DR® TRIMMER/MOWER™

Assembly & Operating Instructions

Models: "PRO", QUANTUM, STANDARD

Please read these instructions and the separate engine manual before you assemble and use your DR® TRIMMER/MOWER™.

And congratulations on your purchase of a new DR® TRIMMER/MOWER™!

We have done our utmost to ensure that your DR® will be one of the most trouble-free and satisfying pieces of equipment you have ever owned.

Please let us know of any questions or problems you may have. We want to answer or correct them as quickly as possible. (When you do call or write, please have your serial number and/or order number handy—it will speed things up!) We also hope to hear from you on how much you like your new helper.

And please tell your friends about your new DR® TRIMMER/MOWER™. Having DR® Owners spread the word about our products and our way of doing business is the best advertising we can have, and it's 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®

Table of Contents

Safety Instructions

We want you to enjoy years of productive use from your DR® TRIMMER/MOWER™. We don't want you to get injured, so please take a few moments to read the following guidelines for safely operating your new machine.

Dress Appropriately

- Always wear protective goggles (provided with your DR® TRIMMER/MOWER™) while mowing, to protect your eyes from possible thrown objects.
- Wear shoes with non-slip treads when using your DR® TRIMMER/MOWER™. If you have safety shoes, we recommend wearing them. Do not use the machine while barefoot or wearing open sandals.
- Wear long pants while trimming, and avoid wearing loose clothing or jewelry which might get caught on the mower's moving parts.
- Use ear muffs or ear plugs to protect your valuable hearing.

Preparation

- Read these *Assembly & Operating Instructions* and the engine manufacturer's owner's manual before you use the DR® TRIMMER/MOWER™. Become familiar with the controls, engine and service recommendations to ensure the best performance from your machine.
- Inspect the area you'll be working in for hidden objects such as large rocks, logs, rope, wire, garden tools, etc., and remove these obstacles before mowing. Do not attempt to mow over obstacles as this could damage the machine and cause injury.

Operating the Machine Safely

- Only use the DR® TRIMMER/MOWER™ for trimming and mowing grass, weeds, and other growth as specified in this manual.
- Use only manufacturer-recommended replacement parts and accessories.
- Never bend, cut, fit, weld, or alter the DR® TRIMMER/MOWER™ in any way. Modifications to your machine could cause personal injuries and property damage, and may void your warranty.
- ALWAYS shut off the engine and remove the spark plug wire prior to making any adjustments to the machine. If you have to stop to remove grass or debris from the underside of the deck, ALWAYS disconnect the spark plug wire first.
- The exhaust area on the engine becomes very hot. Allow the engine to cool before doing maintenance or making adjustments.
- When operating over uneven terrain and slopes, use EXTREME CAUTION and ensure solid and firm footing at all times.
- Use extra caution when mowing in wet, slippery conditions.
- Turn off the engine whenever you leave the operating position. Never leave the engine running when refueling, changing cords or checking, cleaning or working on the machine.

- As with any trimmer, the tips of the cutting cords on the DR® TRIMMER/MOWER™ can throw sticks, small stones, gravel, and bits of debris for long distances at great velocity. The faster the cutting cords are spinning, the farther debris may be thrown. Do not move over loose materials such as gravel or mulch with the trimmer head spinning. Doing so could cause personal injury or property damage from thrown objects.
- Never allow children or animals near the work area. Keep at least 50 feet clear of bystanders, and always turn the machine off when someone approaches to avoid causing injury from thrown objects.
- Never allow children or people unfamiliar with these instructions to use the DR® TRIMMER/MOWER™.
- Be cautious when using your DR® TRIMMER/MOWER™ around fencing, wires, ropes, and hoses. It is possible that these and other debris can become wound around the shaft of the machine, potentially damaging the bearings or injuring the operator.
- Use the machine only in daylight or good artificial light.
- Never operate the machine with a damaged shield or without the shield in place.
- Do not operate the machine when under the influence of alcohol or medication.
- Watch for traffic when mowing near roadways.

Safety with Gas-Powered Machines

- Do not run the engine in an enclosed area or without proper ventilation.
- Store all fuel in containers specifically designed for this purpose. Plastic containers are more likely to prevent sediment and condensation problems.
- Refuel outdoors only, and do not smoke while refueling or operating the machine.
- If gas is spilled, do not attempt to start the engine. Move the machine away from the area of the spill and avoid creating any source of ignition until the gas vapors have dissipated. Wipe up any spilled fuel to prevent a fire hazard, and properly dispose of the waste.
- Allow the engine to cool completely before storing in any enclosure. Never store the machine with gas in the tank near an open flame or spark.
- Do not change the engine governor settings or modify the engine speed.
- **Some state and local regulations require the use of a spark arrester on gas powered engines. Contact your local fire marshal or forest service for specific information pertaining to your area. If you are required to use a spark arrester, please contact one of our Customer Service Representatives for assistance in obtaining and installing one.**

Warning to All California and Other 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. All DR® TRIMMER/MOWERS™ 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.

Trimmer Parts & Components

The following parts and assembly components should be in your DR® TRIMMER/MOWER™ package. Please check your shipping box(es) and parts package(s) for the items listed below. If your shipment is incomplete or if you have any questions, please call us **TOLL-FREE 1(800)DR-OWNER (376-9637)**.

Assembly Components:

1—Upper Handlebar [#117771]
1—Lower Handlebar [#117741]
1—Axle [#114261]
1—Rubber Stone Guard [#116801]
1—PTA™ Lever [#118221]
1—Acrylic Shield Assembly [#120521]
2—Wheels [#121321, or #121761]

Parts Bag Contents:

2—Wheel Retainer Rings [#119551]
2—Handlebar Knobs [#118181]
2—Stone Guard Clamps [#115641]
2—Handlebar Bolts 1/4"-20 x 1-1/2" [#114611]
1—Black Nylon Axle Washer [#121521]
4—5/16" Washers [#121691]
5—Lock Nuts 5/16"-18 [#110761]
2—Set Screws 1/4"-20 Square Head [#120161]
7—Slotted Hex Head Bolts 10-24 x 5/8" [#114781]
7—Lock Nuts 10-24 [#118731]
2—U-Bolts [#114851]
1—PTA™ Lever Grip [#117491]

Please refer to Figure 1 on the next page when preparing to assemble your DR® TRIMMER/MOWER™. We recommend laying the parts out in sets, as we have drawn them, before assembly.

Assembly Components

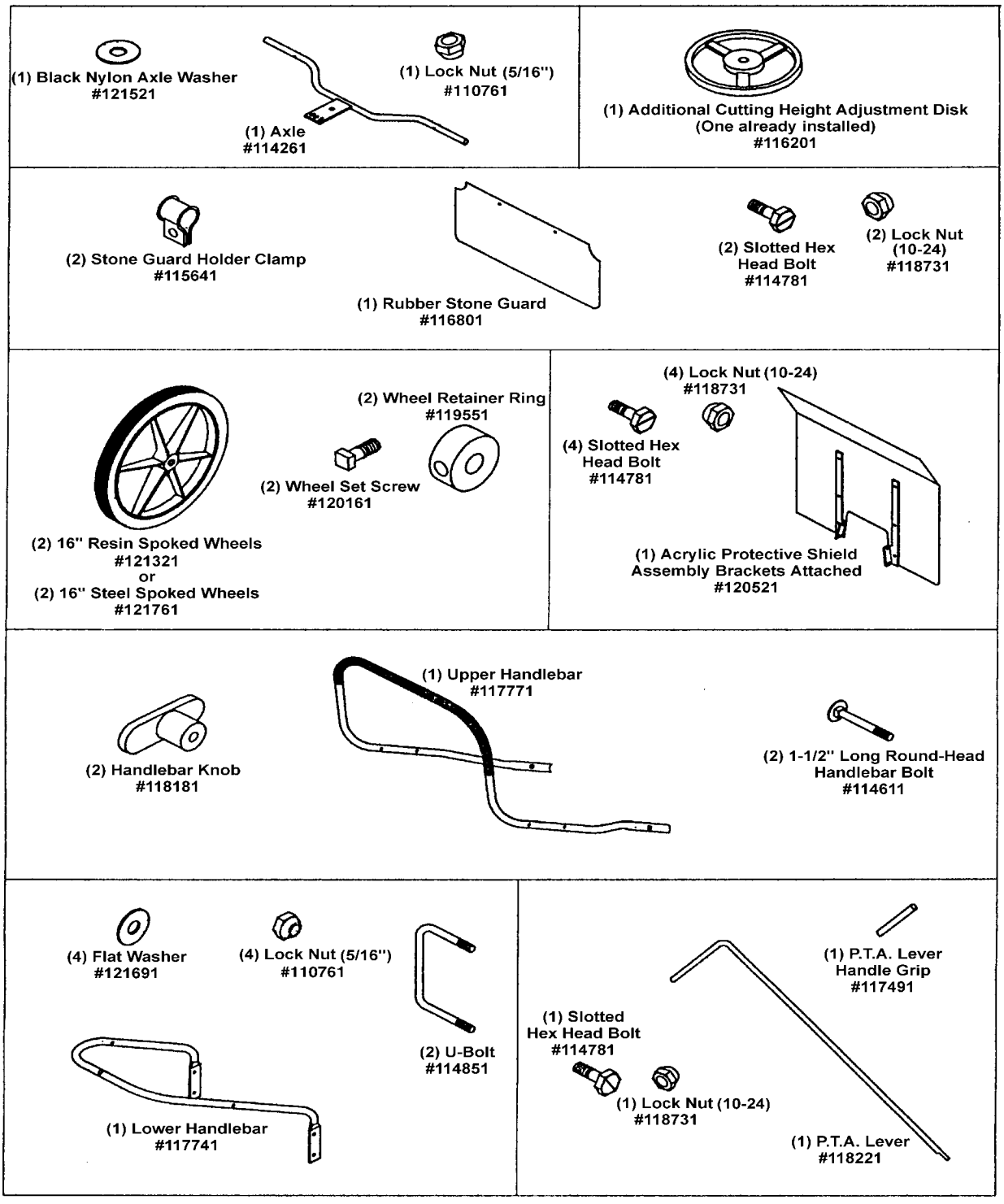


Figure 1

Assembly

WARNING: Do not attempt to start the engine until all assembly steps are complete, and you have ADDED GAS AND OIL to the engine.

Tools & Supplies Needed:
- flat head screwdriver
- 1/2" and 3/8" wrenches, adjustable wrench, or socket set
- pliers
- SAE30 HD (High Detergent) motor oil
- funnel (preferably with filter)
- unleaded gasoline

WARNING!

THIS MACHINE IS SHIPPED WITHOUT OIL! TRACES OF OIL MAY BE IN RESERVOIR FROM FACTORY TESTING, BUT YOU MUST ADD THE RECOMMENDED AMOUNT OF OIL BEFORE STARTING ENGINE.

Step 1: Install the Axle

1. Turn the orange housing upside down to access the underside. Leave the front piece of Styrofoam in place *(Figure 2)*.
2. Place the black nylon axle washer over the axle stud at the center back of the housing *(Figure 3)*.
3. Insert the axle through the slot in the side of the housing so the plate faces the axle stud *(Figure 4)*.
4. Center the axle and slide the hole in the notched plate over the stud so that it rests flush against the nylon washer *(Figures 3 & 4)*. Be sure the axle is seated on the axle stud solidly.
5. Screw a 5/16" lock nut onto the axle stud using a 1/2" wrench or socket. Tighten until there is resistance, then back off 1/2 turn. [If the bolt is too tight, it will be hard to operate the Parallel Trimming Action (PTA™) Feature.]

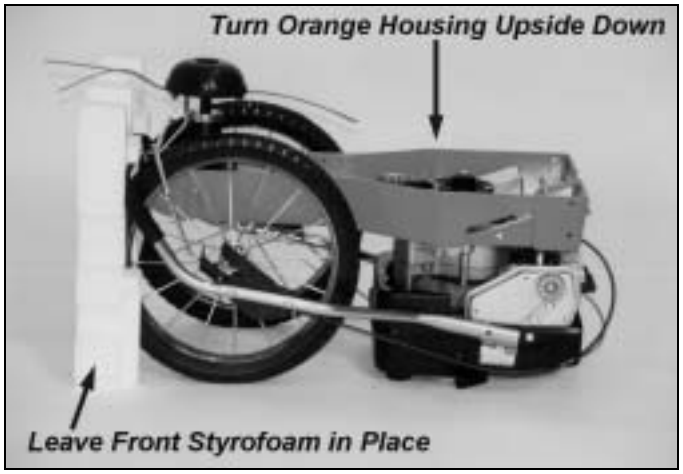


Figure 2

Figure 3

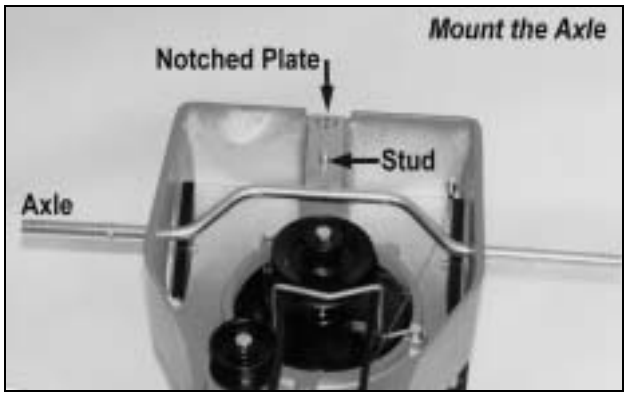


Figure 4

Step 2: Attach the Rubber Stone Guard

1. Take one of the two stone guard clamps and spread it open. Position it around the axle *(Figure 5)* and squeeze the ends together. Install the second clamp midway along the opposite side of the axle in the same way. Turn the open ends of the clamps upward.

2. Holding the rubber stone guard vertically over the axle, slip one side of the stone guard in between the clamp end so that the hole in the guard is aligned with the holes in the clamp. Insert a 5/8" long bolt and attach a lock nut *(Figure 6)*. Tighten with a 3/8" wrench or socket and screw driver until the threads show. Don't over tighten. Repeat on the other side. The stone guard should swing freely from the axle.

Figure 5

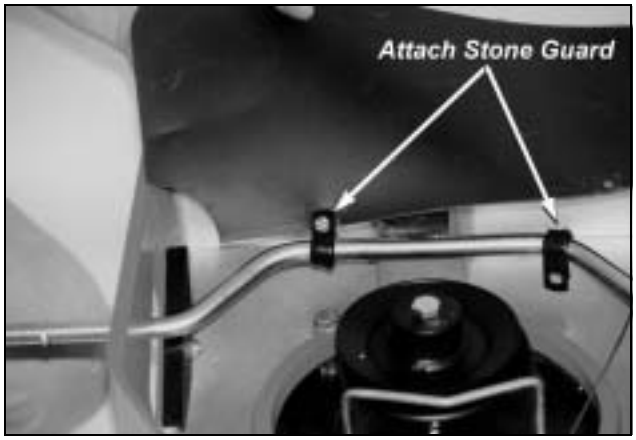


Figure 6

Step 3: Install the Wheels

1. Mount each wheel on the axle and push it firmly against the axle stop *(Figure 7)*.
2. Place the retaining ring on the axle, against the wheel, and tighten the set screw with a wrench or pliers *(Figure 7)*.

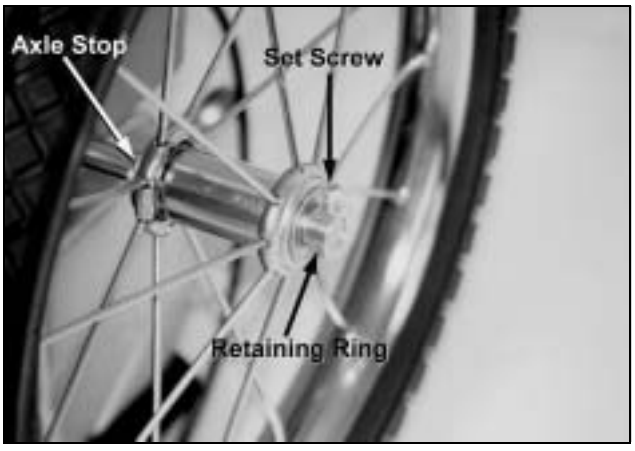


Figure 7

Step 4: Set the Machine Upright

Note: Be careful not to kink, twist or stretch the control cables.

1. Remove the front end of the Styrofoam packing.
2. Stand at one side of the machine, hold on to one wheel with one hand, and the nose of the machine with the other. Lift the front-end of the machine up and over until the Mow-Ball™ Support is resting on the ground and the machine is upright (most of the weight is on the wheels during this maneuver).

3. Bring the upper handlebar section up and over the front end of the machine. Let it rest there *(Figure 8).*

Caution: DO NOT add gas or oil to the engine at this time.

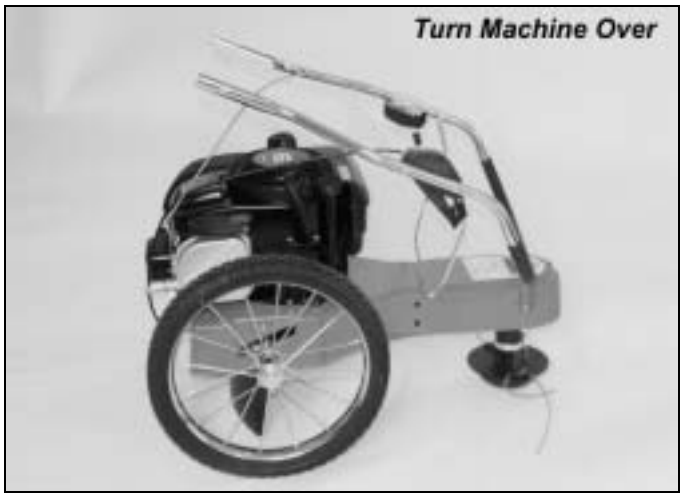


Figure 8

Step 5: Install the Handlebars

A) Lower Handlebar

Note: There are 2 U-bolts, 4 washers, and 4 lock nuts in your parts bag that will be needed for the lower handlebar assembly.

1. With the control cables on the inside of the handlebars, position the lower handlebar over the bolt holes in the trimmer frame *(Figure 9).*
2. Place the U-bolts through the bolt holes in the trimmer frame from the inside out *(Figure 9)*. Make sure the black control cable is not beneath the U-bolt.
3. Mount the washers and nuts and secure them snugly on both sides—don't tighten them yet. Position the lower handlebar in the middle of the slotted notch on each side. This is the average height needed by most users. Tighten the nuts securely. After you install the upper handlebar you'll be able to judge whether you need to adjust the height.

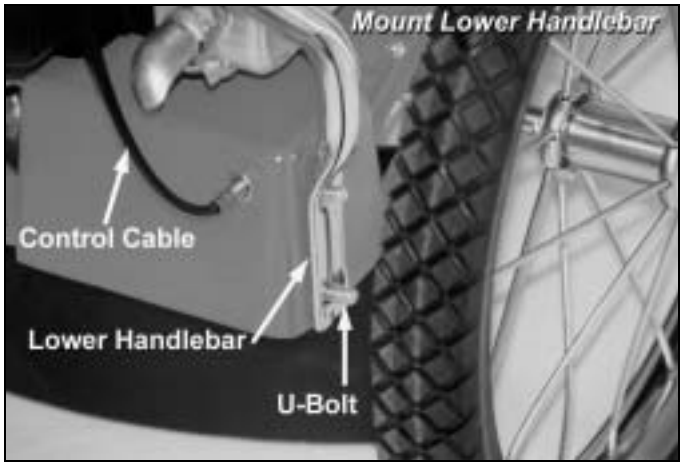


Figure 9

B) Upper Handlebar

1. Making sure the control cables are over the lower handlebar, position the upper handlebar outside the lower handlebar *(Figure 10).* The ends of the upper handlebar are cupped half-circles and fit on the outside of the lower handlebar. With the holes aligned, insert one of the two round-headed 1-1/2" handlebar bolts from the inside facing out.
2. Secure the bolt with one of the large black handlebar knobs on the outside of the handlebar. Repeat on the opposite side.
3. Be sure the throttle control cable on the left handlebar is secured with the black plastic clamp *(Figure 10).* Do not kink the control cables.

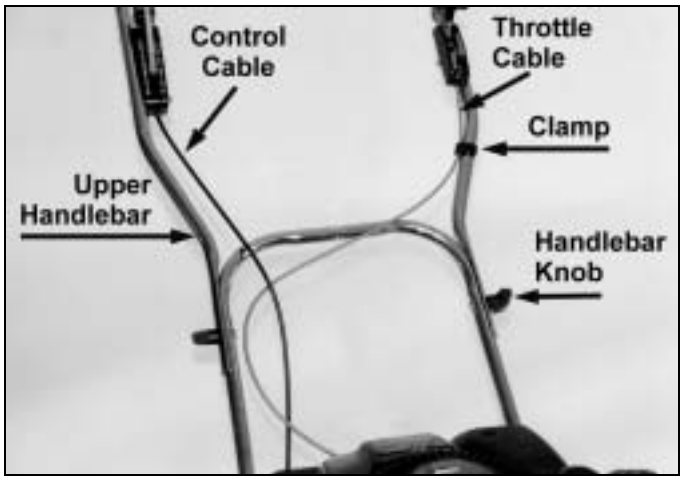


Figure 10

The height of the handlebar depends on many factors for each individual. However, it is crucial to find a height that allows the Mow-Ball™ Support to glide along the ground and remain balanced without the operator having to push down or pull up on the handlebars. At the proper height, your hands should rest at a comfortable level and the front end should roll easily on the Mow-Ball™ Support.

To adjust the height of the handlebars, loosen the lock nuts on the U-bolts. Push the handlebars forward for more height, backward for less. Then tighten the nuts securely.

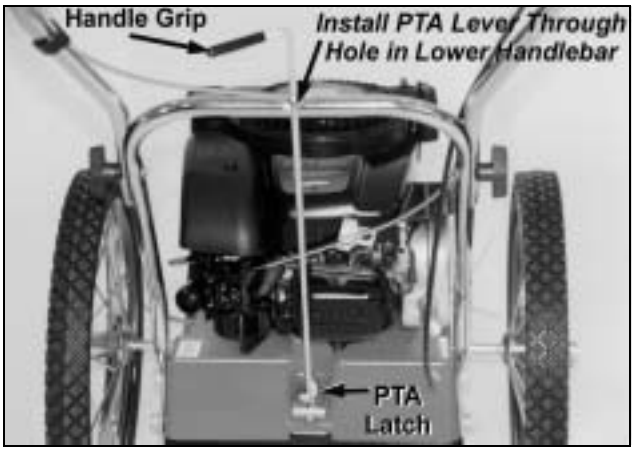


Figure 11

Step 6: Install the Parallel Trimming Action (PTA™) Lever

1. Insert the straight end of the L-shaped PTA™ lever through the hole in the center of the lower handlebar *(Figure 11).*
2. Align the flat end of the PTA™ lever with the corresponding hole in the PTA™ latch installed at the center rear of the frame *(Figure 12).*
3. Mount a 5/8" long bolt through the two holes. Tighten with a lock nut until there is slight resistance, then back off two full turns. **Note:** If the lock nut is too tight, the PTA™ lever will be hard to engage.
4. Install the black, vinyl PTA™ lever handle grip over the operator's end of the lever *(Figure 11).*

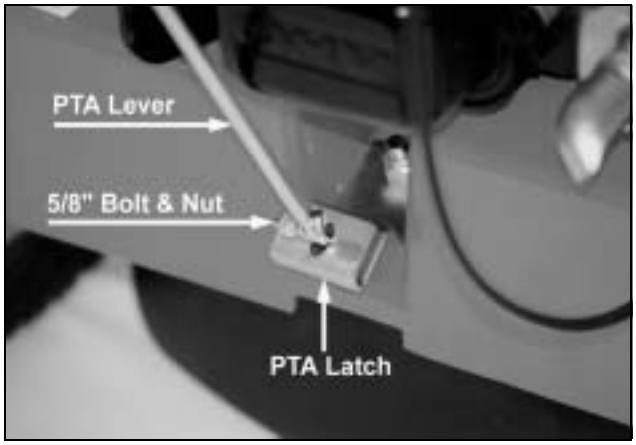


Figure 12

Step 7: Attach the Acrylic Engine Shield

Use the four remaining sets of 5/8" long bolts and lock nuts to attach the acrylic engine shield.

We have found it's easiest to tip the machine back on its handlebars in order to reach the underside.

1. Position the shield on the frame in front of the engine with the bend at the top facing the handlebars *(Figure 13).*
2. Insert the bolts from the outside facing in, screw on the nuts and tighten *(Figure 13).*

Figure 13

Step 8: Add Oil and Gas

WARNING!: You must add oil before starting engine. There may be 1 to 2 ounces of oil left in your machine from factory testing. Check dipstick while adding oil to avoid over filling.

Please refer to your Engine Manual and put the recommended amount of engine oil in the oil fill. Use SAE30 High Detergent oil. Fill the oil to the amount indicated on the dipstick. Do not overfill *(Figure 14)*.

Reminder: To avoid confusion, we recommend leaving the caps on the fuel and oil fills until you are ready to pour either gasoline or oil into the correct fill.

Fill the gas tank to within 1/4 inch of the top with fresh, unleaded gas. (See your engine manual for more detailed fuel recommendations.)

Figure 14

Caution: Once you have added the oil and gas, avoid tipping the trimmer back on its handlebars. Doing so will cause the cylinder to fill with oil. If you need to reach the underside of the trimmer, drain the oil and gas first, or set the machine up on a workbench.

Step 9: Connect the Battery Wires *(Electric-Starting models only)*

To prevent the battery from discharging during shipment, all electric-starting trimmers are shipped with the black, negative battery wire disconnected. Connect the two black wires by pushing the plastic ends together *(Figure 15)*. See the red wires for comparison. The wires are located on the left front side when standing in the operator's position.

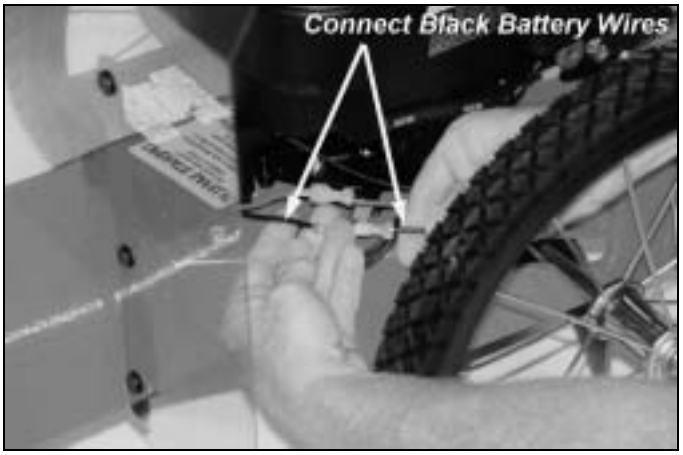


Figure 15

Controls & Features

Note: Standard Model with Briggs & Stratton engine shown. Your trimmer may look slightly different.

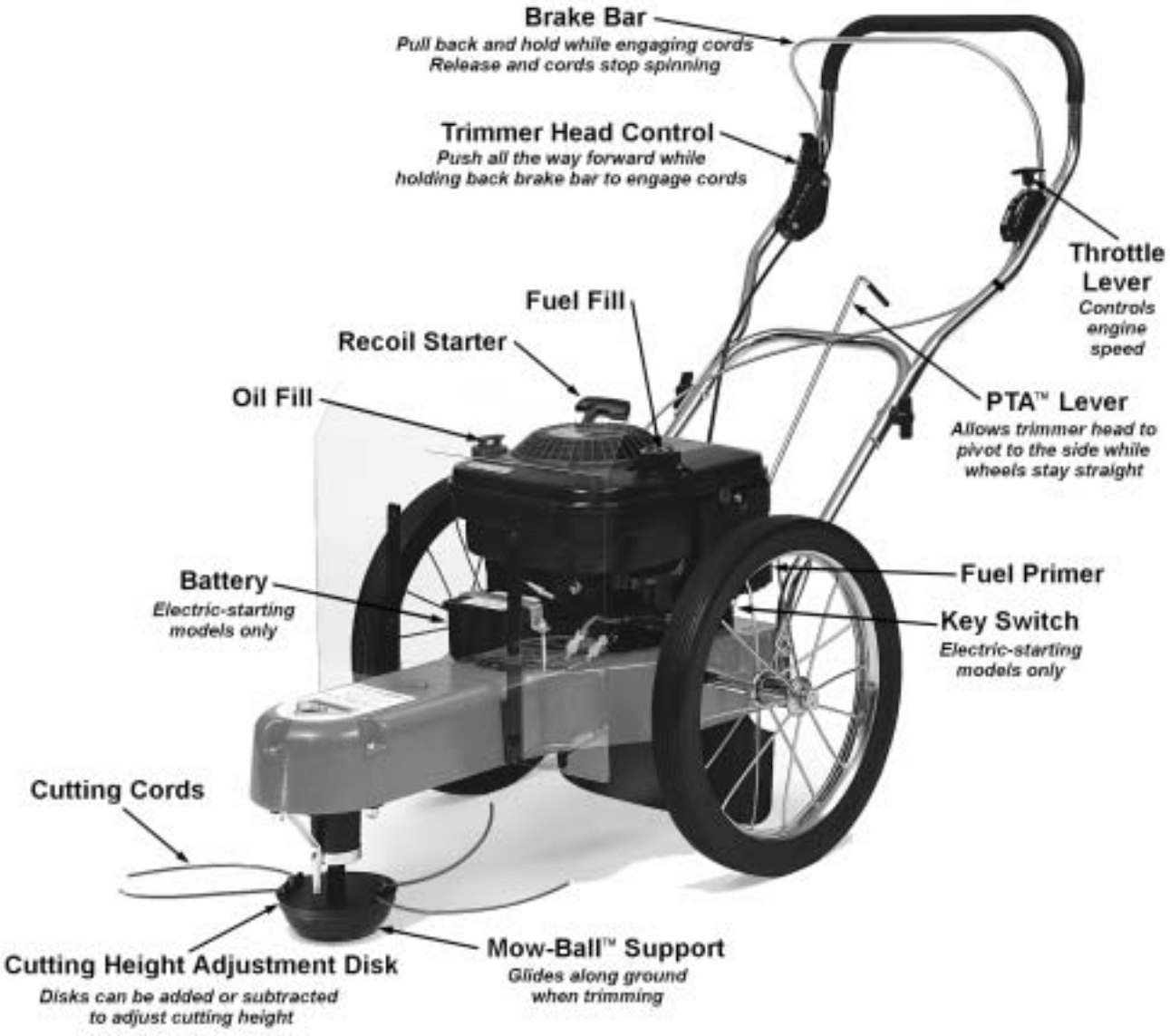


Figure 16

Starting & Operating

WARNING!

THIS MACHINE IS SHIPPED WITHOUT OIL! TRACES OF OIL MAY BE IN RESERVOIR FROM FACTORY TESTING, BUT YOU MUST ADD THE RECOMMENDED AMOUNT OF OIL BEFORE STARTING ENGINE.

Please Note: The Briggs & Stratton models are pictured below. On other models the primer bulb may be on the left side of the engine. Please refer to your Engine Manufacturer's Owner's Manual for details.

Electric-Starting

1. Push the throttle lever on the left side of the handlebar *(Figure 16)* all the way forward to the START position.
2. Prime the engine. Make sure you completely cover the air hole. Push the black primer bulb for three seconds and completely release it for three seconds (making sure you uncover the air hole), and repeat three to four more times *(Figure 17)*.
   Note: Priming is usually unnecessary when restarting a warm engine. In cool weather priming may need to be repeated.

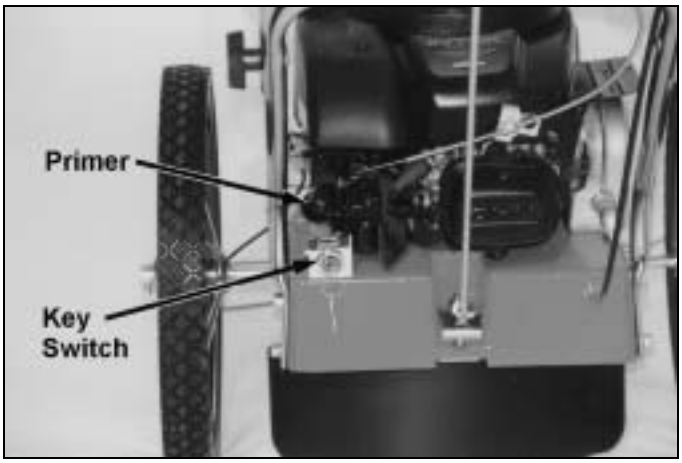


Figure 17

3. Turn the key to the START position until the Trimmer starts, then release. The key will snap back to the RUN position *(Figure 17)*.

Manual-Starting

Can be used with both Manual- and Electric-Starting models.

1. Push the throttle lever on the left side of the handlebar *(Figure 16)* all the way forward to the START position.
2. Prime the engine. Make sure you completely cover the air hole. Push the black primer bulb for three seconds and completely release it for three seconds (making sure you uncover the air hole), and repeat three to four more times *(Figure 18)*.

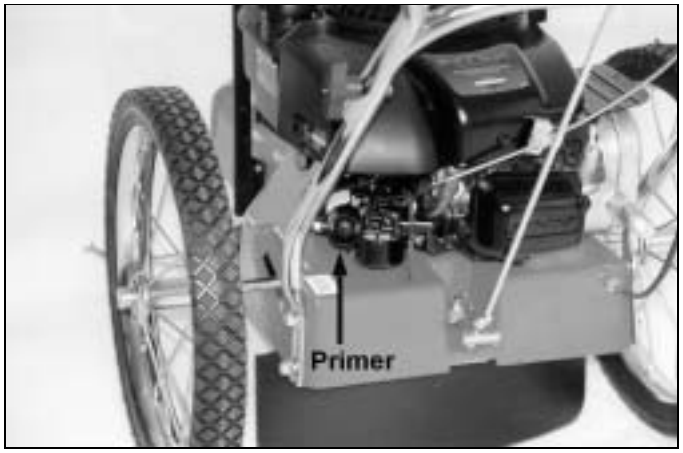


Figure 18

Note: Priming is usually unnecessary when restarting a warm engine. In cool weather priming may need to be repeated.

3. Grasp the recoil starter handle *(Figure 16)*, and slowly pull until resistance is felt. Next, pull the cord rapidly to overcome compression, prevent a kickback and start the engine. One or two pulls usually starts the DR® TRIMMER/ MOWER™, but it may be necessary to repeat the priming.

Stopping the Engine

Move the throttle lever back to the STOP position *(Figure 16)*. Note that on Electric-Starting Models the key does not stop the engine. The key has a pressure lock that prevents it from vibrating loose during operation. If you wish to remove the key, push it in and then quickly and firmly pull it out. If the key is difficult to remove, spray FLUID FILM® or a comparable lubricant into the key hole.

Engaging the Trimmer Head

1. Bring the brake bar *(Figure 16)* toward you and grip it together with the handlebar. Keep holding the brake bar to the handlebar.
2. With your right hand, push the trimmer head control lever (marked "Blade Control") on the right side of the handlebar all the way forward—until it engages. You may have to push hard until you feel it engage. Once the trimmer head control engages, release the lever. The cutting cords will now be rotating and will continue to rotate until you release the brake bar.

Stopping the Cords Spinning

Release the brake bar from the handlebar. The trimmer head will stop spinning while the engine continues to run.

If the cutting cords keep spinning after the brake bar is released, you may need to adjust the trimmer control cable. (See page 32.)

Using the Parallel Trimming Action (PTA™) Feature

By tilting the cutting head beyond the wheels, Parallel Trimming Action allows you to trim under fences and along shrub borders and buildings—those hard-to reach places that usually require pushing and pulling the machine. The wheels remain parallel to whatever is being trimmed, so you can also easily edge along curbs and sidewalks.

To Engage Parallel Trimming Action

1. Pull up on the PTA™ lever *(Figure 16)* until you see the two dog ears at the bottom of the lever *(Figure 19)*. You may need to turn the lever to see them. This unlocks the axle.
2. Turn the lever one quarter turn so the dog ears rest on the PTA™ latch bracket at the base of the frame after the lever is released *(Figure 19).*
3. Push down on the handlebar to tip the nose of the machine off the ground about six inches. By balancing the weight of the machine on the wheels, it is easier to pivot the front of the trimmer to the left or right.

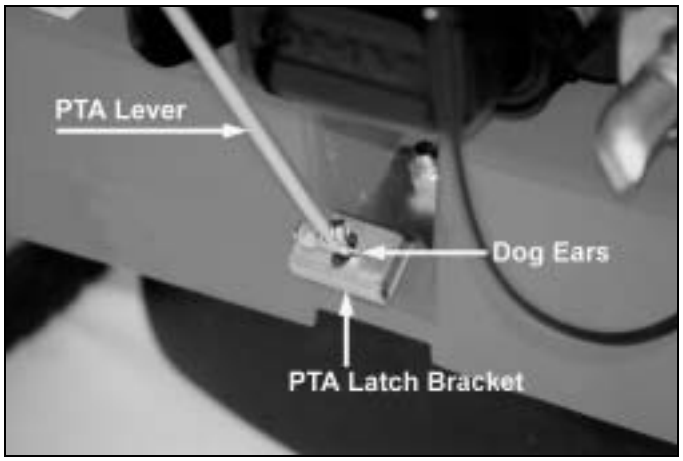


Figure 19

4. Grip the handlebar, pulling up with one hand and pushing down with the other, swinging the front of the trimmer to the left or right. If this action is difficult please see page 33.
5. Now, to lock in the left or right position, pull the PTA lever back and turn it a quarter of a turn and release. It will spring into place and lock into the axle plate.

To Return to Flat and Forward Mode

1. Pull the PTA™ lever and turn a quarter of a turn so the lever is resting on the dog ears.
2. Release the lever, push down on the handlebars, and pivot the trimmer head straight ahead.
3. Pull and turn the PTA™ lever a quarter turn, and it will automatically lock the machine into the forward position.

See the PTA™ Feature usage tips on page 19 for more information.

Cutting Cords

WARNING: Turn the engine off when installing or changing cutting cords.

Two thicknesses of cutting cord ship with your DR® TRIMMER/MOWER™: Heavy-duty (130 mil) Orange and Extra Heavy-duty (155 mil) Green. Figure 20 shows how the cords are installed at the factory. Notice how the cords are installed before you replace them.

Note: Before trimming, always spin new cords for a few seconds so they pull tight and set.

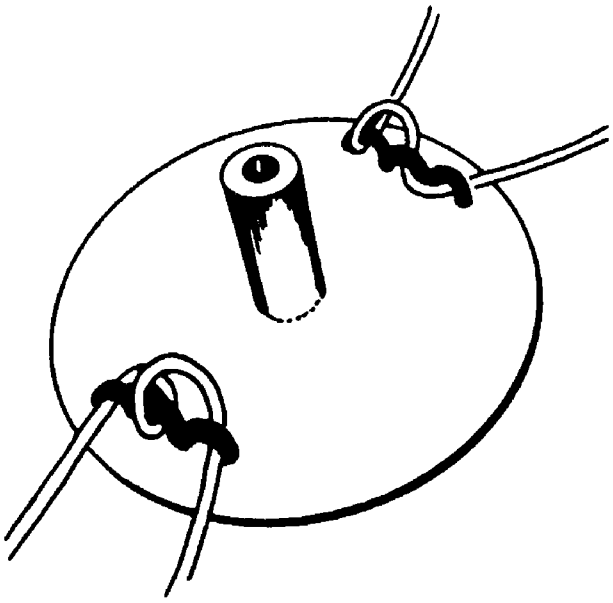


Figure 20

Because conditions and vegetation vary so much, experiment with various combinations of cord weight and installation methods in order to discover what works best for your particular mowing and trimming situations. Here are a couple of things to keep in mind:

- If you buy cutting cord in rolls, cut it in 21" lengths.
- Soaking your cutting cord in a bucket of room temperature water for a few days before use will make the cord more pliable. This will also prolong the life of the cutting cord.
- You can also store the cord in a plastic bag with a damp sponge or cloth to keep them pliable.

Please see page 20 for additional cutting cord installation methods and tips for getting the best performance from your cutting cord.

Trimming and Mowing Methods

Many owners like to mow easy, open areas with their regular riding or walk-behind mower, then they finish trimming all the odd and hard-to-reach spots with the DR® TRIMMER/MOWER™.

The DR® TRIMMER/MOWER™ discharges cut material to the right. Always try to cut and trim with the uncut tall grass or weeds at the left *(Figure 21)*.

☞ Suggestion: For the neatest appearance, do your trimming first, discharging clippings away from borders and shrubs, then do your mowing.

Figure 21

Obstacles

- Always check your work area before trimming and remove any debris that might tangle or damage the machine.
- If you do run into debris and the trimmer gets tangled, turn off the engine and disconnect the spark plug wire before attempting to untangle it.
- DO NOT run the machine over gravel driveways or over loose stones or mulches with the trimmer head spinning. The engine's power can easily throw stones, sticks and other debris at great velocity, which could cause personal injury or property damage.

Using the Parallel Trimming Action (PTA™) Feature

The DR® TRIMMER/MOWER'S PTA™ Feature allows the machine to move in a straight line while the trimmer head is both pivoted and tilted to the right or left for better access to fence lines and other obstacles *(Figure 22)*. Because the wheels remain in a straight line, you can cover more ground without having to pull the machine back and forth to trim in difficult areas.

The cutting cords extend beyond the wheel base when in the PTA™ mode, allowing you to cut under fences.

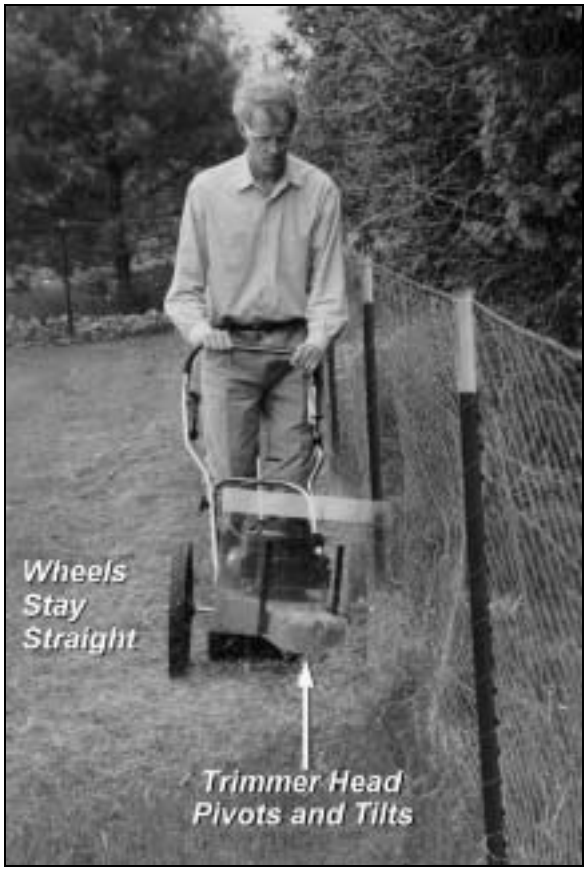


Figure 22

The trimmer head and the cutting cords also tilt slightly when in the PTA™ mode so you can edge and trim along gardens, paths and driveways.

When using your PTA™ along garden edges, fences, and buildings, we recommend making your first pass with the DR® TRIMMER/MOWER™ in the regular mowing position, staying 4 to 8 inches from the obstacle. Then, return for another pass with the machine cutting in the left or right PTA™ mode.

Mow-Ball™ Support

Allow the front end of the machine to rest lightly on the Mow-Ball™ Support as you are trimming. The Mow-Ball™ Support should glide on the ground as you maneuver the machine.

In order to achieve the best and smoothest cut, do not lift up on the handlebar while operating your DR® TRIMMER/MOWER™. Lifting the handlebar causes weight to be forced down on the Mow-Ball™ Support. This uses more energy, slows down the cutting, and produces a less than satisfactory cut. Ideally, the Mow-Ball™ Support should lightly rest on the ground while the wheels balance most of the weight of the machine.

Cutting Cords

The best trimming performance will usually come from using the smallest diameter cord (which is still capable of cutting the material at hand), combined with the fastest engine speed. When more power is needed for thicker growth such as berry canes, brambles, thistles or ragweed, you may want to use the Extra Heavy-Duty Green (155 mil) cord in combination with the highest engine speed.

If Cords Slip

There are several options for installing the cutting cords. Experimenting in different conditions with different cutting cords is a good way to find the best method. Below are some suggestions:

- Push the cord ends IN through the two end holes in the trimmer head plate. The bottom of the U formed by the cord should be toward the outside. Next, pull the two ends back through the middle hole, then UNDER the bottom of the U and pull them tight.
- When using the standard installation method, wrap the cutting cord through the middle loop twice (the thicker, green cord is stiff, but it can be done) as shown in Figure 23 . This will help prevent the cords from slipping.

Figure 23

- You can also try the method illustrated in Figure 24, especially for the green, 155 mil cord. This not only holds the cord tight, but also helps the cords cut better in larger diameter, tough and woody growth.
- Another method is shown in Figure 25.

Be careful not to move too fast through thick growth. If there are woody weeds in the material being cut, the cutting cords may wrap around the stalks they cannot cut and pull away from the trimmer head. If the cutting cords can't cut quickly, they may tear from the machine. Ease the tips into heavy growth.

☞ **Reminder:** The tips of the cutting cords do the cutting.

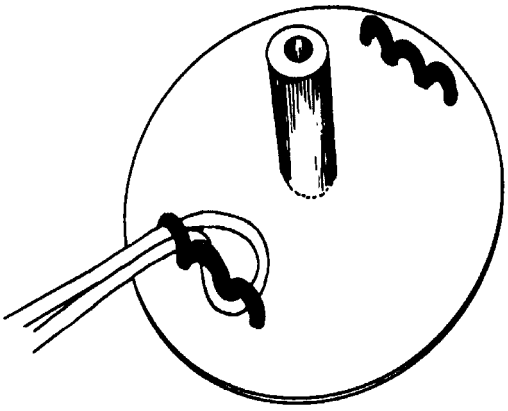


Figure 24

Figure 25

Adjusting the Cutting Height

One cutting height adjustment disk is already installed on your machine, just above the Mow-Ball™ Support. An additional disk is included in your product package, but you can order more. We recommend you try trimming with one disk before experimenting with additional disks.

The cords will cut approximately 1-1/2" to 2" off the ground with one disk installed. If the cut is too low or if you're cutting very tall or heavy grass, you may want to try using an additional disk.

Tool Needed:

• Phillips head screwdriver

Caution: An improper installation may cause damage to the bearings. Please follow these directions carefully.

Caution: Do not tip the machine all the way back on its handlebars unless you first drain the gas and oil.

WARNING: Before performing any maintenance procedures, the engine should be stopped and the spark plug wire disconnected.

1. Remove the orange, vinyl plug from the bearing housing's outer shaft *(Figure 26)*.
2. Insert a screwdriver into the hole *(Figure 26)* and rotate the Mow-Ball™ Support until the screwdriver fits in the second hole in the inner shaft, locking it in place.

Figure 26

Figure 27

3. With your hands, turn the Mow-Ball™ Support assembly with your hands until it completely unscrews from the bearing housing *(Figure 27)*.
4. Reassemble the components in the order shown in Figure 28, adding the additional cutting height disk above or below the one already installed.
   • Be sure to align the notches in the cutting height disks and the Mow-Ball™ Support before completing assembly.
   • Check the head of the Mow-Ball™ bolt. It should sit in the groove (square washer) at the bottom of the Mow-Ball™ Support.
5. Keeping the bearing housing locked with the screwdriver, mount the Mow-Ball™ Support assembly. Hold the bolt in place with one finger and turn the assembly onto the bearing housing until it's finger tight.
6. Spin the Mow-Ball™ Support to be sure the anti-wrap device does not hit the trimmer head plate. There should be about 1/16" to 1/8" of clearance between the top of the flat plate and the end of the anti-wrap bracket. There will be some resistance as you turn the trimmer head because of the belt and pulley.

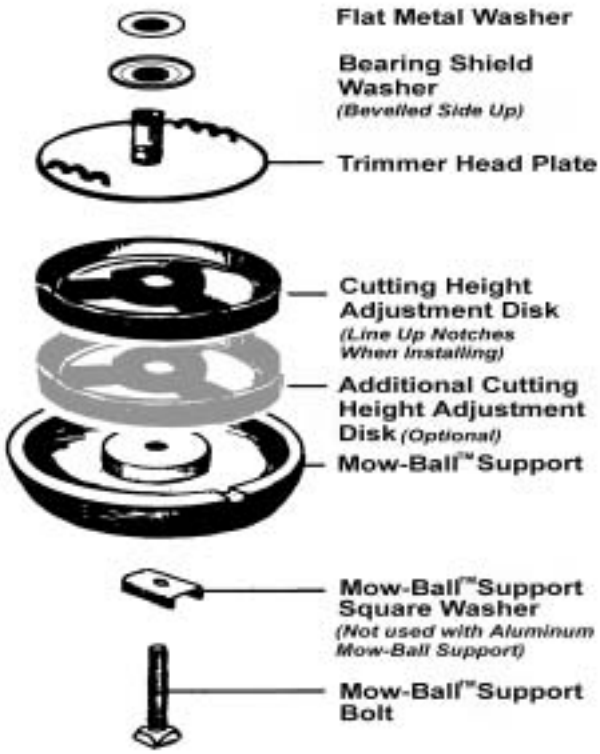


Figure 28

7. Return the orange vinyl plug to the bearing housing. This will keep out dirt and debris and ensure the long life of the bearings. Do not put oil or grease in the hole.

It is possible to use up to three cutting height adjustment disks. Using a third disk will also require purchase of a longer bolt (Part #114641).

Wagner Anti-Wrap Device

The Wagner Anti-Wrap Device was designed to reduce the amount of grass wrapping around the bearing housing shaft. It consists of the trimmer head plate, which has a "vane" welded to the shaft, and a bracket that fits around the shaft *(Figure 29)*.

To remove the Anti-Wrap Device bracket:

1. Follow the instructions for removing the Mow-Ball™ Support on page 27.
2. Remove the front bearing housing bolt which mounts the upper part of the bracket to the frame *(Figure 29)*.

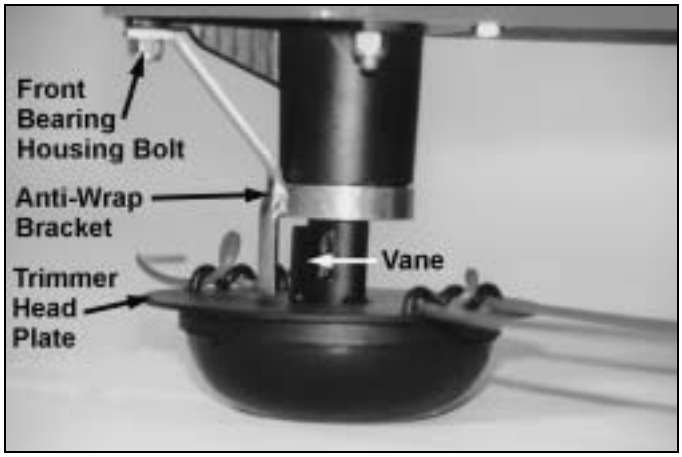


Figure 29

3. Slide the bracket off the bearing housing. You may need to tap the bracket to get it off.

Heavy Growth

Take your time in heavy growth. If the machine can't do it all in one pass, overlap half of the cutting swath. If the grass is very thick and heavy, try raising the trimmer head off the ground a few inches by pushing down on the handlebar. Cut the material at this height, and then make a second pass with the Mow-Ball™ Support on the ground *(Figure 30)*.

EASE the DR® TRIMMER/MOWER™ into denser growth. If the material is too tough or woody and can't be cut, the cutting cords will wrap around it, wear down or even break off.

Sometimes, growth is so heavy that it can't be mowed in rows. A back and forth "vacuum cleaner" motion often works better when tackling really tough material.

Figure 30

Wet Conditions

Because there is no housing to restrict the flow of cut material, you can use your DR® TRIMMER/ MOWER™ to mow wet or heavy growth. The DR® can also be used in damp conditions, like after a rain or in the early morning dew, without clogging or stalling.

Figure 31

Very Dry Conditions

When trimming and mowing in very dry conditions, be extra cautious of cut grass, chaff, weeds, seeds, etc., accumulating on the engine, especially around the recoil-start housing and engine cooling fins. Frequently remove debris to prevent engine overheating and damage *(Figure 31)*.

Please see the Engine Manufacturer's Owner's Manual for more detailed information on cleaning the air intake and cooling system on the engine.

Slopes

You can trim and mow on slopes up to 20 degrees. Continuous use on slopes steeper than 20 degrees may deprive the engine of adequate lubrication, and damage components.

Windrows

The DR® TRIMMER/MOWER'S cutting cords cut even tall grass in just one pass, so you can collect clippings and leaves for mulch. The machine ejects cut material to its right, so you can use it like a lawn broom to make windrows for easy raking *(Figure 32)*.

Firebreaks

Use the DR® as a labor-saving tool to cut material when creating firebreaks.

End-of-Season Garden Clean-Up

The DR® is perfect for cutting down spent perennials, annuals and wildflowers, saving you hours of hand dead-heading and pruning.

Figure 32

Maintenance

For Engine Maintenance, Please Refer to the Engine Manufacturer's Owner's Manual.

IMPORTANT: Because of the conditions the DR® TRIMMER/MOWER™ is used in, air filters and oil should be changed more frequently than is recommended in your Engine Manufacturer's Owner's Manual. Please follow these recommendations:

Paper Air Cartridge **Should be replaced every 25 hours of operation.**

Oil **Should be drained and replaced every 25 hours of operation.**

Regular Maintenance

Regular maintenance is the best way to ensure the best performance and long life of your machine. Below is a list of recommended maintenance procedures.

WARNING: Always allow the engine to cool completely and remove the spark plug wire before performing any maintenance procedures.

Caution: Do not tip the trimmer back on its handlebar to access the underside unless you first drain the gas and oil.

- Clean any debris from the top and bottom of the machine, cylinder head fins, blower housing, finger guard, and muffler areas with a brush or rag.
- Replace the air filter(s).
- Replace the spark plug.
- Check the Mow-Ball™ Support assembly and clean out any debris wrapped around the shaft.
- Drop the bearing housing and clean out any debris. Check for burrs on the pulley.
- Lubricate the engine throttle cable, trimmer control cable, and idler pulley with FLUID FILM® or a similar lubricant.
- Check the Mow-Ball™ Support and cutting height adjustment disks for wear, and replace them if necessary.
- Replace broken or frayed cutting cords.
- Check the belt for fraying or stretching. Replace it if necessary.
- Check the bolts and nuts on the bearing housing assembly. If they are loose, tighten them with a 1/2" wrench or socket. Check occasionally throughout the season to be sure they're secure.

Battery Care *(Electric-Starting Models Only)*

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

- Do not continue to crank the engine with a low battery.
- Try to keep the battery at full charge to maximize its life. If the machine is not used, the battery should be charged every three months. See page 26 for charging information.
- Store an unused battery in a dry area that does not freeze.
- Do not charge an already charged battery. In theory, our battery cannot be overcharged 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.

Automobile batteries last for years because they are recharged every time you drive your car—usually on a daily basis. An Electric-Starting DR® TRIMMER/MOWER™ will recharge its battery while you operate it. However, if you run your DR® infrequently or let it sit during the off-season without recharging, the battery life will be dramatically shortened. If the battery loses its charge, use the DR® Battery Charger or other trickle charger, to recharge it. The charger should have an output of 12 Volts at 1-2 amps.

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

Note: Using the recoil starter and then running the engine will not recharge a dead battery.

To Connect the Battery Charger

1. Detach the two battery wires going to the wiring harness on your DR® TRIMMER/MOWER™.
2. Next, attach the black (-) battery charger wire to the black (-) wire on the battery. Then attach the red (+) battery charger wire to the red (+) wire on the battery.
3. Plug the battery charger into an outlet.
4. When the battery is charged, disconnect the charger from the battery before unplugging it from the outlet.

Battery Troubleshooting

Symptoms of a battery needing a charge:

- The engine won't start with the key but will start with the recoil starter.
- A whirring noise coming from the starter.
- A grinding noise coming from the starter.
- No noise at all.

What to do:

- Check that the battery is fully charged. A fully charged battery should read 12 volts under load. Manually start the engine and then put the tester on the battery. If you need to charge the battery, follow the directions above.
- Check all cable connections.

- The wiring harness consists of a set of wires that lead from the ignition switch to the battery. Disconnect and reconnect the battery wires (black to black and red to red) and check the wire connections at the key switch.
- Call one of our Customer Service Representatives TOLL-FREE 1(800)DR-OWNER(376-9637) for assistance.

To Remove the Mow-Ball™ Support Assembly

⚠ **WARNING:** Before performing any maintenance procedures, the engine should be stopped and the spark plug wire disconnected.

Tool Needed:

• Phillips head screwdriver

Set the machine on a bench if possible. Do not tip the machine all the way back on its handlebar unless you have drained the gas and oil.

1. Remove the orange vinyl plug from the bearing housing outer shaft *(Figure 33).*
2. Insert the screwdriver into the hole *(Figure 33),* and rotate the Mow-Ball™ Support until the screwdriver fits in a second hole in the inner shaft, locking it into place.
3. Turn the Mow-Ball™ Support assembly with your hands until it unscrews completely from the bearing housing *(Figure 34).*

Figure 33

Figure 34

To Reassemble the Mow-Ball™ Support Assembly

WARNING: Before performing any maintenance procedures, the engine should be stopped and the spark plug wire disconnected.

Caution: An improper installation may cause damage to the bearings. Please follow these directions carefully.

Tool Needed:

• Phillips head screwdriver

Note: If you removed and are reinstalling the Wagner Anti-Wrap Device, be sure the bracket is flush with or slightly above the bottom edge of the bearing housing shaft—not below it.

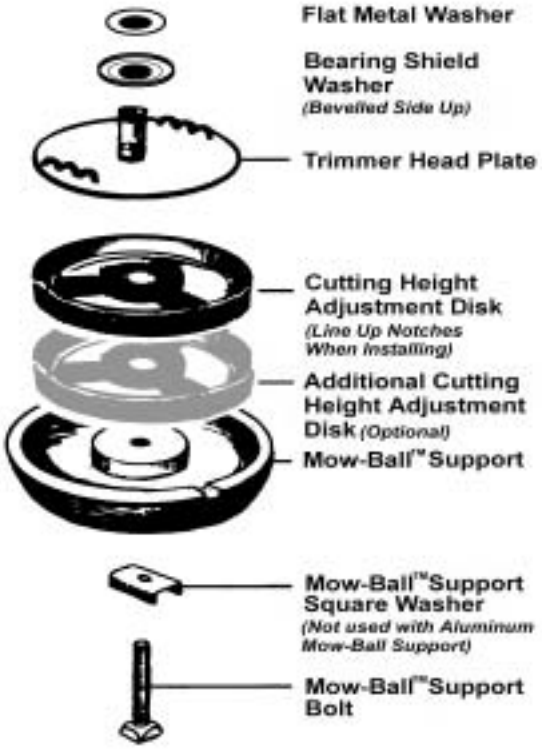


Figure 35

1. Reassemble the components in the order shown in Figure 35.
   • Be sure to align the notches in the cutting height disks and the Mow-Ball™ Support before completing assembly.
   • Check the head of the Mow-Ball™ bolt. It should sit in the groove (square washer) at the bottom of the Mow-Ball™ Support.
2. Hold the Mow-Ball™ bolt head in place with one finger and turn the Mow-Ball™ Support assembly counterclockwise until it's finger tight. Holding the bolt in place prevents it from turning in the groove and digging into the Mow-Ball™ Support.
3. Spin the Mow-Ball™ Support to be sure the anti-wrap device does not hit the trimmer head plate. There should be about 1/16" to 1/8" of clearance. There will be some resistance as you turn the trimmer head because of the belt and pulley.
4. Return the orange vinyl plug. This will keep out dirt and debris and ensure the long life of the bearings.

   Please Note: Do not put oil or grease in the hole.

To Partially Lower the Bearing Housing Assembly *(to remove debris)*

WARNING: Before performing any maintenance procedures, the engine should be stopped and the spark plug wire disconnected.

Tools Needed:
• 1/2" socket
• 1/2" wrench

If possible, set the machine up on a bench. Do not tip the machine all the way back on its handlebars unless you have drained the gas and oil.

1. Remove the three bearing housing nuts *(Figure 36)* and carefully lower the bearing housing assembly *(Figure 37)* from the frame. Brush out any dirt and debris and check the pulley for burrs or dents.
2. Replace the bearing housing assembly and tighten the bolts.

Note: If the belt comes off, please refer to the instructions on page 31 to ensure proper positioning.

Figure 36

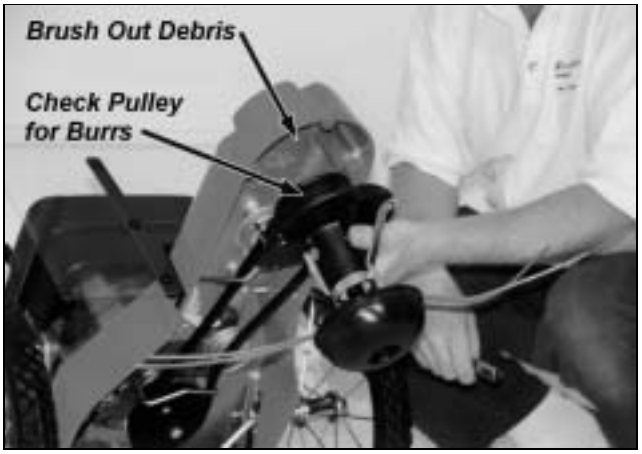


Figure 37

To Check the Bearing Housing Assembly for Damage

WARNING: Before performing any maintenance procedures, the engine should be stopped and the spark plug wire disconnected.

Tool Needed:
• 1/2" wrench

If the trimmer head doesn't rotate when you engage the brake bar, try the following test:

1. Leaving the Mow-Ball™ Support assembly in place, loosen and remove the three bearing housing nuts and lower the bearing housing from the frame *(Figures 36 & 37).*

2. Flip the bearing housing over and detach the brake arm *(Figures 39 & 40). Note that the Mow-Ball™ Support assembly has been removed in these pictures.*
3. Pull the belt off the pulley *(Figure 40).*
4. Remove the spring or release the break from the bearing housing *(Figure 41).*
5. Turn the Mow-Ball™ Support assembly by hand. It should turn freely, without resistance. If it doesn't turn freely or you hear a grinding noise, the bearings may be worn and you may need to replace the bearing housing assembly.

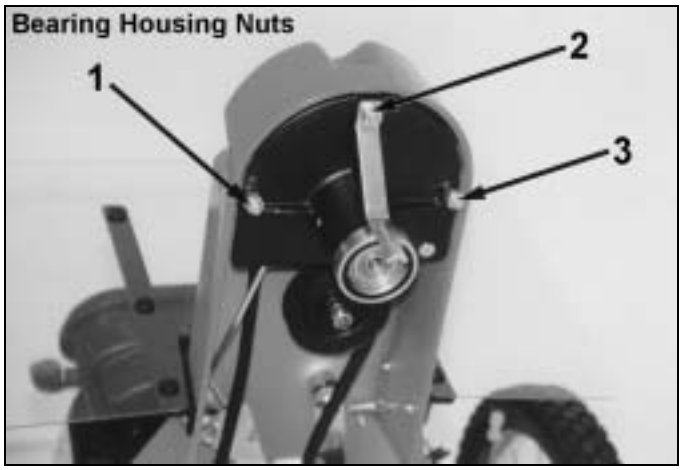


Figure 38

6. Call one of our Customer Service Representatives at TOLL-FREE 1(800)DR-OWNER(376-9637) for information about replacing the bearing housing assembly.

To Remove and Replace the Bearing Housing Assembly

WARNING: Before performing any maintenance procedures, the engine should be stopped and the spark plug wire disconnected.

Tools Needed:

- 1/2" wrench
- 7/16" wrench
- pliers
- 5/32" Allen wrench
- you may also need a pulley extractor

To Remove the Old Bearing Housing

1. Remove the Mow-Ball™ Support assembly. See page 27 for instructions.
2. Loosen and remove the three bearing housing nuts and lower the bearing housing from the frame *(Figures 38 & 39).*

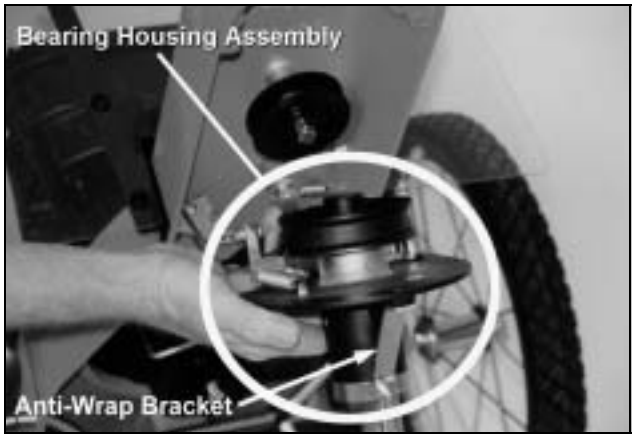


Figure 39

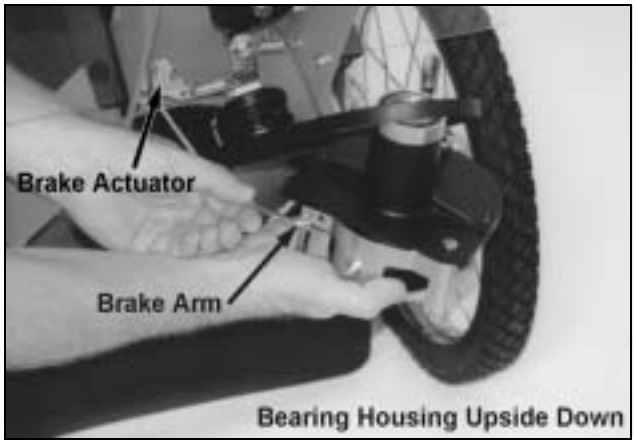


Figure 40

3. Flip the bearing housing over and detach the brake arm from the brake assembly and the brake actuator *(Figure 40)*.
4. Pull the belt off the pulley *(Figure 40)*.
5. Slide the Wagner Anti-Wrap bracket off the bearing housing. You may need to tap it to make it slide off.
6. Remove the brake assembly and spring from the bearing housing *(Figure 41)*.
7. To remove the pulley *(Figure 42)*, unscrew the set screw from the pulley with an Allen wrench. Then tap the pulley to loosen it from the shaft. Be careful not to hit the shaft, as it will expand and make the pulley harder to remove. Remove the pulley. You may need a pulley extractor.

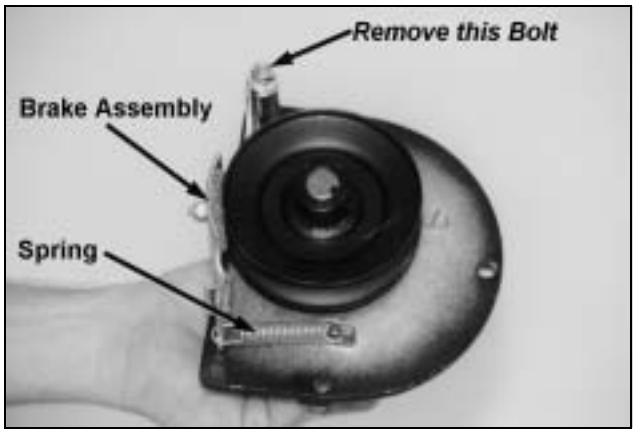


Figure 41

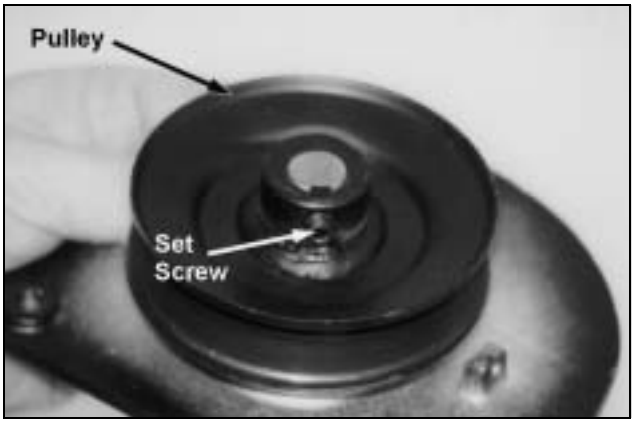


Figure 42

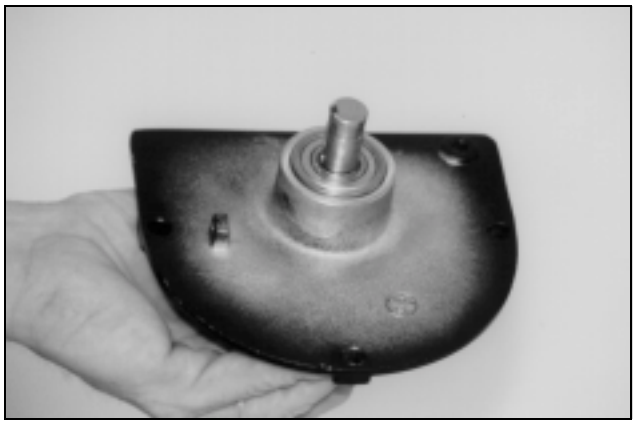


Figure 43

To Mount the New Bearing Housing

1. On the new bearing housing *(Figure 43)*, mount the pulley and key *(Figure 42)*, leaving the shaft recessed about 1/16", and secure with the set screw. You may want to use Loctite® 242 to keep the set screw in place.
2. Mount the brake assembly and spring *(Figure 41)*.
3. With the bearing housing upside down, attach the brake arm to the brake assembly and the brake actuator *(Figure 40)*.
4. Mount the belt around the bearing housing pulley *(Figure 40)*. Be sure the belt is placed on the INSIDE of the belt guides *(Figure 46)*and that the other end of the belt goes through the belt retainer and around the engine pulley. Also, be sure the belt is on the INSIDE of the idler pulley #1 *(Figure 44)*.

5. Set the new bearing housing assembly into place. Insert the three bearing housing bolts through the frame, and tighten the nuts *(Figure 38)*.
6. Reassemble the Mow-Ball™ Support assembly. See page 27 for instructions.

To Replace the Belt

Figures 44 & 45 show the belt and pulley system from the underside of the machine.

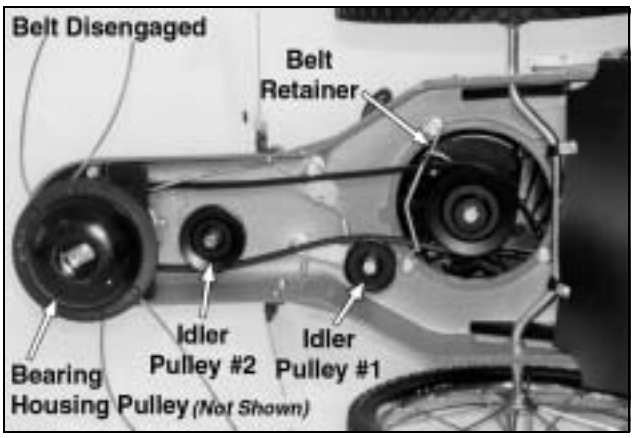


Figure 44

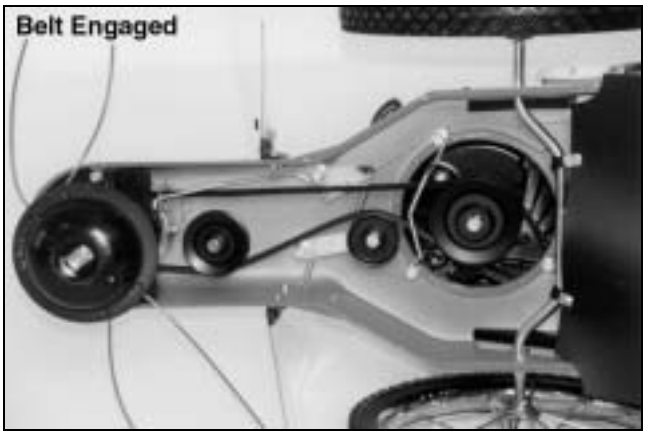


Figure 45

⚠ **WARNING:** Before performing any maintenance procedures, the engine should be stopped and the spark plug wire disconnected.

1. Remove the old belt. Take the new belt and loop it over the bearing housing pulley and in between the pivot sleeve and belt guide *(Figure 46)*.
2. Put the opposite end of the belt around the engine pulley, making sure the belt is INSIDE the belt retainer and on the INSIDE of idler pulley #1 *(Figure 44)*.

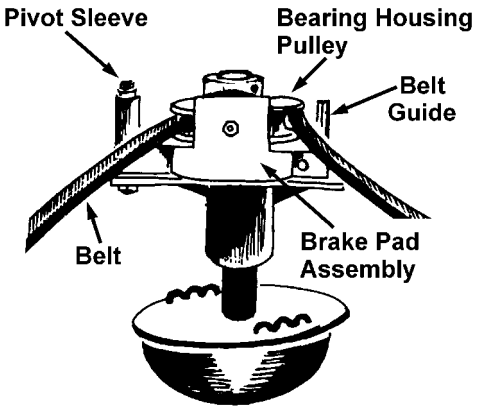


Figure 46

To Adjust the Belt Tension through the Trimmer Control Cable

If the trimmer head stops spinning when the brake bar is engaged and the machine is operating under a heavy load, the belt may be too loose and the trimmer control cable may need to be adjusted to put more tension on it.

When the trimmer control cable is properly adjusted, you should begin to feel tension on the clutch control lever when it's pushed about half way down. If you feel tension before half way, the belt is too tight. If you don't feel tension until past the half way point the belt is too loose. Before making any adjustments to the trimmer control cable, check that the belt is mounted on the correct side of the idler pulley (see Figure 45), and is not frayed, worn or stretched.

⚠ **WARNING:** Before performing any maintenance procedures, the engine should be stopped and the spark plug wire disconnected.

Tools Needed:
• (2) 1/2" open-end or adjustable wrenches, or pliers

To adjust the belt tension through the trimmer control cable *(Figure 47)*, you may find it easier to set the trimmer up on a workbench, or, after draining the gas and oil from the engine, tip the machine back on the handlebar.

1. With wrench or pliers, loosen the nut in front of the frame, leaving about 1/8" of space between nut and frame *(Figure 48)*.
2. Grip the metal end of the black cable with pliers, making sure you DO NOT pinch it. At the same time, tighten the rear nut until it is flush and snug against the frame. The parts will then be in the same position as in step 1, but 1/8" to the right *(Figure 48)*.

If the trimmer head keeps spinning after the brake bar is released the belt may be too tight. Repeat the above steps, except this time loosen the rear nut, then tighten the front nut.

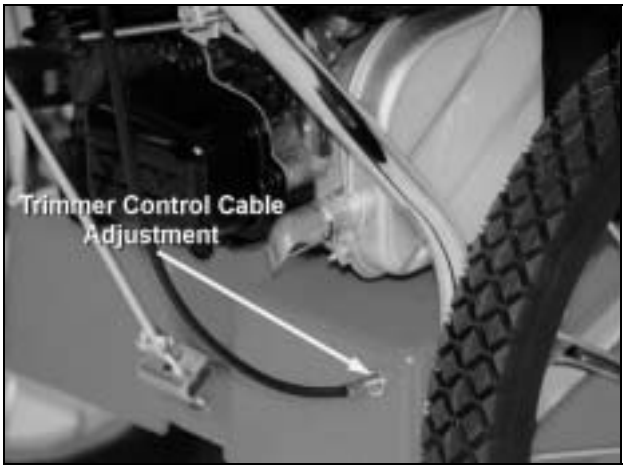


Figure 47

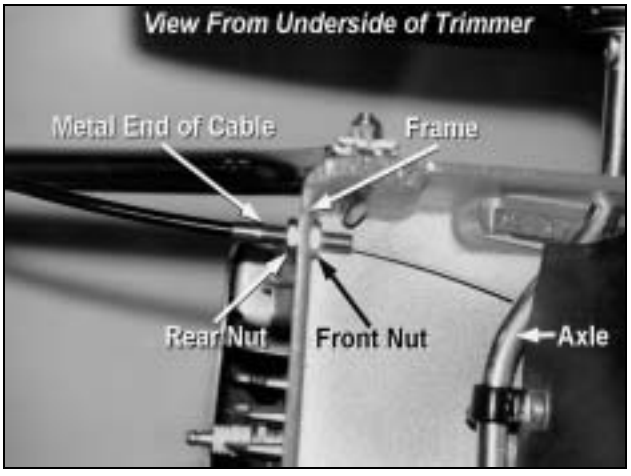


Figure 48

To Adjust the PTA™ Feature

WARNING: Before performing any maintenance procedures, the engine should be stopped and the spark plug wire disconnected.

Tools Needed:
• 5/16" socket

It should be easy to engage the PTA™ Feature. If you find it hard to release the PTA™ lever and pivot the frame to the side, loosen the axle nut one quarter turn or so *(Figure 49)*. Also be sure there is some play between the bottom of the PTA lever and the PTA pin at the rear of the machine frame.

Keeping the axle clean will also help the PTA™ feature work smoothly.

Lubricating the black axle slides *(Figure 49)* with FLUID FILM® or comparable lubricant will also help keep the PTA action smooth.

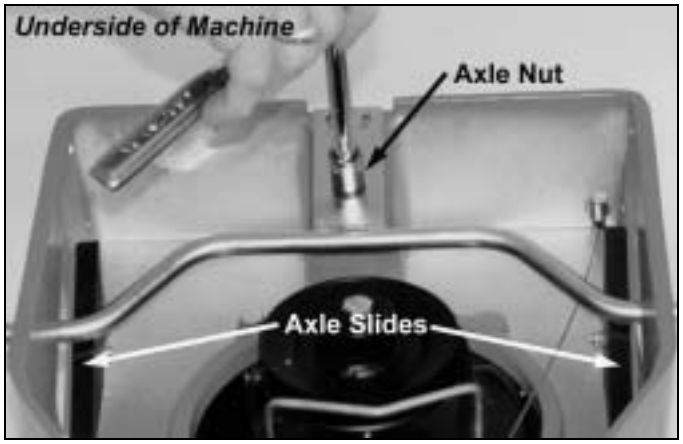


Figure 49

For Engine Maintenance, Please Refer to the Engine Manufacturer's Owner's Manual.

Troubleshooting

WARNING: Before performing any maintenance procedures, the engine should be stopped and the spark plug wire disconnected.

Engine won't start manually *(Please refer to the engine manufacturer's owner's manual for engine-specific procedures.)*	⇒ Are you priming? Push the primer bulb 3 to 5 times, releasing completely each time. ⇒ Are you using fresh, clean gas? If it's old, change it. Use a fuel stabilizer if you keep gas longer than two weeks or so. ⇒ Does the engine have the right amount of clean oil? If it's dirty, change it following the procedure in the engine manufacturer's owner's manual. ⇒ Is the spark plug clean? If it's fouled or cracked, change it. If it's oily, leave it out, hold a rag over the plug hole and pull your recoil cord several times to blow out any oil in the cylinder, then wipe off the plug and reinsert it. ⇒ Is the air filter clean? If it's dirty, change it following the procedure in the engine manufacturer's owner's manual. ⇒ Is the throttle cable attached to the engine and moving freely? ⇒ If your engine still won't start, call **1(800)DR-OWNER(376-9637)** for advice and assistance.
Engine won't start using electric-start *(Please refer to the engine manufacturer's owner's manual for engine-specific procedures.)*	⇒ Have you checked all the items under manual start above? If not, do so. ⇒ Is your battery charged? Check it yourself or at a gas station. If it's low, charge it with a 12-volt, 1.5 to 2 amp trickle charger. If you don't use your DR® for 45 minutes or so at a time, the battery may need to be periodically charged. See the Battery Maintenance section of this manual. ⇒ If your battery is charged and your DR® still won't start, call **1(800)DR-OWNER(376-9637)** for advice and assistance.
Engine lacks power or is not running smoothly *(Please refer to the engine manufacturer's owner's manual for engine-specific procedures.)*	⇒ Are you using fresh, clean gas? If it's old, change it. Use a fuel stabilizer if you keep gas longer than two weeks or so. ⇒ Does your engine have the right amount of clean oil? If it's dirty, change it following the procedure in the engine manufacturer's owner's manual. ⇒ Is the spark plug clean? If it's fouled or cracked, change it. If it's oily, leave it out, hold a rag over the plug hole and pull your recoil cord several times to blow out any oil in the cylinder, then wipe off the plug and reinsert it.

Engine lacks power or is not running smoothly (continued) *(Please refer to the engine manufacturer's owner's manual for engine-specific procedures.)*	⇒ Is the air filter clean? If it's dirty, change it following the procedure in the engine manufacturer's owner's manual. ⇒ Is the throttle cable attached to the engine and moving freely? ⇒ Are the blower housing, throttle linkage and cooling fins free of debris? Clean them following the instructions in the engine manufacturer's owner's manual. ⇒ Are the bearing housing and trimmer head clogged with debris? Drop it and clean it according to the To Partially Lower the Bearing Housing Assembly instructions in the maintenance section of this manual. ⇒ If your engine still lacks power, call **1(800)DR-OWNER(376-9637)** for advice and assistance.
Grass is wrapping on trimmer shaft, bearing housing and/or trimmer head	⇒ Lift the Mow-Ball™ Support slightly off the ground by pushing down on the handlebar and back the machine up. This should help clear the debris. You can also turn the engine off, disconnect the spark plug and pull out any remaining material with your hands, or use a knife to cut it away. ⇒ Are you trying to do too much too fast? Check the tips in the section on breaking cords below. ⇒ Any time you have to pull or cut away wrapped vegetation, **turn off the DR® and disconnect the spark plug wire**.
Trimmer head won't spin	⇒ Is the trimmer head control fully engaged? Pull the brake bar all the way back to the handlebars, then firmly push the trimmer head control lever all the way down until you hear a click. When you release it, it will spring part way back. The head will keep spinning as long as you hold back the brake bar. ⇒ Is your v-belt properly aligned? Check it against the diagram in the Belt section of this manual. Make sure the belt is **inside** the idler pulley, that the springs on the idler pulley arm and triangular brake actuator are in place, and that the actuator moves when you engage the trimmer head control lever. ⇒ Is your v-belt worn or frayed? If so, replace it. ⇒ Are your bearings in good shape? Follow the To Check the Bearing Housing Assembly instructions in the maintenance section of this manual. ⇒ Are the bearing housing and trimmer head clogged with debris? Drop and clean them according to the To Partially Lower the Bearing Housing Assembly instructions in the maintenance section of this manual.

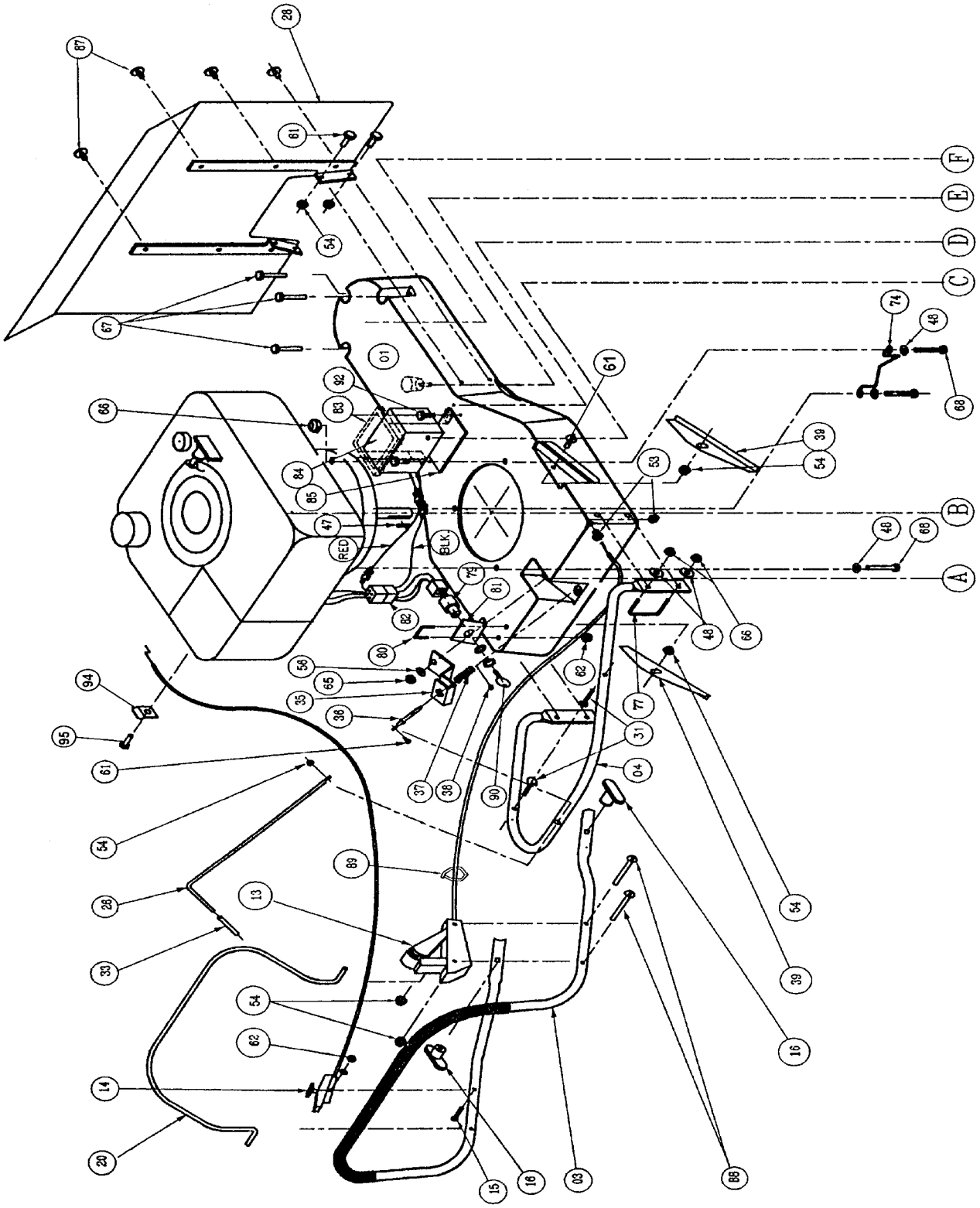
Trimmer head won't spin (continued)	⇒ If the head still will not spin, follow the procedure for To Adjust the Belt Tension through the Trimmer Control Cable in the maintenance section of this manual. ⇒ If none of the above helps, call **1(800)DR-OWNER(376-9637)** for advice and assistance.
Trimmer head keeps spinning	⇒ Is the trimmer head control disengaging? When you release the brake bar, the control lever should come all the way up against the bar, just below the curve. ⇒ Is your v-belt properly aligned? Check it against the diagram in the Belt section of this manual. Make sure the belt is **inside** the idler pulley, that the springs on the idler pulley arm and triangular brake actuator are in place, and that the actuator moves when you engage the trimmer head control lever. ⇒ Is the sleeve on the trimmer head control cable clogged with debris? If so, clean it out and spray some FLUID FILM® on the cable. ⇒ Is the brake pad worn? Drop the bearing housing according to the procedure in the maintenance section of this manual and check the pad for wear. Also make sure the spring is not broken, missing or stretched. ⇒ If the head keeps spinning when you release the brake bar, see To Adjust the Belt Tension through the Trimmer Control Cable in the maintenance section of this manual for instructions on tightening the cable. ⇒ If none of the above works, call **1(800)DR-OWNER(376-9637)** for advice and assistance.
Cutting cords are breaking	⇒ Are your cords dry? Store cords in a plastic bag with a damp sponge or cloth to make them less prone to breaking. Or, soak them in a bucket of water for a few days. ⇒ Are you trying to do too much too fast? Ease into material to be cut; the cord tips do the work. Take small bites of tall or tough vegetation. Cut half a swath at a time, keeping the cut area to the discharge or right side of the DR®. Go over tall material twice, the first time with the head tilted up and back, the second time with the Mow-Ball™ Support on the ground. ⇒ Try a lighter cord, or tying on only one cord for a faster head spin. ⇒ Are you hitting your cords against stone or a chain-link fence? The cords just won't last as long as in the open. Work on controlling the cutting pattern; with practice you'll learn to cut closer to obstacles without hitting them.

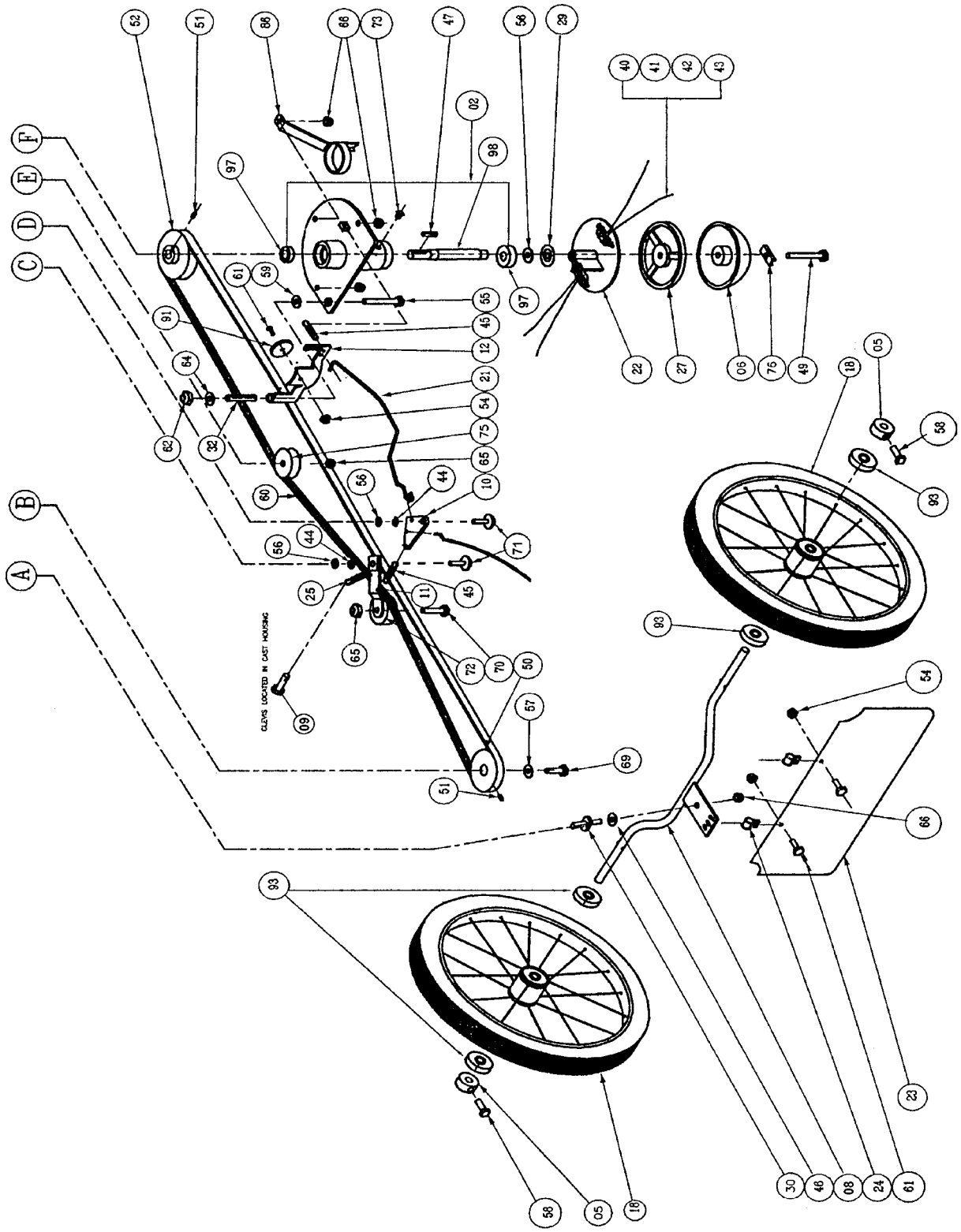
Cutting cords are pulling out	⇒ Are you moving too fast into tough, woody growth? If so, cords may wrap on stalks and pull out. Check the tips in the section on breaking cords above. Also, try the different methods of attaching the cord shown in the Cutting Cords section of this manual. ⇒ Are you trying to cut material too heavy for the cord? The DR® is designed to cut green material up to about the thickness of a pencil. For very heavy material, you may need the BEAVER BLADE® attachment, usable on the Standard, Quantum and "Pro" model trimmers only.
Parallel Trimming Action is difficult	⇒ Is the axle binding when you shift into PTA™ mode? Spray some FLUID FILM® at the points where the axle slides on the frame. ⇒ Is the self-locking nut over the bolt that holds the flat end of the PTA™ lever to the latch too tight? If so, loosen it 1/4 turn at a time until the PTA™ works smoothly. ⇒ Is the axle nut under the frame too tight? If so, loosen it a bit. ⇒ If you still have trouble engaging the PTA™ feature, call **1(800)DR-OWNER(376-9637)** for advice and assistance.
Mow-Ball™ Support is wearing too quickly	⇒ Are you pushing the trimmer head down into the ground? The DR® TRIMMER/MOWER™ works best with a light touch, with the Mow-Ball™ Support resting easily on the ground. ⇒ Are you hitting the Mow-Ball™ Support against rocks, concrete driveways or other hard obstacles? Try approaching them slowly, and from different directions, to avoid unnecessary wear.

Parts List

Ref #	Part #	Description
1	116891	Main Frame
2	125121	Bearing Housing Assembly
3	117771	Upper Handlebar
4	117741	Lower Handlebar Ext.
5	125141	Wheel Retaining Ring
6	121171	Mow-Ball™ Support
7	121131	Aluminum Mow-Ball™
8	114261	Axle
9	123951	Clevis, 3/16" x 1/2"
10	114031	Brake Actuator
11	114111	Idler Arm
12	115121	Brake Assembly
13	136651	Clutch/Brake Control
14	115751	Throttle Handle Control
15	114681	Hex Head Bolt, 1/4"-20 x 1-1/4"
16	118181	Handlebar Knob
18	121761	Wire Spoke Wheel 16"
19	121321	Resin Wheel 16"
20	114301	Brake Bar
21	119621	Brake Rod
22	119011	Trimmer Head Plate
23	116801	Rubber Stone Guard
24	115641	Stone Guard Clamp
25	120891	Idler Return Spring
26	118221	PTA Lever
27	116201	5" Cutting Height Adjustment Disk
28	120521	Shield Assembly
29	121541	Bearing Shield Washer
30	121101	Pivot Stud
31	114611	Handlebar Bolt, 1/4"-20 x 1-1/2"
32	120641	Spacer, 1/4" x 1-3/4"
33	117491	PTA Lever Vinyl Grip
34	114251	PTA Latch Bracket Assembly
35	115001	Latch Bracket Only
36	118941	PTA Pin
37	120901	PTA Spring
38	119591	PTA Snap Ring
39	121751	Wear Strip
40	115831	24 Heavy-Duty Cords (pre-cut)
41	115871	Roll of Heavy-Duty Cord
42	115811	24 Extra Heavy-Duty Cords (pre-cut)
43	115861	Roll of Extra Heavy-Duty Cord
44	121661	Nylon Washer .20 thick
45	120771	Extension Spring
46	121521	Plastic Axle Washer
47	118161	Key 3/16" Square
48	121691	Flat Washer, 5/16"
49	114651	Mow Ball Bolt, 3/8"-16 x 3" HH
50	119191	Engine Pulley
51	120171	Set Screw, 5/16"-18 x 5/16"
52	125381	Head Pulley
53	118691	Hex Nut, 5/16"
54	118731	Nylon Lock Nut 10-24
55	114621	Hex Head Bolt, 1/4"-20 x 2-1/2"
56	121701	Flat Washer (3/8" SAE)
57	112391	Flat Washer (3/8" USS)
58	120161	Set Screw 1/4"-20 x 3/8" Sq Head
59	121551	Brake Pivot Washer
60	114431	V-Belt 1/2" x 45", 4L450
61	114781	Hex Head Screw, 10-24 x 5/8"
62	118641	1/4"-20 Elastic Stop Nut
64	121591	#10 Flat Washer
65	118781	Elastic Stop Nut, 3/8"-16
66	110761	Elastic Stop Nut Axle 5/16"-18
67	114741	Hex Head Bolt, 5/16" – 18 x 2"
68	114761	Hex Head Bolt (M50ES) 5/16-18 x 3-1/4"
69	114721	Hex Head Bolt, 3/8"-24 x 1/2"
70	119851	Hex Head Bolt, 3/8"-16 x 1-1/2"
71	119911	Shoulder screw
72	113071	Idler Pulley #1 (flat)
73	119101	Vinyl Plug
74	119381	Belt Retainer
75	119231	Idler Pulley #2 (V shape)
76	121681	Mow-Ball™ Rectangular Washer
77	114851	Handlebar U-Bolt
78	117471	Safety Goggles
79	113081	Electric Starter Switch
80	114861	U Bolt, 1/4"-20 x 3/4"
81	121191	Switch Mounting Plate
82	117811	Ignition Wiring Harness
83	135101	Battery Clamp, Nylon
84	113001	Battery
85	113051	Neoprene Battery Mounting Pad
86	115071	Wagner Anti-Wrap Device Bracket
87	119611	Plastic Rivet
88	120151	Round Head Screw, 10-24 x 2"
89	127421	Cable Clip
90	118111	Key, Start Switch
91	118881	Brake Pad
92	133071	Flange Bolt, 1/4" – 20 x 7/8"
93	114411	Wheel Bearing
94	115581	Bowden Clamp, Briggs & Stratton Models
	115591	Bowden Clamp, Tecumseh Models
95	119821	Bowden Clamp Bolt, Briggs & Stratton Models
	115601	Bowden Clamp Bolt, Tecumseh Models
96	120101	Screw, Wear Strip
97	114381	Bearing
98	120481	Shaft

Schematic Drawings

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Daily Check List for the DR® TRIMMER/MOWER™

To help maintain your DR® for optimum performance, we recommend you follow this check list each time you use it.

✓ GAS: Fill the gas tank with clean, fresh, unleaded gas. Be careful not to spill gas on the engine shield. Gasoline will cloud the acrylic. If gas does spill on the shield, rinse it immediately with soap and water.

✓ OIL: Check the oil level and add more if necessary (add oil to the level indicated on the dip stick—do not overfill). Use SAE 30 detergent oil.

✓ SPARK PLUG: Clean or replace the spark plug.

✓ AIR FILTER: A clean air filter will mean a much easier-starting and better running engine. Please see your engine manufacturer's manual for instructions on cleaning or replacing your air filter.

✓ ENGINE AIR COOLING SYSTEM: It is very important to keep the engine clean of debris. Remove grass and other built-up materials from the air intake screen, blower housing, and cooling fins regularly. A dirty engine retains heat and can cause damage to the internal engine parts.

✓ BELT: Check the belt for wear, proper alignment and tension.

✓ CUTTING CORDS: Replace broken or frayed cords.

✓ MOW-BALL™ SUPPORT and CUTTING HEIGHT ADJUSTMENT DISKS: Check the Mow-Ball™ Support and cutting height adjustment disks for wear. Make sure the Mow-Ball™ Support and cutting height adjustment disks are lined up with the notches in the trimmer head plate.

COUNTRY HOME PRODUCTS®

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