

# **MC621ES**

**Owner's Manual** 

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

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

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

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

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



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



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



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

#### Training

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

#### **Preparation**

- Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, wires, and other foreign objects.
- Disengage all clutches and shift into neutral before starting the engine (motor) if equipped.
- Do not operate the equipment without wearing adequate winter garments. Avoid loose fitting clothing that can get caught in moving parts. Wear footwear that will improve footing on slippery surfaces.
- 4. Handle fuel with care; it is highly flammable
  - (a) Use an approved fuel container.
  - (b) Never add fuel to a running engine or hot engine.
  - (c) Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.



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



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



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

- (d) Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground, away from your vehicle, before filling.
- (e) When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
- (f) Keep the nozzle in contact with the rim of the fuel tank or container opening at all times, until refueling is complete. Do not use a nozzle lock-open device.
- (g) Replace gasoline cap securely and wipe up spilled fuel.
- (h) If fuel is spilled on clothing, change clothing immediately.
- Use extension cords and receptacles as specified by the manufacturer for all units with electric drive motors or electric starting motors.
- Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).
- Always wear safety glasses or eye shields during operation or while performing an adjustment or repair to protect eyes from foreign objects that may be thrown from the machine.

#### Operation

1. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.

- Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.
- After striking a foreign object, stop the engine (motor), 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. Remove key.
- If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
- Stop the engine (motor) whenever you leave the operating position, before unclogging the auger housing or discharge chute, and when making any repairs, adjustments or inspections.
- When cleaning, repairing or inspecting the snow thrower, stop the engine and make certain the auger blades and all moving parts have stopped. Remove key.
- Do not run the engine indoors, except when starting the engine and for transporting the snow thrower in or out of the building. Open the outside doors; exhaust fumes are dangerous.
- 8. Exercise extreme caution when operating on slopes.
- Never operate the snow thrower without proper guards, and other safety protective devices in place and working.
- Never direct the discharge toward people or areas where property damage can occur. Keep children and others away.
- Do not overload the machine capacity by attempting to clear snow at too fast a rate.
- Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when operating in reverse.
- Disengage power to the auger blades when snow thrower is transported or not in use.
- Use only attachments and accessories approved by the manufacturer of the snow thrower.
- 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.
- Never touch a hot engine or muffler.

#### Clearing a Clogged Discharge Chute



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

To clear the chute:

- 1. SHUT THE ENGINE OFF!
- Wait 10 seconds to be sure the auger blades have stopped rotating.
- Always use a clearing tool at least 15 inches long.

#### Maintenance and Storage

- Check shear bolts and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- Never store the machine with fuel in the fuel tank inside a building where ignition sources are present such as hot water heaters, space heaters, or clothes dryers. Allow the engine to cool before storing in any enclosure.
- Always refer to operator's manual for important details if the snow thrower is to be stored for an extended period.
- 4. Maintain or replace safety and instruction labels, as necessary.
- Run the machine a few minutes after throwing snow to prevent freeze-up of the collector/impeller.

SERIAL NUMBER:
DATE OF PURCHASE:
THE MODEL AND SERIAL NUMBERS WILL BE FOUND ON A DECALATTACHED TO THE REAR OF THE SNOW THROWER HOUSING (Figure 1).

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



Figure 1

#### 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 manual.

#### PRODUCT SPECIFICATIONS

Gasoline Capacity and Type:	1.6 Quarts (1,5 Liters) Unleaded Regular only			
Oil Type (API SG-SL):	SAE 30 (above 50°F) SAE 5W-30 or 10W-30 (32° to 50°F) SAE 5W-30 (below 32°F)			
Oil Capacity:	16 Ounces (0,47 Liters)			
Spark Plug: Gap:	F6RTC 0.030" (0,762 mm)			

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#### **KNOW YOUR SNOW THROWER**

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

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

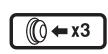
**IMPORTANT:** Safety and instruction decals are located near areas of potential danger. Replace damaged decals.















DANGER OR WARNING

ENGIN ON

ENGINE OFF

CHOKE

**PRIMER** 

FUEL

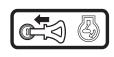
OIL



READ AND FOLLOW ALL SAFETY INFORMATION AND INSTRUCTIONS BEFORE USE OF THIS PRODUCT. KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE.









IGNITION KEY.
INSERT TO START
AND RUN,
PULL OUT TO STOP.





- READ AND FOLLOW OWNER'S MANUAL.
   NEVER ALLOW CHILDREN TO OPERATE SNOWTHROWERS.
- KEEP ALL SHIELDS AND GUARDS IN PLACE WHILE OPERATING.



 SHUT OFF ENGINE AND REMAIN BEHIND HANDLES UNTIL ALL MOVING PARTS HAVE STOPPED BEFORE UNCLOGGING OR SERVICING UNIT.



 TO AVOID THROWN OBJECT INJURIES NEVER DIRECT DISCHARGE AT BYSTANDERS. USE EXTRA CAUTION WHEN OPERATING ON GRAVEL SURFACES.

## Setup

#### **Loose Parts**

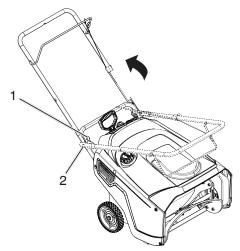
Use the chart below to verify that all parts have been shipped.

Procedure	Description	Qty.	Use
1.	No parts required	_	Unfold the handle.
2.	Carriage bolts	5	Install the discharge chute.
	Flange nuts	4	Install the discharge chute.
	Washers	2	Install the discharge chute.
	Knob	1	Install the discharge chute.
	Chute	1	
	Deflector	1	

## 1. Unfolding the Handle

#### **Procedure**

1. Loosen the two handle knobs and pull out the two handle bolts until you can move the handle freely and rotate the handle to the operating position (Figure 2).

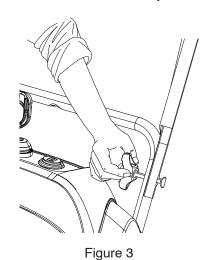


1. Handle knobs

2. Handle bolt

2. Tighten the handle knobs until they are snug (Figure 3).

Figure 2



## 2. Installing the Discharge Chute

5	Carriage bolts
4	Flange nuts
2	Washers
1	Knob
1	Chute
1	Deflector

#### **Procedure**

Install the discharge chute as shown (Figure 4).

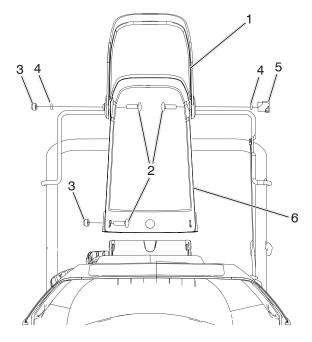


Figure 4

- 1. Deflector
- 4. Washer
- 2. Carriage bolts
- 5. Knob
- 3. Flange nuts
- 6. Discharge chute

**IMPORTANT:** Do not overtighten the flange nuts; otherwise you may damage the discharge chute.

### 3. Filling the Engine with Oil

#### **ENGINE**

See engine manual.

#### **LUBRICATION**

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

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

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

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

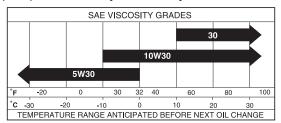


Figure 5

**NOTE:** 10W30 synthetic oil is acceptable for use in cold temperatures.

- 1. Move the snowthrower to a level surface.
- Clean around the dipstick (Figure 6).

**NOTE:** Dipstick location may vary depending on engine type.

3. Remove either side mounted filler cap dipstick or high oil fill dipstick and wipe it clean.

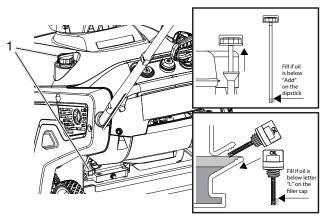


Figure 6

- 1. Oil filler cap/dipstick
- Insert the dipstick into the filler neck and turn clockwise until fully seated. Then remove the dipstick by turning it counter-clockwise.
- 5. Fill oil to "FULL" on dipstick with the recommended oil.
- 6. Securely screw in the oil filler cap/dipstick.

#### **Product Overview**

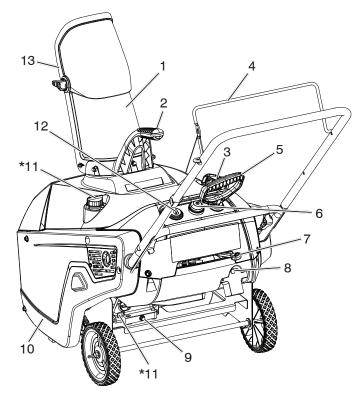


Figure 7

- 1. Discharge chute
- 2. Chute deflector handle
- 3. Fuel tank cap
- 4. Control bar
- 5. Recoil start handle
- Primer
- 7. Choke lever

- 8. Electric-start button
- 9. Oil drain plug
- 10. Drive belt cover
- \*11. Oil fill cap/dipstick
- 12. Ignition key
- Chute deflector
- \* Dipstick location may vary depending on engine type.

### **Operation**

**NOTE:** Determine the left and right sides of the machine from the normal operating position.

#### A

- Gasoline is extremely flammable and explosive.
   A fire or explosion from gasoline can burn you and others.
- To prevent a static charge from igniting the gasoline, place the container and/or snowthrower on the ground before filling, not in a vehicle or on an object.
- Fill the tank outdoors when the engine is cold. Wipe up spills.
- Do not handle gasoline when smoking or around an open flame or sparks.
- Store gasoline in an approved fuel container, out of the reach of children.
- Do not tip the snowthrower with fuel in the fuel tank.



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

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

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

### Filling the Fuel Tank

Fill the fuel tank with fresh unleaded gasoline, do not exceed 87 octane rating (Figure 8).

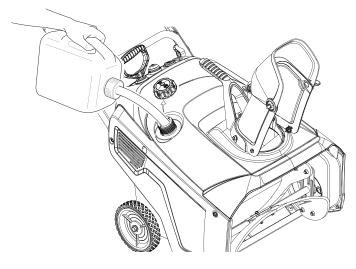


Figure 8

**IMPORTANT:** Do not add oil to the gasoline.

**IMPORTANT:** Do not use E85 blended fuels. This engine is not E20/E30/E85 compatible. Alternative fuels with high alcohol content can cause hard starting, poor engine performance, and may cause internal engine damage.

**NOTE:** For best results, purchase only the quantity of gasoline that you expect to use in 30 days. Otherwise, you may add fuel stabilizer to newly purchased gasoline to keep it fresh for up to 6 months.

## Checking the Engine Oil Level

**NOTE:** 10W30 synthetic oil is acceptable for use in cold temperatures.

- 1. Move the snowthrower to a level surface.
- 2. Clean around the dipstick (Figure 9).

**NOTE:** Dipstick location may vary depending on engine type.

3. Remove either side mounted filler cap dipstick or high oil fill dipstick and wipe it clean.

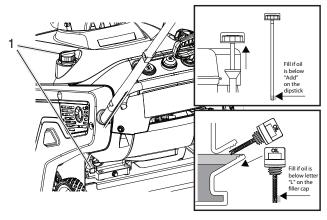


Figure 9

- 1. Oil filler cap/dipstick
- Insert the dipstick into the filler neck and turn clockwise until fully seated. Then remove the dipstick by turning it counter-clockwise.
- 5. Fill oil to "FULL" on dipstick with the recommended oil.
- 6. Securely screw in the oil filler cap/dipstick.

**NOTE:** Running the engine with a low oil level can cause engine damage. Always check the engine oil before start up.

**NOTE:** Running the engine with too much oil may cause engine damage and excess smoke in the exhaust. Always check the engine oil level before start up.

## Starting the Engine

1. Push key in (Figure 10).

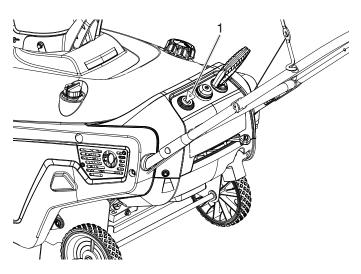


Figure 10

1. Key

Move choke lever to left position (Figure 11).

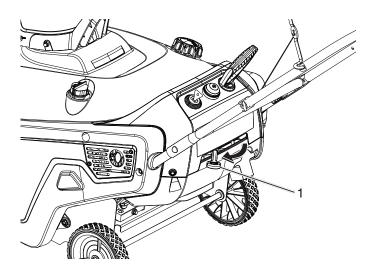


Figure 11

1. Choke lever

3. Firmly push in the primer 3 times with your thumb, holding the primer in a for a second before releasing it each time (Figure 12).

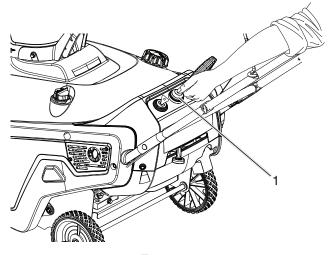


Figure 12

1. Primer

**NOTE:** Remove your glove when you push in the primer so that air cannot escape from the primer hole.

**IMPORTANT:** Do not use the primer or the choke if the engine has been running and is hot. Excessive priming may flood the engine and prevent it from starting.

 Connect an extension cord to the snowthrower and plug the other end into a three-hole grounded 120 volt A.C. receptacle and push the electric-start button (Figure 13), or pull the recoil start handle (Figure 14).

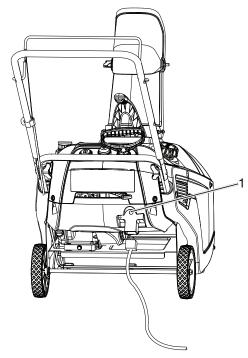


Figure 13

1. Electric start button

**NOTE:** Use only a UL-listed, 16-gauge extension cord recommended for outdoor use that is not longer than 50 feet (15 m).



The electrical cord can become damaged, causing a shock or fire.

Thoroughly inspect the electrical cord before plugging it into a power source. If the cord is damaged, do not use it to start the snowthrower. Replace or repair the damaged cord immediately. Contact an Authorized Service Dealer for assistance.



Figure 14

#### 1. Recoil start handle

**IMPORTANT:** Run the electric starter no more than 10 times at intervals of 5 seconds on, then 5 seconds off. Running the electric starter extensively can overheat and damage it. If the engine does not start after this series of attempts, wait at least 40 minutes to allow the starter to cool before attempting to start it again. If the engine does not start after the second series of attempts, take the snowthrower to an Authorized Service Dealer for service.

**NOTE:** If you pull the recoil handle and feel no resistance, the starter may be frozen. Thaw out the starter before attempting to start the snowthrower.

- While the engine is running, move the choke lever slowly to the right position.
- 6. Unplug the extension cord from the power source and the snowthrower (Figure 13).

#### A

Unplug the power cord whenever you are not starting the snowthrower.

## **Engaging the Auger Blades**

To engage the auger blades, hold the control bar against the handle (Figure 15).



Figure 15

1. Control bar

## Disengaging the Auger Blades

To disengage the auger blades, release the control bar (Figure 16).

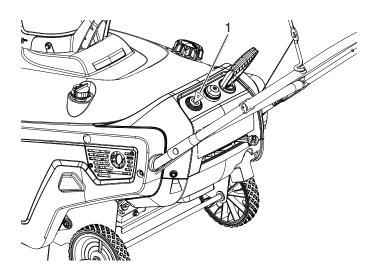


Figure 16

1. Control bar

### Stopping the Engine

To stop the engine, pull key out (Figure 17).



1. Key

Figure 17

### **Adjusting the Discharge** Chute and Chute Deflector

To adjust the discharge chute, move deflector chute handle left or right to desired position (Figure 18).

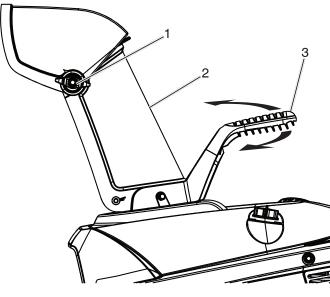


Figure 18

- 1. Chute deflector knob
- 2. Chute deflector
- 3. Chute handle

To raise or lower the angle of the chute deflector, loosen the chute deflector knob on the chute deflector and move the chute deflector up or down (Figure 18).

## **Clearing a Clogged** Discharge Chute



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

To clear the chute:

- SHUT THE ENGINE OFF! 1.
- Wait 10 seconds to be sure the auger blades have stopped rotating.
- 3. Always use a clearing tool at least 15 inches long, not your hands (Figure 19).



#### **Preventing Freeze-up after** Use

- Let the engine run for a few minutes to prevent moving parts from freezing. Stop the engine, wait for all moving parts to stop, and remove ice and snow from the
- Clean off any snow and ice from the base of the chute.
- Rotate the discharge chute left and right to free it from any ice buildup.
- With the ignition key in the Off position, pull the recoil starter handle several times or connect the electrical cord to a power source and the snowthrower and push the electric start button once to prevent the recoil starter and/or the electric starter from freezing up.
- In snowy and cold conditions, some controls and moving parts may freeze. Do not use excessive force when trying to operate frozen controls. If you have difficulty operating any control or part, start the engine and let it run for a few minutes.

### **Operating Tips**

#### A

The auger blades can throw stones, toys, and other foreign objects and cause serious personal injury to the operator or to bystanders.

- Keep the area to be cleared free of all objects that the auger blades could pick up and throw.
- Keep all children and pets away from the area of operation.
- Do not operate snow thrower if weather conditions impair visibility. Throwing snow during a heavy, windy snowstorm can blind you and be hazardous to the safe operation of the snow thrower.

- The best time to remove snow is the early morning. At this time the snow is usually dry and has not been exposed to the direct sun and warming temperatures.
- Slightly overlap each successive path to ensure all snow will be removed.
- Throw snow downwind whenever possible.
- For extremely heavy snow, reduce the width of snow removal by overlapping previous path and moving slowly.
- Keep engine clean and clear of snow during use. This will help air flow and extend engine life.
- After snow-throwing is completed, allow engine to run for a few minutes to melt snow and ice off the engine.
- Clean the entire snow thrower thoroughly after each use and wipe dry so it is ready for next use.

### **Maintenance**

NOTE: Determine the left and right sides of the machine from the normal operating position.

FII AS	MAINTENANCE SCHEDULE  FILL IN DATES AS YOU COMPLETE REGULAR SERVICE  REFORE FILE OF THE PROPERTY OF THE PROPER								
T H R	Check for Loose Fasteners	~	<b>V</b>		/				=
W W	Clean / Inspect Snow Thrower Check / Replace V-Belts	H		V					$\dashv$
E R	Lubrication Chart			<b>V</b>	/				
E	Check Engine Oil Level	V							П
N	Change Engine Oil			<b>/</b>					
G	Inspect Muffler			<b>V</b>					
Ň	Check / Replace Spark Plug			<b>V</b>					
E	Empty Fuel Tank				<b>/</b>				

## **Adjusting the Control Cable**

#### **Checking the Control Cable**

Release the control bar to remove the slack in the control cable (Figure 20).



Figure 20

1. Control bar

**IMPORTANT:** The control cable must contain some slack when you disengage the control bar for the auger blades to stop properly.

**NOTE:** You may need to adjust the control cable from position 1 (default) to position 2 if you notice belt slip when the control bar is engaged.

**NOTE:** If the control cable is adjusted to position 2, ensure that the auger stops properly when the control bar is released

#### **Adjusting the Control Cable**

1. With the control bar disengaged, unhook and move the control cable to the highest position. (Figure 21).

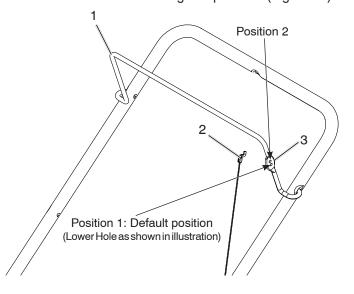


Figure 21

- 1. Control bar
- 2. Adjuster link
- 3. Cable positions

## **Inspecting the Auger Blades**

Before each session, inspect the auger blades for wear. When a auger blade edge has worn down have an Authorized Service Dealer replace the auger blades and the scraper (Figure 22).

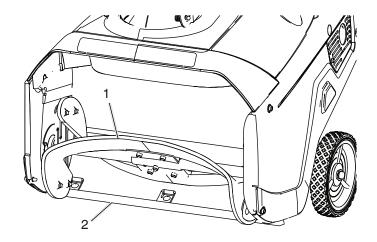


Figure 22

1. Auger blades

2. Scraper

### Changing the Engine Oil

Run the engine a few minutes before changing the oil to warm it. Warm oil flows better and carries more contaminants.



The engine oil will be hot. Avoid skin contact with the used engine oil.

- 1. Move snowthrower to a level surface.
- 2. Run snowthrower until all fuel has been depleted.
- 3. Remove ignition key.

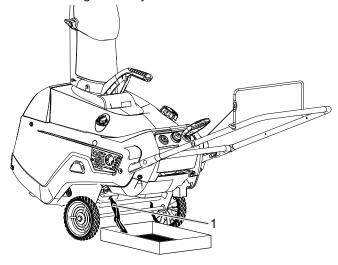


Figure 23

- 1. Oil drain plug
- 4. Place an oil drain pan under the oil drain plug, remove the oil drain plug, and tip the snowthrower backward and drain the used oil in the oil drain pan (Figure 23).
- 5. After draining the used oil, return the snowthrower to the operating position.
- Install the oil drain plug and torque to 145-150 in-lbs (17 N-m).

**NOTE:** Dipstick location may vary depending on engine type.

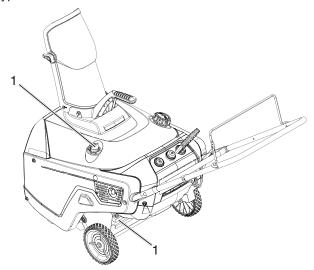


Figure 24

1. Oil fill cap/dipstick

- Clean around the oil filler cap/dipstick (Figure 24).
- 8. Unscrew the oil fill cap/dipstick and remove it (Figure 24).
- With the snowthrower in the operating position, carefully pour oil into the oil fill hole until "Full" on the fill cap/dipstick line (Figure 26).

Max fill: 18 oz. (0.5 l), type: automotive detergent oil with an API service classification of SJ, SL, or higher.

Use Figure 25 below to select the best oil viscosity for the outdoor temperature range expected:

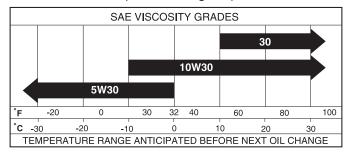


Figure 25

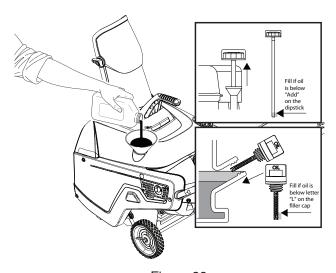


Figure 26

**NOTE:** 10W30 synthetic oil is acceptable for use in cold temperatures.

- 10. Screw in the oil fill cap/dipstick and hand tighten it securely.
- 11. Wipe up any spilled oil.
- Dispose of the used oil properly at a local recycling center.

## Servicing the Spark Plug

Use a NGK BPR6ES, Champion RN9YC, or BOSCH WR6DC spark plug or equivalent.

- 1. Stop the engine and wait for all moving parts to stop.
- 2. Rotate the discharge chute so that it faces forward.
- 3. Remove the discharge chute, the discharge chute handle by removing the three carriage bolts and flange nuts (Figure 27).

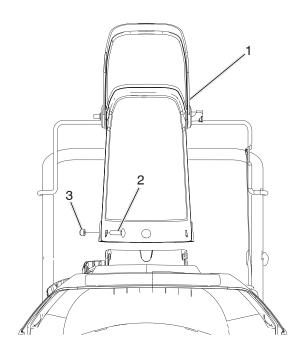
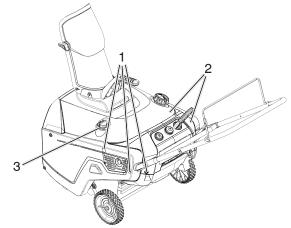


Figure 27

- 1. Discharge chute
- 2. Carriage bolts
- 3. Flange nuts
- Remove the six screws that secure the shroud assembly (Figure 28).



- Figure 28
- 1. Screw
- 3. Oil fill cap
- 2. Shroud assembly

- 5. Remove the oil fill cap.
- 6. Remove the shroud assembly (Figure 28).
- 7. Install the oil fill cap.
- Disconnect the spark plug wire from the spark plug (Figure 29).
- 9. Clean around the spark plug.
- 10. Remove the spark plug from the cylinder head.

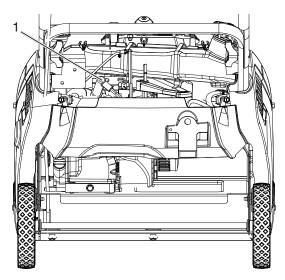


Figure 29

1. Spark plug wire

**IMPORTANT:** Replace a cracked, fouled, or dirty spark plug. Do not clean the electrodes because grit entering the cylinder can damage the engine.

11. Set the gap on the plug to 0.030 inch (0.76 mm) (Figure 30).

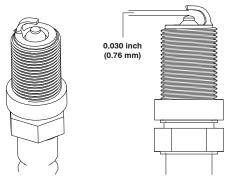


Figure 30

- 12. Install the spark plug and torque it to 20-22 ft-lb (27-30 N-m).
- 13. Connect the spark plug wire to the spark plug (Figure 29).
- 14. Remove the oil fill cap.
- 15. Install the shroud with the screws removed in step 4 (Figure 28).

**NOTE:** Ensure that the shroud assembly fits together in the side grooves.

- 16. Install the oil fill cap.
- 17. Install the discharge chute, and the discharge chute handle onto the snowthrower using the hardware removed in step 3 (Figure 27).

## **Replacing the Drive Belt**

If drive belt becomes worn, oil-soaked, excessively cracked, frayed, or otherwise damaged, replace the belt.

 Remove the drive side cover by removing the six screws as shown in (Figure 31).

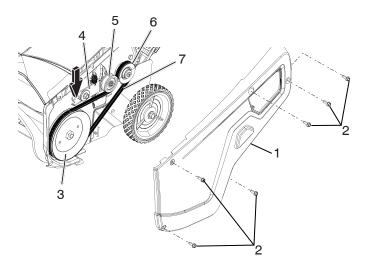


Figure 31

- 1. Drive side cover
- 2. Screw
- 3. Drive pulley
- 4. Idler arm
- Idler pulley
- 6. Engine pulley
- 7. Drive belt
- 2. Press down on front of idler arm to release the belt tension (Figure 31).
- 3. Remove the drive belt from the drive pulley (Figure 31).

4. Install the new drive belt, routing it as shown in (Figure 32).

**NOTE:** Route the new drive belt first around the engine pulley, then the idler pulley, and finally around the drive pulley while pressing down on the front of the idler arm. (Figure 32).

Install the drive side cover with the screws removed in step 1.

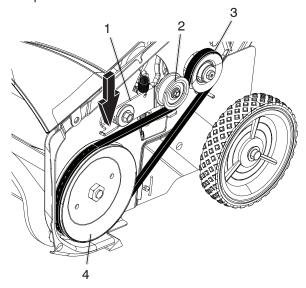


Figure 32

- 1. Idler arm
- 2. Idler pulley
- 3. Engine pulley
- 4. Drive pulley

**NOTE:** Ensure that the drive belt is properly adjusted and operating; refer to Checking the Control Cable and Adjusting the Control Cable in the Maintenance section of this manual.

### **Storage**

### **Storing the Snowthrower**

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.



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

#### SNOW THROWER

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

- Clean entire snow thrower after each use.
- Inspect and replace belts, if necessary (See "Replaceing the Drive Belt" section of this manual).
- Be sure that all nuts, bolts, screws, and pins are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.

#### **FUEL SYSTEM**

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

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

**NOTE:** Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor. Do not empty the gas tank and carburetor if using fuel stabilizer.

#### **ENGINE OIL**

Drain oil (with engine warm) and replace with clean engine oil. (See "Changing the Engine Oil" section of this manual).

#### **CYLINDER**

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

#### **OTHER**

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

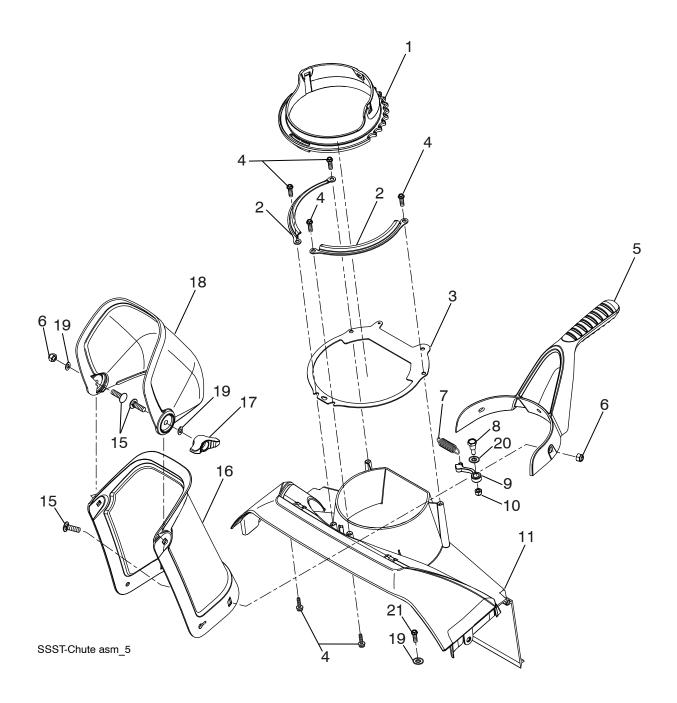
**IMPORTANT**: Never cover snow thrower while engine/ exhaust area is still warm.

## **Troubleshooting**

See appropriate section in manual unless directed to an authorized service center/department.

PROBLEM	CAUSE	CORRECTION
Does not start	Fuel shut-off valve (if so equipped) in OFF position.	Turn fuel shut-off valve to OPEN position.
	Safety ignition key is not inserted.	2. Insert safety ignition key.
	3. Out of fuel.	3. Fill fuel tank with fresh, clean gasoline.
	4. Throttle in STOP position	4. Move throttle to FAST position
	(or ON/OFF switch is OFF).	(or ON/OFF switch to ON position).
	5. Choke in OFF position.	5. Move to FULL position.
	<ul><li>6. Primer not depressed.</li><li>7. Engine is flooded.</li></ul>	<ul><li>6. Prime as instructed in the Operation section of this manual.</li><li>7. Wait a few minutes before restarting, DO NOT prime.</li></ul>
	8. Spark plug wire is disconnected.	8. Connect wire to spark plug.
	9. Bad spark plug.	9. Replace spark plug.
	10. Stale fuel.	10. Empty fuel tank & carburetor, refill with fresh, clean gasoline.
	11. Water in fuel.	11. Empty fuel tank & carburetor, refill with fresh, clean gasoline.
Loss of power	Spark plug wire loose.	Reconnect spark plug wire.
•	2. Throwing too much snow.	2. Reduce speed and width of swath.
	<ol><li>Fuel tank cap is covered with ice or snow.</li></ol>	3. Remove ice and snow on and around fuel tank cap.
	4. Dirty or clogged muffler.	4. Clean or replace muffler.
	5. Improper cable length.	5. Adjust cable.
Engine idles or	Choke is in FULL position.	Move choke to OFF position.
runs roughly	<ol> <li>Blockage in fuel line.</li> <li>Stale fuel.</li> </ol>	2. Clean fuel line.
	4. Water in fuel.	<ul><li>3. Empty fuel tank &amp; carburetor, refill with fresh, clean gasoline.</li><li>4. Empty fuel tank &amp; carburetor, refill with fresh, clean gasoline.</li></ul>
	5. Carburetor is in need of	5. Contact an authorized service center/department.
	adjustment or overhaul.	
Excessive vibration	Loose parts or damaged augers or impeller.	Tighten all fasteners. Replace damaged parts. If vibration remains, contact an authorized service center/department.
Recoil starter	Frozen recoil starter.	See "IF RECOIL STARTER HAS FROZEN"
is hard to pull	1. Trozon ciano.	in the Operation section of this manual.
Loss of traction	Drive belt is worn.	Check / replace drive belt.
drive / slowing	2. Drive belt is off of pulley.	2. Check / reinstall drive belt.
of drive speed	3. Auger blades worn.	Contact an authorized service center/department.
Loss of snow	Auger belt is off of pulley.	Check / reinstall auger belt.
discharge or	2. Auger belt is worn.	2. Check / replace auger belt.
slowing of snow discharge	<ol> <li>Clogged discharge chute.</li> <li>Augers / impeller jammed.</li> </ol>	<ol> <li>Clean snow chute.</li> <li>Remove debris or foreign object from augers / impeller.</li> </ol>
Silow discharge	4. Augers / Impelier jammed.	14. I terriove debris or loreign object from augers / impeller.

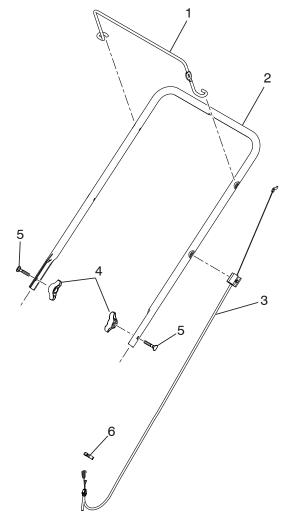
## REPAIR PARTS SNOW THROWER -- MODEL NUMBER MC621ES (96182000600) CHUTE ASSEMBLY



## REPAIR PARTS SNOW THROWER -- MODEL NUMBER MC621ES (96182000600) CHUTE ASSEMBLY

KEY NO.	PART NO.	QTY	DESCRIPTION
1	532 43 48-77	1	CHUTE.RATCHETING.PLASTIC.W/GRV
2	532 43 76-40	2	PLATE.CHUTE.RETAINER
3	532 43 76-35	1	PLATE.CHUTE.BASE
4	817 41 13-12	6	BOLT.HEX.WSH.HD.13-16 X 3/4
5	532 43 76-42	1	HANDLE.CHUTE.MS428
6	873 97 05-00	4	NUT.LOCK.HX.W/INS 5/16-18 UNC PL
7	532 43 48-79	1	SPRING.RATCHET.ARM
8	532 08 13-28	1	BOLT.SHOULDER.1/4-20 UNC X .94
9	532 43 48-78	1	ARM.CHUTE.RATCHET
10	532 13 20-04	1	HEX.NUT.1/4-20 NYLON LOCKING
11	532 43 76-26	1	PLENUM
15	532 43 73-18	5	CARRIAGE.BOLT
16	532 43 76-55	1	CHUTE
17	532 19 19-38	1	HANDLE.KNOB
18	532 43 76-43	1	DEFLECTOR.CHUTE
19	819 13 13-16	3	WASHER
20	819 13 20-16	1	WASHER.RATCHET.PAWL
21	532 42 88-67	1	BOLT

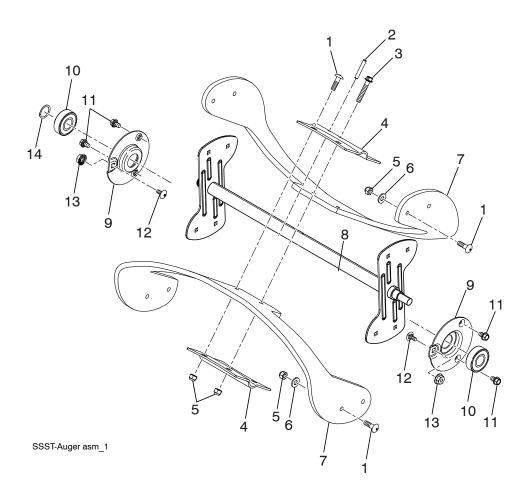
## REPAIR PARTS SNOW THROWER - - MODEL NUMBER MC621ES (96182000600) HANDLE ASSEMBLY



SSST-Handle asm 1

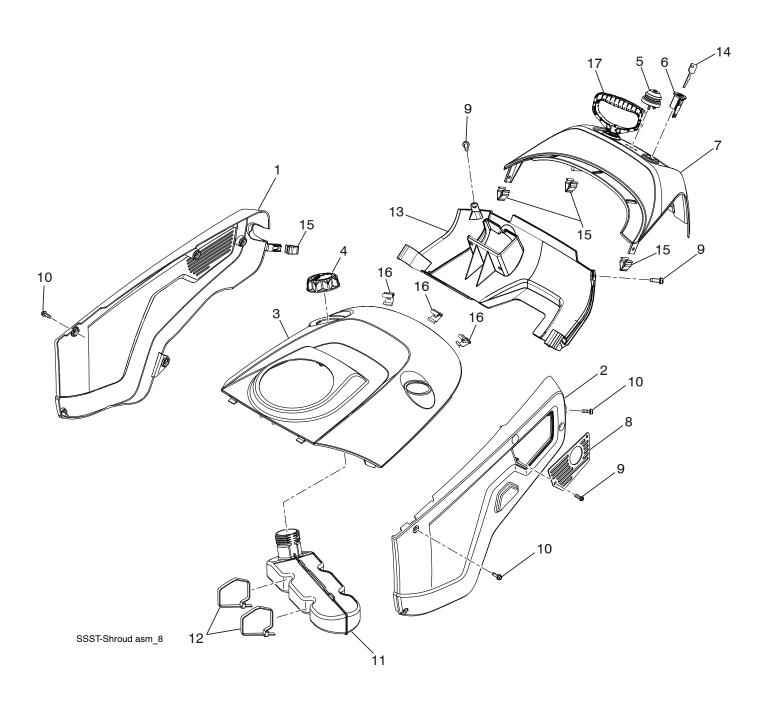
KEY NO.	PART NO.	QTY	DESCRIPTION
110.		α	22001111 11011
1	532 43 76-67	1	BAIL.HANDLE.PAINT.MS431
2	532 43 76-64	1	HANDLE.PNT.UPPER.SSST
3	532 43 48-06	1	CONTROL.CABLE
4	532 19 19-38	2	KNOB.HANDLE.BLACK
5	532 19 15-74	2	BOLT.HANDLE.BLACK PATCHED
6	532 14 50-06	1	CLIP.PUSH-IN.HINGED

## REPAIR PARTS SNOW THROWER -- MODEL NUMBER MC621ES (96182000600) AUGER ASSEMBLY



<b>KEY</b>	PART		
NO.	NO.	QTY	DESCRIPTION
1	872 11 04-07	12	BOLT.CARRIAGE
2	532 43 76-20	1	PIN.ROLL.3/16 X 1-1/4
3	532 19 96-87	1	BOLT.1/4-20.1.50"
4	532 43 76-18	2	PLATE.CENTER.BLADE
5	532 13 20-04	13	HEX.NUT.1/4-20 NYLON LOCKING
6	819 09 10-16	8	WASHER 9/32 X 5/8 X 16 GA.
7	532 43 74-59	2	BLADE.AUGER
8	532 43 76-17	1	WELDMENT.AUGER.ASM
9	532 43 76-21	2	SUPPORT.BEARING.SSST.PNT
10	532 43 76-22	2	BEARING.BALL.MANDREL
11	817 60 04-06	4	SCREW.HEX.WASHEAD.1/4-20 X 3/8
12	872 11 04-04	2	BOLT.CARR.SS.1/4-20 UNC X 1/2.GR5
13	873 68 04-00	2	WHIZ.LOCK.NUTS.BEARING CAPS
14	812 00 00-28	1	RETAINING.CLIP

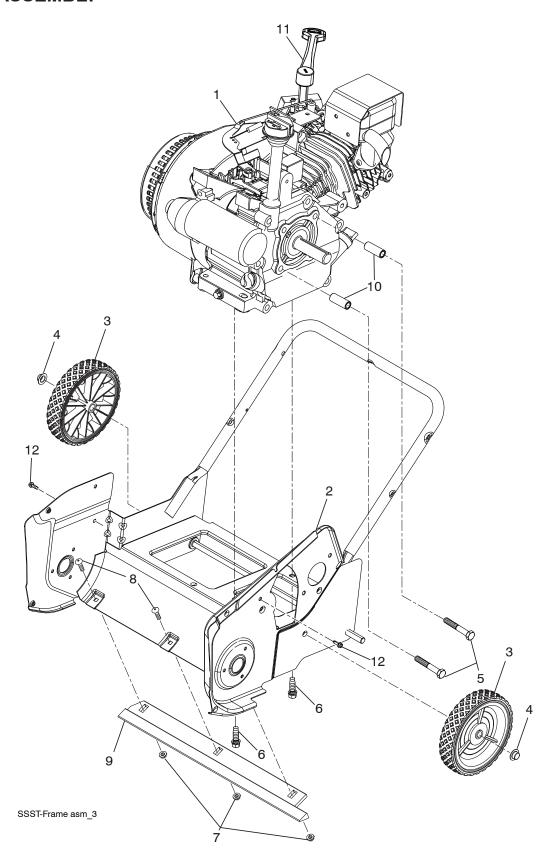
## REPAIR PARTS SNOW THROWER -- MODEL NUMBER MC621ES (96182000600) SHROUD ASSEMBLY



## REPAIR PARTS SNOW THROWER -- MODEL NUMBER MC621ES (96182000600) SHROUD ASSEMBLY

KEY NO.	PART NO.	QTY	DESCRIPTION
1	532 43 76-27	1	COVER.NON-DRIVE.SIDE.MS428
2	532 43 76-30	1	COVER.DRIVE.SIDE.MS428
3	532 43 76-34	1	TOP.COVER
4	532 43 02-20	1	CAP.ASM.FUEL.2.25"FR.N/CB.E10
5	532 43 62-35	1	BULB.PRIMER
6	532 43 54-07	1	KEY HOUSING
7	532 43 76-48	1	TOP.REAR.COVER
8	532 43 76-31	1	PLATE.EXHAUST.PNT.
9	817 41 13-12	4	SCREW
10	817 67 04-12	12	SCREW.HEXWSH.THDROL.1/4-20X3/4
11	532 43 48-80	1	TANK.FUEL.ASM
12	532 14 68-48	2	TIE.CABLE.24.5X.29.NYLON.WHITE
13	532 43 76-58	1	COVER.REAR.LOWER
14	532 43 54-09	2	KEY
15	532 43 48-68	3	CLIP
16	532 43 62-76	1	HANDLE.STARTER
17	532 19 66-88	4	CLIPS

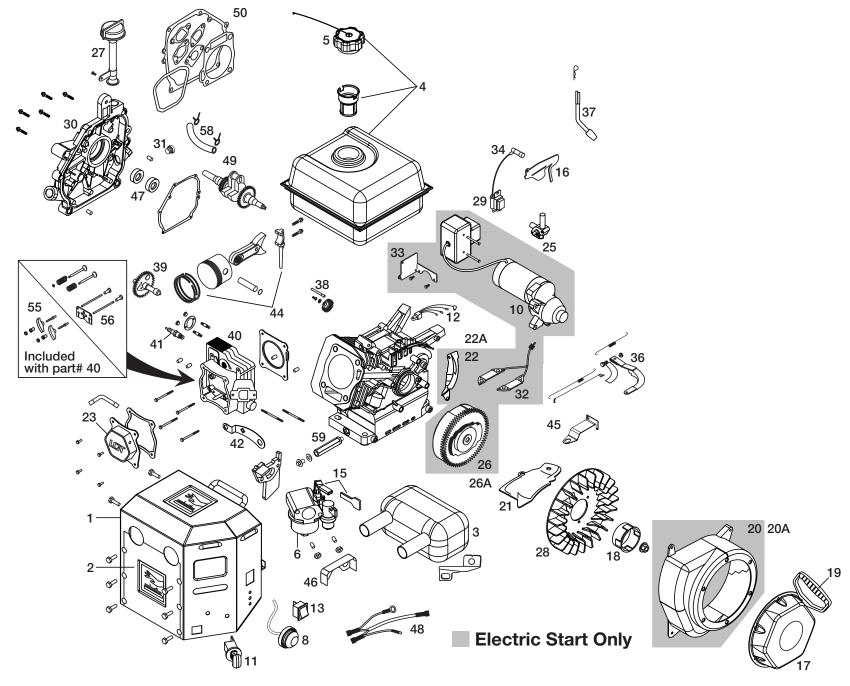
## REPAIR PARTS SNOW THROWER - - MODEL NUMBER MC621ES (96182000600) FRAME ASSEMBLY



**NOTE:** All component dimensions given in U.S. inches. 1 inch = 25.4 mm **IMPORTANT:** Use only Original Equipment Manufacturer (O.E.M.) replacement parts. Failure to do so could be hazardous, damage your snow thrower and void your warranty.

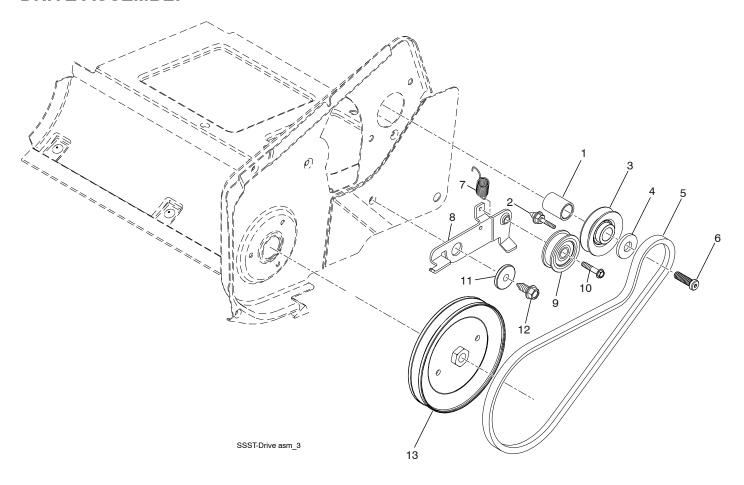
## REPAIR PARTS SNOW THROWER -- MODEL NUMBER MC621ES (96182000600) FRAME ASSEMBLY

KEY NO.	PART NO.	QTY	DESCRIPTION
1	532 43 55-01	1	LCT.ENGINE
2	532 43 76-06	1	FRAME.WELDMENT
3	532 43 76-62	2	WHEEL.8X1.5.BRICK.GS.3SPK.MS421
4	532 43 54-17	2	NUT.PUSH.AXLE.0.5IN
5	532 43 55-78	2	SCREW. 5/16-24 X 2.00"HHCS
6	532 15 04-06	2	BOLT.ENG. 3/8-16 X 1.280
7	532 19 17-30	3	NUT.HEX.FLANGE.1/4-20.CTR.LOCK
8	872 14 04-05	3	BOLT.RDHD.SQNK.1/4-20 UNC X 5/8
9	532 43 55-35	1	PLATE.SCRAPER
10	532 43 48-57	2	SPACER.ENGINE
11	532 43 48-74	1	LEVER.CHOKE
12	817 41 13-12	2	HEX.BOLT



DECEDENCE "	208cc SERVICE KIT BREAKDOWN	DART "		
REFERENCE #		PART # 532424932		
1 2	HEATER BOX ASSY			
3	SHIELD, HEATER BOX SNOW MUFFLER ASSY			
4	SNOW FUEL TANK ASSY			
5	OVERSIZED FUEL TANK CAP (CLICK STYLE)			
6	SNOW CARBURETOR ASSY (INCLUDES BRACKET, SPACER, AND NUTS)			
7	SNOW CHOKE LEVER, CARBURETOR (NOT SHOWN)			
8	FUEL PRIMER BULB WITH HOSE			
10	ELECTRIC STARTER ASSY			
11	KEY SWITCH ASSY			
12	CDI BOX			
13	ON/OFF SWITCH			
15 16	PLASTIC THROTTLE/CHOKE HANDLE (RED)			
17	GOVERNOR LINKAGE SHIELD PLATE SNOW RECOIL STARTER ASSY (HEX STYLE - BLACK & INCLUDES SCREWS)			
18	STARTER CUP SMALL			
19	SNOW STARTER GRIP			
20	BLOWER HOUSING ASSEMBLY ELECTRIC START - SNOW (BLACK & INCLUDES SCREWS)			
20A	BLOWER HOUSING ASSEMBLY ELECTRIC START - SNOW (BLACK)	532429230		
21	SHIELD, CYLINDER			
22	SHIELD, FLYWHEEL	532424975		
22A	SHIELD, FLYWHEEL - MANUAL START	532429596		
23	VALVE COVER (INCLUDES SCREWS)	532420580		
25 26	FUEL PETCOCK   ELECTRIC START FLYWHEEL ASSY	532429597 532424235		
26A	MANUAL START FLYWHEEL ASSY	532424235		
27	HIGH OIL FILL TUBE ASSY	532424969		
28	FLYWHEEL FAN	532420586		
29	IGNITION COIL ASSY	532420595		
30	CRANKCASE COVER ASSY (INCLUDES SCREWS)	532420606		
31	NON REMOVABLE PLUG	532429598		
32	CHARGING COIL DC	532424959 532429244		
33	ELECTRIC STARTER BRACKET			
34	SPARK PLUG BOOT	532429246		
36	GOVERNOR ARM ASSY	532420601		
37 38	GOVERNOR SHAFT GOVERNOR GEAR ASSY	532420602 532429251		
38A	THROTTLE CONTROL ASM (NOT SHOWN)	532429251		
39	CAMSHAFT	532420584		
40	CYLINDER HEAD ASSY (INCLUDES SCREWS)	532420578		
41	SPARK PLUG	532424939		
42	CDI BOX BRACKET	532424936		
44	PISTON AND ROD ASSY	532420582		
45	SPEED CONTROL BRACKET	532429259		
46	VAPOR SHIELD	532429260		
47	SEAL KIT	532429599		
48 49	WIRE HARNESS CRANKSHAFT	532429262 532429263		
50	GASKET KIT	532429601		
54	208CC SHORT BLOCK	532429647		
55	ROCKER ARM KIT	532429691		
56	PUSH ROD KIT	532420579		
58	FUEL HOSE KIT	532432144		
59	EXTENDED OIL DRAIN TUBE	532432686		
	CYLINDER SERVICE KIT	532424970		
	CARB STUDS & COUPLINGS KIT (NOT SHOWN)	532424951		
	208CC COMPLETE ENGINE	532428594		
	REWIND DECAL	532428713		
	HUSQVARNA CROWN DECAL AIR FILTER ASSY PAPER - CALIFORNIA	532428676 532432714		
	FILTER ELEMENT. PANEL PAPER	532432714		
	50 STATE HUSQ MUFFLER KIT	532432715		
	CALIFORNIA TANK SERVICE KIT	532432717		
	CARBON CANISTER	532432718		
	CALIFORNIA FUEL TANK CAP SERVICE KIT	532432719		
	OIL DRAIN TUBE	532432686		
	OIL PLUG	532435495		
	FUEL PETCOCK	532429597		
	NON REMOVABLE PLUG	532429598		
	ENGINE BOLT KIT	532432689		
	RECOIL BOLT KIT	532432688		

## REPAIR PARTS SNOW THROWER - - MODEL NUMBER MC621ES (96182000600) DRIVE ASSEMBLY



KEY NO.	PART NO.	QTY	DESCRIPTION
1	532 43 48-60	1	SPACER.ENGINE.CRANK
2	532 43 45-02	1	KEEPER.ENGINE.BELT
3	532 42 64-90	1	PULLEY.ENG.TRACTION.3/4
4	532 85 10-74	1	WASHER.HARDEN
5	532 43 72-61	1	BELT-V.TRACTION
6	532 43 08-17	1	SCREW.CAP.SCHD.3/8-24 X 1.25
7	532 43 48-59	1	SPRING.IDLER.PULLEY.RETURN
8	532 43 76-09	1	ARM.IDLER.PNT.MS431
9	532 16 60-43	1	PULLEY.IDLER.BACKSIDE
10	817 06 06-20	1	SCREW.HXWH.THDRL.1/4-20X1-1/4
11	532 19 90-92	1	SPACER.RETAINER
12	817 06 06-20	1	SCREW.3/8-16X1.SMGML.TAP/R.BLK
13	532 43 53-83	1	PULLEY.DRIVEN
	532 43 64-40	1	OWNER'S.MANUAL.ENGLISH/FRENCH

## **SERVICE NOTES**

#### LIMITED WARRANTY

The Manufacturer warrants to the original consumer purchaser that this product as manufactured is free from defects in materials and workmanship. For a period of two (2) years from date of purchase by the original consumer purchaser, we will repair or replace, at our option, without charge for parts or labor incurred in replacing parts, any part which we find to be defective due to materials or workmanship. This Warranty is subject to the following limitations and exclusions.

- This warranty does not apply to the engine, transaxle/transmission components, battery (except as noted below) or components parts thereof. Please refer to the applicable manufacturer's warranty on these items.
- Transportation charges for the movement of any power equipment unit or attachment are the responsibility of the purchaser. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by the manufacturer.
- 3. Battery Warranty: On products equipped with a Battery, we will replace, without charge to you, any battery which we find to be defective in manufacture, during the first ninety (90) days of ownership. After ninety (90) days, we will exchange the Battery, charging you 1/12 of the price of a new Battery for each full month from the date of the original sale. Battery must be maintained in accordance with the instructions furnished.
- 4. The Warranty period for any products used for rental or commercial purposes is limited to 90 days from the date of original purchase.
- 5. This Warranty applies only to products which have been properly assembled, adjusted, operated, and maintained in accordance with the instructions furnished. This Warranty does not apply to any product which has been subjected to alteration, misuse, abuse, improper assembly or installation, delivery damage, or to normal wear of the product.
- 6. Exclusions: Excluded from this Warranty are belts, blades, blade adapters, normal wear, normal adjustments, standard hardware and normal maintenance.
- 7. In the event you have a claim under this Warranty, you must return the product to an authorized service dealer.

Should you have any unanswered questions concerning this Warranty, please contact:

HOP Outdoor Products Customer Service Dept. 9335 Harris Corners Parkway Charlotte, NC 28269 USA In Canada contact: HOP 5855 Terry Fox Way Mississauga, Ontario L5V 3E4

giving the model number, serial number and date of purchase of your product and the name and address of the authorized dealer from whom it was purchased.

THIS WARRANTY DOES NOT APPLY TO INCIDENTAL OR CONSEQUENTIAL DAMAGES AND ANY IMPLIED WARRANTIES ARE LIMITED TO THE SAME TIME PERIODS STATED HEREIN FOR OUR EXPRESSED WARRANTIES. Some areas do not allow the limitation of consequential damages or limitations of how long an implied Warranty may last, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from locale to locale.

This is a limited Warranty within the meaning of that term as defined in the Magnuson-Moss Act of 1975.



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