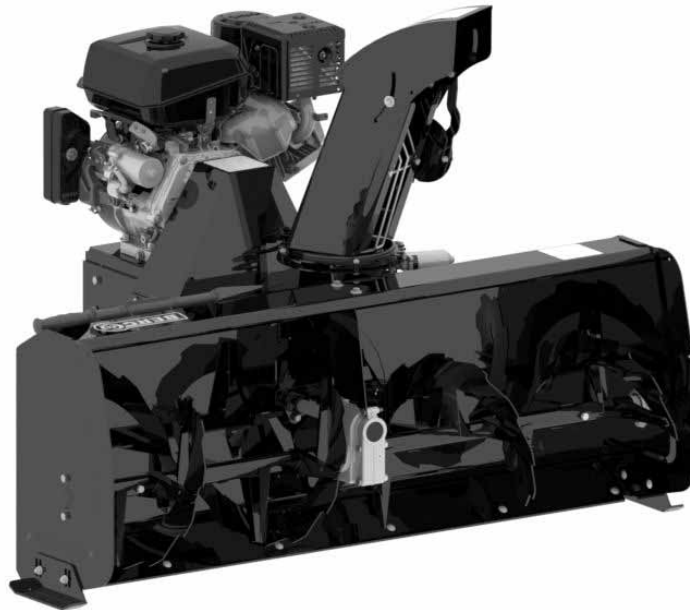




OWNER'S MANUAL
Model Number

700580
700582
With motor



BERCO
VERSATILE PLUS 48" & 54" SNOWBLOWER
with motor for
ALL TERRAIN VEHICLES & UTILITY VEHICLES

- * 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.

TABLE OF CONTENTS

	PAGE
INTRODUCTION	2
SAFETY PRECAUTIONS	3
SAFETY DECALS	5
ASSEMBLY	
Tools Required	6
Vehicle Preparation	7
Preparing the Subframe	8
Installing on the Vehicle	10
OPERATION	
Electrical Controls	12
Lifting and Lowering the Snowblower	12
Snowblowing Technique	13
Adjusting the Pressure of the Subframe Tires on the Ground	13
Skid Shoe adjustment	13
MAINTENANCE	
Engine Maintenance	14
Snowblower Maintenance	14
Clearing a Clogged Discharge Chute	14
Cutting Edge Maintenance	14
Lubrication	15
Auger and Fan Shear Bolt Replacement	15
Belt Replacement	16
Replacing the Augers, Fan and / or Gear Box	17
DISMOUNTING & STORAGE	18
TROUBLESHOOTING	19
PARTS BREAKDOWN AND PARTS LIST	
14HP Kohler motor	21
23HP Kohler motor	22
20 HP Honda motor	23
48" Snowblower	24
54" Snowblower	28
Chute	32
Subframe	34
TORQUE SPECIFICATION TABLE	36
OPTIONS	37

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 : _____

O/L = Obtain Locally



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.

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.

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 the all components are correctly installed. (driveline securely attached and locked at both ends, belts properly installed...)
 11. Always handle the winch cable with thick leather gloves.
 12. **Never modify the accessory or any part without the written consent from the manufacturer.**



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 contact 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. Never handle the winch cable or hook while in tension.

MAINTENANCE AND STORAGE

1. When cleaning, repairing or inspecting the vehicle and accessory, make certain 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 clean 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.









**THIS SYMBOL MEANS
DANGER !
BECOME ALERT !
YOUR SAFETY IS INVOLVED !**



SAFETY DECALS



REPLACE IF DECALS ARE DAMAGED
SEE PARTS BREAKDOWN FOR DECAL LOCATION

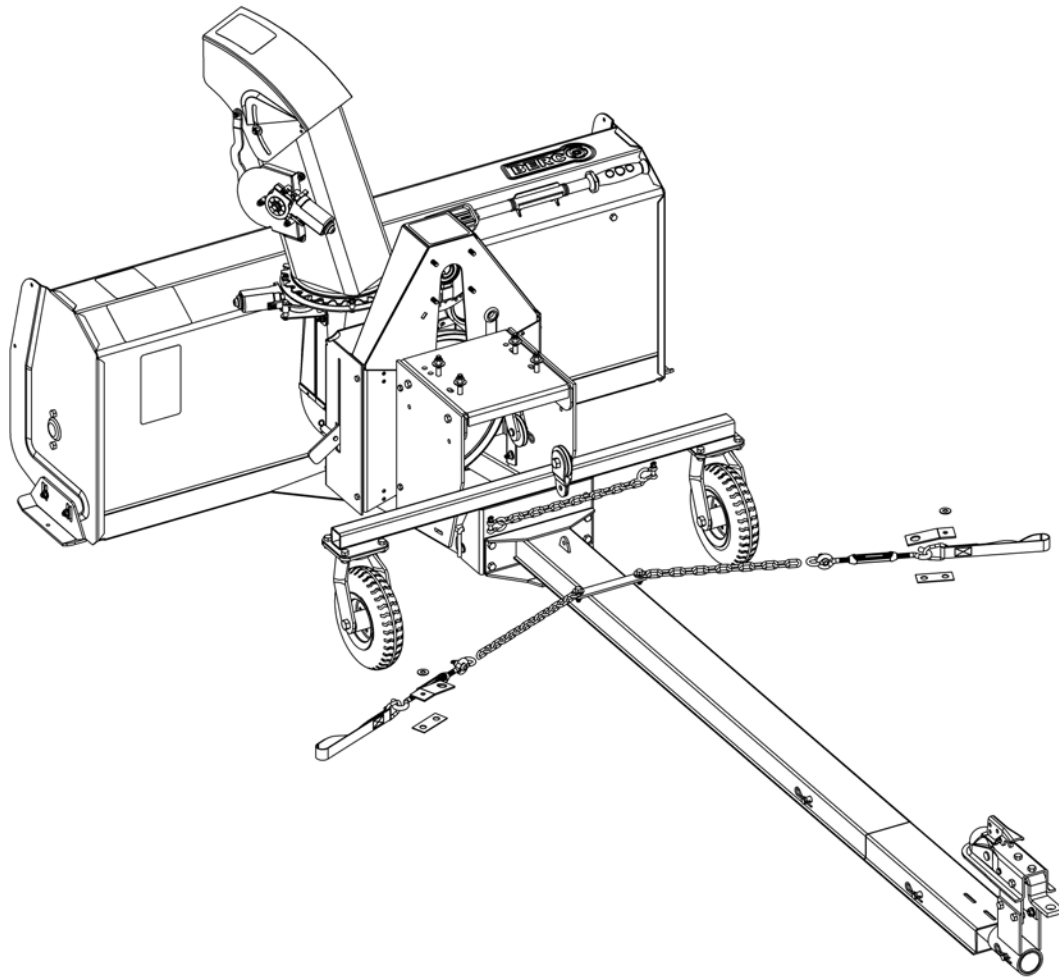
Symbol	Description
Decal #105126 	To avoid serious injury: Keep hands, feet & clothing away from rotating auger while engine is running.
Decal #105127 	To avoid serious injury: Keep hands out of this discharge chute while engine is running.
Decal #105128 	To avoid serious injury: Keep hands, feet & clothing away. Do not attempt to install or remove drive belt without reading owner's manual.
Decal #105130 	Before installing or using: Locate, read and make sure to understand all of the owner's manual.
Decal #105131 	Refer to owner's manual about wearing safety glasses, ear muffs and mask. Refer to owner's manual for use of counter weights, cat tracks and tire chains.
	1-Do not drive faster than 3 KM/H when the snowblower is in operation. 2-Do not drive faster than 10 KM/H when the snowblower is in the raised position. 3-The head of the snowblower weighs 96 kg. (without engine). 4-The engine wattage. (See specification of the engine installed). 5-The sound pressure level (See specification of the engine installed).

ASSEMBLY

ASSEMBLY INSTRUCTIONS

IMPORTANT: UNLESS OTHERWISE SPECIFIED TORQUE ALL BOLTS ACCORDING TO TORQUE SPECIFICATION TABLE (SEE TABLE OF CONTENTS) WHEN STATED: TIGHTEN FIRMLY. REFER TO PARTS BREAKDOWN SECTION FOR PART IDENTIFICATION.

IMPORTANT: THE VEHICLE MUST BE EQUIPPED WITH A TOW HITCH BALL IN ORDER TO INSTALL THE VERSATILE PLUS SNOWBLOWER.



TOOLS REQUIRED

- 1 Ratchet
- 4 Wrenches 7/16", 1/2", 9/16" and 13 mm
- 4 Sockets 7/16", 1/2", 9/16" and 13 mm
- 1 Plier
- 1 Cutting pliers
- 1 torque spanner

Figure 1 - Overall view of the Versatile Plus snowblower

ASSEMBLY

VEHICLE PREPARATION

FASTENING THE SUBFRAME

Choose one of the three following options as a means of fastening the subframe.

OPTION A:

Install the lift strap (**item 1**) by making a loop around the front suspension arm of the vehicle. Tighten the loop firmly.

OPTION B:

Remove the nut and bolt from the vehicle's front suspension arm. Secure the bracket (**item 3**) with a bolt, flat washer and nut (**item 2**). Do not tighten the nut too firmly.

OPTION C:

Remove the nut and bolt from the vehicle's front suspension arm. Secure the bracket (**item 4**) with a bolt, flat washer and nut (**item 2**). Do not tighten the nut too firmly.

NOTE: Repeat the operation on the other side of vehicle.

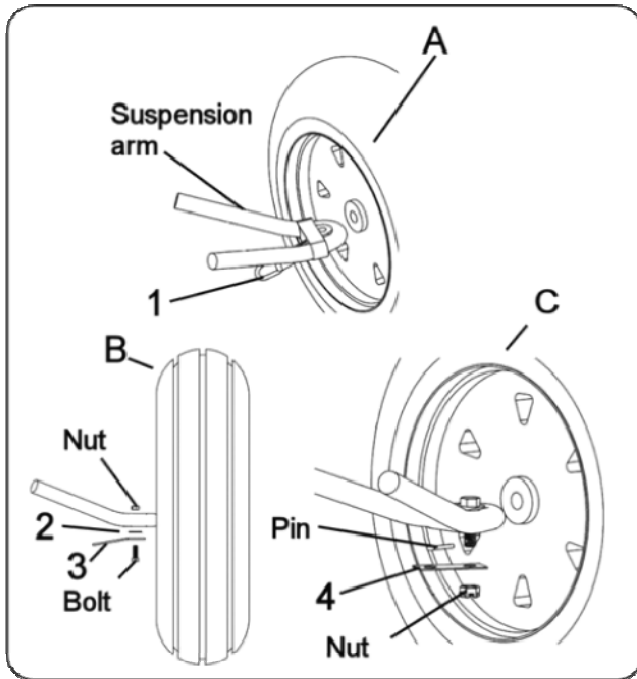


Figure 21 - Vehicle preparation

CONTROL BOX INSTALLATION.

1. Choose between the two different ways of securing the control box support (**item 1**).

Option A

Use two hex bolts 1/4" x 1 1/2" (**item 2**), two spacers (**item 3**) and two flange nuts 1/4" (**item 4**) in order to secure the control box support to the support brackets. (**item 5**).

NOTE: Choose the right combination of holes on the control box support so that the front of the control box is facing the front of the vehicle.

Option B

Use the support as a template and drill two holes in an appropriate place on the vehicle.

Secure the control box support with two bolts 1/4" x 1/2" (**item 6**) and two flange nuts 1/4".

2. Insert the control box (**item 7**) in the control box support.

NOTE: In order to avoid damages due to water accumulation, make sure the control box is installed horizontally.

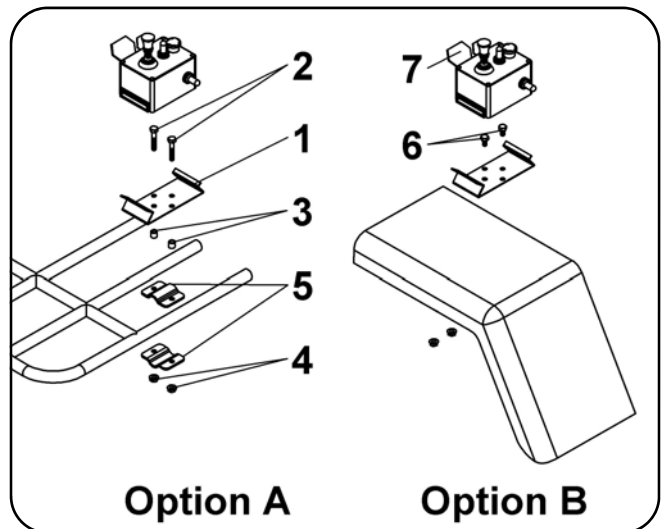


Figure 22 - Installing the control box

ASSEMBLY

INSTALLING THE ELECTRICAL SUPPLY

1. Connect the red wire from control box wire extension (part #105110) to the positive post on the vehicle's battery. Connect the black wire on the vehicle's frame.

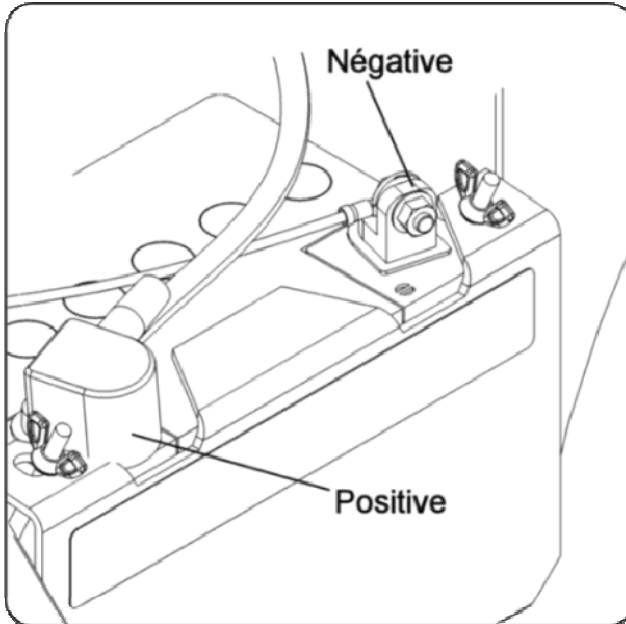


Figure 23 - Connect the electrical supply on the vehicle's battery

2. Join the connectors (items 1 & 2) to the control box and let the connector (item 3) jut out in front of the vehicle. Tie the electrical wires with the nylon tie wraps so they do not get in the way.

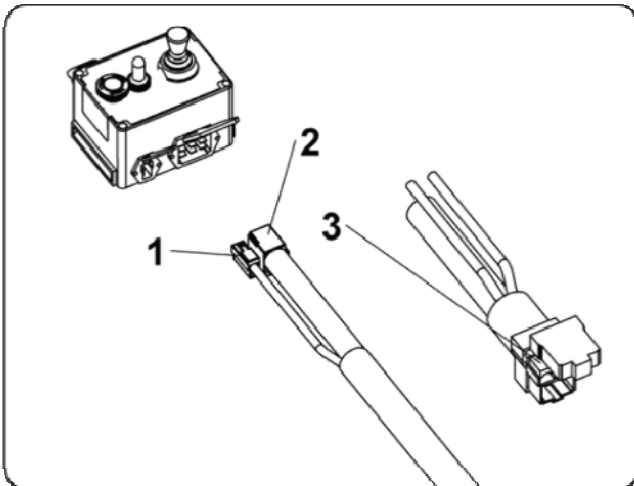


Figure 24- Connect the control box

PREPARING THE SUBFRAME

1. Assemble the wheel support (item 1) on the subframe (item 2) with four hex bolts 3/8" x 1" (item 3) four flange nuts 3/8" (item 4).

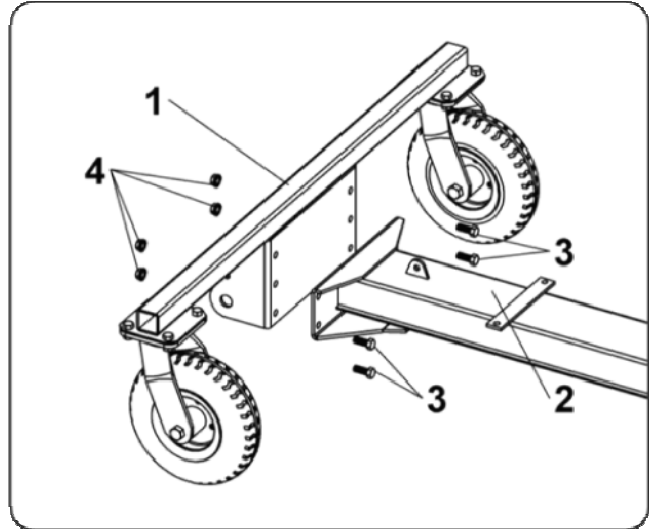


Figure 25 - Installing the wheel support

NOTE: The set of holes used to assemble the wheel support to the subframe depends on the height of the vehicle. Once installed the subframe must be parallel with the ground.

2. Install the assembled turnbuckles (item 1) on the subframe (item 2) with two hex bolts 5/16" x 1" (item 3), two flat washers 3/8" (item 4) and two nylon insert lock nuts 5/16" (item 5). Slightly tighten the nuts.

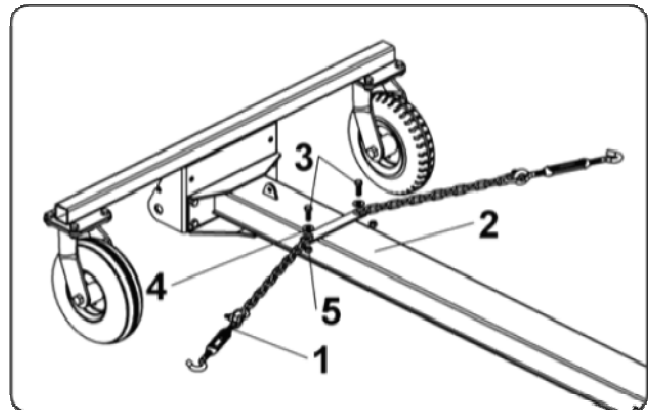


Figure 26 - Installing the turnbuckles

ASSEMBLY

3. Among the three following configurations, choose the height of the hitch support. There must be a maximum of ground clearance. (Configuration A) does not have the hitch support plates (**item 1**). If applicable, assemble the hitch support plates on the hitch support (**item 2**) with four hex bolts 3/8" x 3/4" (**item 3**) and four nylon insert lock nuts 3/8". Secure the hitch (**item 4**) on the two hitch support plates or on the hitch support with a hex bolt 3/8" x 3" (**item 5**) and one nylon insert lock nut 3/8". Tighten firmly

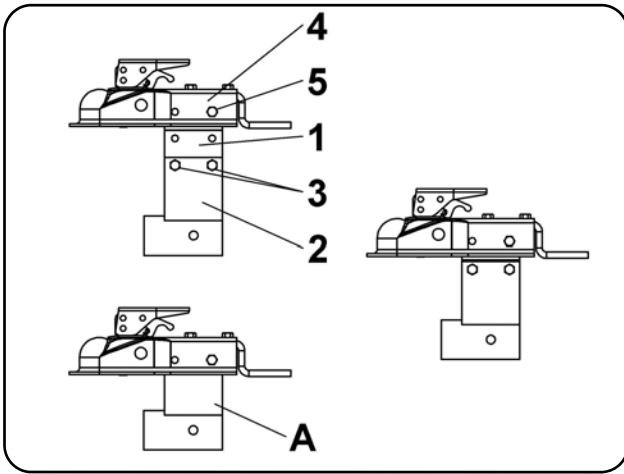


Figure 27 – Adjusting the hitch support

4. There are seven different positions on the adjustment tube (**item 1**) (the adjustment tube can be inverted) to adjust the length of the subframe. To choose the right adjustment, insert the adjustment tube into the subframe (**item 2**) and insert the rear bracket (**item 3**) on the adjustment tube. Slide the hitch support (**item 4**) on the rear bracket. Do not secure.

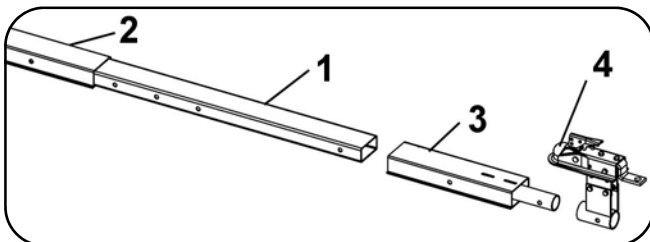


Figure 28 – Assembling the subframe

5. Drive the vehicle over the subframe, Place the hitch under the tow hitch ball and make sure there is at least 7" (180 mm) between tube on the wheel support (**item 1**) and the most advance part of the front of the vehicle. Furthermore, the wheels of the subframe must not touch the front wheels of the vehicle.

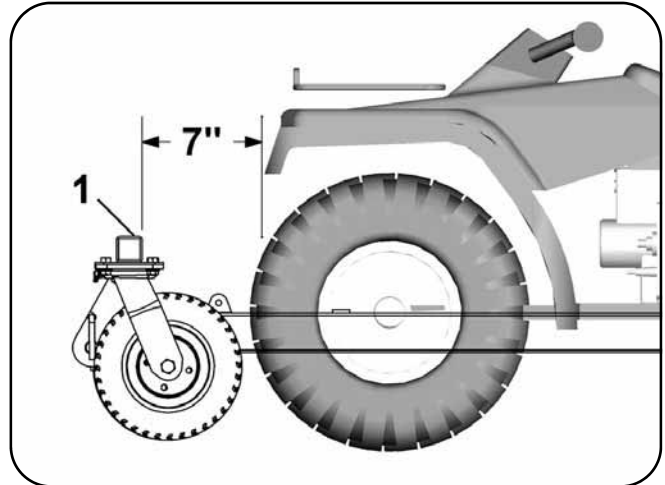


Figure 29 – Adjusting the length of the subframe

6. Identify the right length of the subframe (**item 1**) and secure in place with two long pins (**item 2**), a short pin (**item 3**) and three hair pins 3mm (**item 4**).

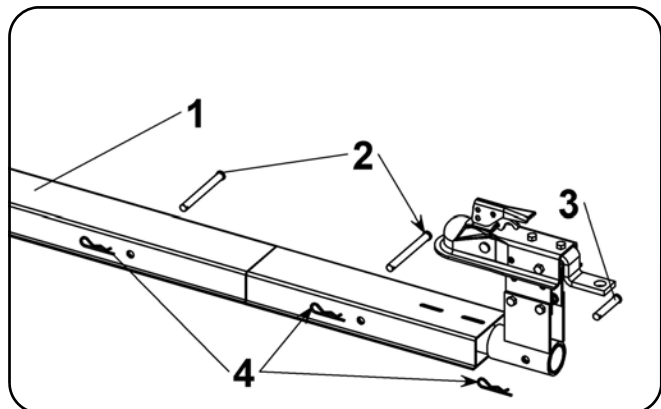


Figure 30 – Securing the subframe

ASSEMBLY

INSTALLING ON THE VEHICLE

1. Place the hitch (item 1) on the tow hitch ball and secure in place with a pin (item 2) and a hair pin (item 3).

IMPORTANT: Make sure the vehicle never comes into contact with the subframe even when the vehicle's suspensions are compressed to the maximum.

NOTE: It is possible to turn the hitch support to facilitate driving the vehicle over the subframe.

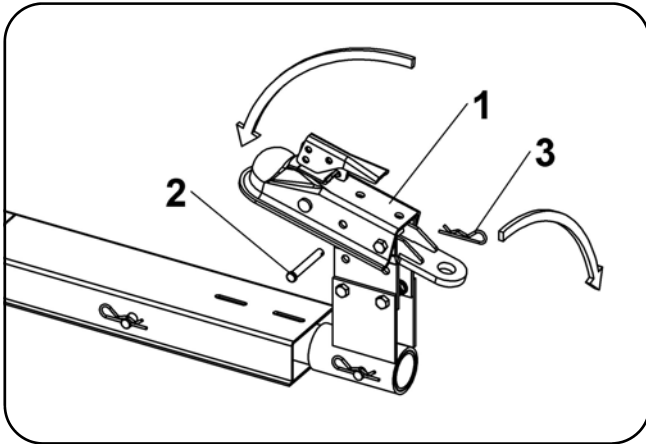


Figure 12 – Installing the subframe on the tow hitch ball

2. Hook the turnbuckles (item 1) in the brackets or the lift straps. Tighten the turnbuckles firmly.

IMPORTANT: After adjusting the turnbuckles, tighten firmly the nuts that secure the brackets on the vehicle's suspension arms. Make sure to lock the nuts with the original locks. Furthermore, tighten firmly the turnbuckle assembly nuts that secure them to the subframe.

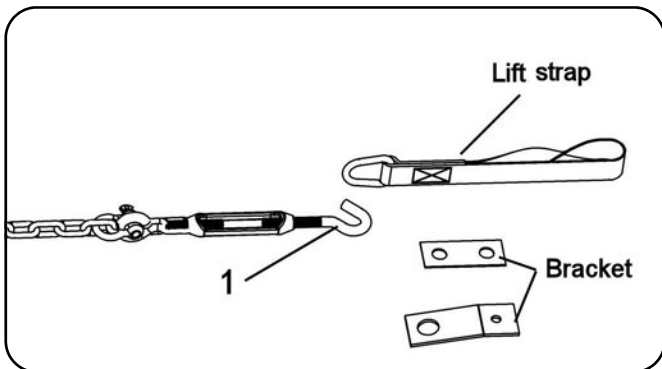


Figure 13 – Installing the turnbuckles on the vehicle

3. Install the snowblower hitch (item 1) on the wheel support (item 2) of the subframe with a pin (item 3) and hair pin 4mm (item 4).

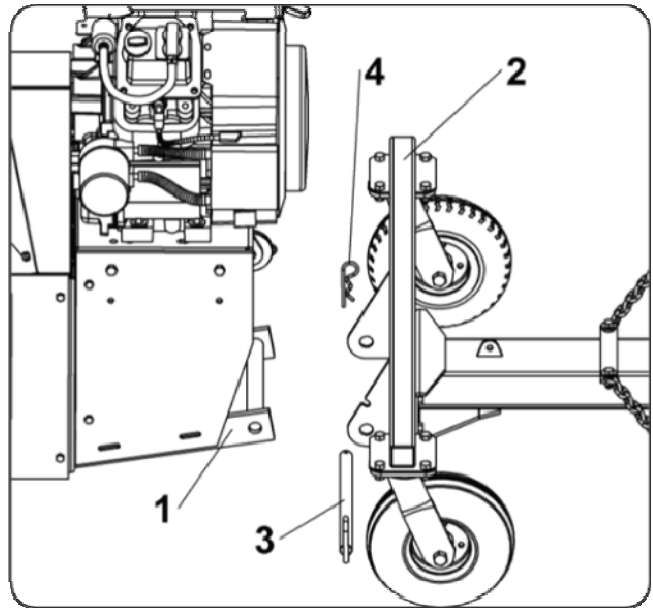


Figure 14 – Assembling the snowblower to the subframe

4. Secure the winch hook (item 1) in the lift eye on the hitch (item 2). Place the winch cable (item 3) between the engine support (item 4) and the pulley (item 5). Secure the pulley with a pin (item 6) and a hair pin 3mm (item 7).

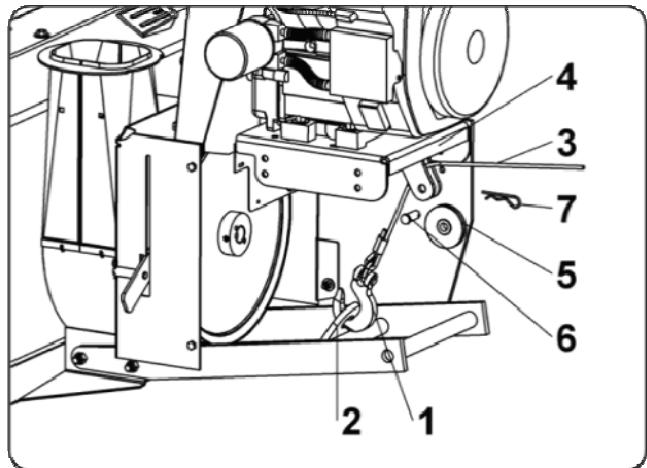


Figure 15 – Installing the snowblower lift system

ASSEMBLY

5. In the case that the winch is not strong enough to lift the snowblower, it is possible to install the lift system as follows:
Attach the lift strap (optional) (**item 1**) to a well anchored part of the vehicle. Secure the winch hook (**item 2**) in the lift strap. Place the winch cable around the pulley (**item 3**). Secure the pulley in place with a pin (**item 4**) and a hair pin (**item 5**).

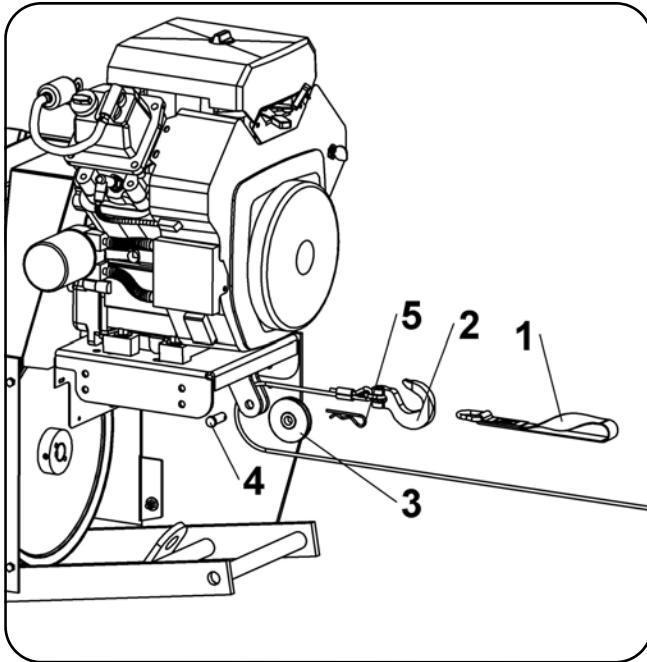


Figure 16 – Lift system

VERIFYING THE ASSEMBLY

THE LENGTH OF THE SUBFRAME

When the vehicle is advancing in a straight line, make sure the wheels of the subframe do not come into contact with the wheels of the vehicle.

When the snowblower is raised to its maximum, make sure the snowblower engine does not come into contact with the vehicle.

PRESSURE OF THE TIRES ON THE SUBFRAME

Verify and adjust the pressure of the tires of the subframe at 50 psi.

The tire pressure must be even on both sides.

THE ELECTRICAL CONNECTIONS

IMPORTANT: Take the time to familiarize yourself with the location of the switches and with their use.

NOTE: If the switches don't match the right controls, reconnect the right connectors with the right motors.

DANGER: Always make sure that all the guards are installed before starting the snowblower engine.

DANGER: For the next manipulations, make sure to clear the area in front of the snowblower and the outflow of the chute of all people or objects.

1. Manipulate the four position switch (**item 1**) and make sure the chute deflector and rotation works well.
2. Activate the electromagnetic clutch switch (**item 2**). Make sure the clutch engages and disengages.
3. Engage the electromagnetic clutch. Try to start the snowblower engine. Make sure the engine does not start.
4. Disengage the electromagnetic clutch. Try to start the snowblower engine. Make sure the engine starts.
5. While the engine is running, activate the kill switch (**item 3**). Make sure the engine stops. Deactivate the kill switch by turning it clockwise.
6. If the snowblower is equipped with a light, activate the light switch (**item 4**) make sure it activates the light.

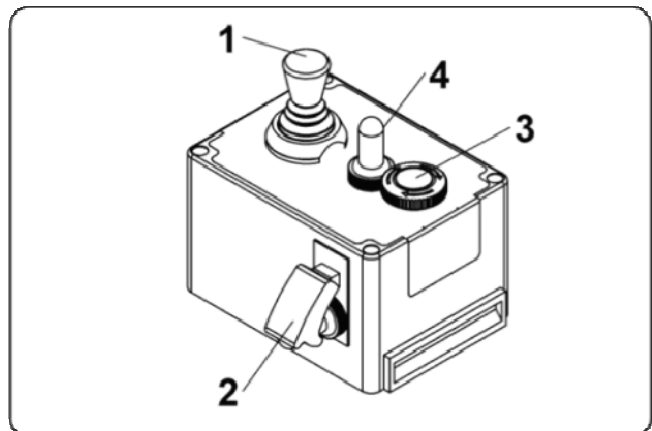


Figure 17– Control switches

OPERATION



WARNING



Read the vehicle's owner's manual carefully. Be thoroughly familiar with the controls & proper use of the attachment. Know how to stop the unit & disengage the controls quickly.



WARNING



To prevent injuries and for more traction when using the snowblower:

- Do not drive faster than 3 km/hr (2 m/hr) with snowblower on the ground.
- Do not drive faster than 10 km/hr (6 m/hr) with the snowblower in raised position.
- Always disengage the electromagnetic clutch when the snowblower is in the raised position.
- Do not operate on a slope greater than 10%.
- Vehicle manufacturer approved tire chains are required.
- Maximum drawbar pull provided for at the hitch ball coupling: 3560N (800 lbs)
- Maximum vertical load provided for on the hitch ball coupling: 360N (80 lbs).
- Ear muffs and safety glasses are recommended.



WARNING



To prevent accidents :

- Always use the snowblower in well lighted areas.
- It is essential to install and use a light on the front of the snowblower for night use or in shadowy conditions.

BURNISHING PROCEDURE

The burnishing procedure must be performed before the first time use and after each prolonged period of inactivity. Burnishing the engaging system will ensure a proper performance and will help avoid damages.

1. Make sure the fan and the augers are free of any obstruction. Start the motor.
2. Engage electric clutch.
3. Disengage electric clutch and wait for all moving parts to stop.
4. Repeat procedure (steps 2 & 3) 10 times at 30 seconds intervals to avoid overheating the clutch which will damage it.



WARNING



Never touch with your hands or feet the snowblower's fan, auger or the chute because this is the most frequent cause of accidents associated with snowblowers.

SNOWBLOWER OPERATION

1. Make sure the snowblower is clear of snow;
2. Make sure the auger and impeller operate freely.
3. Make sure the electromagnetic clutch is deactivated and the kill switch is disengaged.
4. Start the snowblower engine
5. Before activating the electromagnetic clutch, the snowblower engine must run a full throttle.
6. Operate the snowblower safely.

IMPORTANT: Use full engine r.p.m. when removing wet, sticky snow. low r.p.m. power will tend to plug the chute.



DANGER



Never let the snowblower motor run without the belt guard in place.



WARNING



TO PREVENT INJURIES:

Start the engine, engage and disengage the clutch to be sure it functions normally. Make sure the emergency switch is working perfectly. Make sure all the controls are working well.

ELECTRICAL CONTROLS

See the Verifying the adjustment section for the identification of the electrical controls.

LIFTING AND LOWERING THE SNOWBLOWER

Use the winch control switch to raise and lower the snowblower.

OPERATION

SNOWBLOWING TECHNIQUE

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 A.T.V. is too fast, the snowblower may become overloaded and plugged.



DANGER



DANGER ZONE

It is the snowblower operator's obligation to make sure there are no people or objects that can be thrown in this zone when the snowblower is running.

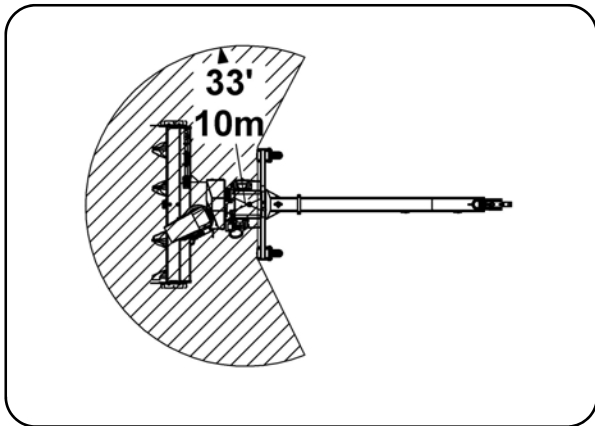


Figure 18- Danger zone

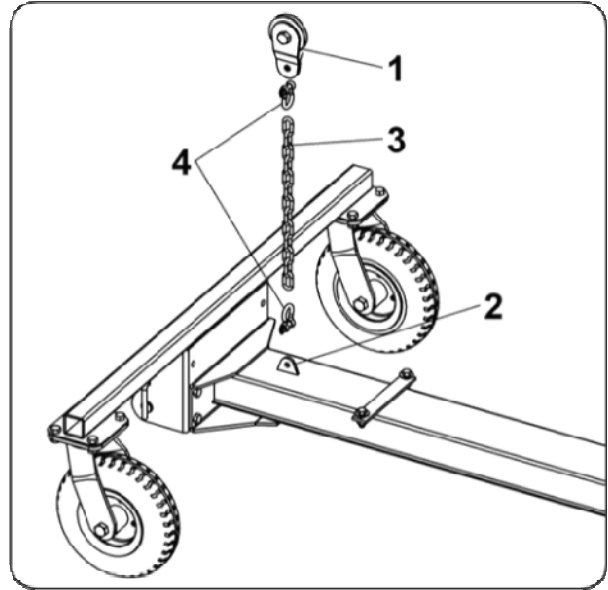


Figure 19 – Adjusting the pulley assembly

NOTE: The closer the pulley assembly is to the subframe, less the wheels will dig into the ground; therefore it will be easier to manoeuvre.

NOTE: Make sure you do not compress the vehicle's suspension too much when transferring the weight of the snowblower.

CAUTION: Make sure the subframe does not come into contact with the vehicle.

SKID SHOE ADJUSTMENT

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

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

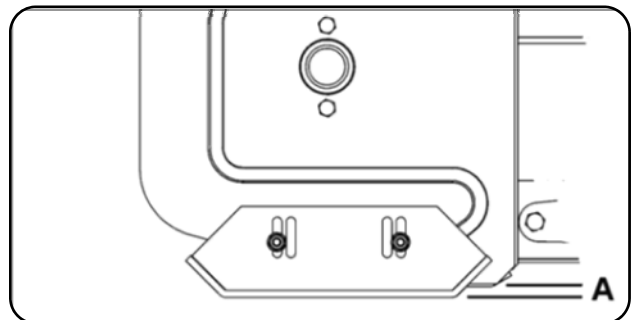


Figure 20 - Skid shoe adjustment

ADJUSTING THE PRESSURE OF THE SUBFRAME TIRES ON THE GROUND

When the ground is soft, the vehicle may lose some of its manoeuvrability because the tires on the subframe have a tendency to dig into the ground. In order to avoid this problem, it is possible to install the pulley assembly 106140 (item 1) supplied with the snowblower.

Thread the winch cable through the pulley assembly. Join the pulley to the eye on the subframe (item 2) with the chain (item 3) two shackles (item 4).

MAINTENANCE



WARNING



Before doing any snowblower maintenance, assembling or dismounting:
Apply parking brakes of the vehicle.
Stop the snowblower engine and remove the ignition key
Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.



WARNING



If the snowblower is in the raised position, always make sure to provide adequate blocking before working under the snowblower.



WARNING



- Do not attempt to clear plugged chute, auger or fan of snow while the snowblower's 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 the chute shovel supplied with the snowblower.

ENGINE MAINTENANCE

Maintain the engine according to the instruction in the engine's owner's manual.

SNOWBLOWER 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.

PRESSURE OF THE TIRES ON THE SUBFRAME

Verify and adjust the pressure of the tires of the subframe at 50 psi.
The tire pressure must be even on both sides.

SNOWBLOWER PULLEY REPLACEMENT OR ALIGNMENT

Clean the parts before aligning or replacing the pulley. Apply some "Locktite" 2760 on the key and the set screws. Tighten firmly.

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. Unscrew the bolts and turn the cutting edge,
Reinstall with new carriage bolts 5/16" x 3/4" grade 5 and new lock nuts 5/16".

CLEANING A CLOGGED DISCHARGE CHUTE

Whether it is the snowblower auger, the fan or the chute that clogged, it is essential to follow these instructions to the letter.

1. Disengage the electromagnetic clutch
2. Lower the snowblower to the ground and apply the vehicle's hand brake;
3. Stop the snowblower engine, remove the key and wait for all the rotating parts to stop turning.
4. Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting;

WARNING: Always use the chute shovel supplied with the snowblower in order to unclog the snowblower, **never use your feet or hands.**

MAINTENANCE

LUBRICATION

SUBFRAME WHEELS: Grease the wheel axles, the fork pivots after every sixteen hours of use. Apply oil at all pivot points.

CHUTE ROTATION SYSTEM: Oil the base of the chute every sixteen hours of operation.

GEAR BOX :

Check the oil annually. If necessary, add AGMA 4 EP or SAE 90 oil.

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

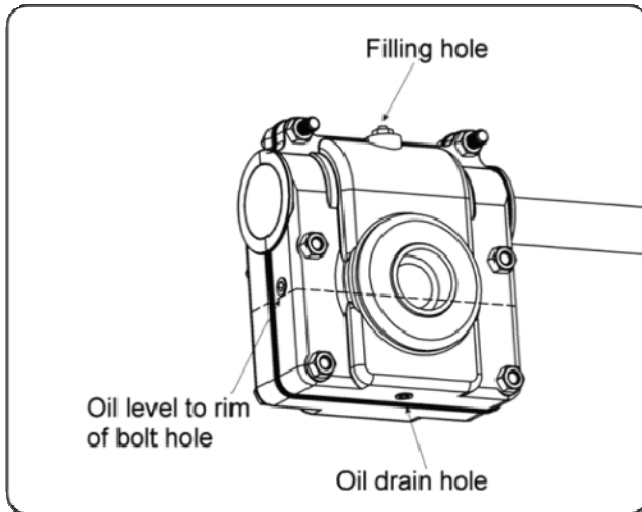


Figure 21– Oil level in the gear box

AUGER AND SHEAR BOLT REPLACEMENT

IMPORTANT: The 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 (#103999 for the fan et #104000 for the auger). The use of any other shear bolt will not insure any protection and may void the warranty.

IMPORTANT: When replacing the auger shear bolts it is very important to replace the augers in the same position as shown in figure 22 to avoid damage to the snowblower and to ensure maximum efficiency.

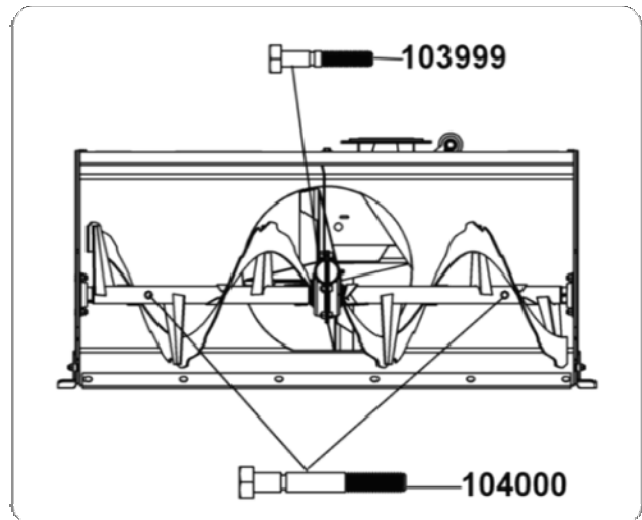


Figure 22– Shear bolt

MAINTENANCE



CAUTION



Never use the snowblower without the belt guard.

BELT REPLACEMENT

Use a BX-55 (#106110) as a replacement belt.

1. Remove the belt guard (**item 1**) by removing the three hex bolts $1/4" \times 1/2"$ (**item 2**) and the three spring washers $1/4"$ (**item 3**);
2. Remove the hair pin (**item 4**) and pin (**item 5**);
3. Raise the tensioner (**item 6**) to remove the tension on the belt (**item 7**);
4. Remove the old belt and install the new one;
5. Reapply the tension on the belt by lowering the tensioner;
6. Make sure the flat idler tensioner pulley is properly aligned on the pulley.
7. Secure the tensioner with the pin and hair pin;
8. Reinstall the belt guard and secure it with three bolts and three spring washers;
9. Make sure the electromagnetic clutch pulley does not rub on the belt guard.

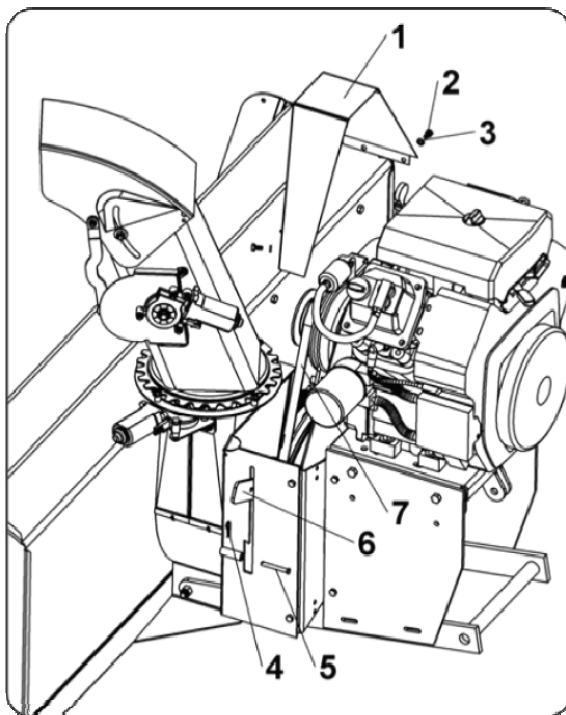


Figure 23 – Belt replacement

BELT TENSION ADJUSTMENT

If the spring becomes too stretched, it is possible to change the position of the spring on the tensioner. Just move the carriage bolt (**item 1**), the sleeve (**item 2**), the flat washer (**item 3**) and nut (**item 4**) to position B instead of position A.

WARNING: Too much tension on the belt will considerably reduce the belt's life span. Ideally, 7 lbs (30N) of force are needed to obtain a $7/32"$ (5mm) deflection (see figure 25).

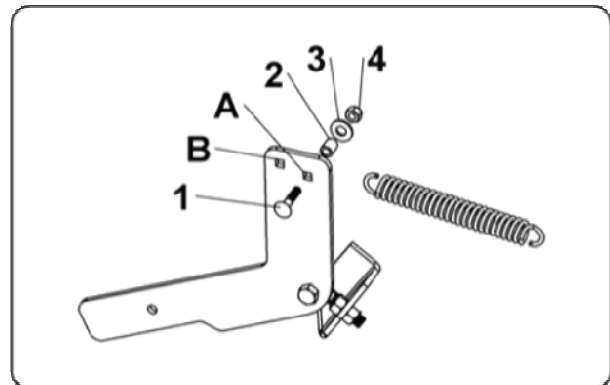


Figure 24 – Adjusting the tension on the belt

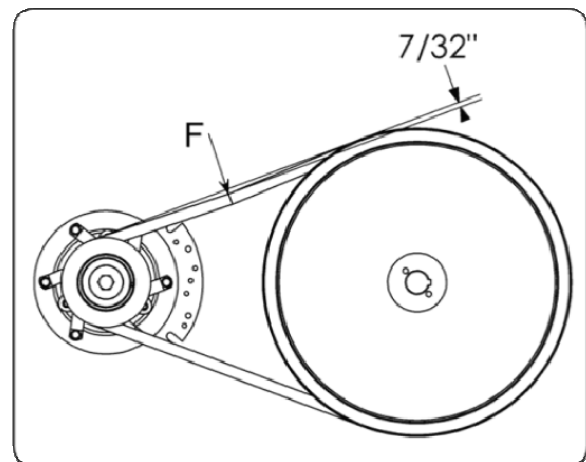


Figure 25 – Measure the tension on the belt

MAINTENANCE

REPLACING THE AUGERS, FAN AND / OR THE GEAR BOX

To identify the part numbers, refer to the snowblower parts breakdown.

NOTE: The snowblower must be disconnected and removed from the vehicle before replacing the auger or the gear box.

1. If applicable, remove the gas tank from the support and place it on the ground (to prevent any risks of spills);
2. Remove the belt guard & belt (see belt replacement section);
3. Remove the hex bolts 7/16" x 1 1/4" (item 1) and the hex bolts 1/4" x 3/4" (item 2). Remove the hitch from the snowblower.

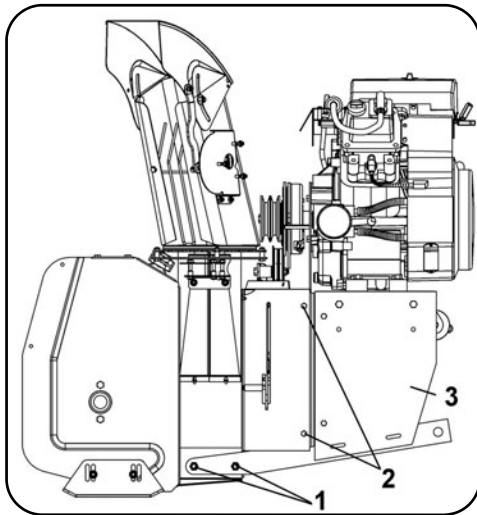


Figure 26 – Remove the V pulley

4. Loosen the two set screws (item 1) from the V pulley (it may be necessary to heat the set screw and the center of the pulley around the shaft to soften the Loctite).
5. Remove the V pulley with a puller.

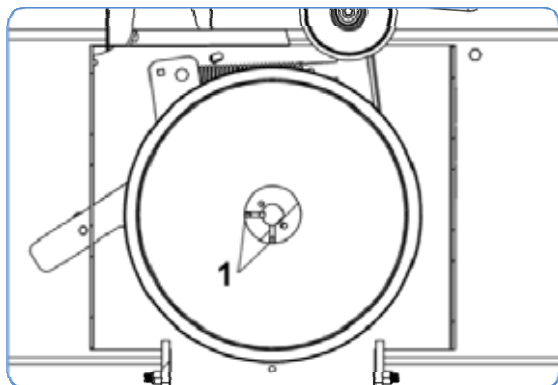


Figure 27 – Remove the V pulley

6. Loosen the two set screws (item 1) from ball bearing behind the snowblower (it may be necessary to heat the set screw and the center of the bearing around the shaft to soften the Loctite).

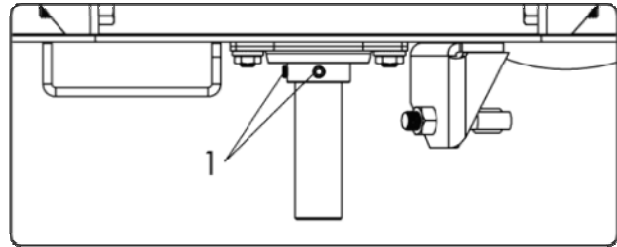


Figure 28 – Loosen the set screws from the ball bearing

7. Remove all the bolts (item 3) and nuts supporting the gear box, its support and augers.
8. Remove the assembly (the gear box, its support, fan, the snowblower augers keeping the nylon bushings and the bearings);
9. Replace the appropriate parts making sure to reassemble the parts as shown in figure 29;
10. Reinstall the parts.

IMPORTANT: Clean the parts and apply some Loctite 2760 on the key of the pulley and on the set screws of the bearings and those of the pulley. Firmly tighten the set screws.

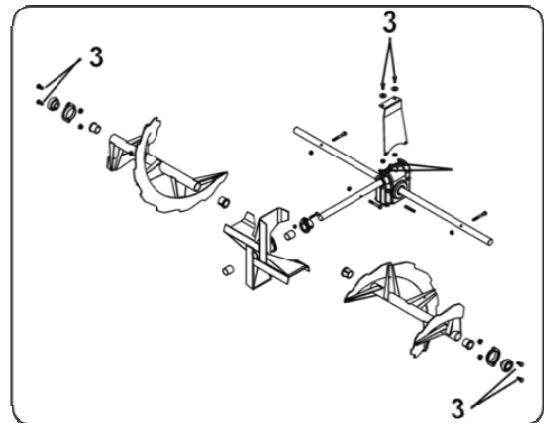


Figure 29– Remove the bolts

DISMOUNTING AND STORAGE

DISMOUNTING

1. Select a level surface, set the parking brake, stop the engine and remove the ignition key to prevent accidental starting.
2. Lower the accessory to the ground
3. Disconnect the electrical wiring on the front of the vehicle.
4. Unhook the winch hook and remove the winch cable from the pulley.
5. Unhook the turnbuckles from the front of the vehicle. (Tip: loosen one of the turnbuckles in order to keep the adjustment) and the hitch from the rear of the vehicle.
6. Remove the vehicle.

STORAGE

1. Clean the snowblower and subframe thoroughly.
2. Paint all the parts wear the paint has worn out.
3. List the parts that will be needed to be replaced next season.
4. Follow the instructions in the lubrication section.
5. Follow the instructions in the engine owner's manual
6. Store the snowblower and subframe in a dry place.

TROUBLESHOOTING

* Please refer to parts breakdown section for parts identification.

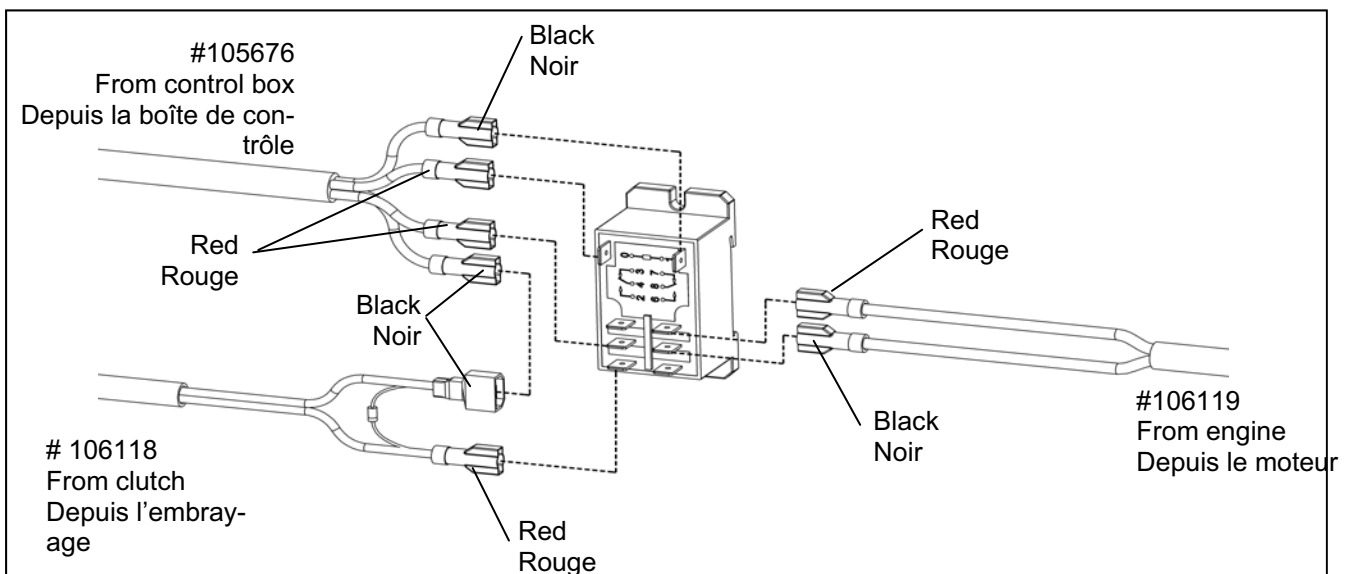
PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
Snowblower vibrates or is abnormally noisy or bouncing.	Damaged pulley	Replace pulley
	Damaged bearing	Replace the bearing
	Fan or the augers are damaged	Remove and straighten or replace the parts
	Fan or auger bushings are worn	Replace with new bushings
	Augers are not positioned properly	Position the augers at 180 degrees from one another. See shear bolt replacement in manual.
Fan stops turning	Shear bolt is probably broken	Replace shear bolt (see maintenance section).
Auger stops turning	Shear bolt is probably broken	Replace shear bolt (see maintenance section).
Snowblower stops turning.	Belt is probably damaged or broken	Check and replace damaged belt
Belt is snapping, shredding, burning or worn in a specific place	Snowblower was engaged when plugged	Make sure the auger and the fan are not frozen or plugged before engaging
	Lack of tension on the belt	Adjust the tensioner spring or replace spring if stretched.
Belt shows premature wear	Not the original belts	Always use the original belts
	Worn belt, Belt may be worn causing a slack.	Inspect the belt. Replace if required.
	Not the original shear bolts	Always replace the shear bolts with an original bolt.
	Imperfections in the pulleys	Verify if the pulleys are damaged. Verify that the pulleys are smooth without rust spots. Sand down the pulleys or replace them.
	Interference	Make sure that the belt does not come into contact with any other part, bolts, guides etc... when engaged.
Chute rotation is difficult	Dirt or ice may be underneath chute.	Dismount chute. Clean the base of chute and the rotation ring. Lubricate & re-install.
Chute plugs easily.	Snowblower engine running too slowly.	Run engine at full R.P.M. during snow blowing operation.
	Advancing too quickly with vehicle.	Reduce vehicle's speed.. Allow 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 #700243) which cover more surface and prevents snowblower from digging.
Snowblower does not rise evenly.	Pressure of the subframe tires is uneven from one side to another.	Tire pressure must be even on both sides. 50 p.s.i.

TROUBLESHOOTING

* Please refer to parts breakdown section for parts identification.

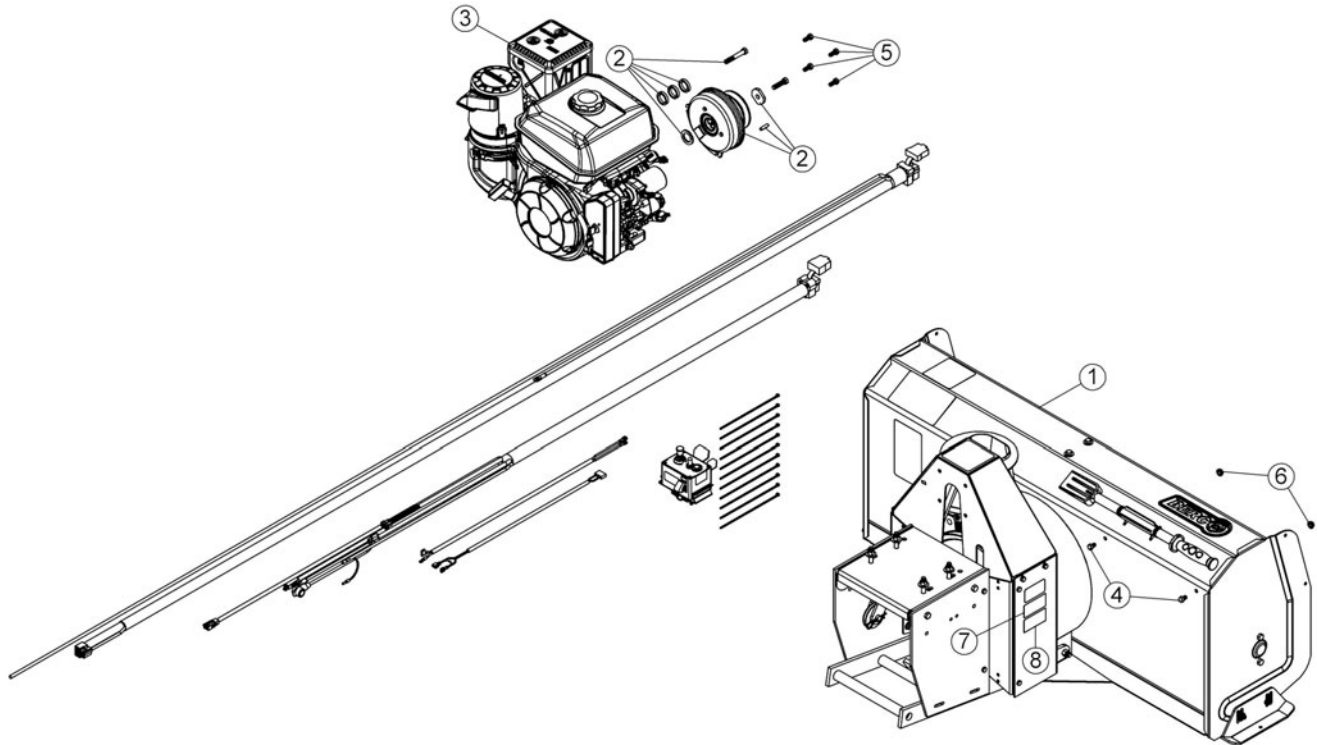
PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
The engine does not start	The emergency button is pushed down.	The emergency button must be pulled up to start the engine of the snowblower.
	Other reasons.	See owner's manual
Electric chute motor does not work.	Overheating of the motor.	These motors are equipped with an internal protector. Wait 10 minutes before using.
	Frozen motor or chute.	Slap the chute or wiggle from side to side.
	Defective control box or broken wire harness.	Replace control box or wire harness.
	Loose connectors or oxidation on connectors or motor.	Retighten or clean connectors. Or replace connector part # 106201.
Electric clutch slips	Insufficient electrical current.	Recharge vehicle's battery.
	Electrical current is cut off.	Replace damaged wiring.
	Clutch basket is contaminated.	Clean plates with brake cleaner.
Electric clutch is noisy or vibrates abnormally.	Mounting bolts are loose.	Tighten or replace bolts.
	Certain clutch components may be damaged.	Repair or replace damaged components.

In the case of where the wires become disconnected from the relay, refer to the drawing below to reconnect them in their proper place.



PARTS BREAKDOWN

VERSATILE PLUS SNOWBLOWER WITH 14HP KOHLER



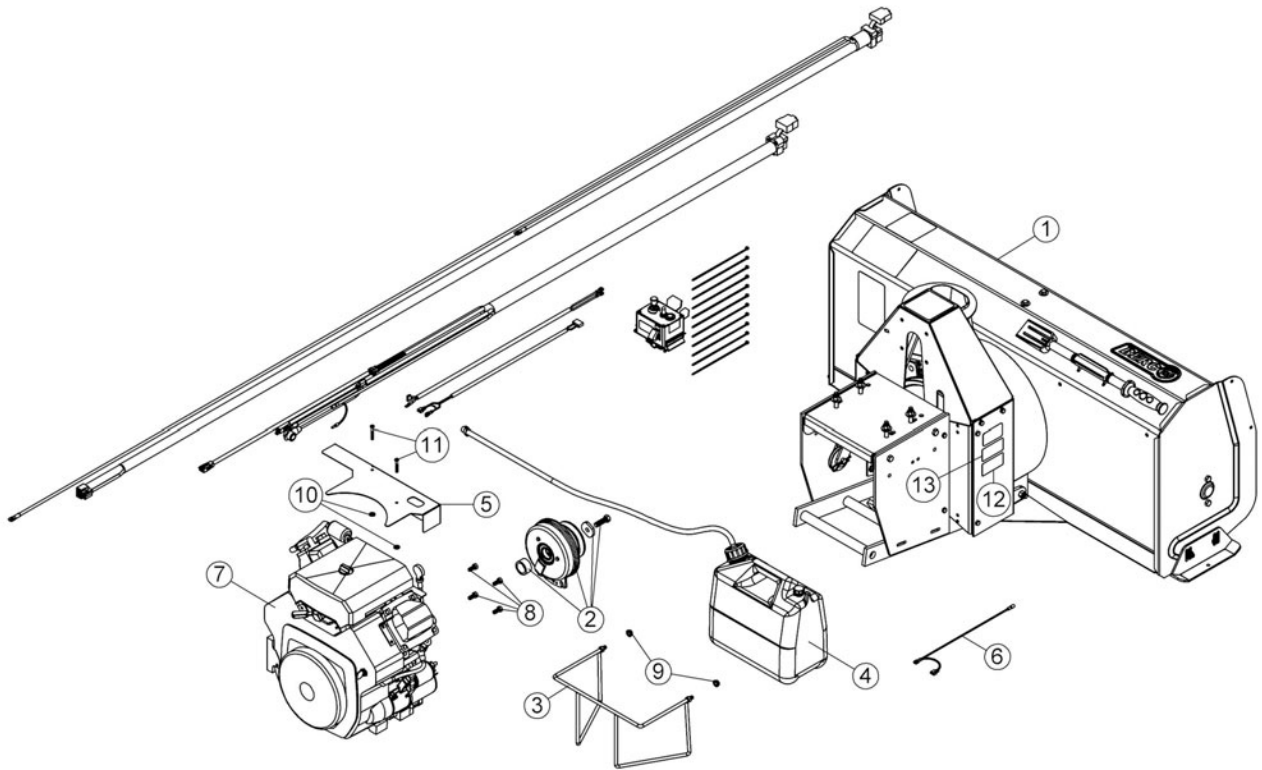
PARTS LIST

VERSATILE PLUS SNOWBLOWER WITH 14HP KOHLER

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Snowblower	Souffleuse à neige	1	REF
2	Electric clutch assembly (Hole 1")	Embrayage électrique assemblé (Alésage 1")	1	106178
3	Kohler engine 14HP	Moteur Kohler 14CV	1	106014
4	Hex. bolt 5/16" n.c. x 1/2" GR5	Boulon hex. 5/16" n.c. x 1/2" GR5	2	O/L
5	Hex. bolt 5/16" n.f. x 3/4" GR5	Boulon hex. 5/16" n.f. x 3/4" GR5	4	O/L
6	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	2	O/L
7	Serial number	Numéro de série	1	REF
8	Specifications decal	Décalque spécifications	1	REF

O/L = Obtain Locally

PARTS BREAKDOWN VERSATILE PLUS SNOWBLOWER WITH 23HP KOHLER

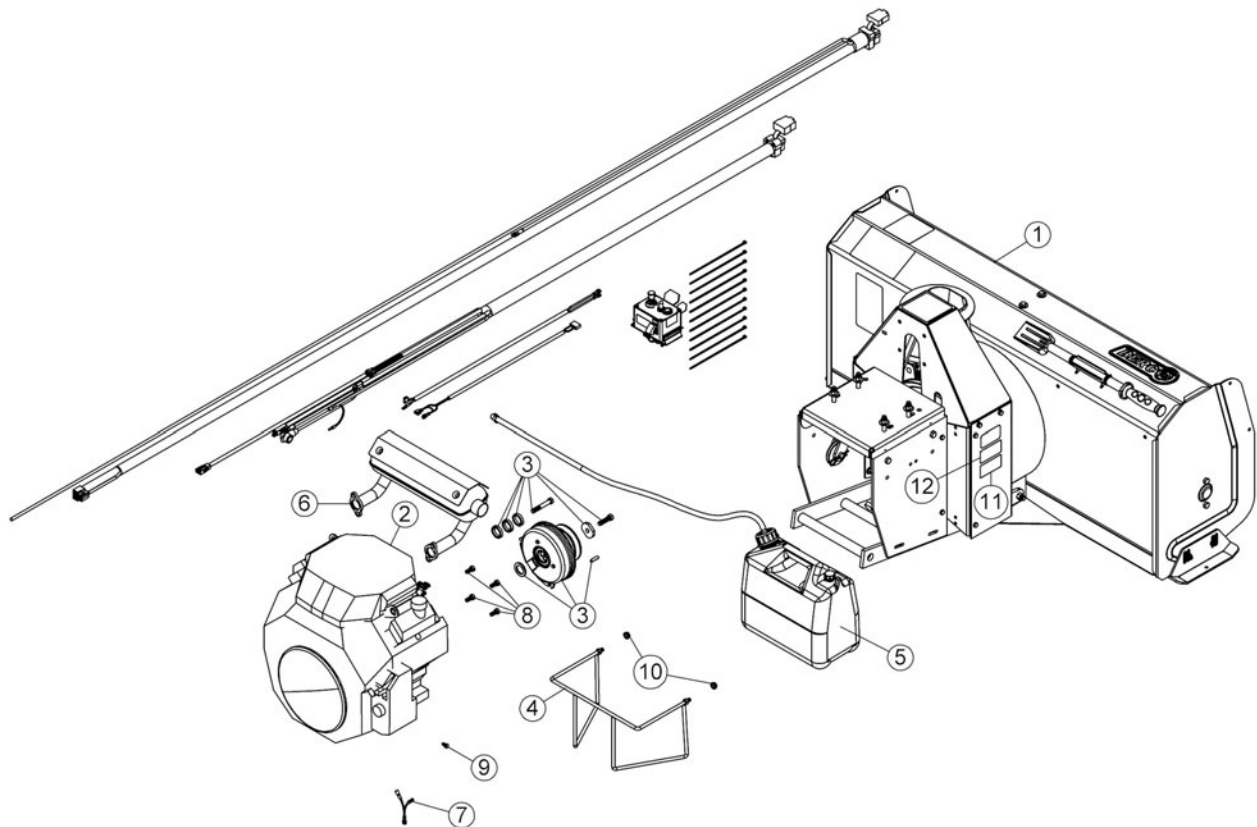


PARTS LIST VERSATILE PLUS SNOWBLOWER WITH 23HP KOHLER

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Snowblower	Souffleuse à neige	1	REF
2	Electric Clutch Assembly (Hole 1 1/8")	Embrayage électrique ass. (Alésage 1 1/8")	1	106179
3	Tank support	Support de réservoir	1	104792
4	Gasoline tank assembly	Réservoir d'essence assemblé	1	104005
5	Heat shield	Pare-chaleur	1	104621
6	Wire assembly	Fil assemblé	1	105218
7	Engine 23 HP (Kohler)	Moteur 23 CV (Kohler)	1	REF
8	Hex. bolt 5/16" n.f. x 3/4" GR5	Boulon hex. 5/16" n.f. x 3/4" GR5	4	O/L
9	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	2	O/L
10	Flat washer 1/4" hole	Rondelle plate 1/4" trou	2	O/L
11	Machine screw Pan head no.10 x 32 x 1 1/2"	Vis mécanique tête pan no.10 x 32 x 1 1/2"	2	O/L
12	Specifications decal	Décalque spécifications	1	REF
13	Serial number	Numéro de série	1	REF

O/L = Obtain Locally

PARTS BREAKDOWN VERSATILE PLUS SNOWBLOWER WITH 20HP HONDA

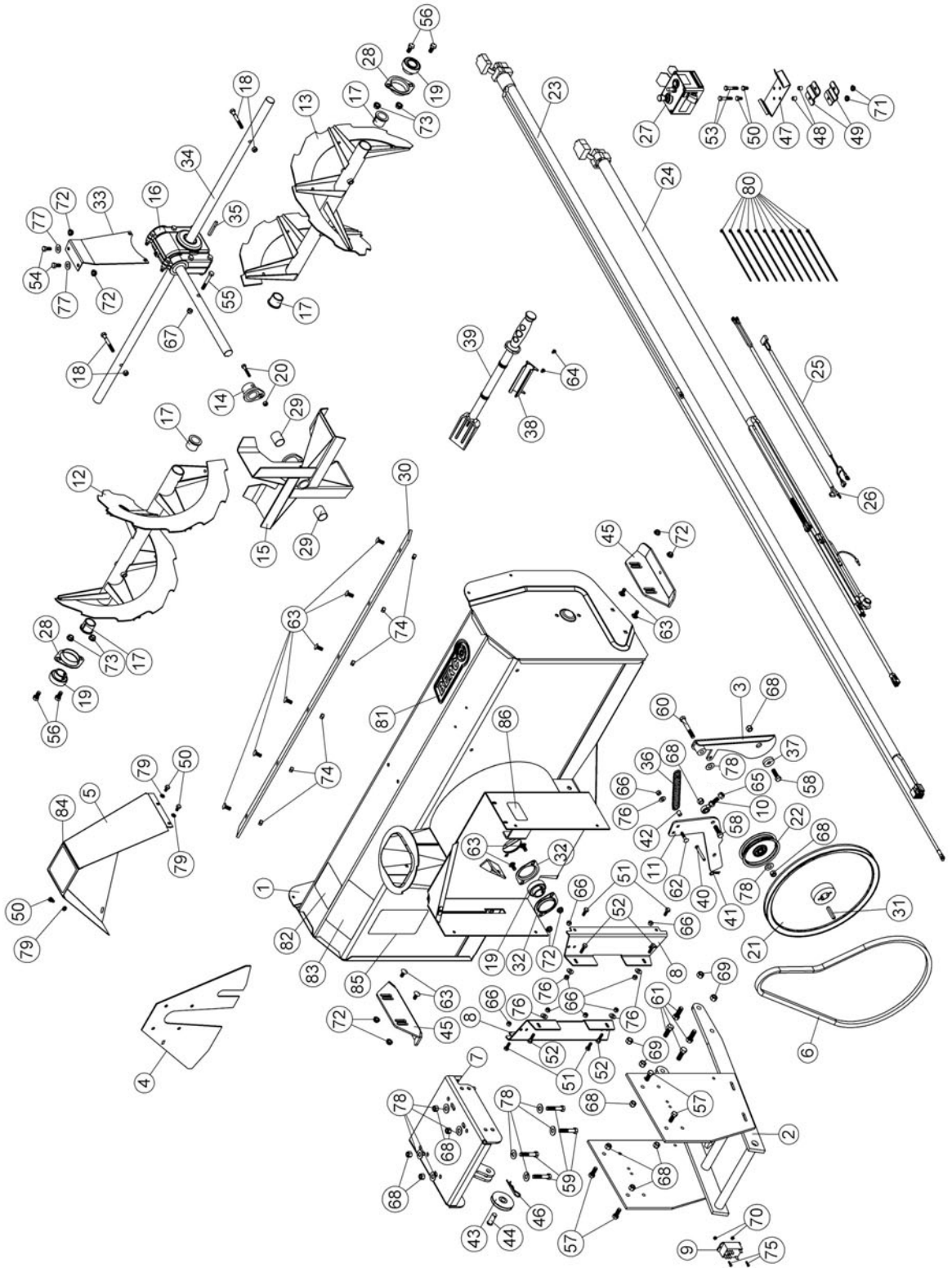


PARTS LIST VERSATILE PLUS SNOWBLOWER WITH 20HP HONDA

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Snowblower	Souffleuse à neige	1	REF
2	Honda engine 20 hp with key	Moteur Honda 20 CV avec clé	1	105538
3	Electric clutch assembly (Hole 1")	Embrayage électrique assemblé (Alésage 1")	1	106178
4	Tank support	Support de réservoir	1	104792
5	Gasoline tank assembly	Réservoir d'essence assemblé	1	104005
6	Honda muffler	Silencieux Honda	1	105448
7	Stop emergency wire	Fil d'arrêt d'urgence	1	105597
8	Hex. bolt 5/16" n.f. x 3/4" GR5	Boulon hex. 5/16" n.f. x 3/4" GR5	4	O/L
9	Hex. bolt M6 x 1.00 x 12 GR8.8	Boulon hex. M6 x 1.00 x 12 GR8.8	1	O/L
10	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	2	O/L
11	Specifications decal	Décalque spécifications	1	REF
12	Serial number	Numéro de série	1	REF

O/L = Obtain Locally

PARTS BREAKDOWN 48" SNOWBLOWER



PARTS LIST 48" SNOWBLOWER

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Frame 48"	Châssis 48"	1	106217
2	Hitch	Attache	1	106162
3	Bender	Tendeur	1	106163
4	Guard	Garde	1	106164
5	Belt guard	Garde-courroie	1	106166
6	V-belt, BX-55	Courroie en V, BX-55	1	106110
7	Engine support	Support moteur	1	106168
8	Guard	Garde	2	106169
9	Relay	Relais	1	106123
10	Rod end assembly	Embout assemblé	1	106184
11	Bender	Tendeur	1	106175
12	Auger 48" left	Vis 48" gauche	1	104765
13	Auger 48" right	Vis 48" droite	1	104766
14	Shear plate	Plaque de cisaillement	1	103933
15	Fan	Éventail	1	103932
16	Gear box left rotation	Boîte d'engrenage rotation gauche	1	104718
17	Rotation bushing	Coussinet de rotation	4	103946
18	Shear bolt / N.I.L.N. (auger) pkg-10	Boulon de séc. / É.G.N. (vis) pqt-10	2	104000
19	Bearing with set screw	Roulement à billes avec vis à pression	3	102755
20	Shear bolt / N.I.L.N. (fan) pkg-10	Boulon de séc./ É.G.N. (éven.) pqt-10	1	103999
21	V pulley with set screw	Poulie en V avec vis pression	1	105423
22	Flat pulley	Poulie plate	1	102765
23	Wire Control Box Extension	Extension du fil de la boîte de contrôle	1	105675
24	Wire assembly	Fils assemblés	1	105676
25	Wire Assembly Extension	Extension du fil assemblé	1	106118
26	Wire Assembly extension	Extension du fil assemblé	1	106119
27	Control box assembly	Boîte de contrôle assemblé	1	106122
28	Flangette	Flangette	2	102680

O/L = Obtain Locally

PARTS LIST 48" SNOWBLOWER

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
29	Oil lite bushing	Coussinet imprégné d'huile	2	102784
30	Cutting edge 48"	Racloir 48"	1	103187
31	Key 1/4" x 1/4" x 1 3/4"	Clé 1/4" x 1/4" x 1 3/4"	1	102327
32	Flangette	Flangette	2	102213
33	Gear box support	Support de boîte d'engrenage	1	104746
34	Shaft 48"	Arbre 48"	1	104721
35	Key 1/4" x 1/4" x 2"	Clé 1/4" x 1/4" x 2"	1	102922
36	Spring	Ressort	1	102592
37	Flange washer	Rondelle à bride	1	102081
38	Chute shovel support	Support de pelle à goulotte	1	105701
39	Chute shovel	Pelle à goulotte	1	105700
40	Pin	Goupille	1	105365
41	Hair pin 2mm	Goupille à ressort 2mm	1	102430
42	Spacer	Espaceur	1	103361
43	Pulley	Poulie	1	106138
44	Pin	Goupille	1	103070
45	Skid shoe	Patin	2	103188
46	Hair pin 3mm	Goupille à ressort 3mm	1	102617
47	Box support	Support de la boîte	1	104756
48	Spacer	Espaceur	2	103368
49	Support bracket	Fixation du support	2	103068
50	Hex. bolt 1/4" n.c. x 1/2" GR5	Boulon hex. 1/4" n.c. x 1/2" GR5	5	O/L
51	Hex. bolt 1/4" n.c. x 3/4" GR5	Boulon hex. 1/4" n.c. x 3/4" GR5	4	O/L
52	Hex. bolt 1/4" n.c. x 1" GR5	Boulon hex. 1/4" n.c. x 1" GR5	4	O/L
53	Hex. bolt 1/4" n.c. x 1 1/2" GR5	Boulon hex. 1/4" n.c. x 1 1/2" GR5	2	O/L
54	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	2	O/L
55	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
56	Hex. bolt 3/8" n.c. x 3/4" GR5	Boulon hex. 3/8" n.c. x 3/4" GR5	4	O/L

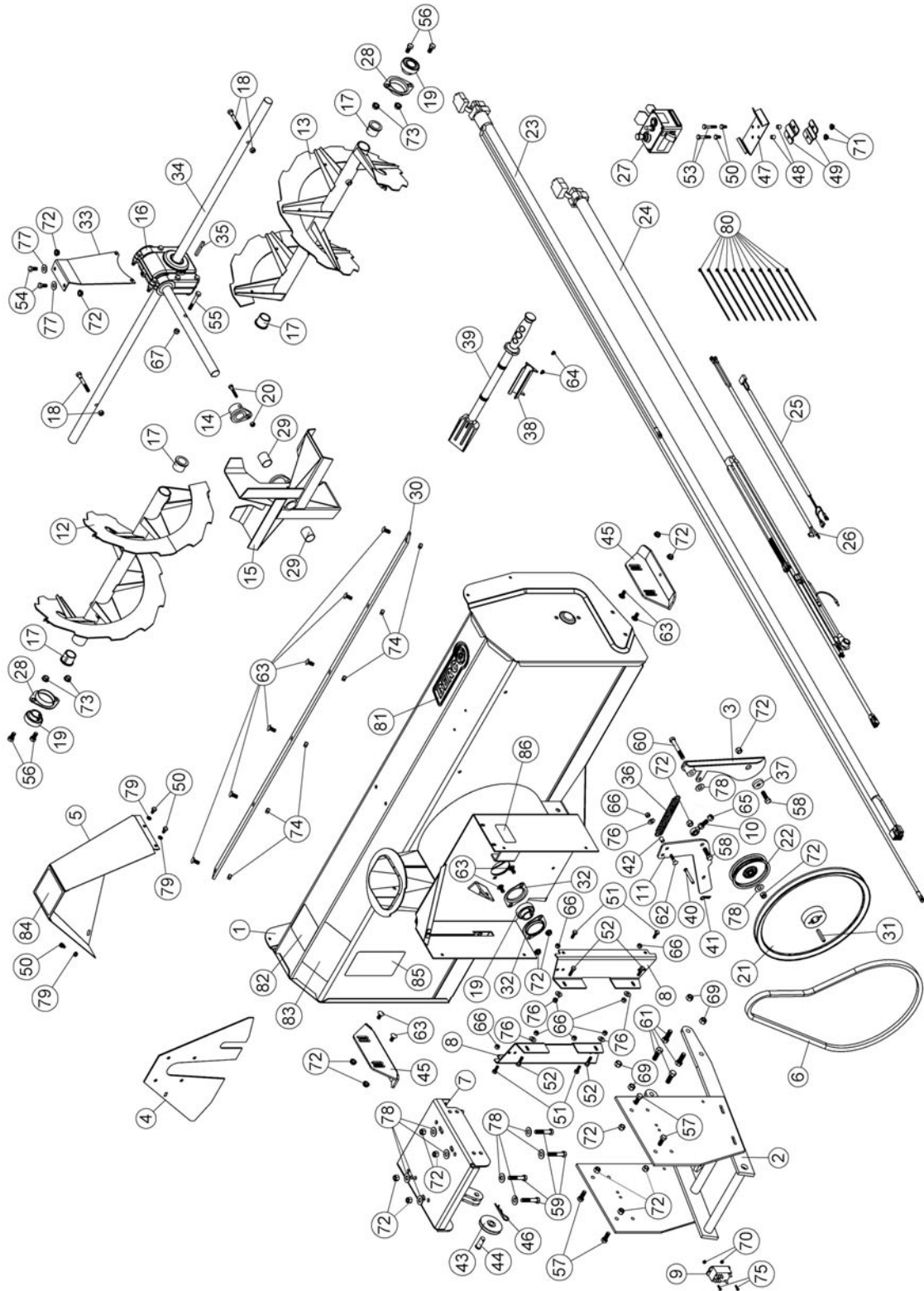
O/L = Obtain Locally

PARTS LIST 48" SNOWBLOWER

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
57	Hex. bolt 3/8" n.c. x 1" GR5	Boulon hex. 3/8" n.c. x 1" GR5	4	O/L
58	Hex. bolt 3/8" n.c. x 1 1/4" GR5	Boulon hex. 3/8" n.c. x 1 1/4" GR5	2	O/L
59	Hex. bolt 3/8" n.c. x 2" GR5	Boulon hex. 3/8" n.c. x 2" GR5	4	O/L
60	Hex. bolt 3/8" n.c. x 2 3/4" GR5	Boulon hex. 3/8" n.c. x 2 3/4" GR5	1	O/L
61	Hex. bolt 7/16" n.c. x 1 1/4" GR5	Boulon hex. 7/16" n.c. x 1 1/4" GR5	4	O/L
62	Carriage bolt 1/4" n.c. x 1 1/4" GR5	Boulon à carrosserie 1/4" n.c. x 1 1/4" GR5	1	O/L
63	Carriage bolt 5/16" n.c. x 3/4 " GR5	Boulon à carrosserie 5/16" n.c. x 3/4 " GR5	12	O/L
64	Socket Head Cap Screw M5 x 0.80 x 10	Vis six PC tête ronde M5 x 0.80 x 10	2	O/L
65	Nylon insert lock nut 3/8" n.f.	Écrou garniture de nylon 3/8" n.f.	1	O/L
66	Nylon Insert lock Nut 1/4" n.c.	Écrou à garniture de nylon 1/4" n.c.	9	O/L
67	Nylon Insert lock Nut 5/16" n.c.	Écrou à garniture de nylon 5/16" n.c.	1	O/L
68	Nylon Insert lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	11	O/L
69	Nylon Insert lock Nut 7/16" n.c.	Écrou à garniture de nylon 7/16" n.c.	4	O/L
70	Nylon Insert lock Nut #6x32 n.c.	Écrou à garniture de nylon #6x32 n.c.	2	O/L
71	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	2	O/L
72	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	8	O/L
73	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	4	O/L
74	Stover lock nut 5/16" n.c.	Écrou de blocage 5/16" n.c.	6	O/L
75	Machine screw Pan head #6 x 32 x 9/16"	Vis mécanique tête pan #6 x 32 x 9/16"	2	O/L
76	Flat washer 5/16" hole	Rondelle plate 5/16" trou	5	O/L
77	Flat washer 3/8" hole	Rondelle plate 3/8" trou	2	O/L
78	Flat washer 7/16" hole	Rondelle plate 7/16" trou	10	O/L
79	Lock washer 1/4"	Rondelle de blocage 1/4"	3	O/L
80	Tie wrap 8"	Attache de nylon 8"	11	O/L
81	Berco decal	Décalque Berco	1	102471
82	Decal danger auger	Decalque danger vis	1	105126
83	Decal warning safety	Decalque avertissement sécurité	1	105131
84	Decal danger belts	Decalque danger courroies	1	105128
85	Decal read instructions	Decalque lire instructions	1	105130
86	Made in Canada decal	Décalque Fabriqué au Canada	1	REF

O/L = Obtain Locally

PARTS BREAKDOWN 54" SNOWBLOWER



PARTS LIST 54" SNOWBLOWER

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Frame 54"	Châssis 54"	1	106161
2	Hitch	Attache	1	106162
3	Bender	Tendeur	1	106163
4	Guard	Garde	1	106164
5	Belt guard	Garde-courroie	1	106166
6	V-belt, BX-55	Courroie en V, BX-55	1	106110
7	Engine support	Support moteur	1	106168
8	Guard	Garde	2	106169
9	Relay	Relais	1	106123
10	Rod end assembly	Embout assemblé	1	106184
11	Bender	Tendeur	1	106175
12	Auger 54" left	Vis 54" gauche	1	104747
13	Auger 54" right	Vis 54" droite	1	104748
14	Shear plate	Plaque de cisaillement	1	103933
15	Fan	Éventail	1	103932
16	Gear box left rotation	Boîte d'engrenage rotation gauche	1	104718
17	Rotation bushing	Coussinet de rotation	4	103946
18	Shear bolt / N.I.L.N. (auger) pkg-10	Boulon de séc. / É.G.N. (vis) pqt-10	2	104000
19	Bearing with set screw	Roulement à billes avec vis à pression	3	102755
20	Shear bolt / N.I.L.N. (fan) pkg-10	Boulon de séc./ É.G.N. (éven.) pqt-10	1	103999
21	V pulley with set screw	Poulie en V avec vis pression	1	105423
22	Flat pulley	Poulie plate	1	102765
23	Wire Control Box Extension	Extension du fil de la boîte de contrôle	1	105675
24	Wire assembly	Fils assemblés	1	105676
25	Wire Assembly Extension	Extension du fil assemblé	1	106118
26	Wire Assembly extension	Extension du fil assemblé	1	106119
27	Control box assembly	Boîte de contrôle assemblé	1	106122
28	Flangette	Flangette	2	102680

O/L = Obtain Locally

PARTS LIST 54" SNOWBLOWER

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
29	Oil lite bushing	Coussinet imprégné d'huile	2	102784
30	Cutting edge 54"	Racloir 54"	1	104427
31	Key 1/4" x 1/4" x 1 3/4"	Clé 1/4" x 1/4" x 1 3/4"	1	102327
32	Flangette	Flangette	2	102213
33	Gear box support	Support de boîte d'engrenage	1	104746
34	Shaft 54"	Arbre 54"	1	104722
35	Key 1/4" x 1/4" x 2"	Clé 1/4" x 1/4" x 2"	1	102922
36	Spring	Ressort	1	102592
37	Flange washer	Rondelle à bride	1	102081
38	Chute shovel support	Support de pelle à goulotte	1	105701
39	Chute shovel	Pelle à goulotte	1	105700
40	Pin	Goupille	1	105365
41	Hair pin 2mm	Goupille à ressort 2mm	1	102430
42	Spacer	Espaceur	1	103361
43	Pulley	Poulie	1	106138
44	Pin	Goupille	1	103070
45	Skid shoe	Patin	2	103188
46	Hair pin 3mm	Goupille à ressort 3mm	1	102617
47	Box support	Support de la boîte	1	104756
48	Spacer	Espaceur	2	103368
49	Support bracket	Fixation du support	2	103068
50	Hex. bolt 1/4" n.c. x 1/2" GR5	Boulon hex. 1/4" n.c. x 1/2" GR5	5	O/L
51	Hex. bolt 1/4" n.c. x 3/4" GR5	Boulon hex. 1/4" n.c. x 3/4" GR5	4	O/L
52	Hex. bolt 1/4" n.c. x 1" GR5	Boulon hex. 1/4" n.c. x 1" GR5	4	O/L
53	Hex. bolt 1/4" n.c. x 1 1/2" GR5	Boulon hex. 1/4" n.c. x 1 1/2" GR5	2	O/L
54	Hex. bolt 5/16" n.c. x 3/4" GR5	Boulon hex. 5/16" n.c. x 3/4" GR5	2	O/L
55	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
56	Hex. bolt 3/8" n.c. x 3/4" GR5	Boulon hex. 3/8" n.c. x 3/4" GR5	4	O/L

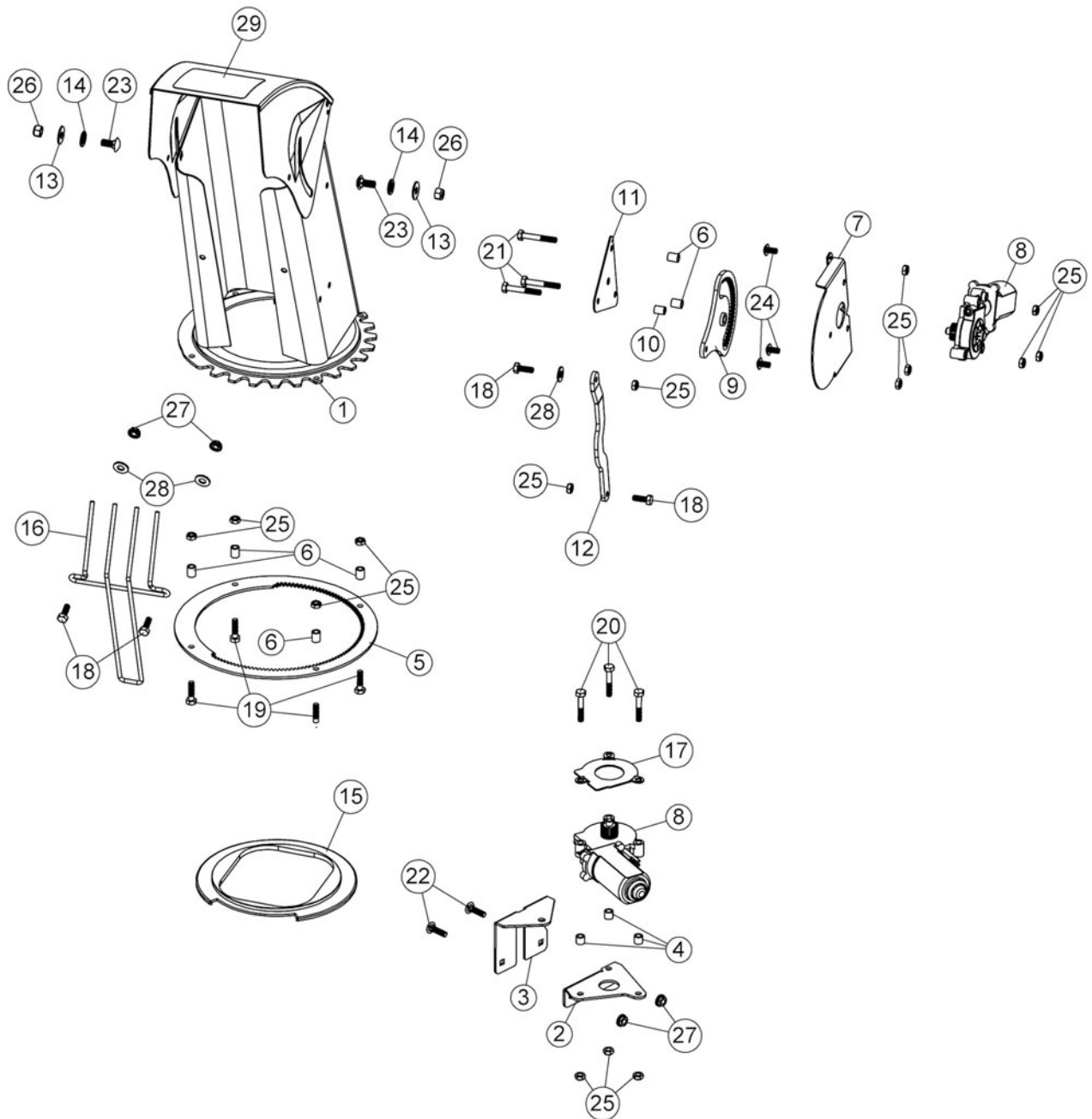
O/L = Obtain Locally

PARTS LIST 54" SNOWBLOWER

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
57	Hex. bolt 3/8" n.c. x 1" GR5	Boulon hex. 3/8" n.c. x 1" GR5	4	O/L
58	Hex. bolt 3/8" n.c. x 1 1/4" GR5	Boulon hex. 3/8" n.c. x 1 1/4" GR5	2	O/L
59	Hex. bolt 3/8" n.c. x 2" GR5	Boulon hex. 3/8" n.c. x 2" GR5	4	O/L
60	Hex. bolt 3/8" n.c. x 2 3/4" GR5	Boulon hex. 3/8" n.c. x 2 3/4" GR5	1	O/L
61	Hex. bolt 7/16" n.c. x 1 1/4" GR5	Boulon hex. 7/16" n.c. x 1 1/4" GR5	4	O/L
62	Carriage bolt 1/4" n.c. x 1 1/4" GR5	Boulon à carrosserie 1/4" n.c. x 1 1/4" GR5	1	O/L
63	Carriage bolt 5/16" n.c. x 3/4 " GR5	Boulon à carrosserie 5/16" n.c. x 3/4 " GR5	12	O/L
64	Socket Head Cap Screw M5 x 0.80 x 10	Vis six PC tête ronde M5 x 0.80 x 10	2	O/L
65	Nylon insert lock nut 3/8" n.f.	Écrou garniture de nylon 3/8" n.f.	1	O/L
66	Nylon Insert lock Nut 1/4" n.c.	Écrou à garniture de nylon 1/4" n.c.	9	O/L
67	Nylon Insert lock Nut 5/16" n.c.	Écrou à garniture de nylon 5/16" n.c.	1	O/L
72	Nylon Insert lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	11	O/L
69	Nylon Insert lock Nut 7/16" n.c.	Écrou à garniture de nylon 7/16" n.c.	4	O/L
70	Nylon Insert lock Nut #6x32 n.c.	Écrou à garniture de nylon #6x32 n.c.	2	O/L
71	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	2	O/L
72	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	8	O/L
73	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	4	O/L
74	Stover lock nut 5/16" n.c.	Écrou de blocage 5/16" n.c.	6	O/L
75	Machine screw Pan head #6 x 32 x 9/16"	Vis mécanique tête pan #6 x 32 x 9/16"	2	O/L
76	Flat washer 5/16" hole	Rondelle plate 5/16" trou	5	O/L
77	Flat washer 3/8" hole	Rondelle plate 3/8" trou	2	O/L
78	Flat washer 7/16" hole	Rondelle plate 7/16" trou	10	O/L
79	Lock washer 1/4"	Rondelle de blocage 1/4"	3	O/L
80	Tie wrap 8"	Attache de nylon 8"	11	O/L
81	Berco decal	Décalque Berco	1	102471
82	Decal danger auger	Decalque danger vis	1	105126
83	Decal warning safety	Decalque avertissement sécurité	1	105131
84	Decal danger belts	Decalque danger courroies	1	105128
85	Decal read instructions	Decalque lire instructions	1	105130
86	Made in Canada decal	Décalque Fabriqué au Canada	1	REF

O/L = Obtain Locally

PARTS BREAKDOWN CHUTE



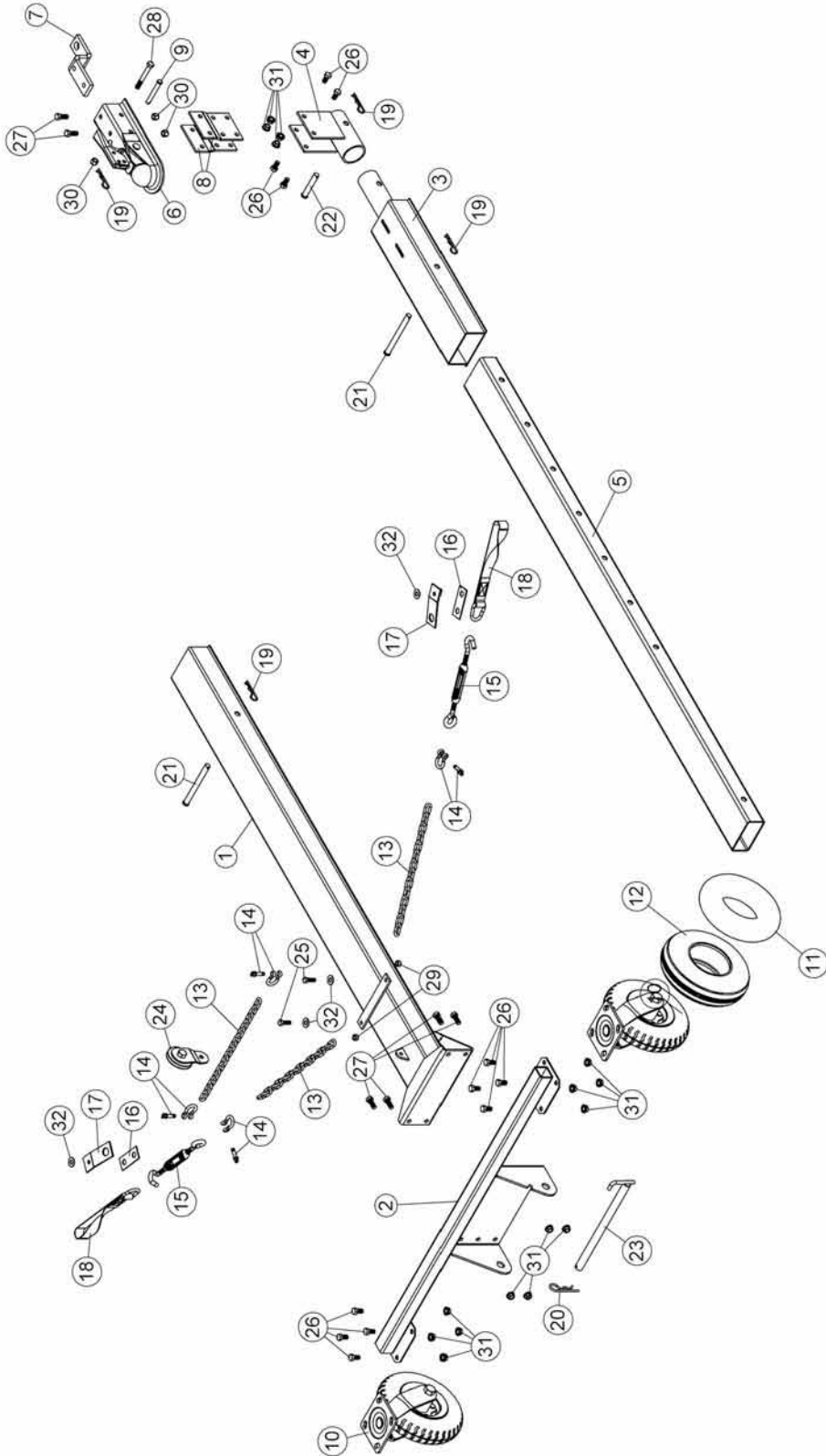
PARTS LIST CHUTE

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Chute	Goulotte	1	106172
2	Bracket	Support	1	103971
3	Reinforcement plate	Plaque de renforcement	1	103972
4	Spacer	Espaceur	3	103368
5	Rotation ring	Anneau de rotation	1	103974*
6	Spacer	Espaceur	6	103361
7	Bracket	Support	1	103375
8	Electric motor	Moteur électrique	2	106147
9	Lever	Levier	1	103365
10	Oil lite bushing	Coussinet imprégné d'huile	1	103362
11	Plate	Plaque	1	103363
12	Arm	Bras	1	103364
13	Nylon flat washer 11/32"	Rondelle plate de nylon 11/32"	2	102009
14	Nylon flat washer 7/16"	Rondelle plate de nylon 7/16"	2	102011
15	Rotation ring	Anneau de rotation	1	103943
16	Hand guard	Fourche protectrice	1	102012
17	Protective plate	Plaque protectrice	1	105404
18	Hex. bolt 1/4" n.c. x 3/4" GR5	Boulon hex. 1/4" n.c. x 3/4" GR5	4	O/L
19	Hex. bolt 1/4" n.c. x 1" GR5	Boulon hex. 1/4" n.c. x 1" GR5	4	O/L
20	Hex. bolt 1/4" n.c. x 1 1/2" GR5	Boulon hex. 1/4" n.c. x 1 1/2" GR5	3	O/L
21	Hex. bolt 1/4" n.c. x 1 3/4" GR5	Boulon hex. 1/4" n.c. x 1 3/4" GR5	3	O/L
22	Carriage bolt 1/4" n.c. x 1 " GR5	Boulon à carrosserie 1/4" n.c. x 1 " GR5	2	O/L
23	Carriage bolt 5/16" n.c. x 3/4 " GR5	Boulon à carrosserie 5/16" n.c. x 3/4 " GR5	2	O/L
24	Machine screw T.H. 1/4" n.c. x 1/2"	Vis mécanique T.H. 1/4" n.c. x 1/2"	3	O/L
25	Nylon insert lock nut 1/4" n.c. (thin)	Écrou à garniture de nylon 1/4" n.c. (mince)	15	O/L
26	Nylon Insert lock Nut 5/16" n.c.	Écrou à garniture de nylon 5/16" n.c.	2	O/L
27	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	4	O/L
28	Flat washer 5/16" hole	Rondelle plate 5/16" trou	3	O/L
29	Danger decal chute	Décalque danger goulotte	1	105127

- For the Versatile Plus with a Honda GX630 (20HP) the rotation ring (#103975) has been replaced by part #106327.

O/L = Obtain Locally

PARTS BREAKDOWN SUBFRAME



PARTS LIST SUBFRAME

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Subframe	Sous-châssis	1	104957
2	Wheel support	Support de roue	1	104770
3	Rear bracket	Fixation arrière	1	104956
4	Hitch support	Support d'attache	1	104958
5	Adjustment tube	Tube d'ajustement	1	104959
6	Hitch	Attache	1	104639
7	Hitch ball support	Support de boule d'attelage	1	104640
8	Hitch support plate	Plaque de support d'attache	2	104641
9	Pin	Goupille	1	104642
10	Caster wheel assembly	Roue pivotante assemblée	2	105679
11	Inner tube 250-4	Chambre à air 250-4	1	102675
12	Tire 280/250-4	Pneu 280/250-4	1	102674
13	Chain	Chaîne	3	104633
14	Shackle Ptd Z	Clevis Pqé Z	4	102343
15	Turnbuckle	Tendeur	2	104634
16	Bracket	Fixation	2	104632
17	Bracket	Fixation	2	105194
18	Lift strap	Sangle de relevage	2	103613
19	Hair pin 3mm	Goupille à ressort 3mm	4	102617
20	Hair pin 4mm	Goupille à ressort 4mm	1	102054
21	Pin	Goupille	2	104961
22	Pin	Goupille	1	104999
23	Pin	Goupille	1	104759
24	Pulley assembly	Poulie assemblée	1	106140
25	Hex. bolt 5/16" n.c. x 1" GR5	Boulon hex. 5/16" n.c. x 1" GR5	2	O/L
26	Hex. bolt 3/8" n.c. x 3/4" GR5	Boulon hex. 3/8" n.c. x 3/4" GR5	12	O/L
27	Hex. bolt 3/8" n.c. x 1" GR5	Boulon hex. 3/8" n.c. x 1" GR5	6	O/L
28	Hex. bolt 3/8" n.c. x 3" GR5	Boulon hex. 3/8" n.c. x 3" GR5	1	O/L
29	Nylon Insert lock Nut 5/16" n.c.	Écrou à garniture de nylon 5/16" n.c.	2	O/L
30	Nylon Insert lock Nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	3	O/L
31	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	16	O/L
32	Flat washer 3/8" hole	Rondelle plate 3/8" trou	4	O/L

O/L = Obtain Locally

TORQUE SPECIFICATION TABLE

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

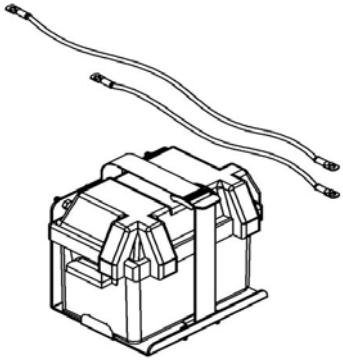
NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

* Thick nuts must be used with grade 8 bolts

SEE Grade No.		2				5				8 *			
BOLT HEAD IDENTIFICATION MARKS AS PER GRADE NOTE MANUFACTURING MARKS WILL VARY		TORQUE				TORQUE				TORQUE			
BOLT SIZE		FOOT POUNDS		NEW TON-METERS		FOOT POUNDS		NEW TON-METERS		FOOT POUNDS		NEW TON-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

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

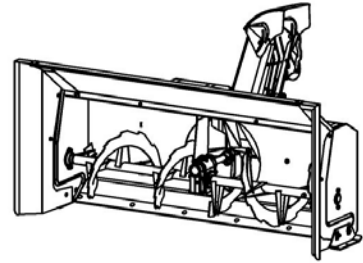
OPTIONS & ACCESSORIES



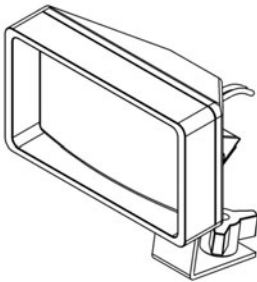
#700524
SUPPORT FOR BATTERY
(BATTERY NOT INCLUDED)
For ATV or UV



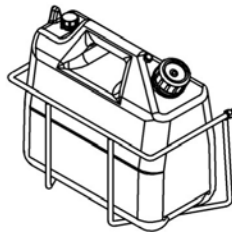
#700260
SNOW DRIFT CUTTER
Slices through high snow drifts to facilitate and increase snow intake. Package of 2.



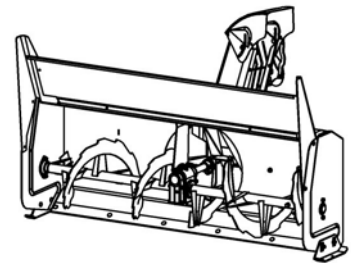
#700461
EXTENSION AND
SIDE WIDENING ANGLES KIT
Widens the snowblower to 60"



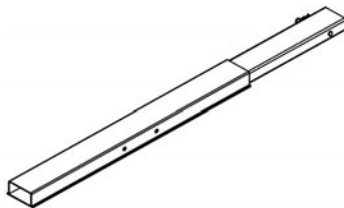
#700456
LIGHT KIT
Better visibility for night time use



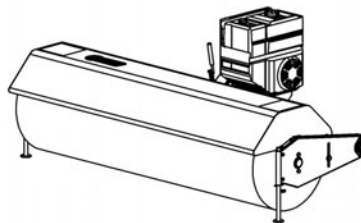
#700462
GAS TANK KIT
Handy for easy re-fuelling



#700473
EXTENSION
Adds 8" to the height of the snowblower
REQUIRES #700260



SUBFRAME EXTENSION
#700485
For bigger vehicle



#700448
60" ROTARY BROOM
For ATV or UV



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