

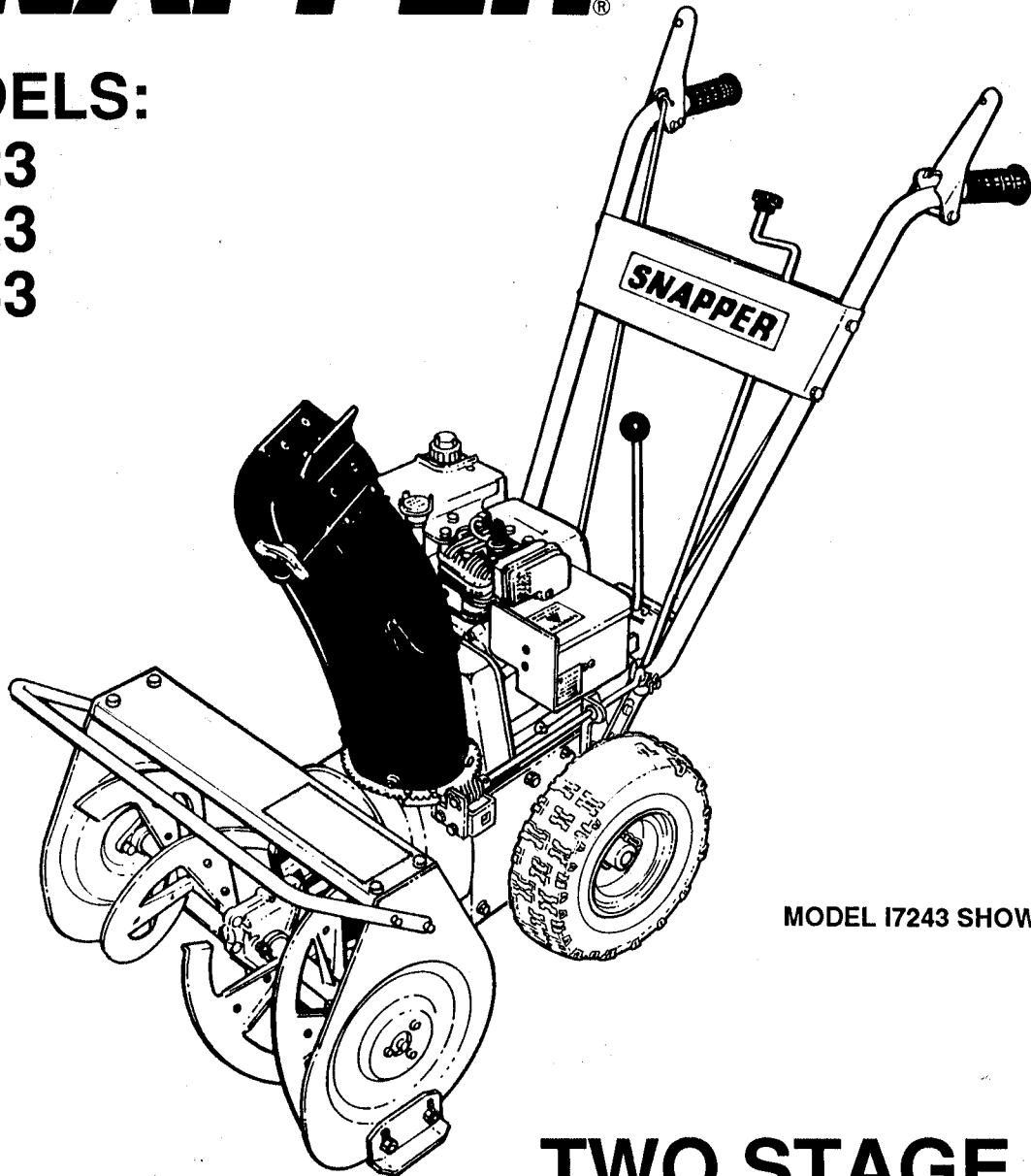
SNAPPER®

MODELS:

I4223

I6223

I7243



MODEL I7243 SHOWN

TWO STAGE SNOW THROWERS SERIES 3

Thank you for buying a SNAPPER product! Your SNAPPER Snow Thrower was designed and built to provide long and satisfactory service. Keep in mind that it, like any other mechanical device, can be potentially dangerous if used improperly and that no accident prevention program can be successful without the whole-hearted cooperation of the person responsible for the operation of the equipment. Study this Operator's Manual carefully to learn about operation of all controls and pay particular attention to the Important Safety Precautions on Page 2. Following these instructions will help you continue to enjoy the trouble-free operation expected of a SNAPPER product.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: Failure to comply with the following instructions may result in serious injury to the operator or other persons. The owner of the snow thrower must understand these instructions and, furthermore, must allow only persons who understand these instructions to operate snow thrower. Each person operating the snow thrower must be of sound mind and body and must not be under the influence of any substance which might impair vision, dexterity, or judgment. If you have any questions pertaining to your snow thrower which your dealer cannot answer to your satisfaction, call or write the Customer Service Department at SNAPPER, McDonough, Georgia 30253. Phone: (404) 954-2500.

PROTECTION FOR CHILDREN

1. DO NOT allow children in the area when snow thrower is being operated.
2. DO NOT allow pre-teenage children to operate snow thrower.
3. DO NOT allow irresponsible teenagers to operate the machine - allow teenagers only if exhibiting mature judgment and then only after being thoroughly instructed and under the close supervision of an experienced operator.

PREPARATION

1. Read this manual, get to know where all controls are located and practice how to use them before starting for the first time, and at the beginning of each season. Pay attention to Warning and Instructional Decals on engine and snow thrower.
2. Wear adequate winter clothing including boots which will give you maximum footing on slippery surfaces. Exercise CAUTION to avoid slipping or falling.
3. Before the first snow fall, check the area to be cleared and remove all objects such as doormats, sticks, toys, wires, rocks, etc., which could be hurled or jam the snow thrower.
4. Survey the area to be cleared beforehand and plan where snow is to be blown. Be prepared to release auger/impeller clutch or to change discharge chute direction quickly to discharge away from windows, cars, buildings and doorways to avoid property damage or personal injury from hurled objects.
5. Handle fuel with care. Store only in an approved gasoline container. Move the machine outdoors where fumes can be safely dissipated before filling tank. Never add fuel to a running engine or hot engine. Replace gasoline cap securely & wipe up spilled fuel.

OPERATIONAL PRECAUTIONS

1. Before starting, make visual check to make sure auger/impeller housing is clear and all guards and shields are in place and tight.
2. Warn everyone in advance to stay clear of area but keep especially watchful for children and pets darting into area while operating.
3. Start engine only where exhaust fumes will be safely dissipated, allow a brief warm-up period, practice operation of controls outside before putting the machine to work.

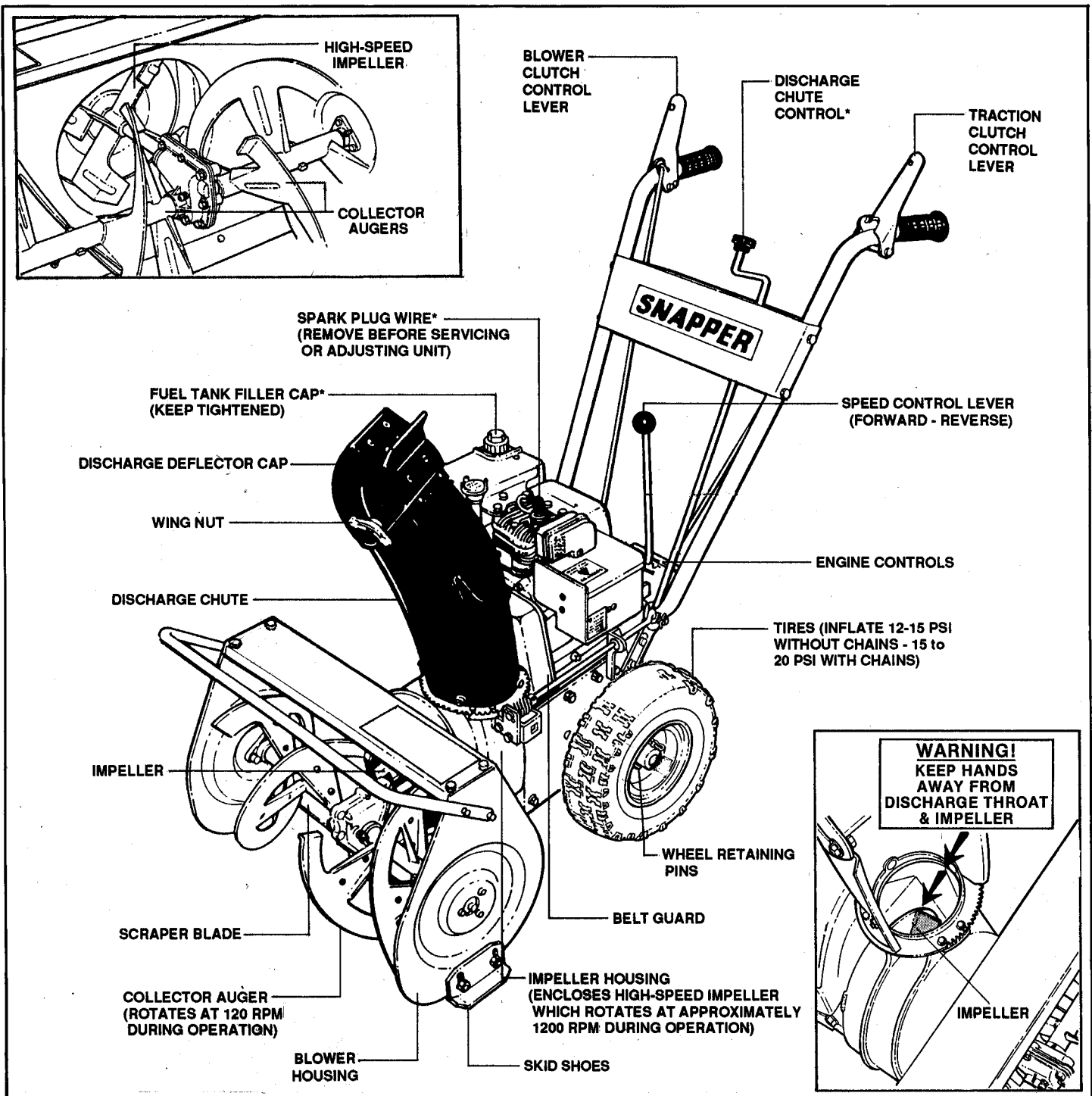
OPERATIONAL PRECAUTIONS

4. Should the auger/impeller become clogged, release the auger/impeller clutch control and, as an additional precaution, stop the engine before attempting to unclog the auger/impeller or discharge chute.
5. After striking a foreign object, stop the engine (motor), remove the wire from spark plug, thoroughly inspect the snow thrower for any damage, and repair the damage before restarting and operating the snow thrower.
6. Stop the engine if the machine starts to vibrate excessively as this normally indicates mechanical problems. Disconnect the spark plug wire to prevent unintentional starting before servicing or repairing the machine.
7. DO NOT clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. DO NOT attempt to clear steep slopes.
8. Stop the engine and remove the key whenever you leave the unit unattended to eliminate the possibility of children or untrained adults from attempting to operate the machine.
9. Release clutch control and make sure auger/impeller has stopped before adjusting deflector, or placing hands near auger/impeller.
10. DO NOT use snow thrower on surfaces above ground level, such as, a roof of a building.
11. Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.
12. DO NOT overload the 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. Disengage power to the auger/impeller when snow thrower is transported or not in use.
15. Use only attachments and accessories approved by the manufacturer of the snow thrower (such as wheels weights, counterweights, cabs and the like).
16. 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.

Section I - INTRODUCTION

This manual covers SNAPPER Models 14223, 16223 and 17243 Snow Throwers. The first number in the Model designation indicates the horsepower of the engine. The next two numbers indicate the width in inches of the collector housing and the last number indicates design series. The manual includes the recommended operating instructions and the routine service and adjustment procedures. Comprehensive overhaul/repair manuals and parts manuals for these models are available from your SNAPPER Dealer at nominal cost.

Refer to the Engine Owner's Manual for specific details involving operation and service of the engine. Make sure that each person authorized to operate this Snow Thrower reads this manual prior to operation and pays particular attention to the **IMPORTANT SAFETY PRECAUTIONS** on Page 2, and to all warning and caution decals on the machine. Also, make sure all operators become thoroughly familiar with the controls and understand how they function. Refer to the illustration below for the location of the controls and other points of interest.



*LOCATION VARIES FOR DIFFERENT MODELS

**FIGURE 1.1
NOMENCLATURE**

Section II - MACHINE OPERATION

PRE-START CHECK & ADJUSTMENTS

- A. **ENGINE LUBE:** Check level and add oil, if needed, of weight and grade specified in the Engine Owner's Manual.
- B. **FUEL SUPPLY:** After making sure unit is safely away from ignition-producing appliances, and in an area where gasoline fumes can be dissipated, fill fuel tank with gasoline specified in Engine Manual.
- C. **CHECK TIRES** and bring pressure up to specifications - 12-15 psi without tire chains or 15-20 psi with chains.
- D. **CHECK UNIT** to make sure guards and shields are in place and tight. Also check blower housing to insure that it is free of all foreign objects.
- E. **RESET SKID SHOES** to suit area to be cleared. Lower skid shoes to provide greater clearance over gravel, or raise the shoes for smooth, paved surface. Refer to Figure 3.8, SKID SHOE ADJUSTMENT.
- F. **ADJUST DISCHARGE CHUTE** to throw snow in desired direction. Rotate crank handle until chute is in position desired.
- G. **SET DEFLECTOR CAP** to throw snow desired distance. Loosen wing nut, push cap edge back even with the chute to throw snow up to 30 feet away, or pull cap all the way out to throw snow only about three feet. Retighten wing nut after repositioning cap. **ALWAYS STOP ENGINE** before repositioning.

OPERATIONAL CONTROLS

Know how to stop the Snow Thrower quickly in preparation for possible emergency situations. Forward and reverse motion is stopped by releasing your grip on the Traction Clutch Lever on the left handle bar. See Figure 2.1. The collector augers and impeller fan will stop rotating within five seconds* after releasing the Blower Clutch Lever on the right. Stop the engines on all models by removing the ignition key. Other operational controls are discussed where pertinent under the following operating procedures.

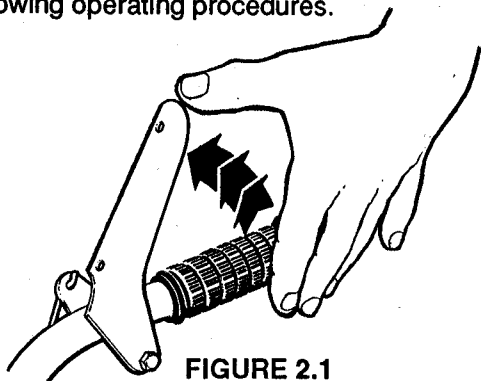


FIGURE 2.1

*NOTE: If rotation continues after five seconds, refer to the Clutch Cable Instructions for readjustment.

SINGLE CONTROL FEATURE: (Model I7243 Only)

If you continue holding the Traction Clutch Lever down while blowing snow, you can release the Blower Clutch Lever without stopping the Blower. This feature frees your right hand to turn the Chute Crank to discharge snow in a new direction. Releasing the Traction Clutch Lever stops motion and the blower.

STARTING & WARMUP

Whenever possible, push Snow Thrower outdoors before starting. If the Unit must be started inside your garage, for example, make sure doors are wide open to provide maximum ventilation. Move the Unit outdoors as soon as possible after starting. After performing the pre-start checks and services described earlier, proceed as follows:

- A. **THROTTLE CONTROL:** Set throttle control at fastest position.
- B. **CHOKE:** Refer to Engine Manual for priming and/or choking details.
- C. **ENGINE IGNITION:** On all Units, insert key into ignition.
- D.1 **ROPE STARTING:** On Manual Start Models, pull starting rope out in smooth, steady motion until engine starts. To prolong the life of the starter rope, slowly guide the handle back to the engine rather than allowing it to snap back.
- D.2 **ELECTRIC STARTING:** On Units with Plug-In 110 Volt Electric Start, connect the starter cable to the engine starter system, insert the three-prong plug into a grounded 110 volt power receptacle and depress the starter button on the cable until engine starts. Detach cable from receptacle and engine. On Jump Start Equipped Models, refer to instructions provided in kit.

NOTE: If engine fails to start after five seconds of continuous cranking, pause for ten seconds and try for five more seconds to start engine. Release start button to prevent overheating of starting motor. Refer to Engine Owner's Manual and follow steps explained therein. If engine fails to start see your SNAPPER Dealer.

- E. **WARM-UP PERIOD:** Allow brief warm-up outside with clutches released to avoid stalling cold engine. Reset Choke as instructed in Engine Owner's Manual as the Unit warms up.

OPERATION

Select desired traction speed by adjusting Speed Control Lever, depress Traction Clutch Lever and drive unit to area to be cleared. Depress Blower Clutch Lever and proceed to blow snow. The Throttle Control should be set at the fastest setting for best results. CAUTION: If clogging occurs, back snow thrower away from snow bank, release both Clutch Levers and, as a further precaution, stop the engine and remove spark plug wire before clearing the snow from the housing and/or discharge chute.

BEFORE STOPPING

Move Unit to cleared area, release Traction Clutch Lever and run up to top speed with Blower Clutch Lever depressed to clear housing of slush and snow, thus preventing freeze-up of the impeller upon restarting next time.

STOPPING PROCEDURE

On all Units, remove the key to stop engine and move the Throttle Control to OFF or STOP.

Section III - MAINTENANCE

LUBRICATION SERVICES

Refer to the Engine Owner's Manual for lubrication requirements on the engine powering your Snow Thrower. Your Snow Thrower Unit (Model I7243 Only) has (4) grease fittings, two (2) on the augers, two (2) on the auger shaft bearings, as shown in Figure 3.1. Service these and the other general lube points as follows:

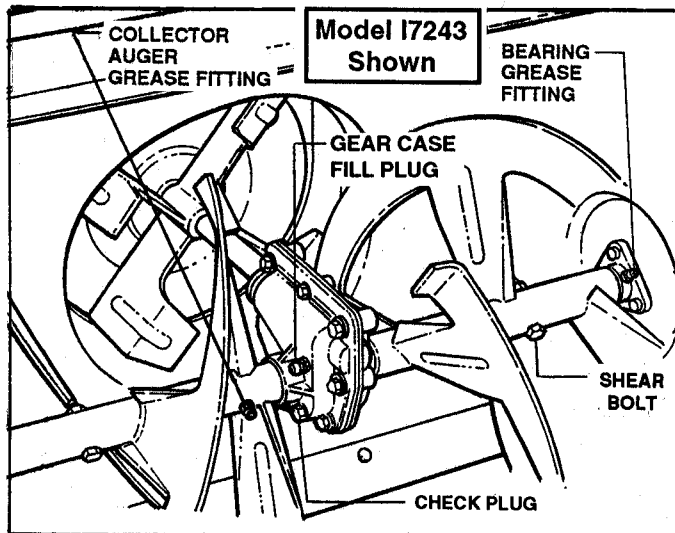


FIGURE 3.1

AUGER LUBRICATION: ONE EACH YEAR, preferably at the end of the winter season, remove the two (2) shear bolts, apply grease to the fittings, then spin the auger to work the grease out along the auger shaft. Continue greasing and spinning augers until grease appears at both ends of each auger tube. Reinstall shear bolts and nuts after servicing. This procedure will prevent the auger shaft from rusting to the auger tube. Refer to Figure 3.1.

BEARING LUBE: On I7243 Models, ONCE EACH YEAR, apply one or two shots of grease from gun to the bearing grease fittings located at the ends of the auger shaft, just inside blower housings (On I4223, I6223 Models, bearings are self-lubricating). Refer to Figure 3.1.

GENERAL LUBE POINTS: ONCE EACH YEAR, or more often if rust hampers operation, spread a light coating of grease on the chute crank worm and on the underside of the gear ring at the base of the discharge chute. Squirt oil from the oil can into the gap between the inside of the discharge chute and the outside of the discharge flange of the blower housing. Crank chute back and forth while oiling to spread lubrication evenly over both surfaces. Although not absolutely necessary, you may want to remove each wheel at the end of the season and apply a coating of grease on the axle shafts. This will help prevent rust and allow the wheels to be removed more easily.

GEARBOX LUBRICATION: Check Grease EACH YEAR. To add grease, remove check plug and pump BENALENE 900™ Grease (Part No. 2-9577) into grease fitting on case until grease is visible from check hole. Reinstall check plug.

If a squeeze tube of BENALENE 900™ (Part No. 2-9577) is used, unscrew grease plug and apply through hole until grease is visible from check hole. Reinstall fill plug and check plug. Refer to Figure 3.1.

CHUTE CRANK SERVICE (I4223 & I6223)

If the chute does not crank easily after lubricating, loosen the adjustment bolt on the outside of crank worm bracket as shown in Figure 3.2. Move the bracket slightly away from the chute gear ring or in toward the ring until the chute cranks easily (the ring gear teeth should be in full contact with the worm after adjustment). Tighten adjustment bolt.

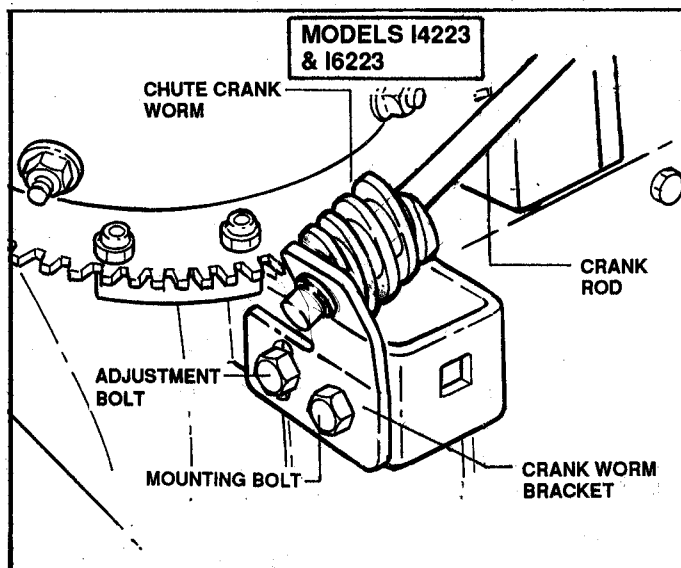


FIGURE 3.2

CHUTE CRANK SERVICE (I7243)

If the chute does not crank easily after lubricating, loosen the adjustment bolt on the outside of crank worm bracket as shown in Figure 3.3. Move the bracket slightly away from the chute gear ring or in toward the ring until the chute cranks easily (the ring gear teeth should be in full contact with the worm after adjustment). Tighten adjustment bolt.

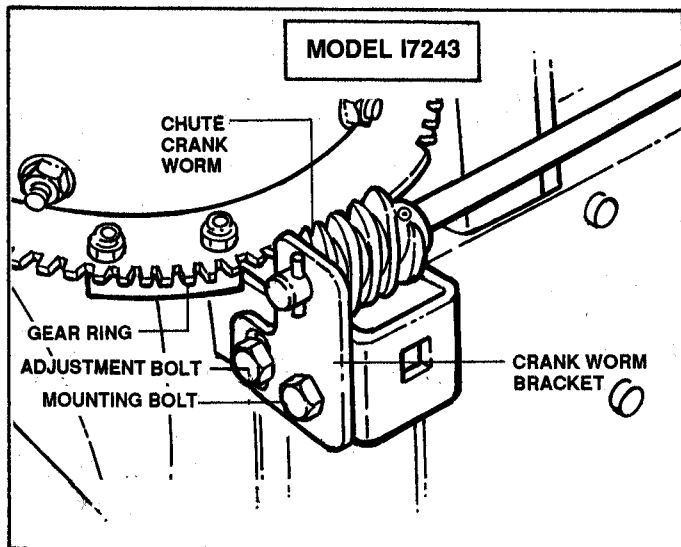


FIGURE 3.3

Section III - MAINTENANCE

BELT SERVICE

Belts do not require attention at any specific interval, but should be checked if performance deteriorates. This could occur due to slippage of worn or loose belts. Check and adjust tension of Clutch Cables first as described in the CLUTCH CABLE ADJUSTMENT section. If performance continues to be poor, after Clutch Cable tension has been corrected, then check belts. **MAKE SURE ENGINE IS STOPPED AND SPARK PLUG WIRE DISCONNECTED** before working on the belts.

BELT TENSION

Remove belt guard. Check blower drive belt for wear. If belt is okay, adjust belt tension by loosening idler retaining nut, holding idler arm, and pushing idler pulley tighter against the belt. Tighten nut after adjustment and check for proper clutching action with blower lever released. If impeller and auger **DO NOT** stop within five seconds after lever is released, readjust as required. Tension of the traction drive belt is non-adjustable. Before replacing belt guard, check to make sure the belt guide on the right side is 1/16" to 1/8" away from the outside surface of the blower belt with clutch engaged. Bend the guide in or out to correct clearance. See Figure 3.4.

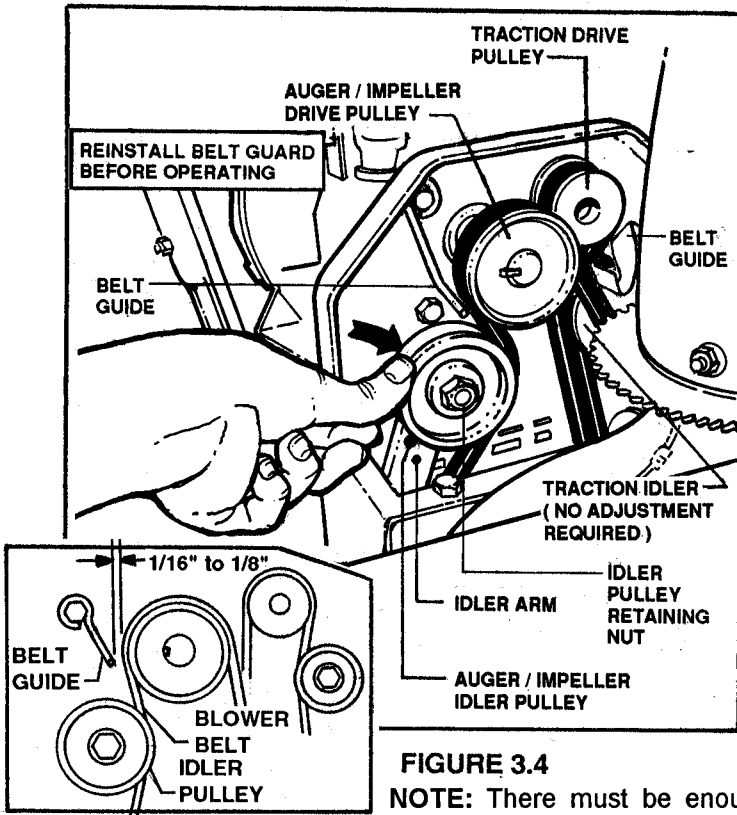


FIGURE 3.4

NOTE: There must be enough idler travel to clutch and brake the auger drive.

CLUTCH CABLE ADJUSTMENT

If slippage is noted, check tension of both clutch cables. When properly adjusted, the cables should be completely slack with clutch lever released and tight when the lever is fully depressed. The springs on both cables should deflect 3/8" when the lever is depressed. To adjust, loosen jam nut on cable connector, turn connector to shorten or lengthen cable as needed to attain 3/8" deflection. Tighten jam nut against connector to lock at correct setting. See Figure 3.5.

NOTE: Blower rotation should cease within five seconds after Clutch Lever is released. If rotation continues after five seconds, cable may be too tight. If readjusting the cable does not correct the stopping time, check to make sure the idler return spring is connected and that the idler is properly set. See your SNAPPER dealer to have this condition corrected.

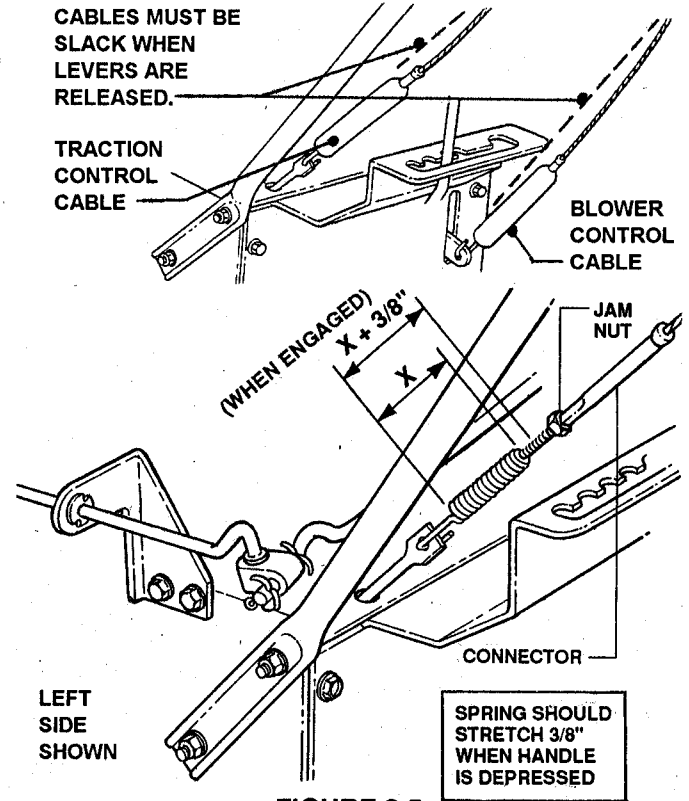


FIGURE 3.5

GROUND SPEED ADJUSTMENT (SHIFT ADJUSTMENT)

The ground speed may be adjusted by loosening the top screw on the shift hub (See Figure 3.6). The shift hub may be rotated clockwise to lower ground speed or counterclockwise to increase ground speed. Retighten screw after adjustment.

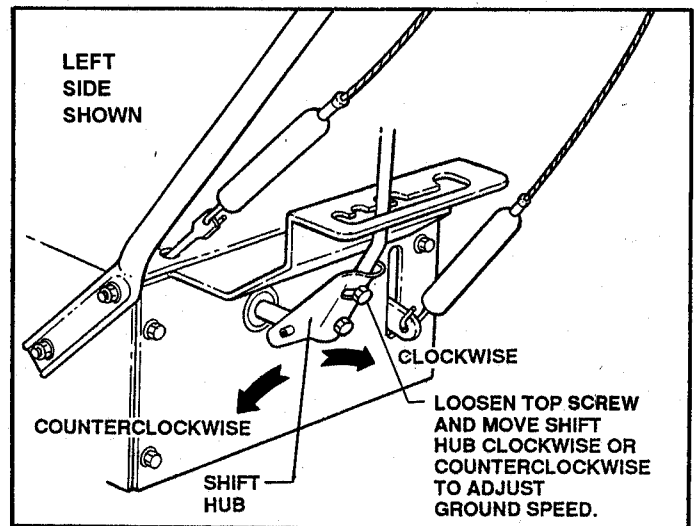


FIGURE 3.6

NOTE: It is recommended to remove the bottom cover and check to see that the rubber tire has a full width of contact in REVERSE, 1st and 4th positions. See Figure 3.7.

Section III - MAINTENANCE

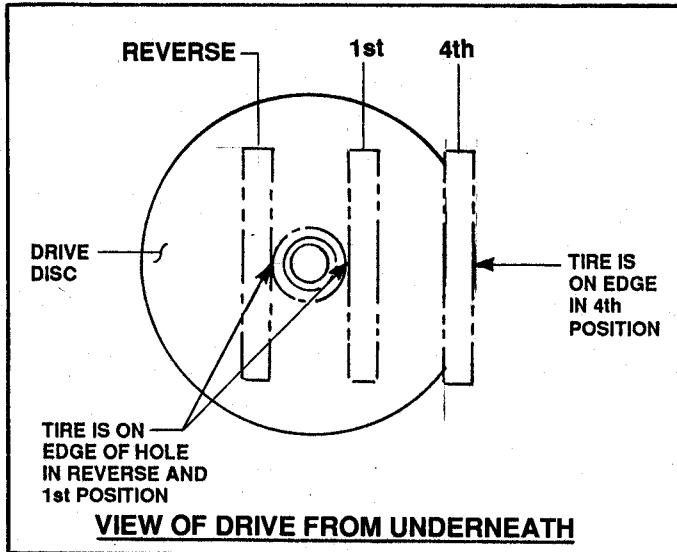


FIGURE 3.7

SKID SHOE ADJUSTMENT

The skid shoes should be lowered to raise the auger housing to clear rough or gravelled surfaces. Raise the skid shoes to lower the auger housing to clear smooth or paved surfaces. NOTE that the skid shoes can be installed upside down to track better over icy or hardpacked surfaces. To adjust the skid shoes, place a block under the scraper blade. Loosen the retaining nuts and move shoe up or down to desired height. Tighten retaining nuts after setting both skid shoes to the same depth. Remove block from under scraper blade. See Figure 3.8.

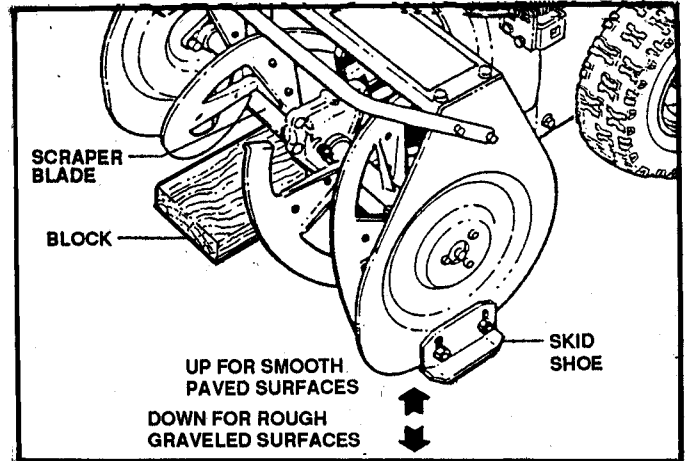


FIGURE 3.8

SINGLE HANDLE CONTROL ADJUSTMENTS (I7243 Models Only)

- Hold the traction clutch control lever down against the handle (L.H. Side) See Figure 3.9.
- Check position of the cam lock - it must align with the adjusting line on the cam lock bracket.
- To adjust, loosen the nuts on the cable guide support bracket and move bracket in or out until the cam lock aligns with the adjusting line. Tighten nuts.
- Hold the traction clutch lever down while pressing the blower clutch lever down into its engaged position and hold.
- Check the position of the cable ferrule shown in Figure 3.9.
- The ferrule shown in Figure 3.9 must be located 1/16" (.060) above the hook of the cam lock. To adjust, loosen the three nuts on the cam lock bracket and slide it up or down until adjustment is correct. Tighten nuts and release both control levers.

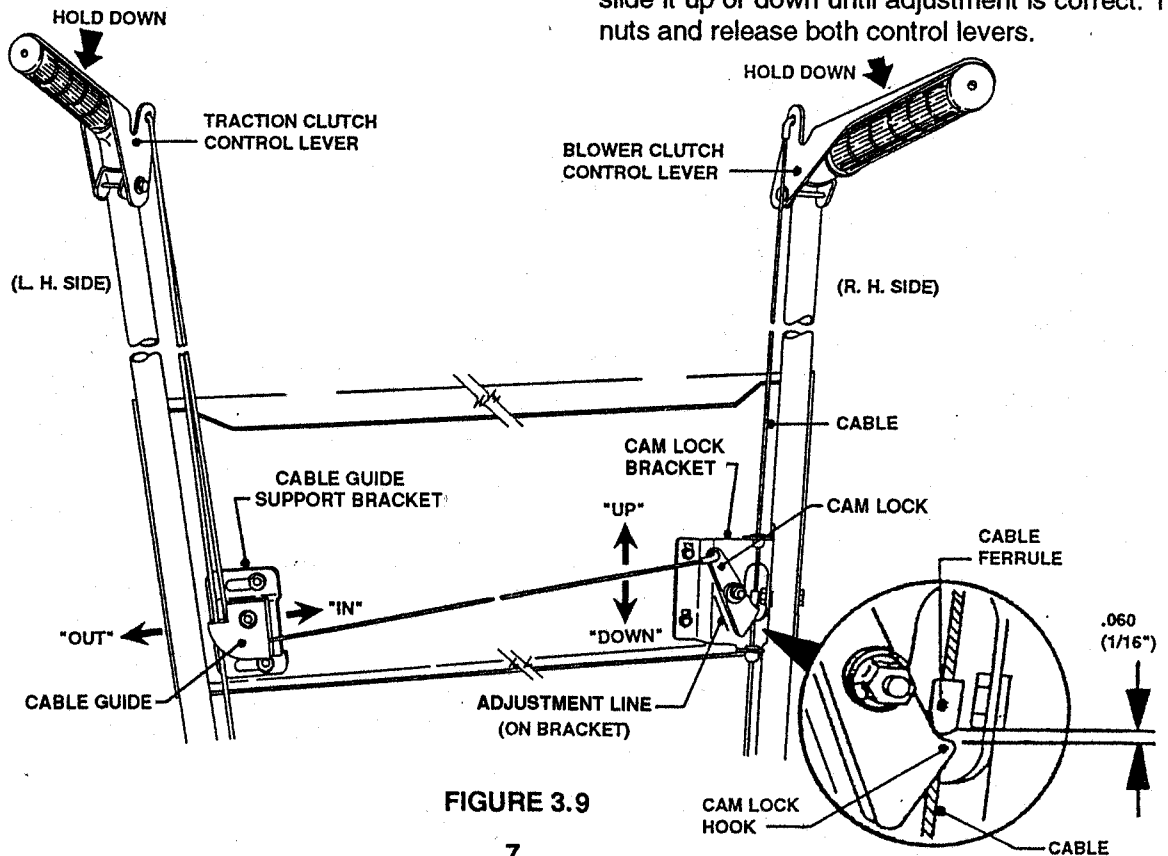


FIGURE 3.9

SNAPPER.

2 YEAR LIMITED WARRANTY

For two (2) years from purchase date for the original purchaser's residential, non-commercial use, SNAPPER, through any SNAPPER dealer will replace, free of charge, any part or parts found upon examination by the factory at McDonough, Georgia, to be defective in material or workmanship or both.

For ninety (90) days from purchase date for the original purchaser's commercial, rental, or other non-residential use, SNAPPER, through any SNAPPER dealer will replace, free of charge, any part or parts found upon examination by the factory at McDonough, Georgia, to be defective in material or workmanship or both.

All transportation costs incurred by the purchaser in submitting material to a SNAPPER dealer for replacement under this warranty must be paid by the purchaser.

This warranty does not apply to engines and their components, or, Peerless® Transaxles, as these items are warranted separately by their manufacturers. This warranty does not apply to parts that have been damaged by accident, alteration, abuse, improper lubrication, normal wear, or other cause beyond our control.

There is no other express warranty.

Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to two (2) years from purchase date for the original purchaser's residential, non-commercial use [ninety (90) days from purchase for the original purchaser's commercial, rental or other non-residential use], and to the extent permitted by law, any and all implied warranties are excluded. This is the exclusive remedy. Liabilities for consequential damages, under any and all warranties are excluded.

Some states do not allow limitations on how long an implied warranty lasts, or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

WARNING: THE USE OF REPLACEMENT PARTS OTHER THAN GENUINE SNAPPER PARTS MAY IMPAIR THE SAFETY OF SNAPPER PRODUCTS AND WILL VOID ANY LIABILITY AND WARRANTY BY SNAPPER ASSOCIATED WITH THE USE OF SUCH PARTS.

IMPORTANT: Please fill out the attached SNAPPER Product Registration Card immediately and mail to:
SNAPPER, McDONOUGH, GEORGIA 30253

OFF SEASON STORAGE

Before placing your Snow Thrower in storage during the off-season, either run the engine until it runs completely out of fuel or add a fuel stabilizer such as "STA-BIL" to the fuel. Refer to the Engine Owner's Manual for specific storage instructions on the engine. After preparing the engine, thoroughly clean all surfaces, lubricate the unit, then cover and store in a clean, dry area.

SERVICE ASSISTANCE

Contact your SNAPPER Dealer for replacement parts or for assistance when service is needed to keep your Snow Thrower in top condition. To obtain the correct parts or advice for your particular model, always report the model and serial numbers as found on the nameplate attached to the frame. For engine parts and service, contact the engine manufacturer's dealer in your area. Complete PARTS and SERVICE (Overhaul and Repair) Manuals are available for your Snow Thrower at nominal cost. Order these from your SNAPPER Dealer. The spaces below are provided to record the pertinent numbers of your machine for handy reference.

Snow Thrower Model _____ Serial # _____
Engine Model # _____ Type _____ Code _____

