FORM NO. 3320-135 Rev. A

TORO®

MODEL NO. 20715-9000001
THRU 0000001 & UP

MODEL NO. 20778-9000001
THRU 0000001 & UP

OPERATOR'S MANUAL

21 (0.533 m) REAR BAGGER

SELF-PROPELLED, FINGERTIP & KEY-LECTRIC® START



ENGLISH

FOREWORD

The Rear Bagger, the most innovative walk power mower, provides a new degree of mowing efficiency and convenience. If the mower is set up, operated and maintained properly, it will give long, dependable service.

To familiarize yourself with safety, set-up, operating and maintenance instructions, read this manual thoroughly. The major sections of this manual are:

1. Set-up Instructions
2. Before Operating
3. Controls
4. Operating Instructions
5. Maintenance
6. Trouble Shooting

Safety, mechanical, and some general information in this manual is emphasized. DANGER, WARNING, and CAUTION identify the safety messages. Whenever the safety symbol appears, it is followed by a safety message; therefore, refer to the safety instructions attached to your mower for complete details. IMPORTANT identifies special mechanical information and NOTE identifies general information worthy of special attention.

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IDENTIFICATION AND ORDERING

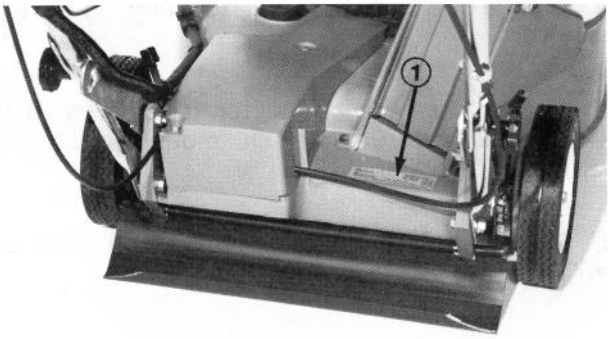
MODEL AND SERIAL NUMBERS

Rear Bagger has two identification numbers: a model number and a serial number. The two numbers are stamped into a decal located at rear of the mower housing, near the discharge door. In any correspondence concerning the mower, supply model and serial numbers to assure correct information and replacement parts are obtained.

To order replacement parts from an Authorized TORO Service Dealer, supply the following information:

1. Model and serial number of the mower.

Note: Do not order by reference number if a parts catalog is being used; use the PART NUMBER.



1. Model and serial number decal

LOOSE PARTS

PART	QTY	WHERE USED
Bag	1	Assemble to mower.
Battery and Charger (Key-Lectric)	1	Install battery and connect wire, page 4.
Starter Rope (Key-Lectric)	1	
Key (Key-Lectric)	2	
Operator's Manual	1	Read manual before operating mower.

SET-UP INSTRUCTIONS

INSTALL HANDLE

1. Lift upper handle and align with lower handle.

2. Loosen and remove each knob and curved head handle bolt, one side at a time. Assure control cables are to rear and inside of handles (Fig. 2). Align handle latch hole with holes in upper and lower handle, and install handle bolt and knob with knobs on the outside of handle (Fig. 2).

3. Adjust handle height if desired.



Figure 1

1. Upper handle
2. Bag assembly
3. Knob
4. Lower handle
5. Handle latch

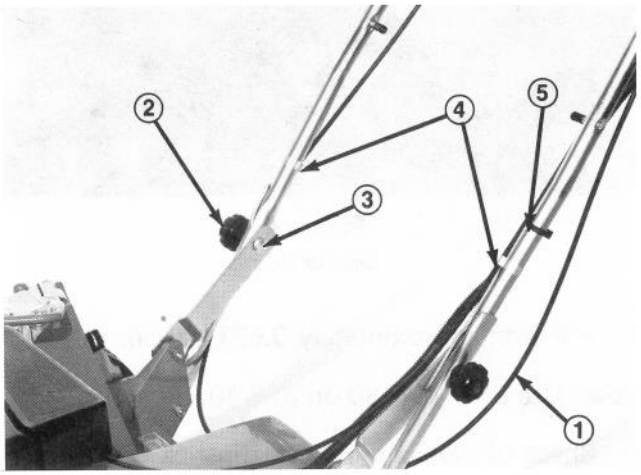


Figure 2

1. Control cables
2. Knob
3. Carriage bolt
4. Cable clips
5. Cable tie

SET-UP INSTRUCTIONS

INSTALL BATTERY AND CONNECT WIRES (Key-Lectric)

1. Charge the battery: refer to Charging Battery, page 14.

2. Hold battery so connector terminal is to the left. Slide battery between mounting slots on back of control panel (Fig. 3).

3. Push wiring harness connector onto battery terminal (Fig. 3).

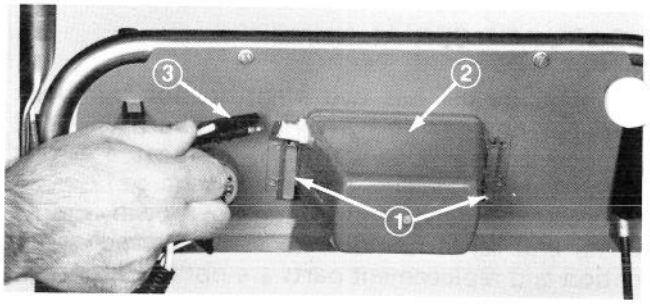


Figure 3
1. *Slots*
2. *Battery*
3. *Wiring harness connector*

BEFORE OPERATING

FILL CRANKCASE WITH OIL

Before engine is started for the first time, fill crankcase with oil.

1. Position mower on level surface.

2. Remove dipstick (Fig. 4).



Figure 4
1. *Dipstick location*

3. Fill with approximately 0.621 l of oil.

Note: Use SAE 10W-30 or 10W-40.

4. Check oil level and replace dipstick (Fig. 5).

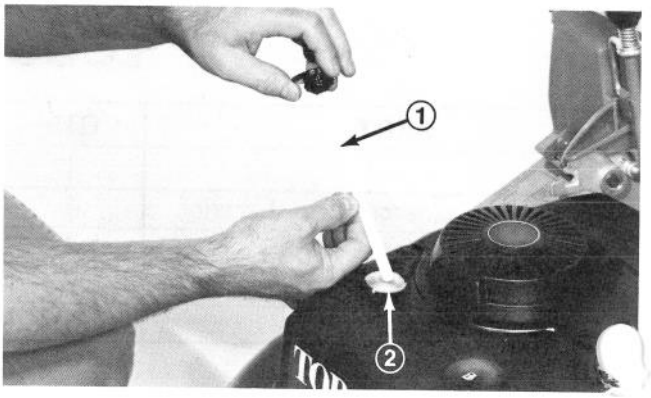


Figure 5
1. *Dipstick*
2. *Filler hole*

FILL FUEL TANK WITH PETROL

1. Remove cap from fuel tank (Fig. 6).

2. Fill fuel tank with regular petrol. Replace fuel tank cap.

3. Wipe up spilled petrol.

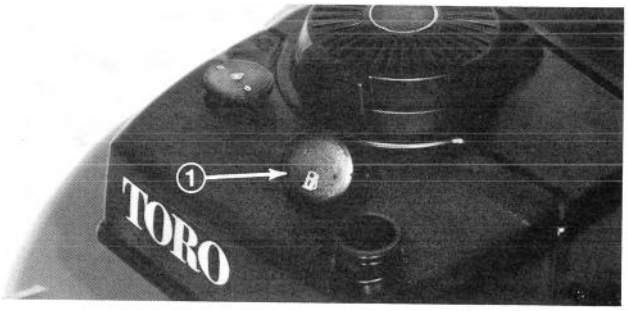


Figure 6
1. *Fuel tank cap*

CONTROLS

Throttle Control — The throttle control is used to stop the engine and control blade speed. Moving the throttle forward increases engine speed and moving it backwards decreases engine speed (Fig. 7).

Ground Speed Control (Fig. 7) — The ground speed control has four positions: NEUTRAL (N), LOW (1), MEDIUM (2) and HIGH (3). Positioning lever in different gear settings changes ground speeds of mower.

Traction Control Handle (Fig. 7) — The traction control handle engages and disengages the ground speed control unit. With engine running and ground speed control in gear, traction is accomplished by moving the handle forward. Variable speeds are available depending on gear selection and position of the traction control handle.

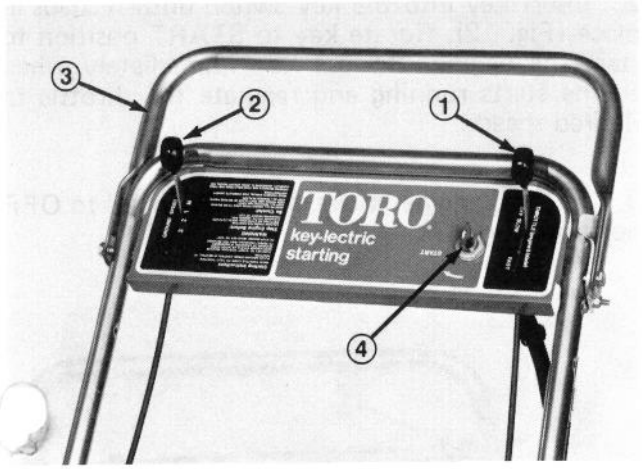


Figure 7

1. *Throttle control*
2. *Ground speed control*
3. *Traction control handle*
4. *Key switch (Key-Lectric)*

Key Switch (Key-Lectric) (Fig. 7) — The key switch is used to start the engine.

Recoil Starter (Fingertip Start) (Fig. 8) — Pull fingertip starter to start the engine.



Figure 8

1. *Recoil starter*

Height-of-Cut Adjusters (Fig. 9) — The height-of-cut adjuster controls the height of the mower for cutting.

OPERATING INSTRUCTIONS

ADJUST HEIGHT-OF-CUT

The height-of-cut is adjustable from approximately 25 mm to 76 mm, in 13 mm increments, and letters cast into the housing represent each graduated increment (Fig. 9).

A = 25 mm
B = 38 mm
C = 51 mm
D = 64 mm
E = 76 mm

1. ⚠ Assure engine is not running.

2. Place thumb against height-of-cut adjuster and fingers on outside of wheel (Fig. 9).

3. Raise mower housing until wheel is off the ground. Squeeze height-of-cut adjuster toward wheel so its locating pin disengages notch in mower housing. Then pivot the wheel and adjuster to the desired height-of-cut and release adjuster so locating pin engages notch in housing.

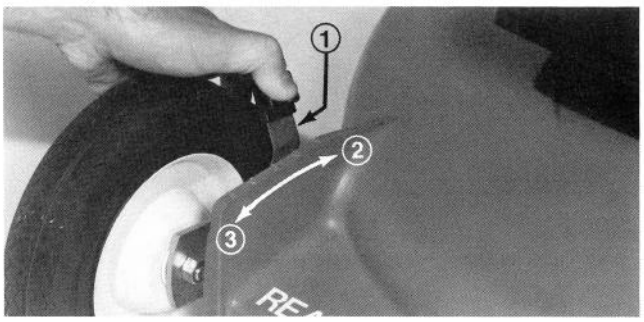


Figure 9

1. *Height-of-cut adjuster*
2. *Low*
3. *High*

4. To adjust to 13 mm setting on front wheels, rotate height-of-cut adjuster rearward past "A" until pin engages hole in housing.

OPERATING INSTRUCTIONS

STARTING/STOPPING THE ENGINE (Fingertip Start)

1. Move throttle control forward to FAST position (Fig. 10) and the ground speed control to the N (NEUTRAL) position.

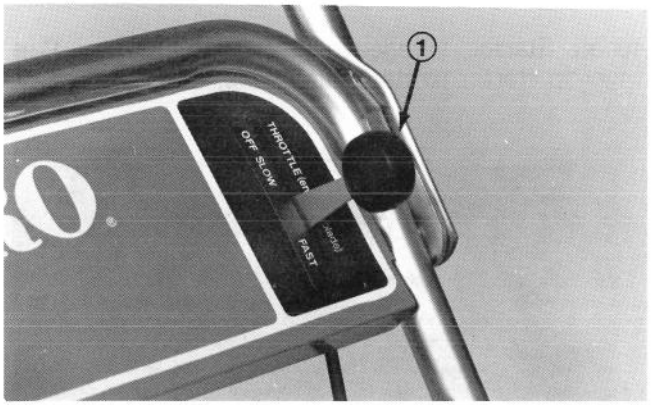


Figure 10

1. Position throttle control

2. Place foot on step at left side of mower housing (Fig. 11). Pull fingertip starter handle up until positive engagement results; then pull vigorously to start the engine.



Figure 11

1. Recoil starter

3. After the engine starts, move throttle control to desired speed.

4. To stop engine, move throttle control to OFF position.

STARTING/STOPPING THE ENGINE (Key-Lectric)

1. Move throttle control forward to FAST position and ground speed control to N (NEUTRAL) (Fig. 12).

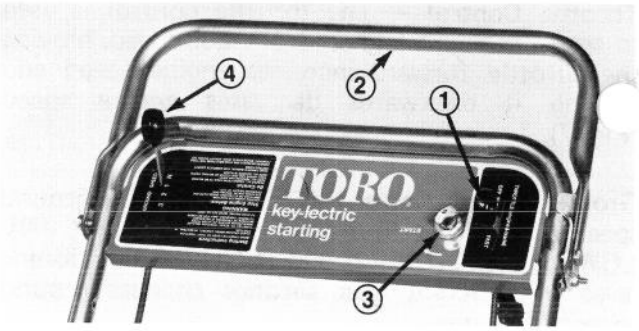


Figure 12

1. Throttle control
2. Traction control
3. Key switch
4. Speed selector in N (NEUTRAL)

2. Insert key into the key switch until it snaps in place (Fig. 12). Rotate key to START position to start the engine. Release key immediately when engine starts running and regulate the throttle to desired speed.

3. To stop engine, move throttle control to OFF position (Fig. 13).



Figure 13

1. Throttle control

AUXILIARY STARTING METHOD (Key-Lectric)

If battery – because of low charge – does not have enough power to activate the starter and start the engine, check electrical connections for proper contact. The engine can be started, however, although battery is not charged, by using the auxiliary starting pulley.

1. Move traction control to DISENGAGED position, speed selector to N (NEUTRAL) and throttle control to FAST position.

2. Push against back of hinged cover while lifting up on front of cover (Fig. 14) to gain access to the auxiliary starting pulley on top of engine.

OPERATING INSTRUCTIONS

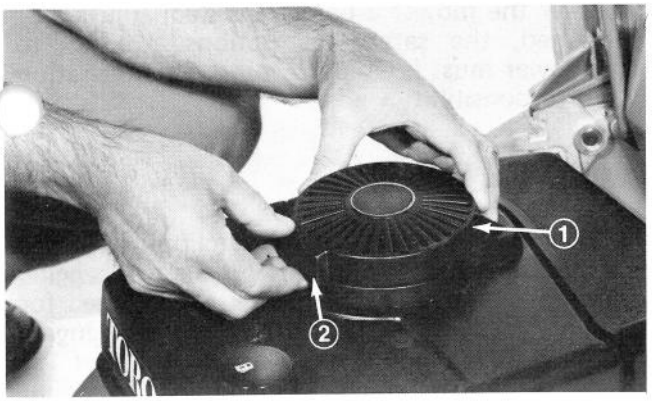


Figure 14
1. Back
2. Front

3. Insert knot at end of starter rope into slot in auxiliary starting pulley and wind rope clockwise around the pulley (Fig. 15).

4. Place foot on step at left side of mower housing. Pull starter rope out slowly until positive engagement results, and pull rope quickly to start the engine.

5. After engine starts, CLOSE HINGED COVER TIGHTLY (Fig. 15).

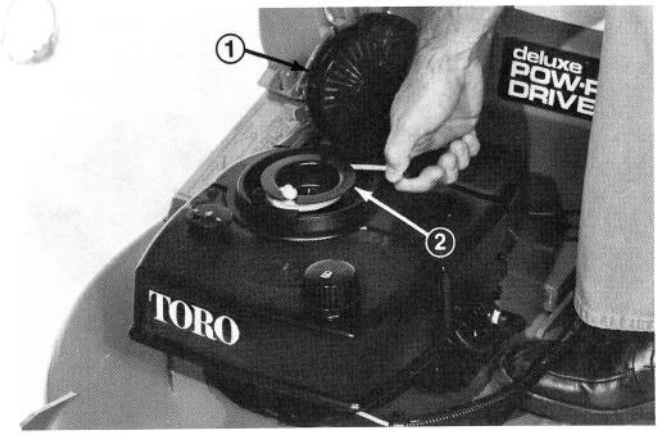


Figure 15
1. Hinged cover
2. Pulley

TRACTION SYSTEM OPERATION

Operate the Rear Bagger traction control system in the following manner:

1. Start the engine.

2. Shift the ground speed control lever to the desired ground speed selection (Fig. 16).

3. Move the traction control handle forward to achieve traction operation (Fig. 17). Mower ground speed, dependent upon speed allowed by gear selection, will increase as traction handle is pushed



Figure 16
1. Ground speed control



Figure 17
1. Traction control

forward. To stop traction operation, move the traction control handle rearward to the DISENGAGE position. To move mower in reverse direction, pull back on the traction control handle.

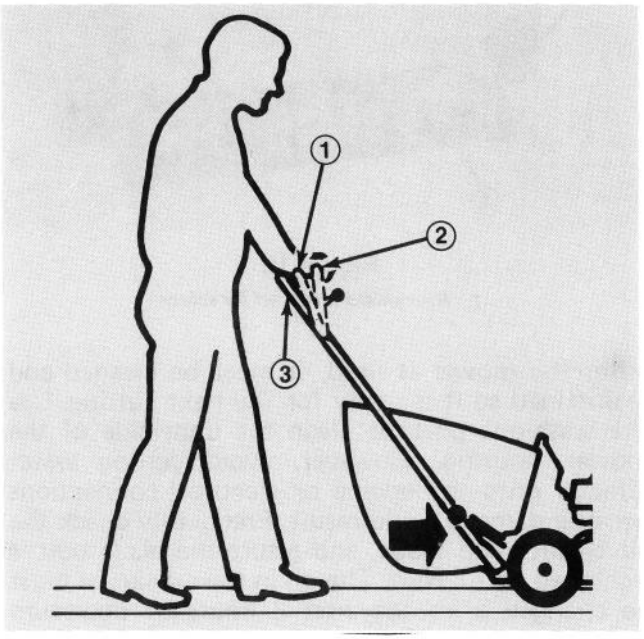


Figure 18
1. Variable ground speeds
2. Full ground speed
3. Disengage

OPERATING INSTRUCTIONS

OPERATING CHARACTERISTICS AND TIPS

The Rear Bagger has a 164 cc engine that delivers the blade turning force necessary to produce a good quality of cut.

The mower can be used with or without the grass bag: refer to Bagging, page 8 and Mowing Without the Bag, page 9.

To use the mower for bagging grass, install the bag, open the chute door in mower housing and start the engine. Notice that the grass bag expands at the sides and top. This expansion by the bag is caused by the air currents, generated by the blade, flowing through the bag. As grass is cut and discharged into the 0.088 m^3 bag, the air currents through the bag decrease gradually as it is being filled. While the bag is expanded, grass can be cut. Stop the engine and empty the bag when expansion of the bag has discontinued.

The mower is equipped with a rear shield (Fig. 19) which helps protect from objects that might be thrown rearward and from possible contact with the blade. Because of its flexible design, maneuverability of the mower is unaffected. Never remove the rear shield because it is a safety device, designed for your protection. If the shield is ever damaged, replace it before operating the mower.

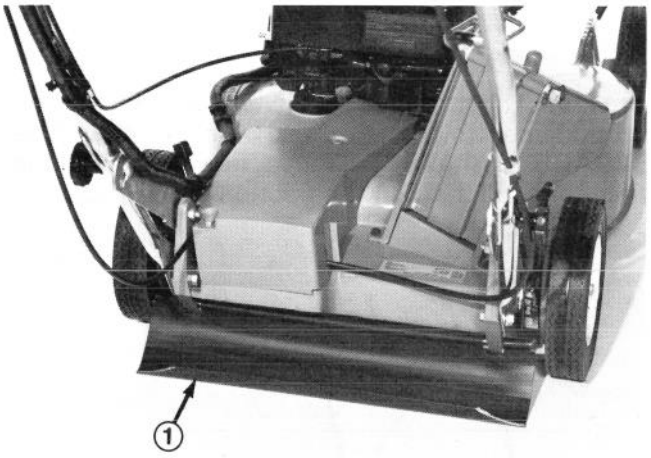


Figure 19

1. Rear shield mounted for safety

After the mower is used, it must be cleaned and maintained so it is ready for the next cutting. Use the wash-out port to clean the underside of the mower housing. However, avoid getting water directly onto the engine or electrical connections because damage could result. Frequently check the air cleaner and blade, and assure the blade bolt is tightened to 68 N·m. The oil in the crankcase must be changed after the first 2 hours of operation and after every 25 hours thereafter. Assure level of oil is always in the SAFE range, as shown on the dipstick; however, never fill oil over the FULL mark because engine damage could result.

Whenever the mower is being operated, adjusted or maintained, the safety instructions attached to your mower must be kept in mind. Safe operation is your responsibility.

BAGGING

The Rear Bagger discharges grass clippings into a large 0.088 m^3 bag, and because of the rear bagging feature, both sides of the mower can be used for trimming. Bagging is most effective when engine is running at maximum speed and only about 1/3 of grass blade is being cut. If an excessive amount of grass is being cut off, the mower can plug and cause the engine to stall. If long grass must be cut, adjust mower to the highest height-of-cut; then cut the grass. Follow this by lowering the height-of-cut and cutting the grass again.

To bag the grass with the mower:

1. ⚠ Assure engine is not running.

2. Assure chute door handle is fully forward and lockout lever is released into housing latch (Fig. 20). The chute door is now closed.

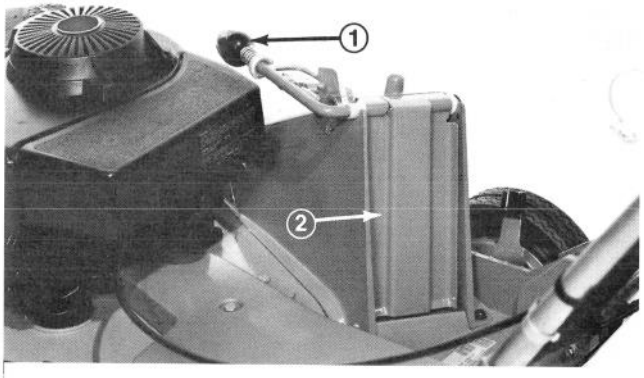


Figure 20

1. Handle
2. Chute door

3. Slide guide hole in bag door onto locating stud on mower housing (Fig. 21); then rest rear of bag frame onto handle pins.

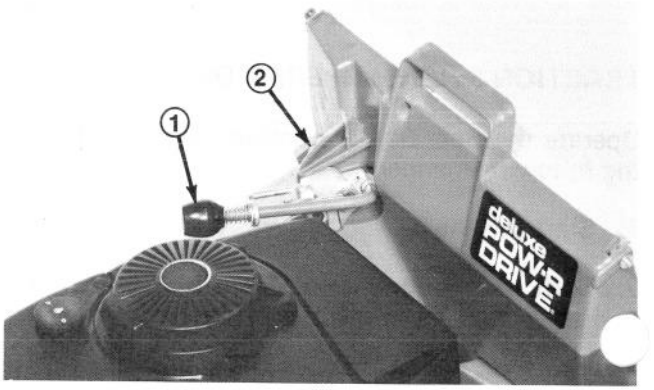


Figure 21

1. Chute door handle fully forward
2. Locating stud

OPERATING INSTRUCTIONS

4. Squeeze lockout lever until it clears the housing latch. Then move handle rearward until it locks in notch at rear of bag latch (Fig. 22). The chute door in mower housing is now open, and mower is ready to bag grass.

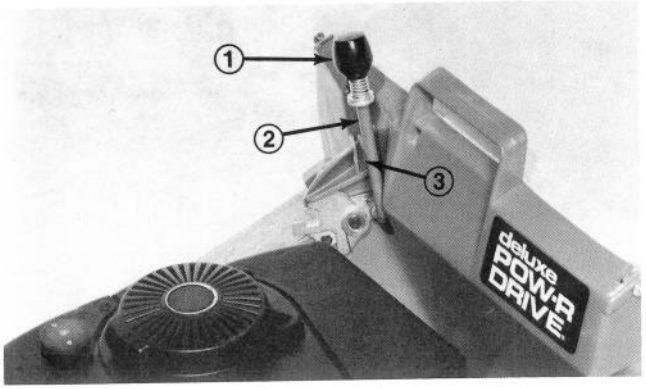


Figure 22

1. Chute door handle
2. Lockout lever
3. Notch

5. ⚠ To remove bag, stop the engine. Move chute door handle forward until it locks in the housing latch. Then lift bag straight up.

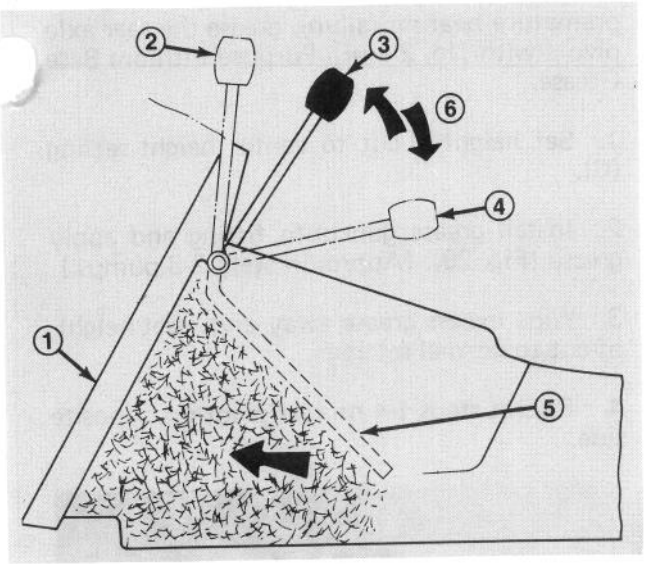


Figure 23

1. Bag door
2. Door open
3. Handle
4. Door closed
5. Chute door
6. Packing motion to move excess grass into the bag

⚠ CAUTION

Never open the chute door when grass bag is removed from the mower when engine is running. Grass clippings and other debris will be discharged with enough force to cause personal injury. Do not operate mower unless complete bag assembly is attached and properly positioned or rear door is completely closed.

6. To dump grass, open door at front of bag and gradually tip forward.

7. Replace bag.



Figure 24

MOWING WITHOUT THE BAG

The Rear Bagger can be used for shredding leaves or dry grass. However, this is most effective when only about 1/4 of the grass blade is cut. During this process, the blade slices the cut pieces of grass again and again, so very fine particles of grass are deposited on the lawn. These fine grass clippings eventually decompose.

To mow without the bag:

1. Squeeze lockout lever, move chute door handle fully forward, and release lever into housing latch (Fig. 25). The chute door in mower housing is now closed, and mower is ready for mowing operation.

Note: If desired, the grass bag may remain on the mower.

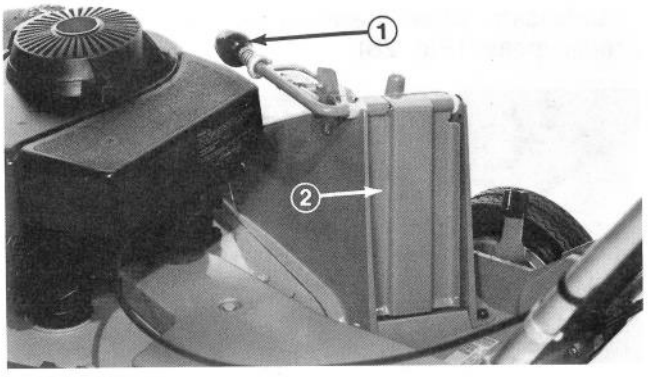


Figure 25

1. Handle
2. Chute door

OPERATING INSTRUCTIONS

USING WASH-OUT PORT

After mower is used, the underside of mower housing must be cleaned.

1. ⚠ Close chute door to prevent discharge of water when wash-out port is used.

2. Set height-of-cut in the lowest position and open the wash-out port.

3. Start the engine. Insert end of hose, without nozzle, into wash-out port opening (Fig. 26). Using moderate water pressure, allow water and engine to run for approximately two minutes.

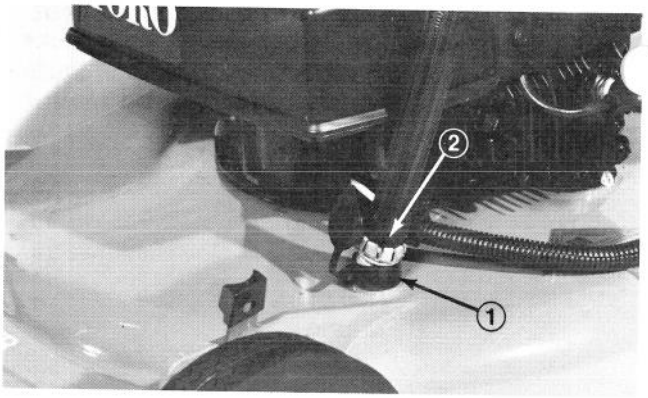


Figure 26
1. Wash-out port
2. Hose without nozzle

MAINTENANCE

CAUTION

Never perform an adjustment or maintenance procedure while the engine is running. Pull high tension wire (Fig. 27) off spark plug.

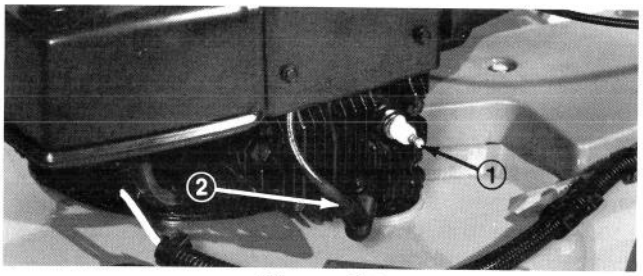


Figure 27
1. Spark plug 2. High tension wire

LUBRICATING WHEEL BEARINGS

The front and rear wheel bearings must be greased after every 25 hours of operation; however, more frequently when conditions are extremely dusty or sandy.

1. Lubricate wheel bearings with No. 2 general purpose grease (Fig. 28).

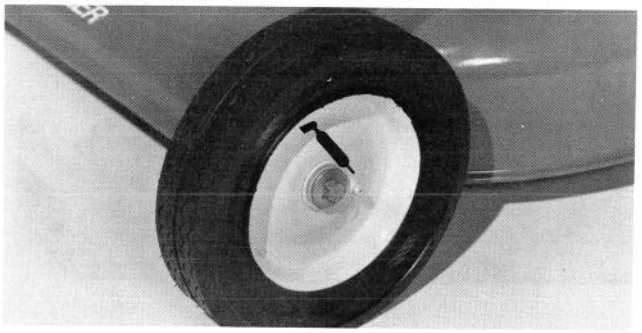


Figure 28

Note: Rear wheels will spin easily in one direction only.

LUBRICATING AXLE PIVOTS

After every 25 operating hours, to prevent premature bearing failure, grease the rear axle pivots with No. 2 Multi-Purpose Lithium Base Grease.

1. Set height-of-cut to center height setting (C).

2. Install grease gun onto fitting and apply grease (Fig. 29). (Approximately 2-3 pumps.)

3. Wipe excess grease away and reset height-of-cut to normal setting.

4. Repeat steps 1-4 on rear pivot on opposite side.

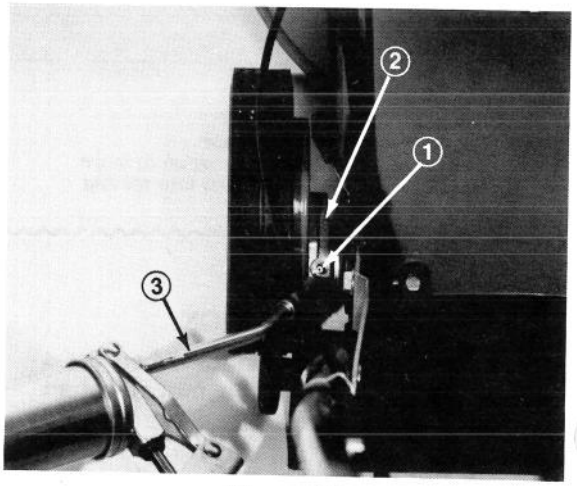


Figure 29
1. Grease fitting
2. Axle pivot
3. Grease gun

MAINTENANCE

SERVICING AIR CLEANER

The air cleaner element must be cleaned after every 25 hours of engine operation, however, more frequently when mower is operated in dusty or dirty conditions.

1. Remove cover and clean.



Figure 30

2. Inspect air cleaner element (Fig. 31). If necessary remove and clean (Fig. 31).

A. WASH element in a solution of liquid soap and warm water. Squeeze the element to remove dirt. Do not twist element because it may tear.

B. DRY the element by wrapping it in a clean rag. Squeeze the rag and element until element is dry.

C. SATURATE element with engine oil. Squeeze element to remove excess oil and to distribute the oil thoroughly. A damp element is desirable.

D. Place element into the air cleaner body (Fig. 31).

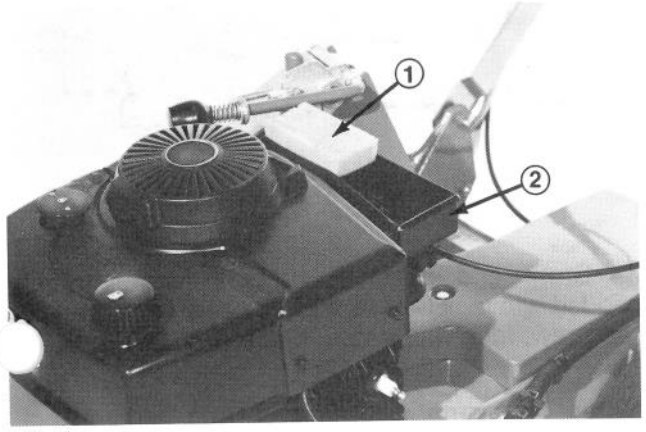


Figure 31

1. Element
2. Air cleaner body

3. Replace cover.

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

REPLACING SPARK PLUG

1. Remove spark plug (Fig. 32).

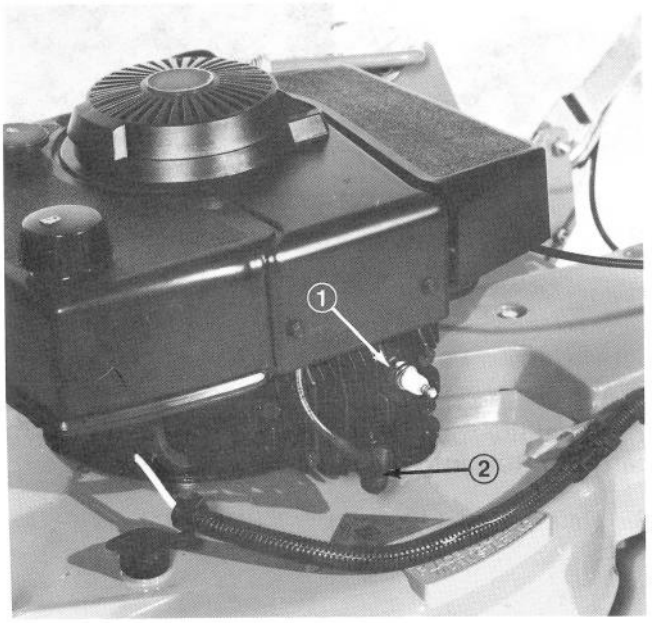


Figure 32

1. Spark plug
2. High tension wire

IMPORTANT: A cracked, fouled or dirty spark plug must be replaced. Recommended spark plug to use is a Champion RJ-17LM or equivalent.

2. Set air gap between electrodes at 0.762 mm with a spark plug gapping tool (Fig. 33). Install the correctly gapped spark plug with gasket seal and tighten plug to 20.4 N·m. If torque wrench is not used, tighten plug firmly.

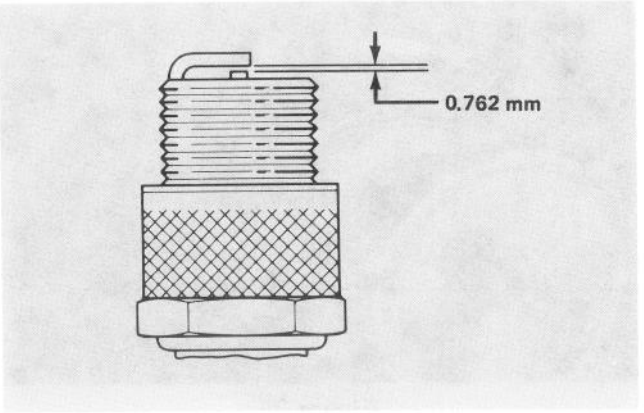


Figure 33

MAINTENANCE

DRAINING PETROL

1. Compress clip holding fuel line on fuel tank fitting (Fig. 34). Slide clip down fuel line.

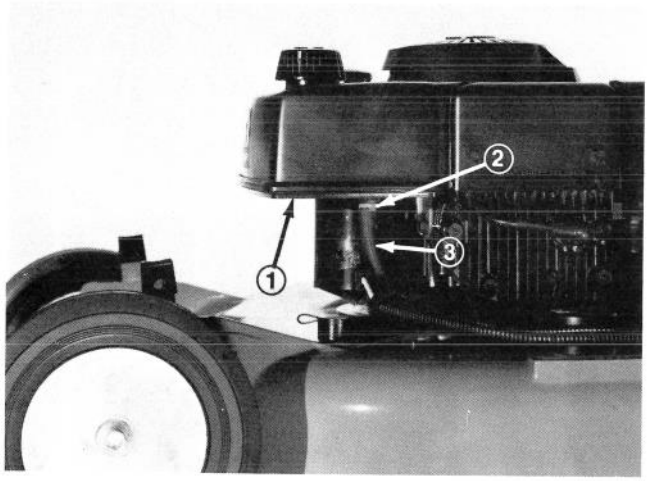


Figure 34
1. Fuel tank
2. Clip
3. Fuel line

2. Carefully pull fuel line off fitting to allow petrol to flow into drain pan.

3. Reinstall fuel line clip.

CHANGING CRANKCASE OIL

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

1. ⚠ Drain petrol from fuel tank.

2. Tip mower on its left side.

3. Remove drain plug (Fig. 35) and tip mower back to normal position to drain oil.

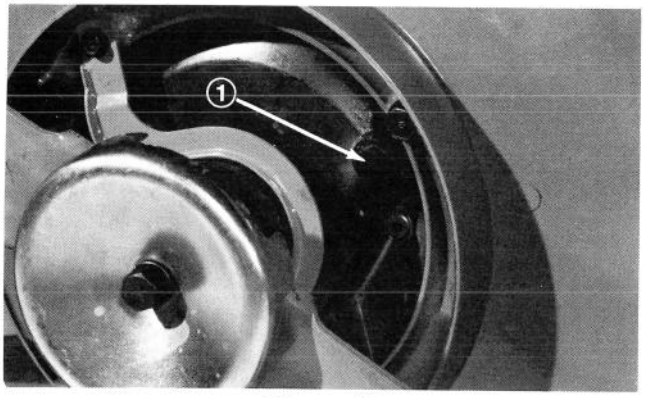


Figure 35
1. Oil drain plug

4. After oil is drained replace oil drain plug.

5. Fill crankcase with oil.

INSPECTING CUTTER BLADE FOR DAMAGE: SHARPENING OR REPLACING

1. ⚠ Drain petrol from fuel tank.

2. Tip mower on its left side (Fig. 36).

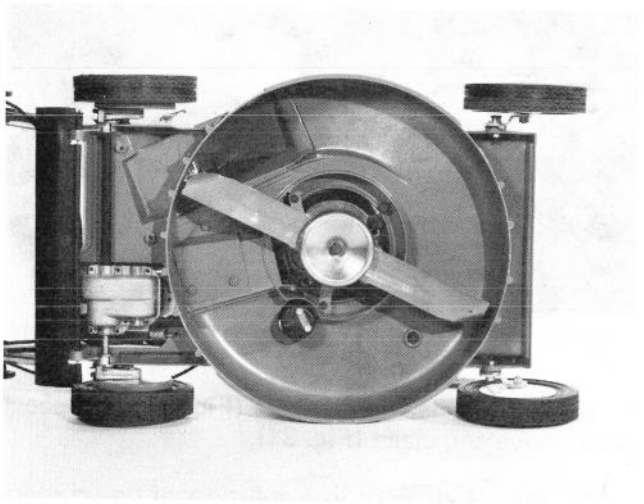


Figure 36

3. Examine cutting ends of the blade carefully; sharpen or replace as needed (Fig. 37).

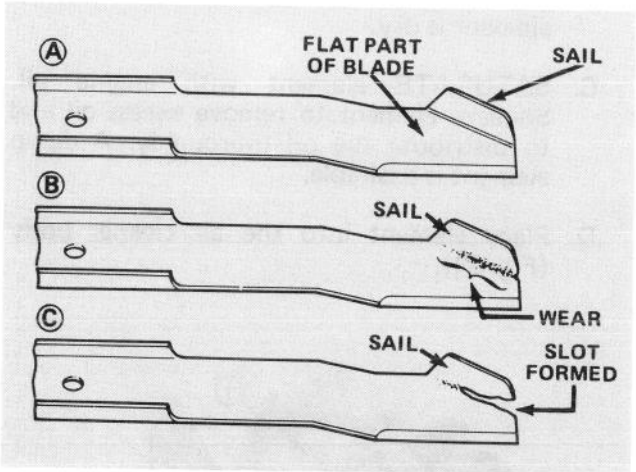


Figure 37

4. Grasp end of blade using a rag or thickly padded glove. Using a socket or wrench, remove capscrew, lock washer and blade (Fig. 38).

Note: To assure optimum cutting performance, install a new blade at the start of the cutting season. During the year, file down small nicks to maintain a fine cutting edge.

5. Using a file, sharpen cutting edge at both ends of the blade (Fig. 38).

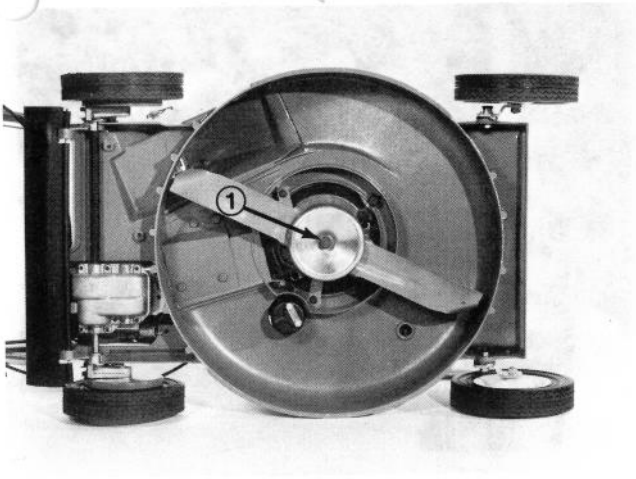


Figure 38

1. Capscrew, lockwasher and anti-scalp cup

IMPORTANT: Sharpen top side of blade and maintain original cutting angle to assure a sharp cutting edge (Fig. 39). The blade will remain balanced if same amount of material is removed from both cutting edges.

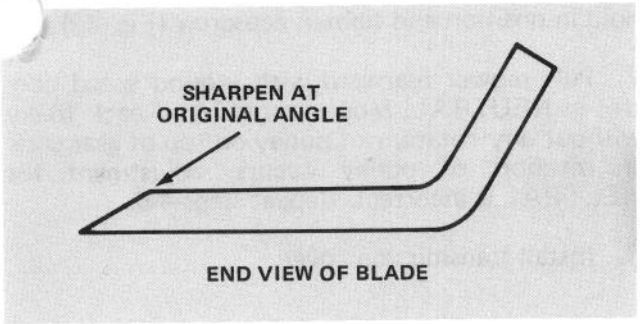


Figure 39

6. Check balance of blade by putting it on a blade balancer. A balanced blade will stay in a horizontal position on the balancer. By contrast, a blade that is not balanced will settle to the heavy side. If blade is not balanced, file more metal off cutting edge on heavy end of the blade. Then check the blade balance again.

Note: An inexpensive blade balancer can be purchased at a hardware store.

7. Install sharp, balanced blade and scalp cup with lockwasher and capscrew. Sail part of the blade must point toward top of the mower housing to assure correct installation. Tighten capscrew to 68 N·m.

8. Set mower upright.

CLEANING MOWER HOUSING

To assure a good cut and efficient grass bagging, underside of mower housing and inside of discharge area must be kept clean: refer to Using Wash-out Port, page 10.

1. ⚠ Assure engine is not running and high tension wire is pulled off the spark plug.

2. ⚠ Drain petrol from fuel tank: refer to Draining Petrol, page 12.

3. Tip mower on its left side (Fig. 40), which is the spark plug side. Avoid rotating the blade when mower is tipped because starting problems may result.

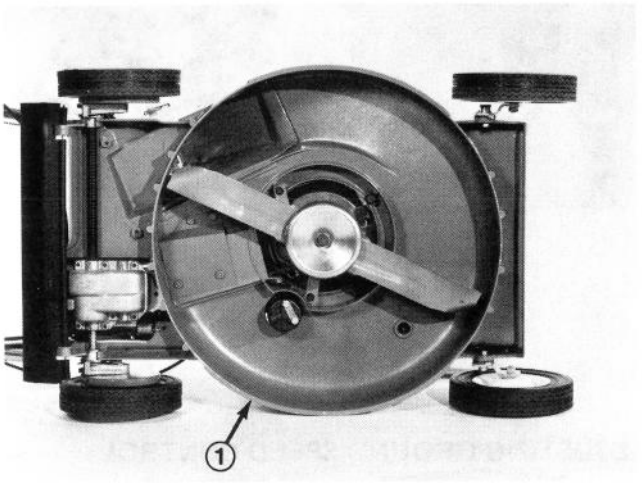


Figure 40

1. Mower tipped on left side

4. Remove grass clippings and dirt that sticks to the housing by spraying it with a garden hose. Scrape out any grass that water does not remove from housing with a hard wood scraper. Take care to avoid any burrs and sharp edges.

5. Set mower upright.

ADJUSTING THROTTLE CONTROL

An adjustment of the throttle control may be required if the engine does not start or stop and whenever a new throttle control cable assembly is installed.

1. Move the throttle control lever to the OFF position.

2. Loosen cable clamp screw until throttle cable is free to slide (Fig. 41).

3. Move carburetor control arm to the left until it contacts grounding bracket (Fig. 41). Pull throttle cable slightly to remove any slack and tighten the cable clamp screw to lock the adjustment in place.

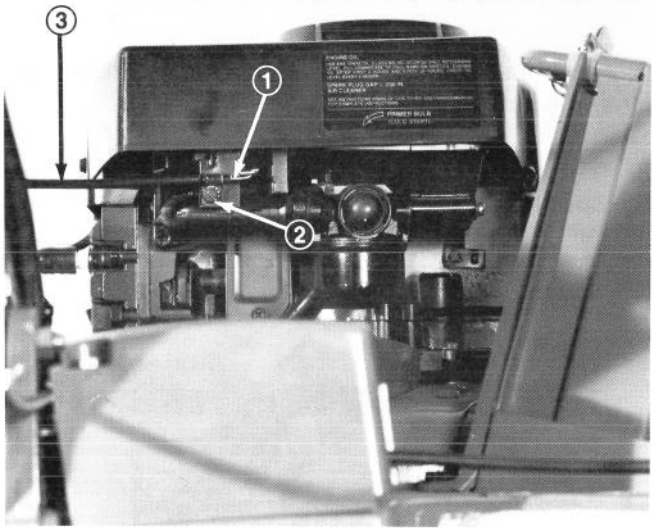


Figure 41

1. Control arm
2. Clamp screw
3. Throttle cable

ADJUSTING GROUND SPEED CONTROL

1. Assure engine is not running.

2. Close door in mower housing and remove bag.

3. Remove two capscrews securing transmission cover and remove cover (Fig. 42).

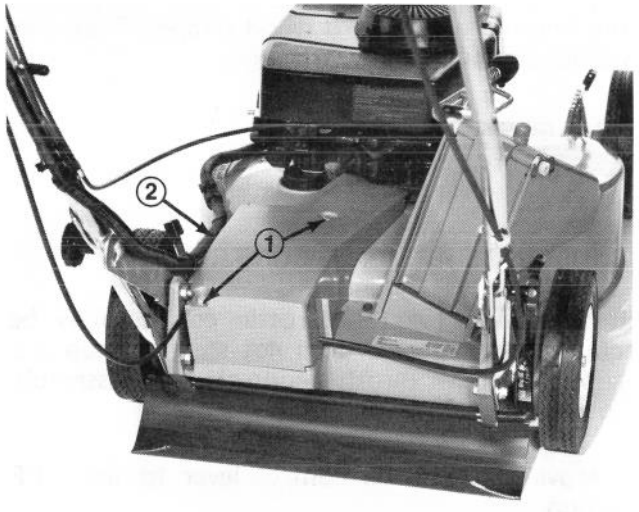


Figure 42

1. Transmission cover mounting capscrews
2. Transmission cover

4. Loosen the capscrew securing the ground speed control cable (Fig. 43, item 1).

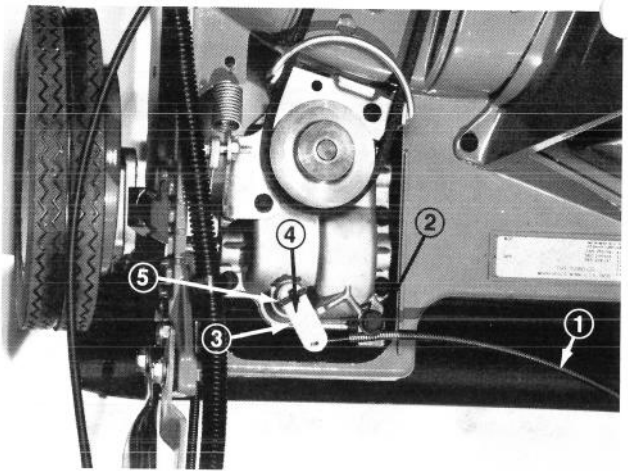


Figure 43

1. Ground speed control cable
2. Capscrew
3. Transmission control lever
4. Roll pin
5. Push towards capscrew

5. Move the ground speed control lever to N (NEUTRAL). Then move lever forward approximately 1/8 inch (3 mm) and hold in position.

6. Push transmission control lever to right in direction of cable clamping capscrew as far as possib' hold in position and tighten capscrew (Fig. 43).

7. Pull mower rearward with ground speed control in NEUTRAL. Mower should pull back freely without any rotation of pulley on top of gear case. If rotation of pulley occurs, adjustment for NEUTRAL is incorrect. Repeat steps 4-6.

8. Install transmission cover.

CHARGING BATTERY

A new battery is not charged. Charging the battery for 4 hours will provide enough energy to start engine several times. However, 48 hours of continuous charging are required for full charge. The 48 hour charge of a new battery is recommended for the initial charge, store charge, and the spring charge. After a new battery is initially and subsequently used, the following charging times apply.

Type of Mower Use	Charging
When bagging with frequent engine starts	24 hrs*
When mulching with 1 or 2 starts each mowing	24 hrs**
*Charge battery immediately after each mowing.	
**Charge battery once a month during mowing season.	

MAINTENANCE

IMPORTANT: Use only the TORO Electro Charger supplied with the mower because it is specially designed for the battery. Using a different charger will likely damage the battery. Remember to use the charger indoors, not outdoors where it can be affected adversely by rain. Charge battery at room temperature – +21° C – whenever possible. Do not charge the battery for more than 72 consecutive hours because battery damage can result.

Note: The battery can be charged while it is on or off the mower.

1. Pull wire harness connector off battery terminal.

2. Remove battery (if desired).

3. Push Electro Charger connector onto battery terminal (Fig. 44). Next, insert charger into power outlet (Fig. 44).

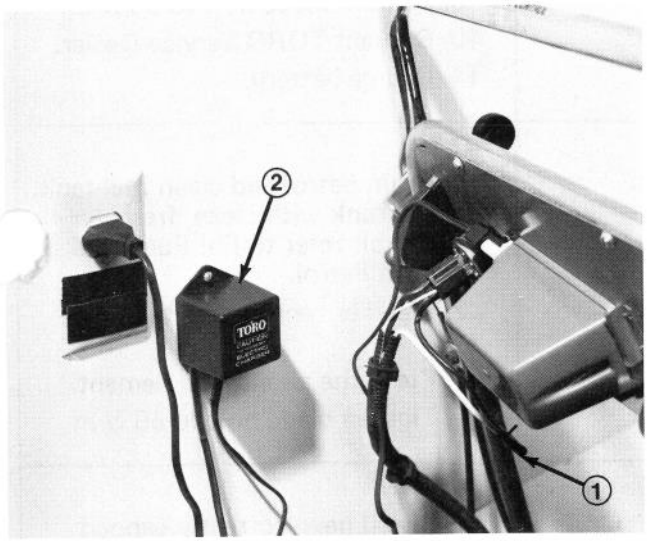


Figure 44

1. Wire harness connector
2. Charger

4. When battery has charged for needed amount of time, pull charger out of the power outlet. Separate charger connector from battery terminal.

5. Replace battery if necessary.

PREPARING MOWER FOR STORAGE

1. Drain petrol from fuel tank. Start the engine and let it run until all petrol is expended.

2. Pull high tension wire off spark plug. Remove plug from cylinder head and pour 30 ml of 10W-40 oil into spark plug hole. Pull recoil starter handle slowly to distribute oil on inside of cylinder. Then install spark plug and tighten it to 20.4 N·m. If torque wrench is not used, tighten plug firmly. DO NOT INSTALL HIGH TENSION WIRE ON SPARK PLUG.

3. Drain oil from crankcase. Do not fill crankcase with oil at this time.

4. Clean dirt and chaff from outside of cylinder, cylinder head fins, blower housing, external parts of engine, shrouding and top of mower housing.

5. Clean underside of mower housing.

6. Check condition of blade and blade capscrew. Repair or replace if necessary.

7. Check and tighten all capscrews, bolts, screws, nuts and mating parts. Repair or replace if necessary.

8. Lubricate wheel bearings and rear pivot assemblies.

9. Wash the air cleaner element.

10. Fill crankcase with oil.

11. "Touch up" all chipped paint surfaces. Make sure to sand affected area before painting.

12. Store the mower in a clean, dry place. For convenience, upper handle can be folded for more compact storage. Cover the mower to protect it and keep it clean.

TROUBLE SHOOTING

Problem	Possible Causes	Correction Action
Engine does not start.	1. Throttle not in FAST position.	1. Move throttle to FAST.
	2. Fuel tank is empty.	2. Fill fuel tank with petrol.
	3. Air cleaner element is dirty.	3. Clean air cleaner element.
	4. Spark plug loose.	4. Tighten spark plug to 20.4 N·m.
	5. High tension wire loose or disconnected from spark plug.	5. Install high tension wire on plug.
	6. Spark plug gap is incorrect.	6. Set gap between electrodes at 0.762 mm.
	7. Spark plug is defective.	7. Install new, correctly gapped plug.
	8. Carburetor is flooded with petrol.	8. Remove air cleaner element and pull starter rope continuously until carburetor clears itself and engine starts. When engine starts, stop it and install air cleaner element.
	9. Blade bolt is loose.	9. Tighten blade bolt to 68 N·m.
	10. Faulty points or condenser.	10. Contact TORO Service Dealer.
	11. Battery not charged.	11. Charge battery.
Engine starts hard or loses power.	1. Dirt or water in gas tank.	1. Drain petrol and clean fuel tank. Fill tank with clean, fresh petrol: refer to Fill Fuel Tank With Petrol.
	2. Vent hole in fuel tank cap is plugged.	2. Clean or replace fuel tank cap.
	3. Air cleaner is dirty.	3. Clean the air cleaner element.
	4. Blade bolt is loose.	4. Tighten blade bolt to 68 N·m.
Engine operates eratically or idles poorly.	1. Spark plug is defective.	1. Install new, correctly gapped plug: refer to Replacing Spark Plug, page 11.
	2. Spark plug gapped incorrectly.	2. Set gap between electrodes at 0.030 of an inch (0.762 mm).
	3. Air cleaner is dirty.	3. Clean the air cleaner element: refer to Servicing Air Cleaner, page 11.
	4. Oil level in crankcase is low.	4. Add oil to crankcase.
	5. Air slots in engine shroud are plugged.	5. Remove obstruction from slots.
	6. Cooling fins and air passages under engine blower housing are plugged.	6. Remove obstruction from cooling fins and air passages.
Engine skips at high speed.	1. Air gap between electrodes of spark plug is too close.	1. Set air gap at 0.030 of an inch (0.762 mm).

TROUBLE SHOOTING

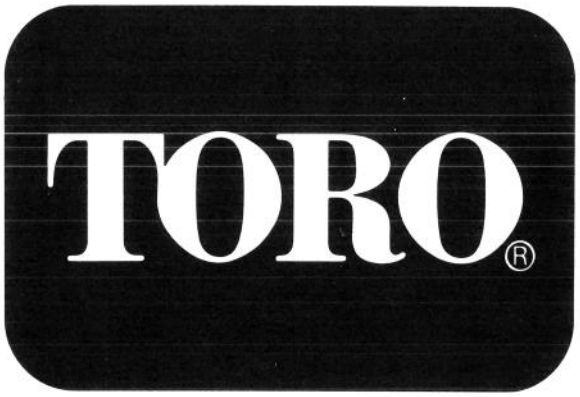
Problem	Possible Causes	Correction Action
Engine overheats.	1. Cooling air flow is restricted.	1. Remove any obstruction from slots in shroud, blower housing, air passages, and cooling fins on engine.
	2. Oil level in crankcase is low.	2. Add oil to crankcase: refer to Fill Crankcase With Oil.
	3. Incorrect spark plug.	3. Install Champion RJ-17LM spark plug that is gapped at 0.762 mm.
Mower vibrates abnormally.	1. Blade bolt is loose.	1. Tighten blade bolt to 50 ft-lb (68 N·m).
	2. Cutter blade is unbalanced.	2. Sharpen cutter blade and check the balance: refer to Sharpening or Replacing Cutter Blade, page 12. Replace the blade if it cannot be balanced.
No traction drive.	1. Ground speed control maladjusted or broken.	1. Adjust ground speed control: refer to Adjusting Ground Speed Control, page 14, or Installing Ground Speed Control
	2. Transmission drive belt loose or broken.	2. Adjust belt tension or replace belt.
	3. Traction control handle cable maladjusted or broken.	3. Adjust or replace cable.
	4. Damaged wheel and pinion gear assembly.	4. Repair as necessary.
	5. Malfunction in transmission assembly.	5. Repair as necessary.
	Note: A Toro Service Dealer may have to be consulted if items 2-5 have occurred.	

MAINTENANCE RECORD

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

MAINTENANCE RECORD

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



Litho in U.S.A.