



**OWNER'S MANUAL**

***Model number***

***700286 (Nylon brush)***

***700316 (Polypropylene brush)***

***Includes mounting instructions for:***

***Adaptor : # 700287***

***Adaptor : # 700288***

***Adaptor : # 700290-2***



***BERCO***

***Rotary Broom***

***for***

***LAWN, YARD, & GARDEN TRACTORS***

***BELT OR SHAFT DRIVE P.T.O.***

\* ASSEMBLY

\* REPAIR PARTS

\* OPERATION

\* MAINTENANCE

**CAUTION:**

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

# WARRANTY

## LIMITED ONE YEAR ON BERCO TRACTOR ATTACHMENTS

For one year from date of purchase, Bercomac Limitée will repair or replace free of charge at Bercomac's option, any parts which are defective as a result of defective materials or faulty workmanship.

### **COMMERCIAL OR RENTAL USE:**

Warranty on Berco attachments used for commercial or rental purposes is limited to 90 days.

### **This warranty does NOT cover:**

- \* Wear items, such as shear pins and belts.
- \* Repairs due to customer abuse or neglect.
- \* Pre-delivery set-up.
- \* In home service.

Warranty service is available by returning the "Berco" attachment to the authorized dealer.

**BERCOMAC Limitée**  
**92 Fortin N, Adstock, Québec, Canada, G0N 1S0**

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# INTRODUCTION

## TO THE PURCHASER

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

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

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



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

**DANGER:** Signals an extreme hazard that will cause serious injury or death if recommended precautions are not followed.

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

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

Record your attachment serial number and purchase date in the section reserved below (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 :** \_\_\_\_\_

**PURCHASE DATE :** \_\_\_\_\_

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

In this manual, "attachment" means accessories that you install on the tractor, such as, snowblower, rotary broom, blade, rotary tiller, cab, subframe, etc...

# SAFETY PRECAUTIONS

Careful operation is your best insurance against an accident. Read this section carefully before operating the tractor and the rotary broom. All operators, no matter how experienced they may be, should read this and other manuals related to the tractor and rotary broom before operating. It is the owner's legal obligation to instruct all operators in how to safely operate the rotary broom.

## TRAINING



This symbol, "Safety Alert Symbol", is used throughout this manual and on the attachment'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 tractor or the rotary broom.

1. Read this owner's manual carefully. Be thoroughly familiar with the controls and proper use of the rotary broom. Know how to stop the unit and disengage the controls quickly.
2. Never allow children to operate the tractor nor the rotary broom. Never allow adults to operate the tractor nor the rotary broom without proper instructions.
3. No one should operate the tractor nor the rotary broom while intoxicated or while taking medication that impairs the senses or reactions.
4. Keep the area of operation clear of all persons, particularly small children and pets.
- e) When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
- f) Keep the nozzle in contact with the rim of the fuel tank or container opening at all times, until refuelling is complete. Do not use a nozzle lock-open device.
- g) Replace fuel cap securely and wipe up spilled fuel.
- h) If fuel is spilled on clothing, change clothing immediately.
4. Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).
5. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair to protect eyes from foreign objects that may be thrown from the rotary broom.
6. **Never modify the rotary broom or any part without the written consent from the manufacturer.**

## PREPARATION

1. Thoroughly inspect the area where the rotary broom is to be used and remove door mats, all foreign objects and the like.
2. Disengage all clutches and shift into neutral before starting engine.
3. Do not operate the rotary broom without wearing adequate 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.

## OPERATION

1. Do not put hands or feet near or under 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 rotary broom for any damage and repair damage before using.
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.

# SAFETY PRECAUTIONS

5. Take all possible precautions when leaving the machine unattended. Disengage the power take-off, lower the attachment, set the parking brake, stop the engine and remove the key.
6. When cleaning, repairing or inspecting the rotary broom, make certain that all moving parts have stopped. Disconnect wire from the spark plug(s) and keep wire away to prevent accidental starting.
7. 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.
8. Never sweep across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear a steep slope.
9. Never operate the rotary broom without proper guards, plates, or other safety protective devices in place
10. Never tolerate bystanders in the working zone. Never sweep in the direction of bystanders, the brush might throw gravel or debris that can break or damage property.
11. To sweep snow, use tire chains approved by the manufacturer. You must use 100 lbs. of rear counterweight for better traction and a greater stability at all times when using a rotary broom that is installed on the front of a tractor.
12. Never operate the rotary broom at high transport speeds on slippery surfaces. Use care when backing.
13. Do not carry passengers.
14. Disengage power to rotary broom when it is transported or not in use
15. Never operate the rotary broom without good visibility or light.
16. Keep the brush away from heat sources or flames.
17. Always wear a dust mask when working in a dusty environment.

## MAINTENANCE AND STORAGE

1. Check the mounting bolts at frequent intervals to make sure that they are properly tightened
2. Never store the machine with fuel in the fuel tank inside a building where ignition sources are present such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
3. Always refer to the owner's manual when you store the rotary broom.
4. Maintain or replace safety and instruction labels, as necessary.
5. Inspect the tractor's air filter every day. Clean it or replace it. Change the oil more often when working in dusty conditions. See the tractor owner's manual.

**WHENEVER YOU SEE THIS SYMBOL**



**IT MEANS:**

**WARNING!**

**BECOME ALERT !**

**YOUR SAFETY IS INVOLVED!**



**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 dismantling an attachment remove rear counterweights.**

# SAFETY DECALS

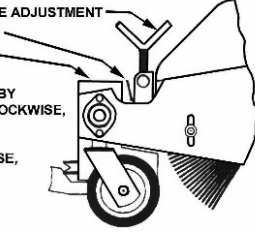
REPLACE IF DECALS ARE DAMAGED  
SEE PARTS BREAKDOWN FOR DECAL LOCATION

## IMPORTANT

READ & FOLLOW INSTRUCTIONS IN OWNER'S MANUAL BEFORE OPERATING.

**ADJUSTMENT**

- BRUSH PRESSURE HANDLE ADJUSTMENT
- BRUSH PRESSURE GAUGE
- TOP OF SQUARE BOX



- BRUSH PRESSURE INCREASED BY TURNING HANDLE COUNTER CLOCKWISE, MOVING GAGE UP.
- BRUSH PRESSURE DECREASED BY TURNING HANDLE CLOCKWISE, MOVING GAGE DOWN.

**GENERAL SWEEPING**

- HARD SURFACE SWEEPING DUST OR SNOW, ADJUST THE GAGE FLUSH WITH TOP OF SQUARE BOX, RE-ADJUST TO COMPENSATE FOR BRUSH WEAR.

**LAWN DETHATCHING & LEAF RAKING**

- LOWER THE BROOM ONTO A HARD SURFACE & TURN THE HANDLE ADJUSTMENT CLOCKWISE TO LIFT THE BRUSH 1" FROM GROUND, RE-ADJUST AS NEEDED.

102386

Decal #102386

## WARNING

**TO AVOID PERSONAL INJURY:**

- READ AND UNDERSTAND OWNER'S MANUAL BEFORE OPERATION.
- KEEP ALL BYSTANDERS AWAY FROM SWEEPING AREA.
- EYE PROTECTION MUST BE WORN AT ALL TIMES BY OPERATOR AND ANYONE WITHIN THE DISCHARGE AREA OF THE BRUSH.
- NEVER SWEEP TOWARD BYSTANDERS, BUILDINGS, CARS, ETC...
- BEFORE ADJUSTING OR SERVICING THE SWEEPER DESENGAGE BROOM, TRUN OFF ENGINE, REMOVE KEY, SET PARKING BRAKE AND ALLOW ALL MOVING PARTS TO STOP.
- KEEP BRUSH MATERIAL AWAY FROM INTENSE HEAT AND FLAME.
- DO NOT ALLOW PASSENGERS ON SWEEPER OR TRACTOR.
- DO NOT OPERATE SWEEPER OR TRACTOR UNLESS GUARDS AND ALL SHIELDS ARE IN PLACE. KEEP AWAY FROM ROTATING PARTS.
- ALWAYS USE A DUST MASK WHEN WORKING IN DUSTY CONDITIONS.
- MINIMUM 100 LBS REAR COUNTERWEIGHT IS REQUIRED TO COUNTERBALANCE BROOM'S WEIGHT.
- IN WINTER, APPROVED TIRE CHAINS ARE REQUIRED.

102384

Decal #102384

# ASSEMBLY

## STEP 1

### **ROTARY BROOM & ADAPTOR (700287)** **PREPARATION FOR DELUXE SUBFRAME**

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

Install the push frame (item 1) to the gear box frame (item 2) by using two cone bearings (item 3), one on top and the other underneath. Fill the space between the bearings with grease.

Secure with a seal washer (item 4), the hollow portion toward the top and a 3/4" nylon insert lock nut (item 5).

Tighten loosely enough to permit the push frame to move freely.

Install the V-belt on the pulley (item 7).

Install the belt guard (item 8) on the push frame (item 1) and secure with two 1/4 x 3/4" bolts and nuts.

Install the joint block (item 9) on the latch rod and secure with a retaining ring (item 10).

Install the control rod (item 11) in the joint block (item 9) and secure with a 2.5 mm hair pin (item 12).

Prepare broom and adaptor

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Install the parking stands (item 1) in the stand holders (item 4). Secure with a 5/32 x 1" cotter pin in the upper hole (item 2) of each parking stand.

Set the parking stands in their most extended position and secure in place with a 2.5 mm hair pin (item 3).

Go to Rotary Broom installation.

Install the parking stands



# ASSEMBLY

## ROTARY BROOM & ADAPTOR (700288) PREPARATION FOR COMPACT SUBFRAME

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

Install the push frame (item 1) to the gear box frame (item 2) by using two cone bearings (item 3), one on top and the other underneath. Fill the space between the bearings with grease.

Secure with a seal washer (item 4), the hollow portion toward the top and a 3/4" nylon insert lock nut (item 5).

Tighten loosely enough to permit the push frame to move freely.

Remove the belt guard (item 7).

Remove the 1/4" bolt (item 6) used as a belt guide.

Install the belt on the broom pulley (item 13) and on both idlers as shown.

**NOTE:** If the drive mechanism kit includes a B-120 V-belt (123" outside length) you must use a A-115 V-belt #103181.

OR

If the drive mechanism kit includes a B-112 V-belt (115" outside length) you must use a A-107 V-belt #102884.

Re-install the 1/4" bolt (item 6) used as a belt guide.

Install the belt guard (item 7) on the push frame and secure with two 1/4 x 3/4" bolts and nuts.

Install the joint block (item 9) on the latch rod and secure with a retaining ring (item 10).

Install the control rod (item 11) in the joint block (item 9) and secure with a 2.5 mm hair pin (item 12).

Prepare broom and adaptor

---

Install the parking stands (item 1) in the stand holders (item 4). Secure with a 5/32 x 1" cotter pin in the upper hole (item 2) of each parking stand.

Set the parking stands in their most extended position and secure in place with a 2.5 mm hair pin (item 3).

Go to Rotary Broom installation.

Install the parking stands

# ASSEMBLY

## **ROTARY BROOM & ADAPTOR (700290-2)** **PREPARATION FOR P.T.O. SUBFRAME**

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

Remove the three bolts (item 16) that hold the gear box and guard (item 13).

Remove the gear box by sliding it towards the right.

Remove the pulley (item 7).

Install the new pulley (item 6) included with the adaptor (the hub towards the top and the bottom even with the gear box shaft).

Re-install the gear box and guard (item 13) in place and make sure to re-install the rubber washers between the gear box and frame wall.

Tighten the bolts firmly.

Install the push frame (item 1) to the gear box frame (item 2) by completely loosening the nut used to tighten the belt (item 14).

Install the belt on both pulleys at the same time as you install the push frame.

Install a cone bearing (item 3) on the welded stud (item 15). Fill the hub with grease and install the second cone bearing (item 3) underneath. Secure with a seal washer (item 4) the hollow portion towards the top and a 3/4" nylon insert lock nut (item 5).

Tighten loosely enough to permit the push frame to move freely.

Tighten the nut used to tighten the belt (item 14) to compress the spring to 11/16" length (0.687" or 17 mm).

Install the belt guard (item 18) on the gear box guard (item 13) with the two 1/4 x 1/2" hex bolts and flange nuts. Tighten firmly.

Install the joint block (item 9) on the latch rod and secure with a retaining ring (item 10).

Install the control rod (item 11) in the joint block (item 9) and secure with a 2.5 mm hair pin (item 12).

Prepare broom and adaptor

## ASSEMBLY

Install the parking stands (item 1) in the stand holders (item 4). Secure with a 5/32 x 1" cotter pin in the upper hole (item 2) of each parking stand.

Set the parking stands in their most extended position and secure in place with a 2.5 mm hair pin (item 3).

Install the parking stands

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

Only one position allows the shaft to be inserted.

Go to Rotary broom installation.

Install the driveline

# ASSEMBLY

## STEP 2 ROTARY BROOM INSTALLATION



### 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.

Attach the rotary broom to the subframe as shown.  
Make sure the rotary broom is pushed in until locked into place by the springs (item 1).

Install the rotary broom

---

## DRIVE MECHANISM BELT INSTALLATION ON DELUXE SUBFRAME

Route the belt in the subframe, inside the left belt guide, around the left pulley, (item 1), inside the right belt guide, around the right pulley (item 2) and around the tractor's drive pulley (item 3).

Go to handle installation.

Install the belt

---

## DRIVE MECHANISM BELT INSTALLATION ON COMPACT SUBFRAME

Install the belt on the drive mechanism pulley.  
Make sure the belt is routed as shown.

Go to handle installation.

Install the belt

# ASSEMBLY

## DRIVELINE INSTALLATION FOR P.T.O. SUBFRAME

Connect the rotating driveline (item 5) to the tractor P.T.O. spline shaft and be sure the driveline yoke is securely attached to the tractor P.T.O.

After installing the rotary broom, make sure the extension guard (item 4) is well installed and does not touch the driveline at any time whatsoever. If the extension guard needs to be raised, use a 1/4 x 1" hex bolt (item 1) with a flange nut (item 2) on top and one on the bottom. Adjust and tighten both nuts.



**DANGER**



**ROTATING DRIVELINE  
CONTACT CAN CAUSE DEATH.  
KEEP AWAY**

**DO NOT OPERATE WITHOUT:**

**All driveline shields in place on tractor and accessories.**

**Driveline securely attached at both ends.**



**DANGER**



**NEVER OPERATE THE ROTARY BROOM  
WITHOUT:**

**Brush hood**

**Belt guard**

**Gear box guard**

**Extension guard and any other safety protection devices in place.**

Install the driveline

## HANDLE INSTALLATION

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

Insert the handle through the plastic grommet on the handle support (item 3) and on the control rod (item 4).

Secure with a 2.5 mm hair pin.

**NOTE:** If the subframe includes a handle extension, install it between the control rod (item 4) and the handle (item 1).

Install the handle

## VERIFY TIRE PRESSURE:

Attachments should raise 3" to 4" above the ground (no more, no less) if not, check and adjust tractor tire pressure as follows:

Front tires: 14-15 psi

Back tires: 7-8 psi

Tire pressure must be even on both sides of the tractor.

# OPERATION



## WARNING



### BEFORE MAKING ANY ADJUSTMENTS:

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.

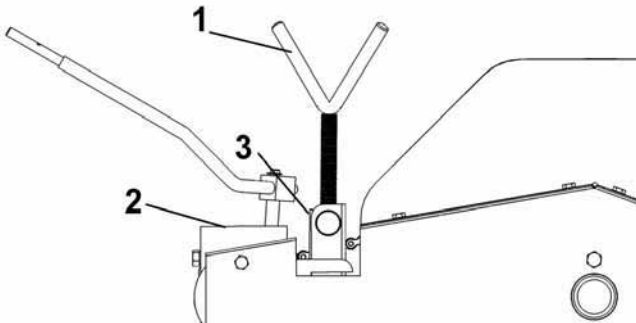
### ROTARY BROOM ANGLE ADJUSTMENT

By turning the handle counter clockwise you unlock the latch and by pulling or pushing, you set the angle 0° to 20° on each side.

### PRESSURE ON THE BRUSH ADJUSTMENT

By turning the adjustment screw (item 3) counter clockwise, the gauge (item 2) moves higher and the pressure of the brush on the ground increases. By turning the adjusting screw clockwise, the gauge moves lower on the gear box frame and the pressure of the brush on the ground decreases.

**IMPORTANT:** Maintain the gauge (item 2) even with the top of the gear box frame (item 1) or lower for general hard surface sweeping. Adjust frequently to compensate for brush wear. Remember to sweep with the tips of the bristles like a broom and not with the sides of the bristles like a mop. Too much pressure can decrease the brush life up to 95%.



Adjust the pressure on the brush



## WARNING



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

-Rear counterweights of 100 lbs. minimum are required to counter-balance attachment's weight.  
-Tractor manufacturer approved tire chains are required.  
-Do not operate on slopes greater than 10°. When dismantling an attachment remove rear counterweights.

### GENERAL SWEEPING

Minimize dust by reducing brush speed and by sweeping after rain or on a day with high moisture.

### SNOW SWEEPING

Adjust the gauge (item 3) to be even with the top of gear box frame (item 2). The broom works well for light snow removal.

Sweep with the wind blowing in the direction of broom discharge.

**WARNING:** Foreign objects in the snow may be thrown faster than the snow itself.

Frequently clean the snow and ice accumulation from the top and bottom of the broom hood.

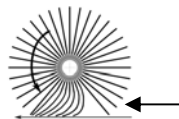
### LAWN DETHATCHING AND LEAF RAKING:

Lower the broom on a hard surface and lift the brush 1" from the ground by turning the adjusting screw clockwise. This adjustment is normally satisfactory but you may raise or lower depending upon grass height.

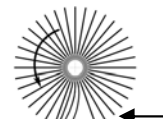
Low brush speed and ground speed is best for lawn dethatching and leaf raking.

Never sweep with the sides of bristles!

Sweep with the tips!  
Do not mop!



Too much pressure=  
Shortens brush life!



Flick action

Road surface

# MAINTENANCE & DISMOUNTING

## MAINTENANCE

1. Check oil level in gear box every fifty hours and fill to plug level with SAE-90-EP oil when necessary.
2. Grease the wheel axles after every eight hours of use.
3. Roller chain: do not lubricate when used in dusty conditions. After use, wash clean and lubricate.
4. Adjust the roller chain frequently by moving the chain idler sprocket to give 1/2" deflection.
5. Frequently clean the interior and exterior of hood. Dirt, mud, ice, etc, accumulation adds weight on the brush and could result in premature wear of brush.

## **BRUSH REPLACEMENT:**

See parts breakdown section for parts identification.

1. Remove the hood (item 57).
2. Loosen the chain idler sprocket (27).
3. Remove bolts from both flanges (item 72) that holds the brush hollow shaft.
4. Remove the brush hollow shaft (item 55) from the broom frame (item
5. Loosen the set screw and remove the left bearing (item 53) from the brush axle.
6. Remove the bolt (item 54) which retains the brush tube to axle.
7. Remove the brush tube from axle.
8. Install the new brush by reversing the procedure.
9. Readjust the idler sprocket and chain tightener to give 1/2" deflection.

## DISMOUNTING

1. Select a level surface, set parking brake, stop the engine, and remove the ignition key to prevent accidental starting.
2. Straighten the broom perpendicular with the tractor.
3. Set the parking stands in their most extended position Make sure the brush bristles never touch the ground.
4. Lower the broom to the ground.
5. Remove the hair pin from the handle and remove handle.
6. Loosen and remove the belt from the tractor drive pulley and idlers. Disconnect and remove the driveline if applicable.
7. Detach the broom from the subframe by lifting the spring locks and pulling back the broom one side at a time.
8. Remove the rear counterweights.

## **END OF SEASON STORAGE**

1. Clean the broom and inside of the hood.
2. Lubricate all grease fittings and all moving parts.
3. Store broom on parking stand. Make sure the brush bristles never touch the ground.
4. If brush bristles are exposed to direct sunlight, protect the bristles with a tarp.
5. Store the broom in a dry place.

# TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	CORRECTIVE ACTION
<p>Brush wears out prematurely.</p> <p>The brush turns jerkily.</p> <p>The brush does not wear out evenly.</p> <p>The brush does not sweep well.</p>	<p>The pressure on the brush is not well adjusted.</p>	<p>Reduce the pressure on the brush when on the ground.</p> <p>Maintain the gauge even with the top of the gear box frame or lower when sweeping hard surfaces.</p> <p>Adjust frequently to compensate for the wearing out of the brush.</p> <p>Always sweep with the tips of the bristles like a broom and not with the sides of the bristles like a mop.</p> <p>Too much pressure on the brush, it will wear out up to 5 times faster.</p> <p>Clean the inside and outside of the hood frequently during operation.</p> <p>Dirt, mud, ice, etc.. accumulation adds weight on the brush and could result in premature wear of the brush.</p>
<p>The brush is too aggressive when lawn dethatching or leaf raking.</p> <p>The brush does not turn on the grass.</p>	<p>Too much pressure on the brush.</p>	<p>Lower the broom on a hard surface and lift brush 1" from the ground by turning the adjusting screw clockwise.</p> <p>Adjust from time to time if necessary.</p>
<p>The chain wears out prematurely.</p> <p>The sprocket wears out prematurely.</p>		<p>Do not lubricate the chain during operation. Wait until the job is finished.</p> <p>Wash the rotary broom and lubricate the chain.</p> <p>Let the broom turn a few moments so the oil penetrates in the chain.</p> <p>Check the chain adjustment frequently (too tight, too loose).</p>
<p>The brush turns backwards.</p>	<p>The belt is not installed in the right way.</p>	<p>Remove the belt and reinstall as explained in the instructions for belt installation.</p>
<p>Loss of steering.</p>	<p>Too much pressure on the brush.</p>	<p>Reduce pressure on the brush. If problem persists, contact your dealer for more information.</p>
<p>The bristles take a bad form or shape.</p>	<p>The broom was not stored on the parking stands,</p>	<p>Wash the broom with warm water or warm steam. Leave in raised position and let it turn a few turns. The brush should take its original shape.</p>



# TORQUE SPECIFICATION TABLE

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

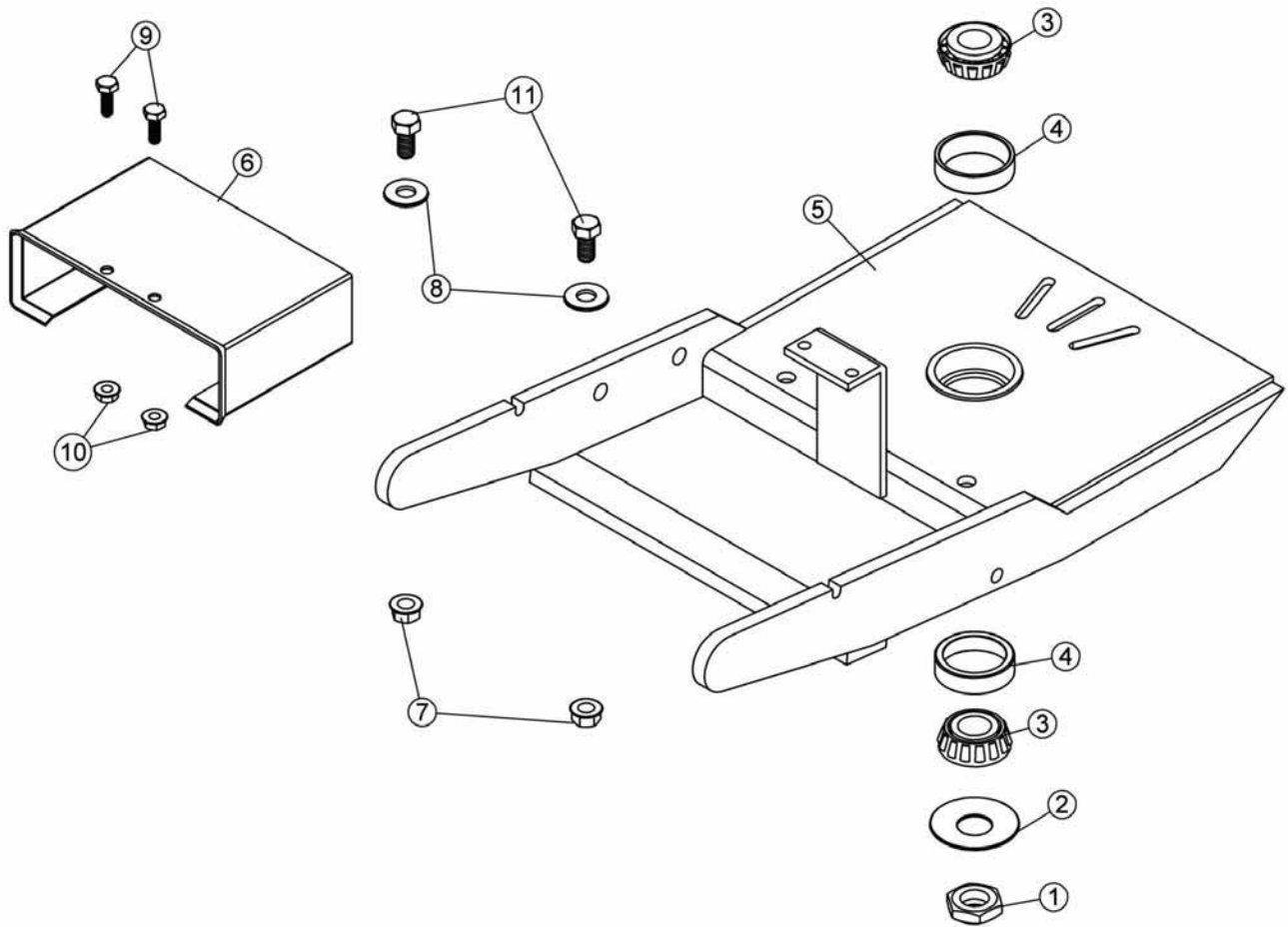
NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

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  
ADAPTOR FOR DELUXE SUBFRAME #700287  
ADAPTEUR POUR SOUS-CHÂSSIS DELUXE #700287**

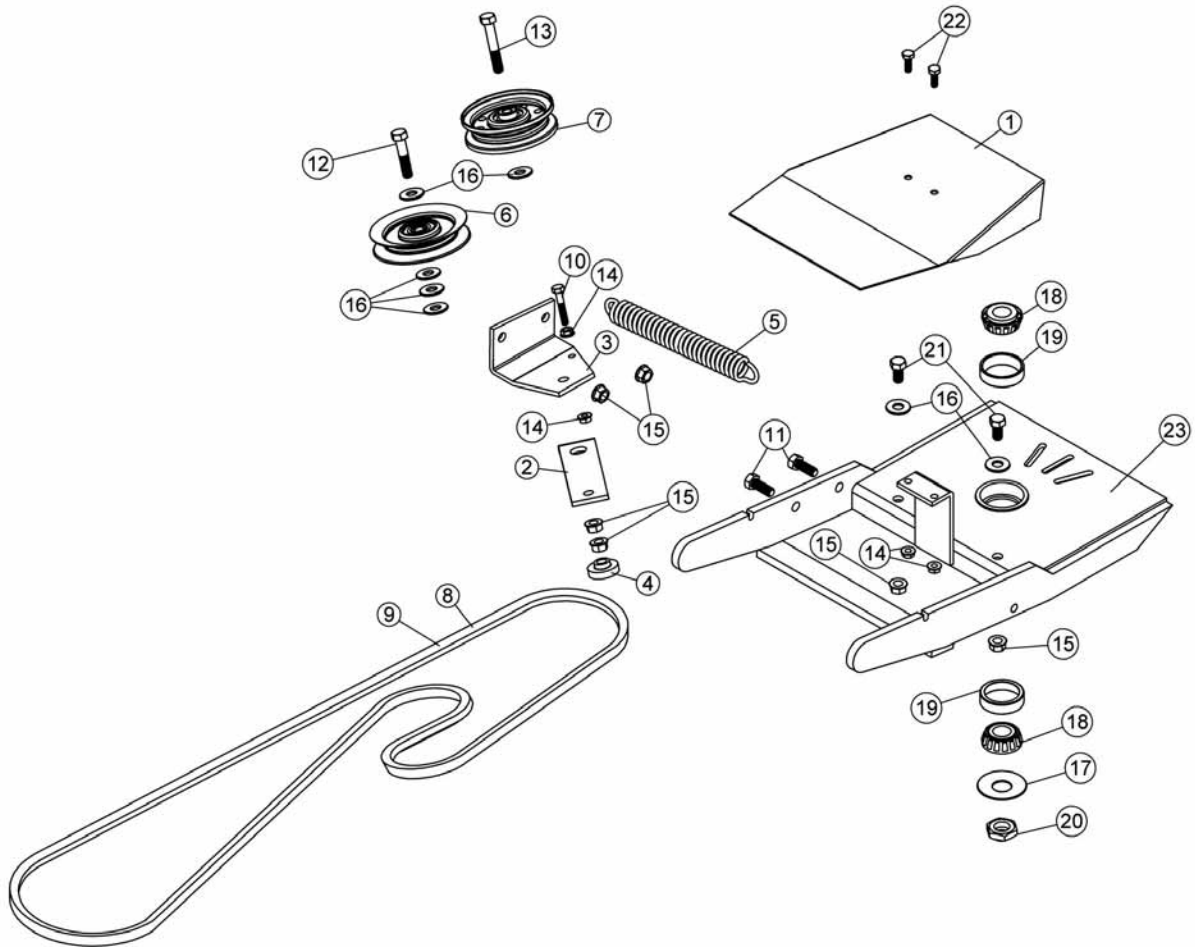


## PARTS LIST / LISTE DES PIÈCES

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Nylon insert lock nut 3/4" n.c. (thin)	Écrou à garniture de nylon 3/4" n.c. (mince)	1	O/L
2	Seal washer	Rondelle d'étanchéité	1	102289
3	Cone bearing 0.75	Roulement conique 0.75	2	102369
4	Cup bearing	Cuvette	2	102370
5	Push frame	Châssis de poussée	1	102204
6	Belt guard	Garde-courroie	1	102284
7	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	2	O/L
8	Flat washer 7/16" hole	Rondelle plate 7/16" trou	2	O/L
9	Hex. bolt 1/4" n.c. x 3/4"	Boulon hex. 1/4" n.c. x 3/4"	2	O/L
10	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	2	O/L
11	Hex. bolt 3/8" n.c. x 3/4"	Boulon hex. 3/8" n.c. x 3/4"	2	O/L

O/L = Obtain locally/obtenir localement

**PARTS BREAKDOWN / NOMENCLATURE DES PIÈCES  
ADAPTOR FOR COMPACT SUBFRAME #700288  
ADAPTEUR POUR SOUS-CHÂSSIS COMPACT #700288**

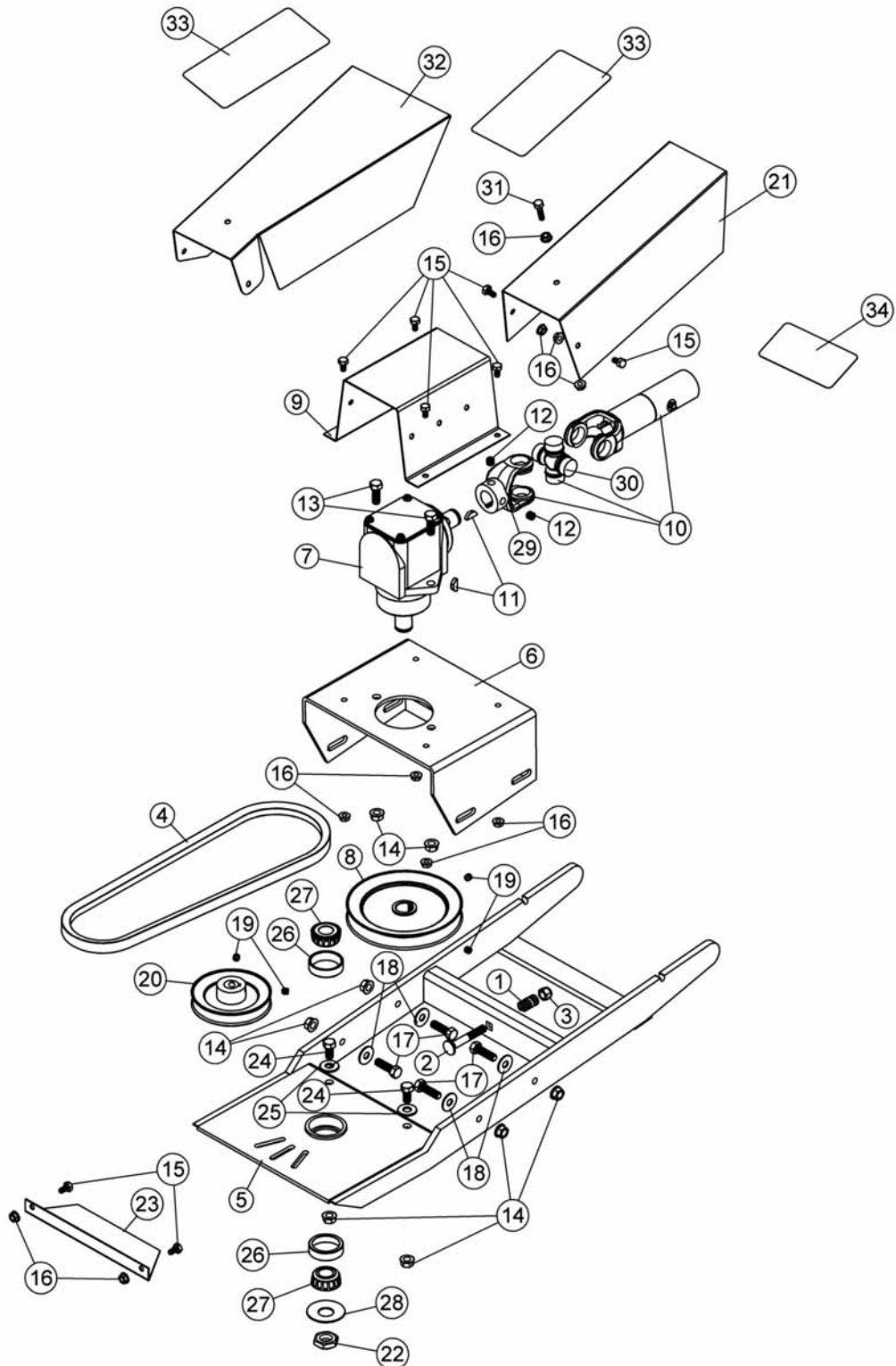


## PARTS LIST / LISTE DES PIÈCES

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Belt guard	Garde courroie	1	102881
2	Idler arm	Bras de tension	1	102882
3	Idler support	Support de poulie	1	102883
4	Flange washer	Rondelle à bride	1	102081
5	Spring	Ressort	1	102861
6	V pulley	Poulie en V	1	102766
7	Idler	Poulie	1	103044
8	Belt A-107	Courroie A-107	1	102884
9	Belt A-115	Courroie A-115	1	103181
10	Hex. bolt 1/4" n.c. x 1 1/2"	Boulon hex. 1/4" n.c. x 1 1/2"	1	O/L
11	Hex. bolt 3/8" n.c. x 1"	Boulon hex. 3/8" n.c. x 1"	2	O/L
12	Hex. bolt 3/8" n.c. x 1 3/4"	Boulon hex. 3/8" n.c. x 1 3/4"	1	O/L
13	Hex. bolt 3/8" n.c. x 2 1/4"	Boulon hex. 3/8" n.c. x 2 1/4"	1	O/L
14	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	4	O/L
15	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	6	O/L
16	Flat washer 7/16" hole	Rondelle plate 7/16" trou	7	O/L
17	Seal washer	Rondelle d'étanchéité	1	102289
18	Cone bearing 0.75	Roulement conique 0.75	2	102369
19	Cup bearing	Cuvette	2	102370
20	Nylon insert lock nut 3/4" n.c. (thin)	Écrou à garniture de nylon 3/4" n.c. (mince)	1	O/L
21	Hex. bolt 3/8" n.c. x 3/4"	Boulon hex. 3/8" n.c. x 3/4"	2	O/L
22	Hex. bolt 1/4" n.c. x 3/4"	Boulon hex. 1/4" n.c. x 3/4"	2	O/L
23	Push frame	Châssis de poussée	1	102204

O/L = Obtain locally/obtenir localement

**PARTS BREAKDOWN / NOMENCLATURE DES PIÈCES  
ADAPTOR FOR P.T.O. SUBFRAME #700290-2  
ADAPTEUR POUR SOUS-CHÂSSIS P.T.O #700290-2**

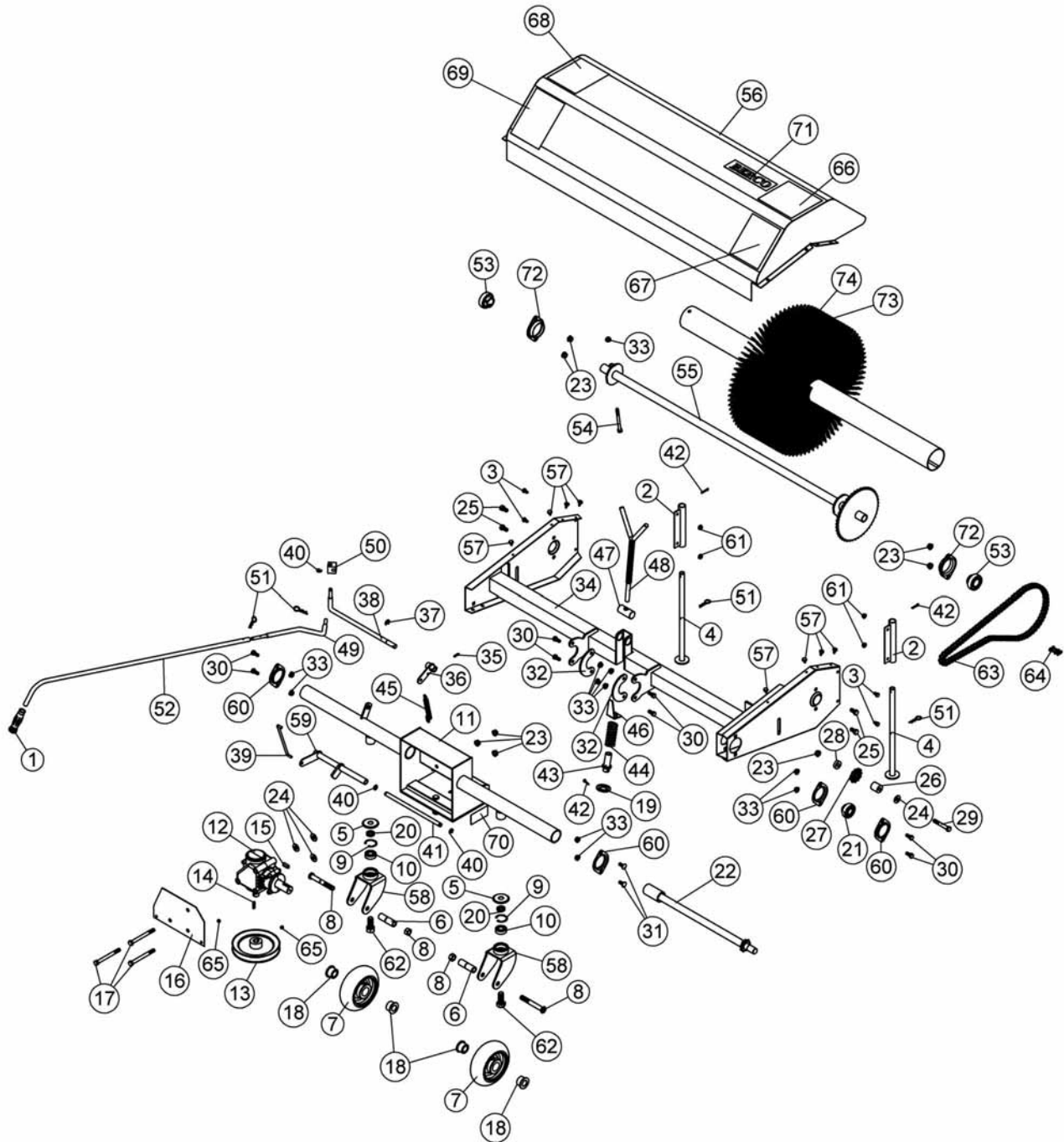


## PARTS LIST / LISTE DES PIÈCES

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Spring	Ressort	1	102892
2	Carriage bolt 3/8" n.c. x 2-1/2"	Boulon à carrosserie 3/8" n.c. x 2 1/2"	1	O/L
3	Nylon insert lock nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	1	O/L
4	V-Belt , A-25	Courroie en V , A-25	1	103089
5	Push frame	Châssis de poussée	1	103090
6	Gear box support	Support de boîte d'engrenage	1	103091
7	Gear box	Boîte d'engrenage	1	103095
8	V pulley	Poulie en V	1	103092
9	Gear box cover	Couvercle de boîte d'engrenage	1	103093
10	Half telescopic driveline	Demi arbre a cardan	1	103052
11	Woodruff key 3/16" x 3/4"	Clé Woodruff 3/16" x 3/4"	2	103096
12	Hex socket set screw 3/8" n.c. x 3/8"	Vis a pression hex. 3/8" n.c. x 3/8"	2	O/L
13	Hex. bolt 3/8" n.c. x 1"	Boulon hex. 3/8" n.c. x 1"	2	O/L
14	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	8	O/L
15	Hex. bolt 1/4" n.c. x 1/2"	Boulon hex. 1/4" n.c. x 1/2"	8	O/L
16	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	10	O/L
17	Hex. bolt 3/8" n.c. x 1 1/4"	Boulon hex. 3/8" n.c. x 1 1/4"	4	O/L
18	Flat washer 3/8" hole	Rondelle plate 3/8" trou	4	O/L
19	Hex. socket set screw 5/16" n.c. x 5/16"	Vis à pression hex. 5/16" n.c. x 5/16"	4	O/L
20	V-pulley	Poulie en V	1	102873
21	Extension guard	Garde d'extension	1	102934
22	Nylon insert lock nut 3/4" n.c. (thin)	Écrou à garniture de nylon 3/4" n.c.(mince)	1	O/L
23	Belt guard	Garde-courroie	1	103097
24	Hex. bolt 3/8" n.c. x 3/4"	Boulon hex. 3/8" n.c. x 3/4"	2	O/L
25	Flat washer 7/16" hole	Rondelle plate 7/16" trou	2	O/L
26	Cup bearing	Cuvette	2	102370
27	Cone bearing	Roulement conique	2	102369
28	Seal washer	Rondelle d'étanchéité	1	102289
29	Yoke 7/8"	Fourche 7/8"	1	103176
30	Universal Joint Kit	Joint universel	1	102928
31	Hex. bolt 1/4" n.c. x 1"	Boulon hex. 1/4" n.c. x 1"	1	O/L
32	Extension guard	Garde d'extension	1	103535
33	Danger decal	Décalque danger	2	102190
34	Danger decal	Décalque danger	1	102113

O/L = Obtain locally/obtenir localement

# PARTS BREAKDOWN / NOMENCLATURE DES PIÈCES ROTARY BROOM / BALAI ROTATIF





## PARTS LIST / LISTE DES PIÈCES

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Hand grip	Poignée	1	102062
2	Stand holder	Support de pied	2	102392
3	Hex. bolt 1/4" n.c. x 1/2"	Boulon hex. 1/4" n.c. x 1/2"	4	O/L
4	Parking stand	Pied de stationnement	2	102394
5	Cap	Capuchon	2	102586
6	Wheel bushing	Douille de roue	2	103483
7	Wheel 6"	Roue 6"	2	103484
8	Axle and nut	Essieu et écrou	2	102372
9	Retaining ring	Bague de retenue	2	102600
10	Bearing	Roulement	2	102599
11	Gear box frame	Châssis de la boîte d'engrenage	1	102681
12	Gear box	Boîte d'engrenage	1	102205
13	V pulley	Poulie en V	1	102043
14	Key 3/16" x 3/16" x 1.000"	Clé 3/16" x 3/16" x 1.000"	1	102379
15	Key 8 x 7 x 25mm	Clé 8 x 7 x 25mm	1	102030
16	Gear box guard	Garde de la boîte d'engrenage	1	102285
17	Hex. bolt 3/8" n.c. x 4"	Boulon hex. 3/8" n.c. x 4"	3	O/L
18	Delrin bushing	Coussinet Delrin	4	103482
19	Special washer	Rondelle spéciale	1	102429
20	Spacer	Espaceur	2	102587
21	Bearing 3/4" w/set screw	Roulement 3/4" a/vis à pression	1	102864
22	Drive shaft	Arbre de commande	1	102203
23	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	8	O/L
24	Flat washer 7/16" hole	Rondelle plate 7/16" trou	4	O/L
25	Hex. bolt 3/8" n.c. x 3/4"	Boulon hex. 3/8" n.c. x 3/4"	4	O/L

O/L = Obtain locally/obtenir localement

## PARTS LIST / LISTE DES PIÈCES

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
26	Spacer	Douille	1	102286
27	Idler sprocket	Pignon tendeur	1	102027
28	Spacer	Espaceur	1	102241
29	Hex. bolt 3/8" n.c. x 2 1/2"	Boulon hex 3/8" n.c. x 2 1/2"	1	O/L
30	Hex. bolt 5/16" n.c. x 3/4"	Boulon hex. 5/16" n.c. x 3/4"	8	O/L
31	Carriage bolt 5/16" n.c. x 3/4"	Boulon à carrosserie 5/16" n.c. x 3/4"	2	O/L
32	Collar	Collet	2	102402
33	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	11	O/L
34	Broom frame	Châssis du balai	1	102196
35	Roll pin 3/16" x 3/4"	Goupille roulée 3/16" x 3/4"	1	O/L
36	Rocker arm	Culbuteur	1	102282
37	Retaining ring	Bague de retenue	1	102377
38	Latch rod	Tige de loquet	1	102287
39	Rod link	Tige de raccord	1	102290
40	Retaining ring	Bague de retenue	3	102378
41	Latch shaft	Arbre du loquet	1	102198
42	Cotter pin 5/32" x 1"	Goupille fendue 5/32" x 1"	3	O/L
43	Spring holder	Support de ressort	1	102197
44	Spring	Ressort	1	102201
45	Spring 1/2"	Ressort 1/2"	1	102003
46	Gauge	Jauge	1	102367
47	Special nut	Écrou spécial	1	102288
48	Adjustment screw	Vis d'ajustement	1	102200
49	Control rod	Tige de contrôle	1	102291

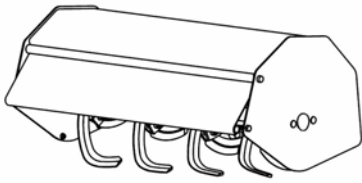
O/L = Obtain locally/obtenir localement

## PARTS LIST / LISTE DES PIÈCES

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
50	Joint block	Bloc de joint	1	102275
51	Hair pin 2.5mm	Goupille à ressort 2.5mm	4	102013
52	Handle	Poignée	1	102292
53	Bearing 1" w/set screw	Roulement 1" a/vis à pression	2	102755
54	Hex. bolt 5/16" n.c. x 3 1/2"	Boulon hex. 5/16" n.c. x 3 1/2"	1	O/L
55	Brush hollow shaft	Arbre de brosse	1	102211
56	Hood	Capot	1	102207
57	Tapping screw 1/4" n.c. x 1/2"	Vis taraudeuse 1/4" n.c. x 1/2"	8	O/L
58	Wheel fork	Fourche de roue	2	102585
59	Latch	Loquet	1	102283
60	Flangette	Flangette	4	102212
61	Flange nut 1/4" n.c.	Écrou à bride 1/4" n.c.	4	O/L
62	Hex. bolt 5/8" n.c. x 1 1/2"	Boulon hex. 5/8" n.c. x 1 1/2"	2	O/L
63	Roller chain #40 x 86 links/conn. link	Chaîne # 40 x 86 mailles/maille accouplement	1	102375
64	Connecting Link #40	Maille d'accouplement #40	1	102040
65	Hex. socket set screw 5/16" n.c. x 5/16"	Vis à pression hex. 5/16" n.c. x 5/16"	2	O/L
66	Important decal	Décalque important	1	102386
67	Warning decal	Décalque warning	1	102384
68	Important decal	Décalque important	1	102387
69	Attention decal	Décalque attention	1	102385
70	Serial number	Numéro de série	1	REF
71	Berco decal	Décalque Berco	1	102471
72	Flangette	Flangette	2	102680
73	Nylon brush	Brosse en nylon	1	102366
74	Polypropylene brush	Brosse de polypropylène	1	103404

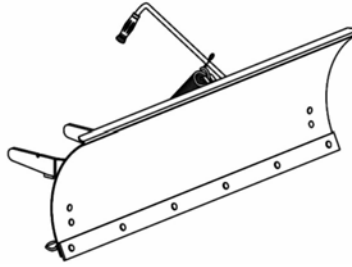
O/L = Obtain locally/obtenir localement

# ATTACHMENTS



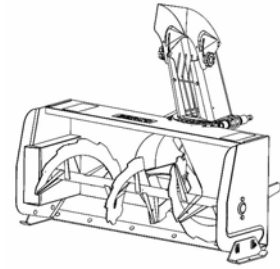
**ROTARY TILLER #700312**

Mounts to the rear of lawn, yard & garden tractors 14 to 25 HP. Comes complete with drive & manual lift mechanisms & mounting hardware.



**UTILITY BLADE #700266**

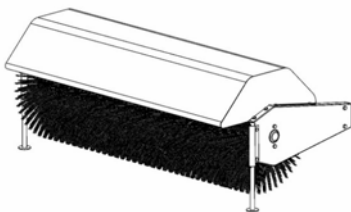
Mounts on the same subframe as the snowblower & rotary broom.



**SNOWBLOWER**

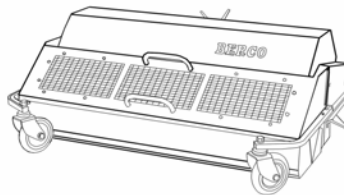
#700210 40"  
#700211 44"  
#700255 40"

Fits on same subframe as rotary broom and utility blade.



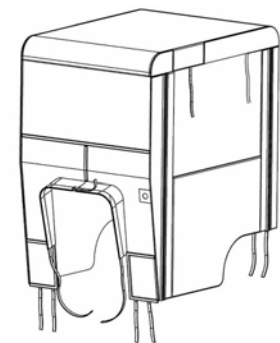
**ROTARY BROOM #700286/#700316**

Fits on same subframe as snowblower & utility blade. Requires an adaptor. #700286 rotary broom with nylon brush and #700316 rotary broom with polypropylene brush.



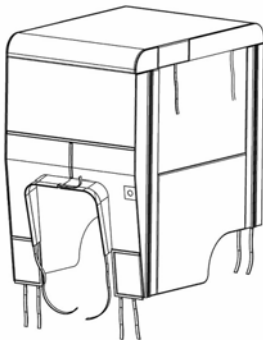
**DEBRIS COLLECTOR #700235**

Quickly & easily fitted on front of rotary brooms #700286 and #700316. Collects debris in container with easy manual dumping.



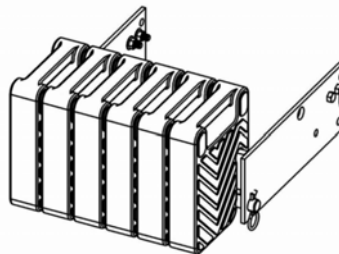
**TRACTOR WINTER CAB #700271**

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



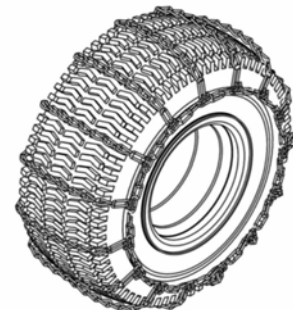
**TRACTOR SCREEN CAB #700313**

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



**COUNTERWEIGHT**

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



**TIRE CHAINS**

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