



OWNER'S MANUAL
Model Number

700233-1



BERCO
Subframe
for
JOHN DEERE 300 SERIES
Tractors

- * 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.

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.

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 BERCOMAC service dealer to arrange service at their dealership. To locate a dealer convenient to you, access our website at www.bercomac.com. Don't forget to bring the product and 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.

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

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

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

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

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INTRODUCTION

TO THE PURCHASER

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

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

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



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

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

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

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

Record your attachment serial number and purchase date in the section reserved below (there is no serial number on the subframe). Your dealer requires this information to give you prompt, efficient service when ordering replacement parts. Use only genuine parts when replacements are required.

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

**This manual should be kept for future reference.
Please check if you have received all the parts for your kit with the list of the bag and the list of the box.**

SERIAL NUMBER : (IF APPLICABLE)	
MODEL NUMBER:	
PURCHASE DATE :	



SAFETY PRECAUTIONS



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

GLOSSARY:

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

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

TRAINING:



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

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

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. **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.

MAINTENANCE AND STORAGE

1. When cleaning, repairing or inspecting the vehicle and accessory, make certain that all moving parts have stopped. 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 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 !**

ASSEMBLY

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.



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.

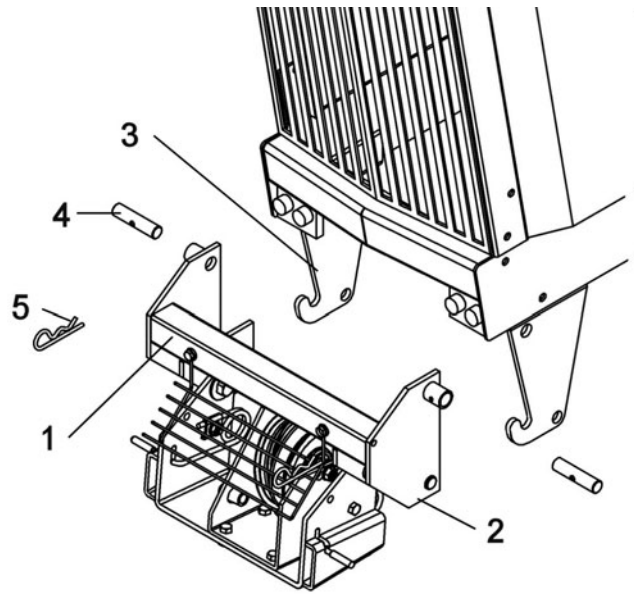
STEP 1

SUBFRAME INSTALLATION:

This subframe may be used to install different attachments (see attachments page).

IT IS NECESSARY TO REMOVE THE MOWER DECK AND THE MOWER LIFT ARMS TO INSTALL THE SUBFRAME.

Install the subframe (item 1) by sliding the bottom portion (item 2) in the slots on the front attaching brackets (item 3). Secure the top portion with two pins (item 4) into top holes and hold in place with two 4mm hair pins (item 5).



Install subframe

On one side of tractor, remove and reinstall the lift arm (item 1) upside down over the hydraulic lift arm link (item 8) as shown (picture shows left hand side of tractor).

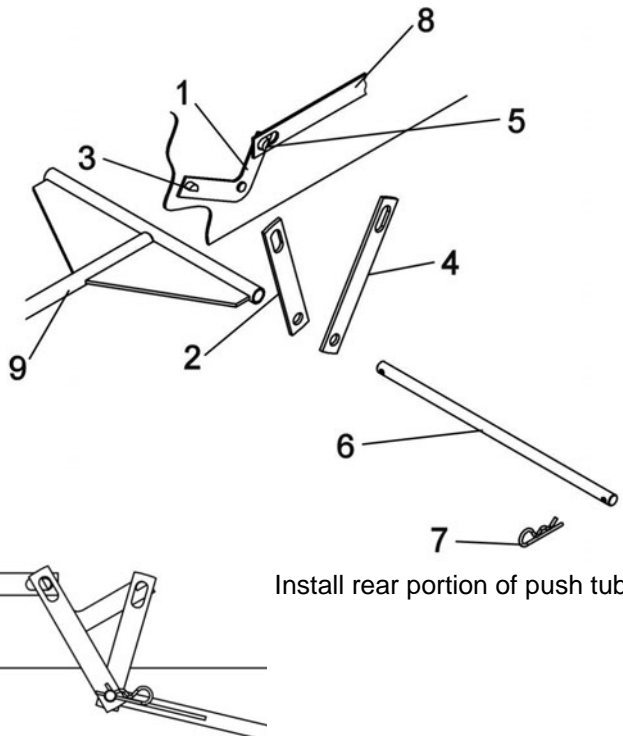
Slide the slot of the shortest lift link (item 2) onto the front knob (item 3) of the lift arm.

Slide the slot on the longest lift link (item 4), onto the back knob (item 5) of the lift arm, over the hydraulic lift arm link (item 8).

Repeat these steps for other side of tractor.

Attach rear portion of push tube (item 9) to the links (items 2 & 4) on each side. Slide the pin (item 6) through the back section of the push tube (item 9).

Secure each end as shown in figure A with a 4mm hair pin (item 7).

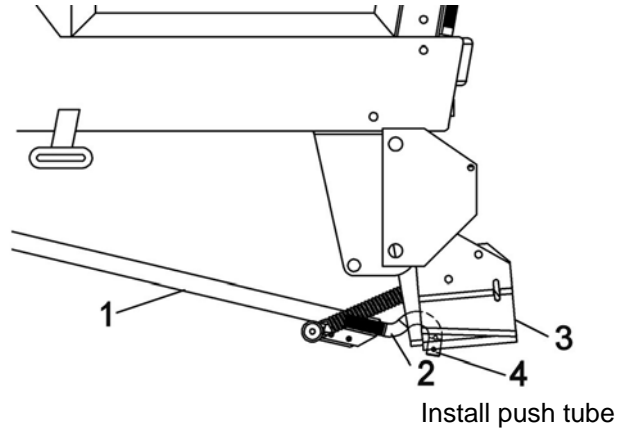


Install rear portion of push tube

Figure A

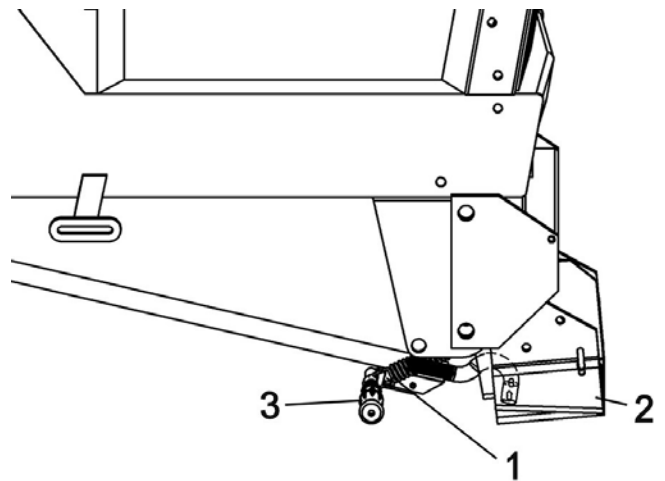
ASSEMBLY

Adjust the overall length of the push tube (item 1) to 37 3/4" by screwing or unscrewing the adjusting rod (item 2). Place the end of the adjusting rod into the large hole of the pivot support (item 3) and secure in place with a 3mm hair pin (not shown in the) in the hole (item 4).



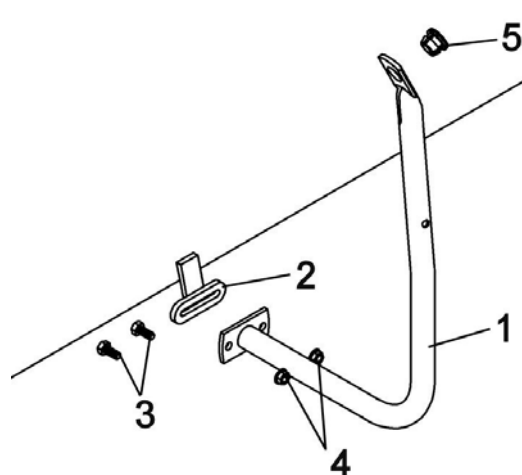
Attach the spring (item 1) to the idler arm. Secure in place with a 3mm hair pin (not shown).

Install the handgrip (item 3) on the idler arm.



Install the handle support (item 1) on the support (item 2) welded on the side of tractor frame with two 5/16 x 3/4" hex bolts (item 3) and flange nuts (item 4). Tighten firmly.

Insert the plastic grommet (item 5) as shown.



Install handle support

ASSEMBLY

STEP 2

SNOWBLOWER INSTALLATION:

Refer to snowblower owner's manual, parts breakdown section for parts identification. See in snowblower owner's manual on how to modify snowblower pulley for tractors with horizontal engines.



WARNING



FOR YOUR SECURITY:

Read the snowblower owner's manual for safety precautions and rules.
Follow the assembly and operation instructions.

Make sure the idler pulley (flat pulley; item 1) is installed as shown.

NOTE:

If the Berco broom was installed prior to the Berco snowblower, change the V-pulley kit (700252) by removing the 2.5mm hair pin (item 2) and reinstall the original flat pulley (item 1) as shown.



WARNING



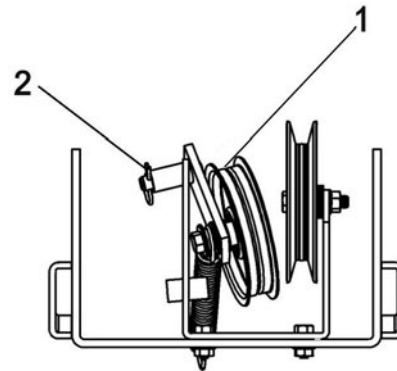
TO PREVENT INJURIES:

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.



Verify pulley



CAUTION

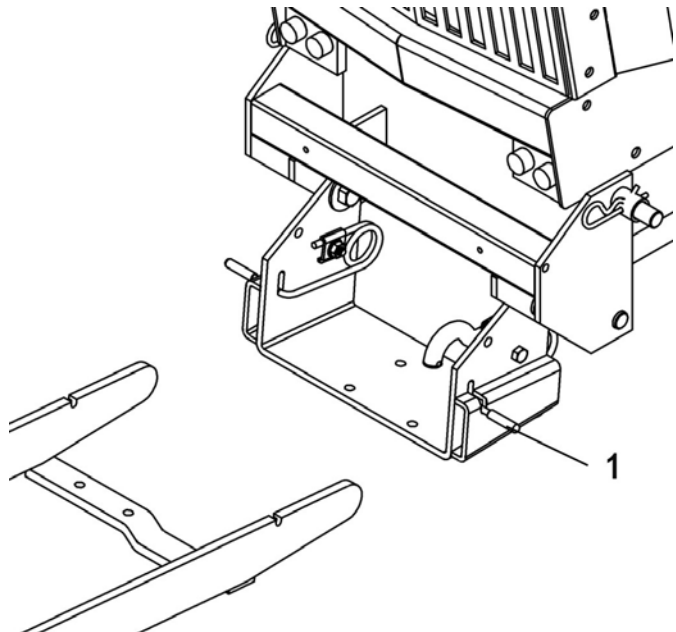


TO PREVENT INJURIES:

Always raise the attachment to reduce the tension on the spring before applying or releasing tension on the helper spring. Firmly hold the handle when you release the tension because the arm will kick back due to the tension on the spring.

Install the snowblower to the subframe as shown.

Make sure the snowblower is pushed in until locked into place by the springs (item 1).



Install the snowblower

ASSEMBLY



CAUTION



Never use the snowblower without the belt guard.

Remove the belt guard from the back of snowblower.
Remove the hair pin (item 6).
Release the tension on the belt by moving the tension arm (item 7) forward.

Install the V-belt by threading it under the idler pulleys and over the engine pulley as shown.

Important: Make sure the belt is not twisted more than 90° and that the V part of the belt is in the V of the pulley. The back of the belt must be on the flat pulley.

Apply tension on the belt by moving the tension arm (item 7) backwards.

The flat pulley (item 2) should be lined up with the strand of the belt coming off the engine pulley. The flat pulley should be between 1/4" to 1/2" in front of the V pulley (item 3) when snowblower is on the ground.

If necessary, move the V pulley in different hole towards the back and use the appropriate belt.

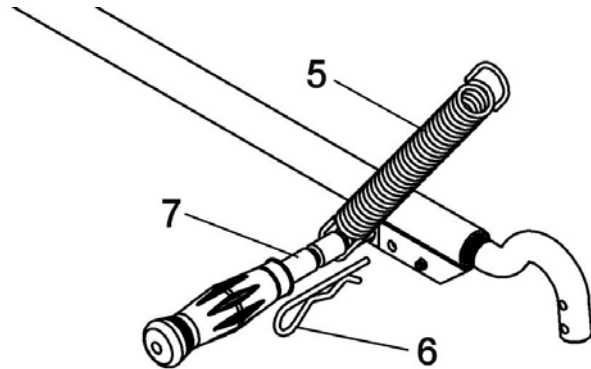
Secure the idler arm with the hair pin (item 6).

Check the tension on the belt and adjust if necessary.

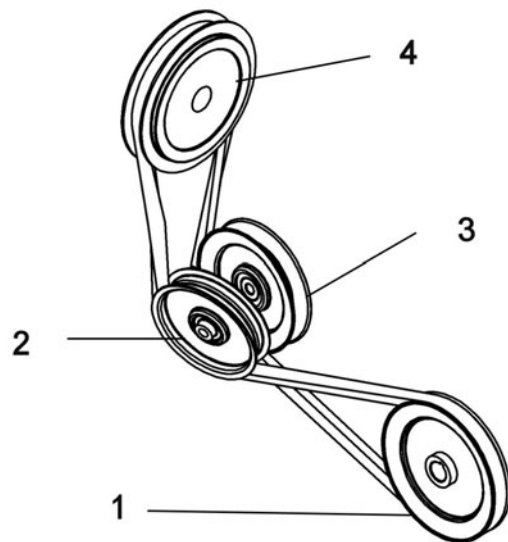
See maintenance section for belt adjustment instructions.

VERIFY BELT ROUTING

- Reconnect the spark plugs.
- Lower the snowblower to the ground and let it run for a few seconds under supervision.
- Disengage the snowblower and stop the engine.
- Check the belt to make sure it is well inserted in the pulleys and that it has not flipped on its side in the pulleys.
- Reinstall the belt guard.



Loosen spring on tension arm



Install belt:

1. Snowblower pulley
2. Flat pulley
3. V-pulley
4. Engine pulley



WARNING



TO PREVENT INJURIES:

It is the person who installs the drive mechanism responsibility to make sure that when the clutch is disengaged that all moving parts stop.
For more information, do not hesitate to contact the technical support.

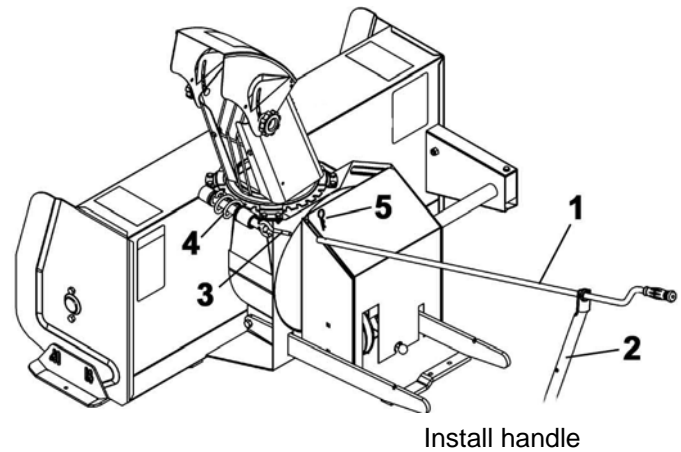
ASSEMBLY

Insert the handle (item 1) into the support (item 2) as shown.

Install the hook (item 3) on the rotation worm (item 4).

Insert the hook in the handle (item 1).

Secure with a 2.5 mm hair pin (item 5).



VERIFY SKID SHOE ADJUSTMENT:

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

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

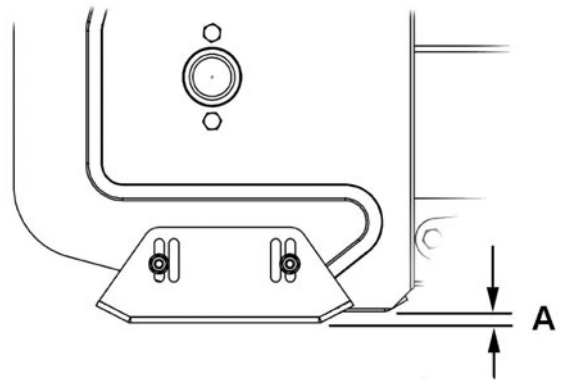
VERIFY TIRE PRESSURE:

Check and adjust tractor tire pressure as follows:

Front tires: 15-20 psi

Back tires: 7-8 psi

Tire pressure must be even on both sides of tractor.



Adjust skid shoe

ASSEMBLY

ROTARY BROOM INSTALLATION:

Refer to rotary broom owner's manual, parts breakdown section for parts identification.



WARNING



FOR YOUR SECURITY:

Read the rotary broom owner's manual for safety precautions and rules.

Follow the assembly and operation instructions.



WARNING



TO PREVENT INJURIES:

Stop the motor.

Apply parking brakes.

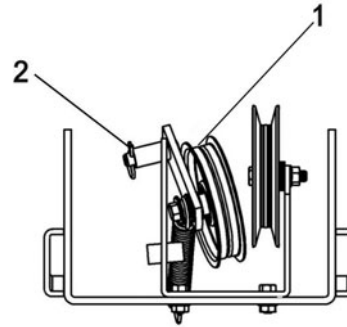
Remove the ignition key.

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

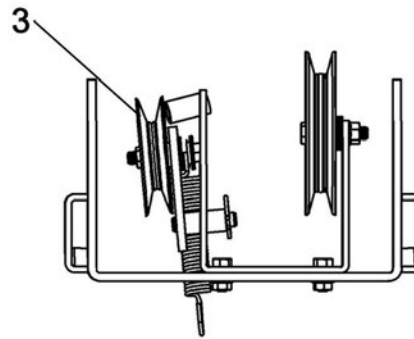
NOTE: In order to install the Rotary Broom on this subframe, the V-idler pulley kit (700252) is required.

Replace the flat idler kit (item 1) by the V idler kit (item 3). Install the pulley on the right hand side as shown.

NOTE: Keep the flat idler pulley kit (item 1) in a safe place to be able to reinstall the snowblower.



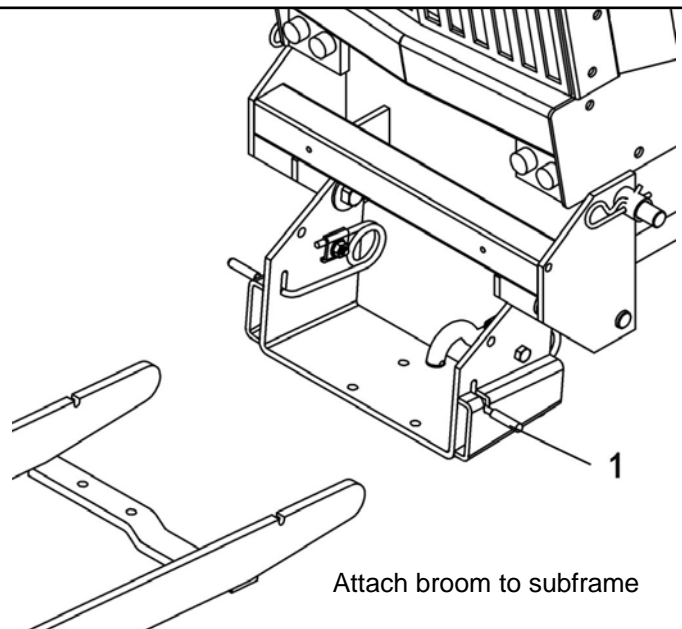
Flat pulley kit



V-pulley kit

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).



Attach broom to subframe

ASSEMBLY

Remove the hair pin (item 6).
Release the tension on the belt by moving the idler arm (item 7) forward.
Install the V-belt by threading it under the idler pulleys and over the engine pulley as shown.

Important: Make sure the belt is not twisted more than 90° and that the V part of the belt is in the V of the pulley. The back of the belt must be on the flat pulley.

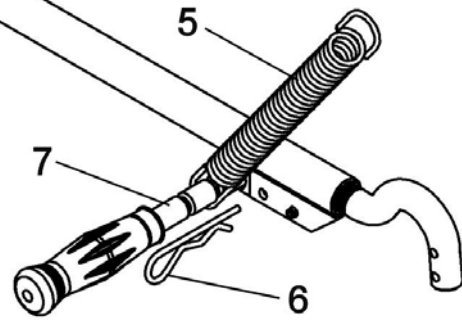
Apply tension on the belt by moving the tension arm (item 7) backwards.

The flat pulley (figure 2) should be lined up with the strand of the belt coming off the engine pulley and should be between 1/4" to 1/2" in front of the V pulley (item 3) when rotary broom is on the ground.
If necessary, move the V pulley (item 3) in different hole towards the back and use the appropriate belt.

Secure the idler arm with the hair pin (item 6).

Check the tension on the belt and adjust if necessary.

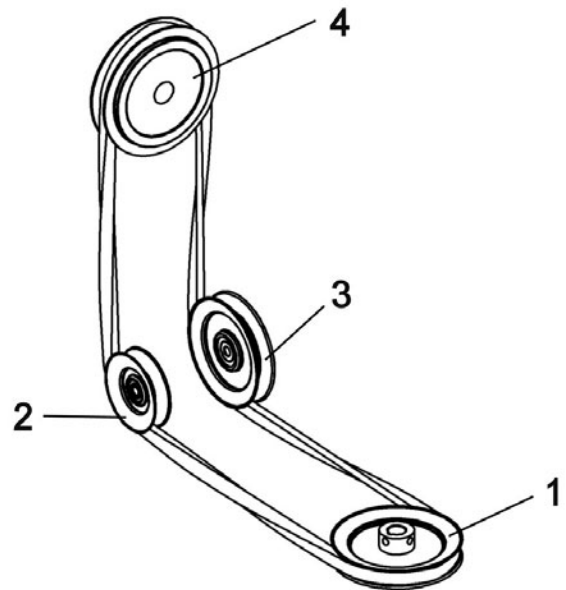
See maintenance section for belt adjustment instructions.



Loosen spring on tension arm

VERIFY BELT ROUTING:

- Remove belt guard.
- Lower the rotary broom to the ground and let it run for a few seconds under supervision.
- Disengage the rotary broom and stop the engine.
- Check the belt to make sure it is well inserted in the pulleys and that it has not flipped on its side on the pulleys.
- Reinstall the belt guard.



Install belt



WARNING



TO PREVENT INJURIES:

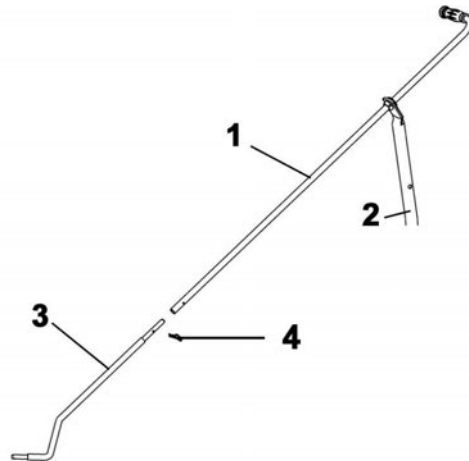
It is the person who installs the drive mechanism responsibility to make sure that when the clutch is disengaged that all moving parts stop.

For more information, do not hesitate to contact the technical support.

ASSEMBLY

Insert the handle (item 1) into the support (item 2) as shown.

Install the handle (item 1) on the control rod (item 3) as shown and secure with a 2.5 mm hair pin (item 4).



Install handle

VERIFY TIRE PRESSURE:

Check and adjust tractor tire pressure as follows:

Front tires:	20-25 psi
Back tires:	8-10 psi

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

ASSEMBLY

UTILITY BLADE INSTALLATION:

Refer to Utility Blade owner's manual, parts breakdown section for parts identification.



WARNING

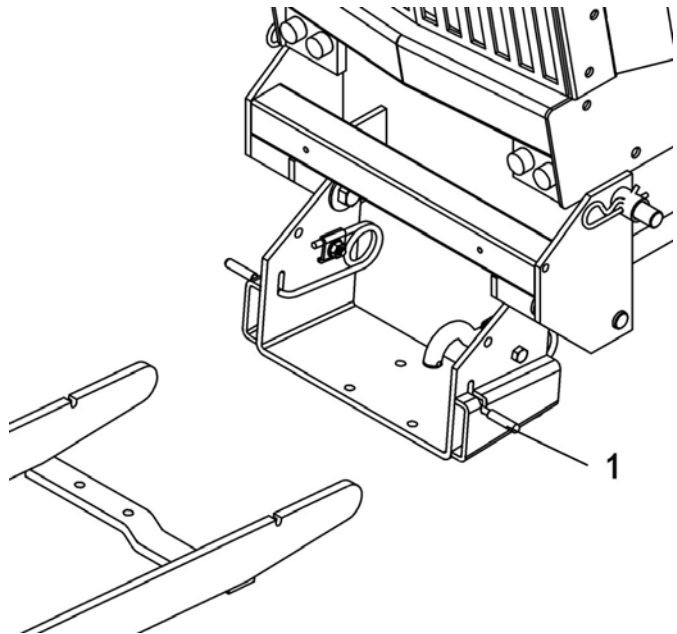


FOR YOUR SECURITY:

**Read the Utility Blade owner's manual for safety precautions and rules.
Follow the assembly and operation instructions.**

Attach the blade to the subframe as shown.

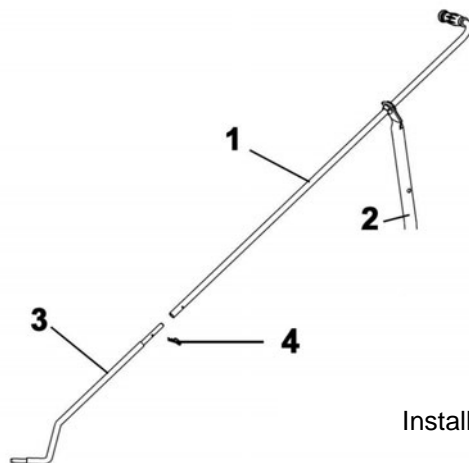
Make sure the blade is pushed in until locked into place by the springs (item 1).



Install utility blade

Insert the handle (item 1) into the support (item 2) as shown.

Install the handle (item 1) on the control rod (item 3) as shown and secure with a 2.5 mm hair pin (item 4).



Install handle

VERIFY TIRE PRESSURE:

Check and adjust tractor tire pressure as follows:

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

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

MAINTENANCE & DISMOUNTING



WARNING



TO PREVENT INJURIES:

Stop the motor.

Apply parking brakes.

Remove the ignition key.

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

MAINTENANCE

- a) Check mounting bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- b) Apply oil at all pivot points.

BELT ADJUSTMENT

See parts breakdown for part identification

Because there are different models of tractors in the 300 Series with a horizontal engine, the pulley support (item 2) has several holes and another belt (item 43) to allow certain modifications.

The V pulley (item 29) can be moved into the appropriate hole on the pulley support for best adjustment.

Use the appropriate belt .

SUBFRAME DISMOUNTING

See Attachment Owner's manual (Snowblower, Rotary Broom, Utility Blade) for attachment dismounting instructions.

- a) Remove the rear counterweight.
- b) Release tension on the belt by moving the tension arm towards the back.
- c) Remove a hair pin that holds the back of the push tube.
- d) Remove the pin that holds the push tube.
- e) Remove the two links from both sides of the tractor. Remove the hair pins and the front subframe.
- f) Replace the lift arms back into their original position and reinstall the mower deck.

END OF SEASON STORAGE

- a) Clean and repaint all parts from which the paint has worn.
- b) Apply oil at all pivot points.

Inspect and replace all defective parts before next season.

TORQUE SPECIFICATION TABLE

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

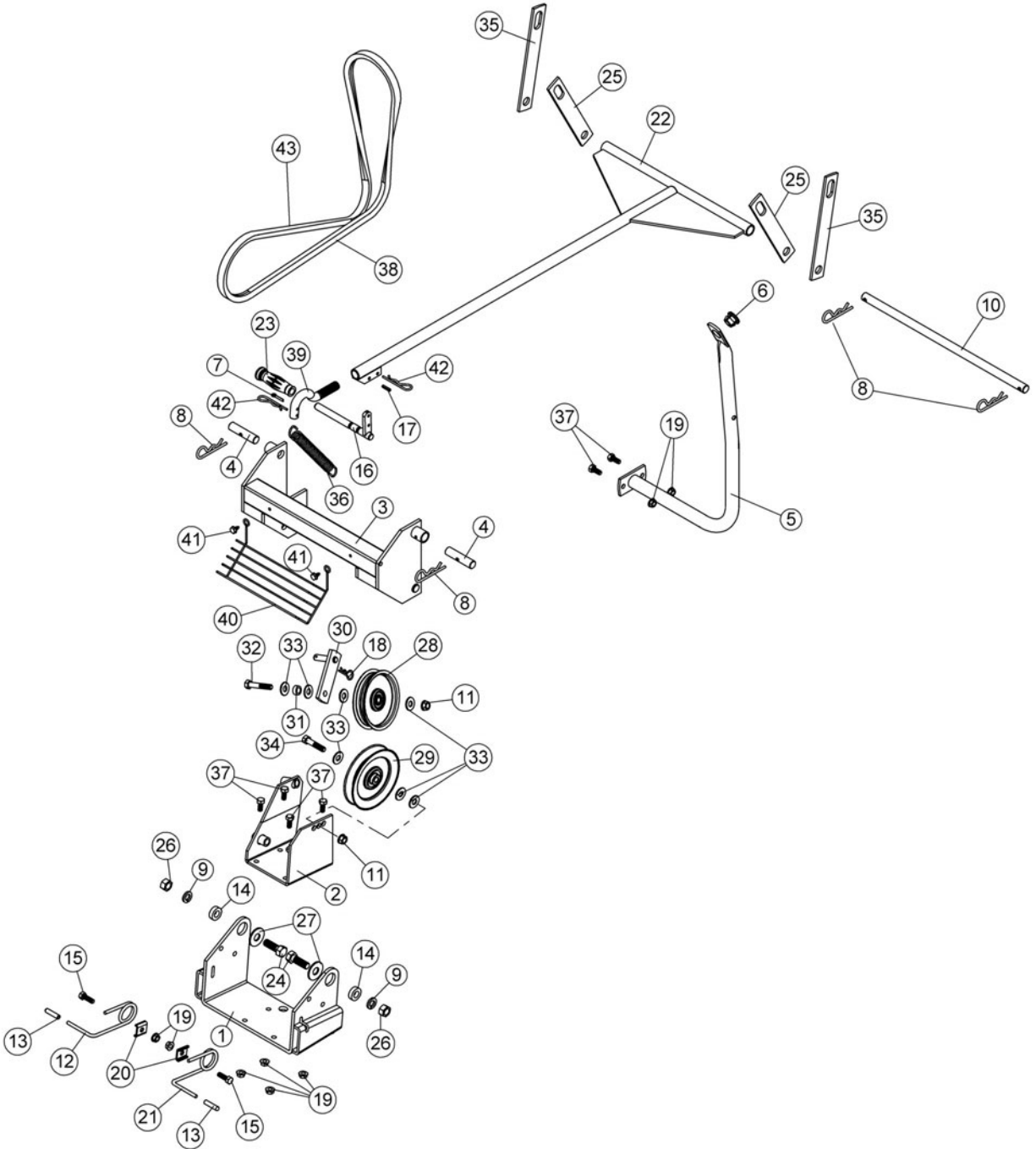
NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

* 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

PARTS BREAKDOWN SUBFRAME



PARTS LIST SUBFRAME

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Pivot support	Support de pivot	1	102318
2	Pulley support	Support de poulie	1	102554
3	Front subframe	Sous-châssis avant	1	102524
4	Pin	Goupille	2	102525
5	Handle support	Support de manivelle	1	102526
6	Plastic grommet	Oeillet de plastique	1	102063
7	Cotter pin 5/32" x 1"	Goupille fendue 5/32" x 1"	1	O/L
8	Hair pin 4mm	Goupille à ressort 4mm	4	102054
9	Lock washer 1/2"	Rondelle de blocage 1/2"	2	O/L
10	Pin	Goupille	1	102528
11	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	2	O/L
12	Right spring lock	Ressort de barrure droit	1	102209
13	Handgrip	Poignée	2	102248
14	Sleeve	Douille	2	102308
15	Hex. bolt 5/16" n.c. x 1"	Boulon hex. 5/16" n.c. x 1"	2	O/L
16	Idler arm	Bras de tension	1	102434
17	Roll pin 3/16" x 3/4"	Goupille roulée 3/16" x 3/4"	1	O/L
18	Hair pin 2.5mm	Goupille à ressort 2.5mm	1	102013
19	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	8	O/L
20	Spring bracket	Fixation du ressort	2	102210
21	Left spring lock	Ressort de barrure gauche	1	102208
22	Push tube	Tube de poussée	1	102529
23	Handgrip	Poignée	1	102062
24	Hex. bolt 1/2" n.c. x 1 1/2"	Boulon hex. 1/2" n.c. x 1 1/2"	2	O/L
25	Lift link	Lien de relevage	2	102530
26	Hex. nut 1/2" n.c.	Écrou hex. 1/2" n.c.	2	O/L
27	Flat washer 9/16" hole	Rondelle plate 9/16" trou	2	O/L

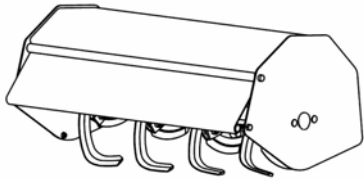
O/L = Obtain Locally

PARTS LIST SUBFRAME

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
28	Flat pulley	Poulie plate	1	102300
29	"V" Pulley	Poulie en "V"	1	102086
30	Idler arm	Bras de poulie	1	102314
31	Sleeve	Douille	1	102322
32	Hex. bolt 3/8" n.c. x 2"	Boulon hex. 3/8" n.c. x 2"	1	O/L
33	Flat washer 7/16" hole	Rondelle plate 7/16" trou	7	O/L
34	Hex. bolt 3/8" n.c. x 1 3/4"	Boulon hex. 3/8" n.c. x 1 3/4"	1	O/L
35	Lift link	Lien de relevage	2	102531
36	Spring	Ressort	1	102304
37	Hex. bolt 5/16" n.c. x 3/4"	Boulon hex. 5/16" n.c. x 3/4"	6	O/L
38	V-Belt , MXV5-750	Courroie en V , MXV5-750	1	102527
39	Adjustment rod	Tige d'ajustement	1	102073
40	Wire guard	Protecteur en broche	1	102320
41	Tapping screw 1/4"-14 x 1/2"	Vis taraudeuse 1/4"-14 x 1/2"	2	O/L
42	Hair pin 3mm	Goupille à ressort 3mm	2	102617
43	V-Belt , MXV5-780	Courroie en V , MXV5-780	1	102323

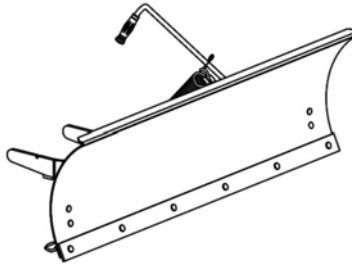
O/L = Obtain Locally

ATTACHMENTS



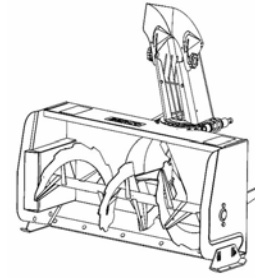
ROTARY TILLER #700312

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



UTILITY BLADE #700266

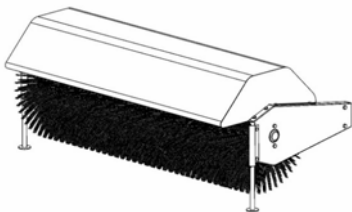
Mounts on the same subframe as the snowblower & rotary broom.



SNOWBLOWER

#700210 40"
#700211 44"

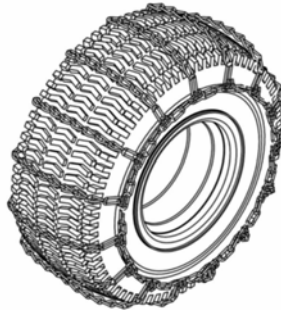
Fits on same subframe as rotary broom and utility blade.



ROTARY BROOM

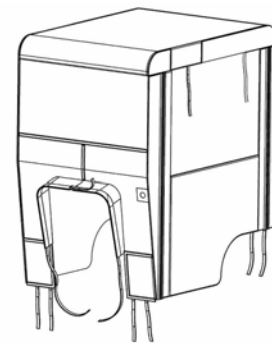
#700316 with polypropylene brush.

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



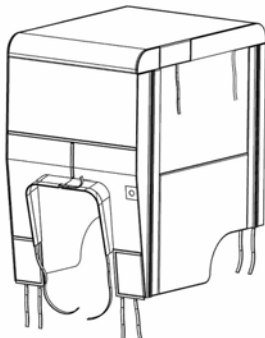
TIRE CHAINS

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



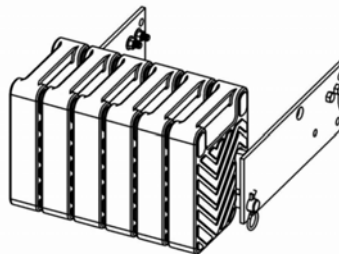
**TRACTOR WINTER CAB
#700271**

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

According to tractor model
Required for safety and traction.
Counterbalances weight of attachment.



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