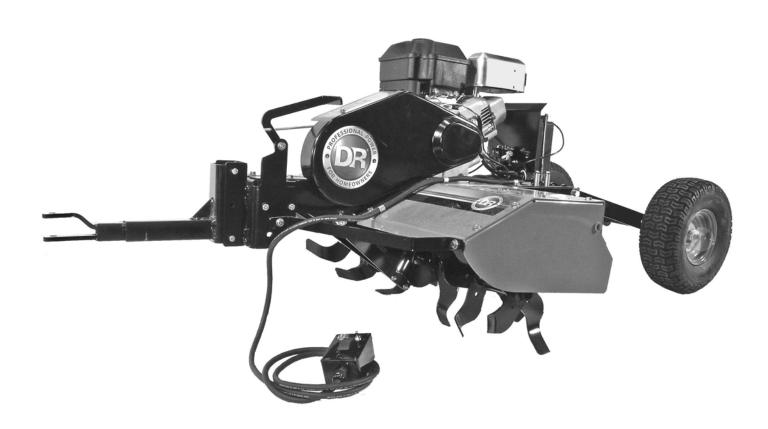
# **DR**<sup>®</sup> ROTO-HOG™ POWER TILLER

# OR HOMEOWNIES

## SAFETY & OPERATING INSTRUCTIONS



# **!** WARNING!

READ AND UNDERSTAND THIS MANUAL AND ALL INSTRUCTIONS BEFORE OPERATING THIS TILLER.

Congratulations on your purchase of a new DR ROTO-HOG POWER TILLER!

We have done our utmost to ensure that your DR ROTO-HOG POWER TILLER will be one of the most trouble-free and satisfying pieces of equipment you have ever owned. Please let us know of any questions you may have. We want to answer them as quickly as possible. When you do call, please have your order number, or serial number handy. For technical assistance, please call Toll-Free 1-800-DR-OWNER (376-9637) and one of our Technical Support Representatives will be happy to help you. We also hope to hear from you on how much you like your new helper.

In addition, please tell your friends about your new DR ROTO-HOG POWER TILLER! Having DR Owners spread the word about our products and our way of doing business is the best advertising we can have, and the best way to help us provide even better service in the years to come.

Thanks once again!

for all of us at

Country Home Products, Inc.

**SALES MANAGER** 

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DR® Power Equipment A division of Country Home Products® 127 Meigs Road Vergennes, VT 05491

Toll-Free phone: 1-800-DR-OWNER (376-9637)

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## INTRODUCING THE DR ROTO-HOG POWER TILLER

This manual will help you set up and safely operate your new DR ROTO-HOG POWER TILLER. Careful adherence to the safety and operating instructions in this manual will ensure many years of productive use. Please let us know of any questions you may have. We want to answer them as quickly as possible. When you do call, please have your order number, or serial number handy. For technical assistance, please call Toll-Free 1-800-DR-OWNER (376-9637) and one of our Technical Support Representatives will be happy to help you.

#### Conventions used in this manual



THIS INDICATES A HAZARDOUS SITUATION, WHICH, IF NOT AVOIDED, <u>COULD RESULT IN DEATH OR</u> SERIOUS INJURY.

# **↑** CAUTION!

THIS INDICATES A HAZARDOUS SITUATION, WHICH, IF NOT AVOIDED, <u>COULD RESULT IN MINOR OR MODERATE INJURY.</u>

# **⚠** 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.

Tip: This is a helpful hint to guide you in getting the most out of your DR ROTO-HOG POWER TILLER.

**Tools Needed:** This indicates you will need a special tool to perform a maintenance function on your Tiller.

**NOTE:** This information may be helpful to you.

If you are ever unsure about an action you are about to take, don't do it. Contact Country Home Products' Toll-Free support at 1-800-DR-OWNER (376-9637) for help or information.

CALL TOLL-FREE 1-800-DR-OWNER

## DR ROTO-HOG POWER TILLER Specification Sheet

Engine	Briggs & Stratton 8.75 FPT, 206 CC, Single Cylinder		
Approximate Run Time on a Tank of Fuel	90 minutes		
Battery	12 Volt, 17AH		
Towing type	Pin Hitch		
Ground Clearance in Transport Mode	2.75"		
Height Adjustment	Electric Actuator		
Range	7" to 2"		
Actuator Stroke	3.94"		
Actuator Maximum Load	250 lbs.		
Length of Remote Control Cable	46"		
# of Cycles for Fully Charged Battery	400		
Tine Size	12"		
Number of Tines	24		
Wheels	15" x 6.00"-6 NHS (14" x 5.5")		
Machine Size	39"w x 66"L (Transport), 35"H x 77"L (Lowest Position)		
Machine Weight	259 lbs. Manual Start, 264 lbs. Electric Start		
Tongue Weight	90 lbs. (Transport) 112 lbs. (Lowest Position)		
Shipping Weight	310 lbs. Manual Start, 320 lbs. Electric Start		
Gauge of Steel on Shroud	13		
Gauge of Steel on Frame	12 Gauge, 1.5" Tubular Steel		

## **GENERAL SAFETY RULES**



READ THIS SAFETY & OPERATING INSTRUCTIONS MANUAL BEFORE YOU USE THE DR ROTO-HOG POWER TILLER. BECOME FAMILIAR WITH THE SERVICE RECOMMENDATIONS TO ENSURE THE BEST PERFORMANCE FROM YOUR TILLER.

#### Lahels

Your DR ROTO-HOG POWER TILLER carries prominent labels as reminders for its proper and safe use. Shown below are copies of all the labels that appear on the equipment. Take a moment to study them and make a note of their location on your DR ROTO-HOG POWER TILLER as you assemble and *before* you operate the machine. Replace damaged or missing safety and information labels immediately.



Read the instruction manual thoroughly and review this label before using the machine. #224531

CALL TOLL-FREE 1-800-DR-OWNER



TO AVOID SERIOUS INJURY, DO NOT OPERATE WITHOUT BELT GUARD AND ALL OTHER SHIELDS IN PLACE AND IN GOOD CONDITION

NEVER operate the DR ROTO-HOG POWER TILLER without the guards and shields in place. #224511



NEVER place your hands or feet near the rotating Tines. #224521

**DR**® ROTO-HOG™ POWER TILLER

# **↑** WARNING!

THE DR ROTO-HOG POWER TILLER IS A HIGH-POWERED MACHINE WITH FAST MOVING PARTS OPERATING AT HIGH SPEEDS. YOU MUST OPERATE THIS MACHINE SAFELY. UNSAFE OPERATION CAN CREATE HAZARDS FOR YOU, AS WELL AS ANYONE ELSE IN THE WORK AREA. USE PROPER CLOTHING AND SAFETY GEAR WHEN OPERATING THIS MACHINE TO PREVENT OR MINIMIZE THE RISK OF SEVERE INJURY. ALWAYS TAKE THE FOLLOWING PRECAUTIONS WHEN OPERATING THE DR ROTO-HOG POWER TILLER:

- ALWAYS WEAR PROTECTIVE GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS TO PROTECT YOUR EYES FROM POSSIBLE OBJECTS THROWN FROM THE MACHINE.
- WE RECOMMEND WEARING SAFETY SHOES WHEN USING THIS MACHINE. WEAR SHOES WITH NON-SLIP TREADS TO IMPROVE FOOTING ON SLIPPERY SURFACES. DO NOT USE THE MACHINE WEARING OPEN SANDALS OR WHILE BAREFOOT.
- DO NOT WEAR LOOSE CLOTHING OR JEWELRY, WHICH CAN CATCH ON THE MACHINE'S MOVING PARTS.
- WE RECOMMEND WEARING LONG PANTS AND GLOVES WHILE USING THIS MACHINE. BE SURE THE GLOVES FIT PROPERLY AND DO NOT HAVE LOOSE CUFFS OR DRAWSTRINGS.
- WE RECOMMEND THE USE OF EAR PROTECTORS OR EAR PLUGS RATED FOR AT LEAST 20 DBA TO PROTECT YOUR HEARING.
- ALLOW ONLY RESPONSIBLE INDIVIDUALS WHO ARE FAMILIAR WITH THESE GENERAL SAFETY RULES
  AND OPERATING INSTRUCTIONS TO USE YOUR DR ROTO-HOG POWER TILLER. NEVER ALLOW
  PEOPLE WHO ARE UNFAMILIAR WITH THESE RULES AND INSTRUCTIONS TO USE YOUR MACHINE.
- HAVE A COMPLETE WORKING KNOWLEDGE OF YOUR TOW VEHICLE AND KNOW HOW TO HANDLE IT WITH THE DR ROTO-HOG POWER TILLER ATTACHED.
- NEVER PLACE YOUR HANDS, FEET, OR ANY PART OF YOUR BODY NEAR OR UNDER ANY MOVING PART WHILE THE DR ROTO-HOG POWER TILLER ENGINE IS RUNNING.
- KEEP BYSTANDERS AWAY FROM YOUR WORK AREA AT ALL TIMES. TO BE SAFE, DO NOT OPERATE THE DR ROTO-HOG POWER TILLER NEAR CHILDREN OR PETS, AND NEVER ALLOW CHILDREN TO OPERATE THE MACHINE. STOP THE TOW VEHICLE AND THE DR ROTO-HOG POWER TILLER ENGINE WHEN ANOTHER PERSON OR PET APPROACHES.
- DO NOT TOUCH THE MUFFLER AND ENGINE WHEN THE MACHINE IS IN USE AS THEY BECOME VERY HOT AND CAN CAUSE SEVERE BURNS.
- CLEAR THE WORK AREA OF OBJECTS THAT MIGHT JAM OR WRAP AROUND THE TINES SUCH AS
  GLASS, LARGE STICKS, STONES, METAL OBJECTS, WIRE, ROPE, AND STRING-LIKE MATERIALS. USE ON
  THESE OBJECTS COULD DAMAGE THE DR ROTO-HOG POWER TILLER AND/OR CAUSE INJURY.
- DO NOT USE THIS MACHINE AROUND LARGE ROOTS AND SURFACE ROCKS THAT YOU CANNOT REMOVE.
- DO NOT USE THIS MACHINE AROUND UNDERGROUND PIPES AND WIRING.
- IF THE DR ROTO-HOG POWER TILLER ENGINE SHOULD STALL, RAISE THE TINES OUT OF THE SOIL AND DISENGAGE THEM. NEVER ENGAGE THE TINES WHEN THEY ARE IN THE GROUND.
- NEVER, UNDER ANY CONDITIONS, REMOVE, BEND, CUT, FIT, WELD, OR OTHERWISE ALTER
  STANDARD PARTS ON THE DR ROTO-HOG POWER TILLER. THIS INCLUDES ALL SHIELDS AND
  GUARDS. MODIFICATIONS TO YOUR MACHINE COULD CAUSE PERSONAL INJURIES AND PROPERTY
  DAMAGE AND WILL VOID YOUR WARRANTY.

#### **Slope Operation**

# **↑** WARNING!

USE OF MACHINERY ON SLOPES IS A MAJOR FACTOR RELATED TO ACCIDENTS, WHICH CAN RESULT IN SEVERE PERSONAL INJURY. USE OF MACHINERY ON SLOPES REQUIRES CAUTION. IF YOU FEEL UNEASY USING THE DR ROTO-HOG POWER TILLER ON A SLOPE, DO NOT OPERATE IT. ALWAYS TAKE THE FOLLOWING PRECAUTIONS WHEN USING THIS MACHINE ON SLOPES:

#### **ALWAYS:**

- EXERCISE EXTREME CAUTION WHEN CHANGING DIRECTION ON SLOPES.
- WATCH FOR HOLES, RUTS, AND BUMPS ON THE GROUND.

#### **NEVERS:**

- NEVER OPERATE NEAR DROP-OFFS, DITCHES, OR EMBANKMENTS; YOU COULD LOSE CONTROL OF YOUR TOW VEHICLE AND/OR THE DR ROTO-HOG POWER TILLER.
- NEVER OPERATE ON SLOPES GREATER THAN 5 DEGREES, OR ON ANY EXCESSIVELY STEEP SLOPE.
- NEVER OPERATE ON WET, OR SLIPPERY SLOPES. REDUCED TRACTION COULD RESULT IN TIPPING OVER YOUR TOW VEHICLE AND/OR THE DR ROTO-HOG POWER TILLER.
- NEVER PARK THE TOW VEHICLE ON A STEEP GRADE OR SLOPE.

## Safety for Children

# **↑** WARNING!

TRAGIC ACCIDENTS CAN OCCUR IF THE OPERATOR IS NOT ALERT TO THE PRESENCE OF CHILDREN. CHILDREN CAN BE ATTRACTED TO THE DR ROTO-HOG POWER TILLER AND ITS TILLING 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 YOUR TOW VEHICLE AND THE DR ROTO-HOG POWER TILLER ENGINE IF CHILDREN ENTER THE WORK AREA.
- BEFORE, AND WHILE MOVING YOUR TOW VEHICLE BACKWARDS, LOOK BEHIND, AND DOWN FOR SMALL CHILDREN.
- NEVER ALLOW CHILDREN TO OPERATE THE DR ROTO-HOG POWER TILLER.
- USE EXTRA CARE WHEN APPROACHING BLIND CORNERS, SHRUBS, TREES, OR OTHER OBJECTS THAT MAY OBSCURE YOUR VISION.

# **↑** 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 AND ALWAYS FOLLOW THESE PRECAUTIONS:

- NEVER RUN THE DR ROTO-HOG POWER TILLER 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, OPEN FLAME, AND OUT OF THE REACH OF CHILDREN.
- FILL THE GASOLINE TANK OUTDOORS WITH THE ENGINE OFF AND ALLOW THE ENGINE TO COOL COMPLETELY. DO NOT HANDLE GASOLINE IF YOU OR ANYONE NEARBY IS SMOKING, OR IF YOU ARE NEAR ANYTHING THAT COULD CAUSE IT TO IGNITE OR EXPLODE. REPLACE THE FUEL TANK AND FUEL CONTAINER CAPS SECURELY.
- IF YOU SPILL GASOLINE, DO NOT ATTEMPT TO START THE ENGINE. MOVE THE MACHINE AWAY FROM THE AREA OF THE SPILL AND AVOID CREATING ANY SOURCE OF IGNITION UNTIL THE GAS VAPORS HAVE DISSIPATED. WIPE UP ANY SPILLED FUEL TO PREVENT A FIRE HAZARD AND PROPERLY DISPOSE OF THE WASTE.
- ALLOW THE DR ROTO-HOG POWER TILLER ENGINE TO COOL COMPLETELY BEFORE STORING IN ANY ENCLOSURE. NEVER STORE THE MACHINE WITH GAS IN THE TANK OR WITH GAS IN A FUEL CONTAINER NEAR AN OPEN FLAME OR SPARK SUCH AS A WATER HEATER.
- NEVER MAKE ADJUSTMENTS OR REPAIRS WITH THE ENGINE RUNNING. BEFORE MAKING AN
  ADJUSTMENT OR REPAIR, SHUT OFF THE DR ROTO-HOG POWER TILLER ENGINE, WAIT FIVE (5)
  MINUTES TO COOL, THEN 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.
   ALWAYS USE AN APPROVED SPARK TESTER.
- NEVER TAMPER WITH SAFETY DEVICES. REGULARLY CHECK THEIR PROPER OPERATION.
- NEVER CHANGE THE ENGINE GOVERNOR SETTINGS OR MODIFY THE ENGINE SPEED.
   MODIFICATIONS WILL VOID YOUR WARRANTY.
- TO REDUCE FIRE HAZARD, KEEP THE ENGINE AND MUFFLER AREA FREE OF DEBRIS BUILD-UP SUCH AS LEAVES, GRASS, OIL, GREASE, OR ANY OTHER COMBUSTIBLE MATERIAL. CLEAN THE ENGINE AREA AFTER EACH USE.
- NEVER OPERATE THE ENGINE WITHOUT THE MUFFLER. INSPECT THE MUFFLER PERIODICALLY AND REPLACE IF NECESSARY. IF THE ENGINE IS EQUIPPED WITH A MUFFLER DEFLECTOR, INSPECT IT 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.
- ALWAYS CHECK FUEL LINES AND FITTINGS FREQUENTLY FOR CRACKS OR LEAKS, REPLACE IF NECESSARY.

#### General Safety

# **↑** WARNING!

SAFE OPERATION OF THE DR ROTO-HOG POWER TILLER IS NECESSARY TO PREVENT OR MINIMIZE THE RISK OF <u>DEATH OR SERIOUS INJURY</u>. UNSAFE OPERATION CAN CREATE A NUMBER OF HAZARDS FOR YOU. ALWAYS TAKE THE FOLLOWING PRECAUTIONS WHEN OPERATING THIS MACHINE:

- THE DR ROTO-HOG POWER TILLER IS A POWERFUL TOOL AND NOT A PLAYTHING. WHEN USING THIS
  MACHINE, EXERCISE EXTREME CAUTION AT ALL TIMES. THE DESIGN OF THIS MACHINE IS TO TILL
  SOIL. DO NOT USE IT FOR ANY OTHER PURPOSE.
- THE OPERATOR OR USER OF THE DR ROTO-HOG POWER TILLER IS RESPONSIBLE FOR ACCIDENTS OR HAZARDS OCCURRING TO OTHER PEOPLE, THEIR PROPERTY, AND THEMSELVES.
- KNOW HOW TO QUICKLY STOP THE DR ROTO-HOG POWER TILLER. SEE PAGE 23.
- NEVER ALLOW PEOPLE OR PETS TO RIDE ON THIS MACHINE.
- IF THE MACHINE SHOULD MAKE AN UNUSUAL NOISE OR VIBRATION, SHUT OFF THE TOW VEHICLE
  AND THE DR ROTO-HOG POWER TILLER ENGINES. VIBRATION IS GENERALLY A WARNING OF
  TROUBLE. WAIT FIVE (5) MINUTES FOR THE DR ROTO-HOG POWER TILLER ENGINE TO COOL.
  DISCONNECT THE SPARK PLUG WIRE AND THEN INSPECT THE MACHINE FOR CLOGGING, DAMAGED
  TINES, OR LOOSE ENGINE MOUNTING BOLTS. CLEAR ANY OBSTRUCTIONS AND REPAIR AND/OR
  REPLACE DAMAGED PARTS.
- ALWAYS KEEP THE MACHINE IN GOOD SAFE OPERATING CONDITION. ALWAYS MAKE CERTAIN NUTS
  AND BOLTS ARE TIGHT AND ALWAYS USE THE SUPPLIED SELF-LOCKING HARDWARE. DO NOT USE
  SUBSTITUTE HARDWARE.
- ALWAYS SHUT OFF THE TOW VEHICLE AND DR ROTO-HOG POWER TILLER ENGINE, WAIT FIVE (5)
   MINUTES TO COOL, AND DISCONNECT THE SPARK PLUG WIRE BEFORE ATTEMPTING TO CLEAR ANY OBSTRUCTIONS.
- USE THE DR ROTO-HOG POWER TILLER ONLY IN DAYLIGHT AND GIVE COMPLETE AND UNDIVIDED ATTENTION TO THE JOB AT HAND.
- DO NOT HURRY OR TAKE THINGS FOR GRANTED WHEN USING THE DR ROTO-HOG POWER TILLER.
   WHEN IN DOUBT ABOUT THE MACHINE OR YOUR SURROUNDINGS, STOP THE MACHINE AND TAKE TIME TO LOOK THINGS OVER.
- EXERCISE EXTREME CAUTION WHEN ON OR CROSSING DRIVES, WALKS, OR ROADS. STAY ALERT FOR HIDDEN HAZARDS OR TRAFFIC.
- NEVER LEAVE THE DR ROTO-HOG POWER TILLER UNATTENDED WITH THE ENGINE RUNNING. IF LEAVING THE MACHINE, SHIFT THE TOW VEHICLE INTO NEUTRAL AND SET THE PARKING BRAKE; DISENGAGE AND LOWER THE TINES; TURN OFF THE TOW VEHICLE ENGINE AND REMOVE ITS KEY; TURN OFF THE DR ROTO-HOG POWER TILLER ENGINE. ON ELECTRIC START MODELS, REMOVE THE KEY.
- PRIOR TO TRANSPORTATION TO AND FROM THE WORK AREA, DISENGAGE THE TINE DRIVE, STOP THE ENGINE, AND RAISE THE TINES.
- 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 COUNTRY HOME PRODUCTS, INC.
- 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 THE
  DR ROTO-HOG POWER TILLER IN A SAFE MANNER. CALL 1-800-DR-OWNER (376-9637) FOR ASSISTANCE.
- 8 **DR**<sup>®</sup> ROTO-HOG™ POWER TILLER

#### 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 ROTO-HOG POWER TILLERS shipped to California and Washington State are provided with spark arresters. Failure of the owner/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 local fire marshal or forest service for specific information in your area.

## **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.

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## SETTING UP YOUR DR ROTO-HOG POWER TILLER

This chapter outlines a few simple steps you will need to follow to set up your new machine before you use it. It may be helpful to familiarize yourself with the controls and features on your new machine by reviewing *Figure 1* on the following page before beginning the steps outlined in this chapter. If you have any questions at all, please feel free to contact our Technical Support Representatives at our Toll-Free number: 1-800-DR-OWNER (376-9637).

## **DR ROTO-HOG POWER TILLER Controls and Features**

**NOTE:** The model shown in **Figure 1** may look slightly different from your machine.

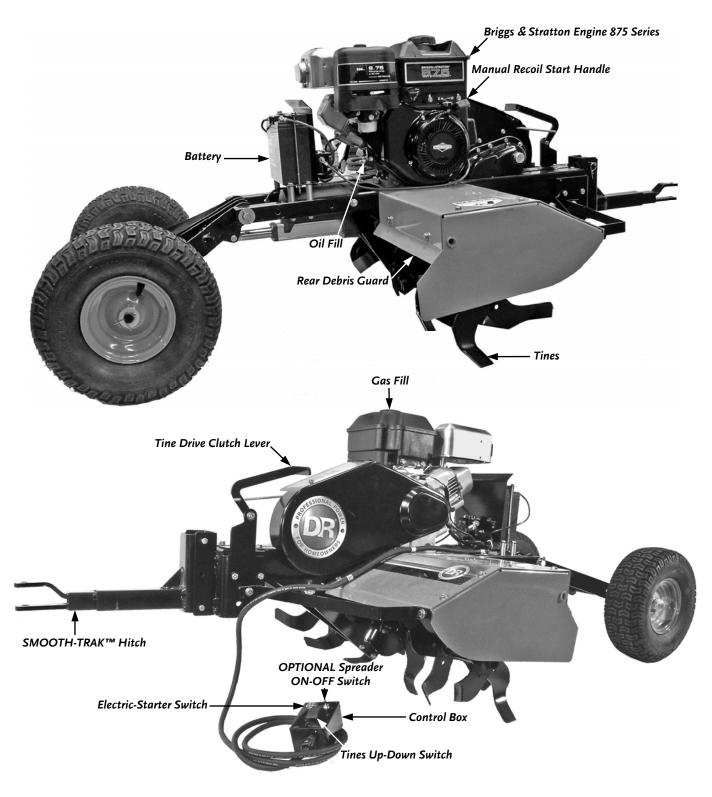


Figure 1

**DR**<sup>®</sup> ROTO-HOG™ POWER TILLER

## **Unpacking and Assembling the Machine**

Your DR ROTO-HOG POWER TILLER shipped in one carton, completely assembled except for the Wheels, Tow Bar, and Battery.

**NOTE:** Unpacking and assembling the DR ROTO-HOG POWER TILLER is a two-person job, as the Manual Start Unit weighs 259 pounds and the Electric Start Unit weighs 264 pounds. We recommend you have an extra set of hands available before you begin.

#### Parts Supplied on Shipping Pallet:

- DR ROTO-HOG POWER TILLER
- Hardware Bag: (Located on the Gas Tank of the unit.)
  - (6) Shear Pin, 3/8" x 1-3/4"
  - (6) Hair Cotter Pin, 1/8" x 1-5/8"
  - (1) Battery Charger
  - (1) Alligator Clip Wire
  - (2) Flat Washer, 3/4"
  - (2) Cotter Pin, 3/16" x 2"
  - (1) Channel Pin, 1/2"
  - (1) Hair Cotter Pin, 5/32" x 3"
- (2) Wheels
- Tow Bar w/SMOOTH-TRAK™ Hitch
- Battery w/Battery Bar

- (1) Safety & Operating Instructions Manual
- (1) Briggs & Stratton Engine Manual
- (1) Hook & Loop Strap
- (1) Battery Strap
- (2) Bolt, 1/4" x 7-1/2"
- (2) Lock Nut, 1/4"
- (1) Clevis Pin, 3/8" x 4"
- (1) Hair Cotter Pin, .08" x 1.58"

## **Opening the Shipping Carton**

#### Tool Needed:

- Pliers
- Knife
- (2) 7/16" Wrench
- 1/2" Wrench or Socket
- Hammer or Mallet
- Gloves
- (2) 5/16" Wrench



Figure 2



Figure 3

## A CAUTION!

## STABILIZE THE SHIPPING CONTAINER ON A FLAT SURFACE BEFORE ATTEMPTING TO UNPACK AND ASSEMBLE THE MACHINE.

- 1. Using Pliers, carefully remove the staples from the bottom corners of the cardboard box and lift it off the pallet (*Figure 2*). Be careful of the staples; they are sharp.
- 2. Using a Hammer or Mallet, remove the top and sides of the shipping crate (Figure 3).
- 3. Cut the Zip-Ties from around the Tires and Battery and remove them from the shipping pallet.
- 4. Remove the Hardware Bag from on top of the Gas Tank of the machine.

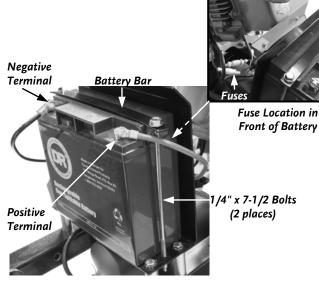


Figure 4

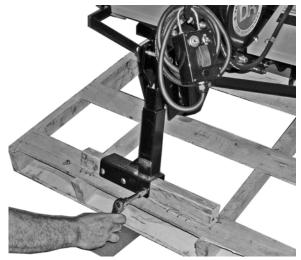
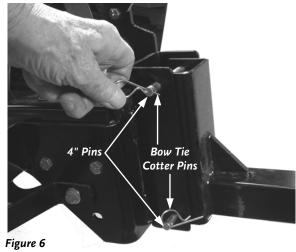


Figure 5



14 **DR**<sup>®</sup> ROTO-HOG™ POWER TILLER

- 5. Place the Battery in the Battery Bracket and secure it using the Battery Bar with two (2) 1/4" x 7-1/2" Bolts and 1/4" Lock Nuts from the Hardware Bag using two (2) 7/16" Wrenches (*Figure 4*).
- 6. Using a 1/2" Wrench or Socket, remove the three (3) screws securing the SMOOTH-TRAK™ Hitch to the shipping pallet (*Figure 5*).
- 7. Using the two (2) 4" Pins and Bow-Tie Cotter Pins from the Hardware Bag, attach the Tow Hitch to the machine (*Figure 6*).
- 8. Using a 1/2" Wrench, remove the four (4) Bolts from the Axle Hold-Down Brackets at the rear of the shipping pallet (*Figure 7* on page 15) and remove the Bracket from each Axle.

**NOTE:** At this point, you will have two (2) Screws from the Hitch, four (4) Screws from the Axle Brackets, and the two (2) Axle Brackets. All this hardware was for shipping and is NOT required for assembly.

- 9. Using two (2) 5/16" Wrenches, attach the Battery Cables to the Battery (*Figure 4*).
- 10. Using the Control Box (*Figure 8* on page 15), lower the Tines all the way down, which will raise the Wheel Axles from the pallet.
- 11. Slide a Wheel onto each Axle making sure that the Wheel Valve Stem is to the outside (*Figure 9* on page 15).
- 12. From the Hardware Bag, place one (1) Flat Wheel Washer on each Axle, slide a Cotter Pin through the Hole in the Axle on each side, and spread the Cotter Pin Legs using Pliers (*Figure 9* on page 15).
- 13. Raise the Tines, lowering the Wheels, and roll the machine from the shipping pallet. Do not discard your packaging material until you are fully satisfied with your new DR ROTO-HOG POWER TILLER.

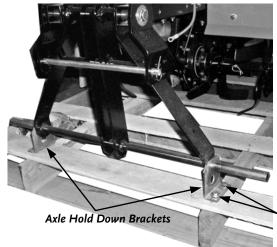


Figure 7

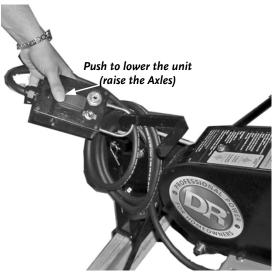
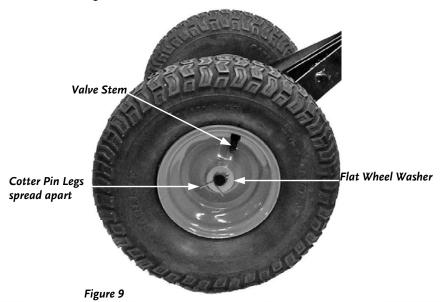


Figure 8



2-Bolts each side

#### **Charging the Battery**

# **↑** WARNING!

#### **ELECTRICAL HAZARD: PREVENT FIRE**

- NEVER MODIFY THE DR ROTO-HOG POWER TILLER'S ELECTRICAL SYSTEM. MODIFICATIONS COULD
  RUIN THE ELECTRICAL SYSTEM AS WELL AS CAUSE A FIRE, RESULTING IN SERIOUS INJURY.
- USING ELECTRICAL COMPONENTS OTHER THAN THOSE SUPPLIED WITH YOUR MACHINE COULD CAUSE THE ELECTRICAL SYSTEM TO OVERHEAT, EXPLODE, OR START A FIRE.
- USING THE WRONG TYPE OF BATTERY OR CHARGER COULD CAUSE A FIRE OR EXPLOSION, RESULTING IN SERIOUS INJURY.
- USE THE 12-VOLT CHARGER SUPPLIED WITH YOUR MACHINE OR A 12-VOLT, 2 AMP MAX, SUBSTITUTE CHARGER TO CHARGE THE BATTERY.
- USE THE CHARGER ONLY IN DRY LOCATIONS. AVOID CONTACT WITH WATER.
- ONLY ADULTS SHOULD HANDLE THE BATTERY. IT CONTAINS SULFURIC ACID (AN ELECTROLYTE) AND THE BATTERY IS HEAVY; DROPPING IT COULD RESULT IN SERIOUS INJURY.
- NEVER ALLOW CHILDREN TO CHARGE THE BATTERY. THE ELECTRICITY INVOLVED IN CHARGING THE BATTERY COULD CAUSE SEVERE INJURY.
- EXAMINE THE CHARGER, ITS CONNECTORS, AND THE BATTERY FOR EXCESSIVE WEAR OR DAMAGE EACH TIME YOU CHARGE THE BATTERY. IF YOU SEE ANY EXCESSIVE WEAR OR DAMAGE, DO NOT USE THE CHARGER OR THE BATTERY, REPLACE THEM.
- NEVER LIFT OR CARRY THE BATTERY BY THE CABLES OR TERMINALS. THIS CAN DAMAGE THE BATTERY AND POSSIBLY START A FIRE, RESULTING IN SERIOUS INJURY. LIFT AND CARRY THE BATTERY ONLY BY ITS CASE.
- DO NOT SHORT CIRCUIT THE BATTERY.

## About the Battery

The DR ROTO-HOG POWER TILLER comes with a 12-Volt, maintenance-free, rechargeable, sealed lead acid Battery. A fully charged Battery runs about 20 hours or 400 up/down cycles. Properly maintained and charged, the Battery provides years of dependable service.

#### Extra Wire

**NOTE:** There is an extra wire in the Battery Wire Harness. This wire is for connection to an Optional Electric Spreader.

#### **Charging the Battery**

Charging the Battery is a simple process. Leave the Battery in your DR ROTO-HOG POWER TILLER when you charge it.

- 1. Attach the Black (-) alligator clipped wire from the Charger Adapter to the (-) terminal of the Battery, then attach the Red (+) alligator clipped wire to the (+) Battery terminal.
- 2. Plug the Charger into a standard wall outlet.
- Typically, the Battery takes between 6 and 8 hours to fully charge. The Battery does not have a "memory"; so don't worry about overcharging the Battery or charging it too often.
- You can charge the Battery many times. The Battery lasts longer if you charge it before it is fully drained. Keep it fully charged and at room temperature when not using your DR ROTO-HOG POWER TILLER.
- Once the Battery is charged, pull the plug from the wall outlet and then remove the Charger from your Battery. However, you can leave your Battery plugged in and charging for an extended period.
- Store the Charger in its self-locking plastic shipping bag. Keep the Charger in a dry location.
- 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, detach the cables, remove the Battery Clamp, and remove the dead Battery. Next, install the
  new Battery, replace the Battery Clamp, and attach the cables. Refer to the assembly instructions for
  more details on page 14.

# **↑** NOTICE!

WHEN THE BATTERY GETS OLD AND NO LONGER ACCEPTS A CHARGE, REMOVE IT FROM YOUR DR ROTO-HOG POWER TILLER. NEVER LEAVE A DEAD BATTERY IN YOUR MACHINE.

#### Adding the Engine Oil and Gasoline

# **↑** NOTICE!

- YOU MUST ADD OIL BEFORE STARTING THE ENGINE. THIS MACHINE 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.

Capacities				
Briggs & Stratton - 875 Series, 8.75 FPT, OHV, 206CC	SAE 30 High Detergent Oil – 20 oz. (.60L)			
Gasoline Tank	Unleaded Gas (85 Octane minimum), 3.0 Qts. (2.8 L)			

**Tip:** To avoid confusion, we recommend leaving the Caps on the Fuel and Engine Oil Fills and only removing one Cap each time when you are ready to pour gasoline or oil into the correct Fill.

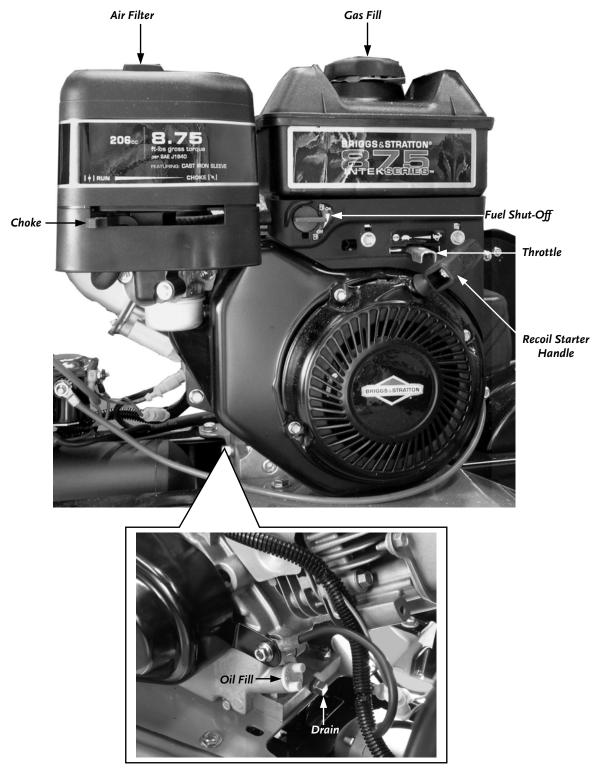
**NOTE:** Use SAE 30 High Detergent oil classified "For Service SF, SG, SH, SJ" or higher. Do not use special additives. Other types of oil could cause problems operating your machine. Please refer to your Engine Owner's Manual for detailed oil information.

- 1. Place the machine on a level surface and initially add 16 oz. (1/2 quart) of SAE 30 High Detergent oil, recommended by the Engine Manufacturer, and wait one minute for the oil to settle (*Figure 10* page 19).
- 2. Continue adding a few ounces of oil at a time, until the oil reaches just below the threads. Be careful not to overfill (*Figure 10* page 19).
- 3. Fill the Gas Tank with fresh, unleaded gas (with a minimum of 85 Octane), to approximately 1" to 1-1/2" below the bottom of the Fill Neck to allow for Fuel expansion (*Figure 10* page 19). Be careful not to overfill and reinstall the Cap before starting the Engine. See your Engine Owner's Manual for more information.

**NOTE:** To refill the Gas Tank, turn the Engine OFF, and let the Engine cool at least two (2) minutes before removing the Gas Fill Cap.

# **!** WARNING!

FILL GAS TANK OUTDOORS OR IN A WELL-VENTILATED AREA, AWAY FROM SPARKS, OPEN FLAMES, PILOT LIGHTS, HEAT, AND OTHER IGNITION SOURCES.



Oil Fill & Drain

Figure 10

#### Connecting the DR ROTO-HOG POWER TILLER to your Tow Vehicle

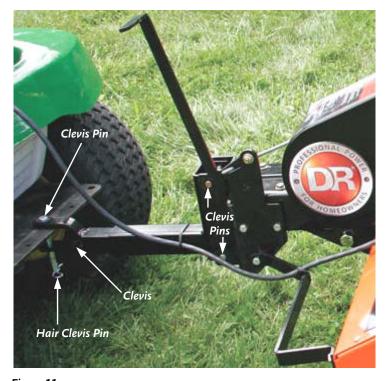


Figure 11

The following procedure is for connecting the DR ROTO-HOG POWER TILLER to your tow vehicle.

- Back up your Tow Vehicle so that the Hitch of the Vehicle is in line with and next to the Hitch on the DR ROTO-HOG POWER TILLER. Set the Parking Brake on the Tow Vehicle.
- Adjust the height of the Clevis on the Hitch on the DR ROTO-HOG POWER TILLER using the Control Box for the Actuator so the Clevis is ready to attach to the Hitch of the Tow Vehicle.

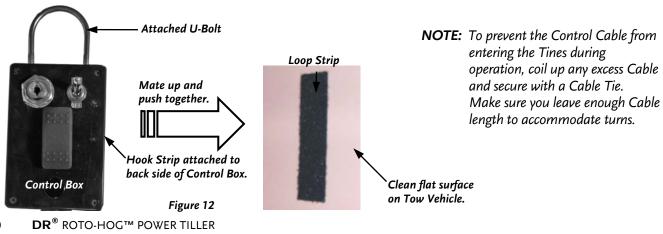
NOTE: The height of machine is adjustable by +/3" by removing the two (2) Clevis Pins
(Figure 11) and re-positioning the Hitch
up or down. The lower the front of the
frame, the deeper the Tine depth for
tilling, but you will lose transport height.

 Remove the Hair Clevis Pin and Clevis Pin from the Clevis. Back the Tow Vehicle so the Hitch on the Tow Vehicle goes into the Clevis. Set the Parking Brake on the Tow Vehicle and reinstall the Clevis Pin and Hair Clevis Pin (Figure 11).

## Attaching the DR ROTO-HOG POWER TILLER Control Box

The following procedure includes the steps necessary for attaching the DR ROTO-HOG POWER TILLER Control Box to your Tow Vehicle. There are two (2) options for attaching the Control Box:

- Hang the Control Box by the attached U-Bolt (Figure 12) in an accessible and comfortable position
  on your Tow Vehicle from which you can operate the Control Box; or,
- Attach the Control Box on a clean flat surface using the self-adhesive Hook and Loop strips provided with the DR ROTO-HOG POWER TILLER (*Figure 12*).



## OPERATING YOUR DR ROTO-HOG POWER TILLER

This chapter covers the procedures for starting and stopping your new DR ROTO-HOG POWER TILLER and discusses basic operation features. There are three (3) applications for the DR ROTO-HOG POWER TILLER: Garden Tilling, Sod Busting, and small Food Plot installation.

# **↑** WARNING!

- THE DESIGN OF THIS MACHINE IS FOR TILLING SOIL. NEVER USE THIS MACHINE FOR ANY OTHER PURPOSE AS IT COULD CAUSE SERIOUS INJURY.
- CONTACT WITH INTERNAL ROTATING PARTS WILL CAUSE SERIOUS PERSONAL INJURY. NEVER PUT HANDS, FACE, FEET, OR CLOTHING UNDER OR NEAR THE DEBRIS SHIELD WITH THE ENGINE RUNNING.
- BEFORE PERFORMING ANY MAINTENANCE PROCEDURE OR INSPECTION, STOP THE ENGINE AND WAIT FIVE (5) MINUTES TO ALLOW ALL PARTS TO STOP AND COOL. DISCONNECT THE SPARK PLUG WIRE KEEPING IT AWAY FROM THE SPARK PLUG.

#### **Operator Controls**

The Operator's Position is from the seat of the Tow Vehicle. See *Figure 13* for the Operator's controls.

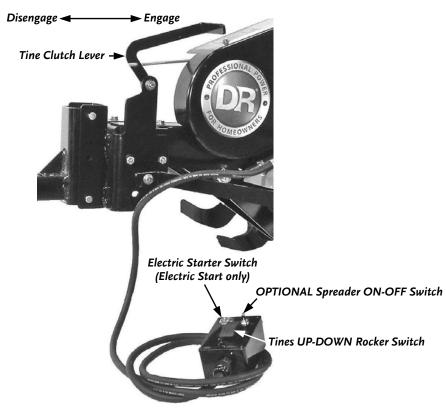


Figure 13

CALL TOLL-FREE 1-800-DR-OWNER

#### **Before Starting the Engine**

# **↑** WARNING!

INSPECT THE AREA WHERE YOU WILL BE WORKING. THE SITE MUST BE FREE OF POTENTIALLY HAZARDOUS OBSTACLES SUCH AS GLASS, LARGE STONES, STICKS, WIRE, ROPE, AND STRING-LIKE MATERIALS. MAKE SURE THERE ARE NO PEOPLE OR ANIMALS IN THE AREA AROUND THE DR ROTO-HOG POWER TILLER.

## **CAUTION!**

REMOVE ALL LONG VEGETATION FROM THIS SITE. LONG VEGETATION WILL WRAP AROUND THE TINES AND CAUSE POOR PERFORMANCE.

- 1. Raise the Tines and place the machine on level ground.
- 2. Check the Engine oil level every time you use the machine (see Figure 10 on page 19).
- 3. Check the gasoline level (see Figure 10 on page 19).
- 4. Remove any built up debris from the Tines.
- 5. Pull the Tine Clutch Lever all the way forward until it locks into place to disengage the Tines. A Safety Interlock Switch prevents the Engine from starting with the Tines engaged.
- 6. Turn the Fuel Shut-Off to the ON position (see *Figure 10* on page 19).

## **Manual Starting**

**NOTE:** You may use this starting method even though the DR ROTO-HOG POWER TILLER may be equipped with Electric Starting; however, make sure the Key is in the RUN position.

- 1. When starting a cold Engine, push the Choke Control Lever to the right (CHOKE) and the Throttle Control Lever to the far right FAST (RABBIT). See *Figure 10* on page 19.
- 2. Grasp the Recoil Starter Handle (*Figure 10* on page 19) and <u>slowly pull until you feel resistance</u>, then pull the cord with a <u>smooth accelerating motion</u> to start the Engine. Do not let the Starter Handle snap back against the Engine. One or two pulls usually starts the DR ROTO-HOG POWER TILLER.
- 3. After the Engine starts, slowly push the Choke Control Lever to the left (RUN). See *Figure 10* on page 19. Wait until the Engine runs smoothly before each Choke adjustment. For the best Engine performance, you should operate the Engine with the Throttle in the Fast (RABBIT) position (*Figure 10* on page 19).

## **Electric Starting**

- 1. When starting a cold Engine, push the Choke Control Lever to the far right (CHOKE) and the Throttle Control Lever to the far right FAST (RABBIT). See *Figure 10* on page 19.
- 2. Turn the Key (*Figure 14*) all the way clockwise until the Engine starts, then release. The Key will snap back to the RUN position and the Engine will continue to run.
- 3. After the Engine starts, slowly push the Choke Control Lever to the left (RUN) position (*Figure 10* on page 19). Wait until the Engine runs smoothly before each Choke adjustment. For optimum performance of the DR ROTO-HOG POWER TILLER, you should operate the Engine with the Throttle in the Fast (RABBIT) position (*Figure 10* on page 19).

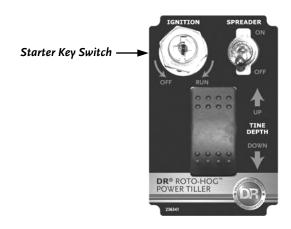


Figure 14

## Stopping the Engine

Manual Start model: Move the Throttle (Figure 10 on page 19) all the way back to the STOP position.

<u>Electric-Start model:</u> Move the Throttle (*Figure 10* on page 19) all the way back to the STOP position, or; move the Throttle to the SLOW (Turtle) position and turn the Key to OFF.



NEVER STOP THE ENGINE BY MOVING THE CHOKE LEVER TO THE CHOKE POSITION. THIS COULD CAUSE AN ENGINE BACKFIRE RESULTING IN ENGINE DAMAGE.

## Operating Safety

## **↑** WARNING!

- BE THOROUGHLY FAMILIAR WITH THE CONTROLS AND THE PROPER USE OF YOUR DR ROTO-HOG POWER TILLER BEFORE USING. NEVER ALLOW ANYONE TO OPERATE THE DR ROTO-HOG POWER TILLER WITHOUT FIRST READING AND UNDERSTANDING ALL INSTRUCTIONS IN THIS MANUAL.
- NEVER ALLOW PEOPLE OR PETS TO RIDE ON THIS MACHINE.
- ALWAYS CHECK FOR OBJECTS AND OBSTACLES IN THE PATH OF THIS MACHINE BEFORE MOVING.
- ALWAYS WEAR PROTECTIVE GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS TO PROTECT YOUR EYES FROM POSSIBLE OBJECTS THROWN FROM THIS MACHINE.
- DO NOT WEAR LOOSE CLOTHING OR JEWELRY, WHICH CAN CATCH ON THE MACHINE'S MOVING PARTS.
- WE RECOMMEND WEARING LONG PANTS AND GLOVES WHILE USING THIS MACHINE. BE SURE THE GLOVES FIT PROPERLY AND DO NOT HAVE LOOSE CUFFS OR DRAWSTRINGS.
- WE RECOMMEND WEARING SAFETY SHOES WHEN USING THIS MACHINE. WEAR SHOES WITH NON-SLIP TREADS TO IMPROVE FOOTING ON SLIPPERY SURFACES. DO NOT USE THE MACHINE WEARING OPEN SANDALS OR WHILE BAREFOOT.
- WE RECOMMEND THE USE OF EAR PROTECTORS OR EAR PLUGS RATED FOR AT LEAST 20 DBA TO PROTECT YOUR HEARING.
- NEVER PUT YOUR HANDS NEAR THE TINES TO CLEAR DEBRIS WHILE THE ENGINE IS RUNNING.
   ALWAYS SHUT OFF THE DR ROTO-HOG POWER TILLER ENGINE AND DISCONNECT THE SPARK PLUG WIRE BEFORE CLEARING DEBRIS.
- DO NOT REFUEL THE ENGINE WHILE IT IS HOT OR RUNNING.

# **⚠** NOTICE!

USE COMMON SENSE WHEN USING THE MACHINE. LEARN TO RECOGNIZE THE CHANGE IN SOUNDS WHEN IT IS OVERLOADED. TURN OFF THE ENGINE IMMEDIATELY IF THE MACHINE BECOMES JAMMED TO PREVENT DAMAGE TO THE DRIVE SYSTEM.

## **Understanding the Control Box**

The Control Box contains a 3-position momentary Rocker Switch. The "Raise" position raises the Tines (lowers the Wheels). The "Lower" position lowers the Tines (raises the Wheels). When you release the Switch, it will return to center or OFF position (*Figure 15*). The Control Box also contains the Engine Electric-Start Key Switch for the Electric-Start model and the Optional Spreader ON-OFF Switch.

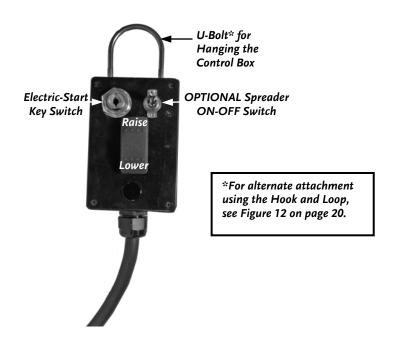


Figure 15

#### **Operating Parameters**

The DR ROTO-HOG POWER TILLER is designed to be used with most ATVs, Lawn\Garden Tractors, and Compact Tractors. The DR ROTO-HOG POWER TILLER should never be used with a Truck (2WD or 4WD). Use of a Truck will void the DR ROTO-HOG POWER TILLER Warranty.

#### **Operating Procedures**

There are three (3) applications for the DR ROTO-HOG POWER TILLER: Garden Tilling, Sod Busting, and small Food Plot installation.

#### Gardens:

- 1. Check the area for large stones and foreign objects that could snag or wedge into the tines.
- 2. Perform a soil test to assess needs for soil treatment.

**Tip:** If a soil test indicates amendments necessary (lime, fertilizers, sulfur, etc) then apply before tilling to best integrate it into the soil. You can apply amendment with the Optional Spreader and incorporate it with the Tiller.

3. Check wetness in the soil to determine if clumping will require slower Tow Vehicle speeds.

#### **Food Plot Installation and Sod Busting:**

- 1. Clear the work area of objects such as glass, large sticks and stones, roots, metal objects, wire, rope, and string-like materials.
- 2. Cut all vegetation to the lowest possible height.
- 3. Remove the cut vegetation by either rake, vacuum, blowing OR allow it to dry several days and re-cut.



#### FAILURE TO REMOVE LONG VEGETATION WILL RESULT IN FREQUENT STALLING OF THE ENGINE.

**NOTE:** For information on ordering the optional equipment, call Country Home Products at: **1-800-DR-OWNER (376-9637).** 

- 4. Refer to seed specifications to determine the optimal depth of tillage necessary.
- 5. With initial pass, begin breaking only the top inch of soil to breakup sod.
- 6. Break the soil thoroughly across the entire area. See "Tilling Tips" on the next page.
- 7. Gradually lower the Tines 1-2 inches and repeat step 6 until you are satisfied with the tillage created.
- 8. Using the Optional Spreader, apply seed at a rate specified by the seed manufacturer.

#### Tilling Tips

- In compacted soil or sod, or in food plot and sod busting applications, several passes may be necessary to till to a depth of seven (7) inches. For the first pass, just scratch the surface. The depth for each successive pass needs to be determined by individual site and soil conditions. If the machine stalls repeatedly, you should till slower or not as deep.
- Check the ground moisture. DO NOT till if you can make a ball of soil in your hand from the ground to be tilled; it is too wet. Create full tillage (depths up to 7") after entire area is dry.
- To obtain the most efficient tillage, operate the DR ROTO-HOG POWER TILLER Engine at full throttle at the slowest speed of your Tow Vehicle.
- When operating the machine for the first time, proceed slowly and carefully until you become familiar with the proper method of operating the machine.
- Soil conditions will determine how deep the machine can penetrate on the first pass.
- In damp soil, till only the top inch of seedbed. Allow tillage to dry for several hours in sunny and/or windy conditions.
- Listen to your DR ROTO-HOG POWER TILLER Engine. When the Engine RPM decreases or stalls (overloaded condition) raise the Tines for shallower tilling. If the Engine is lightly loaded, lower the Tines to increase the tilling depth.
- If the soil is extremely hard and dry, it may be desirable to "cross till" an area at a shallow depth first, then till the soil in the direction of planting rows on subsequent passes until the desired tillage is obtained.
- Where possible, we recommend that you till in a pattern similar to that shown in *Figure 16*.
  - 1. Make the first pass.

**NOTE:** If you raise the tines at the end of a pass, use care to lower them back to the same depth. Tilling too deep on the first pass may cause the Tiller to stall or break Shear Pins.

- 2. Skip a space equal to the width of the machine.
- 3. Make the return pass.
- 4. Till the skipped areas.

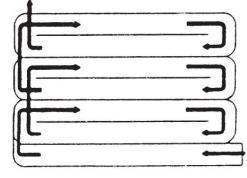


Figure 16

## **Cultivating Tips**

You can use the DR ROTO-HOG POWER TILLER for cultivating (*Figure 17*), which requires a minimum of two (2) inches of soil penetration.

- Set the tines so they will penetrate the soil to a depth of two (2) to three (3) inches.
- Run the DR ROTO-HOG POWER TILLER Engine at Full Throttle.

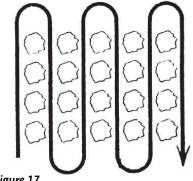


Figure 17

CALL TOLL FREE 1-800-DR-OWNER

## Slopes and Uneven Terrain

# **↑** WARNING!

- NEVER OPERATE YOUR DR ROTO-HOG POWER TILLER ON SLOPES GREATER THAN 5 DEGREES.
   DOING SO COULD RESULT IN SERIOUS INJURY OR DAMAGE TO YOUR MACHINE.
- WHEN OPERATING THE MACHINE OVER UNEVEN TERRAIN AND SLOPES, USE EXTREME CAUTION TO NOT TIP OVER THE MACHINE. MOVE SLOWLY IF THE GROUND HAS RUTS, BUMPS, AND OTHER DEPRESSIONS.

## **Handling and Transporting**



NEVER LIFT THE MACHINE WHILE THE ENGINE IS RUNNING.

We recommend using two (2) people to lift the DR ROTO-HOG POWER TILLER. Lift the machine by the SMOOTH-TRAK™ Hitch to connect and disconnect from your Tow Vehicle. To transport the machine with your Tow Vehicle, first raise the tines to the MAX position (lower the Wheels) using the Control Box.

# **↑** NOTICE!

- THE DR ROTO-HOG POWER TILLER IS NOT EQUIPPED FOR TOWING ON ANY PUBLIC ROADWAY.
- WHEN TOWED, THE MAXIMUM SAFE TOWING SPEED IS 10 MPH.

## MAINTAINING THE DR ROTO-HOG POWER TILLER

This chapter covers regular maintenance procedures that will ensure the best performance and long life of your DR ROTO-HOG POWER TILLER. For Engine maintenance, please refer to the Engine Owner's Manual that came with your machine. Service intervals listed in the checklist below supercede those listed in the Engine Owner's Manual.



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.

## Regular Maintenance Checklist

**NOTE:** Consider that the service intervals shown are the maximum under normal operating conditions. Increase frequencies under extremely dirty or dusty conditions.

Procedure	Before Each Use	Every 8-10 Hours	Every 35 Hours
Check the Engine Oil Level	<b>A</b>		
Clean the Tines and Debris Shield*	After each use		
Check the general condition of the machine, e.g. nuts, bolts, welds, etc.	<b>A</b>		
Clean Engine Exterior & Cooling Fins	<b>A</b>		
Check the Tines Shear Pins for wear	<b>A</b>		
Grease the Tines Shaft		<b>A</b>	
Check Battery Voltage		<b>A</b>	
Clean Air Filter		<b>A</b>	
Inspect the Tine Drive Belt for wear			<b>A</b>
Check Tines for Wear			<b>A</b>
Change Engine Oil NOTE: 1st time 5 hrs.			<b>A</b>
Replace Air Filter and Pre-cleaner			<b>A</b>
Replace the Tine Drive Belt			<b>A</b>
Replace Spark Plug			<b>A</b>

<sup>\*</sup> Cover the Engine Muffler, Carburetor, and Air Filter before using a hose to clean the Tines and Debris Shield. Do not use a power washer; this may force water through the seals of the Actuator.

#### Lubrication

# **↑** 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.

Your DR ROTO-HOG POWER TILLER was lubricated at the Factory. However, periodic lubrication of the Engine and Tines Shaft is required.

#### **Supplies Needed:**

Grease Gun w/General purpose grease

# **↑** NOTICE!

NEVER OIL OR GREASE PIVOT POINTS. VISCOUS LUBRICANTS WILL ATTRACT DUST AND DIRT THAT CAN CAUSE WEAR ON PIVOT POINTS. IF YOU FEEL YOU MUST LUBRICATE THEM, USE ONLY DRY POWDERED GRAPHITE TYPE LUBRICANTS.

#### **Tines Shaft:**

Grease the Tines Shaft using a Grease Gun with General Purpose grease every 8-10 hours. Apply about ten (10) pumps of the grease in the Grease Fitting (*Figure 18*). Perform this lubrication more often in dry and dusty environments.

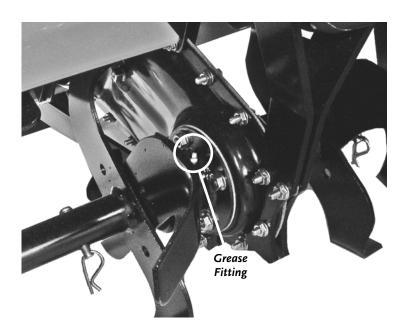


Figure 18

## Removing and Replacing the Engine Oil

## **↑** 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.

# **↑** NOTICE!

BE CERTAIN TO FILL THE ENGINE WITH OIL BEFORE STARTING. SEE PAGE 18.

#### **Tools & Supplies Recommended:**

- Flat Head Screw Driver
- Vacuum Pump Oil Drainer
- SAE 30 High Detergent, 20 oz. (0.60L)

**NOTE:** Remove the oil when the engine is warm. Warm oil flows quickly and completely.

- 1. Using a Flat Head Screw Driver, remove the Oil Fill Cap and vacuum the oil from the Engine through the Oil Fill (*Figure 10* on page 19) using a Vacuum Pump Oil Drainer.
- 2. Replace the oil by following the instructions on page 18.

**NOTE:** Use SAE 30 High Detergent oil classified "For Service SF, SG, SH, SJ" or higher. Do not use special additives. Other types of oil could cause problems operating your machine. Please refer to your Engine Owner's Manual for detailed oil information.

3. Reattach the Spark Plug wire.

**NOTE:** Be sure to use environmentally safe disposal procedures for the used oil.

#### **Battery Care**

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

- Before charging the Battery, observe its external appearance and keep it clean and dry. Never charge or
  use a Battery that shows cracks, changes shape, leaks, or otherwise obviously damaged.
- Do not allow the Battery to run down completely before charging. Leaving the Battery discharged damages the Battery. If the machine is not used, charge the Battery every 4 to 6 weeks. Operate the Engine for at least 45 minutes to maintain proper Battery charge (Electric Start model only).
- Store an unused Battery in a dry area that does not freeze.
- Do not charge an already charged Battery. In theory, you cannot overcharge our Battery with a trickle charger; however, when a Battery is fully charged and the Charger is still on, it generates heat that could be harmful to the Battery. A fully charged Battery will read 12V-13.2V with a voltmeter.
- Do not continue to crank the Engine, or raise and lower the Tines, when the Battery charge is low.
- If the Battery begins to leak, avoid contact with the leaking acid. Place the damaged Battery in a plastic bag, then dispose of it properly.



IF BATTERY ACID DOES CONTACT YOUR SKIN OR EYES, FLUSH WITH COOL WATER FOR AT LEAST 15 MINUTES AND CALL A PHYSICIAN. IF YOU INGEST ACID, CALL A PHYSICIAN IMMEDIATELY.

#### **Charging the Battery**

Operate the Engine for at least 45 minutes to maintain proper Battery charge (Electric Start model only). If the Battery loses its charge, you will need to use a trickle Charger (like the DR Battery Charger) to recharge it. The Charger should have an output of 12 volts at no more than 2 amps.

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

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

Charging the Battery is a simple process. Leave the Battery in your DR ROTO-HOG POWER TILLER when you charge it.

To connect a Battery Charger to your DR ROTO-HOG POWER TILLER, follow the steps listed below.

- 1. Attach the Black (-) alligator clipped wire from the Charger Adapter to the (-) terminal of the Battery, then attach the Red (+) alligator clipped wire to the (+) Battery terminal.
- 2. Plug the Charger into a standard wall outlet.
- Typically, the Battery takes between 6 and 8 hours to fully charge. The Battery does not have a "memory"; so don't worry about overcharging the Battery or charging it too often.
- You can charge the Battery many times. The Battery lasts longer if you charge it before it is fully drained. Keep it fully charged and at room temperature when not using your DR ROTO-HOG POWER TILLER.

- Once the Battery is charged, pull the plug from the wall outlet and then remove the Charger from your Battery. However, you can leave your Battery plugged in and charging for an extended period.
- Store the Charger in its self-locking plastic shipping bag. Keep the Charger in a dry location.
- 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, detach the cables, remove the Battery Clamp, and remove the dead Battery. Next, install the new Battery, replace the Battery Clamp, and attach the cables. Refer to the assembly instructions for more details on page 14.

# **⚠** NOTICE!

WHEN THE BATTERY GETS OLD AND NO LONGER ACCEPTS A CHARGE, REMOVE IT FROM YOUR DR ROTO-HOG POWER TILLER. NEVER LEAVE A DEAD BATTERY IN YOUR MACHINE.

#### 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

# **↑** NOTICE!

PLEASE DISPOSE OF USED BATTERIES RESPONSIBLY, ACCORDING TO YOUR LOCAL HAZARDOUS MATERIALS REGULATIONS. NEVER THROW AWAY USED BATTERIES IN YOUR HOUSEHOLD TRASH.

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

You can also visit the Web site of Earth 911 for more information [www.earth911.org]. Once there, click the Municipal HHW link under Hazardous Household Waste, and enter your zip code. The site lists recycling centers located near you.

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

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

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

CALL TOLL FREE 1-800-DR-OWNER

### Removing and Replacing the V-Belt

Replace the Tine Drive V-Belt if damaged from slipping under heavy loads or if it shows cracks or frayed edges.

### **↑** 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.

## **⚠** NOTICE!

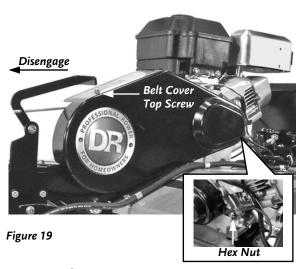
DO NOT MOVE OR REMOVE THE BELT GUIDE (*FIGURE 20*). IF YOU ACCIDENTALLY ALTER THE POSITION OF THE BELT GUIDE, RETURN IT TO THE CORRECT SETTING OF 6-1/4" VERTICAL INCHES FROM THE FENDER TO THE BOTTOM OF GUIDE (*FIGURE 20*).

#### **Tools and Supplies Needed:**

- Screwdriver
- 7/16" Socket
- 1. Remove the Screw from the top of the Belt Guard (Figure 19).
- 2. Remove the Hex Nut from the rear of the Belt Guard using a 7/16" Socket and remove the Belt Guard (*Figure 19*).
- 3. Disengage the Tine Clutch Lever (Figure 19) and remove the worn Belt.

Tip: Lifting up on the Clutch Idler Pulley (Figure 20) may help in removing the Belt.

4. Reinstall a new Belt (Figure 20), engage the Tine Clutch Lever, and replace the Belt Guard.



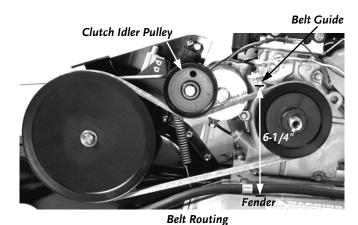


Figure 20

**DR**<sup>®</sup> ROTO-HOG™ POWER TILLER

#### Tine Shear Pins

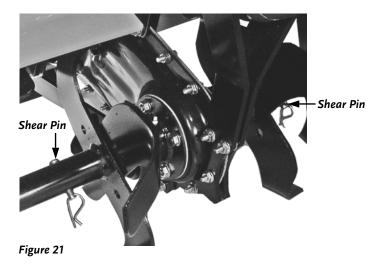
## **A** WARNING!

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.

- The DR ROTO-HOG POWER TILLER drive components are protected from damage by Grade 5 Shear Pins in the Tine Assemblies (*Figure 21*). The Shear Pins hold the Tine Assemblies in proper location on the Drive Axles. Should a Tine Assembly strike or pick up a large hidden object and jam, the Shear Pin holding the Tine Assembly to the drive shaft will shear or break, and the drive components of the DR ROTO-HOG POWER TILLER will not sustain damage.
- Two (2) extra sets of Tine Shear Pins are included with the DR ROTO-HOG POWER TILLER.
- The design of the Tine Shear Pin is to loosely fit when properly installed.

## **↑** WARNING!

NEVER ATTEMPT TO USE A BOLT OR PIN THAT IS LARGER OR HARDER THAN THE ORIGINAL GRADE 5 SHEAR PIN.



### **Tine Operation Check**

## **♠** WARNING!

BEFORE PERFORMING THIS CHECK, 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.

- 1. Disengage the Tines and raise them up off the ground using the Control Box.
- 2. Rotate one set of Tines with your hand; the other set should also rotate.
- 3. Replace the Spark Plug wire.

#### **End of Season and Storage**

# **↑** 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.

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

- Change the Engine oil.
- If your DR ROTO-HOG POWER TILLER will be idle for more than 30 days, we recommend using a gas stabilizer. This will prevent sediment from gumming up the carburetor. If there is dirt or moisture in the gas or tank, remove it by draining the tank. Completely fill the tank with fresh, unleaded gas and add the appropriate amount of stabilizer or gasoline additive. Run the Engine for a short time to allow the additive to circulate.
- Remove the Spark Plug and pour about 1 ounce of motor oil into the cylinder hole. Replace the Plug and pull the Recoil Starter Rope until you feel strong resistance. This will coat the Piston and seat the Valves to prevent moisture buildup.
- Clean or replace the Engine Air Filter. Reference the Engine Owner's Manual.
- Clean dirt and debris from the Engine Cylinder Head Cooling Fins, Debris Screen, and Muffler.
- Clean out residual debris from the under the Debris Shield and Tine Assemblies.
- Lubricate the Tine Assemblies. See page 30.
- Touchup all rusted or chipped paint surfaces. Sand them lightly before painting.
- Be sure all Nuts, Bolts, and Screws are securely fastened.
- Inspect moving parts and the Tine Drive Belt for damage and wear; replace if necessary.
- Store the Battery in a dry area that will not freeze. If you will not use the machine over a long period, charge the battery every four to six weeks. See page 32.
- If possible, store your DR ROTO-HOG POWER TILLER inside, but not near an open flame or spark such as found in a water heater.
- After the DR ROTO-HOG POWER TILLER has cooled, cover the machine with a suitable protective cover that does not retain moisture. Do not use plastic as this material cannot breathe; it also allows condensation to form, which will cause your machine to rust.

### **TROUBLESHOOTING**

Most problems are easy to fix. Consult the Troubleshooting Table for common problems and their solutions. If you continue to experience problems, call Country Home Products, Inc. for support at: 1-800-DR-OWNER (376-9637).

### **Troubleshooting Table**



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.

Sүмртом	POSSIBLE CAUSE	
Recoil will not pull	⇒ Check that the Tine Drive Clutch is disengaged.	
out or is difficult to pull.	⇒ Check the Engine oil level; the Engine may be seized.	
p viiii	⇒ There may be an oil compression lock in the cylinder. Take out the Spark Plug; hold a rag over the Spark Plug hole and pull the Recoil Cord several times to blow out any oil in the Cylinder. Wipe off the Spark Plug and reinstall it.	
	⇒ The Recoil may be broken or jammed. Call <b>1-800-DR-OWNER (376-9637)</b> for assistance.	
The Engine will not	$\Rightarrow$ Check that the Tine Drive Clutch is disengaged.	
start manually.	⇒ Check that the Spark Plug Wire is attached.	
	$\Rightarrow$ Make sure that the Fuel Shut-Off is in the ON position.	
(Please refer to the	$\Rightarrow$ Check the oil and gas level. See page 18.	
Engine Owner's Manual for Engine- specific procedures.)	⇒ The gas may be old; change it if necessary. Use a fuel stabilizer if you keep gas longer than one month.	
	$\Rightarrow$ 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.	
	⇒ The Air Filter may be dirty; change it following the procedure in the Engine Owner's Manual.	
	⇒ If your Engine still won't start, call 1-800-DR-OWNER (376-9637) for assistance.	

## **↑** 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.

SYMPTOM	TOM POSSIBLE CAUSE	
The Engine will not	⇒ Check all the items under the section called Electric-Starting on page 23.	
start using Electric- Start.	$\Rightarrow$ Check the previous section on Manual Starting for possible causes.	
	$\Rightarrow$ Check the In-Line Fuses in front of the Battery ( <i>Figure 4</i> on page 14).	
(Please refer to the	⇒ Check the wire connections, especially the ground connection. This is the large black wire leading from the Battery, and connected to the Engine.	
Engine Owner's Manual for engine- specific procedures.)	⇒ Check the wire connections to the Solenoid. To avoid sparks, first disconnect the black Battery ground wire. Check to be sure that all of the connections are clean and tight. Reconnect the Battery ground wire.	
	<ul> <li>Check the ground connection on the Solenoid where it bolts to the Frame. Using a Wrench or Socket, tighten the Bolts to ensure a good connection to the Frame.</li> </ul>	
	⇒ 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 on page 32.	
	⇒ If the Battery is charged and your DR ROTO-HOG POWER TILLER still will not start, call 1-800-DR-OWNER (376-9637) for assistance.	
The Engine lacks	⇒ Check the Throttle; it should be set in the FAST position.	
power or is not running smoothly.	⇒ The Air Filter may be dirty; change it following the procedure in the Engine Owner's Manual.	
(Please refer to the Engine Owner's	⇒ 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.	
Manual for engine- specific procedures.)	⇒ 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, following the procedure on page 31.	
	$\Rightarrow$ If your Engine still lacks power, call <b>1-800-DR-OWNER (376-9637)</b> for assistance.	

# **⚠** 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.

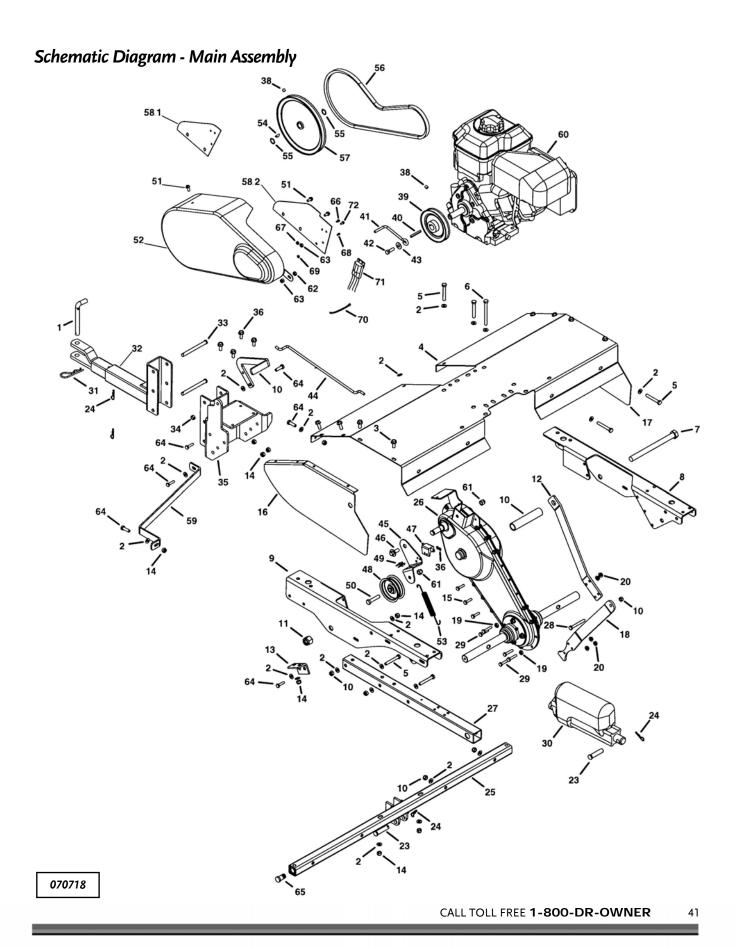
SYMPTOM	POSSIBLE CAUSE
Engine smokes.	⇒ Check the oil level and adjust as needed.
	⇒ The Air Filter may be dirty; change it following the procedure in the Engine Owner's Manual.
	⇒ You may be using the wrong oil. Refer to your Engine Owner's Manual for detailed information.
	$\Rightarrow$ Clean the Engine cooling fins and the carburetor housing if they are dirty.
	$\Rightarrow$ If the Engine still smokes, call <b>1-800-DR-OWNER (376-9637)</b> for assistance.
The Engine runs well	$\Rightarrow$ The Tine Drive Clutch is not engaged.
but the Tines won't move.	⇒ The Tine Drive V-Belt is off the pulleys or broken. See page 34.
The Engine runs well	⇒ Operator is being too aggressive; raise the Tines.
but labors when tilling.	$\Rightarrow$ Be sure the Engine Throttle is set on the Fast (RABBIT) position.
Excessive bounce and difficult	⇒ The area you are tilling may be too dry and hard. Moisten the ground or wait for conditions that are more favorable.
handling.	$\Rightarrow$ Be sure the Engine Throttle is set on the Fast (RABBIT) position.
	⇒ If your DR ROTO-HOG POWER TILLER still bounces, call
	1-800-DR-OWNER (376-9637) for assistance.
The tilled soil balls up or clumps.	$\Rightarrow$ The ground that you are trying to till is too moist. See Tilling Tips on page 27.

## PARTS LISTS, SCHEMATIC DIAGRAMS AND WARRANTY

### Parts List - Main Assembly

**NOTE:** Part numbers listed are available through Country Home Products, Inc.

Ref#	Part#	Description	Ref#	Part#	Description
01	232971	Pin, Channel Pivot 1/2"	38	233381	Screw, 5/16"-18 x 5/16"
02	232891	Washer, 1/4" Std .312" x .734"	39	233551	Pulley, 4.5" OD
03	233071	Bolt, Hex 5/16"-18 x 3/4" Self	40	233361	Key, 3/16" x 1-3/4"
04	231251	Fender	41	233111	Rod, Guide, V-Belt
05	232921	Bolt, Hex 5/16"-18 x 2-1/4", G5	42	233061	Bolt, Hex, 5/16"-24 x 1" w/Lock
06	232991	Bolt, Hex 5/16"-18 x 3-1/2", G5	43	232871	Washer, 5/16" Std .375 x .875
07	233091	Bolt, Hex 5/8"-11 x 7-1/2", G5	44	231231	Rod, Clutch
08	231221	Chassis, RH	45	231331	Bracket, Idler Arm
09	231211	Chassis, LH	46	233561	Bolt, Shoulder, 3/8"-16 x 7/8" W
10	231391	Spacer	47	233611	Switch, Interlock
11	233311	Nut, Hex, Nylock, 5/8"-11	48	233371	Pulley, Idler, 2-3/4"
12	231311	Brace, Front Case	49	233131	Rivet, Pop
13	231291	Angle, Reinforcement	50	232821	Bolt, Hex, 3/8"-16 x 1-3/4", G5
14	233081	Nut, Hex, Nylock, 5/16"-18	51	233121	Screw, Washer Head, 1/4"-20 x 1/2"
15	232941	Bolt, Hex, 1/4"-20 x 1", G5	52	224290	Belt Cover, Universal
16	231281	Cap, Fender End, LH	53	232720	Spring, Extension
17	231271	Cap, Fender End. RH	54	233581	Key, Woodruff, #61
18	231301	Brace, Rear Case	55	233481	Ring, Retaining
19	233301	Nut, Jam, Hex, 5/16"-24	56	217630	V-Belt, 45"
20	233041	Nut, Hex 1/4"-20 w/Lock Washer	57	233571	Pulley, 8" OD
21	233591	Pin, Hair, 1/8" x 1-5/8"	58.1	231241	Cover, Drive, (Electric Start)
22	233351	Pin, Clevis, 3/8" x 1-3/4"	58.2	231341	Cover, Drive, (Manual Start)
23	233621	Pin, Clevis, 1/2" x 2"	59	231351	Guard, Foot
24	233011	Pin, Hair, .08" x 1.58"	60	233261	Engine, B&S 8.75 (Manual Start)
25	233211	Assembly, Fender Tube		233271	Engine, B&S 8.75 (Electric Start)
26	233241	Transmission	61	233601	Nut, Hex, Nylock, 3/8"-16
27	231261	Tube, Frame	62	232911	Nut, Hex, 1/4"-20
28	232961	Bolt, Hex, 5/16"-18 x 2-1/2"	63	233031	Nut, Hex, Nylock, 1/4"-20
29	233281	Bolt, Hex, 1/4"-20 x 1-1/4", G5	64	232851	Bolt, Hex, 5/16"-18 x 1", G5
30	232561	Actuator	65	231461	Plug, Threaded Pipe
31	233321	Pin, Hair, 5/32" x 3"	66	232931	Bolt, Slotted, #10-32 x 5/8"
32	233181	Assembly, Tongue	67	233021	Nut, Nylock, #10-32
33	233001	Pin, Clevis, 3/8" x 4"	68	231481	Screw, Round, #8-32 x 5/8"
34	232861	Nut, Hex, 5/16"-18, Lock, 3-Way	69	232791	Nut, Nylon, #8-32
35	233201	Assembly, Hitch Bracket	70	231451	Tie, Nylon
36	232951	Washer, #10	71	233171	Module
37	232660	Clutch Lever	72	232841	Bolt, Hex, 1/4"-20 x 3/4", G5
40	<b>DR</b> ® RO	TO-HOG™ POWER TILLER			

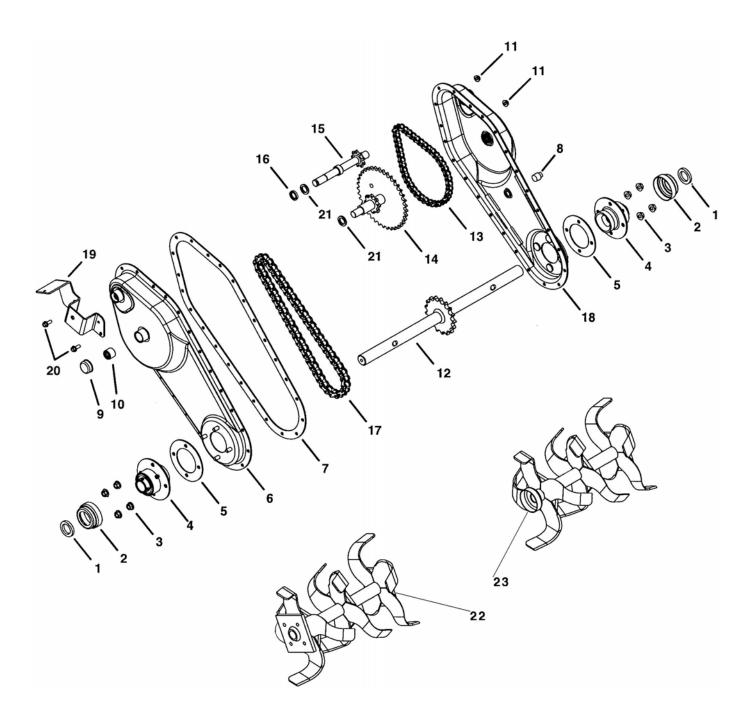


### Parts List -Tine Drive Transmission Assembly

**NOTE:** Part numbers listed are available through Country Home Products, Inc.

Ref#	Part#	Description
01	233401	Washer, Felt, .985" x 1.515"
02	231381	Cap
03	233161	Nut, Hex, 5/16"-18, Flanged Lock
04	233231	Assembly, Flange & Bearing
05	233391	Gasket, Flange
06	233531	Assembly, Drive Housing, Side, LH
07	233491	Gasket, Drive Housing
80	233431	Plug, Oil
09	233511	Cap, Bearing
10	233501	Bearing, Roller
11	233051	Nut, Hex, 1/4"-20 w/Lock Washer
12	233251	Assembly, Tine Shaft & Sprocket
13	233451	Chain, Roller (Short)
14	233441	Assembly, Idler Shaft
15	233461	Assembly, Input Shaft
16	233541	Seal
17	233411	Chain, Roller (Long)
18	233521	Assembly, Drive Housing, Side, RH
19	233471	Bracket, Belt Guard & Idler
20	231421	Bolt, Hex, 1/4"-20 x 5/8" w/Washer
21	233421	Washer, Thrus,t .64" x .9375"
22	231371	Tine Assy, RH
23	26148	Tine Assy, LH

### Schematic Diagram - Tine Drive Transmission Assembly

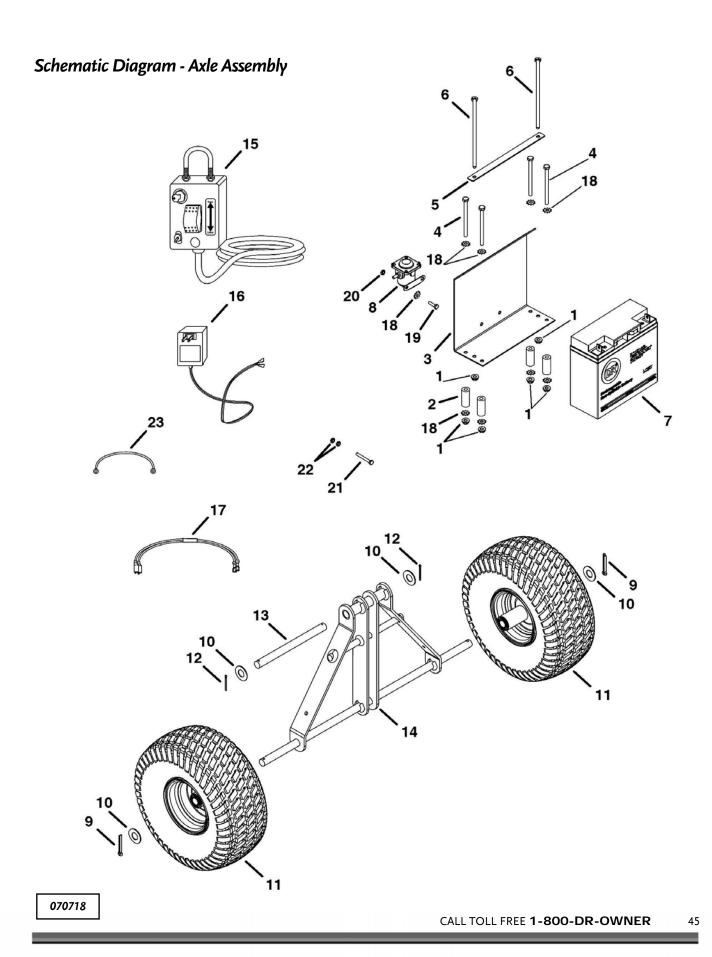


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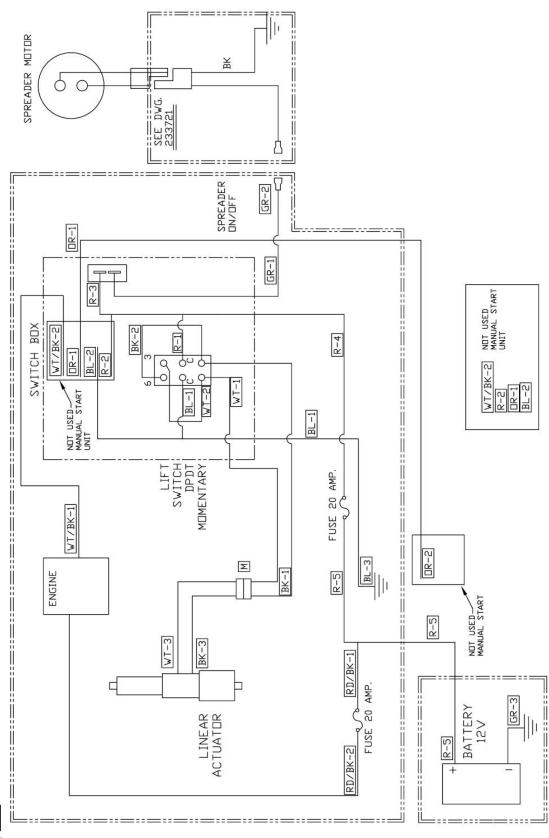
### Parts List - Axle Assembly

**NOTE:** Part numbers listed are available through Country Home Products, Inc.

Ref#	Part#	Description
01	233041	Nut, Hex 1/4"-20 w/Lock Washer
02	231431	Spacer, 0.266" x 0.625" x 1.5"
03	231401	Bracket, Battery Mounting
04	231441	Bolt, Hex, 1/4"-20 x 3-1/2" GR 5
05	231411	Strap, Battery Hold Down
06	233141	Bolt, Flange Hex, 1/4"-20 X 3-1/2
07	104831	Battery, 17AH, 12V
80	101551	Solenoid (Electric Start)
09	232981	Pin, 3/16" x 2"
10	232831	Washer, Flat
11	233291	Wheel, 15" x 6-3/4"
12	232901	Pin, 1/8" X 1-1/2"
13	231321	Axle, Pivot
14	233191	Assembly, Wheel Mount
15	223831	Cord Assembly (Manual Start)
	223841	Cord Assembly (Electric Start)
16	125411	Charger, Battery
17	113041	Clips, Alligator
18	231471	Washer, Star
19	232841	Bolt, Hex, 1/4"-20 x 3/4" G5
20	233031	Nut, Hex, Nylock, 1/4"-20
21	232801	Bolt, Nylon (Manual Start)
22	232811	Nut, Nylon (Manual Start)
23	233101	Wire, Engine Ground



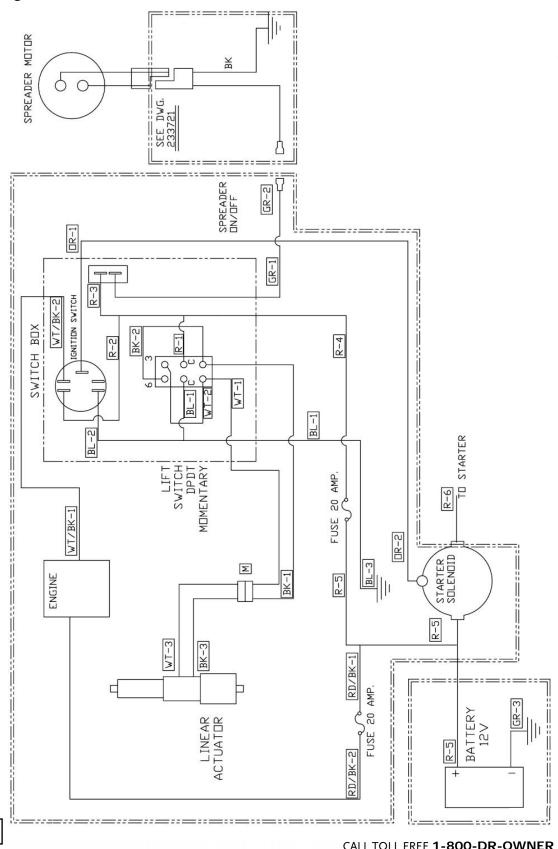
### Wiring Diagram - Manual Start model



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### Wiring Diagram - Electric-Start model



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CALL TOLL FREE 1-800-DR-OWNER

Notes:



# $\mathbf{DR}^{\mathbb{B}}$ ROTO-HOG<sup>TM</sup> POWER TILLER

### 2-Year Limited Warranty

#### **Terms and Conditions**

The **DR**® ROTO-HOG POWER TILLER 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. The Engine Manufacturer warrants the Engine separately.

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.

Country Home Products, Inc. (home of **DR**® Power Equipment) certifies that the **DR**® ROTO-HOG POWER TILLER is fit for ordinary purposes for which a product of this type is used. Country Home Products, Inc. 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**<sup>®</sup> ROTO-HOG POWER TILLER 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 manuals. The warranty holder is responsible for replacement of normally wearing parts such as the Drive Belt, Tines, Tires, Air Filter, and Battery. Attachments and 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 ship 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.

Country Home Products, Inc. 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**<sup>®</sup> ROTO-HOG POWER TILLER.

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

#### **Customer Service Hotline**

Country Home Products, Inc.'s objective is to have 100% satisfied customers. For that reason, we operate a 6-day-a-week Technical Service Department for our Owners. You can access a Representative by dialing our **TOLL-FREE Hotline at 1-800-DR-OWNER (376-9637).** The sole job of our well-trained and friendly folks is to ensure that you get any help you need in a timely fashion. They are there to answer all your questions including: (1) inquiries on any of the above warranties, (2) inquiries about replacement parts, or (3) your questions regarding service, maintenance, and operation.

Our Customer Service Representatives will also be happy to answer any of your questions regarding the separate warranties on all Engines. However, to obtain service, repair, or replacement of any Engine within the period covered by the manufacturer's limited warranty, follow the instructions and warranty information specifically pertaining to those items provided by their separate manufacturers.

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

#### **Quick Tilling Tips:**

Congratulations! Your DR ROTO-HOG POWER TILLER will till faster and with far less effort than *any* walk-behind tiller. However, like any tiller you have to respect its power and use it properly for best results. Please read the instructions in this manual, and especially remember the following:

**IF YOU ARE BREAKING NEW GROUND** – be sure to clear the area to be tilled of large sticks, rocks, string, or wire. If the area is covered with vegetation, mow it first and remove the cut vegetation to avoid wrapping.

**MAKE SURE THE SOIL IS DRY ENOUGH TO TILL** – let the ground dry out before tilling. If it is slow to dry, you can till a very shallow first pass to expose the soil to the sun and air, and then wait several days for it to dry.

**TILL GRADUALLY** – start tilling shallow and gradually work your way deeper with successive pass. In compacted soil and when busting sod, you will need to make several passes in order to reach maximum tilling depth. If the Engine stalls, you trying to till too deeply.

**DO A SOIL TEST** – if you creating a garden or food plot in a new area, it is very important to do a soil test to determine the nutritional needs of your new plot and to add the necessary amendments before planting.

#### Daily Checklist for the DR ROTO-HOG POWER TILLER

To help maintain your DR ROTO-HOG POWER TILLER 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 until the oil reaches just below the threads with SAE 30 HD motor oil. See page 18.
[]	GAS:	Fill the gas tank with fresh, unleaded gasoline. See page 18.
[]	ENGI	NE: It is very important to keep the engine clean. Remove dirt and other debris from the Engine Cooling Fins and Debris Shield. A dirty Engine retains heat and can cause damage to internal Engine components.
]	HARI	DWARE: Check all nuts and bolts to be sure that the components are secure.
[]	FRAN	1E: Check all welds to be sure that the Frame is intact and secure.



[ ] TINES: Make sure that the Tine Assemblies and Debris Shield are free of accumulated debris.

DR® Power Equipment, A division of Country Home Products®

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