FORM NO. 3310-473

TORO

MODEL NO. 31624-400001 & UP
MODEL NO. 31677-400001 & UP

OWNER'S MANUAL

24" SNOWTHROWER (5 & 7 H.P.)

BEST COPY AVAILABLE

SAFETY INSTRUCTIONS



CAUTION: This Snowthrower is engineered and tested to offer reasonably safe and effective service, provided it is operated in strict accordance with these instructions. FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY.

TRAINING

1. Never allow children to operate a snowthrower or adults to operate it without proper instruction.
2. Know the controls and how to stop machine quickly – READ THIS OWNER'S MANUAL.

PREPARATION

3. Handle gasoline with care – it is highly flammable.
   A. Use approved gasoline container.
   B. Fill gas tank outdoors, never while engine is running. Wipe up spilled gasoline.
   C. Replace gasoline cap securely.
   D. Open doors if engine is run in a garage – exhaust gases are dangerous.
4. If using electric start, be sure house or garage outlet is 110 VAC grounded, fused with a 15 AMP fuse, and a grounded three (3) wire extension cord is used.
5. Keep children and pets a safe distance away at all times.
6. Disengage all drives before starting engine.

OPERATION

7. Stay in your safety zone behind handles. Never leave this position without shutting engine down.
8. Give complete and undivided attention to the job at hand.
9. Personal injury or property damage can result from debris thrown by this machine. Therefore, never direct discharge toward bystanders or windows nor allow anyone in front of or near the machine while operating.
10. Adjust skid height to clear gravel or crushed rock surface.
11. Maintain solid and secure footing at all times.
12. Never look into chute while engine is running. DO NOT PUT HANDS IN DISCHARGE CHUTE.
13. Wear suitable clothing and footwear.
14. Check before each use for loose fasteners or parts.
15. Stop engine before leaving operating position and disconnect spark plug lead wire before cleaning discharge chute, removing obstacles, or making adjustments.
16. Never place hands or feet under or into rotating parts or concealed areas.
17. If snowthrower should vibrate abnormally or strike a foreign object, stop engine immediately, disengage all controls, disconnect spark plug lead wire and check for damage or loose parts. Repair damage at once.
18. Wear safety or ski goggles while operating snowthrower.
19. Do not change governor setting or overspeed engine.

MAINTENANCE

20. Follow maintenance instructions as outlined in this manual.
21. Have an authorized Toro Service Dealer inspect the snowthrower each year.
22. Disconnect spark plug wire before making any adjustment or repair, and when storing machine.
23. Store gasoline in an approved red metal container in a cool, dry place.
24. Keep machine in good operating condition and keep safety devices, guards, and shields in place.
25. Make sure that Safety Interlock System is operating. DO NOT attempt to make it inoperative.
26. Safety and performance levels can be assured only by the use of specified Toro replacement parts.
27. Maximum engine speed must not exceed 3900 RPM.

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FOREWORD

TO THE TORO OWNER . . .

Toro knows how important proper snow throwing equipment is for winter maintenance and Toro designers have, over the years, strived for and achieved the finest in snow throwing products. You, as a Toro owner, share the most advanced methods and machines available today. Give it the proper care, and it will repay you with precision service.

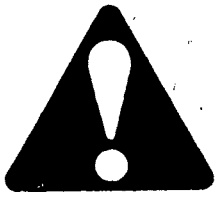
The more you know about the operation and mechanics of your Toro snowthrower the better job it will do for you. That's why it is important to read your Owner's Manual from cover to cover before attempting to operate the machine.

Compare the illustrations to your snowthrower so as to familiarize yourself with locations of controls, lubrication points, and adjustment sites.

Study the safety precautions thoroughly to insure proper functioning and to prevent injury to yourself and others.

At times minor changes are made in Toro products to improve their efficiency. Should you notice a variation in your snowthrower that is not reflected in the Owner's Manual, see your Toro distributor or his authorized Toro Service Dealer (see yellow pages) for information and parts numbers.

SAFETY



This Safety Alert symbol is intended to call your attention to a message concerning your personal safety. It means . . .

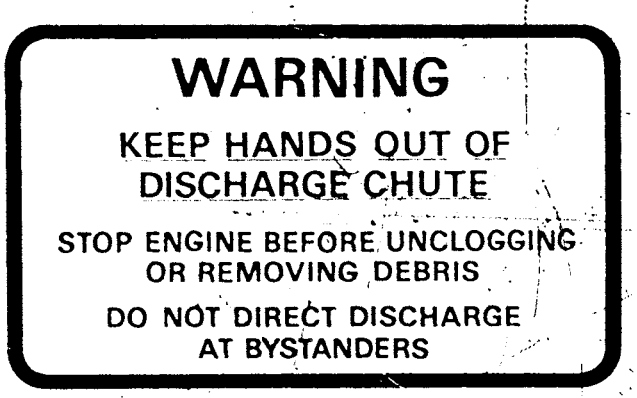
ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!

Read and remember the message. This snowthrower is as safe as good, practical design can make it. Keep the Operating and Safety Instructions in mind while using it.

The decals shown below are located in an area easily visible to the operator, or near an area of potential danger. If the decals become damaged or illegible, install new decals.

LOOSE PARTS CHART

LOOSE PART	QUANTITY
Clevis Pin	3
Cotter Pin	3
Hex Head Screw #10-24	2
Locknut #10-24	2
Pyramidal Washer	1
Locknut - 5/16"	2
Hex Flange Bolt	4
Knob	1
Owner's Manual	1
Registration Card	1



On Back of Auger Housing



On Deflector

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The Toro Company
Bloomington, Minnesota 55420 U.S.A.

GENERAL ASSEMBLY INSTRUCTIONS

Unpack your machine with care to avoid damaging the unit or misplacing the loose parts. Carefully inspect the unpacked items to make certain damage has not occurred during shipment. Be sure to locate the loose parts bag containing hardware. Right and left hand is determined in relation to the operator's position behind the handles.

1. Remove the tape holding the control rods to the handles. Insert the handle assembly into the frame as shown in Fig. 1, and secure with two hex flange bolts on each side. Do not tighten fully.
2. The lower mounting hole on each side is slotted. Position the handle for the convenience of the operator and tighten the capscrews.
3. Install the discharge chute control rod. Hold the worm firmly against the teeth on the discharge chute and secure to the bracket with the pyramidal washer and conelock nut. Rotate eyebolt until rod slides freely and tighten jam nut.

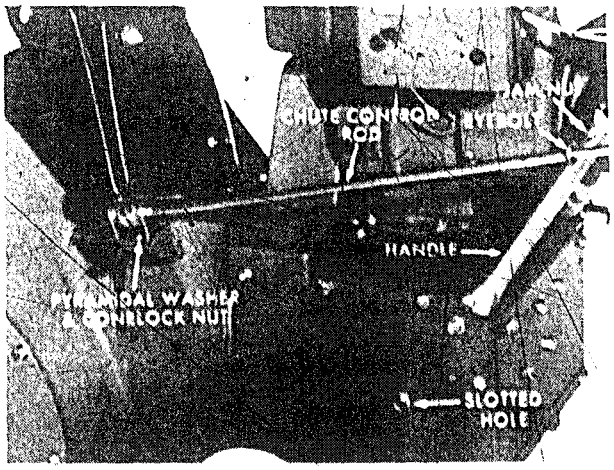


Figure 1

4. Attach the throttle lever assembly with two #10-24 x 5/8" capscrews and locknuts to the underside of the control panel as shown in Fig. 2. Be sure there are no kinks in the Bowden wire. Tap the knob onto the throttle lever.
5. Wrap the safety switch wire around the Bowden wire to remove excessive slack, and attach the wire to the connection on the safety switch.

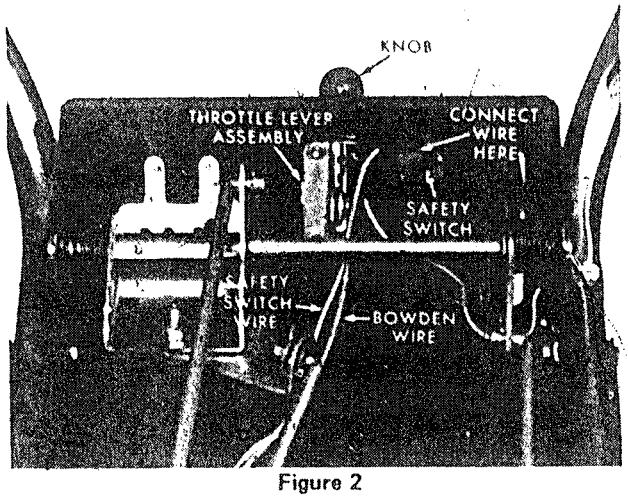


Figure 2

6. Hold the auger control lever fully to the rear (OFF position) and adjust the clevis at the lower end of the control rod so the pin passes easily through the clevis and the hole in the bent end of the auger clutch rod. Secure the pin with the cotter pin and tighten the jam nut against the clevis. If excessive force is required to put control lever in "ON" position, loosen auger drive belt. See "Belt Adjustment," page 8.

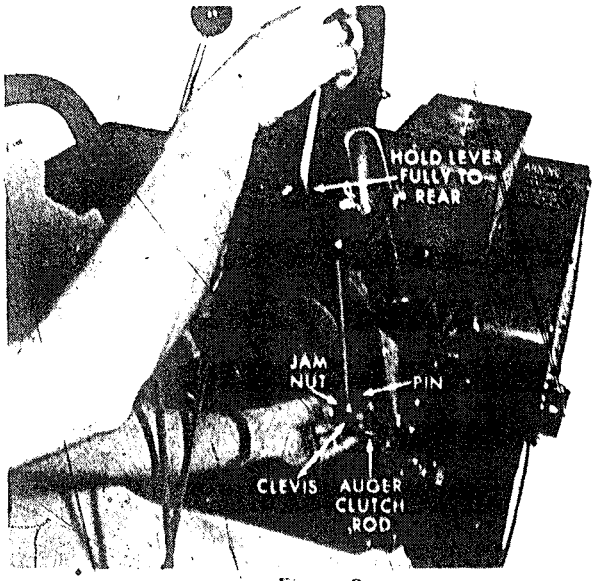


Figure 3

7. Place the shift lever fully forward in 1st gear (No. 1 notch). Adjust the clevis at the lower end of the control rod until the clevis pin fits easily through the linkage arm and the clevis. Secure the pin with a cotter pin, and tighten the jam nut against the clevis.

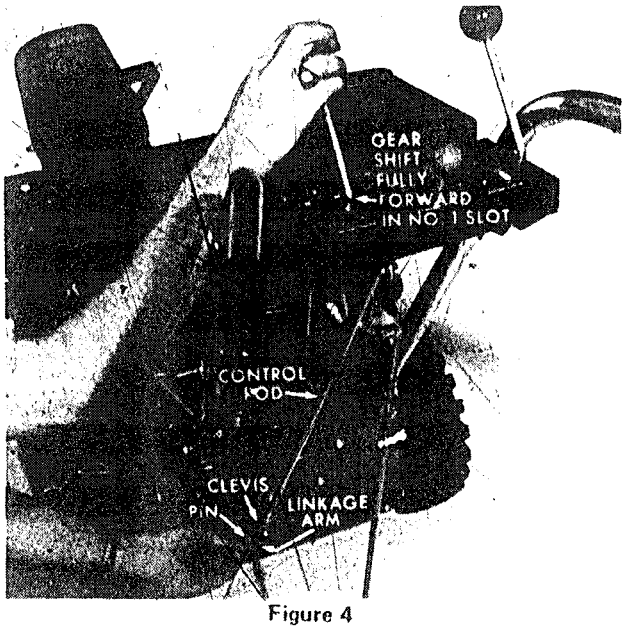


Figure 4

GENERAL ASSEMBLY INSTRUCTIONS (Continued)

8. Move the shift link fully to the left to insure a full range of shifting. Hold the shift rod between the neutral (N) detent and 1st gear slot on control panel as shown. THE ROD MUST BE HELD AGAINST THE HUMP – NOT IN THE NOTCH. (See inset). While holding the shift link fully to the left, adjust the clevis on the speed selector control rod so the clevis pin slips easily through the clevis and the link. Secure the pin with the cotter pin and tighten the jam nut against the clevis. See Fig. 5.

NOTE: It may be necessary to adjust the linkages slightly to insure full clutch engagement or disengagement. See Traction Disc Adjustment, page 8.

9. The snowthrowers are shipped with the wheel locking pin through the axles only, and not through the wheel hub. In this position, the wheels are free to turn. To engage the wheels for self-propelled use, install the locking pin through the wheel hub and the inner pin hole in the axle. See Fig. 12.

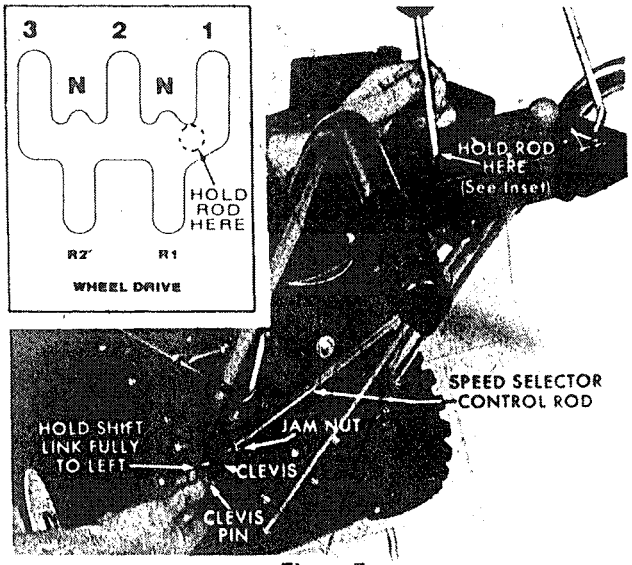


Figure 5

PREPARATION BEFORE STARTING

The engine has been shipped from the factory without oil and gasoline. Therefore, it is essential that these Preparation Before Starting instructions be strictly followed.

FILLING WITH OIL

1. Place snowthrower on a level surface and remove oil dipstick plug from engine.
2. Using a funnel, slowly pour nineteen (19) ounces (just less than 1¼ pints) of a good grade of SC, SD, or SE classification SAE5W-20 or 10W oil into the crankcase.

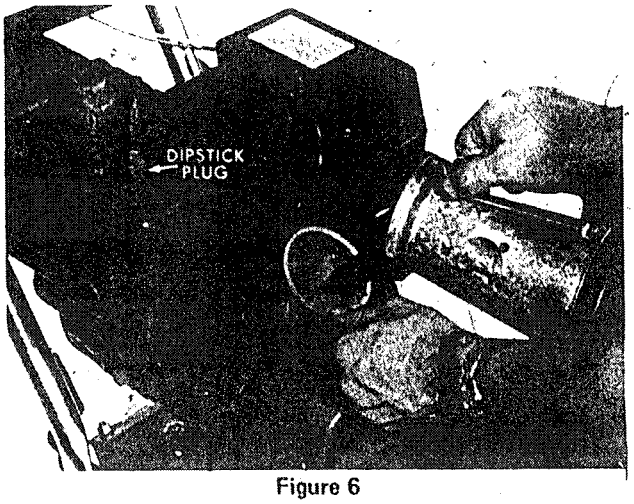


Figure 6

3. Check with dipstick – oil should be to top line of SAFE margin. Add oil if necessary.

IMPORTANT: When measuring oil, be sure oil dipstick plug is screwed into filler opening as far as possible.

4. After sufficient amount of oil has been added, replace oil dipstick plug.
5. Change oil after the first two (2) hours of operation and check oil level after five (5) operating hours or each time snowthrower is used.
6. Change oil every twenty-five (25) operating hours (See Changing Engine Oil, page 8).

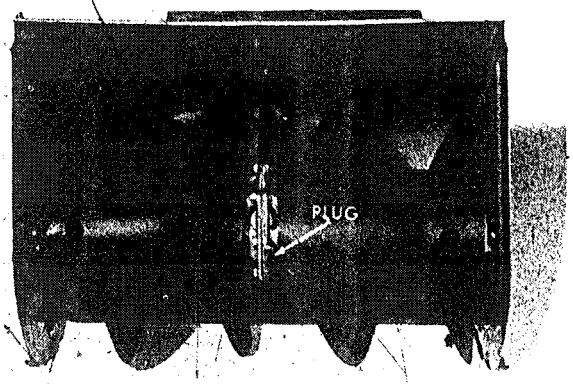


Figure 7

Check auger gear box oil level with snowthrower on a level surface. If oil is not at the point of overflowing, fill with a good grade of transmission oil. Change oil once a year (See Changing Auger Gear Box Oil, page 8). Use SAE 90EP.

⚠ FILLING WITH GASOLINE

Gasoline is an extremely flammable fuel, and extreme caution must be used when storing and handling it. Gasoline is intended only as a fuel for internal combustion engines. DO NOT USE IT FOR ANY OTHER PURPOSE.

IT MUST BE STORED IN APPROVED CONTAINERS IN A COOL, WELL-VENTILATED PLACE—NEVER IN THE HOME.

PREPARATION BEFORE STARTING (Continued)

FILLING WITH GASOLINE (Continued)

THE CAP MUST BE KEPT IN PLACE ON THE CONTAINER EXCEPT WHEN ACTUALLY POURING FUEL.

USE A FUNNEL OR A SPOUT WHEN POURING TO PREVENT SPILLING.

MANY CHILDREN LIKE THE SMELL OF GASOLINE–KEEP IT OUT OF THEIR REACH–THE FUMES ARE DANGEROUS TO INHALE AS WELL AS BEING EXPLOSIVE.

Fill the gas tank with a fresh supply of the new automotive anti-pollution unleaded regular gasoline or regular gasoline. Handle gasoline with care–it is highly flammable. Do not smoke while adding gas. Do not add gas to your snowthrower in an enclosed area. Fill gas tank outdoors and wipe up spilled gas. Do not add gas to your snowthrower while the engine is hot or running. Keep gas and gas storage cans clean. Keep the area around the gas cap free from debris buildup. Open shut-off valve.

Gasoline should be purchased in small quantities (not more than 30 days supply) to assure fresh gasoline with volatility tailored for the season. Keep breather holes in tank cap open.

DO NOT MIX OIL WITH THE GASOLINE. DO NOT USE PREMIUM GAS, WHITE STOVE GAS, OR GASOLINE ADDITIVES.

Tank capacity is 2 quarts on 524; 4 quarts on the 724.

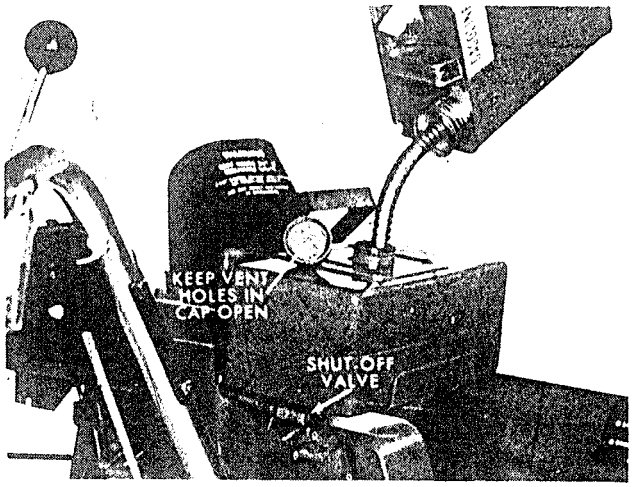


Figure 8

KNOW YOUR CONTROLS

Safety Interlock Lever – this lever must be depressed when the auger drive clutch is engaged, to prevent the engine from stopping. This is a safety feature to remind the operator to disengage the auger before he leaves the operating position (behind the handles).

Auger Drive Clutch – this control is used to engage or disengage the auger and impeller. To engage, push clutch lever ahead slowly. To disengage, pull clutch lever back.

Wheel Drive Lever – this control provides three (3) forward speeds and two (2) reverse speeds. To shift speeds, move shift lever into the speed you desire.

Throttle Control – this control has three (3) positions: START, RUN, and OFF. Pushing lever forward increases engine speed and pulling to the rear as far as possible stops the machine.

Discharge Chute Control – this control is adjustable and can be rotated to throw snow where desired.

Deflector Handle – this control is used to adjust the height of the snow stream.

Recoil Starter – this control is used to start the engine.

Choke Lever – the choke lever is located on the left-hand side of the engine. Move lever to "FULL CHOKE" position for starting.

Primer – the primer is located on the left-hand side of the engine (below choke lever). For use, see Starting, page 6.

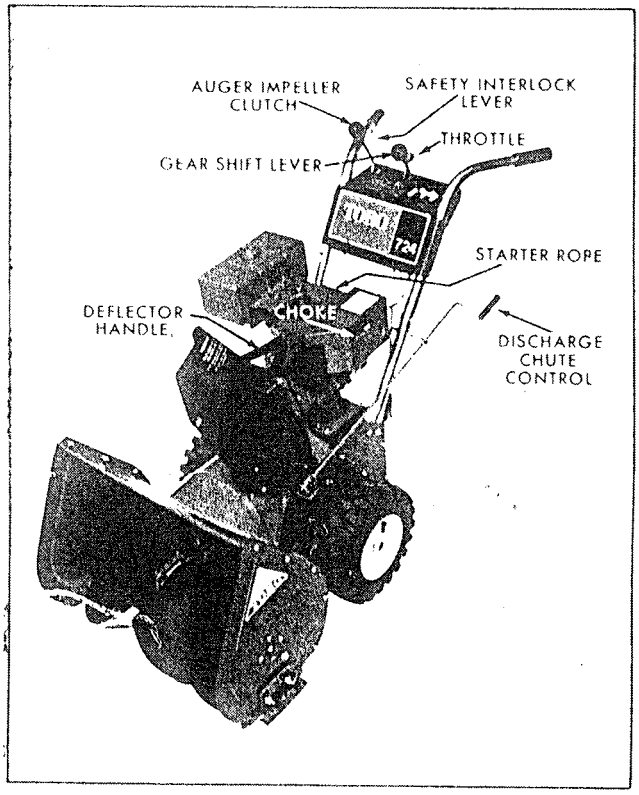


Figure 9

OPERATING INSTRUCTIONS

WARNING: All body movements necessary to stop and run this machine should be performed from the Normal Operating Position (behind handles). This is a position of maximum safety. If it is necessary to leave this position, shut engine off by pulling throttle control lever to the "OFF" position. Place wheel drive lever in Neutral ("N").

STARTING

IMPORTANT: Check to insure that impeller is not frozen in housing and discharge chute is not obstructed.

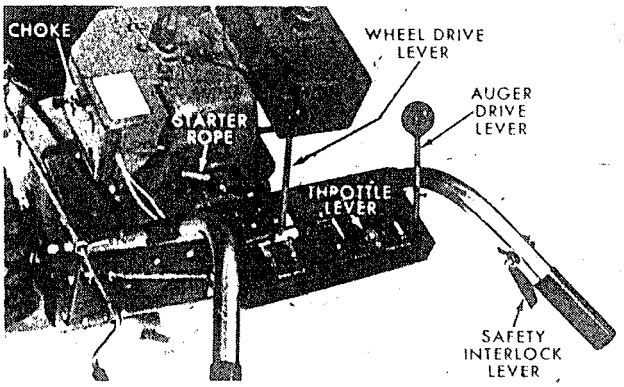


Figure 10

1. The wheel drive lever must be in "N" position and auger drive in "OFF" position. The engine will not start unless the auger drive lever is in the "OFF" position.
2. Open fuel shut-off valve below gas tank.
3. Place throttle control in the "START" position.
4. Place choke lever in FULL CHOKE position.
5. If temperature is below +10°F, depress and hold primer on carburetor and pull engine over slowly with starter handle, then release primer. If temperature is above +10°F, eliminate this step.

WARNING: DO NOT attempt to start the engine with the primer held in.

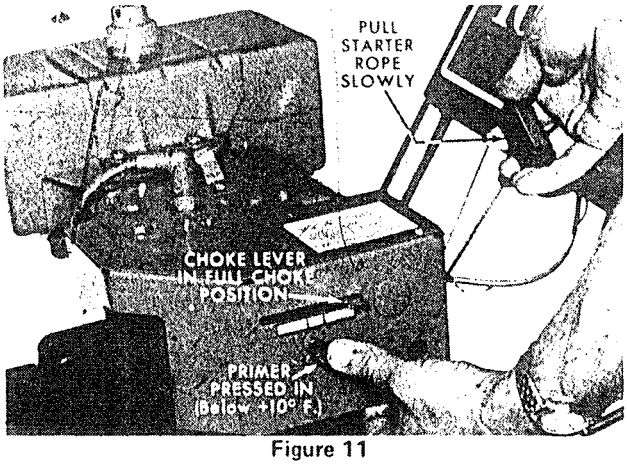


Figure 11

6. Pull starter handle quickly. Keep firm grip on handle and allow rope to return slowly.
7. When engine starts, move choke lever immediately to 3/4 choke position.
8. As the engine warms up, move to 1/2 choke and no choke position. If engine falters, return to 1/2 choke and repeat.
9. If engine is operated at temperature above 40°F, remove carburetor heater box as follows:
   A. Unscrew primer knob, remove knob and spring.
   B. Remove carburetor heater box by removing the two (2) screws holding it to the mounting bracket. Also, remove one (1) screw located on cylinder baffle on power take-off end of engine.
   C. Place choke and speed control levers in line with primer guide rod.
   D. Reinstall spring and primer knob for operation with heater box removed.

STOPPING

Pull Throttle control lever to "STOP" position–(STOPS ENGINE). Move wheel drive lever to "N"–(STOPS WHEEL DRIVE). Pull auger drive lever back–(STOPS AUGER AND IMPELLER).

EMERGENCY STOPPING

PULL THROTTLE CONTROL TO "STOP" POSITION.

SELF-PROPELLED OR FREE-WHEELING DRIVE

To engage wheels for self-propelled use, install wheel locking pin through wheel hub and inner pin hole. For transport or free-wheeling use, install locking pin through outer pin hole of axle only.

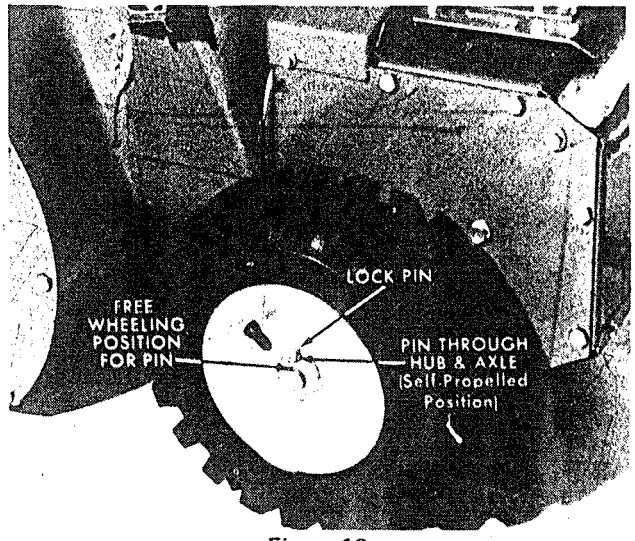


Figure 12

GROUND SPEEDS @ 3600 RPM Engine Speed

1st	.7 mph
2nd	1.3 mph
3rd	2.0 mph
R1	.8 mph
R2	1.5 mph

OPERATING INSTRUCTIONS (Continued)

SAFETY INTERLOCK SYSTEM

The safety interlock system is a safety feature which will ground out and stop the engine (through a series of switches) if the operator leaves the operating position without disengaging the auger drive clutch. The hand lever must be depressed to keep the engine running when the auger is engaged. This feature also prevents the operator from starting the engine with the auger drive clutch engaged. If the system does not function properly, see an Authorized TORO Service Dealer immediately and have the system repaired. DO NOT ATTEMPT TO DEFEAT THE PURPOSE OF THE SAFETY INTERLOCK SYSTEM BY DISCONNECTING WIRES OR SWITCHES OR OTHERWISE MAKING IT INOPERATIVE. If the system is inoperative, auger and impeller will continue to turn when you leave operating position, and may then be HAZARDOUS.

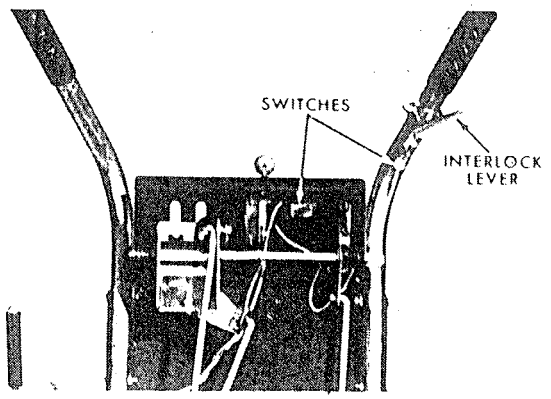


Figure 13

TIPS ON SNOWTHROWING

1. Always have wheel drive lever in "N" (Neutral) and close fuel shut-off valve when machine is not in use.
2. Use forward speed best suited to conditions. A RULE OF THUMB: If drive wheels are slipping, your forward speed should be reduced.
3. Whenever possible, discharge snow downwind.
4. Overlap each pass slightly to assure complete snow removal.
5. Best results are obtained when snow is removed as soon as possible after it falls.
6. For crushed rock or gravel driveways, set skids so machine clears highest rocks (See Skid Adjustment, page 9).
7. For concrete or asphalt surfaces, set skids so auger is approximately 1/8" above surface.
8. This machine is designed to clean down to the surface. If front tends to rise at times, reduce ground speed and if necessary, apply upward pressure on handles.
9. Under normal usage, chains are not necessary. However, chains are recommended for conditions which cause excessive wheel slippage.
10. Wax inside of auger and impeller housing and chute and deflector with paste wax to prevent an accumulation of snow.
11. When working in snow and cold weather, there is a possibility that some of the linkages could freeze up. If the controls work abnormally hard, DO NOT USE EXCESSIVE FORCE. Check for freezing, and take corrective measures.

MAINTENANCE

CAUTION: When performing any maintenance on your snowthrower, disconnect the spark plug lead wire.

LUBRICATION

Keep Snowthrower Properly Lubricated

1. Apply a few drops of SAE 10W-40 oil to all pivot points in the control linkage every fifteen (15) operating hours.

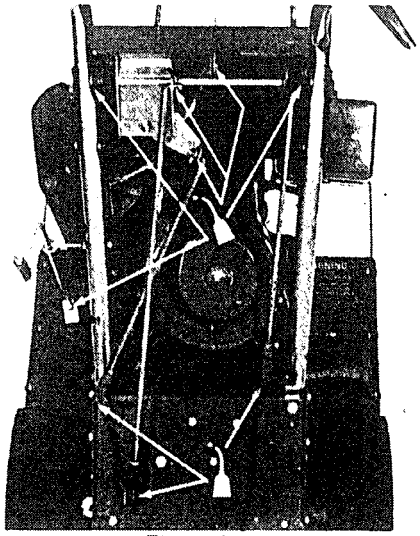


Figure 14

2. Tip the snowthrower forward and block it solidly. Remove lower shield, lightly oil (SAE 10W-40) chain, pivot points, gear bushing, nylon ring, and hex shaft every fifteen (15) operating hours.

CAUTION: Do not allow lubricant to get on the rubber wheel and friction drive plates.

3. Reinstall lower shield.

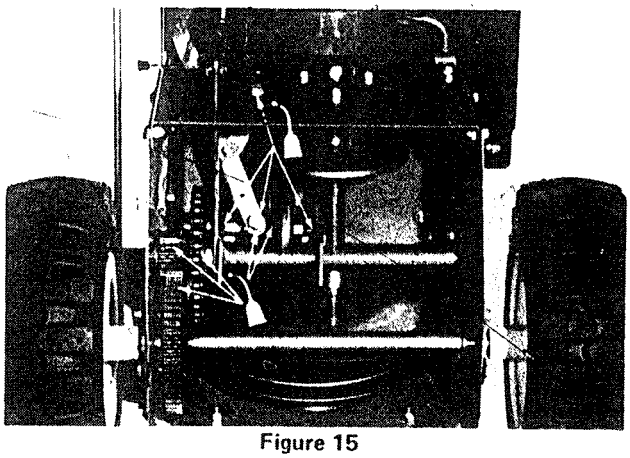


Figure 15

MAINTENANCE (Continued)

CHANGING ENGINE OIL

Change oil after the first 2 hours of operation; thereafter every 25 hours. Drain oil while engine is warm and proceed as follows:

1. Remove oil drain cap. Do not remove extension pipe.
2. Allow oil to drain into a low shallow pan. Be sure oil drains completely.

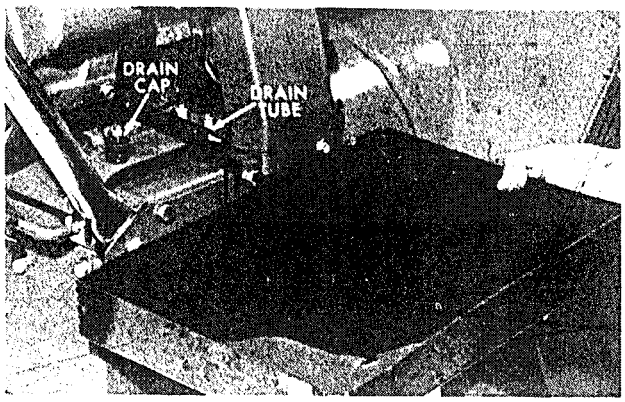


Figure 16

3. Replace oil drain cap and refill with fresh oil (See Filling With Oil, page 4).

CHANGING AUGER GEAR BOX OIL

Change gear oil once a year. Drain oil after auger has been in operation; oil will be warm and flow easily.

1. Remove gas from gas tank.
2. Position unit on a flat level surface.
3. Remove filler plug.

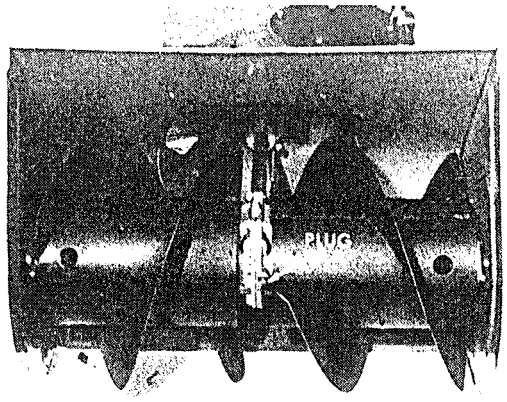


Figure 17

4. Tip unit forward and allow oil to drain into a container which can be disposed of easily. Be sure oil drains completely.
5. Refill with 3 ounces of fresh oil (See Filling With Oil, No. 7, page 4), and replace filler plug. Use SAE 90EP Gear Oil.

BELT ADJUSTMENT

Adjust the belts so they will not slip under load, yet not so tight that they will impose an excessive load on the bearings.

Remove the belt guard.

1. Wheel Drive Belt – Loosen the capscrews through the idler arm, rotate the arm (by means of the slot) until the belt is at the desired tension, and retighten the capscrews.
2. Auger Drive Belt – To tighten the belt, lengthen the rod assembly by turning the clevis down on the rod; to loosen the belt, shorten the rod assembly by turning the clevis up the rod. Check the auger brake pad at the lower end for contact when the drive is disengaged.

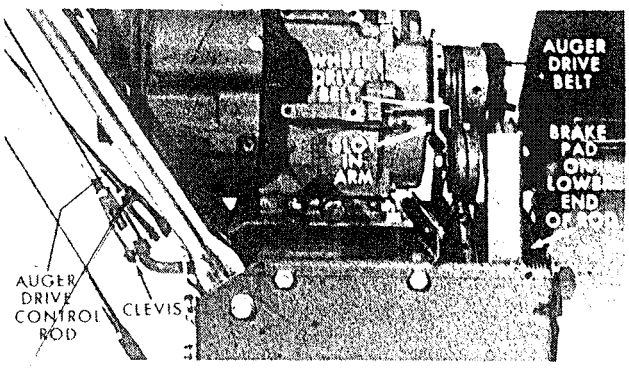


Figure 18

TRACTION DISC ADJUSTMENT

When the wheel drive lever is in the "N" (neutral) position, there should be approximately the same gap between the rubber wheel and the friction disc and the rubber wheel and the pulley.

1. If the unit does not engage in forward drive, remove the clevis pin, and turn the clevis upward (shortening the rod assembly), thus moving the rubber wheel closer to the pulley (forward drive).
2. If the unit does not engage in reverse drive, lengthen the control rod to move the rubber wheel closer to the friction disc (reverse drive).
3. If the unit does not disengage from forward, adjust the clevis to move the wheel away from the pulley.
4. If the unit does not disengage from reverse, adjust the clevis to move the wheel away from the friction disc.

NOTE: If the unit still does not drive properly, contact your local Authorized Toro Service Dealer.

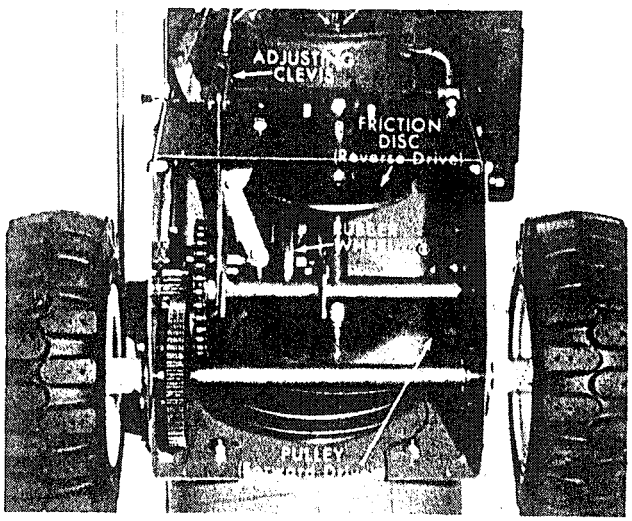


Figure 19

MAINTENANCE (Continued)

SKID ADJUSTMENT

For normal snowthrowing conditions, adjust the skids as follows:

1. Place unit on level surface and loosen nuts securing skids to auger side plates.
2. Push forward on the machine so that the pivoting scraper blade is pulled to the rear, and position the auger at the desired height, depending on the surface.
3. Insure that skids are parallel with ground and tighten nuts securely.

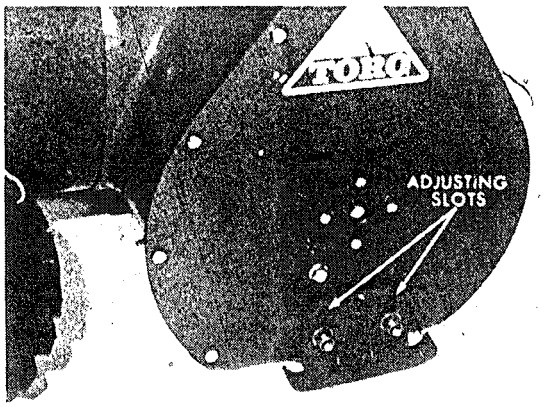


Figure 20

For crushed rock or gravel driveways, adjust the skids as follows:

1. Place unit on a level surface and loosen nuts securing skids to auger side plates.
2. Slide skids downward so that bottom of auger is as far away from the ground as the skids will allow.
3. Insure that skids are parallel with ground and tighten nuts securely.

The skids can be removed to move heavy, wet snow or hard frozen snow. When surface is rough, bumpy, wavy or frozen, the machine will tend to yaw left and right as the auger contacts these bumps. Slow down by reducing throttle—thus reducing auger R.P.M. Use gear shift lever as desired to maintain forward speed.

CHANGING SPARK PLUG

Use a Champion J-8 or equivalent for replacement. Clean and reset the gap at .030 inches every twenty-five (25) hours of operation. Apply a light coating of graphite grease on threads before replacing plug. If plug is pitted or cannot be cleaned easily, install a new plug.

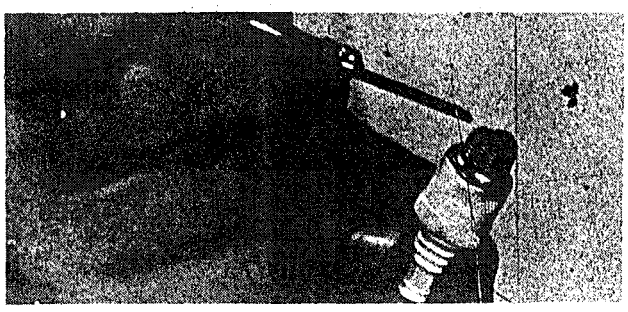


Figure 21

CARBURETOR ADJUSTMENT

Do not make unnecessary adjustments. Factory settings are correct for most applications. If adjustments are needed proceed as follows:

1. See Starting, No. 9, page 6 for removal of carburetor heater box.

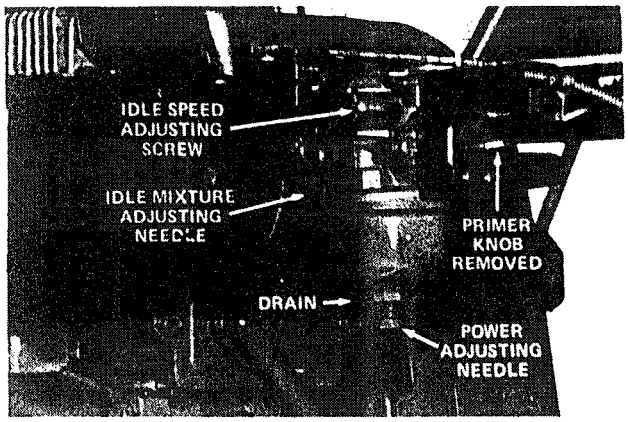


Figure 22

2. Close power adjusting needle by turning to right (clockwise). Close finger tight only. Forcing will cause damage. Then open needle one (1) turn (counterclockwise).
3. Close idle mixture adjusting needle by turning to right (clockwise). Close finger tight only. Forcing will cause damage. Then open needle one and one-half (1½) turns (counterclockwise).
4. Start engine. Follow starting instructions.
5. With throttle open (speed control at "Run" position) adjust power adjusting needle one-eighth (1/8) turn at a time forward or backward until engine runs smoothly. If engine tends to stall under load, enrich mixture slightly (counterclockwise).
6. Place speed control in idle or slow position and adjust idle adjusting needle until engine runs smoothly proceeding as in step 5 above.
7. Allow several seconds between each adjustment when performing step 5 or 6 to allow carburetor to adjust to new setting.
8. Place throttle lever in slow position and adjust idle speed screw to obtain fast idle speed of 1600–2100 RPM. Readjust idle mixture screw if necessary until engine idles smoothly.
9. Reinstall heater box, spring and primer knob.

ENGINE SPECIFICATIONS

	524	724
Bore	2-5/8"	2-3/4"
Stroke	2-1/4"	2-17/32"
Displacement (cu. in.)	12.17	15.0
Horsepower (@3600 RPM)	5	7

	AC	Autolite	Champion
Spark Plug type	CS-46	A71	J-8
Spark Plug Gap			.030"
Ignition Point Gap			.020"
Valve Clearance (Both)			.010"

OFF SEASON STORAGE

In the event the engine is to be stored for any length of time (30 days or more) or at the end of the snowthrowing season, prepare it as outlined in the following steps:

1. Remove fuel from tank.
2. Start engine to use all fuel in carburetor and line. When engine starts to sputter, operate choke which will drain carburetor.
3. Remove spark plug and pour one (1) ounce of lubricating oil (SAE 30) in cylinder – Crank engine several times to distribute oil and replace plug. Leave plug wire disconnected.
4. Lubricate all lubrication points as described on page 7.
5. Check all visible moving parts for wear, breakage, or damage.
6. Store in a clean, dry place and cover to keep clean.
7. Cover bare metal parts of auger, auger housing, impeller and impeller housing with oil or rust preventative to prevent rusting during summer months.
8. If unit is equipped with a drift breaker–storage bar, the unit may be stored as shown. Drain the gas, and stand the unit on the bar.

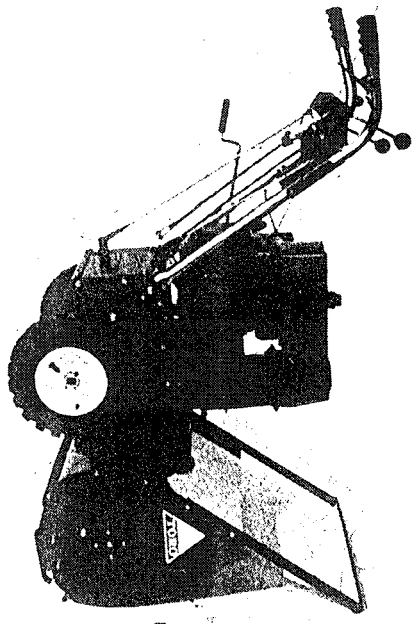
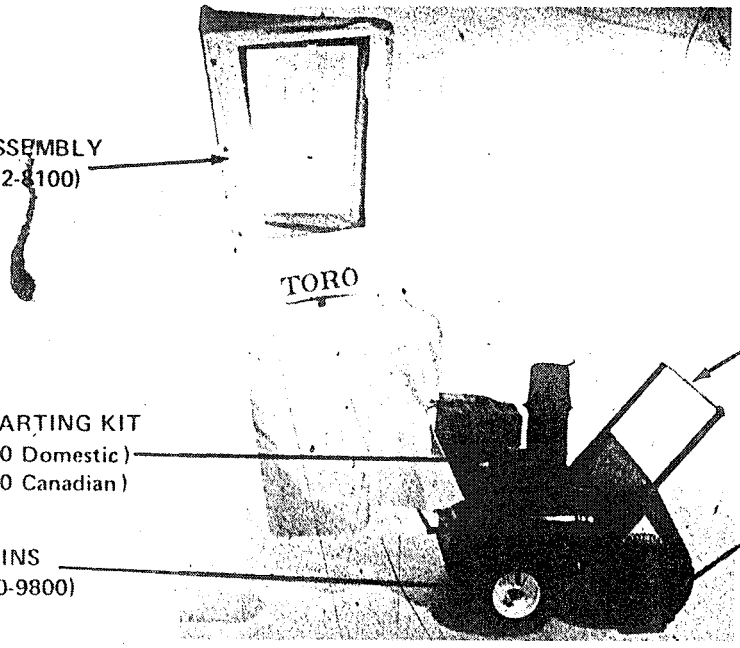


Figure 23

TROUBLE SHOOTING CHART

PROBLEM	SOLUTION
1. Recoil starter mechanism fails to crank engine.	• Frozen Recoil – Thaw it out. • Remove, degrease and dry out ball and detent mechanism. NOTE: Do not remove light oil from wick.
2. Engine fails to start.	• Make sure auger impeller clutch is disengaged and is actuating interlock switch under control panel. • Check fuel tank for gas and fuel shutoff valve. (Turn counterclockwise for "ON") • Throttle lever in start position. • Spark plug or spark plug wire loose, disconnected or wet. • Carburetor improperly adjusted. • Engine flooded. Remove & dry plug, crank engine with plug removed and throttle in run, (full on) position. Replace plug and wire and resume start procedure. • Auger-impeller clutch "ON".
3. Erratic engine operation, hard starting or loss of power.	• Insufficient fuel in tank. • Loose spark plug wire. • Dirt in gas tank. • Carburetor improperly adjusted. • Gas cap vent plugged.
4. Occasional engine skip (hesitates) at high speed.	• Spark plug fouled or gap too wide. • Carburetor improperly adjusted.
5. Erratic idle.	• Carburetor idle speed adjustment improperly set. • Spark plug gap too close.
6. Engine overheats.	• Low on crankcase oil. • Carburetor improperly adjusted.
7. Auger and impeller sluggish or fail to run.	• Broken or loose belt. Adjust belt idler or replace belt. • Impeller frozen in housing – break loose.
8. Dead man reverse fails to return shift lever to neutral.	• Broken or missing return spring. Replace with new spring.
9. Wheel drive fails to rotate wheels when shift lever is in fwd. 1, 2, 3, or reverse.	• Low wheel drive belt tension, or worn belt. Adjust idler. • Check drive chain. • Check traction disc adjustment to assure good rubber friction wheel contact. • Wheel lock pins in free-wheeling position; place pins through hub and axle.
10. Poor snow cleanup.	• Pivoting scraper blade hung up or jammed. Remove objects. • Check skid adjustment.
NOTE: For repairs beyond the minor adjustments listed above, please contact your local TORO service dealer. (see Yellow Pages)	

OPTIONAL EQUIPMENT



THE TORO PROMISE

It is Toro's policy to design and produce TORO products to provide our customers with a high level of performance and durability in normal operation. Our products, however, are produced in high volume, and it is inevitable that occasionally a unit will reach a customer with a defect in materials or workmanship which causes that unit to fall below the normal high level of TORO performance. Invariably, such a defect will be noticed in a residential product within one year, and in an institutional product within ninety days after purchase. Recognizing this possibility, Toro has established a simple guarantee policy and procedure that is intended to assure customer satisfaction. This guarantee statement is as follows:

The Toro Promise

The Toro Company promises to repair any TORO product for the original purchaser if defective in materials or workmanship. The following time periods from the date of purchase apply:

Residential products	1 year
Residential products used commercially	45 days
Institutional products	90 days

The costs 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 any institutional product to a TORO distributor.

Should you feel that a product is defective, and wish to rely on The Toro Promise, the following procedure is recommended:

1. Contact any TORO dealer or distributor, but preferably the dealer or distributor from whom you purchased the product.
2. He will instruct you to either return the product to him, or tell you the name and address of your nearest Authorized TORO Service Dealer if the product is to be returned to such dealer.
3. Take the product and your original sales slip, or other evidence of purchase date, to the servicing 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 he performs, we urge you to contact us. Write:

TORO "Customer Care" Department
8111 Lyndale Avenue South
Bloomington, Minnesota 55420

PRODUCT CHANGES

In an effort to make improvements available to TORO owners as quickly as possible, minor changes are incorporated into Toro's products from time to time that do not become immediately shown in the Owner's Manual. If such a change apparently has been made in your unit, which is not reflected in your manual, see your TORO distributor or his Authorized TORO Service Dealer for information and part numbers.

MAINTENANCE RECORD

Date	Hours Used	Oil Change	Lubrication	Summer Storage	Fall Service	Spark Plug Gap

Litho in U.S.A.