SEARS OWNER'S MANUAL

MODEL NO. 536.885410

Caution: Read and Follow all Safety Rules and Instructions Before Operating This Equipment

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4 HORSEPOWER 20" DUAL STAGE TRAC-PLUS OPTIONAL ELECTRIC START SNOW THROWER

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

SEARS, ROEBUCK AND Co., Chicago, IL. 60684 U.S.A.

SAFETY RULES



CAUTION: ALWAYS DISCONNECT SPARK PLUG WIRE AND PLACE WIRE WHERE IT CANNOT CONTACT SPARK PLUG TO PREVENT ACCIDENTAL STARTING WHEN SETTING-UP, TRANSPORTING, ADJUSTING OR MAKING REPAIRS.



IMPORTANT

SAFETY STANDARDS REQUIRE OPERATOR PRESENCE CONTROLS TO MINIMIZE THE RISK OF INJURY. YOUR SNOW THROWER IS EQUIPPED WITH SUCH CONTROLS. DO NOT ATTEMPT TO DEFEAT THE FUNCTION OF THE OPERATOR PRESENCE CONTROL UNDER ANY CIRCUMSTANCES.

BEFORE USE

- Read the owner's manual carefully. Be thoroughly familiar with the controls and the proper use of the snow thrower. Know how to stop the snow thrower and disengage the controls quickly.
- Do not operate the snow thrower without wearing adequate winter outer garments. Wear footwear that will improve footing on slippery surfaces.
- Keep the area of operation clear of all persons, particularly small children, and pets.
- Thoroughly inspect the area where the snow thrower is to be used and remove all doormats, sleds, boards, wires, and other foreign objects.
- Use extension cords and receptacles as specified by the manufacturer for all snow throwers with electric drive motors or electric starting motors.
- Use only attachments and accessories approved by the manufacturer of the snow thrower (such as tire chains, electric start kits, etc.)
- 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.
- This snow thrower is for use on sidewalks, driveways, and other ground level surfaces. CAUTION should be exercised while using on steep 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.
- Check shear bolts and other bolts at frequent intervals for proper tightness to be sure the snow thrower is in safe working condition.
- Disengage all clutches and shift into neutral before starting the engine.
- Adjust the snow, thrower height to clear gravel or crushed rock surface.
- Let engine and snow thrower adjust to outdoor temperatures before starting to clear snow.

FUEL SAFETY

- Handle fuel with care; it is highly flammable.
- Use an approved fuel container.
- Check fuel supply before each use, allowing space for expansion as the heat of the engine and/or sun can cause fuel to expand.
- Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
- Replace fuel tank cap securely and wipe up spilled fuel.
- Never remove fuel tank cap or add fuel to a running engine or hot engine.
- Never store fuel or snow thrower with fuel in the tank inside of a building where fumes may reach an open flame or spark.

OPERATING SAFETY

- Never allow children or young teenagers to operate the snow thrower and keep them away while it is operating. Never allow adults to operate the snow thrower without proper instruction. Do not carry passengers.
- 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 snow thrower.
- Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Exercise caution to avoid slipping or falling, especially when operating in reverse.
- Do not clear snow across the face of slopes. Exercise caution when changing direction on slopes. Do not attempt to clear steep slopes.
- Never operate the snow thrower without proper guards, plates or other safety protective devices in place.

SAFETY RULES

- Never operate the snow thrower near glass enclosures, automobiles, window wells, dropoffs, and the like without proper adjustment of the snow discharge angle. Keep children and pets away.
- Never operate the snow thrower at high transport speeds on slippery surfaces. Look behind and use care when backing.
- Never direct discharge at bystanders or allow anyone in front of the snow thrower.
- 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 (containing CARBON MONOXIDE, an ODOR-LESS and DEADLY GAS).
- Take all possible precautions when leaving the snow thrower unattended. Disengage the auger/impeller, shift to neutral, stop engine, and remove key.
- Do not overload the machine capacity by attempting to clear snow at too fast a rate.

SAFE STORAGE

- Always refer to owner's manual instructions for important details if the snow thrower is to be stored for an extended period.
- Disengage power to the auger/impeller when snow thrower is transported or not in use.
- Never store the snow thrower with fuel in the fuel tank inside a building where ignition sources are present such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.



REPAIR/ADJUSTMENTS SAFETY

- 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.
- If the snow thrower should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
- Stop the engine (motor) whenever you leave the operating position, before unclogging the auger/impeller housing or discharge guide, and when making any repairs, adjustments, or inspections.
- When cleaning, repairing, or inspecting, make certain the auger/impeller and all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
- Never attempt to make any adjustments while the engine is running (except when specifically recommended by manufacturer).
- Maintain or replace safety and instruction labels, as necessary.
- Run the snow thrower a few minutes after throwing snow to prevent freeze-up of the auger/impeller.



LOOK FOR THIS SYMBOL TO POINT OUT IMPORTANT SAFETY PRECAUTIONS. IT MEANS--ATTENTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED. **CONGRATULATIONS** on your purchase of a Sears Craftsman Snow Thrower. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problem you cannot easily remedy, please contact your nearest Sears Service Center/Department. 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."

MODEL

NUMBER 536.885410

SERIAL

NUMBER_

DATE OF

PURCHASE_

THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A DECAL ATTACHED 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.

MAINTENANCE AGREEMENT

A Sears Maintenance Agreement is available on this product. Contact your nearest Sears Store for details.

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.

TWO YEAR LIMITED WARRANTY ON CRAFTSMAN SNOW THROWER

For two years from the date of purchase, when this Craftsman Snow Thrower is maintained, lubricated and tuned-up according to the instructions in the owner's manual, Sears will repair, free of charge, any defect in material and workmanship.

If this Craftsman Snow Thrower is used for commercial or rental purposes, this warranty applies for only 90 days from the date of purchase.

This warranty does not cover the following:

- Expendable items which become worn during normal use, such as spark plugs, tire chains, drive belts and shear pins.
- Repairs necessary because of operator abuse or negligence, including bent crankshafts and the failure to maintain the equipment according to the instructions contained in the owner's manual.

WARRANTY SERVICE IS AVAILABLE BY RETURNING THE CRAFTSMAN SNOW THROWER TO THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES. THIS WAR-RANTY APPLIES ONLY WHILE THIS PRODUCT IS IN USE IN THE UNITED STATES.

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

SEARS, ROEBUCK AND CO. Department 731CR-W Sears Tower, Chicago, IL. 60684

PRODUCT SPECIFICATIONS

HORSE POWER:	4 hp
DISPLACEMENT:	10.49
GASOLINE CAPACITY:	cu. in.
GASULINE CAPACITY:	1 quart
	Unleaded
OIL (21 oz. Capacity):	SAE10W-30
	(5W - 30)
SPARK PLUG :	Champion
(GAP .030 in.)	J8C
VALVE CLEARANCE:	Intake: .010 In.
	Exhaust: .010 In.

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THIS SNOW THROWER IS EQUIPPED WITH "TRAC-PLUS" AND ONLY MOVES EFFECTIVELY WHEN ENGINE IS RUNNING

If your snow thrower must be moved without the aid of the engine, it will be easier to pull the snow thrower backward by the handles, rather than pushing.

On start up, the track drive system may be tight and will loosen up as the snow thrower is used. After first use, check the track for tension and adjust if necessary. See the Track Adjustment paragraph in the Service and Adjustments section of this manual. Check track adjustment and fasteners regularly.

CONTENTS OF SHIPPING CARTON

1 - Snow thrower completely assembled except for the crank assembly and the upper handle, which is in the folded down position.

1 - Parts Bag Containing:

1 - Owner's Manual (Not Shown)

TOOLS REQUIRED FOR ASSEMBLY

- 1 Knife (to cut carton and plastic ties)
- 2 1/2 inch Wrenches (or adjustable wrenches)
- 2 9/16 inch Wrenches (or adjustable wrenches)
- 2 3/4 inch Wrenches (or adjustable wrenches)
- 1 Pair Pliers or Screw Driver (to spread cotter pin)





ASSEMBLY

Figure 1 shows the snow thrower in the shipping position.

Figure 2 shows the snow thrower completely assembled.

Reference to the right and left hand side of the snow thrower is from the operator's position at the handle.

TO REMOVE SNOW THROWER FROM CARTON (See Fig 1)

- Open the top flaps and remove the staples.
- Cut all four corners of the carton from top to bottom and lay the panels flat.
- Cut and discard the plastic ties that secure the crank assembly and place the assembly aside.
- Remove the packing material from the control panel and upper handle assembly.
- Loosen (do not remove) both bolts securing the upper and lower handles. Swing the upper handle into the operating position.
- Cut and discard the ties securing the clutch cables to the lower handle.

NOTE: If the cables have become disconnected from the clutch levers, reinstall the cables as shown in Figure 3.

Tighten both bolts securely.

NOTE: This snow thrower is equipped with a track drive and can be hard to push when the engine is not running. It is easier to pull the snow thrower backward if it must be moved without the engine running.

The drive system may be tight when you first use your snow thrower. It loosens up as you use it.

HOW TO SET UP YOUR SNOW THROWER

TO SET THE SKID HEIGHT

For shipping, the height adjust skids are set at the lowest point. To use your snow thrower, you need to check the skid height and adjust the skids for surface conditions.

- Loosen the mounting nuts on the skids.
- Place the extra shear bolts (in the parts bag) under each end of the scraper bar near but not under the skids.
- Push each skid up or down until it touches the ground and the scraper bar is resting on each shear bolt. Be sure the skids are set at the same height on both sides.
- Tighten the mounting nuts.
- To adjust the skids height for different conditions, see To Adjust Skids Height on page 16.



FIG. 3

ASSEMBLY



CAUTION: IF YOU ARE REMOVING SNOW FROM ANY ROCKY OR UNEVEN SURFACES, RAISE THE FRONT OF THE SNOW THROWER BY MOVING THE SKIDS DOWN. THIS WILL HELP TO PREVENT

ROCKS AND OTHER DEBRIS FROM BEING PICKED UP AND THROWN BY THE AUGER.

TO INSTALL THE CRANK ASSEMBLY

- On the right side of the handle, install the following (found in parts bag) in the lower hole as shown in figure 4:
 - 1 5/16" x 1-3/4" bolt
 - 1 5/16" flatwasher & 5/16" lockwasher
- 1 5/16" nut 0

Remove one 3/8" nut, lockwasher, and flatwasher from the "eye" bolt assembly (on the chute crank assembly) and place the remaining 3/8" nut and flatwasher on the "eye" bolt about half way up the thread.

- as shown. ø Install "eye" bolt through lower hole on the left hand
- side of the handle. 0
- Install the 3/8" flatwasher, the 3/8" lockwasher and ۲ the 3/8" nut loosely on the "eve" bolt, as shown,

Remove the plastic cap, the cotter pin and the washer from the wormed end of the crank assembly and set aside (See Fig. 5).

Rotate the notched section of the discharge chute ø toward the crank-adjusting rod.

install the wormed end of the crank through the hole

- in the adjusting rod and secure the end with the flat a washer and cotter pin, as shown.
- Bend the ends of the cotter pin around the rod and re-0 install the plastic cap.
- Hold the "eve" bolt in place with a pair of pliers while ۵ tightening the inside nut securely.

Rotate the chute crank fully clockwise and fully counter-clockwise. The discharge chute should rotate fully to the outer diameter of the worm and should clear approximately 1/8" (See Fig. 5). If the chute crank needs to be adjusted, see To Adjust Chute Crank Assembly on page 16.

NOTE: Be sure the crank does not touch the carburetor cover or the cover will be scratched







FIG. 5

TO CHECK/ADJUST CLUTCH CONTROL CABLES

The control cables attached to the auger clutch lever and traction clutch lever may need to be adjusted before you use your snow thrower.

For instructions on checking or adjusting the control cables, see To Adjust The Clutch Control Cables on page 17.

KNOW YOUR SNOW THROWER

READ THIS OWNER'S MANUAL AND 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.



SEARS TRAC-PLUS SNOW THROWERS conform to the safety standards of the American National Standards Institute.

AUGER CLUTCH LEVER - Starts and stops the auger and impeller (snow gathering and throwing).

TRACTION CLUTCH LEVER - Propels the snow thrower forward and in reverse.

SHIFT ROD LEVER - Selects the speed of the snow thrower (6 speeds forward and 2 speeds reverse).

CRANK ASSEMBLY - Changes the direction of snow throwing through the discharge chute.

CHUTE DEFLECTOR - Changes the distance the snow is thrown.

DISCHARGE CHUTE - Changes the direction the snow is thrown.

WEIGHT TRANSFER PEDAL - Engage for heavy snow conditions, to keep the snow thrower from climbing drifts and hard-packed snow. When released, it eases transport of the snow thrower.

HEIGHT ADJUST SKIDS - Adjusts the ground clearance of the auger housing.

IGNITION KEY - Must be inserted and turned to the ON position to start the engine.

RECOIL STARTER HANDLE - Starts the engine manually.

CHOKE CONTROL - Used to start a cold engine. PRIMER BUTTON - Injects fuel directly into the carburetor manifold for fast starts in cold weather. THROTTLE CONTROL - Controls the engine speed.



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

We recommend standard safety glasses or Wide Vision Safety Mask for over your glasses available at SEARS Retail or Catalog Stores.

HOW TO USE YOUR SNOW THROWER

TO CONTROL SNOW DISCHARGE

- Turn the crank assembly to set the direction of the snow throwing.
- Loosen the wing knob on the chute deflector and move the deflector to set the distance. Move the deflector UP for more distance, DOWN for less distance. Then tighten the wing knob (See Fig. 8).

TO STOP YOUR SNOW THROWER

- To stop throwing snow, release the auger clutch lever (See Fig. 10).
- To stop the track, release the traction clutch lever.
- To stop the engine, push the throttle control lever to off and pull out the ignition key (See Fig. 9).

TO MOVE FORWARD AND BACKWARD

To shift, release the traction clutch lever and move the speed shift rod lever to the speed you desire. Ground speed is determined by snow conditions. Select the speed you desire by moving the speed shift rod lever into the appropriate colored area on the control panel.

Red - Wet, Heavy, Slushy, Extra Deep

Amber - Moderate

White - Very Light

Green - Transport only

- Engage the traction clutch lever (See Fig 10, left hand). As the snow thrower starts to move, maintain a firm hold on the handles, and guide the snow thrower along the clearing path. Do not attempt to push the snow thrower.
- To move the snow thrower backward, move the speed shift rod lever into first or second reverse and engage the traction clutch lever (left hand).

IMPORTANT: DO NOT MOVE THE SPEED SHIFT ROD LEVER WHILE THE TRAC-TION LEVER IS DOWN

TO THROW SNOW

- Push down the auger clutch lever (See Fig. 10, right hand).
- Release to stop throwing snow.









FIG. 10



TO USE WEIGHT TRANSFER SYSTEM

In hard packed or heavy snow conditions, conventional snow throwers tend to ride up and leave uneven mounds of snow behind. For these conditions, your new tracked snow thrower has a unique weight transfer system (See Fig. 11) designed to minimize ride-up.

Stepping on the weight transfer pedal shifts more weight to the auger housing. This weight transfer keeps the snow thrower in contact with the ground and reduces ride-up.

In lighter snow conditions or when transporting, you should release the weight transfer system for easier steering.

- To use the weight transfer, hold the upper handle firmly and push down on the weight transfer pedal (See Fig. 12) with the ball of your foot.
- To release, pull up on the weight transfer pedal with the top of your foot.

BEFORE STARTING THE ENGINE

FILL/ ADD OIL:

The engine on this snow thrower was shipped without oil. Add oil before you start the engine. Remove the oil fill cap/dipstick and fill the crank case to FULL line on dipstick (about 21 ounces) (See Fig. 13) with S.A.E. 10 W-30 motor oil (or equivalent). Do not overfill. Tighten the fill cap/dipstick securely each time you check the oil level.

NOTE: S.A.E. 5W-30 motor oil may be used to make starting easier in areas where temperature is consistently 20° F. or lower.



FIG.11



FIG.12



FIG.13

FILL GAS:

Fill the fuel tank with clean, fresh, unleaded grade automotive gasoline. Be sure that the container you pour the gasoline from is clean and free from rust or other foreign particles. Never use gasoline that may be stale from long periods of storage in the container.

WARNING: Experience indicates that 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 for 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use the carburetor bowl drain to empty residual gasoline from the float chamber (Figure 39). Use fresh fuel next season. (See Storage instructions on page 23 for additional information.)

Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.



CAUTION: GASOLINE IS FLAMMABLE AND CAUTION MUST BE USED WHEN MANDLING OR STORING IT.

DO NOT FILL FUEL TANK WHILE SNOW THROWER IS RUNNING, WHEN IT IS HOT. OR WHEN SNOW THROWER IS IN AN ENCLOSED AREA.

KEEP AWAY FROM OPEN FLAME OR AN ELEC-TRICAL SPARK AND DO NOT SMOKE WHILE FILLING THE FUEL TANK.

NEVER FILL THE TANK COMPLETELY, FILL THE TANK TO WITHIN 1/4" - 1/2" FROM THE TOP TO PROVIDE SPACE FOR EXPANSION OF FUEL

ALWAYS FILL FUEL TANK OUTDOORS AND USE A FUNNEL OR SPOUT TO PREVENT SPILL-ING.

MAKE SURE TO WIPE UP ANY SPILLED FUEL **BEFORE STARTING THE ENGINE.**

STORE GASOLINE IN A CLEAN, APPROVED CONTAINER AND KEEP THE CAP IN PLACE ON THE CONTAINER.



CAUTION: NEVER RUN ENGINE IN-DOORS OR IN ENCLOSED, POORLY VENTILATED AREAS. ENGINE EX-HAUST CONTAINS CARBON MON-

OXIDE, AN ODORLESS AND DEADLY GAS. KEEP HANDS, FEET, HAIR AND LOOSE CLOTH-ING AWAY FROM ANY MOVING PARTS ON ENGINE AND SNOW THROWER. WARNING: TEMPERATURE OF MUFFLER AND

NEARBY AREAS MAY EXCEED 150° F. AVOID THESE AREAS.

DO NOT ALLOW CHILDREN OR YOUNG TEEN-AGERS TO OPERATE OR BE NEAR SNOW THROWER WHILE IT IS OPERATING.

TO STOP ENGINE

ø To stop engine, move the throttle control lever to "STOP" position and remove key. Keep the key in a safe place. The engine will not start without the key.

TO START ENGINE

Be sure that the engine has sufficient oil. Before starting the engine, be certain that you have read the following information:

COLD START (See Fig. 14)

- ø Be sure the auger and the traction clutch levers are in the disengaged "RELEASED" position.
- ٢ Move the throttle control up to "FAST" position.
- ۵ Push the key into the ignition slot. Be sure it snaps into place. Do not turn key.
- 0 Rotate choke control to "FULL" choke position.
- 6 Press the primer button two or three times, while keeping your finger over the vent hole on the primer button. Additional priming may be necessary for the first start if the temperature is below 15° F.
- 0 Pull the starter handle rapidly. Do not allow the handle to snap back, but allow it to rewind slowly while keeping a firm hold on the starter handle.
- 6 As the engine warms up and begins to operate evenly, rotate the choke knob slowly to "OFF" position. If the engine falters, return to "FULL" choke, then slowly move to "OFF" choke position.

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

ø Run the engine at or near the top speed when throwing snow.

WARM START

If restarting a warm engine after a short shutdown, rotate choke to "OFF" instead of "FULL" and push the primer button only once.



FIG.14

FROZEN STARTER

If the starter is frozen and will not turn engine:

- Pull as much rope out of the starter as possible.
- Release the starter handle and let it snap back against the starter.

If the engine still fails to start, repeat until it starts.

To help prevent possible freeze-up of recoil starter and engine controls, proceed as follows after each snow removal job.

- With the engine running, pull the starter rope hard with a continuous full arm stroke three or four times.
 Pulling of starter rope will produce a loud clattering sound. This is not harmful to the engine or starter.
- With the engine not running, wipe all snow and moisture from the carburetor cover in area of control levers. Also move throttle control, choke control, and starter handle several times.

SNOW THROWING TIPS

- For maximum snow thrower efficiency, adjust ground speed, not throttle. If the track slips, reduce forward speed. The engine is designed to deliver maximum performance at full throttle and should be run at this power setting at all times.
- Most efficient snow blowing is accomplished when the snow is removed immediately after it falls.
- For complete snow removal, slightly overlap each path previously taken.
- The snow should be discharged down wind whenever possible.

- For normal usage, set the skids so that the scraper bar is 1/8" above the skids. For extremely hardpacked snow surfaces, adjust the skids upward so that the scraper bar touches the ground.
- On gravel or crushed rock surfaces, set the skids at 1-1/4" below the scraper bar (see Skids Height Adjustment paragraph on page 16). Rocks and gravel must not be picked up and thrown by the machine.
- If the front of the snow thrower has a tendency to raise, reduce the ground speed and engage the weight transfer system.
- After the snow blowing job has been completed, allow the engine to idle for a few minutes, which will melt snow and accumulated ice off the engine.
- Clean the snow thrower thoroughly after each use.
- Remove ice and snow accumulation and all debris from the entire snow thrower, and flush with water (if possible) to remove all salt or other chemicals. Wipe snow thrower dry.

CAUTION: DO NOT ATTEMPT TO RE-MOVE ANY ITEM THAT MAY BECOME LODGED IN AUGER WITHOUT TAKING THE FOLLOWING PRECAUTIONS:

- RELEASE AUGER AND DRIVE CLUTCH LEVERS.
- MOVE THROTTLE LEVER TO STOP POSITION.
- REMOVE (DO NOT TURN) IGNITION KEY.
- ISCONNECT SPARK PLUG WIRE.
- DO NOT PLACE YOUR HANDS IN THE AUGER OR DISCHARGE CHUTE. USE A PRY BAR.

MAINTENANCE

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.

AFTER FIRST USE

- Check the tracks for tension and adjust if necessary (See Adjust Track paragraph on page 21). Check the track adjustment and fasteners regularly.
- Be sure that all fasteners are tight.

AS REQUIRED

The following adjustments should be performed more than once each season.

- Auger and Track Drive Belts should be adjusted after the first 2 to 4 hours of use and again about midseason and twice each season thereafter. See To Adjust Belts paragraph on page 17.
- All screws and nuts should be checked often to make sure they are tight, preferably after each use.

SNOW THROWER

LUBRICATION - EVERY TEN HOURS

 Chain and Sprockets - Oil chains and sprockets (See Fig. 15) with 10W-30 oil (or equivalent) after 10 hours use and at the end of each season.

LUBRICATION - NOT REQUIRED

 Hex Shaft and Gears - Hex shaft and gears require no lubrication. All bearings and bushings are lifetime lubricated and require no maintenance (See Fig. 16).

NOTE: Any greasing or oiling of the above components can cause contamination of the friction wheel. If the disc drive plate or friction wheel come in contact with grease or oil, damage to the friction wheel will result.

Should grease or oil come in contact with the disc drive plate or friction wheel, be sure to clean the plate and wheel thoroughly.

NOTE: For storage, the hex shaft and gears should be wiped with 10W-30 motor oil to prevent rusting (See Fig. 16).

 Auger Gear Box - The auger gear box has been factory lubricated for life. If for some reason lubricant should leak out, have the auger gear case checked by a competent repairman.







FIG.16

MAINTENANCE

ENGINE LUBRICATION

Check the crankcase oil level (See Fig. 17) before starting the engine and after each five (5) hours of continuous use. Add S.A.E. 10W-30 motor oil or equivalent. Tighten the fill cap/dipstick securely each time you check the oil level. S.A.E. 5W-30 motor oil may be used to make starting easier in areas where the temperature is consistently 20° F. or lower.

Change the oil after the first two hours of operation and every 25 hours thereafter or at least once a year if the snow thrower is not used for 25 hours. (See Fig. 18).

- Position the snow thrower so the oil drain plug is the lowest point on the engine. Remove the oil drain plug and oil fill cap/dipstick. Drain the oil into a suitable container. The oil will drain more freely when warm.
- Replace the oil drain plug and tighten securely. Refill the crankcase with S.A.E. 10W-30 motor oil (or equivalent). S.A.E. 5W-30 motor oil may be used to make starting easier in areas where the temperature is consistently 20° F. or lower.

SPARK PLUG

- Make sure the spark plug is tightened securely into the engine and the spark plug wire is attached to the spark plug.
- If a torque wrench is available, torque the plug between 18 and 23 foot pounds.
- Clean the area around the spark plug base before removal to prevent dirt from entering the engine.
- Clean the spark plug and reset the gap periodically.



FIG. 17



FIG. 18



CAUTION: ALWAYS DISCONNECT THE SPARK PLUG WIRE AND TIE BACK AWAY FROM THE PLUG BEFORE MAKING ANY ADJUSTMENTS OR RE-PAIRS.

TO ADJUST SKIDS HEIGHT

This snow thrower is equipped with two height adjustment skids, located on the outside of the auger housing. These skids elevate the front of the snow thrower.

For normal hard surfaces, adjust the skids as follows:

- Place extra shear bolts supplied (found in parts bag) under each end of the scraper bar near but not under the skid.
- Loosen the skid mounting nuts (See Fig. 19) and push the skid down until it touches the ground. Retighten the mounting nuts.
- Set the skid on the other side at same height.

For rocky or uneven surfaces, raise the front of the snow thrower by moving the skids down. This will help prevent rocks and other debris from being picked up and thrown by the auger.

TO ADJUST SCRAPER BAR

After considerable use, the metal scraper bar will have a definite wear pattern. The scraper bar in conjunction with the skids should always be adjusted to allow 1/8" between the scraper bar and the sidewalk or area to be cleaned.

- Position the snow thrower on a level surface.
- Loosen the carriage bolts and nuts securing the scraper bar to the auger housing.
- Adjust the scraper bar to the proper position.
- Tighten the carriage bolts and nuts, making sure that the scraper bar is parallel with the working surface.
- After extended operation, the scraper bar may be reversed. If the scraper bar must be replaced due to wear, remove the carriage bolts and nuts and install a new scraper bar.



CAUTION: BE CERTAIN TO MAINTAIN PROPER GROUND CLEARANCE FOR YOUR PARTICULAR AREA TO BE CLEARED. OBJECTS SUCH AS GRAVEL, ROCKS OR OTHER DEBRIS, IF STRUCK BY THE IMPELLER, MAY BE THROWN WITH SUFFICIENT FORCE TO CAUSE PERSONAL INJURY, PROPERTY DAM-AGE OR DAMAGE TO THE SNOW THROWER.





TO ADJUST CHUTE CRANK ASSEMBLY

If you cannot rotate the chute crank fully to the left and to the right, you need to adjust the chute crank (See Fig. 20).

- Loosen both 1/2" nuts on the crank adjusting rod (using 3/4" wrenches).
- Rotate the adjusting rod in or out to allow about 1/8" clearance between the notch in the flange and the outer diameter of the worm.
- Once this clearance is set, tighten the nuts.

NOTE: Be sure the crank does not touch the carburetor cover or the cover will be scratched.









TO ADJUST THE CLUTCH CONTROL CABLES

Periodic adjustment of the cables may be required due to normal stretch and wear on the belts. To check for correct adjustment, the control lever must be in the full forward position, resting on the plastic bumper. The control cables are correctly adjusted when the center of the "Z" Fitting is in the center of the hole and there is no slack in the cable (See Fig. 21).

If adjustment is necessary:

- Push the cable through the spring (See Fig. 22) to expose the threaded portion of the cable.
- Hold the square end of the threaded portion with pliers and adjust the locknut in or out until the excess slack is removed.
- Pull the cable back through the spring and connect the cable.
- Do the same for the other lever cable.

NOTE: Whenever the traction drive or auger belts are adjusted or replaced, the cables will need to be adjusted.

TO ADJUST BELTS

Belts stretch during normal use. If you need to adjust the belts due to wear or stretch, proceed as follows:

TRACK DRIVE BELT (See Fig. 24)

The track drive belt has constant spring pressure and does not require adjustment. Check the clutch control cable adjustment before replacing the belt.

Replace the track drive belt if it is still slipping (see To Replace Belts paragraph on page 18).

AUGER DRIVE BELT (See Fig. 24)

If your snow thrower will not discharge snow, check the control cable adjustment. If it is correct, then check the condition of the auger drive belt. It may be loose or damaged. If it is damaged, replace it. See To Replace Belts on page 18. If the auger drive belt is loose, adjust as follows:

- Disconnect the spark plug wire.
- Remove the belt cover (See Fig. 23).
- Loosen the nut on the idler pulley (See Fig. 24) and move the pulley toward the belt about 1/8".
- Tighten the nut.
- Engage the auger drive clutch lever. Check the tension on the belt (opposite idler pulley). The belt should deflect about 1/2" with moderate pressure (See Fig. 25).

NOTE: You may have to move the idler pulley more than once to obtain the correct tension.

- Replace the belt cover.
- Check the clutch control cable adjustment.
- Reconnect the spark plug wire



FIG. 22



FIG. 23









TO REPLACE BELTS

The drive belts on this snow thrower are of special construction and should be replaced with original equipment belts available from your nearest SEARS Store or Service Center.

You will need the assistance of a second person while replacing the belts.

Drain the gasoline from the fuel tank by removing the fuel line. Drain the gas and reinstall fuel line.



CAUTION: DRAIN THE GASOLINE OUT DOORS, AWAY FROM FIRE OR FLAME.

AUGER DRIVE BELT

If your snow thrower will not discharge snow, and the auger drive belt is damaged, replace it as follows:

- Disconnect the spark plug wire.
- Remove the belt cover (See Fig. 23)
- Loosen the right hand belt guide (See Fig. 26) and pull away from the drive pulley.
- Loosen the auger idler pulley (See Fig. 27) and pull away from the belt.
- Engage the auger drive clutch lever. This will pull the brake assembly away from the pulley and allow the belt to be slipped out.
- Remove the two top bolts (See Fig. 27) that secure the auger housing to the motor mount frame.
- Place the weight transfer system in transport (released) postion.
- The auger housing and the motor mount frame will separate, hinged by the bottom two bolts. If the auger housing and the motor mount do not separate, slightly loosen the bottom two bolts.
- Remove the belt from the auger drive engine pulley.
- Place the new belt on the large lower pulley (attached to the back of the auger housing).
- Engage the auger drive clutch lever. Place the weight transfer system in the (engaged) lowest position to pivot the auger housing and the motor mount frame into the proper position.
- Release the auger drive clutch lever and reinstall the bolts removed in the steps above. Tighten the lower bolts if they were loosened.
- Place the drive belt on the auger drive engine pulley.
- Adjust the drive belt (see To Adjust Auger Drive Belt paragraph on page 17).
- Adjust the belt guides (see To Adjust The Belt Guides paragraph on page 19).
- Reinstall the belt cover.
- Reconnect the spark plug wire.



FIG. 26



FIG. 27

TRACK DRIVE BELT

If your snow thrower will not move forward, check the track drive belt for wear. If the track drive belt needs to be replaced, proceed as follows:

- Disconnect the spark plug wire.
- Remove the belt cover (See Fig. 23).
- Pull the track drive idler pulley (See Fig. 27) back and slip the belt past the idler pulley.
- Remove the belt from the engine pulley. It may be necessary to loosen and move the auger drive engine pulley to allow the belt to be removed.
- Place the shift rod lever in the 6th (all the way to the right) position. The belt can be removed between the rubber drive disc and the drive disc plate.
- Install the new original equipment replacement belt in reverse order of removal.
- If the auger drive pulley was removed, reposition the pulley and tighten the set screw. Be sure the pulley on the engine is aligned with the large lower pulley attached to the back side of the auger housing and the key on the engine is flush with the end of the shaft.
- Reinstall the belt cover.
- Reconnect the spark plug wire.

TO ADJUST THE BELT GUIDES

There are two belt guides on your snow thrower, a left and right. After you replace a track or auger drive belt, you need to adjust one or both of the belt guides. Proceed as follows for each belt:

- Disconnect the spark plug wire.
- Remove the belt cover (See Fig. 23)
- Engage the auger drive clutch lever.
- Measure the distance between the belt guides and the belt (See Fig. 26). The distance should be 3/32" for each guide.
- If adjustment is necessary, loosen the belt guide mounting bolts. Move the belt guides to the correct position. Tighten the mounting bolts.
- Reinstall the belt cover.
- Reconnect the spark plug wire.

TO ADJUST THE FRICTION WHEEL

If the snow thrower will not move forward, you need to check the track drive belt, the traction drive cable or the friction wheel. If the friction wheel is damaged, it will need to be replaced. See the To Replace Friction Wheel paragraph on page 20. If the friction wheel is not worn, check the adjustment, as follows:

- Disconnect the spark plug wire.
- Drain the gasoline from the gas tank.
- Stand snow thrower on the auger housing end.
- Remove the bottom panel (See Fig. 28).
- Position the shifter lever in first (1) gear.
- Note the position of the friction wheel on the disc drive plate. The right side of the friction wheel should be 2-3/4 inches from the left outer side of the disc drive plate (See Fig. 29).

If adjustment is necessary:

- Loosen the bolts in the shift rod lever (See Fig. 30).
 Move the friction wheel to the proper position as indicated above.
- Tighten the bolts in the shift rod lever.
- Reinstall the bottom panel.



FIG. 28



FIG. 29



FIG. 30

TO REPLACE FRICTION WHEEL

If the snow thrower will not move forward, and the friction wheel is worn or damaged, you need to replace it, as follows:

- Drain the gasoline from the fuel tank by removing the fuel line. Drain the fuel and reinstall the fuel line.
- Disconnect the spark plug wire.
- Stand the snow thrower up on the auger housing end (See Fig. 31).
- Remove the bottom panel (See Fig. 28).
- Remove the self-tap screws from the bearing at the left end of the hex shaft (See Fig. 32 and 33).
- Remove the bolts and nuts from the bearing at the right end of the hex shaft (See Fig. 33).



CAUTION: DRAIN GASOLINE OUTDOORS AWAY FROM FIRE OR FLAME.

- Slide the hex shaft to the right until the friction wheel can be removed.
- Install the new friction wheel loosely on the hex shaft.
- Reinstall the removed parts in reverse order of removal.



FIG. 31







FIG. 33

TO REPLACE AUGER SHEAR BOLT

The augers are secured to the auger shaft with special shear bolts (See Fig. 34) that are designed to break (to protect the machine) if an object becomes lodged in the auger housing. Use of a harder bolt will destroy the protection provided by the shear bolt.

IMPORTANT: TO INSURE SAFETY AND PERFORMANCE LEVELS, ONLY ORIGINAL EQUIPMENT SHEAR BOLTS SHOULD BE USED. WHEN REPLACING SHEAR BOLTS, BE SURE TO REPLACE SHEAR BOLT SPACERS.

To replace a broken shear bolt, proceed as follows:

- Move the throttle to STOP and turn off all controls.
- Disconnect the spark plug wire. Be sure all moving parts have stopped.
- Remove the broken shear bolt.
- Lubricate the auger shaft by squirting oil into the shear bolt hole in the auger shaft. Then rotate the auger to distribute the oil on the shaft
- Align the hole in the auger with the hole in the auger shaft. Install the new shear bolt and locknut.
- Reconnect the spark plug wire.

TO ADJUST TRACK

If the snow thrower does not move forward evenly and the track slips slightly, you need to check the track, as follows:

- Pull up gently on the center of the track near the center.
- Measure the distance between the track and the top of the the track support frame (See Fig. 35). The distance should not be more than one and one quarter (1-1/4) inches.

If the distance is greater, you need to adjust the track, as follows:

- Loosen or tighten the adjusting bolt at the rear of the track support frame (See Fig. 36) to obtain the proper distance between the track and the track support frame.
- Adjust the track on the opposite side in the same manner.











FIG. 36

TO ADJUST CARBURETOR

The carburetor (See Fig. 37) has been pre-set at the factory and readjustment should not be necessary. However, if the carburetor does need to be adjusted, proceed as follows:

- Close the high speed adjusting screw by hand.
- Do not overtighten.
- Then open it 1-1/4 to 1-1/2 turns.
- Close the idle adjusting screw by hand. Do not overtighten.
- Then open it 1-1/4 to 1-1/2 turns.
- Start the engine and let it warm up.
- Set the throttle control to FAST. Adjust the high speed adjusting screw in until the engine speed or sound alters. Adjust the screw out until the engine speed sound alters. Note the difference between the two limits and set the screw in the middle of the range.
- Set the throttle control to SLOW. Adjust the idle adjusting screw in until the engine speed drops, then adjust the screw out until the engine speed drops. Note the difference between the two limits and set the screw in the middle of the range.
- If the engine tends to stall under load or not accelerate from low speed to high speed properly, adjust the high speed screw out in 1/8 turn increments until the problem is resolved.
- Let the engine run undisturbed for 30 seconds between each setting to allow the engine to react to the previous adjustments.
- IMPORTANT: 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. IF YOU THINK THE ENGINE -GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT YOUR NEAREST SEARS SERVICE CENTER, WHICH HAS THE PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.

TO ADJUST OR REPLACE THE SPARK PLUG

If you have difficulty starting your snow thrower, you may need to adjust or replace the spark plug. Follow the instructions below.

Replace the spark plug if electrodes are pitted or burned or if the porcelain is cracked.





TO ADJUST:

- Clean the spark plug by carefully scraping electrodes (do not sand blast or use a wire brush).
- Be sure the spark plug is clean and free of foreign material. Check electrodes gap (See Fig. 38) with a wire feeler gauge and reset the gap to 030 inch if necessary.



FIG. 38

TO REPLACE:

- If you need a new spark plug, use only the proper replacement spark plug.
- Set the gap to .030 (See Fig. 38).
- Before installing the spark plug, coat its threads lightly with graphite grease to insure easy removal.
- Tighten the plug firmly into the engine.
- If a torque wrench is available, torque the plug to 18 to 23 ft lbs.

STORAGE



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

SNOW THROWER

- Thoroughly clean the snow thrower.
- Lubricate all lubrication points (see Maintenance, pages 14 -15).
- Be sure that all nuts, bolts and screws are securely fastened. Inspect all visible moving parts for damage, breakage and wear. Replace if necessary.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.
- Cover the bare metal parts of the blower housing auger and the impeller with rust preventative, such as sprayable lubricant.

NOTE: A yearly checkup or tuneup by a SEARS Service Center is a good way to insure that your snow thrower will provide maximum performance for the next season.

ENGINE

IMPORTANT: IT IS IMPORTANT TO PREVENT GUM DEPOSITS FROM FORMING IN THE ESSENTIAL FUEL SYSTEM PARTS, SUCH AS THE CARBURE-TOR, FUEL FILTER, FUEL HOSE, OR TANK DURING STORAGE, ALSO, EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR CONTAIN-ING 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.

Drain the gasoline from the fuel tank by removing the fuel line. Drain the fuel and reinstall the fuel line.



CAUTION: DRAIN FUEL INTO APPROVED CONTAINER OUTDOORS, AWAY FROM OPEN FLAME.



FIG. 39

- Start the engine and run at SLOW (idle) speed until the engine stops from lack of fuel.
- Drain the carburetor by pressing upward on the bowl drain (See Fig. 39), located below the carburetor cover.

NOTE: Fuel stabilizer (such as STA-BIL) is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow 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 carburetor if using fuel stabilizer.

Remove the spark plug and squirt one (1) ounce of engine oil into the cylinder Pull the recoil starter rope slowly, allowing the piston to coat the internal engine parts. Install an old spark plug. This prevents fouling a new plug with the preservative used to lubricate the internal parts of the engine. Close the choke and plug the muffler opening.

OTHER

- If possible, store your snow thrower indoors and cover it to give protection from dust and dirt.
- If the machine must be stored outdoors, block up the snow thrower to be sure the entire machine is off the ground.
- Cover the snow thrower with a suitable protective cover that does not retain moisture. Do not use plastic.

IMPORTANT: NEVER COVER SNOW THROWER WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM

SERVICE RECOMMENDATIONS

SERVICE RECORDS	SCHEDULE						SEBVICE				
Fill in dates as you com- plete regular service	After First 2 hours	Before Each Use	Often	Every 10 Hours	Every 25 Hours	Each Season	Before Storage	SERVICE DATES			
Check Engine Oil Level		10	ĺ			1 m					
Change Engine Oil	In				10	i m					
Tighten All Screws and Nuts	In	1	~	1							
Check Traction Clutch Cable Adjustment (See Cable Adjustment)	1					100					
Replace Spark Plug		 			~	1					
Adjust Drive Belts	IM]		1	~	In					
Lubricate All Pivot Points				10	1		1				
Lubricate Auger Shaft (See Shear Bolt Replacement)							1				
Lubricate Sprockets and Chains Sparingly (Track Assembly)				11			~				
Drain Fuel							1			Ī	
Check Auger Clutch Cable Adjustment (See Cable Adjustment)	r~~					1					

LUBRICATION CHART



TROUBLE SHOOTING POINTS

TROUBLE	CAUSE	CORRECTION
Difficult starting	Defective spark plug Water or dirt in fuel system	Replace delective plug. Use carburetor bowl drain to flush and refill with fresh fuel.
Engine runs erratic	Blocked fuel line or empty gas	Clean fuel line; check fuel supply; add fresh gasoline.
Engine stalls	Unit running on CHOKE	Set choke lever to RUN position
Engine runs erratic; Loss of power	Water or dirt in fuel system	Use carburetor bowl drain to flush and refill with fresh fuel.
	Carburetor out of adjustment	Adjust carburetor
Excessive vibration	Loose parts; damaged impeller	Stop engine immediately and disconnect spark plug wire Tighten all bolts and make all necessary repairs. If vibration continues, have the unit serviced by a competent repairman
Unit fails to propel itself	Drive belt loose or damaged	Replace drive belt
	Incorrect adjustment of traction drive cable	Adjust traction drive cable
	Worn or damaged friction wheel	Replace friction wheel.
Unit fails to discharge snow	Auger drive belt loose or damaged	Adjust auger drive belt; replace if damaged
	Auger control cable not adjusted correctly	Adjust auger control cable
	Shear bolt broken	Replace shear bolt
	Discharge chute clogged	Stop engine immediately and disconnect spark plug wire. Clean discharge chute and inside of auger housing
	Foreign object lodged in auger	Stop engine immediately and disconnect spark plug wire. Remove object from auger
Unit rides up	Weight transfer disengaged	Engage weight transfer pedal



UNAI	RAFISMAN 20 SNOW HIMOWEIT 350.000410									
REF. NO.	PART NO.	PART NAME	REF. NO.	PART NO.	PART NAME					
REF.			REF.		PART NAME 3/8-16 Locknut 3/8" Flatwasher Traction Drive Clutch Cable Adapter Boot To Handle Eye Bolt Eye Bolt Grommet Eye Bolt Boot Chute Crank 25/64" Flatwasher Handle Retainer Ring Plastic Cap 3/32 x 1" Cotter Pin Chute Control Rod 1/2-20 Jam Nut 1/2" Lockwasher L. H. Chute Rotate Bracket 5/16-18 x 3/4" Carriage Bolt R.H. Chute Rotate Bracket 5/16-18 x 1-3/4" Screw Owner's Manual					



r	E		1	1	
REF. NO.	PART NO	PART NAME	REF. NO.	PART NO.	PART NAME
1	71002	5/16-18 x 1/2" Set Screw	45	301784	Retaining Ring
2	53788	Engine Pulley, V3L	46	50617	Hand Grip
3	20579	Woodruff Key No. 5	47	307960	Shift Rod Lever
4	45204	3/8-16 x 1-3/4" Screw, Hex Hd	48	302639	5/16-18 x 1/2" Bolt
5	50182	Idler Pulley, BFF	49	302621	Decal Gear Selection
6	71072	3/8" Flatwasher	50	308140	Shift Console
7	302344	Idler Arm	51	302624	1/4-20 Locknut
8	590	3/8-16 Hex Jam Nut	52	307959	Shifter Spring -
9	302707	Belt, V3L	53	307956	Shift Yoke Assembly
10	33200	Square Key	54	70968	1/4-20 x 5/8" Bolt
11	71393	5/16-24 x 1" Bolt	55	308903	14-10 Nut "J" Speed
12	71060	5/16" Lockwasher	56	85501	Trunion Bearing Assembly
13	71071	5/16" Flatwasher	57	53831	Hub Friction Wheel
14	301339	Belt Guide L. H.	58	53830	Friction Wheel
15	73787	Washer, Belt Retainer	59	71059	1/4" Lockwasher
16	301225		60	71034	1/4-20 Hex Nut
		Pulley, Engine 4L Belt Guide R. H.	61	300376	Disc, Drive
17	301337		62	50610	Idler pulley
18	302570	Spring Extension	63	120376	5/16-18 Locknut
19	307694	Belt Cover	64	300380	Clutch Lever
20	71067	1/4" Flatwasher		1	
21	70978	1/4-20 x 1/2" Self Tapping Screw	65	301783	Retaining Ring Flatwasher
22	454512	Spring Pin	66	120393	
23	301848	Brake Arm Assembly	67	308496	Traction Drive Lever Assembly
24	307957	Engine, Craftsman, Model No.	68	300381	Linkage
		143.804062 (see Engine Repair	69	12685	5/16-18 x 1-1/2" Screw
		Parts list)	70	302399	Shoulder Bolt
25	70988	5/16-18 x 1-1/4" Boit	71	300625	Bearing, Self-Aligning
26	302619	Auger Clutch Lever	72	71086	1/8 x 3/4" Roll Pin
27	12452	Flatwasher	73	301688	Shaft & Sprocket Assembly
28	302343	Shaft, Pulley, Traction	74 75	302117	Return Spring
29	301841	Needle Bearing		302395	Jackshaft & Sprocket Assembly
30	301840	Thrust Needle Bearing	76	300623	Axle Shaft Assembly
31	301839	Thrust Washer	77	302646	Chain assembly
32	302436	Bushing, Plastic	78	301350	Bearing, Axle
33	307457	Motor mount frame	79	302642	Chain, Roller
34	73812	Washer	80	307967	Bottom panel
35	8260	Hair pin cotter	81	302652	10-24 x 3/8" Bolt
36	302662	Shoulder Bolt	82	73811	Retaining Ring
37	302706	Belt, V4L	83	70984	5/16-18 x 3/4" Self Tapping Screw
38	308900	14-10 x 3/4", Ph Pn Hd Tap Screw	84	1498	5/16-18 Locknut
39	50795	Кеу	85	310169	1/4-20 x 5/8", Hex Hd Tap Screw
40	302440	Pulley, V-Belt	86	306827	Fender
41	302638	1/4-20 x 5/8" Bolt	87	308787	Decal, Trac-Plus
42	302434	Shoulder Bolt	88	30289	Wave Washer, 1/2"
43	20859	Retaining Ring	89	305705	Shaft Cover
44	56113	Flatwasher			
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CRAFTSMAN 23" SNOW THROWER 536.885410



REF.			REF.	T	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
NO.	PART NO.	PART NAME	NO.	PART NO.	PART NAME
1	71037	5/16" Hex Nut	32	454565	Spring Pin
2	57171	Plastic Tee Knob	33	70993	5/16-18 x 3/4" Carriage Bolt
3	302633	5/16"Flatwasher	34	301375	Flanged Bearing
4	307665	Chute Deflector	35	302627	5/16-18 Wide Flange Locknut
5	308768	Danger Stripe Decal	36	1147	Scraper Blade 20"
6	302680	Flatwasher	37	24274	Oil Seal
7	71391	5/16-18 Locknut	38	50304	Flanged Bearing
8	307698	Chute Extension	39	50684	Roller Bearing
9 (302634	5/16-18 x 3/4" Pan Head Slotted Bolt	40	48275	Flatwasher
10	308931	Wire Chute Hinge	41	51404	Thrust Collar
[11 [302843	5/16-18 x 1-1/4" Carriage Bolt	42	273336	Spring Pin
12	308766	Craftsman Decal	43	300516	Input Worm Shaft
13	71032	#8-32 x 1/2" Bolt	44	302628	1/4-20 x 3/4" Screw
14	308839	Chute Ring	45	51278	R.H. Auger Gear Case
15	85480	Chute Retainer Clip	46	431787	Woodruff Key
16	71058	#8-32 Locknut	47	51405	Worm Gear
17	1499	3/8-16 Locknut	48	50221	Flanged Bearing
18	53266	Bearing & Retainer	49	51279	Gear Case Gasket
19	306225	Side Plate R. H.	50	300515	Auger Output Shaft
20	302635	1/4-20 Wide Flange Locknut	51	51277	L.H. Auger Gear Case
21	1172	Auger Housing	52	303008	1/4-20 Hex Keps Nut
22	306224	Side Plate L. H.	53	308783	Size Decal 4/20
23	302623	1/4-20 x 5/8" Carriage Bolt	54	302630	3/8-16 x 1/2" Washer Taptite Screw
24	71067	Flatwasher	55	302625	5/16-18 x 1-3/8" Bolt
25	71059	Split Lockwasher	56	307972	20" Auger L. H.
26	71034	1/4-20 Hex Nut	57	307971	20" Auger R. H.
	302626	5/16-18 x 3/4" Washer Head Screw		302487	Impeller Decal
28	71060	5/16" Split Lockwasher	59	70142	Chute Danger Decal
29	71071	Flatwasher	60	302922	Danger Decal
30	307983	Height Adjust Skid	61	70141	Auger Danger Decal
31	307969	Impeller Assembly		1	
27 28 29 30	302626 71060 71071 307983	5/16-18 x 3/4" Washer Head Screw 5/16" Split Lockwasher Flatwasher Height Adjust Skid	58 59 60	302487 70142 302922	Impeller Decal Chute Danger Decal Danger Decal



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REF. NO.	PART NO.	PART NAME	REF. NO.	PART NO.	PART NAME
1	302639	5/16-18 x 1/2", Hex Wa Hd Bolt	13	302136	Torsion Spring
2	71082	Cotter Pin	14	273336	Spring Pin
3	305617	Pivot Pin	15	304128	Shaft, Idler Axle
4	307961	Weight Transfer Mounting Bracket	16	308838	1/4-20 x 3-1/2" Bolt
5	307963	Track Support Frame	17	302847	Cotter Pin
6	302638	1/4-20 x 5/8", Wide Fl Bolt	18	9723	Track
7	301801	Plastic Bearing	19	308142	Idler Wheel
8	302635	1/4-20 Wide Flange Locknut	20	301228	Spacer
9	1502	Locknut	21	71360	1/4-20 x 3/4" Bolt
10	302613	21/32" Flatwasher	22	302708	Wheel, Track Drive
11	20859	"E" Ring	23	302624	1/4-20 Hex Locknut
12	310045	Foot Pedal			



CRAFTSMAN 4-CYCLE ENGINE

MODEL NUMBER:143.804062

Ref.	Part		Ref.	Part	
No.	No.	Part Name	No.	No.	Part Name
	······································	,	87	27666	Body, Valve cover
1	33014C 34171	Cylinder Assy. (Incl. Nos. 7 & 45) Nipple, Pipe	88	31410	Element, Valve body
6	30969	Cap, Oil drain	89	*27234A	Gasket, Valve cover
7	32600	Seal, Oil	90	34146	Cover, Breather
8	28277	Washer, Flat	91	35350	Tube, Breather
9	31334	Rod, Governor	93	650128	Screw, Hex hd. Sems, 10-24 x 1/2
10	31510	Lever, Governor	95 96	29752 *26756	Nut & Lockwasher, 1/4-28 Gasket, Carburetor
11	31335	Clamp, Governor lever	90 97	32859	Pipe, Intake
12	650548	Screw, Hex washer hd., 8-32 x 5/16	98	*32649A	Gasket, Intake
20 21	†33342 650561	Baffle, Blower housing Screw, Hex washer hd. Durlok, 1/4-20	99	6201	Screw, Hex hd., 1/4-28 x 7/8
21	050501	x 5/8	100	650870	Screw, Hex hd., 1/4-28 x 1-11/16
22	133858A	Control Assy., Bracket (Incl. Nos. 23	101	650664	Screw, Fil. hd. Sems, 1/4-20 x 1-19/32
		thru 25, 31 & 32)	102	32698	Link, Governor to throttle
23	31342	Spring, Compression	140	34583	Bracket, Choke
24	650549	Screw, Fil. hd , 5-40 x 7/16	141 142	28820 34582	Screw, Fil. hd. Sems, 10-32 x 1/2 Rod, Choke
25	610973	Terminal Assy	143	35438	Knob, Choke control
28	31426	Spring, Extension Screw, Fil. hd. Sems, 8-32 x 1/2	144	35593	Key, Ignition
31 32	†650139 †30322	Nut, Lock, 8-32	145	610973	Terminal Assy.
35	35440	Knob, Speed control	146	35285	Wire, Ground
45	26727	Pin, Dowel	147	35072	Cover, Carburetor
46	34846	Crankshaft Assy.	148	650257	Screw, Pan hd. Sems, 8-32 x 5/16
47	35544	Piston, Pin & Ring Assy. (Std.) (Incl. Nos. 48, 49 & 50)	149	650735	Screw, Hex hd. Sems, taptite, 10-24 x 3/8
47	35545	Piston, Pin & Ring Assy. (.010 over-	150	33333	Bracket, Carburetor cover
		size) (Incl. Nos. 48, 49 & 50)	160	34080	Spacer, Flywheel key
47	35546	Piston, Pin & Ring Assy. (.020 over-	161 162	650872 34443A	Stud, Solid state mounting Solid State Assy.
	00044	size) (Incl. Nos. 48, 49 & 50)	163	610118	Cover, Spark plug
48 48	35541 35542	Piston & Pin Assy. (Std.) (Incl. No. 50)	164	650814	Screw, Torx hex washer hd. Sems,
40	30042	Piston & Pin Assy. (.010 oversize) (Incl. No. 50)			10-24 x 1
48	35543	Piston & Pin Assy. (.020 oversize)	165	611081	Flywheel (w/ring gear)
		(Incl. No. 50)	181	610961	Key, Flywheel
49	35547	Ring Set, Piston (Std.)	182	650815	Washer, Belleville
49	35548	Ring Set, Piston (.010 oversize)	183 184	650863 35557	Nut, Flywheel Wire, Ground
49	35549	Ring Set, Piston (.020 oversize)	185	34212	Bracket, Hold down
50 51	20381 32875	Ring, Piston pin retaining Rod Assy., Connecting (Incl. Nos. 52	186	30200	Screw, Hex washer hd. self-tap Sems,
51	52675	A 53)			10-24 x 9/16
52	32654	Dipper, Oil	187	34126	Bracket, Grommet mounting
53	32610A	Bolt, Connecting rod	188 189	28545 650760	Grommet, Plastic Screw, Pan hd. taptite, 8-32 x 3/8
54	27241	Lifter, Valve	191	*33015A	Gasket, Cylinder cover
55	33696	Camshaft (Compression Release) (Ex-	192	33016A	Head, Cylinder (Incl. No. 218)
56	32323	tended) Washer, Thrust	193	6021A	Screw, Hex flange hd., 5/16-18 x 1-1/2
57	*27677A	Gasket, Cylinder cover	194	650691	Washer, Flat
58	34678	Cover, Cylinder (Incl. Nos. 59, 60 & 72)	195	650818	Screw, Special hex hd., 5/16-18 x
59	27897	Seal, Oil			1-1/2
60	30318	Seal, Camshaft	196	33636	Plug, Spark (Champion J-8C or
70	35479	Washer, Flat	197	29745	equivalent) Extension, Blower housing
71	30591	Gear, Governor (Incl. No. 70)	197	650128	Screw, Hex hd. Sems, 10-24 x 1/2
72	30574	Shaft, Mechanical governor	201	35656	Housing, Blower
73	30588A 29193	Spool, Governor Ring, Retaining	202	570682	Primer Assy
75	650488	Screw, Hex hd. Sems, 1/4-20 x 1-1/4	203	32180C	Line, Primer
76	35554	Tube Assy., Oil fill	204	33341	Extension, Baffle
77	35499	"O" Ring	205	650884	Screw, Hex washer hd. shakeproof
78	35556	Dipstick	714	20212	self-drilling, 8-32 x 1/2
79	35539	Clip, Oil fill	211 216	29212 33344	Screw, Hex hd. Sems, 1/4-28 x 7/16 Baffle, Heat
83	29313C	Valve, Exhaust (Std.) (Incl. No. 86)	210	28371B	Plate, Fuel tank
83	29315C	Valve, Exhaust (1/32" oversize) (Incl. No. 86)	218	650694A	Screw, Hex flange hd., 5/16-18 x 2
84	32644A	Valve, Intake (Std.) (Incl. No. 86)	219	34182	Bracket, Fuel tank mounting
84	32645A	Valve, Intake (1/32" oversize) (Incl.	220	650675	Washer, Flat
		No. 86)	221	650805	Screw, Hex hd. w/belleville washer,
85	31672	Spring, Valve		}	1/4-20 x 11/16
86	31673	Cap, Valve spring			
					*Indicates Parts Included in
					Gasket Set, Ref. No. 305.
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CRAFTSMAN 4-CYCLE ENGINE

MODEL NUMBER: 143.804062

Ref. No.	Part No.	Part Name	Ref. No.	Part No.	Part Name
228 229 230 231 232 249 250 251 253 253 254 270 274	*33670A 35771 650327 8345 30063 35584 35355 650665 26460 30705 34694 650884	Gasket, Exhaust Muffler (Incl. No. 228) Screw, Fil. hd. Sems, 1/4-20 x 2-1/2 Washer, Flat Screw, Hex washer hd. Sems, 1/4-20 x 1/2 Tank Assy., Fuel (Incl. Nos. 250 & 253) Cap, Fuel tank Screw, Hex washer hd. self-tap Sems, 1/4-15 x 7/8 Clamp, Fuel line Line, Fuel Cup, Starter Screw, Hex washer hd., 8-32 x 1/2	290D 290F 300 301 303 305	34414 35312 632113A 590646 33240B	Decal, Warning Decal, Instruction Carburetor (Incl. No. 96) Starter, Rewind Electric Starter Kit 143.88933 (Op- tional) Sold as an Accessory Gasket Set (Incl. items marked *) RPM Settings: Low Speed: 2150, High Speed: 3600. *Indicates Parts Included in Gasket Set, Ref. No. 305.
275 276 277 290A 290B 290C	650168 590574 35392 34346 34144 35282	Washer, Flat Handle, Starter Plug, Starter Decal, Instruction Decal, Primer Decal, Choke			The original production the speed con- trol assembly is riveted to the blower housing baffle. Replacement speed control assembly includes screws and nuts for mounting. Replacement baffle has threaded holes.

CARBURETOR NO. 632113A





REWIND STARTER NO. 590646





OWNER'S MANUAL

MODEL NO. 536.885410

HOW TO ORDER REPAIR PARTS



Each SNOW THROWER has its own MODEL NUMBER found on the motor mount frame.

Each ENGINE has its own MODEL NUMBER found on the BLOWER HOUSING.

Always mention these MODEL NUMBERS when requesting service or Repair Parts for your SNOW THROWER.

All parts listed herein may be ordered through any Sears Service Center/Department and most Sears Stores.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

- * PRODUCT "SNOW THROWER"
- * MODEL NUMBER 536.885410
- * ENGINE MODEL NUMBER 143.804062
- * PART NUMBER
- * PART DESCRIPTION

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