CRAFTSMAN®

5.0 Horsepower
21 Inch Single Stage
Auger Propelled
SNOW THROWER
Electric Start



Caution:

Read and follow all Safety Rules and Operating Instructions before first use of this product.

SEARS, ROEBUCK AND CO., Hoffman Estates, IL 60179 U.S.A.

761893 07/27/98

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WARRANTY STATEMENT

LIMITED TWO-YEAR 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 operating and maintenance instructions in the owner's manual, Craftsman will repair, free of charge, any defect in material or 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:

- Items which become worn during normal use, such as spark plugs, drive belts and shear pins.
- Repairs necessary because of operator abuse or negligence, including bent crank shafts 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 CRAFTSMAN SERVICE CENTER/DEPARTMENT IN THE UNITED STATES. THIS WARRANTY 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., D817WA, Hoffman Estates, IL 60179

Look for this symbol to point out important safety precautions. It means---

SAFETY RULES



ATTENTION!!! Become alert!!! Your safety is involved. **CAUTION:** Always turn key to OFF position and remove key 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.

California Proposition 65

engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

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 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 foreign objects.
- Use extension cords and receptacles as specified by the manufacturer for all snow throwers with electric drive motors or with factory-installed or optional starting motors.

- Use only attachments and accessories approved by the manufacturer of the snow thrower (such as electric starter 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 all bolts at frequent intervals for proper tightness to be sure the snow thrower is in safe working condition.
- Disengage clutch before starting the engine.
- 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 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 the fuel tank cap or add fuel to a running or hot engine.
- Never store fuel or snow thrower with fuel in the tank inside a building where fumes may reach an open flame.

OPERATING SAFETY

- Never allow children or young teenagers to operate the snow thrower. Keep them away while it is operating. Never allow adults to operate the snow thrower without proper instruction.
- Do not operate this machine if you are taking drugs or other medication which can cause drowsiness or affect your ability to operate this machine.
- Do not use this machine if you are mentally or physically unable to operate this machine safely.
- Always wear safety glasses or eye shields during operation or while perform-

- ing an adjustment or repair to protect your eyes from foreign objects that may be thrown from the snow thrower.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Exercise extreme caution to avoid slipping or falling, especially when operating in reverse or backing up.
- Do not clear snow across the face of slopes. Excercise caultion 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.
- Never operate the snow thrower near glass enclosures, automobiles, window wells, drop-offs, 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 CAR-BON MONOXIDE, an ODORLESS and DEADLY GAS.
- Take all possible precautions when leaving the snow thrower unattended.
 Disengage the auger/impeller, 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 the 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 water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.

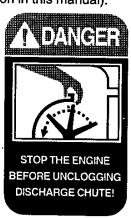
REPAIR/ADJUSTMENTS SAFETY

- After striking a foreign object, stop the engine (motor). Turn key to OFF position and remove key to prevent accidental starting. Thoroughly inspect the snowthrower for any damage, and repair the damage before restarting and operating it.
- If snow thrower should start to vibrate abnormally, stop 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. Also, turn key to OFF position and remove key before unclogging the auger/impeller housing or discharge chute, and when making any repairs, adjustments, or inspections. Remove wire from spark plug to prevent accidental starting.
- When cleaning, repairing, or inspecting, make certain the auger/impeller and all moving parts have stopped. Turn key to OFF position and remove key to prevent accidental starting.
- Never attempt to make any adjustments while the engine is running except when specifically recommended by the 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.

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

In the state of California the spark arrester is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester/muffler is available through your nearest Craftsman Authorized Service Center (See ENGINE REPAIR PARTS section in this manual).





Contents of Parts Bag



1 - 3.2 ounce container Craftsman 2-cycle oil

- 1 Owner's Manual (not shown)
- 1 Warranty Card (not shown)
- 1 Parts Bag (not shown)



1 - 10 ft. Electric Cord

ASSEMBLY

CAUTION: Always wear safety glasses or eye shields while assembling snow thrower.

TOOLS REQUIRED FOR ASSEMBLY

1 - Knife to cut carton

The figure to the right shows the snow thrower completely assembled.

References to the right or left hand side of the snow thrower are from the viewpoint of the operator's position behind the unit.

TO REMOVE SNOW THROWER FROM CARTON

- Locate and remove container of Craftsman 2-cycle oil.
- Remove the inserts positioned around the unit and the packing material.
- Cut down all four corners and lay the panel down flat.
- · Remove and discard bottom packaging.
- Pull snow thrower out of the carton.

TO ASSEMBLE THE SNOW THROWER

- Remove wrap on upper handle and along the side of both handles. Discard wrap.
- Unfold upper handle to remove packaging on the control panel and discard.
- Loosen the tee knobs on each side of the upper handle.
- Raise the upper handle to the operating position.

NOTE: Make sure the cable is not caught between the upper and lower handle.

- Check to be sure the clutch cable is not caught in the handle.
- · Tighten tee knobs.

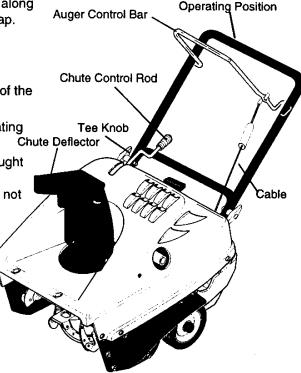
√ CHECKLIST

Before you operate your new snow thrower, to ensure that you receive the best performance and satisfaction from this quality product, please review the following checklist:

- √ All assembly instructions have been completed.
- √ The discharge chute rotates freely.
- $\sqrt{}$ No remaining loose parts in carton.

While learning how to use your snow thrower, pay extra attention to the following important items:

- √√ Make sure gas tank is filled with the 40:1 ratio mixture of gasoline and oil.
- √√ Become familiar with all controls-their location and function. Operate controls before starting engine.



OPERATION

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.













Start

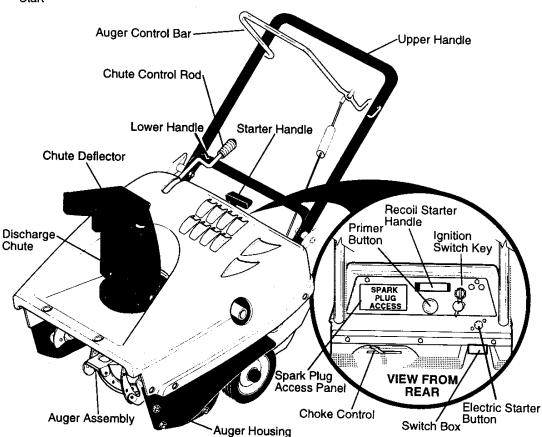
Ignition Off Etecric

Ignition On

Spark Plug

Oil/Fuel Mixture

Primer Button



Auger Control Bar - Starts and stops the auger which propels the snow thrower.

Chute Control Rod - Changes the direction of snow discharge.

Chute Deflector - Changes the distance the snow is thrown.

Discharge Chute - Changes the direction the snow is thrown.

Ignition Switch Key - Must be inserted and turned to the ON position to start the engine.

Choke Control - Used to start a cold engine.

Primer Button - Injects fuel directly into the carburetor manifold for fast starts in cold weather.

Recoil Starter Handle - Starts the engine manually. .

Spark Plug Access Panel - Aides in spark plug removal.

Electric Starter Button - Used to start the engine using the 120V electric starter.

HOW TO USE YOUR SNOW THROWER TO STOP YOUR SNOW THROWER

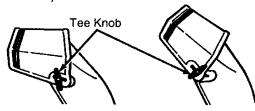
 To stop the auger, release the auger control bar.

NOTE: If the auger continues to creep, refer (To Adjust Auger Control Cable paragraph on page 11).

To stop the engine, turn key to the OFF position.

TO CONTROL SNOW DISCHARGE

- Turn the chute control rod to set the direction of the snow throwing.
- Loosen the tee 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 tee knob (See figure below).



TO USE AUGER PROPEL ACTION

- Squeeze the auger control bar down against the upper handle to allow the auger to turn.
- To propel forward, raise the handle to allow the rubber auger blades to contact the ground (See figure below).



CAUTION: Read owner's manual before operating machine. Never direct discharge toward bystanders. Release the auger control bar and stop the engine before unclogging discharge chute or auger housing and before leaving the machine.

BEFORE STARTING ENGINE

WARNING: Experience indicates that alcohol blended fuels (called gasohol or those 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. Start engine and let it run until fuel lines and carburetor are empty. Use carburetor bowl drain to empty residual gasoline from float chamber (See figure in Storage section, page 16). Use fresh fuel next season. (See Storage Instructions on page 16 for additional information).

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

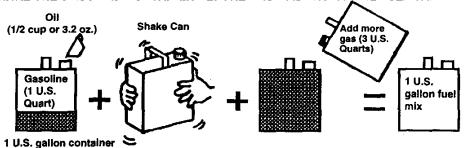
FILL GAS

NOTICE: ENGINES WHICH ARE CERTI-FIED TO COMPLY WITH CALIFORNIA AND US EPA EMISSION REGULATIONS FOR ULGE ENGINES: Are certified to operate on regular unleaded gasoline. Include the following emisssion control system(s): EM, TWC (if so equipped). Include any user adjustable features therefore no other adustments are needed. The two cycle engine used on this snow thrower requires a mixture of gasoline and oil for lubrication of the bearings and other moving parts. The correct fuel mixture ratio is 40:1 (3.2 oz. oil per gallon of gas see Fuel Mixture Chart). Gasoline and oil must be pre-mixed in a clean gasoline container. Always use fresh, clean, unleaded gasoline.

FUEL MIX CHART (Mixture 40:1)

U. S.		IMPE	RIAL	S. I. (N	METRIC)
GAS	OIL	GAS	OIL	GAS	OIL
1 Gal	3.2 oz.	1 Gal.	3.7 oz.	4 Liters	100ML

DO NOT FILL THE FUEL TANK WITH GASOLINE THAT DOES NOT HAVE OIL MIXED IN IT. SHAKE THE GASOLINE CONTAINER BEFORE EACH FILLING OF THE FUEL TANK.



GASOLINE AND OIL MIXTURE

Mix gasoline and oil as follows:

- Pour 1 U.S. quart of fresh, clean, unleaded automotive gasoline to a gallon gasoline container.
- Add 3.2 oz of clean, high quality, Craftsman two-cycle oil into the gasoline container (One 3.2 ounces of oil provided).

IMPORTANT: Do not use outboard motor oil or automobile oils, such as SAE 30 oil, or multi-viscosity oils, such as 10W-30 or 10W-40.

- Reinstall the cap on the gasoline container and shake container vigorously so the oil mixes with the gasoline
- Add an additional 3 U.S. quarts of gasoline to the gallon container and shake the container again.

WARNING: Gasoline is flammable and caution must be used when handling or storing it. Do not fill fuel tank while snow thrower is running, hot, or when snow thrower is in an enclosed area. Keep away from open flame, electrical spark, and do not smoke while filling the fuel tank. Never fill fuel tank completely; but fill the tank to within 1/4-1/2 inch from the top to provide space for expansion of fuel. Always fill fuel tank outdoors and use a funnel or spout to prevent spilling. 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. Keep gasoline in a cool, well ventilated place; never in the house. Never buy more than a 30 day supply of gasoline to ensure volatility. Gasoline is intended to be used as a fuel for internal combustion engines: therefore, do not use gasoline for any other purpose. Since many children like the smell of gasoline, keep it out of their reach because the fumes are dangerous to inhale, as well as being explosive.

TO STOP ENGINE

 To stop the engine, turn the key to OFF and remove key. Keep key in a safe place. The engine will not start without the key. See figure on next page.

TO START ENGINE (ELECTRIC START)

The snow thrower engine is equipped with a 120 volt AC electric starter and recoil starter. Before starting the engine, be certain that you have read the following information:

COLD START

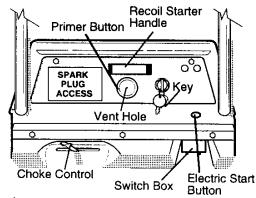
- Insert the key and turn ON.
- Move the choke control to the FULL position.
- Connect the power cord to the switch box on the snow thrower.
- Plug the other end of the power cord into a three hole, grounded 120 volt AC receptacle.
- Push the primer button while covering the vent holes as follows: (Remove finger from primer button between primes).
 Do not prime if temperature is above 50°F.
 - Two times if temperature is 50° F to 15°F. Four times if temperature is below 15°F.
- Push down on the starter button until the engine starts. Do not crank for more than 10 seconds at a time. This electric starter is thermally protected. If overheated it will stop automatically and can be restarted only when it has cooled to a safe temperature (a wait of about 5 to 10 minutes is required.
- Disconnect the power cord from the receptacle first and then from the switch box on the snow thrower.

 As engine warms up and begins to operate evenly, move the choke control slowly to the OFF position. If the engine falters, turn to 1/2 choke until it runs smoothly, then move to OFF position.

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

WARM START

- Be sure the choke is in the OFF position and pull the starter handle until the engine starts.
- Do not prime a warm engine. If the engine fails to start, follow the Cold Engine Start instructions on page 8.



CAUTION: This starter is equipped to operate on 120 volt AC household current. Follow all instructions carefully as set forth in the "To Start Engine" section. When connecting 120 volt AC power cord, always connect the cord to the switch box on the engine first, then plug the other end into the household receptacle. When disconnecting the 120 volt AC power cord, always unplug from the household receptacle first.

TO STOP ENGINE

 To stop the engine, turn the key to OFF and remove key. Keep key in a safe place. The engine will not start without the key. See figure above.

TO START ENGINE (RECOIL START)

Before starting the engine, be certain that you have read and understood all the instructions on the preceding pages.

COLD START

Insert the key and turn ON.

- Move the choke control to the FULL position.
- Push the primer button while covering the vent holes as follows: (Remove finger from primer button between primes).
 One time if temperature is above 50°F.
 Two times if temperature is 50° F to 15°F.
 Four times if temperature is below 15°F.
- Pull the starter handle with a smooth rapid movement. Do not allow the starter rope to snap back. Rewind smoothly while holding the starter handle. If the engine fires but does not start, pull the starter handle until the engine starts.
- After three pulls, repeat the priming and pulling steps again.
- As engine starts warms up move choke lever to "1/2 choke" position. When engine runs smoothly, move choke lever to "No Choke" Position

NOTE: Allow the engine to warm up for several minutes before blowing snow in temperatures below 0°F.

WARM START

- Be sure the choke is in the OFF position and pull the starter handle until the engine starts.
- Do not prime a warm engine. If the engine fails to start, follow the Cold Engine Start instructions on page 8.

CAUTION: Never run engine indoors or in enclosed, poorly ventilated areas. Engine exhaust contains carbon monoxide, an odorless and a deadly gas. Always stand behind snow thrower(operator's position) when starting engine. Do not put hands, feet, hair or loose clothing in or near the discharge chute deflector or auger housing while the engine is running. The temperature of the muffler and neaby areas may exceed 150° F; avoid these areas also.

WARNING: Objects such as gravel, rocks or other debris, if struck by the auger, may be thrown with sufficient force to cause personal injury or property damage.

We recommend standard safety glasses or Wide Vision Safety Mask for over your glasses.

SNOW THROWING TIPS

- This snow thrower will propel itself forward when the handle is raised enough to cause the auger blades to contact the ground. The auger should stop when auger control bar is released. If it does not, refer to Adjust Auger Control Cable paragraph on page 12.
- For most efficient snow throwing, turn the discharge chute deflector to throw snow downwind, and slightly overlap each swath. In light snow take up to a full cut and in heavy snow take less than a full cut.
- The distance snow will be discharged can be adjusted by moving the discharge chute deflector. Raise the deflector for more distance or lower the deflector for less distance.
- In windy conditions, lower the chute deflector to direct discharged snow close to the ground where it is less likely to blow into unwanted areas.
- Keep the area to be cleared free of stones, toys and other foreign objects for safety and to prevent damage to the snow thrower.
- Do not use the auger propelling feature when clearing gravel or crushed rock driveways. Move the handle down to raise the auger slightly.
- The allowable forward speed of the snow thrower is dependent on the depth and weight of the snow. Experience will establish the most effective method of using the snow thrower under different conditions.

DRY AND AVERAGE SNOW

- Snow up to eight inch depth can be removed rapidly and easily by walking at a moderate rate. For snow or drifts of a greater depth you may find it desirable to slow your pace to allow the discharge chute to dispose of the snow as rapidly as the auger receives the snow.
- Plan to have the snow discharged in the direction the wind is blowing.

WET PACKED SNOW

Move slowly into snow of this condition.
 The greater the depth, the slower you should go. When it appears that the wet, packed snow is causing the auger to slow down and the chute to clog, back off and begin a series of short jabs into the snow. These short back and forth, 4 to 6 inch, jabbing motions will "belch" the snow from the chute.

SNOW BANKS AND DRIFTS

 In snow of greater depth than the unit, use the jabbing technique described above. Turn the discharge chute away from the snow bank. More time will be required to remove snow of this type than level snow.

PRODUCT SPECIFICATIONS

HORSE POWER:	5HP
DISPLACEMENT:	8.46 cu. in.
GASOLINE CAPACI	ΓY: 1.62 quart (unleaded)
FUEL/OIL MIX RATION	O: 40:1
	(3.2 oz. of air- cooled engine 2 cycle oil specified for 40:1 per 1 gal. of gas)
SPARK PLUG:	Champion RCJ8Y (Gap .030) or Equivalent

MAINTENANCE

CUSTOMER RESPONSIBILITIES

SERVICE RECORDS	SCHEDULE					-	SERVICE DATES		E		
Fill in dates as you complete regular service	Before Each Use	After first 12 Hours	As Needed	Before Storage	Begin Each Season						
Tighten All Screws & Nuts		1	1	<u> </u>		┢					
Check Spark Plug		1		·····	1				П		
Check Drive Belts					1	†	T		П		
Lubricate Chute Control Flange				1			T				\neg
Check Fuel	1										
Drain Fuel				1/			T-		П		

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, the operator must maintain the snow thrower as instructed in this manual. The above chart is provided to assist the operator in properly maintaining the snow thrower.

SNOW THROWER AFTER FIRST USE

- Check for any loose or damaged parts after each use.
- · Tighten any loose fasteners.

AFTER EACH USE

- Run the machine to clear the auger of snow.
- Remove all snow and slush from the snow thrower to prevent freezing of auger or controls.

LUBRICATION - AS REQUIRED

- Lubricate the flange on the discharge chute before storage. See To Remove Top Cover instructions on page 12.
- See Lubrication Chart diagram for lubrication points and type of lubricant.

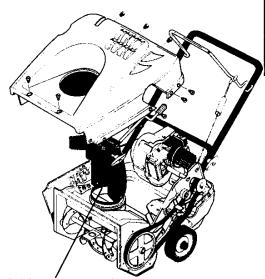
ENGINE

SPARK PLUG

 Clean the spark plug and reset the gap periodically. To service or replace spark plug. See To Replace the Spark Plug paragraph on page 15.

- Make sure that 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 plug to 18 to 23 foot pounds.
- Clean the area around the spark plug base before removal to prevent dirt from entering the engine.

LUBRICATION CHART



Lubricate chute control flange. Coat flange with a clinging type grease such as Lubriplate.

SERVICE AND ADJUSTMENTS

CARBURETOR ADJUSTMENT

The carburetor on this snow thrower is not adjustable.

IMPORTANT: If you think the carburetor is not operating properly, contact your nearest Craftsman service center.

CAUTION: Never tamper with the engine governor which is factory set for proper engine speed. Over speeding the engine may increase the danger of personal injury and will void the engine warranty. If you think the engine governor high speed needs adjusting, contact your nearest Craftsman service center who has the proper equipment and experience to make any unnecessary adjustments.

TO ADJUST THE 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 first figure on this page.

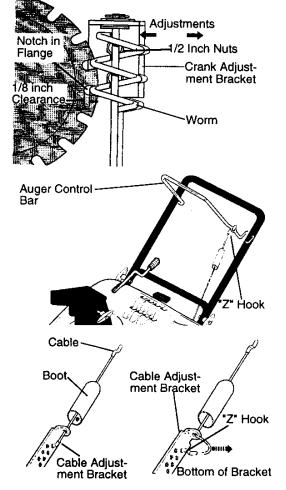
- Remove the top cover. See To Remove Top Cover instructions on this page.
- Loosen both 1/2" nuts on the crank adjusting bracket using 1/2" wrenches.
- Swivel the crank adjusting bracket to allow about 1/8" clearance between the notch in the flange and the outer diameter of the worm.
- Once this clearance is set, tighten the nuts.

TO ADJUST THE AUGER CONTROL CABLE

The auger control cable is set at the factory for proper operation. If you need to adjust the cable, because the control bar does not properly engage or disengage the auger, do the following:

- Remove "Z" hook from the auger control bar. See second figure.
- Slide the boot toward the loose end of the cable. See third figure.
- Push the cable down through the hole in the top of the cable adjustment bracket to provide slack in the cable. See third figure

- Remove the "Z" hook from the top hole in the cable adjustment bracket and move to the next hole away from the top of the bracket. See second figure.
- Pull cable slack through cable adjustment bracket and insert in the control bar. See third figure.
- Replace boot over cable adjustment bracket.
- Insert "Z" hook in the auger control bar.
 See second figure.
- Start the snow thrower and check that the auger does not continue to turn when the auger control bar is released.



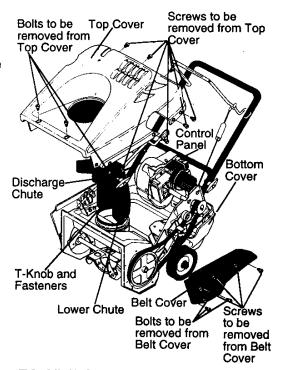
TO REMOVE TOP COVER

- Follow these steps from operator's position.
- Remove the T-knob and fasteners on the discharge chute.

- · Remove the gas cap.
- Remove the two bolts and nuts from the front lip of the top cover. Use a flat head screwdriver and a 3/8" wrench. See figure on this page.
- Remove the bolt from the front right side.
 Use a 5/16" and 3/8" wrench.
- Remove the four screws on the left side of the top cover. Use a large flat head screwdriver. See figure on this page.
- Remove the bolt from the front left side.
 Use a 5/16" and 3/8" wrench.
- Remove the four screws on the right side of the top cover. Use a large flat head screwdriver. See figure on this page.
- Remove the three screws from the top portion of the control panel. Use a large flat head screwdriver.
- Carefully pull up on the rear of top cover making sure to clear gas tank.
- Carefully lift top cover over the three bolts holding the lower chute to the chute ring.
 NOTE: This area was designed to have a tight fit, it will be necessary to rock top cover carefully over these bolts.
- Remove top cover.
- · Reinstall in reverse order.

TO REMOVE BELT COVER

- Follow these steps from operator's position.
- Remove the four bolts and nuts holding the belt cover to the auger housing. Use a 5/16" and 3/8" wrench.
- Remove the two screws holding the belt cover to the top cover. Use a large flat head screwdriver. NOTE: If the top cover is already removed, omit this step.
- Remove the one screw holding the belt cover to the bottom cover. Use a large flat head screwdriver.
- Grasp the bottom portion of the belt cover and pull down and out to remove.
- · Reinstall in reverse order.



TO ADJUST BRAKE PAD

The brake pad is adjusted at the factory and no periodic adjustment is necessary.

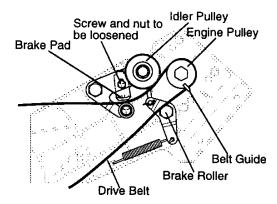
IMPORTANT: Adjustment should only be made to the brake if the brake pad has become loose or has been removed. To adjust proceed as follows:

NOTE: See figure on next page for proper location of brake pad.

- Turn engine off.
- Remove belt cover. See To Remove Belt Cover paragraph on this page.
- Remove the top cover. See To Remove Top Cover instructions on page 12-13.

NOTE: Make sure the belt is in proper position. See To Replace the Drive Belt paragraph on page 14.

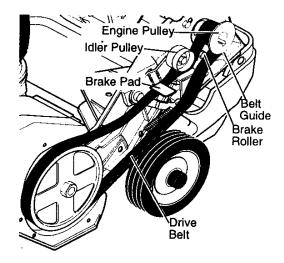
- Tie the control bail to the upper handle with a piece of string. NOTE: This will engage the pulley and belt system.
- Using a 7/16 wrench, 7/16 socket, and a rachet loosen screw and nut on brake pad. See first figure on page 14 for location of screw and nut.
- Adjust brake pad up or down to have a 1/8" gap between the bottom of the brake pad and the belt.
- · Tighten screw and nut.

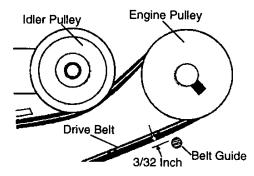


TO REPLACE THE DRIVE BELT

The drive belt on this unit is of special construction and must be replaced with the same type belt available at your nearest Craftsman Service Center.

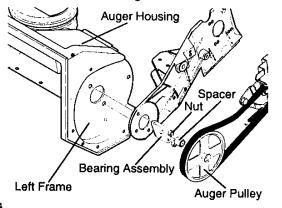
- Remove the belt cover. See to Remove the Belt Cover paragraph on page 13.
- Move belt guide away from belt. See next figure. Belt may come out without loosening belt guide. Carefully press idler pulley down to release brake pressure on belt. See second figure on this page.
- Remove belt from between brake pad and roller. See second figure on this page.
- · Remove old belt.
- Replace with new belt by carefully pressing down on the idler pulley and placing the belt between the brake pad and roller with belt ribs down.
- · Release belt pulley.
- Attach new belt to the engine pulley and auger pulley.
- Make sure the belt is seated properly.
- Move belt guide into position. The belt guide should be 3/32" from belt when belt is engaged as shown in third figure.
- · Reinstall belt cover.





TO REPLACE THE AUGER

- Remove the belt cover, see To Remove Belt Cover paragraph on page 13 and the drive belt. See the Drive Belt Replacement paragraph on this page.
- Remove the auger pulley, see figure below from the auger shaft (threads are left hand; turn clockwise to remove). Place a piece of wood (2x4) on the center paddle area to secure auger to keep from turning.
- Remove the bearing assembly from the left frame of snow thrower by removing the two nuts. See figure below.



- Slide the auger assembly out of the bearing assembly on the right side of the snow thrower.
- Tip the auger assembly enough to allow it to slide out of the auger housing.
- Install the new auger assembly in reverse order of removal.

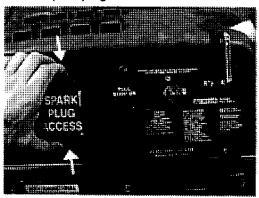
TO REPLACE THE SPARK PLUG

NOTICE: This spark ignition system meets all requirements of the Canadian Interference-Causing Equipment Regulations.

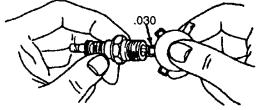
NOTICE: This engine complies with all current Australian and New Zealand limitaions regarding electromagnetic interference.

The spark plug is underneath the control panel and is accessible through the spark plug access cover.

- Remove black plastic spark plug access cover by squeezing the sides and pulling cover away. See figure below.
- · The spark plug and wire are now visible.



- · Remove the spark plug wire.
- Clean the area around the plug base to prevent dirt from entering the engine when the plug is removed.
- Remove the spark plug. If it is cracked, fouled or dirty, it must be replaced. See page 10 for the proper replacement plug.
- Set the gap between the electrodes of the new spark plug at .030 inch. Next, install the spark plug in the cylinder head.
- Torque plug to 18 to 20 ft. lb. If you do not use a torque wrench, tighten the plug firmly.



- Push the spark plug wire onto the spark plug.
- · Reinstall the bottom cover.

ENGINE SERVICE

Unless the operator is fully qualified to make engine repairs or adjustments, we recommend that such work should be done by technicians trained to work on snow thrower type engines. Take your snow thrower to your nearest Craftsman Service Center for repair and adjustment.

ADJUST ENGINE SPEED

Your engine speed has been factory set. Do not attempt to change engine speed or it may result in personal injury. If you believe that the engine is running too fast or too slow, take your snow thrower to your nearest Craftsman Service Center for repair and adjustment.

STORAGE

WARNING: Never store your snow thrower indoors or in an enclosed, poorly ventilated area. If gasoline remains in the tank, fumes may reach an open flame, spark or pilot light from a furnace, water heater, clothes dryer, cigarette, etc.

To prevent engine damage (if snow thrower is not used for more than 30 days) follow the steps below.

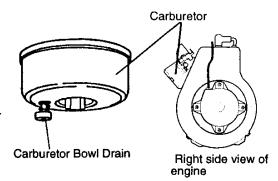
SNOW THROWER STORAGE

- · Thoroughly clean the snow thrower.
- Lubricate all the lubrication points. See the Maintenance section, page 11.
- 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 and auger with rust preventative, such as a spray lubricant.

ENGINE STORAGE

Gasoline must be removed or treated to prevent gum deposits from forming in the tank, filter, hose, and carburetor during storage. Also during storage, alcohol blended gasoline that uses ethanol or methanol (sometimes called gasohol) attracts water. It acts on the gasoline to form acids which damage the engine.

 To remove gasoline, run the engine until the tank is empty and the engine stops.
 Then drain remaining gasoline from carburetor by pressing upward on bowl drain located on the bottom of carburetor.
 See next figure.



 If you do not want to remove gasoline, a fuel stabilizer (such as Craftsman fuel stabilizer No. 33500) may be added to any gasoline left in the tank to minimize gum deposits and acids. If the tank is almost empty, mix stabilizer with fresh gasoline in a separate container and add some to the tank. Always follow instructions on stabilizer container. Instructions on stabilizer container. Then run engine at least 10 minutes after stabilizer is added to allow mixture to reach carburetor. Store snow thrower in a safe place. See Warning under STORAGE.

OTHER

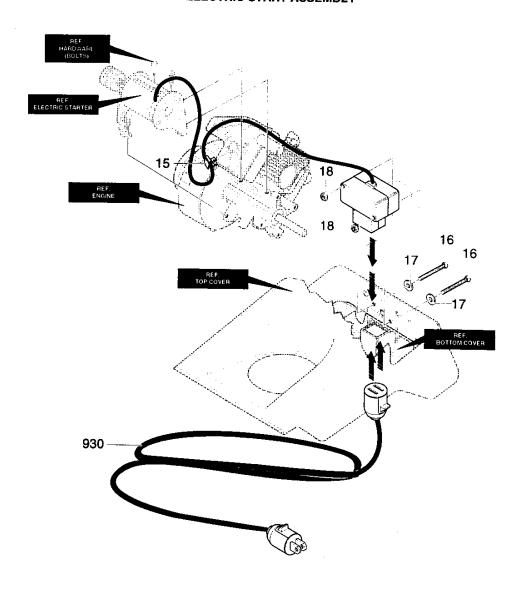
- If possible, store your snow thrower indoors with the gas removed and cover it to give protection from dust and dirt.
- If the machine must be stored outdoors, block up the snow thrower to be sure the entire machine is off the ground.
- Cover the snow thrower with a suitable protective cover that does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

NOTE: A yearly checkup or tune-up at a Craftsman Service Center is a good way of ensuring that your snow thrower will provide maximum performance for the next season.

TROUBLE SHOOTING

TROUBLE	CAUSE	CORRECTION
Difficult starting	Defective spark plug	Replace defective plug
Engine stalls	Unit running on CHOKE	Move choke lever to OFF positon
Engine runs erractically	Blocked fuel line or low on fuel	Clean fuel line; check fuel sup- ply; add fresh gasoline (gaso- line/oil mixture if 2-cycle engine)
or Loss of power	Water or dirt in fuel system	Use carburetor bowl drain to flush and refill with fresh fuel
Excessive vibration	Loose parts; damaged impeller	Stop engine immediately and turn key to OFF position and remove key. Tighten all bolts and make all necessary repairs. If vibration continues, have the unit serviced by a Craftsman service repairman
	Damaged auger	Repair or replace auger assembly
Units fails to propel itself	Drive belt loose or damaged	Replace drive belt
	Incorrect adjustment of auger control cable	Adjust auger control cable
Unit fails to discharge snow	Auger drive belt loose or damaged	Replace if damaged
a containing of the state of th	Auger control cable not adjusted correctly	Adjust auger control cable
	Discharge chute clogged	Stop engine immediately and turn key to OFF position and remove key. Clean discharge chute and inside of auger housing
	Foreign object lodged in auger	Stop engine immediately and turn key to OFF position and remove key. Remove object from auger.

CRAFTSMAN 21" - 5H.P. SNOW THROWER 536.885210 ELECTRIC START ASSEMBLY



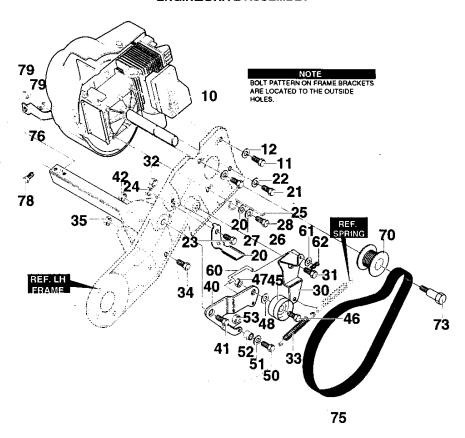
Note: Always use original equipment parts. Use of service/replacement parts other than original parts may void your warranty.

All unnumbered items are interchangeable with opposite side

REF. NO.	PART NO.	PART NAME
15 16 17 18 930	57569 311633 414106 271163 56023 761893	Retainer, .31IDx.62x.03 Screw, #8-32x3.00 Washer, Flat Nut,#8-32 Hexkeps Starter Cord Owner's Manual Eng/Sp

313974C

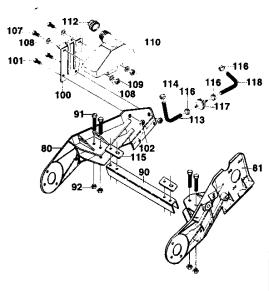
CRAFTSMAN 21" - 5H.P. SNOW THROWER 536.885210 ENGINE/DRIVE ASSEMBLY



334339D

REF.			REF.		
NO.	PART NO.	PART NAME	NO.	PART NO.	PART NAME
10	ENGINE	Engine, Model 143.995071	45	48924	Pulley, Idler
1		(See Engine pages)	46	302637	Screw, 3/8-16x1.50
11	180077	Screw, 5/16-18x.75	47	590	Nut, 3/8-16 Ctrlkjam
12	120638	Washer, Hvsptlk	48	301188	Washer, Flat
20	333970	Pad, Brake	50	180044	Screw, 1/4-20x2.00 In.
21	180077	Screw, 5/16-18x.75	51	71067	Washer, Flat.281x.63x.065
22	120638	Washer, Hvsptlk	52	333914	Roller, Belt Pinch
23	579052	Screw, 1/4-20x.63	53	73826	Nut, 1/4-20 Reghexctrlk
24	73826	Nut, 1/4-20 Reghexctrlk	60	313436	Rod, Clutch Linkage
25	334079	Guide, Belt	61	414106	Washer, Flat.188x.38x.040
26	71071	Washer, Flat.349x.69x.066	62	121223	Pin, Cotter .062x.75
27	120638	Washer, Hvsptlk	70	333784	Engine Pulley
28	710312	Screw, 5/16-18x1.00	73	333805	Bolt, Shoulder
30	313444	Arm,Idler Pivot	75	333721	Belt, Poly V
31	333594	Bolt, .500x.177	76	330544	Bracket, Eng. Support
32	71391	Nut, 5/16-18 Reghexctrlk	78	48901	Screw, 5/16-18x.63
33	313473	Spring Ext.	79	1498	Nut, 5/16-18 Reghexctrik
34	12342	Screw, 10-24x.50			
35	312300	Nut, #10-24 Reghexctrlk	1		
40	320077	Arm, Idler	1		
41	333594	Bolt, .500x.177	1		
42	71391	Nut, 5/16-18 Reghexctrik	1	1	

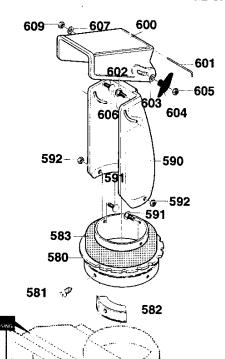
CRAFTSMAN 21" - 5H.P. SNOW THROWER 536.885210 FRAME ASSEMBLY



REF.		
NO.	PART NO.	PART NAME
80	333769-853	Frame, Side RH
81	333767	Frame, Side LH
90	333987	Channel, Frame Support
91	180044	Screw, 1/4-20x2.00
92	782585	Nut, 1/4-20 Reghexctrik
100	333749-853	Bracket, Fuel Tank 1.5 Qt
101	180020	Screw, 1/4-20x.75
102	782585	Nut, 1/4-20 Reghexctrlk
107	302628	Screw, 1/4-20x.75
108	71067	Washer, Flat .281x.63x.065
109	73826	Nut, 1/4-20 Reghexctrlk
110	333739	Fuel Tank 1.5 Qt.
112	340300	Fuel Cap 40:1
113	323363	Gas Tubing 8 Inches
114	47345	Clamp, Hose
	335351	Plate, Bolting Support
	323387	Clamp, Hose
	56679	Filter, In-Line
118	335906	Tubing, 6 inches

333966G

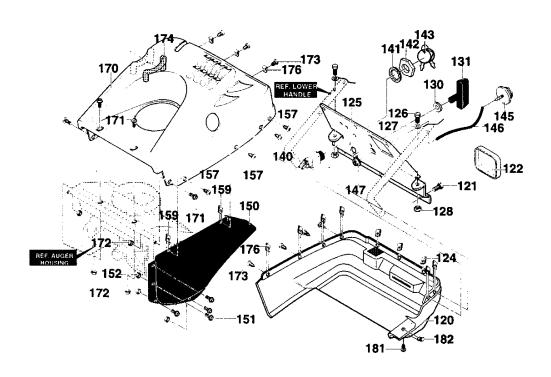
DISCHARGE CHUTE ASSEMBLY



REF.		-
NO.	PART NO.	PART NAME
580	333859	Ring, Chute
581	711752	Screw, #10x.50 Tap
582	577021	Guide, Chute
583	337166	Seal, Strip
590	334234	Lower Chute
591	313686	Screw, 1/4-20 x.50
592	302635	Nut, 1/4-20 Cntrlk 1/4-20
600	325847	Upper Chute
601	308931	Wire, Hinge 6.65
602	302843	Bolt, 5/16-18x1.25 Carr.
603	71071	Washer, Flat.349x.69x.066
604	57171	Knob, T 3.00
605	71037	Nut, 5/16-18 Reghex
606	578088	Screw, 5/16-18x.75
607	71071	Washer, Flat .349x.69x.066
608	71391	Nut, 5/16-18 Reghexctrlk

337341A

CRAFTSMAN 21" - 5H.P. SNOW THROWER 536.885210 BELT COVER ASSEMBLY

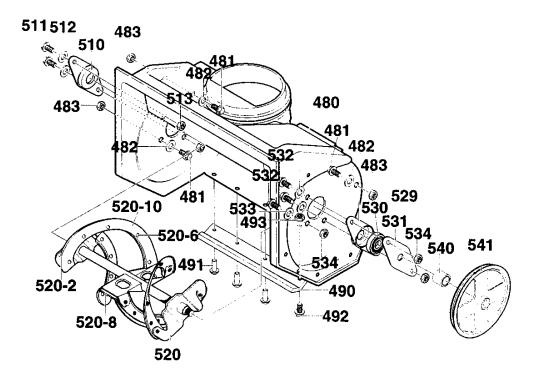


337370E

1	REF.		
	NO.	PART NO.	PART NAME
	120	340097	Cover, Bottom
	121	313685	Screw, 1/4-14x.75
	122	761538	Panel, Spark Plug Access
	124	578109	Nut, 1/4-10 Speed J Type
	125	761539-853	Panel, Control
	126	313674	Screw, 1/4-20x1.25
	127	71067	Washer, Flat.281x.63x.065
	128	782585	Nut, 1/4-20 Reghexctrlk
	130	57587	Grommet & Washer
	131	333643	Knob, Stand Tee
	140	56992	Switch, Ignition
	141	313683	Washer, Regintlk
	142	300193	Nut, 5/8-32, Ign. Switch
	143	49643	2 Keys & Ring Assy
	145	54601	Primer, Engine
	146	335507	Hose, Primer 9.50Lg
	147	271172	Nut, 1/4-20 Reghexkeps

DEE	1	
REF.	1	
NO.	PART NO.	PART NAME
150	340089	Belt Cover
151	12342	Screw 10-24x.50 Wahhma
152	312300	Nut, #10-24 Reghexctrlk
157	313685	Screw 1/4-14x.75 Slwatap
159	578109	Nut, 1/4-10 Speed J Type
170	340098	Cover, Top
171	12342	Screw, 10-24x.50 Wahhma
172	312300 •	Nut, #10-24 Reghexctrlk
173	313685	Screw, 1/4-14x.75 Slwatap
174	55380	Seal, Strip Chute & Gas
176	578109	Nut, 1/4-10 Speed J Type
181	313685	Screw, 1/4-14x.75 Slwatap
182	578109	Nut, 1/4-10 Speed J Type
		·
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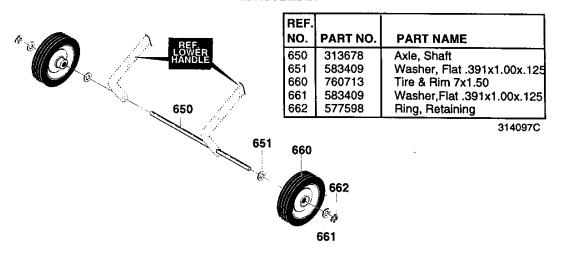
CRAFTSMAN 21" - 5H.P. SNOW THROWER 536.885210 AUGER HOUSING ASSEMBLY

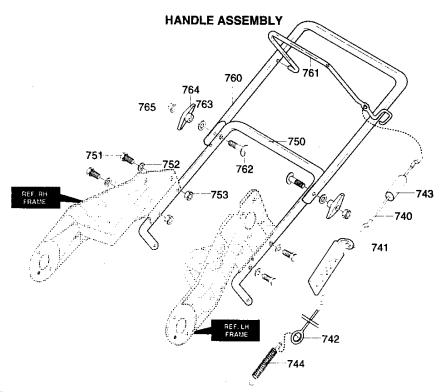


REF.	PART NO.	PART NAME
480		
481	340091	Auger Housing Assy.
1,0,	302628	Screw, 1/4-20x.75
482	71067	Washer, Flat .281x.63x.065
483	73826	Nut, 1/4-20 Reghexctrlk
490	55323	Scraper Blade
491	577707	Rivet, Ovset
492	302628	Screw 1/4-20x.75
493	302635	Nut, 1/4-20 Ctrlock
510	577023	Brng, Fl 670x1.25
511	710263	Screw 1/4-20x.1.00
512	71067	Washer, Flat .281x.63x.065
513	302635	Nut, 1/4-20 Ctrlk
520	327072	Auger Assembly
520-2	302565	Blade, Auger
520-6	49838	Rivet, Ovset
520-8	335992	Blade, Center
520-10	307049-853	Auger & Blade Assy
529	580251	Retainer, Bearing
530	43846	Brng, Ball 6203-2RS
531	334287	Plate, Retnr Brng
532	579052	Screw 1/4-20x.63
533	71067	Washer, Flat .281x.63x.065
534	73826	Nut, 1/4-20 Reghexctrlk
540	578101	Spacer, Slev .640x.88x.15
541	313670	Pulley, Poly 6"

333969C

CRAFTSMAN 21" - 5H.P. SNOW THROWER 536.885210 WHEEL ASSEMBLY



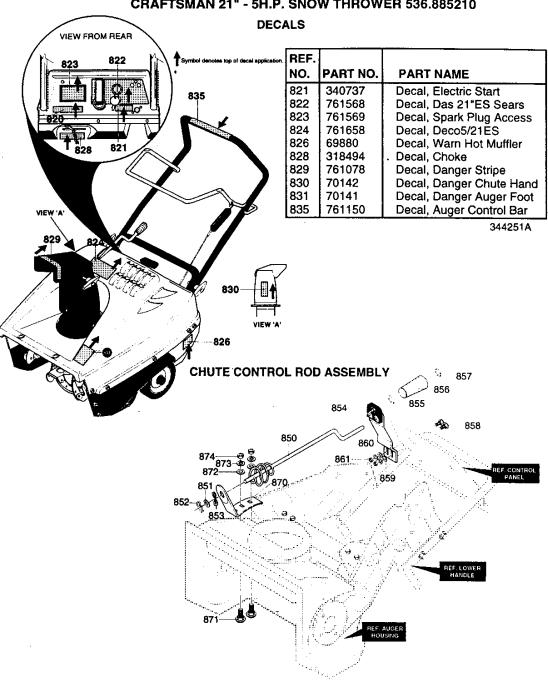


REF. NO.	PART NO.	PART NAME
740	313449	Cable, Upper Control 11.95
741	313441	Brkt, Cable Adjust
742	313448	Cable, Lower Control 16.00
743	308146	Boot, Clutch Spring
	313471	Spring, Extension
750	333909-853	Lower Handle
751	313674	Screw 1/4-20x1.25
752	71067	Washer, Flat .281x.63x.065

REF.	•	
NO.	PART NO.	PART NAME
753	782585	Nut, 1/4-20 Reghexctrlk
760	333919-853	Upper Handle
761	333954-853	Control Bail
762	337584	Bolt, 5/16-18x2.00 CUH
763	311936	Formed Washer
764	57171	Knob, T 3,00
765	71037	Nut, 5/16-18 Reghex

334312A

CRAFTSMAN 21" - 5H.P. SNOW THROWER 536.885210

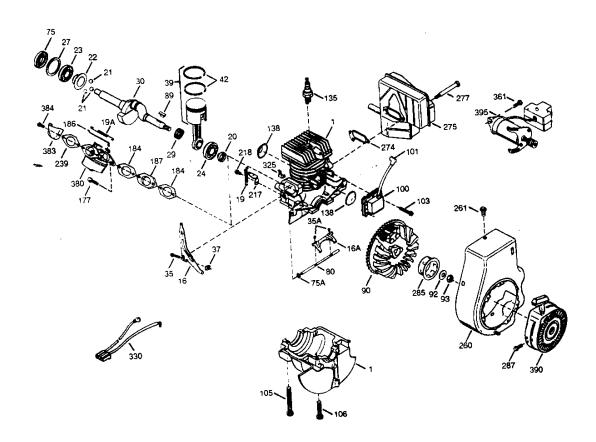


REF		
NO.	PART NO. PART NAME	
850	337941	Chute Rod Assembly
851	71072	Washer, Flat .406x.81x.066
852	71082	Cotter Pin .094x1.00
853	313431	Washer, Curved Spring
854	335264	Chute Crank Brkt Assy
855	71072	Washer, Flat .406x.81x.066
856	57082	Knob, Sleeve
857	331532	Nut, Push
858	3809	Bolt 1/4-20x.63 Carr.

REF.		
NO.	PART NO.	PART NAME
859	120393	Washer, Flat .344x.69x.065
860	71060	Washer, Sptlk .31x.58x.08
861	71034	Nut, 1/4-20 Reghex
870	333946-853	Chute Rotate Bracket
871	340720	Bolt, 5/16-18x.75 Carr.
872	71071	Washer, Flat.349x.69x.066
873	71060	Washer, Sptlk .31x.58x.08
874	71037	Nut, 5/16-18 Reghex
	·	3343130

CRAFTSMAN 2-CYCLE ENGINE MODEL NUMBER 143.995071

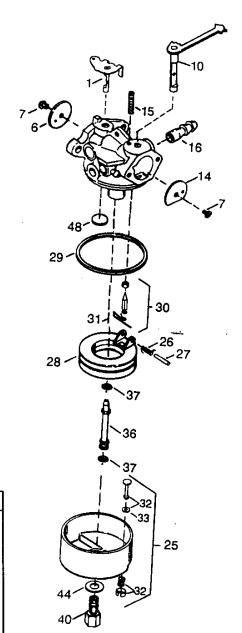




CRAFTSMAN 2-CYCLE ENGINE MODEL NUMBER 143.995071

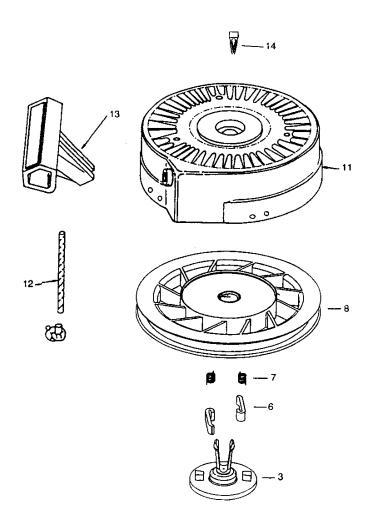
			MODEL NOMBER 140.55507		
REF.	PART#	PART NAME	REF.	PART#	PART NAME
1 16 16A 19 19A 20 21 22 23 24 27 29 30 335 335A 37 39 42 75 75A 80 89 90 92 93 100 101 103 105 135 138 177	250296A 490317 490304 33374 490318 510340 570673 510338 530158 530161 530159 530164 290627 29826 650506 29216 310277B 310278 510339 510337 490305 611191 611192 650816 34443B 610118 651007 650892 650891 611049 570683 650959	CYLINDER (INCL. 75A, 105, 106, & 138) GOVERNOR LEVER GOVERNOR LEVER EXTENSION SPRING THROTTLE LINK SPRING OIL SEAL BALL BEARING SALL BEARING BALL BEARING BEARING STRIP (31 NEEDLES) CRANKSHAFT SCREW, 10-32 X 2/4" SCREW, 4-40 X 1/4" LOCKNUT, 10-32 PISTON & ROD ASSY. (INCL. 29&42) RING SET (STD) OIL SEAL GOVERNOR SHAFT FLYWHEEL KEY FLYWHEEL KEY FLYWHEEL NUT SOLID STATE IGNITION SPARK PLUG COVER SCREW, TORX T-15, 10-24 X 15/16" SCREW, 5/16-18 X 2-3/16" SCREW, 5/16-18X 1-5/8 RESISTOR SPARK PLUG (RCJ8Y) PORT COVER SCREW, 5/32 ALLEN, 1/4-20 X 1"	184 186 187 217 218 239 260 261 274 275 277 285 287 325 330 361 380 395 399	510326A 490319 570438A 570667A 650847 35815 350460 650894 510343A 390325 650893 34449A 650926 29443 611158 30063 640088 570695 650229 590743 590670 510334	CARBURETOR GASKET GOVERNOR LINK SPACER CONTROL LEVER SCREW, 8-32 X 1/2" AIR CLEANER GASKET BLOWER HOUSING SCREW, 5/16-18 X 5/8" EXHAUST GASKET MUFFLER SCREW, 5/16-18 X 3-13/64" STARTER CUP SCREW, 8-32 X 21/64" WIRE CLIP WIRE HARNESS SCREW, TORX T-30 1/4-,20 X 1/2" CARBURETOR (INCL. 184) CARBURETOR BAFFLE SCREW, TORX T-25, 10-32 X 3/8" REWIND STARTER MOTOR (110V) GASKET ELIMINATOR (LOCTITE 515)

CARBURETOR NO. 640088



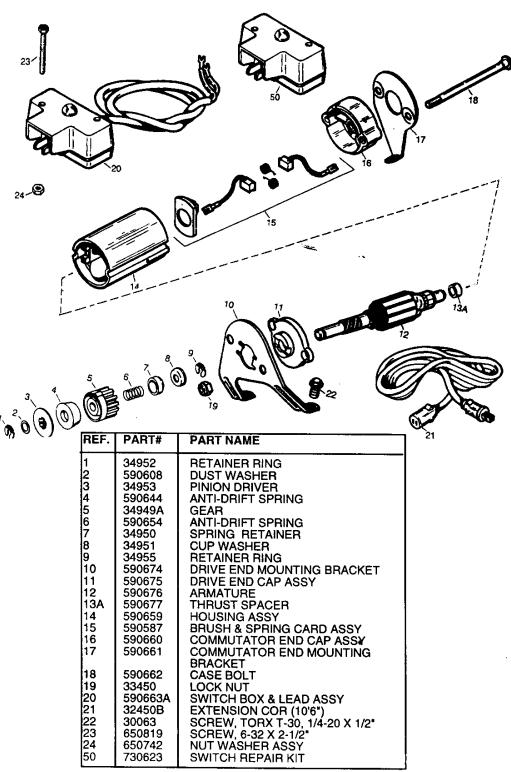
	REF.	PART#	PART NAME
	1	632538	THROTTLE SHAFT & LEVER ASSY
	6 7	631621	THROTTLE SHUTTER
	7	650506	THROTTLE & CHOKE SHUTTER
			SCREW
-	10	632734	CHOKE SHAFT & LEVER ASSY
-	14	631815	CHOKE SHUTTER
	15	630735	CHOKE POSITIONING SPRING
	16	632164	FUEL FITTING
	25	631951	FLOAT BOWL ASSY
			(INCL. NOS. 32 & 33)
	26	632386	FLOAT DAMPENING SPRING
	27	631024	SHAFT, FLOAT
	28	632019	FLOAT
	29	631028	"O" RING, FLOAT BOWL TO BODY
	30	631021	INLET NEEDLE, SEAT & CLIP
	١,,,		(INCL. NO 31)
	31	631022	SPRING CLIP
	32	27136A	BOWL DRAIN ASSY
	33 36	27554	DRAIN PLUNGER GASKET
	37	640080	MAIN NOZZLE TUBE
	40	632547	"O" RING, MAIN NOZZLE TUBE
	44	640089	HIGH SPEED BOWL NUT
	48	27110 631027	BOWL NUT WASHER
	_ + 0	031027	WELCH PLUG, ATMOSPHERIC VENT

STARTER NO. 590743



REF.	PART#	PART NAME
3 6 7 8 11 12	590743 590740 590616 590617 590645A 590643 590535 590701 590741	STARTER, REWIND RETAINER DOG, STARTER SPRING, DOG PULLEY & REWIND SPRING ASSY HOUSING ASSY, STARTER ROPE, STARTER (LENGTH 98" & 9/64" DIA.) HANDLE, STARTER LOCKING TAB

ELECTRIC STARTER NO. 590670



For the repair or replacement parts you need delivered directly to your home Call 7 am-7 pm, 7 days a week 1-800-366-PART

(1-800-366-7278) Para ordenar piezas con entrega a domicilio -1-800-659-7084

For in-house major brand repair service Call 24 hours a day, 7 days a week 1-800-4-REPAIR

(1-800-473-7247) Para pedir servicio de reparación a domicilio - 1-800-676-5811

For the location of a Sears Parts and Repair Center in your area Call 24 hours a day, 7 days a week 1-800-488-1222

For information on purchasing a Sears Maintenance Agreement or to inquire about an existing Agreement Call 9 am -5pm, Monday-Saturday 1-800-827-6655

When requesting service or ordering parts, always provide the following information:

- Product Type
- Part Number
- Model Number Part Description









