

DR® XD45 WALK-BEHIND LEAF & LAWN VACUUM

SAFETY & OPERATING INSTRUCTIONS



Models:
XD45

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 WALK-BEHIND LEAF & LAWN

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Conventions used in this manual

DANGER

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

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.

DR POWER EQUIPMENT	
MODEL MODELO MODELE	XXXXXXXX
SERIAL NO NU DE SERIE No DE SERIE	XXXXXXXX
POWER (KW)	XXXXXXXX
WEIGHT (KG)	XXXXXXXX
ITEM#	XXXXXXXX
MANUF DATE	XXXXXXXXXX
MANUF PLANT	XXXX
DR POWER EQUIPMENT 800 HINESBURG ROAD SOUTH BURLINGTON, VT 05403 Country of Origin XXXXX XXXXX	

Figure 1

Serial Number and Order Number

A Serial Number is used to identify your machine and is located on the Serial Number Label on your machine (**Figure 1**). An Order Number is used to check and maintain your order history and is located on the 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.

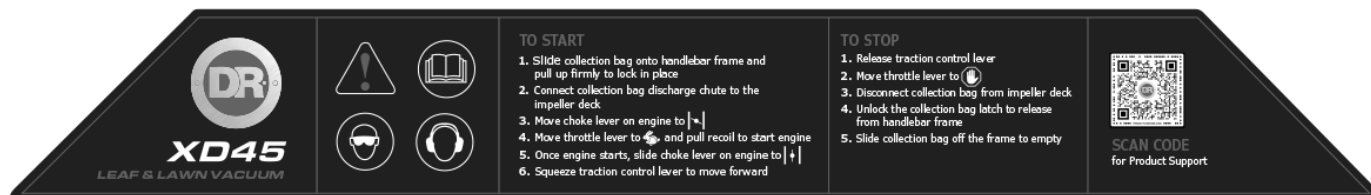
Chapter 1: General Safety Rules

WARNING

Read this safety & operating Instructions manual before you use the DR WALK-BEHIND LEAF & 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 WALK-BEHIND LEAF & 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 your equipment. Take a moment to study them and make a note of their location on your DR WALK-BEHIND LEAF & LAWN VACUUM as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.



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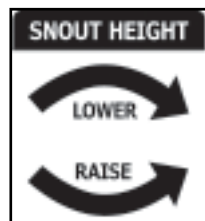
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#136831



#136491



Use ear protectors or ear plugs rated for at least 20 dba to protect your hearing.



Always wear protective goggles or safety glasses with side shields while chipping to protect your eyes from possible thrown debris.



Read this safety & operating Instructions manual before you use the machine. Become familiar with the operation and service recommendations to ensure the best performance.



This label indicates proximity to machine openings with rotating blades inside.

***SERIOUS INJURY OR DEATH** will occur if hands, feet, or any part of your body are placed in the chipper hopper, discharge opening, or near or under any moving part while the machine is running.*

Never run without guards in place.



Wear approved respiratory mask in dusty conditions.



*Never reach into the intake snout, discharge opening, or maintenance openings. **SERIOUS INJURY OR DEATH** may occur.*

Protecting Yourself and Those Around You

WARNING

This is a high-powered machine, with moving parts operating with high energy at high speeds. Use proper clothing and safety gear when operating this machine to prevent or minimize the risk of severe injury. 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 operating this machine:

- Always wear protective goggles or safety glasses with side shields while operating this vacuum system to protect your eyes from possible foreign objects thrown from the machine.
- Wear shoes with non-slip treads when using your DR WALK-BEHIND LEAF & LAWN VACUUM. If you have safety shoes, we recommend wearing them. Do not use the machine while barefoot or wearing open sandals.
- Avoid wearing loose clothing or jewelry, which can catch on the machine's moving parts.
- We recommend wearing gloves while using your DR WALK-BEHIND LEAF & LAWN VACUUM. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
- Always wear gloves when emptying the debris bag.
- After vacuuming light litter, dispose of this waste properly, never in a compost pile.
- Wear long pants while operating the machine.
- Use Hearing Protectors or Ear Plugs rated for at least 20 dba to protect your hearing.
- Never allow people who are unfamiliar with these instructions to use the vacuum. Allow only responsible individuals who are familiar with these rules of safe operation to use your machine.
- Never place your hands, feet, or any part of your body near or under any moving part while the machine is running.
- Keep bystanders away from your work area at all times. To be safe, do not operate the machine near small children or pets, and never allow children to operate the vacuum. Stop the engine when another person or pet approaches.
- Never use the machine with the collection bag removed.
- Never use the vacuum to pick up heavy objects such as glass bottles, nails, wire, rocks or other hard/heavy objects.
- Never use the vacuum to pick up hot or flammable material.
- ALWAYS clear the work area of hazardous objects such as hard objects, rock, string-like material, wire, rope, or rags. Ingesting these objects into the vacuum could damage the machine and/or cause injury.
- Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the DR WALK-BEHIND LEAF & LAWN VACUUM. This includes all shields and guards. Modifications to your machine could cause personal injuries and property damage and will void your warranty.
- High speed debris may be ejected from Impeller Housing or Bag if the Bag is not attached properly. Always inspect the Bag and Discharge Chute before each use for wear, damaged, and proper installation. Replace before using machine if damaged.

Safety for Children and Pets

WARNING

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

- Keep children out of the work area and under the watchful care of a responsible adult.
- Be alert and always turn off the DR WALK-BEHIND LEAF & 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.
- Never allow children to operate the vacuum.
- 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 operate the engine with the air cleaner or cover over the carburetor air-intake removed, except for adjustment. Removal of such parts could create a fire hazard. Do not use flammable solutions to clean air filter.
 - 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.
 - Fill the gasoline tank outdoors with the engine off and allow the engine to cool completely. Do not handle gasoline if you or anyone nearby is smoking, or if you are near anything that could cause it to ignite or explode. Replace the fuel tank and fuel container caps 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 debris bag before storing the DR WALK-BEHIND LEAF & LAWN VACUUM in any enclosure. Remember, decomposing material generates heat and could 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.
 - Never make adjustments or repairs with the engine running. Disconnect the spark plug wire and keep the wire away from the spark plug to prevent accidental starting.
 - Never check for an ignition spark with the spark plug or spark plug wire removed. Use an approved spark tester.
 - Never tamper with safety devices. Check their proper operation regularly.
 - Never change the engine governor settings or modify the engine speed. Modifications will void your warranty.
 - To reduce fire hazard, keep the engine and muffler area free of debris build-up such as leaves, grass, Oil, grease, or any other combustible material. Clean the engine area after each use.
 - Never operate the engine without the muffler. Inspect the muffler periodically and replace if necessary. If equipped with a muffler deflector, inspect the deflector periodically and replace if necessary.
 - The muffler and engine become very hot and can cause a severe burn; do not touch.
 - Always check fuel lines and fittings frequently for cracks or leaks, replace if necessary.
 - Replace rubber fuel lines and grommets when worn or damaged and after 5 years of use.
-

Safety on Slopes

WARNING

Slopes are a major factor related to slip and fall 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 across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes.
- Remove objects such as stones, wire, rope, or rags.
- Watch for holes, ruts, or bumps in the landscape.

Never:

- **Never** vacuum near drop-offs, ditches, or embankments; you could lose your footing or balance.
 - **Never** vacuum on slopes greater than 20 degrees, or any excessively steep slopes.
 - **Never** vacuum on wet, or slippery slopes; reduced traction could result in slipping.
 - **Never** park the vacuum on a steep grade or slope.
-

General Safety

WARNING

Operating this Vacuum safely is necessary to prevent or minimize the risk of ***death or serious injury***. Unsafe operation can create a number of hazards for you. Always take the following precautions when operating this vacuum:

- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.
- Your DR WALK-BEHIND LEAF & LAWN VACUUM is a powerful tool, not a plaything. Exercise extreme caution at all times. The design of this machine is to vacuum debris. Do not use it for any other purpose.
- Know how to stop the vacuum quickly.
- Never allow people or pets to ride on the DR WALK-BEHIND LEAF & LAWN VACUUM.
- Never start the engine without the discharge chute fully inserted into the debris bag cuff and positioned onto the Housing.
- Never attempt to remove the Debris Bag while the DR WALK-BEHIND LEAF & LAWN VACUUM engine is running. Debris may exit at high velocity out of the openings created in the seams as you unlatch the debris bag.
- Empty the debris bag after each use to prevent spontaneous combustion and fire due to decaying material.
- Do not vacuum in sandy areas where you will vacuum large quantities of sand.
- Never operate the vacuum near hot or burning debris.
- Never operate the vacuum near toxic or explosive materials.
- Never operate the vacuum near campfire sites. Even seemingly extinguished fires may retain hot embers and coals.
- If unusual or excessive noise or vibration occurs, stop the engine immediately. Vibration is generally a warning of trouble. Wait five minutes for the parts to cool, disconnect the spark plug wire, and inspect for clogging, damaged or worn impeller, loose impeller bolt, or loose engine mounting bolts. Clean and repair and/or replace damaged parts.
- Never operate the machine with a damaged impeller under any circumstances.
- Always shut off the DR WALK-BEHIND LEAF & LAWN VACUUM engine, wait five minutes to cool, and disconnect the spark plug wire before attempting to clear any obstructions.
- 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.
- Use the DR WALK-BEHIND LEAF & LAWN VACUUM only in daylight.
- While using the vacuum, do not hurry or take things for granted. When in doubt about the equipment or your surroundings, stop the machine and take the time to look things over.
- Never leave the machine unattended with the engine running.
- Do not operate the machine when under the influence of alcohol, drugs, or medication.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by DR Power Equipment.

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 WALK-BEHIND LEAF & LAWN VACUUMs shipped 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 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® WALK-BEHIND LEAF & LAWN VACUUM

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

DR WALK-BEHIND LEAF AND LAWN VACUUM XD45 Controls and Features

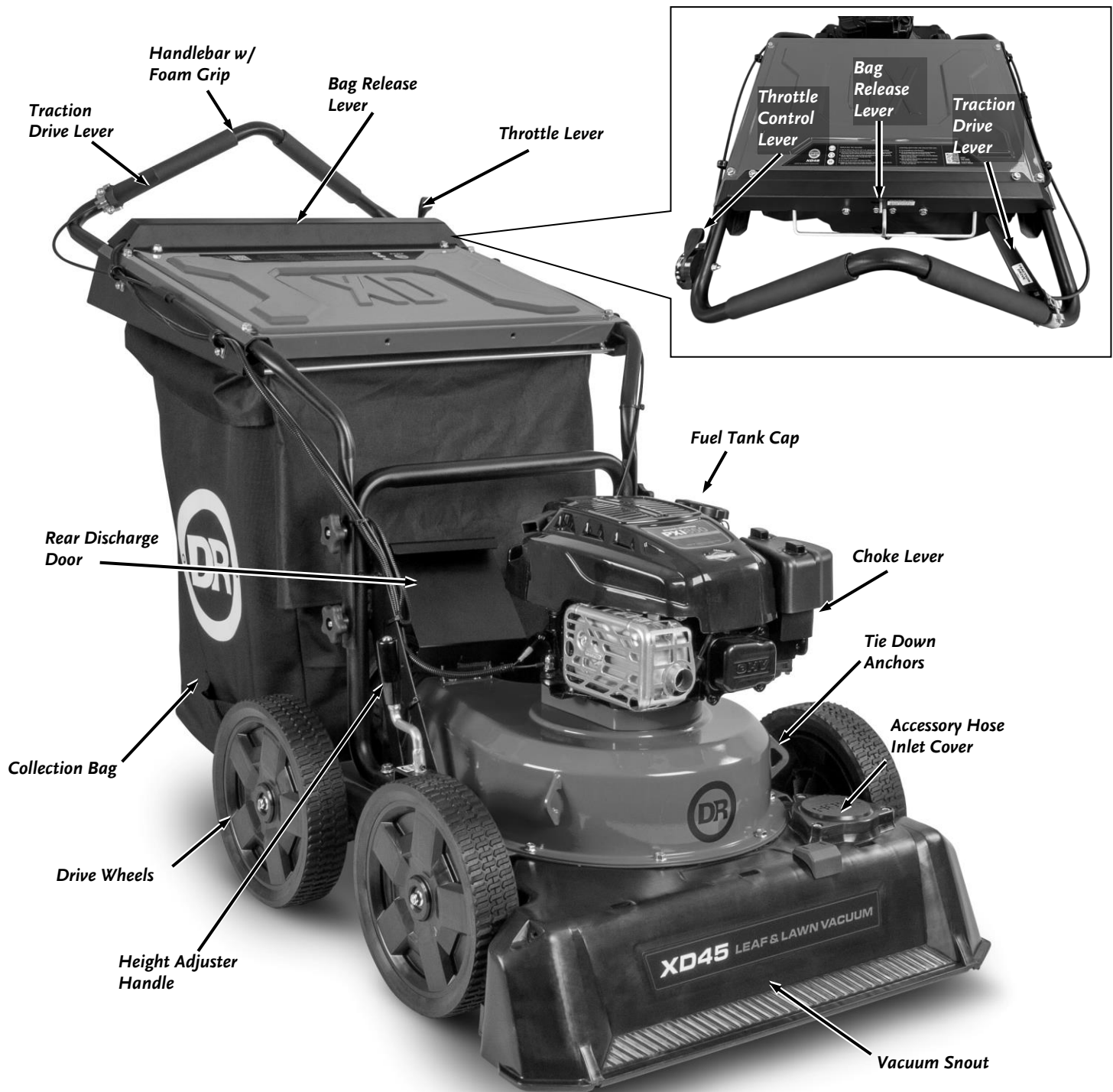


Figure 2

Specifications

	XD45 M/S
Engine	Briggs & Stratton PXL 850
Max Torque	8.5 ft-lbs
Engine Oil Capacity	0.54-0.59 Liters (18-20 oz)
Engine Oil Type	10W-30
Impeller Drive Method	Direct Drive
Impeller Size	14.25"OD x 4" H
Impeller Thickness	1/4"
Vacuum Air Flow Volume	1176 CFM
Vacuum Air Flow Speed	144 MPH
Height Adjustment Range	1/4" to 4"
Collection Bag Volume	45 Gallons
Transmission Type	Cone Clutch
Speeds	Infinitely Variable 0-3MPH
Overall Length	59"
Overall Height	46"
Width	31"
Machine Weight	170 Lbs

Parts Supplied in Shipping Crate – (Figure 3 and list below):

Item #	Description	Qty
1	Collection Bag and Frame.....	1
2	Discharge Chute.....	1
3	Product Package.....	1
4	Walk-Behind Leaf Vacuum (not shown).....	1

Compare the contents of the Shipping Crate, with the Parts Supplied list above. If you have any questions, please contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.



Figure 3

Assembling the DR WALK-BEHIND LEAF AND LAWN VACUUM

Note: Assembly should be done on a clean, level surface.

Tools Needed:

- 1/2" Wrench



Figure 4

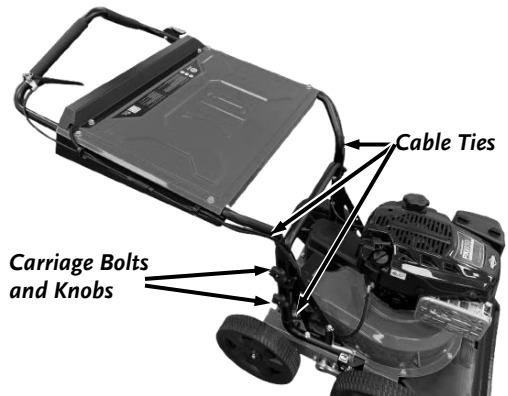


Figure 5



Figure 6

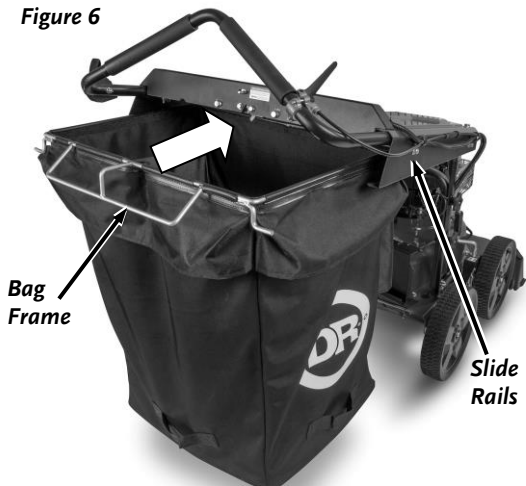


Figure 7

1. Use a 1/2" Wrench to remove the bolts from the P-Clamps securing the Upper Handlebars to the Lower Handlebars (**Figure 4**). Discard the P-Clamps.
 2. Reinstall the Bolts previously removed in Step 1 back into the Control Panel and tighten using a 1/2" Wrench.
 3. Move the Upper Handlebars to the back of the machine taking care to keep the cables routed to the outside of the Upper Handlebars. (**Figure 5**).
 4. Align the holes of the Upper and Lower Handlebars and install the 5/16"-18 Carriage Bolts and Knobs (located in the Product Pack) (**Figure 5**). Tighten by hand to secure.
- Note:** It is helpful to loosely install the lower bolts first, then rotate the handlebars upwards to install the upper bolts.
5. Use Cable Ties (located in the Product Pack) to secure the Cables and Wire Harness to the Handlebars (**Figure 5**).
 6. Install the Discharge Chute into the Collection Bag Inlet and tighten the Cinch Strap firmly to secure (**Figure 6**).
 7. Slide the Collection Bag Assembly onto the Slide Rails (**Figure 7**) and pull up firmly to secure the Bag Frame into the Latch (**Figure 8**).
 8. Lift the Rear Discharge Door, align the channel of the Discharge Chute with the flange on the Impeller Housing, and slide the Discharge Chute down onto the Impeller Housing (**Figure 9**).



Figure 8

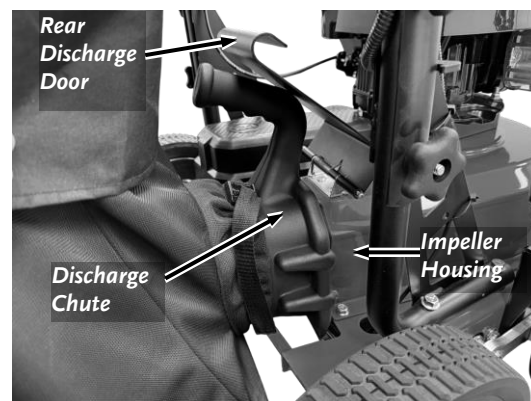


Figure 9

Adding the Engine Oil and Gasoline

NOTICE

- You must add Oil before starting the Engine. This machine is shipped without Oil. Traces of Oil may be in the reservoir from factory testing, but you must add Oil before starting the Engine. Fill the reservoir slowly, checking the level frequently to avoid overfilling.
- The Engine needs to be on a level surface or overfilling could occur which could damage the Engine during use.

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.

Engine Oil Type	10W-30 is suitable for most temperature ranges. Refer to your Engine Owner's Manual for more detailed Oil Information.
Engine Oil Capacity	0.54L - 0.59L (18oz - 20oz)
Fuel	Unleaded gasoline

To add Engine Oil:

1. Level the Lawn Vacuum by rotating the Height Adjust Handle until the engine and frame are level with ground (**Figure 10**).
2. Remove the Oil Cap/Dipstick, add approximately 16oz-18oz of Oil, and wait one minute for the Oil to settle (**Figure 11**).
3. Insert the Dipstick, ensuring the cap is fully seated on the filler tube. Remove the Dipstick to check the Oil level (**Figure 12**).
4. Continue adding a few ounces of Oil at a time, rechecking the Dipstick until the Oil reaches the full mark (**Figure 12**). Be careful not to overfill.
5. Replace the Dipstick and twist it 1/4 turn to secure when full.

To Add Gasoline

1. Remove the Fuel Tank Cap from the Fuel Tank (**Figure 13**).
2. Fill the Fuel Tank with fresh, clean Unleaded Gasoline to 1 inch below the bottom of the filler neck to provide space for any fuel expansion.
3. Reinstall the Fuel Fill Cap securely and wipe up any spilled gasoline.

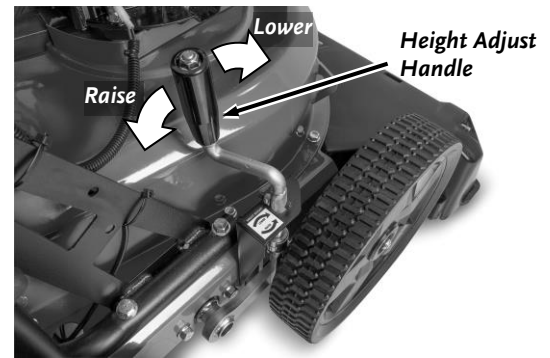


Figure 10



Figure 11



Figure 12



Figure 13

Chapter 3: Operating the DR WALK-BEHIND LEAF & LAWN VACUUM



Figure 14

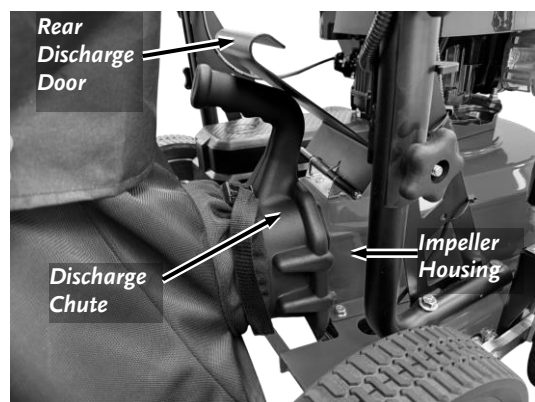


Figure 15

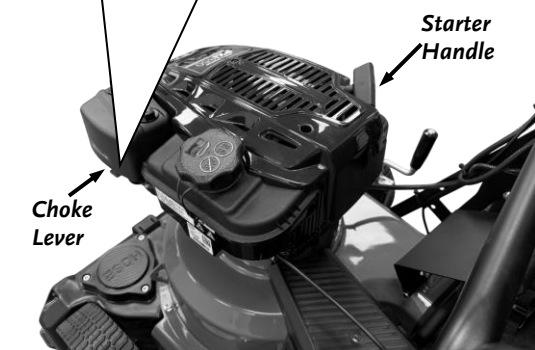
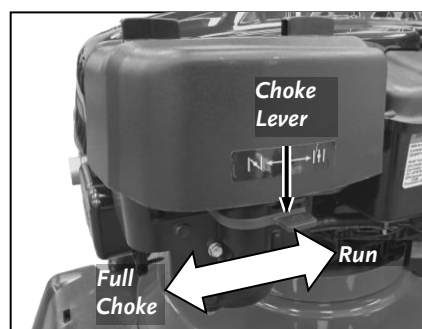




Figure 16

It may be helpful to better familiarize yourself with the features of your DR WALK-BEHIND LEAF & LAWN VACUUM by reviewing **Figure 2**, in Chapter 2 before beginning the steps outlined in this chapter. Always refer to the Engine manual for more specific Engine information.

Starting the Engine

1. Make sure that the Collection Bag is secured into the Latch (**Figure 14**) and the Discharge Chute is installed onto the back of the Impeller Housing (**Figure 15**).


Note: The Engine will not start unless the Collection Bag is installed and secured into the Latch.

2. Move the Choke Lever to the “CHOKE”  position (**Figure 16**). (leave in the RUN position if the Engine is already warm).
3. Move the Throttle Control Lever to the “FULL SPEED”  position (**Figure 17**).
4. Slowly pull the Starter Handle until you feel resistance, then pull quickly (**Figure 16**). Once the Engine starts, release the Handle and it will recoil back into position.
5. As the Engine warms up, slowly adjust the Choke Lever to the Left towards the “RUN” position until the Engine runs smoothly.

Stopping the Engine

1. Slowly move the Throttle Control Lever to the “STOP” position (**Figure 17**).

Throttle Control

When vacuuming, the Throttle Control Lever should be set all the way to “FULL SPEED”  position.

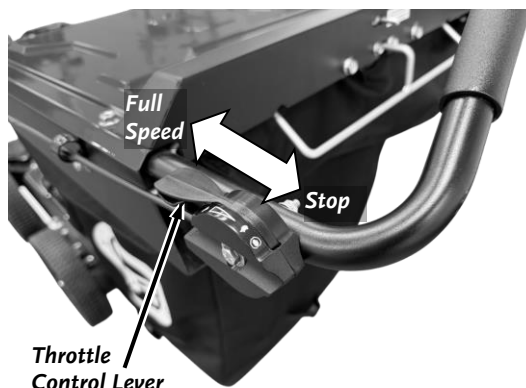


Figure 17

Operating the Drive System

The Traction Drive Lever is used to engage/disengage the Drive Wheels and control the drive speed (**Figure 18**).

1. Slowly squeeze the Traction Drive Lever toward the handlebar to ENGAGE the drive wheels.
2. Modulate the amount of pressure on the Traction Drive Lever to vary your speed.
3. Fully release the Traction Drive Lever to DISENGAGE the wheels. The Engine will continue to run, but the forward motion will stop.



Figure 18

Wheel Drive Operating Tips

- Operate the machine in a large, level, open area until you are familiar with the unit's operation. Begin slow and gradually work up to full speed.
- Forward momentum may cause the machine to gradually coast to a stop after the Traction Drive Lever is released.
- Engage the Traction Drive Lever slowly when starting off. The machine may hesitate briefly before the wheels begin turning.
- To make a turn, release pressure on the Traction Drive Lever and pivot the machine left or right.
- Always avoid excessively steep slopes. Vacuum across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes. If the machine does tip over, immediately shut down the Engine and move the machine to stable ground. Check the machine for damage.

Using the Vacuum

- The Vacuum is intended for use with leaves, grass clippings, mulch, wood chips, small twigs, straw and other organic yard waste/debris. It can also be used for organic debris mixed with LIGHT litter such as paper trash, foam trash, small plastic bottles, and aluminum cans. Vacuuming non-organic litter is not the machine's primary function. Vacuuming non-organic litter will affect the longevity of your machine."
- The Vacuum is NOT intended for use with hard/heavy debris such as glass bottles, nails, wire, rocks or gravel, or other large hard objects. Avoid highly flammable materials and hot objects.
- ALWAYS clean the work area of any hard/heavy objects or hazardous debris before Vacuuming.
- Before leaves drop, mow your lawn to the shortest recommended height. Your DR WALK-BEHIND LEAF & LAWN VACUUM will perform better on short grass.
- The DR WALK-BEHIND LEAF & LAWN VACUUM is designed to be used frequently during periods when leaves are dropping. It is not recommended to let leaves get 4 inches or deeper.
- The vacuum is more effective with drier leaves.
- The thicker the leaf layer, the slower you should proceed. If leaves are wet, or matted down, use light pressure on the Drive Lever to travel slowly. It may be necessary to fluff up leaves before using the vacuum. If the snout or discharge clogs, try going at a slower speed.
- Snout height is critical. The snout should ride above the leaf layer to allow proper vacuuming. Closer is not always better. As a general reference, the front of the snout should scrape the top of the grass.
- Avoid vacuuming twigs and branches into the snout. This will cause clogging.
- Avoid overfilling the Vacuum Snout, this will cause clogging.
- Vacuuming wet and soggy material will also cause clogging. A steady pace with a smaller flow of materials provides the most effective results.
- Avoid clogging when vacuuming loose, stringy material such as hay or pine straw, by picking up a small amount at a time. Check and empty the Collection Bag frequently.
- Avoid vacuuming in sandy areas, as this will cause excessive wear.
- If vacuuming in a dusty area cannot be avoided, try running the machine with a reduced throttle speed to limit the pick-up of sand and dust. Always wear a respiratory mask in dusty conditions.
- Use care when vacuuming near plantings, ornamentals, and mulch beds.
- Use extra caution when vacuuming around stone and gravel.

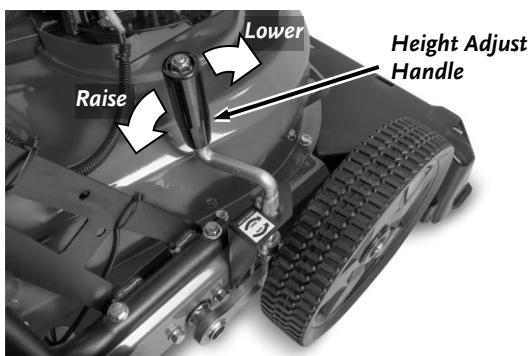


Figure 19



Figure 20



Figure 21

Adjusting the Vacuum Snout Height

The height of the Vacuum Snout can be adjusted to allow you to vary the suction to meet the surface conditions.

- For short turf with light leaf fall or hard surfaces, the Snout should be lowered closer to the surface.
- For long turf and heavy leaf fall, the Snout should be raised above the debris.
- For moving the machine long distances, avoid damage to the snout by raising it to the highest setting.

1. **To raise the Snout:** Grasp the Height Adjust Handle, and rotate counter clockwise (**Figure 19**).
2. **To lower the Snout:** Grasp the Height Adjust Handle and rotate clockwise.

Emptying the Collection Bag

! WARNING

Never start the Engine without the Collection Bag attached firmly to the Discharge Chute and Latch.

- The Collection Bag System on the XD45 is designed for fast and frequent emptying.
- Overfilling the Collection Bag reduces the ability for air to flow through the Vacuum and will result in a significant loss of suction. It can also increase the difficulty of the emptying procedure and potentially lead to clogging of the discharge chute, snout, or both.
- For the best experience, we suggest emptying the Bag frequently and as soon as it is full (check by feeling sides of Bag).
- Vacuuming in dusty conditions can cause increased wear on the mesh and reduce performance. Be sure to thoroughly clean the mesh after each operation by shaking the bag vigorously until all loose debris is released.
- ALWAYS empty the Bag completely BEFORE storing the machine to prevent premature deterioration of the Bag caused from rotting debris, and the possibility of a fire occurring as a result of heat generated by decomposing debris.

1. Shut off the Engine and wait for all moving parts to come to a complete stop.
2. Pull up on the Discharge Chute Handle to slide the Discharge Chute off of the Impeller Housing (**Figure 20**).

Tip: Step 2 can be skipped depending on the fill level and weight of the Bag. Simply pulling back on the Bag Handle as described in Step 4 will cause the Discharge Chute to automatically detach.

3. Move the Collection Bag Release Lever to the left to release the Collection Bag from the Top Cover (**Figure 21**)
4. Apply counter pressure on the Handlebar while pulling back on the Bag Frame Handle to slide the Collection Bag along the Slide Rails, out from under the Top Cover (**Figure 21**).

Tip: You don't need to slide the Bag Frame all the way off the ends of the Slide Rails. Pull back on the Bag Frame Handle, tip the Bag Frame Handle downwards, and move it left or right. This will cause the Bag Frame Supports to drop from the Slide Rails.

5. Carry the Collection Bag to the dumping area, tip the bag upside down, and use the Grab Handles on the sides and bottom of the Bag to shake the material out of the Bag (**Figure 22**).
6. Slide the Collection Bag assembly back onto the Slide Rails and pull up firmly to secure into the Latch (**Figure 23**).
7. Lift the Rear Discharge Door, align the channel of the Discharge Chute with the flange on the Impeller Housing, and slide the Discharge Chute down onto the Impeller Housing (**Figure 24**).

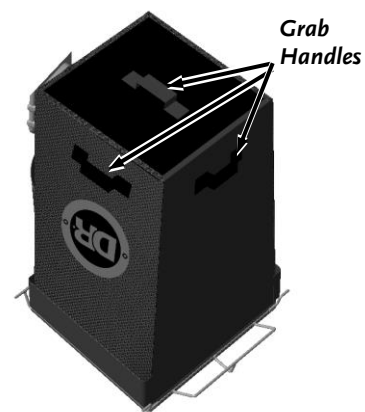


Figure 22



Figure 23

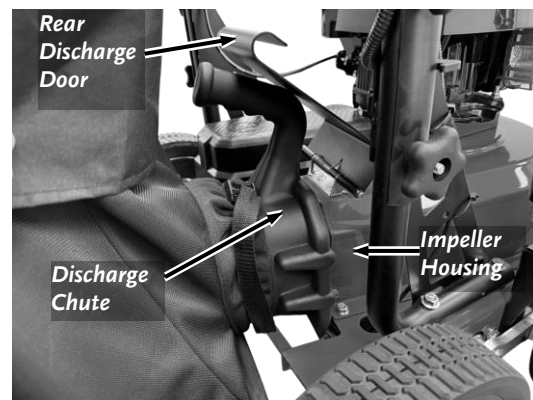


Figure 24

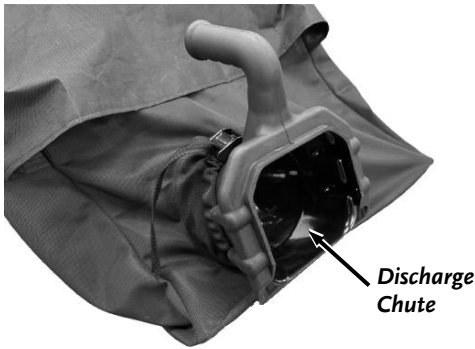


Figure 25

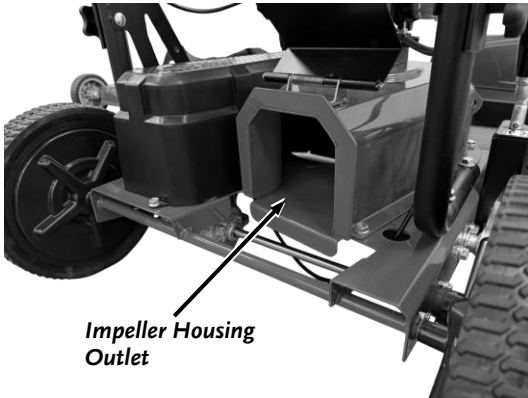


Figure 26

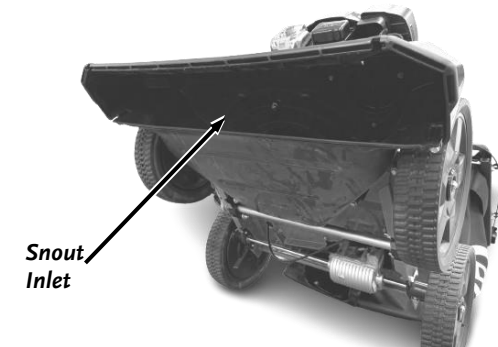


Figure 27

Clearing the Machine of Debris, Clogs or Jams

⚠ WARNING

Before performing any maintenance procedure or inspection, stop the Engine, wait for all moving parts to come to a complete stop and wait five minutes to allow all parts to cool. Disconnect the Spark Plug Wire, keeping it away from the Spark Plug.

A clog or jam in the machine can cause the suction to decrease or even stop completely. If clogging occurs, check (and clean, if necessary) the following areas:

To check the Discharge Chute for clogs:

1. Empty the Collection bag as described in the previous section.
2. Inspect the Discharge Chute to see if material has built up and compacted inside of the Chute (**Figure 25**).
3. Clear and remove any clogged debris using your hands or a stick.
4. Reinstall the Bag.

To Check Behind the Impeller for clogs:

1. Remove the Bag from the Machine.
2. Lift up on the Rear Discharge Door and check if material has built up and compacted in the outlet of the Impeller Housing (**Figure 26**).
3. Clear and remove any clogged debris using a stick. NEVER use your hands to reach inside of the Impeller Housing.
4. Reinstall the Bag.

To check the Snout for clogs:

1. Remove the Bag from the Machine.
2. Tip the machine back to give access to the underside of the Snout.
3. Inspect the Snout Inlet to see if material has built up and compacted inside of the Snout (**Figure 27**).
4. Clear and remove any clogged debris using a stick. NEVER use your hands to reach inside of the Snout.

Chapter 4: Maintaining the DR WALK-BEHIND LEAF & 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 procedure or inspection, stop the Engine and wait five minutes to allow all parts to cool. If equipped, remove the Key and disconnect the Spark Plug Wire, keeping it away from the Spark Plug.

Regular Maintenance Checklist

PROCEDURE	BEFORE EACH USE	EVERY 25 HOURS	EVERY 50 HOURS
Check Engine Oil Level	▲		
Check Fuel Level	▲		
Check General Equipment Condition	▲		
Visually inspect Collection Bag for rips, tears, debris build up, and proper installation.	▲		
Check for clogs, debris build up	▲		
Clean Engine Exterior & Cooling Fins	▲		
Clean Engine Air Filter		▲	
Change Engine Oil	1 st time 5 hours		▲
Lubricate Transmission Input Bearing			▲
Lubricate Drive Gears			▲
Replace Spark Plug			▲
Replace Air Filter			▲

Bag Maintenance

- The Mesh Bag is a replaceable wear item
- Vacuuming in dusty conditions can cause increased wear on the mesh and result in reduced vacuum performance. Keeping the Bag Mesh clean will improve air flow, reduce wear, and results in better vacuuming performance (**Figure 28**).
- Keep the Bag Mesh clean by occasionally brushing it out by hand or with a cloth to remove large chunks of debris.
- For a deeper clean, wash the mesh by hand with mild soap and water or use a pressure washer.
- Do not use a cleaner containing bleach.
- ALWAYS allow the Bag to dry thoroughly before use or storage.
- ALWAYS empty the Bag completely BEFORE storing the machine to prevent premature deterioration of the Bag caused from rotting debris, and the possibility of a fire occurring as a result of heat generated by decomposing debris.
- Periodically inspect the integrity of the Gasket underneath the Top Cover for damage or Debris Build Up. Clean/Replace as needed (**Figure 29**).



Figure 28

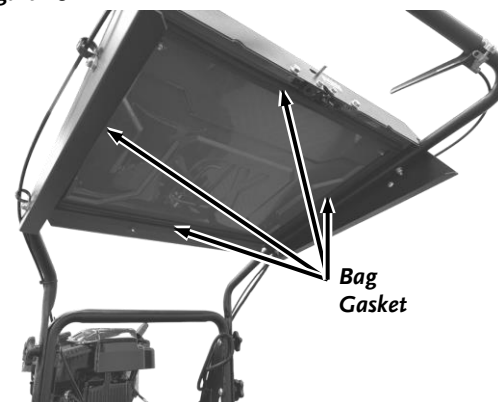


Figure 29

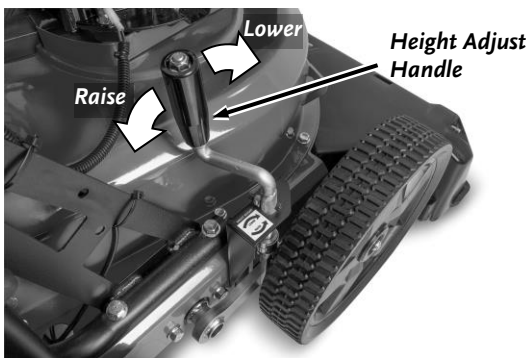


Figure 30



Figure 31



Figure 32

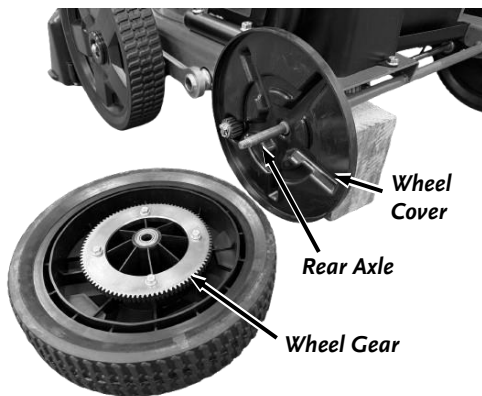


Figure 33

Changing the Engine Oil

Tools and Supplies Needed:

- Engine Oil (see your Engine Manual for Oil specifications)
- Oil Extractor*
- Small Funnel
- Rags

*The Engine does not have a Drain Plug. An Oil Extractor can be used to remove Oil. Visit our website to purchase an Oil Extractor.

Note: Remove the Oil when the Engine is warm. Warm Oil siphons quicker and more completely.

1. Level the Lawn Vacuum by rotating the Height Adjust Handle until the engine and frame are level with ground (**Figure 30**).
2. Remove the Engine Oil Cap/Dipstick. (**Figure 31**).
3. Use an Oil Extractor to remove the Oil from the Engine.
4. Using a funnel on the filler tube, initially add approximately 16oz of Oil (type recommended by the Engine Manufacturer refer to your Engine Owner's Manual for recommended Oil types) and wait one minute for the Oil to settle.
5. Insert the Dipstick, ensuring the cap is fully seated on the filler tube. Remove the Dipstick to check the Oil level (**Figure 32**).
6. Continue adding a few ounces of Oil at a time, rechecking the Dipstick until the Oil reaches the Full mark (**Figure 32**). Be careful not to overfill.
7. Replace the Dipstick and twist it 1/4 turn to secure when full.

Lubricating the Drive Gears

Tools and Supplies Needed:

- 9/16" Wrench
- General Purpose Grease
- Wood Block or Support Stand
- Rags

1. Raise the Rear Wheel from the ground and support the Axle with a Wood Block or other type of Support Stand.
2. Use a 9/16" Wrench to remove the Locknut securing the Rear Wheel.
3. Use a rag to wipe away any dirt, grass, or debris from inside of the Wheel and the Wheel Cover.
4. Add a dollop of grease to the Wheel Gear in a few locations around the Wheel Gear (**Figure 33**). The grease will be spread around the Gear during operation.
5. Reinstall the Wheel onto the Rear Axle and tighten the Locknut using a 9/16" Wrench.
6. Repeat for the opposite Rear Wheel.

Adjusting the Traction Drive Cable

1. Locate the Traction Drive Cable along the Right Side of the Handlebar (**Figure 34**). There is an In-Line Adjuster to change the length of the Cable.
2. Rotate the center portion of the In-Line Adjuster clockwise while holding the ends stationary to expand the In-Line Adjuster and remove slack from the Cable.

The proper adjustment should remove slack from the cable without adding any pre-tension to the cable.

DO NOT Overtighten. Over tightening will result in pre-tension in the cable and engagement of the Traction Drive without input to the Traction Drive Lever. Loosen the In-Line Cable Adjuster to remove any pre-tension.

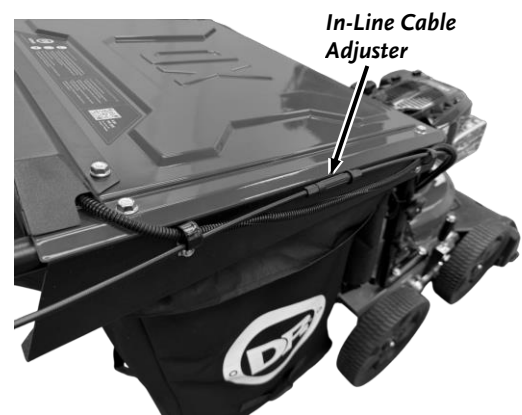


Figure 34

Lubricating the Transmission Input Bearing

Tools and Supplies needed:

- 1/2" Wrench
- Grease Gun w/General Purpose Grease

1. Use a 1/2" Wrench to remove the Belt Cover (**Figure 35**).
2. Clean the Transmission Input Bearing Grease Fitting with a Clean Rag (**Figure 36**).
3. Add a few pumps of Grease to the Grease Fitting.
4. Reinstall the Belt Cover.

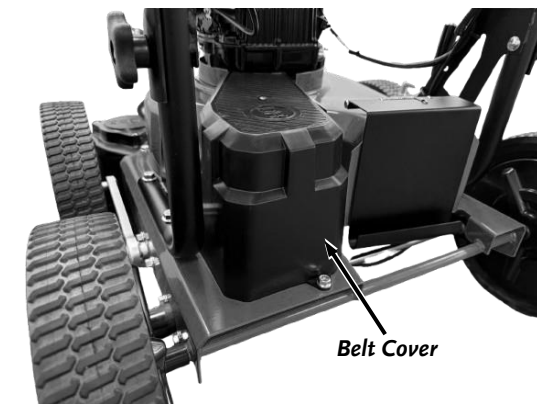


Figure 35

Checking and Adjusting the Drive Belt Tension

If the Traction Drive seems to lose power, start by checking the cable adjustment as described in the previous step. If Traction Drive Power is still insufficient follow these steps.

Tools and Supplies needed:

- 1/2" Wrench
- Torque Wrench

1. Use a 1/2" Wrench to remove the Belt Cover (**Figure 35**).
2. Use a 1/2" Wrench to loosen the Bearing Retention Nuts by 1/2 turn (**Figure 37**).
3. Use a Torque Wrench to tighten the Belt Tension Nut to 24 Inch Pounds.
4. Tighten the Bearing Retention Nuts and reinstall the Belt Cover.

Replacing the Drive Belt

If circumstances require the Drive Belt to be replaced, visit an authorized service center, contact us at www.DRpower.com, or call 1-800-DR-OWNER (376-9637) for assistance.

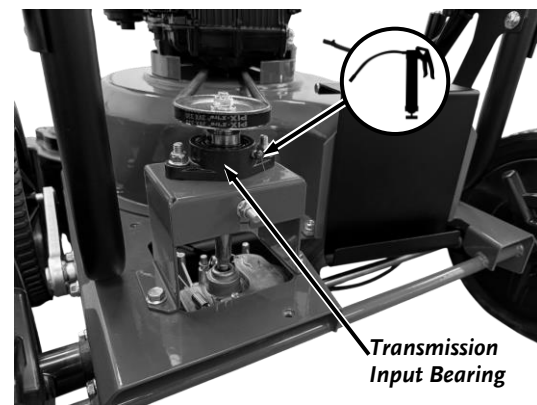


Figure 36

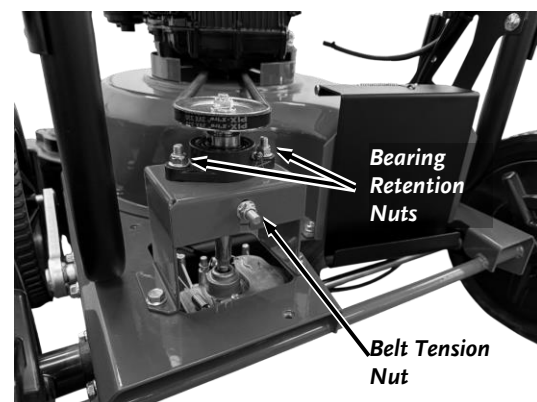


Figure 37

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 procedure or inspection, stop the Engine and wait five minutes to allow all parts to cool. Remove the Key and disconnect the Spark Plug Wire, keeping it away from the Spark Plug.

Troubleshooting Table

SYMPTOM	POSSIBLE CAUSE; CORRECTIVE ACTION
<i>Engine fails to start</i>	<ul style="list-style-type: none">⇒ Collection Bag is not installed properly; Ensure the Bag is secured into the Latch⇒ Throttle lever is mis-positioned; Ensure Throttle Lever is set to the FULL SPEED(rabbit) position.⇒ Choke Lever is mis-positioned; Set lever to Full Choke or Half Choke.⇒ Fuel Tank empty; Fill Tank with clean, fresh fuel.⇒ Spark Plug wire disconnected; Connect Wire to Spark Plug.⇒ Faulty Spark Plug; Clean, adjust gap or replace the Spark Plug.
<i>Loss of power, operation erratic</i>	<ul style="list-style-type: none">⇒ Spark Plug Wire loose; Connect and tighten Spark Plug Wire.⇒ Running on "CHOKE"; Move Choke Lever to the "RUN" position.⇒ Blocked fuel line or stale fuel; Clean fuel line; fill tank with clean, fresh gasoline.⇒ Water or dirt in fuel system; Disconnect fuel line at carburetor to drain fuel tank.⇒ Carburetor out of adjustment; contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.⇒ Dirty air cleaner; Clean or replace air filter.
<i>Engine overheats</i>	<ul style="list-style-type: none">⇒ Carburetor not adjusted properly; contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.⇒ Engine Oil level low; Fill crankcase with proper Oil.⇒ Internal Engine cooling fan not working properly due to debris buildup over Engine crank cover; Clean debris away from Engine crank cover for improved air circulation.
<i>Unit does not discharge</i>	<ul style="list-style-type: none">⇒ Discharge Chute clogged; Stop Engine immediately and disconnect spark plug wire. Clean inside of Snout or Impeller housing. See "MAINTENANCE" section of this manual.⇒ Foreign object lodged in Impeller; Stop Engine immediately and disconnect Spark Plug wire. Remove lodged object.
<i>Excessive vibration</i>	<ul style="list-style-type: none">⇒ Loose parts or damaged Impeller assembly; Stop Engine immediately and disconnect Spark Plug wire. Tighten all Bolts & Nuts. Make all necessary repairs. If vibration continues, contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
<i>Loss of vacuum</i>	<ul style="list-style-type: none">⇒ Vacuum Snout clogged; Remove & clean.⇒ Collection Bag full; Empty bag.⇒ Discharge Chute clogged; Remove Collection Bag & clean Chute.⇒ Processing chamber clogged; Remove Bag to clean chamber.⇒ Engine not reaching full RPM; contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

Troubleshooting Table (Continued)

SYMPTOM	POSSIBLE CAUSE; CORRECTIVE ACTION
<i>Debris build-up in Impeller Housing</i>	⇒ Vacuuming too fast; Clean out housing and vacuum at slower speed.
<i>Loss of traction</i>	⇒ Drive Engagement Cable Loose; Adjust Drive Engagement cable. ⇒ Stretched or broken Drive Belt; Adjust Belt Tension. ⇒ Drive Engagement Cable tension spring broken; Reconnect spring or replace cable. ⇒ Malfunction in Drive Assembly; contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.
<i>Wheels do not stop when Drive Engagement Lever is released</i>	⇒ Drive Engagement Cable out of adjustment (too tight); Adjust cable to remove pre-tension in cable

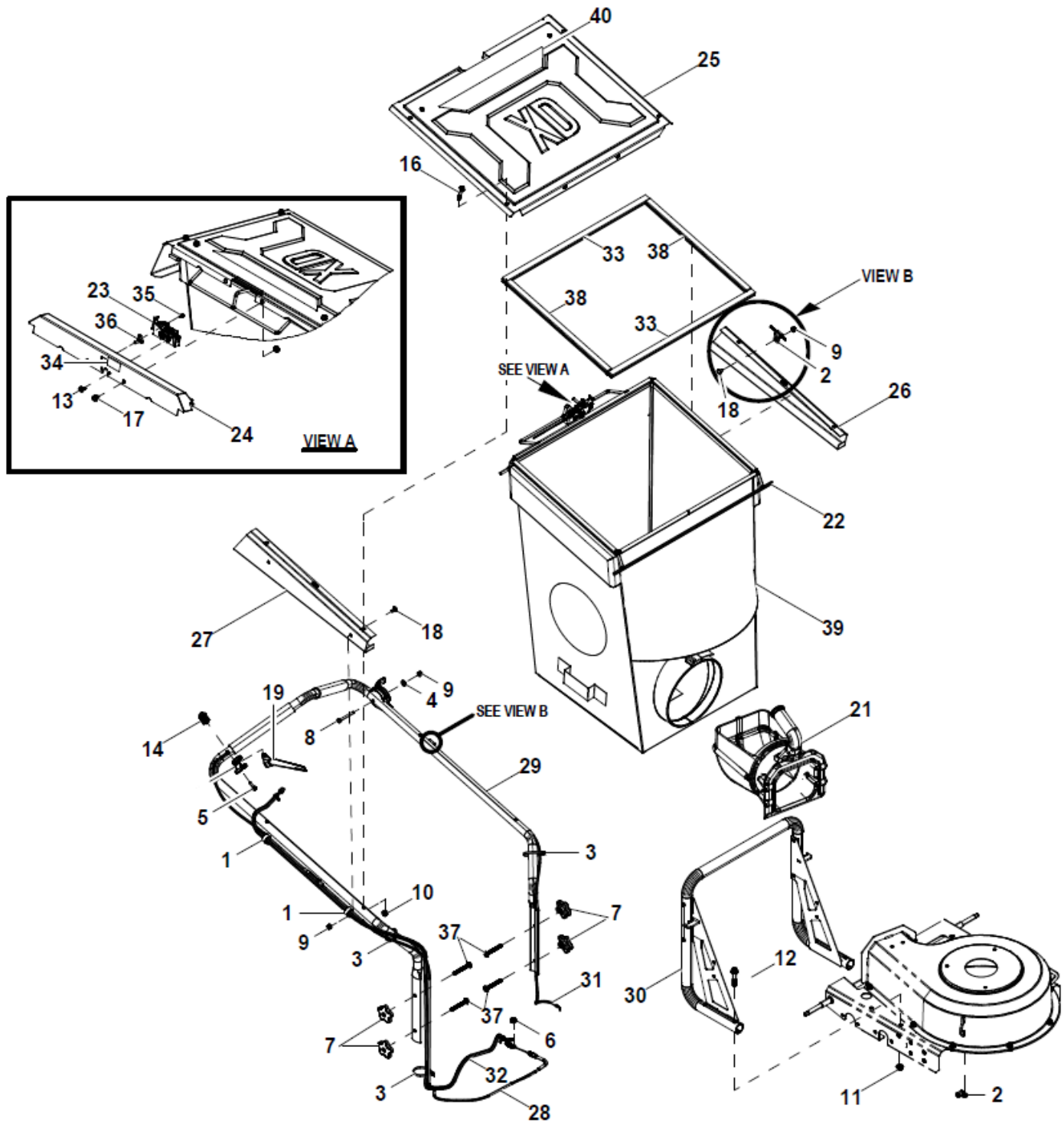
Chapter 6: Parts Lists and Schematic Diagrams

Parts List – XD45 Handlebar and Bagger Assembly

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

Ref#	Part#	Description	Ref#	Part#	Description
1	10000031528	Clamp-Loop 3/4IN ID x 1-13/16 Long	23	A0005922105	Latch - Rotary - w/Status Switch
2	10000032635	Clamp-Loop 3/8" ID 13/32" Mnt Hole	24	A0009016114	Control Panel – w/Labels
3	112141	Cable Tie 7-1/2 IN L	25	A0009016108	Top Cover – w/Labels
4	112381	Washer-Flat 1/4 USS	26	A0005922108	Slide Rail - Left
5	179231	Screw-SH M6 25mm	27	A0005922109	Slide Rail - Right
6	187551	Nut Nylon Lock - 5/16-18 Lp	28	A0005922114	Cable - Speed Control
7	311121	Knob 2.25 IN Dia 516-18 Insert	29	A0005922115	Handlebar - Upper
8	313061	Bolt-HCS 1/4-20 x 2-1/4 Gr5 ZP	30	A0005922116	Handlebar - Lower
9	333311	Nut-Nylon Lock Flanged 1/4-20	31	A0005922117	Cable - Throttle w/Lever
10	333321	Nut-Nylon Lock Flanged 5/16-18	32	A0005922118	Wire Harness - MS
11	333331	Nut-Nylon Lock Flanged 3/8-16	33	A0005922128	Gasket-X2354-23.5IN Long
12	333501	Bolt-Hex Flange 3/8-16 x 2	34	A0005960030	Label-Latch Housing
13	365211	Bolt-Hex Flange 1/4-20 x 5/8 ZP	35	A0005960036	Bolt-SHCS 1/4-20 x 5/16 Blk Ox
14	370511	Bracket-Lever W/ Threaded Holes	36	A0005959999	Lever-Thumb-Latch
16	385991	Bolt-Hex Flange 5/16-18 x 1-3/4 Gr5	37	A0005960011	BOLT-CARR 5/16-18 x 2.5 GR5 ZP
17	A0000330868	Bolt-Hex Flanged-5/16-18 x 1/2 ZP	38	A0005960022	Gasket - X2354-17.125IN Long
18	A0001533396	Bolt Carr 1/4-20 x 1/2	39	A0005960024	Bag – Polymesh - 45 Gal
19	389241	Lever – w/Label Cable Traction Drive	40	A0005960029	Label - Operation Instructions
21	A0005922103	Chute - Discharge			
22	A0005922104	Bag Frame			
			Not Shown:		
			370551		Label-Traction Drive AT4 (Not Shown)

Schematic – XD45 Handlebar and Bagger Assembly

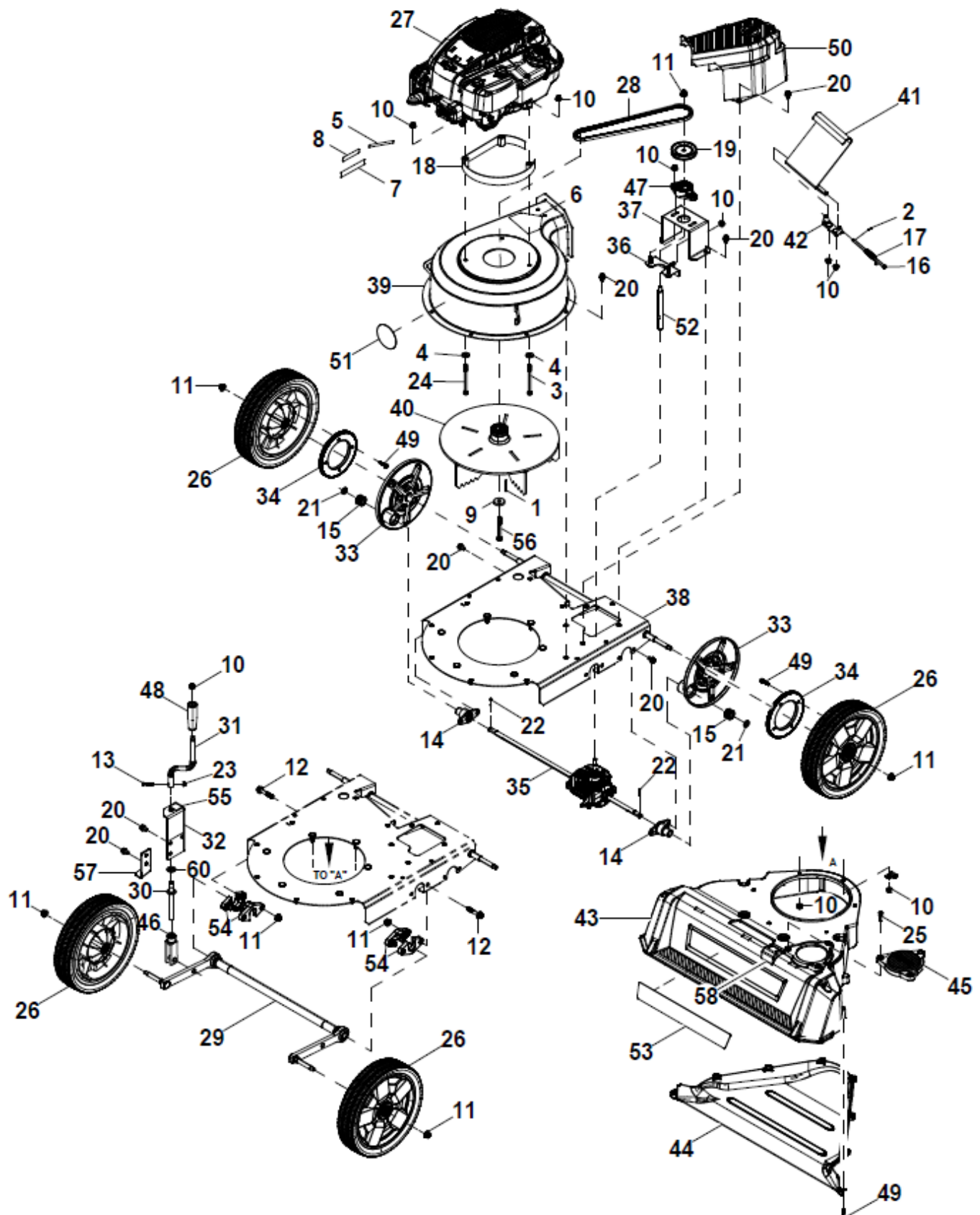


Parts List – XD45 Frame and Drive Assembly

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

Ref#	Part#	Description	Ref#	Part#	Description
1	106381	Key Square 3/16 x 1 1/2	31	A0005922123	Upper - Height Adjustment
2	109751	Cotter Pin-1/16 x 1/2 ZP	32	A0009016129	Bracket - Height Adjustment w/Labels
3	111321	Bolt-HCS 5/16-18 x 4 Gr5 ZP	33	A0005922129	Cover-Wheel
4	112411	Washer-Flat 5/16 Uss	34	A0005922130	Gear-95t
5	127811	Label-Warning Add Oil	35	A0005922131	Transmission-MV502
6	136491	Label-Danger	36	A0005922132	Bracket-Belt Tension
7	136831	Label-Caution Ho	37	A0005922133	Bracket-Transmission Tower
8	137581	Label-Check Oil 2.75 IN x .63 IN	38	A0005922134	Frame
9	279011	Washer-Flat .385 X 1.25 x .25 Z	39	A0009016119	Housing-Impeller-w/Labels
10	333321	Nut-Nylon Lock Flanged 5/16-18	40	A0005922136	Impeller
11	333331	Nut-Nylon Lock Flanged 3/8-16	41	A0005922137	Door-Rear Discharge
12	333501	Bolt-Hex Flange 3/8-16 x 2	42	A0005922138	Bracket-Rear Discharge Door
13	365101	Bolt-SHCS 10-24 x 1.12 Alloy Black	43	A0005922139	Snout-Upper
14	395461	Housing-Bearing-Rear Axle-WM1	44	A0005922140	Snout-Lower
15	395471	Gear-Pinion-Rear Axle-WM1	45	A0005922148	Cover-Hose Inlet
16	395661	Pin-Pivot-Rear Discharge Guard	46	A0005959997	Yoke-Height Adjust
17	10000041169	Spring-Torsion-Discharge Guard-WM1	47	A0005959998	Bearing-Alignment-Transmission
18	A0000330810	Spacer-Engine-SP-SLV	48	A0005960000	Handle-Height Adjustment
19	A0000330855	Pulley-3l V-Belt-3.0od-.38 Shaft	49	A0005960001	Screw-Thread Forming-Hex Head-1/4-10 x 1
20	A0000330868	Bolt-Hex Flanged-5/16-18 x 1/2 ZP	50	A0005960004	Cover-Belt
21	A0000933141	Spacer-WM1	51	A0005960010	Label-Dr Logo-3.2IN Black
22	A0000937950	Pin-Cotter-3/32 x 3/4 ZP	52	A0005960013	Shaft-Extension-Transmission Input
23	A0001301061	Nut-Flange Nylon Lock 10-24 Grade F	53	A0005960016	Label-XD45
24	A0001686619	Bolt-HCS 5/16-18 x 2-3/4 In Gr5 ZP	54	A0005960020	Bushing- Side Mount-1" Axle
25	A0003448156	Bolt-SH-5/16-18 x .875-ZP	55	A0005960028	Label-Height Adjust
26	A0005800528	Wheel-12 x 2.5	56	A0006264618	Bolt-HCS 3/8-24 x 3 Gr8-Lock Patch
27	A0009016124	Engine-BS PXI 850 GTQ MS w/Labels	57	A0008199301	Bracket - Height Adjust Limit
28	A0005922120	Belt-V-3VX 330-Raw Edge Cogged	58	A0008587271	Snout Plug-Snap In
29	A0005922121	Axle-Front	60	MGHDW211	Washer, 1/2 ID x 1 OD x 0.08 Thk,
30	A0005922122	Lower - Height Adjustment			

Schematic – XD45 Frame and Drive Assembly



DR® WALK-BEHIND LEAF & LAWN VACUUM



2-Year Limited Warranty

Terms and Conditions

The DR® WALK-BEHIND LEAF & LAWN VACUUM is warranted for two (2) years against defects in materials or workmanship when put to ordinary and normal consumer use; one (1) year for commercial use.

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

DR Power Equipment certifies that the DR® WALK-BEHIND LEAF & 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, one (1) year for commercial use. The Engine manufacturer warrants the Engine separately

The 2-Year Limited Warranty on the DR® WALK-BEHIND LEAF & 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 Belt, Collection Bag, Gaskets, Cables, Filters, and Spark Plug. 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® WALK-BEHIND LEAF & 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.

Notes:

Daily Checklist for the DR WALK-BEHIND LEAF AND LAWN VACUUM

To help maintain your DR WALK-BEHIND LEAF & LAWN VACUUM for optimum performance, we recommend you follow this checklist each time you use your machine.

WARNING

Before performing any maintenance procedure or inspection, stop the engine and wait five minutes to allow all parts to cool. Remove the Key and disconnect the spark plug wire, keeping it away from the spark plug.

- [] Check the Engine Oil level.
- [] Check Fuel Level.
- [] Check the general condition of the Vacuum, e.g.; Nuts, Bolts, welds, etc.
- [] Check the Collection Bag for rips, abrasions, or other damage.
- [] Check that the Collection Bag and Discharge Chute are installed properly.
- [] Check for and clean accumulated debris in the Snout or Chipper Hopper
- [] Check and clean Engine Fins and controls of Debris.

End of Season and Storage

WARNING

Before performing any maintenance procedure or inspection, stop the engine and wait five minutes to allow all parts to cool. Remove the Key and disconnect the spark plug wire, keeping it away from the spark plug.

- If your DR WALK-BEHIND LEAF & 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.
- Change Engine Oil.
- Clean dirt and debris from the Cylinder Head Cooling Fins, Impeller Housing, Debris Screen, and Muffler area of the Engine.
- 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.
- Empty and clean the Debris Bag and ensure it is dry. Remember, decomposing material generates heat and could start a fire.
- Clean or replace the Air Filter.
- Clean the exterior of the unit to remove all dirt, grease, and any other foreign material. To prevent rust, touch up paint surfaces that have been scratched or chipped.
- If possible, store the machine in a dry, protected place. If it is necessary to store the machine outside, cover it with a protective material (especially the Engine and Housing).



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