TORO

We Take Care™

MODEL NO. 31660-200001 & UP – TRACTION ASSY.
MODEL NO. 31260-200001 & UP – AUGER ASSY.

OWNER'S MANUAL

26" SNOWTHROWER (5 H.P.)

BEST COPY AVAILABLE

SAFETY INSTRUCTIONS

ONLY COPY
DO NOT REMOVE
Tech. Publications

CAUTION

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 quickly – READ THE 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 extremely dangerous.
4. Be sure house or garage outlet is 110 VAC grounded and fused with a 15 AMP fuse.
5. Use a grounded three (3) wire extension cord for electric start.
6. Keep children and pets a safe distance away at all times.

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. Do not use machine when temperature is below -30°F.
14. Check before each use for loose fasteners or parts.
15. Stop engine and disconnect spark plug lead wire before cleaning discharge chute, removing obstacles, making adjustments or when leaving operating position.
16. Never place hands or feet under or into rotating parts or concealed areas.
17. When striking a hidden object, immediately place throttle in "STOP" position, all controls disengaged or in Neutral, 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.

MAINTENANCE

19. Follow maintenance instructions as outlined in this manual.
20. Have an authorized Toro Service Dealer inspect the snowthrower each year.
21. Disconnect spark plug wire before making any adjustment or repair.
22. Store gasoline in an approved red metal container in a cool, dry place.
23. Keep machine in good operating condition and keep safety devices in place.
24. Safety and performance levels can be assured only by the use of specified Toro replacement parts.

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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.

LOOSE PARTS CHART

DESCRIPTION	QUANTITY	WHERE USED
Capscrew Washer Locknut	2 2 4	Mounting of Traction Assembly to Auger Housing Assembly
Self-Tapping Bolt Washer	2 2	Installing Belt Guard
Socket Head Screw Locknut Clip (wide) Clip (narrow)	2 2 1 1	Mounting of Chute
Hex Washer Locknut	1 1	Mounting of Worm Gear
Owner's Manual	1	

Unpack your snowthrower 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.

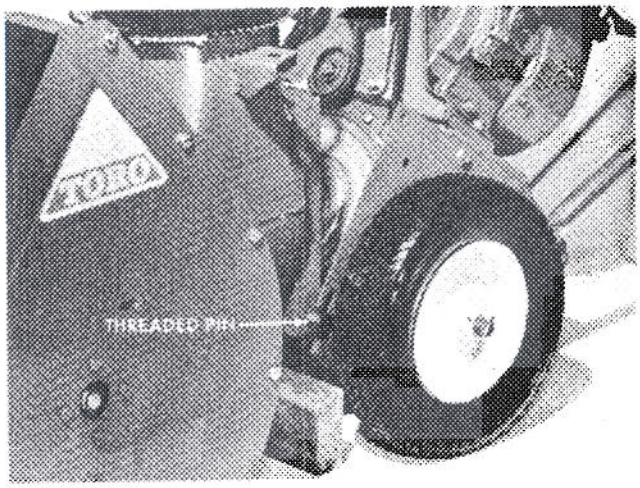
Copyright 1971 By
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Minneapolis, Minnesota 55420 U.S.A.

GENERAL ASSEMBLY INSTRUCTIONS

Important: Where right or left directional instructions are given, it is intended that the owner is in the normal operating position behind the handles.

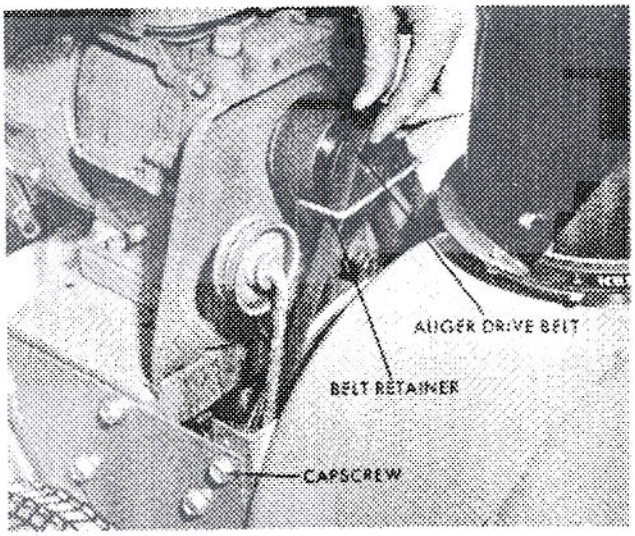
1. Position traction assembly (engine and handles) behind auger housing assembly. Place 2 x 4 under auger housing (See photo below).

2. Position slots (side plate of traction assembly) over threaded pins of auger housing. DO NOT tighten with locknuts immediately.



3. Align upper holes of sideplate and auger housing. Secure with capscrews, washers and locknuts.

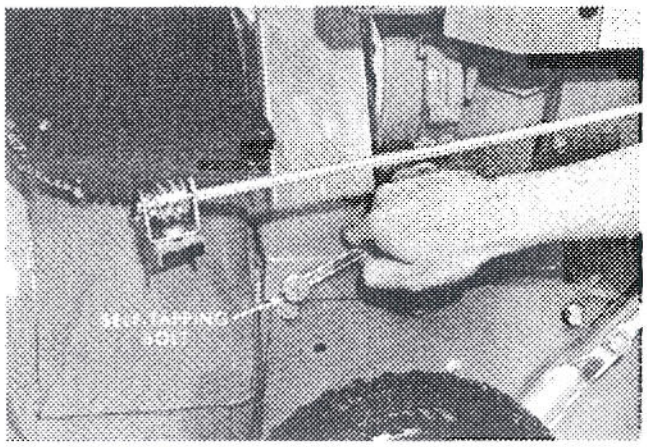
4. Place auger drive belt onto auger housing pulley and engine pulley. Insure belt is positioned behind belt retainer.



5. Tighten locknuts on threaded pins of auger housing.

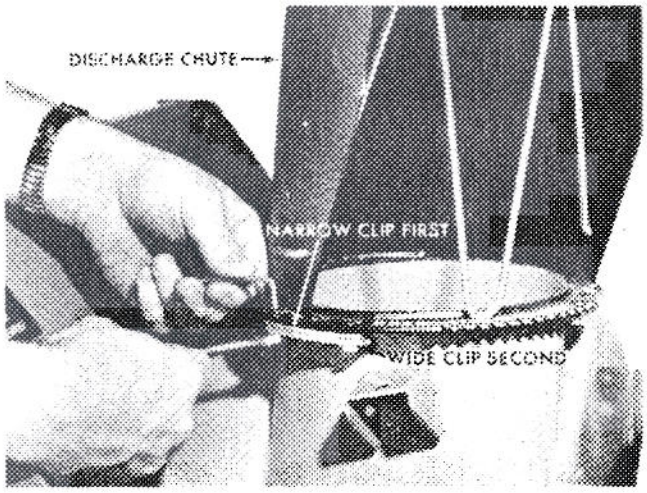
6. Install belt guard and secure with washer and self-tapping bolt.

Note: Insure washer is positioned between bolt head and belt guard.

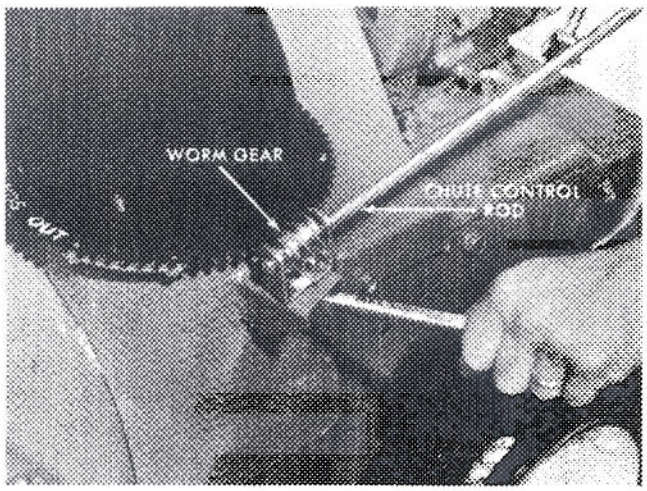


7. Slide discharge chute over retaining ring. When properly positioned, secure with two (2) socket head screws, clips, and locknuts. Insure that narrow clip is installed first and wide clip is installed second.

Note: Insure that all wide retaining plates are positioned under retaining ring, then tighten nuts securely.



8. Install chute control rod assembly to bracket mount of auger/impeller housing. Adjust the worm snug against teeth of discharge chute and fasten with hex washer and locknut.

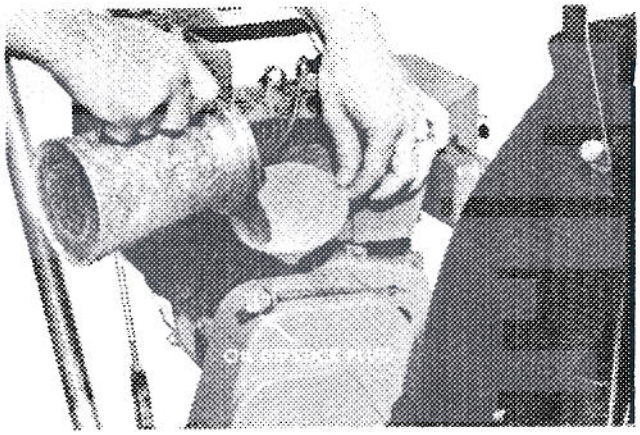


PREPARATION BEFORE STARTING

The engine has been shipped from the factory without oil and gasoline. Therefore, it is essential that the Preparation Before Starting instructions in this manual be strictly adhered to.

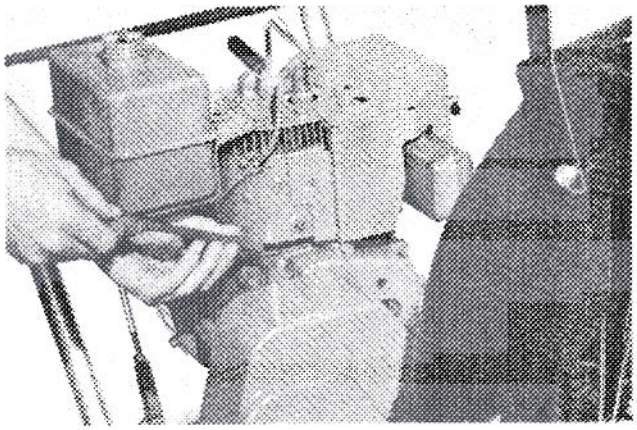
FILLING WITH OIL

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

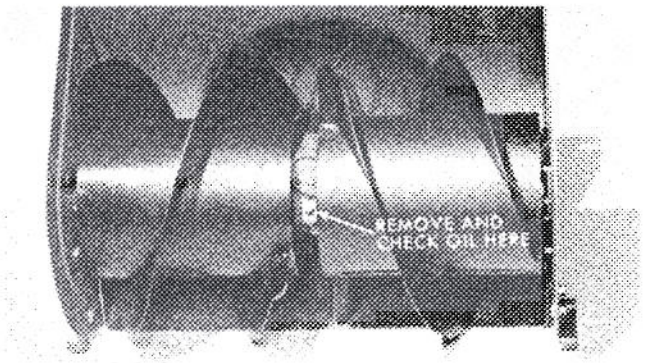


3. Check with dipstick – oil should be to top line of SAFE margin. Add oil if necessary.

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



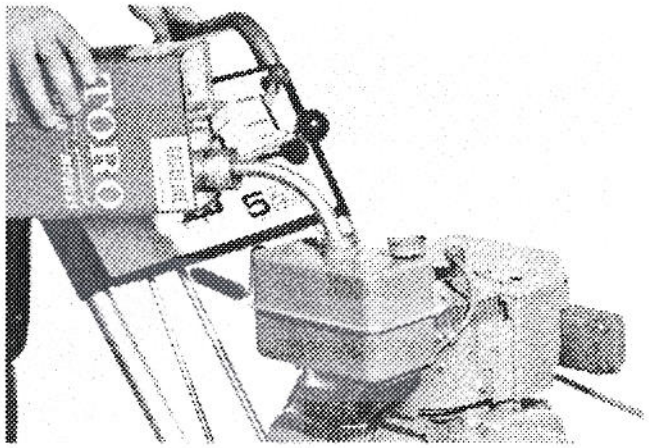
4. After sufficient amount of oil has been added, replace oil dipstick plug.
5. Change oil after the first two (2) hours of operation and check oil level after five (5) operating hours or each time snowthrower is used.
6. Change oil every twenty-five (25) operating hours (See Changing Engine Oil, page 7).
7. Check auger gear box oil level 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 7).



FILLING WITH GASOLINE

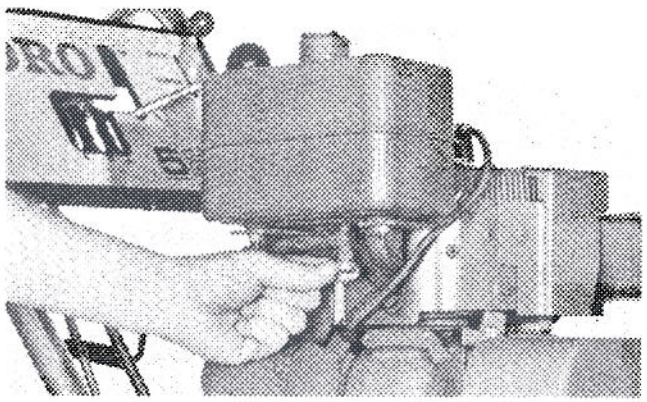
Fill the gas tank with a fresh supply of the new automotive anti-pollution unleaded regular gasoline or regular gasoline. Handle gas with care – it is highly flammable. Never add gas to your snowthrower in an enclosed area. Fill gas tank outdoors and wipe up spilled gas. Never add gas to your snowthrower while the engine is running. Always take precaution to keep gas and gas storage cans clean. Keep area around gas cap free from ice buildup.

CAUTION: Do not mix oil with gas. Never use premium gas, white stove gas, or gasoline additives.



FUEL SHUT-OFF

After filling with gas, open fuel shut-off valve. Gasoline will now flow through the lines and allow engine to be started.



KNOW YOUR CONTROLS

Auger/Impeller Clutch – this control can be used to "Engage" or "Disengage" the auger and impeller. To "Engage," pull clutch lever up slowly. To "Disengage," pull clutch lever down.

Gear Shift Lever – this control provides three (3) forward speeds and one (1) reverse. To shift speeds, move shift lever into the speed you desire.

Throttle Control – this control has three (3) positions: STOP, START, and RUN. Pushing lever forward increases engine speed and pulling to the rear as far as possible stops the machine. For effective snowthrowing use just enough throttle to throw snow to the desired spot.

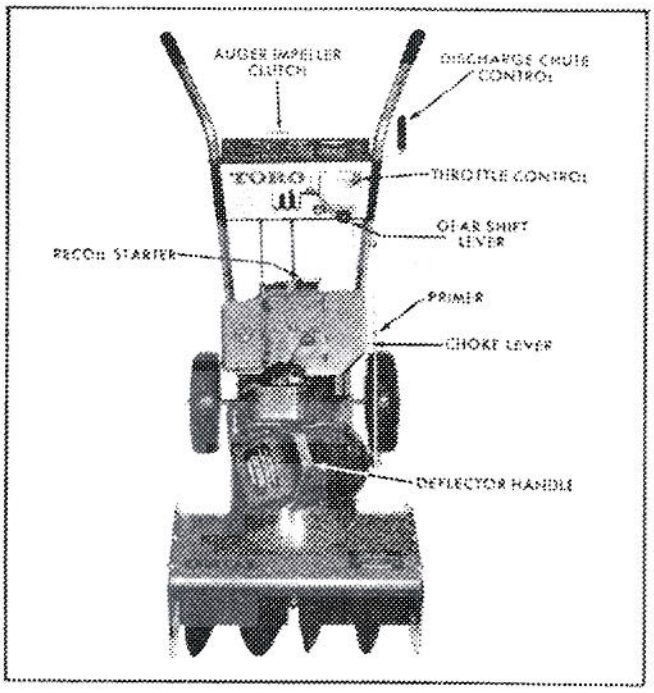
Discharge Chute Control – This control is adjustable and can be rotated to throw snow to either the right or left side of snowthrower.

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, No. five (5), Page 5.



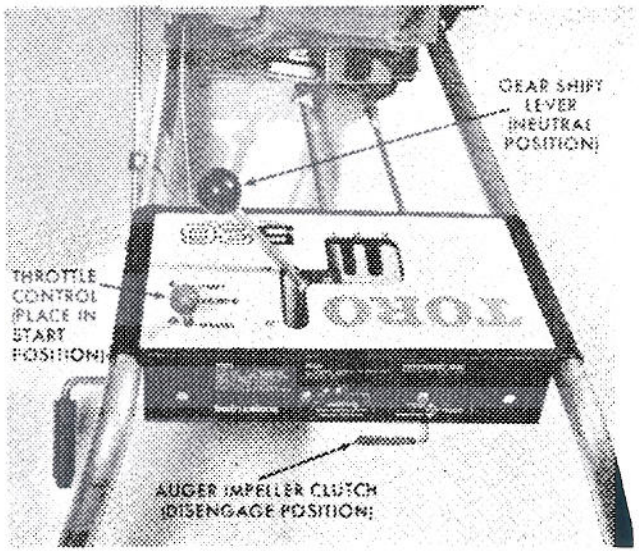
OPERATING INSTRUCTIONS

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 "STOP" position and place all controls in the "Disengage" position or in "N" (neutral).

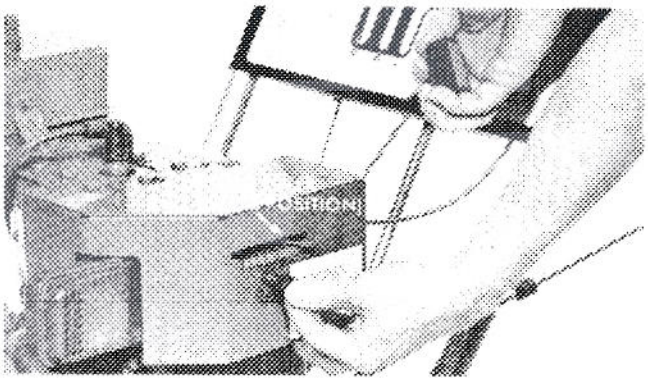
STARTING

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

1. All controls should be in the "Disengage" or "N" (neutral) 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.



6. Pull starter handle quickly. Keep firm grip on handle and return rope slowly.
7. When engine starts, advance choke lever immediately to 3/4 choke position.
8. As the engine warms up, advance 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.
   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. Replace spring and primer knob for operation with heater box removed.

OPERATING INSTRUCTIONS (Continued)

STOPPING

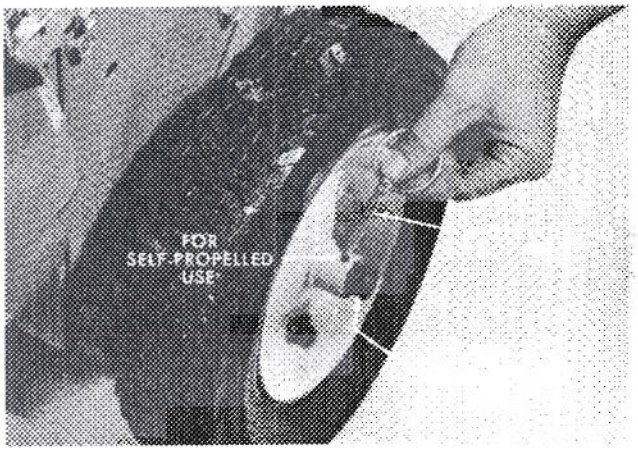
Pull Throttle control lever to "STOP" position (STOPS ENGINE). Move gear shift lever to "N" – neutral (STOPS WHEEL DRIVE). Pull Auger Impeller clutch handle down (STOPS AUGER AND IMPELLER).

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.



NOTE: Practice the following instructions before throwing snow!!

With engine running at idle speed, perform the following:

1. Pull Auger Impeller Clutch handle up (ENGAGE).
2. Move gear shift lever into the speed range (1, 2, or 3) you desire.

TIPS ON SNOWTHROWING

1. Always have gear shift lever in "N" (Neutral) and close fuel shut-off valve when machine is not in use.
2. Use just enough throttle and 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. Always 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 8).
7. For normal use, set skids even with bottom of auger. For extremely hard snow, remove skids from machine.
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.

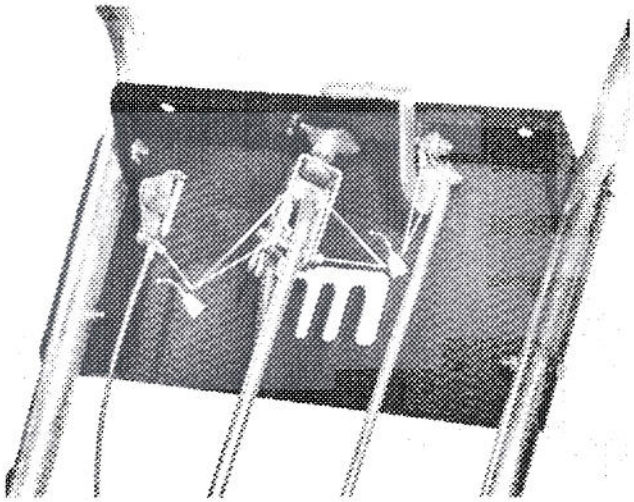
MAINTENANCE

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

LUBRICATION

Keep Snowthrower Properly Lubricated

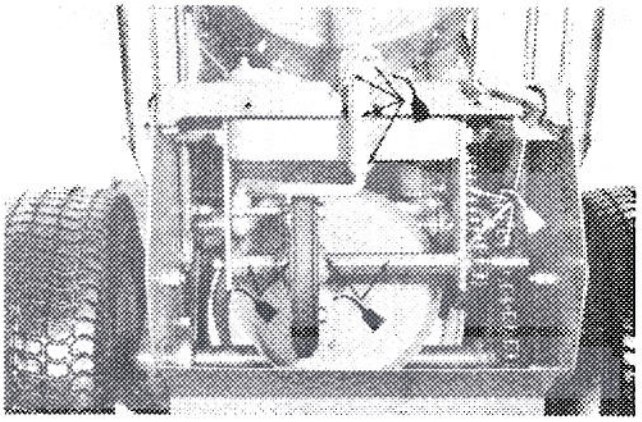
1. Apply a few drops of SAE20 oil to all pivot points in the control linkage every fifteen (15) operating hours.



2. Remove rear cover, lightly oil (SAE20) all chains, pivot points, sprocket bushing, nylon ring, control rod, and hex shaft every fifteen (15) operating hours.

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

3. Replace rear cover.

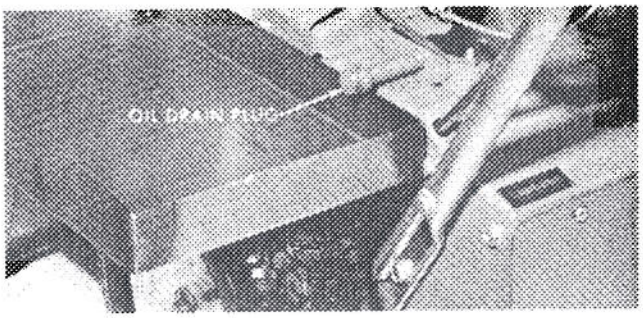


MAINTENANCE (Continued)

CHANGING ENGINE OIL

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.

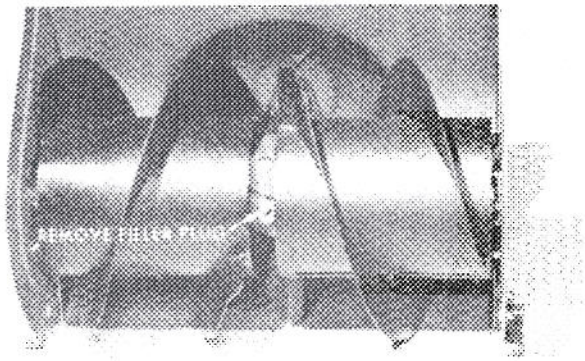


3. Replace oil drain cap and refill with fresh oil (See Filling With Oil, page 4).

CHANGING AUGER GEAR BOX OIL

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.



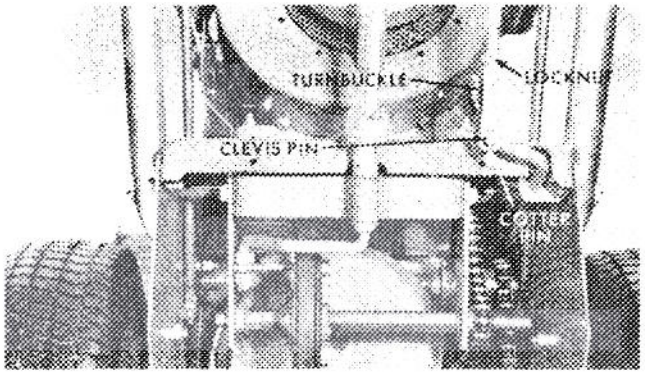
4. Tip unit forward and allow oil to drain into a container which can be disposed of easily. Be sure oil drains completely.
5. Refill with fresh oil (See Filling With Oil, No. 7, page 4) and replace filler plug.

BELT ADJUSTMENT (Auger Drive)

To increase or decrease tension in auger drive belt, proceed as follows:

1. Remove cotter pin from clevis pin and clevis pin from turnbuckle. Loosen locknut from turnbuckle (See photo top right of page).
2. To decrease belt tension, turn the turnbuckle clockwise (in).
3. To increase belt tension, turn the turnbuckle counter-clockwise (out).
4. Tighten locknut against turnbuckle.
5. Reinstall clevis pin. Secure with cotter pin.

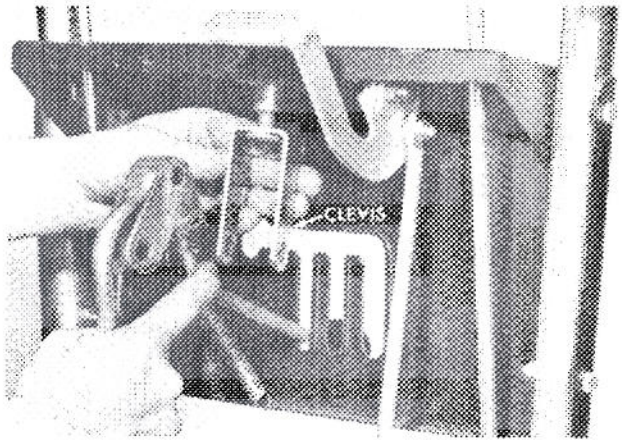
NOTE: DO NOT OVERTIGHTEN BELT.



TRACTION DISC ADJUSTMENT

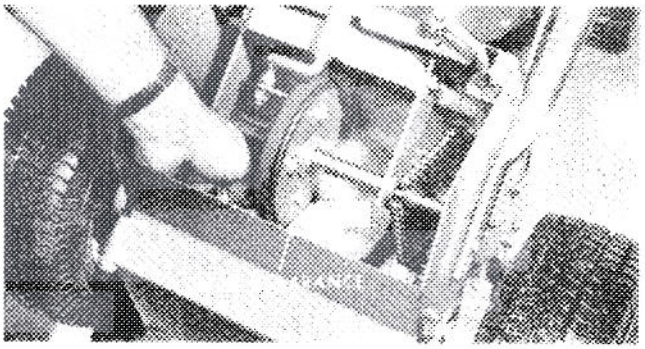
If drive does not disengage, turn clevis inward. If unit will not drive in reverse or forward speeds, turn clevis outward. To adjust, proceed as follows:

1. With gear shift lever in first (1st) gear, remove hairpin cotter from clevis pin and clevis pin from clevis as shown below.
2. If drive will not disengage, grasp assembly as shown and rotate clevis inward (clockwise) one turn.
3. If unit will not drive (forward or reverse), rotate clevis outward (counterclockwise) one turn.



4. Assemble and replace clevis pin and hairpin cotter.
5. Remove plate from back of unit. A 3/32" clearance should be evident between the friction disc and rubber wheel when gear shift lever is in "N" (neutral). Check with a shim.

NOTE: If unit will not drive (forward or reverse), even after the proper adjustment has been made, contact your local Toro Service Dealer.

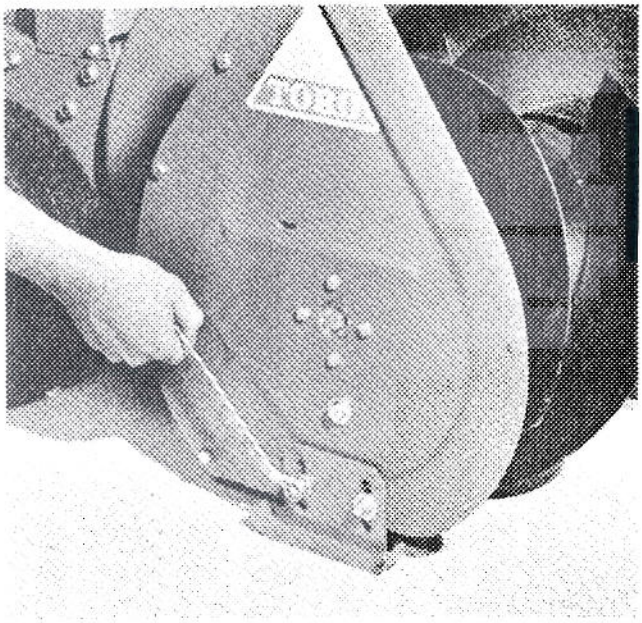


MAINTENANCE (Continued)

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 rearwardly, allowing auger to contact surface.
3. Insure skids are parallel with ground and tighten nuts securely.



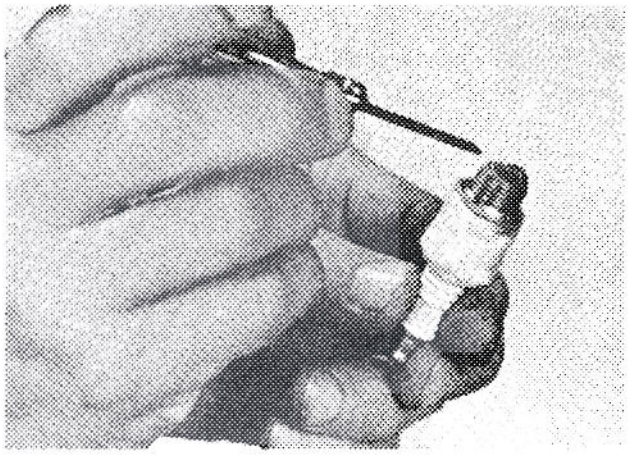
For crushed rock or gravel driveways, adjust the skids as follows:

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 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

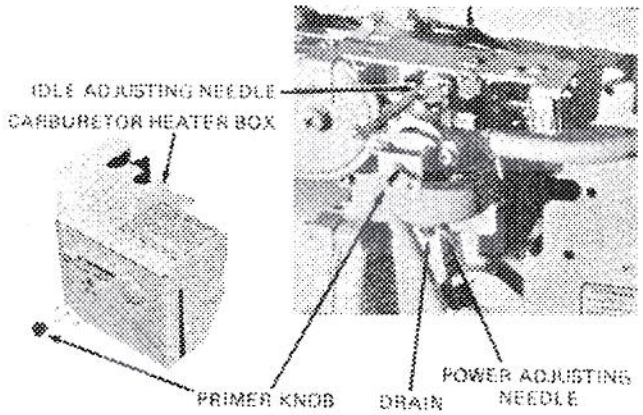
Use a Champion J-8 or equivalent for replacement. Clean and reset the gap at .030 inches every twenty-five (25) hours of operation. Apply a light coating of graphite grease on threads before replacing plug. If plug is pitted or cannot be cleaned easily, install a new plug.



CARBURETOR ADJUSTMENT

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

1. See starting procedure (See Starting, No. 9, page 5) for removal of carburetor heater box. Replace spring and primer knob before starting engine.



2. Close power adjusting needle by turning to right (clockwise). Close finger tight only. Forcing will cause damage.
3. Open one (1) turn (counterclockwise).
4. Close idle adjusting needle by turning to right (clockwise). Close finger tight only. Forcing will cause damage.
5. Open one and one-half (1½) turns (counterclockwise).
6. Start engine. Follow starting instructions.
7. 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).
8. Place speed control in idle or slow position and adjust idle adjusting needle until engine runs smoothly proceeding as in step seven (7) above.
9. Allow several seconds between each adjustment when performing step seven (7) or eight (8) to allow carburetor to adjust to new setting.

TROUBLE SHOOTING CHART

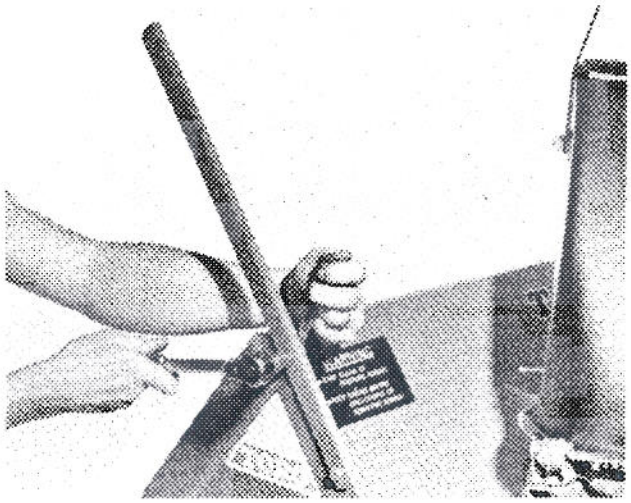
PROBLEM	SOLUTION
1. Recoil starter mechanism fails to crank engine.	• Frozen Recoil – Thaw it out. • Remove, degrease and dry out ball and detent mechanism. NOTE: Do not remove light oil from wick.
2. Engine fails to start.	• Check fuel tank for gas and fuel shutoff valve. (Turn counterclockwise for "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 engaged.
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. Occassional engine skip (hestitates) 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 shift lever 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 two final drive chains. • Check traction disc adjustment to assure good rubber friction wheel contact.
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)	

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.
4. Lubricate all lubrication points as described on page six (6).
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.

OPTIONAL EQUIPMENT



DRIFT CUTTER BAR (MODEL NO. 8-8820)
20½" IN LENGTH
CUTS INTO HARD, PACKED SNOW DRIFTS.
EASILY ATTACHES TO FRONT OF HOUSING.

110V ELECTRIC STARTING KIT
(MODEL NO. 10-4270 DOMESTIC)
(MODEL NO. 11-5700 CANADIAN)

TIRE CHAINS
(MODEL NO. 10-3190)

IMPORTANT ORDERING INSTRUCTIONS

Repair parts are available from your TORO dealer.
To insure getting correct parts without delay, please furnish the following information:

1. Model and serial number of your snowthrower as shown on the name plate.
2. Part number, description and quantity of each part required.
3. State whether parts should be shipped by mail or express. All repair parts are shipped F.O.B. factory.
4. Name and address where parts are to be shipped.
5. Do not order by reference number; use part number only.

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

Toro Manufacturing Corporation 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 a 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 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
Minneapolis, Minnesota 55420

MAINTENANCE RECORD

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

TORO

We Take Care™

MAINTENANCE RECORD

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