



**OWNER'S MANUAL**  
***Model Number***

***700312-2***



***BERCO***  
***Rotary Tiller***  
***Universal mount for***  
***YARD & GARDEN***  
***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 (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](http://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.**

|   |  |
|---|--|
| <b>SERIAL NUMBER :</b><br>(IF APPLICABLE) |  |
| <b>MODEL NUMBER:</b>                      |  |
| <b>PURCHASE DATE :</b>                    |  |



## 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 !**



# SAFETY DECALS



REPLACE IF DECALS ARE DAMAGED  
SEE PARTS BREAKDOWN FOR DECAL LOCATION



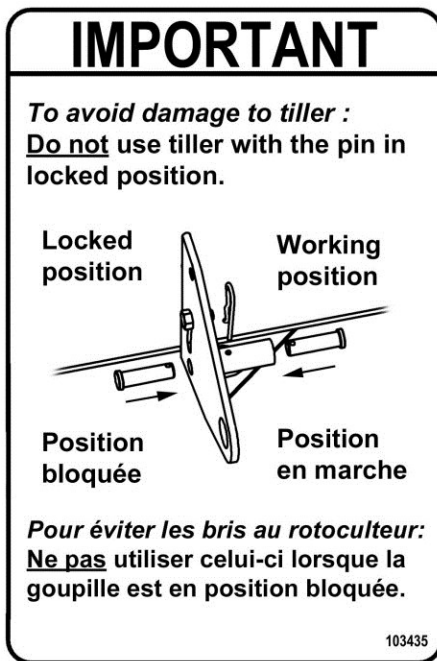
Decal #103432



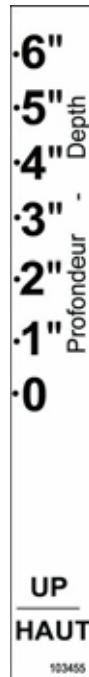
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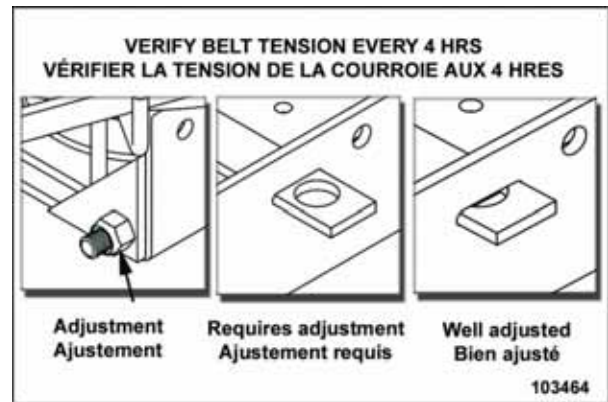
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Decal #103435

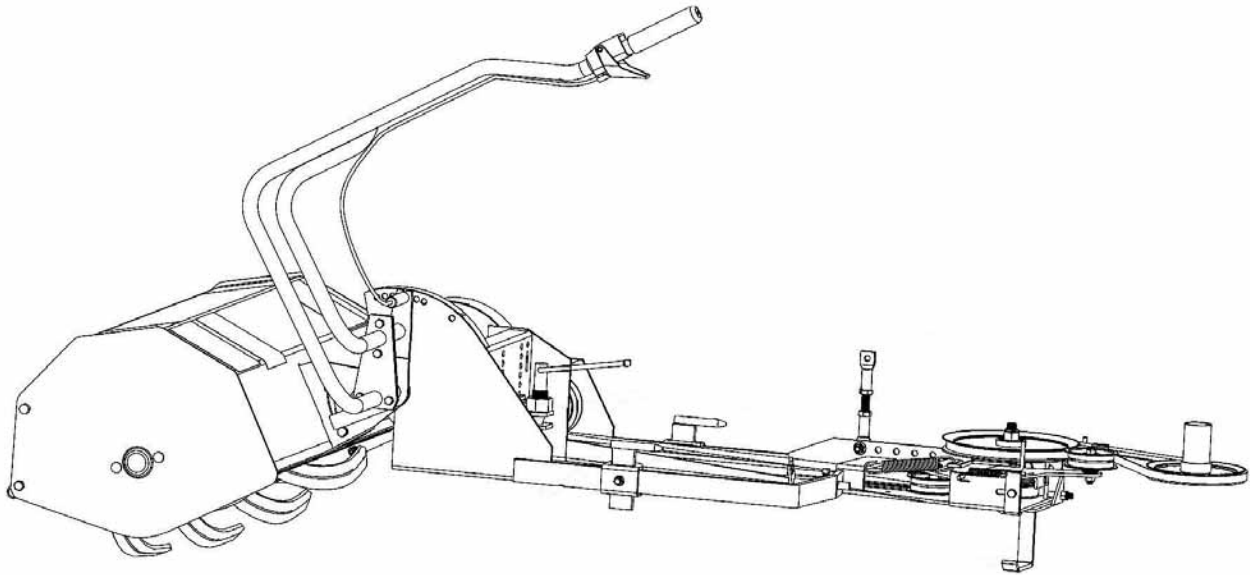


Decal #103455



Decal #103464

# ASSEMBLY



Overall view

## **TOOLS REQUIRED:**

- 1 Jack
- 2 Axel stands
- 1 Pair of pliers
- 1 Flat screwdriver
- 5 Wrenches, 3/8", 7/16", 1/2", 9/16", 3/4"
- 1 Ratchet
- 3 Sockets 7/16", 1/2", 9/16"
- 1 Measuring tape
- 1 Drill
- 1 Bit 13/32"



# ASSEMBLY

## STEP 1

### TRACTOR PREPARATION:



## 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.

Remove the mower deck. See the tractor owner's manual for dismounting instructions.

Measure the height (item 1) between the tractor's rear tow hitch and the ground. **This measurement is needed for Step 2.**

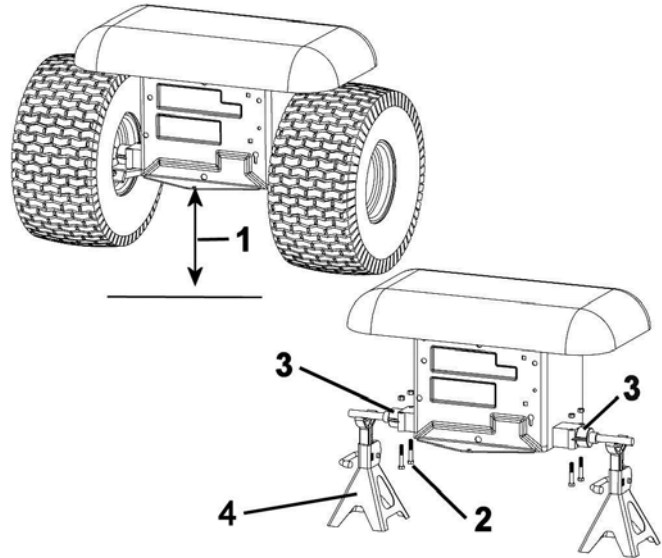
Block the front wheels of the tractor. Using a jack, lift the rear end of the tractor and remove the wheels.

Block in place with an axle stand (item 4) under each side.

Determine which set of bolt holes on the transaxle (item 3) measure 16 1/4" or 14" center to center in order to bolt the mounting brackets.

If there are bolts (item 2) already installed, remove them.

THIS ATTACHMENT IS A UNIVERSAL MOUNT. THE MANUFACTURER DOES NOT GUARANTEE THAT IT CAN BE SUCCESSFULLY INSTALLED ON EVERY BRAND/MODEL OF TRACTOR. A BELT SIZE OTHER THAN THE BELTS SUPPLIED MAY BE NECESSARY.



Remove wheels and bolts

### Tractors with parallel transaxle:

For tractors with a set of holes on the transaxle that measure 16 1/4" center to center.

Install the mounting brackets (item 1) with the 90° corner (item 4) towards the front of the tractor and towards the center of the tractor as shown.

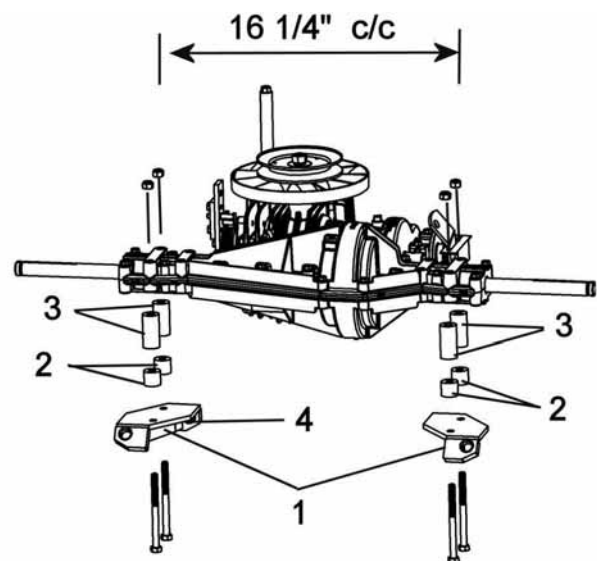
If needed, shim with flat washers or sleeves (items 2 or 3) between the mounting brackets and the transaxle so that the mounting brackets are parallel with the transmission.

Secure with the 5/16" x 3 1/2" or 5/16" x 4" hex bolts and nuts as shown.

Do not tighten.

**NOTE:** If your tractor is equipped with 3/8" n.c. hex. bolts, drill the holes in the mounting brackets (item 1) to 13/32" diameter and use the hex. bolts 3/8" x 5" and nuts as shown .

Do not tighten.



View of back of tractor  
Install mounting brackets

# ASSEMBLY

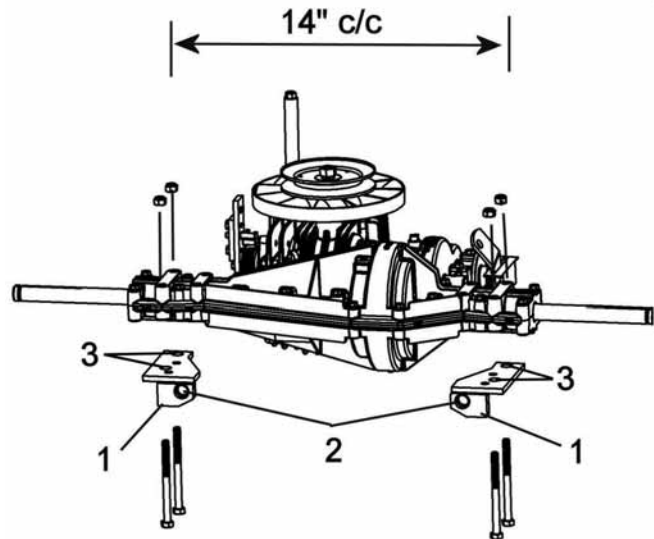
For tractors with a set of holes on the transaxle that measure 14" center to center.

Install the mounting supports (item 1), the holes (item 2) towards the back and towards the center of the tractor. If necessary, reverse the position of the supports in order to be able to bolt on the transmission.

Secure with the 5/16" x 3 1/2" or 5/16" x 4" hex bolts and nuts.

**NOTE:** If your tractor is equipped with 1/2" n.c. bolts use these bolts in the holes (item 3) on the mounting brackets.

Do not tighten.



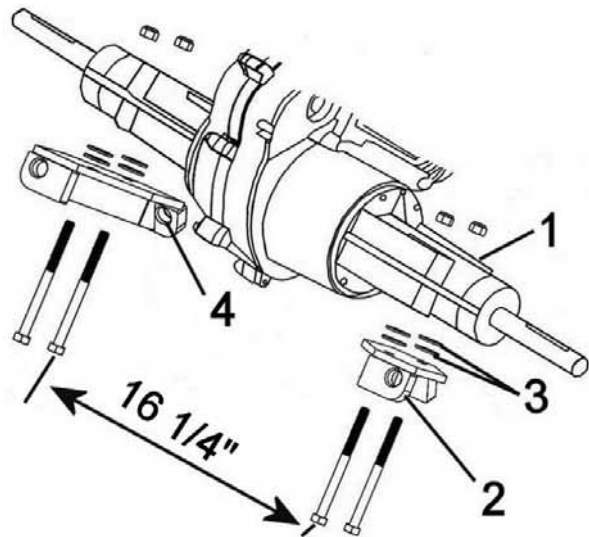
View of back of tractor  
Install mounting brackets

## Tractors with angled transaxle:

Install the mounting brackets (item 2), the angled end towards the front of the tractor and the hole (item 4) towards the center of the tractor as shown.

If needed, shim with flat washers (item 3) between the mounting brackets and the transaxle so that the mounting brackets are parallel with the transaxle. Secure with the appropriate length bolts and nuts as shown.

Do not tighten.



View of back of tractor  
Install mounting brackets

# ASSEMBLY

## STEP 2

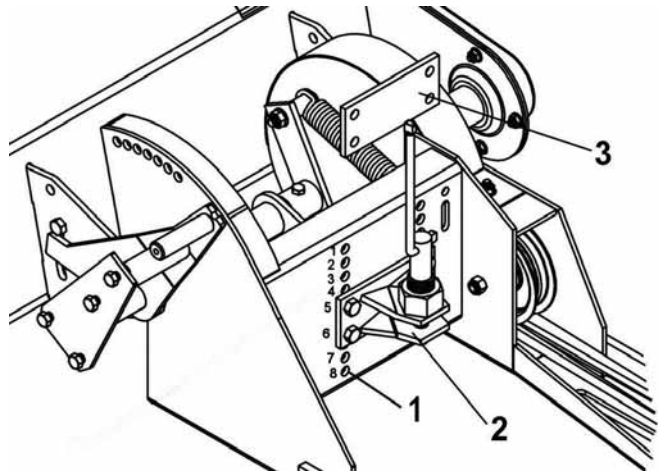
### ROTARY TILLER PREPARATION

Determine the set of holes (item 1) to use to attach the tiller's hitch (item 2) by using the following chart:

**NOTE:** If you have used the short sleeves to install the mounting supports, install the tiller hitch (item 2) in **one** set of holes higher than which is mentioned in the chart.

If you have used the long sleeves to install the mounting supports, install the tiller hitch (item 2) in **two** set of holes higher than which is mentioned in the chart.

| *Measurement from the ground to the tow hitch | Sets holes (see figure) |
|---|-------------------------|
| 7.00" to 7.63"                                | 8 <sup>th</sup>         |
| 7.63" to 8.25"                                | 7 <sup>th</sup>         |
| 8.25" to 8.87"                                | 6 <sup>th</sup>         |
| 8.87" to 9.5"                                 | 5 <sup>th</sup>         |
| 9.5" to 10.12"                                | 4 <sup>th</sup>         |
| 10.12" to 10.75"                              | 3 <sup>rd</sup>         |
| 10.75" to 11.37"                              | 2 <sup>nd</sup>         |
| 11.37" to 12.00"                              | 1 <sup>st</sup>         |



Attach the tiller's hitch

\*These measurements are given as a reference only.

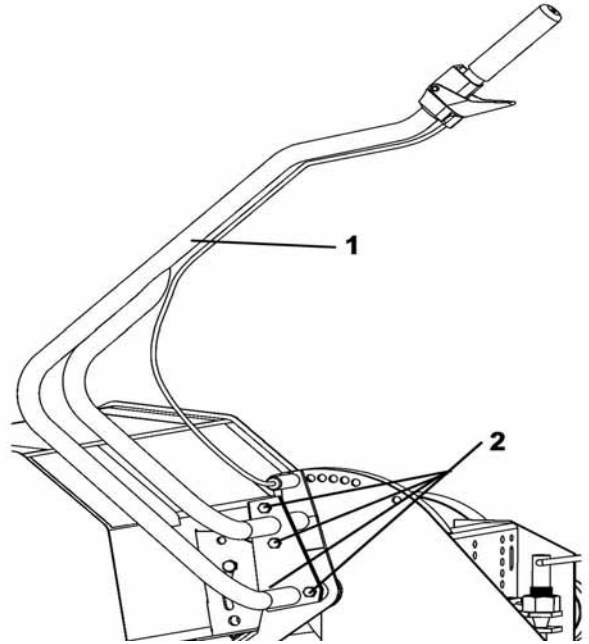
After installing the rotary tiller, the frame should be **4.5" to 5.5" off the ground.**

**Note:** If the tiller's frame touches the back of the tractor, you may add one to four shims (item 3) between the tiller's back wall and the tiller hitch (item 2). If using more than two shims, use the 3/8 x 2" hex bolts.

**Verification:** Make sure the tiller's frame will pass under the transaxle when dismounting the tiller.

# ASSEMBLY

Install the lift arm (item 1) with four 5/16 x 3/4" bolts (item 2) and flange nuts.

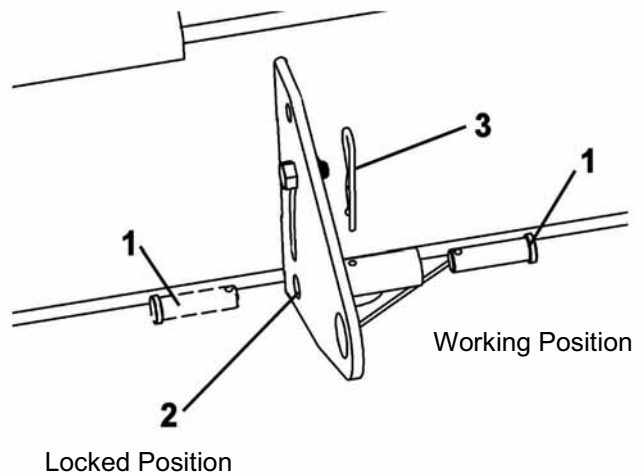


Install the lift arm

## For Installation Purposes Only:

Remove the pin (item 1) from the working position and insert it in the locked position (item 2). Secure in place with a hair pin (item 3).

**IMPORTANT:**  
To avoid damage to the tiller, never use tiller with pin in locked position.



Move the pin to locked position

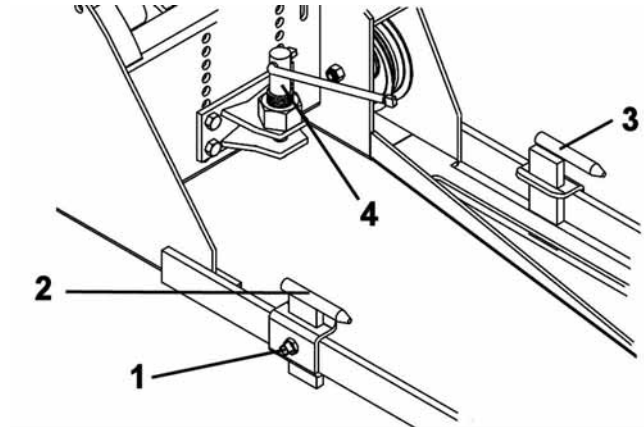
# ASSEMBLY

**NOTE: If the tractor is equipped with a transmission that has a distance between the bolts of 14", interchange the mounting pins (item 2 on the left side and item 3 on the right side).**

Loosen the square head set screw (item 1) that holds the mounting pins (right and left) (items 2 & 3).

Slide the mounting pins towards the back of the frame.

Unscrew and remove the hitch pin (item 4).



Prepare the pins

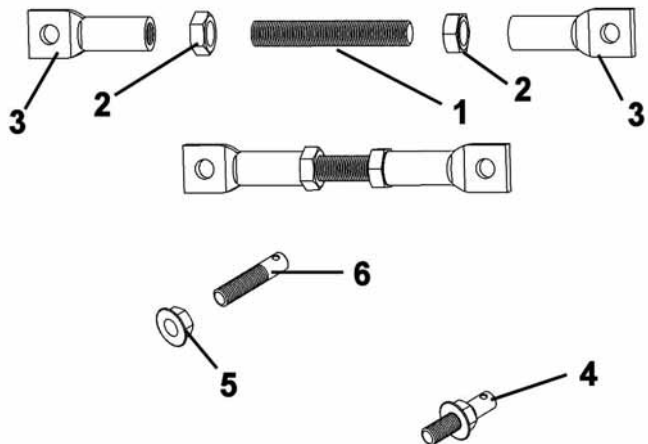
Prepare the adjusting link as shown.

Apply some grease on the adjusting rod (item 1).

Insert the two nuts (item 2) on the adjusting rod and screw to the middle.

Install the two links (item 3) on each end of the adjusting rod.

Insert a flange nut (item 5) (head first) on the bolt (item 6) and screw down to the end of the threads as shown (item 4).



Prepare the adjusting link

# ASSEMBLY

## STEP 3 ROTARY TILLER INSTALLATION: (Primary installation)

Lower the lift arm to place the rotary tiller's frame flat on the ground. Slide the rotary tiller under the tractor.

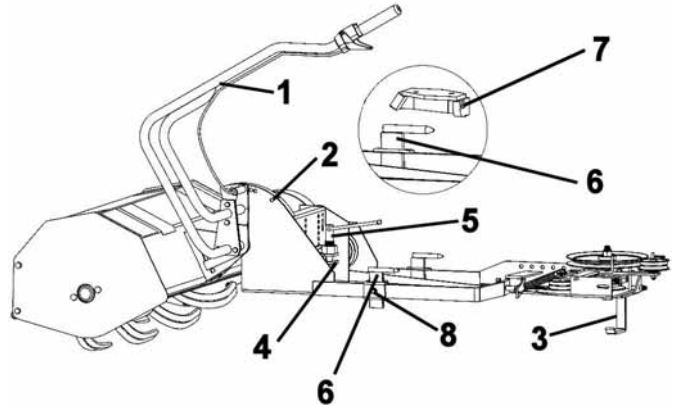
Lower the lift arm (item 1) until it locks in the "UP" position (item 2) to lift the front portion, then lower the support (item 3) so that it supports the rotary tiller frame.

Raise the lift arm until the rotary tiller's hitch (item 4) is even with the tractor's tow hitch. Slide the rotary tiller hitch onto the tractor's tow hitch (the holes must be aligned). Secure by screwing the hitch pin (item 5) firmly.

Line up the rotary tiller's frame with the tractor's frame. Lift and slide the mounting pins (item 6) into the mounting bracket's holes (item 7) (on both sides, previously installed on transaxle).

**NOTE:** If the tractor is equipped with a transmission that is bolted at 14" center to center, interchange the mounting pins.

Lightly tighten the square head screws on the mounting brackets (item 8).



Install the tiller to tractor

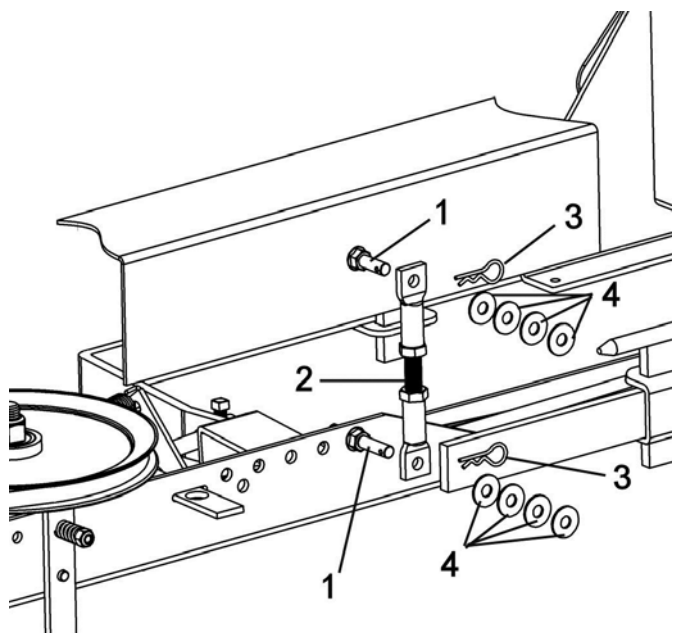
To install the adjustable link, locate a hole or if necessary, drill a hole in the tractor's frame directly above the hole on the tiller's frame as shown.

**Note:** Check the primary belt alignment before drilling the hole. Make sure the mower supports do not touch the rotary tiller's pulley.

Install the special bolt (item 1) from the outside of the frame and secure in place with a flange nut (on the inside of the tractor frame). Tighten firmly. Do the same on the rotary tiller's frame.

Attach the link (item 2) on the bolts (item 1) installed. Secure with two 2.5 mm. hair pins (item 3).

**NOTE:** If there is too much space between the link and the frame, add eight flat washers 3/8" (item 4) before inserting the 2.5mm hair pins as shown.



Install the adjustable link

# ASSEMBLY

Install the primary belt (item 1) on the engine pulley (item 2).

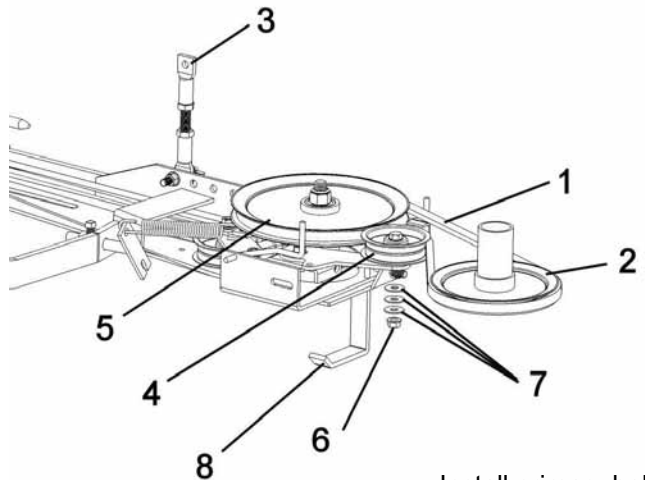
**Note:** Choose the appropriate belt among the ones supplied. **However, the rotary tiller being a universal mounting, a belt size other than the ones supplied may be necessary.**

Lift or lower the front part of the rotary tiller with the adjustable link (item 3) so that the belt is aligned with the three pulleys (item 2, 4 and 5).

**NOTE:** If the belt is not aligned with the three pulleys, remove the nut (item 6) and add a few 3/8" flat washers (item 7) between the flat pulley and the tension arm. Secure with the nut.

Tighten the nuts on the links very firmly.

Lift the support (item 4).



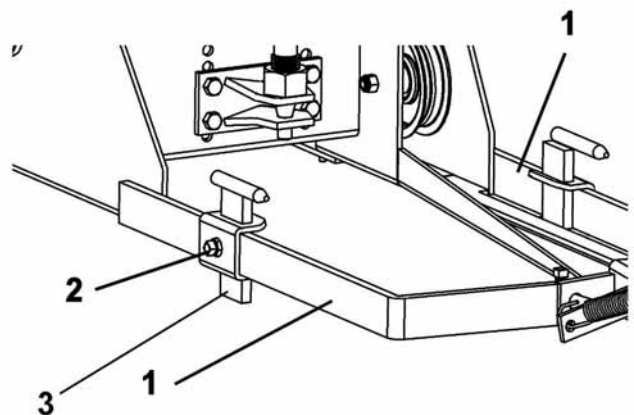
Install primary belt

Make sure both sides of the rotary tiller's frame (item 1) are at the same height from the ground.

Tighten firmly the bolts that hold the mounting brackets to the transaxle.

Tighten the square head set screws (item 2) very firmly on the mounting pins (both sides of tractor).

**TIP:** To make sure the frame is even, the bottom portion (item 3) of the mounting pins must measure equally on both sides. Tire pressure in both rear tractor tires must be identical.



Tighten the screws

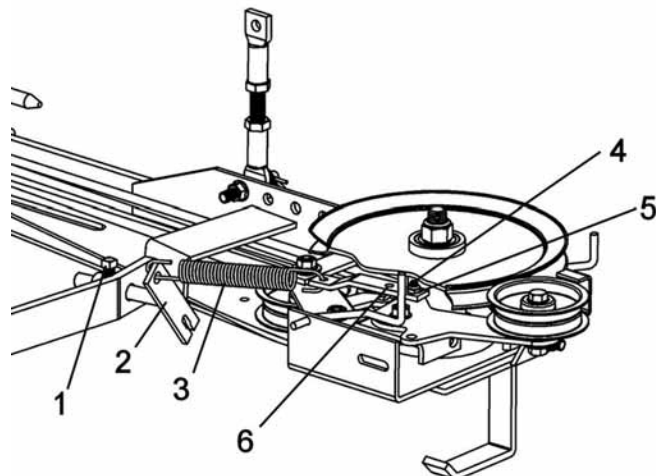
## **PRIMARY BELT ADJUSTMENT**

Tractors with an electric clutch mechanism:

Adjust the tension on the primary belt by loosening the square head set screw (item 1). Pull the tension rod (item 2) to stretch the spring (item 3) by 3/4" to 1".

Tighten the square head screw securely.

**NOTE:** If more tension is necessary, move the 1/4" x 3/4" (item 4) and the nut (item 5) into the second hole (item 6) in the tension bar.



Adjust spring

# ASSEMBLY

## CLUTCH CABLE INSTALLATION

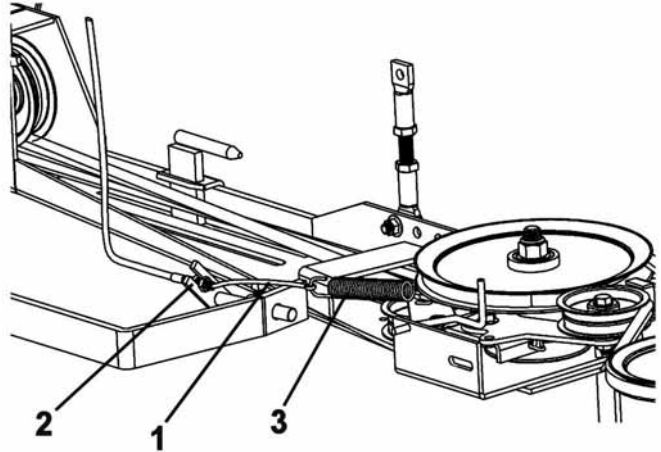
Tractors with manual clutch mechanism:

Disengage the clutch:

If your cable (item 1) does not have a spring at the end, attach the cable to the spring (item 3) on the tiller and attach the cable on the adjustable tension rod (item 2). Secure in place.

**Note:** The tension rod (item 2) can be adjusted or inverted (as shown) to accommodate the length of the cable.

**Note:** If you have a cable with a spring at the end, go to the next step.

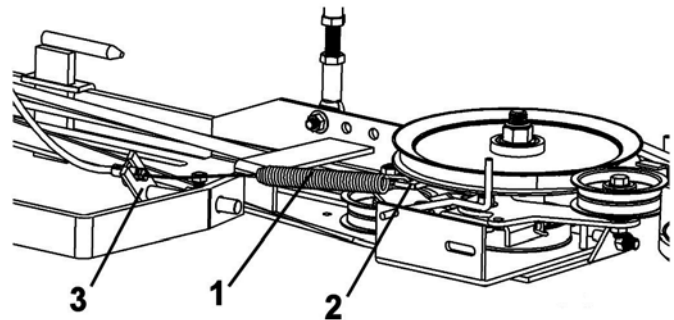


Install cable

If your clutch cable has a spring at the end, you must remove the original spring from the tiller.

Attach the cable's spring (item 1) to the extension bar (item 2). Attach the cable shield on the tension rod (item 3) and secure in place with a hair pin.

**Note:** The tension rod can be adjusted or rotated to accommodate the length of the cable.

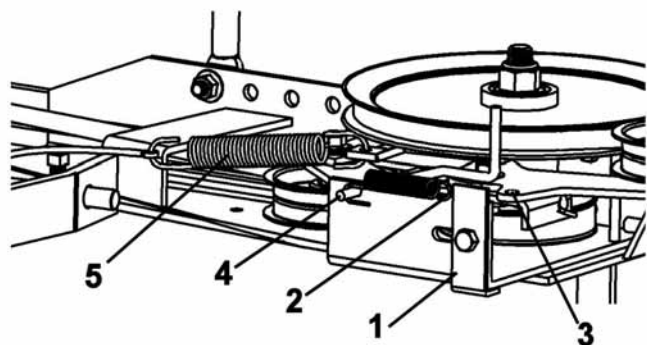


Install spring

Install the spring (item 2) that releases the tension on the belt, the short hook in the idler arm (item 3) and the long hook on the rod (item 4).

Adjust the cable when the clutch is engaged. The spring (item 5) should be stretched to approx. 3/4" to 1"

Install the stopper (item 1) with a 5/16 x 3/4" bolt, flat washer on the slot and flange nut. Adjust the stopper in order to be sure the belt does not fall off the engine pulley when the P.T.O. is disengaged. However, the belt must be loose enough to allow tiller to stop turning immediately when P.T.O. is disengaged.



Install spring and stopper

## **OPTION**

If your tractor does not have a clutch cable or the cable is too short, a "clutch mechanism kit" under model number #700319 is available as an option.

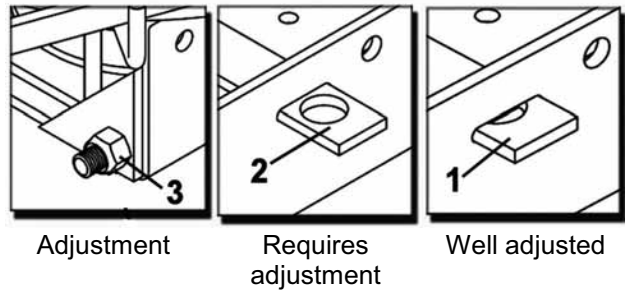


# ASSEMBLY

## VERIFY THE ADJUSTMENT OF THE ROTARY TILLER'S SECONDARY BELT:

When the belt is correctly adjusted, you should barely see the hole in the tension gauge (item 1).

If the hole is exposed (item 2), readjust the belt by screwing the nut (item 3) until well adjusted (item 1).



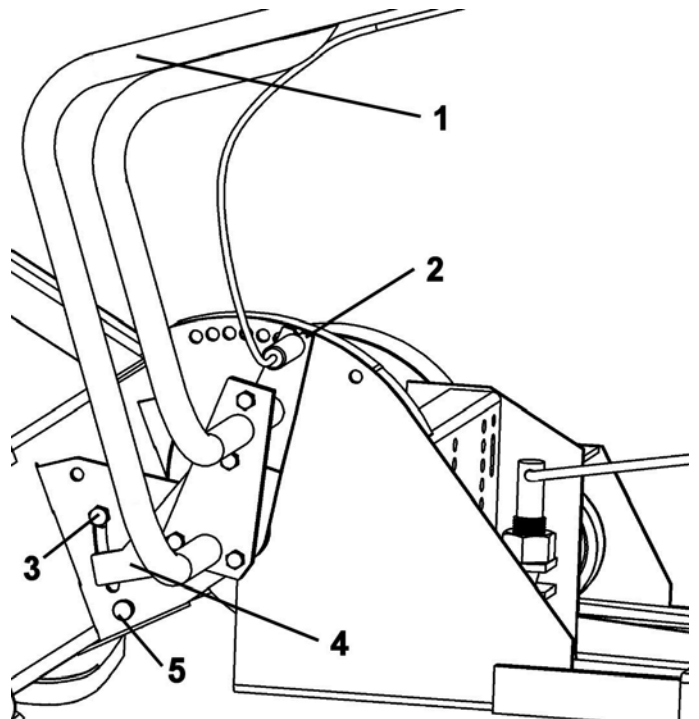
Reinstall the rear wheels on the tractor.

Move the lift arm (item 1) to the hole (item 2) identified "0 depth".

Loosen the bolt (item 3) and slide it down in the slot till it touches the lift arm (item 4).  
Tighten firmly.

Remove the pin (item 5) from the locked position and install it in the working position.  
Secure with the hair pin.

Raise the rotary tiller and let it run under supervision.  
Make sure everything is running smoothly and that both V belts do not touch the belt guides.



Last adjustments

# ASSEMBLY

## RE-INSTALLATION:



## 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.

On a level surface remove the mower deck from tractor.

Remove the pin (item 1) from the working position and install it in the locked position. Secure with the hair pin.

Place the rotary tiller's frame flat on the ground by lowering the lift arm.

Slide the rotary tiller under the tractor.

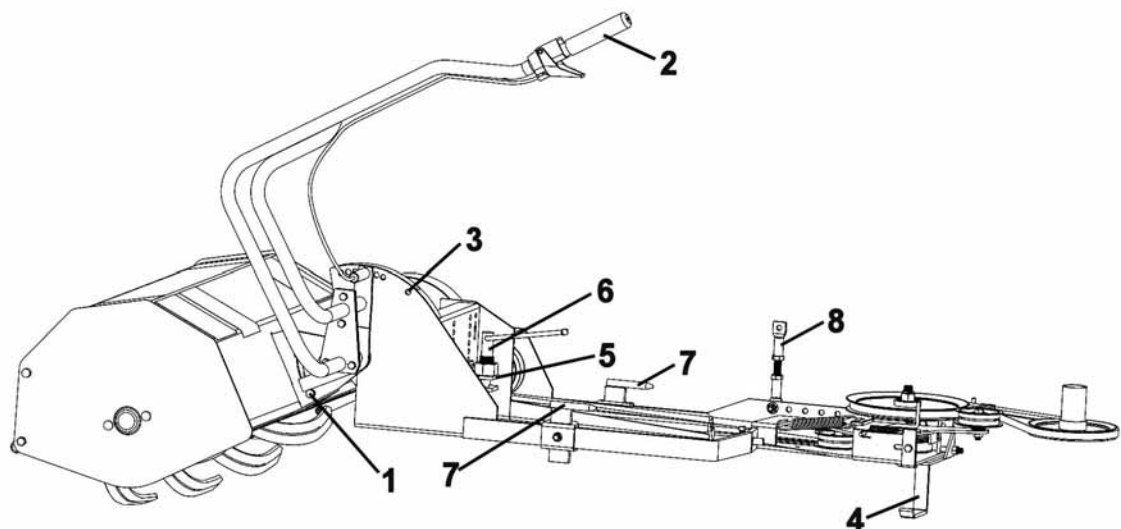
Lower the lift arm (item 2) until it locks into the "UP" position (item 3) to lift the front portion then lower the support (item 4) to rest the tiller's frame on the ground.

Raise the lift arm until the rotary tiller's hitch (item 5) is even with the tractor's tow hitch. Slide the rotary tiller hitch onto the tractor's tow hitch (the holes must be aligned) and make sure the mounting pins (item 7) slide into the mounting bracket's holes (both sides left on tractor frame).

Secure by screwing firmly the hitch pin (item 6).

Install the link (item 8) on the special bolt left on the tractor.

Secure with a 2.5 mm hair pin.



Re-installation

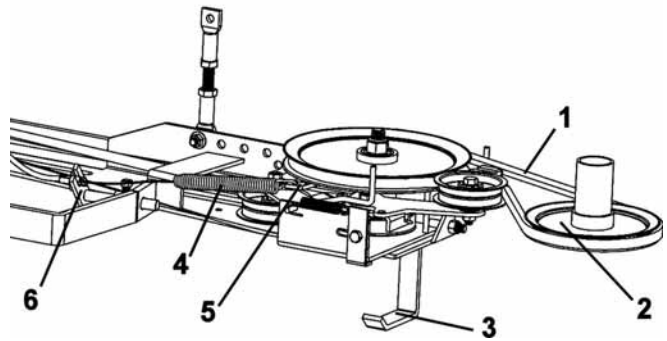
# ASSEMBLY

Install the drive belt (item 1) on the engine pulley (item 2).

Lift the support (item 3).

If your tractor is equipped with a manual clutch, install the spring (item 4) at the end of cable to the extension bar (Item 5). Attach the cable shield to the adjustable tension rod (item 6).

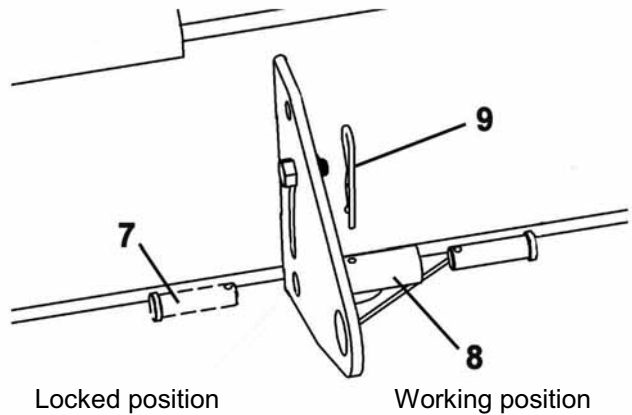
Secure in place with a hair pin.



Install belt and cable

Raise the tiller and remove the pin (item 7) from locked position and insert it in the working position (item 8) inside of the plate.

Secure with a hair pin (item 9).



Move the pin to working position

# OPERATION



## CAUTION



### TO PREVENT INJURIES:

- Remove all objects and keep people away from the working area.
- Never let children operate the rotary tiller or tractor.
- Never let children ride on the tractor or rotary tiller.
- Never operate the rotary tiller without the guards and shields in place.



## WARNING



FRONT WEIGHT IS REQUIRED TO COUNTERBALANCE THE WEIGHT OF THE ROTARY TILLER.

## OPERATING THE ROTARY TILLER

- Lower the tiller and adjust the tilling depth to 1" or deeper after first pass.
- Push the throttle lever to the medium position.
- Disengage the parking brake.
- Put the P.T.O. control in the ON position to engage the rotary tiller. (See tractor's owner's manual for instructions).
- Engage the transmission in first gear or move forward slowly if the tractor has a hydro transmission.
- Till the ground at a shallow depth and at slow traveling speed.



## CAUTION



### TO PREVENT INJURIES

Tiller may push tractor forward when tilling in firm soil.

### BEFORE TILLING:

- Mow the grass and weeds before tilling, these can wrap around the tines or tine shaft.
- Remove all objects that can damage the rotary tiller such as rocks, branches, etc...
- Check the tines before tilling. Repair or replace any loose, bent or broken tines.
- Do not till when the ground is too wet (if the soil forms a ball in your hand when squeezed). The wet soil will stick to the tines and tine shaft.

### TRANSPORTING THE ROTARY TILLER:

Always lift the rotary tiller off the ground by lowering the lift arm as far as it will go when moving from one tilling area to another. Drive at a safe traveling speed when the tiller is off the ground because of the extra weight due to the rotary tiller, the tractor is unbalanced. Drive slowly on slopes and rough ground. Even with front weights, it is dangerous to climb slopes greater than 10%. Never work across the face of a slope

### INSPECTING, CLEANING OR PARKING THE ROTARY TILLER



## IMPORTANT



### AVOID DAMAGE TO THE ROTARY TILLER

Never back up or make sharp turns with the rotary tiller in the ground.



## CAUTION



### TO PREVENT INJURIES

Always stop the engine and wait for all moving parts to stop before leaving the driver's seat to avoid injuries from the tines.

When breaking ground, it is recommended to till in two to four stages. The first pass should be tilled at a shallow depth then progressively deeper with each pass.

When only a small area is to be tilled, make a pass through the middle, then circle the pass going towards the outside.

Whenever possible, till straight ahead, tilling in circles will leave ridges.



## 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.
- Lower the tiller to the ground.

# MAINTENANCE



## WARNING



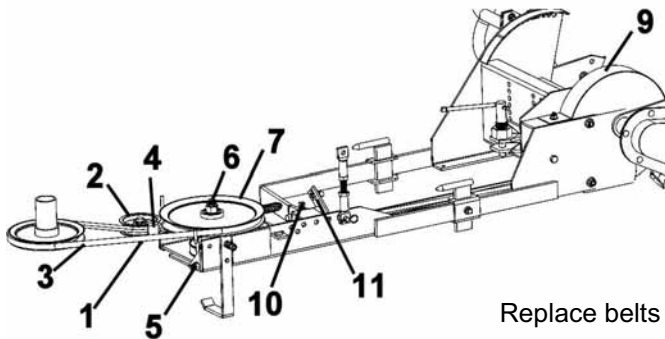
### TO PREVENT INJURIES:

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.

### BELT REPLACEMENT:

#### Primary belt:

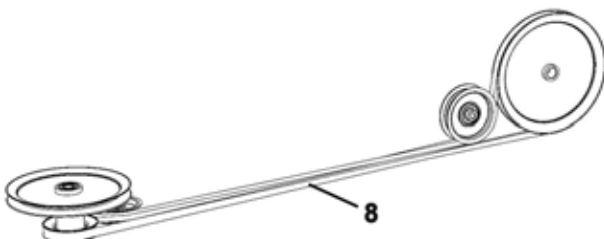
- Remove the belt from engine pulley.
- Remove the bolt (item 1) that holds the idler (item 2).
- Remove the belt (item 3) and reinstall the new one on the double pulley (item 7) as shown.
- Reinstall the idler (item 2) and belt guide (item 4) in the same manner as removed. Make sure the belt guide is 90° with the idler arm.
- Reinstall the belt on the engine pulley.



Replace belts

#### Secondary Belt:

- Unscrew the belt tension nut (item 5).
- Remove the bolt (item 6) and remove the double pulley (item 7).
- Remove the belt guard (item 9).
- Remove the belt (item 8) and install the new one. Make sure it is routed as shown.
- Reinstall as dismantled by reversing the steps.
- Screw the tension nut to adjust the V-belt until you barely see the hole in the tension gauge.
- See secondary belt adjustment instructions



Secondary belt

### PRIMARY BELT ADJUSTMENT

#### Tractors with an electric clutch mechanism:

Adjust the tension on the front belt by loosening the square head set screw (item 10). Pull the adjustable tension rod (item 11) to stretch the spring by 3/4" to 1". Tighten the screw securely.

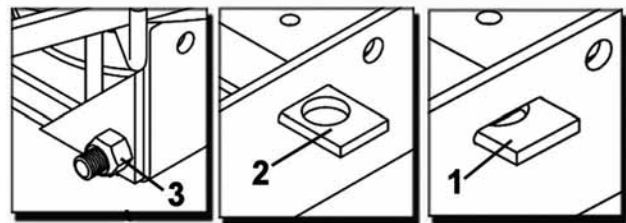
#### Tractors with a manual clutch mechanism:

Adjust the cable so that the spring is stretched by 3/4" to 1" when the clutch mechanism is engaged.

### SECONDARY BELT ADJUSTMENT

When the belt is correctly adjusted, you should barely see the hole in the tension gauge (item 1).

If the hole is exposed (item 2), adjust the belt by screwing the nut (item 3) until well adjusted.



Adjustment

Requires adjustment

Well adjusted

Adjust tension

### MAINTENANCE

#### **After every hour:**

- Remove trash from the tines if necessary.

#### **After every 4 hours:**

- Check belt tension
- Adjust if needed
- Clean under the belt.

#### **After every 8 hours or once a year:**

- Grease the tiller drive shaft.

- a) Provide adequate blocking before working under the tractor or rotary tiller when in raised position.
- b) Check mounting bolts at frequent intervals for proper tightness in order to prevent costly repairs. Make sure your rotary tiller is in good working condition.

# MAINTENANCE

## REPLACING THE TINES



### 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.

**Note:** To facilitate replacing the tines, you may remove the tiller from the tractor and turn it upside down.

- Park the tractor safely.
- Raise the tiller as high as it will go and put some blocks under the tiller.

**Note:** Each group of tines must have two left tines and two right tines.

For reference purposes:

- Alternate left and right tines in each group.
- A bolt with **no spacer** is 3/8 x 1 1/4" long.
- A bolt with **one spacer** is 3/8 x 1 3/4" long.
- A bolt with **two spacers** is 3/8 x 2 1/4" long.

#### LEFT GROUP OF TINES:

Remove the nuts (item 1), bolts (item 2) spacers (item 3), two left tines (4) and two right tines (item 5).  
Install the new tines with same hardware in exactly the same position as the old ones were installed.

#### MIDDLE GROUP OF TINES:

Remove the nuts (item 6), bolts (item 7), spacers (item 8), two left tines (item 9) and two right tines (item 10).  
Install the new tines with same hardware in exactly the same position as the old ones were installed.

#### RIGHT GROUP OF TINES:

Remove the nuts (item 11), bolts (item 12) spacers (item 13), two left tines (item 14) and two right tines (item 15).  
Install the new tines with same hardware in exactly the same position as the old ones were installed.

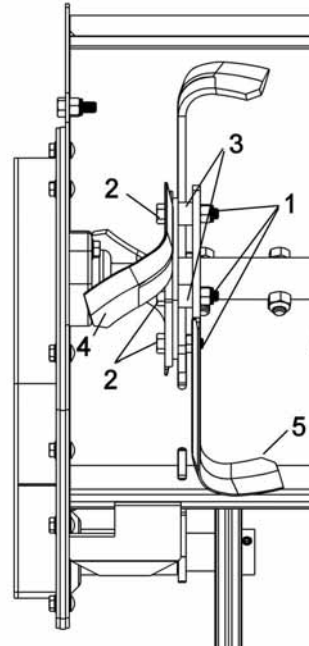


### CAUTION

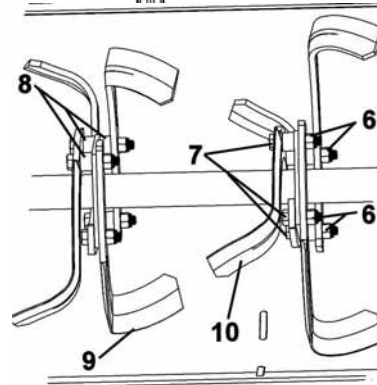


#### TO PREVENT INJURIES:

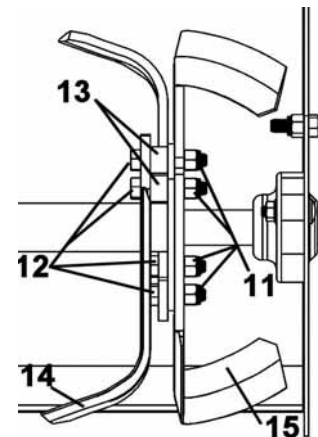
Always safely block the tiller if you have to work under it. It is not recommended to work under the tiller because it could fall on you and cause very serious injuries.



Left group of tines



Middle group of tines



Right group of tines

# DISMOUNTING

## DISMOUNTING THE ROTARY TILLER



### WARNING



#### TO PREVENT INJURIES:

**Stop the motor.**

**Apply parking brake.**

**Remove the ignition key.**

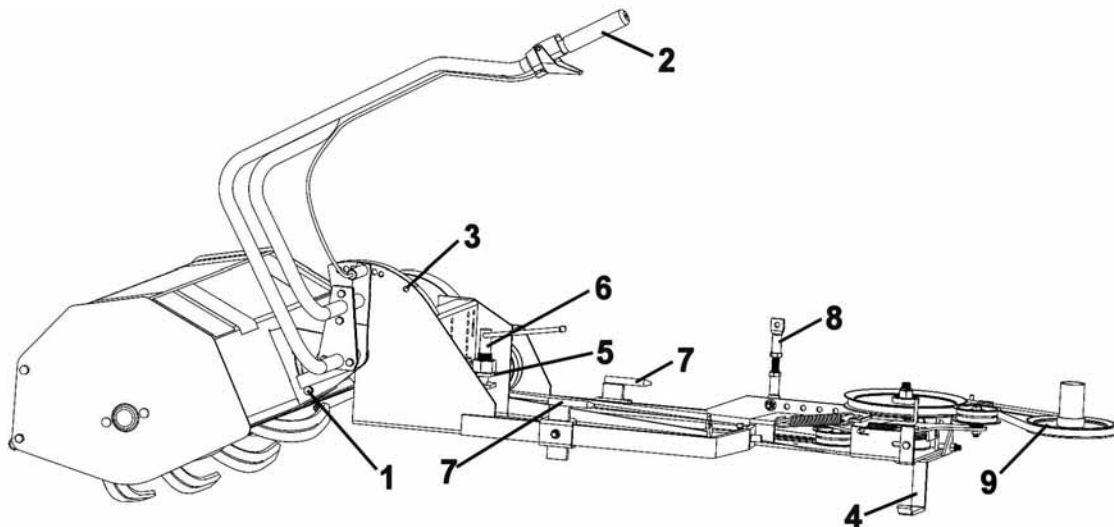
**Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.**

On a level surface, park the tractor and apply the parking brake.

- a) Install the pin (item 1) in the locked position.
- b) Lower the tiller to the ground.
- c) Remove the V-belt from the engine pulley (item 9).
- d) Disconnect the clutch cable if installed.
- e) Lower the front support (item 4).
- f) Remove the link (item 8) from the tractor frame.
- g) Raise the tiller's lift arm (item 2) to support the tiller frame.
- h) Unscrew the pin (item 6) from the hitch.
- i) Pull out the tiller from the tractor hitch.
- j) Using the lift arm, lower the tiller to the ground and raise the front support.
- k) Place the lift arm so the tiller rests flat on the ground.
- l) Slide out the tiller from the tractor.

#### END OF SEASON STORAGE:

- a) Clean the rotary tiller.
- b) Check the belts.
- c) Replace damaged or worn parts.
- d) Paint scratched surfaces to prevent rust.
- e) Lubricate the grease points.
- f) Store the tiller on a hard level surface in a clean, dry place. If tiller must stay outside, wrap it in a waterproof cover.



# TROUBLESHOOTING

\* Please refer to parts breakdown section for parts identification.

| PROBLEM   | POSSIBLE CAUSES                      | CORRECTIVE ACTION   |
|---|--------------------------------------|---|
| Tiller will not turn.                               | Belt is damaged.                     | Replace the belt.   |
|   | Belt is broken.                      | Replace the belt.   |
| Tiller operates irregularly.                        | Belts are loose.                     | Tighten belts.  |
|   | Belts are damaged.                   | Replace belts.  |
|   | A group of tines may be packed up.   | Remove any debris from the tines.                                     |
|   |                                      | Till at a slow steady speed.  |
|   |                                      | Make more than one pass. Start by shallow pass then gradually deeper. |
|   |                                      | Replace damaged or bent tines.  |
| Tiller is noisy or bouncing at the back of tractor. | Tines are damaged or too many rocks. | Replace bent or damaged tines.<br>Remove any rocks from tilling area. |



# TORQUE SPECIFICATION TABLE

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

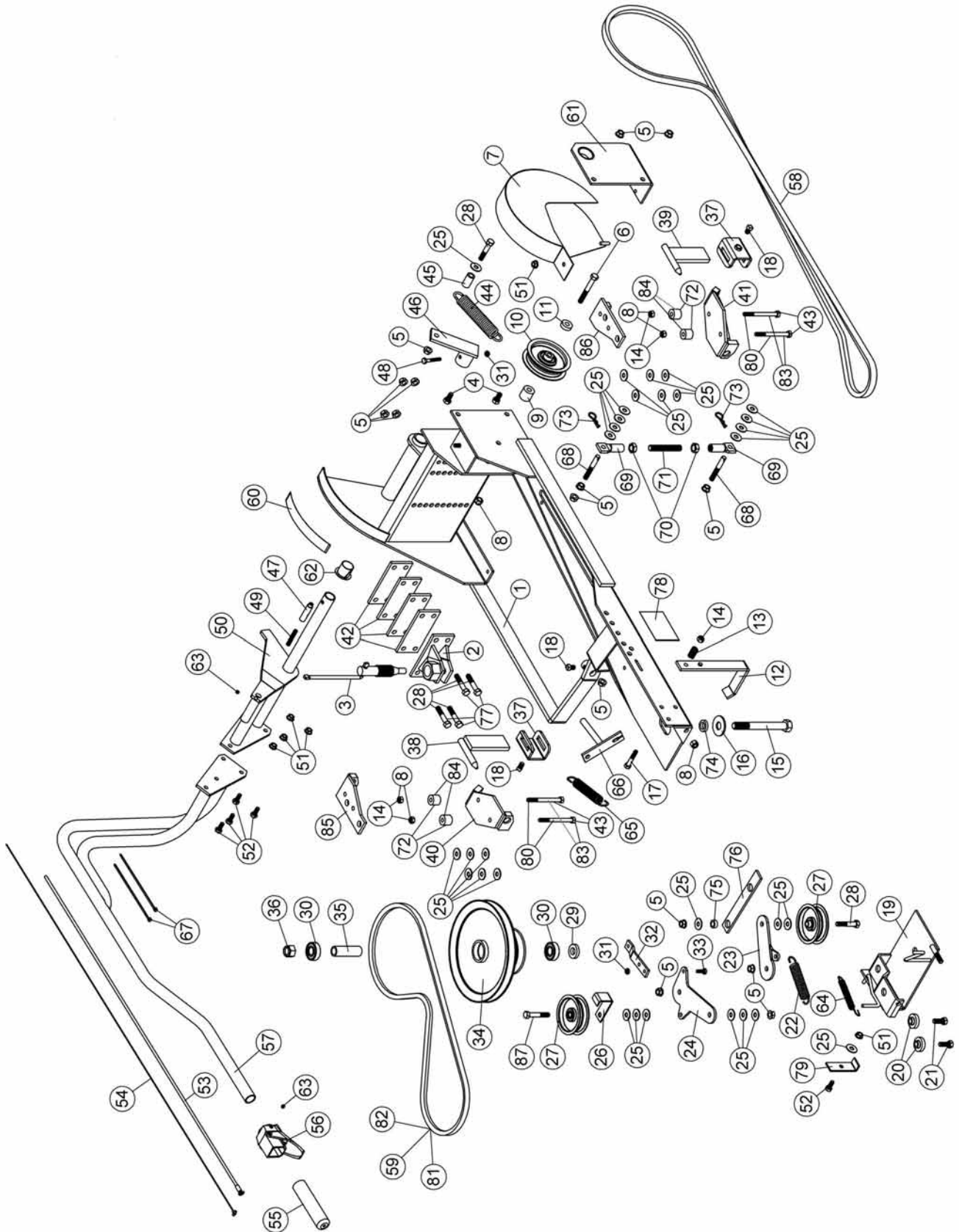
**NOTE:** These values apply to fasteners as received from supplier, dry or when lubricated with normal oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

\* 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 |      | NEWTON-METERS |       | FOOT POUNDS |      | NEWTON-METERS |       | FOOT POUNDS |      | 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 |

| 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 / NOMENCLATURE DES PIÈCES ROTARY TILLER (FRAME) / ROTOCULTEUR (CHÂSSIS)



## PARTS LIST / LISTE DES PIÈCES

| Ref.<br>Réf. | English description                    | Description française                       | Qty.<br>Qté. | Part #<br>Pièce # |
|--------------|--|---|--------------|-------------------|
| 1            | Frame                                  | Châssis                                     | 1            | 103436            |
| 2            | Hitch                                  | Attache                                     | 1            | 103437            |
| 3            | Hitch pin                              | Goupille d'attache                          | 1            | 103438            |
| 4            | Hex. bolt 3/8" n.c. x 3/4"             | Boulon hex. 3/8" n.c. x 3/4"                | 2            | O/L               |
| 5            | Flange nut 3/8" n.c.                   | Écrou à bride 3/8" n.c.                     | 15           | O/L               |
| 6            | Hex. bolt 3/8" n.c. x 3"               | Boulon hex. 3/8" n.c. x 3"                  | 1            | O/L               |
| 7            | Belt guard                             | Garde-courroie                              | 1            | 103439            |
| 8            | Nylon insert lock nut 3/8" n.c.        | Écrou à garniture de nylon 3/8" n.c.        | 6            | O/L               |
| 9            | Spacer                                 | Douille                                     | 1            | 103429            |
| 10           | Flat pulley                            | Poulie plate                                | 1            | 102765            |
| 11           | Spacer                                 | Espaceur                                    | 1            | 102241            |
| 12           | Support                                | Support                                     | 1            | 103440            |
| 13           | Spring                                 | Ressort                                     | 1            | 102892            |
| 14           | Nylon insert lock nut 5/16" n.c.       | Écrou à garniture de nylon 5/16" n.c.       | 5            | O/L               |
| 15           | Hex. bolt 5/8" n.c. x 5 1/2"           | Boulon hex. 5/8" n.c. x 5 1/2"              | 1            | O/L               |
| 16           | Flat washer 11/16" hole                | Rondelle plate 11/16" trou                  | 1            | O/L               |
| 17           | Hex. bolt 5/16" n.c. x 1 3/4"          | Boulon hex. 5/16" n.c. x 1 3/4"             | 1            | O/L               |
| 18           | Square head set screw 3/8" x 1/2"      | Vis à pression à tête carré 3/8" x 1/2"     | 3            | O/L               |
| 19           | Mounting plate                         | Plaque de montage                           | 1            | 103441            |
| 20           | Flange washer                          | Rondelle à bride                            | 2            | 102081            |
| 21           | Hex. bolt 3/8" n.c. x 1"               | Boulon hex. 3/8" n.c. x 1"                  | 2            | O/L               |
| 22           | Spring                                 | Ressort                                     | 1            | 102152            |
| 23           | Idler arm                              | Bras de tension                             | 1            | 103442            |
| 24           | Idler arm                              | Bras de tension                             | 1            | 103443            |
| 25           | Flat washer 3/8" hole                  | Rondelle plate 3/8" trou                    | 31           | O/L               |
| 26           | Belt guide                             | Guide-courroie                              | 1            | 102840            |
| 27           | Flat pulley                            | Poulie plate                                | 2            | 102839            |
| 28           | Hex. bolt 3/8" n.c. x 2"               | Boulon hex. 3/8" n.c. x 2"                  | 6            | O/L               |
| 29           | Spacer                                 | Espaceur                                    | 1            | 102753            |
| 30           | Ball bearing                           | Roulement à billes                          | 2            | 102736            |
| 31           | Nylon insert lock nut 1/4" n.c. (thin) | Écrou à garniture de nylon 1/4" n.c.(mince) | 2            | O/L               |
| 32           | Extension bar                          | Barre d'extension                           | 1            | 103444            |

O/L = Obtain Locally

## PARTS LIST / LISTE DES PIÈCES

| Ref.<br>Réf. | English description                    | Description française                  | Qty.<br>Qté. | Part #<br>Pièce # |
|--------------|--|--|--------------|-------------------|
| 33           | Hex. bolt 1/4" n.c. x 3/4"             | Boulon hex. 1/4" n.c. x 3/4"           | 1            | O/L               |
| 34           | Double pulley inc. 102736 & 102782     | Poulie double inc.102736 & 102782      | 1            | 103416            |
| 35           | Sleeve                                 | Douille                                | 1            | 102782            |
| 36           | Nylon insert lock nut 5/8" n.c.        | Écrou à garniture de nylon 5/8" n.c.   | 1            | O/L               |
| 37           | Clamp                                  | Crampe                                 | 2            | 103445            |
| 38           | Right mounting pin                     | Goupille de montage droite             | 1            | 103446            |
| 39           | Left Mounting pin                      | Goupille de montage gauche             | 1            | 103447            |
| 40           | Right mounting bracket                 | Support de montage droit               | 1            | 103448            |
| 41           | Left mounting bracket                  | Support de montage gauche              | 1            | 103449            |
| 42           | Shim                                   | Cale                                   | 4            | 103450            |
| 43           | Hex. bolt 5/16" n.c. x 3 1/2"          | Boulon hex. 5/16" n.c. x 3 1/2"        | 4            | O/L               |
| 44           | Spring                                 | Ressort                                | 1            | 102861            |
| 45           | Sleeve                                 | Douille                                | 1            | 102418            |
| 46           | Arm                                    | Bras                                   | 1            | 103451            |
| 47           | Pin-lock                               | Goupille de barrure                    | 1            | 103398            |
| 48           | Hex. bolt 1/4" n.c. x 1 3/4"           | Boulon hex. 1/4" n.c. x 1 3/4"         | 1            | O/L               |
| 49           | Spring                                 | Ressort                                | 1            | 102868            |
| 50           | Lift mechanism                         | Mécanisme de relevage                  | 1            | 103452            |
| 51           | Flange nut 5/16" n.c.                  | Écrou à bride 5/16" n.c.               | 6            | O/L               |
| 52           | Hex. bolt 5/16" n.c. x 3/4"            | Boulon hex. 5/16" n.c. x 3/4"          | 5            | O/L               |
| 53           | Cable shield                           | Gaine de câble                         | 1            | 104304            |
| 54           | Cable                                  | Câble                                  | 1            | 104305            |
| 55           | Handgrip                               | Poignée                                | 1            | 103453            |
| 56           | Lever w/104304 - 104305 - s. screw     | Levier a/104304 - 104305 - v. pression | 1            | 104306            |
| 57           | Lift arm                               | Bras de relevage                       | 1            | 103454            |
| 58           | V-belt, B-99 (sb)                      | Courroie en v, B-99 (sb)               | 1            | 103414            |
| 59           | V-belt, A-53                           | Courroie en v, A-53                    | 1            | 103400            |
| 60           | Decal depth                            | Décalque profondeur                    | 1            | 103455            |
| 61           | Left Bracket                           | Plaque de fixation gauche              | 1            | 103456            |
| 62           | Nylon bushing                          | Coussinet en nylon                     | 1            | 103087            |
| 63           | Hex. socket set screw 1/4" n.c. x 1/4" | Vis à pression hex. 1/4" n.c. x 1/4"   | 2            | O/L               |
| 64           | Spring 1/2"                            | Ressort 1/2"                           | 1            | 102003            |

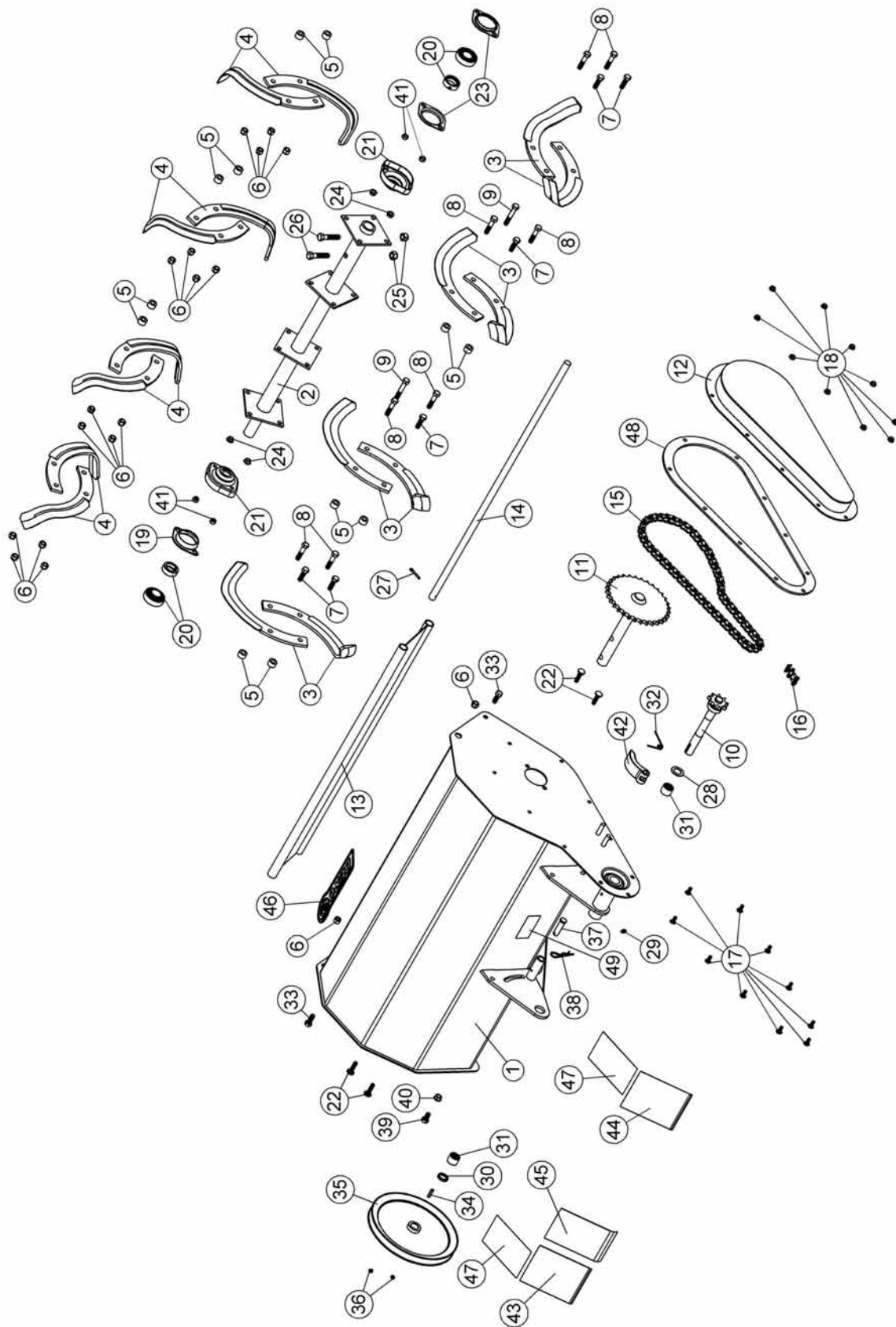
O/L = Obtain Locally

## PARTS LIST / LISTE DES PIÈCES

| Ref.<br>Réf. | English description          | Description française              | Qty.<br>Qté. | Part #<br>Pièce # |
|--------------|------------------------------|------------------------------------|--------------|-------------------|
| 65           | Spring                       | Ressort                            | 1            | 102304            |
| 66           | Adjustable tension rod       | Tige de tension ajustable          | 1            | 103457            |
| 67           | Tie wrap 7"                  | Attache de nylon 7"                | 2            | O/L               |
| 68           | Special bolt                 | Boulon spécial                     | 2            | 103458            |
| 69           | Link                         | Lien                               | 2            | 103459            |
| 70           | Hex. nut 1/2" n.c. (thin)    | Écrou hex. 1/2" n.c. (mince)       | 2            | O/L               |
| 71           | Adjusting rod                | Tige d'ajustement                  | 1            | 103460            |
| 72           | Spacer                       | Douille d'espacement               | 4            | 103463            |
| 73           | Hair pin 2.5mm               | Goupille à ressort 2.5mm           | 2            | 102013            |
| 74           | Spacer                       | Douille                            | 1            | 103461            |
| 75           | Sleeve                       | Douille                            | 1            | 102322            |
| 76           | Tension gauge                | Indicateur de tension              | 1            | 103462            |
| 77           | Hex. bolt 3/8" n.c. x 1 1/4" | Boulon hex. 3/8" n.c. x 1 1/4"     | 4            | O/L               |
| 78           | Decal belt adjustment        | Décalque ajustement de la courroie | 1            | 103464            |
| 79           | Stopper                      | Butée                              | 1            | 103486            |
| 80           | Hex. bolt 5/16" n.c. x 4"    | Boulon hex. 5/16" n.c. x 4"        | 4            | O/L               |
| 81           | V-belt, A-58                 | Courroie en v, A-58                | 1            | 103518            |
| 82           | V-belt, A-62                 | Courroie en v, A-62                | 1            | 104299            |
| 83           | Hex. bolt 3/8" n.c. x 5"     | Boulon hex. 3/8" n.c. x 5"         | 4            | O/L               |
| 84           | Spacer                       | Douille d'espacement               | 4            | 104583            |
| 85           | Right mounting bracket       | Support de montage droit           | 1            | 104581            |
| 86           | Left mounting bracket        | Support de montage gauche          | 1            | 104582            |
| 87           | Hex. bolt 3/8" n.c. x 2 1/4" | Boulon hex. 3/8" n.c. x 2 1/4"     | 1            | O/L               |

**O/L = Obtain Locally**

# PARTS BREAKDOWN / NOMENCLATURE DES PIÈCES ROTARY TILLER (HEAD) / ROTOCULTEUR (TÊTE)



## PARTS LIST / LISTE DES PIÈCES

| Ref.<br>Réf. | English description                    | Description française                        | Qty.<br>Qté. | Part #<br>Pièce # |
|--------------|--|--|--------------|-------------------|
| 1            | Frame                                  | Châssis                                      | 1            | 103417            |
| 2            | Tine shaft                             | Arbre des dents                              | 1            | 103418            |
| 3            | Left tine                              | Dent gauche                                  | 8            | 103419            |
| 4            | Right tine                             | Dent droite                                  | 8            | 103420            |
| 5            | Spacer                                 | Douille                                      | 12           | 103421            |
| 6            | Nylon insert lock nut 3/8" n.c.        | Écrou à garniture de nylon 3/8" n.c.         | 18           | O/L               |
| 7            | Hex. bolt 3/8" n.c. x 1 1/4"           | Boulon hex. 3/8" n.c. x 1 1/4"               | 6            | O/L               |
| 8            | Hex. bolt 3/8" n.c. x 1 3/4"           | Boulon hex. 3/8" n.c. x 1 3/4"               | 8            | O/L               |
| 9            | Hex. bolt 3/8" n.c. x 2 1/4"           | Boulon hex. 3/8" n.c. x 2 1/4"               | 2            | O/L               |
| 10           | Drive shaft                            | Arbre d'entraînement                         | 1            | 103422            |
| 11           | Sprocket assembly                      | Pignon assemblé                              | 1            | 103423            |
| 12           | Chain guard                            | Garde-chaîne                                 | 1            | 103424            |
| 13           | Deflector                              | Défecteur                                    | 1            | 103425            |
| 14           | Rod                                    | Tige   | 1            | 103426            |
| 15           | Roller chain #50 x 66 links/conn. link | Chaîne #50 x 66 mailles/maille acc.          | 1            | 103427            |
| 16           | Connecting link #50                    | Maille d'accouplement #50                    | 1            | 104324            |
| 17           | Carriage bolt 1/4" n.c. x 5/8"         | Boulon à carrosserie 1/4" n.c. x 5/8"        | 10           | O/L               |
| 18           | Flange nut 1/4" n.c.                   | Écrou à bride 1/4" n.c.                      | 10           | O/L               |
| 19           | Flangette                              | Flangette                                    | 1            | 102680            |
| 20           | Bearing with collar and set screw      | Roulement à billes avec collet & vis à pres. | 2            | 103466            |
| 21           | Dust cover                             | Protège poussière                            | 2            | 103428            |
| 22           | Carriage bolt 5/16" n.c. x 1 1/4"      | Boulon à carrosserie 5/16" n.c. x 1 1/4"     | 4            | O/L               |
| 23           | Flangette                              | Flangette                                    | 2            | 102213            |
| 24           | Flange nut 5/16" n.c.                  | Écrou à bride 5/16" n.c.                     | 4            | O/L               |
| 25           | Nylon insert lock nut 7/16" n.c.       | Écrou à garniture de nylon 7/16" n.c.        | 2            | O/L               |
| 26           | Hex. bolt 7/16" n.c. x 2" GR8          | Boulon hex. 7/16" n.c. x 2" GR8              | 2            | O/L               |
| 27           | Cotter pin 5/32" x 1"                  | Goupille fendue 5/32" x 1"                   | 1            | O/L               |
| 28           | Shim washer                            | Rondelle d'espacement                        | 1            | 103430            |
| 29           | Grease fitting 1/4" n.f.               | Graisser 1/4" n.f.                           | 1            | O/L               |

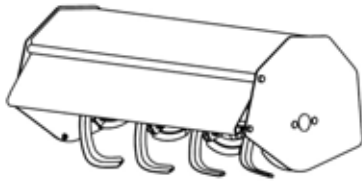
## PARTS LIST / LISTE DES PIÈCES

| Ref.<br>Réf. | English description                      | Description française                  | Qty.<br>Qté. | Part #<br>Pièce # |
|--------------|--|--|--------------|-------------------|
| 30           | Seal                                     | Joint d'étanchéité                     | 1            | 103431            |
| 31           | Needle bearing                           | Roulement à aiguilles                  | 2            | 103465            |
| 32           | Spring                                   | Ressort                                | 1            | 103291            |
| 33           | Hex. bolt 3/8" n.c. x 1"                 | Boulon hex. 3/8" n.c. x 1"             | 2            | O/L               |
| 34           | Key 3/16" x 3/16" x 1.000"               | Clé 3/16" x 3/16" x 1.000"             | 1            | 102379            |
| 35           | V pulley                                 | Poulie en V                            | 1            | 103415            |
| 36           | 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               |
| 37           | Pin                                      | Goupille                               | 1            | 102188            |
| 38           | Hair pin 3mm                             | Goupille à ressort 3mm                 | 1            | 102617            |
| 39           | Hex. bolt 3/8" n.c. x 3/4"               | Boulon hex. 3/8" n.c. x 3/4"           | 1            | O/L               |
| 40           | Flange nut 3/8" n.c.                     | Écrou à bride 3/8" n.c.                | 1            | O/L               |
| 41           | Nylon insert lock nut 5/16" n.c.         | Écrou à garniture de nylon 5/16" n.c.  | 4            | O/L               |
| 42           | Tensioner                                | Tensionneur                            | 1            | 103289            |
| 43           | Decal attention                          | Décalque attention                     | 1            | 103433            |
| 44           | Decal warning                            | Décalque warning                       | 1            | 103434            |
| 45           | Decal important                          | Décalque important                     | 1            | 103435            |
| 46           | Berco decal                              | Décalque Berco                         | 1            | 102471            |
| 47           | Decal danger                             | Décalque danger                        | 2            | 103432            |
| 48           | Seal                                     | Joint d'étanchéité                     | 1            | 104586            |
| 49           | Serial number                            | Numéro de série                        | 1            | REF               |

O/L = Obtain locally/obtenir localement

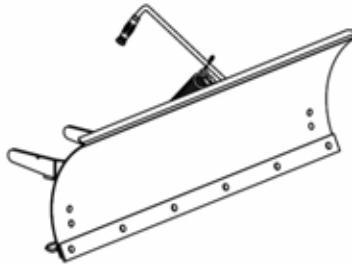


# ATTACHMENTS



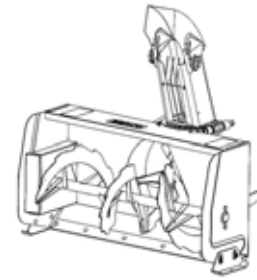
**ROTARY TILLER #700312**

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



**48" UTILITY BLADE #700266**

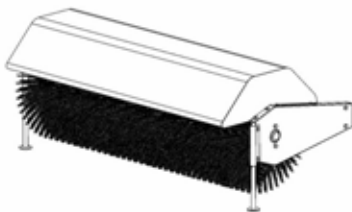
Mounts on the same subframe as the snowblower & rotary broom.



**SNOWBLOWER**

#700210 40"  
#700211 44"  
#700255 40"  
#700400 48"

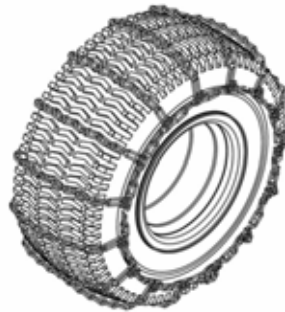
Fits on same subframe as rotary broom and utility blade.



**ROTARY BROOM**

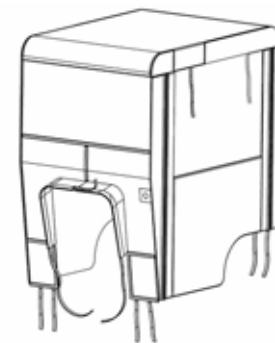
#700380 with nylon brush.  
#700381 with polypropylene brush.

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



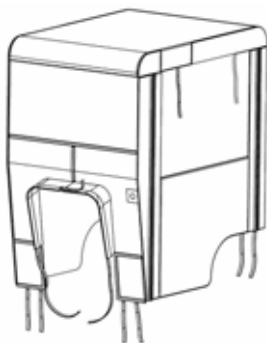
**TIRE CHAINS**

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



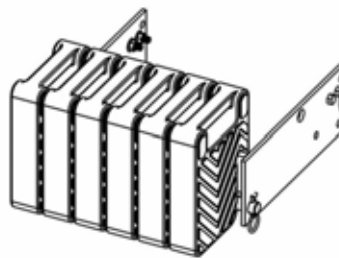
**TRACTOR WINTER CAB  
#700423**

Protects in winter conditions. Universal type fits on a wide variety of lawn and garden tractors.



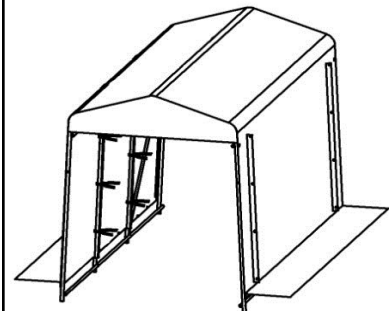
**TRACTOR SCREEN CAB  
#700424**

Protects in summer conditions. 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.



**WINTER SHELTER #700438**  
Perfect to protect the tractors, A.T.Vs and snowmobiles from the weather.  
Dimensions: 5'W x 12'L x 7' 8"H





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

**Bercomac Limitée  
92, Fortin North, Adstock, Quebec, Canada, G0N 1S0**

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