



OWNER'S MANUAL

Model Number

700425-1 Subframe

700426 Compact Drive Mechanism

700427 Northeast Drive Mechanism



BERCO

Subframe & Drive Mechanism

for

JOHN DEERE Series X300, X304, X320, X324, X340

JOHN DEERE Series X500, X520, X534, X540

* ASSEMBLY

* REPAIR PARTS

* OPERATION

* 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 (installed in factory on BERCO equipment): 2 years
- Engines (sold separately): Validate with the dealer.

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 starting to clear snow.
 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 clean 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.

14. 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

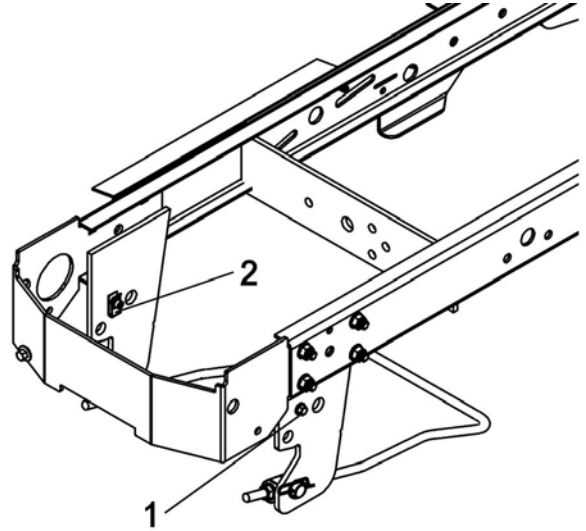
STEP 1 SUBFRAME INSTALLATION:

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

NOTE: It is recommended to remove the mower deck and it's support before installing the subframe.

Loosen the two bolts (item 1, one on each side).
Reposition the panel nuts vertically (item 2, one on each side) as shown.

Tighten the two bolts firmly.

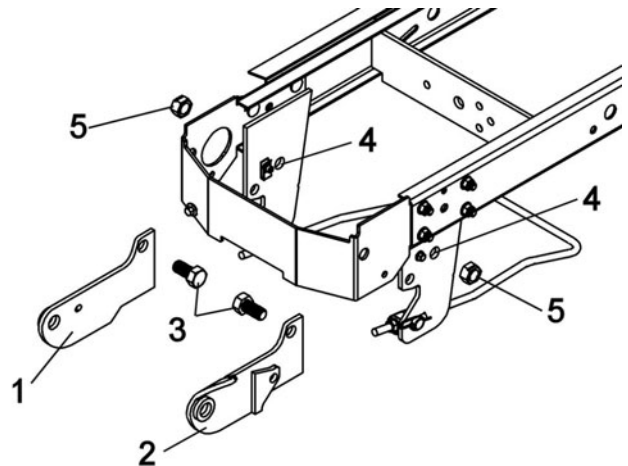


Reposition the panel nuts

Install the right support (item 1) and the left support (item 2) inside the tractor frame by using two 5/8" n.c. x 1 1/4" hex bolts (item 3) in the holes (item 4) as shown.

Secure with two lock nuts (item 5).

Do not tighten.



Install the supports

ASSEMBLY

Turn the front wheels towards the right.

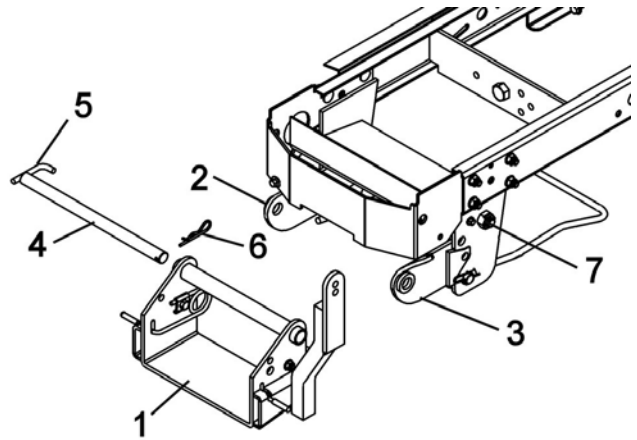
Install the pivot support (item 1) between the two supports (items 2 & 3).

Secure in place by sliding the pin (item 4) from the right side in the holes of the supports.

Lock into place by placing the bended part of the pin (item 5) in the hole that is free on the right support.

Secure in place with a 3 mm hair pin (item 6).

Tighten firmly the lock nuts (item 7) previously installed.

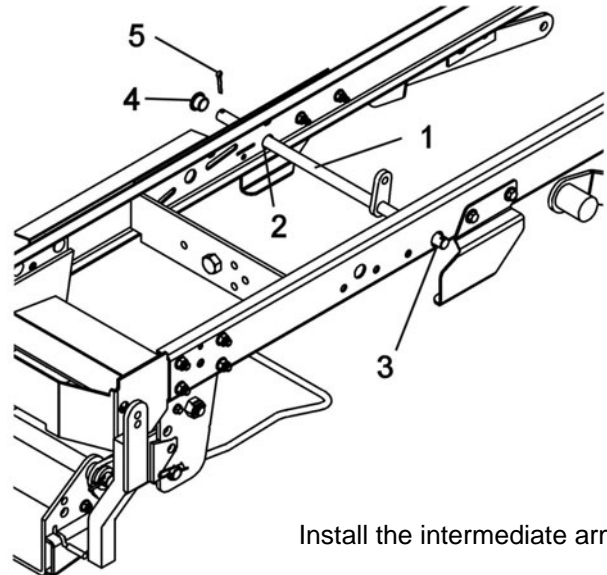


Install pivot support

STEP 2 **LIFT SYSTEM INSTALLATION:**

Insert the long part of the intermediate arm (item 1) in the hole (item 2) on the right side of the tractor frame, then insert the other end in the hole (item 3) on the left side.

On the right side, install the bushing (item 4) on the end of the intermediate arm, then push it through the hole (item 2) and secure with a cotter pin 5/32" x 1" (item 5).

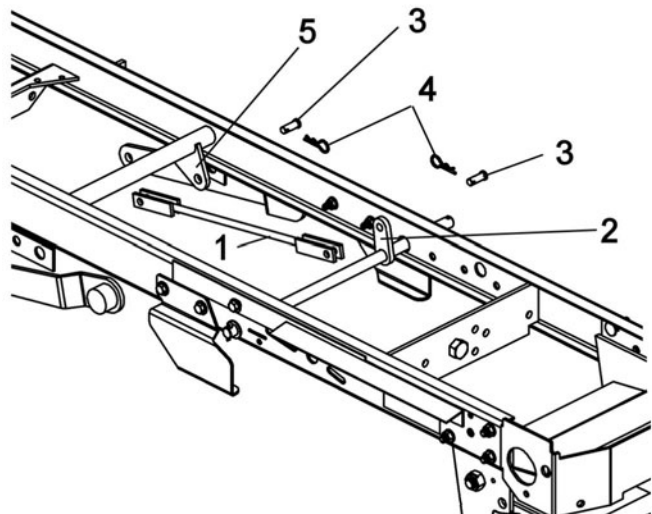


Install the intermediate arm

From under the tractor, install one end of the short link (item 1) on the support (item 2) of the intermediate arm.

NOTE: Make sure the support (item 2) is pointing upwards.

Secure at each end with a pin (item 3) and a 2.5mm hair pin (item 4) as shown.



Install the short link

ASSEMBLY

Remove the bolt (item 1) and nut from the tractor frame.

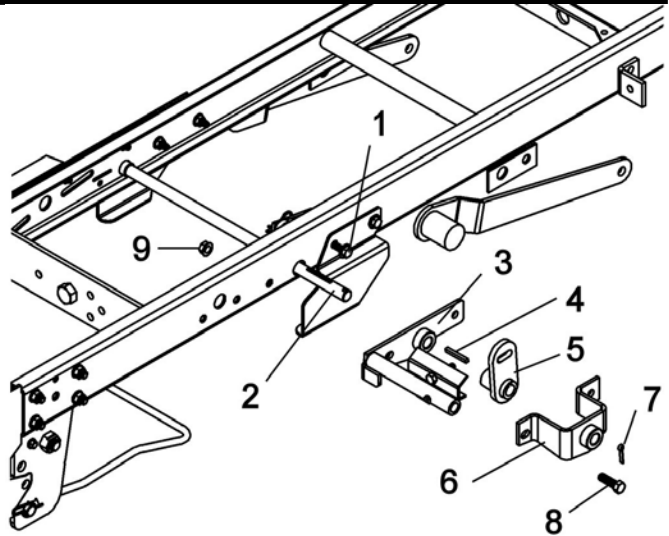
Insert in order on the end of the intermediate arm (item 2): the lift support (with bushing) (item 3), the key $3/16" \times 3/16" \times 1\ 1/2"$ (item 4), the lift lever (item 5) and the lift stirrup (with bushing) (item 6) .

Secure with a cotter pin (item 7).

Secure the lift system with the bolt (item 1) and nut removed previously.

In the remaining hole, insert a hex bolt $3/8" \times 1\ 1/4"$ (item 8) and flange nut (item 9).

Tighten firmly.



Install the lift system

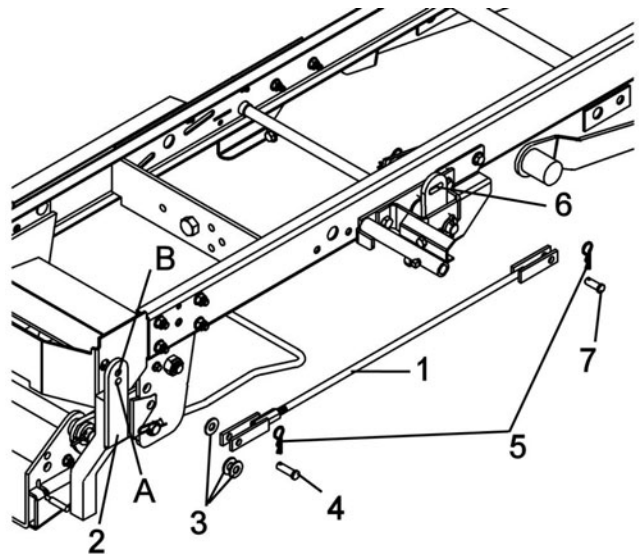
Install one end of the adjustable link (item 1) on the pivot support (item 2) (see note) with three flat washers (item 3) as shown. Secure in place with a lift pin (item 4) and a 2.5mm hair pin (item 5).

NOTE:

Use the hole A on the pivot support (item 2) for the John Deere series X500.

Use the hole B on the pivot support (item 2) for the John Deere series X300.

Secure the other end in place on the lift lever (item 6) with a pin (item 7) and a 2.5mm hair pin (item 5).



Install the long link

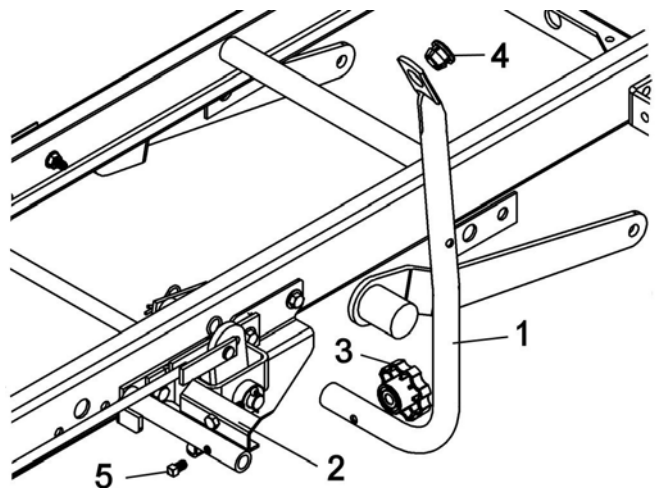
Install the handle support (item 1) on the bolt of the lift support (item 2).

Secure with the knob (item 3).

Tighten firmly.

Install the plastic grommet (item 4) on the handle support.

Screw the square head set screw $5/16" \times 1/2"$ (item 5) into the hole of the cab support. Required for installing the Berco cab.



Install the handle support

ASSEMBLY

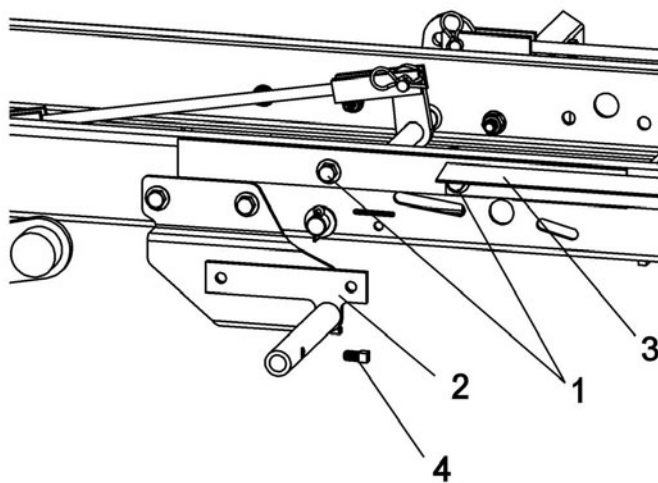
Remove the two bolts (item 1) from the right as shown.

Install the cab support (item 2) under the heat shield (item 3) on the tractor frame.

Secure in place with the two bolts removed previously.

Tighten firmly.

Screw the square head set screw $5/16" \times 1/2"$ (item 4) into the hole of the cab support.



Install the right cab support

ASSEMBLY

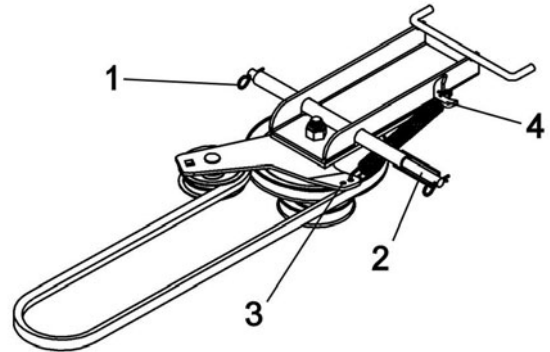
STEP 3 DRIVE MECHANISM INSTALLATION:

NOTE: You must remove the mower deck and the front mower deck support in order to install the drive mechanism.

Remove the hair pin (item 1) and pin (item 2).

NOTE: There is a second hole (item 3) on the tension arm that can be used later to adjust the tension on the belt.

Secure the loose end of the spring on the hook (item 4) of the drive frame.



Prepare drive mechanism

NOTE: For the John Deere X300 tractor, drill the hole A to 7/16" diameter in the bracket for the transmission box.

NOTE: To facilitate the installation of the drive mechanism, lower the rear mower deck supports (item 1) (see tractor's manual).

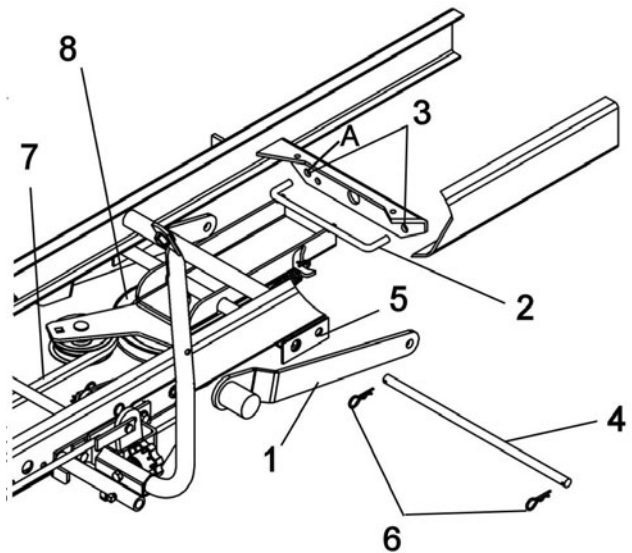
Install the drive mechanism under the tractor by inserting the rear part of drive mechanism (item 2) into the two corresponding holes (item 3) of the tractor frame.

Secure the front part of the drive mechanism by inserting the pin (item 4) in the holes (item 5, one on each side) as shown.

Secure with a 2.5 mm hair pin (item 6).

In order to facilitate installation, remove belt (item 7) from the large pulley (item 8), insert it around the motor pulley, and then reinstall on the large pulley.

NOTE: Make sure the clutch mechanism works well.



Install the drive mechanism



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

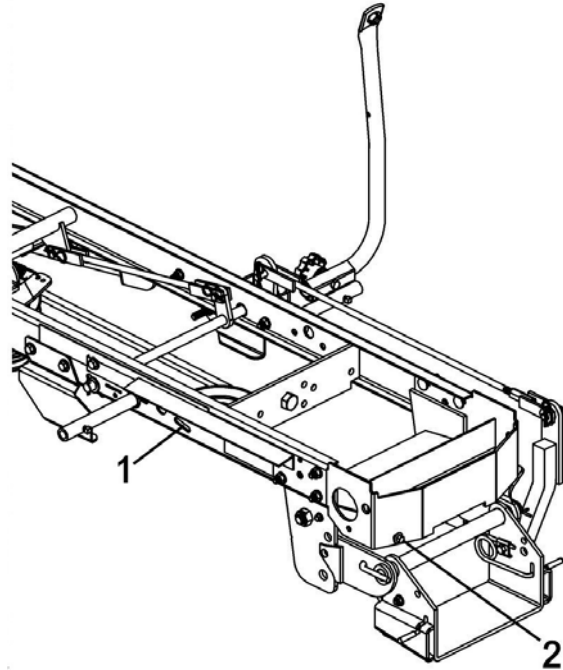
STEP 4 **LIFT ASSIST SPRING ADJUSTMENT** **(JOHN DEERE):**

NOTE: Your John Deere tractor must be equipped with a lift assist spring (available directly from John Deere) to lift the snowblower or the rotary broom.

Adjust the tension of the lift assist spring by positioning the yellow indicator (item 1) on the word "Blower".

Screw the adjustment bolt (item 2) to increase tension or unscrew to decrease tension.

This adjustment can be done according to your facility to lift the accessory.



Adjust the tension of the lift assist spring

ASSEMBLY

STEP 5

SNOWBLOWER INSTALLATION:

Refer to Snowblower owner's manual, parts breakdown section for their identification.



WARNING



FOR YOUR SECURITY:

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

Follow the assembly and operation instructions.

Attach the snowblower to the subframe as shown. Make sure the snowblower is pushed in until locked into place by the springs (item 4).

Lift the snowblower by pushing down the lift pedal, and locking it in the raised position. Turn the tension arm (item 1) towards the back. Hook the chain (item 2) (of the helper spring) to the spring bracket (item 3) of the left support.

Turn the tension arm towards the front to apply tension on the spring. Lower the snowblower.



WARNING



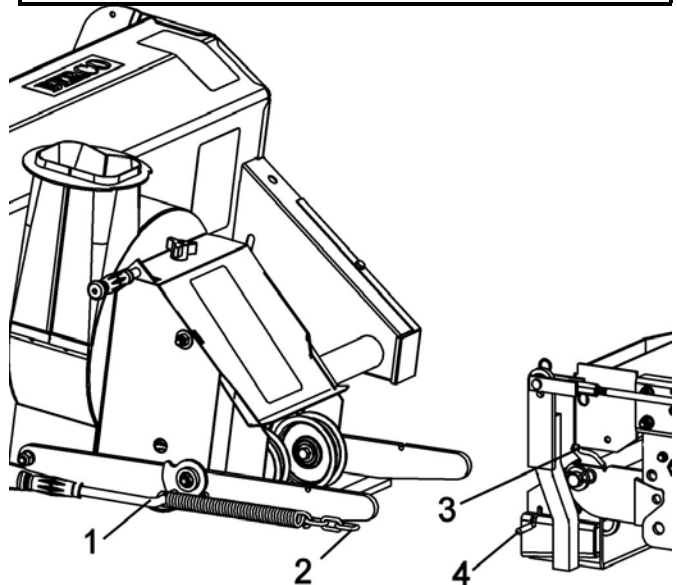
TO PREVENT INJURIES:

Stop the motor.

Apply parking brake.

Remove the ignition key.

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



Install snowblower



CAUTION



The belt tension arm is spring loaded & needs to be held firmly while displacing to prevent injury.



CAUTION



Never use the snowblower without the belt guard.

BELT INSTALLATION:

Remove the belt guard.

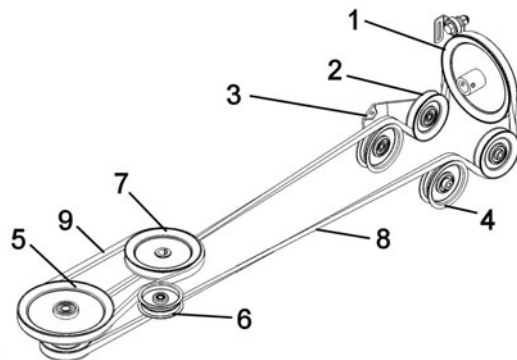
Install the belt around the pulleys as shown.

Install the belt on the drive mechanism pulley (item 5) under the tractor.

Apply tension on the belt by pulling up the belt tension arm.

Reinstall the belt guard.

NOTE: See belt replacement instructions in the maintenance section of the snowblower owner's manual.



Item 1: Snowblower pulley

Item 2: V pulley

Item 3: Tension arm

Item 4: Flat pulley

Item 5: Drive mechanism pulley

Item 6: Flat pulley

Item 7: Engine pulley

Item 8: Snowblower belt

Item 9: Drive mechanism belt

Install V-belt and belt guard

ASSEMBLY

VERIFY BELT ROUTING:

- Remove the belt guard.
- 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 belts to make sure they are well inserted on the pulleys and have not flipped on their sides in the pulleys.
- Reinstall the belt guard.



WARNING



TO PREVENT INJURIES:

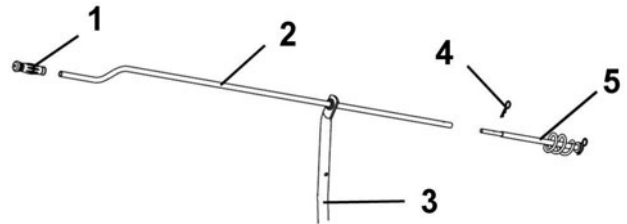
It is the person who installs the drive mechanism responsibility to make sure that when the clutch is disengaged that all moving parts stop.

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

Insert the handgrip (item 1) on the handle (item 2).

Insert the handle (item 2) through the support (item 3) as shown.

Insert the handle (item 2) in the rotation worm (item 5) and secure with a 2.5 mm. hair pin (item 4).



Install handle

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.

ADJUST THE LIFT SYSTEM:

Use the adjustable link to obtain the desired lift height (maximum 4").

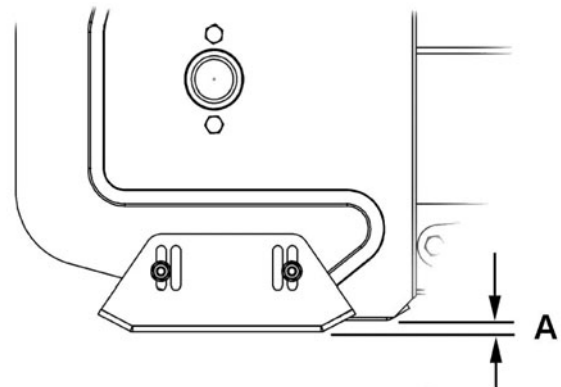
NOTE: The adjustment gauge (on the tractor) for the height of the mower deck must be in the lowest position (position 1). See tractor owner's manual for more information.

VERIFY TIRE PRESSURE:

Check and adjust tractor tire pressure as follows:

Front tires: 13-14 psi
Back tires: 9-10 psi

Tire pressure must be even on both sides of tractor.



Adjust skid shoes

ASSEMBLY

STEP 6

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.

Attach the rotary broom (item 1) to the subframe (item 2) as shown.

Make sure the rotary broom is pushed in until locked into place by the springs (item 3).



WARNING



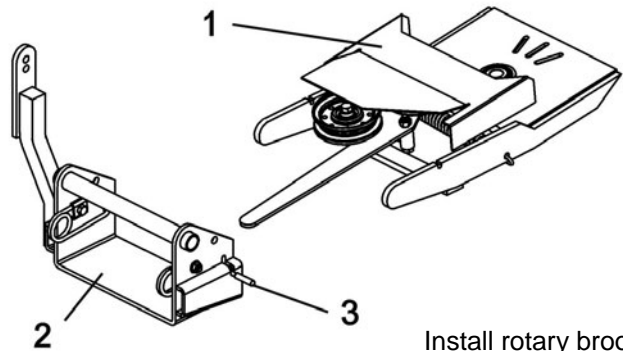
TO PREVENT INJURIES:

Stop the motor.

Apply parking brake.

Remove the ignition key.

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



Install rotary broom



CAUTION



Never use the Rotary Broom without the belt guard.

BELT INSTALLATION

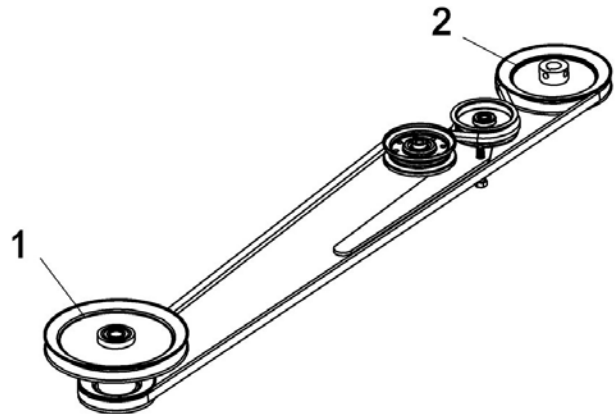
NOTE: See belt replacement instructions in the maintenance section of the owner's manual for the broom.

Remove the belt guard.

Install the belt on the drive mechanism pulley (item 1) as shown.

Reinstall the belt guard.

TIP: Because of strong tension on the spring and to facilitate installation of the belt, the broom must be on the ground and remove the belt from the engine pulley.



Item 1: Drive mechanism pulley
Item 2: Rotary broom pulley

Install belt

ASSEMBLY

VERIFY BELT ROUTING:

- 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 belts to make sure they are well inserted on the pulleys and have not flipped on their sides in the pulleys and that they do not touch the belt guides



WARNING



TO PREVENT INJURIES:

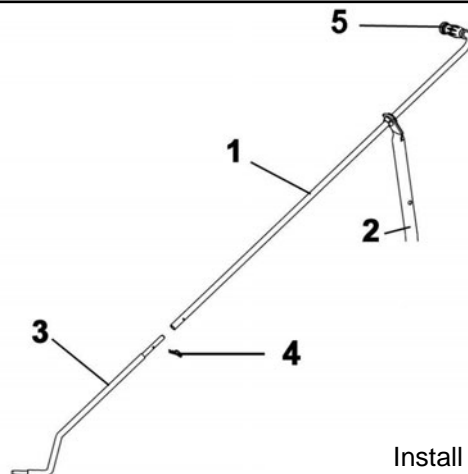
It is the person who installs the drive mechanism responsibility to make sure that when the clutch is disengaged that all moving parts stop.

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

Insert handgrip (item 5) on the handle (item 1).

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

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



Install handle

ADJUST THE LIFT SYSTEM:

Use the adjustable link to obtain the desired lift height (maximum 4").

NOTE: The adjustment gauge (on the tractor) for the height of the mower deck must be in the lowest position (position 1). See tractor owner's manual for more information.

VERIFY TIRE PRESSURE:

Check and adjust tractor tire pressure as follows:

Front tires:	13-14 psi
Back tires:	9-10 psi

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

ASSEMBLY

STEP 7:

UTILITY BLADE INSTALLATION:

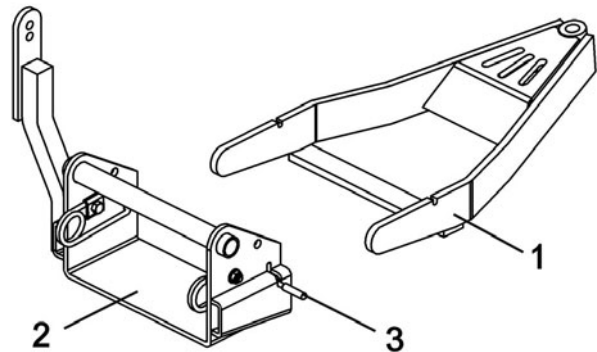
Refer to blade owner's manual, parts breakdown

	WARNING	
FOR YOUR SECURITY: Read the Utility Blade owner's manual for safety precautions and rules. Follow the assembly and operation instructions.		

Attach the Utility Blade (item 1) to the subframe (item 2) as shown.

Make sure the Utility Blade is pushed in until locked into place by the springs (item 3).

To use the utility blade with the mower deck installed on the tractor, adjust the height of mower deck wheels to the highest position

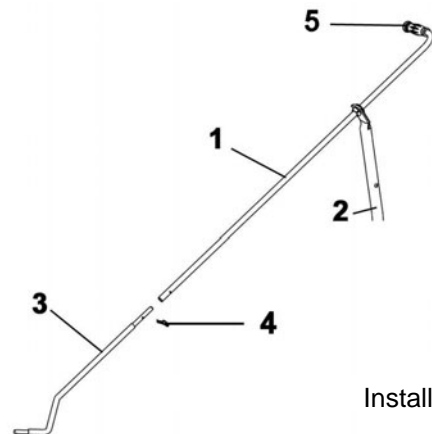


Install utility blade

Insert the handgrip (item 5) on the handle (item 1).

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

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



Install handle

ADJUST THE LIFT SYSTEM:

Use the adjustable link to obtain the desired lift height (maximum 4")

NOTE: The adjustment gauge (on the tractor) for the height of the mower deck must be in the lowest position (position 1). See tractor owner's manual for more information.

VERIFY TIRE PRESSURE:

Check and adjust tractor tire pressure as follows:

- Front tires: 13-14 psi
- Back tires: 9-10 psi

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

MAINTENANCE & DISMOUNTING

MAINTENANCE

- a) Check mounting bolts at frequent intervals for proper tightness to be sure equipment is in safe working condition.
- b) Apply oil at all pivot points.
- c) Check and adjust tractor tire pressure as follows:
 Front tires: 13-14 psi
 Back tires: 9-10 psi
Tire pressure must be even on both sides of the tractor.

DRIVE MECHANISM DISMOUNTING

SEE ATTACHMENT OWNER'S MANUAL (SNOWBLOWER, BROOM AND BLADE) FOR DISMOUNTING INSTRUCTIONS.

- a) Dismount the attachment.
- b) Remove the rear counterweight when you remove the front attachment.
- c) Dismount the drive mechanism by removing the front pin. Carefully lower to the ground. Remove the belt from engine pulley.
- d) You may leave the subframe on tractor all year long or remove it if preferred.
- e) Reinstall mower if needed.

BELT REPLACEMENT

Drive Mechanism Belt:

Before replacing the belt, check the belt tension. If necessary, secure the spring in the second hole of the idler arm. If belt tension is still insufficient, replace belt as described below.
Remove the bolt that holds the idler pulley.
Replace the belt and re-install the tension pulley.
Re-install the drive mechanism.

END OF SEASON STORAGE

- a) Clean and paint all parts from which paint has worn.
- b) Apply oil at all pivot points.
- c) Inspect and replace all defective parts before using again.

TORQUE SPECIFICATION TABLE

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

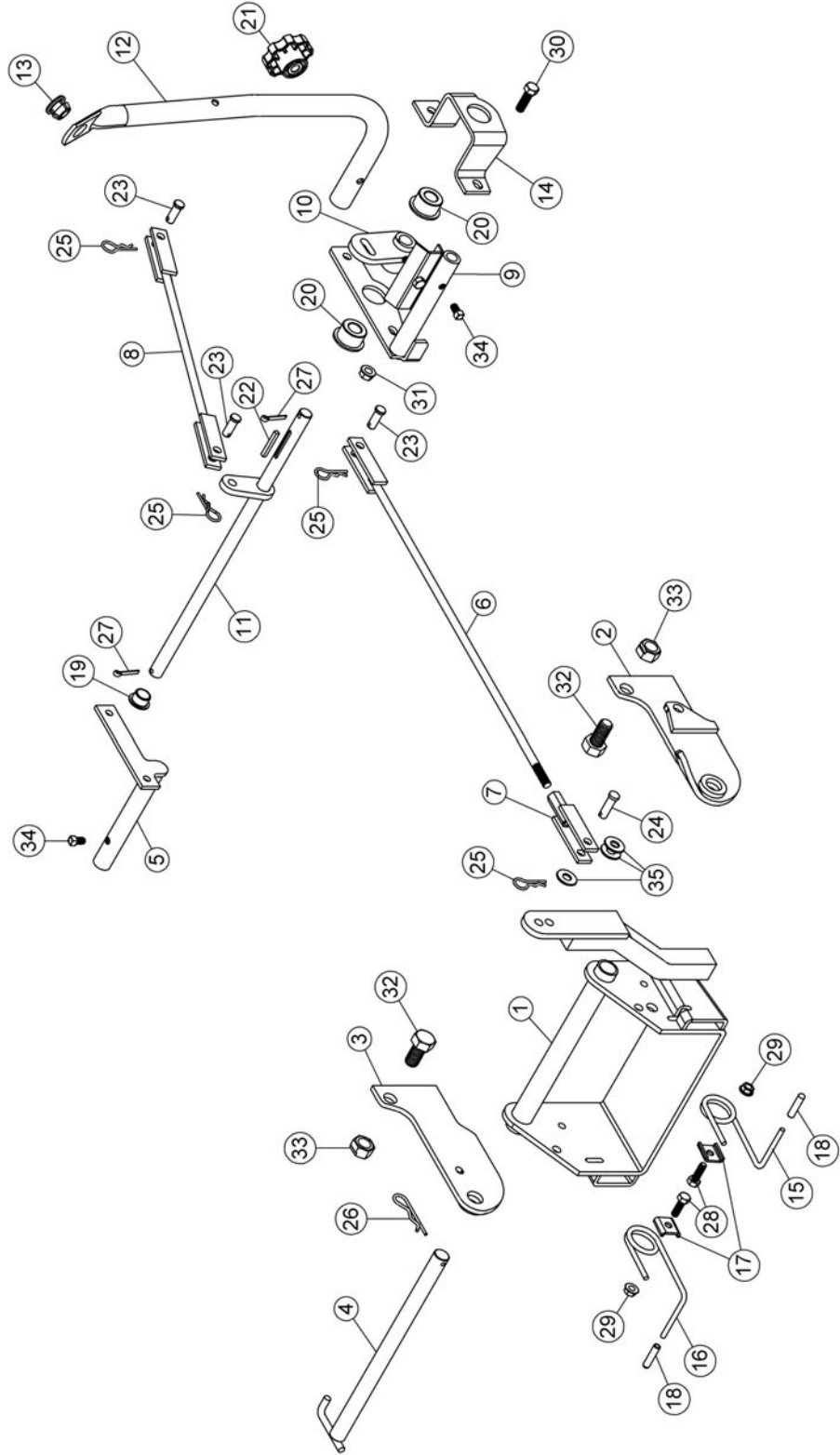
NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

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							
Size Screw	Grade No.	Pitch (mm)	COARSE THREAD		FINE THREAD		
			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 SUBFRAME 700425-1



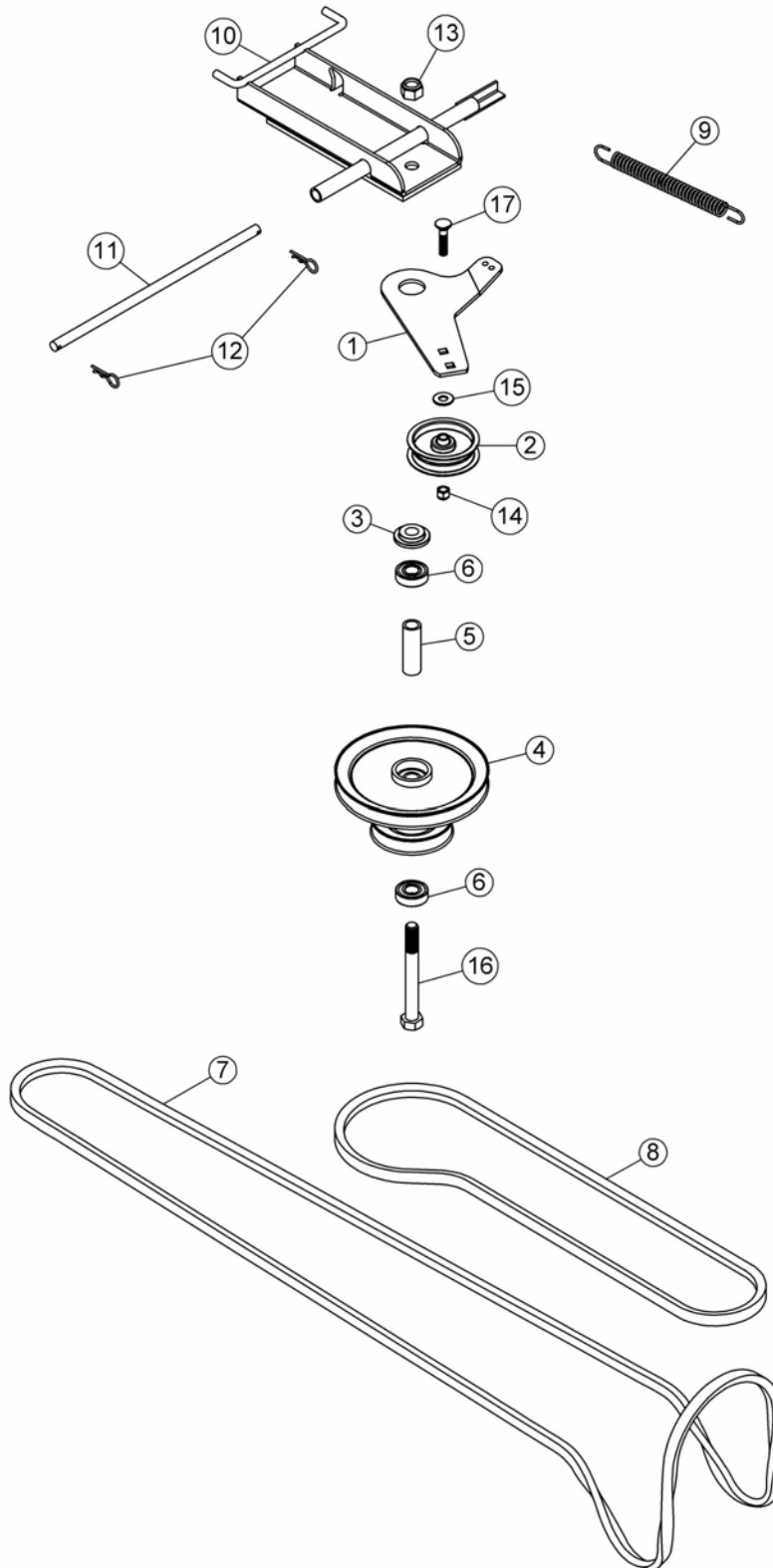
PARTS LIST SUBFRAME 700425-1

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Pivot support	Support de pivot	1	104510
2	Left support	Support gauche	1	104505
3	Right support	Support droit	1	104506
4	Pin	Goupille	1	104513
5	Cab support	Support de cabine	1	104508
6	Link	Lien	1	104730
7	Adjusting nut	Écrou Ajustable	1	104731
8	Link	Lien	1	104512
9	Lift support	Support de relevage	1	104507
10	Lift lever	Levier de relevage	1	104538
11	Intermediate arm	Bras intermédiaire	1	104535
12	Handle support	Support de manivelle	1	104509
13	Plastic grommet	Oeillet de plastique	1	102063
14	Lift stirrup	Étrier de relevage	1	104537
15	Left spring lock	Ressort de barrure gauche	1	102208
16	Right spring lock	Ressort de barrure droit	1	102209
17	Spring bracket	Fixation du ressort	2	102210
18	Handgrip	Poignée	2	102248
19	Bushing	Coussinet	1	104539
20	Delrin bushing	Coussinet Delrin	2	104540
21	Knob	Bouton	1	102020
22	Key 3/16 x 3/16 x 1 1/2"	Clé 3/16 x 3/16 x 1 1/2"	1	104536
23	Pin	Goupille	3	103077
24	Lift pin	Goupille de relevage	1	102780
25	Hair pin 2.5mm	Goupille à ressort 2.5mm	4	102013
26	Hair pin 3mm	Goupille à ressort 3mm	1	102617
27	Cotter pin 5/32" x 1"	Goupille fendue 5/32" x 1"	2	O/L
28	Hex. bolt 5/16" n.c. x 1"	Boulon hex. 5/16" n.c. x 1"	2	O/L
29	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	2	O/L
30	Hex. bolt 3/8" n.c. x 1 1/4"	Boulon hex. 3/8" n.c. x 1 1/4"	1	O/L
31	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	1	O/L
32	Hex. bolt 5/8" n.c. x 1 1/4"	Boulon hex. 5/8" n.c. x 1 1/4"	2	O/L
33	Stover lock nut 5/8" n.c.	Écrou de blocage 5/8" n.c.	2	O/L
34	Square head set screw 5/16" n.c. x 1/2"	Vis à pression à tête carrée 5/16" n.c. x 1/2"	2	O/L
35	Flat washer 7/16" hole	Rondelle plate 7/16" trou	3	O/L

O/L = Obtain Locally

PARTS BREAKDOWN

COMPACT DRIVE MECHANISM 700426



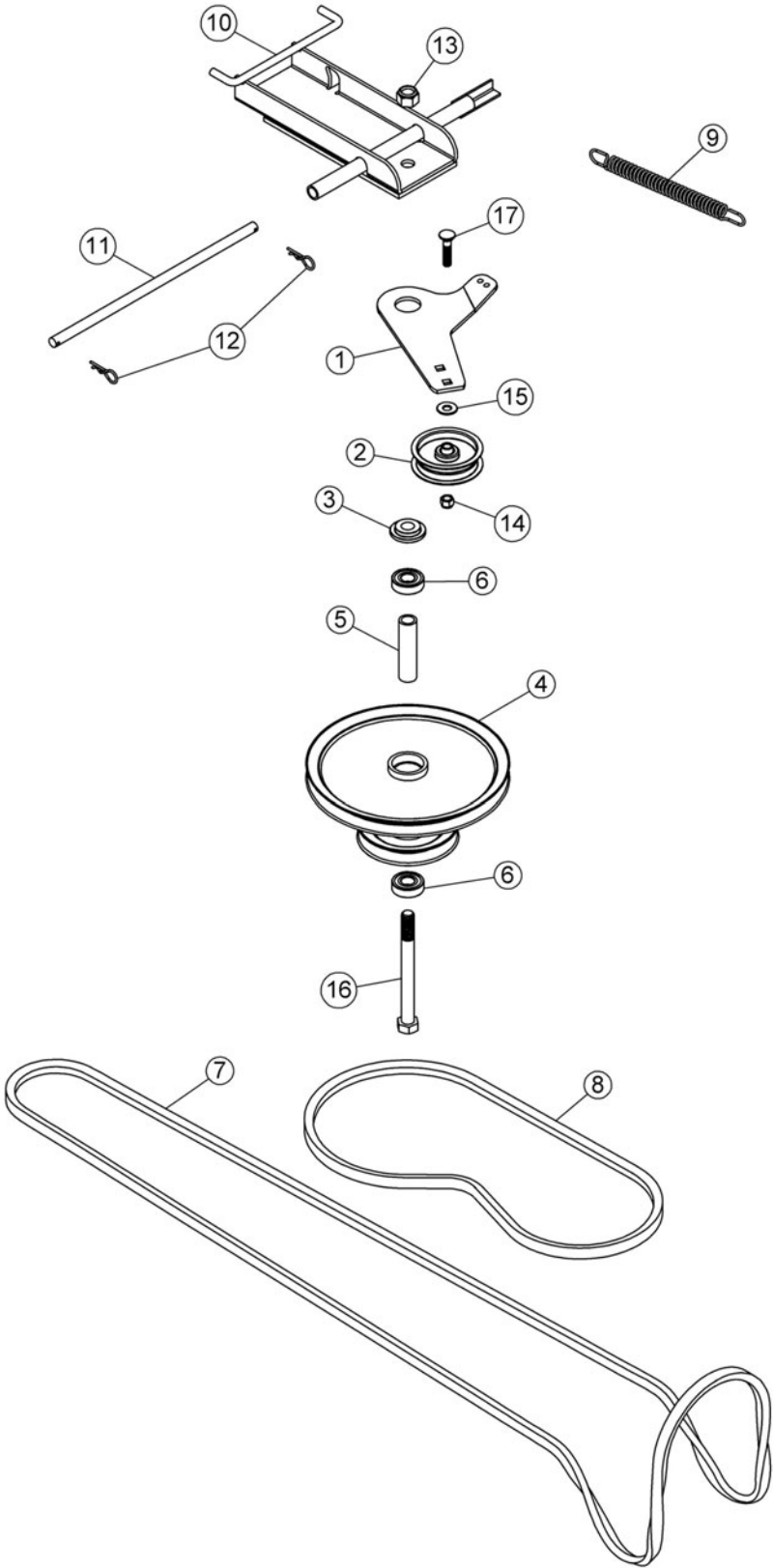
PARTS LIST

COMPACT DRIVE MECHANISM 700426

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Idler arm	Bras de tension	1	104518
2	Flat pulley	Poulie plate	1	102839
3	Flange washer	Rondelle à bride	1	102969
4	Double pulley inc. 102736 & 102782	Poulie double inc. 102736 & 102782	1	102692
5	Sleeve	Douille	1	102782
6	Bearing	Roulement à billes	2	102736
7	V-Belt , B-137	Courroie en V , B-137	1	104521
8	V-Belt , A-57	Courroie en V , A-57	1	103037
9	Spring	Ressort	1	102304
10	Drive frame	Châssis d'entraînement	1	104519
11	Pin	Goupille	1	104520
12	Hair pin 2.5mm	Goupille à ressort 2.5mm	2	102013
13	Nylon insert lock nut 5/8" n.c.	Écrou à garniture de nylon 5/8" n.c.	1	O/L
14	Nylon insert lock nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	1	O/L
15	Flat washer 7/16" hole	Rondelle plate 7/16" trou	1	O/L
16	Hex. bolt 5/8" n.c. x 5 1/2"	Boulon hex. 5/8" n.c. x 5 1/2"	1	O/L
17	Carriage bolt 3/8" n.c. x 1 3/4"	Boulon à carrosserie 3/8" n.c. x 1 3/4"	1	O/L

O/L = Obtain Locally

PARTS BREAKDOWN
NORTHEAST DRIVE MECHANISM 700427

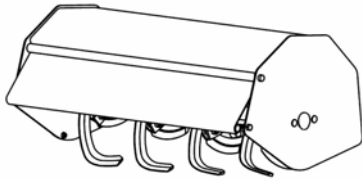


PARTS LIST NORTHEAST DRIVE MECHANISM 700427

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Idler arm	Bras de tension	1	104518
2	Flat pulley	Poulie plate	1	102839
3	Flange washer	Rondelle à bride	1	102969
4	Double pulley inc. 102736 & 103035	Poulie double inc. 102736 & 103035	1	103040
5	Sleeve	Douille	1	103035
6	Bearing	Roulement à billes	2	102736
7	V-Belt , B-143	Courroie en V , B-143	1	104522
8	V-Belt , A-61	Courroie en V , A-61	1	104523
9	Spring	Ressort	1	102304
10	Drive frame	Châssis d'entraînement	1	104519
11	Pin	Goupille	1	104520
12	Hair pin 2.5mm	Goupille à ressort 2.5mm	2	102013
13	Nylon insert lock nut 5/8" n.c.	Écrou à garniture de nylon 5/8" n.c.	1	O/L
14	Nylon insert lock nut 3/8" n.c.	Écrou à garniture de nylon 3/8" n.c.	1	O/L
15	Flat washer 7/16" hole	Rondelle plate 7/16" trou	1	O/L
16	Hex. bolt 5/8" n.c. x 6 1/2"	Boulon hex. 5/8" n.c. x 6 1/2"	1	O/L
17	Carriage bolt 3/8" n.c. x 1 3/4"	Boulon à carrosserie 3/8" n.c. x 1 3/4"	1	O/L

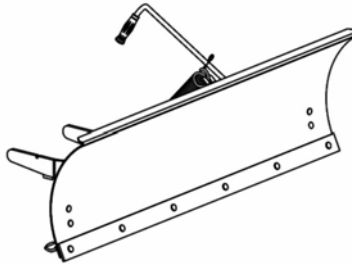
O/L = Obtain Locally

ATTACHMENTS



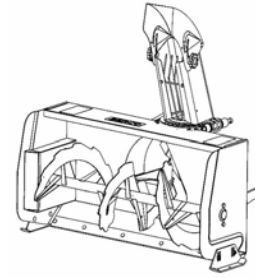
ROTARY TILLER #700312

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



UTILITY BLADE #700266

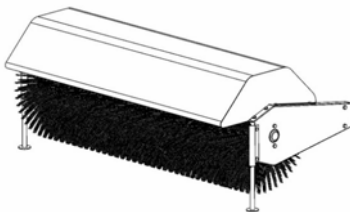
Mounts on the same subframe as the snowblower & rotary broom.



SNOWBLOWER

#700255 40"
#700374 44"
#700378 48"

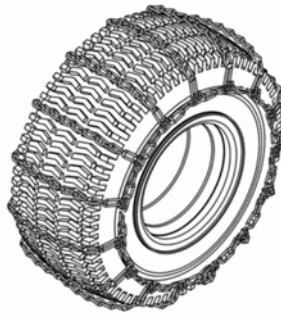
Fits on same subframe as rotary broom and utility blade.



ROTARY BROOM

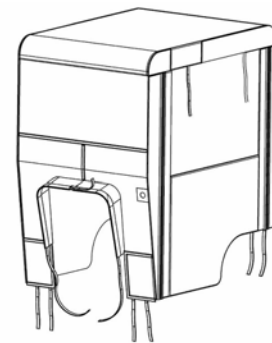
#700380 with nylon brush
/#700381 with polypropylene brush.

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



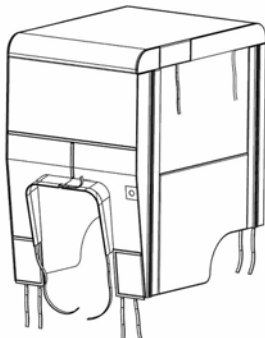
TIRE CHAINS

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



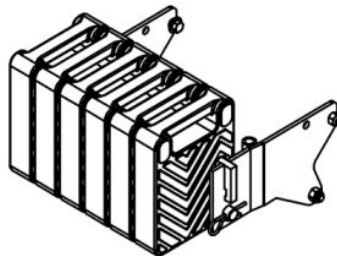
**TRACTOR WINTER CAB
#700423**

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



**TRACTOR SCREEN CAB
#700424**

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



COUNTERWEIGHT

#700441 Rear weights for John Deere X300/X500 series tractors

Required for safety and traction. Counterbalances weight of attachment.



IDLER KIT

#700442 Idler Kit for John Deere X534 & X540 tractors

Required to prevent the belt from touching the steering cylinder.



***WHEN PERFORMANCE
& DEPENDABILITY
ARE NON NEGOTIABLE!***

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