

DR[®] PRO XL-DRT (Dual Rotating Tine Rototiller)

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-DRT.

Table of Contents

Chapter 1: General Safety Rules..... 4

Chapter 2: Setting Up The DR® PRO XL-DRT 10

Chapter 3: Operating The DR® PRO XL-DRT 15

Chapter 4: Maintaining The DR® PRO XL-DRT..... 21

Chapter 5: Storing The DR® PRO XL-DRT..... 24

Chapter 6: Troubleshooting The DR® PRO XL-DRT 25

Chapter 7: Parts Lists and Schematic Diagrams DR® PRO XL-DRT 28

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.

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 (see 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.

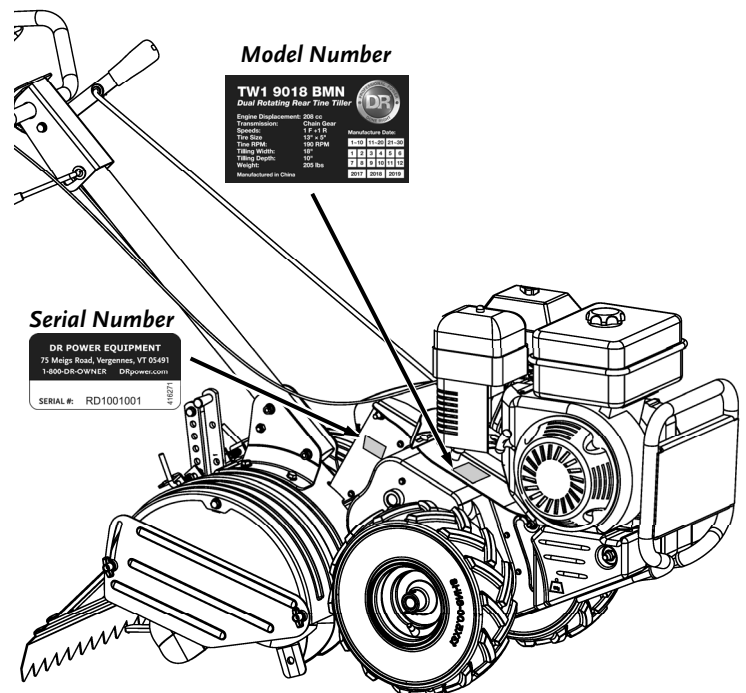


Figure 1

Chapter 1: General Safety Rules

WARNING

Read this safety & operating Instructions manual before you use the DR® PRO XL-DRT. 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.

Engine Manual

The Engine Manufacturer is responsible for all engine related issues regarding performance, power rating, specifications, warranty and service. Please refer to the Engine Manufacturer's owner/operator's manual, packed separately with your unit, for more information.

Emission Control System

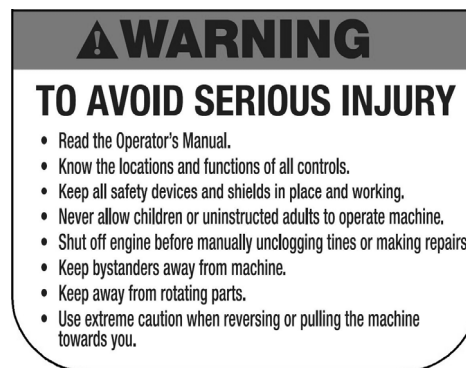
This equipment or its engine may include exhaust and evaporative emission control system components required to meet U.S. Environmental Protection Agency (EPA) and/or California Air Resources Board (CARB) regulations. Tampering with emission controls and components by unauthorized personnel may result in severe fines or penalties. Emission controls and components can only be adjusted by an authorized engine manufacturer's service center.

Labels

Your DR® PRO XL-DRT 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 DR® PRO XL-DRT as you set up and before you operate the unit. Replace damaged or missing safety and information labels immediately.



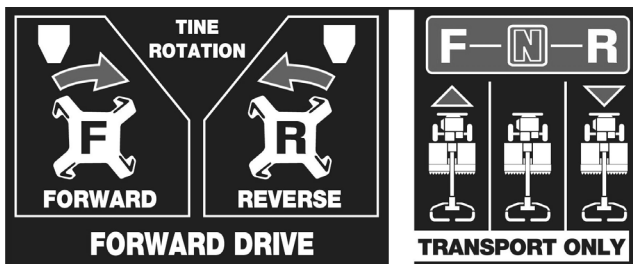
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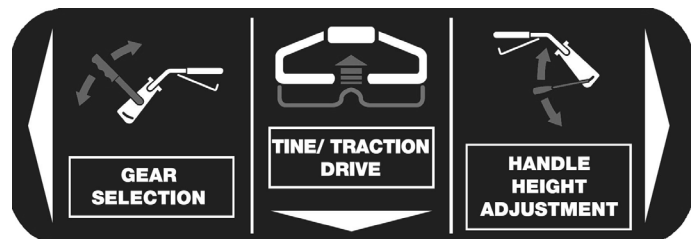
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Protecting Yourself and Those Around You

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:

- Dress properly when using your DR[®] PRO XL-DRT
 - Wear long, heavy pants, work boots, and work gloves.
 - Do not wear loose clothing, short pants, or jewelry of any kind.
 - Secure long hair so it is above shoulder level.
 - Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
 - If you have safety shoes, we recommend wearing them.
 - Do not use the machine while barefoot or wearing open sandals.
 - Protect eyes, face, and head from objects that may be thrown from the unit.
 - Always wear safety goggles or safety glasses with side shields when operating.
 - 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[®] PRO XL-DRT. 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[®] PRO XL-DRT.
 - Do not operate the machine while under the influence of drugs, alcohol, or any medication that could affect your ability to use it properly.
 - 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[®] PRO XL-DRT. This includes all shields and guards. Modifications to your machine could cause personal injuries and will void your warranty.
-

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 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[®] PRO XL-DRT 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[®] PRO XL-DRT.

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 them 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. Never operate the DR[®] PRO XL-DRT without the fuel cap securely in place.
- Never overfill the fuel tank. Because engine heat can cause fuel to expand, never fill the tank to more than 1/2" below the bottom of the filler neck. This will provide space for fuel expansion.
- 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[®] PRO XL-DRT 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.

Inspect your Machine

WARNING

- Check your DR[®] PRO XL-DRT before starting it. Keep guards in place and in working order. Make sure all nuts, bolts, etc., are securely tightened.
- Never operate the machine when it is in need of repair or is in poor mechanical condition. Replace damaged, missing, or failed parts before using it. Check for fuel leaks. Keep the machine in safe working condition.
- Do not use the machine if the engine's switch does not turn off the engine when running. Any gasoline powered machine that can't be controlled with the engine switch is dangerous and must be replaced.
- Regularly check to see that keys and adjusting wrenches are removed from the machine area before starting it. A wrench or a key that is left attached to a rotating part of the machine may result in personal injury.
- Avoid accidental starting. be sure the engine's switch is off before transporting the machine or performing any maintenance or service on the unit. Transporting or performing maintenance or service on a machine with its switch on invites accidents.
- If the machine should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning sign of trouble.

Engine Safety

WARNING

- Your DR® PRO XL-DRT is equipped with an internal combustion engine. Do not use on, or near, forest-covered or brush-covered land unless the exhaust system is equipped with a spark arrester meeting applicable local, state, or federal laws.
- In the state of California, a spark arrester is required by law. Other states have similar laws. A spark arrester, if used, must be maintained in effective working order by the operator.
- Never start or run the engine inside a closed area. The exhaust fumes are dangerous, containing carbon monoxide, an odorless and deadly gas. Operate this unit only in a well-ventilated outdoor area.
- Do not tamper with the engine in an effort to get it to run at higher speeds. The maximum engine speed is preset by the manufacturer and is within safety limits. See engine manual.
- Keep a Class B fire extinguisher on hand when operating this machine in dry areas as a precautionary measure.

General Safety

WARNING

The DR® Pro-XL-DRT 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® Pro-XL-DRT is not a plaything. Exercise extreme caution at all times. The design of this machine is to till soil. 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 disengage the tines and stop the DR® Pro-XL-DRT at a moment's notice.
- Always operate the DR® Pro-XL-DRT from behind the handlebars, never from the side.
- Never use the DR® Pro-XL-DRT to drag or tow items.
- Use caution when moving downhill and braking.
- Never allow people or pets to ride in the DR® PRO XL-DRT.
- 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® PRO XL-DRT 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® PRO XL-DRT 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.

WARNING

- Thoroughly inspect the area to be tilled, and remove all debris and hard or sharp objects such as stones, sticks, glass, wire, bones, etc. Do not operate tiller in soil with large rocks and foreign objects which can damage the machine.
- Do not till above underground electric cables, telephone lines, water lines, gas lines, pipes, or hoses. If in doubt, contact your utility or telephone company to locate underground services.
- Keep all bystanders, children, and pets at least 75 feet (23m) away. If you are approached, stop the unit immediately.
- This unit has a clutch. Squeeze the drive control handle lever and check that it returns automatically to the neutral position. If it does not, have unit adjusted by qualified repair personnel.
- Disengage drive control handle lever before starting the engine.
- Start the engine carefully according to instructions and with feet well away from the tines.
- The tines remain stationary when the clutch is disengaged. If it does not, have unit adjusted by qualified repair personnel.
- Always operate the machine from behind, never pass or stand in front of the machine when the engine is running.
- Always hold the unit with both hands when operating. Keep a firm grip on the grips. Be aware that the machine may unexpectedly bounce upward or jump forward if the tines should strike buried obstacles such as large stones, roots, or stumps.
- If the unit strikes a foreign object, stop the engine, disconnect the spark plug, thoroughly inspect the machine for any damage, and repair the damage before restarting and operating the machine.
- Use extreme caution when in reverse or pulling the machine towards you.
- Do not overload the machine capacity by tilling too deep in a single pass or at too fast a rate.
- Never operate the tiller at high transport speeds on hard or slippery surfaces.
- Be careful when tilling in hard ground. The tines may catch in the ground and propel the tiller forward. If this occurs, let go of the handlebars and do not restrain the machine.
- Use caution when tilling near fences, buildings and underground utilities. Rotating tines can cause property damage or personal injury.
- Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
- Never leave the operating position when the engine is running.
- Always stop the engine when tilling is delayed or when walking from one tilling location to another.
- Keep unit clean of vegetation and other materials. They may become lodged between the tines. Stop the engine and disconnect the spark plug before unclogging the tines.
- To reduce exposure to vibration, limit the hours of operation and take periodic breaks to minimize repetition and rest your hands. Reduce the speed and force in which you do the repetitive movement. Try to fill each day with jobs where operating hand- held power equipment is not required.

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-DRT 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-DRT in a safe manner. Contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

Additional Information and Potential Changes

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

Chapter 2: Setting Up The DR® PRO XL-DRT

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

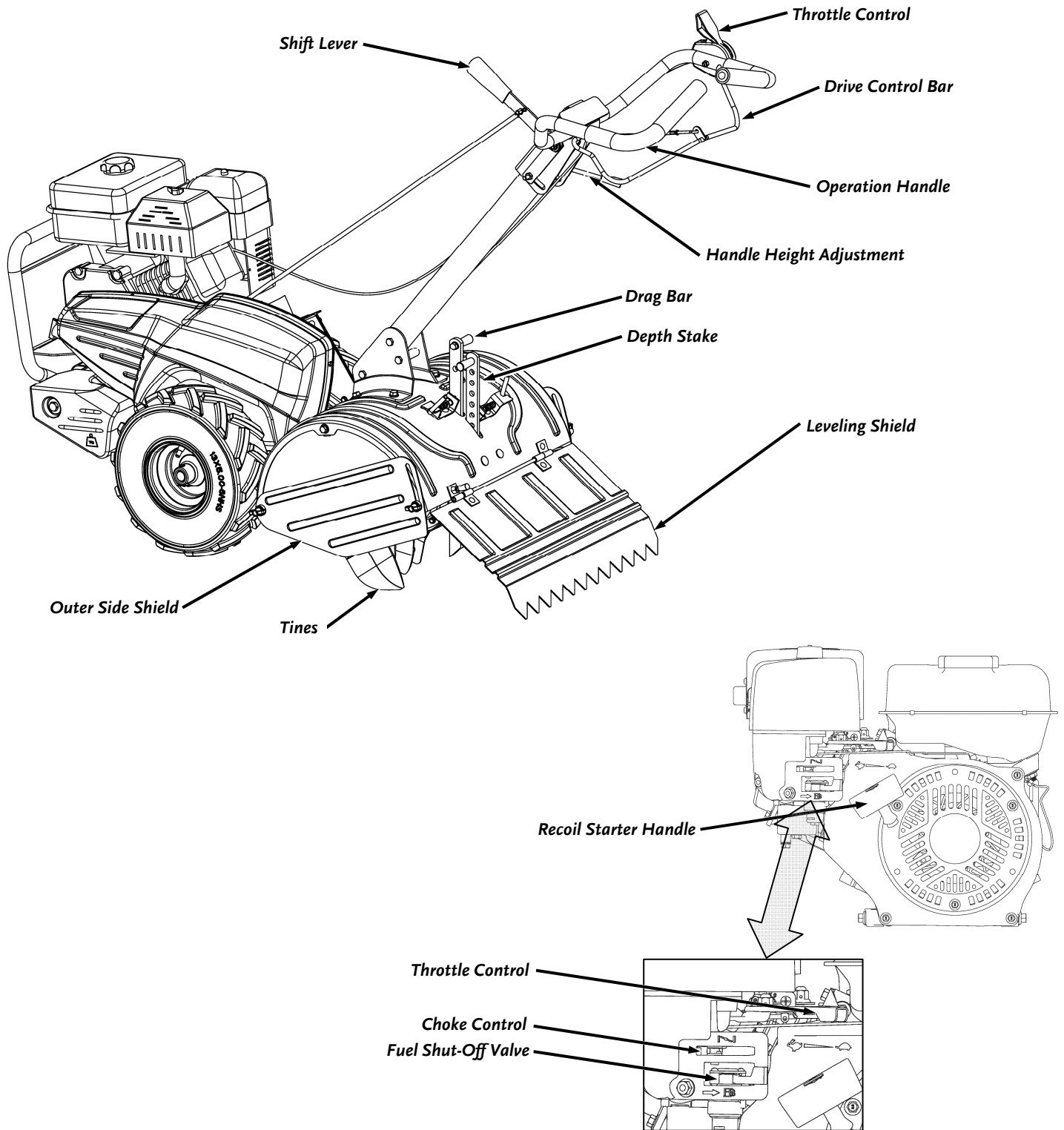


Figure 2

Specifications

Model	PRO XL-DRT
Engine	Briggs & Stratton
Displacement	208 cc
Start Type	Recoil
Fuel Tank Size	.75 gal
Transmission	Chain Gear
Speeds	1 Forward / 1 Reverse
Tire Size	13" x 5"
Tines	10 Tiller, 2 Hammer
Tine Direction	Dual Rotation
Tine Diameter	13"
Depth Adjustments	7 Positions
Tine RPM	190 RPM
Tilling Width	18"
Tilling Depth	11"
Product Weight	205 lbs

Assembling the DR® PRO XL-DRT

Contents Supplied:

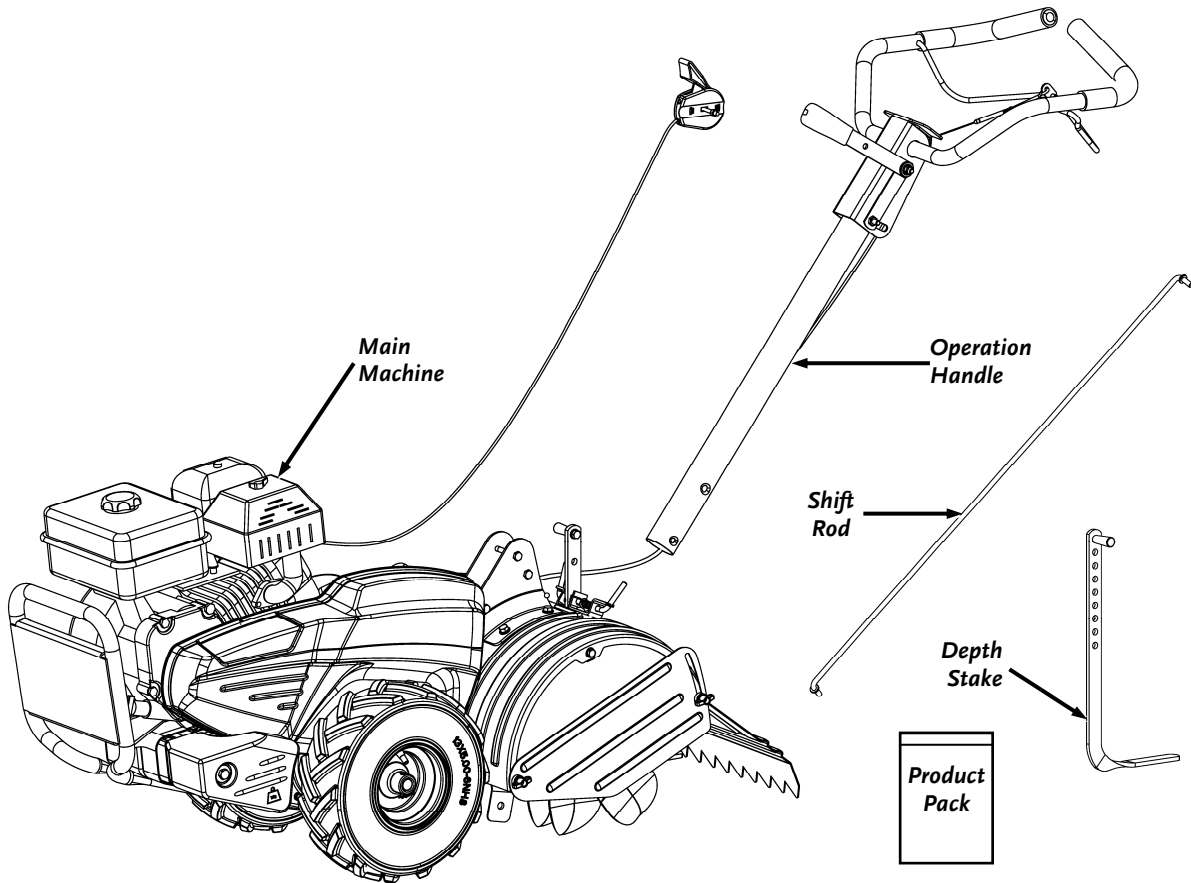


Figure 3

Tools & Supplies Needed:

- Two 13mm Wrenches or sockets
- 10mm Wrench or socket
- Pliers

Parts Supplied in Product Package (Figure 4 and list below):

Item #	Part #	Description	Qty
1	30250	Flat Washer 10	2
2	33787	Clip 1.8	2
3	41523	Flat Washer 8	1
4	41552	Bolt M8x25	1
5	41564	Lever Knob	1
6	41583	Rubber Cap	1
7	41587	Limiter Pin	1
8	41588	Spring Washer 5	1

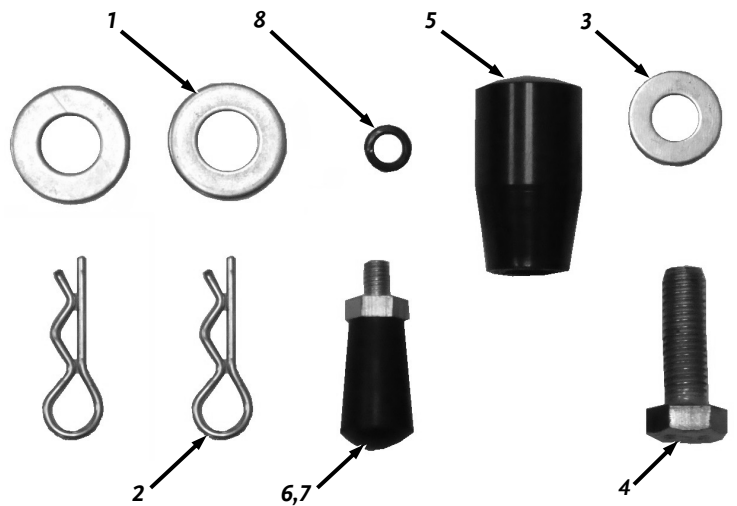


Figure 4

Compare the contents of the shipping crate with Figure 3 and Figure 4 and 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.

Operation Handle

1. The M8x75 bolts and nuts have been fixed in the guide bracket for shipping. First, remove the M8x75 bolts and nuts from the guide bracket.
2. Align the holes in the operation handle shaft with the holes in the guide bracket and re-insert the M8x75 bolts and screw nuts to tighten. (See Figure 5)

Shift Lever

1. Insert lower end of shift rod into hole of shift lever indicator. Fasten with bridge clip and washer. (see Figure 6, Illustration 1)
2. Insert the upper end of shift rod into hole of shift lever. Fasten with bridge clip and washer. (see Figure 6, Illustration 2)

Throttle Control

1. The M6x50 screw and nut have been fixed in the throttle for shipping. First, remove the M6x50 screw and nut from the throttle.
2. Then, align the hole in throttle control and the hole in the upper handle. (See Figure 7) Insert the M6x50 screw and screw the nut to tighten. Pay attention to the degree of tightness, and make sure the throttle lever can be moved normally.

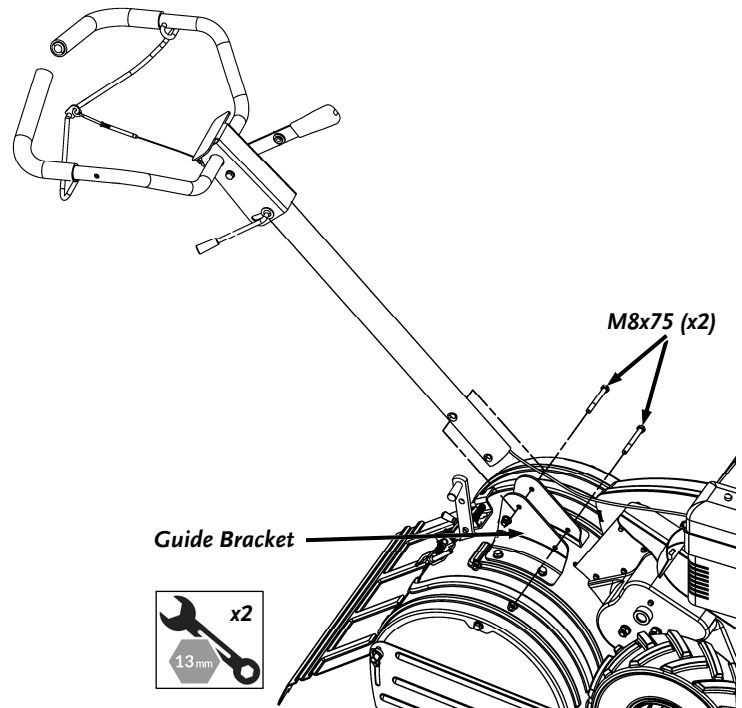


Figure 5

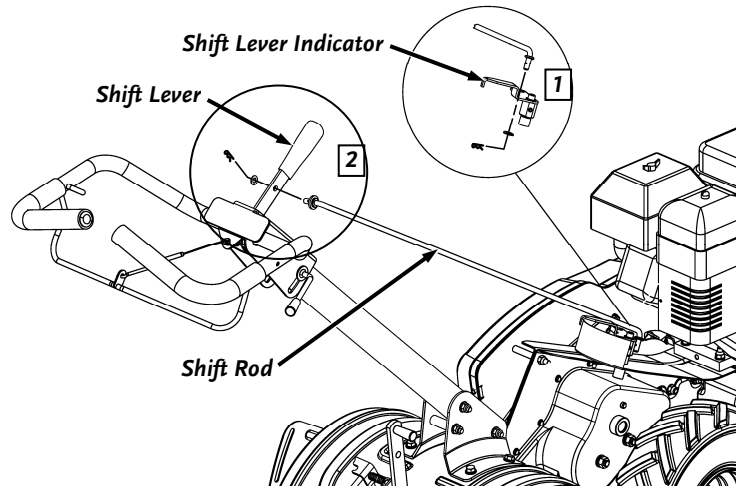


Figure 6

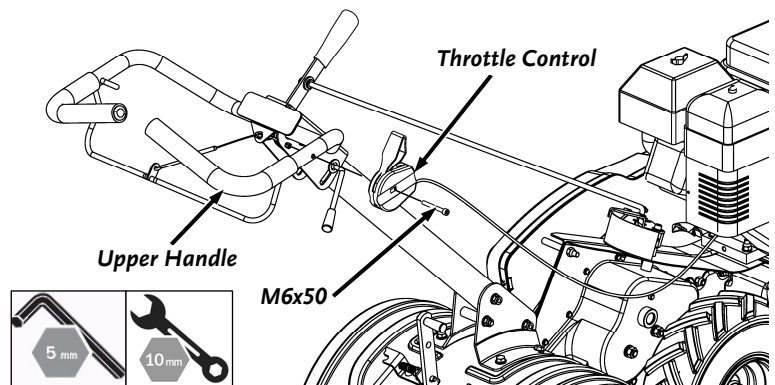


Figure 7

Depth Stake

1. Hold the machine leaning forward. (see Figure 8a, Illustration 1)
2. Pull the pin lever to unlock position. (see Figure 8a, Illustration 2)
3. Insert the depth stake into the slot in the blade cover. (see Figure 8a, Illustration 3)
4. Release the pin into the fourth hole of depth stake. At the same time, switch the pin lever to the lock position. (see Figure 8a, Illustration 4)
5. Fasten the M8×25 bolt, washer and plastic screw head into the first hole of depth stake. Hold the plastic screw head in place with pliers while screwing the bolt in. (see Figure 8a, Illustration 5)
6. Adjust the depth stake to the desired depth of tilling. (See Figure 8b)

Rear Shield Limiter

1. Screw the spring washer, limiter and rubber cap into the bolt hole in the back of blade cover. Hold the bolt hole in place with 13mm wrench while fastening the limiter bolt in with 10mm wrench. (See Figure 9)

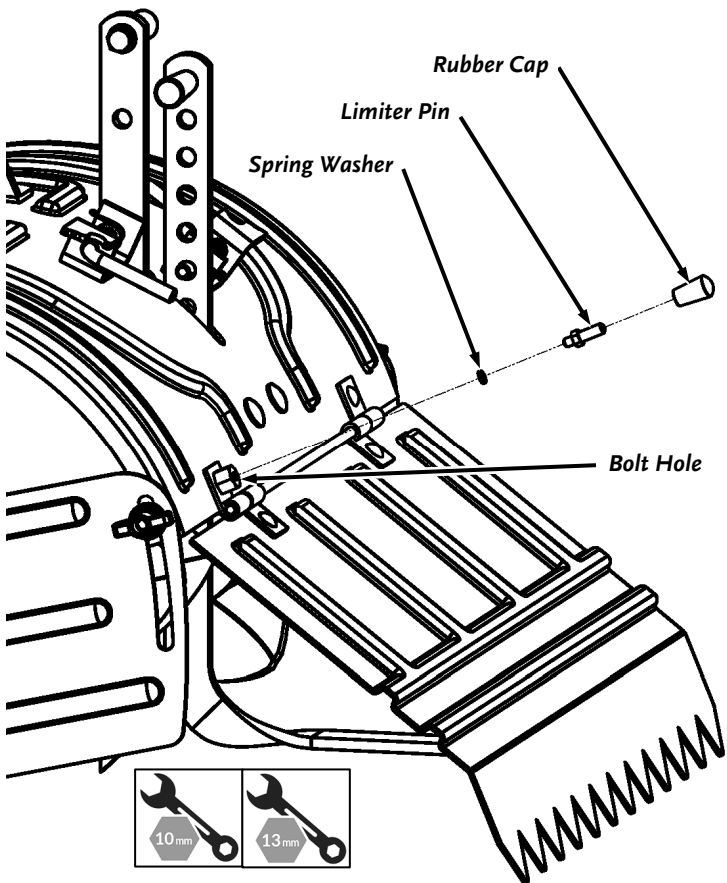


Figure 9

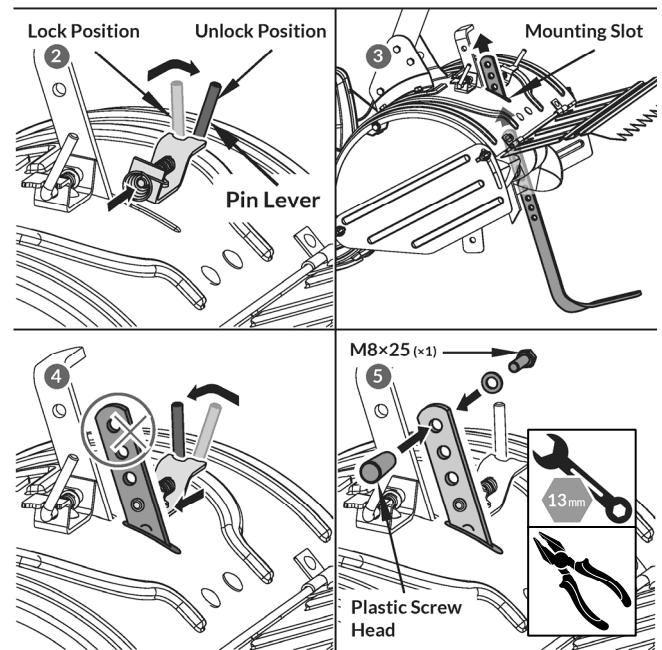
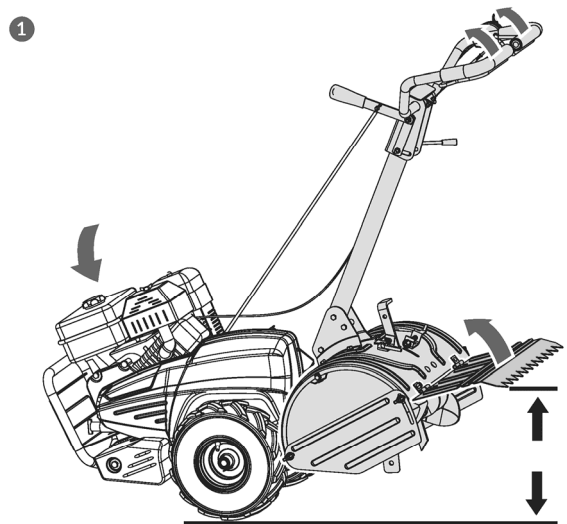


Figure 8a

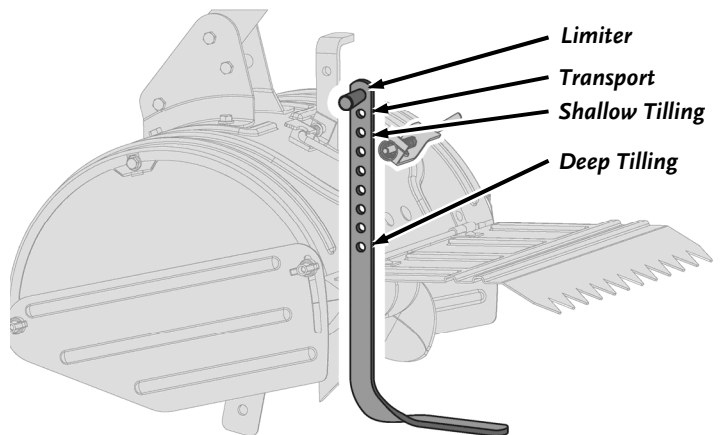


Figure 8b

Chapter 3: Operating The DR® PRO XL-DRT

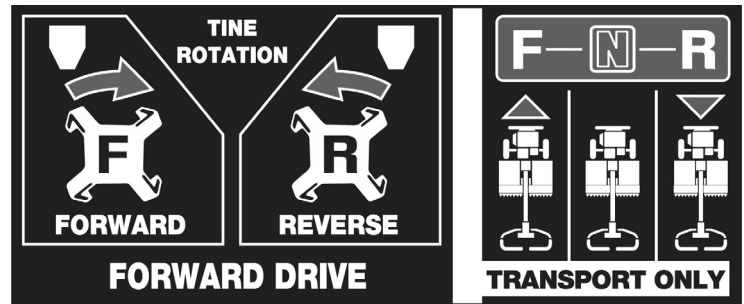
It may be helpful to better familiarize yourself with the features of your DR® PRO XL-DRT by reviewing **Figure 2** in Chapter 2 before beginning the steps outlined in this chapter.

Definitions

SHIFT LEVER

The shift lever has 5 positions: 3 for transport only (no tine rotation) and 2 for operating the tines in forward (F) or reverse (R)

- Moving the shift lever to the far left "F" position will cause the tines to rotate clockwise (⤴) when you engage the drive control bar. This position is for tilling soft ground or pre-tilled soil.
- Moving the shift lever to the far left "R" position will cause the tines to rotate counter-clockwise (⤵) when you engage the drive control bar. This position is for tilling hard ground.
- FORWARD (F) - Move the shift lever indicator to "F" position. Engage the drive control bar and tiller will move forward.
- REVERSE (R) - Move the shift lever indicator to "R" position. Engage the drive control bar and tiller will move backward.
- NEUTRAL (N) - Release the control bar to stop movement, then move the shift lever indicator to "N" position.



⚠ WARNING

Always release the drive control lever before moving shift lever to another position. Failure to do so will result in damage to DR® PRO XL-DRT.



OPERATIONAL HANDLE

The operation handle is for steering your tiller, and is also where you will find the Drive Control Bar, the Throttle Control, and the Handle Height Adjustment lever.

DRIVE CONTROL BAR

Used to engage tines and/or traction drive.

HANDLE HEIGHT ADJUSTMENT LEVER

Unscrew this lever, move the handle up or down. Fasten the lever.

DRAG BAR

Assists with overall balance while tilling in all conditions.

DEPTH STAKE

Controls depth at which tiller will dig.

LEVELING SHIELD

Levels tilled soil.

OUTER SIDE SHIELD



Adjustable to protect small plants from being buried.

RECOIL STARTER HANDLE



The Recoil Starter Handle is used to start the engine.

FUEL SHUT-OFF VALVE



The fuel shut – off has two positions.


- CLOSED () Use this position to service, transport, or store the unit.
- OPEN () Use this position to run the unit.

THROTTLE CONTROL

The throttle control regulates the speed of the engine, and moves between **FAST** , **SLOW** , and **STOP** positions. When the throttle control is moved to the **STOP** position, the engine will **STOP**.

CHOKE CONTROL

The choke control is used to choke the carburetor and assist in starting the engine. The choke control slides between the **CHOKE CLOSED**  and **CHOKE OPEN**  positions.

 **WARNING** Never use choke to stop engine.



Operation

ADD OIL TO ENGINE

 **WARNING**

The engine is shipped without oil. Do not start the engine before adding oil. Refer to your engine manual for the proper oil gauge to use.

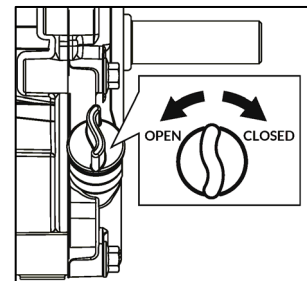
NOTICE

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

To get an accurate reading when checking the oil level:

- The machine should be on a level surface.
- The dipstick should be screwed down on Briggs & Stratton engines.

1. Make sure the DR® PRO XL-DRT is on a flat, level surface.
2. Remove the oil fill cap/dipstick to add oil.
3. Using a funnel, add oil up to the FULL mark on the dipstick. (See engine manual for oil capacity, oil recommendation, and location of fill cap.).



 **WARNING** DO NOT OVERFILL! Check engine oil level daily and add as needed

! WARNING

IMPORTANT: DO NOT OVERFILL!

This equipment and/or its engine may include evaporative emissions control system components, required to meet EPA and/or CARB regulations, that will only function properly when the fuel tank has been filled to the recommended level. Overfilling may cause permanent damage to evaporative emissions control system components. Filling to the recommended level ensures a vapor gap required to allow for fuel expansion. Pay close attention while filling the fuel tank to ensure that the recommended fuel level inside the tank is not exceeded. Use a portable gasoline container with an appropriately sized dispensing spout when filling the tank. Do not use a funnel or other device that obstructs the view of the tank filling process.

! WARNING

Fill the fuel tank outdoors, never indoors. Gasoline vapors can ignite if they collect inside an enclosure. Explosion can result.

! WARNING

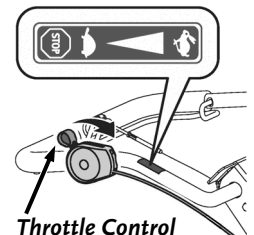
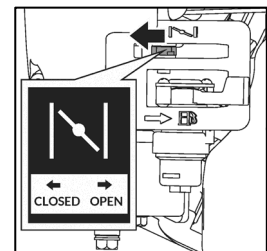
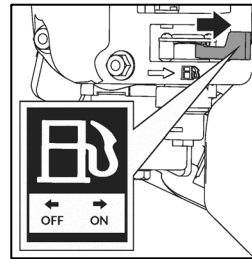
Gasoline is highly flammable and explosive. You can be burned or seriously injured when handling fuel. Use extreme care when handling gasoline.

ADD GASOLINE TO ENGINE

1. The engine must be off and allowed to cool at least two minutes before adding fuel.
2. Remove the fuel filler cap and fill the tank. (See engine manual for fuel capacity, fuel recommendation, and location of fuel cap.)
3. Reinstall the fuel cap and tighten. Always clean up spilled fuel.

STARTING ENGINE



1. Open the fuel shut-off valve.
2. Move the choke lever to the CLOSED position.
 - If the engine is hot, closing the choke is not necessary.
3. Move the throttle control lever slightly forward to about $\frac{1}{4}$ of the way (slightly toward the fast position).
4. Pull the recoil starter until the engine starts. Return the recoil to the home position after each pull. Repeat the steps as needed. Once engine has started, set the throttle to the FAST position before you operate the unit.



! WARNING

Rapid retraction of the starter cord (kickback) will pull your hand and arm toward the engine faster than you can let go. Broken bones, fractures, bruises, or sprains could result.

TINE OPERATION - SHIFT LEVER

- Always release drive control bar before moving shift lever into another position.
- Tine movement is achieved by moving shift lever to either the counter rotating till position () or the forward rotating till position () and engaging drive control bar.

FORWARD - WHEELS ONLY/TINES STOPPED

- Release drive control bar and move shift lever indicator to “F” (forward) position. Engage drive control bar and tiller will move forward.

REVERSE - WHEELS ONLY/TINES STOPPED

⚠ WARNING Do not stand directly behind tiller while in reverse.

- Release the drive control bar.
- Move throttle control to “SLOW” position.
- Move shift lever indicator to “R” (reverse) position.
- Hold drive control bar against the handle and tiller will move backward.



If you find the shift lever difficult to move or find it hard to shift gears, try one of the following:

- Briefly engage the drive control bar, and release, or
- Rock the tiller forward and backward using the handles.

DEPTH STAKE

The depth stake (see Figure 10) can be raised or lowered to allow you more versatile tilling and cultivating, or to more easily transport your tiller.

DRAG BAR

The drag stake (see Figure 11) should be raised when tilling in the counter rotating () till position. The drag stake should be lowered when tilling in the forward rotating () till position.

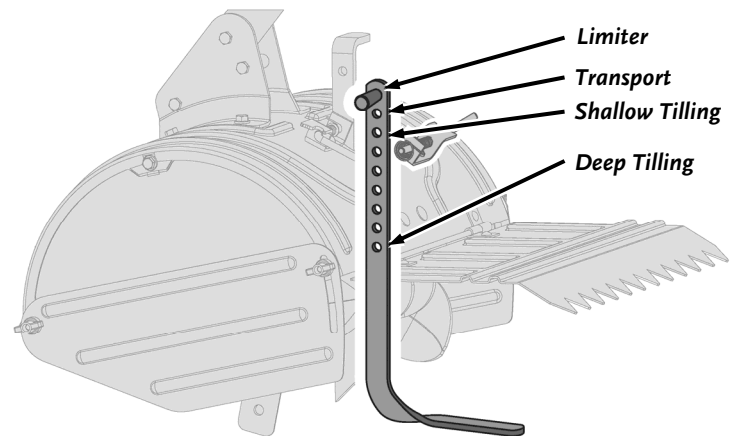


Figure 10

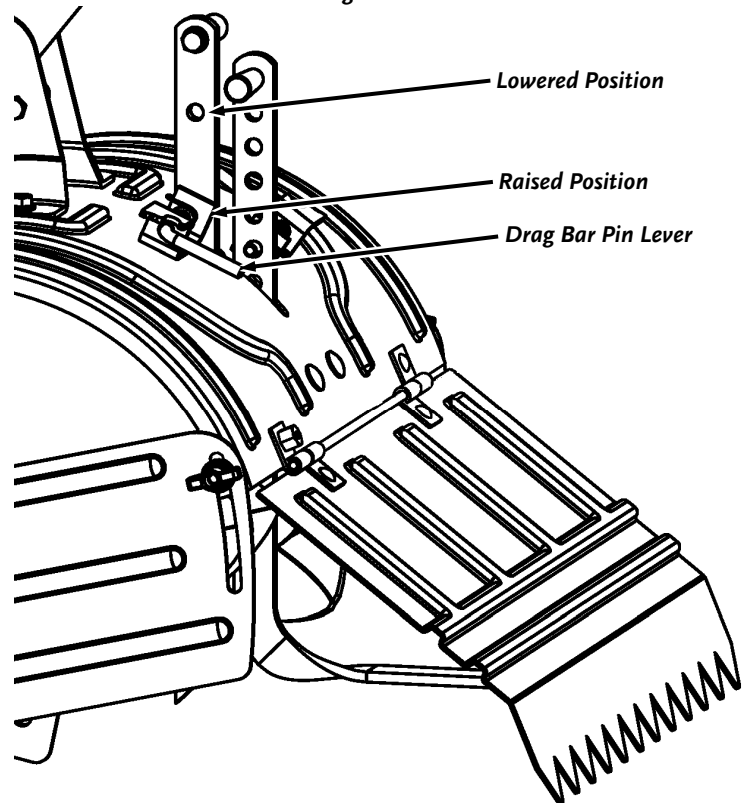


Figure 11

TILLING

Tilling is digging in, turning over and breaking up garden soil and prepare a seedbed for planting. Best tilling depth is 4" (100mm) to 6" (150mm). A tiller will also clear the soil of unwanted vegetation. The decomposition of this vegetation matter enriches the soil.


Avoid tilling soil that is too dry as it will pulverize and produce a dust that will not hold water. Water a few days before tilling. Also, tilling soil that is too wet will produce unsatisfactory clods. Wait a day or two after heavy rain for the soil to dry.

Better growth will be obtained if an area is tilled properly and used soon after tilling to preserve the moisture content.

The type of soil and working conditions will determine the actual setting of the tilling depth. In some soils, the desired depth is reached first pass over garden. In other soils, the desired depth is obtained by going over the garden two or three times. In later case, the depth regulator rod should be lowered before each succeeding pass over the garden. Passes should be made across the length and width of the garden alternately. Do not try to dig too deeply in the first pass. If the machine jumps or bucks, allow the unit to move forward at a slightly faster rate.

If the tiller stops forward motion and tries to dig in one spot, rock the handles from side to side to start it moving forward again.

Rocks which are turned up should be removed from the garden area.

- Move the depth stake pin lever to the unlock position (See Figure 8a, Illustration 2). Hold the depth stake limiter to pull the depth stake up for increasing tilling depth. Place depth stake pin in the hole of the depth stake to lock in position at desired depth.
- Place shift lever indicator in counter rotating () till position when tilling hard soil.
- Hold the drive control bar against the handle to start tilling movement. Tines and wheels will both turn.
- Move throttle control to "FAST" position for deep tilling. To cultivate, throttle control can be set at any desired speed, depending on how fast or slow you wish to cultivate.

WARNING


IMPORTANT: Always release drive control bar before moving shift lever into another position.

TURNING

- Release the drive control bar.
- Move throttle control to "SLOW" position.
- Place shift lever indicator in "F" (forward) position. Tines will not turn.
- Lift handle to raise tines out of ground.
- Swing the handle in the opposite direction you wish to turn, being careful to keep feet and legs away from tines.
- When you have completed your turn-around, release the drive control bar and lower handle. Place shift lever in (till) position and move throttle control to desired speed. To begin tilling, hold drive control bar against the handle.

CULTIVATING

Cultivating is loosening or digging around growing plants to disrupt weeds and aerate soil. Less than 2" (50mm) depth is always desirable.

- Place shift lever indicator in forward rotating () till position when cultivating soft ground or tilling pre-tilled soil.
- Move both the depth stake pin lever and the drag stake pin lever to the unlock position (See Figure 8a, Illustration 2 & Figure 11). Hold the depth stake limiter to pull the depth stake up for increasing tilling depth. Place depth stake pin in the hole of the depth stake to lock in position at desired depth. Lower drag stake to the "Lowered position" (See Figure 11) and lock it in position.
- Hold the drive control bar against the handle to start cultivating movement. Tines and wheels will both turn.
- Move the throttle control to the fast position for deep cultivating. To cultivate, throttle control can be set at any desired speed, depending on how fast or slow you wish to cultivate.
- Always lower the drag stake when using the forward rotating tine drive.

OUTER SIDE SHIELDS

To protect small plants from being buried while tilling, the back edges of the outer side shields are slotted so that the shields can be raised for deep tilling and lowered for shallow tilling. (See Figure 12) To move the shield to the desired position (both sides), loosen nut A and nut B, move the shield, and retighten the nuts.

STOPPING THE TINES AND DRIVE

- Release drive control bar to stop movement.
- Move shift lever to "N" (neutral) position.

TRANSPORT AROUND THE YARD

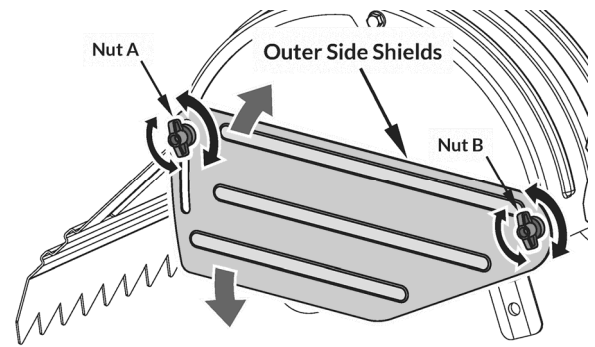


Figure 12

! WARNING

CAUTION: Before lifting or transporting, allow engine and muffler to cool. Disconnect sparkplug wire. Drain gasoline from fuel tank.



- Release the depth stake pin. Move the depth stake down to the second top hole for transporting the tiller. Place depth stake pin in hole of depth stake to lock in position. This prevents tines from scuffing the ground.
- Place shift lever indicator in "F" (forward) position for transporting.
- Hold the drive control bar against the handle to start tiller movement. Tines will not turn.
- Move throttle control to desired speed.

IDLE SPEED

Set the throttle control lever to the SLOW position to reduce stress on the engine when work is not being performed. Lowering the engine speed will help extend the life of the engine, as well as conserve fuel and reduce noise level.

STOP ENGINE

To stop the engine in an emergency, simply turn the engine switch to the OFF position. Under normal conditions, use the following procedure:

1. Move the throttle lever to the SLOW () position.
2. Let the engine idle for one or two minutes.
3. Turn the engine switch to the OFF position.
4. Turn the fuel valve lever to the OFF () position.

! WARNING

Sudden stopping at a high speed under a heavy load is not recommended. Engine damage may result.

! WARNING

Do not move the choke control to CLOSE to stop the engine. Backfire or engine damage may occur.

Chapter 4: Maintaining The DR® PRO XL-DRT

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.

WARNING

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

PREVENTIVE MAINTENANCE

1. Turn off the engine and disengage all command levers. The engine must be cool.
2. Keep the engine's throttle lever in its SLOW position and remove the spark plug wire from the spark plug and secure.
3. Inspect the general condition of the rear tine tiller. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, and any other condition that may affect its safe operation.
4. Use a soft brush, vacuum or compressed air to remove all contaminants from the machine. Then use high quality light oil to lubricate all moving parts.
5. Replace the spark plug wire.

NOTICE

Never use a "pressure washer" to clean your DR® PRO XL-DRT. Water can penetrate tight areas of the machine and its transmission case and cause damage to spindles, gears, bearings, or the engine. The use of pressure washers will result in shortened life and reduce serviceability.

GEARBOX

The gearbox was filled with lubricant to the proper level at the factory. Unless there is evidence of leakage or service has been performed on the gearbox, no additional lubricant should be required.

GENERAL LUBRICATION

Lightly lubricate all moving parts of the machine at the end of the season or every 25 operating hours.

ADJUSTING CLUTCH

If clutch becomes difficult to engage follow these steps to adjust the cable tension.

1. Loosen the jam nut by turning it counter clockwise with 8mm wrench while holding the adjustment barrel in place with 6mm wrench. (see Figure 13)
2. Tighten (or loosen) the cable by turning the cable adjustment barrel clockwise (or counter clockwise) with a 6mm wrench until you have reached your desired tightness. (see Figure 13)
3. Once you have reached your desired cable tension, hold the adjustment barrel with a 6mm wrench and tighten the jam nut by turning it clockwise until it is tight. (see Figure 13)

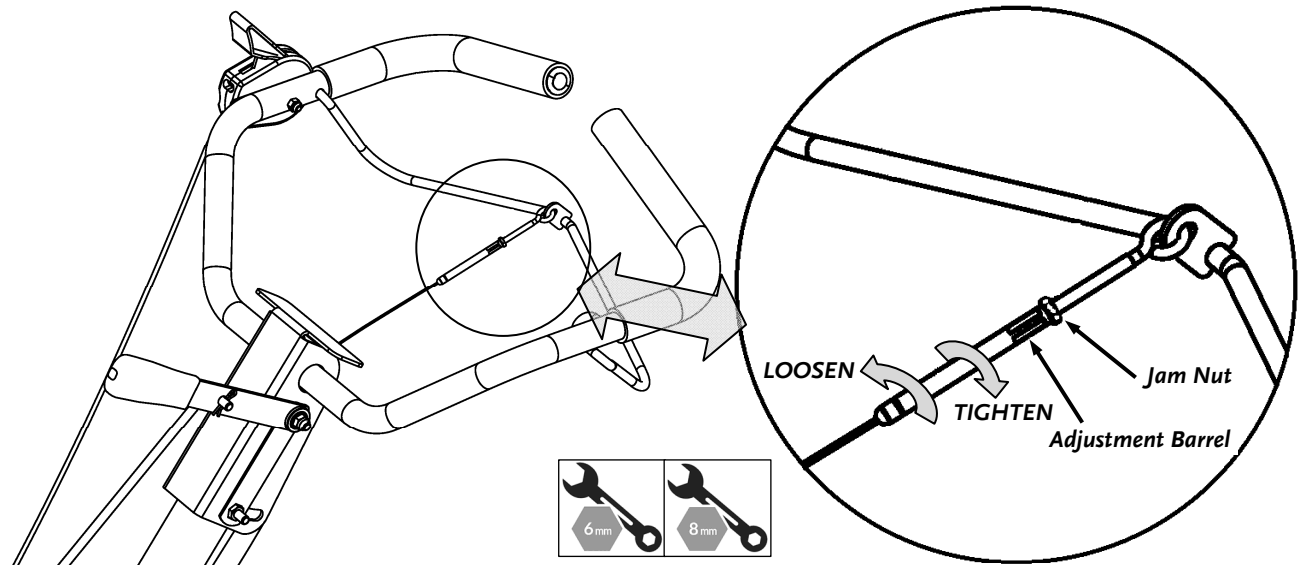


Figure 13

REPLACING THE TINES

1. Remove the outer side shield. (see Figure 14)
2. Remove the whole blade assembly. (see Figure 14)
3. Remove tine. (see Figure 15)

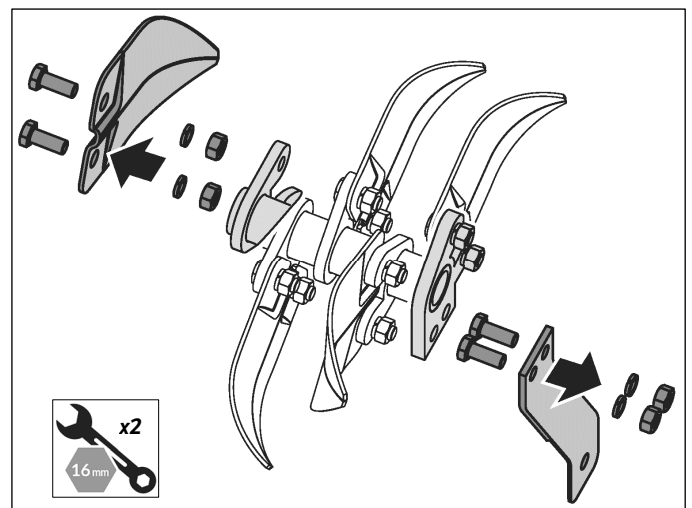
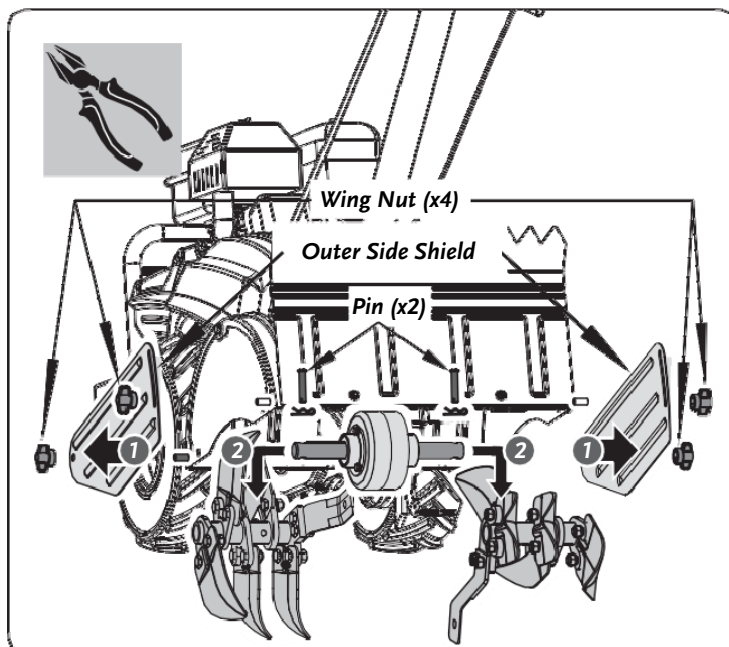


Figure 15

REPLACING THE BELT

1. Securely prop the machine up so that the wheel on the opposite side of the engine is 1 inch off the work surface. Remove the shear pin and wheel from belt guard side of the machine, opposite side of the engine. (see Figure 16)
2. Remove the 4 bolts and 1 nut on the belt guard to expose the belt assembly. (See Figure 17, illustration 2)
3. Slide the belt roller off its stud below the large transmission pulley. (See Figure 17, illustration 3)
4. Remove the belt from the engine and idler pulley: Rotate the transmission pulley and pull the belt gently through the roller stud while working it free from the pulley. (See Figure 17, illustrations 4 & 5)
5. To install a new belt, repeat the above process in reverse.

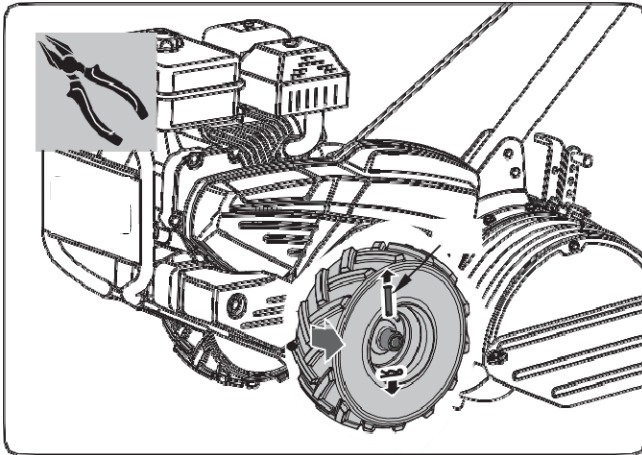


Figure 16

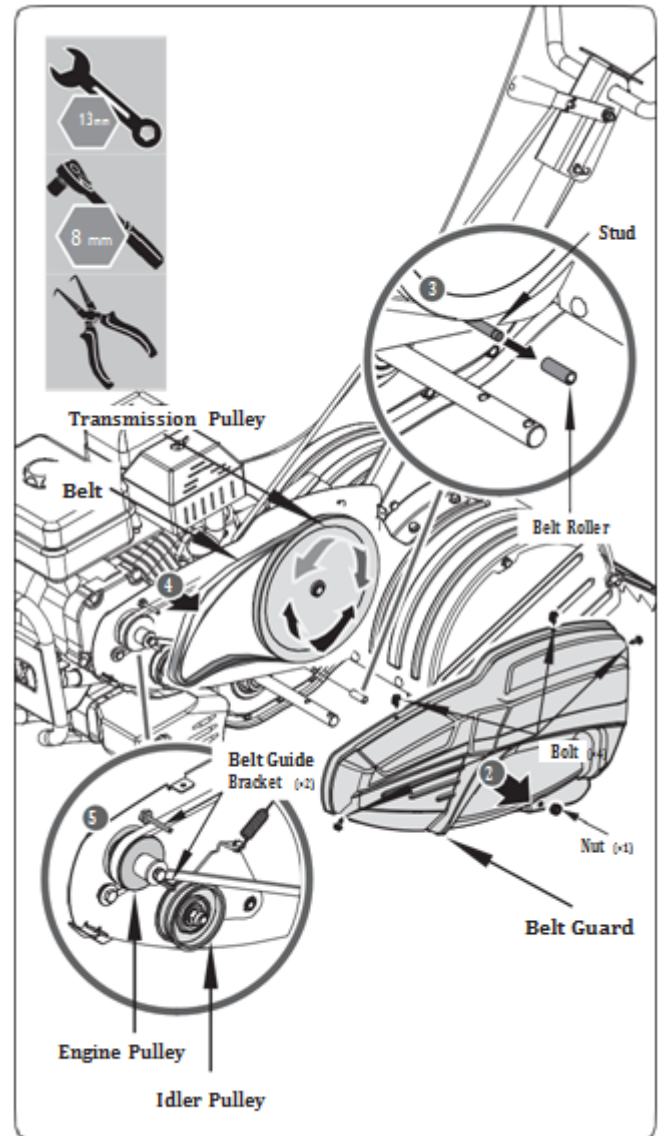


Figure 17

ENGINE MAINTENANCE

For information on engine maintenance, refer to the Engine Manual included with your unit. Your engine manual provides detailed information and a maintenance schedule for performing maintenance tasks.

Chapter 5: Storing The DR® PRO XL-DRT

If the DR® PRO XL-DRT will not be used for a period longer than 30 days, follow the steps below to prepare your unit for storage.

1. Drain the fuel tank completely. Stored fuel containing ethanol or MTBE can start to go stale in 30 days. Stale fuel has high gum content and can clog the carburetor and restrict fuel flow.
2. Start the engine and run until it stops. This helps prevent gum deposits from forming inside the carburetor and possible engine damage.
3. While the engine is still warm, drain the oil from the engine. Refill with fresh oil of the grade recommended in the Engine Manual.
4. Use clean cloth to clean off the outside of the machine and to keep the air vents free of obstructions.

NOTICE

Do not use strong detergents or petroleum based cleaners when cleaning plastic parts. Chemicals can damage plastics.

5. Inspect for any loose or damaged parts. Repair or replace damaged parts and tighten loose screws, nuts or bolts.
6. Store your unit on flat ground in a clean, dry building that has good ventilation.

WARNING

Do not store the machine with fuel in a non-ventilated area where fuel fumes may reach flame, sparks, pilot lights or any ignition sources.

Chapter 6: Troubleshooting The DR® PRO XL-DRT

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	POSSIBLE REMEDY
<i>Engine fails to start</i>	<ul style="list-style-type: none"> ⇒ Spark plug wire is disconnected ⇒ Out of fuel or stale fuel ⇒ Engine and/or Fuel valve is not in On position ⇒ Choke lever is not in CLOSE position ⇒ blocked fuel line ⇒ Fouled spark plug ⇒ Engine flooding ⇒ Belt tension lever is engaged 	<ul style="list-style-type: none"> ⇒ Attach spark plug wire securely to spark plug ⇒ Fill with clean, fresh gasoline ⇒ Engine and Fuel valve must be in On position ⇒ Choke level must be in CLOSE position for a cold start ⇒ Clean fuel line ⇒ Clean, adjust gap, or replace ⇒ Wait a few minutes to restart, but do not prime ⇒ Disengage the belt tension lever
<i>Engine runs erratically</i>	<ul style="list-style-type: none"> ⇒ Spark plug wire is loose ⇒ Unit running with Choke lever in CLOSE position ⇒ blocked fuel line or stale fuel ⇒ Vent plugged ⇒ Water or dirt in fuel system ⇒ Dirty air cleaner ⇒ Improper carburetor adjustment. 	<ul style="list-style-type: none"> ⇒ Connect and tighten spark plug wire ⇒ Move choke lever to OPEN position ⇒ Clean fuel line. Fill tank with clean, fresh gasoline ⇒ Clear vent ⇒ Drain fuel tank. Refill with fresh fuel ⇒ Clean or replace air cleaner ⇒ Refer to engine manual
<i>Engine overheats.</i>	<ul style="list-style-type: none"> ⇒ Engine oil level low ⇒ Dirty air cleaner ⇒ Air flow restricted ⇒ Carburetor not adjusted properly 	<ul style="list-style-type: none"> ⇒ Fill crankcase with proper oil ⇒ Clean air cleaner ⇒ Remove housing and clean ⇒ Refer to engine manual
<i>Engine will not stop when throttle control is positioned at stop, or engine speed does not increase properly when throttle control is adjusted.</i>	<ul style="list-style-type: none"> ⇒ Debris interfering with throttle linkage. ⇒ Improper throttle linkage adjustment 	<ul style="list-style-type: none"> ⇒ Clean dirt and debris. ⇒ Refer to Engine Manual to check and adjust throttle linkage.
<i>Tiller moves forward during starting</i>	<ul style="list-style-type: none"> ⇒ Tine clutch control not in neutral position. 	<ul style="list-style-type: none"> ⇒ Tine clutch control lever must be released to neutral to start the engine.

⚠ WARNING

When performing any maintenance, you must first shut off the engine, 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	POSSIBLE REMEDY
<i>Tiller is difficult to control when tilling (machine jumps or lurches forward).</i>	<ul style="list-style-type: none">⇒ Improper tilling depth setting.⇒ Too high engine speed on hard ground.	<ul style="list-style-type: none">⇒ Raise the tines for shallower tilling by raising the depth regulator rod.⇒ Set the throttle lever at lower speed.
<i>Tines do not engage.</i>	<ul style="list-style-type: none">⇒ Foreign object lodged in tines.⇒ Tine clevis pin(s) missing.⇒ Belt worn and/or stretched.⇒ Pulley and idler not in correct adjustment.	<ul style="list-style-type: none">⇒ Stop tiller completely, check and discard foreign object.⇒ Replace tine clevis pin(s).⇒ Replace belt.⇒ Contact dealer.

Parts List

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

<u>Ref#</u>	<u>Part#</u>	<u>Description</u>	<u>Ref#</u>	<u>Part#</u>	<u>Description</u>
1	41522	Gear Box Assembly	113	41573	End Cap 25
2	41686	Bolt M8X20	114	41574	Upper Handle Sleeve
3	41523	Flat Washer 8	115	41575	Brake Connecting Plate
37	41524	Flange Lock Nut M8	116	41576	Shift Lever Knob
63	41525	Engine Shaft Washer	117	41577	Shift Lever
64	41526	Lock Nut M10	118	41578	Bushing
65	41527	Counterweight 2	119	41579	Support Sleeve
66	41528	Gear Cover Mount Bracket	120	41580	Bolt M8x75
67	33787	Clip 1.8	121	41581	Spring
68	41529	Right Wheel Assy.	122	41582	Pin Bracket
69	41530	Pin Shaft B8x45	123	41583	Rubber Cap
70	30250	Flat Washer 10	124	41584	Serrated Rear Shield
71	41531	Direction Indicator Weldment	125	41585	Hinge
72	41532	Shift Rod	126	41586	Hinge Shaft
73	41533	Spring Pin 5x30	127	41587	Limiter Pin
74	41534	Gear Shift Markable Plate	128	41588	Spring Washer 5
75	41535	Bolt M6x16	129	41589	Bolt
76	41536	Engine	130	41590	Adjustable Side Shield B2
77	41537	Pulley	131	41591	Bolt M10x25
78	41538	Key B5x4.76x40	132	41592	Spacer 3
79	41539	Screw M8x12	133	41593	Screw M5x10
80	41540	Blade Mount Bracket	134	41594	Bolt M5x12
81	41541	Pin B10x45	135	41595	Long Bolt
82	41542	R Clip 2.5	136	41596	Cable Fixation Clamp
83	41543	Bolt M10x30	137	41597	Belt Cover Mount Bracket
84	41544	Blade 2	138	41598	Belt Pulley
85	41545	Swing Nut	139	41599	Lock Nut M5
86	41546	Adjustable Side Shield B1	140	41600	Key A5x20
87	41547	Bolt M8x20	141	41601	Depth Stake 3
88	41548	Side Tine Shield	142	41602	Belt 4LXP1308
89	41549	B Style Sprig Nut M8	143	41603	Depth Stake 2
90	41550	Blade 1	144	41604	Belt Cover
91	41551	Lock Nut M8	145	41605	Left Wheel Assy.
92	41552	Bolt M8x25	146	41606	Spacer 2
93	41553	Tine Shield	147	41607	Flange Lock Nut 10
94	41554	Spring	148	41608	C-Clip 9
95	41555	Pin	149	41609	Tensioner Pulley
96	41556	C-Clip	150	41610	Bushing
97	41557	Handle Mount Bracket 2	151	41611	Wheel Bracket Weldment
98	41558	Handle Mount Bracket 1	152	41612	Bolt 5/16 - 24 UNF*25
99	41559	Handle Support Frame	153	41613	Spring Washer 8
100	41560	Bolt M10x25	154	41614	Bolt M10x290
101	41561	Nut M8	155	41615	Counterweight 1
102	41562	Upper Handle	156	41616	Bolt M8x40
103	41563	Lock Lever	157	41617	Spacer 1
104	41564	Lever Knob	158	41618	Tensioner Pulley Shaft
105	41565	Bolt M8x85	159	41619	Bolt M8x30
106	41566	Throttle Cable	160	41620	Belt Block Rod
107	41567	Throttle Lever Assy.	161	41621	Big Flat Washer 8
108	41568	Screw M6x50	162	41622	Engine Protector Weldment
109	41569	Lock Nut M6	163	41623	Spacer 4
110	41570	Tensioner Pulley Cable	164	41624	Bolt M8x16
111	41571	Pulley Cable Drag Rod	165	41625	Bearing 6004-2RS

Labels not shown

34140	DRLOGO-Silver-4in	41518	Label, Drive
41513	Label, Main Branding #1	41519	Label, Gear Tine
41514	Label, Branded Info	41520	Label, Throttle
41515	Label, Warning #1	41521	Label, Branding 3 Round Logo
41546	Label, Warning #2	41627	Label, Serial Number
41517	Label, Branding #2		

DR[®] PRO XL-DRT



2-Year Limited Warranty

Terms and Conditions

The **DR[®] PRO XL-DRT** 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-DRT** 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-DRT** 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 Belt, Tines, Depth Stake, Shear Pins, Spark Plug and Air Filter. 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-DRT**.

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-DRT

WARNING

When performing any maintenance, you must first shut off the engine, 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® PRO XL-DRT 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 dirt and other debris from the Engine Cooling Fins and Debris Guard. A dirty Engine retains heat and can cause damage to internal Engine components.
- [] 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, 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 – 30W.
- If your DR PRO XL-DRT will be idle for more than 30 days, we recommend using a gas stabilizer or draining the fuel system. 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 and Drive Clutch Control cable with SAE 30 Oil if necessary.



DR® Power Equipment

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