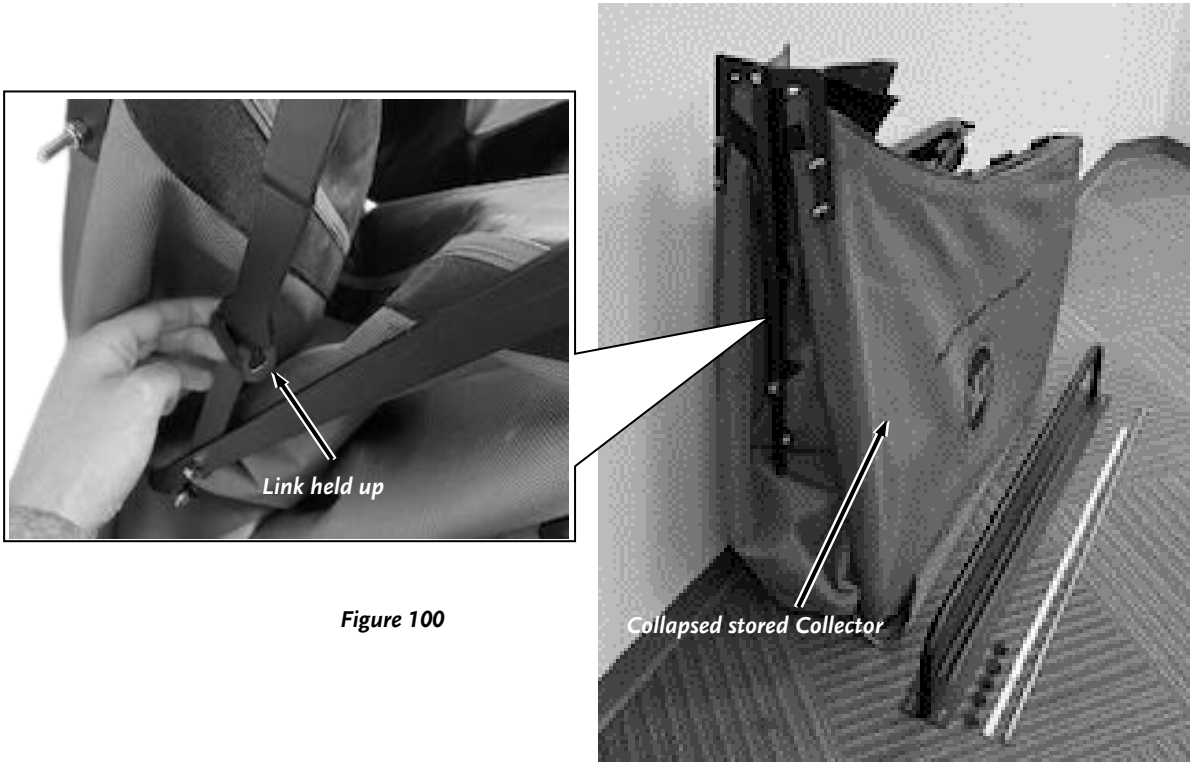


Figure 100

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	AFTER 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 Hose for wear, holes, or abraded areas.	▲			
Clean Engine Exterior & Cooling Fins	▲			
Clean Engine Air Filters, replace as needed*	▲			
Empty the Collector		▲		
Check Battery Charge			▲	
Change Engine Oil	1st time 5 hours		▲	
Check Exterior of Impeller Housing for Wear			▲	
Lubricate Wheel Bearings			▲	
Replace Spark Plug				▲
Replace Engine Air Filters				▲

*Replace the filter if excess oil is found on the foam element or any oil is found in the paper element.

Lubrication

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

⚠ 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.

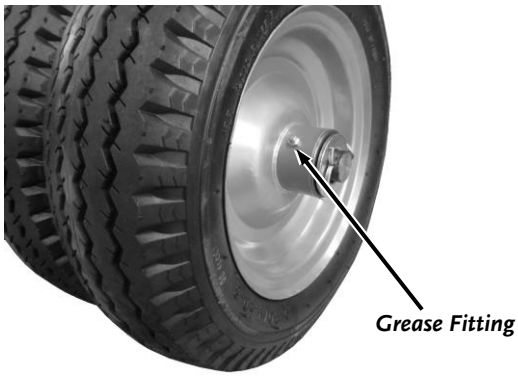


Figure 101

Tools and Supplies Needed:

- Grease gun with Multipurpose Automotive Grease
- Clean Rags

LUBRICATE WHEEL BEARINGS:

1. Clean the Grease Fitting with a clean Rag (***Figure 101***).
2. Lubricate each Wheel with Multipurpose Automotive Grease using a grease gun on the Grease Fitting.

REMOVING AND REPLACING THE ENGINE OIL

Refer to page 27 as well as to the Engine Operator Manual for Engine Procedures for removing and replacing the oil. For ease and cleanliness we recommend using a Vacuum Oil Extractor to remove Oil from the Engine. Contact us at drpower.com for Oil Extractor information.

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

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.

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 102***).
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.

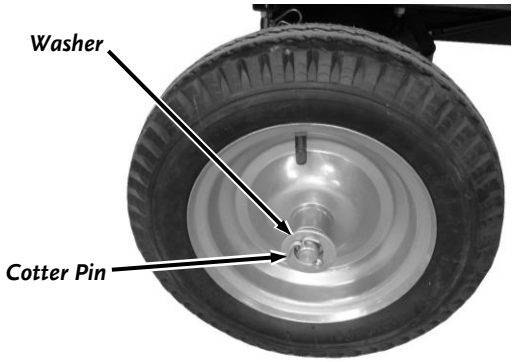


Figure 102

Impeller Maintenance

An Impeller Tool is provided in case you ever need to remove the Impeller for service. Simply remove the Bolt and Washer holding the Impeller onto the Engine Shaft and thread the Impeller Tool into the Impeller until it releases from the Engine (***Figure 103***).

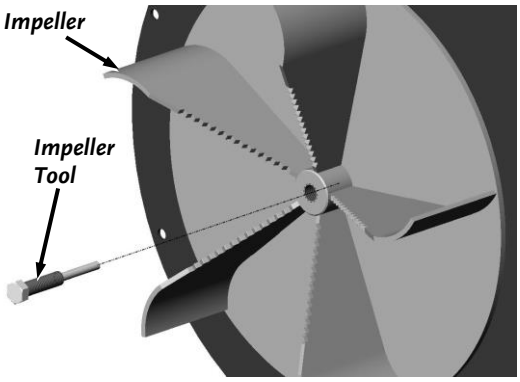


Figure 103

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.

Replacing the Battery

Tools Needed:

- Two 7/16" Wrenches
- Wire Cutters

1. Disconnect the Battery Terminals (***Figure 104***).
2. Cut the Cable Tie that securing the Wires to the Clamp using Wire Cutters.
3. Remove the Bolts and Locknuts that secure the Battery Clamp using two 7/16" Wrenches.
4. Remove the Clamp and the dead Battery.
5. Install the new Battery.
6. Install the Battery Clamp and secure with the Bolts and Locknuts using two 7/16" Wrenches.
7. Attach the Battery Terminals. Green Wire to negative black Terminal and Red Wire to positive red Terminal.

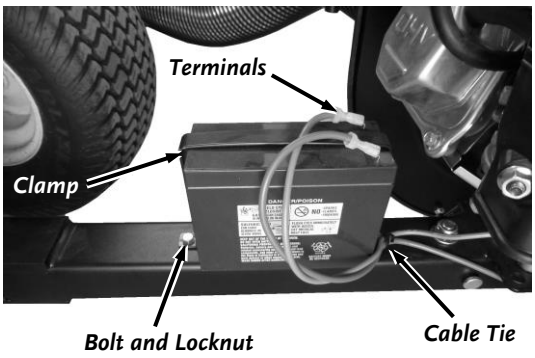


Figure 104

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]. Once there, in the appropriate box, type in what it is you are recycling and also type your zip code. The site will provide a list of recycling centers located near you.

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

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

To learn more about hazardous waste recycling, visit www.batterycouncil.org or for the Environmental Protection Agency [www.epa.gov].

Chapter 5: Troubleshooting

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

⚠ 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
Engine recoil will not pull out or is difficult to pull.	⇒ Check the Engine oil level, the Engine may be seized. See your engine owner's manual. ⇒ 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. ⇒ The Recoil may be broken or jammed. Visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
The Engine won't start manually. *(Please refer to the Engine Owner's Manual for engine-specific procedures.)*	⇒ Check that the start switch is set to "ON" ⇒ Check that the Spark Plug Wire is attached. ⇒ Check the oil and gas level. See your engine owner's manual. ⇒ 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. ⇒ Check the Throttle adjustment and travel. See your engine owner's manual. ⇒ 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. ⇒ If the Engine still won't start, visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
The Engine won't start using Electric-Start. *(Please refer to the Engine Owner's Manual for engine-specific procedures.)*	⇒ Check the previous section (Manual Starting) for possible causes. ⇒ Check the wire connections—especially the ground connection, the green wire coming from the Battery, where it connects to the Engine. ⇒ 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. ⇒ If your Battery is charged and your DR still won't start, visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
Engine smokes.	⇒ Check the oil level and adjust as needed. ⇒ You may be operating the machine on too great an incline. See Slopes on page 26. ⇒ Check the Air Filter and clean or replace if needed. ⇒ You may be using the wrong oil—too light for the temperature. Refer to your Engine Owner's Manual for detailed information. ⇒ Clean the Engine cooling fins and the carburetor housing if they are dirty. ⇒ If the Engine still smokes, visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

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.

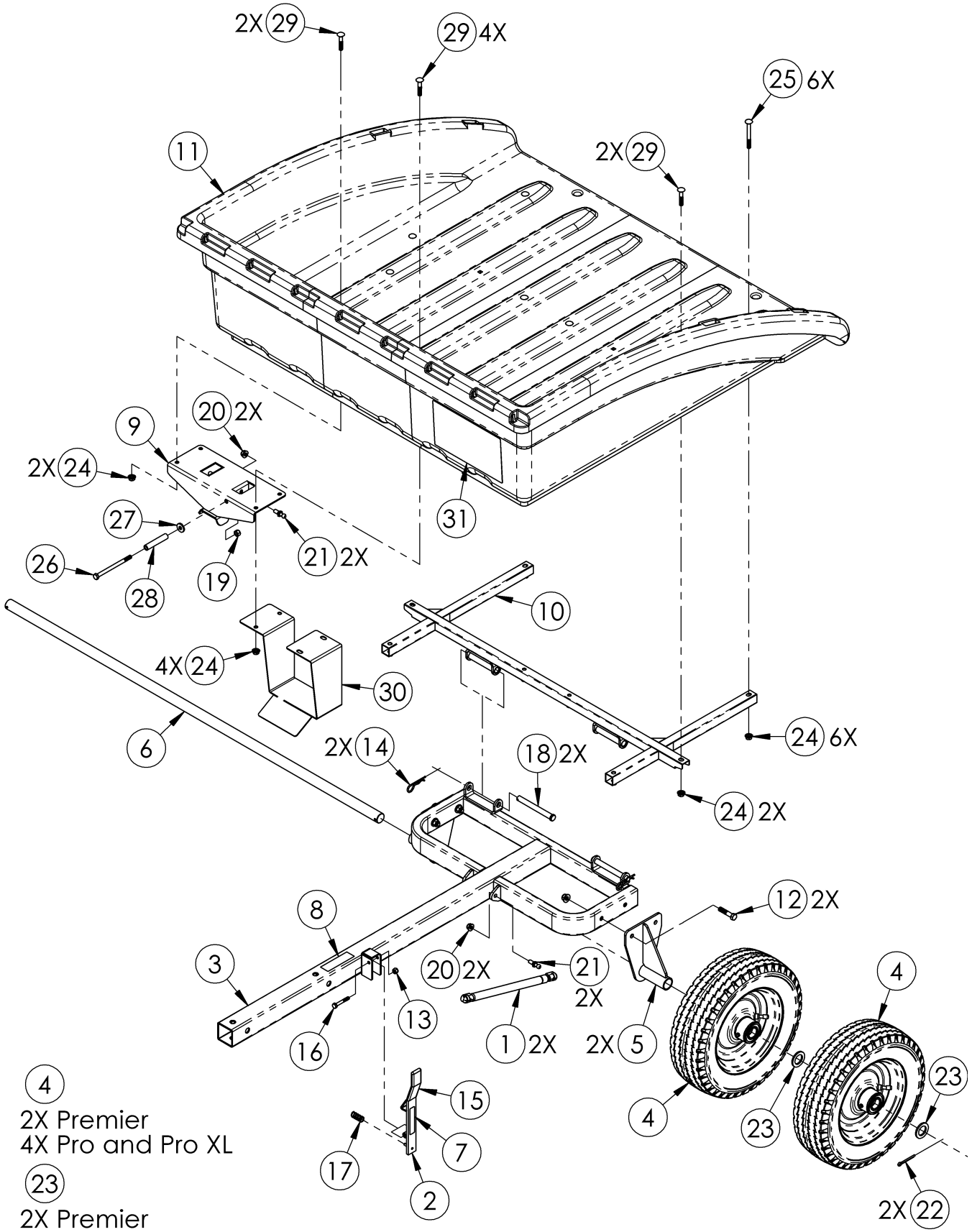
SYMPTOM	POSSIBLE CAUSE
The Engine lacks power or is not running smoothly. *(Please refer to the Engine Owner's Manual for engine-specific procedures.)*	⇒ Check the Throttle travel. See your engine owner's manual. ⇒ The Choke should be pushed all the way to the right (RUN). See your engine owner's manual. ⇒ Check to see if the Air Filter is clean. If it's dirty, change it following the procedure in the Engine Owner's Manual. ⇒ 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. ⇒ 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. ⇒ 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 owner's manual. ⇒ If your Engine still lacks power, visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
Wheels tracking left or right while being towed.	⇒ Check the tire pressure. Refer to the Tire manufacturers recommended pressure on the side of the Tire and adjust pressure as needed.
Lawn Deck is not vacuuming well.	⇒ Be sure the Leaf and Lawn Vacuum Engine is running at full throttle. ⇒ Be sure the Lawn Deck Blades are engaged and running at full throttle. ⇒ Be sure the Deck is set at the proper mowing height. ⇒ Use 1st or 2nd gear on your Lawn Tractor for best results. ⇒ Turn off the Lawn Tractor Engine and Vacuum Engine and check the Deck Adapter for clogs. ⇒ Look for clogs along the Hose. Shake the Hose to loosen and free any clog. ⇒ 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 Outlet Duct and Inlet Hose. ⇒ If your Lawn Deck still is not vacuuming properly, visit us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
Leaves or grass come out of the back of the Enclosure.	⇒ Check that the rear Flap is tucked into the Enclosure.
Leaves or grass come out where the Outlet Chute and Enclosure meet.	⇒ Be sure the Enclosure Sleeve is fully installed around the Outlet Duct. ⇒ Try to rock the Impeller Housing toward and away from the Enclosure. If it is loose then you will need to tighten the Bolts located behind the Impeller.
The Collector does not fully latch	⇒ Pull the Collector down fairly rapidly against the latch. If the latch does not return fully, move it closed manually, loosen the bolt going through the latch pin and retighten the bolt.

Parts List – FRAME AND CART ASSEMBLY

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

Ref#	Part#	Description
1	337931	Gas Spring, 500-300 mm, 150 Lb
2	337851	Handle Latch
3	337991	Frame, Rear
4	337941	Wheel and Tire, 14 X 5.3/4.50-8, 4 Ply
5	338021	Bracket, Axle
6	342561	Axle (Pro and Pro XL)
	338011	Axle (Premier)
7	153421	Label-Dump Lever
8	372291	Label - Do Not Over Fill Oil
9	A0001469149	Support, Cart Bed
10	A0001234642	Support - Pivot - Cart Bed – Pro
	A0001234644	Cart Bed - Premier
11	342581	Cart Bed (Pro and Pro XL)
	337761	Cart Bed (Premier)
12	123341	Bolt-Hcs 3/8-16 X 1-3/4 Gr5 Zp
13	110731	Nut-Lock Nylon 1/4-20
14	160031	Pin-Hitch Clip 1/2-9/16
15	110241	Grip Latch Handle
16	111481	Bolt - 1/4-20 X 1 3/4 - Gr5 Zp
17	338031	Spring - C - 0.545od X 0.055 Wire X 2.2 L
18	A0000253563	Pin Clevis 1/2 X 4.5in L Zp
19	110761	Nut-Lock Nylon 5/16-18
20	333321	Nut-Nylon Lock Flanged 5/16-18
21	337981	Stud Ball - 10mm
22	126851	Pin Cotter 3/16 X 1 1/2
23	A0001216052	Washer-1.00 Id X 1.58 Od X .134 Thick
24	106681	Nut-Flange 5/16-18
25	350341	Bolt-Carr 5/16-18 X 3 Gr5 Zp
26	189801	Bolt - Hcs - 5/16-18 X 4-1/2 Gr2 Zp
27	338041	Washer .344 Id X .88 Od X .12
28	338051	Spacer-.327id X .51od X 2.69
29	350331	Bolt-Carr 5/16-18 X 1.75 Gr5 Z
30	A0000773052	Bracket - Foot Assist (Pro and Pro XL)
31	342791	Label, Operating

Schematic – FRAME AND CART ASSEMBLY

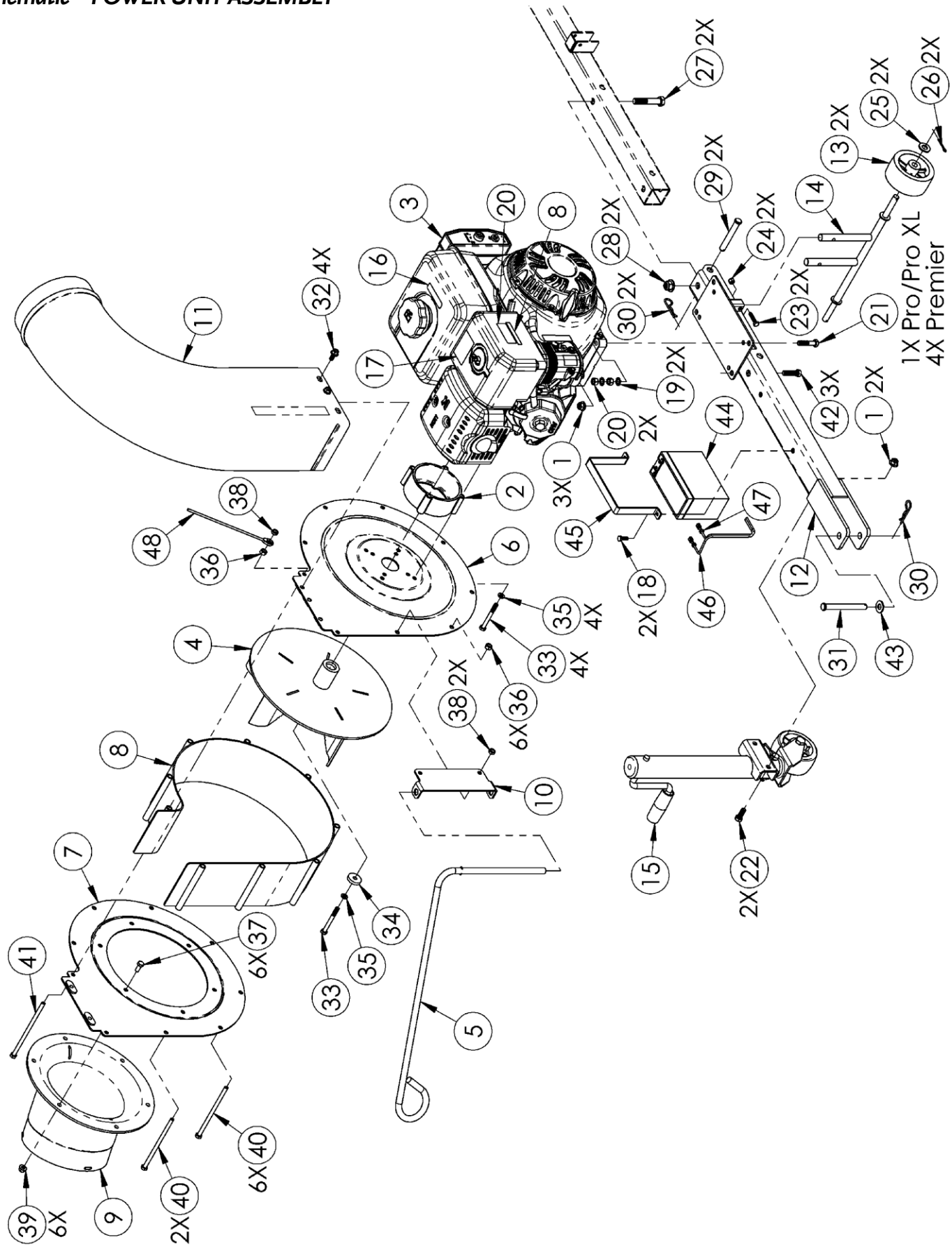


Parts List – POWER UNIT ASSEMBLY

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

Ref#	Part#	Description
1	333331	Nut-Nylon Lock Flanged 3/8-16 (Pro and Pro XL)
	333321	Nut-Nylon Lock Flanged 5/16-18 (Premier)
2	342391	Spacer, Impeller
3	354381	Engine W/Label, DR 16.96 TQ, E/S, 50st/CE (Pro XL)
	354371	Engine W/Label, DR 16.96 TQ, M/S, 50st/CE (Pro XL)
	354361	Engine W/Label, DR 13.28 TQ, E/S, 50st/CE (Pro)
	354351	Engine W/Label, DR 13.28 TQ, M/S, 50st/CE (Pro)
	354341	Engine W/Label, DR 9.59 TQ, E/S, 50st/CE (Premier)
	354331	Engine W/Label, DR 9.59 TQ, M/S, 50st/CE (Premier)
4	A0000094783	Impeller
5	342441	Rod, Support Hose
6	A0001285658	Sideplate, Housing, Engine
7	388561	Sideplate - Housing Hose
8	388571	Scroll - Housing
9	388591	Adapter, Hose, Impeller Housing
10	A0001338018	Bracket-Rod Hose
11	A0001234648	Chute, Impeller Outlet
12	A0000543342	Frame - Front Ll2 W/ Weld Nuts
13	342771	Wheel, 4"
14	388621	Axle - Power Unit Ll2
15	342691	Jack Trailer (Pro and Pro XL)
16	137581	Label-Check Oil 2.75 In X .63 In
17	188871	Label-Hot Surface R/C
18	119831	Bolt-Hcs 1/4-20 X 3/4 Gr2 Zp (Electric Start Only)
19	350401	Washer - Lock - 3/8 - Ext Tooth Zp (Pro and Pro XL Electric Start)
	112501	Washer, Star Lock, 5/16" (Premier Electric Start)
20	126831	Nut Finish - 3/8-16 (Pro and Pro XL Electric Start)
	110691	Nut Finish – 5/16-18, ZP (Premier Electric Start)
21	123341	Bolt-Hcs 3/8-16 X 1-3/4 Gr5 Zp (Pro and Pro XL Electric Start)
	A0001686619	BOLT-HCS 5/16-18 X 2-3/4 IN GR5 ZP
22	111521	Bolt-Hcs 3/8-16 X 1 Gr5 Zp (Pro and Pro XL)
23	114681	Bolt - Hcs 1/4-20 X 1 1/4 Gr5 Zp
24	110731	Nut-Lock Nylon 1/4-20
25	234991	Washer - 0.53 Id X 1.06 Od X 0.095 - Zp
26	235001	Pin - Cotter 7/64 X 1 Zp
27	265561	Bolt - 1/2-13 X 2 3/4 - Gr 5 - Tb
28	333351	Nut-Nylon Lock Flanged 1/2-13
29	211541	Pin-Clevis 1/2x3.5in L Zp
30	160031	Pin-Hitch Clip 1/2-9/16
31	A0000253563	Pin Clevis 1/2 X 4.5in L Zp
32	350231	Bolt-Hex Flange 5/16-18 X .75
33	A0000072109	Bolt-Hcs 5/16-24 X 2-7/8 Gr8 Yzp
34	350361	Washer - Flat - 0.344 X 1.25 X 0.25 Zp
35	350321	Washer-Lock 5/16 Gr8 Yzp
36	110761	Nut-Lock Nylon 5/16-18
37	123211	Bolt-Hcs 5/16-18 X 3/4 Gr5 Zp
38	187551	Nut Nylon Lock - 5/16-18 Lp
39	333321	Nut-Nylon Lock Flanged 5/16-18
40	386401	Bolt-Hcs 5/16-18 X 6 Gr5 Zp
41	386501	Bolt-Hcs 5/16-18 X 6.50 Gr5 Zp
42	119851	Bolt - Hcs - 3/8-16 X 1 1/2 - Gr5 Zp
43	189671	Washer-Rubber 1/2id 1od
44	134471	Battery 9 Ah 12v (Electric Start Only)
45	242301	Strap-Battery 9ah Ll1
46	342751	Wire Battery Ground-Ll2
47	342761	Wire Battery - Positive Ll2
48	A0002032108	Cable - Collector - Ll3
Not Shown		
	370361	Wire Tie
	342781	Label, Warning, Chute & Hose
	A0000221923	Label, Premier 200
	A0000221926	Label, Pro 321
	A0000221928	Label, Pro XL321

Schematic – POWER UNIT ASSEMBLY

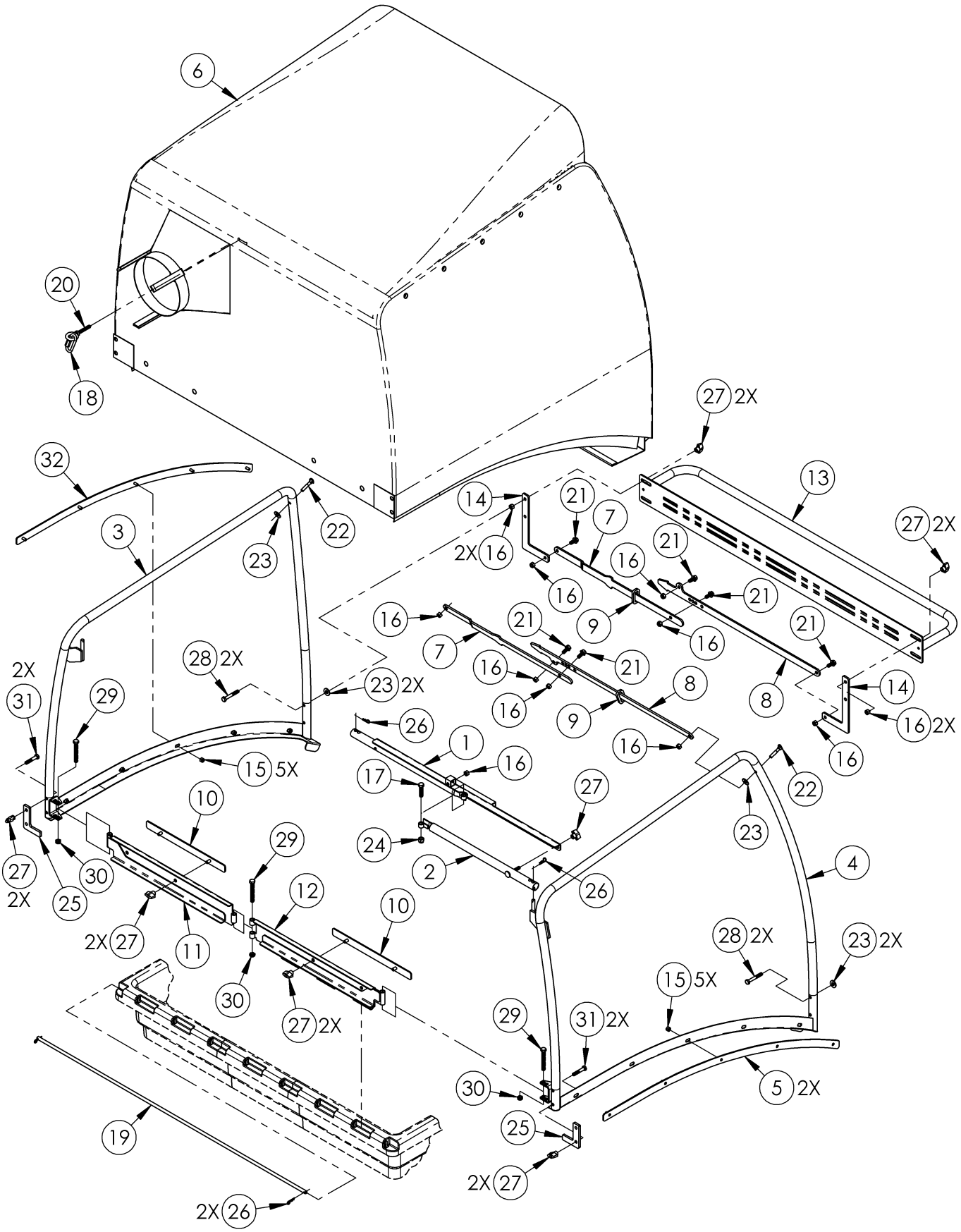


Parts List – COLLECTOR ASSEMBLY

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

Ref#	Part#	Description
1	A0001049408	Tube, Hinge, Collector Frame, RH (Pro and Pro XL)
	A0001049410	Tube, Hinge, Collector Frame, RH (Premier)
2	A0001049405	Tube, Hinge, Collector Frame, LH (Pro and Pro XL)
	A0001049409	Tube, Hinge, Collector Frame, LH (Premier)
3	A0001049393	Frame, Tube, Collector, RH
4	A0001049390	Frame, Tube, Collector, LH
5	337901	Retainer, Enclosure, LH
6	A0001074969	Enclosure, Fabric (Pro and Pro XL)
	A0001074967	Enclosure, Fabric (Premier)
7	A0001049371	Link, Offset, Collector (Pro and Pro XL)
	A0001049378	Link, Flat, Collector (Premier)
8	A0001049375	Link, Flat, Collector (Pro and Pro XL)
	A0001049372	Link, Offset, Collector (Premier)
9	A0001048637	Retainer, Ring, Link
10	337911	Retainer, Enclosure Front
11	A0001049398	Hinge, Split, Frame Collector, RH (Pro and Pro XL)
	A0001049402	Hinge, Split, Frame Collector, RH (Premier)
12	A0001049396	Hinge, Split, Frame Collector, LH (Pro and Pro XL)
	A0001049399	Hinge, Split, Frame Collector, LH (Premier)
13	A0001049385	Handle, Tube Frame (Pro and Pro XL)
	A0001049389	Handle, Tube Frame (Premier)
14	A0001048632	Bracket, "L"
15	110731	Nut, Nylon Lock, 1/4-20
16	110761	Nut, Nylon Lock, 5/16-18
17	119851	Bolt, HCS, 3/8-16 X 1 1/2", GR5, ZP
18	334431	Link, Chain, Threaded Connector
19	342551	Pin, Hinge (Pro and Pro XL)
	337861	Pin, Hinge (Premier)
20	350281	Eyebolt, 5/16-18 X 2", Forged, ZP
21	350231	Bolt, Hex, Flange, 5/16-18 X .75"
22	350271	Bolt, C-Head, 5/16-18 X 1.75", ZP
23	112411	Washer, Flat, 5/16", USS
24	110751	Nut, Nylon Lock, 3/8-16
25	A0001844373	Bracket, Stop
26	337871	Pin, Cotter Hair, 1/4" - 3/8"
27	350301	Knob, 5/16-18, W/Lock, 1.16 Dia
28	101471	Bolt, HCS, 5/16-18 X 2-1/4", GR2 ZP
29	123371	Bolt, HCS, 3/8-16 X 2-3/4", GR5, ZP
30	164131	Nut, Nylon Lock, 3/8-16, Lowpro
31	150451	Bolt, HCS, 5/16-18 X 1-3/4", GR5, ZP
32	337891	Retainer, Enclosure, RH
Not Shown		
	361201	Batten, 40" PRO
	361191	Batten, 28.5" PREMIER

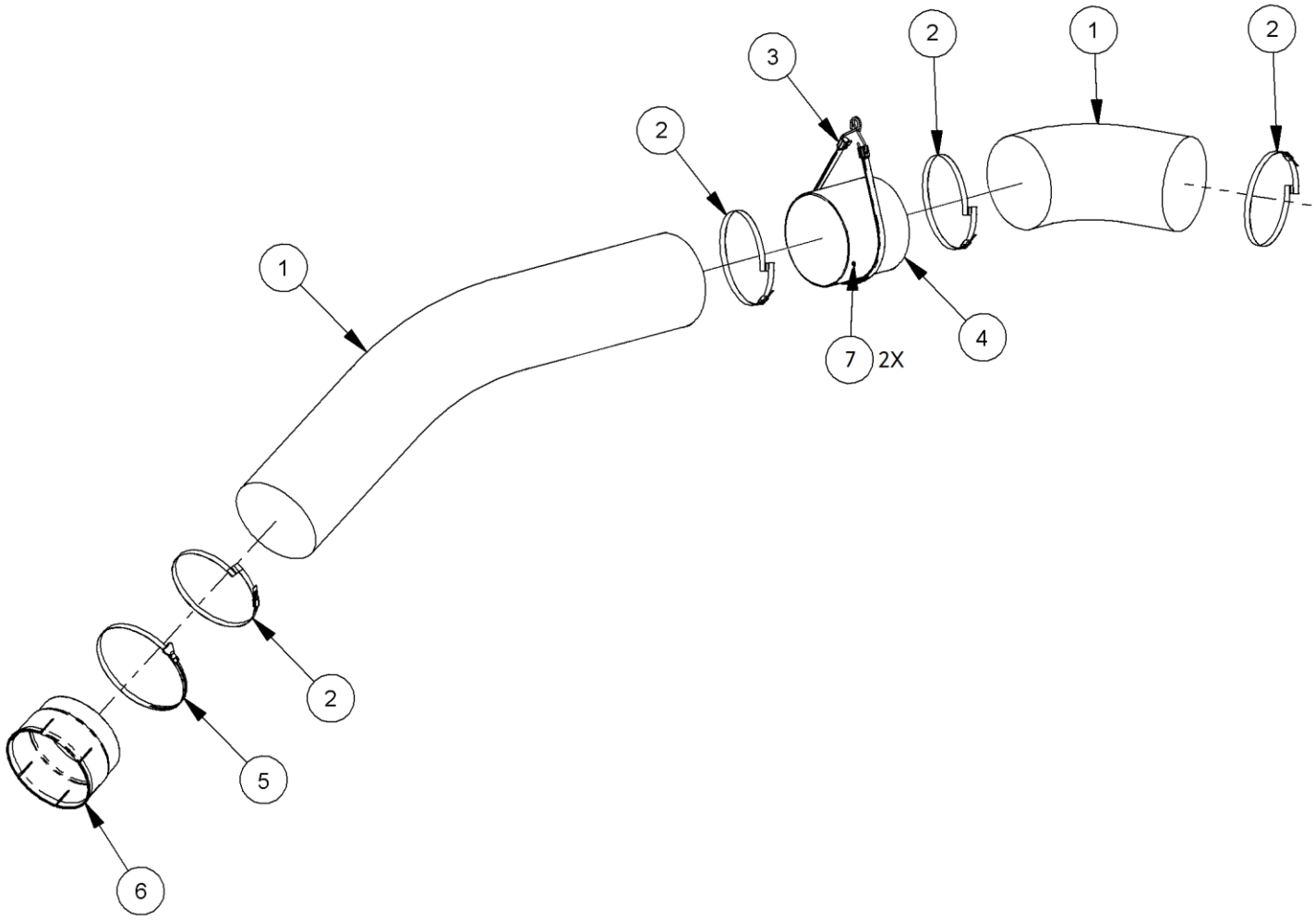
Schematic – COLLECTOR ASSEMBLY



Parts List and Schematic – HOSE ASSEMBLY

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

Ref#	Part#	Description
1	337951	Hose, 8" ID X 72" Long, PVC (cut into two pieces – 56" section and 16" section)
2	337961	Clamp, Hose, 8", Bridge
3	354421	Strap & Hook Set
4	351981	Coupling, Hose, 8″
5	337971	Clamp, Hose, 8", Thumbscrew
6	342481	Cuff, Hose, 8"
7	164141	Rivet, Pop, 3/16″ X 3/16″



DR® LEAF and LAWN

2-Year Limited Warranty

Terms and Conditions

The **DR®** 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®** 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®** 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 Spark Plug and Air Filters. 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®** 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

⚠ 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.

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

[ ] 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 intact and secure.

[ ] HOSES: Inspect the Hose for holes, frayed, worn, kinked, or abraded areas. Replace a damaged or worn Hose.

[ ] COLLECTOR: Empty the Collector after each use. Do not store the Leaf System with debris in the Collector.

End of Season and Storage

⚠ 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.

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 Hose 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.
- 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 or call 1-800-DR-OWNER (376-9637) to purchase a cover for your DR LEAF and LAWN VACUUM.

800 HINESBURG ROAD, SOUTH BURLINGTON, VERMONT 05403