

YARD-MAN

OUTDOOR POWER EQUIPMENT
for all seasons



Spring



Summer



Fall



Winter

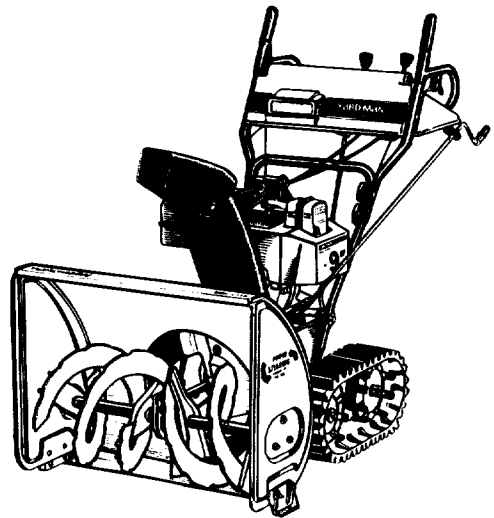
Owner's Manual

- SET-UP
- OPERATION
- MAINTENANCE

IMPORTANT:
Read Safety Rules and
Instructions Carefully

7 H.P. 9 H.P. SNOW THROWERS

Thank you for purchasing an American-built product.



Model Numbers
316E733E401 (7 H.P.)
316E753F401 (9 H.P.)


WARNING: This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 368022, Cleveland, Ohio 44136-9722.

IMPORTANT

SAFE OPERATION PRACTICES



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR SNOW THROWER. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL—  **HEED ITS WARNING.**



DANGER: Your snow thrower was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. If you violate any of these rules, you may cause serious injury to yourself or others.



TRAINING

1. Read this owner's guide carefully in its entirety before attempting to assemble or operate this machine. Be completely familiar with the controls and the proper use of this machine before operating it. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Never allow children under 14 years old to operate a snow thrower. Children 14 years old and over should only operate snow thrower under close parental supervision. Only persons well acquainted with these rules of safe operation should be allowed to use your snow thrower.
3. No one should operate this unit while intoxicated or while taking medication that impairs the senses or reactions.
4. Keep the area of operation clear of all persons, especially small children and pets.
5. Exercise caution to avoid slipping or falling, especially when operating in reverse.



PREPARATION

1. Thoroughly inspect the area where the equipment is to be used and remove all door mats, sleds, boards, wires and other foreign objects.
2. Disengage all clutches and shift into neutral before starting engine.
3. Do not operate equipment without wearing adequate winter outer garments. Do not wear jewelry, long scarfs or other loose clothing which could become entangled in moving parts. Wear footwear which will improve footing on slippery surfaces.
4. Before working with gasoline, extinguish all cigarettes and other sources of ignition. Check the fuel before starting the engine. Gasoline is an extremely flammable fuel. Do not fill the gasoline tank indoors, while the engine is running, or until engine has been allowed to cool at least two minutes. Replace gasoline cap securely and wipe off any spilled gasoline before starting the engine as it may cause a fire or explosion.
5. Use a grounded three wire plug-in for all units with electric drive motors or electric starting motors.
6. Adjust collector housing height to clear gravel or crushed rock surface.
7. Never attempt to make any adjustments while engine is running (except where specifically recommended by manufacturer).
8. Let engine and machine adjust to outdoor temperature before starting to clear snow.
9. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair, to protect eyes from foreign objects that may be thrown from the machine in any direction.



OPERATION

1. Do not put hands or feet near or under rotating parts. Keep clear of discharge opening and auger at all times.
2. Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
3. After striking a foreign object, stop the engine, remove wire from spark plug, and thoroughly inspect the snow thrower for any damage. Repair the damage before restarting and operating the snow thrower.
4. If the snow thrower should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.

5. Stop engine whenever you leave the operating position, before unclogging the collector/impeller housing or discharge guide, and making any repairs, adjustments, or inspections. Never place your hand in the discharge or collector openings. Use a stick or wooden broom handle to unclog the discharge opening.
6. Take all possible precautions when leaving the unit unattended. Disengage the collector/impeller, shift into neutral, stop the engine, and remove the key.
7. When cleaning, repairing, or inspecting, make certain collector/impeller and all moving parts have stopped. Disconnect spark plug wire and keep away from plug to prevent accidental starting.
8. Do not run engine indoors, except when starting engine and transporting snow thrower in or out of building. Open doors. Exhaust fumes are dangerous.
9. Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
10. Never operate snow thrower without guards, plates, or other safety protection devices in place.
11. Never operate snow thrower near glass enclosure, automobiles, window wells, drop off, etc., without proper adjustments of snow thrower discharge angle. Keep children and pets away.
12. Do not overload machine capacity by attempting to clear snow at too fast a rate.
13. Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when backing.
14. Never direct discharge at bystanders or allow anyone in front of unit.
15. Disengage power to collector/impeller when transporting or not in use.
16. Use only attachments and accessories approved by the manufacturer of snow thrower (such as wheel weights, counter weights, cabs, etc.).
17. Never operate the snow thrower without good visibility or light. Always be sure of your footing and keep a firm hold on the handles. Walk, never run.
18. Muffler and engine become hot and can cause a burn. Do not touch.



MAINTENANCE AND STORAGE

1. Check shear bolts, engine mounting bolts, etc., at frequent intervals for proper tightness to be sure equipment is in safe working condition.
2. Never store the machine with fuel in the fuel tank inside a building where ignition sources are present, such as hot water and space heaters, clothes dryers, and the like. Allow engine to cool before storing in any enclosure.
3. Always refer to owner's guide instructions for important details if snow thrower is to be stored for an extended period.
4. Run machine a few minutes after throwing snow to prevent freeze up of collector/impeller.
5. Check clutch controls periodically to verify they engage and disengage properly and readjust if necessary. Refer to owner's guide for adjustment instructions.

SET-UP INSTRUCTIONS

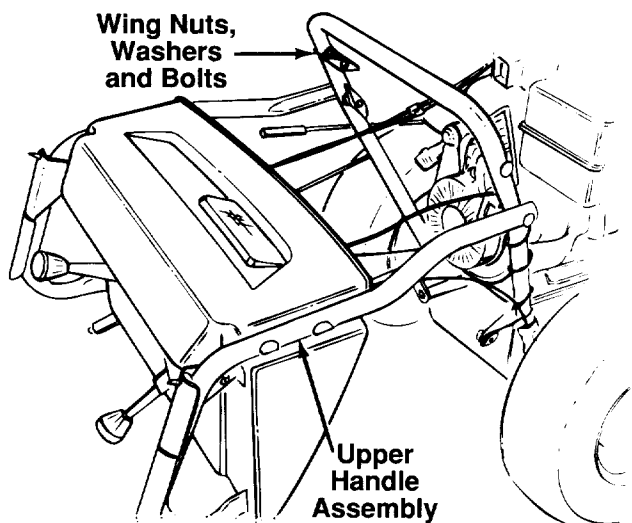


FIGURE 1.

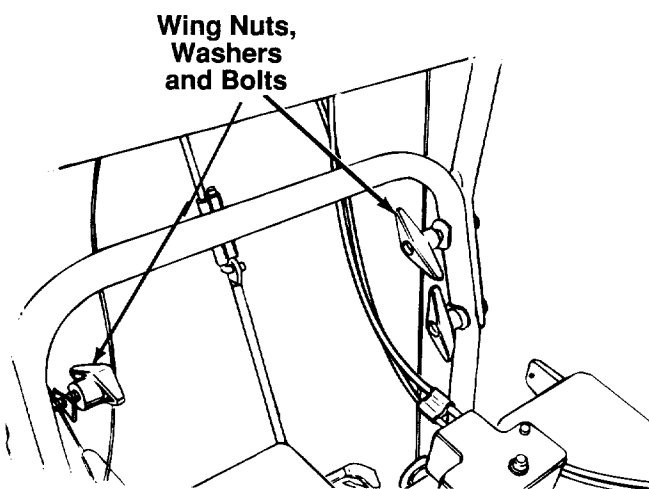


FIGURE 2.

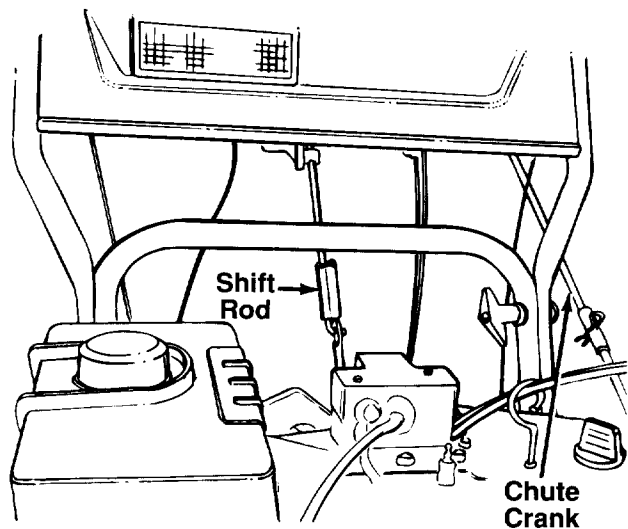


FIGURE 3.

IMPORTANT: This unit is shipped **WITHOUT GASOLINE** or **OIL**. After setup, see separate engine manual for proper fuel and engine oil recommendations.

NOTE: Reference to right or left side of the snow thrower is from behind the unit in the operating position.

1. Remove staples or break glue on the top flaps of the carton. Remove any loose parts included with unit (i.e., owner's manual, etc.).
2. Cut along dotted lines and lay end of carton down flat. Remove packing material.
3. Roll unit out of carton. Check carton thoroughly for loose parts or literature.
4. Remove the upper two plastic wing nuts, cupped washers and carriage bolts from the lower handle. See figure 1.
5. Raise the upper handle assembly until it locks over the lower handle. See figures 1 and 2.

6. Secure the upper handle and lower handle with the two plastic wing nuts, cupped washers and carriage bolts previously removed. See figure 2.

7. Slide the locking tube over the end of the shift rod. See figure 3.

NOTE: Tap the locking tube over two shift rods until it bottoms out. If it is not locked in place, the two rods will pivot and you will not be able to shift gears or directions.

8. Slide the handle end of the chute crank into the tube on the lower chute crank and secure with the cotter hairpin. See figure 3.

FINAL ADJUSTMENTS

Auger Drive Clutch

To check the adjustment of the auger drive clutch, push forward on the left hand clutch grip (depress the rubber bumper). There should be slack in the cable. Release the clutch grip. The cable should be straight. Make certain you can depress the auger drive clutch grip against the left handle completely.

If necessary, loosen the hex jam nut and thread the cable in or out as necessary. Refer to figure 4. Recheck the adjustment. Tighten the jam nut against the cable when correct adjustment is reached.

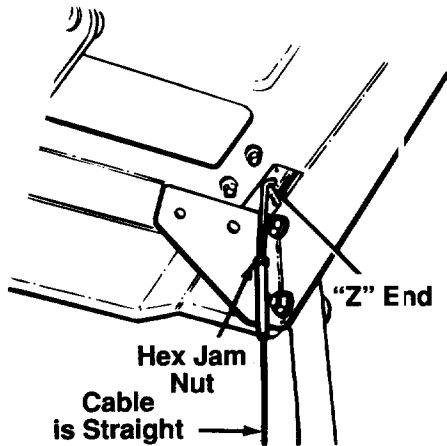


FIGURE 4.—Viewed from underside of handle panel.

Traction Drive Clutch and Shift Lever Adjustment

To check the adjustment of the traction drive clutch and shift lever, tip the snow thrower forward so that it rests on the auger housing. First move the shift lever all the way forward to sixth (6th) position. With the traction drive lever released, turn the snow thrower tracks by hand. They should turn freely. Then engage the traction drive clutch grip and try to turn the tracks. The tracks should not move.

Now release the traction drive clutch grip, and turn the tracks again. Move the shift lever back to the fast reverse position, then all the way forward again. There should be no resistance in the shift lever, and you should be able to turn the tracks by hand.

If you have resistance when moving the shift lever or you are unable to turn the tracks by hand, loosen the lock nut on the traction drive cable and unthread the cable one turn. If you are able to turn the tracks when you engage the traction drive clutch grip, loosen the lock nut on the traction drive cable and thread the cable in one turn. Recheck the adjustment and repeat adjustment as necessary. Tighten the lock nut to secure the cable when correct adjustment is reached.

NOTE: If you are uncertain that you have reached the correct adjustment, refer to the Adjustment Section on pages 8 and 9.

ADJUSTING THE SKID SHOES

The space between the shave plate and the ground can be adjusted. For close snow removal, place skid shoes in the low position. Use middle or high position when area to be cleared is uneven. See figure 5.

Adjust skid shoes by loosening the four hex nuts and carriage bolts and moving skid shoes to desired position. Make certain the entire bottom surface of skid shoe is against the ground to avoid uneven wear on the skid shoes. Retighten nuts and bolts securely.

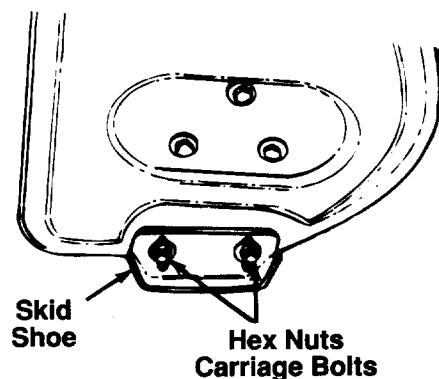


FIGURE 5.

IMPORTANT: Check the adjustments and make any final adjustments necessary before operating your snow thrower. Failure to follow the instructions may cause damage to the snow thrower.

CONTROLS

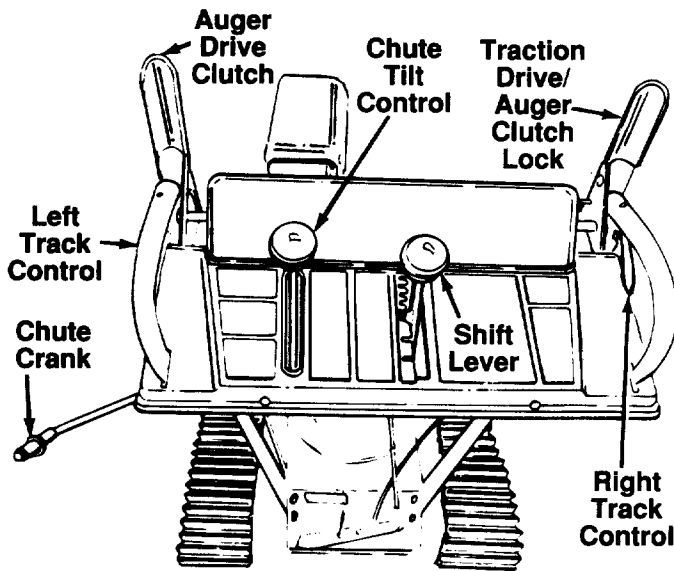


FIGURE 6.



FIGURE 7.

SHIFT LEVER (See figures 6 and 7)

The shift lever is located in the center of the handle panel. The shift lever may be moved into one of eight positions. Run engine with throttle in the fast position. Use the shift lever to determine ground speed.

Forward—one of six speeds. Position number one (1) is the slowest. Position number six (6) is the fastest.

Reverse—two reverse (R) speeds. "R" closest to the operator (all the way back) is the faster of the two.

AUGER DRIVE CLUTCH (See figure 6)

The auger drive clutch is located on the left handle. Squeeze the auger drive clutch against the handle to engage the augers. Release to stop the snow throwing action. (**Traction drive clutch must also be released.**)

TRACTION DRIVE/AUGER CLUTCH LOCK

(See figure 6)

The traction drive clutch is located on the right handle. Squeeze the traction drive clutch to engage the wheel drive. Release to stop.

This same lever also locks the auger clutch so you can turn the chute crank without interrupting the snow throwing process. If the auger drive clutch is engaged with the traction drive clutch engaged, the operator can release the auger drive clutch (on the left handle) and the augers will remain engaged. Release the traction drive clutch to stop both the augers and wheel drive (**auger drive clutch must also be released.**)

CHUTE CRANK (See figure 6)

The chute crank is located on left hand side of the snow thrower.

To change the direction in which snow is thrown, turn chute crank as follows:

1. Crank clockwise to discharge to the left.
2. Crank counterclockwise to discharge to the right.

LEFT AND RIGHT TRACK CONTROLS

The left and right track controls are located on the underside of the handles and are used to assist in steering your snow thrower. See figure 6. Squeeze the right track control when turning right, squeeze the left control when turning left. Operate your snow thrower in open areas until you become familiar with these controls.

CHUTE TILT CONTROL

The distance snow is thrown can be adjusted by adjusting the angle of the chute assembly. Move the chute tilt control forward to decrease the distance, toward the rear to increase. See figure 6.

TRACK LOCK LEVER

The track lock lever is located on the right side of the snow thrower and is used to select the position of the housing and the method of track operation. See figure 8. Move the lever to the right, then forward or backward to one of the three positions.

Transport—Raises the front end of the snow thrower for easy transport. May also be used on gravel driveways to clear snow and leave gravel undisturbed.

Normal Snow—Allows the tracks to be suspended independently for continuous ground contact.

Packed Snow—Locks the front end of the snow thrower down to the ground for hard-packed or icy snow conditions.

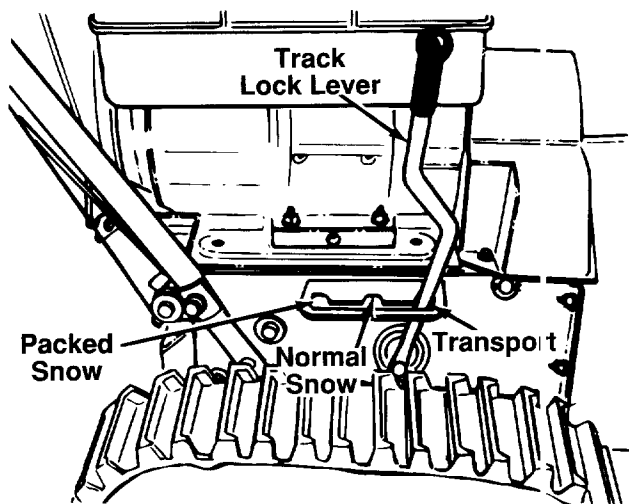


FIGURE 8.

THROTTLE CONTROL (See figure 9)

The throttle control is located on the engine. It regulates the speed of the engine.

SAFETY IGNITION SWITCH (See figure 9)

The ignition key must be inserted in the switch before the unit will start. Remove the ignition key when snow thrower is not in use.

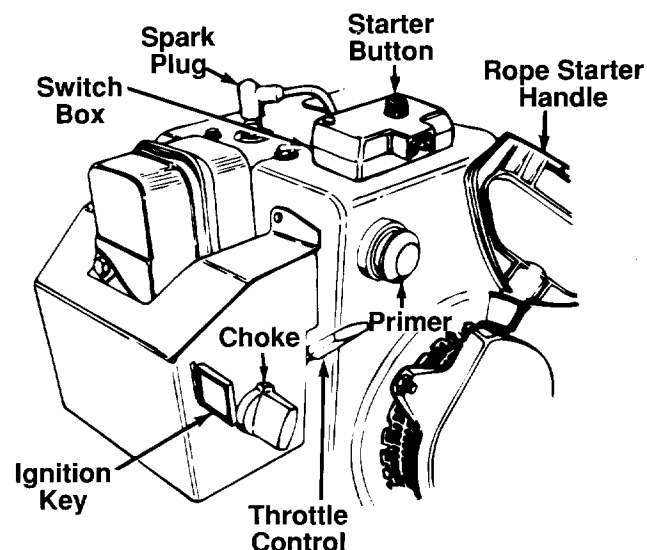


FIGURE 9.

OPERATION

GAS AND OIL FILL-UP

Service the engine with gasoline and oil as instructed in the separate engine manual packed with your snow thrower. **Read instructions carefully.**

NOTE: Your snow thrower is shipped without oil; however, a small amount of oil may be present from the factory. Do not overfill.



WARNING: Never fill fuel tank indoors, with engine running or while engine is hot. Do not smoke when filling fuel tank.

TO START ENGINE

IMPORTANT: If unit shows any sign of motion (drive or augers) with the clutch grips disengaged, shut engine off immediately. Readjust as instructed in the "Final Adjustments" section of the Set-Up Instructions.

NOTE: Your snow thrower is equipped with a headlight. The headlight will be on when the engine is running.

Electric Starter

WARNING: The electric starter is equipped with a three-wire power cord and plug, and is designed to operate on 120 volt AC household current. It must be properly grounded at all times to avoid the possibility of electric shock which may be injurious to the operator. Follow all instructions carefully. Determine that your house wiring is a three-wire grounded system. Ask a licensed electrician if you are not certain. If your house wiring system is not a three-wire grounded system, do not use this electric starter under any conditions. If your system is grounded and a three-hole receptacle is not available at the point your starter will normally be used, one should be installed by a licensed electrician.

When connecting the power cord, always connect cord to starter on engine first, then plug the other end into a three-hole grounded receptacle.

When disconnecting the power cord, always unplug the end from the three-hole grounded receptacle first.

1. Attach spark plug wire to spark plug.
2. **Make certain the auger drive and traction drive clutch grips are in the disengaged (released) position.**
3. Move throttle control up to FAST position. Insert ignition key into slot. See figure 9. Be certain it snaps into place. **Do not** turn key.
4. Rotate choke knob to OFF position.
5. Connect power cord to switch box on engine. Plug the other end of power cord into a three-hole, grounded 120 volt AC receptacle.
6. Push starter button on top of the engine to crank engine. As you crank the engine, move choke knob to FULL choke position.
7. When engine starts, release starter button, and move choke gradually to OFF. If engine falters, move choke immediately to FULL and then gradually to OFF.

Recoil Starter:

1. Attach spark plug wire to spark plug.
2. **Make certain the auger drive and traction drive clutch grips are in the disengaged (released) position.**
3. Move throttle control up to FAST position. Insert ignition key into slot. See figure 9. Be certain it snaps into place. **Do not** turn key.
4. Rotate choke knob to FULL choke position (cold engine start).

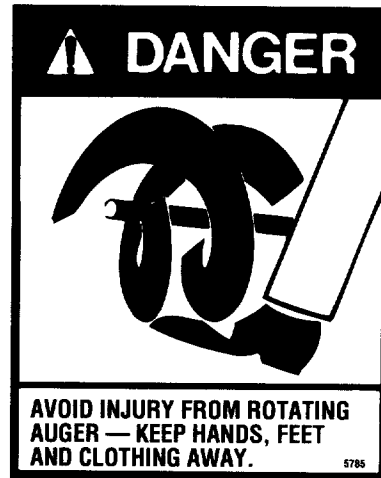
If engine is warm, place choke in OFF position instead of FULL.

5. Push primer button two or three times. See figure 9.

If engine is warm, push primer button once only.

NOTE: Always cover vent hole in primer button when pushing. Additional priming may be necessary for first start if temperature is below 15°F.

6. Grasp starter handle (see figure 9) and pull rope out slowly, until it pulls slightly harder. Let rope rewind slowly.
7. Pull starter handle rapidly. Do not allow handle to snap back. Allow it to rewind slowly while keeping a firm hold on the starter handle.
8. Repeat steps 6 and 7 until engine starts. If engine fails to start, repeat steps 5, 6 and 7 until engine starts.
9. As engine warms up and begins to operate evenly, rotate choke knob slowly to OFF position. If engine falters, return to FULL choke, then slowly move to OFF position.



TO STOP ENGINE

1. Run engine for a few minutes before stopping to help dry off any moisture on the engine.
2. To help prevent possible freeze-up of starter, proceed as follows.

Electric Starter: Connect power cord to switch box on engine, then to 120 volt AC receptacle. With the engine running, push starter button and spin the starter for several seconds. The unusual sound made by spinning the starter will not harm engine or starter. Disconnect the power cord from receptacle first, and then from switch box.

Recoil Starter: With engine running, pull starter rope with a rapid, continuous full arm stroke three or four times. Pulling the starter rope will produce a loud clattering sound, which is not harmful to the engine or starter.

3. To stop engine, remove the ignition key. **Do not** turn key. Disconnect the spark plug wire from the spark plug to prevent accidental starting while equipment is unattended.

NOTE: Do not lose ignition key. Keep it in a safe place. Engine will not start without the ignition key.

4. Wipe all snow and moisture from the carburetor cover in the area of the control levers. Also, move control levers back and forth several times. Leave throttle control lever in the STOP or OFF position. Leave choke control in the FULL choke position.



TO ENGAGE DRIVE

1. With the engine running near top speed, move shift lever into one of the six FORWARD positions or two REVERSE positions. Select a speed appropriate for the snow conditions that exist. Use the slower speeds until you are familiar with the operation of the snow thrower.
2. Squeeze the left hand auger drive clutch to engage it.
3. While the left handle auger drive clutch is engaged, engage the right hand traction drive/auger clutch lock.
4. Release the left hand auger drive clutch only. The interlock mechanism should keep the left hand auger drive clutch engaged until the right hand traction drive/auger clutch lock is released. Release it and the drive motion will stop.

NOTE: NEVER move shift lever without first releasing the drive clutch.

OPERATING TIPS

NOTE: Allow the engine to warm up for a few minutes as the engine will not develop full power until it reaches operating temperature.



WARNING: Temperature of muffler and surrounding areas may exceed 150°F. Avoid these areas.

1. For most efficient snow removal, remove snow immediately after it falls.
2. Discharge snow downwind whenever possible. Slightly overlap each previous swath.
3. Set the skid shoes 1/4" below the scraper bar for normal usage. The skid shoes may be adjusted upward for hard-packed snow. Adjust downward when using on gravel or crushed rock.
4. Be certain to follow the precautions listed under "To Stop Engine" on page 7 to prevent possible freeze-up.
5. Clean the snow thrower thoroughly after each use.

ADJUSTMENTS



WARNING: NEVER attempt to clean chute or make any adjustment while engine is running.

CHUTE ASSEMBLY ADJUSTMENT

The distance snow is thrown can be adjusted by adjusting the angle of the chute assembly. Refer to the Control section of this manual.

SKID SHOE ADJUSTMENT

The space between the shave plate and the ground can be adjusted. Refer to page 4 of the Set-Up Instructions.

TRACTION DRIVE CLUTCH ADJUSTMENT

Refer to the Final Adjustment section of the Set-Up Instructions to adjust the traction drive clutch. If you are uncertain that you have reached the correct adjustment, the adjustment can be physically checked as follows.

With the snow thrower tipped forward (be certain to drain the gasoline or place plastic film under the gas cap if the snow thrower has already been operated), remove the frame cover underneath the snow thrower by removing four self-tapping screws. With the traction drive clutch released, there must be clearance between the friction wheel and the drive plate in all positions of the shift lever. With the traction drive clutch engaged, the friction wheel must contact the drive plate. See figure 10.

If adjustment is necessary, loosen the lock nut on the traction drive cable and thread the cable in or out as necessary. Tighten the lock nut to secure the cable when correct adjustment is reached. Reassemble the frame cover.

NOTE: If you placed plastic under the gas cap, be certain to remove it.

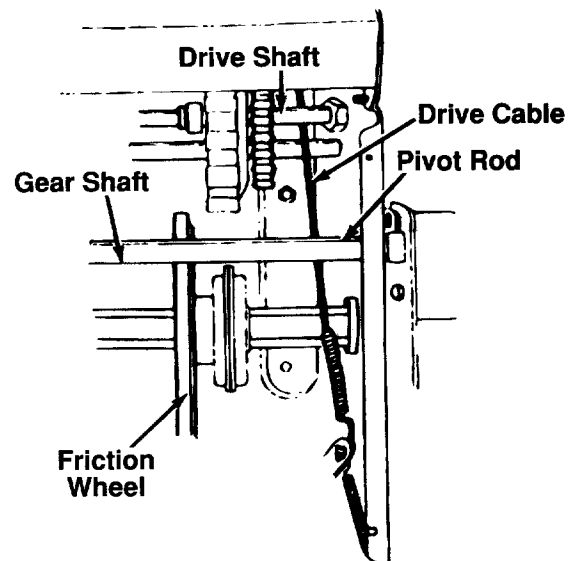


FIGURE 10.

AUGER CLUTCH ADJUSTMENT

To adjust the auger clutch, refer to Final Adjustment section of Set-Up Instructions.

SHIFT ROD ADJUSTMENT

To adjust the shift rod, remove the hairpin clip and flat washer which secure the shift rod to the shift arm assembly. Refer to figure 11. Adjust as specified in Set-Up Instructions.

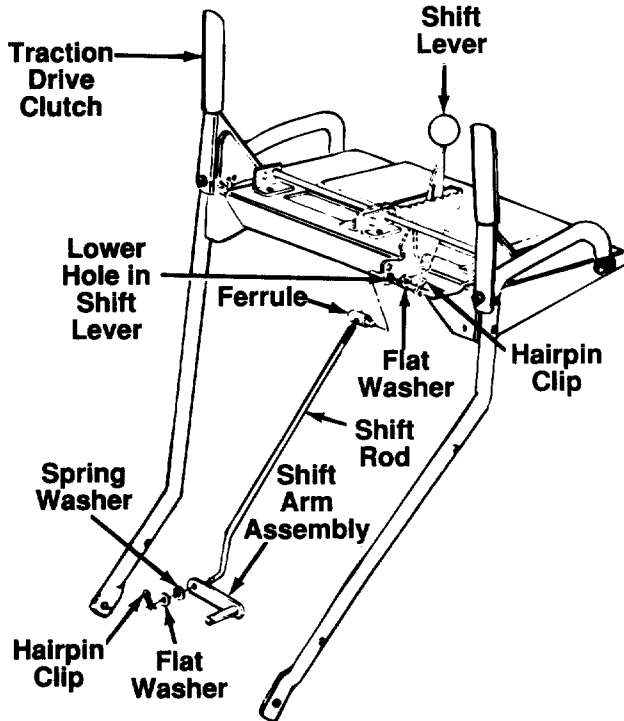


FIGURE 11.

CARBURETOR ADJUSTMENT



WARNING: If any adjustments are made to the engine while the engine is running (e.g. carburetor), keep clear of all moving parts. Be careful of heated surfaces and muffler.

Minor carburetor adjustment may be required to compensate for differences in fuel, temperature, altitude and load.

Refer to the separate engine manual packed with your unit for carburetor adjustment information.

MAINTENANCE



WARNING: Disconnect the spark plug wire and ground against the engine before performing any repairs or maintenance.

LUBRICATION

Gear Shaft

Lubricate the gear shaft with "Slick 50 Grease" at least once a season or after every 25 hours of operation (available at automotive stores, or order part number 737-0290). Refer to figure 10.

IMPORTANT: Keep all grease and oil off of the friction wheel and drive plate.

Shifting Mechanism

Lubricate the shifting mechanism and pivot points on the shift rod with engine oil at least once a season or after every 25 hours of operation.

Traction Drive/Auger Clutch Lock

The cams on the ends of the control rods which interlock the traction drive and auger drive clutches must be lubricated at least once a season or every twenty-five hours of operation. The cams can be accessed beneath the handle panel. Use "Slick 50 Grease," available at most automotive stores, or order part number 737-0290.

Gear Case

The gear case is lubricated with grease at the factory and does not require checking. If disassembled for any reason, lubricate with 2 ounces of Shell Alvania grease, part number 737-0168.

Bearings

Lubricate the auger bearings, wheel bearings and the bearings on the side of the frame once a season with light oil.

AUGERS

The augers are secured to the spiral shaft with two hex bolts and hex lock nuts. See figure 12. If you hit a foreign object or ice jam, the snow thrower is designed so that the hex bolts will shear.

If the augers will not turn, check to see if the hex bolts have sheared. Two replacement hex bolts and hex lock nuts have been provided with the snow thrower. For future use, order part number 710-0890 (hex bolt 5/16-18 x 1.5" long) and 712-0429 (hex insert lock nut 5/16-18 thread).

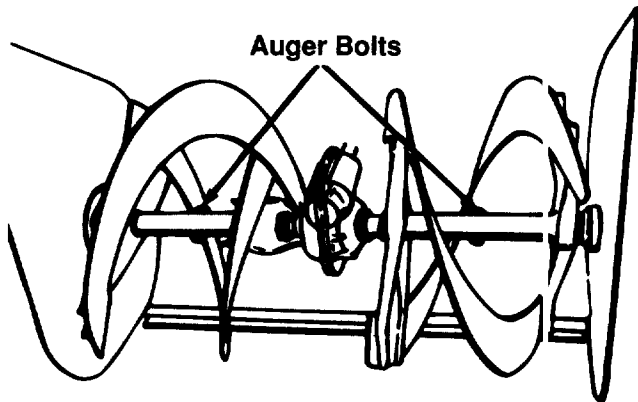


FIGURE 12.

SHAVE PLATE AND SKID SHOES

The shave plate and skid shoes on the bottom of the snow thrower are subject to wear. They should be checked periodically and replaced when necessary.

To remove skid shoes, remove the four carriage bolts, belleville washers and hex nuts which attach them to the snow thrower. Reassemble new skid shoes with the four carriage bolts, belleville washers (cupped side goes against skid shoes) and hex nuts. Make certain the skid shoes are adjusted to be level.

To remove shave plate, remove the carriage bolts, belleville washers and hex nuts which attach it to the snow thrower housing. Reassemble new shave plate, making sure heads of the carriage bolts are to the inside of the housing. Tighten securely.

ENGINE

Refer to separate engine manual for all engine maintenance procedures.

BELT REMOVAL AND REPLACEMENT



WARNING: Disconnect the spark plug wire from the spark plug and ground.

To remove and replace either the rear or front auger drive belt, proceed with the following instructions.

1. Disconnect the chute crank at the chute assembly by removing the cotter pin and flat washer.
2. Remove the plastic belt cover on the front of the engine by removing two self-tapping screws. See figure 13.

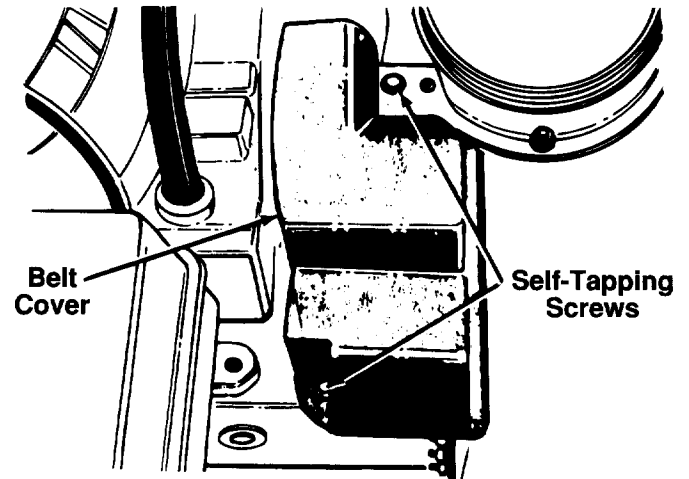


FIGURE 13.

3. Unthread the bottom of the auger cable from the top of the cable, leaving the hex nut in place.
4. Remove the six hex bolts, lock washers and hex nuts which attach the auger housing assembly to the frame. See figure 14.

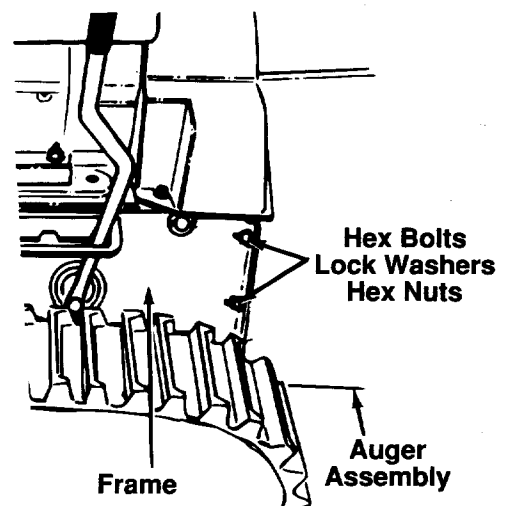


FIGURE 14.

5. Separate the housing from the frame assembly by standing in the operating position and lifting up on the handles. The frame and housing will separate, and the rear auger drive belt will come off the pulleys. See figure 15.

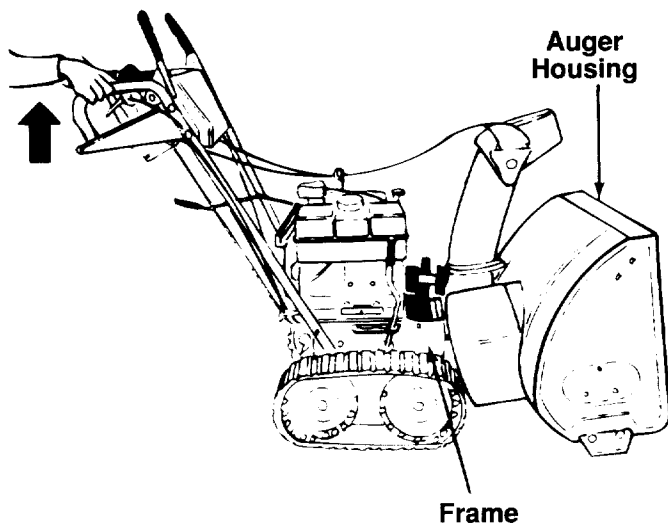


FIGURE 15.

6. To remove the front auger drive belt, push the idler pulley to the left, and lift front auger drive belt from the front auger pulley. See figure 16. Replace both auger drive belts by following instructions in reverse order.

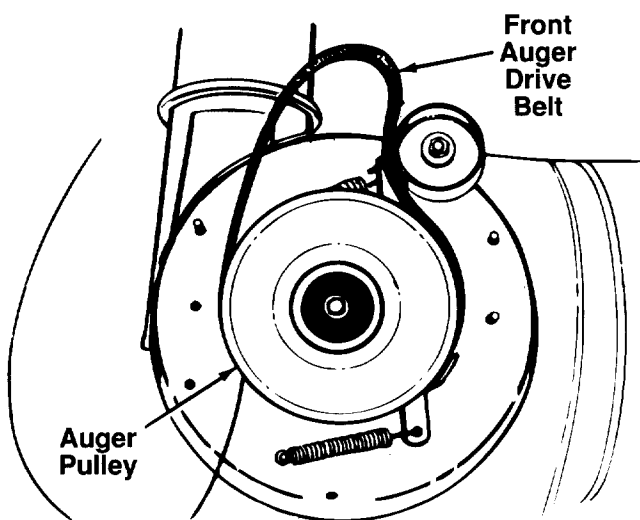


FIGURE 16.

7. If a replacement drive belt is needed, follow steps 1 through 5 of previous instructions. Pull idler pulley up and lift belt off friction wheel disc. See figure 17. Reassemble in reverse order.

NOTE: When reassembling the two halves of the unit, the auger drive cable must be routed through the cable roller guides as shown in figure 17.

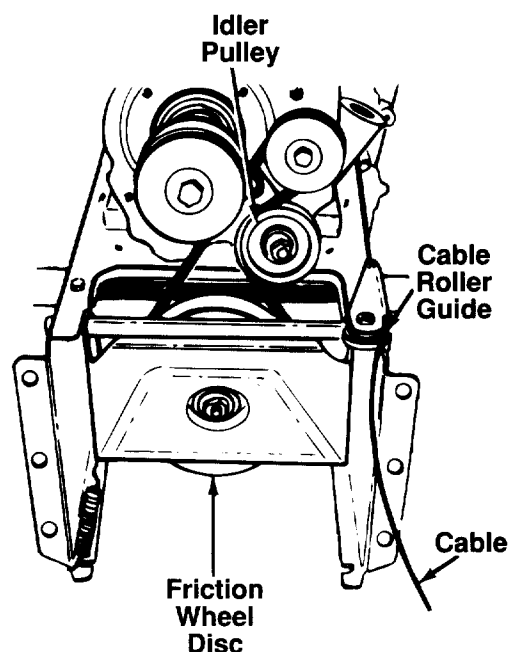


FIGURE 17.

CHANGING THE FRICTION WHEEL RUBBER

The rubber on the friction wheel is subject to wear and should be checked after 25 hours of operation, and periodically thereafter. Replace the friction wheel rubber if any signs of wear or cracking are found.

1. Drain the gasoline from the snow thrower, or place a piece of plastic under the gas cap.
2. Tip the snow thrower up and forward, so that it rests on the housing.
3. Remove four self-tapping screws from the frame cover underneath the snow thrower.
4. Remove the gear shaft from the unit by removing the bolts, lock washers and flat washers from each side of the frame. See figure 18. Hold the friction wheel assembly, and slide the gear shaft out of the unit toward the right hand side. Refer to figure 10.
5. Remove the six screws from the friction wheel assembly (three from each side). Remove the friction wheel rubber from between the friction wheel plate.
6. Reassemble new friction wheel rubber to the friction wheel assembly, tightening the six screws in rotation and with equal force.
7. Slide the friction wheel assembly up onto the shift mechanism as shown in figure 10, and slide the gear shaft back into the unit. Reassemble in reverse order.

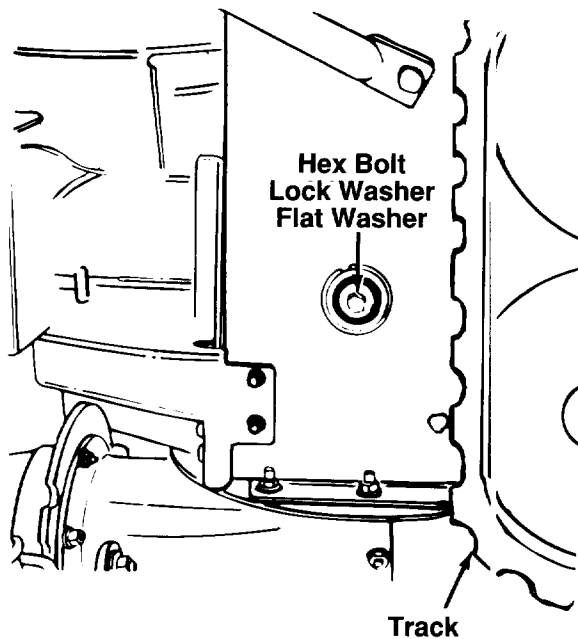


FIGURE 18.

Chains

Lubricate the three chains with engine oil at least once a season or after every 25 hours of operation. Tip the snow thrower up and forward, so it rests on the housing. Remove the frame cover by removing four self-tapping screws. Avoid getting oil on friction wheel and drive plate.

OFF-SEASON STORAGE



WARNING: Never store engine with fuel in tank indoors or in poorly ventilated areas, where fuel fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer or other gas appliance.

If unit is to be stored over 30 days, prepare for storage as follows:

1. Remove all gasoline from carburetor and fuel tank to prevent gum deposits from forming on these parts and causing possible malfunction of engine.
 - a. Run engine until fuel tank is empty and engine stops due to lack of fuel.
 - b. Drain carburetor by pressing upward on bowl drain, located below the carburetor cover.



WARNING: Drain fuel into approved container outdoors, away from open flame. Be certain engine is cool. Do not smoke.

Fuel left in engine during warm weather deteriorates and will cause serious starting problems.

NOTE: Fuel stabilizer (such as STA-BIL) is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow it to reach carburetor. Do not drain carburetor if using fuel stabilizer.

2. Remove spark plug and pour one (1) ounce of engine oil through spark plug hole into cylinder. Crank engine several times to distribute oil. Replace spark plug.
3. Remove all dirt from exterior of engine and equipment.
4. Follow lubrication recommendations on page 9.

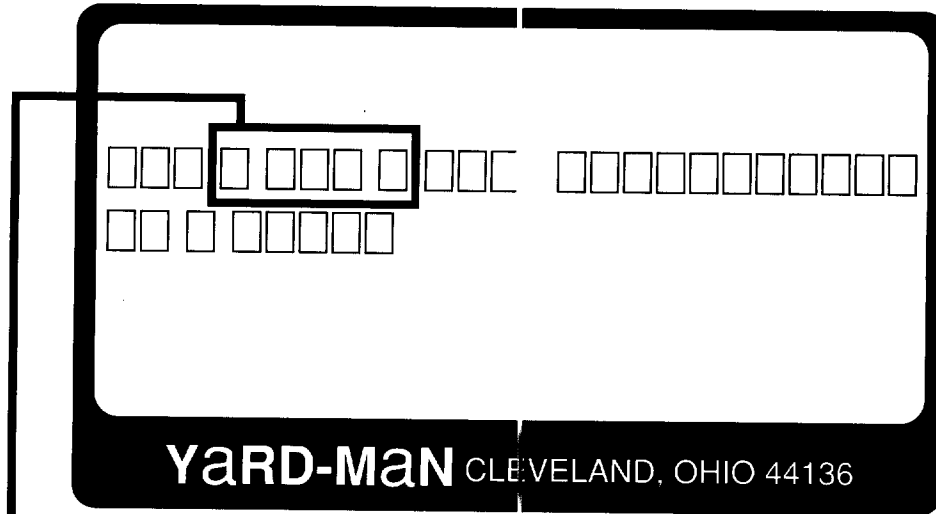
NOTE: When storing any type of power equipment in an unventilated or metal storage shed, care should be taken to rust proof the equipment. Using a light oil or silicone, coat the equipment, especially any chains, springs, bearings and cables.

TROUBLE SHOOTING GUIDE

Trouble	Possible Cause(s)	Corrective Action
Engine fails to start	<ol style="list-style-type: none"> 1. Fuel tank empty, or stale fuel. 2. Blocked fuel line. 3. Key not in switch on engine. 4. Spark plug wire disconnected. 5. Faulty spark plug. 	<ol style="list-style-type: none"> 1. Fill tank with clean, fresh gasoline. 2. Clean fuel line. 3. Insert key. 4. Connect wire to spark plug. 5. Clean, adjust gap or replace.
Engine runs erratic	<ol style="list-style-type: none"> 1. Unit running on CHOKE. 2. Blocked fuel line or stale fuel. 3. Water or dirt in fuel system. 4. Carburetor out of adjustment. 	<ol style="list-style-type: none"> 1. Turn choke knob to OFF position. 2. Clean fuel line; fill tank with clean fresh gasoline. 3. Use carburetor bowl drain to drain fuel tank. Refill with fresh fuel. 4. Adjust carburetor. See separate engine manual.
Loss of power	<ol style="list-style-type: none"> 1. Spark plug wire loose. 2. Gas cap vent hole plugged. 	<ol style="list-style-type: none"> 1. Connect and tighten spark plug wire. 2. Remove ice and snow from cap. Be certain vent hole is clear.
Engine overheats	<ol style="list-style-type: none"> 1. Engine oil level low. 2. Carburetor not adjusted properly. 	<ol style="list-style-type: none"> 1. Fill crankcase with proper oil. 2. Adjust carburetor. See separate engine manual.
Excessive vibration	Loose parts or damaged impeller.	Stop engine immediately and disconnect spark plug wire. Tighten all bolts and nuts. Make all necessary repairs. If vibration continues, have unit serviced by authorized service dealer.
Hard to shift, or will not shift	Shift rod misadjusted.	Readjust shift rod. See Adjustment section of this manual.
Unit fails to propel itself	<ol style="list-style-type: none"> 1. Incorrect adjustment of drive clutch. 2. Drive belt loose or damaged. 	<ol style="list-style-type: none"> 1. Adjust drive clutch. Refer to Adjustment section. 2. Replace drive belt. Refer to Maintenance section.
Unit fails to discharge snow	<ol style="list-style-type: none"> 1. Auger shear bolt broken. 2. Discharge chute clogged. 3. Foreign object lodged in auger. 4. Incorrect adjustment of auger drive clutch. 5. Auger drive belt loose or damaged. 	<ol style="list-style-type: none"> 1. Replace auger shear bolt. Refer to Maintenance section. 2. Stop engine immediately and disconnect spark plug wire. Clean discharge chute and inside of auger housing. 3. Stop engine immediately and disconnect spark plug wire. Remove object from auger. 4. Adjust auger clutch. Refer to Adjustment section. 5. Replace auger drive belt. Refer to Maintenance section.

NOTE: For repairs beyond the minor adjustments listed above, please contact your nearest authorized service dealer.

**Copy the information from
your model plate here:**



*Please help
help you!*

**Have your
model number
available
when you call**

Model Series	E733E	E753F
Ignition Key	725-1660	725-1660
Shave Plate	784-5581A	784-5579
Skid Shoe	784-5580	784-5580
Auger Belts	754-0430 (2 req'd.)	754-0430 (2 req'd.)
Drive Belt	754-0346	754-0346
Friction Wheel Rubber	735-0243	735-0243
Friction Wheel Ass'y. Comp.	684-0042A	684-0042A
Spark Plug	J-8C	J-8C
Engine Oil (SAE 5W30)	730226	730226
Electric Start Kit	Standard	Standard
Headlight Kit	Standard	Standard
Drift Cutter Kit	390-679-000	390-679-000
Snow Cab	390-674-000	390-674-000
Illustrated Parts List*	770-96-9B	770-96-9B

*Either use the order form attached to this manual or telephone 1 (800) 800-7310.
Wait for the message and then press (2) for literature. An operator will take your order.

The only way to ensure the performance of your product is to use original equipment parts and accessories, which are designed and engineered to exacting specifications. When you substitute, you take a chance on quality, reliability, safety and performance. Use original equipment parts—See your local service dealer.



For Parts, Accessories or Service Information,

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8:00 AM to 8:00 PM Monday Through Saturday

12 Noon to 6:00 PM Sunday

Eastern Time (winter hours may vary)