



MODEL NO. 20923B – 6900001 & UP  
MODEL NO. 20929B – 6900001 & UP

## OPERATOR'S MANUAL

### 48 CM REAR BAGGER MOWER

## SAFETY INSTRUCTIONS

### TRAINING

1. Read the instructions carefully. Be familiar with the controls and the proper use of the equipment.
2. Never allow children or people unfamiliar with these instructions to use the lawnmower. Local regulations may restrict the age of the operator.
3. Never mow while people, especially children, or pets are nearby.
4. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

### PREPARATION

1. While mowing, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals.
2. Thoroughly inspect the area where the equipment is to be used and remove all objects which may be thrown by the machine.
3. **WARNING** – Petrol is highly flammable.
  - Store fuel in containers specifically designed for this purpose.
  - Refuel outdoors only and do not smoke while refuelling.
  - Add fuel before starting the engine. Never remove the cap of the fuel tank or add petrol while the engine is running or when the engine is hot.
  - If petrol is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapors have dissipated.
  - Replace all fuel tanks and container caps securely.
4. Replace faulty silencers.
5. Before using, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
6. On multi-bladed machines, take care as rotating one blade can cause other blades to rotate.

### OPERATION

1. Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
2. Mow only in daylight or in good artificial light.
3. Avoid operating the equipment in wet grass, where feasible.
4. Always be sure of your footing on slopes.
5. Walk, never run.
6. For wheeled rotary machines, mow across the face of slopes, never up and down.
7. Exercise extreme caution when changing direction on slopes.
8. Do not mow excessively steep slopes.
9. Use extreme caution when reversing or pulling the lawnmower towards you.
10. Stop the blade(s) if the lawnmower has to be tilted for transportation when crossing surfaces other than grass, and when transporting the lawnmower to and from the area to be mowed.
11. Never operate the lawnmower with defective guards or shields, or without safety devices, for example deflectors and/or grass catchers, in place.
12. Do not change the engine governor settings or overspeed the engine.
13. Disengage all blade and drive clutches before starting the engine.
14. Start the engine or switch on the motor carefully according to instructions and with feet well away from the blade(s).
15. Do not tilt the lawnmower when starting the engine or switching on the motor, except if the lawnmower has to be tilted for starting. In this case, do not tilt it more than absolutely necessary and lift only the part which is away from the operator.
16. Do not start the engine when standing in front of the discharge chute.
17. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
18. Never pick up or carry a lawnmower while the engine is running.



## SAFETY INSTRUCTIONS

**19.** Stop the engine and disconnect the spark plug wire.

- before clearing blockages or unclogging chute;
- before checking, cleaning or working on the lawnmower;
- after striking a foreign object. Inspect the lawnmower for damage and make repairs before restarting and operating the lawnmower;
- if lawnmower starts to vibrate abnormally (check immediately).

**20.** Stop the engine

- whenever you leave the lawnmower;
- before refuelling.

**21.** Reduce the throttle setting during engine shut down and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of mowing.

**22.** Go slow when using a trailing seat.

## MAINTENANCE AND STORAGE

- 1.** Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- 2.** Never store the equipment with petrol in the tank inside a building where fumes may reach an open flame or spark.
- 3.** Allow the engine to cool before storing in any enclosure.

**4.** To reduce the fire hazard, keep the engine, silencer, battery compartment and petrol storage area free of grass, leaves, or excessive grease.

**5.** Check the grass catcher frequently for wear or deterioration.

**6.** Replace worn or damaged parts for safety.

**7.** If the fuel tank has to be drained, this should be done outdoors.

## SOUND PRESSURE LEVEL

### Model 20923B

This unit has an equivalent continuous A-weighted sound pressure at the operator ear of: 84.1 dB(A), based on measurements of identical machines per ANSI B71.5-1984 procedures.

### Model 20929B

This unit has an equivalent continuous A-weighted sound pressure at the operator ear of: 81 dB(A), based on measurements of identical machines per ANSI B71.5-1984 procedures.

## SOUND POWER LEVEL

This unit has a sound power level of: 96 dB(A)/1 pW, based on measurements of identical machines per Directive 84/538/EEC and amendments.

## VIBRATION LEVEL

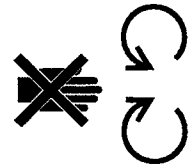
This unit has a maximum hand-arm vibration level of 6.22 m/s<sup>2</sup>, based on measurement of identical machines per ISO 5349 procedures.

# SYMBOL GLOSSARY

**Safety alert triangle—  
symbol within triangle  
indicates a hazard**



**Do not open or  
remove safety shields  
while engine is running**



**Safety alert symbol**



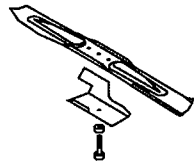
**Rotating blade can cut off  
toes or fingers. Stay clear of  
mower blade as long as  
engine is running.**



**Read operator's manual**



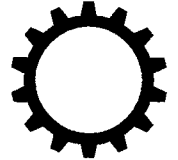
**To avoid blade failure when  
mulching, use blade stiffener  
when mower is equipped  
with mulching plug**



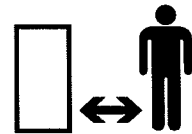
**Consult technical  
manual for proper  
service procedures**



**Transmission**



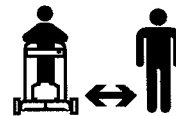
**Stay a safe distance  
from the machine**



**Oil**



**Stay a safe distance  
from the mower**



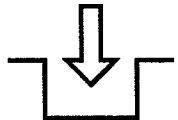
**Thrown or flying objects—  
Whole body exposure**



**On/Run**



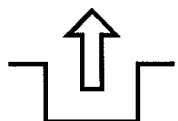
**Engage**



**Thrown or flying objects—  
Rotary side-mounted mower.  
Keep deflector shield in  
place.**



**Disengage**



**Stop engine before  
leaving operator  
position**

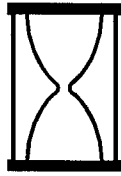


**Battery charging  
condition**



# SYMBOL GLOSSARY

Hourmeter/elapsed  
operating hours



Fast



Slow



Decreasing/increasing



Grease lubrication  
point



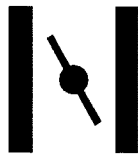
Engine start



Engine stop



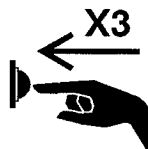
Choke



Primer (start aid)



Push primer  
three times



Fuel



Neutral

N

First gear

1

Second gear

2

Third gear

3

Cutting element—  
basic symbol



Cutting element—  
Height adjustment



Pull rope



Wheel



Wheel traction



# SYMBOL GLOSSARY

Properly dispose  
of batteries



Insert key into  
ignition switch



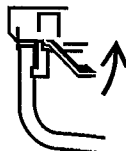
Turn key in ignition  
switch



Move control



Move control forward



Move control rearward



Lower control bar



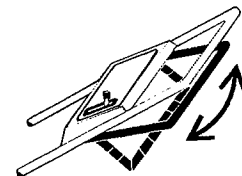
Raise control bar



Raise/lower control bar



Raise/lower control bar



Raise control bar



Raise control bar



Lower control bar



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## SET-UP INSTRUCTIONS

### INSTALL HANDLE

1. INSTALLING HANDLE—Loosen knobs on mounting brackets (Fig. 1).
2. Position mounting brackets in a vertical position so that holes face up.
3. Slide handle ends into holes in mounting brackets until handle ends are completely seated in brackets (Fig. 1). Make sure throttle cable, electric start cable and traction cable rest on top of left mounting bracket (Fig. 2).

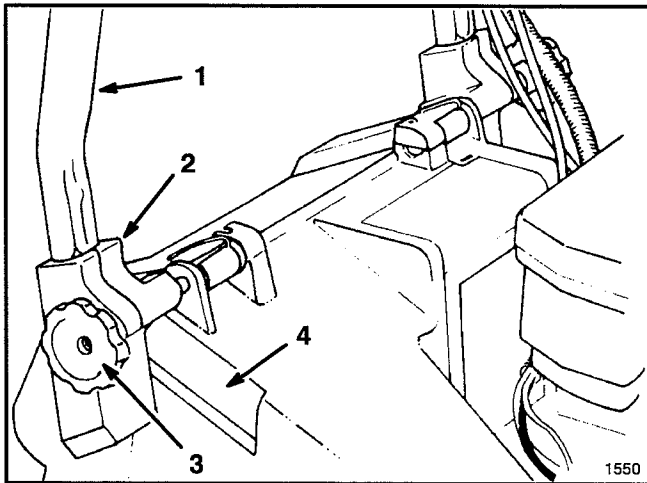


Figure 1

- |                     |                   |
|---------------------|-------------------|
| 1. Handle           | 3. Knobs          |
| 2. Mounting bracket | 4. Housing pocket |

4. Rotate handle and brackets rearward until brackets fit securely into housing pockets (Fig. 2).
5. Tighten knobs until edges of slots on top of mounting brackets touch.
6. Use cable tie to secure cable(s) to lower side of left hand tube (Fig. 3). Cable tie should be positioned 25 mm (1") from bend in handle. See Figure 3 for correct cable placement.
7. Cut excess length from end of cable tie on lower left handle.

**Note:** Make sure cable(s) do not interfere with the raising or lowering of discharge door.

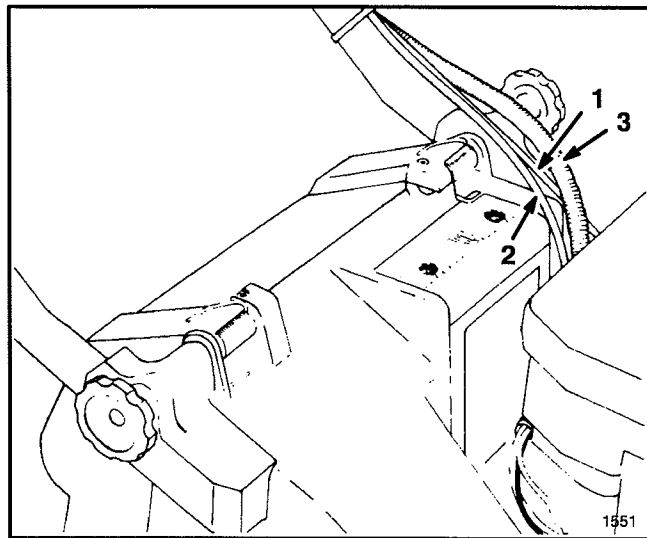


Figure 2

1. Throttle cable    2. Traction cable    3. Electric start cable

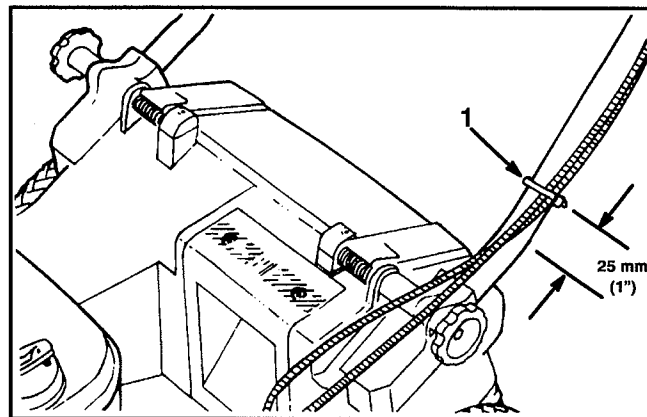


Figure 3

1. Cable tie

# SET-UP INSTRUCTIONS

## INSTALL GRASS BAG

1. Raise discharge door, slide bag ramp attached to bag into discharge opening, and hook bag frame onto rounded portion of mounting brackets (Fig. 4).

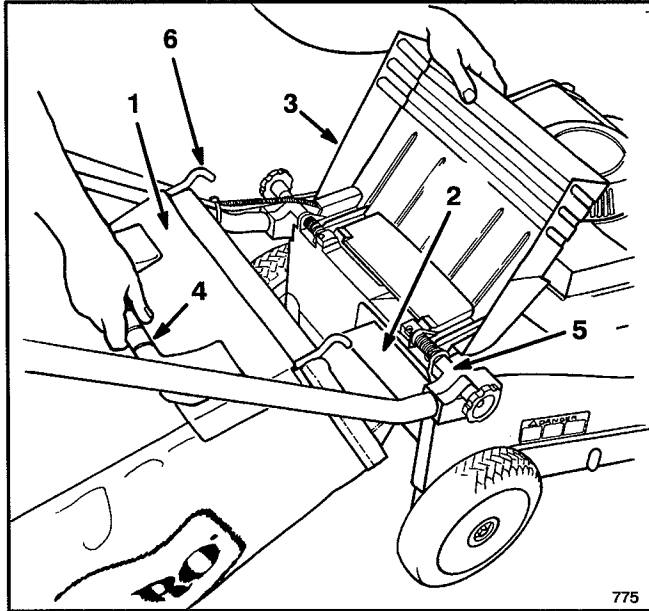


Figure 4

- |                   |                     |
|-------------------|---------------------|
| 1. Bag door       | 4. Bag handle       |
| 2. Bag ramp       | 5. Mounting bracket |
| 3. Discharge door | 6. Bag frame hook   |

**Note:** Make sure grass bag door is **fully** closed against grass bag before installing bag on mower.  
2. Allow discharge door to rest on top of bag (Fig. 5).

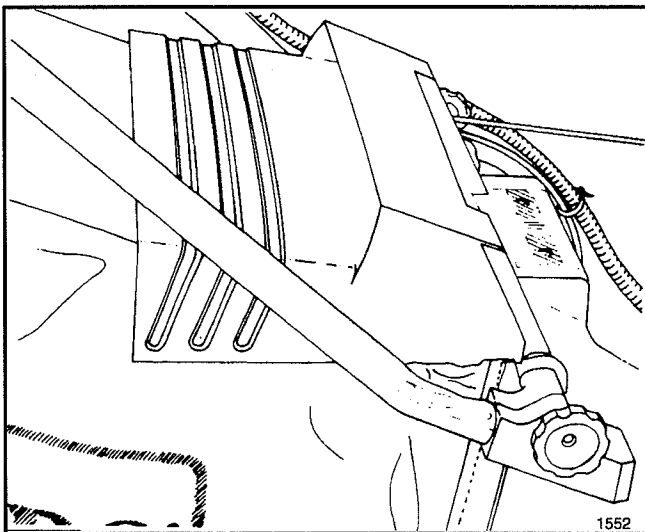


Figure 5

## INSTALL BATTERY (electric start model)

1. Refer to Charging Battery, page 11. Slide battery, decal side facing operator's position, between mounting tabs on back of control panel (Fig. 6).
2. Connect wires.

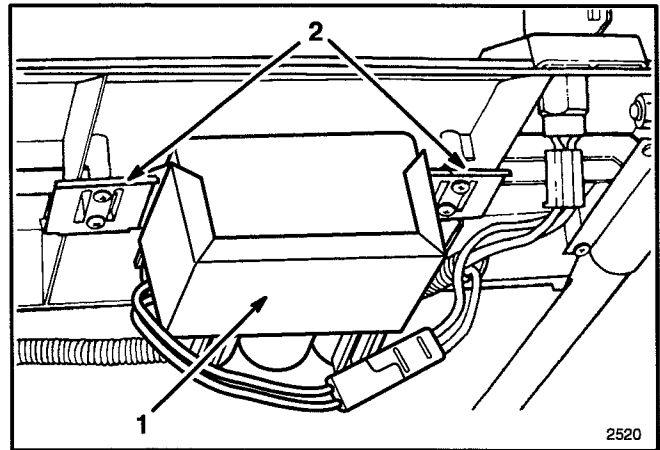


Figure 6

- |            |                 |
|------------|-----------------|
| 1. Battery | 2. Mounting tab |
|------------|-----------------|

## INSTALL STARTER ROPE

1. Pull the starter rope through the rope guide on the handle (Fig. 7). To make the rope easier to loop, squeeze the blade control bar on the handle to release the blade brake.

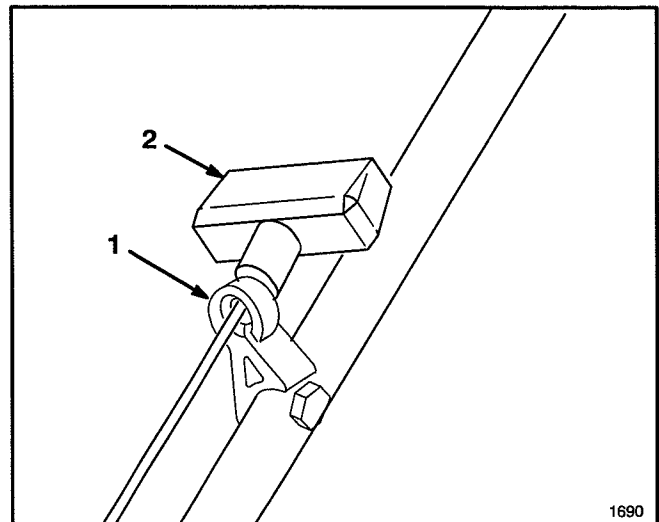


Figure 7

- |               |                 |
|---------------|-----------------|
| 1. Rope guide | 2. Starter rope |
|---------------|-----------------|

# BEFORE OPERATING

## FILL CRANKCASE WITH OIL

Fill crankcase with SAE 30 oil until oil level reaches FULL mark on dipstick as shown in Figure 8. The maximum crankcase capacity is 25 ounces (0.75 liters) of oil. Use any high quality detergent oil having the American Petroleum Institute (API) "service classification" — SF, SG or SH.

Before each use, ensure oil level is between ADD and FULL marks (Fig. 8). Add oil if level is low.

1. Position mower on level surface and clean around oil dipstick.
2. Remove dipstick by rotating cap counterclockwise 1/4 turn.

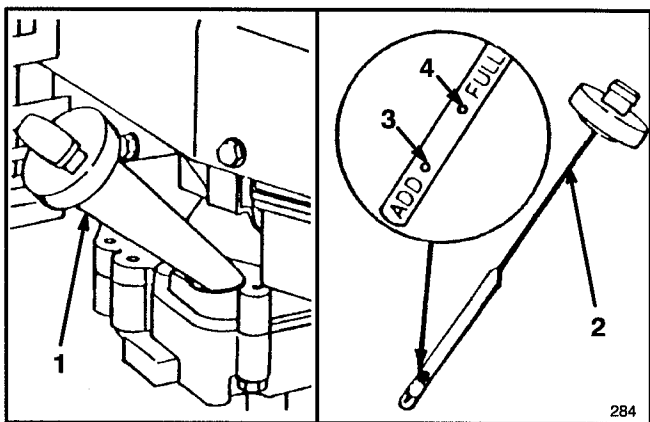


Figure 8

1. Oil fill tube 2. Dipstick 3. ADD mark 4. FULL mark

3. Wipe dipstick and insert it into filler neck. Rotate cap 1/4 turn. Then remove dipstick and check level of oil (Fig. 8). 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.**

**Note:** Check oil level each time mower is used or after every 5 hours of mower operation. 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.

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

## FILL FUEL TANK WITH GASOLINE



### 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 6 to 13 mm (1/4" to 1/2") 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.

**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.

1. Clean around fuel tank cap and remove cap from tank. Do not fill tank full. Using unleaded gasoline, fill fuel tank to within 6 to 13 mm (1/4 to 1/2 inch) from top of tank, not into the filler neck.
2. Install fuel tank cap and wipe up any spilled gasoline.

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.

**IMPORTANT:** Do not mix oil with the gasoline. Never use **methanol**, gasoline containing **methanol**, gasohol containing more than 10% ethanol, premium gasoline 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.



# OPERATING INSTRUCTIONS

## OPERATING TIPS

1. **CHECK OIL LEVEL**—Maintain oil level between ADD and FULL range as shown on dipstick (Fig. 7).
2. **CUTTING AND BAGGING**—Best results are achieved when only about 1/3 of the grass blade is cut. If long grass must be cut, use highest height-of-cut setting for first mowing. Then recut the grass at a more normal setting. If too long of grass is cut, mower may plug and cause engine to stall. When cutting in dry, dusty conditions move the throttle to a slower speed to reduce the amount of dust generated by mower.
3. **SHARP BLADE**—Begin each cutting season with a sharp blade. Periodically file down nicks.

## STARTING, STOPPING, AND SELF-PROPELLING

**CONTROLS**—Throttle, blade control bar, self-propel control bar, recoil starter and key switch (electric start model) are on upper handle (Fig. 9).

1. Push spark plug wire onto spark plug.

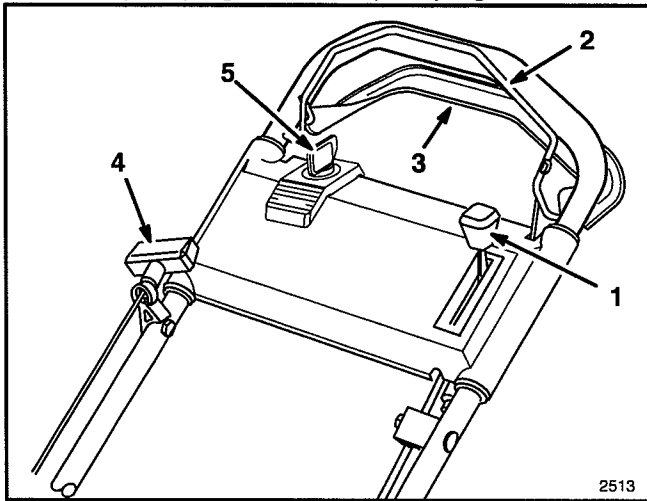




Figure 9

- |                            |                   |
|----------------------------|-------------------|
| 1. Throttle                | 4. Recoil starter |
| 2. Blade control bar       | * 5. Key switch   |
| 3. Self-propel control bar |                   |

\* electric start model

2. **KEY-ELECTRIC STARTING** (electric start model)—Move throttle forward to FAST  position. Turn key to START and release when engine begins running. Regulate engine speed as desired. If the battery's charge is too weak to start the engine, use the recoil starter.

3. **MANUAL STARTING**—Move throttle forward to FAST  position. Squeeze blade control bar against handle. Pull recoil starter out until slack in rope is taken up. Then pull vigorously to start the engine. When engine starts, regulate engine speed as desired.

4. **STOPPING**—To stop engine, release blade control bar. Remove key from switch and pull wire off spark plug if mower will be unattended or not used.

5. **WHEEL TRACTION OPERATION**—To self-propel the mower, squeeze the self-propel control bar against the handle. To stop the self-propel drive, release the self-propel control bar.

**Note:** The drive wheels are equipped with freewheeling clutches which enable the mower to be pulled rearward easier when the wheel drive is disengaged. To disengage the clutches, mower must be pushed forward at least 2.5 cm (1") after wheel drive operation has stopped.

## USING GRASS BAG

1. Stop engine and wait for all parts to stop.
2. **INSTALLING BAG**—Raise discharge door, slide bag ramp attached to bag into discharge opening, and hook bag frame onto mounting bracket (Fig. 10). Allow discharge door to rest on top of bag (Fig. 11).

**Note:** Make sure grass bag door is **fully** closed against grass bag before installing bag on mower.

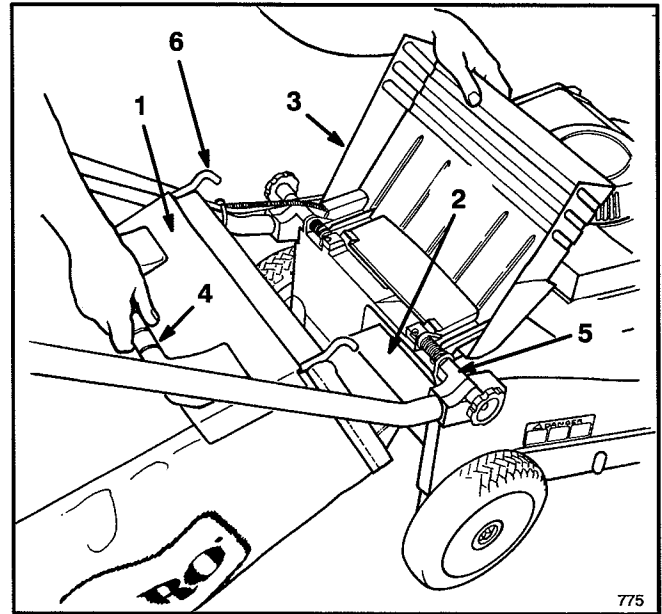


Figure 10

- |                   |                     |
|-------------------|---------------------|
| 1. Bag door       | 4. Bag handle       |
| 2. Bag ramp       | 5. Mounting bracket |
| 3. Discharge door | 6. Bag frame hook   |

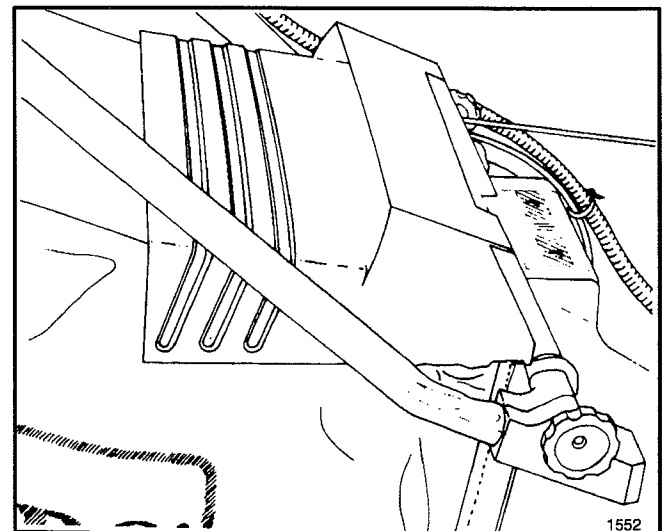


Figure 11

# OPERATING INSTRUCTIONS

**3. REMOVING BAG**—Stop engine and wait for all moving parts to stop. For protection, always keep hands and feet away from mower housing while engine is running. Raise discharge door. While holding discharge door up, grasp handle on grass bag and lift bag off mower. Allow discharge door to close.

**Note:** When removing the grass bag, the bag ramp scoops out any clippings that may be plugging the discharge opening. If the discharge opening remains plugged, pull wire off spark plug and clear all clippings from the mower.

**4. EMPTYING BAG**—Grasp bag frame handle and rear of grass bag. Tip bag door up and gradually tip bag forward to empty clippings.



## DANGER

- Grass clippings and other objects can be thrown from an open discharge tunnel.
- Objects thrown with enough force could cause serious personal injury or death to operator or bystander.
- Never open door on discharge tunnel when engine is running unless the grass bag is securely installed.



## DANGER

- A worn grass bag could allow small stones and other similar debris to be thrown in operator's or bystander's direction.
- Thrown objects can cause serious personal injury or death to operator or bystanders.
- Check the grass bag frequently. If it is damaged, install a new genuine TORO replacement bag.

## ADJUSTING HEIGHT-OF-CUT

Five letters on the belt cover represent the height-of-cut settings. All wheels automatically adjust to the same height-of-cut setting.

1. Stop the engine and pull wire off spark plug. For electric start model, remove key from switch.

2. Use one or two fingers to squeeze the height-of-cut adjustment lever (Fig. 12).

To raise the wheel height, squeeze the lever to unlock the height-of-cut adjustment lever and pull up on the mower. Release lever when desired height is found. To lower the height, squeeze the height-of-cut adjustment lever to release the lever and push down on the mower **while rolling the mower forward**. Use the pointer on the link rod to locate the correct setting.

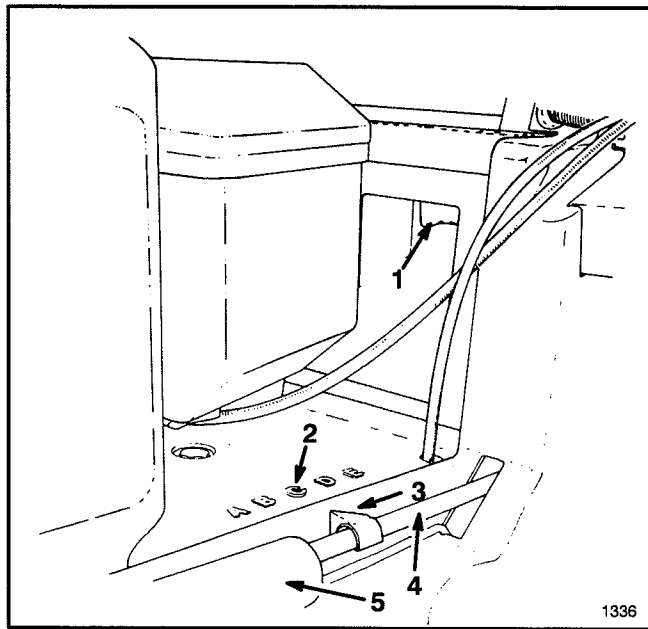


Figure 12

1. Height-of-cut adjustment lever  
2. Height settings

3. Pointer  
4. Link rod  
5. Spring cover

3. Make sure the height adjustment lever is locked into a height setting before beginning operation. The height should not change when the height-of-cut is locked.

# MAINTENANCE



## CAUTION

- Engine could start accidentally.
- Accidental starting of engine could cause serious injury to operator or bystanders.
- Pull wire off spark plug before performing any maintenance or adjustments.

## SERVICING AIR CLEANER

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

1. Stop engine and pull wire off spark plug. For electric start model, remove key from switch.

2. Rotate knob securing air cleaner cover to engine until cover can be removed. Clean cover thoroughly (Fig. 13).

3. If the foam element is dirty, remove it from air cleaner body (Fig. 13). Clean thoroughly.

# MAINTENANCE

- A. WASH foam element in a solution of liquid soap and warm water. Squeeze to remove dirt, but do not twist because foam may tear. Rinse thoroughly in clear water.
- B. DRY by wrapping in a clean rag. Squeeze rag and foam element to dry.

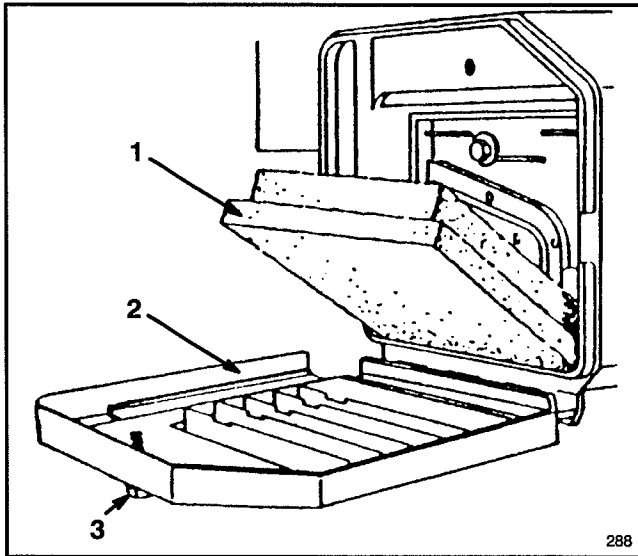


Figure 13

1. Foam element      2. Cover      3. Knob

- C. SATURATE element with 150 ml (5 ounces) of SAE 30 engine oil. Squeeze element to remove excess oil and to distribute oil thoroughly. A damp element is desirable.

4. Reinstall foam element and air cleaner cover.

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

## REPLACING SPARK PLUG

Use a CHAMPION RC12YC spark plug or equivalent. Correct air gap is 0.76 mm (0.030"). Remove plug after every 25 operating hours and check its condition.

1. Stop engine and wait for it to cool. Pull wire off spark plug. For electric start model, remove key from switch.

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 0.76 mm (0.030") (Fig. 14). Install correctly gapped spark plug and gasket seal. Tighten plug firmly to 19 N·m (14 ft-lb).

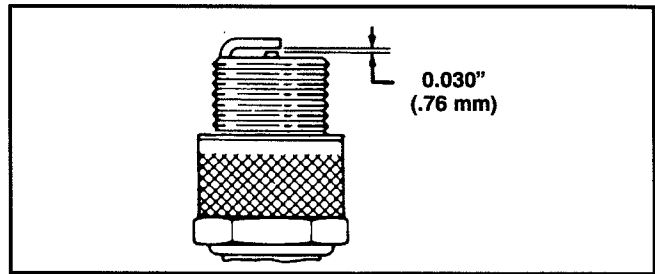


Figure 14

## DRAINING GASOLINE

1. Stop engine and wait for engine to cool. Pull wire off spark plug. For electric start model, remove key from switch.

**Note:** Drain gasoline from a cold engine only.

2. Remove cap from fuel tank and use pump-type syphon to drain fuel into clean gas can.

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

## 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 several minutes before draining oil.

1. Stop engine and pull wire off spark plug. For electric start model, remove key from switch.

2. Lift discharge door and remove grass bag. Drain gasoline from fuel tank: refer to Draining Gasoline, page 11.

3. Remove dipstick from oil fill tube and place a drain pan next to left side of mower.

4. Tip mower on its left side, allowing oil to drain into drain pan (Fig. 15).

5. When oil is drained, return mower to upright position and add fresh oil to engine. Refer to Fill Crankcase With Oil, page 8.

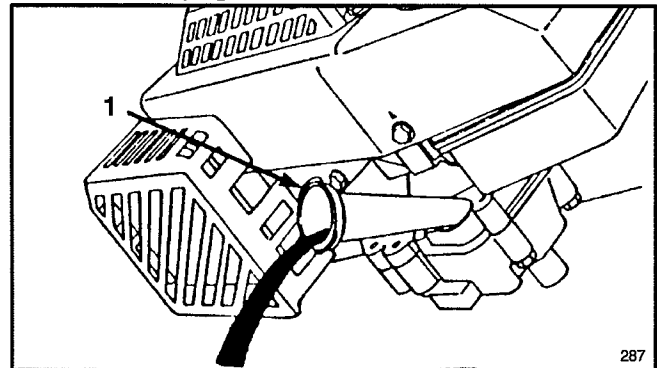


Figure 15


1. Oil fill tube

## ADJUSTING THROTTLE

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

1. Stop engine and pull wire off spark plug. For electric start model, remove key from switch.

# MAINTENANCE

2. Move throttle control to FAST  position.
3. Loosen cable clamp screw until throttle cable slides (Fig. 16).
4. Move throttle cable left or right until holes in throttle lever and throttle bracket align (Fig. 16).
5. Pull throttle cable slightly to remove any slack and tighten cable clamp screw to lock adjustment in place.

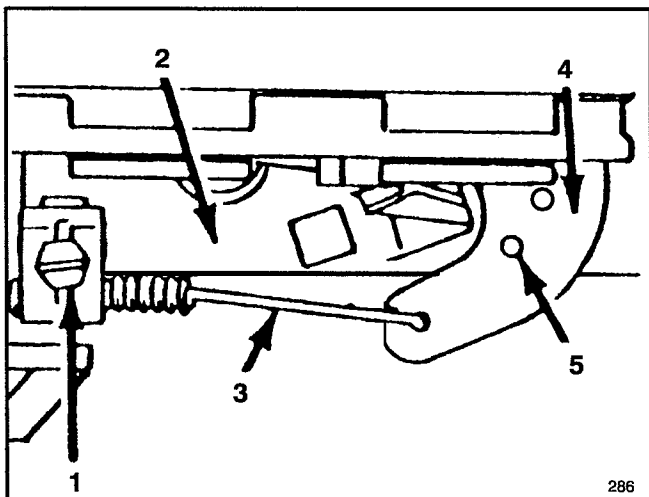


Figure 16

- |                      |                   |
|----------------------|-------------------|
| 1. Cable clamp screw | 4. Throttle lever |
| 2. Throttle bracket  | 5. Aligned holes  |
| 3. Throttle cable    |                   |

## ADJUSTING WHEEL TRACTION DRIVE

If mower does not self-propel or self-propels when control bar is released, adjust wheel drive control knob under control panel (Fig. 17).

1. Start the mower.

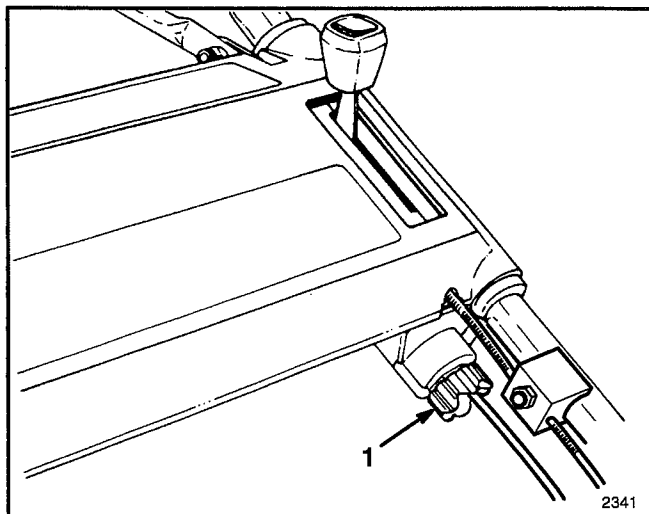


Figure 17

1. Wheel drive control knob

2. To adjust traction, hold self-propelled control bar (Fig. 9) against handle and rotate adjustment knob clockwise or counterclockwise until rear drive wheels begin to turn, then rotate adjustment knob approximately 1/2 turn counterclockwise.

If drive wheels lose traction while mowing inclines, rotate adjustment knob counterclockwise until rear wheels drive.

3. If loss of traction or improper engagement still occurs after readjustment, repeat step 2 until properly adjusted.

## ADJUSTING BRAKE CABLE

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

1. Stop engine. Pull wire off spark plug.
2. CHECK ADJUSTMENT (Fig. 18) – Move the blade control bar toward the handle until the slack in the wire is removed. The gap between the blade control bar and the handle must be 1/8".

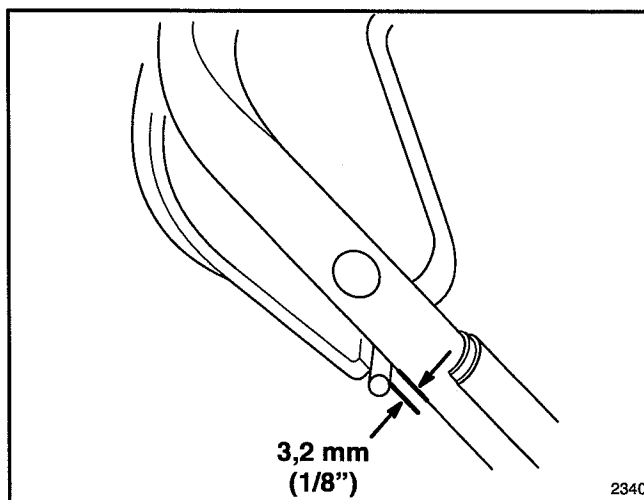


Figure 18

3. ADJUST CABLE (Fig. 19) – Loosen the nut on the cable bracket. Insert a 1/8" object between the brake control bar and handle. Pull down on the cable conduit until all slack is removed from the wire. Then tighten the nut on cable bracket.

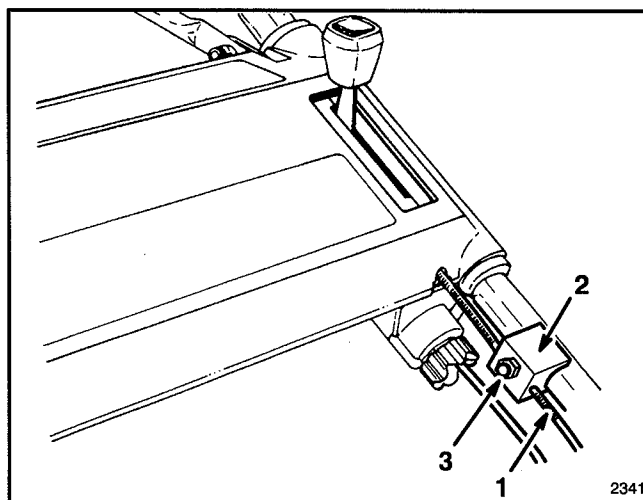


Figure 19

- |                  |        |
|------------------|--------|
| 1. Cable conduit | 3. Nut |
| 2. Cable bracket |        |

# MAINTENANCE

## INSPECTING/REMOVING/SHARPENING BLADE

1. Stop engine and pull wire off spark plug. For electric start model, remove key from switch.
2. Drain gasoline from fuel tank; refer to Draining Gasoline, page 11.
3. Tip mower on its left side (Fig. 20). Avoid rotating blade as starting problems may result.

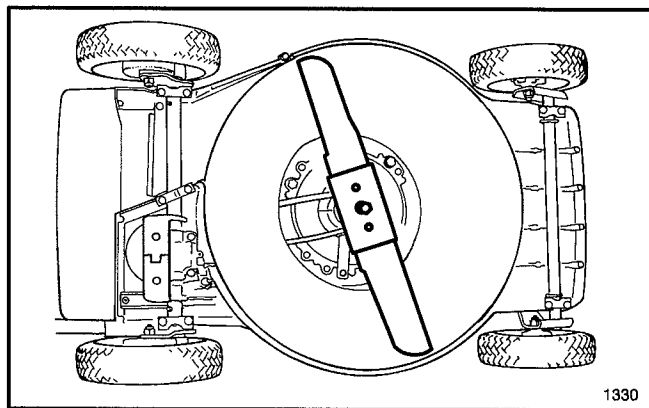


Figure 20

4. INSPECTING BLADE—Carefully examine blade for sharpness and wear, especially where flat and curved parts meet (Fig. 21A). 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. 21B & C), replace blade with a new TORO blade. Refer to step 5.

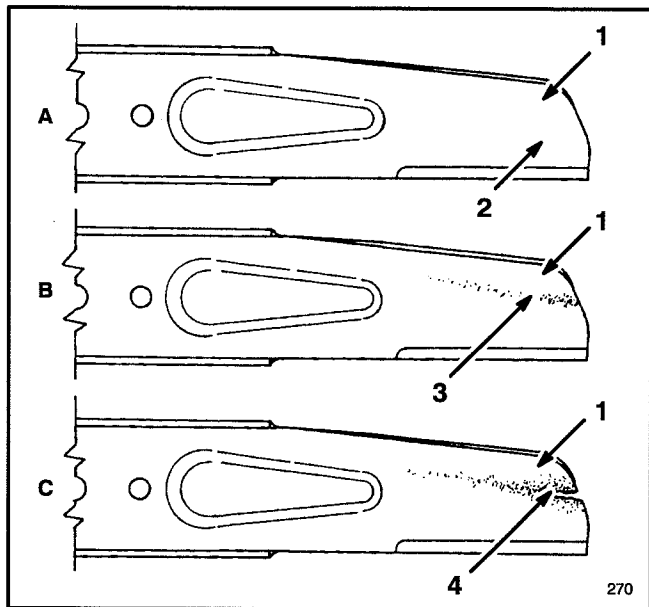


Figure 21

- |                       |                |
|-----------------------|----------------|
| 1. Sail               | 3. Wear        |
| 2. Flat part of blade | 4. Slot formed |

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

5. REMOVING BLADE—Grasp end of blade using a rag or thickly padded glove. Remove blade bolt, lock washer, blade and blade stiffener (Fig. 22).



## DANGER

- A worn or damaged blade could break and a piece of blade could be thrown into operator's or bystander's area.
- A thrown piece of blade could cause serious personal injury or death to operator or bystanders.
- Inspect blade periodically for wear or damage.
- Replace a worn or damaged blade.

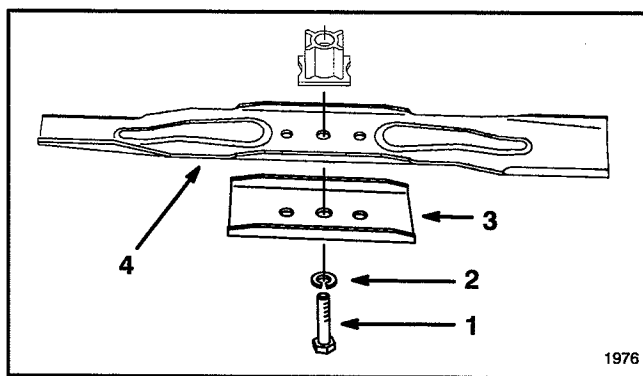


Figure 22

- |               |                    |
|---------------|--------------------|
| 1. Blade bolt | 3. Blade stiffener |
| 2. Lockwasher | 4. Blade           |

6. SHARPENING BLADE—Using a file, sharpen top side of blade (side facing top of mower housing) and maintain original cutting angle (Fig. 23). The blade remains balanced if the same amount of material is removed from both cutting edges.

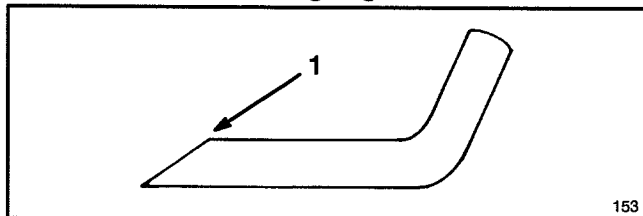


Figure 23

1. Sharpen at this angle only

**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 TORO blade, blade stiffener, lock washer, and blade bolt. Sail part of blade must point toward top of mower housing to assure correct installation. Tighten blade bolt to 68 N·m (50 ft·lb).

# MAINTENANCE

## LUBRICATION

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

1. Apply one to two drops of light oil on inside and outside of all wheel bolts. Spin wheels to distribute oil into bushings. Wipe up excess oil.

2. Tip the mower on its left side. Wipe grease fittings with clean rag (Fig. 24). Install grease gun onto fitting and gently apply one or two pumps of #2 Multi-Purpose Lithium Base Grease.

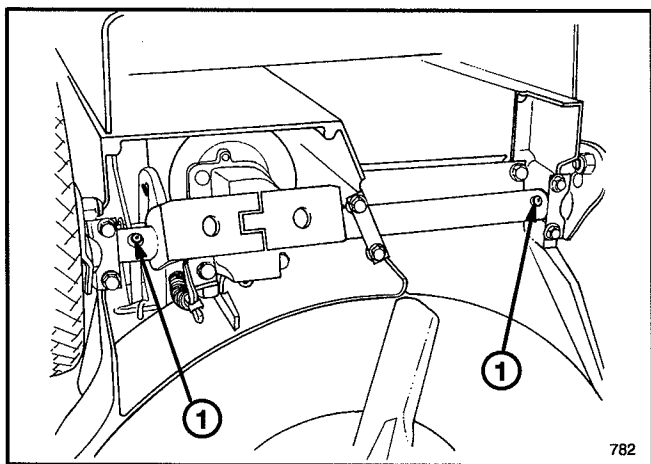


Figure 24

1. Grease fitting (self-propelled model)

## CHARGING BATTERY (electric start model)

Although a new battery is not fully charged, a partial charge of 4 hours provides enough energy for several starts. However, a new battery must be charged for 72 continuous hours to assure full charge. Also charge battery for 72 hours when mower is stored and in the spring. During normal operation, charge battery for 48 hours once every month or as needed.

1. Stop engine and disconnect wire harness from battery terminal (Fig. 25).

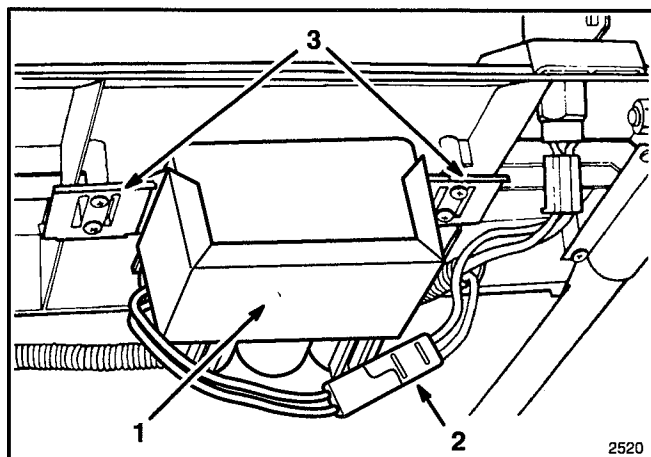


Figure 25

1. Battery      2. Wire harness      3. Mounting tabs

2. If desired, battery can be removed by sliding it out of mounting tabs. However, removal is not required if mower can be positioned near an electrical outlet.

3. Connect TORO electro charger to battery and plug into 220VAC power outlet. After charging battery for 72 hours, unplug charger and disconnect from battery.

4. Connect wiring harness to battery terminal.

**IMPORTANT:** Only the TORO electro charger is recommended because other chargers could damage the battery. Always use charger indoors and charge battery at room temperature (22°C or +70°F) whenever possible. Do not charge battery longer than 72 hours because damage could result.

## REPLACING FUSE (electric start model)

The electrical system charging circuit is protected by a fuse. If the battery does not stay charged, the fuse may be blown. Use a 5-amp AGC-5 fuse.

1. Push the two fuse holder sections together. Rotate the fuse holder cap to open the fuse holder (Fig. 26).

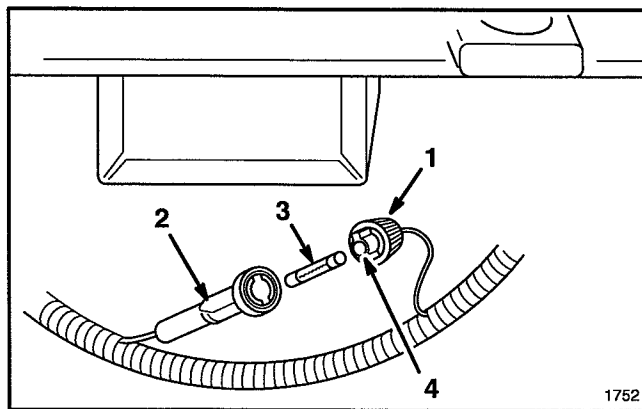


Figure 26

1. Fuse holder cap      3. Fuse  
2. Fuse holder bottom      4. Tab (2)

2. Remove fuse and discard.

3. Install new fuse.

4. Line up tabs on fuse holder cap with fuse holder bottom and push sections together. Rotate cap to close fuse holder.

## CLEANING MOWER HOUSING

To assure best performance, keep underside of mower housing and inside of discharge area clean.

1. Stop engine and pull wire off spark plug. For electric start model, remove key from switch.

2. Drain gasoline from fuel tank: refer to Draining Gasoline, page 11.

3. Tip mower on its left side (Fig. 27). Avoid rotating blade because starting problems may result.

4. Remove dirt and grass clippings that stick to housing by spraying it with a garden hose. Scrape out remaining debris with hardwood scraper. Avoid burrs and sharp edges.

5. Clean discharge door and hinges of grass or debris that may impair operation of door.

# MAINTENANCE

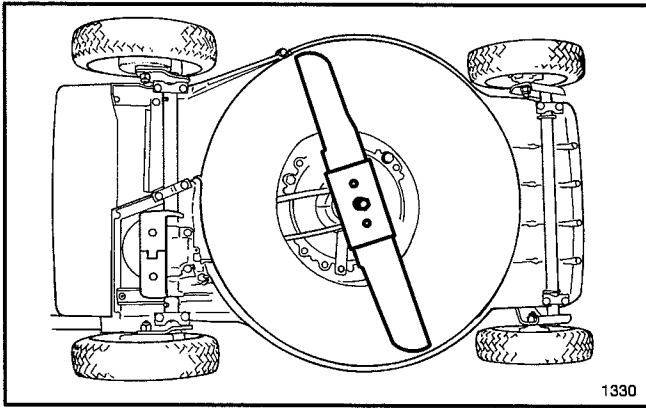


Figure 27

## PREPARING MOWER FOR STORAGE

1. For long term storage, it is recommended that gasoline be drained from fuel tank or use a fuel additive before storing. To drain gasoline, refer to Draining Gasoline, page 11. After fuel is drained, start engine and let it idle until all fuel is consumed and engine stops. If gasoline is not drained, gum-like varnish deposits will form and cause poor engine operation or 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 and run through engine 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, fuel additives remain effective in fuel for 6-8 months.

2. Drain oil: refer to Changing Crankcase Oil, page 11. After oil is drained, do not fill crankcase with oil until the following steps (3–10) are completed.

3. Remove spark plug and pour 30 ml (2 table-spoons) of SAE 30 oil into hole in cylinder. Pull starter rope slowly to coat inside of cylinder. Install spark plug and tighten to 14 ft-lb (19 N-m). **DO NOT INSTALL WIRE ON SPARK PLUG.**

4. Clean mower housing; refer to Cleaning Mower Housing, page 14.

5. Check condition of blade; refer to Inspecting/Removing/Sharpening Blade, page 13.

6. Tighten all nuts, bolts, and screws.

7. Clean dirt, chaff, grass clippings, and grime from external parts of the engine, shrouding, and top of mower housing.

8. Clean air cleaner; refer to Servicing Air Cleaner, page 10.

9. Lubricate the wheels; refer to Lubrication, page 14.

10. Touch up all rusted or chipped paint surfaces. Toro Re-Kote paint is available from an Authorized TORO Service Dealer.

11. Fill crankcase with oil; refer to Fill Crankcase With Oil, page 8.

12. Charge battery for 72 hours; refer to Charging Battery, page 14.

13. Store mower in a clean, dry place. Cover mower to keep it clean and protected.

## PRODUCT IDENTIFICATION

A model and a serial number decal is located on right side of mower housing ahead of discharge tunnel. Always refer to specific numbers on this decal in correspondence or when replacement parts are needed.

## 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. 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.

# THE TORO STARTING GUARANTEE

## *A Five Year Limited Warranty On The Toro GTS 150 OHV Engine*

### **What Is Covered?**

The Toro Company guarantees that your TORO GTS 150 Engine will start on the first or second pull for five years from the date of purchase—if you provide the routine maintenance it requires—or we will fix it. The cost of parts and labor are included, but you must pay transportation costs. This covers TORO GTS 150 engines purchased after September 1, 1991.

### **What Must You Do To Keep The Warranty In Effect?**

You must maintain your TORO GTS 150 Engine by following the maintenance schedule detailed in the Operator's Manual, at your expense. You must record this work in the maintenance chart provided and keep your proof of purchase. You will also need to have your TORO GTS 150 engine serviced annually by an Authorized TORO Service Dealer.

### **How Do You Get Service?**

If the starting performance of your TORO GTS 150 Engine should diminish to the point where it will not start in one or two pulls by a normal, able-bodied adult, you should follow the procedures below:

1. Contact any Authorized TORO Service Dealer or the TORO Distributor.
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. Take the product, your maintenance records, and proof of purchase to the Service Dealer.

If, for any reason, you are dissatisfied with the Dealer's analysis of your engine's starting condition, or the assistance provided, please contact your TORO distributor:

### **What Does This Warranty Not Cover?**

This Warranty does not cover:

1. Any repairs on products used commercially.
2. Normal maintenance including replacement of spark plugs, air filter, fuel filter, and carburetor adjustments.
3. Oil change and lubrication.
4. Repairs or adjustments due to:
  - a. Failure to follow proper maintenance procedures;
  - b. Rotary mower blade striking an object;
  - c. Contaminants in the fuel system;
  - d. Improper fuel or fuel mixture (consult your owner's manual if in doubt);
  - e. Failure to follow the proper storage procedures as specified in the Operator's Manual;
  - f. Operation misuse, neglect or accidents;
  - g. Repairs or attempted repairs by anyone other than an Authorized TORO Service Dealer.
5. Special operational conditions where starting may require more than two pulls, including:
  - a. First time starts after extended period of non-use or seasonal storage;
  - b. Cool temperature starts such as those found in early spring and late autumn may require an additional pull or two (applies to rotary products only);
  - c. Improper starting procedures. If you are having difficulty starting your unit, please check the operator's manual to ensure you are using the correct starting procedures. This can save an unnecessary visit to a Service Dealer.

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

The above remedy through repair by an Authorized TORO Service Dealer is the purchaser's sole remedy.









