

# **CRAFTSMAN**<sup>®</sup>

1450 SERIES B&S ENGINE 27" TWO-STAGE POWER-PROPELLED SNOW THROWER

- Assembly
- Operation
- Maintenance
- Service and Adjustments
- Repair Parts

### IMPORTANT Safe Operation Practices for Walk-Behind Snow Throwers

This snow thrower is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury.



Look for this symbol to point out important safety precautions. It means CAUTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.



WARNING: Always disconnect spark plug wire and place it where it cannot contact plug in order to prevent accidental starting when setting up, transporting, adjusting or making repairs.



WARNING: This snow thrower is for use on sidewalks, driveways and other ground level surfaces. Caution should be exercised while using on sloping surfaces. Do not use snow thrower on surfaces above ground level such as roofs of residences, garages, porches or other such structures or buildings.

# Training

- 1. Read, understand and follow all instructions on the machine and in the manual(s) before operating this unit. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- 2. Never allow children to operate the equipment. Never allow adults to operate the equipment without proper instruction.
- 3. Keep the area of operation clear of all persons, particularly small children.
- 4. Exercise caution to avoid slipping or falling, especially when operating the snow thrower in reverse.

# Preparation

- 1. Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, wires, and other foreign objects.
- 2. Disengage all clutches and shift into neutral before starting the engine (motor).
- 3. Do not operate the equipment without wearing adequate winter garments. Avoid loose fitting clothing that can get caught in moving parts. Wear footwear that will improve footing on slippery surfaces.
- 4. Handle fuel with care; it is highly flammable
  - (a) Use an approved fuel container.
  - (b) Never add fuel to a running engine or hot engine.
  - (c) Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
  - (d) Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground, away from your vehicle, before filling.
  - (e) When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.



WARNING: Snow throwers have exposed rotating parts, which can cause severe injury from contact, or from material thrown from the discharge chute. Keep the area of operation clear of all persons, small children and pets at all times including startup.



CAUTION: Muffler and other engine parts become extremely hot during operation and remain hot after engine has stopped. To avoid severe burns on contact, stay away from these areas.



WARNING: Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- (f) Keep the nozzle in contact with the rim of the fuel tank or container opening at all times, until refueling is complete. Do not use a nozzle lock-open device.
- (g) Replace gasoline cap securely and wipe up spilled fuel.
- (h) If fuel is spilled on clothing, change clothing immediately.
- 5. Use extension cords and receptacles as specified by the manufacturer for all units with electric drive motors or electric starting motors.
- 6. Adjust the collector housing height to clear gravel or crushed rock surface.
- 7. Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).
- 8. 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.

# Operation

- 1. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- 2. Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.
- After striking a foreign object, stop the engine (motor), remove the wire from the spark plug, disconnect the cord on electric motors, thoroughly inspect the snow thrower for any damage, and repair the damage before restarting and operating the snow thrower.
- 4. If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
- 5. Stop the engine (motor) whenever you leave the operating position, before unclogging the collector/impeller housing or discharge chute, and when making any repairs, adjustments or inspections.

- 6. When cleaning, repairing or inspecting the snow thrower, stop the engine and make certain the collector/impeller and all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent someone from accidentally starting the engine.
- Do not run the engine indoors, except when starting the engine and for transporting the snow thrower in or out of the building. Open the outside doors; exhaust fumes are dangerous.
- 8. Exercise extreme caution when operating on slopes.
- Never operate the snow thrower without proper guards, and other safety protective devices in place and working.
- 10. Never direct the discharge toward people or areas where property damage can occur. Keep children and others away.
- 11. Do not overload the machine capacity by attempting to clear snow at too fast a rate.
- 12. Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when operating in reverse.
- 13. Disengage power to the collector/impeller when snow thrower is transported or not in use.
- 14. Use only attachments and accessories approved by the manufacturer of the snow thrower (such as wheel weights, counterweights, or cabs).
- 15. 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.
- 16. Never touch a hot engine or muffler.

# **Clearing a Clogged Discharge Chute**

Hand contact with the rotating impeller inside the discharge chute is the most common cause of injury associated with snow throwers. Never use your hand to clean out the discharge chute. To clear the chute:

- 1. SHUT THE ENGINE OFF!
- 2. Wait 10 seconds to be sure the impeller blades have stopped rotating.
- 3. Always use a clean-out tool, not your hands.

#### Maintenance and Storage

- 1. Check shear bolts and other bolts at frequent intervals for proper tightness to be sure the 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 heaters, space heaters, or clothes dryers. Allow the engine to cool before storing in any enclosure.
- 3. Always refer to operator's manual for important details if the snow thrower is to be stored for an extended period.
- 4. Maintain or replace safety and instruction labels, as necessary.
- 5. Run the machine a few minutes after throwing snow to prevent freeze-up of the collector/impeller.

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# LIMITED TWO (2) YEAR WARRANTY ON CRAFTSMAN SNOW THROWER

For two (2) years from date of purchase Sears Canada, Inc. will repair or replace, at Sears option, free of charge parts which are defective as a result of material or workmanship.

### COMMERCIAL OR RENTAL USE:

Warranty on Snow Thrower will be 90 days from date of purchase if used for commercial or rental purposes.

This Warranty does NOT cover:

- 1. Pre-delivery set-up.
- 2. Expendable items which become worn during normal use, such as belts, spark plugs, air cleaners, and shear pins, as well damage to the engine resulting from operating snow thrower with insufficient oil.
- 3. Repairs necessary because of operator abuse or negligence, including the failure to operate and maintain the equipment according to the instructions contained in the Owner's Manual.
- 4. Tire replacement or repair caused by punctures from outside objects, such as nails, thorns, stumps or glass.

Warranty service is available by returning the Craftsman Snow Thrower to the nearest Sears Service Centre/Department in Canada. This warranty applies only while this product is in use in Canada.

This warranty is in addition to any statutory warranty and does NOT exclude or limit legal rights you may have but shalll run concurrently with applicable provincial legislation. Furthermore, some provinces do not allow limitations on how long an implied warranty will last, so the above limitations may not apply to you.

Sears Canada, Inc., Toronto, Ontario M5B 2B8

**CONGRATULATIONS** on your purchase of a new snow thrower. It has been designed, engineered and manufactured to give best possible dependability and performance.

Should you experience any problem you cannot easily remedy, please contact your nearest authorized service center. We have competent, well-trained technicians and the proper tools to service or repair this unit.

Please read and retain this manual. The instructions will enable you to assemble and maintain your snow thrower properly. Always observe the "SAFETY RULES".

SERIAL NUMBER:

DATE OF PURCHASE: \_\_\_

THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A DECALATTACHED TO THE REAR OF THE SNOW THROWER HOUSING.

YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

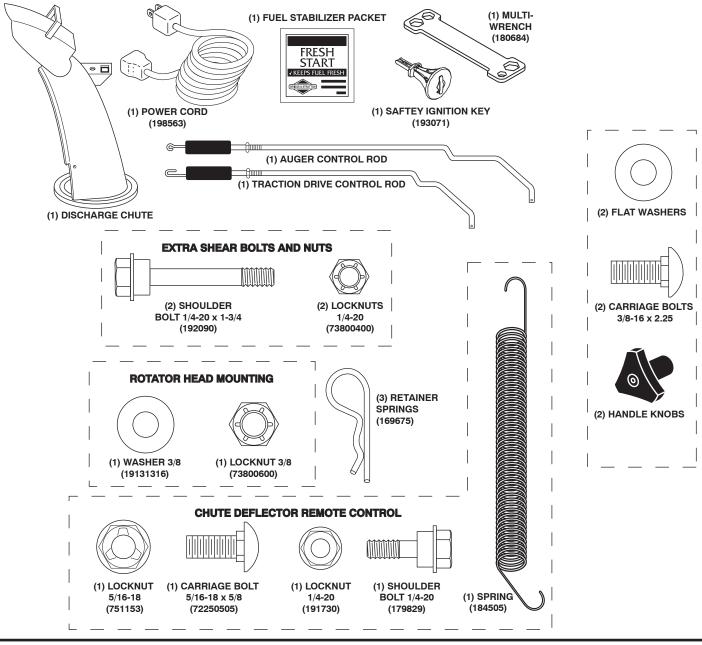
# **PRODUCT SPECIFICATIONS**

Gasoline Capacity and Type:	3.0 Quarts (2,84 Liters) Unleaded Regular only
Oil Type	SAE 5W-30 or 10W-30
(API SG–SL):	Synthetic SAE 5W-30
Oil Capacity:	28 Ounces (0,83 Liters)
Spark Plug:	Champion QC12YC
Gap:	0.030" (0,762 mm)

# **CUSTOMER RESPONSIBILITIES**

- Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your snow thrower.
- Follow the instructions under "Maintenance" and "Storage" sections of this owner's manual.

# PARTS PACKED SEPARATELY IN CARTON



# **ASSEMBLY / PRE-OPERATION**

Read these instructions and this manual in its entirety before you attempt to assemble or operate your new snow thrower. Reading the entire manual will familiarize you with the unit, which will assist you in assembly, operation and maintenance of the product.

Your new snow thrower has been assembled at the factory with the exception of those parts left unassembled for shipping purposes. All parts such as nuts, washers, bolts, etc., necessary to complete the assembly have been placed in the parts bag. To ensure safe and proper operation of your snow thrower, all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to ensure proper tightness.

# **REMOVE SNOW THROWER FROM CARTON**

1. Remove all accessible loose parts and parts boxes from carton.

- 2. Cut down all four corners of carton and lay panels flat.
- 3. Remove the two (2) screws securing the auger housing to the pallet.
- 4. Remove all packing materials except plastic tie holding speed control rod to lower handle.
- 5. Remove the two (2) plastic ties securing the upper handle to the pallet.
- 6. Remove snow thrower from carton and check carton thoroughly for additional loose parts.

# HOW TO SET UP YOUR SNOW THROWER

#### TOOL BOX (See Fig. 10)

A toolbox is provided on your snow thrower. The toolbox is located on top of the belt cover. Store the extra shear bolts, nuts and multi-wrench provided in parts bag in the toolbox.

# **ASSEMBLY / PRE-OPERATION**

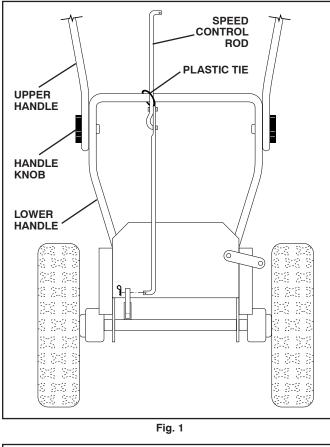
**NOTE:** The multi-wrench may be used for assembly of the chute rotator head to snow thrower and making adjustments to the skid plates.

#### UNFOLD UPPER HANDLE

1. Raise upper handle to the operating position and tighten handle knobs securely. Additional carriage bolts, washers and handle knobs are in bag of parts. Use to secure upper handle to lower handle. Install in lower holes in handles.

#### INSTALL SPEED CONTROL ROD (See Figs. 1 and 2)

- 1. Remove plastic tie securing rod to lower handle.
- 2. Insert rod into speed control bracket and secure with retainer spring.



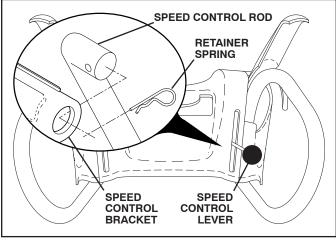
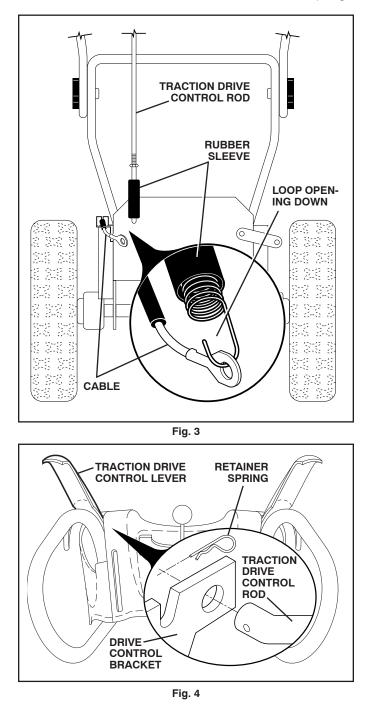


Fig. 2

# INSTALL TRACTION DRIVE CONTROL ROD (See Figs. 3 and 4)

The traction drive control rod has the long loop on the end of the spring as shown.

- 1. Slide rubber sleeve up rod and hook end of spring into eye of cable with loop opening down as shown.
- 2. With top end of rod positioned under left side of control panel, push rod down and insert top end of rod into hole in drive control bracket. Secure with retainer spring.



# **ASSEMBLY / PRE-OPERATION**

#### INSTALL AUGER CONTROL ROD (See Figs. 5 and 6)

The auger control rod has the short loop on the end of the spring as shown.

- 1. Slide rubber sleeve up rod and hook end of spring into control arm with loop opening up as shown.
- 2. With top end of rod positioned under right side of control panel, push down on rod and insert end of rod into hole in auger control bracket. Secure with retainer spring.

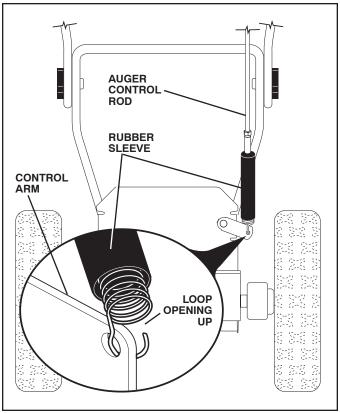


Fig. 5

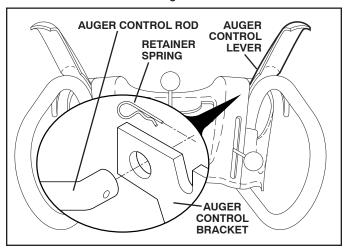


Fig. 6

# INSTALL DISCHARGE CHUTE / CHUTE ROTATER HEAD (See Fig. 7)

**NOTE:** The multi-wrench provided in your parts bag may be used to install the chute rotater head.

- 1. Place discharge chute assembly on top of chute base with discharge opening toward front of snow thrower.
- 2. Position chute rotater head over chute bracket. If necessary, rotate chute assembly to align square and pin on underside of chute rotater head with holes in chute bracket.
- 3. With chute rotater head and chute bracket aligned, position chute rotater head on pin and threaded stud of mounting bracket.
- 4. Install 3/8 washer and locknut on threaded stud and tighten securely.

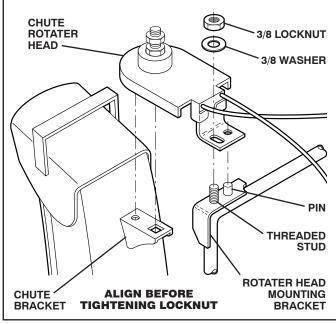


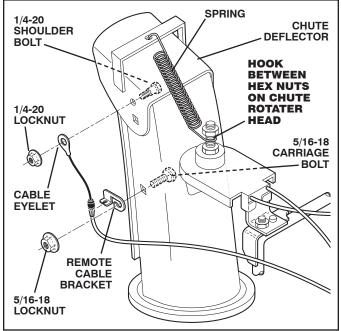
Fig. 7

# **ASSEMBLY / PRE-OPERATION**

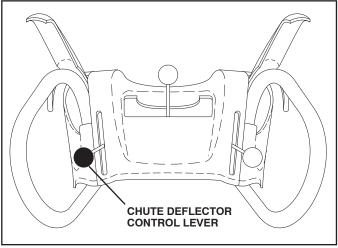
#### INSTALL CHUTE DEFLECTOR REMOTE CONTROL

#### (See Figs. 8 and 9)

- 1. Install remote cable bracket to discharge chute with 5/16-18 carriage bolt and 5/16-18 locknut as shown. Tighten securely.
- Install remote cable eyelet to chute deflector with 1/4-20 shoulder bolt and 1/4-20 locknut as shown. Tighten nut securely. Eyelet will be loose on shoulder bolt.
- 3. Install spring hooks between hex nuts on chute rotater head and into hole in chute deflector as shown.









#### CHECK TIRE PRESSURE

The tires on your snow thrower were overinflated at the factory for shipping purposes. Correct and equal tire pressure is important for best snow throwing performance.

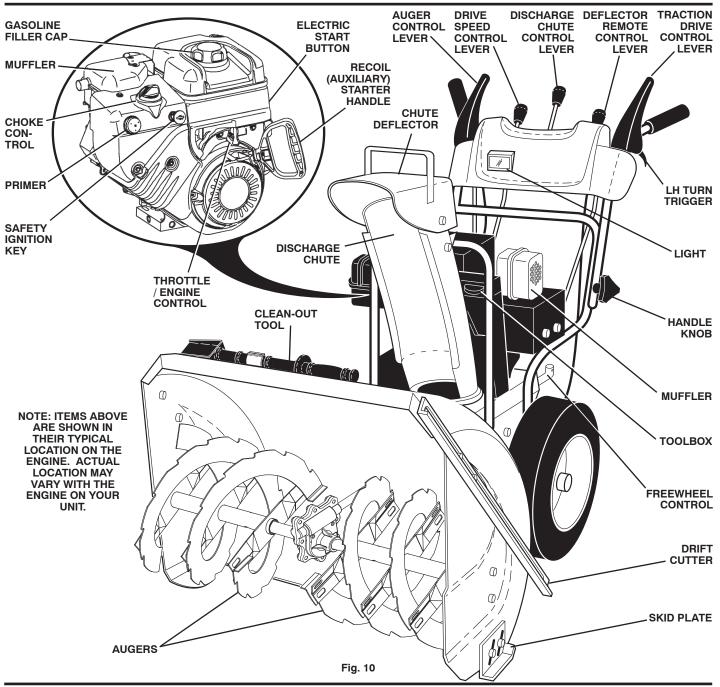
• Reduce tire pressure to 14-17 PSI (19-24.5 N-m).

# KNOW YOUR SNOW THROWER

READ THIS OWNER'S MANUAL AND ALL SAFETY RULES BEFORE OPERATING YOUR SNOW THROWER. Compare the illustrations with your snow thrower to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.

These symbols may appear on your snow thrower or in literature supplied with the product. Learn and understand their meaning.





#### MEETS A.N.S.I. SAFETY REQUIREMENTS

Our snow throwers conform to the standards of the American National Standards Institute.

**Toolbox -** used to store spare shear bolts, locknuts and wrench.

**Safety ignition key -** must be inserted for the engine to start and run. Remove when snow thrower is not in use.

Electric start button - used for starting the engine.

Recoil (auxiliary) starter handle - used for starting the engine.

LH and RH turn triggers - used to steer the snow thrower.

**Drive speed control lever -** used to select forward or reverse motion and speed of snow thrower.

**Primer -** pumps additional fuel from the carburetor to the cylinder for use when starting a cold engine.

Choke control - used for starting a cold engine.

**Traction drive control lever -** used to engage power-propelled forward or reverse motion of snow thrower.

Auger control lever - used to engage auger motion (throw snow).

**Deflector remote control lever -** used to change the distance the snow is thrown.

**Discharge chute control lever -** used to change the direction the snow is thrown.

Skid plate - used to adjust height of scraper bar from the ground.



The operation of any snow thrower can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your snow thrower or performing any adjust-

ments or repairs. We recommend standard safety glasses or a wide vision safety mask worn over spectacles.

# HOW TO USE YOUR SNOW THROWER

**Know how** to operate all controls before adding fuel or attempting to start the engine.

### STOPPING

TRACTION DRIVE

 Release traction drive control lever to stop the forward or reverse movement of the snow thrower.

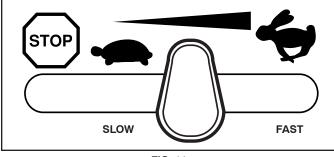
#### AUGER

- Release the auger control lever to stop throwing snow.
- ENGINE
- 1. Move throttle control to "STOP" position.
- 2. Remove (do not turn) safety ignition key to prevent unauthorized use.

NOTE: Never use choke to stop engine.

# TO USE THROTTLE CONTROL (See Fig. 11)

The throttle control is located on the engine. Always operate the snow thrower with the engine at full throttle. Full throttle offers the best snow thrower performance.





# TO USE CHOKE CONTROL (See Fig. 12)

The choke control is located on the engine. Use the choke control whenever you are starting a cold engine. Do not use to start a warm engine.

To engage choke, turn knob clockwise. Slowly turn knob counterclockwise to disengage.

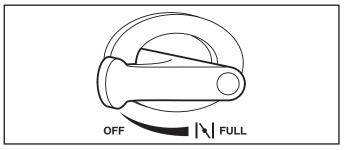


Fig. 12

### TO CONTROL SNOW DISCHARGE (See Fig. 13)



WARNING: Snow throwers have exposed rotating parts, which can cause severe injury from contact, or from material thrown from the discharge chute. Keep the area of operation clear of all persons, small children and pets at all times including startup.



WARNING: If the discharge chute or auger become clogged, shut-off engine and wait for all moving parts to stop. Use the clean-out tool, NOT YOUR HANDS, to unclog the chute and/or auger.

The DIRECTION in which snow is to be thrown is controlled by the discharge chute control lever.

• To change the discharge chute position, press downward on discharge chute control lever and move lever left or right until chute is in desired position. Be sure lever springs back and locks into desired position.

The DISTANCE that snow is thrown is controlled by the position of the chute deflector. Set the deflector low to throw snow a short distance; set the deflector higher to throw snow farther.

• Press downward on chute deflector control lever and move lever forward to lower the deflector and decrease the distance. Move lever back to raise the deflector and increase the distance. Be sure lever springs back and locks into desired position.

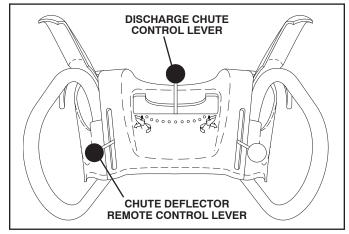


Fig. 13

### TO THROW SNOW (See Fig. 14)

The auger rotation is controlled by the auger control lever located on the right side handle.

- Squeeze auger control lever to handle to engage the auger and throw snow.
- Release the auger control lever to stop throwing snow.

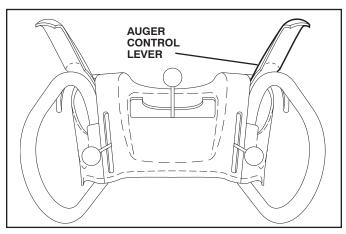


Fig. 14

### USING THE CLEAN-OUT TOOL (See Fig. 15)

In certain snow conditions, the discharge chute may become clogged with ice and snow. Use the clean-out tool to dislodge this blockage.

When cleaning, repairing, or inspecting, make certain all controls are disengaged and the auger/impeller and all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the spark plug to prevent accidental starting.

- Release the auger control lever and shut off the engine.
- Remove the clean-out tool from it's mounting clip. Grasp the tool firmly by the handle and push and twist the tool into the discharge chute to dislodge the blockage.

After the packed snow has been dislodged, return the cleanout tool to it's mounting clip by pushing it into the clip.

- Make sure the discharge chute is pointed in a safe direction (no vehicles, buildings, people, or other objects are in the direction of discharge) before restarting the engine.
- Restart the engine, then squeeze the auger control lever to the handle to clear snow from the auger housing and the discharge chute.

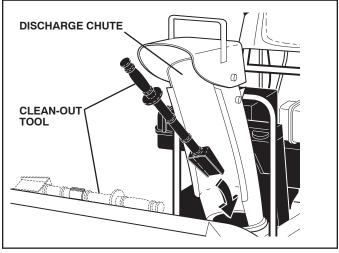


Fig. 15

### TO MOVE FORWARD AND BACKWARD (See Fig. 16)

SELF-PROPELLING, forward and reverse movement of the snow thrower, is controlled by the traction drive control lever located on the left side handle.

- Squeeze traction drive control lever to handle to engage the drive system.
- Release traction drive control lever to stop the forward or reverse movement of the snow thrower.

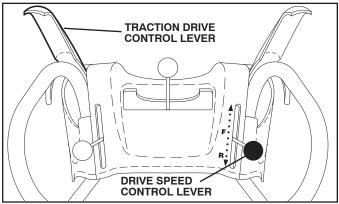
SPEED and DIRECTION are controlled by the drive speed control lever.

 Move speed control lever to desired position AFTER engaging the traction drive control lever.

CAUTION: Do not move speed control lever unless engine is running. Damage to the snow thrower can result.

 Slower speeds are for heavier snow and faster speeds are for light snow and transporting the snow thrower. It is recommended that you use a slower speed until you are familiar with the operation of the snow thrower.

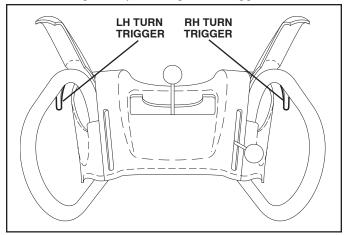
**NOTE:** When both traction drive and auger control levers are engaged, the traction drive control lever will lock the auger control lever in the engaged position. This will allow you to release your right hand from the handle and adjust the discharge chute direction without interrupting the snow throwing process.



#### POWER STEERING OPERATION (See Fig. 17)

Steering triggers are used to assist in steering your snow thrower. The triggers are located on the underside of each handle. When a trigger is squeezed, it disengages the drive wheel on that side of snow thrower and allows it to turn in that direction.

- To turn left squeeze left side trigger.
- To turn right squeeze right side trigger.



#### Fig. 17 TO ADJUST SKID PLATES (See Fig. 18)

**NOTE:** The wrench provided in your parts bag may be used to adjust the skid plates.

Skid plates are located on each side of the auger housing and adjust the clearance between the scraper bar and the ground surface. Adjust skid plates evenly to proper height for current surface conditions. For removal of snow in normal conditions, such as a paved driveway or sidewalk, place skid plates in the highest position (lowest scraper clearance) to give a 1/8" clearance between the scraper bar and the ground. Use a middle position if the surface to be cleared is uneven.

**NOTE:** It is not recommended to operate the snow thrower over gravel or rocky surfaces. Objects such as gravel, rocks or other debris, can easily be picked up and thrown by the impeller, which can cause serious personal injury, property damage or damage to the snow thrower.

- If snow thrower must be operated over gravel surface, use extra caution and be sure skid plates are adjusted to lowest (highest scraper clearance) position.
- 1. Shut off engine and wait for all moving parts to stop.
- 2. Adjust skid plates by loosening the hex nuts, then moving skid plate to desired position. Be sure both plates are adjusted evenly. Tighten securely.

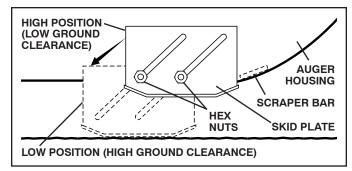


Fig. 18

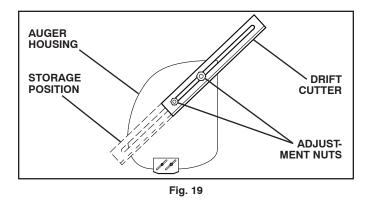
#### SCRAPER BAR (See Fig. 18)

The scraper bar is not adjustable, but is reversible. After considerable use it may become worn. When it has worn almost to the edge of the housing, it can be reversed, providing additional service before requiring replacement. Replace a damaged or worn scraper bar.

#### TO USE DRIFT CUTTERS (See Fig. 19)

Use the drift cutters to cut through deep snowdrifts that are higher than the front of the snow thrower.

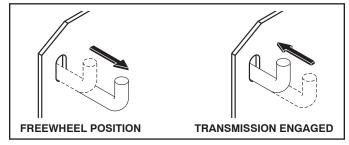
- Loosen adjustment nuts enough to allow drift cutter to be raised to highest position and tighten nuts securely. Repeat for opposite side of snow thrower.
- When not using drift cutters, loosen adjustment nuts, lower to storage position and tighten nuts securely.



#### TO TRANSPORT (See Fig. 20)

When pushing or towing your snowthrower, be sure to disengage transmission by placing freewheel control into FREEWHEEL position. Freewheel control is located at the rear of snowthrower.

- Pull freewheel control out to FREEWHEEL position.
- To reengage transmission, push control back in.



# **BEFORE STARTING THE ENGINE**

### CHECK ENGINE OIL LEVEL (See Fig. 20)

The engine on your snow thrower has been shipped, from the factory, already filled with oil.

- 1. Check engine oil with snow thrower on level ground.
- 2. Remove oil fill cap/dipstick and wipe clean, reinsert the dipstick and screw tight, wait for a few seconds, remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- To change engine oil, see "TO CHANGE ENGINE OIL" in the Maintenance section of this manual.

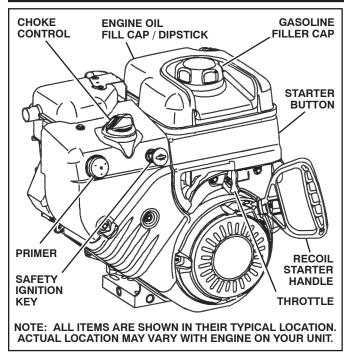
#### ADD GASOLINE (See Fig. 21)

 Fill fuel tank to bottom of tank filler neck. Do not overfill. Use fresh, clean, regular unleaded gasoline with a minimum of 87 octane. Do not mix oil with gasoline. Purchase fuel in quantities that can be used within 30 days to assure fuel freshness.



WARNING: Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

CAUTION: Alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.



# TO START ENGINE

Your snow thrower engine is equipped with a recoil starter. COLD START

# 1. Insert safety ignition key (packed separately in parts bag) into ignition slot until it clicks. DO NOT turn the key. Keep the extra safety ignition key in a safe place.

- 2. Place throttle control in "FAST" position.
- 3. Rotate choke control to "FULL" position.
- 4. Push the primer four (4) times if the temperature is below 15°F, or two (2) times if temperature is between 15° and 50°F. If temperature is above 50°F, priming is not necessary.

**NOTE**: Over priming may cause flooding, preventing the engine from starting. If you do flood the engine, wait a few minutes before attempting to start and DO NOT push the primer.

- 5. Pull recoil starter handle quickly. Do not allow starter rope to snap back.
- 6. When the engine starts, release the recoil starter handle and slowly move the choke control to the "OFF" position.

Allow the engine to warm up for a few minutes. Engine will not develop full power until it has reached normal operating temperature.

#### WARM START

Follow the steps above, keeping the choke in the "OFF" position. DO NOT push the primer.

#### **BEFORE STOPPING**

Run the engine for a few minutes to help dry off any moisture on the engine.

#### IF RECOIL STARTER HAS FROZEN

If the recoil starter has frozen and will not turn the engine, proceed as follows:

- 1. Grasp the recoil starter handle and slowly pull as much rope out of the starter as possible.
- 2. Release the recoil starter handle and let it snap back against the starter.

If the engine still fails to start, repeat the above steps.

### **SNOW THROWING TIPS**

- Always operate the snow thrower with the engine at full throttle. Full throttle offers the best performance.
- Go slower in deep, freezing or heavy wet snow. Use the drive speed control, NOT the throttle, to adjust speed.
- It is easier and more efficient to remove snow immediately after it falls.
- The best time to remove snow is the early morning. At this time the snow is usually dry and has not been exposed to the direct sun and warming temperatures.
- Slightly overlap each successive path to ensure all snow will be removed.
- Throw snow downwind whenever possible.
- Adjust the skid plates to proper height for current snow conditions. See "TO ADJUST SKID PLATES" in this section of this manual.
- For extremely heavy snow, reduce the width of snow removal by overlapping previous path and moving slowly.
- Keep engine clean and clear of snow during use. This will help air flow and extend engine life.
- After snow-throwing is completed, allow engine to run for a few minutes to melt snow and ice off the engine.
- Clean the entire snow thrower thoroughly after each use and wipe dry so it is ready for next use.



WARNING: Do not operate snow thrower if weather conditions impair visibility. Throwing snow during a heavy, windy snowstorm can blind you and be hazardous to the safe operation of the snow thrower.

# MAINTENANCE

FII AS	AINTENANCE SCH	EDU	ILE BEFOI	AFTEREA AFTEREA	SEUSE CHUSE AVESER NREVER	NURS NSEA NERV VERV	SON SOHOL	INFS 100 HI EFOR	UR: ST	SERV DA	/ICE TES
T H	Check for Loose Fasteners	~					~				
R	Clean / Inspect Snow Thrower		~				~				
W	Check / Replace V-Belts				<b>V</b>						
E R	Lubrication Chart			<b>~</b>			<b>/</b>				
E	Check Engine Oil Level	~									
Ν	Change Engine Oil			<ul> <li>✓</li> </ul>							
G	Inspect Muffler				<b>/</b>						
Ň	Check / Replace Spark Plug					~					
Ε	Empty Fuel Tank						~				

# **GENERAL RECOMMENDATIONS**

The warranty on this snow thrower does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain snow thrower as instructed in this manual. Some adjustments will need to be made periodically to properly maintain your snow thrower. All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

- Once a year, you should replace the spark plug and check belts for wear. A new spark plug will help your engine run better and last longer.
- Follow the maintenance schedule in this manual.

**NOTE:** Use only Original Equipment Manufacturer (OEM) parts to service this unit. Failure to do so can cause the unit to malfunction and pose a risk of injury to the operator.

# **BEFORE EACH USE**

- 1. Check engine oil level.
- 2. Check for loose fasteners.
- 3. Check controls to be sure they are functioning properly.

# LUBRICATION

Keep your snow thrower well lubricated (See "LUBRICATION CHART").

# SNOW THROWER

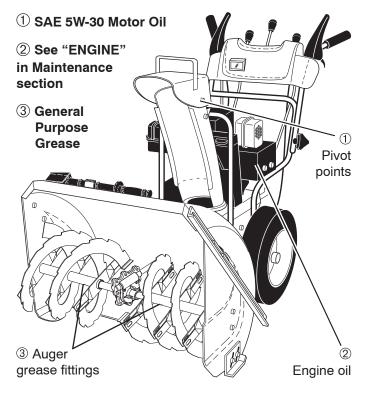
Always observe the safety rules when performing any maintenance.

#### TIRES

- Maintain proper air pressure in both tires (14–17 P.S.I. / 19-24.5 N-m).
- Keep tires free of gasoline and oil, which can harm rubber.

**NOTE:** To seal tire punctures and prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.

# LUBRICATION CHART



# BELTS

16

Check belts for deterioration and wear after every 50 hours of operation and replace if necessary. The belts are not adjustable. Replace belts if they begin to slip from wear. (See "TO REMOVE BELT COVER" in the Service and Adjustments section of this manual).

The belts on your snow thrower are of special construction and should be replaced by original equipment manufacturer (OEM) belts available from your nearest dealer. Using other than OEM belts can cause personal injury or damage to the snow thrower.

# MAINTENANCE

### AUGER GEAR CASE

- The gear case was filled with lubricant to the proper level at the factory. The only time the lubricant needs attention is if service has been performed on the gear case.
- If lubricant is required, use only Ronex ED #1 grease.

#### TRACTION DRIVE SYSTEM

DO NOT lubricate the drive components inside the snow thrower. The sprockets, hex shafts, drive disc and friction wheel require no lubrication. The bearings and bushings are lifetime lubricated and require no maintenance.

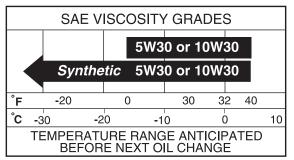
CAUTION: Any lubricating of the above components can cause contamination of the friction wheel and damage to the drive system of your snow thrower.

### ENGINE

See engine manual.

#### LUBRICATION

Use only high quality detergent oil rated with API service classification SG–SL. Select the oil's SAE viscosity grade according to your expected operating temperature.



**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after every 25 hours of operation or at least once a year if the snow thrower is not used for 25 hours in one year.

Check the crankcase oil level before starting the engine and after each five (5) hours of continuous use. Tighten oil fill cap / dipstick securely each time you check the oil level.

#### TO CHANGE ENGINE OIL

Determine temperature range anticipated before next oil change. All oil must meet API service classification SG–SL.

- Be sure snow thrower is on level surface.
- Oil will drain more freely when warm.
- Catch oil in a suitable container.

**NOTE:** The left side wheel may be removed from snow thrower for easier access to the oil drain plug and placement of a suitable container. The unit tilted, resting on the frame with the left wheel removed, will help drain any oil trapped inside the engine. (See "TO REMOVE WHEELS" in the Service and Adjustments section of this manual).

- 1. Remove safety ignition key and disconnect spark plug wire from spark plug. Place wire where it cannot come in contact with spark plug.
- 2. Clean area around drain plug.
- 3. Remove drain plug and drain oil in a suitable container.
- 4. Install drain plug and tighten securely.
- 5. Wipe off any spilled oil from snow thrower and engine.
- 6. Install left wheel (if removed for draining oil). Be sure to install klick pin into proper hole in wheel axle (See "TO REMOVE WHEELS" in the Service and Adjustments section of this manual).
- 7. Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine.
- 8. Refill engine with oil through oil dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" section of this manual.
- 9. Use gauge on oil fill cap/dipstick for checking level. Be sure dipstick cap is tightened securely for accurate reading. Keep oil at "FULL" line on dipstick.
- 10. Wipe off any spilled oil.

#### MUFFLER

Inspect and replace corroded muffler as it could create a fire hazard and/or damage.

#### SPARK PLUG

Replace spark plug at the beginning of each season or after every 100 hours of operation, whichever occurs first. Spark plug type and gap setting are shown in the "PRODUCT SPECIFICATIONS" section of this manual.

# CLEANING

**IMPORTANT:** For best performance, keep snow thrower housing free of any dirt or trash. Clean the outside of your snow thrower after each use.



WARNING: Remove safety ignition key and disconnect spark plug wire from spark plug. Place wire where it cannot come in contact with spark plug.

- Keep finished surfaces/wheels free of gasoline, oil, etc.
- We do not recommend using a garden hose to clean your snow thrower unless the electrical system, muffler and carburetor are covered to keep water out. Water in engine can result in shortened engine life.

# SERVICE AND ADJUSTMENTS

WARNING: To avoid serious injury, before performing any service or adjustments:

1. Be sure the on/off switch is in the OFF position.



- 2. Remove safety ignition key.
- 3. Make sure the augers and all moving parts have completely stopped.
- 4. Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

# SNOW THROWER

#### TO ADJUST SNOW THROWER HEIGHT

See "TO ADJUST SKID PLATES" and "SCRAPER BAR" in the Operation section of this manual.

#### CHUTE DEFLECTOR

The chute deflector, attached to the top of the discharge chute, is provided to direct discharging snow away from the operator. If the deflector becomes damaged, it should be replaced.



# WARNING: To avoid serious injury, never operate your snow thrower with the deflector removed or damaged.

 To change direction and/or distance snow is discharged, see "TO CONTROL SNOW DISCHARGE" in the Operation section of this manual.

### SHEAR BOLTS (See Fig. 22)

#### AUGER SHEAR BOLTS

Both right and left-hand augers are secured to the auger shaft with a spacer, shear bolt and hex nut. Should a foreign object or ice become lodged in the augers, the shear bolts are designed to break, preventing damage to any other components. If one or both augers do not turn when auger control lever is engaged, check to see if one or both of the bolts have sheared. To replace the shear bolts:

- 1. Disengage all controls and move throttle control to STOP position. Wait for all moving parts to stop.
- 2. Remove safety ignition key and disconnect spark plug wire from spark plug. Place wire where it cannot come in contact with spark plug.
- Align hole in auger hub with hole in auger shaft and install a new 1/4-20 x 2" shear bolt. Install 1/4-20 lock nut and tighten securely.

CAUTION: Do not substitute. Use only original equipment shear bolts as supplied with your snow thrower.

4. Insert safety ignition key and reconnect spark plug wire to spark plug.

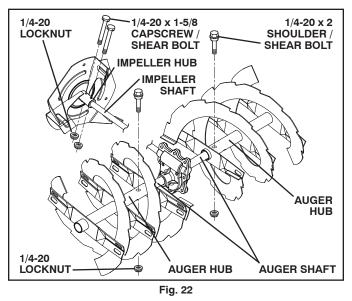
#### IMPELLER SHEAR BOLTS

The impeller is secured to the impeller shaft with two (2) capscrew/shear bolts and hex nuts. Should a foreign object or ice become lodged in the impeller, the capscrews are designed to break, preventing damage to any other components. If impeller does not turn when auger control lever is engaged, check to see if the capscrews have sheared. To replace the capscrew/shear bolts:

1. Disengage all controls and move throttle control to STOP position. Wait for all moving parts to stop.

- 2. Remove safety ignition key and disconnect spark plug wire from spark plug. Place wire where it cannot come in contact with spark plug.
- Align holes in impeller hub with holes in impeller shaft and install two (2) new 1/4-20 x 1-5/8" capscrew/shear bolts. Install 1/4-20 locknuts and tighten securely.

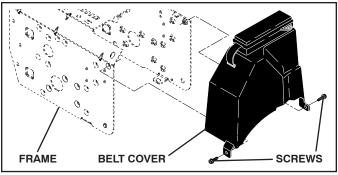
CAUTION: Do not substitute. Use only original equipment capscrew/shear bolts as supplied with your snow thrower.



4. Insert safety ignition key and reconnect spark plug wire to spark plug.

#### TO REMOVE BELT COVER (See Fig. 23)

- 1. Remove the two screws securing belt cover to frame.
- 2. Remove belt cover.
- Replace belt cover by installing cover and screws and tighten securely.





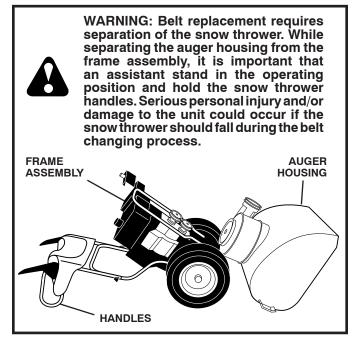
# SERVICE AND ADJUSTMENTS

### TO REPLACE BELTS (See Fig. 24)

The auger and traction drive belts are not adjustable. If the belts are damaged or begin to slip from wear, they should be replaced. It is recommended that the belt(s) be replaced by a Sears service centre/department.

**NOTE:** It is recommended that both the auger and traction drive belt be replaced at the same time.

The V-belts on your snow thrower are of special construction and should be replaced by original equipment manufacturer (OEM) belts available from your nearest Sears service centre/department. Using other than OEM belts can cause personal injury or damage to the snow thrower.



- 1. REMOVE GASOLINE FROM FUEL TANK Drain gasoline from fuel tank into a suitable container, outdoors, away from fire or flame. Wipe up any spilled gasoline.
- REMOVE DISCHARGE CHUTE Loosen locknut securing chute rotator head to mounting bracket only enough to allow chute rotator head to be raised and discharge chute to be removed from snow thrower.
- 3. REMOVE BELT COVER See "TO REMOVE BELT COVER" in this section of this manual.
- REMOVE ENGINE PULLEY Remove bolt, lockwasher and flat washer securing pulley to engine crankshaft. Remove outside (auger) pulley only from crankshaft.
- 5. SEPARATE SNOW THROWER With your assistant standing in the operating position holding the handles, remove the two (2) bolts holding the auger housing and frame together.



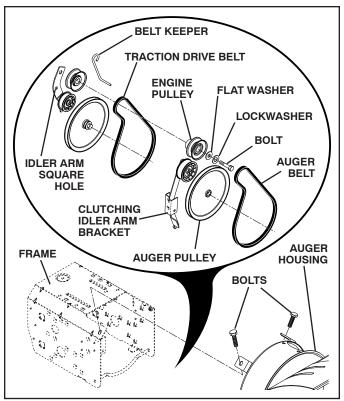
#### WARNING: As the last bolt is removed, have your assistant carefully lower the handles down to the ground.

- 6. REMOVE HAIRPIN FROM CLUTCH ROD and remove clutch rod from swing plate. Tip swing plate forward.
- 7. REMOVE AUGER BELT from around pulley.

8. RELIEVE TENSION ON TRACTION DRIVE BELT IDLER and remove traction drive belt from around pulleys.

**HINT:** Insert a 3/8" drive ratchet (in the "ON" position) into the square hole in idler arm and rotate ratchet clockwise to relieve tension.

- 9. With tension relieved on idler, install new traction drive belt around pulleys and inside belt keepers.
- 10. Install clutch rod in swing plate; secure with hairpin.
- 11. Place auger belt around and inside the groove of auger pulley only.
- 12. While your assistant slowly raises handles to rejoin the auger housing and frame assembly, pull up on the auger belt and squeeze sides together above pulley so belt is fully seated in groove of pulley.
- 13. Move idler arm so it does not hit impeller pulley as you bring snow thrower completely together and check carefully for proper routing of belts. If auger belt has become dislodged from the pulley (by catching the idler arm bracket while bringing snow thrower together), separate the snow thrower and repeat step 12. Belt must be fully seated in pulley groove when bringing the snow thrower together.
- 14. Install the two (2) hex bolts and tighten securely.
- 15. INSTALL ENGINE PULLEY Place belt in pulley groove and slide pulley on crankshaft. Install flat washer, lockwasher and bolt and tighten securely (41-47 N-m torque). Make sure belt is inside belt keeper.
- 16. INSTALL BELT COVER and two (2) screws. Tighten securely.
- 17. INSTALL DISCHARGE CHUTE See "INSTALL DIS-CHARGE CHUTE / CHUTE ROTATER HEAD" in the Assembly / Pre-Operation section of this manual.



# SERVICE AND ADJUSTMENTS

### TO REMOVE WHEELS (See Fig. 25)

• Remove the klik pin and remove wheel from axle.

**IMPORTANT:** When installing wheel, be sure to use the axle hole closest to the end of the shaft – *do not* use the hole in the wheel hub (if equipped). Inner hole in axle and hole in wheel hub are not used for your model snow thrower.

**NOTE:** To seal punctures or prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.

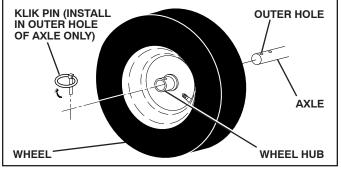


Fig. 25

# ENGINE

See engine manual.

### CARBURETOR

Your carburetor is not adjustable. Engine performance should not be affected at altitudes up to 7,000 feet (2,134 meters). If your engine does not operate properly due to suspected carburetor problems, take your snow thrower to a Sears or other qualified service centre.

#### **ENGINE SPEED**

Never tamper with the engine governor, which is factory set for proper engine speed. Overspeeding the engine above the factory high speed setting can be dangerous and will void the warranty. If you think the engine-governed high speed needs adjusting, contact a Sears or other qualified service centre, which has proper equipment and experience to make any necessary adjustments.

#### TO ADJUST CABLE TENSION (See Fig. 26)

Adjust cable tension by turning the adjuster turn buckle, located on the right hand cable. Grasp the long section tightly and turn the short section to lengthen the adjuster. Adjust until cable is snug.

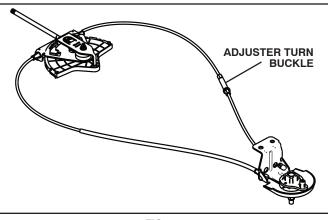


FIG. 26

# STORAGE

Immediately prepare your unit for storage at the end of the season or if the unit will not be used for 30 days or more.



WARNING: Never store the snow thrower with gasoline in the tank inside a building where fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer or gas appliance. Allow the engine to cool before storing in any enclosure.

# SNOW THROWER

When snow thrower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Store in a clean, dry area.

- 1. Clean entire snow thrower (See "CLEANING" in the Maintenance section of this manual).
- 2. Inspect and replace belts, if necessary (See "TO RE-PLACE BELTS" in the Service and Adjustments section of this manual).
- 3. Lubricate as shown in the Maintenance section of this manual.
- 4. Be sure that all nuts, bolts, screws, and pins are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- 5. Touch up all rusted or chipped paint surfaces; sand lightly before painting.

# ENGINE

See engine manual.

### FUEL SYSTEM

**IMPORTANT**: It is important to prevent gum deposits from forming in essential fuel system parts such as carburetor, fuel hose, or tank during storage. Also, alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

- Empty the fuel tank by starting the engine and letting it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- Use fresh fuel next season.

**NOTE:** Fuel stabilizer 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 the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor. Do not drain the gas tank and carburetor if using fuel stabilizer.

#### **ENGINE OIL**

Drain oil (with engine warm) and replace with clean engine oil. (See "ENGINE" in the Maintenance section of this manual).

#### CYLINDER

- 1. Remove spark plug.
- 2. Pour one ounce (29 ml) of oil through spark plug hole into cylinder.
- 3. Pull recoil starter handle slowly a few times to distribute oil.
- 4. Replace with new spark plug.

# OTHER

- Remove safety ignition key; store it in a safe place.
- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your snow thrower indoors and cover it to protect it from dust and dirt.
- Cover your snow thrower with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe, which allows condensation to form and will cause your snow thrower to rust.

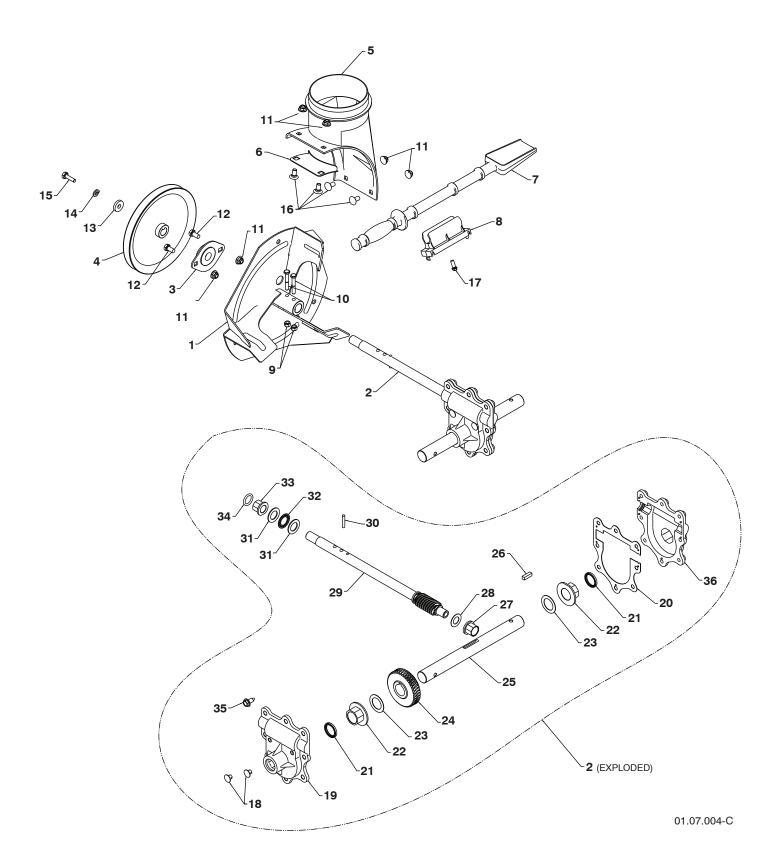
**IMPORTANT**: Never cover snow thrower while engine/exhaust area is still warm.

# TROUBLESHOOTING

### See appropriate section in manual unless directed to a Sears service centre/department.

PROBLEM	CAUSE	CORRECTION
Does not start	<ol> <li>Fuel shut-off valve (if so equipped) in OFF position.</li> </ol>	1. Turn fuel shut-off valve to OPEN position.
	<ol> <li>Safety ignition key is not inserted.</li> </ol>	2. Insert safety ignition key.
	3. Out of fuel.	3. Fill fuel tank with fresh, clean gasoline.
	4. Throttle in STOP position	4. Move throttle to FAST position
	(or ON/OFF switch is OFF).	(or ON/OFF switch to ON position).
	<ol> <li>Choke in OFF position.</li> <li>Primer not depressed.</li> </ol>	<ol> <li>Move to FULL position.</li> <li>Prime as instructed in the Operation section of this manual.</li> </ol>
	7. Engine is flooded.	<ol> <li>Prime as instructed in the Operation section of this manual.</li> <li>Wait a few minutes before restarting, DO NOT prime.</li> </ol>
	<ol> <li>Spark plug wire is disconnected.</li> </ol>	8. Connect wire to spark plug.
	9. Bad spark plug.	9. Replace spark plug.
	10. Stale fuel.	10. Empty fuel tank & carburetor, refill with fresh, clean gasoline.
	11. Water in fuel.	11. Empty fuel tank & carburetor, refill with fresh, clean gasoline.
Loss of power	1. Spark plug wire loose.	1. Reconnect spark plug wire.
-	2. Throwing too much snow.	2. Reduce speed and width of swath.
	3. Fuel tank cap is covered	3. Remove ice and snow on and around fuel tank cap.
	with ice or snow. 4. Dirty or clogged muffler.	4. Clean or replace muffler.
	4. Dirty or clogged muttler.	
Engine idles or	1. Choke is in FULL position.	1. Move choke to OFF position.
runs roughly	<ol> <li>Blockage in fuel line.</li> <li>Stale fuel.</li> </ol>	2. Clean fuel line.
	4. Water in fuel.	<ol> <li>Empty fuel tank &amp; carburetor, refill with fresh, clean gasoline.</li> <li>Empty fuel tank &amp; carburetor, refill with fresh, clean gasoline.</li> </ol>
	5. Carburetor is in need of	<ol> <li>Empty rule tank a carbarcter, reim with resh, clean gaseline.</li> <li>Contact a Sears service centre/department.</li> </ol>
	adjustment or overhaul.	
Excessive	1. Loose parts or damaged	1. Tighten all fasteners. Replace damaged parts. If vibration
vibration	augers or impeller.	remains, contact a Sears service centre/department.
Recoil starter	1. Frozen recoil starter.	1. See "IF RECOIL STARTER HAS FROZEN"
is hard to pull		in the Operation section of this manual.
Loss of traction	1. Drive belt is worn.	1. Check / replace drive belt.
drive / slowing	2. Drive belt is off of pulley.	2. Check / reinstall drive belt.
of drive speed	3. Friction drive wheel is worn.	3. Contact a Sears service centre/department.
Loss of snow	1. Auger belt is off of pulley.	1. Check / reinstall auger belt.
discharge or	2. Auger belt is worn.	2. Check / replace auger belt.
slowing of	3. Clogged discharge chute.	3. Clean snow chute.
snow discharge	4. Augers / impeller jammed.	4. Remove debris or foreign object from augers / impeller.

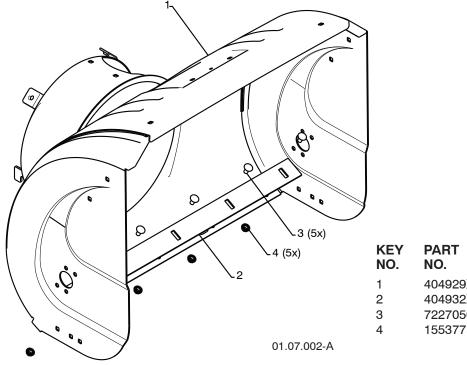
# **SERVICE NOTES**



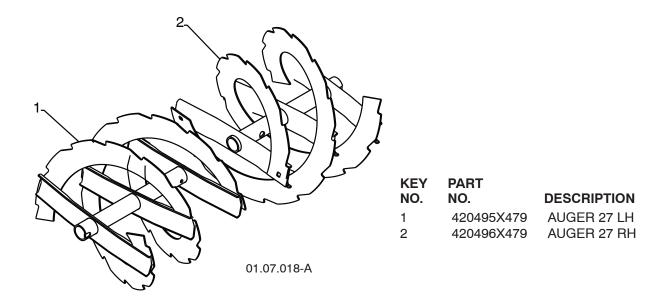
# AUGER HOUSING / IMPELLER ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1	175321X479	IMPELLER
2	196710	GEARBOX ASSEMBLY
3	188909	BEARING
4	191079	IMPELLER PULLEY
5	175322	DISCHARGE BASE
6	178675X008	CORNER BRACKET
7	192199	CLEAN OUT TOOL
8	405400	TOOL CLIP
9	73800400	NUT 1/4-20
10	74780426	SCREW 1/4-20 X .625
11	427942	NUT 5/16-18
12	163183	SCREW 5/16-18 X .625
13	19111507	WASHER
14	10040500	LOCKWASHER 5/16
15	74940516	SCREW 5/16-18 X 1 .00
16	180355	CARRIAGE BOLT
17	194189	SCREW 13-16 X .625
18	407760	
19	407761	GEARBOX COVER RH
20 21	407766	GASKET SEAL
	407770	BEARING
22	407762	THRUST WASHER 1.00
23 24	174697 407763	WORM GEAR
24 25	407764	AUGERSHAFT
25 26	189282	SQUARE KEY
20 27	407758	BEARING
28	174683	THRUST WASHER
28 29	407757	IMPELLER SHAFT
30	7836M	ROLL PIN
31	174681	THRUST WASHER
32	174684	THRUST BEARING
33	407769	BEARING
34	407768	O-RING
35	407767	SCREW 5/16-18 X .750
36	407765	GEARBOX COVER LH

# AUGER HOUSING / IMPELLER ASSEMBLY

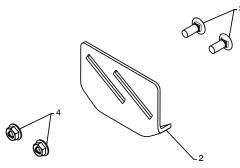


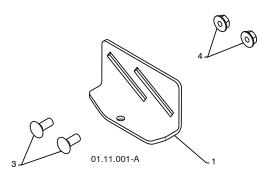
PART	
NO.	DESCRIPTION
404929X615	AUGER HOUSING 27
404932X428	SCRAPER BAR
72270505	CARRIAGE BOLT 5/16-18 X .625
155377	NUT 5/16–18



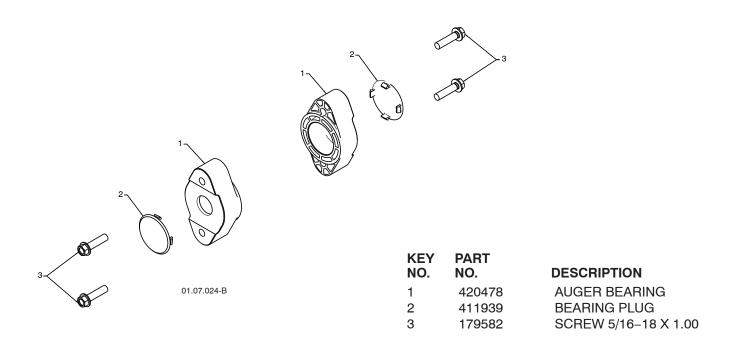
### SNOW THROWER - - MODEL NUMBER 944.529930

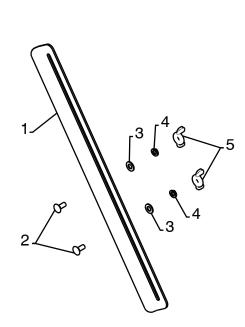
# AUGER HOUSING / IMPELLER ASSEMBLY

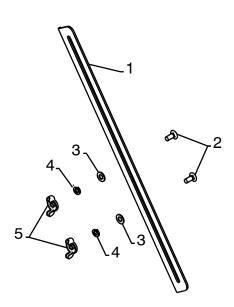




KEY NO.	PART NO.	DESCRIPTION
1 2 3 4	174762X479 178777X479 72270506 751153	SKID PLATE LH SKID PLATE RH CARRIAGE BOLT 5/16–18 X .75 NUT 5/16–18







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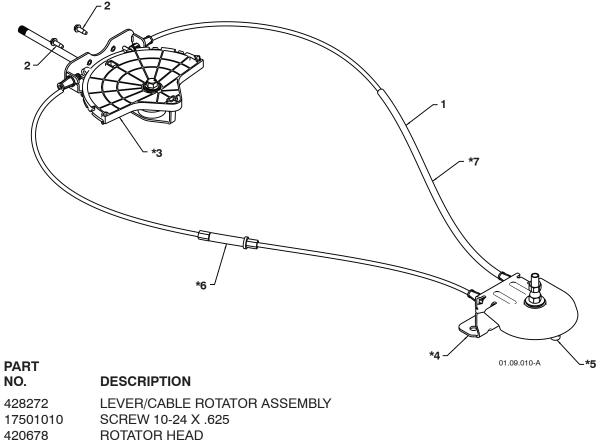
KEY	PART	
NO.	NO.	DESCRIPTION
1	181160X479	DRIFT CUTTER BAR
2	72270506	CARRIAGEBOLT5/16-18X.750
3	179246	PLASTIC WASHER
4	10040500	LOCKWASHER 5/16
5	128638	NUT 5/16–18

CON	_	EL / DISCHARGE CHUTE
$\bigcirc$	5	
7 - 13		3
KEY NO.	PART NO.	DESCRIPTION 1
1 2 3 4 5 6 7	404770X615 178633X615 420673 420325 414280 128415 17501010	CHUTE WELDMENT DEFLECTOR WELDMENT DEFLECTOR CONTROL ASSEMBLY DEFLECTOR SEAL KNOB BLACK POP RIVET SCREW 10-24 X .625
*8 *9 *10 *11 *12 13 14	179829 191730 72250505 751153 184505 420679 420672	SHOULDER SCREW NUT 1/4-20 CARRIAGE BOLT 5/16-18 X .50 NUT 5/16-18 DEFLECTOR SPRING (SERVICE PART) DEFLECTOR CONTROL HEAD (SERVICE PART) DEFLECTOR CONTROL CABLE

#### NOTE:

1. ALL ITEMS INDICATED WITH AN \* ARE PROVIDED IN THE BAG OF ITEMS SHIPPED LOOSE WITH PRODUCT. 2. ITEMS 13 AND 14 ARE SERVICE PART NUMBERS TO ALLOW PURCHASE OF INDIVIDUAL ITEMS IF NECESSARY.

**CONTROL PANEL / DISCHARGE CHUTE** 



- \*3420678ROTATOR HEAD\*4405932ROTATOR PIVOT BRACKET
- \*5 420675 PULLEY PIVOT
- \*6 428273 CABLE ASSEMBLY ADJUSTABLE
- \*7 428310 CABLE ASSEMBLY HEAT SHIELD

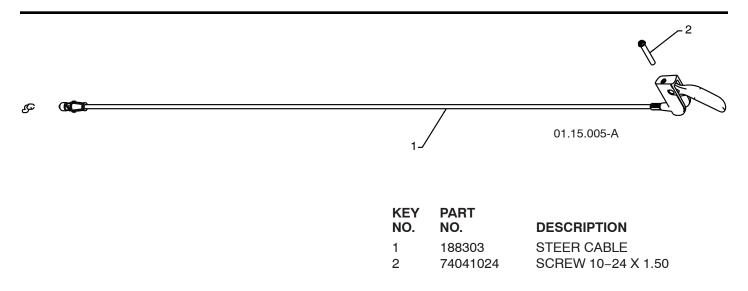
#### NOTES:

KEY

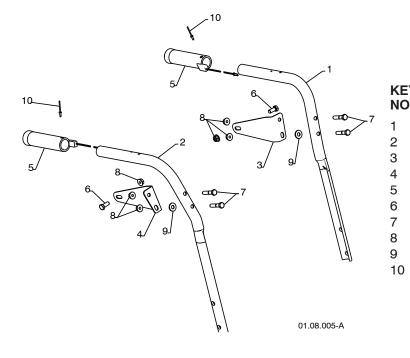
NO.

1 2

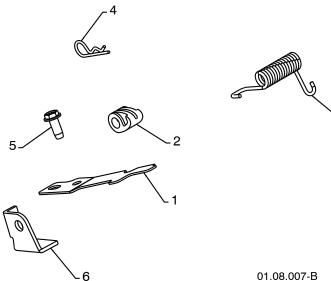
1. ITEMS INDICATED WITH AN \* ARE LISTED AS REFERENCE FOR SERVICE PARTS ONLY.



# HANDLES



EY D.	PART NO.	DESCRIPTION
	419800X479 419801X479	PLOW HANDLE LH PLOW HANDLE RH
	196944	PANEL BRACKET LH
	196943	PANEL BRACKET RH
	414515	HEATED HANDLE GRIP
	74780512	CREW 5/16-18 X .750
	74780524	SCREW 5/16-18 X 1.50
	751153	NUT 5/16–18
	155415	WASHER
	178775	POP RIVET 1/8

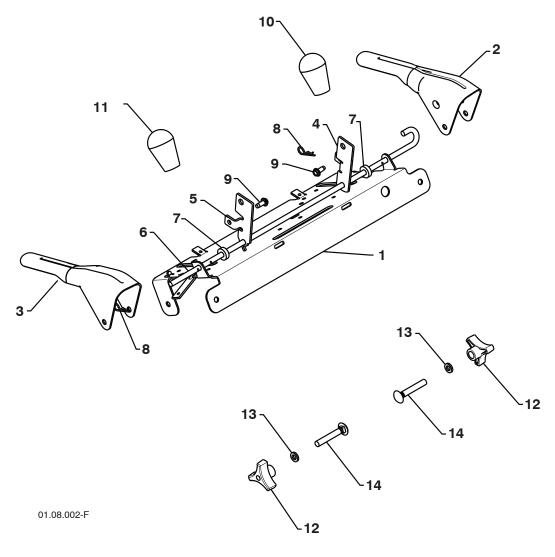


PART NO.	DESCRIPTION
412675X004	INTERLOCK SPRING
414572	INTERLOCK CAM
178831	TORSION SPRING
169675	RETAINER
17060410	SCREW 1/4-20 X .625
421252X004	INTERLOCK STOP
	NO. 412675X004 414572 178831 169675 17060410

01.08.007-B

.3

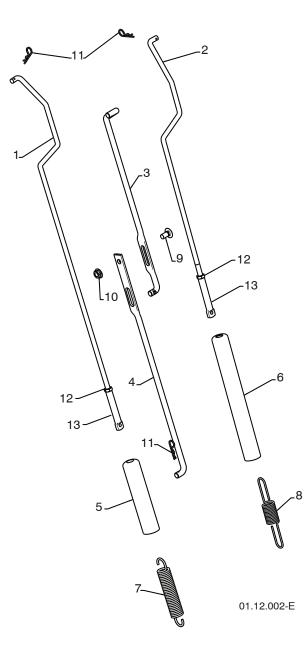
# HANDLES



KEY NO.	PART NO.	DESCRIPTION
1	412683X479	CONTROL PANEL
2	424517X479	CONTROL LEVER LH
3	424516X479	CONTROL LEVER RH
4	426917X008	TRACTION ROD ARM
5	426918X008	IMPELLER ROD ARM
6	412677	INTERLOCK ROD
7	421613	SPACER
8	169675	RETAINER
9	17060410	SCREW 1/4-20 X .62
10	414280	KNOB BLACK
11	414281	KNOB RED
12	178899	HANDLE KNOB
13	19131316	WASHER 3/8
14	72120618	CARRIAGE BOLT 3/8-16 X 2.25

# SNOW THROWER - - MODEL NUMBER 944.529930

# HANDLES

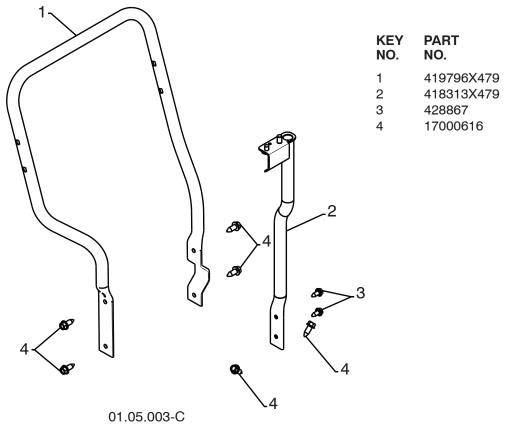


KEY NO.	PART NO.	DESCRIPTION
1	421762	IMPELLER ROD ASSEMBLY
2	179098	TRACTION ROD ASSEMBLY
3	187782	SHIFTER ROD TOP
4	187784	SHIFTER ROD BOTTOM
5	180447	SPRING SLEEVE
6	192091	SPRING SLEEVE
7	178669	IMPELLER SPRING
8	180926	TRACTION SPRING
9	72270505	CARRIAGE BOLT 5/16-18 X .750
10	155377	NUT 5/16-18
11	169675	RETAINER
12	73350500	5/16-18 JAM NUT
13	180428	CONTROL ROD END

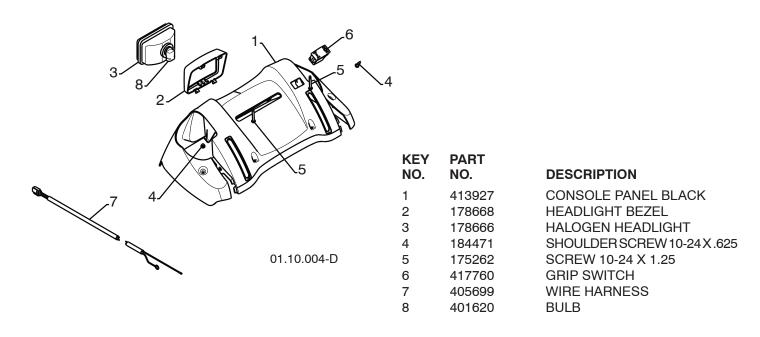
# SNOW THROWER - - MODEL NUMBER 944.529930

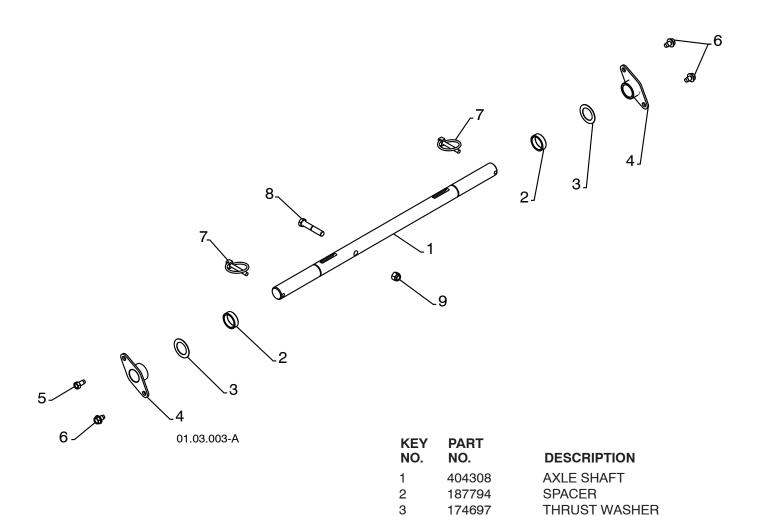
# **REPAIR PARTS**

HANDLES



KEY NO.	PART NO.	DESCRIPTION
1	419796X479	LOWER TUBE
2	418313X479	PIVOT SUPPORT
3	428867	BOLT 5/16-18 X .750
4	17000616	SCREW 3/8-16 X 1 .00





4

5

6

7

8

179830

146315

155443

17490508

74780632

9	73800600	NUT 3/8–16	

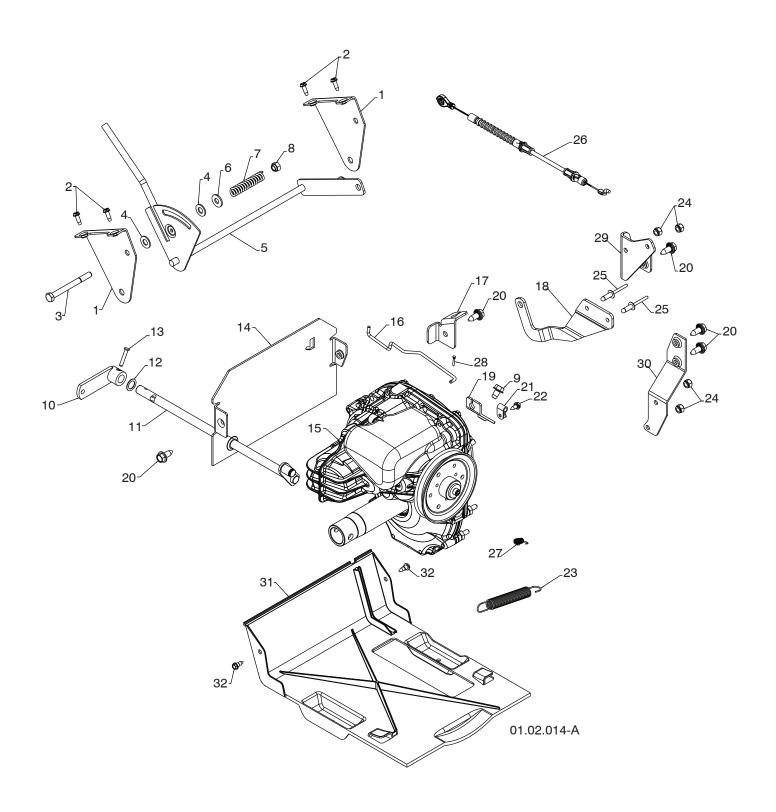
BEARING

**CLIK PIN** 

SCREW 5/16-18 X .625

BOLT 5/16-18 X .500

SCREW 3/8-16 X 2.00

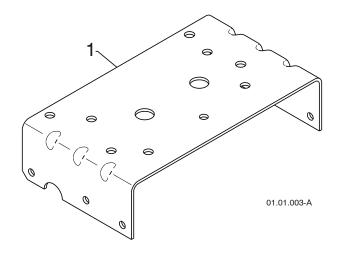


DRIVE

KEY NO.	Part No.	DESCRIPTION
1	192002	SHIFT BRACKET
2	17501010	SCREW 10-24 X .625
3	74760552	SCREW 5/16-18 X 3.25
4	179246	PLASTIC WASHER
5 6	192001	SHIFT ASSEMBLY WASHER
о 7	155415 192195	FRICTION SPRING
8	73800500	NUT 5/16-18
9	17490508	BOLT 5/16-18 X .500
10	405484	CONTROL ARM
11	406109	CONTROL SHAFT
12	57079	WASHER
13	198580	CLEVIS PIN
14	192115X615	REAR PLATE
15	187776	TRANSMISSION
16	193256	ROD
17	192000	REAR CABLE BRACKET
18	187787	CONTROL ARM
19	191993	FRONT CABLE BRACKET
20	428867	SCREW 5/16-18 X .750
21	87930	CLIP
22	17391208	SCREW .12 X .5a
23 24	178828 73800400	BRAKE SPRING
24 25	191995	NUT 1/4-20 POP RIVET 1/4 X .475
25 26	198466	CLUTCH CABLE
20	192873	TRACTION SPRING
28	700279	RETAINER CLIP
29	193255X479	ANTI-ROTATE BRACKET
30	414771	TORQUE STRAP BRACKET
31	403732	BOTTOM PAN
32	184471	SCREW 10-24 X .625

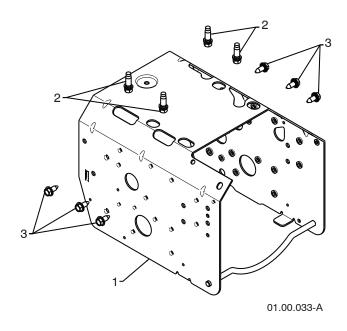
#### SNOW THROWER - - MODEL NUMBER 944.529930

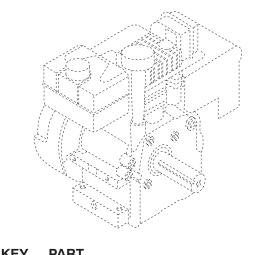
## **REPAIR PARTS CHASSIS / PULLEYS**



KEY	PART
NO.	NO.
1	423185X615

DESCRIPTION ENGINE MOUNTING PLATE



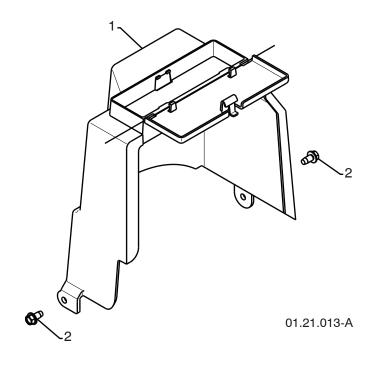


	FANI	
NO.	NO.	DESCRIPTION
		<b>B&amp;S ENGINE MODEL</b>
		20M314-1363-E1
1	418696X615	FRAME
2	150406	BOLT 3/8-16
3	428867	SCREW 5/16-18 X .750

#### SNOW THROWER - - MODEL NUMBER 944.529930

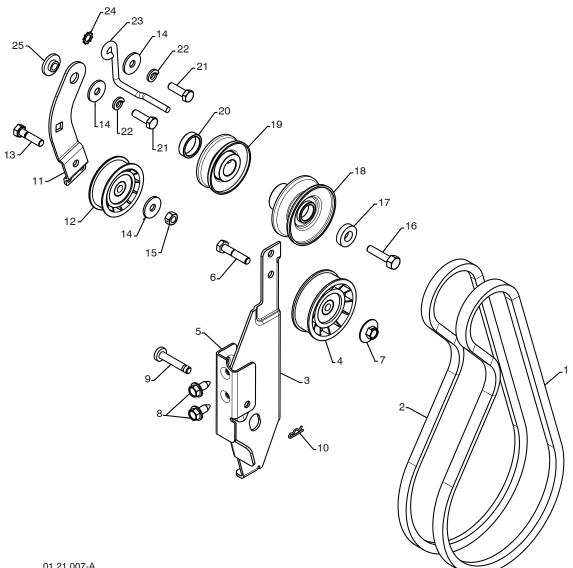
#### **REPAIR PARTS**

**CHASSIS / PULLEYS** 



KEY NO.	PART NO.	DESCRIPTION
1	409161	COVER ASSEMBLY
2	17490408	SCREW 1/4-20 X .50

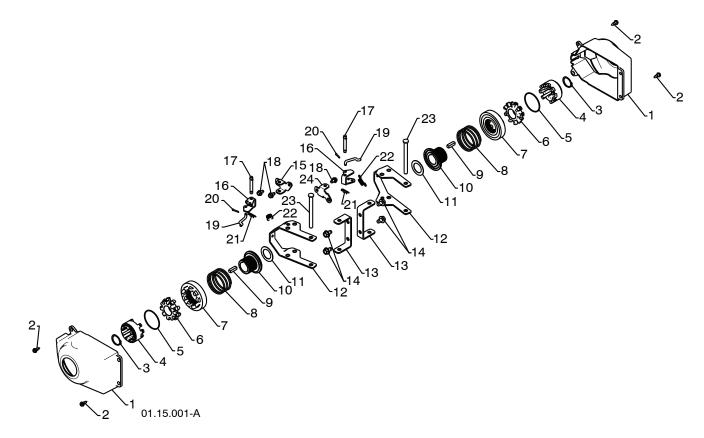
## **REPAIR PARTS** CHASSIS / PULLEYS



NO.			PART
	DESCRIPTION	NO.	NO.
408007	IMPELLER BELT	14	59289
192383	TRACTION BELT	15	7393050
419925X479	IDLER ARM BRACKET	16	851084
180523	IDLER PULLEY	17	400026
193397X479	IDLER BRACKET	18	179157
74780524	SCREW 5/16-18 X 1.50	19	180478
426589	NUT 5/16-18	20	409475
428867	SCREW 5/16-18 X .625	21	746105
175330	IDLER PIN	22	1004050
85179	RETAINER CLIP	23	193607
187786	TRACTION IDLER BRACKET	24	1105050
180522	TRACTION PULLEY	25	175331
74780520	CAP SCREW 5/16-18 x 1.25		
	192383 419925X479 180523 193397X479 74780524 426589 428867 175330 85179 187786 180522	192383       TRACTION BELT         419925X479       IDLER ARM BRACKET         180523       IDLER PULLEY         193397X479       IDLER BRACKET         74780524       SCREW 5/16-18 X 1.50         426589       NUT 5/16-18         428867       SCREW 5/16-18 X .625         175330       IDLER PIN         85179       RETAINER CLIP         187786       TRACTION IDLER BRACKET         180522       TRACTION PULLEY	192383       TRACTION BELT       15         419925X479       IDLER ARM BRACKET       16         180523       IDLER PULLEY       17         193397X479       IDLER BRACKET       18         74780524       SCREW 5/16-18 X 1.50       19         426589       NUT 5/16-18       20         428867       SCREW 5/16-18 X .625       21         175330       IDLER PIN       22         85179       RETAINER CLIP       23         187786       TRACTION IDLER BRACKET       24         180522       TRACTION PULLEY       25

NO.	DESCRIPTION
59289	WASHER
73930500	NUT 5/16-18
851084	SCREW 3/8-24 X 1.375
400026	WASHER
179157	PULLEY ENG IMPELLER
180478	PULLEY ENG TRACTION
409475	SPACER
74610516	SCREW 5/16-24 X 1.00
10040500	LOCKWASHER 5/16
193607	BELT GUIDE
11050500	LOCKWASHER 5/16
175331	IDLER BUSHING

### WHEELS

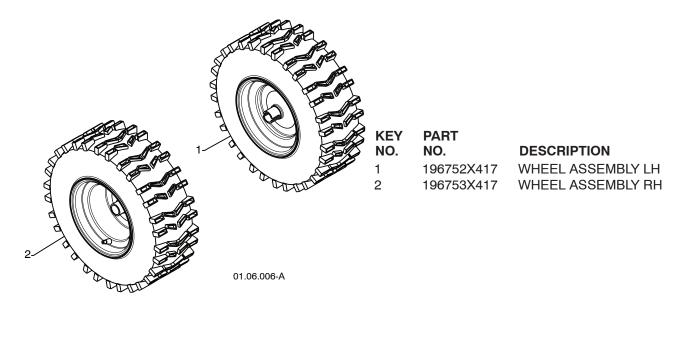


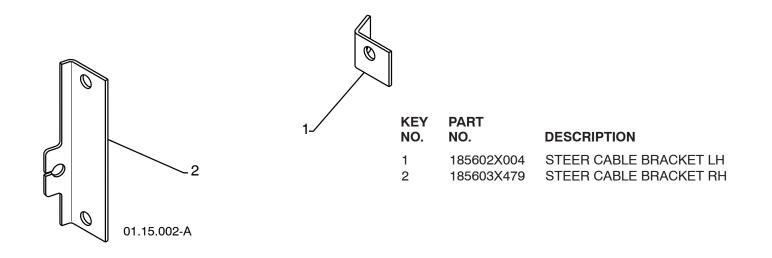
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	405161	COVER	13	179148X479	STEERING BRACKET
2	184471	SHOULDER SCREW	14	17490508	SCREW 5/16–18 X .50
3	12000045	RETAINER RING	15	194943X008	PIVOT BRACKET
4	192126	WHEEL DRIVER	16	194944X008	BELLCRANK
5	182466	RETAINER RING	17	181847	BELLCRANK PIN
6	187622	WHEEL LOBE	18	17600406	SCREW 1/4-20 X .375
7	194941	CLUTCH SLIDE	19	405077	STEERING LINK
8	179139	SPRING	20	700279	RETAINER
9	189282	SQUARE KEY	21	85179	RETAINER
10	194940	AXLE LOBE	22	193885	SPRING
11	174697	THRUST WASHER	23	182015	LEVER PIN
12	193506X479	STEERING YOKE	24	194939X008	PIVOT BRACKET

#### **REPAIR PARTS**

#### SNOW THROWER - - MODEL NUMBER 944.529930

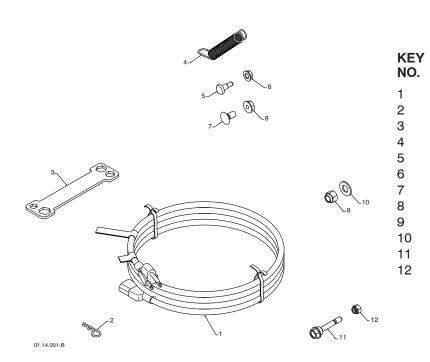
### WHEELS





## **REPAIR PARTS**

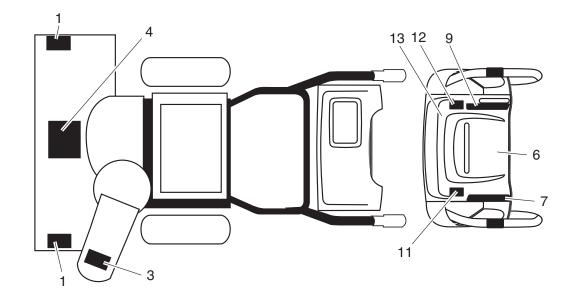
**BAG OF PARTS** 



PAF NO		DESCRIPTION
198	563	POWER CORD
169	675	RETAINER PIN
180	684	WRENCH
184	505	REMOTE SPRING
179	829	SHOULDER BOLT 1/4-20
191	730	LOCKNUT 1/4-20
722	50505	CARRIAGE BOLT 5/16-18 X 5/8
751	153	LOCKNUT 5/16-18
738	00600	LOCKNUT 3/8-16
191	31316	WASHER 3/8
192	090	SHOULDER BOLT 1/4-20
738	00400	LOCKNUT 1/4-20

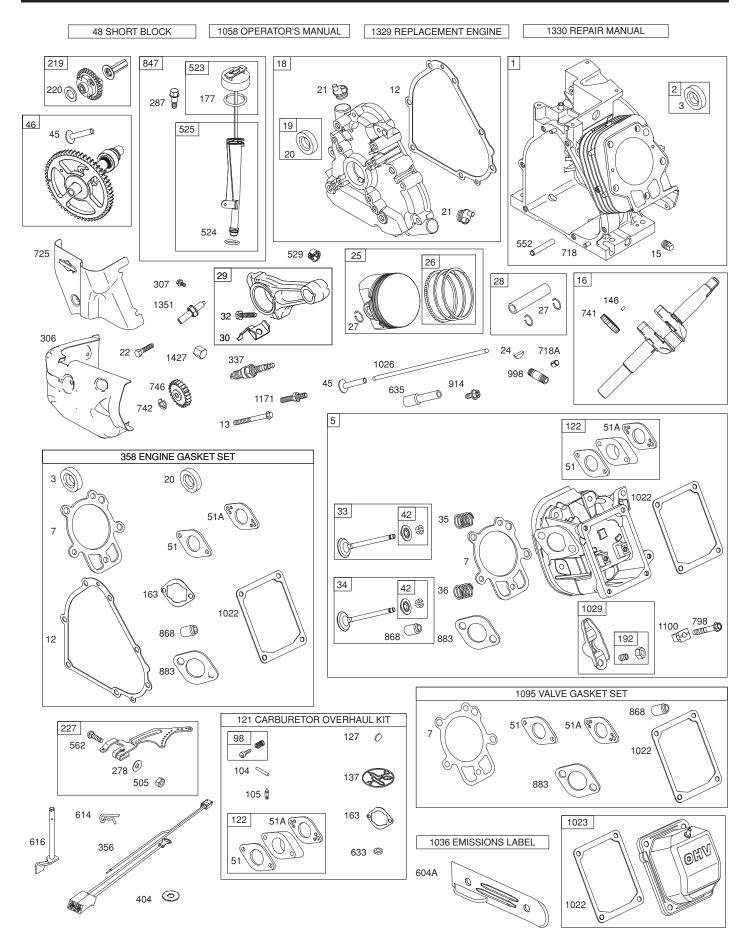


KEY NO.	PART NO.	DESCRIPTION
1	193071	SAFETY IGNITION KEY

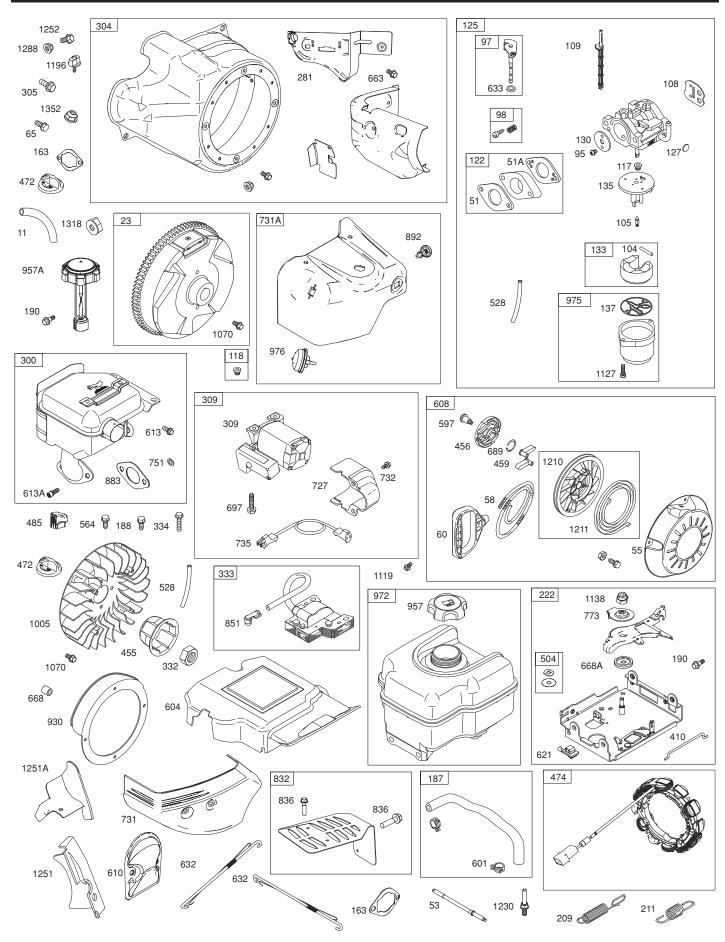


KEY NO.	PART NO.	DESCRIPTION
1	181037	DECAL, DANGER
3	181035	DECAL, DANGER, DEFLECTOR
4	181042	DECAL, DANGER
6	181033	DECAL, INSTRUCTION
7	183730	DECAL, REMOTE DEFLECTOR
9	415475	DECAL, SPEED CONTROL
11	415399	DECAL, LH TRIGGER
12	415398	DECAL, RH TRIGGER
13	415455	DECAL, CONSOLE AUTO.
	428941	OWNER'S MANUAL, ENGLISH
	428942	OWNER'S MANUAL, FRENCH

# **SERVICE NOTES**



#### MODEL NUMBER 20M314-1363-E1



KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	794849	CYLINDER ASSEMBLY	125	796122	CARBURETOR
2	698340	KIT-BUSHING/SEAL	127	690727 Ø	PLUG-WELCH
		(MAGNETO SIDE)	130	696139	VALVE-THROTTLE
3	391086S ·	SEAL-OIL (MAGNETO SIDE)	133	694914	FLOAT-CARBURETOR
5	794871	HEAD-CYLINDER	135	698780	TUBE-FUEL TRANSFER
7	694872 •+	GASKET-CYLINDER HEAD	137	698781 Ø	GASKET-FLOAT BOWL
11	696750	TUBE-BREATHER	146	690979	KEY-TIMING
12	694953 •	GASKET-CRANKCASE	163	692277 +Ø	GASKET-AIR CLEANER
13	794829	SCREW (CYLINDER HEAD)	177	795015	SEAL-O RING (DIPSTICK)
15	691686	PLUG-OIL DRAIN	187	791879	
16	794720	CRANKSHAFT	188	699479	SCREW (CONTROL BRACKET)
18	791965	COVER-CRANKCASE	190	699220	SCREW (FUEL TANK) ADJUSTER-ROCKER ARM
19	698340 391086S •	KIT-BUSHING/SEAL (PTO SIDE)	192 209	690083 694867	SPRING-GOVERNOR (RED)
20 21		SEAL-OIL (PTO SIDE) CAP-OIL FILL	209	695307	SPRING-GOVERNED IDLE
21	281658S 794825	SCREW (CRANKCASE	219	693578	GEAR-GOVERNOR
22	794025	COVER/SUMP)	220	691724	WASHER (GOVERNOR GEAR)
23	794812	FLYWHEEL	222	794800	BRACKET-CONTROL
24	222698S	KEY-FLYWHEEL	227	694864	LEVER-GOVERNOR CONTROL
25	792117	PISTON ASSEMBLY	278	792008	WASHER (GOVERNOR
20	102111	(STANDARD)			CONTROL LEVER)
	792144	PISTON ASSEMBLY (.020"	281	697268	PANEL-CONTROL
	102111	OVERSIZE)	287	699629	SCREW (DIPSTICK TUBE)
26	793561	RING SET (STANDARD)	300	794948	MUFFLER
	792073	RING SET (.020" OVERSIZE)	304	795699	HOUSING-BLOWER
27	690975	LOCK-PISTON PIN	305	699480	SCREW (BLOWER HOUSING)
28	696581	PIN-PISTON	306	697240	SHIELD-CYLINDER
29	694691	ROD-CONNECTING	307	794822	SCREW (CYLINDER SHIELD)
30	694692	DIPPER-CONNECTING ROD	309	795909	MOTOR-STARTER
32	690976	SCREW (CONNECTING ROD)	332	794824	NUT (FLYWHEEL)
33	499596	VALVE-EXHAUST	333	492341	ARMATURE-MAGNETO
34	795199	VALVE-INTAKE	334	699477	SCREW (MAGNETOARMATURE)
35	694865	SPRING-VALVE (INTAKE)	337	793541	PLUG-SPARK
36	694865	SPRING-VALVE (EXHAUST)	356	793206	WIRE-STOP
42	499586	KEEPER-VALVE	358	795201	GASKET SET-ENGINE
45	690977	TAPPET-VALVE	404	795759	WASHER (GOVERNOR
46	795697	CAMSHAFT	410	695382	CRANK) LINK-CONTROL
48 51	794910 694874 •+Ø	SHORT BLOCK GASKET-INTAKE	455	795011	CUP-FLYWHEEL
51A	694875 •+ Ø	GASKET-INTAKE	456	692299	PLATE-PAWL FRICTION
53	795017	STUD (CARBURETOR)	459	281505S	PAWL-RATCHET
55	696710	HOUSING-REWIND STARTER	472	791948	KNOB-CHOKE SHAFT
58	693389	ROPE-STARTER	474	696742	ALTERNATOR
60	699334	GRIP-STARTER ROPE	485	695755	KNOB-CONTROL
65	699851	SCREW (REWIND STARTER)	504	695383	WASHER SET-FRICTION
95	690718	SCREW (THROTTLE VALVE)	505	691251	NUT (GOVERNOR CONTROL
97	696387	SHAFT-THROTTLE			LEVER)
98	695408 Ø	KIT-IDLE SPEED	523	695344	DIPSTICK
104	694918 Ø	PIN-FLOAT HINGE	524	691876	SEAL-O RING (DIPSTICK TUBE)
105	696136 Ø	VALVE-FLOAT NEEDLE	525	695343	TUBE-DIPSTICK
108	696143	VALVE-CHOKE	528	793006	HOSE-PRIMER
109	793520	SHAFT-CHOKE	529	791822	GROMMET
117	796080 Ø	JET-MAIN (STANDARD)	552	694674	BUSHING-GOVERNOR CRANK
118	796128 Ø	JET-MAIN (HIGH ALTITUDE)	562	793216	BOLT (GOVERNOR CONTROL
121	796137	KIT-CARBURETOR OVERHAUL			
122	694876 Ø	SPACER-CARBURETOR	564	699854	SCREW (CONTROL COVER)
		48			

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION	
597	691696	SCREW (PAWL FRICTION PLATE)	957 957A	795027 698109	CAP-FUEL CAP-FUEL	
601	791850	CLAMP-HOSE (GREEN)	972	694260	TANK-FUEL	
604	696758	COVER-CONTROL	975	698783	BOWL-FLOAT	
604A	790473	COVER-CONTROL	976	793382	PRIMER-CARBL	JRETOR
621	692310	SWITCH-STOP	998	792928	PIPE-OIL	
632	695917	SPRING/LINK-MECHANICAL GOVERNOR	1005 1022	794815 690971 •+	FAN-FLYWHEEL GASKET-ROCKE	
608	699335	STARTER-REWIND	1023	698042	COVER-ROCKE	R
610	794541	ARRESTER-INTAKE	1026	695177	ROD-PUSH	
613	794846	SCREW (MUFFLER) (M6)	1029	690972	ARM-ROCKER	
613A	794844	SCREW (MUFFLER) (M8) (TORX)	1036		LABEL-EMISSIO	
614	691620	PIN-COTTER			& STRATTON AL	JTHORIZED
616	795758	CRANK-GOVERNOR			DEALER)	
633	690998 Ø		1058	277104	OPERATOR'S M	
625	691909	SHAFT (THROTTLE SHAFT) BOOT-SPARK PLUG	1070	794821	SCREW (FLYWH	
635 663	699854	SCREW (CONTROL PANEL)	1095 1100	795200	GASKET SET-VA PIVOT-ROCKER	
668	794539	SPACER (SNOW HOOD)	1119	791959 699772	SCREW (ALTER	
668A	694257	SPACER (CONTROL BRACKET)	1127	695407	SCREW (FLOAT	
689	691855	SPRING-FRICTION	1138	694255	NUT (CONTROL	
697	795012	SCREW (STARTER MOTOR)			(HIGH SPEED C	
718	690959	PIN-LOCATING (CYLINDER)	1171	794828	<b>STUD (ROCKER ARM COVER</b>	
718A	695178	PIN-LOCATING (CYLINDER	1196	696692 SCREW (SNOW HOOD)		HOOD)
705	606756	HEAD)	1210	498144	PULLEY/SPRING	G ASSEMBLY
725 727	696756 697465	SHIELD-HEAT COVER-STARTER DRIVE	1011	400144	(PULLEY)	
731	794540	HOOD-SNOW	1211	498144	PULLEY/SPRING	ASSEMBLY
731A	793621	HOOD-SNOW	1230	699847	STUD (CONTRC	
732	699200	SCREW (STARTER DRIVE	1250	696762	SHIELD-SNOW	
		COVER)		790471	SHIELD-SNOW	
735	795901	CORD-STARTER	1252	699480	SCREW (SNOW	SHIELD)
741	691288	GEAR-TIMING	1288	794838	NUT (SNOW HO	
742	692564	RETAINER-E RING	1318	698111	KNOB-SNOW H	DOD
746	694679	GEAR-IDLER	1329	20P414		
751	794839	WASHER (STOP WIRE)		-0015-E1	REPLACEMENT	
773	694258	RETAINER (CONTROL BRACKET)	1351 1352	794847 795016	STUD (CYLINDE NUT (SPARK PL	
798	697890	SCREW (ROCKER COVER)	1427	695757	CAP-PIPE	
832	797095	GUARD-MUFFLER				
836	699234	SCREW (MUFFLER GUARD)				
847	695342	DIPSTICK/TUBE ASSEMBLY	•	ENGINE GASK		KEY NO. 358
851 869	692424	TERMINAL-SPARK PLUG	Ø		OVERHAUL KIT	
868 883	794086 •+ 695398 •+	SEAL-VALVE GASKET-EXHAUST	+	VALVE GASKE	ISEI	KEY NO. 1095
883 892	791944	SWITCH-KEY				
914	794827	SCREW (ROCKER COVER)	NOTE: ALL COMPONENT DIMENSIONS GIVEN IN U.S. INCHES 1 INCH = 25.4 MM			
930	696709	GUARD-REWIND	0.0.11			

## **SERVICE NOTES**

# **SERVICE NOTES**

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