

DR® POWERWAGON SAFETY & OPERATING INSTRUCTIONS



Models:
PRO 700
PRO XL800

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 POWERWAGON.

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Conventions used in this manual

⚠ WARNING

This indicates a hazardous situation, which, if not followed, **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	XXXXXXXX
MANUF PLANT	XXXXX

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 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.

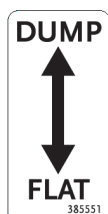
Chapter 1: General Safety Rules

WARNING

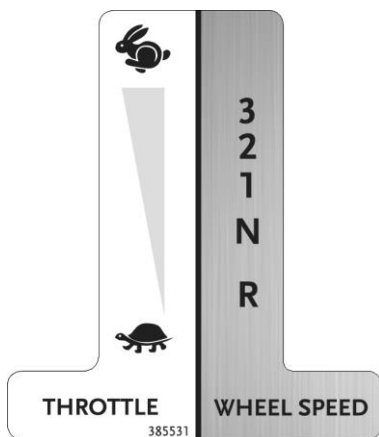
Read this safety & operating Instructions manual before you use the DR POWERWAGON. Become familiar with the operation and service recommendations to ensure the best performance from your machine. If you have any questions or need assistance, please contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER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

Labels

Your DR POWERWAGON 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 POWERWAGON as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.



#385551



#385531

WARNING: Check Oil
Before Starting Engine

#137581

TRACTION
DRIVE
370551

#370551

 **WARNING!**

**AVOID SERIOUS
INJURY OR DEATH**

 Read and
understand
the operator's
manual.

- Read and understand the operator's manual.
- Never exceed the maximum recommended load. Overloading may permanently damage the unit.
- Never carry passengers.

385521

#385521

 1-800-DR-OWNER DRpower.com	TO START ENGINE 1. Shift WHEEL SPEED to NEUTRAL. 2. Move THROTTLE to  3. Rotate KEY to  (Electric start) Rotate KEY to  (Manual Start) 4. Pull RECOIL on engine (Manual Start)	ELECTRIC DUMP: 1. Remove tailgate. 2. Depress and hold toggle button labeled "DUMP" 3. After dumping, depress and hold toggle button labeled "FLAT" until bed is fully retracted. MANUAL DUMP 1. On Pro model, remove tailgate. 2. Pull dump handle and lift upward. 3. After dumping, push dump handle down. 4. Ensure dump handle is securely latched before loading or operating.	WHEEL DRIVE 1. Select desired WHEEL SPEED 2. Depress TRACTION DRIVE LEVER to drive. 3. Release TRACTION DRIVE LEVER to stop.	TO SHUT OFF ENGINE 1. Move THROTTLE to  2. Turn KEY to  NOTE: Releasing OPERATOR PRESENCE LEVER (RED) while Drive is in gear will shut off the engine.
	Do not operate Powerwagon on slopes greater than 15 degrees. 385541 Rev. C			

#385541

DUMP LEVER

#153421

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. Always take the following precautions when operating this machine:

- Wear shoes with non-slip treads when using your DR POWERWAGON. 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.
 - Use ear 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 DR POWERWAGON. 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.
 - To be safe, do not operate the machine near small children or pets, and never allow children to operate the DR POWERWAGON.
 - The muffler and engine become very hot and can cause a severe burn; do not touch.
 - Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the DR POWERWAGON. This includes all shields and guards. Modifications to your machine could cause personal injuries and will void your warranty.
-

Slope Operation

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 use the DR POWERWAGON on it. Always take the following precautions when using this machine on slopes:

Always:

- Traverse up and down the face of slopes; never across. Exercise extreme caution when changing direction on slopes.
- Watch for holes, ruts, or bumps in the landscape.
- Use 1st gear on slopes with a maximum load of 800 lbs.

Never:

- Operate near drop-offs, ditches, or embankments; you could lose your footing or balance.
 - Operate on slopes greater than 15 degrees, or any excessively steep slopes.
 - Operate on wet, or slippery slopes; reduced traction could result in slipping.
 - Park the DR POWERWAGON on a steep grade or slope.
-

Safety with Children and Pets

WARNING

Tragic accidents can occur if the operator is not alert to the presence of children and pets. Children are often attracted to the machine and the hauling 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 POWERWAGON 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 DR POWERWAGON.
 - 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.
- 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 before storing the DR POWERWAGON in any enclosure. 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.
- Do not change the engine governor settings or modify the engine speed. Modifications will void your warranty.
- To reduce fire hazard, keep the engine cooling fan and muffler area free of debris build-up such as leaves, grass, oil, grease, or any other combustible material.
- 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.
- 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.
- 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.

General Safety

WARNING

The DR POWERWAGON 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.
- Your DR POWERWAGON is not a plaything. Exercise extreme caution at all times. The design of this machine is to haul material. Do not use it for any other purpose.
- Give complete and undivided attention to the job at hand. Before you use your new machine, be sure you know how to engage the parking brake and stop the DR POWERWAGON at a moment's notice.
- Always operate the DR POWERWAGON from behind the handlebars, never from the side.
- Never use the DR POWERWAGON to drag or tow items.
- Do not overload the DR POWERWAGON. Be careful of top-heavy loads. The higher the load, the more chance of tipping over the machine. Loads may shift during operation; to be safe, secure your loads and even them out when possible. The maximum load is 700 lbs. (PRO 700) and 800 lbs. (PRO XL800).
- Use 1st gear with loads over 300 lbs. And on slopes. Excessive speed can be dangerous. Operate the machine in the lowest gear that is satisfactory to do the job.

General Safety (Continued)

WARNING

- Use caution when moving downhill and braking. Apply the parking brake slowly to avoid tipping forward.
 - When shifting to reverse, be careful to avoid tipping as the swivel wheel changes direction.
 - Watch for traffic when operating near roadways.
 - Never allow people or pets to ride in the DR POWERWAGON.
 - If the machine should start making an unusual noise or vibration, stop the engine and wait five (5) minutes to cool. Vibration is generally a warning of trouble. Disconnect the spark plug wire and inspect for damaged parts. Clean and repair and/or replace damaged parts.
 - Built-in safety features, such as the operator presence system, are effective only when maintained and kept in place.
 - 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 only approved DR parts.
 - Use the DR POWERWAGON only in daylight.
 - While using the machine, 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. Make sure that you have 100% control of the machine at all times.
 - Never leave the DR POWERWAGON 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® POWERWAGONS 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® POWERWAGON 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 POWERWAGON

It may be helpful to familiarize yourself with the controls and features of your DR POWERWAGON 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 PRO 700 and PRO XL800 POWERWAGON Controls and Features

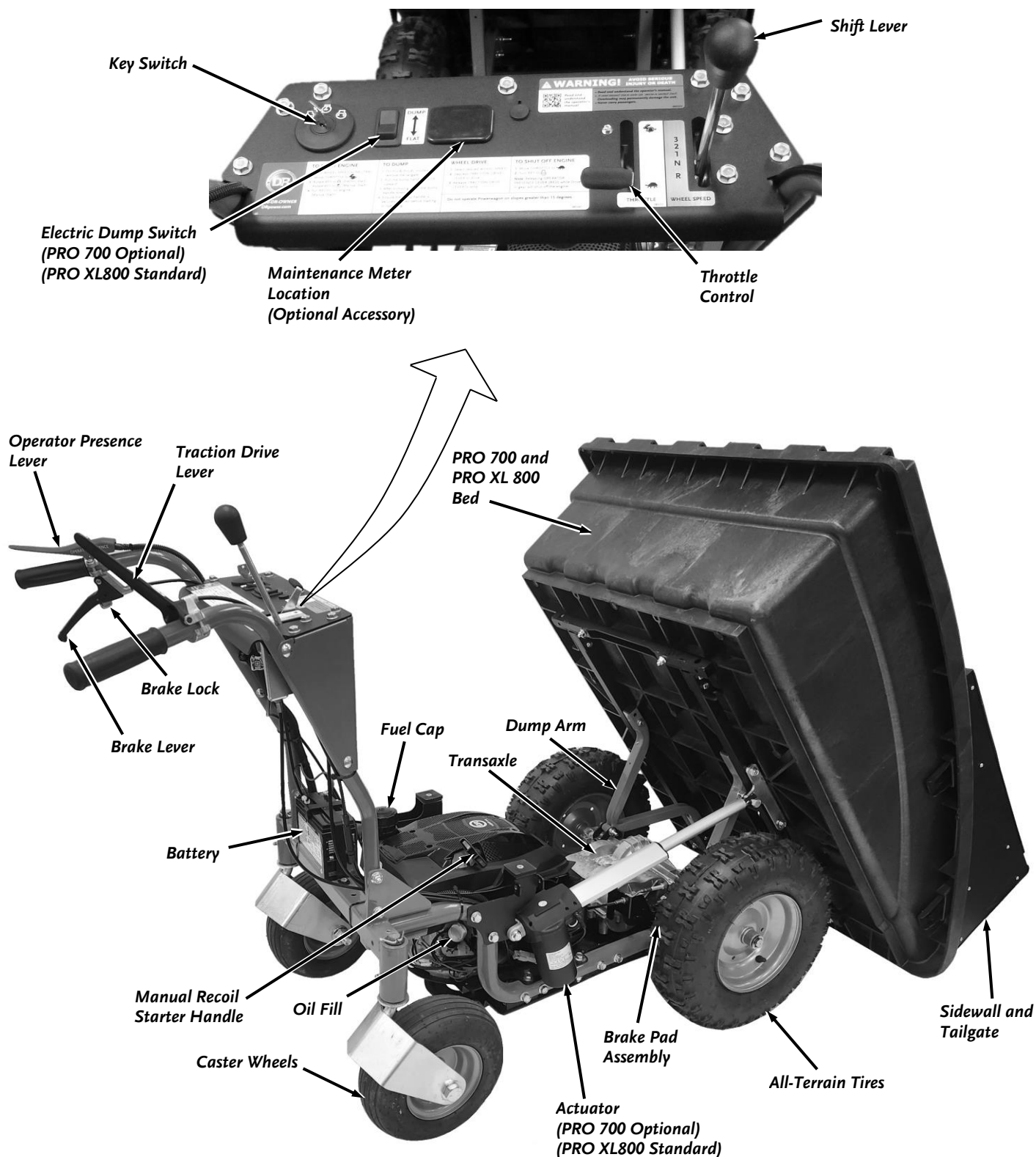


Figure 2b

Specifications

	PRO 700	PRO XL800
Engine	DR 7.6FPT Electric Start (See Engine Owner's Manual for Engine Specifications)	DR 9.7FPT Electric Start (See Engine Owner's Manual for Engine Specifications)
BATTERY		
	12V, 9 Ah	12V, 9 Ah
BED		
Capacity - Volume (Cu Ft)	8	8
Capacity - Weight (Lbs.)	700	800
Bed Height (In)	20	20
Construction	Cellular Core High Strength Molded Polyethylene	Cellular Core High Strength Molded Polyethylene
Dump Angle (Degrees)	60°	60°
Latch Mechanism	Integrated Latch & Handle	N/A (Actuator Latches The Bed)
TRANSMISSION		
Speeds	Forward 3: 3.7 Mph Forward 2: 2.4 Mph Forward 1: 1.3 Mph Reverse: 1.4 Mph	Forward 3: 3.7 Mph Forward 2: 2.4 Mph Forward 1: 1.3 Mph Reverse: 1.4 Mph
Brake	Transaxle Disc Brake	Transaxle Disc Brake
FRAME		
Frame Type	Tubular Steel (1.5" Diameter X 12 Ga Thick)	Tubular Steel (1.5" Diameter X 12 Ga Thick)
Skid Plate	9 Ga Thick	9 Ga Thick
Handlebar Height (In)	37	37
ACTUATOR		
Included	N/A	Yes
Full Load Speed (Mm/S (In/S))	N/A	12 (0.47)
Full Load Seconds/Lift	N/A	16.745
No Load Speed (Mm/S (In/S))	N/A	20 (0.79)
No Load Seconds/Lift	N/A	9.962
Stroke (Mm (In))	N/A	200 (7.87)
Duty Cycle	N/A	10% (Approximately 1 Full Capacity Load Every 4.5 Minutes)
Enclosure Rating	N/A	IP65
WHEELS		
Front (Size & Type)	16" Diameter, 4" Width, Snowhog Tread (4.8 X 8, 5" L Hub)	16" Diameter, 4" Width, Snowhog Tread (4.8 X 8, 5" L Hub)
Rear (Size & Type)	11" Diameter, 4" Width, Rib	11" Diameter, 4" Width, Rib
DIMENSIONS		
Overall Product Dim's	63.25 L X 34.5 W X 41 H	63.25 L X 34.5 W X 41 H
Product Weight	231	240
Ground Clearance	2"	2"

Assembling the DR POWERWAGON

Tools & Supplies Needed:

- Two 9/16" Wrenches
- 1/2" Wrench
- 1/2" Socket with Ratchet and Extension
- Two 3/4" Wrenches
- 10" Adjustable Wrench

Parts Supplied in Product Package - PRO 700 MODELS (Figure 4 and list below):

Item #	Part #	Description	Qty
1	333531	Bolt, Hex, Flange, 1/2-13 X 4", GR5	1
2	157201	Key, Ignition Switch	2
3	385401	Spring, Torsion, 360 Deg, .063" Wire, .798" OD	1
4	333351	Nut, Nylon Lock, Flanged, 1/2-13	1
5	333331	Nut, Nylon Lock, Flanged, 3/8-16	2
6	385961	Bolt, Hex, Flange, 3/8-16 X 1-3/4", GR5, ZP	2
7	333321	Nut, Nylon Lock, Flanged, 5/16-18	4
8	385981	Bolt, Hex, Flange, 5/16-18 X 2-1/2", GR8, ZP	4

Parts Supplied in Product Package – PRO XL800 MODEL (Figure 5 and list below):

Item #	Part #	Description	Qty
1	385981	Bolt, Hex, Flange, 5/16-18 X 2-1/2", GR8, ZP	4
2	390851	Bolt, Hex, Flange, 5/16-18 X 3", GR8, ZP	1
3	385961	Bolt, Hex, Flange, 3/8-16 X 1-3/4", GR5, ZP	2
4	379361	Bracket, Actuator, Dump Arm	1
5	157201	Key, Ignition Switch	2
6	333331	Nut, Nylon Lock, Flanged, 3/8-16	2
7	333351	Nut, Nylon Lock, Flanged, 1/2-13	1
8	390841	Bolt, Hex, Flange, 1/2-13 X 1-1/2", GR5, ZP	1
9	333321	Nut, Nylon Lock, Flanged, 5/16-18	5

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

1. Lift the Handlebars to the operating position and install a 3/8-16 X 1-3/4 Flange Bolt and Locknut on each side using two 9/16" Wrenches (**Figure 6**).

Note: Ensure that the top Handlebar Bolts are installed in the same direction as the lower Bolts with the heads on the inside of the Handlebars.

2. Tighten the lower Handlebar Bolts that were already in place.

PRO 700 Bed – Dump Handle Assembly and Installation

If you are installing the Flatbed on your POWERWAGON, proceed to the "Flatbed Installation" section in this Chapter.

Note: The Dump Handle is strapped to the Shipping Crate.

1. Position the Dump Handle at the right rear corner of the Bed where the Mounting Bracket is located (**Figure 7**).

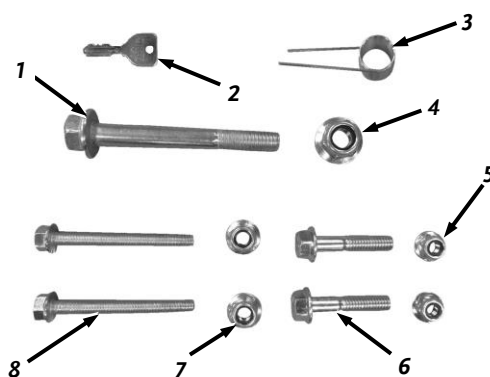


Figure 4

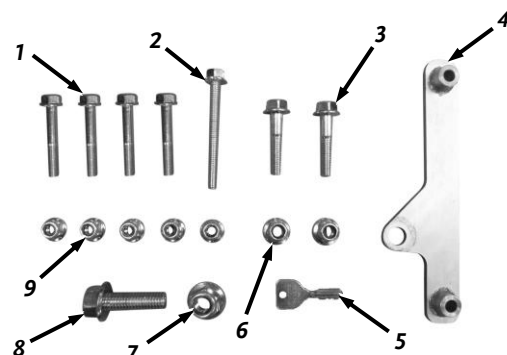


Figure 5

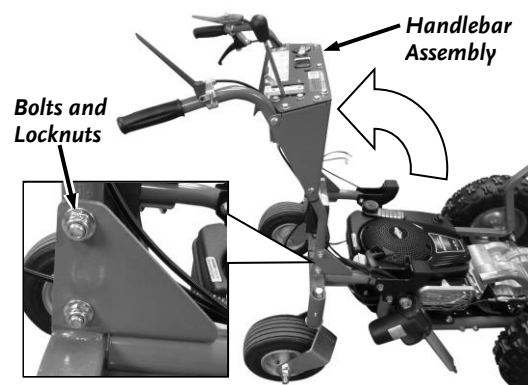


Figure 6

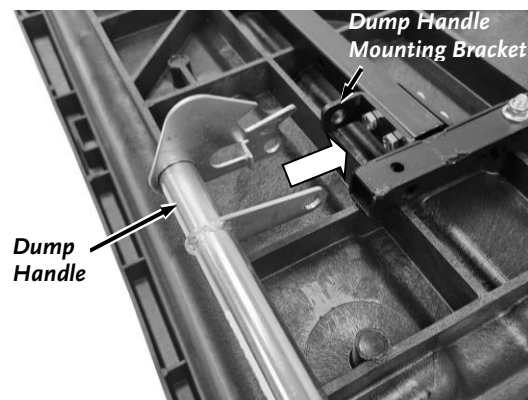


Figure 7

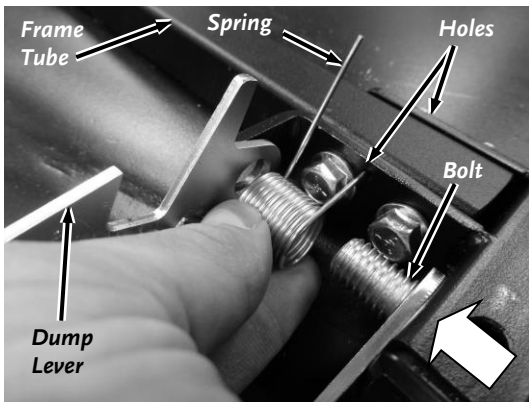


Figure 8

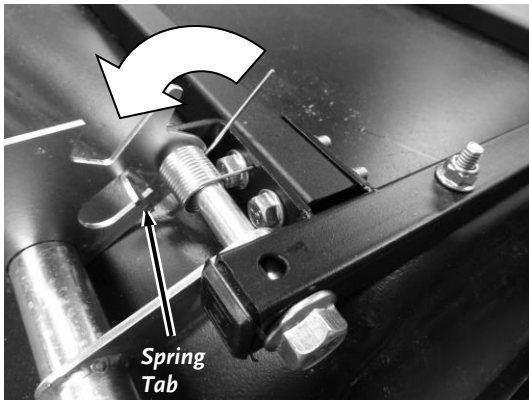


Figure 9

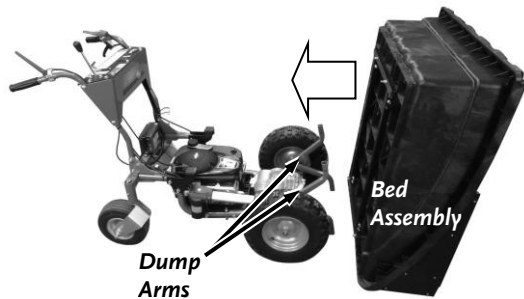


Figure 10

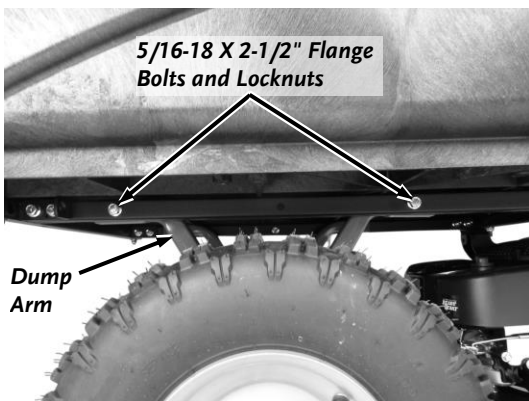


Figure 11

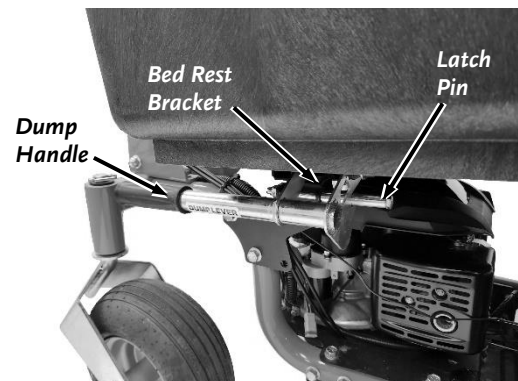


Figure 12

2. Insert one end of the Torsion Spring into the small hole in the Frame (positioned as shown) and push it through to the hole on the other side of the Frame Tube (**Figure 8**).
3. Install the 1/2-13 X 4" Flange Bolt through the Frame, Spring and Dump Lever. Secure with the 1/2-13 Locknut using two 3/4" Wrenches. Do not over tighten.
4. Rotate the remaining end of the Spring and secure it under the Spring Tab (**Figure 9**).

PRO 700 and PRO XL800 Bed - Assembly and Installation

If you are installing the Flatbed on your POWERWAGON, proceed to the "Flatbed Installation" section in this Chapter.

PRO 700 Bed – Manual Dump Assembly and Installation

Note: When using the Actuator Dump option, begin with Step 2.

1. Place the Bed Assembly at the front of the machine with the Tailgate end resting on the ground (**Figure 10**).
2. Move the Bed Assembly onto the Dump Arms and rotate the Bed back and onto the Dump Arms.
3. Secure the Bed Frame to the Dump Arms with four 5/16-18 X 2-1/2" Flange Bolts and Locknuts using a 1/2" Wrench and 1/2" Socket with Ratchet and Extension (**Figure 11**).
4. Tip the Bed back onto the Bed Rest Brackets and ensure the back of the Bed Assembly is on the Bed Rest Brackets and the Dump Lever is fully latched onto the Latch Pin (**Figure 12**).
5. Install the Tail Gate onto the front of the Bed Assembly (**Figure 17 On page 12**).

Note: Ensure that the Guide Pins are fully into the Bed and that the Tabs at both sides are locked into the Side Walls.

PRO XL800 Bed – Actuator Assist Assembly and Installation

1. Place the Bed Assembly at the front of the machine with the Tailgate end resting on the ground (**Figure 13**).
2. Move the Bed Assembly onto the Dump Arms and rotate the Bed back and onto the Dump Arms.
3. Secure the rear of the Actuator Bracket to the Frame and Dump Arm with a 5/16-18 X 3" Flange Bolt and Locknut using a 1/2" Wrench and 1/2" Socket with Ratchet and Extension (**Figure 14**).
4. Secure the front of the Actuator Bracket with a 5/16-18 X 2-1/2" Flange Bolt using a 1/2" Wrench and 1/2" Socket with Ratchet and Extension.
5. Secure the front/right (**Figure 14**) and both left side locations (**Figure 19**) of the Bed Frame to the Bed Supports with three 5/16-18 X 2-1/2" Flange Bolts and Locknuts using a 1/2" Wrench and 1/2" Socket with Ratchet and Extension.

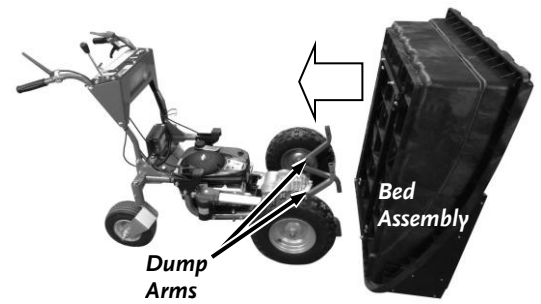


Figure 13

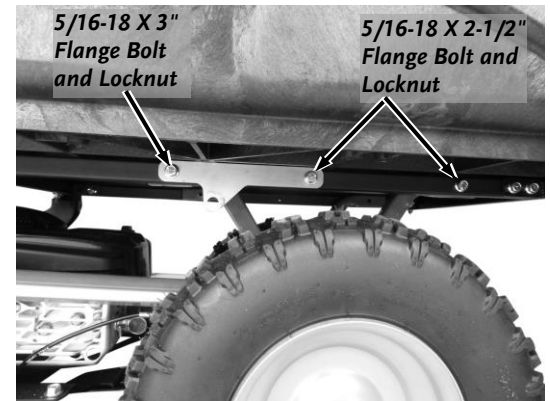


Figure 14

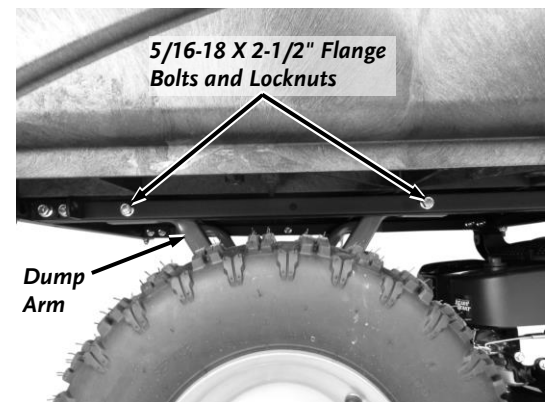


Figure 15

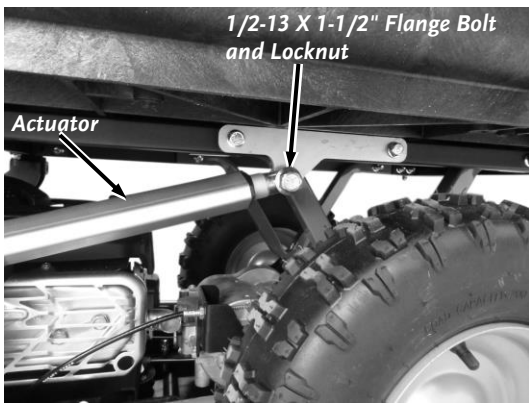


Figure 16

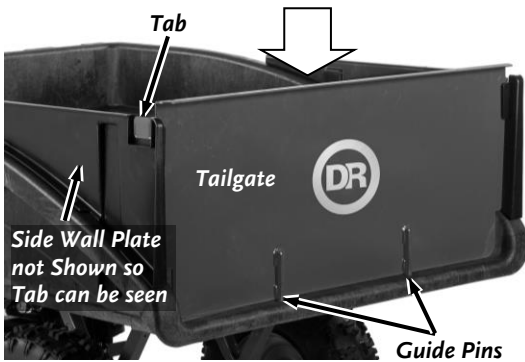


Figure 17



Figure 18

6. Remove the Plastic Protectors (if present) from the end of the actuator (**Figure 16**).
7. Secure the end of the Actuator to the Actuator Bracket with a 1/2-13 X 1-1/2" Flange Bolt and Locknut using two 3/4" Wrenches.
8. Install the Tail Gate onto the front of the Bed Assembly (**Figure 17**).

Note: Ensure that the Guide Pins are fully into the Bed and that the Tabs at both sides are locked into the Side Walls.

Flatbed Installation (Figure 18)

If using the manual Dump Handle, follow steps 1 and 2. If Using the Actuator assist, follow steps 2 and 3.

1. Install the Dump Handle on the Flatbed, refer to Steps 1 through 4 of "PRO 700 Bed – Dump Handle Assembly and Installation".
2. Secure the Flatbed to the Dump Arms, refer to Step 3 of "PRO XL800 Bed – Assembly and Installation".
3. Install the Actuator Bracket and attach the Actuator to the Flatbed, refer to Steps 1 through 8 of "PRO XL800 Bed – Assembly and Installation".

Check the Tire Pressure

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 and check the tire pressure with a tire pressure gauge (**Figure 19**).
2. If the pressure is too low, add air through the Valve Stem with an air hose.
3. Replace the Valve Stem Protective Cap when finished.

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

Adding Oil and Gasoline

Engine Oil Capacity: Refer to the Engine Owner's manual for Engine capacities and specifications.

NOTICE

You must add oil before starting the engine. This machine is shipped without oil. Traces of oil may be in the reservoir from factory testing, but you must add oil before starting the engine. Fill the reservoir slowly, checking the dipstick frequently to avoid overfilling.

To get an accurate reading when checking the Oil level:

- The machine should be on a level surface.
- The dipstick should be fully seated on DR Engines.

Tip: To avoid confusion, we recommend leaving the Caps on the Fuel and Oil Fills until you are ready to pour either gasoline or oil into the correct Fill.

Note: Use only SAE 30 / 10W-30 oil. Other types of oil could cause problems operating your machine. Please refer to your Engine Owner's Manual for detailed oil information. You must lift the Bed to access the Oil and Fuel Reservoirs.

1. Place the machine on a level surface and lift the Bed to the fully up position (**Figure 20**).
2. Remove the Oil Dipstick/Fill Cap.
3. Initially add 14 oz. of SAE 30 / 10W-30 oil recommended by the Engine Manufacturer and wait one minute for the oil to settle.
4. Check the level on the Dipstick and continue adding a few ounces of oil at a time, rechecking the Dipstick until the oil reaches the fill mark. Be careful not to overfill.
5. Fill the Fuel Tank no closer than 1/4" below the bottom of the Fill Neck with fresh, unleaded gas. See the Engine Manufacturer's Owner's Manual for more information.



Figure 19

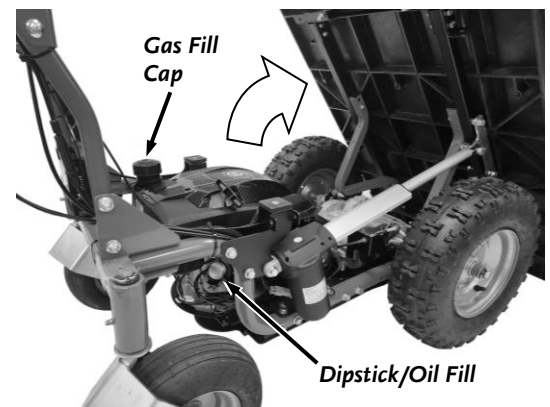


Figure 20

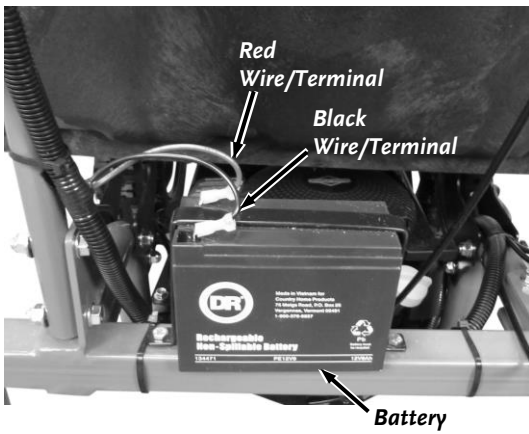


Figure 21

Connect the Battery Wires

1. Remove any protective Caps that may be on the Battery Terminals from shipping.
2. Connect the red wire to the red Terminal and connect the black wire to the black Terminal (**Figure 21**).

Chapter 3: Operating the DR POWERWAGON

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

Before Starting the Engine

1. Check the oil level every time you use the machine (**Figure 20** on page 13).
2. Check the gas level (**Figure 20** on page 13).
3. Check the tires for proper inflation (**Figure 19** on page 13).
4. Make sure the Dump Latch is secured (PRO 700 Models) (**Figure 12** on page 10).
5. Set the Parking Brake by squeezing the Brake Lever on the right Handlebar and lift up on the Parking Brake Lock, locking the Lever in place (**Figure 22**).

Note: The DR POWERWAGON is equipped with an Operator Presence Control for added safety. The Operator Presence Lever must be depressed whenever the Shift Lever is in gear, or the Engine will stop. You may run the Engine without depressing the Operator Presence Lever (**Figure 22**) only if the Shift Lever is in the "N" (Neutral) position (**Figure 23**).

Electric Starting

1. Move the Shift Lever to the NEUTRAL **N** position (**Figure 23**).
2. Move the Throttle Lever to the FAST  position.
3. Turn the Key to the START  position. As soon as the Engine starts, release the Key, and it will return to the RUN  position.

Manual Recoil Starting

Note: Manual recoil starting can be used for both Electric-Starting and Manual-Starting models.

1. Move the Shift Lever to the NEUTRAL **N** position (**Figure 24**).
2. Move the Throttle Lever to the FAST  position.
3. Turn the Key to the RUN  position.
4. Pull the Recoil Handle slowly, until you feel resistance; then pull the Handle with a rapid, full arm stroke to overcome compression and start the Engine (**Figure 24**). Repeat if necessary.

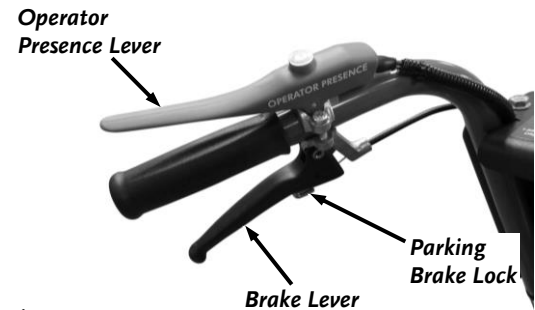


Figure 22

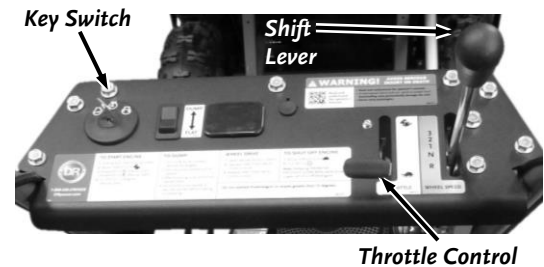


Figure 23



Figure 24

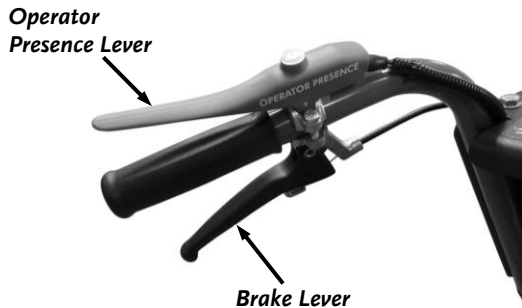


Figure 25

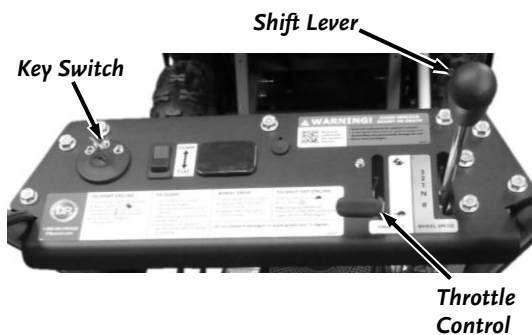


Figure 26

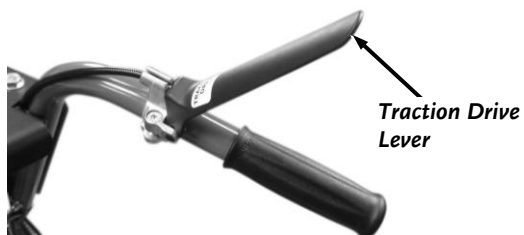


Figure 27

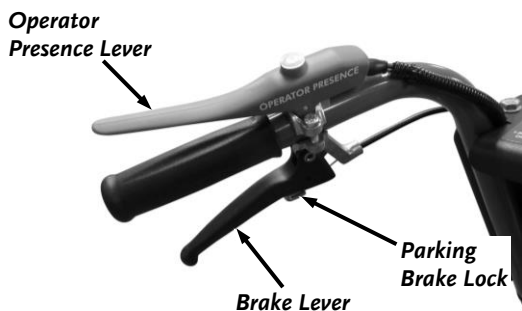


Figure 28

Operating

The DR POWERWAGON has a three-speed forward transmission and single-speed reverse. Use the lower gears for slower speeds, heavy loads, or more power, and the higher gears for transport over smooth terrain. Use 1st gear with loads over 300 lbs and on slopes. Never use your machine on slopes greater than 15°.

1. After the Engine is started, release the Parking Brake by squeezing and releasing the Brake Lever (**Figure 25**).
2. Hold down the Operator Presence Lever.
3. Move the Shift Lever to the desired gear (**Figure 26**).

NOTICE

Always release the Traction Drive Lever when shifting to avoid damaging the gears.

4. Squeeze the Traction Drive Lever on the right side Handlebar slowly until the machine moves in the desired direction (**Figure 27**).

! WARNING

- Squeezing the throttle fast will make the DR POWERWAGON "jump" into motion. Squeeze the throttle slowly and ease the machine into gear.
- When engaging reverse, use extra caution. Check your path and footing before engaging the clutch.

Stopping

1. Release the Traction Drive Lever (**Figure 27**).
2. Shift to the NEUTRAL **N** position (**Figure 26**).
3. Release the Operator Presence Lever (**Figure 28**).
4. Set the Parking Brake by squeezing the Parking Brake Lever on the left side Handlebar and lifting the Parking Brake Lock.
5. Move the Throttle Control Lever to the SLOW  position (**Figure 26**).
6. Turn the Key to the STOP  position and remove it for safety.

NOTICE

In an emergency situation, releasing the operator presence lever will stop the machine. After the machine stops, follow steps 1, 2 and 4 thru 6 above).

! WARNING

Always set the parking brake when your machine is stopped.

Operating Tips

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

Loading

WARNING

- The recommended maximum load limit for the DR POWERWAGON is 700 lbs. (Pro) or 800 lbs. (Pro XL). Never operate on slopes greater than 15°. Placing more weight in the bed may be dangerous to the operator and can permanently damage the unit.
- Be careful when transporting heavy loads with your DR POWERWAGON. If the brake is applied suddenly, the load may shift and the wagon may start to tip forward. Brake slowly and try to avoid overloading the wagon.
- When loading your DR POWERWAGON keep in mind the bulk and weight of what you will be hauling and the terrain you will be crossing.
- Keep the load balanced and secured. Always distribute the load evenly so your DR POWERWAGON will be as stable as possible.
- Do not pile material too high. Divide your load and make several lighter trips. Do not pile heavy loads, such as rocks or gravel, to a height that will make the DR POWERWAGON top-heavy and susceptible to tipping over.
- Be careful going downhill and applying the brake. Shift into 1st gear before going down a slope. Squeeze the brake very slowly to avoid dumping the load.

Slopes and Uneven Terrain

WARNING

When operating over uneven terrain and slopes, use extreme caution to ensure solid and firm footing. Move slowly if the ground is rough, especially with a full load. Use 1st gear on slopes. Never operate on slopes greater than 15°.

- Never operate the DR POWERWAGON on slopes greater than 15 degrees (**Figure 29**). This is for safety and proper Engine operation. Doing so could deprive the Engine of oil and cause it to overheat resulting in component damage.
- **USE CAUTION:** The DR POWERWAGON may become unstable when moving over ruts, bumps, and other depressions.
- When going down a slope, shift into 1st gear before starting down. Never shift in the middle of a slope. Find as level a spot as possible and set the parking brake before shifting.
- On a slope, a heavy load will tend to shift. When using your DR POWERWAGON, keep in mind that loads tend to shift to the downhill side of the body. Secure your load in the Bed to limit the shifting of the load on slopes. The higher and heavier the load, the greater the chance of tipping over the DR POWERWAGON. Travel up and down slopes. Avoid going across slopes.
- Again, be especially careful with full loads. A good rule of thumb: the steeper the hill, the lighter and lower your load should be.
- When going downhill, keep a firm grip on the Handlebars and push down slightly. Do not apply the Parking Brake abruptly when going downhill with a heavy load or the DR POWERWAGON may pitch forward onto its front end.

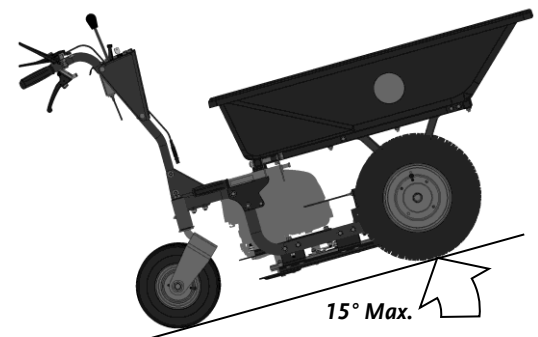


Figure 29



Figure 30

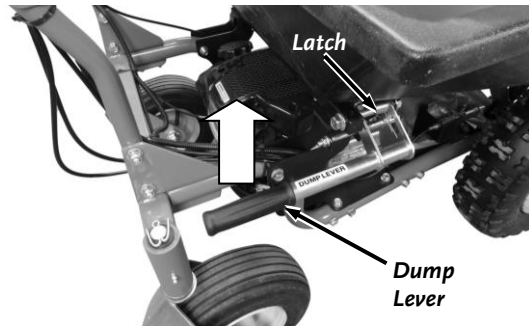


Figure 31

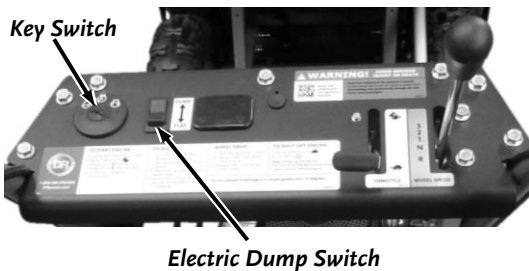


Figure 32

Unloading the Bed

Dumping – Manually

Note: For safety reasons, the DR POWERWAGON Bed is designed NOT to dump automatically once you release the Dump Lever. You must pull the Dump Handle up to lift the back of the Bed to cause it to tip forward.

1. Shift the machine to Neutral and set the Parking Brake.
2. Remove the Tailgate (**Figure 30**).
3. Stand at the right rear of the Bed.
4. Pull up on the Handle of the Dump Lever to dump the load (**Figure 31**).
5. After unloading, push the Bed back down into place by hand. Be sure the Dump Lever latches securely.

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

Electric Dump System – PRO XL800 Model (PRO 700 Model optional Accessory)

The Electric Dump System brings new conveniences to the function of your DR POWERWAGON. We have included some operating hints and precautions. Please review them carefully.

Operating the Electric Dump

1. Shift the machine to Neutral and set the Parking Brake.
2. Remove the Tailgate (**Figure 30**).
3. If the Engine is Off, turn the Key to the RUN  position.
4. Hold the Electric Dump Switch in the upper “DUMP” position, to raise the Bed to empty it (**Figure 32**).
5. Hold Power Dump Switch down in the lower “FLAT” position, to lower the Bed.

Operating Tips

- The Electric Dump System allows the Bed to be stopped and positioned anywhere in the tipping range. Emptying loose material and depositing solid loads in a more precise way.
- The Electric Dump System also makes it possible to distribute loose materials over an area rather than in a concentrated pile for distribution later. With the Bed partially tipped, you can move your DR POWERWAGON in reverse while the material flows from the front of the Bed. This is especially helpful in road maintenance and similar work.
- Make certain you are familiar with the terrain where you intend to work and anticipate the effect that load changes in the Dump Bed might have upon operating factors. Review your *Safety & Operating Instructions* Manual carefully for safe procedures.

Chapter 4: Maintaining the DR POWERWAGON

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

When performing any maintenance, you must first shut off the engine, set the parking brake, wait five minutes to allow parts to cool and disconnect the spark plug wire, keeping it away from the spark plug.

Regular Maintenance Checklist

PROCEDURE	BEFORE EACH USE	EVERY 25 HOURS	EVERY 100 HOURS
Check Operator Presence Lever	▲		
Check Engine Oil Level	▲		
Check General Equipment Condition	▲		
Check Tire Pressure	▲		
Lubricate Caster Wheel Grease Fittings		▲	
Clean Air Filter & Pre-cleaner		▲	
Change Engine Oil	1 st time 5 hours	▲	
Check Parking Brake Adjustment		▲	
Check Belt Tension & Condition		▲	
Check Cable Connections		▲	
Clean Engine Exterior & Cooling Fins		▲	
Replace Spark Plug			▲
Replace Air Filter & Pre-cleaner			▲

Battery Care

Proper care can extend the life of a Battery. Follow these recommendations to ensure 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. The Engine must run 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 the Engine when the Battery charge is low.
- Under normal work conditions, the Battery will not need special attention with the addition of the Electric Dump System. If you are operating for extended periods with frequent dumps, it might be best to leave the Pro XL Engine running during stand still periods to maintain proper charge levels.

Charging the Battery

- • Charging times will vary based on the Battery Charge Level. The Battery on your Trimmer/Mower may need charging for as long as 4 Hours. Never leave the Charger on the Battery for longer than 24 Hrs.
- • 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 TRIMMER/MOWER.
- • A fully Charged Battery should read 13V – 13.8V with a Voltmeter.
- • Operate the Trimmer Engine for at least 45 minutes to maintain proper Battery charge. If the Battery loses its charge, you will need to charge it. We recommend using the DR Battery Charger (available for purchase) to recharge it. However, you may use a trickle Charger with an output of 14.4-15 volts at no more than 0.69 amps.
- • Charging times will vary based on the charger used and the battery Level. At 0.69 amps, the Battery on your Trimmer/Mower may need charging for as long as 4 Hours

Note: Using the recoil starter and then running the Engine will not recharge a dead or significantly discharged Battery.

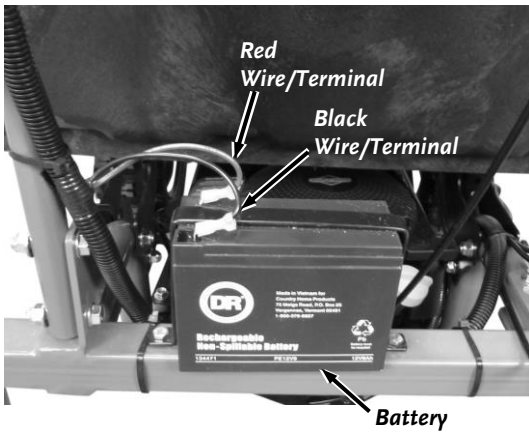


Figure 33

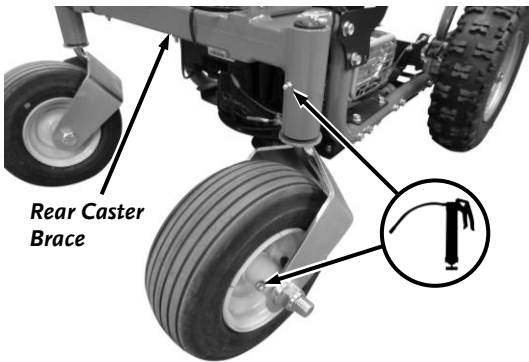


Figure 34

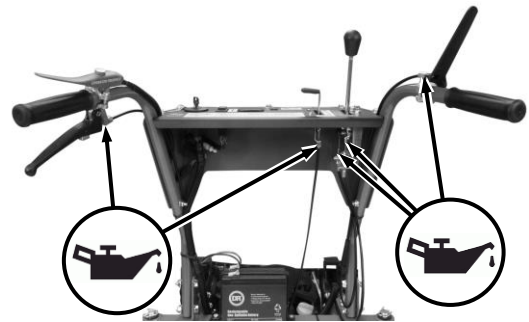


Figure 35

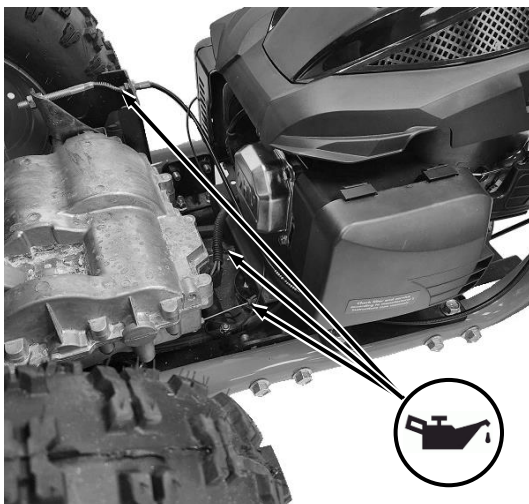


Figure 36

Charging the Battery

Operate the 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 charging for as long as 48 hours.
- At 2 amps, the Battery may need charging for as long as 24 hours.

Note: Using the Recoil Starter and then running Engine will not recharge a dead or significantly discharged Battery.

To connect a Battery Charger to your DR POWERWAGON, follow the steps listed below.

1. Detach the two Battery wires from your Battery (**Figure 33**).
2. Attach the red (+) Battery Charger Wire to the red (+) Battery terminal, and the black (-) Battery Charger Wire to the black (-) Battery terminal.
3. Plug the Battery Charger into an outlet.

NOTICE

When you are finished charging the Battery, disconnect the Battery Charger from the outlet first, then disconnect the Charger wires from the Battery Terminals. If the Battery Charger Wires are left connected to the Battery, the Battery will discharge itself back into the Charger.

Lubrication

Your DR POWERWAGON was lubricated at the Factory. The transaxle is factory sealed and lubricated for life. The operator must provide engine, Caster wheel, Key Switch and cable lubrication.

CASTER WHEEL LUBRICATION

Supplies Needed:

- Grease Gun with #2 Lithium Grease

1. There are four Grease Fittings for the Caster Wheels: One at the right and left side of the Rear Caster Brace, and one on each Wheel Hub (**Figure 34**). Grease these four Fittings with #2 lithium grease, to keep the Wheel spinning freely, at least every 25 hours of operation.

CABLE LUBRICATION

Supplies Needed:

- SAE 30 Oil
- #2 Lithium Grease

1. Using SAE 30 Oil, lubricate the end of the Cables at the Handlebars and Control Panel (**Figure 35**) and where the other ends connect to the machine (**Figure 36**). Operate the Levers to work lubricant into the Cables.

Changing the Engine Oil

Note: We recommend using a Small Engine Oil extractor to safely remove the engine Oil. Be sure to use environmentally safe disposal procedures in disposing of the used Oil.

See your Engine Operator manual for more detailed information.

Tools and Supplies needed:

- SAE 30 / 10W-30 Oil
- Rags
- Small Engine Oil Extractor (available at DR Power Equipment, #215811)

Note: Drain the Oil when the Engine is warm. Warm Oil will vacuum more quickly and completely

1. Lift the Bed to the fully upright position (**Figure 37**).
2. Remove the Oil Dipstick/Fill Cap and vacuum the oil from the Engine through the Dipstick Tube using the recommended oil drainer.
3. Replace the oil as described in “Adding Oil and Gasoline” in Chapter 2.

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

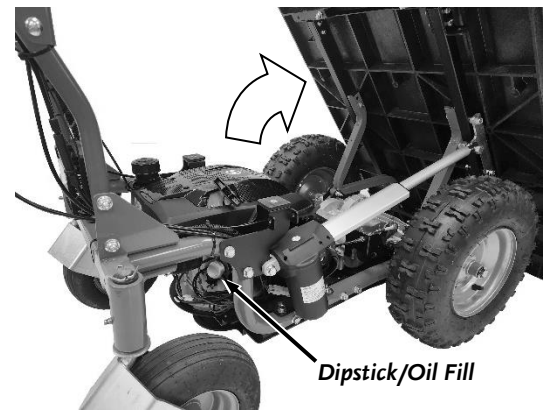


Figure 37

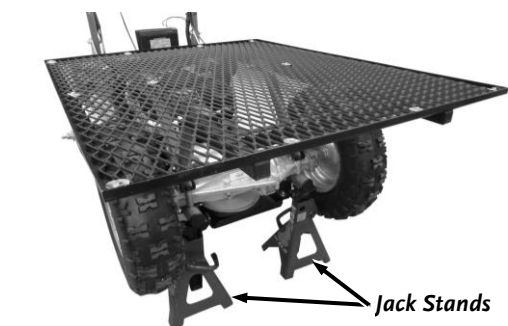


Figure 38

Removing and Replacing the Belt

Tools needed:

- Two Jack Stands
- Flat Head Screwdriver
- 9/16" Socket with Ratchet and Extension
- Pliers

NOTICE

Use only DR Belts on your machine. They have been thoroughly tested and proven for many hours of use.

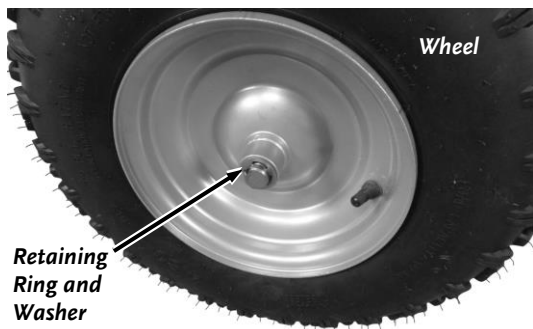


Figure 39

1. Position the machine on a level surface and support the front of the Frame with Jack Stands to lift the Wheels off the ground (**Figure 38**).

Note: Ensure that the Jack Stands are not touching the Wheels.

2. Remove the Retaining Ring and Washer of both Wheels with a Flat Head Screwdriver and remove the Wheels (**Figure 39**).
3. Tip the Bed forward for better access.
4. Remove the twelve (six per side) Skid Plate Bolts at the sides of the Frame using a 9/16" Socket with Ratchet and Extension (**Figure 40**).
5. Remove the Skid Plate from the machine.
6. Remove the Belt from the Engine, Idler/Tensioner and Transaxle Pulleys (**Figure 41**).
7. Install the new Belt on the Engine and Transaxle Pulleys.
8. Route the Belt between the Idler/Tensioner Pulleys as shown.
9. Reinstall the Skid Plate making sure that the Belt is on the inside of all Belt Guides (**Figure 42**).
10. Reinstall the Wheels, making sure that the key is in position on the Transaxle shafts.

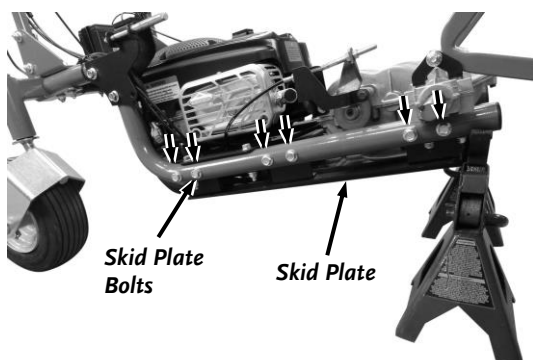


Figure 40

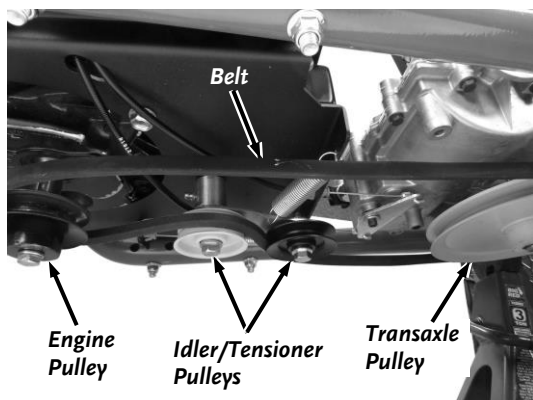


Figure 41

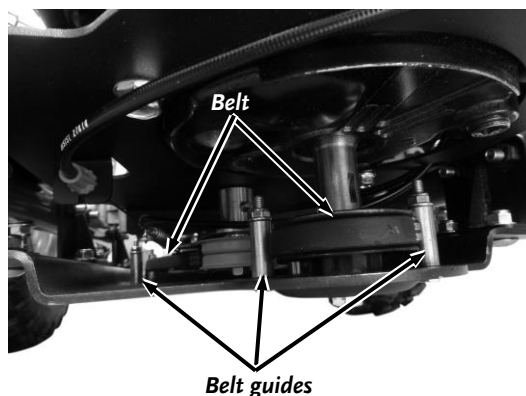


Figure 42

Removing and Replacing the Front Wheels

Tools needed:

- Flat Blade Screwdriver
- Eye protection
- Jack Stands
- Pliers

1. Block the machine up off the ground so that the Front Wheels spin freely (**Figure 43**).
2. Pry off the Wheel Lock Ring with a Screwdriver (**Figure 44**). Remove the Washer and slide the Wheel off the Axle. Check the Axle to ensure the Key stayed in the Axle.
3. To replace the Wheel, align the groove in the Wheel Hub to the Key and slide the Wheel onto the Axle.
4. Reinstall the Washer and Wheel Retaining Ring.

Tip: Pliers may work better to seat the Retaining Ring.

Checking and Adjusting the Brakes

The Brakes are adjusted at the Factory but may need adjustment over time due to Brake Pads wearing down. The Brakes can be adjusted at the Brake Arm Adjustment Nut as well as the Brake Cable Jam Nuts. This section explains both methods of adjusting your Brakes.

Tools needed:

- Two 1/2" Wrenches

CHECKING THE BRAKES:

1. With the machine on a level surface, set the Parking Brake.
2. Move the Shift Lever to the NEUTRAL **N** position.
3. Test the Brakes by trying to roll the machine. It should not move in either direction with the Parking Brake set. If it does move, continue to "BRAKE ARM ADJUSTMENT". If it doesn't move, your Brakes are properly adjusted.

BRAKE ARM ADJUSTMENT:

If this adjustment method doesn't make a difference after a couple of adjustments, continue to "BRAKE CABLE ADJUSTMENT".

1. Turn the Adjustment Nut on the Brake Arm 1/4 turn clockwise with a 1/2" Wrench to tighten the Brakes (**Figure 45**).
2. Test the Brake as described "CHECKING THE BRAKES" above. Repeat the adjustment as needed until the Brake works properly.

BRAKE CABLE ADJUSTMENT:

If this adjustment method doesn't improve braking after a couple of adjustments, continue to "CHANGING THE BRAKE PADS".

1. Turn the inside Jam Nut a full turn away from the Brake Arm (**Figure 45**).
2. Turn the outside Jam Nut against the Brake Arm and inside Jam Nut.
3. Test the Brakes as described "CHECKING THE BRAKES" above. Repeat the adjustment as needed until the Brake works properly.

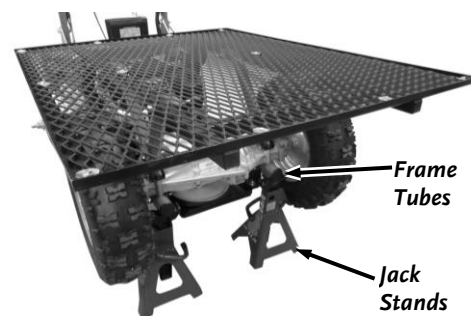


Figure 43

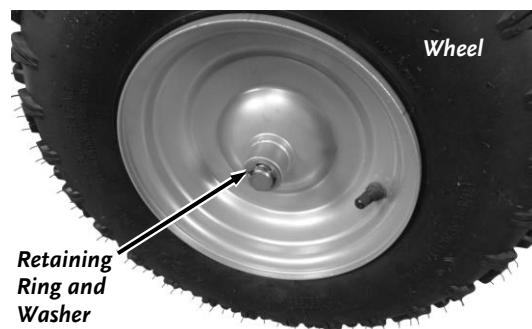


Figure 44

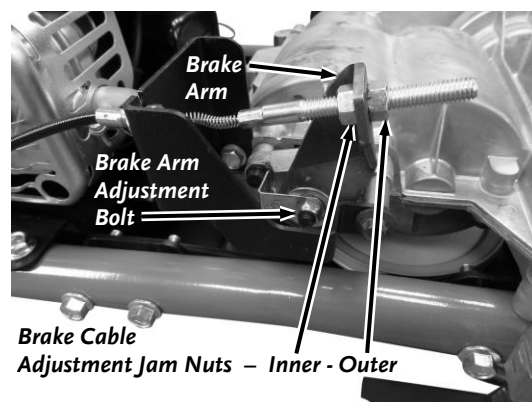


Figure 45

PARKING BRAKE ADJUSTMENT:

You must ensure the Parking Brake Lock works properly whenever the Brakes are adjusted. If the Brakes are adjusted too tight the Lever will not squeeze tight enough to the Handle and the lock will not engage or it will engage and is extremely difficult to disengage.

Perform the previous BRAKE CABLE ADJUSTMENT and/or the BRAKE ARM ADJUSTMENT in the opposite direction than described to loosen the Brake Cable.

Note: Turn the Adjustment Nuts only 1/4 turn at a time, and then test the Parking Brake Lock to see if the adjustment worked.

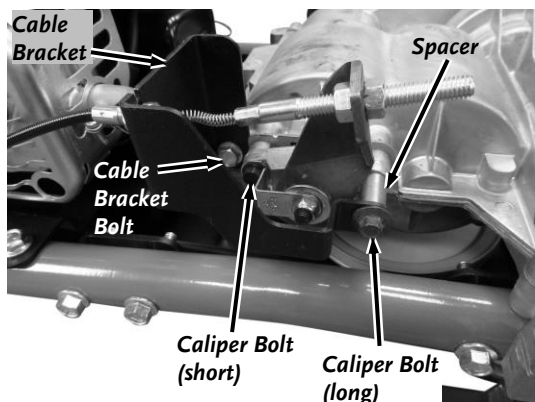


Figure 46

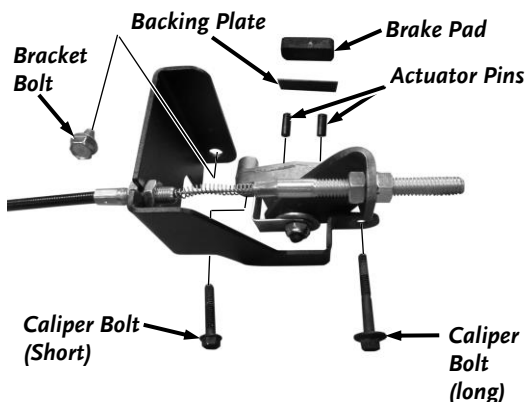


Figure 47

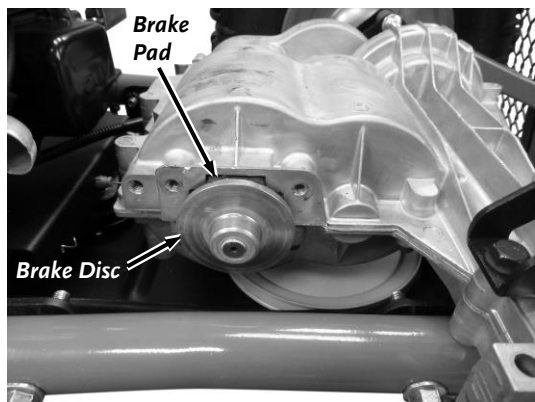


Figure 48

Changing the Parking Brake Pads

Note: If your DR POWERWAGON rolls on slopes when the Parking Brake is set, and you have tried adjusting the Brakes, the Brake Pads may need replacement.

Tools and Supplies needed:

- 3/8" Socket with Ratchet and Extension
- 1/2" Socket with Ratchet and Extension
- Lithium Grease
- Clean Mat or container for loose parts

Note: You may want to remove the Wheel to provide easier access to the Brake Caliper area. See "Removing and Replacing the Front Wheels" in this Chapter.

1. Find a clean level area to work. The Parking Brake should NOT be engaged. Chock the Wheels so the machine cannot move.
2. Locate the Brake Caliper at the right/front of the machine (**Figure 46**).
3. Remove the Cable Bracket Bolt using a 1/2" Socket with a Ratchet and Extension.
4. Remove the long Caliper Bolt with a 3/8" Wrench and remove the Spacer from the Transaxle.
5. Remove the short Caliper Bolt with a 3/8" Wrench and remove the Caliper from the Transaxle.

Note: The inside of the Caliper contains four small parts: the Brake Pad, the Backing Plate, and two small Actuator Pins (**Figure 47**). As you let the Caliper hang from the Brake Cable, keep track of these parts as they will likely fall out. Clean away any debris from these parts and the inside of the Caliper.

6. Pull the Brake Disc off the splined Shaft and remove the Brake Pad (**Figure 48**).
7. Insert a new Brake Pad into the cavity and hold in place as you reinstall the Brake Disc.
8. Lightly grease the Actuator Pins with Lithium Grease and insert the Pins into the Caliper (**Figure 47**).
9. Insert the Backing Plate with new Brake Pad and position the Caliper onto the Transaxle.
10. Secure the Caliper and Cable Bracket in the reverse order of disassembly.

Note: After new Brake Pads have been installed you will need to perform the "Checking and Adjusting the Brakes" procedures to compensate for the thicker Pads.

Adjusting the Traction Drive Cable

When properly adjusted, tension on the Traction Drive Lever should increase when the Lever is about parallel to (almost touching) the Handlebar Grip. If it does not, perform the following steps.

1. Locate the In-Line Adjuster on the Traction Drive Cable along the right Handlebar (**Figure 49**).
2. Rotate the center portion clockwise while holding the ends stationary to expand the In-Line Adjuster and remove slack from the cable.

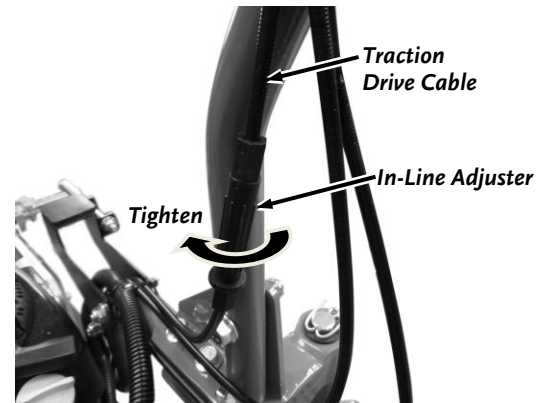


Figure 49

Adjusting the Shift Cables

If there is a lot of “play” in the Wheel Speed Lever or if the lever is no longer aligned with the Wheel Speed Label, you may need to adjust the Shift Cables as follows.

Tools needed:

- Two 13mm Wrenches

1. Locate the Shift Cable Adjustment Nuts on the Shift Lever end of the cable (**Figure 50**).
2. Loosen the top Cable Jam Nut one of the cables using two 13mm Wrenches.
3. Pull down slightly on the cable Sheathing, just enough to pull out the slack in the Cable and then tighten the bottom Cable Adjustment Nut against the Bracket. Retighten the top Nut against the Bracket and bottom Nut using two 13mm Wrenches. You may need to tension one cable while loosening the other to realign the Lever.

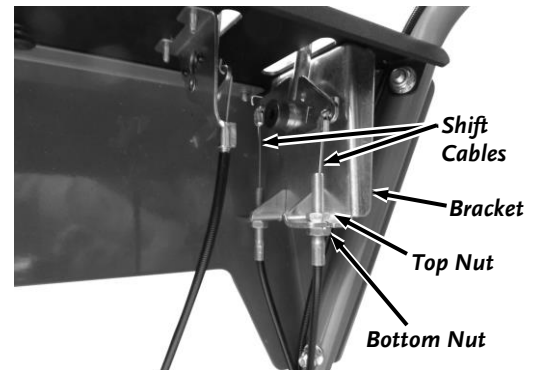


Figure 50

Note: Do not over tighten the cable. It will create a spongy feel in the shift lever if it is too tight.

Electric Dump Actuator Maintenance – PRO XL800 Model and PRO 700 Model Optional Electric Dump Accessory

For the Electric Dump System, the dump actuator is a sealed unit that does not need servicing under normal use.

Checking and Replacing the Fuse – PRO XL800 Model and PRO 700 Model Optional Electric Dump Accessory

There is an inline Fuse for the Dump Switch on the PRO XL800 Model and the PRO 700 Model optional Electric Dump Accessory. If the dump function is not working properly, you can visually check if the Fuse has failed.

1. Pull the yellow Fuse Holder (under the Control Panel) apart and remove the Fuse from the (**Figure 51**).
2. The Fuse is blown if there is a separation in the metal strip inside the glass (burn marks may also be present). Discard the Fuse if blown.

Note: You can also test the continuity of the Fuse with a Multimeter (see the Multimeter manual for checking continuity).

3. Insert the new Fuse and push the two Fuse Holder halves together.

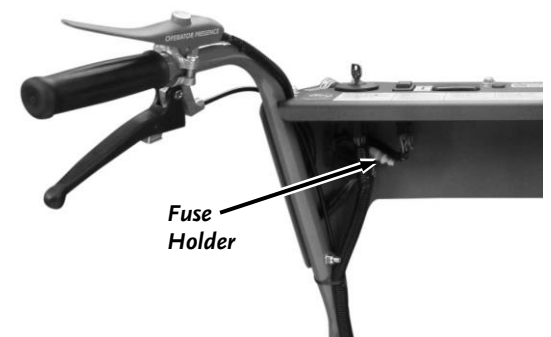


Figure 51

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

When performing any maintenance, you must first shut off the engine, set the parking brake, wait five minutes to allow parts to cool and disconnect the spark plug wire, keeping it away from the spark plug.

Troubleshooting Table

SYMPTOM	POSSIBLE CAUSE
<i>Recoil will not pull out or is difficult to pull.</i>	⇒ Check the Engine oil level; the Engine may be seized. ⇒ There may be an oil compression lock in the cylinder. Take out the Spark Plug; hold a rag over the Spark Plug hole and pull the Recoil Cord several times to blow out any oil in the cylinder. Wipe off the Spark Plug and reinstall it.
<i>The Engine will not start manually.</i> <i>(Please refer to the Engine Owner's Manual for Engine-specific procedures.)</i>	⇒ Check that the Key is in the RUN Position. ⇒ Check that the Spark Plug wire is attached. ⇒ Check the Operator Presence Switch connection beneath the Panel at the Key Switch. ⇒ Check the Operator Presence Switch connection at the Engine. ⇒ Check the oil and gas level. See "Adding Oil and Gasoline" on page 13. ⇒ The gas may be old, change it. Use a fuel stabilizer if you keep gas longer than one month. ⇒ Check the Throttle adjustment and travel. ⇒ The Spark Plug may be dirty or cracked, change it. ⇒ If the Spark Plug is 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. ⇒ The Air Filter may be dirty, change it following the procedure in the Engine Owner's Manual. ⇒ If your Engine still won't start, contact us at www.DRpower.com.
<i>The Engine will not start using Electric-Start.</i> <i>(Please refer to the Engine Owner's Manual for Engine-specific procedures.)</i>	⇒ Check all the items under the section "Electric-Starting" on page 15. ⇒ Check the previous section (The Engine will not start manually.) for possible causes. ⇒ Check the wire connections—especially the ground connection, the large black wire coming from the Battery, where it connects to the Engine. ⇒ The Battery may not be charged. Check the voltage yourself or at a Service Station. If it is low, charge it with a 12-volt, 1 to 2-amp trickle charger. If you do not use the POWERWAGON for at least 45 minutes at a time, the Battery may need to be periodically charged. See the "Battery Care" section on page 19. ⇒ If the Battery is charged and your DR POWERWAGON still will not start, contact us at www.DRpower.com.
<i>Engine smokes.</i>	⇒ Check the oil level and adjust as needed. ⇒ You may be operating the machine on too great an incline. See the "Slopes and Uneven Terrain" section on page 17. ⇒ Check the Air Filter and clean or replace if needed. ⇒ You may be using the wrong oil—too light for the temperature. Refer to the 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, contact us at www.DRpower.com.

WARNING

When performing any maintenance, you must first shut off the engine, set the parking brake, wait five (5) minutes to allow parts to cool and disconnect the spark plug wire, keeping it away from the spark plug.

Troubleshooting Table (Continued)

SYMPTOM	POSSIBLE CAUSE
<i>The Engine lacks power or is not running smoothly. (Please refer to the Engine Owner's Manual for Engine-specific procedures.)</i>	⇒ Check the Throttle travel and adjustment. ⇒ The Air Filter may be dirty, change it following the procedure in the Engine Owner's Manual. ⇒ The Spark Plug may be dirty or cracked, change it. ⇒ If the Spark Plug is 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. ⇒ The gas may be old, change it. Use a fuel stabilizer if you keep gas longer than one month. ⇒ The Engine may not have the right amount of clean oil. If it is dirty, change it following the procedure on page 21. ⇒ If the Engine still lacks power, contact us at www.DRpower.com.
<i>Machine is hard to get into Reverse.</i>	⇒ The Shift Lever may need adjusting. See page 25.
<i>Wheels pulling left or right.</i>	⇒ Check the tire(s) pressure. See page 13.
<i>Machine lacks traction.</i>	⇒ The load may be uneven in the Bed. The more weight over the Wheels the better the traction. ⇒ Try a lower gear. ⇒ If you are working on rough terrain you may want to consider the Tire Chain Kit. Call 1-800-DR-OWNER (376-9637) for information.
<i>The Wheels will not turn.</i>	⇒ Make sure that the DR POWERWAGON is in gear. ⇒ Check that the Parking Brake is off. ⇒ The Drive Belt may be loose or off the Pulley. See page 22. ⇒ The Drive Belt may be on the wrong side of the Pulley. See page 22. ⇒ If the Wheels still will not turn, call 1-800-DR-OWNER (376-9637) for assistance.
<i>The Electric Dump System is not responding.</i>	⇒ There is a Fuse under the Control Panel. Check the Fuse and replace if needed. ⇒ Check for loose electrical connections. ⇒ Check to be sure the Key Switch is in the RUN position to operate the Electric Dump System. See page 18. ⇒ Check the Battery charge. If the Key activates the Starter, the Battery is sufficiently charged. If it does not start the Engine, charge the Battery and repeat. ⇒ If the Electric Dump System still will not respond, call 1-800-DR-OWNER (376-9637) for assistance.
<i>The Dump Bed stops with the Switch Button depressed.</i>	⇒ Release the Switch and try the opposite direction. If the Dump Bed moves, check the area beneath the Dump Bed for obstructions. ⇒ If the Dump Bed does not move in the opposite direction, check the Battery and connections as above. ⇒ If the Dump Bed still stops, call 1-800-DR-OWNER (376-9637) for assistance.

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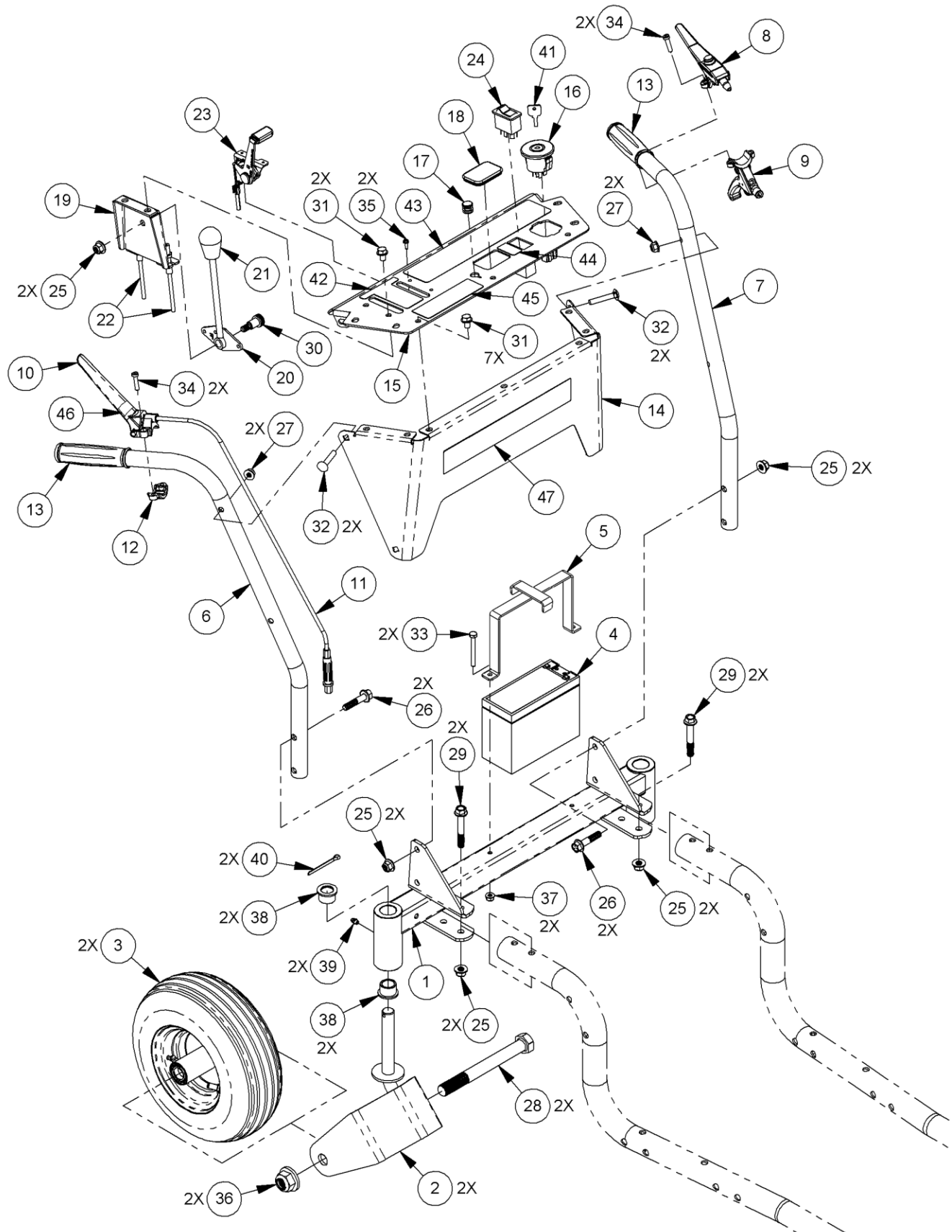
Chapter 6: Parts Lists and Schematic Diagrams

Parts List - Handlebar/Controls Assembly

Note: Part numbers listed are available through DR Power Equipment. Not all parts appear on all diagrams.

Ref#	Part#	Description	Ref#	Part#	Description
1	379191	Brace, Rear, Casters	27	333321	Nut, Nylon Lock, Flanged, 5/16-18
2	379201	Caster, Rear	28	343241	Bolt, HCS, 3/4-10 X 7", ZP
3	385411	Wheel, 11-4 X 5, Rib, 3/4 BB X 5"	29	333481	Bolt, Hex, Flange, 3/8-16 X 2.5"
4	134471	Battery, 12v, 9ah	30	352901	Bolt Shoulder, 1/2" X 5/8"L, 3/8-16
5	A0004114794	Strap, Battery	31	111731	Bolt, HCS, Serrated Flange 5/16-18 X .50"
6	379211	Handlebar, Right	32	350331	Bolt, Carr, 5/16-18 X 1.75", GR5, ZP
7	379221	Handlebar, Left	33	313061	Bolt, HCS, 1/4-20 X 2-1/4", GR5, ZP
8	180691	Lever, Op Presence W/ Harness	34	179231	Screw, SHCS M6 X 25mm
9	A0004170631	Lever, Brake, W/O Hardware	35	150491	Screw 8-32 X 1/2"
10	A0004170642	Lever Assy, Traction Drive	36	333381	Nut, Nylon Lock, Flanged, 3/4-10
11	385151	Cable, Drive	37	333311	Nut, Nylon Lock, Flanged, 1/4-20
12	370511	Collar, Lever, 1", Threaded	38	123761	Bushing .766"ID 1.0"OD
13	A0004764080	Grip, 1.00"	39	A0000332299	Grease Fitting, 1/4-28, Straight
14	10000037796	Control Panel	40	186551	Pin, Cotter, 3/16" X 2"
15	385761	Control Panel, Top Plate, With Labels (PRO 700 Model)	41	157201	Key, Ignition Switch
	385751	Control Panel, Top Plate, With Labels (PRO XL800 Model)	42	385531	Label, Throttle, Wheel Speed
16	165201	Switch, Snap-In, M/S	43	385541	Label, Operator Instructions
	222231	Switch, Snap-In, E/S	44	385551	Label, Power Dump (PRO XL800 Only)
17	190031	Plug, Plastic, 1/2" Hole	45	385521	Label, Warning & QR Code
18	151311	Plug, Hour Meter Hole, 2" X 1-1/4"	46	370551	Label, Traction Drive
19	A0000253528	Mount, Lever, Shift	47	A0000244628	Label, PW2, PRO700
20	A0000253527	Lever, Shift		A0000244629	Label, PW2, PRO XL800
21	150361	Knob, PTO Clutch Cable	Not Illustrated		
22	379391	Cable, Shift		A0004528594	Wire Harness, ES
23	385461	Cable, Throttle, 40" L		385831	Plug, Control Panel, Actuator Switch Cutout (PRO 700 Model Only)
24	385491	Wire Harness, Actuator (PRO XL800 Only)		127971	Cable Tie, 17"
25	333331	Nut, Nylon Lock, Flanged, 3/8-16			
26	385961	Bolt, Hex, Flange, 3/8-16 X 1-3/4", GR5, ZP			

Schematic - Handlebar/Controls Assembly

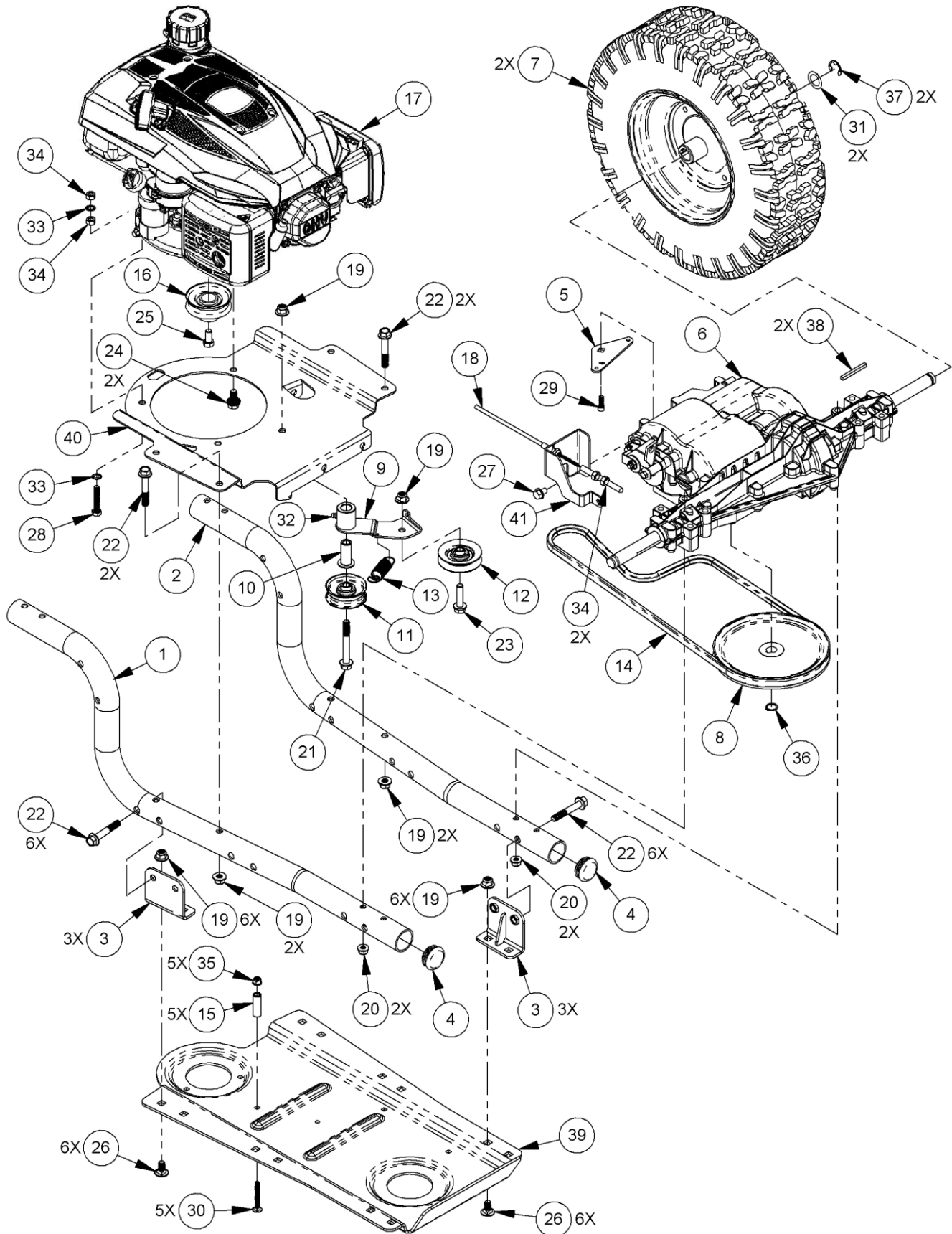


Parts List - Drive Assembly

Note: Part numbers listed are available through DR Power Equipment. Not all parts appear on all diagrams.

Ref#	Part#	Description	Ref#	Part#	Description
1	379131	Tube, Frame, Right	23	344071	Bolt, Hex, Flange, 3/8-16 X 1.5", GR5, ZP
2	379141	Tube, Frame, Left	24	352811	Bolt, Hex, Flange, Tri Lobe, 3/8-16 X 3/4", GR5 ZP
3	379091	Bracket, Angle, Skid Plate	25	111551	Bolt, HHCS 3/8-24 X .75", GR.2, ZP
4	385671	Plug, 1-1/2" OD, 12 GA Tube	26	321041	Bolt, Carriage, 3/8-16 X 1", GR5, ZP
5	A0000159802	Bracket, Shift, Transmission	27	111731	Bolt, HCS, Serrated Flange, 5/16-18 X .50"
6	373891	Transaxle, 3 Spd, W/ Brake	28	150451	Bolt, HCS, 5/16-18 X 1-3/4", GR5, ZP
7	395281	Wheel Assembly, Snow Hog, 4.8-8, Keyed Hub	29	111501	Bolt, SHCS, 1/4-18 X 3/4", Black Oxide
8	111141	Pulley, V, 7" OD 4l/A Belt	30	385911	Bolt, Carr, 1/4-20 X 2", GR5, ZP
9	379231	Arm, Idler	31	389451	Washer, Flat, .75" X 1.125" X .012"
10	379291	Bushing, Idler	32	A0000332299	Zerk, Grease 1/4-28 Straight
11	113071	Pulley, Flat Idler, 2-1/4"	33	112501	Washer Lock 1/4" External Tooth
12	144091	Pulley, V-Belt, 2.625" OD, Idler	34	110691	Nut, Hex, 5/16-18, GR2, ZP
13	352611	Spring, Extension	35	333311	Nut, Nylon Lock, Flanged, 1/4-20
14	370611	Belt, AK50, 1/2 X 52	36	111241	Snap Ring, External, 5/8"
15	379151	Bushing, Belt Guide	37	A0000313388	Ring, Retaining, 3/4" E-Clip
16	379001	Pulley, 2.75" OD, 7/8" Shaft, A Belt	38	101191	Key, Square, 3/16" X 2"
17	A0004273711	Engine, W/Labels 9.7 GTQ E/S RV185-2	39	A0000271870	Plate, Skid PW2
	A0002363341	Engine, W/Labels 7.6 GTQ E/S RV170	40	A0000271872	Plate, Engine Mounting PW2
18	385471	Cable, Brake, 64" L	41	379301	Bracket, Brake
19	333331	Nut, Nylon Lock, Flanged, 3/8-16	Safety Labels		
20	333321	Nut, Nylon Lock, Flanged, 5/16-18		137581	Label, Check Oil
21	A0000332306	Bolt, Hex, Flange, Grade 8, 3/8-16 X 3"		A0000036023	Decal, Prop 65 Short Form
22	390861	Bolt, Hex, Flange, 3/8-16 X 2-1/4", GR8, ZP			

Schematic - Drive Assembly

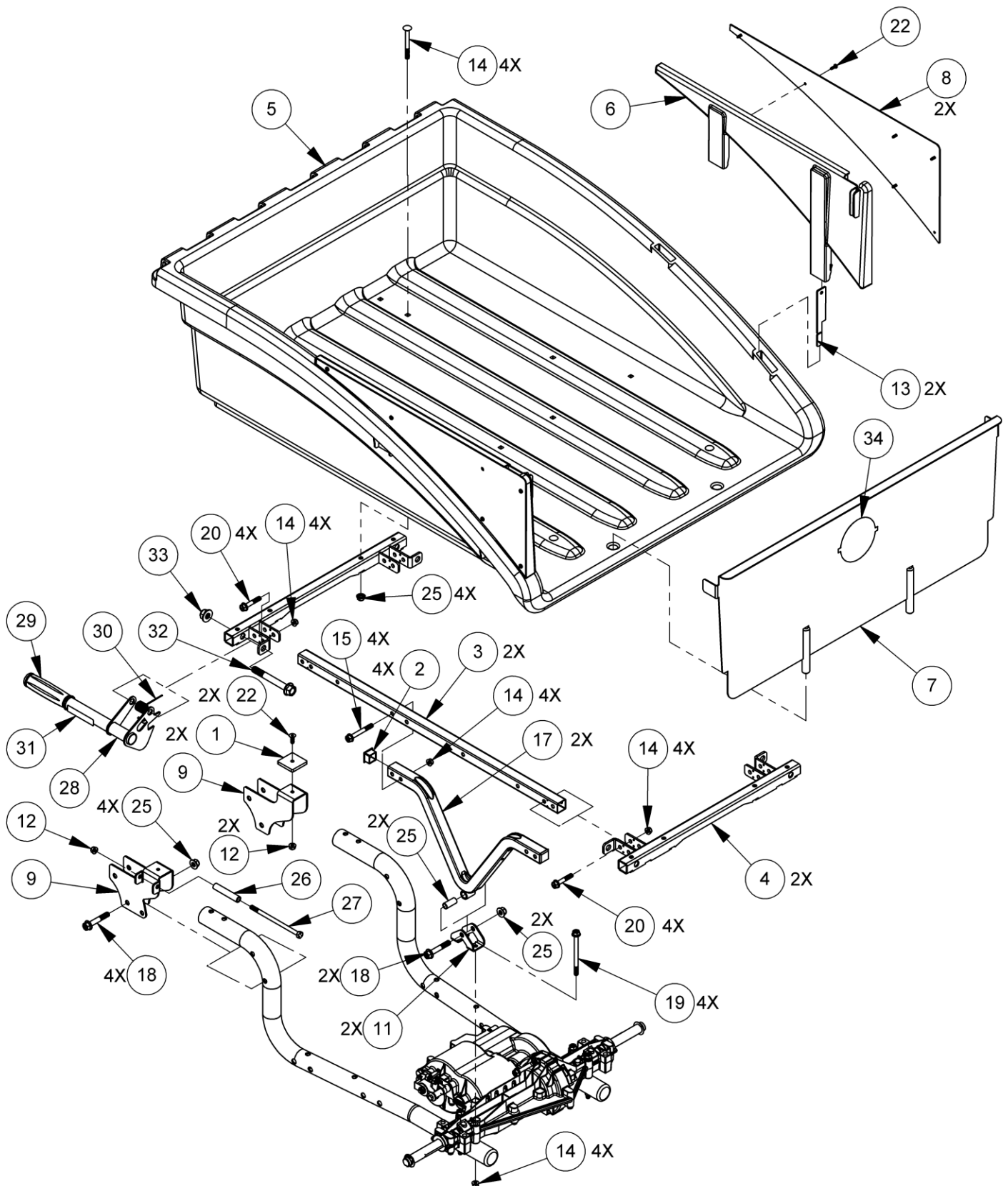


Parts List – PRO 700 Bed and Frame Assembly

Note: Part numbers listed are available through DR Power Equipment. Not all parts appear on all diagrams.

Ref#	Part#	Description	Ref#	Part#	Description
1	385601	Bumper, Bed	19	385931	Bolt, Hex, Flange, 5/16-18 X 4", GR8, ZP
2	111081	Plug, 1" X 1" OD, 16GA tube	20	385991	Bolt, Hex, Flange, 5/16-18 X 1-3/4", GR5, ZP
3	379241	Tube, Support, Cartbed	21	350341	Bolt, Carr, 5/16-18 X 3", GR5, ZP
4	A0003402400	Support-Rear Cartbed PW2	22	385941	Bolt, FHCS, 1/4-20 X .75", GR5, ZP
5	337761	Cart Bed	23	390831	Screw, Plastic Thread Forming, Pan Head, # 2 Philips, #8-18 X 1/2", Stl, ZP
6	379331	Sidewall, Left, Cartbed			
	379341	Sidewall, Right, Cartbed	24	106681	Nut, Lock, Serrated Flange, 5/16-18
7	385731	Tailgate, With Labels	25	333331	Nut, Nylon Lock, Flanged, 3/8-16
8	385871	Plate, Sidewall	26	338051	Spacer, .327" ID X .51" OD X 2.69
9	385621	Bracket, Bed Rest, Right	27	385971	Bolt, HCS, 5/16-18 X 5-1/2", GR5, ZP
10	379281	Bracket, Bed Rest, Left	28	385721	Handle, Dump, With Labels
11	379101	Bracket, Hinge, Transaxle	29	A0004764080	Grip, 1.00
12	333311	Nut, Nylon Lock, Flanged, 1/4-20	30	385401	Spring, Torsion, 360 Deg, .063" Wire, .798" OD
13	385881	Rib, Sidewall	31	153421	Label, Dump Lever
14	333321	Nut, Nylon Lock, Flanged, 5/16-18	32	333531	Bolt, Hex, Flange, 1/2-13 X 4", GR5
15	385981	Bolt, Hex, Flange, 5/16-18 X 2-1/2", GR8, ZP	33	333351	Nut, Nylon Lock, Flanged, 1/2-13
16	109401	Bushing .395" ID X .500" OD	34	A0000215817	Label, DR Logo, 4.5", Red
17	108771	Arm, Dump			
18	390861	Bolt, Hex, Flange, 3/8-16 X 2-1/4", GR8, ZP			

Schematic – PRO 700 Bed and Frame Assembly

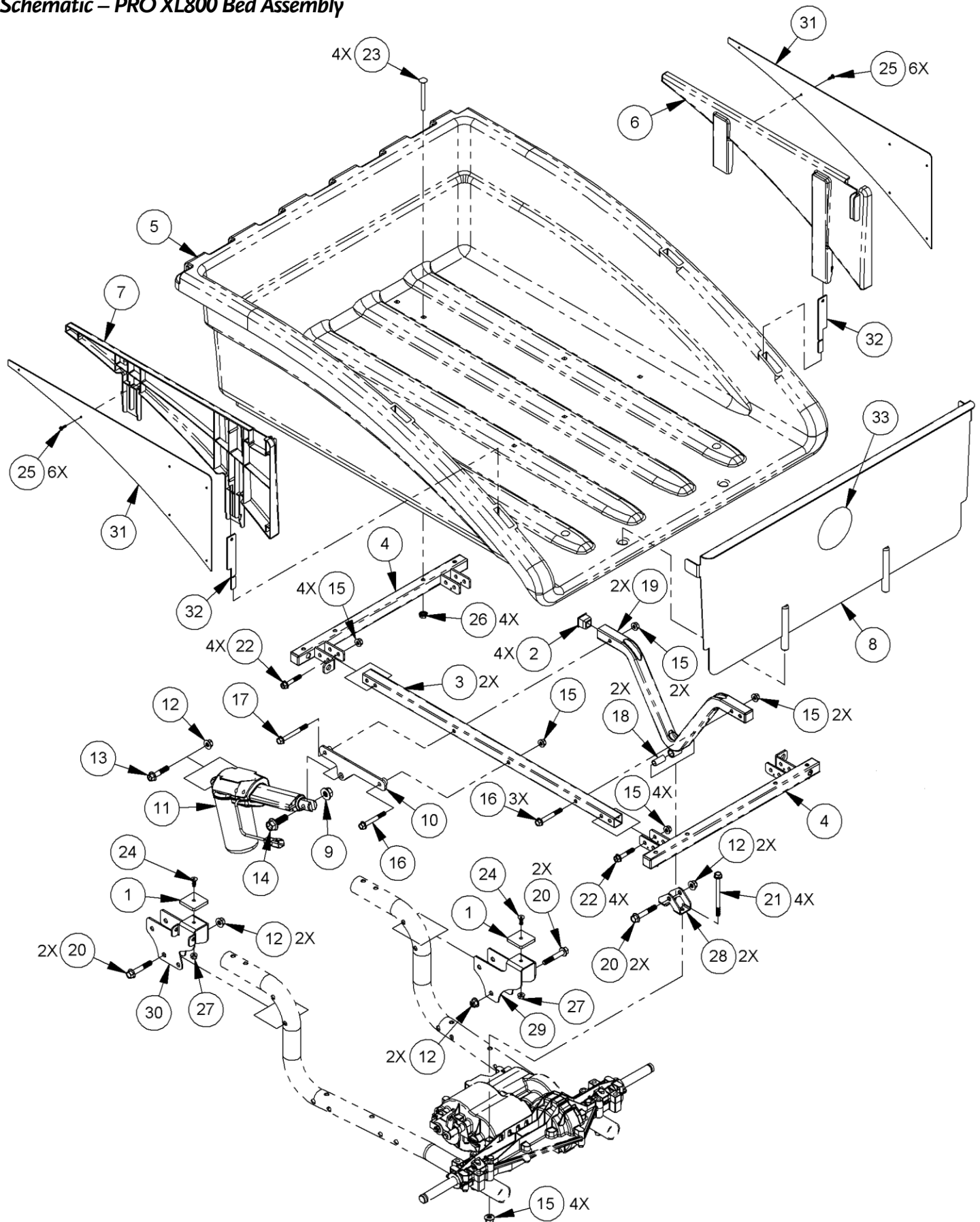


Parts List PRO XL800 Bed Assembly

Note: Part numbers listed are available through DR Power Equipment. Not all parts appear on all diagrams.

Ref#	Part#	Description	Ref#	Part#	Description
1	385601	Bumper, Bed	18	109401	Bushing .395" ID X .500" OD
2	111081	Plug, 1" X 1" OD, 16GA tube	19	108771	Arm, Dump
3	379241	Tube, Support, Cartbed	20	390861	Bolt, Hex, Flange, 3/8-16 X 2-1/4", GR8, ZP
4	A0003402400	Support-Rear Cartbed PW2	21	385931	Bolt, Hex, Flange, 5/16-18 X 4", GR8, ZP
5	337761	Cart Bed	22	385991	Bolt, Hex, Flange, 5/16-18 X 1-3/4", GR5, ZP
6	379331	Sidewall, Left, Cartbed	23	350341	Bolt, Carr, 5/16-18 X 3", GR5, ZP
7	379341	Sidewall, Right, Cartbed	24	385941	Bolt, FHCS, 1/4-20 X .75", GR5, ZP
8	385731	Tailgate, With Labels	25	390831	Screw, Plastic Thread Forming, Pan Head, # 2 Philips, #8-18 X 1/2", Stl, ZP
9	333351	Nut, Nylon Lock, Flanged, 1/2-13	26	106681	Nut, Lock, Serrated Flange, 5/16-18
10	379361	Bracket, Actuator, Dump Arm	27	333311	Nut, Nylon Lock, Flanged, 1/4-20
11	379371	Linear Actuator, 12 V, 200 mm Stroke	28	379101	Bracket, Hinge, Transaxle
12	333331	Nut, Nylon Lock, Flanged, 3/8-16	29	A0005876374	Bracket, Bed Rest, Left
13	385961	Bolt, Hex, Flange, 3/8-16 X 1-3/4", GR5, ZP	30	A0005876373	Bracket, Bed Rest, Right
14	390841	Bolt, Hex, Flange, 1/2-13 X 1-1/2", GR5, ZP	31	385871	Plate, Sidewall
15	333321	Nut, Nylon Lock, Flanged, 5/16-18	32	385881	Rib, Sidewall
16	385981	Bolt, Hex, Flange, 5/16-18 X 2-1/2", GR8, ZP	33	A0000215817	Label, DR Logo, 4.5", Red
17	390851	Bolt, Hex, Flange, 5/16-18 X 3", GR8, ZP			

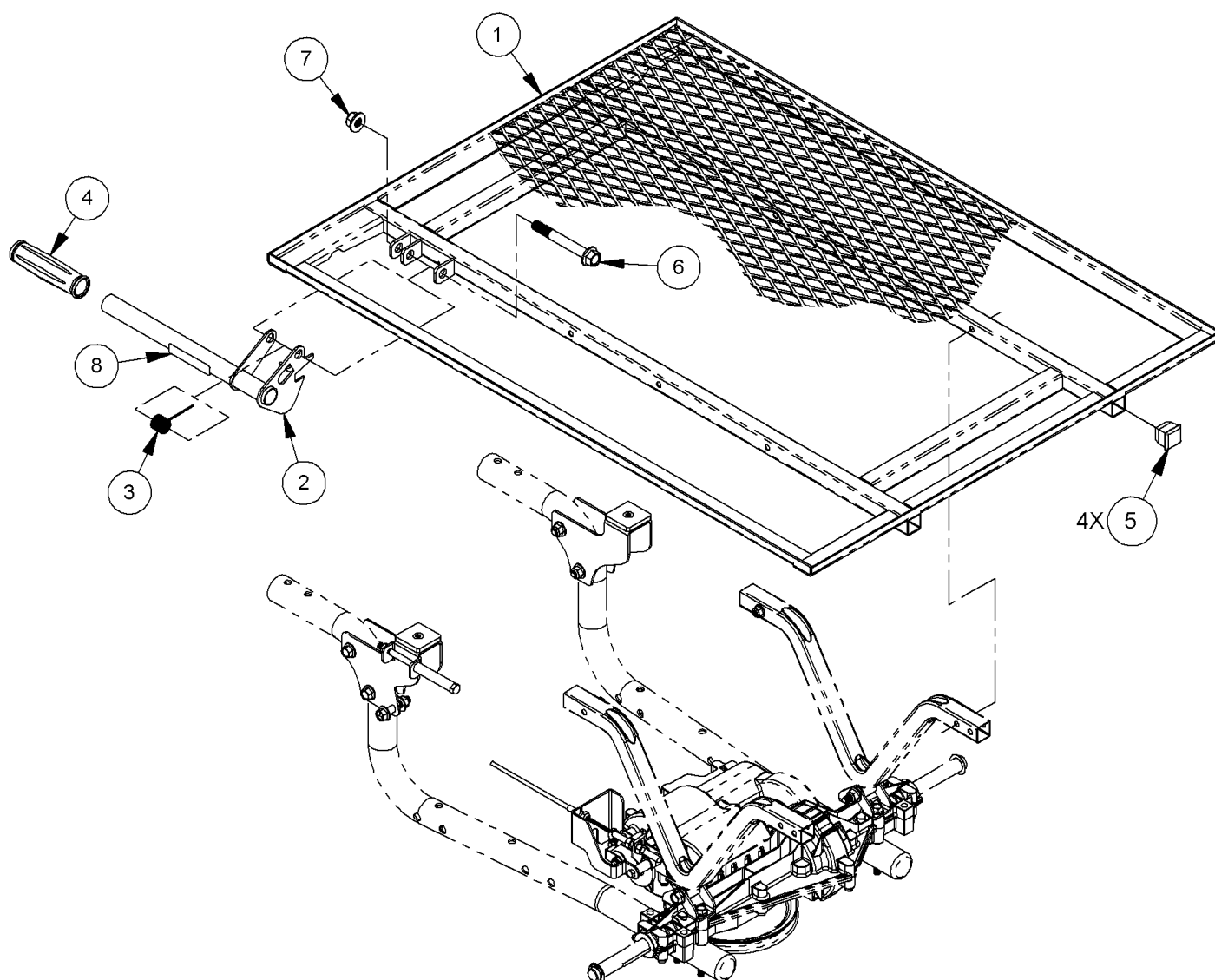
Schematic – PRO XL800 Bed Assembly



Parts List – Flatbed Assembly

Note: Part numbers listed are available through DR Power Equipment. Not all parts appear on all diagrams.

Ref#	Part#	Description	Ref#	Part#	Description
1	391251	Flatbed, With Grate	5	111081	Plug, 1" X 1" OD, 16ga Tube
2	379261	Handle, Dump	6	333531	Bolt, Hex, Flange, 1/2-13 X 4", GR5
3	385401	Spring, Torsion, 360 Deg, .063 Wire, .798 OD	7	333351	Nut, Nylon Lock, Flanged, 1/2-13
4	A0004764080	Grip, 1.00	8	153421	Label, Dump Lever



DR® POWERWAGON



2-Year Limited Warranty

Terms and Conditions

The DR® POWERWAGON 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® POWERWAGON 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® POWERWAGON 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 Drive Belts, Battery, Brake Pads, 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® POWERWAGON.

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 POWERWAGON

WARNING

When performing any maintenance, you must first shut off the engine, set the parking brake, wait five minutes to allow parts to cool and disconnect the spark plug wire, keeping it away from the spark plug.

To help maintain your DR POWERWAGON for optimum performance, we recommend you follow this checklist each time you use your machine.

- [] OIL: With the machine on a level surface, remove the Oil Fill Cap and check the oil level. Fill the reservoir according to the Dipstick with SAE30 HD motor oil.
- [] GAS: Fill the Fuel Tank with fresh, unleaded gasoline.
- [] ENGINE: It is very important to keep the Engine clean. Remove grass and other debris from the Engine Cooling Fins and Debris Guard. A dirty Engine retains heat and can cause damage to internal Engine components.
- [] BELT: Check the Belt for wear.
- [] AIR FILTER: A clean Air Filter will mean a much easier starting and cooler running Engine. Please refer to your Engine Owner's Manual for instructions on cleaning the Air Filter.
- [] TIRES: Check the Tires for wear and proper inflation.

End of Season and Storage

WARNING

When performing any maintenance, you must first shut off the engine, set the parking brake, wait five minutes to allow parts to cool and disconnect the spark plug wire, keeping it away from the spark plug.

Note: Please refer to the Engine Owner's Manual for Engine-specific procedures.

- Change the Oil this will help to eliminate sludge and acids in the Engine. For winter use, use SAE 5W-30.
- If your DR POWERWAGON 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 and/or replace the Air Filter(s).
- Clean dirt and debris from the cylinder head cooling fins, carburetor linkage, blower housing, rotating screen, and muffler area of the Engine.
- Check to make sure the operator controls are moving freely. Lubricate the Throttle Lever Cable, Parking Brake Cable and Traction Control cable with SAE 30 Oil if necessary. See page 20.
- Electric starting models: Remove the Battery and keep it in a cool, dry place when the DR POWERWAGON is in storage. We suggest charging the Battery once a month while the DR is stored, and again before you are ready to start the new season. This will help the Battery maintain its charge all season. See page 19.



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