

# OWNER'S MANUAL Model Number 700400



# Berco Northeast Two Stage 48" Snowblower for TRACTORS WITH 2000 R.P.M. P.T.O. DRIVE

\* ASSEMBLY

\* REPAIR PARTS

\* OPERATION

\* MAINTENANCE

## **CAUTION:**

READ & FOLLOW ALL SAFETY RULES & INSTRUCTIONS BEFORE OPERATING YOUR EQUIPMENT

104410 G-11

#### LIMITED WARRANTY

#### **Conditions and Products Covered:**

BERCOMAC guarantees any part of the product or accessory manufactured by BERCOMAC and found in the reasonable judgment of BERCOMAC to be defective in material and or workmanship will be repaired or replaced by an authorized dealer without charge up to our maximum labor rates and preestablished times. For replacement parts only standard ground freight services are covered. This warranty extends to the original retail purchaser only and is not transferable to any subsequent purchasers.

#### **Warranty Period**

(from date of the original retail purchase):

• Residential use: 1 year

• Commercial or rental use: 90 days

**Exceptions Noted Below:** the following items are guaranteed by the original manufacturer and have their own warranty, conditions and limited time.

• Tire Chains: 90 days

• Engines (supplied with BERCOMAC equipment): 2 years

Please refer to the engine manufacturer's warranty statement included with the unit. BERCOMAC is not authorized to handle warranty adjustments on engines.

#### Items and Conditions NOT Covered:

This warranty does not cover the following:

- Pick-up or delivery charges or in-home services fees.
- Any damage or deterioration of the unit, parts and or finish of these due to normal use, wear and tear, or exposure.
- Cost of regular use or maintenance service or parts, such as gas, oil, lubricants, tune-up parts, and adjustments.
- Any part or accessory which has been altered, modified, misused, neglected, accidentally damaged or not properly installed, maintained, stored or repaired not in accordance with the instructions in the owner's manual.
- Repair due to normal wear and or any wear items such as shear pins, bolts, belts, etc.
- Expedited freight fee services for replacement parts.
- Shear bolts and shear pins are to be considered as a preventive measure not as an assured protection, any damages resulting from the lack of shear bolts breakage are not covered.

NOTE: All warranty work must be performed by an authorized dealer using original (manufacturer) replacement parts.

#### Owner's Responsibilities:

BERCOMAC's defective equipment or part must be returned to an authorized dealer within the warranty period for repairs. In the event that defective merchandise must be returned to manufacturer for repairs, freight fees are prepaid and a written authorization from BERCOMAC must be obtained by dealer prior to the shipment. This warranty extends only to equipment operated under normal conditions. To validate a warranty claim, it is the user's responsibility to maintain and service the unit as specified in the owner's manual at their expense.

#### **General Conditions:**

The sole liability of BERCOMAC with respect to this warranty shall be strictly and exclusively repair and replacement as mentioned herein. BERCOMAC shall not have any liability for any other costs, loss or damage, including but not limited to, any incidental or consequential loss or damage.

In particular, without being limited to, BERCOMAC shall have no liability or responsibility for:

- Travel time, overtime, after hours time or other extraordinary repair charges or relating to repairs and or replacements outside of normal business hours.
- Rental of like or similar replacement equipment during the period of any, repair or replacement work.
- Any communicating or travel charges.
- Loss or damage to person or property other than that covered by the terms of this warranty.
- Any claims for lost revenue, lost profit or any similar costs as a result of damage or repair.
- Attorney's fees.

BERCOMAC's responsibility in respect to claims is limited to making the required repairs or replacement without charge up to our maximum labor rates and pre-established times and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any product or accessory.

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

**Note:** Bercomac reserves the right to change or improve the design of any part or accessory without assuming any obligation to modify any product previously manufactured.

#### Instructions for Obtaining Warranty Services:

Contact dealer where equipment was purchased or any other BERCOMAC Service Dealer to arrange service at their dealership. To locate a dealer convenient to you, access our website at <a href="https://www.bercomac.com">www.bercomac.com</a>.

Bring the product and your proof of purchase (sales receipt) to the BERCOMAC dealer.

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#### INTRODUCTION

#### **TO THE PURCHASER**

This new attachment was carefully designed to give years of dependable service. This manual has been provided to assist in the safe operation and servicing of your attachment.

**NOTE:** All photographs and illustrations in the manual may not necessarily depict the actual models or attachment, but are intended for reference only and are based on the latest product information available at the time of publication.

Familiarize yourself fully with the safety recommendations and operating procedures before putting the machine to use. Carefully read, understand and follow these recommendations and insist that they be followed by those who will use this attachment.



THIS SAFETY ALERT SYMBOL IDENTIFIES AN IMPORTANT SAFETY MESSAGE IN THIS MANUAL THAT HELPS YOU AND OTHERS AVOID PERSONAL INJURY OR EVEN DEATH. DANGER, WARNING, AND CAUTION ARE SIGNAL WORDS USED TO IDENTIFY THE LEVEL OF HAZARD. HOWEVER, REGARDLESS OF THE HAZARD, BE EXTREMELY CAREFUL.

DANGER: Signals an extreme hazard that will cause serious injury or death if recommended precautions are

not followed.

WARNING: Signals a hazard that may cause serious injury or death if the recommended precautions are not

followed.

CAUTION: Signals a hazard that may cause minor or moderate injury if the recommended precautions are not

followed.

Record your attachment serial number and purchase date in the section reserved below. Your dealer requires this information to give you prompt, efficient service when ordering replacement parts. Use only genuine parts when replacements are required.

If warranty repairs are required please present this registration booklet and original sales invoice to your selling dealer for warranty service.

This manual should be kept for future reference.

Please check if you have received all the parts for your kit with the list of the bag and the list of the box.

SERIAL NUMBER :	
PURCHASE DATE :	

In this manual, right and left sides are determined by sitting on the tractor seat facing forward.

#### **SAFETY PRECAUTIONS**

Careful operation is your best insurance against an accident. Read this section carefully before operating the tractor and snowblower. This snowblower is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury. All operators, no matter how experienced they may be, should read this and other manuals related to the tractor and snowblower before operating. It is the owner's legal obligation to instruct all operators in safe operation of the snowblower.

#### **TRAINING**



This symbol, "Safety Alert Symbol", is used throughout this manual and on the snowblower's safety labels to warn of the possibility of serious injuries. Please take special care in reading and understanding the safety precautions before operating the snowblower or the tractor.

- Read this owner's manual carefully. Be thoroughly familiar with the controls and proper use of the tractor and snowblower. Know how to stop the unit and disengage the controls quickly.
- 2. Never allow children to operate snowblower nor the tractor. Never allow adults to operate snowblower nor the tractor without proper instructions.
- 3. No one should operate the tractor nor the snowblower while intoxicated or while taking medication that impairs the senses or reactions.
- 4. Keep the area of operation clear of all persons, particularly small children and pets.

#### **PREPARATION**

- 1. Thoroughly inspect the area where the snowblower is to be used and remove door mats, all foreign objects and the like.
- 2. Disengage all clutches and shift into neutral before starting engine.
- Do not operate the snowblower without wearing adequate winter outer 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 approved fuel container.
  - b) Never add fuel to a running engine or hot engine.
  - c) Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
  - d) Never fill containers inside a vehicle, or on a truck or a 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 refuelling is complete. Do not use a nozzle lockopen device.
- g) Replace fuel cap securely and wipe up spilled fuel.
- h) If fuel is spilled on clothing, change clothing immediately.
- Adjust the height of the snowblower to clear gravel or crushed rock surface. This is done by adjusting the skid shoes.
- 6. Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).
- Let engine (motor), tractor and snowblower adjust to outdoor temperatures before starting to clear snow.
- 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 snowblower.
- Never modify the snowblower or any part without the written consent from the manufacturer.

#### **OPERATION**

- 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 wire from the spark plug(s) and keep wire away to prevent accidental starting. Thoroughly inspect the snowblower for any damage and repair damage before restarting and operating the snowblower.

#### SAFETY PRECAUTIONS

- 4. If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
- 5. Stop the engine (motor) whenever you leave the operating position, before unclogging the impeller/collector housing or discharge chute, and when making repairs, adjustments or inspections.
- 6. Take all possible precautions when leaving the machine unattended. Disengage the power take-off, lower the attachment, set the parking brake, shut the engine off and remove the key.
- 7. When cleaning, unclogging, repairing or inspecting the snowblower & tractor, make certain the collector/impeller and all moving parts have stopped. Disconnect wire from the spark plug(s) and keep wire away to prevent accidental starting.
- 8. Do not run the engine indoors, except when starting the engine and for transporting the snowblower in or out of the building. Do not operate or let motor run in a storage area without ventilation because gas contains carbon monoxide which is odourless, colorless and can cause death.
- Do not clear snow across the face of slopes; go up and down. Exercise extreme caution when operating on slopes. Do not attempt to clear steep slopes.
- 10. Never operate the snowblower without proper guards, plates, or other safety protective devices in place.
- 11. Never direct discharge at bystanders or operate the snowblower near glass enclosures, automobiles, window wells, drop-offs, and the like without proper adjustment of the snow discharge angle. Never allow anyone including children and pets in the clearance area.
- 12. Do not overload the machine capacity by attempting to clear snow at too fast a rate. Let the snowblower ingest snow at its own rate.
- 13. Never operate the snowblower at high transport speeds on slippery surfaces. Look behind and use care when backing.
- 14. Do not carry passengers.
- 15. Disengage power to the collector /impeller to stop all rotating parts when the snowblower is transported or not in use.

- 16. Use only accessories approved by the manufacturer of the snowblower (such as wheel chains, counterweights, cabs). You must use 100 lbs. of rear counterweight for better traction and a greater stability at all times when using a snowblower that is installed on the front of a tractor.
- 17. Never operate the snowblower without good visibility or light.

#### **CLEARING A CLOGGED DISCHARGE CHUTE:**

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

#### To clear the chute:

- Lower snowblower to the ground and set parking brake.
- 2. SHUT THE ENGINE OFF & REMOVE KEY!
- 3. Wait 10 seconds to be sure the **all moving parts** such as the impeller blades have stopped moving.
- 4. Disconnect wire from the spark plug(s) and keep wire away to prevent accidental starting.
- 5. Always use a clean-out tool of at least 36" in length, NOT YOUR HANDS.

#### **MAINTENANCE AND STORAGE**

- Check shear bolts, engine mounting bolts, and other bolts at frequent intervals for proper tightness to be sure the snowblower 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 and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
- 3. Always refer to the owner's manual when you store the snowblower for an extended period.
- 4. Maintain or replace safety and instruction labels, as necessary.
- Run the snowblower a few minutes after throwing snow to prevent freeze-up of the rotating parts such as collector/impeller.

#### WHENEVER YOU SEE THIS SYMBOL



IT MEANS:
WARNING!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!

#### SAFETY DECALS

#### REPLACE IF DECALS ARE DAMAGED SEE PARTS BREAKDOWN FOR DECAL LOCATION



WARNING TO AVOID PERSONAL INJURY: READ AND FOLLOW ALL INSTRUCTIONS AND SAFETY PRECAUTIONS IN OWNER'S MANUAL. REAR COUNTERWEIGHT MIN. 50 LBS. IS REQUIRED TO COUNTER-BALANCE SNOWBLOWER WEIGHT. APPROVED TIRE CHAINS ARE REQUIRED. WHEN DISMOUNTING SNOWBLOWER, REMOVE REAR COUNTERWEIGHT.
 DO NOT OPERATE ON SLOPES GREATER THAN 10°. A AVERTISSEMENT

POUR ÉVITER DES BLESSURES: LIRE LE MANUEL DU PROPRIÉTAIRE ET SUIVRE LES INSTRUCTIONS D'OPÉRATION ET DE SÉCURITÉ. UN CONTREDOIDS ARRIÈRES D'LB MIN. EST REQUIS POUR CONTREBALANCER LE POIDS DE LA SOUFFLEUSE.

DES CHÂNIES À PNEUS APPROUVÉES SONT

REQUISES. LORS DU DÉMONTAGE, ENLEVER LE CONTREPOIDS

RE PAS OPÉRER DANS UNE PENTE DE PLUS DE 10°.

WARNING

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EBRIS. ICHARGE AT OTHERS. RATOR'S MANUAL FOR OPERATING AND ETY INSTRUCTIONS
P SAFETY DEVICES (SUCH AS GUARDS AND TCHES) IN PLACE AND WORKING.

#### A AVERTISSEMENT

A VIS SANS FIN ET L'ÉVENTAIL PEUVENT COUPER OU ENLEVER DES PARTIES DU CORPS ET PROJETER LES

TS. TER LE MOTEUR ET ENLEVER LA CLÉ D'IGNITION : AJUSTER, ENTRETENIR, DÉBOUCHER OU VER DES DÉBRIS. MAIS SOUFFLER LA NEIGE EN DIRECTION DES

NES.

LE MANUEL DU PROPRIÉTAIRE ET SUIVRE LES
TRUCTIONS D'OPÉRATION ET DE SÉCURITÉ.
ROER LES ÉCRANS PROTECTEURS (TELS QUE
LOES ET INTERRUPTEURS) EN PLACE ET EN ÉTAT DE
ICTIONNEMENT.

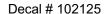
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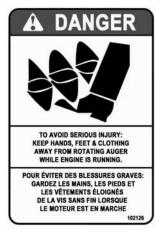
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# WARNING TO AVOID PERSONAL INJURY: READ AND FOLLOW ALL INSTRUCTIONS AND SAFETY PRECAUTIONS OF COMMERS MANUAL, KEEP HANDE, FEET AND CLOTHNICA MANY FROM POWER DIVINEY AREA. ON COLUMN AND LINEAR STATES. THE CONTRACTOR, LOWER AND DESIGNATED AND SOME OFFER AND STATES. THE CONTRACT OF COMMERCE AND THE CONTRACT OF COMMERCE AND THE CONTRACT OF THE CONTRACT ON THE CONTRACT OF THE CONTRACT OF THE CONTRACT OF THE CONTRACT ON THE CONTRACT OF THE CONTRACT OF THE CONTRACT OF THE CONTRACT ON THE CONTRACT OF THE CONTRACT OF THE CONTRACT ON **A** ATTENTION THE VITER DES BLESSURES LIBEL BAMBUL DEPONDREMENT ET SUBVILLES METHICHORIS DOPORTATION ET DE SECURIFI. GARDIZ LIS BAMB, PUBGET VITERISER EL GLORISE BATHLICHORIS DOPORTATION ET DE SECURIFI. ANAM TO LIGHTEN VOIDE I REACTUR, DEBANYZ ET ANABSEZ LA SORPITUE, RAPINGELE FREIN DE ET ANABSEZ LA SORPITUE, RAPINGELE FREIN DE ET ANABSEZ LA SORPITUE, BANGER DE ANAM TO CONTINUE IN PRICES ENGILES SONT AMÉTÉS AVANT DE RÉPARRE, TYAUSTER, GARDIET D'OTÉ PERSONNE, PARTICULIÈRISMENT LES GARDIET D'OTÉ PERSONNE, PARTICULIÈRISMENT LES ONTERNITÉS AVANT DE RÉPARRE, TYAUSTER, GARDIET D'OTÉ PERSONNE, PARTICULIÈRISMENT LES OPPORTANCIA. Z TOUS LES ÉCRANS PROTECTEURS EN PLACE











Decal # 102127

Decal # 103951

IMPORTANT

#### STEP 1

#### **CHUTE INSTALLATION:**

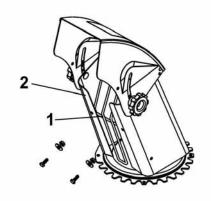
Refer to parts breakdown section for parts identification.

IMPORTANT: TORQUE ALL BOLTS ACCORDING TO TORQUE SPECIFICATION TABLE (SEE TABLE OF CONTENTS), WHEN STATED: TIGHTEN FIRMLY.

Install the hand guard (item 1) in the chute (item 2) as shown.

Secure in place with two 1/4 x 3/4" hex bolts, two flat washers and two 1/4" flange nuts on the inside.

Tighten firmly.



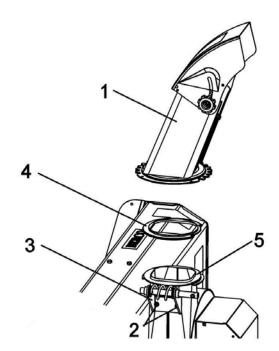
Install hand guard

Before installing the chute (item 1), loosen the two flange nuts (item 2) (down to the last threads) which holds the rotation system (item 3).

Install the rotation ring (item 4) over opening (item 5) as shown and align the notches.

Place the chute (item 1) (facing the rear) and clip the back over the rotation ring then turn the chute towards the front to lock into place.

Reinstall the rotation system by tightening the flange nuts firmly.



Install chute

# STEP 2 SNOWBLOWER PREPARATION:

Remove the driveline guard (item 1) by removing the two 5/16" x 3/4" hex bolts (item 2) and lock washers (item 3).

Install the guard extension (item 10) as described in the owner's manual for the half driveline kit or for the subframe.

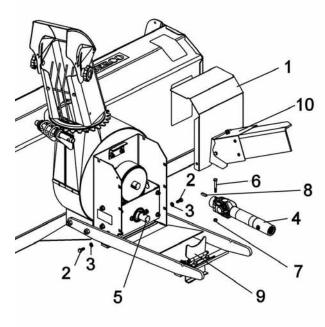
Install the driveline (item 4) on the snowblower input shaft (item 5) with a hex. bolt 1/4" n.c. x 2" (item 6), nylon insert lock nut (item 7) and key 1/4" x 1/4" x 1" (item 8).

Tighten the bolt and set screw very firmly.

Flip the P.T.O. support (item 9) upward as shown. This support helps hold the driveline and snowblower to facilitate installation on the frame.

Put back the driveline guard (item 1) in place.

Tighten the 5/16" x 3/4" hex. bolts (item 2) and lock washers (item 3) firmly.



Install the driveline

#### STEP 3

#### **SNOWBLOWER INSTALLATION:**

Refer to parts breakdown section for parts identification.



#### **WARNING**



#### TO PREVENT INJURIES:

Stop the motor.

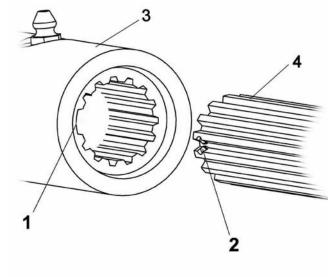
Apply parking brake.

Remove the ignition key.

Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.

Install driveline section (item 4) into the snowblower's driveline (item 3) by aligning the stamped marks (item 2) (located between the splines at the end of the shaft) with the large groove (item 1) in the hollow tube on the snowblower's section.

Only one position allows the sections to be inserted one into the other.



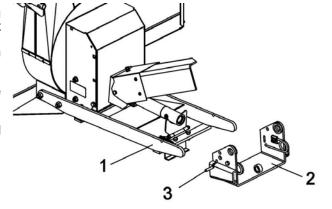
Install the driveline section

Attach the snowblower to the subframe by inserting the snowblower's male hitch (item 1) into the pivot support (item 2).

Make sure the male hitch is entered to its maximum and locked in place by the springs (item 3).

Connect the rotary driveline to the tractor P.T.O. spline shaft.

Make sure the driveline yoke is securely attached to the tractor P.T.O.

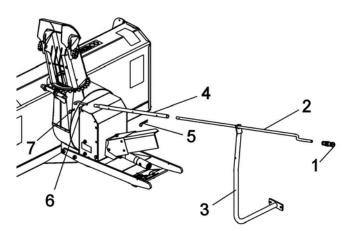


Install 1/2 x 3" handgrip (item 1) on the handle (item 2)

Insert the handle through the grommet in the rotation support (item 3).

Install the handle extension (item 4) (included with the subframe) in the rotation handle with a 2.5 mm hair pin (item 5).

Install the handle hook (item 6) on the rotation worm. Insert hook into the handle and lock in place with a 2.5 mm hair pin (item 7).



Install handle



#### **DANGER**



ROTATING DRIVELINE Contact can cause death. KEEP AWAY

Do not operate without:

All driveline, tractor & equipment shields in place.

Driveline securely attached at both ends.

#### **VERIFY SKID SHOE ADJUSTMENT:**

<u>LEVEL PAVED SURFACE:</u> Adjust skid shoes to allow 3/16" to 1/4" clearance (A) between cutting edge and surface.

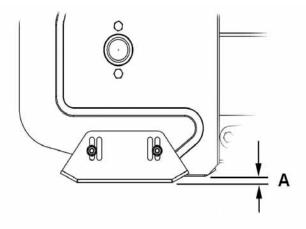
<u>UNEVEN OR GRAVEL SURFACE:</u> Adjust skid shoes to allow 1/2" to 5/8" clearance (A) between cutting edge and surface.

#### **VERIFY TIRE PRESSURE:**

Check and adjust tractor tire pressure as follows:

Front tires: 14-15 psi Back tires: 7-8 psi

Tire pressure must be even on both sides of tractor.



Adjust skid shoes



### **DANGER**



If the driveline is not completely covered, be sure a guard extension is installed.

Do not operate without driveline completely covered by the shield.

#### **OPERATION**

#### **SNOWBLOWER OPERATION**

- a) Make sure the snowblower is clear of snow before engaging the snowblower.
- b) Make sure that the auger and impeller operate freely.
- c) Start the tractor engine.
- d) Before engaging the snowblower drive, always have the engine running at medium R.P.M.
- e) Operate the snowblower at maximum engine R.P.M.

IMPORTANT: USE FULL ENGINE R.P.M. WHEN REMOVING WET OR STICKY SNOW. LOW R.P.M. WILL TEND TO PLUG THE CHUTE.

#### CONTROLS

#### **CHUTE ROTATION**

The chute rotation handle is located to the left of steering wheel. Turning the handle in a clockwise direction, the discharge chute will turn in a clockwise direction or vice versa.

#### CHUTE DEFLECTOR

Set the angle of the deflector according to the distance the snow must be thrown and to prevent property damage. To change the deflector angle, loosen the two deflector knobs & adjust the deflector to the appropriate angle and retighten the two knobs securely.

#### **SNOW REMOVAL**

When removing snow, do not use the snowblower as a dozer blade to push snow. Allow snowblower to ingest snow at its own speed. If the speed of your tractor is too fast, the snowblower may become overloaded and plug. For best results, raise the snowblower and remove a top layer of snow. A second pass with the snowblower will remove the remaining snow.

#### **IMPORTANT:**

Use full engine R.P.M. when removing wet, sticky snow. Low R.P.M. power will tend to plug the chute.



#### **WARNING**



- -Do not attempt to clear plugged chute, auger or fan of snow while tractor engine is running.
- -Disengage snowblower.
- -Lower snowblower onto ground.
- -Set the parking brake.
- -Stop engine, remove the ignition key, disconnect the wire from spark plug(s) and keep away from spark plug(s) to prevent accidental starting.
- -Make sure all moving parts have stopped.
- -Do not use hand to unplug chute. Use a 36" (924 mm.) minimum length stick or board.



#### **WARNING**



Read the tractor Owner's Manual carefully. Be thoroughly familiar with the controls & proper use of the attachment. Know how to stop the attachment & disengage the controls quickly.



#### **WARNING**



# TO PREVENT INJURIES AND FOR MORE TRACTION WHEN USING AN ATTACHMENT:

- -Rear counterweight of 100 lbs. minimum is required to counterbalance the attachment's weight.
- -Tractor manufacturer approved tire chains are required.
- -Do not operate on a slope greater than 10°.
- -When dismounting the attachment remove rear counterweights.

#### **MAINTENANCE**



#### **WARNING**



#### TO PREVENT INJURIES:

Stop the motor.

Apply parking brake.

Remove the ignition key.

Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.

#### **MAINTENANCE**

- a) Check mounting bolts at frequent intervals for proper tightness in order to prevent costly repairs. Make sure your snowblower is in safe working condition.
- b) Provide adequate blocking before working under snowblower when in raised position.

#### **ADJUSTMENTS**

#### SKID SHOE ADJUSTMENT:

<u>Level Paved Surface</u>: Adjust skid shoes to obtain 3/16" to 1/4" clearance between cutting edge and surface.

<u>Uneven or Gravel Surface</u>: Adjust skid shoes to obtain 1/2" to 5/8" clearance between cutting edge and surface.

#### **LUBRICATION**

Apply oil at all pivot points.

#### Chute Rotation System:

Oil chute base, rotation worm when necessary.

#### Gear box:

Check the oil annually. If necessary, add AGMA 5 EP or SAE 90 oil.

The gear box should have a total of 155 ml of oil or filled to the rim of the bolt hole when installed on the snowblower.

Rotary driveline: Lubricate the rotary driveline joints every 8 hours of operation and the splines so that they slide easily into each other every 16 hours of operation.

#### **CUTTING EDGE MAINTENANCE**

Verify from time to time the wearing on the cutting edge to make sure you do not wear out the base of the snowblower's chassis. This cutting edge is reversible. All you have to do is unscrew the bolts and turn the cutting edge, reinstall and tighten the bolts securely.

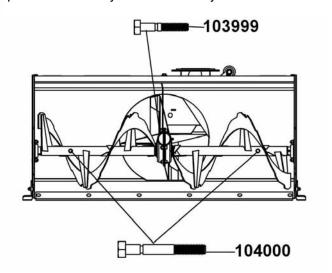
#### <u>AUGERS AND FAN SHEAR BOLT</u> REPLACEMENT

Shear bolts are to be considered a preventive measure and not an assured protection. Operator vigilance is required. Thoroughly inspect the areas where the snowblower is to be used and remove all foreign objects.

<u>To avoid damage to the snowblower:</u> Use only the original shear bolts (grooved bolts).

#104000 in bags of 10 for the augers. #103999 in bags of 10 for the fan.

The use of any other shear bolt will not insure any protection and may void the warranty.



#### **MAINTENANCE**

#### **BELT REPLACEMENT:**

Unscrew the two hex bolts 5/16" x 3/4" (item 1) and remove the driveline guard (item 2).

Remove the driveline (item 3).

Loosen the four flange nuts (item 4) (two on each side) from the reduction box and the two nylon insert lock nuts from the tension bar (item 5).

Remove the six flange nuts (item 6).

Remove the reduction plate (item 7).

Replace the belt.

#### IMPORTANT:

Make sure the notches of the belt are well inserted into the those of the pulley.

Reinstall by reversing the steps.



Remove driveline guard (item 2).

Loosen the four flange nuts (item 4) (two on each side) from the reduction box.

Use the two nylon insert lock nuts on the tension bar (item 5) to adjust tension.

Loosen the nuts to reduce tension on belt or tighten the nuts to apply tension.

**TIP:** There must be between 1/16" and 1/8" of deflection on one strand of the belt.

Retighten the flange nuts and reinstall the driveline guard.

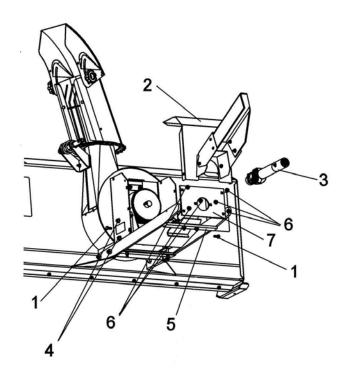




CONTACT WITH ROTATING DRIVELINE CAN CAUSE SEVERE INJURY OR DEATH.

Operate only when all driveline, tractor and equipment shields are in place.

Be sure driveline securely attached and locked at both ends before operating.



#### **END OF SEASON STORAGE**

- Clean snowblower and subframe thoroughly and repaint all parts from which paint has worn.
- b) List the replacement parts that will be needed for the next season.
- Store the snowblower and the subframe in a dry place.
- d) Follow the instructions in the Lubrication section.

#### **DISMOUNTING**

9

#### **SNOWBLOWER DISMOUNTING**

## 9 **WARNING**

**TO PREVENT INJURIES:** 

Stop the motor.

Apply parking brakes.

Remove the ignition key.

Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.

- a) Remove hair pin from handle tube and remove handle.
- b) Disconnect the driveline from tractor's P.T.O. by sliding back the collar on the yoke then pull the driveline out.
- c) Detach the snowblower by lifting up the spring locks on quick hitch and pulling back the snowblower.

#### SUBFRAME DISMOUNTING

See the subframe owner's manual for dismounting instructions.

# **TROUBLESHOOTING**

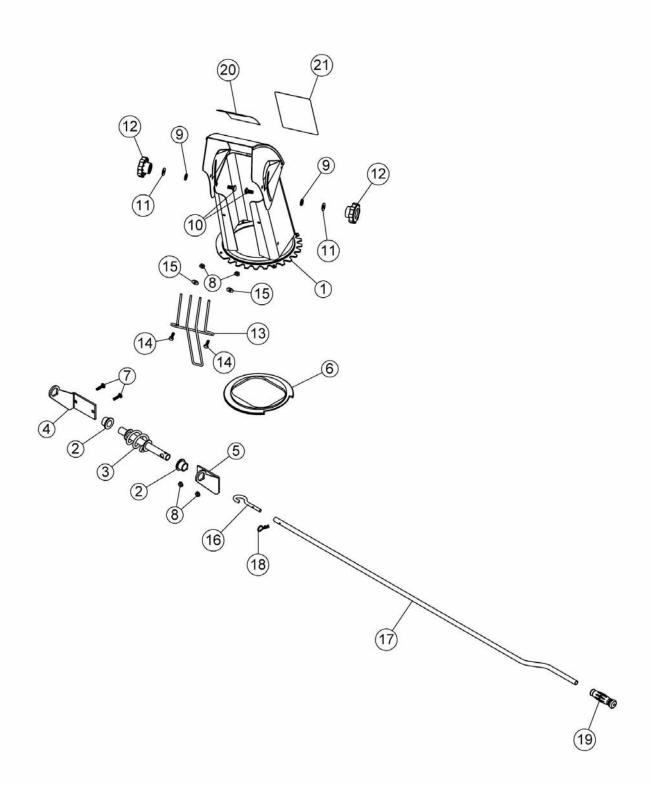
PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
Snowblower vibrates or is abnormally noisy.	Damaged bearing.	Replace bearing.
	Damaged fan.	Dismount & repair or replace fan.
	Auger bent.	Replace auger.
Auger stopped turning.	Shear bolt broken.	Replace shear bolt (for identification, see Parts List "Snowblower Head",). Also see "Maintenance" section.
Fan stopped turning.	Shear bolt broken or sheared.	Replace bolt (for identification, see Parts List "Snowblower Head", item 20). The head of the bolt must be closest to the snowblower.
Chute rotation is difficult.	Dirt or ice may be underneath chute.	Clean the base of chute & the rotation ring. Lubricate chute inside & out and the rotation worm. Clean parts, lubricate & reinstall. Make sure the retaining plates are not too tight on the chute base, it may be a reason why the chute is not turning freely.
	The base of the chute may be damaged or bent.	Dismount the chute by removing the retaining plates. Verify that the base of the chute is very even and not bent in a corner, if it is, straighten.

# **TROUBLESHOOTING**

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION		
The chute plugs easily.	Tractor engine R.P.M. is too slow.	Always have tractor engine at full R.P.M. when using the snowblower.		
	Advancing too quickly with snowblower.	Reduce speed. Allows snowblower to ingest snow at its own speed.		
Snowblower digs into ground.	Ground is not frozen or too soft.	Adjust skid shoes lower so they may better support the snowblower. If problem persists, change skid shoes for "Heavy Duty Skid Shoes" (option model #700243) which cover more surface and prevents snowblower from digging.		
Snowblower does not raise evenly.	Rear tire pressure uneven from one side to another.	Verify and adjust tire pressure: Front tires: 14 to 15 p.s.i. Rear tires: 7 to 8 p.s.i.		
	Maladjustment of the snowblower.	Loosen male hitch on snowblower (for identification, see Parts Breakdown "Snowblower Head", item 43). Place a shim (ex.: piece of wood approx. 2 thick) under the lower side of snowblower which needs to be levelled. Re-tighten bolts.		

# PARTS BREAKDOWN / NOMENCLATURE DES PIÈCES CHUTE WITH ROTATION SYSTEM / GOULOTTE AVEC SYSTÈME DE ROTATION #70

#700400



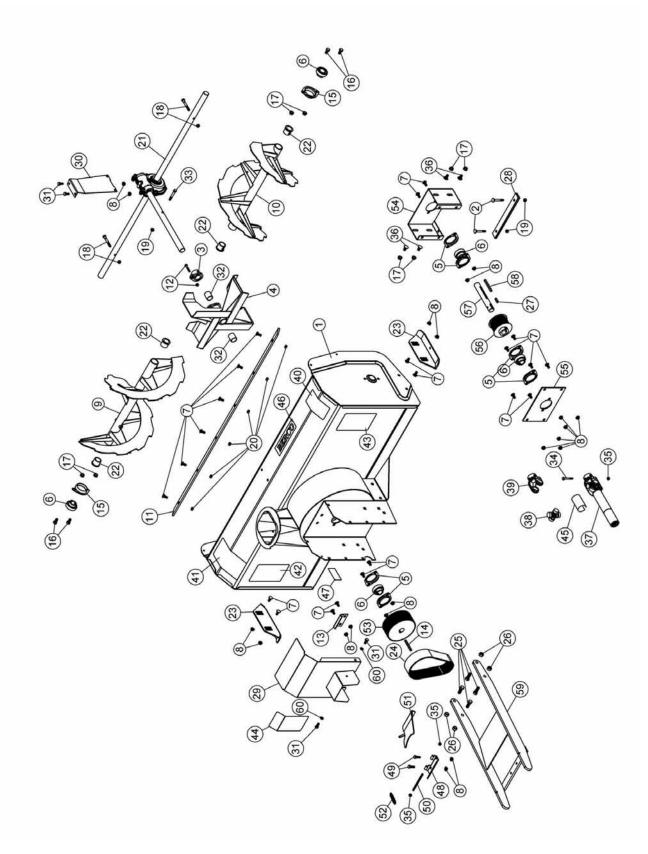
# PARTS LIST / LISTE DES PIÈCES

#700400

REF. RÉF.	DESCRIPTION	DESCRIPTION	QTY QTÉ	PART # PIÈCE #
1	Chute	Goulotte	1	103936
2	Rotation bushing	Coussinet de rotation	2	103945
3	Rotation worm	Spirale de rotation	1	102005
4	Worm support	Support spirale	1	103941
5	Worm support	Support spirale	1	103942
6	Rotation ring	Anneau de rotation	1	103943
7	Carriage bolt 1/4" n.c. x 1"	Boulon à carrosserie 1/4" n.c. x 1"	2	O/L
8	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	4	O/L
9	Nylon flat washer 7/16"	Rondelle plate de nylon 7/16"	2	102011
10	Carriage bolt 5/16" n.c. x 3/4"	Boulon à carrosserie 5/16" n.c. x 3/4"	2	O/L
11	Nylon flat washer 11/32"	Rondelle plate de nylon 11/32"	2	102009
12	Knob	Bouton	2	102020
13	Hand guard	Fourche protectrice	1	102012
14	Hex. bolt 1/4" n.c. x 3/4"	Boulon hex. 1/4" n.c. x 3/4"	2	O/L
15	Flat washer 5/16" hole	Rondelle plate 5/16" trou	2	O/L
16	Handle hook	Crochet de manivelle	1	102006
17	Handle	Manivelle	1	102061
18	Hair pin 2.5mm	Goupille à ressort 2.5mm	1	102013
19	Handgrip	Poignée	1	102062
20	Danger decal Décalque danger		1	102127
21	Warning decal	Décalque attention	1	102125

O/L = Obtain locally/obtenir localement

# PARTS BREAKDOWN / NOMENCLATURE DES PIÈCES SNOWBLOWER / SOUFFLEUSE #700400



# PARTS LIST / LISTE DES PIÈCES

#700400

REF. RÉF.	DESCRIPTION	DESCRIPTION	QTY QTÉ	PART # PIÈCE #
1	Frame 48"	Châssis 48"	1	103954
2	Carriage bolt 5/16" n.c. x 2 1/4"  Boulon à carrosserie 5/16" n.c. x 2 1/4"		2	O/L
3	Shear plate	Plaque de cisaillement	1	103933
4	Fan	Éventail	1	103932
5	Flangette	Flangette	6	102213
6	Bearing with set screw	Roulement à billes avec vis à pression	5	102755
7	Carriage bolt 5/16" n.c. x 3/4"	Boulon à carrosserie 5/16" n.c. x 3/4"	22	O/L
8	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	20	O/L
9	Auger 48" left	Vis 48" gauche	1	103955
10	Auger 48" right	Vis 48" droite	1	103956
11	Cutting edge 48"	Racloir 48"	1	103187
12	Shear bolt / N.I.L.N. (fan) pkg-10	Boulon de séc./ É.G.N. (éven.) pqt-10	1	103999
13	Driveline guard support	Support du garde de l'arbre à cardan	1	104214
14	Key 1/4" x 1/4" x 2 63"	Clé 1/4" x 1/4" x 2 63"	1	104448
15	Flangette	Flangette	2	102680
16	Hex. bolt 3/8" n.c. x 3/4"	Boulon hex. 3/8" n.c. x 3/4"	4	O/L
17	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	8	O/L
18	Shear bolt / N.I.L.N. (auger) pkg-10	Boulon de séc. / É.G.N. (vis) pqt-10	2	104000
19	Nylon insert lock nut 5/16" n.c.	Écrou à garniture de nylon 5/16" n.c.	3	O/L
20	Stover lock nut 5/16" n.c.	Écrou de blocage 5/16" n.c.	6	O/L
21	Gear box 48"	Boîte d'engrenage 48"	1	103948
22	Rotation bushing	Coussinet de rotation	4	103946
23	Skid shoe	Patin	2	103188
24	Timing belt 600-8MT-50	Courroie synchronisée 600-8MT-50	1	104492
25	Hex. bolt 7/16" n.c. x 1 1/4"	Boulon hex. 7/16" n.c. x 1 1/4"	4	O/L
26	Nylon insert lock nut 7/16" n.c.	Écrou à garniture de nylon 7/16" n.c.	4	O/L
27	Key 1/4" x 1/4" x 1.000"	Clé 1/4" x 1/4" x 1.000"	1	102017
28	Tension bar	Barre de tension	1	103995
29	Driveline guard	Garde de l'arbre à cardan	1	104394
30	Gear box support	Support de boîte d'engrenage	1	103940
31	Hex. bolt 5/16" n.c. x 3/4"	Boulon hex. 5/16" n.c. x 3/4"	4	O/L
32	Oil lite bushing	Coussinet imprégné d'huile	2	102784
33	Hex. bolt 5/16" n.c. x 2 1/4" GR8	Boulon hex. 5/16" n.c. x 2 1/4" GR8	1	O/L
34	Hex. bolt 1/4" n.c. x 2"	Boulon hex. 1/4" n.c. x 2"	1	O/L
35	Nylon insert lock nut 1/4" n.c.	Écrou a garniture de nylon 1/4" n.c.	3	O/L

# PARTS LIST / LISTE DES PIÈCES

#700400

REF. RÉF.	DESCRIPTION	DESCRIPTION	QTY QTÉ	PART # PIÈCE #	
36	Carriage bolt 3/8" n.c. x 3/4"	Boulon à carrosserie 3/8" n.c. x 3/4"	4	O/L	
37	Half teles. driveline w/set screw	veline w/set screw Demi arbre à cardan a/vis à pression			
38	Universal Joint Kit	Joint universel	1	102928	
39	Yoke 1" dia	Fourche 1" dia	1	102929	
40	Danger decal	Décalque danger	1	102126	
41	Warning decal	Décalque attention	1	104243	
42	Shear bolt decal	Décalque boulon de sécurité	1	103951	
43	Warning	Attention	1	104245	
44	Danger decal	Décalque danger	1	102190	
45	Decal PTO	Décalque PDF	1	102113	
46	Berco decal	Décalque Berco	1	102471	
47	Serial number	Numéro de série	1	REF	
48	Bracket	Fixation	1	104208	
49	Hex. bolt 5/16" n.c. x 1"	Boulon hex. 5/16" n.c. x 1"	2	O/L	
50	Threaded rod	Tige filetée	1	104215	
51	P.T.O. support	Support de prise de force	1	104209	
52	Spring	Ressort	1	104178	
53	Sprocket with set screw	Pignon avec vis à pression	1	104428	
54	Reduction box	Boîte de réduction	1	104402	
55	Reduction plate	Plaque de réduction	1	104403	
56	Sprocket with set screw	Pignon avec vis à pression	1	104490	
57	Input shaft	Arbre d'entré	1	104429	
58	Key 1/4" x 1/4" x 2.88"	Clé 1/4" x 1/4" x 2.88"	1	104436	
59	Male hitch	Attache mâle	1	104395	
60	Lock washer 5/16"	Rondelle de blocage 5/16"	2	O/L	

O/L = Obtain locally/obtenir localement

## **TORQUE SPECIFICATION TABLE**

# GENERAL TORQUE SPECIFICATION TABLE USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

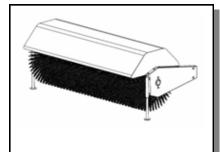
NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

SEE Grade	No.	2				5			8 *				
BOLT HEAD IDENTIFICATION MARKS AS PER GRADE NOTE MANUFACTURING MARKS WILL VARY		TORQUE			TORQUE			TORQUE					
во	LT SIZE	POUNE	S FEET	NEWTON-	METERS	POUN	DS FEET	NEWTON-	METERS	POUND	S FEET	NEWTON-N	IETERS
Inches	Millimetre	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min. Max.	Max.	Min. Max.	Max.
1/4"	6.35	5	6	6.8	8.13	9	11	12.2	14.9	12	15	16.3	30.3
5/16"	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8"	9.53	20	23	27.1	31.2	35	42	47.5	57	45	54	61	73.2
7/16"	11.11	30	35	40.7	47.4	54	64	73.2	86.8	70	84	94.9	113.9
1/2"	12.7	45	52	61	70.5	80	96	108.5	130.2	110	132	149.2	179
9/16"	14.29	65	75	88.1	101.6	110	132	149.2	179	160	192	217	260.4
5/8"	15.88	95	105	128.7	142.3	150	180	203.4	244.1	220	264	298.3	358
3/4"	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8"	22.23	160	200	216.8	271	400	480	542.4	650.9	600	720	813.6	976.3
1"	25.4	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5

<sup>\*</sup>Thick nuts must be used with grade 8 bolts

			METRIC BOLT	TORQUE SPECII	ICATIONS			
COARSE THREAD FINE THREAD								
Size Screw	Grade No.	Pitch (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters	
М6	4T	1.00	3.6 - 5.8	4.9 - 7.9	-	-	-	
	7T		5.8 - 9.4	7.9 - 12.7		-	-	
	8T		7.2 - 10	9.8 - 13.6		-	-	
М8	4T	1.25	7.2 - 14	9.8 - 19	1.00	12 - 17	16.3 - 23	
	7T		17 - 22	23 - 29.8		19 - 27	25.7 - 36.6	
	8T		20 - 26	27.1 - 35.2		22 - 31	29.8 - 42	
M10	4T	1.50	20 - 25	27.1 - 33.9	1.25	20 - 29	27.1 - 39.3	
	7T		34 - 40	46.1 - 54.2		35 - 47	47.4 - 63.7	
	8T		38 - 46	51.5 - 62.3		40 - 52	54.2 - 70.5	
M12	4T	1.75	28 - 34	37.9 - 46.1	1.25	31 - 41	42 - 55.6	
	7T		51 - 59	69.1 - 79.9		56 - 68	75.9 - 92.1	
	8T		57 - 66	77.2 - 89.4		62 - 75	84 - 101.6	
M14	4T	2.00	49 - 56	66.4 - 75.9	1.50	52 - 64	70.5 - 86.7	
	7T		81 - 93	109.8 - 126		90 - 106	122 - 143.6	
	8T		96 - 109	130.1 - 147.7		107 - 124	145 - 168	
M16	4T	2.00	67 - 77	90.8 - 104.3	1.50	69 - 83	93.5 - 112.5	
	7T		116 - 130	157.2 - 176.2		120 - 138	162.6 - 187	
	8T		129 - 145	174.8 - 196.5		140 - 158	189.7 - 214.1	
M18	4T	2.00	88 - 100	119.2 - 136	1.50	100 - 117	136 - 158.5	
	7T		150 - 168	203.3 - 227.6		177 - 199	239.8 - 269.6	
	8T		175 - 194	237.1 - 262.9		202 - 231	273.7 - 313	
M20	4T	2.50	108 - 130	146.3 - 176.2	1.50	132 - 150	178.9 - 203.3	
	7T		186 - 205	252 - 277.8		206 - 242	279.1 - 327.9	
	8T		213 - 249	288.6 - 337.4	]	246 - 289	333.3 - 391.6	

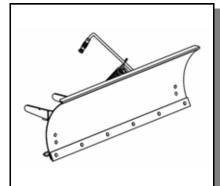
#### **OPTIONS & ATTACHMENTS**



**ROTARY BROOM** 

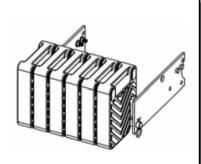
#700316 with polypropylene brush.

Fits on same subframe as snowblower or utility blade. Requires an adaptor.



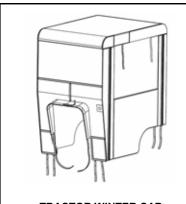
**UTILITY BLADE #700416** 

Mounts on the same subframe as the snowblower & rotary broom.



COUNTERWEIGHT

#700240 Universal rear weights #700246 Rear weights Electrolux Required for safety and traction. Counter-balances weight of attachment.



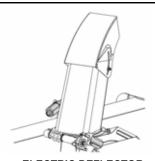
TRACTOR WINTER CAB #700423

Universal type fits on a wide variety of lawn and garden tractors.



**DEFLECTOR ADJUSTMENT KIT** #700239

Adjusts height at which snow is thrown from the driver's seat.



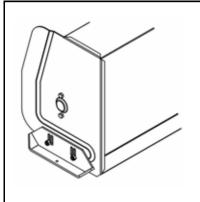
**ELECTRIC DEFLECTOR ADJUSTMENT KIT** #700371

**ELECTRIC CHUTE ROTATION KIT** #700372 Allows to adjust deflector or rotate

the chute electrically from driver's seat.

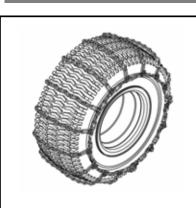


#700260 for Northeast snowblower. Facilitates and increases snow intake. Pkg. of 2



**HEAVY DUTY SKID SHOES** #700243

For gravel driveways. Pkg. of 2



#### **TIRE CHAINS**

Two link spacing. Required for traction and safety. Pkg. of 2