DR® PRO XL-SP STUMP GRINDER

SAFETY & OPERATING INSTRUCTIONS

Serial No. _____

Order No. _____

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

⚠ WARNING

Read and understand this manual and all instructions before operating the DR PRO XL-SP STUMP GRINDER.

Table of Contents

Conventions used in this manual

⚠ WARNING

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

⚠ CAUTION

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

NOTICE

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

Serial Number and Order Number

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

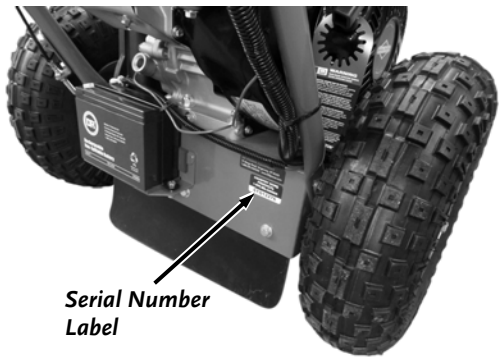


Figure 1

Additional Information and Potential Changes

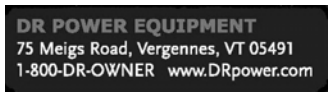
DR Power Equipment reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations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

⚠ WARNING

Read this safety & operating Instructions manual before you use the DR PRO XL-SP STUMP GRINDER. 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 PRO XL-SP STUMP GRINDER 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 PRO XL-SP STUMP GRINDER as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.



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Protecting Yourself and Those Around You

⚠ WARNING

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

- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.
- Always wear protective goggles or safety glasses with side shields while using the PRO XL-SP STUMP GRINDER to protect your eyes from possible thrown debris.
- Avoid wearing loose clothing or jewelry, which can catch on moving parts.
- We recommend wearing gloves while using the PRO XL-SP STUMP GRINDER. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
- Wear shoes with non-slip treads when using your PRO XL-SP STUMP GRINDER. If you have safety shoes, we recommend wearing them. Do not use the machine while barefoot or wearing open sandals.
- Wear long pants while operating the PRO XL-SP STUMP GRINDER.
- Use ear protectors or ear plugs rated for at least 20 dba to protect your hearing.
- Keep bystanders at least 50 feet away from your work area at all times. Stop the engine when another person or pet approaches.

Safety for 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 grinding activity. *Never* assume that children will remain where you last saw them. Always follow these precautions:

- Keep children and pets at least 50 feet from the working area and ensure they are under the watchful care of a responsible adult.
- Be alert and turn the machine off if children or pets enter the work area.
- Never allow children to operate the PRO XL-SP STUMP GRINDER.

Safety with Gasoline - Powered Machines

⚠ WARNING

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

- Never run the engine in an enclosed area or without proper ventilation as the exhaust from the engine contains carbon monoxide, which is an odorless, tasteless, and deadly poisonous gas.
- Store all fuel and oil in containers specifically designed and approved for this purpose and keep away from heat and open flame, and out of the reach of children.
- Replace rubber fuel lines and grommets when worn or damaged and after 5 years of use.
- Fill the gasoline tank outdoors with the engine off and allow the engine to cool completely. Don't handle gasoline if you or anyone nearby is smoking or if you're near anything that could cause it to ignite or explode. Reinstall the fuel tank Cap and fuel container cap securely.
- If you spill gasoline, do not attempt to start the engine. Move the machine away from the area of the spill and avoid creating any source of ignition until the gas vapors have dissipated. Wipe up any spilled fuel to prevent a fire hazard and properly dispose of the waste.
- Allow the engine to cool completely before storing in any enclosure. Never store a machine that has gas in the tank, or a fuel container, near an open flame or spark such as a water heater, space heater, clothes dryer, or furnace.
- Never make adjustments or repairs with the engine running. Shut down the engine, disconnect the spark plug wire, keeping it away from the spark plug to prevent accidental starting, wait 5 minutes before making adjustments or repairs.
- Never tamper with the engine's governor setting. The governor controls the maximum safe operation speed and protects the engine. Over-speeding the engine is dangerous and will cause damage to the engine and to the other moving parts of the machine. If required, see your authorized dealer for engine governor adjustments.
- Keep combustible substances away from the engine when it is hot.
- Never cover the machine while the muffler is still hot.
- Do not operate the engine with the air cleaner or the carburetor air intake cover removed. Removal of such parts could create a fire hazard. Do not use flammable solutions to clean the air filter.
- The muffler and engine become very hot and can cause a severe burn; do not touch.

General Safety

⚠ WARNING

Operating this PRO XL-SP STUMP GRINDER 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 PRO XL-SP STUMP GRINDER:

- Your PRO XL-SP STUMP GRINDER is a powerful tool, not a plaything. Exercise extreme caution at all times. The machine is designed to grind stumps. Do not use it for any other purpose.

General Safety (continued

⚠ WARNING

- Never operate your unit on a slippery, wet, muddy, or icy surface. Exercise caution to avoid slipping or falling.
- See manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by DR Power Equipment.
- Never use the machine without ensuring that all guards and shields are in place.
- Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the PRO XL-SP STUMP GRINDER. This includes all shields and guards. Modifications to your machine could cause personal injuries and property damage and will void your warranty.
- Allow only one person to operate the PRO XL-SP STUMP GRINDER at any time.
- If the machine should start making an unusual noise or vibration, shut down the engine, disconnect the spark plug wire, keeping it away from the spark plug to prevent accidental starting, wait 5 minutes, then inspect for damage. Vibration is generally a warning of trouble. Check for damaged parts and clean, repair, and/or replace as necessary.
- Never tamper with safety devices. Check their proper operation regularly.
- Before performing any maintenance or inspection procedure on the PRO XL-SP STUMP GRINDER, release the throttle lever first and then release the operator presence lever, turn the ignition switch to "off", remove the spark plug wire and keep it away from the spark plug.
- Never allow people who are unfamiliar with these instructions to use the PRO XL-SP STUMP GRINDER. Allow only responsible individuals who are familiar with these rules of safe operation to use your machine.
- Never overload or attempt to grind material beyond the manufacturer's recommendation. Personal injury or damage to the machine could result.
- While using the PRO XL-SP STUMP GRINDER, don't 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 operate the machine when under the influence of alcohol, drugs, or medication.
- Use the machine only in daylight.
- Stay alert for hidden hazards or traffic.
- Keep all nuts and bolts tight and keep the equipment in good operating condition.

California Proposition 65

⚠ WARNING

California Proposition 65:

- Engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.
- This product contains or emits chemicals known to the State of California to cause cancer, birth defects, and other reproductive harm.

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® PRO XL-SP STUMP GRINDERS 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 PRO XL-SP STUMP GRINDER 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 PRO XL-SP STUMP GRINDER

It may be helpful to familiarize yourself with the controls and features of your DR PRO XL-SP STUMP GRINDER 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 XL-SP STUMP GRINDER Controls and Features

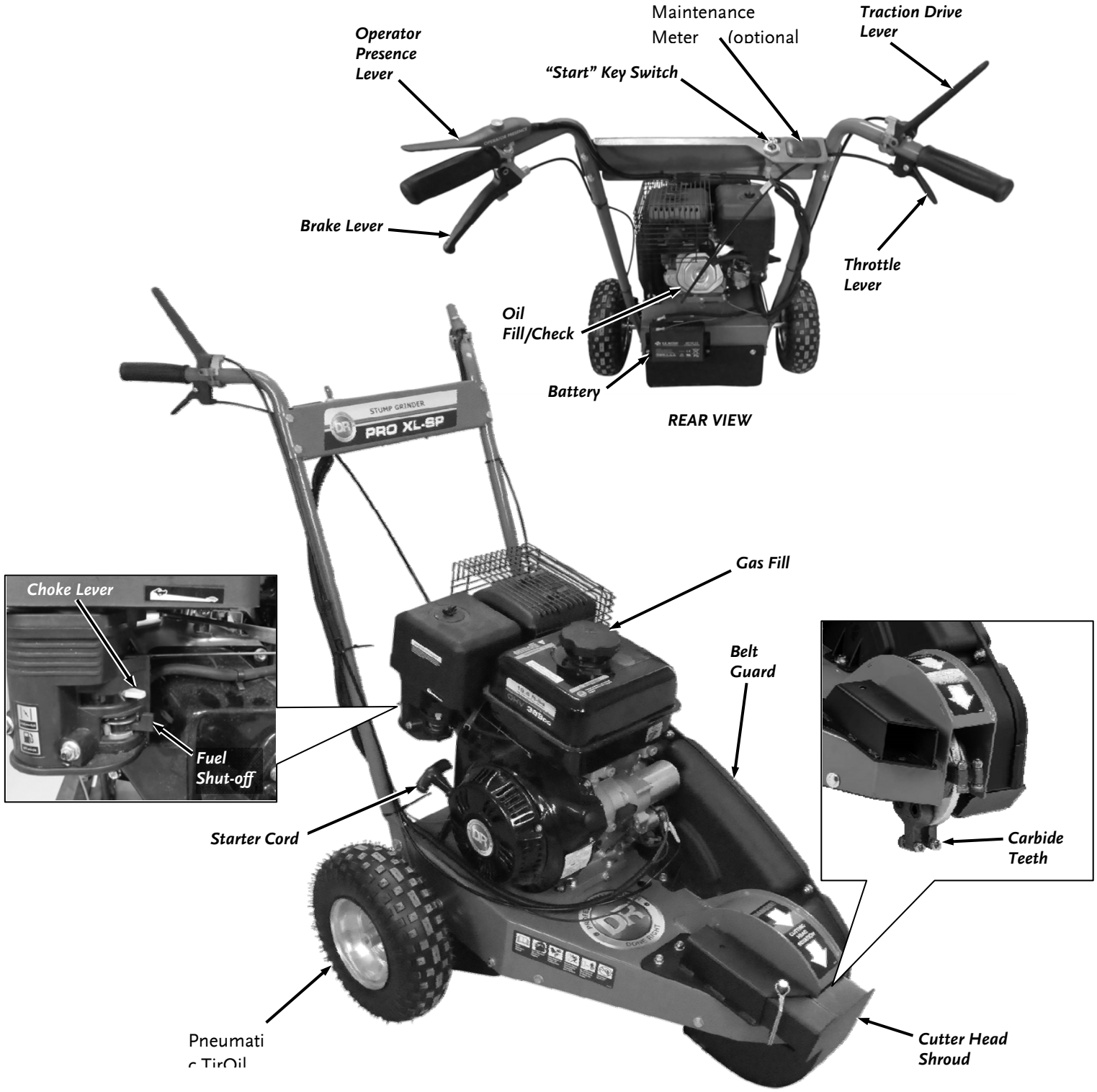


Figure 2

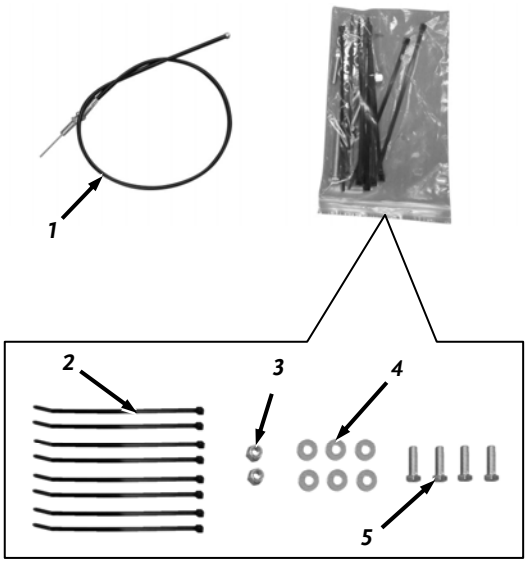
Specifications

Engine	Please refer to the Engine Owner's Manual for Engine-specifications.
Tire Size	12.5" Pneumatic
Handle Bars	Height adjustable to 32.2", 36.1" and 39.1" (w/tools)
Brake	Disc w/ locking feature
Diameter	4" Disc
Clutch	Centrifugal
Engagement speed	1900 RPMs
Frame	Welded 12 ga steel construction
Cutter Head Belt	V-Belt: BP48 49.3" OD, 47.3" ID
Traction Drive Belt	V-Belt: 3L X 39
Construction	Wrapped for abrasion resistance
Cutting Head	Rotary 8 Tooth
Cutting Head Size	1.75" Wide (kerf) X 10.5" Diameter
Cutting Teeth	Replaceable Carbide Tipped (three position)
Machine Dimensions	28" W x 55" L x 39" H* - *center Handlebar position
Weight	207 lbs

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

Parts Supplied in Parts Box (*Figure 3*):

Item#	Part #	Description	Qty
1	39226	Cable, Brake	1
2	11214	Cable Tie, 7-1/2"	8
3	11075	Nut, Nylon Lock, 3/8-16	2
4	11241	Washers, Flat, 5/16", USS	6
5	15043	Bolt, HHCS, 3/8-16 x 1-1/4", GR5	4



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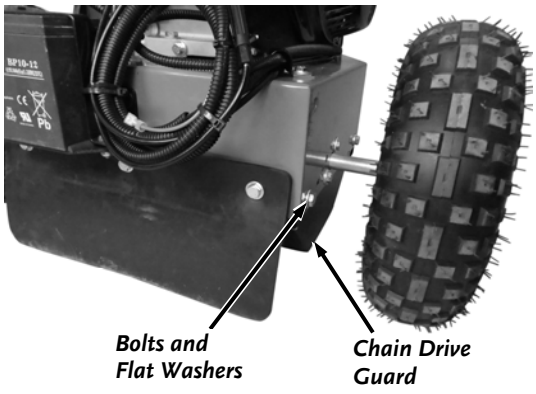

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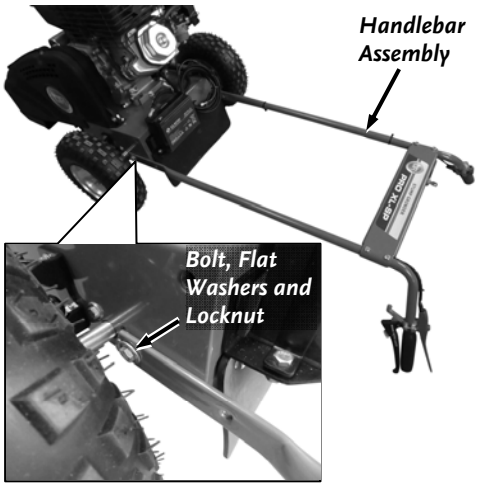

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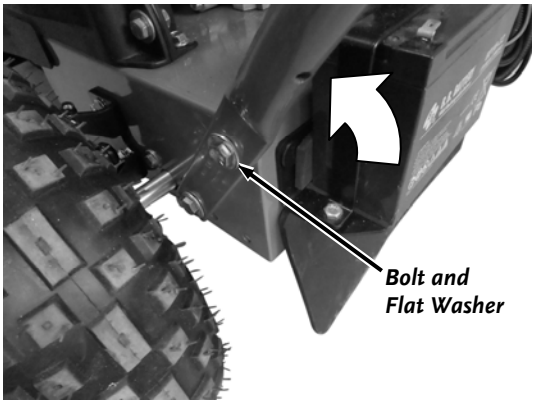

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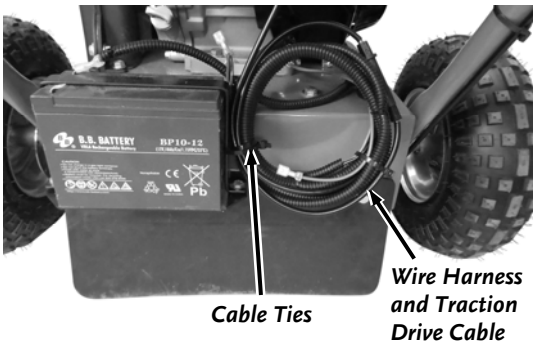


Figure 7

Assembly Instructions

Tools & Supplies Needed:

- 1/2" Wrench
- Two 9/16" Wrenches
- 5.5mm Allen Wrench
- Blocks
- Philips Head Screwdriver or 5/16" Wrench

1. Remove the four Bolts and Flat Washers that secure the corners of the Chain Drive Guard to the Frame using a 1/2" Wrench (***Figure 4***). Remove the Guard from the frame and set it aside.
2. Position the Handlebar on the floor behind the machine and align the holes at the end of the Handlebar with the center holes (of the 3 holes) in the Frame (***Figure 5***).

Note: *The center hole mentioned above is for a medium height setting. You could use the bottom hole if you want a higher setting or the top hole if you want a lower setting. The setting can always be changed at a later time.*

3. Install a 3/8-16 x 1-1/4" Bolt, 3/8" Washer (outside) and 3/8" Locknut and 3/8" Washer (inside) into the lower Handlebar holes on each side. Tighten using two 9/16" Wrenches (not too tight so the Handlebar can be rotated in the next step).
4. Rotate the Handlebar up and install a 3/8-16 x 1-1/4" Bolt and 3/8" Washer on both sides to hold the Handlebar upright (***Figure 6***). Tighten all Handlebar Hardware using 9/16" Wrenches.
5. Reinstall the Chain Drive Guard you removed in step 1.
6. Cut the Cable Ties securing the Wire Harness and Traction Drive Cable to the rear of the machine (***Figure 7***).
7. Separate the Traction Drive Cable From the Harness.
8. Install the Barrel end of the Drive Cable into the slot in the Traction Drive Lever (***Figure 8***). Use a Flat Head Screwdriver to push the Barrel end under the Lever so the Cable can slide up into the slot.

Note: *If the Traction Control Cable is too difficult to install even when using the Screwdriver, it may help to extend the Cable by turning the Adjuster shown in Figure 10. It will need to be turned counterclockwise (opposite as shown). Remember to adjust properly as described in step 10 after Cable is filly installed.*

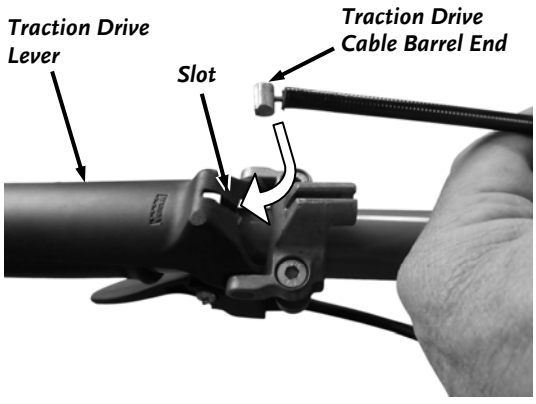
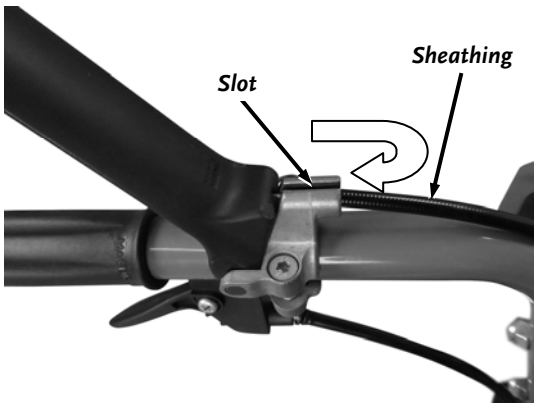


Figure 8

9. Pull the Traction Drive Cable Sheathing to the front to expose the Braided Cable and insert the Braided Cable into the Bracket slot (***Figure 9***). Push the Sheathing into the hole at the front of the Traction Drive Handle Bracket.
10. Turn the Traction Drive Cable Adjuster clockwise (looking from top) to extend the adjuster to tighten the Cable (***Figure 10***). Only tighten enough so the Lever rests lightly against the Bracket with no gap (play) between.
11. Connect the Operator Presence Connector and two Key Switch Terminals behind the Cross Member (***Figure 11***).
12. Loosen the Bolt of the left side Wheel using a 1/2" Wrench (***Figure 12***).
13. Support the machine with wood blocks to raise the left side Wheel slightly off the ground.
14. Remove the Bolt, Lock Washer, large Flat Washer and left side Wheel Assembly from the Axle. Take note of the Key that is in the Axle Keyway, if it falls out, keep it in a safe place.

Note: *Ensure that the thin Flat Washer stays on the Axle.*

15. Insert the barrel end of the Brake Cable into the hole in the bottom of the Brake Lever (1) (***Figure 13***). Insert the Brake Cable Sheathing into the hole at the front of the Brake Lever Bracket (2).
16. Insert the Braided Cable end of the Brake Cable through the Micro Adjuster and into the Clamp (***Figure 14***).
17. Ensure the Sheathing is fully into the Micro adjuster as you pull the end of the Cable tight and tighten the Clamp Screw using a 5.5mm Allen Wrench.



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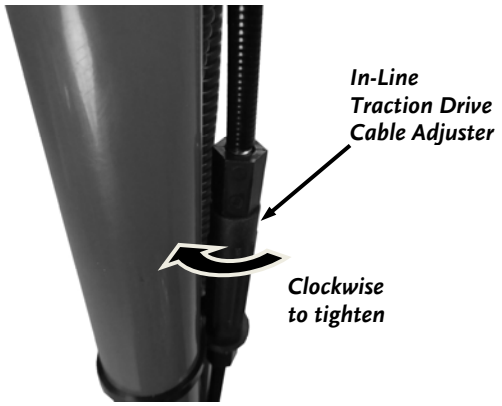
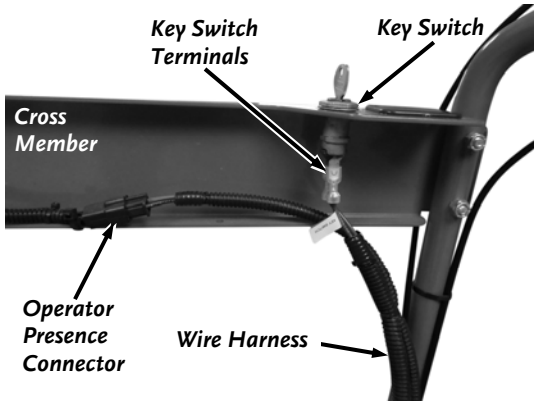


Figure 10



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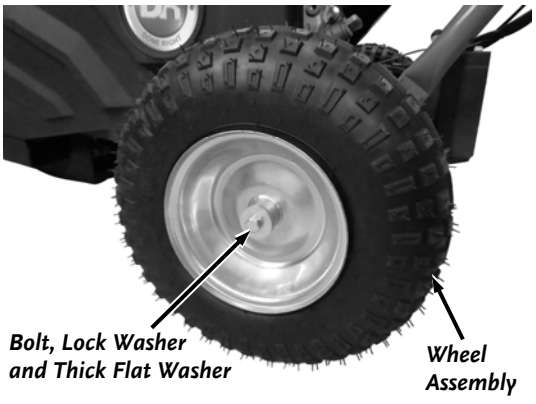

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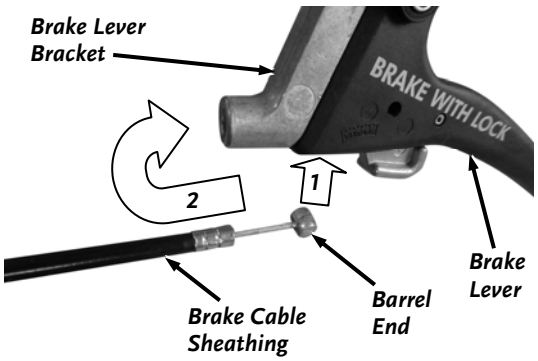

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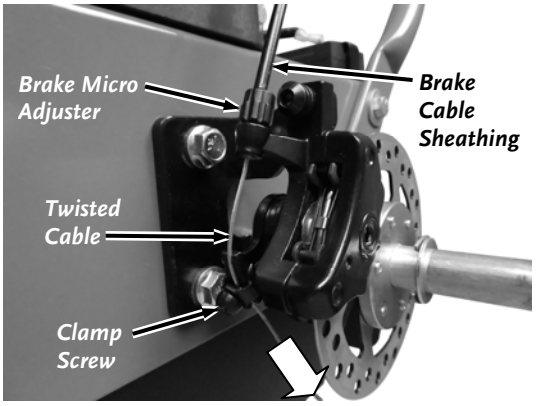

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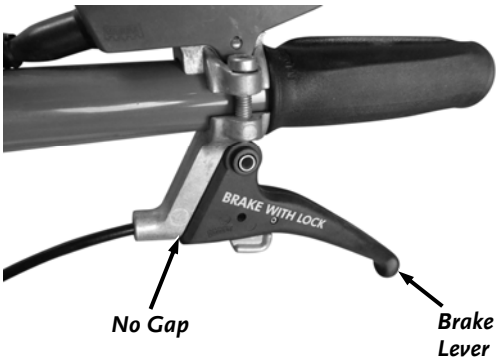

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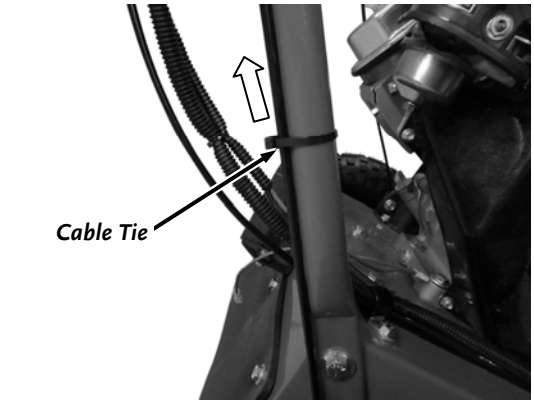


Figure 16

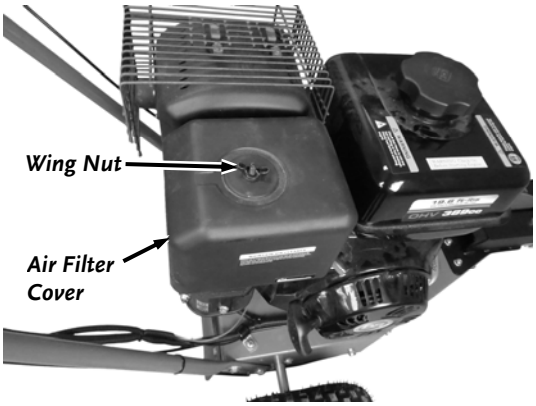


Figure 17

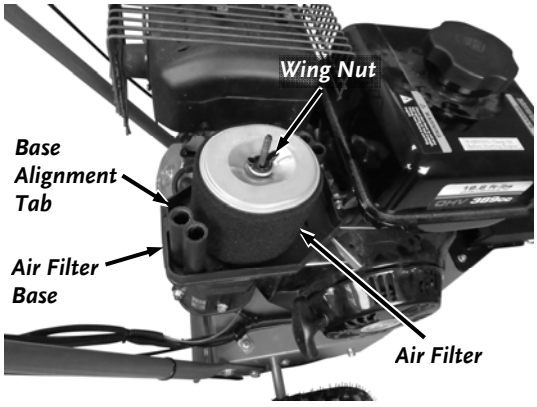


Figure 18

18. Check the Brake Lever to ensure there is no Gap Between the Lever and Bracket (***Figure 15***). If there is a noticeable gap, loosen the Clamp, pull the Cable though the Clamp some more and retighten (***Figure 14***).
19. Reinstall the Wheel Assembly **with the Valve Stem facing in** and ensure the Key is installed in the Key Slot on the Axle.
20. If there is a Cable Tie securing the Throttle Cable to the lower portion of the Handlebar, slide the Cable tie about half way up the Handlebar (***Figure 16***). If it is too tight to move easily, the Cable Tie can be cut off.
21. Remove the Wing nut from the Air Filter Cover and remove the Air Filter Cover (***Figure 17***).
22. Remove the Wing Nut from the Air Filter and remove the Air Filter (***Figure 18***).
23. Remove the Air Filter Base.
24. Loosen the Bowden Clamp with a Phillips Screw Driver or 5/16" Wrench and position the Cable Sheath under the Clamp (***Figure 19***). Hook the "Z" Bend end of the Throttle Cable in the Hole (hole furthest left) in the Throttle Linkage.
25. Hold the Engine Throttle Lever forward in the idle (Turtle) position. While holding the Throttle Lever, pull on the Cable Sheath to tighten the Cable.
26. Hold the Sheath in this position and release the Engine Throttle Lever. Tighten the Bowden Clamp onto the Sheathing with a Philips Head Screwdriver or 5/16" Wrench. Make sure the Tab of the Clamp fits into the cutout below. Do not over-tighten.
27. Actuate the Throttle Lever on the right side Handlebar to ensure that the Throttle Linkage goes smoothly to full throttle and back to Idle when released.
28. Reinstall the Air Filter Base (***Figure 19***). Ensure that the tab under rear of the Base locks fully into the Base.
29. Reinstall the Air Filter and Cover.

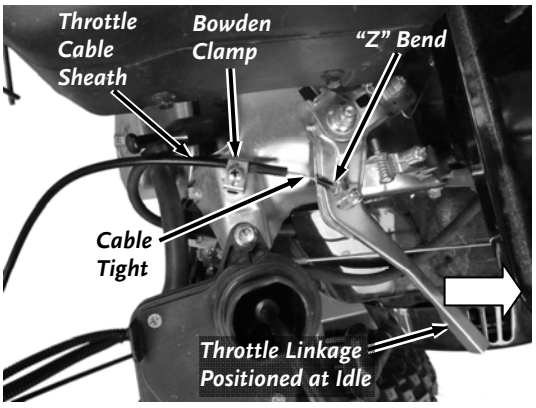


Figure 19

30. Use the Cable Ties to secure the Cables and Wires to the Control panel and handlebars at the locations indicated (***Figure 20***). Cut the excess from the Cable Ties using Wire Cutters.

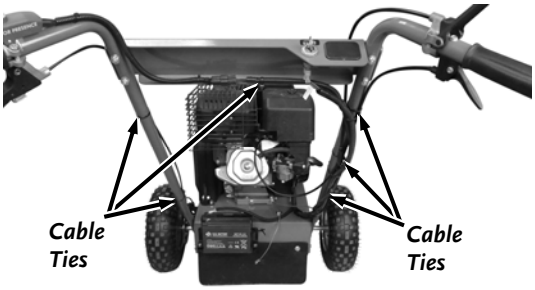


Figure 20

Adding 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.
- To get an accurate reading when checking the oil level:
  - The Engine must be level (Support front of machine as needed)
  - The dipstick should not be screwed down to ensure an accurate oil level reading.

Engine Oil	SAE 30: above 50 degrees F; 10w-30: 10-90 degrees F; 5w-30: 30 degrees F or below
Fuel	Unleaded gasoline

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

NOTICE

The Frame and Engine must be level to get an accurate reading when adjusting the oil level. Use blocks to adjust the height of the cutting head to level the Frame.

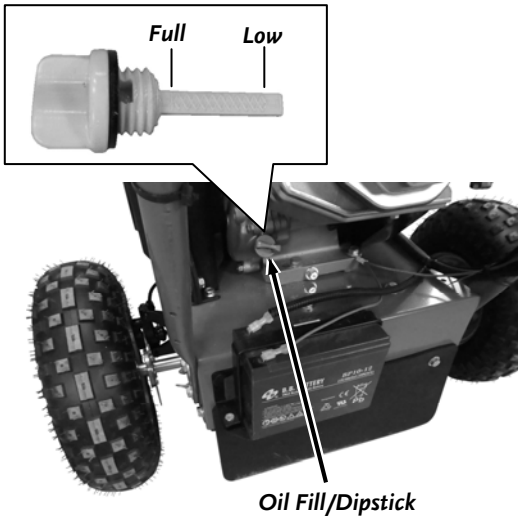


Figure 21

1. Position the machine so the Frame and Engine are level. Remove the Oil Fill/Dipstick and clean the end of it with a rag (***Figure 21***).
2. Machines are shipped with no oil. Initially add 16 oz. of the oil recommended by the Engine Manufacturer using a Funnel. Wait one minute for the oil to settle.
3. Replace the Dipstick but do not screw in. Remove the Dipstick and check the oil level. Clean the Dipstick with the rag after checking.
4. 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. Replace the Dipstick and screw all the way down when full.
6. Remove the Gas Fill Cap and fill the Gas Tank with fresh, unleaded gas (with a minimum of 85 Octane) to approximately 1" to 1-1/2" below the top of the fill neck to allow for fuel expansion (***Figure 22***). Be careful not to overfill and reinstall the Gas Fill Cap before starting the engine. See your Engine Owner's Manual for more detailed information.

Note: *To refill the gas tank, turn the engine OFF and let the engine cool at least five minutes before removing the gas fill cap.*

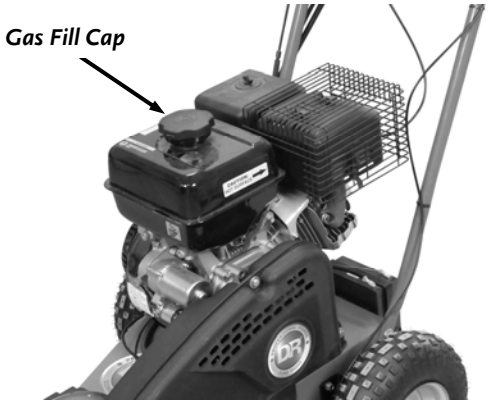
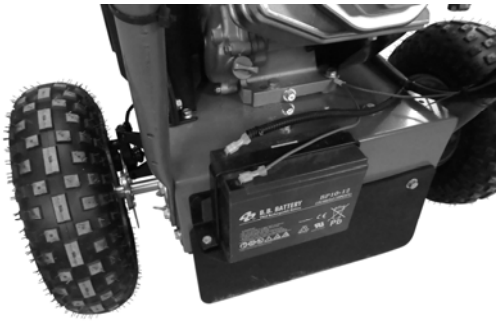


Figure 22

⚠ WARNING

Remove any blocking used to level the Engine before operating the DR PRO XL-SP STUMP GRINDER.

Figure 23



Battery

Figure 24

Check the Tire Pressure

Tools Needed:

- Tire Pressure Gauge
- Air Compressor

1. Remove the Valve Stem Protective Cap and check the tire pressure with a Tire Pressure Gauge (***Figure 23***).
2. Compare the tire pressure reading from step 1 with the manufacturer's recommended tire pressure stamped on the side of the tire.
3. If the pressure is too low, add air through the Valve Stem with an air hose.

⚠ WARNING

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

4. Replace the Valve Stem Protective Cap when finished.

Connect the Battery

Note: *The Battery may have been shipped with a protective Cap over the negative Terminal and the Cap will need to be removed to connect the Negative Wire.*

1. Connect the Green Negative Wire to the negative (black) Battery Lug (***Figure 24***).

It may be helpful to better familiarize yourself with the features of your PRO XL-SP STUMP GRINDER by reviewing ***Figure 2*** in Chapter 2 before beginning the steps outlined in this chapter.

⚠ WARNING

Read and understand the warnings listed in "Chapter 2 General Safety Rules" before operating this PRO XL-SP STUMP GRINDER.

Control Levers

Familiarize yourself with all of the Control Levers and their functions before operating the PRO XL-SP STUMP GRINDER (***Figure 25***).

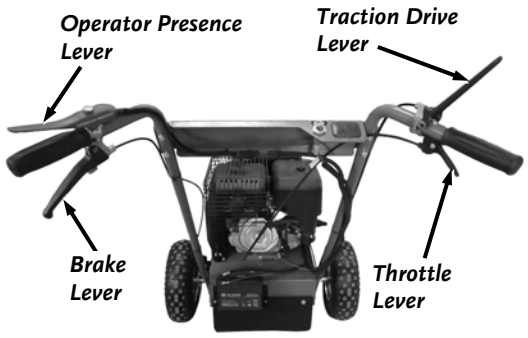


Figure 25

Starting the Engine Manually

1. Make sure the Fuel Shut-off is in the "OPEN" position (***Figure 26***).
2. Move the Choke Control Lever to the left to the choke position (leave in the run position to the right if the engine is already warm).

Note: *The Operator Presence Lever must be held down for the Engine to start and continue running. If you need to stop the machine quickly for any reason, let go of the Operator Presence Lever.*

3. Hold down the Operator Presence Lever and slowly pull the Starter Cord until you feel resistance, then pull quickly. The Cord will recoil back into position.
4. As the engine warms up, slowly adjust the Choke to the right towards the run position. Wait until the engine runs smoothly before each Choke adjustment.
5. When the Engine is warmed up and running smoothly, ensure that the Choke is fully in the run position to the right.

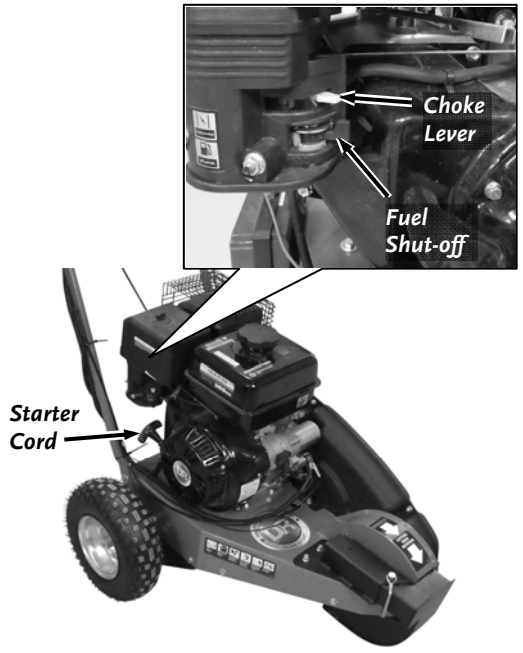


Figure 26

Starting the Engine (Electric Start)

1. Make sure the Fuel Shut-off is in the "OPEN" position (***Figure 26***).
2. Move the Choke Control Lever to the left to the choke position (leave in the run position to the right if the engine is already warm).

Note: *The Operator Presence Lever must be held down for the Engine to start and continue running. If you need to stop the machine quickly for any reason, let go of the Operator Presence Lever.*

3. Hold down the Operator Presence Lever and turn the Key Switch fully to the "Start" position until the engine starts (***Figure 27***). The Key will move back to the center position when released.
4. As the engine warms up, slowly adjust the Choke to the right towards the run position. Wait until the engine runs smoothly before each Choke adjustment.
5. When the Engine is warmed up and running smoothly, ensure that the Choke is fully in the run position to the right.

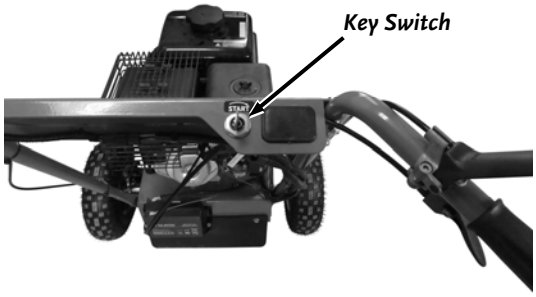


Figure 27

Stopping the Engine

1. Slowly release the Throttle Control Lever to the idle position (***Figure 25***).
2. Release the Operator Presence lever to stop the Engine.

Before You Begin

- Dig away the earth and remove any stones near the tree stump that may interfere with your work.
- Check that the ground is free of foreign objects, such as electrical cables, barbed wire, etc.
- Cut the stump as close to the ground as possible using a Chainsaw before using the PRO XL-SP STUMP GRINDER.

Operating the Traction Drive

⚠ WARNING

- The Cutter Head Shroud **must always be installed when the Traction Drive is operated** to prevent damage to the machine, damage to Trailers/Truck Beds etc. when loading, and to prevent the operator from being injured.
- Set the Wheel Brake, shut down the engine, remove the spark plug wire and wait five minutes before installing the Cutter Head Shroud.

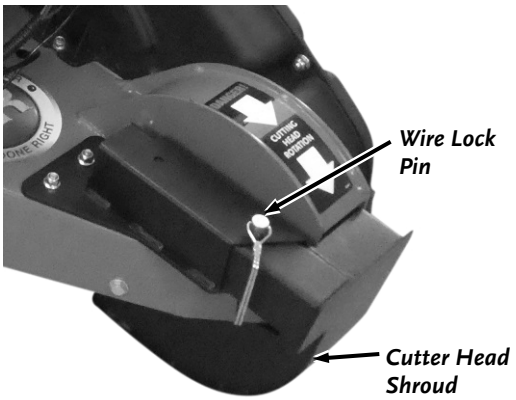


Figure 28

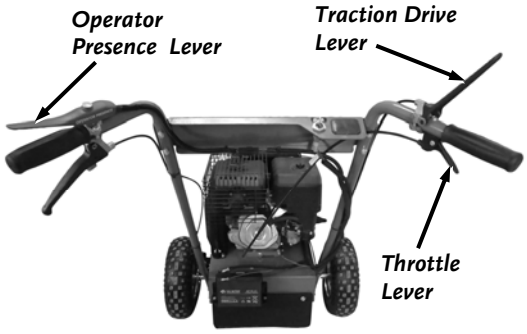


Figure 29

The Cutter Head will begin spinning when the Engine speed reaches the Clutch engagement RPM. The Cutter Head Shroud will protect against contacting Rocks, Ground, Ramps, and Trailer Decks while using the Self Propel feature. Remove the Cutter Head Shroud before attempting to grind Stumps.

1. Slide the Cutter Head Shroud into the Tow Bar Adapter (***Figure 28***). Secure with the 3/8" X 3" Wire Lock Pin.
2. Start the Stump Grinder as directed in the "Starting the Engine" section on the previous page.
3. Press the Traction Drive Lever to the Handlebars and Slowly press the Throttle Lever to move the machine forward (***Figure 29***). The more you press the Throttle Lever to the Handlebar, the faster the machine will travel.
4. Stop the machine by releasing the Throttle Lever and the Traction Drive Lever.

Grinding Stumps

These grinding instructions are basic guidelines. Try different techniques in direction and depth of cut to determine what works best for your situation.

⚠ WARNING

Read and understand the warnings listed in "Chapter 2 General Safety Rules" before operating this PRO XL-SP STUMP GRINDER.

1. Start the Engine as described in the "Starting the Engine" section on page 13.
2. Allow engine to warm up at idle for a few minutes.
3. Move the PRO XL-SP STUMP GRINDER into position with the Cutter Head at the right side of the stump on the edge closest to you (not touching) near the top edge (***Figure 30***).
4. Lock the Hand Brake by pulling the Brake Lever, sliding the Lock forward, and releasing the Lever.

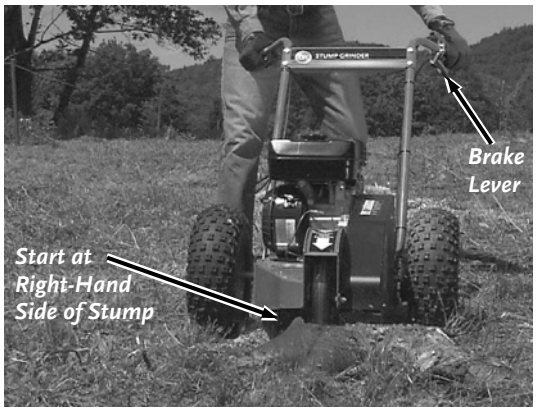


Figure 30

NOTICE

Always make sure the Teeth are not in contact with anything before operating the Throttle Lever. The Clutch will be damaged if the teeth are not free to turn as you start to press the Throttle.

5. Fully Squeeze the Throttle Lever on the right side Handlebar (this will engage the Cutter Head Rotation). Let the Cutter Head come up to speed.
6. Lower the Cutter Head approximately 1/2" to 1" into the front-top corner of the stump and slowly swing the Cutter Head to the left into the stump by pushing on the right hand handlebar (***Figure 31***). When you are finished with the first pass through the Stump, swing the Cutter Head back to the starting position on the right side. Lower the Cutter Head approximately 1/2" to 1" and slowly swing the Cutter Head to the left through the Stump. Continue this process until you have removed the front portion of the stump to ground level.

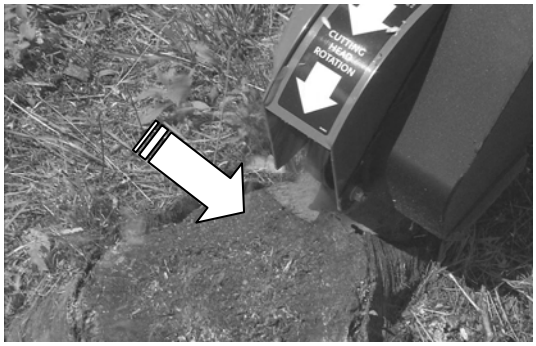


Figure 31

NOTICE

If the Engine bogs down, lift the Cutting Head away from the stump to allow the Cutting Head to come back up to speed before further cutting.

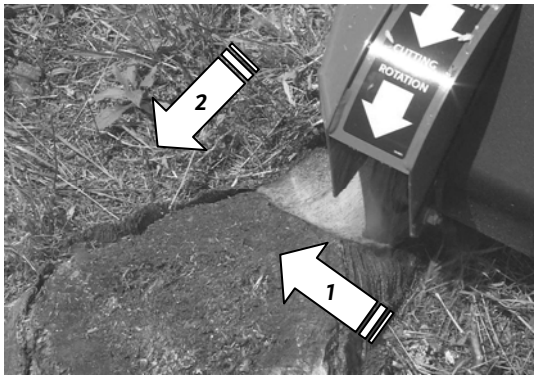


Figure 32

7. Swing the Cutter Head over to the right side (***Figure 32*** arrow #1), advance the machine forward (arrow #2) by releasing and resetting the brake. The machine should only be advanced far enough to engage the Cutter Head into the stump so that when swept across the stump it will remove 1/2" to 1" of stump with each sweep.
8. Sweep the Cutter Head across the stump, cutting away 1/2" to 1" of stump.
9. Continue cutting and advancing until the top level of stump is all removed, making sure not to cut the stump deeper than ground level during this first stage.
10. Release the Throttle Lever and then the Operator Presence Lever to stop the Engine and wait ten seconds for Cutter Head to stop rotating.
11. Release the Brake so you can pull the machine away from the stump and remove the chips/debris and any dirt away from the stump.
12. Repeat steps 1 through 11 until the stump is removed to the desired depth.

Chapter 4: Maintaining The DR PRO XL-SP STUMP GRINDER

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, wait five (5) minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug. Disconnect the Battery Terminals (Electric start only).

Regular Maintenance Checklist

PROCEDURE	BEFORE EACH USE	EVERY 25 HOURS	EVERY 100 HOURS
Check Engine Oil Level	▲		
Check General Equipment Condition	▲		
Check Cutting Teeth (are they dull or damaged), replace as needed	▲		
Clean Engine Exterior & Cooling Fins	▲		
Remove debris wrapped around Cutter Head for Bearing protection.	▲		
Check Tire Pressure		▲	
Replace Belts if stretched or worn		▲	
Clean Air Filter		▲	
Lubricate Cables (SAE 30 Oil)		▲	
Change Engine Oil	1st time 5 hours	▲	
Replace Spark Plug			▲
Replace Air Filter			▲

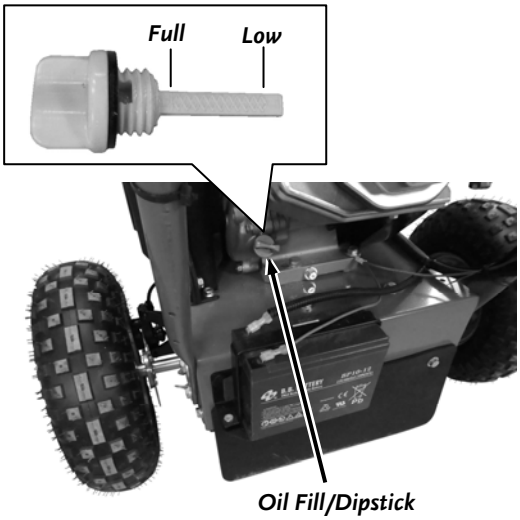


Figure 33

Removing and Replacing the Engine Oil

Tools and Supplies Needed:

- Oil Extractor (contact us at DRpower.com to purchase from our website)
- Clean Rags
- Small funnel
- Engine Oil (see your Engine Manual for Oil specifications)

NOTICE

The Frame and Engine must be level to get an accurate reading when adjusting the oil level. Use blocks to adjust the height of the cutting head to level the Frame.

1. Position the machine so the Frame and Engine are level.
2. Remove the Oil Fill/Dipstick (***Figure 33***).

3. Insert the Hose of the Oil Extractor and remove the Oil as described in the Extractor instructions.

NOTICE

- Fill the Oil reservoir slowly, checking the level frequently to avoid overfilling.
- To get an accurate reading when checking the oil level:
  - The Engine must be level.
  - The dipstick should not be screwed down to ensure an accurate oil level reading.

4. Initially add 16 oz. of oil (type of oil recommended by the Engine Manufacturer) into the Oil Fill using a Funnel and wait one minute for the oil to settle.
5. Check the Dipstick (see Notice above) 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.
6. Replace the Oil Fill/Dipstick when finished.

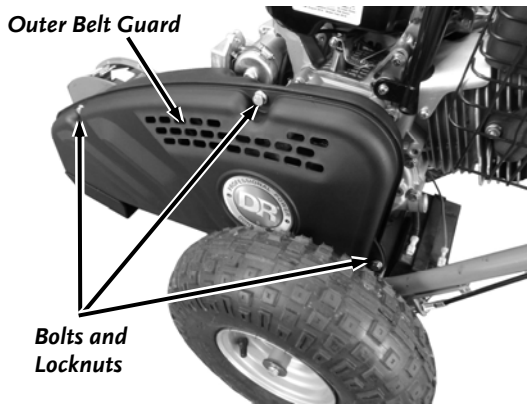


Figure 34

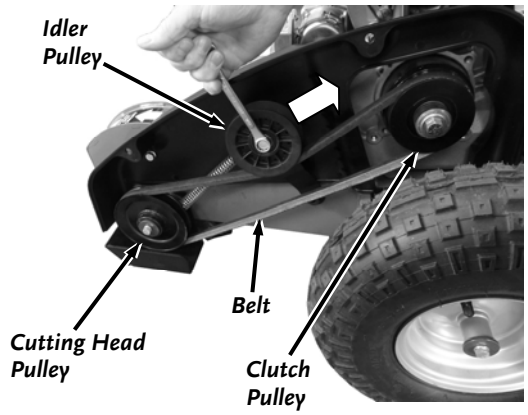


Figure 35

Replacing the Cutter Head Belt

Tools and Supplies needed:

- Two 1/2" Wrenches
- 9/16" Wrench
- New DR Cutter Head Belt (#36563)
- Gloves

1. Remove the three Bolts and Locknuts from the Belt Guards with two 1/2" Wrenches and remove the outer Belt Guard (***Figure 34***).
2. You should wear Gloves as you position a 9/16" Wrench onto the Idler Pulley Bolt and in line with the Pulley Bracket (***Figure 35***). Pull the Wrench to rotate the Belt Tensioner away from the Belt and then remove the Belt by rotating the Cutting Head to roll the Belt over the top of the Pulley.
3. Reverse the previous steps to install the new Belt and reinstall the Belt Guard.

Note: *When installing the Belt, place the Belt around the Clutch Pulley and into the Idler Pulley. Start the Belt over the top of the Cutting Head Pulley as you rotate the Cutting Head to roll the Belt onto the Pulley.*

Replacing the Traction Drive Belt

Tools and Supplies needed:

- 1/2" Wrench
- New DR Drive Belt (#39221)
- Gloves

Note: *If the Cutter Head Shroud is installed, it must be removed to perform the following steps.*

1. Tilt the machine back only enough to access the Drive Belt Guard (***Figure 36***).
2. Remove the four Bolts and Flat washers that secure the Drive Belt Guard to the Frame using a 1/2" Wrench. Remove the Drive Belt Guard.

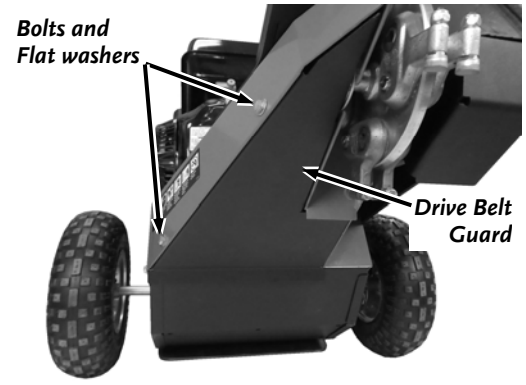


Figure 36

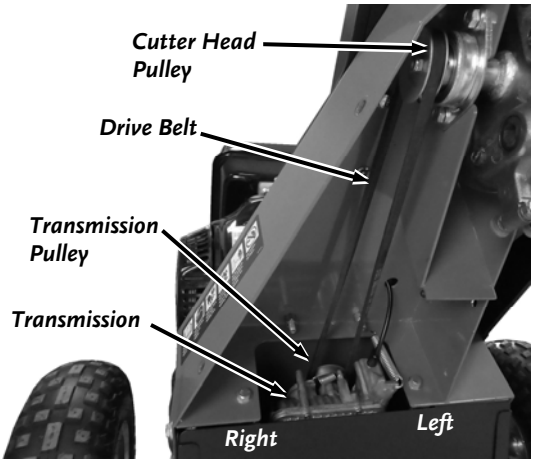


Figure 37

Note: *Pay close attention the routing of the Belt before you remove it so you will reinstall it correctly (**Figure 37**).*

3. Rotate the Transmission forward and remove the Belt from the Transmission and Cutter Head Pulley.

Note: *The left and right sides mentioned in the next step (and in Figure 37) refer to the operating position when you standing at the Handlebars.*

4. Install the new Belt around the Transmission Pulley and then around the Cutter Head Pulley. The Belt goes from the left side of the Transmission Pulley to the to the bottom of the Cutter Head Pulley and the right side of the Transmission to the top of the Cutter Head Pulley.
5. Reinstall the Drive Belt Guard and lower the machine.

⚠ WARNING

Pay close attention how the Belt is routed. If you install it wrong, the machine will move in reverse when the Traction Drive Lever is activated and cause damage to the machine or cause personal injury.

Replacing the Wheels

Tools and Supplies needed:

- 1/2" Wrench
- Jack Stand or Block of Wood

1. With the PRO XL-SP STUMP GRINDER on the ground, remove the Bolt, Lock Washer and Large Flat Washer from the Axle with a 1/2" Wrench (***Figure 38***).
2. Block the PRO XL-SP STUMP GRINDER up so the Wheels are off the ground and remove the Wheel.

Note: *There is a Shim on the Axle on the inside of each Wheel (make sure the Shims are in place when installing the Wheel). Both Wheels have a Keyway with Keys (ensure the Key is installed in the Keyway when installing the Wheel).*

3. Reinstall the Wheel **with the Valve Stem facing in** and secure with the Bolt, Lock Washer and large Flat Washer using a 1/2" Wrench.

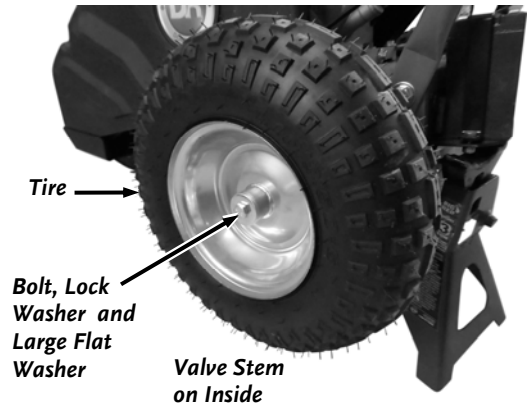


Figure 38

Rotating the Teeth (from dull to sharp edge)

Tools and Supplies needed:

- 1/2" Wrench
- Dead Blow Hammer
- Gloves

⚠ CAUTION

Wear Gloves when working near the teeth. Without Gloves your hands may get cut from the sharp edges.

1. Block the front end of the PRO XL-SP STUMP GRINDER so the Cutter Head is just off the ground.

Note: *It may help to mark the "Dull" cutting edge prior to rotating the Teeth so you can be sure you have rotated to an unused cutting edge.*

2. Loosen the Locknut on the Tooth until the top of the Locknut is flush with the top of the Tooth threads (***Figure 39***).
3. Lightly tap on the top of the Locknut with a Dead-blow Hammer so the Tooth will drop down away from the Tooth Mount (***Figure 40***).
4. Rotate the Tooth until the next flat area on the side of the Tooth is aligned with the flat area of the Mount (***Figure 41***).
5. After the tooth has been turned to the desired position push the Tooth up into the Mount and tighten the Locknut. There are no torque specification needed for the Locknut, but make sure you tighten them firmly.
6. Repeat steps 2-5 for the remaining Teeth as needed.

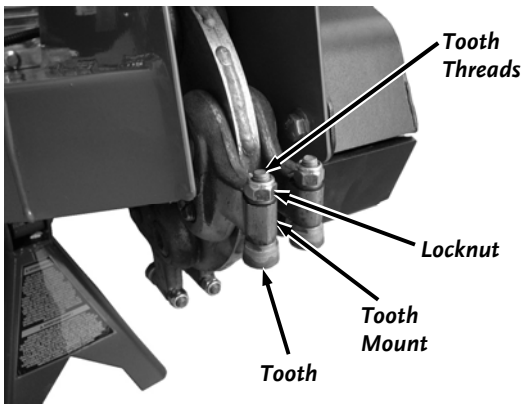


Figure 39

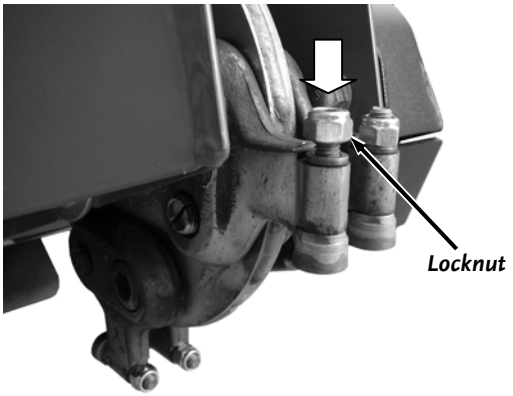


Figure 40

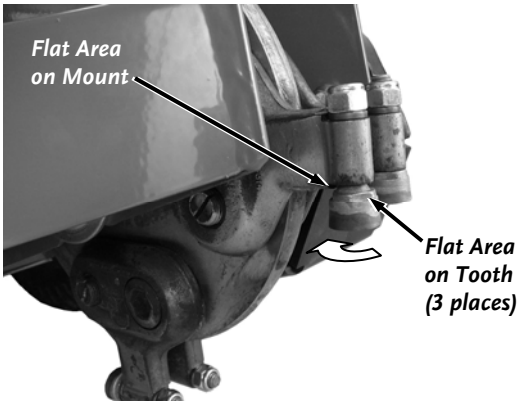


Figure 41

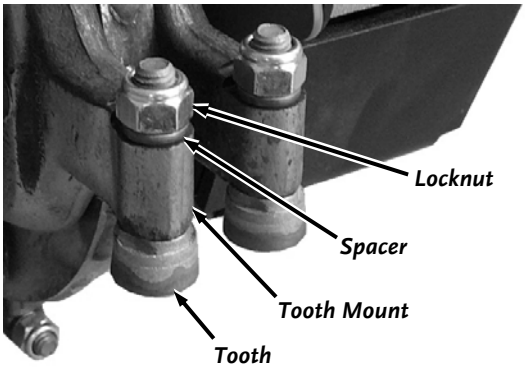


Figure 42

Replacing the Cutting Teeth

Tools and Supplies needed:

- 1/2" Wrench
- 1/2" Socket
- Torque Wrench
- Dead Blow Hammer
- Gloves

⚠ CAUTION

Wear Gloves when working near the teeth. Without Gloves your hands may get cut from the sharp edges.

1. Block the front end of the PRO XL-SP STUMP GRINDER so the Cutter Head is just off the ground.

NOTICE

Only tip the machine back enough to lift the Cutter Head off the ground. Never tip the machine back on the Handlebars. Oil will get into the muffler if the machine is tipped completely back and could damage the engine.

2. Remove the Locknut from the tooth threads (***Figure 42***).
3. Lightly tap on the top of the Tooth Threads with a Dead-blow Hammer to remove the Tooth from the Tooth Mount.

Note: *In the next step make sure that the flat spot on the mount and one of the flat spots on the Tooth are aligned properly before tightening the Tooth hardware. Ensure that the Spacer Stays in position at the Locknut end of the Tooth.*

4. Insert a new Tooth into the Mount and hold it up into position in the Mount as you secure with a new Locknut. Torque the Locknut to 20 ft. lbs.
5. Repeat steps 2 through 4 for the remaining Teeth as needed.

⚠ CAUTION

- Check the wear of the Head Assembly each time the Teeth are replaced. Replace the Head Assembly if it is damaged or worn. Ensure that all parts are secure and tight. Large Allen Head Bolts should be at 180 ft. lbs. torque.
- Be sure to use the new Locknuts provided with the replacement teeth.
- Failure to replace the Head Assembly when damaged or worn may result in Cutting Teeth coming loose and damaging the machine.
- The Locknuts should be snug, but do not over tighten.

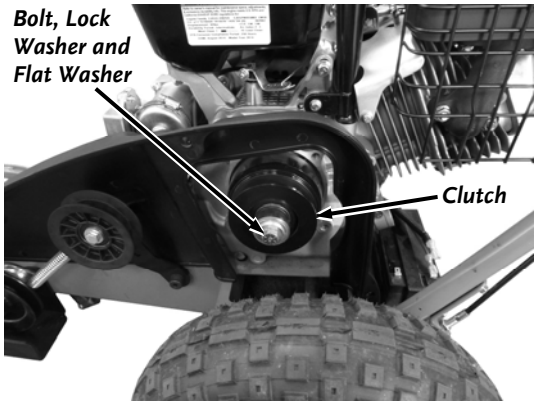


Figure 43

Replacing the Clutch

Tools and Supplies needed:

- 1/2" Wrench (Premier)
- 5/8" Wrench (Pro and Pro-XL)
- Never Seize type Grease
- Dead Blow Hammer

1. Remove the outer Belt Guard and Belt as described in "Replacing the Cutter Head Belt" on page 17.
2. Place a 1/2" Wrench onto the Clutch Bolt and rotate the Wrench counterclockwise until you feel some resistance (***Figure 43***).

3. Hit the Wrench sharply with a Dead Blow Hammer to start the Bolt turning on the Engine Shaft.
4. Remove the Bolt, large Flat Washer, Spacer, Clutch and Key from the Engine Shaft.
5. Apply a never seize type grease to the Engine Shaft and install the new Clutch and Key. Install the Spacer and secure with the Bolt and large Flat Washer using a 1/2" Wrench.

Lubricate Cables

Supplies needed:

- SAE 30 Oil

1. Lubricate the upper ends of the Throttle and Brake Cables with SAE 30 Oil where the cable goes into the sheathing.
2. Work the Cable Levers to work the Oil in between the Cable and Sheathing.

Adjusting the Handlebars

Tools & Supplies Needed:

- 1/2" Wrench
- Two 9/16" Wrenches
- Blocks

1. Remove the four Bolts and Flat Washers that secure the Chain Drive Guard to the Frame using a 1/2" Wrench (***Figure 44***). Remove the Guard from the frame.
2. Support the Handlebar as you remove the lower Bolts, Flat Washers and Locknuts from the Handlebars using two 9/16" Wrenches (***Figure 45***).
3. Loosen the upper Handlebar Bolts using two 9/16" Wrenches.
4. Rotate the Handlebar to align with the hole in the Frame to set the height.
5. Install the lower Bolts, Flat Washers and Locknuts and tighten.
6. Tighten the upper Bolts.
7. Install the Chain Drive Guard.

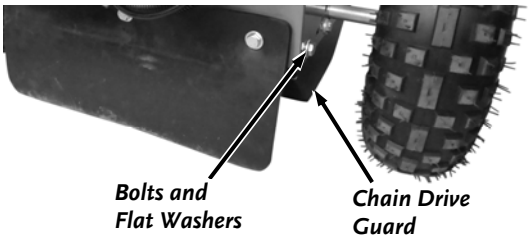


Figure 44

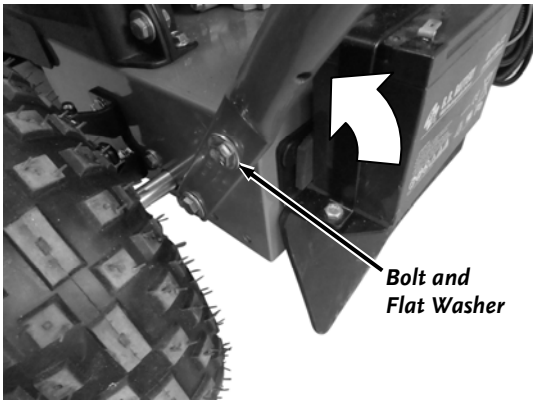


Figure 45

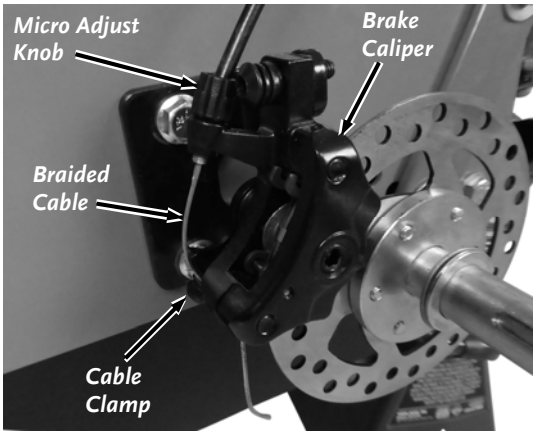


Figure 46

Adjusting the Left Wheel Brake

On the Brake Caliper there is a Micro Adjust Knob (***Figure 46***). For most adjustments this knob can be unscrewed to tighten the cable.

Once the Micro Adjust Knob is close to the end of its thread travel, it is recommended to do a full adjustment of the Cable, Brake Pads, and Caliper alignment as described below.

Note: *It is recommended that the wheel be removed before performing a full adjustment.*

Cable Adjustment

Tool needed:

- 5.5mm Allen Wrench

1. Screw the Micro Adjust Knob all the way into the caliper.
2. Using the 5.5mm Allen Wrench, loosen the Cable Clamp.
3. Pull the Braided Cable further into the Clamp to remove slack in the Cable.
4. While holding tension on the cable, retighten the Cable Clamp with the 5.5mm Allen wrench.

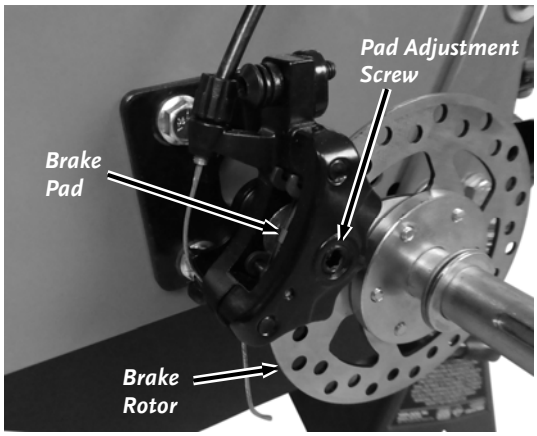


Figure 47

Adjusting the Brake Pads

Tools needed:

- 5.5mm Allen Wrench

Note: Brake Pads may need adjustment after the pads wear significantly

1. Tighten the Pad Adjustment Screw using the 5.5mm Allen wrench until just before the Brake Pad touches the Brake Rotor ***(Figure 47***).

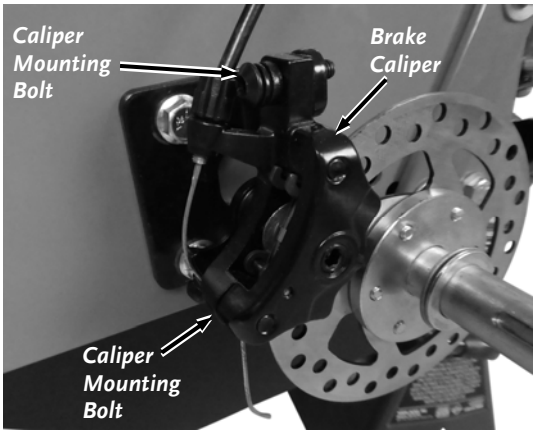


Figure 48

Adjusting the Caliper Alignment

Tools needed:

- 5.5mm Allen Wrench

Note: Caliper Alignment should only be done after the Brake Pads have been adjusted

1. Using the 5.5mm Allen Wrench, loosen the Caliper Mounting Bolts one turn ***(Figure 48***).
2. While manually Squeezing the caliper closed onto the Brake Rotor, Retighten the Caliper mounting Bolts.

Battery Care

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

- Do not allow the Battery charge to get too low. If the machine is not used, charge the Battery every 4 – 6 weeks. Operate the engine for at least 45 minutes to maintain proper Battery charge.
- Store an unused Battery in a dry environment with temperatures between +40°F (+5°C) and +95°F (+35°C). Make sure the storage temperatures will never be outside of these limits. The lower the storage temperature is within the specified temperature, the better, as the battery will discharge more slowly at low temperatures.
- Do not charge an already charged Battery. In theory, you cannot overcharge our Battery with a trickle charger; however, when a Battery is fully charged and the charger is still on, it generates heat that could be harmful to the Battery. A fully charged Battery will read 12V-13.2V with a voltmeter.
- Do not continue to crank your Engine when the Battery charge is low.

Charging the Battery

NOTICE

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

Operate the 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 DC at no more than 2 amps.

- At 1 amp the Battery may need to be charged for as long as 48 hours.
- At 2 amps, the Battery may need to be charged for as long as 24 hours.

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

To connect a Battery Charger to your DR PRO XL-SP STUMP GRINDER, follow the steps listed below.

1. Attach the Black (-) alligator clipped wire from the Charger Adapter to the Negative (-) terminal of the Battery, then attach the Red (+) alligator clipped wire to the Positive (+) Battery terminal.
2. Plug the Charger into a standard wall outlet.
    - Typically, the Battery takes between 6 and 8 hours to fully charge. Do not leave the charger on the battery longer than 24 hours for a 2 amp charger or 48 hours for a 1 amp charger as you could potentially damage the battery.
    - 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 PRO XL-SP STUMP GRINDER.
    - If the Battery does not hold its charge for very long under normal conditions or it simply won't hold a charge, then replace it. You can purchase replacement Batteries directly from us. To install your new Battery, follow the directions on the next page.

Replacing the Battery

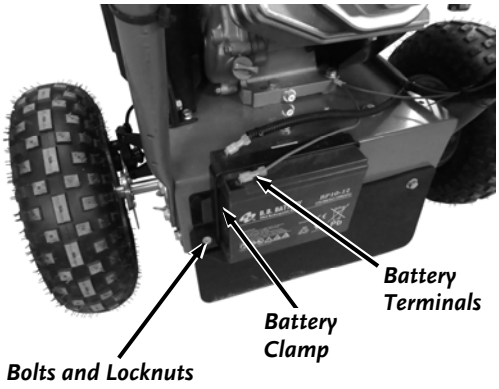


Figure 49

Tools Needed:

- Two 7/16" Wrenches

1. Disconnect the Battery Terminals (***Figure 49***).
2. Remove the Bolts and Locknuts that secure the Battery Clamp using two 7/16" Wrenches.
3. Remove the Clamp and the dead Battery.
4. Install the new Battery.
5. Install the Battery Clamp and secure with the Bolts and Locknuts using two 7/16" Wrenches.
6. Attach the Battery Terminals. Black Wire to negative black Terminal and Red Wire to positive red Terminal.

Disposing of the Battery Responsibly

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

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

Recycling a Used Battery

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

You can also visit the Web site of Earth 911 for more information [www.earth911.org].

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

INMETCO
One INMETCO Drive
Ellwood City, PA 16117
(724) 758-2800; fax (724) 758-2845

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

Chapter 5: Troubleshooting

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

⚠ WARNING

Set the Wheel Brake, shut down the engine, remove the spark plug wire and wait five minutes before performing any maintenance procedure or inspection on the PRO XL-SP STUMP GRINDER.

Troubleshooting Table

SYMPTOM	POSSIBLE CAUSE
Recoil will not pull out or is difficult to pull.	⇒ 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. ⇒ Check the Engine oil level; the Engine may be seized. ⇒ The Recoil may be broken or jammed. Visit our website at www.DRpower.com.
The Engine will not start. *(Please refer to the Engine Owner's Manual for Engine-specific procedures.)*	⇒ Make sure the Operator Presence Lever is held down and that the Ignition Switch is in the RUN position (Manual Start), or the Key is inserted into the Key switch and rotated to the right (Electric Start). ⇒ Check the oil and gas level. ⇒ Make sure that the Fuel Shut-Off is in the ON position. ⇒ Check that the Spark Plug Wire is attached. ⇒ The Air Filter may be dirty; change it following the procedure in the Engine Owner's Manual. ⇒ The gas may be old; change it if necessary. Use a fuel stabilizer if you keep gas longer than one month. ⇒ Check the Throttle and Choke settings, adjustment and travel. ⇒ The Spark Plug may be dirty or cracked; change it if necessary. If it's oily, leave it out, hold a rag over the Plug Hole and pull the Recoil Cord several times to blow out any oil in the Cylinder, then wipe off the Plug and reinsert it. ⇒ Check the wire connections—especially the ground connections to the Engine and the Starter connections. Check to be sure that all of the connections are clean and tight. ⇒ 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 your machine for at least 45 minutes at a time, the Battery may need to be periodically charged. See the "Battery Care" section in Chapter 4. ⇒ If your Engine still won't start, visit our website at www.DRpower.com.
The Engine lacks power or is not running smoothly. *(Please refer to the Engine Owner's Manual for engine-specific procedures.)*	⇒ Make sure the Choke Lever is all the way off. ⇒ 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 necessary. ⇒ The gas may be old; change it if necessary. Use a fuel stabilizer if you keep gas longer than one month. ⇒ The Engine oil may be dirty. Change it if necessary. ⇒ Check that the Cooling Fins are clean and free of debris. Clean as needed. ⇒ If your Engine still lacks power, visit our website at www.DRpower.com.

Troubleshooting Table (Continued)

⚠ WARNING

Set the Wheel Brake, shut down the engine, remove the spark plug wire and wait 5 minutes before performing any maintenance procedure or inspection on the PRO XL-SP STUMP GRINDER.

SYMPTOM	POSSIBLE CAUSE
Engine smokes.	⇒ Check the oil level and adjust as needed. ⇒ Clean the Engine cooling fins and the carburetor housing if they are dirty. ⇒ The Air Filter may be dirty; change it following the procedure in the Engine Owner's Manual. ⇒ You may be using the wrong oil. Refer to your Engine Owner's Manual for detailed information. ⇒ If the Engine still smokes, visit our website at www.DRpower.com.
The Engine runs well but the Cutting Head won't move.	⇒ The Throttle should be fully pressed to engage Clutch. ⇒ The Cutter Head Drive Belt is off the pulleys or broken. Reinstall or change Belt (refer to "Chapter 4: Maintaining the DR PRO XL-SP STUMP GRINDER"). ⇒ Confirm there is nothing wedged/wrapped around cutter head or Pulleys. ⇒ Confirm the throttle is moving on the engine. ⇒ Confirm that Belt has not stretched to a point that it is slipping off the Pulleys. ⇒ Clutch is not working. Change Clutch (refer to "Chapter 4: Maintaining the DR PRO XL-SP STUMP GRINDER").
The Engine does not fully return to low idle when the throttle is released.	⇒ Throttle linkage is sticking. Adjust throttle linkage (refer to "Chapter 4: Maintaining the DR PRO XL-SP STUMP GRINDER")
The Cutting Head is rotating but the cutting action is extremely slow and the stump is showing signs of excessive heat.	⇒ The teeth are dull or damaged. Replace Teeth (refer to "Chapter 4: Maintaining the DR PRO XL-SP STUMP GRINDER").
Cutter Head Belt falls off Pulleys frequently.	⇒ Check Pulleys and Belt for damage. ⇒ Check tightness of Idler Arm Pivot Bolt.
Left-side Wheel turns forward when Brake Lever is locked or machine is difficult to push when Brake Lever is released.	⇒ Brake Cable needs adjusting. Adjust Cable as needed (refer to "Chapter 4: Maintaining the DR PRO XL-SP STUMP GRINDER").

Parts List - HANDLEBAR ASSEMBLY

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

Ref#	Part#	Description
1	39209	Frame, PRO XL-SP STUMP GRINDER
2	11163	Screw, #10 X 1-1/2", Type AB, ZP
3	13443	Bolt, HCS, 5/16-18 X 1-1/2", GR5, ZP
4	11076	Nut, Nylon Lock, 5/16-18, ZP
5	11214	Cable Tie, 7-1/2" Long
6	17923	Screw, SHCS, M6 X 1.0 X 25, Type I
7	24729	Handlebar, Left
8	24730	Handlebar, Right
9	35948	Cross Member, Handlebar
10	18069	Lever, Operator Presence, w/Wire
11	16495	Grip, Ergonomic, 1"
12	26480	Throttle
13	16496	Grip, 1"
14	15131	Plug, Hour Meter Hole, 2" X 1-1/4"
15	37051	Collar, Lever, 1", Threaded
16	11238	Washer, Flat, 1/4"
17	11158	Bolt, HCS, 5/16-18 X 1", ZP
18	11241	Washer, Flat, 5/16" USS, ZP
19	10000030297	Label, Control Panel, Front
20	25709	Label, Safety Icons
21	26488	Label, Head Rotation
22	34141	Label, DR Logo, 5.75" Silver
23	23545	Label, CHP Address, 2.75" X .75"
24	26476	Guard, Debris
25	15043	Bolt, HHCS, 3/8-16 X 1-1/4", GR5
26	11075	Nut, Nylon Lock, 3/8-16, ZP
27	11983	Bolt, HCS, 1/4-20 X 3/4", GR2, ZP
28	11073	Nut, Nylon Lock, 1/4-20, ZP
29	11214	Cable Tie, 7-1/2" L
30	25862	Bracket, Battery
31	24230	Strap, Battery
32	11308	Switch, Key B805 W/Hardware
33	28697	Pad, Battery 2.5" X 6.125"
34	13447	Battery, 12V, 9Ah
35	11237	Washer, Flat, 10-24 USS
36	30297	Lever, Brake, w/o Hardware
37	37052	Lever, Cable, Black, Traction Drive
38	19320	Label, Start Key
39	29379	Tube Clamp, 3/4", Vinyl Coated
40	11811	Key
41	14386	Pad, Battery, 1.38" X 7.0"

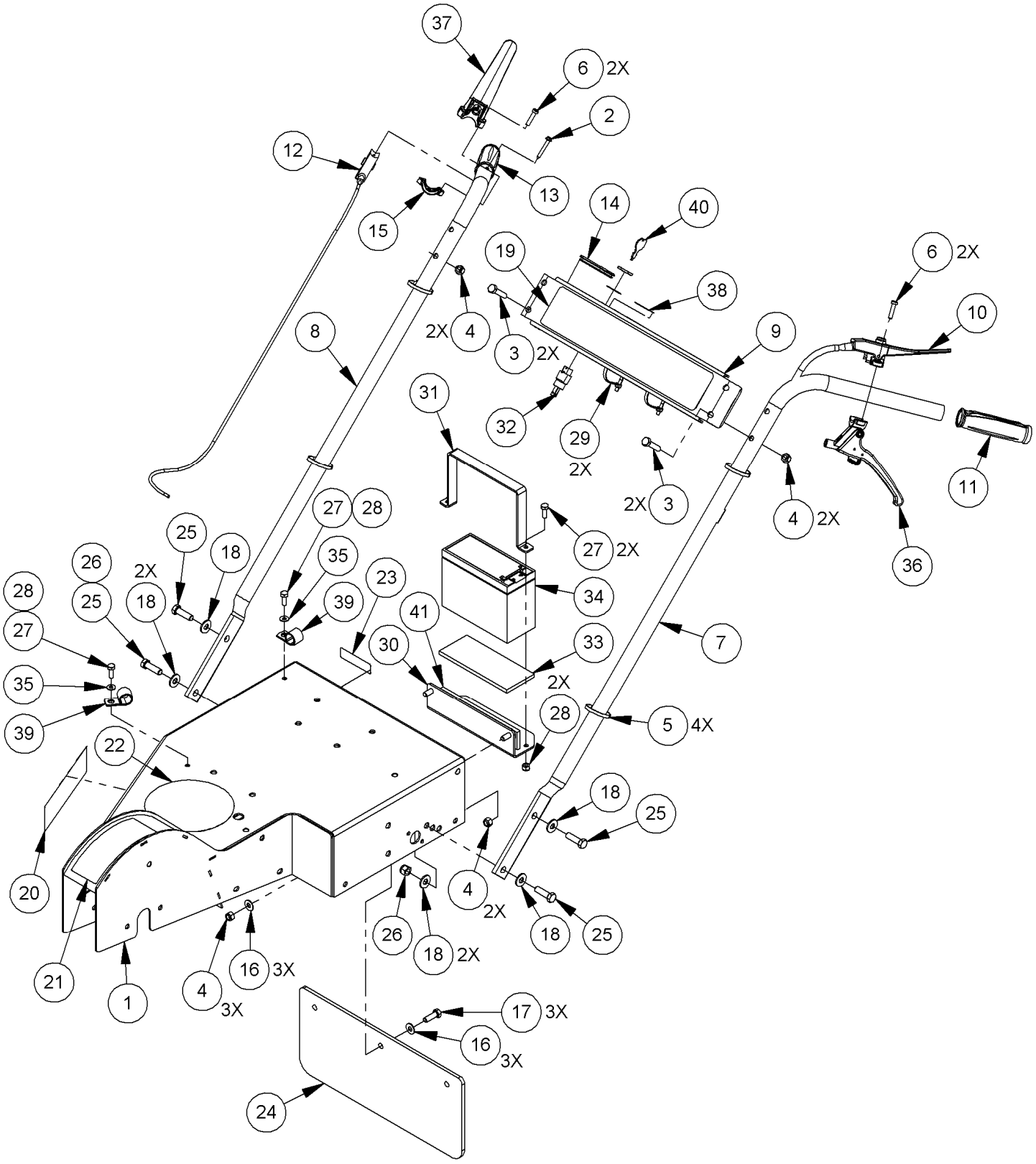
Not Illustrated

	39688	Wiring Harness, PRO XL-SP Stump Grinder

Optional Maintenance Meter Kit:

	21720	Meter, Hour/RPM/Maintenance

Schematic – HANDLEBAR ASSEMBLY



Parts List – HEAD DRIVE ASSEMBLY

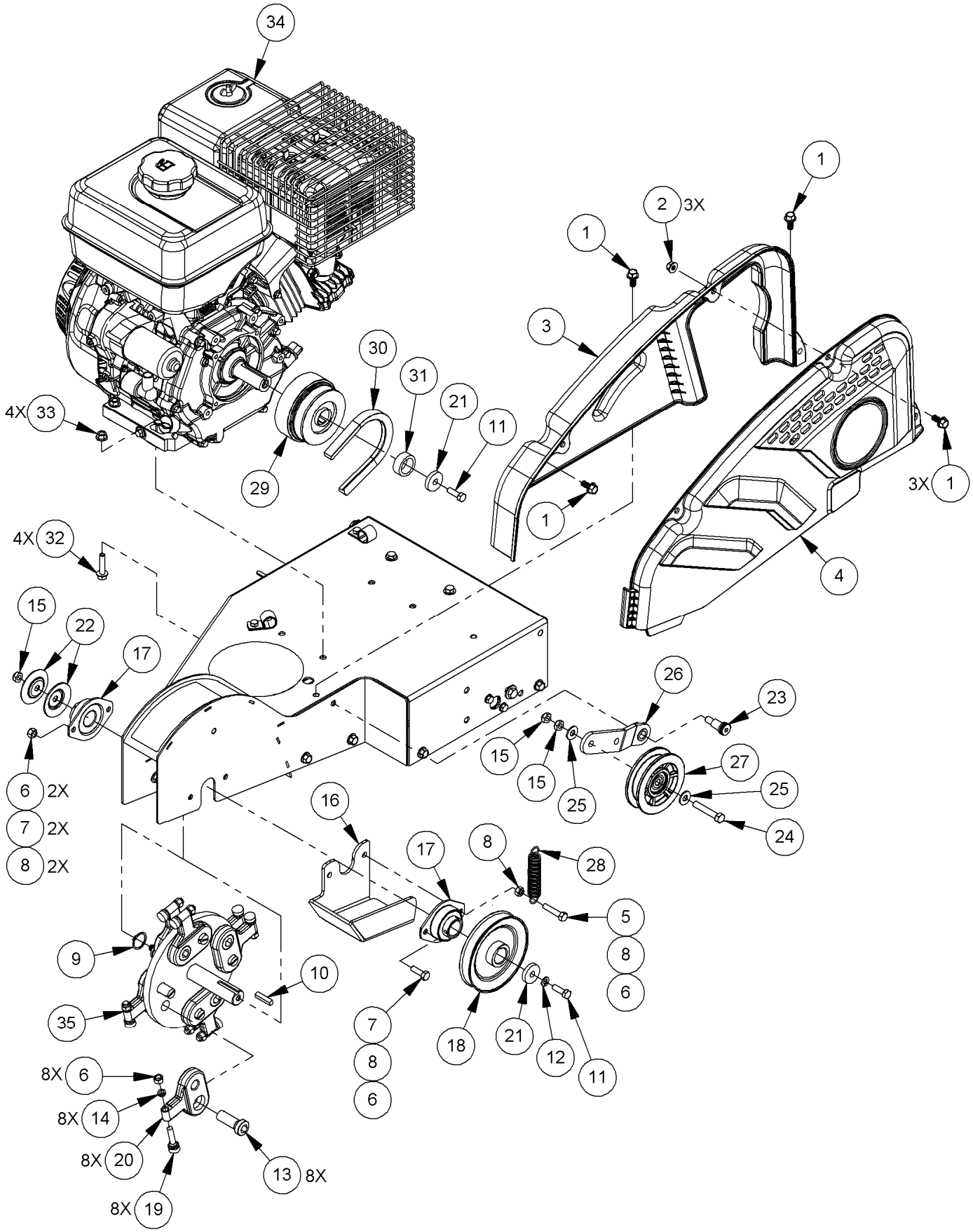
Note: *Part numbers listed are available through DR Power Equipment.*

Ref#	Part#	Description
1	35087	Bolt, HCS, 5/16-18 X .75", GR 5, ZP
2	33332	Nut, Nylon Lock, Flanged, 5/16-18
3	35080	Cover, Belt, Inner
4	35079	Cover, Belt, Outer
5	13443	Bolt, HCS, 5/16-18 X 1-1/2", GR5, ZP
6	11076	Nut, Nylon Lock, 5/16-18, ZP
7	11158	Bolt, HCS, 5/16-18 X 1", ZP
8	11069	Nut, Hex, 5/16-18, GR2, ZP
9	26483	Ring, Retaining, 1" Shaft
10	14229	Key, Square, 1/4" X 1-1/4"
11	17882	Bolt, HCS, 5/16-24 X 1", GR2 ZP
12	11243	Washer, Lock, Split, 5/16"
13	30409	Bolt, Pocket
14	30407	Spacer, Tooth
15	16413	Nut, Nylon Lock, 3/8-16, Low Profile
16	26474	Guard, Pulley
17	25802	Bearing, Stamped Flange, 1" Bore
18	26565	Pulley, 5" Dia., A/B
19	30406	Tooth
20	30408	Pocket, Straight
21	27901	Washer, Flat, .385" X 1.25" X .25", ZP
22	39220	Pulley
23	26535	Bolt, Shoulder, 1/2 X .75l
24	12686	Bolt, HCS, 3/8-16 X 2", GR5 ZP
25	11241	Washer, Flat, 5/16" USS, ZP
26	35072	Arm, Idler Pulley
27	35271	Pulley, Flat, Idler
28	33424	Spring, Idler
29	38961	Clutch, Centrifugal, 1" Bore
30	38963	Belt, BP48, Cutter Head
31	38962	Spacer, Clutch
32	89230	Screw HHFC, M8-1.25 X 35, G8.8
33	67989	Nut, Hex, FL Whiz, M8-1.25
34	39203	Engine, DR, 19.6 FPT, E/S, w/Labels
35	39207	Cutter Head,-Dual Straight, Green Teeth

Not Illustrated

30505	Tooth Kit
13683	Label, Hot Surface
13758	Label, Warning, Check Oil
39226	Cable, Brake

Schematic – HEAD DRIVE ASSEMBLY

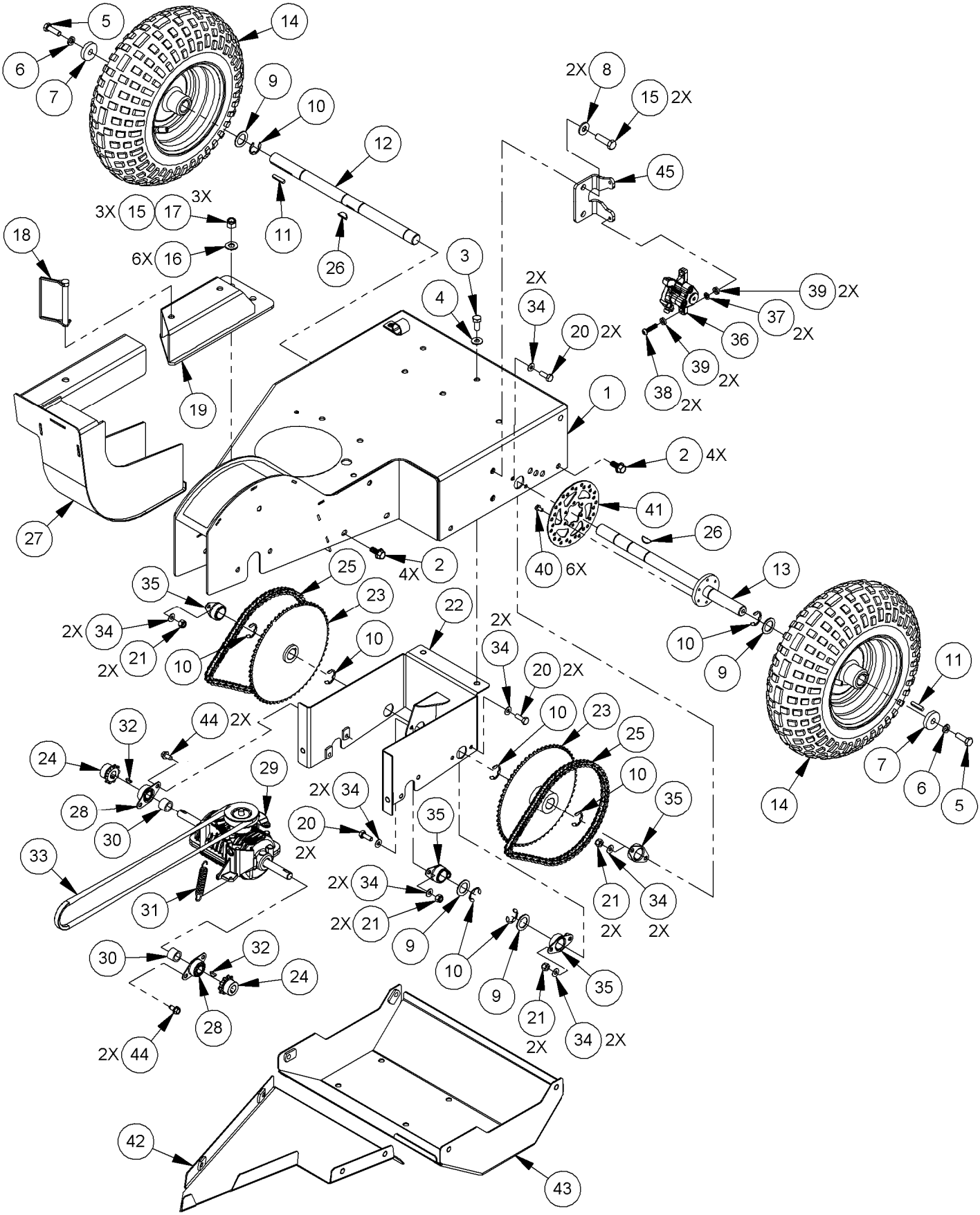


Parts List – SELF PROPEL ASSEMBLY

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

Ref#	Part#	Description
1	39209	Frame, PRO XL-SP STUMP GRINDER, Sp
2	35087	Bolt, HCS, 5/16-18 X .75", GR5, ZP
3	12321	Bolt, HCS, 5/16-18 X 3/4", GR5, ZP
4	11238	Washer, Flat, 1/4"
5	17882	Bolt, HCS, 5/16-24 X 1", GR2 ZP
6	11243	Washer, Lock, Split, 5/16"
7	27901	Washer, Flat, .385" X 1.25" X .25", ZP
8	11241	Washer, Flat, 5/16", USS, ZP
9	12969	Shim, .75" ID, 1.125" OD, .06"L, ZP
10	11126	Ring, Retaining, 3/4" E-Clip
11	24677	Key, Sq, 3/16" X 1"
12	39210	Axle, PRO XL-SP STUMP GRINDER, SP
13	39204	Axle, PRO XL-SP STUMP GRINDER, Left, SP
14	39222	Wheel, 4.10 X 3.50-6, 2 Ply, Gray
15	15043	Bolt, HHCS, 3/8-16 X 1-1/4", GR5
16	12170	Washer, Flat, 3/8", ZP, ANSI Narrow
17	11075	Nut, Nylon Lock, 3/8-16, ZP
18	35075	Pin, Wire Lock, 3/8" X 3"
19	35076	Adapter, Tow Bar
20	11983	Bolt, HCS, 1/4-20 X 3/4", GR2, ZP
21	11073	Nut, Nylon Lock, 1/4-20, ZP
22	39211	Mount, Transmission
23	39212	Sprocket, #35, 60 Tooth, 2 Hub
24	19381	Sprocket, No.35, 10 Tooth
25	39225	Chain, #35, 65 Link & Master
26	10640	Key, Woodruff, 3/16" X 3/4"
27	39215	Shroud, Cutter Head
28	17955	Bearing w/Flange
29	39205	Transmission
30	39218	Collar, Spacer
31	39227	Spring, Transmission
32	21318	Key, Woodruff, 1/8" X 1/2"
33	39221	Belt, Drive, 3L X 39
34	11237	Washer, Flat, 10-24, USS
35	26477	Bushing, Flange, .75" ID
36	34446	Caliper, Mechanical Disc, with Pads
37	36358	Washer, Alignment, Male, M6
38	36360	Bolt, Alignment, M6-1 X 25, w/ Locking Patch
39	36359	Washer, Alignment, Female, M6
40	15512	Screw, HWH, 10-32 X 3/8", Type F, ZP
41	39216	Rotor, 120mm
42	39229	Guard, Drive Belt
43	39230	Guard, Chain Drive
44	17912	Screw, 1/4-20 X .500", Tri-Lobe
45	39213	Mount, Brake

Parts Schematic – SELF PROPEL ASSEMBLY



Notes:

DR® PRO XL-SP STUMP GRINDER

2-Year Limited Warranty

Terms and Conditions

The **DR®** PRO XL-SP STUMP GRINDER 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®** PRO XL-SP STUMP GRINDER 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®** PRO XL-SP STUMP GRINDER 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 Traction Drive Belt, Cutter Head Belt, Air Filter, Spark Plug, Cutting Teeth and Wheels. 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®** PRO XL-SP STUMP GRINDER.

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

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

Daily Checklist for the DR PRO XL-SP STUMP GRINDER

To help maintain your DR PRO XL-SP STUMP GRINDER for optimum performance, we recommend you follow this checklist each time you use your PRO XL-SP STUMP GRINDER.

⚠ WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five (5) minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

[ ] Check the engine oil and Gas Tank level.
[ ] Check that Engine is clean of debris.
[ ] Check the general condition of the PRO XL-SP STUMP GRINDER, e.g.; nuts, bolts, welds, etc.
[ ] Check Cutter Head Belt for wear and/or stretching.
[ ] Check Tire Pressure and wear.
[ ] Check the Teeth for wear and damage.
[ ] Check the Frame for wear and damage.
[ ] Check the Debris Guard for wear and damage.
[ ] Remove any debris wrapped around the Cutter Head for Bearing protection.

End of Season and Storage

⚠ WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five (5) minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

- Change the engine oil.
- Clean or replace the Air Filter.
- Check the teeth for wear and damage.
- Remove any debris wrapped around the Cutter Head
- If your DR PRO XL-SP STUMP GRINDER 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.
- Clean the exterior of the unit to remove all dirt, grease, and any other foreign material. To prevent rust, touch up painted surfaces that have been scratched or chipped.
- Be sure all nuts, bolts, and screws are securely fastened.
- Inspect moving parts and the Drive Belt for damage and wear; replace if necessary.
- Remove the Spark Plug(s) and pour about 1 ounce of motor oil into the Cylinder hole. Replace the Plug(s) and crank the Engine over a couple of times using the Pull Cord, or the Electric Starter (for Electric Start Machines). This will coat the piston and seat the valves to prevent moisture buildup.
- If possible, store the PRO XL-SP STUMP GRINDER in a dry, protected place. If it is necessary to store the PRO XL-SP STUMP GRINDER outside, cover it with a protective material (especially the Engine). For Electric Start Model, store the machine in a dry environment with temperatures between +40 degrees F (5C) and +95 degrees F (+35C). Make sure the storage temperatures will never be outside of these limits. The lower the storage temperature is within the specified temperature, the better as the battery will discharge more slowly at low temperatures. If it is necessary to store the PRO XL-SP STUMP GRINDER outside make sure to disconnect the battery and store it in an environment as listed above. Make sure the disconnected battery terminals are not resting on any surface that may be prone to collecting water, snow or any other liquid as this may cause damage to the terminals and to the battery when reconnected.

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