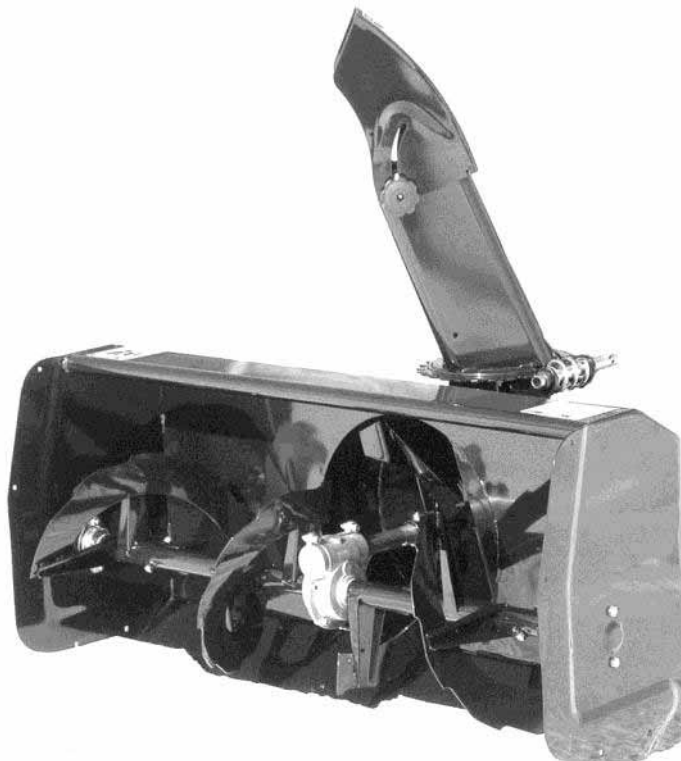




OWNER'S MANUAL
Model Number
700400-2



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

* ASSEMBLY
* OPERATION

* REPAIR PARTS
* MAINTENANCE

CAUTION:

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



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 pre-established 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. This warranty applies to the products bought and used in North America.

Warranty Period

(from date of the original retail purchase)

- Residential use: 1 year
- Semi-commercial, professional 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: Will vary as per the manufacturer
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.
- Damages due to product being installed on a vehicle other than stipulated in owner's manual.

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

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 BERCO service dealer to arrange service at their dealership. Requests for warranty claims must be carried out through the same distribution network used to purchase the product.. Don't forget to bring your proof of purchase (sales receipt) to the BERCOMAC dealer.

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 or to have the unit serviced at their dealer 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. Taking advantage of the warranty does not in any way extend the length or renewal of the warranty.

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. In no event recovery of any kind be greater than the amount of the purchase price of the product sold.

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

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INTRODUCTION

TO THE PURCHASER

This new accessory 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 (there is no serial number on the subframe). 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 :
(IF APPLICABLE)

MODEL NUMBER:

PURCHASE DATE :



SAFETY PRECAUTIONS



Careful operation is your best insurance against an accident. Read this section carefully before operating the vehicle and accessory. This accessory 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 vehicle and accessory before operating. It is the owner's legal obligation to instruct all operators in safe operation of the accessory.

GLOSSARY:

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

In this manual, "accessories" means attachments (snowblower, rotary broom, blade etc.) that you install on the vehicle (lawn tractors, A.T.V. s etc).

TRAINING:



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

1. Read this owner's manual carefully. Be thoroughly familiar with the controls and proper use of the vehicle and accessory. Know how to stop the unit and disengage the controls quickly.
2. Never allow children to operate the vehicle nor the accessory. Never allow adults to operate the vehicle nor the accessory without proper instructions.
3. No one should operate the vehicle nor the accessory while intoxicated or while taking medication that impairs the senses or reactions.
4. Keep the area of operation clear of all people, particularly small children and pets.
5. Never start or operate the accessories except from the operator's station on the power unit except if this is impossible.
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 refueling is complete. Do not use a nozzle lock-open device.
 - g) Replace fuel cap securely and wipe up spilled fuel.
 - h) If fuel is spilled on clothing, change clothing immediately.
5. Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).
6. Let the vehicle and accessory adjust to outdoor temperatures before using.
7. Never use an accessory without proper guards, plates, or other safety protective devices in place
8. Always make sure to wear the appropriate safety equipment required (glasses, muffs, mask...) for each type of product. See operation section.
9. Always make sure of having safe traction on the vehicle by using the recommended accessories (chains, A.T.V. tracks, counterweights...). See operation section.
10. Always make sure all components are correctly installed. (driveline securely attached and locked at both ends, belts properly installed...)
11. If applicable, always handle the winch cable with thick leather gloves.
12. **Never modify the accessory or any part without the written consent from the manufacturer.**

PREPARATION:

1. Thoroughly inspect the area where the accessory is to be used and remove door mats, all foreign objects and the like.
2. For motorized accessories, disengage all clutches and shift into neutral before starting engine.
3. Do not operate the accessory 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.



SAFETY PRECAUTIONS



OPERATION:

1. Do not put hands or feet near, under or inside rotating parts.
2. Exercise extreme caution when operating on or crossing gravel drives, walks or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
3. 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 accessory for any damage and repair damage before restarting and using the accessory.
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. Take all possible precautions when leaving the vehicle unattended. Disengage the power take-off, lower the attachment, place the transmission into neutral, set the parking brake, stop the engine and remove the ignition key.
6. Do not run the engine indoors, except when starting the engine and for transporting 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 odorless, colorless and can cause death.
7. Never use the accessories across the face of slopes, go from top to bottom. Exercise extreme caution when using equipment on slopes. Do not attempt to clear a steep slope.
8. Never tolerate bystanders in the working zone. Never use an accessory in the direction of bystanders, it might throw gravel or debris that can hurt people or damage property.
9. Never operate the accessory at high transport speeds on slippery surfaces. Use care when backing up.
10. Do not carry passengers.
11. Disengage power to the accessory when it is transported or not in use.
12. Never operate the accessory without good visibility or light.
13. Keep the accessory away from heat sources or flames.
14. If applicable, never handle the winch cable or hook while in tension.

MAINTENANCE AND STORAGE

1. When cleaning, repairing or inspecting the vehicle and accessory: stop the engine, set brake, remove ignition key, and wait that all moving parts have stopped. For gasoline engine, disconnect wire from the spark plug(s) and keep wire away to prevent accidental starting.
2. Check all the bolts and components at frequent intervals to make sure that they are properly tightened.
3. Never store a motorized accessory 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.
4. Always refer to the owner's manual when you store the accessory and vehicle for a prolonged or an unspecified length of time.
5. Maintain or replace safety and instruction labels, as necessary.
6. For winter accessories, (if applicable), let the engine run for a few minutes after clearing snow in order to prevent the rotary parts from freezing.
7. Inspect the vehicle's and accessory's air filter (if applicable) every day. Clean it or replace it as necessary. Change the oil more often when working in dusty conditions. See the vehicle's and accessory's owner's manual.

TRANSPORT

1. Review Transport Safety instructions in vehicle manual before moving.
2. Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
3. Make sure all lights and reflectors that are required by the local highway and transport authorities (example : SMV (Slow Moving Vehicle)) are in place, are clean, and can be seen clearly by all overtaking and oncoming traffic.
4. Never have the equipment in operation during transport.
5. Always travel at a safe speed.

SAFETY DECALS

REPLACE IF DECALS ARE DAMAGED
SEE PARTS BREAKDOWN FOR DECAL LOCATION



Decal # 102190



Decal # 102113



Decal # 104245



Decal # 104243



Decal # 102125



Decal # 102126



Decal # 102127



Decal # 103951

ASSEMBLY

STEP 1

CHUTE INSTALLATION:

Refer to parts breakdown section for parts identification.

TOOLS REQUIRED:

Ratchet

Sockets: 7/16", 1/2"

Wrench: 7/16"

Hexagonal wrench: 3/16"

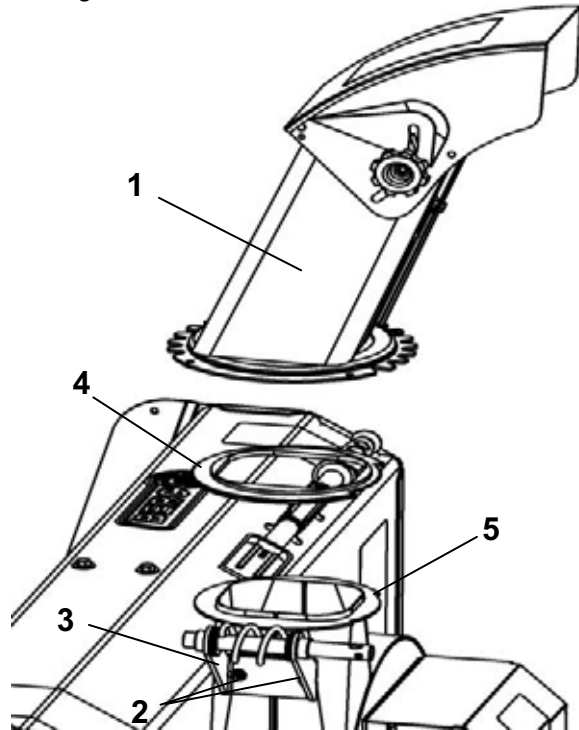
IMPORTANT: TORQUE ALL BOLTS ACCORDING TO TORQUE SPECIFICATION TABLE (SEE TABLE OF CONTENTS), WHEN STATED: TIGHTEN FIRMLY.

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).

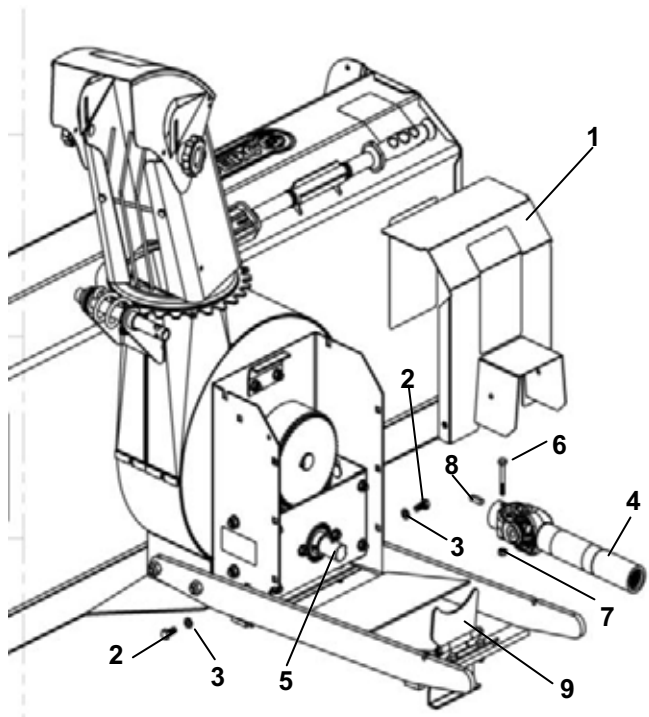
Install the driveline (item 4) on the snowblower input shaft (item 5) with a hex. bolt 1/4" n.c. x 2" (item 6), nylon insert lock nut (item 7) and key 1/4" x 1/4" x 1" (item 8).

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

ASSEMBLY

STEP 3

SNOWBLOWER INSTALLATION:

Refer to parts breakdown section for parts identification.



WARNING



TO PREVENT INJURIES:

Stop the motor.

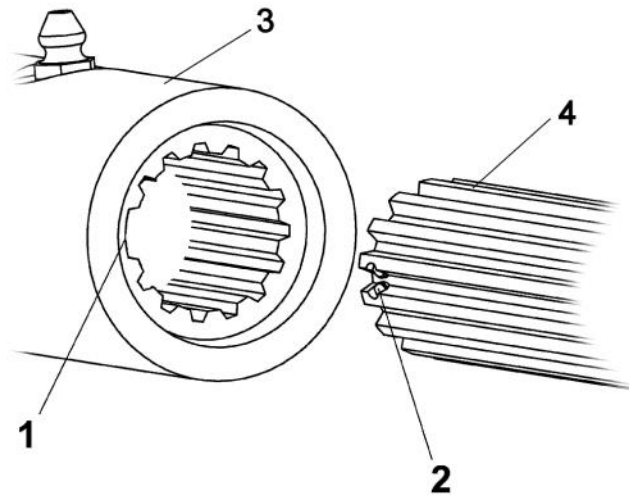
Apply parking brake.

Remove the ignition key.

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

Install the driveline section (item 4) from separate kit, 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.

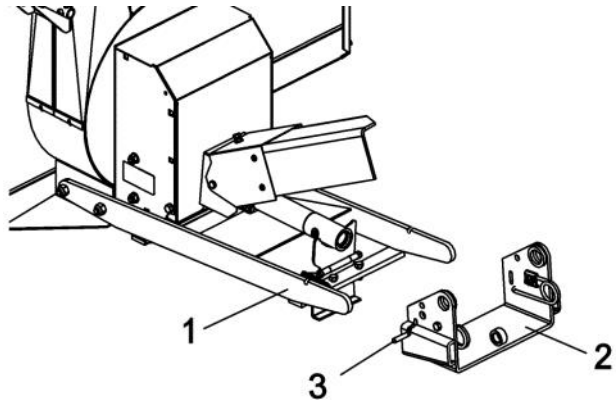


Install the driveline section
(Female / male 1", 15 splines)

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.

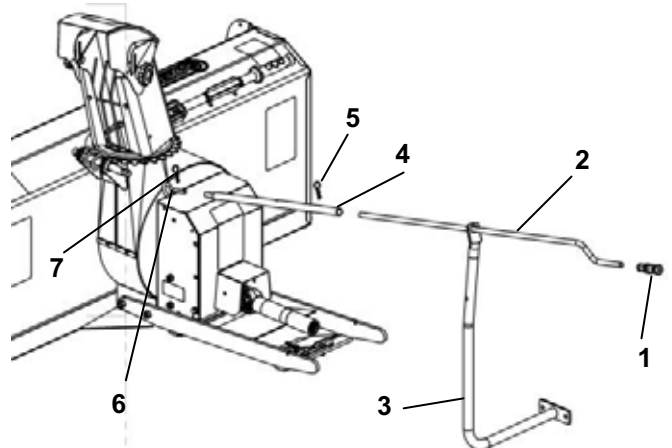
Make sure the driveline yoke is securely attached to the tractor P.T.O.



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

ASSEMBLY



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.



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.

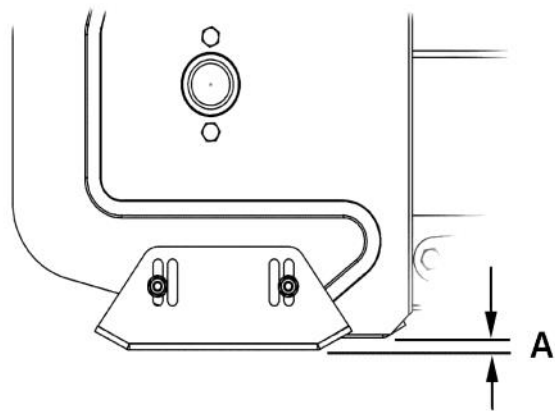
VERIFY SKID SHOE ADJUSTMENT:

LEVEL PAVED SURFACE: Adjust skid shoes to allow 3/16" to 1/4" or 5mm to 7mm clearance (A) between cutting edge and surface.

UNEVEN OR GRAVEL SURFACE: Adjust skid shoes to allow 1/2" to 5/8" or 13mm to 16mm clearance (A) between cutting edge and surface.

VERIFY TIRE PRESSURE:

Tire pressure must be even on both sides of tractor according to the vehicle's owner's manual.



Adjust skid shoes

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



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



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.

-Do not attempt to clear plugged chute, auger or fan of snow while the snowblower's engine is running.

-Disengage snowblower.

-Lower snowblower to the ground and set parking brake.

-SHUT THE ENGINE OFF & REMOVE KEY!

-Wait 10 seconds to be sure that all moving parts such as the impeller blades have stopped moving.

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

-Always use the clean-out tool (chute shovel) supplied with this snowblower, NOT YOUR HANDS



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 snowblower 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

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

ADJUSTMENTS

SKID SHOE ADJUSTMENT:

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

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

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.

SNOWBLOWER PULLEY REPLACEMENT or ALIGNMENT:

Clean the parts before aligning or replacing the pulley. Apply some "Loctite" 2760 on the key and the set screws. Tighten firmly. (Use heat to soften the "loctite" when removing the set screws).

LUBRICATION

Apply oil at all pivot points.

Chute Rotation System: Oil chute base, rotation worm every sixteen hours of operation.

Gear box:

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

The gear box should have a total of 275 ml of oil or filled to the rim of the bolt hole when installed on the snowblower. (see figure)

AUGERS AND FAN SHEAR BOLT 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.

To avoid damage to the snowblower:

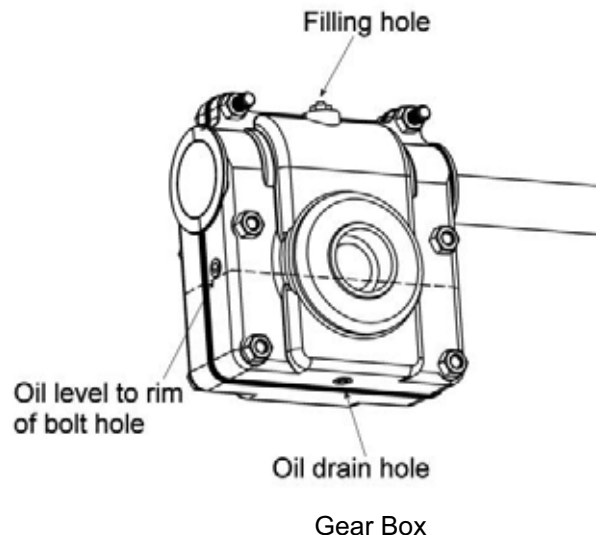
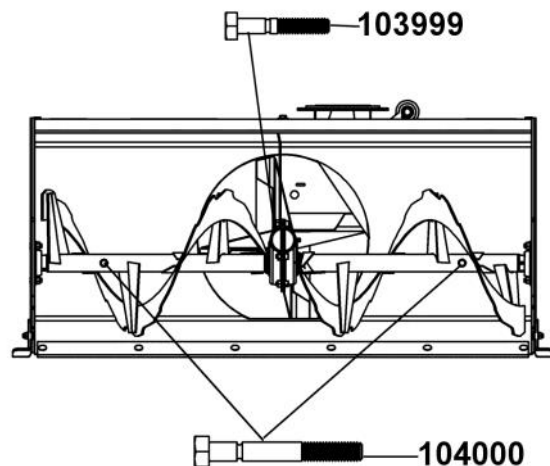
Use only the original shear bolts (grooved bolts).

#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.

IMPORTANT: IT IS VERY IMPORTANT TO REPLACE THE AUGERS IN THE SAME POSITION AS SHOWN IN THE DRAWING BEFORE INSTALLING THE SHEAR BOLTS.



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.

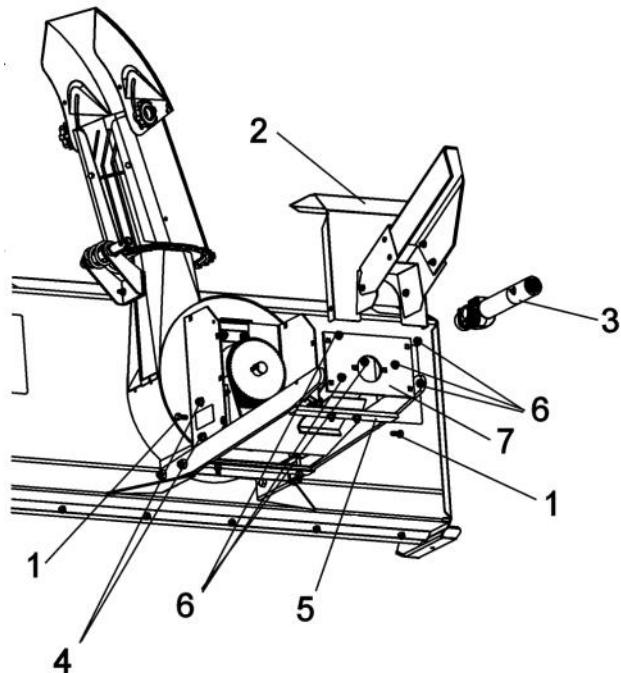
IMPORTANT:

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

IMPORTANT:

Clean the parts before aligning or replacing the pulley. Apply some "Loctite" 2760 on the key and the set screws. Tighten firmly. (Use heat to soften the "loctite" when removing the set screws).

Reinstall by reversing the steps .



BELT ADJUSTMENT:

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.



DANGER



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.

DISMOUNTING & STORAGE

SNOWBLOWER DISMOUNTING



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.

END OF SEASON STORAGE

- a) 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.
- c) Store the snowblower and the subframe in a dry place.
- d) Follow the instructions in the Lubrication section.

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"). The head of the bolt must be closest to the snowblower.
Drive belt from engine pulley to drive mechanism seems to be too long and lack of power to snowblower or rotary broom.	Wrong routing of the drive belt.	Make sure the drive belt is routed on the left side of the idler pulley of drive mechanism. (See routing of the belt in assembly section of subframe manual).
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.
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.	Tire pressure uneven from one side to another.	Tire pressure must be even on both sides of tractor according to the owner's manual of the vehicle.
	Left and Right subframe side supports are not tighten level on tractor frame.	Raise the snowblower and put a block underneath the lowest side of the snowblower and lower it on the block. Loosen subframe support nuts and bolts on both sides and retighten nuts and bolts. Raise the snowblower and remove the block.
Snowblower bouncing up & down when ingesting snow.	Improper auger position.	Make sure the ends of the 2 augers are positioned 180 degrees from one and other when replacing shear bolts. (See auger & fan shear bolt replacement section in owner's manual)

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.

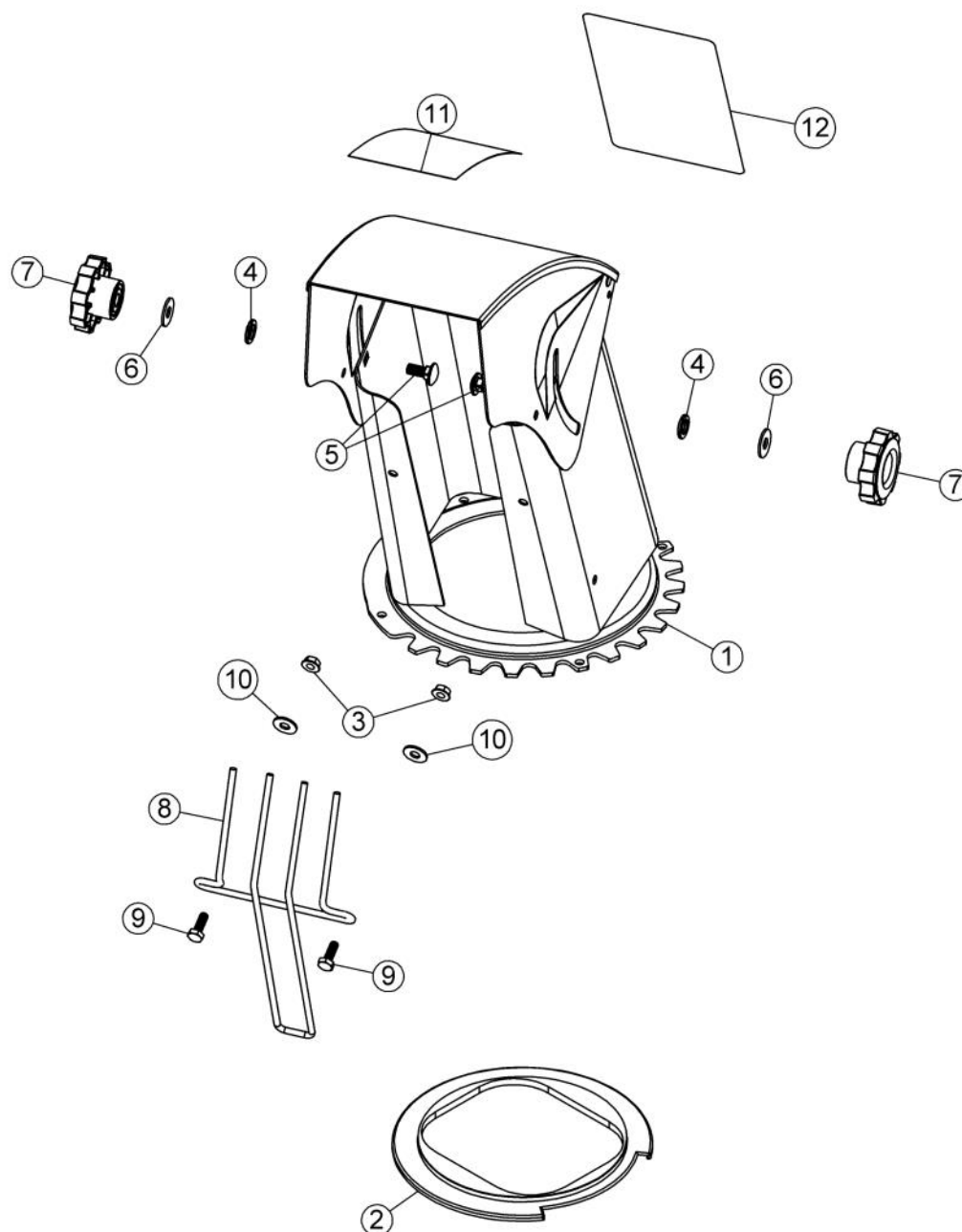
SEE Grade No.		2				5				8 *			
BOLT HEAD IDENTIFICATION MARKS AS PER GRADE NOTE MANUFACTURING MARKS WILL VARY		TORQUE				TORQUE				TORQUE			
BOLT SIZE		POUNDS FEET		NEWTON-METERS		POUNDS FEET		NEWTON-METERS		POUNDS FEET		NEWTON-METERS	
Inches	Millimetre	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	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

*Thick nuts must be used with grade 8 bolts

METRIC BOLT TORQUE SPECIFICATIONS							
		COARSE THREAD			FINE THREAD		
Size Screw	Grade No.	Pitch (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters
M6	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		-	-
M8	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

PARTS BREAKDOWN / NOMENCLATURE DES PIÈCES CHUTE / GOULOTTE

#700400-2



PARTS LIST / LISTE DES PIÈCES CHUTE

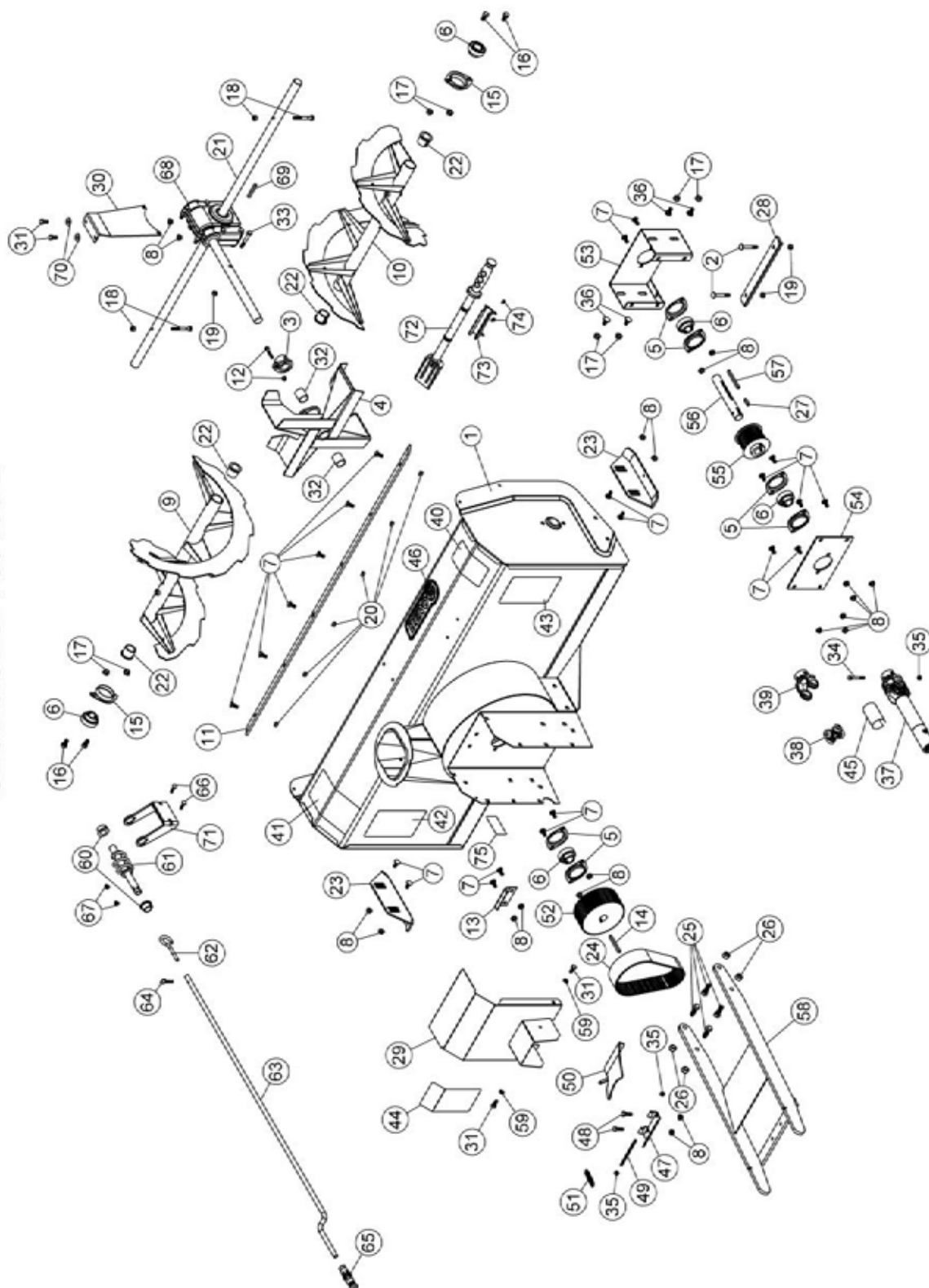
REF. RÉF.	DESCRIPTION	DESCRIPTION	QTY QTÉ	PART # PIÈCE #
1	Chute	Goulotte	1	103936
2	Rotation ring	Anneau de rotation	1	103943
3	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	2	O/L
4	Nylon flat washer 7/16"	Rondelle plate de nylon 7/16"	2	102011
5	Carriage bolt 5/16" n.c. x 3/4"	Boulon à carrosserie 5/16" n.c. x 3/4"	2	O/L
6	Nylon flat washer 11/32"	Rondelle plate de nylon 11/32"	2	102009
7	Knob	Bouton	2	102020
8	Hand guard	Fourche protectrice	1	102012
9	Hex. bolt 1/4" n.c. x 3/4"	Boulon hex. 1/4" n.c. x 3/4"	2	O/L
10	Flat washer 5/16" hole	Rondelle plate 5/16" trou	2	O/L
11	Danger decal	Décalque danger	1	102127
12	Warning decal	Décalque attention	1	102125

O/L = Obtain locally/obtenir localement

PARTS BREAKDOWN / NOMENCLATURE DES PIÈCES

700400-2 SNOWBLOWER / SOUFFLEUSE

Snowblower 700400-2



PARTS LIST / LISTE DES PIÈCES

700400-2 SNOWBLOWER / SOUFFLEUSE

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	104765
10	Auger 48" right	Vis 48" droite	1	104766
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	Shaft 48"	Arbre 48"	1	104721
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	104746
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	4	O/L
34	Hex. bolt 1/4" n.c. x 2 1/2"	Boulon hex. 1/4" n.c. x 2 1/2"	1	O/L

PARTS LIST / LISTE DES PIÈCES 700400-2 SNOWBLOWER / SOUFFLEUSE

REF. RÉF.	DESCRIPTION	DESCRIPTION	QTY QTÉ	PART # PIÈCE #
35	Nylon insert lock nut 1/4" n.c.	Écrou a garniture de nylon 1/4" n.c.	3	O/L
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	Demi arbre à cardan a/vis à pression	1	102898
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	Bracket	Fixation	1	104208
48	Hex. bolt 5/16" n.c. x 1"	Boulon hex. 5/16" n.c. x 1"	2	O/L
49	Threaded rod	Tige filetée	1	104215
50	P.T.O. support	Support de prise de force	1	104209
51	Spring	Ressort	1	104178
52	Sprocket with set screw	Pignon avec vis à pression	1	104428
53	Reduction box	Boîte de réduction	1	104402
54	Reduction plate	Plaque de réduction	1	104403
55	Sprocket with set screw	Pignon avec vis à pression	1	105677
56	Input shaft	Arbre d'entrée	1	104429
57	Key 1/4" x 1/4" x 2.88"	Clé 1/4" x 1/4" x 2.88"	1	104436
58	Male hitch	Attache mâle	1	104395
59	Lock washer 5/16"	Rondelle de blocage 5/16"	2	O/L
60	Rotation bushing	Coussinet de rotation	2	103945
61	Rotation worm	Spirale de rotation	1	102005
62	Handle hook	Crochet de manivelle	1	102006
63	Handle	Manivelle	1	102061
64	Hair pin 2.5mm	Goupille à ressort 2.5mm	1	102013

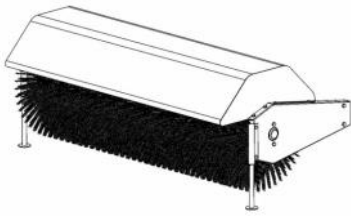
O/L = Obtain locally/obtenir localement

PARTS LIST / LISTE DES PIÈCES

REF. RÉF.	DESCRIPTION	DESCRIPTION	QTY QTÉ	PART # PIÈCE #
65	Handgrip	Poignée	1	102062
66	Carriage bolt 1/4" n.c. x 1"	Boulon à carrosserie 1/4" n.c. x 1"	2	O/L
67	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	2	O/L
68	Gear box left rotation	Boîte d'engrenage rotation gauche	1	104718
69	Key 1/4" x 1/4" x 2"	Clé 1/4" x 1/4" x 2"	1	102922
70	Flat washer 3/8" hole	Rondelle plate 3/8" trou	2	O/L
71	Worm supports	Supports de spirale	1	105755
72	Chute shovel	Pelle à goulotte	1	105700
73	Chute shovel support	Support de pelle à goulotte	1	105701
74	Socket Head Cap Screw M5 x 0.80 x 10	Vis à six pans creux tête ronde M5 x 0.80 x 10	2	O/L
75	Serial number	Numéro de série	1	REF

O/L = Obtain locally/obtenir localement

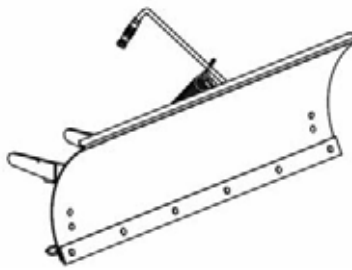
OPTIONS & ATTACHMENTS



ROTARY BROOM

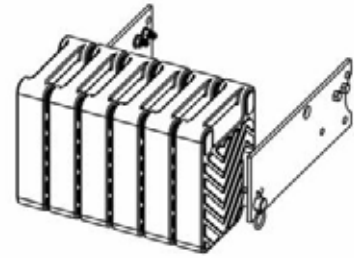
#700316 with polypropylene brush.

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



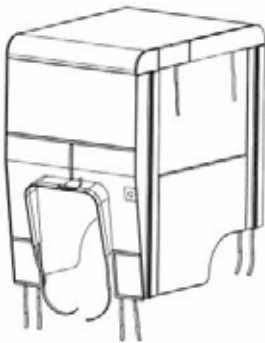
UTILITY BLADE #700416

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



COUNTERWEIGHT

Model # according to tractor
Required for safety and traction.
Counter-balances weight of attachment.



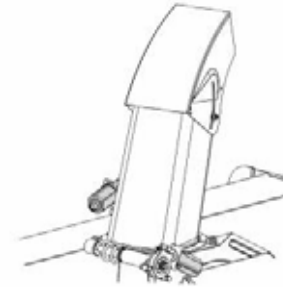
TRACTOR WINTER CAB #700423

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



MANUAL DEFLECTOR ADJUSTMENT KIT # 700239

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



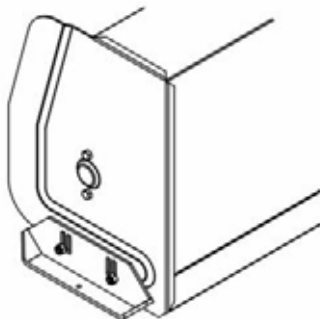
ELECTRIC CHUTE & DEFLECTOR ADJUSTMENT KIT #700518

Allows to adjust deflector or rotate the chute electrically from driver's seat.



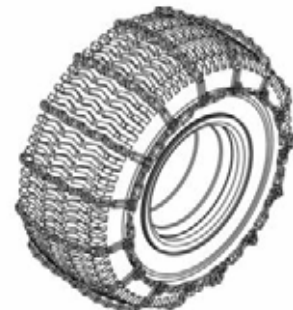
SNOW DRIFT CUTTER

#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



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& DEPENDABILITY
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