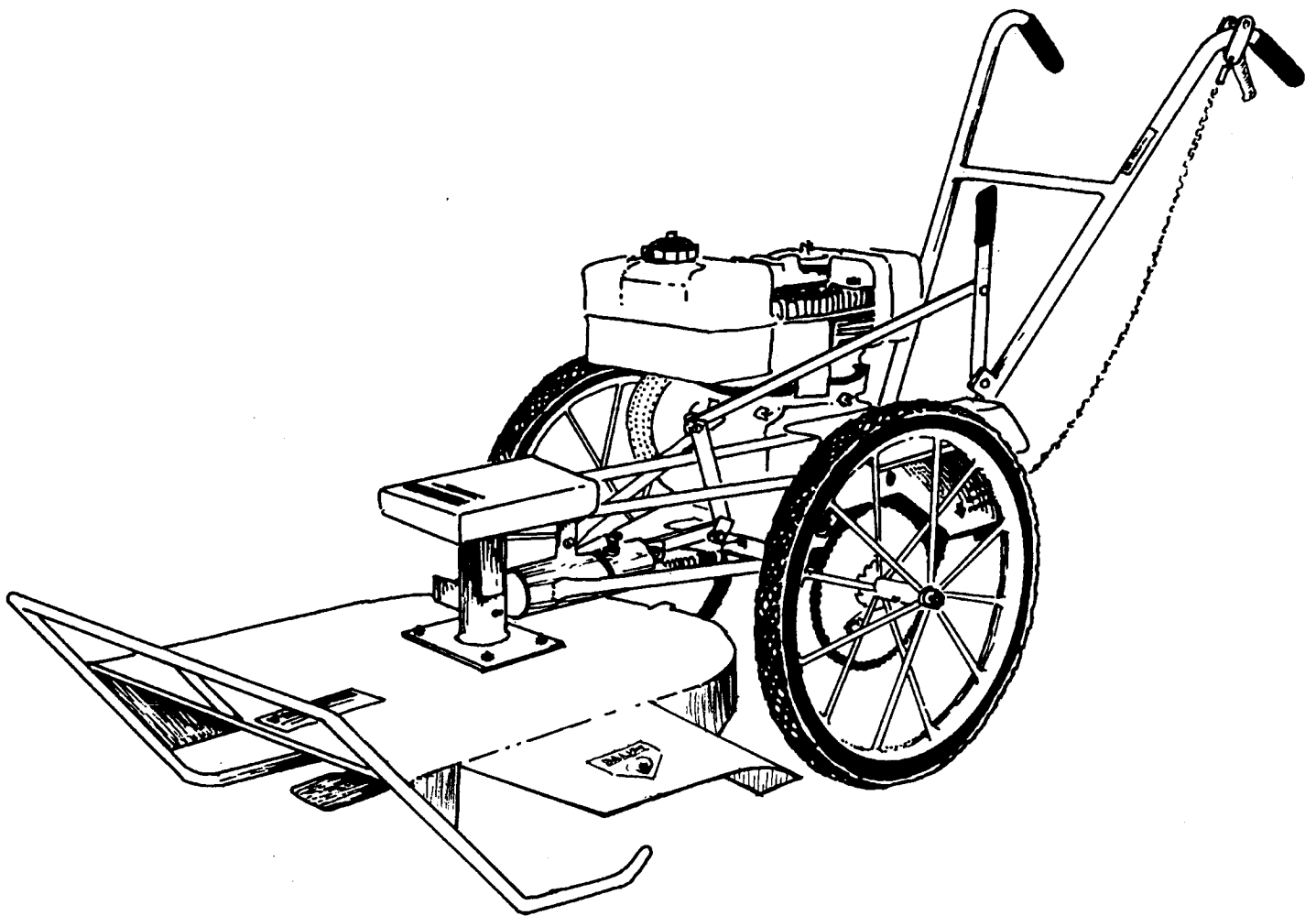


DR[®] FIELD and BRUSH MOWER

Assembly & Operating Instructions



Please read through these Operating Instructions and become familiar with the basic features of the DR[®] FIELD and BRUSH MOWER before operating it.

THANK YOU!

And congratulations on your purchase of a new DR® FIELD and BRUSH MOWER!

We have done our utmost to ensure that your DR® FIELD and BRUSH MOWER 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® FIELD and BRUSH MOWER! 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!

Bill Lockwood

for all of us at...

COUNTRY HOME PRODUCTS®

We Want You to be Totally Satisfied

The DR[®] FIELD and BRUSH MOWER is designed to provide year after year of trouble-free performance. To ensure that you are totally satisfied with this important purchase, we offer the following three-part Assurance of Satisfaction:

1. THE DR[®] FIELD and BRUSH MOWER is GUARANTEED FOR ONE FULL YEAR against defects in materials and workmanship in consumer use. If you believe that a part is defective, please write or call us immediately. We will do our best to remedy the problem, including repairing or replacing defective parts as quickly as possible. The engine is guaranteed separately for TWO YEARS by the manufacturer.
In rental and commercial use the machine is guaranteed for 90 days. The engine manufacturer guarantees the "Standard" model engine for 90 days, and both "Pro" model engines for one year in rental and commercial use.
2. IF WITHIN THE FIRST 30 DAYS of actual hands-on use you have questions or you are less than 100% satisfied with your DR[®] FIELD and BRUSH MOWER, please write or call us Toll-Free at 1(800)DR-OWNER (376-9637). We will do everything possible to answer your questions or make things right — even if it means that you return your DR[®] FIELD and BRUSH MOWER for a full refund of its purchase price, shipping costs included. (Refund on shipping is for standard method, and applies to the contiguous United States and Canada only.)
3. We operate, for our Owners, a 6-Day-a-Week Customer Service Department with well-trained and friendly folks whose sole job it is to ensure that you get any help you need...parts that need to be replaced...or questions answered courteously and as promptly as possible.

For future reference when dealing with your warranty, save the packing list from the outside of the DR[®] FIELD and BRUSH MOWER box and keep it in a safe place. Please also fill out the information below.

Name Purchased Under: _____

Order Number: _____ Serial Number: _____

Date Purchased: ____/____/____

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3. Mount Battery

Electric-Starting Model only

Tools Needed: • short-handled regular screwdriver
• 5/16" open-end or box wrench

1. Disconnect the spark plug wire. Be sure the key is in the OFF position (straight up and down), and the throttle is in the STOP position.
2. Remove the battery top strap and set the battery half way back on the battery bracket. The battery connector posts should be on the RIGHT side when viewed from the operating position (behind the handlebars). You may want to support the battery with a block from below to balance it while attaching cables.
3. Connect the red wire to the POSITIVE (+) terminal using one each of the 5/8" long hex head slotted bolts, flat washers, lock washers and hex nuts provided. Tighten securely using the short regular screwdriver and a 5/16" wrench (two wrenches work well if you have two the same size).
4. Carefully push the battery all the way back into the mounting bracket. Be careful not to let the positive terminal touch any metal surface capable of grounding the connection.
5. Connect the BLACK wire to the NEGATIVE (-) terminal using the other bolt, washers and nut. Tighten securely.
6. Replace the strap (on the top of the battery) and tighten it, making sure no wires or cables are between the strap and the battery. The battery should now be seated securely in the battery holder .

4. Attach Linkage Bar to Blade Clutch Lever

Tools Needed: • 9/16" wrench

Unscrew the 3/8" x 1" hex head bolt and remove from the linkage bar. Push the bolt through the unthreaded blade clutch lever, and thread the bolt back into the linkage bar until snug. Attach and tighten the lock nut (*Figure 3*). Snug the bolt and nut, then loosen the bolt 1/2 turn. Engage and disengage the blade a few times to loosen any paint which may have accumulated, and to "break it in."

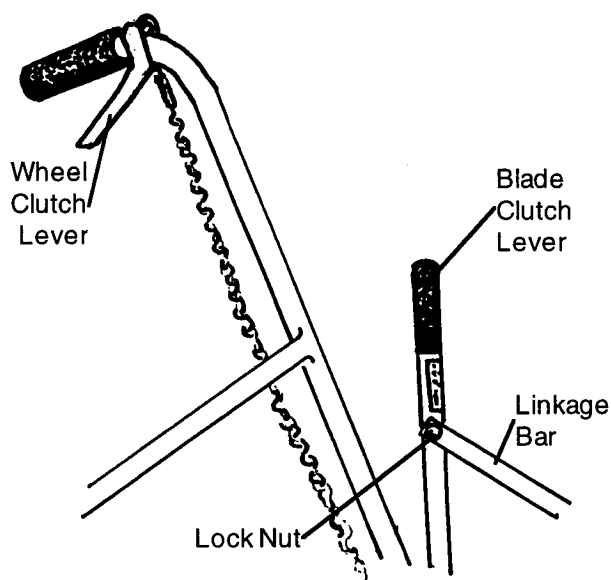


Figure 3

5. Attach and Adjust Clutch Chain

Remove the clutch chain from the bag on the wheel clutch lever. Hook the clutch chain to the hole in the idler pulley arm (Figure 4). Squeeze the wheel clutch lever; it should engage easily without too much spring tension on your hand. Tension can be increased or decreased by hooking the spring into half-links of the chain at the wheel clutch lever. To check if the clutch chain is tight enough, squeeze the clutch handle and pull the machine backwards. The wheels should drag—not roll. If the wheels roll, adjust the chain by 1/2 link and try again.

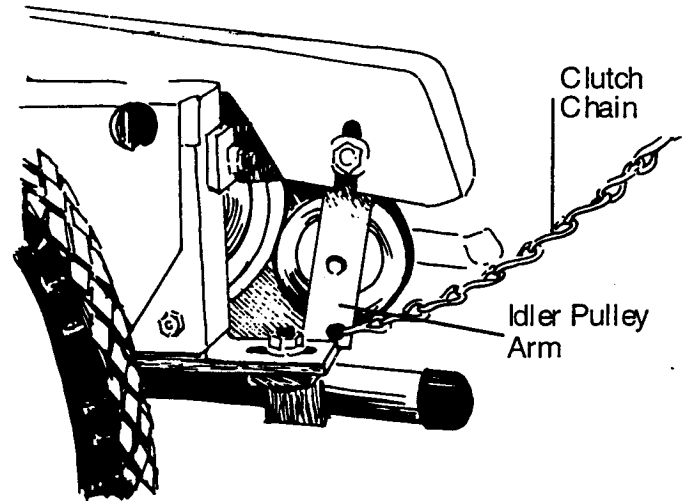


Figure 4

6. Check Belts

Visually check that the blade drive belt and the wheel drive belt are in the proper positions on the engine pulley (Figure 5).

7. Grease Blade Bearing Housing Zerk

Tools Needed:

- flexible hose grease gun
- regular lithium grease

Use a flexible hose grease gun and 15-20 pumps of regular lithium grease **prior to using the machine**, and again after the first 3-4 hours of use. Don't be afraid to "over grease," it will not harm your machine! See page 13 for more information on greasing zerks.

Also, grease the slide tube for easy blade engagement. See page 17, Figure 14.

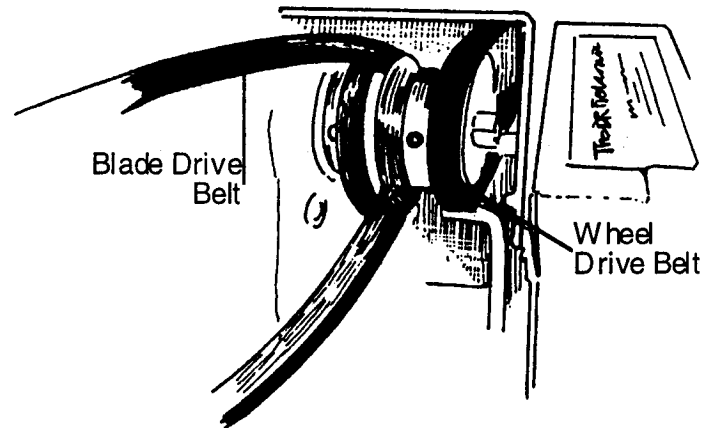


Figure 5

8. Fill Gas Tank

Always handle gasoline outdoors. Fill the gas tank with 1 gallon of clean, regular unleaded gasoline. Open the gas valve at the bottom of the gas tank.

It is a good idea to keep the gas valve closed when the machine is not in use or is in storage. More information can be found in your *Briggs and Stratton Owner's Manual*.



9. Check Spark Plug Wire

Be sure the spark plug wire is properly attached to the spark plug.

You are nearly ready to start the engine and try out your new DR® FIELD and BRUSH MOWER. But first — please read the following section on “Safety Information & Operating Tips” to ensure years of safe and productive use from your machine.

Safety Information & Operating Tips

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

Dress Appropriately

- ◆ Wear safety glasses while mowing to protect your eyes from possible thrown objects.
- ◆ Wear shoes when using your DR® FIELD and BRUSH MOWER. If you have safety shoes, we recommend that you wear them. Do not use the machine while barefoot or wearing open sandals.
- ◆ Wear long pants while mowing. We recommend that you avoid wearing loose clothing or jewelry which might get caught in brush or on the mower's moving parts.

Preparation

- ◆ Inspect the area you'll be working in for possible hidden debris such as large rocks, logs, rope, rakes, etc., and remove debris before mowing. Do not attempt to mow over such debris—it could damage the machine and cause injury.
- ◆ Mow only during the daylight hours unless there is very good artificial light.
- ◆ Fill the gasoline tank outdoors with the engine off. Don't handle gasoline if you are smoking.

Operating Machine Safely

- ◆ Be sure all people except the operator are at least 100 feet away from your work area at all times. Objects can be thrown far from the mower and at great speeds. To be safe, do not operate the machine near small children and pets, and never allow children to operate the mower. Disengage the blade and stop the engine when another person approaches.
- ◆ Be sure all blade and wheel controls are DISENGAGED before attempting to start the engine. The DR® FIELD and BRUSH MOWER has been shipped with the blade engaged—make sure you disengage the blade before starting the engine. We recommend you engage and disengage the blade a few times to get used to it before mowing (*Figure 6*).

- ◆ Operating the DR® FIELD and BRUSH MOWER in wet grass can clog the discharge chute and increase the danger of you slipping, falling and possibly coming in contact with the mower blade. Please use extra caution when mowing in wet conditions.

- ◆ NEVER remove the shields from the mower, or alter the deck in any way.

- ◆ Keep your hands and feet away from the blade, belts, chains, blade pulleys, and concealed areas while the engine is running. NEVER reach under the deck or grab hold of the deck deflector when the engine is running.

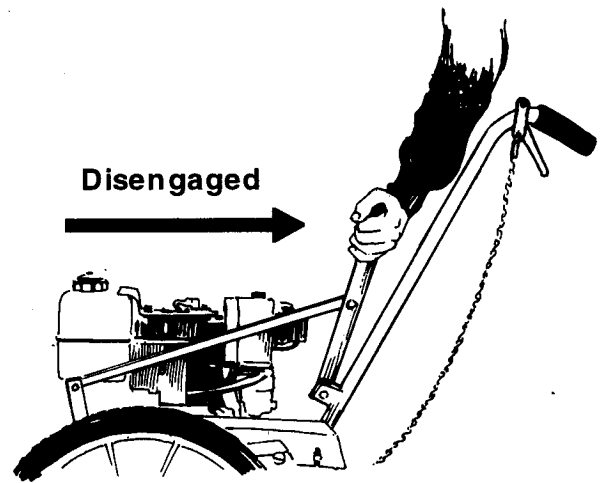


Figure 6

- ◆ ALWAYS shut off the engine and remove the spark plug wire prior to making any adjustments to the machine. If you have to stop occasionally to remove wrapped grass from the bearing housing shaft, please be sure to disconnect the spark plug. **Turning the blade accidentally while removing grass may be enough to turn the engine over, with potentially disastrous results.**
- ◆ When operating over uneven terrain and slopes, use EXTREME CAUTION and make sure of solid and firm footing at all times. The mower will “free wheel” when going downhill. When descending a slope with your DR® FIELD and BRUSH MOWER, release the wheel clutch lever, keep your hands lightly on the handlebars, and let the skids slow the mower down. If you need to, lift the handlebars slightly, which will push the skids into the ground and slow the machine.
- ◆ ALWAYS OPERATE THE MOWER FROM BEHIND. Never pass or stand on the discharge (left) side or in front of machine when the blade is spinning.
- ◆ We recommend that you engage the blade when moving to your work area. Idling the engine for long periods of time (more than 2-3 minutes) with the blade disengaged may damage the belts because of friction with the engine pulley.
- ◆ If you get caught up in rough terrain, do not attempt to get “unstuck” while the machine is running. Disengage the blade, turn the machine off and remove the spark plug wire before attempting to free it from debris or rough terrain (logs, etc.)
- ◆ **DO NOT**, under any conditions, remove, cut, bend, weld or change standard parts on your DR® FIELD and BRUSH MOWER. This includes all shields and guards. A change made on your own can make the equipment unsafe and may void your warranty.

- ◆ While using the DR® FIELD and BRUSH MOWER, don't hurry or take things for granted. When in doubt about the equipment or your surroundings, stop the machine and take the time to look things over. Make sure that at all times you have 100% control of the mower.

Tips for Best Performance

- ◆ Mow with the area already cut to your left. Because the discharge chute is on the left, this will help keep vegetation from clogging the mower.
- ◆ When cutting woody material, small saplings, etc., allow the machine to ride up and over the material slowly by "feathering" the wheel clutch (varying the amount of pressure on the wheel clutch lever). Adjust your forward speed to varying amounts of vegetation.
- ◆ After cutting brush, etc., you may want to mow over it again to remove any remaining large branches. Normally it works best to mow from the trunk end toward the top as brush lies on the ground.
- ◆ When cutting very heavy grass or brush with the DR® FIELD and BRUSH MOWER, it's helpful to cut only half a swath. We suggest going very slowly, "feathering" the clutch if necessary. It also helps to lift the deck of the machine by pushing down on the handlebars. This allows built up material to eject itself, and helps to clear the mowing deck for better cutting.

Starting & Operating

Before Starting Engine

- ▲ Check the oil level every time you use the machine. Make sure the machine is on level ground and do a visual check at the front fill. You should be able to see oil at the top of the reservoir.
- ▲ Check the gas level and open the fuel shut off valve on the bottom of the tank.
- ▲ Make sure all four zerks have been greased (see page 13).
- ▲ Remember: Always turn the engine off and disconnect the spark plug wire at the plug terminal when making any adjustments or repairs.

Starting

Electric-Starting

1. Disengage Blade Clutch

Make sure the blade clutch is fully disengaged by pulling the blade clutch lever all the way toward you (*Figure 7*).

2. Open Fuel Shut-Off Valve

Turn the fuel shut-off valve to the ON position.

3. Adjust Choke

Move the choke control to the CHOKE position.

4. Adjust Throttle

Move the throttle control to the FAST (Rabbit) position.

5. Turn the ON/OFF rocker switch to the ON position.

6. Turn the key to the ON position and start the machine.

Operate the machine with the choke in the RUN position and the throttle in the FAST position.

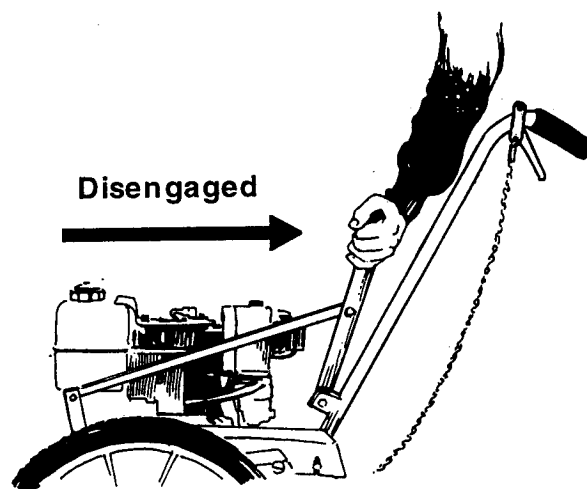


Figure 7

Manual-Starting

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

1. Disengage Blade Clutch

Make sure the blade clutch is fully disengaged by pulling the blade clutch lever all the way toward you (Figure 7).

2. Open Fuel Shut-Off Valve

Turn the fuel shut-off valve under the gas tank to the ON position.

3. Adjust Choke

Move the choke control to the CHOKE position.

4. Adjust Throttle

Move the throttle control to the FAST (Rabbit) position.

5. Start Machine

On the Industrial Plus "PRO" Model engines, turn the ON/OFF rocker switch to the ON position.

Grasp the rope handle and pull slowly until resistance is felt. Then pull rapidly to overcome compression, prevent kickback, and start the engine.

Repeat if necessary with the choke in the RUN position, and the throttle control on FAST (Rabbit).

Operate the machine with the choke in **RUN** and the throttle in **FAST** position.

Caution: Once started, do not idle the engine for more than 2-3 minutes without the blade engaged. The blade belt may be damaged due to friction with the engine pulley. We recommend that you engage the blade when moving to your work area.

Mowing

1. Engage Blade

Engage the blade by pushing the blade clutch lever forward (Figure 8).

2. Move into Gear

Gently squeeze the wheel clutch lever on the left side of the handlebar and move off at a comfortable pace. You can adjust the ground speed by varying the amount of pressure on the wheel clutch lever.

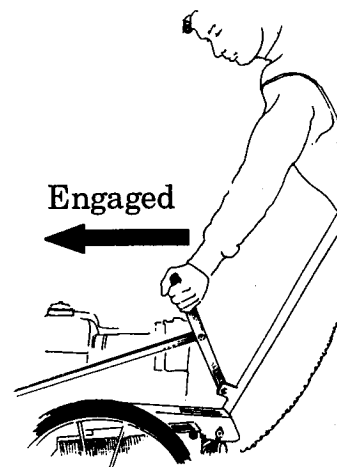


Figure 8

Stopping

To Stop Blade

Decrease the engine speed to idle, then pull the blade clutch lever back toward the handlebars.

ALWAYS IDLE DOWN THE ENGINE BEFORE DISENGAGING THE BLADE! Slowing the rotation of the belts and the bearing housing before stopping the blade will put less stress on the machine, and help it last longer.

To Shut Off Engine

- Move the throttle control past the SLOW position all the way down to the STOP position.
 - Electric-Starting Model: move the rocker stop switch to the OFF position, and turn the key to the OFF position.
 - Industrial PLUS Model: move the rocker switch to the OFF position.
 - Standard Model: ground out the spark plug by pressing the metal leaf (Dead Man's Kill) down onto the top of the plug, and holding it down until the blade stops spinning.
- Turn the fuel shut-off valve (located under the gas tank) to the OFF position. This will prevent leakage when the machine is not in use.

Note: When you are done mowing for the day, turn the fuel shut-off valve to the OFF position before you throttle down or switch the mower off. This will allow the fuel in the carburetor to burn off and prevent varnishing.

Maintenance

Regular maintenance is the best way to ensure good performance from your machine. Follow the instructions below, and use the daily check list on the back cover of this manual to keep your DR® FIELD & BRUSH MOWER in top condition. And have a competent service center (preferably Briggs & Stratton authorized) make a thorough inspection of your engine at least once a year.

▲ **CAUTION:** Always disconnect the spark plug wire before servicing your machine.

Lubrication

Changing Oil

Tools Needed: • 7/16" wrench

Briggs & Stratton recommends changing the oil in your engine after the first five hours of operation. Thereafter, check the oil level each time you use your machine. Because there is no dipstick, the oil should be filled to overflowing. Change the oil every 25 hours of operation, or every season, whichever comes first. Change the oil more often if operating the machine under heavy load, or in high temperatures.

Change the oil while the engine is warm, but not hot. There are two oil drains on the 8.0 HP engine. We have found that it's easiest to drain the oil from the drain plug closest to the blade deck.

1. Remove the plug and drain the oil.
2. Replace the drain plug and refill with 44 ounces of SAE30 motor oil (*Figure 9*).

Note: Please dispose of used oil in a safe and responsible manner.

For more engine maintenance information, see your *Briggs and Stratton Owner's Manual*.

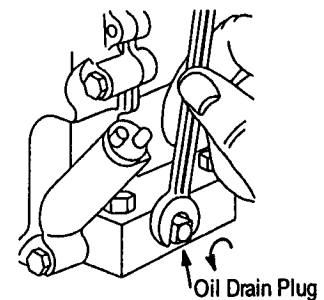


Figure 9

Lubricating Chain

Use any type of oil (WD-40®, silicon spray, or engine oil), and oil lightly until the chain is covered. Lubricate the chain two to three times per year.

Greasing Zerks

Tools needed: • flexible hose grease gun
• regular lithium grease

- There are four grease zerks on your DR® FIELD and BRUSH MOWER: Two on the main axle housing, one on the left wheel hub and one on the blade bearing housing (*Figure 10*).

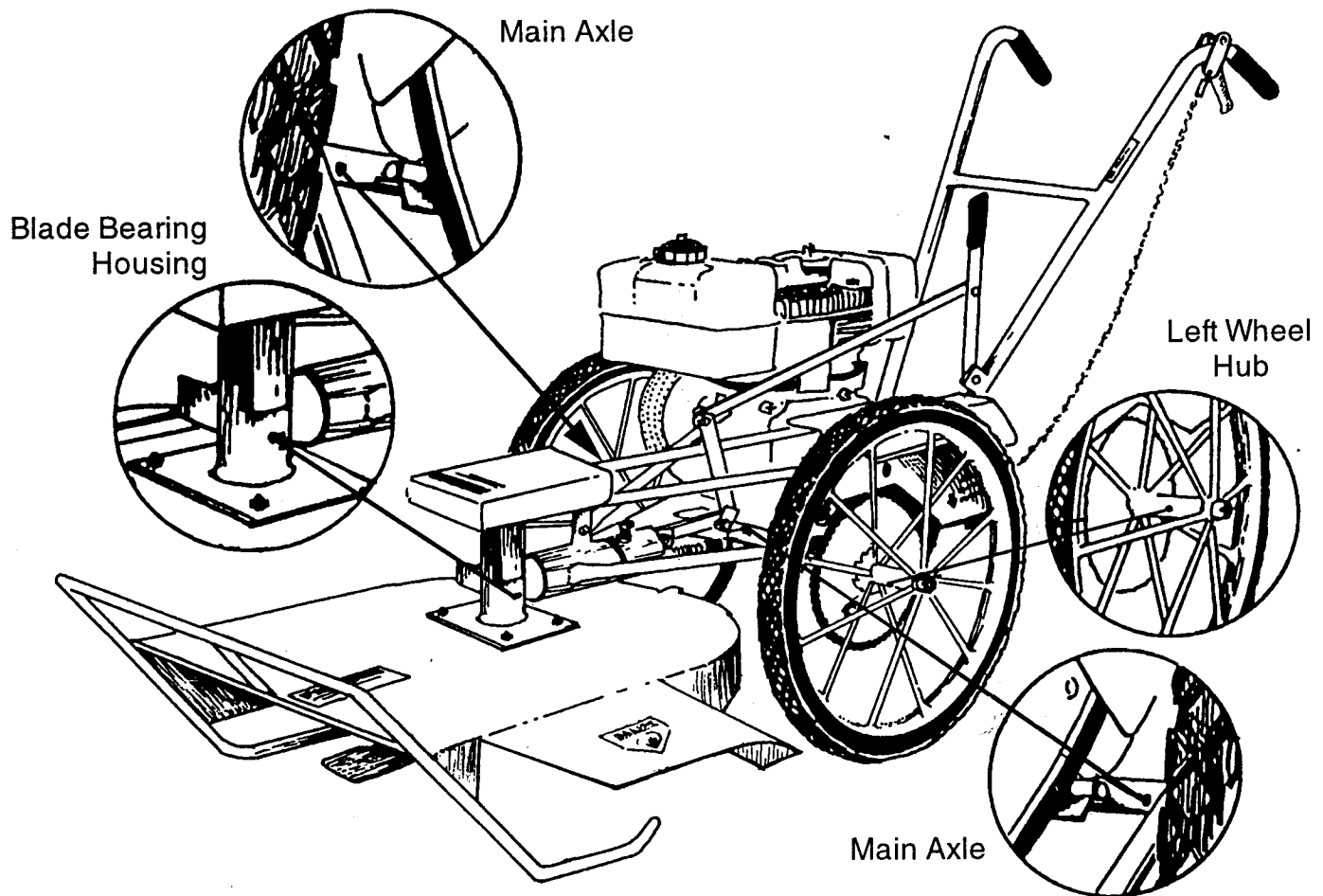


Figure 10

It is very important to grease all of the zerks regularly. Grease the axle zerks until grease oozes out of the axle housing. The blade bearing housing zerk should be greased with 15 to 20 pumps prior to using the machine. Thereafter, grease the blade bearing housing zerk with 10 pumps or more, every 3 to 4 hours of operation.

Use regular lithium grease with a flexible hose grease gun to grease the zerks. These zerks all have been factory greased, however, they should be greased periodically as part of your regular maintenance schedule. Don't be afraid to over grease.

Battery

Electric-Starting Models

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

- Do not allow the battery to get too low. If the machine is not used, the battery should be charged every six months.
- Store an unused battery in a dry area that does not freeze.

- Do not charge an already charged battery. In theory, our battery can not 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. A fully charged battery will read 12V - 13.2V.
- Do not continue to crank your engine with a low battery.

Charging the Battery

If the battery loses its charge because it has not been used, then you'll need to use a trickle charger to recharge it. The charger should have an output of 12 volts at no more than 6-8 amps.

- At 1 amp the battery may need to be charged for as much as 48 hours.
- At 2 amps the battery may need to be charged for as much as 24 hours.
- At 6-8 amps the battery should be charged for 2 hours.

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

Belts

Check the belts regularly. Belts should be replaced if belt and brake adjustments don't work, or if the belts are frayed, stretched, cracked or grooved.

To Replace Wheel Drive Belt

Tools needed: • 9/16" wrench

- Belt size: 1/2" x 31"— our replacement part #W708AC.

1. Disconnect the spark plug wire from the spark plug.
2. Loosen the hex head nut holding the rear of the engine pulley cover (closest to the operator), and lift the cover up from that end to access the belt.
3. Remove the old wheel drive belt by lifting it out from the bottom of the drive box pulley, then looping it off the engine and idler pulleys (*Figure 11*).
4. Standing behind the machine, loop the end of the new belt around the outer engine pulley on the engine shaft, making sure the belt is above the belt guide. Pull the belt tight, and loop it over the large drive box pulley and idler pulley.
5. Grip the wheel clutch lever and test the spring tension on the idler pulley. Double check to make sure the belt is above the belt guide.

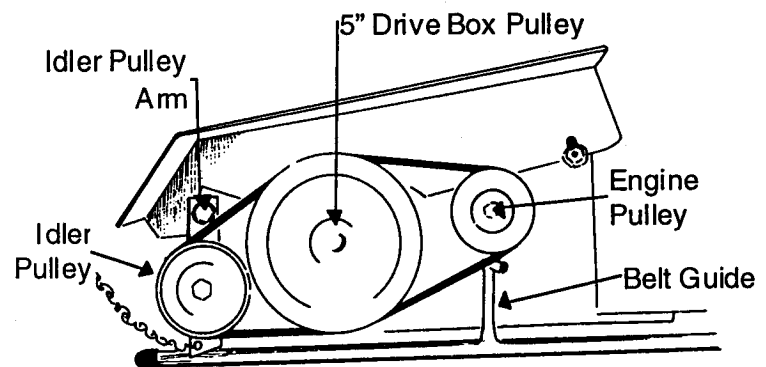


Figure 11

To Adjust Wheel Clutch Lever

Unhook the chain from the spring at the wheel clutch lever and hook it into the next half or full link (*Figure 12*).

To Replace Blade Drive Belt

Belt size: 5/8" x 58"—our replacement part #W685C.

Tools Needed: • 9/16" wrench

1. Disconnect the spark plug wire from the spark plug. Disengage the blade by pulling back on the blade clutch lever.
2. Remove the wheel drive belt (*see page 15*).
3. Disconnect the linkage bar. Remove the self-locking nut and bolt from the linkage bar and the lower blade clutch lever (*see page 4, Figure 3*).
4. Lift the brake/pulley cover by loosening the self-locking nut and bolt (*Figure 15*).
5. Remove the old blade belt from the spindle pulley and engine pulley (*Figure 15*).
6. Place the new blade belt over the lower blade clutch lever, then loop the end of the belt over the engine pulley (closest to engine). Looking from the mowing deck toward the handlebars, the belt should twist to the left (*Figure 13*). Pull the belt around the spindle pulley.
7. Put the brake/pulley cover back down and tighten the nut and bolt.
8. Reattach the linkage bar to the lower clutch lever. Insert the bolt through the unthreaded lower clutch lever, then through the threaded linkage bar. Tighten the self-locking nut. Then back off 1/2 turn.
9. Replace the wheel drive belt (*see instructions on page 15*).

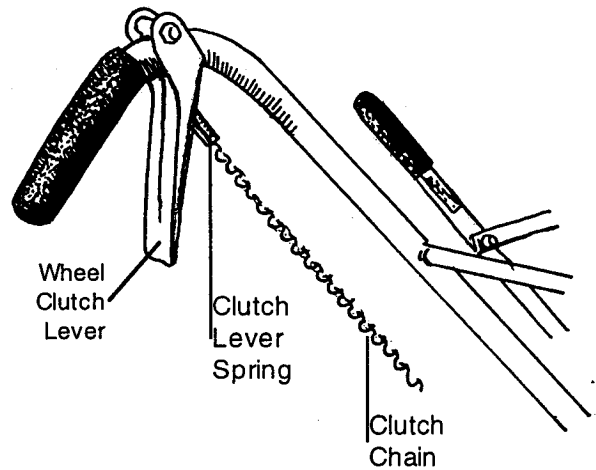


Figure 12

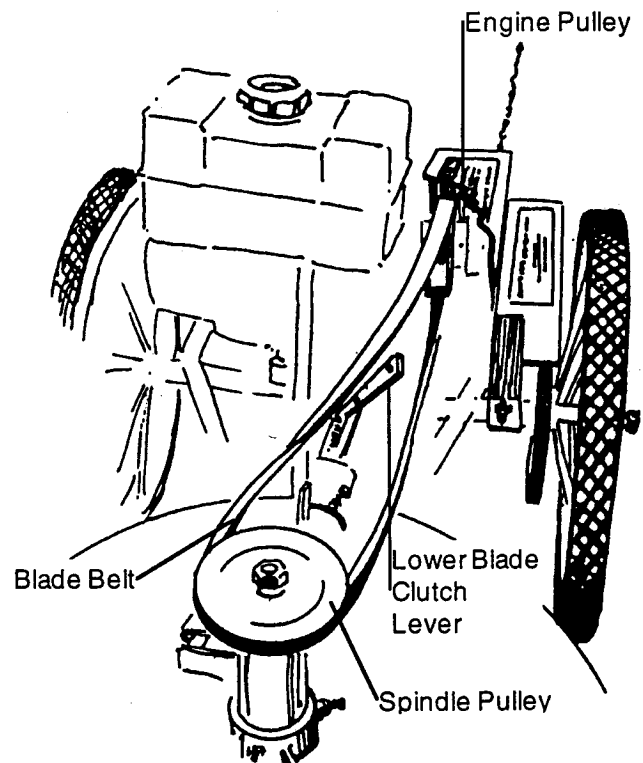


Figure 13

10. Check the belt tension. Engage the blade—the belt should be firm, but not hard to engage. See “To Adjust Blade Drive Belt” below for instructions on how to make adjustments.

To Adjust Blade Drive Belt

The blade drive belt on your machine will stretch during normal use. When engaged, if your belt vibrates excessively side to side, it should be tightened.

Tools needed: • 3/8" or adjustable wrench
• 9/16" wrench

Step 1

- Pull the blade clutch lever toward the handlebar to release belt tension. With a screwdriver or nail, scratch a mark on the inner slide tube to mark the present position of the engagement coupling. Loosen the set screw on the coupling (Figure 14).
- Place your foot on the back of the blade deck and pull the blade clutch lever back slightly. Move the engagement coupling about 1/8" from your original “marked” position.
- Retighten the set screw. This adjustment allows the deck to move further away from the engine, and tightens the blade drive belt.
- Engage the blade clutch lever and check the belt tension. The blade drive belt should start to engage (tighten and rise) just as the corner angle formed by the blade clutch lever and the blade clutch linkage bar reaches the forward edge of the gas tank. It should be firm, but not hard to engage. Readjust the position of the set screw on the inner slide tube if necessary.

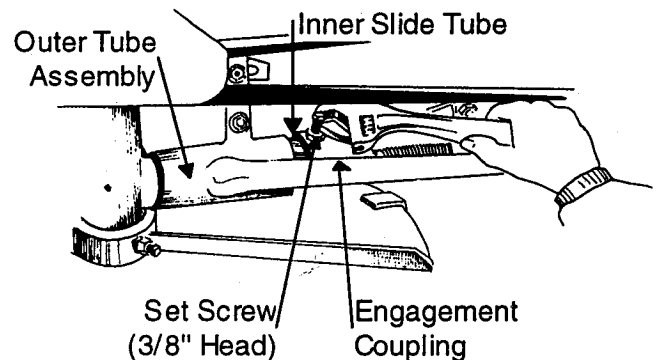


Figure 14

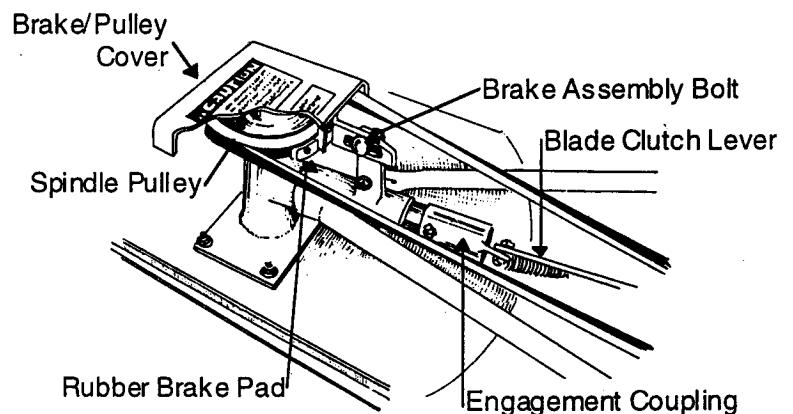


Figure 15

Note: If the blade deck is adjusted, the brake pulley cover must also be adjusted. See Step 2.

Step 2

- To adjust the brake pulley cover: with the blade clutch lever pulled back to 2" from the engine pulley cover (when disengaged), loosen the brake assembly bolt and slide the brake assembly forward so that the semi-circular brake pad seats into the spindle pulley (*Figure 15*).
- Retighten the bolt on the brake assembly. Engage and disengage the blade clutch lever and check for proper brake pad alignment in the spindle pulley. The distance between the lower clutch lever and the engine pulley cover should now be 1" (or two fingers width) (*Figure 16*).

When adjusting the blade drive belt, be sure the belt is tight enough so it doesn't slip when cutting, or rub on the front of the pulley cover. If the blade drive belt is too tight when the blade is disengaged, readjust the brake pulley cover back towards the engine. When the engine is running and the blade is engaged there should be very little side to side vibration in the blade drive belt.

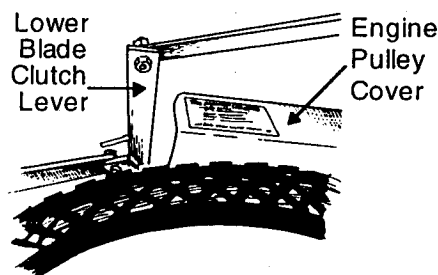


Figure 16

Chain Wheel Drive

To Tighten Chain

Tools Needed:

- hammer
- adjustable wrench

The drive chain should have about 1/4" of give. If it's necessary to tighten the chain, first loosen the two nuts on the drive box bolts (*Figure 17*).

- Using a hammer, tap the base of the drive box toward the rear of the machine.
- While pulling back on the drive box, retighten the front nut first and then the rear drive box nut. This should remove any extra slack in the chain without over tightening it.

To Lessen Play in Main Drive Sprocket/Axle

Tools Needed:

- pliers
- adjustable wrench

- Unbend the ears of the cotter pin on the axle nut and remove it (*Figure 18*).
- Hand tighten the castellated axle nut clockwise one or two notches, so the notch will line up with the cotter pin hole. The left wheel should move freely and play

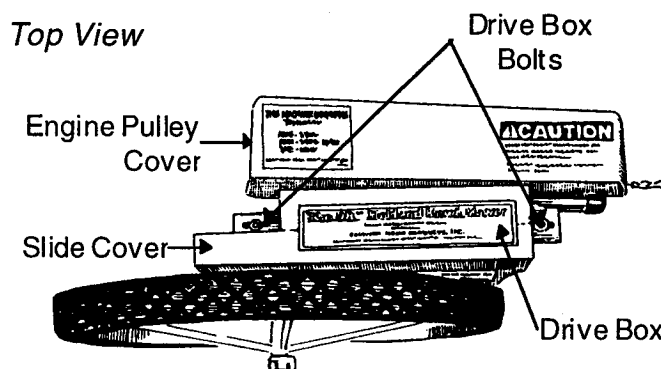


Figure 17

should be minimal. The large chain sprocket should have about 1/8" side to side play.

- Replace the cotter pin and bend the ears back to secure it.
- To remove the end play from the entire axle or the right wheel, loosen the set screw on the right wheel hub and slide or tap the wheel toward the main frame. Retighten the set screw.

If either wheel does not engage, check to see that the dog springs connected to each side of the main drive sprocket are attached to the ratchet dogs (*Figure 19*).

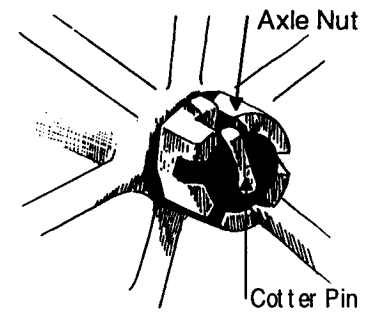


Figure 18

To Replace Chain

- Tools Needed:**
- 9/16" wrench
 - flathead screwdriver
 - 7/16" deep socket wrench

There are two ways to replace the chain:

Replacing Unconnected Chain

1. Loosen the two nuts on the drive box.
2. Slide the drive box forward, and with a screwdriver remove the master link from the old chain (*Figure 20*). Take the old chain off.
3. Position the new chain up and around the drive box sprocket, then around the main drive sprocket (*Figure 19*).
4. Connect the chain together, add the closed end link, then slide on the open-ended master link and snap it in place (*Figure 20*).
5. Visually check the alignment of the chain on both the large and small sprockets.
6. To tighten the chain drive, follow the instructions on page 18.

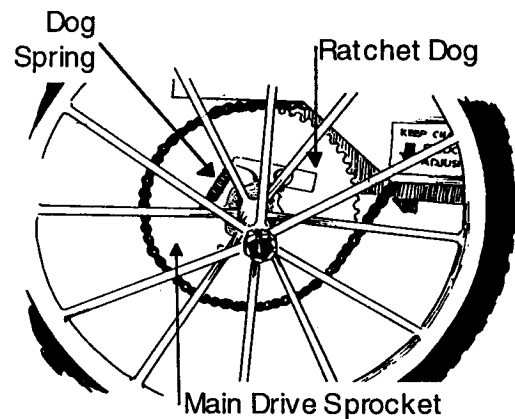


Figure 19

Replacing Connected Chain

1. Prop up the left side of the axle until the left wheel is off the ground.
2. Remove the cotter pin and the castellated axle nut (counterclockwise) (*Figure 18*).
3. Pull off the left wheel.
4. Loosen the two nuts on the side of the slide cover with a 7/16" deep

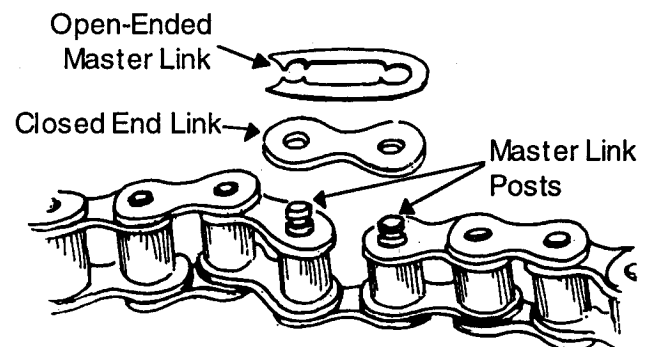


Figure 20

socket wrench (you will have to cut the DR® label). Slide the front of the slide cover up, and loop the chain around the drive box sprocket and the main drive sprocket.

5. Push the main drive sprocket toward the axle sprocket and spring the right ratchet dog back into place.
6. Slide on the wheel and spring the ratchet dog back into place on the wheel hub sprocket.
7. Hand tighten the axle nut until snug and back off 1/8 turn. Wiggle the sprocket—it should have 1/8" play. Replace the cotter pin in the closest opening to secure it. Check the large sprocket again for play, it should not be too tight.
8. Visually check the alignment of the chain on both the large and small sprockets.
9. Retighten the slide cover nuts and tighten the drive box bolts.

Blade

Note: The blade nut is reverse or left hand thread and loosens in the clockwise direction.

Preparing to Remove Blade

Tools needed: • 1" open-end wrench

1. Disconnect the spark plug wire from the spark plug and insert it into the holding tab.
2. Disengage the blade clutch lever.
3. Loosen the bolt holding the brake/pulley cover and raise the cover. Place a 1" open end wrench on the flat spot on the drive spindle pulley. Swing the wrench around to the right so it rests against the pulley cover upright bracket. (Do not put a wrench on the hex nut on top of the pulley.)
4. Tip the mower back on its handlebars. It may be helpful to wedge a block of wood under mower deck to keep the mower propped up.
5. Facing the blade from below, wedge a 2 x 4 between the blade and the side of the mower deck (*Figure 21*). You may want to wrap the ends of the blade with rags to prevent cutting your hand.

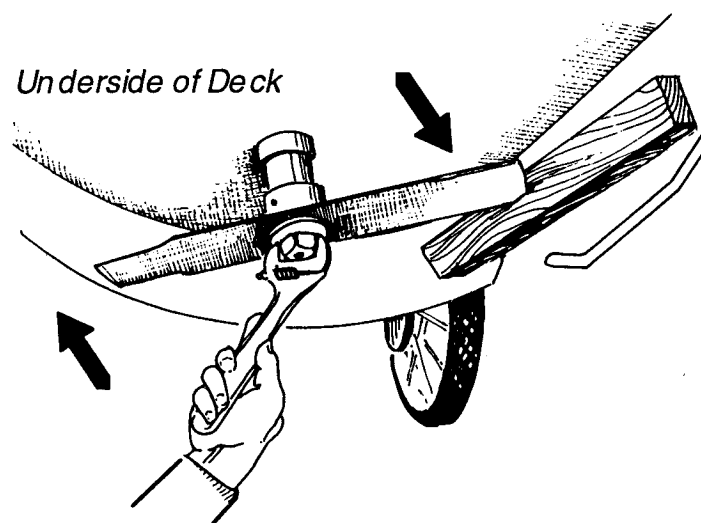


Figure 21

To Remove Blade

Tools needed: • 1-1/4" open-end wrench

Note: The blade nut is reverse or left hand thread and loosens in the clockwise direction.

Place a 1-1/4" wrench firmly on the blade nut and turn the nut clockwise to remove. If the blade nut does not loosen, try adding a piece of metal pipe to the end of your wrench for added leverage.

Another method that can be used for added leverage: With the blade and wrench as parallel as possible, place a 2 x 4 between the wrench handle and the blade as illustrated in Figure 22. While holding the wrench in place, pull the bottom of the board toward you until the nut comes loose. Finish removing the nut with the wrench.

If the blade nut continues to turn hard, lubricate the top side of the nut with WD-40® or any silicone-based lubricant. Retighten, then loosen it again. This will help free up any corrosion under the blade nut. Repeat the process if necessary.

Remove the lower blade chuck and the blade. Be careful not to cut yourself on the blade.

To Replace Blade

Tools needed: • 1-1/4" open-end wrench

- Fit the blade onto the upper blade chuck. Make sure the blade fits snugly around the raised part of the upper blade chuck. If the blade does not fit snugly, file away any burrs or excess paint from the upper blade chuck or blade arbor.
- Place the flattest side of the lower blade chuck against the bottom of the blade and tighten the blade nut counterclockwise until tight (Figure 23).

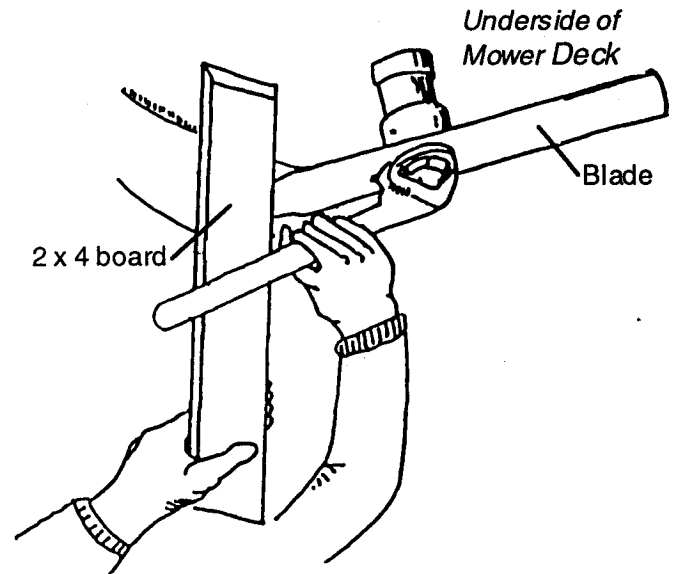


Figure 22

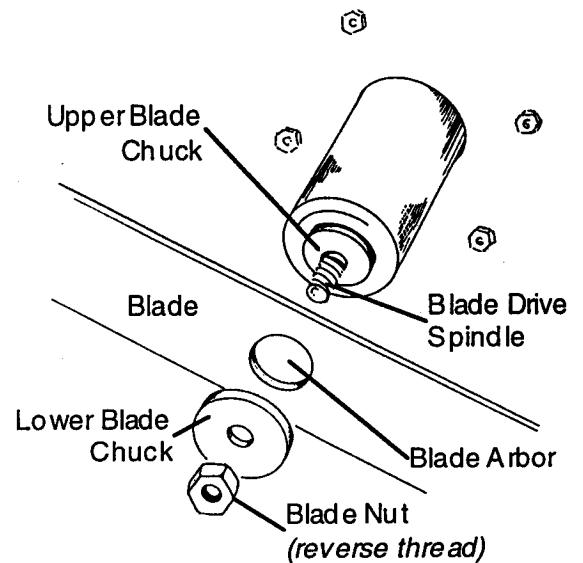


Figure 23

Hardware

- Check all nuts, bolts and set screws for security and tightness.
- Check the minimum vibration brace from the engine to the frame for secure mounting.

Troubleshooting

▲ Always disconnect the spark plug wire before servicing your machine.

Belts	
<i>Blade drive belt rubs on brake pulley cover support bracket</i>	<ul style="list-style-type: none"> • Belt is too loose. Tighten per instructions on page 15. • Upright support bracket may be sharp. File or grind off any sharp edges. • Brake/pulley cover is loose. Adjust and tighten per instructions on page 15.
<i>Belt frays or rolls over pulley</i>	<ul style="list-style-type: none"> • Pulley groove may be nicked. Check belt for wear and hard spots. • Belt may be stretched too far, causing cords in belt to break. It should be replaced.
<i>Belt drops off 5" spindle pulley when engaging or disengaging blade</i>	<ul style="list-style-type: none"> • Belt may be too loose. See page 17 for adjustment instructions. • Brake/pulley cover is not adjusted far enough ahead to fully stop the 5" spindle pulley. Disengage blade, loosen nut holding brake/pulley cover. Tap cover forward to seat rubber brake into 5" spindle pulley. Tighten brake/pulley cover.
<i>Belt is too tight when blade is disengaged, continues to turn blade, or smokes</i>	<ul style="list-style-type: none"> • Brake/pulley cover is too far forward. Loosen bolt and tap cover back toward engine. Tighten cover.
Blade	
<i>Material being cut is not being properly discharged out left side of machine</i>	<ul style="list-style-type: none"> • Discharge is blocked. Turn off machine, disconnect spark plug, and check for debris wrapped on shaft.
<i>Blade is not cutting/loose</i>	<ul style="list-style-type: none"> • Blade may not be seated properly. Loosen blade nut and reset blade around protrusion on upper blade chuck. Retighten blade nut. • If protrusion on upper blade chuck is worn, blade can be remounted but should be carefully centered for minimum vibration. • Lower blade chuck may be upside down. Flattest side should be against bottom of blade.
<i>Can't get blade nut off</i>	<ul style="list-style-type: none"> • Clean threads on spindle shaft and remove any accumulated dirt, paint, etc. Lubricate top of blade nut (see page 21).
Chain	
<i>Chain falling off/breaking</i>	<ul style="list-style-type: none"> • Chain may be too tight/loose. Adjust chain tension (page 21). • Chain sprockets not lining up. Check play on main drive sprocket. Adjust smaller 12-tooth sprocket on drive shaft by loosening Allen set screw and repositioning sprocket left or right as needed.

<i>Engine stalls when blade is engaged</i>	<ul style="list-style-type: none"> • Throttle speed is too low, increase to full throttle. • Be sure blade travel is not being stopped by blade deck.
<i>Engine stalls or sputters on rough ground</i>	<ul style="list-style-type: none"> • Angle may be too much for carburetor. Try leveling machine. • Carburetor float may be sticking. Add carburetor cleaner additive to gas.
<i>Gas leaking out of carburetor</i>	<ul style="list-style-type: none"> • Carburetor float is stuck. Shut off gas valve under gas tank and try restarting engine with gas valve off to free up float.
<i>Wheels pull to left or right/only one wheel is driving</i>	<ul style="list-style-type: none"> • A dog spring may be disconnected on either side of main drive sprocket, causing one wheel to not engage. Check both springs for proper placement. • Right wheel hub set screw may be loosened. Check that square axle key is in hub. Right wheel hub screw should be snug against axle housing. Retighten set screw on hub. Grease both axle zerks if needed.
<i>Both wheels want to pull together constantly/no differential effect</i>	<ul style="list-style-type: none"> • Axle nut is too tight on left side of machine. Loosen nut one castellation.
<i>Mower is difficult to reverse</i>	<ul style="list-style-type: none"> • Wheel drive belt is too tight, making contact with drive box pulley. Loosen tension on clutch chain spring by adding 1/2 link. • Check alignment of idler pulley to make sure it's not binding on large drive box pulley. Adjust idler arm if needed. • Idler pulley arm is not free enough to pivot easily. Loosen bolt slightly on idler arm bracket. • Check alignment of wheel drive belt on frame.

End of Season & Storage

- ▲ Always disconnect the spark plug wire before servicing your machine.

Engine

- **OIL** While the engine is warm, drain the oil from the crankcase. Refill with 44 ounces of SAE30 detergent motor oil.
- **SPARK PLUG** Remove the spark plug and pour about 1 ounce of motor oil into cylinder hole. Pull the recoil starter rope until you feel strong resistance. This will coat the piston and seat the valves to prevent moisture buildup. Check the spark plug gap (.030 in./.76mm). Replace the spark plug if necessary.
- **AIR FILTER** Remove and clean the cover and filter. Please refer to your *Briggs and Stratton Owner's Manual* for more information.
- **CLEANING** Clean dirt and debris from the cylinder head cooling fins, blower housing, debris screen and muffler areas.
- **GASOLINE** If your DR® FIELD and BRUSH MOWER will be idle for more than 30 days, we recommend using a gas stabilizer. This will prevent the carburetor from gumming up. Inspect the gas tank. If there is dirt or moisture in the gas, remove it. Completely fill the tank with fresh gas and add the appropriate amount of stabilizer or gasoline additive. Run the engine for a short time to allow the additive to circulate. Close the gas valve on the bottom of the gas tank to prevent carburetor overflow and leakage. If your machine will be stored inside, in a poorly ventilated area, or near a pilot light, spark or open flame, drain the gas completely for long-term storage. Stabilize the gas prior to draining to prevent the remaining gas from gumming up the carburetor.
- **BATTERY** Store the battery in a dry, heated area. If the machine is not used over a long period, the battery should be charged every six months. See page 14 for more information on battery care.

Lubrication

- Using a flexible hose grease gun, grease all fittings generously.
- Lubricate the drive chain with regular motor oil, WD-40®, or silicone spray to prevent rusting.

Blade

- Remove any wrapped weeds from the blade bearing housing. Clean grass and debris from the top and underneath the mower deck with a stiff brush.
- Check the blade for nicks and wear. Remove the blade and have it professionally sharpened if needed.

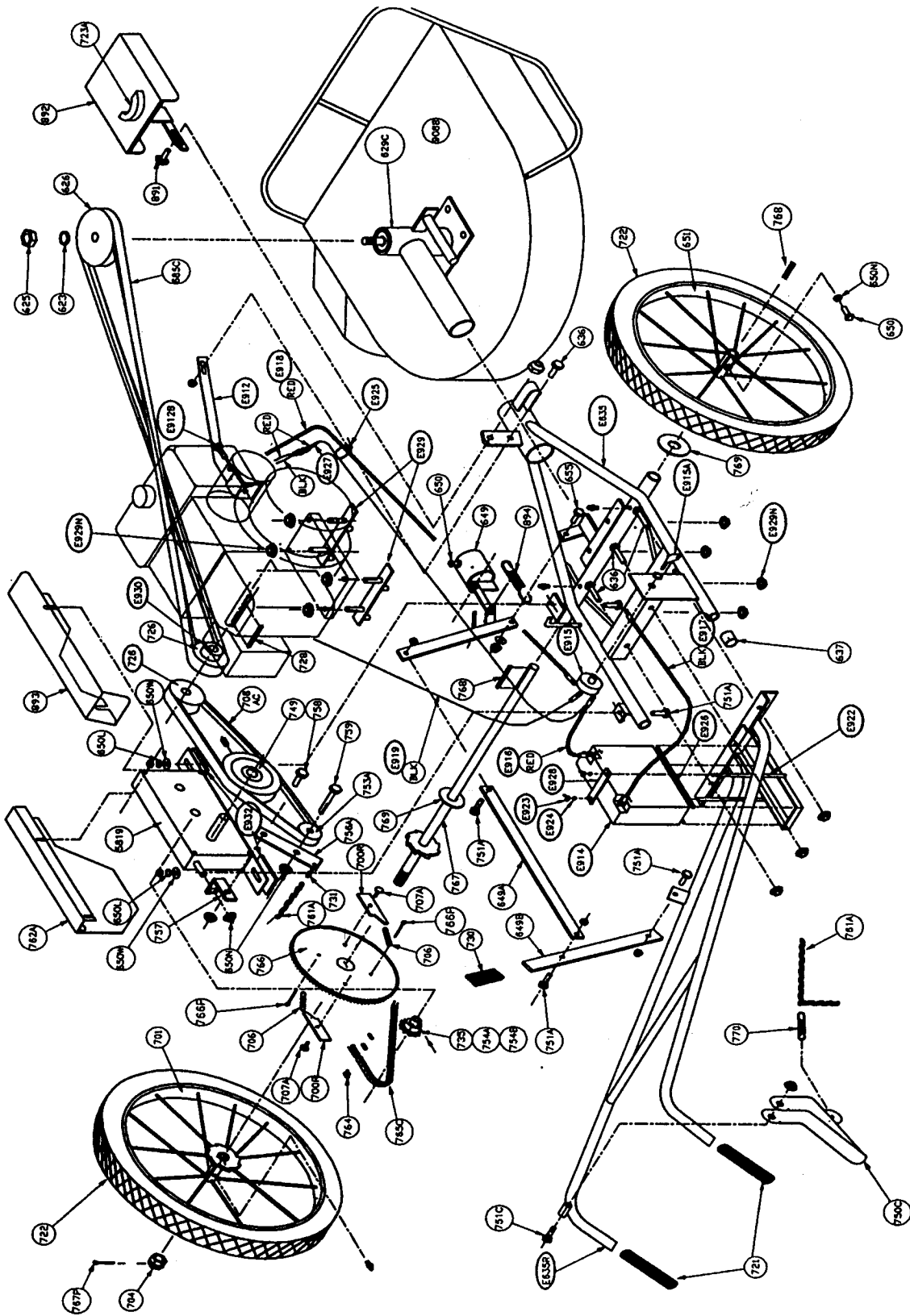
Parts List

Please refer to the numbered diagrams on pages 27-29. *Note: not all parts listed appear in the diagrams.*

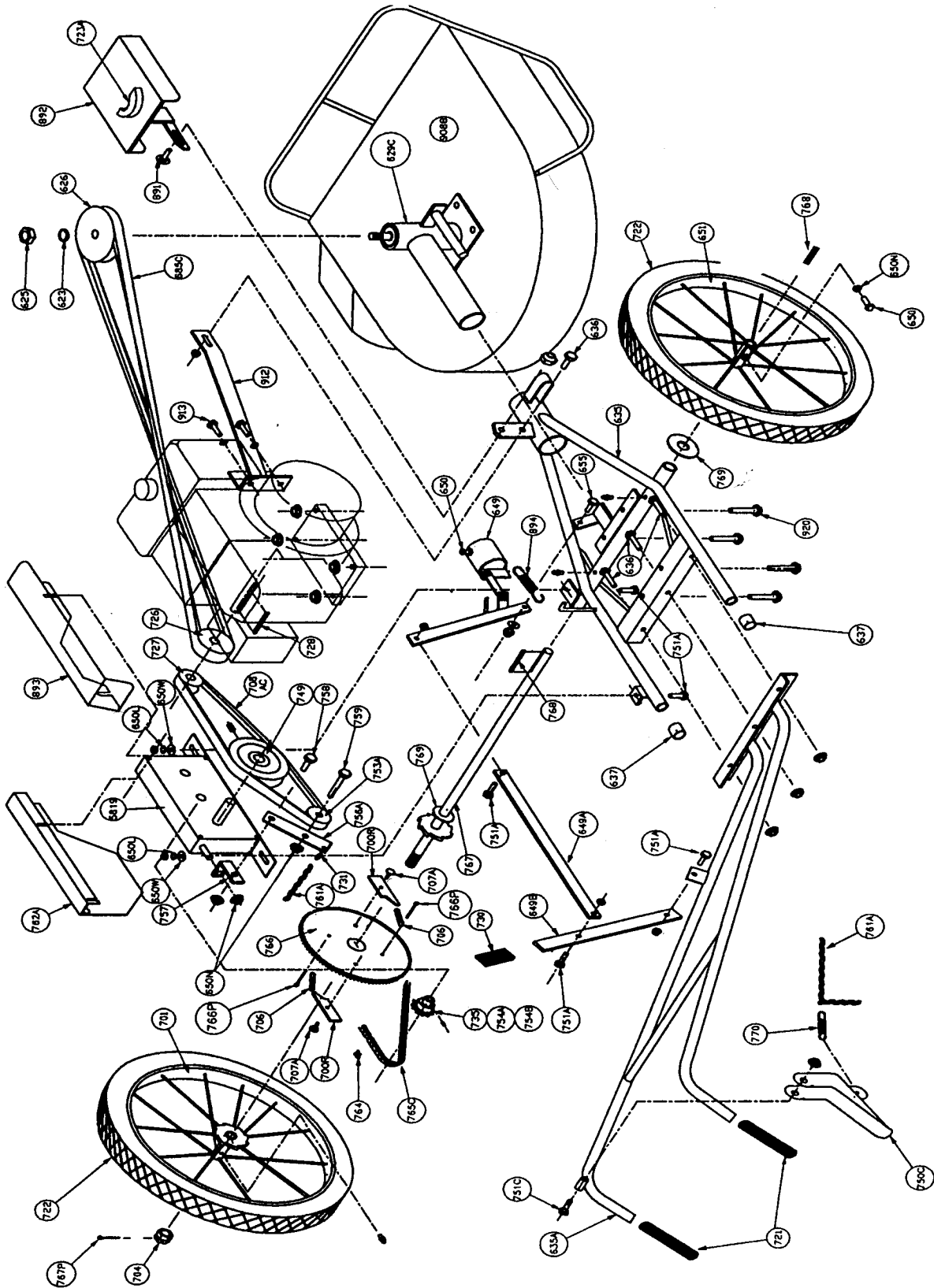
<u>Part #</u>	<u>Description</u>	<u>Part #</u>	<u>Description</u>
W83	J19LM Spark Plug	W652	Zerk
W5819	Drive Box	W655	Shanked Bolt 3/8" x 1"
W600C	Maint. Kit - Indust. Plus Engine	W685C	Blade Belt 57" x 5/8"
W623	Washer, Blade Spindle	W700R	Ratchet Dog & Rivet
W625	Hex Nut 5/8"	W701	Left Ratchet Hub Wheel 20"
W626	Drive Spindle Pulley	W702A	Gasket
W627	Woodruff Key 3/16" x 3/4"	W704	Axle Nut (castellated)
W628	Bearing, Upper	W706	Dog Spring
W628A	Bearing, Lower	W707A	Rivet w/Shoulder
W629C	Bearing Housing (shell only)	W708AC	Wheel Drive Belt 31" x 1/2"
W629CBZ	Bearing Housing (complete)	W721	Handlebar Grips (2)
W630B	Blade Drive Spindle	W722	Tire, 20" Diamond Tread
W631A	Upper Blade Chuck	W723A	Brake Pad
W632AC	Air Tip Blade	W726	3" Engine Pulley
WF632C	Heavy-Duty Brush Blade	W727	2-1/4" Engine Pulley
W633	Lower Blade Chuck	W728	1/4" x 1/4" Engine Pulley Key
W634	Blade Nut 3/4"	W730	Clutch Grip
W635	Frame	W731	Clutch Chain "S" Hook
WE635	Frame (Electric-Starting)	W735	Sprocket, 12 tooth
W635A	Handlebars	W736	Bearings (Gear Box)
WE635R	Handlebars (Electric-Starting)	W737	Drive Box
W636	5/16" X 1" Bolt & Whiz Lock Nut	W738	Sprocket, 11 tooth
W637	Frame End Caps	W739	Sprocket, 32 tooth
W648	1/4" Flat Washer	W740	Sprocket, 32 & 11 tooth
W649	Blade Clutch Lever	W741	Chain, 54 link
W649A	Blade Clutch Linkage Bar	W742	Chain, 40 link
W649B	Blade Clutch Lever Handle	W743	Woodruff Key
W650	Set Screw 5/16"-18 X 3/8"	W744	Sprocket & Pulley Shaft
W650L	3/8" Lock Washer	W745	Double Sprocket Shaft
W650N	Nut 3/8" x 16	W746	2 Sprocket Combination Shaft
W650W	3/8" Flat Washer	W747	Bearing Plate
W651	Right Set Screw Hub Wheel 20"	W748	Stove Bolt & Nut 1/4" x 1-3/4"

Part #	Description	Part #	Description
W749	5" Drive Box Pulley	W913	Bolt 5/16" x 3/4" & Lock Washer
W750A	Drive Clutch Lever	WE914	Battery (Electric-Starting)
W750C	Wheel Clutch Lever	WE915	Starter Switch and Magnet
W751A	Bolt with Lock Nut 3/8" x 1-1/4"	W915A	Key
W751C	Bolt for Wheel Clutch Lever	WE916	Cable 8" Red, 6 gauge Positive
W753A	Idler Pulley	WE917	Cable 14" Black, 6 gauge Negative
W754A	9 Tooth Sprocket	WE918	Cable 23" Red, 6 ga Positive
W754B	15 Tooth Sprocket	WE919	Ground Wire, 6" Black, 14 ga
W756A	Clutch Bracket	W920	Engine Mount Bolt & Nut
W757	Clutch Mounting Bracket	WE920	Terminals, #10 Insulated Ring
W758	Bolt & Nut, 3/8" x 1 1/4"	WE922	Bolt, 1/4" x 8-1/2"
W759	Bolt, 3/8" x 1 1/4"	WE923	Wing Nut, 1/4" zinc
W761A	Clutch chain	WE924	Lockwasher, 1/4" zinc
W762A	Slide Cover	WE925	Cable Tie, White
W764	Chain Master Link	WE926	Foam Tape (3 strips/battery)
W765C	Drive Chain	WE927	Wiring Harness
W766	Main Drive Sprocket Complete: 54 tooth	WE928	Top Battery Strap
W766P	Cotter Pin	WE929	Motor Mount Spacers
W767	Axle with #704 nut	WE929N	5/16" Nut
W767P	Cotter Pin	WE930	Engine Pulley Spacer
W768	3/16" x 3/16" Square Key	W950	Brake Kit (not for Electric-Starting)
W769	Axle Washer	WE932	Drive Box Spacer
W770	Tension Spring for Clutch Lever	W995	Paper Air Filter (rectangular), Industrial Plus, Standard
W8ES	Electric-starting Industrial Plus Engine	W996	Foam Pre Cleaner (rectangular), Industrial Plus only
W8STD	Standard Engine		
W8IC	Industrial Plus Engine		
W891	Carriage Bolt 3/8" x 1" & Nut		
W892	5" Pulley Cover		
W893	Engine Pulley Cover		
W894	Blade Disengage Spring		
W908A	Blade Deck		
W908B	Complete Head Assembly w/o Blade		
W912	Min. Vibration Brace		
WE912	Min. Vibration Brace (Electric-Starting)		
WE912B	5/16" x 1-1/4" Bolt		

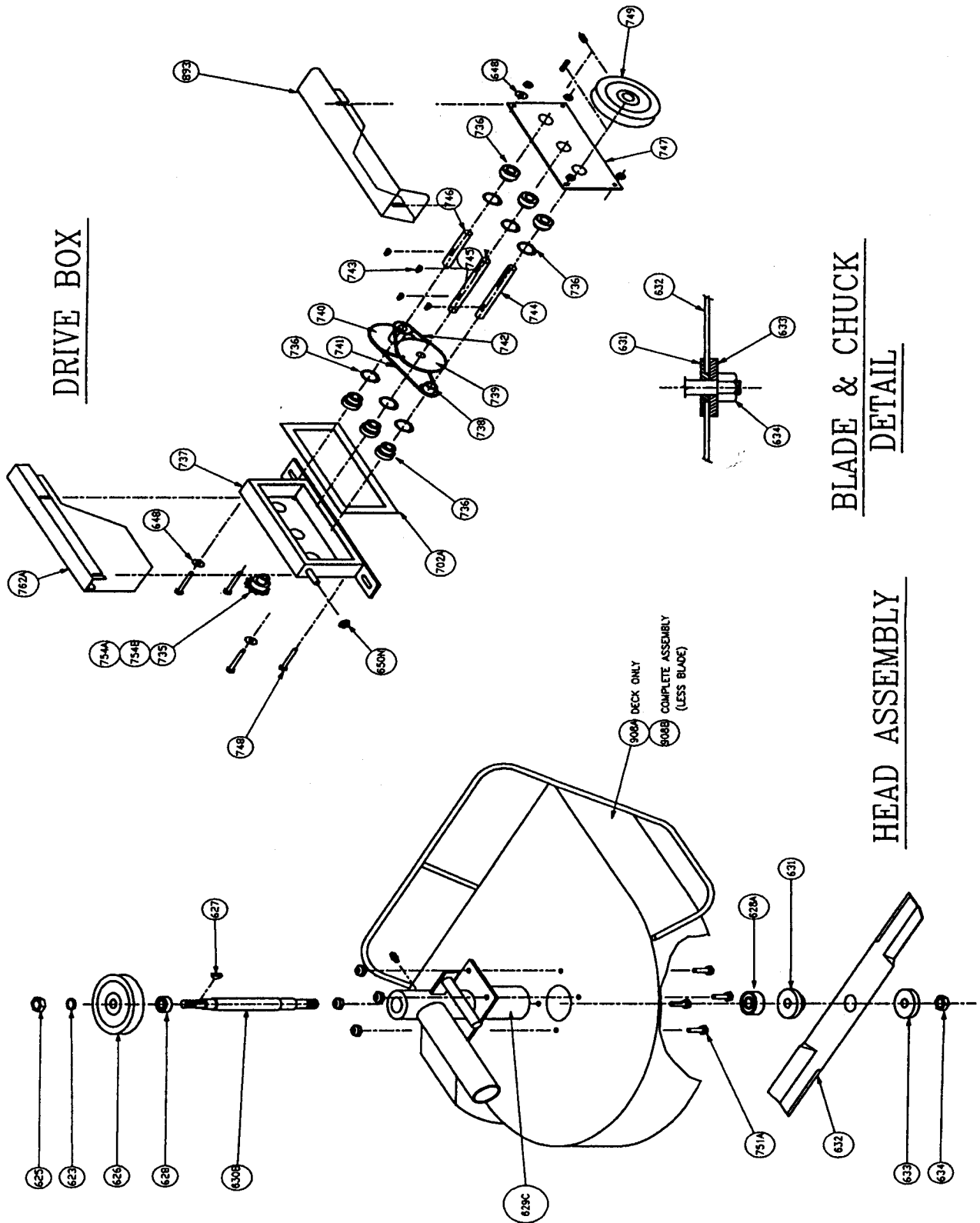
Electric-Starting Model



Manual-Starting Model



Head Assembly & Drive Box



Daily Check List for the DR® FIELD and BRUSH MOWER

- ▲ Always disconnect the spark plug wire before servicing your machine.

- ✓ **OIL** With the machine on a level surface, remove the oil fill cap and check the oil level. Completely fill the reservoir to the point of overflowing with SAE30 motor oil (10W30 may be used if SAE30 isn't available).

- ✓ **GAS** Fill the gas tank with clean, fresh unleaded gasoline, making sure the gas valve on bottom of the tank is open. Always close the gas valve when storing your machine.

- ✓ **AIR FILTER** Remove the air filter cover. Check and clean, following the instructions in your *Briggs and Stratton Owner's Manual*.

- ✓ **GREASE** Regularly grease all the zerks. Grease the zerk on the blade bearing housing every 6-8 hours of operation. See page 13 for more information.

- ✓ **ENGINE** It is very important to keep the engine clean. Remove grass and other debris from the engine cooling fins and debris guard. A dirty engine retains heat and can cause damage to the internal engine parts.

- ✓ **BELTS** Check the belts for wear, proper alignment and tension. Please refer to page 15 for adjustment information.

- ✓ **BLADE** Check the blade for tightness. Retighten following the instructions on page 20. Check the blade for nicks and wear. Small nicks can be filed down by hand. Always file the edges from the top angle, NEVER from the bottom. For larger nicks, have the blade sharpened and balanced professionally. Remove any wrapped weeds and grass from the blade bearing housing to prevent buildup.

- ✓ **CHAIN** Check the drive chain for proper tension and lube with motor oil or lubricating spray. Refer to page 18 for chain adjustment.

COUNTRY HOME PRODUCTS®

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