FORM NO. 3313-930 Rev. B

TORO®

MODEL NO. 20666 - 0000001 & UP
MODEL NO. 20561 - 0000001 & UP

OPERATOR'S MANUAL

21" (0.53 M) SP & HP RECYCLER™

FINGERTIP START

⚠ SAFETY INSTRUCTIONS

This mower "meets or exceeds CPSC blade safety requirements for walk behind rotary mowers" and the B71.1-1986 specifications of the American National Standards Institute. However, improper use or maintenance by the operator or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety alert symbol. Failure to comply with these instructions may result in personal injury.

BEFORE OPERATING

1. Read this manual carefully before operating the mower. Become familiar with the controls and proper use of the mower. Never allow children to operate the mower or adults to operate it without proper instructions.

2. Keep everyone, especially children and pets, away from area of operation. Thoroughly inspect area where mower will be used and remove sticks, stones, wire, and debris.

3. Wear long pants and substantial shoes. Do not operate mower while wearing open sandals or when barefoot.

4. Always wear safety glasses or eye shields during operation to protect eyes from foreign objects that may be thrown from the machine.

5. Check fuel level before starting engine. Do not fill fuel tank indoors or when the engine is running. Wait until engine cools for several minutes after running. Wipe up spilled gasoline before starting engine.

6. Keep all guards, shields, and safety devices in place. Repair or replace defective or damaged parts, including decals.

7. Traction drive (self-propelled models), blade, and engine are designed to stop when control bar is released. Assure control bar and brake function properly before each use of mower.

8. Disengage the self-propelled mechanism or drive clutch (model 20666) before starting the engine.

WHILE OPERATING

9. Do not run engine indoors.

10. Always maintain secure footing. Keep a firm grip on the handle and walk; never run. Never operate mower in wet grass. Mow only in daylight or in good artificial light.

11. Mow across the face of slopes; never up and down. Use extreme caution when changing direction on slopes. Do not mow excessively steep slopes.

12. Keep face, hands, and feet away from the mower housing and cutter blade when the engine is running. Stay behind the handle until the engine stops and keep clear of discharge opening at all times.

13. When bagging grass, stop engine and assure discharge door is closed before the bag is removed and emptied.

14. Shut engine off and wait for all moving parts to stop before unclogging discharge tunnel, removing grassbag or Recycler plug.

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⚠ SAFETY INSTRUCTIONS

15. Since the blade rotates for a few seconds after the control bar is released, stay behind the handle until all moving parts stop.

16. After striking a foreign object or if mower vibrates abnormally, stop engine and remove wire from spark plug. Check mower for damage and make all repairs before using mower again.

17. Stop engine before adjusting the height-of-cut.

18. Stop engine when crossing a gravel driveway, road, or sidewalk.

19. Stop engine before leaving the operator's position—behind the handle. Disconnect wire from spark plug if mower will be unattended.

20. Do not touch engine while it is running or shortly after it is stopped because engine will be hot enough to cause a burn.

MAINTENANCE AND STORAGE

21. Perform only those maintenance instructions described in this manual. If major repairs are ever needed or if assistance is desired, contact your local Authorized TORO Service Dealer.

22. Before mower is cleaned, inspected, serviced, or adjusted, stop engine and disconnect wire from spark plug. Keep wire away from plug to prevent accidental starting.

23. To assure the mower is in safe operating condition, frequently check and keep all nuts, bolts, and screws tight. Assure blade bolt is tightened to 50 ft-lb (68 N·m).

24. To reduce fire hazard, keep engine free of excessive grease, grass, leaves, and accumulations of dirt.

25. Check grass catcher bag frequently for wear or deterioration. Replace with a new bag for your protection. Check that replacement bags comply with the original TORO recommendations or specifications.

26. Allow engine to cool before storing mower in any enclosure. Do not store mower with gasoline in fuel tank near any open flame or where gasoline fumes may be ignited by a spark.

27. Do not overspeed the engine by changing governor settings.

28. At the time of manufacture, the mower conformed to the safety standards in effect for rotary mowers. To assure best performance and continued safety certification of the mower, use genuine TORO replacement parts and accessories. Replacement parts and accessories made by other manufacturers may result in non-conformance with the safety standards, and that could be dangerous.

SAFETY DECALS AND INSTRUCTIONS

Safety decals and instructional decals are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged.

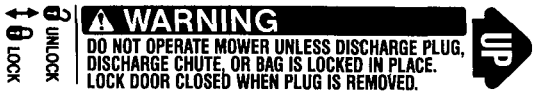


On handle
(Part No. 56-6280)

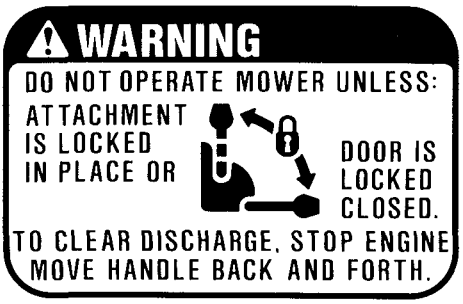
Hand Push
Models



On mower housing
(Part No. 39-5770)



On Recycler plug
(Part No. 77-0510)



On discharge tunnel



On grass bag

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SET-UP INSTRUCTIONS

INSTALL HANDLE

1. Align handles and tighten handle knobs (Fig. 1). Bend handle latches slightly toward each other (Fig. 1).

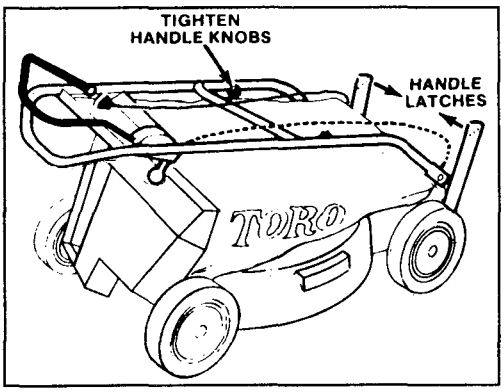


Figure 1

2. Pivot handle backward until handle stud snaps into center hole of handle latch (Fig. 2). If handle height is not satisfactory, adjust by placing handle stud into a different hole.

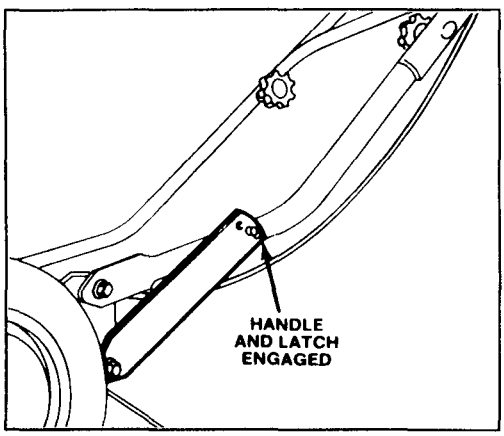


Figure 2

INSTALL RECYCLER DISCHARGE PLUG

1. Open the discharge door by pulling forward on the handle and moving it rearwards (Fig. 3). Hold the discharge door handle to prevent the spring-loaded door from closing while inserting the plug.

2. Since the plug is slightly wider than the discharge tunnel opening, rotate the plug clockwise slightly while inserting it (Fig. 3). Make sure the arrow on the plug decal is pointing upwards.

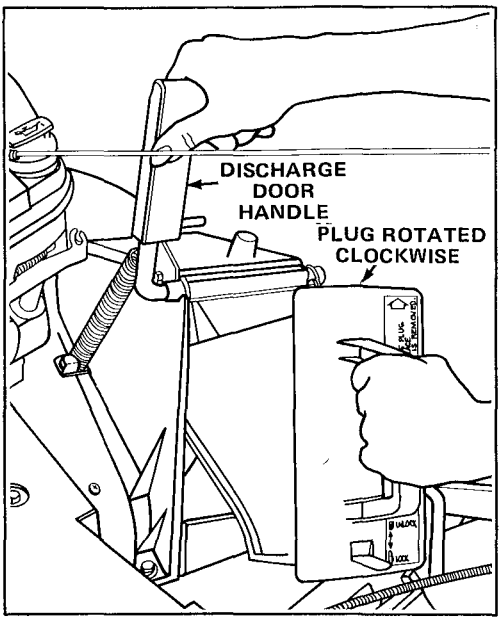


Figure 3

3. Push the plug all the way in until the spring clip on the bottom of the plug clicks into place, locking the plug securely into the discharge tunnel (Fig. 4). Release discharge door handle to lock top of plug.

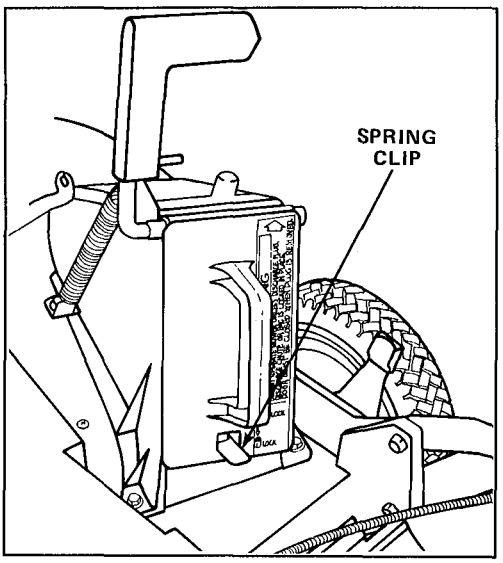


Figure 4

BEFORE OPERATING

FILL CRANKCASE WITH OIL

Initially, crankcase must be filled with 20 ounces (0.592 L) of SAE 30 or 10W30 oil. Use any high quality detergent oil having the American Petroleum Institute (API) "service classification"—MS, SC, SD, SE or SF.

Before each use, assure oil level is between FULL and ADD marks on dipstick (Fig. 5). Add oil if level is low.

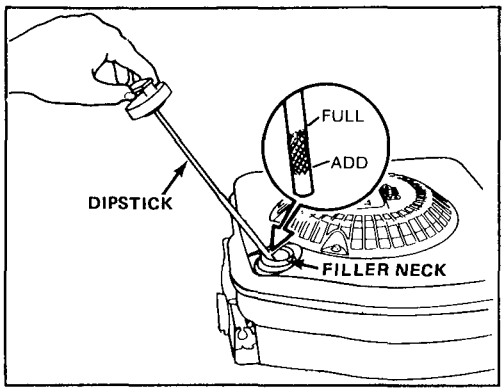


Figure 5

1. Position mower on level surface and clean around oil dipstick.

2. Remove dipstick by rotating cap counterclockwise 1/4 turn.

3. Wipe dipstick and insert it into filler neck. Rotate cap clockwise 1/4 turn. Then remove dipstick and check level of oil on side of dipstick with FULL and ADD marks (Fig. 5). If level is low, add only enough oil to raise level to FULL mark on dipstick. **DO NOT FILL ABOVE FULL MARK BECAUSE ENGINE COULD BE DAMAGED WHEN STARTED. POUR OIL SLOWLY.**

4. Insert dipstick into filler neck and rotate cap clockwise 1/4 turn to lock.

Note: Check oil level each time mower is used or after every 5 operating hours. Initially, change oil after the first 2 hours of operation; thereafter, change oil after every 25 hours of operation. More frequent oil changes are required in dusty or dirty conditions.

⚠ WARNING

DANGER: Gasoline is extremely flammable and explosive under certain conditions. Do not smoke when handling fuel and keep fuel far away from open flames and sparks. Never buy more than a 30 day supply of gasoline. Store it in an approved container. Keep gasoline out of reach of children.

Refuel outdoors and only when engine is cold. Do not fill tank full. Fill tank to within 1/4" to 1/2" (6 to 13 mm) from top of tank, not into filler neck. This space is for expansion of fuel. Use funnel or spout to prevent spilling. Wipe up any spilled gas.

FILL FUEL TANK WITH GASOLINE

Note: The Toro Company strongly recommends the use of fresh, clean, UNLEADED regular grade gasoline in Toro gasoline powered products. Unleaded gasoline burns cleaner, extends engine life, and promotes good starting by reducing the build-up of combustion chamber deposits.

Leaded gasoline can be used if unleaded is not available.

Toro also recommends that Toro Stabilizer/Conditioner be used regularly in all Toro gasoline powered products during operation and storage seasons. Toro Stabilizer/Conditioner cleans the engine during operation and prevents gum-like varnish deposits from forming in the engine during periods of storage.

BEFORE OPERATING

1. Clean around fuel tank cap and remove cap from tank (Fig. 6). Using unleaded gasoline, fill fuel tank to within 1/4" to 1/2" (6 to 13 mm) from top of tank, not into filler neck. Do not fill tank full.

2. Install fuel tank cap and wipe up any spilled gasoline.

3. Move fuel shut-off valve to "ON" position (Fig. 6).

IMPORTANT: DO NOT MIX OIL WITH THE GASOLINE. NEVER USE METHANOL, GASOLINE CONTAINING METHANOL, GASOHOL CONTAINING MORE THAN 10% ETHANOL OR WHITE GAS BECAUSE ENGINE FUEL SYSTEM DAMAGE COULD RESULT.

DO NOT USE FUEL ADDITIVES OTHER THAN THOSE MANUFACTURED FOR FUEL STABILIZATION DURING STORAGE SUCH AS TORO'S STABILIZER/CONDITIONER OR A SIMILAR PRODUCT. TORO'S STABILIZER/CONDITIONER IS A PETROLEUM DISTILLATE BASED CONDITIONER/STABILIZER. TORO DOES NOT RECOMMEND STABILIZERS WITH AN ALCOHOL BASE SUCH AS ETHANOL, METHANOL OR ISOPROPYL. ADDITIVES SHOULD NOT BE USED TO TRY TO ENHANCE THE POWER OR PERFORMANCE OF MACHINE.

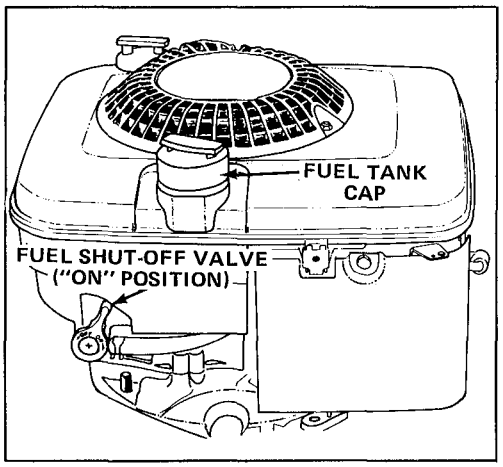


Figure 6

RECYCLING

SPECIAL RECYCLER FEATURES

The Toro Recycler is a mower with a new and completely different cutting concept that leaves your lawn with a bagged look without bagging clippings.

The Toro Recycler is equipped with special parts which increase your mower's ability to recycle grass clippings, leaves, and other yard debris down into the grass. These parts are:

A. A special blade and blade stiffener

B. Four special "kicker plates" positioned on the underside of the mower deck in strategic positions (Fig. 7)

C. A special plug which locks into the mower's discharge tunnel (a fifth kicker is on the plug) (Fig. 8)

The blade and four kicker plates are permanent parts of your mower. The blade should be removed only for sharpening or replacement. The kickers should never be removed, unless they need to be replaced. They do not interfere with the normal bagging or optional side discharge operations of the mower.

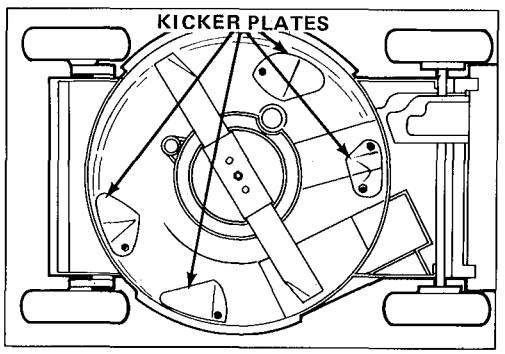


Figure 7

RECYCLING

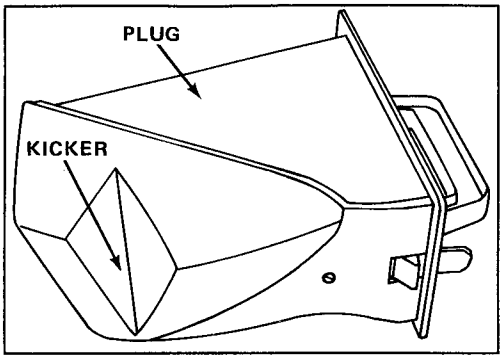


Figure 8

The plug, however, is a removable part, just as the grass bag and optional side discharge chute are removable parts. You cannot use the plug in combination with either the grass bag or the side discharge chute. The plug is used only for recycling.

Although the plug is used only for recycling, it is possible to mow without using the plug by closing the discharge tunnel door. However, your recycling will be much more effective if you use the plug as it has an additional kicker (Fig. 8) that helps drive the clippings down into the grass.

⚠ WARNING

Never start or operate the mower unless one of the following is true:

1. The Recycler plug is locked in place.

2. The bag is locked in place.

3. The side discharge chute is locked in place.

4. The discharge door is locked closed.

⚠ WARNING

Mow grass in dry conditions only. For safety reasons, never operate mower in wet grass. There is the possibility that you may slip on wet grass and that your foot might slide into the blade path.

TIPS FOR RECYCLING GRASS CLIPPINGS

Even with the Recycler, you may encounter conditions where it is not possible to hide all of the recycled clippings or leaves all of the time down in the grass. Follow these instructions for the best recycling results and quality-of-cut:

- In the heat of the summer, it is generally best to cut grass at the C, D or E height-of-cut settings. Only about 1/3 of the grass blade should be cut. Cutting below the C setting is not recommended unless grass is sparse or it is late fall when grass growth begins to slow down. If long grass must be cut, you may need to use a higher height-of-cut setting and a slower walking speed; then recut the grass at a more normal setting. If grass is too long and leaves clumps on top of lawn, mower may plug and cause engine to stall.

NOTE: When bagging, you can cut grass at any length.

- When cutting grass over 6" tall, you may want to cut the lawn twice to hide clippings down into the grass.
- Maintain a sharp blade throughout the cutting season. Periodically file down nicks on blade.
- Clean any residue from the underside of mower housing, kickers, and plug after each use. See Cleaning Mower Housing, Discharge Tunnel, and Recycler Plug, page 16.
- Alternate mowing direction. This helps disperse clippings over lawn for even fertilization.

RECYCLING

If the recycling quality-of-cut seems marginal, try one or more of the following:

- Raise the height-of-cut setting on your mower.
- Cut your grass more frequently.
- Walk at a slower pace while mowing.
- Overlap cutting swaths instead of cutting a full swath with each pass.
- Mow across the marginal areas a second time.
- Use the grass bag or optional side discharge chute.

TIPS FOR RECYCLING LEAVES

You may recycle leaves in the fall instead of bagging. If you decide to bag, the Recycler reduces the number of leaf bags you will need by finely chopping up the leaves before they are bagged. Some leaf particles will be recycled back down into the soil. When spring arrives, the leaf particles will have decomposed and returned valuable nutrients to the soil.

- Recycle your leaves when more than 50% of the lawn shows through the leaf cover. If less than 50% of the lawn can be seen through the leaves, it is a good idea to bag.
- For light leaf coverage, recycle with all wheels at the same height-of-cut setting.
- If there are more than 5" of leaves on lawn, set the front wheels one or two notches higher than the rear wheels. This makes it easier to feed leaves under mower deck.
- Walk at a slower ground speed if recycled leaves are not cut up finely enough to be hidden down in the grass.
- If you recycle a lot of oak leaves, you might want to add lime to your grass in the spring. Lime reduces the acidity of oak leaves.

OPERATING INSTRUCTIONS

GENERAL OPERATING TIPS

1. CHECK OIL LEVEL—Maintain oil level between ADD and FULL marks as shown on dipstick (Fig. 5).

2. BEFORE EACH MOWING—Assure engine brake, self-propelled drive (self-propelled model), and control bar function properly. When control bar is released, engine, blade, and self-propelled drive are designed to stop.

STARTING, STOPPING, AND SELF-PROPELLING (self-propelled model only)

1. CONTROLS—Throttle, ground speed control (self-propelled model), control bar, and fingertip starter are on upper handle (Fig. 9).

2. Push spark plug wire onto spark plug (Fig. 20).

3. STARTING—Move ground speed control to "N" (self-propelled model only) and throttle to CHOKE. Lift control bar to RUN/SHIFT position (Fig. 9) and hold. Pull fingertip starter out until positive engagement results; then pull vigorously to start the engine. Regulate throttle (Fig. 9) as desired when engine starts.

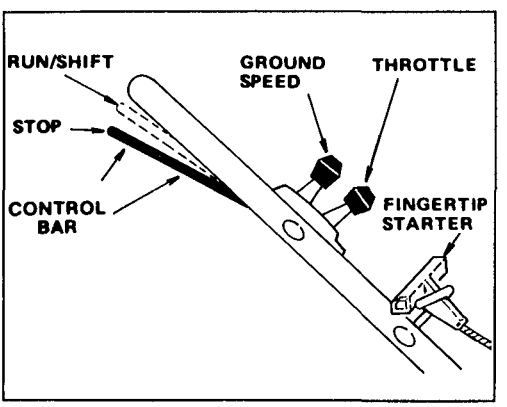


Figure 9

OPERATING INSTRUCTIONS

4. GROUND SPEED (self-propelled model only) (Fig. 9)—Move ground speed control to desired setting. Number "1" is slow, "2" is medium, and "3" is a fast walking pace. Move ground speed control to "N" when using the mower for trimming and whenever leaving mower.

5. WHEEL TRACTION OPERATION (self-propelled model only) (Fig. 9)—Move control bar to the RUN/SHIFT position. Move ground speed control to desired setting and squeeze control bar against handle to drive.

6. STOPPING—To stop engine, release control bar. Pull wire off spark plug if mower will be unattended or not used.

USING RECYCLING PLUG

1. Make sure engine is off. Open the discharge door by pulling forward on the handle and moving it rearwards (Fig. 10). Hold the discharge door handle to prevent the spring-loaded door from closing while inserting the plug.

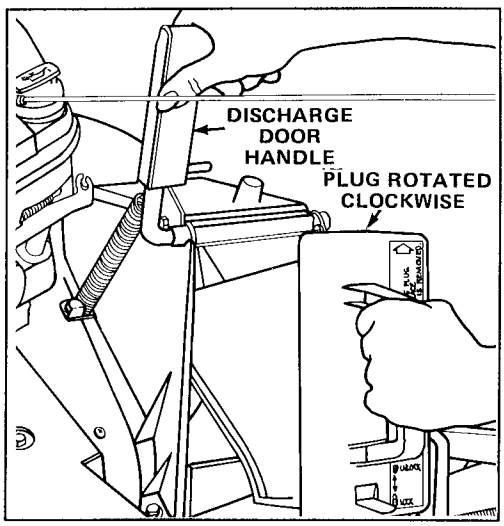


Figure 10

2. Since the plug is slightly wider than the discharge tunnel opening, you must rotate the plug clockwise slightly while inserting it (Fig. 10). Make sure the arrow on the plug decal is pointing upwards.

3. Push the plug all the way in until the spring clip on the bottom of the plug clicks into place, locking the plug securely into the discharge tunnel (Fig. 11). Release the discharge door handle to lock the top of the plug.

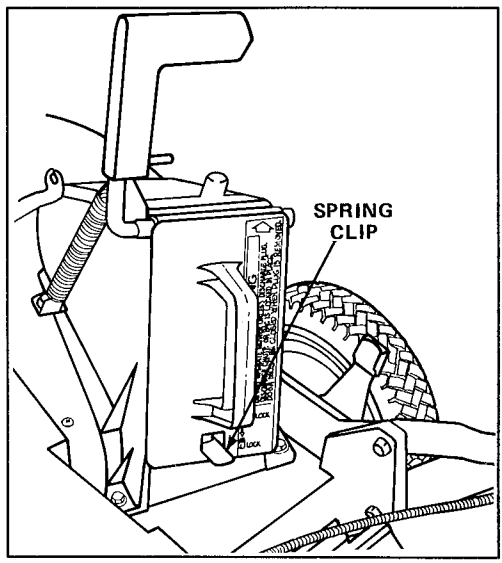


Figure 11

4. To remove the plug, move the discharge door handle rearwards while at the same time lift up the spring clip on the bottom of the plug. When the plug is unlocked, pull it out of the discharge tunnel.

USING GRASS BAG

Occasionally you may wish to use the grass bag for bagging extra long grass, lush grass or leaves.

1. Stop engine and wait for all moving parts to stop.

2. Assure discharge door handle is fully forward and pin is engaged in catch (Fig. 12).

3. INSTALLING BAG—Slide hole in bag frame onto retaining post on discharge tunnel (Fig. 12) and set rear of bag frame onto lower handle.

OPERATING INSTRUCTIONS

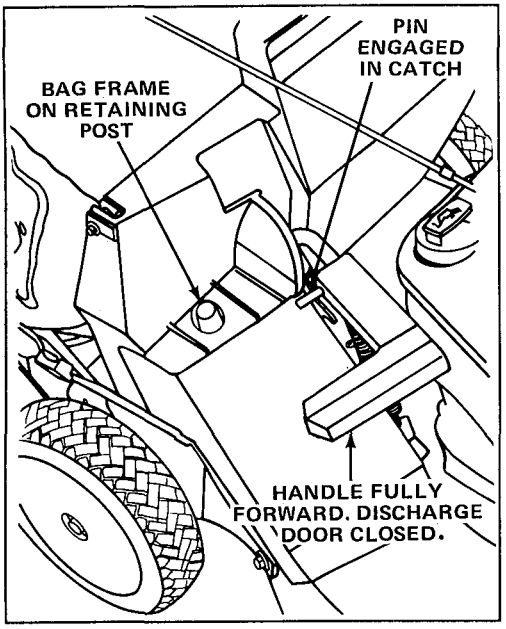


Figure 12

4. Pull discharge door handle forward until pin clears catch and move handle rearward until pin locks in bag notch (Fig. 13). Discharge door in mower housing is now open.

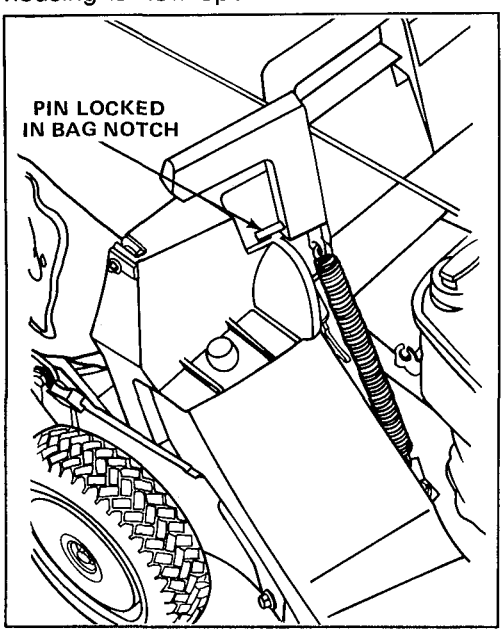


Figure 13

5. EMPTYING BAG—Stop engine and wait for all moving parts to stop. Raise discharge door handle and move it forward to engage the locking pin with catch (Fig. 12). Grasp handles at front and rear of bag and lift bag off mower. Gradually tip bag forward to empty clippings.

6. To reinstall bag, repeat steps 3-4.

⚠ CAUTION

Except when grass bag, side discharge attachment or Recycler discharge plug is used, never open discharge door on mower when engine is running because grass clippings and other debris discharges with enough force to cause injury.

The grass bag material will catch and contain the majority of foreign objects such as small stones and other similar debris. The bag material, however, is subject to normal wear and deterioration. So check the bag frequently, and if it is defective, install a new genuine TORO replacement bag that has this or a similar warning.

⚠ CAUTION

If discharge door cannot be closed because grass clippings clog discharge area, turn engine off and gently move discharge door handle back and forth until door can be closed completely. Do not force discharge door closed because door or handle may be damaged. If door still cannot be closed, remove obstruction.

OPERATING INSTRUCTIONS

ADJUSTING HEIGHT-OF-CUT
(Fig. 14)

Five letters cast into the housing represent each graduated height-of-cut setting.

1. Stop the engine and wait for all moving parts to stop.

2. For easier adjustment, lift housing up so wheel is off ground. **Do not put fingers under housing when lifting.** Squeeze adjusting lever toward wheel and move to desired setting. Assure pin on adjusting lever engages slot in housing. Adjust all wheels to the same setting.

Note: Front wheels can be adjusted to 1/2 inch. Move adjusting lever past "A" and release pin into slot in housing.

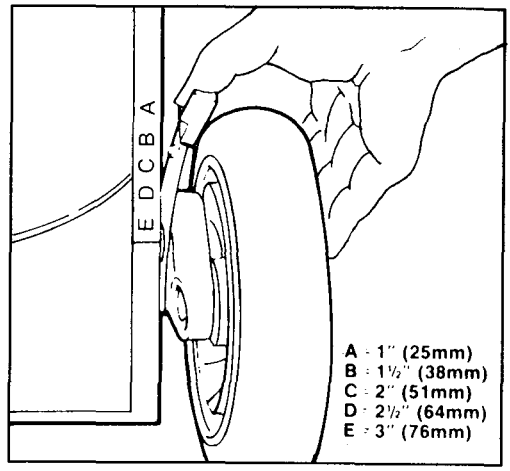


Figure 14

MAINTENANCE

⚠ CAUTION

Pull wire off spark plug before performing adjustments or maintenance.

SERVICING AIR CLEANER

Normally, replace air cleaner after every 25 operating hours. More frequent replacement is required when mower is operated in dusty or dirty conditions.

1. Stop engine and pull wire off spark plug (Fig. 20).

2. Remove screw securing air cleaner cover to engine (Fig. 15). Tilt cover down and clean thoroughly.

3. Remove paper air cleaner filter (Fig. 16) and discard.

4. Insert new paper air cleaner filter cartridge so lip touches back plate as shown in Figure 16.

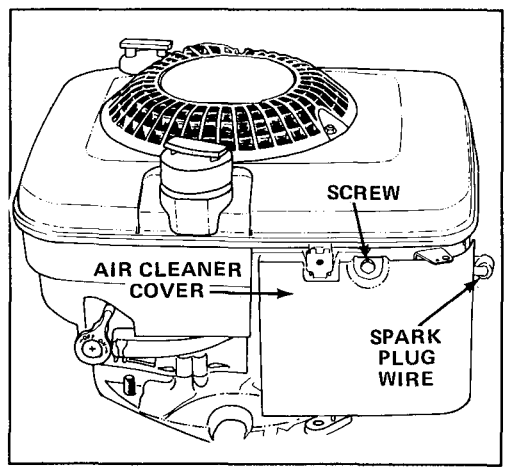


Figure 15

5. Close air cleaner cover and secure with screw.

IMPORTANT: Do not operate engine without air cleaner element because extreme engine wear and damage will likely result.

MAINTENANCE

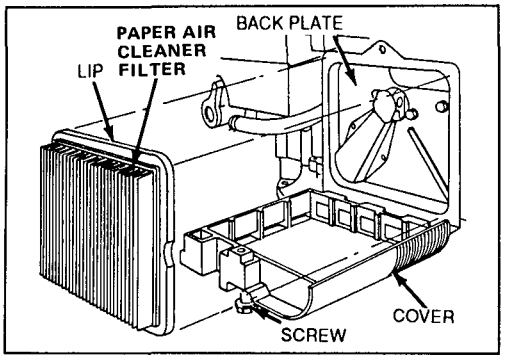


Figure 16

REPLACING SPARK PLUG

Use a Champion RCJ8 or Autolite 245 spark plug or equivalent. A Champion RJ19LM spark plug may be used if spark plug fouling is experienced. Correct air gap is 0.030" (0.76 mm). Remove plug after every 25 operating hours and check its condition.

1. Stop engine and pull wire off spark plug (Fig. 20).

2. Clean around spark plug and remove plug from cylinder head.

IMPORTANT: Replace a cracked, fouled, or dirty spark plug. Do not sand blast, scrape, or clean electrodes because engine damage could result from grit entering cylinder.

3. Set air gap at 0.030" (0.76 mm) (Fig. 17). Install correctly gapped spark plug and gasket seal. Tighten plug firmly to 15 ft-lb (20 N·m).

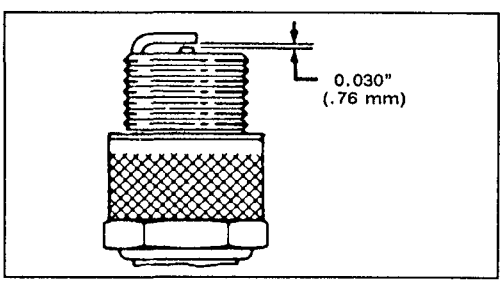


Figure 17

DRAINING GASOLINE

1. Stop engine and wait for engine to cool. Pull wire off spark plug (Fig. 20).

⚠ CAUTION

Drain gasoline from a cold engine only.

2. Turn the fuel shut-off valve to the OFF position (Fig. 18).

3. Remove cap from fuel tank (Fig. 18) and use pump-type syphon to drain fuel into clean gas can.

Note: This is the only procedure recommended for draining fuel.

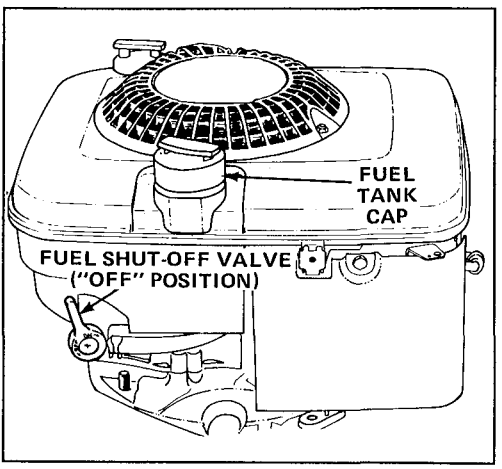


Figure 18

CHANGING CRANKCASE OIL

Change oil after the first 2 operating hours and after every 25 hours thereafter. Since warm oil drains better and carries more contaminants than cold, run engine for a minute or so before draining oil.

1. Stop engine and pull wire off spark plug (Fig. 20).

2. If necessary, remove grass bag. Drain gasoline from fuel tank: refer to Draining Gasoline, page 12.

3. Tip mower on its right side. Remove drain plug from underside of mower using an adjustable wrench (Fig. 19). Place a drain pan under mower.

4. Lower mower to allow oil to drain into pan.

5. After draining, clean drain plug and reinstall it. Wipe up any spilled oil. Fill engine with fresh oil: refer to Fill Crankcase With Oil, page 5.

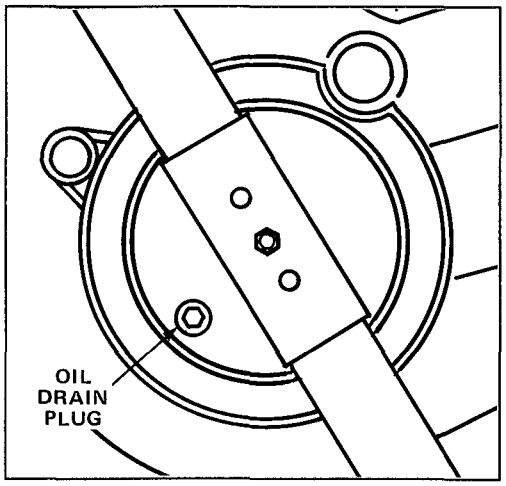


Figure 19

ADJUSTING THROTTLE

Throttle control adjustment may be required if engine does not start or stop. Whenever a new throttle control cable is installed, throttle must be adjusted.

1. Stop engine and pull wire off spark plug (Fig. 20).

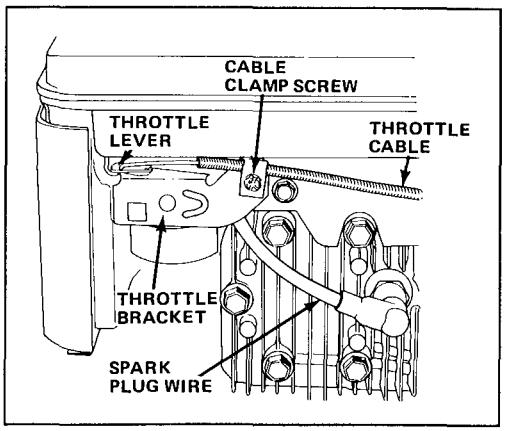


Figure 20

2. Move throttle control to FAST.

3. Loosen cable clamp screw until throttle cable slides (Fig. 20). Align holes in throttle lever and throttle bracket using a 1/8" diameter drill (Fig. 21). Tighten cable clamp screw to lock adjustment in place.

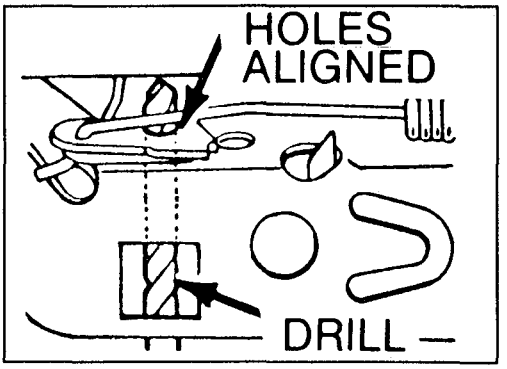


Figure 21

ADJUSTING WHEEL DRIVE
(self-propelled model only)

If mower does not self-propel or has a tendency to creep forward when drive is not engaged, adjust wheel drive control knob on rear of gear box.

1. If necessary, remove grass bag.

2. ADJUSTMENT (Fig. 22)—Rotate control knob clockwise 1/2 turn if mower does not self-propel. If mower creeps forward, rotate knob 1/2 turn counterclockwise to loosen belt.

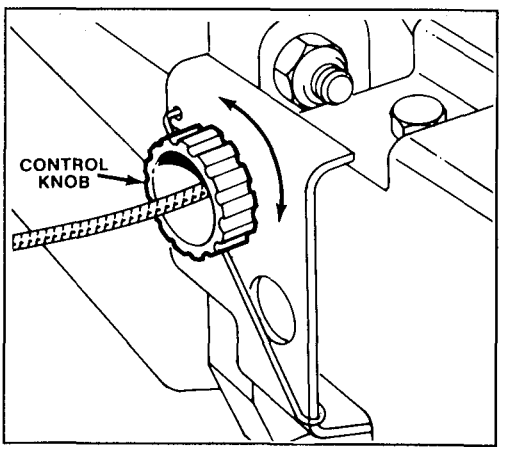


Figure 22

3. CHECK ADJUSTMENT—With engine running, and ground speed control in 1, 2 or 3, slowly pull mower backwards while control bar is gradually moved toward handle. Adjustment is correct when rear wheels stop turning and control bar is about 1-1/2 inches from handle (Fig. 23).

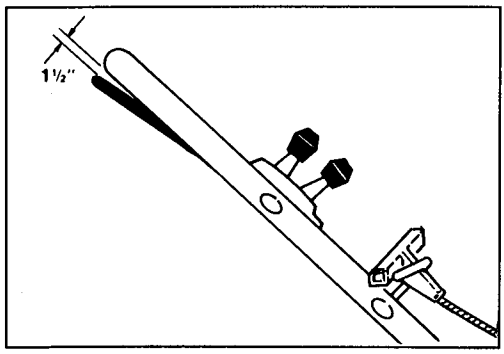


Figure 23

4. Repeat steps 2 and 3 until properly adjusted.

INSPECTING/REMOVING/SHARPENING BLADE

Always mow with a sharp blade. A sharp blade cuts cleanly and without tearing or shredding the grass blades like a dull blade.

1. Stop engine and pull wire off spark plug (Fig. 20).
2. Drain gasoline from fuel tank; refer to Draining Gasoline, page 12.
3. Tip mower on its right side (Fig. 24). Avoid rotating the blade because starting problems may result.

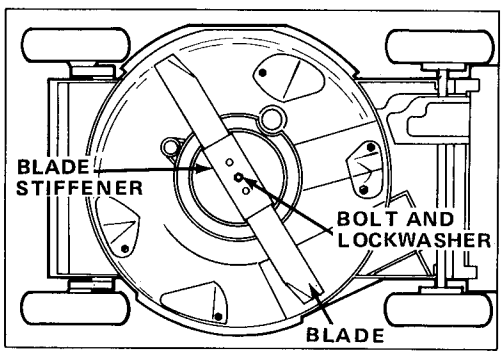


Figure 24

4. INSPECTING BLADE—Carefully examine blade for sharpness and wear, especially where flat and curved parts meet (Fig. 25A). Since sand and abrasive material can wear away the metal that connects the flat and curved parts of the blade, check blade before using the mower. If a slot or wear is noticed, (Fig. 25B & C), replace blade. Refer to step 5.

Note: For best performance, install new blade before cutting season begins. During the year, file down small nicks to maintain the cutting edge.

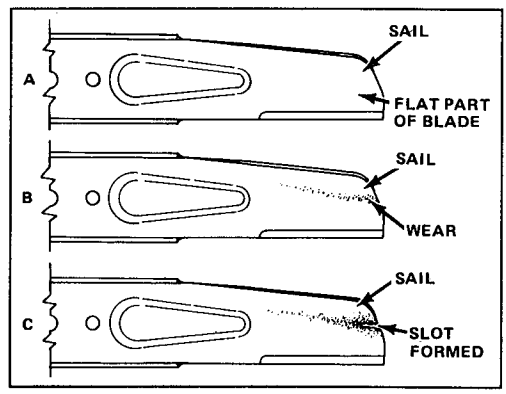


Figure 25

CAUTION

If blade is allowed to wear, a slot may form near the sail. Eventually a piece of blade may break off resulting in serious injury to yourself or a bystander.

5. REMOVING BLADE—Grasp end of blade using a rag or thickly padded glove. Remove blade bolt, lockwasher, blade stiffener, and blade (Fig. 24).

6. SHARPENING BLADE—Using a file, sharpen top side of blade and maintain original cutting angle (Fig. 26). The blade will remain balanced if same amount of material is removed from both cutting edges.

IMPORTANT: Check balance of blade by putting it on a blade balancer. An inexpensive balancer can be purchased at a hardware store. A balanced blade stays in a horizontal position and an unbalanced blade settles to the heavy side. If blade is not balanced, file more metal off cutting edge on heavy end of blade.

7. Install sharp, balanced blade with blade stiffener, lockwasher, and blade bolt. Sail part of blade must point toward top of mower housing to assure correct installation. Tighten blade bolt to 50 ft-lb (68 N·m).

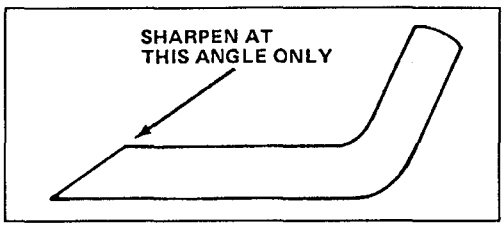
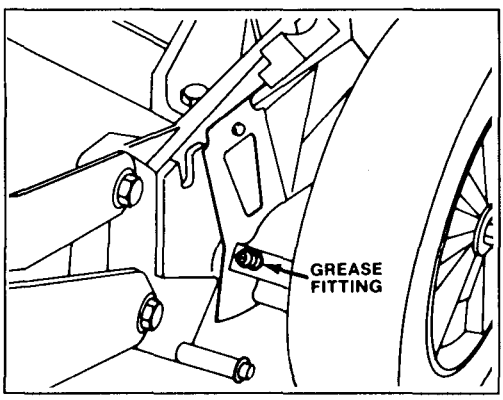


Figure 26

LUBRICATION

After every 25 operating hours or when season ends, front and rear wheels must be lubricated.

1. Apply 2 or 3 drops of light oil on inside of front and outside of all wheel bolts. Spin wheels to distribute oil into bushings. Wipe up excess oil.



Self-propelled model only

Figure 27

2. SELF-PROPELLED MODEL ONLY—Move rear wheel height-of-cut levers to "C" setting. Wipe grease fittings with clean rag (Fig. 27). Install grease gun onto fitting and gently apply 1 or 2 pumps of #2 Multi-Purpose Lithium Base Grease. Excess pressure may damage seals.

ADJUSTING BLADE BRAKE

Whenever a new blade brake cable assembly is installed, an adjustment is required.

1. Stop engine and pull wire off spark plug (Fig. 20).

2. CHECK ADJUSTMENT (Fig. 28)—Move control bar toward handle until slack in wire is removed. Gap between brake lever and handle must be 1/8"-3/16". See step 3 for adjustment.

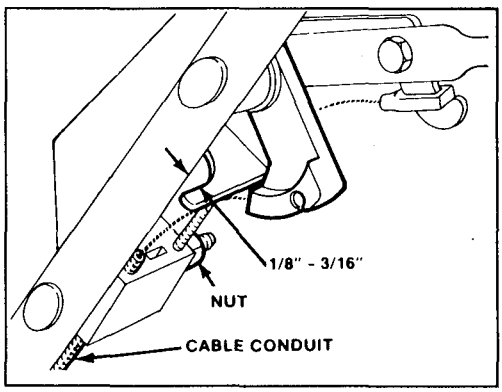


Figure 28

3. ADJUST CABLE CONDUIT (Fig. 28)—Loosen nut on cable bracket. Insert 1/8"-3/16" object between brake lever and handle. Pull down on cable conduit until all slack is removed from wire. Then tighten nut.

ADJUSTING GROUND SPEED CONTROL FOR NEUTRAL (self-propelled model only)

Whenever a new ground speed control cable is installed or if mower drives when ground speed control is in "N", an adjustment is required.

MAINTENANCE

1. Stop engine and pull wire off spark plug (Fig. 20). If necessary, remove grass bag.
2. Remove two capscrews and lift off transmission cover (Fig. 29).

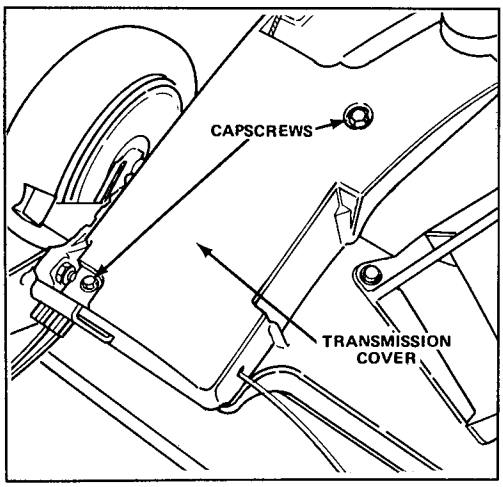


Figure 29

3. ADJUSTMENT (Fig. 30)—Loosen cable clamp screw until cable conduit slides. Make sure that ground speed control lever on control panel remains in "N" position during adjustment. Push transmission control lever toward cable clamp screw and hold lever in place. Pull cable conduit to remove slack and tighten clamp screw.

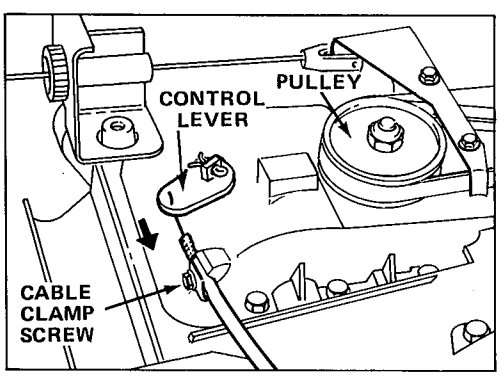


Figure 30

4. CHECK ADJUSTMENT—With ground speed control set to the "N" position, start mower and squeeze control bar against handle. Mower should not move. If it does, readjust as explained in step 3.
5. Reinstall transmission cover.

CLEANING MOWER HOUSING, DISCHARGE TUNNEL, AND RECYCLER PLUG

To assure best performance, the Recycler plug must be cleaned after each use. When grass is thick and lush, clippings may collect on and around the Recycler plug; this may make plug removal difficult. Remove plug from discharge tunnel and clean off all debris.

Keep underside of mower housing clean. Be especially careful to keep kickers on underside of mower housing free of debris (Fig. 31).

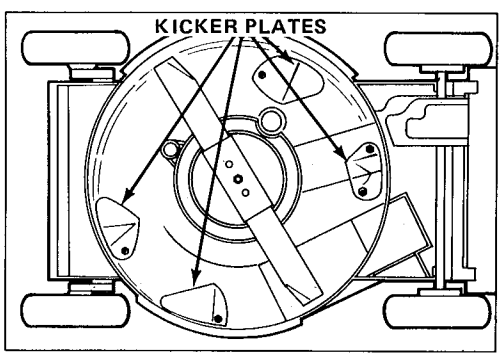


Figure 31

Always be sure that discharge tunnel door locks closed when handle is released. If debris prevents discharge door from locking closed, clean inside of discharge tunnel and door thoroughly.

MAINTENANCE

⚠ WARNING

Never start or operate the mower unless one of the following is true:

1. The Recycler plug is locked in place.

2. The bag is locked in place.

3. The side discharge chute is locked in place.

4. The discharge door is locked closed.

1. Stop engine and pull wire off spark plug (Fig. 20).
2. Drain gasoline from fuel tank: refer to Draining Gasoline, page 12.
3. Tip mower on its right side (Fig. 31). Avoid rotating blade because starting problems may result.
4. Remove dirt and grass clippings that are stuck to housing by spraying it with a garden hose. Scrape out remaining debris with hardwood scraper. Avoid burrs and sharp edges.

PREPARING MOWER FOR STORAGE

1. Close fuel shut-off valve when equipment is not in operation to prevent fuel leakage from the carburetor.
2. For long term storage, either drain gasoline from fuel tank or use a fuel additive before storing. To drain gasoline, refer to Draining Gasoline, page 12. After fuel is drained, start engine and let it idle until all fuel is consumed and engine stops. Repeat the starting procedure two more times to assure all gas is removed from the engine. If gasoline is not drained, gum-like varnish deposits will form and cause poor engine operation, even starting problems.

Fuel can be left in gas tank only if a fuel additive, such as Toro's Stabilizer/Conditioner, is added to gasoline before storing. Toro's Stabilizer/Conditioner is a petroleum distillate based conditioner/stabilizer. Toro does not recommend stabilizers with an alcohol base, such as ethanol, methanol or isopropyl. Use fuel additive in recommended quantities as specified on container.

Under normal conditions, all fuel additives remain effective in fuel for 6-8 months.

3. Drain oil: refer to Changing Crankcase Oil, page 12. After oil is drained, do not fill crankcase with oil until the following steps (4-11) are completed.
4. Remove spark plug and pour 2 tablespoons of SAE 10W30 oil into hole in cylinder. Pull starter rope slowly to coat inside of cylinder. Install spark plug and tighten to 15 ft-lb (20 N·m). **DO NOT INSTALL WIRE ON SPARK PLUG.**
5. Clean mower housing: refer to Cleaning Mower Housing, Discharge Tunnel, And Recycler Plug, page 16.
6. Check condition of blade: refer to Inspecting/Removing/Sharpening Blade, page 14.
7. Tighten all nuts, bolts, and screws.
8. Clean dirt and chaff from cylinder, cylinder head fins, and blower housing. Also remove grass clippings, dirt, and grime from external parts of the engine, shrouding, and top of mower housing.
9. Clean air cleaner: refer to Servicing Air Cleaner, page 11.
10. Lubricate the wheels: refer to Lubrication, page 15.
11. Touch up all rusted or chipped paint surfaces. Toro Re-Kote paint is available from an Authorized TORO Service Dealer.
12. Fill crankcase with oil; refer to Fill Crankcase With Oil, page 5.
13. Store mower in a clean, dry place. Cover mower to keep it clean and protected.

OPTIONAL EQUIPMENT

For special conditions the following accessories may be purchased at your local authorized TORO Service Dealer.

1. Side Discharge Kit, Model No. 59108—Installs in seconds. Rear mounted in place of the grass bag or Recycler plug. Disperses clippings while trimming on both sides (Fig. 32).

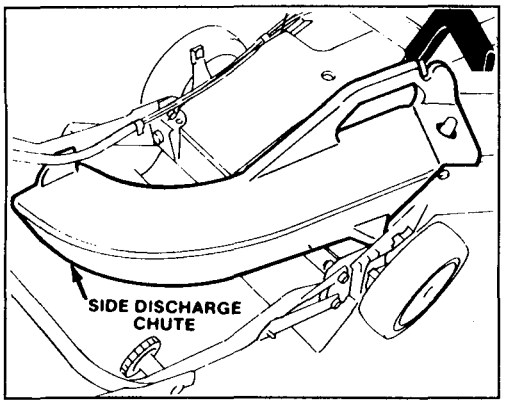


Figure 32

2. Dethatcher Kit, Model No. 59131—Installs in minutes. Front mounted for easy maneuverability. Spring tines loosen thatch for recycling or clean vacuuming into grass bag (Fig. 33).

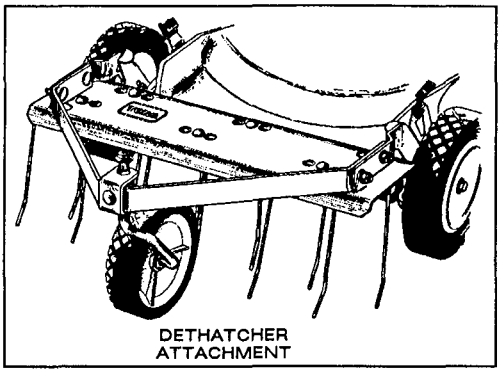


Figure 33

3. Spark Arrestor (Briggs & Stratton Part No. 396800)—If a spark arrestor is required because of local, state, or federal regulations, it may be purchased at your local Authorized Briggs & Stratton Service Dealer. If mower is operated on any California forest, brush, or grass covered land without a properly operating spark arrestor, the operator is violating state law, Section 4442 Public Resources Code.

TORO SERVICE SUPPORT

If help - concerning safety, set-up, operation, maintenance, or troubleshooting - is ever needed, contact the local Authorized TORO Service Dealer or Distributor. Refer to the "Yellow Pages" for assistance. In addition to skilled service technicians, the dealer and distributor have factory approved accessories and replacement parts. Keep your Toro all TORO. Buy genuine TORO replacement parts and accessories.

PRODUCT IDENTIFICATION

A model and a serial number decal is located at rear of mower housing, near the discharge door. Always refer to specific numbers on this decal in correspondence or when replacement parts are needed.

MAINTENANCE RECORD

Date	Hours Used	Oil Change	Air Cleaner Service	Lubrication	Spark Plug	Winter Storage

The Toro Promise

A Two Year Limited Warranty On All Gasoline Powered Consumer Products

The Toro Company promises to repair these TORO Products if defective in materials or workmanship. The following time periods from the date of purchase apply:

Residential Product ..... 2 Years
Residential Products Used Commercially ..... 45 Days
Straight Shaft Trimmers, 3 H.P. Edger, Back Pack Blowers, 5 H.P. Lawn Vac, 5 H.P. Blower Used Commercially ..... 90 Days

The cost of parts and labor are included, but the customer pays the transportation costs. Just return any residential product to an Authorized TORO Service Dealer or TORO Distributor.

Should you feel your TORO Product is defective and wish to rely on The Toro Promise, the following procedure is recommended:

1. Contact any Authorized TORO Service Dealer, TORO Master Service Dealer, or TORO Distributor (the Yellow Pages of your telephone directory is a good reference source).
2. He will either instruct you to return the product to him or recommend another Authorized TORO Service outlet which might be more convenient.
3. Bring the product along with your original sales slip, or other evidence of purchase date, to the service dealer.
4. The servicing dealer will inspect the unit, advise you whether the product is defective and, if so, make all repairs necessary to correct the defect without extra charge to you.

If for any reason you are dissatisfied with the dealer's analysis of the defect or the service performed, you may contact us.

Write: TORO Customer Service Dept.
8111 Lyndale Avenue South
Minneapolis, MN 55420

The above remedy of product defects through repair by an Authorized TORO Service Dealer is the purchaser's sole remedy for any defect.

THERE IS NO OTHER EXPRESS WARRANTY EXCEPT FOR THE TORO STARTING GUARANTEE ON GTS ENGINES. ALL IMPLIED WARRANTIES OF MERCHANTIBILITY AND FITNESS FOR USE ARE LIMITED TO THE DURATION OF THE EXPRESS WARRANTY.

Some states do not allow limitations on how long implied warranty lasts, so the above limitation may not apply to you.

This Warranty applies only to parts or components which are defective and does not cover repairs necessary due to normal wear, misuse, accidents, or lack of proper maintenance. Regular, routine maintenance of the unit to keep it in proper operating condition is the responsibility of the owner.

All warranty repairs reimbursable under The Toro Promise must be performed by an Authorized Toro Service Dealer using Toro approved replacement parts.

Repairs or attempted repairs by anyone other than an Authorized TORO Service Dealer are not reimbursable under the TORO Promise. In addition, these unauthorized repair attempts may result in additional malfunctions, the correction of which is not covered by warranty.

THE TORO COMPANY IS NOT LIABLE FOR INDIRECT OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF THE PRODUCT INCLUDING ANY COST OR EXPENSE OF PROVIDING SUBSTITUTE EQUIPMENT OR SERVICE DURING PERIODS OF MALFUNCTION OR NON-USE.

Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

COUNTRIES OTHER THAN THE UNITED STATES OR CANADA

Customers who have purchased TORO products exported from the United States or Canada should contact their TORO Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the TORO Importer. If all other remedies fail, you may contact us at The Toro Company.